COURTROOM, CITY HALL
1 MUNICIPAL PLAZA
BEACON, NY 12508
THE PLANNING BOARD WILL MEET IN THE MUNICIPAL CENTER COURTROOM AT 7:00 P.M. A WORK SESSION WILL TAKE PLACE AT 7:00 P.M. FOR A TRAINING WORKSHOP, DISCUSSION OF AGENDA ITEMS AND/OR TOPICS OF INTEREST TO THE PLANNING BOARD. THE REGULAR MEETING WILL BEGIN IMMEDIATELY THEREAFTER, BUT NO LATER THAN 7:30 P.M.

Len Warner
Karen Quiana
Kevin Byrne
Jill Reynolds
J. Randall Williams
Chair John Gunn

October 12, 2022
7:00 PM
Planning Board Agenda

Regular Meeting

1. Continue Public Hearing on application for Special Use Permit and Site Plan Approval, hotel and event space 1113 Wolcott Avenue, submitted by Prophecy Theater, LLC
2. Continue Public Hearing for SEQRA environmental review on application for Special Use Permit, Site Plan Approval and Subdivision, AND Open Public Hearing on application for Special Use Permit, Site Plan Approval and Subdivision, Mirbeau Inn & Spa at Howland Estate, 7 Craig House Lane, Submitted by The Mirbeau Companies
3. Continue Public Hearing on application for Special Use Permit and Site Plan Approval, accessory apartment, 281 Rombout Avenue, submitted by Mariann Corsa
4. Continue Public Hearing on application for Site Plan Approval, artist studios, 5 Henry Street, submitted by Michael Braden
5. Continue Public Hearing on SEQRA environmental review on application for Subdivision Approval, 12 Highland Place, submitted by Lori Joseph Builders, Inc (POSTPONED TO NOVEMBER 9, 2022)
6. Public Hearing on application for Site Plan Approval, Special Use Permit, and Subdivision (lot merger) Approval, Multi-Family residential (62 units), 16 West Main Street, submitted by Farrell Building Company
7. Continue review of application for Subdivision Approval, 2-lot residential, 46 Judson Street, submitted by 46 Judson LLC
8. Continue review of application for Site Plan Approval (revised since 2019), "Two Cross Street"

4 Cross Street/172 Main Street, three-story mixed-use building, submitted by Hudson Todd, LLC

9. Review application for Site Plan Approval, accessory apartment, 5 Willow Street, submitted by Susan Battersby

Miscellaneous Business

1. City Council request to review Fire Station facade
2. Consider request for one 90-day extension of Site Plan and Subdivision Approval, 364 Main Street, submitted by O'Donnell Construction Corp

Architectural Review

1. Single Family House - 14 Howland Avenue
2. Single Family House - 16 Coyne Hill

City of Beacon Planning Board Agenda
10/12/2022

Title:

Continue Public Hearing on application for Special Use Permit and Site Plan Approval, hotel and event space 1113 Wolcott Avenue, submitted by Prophecy Theater, LLC

ATTACHMENTS

1113 Wolcott Public Comment Carlin.pdf

1113 Wolcott Public Comment Comito.pdf

1113 Wolcott Public Comment Shriftman.pdf

1113 Wolcott Public Comment Simmons Bloom.pdf

1113 Wolcott Public Comment Rivlin.pdf

1113 Wolcott Public Comment Rivkind.pdf

1113 Wolcott Public Comment Bloom.pdf

1113 Wolcott Public Comment Jaffe.pdf

1113 Wolcott Public Comment Wall.pdf

1113 Wolcott Public Comment The View.pdf

1113 Wolcott Public Comment Hearty.pdf

1113 Wolcott Public Comment Koffsky.pdf

1113 Wolcott Public Comment Jackson.pdf

1113 Wolcott Public Comment Dunn.pdf

Planners Comments Wolcott Av 10.7.22.pdf

Parking Determintation Letter.pdf

1113 Wolcott Public Comment Borenstein.pdf

1113 Wolcott - Supplemental Planning Board Submission with Exhibits A-D and Plans.pdf

Engineers Comments 1113 Wolcott 09-06-22.pdf

1113 Wolcott Public Comment Rogers.pdf

1113 Wolcott Public Comment Joseph.pdf

1113 Wolcott Public Comment Phillips.pdf

1113 Wolcott Public Comment Green.pdf

1113 Wolcott Public Comment Nowillo.pdf

1113 Wolcott Additional Signatures.pdf

1113 Wolcott Public Comment LaRocco.pdf

1113 Wolcott Public Comment Bummele.pdf

1113 Wolcott Public Comment Torres.pdf

Hon. John Gunn and Members of the Planning Board
City of Beacon
1 Municipal Plaza
Beacon, NY 12508

Dear Chairman Gunn and Members of the Planning Board:

We are residents of River Ridge Views, with our unit in direct proximity to the Dutch Reformed Church (1113 Wolcott Ave.). In anticipation of your next public hearing, we are writing in regards to Prophecy Theater's purchase of the church and its plans to transform it into a hotel/restaurant/event space.

Prophecy's updated proposal included some welcome changes, such as the reduction in event capacity from 350 to 198 guests. However, in their most recent site plan, we were shocked to see that the proposed hours of business operation have escalated dramatically. They are now stating that there will be absolutely no limits on when events will take place on the site--**they will allow events to take place 7 days a week, 365 days a year,** with the only concession to the surrounding neighborhood being that the Sunday-Thursday events will have to end at 10:30 p.m. instead of the weekend time of 11:30 p.m.--a negligible concession, to say the least.

These proposed operating hours are absolutely unacceptable, especially given that the term "event" is completely undefined. An event could be anything from a wedding to a rock concert to a multi-day festival to a political rally. And we, the neighbors in close proximity to the space, are expected to accept that any kind of event can take place on any day/night of the week, every day of the year. That is a complete violation of our right to enjoy the quiet sanctity of our homes. We do not live in a "high density urban area," as the developers claim, but in a quiet residential enclave.

Further, in their updated application, the developers state that their "Sound Report" has proven that the church can adequately contain noise. This is not contended. But what this report is completely ignoring is the noise that is bound to take place OUTSIDE of the church when event attendees (and possibly hotel and café customers) congregate outdoors to smoke, await rides, etc.

For those of us whose property abuts the church grounds, it is the outdoor noise we are most concerned about, along with the potential for trespassing, and all the negative consequences that might engender. The developers are simply not taking these concerns seriously and have not, to my knowledge, shown how they might mitigate trespassing and outdoor noise (such as with physical barriers be they walls, fences, or dense hedges).

Despite Prophecy's updated proposal, which purports to have addressed parking and traffic considerations, we are still very concerned about the impact that an influx of cars will have on the area immediately surrounding the church, particularly with unlimited hours of operation.

We urge you to demand that Prophecy Theater scale back the hours of operation for events and address the safety and privacy concerns that have been raised by neighboring residences. Thank you for your time.

Sincerely,

Marilou Carlin
Mae Skidmore

September 30, 2022

To the Beacon Planning Board,

I'm a resident of River Ridge Views (RRV) and I live approximately 50 feet from the Goodwill Church. In fact, my front yard is adjacent to the church's side yard.

I'm very concerned about the proposed Prophecy Theater event space/hotel/bar/cafe that is currently before your Board.

I understand that the developer is proposing that the venue be open 365 days per year from 8:00am – 10:30 or 11:30 pm. I am concerned about the noise that this will generate – from people going up and down the proposed cemetery steps right next to my property late in the evening, to the music and voices coming from the proposed deck on the back of the church -- which will be less than 100 feet away from my home -- or the noise coming from the weddings or concerts when the doors are open.

I'm concerned about people coming onto my property -- a "vegetative barrier", doesn't sound like much protection from hundreds of people congregating outside my home during an event intermission, or while they wait for a ride, or have a smoke.

I'm concerned about the vastly inadequate amount of on-site parking (31 spaces) for this type of venue and the strong possibility that attendees will come into our development and take our visitor spots or block our driveways.

I'm concerned about the traffic backups that will occur on 9D when 200 people show up for a concert or wedding at roughly the same time and realize there is no on-site parking available, and then try to drop people off and/or look for the closest parking spot.

I hope that you will take this letter and the other letters that you have received from my neighbors into account and determine that this type of large public event venue does not belong sandwiched into a small space in a quiet residential community.

Thank you.

Jordan Comito

Jordan Comito
18 River Ridge Court
Beacon, NY 12508

September 30, 2022

City of Beacon Planning Board
1 Municipal Plaza
Beacon, NY 12508

Re: Prophecy Theater/Goodwill church application scheduled for October 14, 2022 hearing

Dear Planning Board:

We submit this letter in opposition to the Prophecy Theater's most recent change in its application to convert the Goodwill Church and its sanctuary into an entertainment venue and hotel, respectively.

The change sought is in no way an answer to the clear problems that its last most recent proposal continues to present and, based on the neighboring communities' collective written and verbal responses, all in accord, only "compound the felony". The reduction in the number of maximum guests is not significant enough to overcome the deficiencies in on-site/off-site parking; traffic up and down Wolcott Avenue and bordering streets; driver confusion, inevitable trespassing and noise, to name the major objections, which the Board and its consultant have often raised as real and seemingly insurmountable concerns. Surely, the increase in days and hours of operation is frightening to those who live, as we do, in the immediately neighboring communities. The church is in and surrounded by residential communities or private homes. The effort by the applicant to recast the nature of the neighborhood as dense or urban was clearly, in our opinion, just another effort to deceive the Board, like asking you to believe that, for example, a pencil is an ice cream cone. We and others in our River Ridge community are worried that the applicant's repeatedly (at every hearing) saying, "we appreciate", to the Board's expressed concerns, doubts and suggestions, will wear you down forcing you to grant the applicant what it seeks, when there is no objective basis to do so.

Respectfully,

Madeleine & Elliott Shriftman
6 River Ridge Court
Beacon, NY 12508

Amanda Caputo

From: Shelley Simmons-Bloom <shelleysimmonsnyc@gmail.com>
Sent: Monday, September 12, 2022 1:39 PM
To: Gavin Hecker
Cc: Amanda Caputo; The View Board
Subject: The View Board follow up: 1113 Wolcott Avenue Development

Dear Gavin,

Thanks for meeting last week to share what you could on the Prophecy Theater development plans for the church and proposed hotel. We listened and can appreciate your desire to create a great arts space for the community.

Thank you also for agreeing to incorporate some concessions for foliage/fencing into the proposal to help mitigate some of the trespassing concerns we have, which would hopefully help prevent trespassers from wandering onto our property at all hours.

That said, we continue to believe that this is a great idea, but a terrible location for this project. While *technically* the definition of our location may be "high-density urban," we beg to differ. It is truly residential and peaceful at night, as you yourself acknowledged when I invited you to come and hear for yourself just how quiet it currently is on any given night for our complex.

While your desire is for an arts complex, the reality is that there will also be wedding parties almost every weekend, and events every evening possibly throughout the week. You acknowledged that you would need to rely on weddings to generate revenue for the space. This means around 190+ people arriving and leaving all pretty much at the same time, every time, all vying for parking spot morsels. You only need to look at the Beacon NY Facebook group to see the distress that parking and traffic causes to residents on Main Street and the surrounding residential streets on an almost daily basis. Your project will extend that same distress to our residential neighborhood.

The day before we met, a man was run over on Beekman Street at 10:30PM at night and hospitalized because Beekman Street already lacks adequate crossings and speed limits. The increased traffic you will bring to the area will only make matters worse.

Wedding parties and evening events where everyone arrives and leaves at the same time will also bring noise, disturbance, and often likely rowdy crowds. I realize that your plans are evolving and changing but as I mentioned at our meeting a few times, the lack of detail on what kind of event programming we can expect is deeply problematic to us. You are asking us to trust you, but we have so little to go on that it simply isn't possible.

At a recent City of Beacon Council meeting, one public comment about your development was shared that truly resonated with me: *"(The) project is squeezed in with no breathing room for its neighbors*." We couldn't have said it better ourselves.

We welcome the opportunity to continue the dialogue, but we struggle to see how the development can take shape as proposed and not have a significantly negative impact on the lives of our residents and our neighbors, and we simply can't sign up for that.

Sincerely,

Shelley Simmons-Bloom
The View Board President on behalf of concerned residents

cc. Amanda Caputo for the City of Beacon Planning Board

Amanda Caputo

From: Hope Rivlin <hoperivlin@icloud.com>
Sent: Sunday, September 18, 2022 10:43 AM
To: Amanda Caputo
Subject: Prophecy

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning, I am writing to you on behalf of the proposed Project, My first impression when we moved here was this Church. I thought it to be so beautiful, historic. I walked over to see the grounds & thought how cool it would be to have this renovated. Much to my dismay, I was informed of the proposed project. Turning this into a Venue for entertaining on a daily basis , which has limited parking & access, is a shame. It has so much potential, why would one want the historic value & beauty be disturbed in a residential neighborhood? The traffic, along with the foot traffic increasing from the train station and elsewhere can only lead to destruction of a land site. The cemetery also a concern. Seems there has already been some vandalism. A broken wire fence is its only protection. I am not an architect but my vision is for something a little bit more appropriate for this location. Thank you for taking the time to listen.

Hope Rivlin
RRC resident

Amanda Caputo

From: rachel rivkind <rrivkind@hotmail.com>
Sent: Tuesday, September 13, 2022 3:05 PM
To: Amanda Caputo
Subject: FW: 1113 Wolcott Avenue /9.13.22 Public Hearing

Follow Up Flag: Follow up
Flag Status: Flagged

Sept 13, 2022

Dear Honorable Mr. Gunn and the City of Beacon Planning Board,

I write this letter in regards to Applicant's August 30th, 2022 updated proposal for 1113 Wolcott Avenue. The revised proposal is really nothing new.

Applicant has clarified that cafe will not be open simultaneously when there are events of over 130 attendees . However, how is one supposed to plan their Hotel stay with an unpredictable food and beverage program? How are the local residents supposed to know when we can dine or wine and enjoy this communal local space of serenity?

If Applicant is now providing shuttle services, where are the shuttle employees to park and where will the physical shuttles be parked? The shuttles themselves now open an entire new line of logistics .

We still have no concrete answers to anything ie what is occasional defined by, what is staffing model, or business plan.

If the hotel is truly the main business plan for Applicant (as of now and to my knowledge it is the only approved part of proposal) a 1 employee/ 30 room hotel continuous to remain that of ludicrously to me.

As an adjacent residential home owner, I also do not want temporary signs Re no parking (maybe even permanent signs due to unknown frequency of events) on my lawn. Why should we have to suffer to appease Applicant?

Lastly and importantly is the Applicant allowed to host commercial events without SEQR review, without the process of obtainment feedback from the NYSDOT regarding the proposed access configuration and without even a Highway Work Permit application being submitted?

To my knowledge since of August 15th 2022, there has been an active website www.churchofbeacon.com

The website directly gives Applicant's cell phone and is for weddings.

There is another website https://www.eventective.com/beacon-ny/church-of-beacon-732568.html

that states that for $1,500 you can have a wedding of 125 people.

If applicant is allowed to run weddings of 125 attendees than what have we all been doing for the past 6 months or more?
The fact that we all still sit here today and continue to discuss the same concerns that remain outstanding and that Applicant can still can not give solid answers to , I ask to the PB to please consider as to what this symbolism states.

Sincerely and Respectably,
Rachel Rivkind
River Ridge
Beacon, NY 12508
*Note, I just found out the Applicant has requested for a last minute Adjournment. I personally rescheduled worked related obligations to attend tonight's meeting. I am sure many of my other local neighbors changed their plans. This just furthers the lack of thought by Applicant and to the residents around

Amanda Caputo

From: Matthew Bloom <mattbloom64@gmail.com>
Sent: Tuesday, September 13, 2022 10:22 AM
To: Amanda Caputo
Subject: 1113 Wolcott Avenue (Letter for Planning Board Meeting 9/13/2022)
Attachments: Matt's Letter to PB 09122022.docx

Hi Amanda,

I hope you're well.

Can you please include this email in the Planning Board package for this evening's meeting. It regards the Prophecy Theater project. I've also attached it to this email.

Please confirm receipt.

Thanks very much for your help.

Matt

==========

Dear Chairman Gunn and the City of Beacon Planning Board,

I am a Unit Owner at The View, 30 Beekman Street, who has carefully followed the Planning Board application by Prophecy Theater to develop 1113 Wolcott Avenue and I have attended the last three Planning Board meetings.

It is without doubt that the increase in traffic and limited parking availability in Beacon are two of the hottest topics of conversation in the city. In the last week alone, there have been two pedestrians knocked down in Beacon and hospitalized. The one on Beekman Street took place just feet from the Prophecy Theater proposal. The city is already experiencing serious growing pains when it comes to ensuring the safety of our streets. The proposal as it currently stands will only add to those pains.

On September 2nd, a post on the Facebook Group "Beacon NY" about people "making up their own parking spots" in the Municipal Lot on Main Street garnered more than 82 comments. This is a clear sign of the frustration residents feel about how their city is increasingly exposed to bad behavior by visitors and disrespectful neighbors. (See link here: https://www.facebook.com/groups/79901704313/permalink/10160573435649314/)

Comments include:

"If it fits, it sits, seems to be the thing in Beacon now."

"Build and not have to provide parking – big, obvious mistake."

"Because we keep building and don't provide adequate parking."

“It’s supposed to be MUNICIPAL PARKING, not parking for residents.”

I firmly believe that if the Prophecy Theater development proposal for 1113 Wolcott Avenue goes ahead, the pain our neighbors are feeling will not only extend to the residents who live in the immediate vicinity of 1113 Wolcott Avenue but will be felt throughout the whole of Beacon.

Sincerely,

Matt Bloom

Steven Jaffe
8 River Ridge Ct.
Beacon, NY 12508

Re: Redevelopment of the Church site at 1113 Wolcott Ave

Dear Chairman Gunn and Members of the Beacon Planning Board:

As a next-door neighbor to the proposed church redevelopment, I have been going to the many Planning Board and Zoning Board meetings and have read all of the proposals, all of the revised proposals, all of the comments by consultants and in particular John Clarke's comments. Mr. Clarke clearly wants the best for the community and has stated in writing and at Board meetings the difficulties he sees with this project.

I agree with Mr. Clarke, and when I read through the proposals and reports the *one* thing that jumps out to me is that there are so many things *jumping out.*

- Parking
- Traffic
- Noise
- Trespassing
- Community aversion
- Hours for events
- Enforcement of agreed upon conditions

These are but a few of the issues, and despite reducing the maximum capacity for the event venue, these issues still exist in a very real way. It's like a larger-than-life game of whack-a-mole. The problems never stop popping up.

The proposed project is surrounded by quiet residential areas ---private homes, townhomes, apartments all of which have been bought or rented by people with the rightful expectation of having the quiet enjoyment of their homes. The proposed development will take away that quiet enjoyment.

To put it simply this project is forcing a square peg into a round hole. It does not belong at 1113 Wolcott Ave.

Thank you for listening,



Steven Jaffe

9/12/22
Dear Chairman Gunn and Planning Board Members,

I am a resident of River Ridge Views (RRV), immediately next door to the Goodwill Church and the proposed site of the Prophecy Theater.

I have spent the past year attending the Planning and Zoning Board meetings and reading all the documents associated with the Prophecy proposal. I have met with the developers of the project to gain a better understanding of their intentions, I've met with my immediate neighbors at RRV, with residents from other developments that surround the Church and with residents who live on nearby streets, and as much as I would like to get behind this project, I just cannot.

The same issues that have existed from day one, remain major concerns:

- **Safety** – people coming onto neighboring properties at all hours of the day and night, potentially causing disturbances/altercations. Cars parked on narrow side streets potentially preventing emergency vehicles from getting through. Pedestrians being struck by cars (last week a person was struck by a car on Beekman St. today someone was struck on Main St and Fishkill Ave.and in December a woman was killed on Main St.).
- **Noise** – not just the noise that we might hear from inside the church which the developers could potentially mitigate if they do the work properly, but the noise when someone has the church doors open, the noise from the bar/café deck, the noise associated with large crowds congregating in front or on the side of the church waiting for the event to start or to have a smoke, noise from crowds waiting to be picked up after the event, or noise from trucks making deliveries or being packed up after a late night event. I have noticed that the latest proposal has hours of operation from 8am-10:30pm Sunday – Thursday and 8am-11:30pm Friday – Saturday (and that doesn't account for the time needed for people to leave the property/neighborhood or for staff to break down/pack up after the event. It basically means there could be noise coming from this site up to 14-16 hours a day, 365 days a year.
- **Parking** – 31 on premise spaces for a hotel/café/bar/event venue for 180 people plus staff makes no sense. Mr. Clarke has stated continuously that the developers can't count on the Tompkins and Municipal Building lots. We have still not seen a written contract with any of the 3 off-site lease deals that have been promised by the developers and one of the sites is ¾ of a mile away ("well beyond reasonable walking distance" according to Mr. Clarke), another we have been told will only come about if this project is approved (it should be the other way around, show us the lease in order to help get the project approved), and Mr. Clarke has pointed out that the Protestant/Episcopal Church has another potential negotiated lease in the works. During the past few PB meetings, the developers made it sound as if they would be willing to have a shuttle bus for events over a certain capacity, but in reading the latest proposal, providing this shuttle bus is completely at the developer's discretion, which basically means that they never have to provide a shuttle. Also, Creighton Manning has

pointed out in their response to the latest proposal, that realistic timing for the shuttle to make the various pick-ups and drop offs doesn't coincide with the proposal. Do we really think that someone is going to wait in a parking lot somewhere for a theoretical shuttle bus, when they can find a spot, on a nearby local street or in the adjacent private parking lots at West End Lofts and RRV? I am already seeing numerous social media posts about how out of control parking has become in Beacon. Approving a project without sufficient on-site parking will just exasperate the situation.

- **Traffic** – We have all noticed the increase in traffic on 9D. I am trying to imagine the traffic that will be caused when 180+ people arrive at the same time for an event. Given that all 31 parking spots are being reserved for hotel guests, I would imagine most of the cars will try to drop off passengers at the venue and then try to find a spot. The backups on 9D will not only become inconvenient to residents and people trying to go to shops and restaurants in town but could become dangerous as well.

At one of the first PB meetings that I attended, I remember hearing one of the Board Members say something to the effect that this could be a good thing for the community, or it could be very bad. In the past year, I haven't heard anything that makes me think that we aren't headed toward a very bad situation for the community.

I ask the PB to please imagine how this will impact Beacon in general, and specifically the people who live in the apartments, townhomes and houses that surround this beautiful church. These residents didn't move into what the developer is calling a "high-density urban area", they moved into a quiet residential area. We are counting on you to ensure that this proposal does not become a very bad situation that cannot be controlled or corrected once approved.

Thank you for your consideration.

Betty Wall
8 River Ridge Court
Beacon, NY 12508

Betty Wall

Amanda Caputo

From: Shelley Simmons-Bloom <shelleysimmonsnyc@gmail.com>
Sent: Friday, August 19, 2022 12:12 PM
To: gavin@prophecyhall.com
Cc: The View Board
Subject: Concerns from The View, 30 Beekman Street, Beacon with regards to Prophecy Theater development

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Gavin,

I appreciate that you introduced yourself to me after the last City of Beacon Planning Board Meeting (Tuesday, August 9) and shared your email address so I could follow up regarding the concerns of our community at The View.

As you are aware, I've already written to the Planning Board expressing that the concerns of residents at The View have not been addressed or heard by Prophecy Theater LLC. In fact, as I also mentioned on the evening of the meeting, The View does not even appear on the site plan (Sheet 01, 02, 03 etc.) for the development of the Dutch Reform Church, parsonage, and graveyard. It's as if there is no building on our plot of land at all.

The reality is that the walkway you propose, starting at Beekman Street is, in fact, just a few feet from our building. If your project goes ahead in its current form, Unit Owners at that end of The View would have event attendees passing by their windows day and night, potentially 365 days a year.

I do appreciate your offer to meet at the Church to discuss your proposal; however, respectfully, I am already very familiar with its details, and I think our mutual time would be better served if you could respond, in writing, to our specific questions and concerns.

As we shared in the joint letter with our neighbors at River Ridge and Hammond Plaza, the proposed restaurant/cafe/bar are immediately adjacent to The View, while the hotel overlooks our property, all of which would cause significant noise/light pollution to all south-facing units on the property, and noise pollution for the entire property. Our ground-level units are also easily accessible to trespassers.

So far, you have not outlined any ways to mitigate these concerns, from noise/light pollution from the deck of the cafe/bar to headlights, engine noise, and general rowdiness from the parking lot. We would like from you a clear mitigation plan to address these concerns.

Additionally, it's difficult for us to support your proposal without you clearly addressing many of the outstanding questions in detail. For example, we have no idea how many large events you plan to host a year; what is the definition of large; whether one event counts as one night or several nights (for example, if it is a festival), all of which amount to very different impacts on the community. As for programming, will weddings be the primary large events, or will they be theatrical or musical performances? Your continued reluctance to elaborate on this remains a major concern for us.

In addition to our concerns previously stated to the Planning Board, which you can review in the archives, the questions we and many of our neighbors would appreciate answers to are:

- Please share your company's experience of running a commercial operation like a hotel? As you have described, Prophecy Theater's background is in the non-profit arts world. A 30+ room hotel requires an entirely different professional skillset.

- What are the implications for Beacon if your business is not a success? How will you ensure that the city is not burdened with picking up the pieces of a failed commercial operation?

- Who are the investors—people not entities—who will fund the development of the project? Are they local, national, or international investors?

- What happens if you sell the property? What protections do we have that anything that you have agreed to will be honored in the future?

- How will you enforce the 198-maximum capacity? And does this number include staff and performers? If not, how many staff will be present at large and small events and where will they be parking?

- How will you manage rowdy, late-night crowds? How will you effectively disperse them once an event is over at your proposed 10pm weekday curfew and 10:30pm weekend curfew?

- If the latest curfew is 10:30pm, how long do you anticipate the breakdown and clean-up of the event will be as noise will continue until the last truck has pulled away

- How long will the set-up of events take? How large will the trucks be, and will they leave during the event and return after the event, or will they be parked somewhere? And if they are parked, where?

- If shuttle buses are going to be utilized, please describe how that process will work. What size events will trigger the use of shuttle buses? How many buses will be utilized? How many people will the buses seat? After the event, where will the attendees congregate while waiting to be picked up?

- What are the proposed hours of operation for the hotel (check-in/check-out), café/bar and events?

- From a safety and noise management perspective, will there be a hotel employee on site 24/7?

- How will you prevent loitering in the cemetery park/pathway area?

- What will you do to ensure hotel guests are not rowdy late at night?

- How will you ensure your clients do not trespass on our property whether parking, walking, or sitting on our land?

- Will you provide security for your neighbors to prevent trespassing or destruction to their property. If so, please describe?

- Will you personally be responsible for any issues that arise during operation, and will we be able to reach you in real time, or will we have to call the police for every infraction?

- What type of programming do you intend to host for both small and larger events? Weddings or music events, and if so, what kind of music events? (You emphasized your non-profit background in the arts and arts programming in your opening statement at the August 9 meeting, yet your colleagues repeatedly mentioned weddings.) The type of events could have significant impact on the noise/security/parking concerns so we would like to know the specifics.

- Will you install sound insulation *beyond code*, including wall insulation and all new windows and retrofit existing church windows, which likely have no sound insulation?

- Has the property been surveyed for lead, asbestos, mercury, and radon? What remediations are planned? How will you ensure there is no possible health risk to any adjacent property during the demolition and construction phase?

- Is it still your intent to remove the historic organ and sell the pews as you indicated on two recent Beacon Historical Society webinars? And if it is, how will you ensure that they are not destroyed?

- How do you propose to run a bar/café which is open to the public yet closed during events? How will customers know when the bar/café is open? Who will be managing the café, and do you anticipate that it will be run by another entity?

- Will there be a no-smoking rule for the entire property, including outside?

- Will you prohibit outdoor music/speakers/amplifiers?

- If given approval, will you agree to exclude windows from the rear of the property to protect The View's privacy?

- What steps will you take to ensure the lighting used for the property does not cause light pollution for our four residential complexes, and especially for The View whose Unit Owners and Residents will be overlooked by the hotel?

- How many trees will you be removing from the graveyard that border our property and currently afford us privacy?

- Will you fund new fencing surrounding the entire property, including on the boundary between the hotel and the beginning of The View's property?

- Will you pay for tasteful, mutually agreed upon lighted "No Trespassing" signage at The View, River Ridge, Hammond Plaza, and West End Lofts?

- What are your plans to ensure the graveyard is not destroyed or demolished?

- How will you protect the habitats of animals that live or rest in and around the graveyard, including but not limited to deer, groundhogs, rabbits, migratory birds, raptors?

As I have previously stated, many of us would love to see the church, the parsonage, and the graveyard restored to their former glory, and be appreciated and visited by the local community and tourists. But for all the reasons above, as well as serious, continued concerns around parking, traffic, and safety impacts for all of Beacon, not just the immediate vicinity, we do not see that your proposal fulfills this goal.

We understand your desire to run a successful business here, but we reject the notion of doing it at our expense.

I look forward to continuing the dialogue and receiving your responses ahead of the next City of Beacon Planning Board meeting.

Sincerely,
Shelley Simmons-Bloom
Board President, The View

9.30.2022

Planning Board
Beacon, NY

Hi-

I am grateful to all of you and your ability to have meetings late into the night, it's a superpower I can't match!

Accessory apartments:

I wanted to express my support for creating more accessory apartments; yes- household size has declined since the houses were built, so population has risen little despite additional builds.

Don't let worries about affordability unduly affect decisions; in our market economy, adding more housing will mean naturally lower price pressures.

Old Dutch Reformed Church, 9D

I hope it becomes a venue, the thick walls mean music can be enjoyed without disturbing neighbors.

I was sad to realize this church was orphaned without parking.

If a parking lot were created on the Beekman Ave side by removing earth, and that earth were removed to a new retaining wall one floor down under the proposed deck behind the church, a traffic circuit and probably more parking could be created behind the church, without disturbing the cemetery in the middle of the lot between excavations.

These changes would not only create dozens of spaces, but if traffic went around the church and came out where a half driveway already exists to the left of the church, creating a long circular driveway, drop off traffic from 9D would be greatly relieved.

The land immediately behind the church already has a slope that may make a lower level driveway circuit feasible.

Thank you for all your patient work.

Sincerely,

Carol Hearty
Bayview Ave.

Amanda Caputo

From: Robert Koffsky <spintech@optonline.net>
Sent: Thursday, October 6, 2022 1:31 PM
To: Amanda Caputo
Subject: 1113 Wolcott proposal support, public comment

This letter is being written in support of the subject proposal to convert the existing church at this site into an event venue and theater.

We have been residents of Beacon since 2010, downsizing here from Hopewell Junction. We had moved to Hopewell from New York City in 1986 and soon found ourselves visiting Beacon on a regular basis for shopping, dining, and artistic events. We both retired from careers in healthcare: Barbara as a Nurse and I as a Bioengineer. Additionally, Barbara is a printmaker and I do framing. We have attended live theater and music productions in the city as well as at the *Shakespeare Festival, County Players,* and *Howland Center* since we moved here. In the early 1960s, I had a technical position at the *Charles Playhouse* in Boston, which was in a former church like the goal of the current project.

Both the structural characteristics and ongoing activities of churches and theaters are very much the same. Both usually feature a raised platform with an overhead arch in front of the seated attendees. The church has its pulpit and the theater its stage. Religious leaders and actors often wear costumes and utilize various props. In both environments, lighting and audio are appropriately controlled. In both environments weddings, anniversaries, births, and holidays are celebrated.

Given its geographic location near the city center and the train station, its capacity of several hundred, and Beacon's artistic diversity, the establishment of an event venue would be most beneficial to the community. It would provide another venue for *Second Saturday* with both gallery and performance spaces. Many social and educational events could be done here including fund-raising.

We cannot think of anything that can be done with this structure that would fit so well and be terrific for Beacon.

Robert & Barbara Koffsky

29 South Cedar Street

Beacon, New York 12508

October 6, 2022

Dear Chairman John Gunn and City of Beacon Planning Board Members.

I live in the West End Lofts, and I am again writing in regards to the proposed Prophecy Theater, LLC hotel and event space, planned for 1113 Wolcott Avenue.

In reading the September correspondence from Prophecy Theater, LLC to the Planning Board, it is clear that they still do not have an adequate parking plan for this development. For the reasons below, please do not allow this development to move forward.

- City Code is clear that they must have 81 spaces at minimum. They are committing to providing fewer than 50% of that number.

- A parking variance based on the age of the structure would be a technicality, and is patently absurd. An exemption for a church on Sunday mornings is not comparable to a variance for an event space that will create community parking issues, seven days a week, for 12+ hours each day.

- Tomkins Firehouse and Municipal Plaza may not be available for overflow parking even five years from now, as City Planner John Clarke noted in the March Planning Board meeting minutes. The Tomkins lot is guaranteed to be unavailable during the Firehouse renovation project. Additionally, both lots are already also regularly utilized by City of Beacon residents and employees–there are frequently cars parked overnight, especially in the Tompkins lot.

- Perhaps most importantly, with these being municipal lots, the wear and tear on the parking lots as well as any associated risk that results in event attendees using this public space will be put squarely into the lap of the City of Beacon. Falls, accidents, fights, and more, may create legal and financial difficulties for the City. **If this plan is approved, there is clear, public documentation that the City of Beacon has agreed to take on this risk and liability, as well as all on-going maintenance costs for these public parking lots, essentially subsidizing a private business.**

- Prophecy Theater has made no actual commitment to a shuttle service, and if they are granted the permission to move forward, there is no way to control how they manage parking.

- The City of Beacon is being asked to believe that Prophecy Theater will self-police and use good judgment in determining when they need to provide shuttles. What good judgment have they shown so far? What ability to self-police? This is the same developer who, in all alleged seriousness, suggested a project with a maximum occupancy of 420 people and a grand total of 31 parking spaces.

- The Colliers' report, that they point to as evidenced-based, and are offended is being questioned, suggested that event attendees would walk from up to one mile away, presumably in fancy attire and dress shoes, parking in municipal lots scattered through Beacon's downtown and train station. They suggested that this would happen in all seasons and weather, and didn't introduce a shuttle service until pressured to do so. This same report also failed to mention the Beacon Free Loop in its transportation assessment and planning. To be generous, it is imperfect.

Please do not allow this development to happen. There are many reasons why it is a bad idea for the neighborhood and for the City of Beacon, not least of which is increased legal risk to the City, which will last years, if not decades. It is impossible to calculate the financial burden that this risk may create for the City in the long term. Please eliminate this risk for our City and our residents, and say no to this project.

Respectfully,
Esther Jackson
4 Liam Drive (West End Lofts)

Ryan Dunn
31 Grove St Beacon, NY

Dear members of the Beacon Planning Board,

I'm writing to support the approval for the proposed event space and hotel by Prophecy Theater LLC on the property at 1113 Wolcott Ave.

As a member of a growing community of working artists in Beacon, I see the rapid growth of our city as an opportunity. Every day we get new eyes to see and ears to hear our art. However, artists need space to present and perform their art. A growing community also needs diversity in what is being presented and curated. This is why I feel that Beacon needs this church to be open to the public for theater and cultural events. Locally owned by a group who live in our community and have a goal to enhance it for use as an arts venue, the Church can be a new artistic home for artists and audiences in Beacon who may have yet to find one.

The proposed project is the only answer for this location, and the best way to preserve this historic building. The hotel and venue will attract business to the area. It would be horrible to see this place become condos, studios, or just another restaurant. The proposed capacity is perfect for this building. This project benefits everyone and will be a great asset to our city.

Thank you,

Ryan Dunn

John Clarke Planning and Design jclarkeplandesign@gmail.com
845.797.4152

To: John Gunn, Chair, and the City of Beacon Planning Board
Date: October 7, 2022
Re: **1113 Wolcott Avenue Street Site Plan and Special Permit**

I have reviewed the August 30, 2022 cover letter from Cuddy+Feder with several attached exhibits, including an August 30, 2022 response letter from Hudson Land Design, August 29, 2022 response letter and revised Traffic and Parking Management Plan from Colliers Engineering, and August 29, 2022 Sound Level Report from Beacon AV Lab.

Proposal
The applicant is proposing to construct a 2½-story, 30-room hotel as an expansion to the existing parsonage and renovate the historic church as a conference center/event space and rear café. The 2.28-acre site is in the R1-40 zoning district, in the Historic District and Landmark Overlay (HDLO) zone, and within the Local Waterfront Revitalization Program (LWRP) boundary.

Comments and Recommendations
The applicant did not submit any new information for the October 12 meeting. As a result, my comments provided for the September meeting will be repeated.

1. The Building Inspector has issued a determination on the parking exception for the church uses under the 1964 provision in Section 223-26B. There are two parking tables on Sheet 1: one that includes the current parking requirement for the proposed conference/event occupancy and another that includes the proposed café in the rear. These tables should be consolidated into one table that includes all proposed uses with notes to describe permitted exceptions or shared uses.

2. Adequate parking is a specific Special Permit condition under Sections 223-24.7D and 223-18B. The applicant has proposed reducing conference/event maximum occupancy to 198 people, which would decrease the project's off-site parking needs. However, parking for the varied uses still remains a concern, including:

    a. The Traffic and Parking Plan refers to the Tompkins and Municipal Building lots as the most convenient and walkable public parking, but there is no guarantee that these lots will have the same future capacities with the planned expansion of the Firehouse and redevelopment options for various public lots being considered.

    b. Of the two newly identified parcels that have potential negotiated leases for event parking, one is about ¾ miles away, well beyond reasonable walking distance, and the other has a previously approved site plan for multi-family parking on the lot. More details should be provided for the layout and long-term availability of the church lot off Beacon Street.

3. For the Sound Level Report:

    a. The report cites the standards and measurements in the Noise Chapter, Section 149-10, but this section appears to apply to noise permits for outside commercial events. The report should consider the sound level limits in Sections 149-6A and 149-7A. Table 1 sets the maximum permissible sound level at the property line of a residential receiving land use at 60 dBA during the day and 50 dBA after 9 pm.

b. If the church windows are the primary source of sound transmission and laminated acoustic glass may help, the report should provide an estimate for sound reduction at the site boundaries or perhaps provide an additional sound measurement test be using acoustic glass.

c. How might the additional glass layer affect the historic appearance of the windows?

4. Since this involves the front yard of a historic church, one-way and other standing signs should be reduced to the minimum number for safety purposes. Now that the south driveway is a one-way entrance, the main commercial sign could be moved to the hotel side of the driveway.

5. The path lighting in front of the church on Sheet 1 does not match sheets 2 and 4.

6. The area between the rear parking lot and the parallel spaces to the north of the hotel should be landscaped to avoid informal parking there constricting room for turning vehicles.

7. The north driveway and parking spaces could be narrowed slightly to provide a sidewalk at least 4 feet wide.

8. A center lane striping pattern along Wolcott Avenue should be proposed for the two one-way driveways.

9. All exterior construction must meet the standards in Chapter 134, Historic Preservation, and will require a Certificate of Appropriateness. The Architectural Review Subcommittee has met twice on this proposal and has referred the final design back to the full Board.

If you have any questions or need additional information, please feel free to contact me.

John Clarke, Beacon Planning Consultant

c. Dave Buckley, Building Inspector
Jennifer L. Gray, Esq., City Attorney
Arthur R. Tully, P.E., City Engineer
John Russo, P.E., City Engineer
Aryeh Siegel, Project Architect
Michael Bodendorf, P.E., Project Engineer

CITY OF BEACON
New York

David Buckley
Building Inspector

845-838-5020 phone
845-838-5012 fax

Mr. Aryeh Siegel
Architect
84 Mason Circle
Beacon, New York 12508

October 3, 2022

Re: 1113 Wolcott Avenue

Dear Mr. Siegel,

I have reviewed your email submission to my office dated August 17, 2022 which included a revised Sheet 1 Site Plan with revised Zoning Summary along with a revised Sheet 6 Floor Plan, in relation to the pending Special Use Permit and Site Plan Application for property located at 1113 Wolcott Avenue. I have also reviewed your responses to my inquiries based on review of this material. You have asked for a determination as to whether the proposed project qualifies for the parking exemption set forth at Section 223-26.B(2) of the City Zoning Code.

Based on my review of the revised plans and your responses to my inquiries, I have determined that the parking calculations on the revised plans are correct and the project, as proposed, qualifies for the parking exemption set forth at Section 223-26.B(2) of the City Zoning Code. The use existing on the subject property in 1964 was a church with 336 seats plus a rectory. The parking requirement for the 1964 use was 69 off-street parking spaces. The proposed use requires a total of 81 off-street parking spaces which is less than a 25% increase over the parking requirement for the use existing in 1964.

My determination is subject to compliance with the following conditions:

1. The Applicant shall place a note on the plans to label the deck as an observation/viewing platform with no seating permitted.

2. The Applicant shall place a note on the plans stating the café will be closed to the public for any event at the premises over 130 occupants and that when the café is open to the public at least three rows of seats in the event spaces, which rows contain a total of 54 seats, will be secured with a gate or other physical barrier so as to prohibit their use.

Sincerely,

David Buckley

Dave Buckley
Building Inspector

Amanda Caputo

From: sborenstei@aol.com
Sent: Friday, October 7, 2022 1:02 PM
To: Amanda Caputo
Cc: Shelley Simmons
Subject: Proposed Development 0f 1113 Wolcott Avenue/Dutch Reformed Church

Dear Beacon Planning Board Members:

I write to you regarding the proposed development project of the Dutch Reformed Church.

As a resident of The View located at 30 Beekman Street, located just below the Dutch Reformed Church, I am very concerned that the proposed development of The Church in its current form does not take into account the sound principles of sustainable development, thereby adversely affecting my own living arrangement as well as those of my neighbors. Development is a good thing but only if it is sustainable!

The indivisible pillars of sustainable development are economic, social and environmental. The Prophecy Theater (PT) proposals appear only to address one of these pillars – economic. Clearly, any project wants to become profitable but at what price? Profitability must take into account the the other pillars of sustainable development.

1. Environmental Impact– The proposal does not address its carbon footprint and in fact increases it by proposing that many new cars come into the area parked primarily in front of The View. The green canopy at the rear of The View which is a habitat for many animals; a shield against the increasing heat waves in the summer as a result of global warming, and a guard against harsh winter winds will be cut down and/or greatly reduced. Finally, if this proposal was to be approved, noise and light pollution in the area will newly become a problem as large numbers of people will inevitably break the now peace and quiet of the evenings.

   The PT proposal of 10PM weekend curfew is too late. I would remind the Planning Board Members that stores and restaurants that line Main Street, the commercial hub of Beacon, are for the most part closed between 5PM and 7PM even on weekends. Those establishments that remain open are small restaurants that do not generate noise pollution.

2. Social – The privacy of residents of The View, River Ridge, Hammond Plaza, and West End Lofts is not taken into account in the PT proposal. There are no barriers proposed so that customers of the new facility do not trespass on the property of The View or others.

   The area surrounding the Dutch Reformed Church is clearly residential and not commercial. The fact that it is a residential area is one of the primary reasons I purchased my apartment, in addition to the fact that my apartment faces the back of an historic church and graveyard. What a pity it would be to disrupt and deface part of historic Beacon.

   Most of all the current proposal will disrupt the peace and quiet and therefore wellbeing of the residents surrounding the church.

I would suggest that the Planning Board provide suggestions which would make any development of the church sustainable and would accommodate the concerns of neighbors. For example, instead of trying to accommodate the arrival of a large number of cars into the area, PT could provide shuttles to and from the train station parking lot for customers, thus obviating the need for a path from Beekman Street to the Church. It would also encourage utilizing public transportation. The graveyard would remain intact and the trees would remain untouched.

Furthermore, it is common for hotels to have event spaces separate from and in a location close by to the hotel. The Church on Main Street (a mostly commercial street) which is currently for sale and/or lease could be utilized for the event space. It is within walking distance of the church on Wolcott Street or shuttles could ferry customers back and forth. A long term lease could be negotiated to the benefit of owners of both spaces. Such proposals would also have the added advantage of addressing my concerns and those other residents of The View.

Finally, a restaurant in the Dutch Church with hours similar to those on Main Street could be developed without creating noise or light pollution and would not interfere with the privacy of neighbors.

Respectfully submitted,
Susan Borenstein
The View, Apt 212

Sent from Mail for Windows

CUDDY +FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
T 914 761 1300
F 914 761 5372
cuddyfeder.com

Taylor M. Palmer, Esq.
tpalmer@cuddyfeder.com

October 7, 2022

VIA E-MAIL
AND HAND DELIVERY

Hon. John Gunn
and Members of the Planning Board
City of Beacon
1 Municipal Plaza
Beacon, New York 12508

Re: Application for Site Plan & Special Use Permit Approval – Reduced Development Proposal
Premises: 1113 Wolcott Avenue, Beacon, New York 12508
Tax Parcel ID: (5954-26-651901)

Dear Chairman Gunn and Members of the Planning Board:

On behalf of Prophecy Theater, LLC (the "Applicant"), we respectfully submit this letter and the referenced enclosures in furtherance of the Applicant's pending Applications for Site Plan and Special Permit Approval (the "Application") to adaptively re-use the Premises for a hotel and accessory conference/event space and café (the "Project"). This supplemental submission is being provided in advance of the Board's October 12, 2022 meeting Agenda for the continued review of the Project, and is prepared to summarize the refinements to the site plans associated with the Building Inspector's very-recent Determination dated October 3, 2022 (the "October 3rd Determination").

Since last appearing before this Board on August 9, 2022, the Applicant further reduced the maximum capacity for events that will be held within the revitalized church, resulting in a further Reduced Development Proposal that is fully zoning-compliant. Indeed, *the October 3rd Determination confirmed that the further Reduced Development Proposal complies with the parking requirements for the Project.* Accordingly, this letter and its referenced enclosures provide responses to the remaining comments contained in the memoranda prepared by the City's Planning, Engineering, and Traffic Consultants.

FURTHER REDUCED DEVELOPMENT PROPOSAL – MAXIMUM CAPACITY FURTHER REDUCED TO 180 ATTENDEES FOR EVENTS:

As this Board is aware, the Applicant previously submitted a request to the Building Inspector for a determination that the reduced development project alternative that had a maximum capacity of 198 persons was in conformance with the 1964 Parking Exception established in Zoning Code Section 223-26.B. Since submitting that request, in response to comments from the Board and its consultants, the Applicant introduced a further Reduced Development Proposal that will now allow for a *maximum* of 180 people. Based on the Zoning Code's parking requirements for the Premises, the Applicant is proposing that during the maximum size events (i.e., 180 capacity) the café will not be open to the public. However, for smaller sized events (not to exceed 130 event guests), the café (which has a maximum occupancy of 50 people) can remain open to the public. This further Reduced Development Proposal alternative represents *a more than fifty percent (50%) overall reduction (or a reduction of 240 attendees)* from the original proposal for the Premises.[1]

As noted above, the Applicant is pleased to share that following the introduction of the further Reduced Development Proposal, the City's Building Inspector issued the October 3rd Determination that affirms the Project's conformance with the 1964 Parking Exception established in Zoning Code Section 223-26.B (the "1964 Parking Determination"). The 1964 Parking Determination found that, pursuant to the parking exception provided within Zoning Code Section 223-26.B and based on the church and rectory uses and accompanying parking requirements existing on the Premises in 1964, the Project's required 81 off-street parking space requirement represents a less than a twenty-five percent (25%) increase in intensity over the applicable parking requirements in 1964. Accordingly, *the Project's proposed off-street parking is zoning-compliant, and no parking waivers or variances are required for the Project.*

ADDITIONAL SITE PLAN REFINEMENTS & RESPONSES TO COMMENTS:

The Applicant has updated the Site Plan to incorporate the remaining minor comments from this Board's Consultant and in response to members of the public. As is more fully detailed within the enclosed Site Plan set, the Applicant is proposing to install a fence along the rear of the parking

[1] Note: As this Board is aware, at the August 9th Public Hearing, a question was presented about the possibility of operating the café simultaneously with the event space. To address these comments concerning the hypothetical situation that was presented where these non-simultaneous uses were operating simultaneously, the Applicant is now proposing limited instances wherein the café and event space will operate in tandem.

area and side of the cemetery on top of the stone wall. The 6.0' high black metal fence will provide further privacy screening for the adjacent properties. In addition, the area located between the rear and the parallel parking spaces adjacent to the hotel now includes proposed landscaping in order to prevent any informal parking therein and the north driveway and parking spaces have been narrowed slightly to provide a sidewalk at least 4.0' wide in accordance with ADA standards.

To facilitate this Board's review of the further Reduced Development Proposal, the Applicant respectfully submits a memorandum prepared by its sound consultant, Beacon AV Lab, providing annotated responses to the applicable comments noted in in the memorandum prepared by the City's Planning Consultant, John Clarke Planning and Design, dated September 9, 2022. *See* **Exhibit B** – Sound Consultant Response to Comments Memorandum. As is further detailed therein, the previously submitted Sound Level Report prepared by Beacon AV Lab, dated August 29, 2022 (the "Sound Report"), found that the none of the reported results measured at property lines exceeded 49 dBA, which is notably 1 dBA *lower* than the permitted amount during nighttime hours and 6 dBA *lower* than the permitted amount during daytime hours. Furthermore, the installation of laminated acoustic glass as specified over each window further ensures that even if louder noises than the test sources mentioned in the Sound Report should occur inside of the subject property, any noise at the property lines will still be below the legally permitted limits.

Lastly, in further support of this Application, the Applicant's traffic consultant, Colliers Engineering & Design has revised its Traffic and Parking Management Plan to reflect the further Reduced Development Proposal's reduced capacity *See* **Exhibit D** – Revised Traffic & Parking Management Plan.

RESPONSES TO COMMENTS MEMORANDA:

The Applicant respectfully submits the following memoranda prepared by its consultants providing annotated responses to the applicable comments noted in in the memoranda prepared by the City's Engineering Consultant, Lanc & Tully, dated September 6, 2022 (the "Engineering Comments Memorandum"); the City's Planning Consultant, John Clarke Planning and Design, dated September 9, 2022 (the "Planning Comments Memorandum"); and the City's Traffic Consultant, Creighton Manning, dated September 9, 2022 (the "Traffic Comments Memorandum"):

- Response to Comments Memorandum prepared by Aryeh J. Siegel Architect dated October 6, 2022, (the "Architect Response to Comments Memorandum"). *See* **Exhibit A** – Architect Response to Comments Memorandum.
- Response to Comments Memorandum prepared by Beacon AV Lab dated

September 12, 2022, providing responses to the Planning Comments Memorandum. *See* **Exhibit B** – Sound Consultant Response to Comments Memorandum.

- Response to Comments Memorandum prepared by Colliers Engineering & Design P.C., dated October 6, 2022 (the "Colliers Response to Comments Memorandum"). *See* **Exhibit C** – Colliers Response to Comments Memorandum.

UPDATED SITE PLAN SET FOR THE FURTHER REDUCED DEVELOPMENT PROPOSAL:

In further support of this supplemental submission, we respectfully submit revised site plans and renderings entitled "Special Use Permit Application", prepared by Hudson Land Design Professional Engineering, P.C. and Aryeh Siegel, Architect, dated June 29, 2021, last revised October 6, 2022, detailing the further Reduced Development Proposal's maximum occupancy layouts and parking table, numbered and titled as follows:

- Sheet 1 of 15 Site Plan;
- Sheet 2 of 15 Full Site Plan;[2]
- Sheet 6 of 15 Conference/ Event Plans;
- Sheet 7 of 15 Conference/ Event Plans 2;
- Sheet 9 of 15 Grading & Utility Plans;
- Sheet 10 of 15 Erosion and Sediment Control Plan;
- Sheet 11 of 15 Vehicle Tracking Plan;
- Sheet 12 of 15 Site Details;
- Sheet 13 of 15 Stormwater Details;
- Sheet 14 of 15 Water & Sewer Details; and
- Sheet 15 of 15 Erosion and Sediment Control Details.

INDEX OF ENCLOSURES:

In support of this supplemental submission, please find enclosed five (5) sets of the instant letter with the following materials:

Exhibit A: Response to Comments Memorandum prepared by Aryeh J. Siegel Architect dated October 6, 2022, providing responses to the Planning and Engineering Comments Memoranda;

[2] Note: The path lighting in front of the church has been updated to match Sheet 1.

Exhibit B: Response to Comments Memorandum prepared by Beacon AV Lab dated September 12, 2022, providing responses to the Planning Comments Memorandum;

Exhibit C: Response to Comments Memorandum prepared by Colliers Engineering & Design P.C., dated October 6, 2022, providing responses to the Planning and Traffic Comments Memoranda; and

Exhibit D: Revised Traffic & Parking Management Plan prepared by Colliers Engineering & Design P.C., dated October 6, 2022.

The Applicant looks forward to continuing its review of the zoning-compliant further Reduced Development Proposal with the Board at the October 12th regular meeting for the Site Plan and Special Use Permit Continued Public Hearing on the Application.

In the meantime, should the Planning Board or City Staff have any questions or comments with regard to the foregoing, please do not hesitate to contact me.

Very truly yours,

Taylor M. Palmer

Enclosures

cc: Jennifer L. Gray, Esq.
John Clarke Planning and Design
Lanc & Tully, P.C.
Aryeh J. Siegel Architect
Michael A. Bodendorf, P.E. – Hudson Land Design Professional Engineering, P.C.
Colliers Engineering & Design, P.C.
Allison Fausner, Esq.

Exhibit A

ARYEH SIEGEL
ARCHITECT

John Gunn - Planning Board Chairman
City of Beacon
One Municipal Plaza
Beacon, NY 12508

Re: 1113 Wolcott Avenue, Beacon, New York
Site Plan Application – Responses to Comments

October 6, 2022

Dear Chairman Gunn and Members of the Planning Board,

Below please find our responses to the comments included in John Clarke Planning and Design's Memorandum, dated September 9, 2022. Please refer to Hudson Land Design's response letter regarding Lanc & Tully's letter dated September 6, 2022.

John Clarke Planning and Design Comment Responses:

1. The Building Inspector has determined that the project complies with the requirements for the 1964 parking exception.

2. Comment acknowledged.

3. Comment acknowledged.

4. Comment acknowledged.

5. The path lighting has been corrected. Sheet 4 revisions were not submitted and so reflect the previous path light layout.

6. The area between the rear parking lot and the parallel spaces to the north of the hotel has been landscaped.

7. The north driveway has been adjusted to provide a 4 foot wide sidewalk.

8. Refer to Collier's Engineering response regarding striping at Wolcott Avenue. This is under NYSDOT jurisdiction.

9. Comment acknowledged.

84 Mason Circle | ajs@ajsarch.com | *Tel* 845 838 2490
Beacon, New York 12508 | www.ajsarch.com | *Fax* 845 838 2657

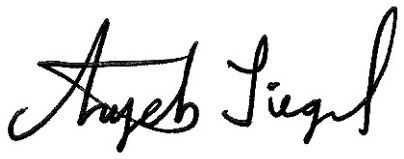
Lanc & Tully Comment Responses:

1. Comment acknowledged.

Please refer to Hudson Land Design's letter for responses to additional engineering comments.

Thank you. Please let me know if you have any questions.

Sincerely,



Aryeh Siegel
Aryeh Siegel, Architect

Exhibit B

BEACON AV LAB (dba Dex Support LLC)

211 Fishkill Ave. Beacon, NY 12508 • (917) 743-9514 • jonny@beaconavlab.com

September 12, 2022

To: John Gunn - Planning Board Chairman City of Beacon
One Municipal Plaza
Beacon, NY 12508

Re: **1113 Wolcott Avenue, Beacon, New York**
Site Plan Application – Responses to Comments

Dear Chairman Gunn and Members of the Planning Board,

Below please find my responses to the comments included in John Clarke Planning and Design's Memorandum, dated September 9, 2022.

John Clarke Planning and Design Comment Responses:

3a. Comment acknowledged. The daytime sound level limit of 60 dBA is higher than the 55 dBA level that was referenced in the report, and as such daytime noise should be even less of a concern for the subject property. Regarding the 50 dBA limit for nighttime noise, none of my measurements exceeded even that limit at the property line - therefore, while that limit is 5 dBA lower than the limit referenced in the report, the test results still show little cause for concern about noise from within the building, especially if the property owners take the additional recommended steps to lower the chances of noise leakage even further.

3b. Comment acknowledged. The measurements taken in this test do not provide enough information to calculate and provide a specific estimate of how much overall sound level reduction will be provided at the property lines by adding sheets of laminated acoustic glass as specified over each window. What can be said is that properly installed acoustic glass with the specified minimum rating of 30 R_w+C_{tr} should reduce sound levels passing through each window by approximately 30 dBA. Using the example of the maximum measurement of 70 dBA taken directly outside of a window as referenced in the report, that level should be reduced to ~40 dBA with laminated acoustic glass installed. That level should be even lower at property lines given the natural attenuation of sound over distances. Given that none of the reported results measured at property lines exceeded 49 dBA (1 dB below the city's specified nighttime limit), adding the glass should ensure that even if ***louder*** noise than the test sources mentioned in this report should occur inside of the subject property, noise at property lines will still be below the legally permitted limits.

Regarding the concerns about preserving the historic appearance of the windows: The glass should be installed over the **interior** sides of the existing windows, sized to fit the perimeter of the existing window recesses. Therefore, there will be no visible change of appearance from outside of the building, and the existing stained glass will still be visible inside the building, just with an additional layer of clear glass over it for sound reduction purposes.

Sincerely,



Jonathan 'Jonny' Taylor
Audio Engineer, Beacon AV Lab

Exhibit C

400 Columbus Avenue, Suite 180E
Valhalla, New York 10595
Main: 877 627 3772
colliersengineering.com

Colliers
Engineering & Design

Via E-Mail
October 6, 2022

Mr. John Gunn, Chairperson
City of Beacon Planning Board
City of Beacon City Hall
1 Municipal Plaza
Beacon, NY 12508

1113 Wolcott Avenue – Prophecy Theater LLC
City of Beacon, Dutchess County, New York
Colliers Engineering & Design Project No. 21004333A

Dear Mr. Gunn & Planning Board Members,

Colliers Engineering & Design CT, P.C. (CED) has reviewed the most recent comments received from the Planning Board's Consultants as provided in the letters listed below:

- Creighton Manning (CM) Review #8 letter dated September 9, 2022;
- John Clarke Planning and Design Letter dated September 9, 2022.

The following provides detailed responses to each of the traffic related items contained in these letters.

It should also be noted that, the Applicant is now proposing a further reduced scope for the Project. The Project will continue to consist of a 30-Room Hotel and a 50-seat café. However, the event space is now proposed to be reduced from a 198-person capacity, which was previously reduced from a 350-person capacity and 420-person capacity, to a now proposed seating capacity of 180-persons. In addition, the Applicant proposes to close the Café to public use during any event exceeding 130-persons. For all events under 130-persons, the Café will remain open to public use and as indicated on the Site Plans, three rows of seats in the event space will be secured with a gate or other physical barrier to prohibit their use during these times, ensuring a maximum capacity of no more than 130-persons when the Café is open.

The parking requirements associated with the scenario for 130-Person Event with Public Use of the Café and the scenario for the 180-Person Event with No Public Café Use are presented in the table below. As indicated in the table, a 130-Person Event with Public Use of the Café requires 81 parking spaces while a 180-Person Event with No Public Café Use requires 76 parking spaces. As has been determined by the City of Beacon Building Inspector, under both scenarios, the Project parking requirements are less than a 25% increase over the 1964 parking requirement for the use at that time which was determined to be 69 spaces.

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City of Beacon Code Required Parking

Proposed Use	Size	City of Beacon Code Requirement	Required Spaces
130-Person Event with Public Use of Café			
Hotel	30 Rooms 1 Employee	1 Space/Room +1 Space/Employee	31 Spaces
Café	50 Patrons	1 Space/3 Patrons	17 Spaces
Event Space	130 Persons (Seats)	1 Space/4 seats	33 Spaces
		Total Code Required Parking	**81 Spaces**
180-Person Event with No Public Café Use			
Hotel	30 Rooms 1 Employee	1 Space/Room +1 Space/Employee	31 Spaces
Café	No Public Use	1 Space/3 Patrons	0 Spaces
Event Space	180 Persons (Seats)	1 Space/4 seats	45 Spaces
		Total Code Required Parking	**76 Spaces**

Based on the above, and considering that the Site will provide 31 onsite parking spaces, the anticipated peak demand for offsite parking is 50 parking spaces. It is important to note that the Traffic & Parking Study dated February 21, 2022, identified that public parking areas within 1000 ft of the Project currently have in excess of 170 available parking spaces within walking distance of the Project. This available parking is generally found in the Tompkins Lot, the Municipal Plaza lot and the on-street parking along Beekman Street and can more than be accommodated by the available parking in the immediate Site vicinity. This is also further supplemented by the 15-parking spaces that will be available for use by event attendees at the Protestant Episcopal Church also within walking distance of the Site and on an as needed basis by shuttling to more remote parking locations previously identified.

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Creighton Manning Review #8 Letter dated September 9, 2022

1. The applicant is proposing to operate the café use, hotel use, and event space use simultaneously so long as attendance for the event space is below 130 persons. In this scenario the site would generate 105 total trips during the Friday PM peak hour and 102 total trips during the Saturday peak hour. The most recent traffic study prepared by the applicant evaluated a scenario with the hotel use and event space use operating simultaneously, which resulted in a total trip generation of 149 during the Friday PM peak hour and 145 during the Saturday peak hour. Upon review of that previous study, CM found that the traffic impacts of the proposed development were not significantly adverse. Given that the newly proposed scenario does not result in an increase in site-generated traffic, CM feels that a revised traffic study is not necessary.

   Response: ***Comment noted. No further response required.***

2. CM notes that the applicant's traffic engineer is in the process of obtaining feedback from the NYSDOT regarding the proposed access configuration and that the Highway Work Permit application not yet been started.

   Response: ***Comment noted. Based on recent discussion with NYSDOT it is anticipated that comment will be received on our most recent submission to the Department dated June 6, 2022, within the next week.***

3. It is CM's understanding that the interpretation of the proposed development's parking requirement is forthcoming from the City's Building Inspector.

   Response: ***This area has been identified near the dumpster encloser as identified on Figure No. 1 of the Traffic & Parking Management Plan.***

4. CM notes that the drop-off/pickup zone for patrons who need additional time if there are no ADA-accessible spaces available has been identified on Exhibit 1 of the Traffic and Parking Management Plan (TPMP). However, a review of the most recent Site Plan, dated July 26, 2022, indicates that there is no ADA-accessible curb ramp at the specified location for the patron to access the perimeter sidewalk. CM recommends that such accommodations be provided at this location.

   Response: ***ADA-accessible curb ramp has been added to the Site Plans to serve this drop-off area.***

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5. The applicant has indicated that a shuttle will be provided for off-site parking locations that are greater than 1,000-ft from the site when deemed necessary. These shuttles will have a capacity of 15-25 persons and will have headways of 15 minutes for a period of 1.25 hours. Assuming there are four stops along the route (1113 Wolcott, 74 Dennings, River View Funeral Home, MTA Lot) with each stop taking approximately two-three minutes for drop-off/pickup and the total time to complete this circuit is approximately ten minutes, the headway time for one shuttle is approximately 19 minutes. While this is a reasonable, the applicant should consider the additional time in their final operations plan.

   Response: ***As previously indicated, it is the Applicant's opinion that with the reduced capacity of the occasional events, which has now been further reduced to a maximum occupancy of 180 attendees, and the documented availability of public parking in the vicinity of the Site, the need for more remote parking locations that would require shuttling is significantly less than under the prior proposal for 350 person events.***

   Regardless, when deemed necessary, the specific routing of the shuttle will be based on the location of offsite parking areas to be utilized. The Traffic & Parking Management Plan has been revised to indicate that the shuttle will run approximately every 15-20 minutes depending on the planned route and will run for a 90-minute period prior to and after events.

John Clarke Planning and Design Letter dated September 9, 2022

2. Adequate parking is a specific Special Permit condition under Sections 223-24.7D and 223-18B. The applicant has proposed reducing conference/event maximum occupancy to 198 people, which would decrease the project's off-site parking needs. However, parking for the varied uses still remains a concern, including:

   a. The Traffic and Parking Plan refers to the Tompkins and Municipal Building lots as the most convenient and walkable public parking, but there is no guarantee that these lots will have the same future capacities with the planned expansion of the Firehouse and redevelopment options for various public lots being considered.

      Response: ***The available parking in vicinity of the Site is proposed to be supplemented with off-street parking at the 74 Dennings Avenue and the Protestant Episcopal Church, as well as the possible future use of the Riverview Funeral Home parking. Shuttle to the remote locations as may be required is discussed in response to CM Comment 5 above and further detailed in the Traffic & Parking Management Plan. It should also be noted that the maximum occupancy events have been further reduced to 180 attendees as indicated above.***

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b. Of the two newly identified parcels that have potential negotiated leases for event parking, one is about ¾ miles away, well beyond reasonable walking distance, and the other has a previously approved site plan for multi-family parking on the lot. More details should be provided for the layout and long-term availability of the church lot off Beacon Street.

Response: ***See response to CM Comment 5 above regarding shuttling relative to the Dennings Avenue parking area and other locations. Colliers Engineering & Design does not have any further information relative to the long-term availability of the church parking area.***

8. A center lane striping pattern along Wolcott Avenue should be proposed for the two one-way driveways.

Response: ***As previously indicated, the need for any modifications to the existing center lane striping along Wolcott Avenue will be determined by NYSDOT as part of the Highway Work Permit Application for the Project. It should be noted that the center lane is currently striped as a two-way left turn lane through the driveway areas, which appears to be appropriate for the proposed one-way entry and one-way exit driveway configuration.***

Sincerely,

Colliers Engineering & Design CT, P.C.
(DBA Maser Consulting Engineering & Land Surveying)



Richard D'Andrea, P.E., PTOE
Assistant Department Manager

R:\Projects\2021\21004333A\Correspondence\OUT\221006RGD_PB_Comment Response.docx

Exhibit D

Colliers
Engineering
& Design

Traffic & Parking Management Plan

October 6, 2022

1113 Wolcott Avenue

City of Beacon
Dutchess County, New York

Prepared for:

Prophecy Theatre LLC
369 Main Street, Unit 493
Beacon, NY 12508

Prepared by:

Richard G. D'Andrea, P.E., PTOE
New York Professional Engineer
License No. 090241

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Colliers Engineering & Design

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Introduction and Background

The 1113 Wolcott Avenue Project ("the Project") is a proposed redevelopment of the property located at 1113 Wolcott Avenue (NYS Route 9D) in the City of Beacon, Dutchess County, New York. The former rectory building and church, which was most recently occupied by the Reformed Church of Beacon, are proposed to be redeveloped as a 30-room hotel contained in an expanded rectory building along with accessory conference center and dining facility (café/restaurant/bar) uses within the church building. In addition, the existing cemetery located behind (west of) the church and rectory building will be restored to be opened as a public park including a walking path from Beekman Street to Wolcott Avenue.

The hotel will operate 365 days per year, and the dining facilities will be situated in the rear of the existing church. The dining facilities will serve as a reception for guests of the hotel and offer breakfast, lunch and dinner to the hotel guests, as well as members of the public. In addition, it will operate as a bar for hotel guests and for accessory conference center programming and events. The dining facilities are expected to operate seven (7) days a week in support of the hotel operations and guests with a maximum capacity of 50 seats.

The conference center accessory use will operate less frequently, utilizing the former church building for various cultural, educational, or professional programs, including weddings, conferences, art exhibitions, performances, lectures, seminars and workshops. The maximum capacity for the church event venue has been reduced from prior Project proposals to a 180-seat capacity. Maximum occupancy events will typically occur on weekends, while smaller functions, such as seminars, workshops or retreats with attendance ranging between 50 to 150 people will occur on weekdays generally Wednesday – Friday.

Access to the Project is proposed via an existing access connection from Wolcott Avenue that will provide access to the main parking area as an entry only driveway. A second, exit only driveway is also proposed at the northern property line of the Site, which will be a reestablishment of the existing driveway in this location. A total of 31 off-street parking spaces, inclusive of four (4) ADA accessible parking spaces, will be provided primarily for use by hotel guests and employees. The existing Site is also provided a third driveway connection to Wolcott Avenue south of the existing church building. This existing southern driveway is proposed to be eliminated as part of the Project.

During events, event related parking will generally be accommodated by off-site public parking in the vicinity of the Project. This is anticipated to create a need for the management of on-site drop-off and pick-up operations. In addition, it was determined that specific parking strategies were needed to ensure event parking occurs in desired locations, to reduce parking as practicable and manage on-site parking. It is anticipated that this Traffic & Parking Management plan will be implemented by the owner/operator of the Project regardless of the size of the event.

It should be noted that it is possible that the Café use will be open to the public during events at the Site. It is proposed by the Applicant that the Café use by the public during events will be limited to events having attendance less than 130 persons.

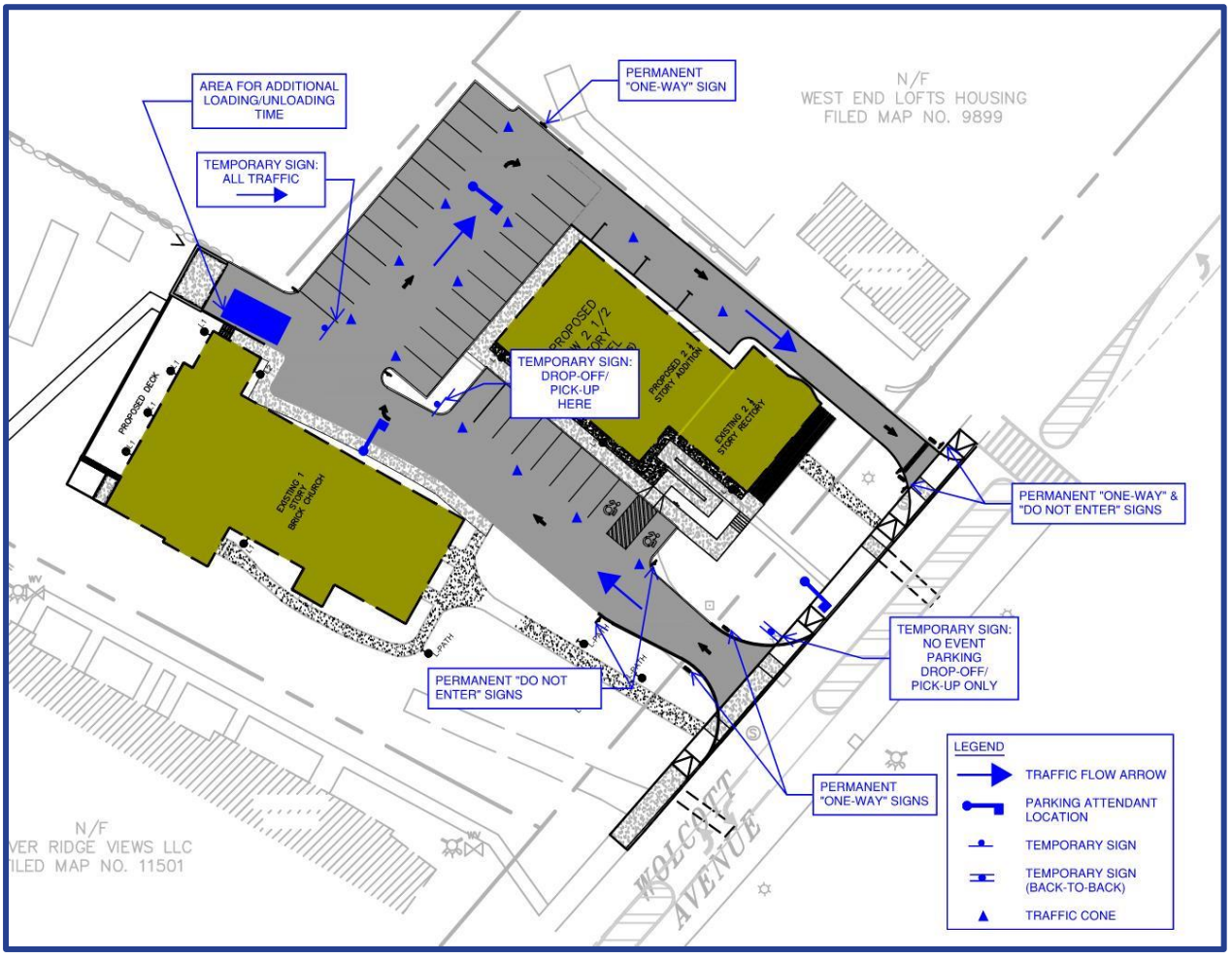
Based on the above, and associated with the review of the Project by the City of Beacon Planning Board and its consultants, this Traffic & Parking Management Plan has been prepared in order to provide an efficient and ongoing method of managing traffic flows, on-site and off-site parking, and other transportation related aspects of the Project. The purpose of this plan is to allow input and coordination with other agencies, including the New York State Department of Transportation (NYSDOT) and the City of Beacon and allow for ongoing revisions to this plan upon implementation of the Project.

On-Site Parking and Circulation

The Project site will provide a total of 31 parking spaces. These spaces will primarily be designated for the use of the Hotel guests. Therefore, during Event Conditions all additional parking needs will need to be accommodated by off-site public parking in the area. It is anticipated that this will result in a need for drop-off/pick-up operations within the Site.

In order to manage these drop-off/pick-up operations the Applicant will provide staff within the on-site driveways and parking area to ensure efficient flow of traffic within the Site. Exhibit No. 1 below indicates the drop-off/pick-up location as well as locations of staff for traffic direction and anticipated directional signage.

Exhibit No. 1 - Event Site Circulation Plan



As indicated previously, the Main (southerly) access driveway will be a one-way entry only driveway with the northerly driveway a one-way exit only driveway. This will help to facilitate the onsite drop-off/pick-up operations during events. However, during events it is anticipated that on-site parking attendants will be required to facility drop-off/pick-up operations, ensure efficient traffic flow, and

monitor any queuing. In addition to the permanent signage proposed on the site, additional temporary signage is also proposed to further indicate the on-site flow pattern during events as indicated on Exhibit No. 1 above.

A total of three parking attendants will be provided on-site during events. The first will be provided near the Main entry driveway, the second at the intended drop-off/pick-up location and the third within the main parking area behind the hotel. The parking attendant near the Main entry driveway will assist with traffic flow entering the Site and monitoring of the queueing of vehicles on the entry driveway to ensure no disruption of normal traffic flows along Route 9D. The driveway provides stacking for approximately 7-8 passenger car vehicles which is anticipated accommodate the vehicle queues during the drop-off/pick-up operations. However, in the unlikely event that this storage area is exceeded by the queue, there is sufficient space within the driveway to queue vehicles in two queues, which the parking attendants can adjust as necessary.

The parking attendant at the drop-off/pick-up location will be tasked with managing the drop-off/pick-up of event attendees as well as monitoring the queueing of vehicles. The last parking attendant within the main parking area behind the hotel will be tasked with monitoring this parking area and maintaining the flow of exiting traffic. All three attendants will be able to provide information to vehicles on the nearby offsite parking locations as discussed further below.

The on-site parking during events will be reserved for the exclusive use of hotel guests and employees of the Project only. These parking spaces will be coned off during events. In the event that hotel guests desire to enter or exit during the event times, they will be assisted by on-site staff with entering and exiting the parking spaces. Hotel guests will also be provided with printed parking passes or tags to signify their ability to park in these spaces. It is anticipated that majority, if not all, of the hotel guests will also be attendees of the events, limiting the amount of hotel related entries and exits during the event periods.

As discussed further below, event parking attendants will also be provided with information regarding parking areas to be utilized by event attendees.

ADA Accessible Parking & Event Drop-off/Pick-up Accommodations

The Project site will be provided a total of four (4) ADA accessible parking spaces included within the 31 on-site parking spaces. These ADA parking spaces will be available for use by hotel and café guests as well as event attendees. During event drop-off/pick-up operations, event attendees requiring the use of these ADA spaces will be directed by the on-site parking attendants to the available ADA parking spaces on the Site. In the event that these spaces are fully occupied, attendees requiring further assistance will be directed to the on-site loading zone area to allow additional time for loading and unloading in an area that will not disrupt on-site circulation of other attendees during drop-off/pick-up periods.

Off-Site Parking

Off-Site Parking Locations

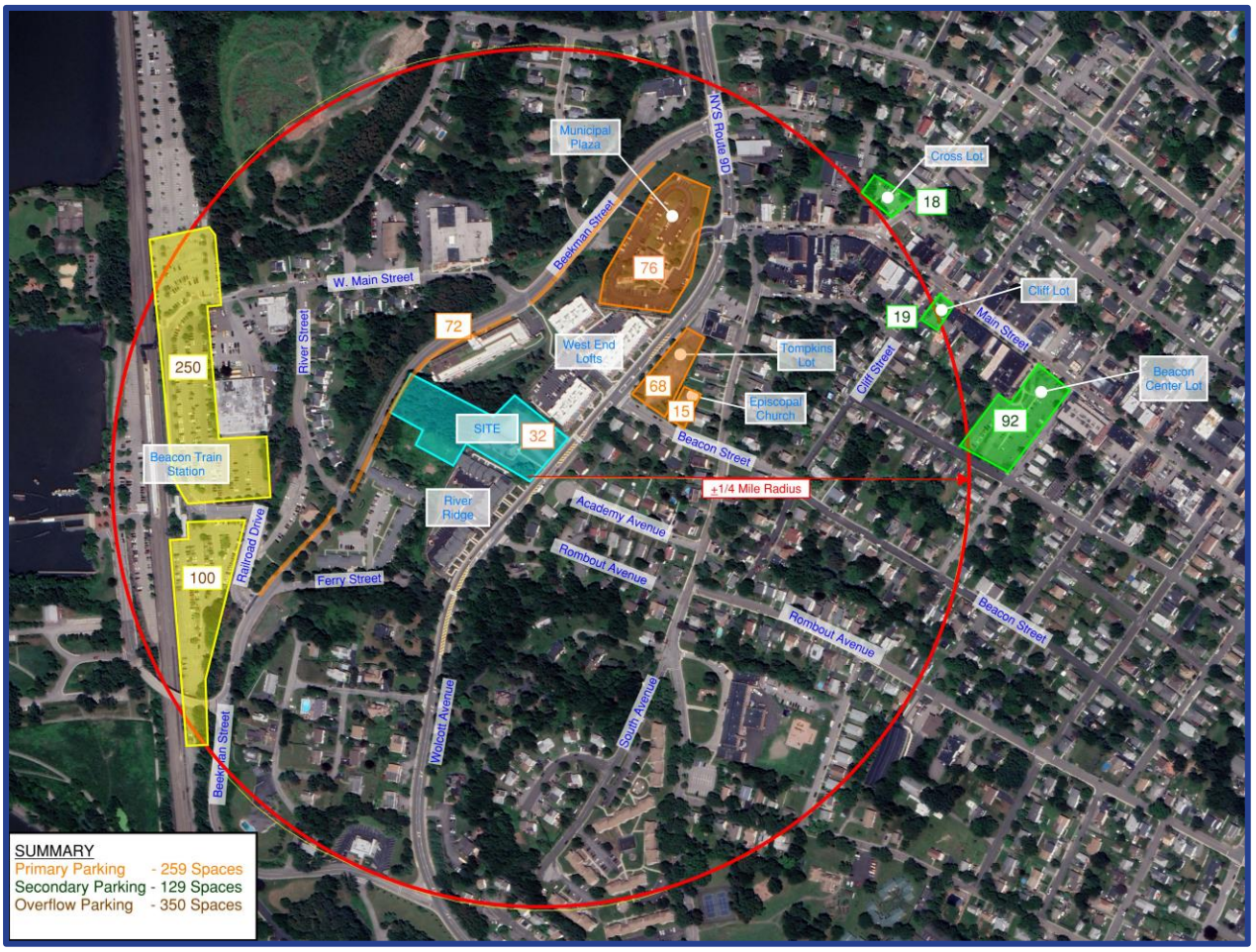
The Project proposes to provide 31 off-street parking spaces on the Site primarily for the use of Hotel guests and employees as required by the City of Beacon code for that use. All additional parking required for event attendees will be accommodated by off-site public parking in the vicinity of the Site. The closest public parking in the area include the below listed locations in order of proximity to the Project:

- **Tomkins Firehouse Parking Lot** – 68± Parking Spaces
- **City of Beacon Municipal Plaza (City Hall) Parking Lots** – 76 Parking Spaces
- **Beekman Street Metro North on-street parking between Railroad Drive and Wolcott Avenue** - 70± on-street metered parking spaces
  This parking is operated by LAZ parking, parking can be paid electronically via LAZgo Parking App.
- **Cross Lot** – 18 Parking Spaces (24 Hour Free Parking – City Lot)
- **Cliff Lot** – 19 Parking Spaces (24 Hour Free Parking – City Lot)
- **Beacon Center Lot** – 92 Parking Spaces (24 Hour Free Parking – City Lot)
- **Beacon Metro North Train Station Parking lots metered parking spaces**
  This parking is operated by LAZ parking, parking can be paid electronically via LAZgo Parking App.

In addition to the above parking locations, the Applicant is continues to pursue options for off-site dedicated parking in the vicinity of the Site for use during events.

Exhibit No. 2 below identifies the locations of parking within 1/3 of mile of the Project location.

Exhibit No. 2 – Off-Site Parking Locations



The Tomkins Firehouse and City of Beacon Municipal Plaza parking lots are within 500 and 1,000 ft. respectively of the Project Site making these the most accessible public parking for the Project. As previously noted, a walkway connection to Beekman Street is proposed to be provided through the Site as part of the Project with signage at Beekman Street directing patrons to the Site. This will provide more convenient access to the Beekman Street on-street metered parking spaces of which the nearest spaces will be within the 350 ft. of the Hotel and Café/Event spaces with the more remote spaces approximately 1,200 ft. from these buildings. This pathway will also provide more convenient access to parking available at the Beacon Metro north station, however these metered spaces are more remote, in excess of 2,000 ft. from the Project site, and less likely to be utilized. The Cross Street lot, Cliff Lot and Beacon Center Lot are more remote parking locations located within 1,500 – 1,900 ft. from the Project site.

The Applicant has reached an agreement for off-site parking with the owner of the property located at 74 Dennings Avenue, which will allow for 27 parking spaces during the on-site events. Additionally, the Applicant is in the process of finalizing an agreement for an off-site parking location with the nearby Protestant Episcopal Church property located at 21 South Avenue, near the Wolcott

Avenue/Beacon Street intersection, which could accommodate approximately 14-15 parking spaces. These agreements will reduce the total need for the use of offsite public parking by approximately 41-42 spaces.

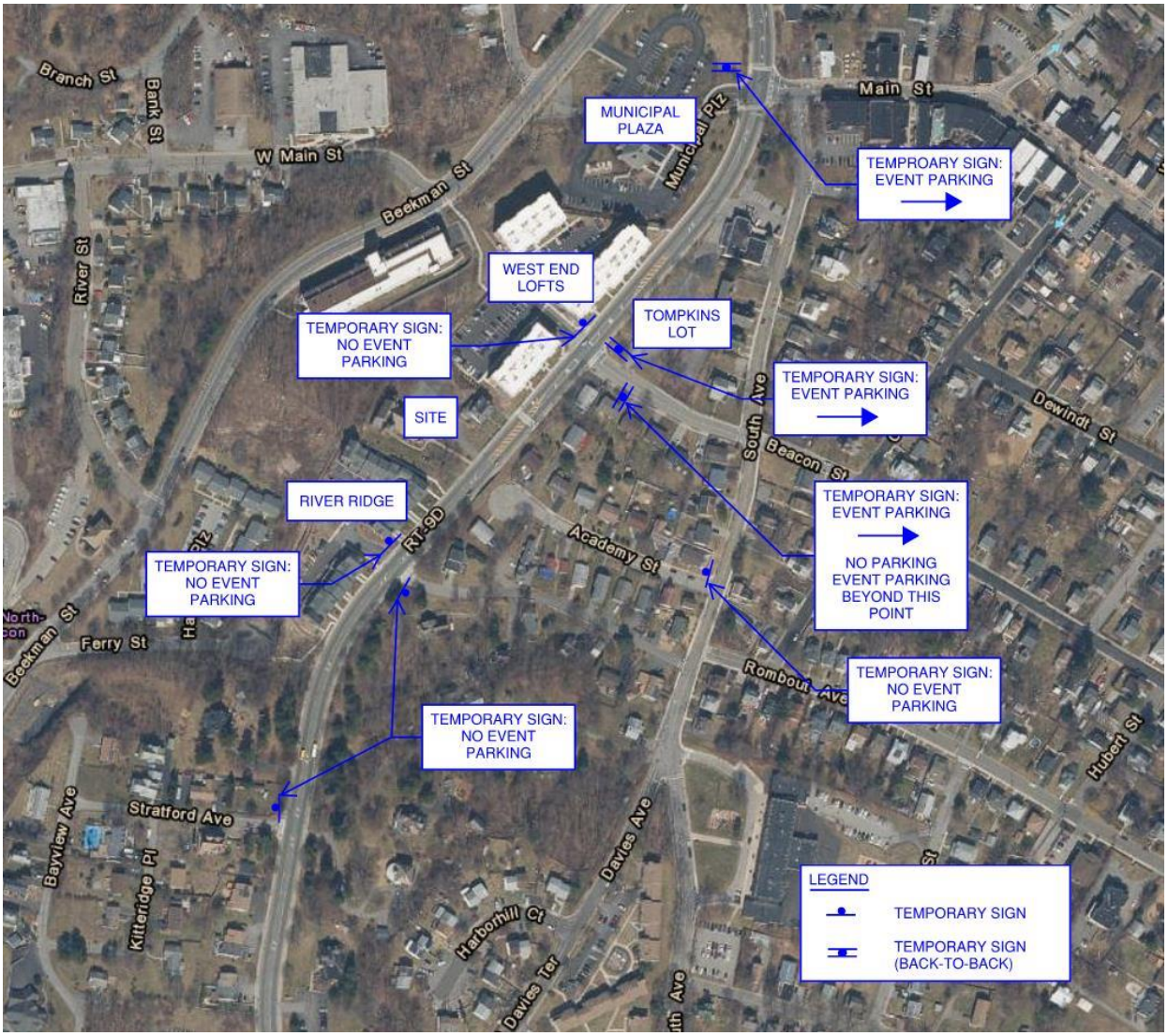
In total there are approximately 330 total parking spaces within 2,000 ft. walking distance of the Project site which can be utilized to accommodate the parking needs of the Project under the event conditions. Each of the identified areas of public parking were observed during the anticipated peak event periods to determine the parking availability in the area. These observations indicated that there is sufficient public parking within the Tomkins Lot, the Municipal Plaza Lot and along Beekman Street to accommodate the parking needs of the Project Event conditions.

Temporary Off-Site Signage

The installation of temporary off-site signage is also recommended during events to alert attendees of preferred parking areas and areas where parking is note permitted. As identified in Exhibit No. 3 below temporary signage is recommended to be installed along Route 9D at the entrance to the Municipal Plaza and at Beacon Street to direct attendees to both the Municipal Plaza and Tompkins Lots. The installation of these temporary signs is subject to approval by the City of Beacon.

In addition, temporary signage indicated “No Event Parking” is recommended to be installed at the entrance to the River Ridge and West End Lofts residential developments as well as at the entry to several public roadways in the vicinity of the Site including Beacon Street, Academy Street, Rombout Avenue and Stratford Avenue. These signs are intended to help deter event attendees from parking along nearby local residential roadways and/or the neighboring residential properties. The temporary installation of these signs will also be subject to approval by the City of Beacon as well as the residents/owners of those specific private developments.

Exhibit No. 3 – Off-Site Signage



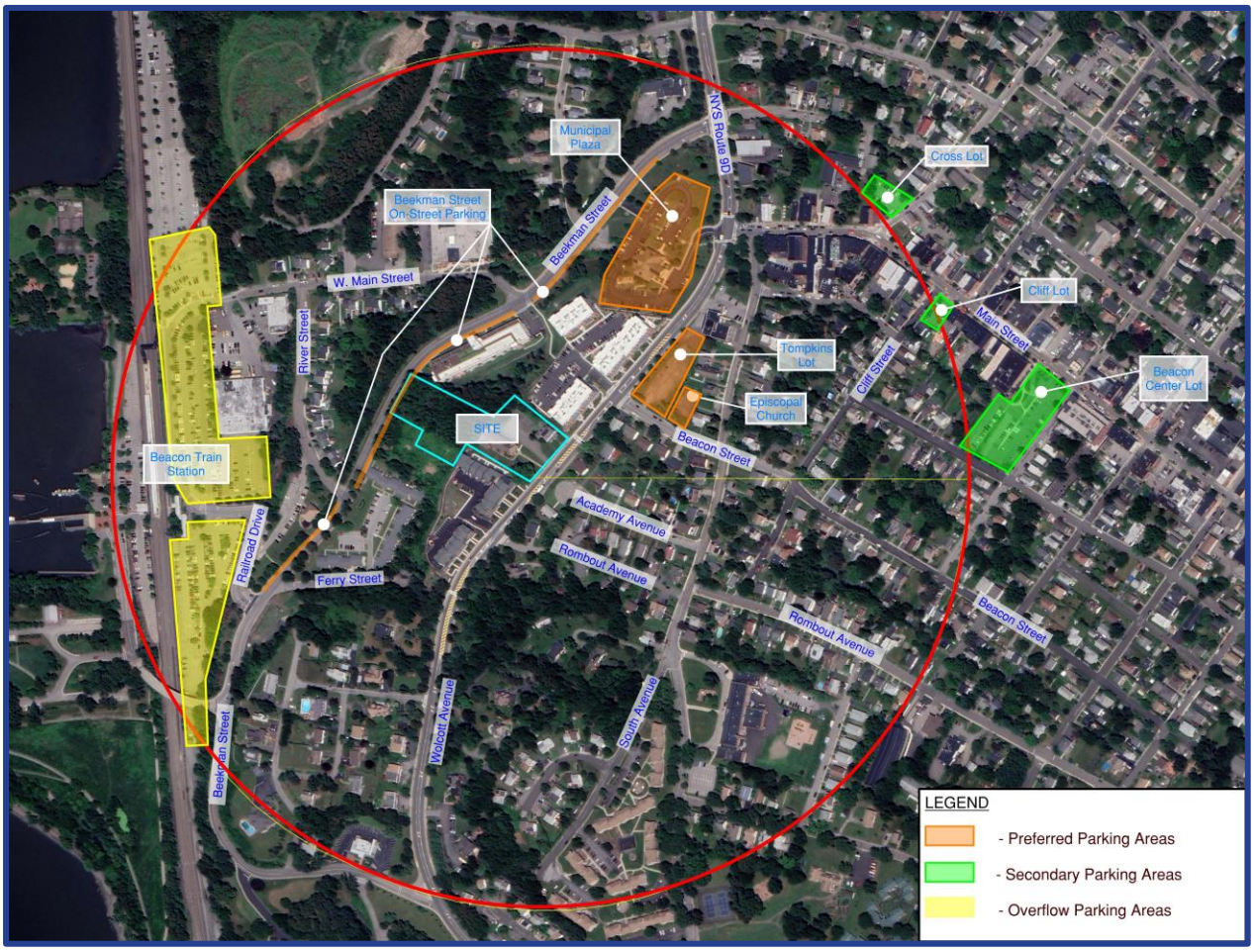
Dissemination of Information

Parking Information

Prophecy Theater, LLC as owners of the Project will be responsible to disseminate parking information to Event attendees to identify appropriate available parking areas. This will be accomplished in several ways.

The Project's website will provide parking information including a map indicating the preferred areas of public parking. These will include the Tompkins Lot, the Municipal Plaza Lot and the on-street metered parking along Beekman Street. This map will be similar to that provided in Exhibit 4 below. In addition, the map will indicate other more remote parking locations as identified above.

Exhibit No. 4 - Preferred Parking Area Map



This map will also be distributed electronically to all event attendees for ticketed events. Distribution of this map for other non-ticketed events will be can be done via the Event representative or coordinator for those specific events.

On the day of the event the on-site parking attendants will be provided with copies of this map which can be provided to any attendees that may enter the Site for drop-off and/or looking for parking.

It should be noted that this map does not include reference to other areas of on-street parking, specifically those that may be located within residential neighborhoods near the Project in an effort to prevent attendees from parking along these roadways.

Public Transportation Information

Similar to the above, the Project owners will also disseminate and encourage the use of public transportation by event attendees in order to reduce the overall parking demand of the Project, as well as the Project traffic generation. This will include links to information on available metro-north

train schedules, Duchess County bus schedules and any other relevant public transportation information to be provided through the Project's website. This information map will also be distributed electronically to all event attendees for ticketed events as well as for other non-ticketed events by the Event representative or coordinator for those events.

Shuttles

Events such as conferences or weddings may allow for the use of shuttle buses for attendees arriving from other area hotels. The use of shuttles will be strongly encouraged by the Project owners. Information on available area shuttle bus companies will be provided to event coordinators at the start of the event planning process to assist in this effort. The use of shuttles for attendees arriving from other consolidated locations will reduce the overall parking needs for certain types of events.

Shuttling of event patrons to and from off-site parking locations will also be implemented by the Project. The Applicant proposes to determine for each event if there is a need for use of these remote parking locations ahead of the event based on the time of the event, any other known use of closer public parking lots, weather, and anticipated event attendance. It is proposed that need for a shuttle will be assessed by the Applicant when event attendance is expected to exceed 130 persons. If it is determined that the use of these remote parking locations is necessary, event attendees will be updated prior to the event, via email, website, social media, and on the day of event by staff parking attendants. In this case, the Applicant will provide a window of time for shuttle runs (15-25 passengers every 15-20 min for 1.5 hours) making a stop at the MTA lot, Dennings, Funeral home or other potential location.

It is important to note that the Traffic & Parking Study dated February 21, 2022, identified that public parking areas within 1000 ft of the Project currently have in excess of 170 available parking spaces within walking distance of the Project. This available parking is generally found in the Tompkins Lot, the Municipal Plaza lot and the on-street parking along Beekman Street. At the proposed 180 persons maximum occupancy level the project will require the use of 45 offsite parking spaces, or 50 spaces for a 130-person event with simultaneous public use of the café, both of which can more than be accommodated by the available parking in the immediate Site vicinity. This is also further supplemented by the 15-parking spaces that will be available for use by event attendees at the Protestant Episcopal Church and on an as needed basis by shuttling to more remote parking locations previously identified.

Pedestrian and Bicycle Access

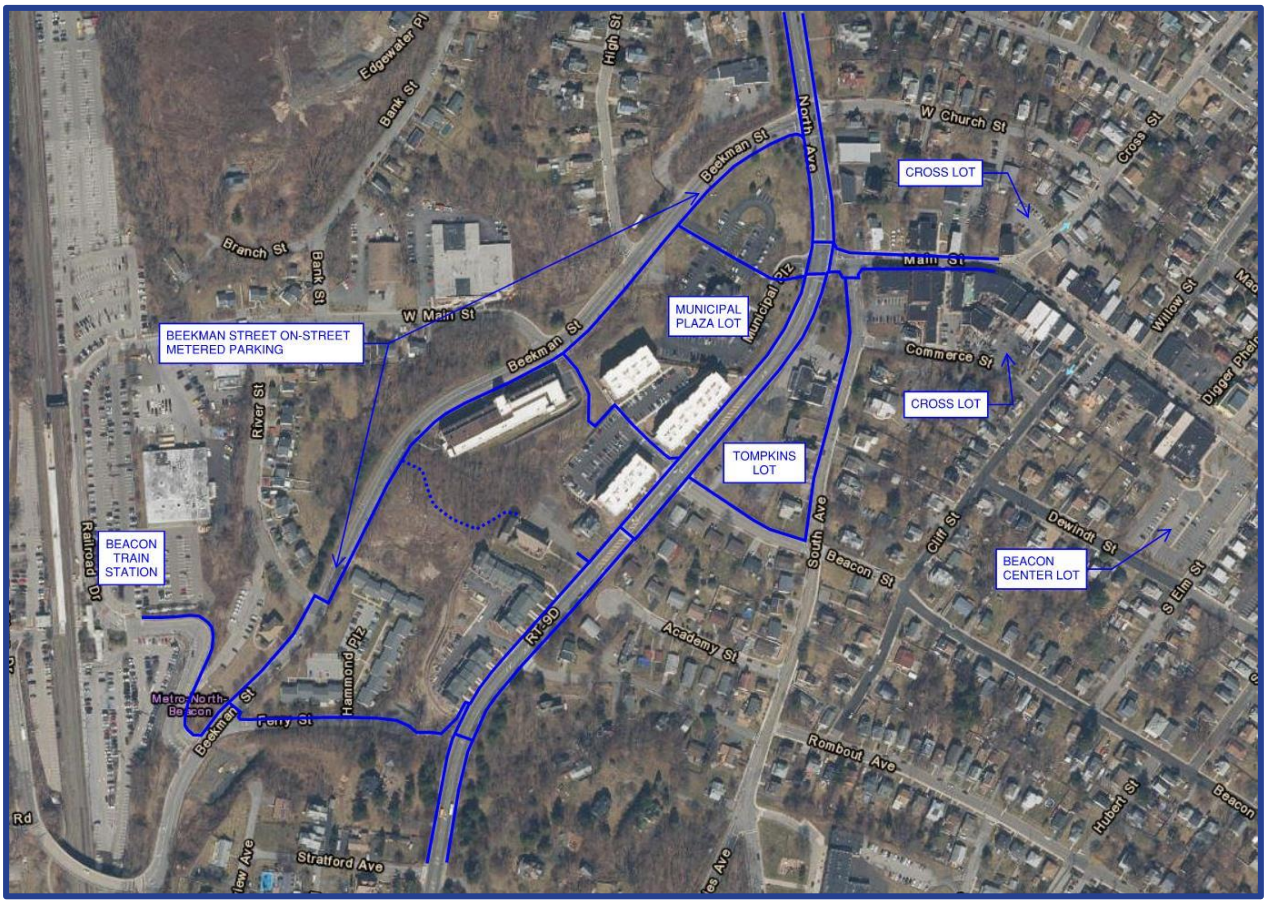
Access to the Project by pedestrians, including event attendees parking off-site, is provided in several manners. There are existing sidewalks along all area roadways surrounding the Project that can be utilized to access various parking areas or pedestrians arriving from other destinations. There are existing signalized crosswalks of Wolcott Avenue both at its signalized intersections with Beekman Street and Main Street providing signalized pedestrian access from the east side of Wolcott Avenue to the west side where the Project site is located. In addition, there are existing crosswalks crossing Wolcott Avenue that are supplemented with pedestrian activated Rectangular

Rapid Flashing Beacon (RRFB) signs located at the northern property line of the Project site as well as at a location approximately 150 ft. south of Rombout Avenue at approximately the southern property line of the River Ridge property. Any patrons utilizing the public parking available at the Tompkins lot on the east side of Wolcott Avenue would be likely to use the RRFB crosswalk at the northern property line of the Project site to cross Wolcott Avenue. Similarly, any pedestrians coming from the Main Street area would be likely to utilize either the signalized pedestrian crossing at the Wolcott Avenue/Main Street intersection or the RRFB crosswalk at the northern property line to cross to the west side of the roadway. The RRFB crosswalk at the northern property line is a highly visible crosswalk located at the crest of a vertical curve along Route 9D and with excellent sightlines in all directions.

Pedestrians arriving from the Beacon Train Station or utilizing parking along Beekman Street would also be provided several opportunities to access the Project site. There are existing public pedestrian pathway connections between Beekman Street and Wolcott Avenue through the River Ridge and West End Lofts developments that could be utilized. In addition to these pathways, the Project also proposes to provide a pedestrian pathway between Beekman Street and Wolcott Avenue for direct access to the Project Site. Signage is proposed to be provided at the connection of the on-site path with Beekman Street to direct patrons to the Site. Exhibit No. 5 below provides a map of the existing and future pedestrian accommodations in the vicinity of the Project that would be anticipated to be utilized by Event attendees.

Bicycle racks are also proposed to be provided on the Site for any event attendees that may arrive via bicycle.

Exhibit No. 5 – Existing & Proposed Pedestrian Pathways



Emergency Vehicle Access

In the event of an emergency at the Site during an on-site event, the on-site parking attendants will be directed to clear the site parking area and driveway of all pick-up/drop-off vehicles to ensure adequate access to the Site for emergency vehicles.

Ongoing Monitoring and Coordination

This Traffic & Parking Management Plan is meant to be a living document that can regularly be referred to and updated by the operators of the Project. This document provides the basis for managing and directing traffic and parking for the anticipated Events to be held at the facility. This document may be updated and modified based on the future needs of the Project and in coordination with the City of Beacon to best serve the Project and the City as traffic and parking conditions in the vicinity of the Project may change over time.

In order to ensure that the Traffic & Parking Management Plan is achieving the goals set forth herein the Applicant agrees to conduct a monitoring of the event conditions within a 6 to 12-month period after initial occupancy of the event space. This monitoring will be utilized to incorporate further refinements to this plan at that time if determined to be necessary, which will be determined in consultation with the City of Beacon. This monitoring will be worked into the Project approvals with the City of Beacon.

Colliers Engineering & Design

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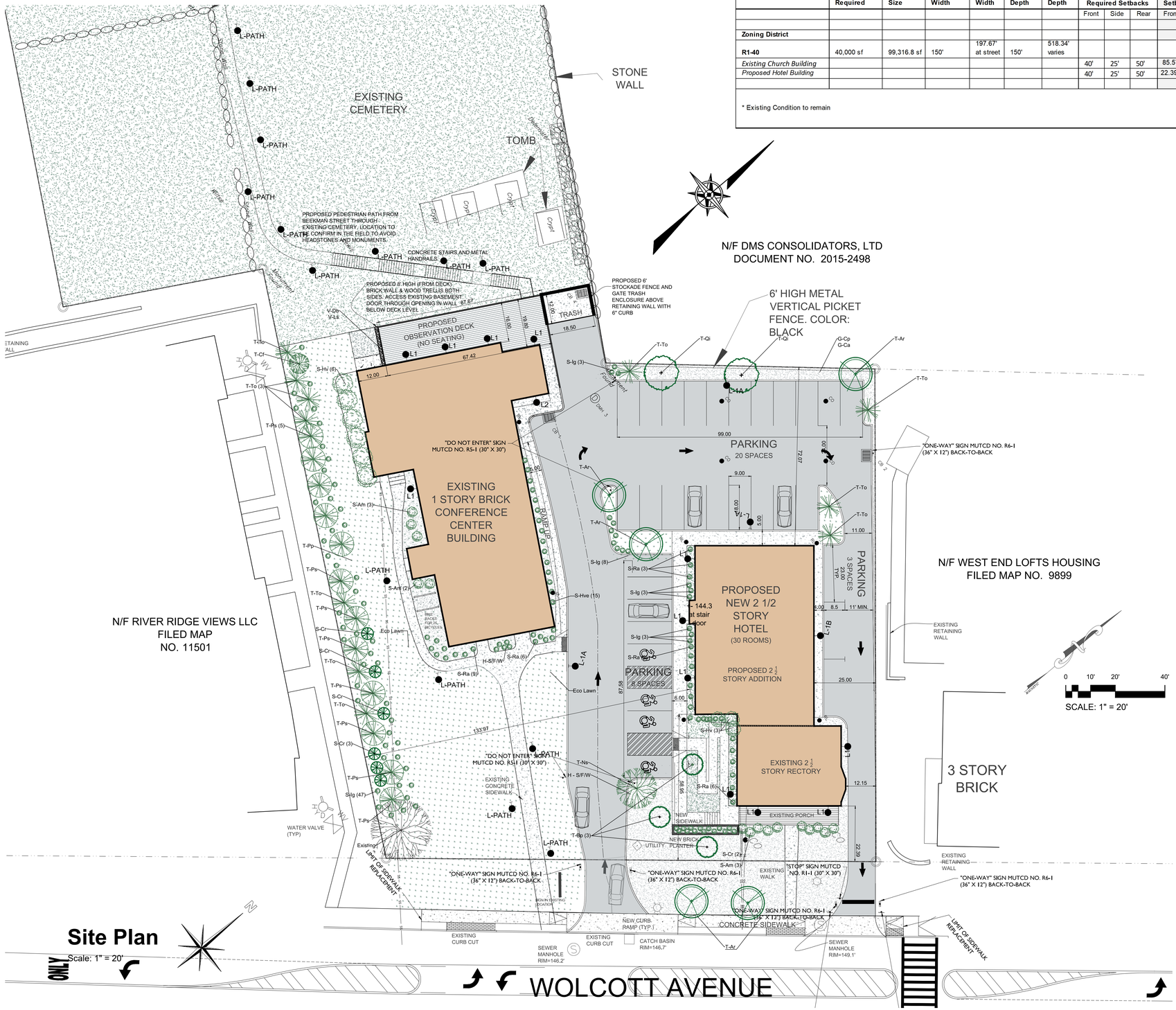
Civil/Site • Traffic/Transportation • Governmental • Survey/Geospatial
Infrastructure • Geotechnical/Environmental • Telecommunications • Utilities/Energy

Site Plans

Bulk Zoning Regulations Table

	Mininum Lot Size Required	Actual Lot Size	Minumum Width	Actual Width	Minimum Depth	Actual Depth	Required Setbacks			Actual & Proposed Setbacks			Minimum Distance Between Buildings Same Lot	Allowable Building Height	Proposed Building Height	Maximum Building Coverage	Proposed Building Coverage
							Front	Side	Rear	Front	Side	Rear					
Zoning District																	
R1-40	40,000 sf	99,316.8 sf	150'	197.67' at street	150'	518.34' varies										15%	1%
Existing Church Building							40'	25'	50'	85.57'	26.73'	310.03'	NA	2.5 stories / 35'	Existing		
Proposed Hotel Building							40'	25'	50'	22.39'*	12.15'*	72.07'	NA	2.5 stories / 35'	2.5 Stories / 35'		
											133.97'*						

* Existing Condition to remain



Site Plan

Scale: 1" = 20'



Location Map

Scale: 1" = 400'

Zoning Summary

Zoning District:	R1-40
Tax Map No.:	5954-28-651901
Lot Area:	2.28 Acres
Building Footprint:	10,279 square feet (existing church building + proposed hotel building)
Historical Overlay District:	Yes
Parking Overlay District:	No
Existing Use:	Church / Rectory
Proposed Use:	Hotel and Conference / Event Space and Café accessory to the Hotel Use

Parking & Loading

Use & Parking Requirements	1964 Units	1964 Parking Requirement	Proposed Units	Current Parking Requirement
Church				
1964 - 1 space per 5 seats	336 occupants (Note 3)	68 parking spaces		
Rectory				
1964 - 1 space per dwelling unit	1 dwelling unit	1 parking space		
Conference / Event Space				
1 space for each 4 seats or pew spaces or, in places or, in places without seats, 1 space for each 100 square feet of floor space used for public assembly			130 occupants (Note 5)	33 parking spaces
Café				
1 space for each 3 patron seats or 1 space for each 150 square feet of gross floor area, excluding kitchen and storage areas, whichever is greater			50 occupants	17 parking spaces
Hotel				
Present - 1 space per room plus one space per employee for the maximum number of employees at any one time			30 rooms plus 1 employee	31 parking spaces
Total Required Parking Spaces		***69 Parking Spaces***		***81 Parking Space (Note 1)***
Total Proposed Parking Spaces				**31 Parking Space**

Notes:

1. Pursuant to the parking exception provided within Zoning Code Section 223-26.B and based on the church and rectory uses and associated parking requirements for the Premises in 1964, no parking is required to be provided when the proposed uses are less than 25% greater intensity that the parking required for the uses in 1964. The proposed occupancies generate an increase in the intensity of use of approximately 18%. Therefore, no parking is required.
2. 31 parking spaces are provided and are intended to serve the Hotel use.
3. The existing uses on the Property in 1964 was a rectory and church with 336 seats, which occupancy was confirmed by the City's Building Inspector on April 29, 2021.
4. Business Hours. Hotel: All hours. Event space: Mon-Thurs, Sunday 8:00 a.m.-10:30 p.m. / Fri-Sat 8:00 a.m.-11:30 p.m.
5. The proposed uses on the Property include a hotel and accessory conference / event space and café. The Café will be closed to the public if there is an Event with more than 130 people. In those cases, the seating at the rear of the Event Space will be opened to a maximum seating capacity of 180 people. If there is an event with fewer than 130 people, the upper 3 rows of seating will be gated off and will remain unused for the event, and the Café can remain open with a maximum occupancy of 50 people. In no case will there be more than 180 people total in the Event Space and Café at any time
6. The cafe will be closed to the public for any event at the premises over 130 occupants.
7. When the cafe is open to the public at least three rows of seats in the event space, which rows contain a total of 54 seats, will be secured with a gate or other physical barrier so as to prohibit their use.

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	08/31/21	REVISED PER PLANNING BOARD COMMENTS	AJS
2	09/28/21	REVISED PER PLANNING BOARD COMMENTS	AJS
3	11/30/21	REVISED PER PLANNING BOARD COMMENTS	AJS
4	12/28/21	REVISED PER PLANNING BOARD COMMENTS	AJS
5	01/25/22	REVISED PER PLANNING BOARD COMMENTS	AJS
6	02/22/22	REVISED PER PLANNING BOARD COMMENTS	AJS
7	04/26/22	REVISED PER PLANNING BOARD COMMENTS	AJS
8	05/31/22	REVISED PER PLANNING BOARD COMMENTS	AJS
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10	07/26/22	REVISED PER PLANNING BOARD COMMENTS	AJS
11	08/30/22	REVISED PER PLANNING BOARD COMMENTS	AJS
12	10/06/22	REVISED PER PLANNING BOARD COMMENTS	AJS

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Special Use Permit Application

Sheet 1 of 15 - Site Plan

Owner:
Prophecy Theater, LLC
36 South Brett Street
Beacon, NY 12508

Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

Site / Civil Engineer:
Hudson Land Design
174 Main Street
Beacon, New York 12508

Surveyor:
Robert Oswald
175 WALSH ROAD PO BOX 1
LAGRANGEVILLE, NEW YORK 12540

Landscape Designer:
Landscape Restorations
7 Creek Drive
Beacon, New York 12508

1113 Wolcott Avenue
Beacon, New York
Scale: 1" = 20'
June 29, 2021

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	08/31/21	REVISED PER PLANNING BOARD COMMENTS	AJS
2	09/28/21	REVISED PER PLANNING BOARD COMMENTS	AJS
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11	08/30/22	REVISED PER PLANNING BOARD COMMENTS	AJS
12	10/06/22	REVISED PER PLANNING BOARD COMMENTS	AJS



Site Plan

Scale: 1" = 30'

Special Use Permit Application

Sheet 2 of 15 - Full Site Plan

Owner:
Prophecy Theater, LLC
36 South Brett Street
Beacon, NY 12508

Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

Site / Civil Engineer:
Hudson Land Design
174 Main Street
Beacon, New York 12508

Surveyor:
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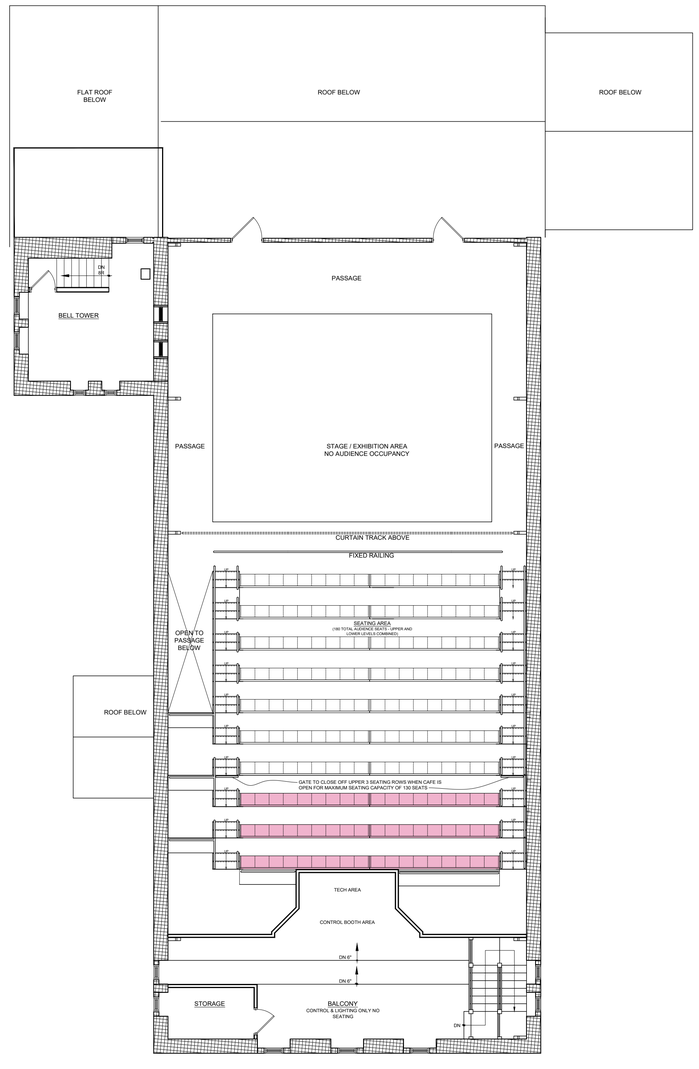
175 WALSH ROAD PO BOX 1
LAGRANGEVILLE, NEW YORK 12540

Landscape Designer:
Landscape Restorations
7 Creek Drive
Beacon, New York 12508

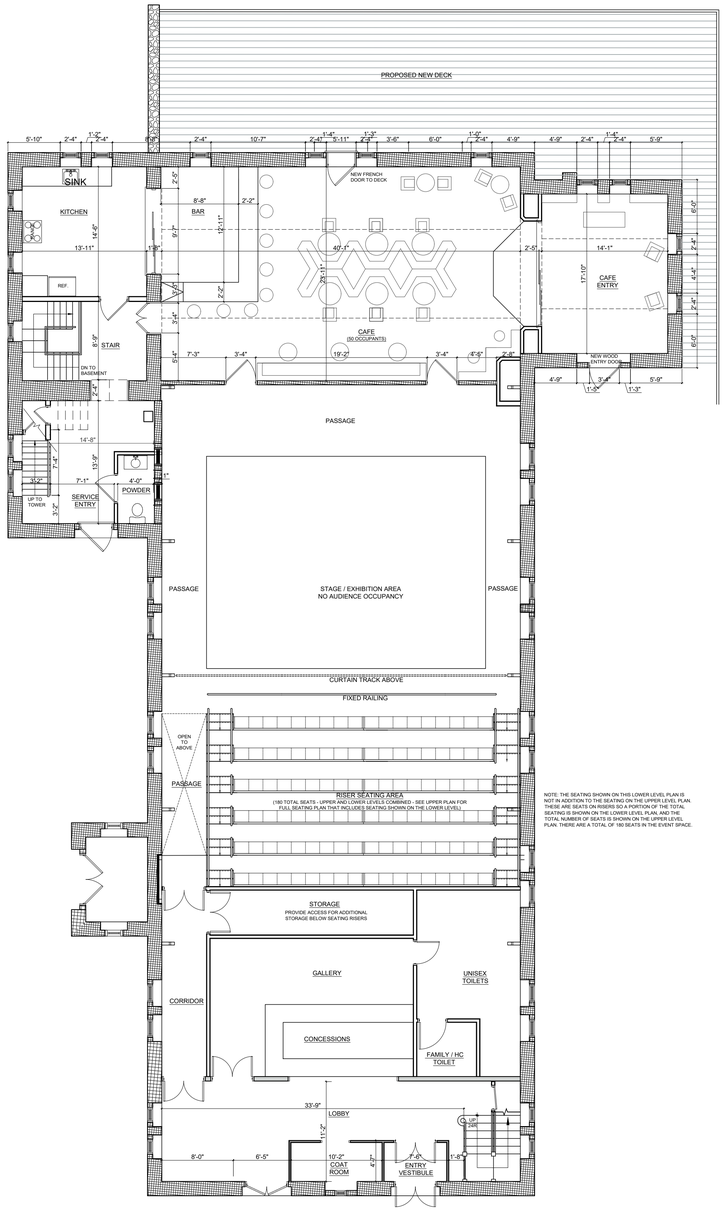
1113 Wolcott Avenue

Beacon, New York
Scale: 1" = 30'
June 29, 2021



Upper Level Plan: Conference Center: Stage and Seating Configuration

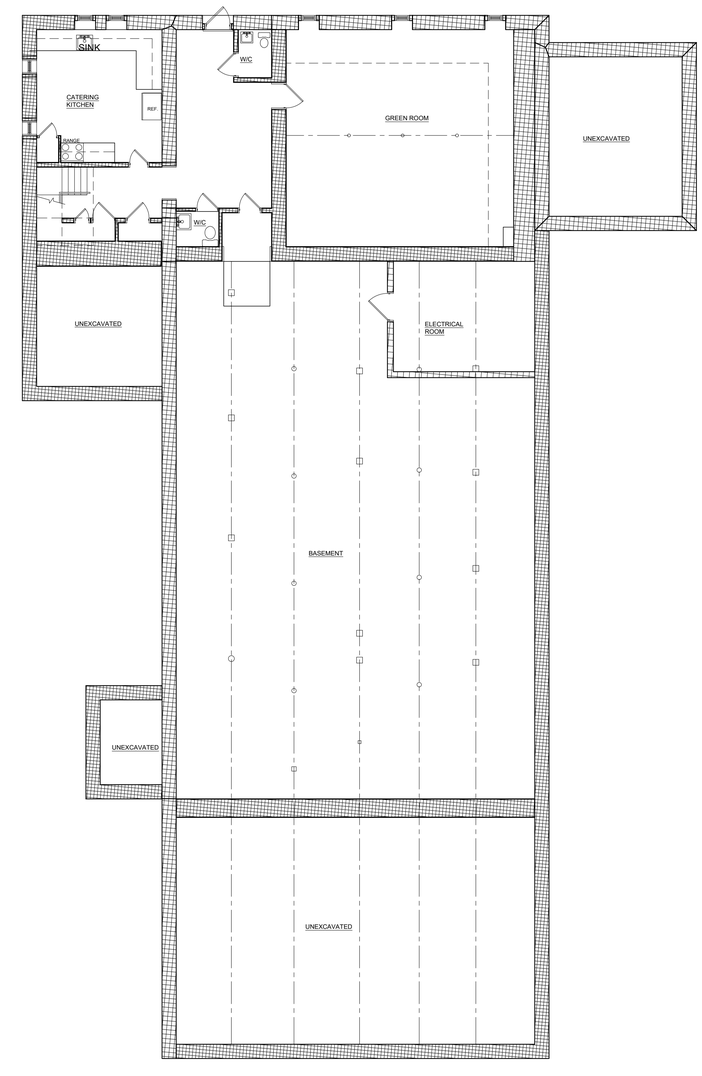
Scale: $\frac{1}{8}$" = 1'-0"



NOTE: THE SEATING SHOWN ON THIS LOWER LEVEL PLAN IS NOT IN ADDITION TO THE SEATING ON THE UPPER LEVEL PLAN. THESE ARE SEATS ON RISERS SO A PORTION OF THE TOTAL SEATING IS SHOWN ON THE LOWER LEVEL PLAN, AND THE TOTAL NUMBER OF SEATS IS SHOWN ON THE UPPER LEVEL PLAN. THERE ARE A TOTAL OF 180 SEATS IN THE EVENT SPACE.

Main Level Plan: Conference Center: Stage and Seating Configuration

Scale: $\frac{1}{8}$" = 1'-0"



Basement Plan: Conference Center

Scale: $\frac{1}{8}$" = 1'-0"

Special Use Permit Application

Sheet 6 of 15 - Conference Center Plans - Stage and Seating Option

Owner:
Prophecy Theater, LLC
36 South Brett Street
Beacon, NY 12508

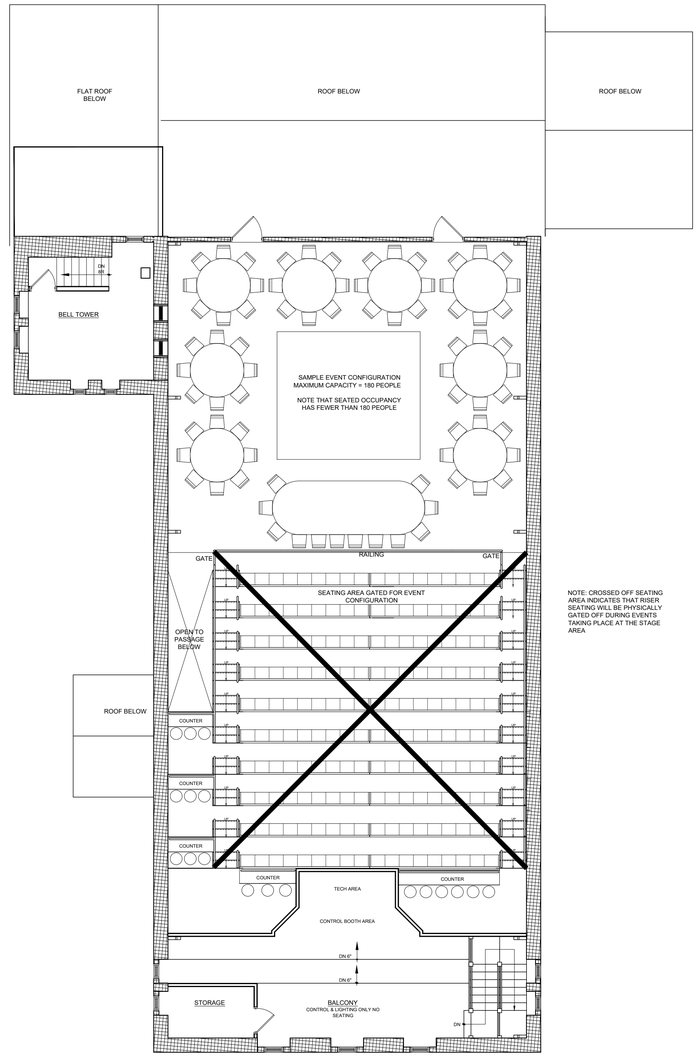
Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

Site / Civil Engineer:
Hudson Land Design
174 Main Street
Beacon, New York 12508

Surveyor:
Robert Oswald
175 WALSH ROAD PO BOX 1
LAGRANGEVILLE, NEW YORK 12540

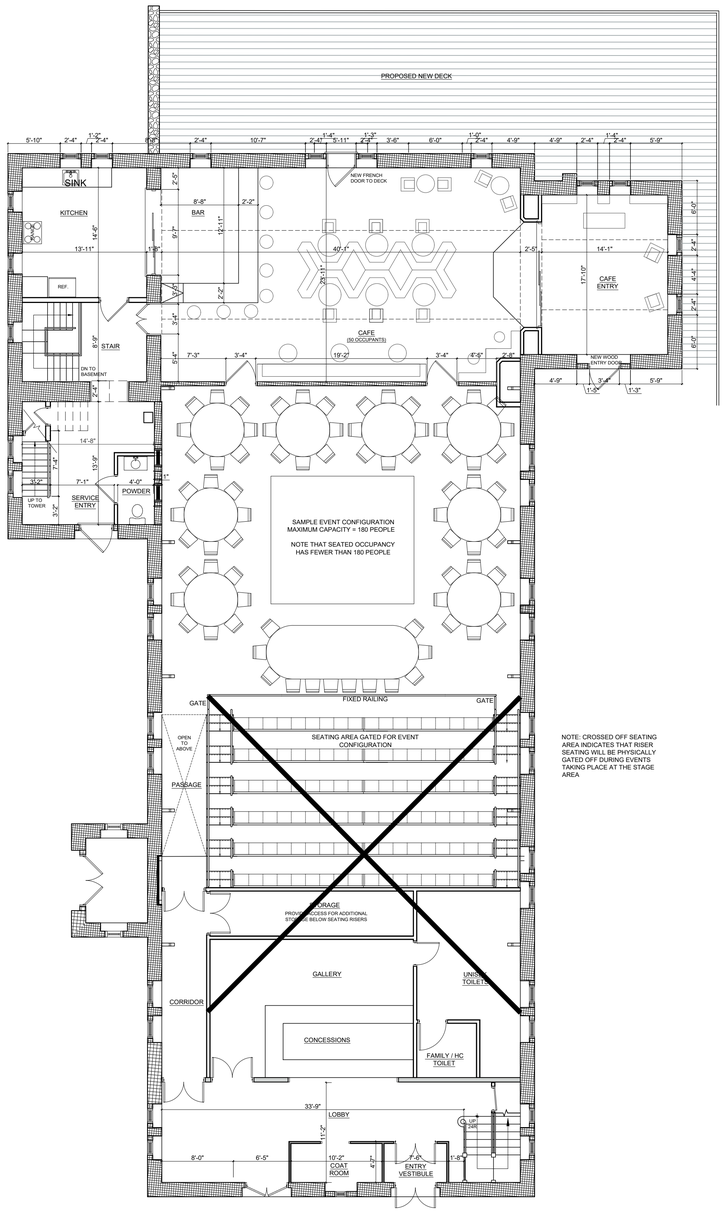
Landscape Designer:
Landscape Restorations
7 Creek Drive
Beacon, New York 12508

1113 Wolcott Avenue
Beacon, New York
Scale: $\frac{1}{8}$" = 1'-0"
April 29, 2021



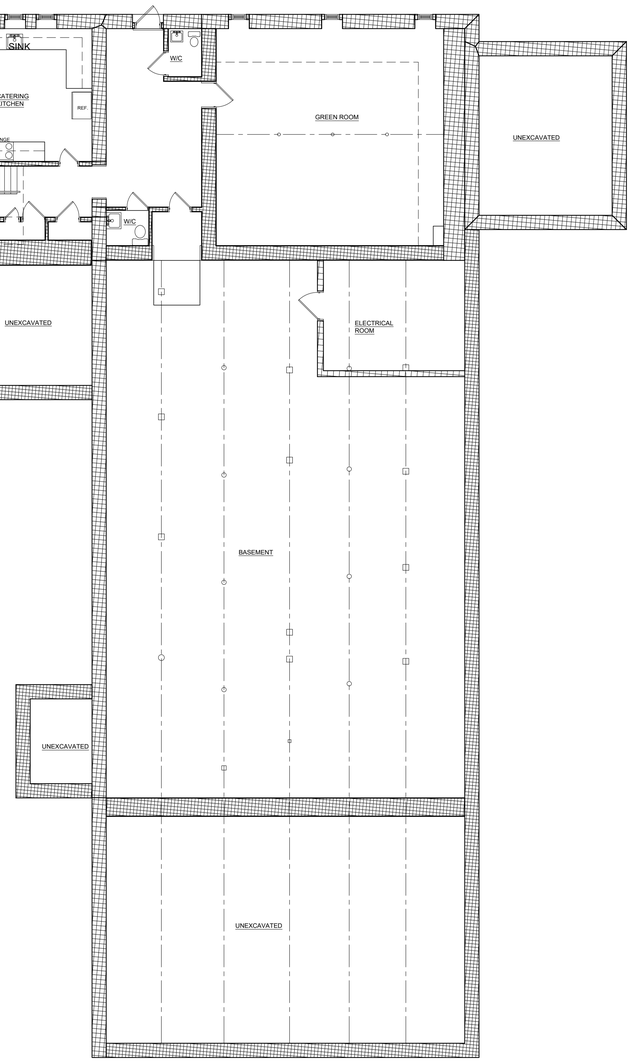
Upper Level Plan: Conference Center: Event Configuration

Scale: $\frac{1}{8}$" = 1'-0"



Main Level Plan: Conference Center: Event Configuration

Scale: $\frac{1}{8}$" = 1'-0"



Basement Plan: Conference Center

Scale: $\frac{1}{8}$" = 1'-0"

Special Use Permit Application

Sheet 7 of 15 - Conference Center Plans - Event Configuration Option

Owner:
Prophecy Theater, LLC
36 South Brett Street
Beacon, NY 12508

Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

Site / Civil Engineer:
Hudson Land Design
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Landscape Designer:
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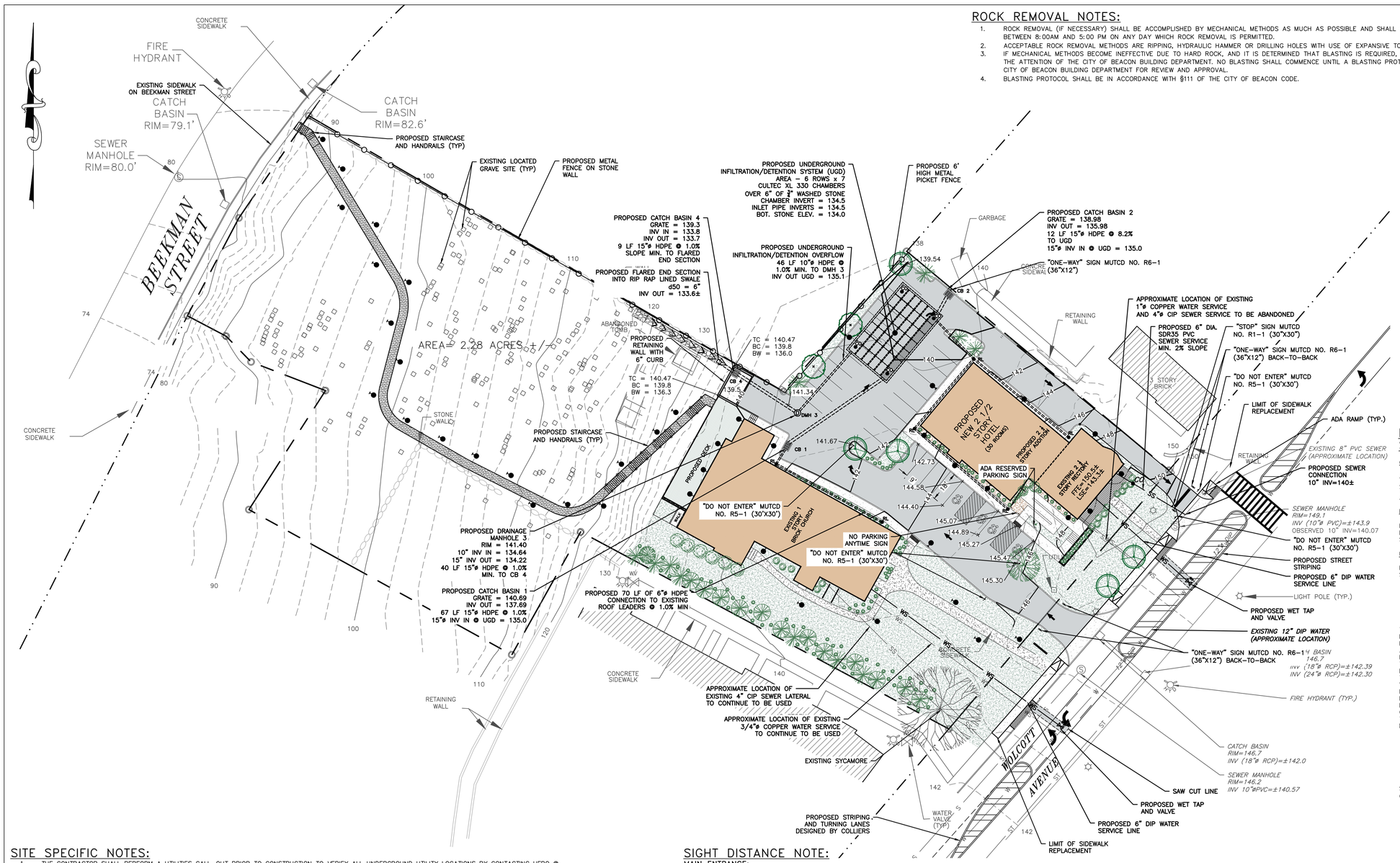
April 29, 2021



ROCK REMOVAL NOTES:

1. ROCK REMOVAL (IF NECESSARY) SHALL BE ACCOMPLISHED BY MECHANICAL METHODS AS MUCH AS POSSIBLE AND SHALL ONLY BE PERMITTED BETWEEN 8:00AM AND 5:00 PM ON ANY DAY WHICH ROCK REMOVAL IS PERMITTED.
2. ACCEPTABLE ROCK REMOVAL METHODS ARE RIPPING, HYDRAULIC HAMMER OR DRILLING HOLES WITH USE OF EXPANSIVE TOOLS AND/OR WEDGES.
3. IF MECHANICAL METHODS BECOME INEFFECTIVE DUE TO HARD ROCK, AND IT IS DETERMINED THAT BLASTING IS REQUIRED, IT SHALL BE BROUGHT TO THE ATTENTION OF THE CITY OF BEACON BUILDING DEPARTMENT. NO BLASTING SHALL COMMENCE UNTIL A BLASTING PROTOCOL IS SUBMITTED TO THE CITY OF BEACON BUILDING DEPARTMENT FOR REVIEW AND APPROVAL.
4. BLASTING PROTOCOL SHALL BE IN ACCORDANCE WITH §111 OF THE CITY OF BEACON CODE.

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- OHW EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- SS EXISTING SEWER SERVICE LINE
- S EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- CO EXISTING SEWER CLEAN OUT
- W EXISTING WATER LINE
- WS EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- WV EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- RL EXISTING ROOF LEADER
- EXISTING CATCH BASIN
- 250 PROPOSED MAJOR CONTOUR
- 252 PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- S PROPOSED SEWER LINE
- SS PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- ST PROPOSED STORM WATER LINE
- RL PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- W PROPOSED WATER LINE
- WS PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- WV PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE

INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES

CATCH BASINS AND PIPING:

ALL CATCH BASINS SHALL BE INSPECTED AFTER EACH STORM EVENT FOR SEDIMENT ACCUMULATION, AND DEBRIS, AND REMOVE AS NECESSARY. WHEN SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN SUMP REACHES 1/2 OF THE SUMP DEPTH, IT SHALL BE REMOVED. ASSOCIATED PIPING SHALL BE INSPECTED ANNUALLY AND ACCUMULATED SEDIMENT SHALL BE REMOVED AS NEEDED.

RIP RAP OUTLET PROTECTION:

RIP RAP OUTLET PROTECTION SHALL BE INSPECTED AFTER EACH STORM AND CLEARED OF ANY SEDIMENT AND/OR DEBRIS. IF THE RIP RAP STONE BECOMES SILTED WITH SEDIMENT, IT MAY REQUIRE REMOVAL OF THE RIP RAP STONE SO THAT THE SEDIMENT CAN BE REMOVED PROPERLY. REPLACE RIP RAP STONE AS REQUIRED.

UNDERGROUND INFILTRATION/DETENTION/INFILTRATION:

BEST MANAGEMENT PRACTICE FOR MAINTAINING OPTIMUM PERFORMANCE OF THE UNDERGROUND INFILTRATION SYSTEM IS A COMBINATION OF THE FOLLOWING:

1. PROPER MAINTENANCE OF THE INLET ROW.
2. REMOVAL OF ACCUMULATED SEDIMENT FROM THE UPSTREAM CATCH BASIN AND STORMWATER COLLECTION SYSTEM, AND
3. MAINTAINING THE SITE IMPERVIOUS AND LAWN AREAS IN A STABLE CONDITION. ANY FUTURE LAND DISTURBANCE ASSOCIATED WITH MAINTENANCE OF THE BUILDINGS AND GROUNDS SHALL CAREFULLY PREPARE AN EROSION AND SEDIMENT CONTROL PLAN TO LIMIT TRANSPORT OF SEDIMENT LADEN RUNOFF TO THE COLLECTION SYSTEM.

THE CULTEC SYSTEM SHALL BE EQUIPPED WITH AN INSPECTION PORT LOCATED ON THE INLET ROW. THE INSPECTION PORT IS A CIRCULAR CAST BOX PLACED IN A RECTANGULAR CONCRETE COLLAR. WHEN THE LID IS REMOVED, A 6-INCH PIPE WITH A SCREW-IN PLUG WILL BE EXPOSED. REMOVE THE PLUG. THIS WILL PROVIDE ACCESS TO THE CULTEC CHAMBER ROW BELOW. FROM THE SURFACE, THROUGH THIS ACCESS, THE SEDIMENT MAY BE MEASURED AT THIS LOCATION. A STADIA ROD MAY BE USED TO MEASURE THE DEPTH OF SEDIMENT IF ANY IN THIS ROW. ADDITIONALLY, CCTV INSPECTION OF THIS ROW CAN BE DEPLOYED THROUGH THIS ACCESS PORT TO DETERMINE IF ANY SEDIMENT HAS ACCUMULATED. IF THE DEPTH OF SEDIMENT IS IN EXCESS OF 3 INCHES, THEN THIS ROW SHOULD BE CLEANED WITH HIGH PRESSURE WATER THROUGH A CULVERT CLEANING NOZZLE. THIS WOULD BE CARRIED OUT THROUGH THE UPSTREAM STRUCTURES. THE INLET ROW IS PLACED ON A POLYETHYLENE LINER TO PREVENT SCOURING OF THE WASHED STONE BENEATH THIS ROW. THIS FACILITATES THE FLUSHING OF THIS ROW WITH HIGH PRESSURE WATER THROUGH A CULVERT CLEANING NOZZLE. THE NOZZLE IS DEPLOYED THROUGH THE UPSTREAM STRUCTURE AND EXTENDED TO THE END OF THE ROW. THE WATER IS TURNED ON AND THE INLET ROW IS BACK-FLUSHED INTO THE STRUCTURE WHERE IT IS REMOVED BY USING A VACUUM TRUCK.

MAINTENANCE GUIDELINES:

1. THE OWNER SHALL KEEP A MAINTENANCE LOG WHICH SHALL INCLUDE DETAILS OF ANY EVENTS WHICH WOULD HAVE AN EFFECT ON THE SYSTEM'S OPERATIONAL CAPACITY.
2. THE OPERATION AND MAINTENANCE PROCEDURE SHALL BE REVIEWED PERIODICALLY AND CHANGED TO MEET SITE CONDITIONS.
3. MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE PERFORMED BY QUALIFIED WORKERS AND SHALL FOLLOW APPLICABLE OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS.
4. DEBRIS REMOVED FROM THE STORMWATER MANAGEMENT SYSTEM SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS.

SUGGESTED MAINTENANCE SCHEDULE (TO BE RE-ASSESSED BY THE OPERATOR PERIODICALLY BASED ON SITE CONDITIONS AND EVALUATION OF SYSTEM FUNCTIONALITY):

1. YEAR 1: INSPECT INLETS AND OUTLETS MONTHLY FOR ANY CLOGGING, AND REMOVE DEBRIS AS MAY BE NECESSARY. INSPECT THE SURFACE AROUND THE CHAMBERS FOR ANY DEPRESSIONS.
2. YEAR 2 AND AFTER: INSPECT INLETS AND OUTLETS EVERY SPRING AND FALL FOR ANY CLOGGING, AND REMOVE DEBRIS AS MAY BE NECESSARY. INSPECT THE SURFACE AROUND THE CHAMBERS FOR ANY DEPRESSIONS.
3. 2 YEARS AFTER COMMISSIONING: INSPECT THE INTERIOR OF THE STORMWATER MANAGEMENT CHAMBERS THROUGH INSPECTION PORT FOR DEFICIENCIES USING CCTV OR COMPARABLE TECHNIQUE.
4. 9 YEARS AFTER COMMISSIONING, AND EVERY 9 YEARS THEREAFTER (OR AS MAY BE NEEDED): CLEAN STORMWATER MANAGEMENT CHAMBERS AND FEED CONNECTORS OF ANY DEBRIS. INSPECT THE INTERIOR OF THE STORMWATER MANAGEMENT CHAMBERS THROUGH INSPECTION PORT FOR DEFICIENCIES USING CCTV OR COMPARABLE TECHNIQUE.
5. 45 YEARS AFTER COMMISSIONING: A PROFESSIONAL ENGINEER SHALL ASSESS THE REMAINING LIFE EXPECTANCY OF THE STORMWATER MANAGEMENT CHAMBERS AND RECOMMEND ACTIONS TO REHABILITATE, RESTORE OR REPLACE THE STORMWATER MANAGEMENT CHAMBERS AS MAY BE REQUIRED.
6. ANNUALLY: CONFIRM THAT NO UNAUTHORIZED MODIFICATIONS HAVE BEEN PERFORMED TO THE SITE THAT MAY IMPACT THE ADEQUATE FUNCTIONING OF THE SYSTEM.
7. PERIODICALLY: MONITOR WATER LEVELS IN THE CHAMBER SYSTEM FOLLOWING SIGNIFICANT STORM EVENTS. DEWATERING OF THE SYSTEM SHOULD TAKE NO LONGER THAN 24 HOURS.

THE FACILITY OWNER SHALL PROVIDE FOR THE PERIODIC INSPECTION OF THE STORMWATER FACILITIES IN ACCORDANCE WITH THE SWPPP, AND SHALL HAVE THE FACILITIES INSPECTED ON A YEARLY BASIS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK, TO DETERMINE THE CONDITION AND INTEGRITY OF THE STORMWATER CONTROL MEASURES. THE INSPECTING PROFESSIONAL SHALL PREPARE AND SUBMIT TO THE CITY OF BEACON WITHIN 30 DAYS OF THE INSPECTION BUT NOT LATER THAN JUNE 1 OF EACH YEAR, A WRITTEN REPORT OF THE FINDINGS INCLUDING RECOMMENDATIONS FOR THOSE ACTIONS NECESSARY FOR THE CONTINUATION OF THE STORMWATER CONTROL MEASURES. SEE "APPENDIX O" OF THE STORMWATER POLLUTION PREVENTION PLAN FOR DETAILED OPERATIONS AND MAINTENANCE PROCEDURES.

SITE SPECIFIC NOTES:

1. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UFPO @ 1-800-962-7962. SPECIFIC ATTENTION SHALL BE PAID TO THE LOCATIONS OF THE GAS, WATER AND SEWER MAINS WITH RESPECT TO THE PROPOSED LOCATIONS FOR THE SERVICE LINES.
2. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL DRAINAGE, SANITARY SEWER, WATER AND GAS LINES AND STRUCTURES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT.
3. THE PROPOSED LOT SHALL BE SERVED BY THE CITY OF BEACON MUNICIPAL WATER AND SEWER SERVICES. AS SUCH, THE CONTRACTOR SHALL CONTACT THE CITY OF BEACON WATER AND SEWER DEPARTMENTS TO SCHEDULE A PRE-CONSTRUCTION MEETING TO ENSURE THAT THE ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL ARE COMMENCED IN ACCORDANCE WITH THE APPROVED PLANS AND AMENDMENTS THERETO AND GENERALLY ACCEPTED STANDARDS.
4. THE WATER SERVICE LINE AND METER SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BEACON WATER DEPARTMENT REQUIREMENTS.
5. THE NEW WATER SERVICE LINE SHALL BE CLASS 52 DIP, SIZE TO BE DETERMINED.
6. THE SEWER SERVICE LATERAL SHALL BE 6"ø SDR-35 PVC PIPE WITH PITCH AS SHOWN ON THE PLAN.
7. STREET CLOSURE FOR WATER, SEWER AND GAS SERVICE CONNECTIONS AND DRIVEWAY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF BEACON AND NYSDOT REQUIREMENTS. A PLAN SHALL BE IN PLACE FOR MAINTENANCE AND PROTECTION OF TRAFFIC.
8. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. WOLLCOTT AVENUE SHALL BE KEPT CLEAN AND SWEPT DURING CONSTRUCTION.
9. SUMP PUMPS TO BE PROVIDED FOR FOOTING DRAINS, AS REQUIRED. THE TYPES OF PUMPS AND METHODS USED TO ENSURE PROPER DRAINAGE SHALL BE ACCEPTABLE TO THE CITY OF BEACON BUILDING DEPARTMENT.
10. THE BUILDING DEPARTMENT SHALL HAVE THE RIGHT TO INSPECT THE EXISTING BUILDING TO CONFIRM THAT THERE ARE NOT EXISTING STORMWATER CONNECTIONS TO THE CITY'S SANITARY SEWER SYSTEM PRIOR TO THE MAP BEING SIGNED.
11. WATER AND SEWER FOR THE RECTORY WILL BE ABANDONED IN ACCORDANCE WITH CITY REQUIREMENTS.
12. IN ORDER TO PROTECT THE FEDERALLY-LISTED ENDANGERED INDIANA BAT (MYOTIS SODALIS) AND THE FEDERALLY-LISTED THREATENED NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS), THE CLEARING OF POTENTIAL ROOSTING TREES SHALL OCCUR ONLY BETWEEN NOVEMBER 1 AND MARCH 31. ORANGE CONSTRUCTION FENCING SHALL BE USED TO SEPARATE AREAS TO BE GRADED FROM AREAS NOT TO BE DISTURBED. NO ARTIFICIAL DYES, COLORING, INSECTICIDE, OR ALGAECIDE SUCH AS COPPER SULFATE SHALL BE USED IN STORMWATER CONTROL STRUCTURES.

SIGHT DISTANCE NOTE:

MAIN ENTRANCE:

THE SIGHT DISTANCES AT THE PROPOSED DRIVEWAY LOCATION WERE ANALYZED. BASED ON FIELD MEASUREMENTS, THE EXISTING SIGHT DISTANCES ARE APPROXIMATELY 433 FEET LOOKING LEFT (NORTH) AND 544 FEET RIGHT (SOUTH) FROM THE PROPOSED ACCESS. EXISTING STOPPING SIGHT DISTANCES ARE APPROXIMATELY 336 FEET LOOKING LEFT (NORTH) AND 534 FEET RIGHT (SOUTH) FROM THE PROPOSED ACCESS. SIGHT DISTANCES ARE BASED ON AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) CRITERIA THE STOPPING SIGHT DISTANCE (200 FEET) AND INTERSECTION SIGHT DISTANCE (335 FEET) FOR THE 30 MPH POSTED SPEED LIMIT ALONG ROUTE 9D WILL BE SATISFIED. AVAILABLE NYSDOT SPEED DATA FOR ROUTE 9D IN THIS AREA INDICATES THAT THE 85TH PERCENTILE SPEEDS ARE APPROXIMATELY 37 TO 38 MPH. FOR A 40 MPH DESIGN SPEED, AASHTO REQUIRES A MINIMUM 305 FOOT STOPPING SIGHT DISTANCE, 385 FEET MINIMUM INTERSECTION SIGHT DISTANCE LEFT, 445 FEET MINIMUM INTERSECTION SIGHT DISTANCE RIGHT. AND TO ALLOW FOR THE SAFE OPERATION OF THE INTERSECTION. THIS REQUIRED STOPPING SIGHT DISTANCE WILL ALSO BE SATISFIED. IT SHOULD BE NOTED THAT SOME PRUNING/CLEARING OF VEGETATION IMMEDIATELY NORTH OF THE PROPOSED DRIVEWAY LOCATION ON THE WEST SIDE OF ROUTE 9D SHOULD BE COMPLETED IN ORDER TO MAXIMIZE THE SIGHT DISTANCE LOOKING TO THE NORTH FROM THE SITE DRIVEWAY.

SOUTHERLY EGRESS ONLY LOOP:

THE SIGHT DISTANCES AT THE PROPOSED DRIVEWAY LOCATION WERE ANALYZED. BASED ON FIELD MEASUREMENTS, THE EXISTING SIGHT DISTANCES ARE APPROXIMATELY 389 FEET LOOKING LEFT (NORTH) AND 536 FEET RIGHT (SOUTH) FROM THE PROPOSED ACCESS. EXISTING STOPPING SIGHT DISTANCES ARE APPROXIMATELY 331 FEET LOOKING LEFT (NORTH) AND 501 FEET RIGHT (SOUTH) FROM THE PROPOSED ACCESS. SIGHT DISTANCES ARE BASED ON AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) CRITERIA THE STOPPING SIGHT DISTANCE (200 FEET) AND INTERSECTION SIGHT DISTANCE (335 FEET) FOR THE 30 MPH POSTED SPEED LIMIT ALONG ROUTE 9D WILL BE SATISFIED. AVAILABLE NYSDOT SPEED DATA FOR ROUTE 9D IN THIS AREA INDICATES THAT THE 85TH PERCENTILE SPEEDS ARE APPROXIMATELY 37 TO 38 MPH. FOR A 40 MPH DESIGN SPEED, AASHTO REQUIRES A MINIMUM 305 FOOT STOPPING SIGHT DISTANCE, 385 FEET MINIMUM INTERSECTION SIGHT DISTANCE LEFT, 445 FEET MINIMUM INTERSECTION SIGHT DISTANCE RIGHT. AND TO ALLOW FOR THE SAFE OPERATION OF THE INTERSECTION. THIS REQUIRED STOPPING SIGHT DISTANCE WILL ALSO BE SATISFIED.

SNOW REMOVAL AND STORAGE NOTES:

1. SNOW SHALL BE REMOVED WITHIN 8 HOURS AFTER A SNOW EVENT.
2. THE PEDESTRIAN PATH THROUGH THE CEMETERY SHALL BE MAINTAINED ND KEPT CLEAR OF SNOW AND ICE DURING THE WINTER MONTHS.

DRAWN BY: ESR				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	8/31/21	PER PLANNING BOARD COMMENTS	CMB	7	5/31/22	PER PLANNING BOARD COMMENTS	CMB
2	11/30/21	PER PLANNING BOARD COMMENTS	MAB	8	6/28/22	PER PLANNING BOARD COMMENTS	CMB
3	12/28/21	PER PLANNING BOARD COMMENTS	MAB	9	7/26/22	PER PLANNING BOARD COMMENTS	CMB
4	1/25/22	PER PLANNING BOARD COMMENTS	CMB	10	10/7/22	PER PLANNING BOARD COMMENTS	CMB
5	2/22/22	PER PLANNING BOARD COMMENTS	CMB				
6	4/26/22	PER PLANNING BOARD COMMENTS	CMB				

GRADING & UTILITY PLAN
SCALE: 1" = 30'
GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

STATE OF NEW YORK · GEORGE A. BOSCORIS · 084466 · LICENSED PROFESSIONAL ENGINEER
SEAL

HUDSON LAND DESIGN
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
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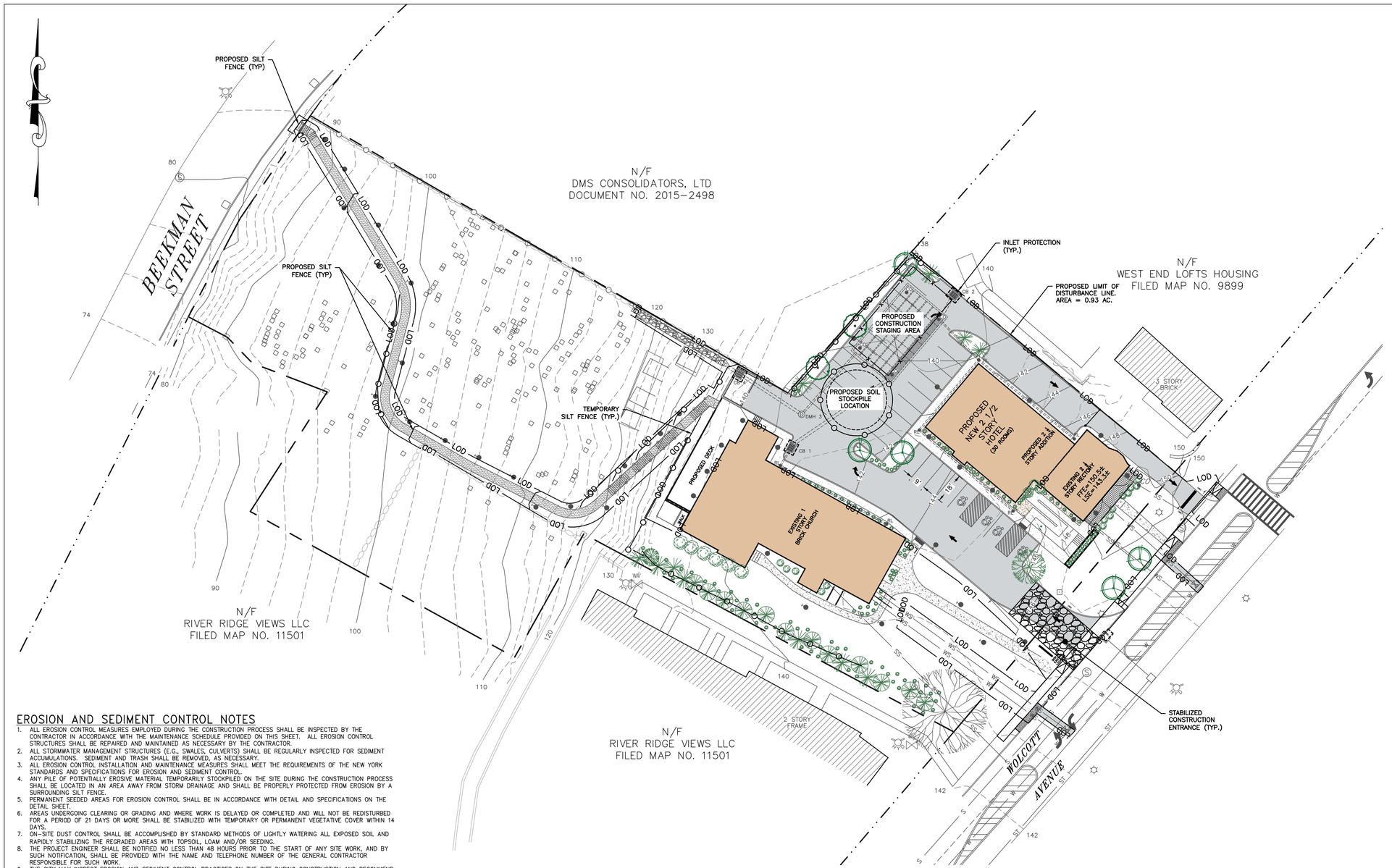
GRADING & UTILITY PLAN

1113 WOLCOTT AVENUE

1113 WOLCOTT AVENUE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-26-651901

JOB #:	2021:022
DATE:	6/29/2021
SCALE:	1" = 30'
TITLE:	GU-1
SHEET:	9 OF 15

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- OHW EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- SS EXISTING SEWER SERVICE LINE
- S EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- W EXISTING WATER LINE
- WS EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING ROOF LEADER
- EXISTING CATCH BASIN
- 250 PROPOSED MAJOR CONTOUR
- 252 PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- S PROPOSED SEWER LINE
- SS PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- ST PROPOSED STORM WATER LINE
- RL PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- W PROPOSED WATER LINE
- WS PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE
- PROPOSED SILT FENCE
- LOD PROPOSED LIMIT OF DISTURBANCE
- PROPOSED CONSTRUCTION ENTRANCE

INSPECTION SCHEDULE & MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES

PERMANENT AND TEMPORARY VEGETATION:
INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. ALL AREAS DAMAGED BY EROSION OR WHERE SEED HAS NOT ESTABLISHED SHALL BE REPAIRED AND RESTABILIZED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE:
INSPECT THE ENTRANCE PAD EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. CHECK FOR MUD, SEDIMENT BUILD-UP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING WET WEATHER. REGRADE PAD AS NEEDED FOR RUNOFF CONTROL. WASH AND REPLACE STONE AS NEEDED. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF SITE BY VEHICLES. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. REMOVE TEMPORARY CONSTRUCTION ENTRANCE AS SOON AS THEY ARE NO LONGER NEEDED TO PROVIDE ACCESS TO THE SITE AS DIRECTED BY PROJECT ENGINEER.

SILT FENCE:
INSPECT FOR DAMAGE EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ONE-QUARTER THE HEIGHT OF THE FENCE. IF FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.

SOIL STOCKPILE:
INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ONE-QUARTER THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCKPILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.

DUST CONTROL:
SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORKS. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WATER). STRUCTURAL MEASURES (MULCH, SEEDING) SHALL BE INSTALLED IN DISTURBED AREAS BEFORE SIGNIFICANT BLOWING PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.

CHECK DAM:
(IF REQUIRED) INSPECT CHECK DAMS EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. IF SIGNIFICANT EROSION OCCURS BETWEEN STRUCTURES, A LINER OF STONE OR OTHER SUITABLE MATERIAL SHOULD BE INSTALLED IN THAT PORTION OF THE CHANNEL. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAM AS NEEDED TO ALLOW CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. REPLACE STONES AS NEEDED TO MAINTAIN THE DESIGN CROSS SECTION OF THE STRUCTURES. REMOVE CHECK DAMS AS PER APPROVAL OF THE PROJECT ENGINEER.

EROSION CONTROL BLANKET:
(IF REQUIRED) INSPECT THE BLANKET EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. REPLACE WIRE STAPLES AS REQUIRED. REPAIR AND RESEED WHERE CRACKS AND DAMAGED VEGETATION IS EVIDENT. WHEN DAMAGED BEYOND REPAIR OR NO LONGER FUNCTIONING, THE BLANKET SHALL BE REPLACED.

DEWATERING PITS:
(IF REQUIRED) – INSPECT DAILY DURING OPERATION FOR CLOGGING OR OVERFLOW. CLEAR INLET AND DISCHARGE PIPES OF OBSTRUCTIONS. IF A FILTER MATERIAL BECOMES CLOGGED WITH SEDIMENT, PIT SHALL BE DISMANTLED AND NEW PITS SHALL BE CONSTRUCTED AS NEEDED.

SEDIMENT TRAP:
(IF REQUIRED) SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO THE ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF OF THE DESIGN DEPTH OF THE TRAP. SEDIMENT REMOVED FROM THE TRAP SHALL BE DEPOSITED IN A PROTECTED AREA IN SUCH A MANNER THAT IT WILL NOT ERODE.

CATCH BASINS:
ALL CATCH BASINS SHALL BE INSPECTED AFTER EACH STORM EVENT FOR SEDIMENT ACCUMULATION, AND DEBRIS, AND REMOVE AS NECESARRY. THE INLET PROTECTION SHALL BE INSPECTED FOR SEDIMENT ACCUMULATION AND REPLACED AS NECESARRY. WHEN SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN SUMP REACHES 1/2 OF THE SUMP DEPTH, IT SHALL BE REMOVED.

EROSION AND SEDIMENT CONTROL NOTES

1. ALL EROSION CONTROL MEASURES EMPLOYED DURING THE CONSTRUCTION PROCESS SHALL BE INSPECTED BY THE CONTRACTOR IN ACCORDANCE WITH THE MAINTENANCE SCHEDULE PROVIDED ON THIS SHEET. ALL EROSION CONTROL STRUCTURES SHALL BE REPAIRED AND MAINTAINED AS NECESSARY BY THE CONTRACTOR.
2. ALL STORMWATER MANAGEMENT STRUCTURES (E.G., SWALES, CULVERTS) SHALL BE REGULARLY INSPECTED FOR SEDIMENT ACCUMULATIONS. SEDIMENT AND TRASH SHALL BE REMOVED, AS NECESSARY.
3. ALL EROSION CONTROL INSTALLATION AND MAINTENANCE MEASURES SHALL MEET THE REQUIREMENTS OF THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
4. ANY PILE OF POTENTIALLY EROSIVE MATERIAL TEMPORARILY STOCKPILED ON THE SITE DURING THE CONSTRUCTION PROCESS SHALL BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE AND SHALL BE PROPERLY PROTECTED FROM EROSION BY A SURROUNDING SILT FENCE.
5. PERMANENT SEEDED AREAS FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH DETAIL AND SPECIFICATIONS ON THE DETAIL SHEET.
6. AREAS UNDERGOING CLEARING OR GRADING AND WHERE WORK IS DELAYED OR COMPLETED AND WILL NOT BE REDISTURBED FOR A PERIOD OF 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT VEGETATIVE COVER WITHIN 14 DAYS.
7. ON-SITE DUST CONTROL SHALL BE ACCOMPLISHED BY STANDARD METHODS OF LIGHTLY WATERING ALL EXPOSED SOIL AND RAPIDLY STABILIZING THE REGRADED AREAS WITH TOPSOIL, LOAM AND/OR SEEDING.
8. THE PROJECT ENGINEER SHALL BE NOTIFIED NO LESS THAN 48 HOURS PRIOR TO THE START OF ANY SITE WORK, AND BY SUCH NOTIFICATION, SHALL BE PROVIDED WITH THE NAME AND TELEPHONE NUMBER OF THE GENERAL CONTRACTOR RESPONSIBLE FOR SUCH WORK.
9. THE CITY MAY INSPECT EROSION AND SEDIMENT CONTROL PRACTICES ON THE SITE DURING CONSTRUCTION AND RECOMMEND THAT THE CONTRACTOR INSTALL ADDITIONAL EROSION CONTROL MEASURES IF DEEMED NECESSARY TO PROTECT ANY UNDISTURBED AREAS OF THE SITE. ANY SUCH REQUESTS SHALL BE MADE DIRECTLY TO THE CONTRACTOR AND QUALIFIED PROFESSIONAL AND FOLLOWED UP WITH A WRITTEN NOTIFICATION TO THE DEVELOPER. IN ADDITION, THE CITY SHALL BE CONSULTED ON ANY SPECIAL ADDITIONS OR DELETIONS OF EROSION CONTROL MEASURES WARRANTED BY CHANGING FIELD CONDITIONS. THE NOTICE OF INTENT (NOI) MAY NEED TO BE UPDATED AS A RESULT OF THE CHANGES.
10. THE CONTRACTOR/OWNER SHALL MAINTAIN A RECORD OF ALL EROSION AND SEDIMENT CONTROL INSPECTION REPORTS AT THE SITE IN A LOG BOOK. THE SITE LOG BOOK SHALL BE MAINTAINED ON SITE AND BE MADE AVAILABLE TO THE PERMITTING AUTHORITY. THE OWNER/CONTRACTOR SHALL, ON A MONTHLY BASIS, POST AT THE SITE A SUMMARY OF THE SITE INSPECTION ACTIVITIES IN A PUBLICLY ACCESSIBLE LOCATION.
11. THE OWNER SHALL FILE A NOI WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES AND A NOTICE OF TERMINATION (NOT) WITH THE NYSDEC FOLLOWING CONSTRUCTION ACTIVITIES.
12. IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONSTRUCT A DEWATERING PIT IN ACCORDANCE WITH NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (AKA SUMP PIT) TO FILTER WATER FOR PUMPING TO A SUITABLE LOCATION.
13. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED PER THE APPROVAL OF THE CITY AND QUALIFIED PROFESSIONAL.
14. UPON COMPLETION OF CONSTRUCTION, THE PARCEL OWNER(S) AND SUBSEQUENTLY THE HOMEOWNERS ASSOCIATION SHALL BE RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM. THE STORMWATER MANAGEMENT SYSTEM SHALL BE INSPECTED QUARTERLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT. THE OWNER(S) SHALL MAINTAIN A RECORD OF INSPECTION AND MAINTENANCE REPORTS AT THE SITE. REFER TO THE SWPPP FOR INSPECTION REQUIREMENTS AND FUTURE MAINTENANCE.

SOIL RESTORATION NOTES:

1. THE CONSTRACTOR SHALL EMPLOY SOIL RESTORATION TO ALL DISTURBED AREAS THAT WILL REMAIN LANDSCAPED.
2. FOR HEAVY TRAFFIC AREAS, FULL SOIL REASTORATION WILL BE REQUIRED. FULL SOIL RESTORATION CONSISTS OF USE OF A BULLDOZER WITH A DEEP RIPPER ATTACHED TO IT. THE RIPPING SHALL BE DONE TO A DEPTH OF 12"-24". COMPOST IS PLACED OVER THE RIPPED SOIL, THEN WORKED INTO THE SOIL WITH A DEEP SUB-SOILER.
3. FOR LIGHT TRAFFIC AREAS, SOIL RESTORATION MAY BE ACCOMPLISHED BY MEANS OF TILLING THE SOIL WITH A DISK TYPE TILLER PULLED BY A TRACTOR OR PLACEMENT OF TOPSOIL OVER THE EXISTING SOIL A.O.B.E..

DRAWN BY: ESR				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
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4	1/25/22	PER PLANNING BOARD COMMENTS	MAB	10	10/7/22	NO CHANGE THIS SHEET	CMB
5	2/22/22	PER PLANNING BOARD COMMENTS	CMB				
6	4/26/22	PER PLANNING BOARD COMMENTS	CMB				

EROSION & SEDIMENT CONTROL PLAN
SCALE: 1" = 30'
GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

STATE OF NEW YORK MICHAEL A. BOSKOFF 084465 LICENSED PROFESSIONAL ENGINEER
SEAL

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EROSION & SEDIMENT CONTROL PLAN
1113 WOLCOTT AVENUE
1113 WOLCOTT AVENUE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-26-651901

JOB #:	2021:022
DATE:	6/29/2021
SCALE:	1" = 30'
TITLE:	EC-1
SHEET:	10 OF 15

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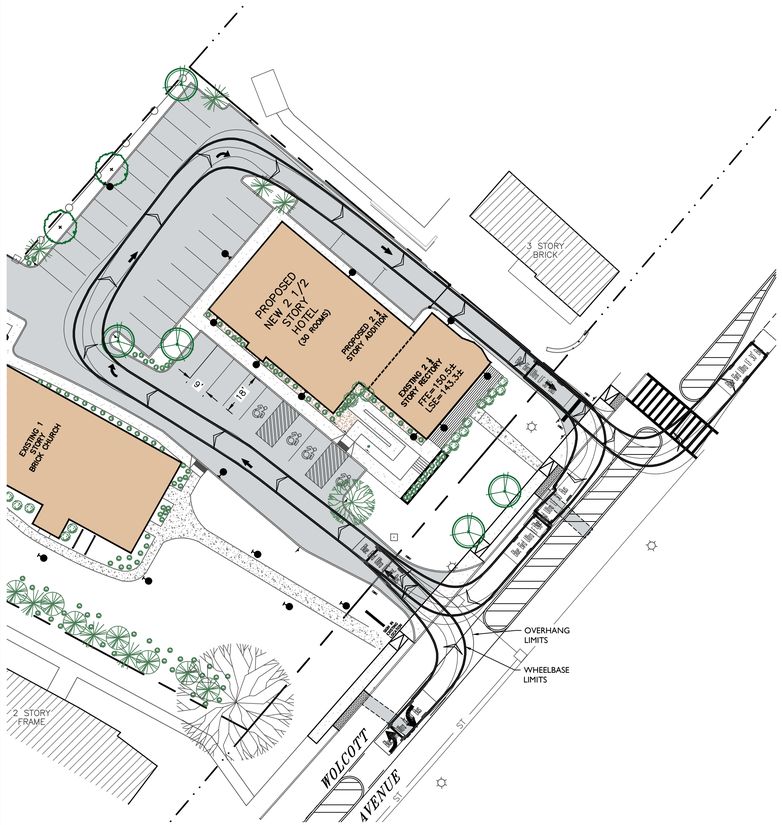
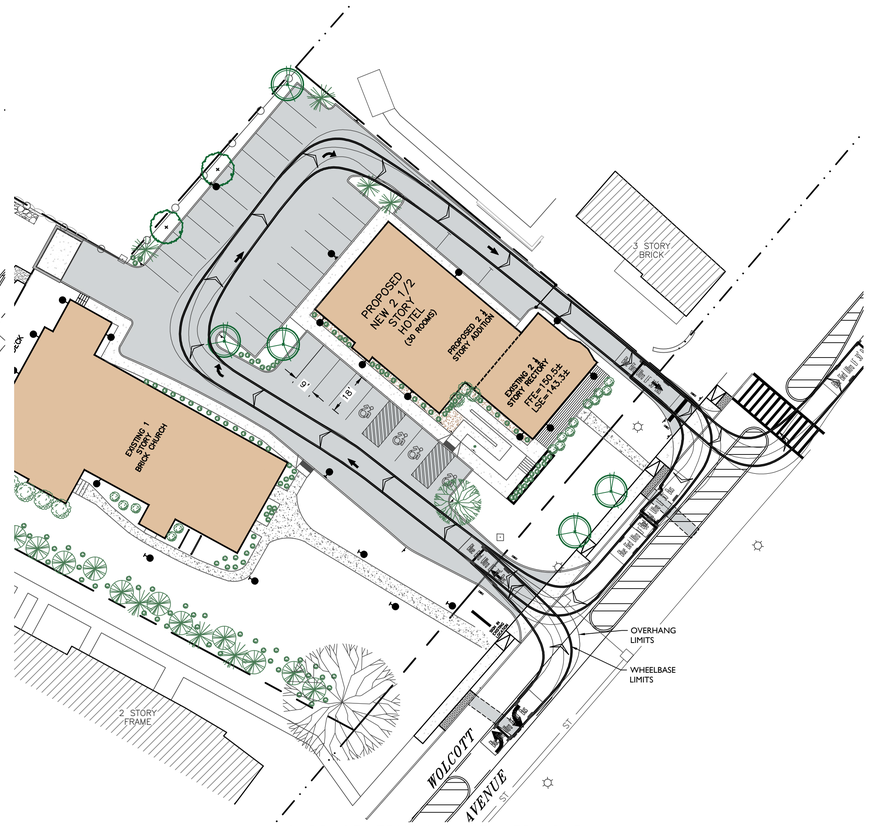


SHUTTLE–BUS MANEUVERING PLAN
SCALE: 1" = 30'



GARBAGE–TRUCK MANEUVERING PLAN
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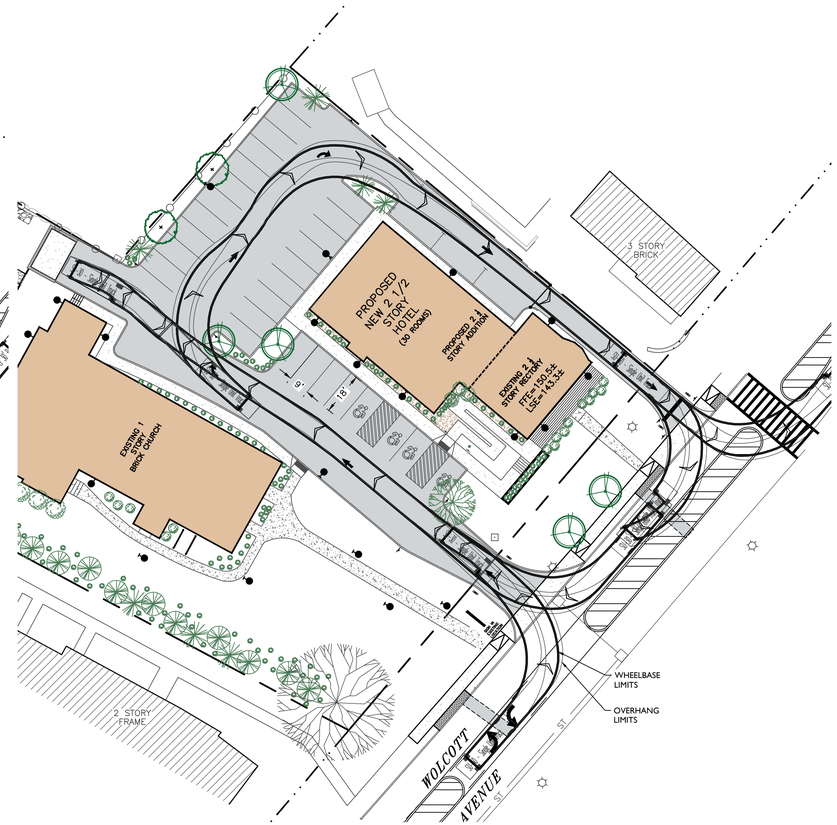

BOX–TRUCK MANEUVERING PLAN
SCALE: 1" = 30'

DRAWN BY: ESR				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
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2	1/25/22	PER PLANNING BOARD COMMENTS	MAB	8	10/7/22	NO CHANGE THIS SHEET	CMB
3	2/22/22	PER PLANNING BOARD COMMENTS	CMB				
4	4/26/22	PER PLANNING BOARD COMMENTS	CMB				
5	5/31/22	PER PLANNING BOARD COMMENTS	CMB				
6	6/28/22	NO CHANGE THIS SHEET	CMB				

VEHICLE TRACKING PLAN
SCALE: 1" = 30'

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

STATE OF NEW YORK
MICHAEL A. BODENMILLER
084469
LICENSED PROFESSIONAL ENGINEER

SEAL

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VEHICLE TRACKING PLAN

1113 WOLCOTT AVENUE

1113 WOLCOTT AVENUE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-26-651901

JOB #:	2021:022
DATE:	6/29/2021
SCALE:	1" = 30'
TITLE:	VHC-1
SHEET:	11 OF 15

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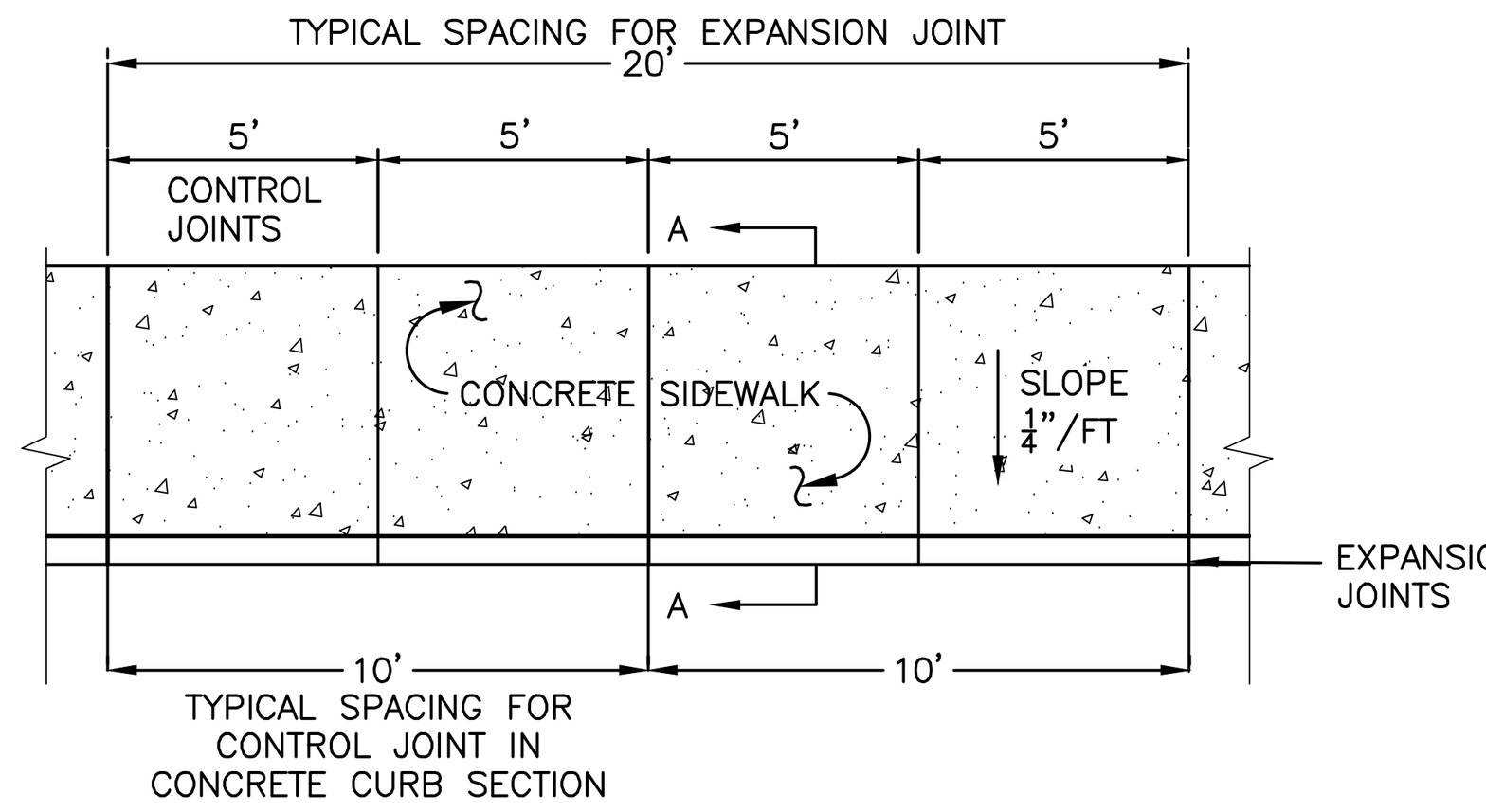
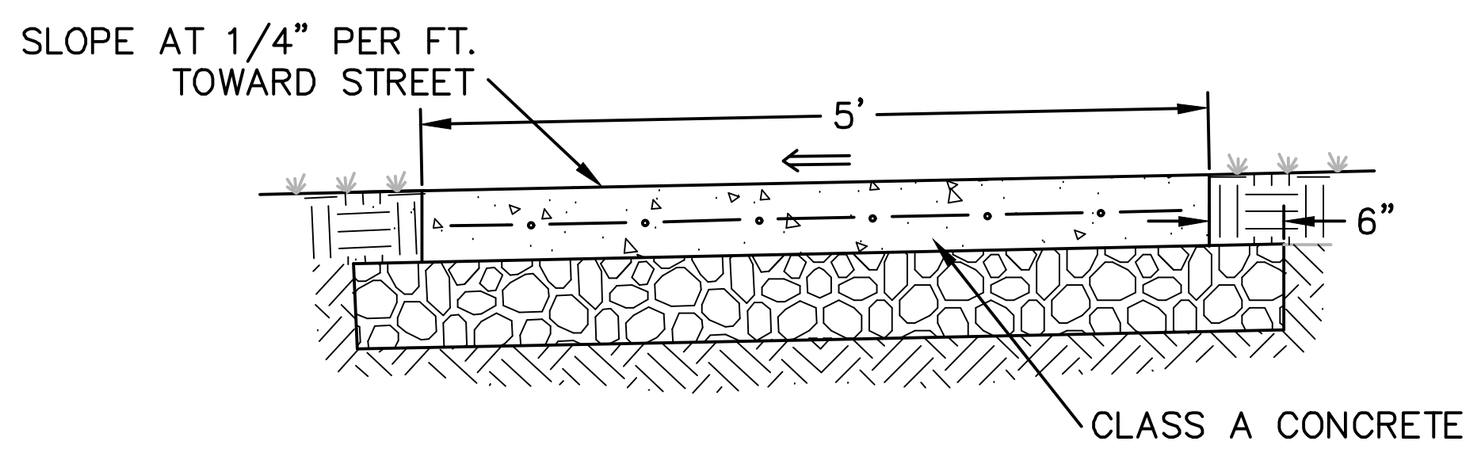
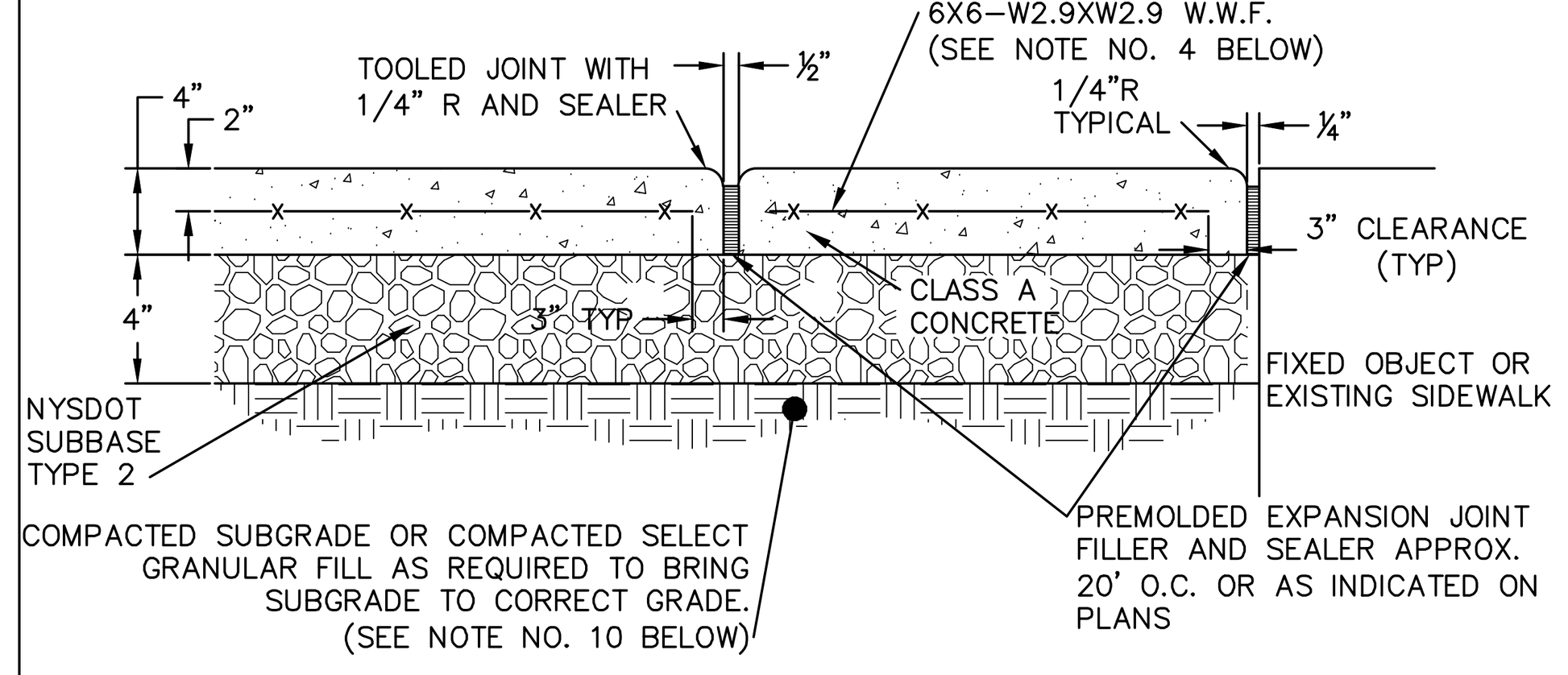
SITE DETAILS



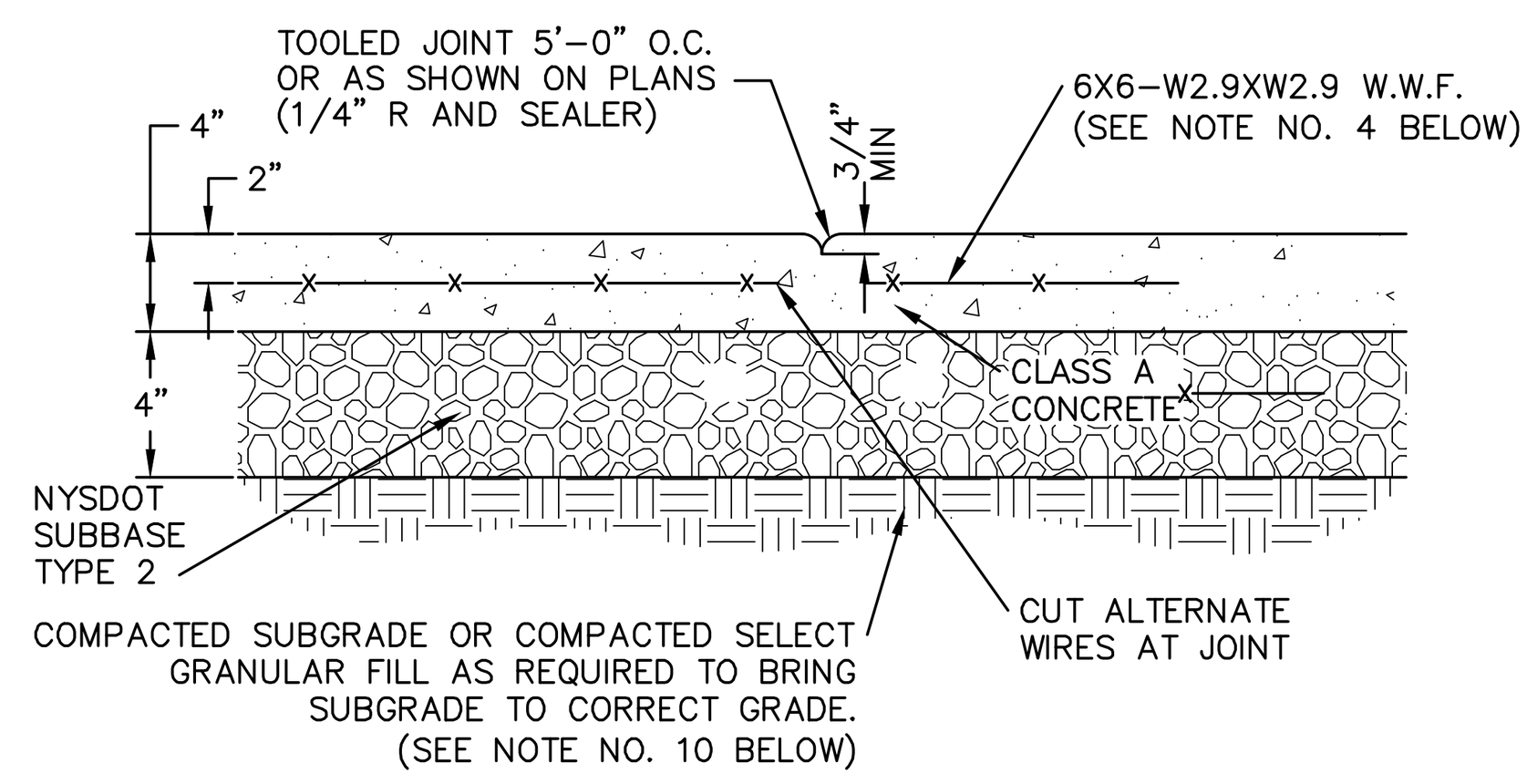
PLAN



SECTION A–A



EXPANSION JOINT

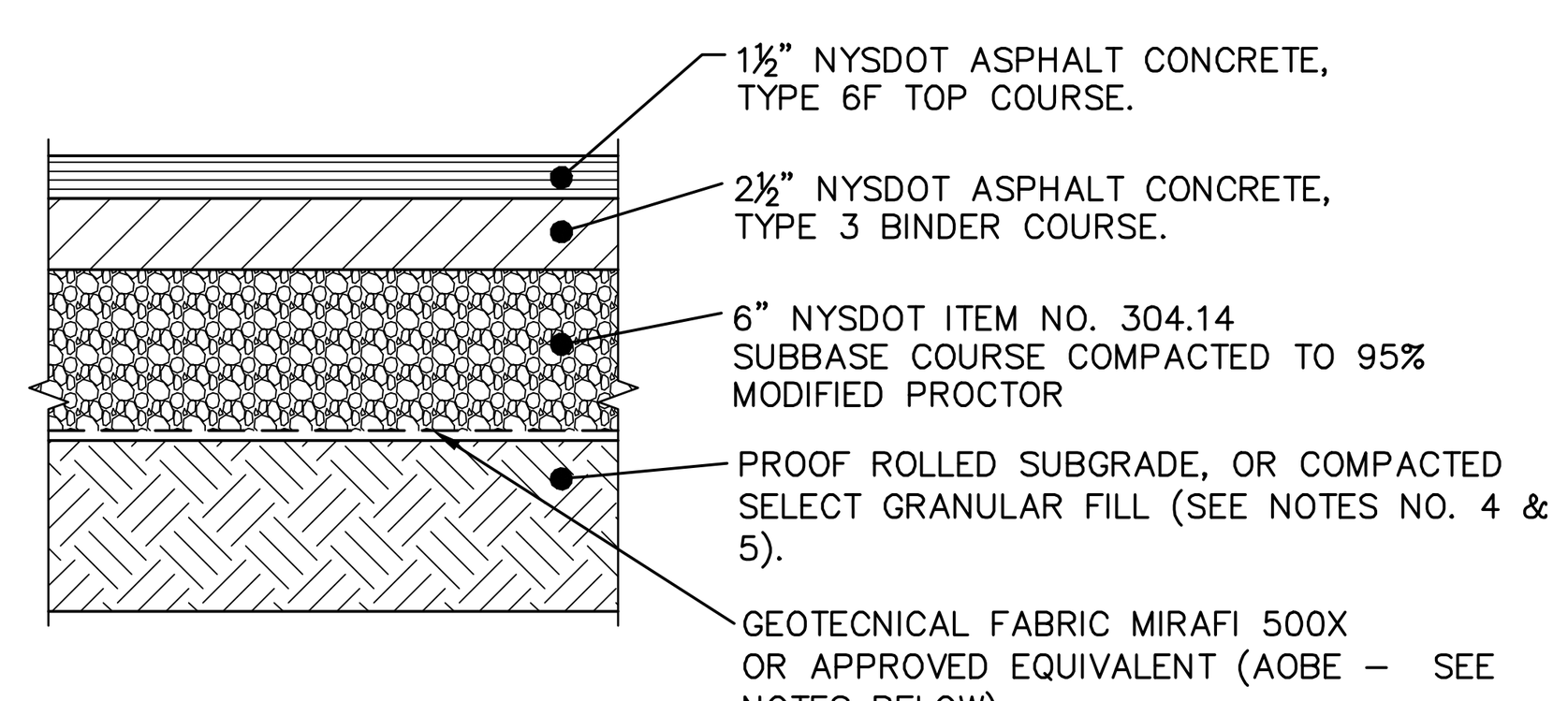


CONTROL JOINT

NOTES:

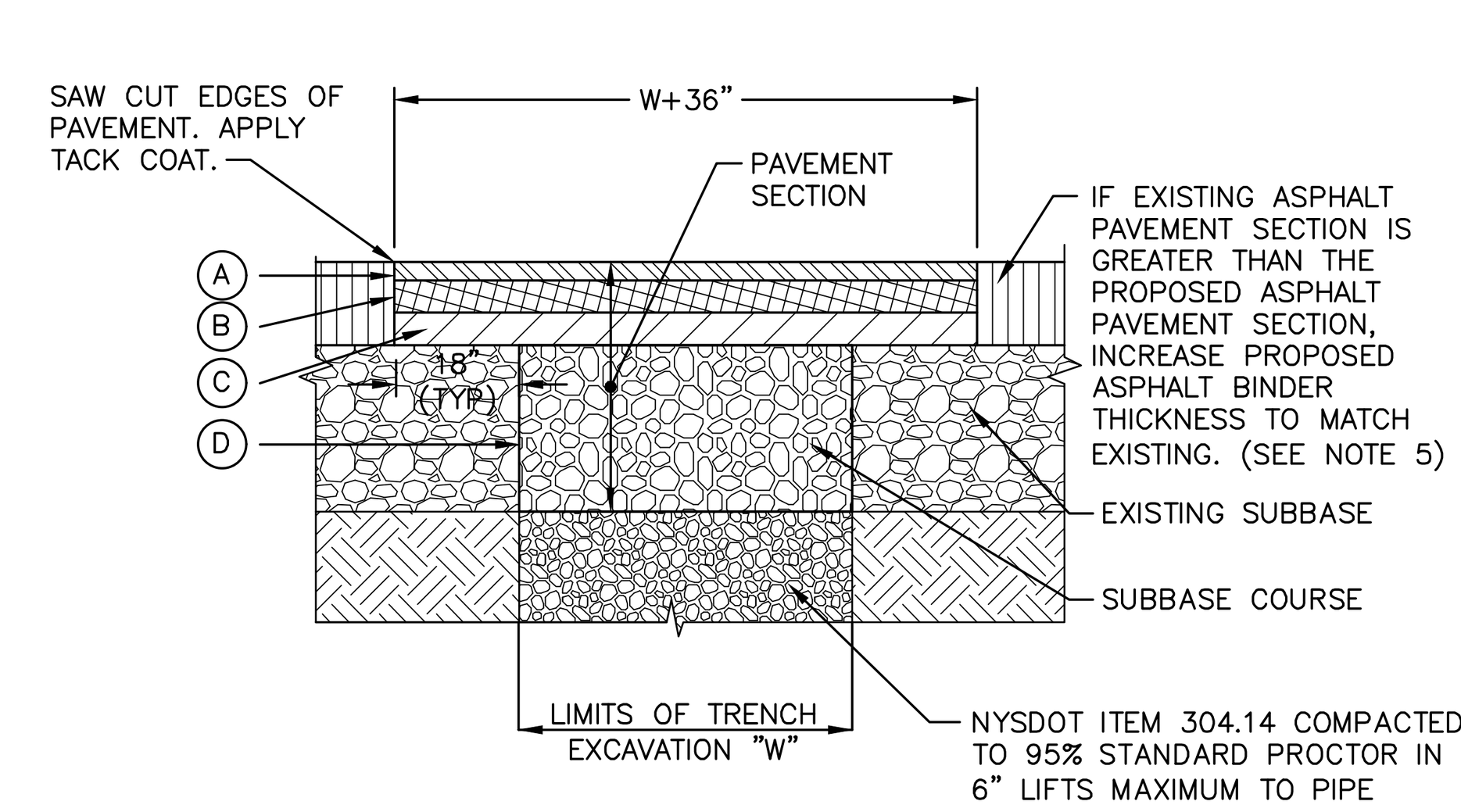
1. 10' SPACING OF CONTROL JOINTS SHALL BE USED FOR CAST IN PLACE CONCRETE CURBS.
2. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED JANUARY 2, 2002, AND ALL ADDENDA THERETO; THE ONLY EXCEPTION BEING THAT THE WORK OF THIS CONTRACT SHALL BE MEASURED IN ENGLISH UNITS.
3. ALL CONCRETE SHALL BE 3,500 PSI CLASS A CONCRETE. CONCRETE MATERIALS, PLACEMENT, AND CONSTRUCTION SHALL CONFORM WITH SECTION 500 OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
4. REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH SECTION 556 – REINFORCING STEEL FOR CONCRETE STRUCTURES OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND AS SPECIFICALLY CALLED OUT IN THE DRAWINGS.
5. ALL EXPOSED SURFACED SHALL HAVE A BROOM TEXTURED FINISH.
6. EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20' ON CENTER, OR AS INDICATED ON PLANS.
7. JOINTS SHALL NOT BE SAW CUT.
8. EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH "SUREBOND"/"SAFEBOND"SB–7000 INTENSIFIER BRIGHT PROTECTOR AND SIDEWALK SEALER, OR EQUAL. RATE AND METHOD OF APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
9. SUBBASE MATERIAL SHALL CONFORM WITH SECTION 304 OF THE ABOVE REFERENCED NYSDOT STANDARD.
10. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMATION WITH SECTION 203–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
11. ALL WORK SHALL CONFORM WITH SECTION 608–SIDEWALK, DRIVEWAYS, AND BICYCLE PATHS OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.

CONCRETE SIDEWALK DETAIL
NOT TO SCALE



NOTES:
1. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED JANUARY 2, 2002.
2. SUBGRADE SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS.
3. TACK COAT WHEN SPECIFIED OR CALLED OUT IN THESE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATIONS SHALL CONFORM WITH SECTION 407–TACK COAT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
4. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSES OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMANCE WITH SECTION 203–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
5. IT IS EXPECTED THAT THE EXISTING SITE SUB–SOILS ARE SAND AND GRAVEL IN NATURE (CALIFORNIA BEARING RATIO RANGE BETWEEN 40 AND 80) . IF UNSUITABLE SOILS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR POSSIBLE MODIFICATIONS TO THE PAVEMENT DETAIL.

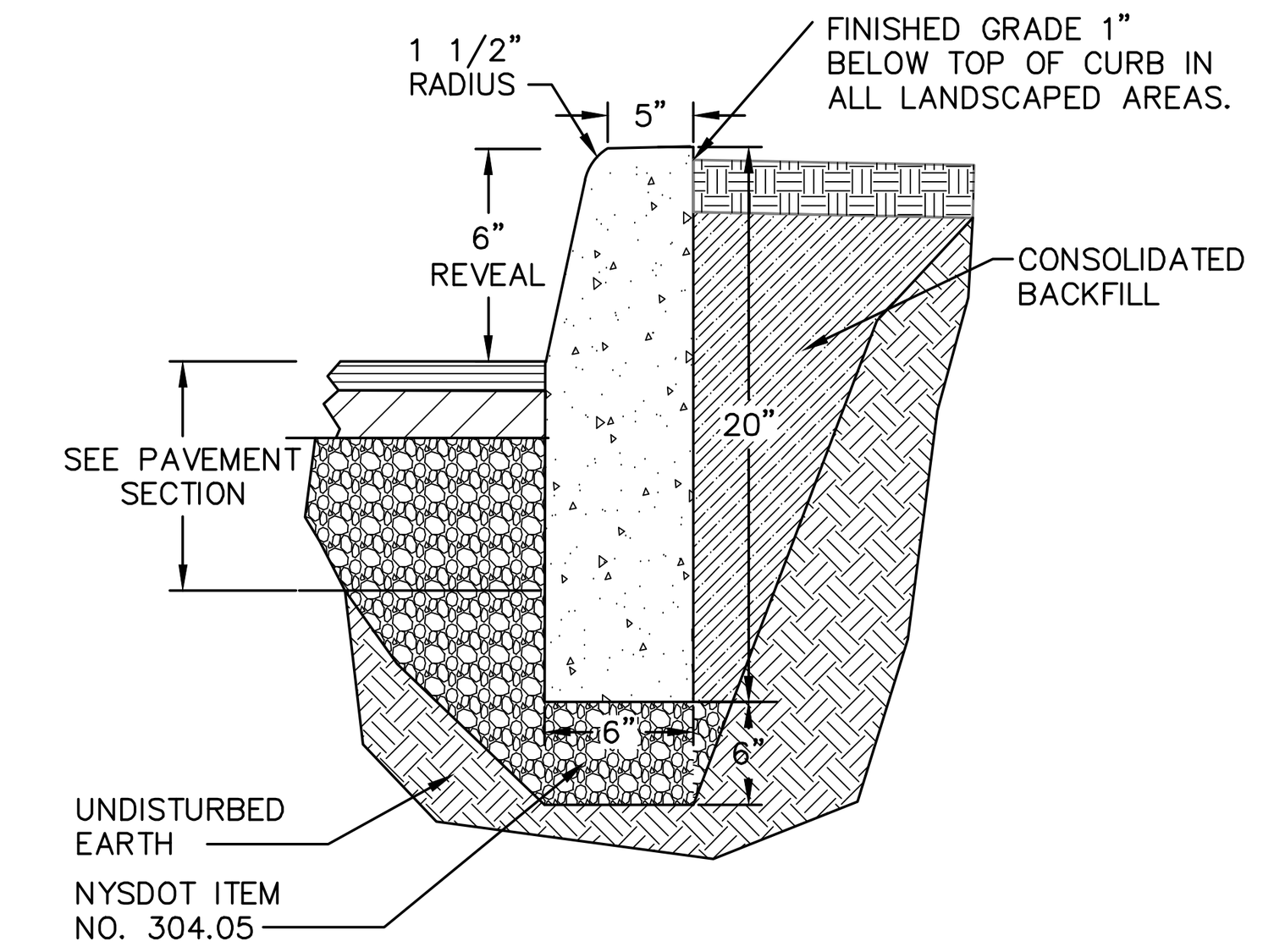
PAVEMENT SECTION DETAIL
NOT TO SCALE



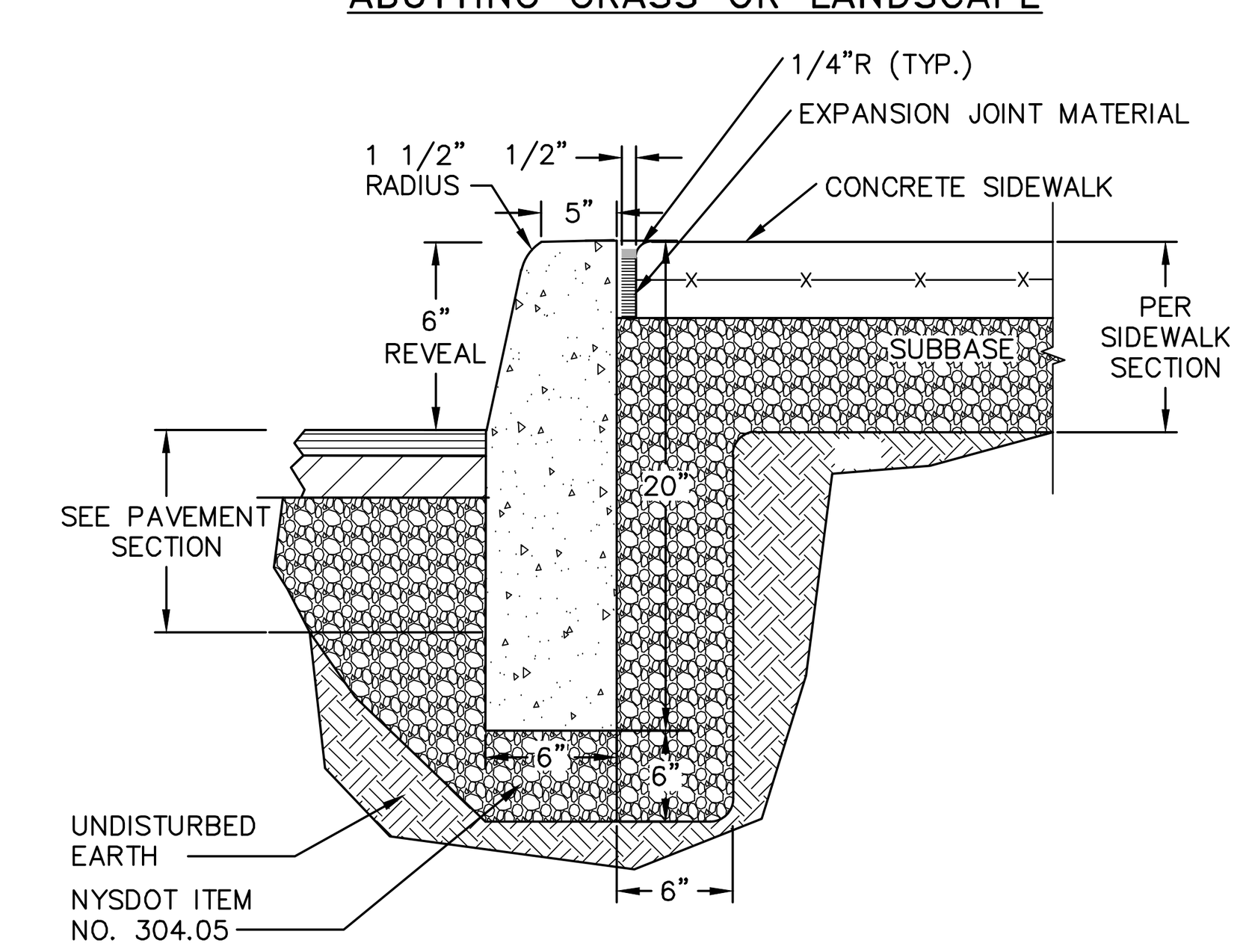
LEGEND
- (A) 1–1/2" ASPHALT CONCRETE TOP COURSE– NYSDOT ITEM 402.1261013
- (B) 2–1/2" ASPHALT CONCRETE BINDER COURSE– NYSDOT ITEM 402.256903
- (C) 8" ASPHALT CONCRETE BASE COURSE– NYSDOT ITEM 402.376903 (2"–4" LIFTS)
- (D) 12" GRANULAR SUBBASE COURSE– NYSDOT ITEM 304.11000008

NOTES:
1. SAW CUT MIN. 18" BEYOND EXCAVATION WITH SMOOTH EDGES. 18" JOINT BETWEEN EXISTING AND NEW TOP COURSE TO BE MILLED. JOINT TO BE SEALED WITH POLYMER MODIFIED SEALER.
2. FURNISH, PLACE, AND COMPACT SUBBASE.
3. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.
4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.
5. IF THE PAVEMENT SECTION IS OVER A CONCRETE SLAB, THE RESTORED PAVEMENT SECTION SHALL MATCH THE TOTAL THICKNESS OF THE EXISTING CONCRETE SLAB AND PAVEMENT.

NYSDOT ROW PAVEMENT RESTORATION DETAIL
NOT TO SCALE



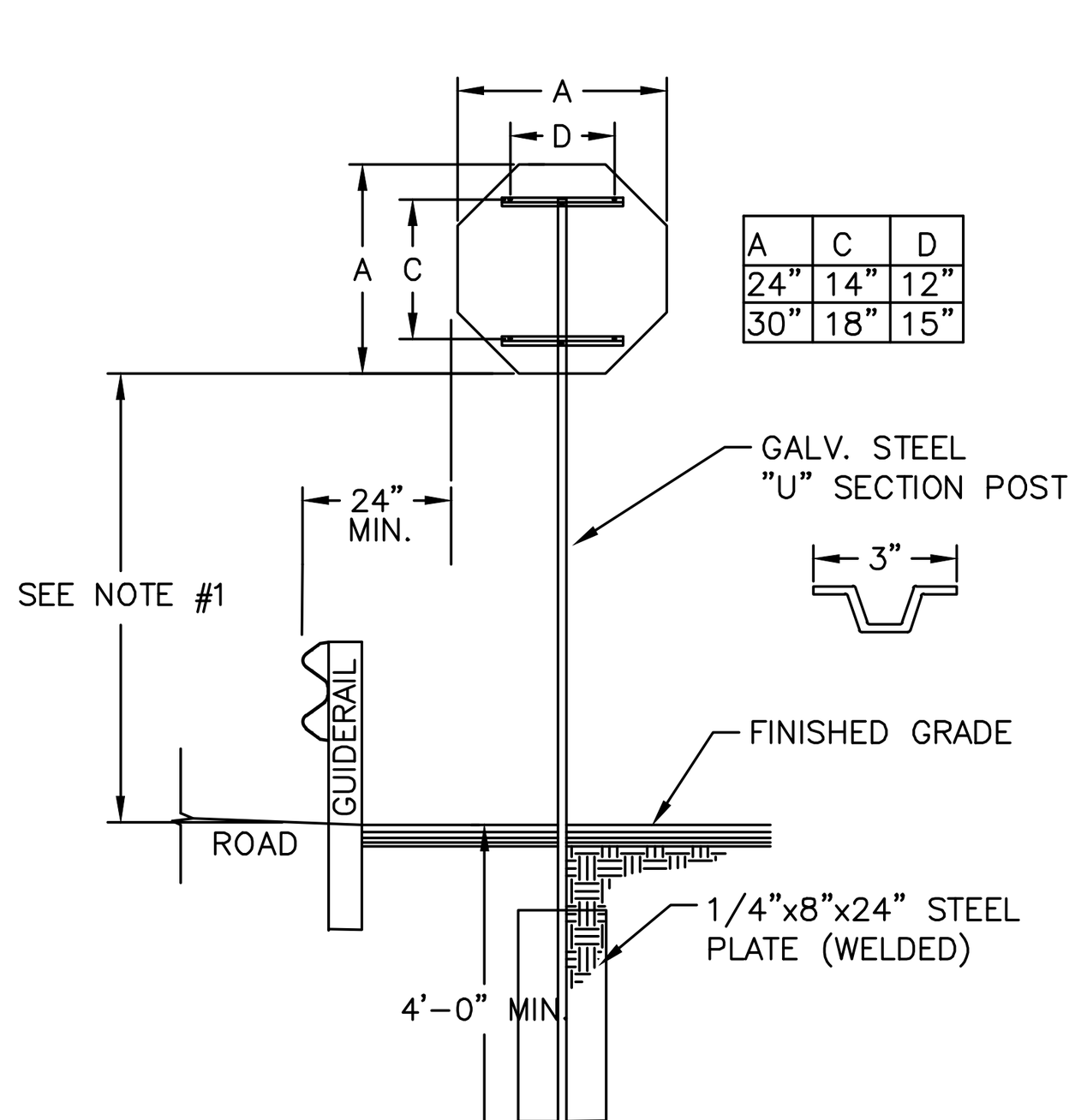
ABUTTING GRASS OR LANDSCAPE



ABUTTING SIDEWALK

NOTES:
1. CONCRETE CURB SHALL BE 4,000 PSI CAST–IN–PLACE, AND IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION SECTION 609.
2. EXPANSION JOINTS OF 1/2" CELLULOSE OR SIMILAR MATERIAL SHALL BE PLACED AT 10 FOOT INTERVALS.
3. FOR MOUNTABLE CURBS ABUTTING SIDEWALK OR OTHER HARDSCAPE, REFER TO "ABUTTING SIDEWALK" DETAIL.

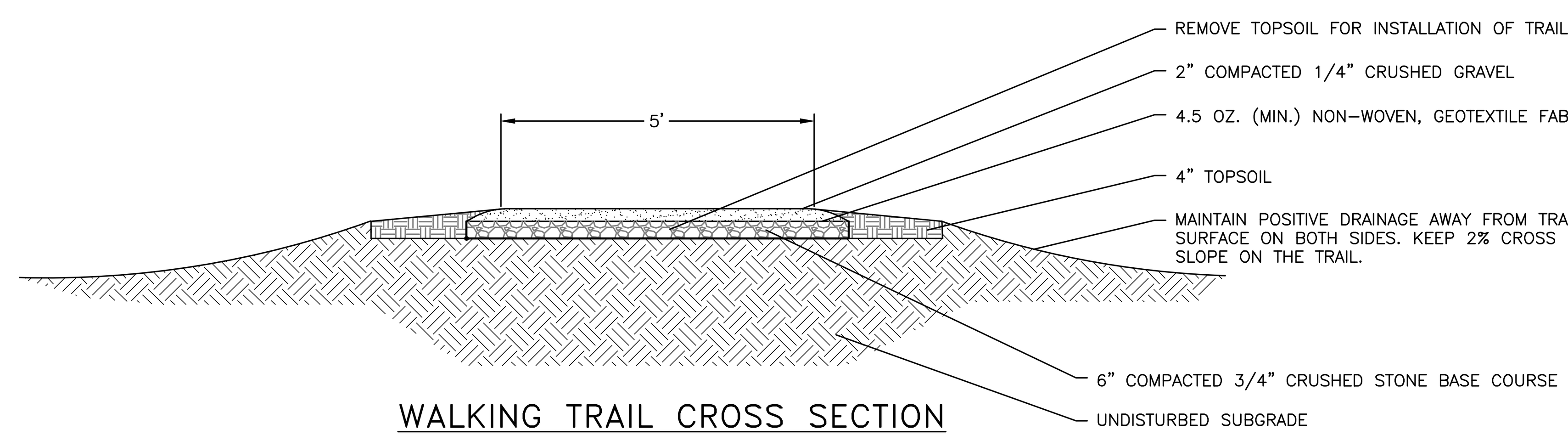
CAST–IN–PLACE CONCRETE CURB DETAIL
NOT TO SCALE



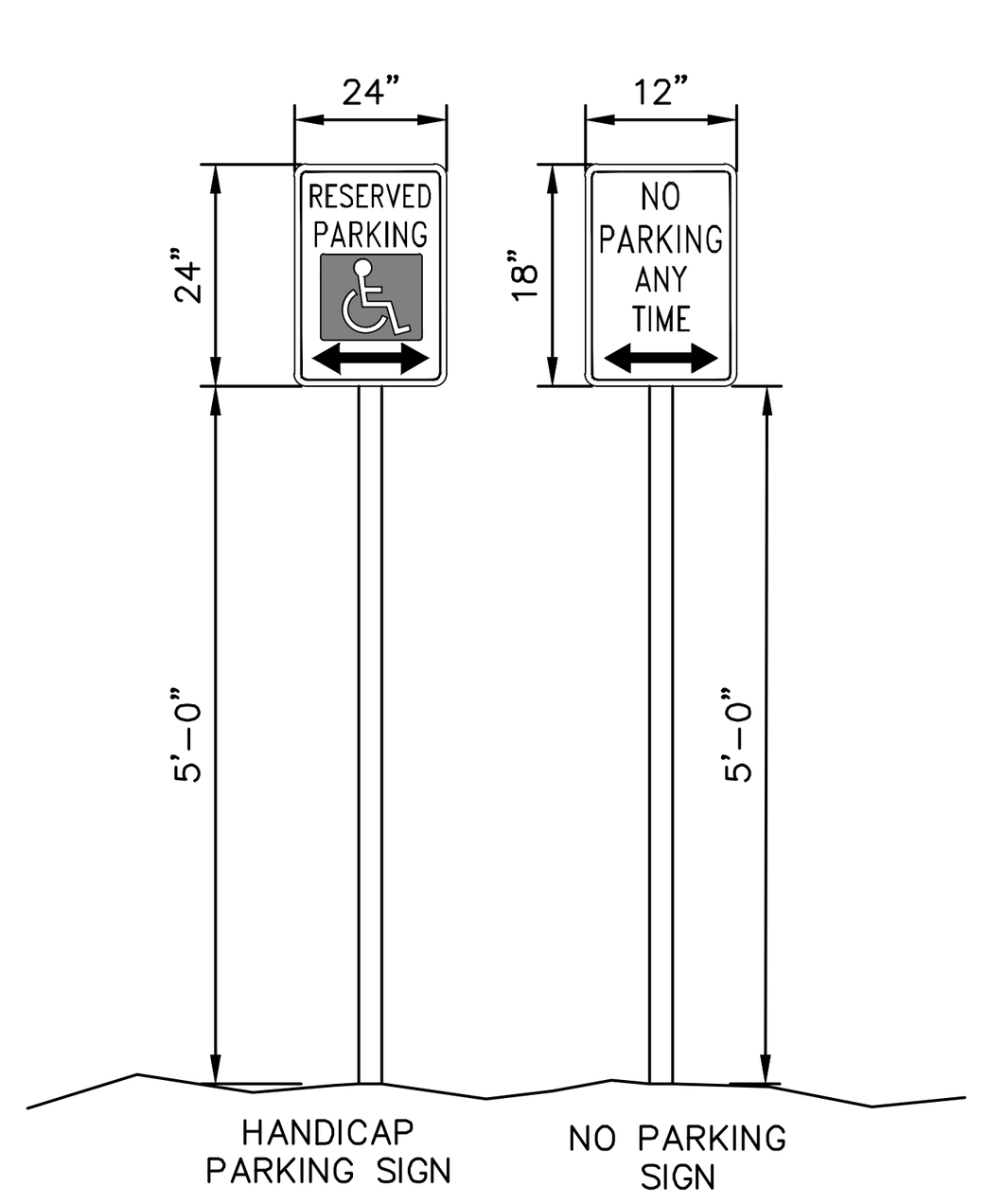
A	C	D
24"	14"	12"
30"	18"	15"

NOTE:
1. SIGN MOUNTING HEIGHT SHALL BE A MINIMUM OF 7'. MINIMUM MOUNTING HEIGHT MAY BE ADJUSTED ONLY IN ACCORDANCE WITH PROVISIONS OUTLINED IN "NYCRR, CHAPTER V–UNIFORM TRAFFIC CONTROL DEVICES."
2. SIGN POST SHALL BE IN ACCORDANCE W/ NYSDOT STANDARD SPECS SECTION 730.
3. THIS SIGN POST MAY BE SUBSTITUTED FOR THE BREAKAWAY WOOD SIGN POSTS AS DIRECTED BY THE ENGINEER (ITEM 645.81).

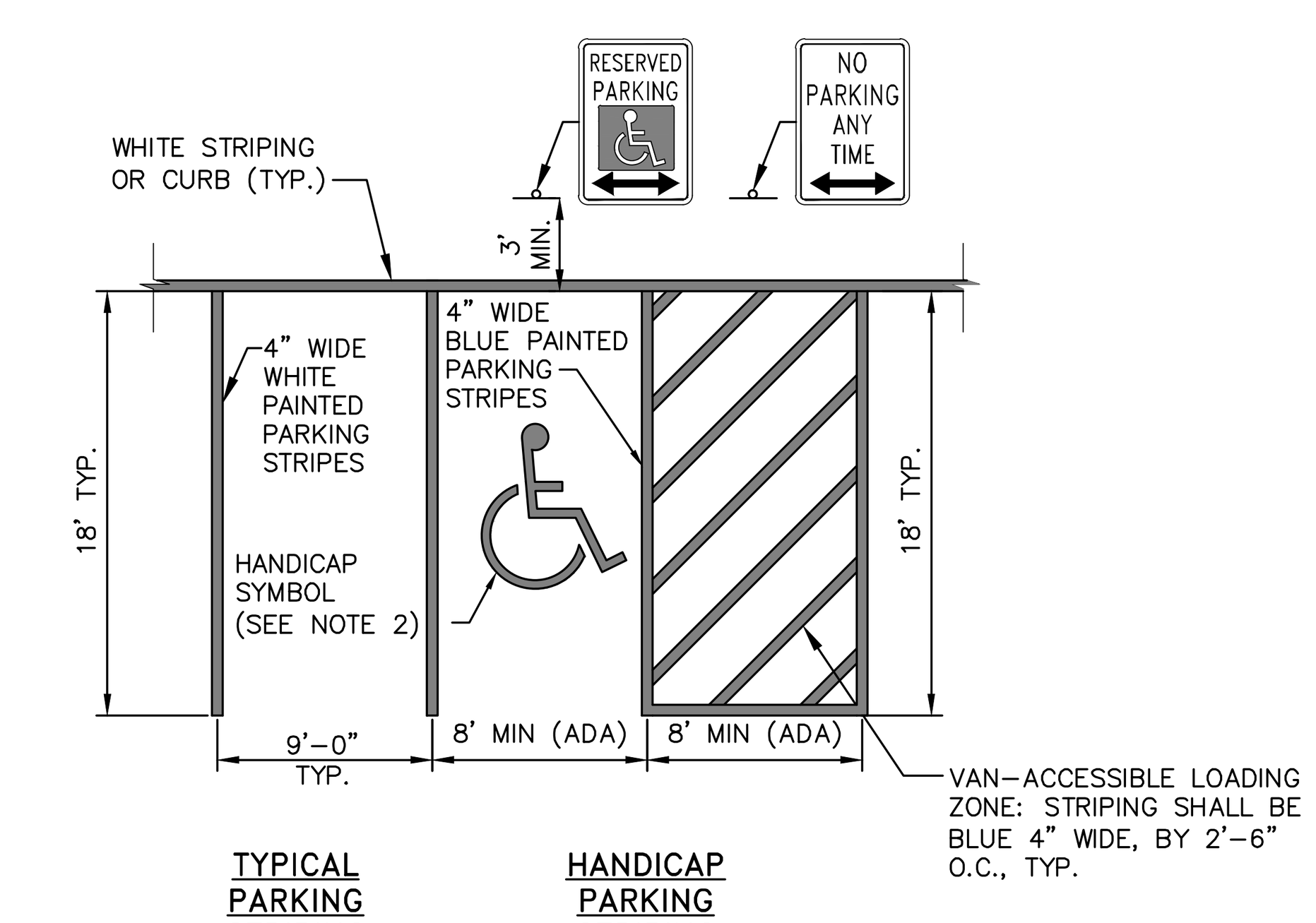
SINGLE POLE SIGN DETAIL
SCALE: NOT TO SCALE



WALKING TRAIL CROSS SECTION
NOT TO SCALE

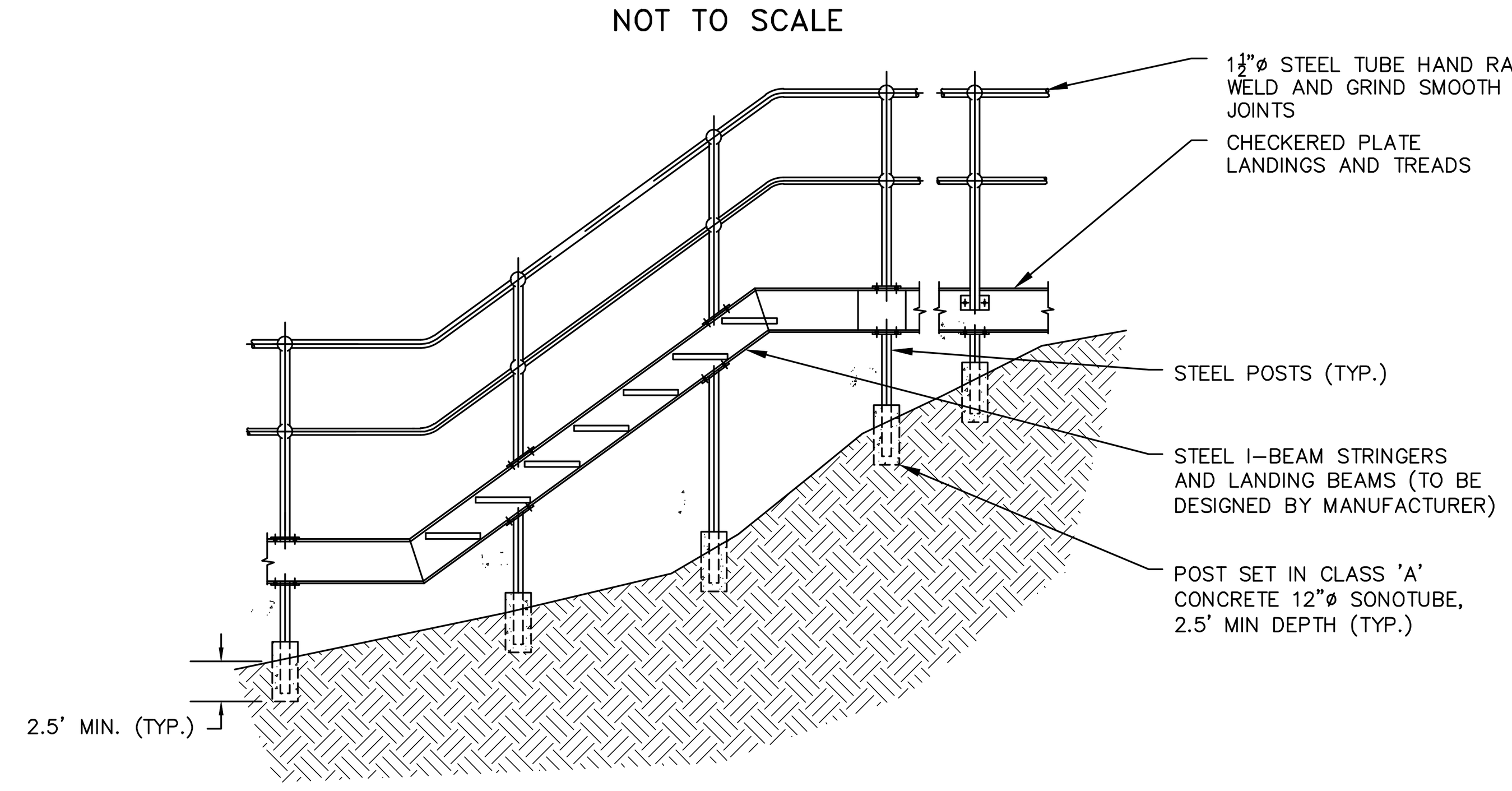


SIGN DETAILS
NOT TO SCALE

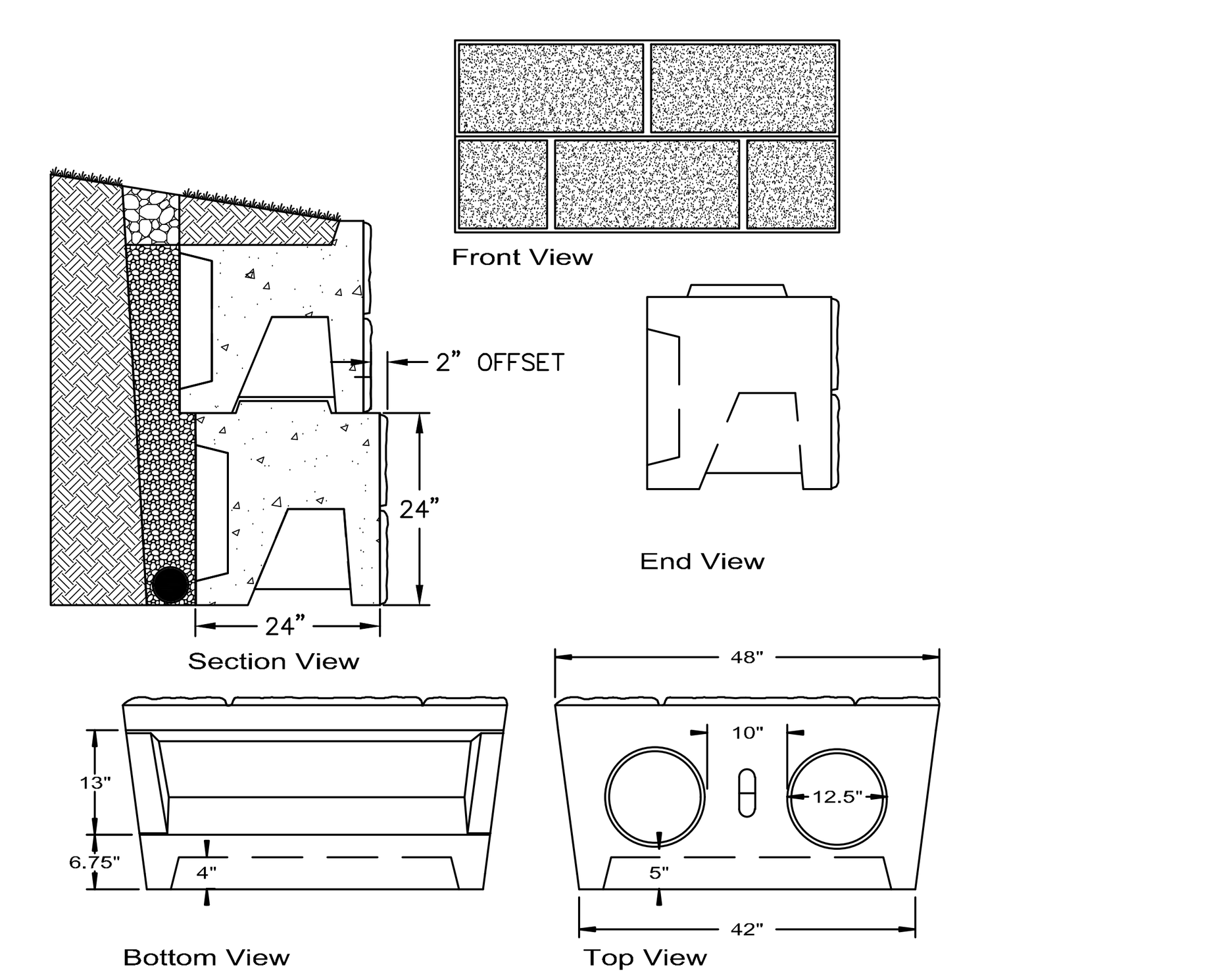


NOTES:
1. ALL DIMENSIONS SUBJECT TO CURRENT MUNICIPALITY ZONING AND SITE REGULATIONS.
2. PAINTED HANDICAP SYMBOL TO BE IN ACCORDANCE WITH NYSDOT AND ADA STANDARDS.
3. IF PARKING ABUTS A SIDEWALK, THEN THE REGULATORY SIGNS SHALL BE PLACED BEHIND THE SIDEWALK.

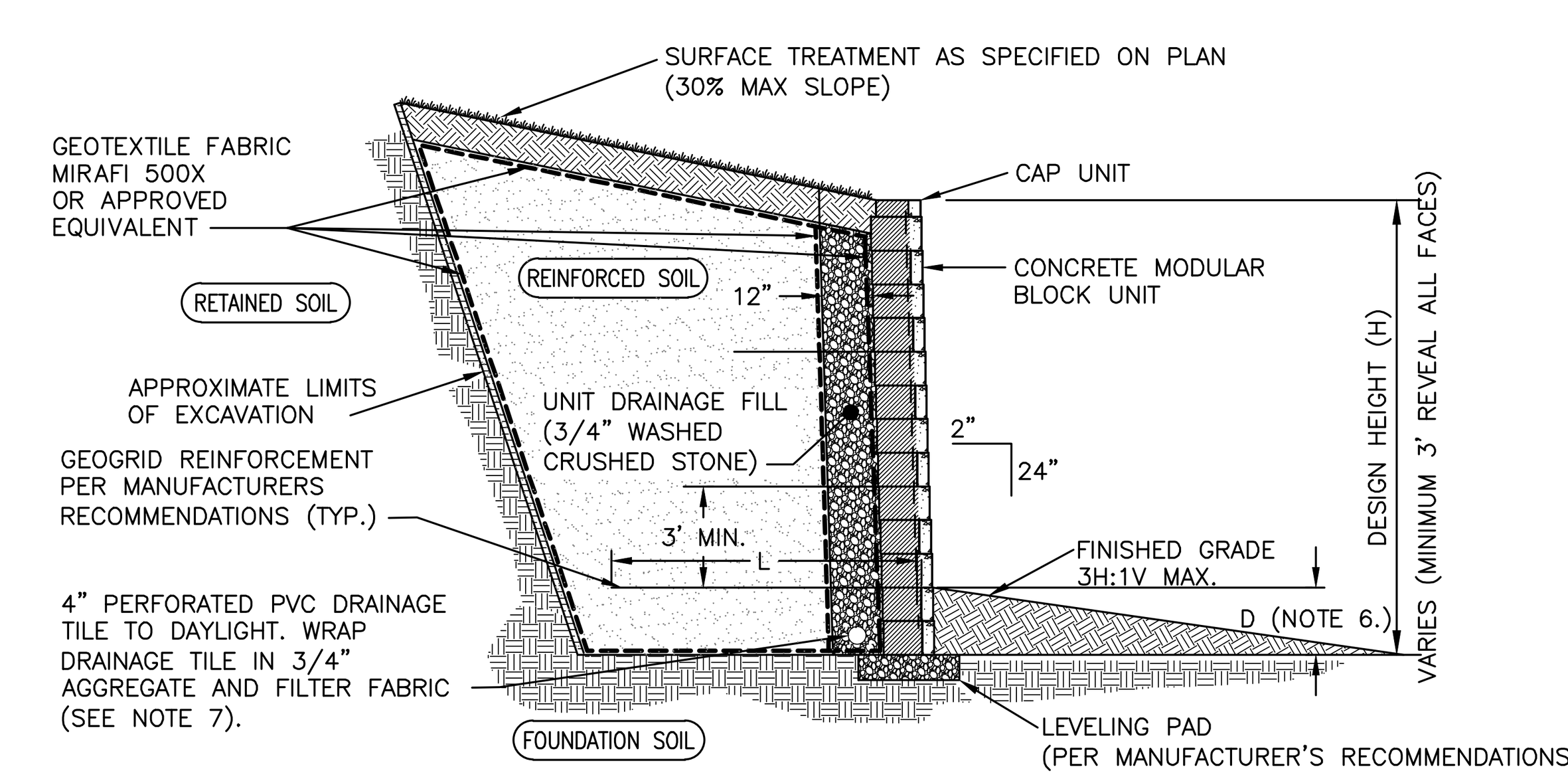
PARKING AND STRIPING DETAIL
NOT TO SCALE



STEEL STAIRCASE AND HANDRAILS DETAIL
NOT TO SCALE



WOODARD'S CONCRETE BLOCK WALL DETAIL
NOT TO SCALE



MODULAR RETAINING WALL NOTES:
1. MODULAR RETAINING WALL MANUFACTURED BY WOODARD'S OR APPROVED EQUAL.
2. GRID TYPE SHALL BE AS SPECIFIED BY THE MANUFACTURER.
3. GRID SPACING AND LENGTH VARY BASED ON OVERALL WALL HEIGHT, SOIL AND LOADING CONDITIONS. WALLS OF LIMITED HEIGHT (I.E., 4' OR LESS) MAY NOT REQUIRE THE INSTALLATION OF GRID.
4. LEVELING PAD DEPTH SHALL BE SPECIFIED BY THE MANUFACTURER BASED ON ENGINEERING DESIGN SPECIFIC FOR THE SITE.
5. MANUFACTURER TO PROVIDE FINAL ENGINEERING CALCULATIONS AND DETAILS TO THE OWNER FOR REVIEW BY THE OWNERS ENGINEER.
6. D SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.
7. RELOCATE PERFORATED PIPE WITHIN STONE CROSS SECTION FOR STEPPED WALLS TO ACHIEVE CONTINUOUS FLOW TOWARD DISCHARGE POINT.
8. SEE MANUFACTURER'S DETAILS AND INSTALLATION GUIDELINES FOR FURTHER REQUIREMENTS.

CONCRETE MODULAR RETAINING WALL DETAIL
NOT TO SCALE

DRAWN BY: ESR				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	8/31/21	PER PLANNING BOARD COMMENTS	CMB	7	5/31/22	PER PLANNING BOARD COMMENTS	CMB
2	11/30/21	PER PLANNING BOARD COMMENTS	MAB	8	6/28/22	NO CHANGE THIS SHEET	CMB
3	12/28/21	PER PLANNING BOARD COMMENTS	MAB	9	7/26/22	NO CHANGE THIS SHEET	CMB
4	1/25/22	PER PLANNING BOARD COMMENTS	MAB	10	10/7/22	NO CHANGE THIS SHEET	CMB
5	2/22/22	PER PLANNING BOARD COMMENTS	CMB				
6	4/26/22	PER PLANNING BOARD COMMENTS	CMB				



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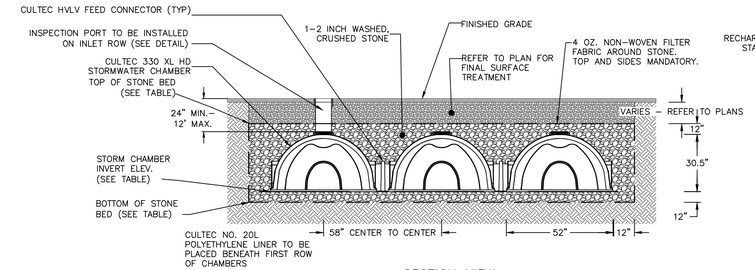
SITE CONSTRUCTION DETAILS

1113 WOLCOTT AVENUE

1113 WOLCOTT AVENUE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954–26–651901

JOB #:	2021:022
DATE:	6/29/2021
SCALE:	AS SHOWN
TITLE:	CD–1
SHEET:	12 OF 15

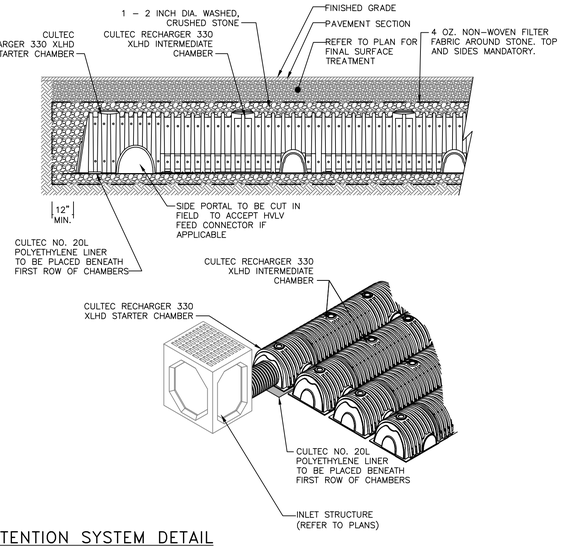
UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



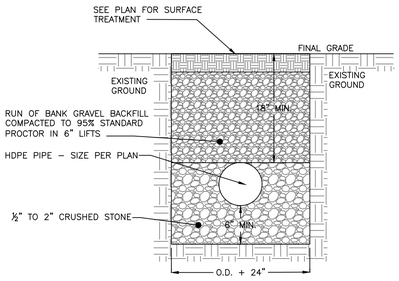
SECTION VIEW

NOTES:
1. CULTEC RECHARGER 330XLHD CHAMBERS BY CULTEC, INC. OF BROOKFIELD, CT. ALL CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH CULTEC INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
2. THE BED OF THE SYSYTEM FOOTPRINT SHALL BE LAID NEARLY LEVEL.
3. EACH ROW OF CHAMBERS SHALL BE FED VIA A 12" MANIFOLD WITH TEE CONNECTIONS BY CULTEC OR EQUAL.
4. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IF SUBSURFACE CONDITIONS IN THE AREAS OF THE INFILTRATOR TRENCHES IS NOT CONSISTENT WITH THE TEST PIT OR PERCOLATION DATA (E.G. GROUNDWATER OR BEDROCK ENCOUNTERED, SOIL PROPERTIES ARE NOT CONSISTENT, ETC.).
5. REFER TO THE INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES NOTES ON THE GRADING SHEET.
6. SEE ALSO CLAY KEY DETAIL THIS SHEET.

BOTTOM OF STONE BED ELEVATION	CHAMBER INVERT	TOP OF STONE BED ELEVATION	STONE BED FOOTPRINT	STONE BED DIMENSIONS	NO. OF CHAMBERS
134.0	134.5	137.54	1,601 S.F.	30.5'X52.5'	42

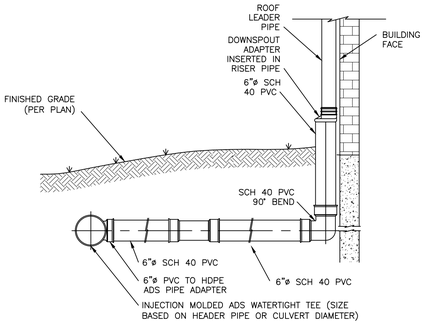


UNDERGROUND INFILTRATION/DETENTION SYSTEM DETAIL
NOT TO SCALE



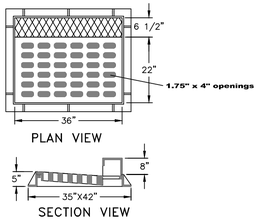
NOTES:
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

STORMWATER PIPE IN TRENCH DETAIL
NOT TO SCALE



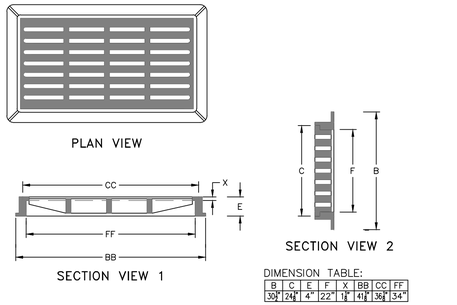
NOTES:
1. ROOF LEADER LOCATIONS AND SIZES TO BE DETERMINED BY THE PROJECT ARCHITECT. DOWNSPOUT ADAPTER TO MATCH DOWNSPOUT SIZE.
2. PVC JOINT CONNECTIONS SHALL BE MADE WITH PVC CEMENT.
3. ROOF DRAINAGE HEADER PIPES SHALL BE AS NOTED ON THE UTILITY SHEET.
4. SUBSTITUTIONS OF PIPE MATERIAL SHALL BE BROUGHT TO THE DESIGN ENGINEER'S ATTENTION FOR REVIEW.

ROOF LEADER CONNECTION DETAIL
NOT TO SCALE



NOTES:
1. HEAVY DUTY RECTANGULAR STORMWATER INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 2541, OR APPROVED EQUAL.
2. CATCH BASINS TO RECEIVE CURB INLETS ARE: CB 1&2. CB 4 TO RECEIVE A FLAT GRATE

CAST IRON STORMWATER CURB INLET GRATE DETAIL
NOT TO SCALE

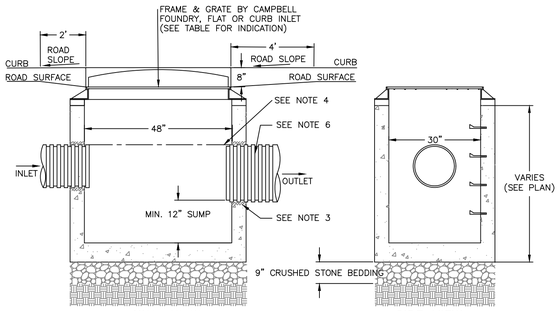


DIMENSION TABLE:

B	C	E	F	X	BB	CC	FF
30"	24"	4"	22"	1"	41"	36"	34"

NOTES:
1. HEAVY DUTY RECTANGULAR STORMWATER INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 3433, OR APPROVED EQUAL.
2. STMH1 AND STMH 2 RECEIVE SOLID CAST IRON COVERS.

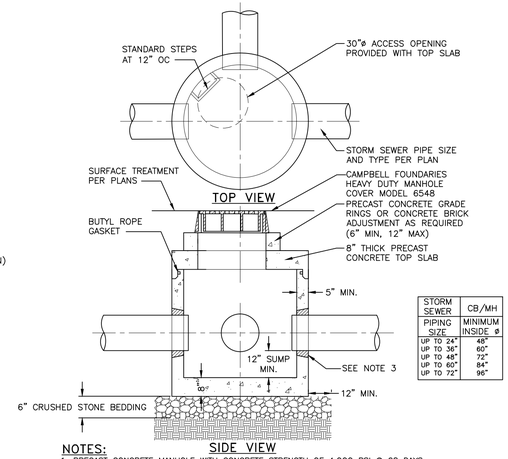
CAST IRON STORMWATER FLAT INLET GRATE DETAIL
NOT TO SCALE



FRONT VIEW SIDE VIEW

NOTES:
1. PRECAST CONCRETE CATCH BASIN WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.
2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE CATCH BASIN AND PARGED AROUND.
3. PIPES SHALL BE PARGED AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN 10 FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATERTIGHT.
4. PROVIDE A MINIMUM 0.1' DROP BETWEEN INLET AND OUTLET INVERTS (MATCH CROWNS FOR PIPES WITH DIFFERENT SIZE) UNLESS OTHERWISE NOTED ON THE PLAN.
5. CATCH BASINS WITH AN INTERIOR DEPTH OF 4' AND GREATER SHALL BE FURNISHED WITH STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS AT 12" INTERVALS.
6. HDPE PIPE SHALL BE PROVIDED WITH WATERTIGHT CONNECTIONS. ADS MODEL N12 WT IB OR APPROVED EQUAL.

CATCH BASIN DETAIL
NOT TO SCALE



STORM SEWER	CB/MH
PIPING SIZE	MINIMUM INSIDE ø
UP TO 24"	48"
UP TO 36"	60"
UP TO 48"	72"
UP TO 60"	84"
UP TO 72"	96"

SIDE VIEW

NOTES:
1. PRECAST CONCRETE MANHOLE WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.
2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE MANHOLE AND PARGED AROUND.
3. PIPES SHALL BE PARGED AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE.
4. CONCRETE STRUCTURE AND CASTING SHALL BE RATED FOR H20 TRAFFIC LOADING.
5. INLET FRAME SHALL BE FULLY SUPPORTED ON THE CONCRETE STRUCTURE FOR H20 LOADING.
6. MANHOLES WITH AN INTERIOR DEPTH OF 4' AND GREATER SHALL BE FURNISHED WITH STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS AT 12" INTERVALS.

STORMWATER MANHOLE DETAIL
NOT TO SCALE

DRAWN BY: ESR				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
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5	2/22/22	PER PLANNING BOARD COMMENTS	CMB				
6	4/26/22	PER PLANNING BOARD COMMENTS	CMB				

STATE OF NEW YORK MICHAEL A. BOEDIGHEIMER 084466 LICENSED PROFESSIONAL ENGINEER

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STORMWATER CONSTRUCTION DETAILS

1113 WOLCOTT AVENUE

1113 WOLCOTT AVENUE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-26-651901

JOB #: 2021:022
DATE: 6/29/2021
SCALE: AS SHOWN
TITLE: CD-2
SHEET: 13 OF 15

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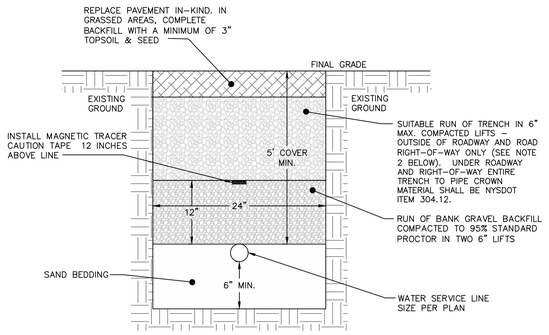


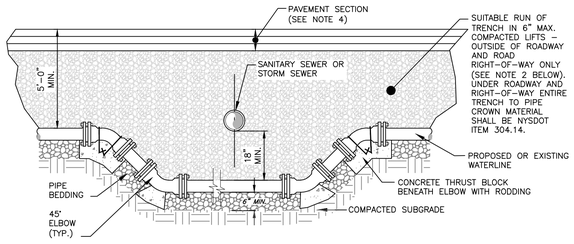
NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, ELONGATED PARTICLES, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.

3. IN AREAS WHERE 5' COVER REQUIREMENT CANNOT BE MET, THE CONTRACTOR SHALL PROVIDE PIPE INSULATION TO PREVENT FREEZING.

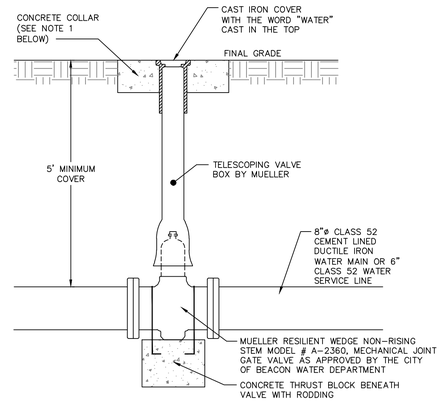
WATER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



NOTES:
1. WHEN THE ELEVATION OF THE SANITARY OR STORM SEWER CAN NOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER SERVICE LINE OR MAIN SHALL BE RELOCATED TO PROVIDE THIS REQUIRED SEPARATION OR RECONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF TEN (10) FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATERMAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR AWAY FROM THE SEWER AS POSSIBLE.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, ENLOGATED PARTICLES, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.

3. THE RELOCATED WATER MAIN/SERVICE LINE SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA, NYSDOH AND DCDOH STANDARDS.
4. PAVEMENT RESTORATION SHALL BE IN ACCORDANCE WITH THE PAVEMENT RESTORATION DETAIL.
5. ALL REPLACED WATERMAIN SHALL BE 12"ø CLASS 52 DUCTILE IRON.

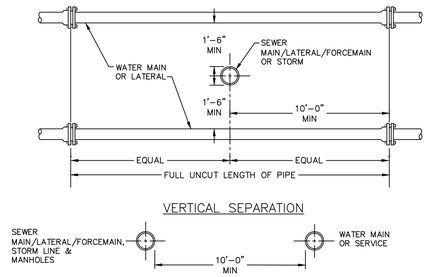
WATER LINE OFFSET DETAIL
NOT TO SCALE



NOTES:

1. CONCRETE COLLAR TO BE PROVIDED IN AREAS THAT ARE NOT PAVED. THE COLLAR SHALL BE 6" FROM THE COVER AND SHALL EXTEND 6" BELOW FINAL GRADE.

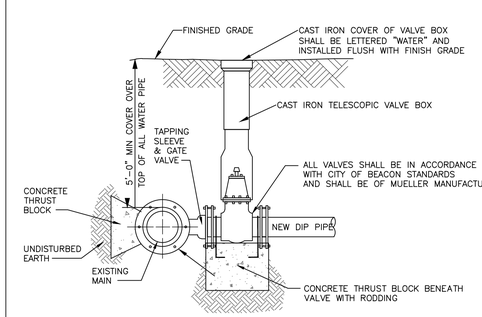
GATE VALVE DETAIL
NOT TO SCALE



NOTE:

NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE EXPRESS APPROVAL OF THE DUTCHESS COUNTY DEPARTMENT OF HEALTH AND THE CITY OF BEACON. CONCRETE ENCASEMENT OF WATERLINE OR OFFSETTING OF WATERLINE SHALL BE REQUIRED WHERE SEPARATION DISTANCES CANNOT BE MAINTAINED.

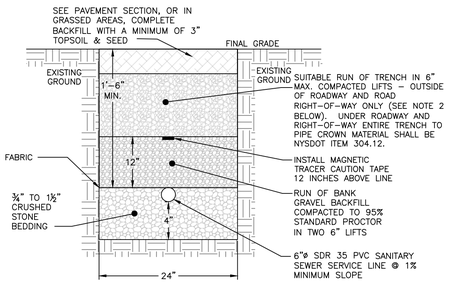
WATER LINE SEPARATION DETAIL
NOT TO SCALE



NOTES:

1. ALL VALVES SHALL OPEN BY TURNING LEFT (COUNTERCLOCKWISE) AND HAVE A 2-INCH SQUARE-OPERATING NUT PAINTED RED.
2. ALL VALVES SHALL BE M.J. RESILIENT WEDGE TYPE WITH "O" RING PACKING, DESIGNED FOR A WORKING PRESSURE OF 150 PSI AND BE IN FULL CONFORMANCE WITH AWWA C500.
3. TAPPING SLEEVE AND GATE VALVE SHOWN ARE MUELLER H-615, AND T-2630 RESPECTIVELY.

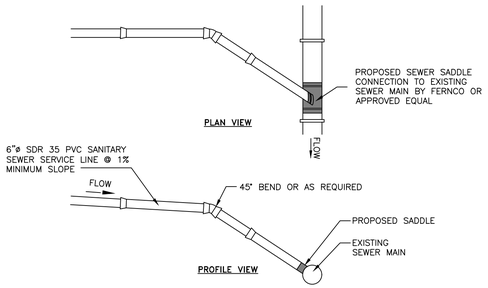
TAPPING SLEEVE DETAIL
NOT TO SCALE



NOTES:
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

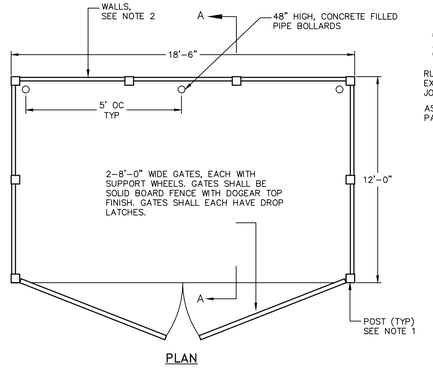
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.

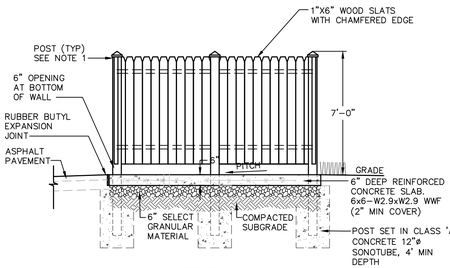
SANITARY SEWER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



NOTES:
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.

SANITARY SEWER SERVICE CONNECTION DETAIL
NOT TO SCALE





NOTES

1. POSTS SHALL HAVE A DECORATIVE CAP, CONSISTENT WITH THE ARTS & CRAFTS STYLE, AS APPROVED BY OWNER. POST SPACING SHALL BE AS REQUIRED BY WALL CONSTRUCTION.

2. WALLS OF DUMPSTER ENCLOSURE SHALL BE A SOLID WOOD PRIVACY FENCING NATURAL STAIL OR PAINT TO COMPLEMENT BUILDING.

TRASH ENCLOSURE DETAILS
NOT TO SCALE

DRAWN BY: ESR				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	8/31/21	PER PLANNING BOARD COMMENTS	CMB	7	5/31/22	PER PLANNING BOARD COMMENTS	CMB
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STATE OF NEW YORK · MICHAEL A. BIZZARRO · 084466 · LICENSED PROFESSIONAL ENGINEER

SEAL

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WATER & SEWER CONSTRUCTION DETAILS

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CITY OF BEACON
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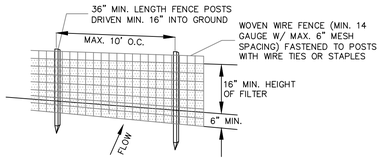
TAX ID: 5954-26-651901

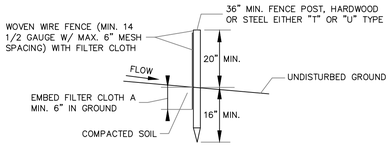
JOB #:	2021:022
DATE:	6/29/2021
SCALE:	AS SHOWN
TITLE:	CD-3
SHEET:	14 OF 15

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

EROSION AND SEDIMENT CONTROL DETAILS



PERSPECTIVE VIEW

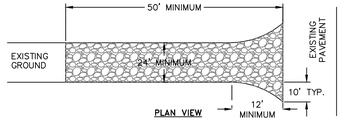


SECTION VIEW

NOTES:

1. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
3. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE OR APPROVED EQUAL.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL
NOT TO SCALE



NOTES:

1) STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.

2) LENGTH - NOT LESS THAN 50 FEET FOR A COMMERCIAL.

3) THICKNESS - NOT LESS THAN SIX (6) INCHES.

4) WIDTH - 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.

5) GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.

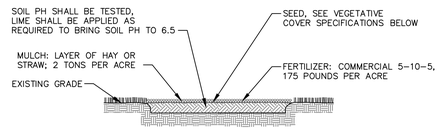
6) SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

7) MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

8) WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

9) PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



NOTES:

1. TOPSOIL, SEED, MULCH, AND FERTILIZE DISTURBED SOIL AREAS THAT WILL BE LEFT EXPOSED FOR 14 DAYS OR MORE.
2. SEED MIXTURE FOR USE ON LAWNS IN SUNNY AREAS:

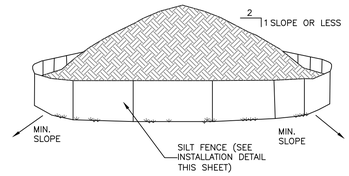
65% KENTUCKY BLUE GRASS BLEND	114 POUNDS PER ACRE
20% PERENNIAL RYEGRASS	35 POUNDS PER ACRE
15% FINE FESCUE	26 POUNDS PER ACRE
	175 POUNDS PER ACRE

3. SEED MIXTURE FOR USE IN SHADY AREAS:

80% BLEND OF SHADE TOLERANT KENTUCKY BLUEGRASS	138 POUNDS PER ACRE
20% FINE FESCUE	37 POUNDS PER ACRE
	175 POUNDS PER ACRE

4. SEED BETWEEN APRIL 1ST AND MAY 15TH OR AUGUST 15TH AND OCTOBER 15TH. SEEDING MAY OCCUR BETWEEN MAY 15TH AND AUGUST 15TH IF ADEQUATE IRRIGATION IS PROVIDED.
5. TOPSOIL SHALL HAVE AT LEAST 5% BY WEIGHT OF FINE TEXTURED STABLE ORGANIC MATERIAL, AND NO GREATER THAN 20%. TOPSOIL SHALL HAVE NOT LESS THAN 20% FINE TEXTURED MATERIAL (PASSING THE NO. 200 SIEVE) AND NOT MORE THAN 15% CLAY.

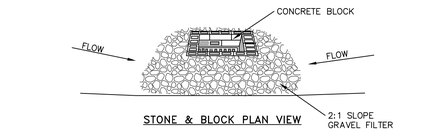
TOPSOIL, SEED AND MULCH DETAIL
NOT TO SCALE



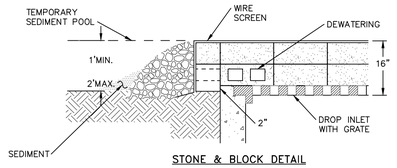
NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.

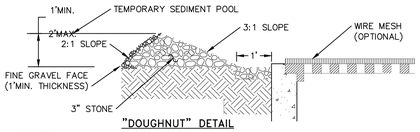
TEMPORARY SOIL STOCKPILE DETAIL
NOT TO SCALE



STONE & BLOCK PLAN VIEW



STONE & BLOCK DETAIL



"DOUGHNUT" DETAIL

NOTES:

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS. MAXIMUM DRAINAGE AREA 1 ACRE

CATCH BASIN INLET PROTECTION DETAIL
NOT TO SCALE

DRAWN BY: ESR				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	4/26/22	SHEET CREATED	CMB				
2	5/31/22	PER PLANNING BOARD COMMENTS	CMB				
3	6/28/22	NO CHANGE THIS SHEET	CMB				
4	7/26/22	NO CHANGE THIS SHEET	CMB				
5	10/7/22	NO CHANGE THIS SHEET	CMB				

SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

EROSION & SEDIMENT CONTROL DETAILS

1113 WOLCOTT AVENUE

1113 WOLCOTT AVENUE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-26-651901

JOB #: 2021:022
DATE: 6/29/2021
SCALE: AS SHOWN
TITLE: CD-4
SHEET: 15 OF 15

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

LANC & TULLY
ENGINEERING AND SURVEYING, P.C.

John J. O'Rourke, P.E., Principal
David E. Higgins, P.E., Principal
John Queenan, P.E., Principal
Rodney C. Knowlton, L.S., Principal
Jerry A. Woods, L.S., Principal
John D. Russo, P.E., Principal
John Lanc, P.E., L.S.
Arthur R. Tully, P.E.

September 6, 2022

Mr. John Gunn
Beacon Planning Board Chair
City of Beacon
1 Municipal Plaza
Beacon, NY 12508

RE: 1113 Wolcott Avenue
Tax No. 5954-26-651901
Special Use & Site Plan
City of Beacon

Dear Mr. Gunn:

My office has received the following in regard to the above application:

- Correspondence dated August 30, 2022, from Cuddy & Feder.
- Correspondence dated August 30, 2022, from Hudson Land Design.
- Correspondence dated August 30, 2022, from Colliers Engineering & Design.
- Traffic & Parking Management Plan, dated August 29, 2022, as prepared by Colliers Engineering & Design.
- Sound Level Report, dated August 29, 2022, as prepared by Beacon AV Lab.

The proposed project is located on Wolcott Avenue in the R1-40 Zone and Historic District & Landmark Overlay District (HDLO). The existing 2.28± acre parcel contains a church (Reformed Dutch Church of Fishkill Landing), parsonage building and a cemetery. The applicant is proposing to convert the church into a conference center with dining facilities, and to construct a 30-room hotel on the parcel, along with providing 31 on site spaces for parking as related to the hotel, with 4 of the spaces being ADA compliant.

It should be noted that since no revised plans were received for this submission, all previous engineering comments from our August 8th, 2022, correspondence are still outstanding. Based on our review of the above documents we would like to offer the following comments:

General Comments:

1. The applicant has submitted a sound study to reflect the sound levels to be expected at various locations around the perimeter of the site during events and under different conditions. We would recommend that the City's Planning Board retain a sound consultant to review the study and verify the conclusions and recommendations of the report.

This completes our review at this time. Further comments may be provided based on future submissions. If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.

John Russo, P.E.

cc: John Clarke, Planner
Jennifer Gray, Esq.
David Buckley, Building Inspector

Dear City of Beacon Planning Board,

I'm writing you as a member of the River Ridge community to voice my concern with the development at the Prophecy Theater, particularly as it relates to "load out" (where the crew and musicians break down their equipment and load it into trucks/trailers/vans after the performance).

Please note that my husband and I (and our little one on the way) are personal fans of the arts (and of development in general) in Beacon and are in support of this project. **Our desire isn't to oppose the project but to work *with* the developer to find a solution that promotes the arts in Beacon while also respecting the reasons why many of us moved here from NYC** (in our case, to start a family in a safe, quiet community).

As someone who used to be a touring performer myself, I'm all too familiar with the noise pollution caused by nighttime load outs, which can run up to 10 hours based on the size of the show. When it comes to noise concerns, **"load out" is far more concerning than the concerts and events themselves, as it is, essentially, construction noise** (think metal slamming on metal and the like) **that happens *after* the performance has ended**.

Being that this area has a construction ban between the hours of 7 pm and 8 am (according to the builder) **and that our community has "quiet hours" between 10 pm and 8 am, we think it's only fair that the town ensures the venue put restrictions on the "load time"** (which is traditionally designated by the venue) **between 10 pm and 8 am**, preventing the venue from making construction-style noises late into the night.

Without restrictions such as these, the property values of the surrounding homes/apartments/condos will be negatively impacted and the noise pollution will no doubt upset the entire area.

Thanks for hearing us out.

Sincerely,
Casey Renee Rogers and Alex Campbell
October 10th, 2022

Amanda Caputo

From: marilyn joseph <mrajoseph@earthlink.net>
Sent: Sunday, October 9, 2022 12:11 PM
To: Amanda Caputo
Subject: re-inventing a community church i

Planning Board of Beacon NY,

I am a resident of Beacon NY for 6 years. In that time I have seen our community taken over by our "Planning Board". What exactly are you planning ?

Placing a music "large" event venue with no parking right in the middle of a residential community. Accessorizing it with a walkway over graves, how quaint.

The planning that you are doing seem to be focused on tax dollars and not the realization that people actually live in this community. What are the residents of West End Lofts suppose to do while hoards of concert goers tramp on your event venue ,park on our property and contaminate our airways with their noise etc.....Since your "Plans" have taken effect I hear the police sirens more than ever before and increasing & the fire engines too. Where do you live ? Due to health issues I am unable to attend the meeting in person, otherwise I would be there. When you "Plan" something think, How would I feel if I lived next door to it ????

Marilyn

Amanda Caputo

From: bonnie phillips <bonniephillips08@gmail.com>
Sent: Sunday, October 9, 2022 7:33 PM
To: Amanda Caputo
Cc: shelleysimmonsnyc@gmail.com
Subject: Theater Development Plans

October 10th, 2022

Dear Gavin,

I am writing to voice my deep concerns regarding the Prophecy Theater development plans for the church and proposed hotel. My main concern is the location and the impact it will have on our residential community. It seems that the number of events, people, and traffic will result in making a quiet residential area into one that will be a great burden on the community and the environment. It also appears that to go forward with your proposal, you will have to cut down trees, which will certainly impose on the greenery and privacy that have attracted me and many who live very close to your proposed development. Living on the edge of the facility where the development is proposed, one can only anticipate noise, pollution, and imposition that will be the antithesis of what we presently enjoy. I would like you to reconsider your present proposal as it stands.

Sincerely,

Bonnie Phillips and Kofi Bannerman
Residents of The View

Amanda Caputo

From: Michelle Green <mhgreen4@gmail.com>
Sent: Tuesday, October 11, 2022 10:18 AM
To: Amanda Caputo
Subject: Re: Planning Board

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning Ms. Caputo, my name is Michelle Green and I am a resident at West End Lofts on Liam Dr in Beacon. I recently learned of the proposed church development project and I am hoping I can share my opinion with the planning committee.

I recently moved to Beacon after receiving and accepting an offer by the Beacon City School District. I am a proud teacher and coach in the district and I moved here in the hopes of becoming a part of the community I had learned so much about and have come to love. While I am only a renting an apartment in downtown Beacon, I dream of someday purchasing a home in this community.
The development of the church property so close to where I currently live has been causing me some concern. Being a coach in the BCSD, I come home late at night and usually cannot find a parking space in the lot dedicated to my apartment complex which forces me to park across the street. It is my understanding that the development will cause further parking issues-parking used for non residents who do not pay taxes in the community (again, I am only a renter for the time being). This lot can already get crowded during the weekends from visitors traveling into our bustling community. Coming from an even more congested city, I know the frustration that congestion causes and was disheartened to learn that the proposal does not include adequate parking for the venue.

I am hoping that the planning committee takes into consideration the voices of Beacon residents and either denies the developers request or demands an alternative to the minuscule amount of parking they have proposed.

Thank you for taking the time to read my email.
Sincerely,
Michelle Green
--
Michelle H. Green
mhgreen4@gmail.com

Date: 10/8/22
To: The Beacon Planning Board
Re: The Prophecy Theater

Dear Chairman Gunn and the Beacon Planning Board,

I have been following the proposals submitted by the Prophecy Theater over the past year and I am concerned about the status of this proposed project.

My front door and yard abut the church lawn, and I am very concerned about the negative impact that the proposed development would have on my quality of life, and the quality of life of my neighbors.

My major concern is that potential visitors to the proposed development will be trespassing on my property given my proximity to the church.

I am particularly concerned about the proposed hours of operation, 8:00am to 10:30 or 11:30pm, 365 days/year. I am not aware of any other establishments in Beacon that have those type of hours. I am a surgeon, often heading to work before dawn, and do need my home to be quiet in the evenings. The proposed window upgrades will help with the inside noise, but not help with the proposed visitors getting into and out of the church building.

I am also concerned about the noise and chaos that will be created when:

- 180 people show up for an event at the same time, and try to find an on-site parking space which will be impossible when there are only 27 spaces + 4 ADA reserved spaces
- Attendees gather outside the church waiting for an event to start, during intermissions, to smoke a cigarette, or to make phone calls
- Attendees congregate outside the venue after an event, waiting for a ride. I am as concerned about the outside noise as I am about the noise coming from inside the church. Who will be regulating the sound levels? Will that be on the developer to self-regulate? Or will I have to call the police each time there is an issue?

I ask you to please reconsider this potential development as currently proposed. I have not heard sufficient evidence as to how the potential the negative impact to the community will be mitigated. This includes taking into account safety of the neighbors/neighborhood, and controlling the outside crowd and noise levels of a venue that is proposed to operate 365 days a year -with extended hours into the night- in the middle of this residential community.

Sincerely,
Karoline Nowillo
Karoline Nowillo
14 River Ridge Court
Beacon, NY 12508

Additional 76 signatures as of 10/11/22
267 signatures submitted to P.B. previously
Total To Date 343

We as residents of Beacon, NY, while supportive of a venture to improve the Dutch Reform Church at 1113 Wolcott Avenue, have concerns about the current proposal before the Beacon Planning and Zoning Boards.

Our concerns revolve around **safety, noise, parking,** and **traffic.**

	Print	Signature	Address
268	Susan Trimble	Susan M. Trimble	22 Howland Ave. Beacon
269	Brianna Bernachia	[illegible]	4 Eliza St Beacon
270	Kelly Kingman	[illegible]	14 Mattie Cooper Sq.
271	Christopher Joslyn	[illegible]	14 Mattie Cooper Sq.
272	Herenia Arce	[illegible]	16 Verplanck Ave
273	i. Bartolomeu	[illegible]	9 Rombout
274	Cat. Bartolomeu	[illegible]	1030 Wollcott.
275	Richard Cannon	[illegible]	10 Academy
276	James White	[illegible]	8 Academy Street
277	Jennifer Whitted	[illegible]	27 Beacon Street
278	Anna Garcia	ANNA Garcia	
279	ARTUR Costa	[illegible]	Beacon NY.
280	Amanda Wiersum	[illegible]	390 Sherwood First
281	James Wiersum	[illegible]	" " "
282	Courtney Neuman	[illegible]	45 S. Brett St
283	Steve Jr	[illegible]	60 [illegible] St
284	Kathleen Harrison	[illegible]	63 Forrestal
	Print	Signature	Address

9/22

We as residents of Beacon, NY, while supportive of a venture to improve the Dutch Reform Church at 1113 Wolcott Avenue, have concerns about the current proposal before the Beacon Planning and Zoning Boards.

Our concerns revolve around **safety, noise, parking,** and **traffic.**

	Print	Signature	Address
285	Debra Ashton	Debra Ashton	13 Van Buren St.
286	Kristen Battle	[illegible]	71 Front St Beacon NY
287	Anne Carbone	Anne Carbone	99 Teller, Beacon NY
288	Traci Garner	[illegible]	31 Tompkins Ave
289	Nan Dempster	N. Dempster	54 Angela Lt. Beacon NY 12508
290	Hollis Kellogg	[illegible] Kellogg	942 Wolcott Ave. NY 12508
291	Yulei Zhenh Ach	[illegible]	5301 Boulder Way.
292	ROBERT LANIER	[illegible]	37 SYCAMORE DR BEACON, NY 12508
293	SUSAN HIGGINS	[illegible]	37 Sycamore Dr.
294	INOCENCIO GONZALEZ	[illegible]	14 MEAD AVE 12508
295	Diane Butler	[illegible]	133 Martin Lane Beacon NY
296	Jean Haight	Jean Haight	68 N. Elm St
297	BOB Haight	Bob Haight	68 N. Elm St.
298	Susan Hamel	Susan Hamel	66 Phillips St.
299	Phyllis Newham	Phyllis Newham	17 Cross St Bcn
300	Marilyn T. Cooper	[illegible]	25 Hammond Plz, Beacon
301	Robin J Schnetzler	Robin Schnetzler	55 Ackerman St., Beacon, NY
	Print	Signature	Address

9

9/22

We as residents of Beacon, NY, while supportive of a venture to improve the Dutch Reform Church at 1113 Wolcott Avenue, have concerns about the current proposal before the Beacon Planning and Zoning Boards.

Our concerns revolve around **safety, noise, parking, and traffic.**

	Print	Signature	Address
302	Rachel O'Flaherty	[signature]	10 Center St. Beacon NY 12508
303	Jamal Parker	[signature]	10 Center St Beacon NY 12508
304	Latik Parker	[signature]	" " " " 12508
305	Jessica Jackson	[signature]	84 Tompkins Terrace Beacon, NY 12508
306	Adam Lister	[signature]	41 Mason Circle, Beacon NY 12508
307	Bridget O'Flaherty	[signature]	7 Franklin Ave Beacon
308	Brian O'Flaherty	[signature]	7 Franklin Ave Beacon
309	Brendan O'Flaherty	[signature]	7 Franklin Ave Beacon
310	Christopher	[signature]	7 Franklin Ave Beacon
311	Jessica Schrieder	[signature]	7 Franklin Ave Beacon
312	[illegible]	[signature]	2 Hudson View Dr
313	Carla [illegible]	[signature]	35 Crescent Dr Beacon NY
314	Tara Daly	[signature]	96 Wilkes St
315	[illegible]	[signature]	22 Hillside Rd. Beacon NY
316	Celia Reissig	[signature]	137 NR DB Beacon
317	Akiranwynn	[signature]	75 Tompkins Terrace
318	Paul Markowitz	[signature]	2 Forrestal Hgts
319	Leon Pinto	[signature]	28 Crescent Dr Beacon NY

9/22

~~6/22~~

We as residents of Beacon, NY, while supportive of a venture to improve the Dutch Reform Church at 1113 Wolcott Avenue, have concerns about the current proposal before the Beacon Planning and Zoning Boards.

Our concerns revolve around **safety, noise, parking,** and **traffic.**

	Print	Signature	Address
320	Amando Downs	[signature]	209 Main St
321	Kathy Caporale	[signature]	7 Exeter Circle
322	Dave Way	[signature]	118 Washington ave
323	Jon Corbesh	[signature]	54 Roundtree Ct Beacon
324	Christine Miroff	[signature]	50 Angela Ct 12508
325	Danny Zuccaro	[signature]	33 West Cutler St
326	AL ESPOSITO	[signature]	335 TORONTO AVE
327	Wilma Feliciano	Wilma Feliciano	137 Howland Ave
328	John Foster	[signature]	137 Howland Ave 12508

9/22

We as residents of Beacon, NY, while supportive of a venture to improve the Dutch Reform Church at 1113 Wolcott Avenue, have concerns about the current proposal before the Beacon Planning and Zoning Boards.

Our concerns revolve around **safety, noise**, **parking**, and **traffic**.

	Print	Signature	Address
329	Elizabeth Cruz		South Davis #14 Beacon NY 12508
330	KAREN KAIMOOL		30 Duncan ST.
331	Pedra Aldrich		30 Duncan St.
332	BILL HOGAN		2 [illegible] DR
333	Letisha Coon		9 Hudson View Drive
334	Kenneth Faust		11 Spring St.
	Print	Signature	Address
	Print	Signature	Address
	Print	Signature	Address
	Print	Signature	Address
	Print	Signature	Address
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9/22

We as residents of Beacon, NY, while supportive of a venture to improve the Dutch Reform Church at 1113 Wolcott Avenue, have concerns about the current proposal before the Beacon Planning and Zoning Boards.

Our concerns revolve around **safety, noise, parking,** and **traffic.**

335 Print Uma Rao	Signature Umarao	Address Poornamidat@gmail
Print	Signature	Address
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10/22

We as residents of Beacon, NY, while supportive of a venture to improve the Dutch Reform Church at 1113 Wolcott Avenue, have concerns about the current proposal before the Beacon Planning and Zoning Boards.

Our concerns revolve around **safety, noise, parking, traffic, and hours of operation (8am--10:30 or 11:30pm 365 days/year in a residential area).**

	Print	Signature	Address
336	Jeff Zito	[signature]	24 Oak St
337	Ksusha Zito	[signature]	24 Oak St
338	David Janus	[signature]	12 Dutchess Terrace
339	Sydney Pa H	[signature]	12 Dutchess Ter
340	Susan Ross	[signature]	6 Dutchess Terr
341	Hattie Thomas	[signature]	344 Main St.

10/22

We as residents of Beacon, NY, while supportive of a venture to improve the Dutch Reform Church at 1113 Wolcott Avenue, have concerns about the current proposal before the Beacon Planning and Zoning Boards.

Our concerns revolve around **safety, noise, parking,** and **traffic.** + hours of operation.

	Print	Signature	Address
342	Anne Bradford		249 Main St. #405 Beacon
343	Phil Bridges		249 Main St. #408 "
	Print	Signature	Address
	Print	Signature	Address
	Print	Signature	Address
	Print	Signature	Address
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Dear Planning Board and City Council Members:

I am surprised at the recent letter from now retired Building Inspector David Buckley approving parking for the proposed Prophesy Theater event space at 1113 Wolcott Ave. I find it suspect that this decision came right before he retired and days before a public hearing on the site – thereby negating the influence of public opinion. I find it also suspect that the Prophesy Theater LLC cancelled hours before the September Planning Board's public hearing about this site, again negating public opinion.

Had Mr. Buckley waited on his letter I would have emphasized that the parking exemption 223-26.B(2) referring to the 1964 parking law allowed for 336 seats with 69 off-street parking was for the Dutch Reformed Church -- a church that met two hours a week with a wedding/funeral a few times a year. To compare this to a music venue and a hotel open 365 days a year (with the only limitation of hours is no noise after 10:30 pm) is ridiculous.

I've heard that the Planning Board feels they don't have the legal right to turn down a proposal so that due to Mr. Buckley's letter, the parking is a "done deal." I'm not sure if that information is accurate so I'm including the City Council on this hoping that community input will still matter.

The parking proposal has extremely low number of parking spaces for the reality of the plan – 31 spots including one for an employee spot. I doubt one employee can handle a 30-room hotel. There is cleaning staff, food staff, maintenance staff and more. No one person can do all that and all the people hired for the hotel staff will most likely drive their own cars. The event space parking is also woefully inadequate which makes me wonder if they really know about producing music events. Nowhere do they talk about parking for musicians – and being married to a musician I can state there is an excellent chance each musician will drive themselves. There usually is a sound employee, lighting employee, ticket takers, ushers, supervisors and if drinks and food will be sold, several bartenders and food staff. These workers and musicians alone will account for more than 31 parking spaces. I've heard reports of a possible shuttle service but haven't seen any definitive plan on that. Before this site is approved there must be a definite, realistic parking plan.

My concern is that we'll have people parking in the West End Lofts (Liam Drive) and River Ridge Views parking lots, both lots have limited space and are for residents and their guests only.

I'm hoping David Buckley's letter was just an innocent oversight as was the last-minute cancelling of the Prophecy Theater subject at the September Planning Board Meeting. However, I think it's important for the city council to emphasize to its employees and committees to also avoid appearances of impropriety whether intended or not. As a citizen it's very disconcerting to see these red flags and not be suspicious.

Thank you.

Elise LaRocco
West End Loft resident

Amanda Caputo

From: Karen Bummele <kbummele@gmail.com>
Sent: Tuesday, October 11, 2022 2:37 PM
To: Amanda Caputo
Subject: Concerns for the Proposed Development at 1113 Wolcott Avenue

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Chairman Gunn and members of the City of Beacon Planning Board,

Like many of our neighbors, we continue to have serious concerns about the proposed development at 1113 Wolcott Avenue for the following reasons:

- We have yet to hear from the applicants any realistic plan to mitigate parking concerns. The traffic study conducted for this proposal took place in February 2022 when most commuters were still working from home, and tourists had not returned in numbers equivalent to pre-pandemic levels. Since Labor Day 2022, many businesses in NYC now require their employees to return to the office, and so many more people are parking their cars at the parking lots near Beacon train station. And thankfully, daytrippers and tourists feel comfortable returning to Main Street. On Beekman Street and the Municipal parking lots, we have seen an increase in parking at all times of day since early September. A reasonable approach would be to conduct a new traffic study that reflects the true picture of the city's traffic flow now that we understand how to live safely with COVID-19.

- The 1964 exemption should not be applied when it is clear there are insufficient parking spots for a hotel, event space, and restaurant without significantly impacting the residents who live so close by.

- We hear feedback from the developers that "it could be worse; you could have a restaurant or brewery on your doorstep." We disagree. The challenge with this proposed development is that an event space, by its nature, invites all attendees—in this case up to 198—to arrive and depart at the same time in a quiet residential area. This is a recipe for chaos on so many levels. How will they work to mitigate noise level, ensure guests do not wander onto other neighboring properties, trespassing or being disruptive?

- The only letters of support the developers can muster seems to be from people who live nowhere near this development and thus would feel no pain from the approval of this proposal.

As many neighbors have said before us, this development belongs on Main Street, or in a business district, not in an area where it would negatively impact our quiet residential complexes, in turn impacting the entire neighborhood.

Thank you for your time.

Sincerely,

Unit Owner at The View, 30 Beekman St.

Amanda Caputo

From: Edwin Torres <edwin@brainlingo.com>
Sent: Tuesday, October 11, 2022 4:34 PM
To: Amanda Caputo
Cc: preservebeaconny@gmail.com
Subject: Oct 12 - Public Hearing Opinion

Follow Up Flag: Follow up
Flag Status: Flagged

Edwin Torres
1 Liam Drive, Apt 308
Beacon, NY 12508

Hello Amanda Caputo and Members of the Planning Board,

I'm sending this in response to the parking development plans for the church next door. I'm an artist in the West End Lofts, one of the original tenants here with my wife and son, since 2019.

I did attend the last committee meeting at Beacon City Hall on Sept 13 as it started, and did not understand why this topic was not addressed, though I remember someone saying that it had been postponed. Not being used to city council meetings, I was confused and left shortly thereafter.

Then this weekend, a flyer had been left in our door about the public hearing on Oct. 12 at 7pm. I am unfortunately working in the city so can't attend, this email is my representation.

I don't know, honestly, how these hearings work, whether a gathered voice can actually manifest into the greater good...but I am hopeful that enough people, in Beacon as well as on this Planning Board, can see the issue with enough clarity to see the harm that allowing them to not address the shortage of parking would bring to the area.

It's one thing to destroy a beautiful historical monument for the sake of financial gains, but to then allow the developers a waiver to not carry out their due diligence and be supportive of their neighbors by refusing to expand their own parking...has an arrogance of purpose and entitlement that feels like bullying, to be honest.

Our parking lot at West End Lofts, is barely enough for the tenants living here already. How insanely ridiculous, to imagine a commercial venue opening up next door to residential housing, without taking responsibility for an easier way to co-exist.

The flyer says that the developers are claiming they should be exempt from current parking requirements because the church is an older structure. I don't know about any zoning laws or legal matters concerning that, but that's a ludicrous argument.

In the action of renovating the older structure, it will serve to function as a "current" venue. That's their purpose isn't it, to use the facade of a beautiful old structure for something "current" inside? And doesn't that mean its survival will depend on the "current" requirements of society and "current" entertainment and audience? Which means...current parking requirements. I don't mean to be glib, I'm just pointing out the obvious.

It's so clear how impossible future parking will be as a result of their spillover taking over our parking lot. 31 proposed parking spots on-site, as I understand it, for a 198 capacity venue + 30 room hotel + I don't know how many staff...there needs to be something fair here. If our residential area is headed towards an inevitable change that we can't control, it is beyond only-fair that the developers create their own space on their own land. To give their own employees and audience room, and to back up their own plans by following through on what's fair and just for their neighbors.

Okay that's it, thank you for hearing me.
Edwin

City of Beacon Planning Board Agenda
10/12/2022

Title:

Continue Public Hearing for SEQRA environmental review on application for Special Use Permit, Site Plan Approval and Subdivision, AND Open Public Hearing on application for Special Use Permit, Site Plan Approval and Subdivision, Mirbeau Inn & Spa at Howland Estate, 7 Craig House Lane, Submitted by The Mirbeau Companies

ATTACHMENTS

SWPPP Mirbeau Inn & Spa at Beacon_2022-0927.pdf

City of Beacon_Mirbeau HLD Response Letter_2022-0927.pdf

1OF1-MIRBEAU-SUBDIVISION PLAT_2022-0927.pdf

MirbeauSitePlanSUPSubmittalSept272022.pdf

Preliminary Water-Sewer Engineering Report_Mirbeau_2022-0927.pdf

1-SITE PLAN SET_MIRBEAU-COVER SHEET_2022-0927.pdf

2-SITE PLAN SET_MIRBEAU-EXISTING CONDITIONS PLAN_2022-0927.pdf

3-SITE PLAN SET_MIRBEAU-OVERALL MASTER PLAN_2022-0927.pdf

4-SITE PLAN SET_MIRBEAU-SITE PLAN 1_2022-0927.pdf

5-SITE PLAN SET_MIRBEAU-SITE PLAN 2_2022-0927.pdf

6-SITE PLAN SET_MIRBEAU-SITE PLAN 3_2022-0927.pdf

7-SITE PLAN SET_MIRBEAU-GRADING & UTILITY 1_2022-0927.pdf

8-SITE PLAN SET_MIRBEAU-GRADING & UTILITY 2_2022-0927.pdf

9-SITE PLAN SET_MIRBEAU-GRADING & UTILITY 3_2022-0927.pdf

10-SITE PLAN SET_MIRBEAU-E&SC 1_2022-0927.pdf

11-SITE PLAN SET_MIRBEAU-E&SC 2_2022-0927.pdf

12-SITE PLAN SET_MIRBEAU-PROFILES 1_2022-0927.pdf

13-SITE PLAN SET_MIRBEAU-PROFILES 2_2022-0927.pdf

14-SITE PLAN SET_MIRBEAU-PROFILES 3_2022-0927.pdf

15-SITE PLAN SET_MIRBEAU-PROFILES 4_2022-0927.pdf

16-SITE PLAN SET_MIRBEAU-DETAILS 1_2022-0927.pdf

17-SITE PLAN SET_MIRBEAU-DETAILS 2_2022-0927.pdf

18-SITE PLAN SET_MIRBEAU-DETAILS 3_2022-0927.pdf

19-SITE PLAN SET_MIRBEAU-DETAILS 4_2022-0927.pdf

20-SITE PLAN SET_MIRBEAU-TREE REMOVAL PLAN-NORTH_2022-0927.pdf

21-SITE PLAN SET_MIRBEAU-TREE REMOVAL PLAN-SOUTH_2022-0927.pdf

22-SITE PLAN SET_MIRBEAU-PLANTING PLAN-NORTH_2022-0927.pdf

23-SITE PLAN SET_MIRBEAY-PLANTING PLAN-SOUTH_2022-0927.pdf

24-SITE PLAN SET_MIRBEAU-PLANTING PLAN ENLARGEMENT 1_2022-0927.pdf

25-SITE PLAN SET_MIRBEAU-PLANTING PLAN ENLARGEMENT 2_2022-0927.pdf

26-SITE PLAN SET_MIRBEAU-PLANTING PLAN ENLARGEMENT 3_2022-0927.pdf

27-SITE PLAN SET_MIRBEAU-SITE LIGHTING PLAN-NORTH_2022-0927.pdf

28-SITE PLAN SET_MIRBEAU-SITE LIGHTING PLAN-SOUTH_2022-0927.pdf

220926RGD_CM 9.9.22 Comment Response.pdf

220927_MirbeauBeacon_SpecialUseSitePlanReviewSubmission.pdf

Mirbeau Dutchess County Planning Response.pdf

Mirbeau Public Comment George.pdf

Mirbeau Public Comment George (2).pdf

Mirbeau Public Comment George (3).pdf

Planners Comments Mirbeau 10.7.22.pdf

Engineers Comments Mirbeau 10-06-22.pdf

Mirbeau Traffic Review 10.11.22.pdf

Stormwater Pollution Prevention Plan
for
Mirbeau Beacon Inn & Spa

Prepared for:
Mirbeau Beacon, LLC.
433 Broadway STE 203
Saratoga Springs, NY 12866

March 29, 2022
Revised May 25, 2022, July 26, 2022, September 27, 2022

Prepared by:
Hudson Land Design Professional Engineering, P.C.
174 Main Street
Beacon, NY 12508 (Main Office and Mailing Address)
13 Chambers Street
Newburgh, NY 12550 (Satellite Office)

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1.0 INTRODUCTION

1.1 Overview

This preliminary Stormwater Pollution Prevention Plan (SWPPP) has been developed in accordance with New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001, which authorizes stormwater discharges to surface waters of the State from the following construction activities identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. Construction activities involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a larger common plan of development or sale that will ultimately disturb one or more acres of land; excluding routine maintenance activity that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
2. Construction activities involving soil disturbances of less than one (1) acre where the Department has determined that a SPDES permit is required for stormwater discharges based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to surface waters of the State.
3. Construction activities located in the New York City, East of Hudson watershed, that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

This project qualifies for SPDES coverage under provision 1 as stated above.

The objectives of this SWPPP are as follows:

- To develop a sediment and erosion control plan in accordance with the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, which implements best management practices to stabilize disturbed areas, protect off site areas and sensitive areas and minimize the transport of sediment.
- To demonstrate that the resulting stormwater runoff from the development exiting the site will not adversely impact offsite properties, stormwater conveyance systems or receiving water bodies, and that temporary and permanent stormwater systems and facilities are designed in accordance with the latest revision to the New York State Stormwater Management Design Manual (SDM), January 2015.
- To demonstrate that runoff reduction measures have been implemented into the design of the site.
- To demonstrate that the required runoff from the development is captured and treated through approved water quality measures.

Construction activities are not permitted to begin until such time that authorization is obtained under the General Permit. This project is not located within a Municipal Separate Storm Sewer System (MS4) area. Authorization to commence construction activities may commence seven (7) days following receipt of the Notice of Intent (NOI).

A copy of the General Permit, SWPPP, NOI, NOI acknowledgment letter, inspection reports and accompanying plans shall be maintained on-site from the date of initiation of construction activities until final stabilization of all disturbed areas has been achieved and the Notice of Termination (NOT) has been submitted.

1.2 Land Disturbance

Per the General Permit, no more than five (5) acres of land disturbance may occur at any one time without written approval from the NYSDEC. At a minimum, the owner or operator must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

a. The owner or operator shall have a qualified inspector conduct at least two (2) site inspections every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

b. In areas where soil disturbance activity has been temporarily or permanently ceased, temporary and/or permanent soil stabilization measures shall be installed and/or implemented within seven (7) days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control.

c. The owner or operator shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

d. The owner or operator shall install any additional site-specific practices needed to protect water quality.

Disturbance of more than five (5) acres at any one time is not anticipated for this project. Phasing of the construction activities is planned to limit the amount of disturbance at any one time.

1.2.1 Special Habitat Considerations

The NYSDEC EAF Mapper identifies the following species as a species of concern, threatened or endangered: Atlantic Sturgeon, Timber Rattlesnake, Spongy-Leaved Arrowhead, Bald Eagle, Pied-billed Grebe, Short nose Sturgeon. An onsite habitat assessment was conducted on the site. No species were identified on the site, nor was any habitat found; however, suitable habitat was found for the Northern Long Eared Bat and Indiana Bat.

1.2.1.1 Northern Long Eared Bat and Indiana Bat

The NYSDEC Environmental Resource Mapper indicated that endangered species reside within the site but are not specific on the particular species present. Need to contact the local NYSDEC Regional Office for information.
The NYSDEC Environmental Resource Mapper does not indicate Northern Long Eared Bat or Indiana Bat on or near the property. Therefore, there will be no impact to their habitat.

In the unlikely event that either bat is discovered on the site, tree removal shall consider the habitat of the Northern Long Eared Bat and the Indiana Bat. To protect these bats from unintentional harm,

forest management practices shall take place during the hibernation period, November 1 through April 1, when bats are not expected to be present. However, the DEC places no restrictions on tree cutting unless a project is located within 5 miles of a known hibernation site or 1.5 miles of a documented summer occurrence. For projects requiring the removal of trees, the DEC recommends the following actions:

- Leave snag and cavity trees uncut unless their removal is necessary for protection of human life and property.
- If any bats are observed flying from a tree, or on a tree that has been cut, tree management activities in the area should be suspended and DEC Wildlife staff notified as soon as possible. A permit may be required to continue work, or you may have to wait until November 1 to resume activities.

Information in regard to the Long Eared Bat and Indiana Bat can be found within Appendix C.

2.0 PROJECT DESCRIPTION

2.1 Project Location

The project site is located at 7 Craig House Lane, in the City of Beacon, Dutchess County, New York and consists of 64.35 acres. The project site is located on the west side of Wolcott Avenue (NYS Route 9D) and is bounded by Grandview and South Avenue on its southerly property line. The Dutchess County Parcel viewer website lists the parcel's tax parcel number is 6054-13-001258.

The project site is previously improved and consists of the former Howland Mansion, the former Tioranda School, two gate houses and a building that was constructed in 1978 to serve the former mental health use when it was the Craig House, as well as related parking areas. The Craig House psychiatric facility closed in 1999, and all of the buildings on the premises have remained vacant and unused since that time.

The remaining existing site cover consists of a mixture of forested areas, open grass fields, specimen trees, some ponds with wetlands and Fishkill Creek binds its westerly property line.

2.2 Project Scope and Description

The scope of the project will be limited only to the 7 Craig House Lane Lot. No work is proposed on the parcel east of Wolcott Avenue (NYS Route 9D). Specifically, the project as proposed by the Applicant will revitalize this long dormant property through adaptive re-use and restoration of existing buildings, and by adding new buildings and improvements, including a hotel with accessory uses, a spa, fine dining restaurant, event facilities, estate-caliber gardens, water features and other site amenities (the "Project"). The Project will consist of the restoration, renovation and expansion of the existing mansion to principally provide amenities associated with the spa and a restaurant. The Project includes five (5) hotel rooms in the mansion, seven (7) grotto hotel rooms within the proposed mansion expansion and sixty-three (63) hotel rooms to be located in a newly constructed, spa chateau building, which includes a proposed spa at the garden level, and five (5) resort-related 2-bedroom rental cottages. New asphalt parking areas will be constructed to serve

the proposed use. A new maintenance building will be constructed which will provide storage of equipment and offices for buildings and grounds staff.

Future uses include Resort Rental Cottages: The 7.0 acre parcel delineated on the site plan will be subdivided from the Premises for future related development by an affiliated entity, and will have a density limited to a maximum of nineteen (19) resort-related rental cottages, with two (2) to three (3) bedrooms in each cottage. Resort Farm: A passive, resort-servicing micro-farm will be constructed at the Southeast corner of the Premises along Grandview Ave. This will include lavender and spice fields and production of on-site farm to table products. The proposed future farm area is shown on the accompanying site plan drawings. The Tioranda school will also be renovated in a future phase that will include recreation areas and parking.

The proposed project at full build-out will disturb approximately ±10.5 acres. The total drainage study area is ±193 square miles. The proposed development will increase impervious area ±0.91 acres in comparison to the pre-developed area.

2.3 Surface Water Bodies

2.3.1 Wetlands

The NYSDEC Resource Mapper indicates that there are no State regulated wetlands on the site. The database also indicates that the nearest State regulated wetland is located about 1,114 feet west of the site's westernmost boundary, this places the site well beyond the nearest State wetland's 100-foot buffer.

The NWI website indicates there are NWI freshwater wetlands, ponds and riverines present on and adjacent to the site. Of the two (2) freshwater ponds on the site's western side near its border with the Fishkill Creek, the DEC map indicates that that southern pond is a C class waterbody under regulation 862-237. The northern pond is classified by the NWI database as a PUBFh freshwater pons with an area of 0.83 acres. No disturbances are proposed to the on-site wetlands

2.3.2 Streams

NWI mapping and the NYSDEC mapper indicates no streams located on the premises. However, Fishkill Creek borders the westerly property line of the parcel. The DEC map indicates that the Fishkill Creek as a Class C stream under regulation 862-237. No disturbances are proposed to the bed or banks of the Fishkill Creek.

2.3.3 Floodplains

Based upon review of the National Flood Insurance Program Flood Insurance Rate Map panels 36027C0576E and 36027C0577E, dated May 2, 2012, for the City of Beacon, New York, it was found that the western portion of the site (along the Fishkill Creek and on-site ponds) is situated along a Zone AE Floodway. The remainder, eastern portion of the site was found to be on an area of minimal flood hazard (Zone X). Please refer to Appendix C for supporting information and details regarding flood hazard zones on site (FEMA FIRMette).

2.4 State Historic Preservation Office (SHPO)

2.4.1 Archaeological Sensitive Area

This project is located within and is adjacent to survey archaeologic area according to the SHPO CRIS website. The site is also adjacent to National Register Building sites along its west and north boundaries according to the SHPO CRIS website. The CRIS site indicates that the existing gates houses, Tioranda School building and Hasbrook Mansion are eligible for historic status. The archaeologic sensitive area origin is approximately 1,865 feet northwest of the project's north boundary. A phase environmental site assessment has been submitted to SHPO for review.

3.0 NOTICE OF INTENT

Prior to commencement of construction activities, the Owner/Operator shall submit a Notice of Intent (NOI) to the NYSDEC for authorization. The NYSDEC authorization schedule is as follows:

For construction activities that are not subject to the requirements of a regulated, traditional land use control MS4:

- Five (5) business days from the date the NYSDEC receives a complete NOI for construction activities with a SWPPP that has been prepared in conformance with the technical standards, or
- Sixty (60) business days from the date the NYSDEC receives a complete NOI for construction activities with a SWPPP that has not been prepared in conformance with the technical standards.

For construction activities that are subject to the requirements of a regulated, traditional land use control MS4:

- Five (5) business days from the date the NYSDEC receives a complete NOI and signed "MS4 SWPPP Acceptance" form.

The project area is under the control of a regulated MS4, therefore the NOI shall be submitted directly to the NYSDEC along with the MS4 SWPPP Acceptance Form. A draft completed NOI is included in Appendix A of this SWPPP.

4.0 SOILS

The hydrologic soil characteristics of the watershed areas were obtained from Web Soil Survey Mapping of Dutchess County, New York, and available Geographical Information Systems (GIS) and are as follows:

Symbol	Description	Hydrologic Soil Group
BeC	Bernardston silt loam, 8 to 15 percent slopes	C/D
ChB	Charlton fine sandy loam, 3 to 8 percent slopes	B
DwB	Dutchess-Cardigan complex, undulating, rocky	B/C
HsA	Hoosic gravelly loam, nearly level	A
HsB	Hoosic gravelly loam, undulating	A

NwC	Nassau-Cardigan complex, rolling, very rocky	C/D
NwD	Nassau-Cardigan complex, hilly, very rocky	C/D

SOIL PROPERTIES

Symbol	Erosion Hazard (k)
BeC	0.32 - Slight
ChB	0.24 - Slight
DwB	0.32 - Slight
HsA	0.10 - Slight
HsB	0.10 - Slight
NwC	0.17 - Slight
NwD	0.17 - Slight

Supporting soils information is provided in Appendix B of this SWPPP. Soil testing for the proposed stormwater treatment facilities can be found in Appendix O.

5.0 RAINFALL

5.1 Overview

The rainfall data utilized in the analysis of the watershed was obtained from Extreme Precipitation Tables from the Northeast Regional Climate Center. Supporting information is provided in Appendix C of this SWPPP. The storm events are as follows:

Storm Event	24-Hour Rainfall (in)
1 - year	2.61
10 - year	4.72
25 - year	5.93
100 - year	8.40

Rainfall data is provided in Appendix C of this SWPPP.

5.2 Rainfall Event Sizing Criteria

The stream channel protection volume (Cpv) criteria, intended to protect stream banks from erosion, will be demonstrated by providing 24 hour extended detention of the Type III 1-year, 24-hour storm event, or by infiltrating the entire volume. When providing extended detention, the channel protection volume criterion is not required where the resulting diameter of the stormwater management basin orifice is less than three (3) inches with a trash rack. Cpv can be met by use of green infrastructure treatment practices described in greater detail in Section 6 of this report.

The overbank flood control (Qp) criteria, intended to prevent an increase in frequency and magnitude of out of bank flooding generated by new development, will be demonstrated by attenuating the Type III 10-year, 24-hour peak discharge rate to pre-development conditions. The overbank flood criteria can be waived if the project site discharges to a tidal water or fifth order stream.

The extreme flood control (Qf) criteria, intended to prevent the increased risk of flood damage from large storm events, maintain the boundaries of pre-development conditions, and protect the physical integrity of stormwater management practices, will be demonstrated by attenuating the Type III 100-year, 24 hour peak discharge rate to pre-development conditions. The extreme flood control criteria can be waived if the project site discharges to a tidal water or fifth order stream. The use of on-site green infrastructure stormwater treatment practices can mitigate post-developed Qp and Qf rates and volumes.

The pre and post-development runoff rates will be compared utilizing the Type III 1-year (channel protection), 10-year (overbank flood control), and 100-year (extreme flood control) year, 24-hour storm events. The pre- versus post-development analysis will include the analysis of the Qp and Qf storm events.

6.0 STORMWATER ANALYSIS AND MANAGEMENT

6.1 Methodology

6.1.1 Hydrologic Analysis

The HydroCAD stormwater modeling system computer program by Applied Microcomputer Systems will be used to analyze, design and document the complete drainage system. The program uses standard hydrograph generation and routing techniques based on the USDA-NRCS Technical Releases TR-20 and TR-55 to develop stormwater runoff rates and volumes.

The program determines the rate and volume of runoff based on inputs of the watershed area, and characteristics of the land including vegetative coverage, slope, soil type, and impervious area.

6.1.2 Stormwater Design Points

Design Points represent the location where the majority of runoff from an area exits the site. The same design points are identified in post-development conditions so that a comparison can be made between the pre-development and post-development conditions. Three design points for the project were selected, as follows:

Stormwater Discharge Points	
SDP	**Description**
1	Fishkill Creek at the Tioranda Bridge.

6.2 Pre-Development Watershed Conditions

The pre-developed site is broken into one overall Fishkill Creek watershed to the design point located at the Tioranda bridge which is summarized below:

Subcatchment 1 is comprised of approximately 193 square miles of Fishkill Creek watershed area including off-site and on-site areas tributary to DP 1. The offsite area consists of mostly wooded areas, open field areas, residential area and the City of Beacon. The on-site area is undeveloped wooded areas, wetlands, existing buildings and open grass fields. The subcatchment area contains soils in hydrologic soil groups A, B, C, & D. Runoff from the site travels via sheet flow, shallow concentrated flow and stream flow to DP 1. All flow from the site discharges to the Fishkill Creek and ultimately to DP 1.

Detailed stormwater calculations and routing for the pre-development conditions have been included in Appendix D.

The following table summarizes the pre-development watershed conditions:

Pre-Development Watershed Conditions					
Subcatchment	**Area (sq. mi.)**	**Cover**	**Average Curve #**	**Hydrologic Soil Group(s)**	**Time of Concentration**
1	193	Wooded, open fields, developed areas and water surface areas	N/A	A, B C, & D	N/A

6.3 Post-Development Watershed Conditions

6.3.1 Downstream Analysis

The project site is located at the mouth of the Fishkill Creek as it enters the Hudson River. The creek is a fourth order stream at this point with a 193 square mile watershed contributing to the design point. The 64.35 acre site is less than a fraction of a percent of the overall watershed of Fishkill creek. The overall Fishkill Creek watershed peak discharge rates occur at a much later time that the on-site peak discharge rates due to the much larger sized overall watershed. Therefore, the goal is to perform a downstream analysis to demonstrate that on-site peak "beats the peak" of the Fishkill Creek by occurring at earlier times than the Fishkill Creek, thereby not increasing the overall peak discharge of the Creek because they don't occur at the same time.

This project meets the downstream analysis criteria as defined in Section 4.10 of the NYS Stormwater Design Manual. Therefore Qp and Qf can be waived. The post-developed subcatchment areas are broken up to determine WQv, RRv and CPv only. Peak discharge rates of the site are not required.

6.3.2 Onsite Analysis

The post-developed site is broken into six (6) on-site subcatchments. Stormwater treatment will be provided through two proposed bioretention areas, an underground infiltration/detention storage chamber system, two rain gardens, and green roofs. The following is a description of the subcatchments:

Subcatchment 11 is comprised of ±6.28 acres of onsite area. Land cover consists of open grass field area with mature trees, proposed hotel/spa development and impervious areas. The subcatchment area contains soils in hydrologic soil group B. Runoff from the subcatchment travels via sheet flow, shallow concentrated flow and pipe flow to a proposed underground infiltration

chamber system A. Discharge from the chamber system flows westerly through existing drainage ditches on the site to SDP1.

Subcatchment 12 is comprised of ±3.12 acres of onsite area. Land cover consists of open grass field area with mature trees, hotel/spa development and impervious areas. There is a portion of green roof in this area, it has been considered to be lawn in the hydrologic calculations. The subcatchment area contains soils in hydrologic soil groups A and B. Runoff from the subcatchment travels via sheet flow, shallow concentrated flow and pipe flow to proposed bioretention area A. Discharge from the bioretention area flows westerly through an existing drainage ditch on the site to Fishkill Creek, and ultimately to SDP1.

Subcatchment 13 is comprised of ±0.29 acres of onsite area. Land cover consists of open grass field area with mature trees, 3 rental cottages and impervious areas. The subcatchment area contains soils in hydrologic soil group B. Runoff from the subcatchment travels via sheet flow and shallow concentrated flow to proposed bioretention B. Discharge from the rain garden flows westerly through an existing drainage ditch on the site to Fishkill Creek, and ultimately to SDP1.

Subcatchment 14 is comprised of ±0.40 acres of onsite area. Land cover consists of open grass field area with mature trees, 2 rental cottages and impervious areas. The subcatchment area contains soils in hydrologic soil group A. Runoff from the subcatchment travels via sheet flow and shallow concentrated flow to proposed bioretention C. Discharge from the bioretention flows westerly through an existing drainage ditch on the site to Fishkill Creek, and ultimately to SDP1.

Subcatchment 15 is comprised of ±1.90 acres of future re-developed onsite area. Land cover consists of open grass field area with mature trees, the former Tioranda School building and impervious parking areas. The subcatchment area contains soils in hydrologic soil groups A & C. Runoff from the subcatchment travels via sheet flow and shallow concentrated flow to proposed bioretention area D. Discharge from the bioretention flows westerly through an existing drainage ditch on the site to Fishkill Creek, and ultimately to SDP1.

Subcatchment P is comprised of ±1.48 acres of self-contained onsite water garden area. The proposed water garden is a tiered recirculating waterbody system. Contributing drainage is the garden itself which does contain a small amount of impervious walkways and a small portion of building. The land cover consists of open grass area, landscaped areas, open water and impervious areas. There is a portion of green roof in this area, it has been considered to be lawn in the hydrologic calculations. The subcatchment area contains soils in hydrologic soil group B. Runoff from the subcatchment travels via sheet flow and shallow concentrated flow to the water garden system. The water garden is a closed recirculating pump system that will only overflow during rain events. Overflow from the garden flows westerly through an existing drainage ditch on the site to Fishkill Creek, and ultimately to SDP1.

Detailed stormwater calculations and routing for the post-development condition have been included in Appendix E.

The following table summarizes the post-development watershed conditions:

Post-Development Watershed Conditions					
Subcatchment	**Area (ac)**	**Cover**	**Average Curve #**	**Hydrologic Soil Group(s)**	**Time of Concentration**
11	6.28	Developed lawn, landscaped areas, main parking, and hotel	73	B	11.5 min.
12	3.12	Developed lawn, landscaped areas, parking, and hotel	75	A & B	6.1 min.
13	0.29	Developed lawn, landscaped areas, and cottages	72	B	2.8 min.
14	0.40	Developed lawn, landscaped areas, and cottages	45	A	4.3 min.
15	1.90	Developed lawn, landscaped areas, parking and school	54	A & C	11.1 min.
P	1.48	Developed lawn, landscaped areas, and water feature	73	B	3.3 min.

6.4 Hydrologic Review

The stormwater CPv computations are summarized below.

Post-Development Watershed Conditions		
Subcatchment	**Required CPv Runoff Volume (cf)**	**Provided CPv structure**
11	13,024	Twin 24” HDPE outlet pipe
12	7,318	2” dia. orifice
13	-	-
14	-	-
15	479	No outflow

6.5 Stormwater Management System

The stormwater management system will consist of an onsite closed pipe network that will collect site runoff from impervious and pervious surfaces and convey it to the various stormwater practices prior to discharge to stormwater discharge points under overflow conditions.

6.6 Green Infrastructure for Stormwater Management

The SDM encourages the use of green infrastructure (GI) practices for stormwater management. Green infrastructure approach for stormwater management reduces a site’s impact on an aquatic ecosystem through the use of site planning techniques, runoff reduction techniques, and certain standard stormwater management practices. The objective is to replicate the pre-development hydrology by maintaining pre-construction infiltration, peak runoff flow, discharge volume, and

minimizing concentrated runoff by use of runoff control techniques. When implemented, green infrastructure can reduce volume, peak flow, and flow duration, promote infiltration and evapotranspiration, improve groundwater recharge, reduce downstream flooding, and protect downstream water and wetlands.

6.6.1 Green Infrastructure Practices

Green infrastructure consists of implementing several techniques during the site planning process which are:

- Preservation of Natural Resources – Preservation of undisturbed areas; preservation of buffers; reduction of clearing and grading; locating development in less sensitive areas; open space (park) design; soil restoration.
- Reduction of Impervious Cover – Roadway reduction; sidewalk reduction; driveway reduction; building footprint reduction; parking reduction.
- Runoff Reduction Techniques – Conservation of natural areas; sheet flow to riparian buffers or filter strips; vegetated open swale; tree planting/tree box; disconnection of roof runoff; stream daylighting for redevelopment projects; bioretention areas; rain gardens; green roofs; stormwater planters; rain tank/cistern; pervious pavement.

During the planning process, the above techniques are implemented to the greatest extent possible to reduce runoff developed by the site. The following summarizes the GI techniques implemented on the site:

- Conservation of natural areas
- Sheet flow to riparian buffers
- Impervious cover has been reduced wherever possible.
- Bioretention basins are proposed to provide quantity and quality treatment of stormwater runoff.

6.6.1.1 Conservation of Natural Areas

No conservation easements are proposed on the subject premises; however, all of the forest area between the existing developed area will remain undisturbed as part of the project. Therefore, runoff to this area will continue to be filtered through undisturbed forest surface and allowed to infiltrate where possible prior to discharging to the onsite and offsite waterbodies.
Runoff from areas of the project area that are directed to riparian buffers can treated for water quality by flowing through the vegetated buffer area. If no riparian buffers exist, a level spreader and vegetated filter strip may be constructed to mimic the riparian buffer. Runoff must be directed to the buffers or filter strip through sheet flow and may require the construction of a level spreader.

6.6.1.2 Bioretention Areas and Infiltration

Runoff from the proposed development will be directed to bioretention areas with infiltration capacity, and an underground infiltration/detention system thereby providing 100% RRv capacity.

6.6.2 Five Step Process for Stormwater Site Planning and Selection Design

Stormwater management using GI is summarized in the five-step process described below.

Step 1: Site Planning
The site design will incorporate the preservation of natural resources including protection of natural areas, avoidance of sensitive areas, minimizing grading and soil disturbance, minimizing impervious areas on roads, driveways and parking lots. The site layout will avoid wetlands, waterways, buffers, areas of highly erodible soils and critical areas. The site design will also maintain natural drainage design points.

Step 2: Determine Water Quality Volume (WQv)
The WQv will be calculated for the site prior to implementation of GI practices. The calculated WQv must be reduced by implementation of GI & SMP's.

Step 3: Runoff Reduction by Applying Green Infrastructure Techniques
Green infrastructure practices will be implemented wherever possible to reduce runoff from the site. GI for this site will consist of reduction of roadway widths, providing parking beneath buildings and the use of infiltration practices.

Step 4: Apply Standard SMP's to Address Remaining WQv
Standard SMP's such as ponds, filtering practices or stormwater wetlands to meet additional water quality volume requirements. It is not anticipated that additional standard SMP's will be required for this project based upon the reduction of impervious surfaces.

Step 5: Apply Volume and Peak Rate Control Practices (if needed)
Cpv, Qp and Qf must also be met, either by standard practices, or other accepted techniques such as meeting criteria set forth in the NYS SWDM, where Cpv, Qp and Qf are required. Cpv, Qp and Qf are met by the installation of the stormwater pond with an outlet control structure on the east side and bioretention basin with outlet control structure on the west side which reduce the peak flows associated with each criterion.

6.7 Qualitative Practices

Small sized, frequently occurring storms account for the majority of runoff events that generate stormwater runoff. As a result, the runoff from these storms is recognized as a major contributor of pollutants. Therefore, treating these frequently occurring smaller rainfall events and a portion of the larger events offers an opportunity to minimize the water quality impacts associated with developed areas.

The water quality volume, denoted as WQ_v, specifies a treatment volume required to be captured and treated by intercepting 90% of the average annual stormwater runoff volume. This criterion strives to achieve an 80% Total Suspended Solids (TSS) removal and 40% Total Phosphorous (TP) removal on an annual basis.

In numerical terms, it is calculated using the formula below which was obtained from Section 4.2 of the New York State Stormwater Management Design Manual, January 2015:

$$WQ_v = (P \times R_v \times A) / 12$$

Where:

WQ_v = Water Quality Volume (acre-feet)

P = 90% Rainfall Event Number

$R_v = 0.05+0.009 \times I$, where I is percent impervious (minimum $R_v = 0.2$)

A = Site area in acres (contributing area)

The following table has been developed summarizing the pre-treatment volume, water quality volume and treatment practices for the main project area. Areas 11, 12 and 31 are mainly undeveloped portions of the site that are diverted around treatment areas.

Watershed	Total Required WQv (cf)	Required Pre-Treatment Volume (cf)	Pre-Treatment Practice	Treatment Practice	WQv Provided (cf)
11	11,246	11,246	Hydrodynamic Device	Underground Detention/Infiltration A	18,023
12	7,288	7,288	Plunge Pool	Bioretention A	21,234
13	485	485	Grass Filter Strip	Bioretention B	2,203
14	285	285	Grass Filter Strip	Bioretention C	2,819
15	3,694	923	Plunge Pool	Bioretention D*	4,448*
Green Roof	1,059	-	-	Green Roof	1,059
Total	**24,057**				**49,786**

*Bioretention area D is located near the Tioranda School in a future phase. Preliminary Design calculations are included for this bioretention area that will be finalized during the future phase.

A major concern with runoff into waterbodies is phosphorus loading. Phosphorus, like nitrogen, is an essential nutrient for aquatic life in waterbodies. However, increased amounts of phosphorus entering surface waters promotes excessive algae growth, which decreases water clarity, causes variations in dissolved oxygen, disagreeable odors, habitat loss and fish kills. The protection of waterbodies from the harmful effects of phosphorus can be accomplished from reducing the runoff volume entering surface waters. Reduction of runoff volume reduces the concentrations of pollutants entering the surface water and thus decreases harmful effects. The removal of enhanced phosphorus can be accomplished using stormwater management practices. Whether in particulate or dissolved speciation, phosphorus can be removed using unit operations. Particulate phosphorus in particular can be removed using bioretention areas and through sedimentation of runoff before entering surface water. Primarily, reducing the WQv entering a surface water body will lower phosphorus pollutant loading.

6.7.2 Pre-Treatment Practices

The following pre-treatment practices have been incorporated into the design of this project. Preventative and corrective maintenance measures to provide long-term effectiveness of stormwater attenuation practices if properly implemented will be included in Appendix L.

6.7.2.1 Forebays and Plunge Pools

Forebays and plunge pools are depressions located within a drainage path, adjacent to an inlet, which are designed to promote the deposition of sediment from the runoff, prior to entering the stormwater management facility. Tow (2) forebays have been incorporated into the design – one each at bioretention area A & B.

6.7.2.2 Overland Flow

A significant portion of the runoff will flow overland to receiving water bodies or offsite properties. Much of the site's existing natural vegetation is proposed to remain, and the post developed land cover will be restored to turf grass and landscaped areas. The meadow and landscaped areas will capture sediment and floatables prior to discharge at the stormwater discharge point.

6.7.2.3 Grass Filter Strips

Grass filter strips are gently sloped vegetated areas designed to treat sheet flow runoff from adjacent impervious areas. Filter strips (also known as vegetated filter strips and grassed filters) function by slowing runoff velocities, filtering out sediment and other pollutants, and providing some infiltration into underlying soils. Because they use sheet flow and not channelized flow, filter strips are often more effective than swales at removing suspended solids and trash from runoff.

6.7.2.4 Hydrodynamic Devices

Hydrodynamic devices are designed to intercept and store pollutants such as sediment and floatables for later removal and safe disposal.

6.7.3 Treatment Practices

The following treatment practices have been incorporated into the design of this project. Preventative and corrective maintenance measures to provide long-term effectiveness of stormwater attenuation practices if properly implemented are included in Appendix L.

6.7.3.1 Bioretention Areas

Bioretention areas are shallow landscaped stormwater basins which utilize engineered soils and vegetation to capture and treat runoff. A standard profile would show an aged shredded hardwood mulch layer above 30 to 48 inches of planting media, with underdrain in gravel jacket below. Native plants (grasses, shrubs, trees) are provided in the bioretention area. Bioretention areas provide water quality treatment, and in cases with soils exhibiting high infiltrative rates, are capable of handling the CPv. In most cases, flows from larger storms are diverted to other practices more suited to attenuate flows for larger storm events. Underdrains are required elements in HSG C & D, but may not be necessary in those soil types if infiltration testing proves adequate infiltrative capacity exists. All bioretention areas are located in A & B soils. Therefore, they are equipped with underdrains and provide 40% runoff reduction.

6.7.3.2 Underground Infiltration

Stormwater infiltration practices capture and temporarily store the water quality volume before allowing it to infiltrate through the floor of each practice into the soil over a two-day period. In areas where the subsurface soils exhibit high infiltration rates, the channel protection volume may also be infiltrated. Infiltration facilities are not typically capable of infiltrating the overbank flood or extreme flood volumes. Adequate outflows are required for these larger storm events. Soil testing to obtain infiltration rates are required as part of the design of infiltration facilities.

Varying degrees of pre-treatment of the water quality are required based on the field determined infiltration rate of the subsurface soils. 100% of the water quality volume is required where the infiltration rate exceeds 5 inches per hour, 50% for infiltration rates between 2 and 5 inches per hour, and 25% for infiltration rates less than 2 inches per hour. Pre-treatment is typically accomplished through installation of plunge pools and other filtering methods. Infiltration practices must be isolated and protected from stormwater run-off during construction. The contributory drainage area shall be completely constructed and stabilized before connection of the stormwater conveyance system to the infiltration practice. Infiltration basins are typically landscaped by providing a hardy, drought tolerant grass species that is capable of tolerating periodic inundation. The established grass requires mowing twice annually (or as needed). Proper maintenance of the contributing conveyance system and pre-treatment practice are important in maintaining infiltration rates.

6.7.3.3 Green Roofs

Green roofs are a green infrastructure technique that consist of a layer of vegetation and soil installed on top of a conventional flat or sloped roof. The rooftop vegetation captures rainwater allowing evaporation and evapotranspiration processes to reduce the amount of runoff entering downstream systems, effectively reducing stormwater runoff volumes and attenuating peak flows. Green roof designs are characterized as extensive or intensive, depending on storage depth. Extensive green roofs have a thin soil layer and are lighter, less expensive and generally require low maintenance. Intensive green roofs often have pedestrian access and are characterized by a deeper soil layer with greater weight, higher capital cost, increased plant diversity and more maintenance requirements.

6.8 Runoff Reduction Volume (RRv)

RRv is not required for re-development projects. Typically, RRv is met with the use of individual treatment practices since the re-development project meets the criteria set forth in the NYS SWDM §9.3.3. A bioretention area, infiltration basin, underground infiltration area, and rooftop disconnects are proposed to manage and treat the runoff generated from the sites impervious areas.

RRv (measured in acre-feet) is reduction of the total WQv by application of GI techniques and SMP's to replicate the pre-development hydrology. The minimum required RRv is defined as the specified Reduction Factor (S), provided objective technical justification is documented.

RRv must be achieved by infiltration, groundwater recharge, reuse, recycle, evaporation/evapotranspiration of 100% of the post-developed WQv's to replicate pre-development hydrology by maintaining pre-construction infiltration, peak runoff flow, discharge volume, as well as minimizing concentrated flow by using runoff control techniques to provide treatment in a distributed manner before runoff reaches the collection system.

RRv is calculated based upon three methods:

1. Reduction of the practice contributing area in WQv computation.
2. Reduction of runoff volume by storage capacity of the practice.
3. Reduction using standard SMP's with runoff reduction capacity.

Projects that cannot meet 100% of the runoff reduction requirement must provide a justification that evaluates each of the GI planning and reduction techniques and identify the specific limitations of the site according to which application of this criterion is technically infeasible. Projects that do not achieve runoff reduction to pre-construction must, at a minimum, reduce a percentage of the runoff from impervious areas to be constructed on the site. The percent reduction is based on the Hydrologic Soil Group(s) (HSG) of the site and is defined as Specific Reduction Factor (S).

The following lists the specific reduction factors for the HSG's.

HSG A = 0.55

HSG B = 0.40

HSG C = 0.30

HSG D = 0.20

The specific reduction factor (S) is based on the HSG's present at the site. The values are defined based on a hydrology analysis of low, medium, and high imperviousness. The reduction is achieved when runoff from a percentage of the impervious area on a site is captured, routed through GI or an SMP, infiltrated to the ground, reused, reduced by evapotranspiration, and eventually removed from the stormwater discharge from the site.

The following equation is used to determine the minimum RRv:

RRv (in acre-feet of storage) = [(P)(Rv*)(Ai)]/12

Ai = (S)(Aic)

Ai = impervious cover targeted for runoff reduction

(Aic) = total area of new impervious cover

Rv * = 0.05+0.009(I) where I is 100% impervious

S = Hydrologic Soil Group (HSG) Specific Reduction Factor (S)

The goal of the SWPPP is to utilize as many runoff reduction methods as possible on a site. All GI practices will be quantified and compared to the overall WQv for the site. If the RRv is greater than or equal to the WQv, then standard SMP's can be implemented to control peak rate leaving the site if applicable.

The following table summarizes required 100% RRv, minimum RRv, RRv reduced by use of runoff reduction techniques, RRv provided by standard SMP's with RRv and provided RRv for the main project area. The table will be completed after calculation of RRv for the approved layout.

Watershed	Required Total RRv (cf)	Required Minimum RRv (cf)	RRv reduced by use of runoff reduction techniques (cf)	RRv provided by standard SMP with RRv (cf)*	RRv (cf) Provided*
11	11,246	4,075	-	11,246	11,246
12	7,288	3,085	-	7,288	7,288
13	485	174	485	-	485
14	285	106	407	-	285
15	3,694	1,779	-	3,694	3,694
Green Roof	1,059	583	1,059	-	1,059
Total	**24,057**	**9,802**	**-**	**-**	**24,057**

* Treatment practices can be oversized to provide additional runoff reduction (RRv); however, they can only be oversized to provide up to 100% of the RRv. No additional credit can be taken for RRv for practices that provide greater than 100% RRv.

**Bioretention area D is located near the Tioranda School in a future phase. Preliminary Design calculations are included for this bioretention area that will be finalized during the future phase.

6.9 Soil Restoration

Soils within disturbed areas tend to over compact as a result of heavy construction traffic; thus, limiting their infiltrative capacity. Under the GP-0-020-001 permit, soil restoration is required in disturbed areas that will be vegetated in order to recover the original properties and porosity of the soil, especially in areas that receive high construction traffic, or areas that have soils that are poorly drained.

Many runoff reduction practices need Soil Restoration measures applied over and adjacent to the practice to achieve runoff reduction performance. Some key benefits of soil restoration are less runoff, better water quality; healthier, aesthetically pleasing landscapes; increased porosity on redevelopment sites where impervious cover is converted to pervious; decreases runoff volume generated and lowers the demand on runoff control structures; enhances direct groundwater recharge; promotes successful long-term re-vegetation by restoring soil organic matter, permeability, drainage and water holding capacity for healthy root system development of trees, shrubs and deep-rooted ground covers, minimizing lawn chemical requirements, plant drowning during wet periods, and burnout during dry periods.

Soil restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.

6.9.1 Soil Restoration Methods

- Topsoil Application – Applying 6” of topsoil in soils with an HSG of A & B and have only been stripped, cut or filled. Soils with HSG of C or D that have only been stripped require aeration in addition to topsoil.

- Aeration - Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.
- Tilling – Tilling includes the use of a cat-mounted ripper, tractor mounted disc, or tiller in order to expose the compacted soil devoid of oxygen to air an recreates temporary air space which allows for infiltration.
- Full Soil Restoration - Consists of Deep Ripping and De-Compaction, Compost Enhancement, and/or Deep Subsoiling. Deep Ripping includes the use of a cat mounted ripper, and is typically done at 12" to 24" depths. Compost Enhancement is done by using a deep subsoiler after topsoil has been applied. The goal is to alleviate the compaction that may have occurred during the placement of topsoil. This method mixes the topsoil and compost with subsoils.

Restoration techniques shall not be done until construction is complete and traffic will not travel through green areas. It is expected that full soil restoration will be required in areas around residential dwellings where undisturbed soil existed proposed to landscaped. These areas are shown on the erosion and sediment control plan. Other soil restoration techniques are shown where light grading, or minor cuts and fills are proposed. The type of soil restoration in these areas depends on the hydrologic soil group.

7.0 EROSION AND SEDIMENT CONTROL

7.1 Overview

The most sensitive stage of the development cycle is the period when vegetation is cleared and a site is graded. The potential impacts to on-site and off-site receiving waters and adjoining properties are particularly high at this stage. For example, trees and topsoil are removed, soils are exposed to erosion, and natural topography and drainage patterns are altered. Control of erosion and sediment during these periods is an essential function of this SWPPP and accompanying plans.

Effective and practical measures employed to minimize the erosion potential and prevent sediment from leaving the construction site and reaching streams or other water bodies have been recommended in accordance with:

- New York State Standards and Specifications for Erosion and Sediment Control, November, 2016

In order to ensure the effectiveness of the measures recommended herein, routine inspections and documentation, along with procedures for monitoring the findings, maintenance, and corrective actions resulting from each inspection are outlined within this section of the SWPPP.

7.2 Temporary Erosion and Sediment Control Measures

The following temporary measures have been incorporated into the erosion and sediment control plans for the site construction activities. These measures are also detailed on the site plans.

7.2.1 Silt Fence

A silt fence is a temporary sediment barrier consisting of a filter fabric stretched across and attached to supporting posts, entrenched, and supported with woven wire fence. Silt fences are installed on the contours across a slope and used to trap sediment by intercepting and detaining sediment laden runoff from disturbed areas in order to promote sedimentation on the uphill side of the fence.

Silt fences are suitable for perimeter and interior control, placed below areas where runoff may occur in the form of sheet flow. It should not be placed in channels or areas where flow is concentrated. In addition to interior and perimeter control a silt fence can be applied in the following applications:

- Below the toe or down slope of exposed and erodible slopes.
- Along streams and channels banks.
- Around temporary spoil area and stockpiles.

7.2.2 Stabilized Construction Entrance

A stabilized construction entrance consists of a pad of aggregate overlaying a geotextile fabric located at a point where construction vehicles enter or exit a site to reduce or eliminate the tracking of sediment onto public right of ways, street, alleys or parking areas, thereby preventing the transportation of sediment into local stormwater collection systems. Efficiency is greatly increased when a washing area is included as part of a stabilized construction entrance.

Stabilized construction entrances shall be a minimum of fifty (50) feet long and twelve (12) feet wide, but not less than the full width of points where vehicles enter and exit the site. Where there is only one access point to the site, the stabilized construction entrance shall be a minimum of twenty-four (24) feet wide. Stabilized construction entrances shall be a minimum of six (6) inches in depth consisting of one (1) to four (4) inch stone or reclaimed or recycled equivalent.

7.2.3 Check Dams

Check dams shall be placed in channels to reduce scour and erosion by reducing flow velocity and promoting sediment settlement. Check dams shall be spaced in the channel so that the crest of the downstream dam is at the elevation of the toe of the upstream dam. Check dams, consisting of a well-graded stone two (2) – nine (9) inches in size (NYSDOT – Light Stone) shall maintain a height of two (2) feet with side slopes of 2:1 extending beyond the bank of the channel by a minimum of one and a half (1.5) feet. Check dams shall be anchored in the channel by a cutoff trench of one and a half (1.5) feet in width by a half (0.5) foot in depth.

7.2.4 Inlet Protection

Inlet protection consists of a filtering measure placed around or upstream of a storm drain used to trap sediment by temporary ponding runoff before it enters the storm drain. Inlet protection is not considered to be a primary means of sediment control and should be used with an overall integrated sediment control program. There are four types of storm drain inlet protection consisting of: excavated drop inlet protection, fabric drop inlet protection, stone and block drop inlet protection and curb drop inlet protection.

Inlet protection shall be implemented for all inlets that could potentially be impacted by sediment laden runoff.

7.2.5 Temporary Channels

Temporary channels in the form of diversion swales or berms may be used to intercept and direct runoff under the following applications:

- Above disturbed areas in order to direct and prevent clean runoff from flowing over disturbed areas until the area is permanently stabilized.
- Below disturbed areas to convey sediment laden runoff to sediment traps.
- Across disturbed slopes to reduce slope lengths.

Where used to convey sediment laden runoff, temporary channels shall be equipped with check dams.

7.2.6 Sediment Traps & Sediment Basins

A sediment trap or basin is a containment area, where sediment laden runoff collected from disturbed areas is temporarily detained allowing sediment to settle out before the runoff is discharged. Sediment traps and basins are formed by excavating an area or constructing an earthen embankment where sediment control is needed.

There are several types of sediment traps. The outlet of a rip rap outlet sediment traps shall be through a partially excavated channel through the embankment lined with rip rap. Pipe outlet sediment traps are equipped with an outlet structure including a perforated riser. The pipe outlet typically is installed through the embankment.

Sediment traps and basins are designed to treat 3,600 cubic feet per acre of drainage area collected. Pipe outlet sediment traps are limited to drainage areas of less than five (5) acres, rip rap outlet sediment traps are limited to fifteen (15) acres of drainage area, and sediment basins can accommodate upwards of one hundred (100) acres.

Sediment shall be removed, and the trap or basin shall be restored to the original dimensions when the sediment has accumulated to ½ of the design depth. The required and provided storage/cleanout elevations have been provided on the plan set. Calculations for sizing the facilities will be provided in the final SWPPP if necessary.

7.2.7 Water Bars

Water bars are temporary earth barriers constructed across construction roads used to intercept and divert roadway runoff toward temporary sediment traps or channels, prevent runoff from concentrating, and minimize the potential of gullies from forming. Spacing of water bars is dependent upon the road slope and shall be installed in accordance with the schedule depicted on the Erosion and Sediment Control detail sheet.

7.2.8 Straw Bale Barriers

Straw bale barriers are used to intercept and contain sediment from disturbed areas of limited size in order to prevent sediment from exiting the site. Bales should be placed in a single row lengthwise along the contour, with ends abutting one another. Straw bales shall be bound and installed so that the bindings are oriented around the sides. Straw bales shall be entrenched a

minimum of four (4) inches, backfilled, and anchored using either two stakes or rebar driven through the straw bales to a depth of one and a half (1.5) to two (2) feet below grade.

Straw bales shall be used where no other measure is feasible. They shall not be used where there is a concentration of flow within a channel or other area.

The useful life of a straw bale barrier is three (3) months.

7.2.9 Temporary Soil Stockpiles

Stockpiling of soil is a method of preserving soil and topsoil for regrading and vegetating disturbed areas. Stockpiles shall be located away from environmentally sensitive areas (i.e. wetlands and associated buffers, streams, water bodies) and shall be protected with a peripheral silt fence. Slopes of stockpiles shall not exceed 2:1. Temporary stabilization measures shall be completed within fourteen (14) days of stockpile formation.

7.2.10 Dust Control

Dust control measures reduce the surface and air transport of dust, thereby preventing pollutants from mixing into stormwater. Dust control measures for the construction activities associated within this project consist of windbreaks, minimization of soil disturbance (preserving buffer areas of vegetation where practical), mulching, temporary and permanent vegetation cover, barriers (i.e. geotextile on driving surfaces) and water spraying.

Construction activities shall be scheduled to minimize the amount of area disturbed at any one time.

7.2.11 Temporary Soil Stabilization Practices

Stabilization practices reduce the potential for soil detachment by shielding the soil surface from the impact of rainfall and reducing overland flow velocity.

The Contractor shall initiate stabilization measures as soon as possible in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. This requirement does not apply where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions.

Temporary stabilization practices may include:

7.2.11.1 Mulching

Mulching is a temporary soil stabilization practice. Mulching prevents erosion by protecting soil from raindrop impact and by reducing the velocity of overland flow. Mulching also retains moisture within the soil surface and prevents germination. Where mulching consists of wood chips or shavings, it shall be applied at a rate of 500-900 lbs per 1000 s.f. Where mulching consists of straw, it shall be applied at a rate of 90-100 lbs. per 1000 s.f. All temporary grass areas shall receive a standard application of mulch consisting of straw, unless the area is hydroseeded.

7.2.11.2 Temporary Seeding

Temporary seeding provides additional benefits over other stabilization practices by creating a vegetation system holding soil particles in place with root systems and maintaining the soils

capacity to absorb runoff. Temporary vegetation shall be placed in accordance with project plans. Irrigation shall be used when the soil is dry or when summer plantings are done.

7.2.11.3 Temporary Erosion Control Blanket

A temporary erosion control blanket is a degradable erosion control blanket used to hold seed and soil in place until vegetation is established in disturbed areas. Temporary erosion control blankets insulate and conserve seed moisture thus reducing evaporation and increasing germination rates and protect seeds from birds. Temporary erosion control blankets may consist of straw blankets, excelsior blankets (curled wood excelsior), coconut fiber blankets, or wood fiber blankets (reprocessed wood fibers which do not possess or contain any growth or germination inhibiting factors).

7.3 Permanent Erosion and Sediment Control Measures

The following permanent measures have been incorporated into the erosion and sediment control plans for the site construction activities.

7.3.1 Outlet Protection

Outlet protection is used to reduce stormwater velocity and dissipate the energy of flow exiting a culvert before discharging into receiving channels. Rip-rap treatment extends between the point where flows exit the culvert and where the velocity and/or energy from runoff is dissipated to a degree where there is minimal erosion downstream of the discharge point.

A geotextile fabric shall be placed beneath the rip-rap to prevent soil movement into and through the rip-rap.

7.3.2 Permanent Soil Stabilization Practices

Stabilization practices reduce the potential for soil detachment by shielding the soil surface from the impact of rainfall and reducing overland flow velocity.

The Contractor shall initiate stabilization measures as soon as possible in portions of the site where construction activities have permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has permanently ceased.

Permanent stabilization practices may include:

7.3.2.1 Sod

Where exposed soils have the potential to generate off-site sediment loading, sod can provide a immediate form of stabilization and extra protection to a disturbed area. Where applied, sod shall be blue grass or a bluegrass/red fescue mixture or a perennial ryegrass and machine cut with a uniform soil thickness of ¾ inch, plus or minus ¼ inch. Sod shall be used at the discretion of the Owner, unless specifically required by the plans.

7.3.2.2 Permanent Vegetation

Permanent vegetation shall be used to provide a protective cover for exposed areas that have received final grading. Permanent stabilization shall be applied where topsoil has been placed or returned and incorporated into the soil surface. When used, this process shall be followed with the application of straw mulch to protect soil from erosion and seed from drying out. Irrigation shall

be used when the soil is dry or when summer plantings are done. Permanent vegetation shall be placed in accordance with project plans.

7.3.2.3 Hydroseeding

Hydroseeding is the hydraulic application of seed and fertilizer onto prepared seed beds. When used, this process shall be followed with the application of straw mulch to protect soil from erosion and seed from drying out. Irrigation shall be used when the soil is dry or when summer plantings are done. Hydroseeding shall be used at the discretion of the Contractor, unless specifically required by the plans.

7.3.2.4 Permanent Erosion Control Blankets

Permanent erosion control blankets are comprised of synthetic materials that form a high strength mat that helps prevent soil erosion in channels and on steep slopes. Stems and roots become intertwined within the matrix, thus reinforcing the vegetation and anchoring the mat. Permanent erosion control blankets insulate and conserve seed moisture thus reducing evaporation and increasing germination rates and protect seeds from birds. When used within channels, permanent erosion control blankets can aid in the establishment of vegetation and increase the maximum permissible velocity of the given channel by reinforcing the soil and vegetation to resist the forces of erosion during runoff events.

7.4 Erosion and Sediment Control Sequencing Schedule

Implementation schedules for the installation of erosion and sediment control measures prior to and during the course of construction will depend greatly on the actual construction schedule and the varying field conditions that may warrant temporary construction stops and/or work commencing in other locations. A construction sequence is provided demonstrating how the project will be phased to limit to soil disturbance to less than 5-acres at any one time.

Erosion control measures shall be inspected and repaired as needed during construction activities and based on the maintenance schedule. Additional erosion control measures based on site conditions shall be provided as necessary in order to protect adjacent parcels and waters.

7.5 Maintenance Schedules

Maintenance of the erosion and sediment controls incorporated into this project shall be performed on a regular basis to assure continued effectiveness. This includes repairs and replacement to all erosion and sediment control practices, including cleanout of all sediment retaining measures. Those measures found to be ineffective during routine inspections shall be repaired or replaced and cleaned out (where applicable) before the next anticipated storm event or within 24-hours of being notified, whichever comes first. A more detailed description of the maintenance procedures for the site-specific erosion and sediment control practices has been provided on the plan set.

7.6 Construction Staging Areas

Construction staging areas are areas designated within construction sites where most equipment and materials are stored. The locations of the construction staging areas for this project have been shown on the plan set.

7.7 Site Assessments, Inspections and Reporting

Regular inspections of the construction site shall be performed by a qualified professional who is familiar with all aspects of the SWPPP and the implemented control practices. Inspections are intended to identify areas where the pollutant control measures at the site are ineffective and have the potential to allow pollutants to enter water bodies or adjoining properties.

7.7.1 Prior to Construction

Prior to the commencement of construction, a qualified professional shall conduct an inspection of the site and certify in an inspection report that the appropriate erosion and sediment control measures have been installed as indicated by the project plan set and SWPPP. This certification shall be forwarded to the Owner's Representative and Contractor for filing in the construction logbook.

A copy of the "Pre-Construction Site Assessment Checklist" has been provided in Appendix G.

7.7.2 During Construction

Following the commencement of construction, a qualified professional shall perform inspections of site construction activities in accordance with the SPDES General Permit. Inspections shall occur every seven (7) calendar days. Refer to Section 1.2 of this SWPPP for additional inspection requirements associated with disturbance of greater than five (5) acres at any time.

For project areas where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the qualified inspector shall conduct a site inspection at least once every thirty (30) calendar days. The owner or operator shall notify the Regional Office stormwater contact person in writing prior to reducing the frequency of inspections.

For project areas where soil disturbance activities have been shut down with partial project completion, the qualified inspector can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved final stabilization and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The owner or operator shall notify the Regional Office stormwater contact person in writing prior to the shutdown.

The inspections shall include observation of installed and maintained erosion and sediment control measures for consistency with project specifications and documentation of items to be corrected and recommendations for mitigating concerns. The following information, at minimum, shall be recorded during each inspection:

- Date and time of inspection;
- Name and title of person(s) performing inspection;
- A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
- A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction

site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

- A description of the condition of all-natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any discharges of sediment to the surface waterbody.

- Identification of all erosion and sediment control practices that need repair or maintenance.

- Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

- Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;

- Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

- Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water (where applicable);

- Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of the sediment storage volume;

- Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);

- Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The qualified inspector shall attach paper color copies of the digital photographs to the inspection report being maintained on site within seven (7) calendar days of the date of the inspection. The qualified inspector shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The qualified inspector shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection;

- A brief description of any erosion and sediment control practice repairs, maintenance or installations made as a result of previous inspection; and

- All deficiencies that are identified with the implementation of the SWPPP.

Summary reports shall be forwarded to the Owner's Representative and Contractor. Reports shall be incorporated into the construction logbook. Within one business day of the completion of an inspection, the qualified inspector shall notify the owner or operator and appropriate contractor or subcontractor of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

A copy of the "Construction" inspection report has been provided in Appendix M.

7.7.3 Quarterly Report

The Owner shall prepare a written summary of its status with respect to compliance with the SPDES General Permit at a minimum frequency of every three months during which coverage under the permit exists. The summary should address the status of achieving each component of the SWPPP. The report shall include the overall performance of the stormwater facilities, average, minimum and maximum depths of sediment within the stormwater facilities, the physical condition of all drainage structures, maintenance reports from the previous year, and any recommendations for any repairs, modifications or adjustments to the stormwater facilities.

7.7.4 End of Term

Termination of coverage under SPDES General Permit is accomplished by filing a Notice of Termination with the NYSDEC. Prior to the filing of the Notice of Termination (NOT), the Owner shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization using either vegetative or structural stabilization methods, that all temporary erosion and sediment control structures have been removed, and that all permanent erosion control and stormwater facilities have been installed and are operational in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The owner or operator shall then submit the completed NOT form to the NYSDEC. "Final stabilization" means that all soil disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextile) have been employed on all unpaved areas and area not covered by permanent structures.

A NOT is provided in Appendix N.

7.8 Construction Logbook

The construction logbook shall be maintained on-site from the date of initiation of construction activities to the date of final stabilization and shall be made available to the permitting authority upon request. The construction logbook shall contain a record of all inspections; preparer's, qualified professional's, owner's/operator's, contractor's, and sub-contractor's (if applicable) certifications; and weekly and quarterly reports.

7.8 Long Term Operation and Maintenance Plan of Stormwater System and Landscape Areas

All stormwater facilities and infrastructure shall be inspected on a yearly basis by a licensed professional engineer. A copy of the inspection report, along with findings and recommendations, shall be submitted to the Beacon Building Department and City Engineer's office.

7.9.1 Catch Basins and Piping

Catch basins shall be inspected after every storm event and remove trash and debris that may be blocking the flow capability of the structure. The owner should pay close attention during the fall months where leave debris will be heavy. The catch basins and piping shall be inspected for sediment accumulation at least once a year, and utilize vacuum trucks as necessary to remove the accumulated sediment.

7.9.2 Hydrodynamic Separators (Contech CDS® Units)

The manufacture recommends that the CDS units be inspect bi-annually (once in the spring and once in the fall). The structure shall be visually inspected for blockages or obstructions in the inlet or separation screen. The inspection should also quantify accumulation of hydrocarbons, sediment and trash within the system. Inspections and maintenance shall be performed by qualified personnel with adequate training in these types of units. A record of inspections and scheduled cleanings shall be kept on site at all times. Manufacture's inspection recommendations and a sample report is provided in Appendix H.

7.9.3 Infiltration Basins

Infiltration basins shall be inspected monthly for sediment and debris accumulation. Inflow pipes, outlet structures and spillways should also be inspected for sediment and debris monthly. Any accumulated sediment or debris should be removed as necessary. After storm events, the infiltration basin's dewatering duration should also be monitored. The basin floor shall be mowed when the grass reaches a height of 18". Sediment shall be cleaned out of the basin annually.

7.9.4 Bioretention Areas

Bioretention areas shall be inspected monthly for sediment and debris accumulation. Inflow pipes, outlet structures and spillways should also be inspected for sediment and debris monthly. Any accumulated sediment or debris should be removed as necessary. Plantings shall be inspected monthly for height, fertilizer, quantity and unauthorized invasive or inappropriate species. Grass height shall be kept below 6" in height. After storm events, the bioretention's dewatering duration should also be monitored. Sediment shall be cleaned out of the bioretention area annually.

7.9.5 Pre-treatment Forebays and Plunge Pools

Pre-treatment forebays or plunge pools shall be inspected annually for overall performance and sediment accumulation. Sediment shall be removed when sediment accumulation reaches 50% of the design capacity volume. Inspection checklists for infiltration, bioretention and sediment forebays are included in Appendix R.

8.0 GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES

The following good housekeeping and material management practices shall be followed to reduce the risk of spills or exposure of materials to stormwater runoff.

8.1 Waste Materials

All waste material, including but not limited to trash and construction debris, generated during construction shall be collected and stored in a proper receptacle in accordance with Federal, State, County and Local regulations. No waste material shall be buried on-site. All collected waste material shall be hauled to an approved waste disposal facility.

8.2 Chemical

Chemicals used on-site shall be kept in small quantities and stored in closed watertight containers undercover in a neat and orderly manner and kept out of direct contact with stormwater. Chemical products shall not be mixed with one another unless recommended by manufacturer.

All on-site personnel shall have access to material safety data sheets (MSDS) and National Institute for Occupational Safety and Health (NIOSH) Guide to Chemical Hazards (latest edition) for all chemicals stored and used on-site.

Manufacturer's and/or Federal, State, County and Local guidelines for proper use and disposal shall be followed. Any spills or contamination of runoff with chemicals shall be contained, collected, cleaned up immediately and disposed of in accordance with Federal, State, County and Local regulations.

8.3 Fuels and Oil

All on-site vehicles, tools, and construction equipment shall be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. On-site vehicle and equipment refueling shall be conducted at a location away from access to surface waters and runoff. Any on-site storage tanks shall have a means of secondary containment. Oil products shall be kept in their original containers with original manufacturer's label. In the event of a spill, it shall be contained, cleaned up immediately and the material, including any contaminated soil, shall be disposed of in accordance with Federal, State, County and Local regulations.

Fuel and oil spills in excess of reportable quantities shall be reported to the NYSDEC as soon as the discharge is discovered.

8.4 Fertilizers

Fertilizers used on-site shall be stored in closed watertight containers undercover in a neat orderly manner and kept out of direct contact with stormwater. Manufacturer's and/or Federal, State, County and Local guidelines for proper use and disposal shall be followed. Any spills or contamination of runoff with fertilizers shall be contained, collected, cleaned up immediately, and disposed of in accordance with Federal, State, County and Local regulations.

8.5 Paint

Paints used on-site shall be stored in closed, watertight containers undercover in a neat and orderly manner and kept out of direct contact with stormwater. Manufacturer's and/or Federal, State, County and Local guidelines for proper use and disposal shall be followed. Any spills or contamination of runoff with paint shall be contained, collected, cleaned up immediately, and disposed of in accordance with Federal, State, County and Local regulations.

8.6 Sanitary Waste Facilities

Should portable units be located on-site, they shall be placed in upland areas away from direct contact with surface waters. They shall be serviced and cleaned on a weekly basis by a licensed portable toilet and septic disposal service. Any spills occurring during service shall be cleaned up immediately and disposed of in accordance with Federal, State, County, and Local regulations.

8.7 Container Disposal

All of a product shall be used up before disposal of the container. Empty containers that may contain chemical residue shall be disposed of in accordance with Federal, State, County and Local regulations.

8.8 Concrete and Asphalt Trucks

Concrete and asphalt trucks shall not be allowed to wash out or discharge surplus material on-site.

8.9 Site Supervisor

It shall be the responsibility of the Contractor's Site Supervisor to inspect daily and ensure the proper use, storage and disposal of all on-site materials.

9.0 SWPPP AMENDMENT

The SWPPP shall be updated by a licensed professional engineer whenever any of the following apply:

1) There is a significant change in design, construction, operation or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP.
2) The SWPPP proves to be ineffective in:
    - Eliminating or significantly minimizing pollutants from sources identified in the SWPPP required by the SPDES Permit; or
    - Achieving the general objective of controlling pollutants in stormwater discharges from permitted construction activity.
3) Identify any new contractor or subcontractor that will implement any measure of the SWPPP.
4) NYSDEC notifies the Permittee that the SWPPP does not meet one or more of the minimum requirements of the SPDES Permit. Within seven (7) days of such notification or as provided for by the NYSDEC, the Permittee shall make amendments to the SWPPP

and submit to the NYSDEC a written certification that the requested changes have been made.

Since this project is subject to the requirements of a regulated, traditional land use control MS4, the owner or operator shall notify the MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP. Unless otherwise notified by the MS4, the owner or operator shall have the SWPPP amendments or modifications reviewed and accepted by the MS4 prior to commencing construction of the post-construction stormwater management practice.

10.0 CONTRACTOR CERTIFICATIONS

All contractors and subcontractors that have any responsibility to install, inspect or maintain erosion or sediment control measures shall sign a copy of the certification statement included in Appendix I before undertaking any construction activity at the site identified in the SWPPP.

11.0 OWNER/OPERATOR CERTIFICATION

The Owner/Operator must review and sign the owner/operator certification statement included in Appendix K.

12.0 CONCLUSIONS

This SWPPP demonstrates that the proposed project generally meets the requirements of SPDES GP-0-20-001, as follows:

- An erosion and sediment control plan in accordance with the latest revision to the New York State Standards and Specifications for Erosion and Sediment Control, November 2016, has been developed for the project and is included in the site plan set.
- Hydrologic and Hydraulic calculations for all storm events modeled will demonstrate that the resulting stormwater runoff from the development, exiting the site will not adversely impact offsite properties, stormwater conveyance systems or receiving water bodies. Temporary and permanent stormwater systems and facilities are designed in accordance with the latest revision to the New York State Stormwater Management Design Manual, January 2015.
- The project has been designed to capture and treat 90% of the average annual stormwater runoff from the development through approved water quality measures in all available areas.
- The standard stormwater management practices provide more than the required minimum runoff reduction volume (RRv).

APPENDIX A

NOTICE OF INTENT & MS4 ACCEPTANCE FORM

(to be provided)

NYS Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

Construction Activities Seeking Authorization Under SPDES General Permit

*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

I. Project Owner/Operator Information	
1. Owner/Operator Name:	The Mirbeau Companies, LLC.
2. Contact Person:	Jonathan T. Dal Pos
3. Street Address:	433 Broadway STE 203
4. City/State/Zip:	Saratoga Springs, New York, 12866
II. Project Site Information	
5. Project/Site Name:	Mirbeau Inn & Spa at Beacon
6. Street Address:	7 Craig House Lane
7. City/State/Zip:	Beacon, New York, 12508
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information	
8. SWPPP Reviewed by:	
9. Title/Position:	
10. Date Final SWPPP Reviewed and Accepted:	
IV. Regulated MS4 Information	
11. Name of MS4:	City of Beacon
12. MS4 SPDES Permit Identification Number: NYR20A	040
13. Contact Person:	Michael Manzi
14. Street Address:	1 Municipal Plaza
15. City/State/Zip:	Beacon, New York, 12508
16. Telephone Number:	(845) 831-0932

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

Date:

VI. Additional Information

(NYS DEC - MS4 SWPPP Acceptance Form - January 2015)

APPENDIX B

SOILS DATA

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Dutchess County, New York



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.


73° 58' 38" W
73° 57' 40" W
41° 29' 33" N
41° 29' 5" N
585400
585500
585600
585700
585800
585900
586000
586100
586200
586300
586400
586500
586600
586700
4593900
4593800
4593700
4593600
4593500
4593400
4593300
4593200
4593100
Cherry St
South Ave
Fishkill Creek
High Goal Ln
ESB
HsA
ChB
DwB
W
NwC
NwD
HsB
BeC
9d
Soil Map may not be valid at this scale.
Map Scale: 1:6,090 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 50 100 200 300
Feet
0 250 500 1000 1500
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dutchess County, New York
Survey Area Data: Version 18, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 8, 2020—Oct 14, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BeC	Bernardston silt loam, 8 to 15 percent slopes	5.6	7.7%
ChB	Charlton fine sandy loam, 3 to 8 percent slopes	8.4	11.5%
DwB	Dutchess-Cardigan complex, undulating, rocky	15.5	21.3%
HsA	Hoosic gravelly loam, nearly level	11.5	15.9%
HsB	Hoosic gravelly loam, undulating	10.3	14.2%
NwC	Nassau-Cardigan complex, rolling, very rocky	2.7	3.7%
NwD	Nassau-Cardigan complex, hilly, very rocky	13.6	18.8%
W	Water	4.9	6.8%
Totals for Area of Interest		**72.4**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a

given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Dutchess County, New York

BeC—Bernardston silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9rdn
Elevation: 0 to 1,000 feet
Mean annual precipitation: 41 to 47 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 115 to 195 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Bernardston and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bernardston

Setting

Landform: Till plains, hills, drumlinoid ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy, acid, dense till derived mainly from phyllite, shale, slate, and schist

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 27 inches: silt loam
H3 - 27 to 80 inches: silt loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 15 to 30 inches to densic material
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Ecological site: F144AY007CT - Well Drained Dense Till Uplands
Hydric soil rating: No

Minor Components

Punsit

Percent of map unit: 5 percent
Hydric soil rating: No

Pittstown
Percent of map unit: 5 percent
Hydric soil rating: No

Stockbridge
Percent of map unit: 5 percent
Hydric soil rating: No

Unnamed soils, fine-loamy
Percent of map unit: 3 percent
Hydric soil rating: No

Sun
Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

Canandaigua
Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

ChB—Charlton fine sandy loam, 3 to 8 percent slopes

Map Unit Setting
National map unit symbol: 2wh0n
Elevation: 0 to 1,440 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition
Charlton and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Charlton

Setting
Landform: Ridges, ground moraines, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Side slope, crest, nose slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Parent material: Coarse-loamy melt-out till derived from granite, gneiss, and/or schist

Typical profile
Ap - 0 to 7 inches: fine sandy loam
Bw - 7 to 22 inches: gravelly fine sandy loam

C - 22 to 65 inches: gravelly fine sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Sutton

Percent of map unit: 8 percent
Landform: Hills, ground moraines
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

Paxton

Percent of map unit: 5 percent
Landform: Ground moraines, hills, drumlins
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Convex
Hydric soil rating: No

Chatfield

Percent of map unit: 1 percent
Landform: Ridges, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Crest, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Linear, convex
Hydric soil rating: No

Leicester

Percent of map unit: 1 percent
Landform: Depressions, drainageways
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

DwB—Dutchess-Cardigan complex, undulating, rocky

Map Unit Setting

National map unit symbol: 9rfn
Elevation: 0 to 1,330 feet
Mean annual precipitation: 41 to 47 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 115 to 195 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Dutchess and similar soils: 40 percent
Cardigan and similar soils: 30 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dutchess

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till derived mainly from phyllite, slate, schist, and shale

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 28 inches: silt loam
H3 - 28 to 86 inches: channery silt loam

Properties and qualities

Slope: 1 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Description of Cardigan

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till or colluvium derived from phyllite, slate, shale, and schist

Typical profile

H1 - 0 to 8 inches: channery silt loam
H2 - 8 to 20 inches: channery loam
H3 - 20 to 30 inches: channery silt loam
H4 - 30 to 34 inches: unweathered bedrock

Properties and qualities

Slope: 1 to 6 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Georgia

Percent of map unit: 10 percent
Hydric soil rating: No

Nassau

Percent of map unit: 9 percent
Hydric soil rating: No

Massena

Percent of map unit: 9 percent
Hydric soil rating: No

Sun

Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

Rock outcrop

Percent of map unit: 1 percent
Hydric soil rating: Unranked

HsA—Hoosic gravelly loam, nearly level

Map Unit Setting

National map unit symbol: 9rgj
Elevation: 100 to 1,100 feet
Mean annual precipitation: 41 to 47 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 115 to 195 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Hoosic and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hoosic

Setting

Landform: Terraces, outwash plains, deltas
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and gravelly glaciofluvial deposits

Typical profile

H1 - 0 to 9 inches: gravelly loam
H2 - 9 to 24 inches: very gravelly sandy loam
H3 - 24 to 70 inches: extremely gravelly loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Minor Components

Knickerbocker
Percent of map unit: 5 percent
Hydric soil rating: No

Copake
Percent of map unit: 5 percent
Hydric soil rating: No

Haven
Percent of map unit: 5 percent
Hydric soil rating: No

Fredon
Percent of map unit: 4 percent
Landform: Depressions
Hydric soil rating: Yes

Halsey
Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

HsB—Hoosic gravelly loam, undulating

Map Unit Setting
National map unit symbol: 9rgk
Elevation: 100 to 1,100 feet
Mean annual precipitation: 41 to 47 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 115 to 195 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Hoosic and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hoosic

Setting
Landform: Terraces, outwash plains, deltas
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Sandy and gravelly glaciofluvial deposits

Typical profile
H1 - 0 to 9 inches: gravelly loam

H2 - 9 to 24 inches: very gravelly sandy loam
H3 - 24 to 70 inches: extremely gravelly loamy sand

Properties and qualities

Slope: 1 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (1.98 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Ecological site: F144AY022MA - Dry Outwash
Hydric soil rating: No

Minor Components

Knickerbocker

Percent of map unit: 5 percent
Hydric soil rating: No

Haven

Percent of map unit: 5 percent
Hydric soil rating: No

Copake

Percent of map unit: 5 percent
Hydric soil rating: No

Fredon

Percent of map unit: 4 percent
Landform: Depressions
Hydric soil rating: Yes

Halsey

Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

NwC—Nassau-Cardigan complex, rolling, very rocky

Map Unit Setting

National map unit symbol: 9rhd
Elevation: 0 to 1,800 feet
Mean annual precipitation: 41 to 47 inches
Mean annual air temperature: 45 to 50 degrees F

Frost-free period: 115 to 195 days
Farmland classification: Not prime farmland

Map Unit Composition

Nassau and similar soils: 45 percent
Cardigan and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nassau

Setting

Landform: Till plains, ridges, benches
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Channery loamy till derived mainly from local slate or shale

Typical profile

H1 - 0 to 5 inches: channery silt loam
H2 - 5 to 16 inches: very channery silt loam
H3 - 16 to 20 inches: unweathered bedrock

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Ecological site: F144AY033MA - Shallow Dry Till Uplands
Hydric soil rating: No

Description of Cardigan

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till or colluvium derived from phyllite, slate, shale, and schist

Typical profile

H1 - 0 to 8 inches: channery silt loam
H2 - 8 to 20 inches: channery loam
H3 - 20 to 30 inches: channery silt loam

H4 - 30 to 34 inches: unweathered bedrock

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Dutchess

Percent of map unit: 9 percent
Hydric soil rating: No

Rock outcrop

Percent of map unit: 5 percent
Hydric soil rating: Unranked

Unnamed soils, very shallow

Percent of map unit: 5 percent
Hydric soil rating: No

Sun

Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

NwD—Nassau-Cardigan complex, hilly, very rocky

Map Unit Setting

National map unit symbol: 9rhf
Elevation: 0 to 1,800 feet
Mean annual precipitation: 41 to 47 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 115 to 195 days
Farmland classification: Not prime farmland

Map Unit Composition

Nassau and similar soils: 45 percent

Cardigan and similar soils: 30 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nassau

Setting

Landform: Till plains, ridges, benches
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Channery loamy till derived mainly from local slate or shale

Typical profile

H1 - 0 to 5 inches: channery silt loam
H2 - 5 to 16 inches: very channery silt loam
H3 - 16 to 20 inches: unweathered bedrock

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: F144AY033MA - Shallow Dry Till Uplands
Hydric soil rating: No

Description of Cardigan

Setting

Landform: Ridges, hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy till or colluvium derived from phyllite, slate, shale, and schist

Typical profile

H1 - 0 to 8 inches: channery silt loam
H2 - 8 to 20 inches: channery loam
H3 - 20 to 30 inches: channery silt loam
H4 - 30 to 34 inches: unweathered bedrock

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: C
Ecological site: F144AY034CT - Well Drained Till Uplands
Hydric soil rating: No

Minor Components

Dutchess

Percent of map unit: 10 percent
Hydric soil rating: No

Sun

Percent of map unit: 10 percent
Landform: Depressions
Hydric soil rating: Yes

Rock outcrop

Percent of map unit: 5 percent
Hydric soil rating: Unranked

W—Water

Map Unit Setting

National map unit symbol: 9rjc
Mean annual precipitation: 41 to 47 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 115 to 195 days
Farmland classification: Not prime farmland

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Erosion Factors

Soil Erosion Factors are soil properties and interpretations used in evaluating the soil for potential erosion. Example soil erosion factors can include K factor for the whole soil or on a rock free basis, T factor, wind erodibility group and wind erodibility index.

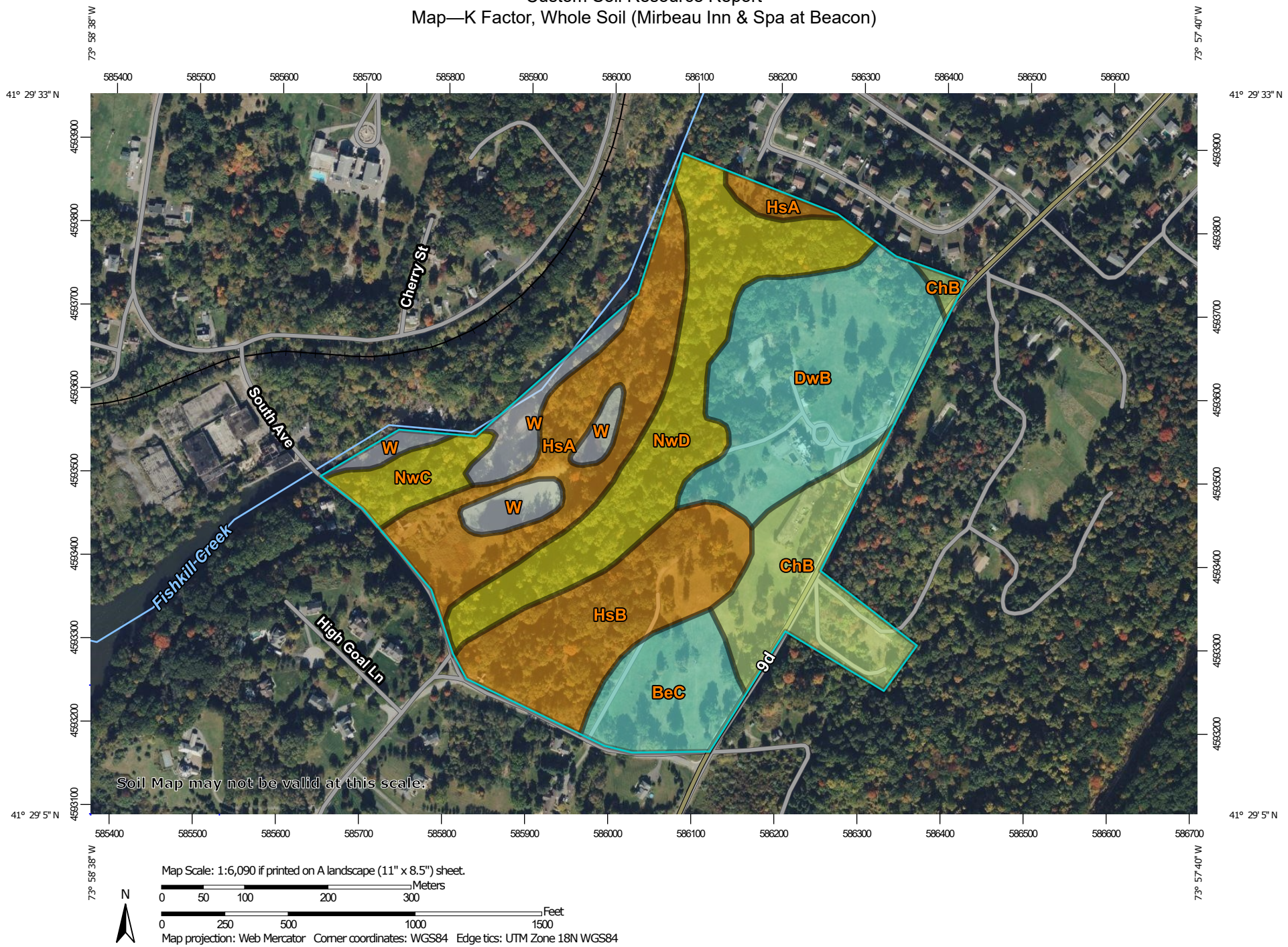
K Factor, Whole Soil (Mirbeau Inn & Spa at Beacon)

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

"Erosion factor Kw (whole soil)" indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Factor K does not apply to organic horizons and is not reported for those layers.

Custom Soil Resource Report
Map—K Factor, Whole Soil (Mirbeau Inn & Spa at Beacon)



Map Scale: 1:6,090 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

.02
.05
.10
.15
.17
.20
.24
.28
.32
.37
.43
.49
.55
.64
Not rated or not available

Soil Rating Lines

.02
.05
.10
.15
.17
.20
.24
.28
.32
.37
.43
.49
.55
.64
Not rated or not available

Soil Rating Points

.02
.05
.10
.15
.17
.20
.24
.28
.32
.37
.43
.49
.55
.64
Not rated or not available

Water Features

Streams and Canals

Transportation

Rails
Interstate Highways
US Routes
Major Roads
Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dutchess County, New York
Survey Area Data: Version 18, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 8, 2020—Oct 14, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—K Factor, Whole Soil (Mirbeau Inn & Spa at Beacon)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BeC	Bernardston silt loam, 8 to 15 percent slopes	.32	5.6	7.7%
ChB	Charlton fine sandy loam, 3 to 8 percent slopes	.24	8.4	11.5%
DwB	Dutchess-Cardigan complex, undulating, rocky	.32	15.5	21.3%
HsA	Hoosic gravelly loam, nearly level	.10	11.5	15.9%
HsB	Hoosic gravelly loam, undulating	.10	10.3	14.2%
NwC	Nassau-Cardigan complex, rolling, very rocky	.17	2.7	3.7%
NwD	Nassau-Cardigan complex, hilly, very rocky	.17	13.6	18.8%
W	Water		4.9	6.8%
Totals for Area of Interest			**72.4**	**100.0%**

Rating Options—K Factor, Whole Soil (Mirbeau Inn & Spa at Beacon)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group (Mirbeau Inn & Spa at Beacon)

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

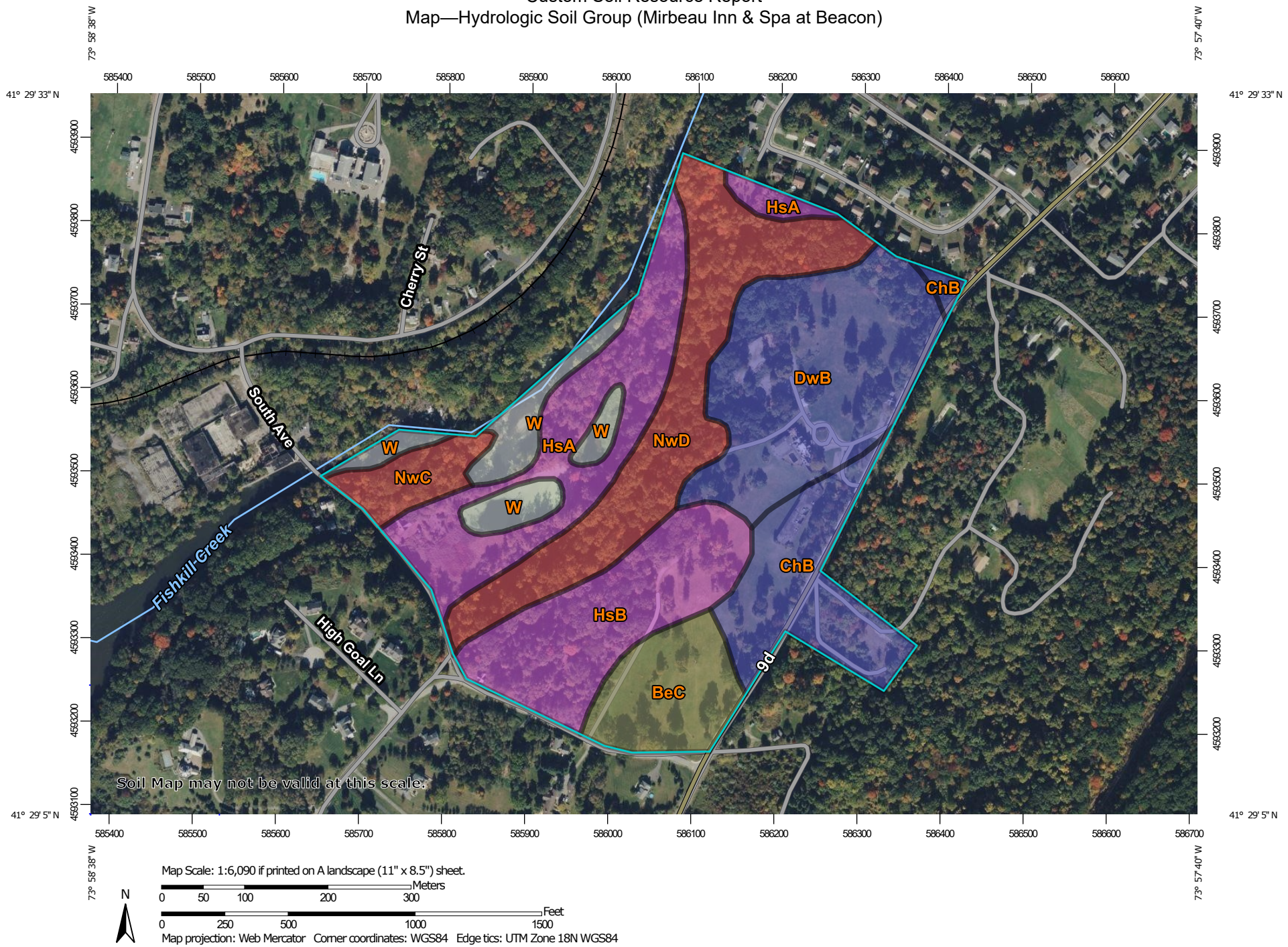
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Map—Hydrologic Soil Group (Mirbeau Inn & Spa at Beacon)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dutchess County, New York
Survey Area Data: Version 18, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 8, 2020—Oct 14, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (Mirbeau Inn & Spa at Beacon)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BeC	Bernardston silt loam, 8 to 15 percent slopes	C/D	5.6	7.7%
ChB	Charlton fine sandy loam, 3 to 8 percent slopes	B	8.4	11.5%
DwB	Dutchess-Cardigan complex, undulating, rocky	B	15.5	21.3%
HsA	Hoosic gravelly loam, nearly level	A	11.5	15.9%
HsB	Hoosic gravelly loam, undulating	A	10.3	14.2%
NwC	Nassau-Cardigan complex, rolling, very rocky	D	2.7	3.7%
NwD	Nassau-Cardigan complex, hilly, very rocky	D	13.6	18.8%
W	Water		4.9	6.8%
Totals for Area of Interest			**72.4**	**100.0%**

Rating Options—Hydrologic Soil Group (Mirbeau Inn & Spa at Beacon)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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APPENDIX C

RAINFALL DATA, NYSDEC ERM, FLOOD MAP, WETLAND MAP, AND SHPO INFORMATION

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New York
Location	
Longitude	73.967 degrees West
Latitude	41.489 degrees North
Elevation	0 feet
Date/Time	Tue, 22 Mar 2022 11:31:04 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.33	0.50	0.62	0.82	1.02	1.27	**1yr**	0.88	1.20	1.45	1.77	2.15	2.61	2.96	**1yr**	2.31	2.85	3.30	3.96	4.60	**1yr**
2yr	0.39	0.60	0.74	0.98	1.23	1.53	**2yr**	1.06	1.43	1.76	2.15	2.62	3.17	3.58	**2yr**	2.80	3.44	3.94	4.65	5.29	**2yr**
5yr	0.46	0.71	0.89	1.19	1.52	1.92	**5yr**	1.32	1.77	2.20	2.71	3.29	3.98	4.53	**5yr**	3.52	4.36	5.01	5.79	6.55	**5yr**
10yr	0.51	0.80	1.02	1.38	1.79	2.27	**10yr**	1.55	2.07	2.62	3.22	3.92	4.72	5.42	**10yr**	4.18	5.21	6.01	6.84	7.70	**10yr**
25yr	0.60	0.95	1.21	1.67	2.23	2.85	**25yr**	1.92	2.56	3.30	4.07	4.94	5.93	6.88	**25yr**	5.25	6.62	7.65	8.53	9.54	**25yr**
50yr	0.68	1.09	1.39	1.95	2.62	3.38	**50yr**	2.26	3.01	3.93	4.85	5.88	7.06	8.24	**50yr**	6.25	7.93	9.19	10.09	11.22	**50yr**
100yr	0.77	1.24	1.60	2.27	3.10	4.02	**100yr**	2.67	3.53	4.68	5.79	7.02	8.40	9.88	**100yr**	7.43	9.50	11.04	11.93	13.22	**100yr**
200yr	0.87	1.42	1.85	2.65	3.66	4.79	**200yr**	3.16	4.15	5.58	6.91	8.37	10.00	11.85	**200yr**	8.85	11.39	13.27	14.12	15.58	**200yr**
500yr	1.05	1.73	2.25	3.27	4.58	6.02	**500yr**	3.95	5.15	7.04	8.72	10.57	12.61	15.07	**500yr**	11.16	14.49	16.95	17.66	19.37	**500yr**

Lower Confidence Limits

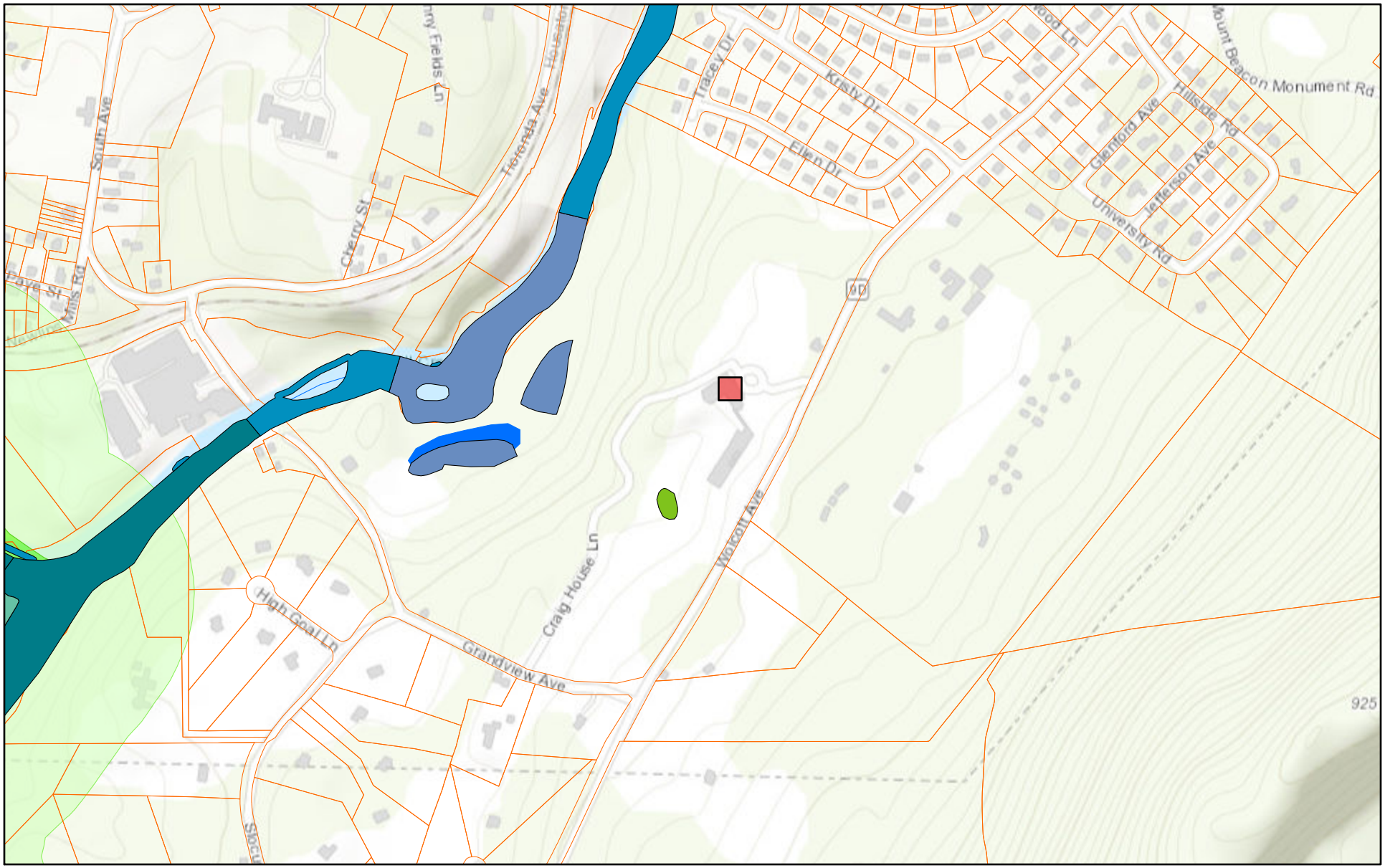
	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.44	0.53	0.72	0.88	1.09	**1yr**	0.76	1.07	1.25	1.60	2.01	2.08	2.36	**1yr**	1.84	2.27	2.64	3.38	4.15	**1yr**
2yr	0.37	0.58	0.71	0.97	1.19	1.42	**2yr**	1.03	1.39	1.61	2.06	2.59	3.08	3.46	**2yr**	2.73	3.33	3.79	4.49	5.15	**2yr**
5yr	0.42	0.65	0.81	1.11	1.41	1.66	**5yr**	1.22	1.62	1.89	2.42	3.02	3.68	4.19	**5yr**	3.26	4.03	4.60	5.33	6.10	**5yr**
10yr	0.47	0.72	0.89	1.25	1.62	1.86	**10yr**	1.39	1.81	2.12	2.72	3.39	4.18	4.84	**10yr**	3.70	4.66	5.30	6.05	6.93	**10yr**
25yr	0.54	0.82	1.02	1.46	1.93	2.14	**25yr**	1.66	2.09	2.46	3.07	3.95	4.92	5.86	**25yr**	4.36	5.63	6.39	7.16	8.23	**25yr**
50yr	0.60	0.92	1.14	1.64	2.21	2.39	**50yr**	1.91	2.33	2.78	3.43	4.45	5.59	6.77	**50yr**	4.94	6.51	7.37	8.13	9.38	**50yr**
100yr	0.68	1.03	1.29	1.86	2.55	2.68	**100yr**	2.20	2.62	3.14	3.83	5.04	6.31	7.84	**100yr**	5.58	7.54	8.49	9.23	10.70	**100yr**
200yr	0.77	1.16	1.47	2.13	2.97	3.00	**200yr**	2.56	2.93	3.54	4.30	5.69	7.09	9.11	**200yr**	6.27	8.76	9.81	10.47	12.23	**200yr**
500yr	0.92	1.37	1.76	2.55	3.63	3.49	**500yr**	3.13	3.41	4.19	5.01	6.73	8.28	11.11	**500yr**	7.33	10.69	11.87	12.37	14.60	**500yr**

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.36	0.56	0.68	0.92	1.13	1.36	**1yr**	0.97	1.33	1.53	1.97	2.43	2.81	3.21	**1yr**	2.49	3.09	3.58	4.25	4.95	**1yr**
2yr	0.40	0.62	0.77	1.04	1.28	1.54	**2yr**	1.11	1.51	1.75	2.25	2.80	3.34	3.71	**2yr**	2.96	3.57	4.10	4.82	5.47	**2yr**
5yr	0.49	0.76	0.94	1.29	1.65	1.96	**5yr**	1.42	1.91	2.26	2.89	3.66	4.27	4.88	**5yr**	3.78	4.69	5.41	6.28	7.01	**5yr**
10yr	0.58	0.89	1.11	1.55	2.00	2.37	**10yr**	1.73	2.32	2.74	3.54	4.49	5.21	6.01	**10yr**	4.61	5.78	6.69	7.67	8.48	**10yr**
25yr	0.72	1.10	1.37	1.95	2.57	3.05	**25yr**	2.22	2.98	3.57	4.73	5.88	6.81	7.92	**25yr**	6.03	7.61	8.89	10.01	10.92	**25yr**
50yr	0.85	1.29	1.61	2.32	3.12	3.71	**50yr**	2.69	3.62	4.35	5.83	7.20	8.35	9.75	**50yr**	7.39	9.38	11.04	12.26	13.22	**50yr**
100yr	1.01	1.52	1.91	2.75	3.78	4.50	**100yr**	3.26	4.40	5.30	7.19	8.83	10.24	12.00	**100yr**	9.06	11.54	13.71	15.03	16.01	**100yr**
200yr	1.19	1.79	2.27	3.28	4.57	5.46	**200yr**	3.95	5.34	6.47	8.84	10.81	12.58	14.80	**200yr**	11.13	14.23	17.03	18.42	19.41	**200yr**
500yr	1.49	2.22	2.85	4.14	5.89	7.06	**500yr**	5.08	6.91	8.40	11.67	14.15	16.53	19.49	**500yr**	14.63	18.74	22.72	24.14	25.01	**500yr**

Powered by ACIS Northeast Regional Climate Center

NYSDEC Wetland Mapper-DEC & NWI Wetlands near 7 Craig House Ln., Beacon NY



March 22, 2022

1:9,028

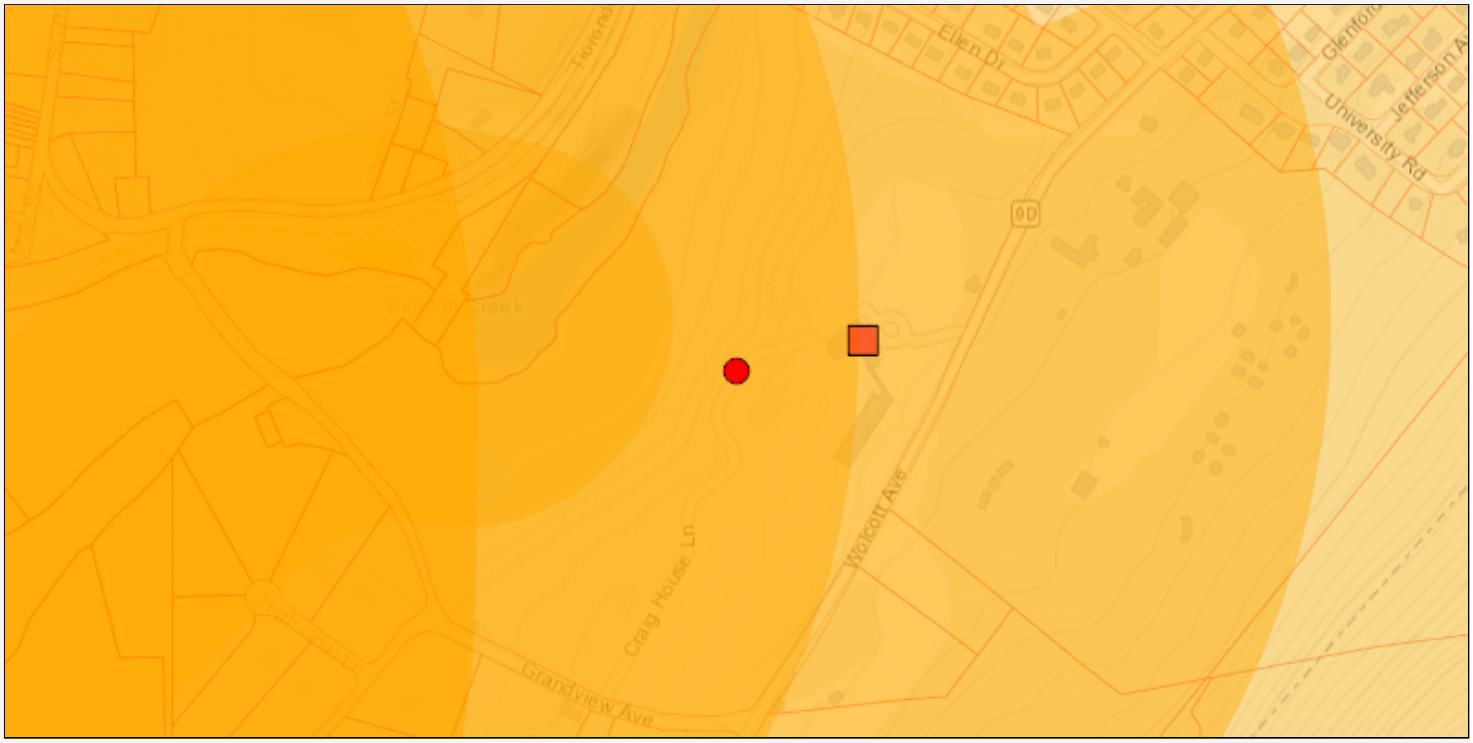
0 0.05 0.1 0.2 mi

0 0.07 0.15 0.3 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri

NYS Department of Environmental Conservatio
Not a legal documer

Environmental Resource Mapper



The coordinates of the point you clicked on are:

UTM 18	**Easting:**	586101.2766505829	**Northing:**	4593511.069399186
Longitude/Latitude	**Longitude:**	-73.96857643571313	**Latitude:**	41.48859965420632

The approximate address of the point you clicked on is:
1-53 Craig House Ln, Beacon, New York, 12508

County: Dutchess
City: Beacon
USGS Quad: WEST POINT

Natural Communities in the Vicinity

Natural Community Name: Appalachian oak-hickory forest
Location: Breakneck Scofield Fishkill Ridge
Significance: High Quality Occurrence

Natural Community Name: Brackish intertidal mudflats
Location: Fishkill Creek Mouth
Significance: Rare Community Type

Natural Community Name: Brackish tidal marsh
Location: Fishkill Creek Mouth
Significance: High Quality Occurrence of Rare Community Type

Natural Community Name: Tidal river
Location: Hudson River Estuary

Significance: High Quality Occurrence of Uncommon Community Type

Rare Plants and Rare Animals

This location is in the vicinity of Rare Plants Listed as Endangered, Threatened, or Rare by NYS

This location is in the vicinity of Significant Anadromous Fish Concentration Area – Contact NYSDEC

This location is in the vicinity of Animals Listed as Endangered or Threatened - Contact NYSDEC Regional Office

If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

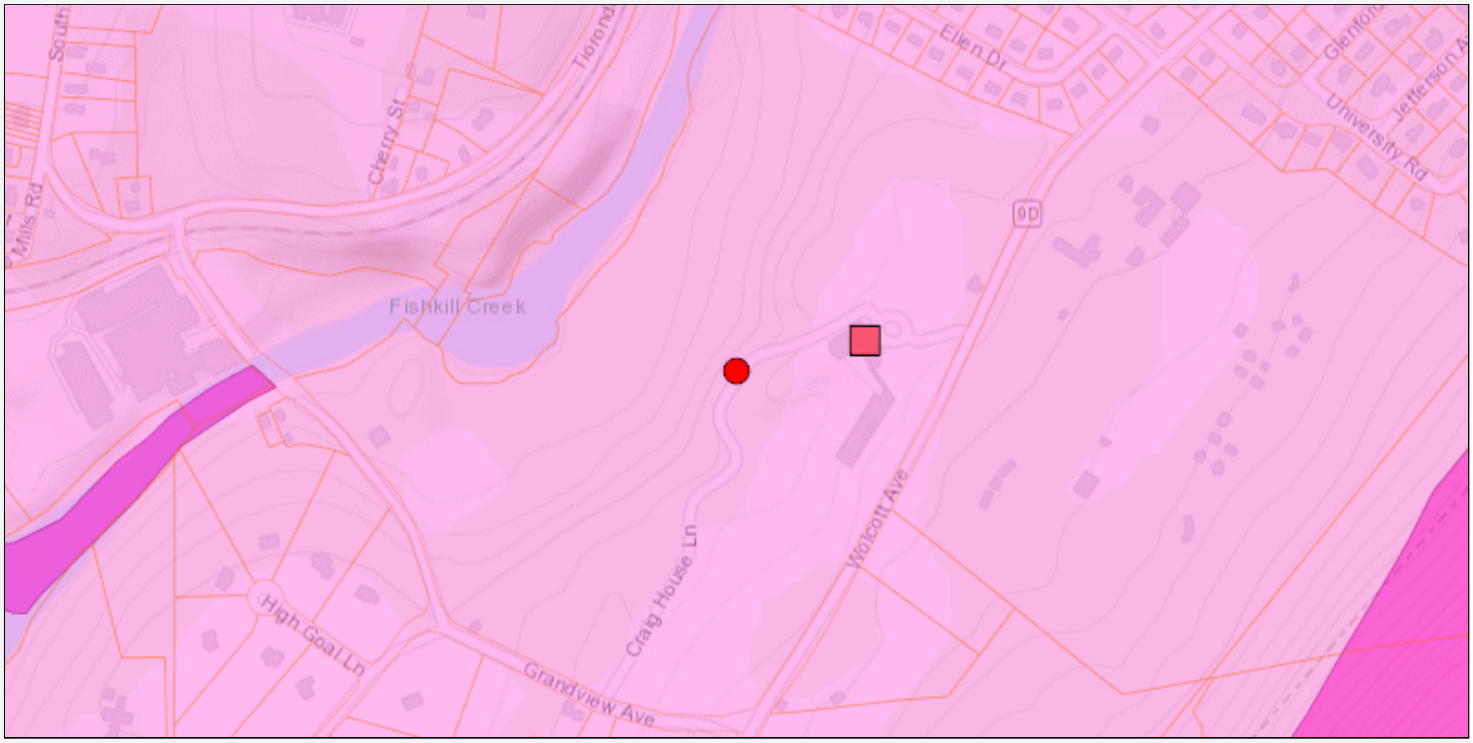
If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

The presence of a unique geological feature or landform near a project, unto itself, does not trigger a requirement for a NYS DEC permit. Readers are advised, however, that there is the chance that a unique feature may also show in another data layer (ie. a wetland) and thus be subject to permit jurisdiction.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

Disclaimer: If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.

Environmental Resource Mapper



The coordinates of the point you clicked on are:

UTM 18	**Easting:**	586099.4853840459	**Northing:**	4593511.048035164
Longitude/Latitude	**Longitude:**	-73.96859789338525	**Latitude:**	41.48859965420632

The approximate address of the point you clicked on is:
1-53 Craig House Ln, Beacon, New York, 12508

County: Dutchess
City: Beacon
USGS Quad: WEST POINT

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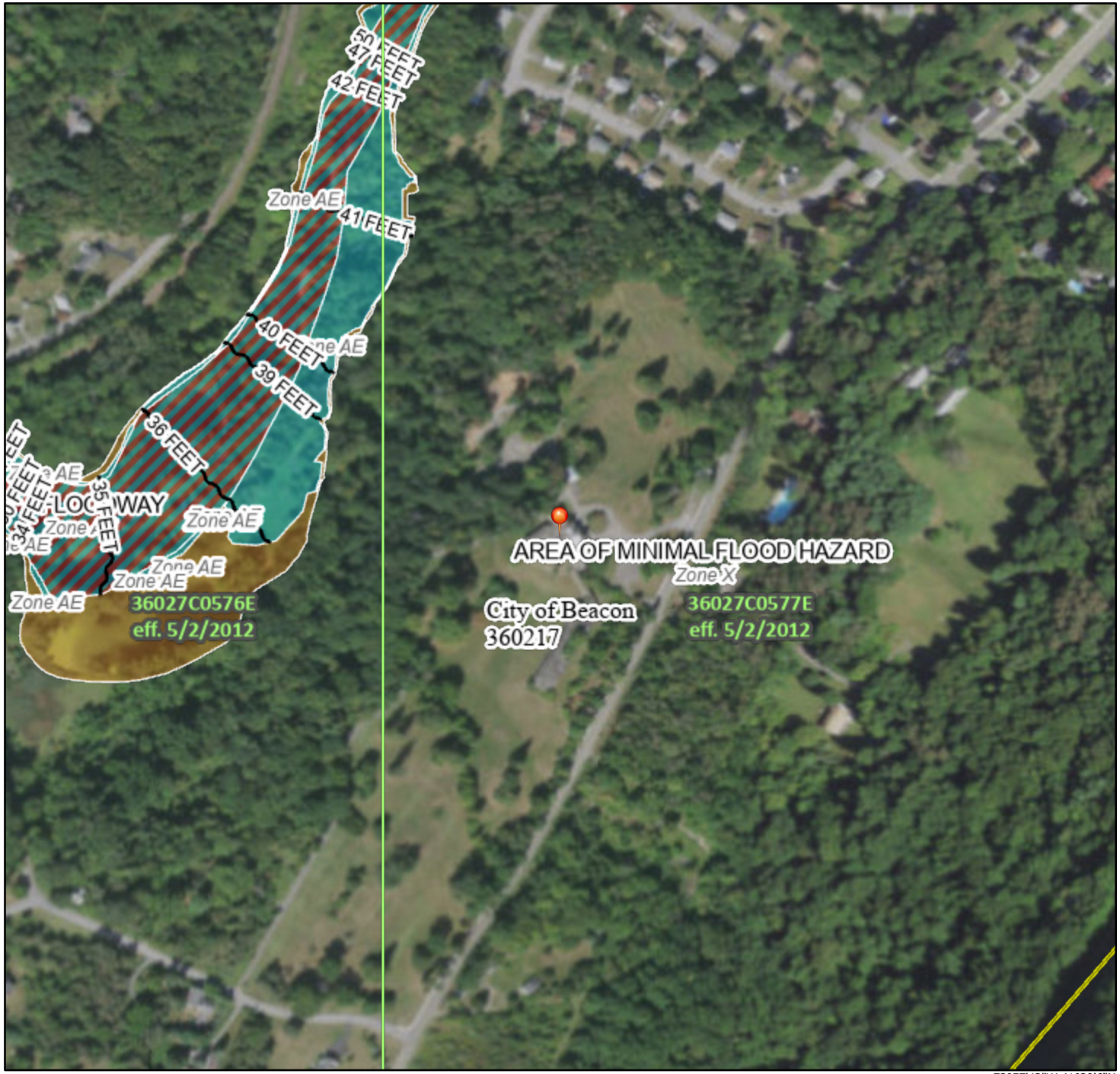
National Flood Hazard Layer FIRMette

FEMA

73°58'20"W 41°29'33"N



73°57'43"W 41°29'6"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/22/2022 at 11:36 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Mirbeau Inn & Spa at Beacon



March 22, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

CRIS Cultural Resource Information System

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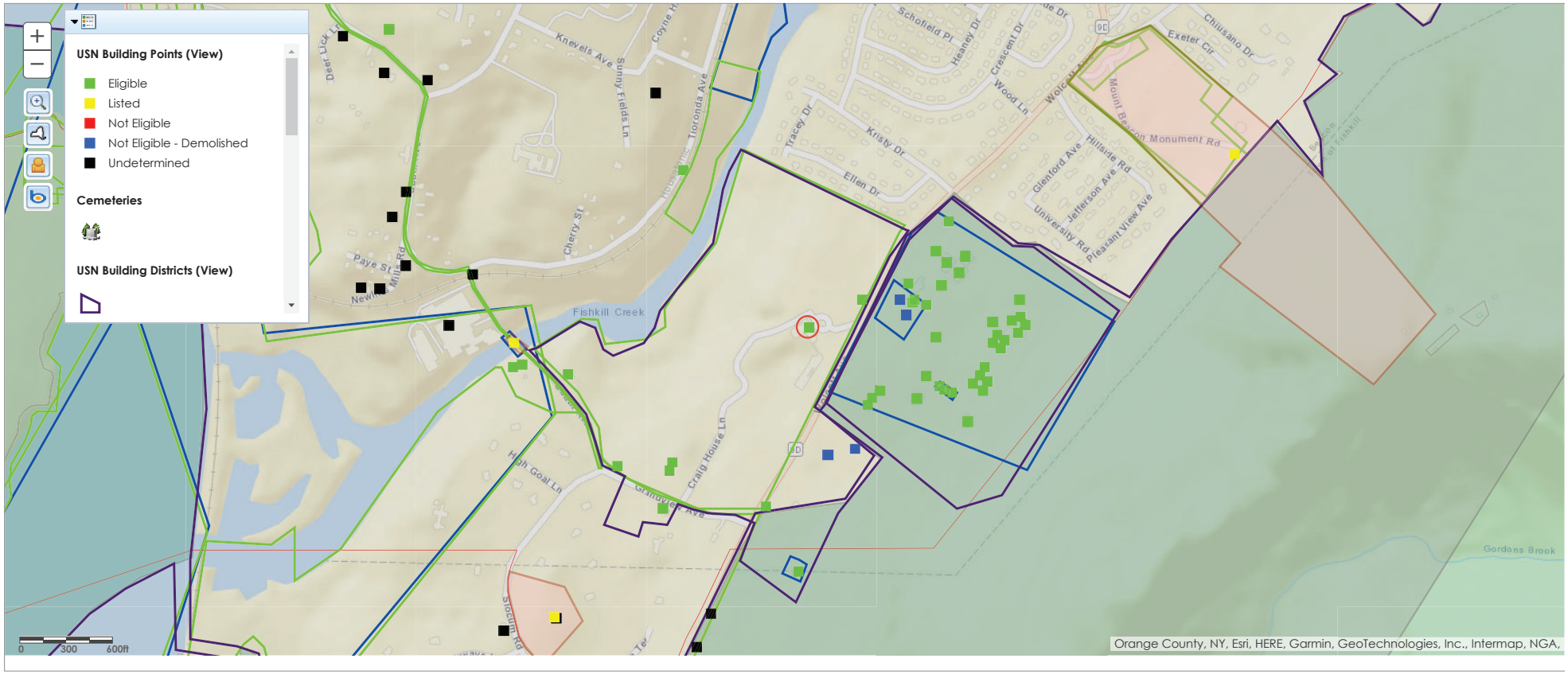

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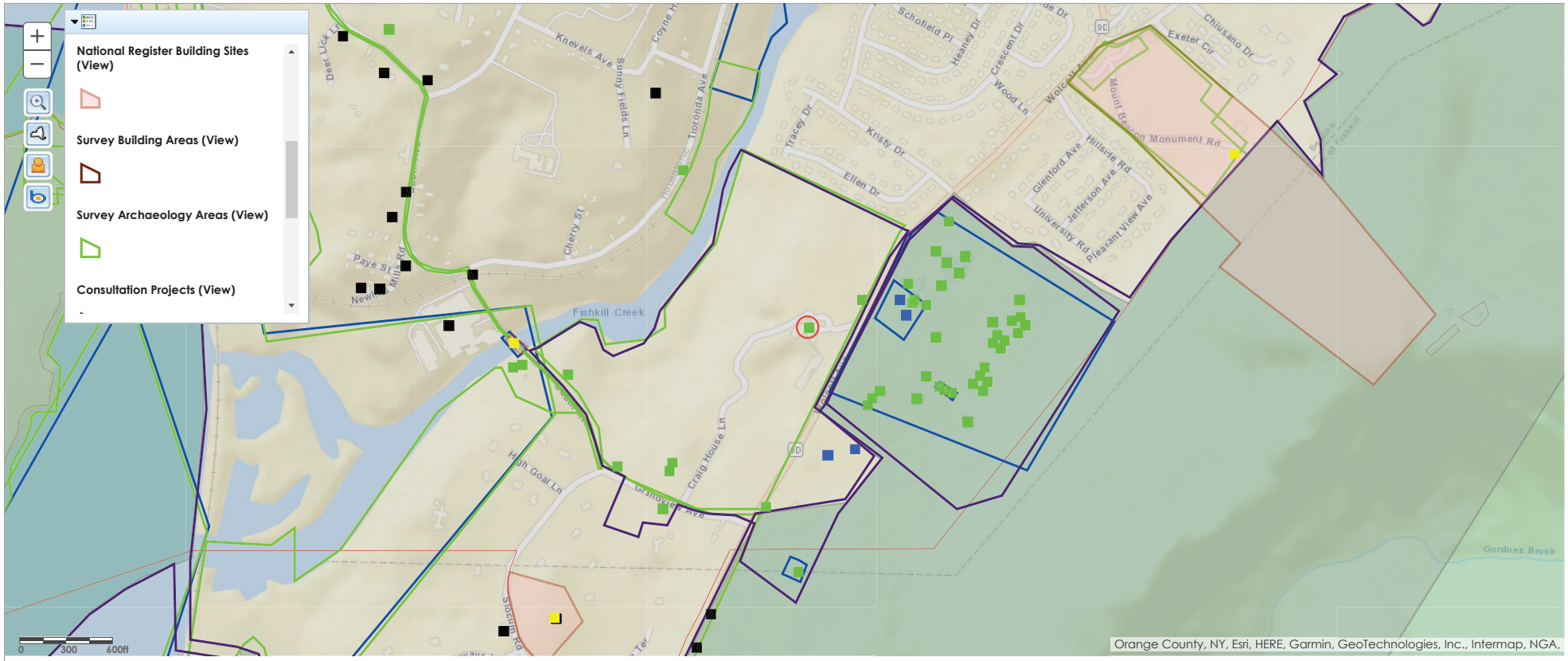

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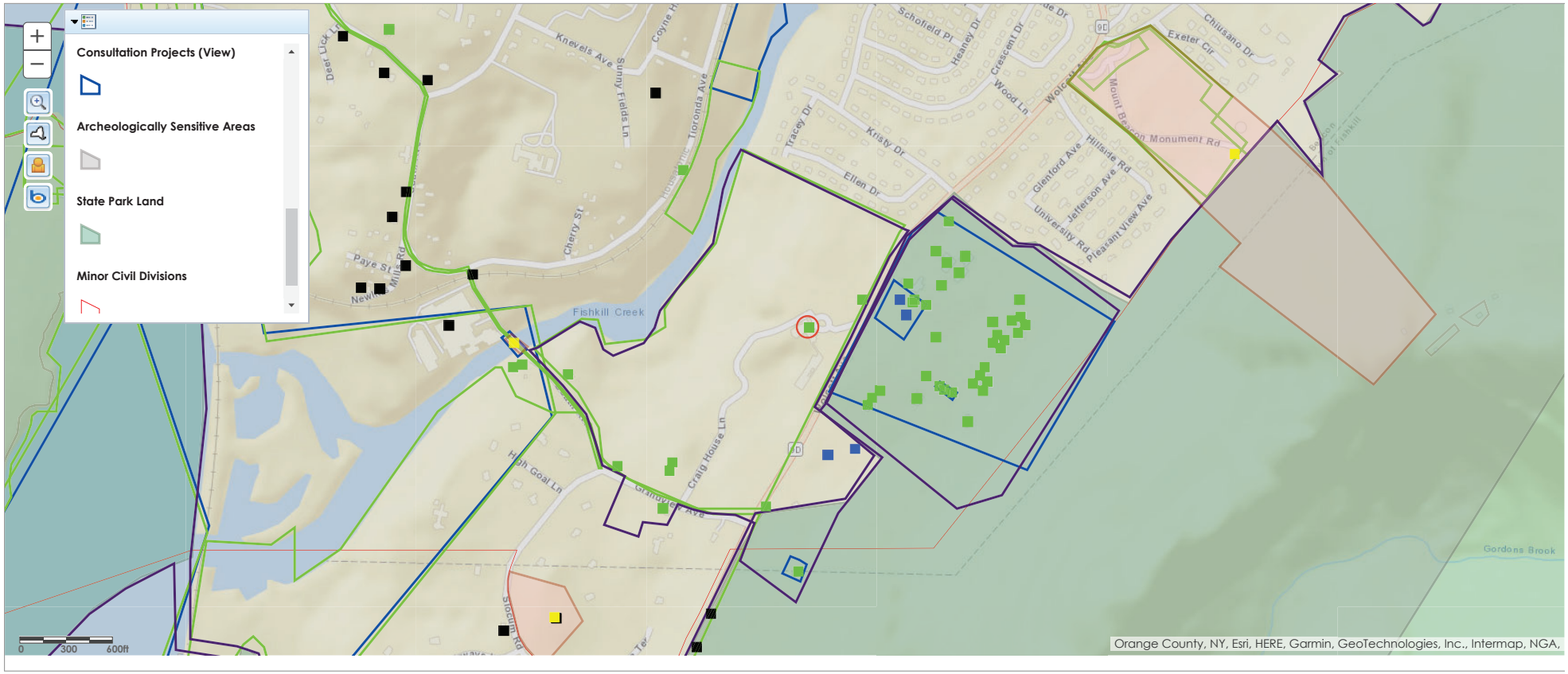

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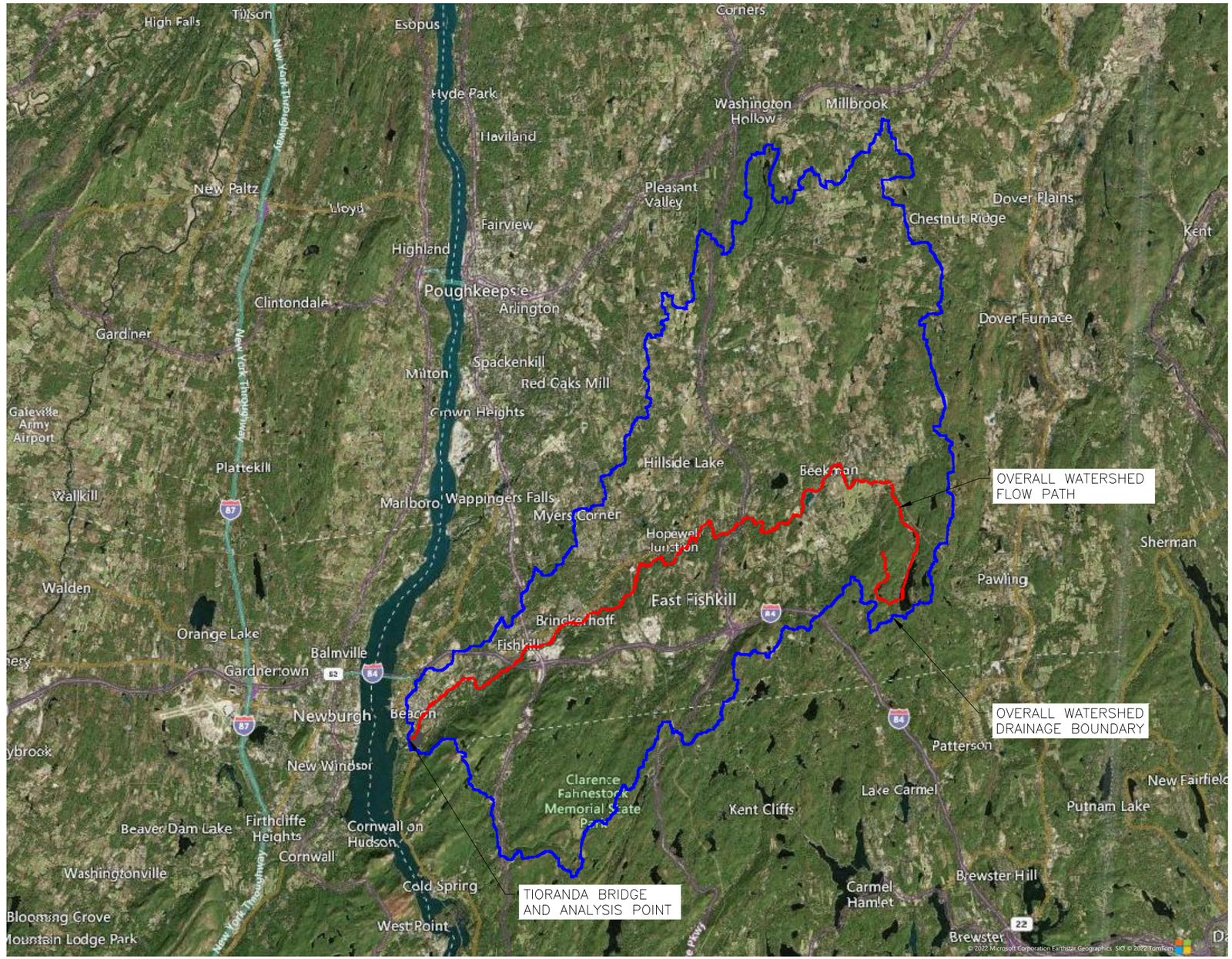
APPENDIX D

FISHKILL CREEK OVERALL WATERSHED



DRAWN BY: ESR	CHECKED BY: MAB

REVISIONS:

NO.	DATE	DESCRIPTION	BY
1	5/25/22	PER PLANNING BOARD COMMENTS	ESR

SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

OVERALL WATERSHED MAP

MIRBEAU INN & SPA BEACON

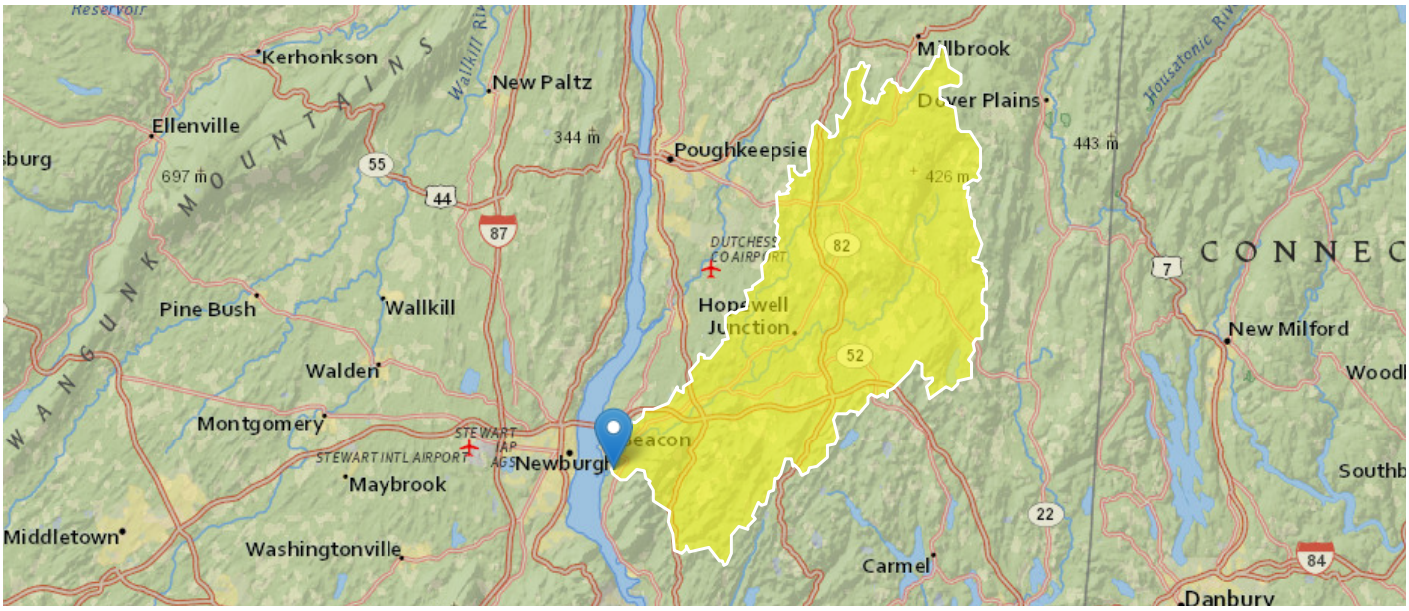
7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 20,000'
TITLE:	DR-1
SHEET:	1 OF 2

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION L

Mirbeau - Fishkill Creek Drainage Area

Region ID: NY
Workspace ID: NY20220323210841193000
Clicked Point (Latitude, Longitude): 41.48859, -73.97408
Time: 2022-03-23 17:09:03 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	193	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	1.99	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	4.86	percent
MAR	Mean annual runoff for the period of record in inches	21.6	inches
BSLOPCM	Mean basin slope determined by summing lengths of all contours in basin mulitplying by contour interval and dividing product by drainage area	586	feet per mi
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	601893.5	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	4605697.8	meters
CONTOUR	Total length of all elevation contours in drainage area in miles	1133.67	miles
CSL1085LO	10-85 slope of lower half of main channel in feet per mile.	8.16	feet per mi
CSL1085UP	10-85 slope of upper half of main channel in feet per mile.	34.9	feet per mi
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	18.7	feet per mi
EL1200	Percentage of basin at or above 1200 ft elevation	1.62	percent
FOREST	Percentage of area covered by forest	67.7	percent
JULAVPRE	Mean July Precipitation	4.61	inches
JUNAVPRE	Mean June Precipitation	4.18	inches
JUNMAXTMP	Maximum June Temperature, in degrees F	78.4	degrees F
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	20.4	percent

Parameter Code	Parameter Description	Value	Unit
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	5.47	percent
LENGTH	Length along the main channel from the measuring location extended to the basin divide	36.1	miles
MAYAVPRE	Mean May Precipitation	4.53	inches
MXSNO	50th percentile of seasonal maximum snow depth from Northeast Regional Climate Center atlas by Cember and Wilks, 1993	12.8	inches
OUTLETX	Basin outlet horizontal (x) location in state plane coordinates	585645	feet
OUTLETY	Basin outlet vertical (y) location in state plane coordinates	4593505	feet
PRECIP	Mean Annual Precipitation	42.5	inches
PRJUNAUG00	Basin average mean precip for June to August from PRISM 1971-2000	13.1	inches
SLOPERATIO	Ratio of main channel slope to basin slope as defined in SIR 2006-5112	0.0319	dimensionless
SSURGOA	Percentage of area of Hydrologic Soil Type A from SSURGO	9.45	percent
SSURGOB	Percentage of area of Hydrologic Soil Type B from SSURGO	36.7	percent

Peak-Flow Statistics Parameters [2006 Full Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	193	square miles	1.93	996
LAGFACTOR	Lag Factor	1.99	dimensionless	0.014	6.997
STORAGE	Percent Storage	4.86	percent	0	11.88
MAR	Mean Annual Runoff in inches	21.6	inches	16.03	33.95

Peak-Flow Statistics Flow Report [2006 Full Region 2]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	ASEp	Equiv. Yrs.
80-percent AEP flood	2350	ft^3/s	25.5	25.5	4.8
66.7-percent AEP flood	2790	ft^3/s	25.6	25.6	4.3
50-percent AEP flood	3430	ft^3/s	25.8	25.8	4.4
20-percent AEP flood	5290	ft^3/s	27	27	7.3
10-percent AEP flood	6830	ft^3/s	28.2	28.2	10.1
4-percent AEP flood	9080	ft^3/s	29.9	29.9	13.6
2-percent AEP flood	11000	ft^3/s	31.5	31.5	15.8
1-percent AEP flood	13100	ft^3/s	33.3	33.3	17.6
0.5-percent AEP flood	15500	ft^3/s	35.3	35.3	18.9
0.2-percent AEP flood	19000	ft^3/s	38.4	38.4	20.1

Peak-Flow Statistics Citations

Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006–5112, 152 p. (http://pubs.usgs.gov/sir/2006/5112/)

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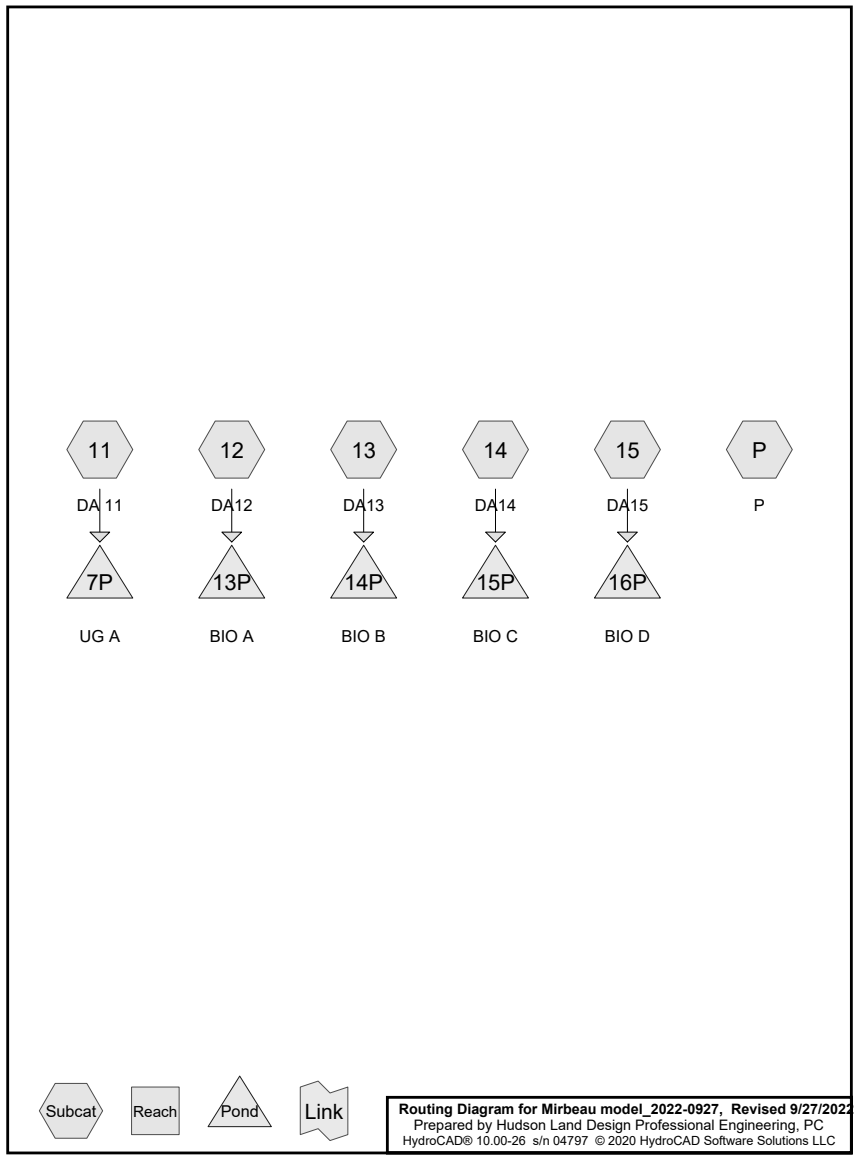
Application Version: 4.7.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

APPENDIX E

POST-DEVELOPMENT HYDROCAD MODEL



Summary for Subcatchment 11: DA 11

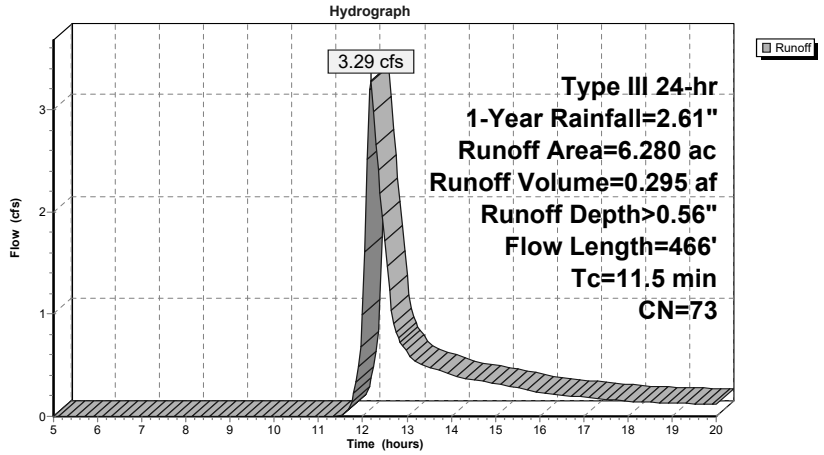
Runoff = 3.29 cfs @ 12.19 hrs, Volume= 0.295 af, Depth> 0.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.61"

Area (ac)	CN	Description
0.320	98	Roofs, HSG B
1.790	98	Paved parking, HSG B
4.170	61	>75% Grass cover, Good, HSG B
6.280	73	Weighted Average
4.170		66.40% Pervious Area
2.110		33.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0225	0.18		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
1.5	224	0.0250	2.55		**Shallow Concentrated Flow, S2** Unpaved Kv= 16.1 fps
0.5	116	0.0430	4.21		**Shallow Concentrated Flow, S3** Paved Kv= 20.3 fps
0.1	26	0.0100	5.70	7.00	**Pipe Channel, S4** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
11.5	466	Total			

Subcatchment 11: DA 11



Summary for Subcatchment 12: DA12

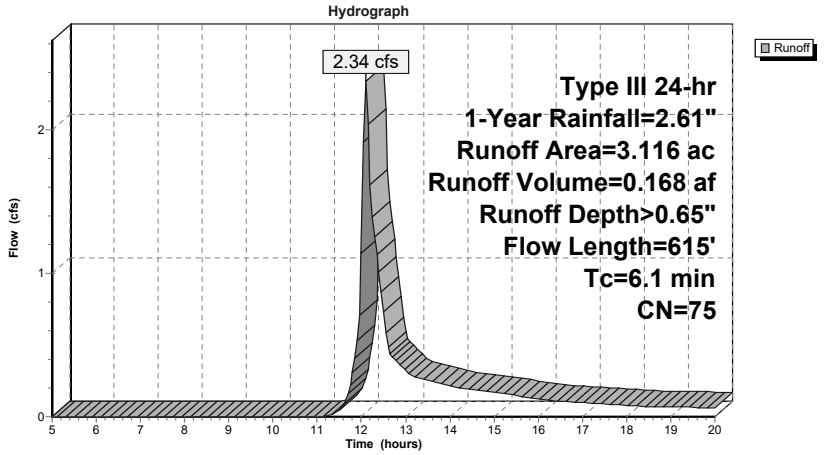
Runoff = 2.34 cfs @ 12.10 hrs, Volume= 0.168 af, Depth> 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.61"

Area (ac)	CN	Description
0.576	98	Roofs, HSG B
0.845	98	Paved parking, HSG B
0.383	39	>75% Grass cover, Good, HSG A
1.312	61	>75% Grass cover, Good, HSG B
3.116	75	Weighted Average
1.695		54.40% Pervious Area
1.421		45.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	100	0.1100	0.33		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
0.8	138	0.0180	2.72		**Shallow Concentrated Flow, S2** Paved Kv= 20.3 fps
0.3	377	0.0990	21.53	26.42	**Pipe Channel, S3** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010
6.1	615	Total			

Subcatchment 12: DA12



Summary for Subcatchment 13: DA13

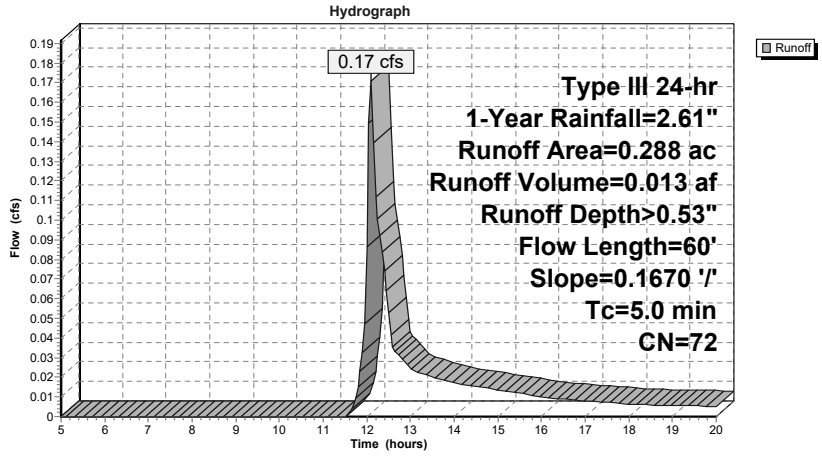
Runoff = 0.17 cfs @ 12.10 hrs, Volume= 0.013 af, Depth> 0.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.61"

Area (ac)	CN	Description
0.059	98	Roofs, HSG B
0.028	98	Paved parking, HSG B
0.201	61	>75% Grass cover, Good, HSG B
0.288	72	Weighted Average
0.201		69.79% Pervious Area
0.087		30.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	60	0.1670	0.36		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
2.8	60	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 13: DA13



Summary for Subcatchment 14: DA14

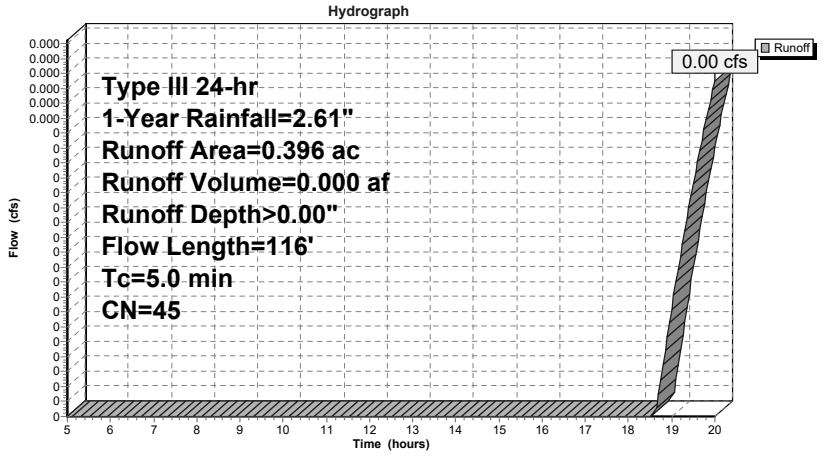
Runoff = 0.00 cfs @ 20.00 hrs, Volume= 0.000 af, Depth> 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.61"

Area (ac)	CN	Description
0.039	98	Roofs, HSG A
0.357	39	>75% Grass cover, Good, HSG A
0.396	45	Weighted Average
0.357		90.15% Pervious Area
0.039		9.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	100	0.1600	0.39		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
0.0	16	0.2000	7.20		**Shallow Concentrated Flow, S2** Unpaved Kv= 16.1 fps
4.3	116	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 14: DA14



Summary for Subcatchment 15: DA15

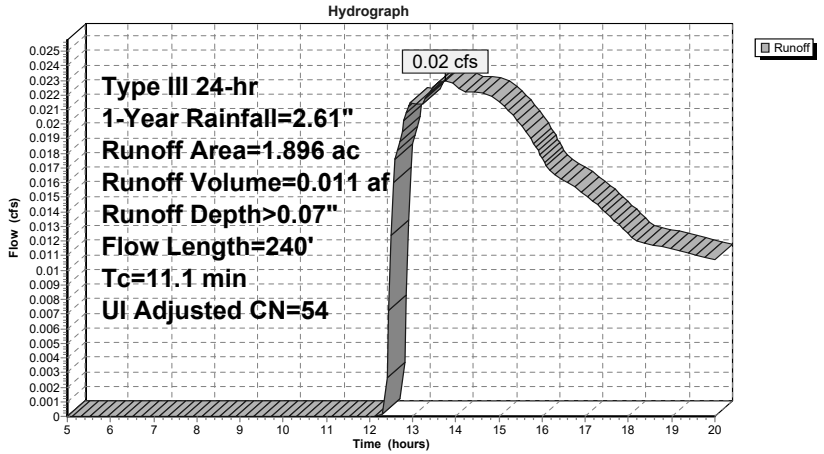
Runoff = 0.02 cfs @ 13.76 hrs, Volume= 0.011 af, Depth> 0.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.61"

Area (ac)	CN	Adj	Description
0.063	98		Roofs, HSG A
0.309	98		Paved parking, HSG A
0.165	98		Unconnected pavement, HSG A
1.095	39		>75% Grass cover, Good, HSG A
0.029	74		>75% Grass cover, Good, HSG C
0.154	30		Woods, Good, HSG A
0.081	70		Woods, Good, HSG C
1.896	57	54	Weighted Average, UI Adjusted
1.359			71.68% Pervious Area
0.537			28.32% Impervious Area
0.165			30.73% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.0200	0.17		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
1.2	140	0.0140	1.90		**Shallow Concentrated Flow, S2** Unpaved Kv= 16.1 fps
11.1	240	Total			

Subcatchment 15: DA15



Summary for Subcatchment P: P

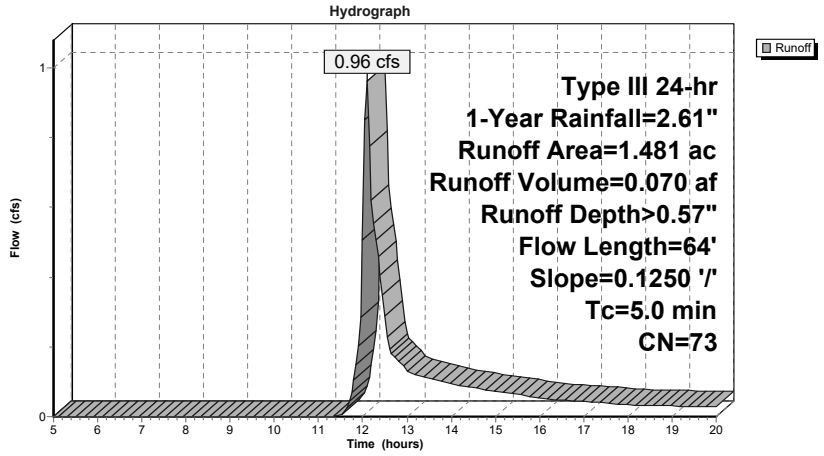
Runoff = 0.96 cfs @ 12.09 hrs, Volume= 0.070 af, Depth> 0.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.61"

Area (ac)	CN	Description
0.332	98	Water Surface, HSG B
0.151	98	Paved parking, HSG B
0.998	61	>75% Grass cover, Good, HSG B
1.481	73	Weighted Average
0.998		67.39% Pervious Area
0.483		32.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	64	0.1250	0.32		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
3.3	64	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P: P



Summary for Pond 7P: UG A

Inflow Area = 6.280 ac, 33.60% Impervious, Inflow Depth > 0.56" for 1-Year event
Inflow = 3.29 cfs @ 12.19 hrs, Volume= 0.295 af
Outflow = 0.40 cfs @ 11.95 hrs, Volume= 0.268 af, Atten= 88%, Lag= 0.0 min
Discarded = 0.40 cfs @ 11.95 hrs, Volume= 0.268 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 145.70' @ 14.08 hrs Surf.Area= 3,417 sf Storage= 5,148 cf

Plug-Flow detention time= 148.1 min calculated for 0.268 af (91% of inflow)
Center-of-Mass det. time= 119.4 min (955.1 - 835.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	143.50'	4,740 cf	**44.75'W x 76.37'L x 5.75'H Field A** 19,650 cf Overall - 7,801 cf Embedded = 11,849 cf x 40.0% Voids
#2A	144.25'	7,801 cf	**Cultec R-902HD** x 120 Inside #1 Effective Size= 69.8"W x 48.0"H => 17.65 sf x 3.67'L = 64.7 cf Overall Size= 78.0"W x 48.0"H x 4.10'L with 0.44' Overlap 120 Chambers in 6 Rows Cap Storage= +2.8 cf x 2 x 6 rows = 33.1 cf
		12,541 cf	Total Available Storage

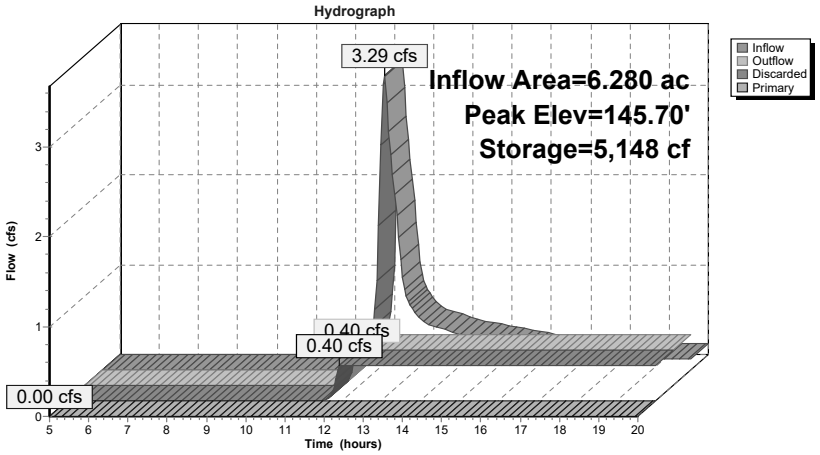
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	146.30'	**24.0" Round Culvert X 2.00** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 146.30' / 138.50' S= 0.1219 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Discarded	143.50'	**5.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.40 cfs @ 11.95 hrs HW=143.58' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.40 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=143.50' (Free Discharge)
↑**1=Culvert** (Controls 0.00 cfs)

Pond 7P: UG A



Summary for Pond 13P: BIO A

Inflow Area = 3.116 ac, 45.60% Impervious, Inflow Depth > 0.65" for 1-Year event
Inflow = 2.34 cfs @ 12.10 hrs, Volume= 0.168 af
Outflow = 0.62 cfs @ 12.54 hrs, Volume= 0.168 af, Atten= 74%, Lag= 26.2 min
Discarded = 0.62 cfs @ 12.54 hrs, Volume= 0.168 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 136.33' @ 12.54 hrs Surf.Area= 5,330 sf Storage= 1,686 cf

Plug-Flow detention time= 18.4 min calculated for 0.167 af (100% of inflow)
Center-of-Mass det. time= 17.8 min (843.7 - 825.9)

Volume	Invert	Avail.Storage	Storage Description
#1	136.00'	11,989 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

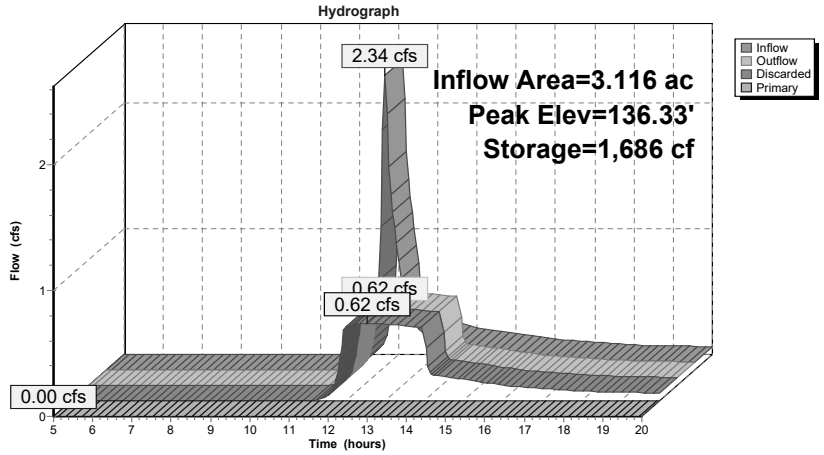
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
136.00	5,009	0	0
138.00	6,980	11,989	11,989

Device	Routing	Invert	Outlet Devices
#1	Primary	133.50'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 133.50' / 133.00' S= 0.0217 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	136.50'	**2.0" Vert. Orifice** C= 0.600
#3	Device 1	137.10'	**42.0" x 42.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#4	Discarded	136.00'	**5.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.62 cfs @ 12.54 hrs HW=136.33' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.62 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=136.00' (Free Discharge)
└**1=Culvert** (Passes 0.00 cfs of 11.26 cfs potential flow)
  ├**2=Orifice** (Controls 0.00 cfs)
  └**3=Grate** (Controls 0.00 cfs)

Pond 13P: BIO A



Summary for Pond 14P: BIO B

Inflow Area = 0.288 ac, 30.21% Impervious, Inflow Depth > 0.53" for 1-Year event
Inflow = 0.17 cfs @ 12.10 hrs, Volume= 0.013 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 140.41' @ 20.00 hrs Surf.Area= 1,471 sf Storage= 550 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

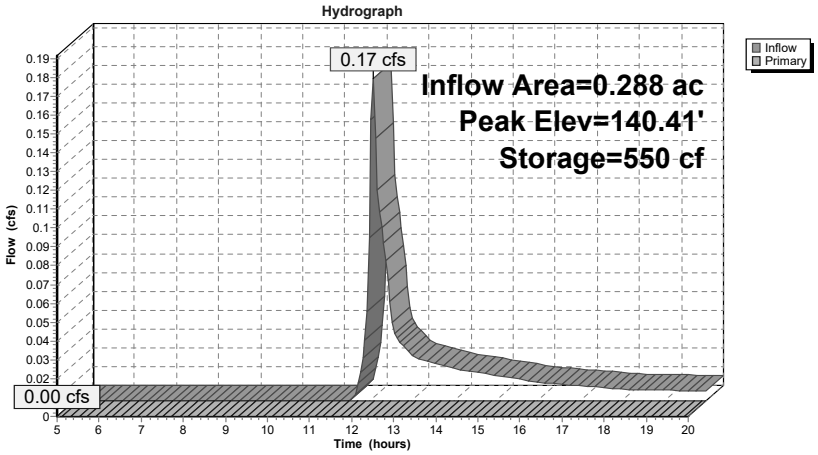
Volume	Invert	Avail.Storage	Storage Description
#1	140.00'	1,526 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
140.00	1,231	0	0
141.00	1,821	1,526	1,526

Device	Routing	Invert	Outlet Devices
#1	Primary	140.50'	**18.0" x 18.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=140.00' (Free Discharge)
↑**1=Grate** (Controls 0.00 cfs)

Pond 14P: BIO B



Summary for Pond 15P: BIO C

Inflow Area = 0.396 ac, 9.85% Impervious, Inflow Depth > 0.00" for 1-Year event
Inflow = 0.00 cfs @ 20.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 138.00' @ 20.00 hrs Surf.Area= 2,247 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

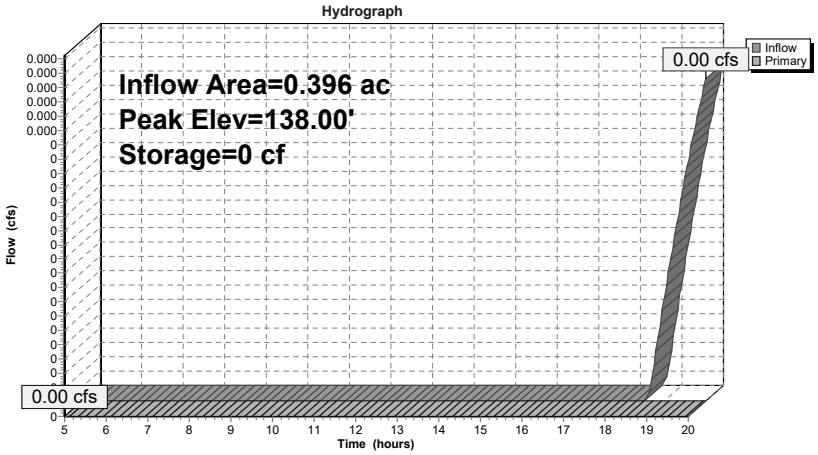
Volume	Invert	Avail.Storage	Storage Description
#1	138.00'	2,658 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
138.00	2,247	0	0
139.00	3,068	2,658	2,658

Device	Routing	Invert	Outlet Devices
#1	Primary	138.50'	**18.0" x 18.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=138.00' (Free Discharge)
↑**1=Grate** (Controls 0.00 cfs)

Pond 15P: BIO C



Summary for Pond 16P: BIO D

Inflow Area = 1.896 ac, 28.32% Impervious, Inflow Depth > 0.07" for 1-Year event
Inflow = 0.02 cfs @ 13.76 hrs, Volume= 0.011 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 34.17' @ 20.00 hrs Surf.Area= 2,759 sf Storage= 459 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

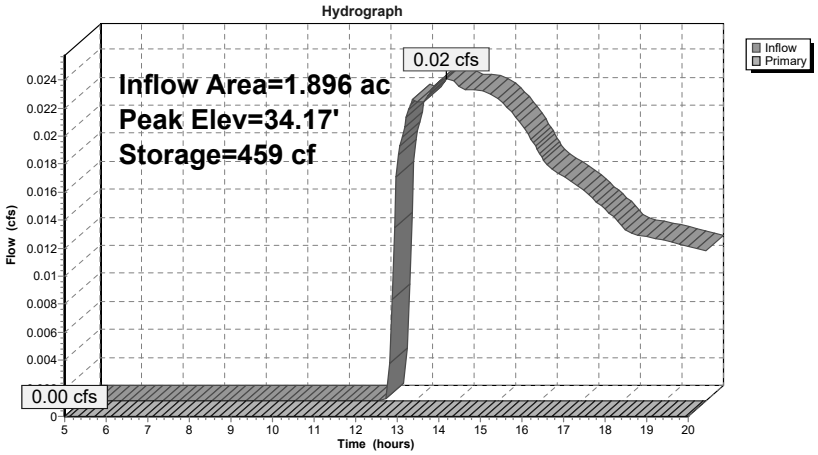
Volume	Invert	Avail.Storage	Storage Description
#1	34.00'	7,056 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
34.00	2,600	0	0
36.00	4,456	7,056	7,056

Device	Routing	Invert	Outlet Devices
#1	Primary	31.50'	**15.0" Round Culvert** L= 62.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 31.50' / 30.00' S= 0.0242 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	34.50'	**42.0" x 42.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=34.00' (Free Discharge)
↑**1=Culvert** (Passes 0.00 cfs of 8.09 cfs potential flow)
↑**2=Grate** (Controls 0.00 cfs)

Pond 16P: BIO D



Summary for Subcatchment 11: DA 11

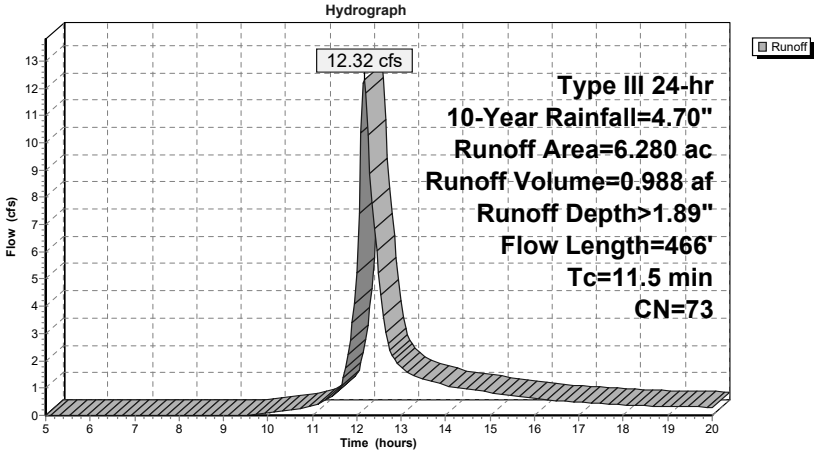
Runoff = 12.32 cfs @ 12.17 hrs, Volume= 0.988 af, Depth> 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (ac)	CN	Description
0.320	98	Roofs, HSG B
1.790	98	Paved parking, HSG B
4.170	61	>75% Grass cover, Good, HSG B
6.280	73	Weighted Average
4.170		66.40% Pervious Area
2.110		33.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0225	0.18		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
1.5	224	0.0250	2.55		**Shallow Concentrated Flow, S2** Unpaved Kv= 16.1 fps
0.5	116	0.0430	4.21		**Shallow Concentrated Flow, S3** Paved Kv= 20.3 fps
0.1	26	0.0100	5.70	7.00	**Pipe Channel, S4** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
11.5	466	Total			

Subcatchment 11: DA 11



Summary for Subcatchment 12: DA12

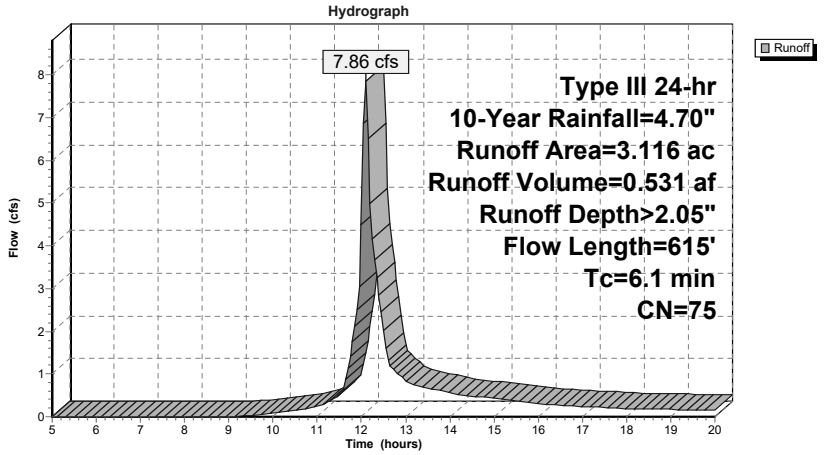
Runoff = 7.86 cfs @ 12.10 hrs, Volume= 0.531 af, Depth> 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (ac)	CN	Description
0.576	98	Roofs, HSG B
0.845	98	Paved parking, HSG B
0.383	39	>75% Grass cover, Good, HSG A
1.312	61	>75% Grass cover, Good, HSG B
3.116	75	Weighted Average
1.695		54.40% Pervious Area
1.421		45.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	100	0.1100	0.33		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
0.8	138	0.0180	2.72		**Shallow Concentrated Flow, S2** Paved Kv= 20.3 fps
0.3	377	0.0990	21.53	26.42	**Pipe Channel, S3** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010
6.1	615	Total			

Subcatchment 12: DA12



Summary for Subcatchment 13: DA13

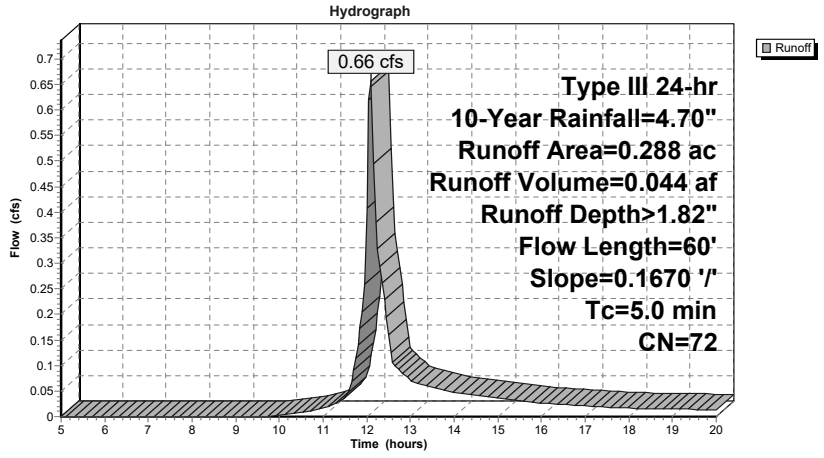
Runoff = 0.66 cfs @ 12.08 hrs, Volume= 0.044 af, Depth> 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (ac)	CN	Description
0.059	98	Roofs, HSG B
0.028	98	Paved parking, HSG B
0.201	61	>75% Grass cover, Good, HSG B
0.288	72	Weighted Average
0.201		69.79% Pervious Area
0.087		30.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	60	0.1670	0.36		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
2.8	60	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 13: DA13



Summary for Subcatchment 14: DA14

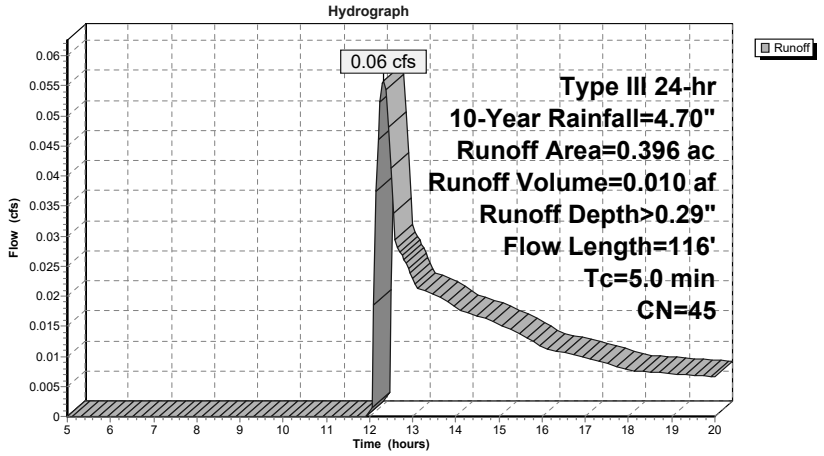
Runoff = 0.06 cfs @ 12.33 hrs, Volume= 0.010 af, Depth> 0.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (ac)	CN	Description
0.039	98	Roofs, HSG A
0.357	39	>75% Grass cover, Good, HSG A
0.396	45	Weighted Average
0.357		90.15% Pervious Area
0.039		9.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	100	0.1600	0.39		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
0.0	16	0.2000	7.20		**Shallow Concentrated Flow, S2** Unpaved Kv= 16.1 fps
4.3	116	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 14: DA14



Summary for Subcatchment 15: DA15

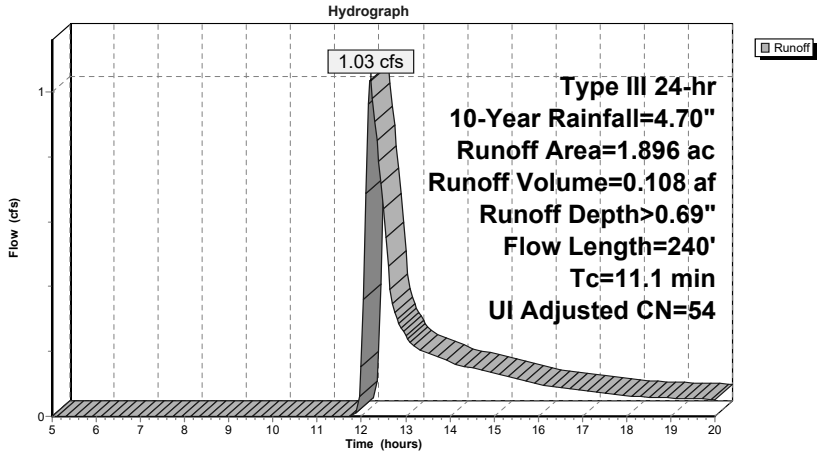
Runoff = 1.03 cfs @ 12.20 hrs, Volume= 0.108 af, Depth> 0.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (ac)	CN	Adj	Description
0.063	98		Roofs, HSG A
0.309	98		Paved parking, HSG A
0.165	98		Unconnected pavement, HSG A
1.095	39		>75% Grass cover, Good, HSG A
0.029	74		>75% Grass cover, Good, HSG C
0.154	30		Woods, Good, HSG A
0.081	70		Woods, Good, HSG C
1.896	57	54	Weighted Average, UI Adjusted
1.359			71.68% Pervious Area
0.537			28.32% Impervious Area
0.165			30.73% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.0200	0.17		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
1.2	140	0.0140	1.90		**Shallow Concentrated Flow, S2** Unpaved Kv= 16.1 fps
11.1	240	Total			

Subcatchment 15: DA15



Summary for Subcatchment P: P

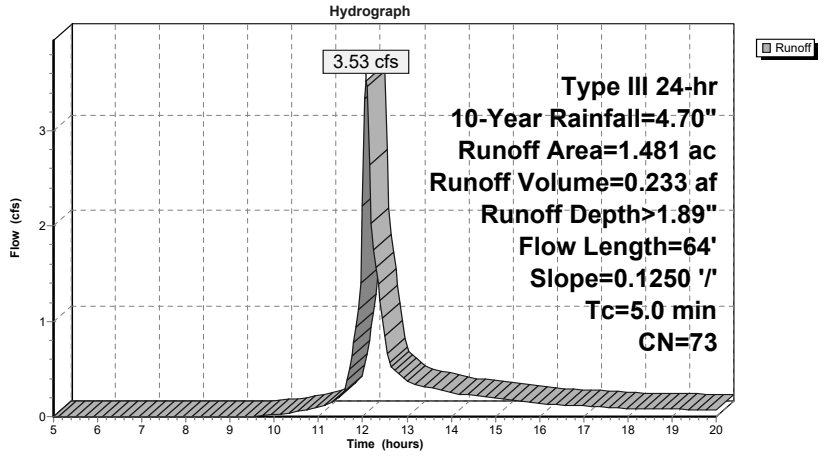
Runoff = 3.53 cfs @ 12.08 hrs, Volume= 0.233 af, Depth> 1.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.70"

Area (ac)	CN	Description
0.332	98	Water Surface, HSG B
0.151	98	Paved parking, HSG B
0.998	61	>75% Grass cover, Good, HSG B
1.481	73	Weighted Average
0.998		67.39% Pervious Area
0.483		32.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	64	0.1250	0.32		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
3.3	64	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P: P



Summary for Pond 7P: UG A

Inflow Area = 6.280 ac, 33.60% Impervious, Inflow Depth > 1.89" for 10-Year event
Inflow = 12.32 cfs @ 12.17 hrs, Volume= 0.988 af
Outflow = 10.34 cfs @ 12.27 hrs, Volume= 0.840 af, Atten= 16%, Lag= 6.0 min
Discarded = 0.40 cfs @ 11.15 hrs, Volume= 0.311 af
Primary = 9.95 cfs @ 12.27 hrs, Volume= 0.529 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 147.40' @ 12.27 hrs Surf.Area= 3,417 sf Storage= 9,547 cf

Plug-Flow detention time= 70.5 min calculated for 0.838 af (85% of inflow)
Center-of-Mass det. time= 27.7 min (836.0 - 808.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	143.50'	4,740 cf	**44.75'W x 76.37'L x 5.75'H Field A** 19,650 cf Overall - 7,801 cf Embedded = 11,849 cf x 40.0% Voids
#2A	144.25'	7,801 cf	**Cultec R-902HD** x 120 Inside #1 Effective Size= 69.8"W x 48.0"H => 17.65 sf x 3.67'L = 64.7 cf Overall Size= 78.0"W x 48.0"H x 4.10'L with 0.44' Overlap 120 Chambers in 6 Rows Cap Storage= +2.8 cf x 2 x 6 rows = 33.1 cf
		12,541 cf	Total Available Storage

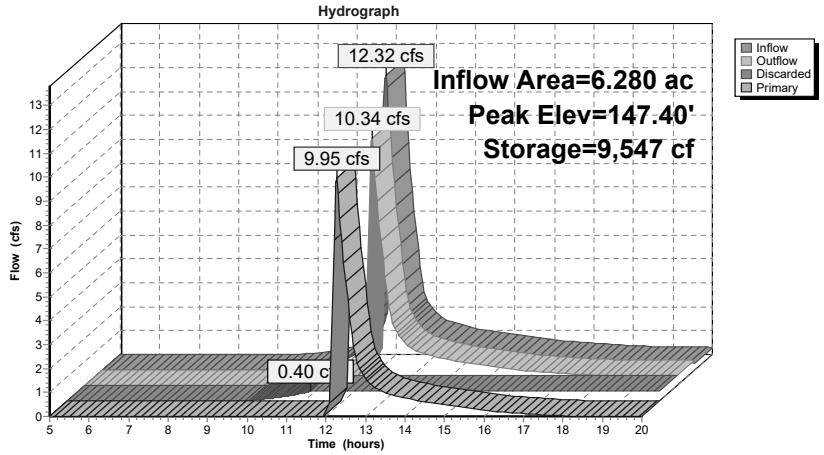
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	146.30'	**24.0" Round Culvert X 2.00** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 146.30' / 138.50' S= 0.1219 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Discarded	143.50'	**5.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.40 cfs @ 11.15 hrs HW=143.56' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.40 cfs)

Primary OutFlow Max=9.63 cfs @ 12.27 hrs HW=147.38' (Free Discharge)
↑**1=Culvert** (Inlet Controls 9.63 cfs @ 2.79 fps)

Pond 7P: UG A



Summary for Pond 13P: BIO A

Inflow Area = 3.116 ac, 45.60% Impervious, Inflow Depth > 2.05" for 10-Year event
Inflow = 7.86 cfs @ 12.10 hrs, Volume= 0.531 af
Outflow = 3.30 cfs @ 12.35 hrs, Volume= 0.531 af, Atten= 58%, Lag= 15.5 min
Discarded = 0.72 cfs @ 12.35 hrs, Volume= 0.430 af
Primary = 2.58 cfs @ 12.35 hrs, Volume= 0.101 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 137.24' @ 12.35 hrs Surf.Area= 6,235 sf Storage= 6,991 cf

Plug-Flow detention time= 69.4 min calculated for 0.529 af (100% of inflow)
Center-of-Mass det. time= 68.7 min (868.7 - 800.0)

Volume	Invert	Avail.Storage	Storage Description
#1	136.00'	11,989 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

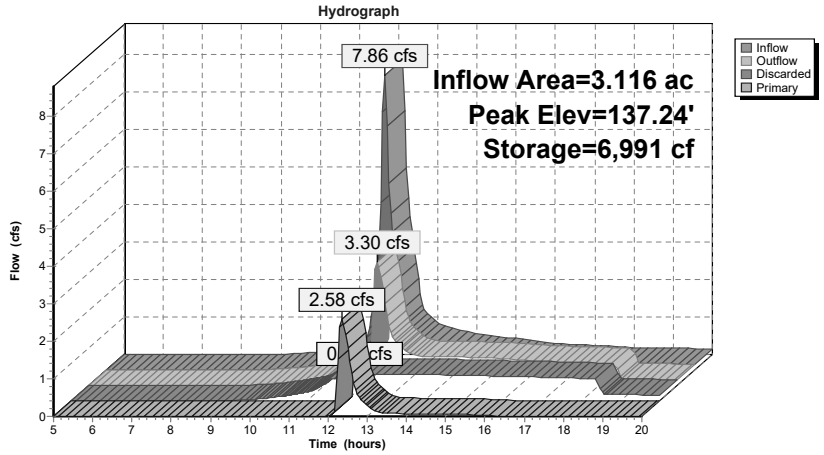
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
136.00	5,009	0	0
138.00	6,980	11,989	11,989

Device	Routing	Invert	Outlet Devices
#1	Primary	133.50'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 133.50' / 133.00' S= 0.0217 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	136.50'	**2.0" Vert. Orifice** C= 0.600
#3	Device 1	137.10'	**42.0" x 42.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#4	Discarded	136.00'	**5.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.72 cfs @ 12.35 hrs HW=137.24' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.72 cfs)

Primary OutFlow Max=2.56 cfs @ 12.35 hrs HW=137.24' (Free Discharge)
└**1=Culvert** (Passes 2.56 cfs of 14.72 cfs potential flow)
  └**2=Orifice** (Orifice Controls 0.09 cfs @ 3.91 fps)
  └**3=Grate** (Weir Controls 2.48 cfs @ 1.24 fps)

Pond 13P: BIO A



Summary for Pond 14P: BIO B

Inflow Area = 0.288 ac, 30.21% Impervious, Inflow Depth > 1.82" for 10-Year event
Inflow = 0.66 cfs @ 12.08 hrs, Volume= 0.044 af
Outflow = 0.27 cfs @ 12.35 hrs, Volume= 0.028 af, Atten= 59%, Lag= 16.3 min
Primary = 0.27 cfs @ 12.35 hrs, Volume= 0.028 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 140.56' @ 12.35 hrs Surf.Area= 1,560 sf Storage= 777 cf

Plug-Flow detention time= 134.7 min calculated for 0.027 af (63% of inflow)
Center-of-Mass det. time= 59.0 min (864.2 - 805.2)

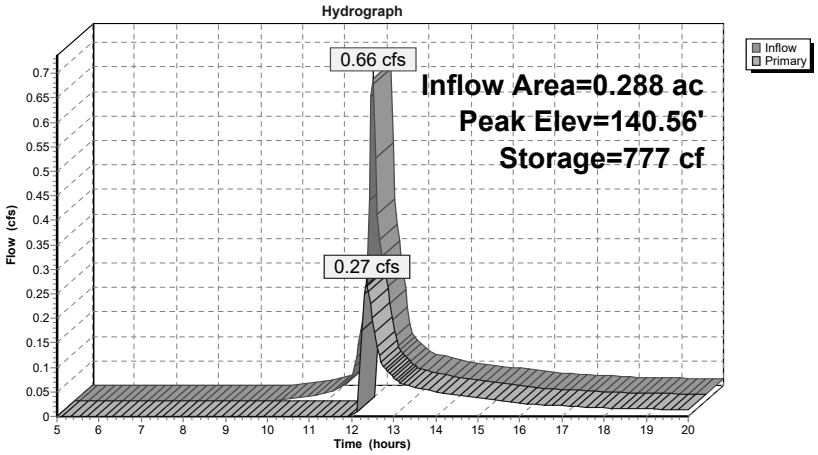
Volume	Invert	Avail.Storage	Storage Description
#1	140.00'	1,526 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
140.00	1,231	0	0
141.00	1,821	1,526	1,526

Device	Routing	Invert	Outlet Devices
#1	Primary	140.50'	**18.0" x 18.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.26 cfs @ 12.35 hrs HW=140.56' (Free Discharge)
↑**1=Grate** (Weir Controls 0.26 cfs @ 0.78 fps)

Pond 14P: BIO B



Summary for Pond 15P: BIO C

Inflow Area = 0.396 ac, 9.85% Impervious, Inflow Depth > 0.29" for 10-Year event
Inflow = 0.06 cfs @ 12.33 hrs, Volume= 0.010 af
Outflow = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 138.18' @ 20.00 hrs Surf.Area= 2,396 sf Storage= 423 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

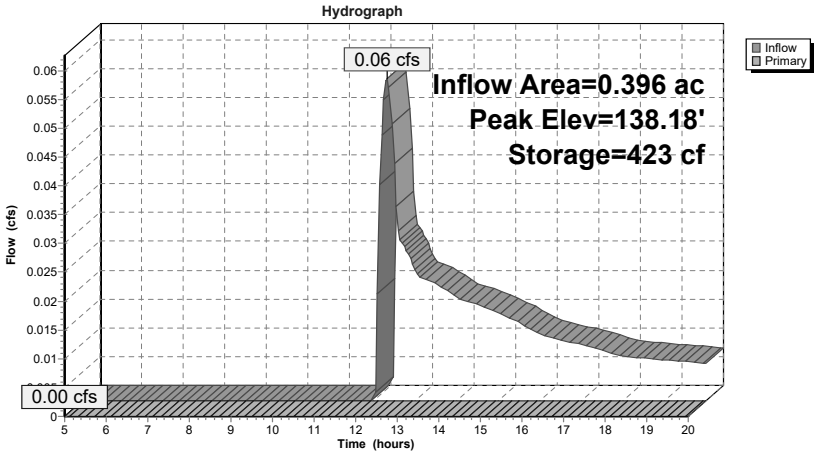
Volume	Invert	Avail.Storage	Storage Description
#1	138.00'	2,658 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
138.00	2,247	0	0
139.00	3,068	2,658	2,658

Device	Routing	Invert	Outlet Devices
#1	Primary	138.50'	**18.0" x 18.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=138.00' (Free Discharge)
1=Grate (Controls 0.00 cfs)

Pond 15P: BIO C



Summary for Pond 16P: BIO D

Inflow Area = 1.896 ac, 28.32% Impervious, Inflow Depth > 0.69" for 10-Year event
Inflow = 1.03 cfs @ 12.20 hrs, Volume= 0.108 af
Outflow = 0.40 cfs @ 12.66 hrs, Volume= 0.075 af, Atten= 61%, Lag= 27.3 min
Primary = 0.40 cfs @ 12.66 hrs, Volume= 0.075 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 34.54' @ 12.66 hrs Surf.Area= 3,103 sf Storage= 1,546 cf

Plug-Flow detention time= 129.1 min calculated for 0.075 af (69% of inflow)
Center-of-Mass det. time= 54.7 min (906.8 - 852.0)

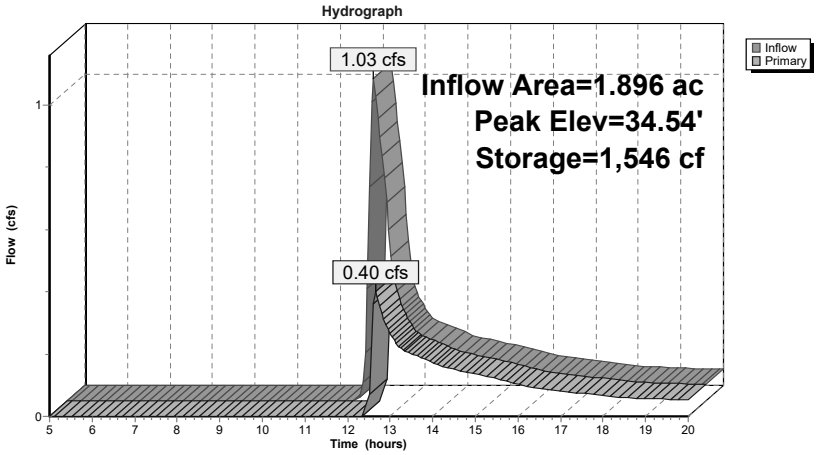
Volume	Invert	Avail.Storage	Storage Description
#1	34.00'	7,056 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
34.00	2,600	0	0
36.00	4,456	7,056	7,056

Device	Routing	Invert	Outlet Devices
#1	Primary	31.50'	**15.0" Round Culvert** L= 62.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 31.50' / 30.00' S= 0.0242 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	34.50'	**42.0" x 42.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.39 cfs @ 12.66 hrs HW=34.54' (Free Discharge)
↑**1=Culvert** (Passes 0.39 cfs of 9.19 cfs potential flow)
↑**2=Grate** (Weir Controls 0.39 cfs @ 0.67 fps)

Pond 16P: BIO D



Summary for Subcatchment 11: DA 11

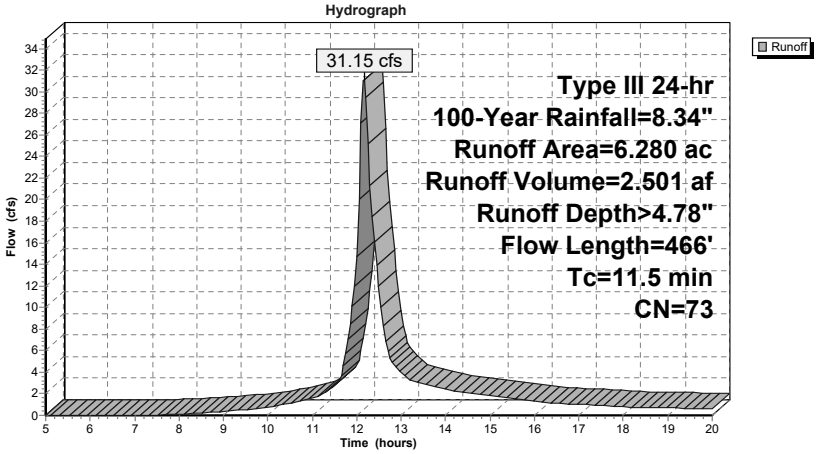
Runoff = 31.15 cfs @ 12.16 hrs, Volume= 2.501 af, Depth> 4.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=8.34"

Area (ac)	CN	Description
0.320	98	Roofs, HSG B
1.790	98	Paved parking, HSG B
4.170	61	>75% Grass cover, Good, HSG B
6.280	73	Weighted Average
4.170		66.40% Pervious Area
2.110		33.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0225	0.18		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
1.5	224	0.0250	2.55		**Shallow Concentrated Flow, S2** Unpaved Kv= 16.1 fps
0.5	116	0.0430	4.21		**Shallow Concentrated Flow, S3** Paved Kv= 20.3 fps
0.1	26	0.0100	5.70	7.00	**Pipe Channel, S4** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
11.5	466	Total			

Subcatchment 11: DA 11



Summary for Subcatchment 12: DA12

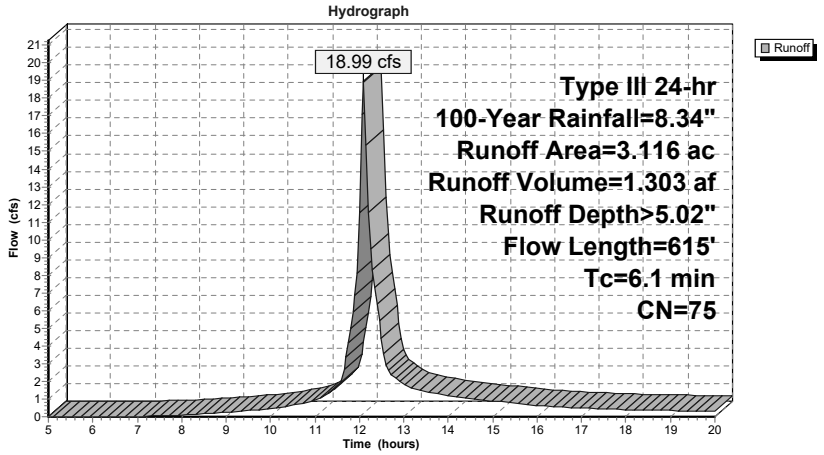
Runoff = 18.99 cfs @ 12.09 hrs, Volume= 1.303 af, Depth> 5.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=8.34"

Area (ac)	CN	Description
0.576	98	Roofs, HSG B
0.845	98	Paved parking, HSG B
0.383	39	>75% Grass cover, Good, HSG A
1.312	61	>75% Grass cover, Good, HSG B
3.116	75	Weighted Average
1.695		54.40% Pervious Area
1.421		45.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	100	0.1100	0.33		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
0.8	138	0.0180	2.72		**Shallow Concentrated Flow, S2** Paved Kv= 20.3 fps
0.3	377	0.0990	21.53	26.42	**Pipe Channel, S3** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.010
6.1	615	Total			

Subcatchment 12: DA12



Summary for Subcatchment 13: DA13

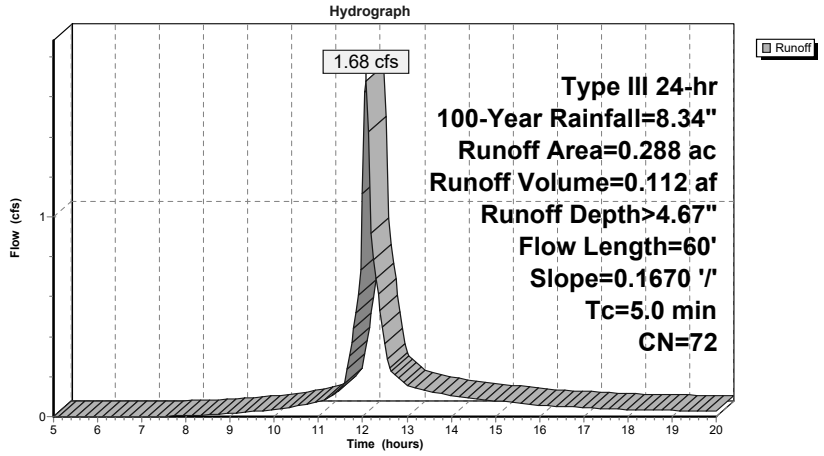
Runoff = 1.68 cfs @ 12.08 hrs, Volume= 0.112 af, Depth> 4.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=8.34"

Area (ac)	CN	Description
0.059	98	Roofs, HSG B
0.028	98	Paved parking, HSG B
0.201	61	>75% Grass cover, Good, HSG B
0.288	72	Weighted Average
0.201		69.79% Pervious Area
0.087		30.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	60	0.1670	0.36		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
2.8	60	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 13: DA13



Summary for Subcatchment 14: DA14

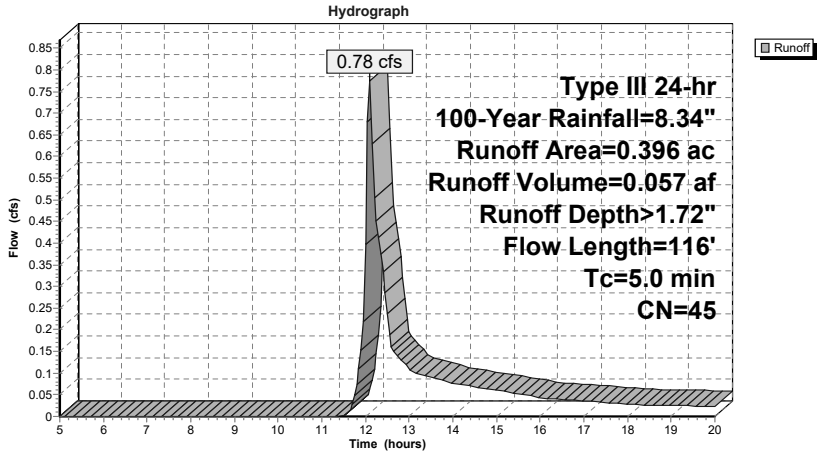
Runoff = 0.78 cfs @ 12.09 hrs, Volume= 0.057 af, Depth> 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=8.34"

Area (ac)	CN	Description
0.039	98	Roofs, HSG A
0.357	39	>75% Grass cover, Good, HSG A
0.396	45	Weighted Average
0.357		90.15% Pervious Area
0.039		9.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	100	0.1600	0.39		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
0.0	16	0.2000	7.20		**Shallow Concentrated Flow, S2** Unpaved Kv= 16.1 fps
4.3	116	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 14: DA14



Summary for Subcatchment 15: DA15

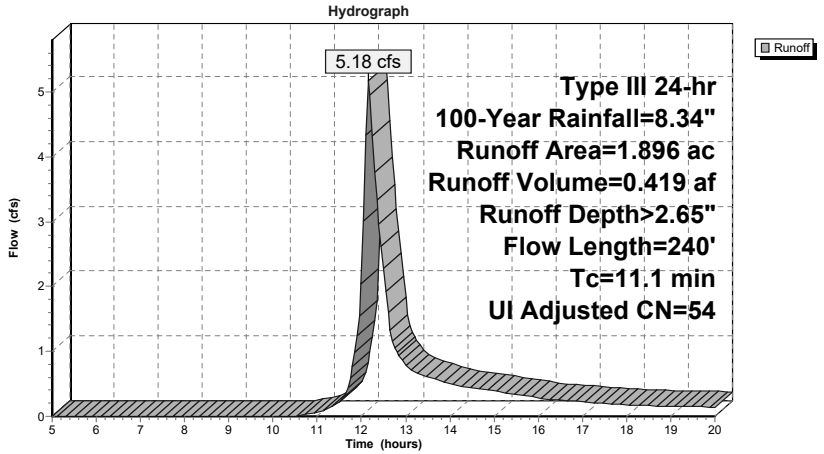
Runoff = 5.18 cfs @ 12.17 hrs, Volume= 0.419 af, Depth> 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=8.34"

Area (ac)	CN	Adj	Description
0.063	98		Roofs, HSG A
0.309	98		Paved parking, HSG A
0.165	98		Unconnected pavement, HSG A
1.095	39		>75% Grass cover, Good, HSG A
0.029	74		>75% Grass cover, Good, HSG C
0.154	30		Woods, Good, HSG A
0.081	70		Woods, Good, HSG C
1.896	57	54	Weighted Average, UI Adjusted
1.359			71.68% Pervious Area
0.537			28.32% Impervious Area
0.165			30.73% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.0200	0.17		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
1.2	140	0.0140	1.90		**Shallow Concentrated Flow, S2** Unpaved Kv= 16.1 fps
11.1	240	Total			

Subcatchment 15: DA15



Summary for Subcatchment P: P

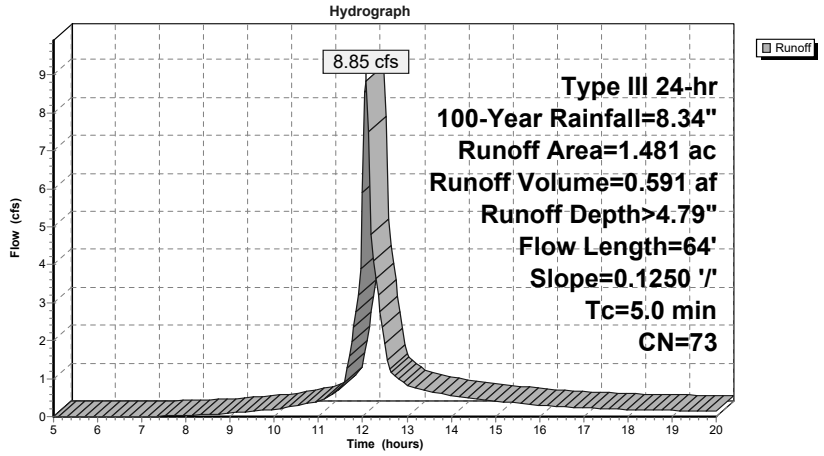
Runoff = 8.85 cfs @ 12.08 hrs, Volume= 0.591 af, Depth> 4.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=8.34"

Area (ac)	CN	Description
0.332	98	Water Surface, HSG B
0.151	98	Paved parking, HSG B
0.998	61	>75% Grass cover, Good, HSG B
1.481	73	Weighted Average
0.998		67.39% Pervious Area
0.483		32.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.3	64	0.1250	0.32		**Sheet Flow, S1** Grass: Short n= 0.150 P2= 3.16"
3.3	64	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P: P



Summary for Pond 7P: UG A

Inflow Area = 6.280 ac, 33.60% Impervious, Inflow Depth > 4.78" for 100-Year event
Inflow = 31.15 cfs @ 12.16 hrs, Volume= 2.501 af
Outflow = 29.78 cfs @ 12.20 hrs, Volume= 2.336 af, Atten= 4%, Lag= 2.3 min
Discarded = 0.40 cfs @ 9.15 hrs, Volume= 0.381 af
Primary = 29.39 cfs @ 12.20 hrs, Volume= 1.955 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 148.81' @ 12.20 hrs Surf.Area= 3,417 sf Storage= 11,945 cf

Plug-Flow detention time= 35.8 min calculated for 2.328 af (93% of inflow)
Center-of-Mass det. time= 13.1 min (800.3 - 787.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	143.50'	4,740 cf	**44.75'W x 76.37'L x 5.75'H Field A** 19,650 cf Overall - 7,801 cf Embedded = 11,849 cf x 40.0% Voids
#2A	144.25'	7,801 cf	**Cultec R-902HD** x 120 Inside #1 Effective Size= 69.8"W x 48.0"H => 17.65 sf x 3.67'L = 64.7 cf Overall Size= 78.0"W x 48.0"H x 4.10'L with 0.44' Overlap 120 Chambers in 6 Rows Cap Storage= +2.8 cf x 2 x 6 rows = 33.1 cf
		12,541 cf	Total Available Storage

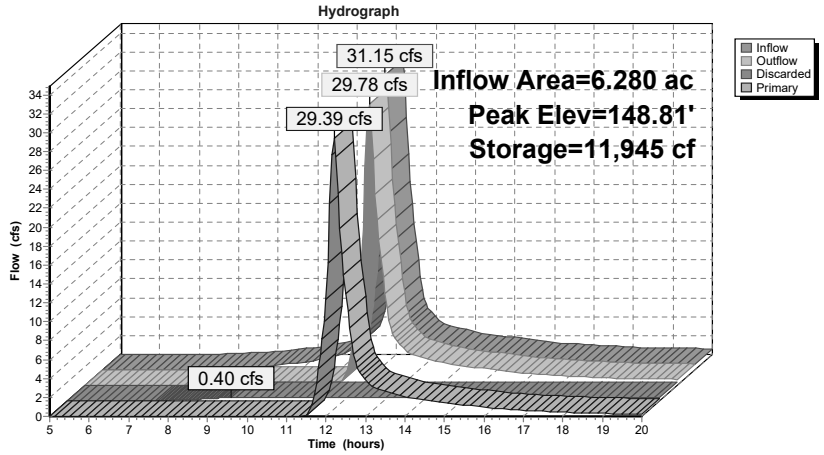
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	146.30'	**24.0" Round Culvert X 2.00** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 146.30' / 138.50' S= 0.1219 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Discarded	143.50'	**5.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.40 cfs @ 9.15 hrs HW=143.56' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.40 cfs)

Primary OutFlow Max=29.32 cfs @ 12.20 hrs HW=148.81' (Free Discharge)
↑**1=Culvert** (Inlet Controls 29.32 cfs @ 4.67 fps)

Pond 7P: UG A



Summary for Pond 13P: BIO A

Inflow Area = 3.116 ac, 45.60% Impervious, Inflow Depth > 5.02" for 100-Year event
Inflow = 18.99 cfs @ 12.09 hrs, Volume= 1.303 af
Outflow = 16.53 cfs @ 12.13 hrs, Volume= 1.259 af, Atten= 13%, Lag= 2.1 min
Discarded = 0.76 cfs @ 12.14 hrs, Volume= 0.602 af
Primary = 15.76 cfs @ 12.13 hrs, Volume= 0.658 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 137.62' @ 12.14 hrs Surf.Area= 6,608 sf Storage= 9,422 cf

Plug-Flow detention time= 48.4 min calculated for 1.259 af (97% of inflow)
Center-of-Mass det. time= 35.5 min (814.8 - 779.3)

Volume	Invert	Avail.Storage	Storage Description
#1	136.00'	11,989 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

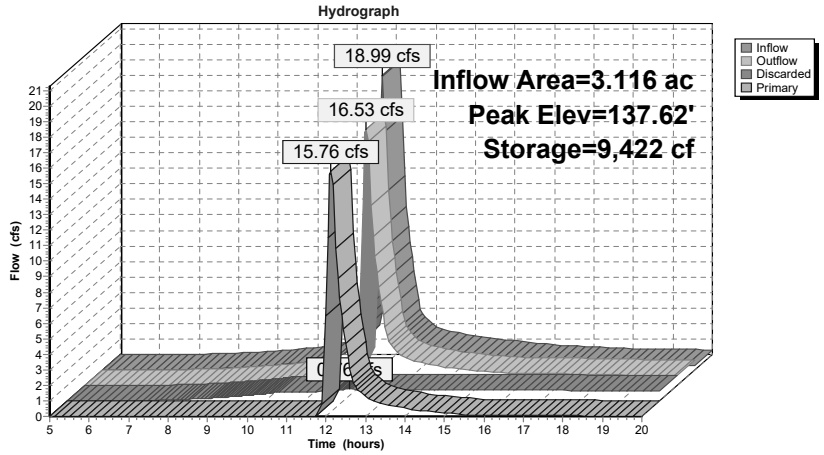
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
136.00	5,009	0	0
138.00	6,980	11,989	11,989

Device	Routing	Invert	Outlet Devices
#1	Primary	133.50'	**18.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 133.50' / 133.00' S= 0.0217 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf
#2	Device 1	136.50'	**2.0" Vert. Orifice** C= 0.600
#3	Device 1	137.10'	**42.0" x 42.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#4	Discarded	136.00'	**5.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.76 cfs @ 12.14 hrs HW=137.61' (Free Discharge)
└**4=Exfiltration** (Exfiltration Controls 0.76 cfs)

Primary OutFlow Max=15.60 cfs @ 12.13 hrs HW=137.61' (Free Discharge)
└**1=Culvert** (Inlet Controls 15.60 cfs @ 8.83 fps)
  └**2=Orifice** (Passes < 0.11 cfs potential flow)
  └**3=Grate** (Passes < 16.67 cfs potential flow)

Pond 13P: BIO A



Summary for Pond 14P: BIO B

Inflow Area = 0.288 ac, 30.21% Impervious, Inflow Depth > 4.67" for 100-Year event
Inflow = 1.68 cfs @ 12.08 hrs, Volume= 0.112 af
Outflow = 1.57 cfs @ 12.11 hrs, Volume= 0.096 af, Atten= 7%, Lag= 2.2 min
Primary = 1.57 cfs @ 12.11 hrs, Volume= 0.096 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 140.69' @ 12.11 hrs Surf.Area= 1,636 sf Storage= 983 cf

Plug-Flow detention time= 69.0 min calculated for 0.096 af (86% of inflow)
Center-of-Mass det. time= 26.5 min (810.2 - 783.8)

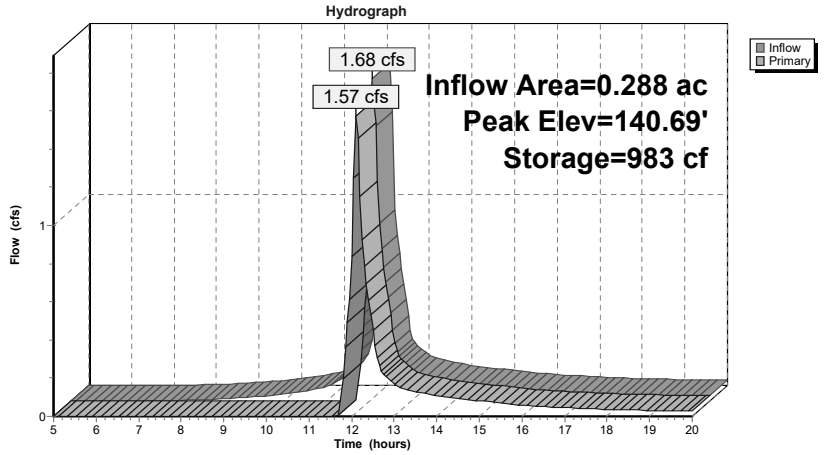
Volume	Invert	Avail.Storage	Storage Description
#1	140.00'	1,526 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
140.00	1,231	0	0
141.00	1,821	1,526	1,526

Device	Routing	Invert	Outlet Devices
#1	Primary	140.50'	**18.0" x 18.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.53 cfs @ 12.11 hrs HW=140.68' (Free Discharge)
↑**1=Grate** (Weir Controls 1.53 cfs @ 1.40 fps)

Pond 14P: BIO B



Summary for Pond 15P: BIO C

Inflow Area = 0.396 ac, 9.85% Impervious, Inflow Depth > 1.72" for 100-Year event
Inflow = 0.78 cfs @ 12.09 hrs, Volume= 0.057 af
Outflow = 0.09 cfs @ 13.47 hrs, Volume= 0.028 af, Atten= 88%, Lag= 82.3 min
Primary = 0.09 cfs @ 13.47 hrs, Volume= 0.028 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 138.53' @ 13.47 hrs Surf.Area= 2,680 sf Storage= 1,301 cf

Plug-Flow detention time= 203.2 min calculated for 0.028 af (49% of inflow)
Center-of-Mass det. time= 105.4 min (938.3 - 832.9)

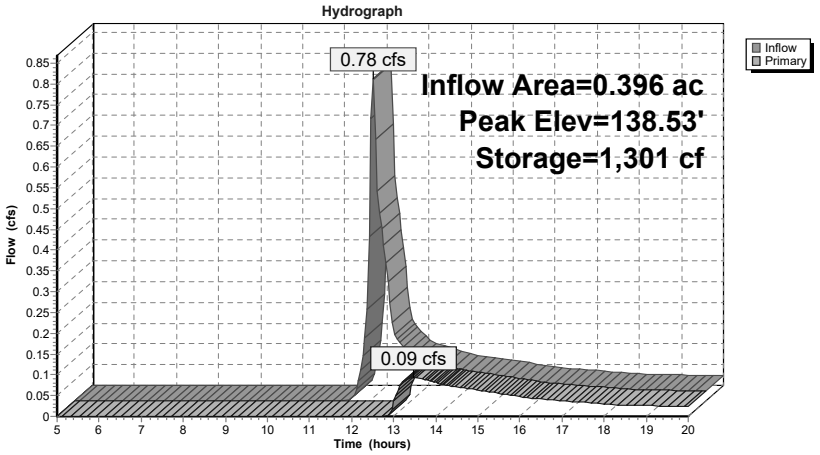
Volume	Invert	Avail.Storage	Storage Description
#1	138.00'	2,658 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
138.00	2,247	0	0
139.00	3,068	2,658	2,658

Device	Routing	Invert	Outlet Devices
#1	Primary	138.50'	**18.0" x 18.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.09 cfs @ 13.47 hrs HW=138.53' (Free Discharge)
1=Grate (Weir Controls 0.09 cfs @ 0.55 fps)

Pond 15P: BIO C



Summary for Pond 16P: BIO D

Inflow Area = 1.896 ac, 28.32% Impervious, Inflow Depth > 2.65" for 100-Year event
Inflow = 5.18 cfs @ 12.17 hrs, Volume= 0.419 af
Outflow = 5.02 cfs @ 12.20 hrs, Volume= 0.385 af, Atten= 3%, Lag= 2.1 min
Primary = 5.02 cfs @ 12.20 hrs, Volume= 0.385 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 34.73' @ 12.20 hrs Surf.Area= 3,276 sf Storage= 2,142 cf

Plug-Flow detention time= 39.3 min calculated for 0.385 af (92% of inflow)
Center-of-Mass det. time= 12.7 min (831.6 - 818.9)

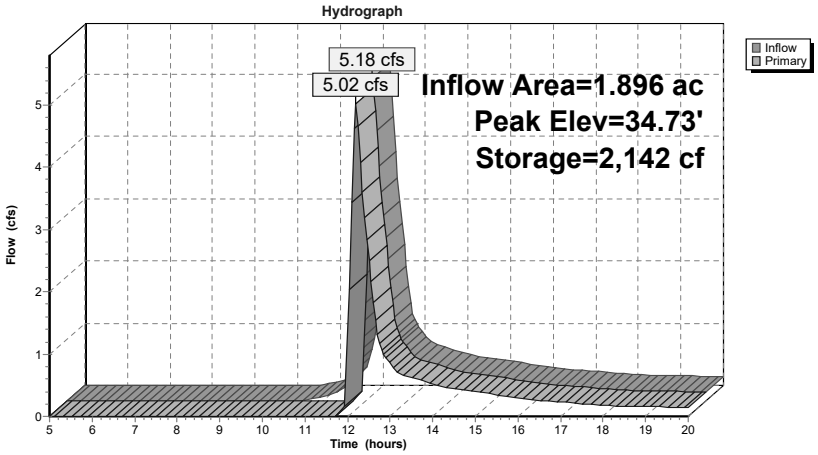
Volume	Invert	Avail.Storage	Storage Description
#1	34.00'	7,056 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

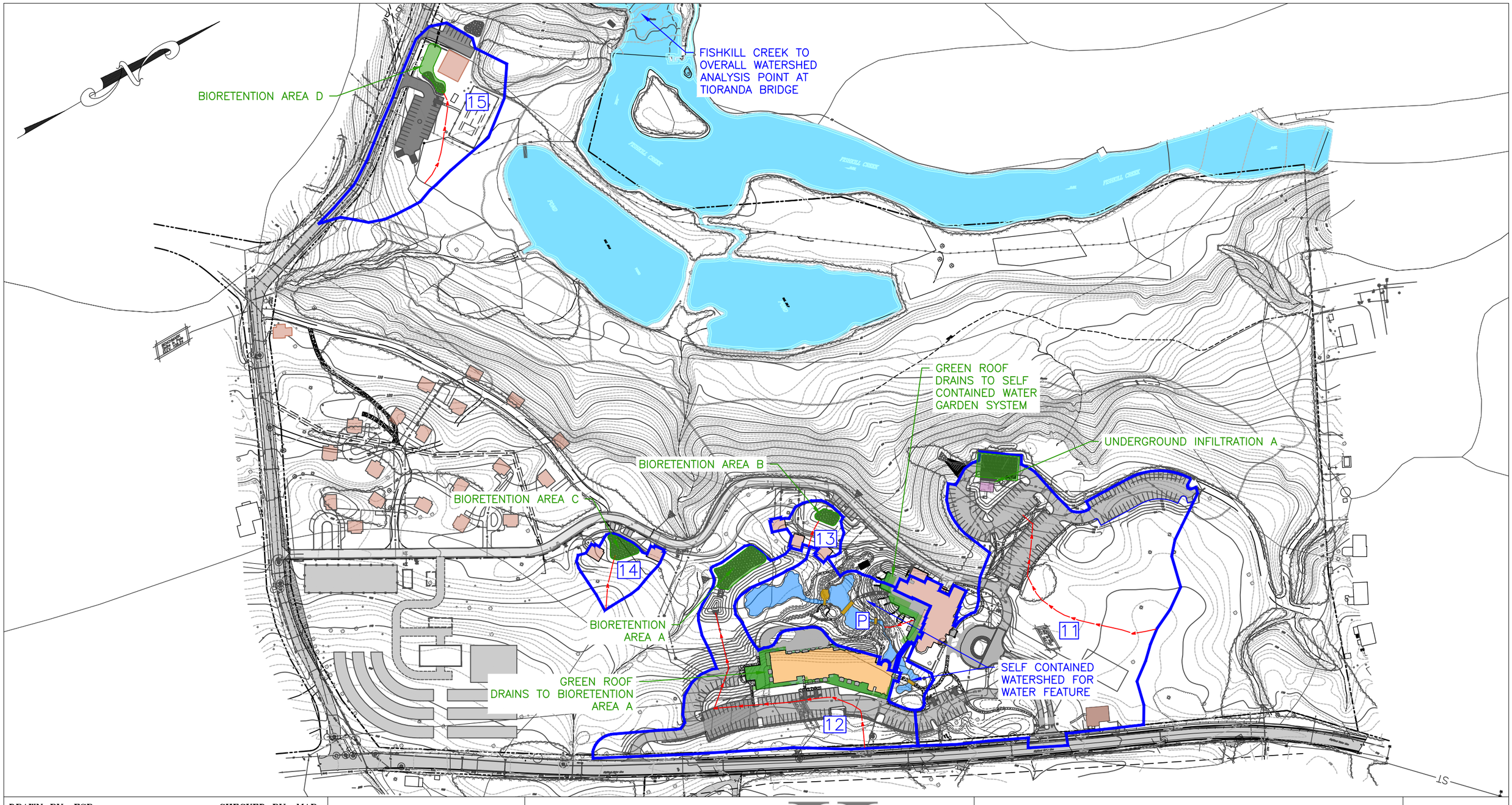
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
34.00	2,600	0	0
36.00	4,456	7,056	7,056

Device	Routing	Invert	Outlet Devices
#1	Primary	31.50'	**15.0" Round Culvert** L= 62.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 31.50' / 30.00' S= 0.0242 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	34.50'	**42.0" x 42.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=5.01 cfs @ 12.20 hrs HW=34.73' (Free Discharge)
1=Culvert (Passes 5.01 cfs of 9.53 cfs potential flow)
2=Grate (Weir Controls 5.01 cfs @ 1.56 fps)

Pond 16P: BIO D





DRAWN BY: ESR	CHECKED BY: MAB

REVISIONS:

NO.	DATE	DESCRIPTION	BY
1	5/25/22	PER PLANNING BOARD COMMENTS	ESR
2	7/26/22	PER PLANNING BOARD COMMENTS	ESR
3	9/27/22	PER PLANNING BOARD COMMENTS	MAB

SEAL

HUDSON LAND DESIGN
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PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
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POST-DEVELOPMENT CONDITIONS MAP (DETAILED)

MIRBEAU BEACON INN & SPA

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 200'
TITLE:	DR-2
SHEET:	2 OF 2

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION L

APPENDIX F

STORMWATER MANAGEMENT PRACTICE DESIGN

Project:	Mirbeau			
Description:	Stormwater Quality Design			
By/Date:	ESR	9/27/2022	Reviewed/Date:	MAB

Hudson Land Design, P.C.
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Beacon, NY 12508
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Underground Infiltration A

1) Determine Water Quality Volume

Water quality volume to be treated will be calculated using the 90% rule from Section 4.2 of the New York State Storm Water Design Manual (January 2015), hereinafter referred to as NYSSDM.

$WQ_V = 43,560 \times [P \times Rv \times A] / 12$

Where:
WQ_V = Water quality volume (cf)
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv = 0.05 + 0.009 x I , where I is % impervious area
A = Watershed (ac)

Watershed	P (in)	Impervious Area (ac)	Impervious (Coverage %)	Rv	Total Area (ac)	WQv (cf)	Pre-Treatment Practice	Treatment Practice
11	1.40	2.11	34	0.35	6.28	11,246	Hydrodynamic Device	Infiltration

2) Determine Required Pre-Treatment Volume

Determine Pre-Treatment Volume

Watershed	Required WQv (cf)	Required Pre-Treatment Volume (cf)	Pre-Treatment Practice	Provided Pre-Treatment Volume (cf)
11	11,246	11,246	Hydrodynamic Device	11,246

2) Determine Minimum Runoff Reduction Volume (RR_V)

Goal: Provide 100% RR_V by implementing Green Infrastructure techniques and Stormwater Management Practices

$RR_V = 43,560 \times [P \times Rv \times A] / 12$

Where:
RR_V = Runoff Reduction Volume (cf)
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv = 0.05 + 0.009 x I , where I is % impervious area — R_V: 0.35
A = Watershed (ac)
100% RR_V: 11,246 cf

* Minimum Rv of of 0.2 not applicable to RR_V calculations (use actual calculated Rv).

For projects that cannot meet 100% RR_V: Implement Specific Reduction Factor (S), which provides an absoulte minimum acceptable RR_V.

Drainage Area with Hydrologic Soil Group A:	0.000 acres	Corresponding S: 0.55
Drainage Area with Hydrologic Soil Group B:	6.280 acres	Corresponding S: 0.40
Drainage Area with Hydrologic Soil Group C:	0.000 acres	Corresponding S: 0.30
Drainage Area with Hydrologic Soil Group D:	0.000 acres	Corresponding S: 0.20
Total Area:	6.280 acres	
	Total Area Matches	Calculated S: 0.4

Minimum RR_V (acre-feet) = [(P)(Rv*)(Ai)]/12

Calculated Ai: 0.8440
Calculated Rv*: 0.95
Calculated Minimum RR_V: 4,075 cf

Where:
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv* = 0.05 + 0.009 x I , where I is % impervious area (100%)
Ai = (S)(Aic)
Aic = Total area of new impervious cover

Project:	Mirbeau			
Description:	Stormwater Quality Design			
By/Date:	ESR	9/27/2022	Reviewed/Date:	MAB

Hudson Land Design, P.C.
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Underground Infiltration A

4) Stormwater Management Practice Design

Design Infiltration Basin

WQ_V = Remaining Water Quality Volume (cf) =	0,000 cf	(equals 0% WQ_V, as 100% is required in pre-treatment)
◆ Storage volume within infiltration bed:	6,777 cf	(volume below lowest outlet)
(from HydroCad Model)		
◆ Infiltration rate for design:	0.5 inches/hour	from infiltration test results
		Percolation rate: 5 minutes/inch
◆ Infiltration area :	3,340 sf	
◆ Calculated exfiltration rate:	0.40 cfs	(during all storms)
◆ Calculated time to infiltrate WQv:	7.81 hours	

5) Tabulate Provided Runoff Reduction Volume (RR_V)

Infiltration Basin

Storage provided within practice:	**18,023 cf**	(including pretreatment)
For infiltration practices:	100% reduction	(from Table 3.5 Runoff Reduction Capacity for Standard SMPs)
		RR_V Reduction Factor: 100%
RR_V Provided by implementing infiltration:	18,023 cf	
TOTAL RR_V PROVIDED:	**11,246 cf**	
Calculated 100%RR_V:	11,246 cf	
Is 100% RR_V met:	Yes	acceptable
If 100% RR_V is not met, is Minimum RR_V met:	N/A	
WQ_V TREATED:	**6777 cf**	

6) Channel Protection Volume (CPv) Design

Determine Stream Channel Protection Volume (CPv)

1-Year Storm Runoff Volume	12,850 cf	From HydroCAD Model

Compute the CPv Release Rate

The Stream Channel Protection Volume (Cpv) shall be released over 24 hours

Q(CPv)=CPv/(24 hrs X 3,600 sec/hr)	0.15	cfs

Determine Required Orifice Size To Release CPv over 24-hours

CPv orifice elevation	146.30	feet
CPv orifice diameter	24	inches
1-Year Storm Release Rate	0.00 cfs	From HydroCAD Model - 1 Year Storm is Infiltrated
Is CPv 100% controlled?	yes - acceptable	

7) See HydroCAD model for Overbank Flood Control (Qp) and Extreme Flood Control (Qf) computations

Project:	Mirbeau			
Description:	Stormwater Quality Design			
By/Date:	ESR	7/26/2022	Reviewed/Date:	MAB

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Bioretention Area A

Minimum RR_V (acre-feet) = [(P)(Rv*)(Ai)]/12

Calculated Ai: 0.6390
Calculated Rv*: 0.95
Calculated Minimum RR_V: 3,085 cf

Where:
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv* = 0.05 + 0.009 x I , where I is % impervious area (100%)
Ai = (S)(Aic)
Aic = Total area of new impervious cover

4) Stormwater Management Practice Design

Design Bioretention Area Filter Bed

$A_{FR} = WQ_V \times D_F / [K \times (H_F + D_F) \times (T_F)]$

Where:

WQ_V = Remaining Water Quality Volume (cf) =	5,466 cf	(equals 75% WQ_V, which only accounts for the min. WQ_V required in the plunge pool and does not take into account the other pre-treatment)	
D_F = Filter Bed Depth (ft) =	2.5	ft	
K = Coefficient Permeability (0.5 ft/day per § 6.4.4 of NYSSDM) =	0.5	ft/day	
H_F = Average Height Water Above Filter Bed (ft) =	0.25	ft (maximum ponding depth of 6")	
T_F = Filter Bed Drain Time (2 days per § 6.4.4 of NYSSDM) =	2	days	
A_{FR} = Required Surface Area of Filter Bed (sf) =	4,969	sf	
A_F = Surface Area of Filter Bed Provided (sf) =	5,008	sf	acceptable

Confirm Storage Capability of Practice

- Confirm system can hold 75% of water quality volume

75% Water Quality Volume (cf) = 5,466 cf (excludes pre-treatment volume)

- Volume Within Filter Bed:

$V_F = A_F \times D_F \times N$

N = Porosity (0.20 per Table 10.5.5 of the NYSSDM)= 0.2

V_F = Storage volume within filter bed (cf) = 2,504 cf

- Volume Above Filter Bed:

$V_{F\text{-}TEMP} = 2 \times A_F \times H_F$

$V_{F\text{-}TEMP}$ = Storage volume above filter bed (cf) = 2,504 cf

- Volume Within Drainage Layer:

$V_{DL} = A_{DL} \times D_{DL} \times N$

N = Porosity (0.40 standard porosity for stone reservoirs, see also NYSSDM § 6.3.4)= 0.4

A_{DL} = Underdrain Length * Underdain Stone Jacket Width — Underdrain Stone Jacket Width: 3 ft — Underdrain Length: (see Required Underdrain Length section)

D_{DL} = Drainage Layer Depth (stone jacket depth): 10 inches

V_{DL} = Storage volume within drainage layer (cf) = 0 cf

- Total storage within practice only, not including pre-treatment (cf) = 5,008 cf < 5,466 cf (75% WQv Storage Volume)
  insufficient

- Total storage within practice and pre-treatment (cf) = 13,121 cf > 7,288 cf (100% WQv Storage Volume)
  acceptable

Project:	Mirbeau			
Description:	Stormwater Quality Design			
By/Date:	ESR	7/26/2022	Reviewed/Date:	MAB

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Beacon, NY 12508
845-440-6926

Bioretention Area A

Required Underdrain Length

- Length of underdrain should be based on 10% of the provided filter bed area per § 8.5 of NYSSDM.

Length of underdrain required =	167	lf	
Length of underdrain provided =	0	lf	(No underdrains provided in HSG A soils)

Verify Ponding Depth Over Filter Bed

- No more than 6" of ponding is required per section 6.4.4 of NYSSDM.

Top of filter bed elevation =	136	ft	
Outlet control structure lowest elevation =	136.5	ft	
Ponding depth.=	6	in	acceptable

5) Tabulate Provided Runoff Reduction Volume (RR_V)

Bioretention Area

Storage provided within practice:	**21,234 cf**	(includes pre-treatment)
For Bioretention in Hydrologic Soil Group A & B:	100% reduction	(without underdrains, although underdrains with closed valve may be provided for future maintenance purposes)
For Bioretention in Hydrologic Soil Group C & D:	40% reduction	(with underdrains)
HSG at the Bioretention Area:	A	RR_V Reduction Factor: 100%
RR_V Provided by implementing bioretention:	21,234 cf	

WQ_V REDUCED (RRV):	**7,288 cf**	
Calculated 100% RR_V:	7,288 cf	
Minimum RR_V:	3085 cf	
Is 100% RR_V met:	Yes	acceptable
If 100% RR_V is not met, is Minimum RR_V met:	N/A	
WQ_V TREATED:	**13946 cf**	

6) Channel Protection Volume (CPv) Design

Determine Stream Channel Protection Volume (CPv)

1-Year Storm Runoff Volume	7,318 cf	From HydroCAD Model

Compute the CPv Release Rate

The Stream Channel Protection Volume (Cpv) shall be released over 24 hours

Q(CPv)=CPv/(24 hrs X 3,600 sec/hr)	0.08	cfs

Determine Required Orifice Size To Release CPv over 24-hours

CPv orifice elevation	136.5	feet
CPv orifice diameter	2	inches
1-Year Storm Release Rate	0.07 cfs	From HydroCAD Model
Is CPv 100% controlled?	yes - acceptable	

7) See HydroCAD model for Overbank Flood Control (Qp) and Extreme Flood Control (Qf) computations

Project:	Mirbeau			
Description:	Stormwater Quality Design			
By/Date:	ESR	7/26/2022	Reviewed/Date:	MAB

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Bioretention Area B

1) Determine Water Quality Volume

Water quality volume to be treated will be calculated using the 90% rule from Section 4.2 of the New York State Storm Water Design Manual (January 2015), hereinafter referred to as NYSSDM.

$WQ_V = 43{,}560 \times [P \times Rv \times A] / 12$

Where:
WQ_V = Water quality volume (cf)
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv = 0.05 + 0.009 x I , where I is % impervious area
A = Watershed (ac)

Watershed	P (in)	Impervious Area (ac)	Impervious (Coverage %)	Rv	Total Area (ac)	WQv (cf)	Pre-Treatment Practice	Treatment Practice
13	1.40	0.09	31	0.33	0.29	485	Grass Filter Strip	Bioretention

2) Determine Required Pre-Treatment Volume

Determine Pre-Treatment Volume

Watershed	Required WQv (cf)	Required Pre-Treatment Volume (cf)	Pre-Treatment Practice
13	485	485	Grass Filter Strip

486 cf > 485 cf (Remaining Required WQv Pre-Treatment Volume)
acceptable

2) Determine Minimum Runoff Reduction Volume (RR_V)

Goal: Provide 100% RR_V by implementing Green Infrastructure techniques and Stormwater Management Practices

$RR_V = 43{,}560 \times [P \times Rv \times A] / 12$

Where:
RR_V = Runoff Reduction Volume (cf)
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv = 0.05 + 0.009 x I , where I is % impervious area — R_V: 0.33
A = Watershed (ac)

100% RR_V: 0,485 cf

* Minimum Rv of of 0.2 not applicable to RR_V calculations (use actual calculated Rv).

For projects that cannot meet 100% RR_V: Implement Specific Reduction Factor (S), which provides an absoulte minimum acceptable RR_V.

Drainage Area with Hydrologic Soil Group A:	0.000 acres	Corresponding S: 0.55
Drainage Area with Hydrologic Soil Group B:	0.290 acres	Corresponding S: 0.40
Drainage Area with Hydrologic Soil Group C:	0.000 acres	Corresponding S: 0.30
Drainage Area with Hydrologic Soil Group D:	0.000 acres	Corresponding S: 0.20
Total Area:	0.290 acres	
Total Area Matches		Calculated S: 0.4

Minimum RR_V (acre-feet) = [(P)(Rv*)(Ai)]/12 — Calculated Ai: 0.0360
Calculated Rv*: 0.95
Where: Calculated Minimum RR_V: 0,174 cf

Project:	Mirbeau			
Description:	Stormwater Quality Design			
By/Date:	ESR	7/26/2022	Reviewed/Date:	MAB

Hudson Land Design, P.C.
174 Main Street
Beacon, NY 12508
845-440-6926

Bioretention Area B

P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv* = 0.05 + 0.009 x I , where I is % impervious area (100%)
Ai = (S)(Aic)
Aic = Total area of new impervious cover

4) Stormwater Management Practice Design

Design Bioretention Area Filter Bed

$A_{FR} = WQ_V \times D_F / [K \times (H_F + D_F) \times (T_F)]$

Where:

WQ_V = Remaining Water Quality Volume (cf) =	0,364 cf	(equals 75% WQ_V, which only accounts for the min. WQ_V required in the plunge pool and does not take into account the other pre-treatment)	
D_F = Filter Bed Depth (ft) =	2.5	ft	
K = Coefficient Permeability (0.5 ft/day per § 6.4.4 of NYSSDM) =	0.5	ft/day	
H_F = Average Height Water Above Filter Bed (ft) =	0.25	ft (maximum ponding depth of 6")	
T_F = Filter Bed Drain Time (2 days per § 6.4.4 of NYSSDM) =	2	days	
A_{FR} = Required Surface Area of Filter Bed (sf) =	331	sf	
A_F = Surface Area of Filter Bed Provided (sf) =	1,231	sf	acceptable

Confirm Storage Capability of Practice

- Confirm system can hold 75% of water quality volume

75% Water Quality Volume (cf) = 364 cf (excludes pre-treatment volume)

- Volume Within Filter Bed:

$V_F = A_F \times D_F \times N$

N = Porosity (0.20 per Table 10.5.5 of the NYSSDM)= 0.2

V_F = Storage volume within filter bed (cf) = 616 cf

- Volume Above Filter Bed:

$V_{F\text{-}TEMP} = 2 \times A_F \times H_F$

$V_{F\text{-}TEMP}$ = Storage volume above filter bed (cf) = 616 cf

- Volume Within Drainage Layer:

$V_{DL} = A_{DL} \times D_{DL} \times N$

N = Porosity (0.40 standard porosity for stone reservoirs, see also NYSSDM § 6.3.4)= 0.4

A_{DL} = Underdrain Length * Underdain Stone Jacket Width — Underdrain Stone Jacket Width: 3 ft — Underdrain Length: (see Required Underdrain Length section)

D_{DL} = Drainage Layer Depth (stone jacket depth): 10 inches

V_{DL} = Storage volume within drainage layer (cf) = 0 cf

- Total storage within practice only, not including pre-treatment (cf) = 1,231 cf > 364 cf (75% WQv Storage Volume) — acceptable

- Total storage within practice and pre-treatment (cf) = 1,717 cf > 485 cf (100% WQv Storage Volume) — acceptable

Required Underdrain Length

Project:	Mirbeau			
Description:	Stormwater Quality Design			
By/Date:	ESR	7/26/2022	Reviewed/Date:	MAB

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845-440-6926

Bioretention Area B

- Length of underdrain should be based on 10% of the provided filter bed area per § 8.5 of NYSSDM.

Length of underdrain required =	41	lf	
Length of underdrain provided =	0	lf	(No underdrains provided in HSG B soils)

Verify Ponding Depth Over Filter Bed

- No more than 6" of ponding is required per section 6.4.4 of NYSSDM.

Top of filter bed elevation =	140	ft	
Outlet control structure lowest elevation =	140.5	ft	
Ponding depth.=	6	in	acceptable

5) Tabulate Provided Runoff Reduction Volume (RR_V)

Bioretention Area

Storage provided within practice:	**2,203 cf**	(includes pre-treatment)
For Bioretention in Hydrologic Soil Group A & B:	100% reduction	(without underdrains, although underdrains with closed valve may be provided for future maintenance purposes)
For Bioretention in Hydrologic Soil Group C & D:	40% reduction	(with underdrains)
HSG at the Bioretention Area:	B	RR_V Reduction Factor: 100%
RR_V Provided by implementing bioretention:	2,203 cf	

WQ_V REDUCED (RRV):	**0,485 cf**	
Calculated 100% RR_V:	0,485 cf	
Minimum RR_V:	174 cf	
Is 100% RR_V met:	Yes	acceptable
If 100% RR_V is not met, is Minimum RR_V met:	N/A	
WQ_V TREATED:	**1718 cf**	

6) Channel Protection Volume (CPv) Design

Determine Stream Channel Protection Volume (CPv)

1-Year Storm Runoff Volume	0,566 cf	From HydroCAD Model

Compute the CPv Release Rate

The Stream Channel Protection Volume (Cpv) shall be released over 24 hours

Q(CPv)=CPv/(24 hrs X 3,600 sec/hr)	0.01	cfs

Determine Required Orifice Size To Release CPv over 24-hours

CPv orifice elevation	140.5	feet
CPv orifice diameter	2	inches
1-Year Storm Release Rate	0.00 cfs	From HydroCAD Model - Entire 1-Year Storm is Infiltrated
Is CPv 100% controlled?	yes - acceptable	

7) See HydroCAD model for Overbank Flood Control (Qp) and Extreme Flood Control (Qf) computations

Project:	Mirbeau			
Description:	Stormwater Quality Design			
By/Date:	ESR	7/26/2022	Reviewed/Date:	MAB

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Bioretention Area c

1) Determine Water Quality Volume

Water quality volume to be treated will be calculated using the 90% rule from Section 4.2 of the New York State Storm Water Design Manual (January 2015), hereinafter referred to as NYSSDM.

$WQ_V = 43{,}560 \times [P \times Rv \times A] / 12$

Where:
WQ_V = Water quality volume (cf)
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv = 0.05 + 0.009 x I , where I is % impervious area
A = Watershed (ac)

Watershed	P (in)	Impervious Area (ac)	Impervious (Coverage %)	Rv	Total Area (ac)	WQv (cf)	Pre-Treatment Practice	Treatment Practice
14	1.40	0.04	10	0.14	0.40	285	Grass Filter Strip	Bioretention

2) Determine Required Pre-Treatment Volume

Determine Pre-Treatment Volume

Watershed	Required WQv (cf)	Required Pre-Treatment Volume (cf)	Pre-Treatment Practice
14	285	285	Grass Filter Strip

286 cf > 285 cf (Remaining Required WQv Pre-Treatment Volume)
acceptable

2) Determine Minimum Runoff Reduction Volume (RR_V)

Goal: Provide 100% RR_V by implementing Green Infrastructure techniques and Stormwater Management Practices

$RR_V = 43{,}560 \times [P \times Rv \times A] / 12$

Where:
RR_V = Runoff Reduction Volume (cf)
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv = 0.05 + 0.009 x I , where I is % impervious area — R_V: 0.14
A = Watershed (ac)
100% RR_V: 0,285 cf

* Minimum Rv of of 0.2 not applicable to RR_V calculations (use actual calculated Rv).

For projects that cannot meet 100% RR_V: Implement Specific Reduction Factor (S), which provides an absoulte minimum acceptable RR_V.

Drainage Area with Hydrologic Soil Group A:	0.400 acres	Corresponding S: 0.55
Drainage Area with Hydrologic Soil Group B:	0.000 acres	Corresponding S: 0.40
Drainage Area with Hydrologic Soil Group C:	0.000 acres	Corresponding S: 0.30
Drainage Area with Hydrologic Soil Group D:	0.000 acres	Corresponding S: 0.20
Total Area:	0.400 acres	
Total Area Matches		Calculated S: 0.55

Minimum RR_V (acre-feet) = [(P)(Rv*)(Ai)]/12 — Calculated Ai: 0.0220
Calculated Rv*: 0.95
Where: Calculated Minimum RR_V: 0,106 cf

Project:	Mirbeau			
Description:	Stormwater Quality Design			
By/Date:	ESR	7/26/2022	Reviewed/Date:	MAB

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Bioretention Area c

P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv* = 0.05 + 0.009 x I , where I is % impervious area (100%)
Ai = (S)(Aic)
Aic = Total area of new impervious cover

4) Stormwater Management Practice Design

Design Bioretention Area Filter Bed

$A_{FR} = WQ_V \times D_F / [K \times (H_F + D_F) \times (T_F)]$

Where:

WQ_V = Remaining Water Quality Volume (cf) =	0,213 cf	(equals 75% WQ_V, which only accounts for the min. WQ_V required in the plunge pool and does not take into account the other pre-treatment)	
D_F = Filter Bed Depth (ft) =	2.5	ft	
K = Coefficient Permeability (0.5 ft/day per § 6.4.4 of NYSSDM) =	0.5	ft/day	
H_F = Average Height Water Above Filter Bed (ft) =	0.25	ft (maximum ponding depth of 6")	
T_F = Filter Bed Drain Time (2 days per § 6.4.4 of NYSSDM) =	2	days	
A_{FR} = Required Surface Area of Filter Bed (sf) =	194	sf	
A_F = Surface Area of Filter Bed Provided (sf) =	2,247	sf	acceptable

Confirm Storage Capability of Practice

- Confirm system can hold 75% of water quality volume

75% Water Quality Volume (cf) = 213 cf (excludes pre-treatment volume)

- Volume Within Filter Bed:

$V_F = A_F \times D_F \times N$

N = Porosity (0.20 per Table 10.5.5 of the NYSSDM)= 0.2

V_F = Storage volume within filter bed (cf) = 1,124 cf

- Volume Above Filter Bed:

$V_{F\text{-}TEMP} = 2 \times A_F \times H_F$

$V_{F\text{-}TEMP}$ = Storage volume above filter bed (cf) = 1,124 cf

- Volume Within Drainage Layer:

$V_{DL} = A_{DL} \times D_{DL} \times N$

N = Porosity (0.40 standard porosity for stone reservoirs, see also NYSSDM § 6.3.4)= 0.4

A_{DL} = Underdrain Length * Underdain Stone Jacket Width — Underdrain Stone Jacket Width: 3 ft — Underdrain Length: (see Required Underdrain Length section)

D_{DL} = Drainage Layer Depth (stone jacket depth): 10 inches

V_{DL} = Storage volume within drainage layer (cf) = 0 cf

- Total storage within practice only, not including pre-treatment (cf) = 2,247 cf > 213 cf (75% WQv Storage Volume) — acceptable

- Total storage within practice and pre-treatment (cf) = 2,533 cf > 285 cf (100% WQv Storage Volume) — acceptable

Required Underdrain Length

Project:	Mirbeau			
Description:	Stormwater Quality Design			
By/Date:	ESR	7/26/2022	Reviewed/Date:	MAB

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845-440-6926

Bioretention Area c

- Length of underdrain should be based on 10% of the provided filter bed area per § 8.5 of NYSSDM.

Length of underdrain required =	75	lf	
Length of underdrain provided =	0	lf	(No underdrains provided in HSG B soils)

Verify Ponding Depth Over Filter Bed

- No more than 6" of ponding is required per section 6.4.4 of NYSSDM.

Top of filter bed elevation =	138	ft	
Outlet control structure lowest elevation =	138.5	ft	
Ponding depth.=	6	in	acceptable

5) Tabulate Provided Runoff Reduction Volume (RR_V)

Bioretention Area

Storage provided within practice:	**2,819 cf**	(includes pre-treatment)
For Bioretention in Hydrologic Soil Group A & B:	100% reduction	(without underdrains, although underdrains with closed valve may be provided for future maintenance purposes)
For Bioretention in Hydrologic Soil Group C & D:	40% reduction	(with underdrains)
HSG at the Bioretention Area:	A	RR_V Reduction Factor: 100%
RR_V Provided by implementing bioretention:	2,819 cf	

WQ_V REDUCED (RRV):	**0,285 cf**	
Calculated 100% RR_V:	0,285 cf	
Minimum RR_V:	106 cf	
Is 100% RR_V met:	Yes	acceptable
If 100% RR_V is not met, is Minimum RR_V met:	N/A	
WQ_V TREATED:	**2534 cf**	

6) Channel Protection Volume (CPv) Design

Determine Stream Channel Protection Volume (CPv)

1-Year Storm Runoff Volume	0,000 cf	From HydroCAD Model

Compute the CPv Release Rate

The Stream Channel Protection Volume (Cpv) shall be released over 24 hours

Q(CPv)=CPv/(24 hrs X 3,600 sec/hr)	0.00	cfs

Determine Required Orifice Size To Release CPv over 24-hours

CPv orifice elevation	140.5	feet
CPv orifice diameter	2	inches
1-Year Storm Release Rate	0.00 cfs	From HydroCAD Model - Entire 1-Year Storm is Infiltrated
Is CPv 100% controlled?	yes - acceptable	

7) See HydroCAD model for Overbank Flood Control (Qp) and Extreme Flood Control (Qf) computations

Project:	Mirbeau			
Description:	Stormwater Quality Design			
By/Date:	ESR	7/26/2022	Reviewed/Date:	MAB

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Bioretention Area D

1) Determine Water Quality Volume

Water quality volume to be treated will be calculated using the 90% rule from Section 4.2 of the New York State Storm Water Design Manual (January 2015), hereinafter referred to as NYSSDM.

$WQ_V = 43,560 \times [P \times Rv \times A] / 12$

Where:
WQ_V = Water quality volume (cf)
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv = 0.05 + 0.009 x I , where I is % impervious area
A = Watershed (ac)

Watershed	P (in)	Impervious Area (ac)	Impervious (Coverage %)	Rv	Total Area (ac)	WQv (cf)	Pre-Treatment Practice	Treatment Practice
15	1.40	0.70	37	0.38	1.90	3,694	Forebays	Bioretention

2) Determine Required Pre-Treatment Volume

Determine Pre-Treatment Volume

Watershed	Required WQv (cf)	Required Pre-Treatment Volume (cf)	Pre-Treatment Practice
15	3,694	923	Forebays

Size Pre-Treatment Practice: Plunge Pools

Forebay Contour	Area (sf)	Volume (cf)	Cumulative Volume (cf)
329		0	0
331		0	0

Forebay B Contour	Area (sf)	Volume (cf)	Cumulative Volume (cf)
329		0	0
331		0	0

924 cf > 923 cf (Remaining Required WQv Pre-Treatment Volume)
acceptable

3) Determine Minimum Runoff Reduction Volume (RR_V)

Goal: Provide 100% RR_V by implementing Green Infrastructure techniques and Stormwater Management Practices

$RR_V = 43,560 \times [P \times Rv \times A] / 12$

Where:
RR_V = Runoff Reduction Volume (cf)
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv = 0.05 + 0.009 x I , where I is % impervious area — R_V: 0.38
A = Watershed (ac)

100% RR_V: 3,694 cf

* Minimum Rv of of 0.2 not applicable to RR_V calculations (use actual calculated Rv).

For projects that cannot meet 100% RR_V: Implement Specific Reduction Factor (S), which provides an absoulte minimum acceptable RR_V.

Drainage Area with Hydrologic Soil Group A:	1.710 acres	Corresponding S: 0.55
Drainage Area with Hydrologic Soil Group B:	0.000 acres	Corresponding S: 0.40
Drainage Area with Hydrologic Soil Group C:	0.190 acres	Corresponding S: 0.30
Drainage Area with Hydrologic Soil Group D:	0.000 acres	Corresponding S: 0.20

Project: Mirbeau
Description: Stormwater Quality Design
By/Date: ESR 7/26/2022 Reviewed/Date: MAB

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Bioretention Area D

Total Area: 1.900 acres
Total Area Matches

Calculated S: 0.525
Calculated Ai: 0.3686
Calculated Rv*: 0.95
Calculated Minimum RR_V: 1,779 cf

Minimum RR_V (acre-feet) = [(P)(Rv*)(Ai)]/12

Where:
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv* = 0.05 + 0.009 x I , where I is % impervious area (100%)
Ai = (S)(Aic)
Aic = Total area of new impervious cover

4) Stormwater Management Practice Design

Design Bioretention Area Filter Bed

$A_{FR} = WQ_V \times D_F / [K \times (H_F + D_F) \times (T_F)]$

Where:
WQ_V = Remaining Water Quality Volume (cf) = 2,770 cf (equals 75% WQ_V, which only accounts for the min. WQ_V required in the plunge pool and does not take into account the other pre-treatment)
D_F = Filter Bed Depth (ft) = 2.5 ft
K = Coefficient Permeability (0.5 ft/day per § 6.4.4 of NYSSDM) = 0.5 ft/day
H_F = Average Height Water Above Filter Bed (ft) = 0.25 ft (maximum ponding depth of 6")
T_F = Filter Bed Drain Time (2 days per § 6.4.4 of NYSSDM) = 2 days
A_{FR} = Required Surface Area of Filter Bed (sf) = 2,518 sf
A_F = Surface Area of Filter Bed Provided (sf) = 2,600 sf acceptable

Confirm Storage Capability of Practice

- Confirm system can hold 75% of water quality volume

75% Water Quality Volume (cf) = 2,770 cf (excludes pre-treatment volume)

- Volume Within Filter Bed:

$V_F = A_F \times D_F \times N$
N = Porosity (0.20 per Table 10.5.5 of the NYSSDM)= 0.2

V_F = Storage volume within filter bed (cf) = 1,300 cf

- Volume Above Filter Bed:

$V_{F\text{-}TEMP} = 2 \times A_F \times H_F$

$V_{F\text{-}TEMP}$ = Storage volume above filter bed (cf) = 1,300 cf

- Volume Within Drainage Layer:

$V_{DL} = A_{DL} \times D_{DL} \times N$
N = Porosity (0.40 standard porosity for stone reservoirs, see also NYSSDM § 6.3.4)= 0.4
A_{DL} = Underdrain Length * Underdain Stone Jacket Width Underdrain Stone Jacket Width: 3 ft Underdrain Length: (see Required Underdrain Length section)
D_{DL} = Drainage Layer Depth (stone jacket depth): 10 inches

V_{DL} = Storage volume within drainage layer (cf) = 0 cf

- Total storage within practice only, not including pre-treatment (cf) = 2,600 cf < 2,770 cf (75% WQv Storage Volume)
insufficient

- Total storage within practice and pre-treatment (cf) = 3,524 cf < 3,694 cf (100% WQv Storage Volume)

Project:	Mirbeau			
Description:	Stormwater Quality Design			
By/Date:	ESR	7/26/2022	Reviewed/Date:	MAB

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Bioretention Area D

insufficient

Required Underdrain Length

- Length of underdrain should be based on 10% of the provided filter bed area per § 8.5 of NYSSDM.

Length of underdrain required =	87	lf	
Length of underdrain provided =	0	lf	(No underdrains provided in HSG A soils)

Verify Ponding Depth Over Filter Bed

- No more than 6" of ponding is required per section 6.4.4 of NYSSDM.

Top of filter bed elevation =	34	ft	
Outlet control structure lowest elevation =	34.5	ft	
Ponding depth.=	6	in	acceptable

5) Tabulate Provided Runoff Reduction Volume (RR_V)

Bioretention Area

Storage provided within practice:	**4,448 cf**	(includes pre-treatment)
For Bioretention in Hydrologic Soil Group A & B:	100% reduction	(without underdrains, although underdrains with closed valve may be provided for future maintenance purposes)
For Bioretention in Hydrologic Soil Group C & D:	40% reduction	(with underdrains)
HSG at the Bioretention Area:	A	RR_V Reduction Factor: 100%
RR_V Provided by implementing bioretention:	4,448 cf	

WQ_V REDUCED (RRV):	**3,694 cf**	
Calculated 100% RR_V:	3,694 cf	
Minimum RR_V:	1779 cf	
Is 100% RR_V met:	Yes	acceptable
If 100% RR_V is not met, is Minimum RR_V met:	N/A	
WQ_V TREATED:	**754 cf**	

6) Channel Protection Volume (CPv) Design

Determine Stream Channel Protection Volume (CPv)

1-Year Storm Runoff Volume	479 cf	From HydroCAD Model

Compute the CPv Release Rate

The Stream Channel Protection Volume (Cpv) shall be released over 24 hours

Q(CPv)=CPv/(24 hrs X 3,600 sec/hr)	0.01	cfs

Determine Required Orifice Size To Release CPv over 24-hours

CPv orifice elevation	36.5	feet
CPv orifice diameter	-	inches
1-Year Storm Release Rate	0.00 cfs	From HydroCAD Model
Is CPv 100% controlled?	yes - acceptable	

7) See HydroCAD model for Overbank Flood Control (Qp) and Extreme Flood Control (Qf) computations

Project:	Mirbeau			
Description:	Stormwater Quality Design			
By/Date:	ESR	5/25/2022	Reviewed/Date:	MAB

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Green Roof

1) Determine Water Quality Volume

Stormwater Quality will be accomplished by treating the runoff volume generated by the 90% rainfall of the average annual stormwater runoff volume (January 2015 NYS Stormwater Design Manual).

Volume Generated By 90 % Rule (Per Ch. 4 of the NYS Stormwater Management Design Manual):

WQv = [P x Rv x A] / 12

WQv = Water quality volume (in acre-feet)
Rv = 0.05+0.009(I) = Minimum Rv = 0.2
I = Impervious Cover (Percentage)
P = 90 % Rainfall Event Number
A = Site area in acres

Water Quality Volume For The Development Conveyed to Treatment Practice

Area	Total Area (acres)	Impervious Area (acres)	Impervious Cover (%)	Rv	P	WQv (ac-ft)	WQv (cf)	Method of Treatment
Hotel Green Roof	0.219	0.219	100	0.95	1.4	0.0243	1,059	Green Roof

Rain Garden Design

Green Roof Design to be provided by the Landscape Architect
Green Roof Area considered to be lawn cover in hydrologic modeling

Total Green Roof Area	9,559 sf
Total Runoff Reduction	**1,059 cf**

Determine Minimum Runoff Reduction Volume (RR_V)

Goal: Provide 100% RR_V by implementing Green Infrastructure techniques and Stormwater Management Practices

$RR_V = 43{,}560 \times [P \times Rv \times A] / 12$

Where:
RR_V = Runoff Reduction Volume (cf)
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv = 0.05 + 0.009 x I , where I is % impervious area
A = Watershed (ac)

R_V: 0.95

100% RR_V: 1059 cf

* Minimum Rv of of 0.2 not applicable to RR_V calculations (use actual calculated Rv).

For projects that cannot meet 100% RR_V: Implement Specific Reduction Factor (S), which provides an absoulte minimum acceptable RR_V.

Drainage Area with Hydrologic Soil Group A:	0.219 acres	Corresponding S: 0.55
Drainage Area with Hydrologic Soil Group B:	0.000 acres	Corresponding S: 0.40
Drainage Area with Hydrologic Soil Group C:	0.000 acres	Corresponding S: 0.30
Drainage Area with Hydrologic Soil Group D:	0.000 acres	Corresponding S: 0.20
Total Area:	0.219 acres	
Area Does Not Match…Re-Calculate		Calculated S: 0.55

Minimum RR_V (acre-feet) = [(P)(Rv*)(Ai)]/12

Calculated Ai: 0.1207
Calculated Rv*: 0.95
Calculated Minimum RR_V: 583 cf

Where:
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv* = 0.05 + 0.009 x I , where I is % impervious area (100%)
Ai = (S)(Aic)
Aic = Total area of new impervious cover

First Defense®

Advanced Hydrodynamic Separator

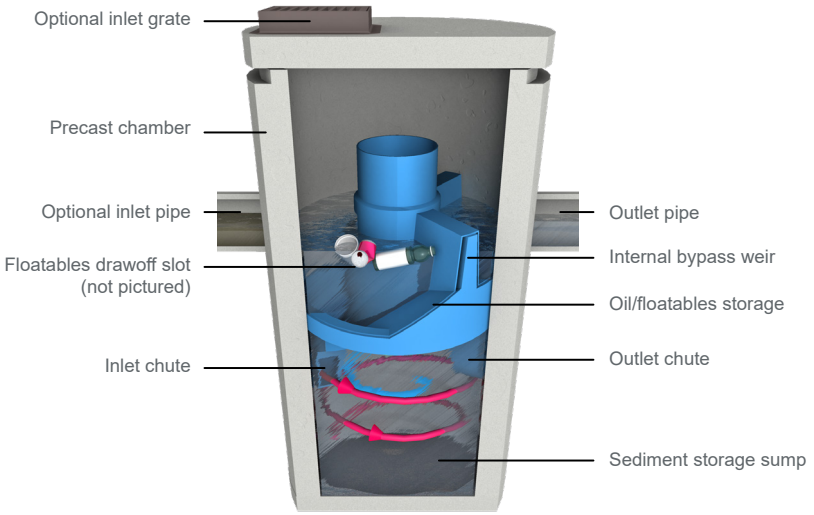


Product Summary

A Simple Solution for the Trickiest Sites

First Defense is a versatile stormwater separator with some of the highest approved flow rates in the United States. Engineers and contractors can save site space and reduce project costs by using the smallest possible footprint. It works with single or multiple inlet pipes and inlet grates. An internal bypass conveys infrequent peak flows directly to the outlet, efficiently capturing pollutants and preventing washouts.

Features



Contaminated stormwater runoff enters the inlet chute from a surface grate and/or inlet pipe. The inlet chute introduces flow into the chamber tangentially to create a low energy vortex flow regime (magenta arrow) that directs sediment into the sump while oils, floating trash and debris rise to the surface.

Treated stormwater exits through a submerged outlet chute located opposite to the direction of the rotating flow (blue arrow). Enhanced vortex separation is provided by forcing the rotating flow within the vessel to follow the longest path possible rather than directly from inlet to outlet.

Higher flows bypass the treatment chamber to prevent turbulence and washout of captured pollutants. An internal bypass conveys infrequent peak flows directly to the outlet eliminating the need for, and expense of, external bypass control structures. A floatables draw off slot functions to convey floatables into the treatment chamber prior to bypass.

Applications

- Areas requiring a minimum of 50% TSS removal
- Stormwater treatment at the point of entry into the drainage line
- Sites constrained by space, topography or drainage profiles with limited slope and depth of cover
- Highways, parking lots, industrial areas and urban developments
- Pre-treatment to ponds, storage systems, green infrastructure

Benefits

Highest Flow Through the Smallest Footprint

- **Smaller Footprint, Lower Costs**
  First Defense provides space-saving, easy-to-install surface water treatment in standard size chambers/manholes.
- **Adapt to Site Limitations**
  Variable configurations will help you effectively slip First Defense into a tight spot. It also works well with large pipes, multiple inlet pipes and inlet grates.
- **Reduce Installation Time & Costs**
  Every First Defense unit is delivered to site pre-assembled and ready for install.
- **Online System Configuration**
  First Defense eliminates the need for separate structures with its integrated internal bypass.
- **Designed with Maintenance in Mind**
  Easy vactor hose access through the center shaft of the system makes for quick sump cleanout, saving time and reducing long-term operational cost.



Sizing & Specifications

First Defense units are available in **six diameters** to fit standard chamber and manhole sizes. The dimensions below are common across all model numbers.

Diameter	Peak Online Flow Rate	Maximum Pipe Diameter[1]	Typical Sediment Storage Capacity[2]	Minimum Distance from Outlet Invert to Top of Rim[3]	Standard Distance from Outlet Invert to Sump Floor
(ft / m)	(cfs / L/s)	(in / mm)	(yd^3 / m^3)	(ft / m)	(ft / m)
3 / 0.9	15 / 424	18 / 450	0.4 / 0.3	2.0 - 2.5 / 0.61 - 0.76	3.71 / 1.13
4 / 1.2	18 / 510	24 / 600	0.7 / 0.5	2.0 - 3.0 / 0.61 - 0.91	4.97 / 1.5
5 / 1.5	20 / 566	24 / 600	1.1 / .84	2.0 - 3.7 / 0.61 - 1.13	5.83 / 1.5
6 / 1.8	32 / 906	30 / 750	1.6 / 1.2	2.0 - 4.1 / 0.61 - 1.25	5.97 / 1.8
8 / 2.4	50 / 1415	48 / 1200	2.8 / 2.1	2.4 - 5.4 / 0.73 -1.65	7.40 / 2.2
10 / 3.0	50 / 1415	48 / 1200	4.4 / 3.3	2.4 - 6.8 / 0.73 - 2.07	10.25 / 3.12

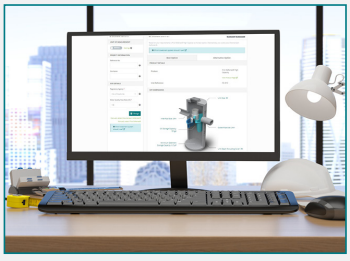
Hydro International offers First Defense units in **two versions** that conform to the performance requirements of different states' water quality regulations.[4]

First Defense High Capacity Model Number	Typical TSS Treatment Flow Rates	
	NJDEP Certified[4]	110µm
	(cfs / L/s)	(cfs / L/s)
FDHC-3	0.84 / 23.7	1.06 / 30.0
FDHC-4	1.50 / 42.4	1.88 / 53.2
FDHC-5	2.35 / 66.2	2.94 / 83.2
FDHC-6	3.38 / 95.7	4.23 / 119.8
FDHC-8	6.00 / 169.9	7.52 / 212.9
FDHC-10	9.38 / 265.6	11.75 / 332.7

First Defense Optimum Model Number	NJDEP Certified Treatment Flow Rates[4]
	(cfs / L/s)
FDO-3	1.02 / 28.9
FDO-4	1.81 / 51.3
FDO-5	2.83 / 80.0
FDO-6	4.07 / 115.2
FDO-8	7.23 / 204.7
FDO-10	11.33 / 320.6

[1]Contact Hydro International when larger pipe sizes are required.
[2]Contact Hydro International when custom sediment storage capacity is required.
[3]These are guidlines only. Minimum distance is based on pipe diameter and headloss at assumed flow rates, contact Hydro for detailed design.
[4]NJDEP Certified / NJCAT Verified, based on one inlet pipe and no inlet grate.

Also available in a screened configuration for Full Trash Capture!



Free Online Design Tool

This free online sizing tool will recommend the best separator, model size and online or offline configuration based on site-specific data entered by the user.

Upon completion, users have the option to submit the design to Hydro International for a free review by our engineering team.

Go to hydro-int.com/sizing to access the tool.

Hydro International

Hydro International, 94 Hutchins Drive, Portland, ME 04102
Tel: (207) 756-6200
Email: stormwaterinquiry@hydro-int.com
Web: www.hydro-int.com/firstdefense

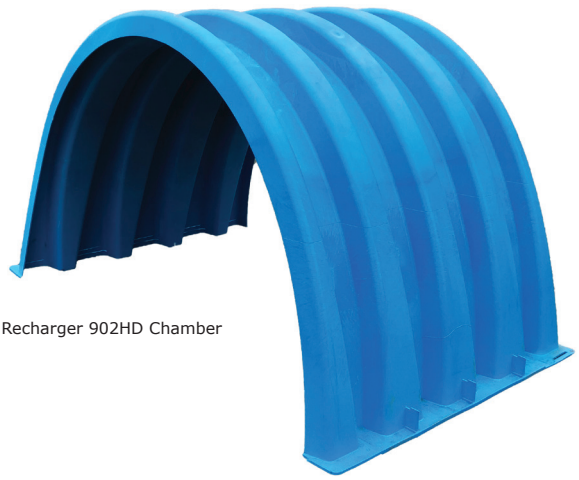
FD_SS_B_2203

Download Drawings:
→ hydro-int.com/fddrawings

Operation & Maintenance Manual:
→ hydro-int.com/fd-om

CULTEC RECHARGER® 902HD STORMWATER CHAMBER

The Recharger® 902HD is a 48" (1219 mm) tall, high capacity chamber. Typically when using this model, fewer chambers are required resulting in less labor and a smaller installation area. The Recharger® 902HD has the side portal internal manifold feature. HVLV® FC-48 Feed Connectors are inserted into the side portals to create the internal manifold.



Recharger 902HD Chamber



Recharger 902HD End Cap

Recharger 902HD Chamber	
Size (L x W x H)	4.25' x 78" x 48"
	1.30 m x 1981 mm x 1219 mm
Installed Length	3.67'
	1.12 m
Length Adjustment per Row - with two end caps installed	1.03'
	0.31 m
Length Adjustment per Row - when not using end caps	0.58'
	0.18 m
Chamber Storage	17.31 ft^3/ft
	1.61 m^3/m
	63.47 ft^3/unit
	1.80 m^3/unit
Min. Installed Storage	27.06 ft^3/ft
	2.53 m^3/m
	99.28 ft^3/unit
	2.81 m^3/unit
Min. Area Required	26.58 ft^2
	2.47 m^2
Chamber Weight	83.0 lbs
	37.65 kg
Shipping	15 chambers/skid
	1,370 lbs/skid
	14 skids/48' flatbed
Min. Center-to-Center Spacing	7.25'
	2.21 m
Max. Allowable Cover	8.3'
	2.53 m
Max. Allowable O.D. in Side Portal	10" HDPE, 12" PVC
	250 mm HDPE, 300 mm PVC
Compatible Feed Connector	HVLV FC-48 Feed Connector

Calculations are based on installed chamber length.
All above values are nominal.
Includes 12" (305 mm) stone above crown of chamber and typical stone surround at 7.25' (2.21 m) center-to-center spacing and stone foundation depth as listed in table.
Stone void calculated at 40%.

	Stone Foundation Depth		
	9"	12"	18"
	229 mm	305 mm	457 mm
Chamber and Stone Storage Per Chamber	99.28 ft^3	101.94 ft^3	107.26 ft^3
	2.81 m^3	2.89 m^3	3.04 m^3
Min. Effective Depth	5.75'	6.00'	6.5'
	1.75 m	1.83 m	1.98 m
Stone Required Per Chamber	3.32 yd^3	3.56 yd^3	4.05 yd^3
	2.54 m^3	2.72 m^3	3.06 m^3

Recharger 902HD End Cap	
Size (L x W x H)	9.7" x 78" x 48.5"
	246 mm x 1982 mm x 1231 mm
Installed Length	6.2"
	157 mm
End Cap Storage	5.34 ft^3/ft
	0.50 m^3/m
	2.76 ft^3/unit
	0.08 m^3/unit
Min. Installed Storage	19.88 ft^3/ft
	1.85 m^3/m
	10.28 ft^3/unit
	0.29 m^3/unit
End Cap Weight	52.0 lbs
	23.59 kg
Shipping	7 end caps/skid
	638 lbs/skid
	14 skids/48' flatbed
Max. Inlet Opening in End Cap	30" HDPE, 36" PVC
	750 mm HDPE, 900 mm PVC

Calculations are based on installed chamber length.
All above values are nominal.
Min. installed storage includes 9" (229 mm) stone base, 12" (305 mm) stone above crown of chamber and typical stone surround at 7.25' (2.21 m) center-to-center spacing.

For more information, contact CULTEC at (203) 775-4416 or visit www.cultec.com.

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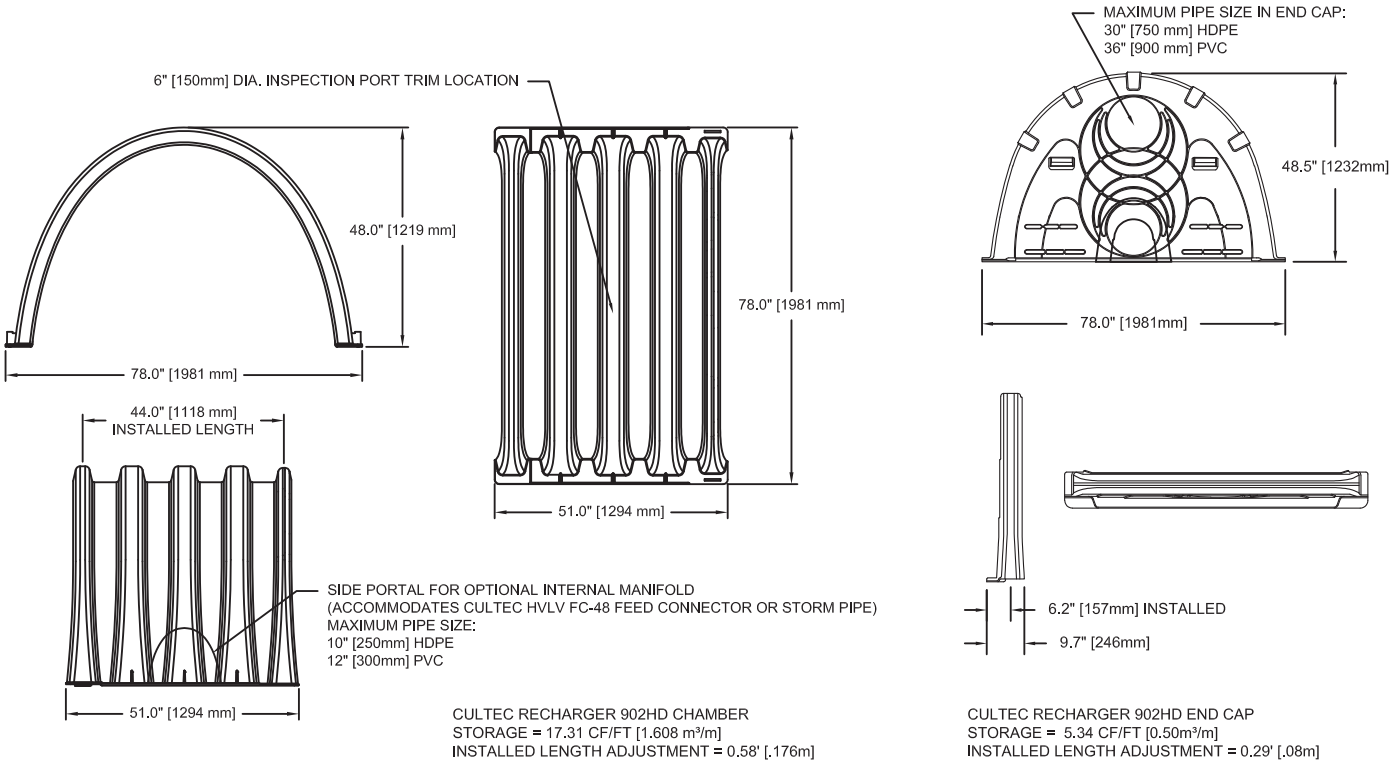
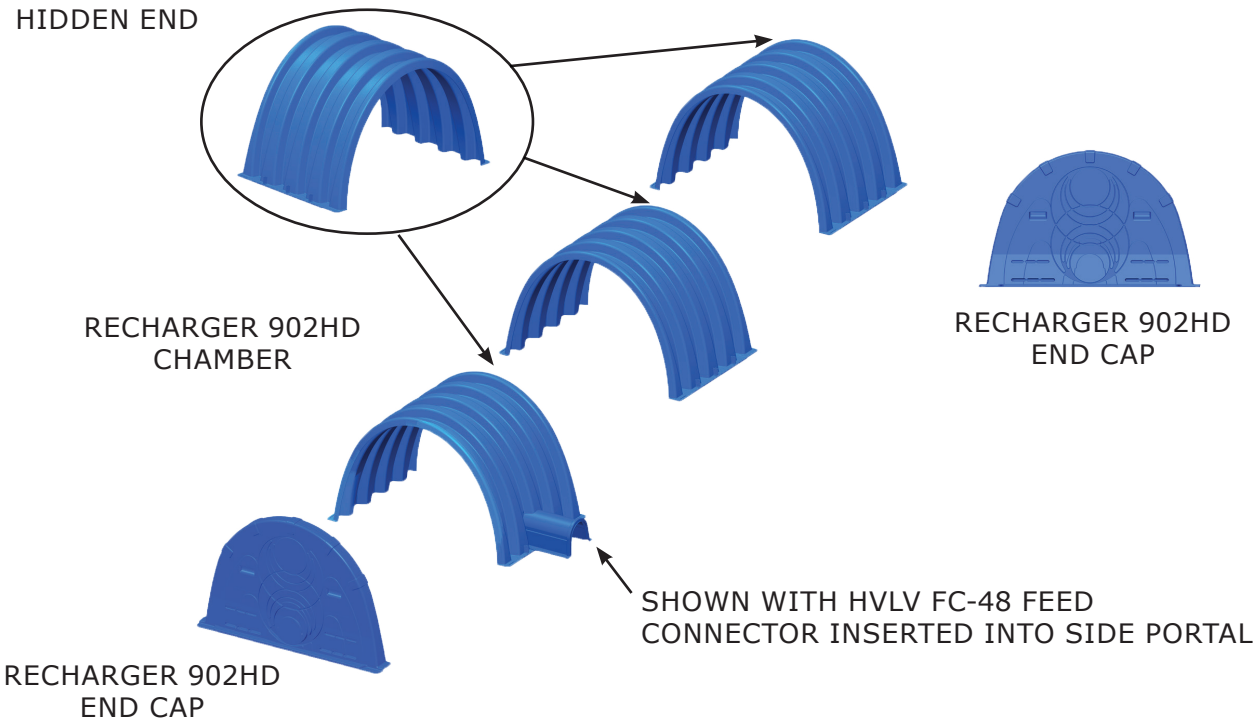
Three View Drawing



CULTEC RECHARGER 902HD CHAMBER
STORAGE = 17.31 CF/FT [1.608 m³/m]
INSTALLED LENGTH ADJUSTMENT = 0.58' [.176m]

CULTEC RECHARGER 902HD END CAP
STORAGE = 5.34 CF/FT [0.50m³/m]
INSTALLED LENGTH ADJUSTMENT = 0.29' [.08m]

Typical Interlock Installation



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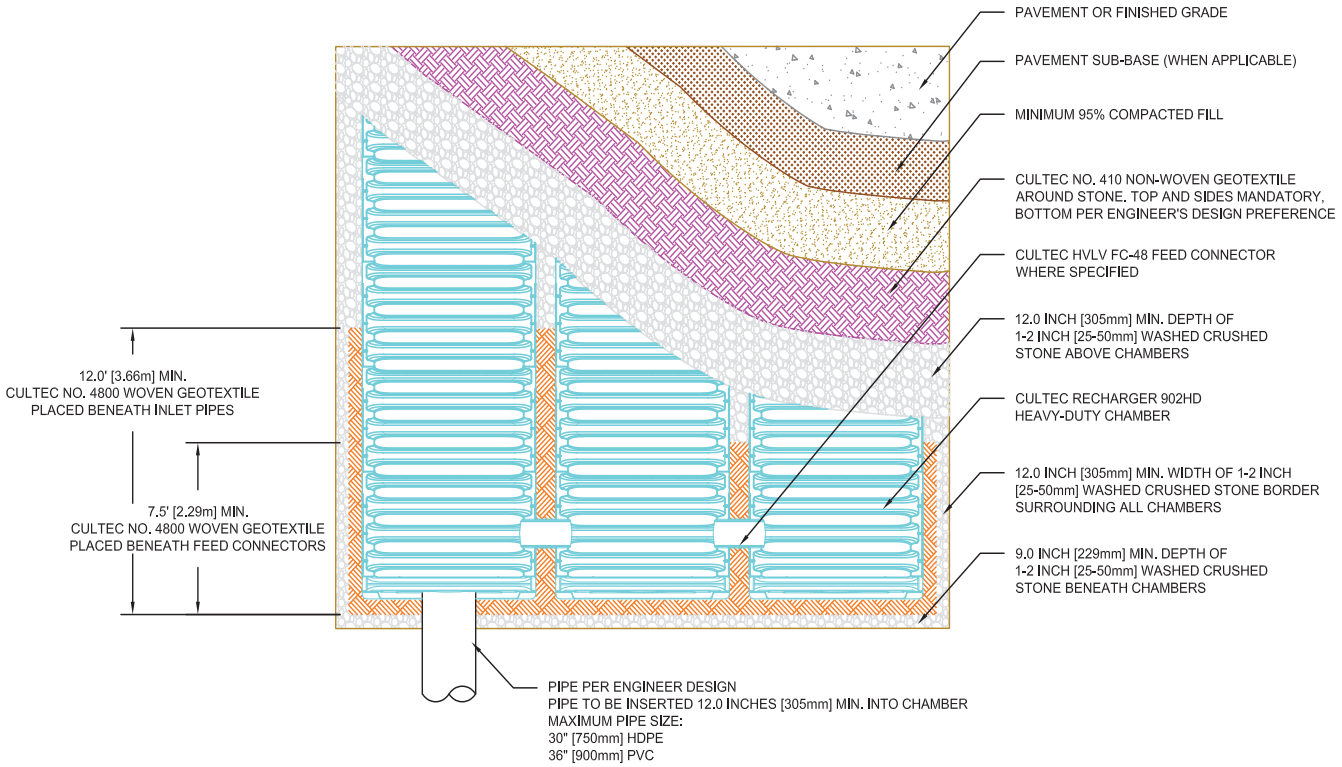
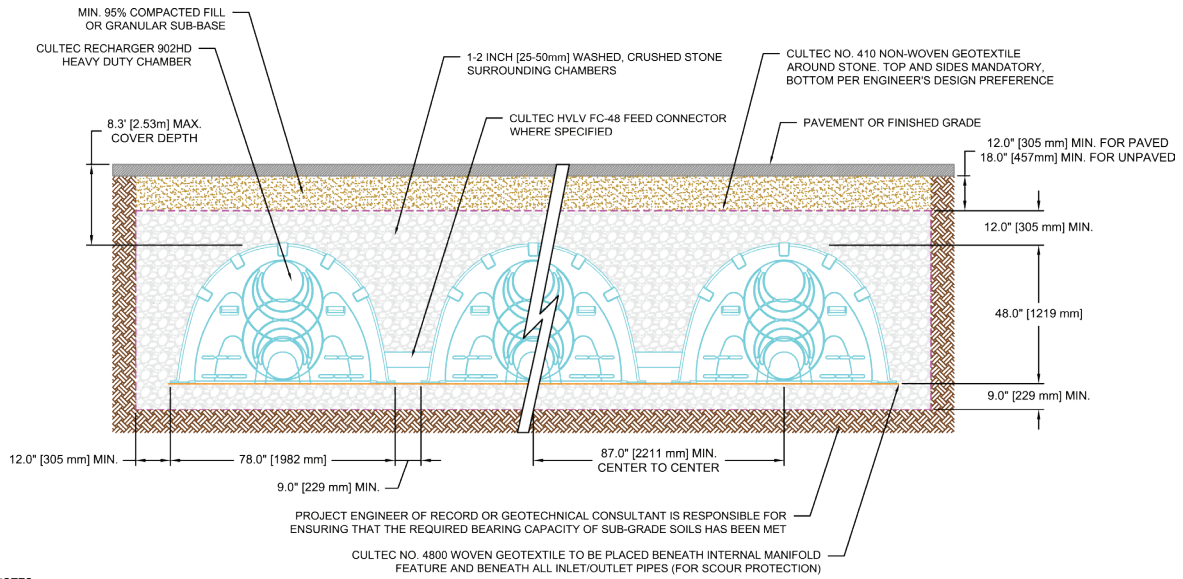
Plan View Drawing



Typical Cross Section for Traffic Application



NOTES:

1. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE:
   - 1.a. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   - 1.b. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
   - 1.c. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
2. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
3. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   - 3.a. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
   - 3.b. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   - 3.c. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

For more information, contact CULTEC at (203) 775-4416 or visit www.cultec.com.

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Recharger® 902HD Bare Chamber Storage Volumes

Elevation		Incremental Storage Volume				Cumulative Storage	
in.	mm	ft³/ft	m³/m	ft³	m³	ft³	m³
48	1219	0.020	0.002	0.073	0.002	63.470	1.797
47	1194	0.050	0.005	0.183	0.005	63.397	1.795
46	1168	0.070	0.007	0.257	0.007	63.213	1.790
45	1143	0.120	0.011	0.440	0.012	62.957	1.783
44	1118	0.160	0.015	0.587	0.017	62.517	1.770
43	1092	0.200	0.019	0.733	0.021	61.930	1.754
42	1067	0.220	0.020	0.807	0.023	61.197	1.733
41	1041	0.240	0.022	0.880	0.025	60.390	1.710
40	1016	0.270	0.025	0.990	0.028	59.510	1.685
39	991	0.270	0.025	0.990	0.028	58.520	1.657
38	965	0.290	0.027	1.063	0.030	57.530	1.629
37	940	0.300	0.028	1.100	0.031	56.467	1.599
36	914	0.310	0.029	1.137	0.032	55.367	1.568
35	889	0.330	0.031	1.210	0.034	54.230	1.536
34	864	0.340	0.032	1.247	0.035	53.020	1.502
33	838	0.350	0.033	1.283	0.036	51.773	1.466
32	813	0.350	0.033	1.283	0.036	50.490	1.430
31	787	0.360	0.033	1.320	0.037	49.207	1.394
30	762	0.370	0.034	1.357	0.038	47.887	1.356
29	737	0.380	0.035	1.393	0.039	46.530	1.318
28	711	0.390	0.036	1.430	0.040	45.137	1.278
27	686	0.390	0.036	1.430	0.040	43.707	1.238
26	660	0.400	0.037	1.467	0.042	42.277	1.197
25	635	0.400	0.037	1.467	0.042	40.810	1.156
24	610	0.410	0.038	1.503	0.043	39.343	1.114
23	584	0.410	0.038	1.503	0.043	37.840	1.072
22	559	0.410	0.038	1.503	0.043	36.337	1.029
21	533	0.420	0.039	1.540	0.044	34.833	0.986
20	508	0.420	0.039	1.540	0.044	33.293	0.943
19	483	0.420	0.039	1.540	0.044	31.753	0.899
18	457	0.430	0.040	1.577	0.045	30.213	0.856
17	432	0.430	0.040	1.577	0.045	28.637	0.811
16	406	0.440	0.041	1.613	0.046	27.060	0.766
15	381	0.440	0.041	1.613	0.046	25.447	0.721
14	356	0.450	0.042	1.650	0.047	23.833	0.675
13	330	0.450	0.042	1.650	0.047	22.183	0.628
12	305	0.450	0.042	1.650	0.047	20.533	0.582
11	279	0.450	0.042	1.650	0.047	18.883	0.535
10	254	0.460	0.043	1.687	0.048	17.233	0.488
9	229	0.460	0.043	1.687	0.048	15.547	0.440
8	203	0.460	0.043	1.687	0.048	13.860	0.393
7	178	0.460	0.043	1.687	0.048	12.173	0.345
6	152	0.470	0.044	1.723	0.049	10.487	0.297
5	127	0.470	0.044	1.723	0.049	8.763	0.248
4	102	0.480	0.045	1.760	0.050	7.040	0.199
3	76	0.480	0.045	1.760	0.050	5.280	0.150
2	51	0.480	0.045	1.760	0.050	3.520	0.100
1	25	0.480	0.045	1.760	0.050	1.760	0.050
Total		**17.310**	**1.608**	**63.470**	**1.797**	**63.470**	**1.797**

Calculations are based on installed chamber length of 3.67' (1.12 m).

Recharger® 902HD Bare End Cap Storage Volumes

Elevation		Incremental Storage Volume				Cumulative Storage	
in.	mm	ft³/ft	m³/m	ft³	m³	ft³	m³
48	1219	0.039	0.004	0.020	0.0006	2.758	0.0781
47	1194	0.058	0.005	0.030	0.0008	2.738	0.0775
46	1168	0.058	0.005	0.030	0.0008	2.780	0.0767
45	1143	0.077	0.007	0.040	0.0011	2.678	0.0758
44	1118	0.097	0.009	0.050	0.0014	2.638	0.0747
43	1092	0.077	0.007	0.040	0.0011	2.588	0.0733
42	1067	0.097	0.009	0.050	0.0014	2.548	0.0722
41	1041	0.097	0.009	0.050	0.0014	2.498	0.0707
40	1016	0.097	0.009	0.050	0.0014	2.448	0.0693
39	991	0.097	0.009	0.050	0.0014	2.398	0.0679
38	965	0.097	0.009	0.050	0.0014	2.348	0.0665
37	940	0.116	0.011	0.060	0.0017	2.299	0.0651
36	914	0.097	0.009	0.050	0.0014	2.239	0.0634
35	889	0.097	0.009	0.050	0.0014	2.189	0.0620
34	864	0.116	0.011	0.060	0.0017	2.139	0.0606
33	838	0.097	0.009	0.050	0.0014	2.079	0.0589
32	813	0.097	0.009	0.050	0.0014	2.029	0.0574
31	787	0.116	0.011	0.060	0.0017	1.979	0.0560
30	762	0.097	0.009	0.050	0.0014	1.919	0.0543
29	737	0.135	0.013	0.070	0.0020	1.869	0.0529
28	711	0.097	0.009	0.050	0.0014	1.799	0.0509
27	686	0.116	0.011	0.060	0.0017	1.749	0.0495
26	660	0.116	0.011	0.060	0.0017	1.689	0.0478
25	635	0.097	0.009	0.050	0.0014	1.629	0.0461
24	609	0.116	0.011	0.060	0.0017	1.579	0.0447
23	584	0.116	0.011	0.060	0.0017	1.519	0.0430
22	559	0.135	0.013	0.070	0.0020	1.459	0.0413
21	533	0.116	0.011	0.060	0.0017	1.389	0.0393
20	508	0.116	0.011	0.060	0.0017	1.329	0.0376
19	483	0.116	0.011	0.060	0.0017	1.269	0.0359
18	457	0.116	0.011	0.060	0.0017	1.209	0.0342
17	432	0.116	0.011	0.060	0.0017	1.149	0.0325
16	406	0.135	0.013	0.070	0.0020	1.089	0.0308
15	381	0.116	0.011	0.060	0.0017	1.019	0.0289
14	356	0.116	0.011	0.060	0.0017	0.959	0.0272
13	330	0.116	0.011	0.060	0.0017	0.899	0.0255
12	305	0.135	0.013	0.070	0.0020	0.839	0.0238
11	279	0.116	0.011	0.060	0.0017	0.770	0.0218
10	254	0.135	0.013	0.070	0.0020	0.710	0.0201
9	229	0.135	0.013	0.070	0.0020	0.640	0.0181
8	203	0.135	0.013	0.070	0.0020	0.570	0.0161
7	178	0.135	0.013	0.070	0.0020	0.500	0.0141
6	152	0.116	0.011	0.060	0.0017	0.430	0.0122
5	127	0.135	0.013	0.070	0.0020	0.370	0.0105
4	102	0.135	0.013	0.070	0.0020	0.300	0.0085
3	76	0.155	0.014	0.080	0.0023	0.230	0.0065
2	51	0.135	0.013	0.070	0.0020	0.150	0.0042
1	25	0.155	0.014	0.080	0.0023	0.080	0.0023
Total		**5.338**	**0.496**	**2.758**	**0.0781**	**2.758**	**0.0781**

Calculations are based on installed chamber length of 6.2" (157 mm).

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CULTEC Recharger® 902HD Specifications

GENERAL

CULTEC Recharger® 902HD chambers are designed for underground stormwater management. The chambers may be used for retention, recharging, detention or controlling the flow of on-site stormwater runoff.

CHAMBER PARAMETERS

1. The chambers shall be manufactured in the U.S.A. or Canada by CULTEC, Inc. of Brookfield, CT (cultec.com, 203-775-4416).
2. The chambers shall be designed and tested in accordance with ASTM F2787 "Standard Practice for Structural Design of Thermoplastic Corrugated Wall Stormwater Collection Chambers". The load configuration shall include:
    a. Instantaneous AASHTO Design Truck live load at minimum cover
    b. Maximum permanent (50-year) cover load
    c. 1-week parked AASHTO design truck load
3. The chambers shall meet the requirements of ASTM F3430-20 "Standard Specification for Cellular Polypropylene (PP) Corrugated Wall Stormwater Collection Chambers".
4. The installed chamber system shall provide resistance to the loads and load factors as defined in the AASHTO LRFD Bridge Design Specifications Section 12.12, when installed according to CULTEC's recommended installation instructions. The structural design of the chambers shall include the following:
    a. The Creep Modulus shall be 50-year as specified in ASTM F3430
    b. The minimum safety factor for live loads shall be 1.75
    c. The minimum safety factor for dead loads shall be 1.95
5. The chamber shall be structural foam injection molded of blue virgin high molecular weight impact-modified polypropylene.
6. The chamber shall be arched in shape.
7. The chamber shall be open-bottomed.
8. The chamber shall be joined using an interlocking overlapping rib method. Connections must be fully shouldered overlapping ribs, having no separate couplings.
9. The nominal chamber dimensions of the CULTEC Recharger® 902HD shall be 48 inches (1219 mm) tall, 78 inches (1981 mm) wide and 4.25 feet (1.30 m) long. The installed length of a joined Recharger 902HD shall be 3.67 feet (1.12 m).
10. Multiple chambers may be connected to form different length rows. Each row shall begin and end with a separately formed CULTEC Recharger® 902HD End Cap. Maximum inlet opening on the end cap is 30 inches (750 mm) HDPE or 36 inches (900 mm) PVC.
11. The chamber shall have two side portals to accept CULTEC HVLV™ FC-48 Feed Connectors to create an internal manifold. Maximum allowable pipe size in the side portal is 10 inches (250 mm) HDPE and 12 inches (300 mm) PVC.
12. The nominal chamber dimensions of the CULTEC HVLV™ FC-48 Feed Connector shall be 12 inches (305 mm) tall, 16 inches (406 mm) wide and 49 inches (1245 mm) long.
13. The nominal storage volume of the Recharger 902HD chamber shall be 17.31 ft^3 / ft (1.61 m^3 / m) - without stone. The nominal storage volume of a joined Recharger 902HD shall be 63.47 ft^3 / unit (1.80 m^3 / unit) - without stone.
14. The nominal storage volume of the HVLV™ FC-48 Feed Connector shall be 0.913 ft^3 / ft (0.085 m^3 / m) - without stone.
15. The Recharger 902HD chamber shall have 5 corrugations.
16. The chamber shall be capable of accepting a 6 inch (150 mm) inspection port opening at the top center of each chamber, centered on the corrugation crest.
17. The units may be trimmed to custom lengths by cutting back to any corrugation.
18. The chamber shall be manufactured in a facility employing CULTEC's Quality Control and Assurance Procedures.
19. Maximum allowable cover over the top of the chamber shall be 8.3 feet (2.53 m).

END CAP PARAMETERS

1. The CULTEC Recharger® 902HD End Cap (referred to as 'end cap') shall be manufactured in the U.S.A. by CULTEC, Inc. of Brookfield, CT (cultec.com, 203-775-4416).
2. The end cap shall be twin-sheet thermoformed of virgin high molecular weight polyethylene.
3. The end cap shall be joined at the beginning and end of each row of chambers using an interlocking overlapping rib method. Connections must be fully shouldered overlapping ribs, having no separate couplings.
4. The nominal dimensions of the end cap shall be 48.5 inches (1231 mm) tall, 78 inches (1982 mm) wide and 9.7 inches (246 mm) long. When joined with a Recharger 902HD Chamber, the installed length of the end cap shall be 6.2 inches (157 mm).
5. The nominal storage volume of the end cap shall be 5.34 ft^3 / ft (0.50 m^3 / m) - without stone. The nominal storage volume of an interlocked end cap shall be 2.76 ft^3 / unit (0.08 m^3 / unit) - without stone.
6. Maximum inlet opening on the end cap is 30 inches (750 mm) HDPE or 36 inches (900 mm) PVC.
7. The end cap shall provide resistance to the loads and load factors as defined in the AASHTO LRFD Bridge Design Specifications Section 12.12.

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APPENDIX G

PRE-CONSTRUCTION SITE ASSESSMENT CHECKLIST

I. **PRE-CONSTRUCTION MEETING DOCUMENTS**

Project Name _____

Permit No. _____ **Date of Authorization** _____

Name of Operator _____

Prime Contractor _____

a. **Preamble to Site Assessment and Inspections**

The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified inspector[1] conduct an assessment of the site prior to the commencement of construction[2] and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements. A preconstruction meeting should be held to review all of the SWPPP requirements with construction personnel.

When construction starts, site inspections shall be conducted by the qualified inspector at least every 7 calendar days. The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified inspector perform a final site inspection. The qualified inspector shall certify that the site has undergone final stabilization[3] using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 Refer to "Qualified Inspector" inspection requirements in the current SPDES General Permit for Stormwater Discharges from Construction Activity for complete list of inspection requirements.
2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.
3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Pre-construction Site Assessment Checklist
(NOTE: Provide comments below as necessary)

1. Notice of Intent, SWPPP, and Contractors Certification:

Yes No NA

[ ] [ ] [ ] Has a Notice of Intent been filed with the NYS Department of Conservation?
[ ] [ ] [ ] Is the SWPPP on-site? Where?_____
[ ] [ ] [ ] Is the Plan current? What is the latest revision date?_____
[ ] [ ] [ ] Is a copy of the NOI (with brief description) onsite? Where?_____
[ ] [ ] [ ] Have all contractors involved with stormwater related activities signed a contractor's certification?

2. Resource Protection

Yes No NA

[ ] [ ] [ ] Are construction limits clearly flagged or fenced?
[ ] [ ] [ ] Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
[ ] [ ] [ ] Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

Yes No NA

[ ] [ ] [ ] Clean stormwater runoff has been diverted from areas to be disturbed.
[ ] [ ] [ ] Bodies of water located either on site or in the vicinity of the site have been identified and protected.
[ ] [ ] [ ] Appropriate practices to protect on-site or downstream surface water are installed.
[ ] [ ] [ ] Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Access

Yes No NA

[ ] [ ] [ ] A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
[ ] [ ] [ ] Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
[ ] [ ] [ ] Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Sediment Controls

Yes No NA

[ ] [ ] [ ] Silt fence material and installation comply with the standard drawing and specifications.
[ ] [ ] [ ] Silt fences are installed at appropriate spacing intervals
[ ] [ ] [ ] Sediment/detention basin was installed as first land disturbing activity.
[ ] [ ] [ ] Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA

[ ] [ ] [ ] The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
[ ] [ ] [ ] The plan is contained in the SWPPP on page _____
[ ] [ ] [ ] Appropriate materials to control spills are onsite. Where? _____

APPENDIX H

STORMWATER CONSTRUCTION INSPECTION CHECKLISTS

Bioretention Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Pre-Construction		
Pre-construction meeting		
Runoff diverted		
Facility area cleared		
If designed as exfilter, soil testing for permeability		
Facility location staked out		
2. Excavation		
Size and location		
Lateral slopes completely level		
If designed as exfilter, ensure that excavation does not compact susoils.		
Longitudinal slopes within design range		

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
3. Structural Components		
Stone diaphragm installed correctly		
Outlets installed correctly		
Underdrain		
Pretreatment devices installed		
Soil bed composition and texture		
4. Vegetation		
Complies with planting specs		
Topsoil adequate in composition and placement		
Adequate erosion control measures in place		
5. Final Inspection		
Dimensions		
Proper stone diaphragm		
Proper outlet		
Soil/ filter bed permeability testing		
Effective stand of vegetation and stabilization		
Construction generated sediments removed		
Contributing watershed stabilized before flow is diverted to the practice		

Comments:

Actions to be Taken:

Open Channel System Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Pre-Construction		
Pre-construction meeting		
Runoff diverted		
Facility location staked out		
2. Excavation		
Size and location		
Side slope stable		
Soil permeability		
Groundwater / bedrock		
Lateral slopes completely level		
Longitudinal slopes within design range		
Excavation does not compact subsoils		
3. Check dams		
Dimensions		
Spacing		
Materials		

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
4. Structural Components		
Underdrain installed correctly		
Inflow installed correctly		
Pretreatment devices installed		
5. Vegetation		
Complies with planting specifications		
Topsoil adequate in composition and placement		
Adequate erosion control measures in place		
6. Final inspection		
Dimensions		
Check dams		
Proper outlet		
Effective stand of vegetation and stabilization		
Contributing watershed stabilized before flow is routed to the factility		

Comments:

Actions to be Taken:

Infiltration Basin Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Pre-Construction		
Runoff diverted		
Soil permeability tested		
Groundwater / bedrock depth		
2. Excavation		
Size and location		
Side slopes stable		
Excavation does not compact subsoils		
3. Embankment		
Barrel		
Anti-seep collar or Filter diaphragm		
Fill material		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
4. Final Excavation		
Drainage area stabilized		
Sediment removed from facility		
Basin floor tilled		
Facility stabilized		
5. Final Inspection		
Pretreatment facility in place		
Inlets / outlets		
Contributing watershed stabilized before flow is routed to the factility		

Comments:

Actions to be Taken:

APPENDIX I

CONTRACTOR AND SUBCONTRACTOR CERTIFICATIONS

CERTIFICATION STATEMENT

"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings."

Contractor:

Name:_____

Signature:_____

Title:_____

Company Name:_____

Company Address:_____

_____

_____

_____

Company Phone Number:_____

Site Address:_____

_____

_____

_____

Specific SWPPP Responsibilities:

_____

_____

_____

_____

_____

Date of Certification: _____

Name and Title of Trained Contractor for SWPPP Implementation:_____

_____

CERTIFICATION STATEMENT

"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings."

Sub-Contractor:

Name:_____

Signature:_____

Title:_____

Company Name:_____

Company Address:_____

_____

_____

_____

Company Phone Number:_____

Site Address:_____

_____

_____

_____

Specific SWPPP Responsibilities:

_____

_____

_____

_____

_____

Date of Certification: _____

Name and Title of Trained Contractor for SWPPP Implementation:_____

_____

APPENDIX J

QUALIFIED PROFESSIONAL'S CERTIFICATION

QUALIFIED PROFESSIONAL'S CERTIFICATION

"I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the Pre-Construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction."

Name (Print):_____

Title:_____

Date:_____

Company Name:_____

Company Address:_____

_____

_____

_____

Company Phone Number:_____

Company Email:_____

Signature:_____

APPENDIX K

OWNER/OPERATOR CERTIFICATION

CERTIFICATION STATEMENT

"I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I also certify under penalty of law that that this document and the corresponding documents were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, I am acknowledging that this SWPPP has been developed and will be implemented as the first element of construction and agree to comply with all the terms and conditions of the general permit for which the NOI is being submitted."

Name (Print):_____

Title:_____

Date:_____

Company Name:_____

Company Address:_____

_____

_____

_____

Company Phone Number:_____

Company Email:_____

Signature:_____

APPENDIX L

POST-DEVELOPMENT MAINTENANCE AND INSPECTION CHECKLIST

Bioretention Operation, Maintenance and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Bioretention and contributing areas clean of debris		
No dumping of yard wastes into practice		
Litter (branches, etc.) have been removed		
2. Vegetation (Monthly)		
Plant height not less than design water depth		
Fertilized per specifications		
Plant composition according to approved plans		
No placement of inappropriate plants		
Grass height not greater than 6 inches		
No evidence of erosion		
3. Check Dams/Energy Dissipaters/Sumps (Annual, After Major Storms)		
No evidence of sediment buildup		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Sumps should not be more than 50% full of sediment		
No evidence of erosion at downstream toe of drop structure		
4. Dewatering (Monthly)		
Dewaters between storms		
No evidence of standing water		
5. Sediment Deposition (Annual)		
Swale clean of sediments		
Sediments should not be > 20% of swale design depth		
6. Outlet/Overflow Spillway (Annual, After Major Storms)		
Good condition, no need for repair		
No evidence of erosion		
No evidence of any blockages		
7. Integrity of Filter Bed (Annual)		
Filter bed has not been blocked or filled inappropriately		

Comments:

Actions to be Taken:

Open Channel Operation, Maintenance, and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Contributing areas clean of debris		
2. Check Dams or Energy Dissipators (Annual, After Major Storms)		
No evidence of flow going around structures		
No evidence of erosion at downstream toe		
Soil permeability		
Groundwater / bedrock		
3. Vegetation (Monthly)		
Mowing done when needed		
Minimum mowing depth not exceeded		
No evidence of erosion		
Fertilized per specification		
4. Dewatering (Monthly)		
Dewaters between storms		

MAINTENANCE ITEM	SATISFACTORY/ UNSATISFACTORY	COMMENTS
5. Sediment deposition (Annual)		
Clean of sediment		
6. Outlet/Overflow Spillway (Annual)		
Good condition, no need for repairs		
No evidence of erosion		

Comments:

Actions to be Taken:

Infiltration Trench Operation, Maintenance, and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Trench surface clear of debris		
Inflow pipes clear of debris		
Overflow spillway clear of debris		
Inlet area clear of debris		
2. Sediment Traps or Forebays (Annual)		
Obviously trapping sediment		
Greater than 50% of storage volume remaining		
3. Dewatering (Monthly)		
Trench dewaters between storms		
4. Sediment Cleanout of Trench (Annual)		
No evidence of sedimentation in trench		
Sediment accumulation doesn't yet require cleanout		
5. Inlets (Annual)		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Good condition		
No evidence of erosion		
6. Outlet/Overflow Spillway (Annual)		
Good condition, no need for repair		
No evidence of erosion		
7. Aggregate Repairs (Annual)		
Surface of aggregate clean		
Top layer of stone does not need replacement		
Trench does not need rehabilitation		

Comments:

Actions to be Taken:

APPENDIX M

CONSTRUCTION INSPECTION REPORT

II. **CONSTRUCTION DURATION INSPECTIONS**

a. **Directions:**

Inspection Forms will be filled out during the entire construction phase of the project.

Required Elements:

1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;

2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;

3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;

4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);

5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and

6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

SITE PLAN/SKETCH

Inspector (print name)	**Date of Inspection**
Qualified Inspector (print name)	**Qualified Inspector Signature**

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

Maintaining Water Quality

Yes No NA

[ ] [ ] [ ] Is there an increase in turbidity causing a substantial visible contrast to natural conditions at the outfalls?
[ ] [ ] [ ] Is there residue from oil and floating substances, visible oil film, or globules or grease at the outfalls?
[ ] [ ] [ ] All disturbance is within the limits of the approved plans.
[ ] [ ] [ ] Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions

Yes No NA

[ ] [ ] [ ] Is construction site litter, debris and spoils appropriately managed?
[ ] [ ] [ ] Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
[ ] [ ] [ ] Is construction impacting the adjacent property?
[ ] [ ] [ ] Is dust adequately controlled?

2. Temporary Stream Crossing

Yes No NA

[ ] [ ] [ ] Maximum diameter pipes necessary to span creek without dredging are installed.
[ ] [ ] [ ] Installed non-woven geotextile fabric beneath approaches.
[ ] [ ] [ ] Is fill composed of aggregate (no earth or soil)?
[ ] [ ] [ ] Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

3. Stabilized Construction Access

Yes No NA

[ ] [ ] [ ] Stone is clean enough to effectively remove mud from vehicles.
[ ] [ ] [ ] Installed per standards and specifications?
[ ] [ ] [ ] Does all traffic use the stabilized entrance to enter and leave site?
[ ] [ ] [ ] Is adequate drainage provided to prevent ponding at entrance?

Runoff Control Practices

1. Excavation Dewatering

Yes No NA

[ ] [ ] [ ] Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
[ ] [ ] [ ] Clean water from upstream pool is being pumped to the downstream pool.
[ ] [ ] [ ] Sediment laden water from work area is being discharged to a silt-trapping device.
[ ] [ ] [ ] Constructed upstream berm with one-foot minimum freeboard.

Runoff Control Practices (continued)

2. Flow Spreader

Yes No NA

[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.
[ ] [ ] [ ] Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales

Yes No NA

[ ] [ ] [ ] Installed per plan with minimum side slopes 2H:1V or flatter.
[ ] [ ] [ ] Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
[ ] [ ] [ ] Sediment-laden runoff directed to sediment trapping structure

4. Stone Check Dam

Yes No NA

[ ] [ ] [ ] Is channel stable? (flow is not eroding soil underneath or around the structure).
[ ] [ ] [ ] Check is in good condition (rocks in place and no permanent pools behind the structure).
[ ] [ ] [ ] Has accumulated sediment been removed?.

5. Rock Outlet Protection

Yes No NA

[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles

Yes No NA

[ ] [ ] [ ] Stockpiles are stabilized with vegetation and/or mulch.
[ ] [ ] [ ] Sediment control is installed at the toe of the slope.

2. Revegetation

Yes No NA

[ ] [ ] [ ] Temporary seedings and mulch have been applied to idle areas.
[ ] [ ] [ ] 4 inches minimum of topsoil has been applied under permanent seedings

Sediment Control Practices

1. Silt Fence and Linear Barriers

Yes No NA

[ ] [ ] [ ] Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
[ ] [ ] [ ] Joints constructed by wrapping the two ends together for continuous support.
[ ] [ ] [ ] Fabric buried 6 inches minimum.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.
Sediment accumulation is ___% of design capacity.

Sediment Control Practices (continued)

2. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated; Filter Sock or Manufactured practices)

Yes No NA

[ ] [ ] [ ] Installed concrete blocks lengthwise so open ends face outward, not upward.
[ ] [ ] [ ] Placed wire screen between No. 3 crushed stone and concrete blocks.
[ ] [ ] [ ] Drainage area is 1acre or less.
[ ] [ ] [ ] Excavated area is 900 cubic feet.
[ ] [ ] [ ] Excavated side slopes should be 2:1.
[ ] [ ] [ ] 2" x 4" frame is constructed and structurally sound.
[ ] [ ] [ ] Posts 3-foot maximum spacing between posts.
[ ] [ ] [ ] Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.
[ ] [ ] [ ] Manufactured insert fabric is free of tears and punctures.
[ ] [ ] [ ] Filter Sock is not torn or flattened and fill material is contained within the mesh sock.

Sediment accumulation ___% of design capacity.

3. Temporary Sediment Trap

Yes No NA

[ ] [ ] [ ] Outlet structure is constructed per the approved plan or drawing.
[ ] [ ] [ ] Geotextile fabric has been placed beneath rock fill.
[ ] [ ] [ ] Sediment trap slopes and disturbed areas are stabilized.

Sediment accumulation is ___% of design capacity.

4. Temporary Sediment Basin

Yes No NA

[ ] [ ] [ ] Basin and outlet structure constructed per the approved plan.
[ ] [ ] [ ] Basin side slopes are stabilized with seed/mulch.
[ ] [ ] [ ] Drainage structure flushed and basin surface restored upon removal of sediment basin facility.
[ ] [ ] [ ] Sediment basin dewatering pool is dewatering at appropriate rate.

Sediment accumulation is ___% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design. All practices shall be maintained in accordance with their respective standards.

Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:

1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
   a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
   b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:

APPENDIX N

NOTICE OF TERMINATION

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR ___ ___ ___ ___ ___ ___

I. Owner or Operator Information

1. Owner/Operator Name: The Mirbeau Companies, LLC.

2. Street Address:

3. City/State/Zip:

4. Contact Person:	4a.Telephone:

4b. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name: Mirbeau Inn & Spa at Beacon

6. Street Address: 7 Craig House Lane

7. City/Zip:

8. County:

III. Reason for Termination

9a. □ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. ***Date final stabilization completed** (month/year): _____

9b. □ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ___ ___ ___ ___ ___ ___
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. □ Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? □ yes □ no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? □ yes □ no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

_____

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? □ yes □ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

□ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

□ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

□ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.

□ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? □ yes □ no

(If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation:

(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:	Date:

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

IX. Owner or Operator Certification

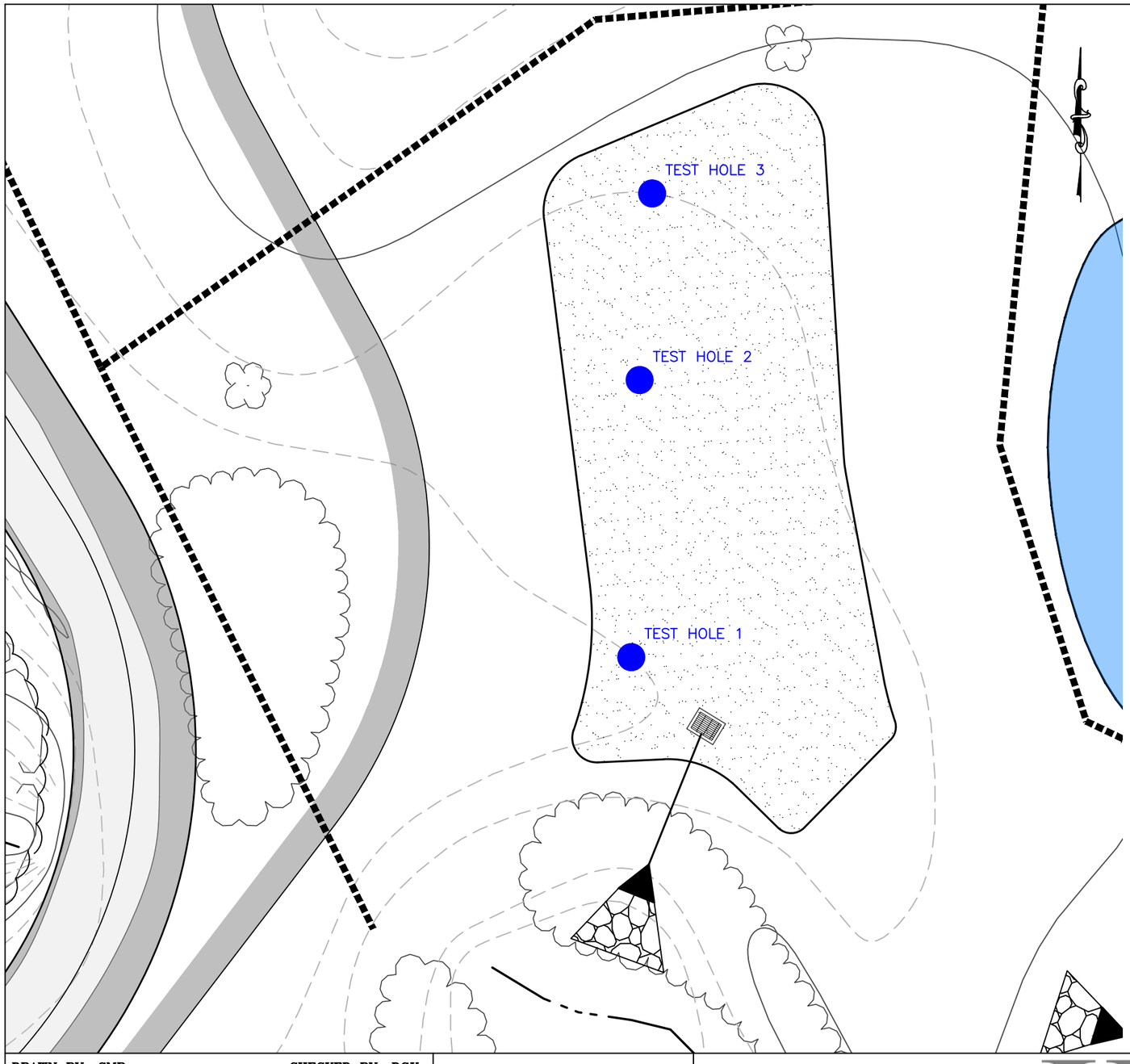
I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

(NYS DEC Notice of Termination - January 2015)

APPENDIX O

SOIL TEST MAPS



HASBROUCK HOUSE DEEP TEST HOLE TABLE:

TEST HOLES WERE COMPLETED ON JUNE 8, 2022

HOLE #	TOTAL DEPTH	SOIL DESCRIPTION
1	7'–0"	0"–4" TOPSOIL; 4"–72" SILTY LOAM WITH SAND AND GRAVEL
2	8'–0"	0"–4" TOPSOIL; 4"–84" SILTY LOAM WITH SAND AND GRAVEL
3	8'–6"	0"–4" TOPSOIL; 4"–90" SILTY LOAM WITH SAND AND GRAVEL

INFILTRATION TESTS

PRESOAKED 6/8/2022 AND PERFORMED ON 6/9/2022
WITNESSED BY LANC & TULLY ENGINEERING & SURVEYING, PC.

TEST HOLE NO.	START TIME	END TIME	DROP (INCHES)
1 3.9' DEEP	11:41	11:45	24"
1	11:46	11:50	24"
1	12:10	12:14	24"
1	12:15	12:20	24"
2 5.0' DEEP	12:35	13:01	24"
2	13:02	13:46	24"
2	13:48	14:39	24"
2	14:40	15:40	23"
3 4.85' DEEP	12:51	13:43	24"
3	13:44	14:44	26.5"
3	14:48	15:48	24"
3	15:50	16:50	23"

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20 ft.

DRAWN BY: CMB CHECKED BY: DGK

REVISIONS:

NO.	DATE	DESCRIPTION	BY

SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

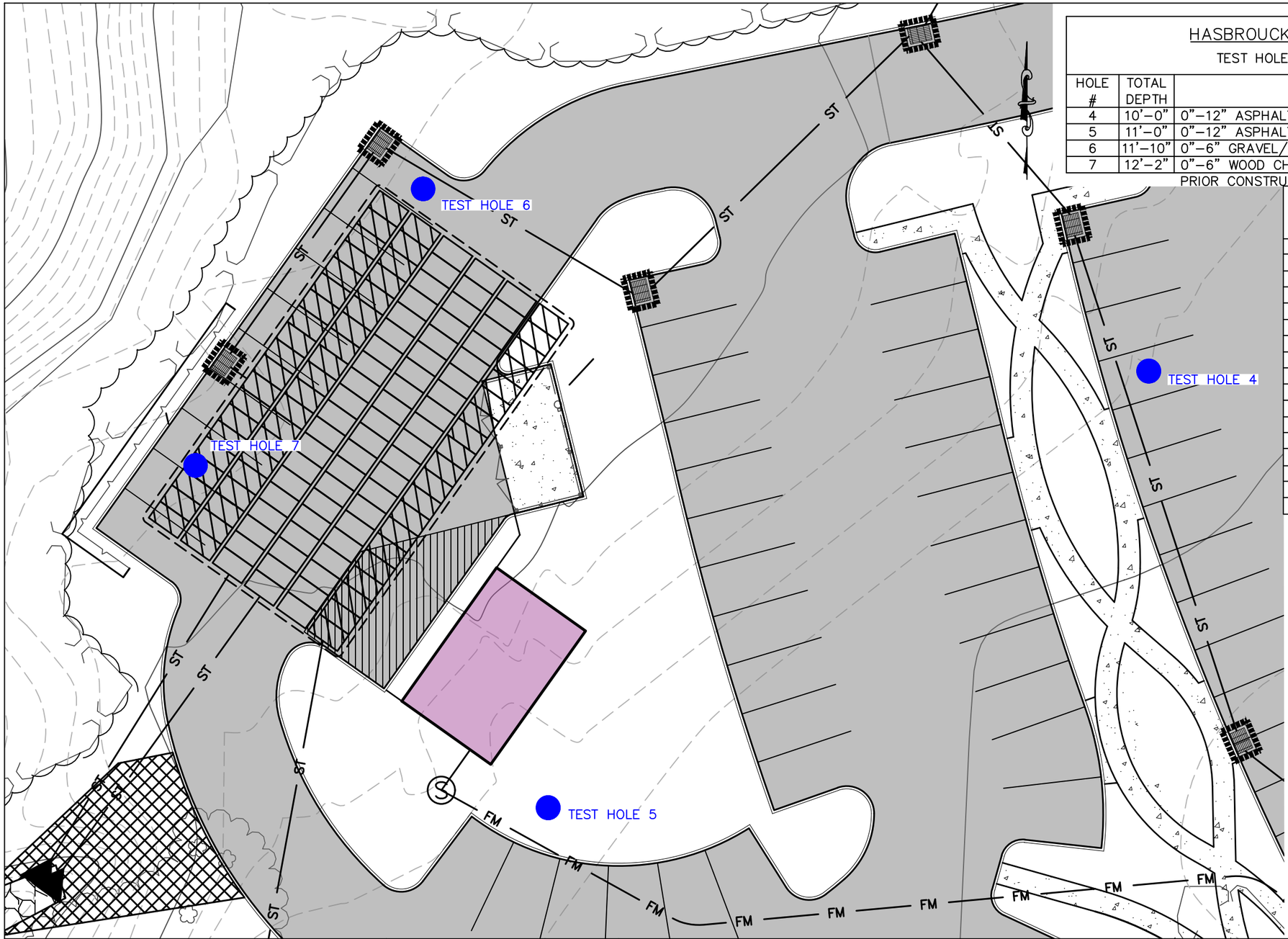
INFILTRATION TESTING

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
6054-13-001258

JOB #: 2021:051
DATE: 06/07/2022
SCALE: 1" = 20'
TITLE: INFIL-1
SHEET: 1 OF 2

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



HASBROUCK HOUSE DEEP TEST HOLE TABLE:

TEST HOLES WERE COMPLETED ON JUNE 8, 2022

HOLE #	TOTAL DEPTH	SOIL DESCRIPTION
4	10'–0"	0"–12" ASPHALT/SUB BASE SECTION 12"–120" SAND AND GRAVELLY LOAM
5	11'–0"	0"–12" ASPHALT/SUB BASE SECTION 12"–120" SAND AND GRAVELLY LOAM
6	11'–10"	0"–6" GRAVEL/ASPHALT REMAINS; 6"–120" SAND AND GRAVELLY LOAM
7	12'–2"	0"–6" WOOD CHIPS; 6–120" SAND AND GRAVEL LOAM WITH COBBLES AND PRIOR CONSTRUCTION DEBRIS IN UPPER 30".

INFILTRATION TESTS

PRESOAKED 6/8/2022 AND PERFORMED ON 6/9/2022
WITNESSED BY LANC & TULLY ENGINEERING & SURVEYING, PC.

TEST HOLE NO.	START TIME	END TIME	DROP (INCHES)
4 8.77' DEEP	9:41	9:45	24"
4	9:48	10:10	24"
4	10:11	10:15	24"
4	10:18	10:22	24"
5 8.27' DEEP	9:35	9:50	24"
5	9:59	10:02	24"
5	10:03	10:04	24"
5	10:06	10:07	24"
6 9.57' DEEP	9:30	10:30	24"
6	10:32	10:36	24"
6	10:37	10:47	24"
6	10:48	10:48	24"
7 9.71' DEEP	9:24	10:24	24"
7	10:25	11:00	24"
7	11:00	12:00	24"
7	12:27	13:28	6.6"

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20 ft.

DRAWN BY: CMB CHECKED BY: DGK

REVISIONS:

NO.	DATE	DESCRIPTION	BY

SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

INFILTRATION TESTING

MIRBEAU BEACON

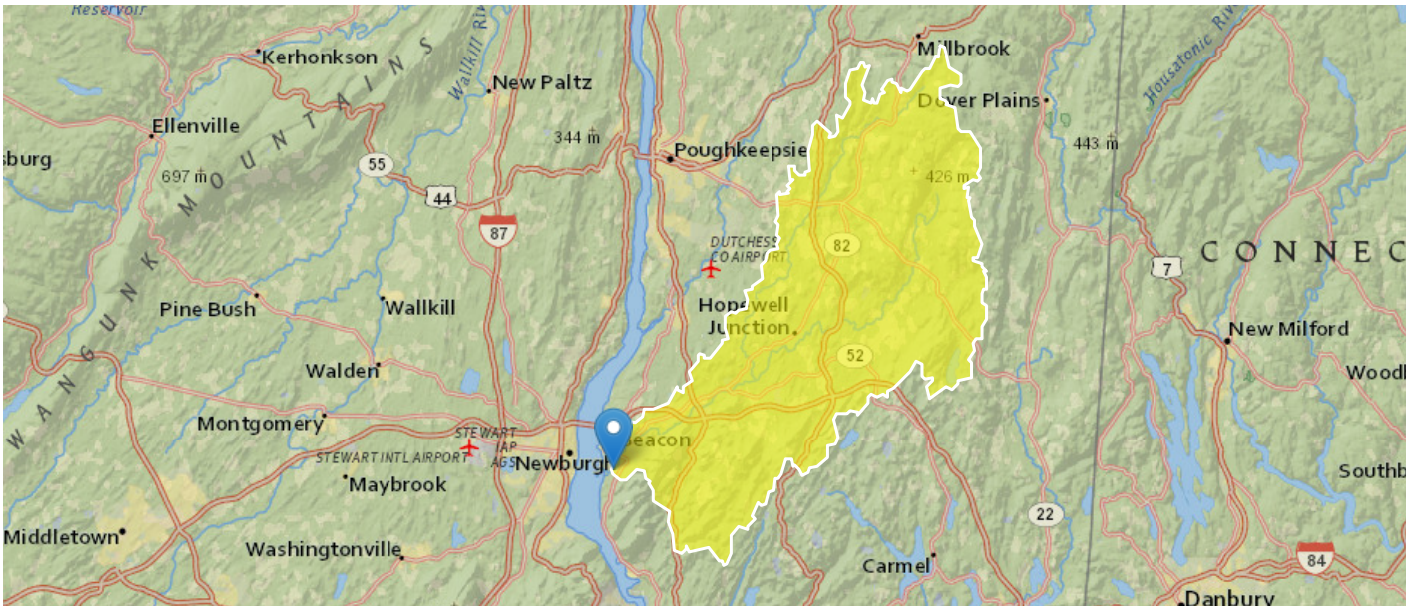
7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
6054-13-001258

JOB #: 2021:051
DATE: 06/07/2022
SCALE: 1" = 20'
TITLE: INFIL-1
SHEET: 2 OF 2

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

Mirbeau - Fishkill Creek Drainage Area

Region ID: NY
Workspace ID: NY20220323210841193000
Clicked Point (Latitude, Longitude): 41.48859, -73.97408
Time: 2022-03-23 17:09:03 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	193	square miles
LAGFACTOR	Lag Factor as defined in SIR 2006-5112	1.99	dimensionless
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	4.86	percent
MAR	Mean annual runoff for the period of record in inches	21.6	inches
BSLOPCM	Mean basin slope determined by summing lengths of all contours in basin mulitplying by contour interval and dividing product by drainage area	586	feet per mi
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	601893.5	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	4605697.8	meters
CONTOUR	Total length of all elevation contours in drainage area in miles	1133.67	miles
CSL1085LO	10-85 slope of lower half of main channel in feet per mile.	8.16	feet per mi
CSL1085UP	10-85 slope of upper half of main channel in feet per mile.	34.9	feet per mi
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	18.7	feet per mi
EL1200	Percentage of basin at or above 1200 ft elevation	1.62	percent
FOREST	Percentage of area covered by forest	67.7	percent
JULAVPRE	Mean July Precipitation	4.61	inches
JUNAVPRE	Mean June Precipitation	4.18	inches
JUNMAXTMP	Maximum June Temperature, in degrees F	78.4	degrees F
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	20.4	percent

Parameter Code	Parameter Description	Value	Unit
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	5.47	percent
LENGTH	Length along the main channel from the measuring location extended to the basin divide	36.1	miles
MAYAVPRE	Mean May Precipitation	4.53	inches
MXSNO	50th percentile of seasonal maximum snow depth from Northeast Regional Climate Center atlas by Cember and Wilks, 1993	12.8	inches
OUTLETX	Basin outlet horizontal (x) location in state plane coordinates	585645	feet
OUTLETY	Basin outlet vertical (y) location in state plane coordinates	4593505	feet
PRECIP	Mean Annual Precipitation	42.5	inches
PRJUNAUG00	Basin average mean precip for June to August from PRISM 1971-2000	13.1	inches
SLOPERATIO	Ratio of main channel slope to basin slope as defined in SIR 2006-5112	0.0319	dimensionless
SSURGOA	Percentage of area of Hydrologic Soil Type A from SSURGO	9.45	percent
SSURGOB	Percentage of area of Hydrologic Soil Type B from SSURGO	36.7	percent

Peak-Flow Statistics Parameters [2006 Full Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	193	square miles	1.93	996
LAGFACTOR	Lag Factor	1.99	dimensionless	0.014	6.997
STORAGE	Percent Storage	4.86	percent	0	11.88
MAR	Mean Annual Runoff in inches	21.6	inches	16.03	33.95

Peak-Flow Statistics Flow Report [2006 Full Region 2]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	ASEp	Equiv. Yrs.
80-percent AEP flood	2350	ft^3/s	25.5	25.5	4.8
66.7-percent AEP flood	2790	ft^3/s	25.6	25.6	4.3
50-percent AEP flood	3430	ft^3/s	25.8	25.8	4.4
20-percent AEP flood	5290	ft^3/s	27	27	7.3
10-percent AEP flood	6830	ft^3/s	28.2	28.2	10.1
4-percent AEP flood	9080	ft^3/s	29.9	29.9	13.6
2-percent AEP flood	11000	ft^3/s	31.5	31.5	15.8
1-percent AEP flood	13100	ft^3/s	33.3	33.3	17.6
0.5-percent AEP flood	15500	ft^3/s	35.3	35.3	18.9
0.2-percent AEP flood	19000	ft^3/s	38.4	38.4	20.1

Peak-Flow Statistics Citations

Lumia, Richard, Freehafer, D.A., and Smith, M.J.,2006, Magnitude and Frequency of Floods in New York: U.S. Geological Survey Scientific Investigations Report 2006–5112, 152 p. (http://pubs.usgs.gov/sir/2006/5112/)

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Application Version: 4.7.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

HUDSON LAND DESIGN

Civil & Environmental Engineering Consultants
174 Main Street, Beacon, New York 12508 (Main Office and Mailing Address)
13 Chambers Street, Newburgh, NY 12550 (Satellite Office)
Phone: 845-440-6926 Fax: 845-440-6637
www.HudsonLandDesign.com

September 27, 2022

Hon. John Gunn, Chairman
City of Beacon Planning Board
1 Municipal Plaza
Beacon, NY 12508

Re: Mirbeau Subdivision, Site Plan and Special Use Permit
7 Craig House Lane
Tax Parcel: 6054-13-001258, ±64.39 ac.
City of Beacon, NY

Dear Chairman Gunn and Members of the Planning Board:

On behalf of the Applicant for the above referenced project, Hudson Land Design (HLD) has revised the plan set in response to Lanc & Tully's (L&T) September 8, 2022 comment letter, and John Clarke Planning and Design's September 9, 2022 comment letter. Below is a point-by-point response to the comments received. Please note that Mirbeau of Beacon, LLC has responded to John Clarke Planning and Design's comments, and Colliers Engineering has responded to Creighton Manning's September 9, 2022 comments under separate cover. Below is a point-by-point response to the L&T comments received.

Lanc & Tully September 8, 2022 Comment Letter

General Comments

1. Comment noted. Plans will be submitted to the DCDBCH once SEQR is closed.
2. We continue to refine the cut and fill analysis. The analysis will be updated as additional detail is added to the plans. The goal is to have a balanced site. Grade adjustments can be made to the Monet gardens and ponds to compensate for any surplus of cuts and fills. It is noted that Lanc & Tully mention an "excess of material" on site; however, the preliminary cut and fill analysis has identified a deficiency of material. Therefore, there is a need for import of fill to the site, and not a surplus of material to be hauled off. The Applicant has had discussions with other projects under construction within the city that have available clean fill material if the final cut and fill numbers still call for fill to be imported.
3. Comment noted. Signed and sealed drawings for proposed on site retaining walls will be provided to the Building Department prior to building permit.

Water and Sewer Report

1. The flow calculations have been updated based upon 80 employee shifts per day. An updated water and sewer engineer's report is provided with this submission.
2. The I & I report is provided within section 3.2 of the updated water and sewer report. It could not be verified that the internal roof drains on the existing hospital wing are tied into the existing drainage system; therefore, for the purpose of the I&I study, it is assumed that they are tied into the sewer system. Calculations for the volume of rainfall contributing to the sewer system are provided in the updated water and sewer report. All existing roof leaders and sump pumps will be disconnected from the sewer system (if connected) and re-routed to the drainage system.
3. It has been confirmed that the Cottages will require sprinkling. Therefore, the water service lines have been upgraded to 2" DR-11 water service pipe. The pipe sizes are subject to verification by the mechanical engineer for the buildings.
4. Calculations for the grease trap are provided in the updated water and sewer report.
5. Calculations for the pump station are provided in the updated water and sewer report. The pump station detail has been updated with pump and float elevations.
6. The Sensus Fireline meter with low-flow metered by-pass (or equivalent) is now provided on the plans. Catalog information is provided in the updated water and sewer report.

SWPPP Report

1. The soil information has been added to the updated SWPPP and is provided with this submission.
2. The reference to rain gardens has been removed from the updated SWPPP.
3. Soil tests will be conducted at the other proposed bioretention areas. Infiltration is expected as the bioretention areas are within the same soil type as Bioretention Area A. The soil tests will be coordinated with Lanc & Tully's office.

Preliminary Subdivision Plat

1. Metes and bounds have been added to the proposed easements.

Site Plan Sheets

Sheet 6 of 28

1. The wetland biologist is coordinating any permitting required for walking paths through wetland meadow areas. Wetland notes have been added to sheet 3, and sheet 6 of the revised plan set.

Sheet 7 of 28

1. Additional spot elevations have been added at high and low points along curb lines. The plans will continue to be updated with addition spot elevations as they are advanced through the approval process.

Sheet 16 of 28

1. The pavement restoration detail has been updated with the requested information.

Sheet 17 of 28

1. The high-flow outlet has been removed from the bioretention outlet control structure.

Sheet 19 of 28

1. The pump station detail has bene updated with the design information.
1. The detail has been updated with the low-flow bypass line information.

The following items submitted for review:

- Five (5) copies of a full set of revised plans;
- Three copies of the updated SWPPP, and
- Three (3) copies of the updated Water & Sewer Engineer's Report.

Additional materials are being submitted by other project consultants under separate cover. We look forward to discussing this project at your October 11, 2022 planning board agenda. Should you have any questions, please feel free to contact me at 845-440-6926.

Sincerely,

Michael A. Bodendorf, P.E.
Principal

cc: Mirabeau Beacon, LLC
Dan Leary, Esq.
Henry Thomas, RLA
David Bios, AIA
Richard D'Andrea, P.E., PTOE
Daniel G. Koehler, P.E. (HLD file)

PROJECT INFORMATION:

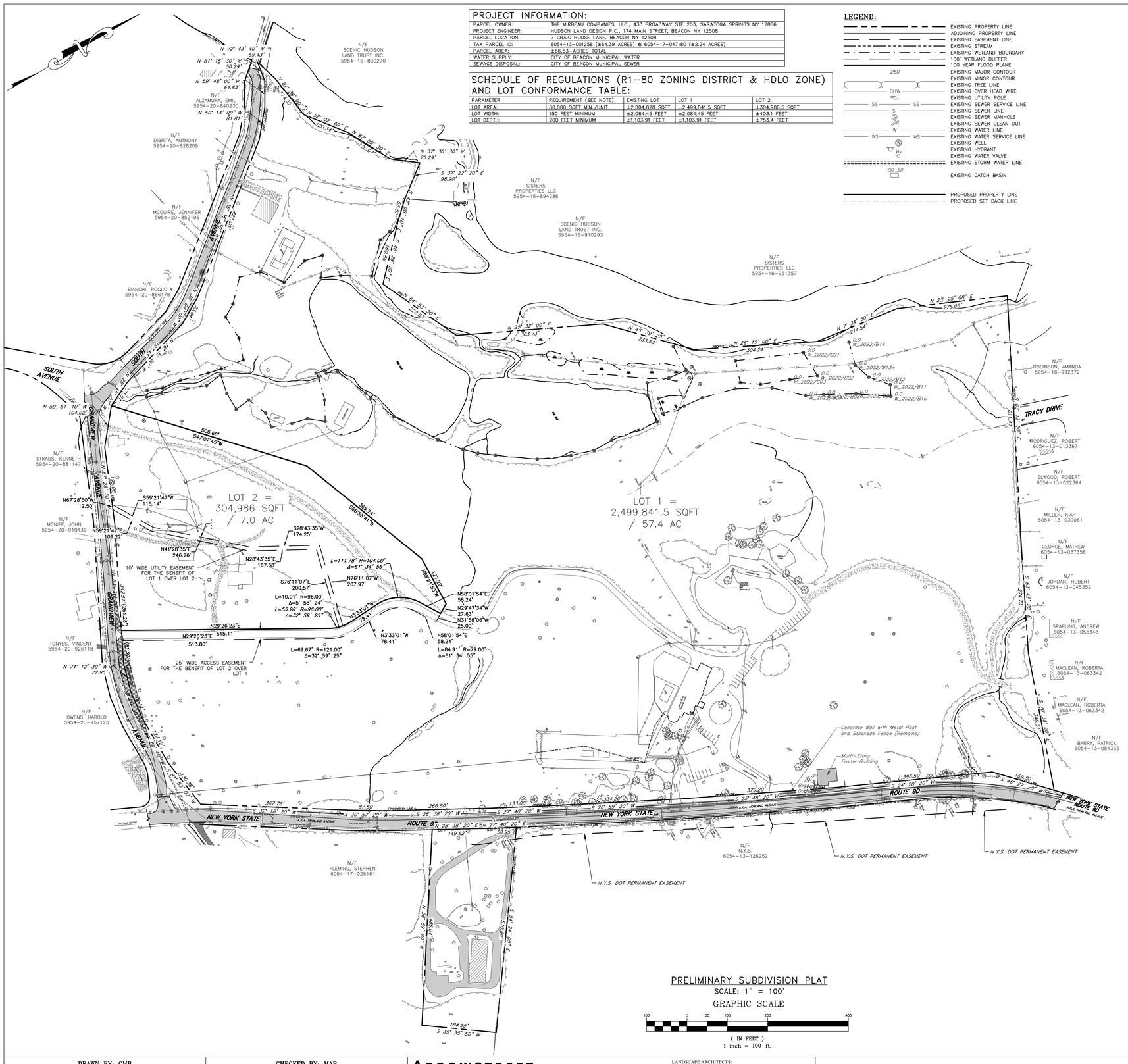
PARCEL OWNER:	THE MIRBEAU COMPANIES, LLC., 433 BROADWAY STE 203, SARATOGA SPRINGS NY 12866
PROJECT ENGINEER:	HUDSON LAND DESIGN P.C., 174 MAIN STREET, BEACON NY 12508
PARCEL LOCATION:	7 CRAIG HOUSE LANE, BEACON NY 12508
TAX PARCEL ID:	6054-13-001258 (±64.39 ACRES) & 6054-17-047180 (±2.24 ACRES)
PARCEL AREA:	±66.63-ACRES TOTAL
WATER SUPPLY:	CITY OF BEACON MUNICIPAL WATER
SEWAGE DISPOSAL:	CITY OF BEACON MUNICIPAL SEWER

SCHEDULE OF REGULATIONS (R1-80 ZONING DISTRICT & HDLO ZONE) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT (SEE NOTE)	EXISTING LOT	LOT 1	LOT 2
LOT AREA:	80,000 SQFT MIN./UNIT	±2,804,828 SQFT	±2,499,841.5 SQFT	±304,986.5 SQFT
LOT WIDTH:	150 FEET MINIMUM	±2,084.45 FEET	±2,084.45 FEET	±403.1 FEET
LOT DEPTH:	200 FEET MINIMUM	±1,103.91 FEET	±1,103.91 FEET	±753.4 FEET

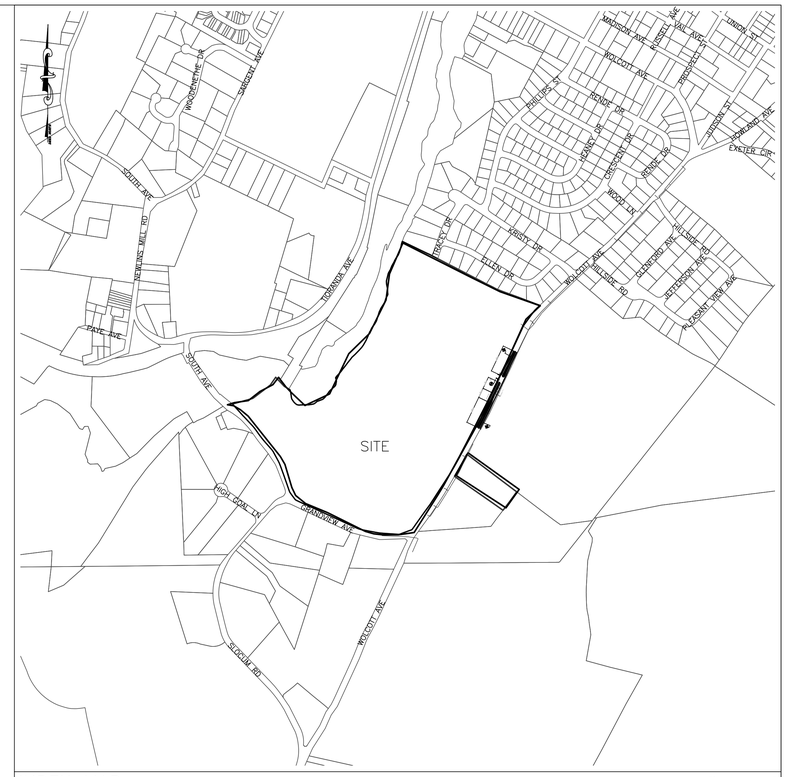
LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 100 YEAR FLOOD PLAINE
- 250 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- OHW EXISTING OVER HEAD WIRE
- SS EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- EXISTING WATER LINE
- EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- CB 50 EXISTING CATCH BASIN
- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE



PRELIMINARY SUBDIVISION PLAT
SCALE: 1" = 100'
GRAPHIC SCALE

100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.



INDEX MAP SCALE: 1" = 500'

MAP REFERENCES:

1. "TOPOGRAPHIC MAP PREPARED FOR MIRBEAU INN & SPA RHINEBECK" DATED OCTOBER 21, 2003 AS PREPARED BY BADEY & WATSON SURVEYING & ENGINEERING D.P.C., N.Y.S. LICENSE NO. 48167 AND REVISED ON MARCH 17, 2022.

SURVEY NOTES:

1. COPYRIGHT "2003 & 2022" BY BADEY & WATSON, SURVEYING & ENGINEERING, D.P.C. ALL RIGHTS RESERVED. UNAUTHORIZED DUPLICATION IS A VIOLATION OF APPLICABLE LAWS.
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3. THE TOPOGRAPHIC DATA HEREON WAS COMPILED PHOTOGRAMMETRICALLY FROM AERIAL PHOTOGRAPHS DATED APRIL 14, 2003. THE PHOTO SCALE WAS 1 INCH TO 500 FEET. THE COMPILATION SCALE WAS 1 INCH TO 40 FEET.
4. THE MERIDIAN AND COORDINATE VALUES HEREON REFER TO THE NEW YORK STATE COORDINATE SYSTEM, EAST ZONE (NAVD-1983).
5. THE VERTICAL DATUM HEREON IS THE NORTH AMERICAN VERTICAL DATUM OF 1988.
6. PROPERTY LINE TAKEN FROM 2003 SURVEY BY PETER A. HUSTIS, L.S. IT IS NOT THE PRODUCT OF A SURVEY BY BADEY & WATSON SURVEYING & ENGINEERING, P.C.
7. REVISED ON MARCH 17, 2022 AS FOLLOWS
   - A. UPDATED LOGO,
   - B. ADDED GRAPHIC SCALE,
   - C. REMOVED 2003 WETLANDS BOUNDARY FLAGGING,
   - C. ADDED WETLAND FLAGGING BY ECOLOGICAL SOLUTIONS, INC. AND RELATED DATA.
   - D. VERIFIED MH273 LOCATION AND INVERTS, AND SEWER LINE NORTH ALONG SOUTH AVENUE, AND RELATED DATA.
8. WETLANDS FLAGS A29, B13 AND H11 WERE NOT FOUND IN FIELD. APPROXIMATE LOCATION BASED ON SKETCH BY ECOLOGICAL SOLUTIONS, INC..
9. THE VERTICAL DATUM HEREON IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).
10. THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) HAS DETERMINED THAT THIS PROPERTY LIES WITHIN FLOOD HAZARD ZONE X AS INDICATED HEREON. THE ZONE BOUNDARIES WERE TAKEN FROM FLOOD INSURANCE RATE MAPS (FIRM) COMMUNITY MAP NO. 36027C0577E WITH AN EFFECTIVE DATE OF MAY 2, 2012.
11. THE WETLANDS SHOWN ON THIS MAP ARE FEDERALLY REGULATED WETLANDS AS DETERMINED BY AND DELINEATED BY ECOLOGICAL SOLUTIONS, INC..

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____ BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

Dig Safely. New York Call 811 before you dig

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/25/22	ADDED SHEET	CMB				
2	6/28/22	NO CHANGE THIS SHEET	CMB				
3	7/26/22	PER PLANNING BOARD COMMENTS	CMB				
4	8/30/22	PER PLANNING BOARD COMMENTS	CMB				
5	9/27/22	PER PLANNING BOARD COMMENTS	CMB				

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HUDSON LAND DESIGN

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SEAL

PRELIMINARY SUBDIVISION PLAT
MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 100'
TITLE:	PL-1
SHEET:	1 OF 1

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THE Mirbeau COMPANIES

September 27, 2022

Mr. David J. Buckley
Building Inspector
City of Beacon Building Department
1 Municipal Plaza, Suite 4
Beacon, NY 12508

Re: Mirbeau of Beacon Special Use Permit/ Site Plan Application

Mr. Buckley,

We are pleased to submit updated documents for the October 11th Planning Board meeting. These are in response to the Planning Board's and professionals'

Enclosed are:

1. Hudson Land Design/ LRC Site Plans Sheets 1-28
2. Hudson Land Design Engineering reports.
3. Hudson Land Design Preliminary Subdivision Plat.
4. Hudson Land Design responses to Lanc & Tully comments.
5. Arrowstreet/LRC Views
   a. A 0.01 – Property Entry View Rendering
   b. A0.02 – Primary View Shed Rendering
   c. A0.03 – Secondary View Shed Rendering
   d. A0.04 – Mansion Porch Rear View Rendering
6. Arrowstreet Building Elevations
   a.A3.00A – Overall Elevations
   b.A3.00B – Overall Elevations

Response to John Clarke's September comments:

1. The views at the entrance drive and just south of it are enclosed.
2. The landscaping has been revised to properly screen the new Spa building and associated parking areas.
3. Mirbeau summarized its conversations with the Greenway Trail Committee chair and with the Mayor's office. Any trail along the creek on the east side on Mirbeau is not practical due to the private uses, wetlands, sewer line, archaeological sites, and access from the north and south. This will not be included in the Site Plans.

THE Mirbeau COMPANIES

4. It is the recommendation of Colliers that it be placed at the north Settlement driveway. This location is safer for speed and sight lines, and avoids the many turning movements at the resort entrance and is more convenient to pedestrians from the north. It is not necessary for the resort guests and is not included in the Site Plans. A partial aerial photograph identifying the location is attached.
5. The concrete sidewalk has been included in the revised site plans.
6. Noted

Lanc & Tully September 8 comments:

1. Detailed responses and updated plans and reports are included in Hudson Land Design response letter.

Creighton-Manning September 9 comments:

1. Colliers has provided detailed responses to each of the comments.

Architectural Review Board September 16 comments:

1. Exterior Elevations and material samples were submitted and discussed on September 16th.
2. Samples have been delivered to the Planning Office.
3. The screening of the Spa building was reviewed and the revised elevations are included here.
4. Subject to the Historical Architect review, it is the preference of the applicant to remove the 1978 stair at the corner of the Withers and Hunt buildings and open up more of each.

Based upon the record now before the Planning Board (as Lead Agency), we respectfully request that you close the SEQRA public hearing, issue a "Negative Declaration" under SEQRA, and open up the public hearings on the site plan, special use permit and subdivision applications at the meeting on October 11th.

We would like to discuss this with the Planning Board at its next meeting. Please let me know if there is anything additional that you need.

Thank you.

Regards,

Edward A. Kellogg
Partner
Mirbeau of Beacon, LLC


Imagery with Streets
RT 9D
733
SETTLEMENT CAMP DRIVEWAY
CROSSWALK
HUDSON RIVER SLOOP DRIVEWAY
RT 9D

Preliminary Water and Sewer Engineer's Report: for Mirbeau Inn & Spa Beacon

Prepared for:
Mirbeau Beacon, LLC
433 Broadway, Suite 203
Saratoga Springs, NY 12866

May 25, 2022, revised July 26, 2022 & September 27, 2022

Prepared by:
Hudson Land Design Professional Engineering, P.C.
174 Main Street
Beacon, NY 12508 (Main Office and Mailing Address)
13 Chambers Street
Newburgh, NY 12550 (Satellite Office)

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APPENDICES

Appendix A: Sewer Pump Station Calculations

Appendix B: Water Component Information

1.0 PROJECT LOCATION

The Mirbeau Inn & Spa project sits on approximately 64.35 acres of land situated on the northwest corner of the intersection of Grandview Avenue and Wolcott Avenue (NYS Route 9D) in the City of Beacon, Dutchess County, New York. The property is identified as parcel number 6054-13-001258 on the City of Beacon Tax Maps, and is the former Howland Estate in Beacon.

2.0 PROJECT DESCRIPTION

The project consists of the renovation and adaptive re-use of several existing buildings located on the property, and the construction of new buildings to accommodate a proposed Inn & Spa. New water and sewer infrastructure will be constructed in addition to landscaping and other general improvements. The proposed improvements to new and existing buildings are as follows:

1. Mansion

The Mansion will be thoughtfully restored while brought to 21st century building standards. The initial project scope includes demolition of the two 1970s era buildings attached to the historic Mansion – a prior cafeteria and mechanical spaces at the north-west and the former two-level multi-room Craig House sanitarium facility with an enclosed walkway to the south. At the lower and ground-levels, the Mirbeau Inn & Spa Howland Mansion program incorporates hotel guest services, food & beverage venues and required back-of-house, and corporate offices and a meeting room. Guest suites will be on levels two and three.

The Mansion Addition will reconstruct the former at-grade rear porch while it connects to the historic Mansion and adjacent new Spa Château building at both ground and lower, garden levels. The program includes the new grade-level enclosed porch, glass conservatory restaurant and kitchen and a function room. At the lower level, the Mansion Addition consists of seven “Grotto” guest suites, a private wine tasting room, food & beverage support, storage, vertical circulation and mechanical spaces. Buried at the garden-level, the “Grotto” suites are integrated within the landscape with fully vegetated roofs with direct Monet Pond Garden access.

For water and sewer use purposes, the Mansion will consist of 7 grotto guest rooms, 5 upper floor guest rooms, a 125 seat restaurant with a 20 seat within a bar area and a 50-person multifunction room.

2. New Château Hotel & Spa Building

The Spa Château building has a full-service garden-level health spa with women’s and men’s lockers, changing rooms and showers; massage and facial treatment rooms; nail

salon; state-of-the art fitness center with private and group fitness programs; interior and exterior terrace resting areas; staff support, storage, and mechanical space.

For water and sewer use purposes, there are three levels of guest rooms located above the spa for a total of 63 rooms. The Spa will have 20 treatment areas.

3. Cottages

Five (5) new cottages for guest accommodations will be constructed south of the renovated Mansion building, along the west side of Mirbeau Lane. Each cottage will consist of a 2-bedrooms with a kitchenette.

4. Employees

The Mirbeau Inn & Spa is expected to have up to 70 employees on the premises at any one time per shift; however, during times of shift overlap, there could be as many as 80 employees on the premises. The water and sewer usage is based upon 70 employees on the premises per day.

5. Maintenance Garage & Offices

A new building will be constructed for maintenance and office space associated with the Mirbeau Inn & Spa. The building will be located west of the north parking area. Design flows associated with the employees within this building are included within the employee flow calculations. The building sits lower than the proposed on-site sewer system. Therefore, a sewage pump station will be required to pump sewage from the building to the on-site sewage conveyance system.

Future Phases

1. Resort Rental Lodging

Nineteen (19) resort rental lodging buildings are proposed for a future phase of the project along a subdivided area on the southern boundary of the existing lot. The bedroom distribution will be 2-3 bedroom units. This future phase is in the early planning stages, and therefore, not included within the water and sewer calculations of this report.

2. Future Resort Farm

The future resort farm will consist of a vegetable garden for hotel and spa use, as well as other growing areas for sunflowers and other flora. There will be a barn for storage of equipment as well as a greenhouse. There will be one bathroom proposed within the barn. The bathroom will only be used by Mirbeau employees; therefore, there is no additional flow associated with farm.

3. Tioranda School Renovation and Recreation Facilities Area

The former Tioranda school building located at the southwest corner of the site will be renovated in the future. The outside grounds will be improved to provide walking paths, and outdoor recreation. . This future phase is in the early planning stages, and therefore, not included within the water and sewer calculations of this report.

4. North and South Gate Houses

The north and south Gate houses will be renovated in the future. This future phase is in the early planning stages, and therefore, not included within the water and sewer calculations of this report.

2.1 Design Standards

Water for the project will be obtained by making a connection to the existing City of Beacon water supply system. Wastewater generated by the project will be disposed of by means of a new sewer main that will convey wastewater flows to the existing City of Beacon sewer collection system.

This report summarizes all data and information necessary for the design of the water and sewer infrastructure that will serve the project.

The project has been designed in accordance with the following:

- New York State Department of Health (NYSDOH) Standards for Individual Water Supply and Individual Sewage Treatment Systems Appendix 75-A
- Dutchess County Department of Health (DCDOH) Water and Wastewater Systems Design and Construction Standards
- New York State Department of Environmental Conservation (NYSDEC) "Design Standards for Wastewater Treatment Works" for Intermediate Sized Sewage Facilities.
- Recommended Standards For Wastewater Facilities (Ten States Standards)

3.0 ESTIMATED WATER & WASTEWATER QUANTITIES

Water and wastewater generation rates are taken from the NYSDEC "Design Standards for Intermediate Sized Wastewater Treatment Systems, 2014 Edition"

Flow Component	# of Units	Flow Rate per Unit - gallons per day (gpd)	Total Component Flow (gpd)	Total Reduced Component Flow (gpd)
Hotel Rooms	80	110	8,800[1]	8,800[1]
Cottages	5 (2-bedroom units)	220	1,100[1]	1,100[1]
Spa Stations	20	190[2]	3,800	3,800
Meeting Hall Seats	50	10	500	400
Restaurant Seats	125	35	4,375	3,500
Bar Seats	20	20	400	320
Employees[3]	80	15	1,200	990

Total Flow with 20% Reduction for Water Saving Fixtures: 18,910 gpd[4]

[1] The 20% reduction is already figured into the flowrate. No further reduction can be taken.

[2] Flowrate is based upon usage at existing Mirbeau Spa locations. There is no NYSDEC comparable value.

[3] Flow calculations are based upon up to 80 employee shifts per day during peak times; however the average day count is based upon 70 8-hour employee shifts per day.

[4] 20% reduction taken for Meeting Hall, Restaurant, Bar and employees only.

3.1 Existing City Sewer Infrastructure

The City's Water and Sewer Superintendent has stated that the existing water and sewer systems have sufficient capacity for the proposed project per a letter dated November 17, 2021. The sewage treatment plant has capacity for up to 6 million gallons/day (MGD) and is currently operating at 3.2 MGD to 3.5 MGD. In the past, there have been reported sewer surcharges during unique storm events on the South Sewer Interceptor (SSI) located at the Fishkill Creek near the intersection of South Avenue and Tioronda Avenue. Specifically, this would occur during significant springtime storm events when the ground is saturated. Occasionally in the

past, during these storm events, the sewage flow overtops the manhole cover and discharges untreated sewage/water into the Fishkill Creek. This is likely due to infiltration and inflow (I&I) problems upstream. This sewer trunk line receives flow from much of Beacon and a large portion of the Town of Fishkill.

Much of the City of Beacon's sewer infrastructure is old and has many old sewer service connections from buildings and residential homes. In addition, there are likely illegal stormwater and sump pump discharges to the city sewer from both commercial and residential properties. As such, during these storm events, and the ground being saturated, the City's sewer system is overburdened with these additional flows. The City has been working for some time smoke testing the sewer lines in order to identify where illicit connections are. Whenever an illicit connection has been found involving City-owned stormwater/roof leader/sump pump connections to the sewer system, they have been eliminated. The City has also been mandating that these types of connections be eliminated from any existing developed property seeking a building permit. The City continues to work toward eliminating all illicit connections, and infiltration problems with their existing infrastructure. Before the improvements began, the City sewer plant would receive upwards of 12 MGD during storm events. Currently, the City's efforts in correcting the problem have reduced the flow during storm events to between 6 and 8 MGD. The City has been working extensively to eliminate I&I problems within it's sewer system through Capital Improvement Projects, and has recently reconstructed the dividing weir at the plant where the North Interceptor and the South Interceptor sewers meet at the plant.

3.2 Inflow and Infiltration on the Site

The existing Mansion, two Gate Houses and Tioranda School buildings are to remain. The hospital wing will be demolished for the proposed Château Hotel. Upon interior and exterior inspection of the existing buildings on the site, it was verified that the Mansion, two Gate Houses and Tioranda School building roof leaders were not tied into the onsite sanitary sewer system. Most of the roof gutters are no longer there, and what roof leaders were left discharge to daylight. The Mansion has a number of roof leaders that are piped underground to the existing onsite drainage system. All roof leaders from the renovated Mansion will be directed to the proposed onsite drainage system.

A sump was discovered within the basement of the Mansion. Its discharge point was not able to be verified. Therefore, it is assumed that it is tied into the building's sanitary plumbing system. A note has been added to the site plans requiring the existing sump pump to be disconnected from the building's sanitary plumbing system. Any new sump pumps to be installed shall be discharged to daylight outside the building if possible or connected to the onsite drainage system.

No sump pumps were discovered within the hospital wing, or Gate Houses. The Tioranda School basement was wet at the time of inspection. No sump pumps were discovered; however, there is an 8" SDR 35 pipe coming from the building and discharges at a drainage ditch to the west of the building. Flowing water was observed discharging from the pipe. Although a floor drain was not discovered during the inspection as there was a large amount of debris that covered the floor, it is assumed that the discharge pipe is connected to a floor drain or footing drain within the building.

It appears that high groundwater is prominent in this area given its close proximity to the onsite ponds and wetlands.

The existing Hospital Wing has a flat roof with 4 roof drains located on the roof. It could not be verified where the plumbing for the roof drains is directed to. No pipes were observed from the building to daylight or to the existing drainage system located on the site. Therefore, it assumed that the roof leaders are tied into the site's existing sanitary sewer system.[1] The one-year frequency storm event has been used to quantify the average inflow to the City sewer system from the site in its existing condition. The one-year storm for this area is approximately 2.61 inches. The roof area that drains to the sewer system is 16,096 sqft. The table below shows the quantity of additional stormwater flow to the City's sewer system during the one-year, 24 hour storm event.

Building	Roof Area (sqft)	Rainfall - 1 yr (ft)	Flow Rate per Unit - gallons per day (gpd)
Hospital Wing	16,096	0.22	26,488
Total			**26,488**

The site in its current condition contributes more flow to the City's sewer infrastructure during rain storms than during the projected daily sewer flows at proposed total build-out. The problem on existing south interceptor line typically occurs during heavy rainstorms in the spring, when the ground is saturated from snowmelt. A ten-year storm likely represents the additional flows to the system during this event. The table below shows the quantity of additional stormwater flow to the City's sewer system during the ten-year, 24 hour storm event.

Building	Roof Area (sqft)	Rainfall - 10 yr (ft)	Flow Rate per Unit - gallons per day (gpd)
Hospital Wing	16,096	0.39	46,955
Total			**46,955**

[1] There are underground storm lines that run along the east and west side of the hospital wing, flowing toward the south. The roof drains could tie into these storm lines; however, for the purpose of this study, it is assumed that the roof leaders tie into the sanitary sewer system.

During the unique spring event, the flows to the south sewer interceptor line could be reduced by 46,955 gpd at full build out.

The four existing buildings on the Mirbeau project that are proposed to remain were built in the 1800's and have old water and sewer service connections. The sewer service connections likely experience infiltration problems during times when the ground is saturated. As part of this project, all of the existing water and sewer service lines will be removed and replaced. Specifically, all existing sewer lines will be removed and capped at the ROW or removed completely and sealed at the receiving manhole. The sewer line from the Hospital Wing exists the hospital wing at its northwest end and travels toward the west behind the Mansion where it enters a manhole adjacent to a large shrub. That manhole connects to another sewer manhole adjacent to an existing hydrant located at the southwest corner of the Mansion. From there, it connects to the Mansion sanitary sewer system.

All existing roof leaders that are connected to the sewer system will be disconnected from the sewer system and re-directed to the stormwater management system. In doing so, all on-site I&I problems that currently contribute to the City-wide I&I problem will be eliminated. There is also a long sewer service line with several manholes located just west of the Mansion that ties directly into to the City's South Interceptor sewer main that runs through the west end of the property from north to south. This line will be abandoned and disconnected from the sewer manhole that it connects to and sealed at the manhole. It should be noted however, that the sewer disconnections from the two gate houses and Tioranda School will be disconnected in future phases.

4.0 WATER SUPPLY

As shown above, the project is expected to require 18,910 gallons of water per day. The anticipated increase in daily water demand is readily available per the November 17, 2021 letter from the City's Water and Sewer Superintendent. According to the 2021 City of Beacon Annual Water Quality Report, the entire water district currently consumes an average of 2.28 million gallons per day (MGD). The total capacity of the water supply system is approximately 4 MGD. Therefore, after full build-out, the City's water supply will still have an excess of 1.7 MGD capacity.

Approximately 2,600 lf of 8" diameter class 52 ductile iron private water main will be installed to serve the project. There is an existing 12" ductile iron (DI) water main located within 9D and another 12" DI water main located within Grandview Avenue. Both water mains will be connected with internal private watermain system forming a lopped connection. Meter pits will be required at each connection point as the internal system will remain private. Backflow prevention devices shall be installed in the meter pits to prevent water from the private system to re-enter the public water system.

Water supply to each building will be provided by the internal water main with the exception of the north & south gate houses and the Tioranda School. Individual connections to these buildings

will be via new connections to existing City water mains. Individual meters and backflow prevention will be provided at all buildings.

The new water main shall have gate valves and hydrants as shown on the plan set. Seven (7) gate valves and seven (7) hydrants are proposed. The new water main shall be disinfected, and pressure tested in accordance with the requirements on the subdivision plan set.

There are several individual water service lines proposed from the proposed water main to serve each building. The mansion and the Chateau hotel wing will receive 6" class 52 ductile iron service lines to provide adequate water for sprinkler systems. The 5 cottages will receive 2" minimum water service lines as the buildings will require sprinklers. The Maintenance Garage will be provided with a 1" K-Copper service line. The water service lines for fire suppression will split within the buildings for domestic service. A minimum pressure of 20 pounds per square inch shall be maintained at the furthest point in the distribution.

4.1 Meter Pits

The proposed water mains will remain private. The City of Beacon requires meter pits for private water mains to meter the water main use in addition to metering each building. The water main will be looped to the City water mains with a connection on South Avenue and a second connection at Route 9D. Therefore, a meter pit with fire flow meter with a double check valve will be required at each connection point. It is proposed to provide an 8" Sensus Compact Fireline F2 meter, with low-flow bypass meter for low flows, and an 8" Waats Series 709 Double Check Valve within a concrete vault at each connection point. Both meter pits will be provided with 2 Aluminum Bilco door hatches each for access to the meter and RPZ. Both meter pits are also provided with a 4" SDR 35 PVC drain by gravity to daylight.

5.0 SEWAGE CONVEYANCE

The project is expected to generate 18,760 gallons of wastewater per day. Per the November 17, 2021 City of Beacon Sewer Superintendent, the City's existing sewer infrastructure and sewer treatment plant have sufficient capacity to handle the anticipated increase in daily sewage load. An extension of the City's sewer main is proposed to collect the sewage generated by the project and convey it to the City's sewer collection system.

The City sewer main will be extended up Grandview Avenue to a proposed manhole in front of the south Gate House. From there, the sewer will remain private into the site. Approximately 420 lf of 8" SDR 35 PVC sewer main will be extended from a City manhole located near the Tioranda School up to the proposed manhole at the south Gate House. The private 8" sewer main will be continued into the property to convey the on-site sewage to the City's municipal main. Approximately 2,600 LF of 8" SDR 35 private sewer main will be constructed on site.

Most of the site's sewer service connections are old and experience infiltration and inflow (I&I) problems. Several of the existing building's roof drains are tied into the sewer service connections. During rain storms, the flow into the City's sewer mains increases dramatically,

which is a common problem in cities with old buildings. The increase in flow adds unnecessary strain to the existing sewer mains and sewer plant. Therefore, new sewer service connections will be provided at all of the buildings and all existing service connections on site will be disconnected from the City's mains and capped in place or removed. In addition, all roof drains will be disconnected from the building sewer and re-directed to a storm water management system. This will eliminate (I&I) problems that currently occur on site; thus reducing I&I flow surges to the City's municipal system during rain storms.

Both the Mansion and Chateau hotel will be provided with a new 6" SDR 35 PVC sewer service connection to the private on-site sewer main. All other buildings will be provided with 4" SDR 35 PVC service lines. Minimum pitch on the 4" individual sewer laterals shall be ¼" per foot. Raw line inverts that will provide for acceptable pitch from the proposed buildings to the sewer collection system have been provided on the plans. The minimum slope on the 6" sewer lines shall be 1.0%.

Eighteen (18) sanitary manholes are proposed at changes of direction and pipe slope. Three (3) of the manholes will be part of the City sewer extension and the remaining fifteen will remain private. The minimum slope on 8-inch sewer main shall be 0.40%. Sewer mains shall be laid in straight alignment. The sewer main shall be tested for alignment and exfiltration and the sanitary manholes shall be hydrostatically tested in accordance with the requirements on the subdivision plan set.

5.1 Grease Trap

Based upon the proposed restaurant with the Mansion which will serve food, a grease trap is recommended. An external buried grease trap will be installed just outside the service entrance to the Mansion at its northwestern corner. A 2,000-gallon heavy-duty grease trap is provided on the plans. A 4" max. size kitchen line (65 GPM) flowing half full will be provided to the grease trap in accordance with Table D-1 of the NYSDEC Design Manual.

5.2 Forcemain

A 2" flexible HDPE DR-11 (128 psi rating) forcemain will be used to transmit the sewer effluent from the pump chamber to the on-site sewer main. Flexible HDPE is chosen because it can be flexed with 25' radius sweeps instead of using fittings where the forcemain alignment changes directions. The 2" HPDE flex pipe is available in 500' lengths thereby reducing the need for couplings. There will be a weep hole provided within pump chamber, however the forcemain will be placed at a minimum of 4 ½ feet below grade. SDR 21 PVC force main may be used as a substitute for HDPE. The project will require 259 feet of 2" DR-11 HDPE from the pump station to Sewer Manhole 14.

5.3 Pump Chamber for Maintenance Garage

The Maintenance Garage will require a pump to convey its sewer to the on-site sewer main. The sewer pump station will be located just outside the south end of the garage within a 750-gallon heavy-duty septic tank.

A minimum of two days design flow storage will be provided above the high water alarm in case of power failure. Three (3) float switches are to be installed: low-level pump off alarm, high-level pump on alarm, and high-level alarm/lag pump on. The alarms shall be located on the pump station in a clearly visible and audible location.

The sewage pump station has been sized for a maximum of 10 employees per day with a daily flow of 120 GPD to the pump chamber. The proposed pump will be a submersible sewage pump as it will be pumping raw sewage.

A Goulds Model 2WD 3/4 HP Submersible Sewage Pump is proposed to be used for the pumping of sewage generated from the Maintenance Garage bathroom to Sewer Manhole 14. For the pump station, an ESP 750-gallon precast pump chamber is proposed to be used as the pump tank. The pumping equipment has been sized for a discharge rate to exceed the minimum rate of 19.57 GPM to maintain self-cleansing velocities within a 2" pipe. The following table represents the pumping rate and total dynamic head (TDH) for the system:

Receiving Manhole	Pump Rate	TDH	Velocity
SMH 14	24.8 GPM	26.18 feet	2.53 fps*

*fps = feet per second.

The pump will be single phase 230 volt with an electrical disconnect box located at the control panel. The control panel shall be located within the Maintenance Garage. All electrical equipment will be designed and installed to comply with the National Electric Code for Class I, Group C or D, Division I locations.

More than two days of design flow storage is provided above the high-water alarm in case of pump failure. Three (3) float switches are to be installed: low-level pump off alarm, high-level pump on alarm, and high-level alarm. The alarms shall be located on the home in a clearly visible and audible location. Refer to Appendix A for dosing calculations.

APPENDIX A

Sewer Pump Station Calculations

Hudson Land Design
174 Main Street
Beacon, NY 12508

PUMP CALCULATIONS FOR PUMP CHAMBER AT MAINTENANCE BUILDING

I. Design Criteria

A. Minimum velocity of 2 feet per second in forcemain (pg. 40-4 of 10 State Standards For Wastewater Treatment).
B. Shutoff and check valve shall be placed in discharge line of each pump. Check valve shall be located between shutoff valve and pump (pg. 40-5 of Ten States Standards For Wastewater Treatment).
C. For smooth pipe materials such as PVC and polythethylene, a "C" value not to exceed 120 may be allowed for design (pg. 40-15 of Ten States Standards For Wastewater Treatment).
D. The volume of effluent in each dose should be 75 % - to 85% of the volume available in the pipe network per Appendix 75-A.7(b)(1)(ii).
E Minimum pipe size used in pressure distribution 1.5", maximum 3.0" per Appendix 75-A.7(b)(5).
F. Minimum 1 day storage between high level alarm and inlet invert per Appendix 75-A.7(b)(8).

II. Knowns

A. Proposed forcemain. 2.0 inch PVC
B. Pump discharges to proposed sewer manhole with invert elevation of 166.00 ft
C. Lowest Pump Off Elevation Dosing Chamber = 145.80 ft

III. Design Flows

A. Flow (Total) = 120 gpd 10 employees per day @ 12 gpd/employee

B. Size Discharge Line For a Minimum Velocity of 2 fps based upon 2014 Recommended Standards for Wastewater Facilities

Q = VA

- Q = Discharge (cfs)
- V = Velocity (fps)
- A = Area (sf)

PVC Forcemain size: 2 inch

- Area = 3.14 x 1.5 in. x 1.5 in x 0.25 / (144 in^2 / sf) = 0.02181 sf

Q = VA

- Q = 2 fps x A sf = 0.0436 cfs

Q cfs x 7.48 gal/cf x 60 sec/min = 19.57 gpm (min flow rate)

IV. Pump Calculations

A. Determine Head Requirements

1. Proposed Primary Absorption Field
Proposed length of forcemain pipe = 259 ft.

Proposed length of forcemain
in dosing chamber = 5 ft.

Fittings =	45's	0	L_e (Equivalent Length) =	2.6	ft/fitting =	0	ft
	90's	4	L_e (Equivalent Length) =	5.7	ft/fitting =	22.8	ft

- Equivalent Lengths from Figure 37, pg. 225 of the Handbook for PVC Pipe.
- 90's in lift station and prior to distribution boxes.
- 45's along line.

Valves =	Check -	1	L_e (Equivalent Length) =	13	ft/valve =	13	ft
	Gate -	1	L_e (Equivalent Length) =	1.5	ft/valve =	1.5	ft

- Equivalent Lengths from Figure 37, pg. 225 of the Handbook for PVC Pipe.
- Gate Valve will be open.

Total Length = 301.3 ft

Velocity Head = $V^2 / 2g$

Proposed Static Head = (Invert to distribution box) - (Pump off elevation) = 20.20 ft

Pump Performance Curve

Flow Rate (gpm)	Velocity (fps)	Total Static Head (ft)	Velocity Head (ft)	Friction Loss / 100' C = 120	Friction Loss (ft)	TDH (ft)
0	0.00	20.20	0.00	0	0.00	20.20
4	0.41	20.20	0.00	0.07	0.20	20.41
6	0.61	20.20	0.01	0.14	0.42	20.63
10	1.02	20.20	0.02	0.36	1.09	21.31
20	2.04	20.20	0.06	1.31	3.95	24.21
25	2.55	20.20	0.10	1.98	5.96	26.27
30	3.07	20.20	0.15	2.77	8.36	28.71
40	4.09	20.20	0.26	4.73	14.24	34.70
50	5.11	20.20	0.41	7.15	21.53	42.14

Notes:
1) Friction Loss / 100' for C120 from attached chart.
2) Friction Loss = Length of Pipe x Friction Loss (C = 120) / 100'.
3) TDH = Total Static Head + Velocity Head + Friction Loss.

VI. Pump Selection

- 1.5 " Goulds Model PE31 1/3 HP Submersible Effluent Pump
- Flowrate = 24 gpm

Flow Rate (gpm)	Velocity (fps)	Total Static Head (ft)	Velocity Head (ft)	Friction Loss / 100' C = 120	Friction Loss (ft)	TDH (ft)
24.8	2.53	20.20	0.10	1.95	5.88	26.18

VII. Dosing Calculations

1. Primary Absorption Area

Total sewage flow	120	gallons per day	
Dosing Chamber (using 750 gallon septic tank):			
Interior Width:	4.33	feet	
Interior Length:	8.00	feet	
Volume Per Ft Depth:	259.1	gallons	
Dose:			
Dose Depth:	4.00	inches	
Dose Volume:	86.4	gallons	

VIII. Determine Pump Cycle

Pump Running Time :			
Dose Volume:	86.4	gallons	
Pump Rate:	24.8	gallons per minute	
Running Time:	3.5	minutes	
Pump Cycles per day:	1.4		

IX. Determine Alarm Elevations

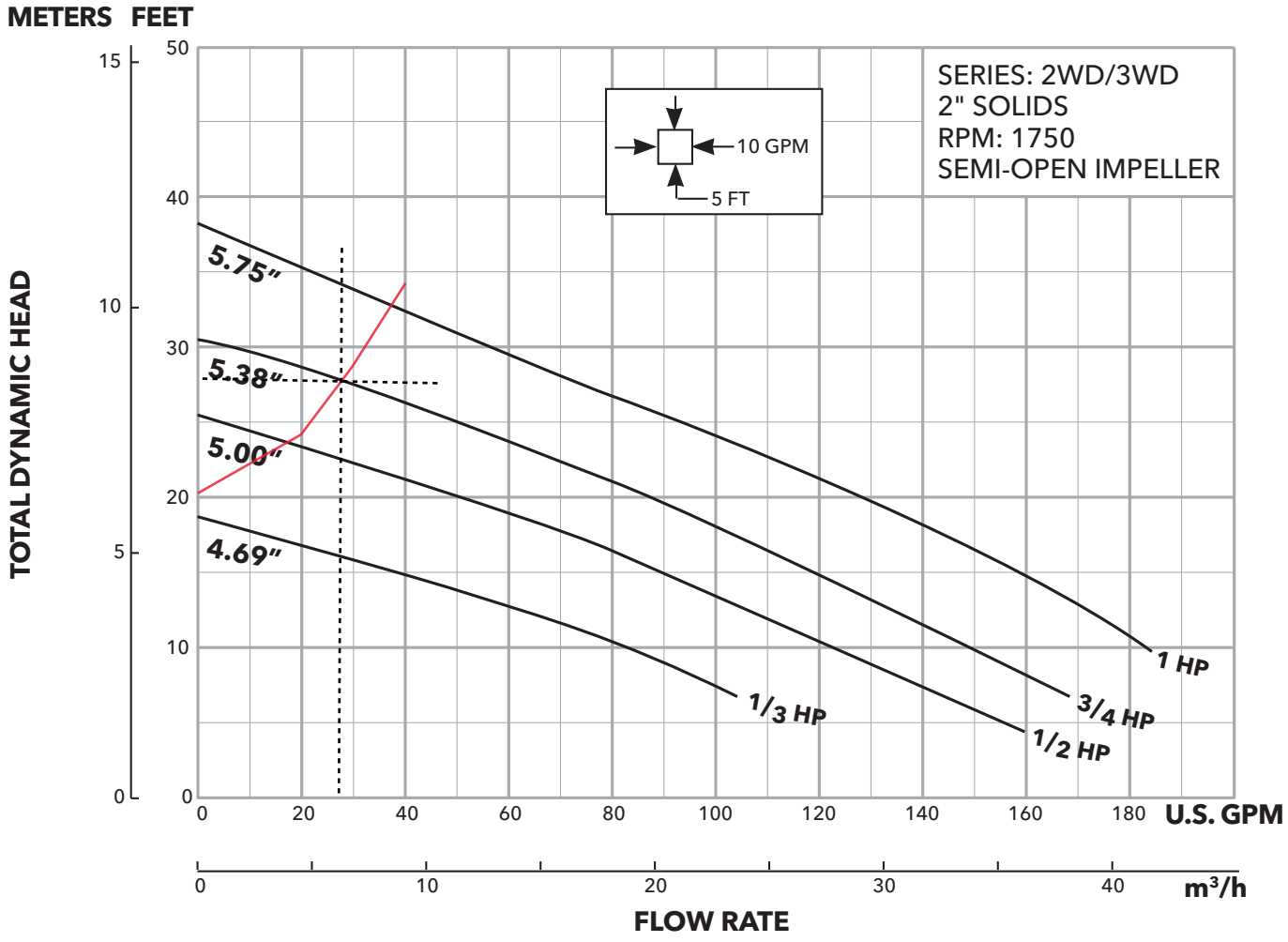
Invert In:	148.80	ft	
Depth to Bottom Tank from Invert:	3.67	ft*	*ESP 750 Gallon Precast
Bottom of Tank:	145.13	ft	Pump Chamber
Low Level Pump Off:	145.80	ft**	**manufacturer recommended
Pump On Elev.:	146.13	ft	effluent level above floor: 8 inches
High Level Alarm:	146.63	ft***	***6" to high level alarm
Storage over high level alarm:	562.34	gallons	
Storage over high level alarm:	4.69	days	Sufficient

2WD/3WD

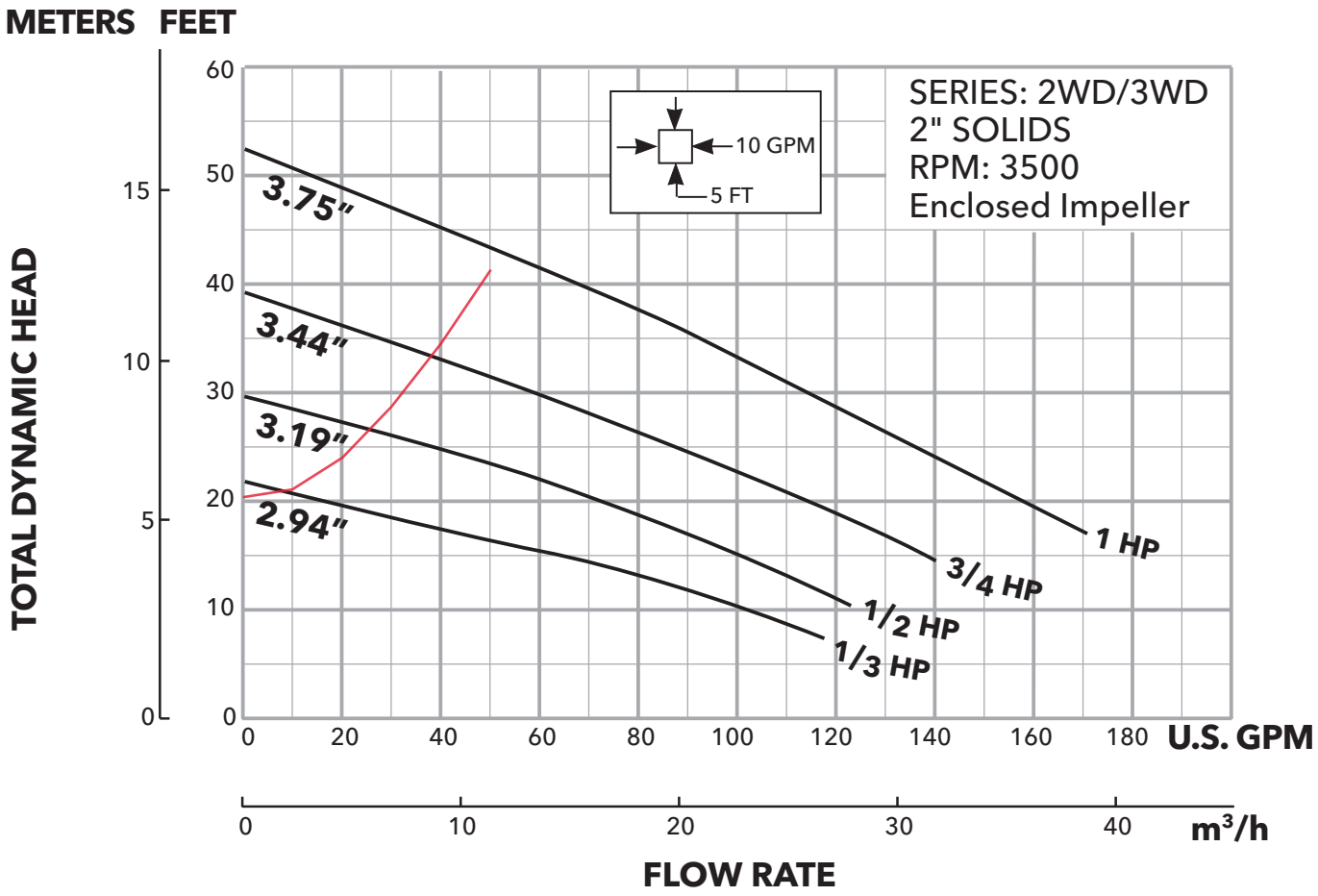
Submersible 2" Non-Clog Sewage Pump

BUILT IN THE USA
ENGINEERED, ASSEMBLED & TESTED

Impeller Diameter	Impeller Code	Motor HP Rating
5.75"	B	1
5.38"	C	¾
5.00"	D	½
4.69"	E	1/3



Impeller Diameter	Impeller Code	Motor HP Rating
3.75"	A	1
3.44"	H	¾
3.19"	J	½
2.94"	K	1/3



Xylem Inc.
2881 East Bayard Street Ext., Suite A, Seneca Falls, NY 13148
Phone: (866) 325-4210 Fax: (888) 322-5877
www.gouldswatertechnology.com

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APPENDIX B

Water System Information

CITY OF BEACON
New York

WATER DEPARTMENT 845-831-3136

To: Mr. Edward Kellogg
Mirbeau Inn & Spa

November 17, 2021

Re: Water Consumption and Sanitary Sewer Estimates Rates
Mirbeau Inn and Spa Proposal (dated 11/11/2021)
City of Beacon, New York

Dear Ed Kellogg,

I have reviewed the above referenced letter and calculations for possible water and sanitary sewer demands for the proposed project. Based on the estimated demand of 16,380 gallons per day of both water and sewer the City of Beacon can provide water and sanitary sewer for the proposed project. Please note that a more detailed sanitary sewer analysis may required by the Dutchess County Department of Health and the City of Beacon Planning Board.

Respectfully,

Edward Balicki
City of Beacon
Superintendent of Water and Sewer
845-831-3136
ebalicki@beaconny.gov

Sensus Fire Service Assemblies

FireLine® Fire Service Assemblies

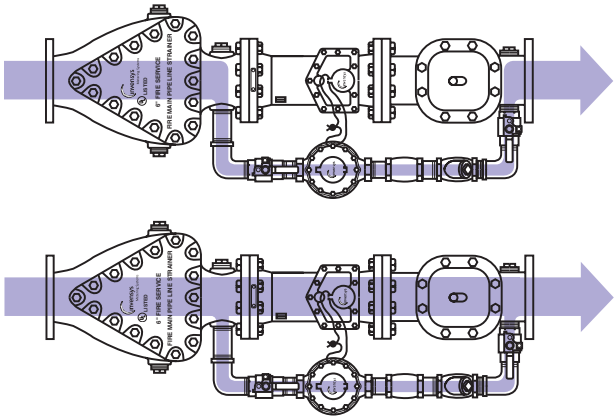


"Standard Design"

FireLine® Fire Service Assemblies help you save time and installation costs by eliminating the need for a secondary service line in industrial, multi-residential and commercial applications.

Each assembly combines a UL Listed, FM approved strainer and detector check valve along with an in-line Turbo-Meter for measuring high volume water flows. The metered bypass includes a check valve and a SR® or "W" Series Turbo-Meter to record lower flows. Each FireLine® Assembly is shipped completely assembled, ready to install.

All meters used in these assemblies utilize hermetically sealed, direct reading or ECR registers which are available in either cubic feet or gallon readouts.



Dual Range Accuracy From A Single Line

These FireLine® Meter Assemblies feature a dual range water flow path. During normal flow range usage, the flow travels through only the smaller bypass line and is accurately measured by an SR® or Turbo-Meter.

For sudden high capacity flow requirements — such as when a building's automatic fire sprinkler or deluge system is activated, the assembly's detector check valve senses the demand and automatically opens the flow path to the large line. At high flow, both meters will be measuring and supplying water. No outside electronic switching devices are needed.

METER AND BYPASS SIZE	PRODUCT NUMBERS REGISTRATION	
	5,000 GALLONS	10,000 GALLONS
4" × 1½"	50415	50416 1
6" × 2"	50474	50473 1
8" × 2"	50488	NS
10" × 2"	50507	NS

NOTES:

- FireLine® Fire Service Meter Assemblies are non-stock items. Contact your local Team EJP sales office for price and availability.
- Fire Service and FireLine® Meters are available with ECR registers.
- UL Listed strainers can be supplied with standard or epoxy coatings.
- Compact FireLine® Fire Service Meter Assemblies are designed to be an exact replacement fit for inefficient or worn fire service meters having a short laying length.

FIRELINE®

PLEASE SEE PAGES H-13—H-16 FOR INFORMATION ABOUT A NEW LARGE METER LINE THAT WILL REPLACE THE CURRENT LARGE METERS.

Engineering Specification

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

Series 709DCDA

Double Check Detector Assemblies

Sizes: 3" – 10"

Series 709DCDA Double Check Detector Assemblies are designed exclusively for use in accordance with water authority containment requirements. It is mandatory to prevent the reverse flow of fire protection system substances, i.e. glycerin wetting agents, stagnant water and water of non-potable quality from being pumped or siphoned into the potable water line.

Benefits: Detects leaks . . . with emphasis on the cost of unaccountable water; incorporates a meter which allows the water utility to:

- Detect leaks underground that historically create great annual cost due to waste.
- Provide a detection point for unauthorized use. It can help locate illegal taps.

Modular check design concept facilitates maintenance and assembly access. The coating on this backflow assembly uses ArmorTek™ technology to resist corrosion due to microbial induced corrosion (MIC) or exposed metal substrate. All sizes are standardly equipped with resilient seated OSY shutoff valves, ⅝" x ¾" meter and ball type test cocks.

Features

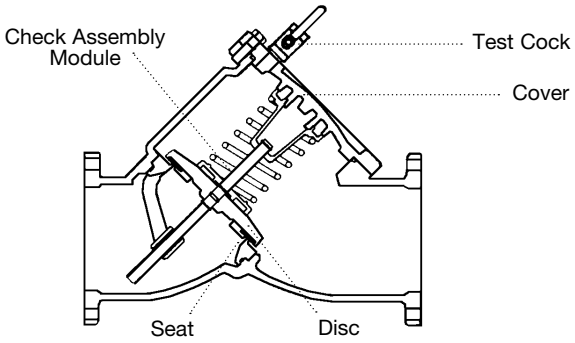
- Body construction fused epoxy coated cast iron
- Replaceable bronze seats
- Maximum flow at low pressure drop
- Compact for economy combined with performance
- Design simplicity for easy maintenance
- Utilizes advanced ArmorTek™ coating technology to resist corrosion of internals
- Furnished with ⅝" x ¾" bronze meter
- No special tools required for servicing

Specifications

A Double Check Detector Assembly shall be installed on fire protection systems when connected to a potable water supply. Degree of hazard present is determined by the local authority having jurisdiction. The unit shall be a complete assembly including UL listed resilient seated OSY shutoff valves and test cocks. The unit shall be UL/FM approved with UL/FM approved OSY shutoff valves. The auxiliary line shall consist of an approved backflow preventer and water meter. The assembly shall meet the basic requirements of ASSE 1048; AWWA Std. C510 for Double Check Valves. The valve body shall utilize a coating system with built in electrochemical corrosion inhibitor and microbial inhibitor. Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. Assembly shall be a Watts Series 709DCDA.



709DCDAOSY



Check Assembly Module

Features a modular design concept which facilitates complete maintenance and assembly by retaining the spring load.

First and second check valve spring modules are not interchangeable.

Now Available
WattsBox Insulated Enclosures.
For more information, send for literature ES-WB.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

NOTICE

Inquire with governing authorities for local installation requirements

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

Materials

Body:	Epoxy coated cast iron
Seat:	Bronze
Disc Holder:	Bronze
Trim:	Stainless steel
Check Valve Discs:	Rubber
Test Cocks:	Bronze

Models

Suffix:

OSY	UL/FM outside stem and yoke resilient seated gate valves
CFM	cubic feet per minute meter
GPM	gallons per minute meter
LF	4" – 10" without shutoff valves

Pressure – Temperature

Temperature Range: 33˚ F – 110˚F (0.5˚ – 43˚C) continuous, 140˚F (60˚C) intermittent

Maximum Working Pressure: 175psi (12.1bar)

Standards

AWWA Standard C510

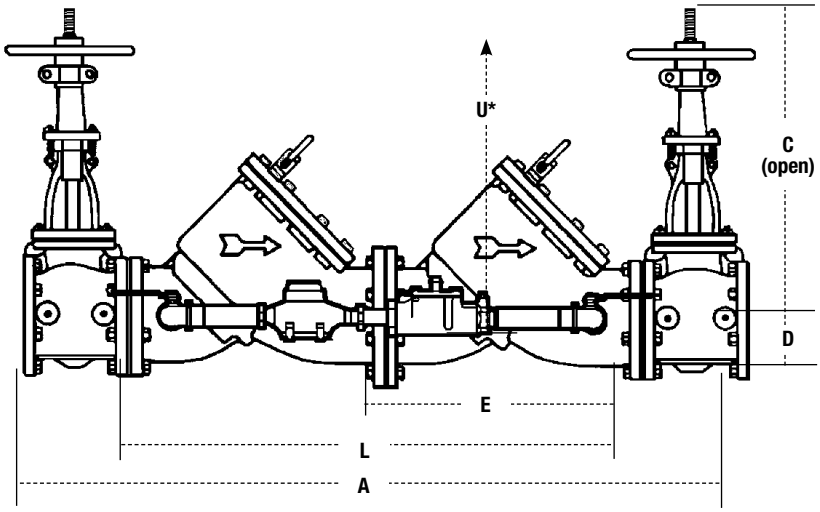
Approvals

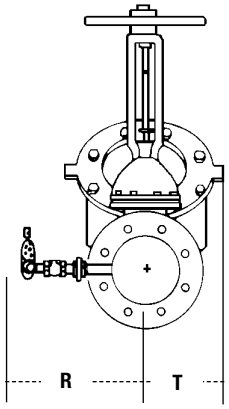
B.64 1048

Approved by the foundation for Cross-Connection Controland Hydraulic Research at the University of Southern California. Sizes 4" – 10" approved for horizontal and vertical “flow up”. Size 3" approved for horizontal only.

Factory Mutual approved 4" – 10" vertical “flow up”.

Dimensions – Weights



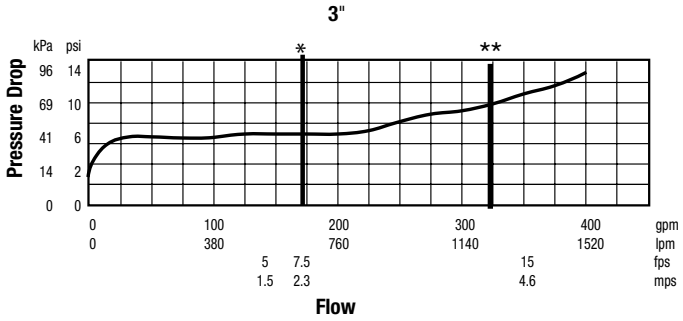


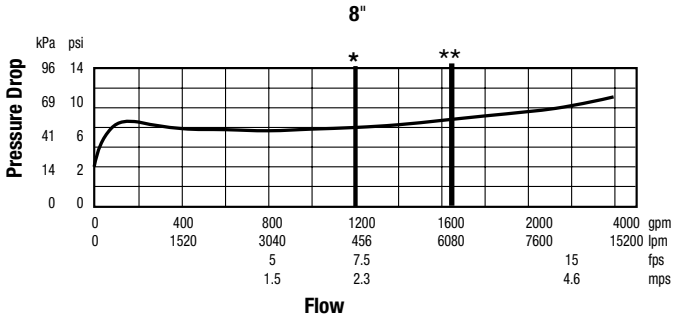
SIZE	DIMENSIONS																WEIGHT	
	A		C		D		E		L		R		T		U*		W/OSY† gates	
In.	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*in.*	*mm*	*lbs.*	*kgs.*
3	40	1016	18⅞	479	3½	89	12	305	24	610	14	356	3	76	14	356	190	86
4	52	1321	22¾	578	3¾	95	17	432	34	864	15	381	6	152	14	356	403	183
6	62½	1588	30⅛	765	4½	114	21	533	41½	1054	16	406	7½	191	16	406	727	330
8	75	1905	37¾	959	5½	140	26	660	52	1321	17	432	9	229	21	533	1327	602
10	90	2286	45¾	1162	6½	165	32	813	64	1626	18	457	10¼	260	25	635	2093	949

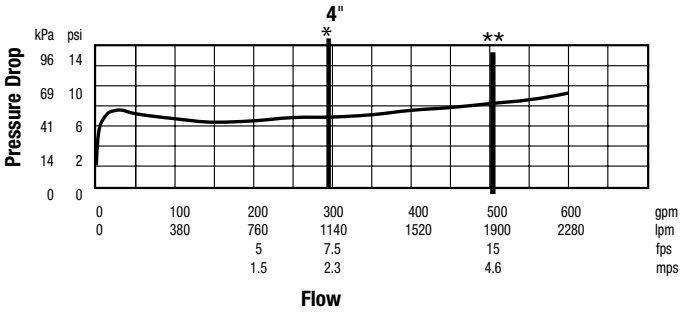
* Service clearance for check assembly from center.
†UL/FM approved backflow preventers must include UL/FM approved OSY.

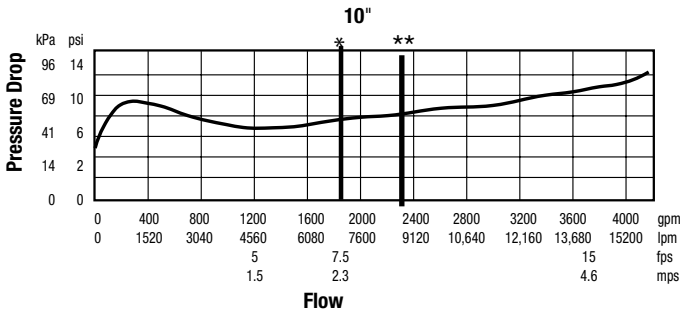
Capacity

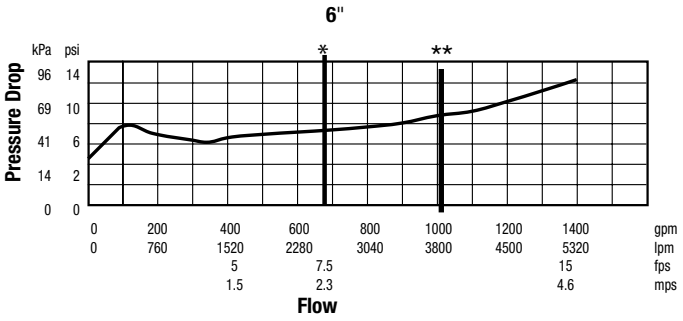
*Typical maximum system flow rate (7.5 ft./Sec.) **UL rated flow











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APPLICATION FOR SITE PLAN & SPECIAL USE PERMIT

MIRBEAU BEACON INN & SPA

7 CRAIG HOUSE LANE
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258
LOT AREA: ±64.35
R1-80 ZONING DISTRICT

OWNER & APPLICANT:
MIRBEAU BEACON, LLC;
433 BROADWAY STE 203,
SARATOGA SPRINGS, NY 12866



AREA MAP SCALE: 1" = 500'

SITE PLAN DRAWING INDEX:

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SHEET 4: SITE PLAN - NORTH: SP-2
SHEET 5: SITE PLAN - SOUTH: SP-3
SHEET 6: SITE PLAN - SOUTHWEST: SP-4
SHEET 7: GRADING & UTILITY PLAN - NORTH: GU-1
SHEET 8: GRADING & UTILITY PLAN - SOUTH: GU-2
SHEET 9: GRADING & UTILITY PLAN - SOUTHWEST GU-3
SHEET 10: EROSION & SEDIMENT CONTROL PLAN - NORTH: ESC-1
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SHEET 12: PROFILES: PR-1
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SHEET 14: PROFILES: PR-3
SHEET 15: PROFILES: PR-4
SHEET 16: DETAILS: CD-1
SHEET 17: DETAILS: CD-2
SHEET 18: DETAILS: CD-3
SHEET 19: DETAILS: CD-4
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SHEET 23: PRELIMINARY PLANTING PLAN - SOUTH: LL-3
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SHEET 27: SITE LIGHTING PLAN - NORTH: LP-2
SHEET 28: SITE LIGHTING PLAN - SOUTH: LP-3

PROJECT ENGINEER:
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN STREET
BEACON, NEW YORK 12508
PH: 845-440-6926
F: 845-440-6637

PROJECT ARCHITECT:
ARROWSTREET
10 POST OFFICE SQUARE
SUITE 700N
BOSTON, MA 02109
PH: 617-623-5555

PROJECT LANDSCAPE ARCHITECT:
THE LRC GROUP
85 CIVIC CENTER PLAZA
SUITE 204
POUGHKEEPSIE, NY 12601
PH: 845-243-2880

PROJECT WETLAND & WIDLIFE BIOLOGIST:
ECOLOGICAL SOLUTIONS, LLC
121 LEON STOCKER DRIVE
STRATTON, VT 05360
(203) 910-4716

PROJECT SURVEYOR:
BADEY & WATSON
SURVEYING & ENGINEERING D.P.C.
3063 U.S. 9
COLD SPRING, NY 10516
PH: 845-265-9217

PROJECT TRAFFIC CONSULTANT:
COLLIERS ENGINEERING & DESIGN P.C.
400 COLUMBUS AVENUE,
SUITE 108E
VALHALLA, NY 10595
PH: 914-347-7500

PROJECT ATTORNEY:
BERLANDI NUSSBAUM & REITZAS LLP.
527 ROUTE 22, SUITE #2
PAWLING, NY 12564
PH: 212-804-6329

OWNER'S CONSENT:
THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
MIRBEAU BEACON, LLC DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_____ DAY OF _____, 20_____ SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____ BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

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REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/25/22	PER PLANNING BOARD COMMENTS	CMB				
2	6/28/22	PER PLANNING BOARD COMMENTS	CMB				
3	7/26/22	PER PLANNING BOARD COMMENTS	CMB				
4	8/30/22	PER PLANNING BOARD COMMENTS	CMB				
5	9/27/22	PER PLANNING BOARD COMMENTS	CMB				

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ARCHITECTURE & DESIGN
10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

Mirbeau INN & SPA

LANDSCAPE ARCHITECTS:
LRC GROUP
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Tel: 845.243.2880
160 West Street, Suite E
Cromwell, CT 06416
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- Environmental Services
- Land Surveying
- Land Planning

HUDSON LAND DESIGN

STATE OF NEW YORK MICHAEL A. BERLANDI 084455 LICENSED PROFESSIONAL ENGINEER
SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

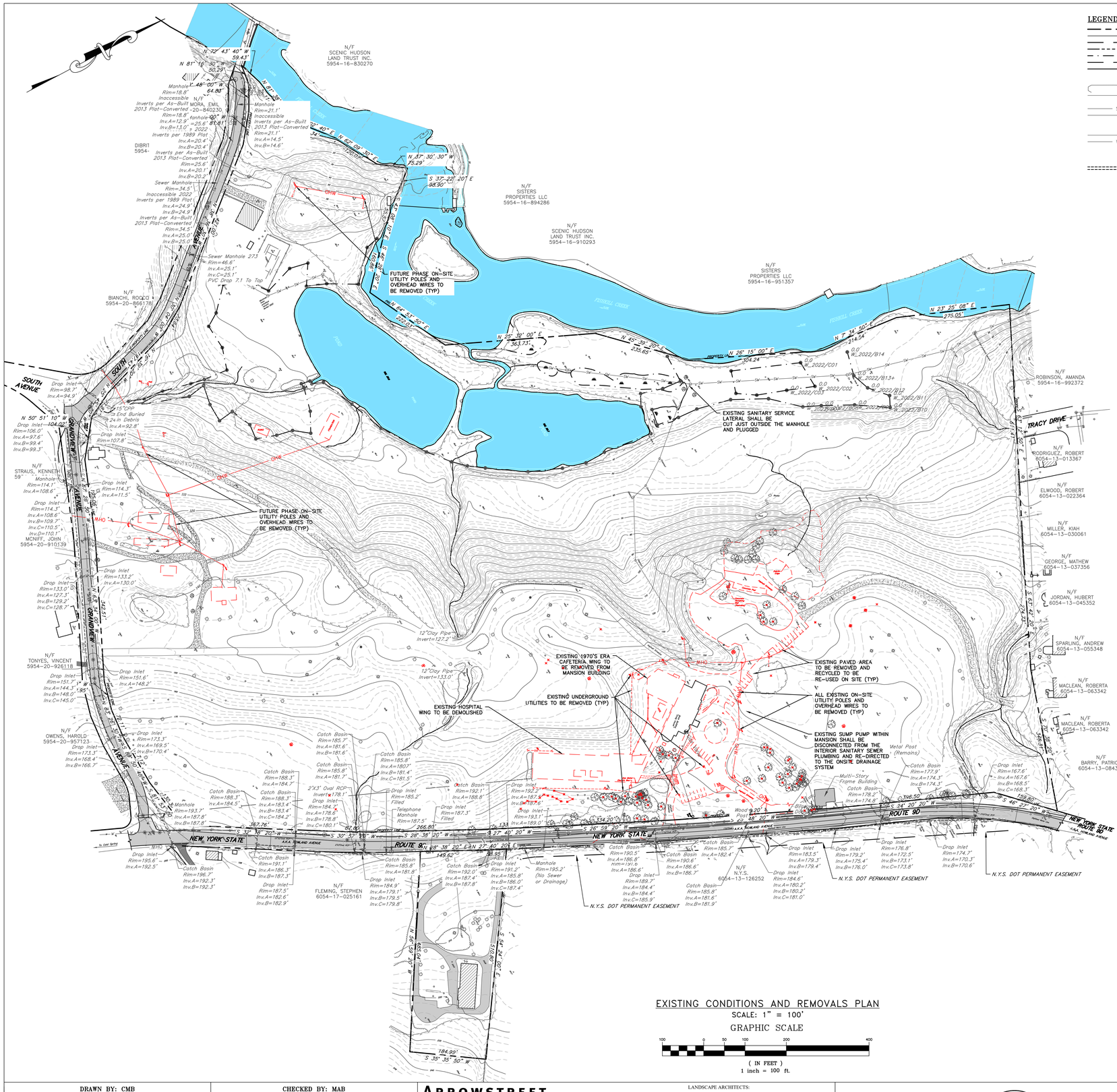
COVER SHEET

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	AS SHOWN
TITLE:	XC-1
SHEET:	1 OF 28

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW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N/F SISTERS PROPERTIES LLC 5954-16-951357
N/F BIANCHI, ROCCO 5954-20-866178
N/F ROBINSON, AMANDA 5954-16-992372
N/F RODRIGUEZ, ROBERT 6054-13-013367
N/F ELWOOD, ROBERT 6054-13-022364
N/F MILLER, KIAH 6054-13-030061
N/F GEORGE, MATHEW 6054-13-037356
N/F JORDAN, HUBERT 6054-13-045352
N/F SPARLING, ANDREW 6054-13-055348
N/F MACLEAN, ROBERTA 6054-13-063342
N/F MACLEAN, ROBERTA 6054-13-063342
N/F BARRY, PATRICK 6054-13-084335
N/F TONYES, VINCENT 5954-20-926118
N/F OWENS, HAROLD 5954-20-957123
N/F STRAUS, KENNETH 59
N/F MCNIFF, JOHN 5954-20-910139
N/F FLEMING, STEPHEN 6054-17-025161
N/F N.Y.S. 6054-13-126252
SOUTH AVENUE
TRACY DRIVE
ROUTE 9D
NEW YORK STATE ROUTE 9D
NEW YORK STATE ROUTE 9G
FISHKILL CREEK
FUTURE PHASE ON-SITE UTILITY POLES AND OVERHEAD WIRES TO BE REMOVED (TYP)
EXISTING SANITARY SERVICE LATERAL SHALL BE CUT AJST OUTSIDE THE MANHOLE AND PLUGGED
EXISTING 1970'S ERA CAFETERIA WING TO BE REMOVED FROM MANSION BUILDING
EXISTING HOSPITAL WING TO BE DEMOLISHED
EXISTING UNDERGROUND UTILITIES TO BE REMOVED (TYP)
EXISTING PAVED AREA TO BE REMOVED AND RECYCLED TO BE RE-USED ON SITE (TYP)
ALL EXISTING ON-SITE UTILITY POLES AND OVERHEAD WIRES TO BE REMOVED (TYP)
EXISTING SUMP PUMP WITHIN MANSION SHALL BE DISCONNECTED FROM THE INTERIOR SANITARY SEWER PLUMBING AND RE-DIRECTED TO THE ONSITE DRAINAGE SYSTEM
N.Y.S. DOT PERMANENT EASEMENT
Multi-Story Frame Building
Metal Post (Remains)
Wood Post
Telephone Manhole
Sewer Manhole 273 Rim=46.6' Inv.A=25.1' Inv.C=25.1' PVC Drop 7.1 To Top
12"Clay Pipe Invert=127.2'
12"Clay Pipe Invert=133.0'
2'X3' Oval RCP Invert=178.1'
15"CPP Flared End Buried 24 in Debris Inv.A=92.8'
Manhole Rim=195.2' (No Sewer or Drainage)
Drop Inlet Rim=98.7' Inv.A=94.9'
Drop Inlet Rim=107.8'
Drop Inlet Rim=114.3' Inv.A=11.5'
Drop Inlet Rim=133.2' Inv.A=130.0'
Drop Inlet Rim=151.7' Inv.A=144.3' Inv.B=148.0' Inv.C=145.0'
Drop Inlet Rim=151.6' Inv.A=148.2'
Drop Inlet Rim=173.3' Inv.A=169.5' Inv.B=170.4'
Drop Inlet Rim=171.3' Inv.A=168.4' Inv.B=166.7'
Drop Inlet Rim=167.6' Inv.A=167.6' Inv.B=168.5' Inv.C=168.3'
Drop Inlet Rim=176.8' Inv.A=172.5' Inv.B=173.1' Inv.C=173.8'
Drop Inlet Rim=177.9' Inv.A=174.3' Inv.B=174.3'
Drop Inlet Rim=174.7' Inv.A=170.3' Inv.B=170.6'
Catch Basin Rim=177.9' Inv.A=174.8'
Catch Basin Rim=178.2' Inv.A=174.8'
Catch Basin Rim=188.3' Inv.A=184.7'
Catch Basin Rim=188.3' Inv.A=184.5'
Catch Basin Rim=188.3' Inv.A=183.4' Inv.B=183.4' Inv.C=184.2'
Catch Basin Rim=191.1' Inv.A=186.3' Inv.B=187.3'
Catch Basin Rim=187.5' Inv.A=182.6' Inv.B=182.9'
Catch Basin Rim=185.7' Inv.A=181.6' Inv.B=181.6'
Catch Basin Rim=185.8' Inv.A=181.7'
Catch Basin Rim=185.8' Inv.A=180' Inv.B=181.4' Inv.C=181.5'
Catch Basin Rim=185.2' Filled
Catch Basin Rim=185.8' Inv.A=181.8'
Catch Basin Rim=192.0' Inv.A=187.4' Inv.B=187.8'
Catch Basin Rim=192.1' Inv.A=188.8'
Catch Basin Rim=187.3' Filled
Drop Inlet Rim=184.9' Inv.A=179.1' Inv.B=179.5' Inv.C=179.8'
Drop Inlet Rim=191.2' Inv.A=185.8' Inv.B=186.0' Inv.C=187.4'
Drop Inlet Rim=193.2' Inv.A=187.3' Inv.B=187.6'
Drop Inlet Rim=193.1' Inv.A=189.0'
Catch Basin Rim=190.5' Inv.A=186.8' rim=191.6 Inv.A=186.6'
Drop Inlet Rim=189.7' Inv.A=184.4' Inv.B=184.4' Inv.C=185.9'
Catch Basin Rim=190.6' Inv.A=186.6' Inv.B=186.7'
Catch Basin Rim=185.8' Inv.A=181.6' Inv.B=181.9'
Catch Basin Rim=185.7' Inv.A=182.4'
Drop Inlet Rim=184.6' Inv.A=180.2' Inv.B=180.2' Inv.C=181.0'
Drop Inlet Rim=183.5' Inv.A=179.3' Inv.B=179.4'
Drop Inlet Rim=179.2' Inv.A=175.4' Inv.B=176.0'
Manhole Rim=183.7' Inv.A=187.8' Inv.B=187.8'
Manhole Rim=114.1' Inv.A=108.6'
Manhole Rim=114.5' Inv.A=108.6' Inv.B=109.7' Inv.C=110.5' Inv.D=110.1'
Manhole Rim=151.6' Inv.A=127.3' Inv.B=129.2' Inv.C=128.7'
Manhole Rim=18.8' Inaccessible Inverts per As-Built MORA, EMIL 2013 Plat-Converted -20-840230
Manhole Rim=21.1' Inaccessible Inverts per As-Built, 2013 Plat-Converted Rim=21.1' Inv.A=14.5' Inv.B=14.6'
Inverts per 1989 Plat Inv.A=20.4' Inv.B=20.4'
Inverts per As-Built 2013 Plat-Converted Rim=25.6' Inv.A=20.1' Inv.B=20.2'
Sewer Manhole Rim=34.5' Inaccessible 2022 Inverts per 1989 Plat Inv.A=24.9' Inv.B=24.9'
Inverts per As-Built 2013 Plat-Converted Rim=34.5' Inv.A=25.0' Inv.B=25.0'
N 72° 43' 40" W 59.43'
N 81° 16' 30" W 50.29'
N 48° 20' 00" W 64.85'
N 61° 59' 30" W 81.61'
N 52° 40' 00" E 74.20'
N 55° 09' 30" E 200.00'
N 37° 30' 30" W 75.29'
S 37° 20' 20" E 98.90'
S 3° 20' 30" E 196.05'
S 3° 20' 30" E 202.45'
N 64° 53' 50" E 224.51'
N 25° 39' 00" E 363.73'
N 45° 39' 00" E 235.65'
N 26° 15' 00" E 104.24'
N 7° 34' 50" E 214.54'
N 23° 25' 05" E 275.05'
N 50° 51' 10" W 104.02'
S 39° 38' 20" W 367.76'
S 30° 47' 30" W 82.00'
S 28° 38' 20" W 266.80'
S 26° 59' 20" W 134.20'
S 27° 40' 20" W 133.27'
S 38° 38' 20" E 149.62'
S 27° 40' 20" E 201.5
S 24° 20' 20" W 396.50'
S 46° 32' 20" W 159.80'
S 35° 35' 50" W 184.99'
S 69° 12' 40" E 234.32'
S 3° 00' 40" E 69.95'
W 40° 00' 00" E 81.25'
W 40° 00' 00" E 82.00'
W 40° 00' 00" E 82.00'
W 40° 00' 00" E 82.00

SCHEDULE OF REGULATIONS (R1–80 ZONING DISTRICT & HDLO ZONE) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT (SEE NOTE)	EXISTING LOT	EX. MANSION	EX. S GATE HOUSE	EX. TIORANDA SCH.	EX. BENNET HSE	PROP. HOTEL	PROP. MAINT. BLG.
LOT AREA:	80,000 SQFT MIN./UNIT	±2,804,828 SQFT						
LOT WIDTH:	150 FEET MINIMUM	±1,103.91 FEET						
LOT DEPTH:	200 FEET MINIMUM	±2,084.45 FEET						
YARD SETBACKS:								
FRONT YARD:	50 FEET		±1,135.4 FEET	±4.1 FEET*	±50.1 FEET	±1,527.4 FEET	±816.9 FEET	±1497.2 FEET
SIDE YARD:	30 FEET		±189.5 FEET	±916.4 FEET	±226.8 FEET	±5.4 FEET*	±94.8 FEET	±555.9 FEET
REAR YARD:	50 FEET MINIMUM		±785.9 FEET	±2,204.3 FEET	±296.3 FEET	±520.4 FEET	±948.0 FEET	±708.1 FEET
MAX. BUILDING HEIGHT:	35 FT, 2.5 STORIES		±38 FEET *	EXISTING	EXISTING	EXISTING	±35 FEET	±25 FEET
MAX. BUILDING COVERAGE:	10% MAX.	±1.3%						

*EXISTING NON-CONFORMING

NOTES:
1. THE HISTORIC DISTRICT AND LANDMARK OVERLAY (HDLO) ZONE OVERLAYS THE UNDERLYING R1–80 ZONE APPLICABLE TO SINGLE–FAMILY RESIDENTIAL DEVELOPMENT. THE PLANNING BOARD HAS THE AUTHORITY TO APPROVE BUILDING SIZE AND BUILDING CONFIGURATION FOR A PROJECT WITHIN THE HDLO AS PART OF IT'S SPECIAL PERMIT REVIEW.

PARKING CONFORMANCE TABLE:

LAND USE	CODE REQUIREMENT	REQUIRED
HOTEL (75 ROOMS)	1 SPACE/ROOM	75 SPACES
COTTAGES (5)	2 SPACES/COTTAGE	10 SPACES
RESTAURANT (110 SEATS/2,364 SQFT)	1 SPACE/3 PERSONS OR 1 SPACE/150 SQFT GROSS FLR. AREA EXCL. UTILITY AREAS	37 SPACES OR 16 SPACES
SPA (21 ROOMS/6,125 SQFT)	1 SPACE/200 SQFT OF GROSS FLR. AREA EXCL. UTILITY AREAS	31 SPACES
EMPLOYEES (80 AT ANY ONE TIME)	1 SPACE/EMPLOYEE	80 SPACES

TOTAL REQUIRED: 233 SPACES
TOTAL PROVIDED: 248 SPACES

PARKING NOTES:
1. PARKING FOR THE COTTAGES IS PROPOSED TO BE PROVIDED AT A RATE OF 2 SPACES PER COTTAGE.
2. DUE TO SHIFT OVERLAP, THERE COULD BE UP TO 80 EMPLOYEES ONSITE AT ANY ONE TIME TO SERVICE THE HOTEL, RESTAURANT AND SPA AS WELL AS OTHER PORTIONS OF THE PROJECT.
3. SPA SQUARE FOOTAGE INCLUDES ALL PUBLICLY AVAILABLE SPA SPACE. BACK–OF–HOUSE OR SUPPORT SPACE HAS BEEN EXCLUDED FROM THIS CALCULATION.
4. THE FUTURE TIORANDA RECREATION AREA PROVIDES AN ADDITIONAL 38 PARKING SPACES.
5. 7 ADA PARKING SPACES ARE PROVIDED.

PHASE 1 ARCHAEOLOGICAL STUDY NOTES:

1. A PHASE IA LITERATURE REVIEW ARCHAEOLOGICAL SENSITIVITY ASSESSMENT AND A PHASE IB ARCHAEOLOGICAL FIELD INVESTIGATION STUDY WAS COMPLETED BY HARTGEN ARCHEOLOGICAL ASSOCIATES, INC IN JULY OF 2006. THE STUDY IDENTIFIED SEVERAL PRE–CONTACT AND HISTORICAL SENSITIVE AREAS.
2. FOUR (4) PRE–CONTACT ZONES WERE DISCOVERED DURING THE STUDY IDENTIFIED AS SITES #1, #3, #4 AND #5 ON THE PLAN.
3. THREE (3) HISTORIC ZONES WERE DISCOVERED DURING THE STUDY IDENTIFIED AS SITE #2, #6 AND #7 ON THE PLAN.
4. THE NEW YORK STATE HISTORICAL PRESERVATION OFFICE HAS DETERMINED THAT THE SENSITIVE ZONES AND ASSOCIATED 50' BUFFERS WITHIN THESE AREAS SHOULD BE AVOIDED TO THE GREATEST EXTENT POSSIBLE. NO EXCAVATION SHALL TAKE PLACE WITHIN THE SENSITIVE ZONES, AND LIMITED WORK CAN BE PROPOSED WITHIN THE 50' BUFFERS.
5. FILLING ONLY WITHIN THE 50' BUFFERS WILL NOT REQUIRE A PHASE II STUDY TO BE PREPARED. ALL EXCAVATION WORK WITHIN THE SENSITIVE AREA OR BUFFER WILL REQUIRE A PHASE II STUDY TO BE PREPARED WITHIN THOSE AREAS.
6. A SMALL PORTION OF FILLING WILL TAKE PLACE WITHIN THE WESTERN 50' BUFFER WITHIN SITE #1 WHICH IS PERMITTED. THE TENT VENUE AREA IS PARTIALLY WITHIN THE SOUTHEASTERLY 50' BUFFER OF SITE #1. NO GRADING OR EXCAVATION IS PROPOSED WITHIN THIS AREA.
7. THERE IS A SMALL AMOUNT OF AT–GRADE ROAD WIDENING WITHIN THE 50' BUFFER ASSOCIATED WITH SITE #5. THE SHPO OFFICE RECOMMENDS THE USE OF GEOTEXTILE SEPARATION REINFORCEMENT OVER TOPSOIL FOR PLACEMENT OF PAVEMENT WITHIN A BUFFER AREA. NO TOPSOIL IS TO BE REMOVED.
8. SEE GRADING PLANS FOR PROPOSED WORK WITHIN THESE AREAS.

UNITED STATES ARMY CORPS OF ENGINEERS NOTES:

1. A USACE PERMIT WILL BE REQUIRED FOR FUTURE WALKING TRAILS THROUGH WETLAND MEADOWS.

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 100 YEAR FLOOD PLANE
- 250 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- OHW EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- SS EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- WS EXISTING WATER LINE
- EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- CB 50 EXISTING CATCH BASIN
- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- 250 PROPOSED MAJOR CONTOUR
- 252 PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- S PROPOSED SEWER LINE
- SS PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED SDS LATERAL
- PROPOSED SDS SOLID LINE
- ST PROPOSED STORM WATER LINE
- RL PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- W PROPOSED WATER LINE
- WS PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE

OVERALL MASTER PLAN

SCALE: 1" = 100'

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____ SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION, ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____ BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

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NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
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OVERALL MASTER PLAN

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 100'
TITLE:	SP–1
SHEET:	3 OF 28

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 100 YEAR FLOOD PLANE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- EXISTING WATER LINE
- EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING CATCH BASIN

- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- PROPOSED SEWER LINE
- PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED SDS LATERAL
- PROPOSED SDS SOLID LINE
- PROPOSED STORM WATER LINE
- PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE

SIGHT DISTANCE NOTES:

1. THE AVAILABLE SIGHT DISTANCE ON MIRBEAU LANE AT THE PROPOSED PARKING SPACES FOR COTTAGE #1, #2 AND #3 MEETS OR EXCEEDS 130 FEET AT EACH PARKING SPACE. THE PROPOSED SPEED LIMIT FOR MIRBEAU LANE IS 15 MPH WHICH REQUIRES A STOPPING SIGHT DISTANCE OF 80 FEET. THE AVAILABLE STOPPING SIGHT DISTANCE OF A MINIMUM OF 130 FEET SATISFIES SPEED LIMITS GREATER THAN 20 MPH. THEREFORE THE SIGHT DISTANCE IS ADEQUATE.

SITE PLAN - NORTH
SCALE: 1" = 40'

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

N/F

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

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STATE OF NEW YORK MICHAEL A. BOCKHORN 084466 LICENSED PROFESSIONAL ENGINEER
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SITE PLAN - NORTH

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 40'
TITLE:	SP-2
SHEET:	4 OF 28

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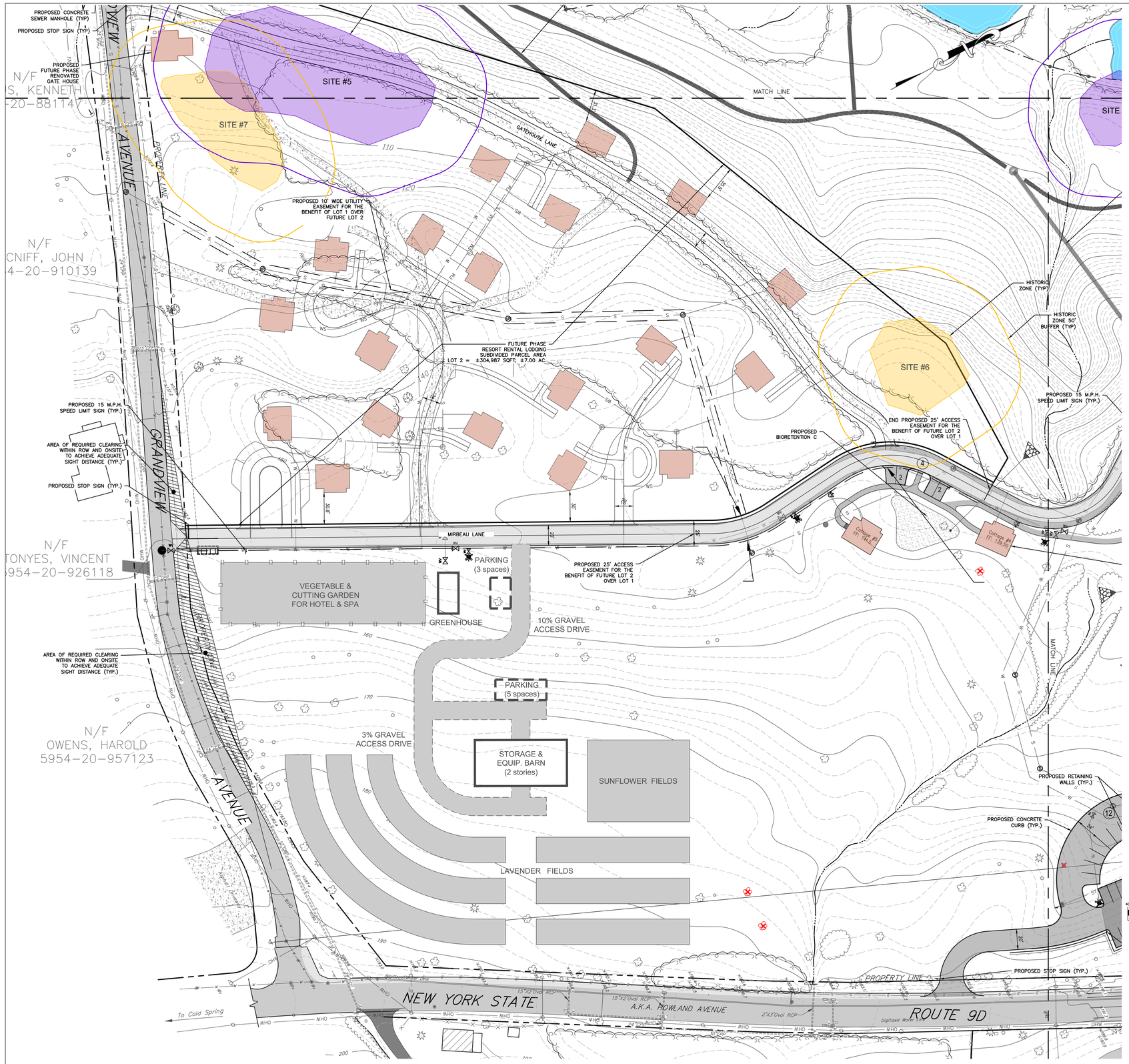

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 100 YEAR FLOOD PLANE
- 250 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- OHW EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- SS SS EXISTING SEWER SERVICE LINE
- S EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- W EXISTING WATER LINE
- WS WS EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- CB 50 EXISTING CATCH BASIN

- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- 250 PROPOSED MAJOR CONTOUR
- 252 PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- S PROPOSED SEWER LINE
- SS SS PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED SDS LATERAL
- PROPOSED SDS SOLID LINE
- ST PROPOSED STORM WATER LINE
- RL PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- W PROPOSED WATER LINE
- WS WS PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE

SIGHT DISTANCE NOTES:

1. THE AVAILABLE SIGHT DISTANCE ON MIRBEAU LANE AT THE PROPOSED PARKING SPACES FOR COTTAGE #4 AND #5 MEETS OR EXCEEDS 130 FEET AT EACH PARKING SPACE. THE PROPOSED SPEED LIMIT FOR MIRBEAU LANE IS 15 MPH WHICH REQUIRES A STOPPING SIGHT DISTANCE OF 80 FEET. THE AVAILABLE STOPPING SIGHT DISTANCE OF A MINIMUM OF 130 FEET SATISFIES SPEED LIMITS GREATER THAN 20 MPH. THEREFORE THE SIGHT DISTANCE IS ADEQUATE.
2. CLEARING WILL BE REQUIRED TO ACHIEVE SIGHT DISTANCE AT THE EXISTING MIRBEAU LANE ENTRANCE AT GRANDVIEW AVENUE. THE CLEARING AREA IS SHOWN ON THIS PLAN.

SITE PLAN – SOUTH

SCALE: 1" = 40'

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

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SITE PLAN – SOUTH
MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 40'
TITLE:	SP-3
SHEET:	5 OF 28

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- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
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- EXISTING WATER SERVICE LINE
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- EXISTING WATER VALVE
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- EXISTING CATCH BASIN

- PROPOSED PROPERTY LINE
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- PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE

UNITED STATES ARMY CORPS OF ENGINEERS NOTES:

1. A USACE PERMIT WILL BE REQUIRED FOR FUTURE WALKING TRAILS THROUGH WETLAND MEADOWS.

SITE PLAN – SOUTH WEST

SCALE: 1" = 40'

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

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SITE PLAN – SOUTHWEST

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 40'
TITLE:	SP-4
SHEET:	6 OF 28

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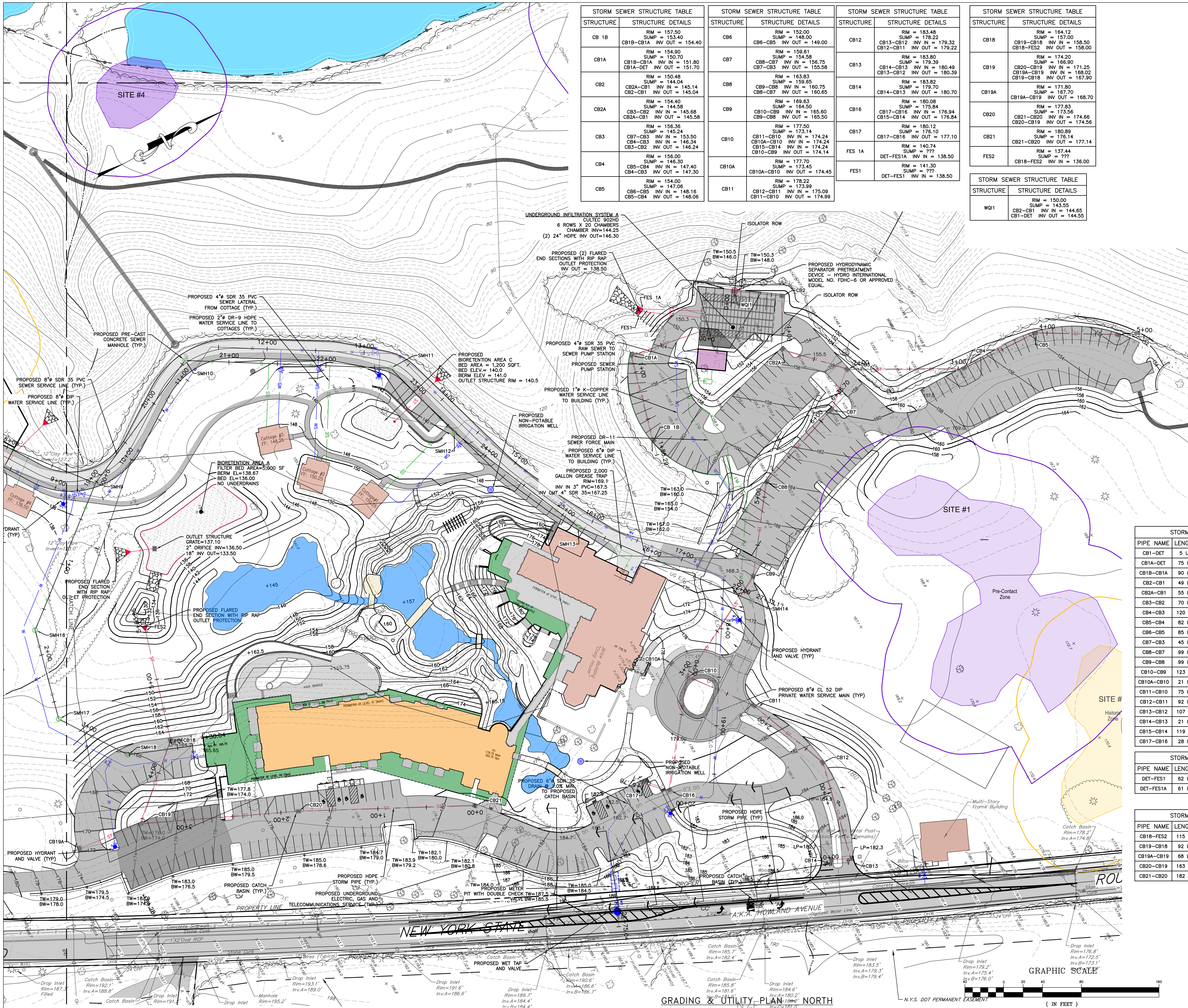

GRADING & UTILITY PLAN – NORTH

SCALE: 1" = 40'

STORM SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
CB 1B	RIM = 157.50 SUMP = 153.40 CB1B–CB1A INV OUT = 154.40
CB1A	RIM = 154.90 SUMP = 150.70 CB1B–CB1A INV IN = 151.80 CB1A–DET INV OUT = 151.70
CB2	RIM = 150.48 SUMP = 144.04 CB2A–CB1 INV IN = 145.14 CB2–CB1 INV OUT = 145.04
CB2A	RIM = 154.40 SUMP = 144.58 CB3–CB2 INV IN = 145.68 CB2A–CB1 INV OUT = 145.58
CB3	RIM = 156.36 SUMP = 145.24 CB7–CB3 INV IN = 153.50 CB4–CB3 INV IN = 146.34 CB3–CB2 INV OUT = 146.24
CB4	RIM = 156.00 SUMP = 146.30 CB5–CB4 INV IN = 147.40 CB4–CB3 INV OUT = 147.30
CB5	RIM = 154.00 SUMP = 147.06 CB6–CB5 INV IN = 148.16 CB5–CB4 INV OUT = 148.06

STORM SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
CB6	RIM = 152.00 SUMP = 148.00 CB6–CB5 INV OUT = 149.00
CB7	RIM = 159.61 SUMP = 154.58 CB8–CB7 INV IN = 156.75 CB7–CB3 INV OUT = 155.58
CB8	RIM = 163.83 SUMP = 159.65 CB9–CB8 INV IN = 160.75 CB8–CB7 INV OUT = 160.65
CB9	RIM = 169.63 SUMP = 164.50 CB10–CB9 INV IN = 165.60 CB9–CB8 INV OUT = 165.50
CB10	RIM = 177.50 SUMP = 173.14 CB11–CB10 INV IN = 174.24 CB10A–CB10 INV IN = 174.24 CB15–CB14 INV IN = 174.24 CB10–CB9 INV OUT = 174.14
CB10A	RIM = 177.70 SUMP = 173.45 CB10A–CB10 INV OUT = 174.45
CB11	RIM = 178.22 SUMP = 173.99 CB12–CB11 INV IN = 175.09 CB11–CB10 INV OUT = 174.99

STORM SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
CB12	RIM = 183.48 SUMP = 178.22 CB13–CB12 INV IN = 179.32 CB12–CB11 INV OUT = 179.22
CB13	RIM = 183.80 SUMP = 179.39 CB14–CB13 INV IN = 180.49 CB13–CB12 INV OUT = 180.39
CB14	RIM = 183.82 SUMP = 179.70 CB14–CB13 INV OUT = 180.70
CB16	RIM = 180.08 SUMP = 175.84 CB17–CB16 INV IN = 176.94 CB15–CB14 INV OUT = 176.84
CB17	RIM = 180.12 SUMP = 176.10 CB17–CB16 INV OUT = 177.10
FES 1A	RIM = 140.74 SUMP = ??? DET–FES1A INV IN = 138.50
FES1	RIM = 141.30 SUMP = ??? DET–FES1 INV IN = 138.50

STORM SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
CB18	RIM = 164.12 SUMP = 157.00 CB19–CB18 INV IN = 158.50 CB18–FES2 INV OUT = 158.00
CB19	RIM = 174.20 SUMP = 166.90 CB20–CB19 INV IN = 171.25 CB19A–CB19 INV IN = 168.02 CB19–CB18 INV OUT = 167.90
CB19A	RIM = 171.80 SUMP = 167.70 CB19A–CB19 INV OUT = 168.70
CB20	RIM = 177.83 SUMP = 173.56 CB21–CB20 INV IN = 174.66 CB20–CB19 INV OUT = 174.56
CB21	RIM = 180.89 SUMP = 176.14 CB21–CB20 INV OUT = 177.14
FES2	RIM = 137.44 SUMP = ??? CB18–FES2 INV IN = 136.00

STORM SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
WQI1	RIM = 150.00 SUMP = 143.55 CB2–CB1 INV IN = 144.65 CB1–DET INV OUT = 144.55

SANITARY SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
SMH9	RIM = 134.51 SMH10–SMH9 INV IN = 128.23 SMH16–SMH9 INV IN = 128.23 SMH9–SMH8 INV OUT = 128.13
SMH10	RIM = 134.82 SMH11–SMH10 INV IN = 129.90 SMH10–SMH9 INV OUT = 129.80
SMH11	RIM = 138.24 SMH12–SMH11 INV IN = 133.10 SMH11–SMH10 INV OUT = 133.00
SMH12	RIM = 140.64 SMH13–SMH12 INV IN = 135.70 SMH12–SMH11 INV OUT = 135.60
SMH13	RIM = 161.59 SMH14–SMH13 INV IN = 156.69 SMH13–SMH12 INV OUT = 154.60
SMH14	RIM = 170.95 SMH14–SMH13 INV OUT = 165.50
SMH16	RIM = 146.00 SMH17–SMH16 INV IN = 138.50 SMH16–SMH9 INV OUT = 137.90
SMH17	RIM = 151.55 SMH18–SMH17 INV IN = 146.55 SMH17–SMH16 INV OUT = 145.00
SMH18	RIM = 166.08 SPA–SMH18 INV IN = 161.10 SMH18–SMH17 INV OUT = 161.00

SANITARY SEWER PIPE TABLE			
PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
SMH9–SMH8	133 LF	8 inch PVC	0.60%
SMH10–SMH9	157 LF	8 inch PVC	1.00%
SMH11–SMH10	212 LF	8 inch PVC	1.46%
SMH12–SMH11	94 LF	8 inch PVC	2.67%
SMH13–SMH12	161 LF	8 inch PVC	11.77%
SMH14–SMH13	194 LF	8 inch PVC	4.55%
SMH16–SMH9	164 LF	8 inch PVC	5.91%
SMH17–SMH16	95 LF	8 inch PVC	6.86%
SMH18–SMH17	80 LF	8 inch PVC	18.05%
SPA–SMH18	80 LF	8 inch PVC	1.00%

LEGEND:

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ADJOINING PROPERTY LINE
EXISTING EASEMENT LINE
EXISTING STREAM
EXISTING WETLAND BOUNDARY
100' WETLAND BUFFER
100 YEAR FLOOD PLANE
EXISTING MAJOR CONTOUR (250)
EXISTING MINOR CONTOUR
EXISTING TREE LINE
EXISTING OVER HEAD WIRE (OHW)
EXISTING UTILITY POLE
EXISTING SEWER SERVICE LINE (SS)
EXISTING SEWER LINE (S)
EXISTING SEWER MANHOLE
EXISTING SEWER CLEAN OUT (CO)
EXISTING WATER LINE (W)
EXISTING WATER SERVICE LINE (WS)
EXISTING WELL
EXISTING HYDRANT
EXISTING WATER VALVE (WV)
EXISTING STORM WATER LINE
EXISTING CATCH BASIN (CB 50)

PROPOSED PROPERTY LINE
PROPOSED SET BACK LINE
PROPOSED MAJOR CONTOUR (250)
PROPOSED MINOR CONTOUR (252)
PROPOSED EASEMENT
PROPOSED TREE LINE
PROPOSED SEWER LINE (S)
PROPOSED SEWER SERVICE LINE (SS)
PROPOSED SEWER MANHOLE
PROPOSED SEWER CLEAN OUT (CO)
PROPOSED SDS LATERAL
PROPOSED SDS SOLID LINE
PROPOSED STORM WATER LINE (ST)
PROPOSED ROOF LEADER LINE (RL)
PROPOSED ROOF LEADER
PROPOSED WATER LINE (W)
PROPOSED WATER SERVICE LINE (WS)
PROPOSED WELL
PROPOSED HYDRANT
PROPOSED WATER SHUT OFF VALVE
PROPOSED WATER VALVE (WV)

INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES

CATCH BASINS PIPING AND FLARED END SECTIONS:

ALL CATCH BASINS, PIPING AND FLARED END SECTIONS SHALL BE INSPECTED EVERY SPRING AND FALL. LOOK FOR OBSTRUCTIONS, VEGETATION, DEBRIS, LITTER, SEDIMENT, ETC. BLOCKING THE STRUCTURES OR PIPES. UTILIZE VACUUM TRUCK IF NECESSARY. OBSERVE THE FLOW OF WATER AFTER A RAINFALL EVENT. ANY EVIDENCE OF PONDING IN THE STRUCTURE INDICATES A POTENTIAL BLOCKAGE. WHEN SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN SUMP REACHES 1/2 OF THE SUMP DEPTH, IT SHALL BE REMOVED.

RIP RAP OUTLET PROTECTION AND EMERGENCY OVERFLOW WEIR:

RIP RAP OUTLET PROTECTION AND THE EMERGENCY OVERFLOW WEIR SHALL BE INSPECTED QUARTERLY FOR SEDIMENT BUILD-UP, VEGETATION, DEBRIS, LITTER, AND OBSTRUCTIONS. IF SEDIMENT BUILDS UP ENOUGH TO FILL IN THE VOID SPACE BETWEEN THE STONES OR GRASS PAVERS, THEN THE RIP RAP OR PAVERS SHALL BE CLEANED OR REPLACED.

BIORETENTION AREA:

THE BIORETENTION AREA SHALL BE INSPECTED MONTHLY FOR SEDIMENT AND DEBRIS ACCUMULATION. ANY ACCUMULATED SEDIMENT OR DEBRIS SHOULD BE REMOVED AS NECESSARY. AFTER STORM EVENTS, THE BIORETENTION AREA'S DEWATERING DURATION SHOULD ALSO BE MONITORED. THE BIORETENTION AREA'S FLOOR SHALL BE MOWED WHEN THE GRASS REACHES A HEIGHT OF 18"(ONLY IF LAWN GRASS IS PRESENT). CUT ORNAMENTAL GRASSES ANNUALLY IN THE LATE FALL. SEDIMENT SHALL BE CLEANED OUT OF THE BASIN ANNUALLY. IN THE SPRING AND FALL, INSPECT INFLOW AND OUTFLOW POINTS FOR EROSION OR CLOGGING. INSPECT TREES, SHRUBS AND OTHER VEGETATION TO EVALUATE THEIR HEALTH AND REPLACE ANY DEAD OR DISEASED VEGETATION. INSPECT SURROUNDING DRAINAGE AREA FOR EROSION OR SIGNS OF SEDIMENT DELIVERY TO THE BIORETENTION AREA. REMOVE ANY INVASIVE PLANT SPECIES. REMOVE CLOGS FROM THE STORMWATER SYSTEM INFLOW AND OUTFLOW COMPONENTS. CHECK FOR SIGNS OF VEGETATION OVERGROWTH, OBSERVE DEWATERING CAPABILITY, CHECK FERTILIZER, AND TEST SOILS FOR PH ANNUALLY. HARVEST OVERGROWN VEGETATION AND REMOVE FROM THE BIORETENTION AREA. IF IT TAKES LONGER THAN 24 HOURS TO DEWATER THE BIORETENTION AREA, THE VALVE ON THE UNDERDRAIN SHALL BE OPENED SLIGHTLY TO PROVIDE FULL DEWATERING IN 24 HOURS. IF THE PH IS BELOW 5.2, LIME SHOULD BE APPLIED. IF THE PH IS ABOVE 7.0 TO 8.0, IRON SULFATE PLUS SULFUR CAN BE APPLIED TO REDUCE THE PH. REPLACE MULCH OVER ENTIRE AREA EVERY TWO TO THREE YEARS. IF DEWATERING IS A PROBLEM, CORE AERATION OF CULTIVATING UN-VEGETATED AREAS MAY BE REQUIRED TO ENSURE ADEQUATE FILTRATION.

UNDERGROUND DETENTION/INFILTRATION SYSTEM:

INFILTRATION BASINS SHALL BE INSPECTED MONTHLY FOR SEDIMENT AND DEBRIS ACCUMULATION DURING THE FIRST YEAR OF OPERATION. AFTER 50 YEARS OF SERVICE LIFE THE SYSTEM SHOULD BE EVALUATED, IF THE SYSTEM IS NO LONGER FUNCTIONING IN ACCORDANCE WITH THE ORIGINAL DESIGN, THE SYSTEM SHALL BE RESTORED OR REPLACED. THERE ARE FOUR INSPECTION PORTS AT THE CORNERS OF THE SYSTEM TO PROVIDE FOR VISUAL INSPECTION, AND A MEANS OF CLEANING SYSTEM WITH A VACUUM TRUCK. IN THE SPRING AND FALL, INSPECT THE INLET AND OUTLET FOR CLOGGING AND DEBRIS. REMOVE OBSTRUCTIONS, DEBRIS, ETC.. INSPECT THE INTERIOR OF THE STORMWATER MANAGEMENT CHAMBERS THROUGH INSPECTION PORT FOR DEBRIS EVERY FIVE YEARS. CLEAN DEBRIS FROM CHAMBERS AND FEED CONNECTORS.

EXISTING UNDERGROUND UTILITY NOTES:

1. CONTRACTOR SHALL DIG TEST PITS TO VERIFY LOCATION, SIZE AND PIPE MATERIAL OF EXISTING UNDERGROUND UTILITIES. IF ANY EXISTING UTILITIES ARE NOT IN THE LOCATION WHERE THEY ARE SHOWN ON THE PLAN, IT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.

GENERAL CONSTRUCTION NOTES:

1. ALL OTHER UTILITIES (TELEPHONE, ELECTRIC, GAS, CABLE, ETC.) SHALL BE INCORPORATED PRIOR TO CONSTRUCTION. ALL SUCH UTILITY DESIGNS SHALL BE DEVELOPED IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANIES.
2. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UFPO @ 1-800-962-7962.
3. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL CATCH BASINS & STORM SEWER LINES, SANITARY MANHOLES & SEWER LINES, WATERLINES AND OTHER UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT. INVESTIGATIVE TEST PITS MAY BE REQUIRED TO VERIFY LOCATIONS.
4. PIPE CONNECTIONS TO ALL CATCH BASINS SHALL BE MADE WATERTIGHT, WITH PARTICULAR ATTENTION BEING PAID TO CONNECTIONS LOCATED WITHIN 10 FEET OF SEWER MAINS (AND SERVICE LATERALS).

POST CONSTRUCTION NOTES:

1. UPON COMPLETION OF CONSTRUCTION OF THE STORMWATER FACILITIES, AS-BUILT DRAWINGS OF ALL STORMWATER PRACTICES AND AN OPERATION AND MAINTENANCE PLAN MANUAL SHALL BE PROVIDED TO THE CITY OF BEACON.

STORM SEWER PIPE TABLE			
PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
CB1–DET	5 LF	15" ø CORR HDPE	1.00%
CB1A–DET	75 LF	15" ø CORR HDPE	6.92%
CB1B–CB1A	90 LF	15" ø CORR HDPE	2.88%
CB2–CB1	49 LF	15" ø CORR HDPE	0.80%
CB2A–CB1	55 LF	15" ø CORR HDPE	0.80%
CB3–CB2	70 LF	15" ø CORR HDPE	0.80%
CB4–CB3	120 LF	15" ø CORR HDPE	0.80%
CB5–CB4	82 LF	15" ø CORR HDPE	0.80%
CB6–CB5	85 LF	15" ø CORR HDPE	0.99%
CB7–CB3	45 LF	15" ø CORR HDPE	4.61%
CB8–CB7	99 LF	15" ø CORR HDPE	3.92%
CB9–CB8	99 LF	15" ø CORR HDPE	4.82%
CB10–CB9	123 LF	15" ø CORR HDPE	6.95%
CB10A–CB10	21 LF	15" ø CORR HDPE	1.00%
CB11–CB10	75 LF	15" ø CORR HDPE	1.00%
CB12–CB11	92 LF	15" ø CORR HDPE	4.50%
CB13–CB12	107 LF	15" ø CORR HDPE	1.00%
CB14–CB13	21 LF	15" ø CORR HDPE	1.00%
CB15–CB14	119 LF	15" ø CORR HDPE	2.19%
CB17–CB16	28 LF	15" ø CORR HDPE	0.56%

STORM SEWER PIPE TABLE			
PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
DET–FES1	62 LF	24" ø CORR HDPE	12.67%
DET–FES1A	61 LF	24" ø CORR HDPE	12.69%

STORM SEWER PIPE TABLE			
PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
CB18–FES2	115 LF	15" ø CORR HDPE	19.17%
CB19–CB18	92 LF	15" ø CORR HDPE	10.23%
CB19A–CB19	68 LF	15" ø CORR HDPE	1.00%
CB20–CB19	163 LF	15" ø CORR HDPE	2.04%
CB21–CB20	182 LF	15" ø CORR HDPE	1.36%

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

______________ DAY OF ________________, 20_______, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS __________________ DAY OF _______________, 20_____, BY

______________________________ CHAIRMAN

______________________________ SECRETARY

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GRADING & UTILITY PLAN – NORTH

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 40'
TITLE:	GU-1
SHEET:	7 OF 28

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SANITARY SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
SMH3	RIM = 121.00 SMH4–SMH3 INV IN = 112.40 SMH3–SMH2 INV OUT = 110.00
SMH4	RIM = 128.00 SMH5–SMH4 INV IN = 120.72 SMH4–SMH3 INV OUT = 120.00
SMH5	RIM = 132.00 SMH6–SMH5 INV IN = 123.27 SMH5–SMH4 INV OUT = 123.17
SMH6	RIM = 134.00 SMH7–SMH6 INV IN = 124.40 SMH6–SMH5 INV OUT = 124.30
SMH7	RIM = 139.13 SMH8–SMH7 INV IN = 125.95 SMH7–SMH6 INV OUT = 125.85
SMH8	RIM = 136.01 SMH9–SMH8 INV IN = 127.33 SMH8–SMH7 INV OUT = 127.23
SMH9	RIM = 134.51 SMH10–SMH9 INV IN = 128.23 SMH16–SMH9 INV IN = 128.23 SMH9–SMH8 INV OUT = 128.13

SANITARY SEWER PIPE TABLE			
PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
SMH3–SMH2	232 LF	8 inch PVC	6.69%
SMH4–SMH3	153 LF	8 inch PVC	4.95%
SMH5–SMH4	245 LF	8 inch PVC	1.00%
SMH6–SMH5	171 LF	8 inch PVC	0.60%
SMH7–SMH6	242 LF	8 inch PVC	0.60%
SMH8–SMH7	214 LF	8 inch PVC	0.60%
SMH9–SMH8	133 LF	8 inch PVC	0.60%
SMH10–SMH9	157 LF	8 inch PVC	1.00%

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 100 YEAR FLOOD PLANE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- EXISTING WATER LINE
- EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING CATCH BASIN

- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- PROPOSED SEWER LINE
- PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED SDS LATERAL
- PROPOSED SDS SOLID LINE
- PROPOSED STORM WATER LINE
- PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE

GRADING & UTILITY PLAN – SOUTH
SCALE: 1" = 40'

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

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SIGNED THIS _____ DAY OF _____, 20_____ BY

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GRADING & UTILITY PLAN – SOUTH

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
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SHEET:	8 OF 28

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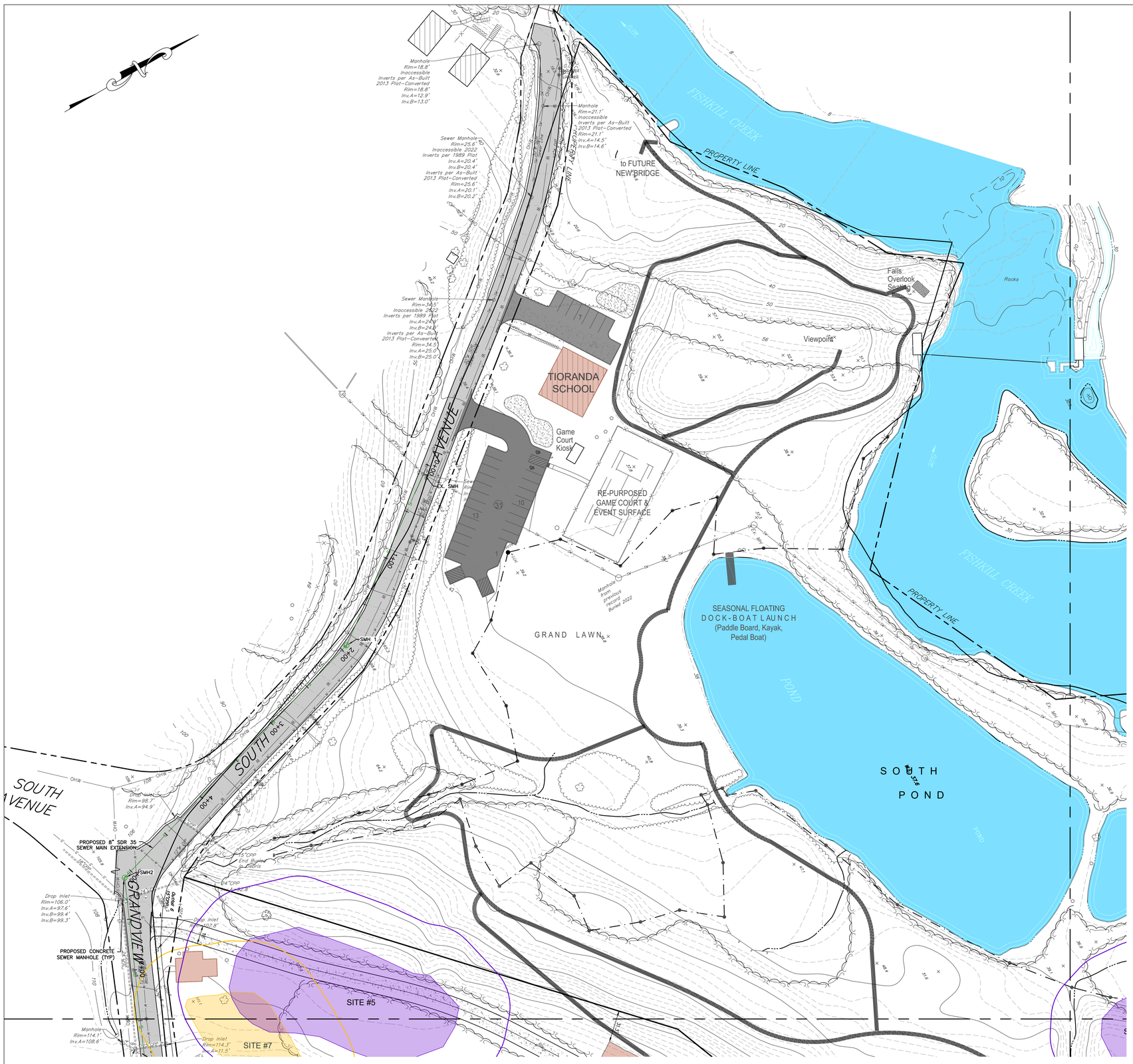

SANITARY SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
EX. SMH	RIM = 46.26 SMH1–EX. SMH INV IN = 39.00
SMH 1	RIM = 68.87 SMH2–SMH1 INV IN = 63.60 SMH1–EX. SMH INV OUT = 63.50
SMH2	RIM = 105.57 SMH3–SMH2 INV IN = 94.50 SMH2–SMH1 INV OUT = 94.50
SMH3	RIM = 121.00 SMH4–SMH3 INV IN = 112.40 SMH3–SMH2 INV OUT = 110.00

SANITARY SEWER PIPE TABLE			
PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
SMH1–EX. SMH	184 LF	8 inch PVC	13.34%
SMH2–SMH1	315 LF	8 inch PVC	9.80%
SMH3–SMH2	232 LF	8 inch PVC	6.69%

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 100 YEAR FLOOD PLANE
- 250 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- OHW EXISTING TREE LINE
- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- SS EXISTING SEWER SERVICE LINE
- S EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- W EXISTING WATER LINE
- WS EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- CB_50 EXISTING CATCH BASIN

- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- 250 PROPOSED MAJOR CONTOUR
- 252 PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- S PROPOSED SEWER LINE
- SS PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED SDS LATERAL
- PROPOSED SDS SOLID LINE
- ST PROPOSED STORM WATER LINE
- RL PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- W PROPOSED WATER LINE
- WS PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- WV PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE

GRADING & UTILITY PLAN – SOUTH WEST

SCALE: 1" = 40'

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

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GRADING & UTILITY PLAN – SOUTHWEST

MIRBEAU BEACON

7 CRAIG HOUSE LANE
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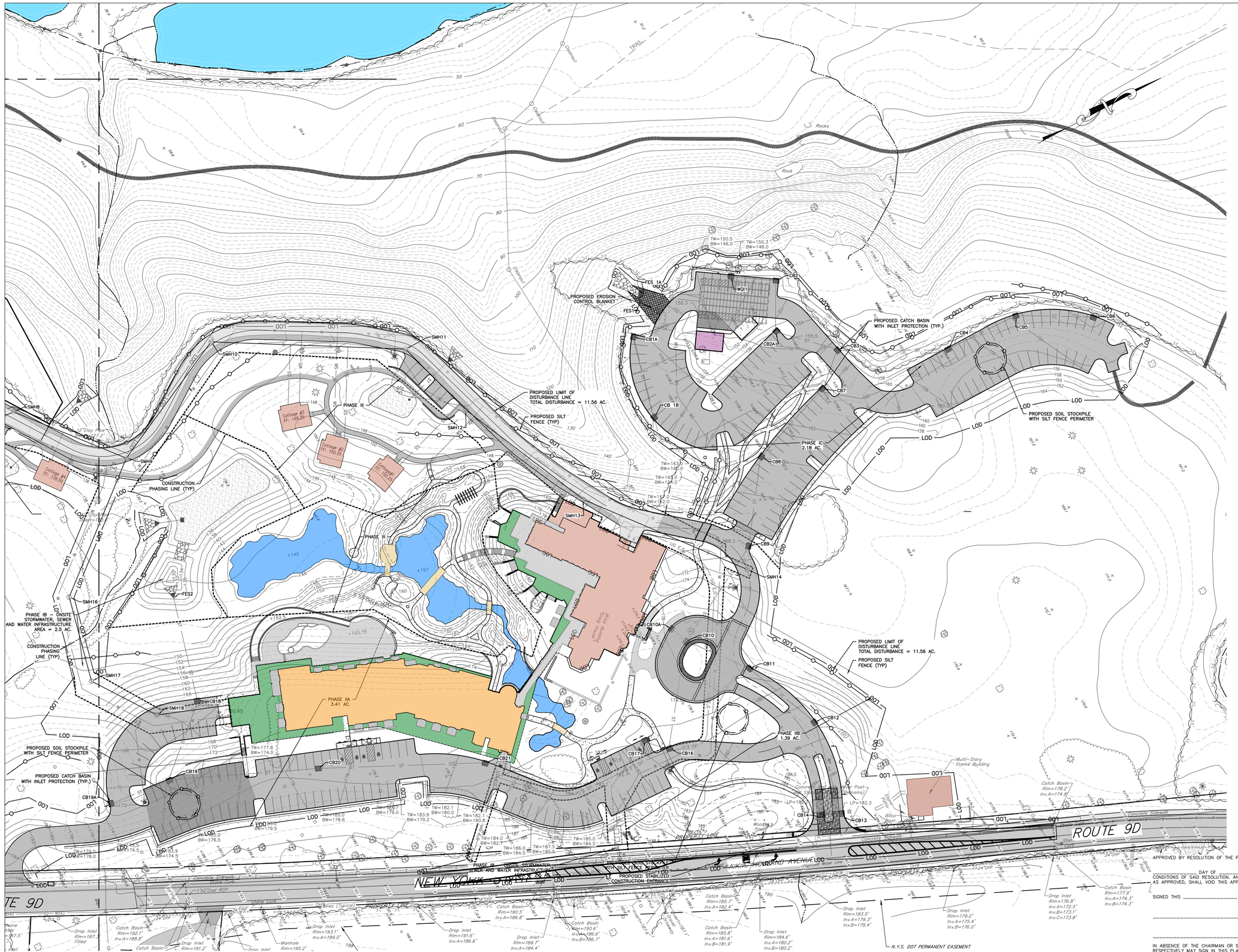

LEGEND:

- EXISTING PROPERTY LINE
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- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 100 YEAR FLOOD PLANE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
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- EXISTING UTILITY POLE
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- EXISTING SEWER LINE
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- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING CATCH BASIN

- PROPOSED PROPERTY LINE
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- PROPOSED SDS LATERAL
- PROPOSED SDS SOLID LINE
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- PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE
- PROPOSED SILT FENCE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED CONSTRUCTION PHASING LINE
- PROPOSED CATCH BASIN INLET PROTECTION
- PROPOSED CONSTRUCTION ENTRANCE

EROSION AND SEDIMENT CONTROL NOTES:

1. ALL EROSION CONTROL MEASURES EMPLOYED DURING THE CONSTRUCTION PROCESS SHALL BE INSPECTED BY THE CONTRACTOR IN ACCORDANCE WITH THE MAINTENANCE SCHEDULE. ALL EROSION CONTROL STRUCTURES SHALL BE REPAIRED AND MAINTAINED AS NECESSARY BY THE CONTRACTOR.
2. ALL STORMWATER MANAGEMENT STRUCTURES (E.G. CATCH BASINS) SHALL BE REGULARLY INSPECTED FOR SEDIMENT ACCUMULATIONS. CATCH BASINS SHALL BE CLEANED WHEN SEDIMENT DEPTH REACHES A MAXIMUM OF ONE-HALF THE AVAILABLE SUMP DEPTH.
3. ALL EROSION CONTROL INSTALLATION AND MAINTENANCE MEASURES SHALL MEET THE REQUIREMENTS OF THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
4. ANY PILE OF POTENTIALLY EROSIVE MATERIAL TEMPORARILY STOCKPILED ON THE SITE DURING THE CONSTRUCTION PROCESS SHALL BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE AND SHALL BE PROPERLY PROTECTED FROM EROSION BY A SURROUNDING SILT FENCE.
5. PERMANENT SEEDED AREAS FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH DETAIL AND SPECIFICATIONS ON THE DETAILS SHEET.
6. AREAS UNDERGOING CLEARING OR GRADING AND WHERE WORK IS DELAYED OR COMPLETED AND WILL NOT BE REDISTURBED FOR A PERIOD OF 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT VEGETATIVE COVER WITHIN 14 DAYS.
7. ON-SITE DUST CONTROL SHALL BE ACCOMPLISHED BY STANDARD METHODS OF LIGHTLY WATERING ALL EXPOSED SOIL AND RAPIDLY STABILIZING THE REGRADED AREAS WITH TOPSOIL, LOAM AND/OR SEEDING.
8. THE TOWN ENGINEER AND PROJECT ENGINEER SHALL BE NOTIFIED NO LESS THAN 48 HOURS PRIOR TO THE START OF ANY SITE WORK, AND BY SUCH NOTIFICATION, SHALL BE PROVIDED WITH THE NAME AND TELEPHONE NUMBER OF THE GENERAL CONTRACTOR RESPONSIBLE FOR SUCH WORK.
9. THE TOWN AND/OR ITS REPRESENTATIVES MAY INSPECT EROSION AND SEDIMENT CONTROL PRACTICES ON THE SITE DURING CONSTRUCTION AND RECOMMEND THAT THE CONTRACTOR INSTALL ADDITIONAL EROSION CONTROL MEASURES IF DEEMED NECESSARY TO PROTECT ANY UNDISTURBED AREAS OF THE SITE. ANY SUCH REQUESTS SHALL BE MADE DIRECTLY TO THE CONTRACTOR AND QUALIFIED PROFESSIONAL AND FOLLOWED UP WITH A WRITTEN NOTIFICATION TO THE DEVELOPER. IN ADDITION, THE PROJECT ENGINEER SHALL BE CONSULTED ON ANY SPECIAL ADDITIONS OR DELETIONS OF EROSION CONTROL MEASURES WARRANTED BY CHANGING FIELD CONDITIONS. THE NOTICE OF INTENT (NOI) MAY NEED TO BE UPDATED AS A RESULT OF THE CHANGES.
10. THE CONTRACTOR/OWNER SHALL MAINTAIN A RECORD OF ALL EROSION AND SEDIMENT CONTROL INSPECTION REPORTS AT THE SITE IN A LOG BOOK. THE SITE LOG BOOK SHALL BE MAINTAINED ON SITE AND BE MADE AVAILABLE TO THE PERMITTING AUTHORITY. THE OWNER/CONTRACTOR SHALL, ON A MONTHLY BASIS, POST AT THE SITE A SUMMARY OF THE SITE INSPECTION ACTIVITIES IN A PUBLICLY ACCESSIBLE LOCATION.
11. THE OWNER SHALL FILE A NOI WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES AND A NOTICE OF TERMINATION (NOT) WITH THE NYSDEC FOLLOWING CONSTRUCTION ACTIVITIES.
12. IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONSTRUCT A DEWATERING PIT IN ACCORDANCE WITH NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL TO FILTER WATER FOR PUMPING TO A SUITABLE LOCATION.
13. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED PER THE APPROVAL OF THE TOWN ENGINEER AND QUALIFIED PROFESSIONAL.

EROSION & SEDIMENT CONTROL PLAN – NORTH

SCALE: 1" = 40'

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION, ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
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2	6/28/22	PER PLANNING BOARD COMMENTS	CMB				
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5	9/27/22	PER PLANNING BOARD COMMENTS	CMB				

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F: 845-440-6637

EROSION & SEDIMENT CONTROL PLAN – NORTH

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 40'
TITLE:	ESC-1
SHEET:	10 OF 28

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 100 YEAR FLOOD PLANE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- EXISTING WATER LINE
- EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING CATCH BASIN
- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED TREE LINE
- PROPOSED EASEMENT
- PROPOSED SEWER LINE
- PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED SDS LATERAL
- PROPOSED SDS SOLID LINE
- PROPOSED STORM WATER LINE
- PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE
- PROPOSED SILT FENCE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED CONSTRUCTION PHASING LINE
- PROPOSED CATCH BASIN INLET PROTECTION
- PROPOSED CONSTRUCTION ENTRANCE

EROSION & SEDIMENT CONTROL PLAN – SOUTH

SCALE: 1" = 40'

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

1 inch = 40 ft.

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION, ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____ BY

_____ CHAIRMAN

_____ SECRETARY

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Dig Safely. New York Call 811 before you dig

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REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/25/22	PER PLANNING BOARD COMMENTS	CMB				
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SEAL

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EROSION & SEDIMENT CONTROL PLAN – SOUTH

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 40'
TITLE:	ESC-2
SHEET:	11 OF 28

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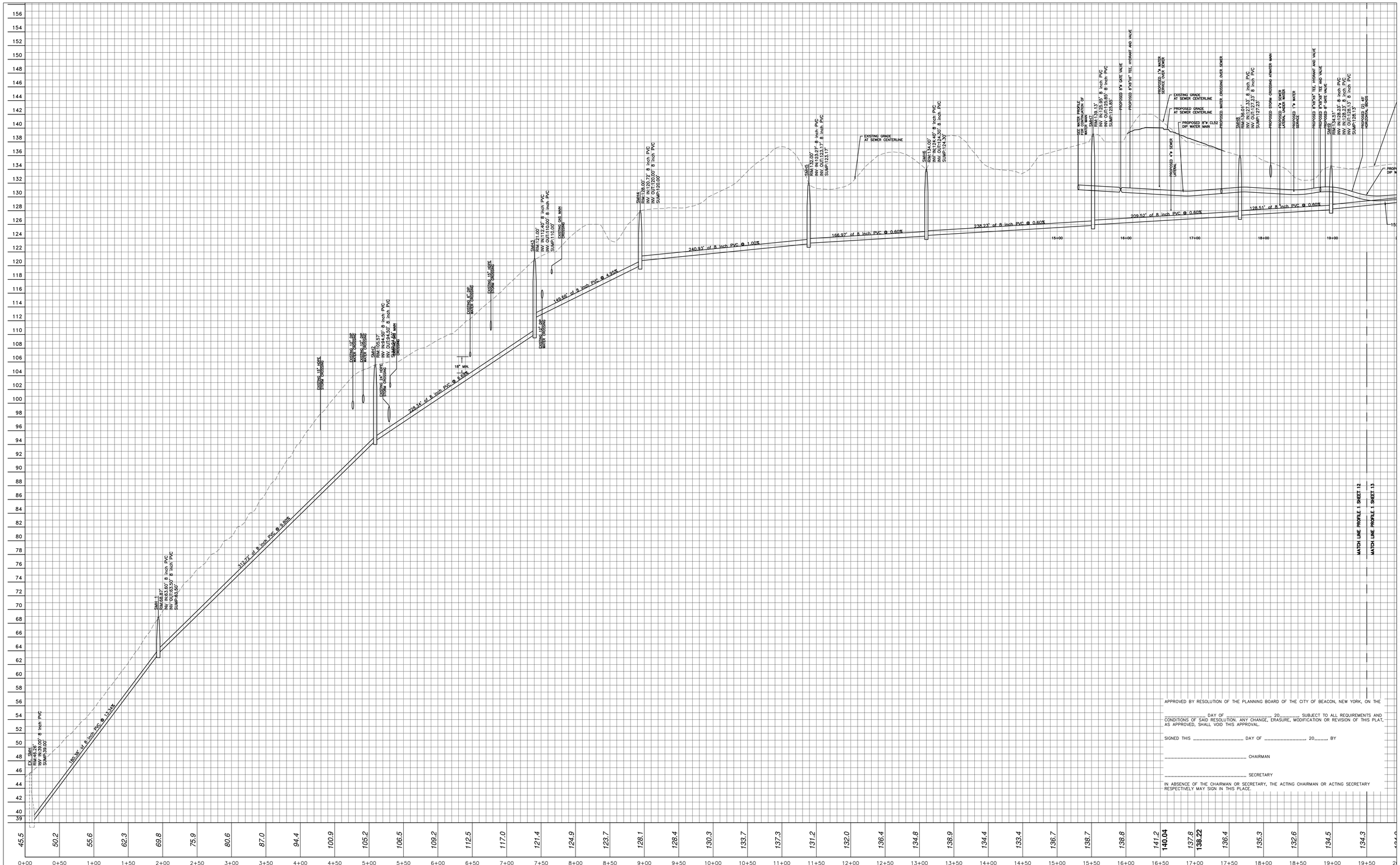

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_____ CHAIRMAN

_____ SECRETARY

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SEWER PROFILE 1 EX SMH TO SMH 10

SCALE: 1" = 50' H
1" = 5' V

DISTANCE ALONG BASELINE (FT)

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
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SEAL

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F: 845-440-6637

PROFILES 1

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	AS SHOWN
TITLE:	PR-1
SHEET:	12 OF 28

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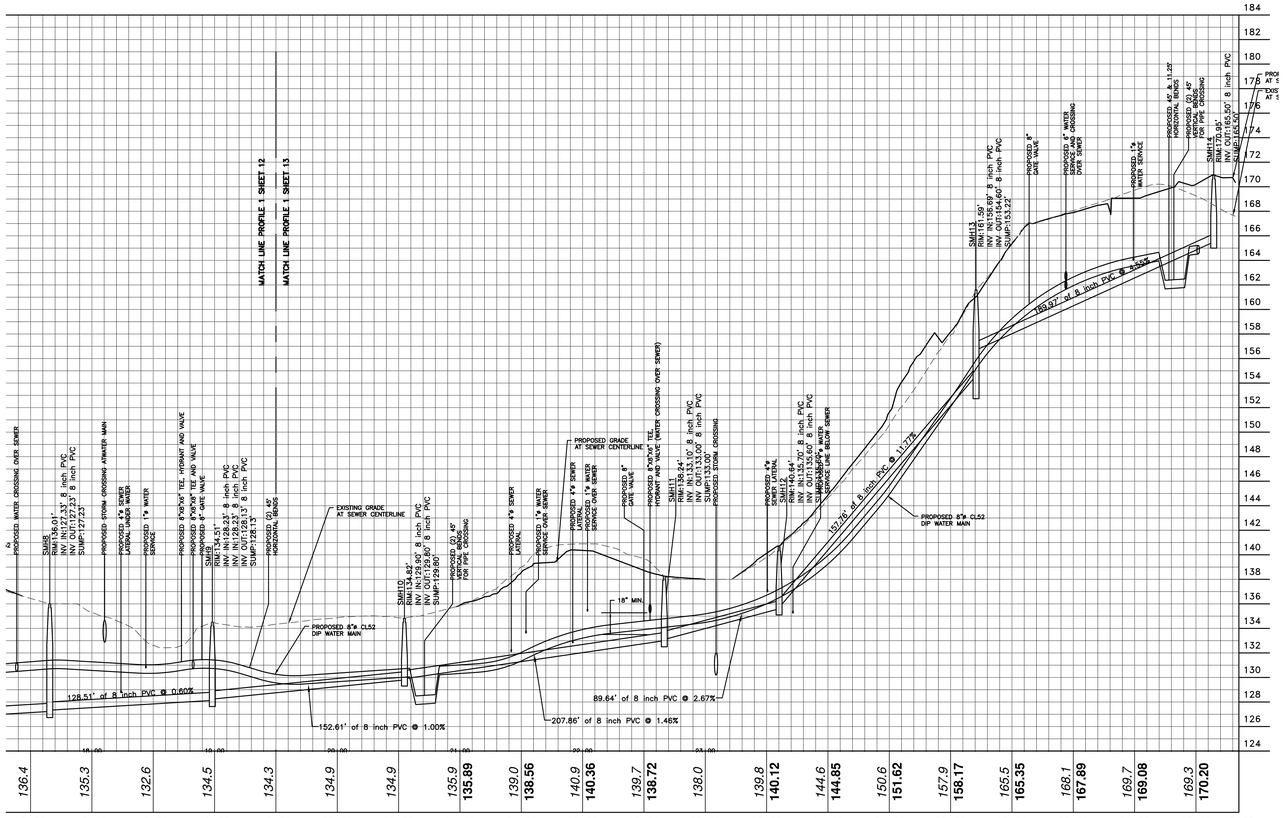
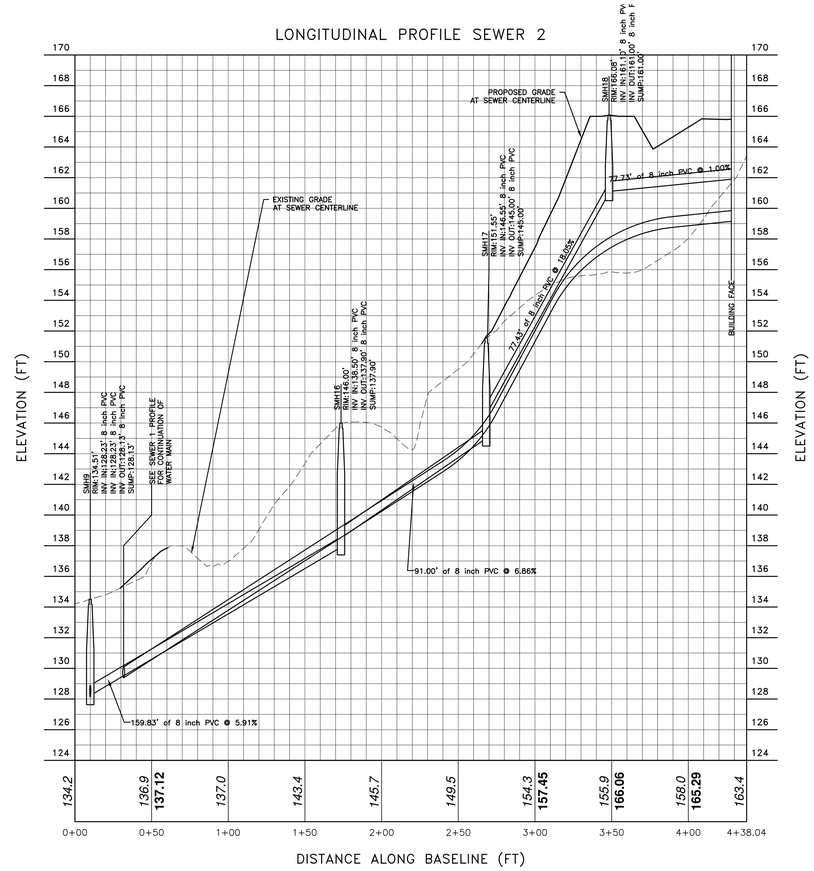


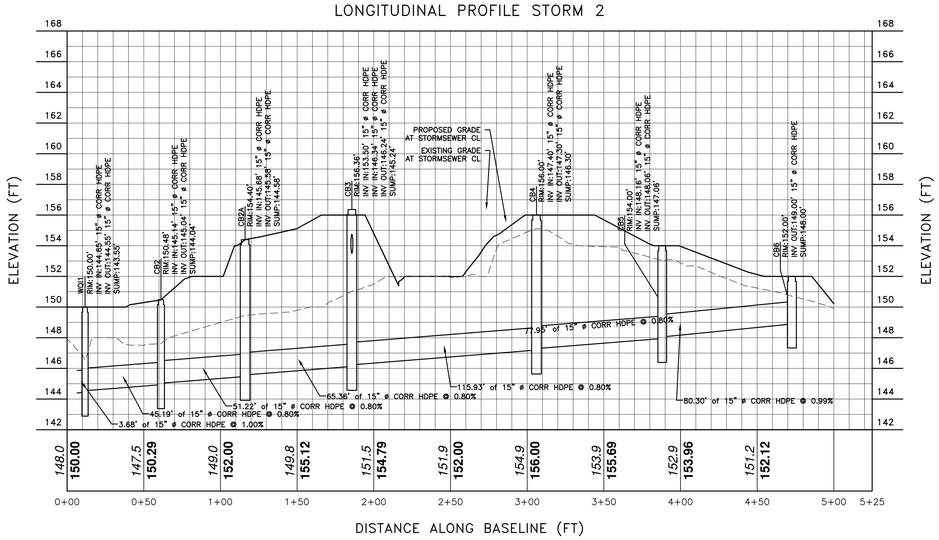
SEWER 1 PROFILE SMH 10 TO SMH 15

SCALE: 1" = 50' H
1" = 5' V



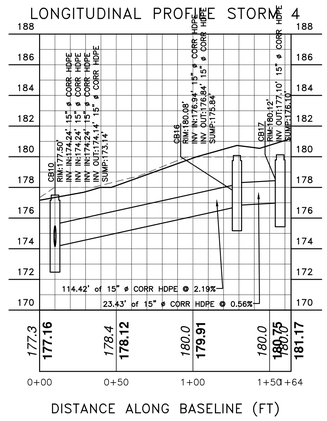
SEWER 2 PROFILE

SCALE: 1" = 40' H
1" = 4' V



STORM PROFILE CB1 TO CB6

SCALE: 1" = 40' H
1" = 4' V



STORM PROFILE CB10 TO CB17

SCALE: 1" = 40' H
1" = 4' V

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PROFILES 2

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	AS SHOWN
TITLE:	PR-2
SHEET:	13 OF 28

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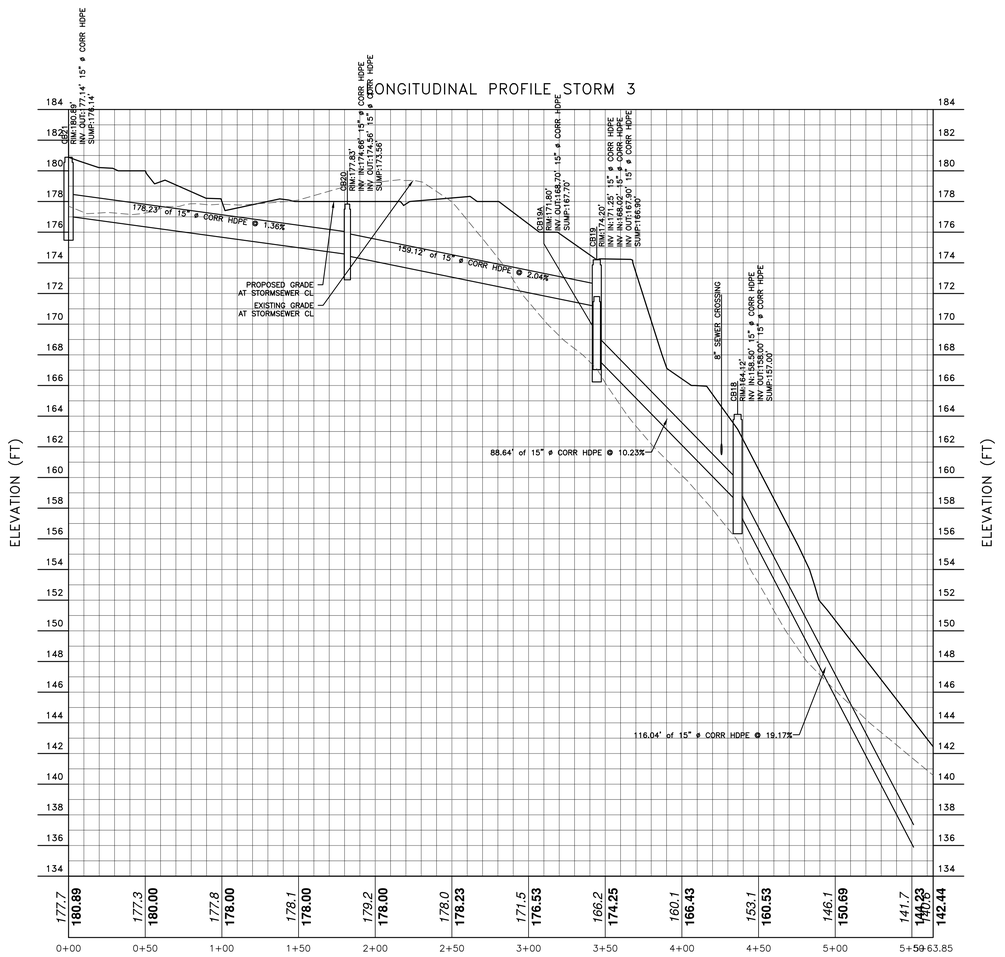
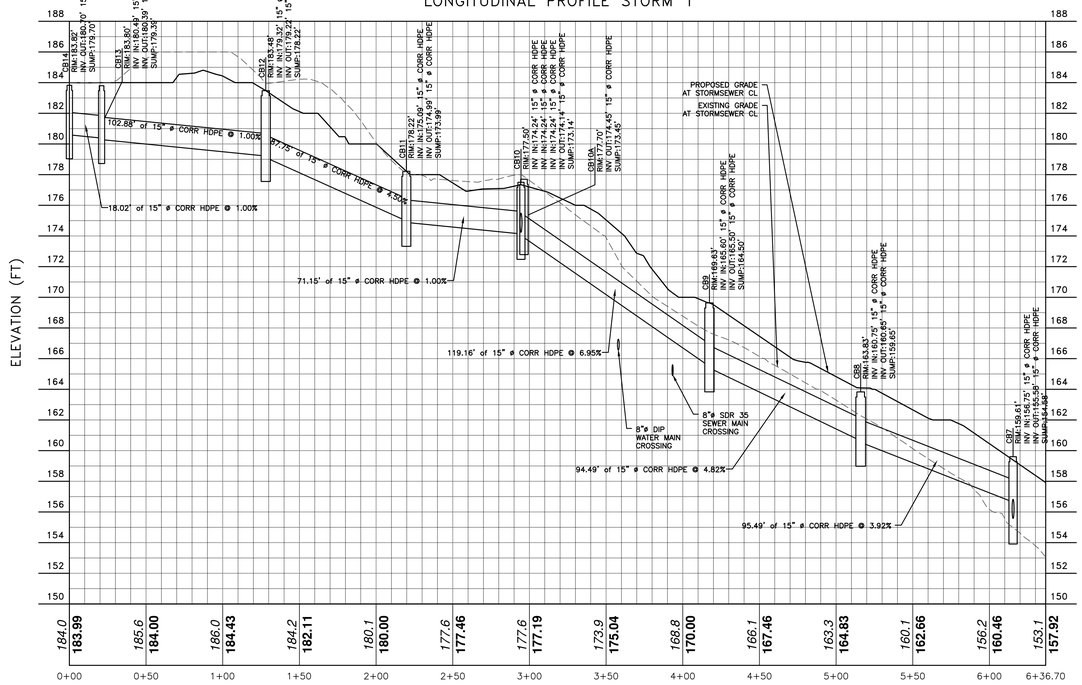


STORM PROFILE CB18 TO CB20
SCALE: 1" = 40' H
1" = 4' V



STORM PROFILE CB7 TO CB14
SCALE: 1" = 40' H
1" = 4' V

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NO.	DATE	DESCRIPTION	BY

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HUDSON LAND DESIGN

STATE OF NEW YORK
MICHAEL A. BENSON
084459
LICENSED PROFESSIONAL ENGINEER
SEAL

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PROFILES 3

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	AS SHOWN
TITLE:	PR-3
SHEET:	14 OF 28

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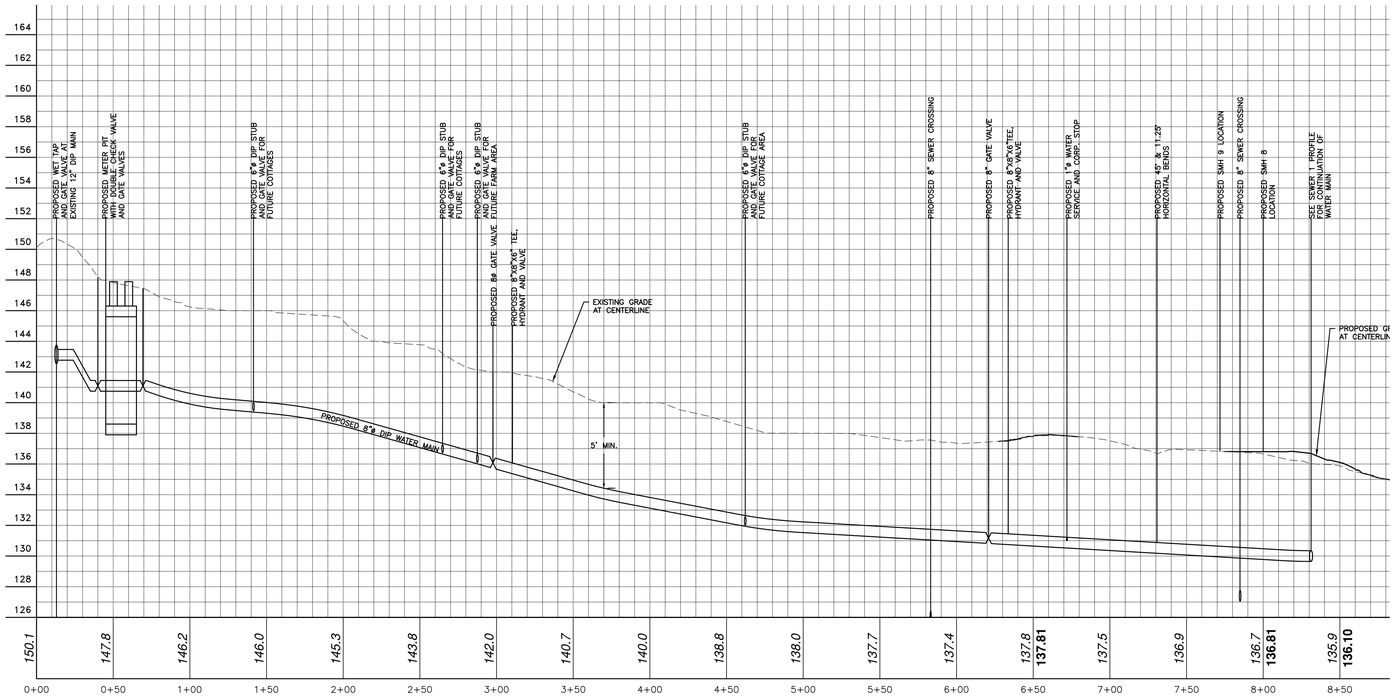
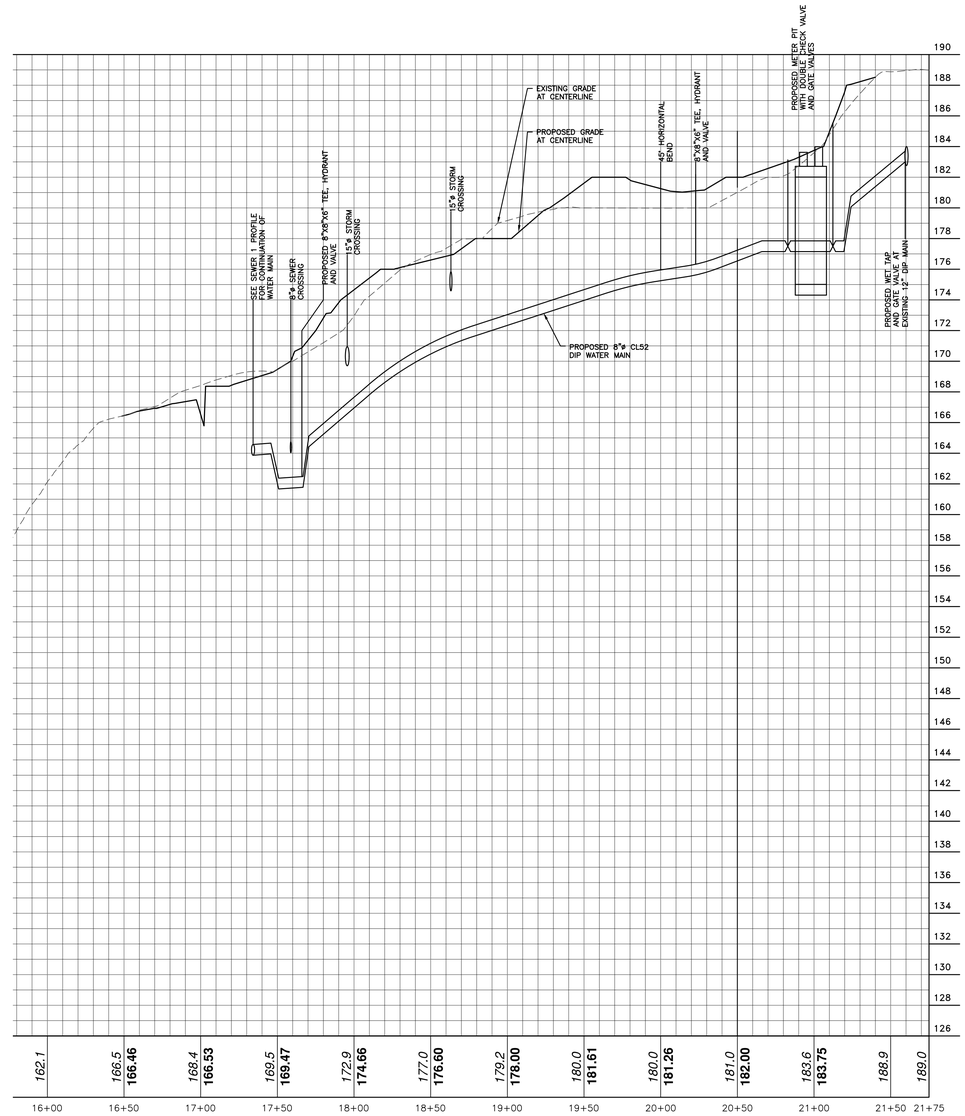


WATER PROFILE STA 0+00 TO STA 8+50
SCALE: 1" = 40' H
1" = 4' V



WATER PROFILE STA 16+00 TO STA 21+75
SCALE: 1" = 40' H
1" = 4' V

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HUDSON LAND DESIGN

STATE OF NEW YORK
MICHAEL A. BOGDANOS
049485
LICENSED PROFESSIONAL ENGINEER
SEAL

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PROFILES 4

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	AS SHOWN
TITLE:	PR-4
SHEET:	15 OF 28

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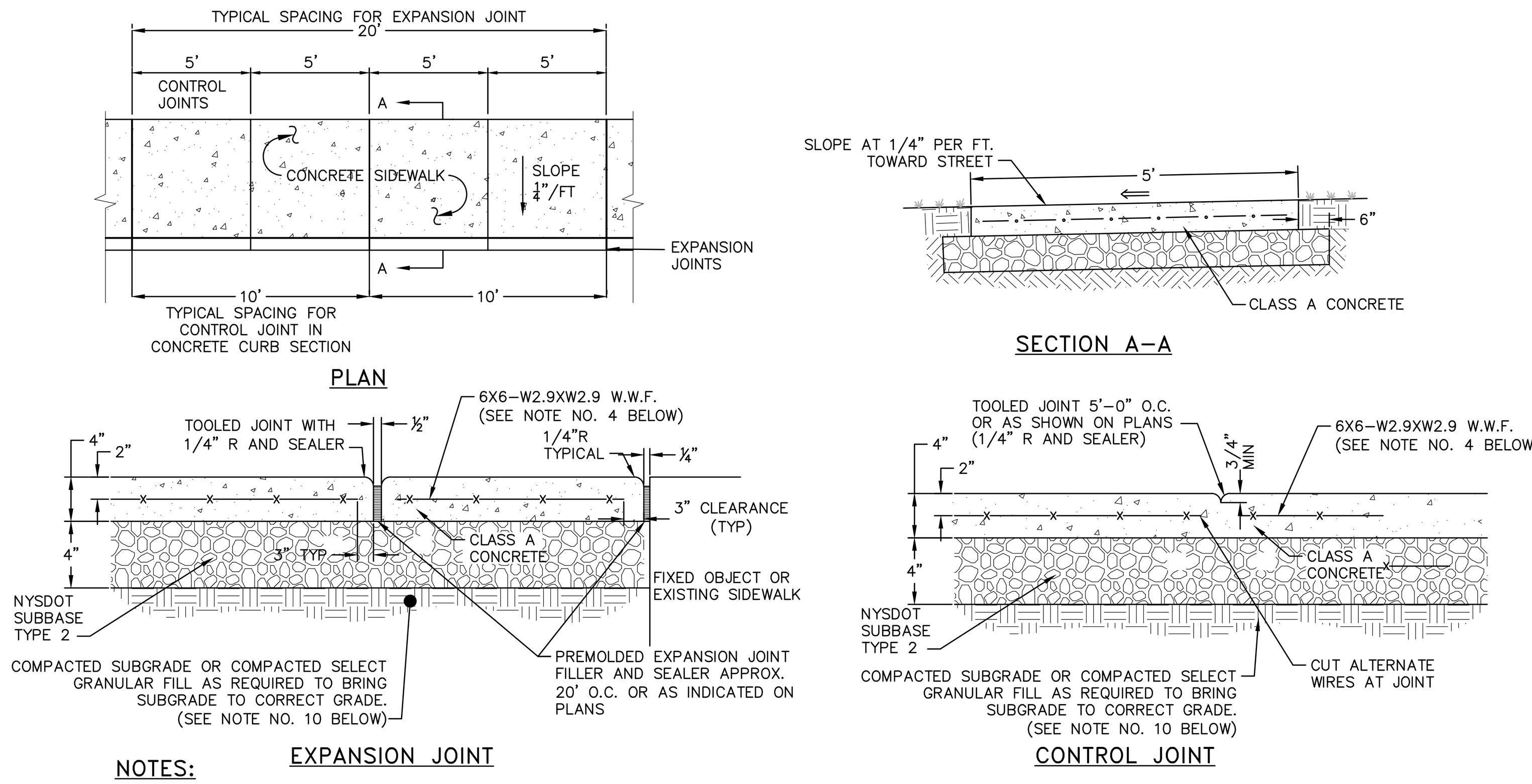
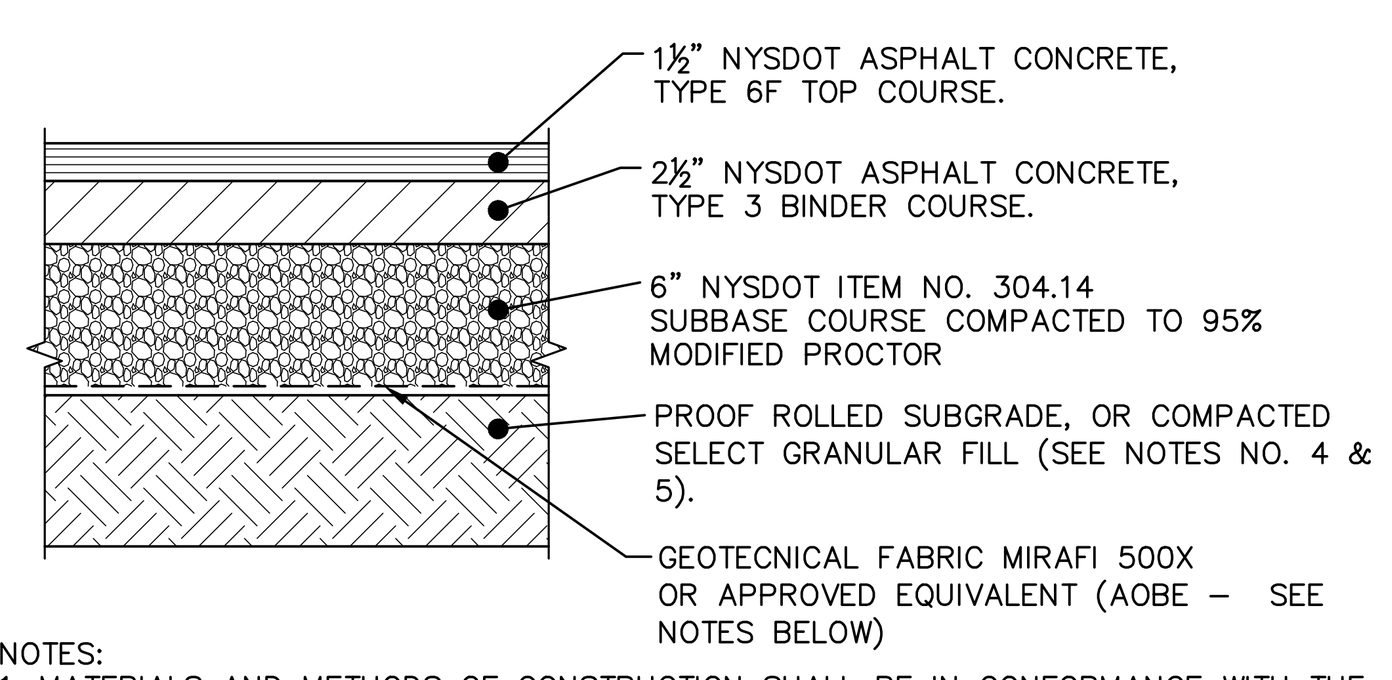


NOTES:

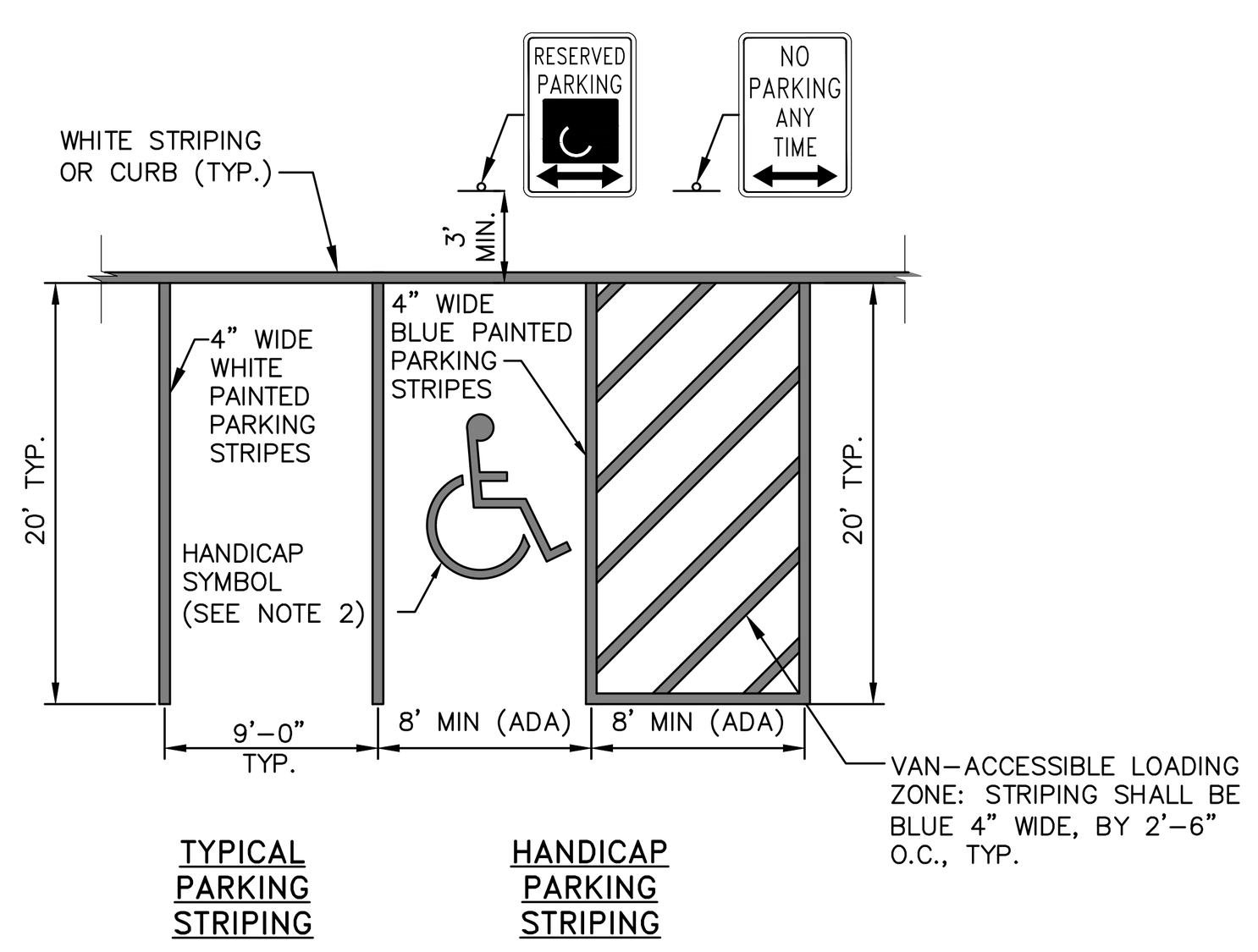
1. 10' SPACING OF CONTROL JOINTS SHALL BE USED FOR CAST IN PLACE CONCRETE CURBS.
2. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED JANUARY 2, 2002, AND ALL ADDENDA THERETO; THE ONLY EXCEPTION BEING THAT THE WORK OF THIS CONTRACT SHALL BE MEASURED IN ENGLISH UNITS.
3. ALL CONCRETE SHALL BE 3,500 PSI CLASS A CONCRETE. CONCRETE MATERIALS, PLACEMENT, AND CONSTRUCTION SHALL CONFORM WITH SECTION 500 OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
4. REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH SECTION 556 – REINFORCING STEEL FOR CONCRETE STRUCTURES OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND AS SPECIFICALLY CALLED OUT IN THE DRAWINGS.
5. ALL EXPOSED SURFACED SHALL HAVE A BROOM TEXTURED FINISH.
6. EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20' ON CENTER, OR AS INDICATED ON PLANS.
7. JOINTS SHALL NOT BE SAW CUT.
8. EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH "SUREBOND"/"SAFEBOND"SB–7000 INTENSIFIER BRIGHT PROTECTOR AND SIDEWALK SEALER, OR EQUAL. RATE AND METHOD OF APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
9. SUBBASE MATERIAL SHALL CONFORM WITH SECTION 304 OF THE ABOVE REFERENCED NYSDOT STANDARD.
10. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMATION WITH SECTION 203–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
11. ALL WORK SHALL CONFORM WITH SECTION 608–SIDEWALK, DRIVEWAYS, AND BICYCLE PATHS OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.

CONCRETE SIDEWALK DETAIL
NOT TO SCALE



NOTES:
1. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED JANUARY 2, 2002.
2. SUBGRADE SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS.
3. TACK COAT WHEN SPECIFIED OR CALLED OUT IN THESE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATIONS SHALL CONFORM WITH SECTION 407–TACK COAT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
4. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSES OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMANCE WITH SECTION 203–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
5. IT IS EXPECTED THAT THE EXISTING SITE SUB–SOILS ARE SAND AND GRAVEL IN NATURE (CALIFORNIA BEARING RATIO RANGE BETWEEN 40 AND 80) . IF UNSUITABLE SOILS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR POSSIBLE MODIFICATIONS TO THE PAVEMENT DETAIL.

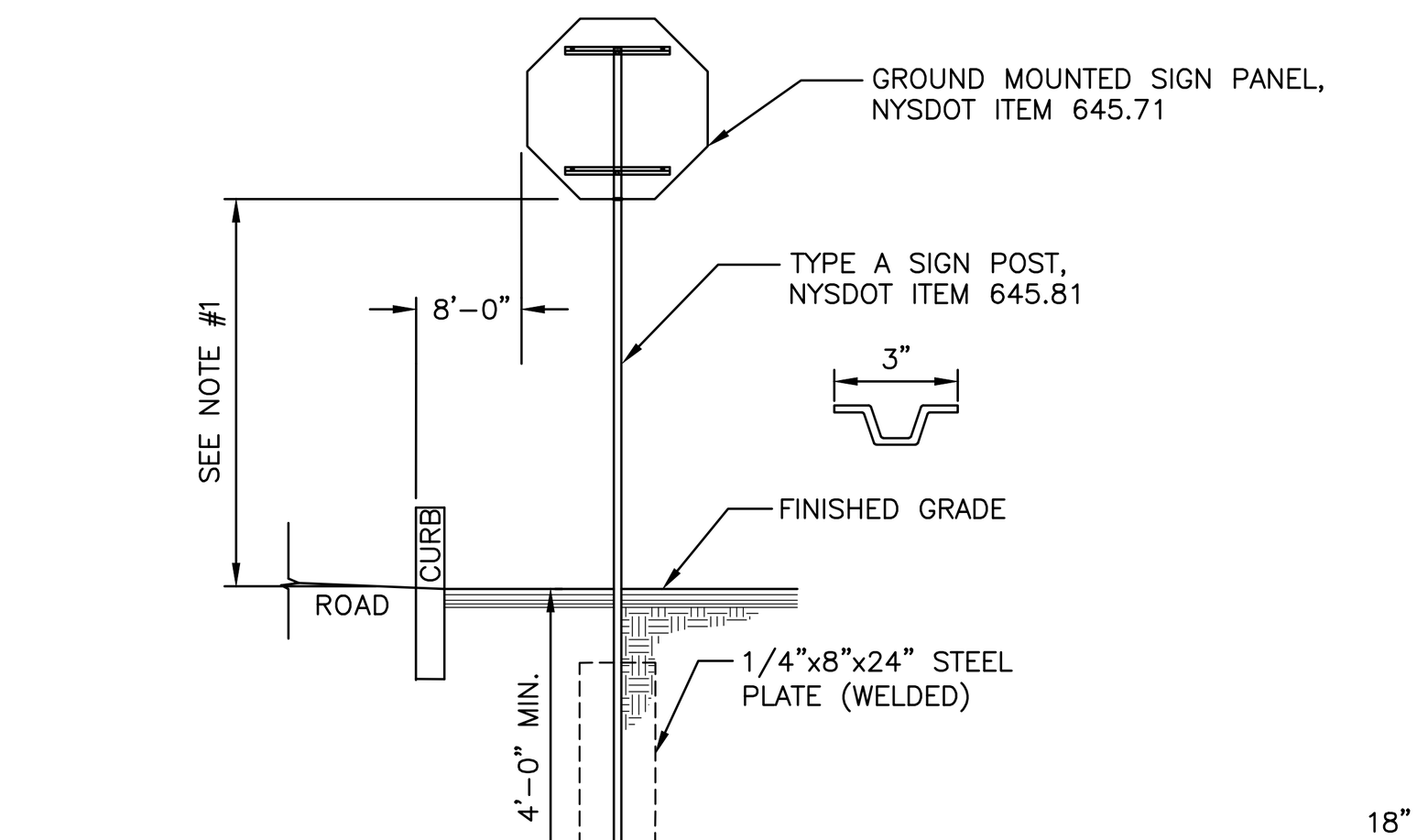
PAVEMENT SECTION DETAIL
NOT TO SCALE



NOTES:
1. ALL DIMENSIONS SUBJECT TO CURRENT MUNICIPALITY ZONING AND SITE REGULATIONS.
2. PAINTED HANDICAP SYMBOL TO BE IN ACCORDANCE WITH NYSDOT AND ADA STANDARDS.
3. IF PARKING ABUTS A SIDEWALK, THEN THE REGULATORY SIGNS SHALL BE PLACED BEHIND THE SIDEWALK.

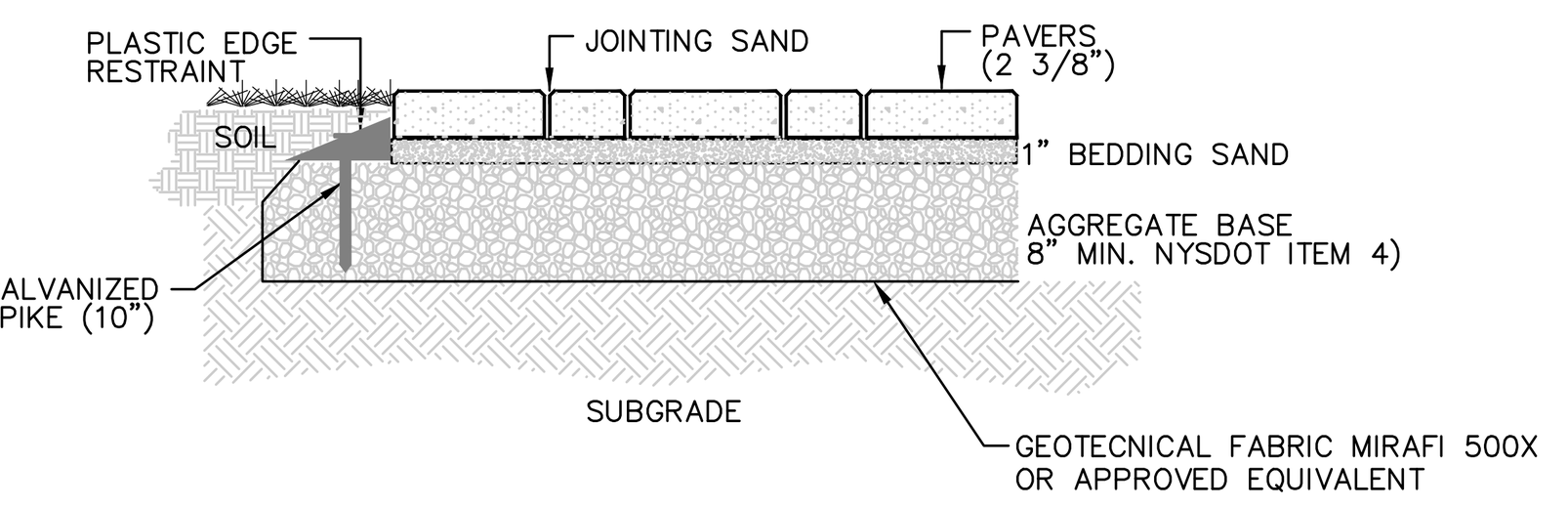
PARKING AND STRIPING DETAIL
NOT TO SCALE

TEXT	APPROXIMTE SIZE OF SIGN	MUTCD NO.	COLOR BACKGROUND	COLOR LEGEND	TYPE OF MOUNTING
STOP	30"x30"	R1–1	RED	WHITE	POST MOUNT

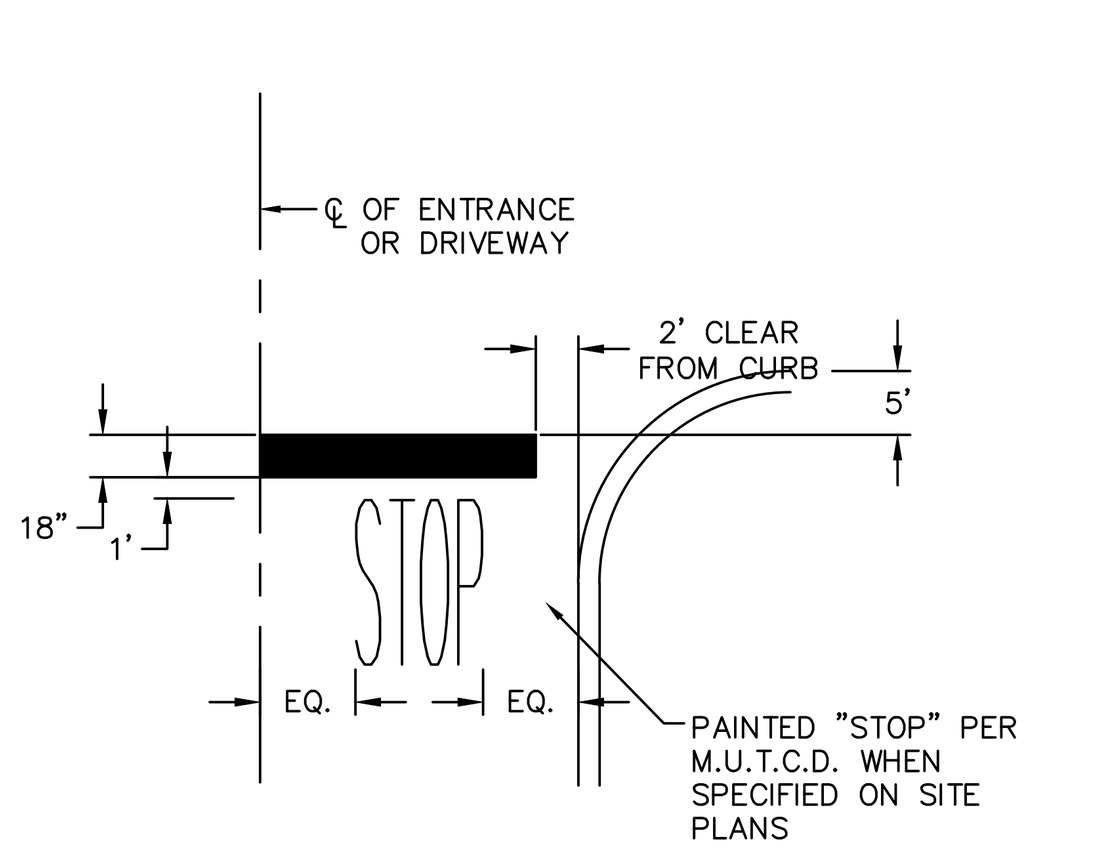


NOTES:
1. SIGN MOUNTING HEIGHT SHALL BE A MINIMUM OF 7'. MINIMUM MOUNTING HEIGHT MAY BE ADJUSTED ONLY IN ACCORDANCE WITH PROVISIONS OUTLINED IN "NYCRR, CHAPTER V–UNIFORM TRAFFIC CONTROL DEVICES."
2. SIGN POST SHALL BE IN ACCORDANCE W/ NYSDOT STANDARD SPECS SECTION 730.
3. SIGN BRACING PER NYSDOT STANDARD SHEETS.
4. SIGN POSTS WITHIN THE COUNTY RIGHT–OF–WAY SHALL BE BREAKAWAY TYPE MEETING THE REQUIREMENTS OF THE NYSDOT.

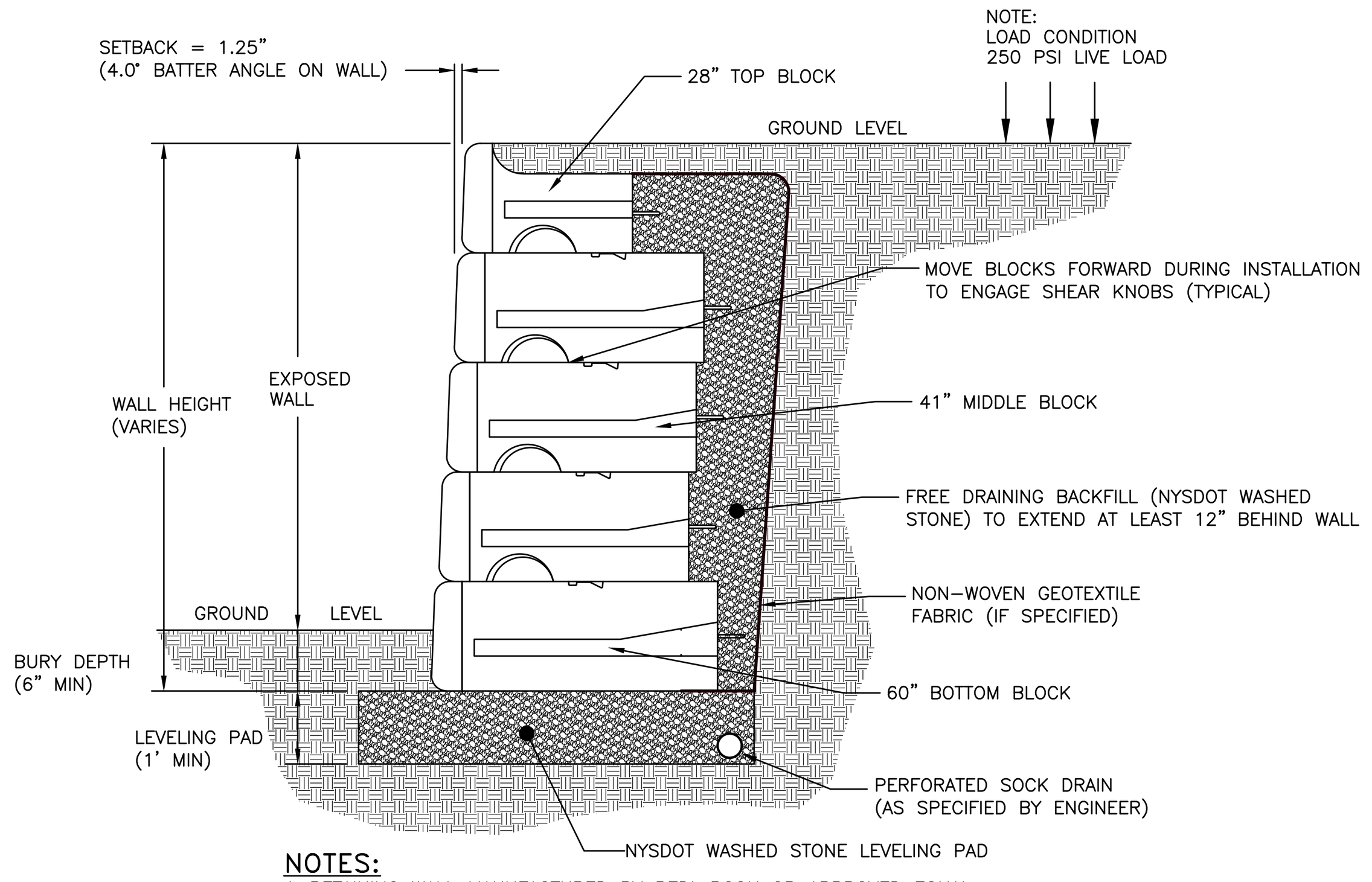
SINGLE POST SIGN DETAIL
NOT TO SCALE



CONCRETE PAVER DETAIL
NOT TO SCALE

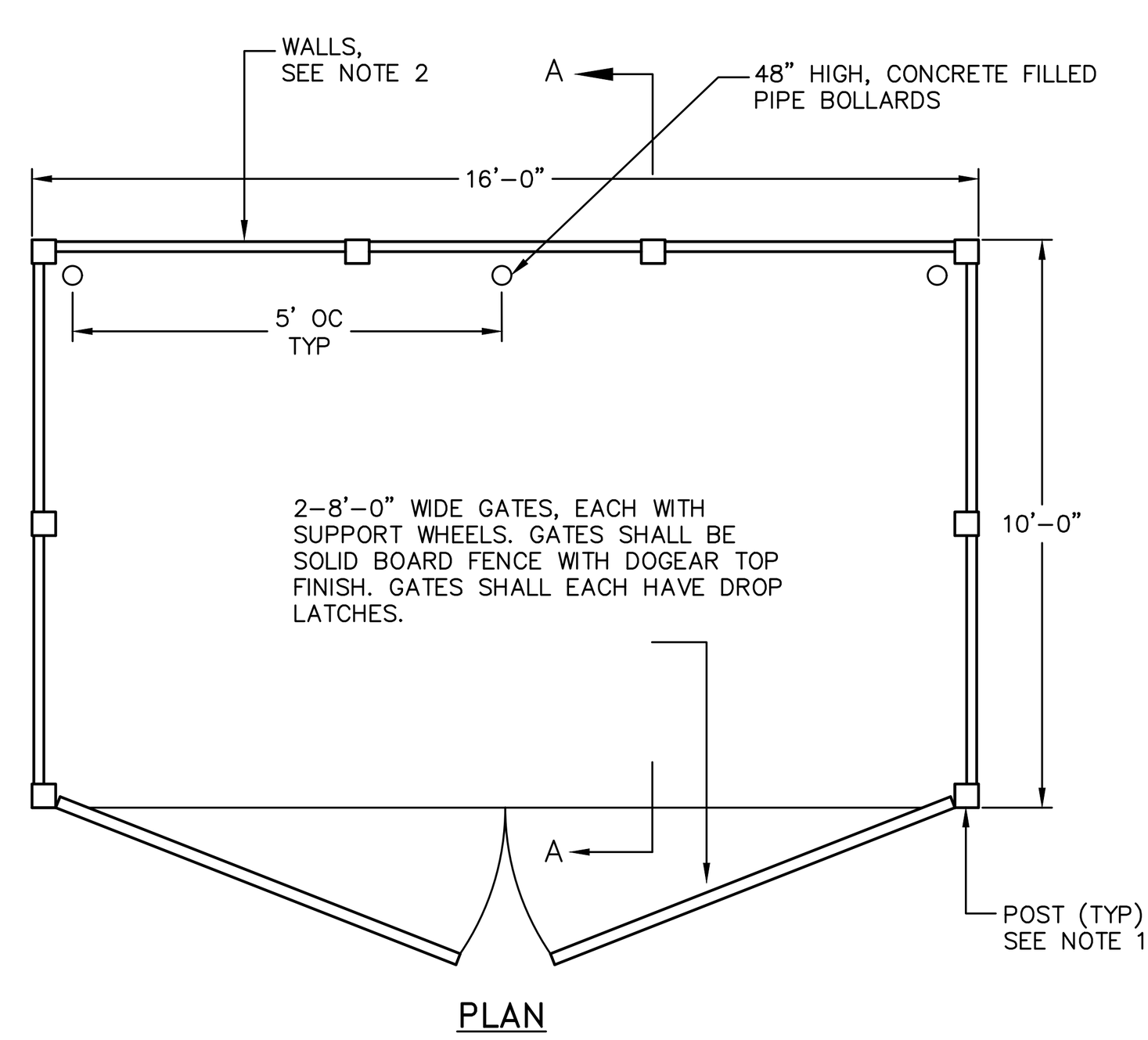


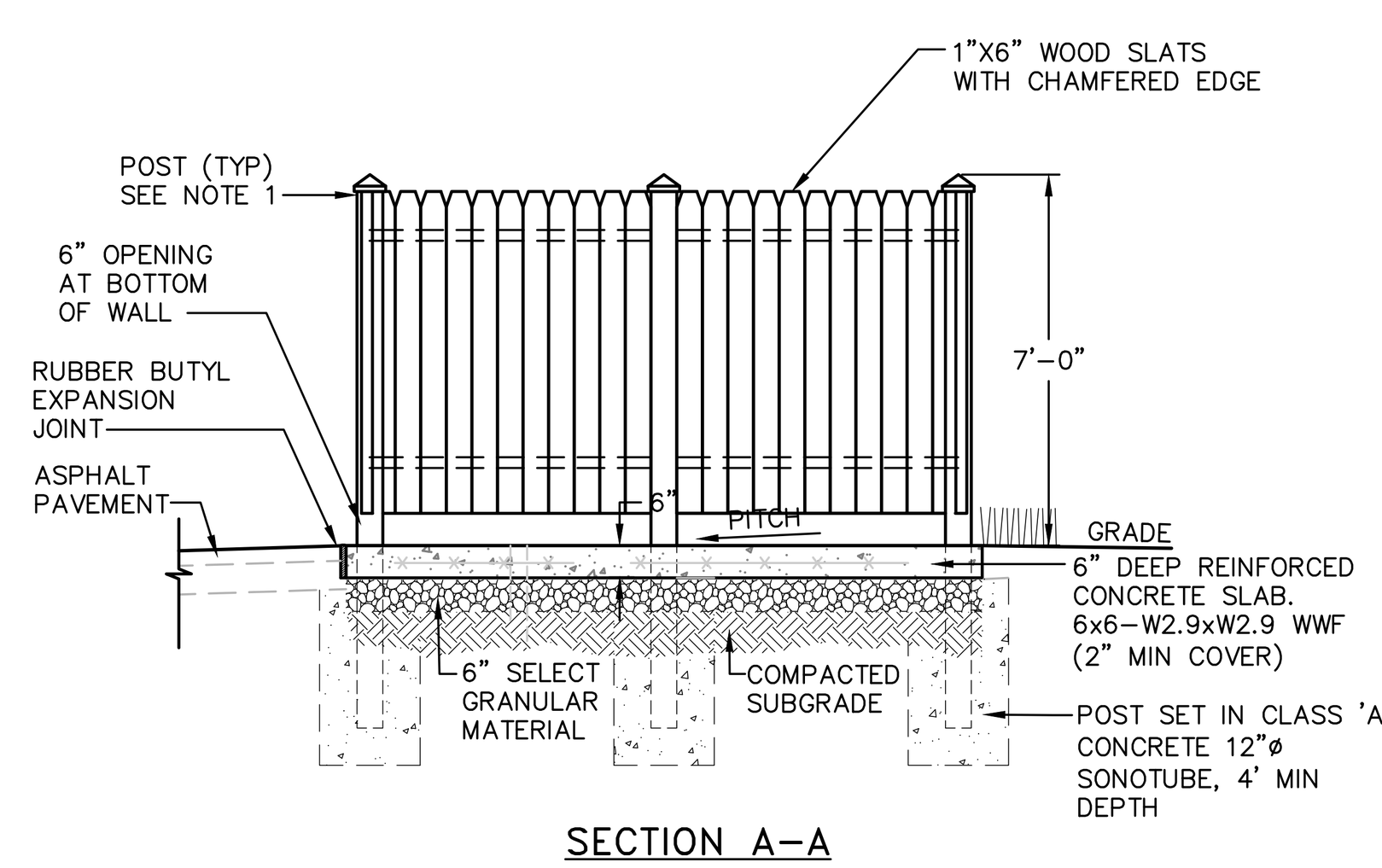
STOP BAR DETAIL
NOT TO SCALE



NOTES:
1. RETAINING WALL MANUFACTURED BY REDI–RCOK OR APPROVED EQUAL.
2. REDI–ROCK WALLS ARE PROPOSED AT THE PARKING AREA NEAR BUILDINGS 1 AND 2, BEHIND BUILDING 5 & 6 AND AT THE WEST SIDE OF THE SITE ENTRANCE DRIVEWAY OFF BRANCH STREET. THE RETAINING WALL AT BUILDING 4 IS A CAST–IN–PLACE CONCRETE WALL DESIGNED BY OTHERS.
3. THE RETAINING WALL SHALL BE DESIGNED BY A NEW YORK STATE LICENSED ENGINEER AND PLANS SHALL BE SUBMITTED TO THE BEACON BUILDING DEPARTMENT PRIOR TO CONSTRUCTION.
4. SEE MANUFACTURER'S DETAILS AND INSTALLATION GUIDELINES FOR FURTHER REQUIREMENTS.

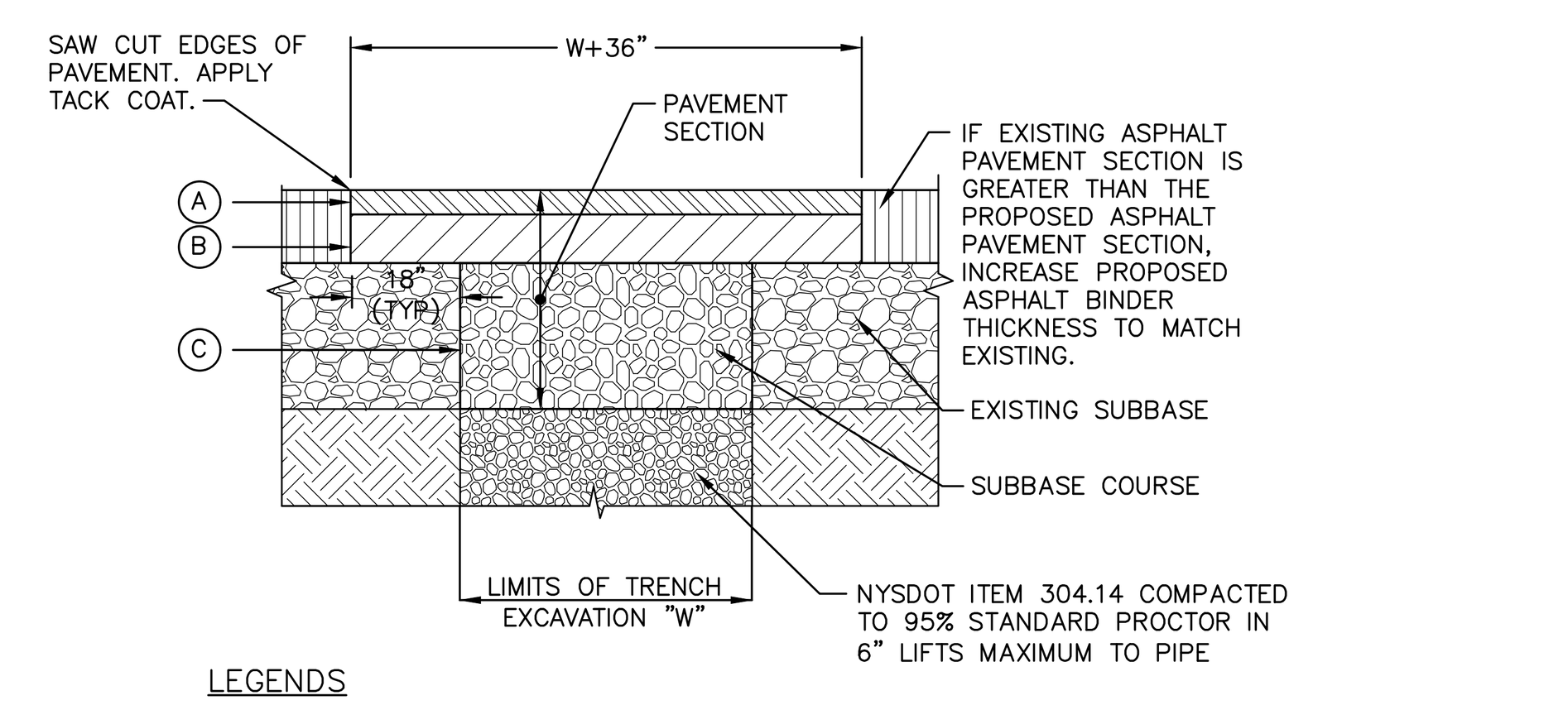
TYPICAL REDI–ROCK GRAVITY WALL WITH 41" BLOCKS
NOT TO SCALE





NOTES
1. POSTS SHALL HAVE A DECORATIVE CAP, CONSISTENT WITH THE ARTS & CRAFTS STYLE, AS APPROVED BY OWNER. POST SPACING SHALL BE AS REQUIRED BY WALL CONSTRUCTION.
2. WALLS OF DUMPSTER ENCLOSURE SHALL BE A SOLID WOOD PRIVACY FENCING NATURAL STAIL OR PAINT TO COMPLEMENT BUILDING.

TRASH ENCLOSURE DETAILS
NOT TO SCALE



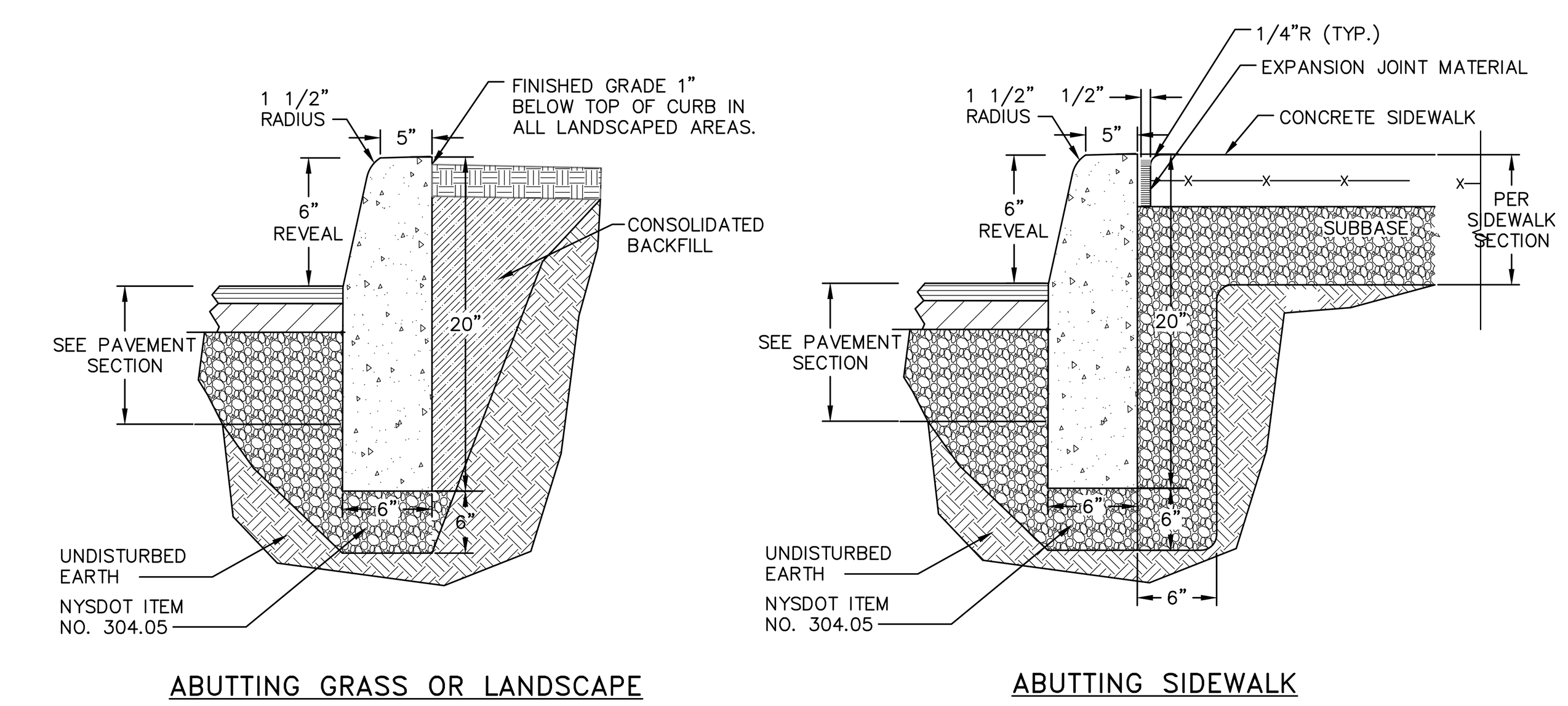
LEGENDS

SOUTH AVENUE RESTORATION COURSES:
- (A) 1–1/2" ASPHALT CONCRETE TOP COURSE– NYSDOT TYPE 6F
- (B) 2–1/2" ASPHALT CONCRETE BINDER COURSE– NYSDOT TYPE 3
- (C) 8" ASPHALTIC BASE COURSE– NYSDOT ITEM 304.14 (4" LIFTS)

WOLCOTT AVENUE RESTORATION COURSES:
- (A) 1–1/2" ASPHALT CONCRETE TOP COURSE– NYSDOT TYPE 6F
- (B) 2–1/2" ASPHALT CONCRETE BINDER COURSE– NYSDOT TYPE 3
- (C) 8" ASPHALTIC BASE COURSE– NYSDOT ITEM 304.14 (4" LIFTS)

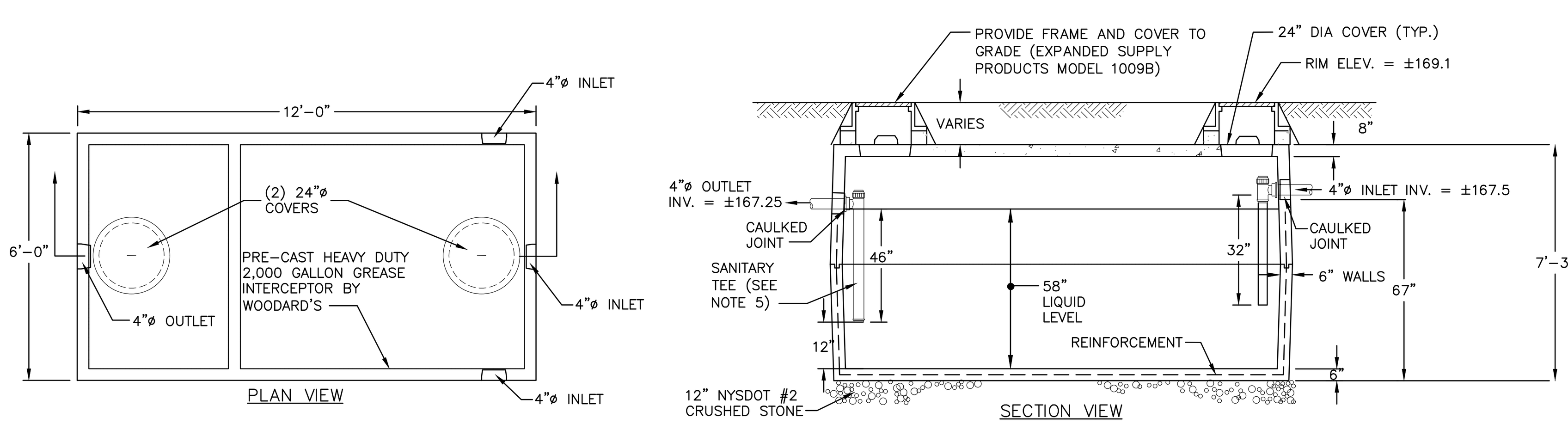
NOTES:
1. SAW CUT MIN. 18" BEYOND EXCAVATION WITH SMOOTH EDGES. 18" JOINT BETWEEN EXISTING AND NEW TOP COURSE TO BE MILLED. JOINT TO BE SEALED WITH POLYMER MODIFIED SEALER.
2. FURNISH, PLACE, AND COMPACT SUBBASE IN TWO 4" LIFTS.
3. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.
4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.

PAVEMENT RESTORATION DETAIL
NOT TO SCALE



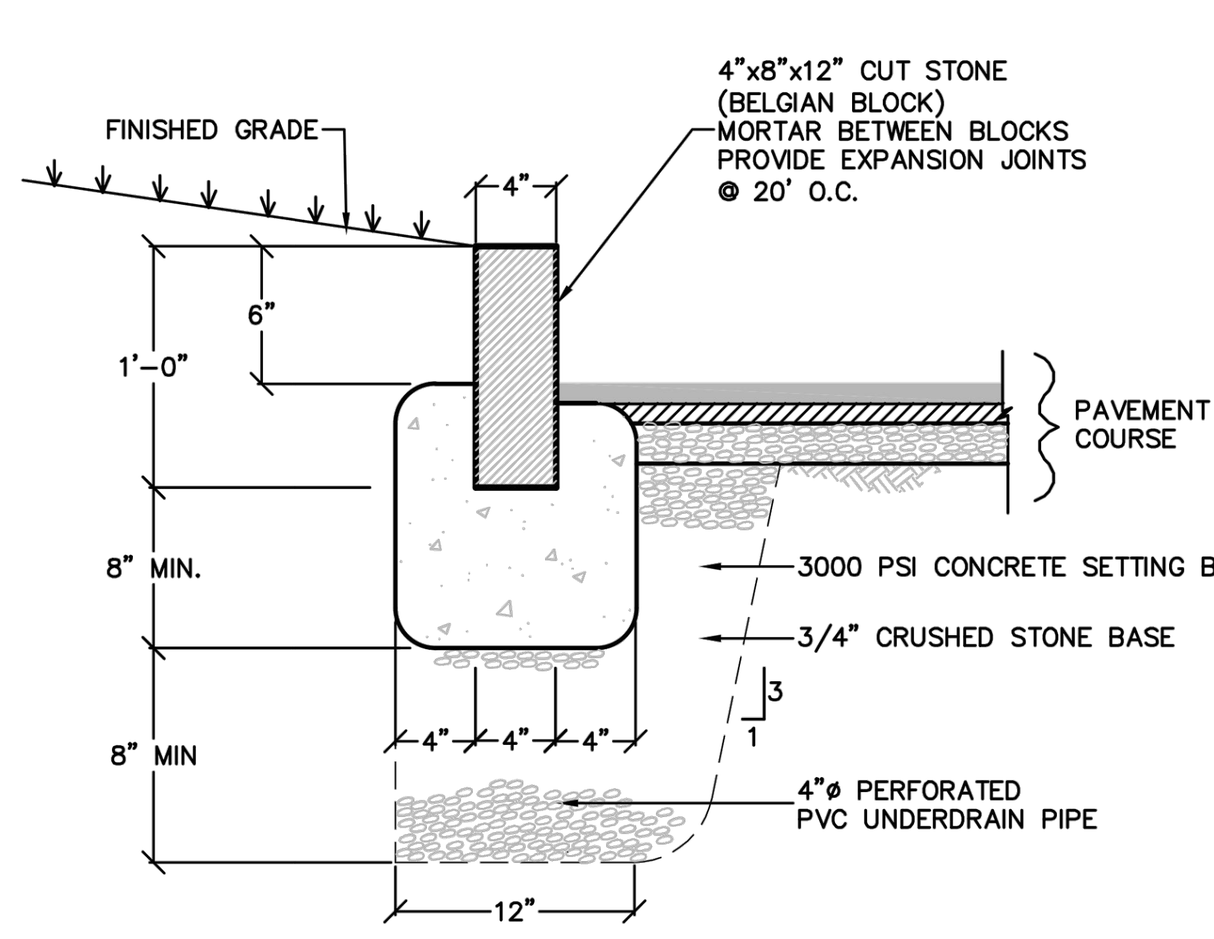
NOTES:
1. CONCRETE CURB SHALL BE 4,000 PSI CAST–IN–PLACE, AND IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION SECTION 609.
2. EXPANSION JOINTS OF 1/2" CELLULOSE OR SIMILAR MATERIAL SHALL BE PLACED AT 10 FOOT INTERVALS.
3. FOR MOUNTABLE CURBS ABUTTING SIDEWALK OR OTHER HARDSCAPE, REFER TO "ABUTTING SIDEWALK" DETAIL.

CAST–IN–PLACE CONCRETE CURB DETAIL
NOT TO SCALE



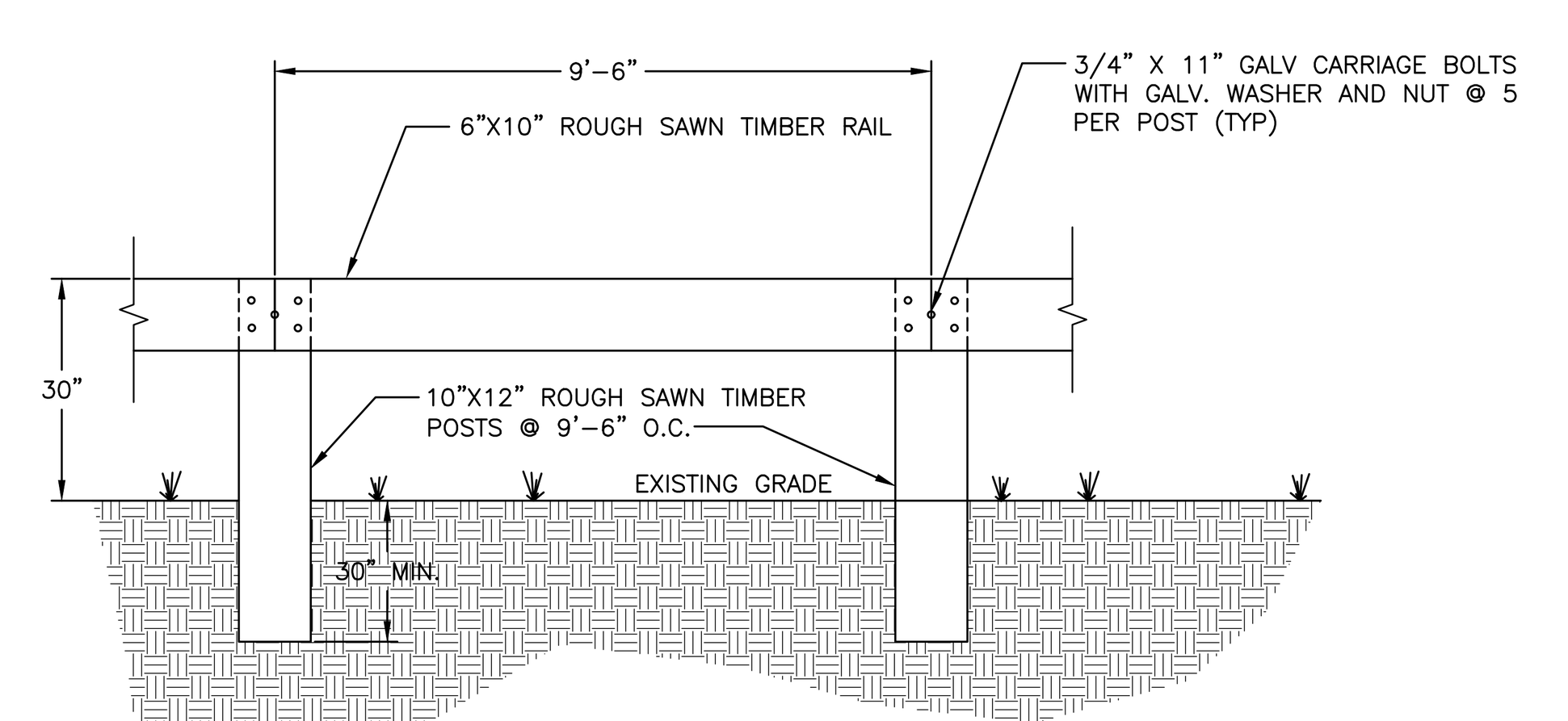
NOTES:
1. TANK SHALL BE RATED FOR H20 VEHICLE LOADING.
2. A WATER TIGHTNESS TEST SHALL BE COMPLETED BY THE CONTRACTOR, WITNESSED BY THE ENGINEER AND REGULATORY AGENCY, AND SHALL INCLUDE FILLING THE TANK AND MEASURING WATER LEVEL OVER A 24–HOUR PERIOD OR OTHER ACCEPTABLE METHOD.
3. ALL JOINTS SHALL BE WATER TIGHT.
4. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
5. SANITARY TEES ON OUTLET SIDE SHALL BE EXTENDED TO THE BOTTOM 1/3 OF THE TANK, BUT NO CLOSER THAN 12" TO THE TANK BOTTOM.
6. A RECORD OF MAINTENANCE OF THE GREASE INTERCEPTOR SHALL BE KEPT AND SHALL BE MADE AVAILABLE TO THE MUNICIPALITY AND/OR ITS CONSULTANTS.

PRECAST CONCRETE 2,000 GALLON GREASE INTERCEPTOR DETAIL (H20 LOAD RATED)
NOT TO SCALE



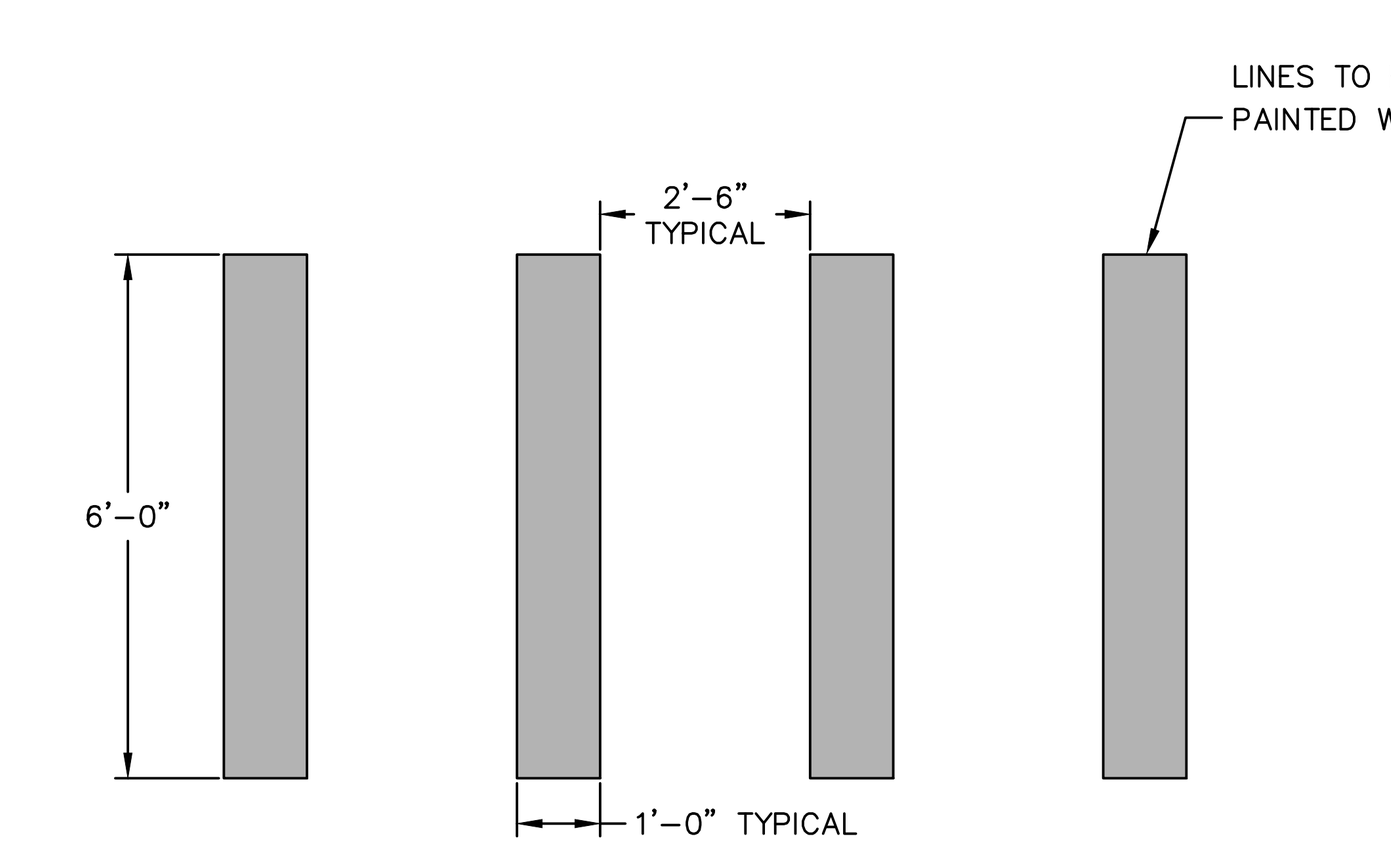
NOTES:
1. EXPANSION JOINTS OF 3/16" CELLULOSE OR SIMILAR MATERIAL SHALL BE PLACED AT TEN FOOT INTERVALS, TO FULL DEPTH OF CURB.
2. UNDERDRAIN MAY BE ELIMINATED IN PARKING LOTS AND OTHER NON–PUBLIC FACILITIES.

BELGIAN BLOCK CURB DETAIL
N.T.S.



NOTES:
1. STEEL–BACKED TIMBER GUIDERAIL SHALL BE IN ACCORDANCE WITH FHWA STANDARD SHEET 617–20. REFER STANDARD SHEET FOR ADDITIONAL DETAILS.

STEEL–BACKED TIMBER GUIDERAIL DETAIL
NOT TO SCALE



PAINTED CROSSWALK DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

______________ DAY OF ________________, 20_______, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS __________________ DAY OF ______________, 20_____, BY

______________________________ CHAIRMAN

______________________________ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/25/22	PER PLANNING BOARD COMMENTS	CMB				
2	6/28/22	PER PLANNING BOARD COMMENTS	CMB				
3	7/26/22	PER PLANNING BOARD COMMENTS	CMB				
4	8/30/22	PER PLANNING BOARD COMMENTS	CMB				
5	9/27/22	PER PLANNING BOARD COMMENTS	CMB				

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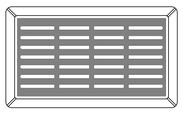
F: 845-440-6637

CONSTRUCTION DETAILS
MIRBEAU BEACON

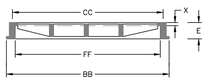
7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	AS SHOWN
TITLE:	CD-1
SHEET:	16 OF 28

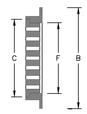
UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



PLAN VIEW



SECTION VIEW 1



SECTION VIEW 2

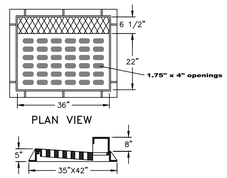
DIMENSION TABLE:

B	C	E	F	X	BB	CC	FF
30"	24"	4"	22"	1"	41"	36"	34"

NOTES:

1. HEAVY DUTY RECTANGULAR STORMWATER INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 3433, OR APPROVED EQUAL.
2. CATCH BASINS TO RECEIVE FLAT INLETS ARE: TBD

CAST IRON STORMWATER FLAT INLET GRATE DETAIL
NOT TO SCALE



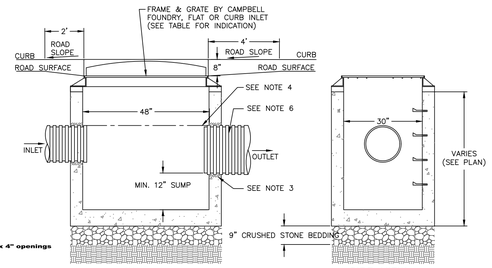
PLAN VIEW

SECTION VIEW

NOTES:

1. HEAVY DUTY RECTANGULAR STORMWATER INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 2541, OR APPROVED EQUAL.
2. ALL CATCH BASINS TO RECEIVE CURB INLETS UNLESS OTHERWISE NOTED.

CAST IRON STORMWATER
CURB INLET GRATE DETAIL
NOT TO SCALE

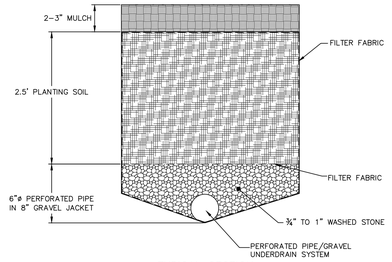


FRONT VIEW SIDE VIEW

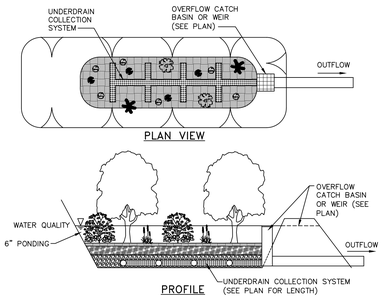
NOTES:

1. PRECAST CONCRETE CATCH BASIN WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.
2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE CATCH BASIN AND PARGED AROUND.
3. PIPES SHALL BE PARGED AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN 10 FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATERTIGHT.
4. PROVIDE A MINIMUM 0.1' DROP BETWEEN INLET AND OUTLET INVERTS (MATCH CROWNS FOR PIPES WITH DIFFERENT SIZE) UNLESS OTHERWISE NOTED ON THE PLAN.
5. CATCH BASINS WITH AN INTERIOR DEPTH OF 4' AND GREATER SHALL BE FURNISHED WITH STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS AT 12" INTERVALS.
6. HDPE PIPE SHALL BE PROVIDED WITH WATERTIGHT CONNECTIONS. ADS MODEL N12 WT IB OR APPROVED EQUAL.

CATCH BASIN DETAIL
NOT TO SCALE



TYPICAL SECTION



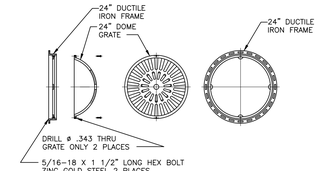
PLAN VIEW

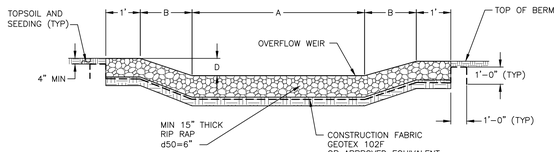
PROFILE

NOTES:

1. NO RUNOFF IS TO ENTER THE BIORETENTION AREA UNTIL ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED.
2. LANDSCAPING TO BE PROVIDED BY THE PROJECT LANDSCAPE ARCHITECT AND AS FOLLOWS:
   - NATIVE PLANT SPECIES SHOULD BE SPECIFIED BASED ON SPECIFIED ZONE OF HYDRIC TOLERANCE
   - SELECTIONS OF TREES WITH AN UNDERSTORY OF SHRUBS AND HERBACEOUS MATERIALS SHOULD BE PROVIDED.
   - WOODY VEGETATION SHOULD NOT BE SPECIFIED AT INFLOW LOCATIONS.
   - TREES SHOULD BE PLANTED PRIMARILY ALONG THE PERIMETER OF THE FACILITY.
   - A TREE DENSITY OF 1 TREE PER 100 SQUARE FEET IS RECOMMENDED, AND SHRUBS/HERBACEOUS VEGETATION SHOULD GENERALLY BE PLANTED AT HIGHER DENSITIES (FIVE FEET ON CENTER AND 2.5 FEET ON CENTER, RESPECTIVELY).
3. SEE PLAN FOR PRETREATMENT.

TYPICAL BIORETENTION DETAIL
NOT TO SCALE

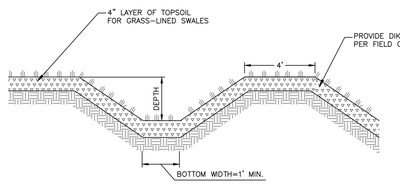




NOTES:

1. RIP RAP OUTLET PROTECTION SHALL BE 15" OF LIGHT STONE FILLING. STONE FILLING SIZE d50=6", RIVER ROCK MAY BE SUBSTITUTED FOR ANGULAR STONE.

EMERGENCY OVERFLOW WEIR DETAIL
NOT TO SCALE

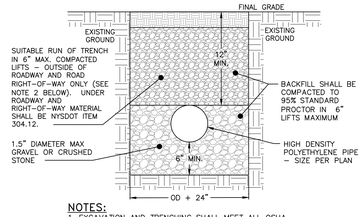


SECTION VIEW

NOTES:

1. MINIMUM 1' DEPTH AND 1' WIDTH FOR ALL SWALES.
2. SWALE SHALL BE SEEDED WITH FAST GERMINATING RYE 15 TO 25 POUNDS PER 1,000 SQUARE FEET AND MULCHED.

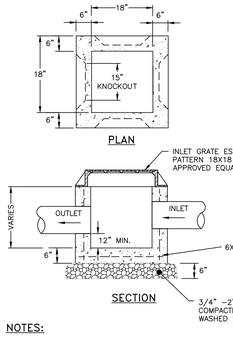
TEMPORARY GRASS LINED SWALE/DIKE DETAIL
NOT TO SCALE



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

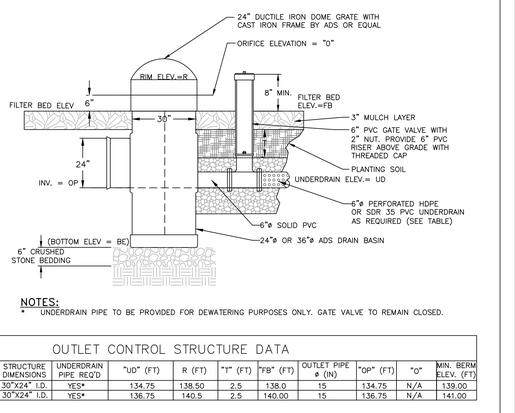
STORM LINE TRENCH DETAIL
NOT TO SCALE



NOTES:

1. YARD INLET BASINS SHALL BE PRE CAST REINFORCED CONCRETE SHALL HAVE A MINIMUM 28–DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND SHALL BE IN CONFORMANCE WITH ASTM 478–68. WALLS AND BASE SHALL BE ONE PIECE CONSTRUCTION. YARD INLET BASIN SHOWN BY EXPANDED SUPPLY PRODUCTS (ESP), 3330 ROUTE 9, COLD SPRING, NY (845) 265–3771.
2. BACKFILL USING SELECT MATERIAL, COMPACTED IN 6" LIFTS.
3. SUMP SHALL BE 12".
4. FRAMES AND GRATES SHALL BE SET IN A FULL BED OF MORTAR.

PRE–CAST CONCRETE YARD INLET DETAIL
NOT TO SCALE



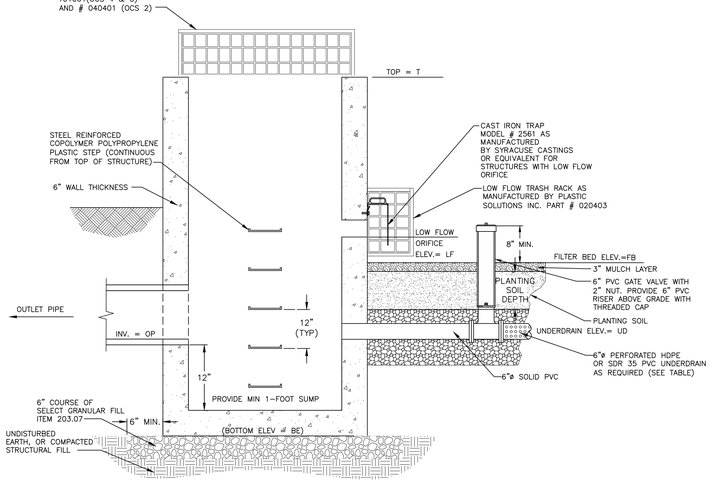
NOTES:

* UNDERDRAIN PIPE TO BE PROVIDED FOR DEWATERING PURPOSES ONLY. GATE VALVE TO REMAIN CLOSED.

OUTLET CONTROL STRUCTURE DATA

BIO ID	STRUCTURE DIMENSIONS	UNDERDRAIN PIPE REQ'D	"UD" (FT)	R (FT)	"I" (FT)	"FB" (FT)	OUTLET PIPE ø (IN)	"OP" (FT)	"O"	MIN. BERM ELEV. (FT)
B	30"X24" I.D.	YES*	134.75	138.50	2.5	138.0	15	134.75	N/A	139.00
C	30"X24" I.D.	YES*	136.75	140.5	2.5	140.00	15	136.75	N/A	141.00

FLAT ROOF RECTANGULAR RACK AS MANUFACTURED BY PLASTIC SOLUTIONS, INC PART # 101001(OCS 4 & 5) AND # 040401 (OCS 2)



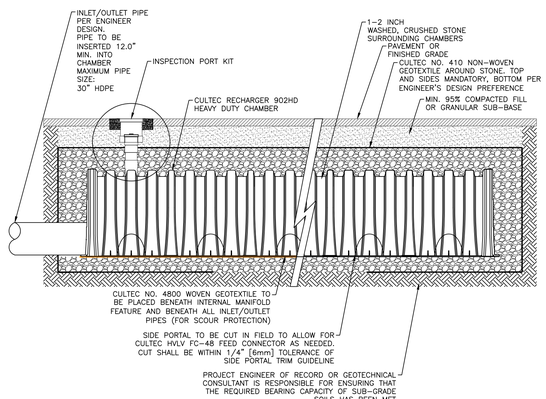
OUTLET CONTROL STRUCTURE DATA

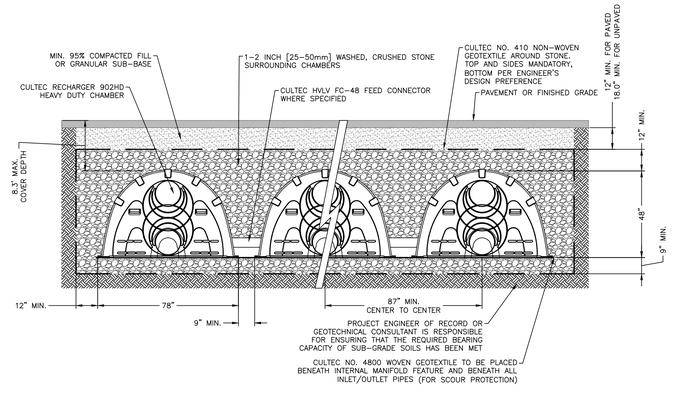
BIORETNTION AREA	STRUCTURE DIMENSIONS	LOW FLOW ORIFICE DIM. (IN)	"UD" (FT)	MIN. UG LENGTH	"LF" (FT)	# OF HIGH FLOW INLETS	"HF" (FT)	"I" (FT)	OUTLET PIPE ø (IN)	"OP" (FT)
A	42"X42" I.D.	2	N/A	0	136.5	0	N/A	137.1	18	133.5

NOTES:

1. ALL TRASH RACKS SHALL HAVE UV PROTECTION MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM D2565–99.
2. TRASH RACKS SHALL BE SECURED PER THE MANUFACTURER'S RECOMMENDATIONS.

BIORETENTION OUTLET CONTROL STRUCTURE DETAIL
NOT TO SCALE





ADS DRAIN BASIN OUTLET
CONTROL STRUCTURE DETAIL
NOT TO SCALE

TOP STONE ELEV. = 149.25

BOTTOM STONE ELEV. = 144.25

BOTTOM STONE ELEV. = 143.50

NOTES:

1. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS." THE LOAD CONFIGURATION SHALL INCLUDE:
   1.a. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
   1.b. MAXIMUM PERMANENT (50–YEAR) COVER LOAD
   1.c. 1–WEEK PARKED AASHTO DESIGN TRUCK LOAD
2. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430–20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS"
3. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
   3.a. THE CREEP MODULUS SHALL BE 50–YEAR AS SPECIFIED IN ASTM F3430
   3.b. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
   3.c. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

UNDERGROUND DETENTION/INFILTRATION SYSTEM DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____ SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/25/22	PER PLANNING BOARD COMMENTS	CMB				
2	6/28/22	PER PLANNING BOARD COMMENTS	CMB				
3	7/26/22	PER PLANNING BOARD COMMENTS	CMB				
4	8/30/22	PER PLANNING BOARD COMMENTS	CMB				
5	9/27/22	PER PLANNING BOARD COMMENTS	CMB				

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www.lrcconsult.com
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● Landscape Architecture
● Civil Engineering
● Environmental Services
● Land Surveying
● Land Planning

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SEAL
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PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845–440–6926
F: 845–440–6637

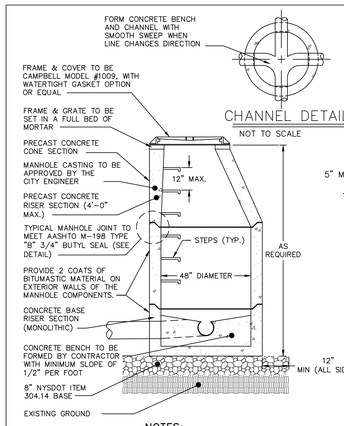
CONSTRUCTION DETAILS

MIRBEAU BEACON

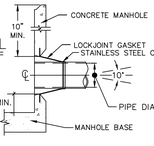
7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054–13–001256

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	AS SHOWN
TITLE:	CD–2
SHEET:	17 OF 28

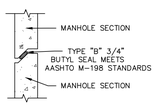
UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



CHANNEL DETAIL
NOT TO SCALE



BOOT DETAIL
NOT TO SCALE

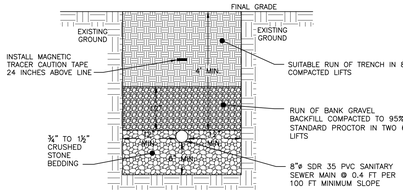


JOINT DETAIL
NOT TO SCALE

NOTES:

1. PIPE CONNECTION TO BE STANDARD "LOCKJOINT" BOOT 5" OFF BASE OF MANHOLE (SEE DETAIL).
2. CONCRETE STRENGTH OF MANHOLE COMPONENTS TO BE 4000 PSI @ 28 DAYS IN ACCORDANCE WITH ASTM C-478-86.
3. STEEL REINFORCEMENT OF MANHOLE COMPONENTS TO MEET ASTM A615-A497 REQUIREMENTS.
4. LOADING OF MANHOLE COMPONENTS TO MEET H-20 REQUIREMENTS.
5. CONCRETE USED IN MANHOLE COMPONENTS TO CONTAIN 6% AIR ENTRAINMENT.
6. 4" MAXIMUM FROM MANHOLE TO PIPE JOINT.

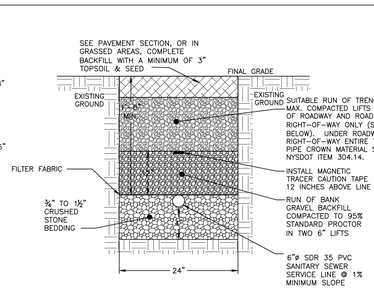
PRE-CAST CONCRETE SANITARY MANHOLE DETAIL
NOT TO SCALE



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.
3. SEWER MAIN MATERIAL SHALL BE 8" DIAMETER SDR-26 PVC BELL AND SPIGOT GRAVITY SEWER PIPE, WITH GASTIGHT AND WATERTIGHT JOINTS.

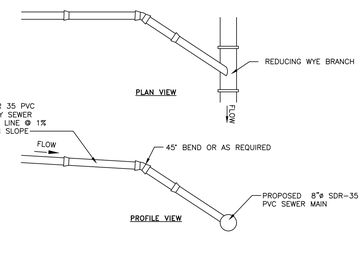
SANITARY SEWER MAIN TRENCH DETAIL
NOT TO SCALE



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.

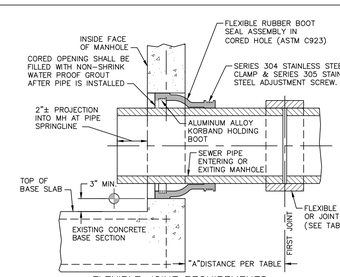
SANITARY SEWER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.

SANITARY SEWER SERVICE CONNECTION DETAIL
NOT TO SCALE



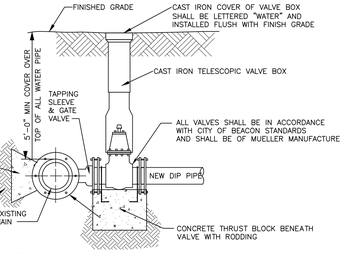
FLEXIBLE JOINT REQUIREMENTS

SEWER PIPE TYPE	FLEXIBLE JOINT TYPE IN & OUT	"A"DISTANCE (FEET)
DUCTILE IRON	STD RUBBER GASKET PIPE JOINT ONLY	10' MAX
PVC	STD RUBBER GASKET PIPE JOINT ONLY	3' MAX

NOTE:

REFERENCE MANHOLE DETAIL(S) FOR REQUIRED INVERT CHANNEL CONFIGURATION.

CORED HOLE AND INSERTED BOOT DETAIL
NOT TO SCALE



NOTES:

1. ALL VALVES SHALL OPEN BY TURNING LEFT (COUNTERCLOCKWISE) AND HAVE A 2-INCH SQUARE-OPERATING NUT PAINTED RED.
2. ALL VALVES SHALL BE M.J. RESILIENT WEDGE TYPE WITH "O" RING PACKING, DESIGNED FOR A WORKING PRESSURE OF 150 PSI AND BE IN FULL CONFORMANCE WITH AWWA C500.
3. TAPPING SLEEVE AND GATE VALVE SHOWN ARE MUELLER H-615, AND T-2630 RESPECTIVELY.

TAPPING SLEEVE DETAIL
NOT TO SCALE

SANITARY SEWER NOTES:

1. THE PROPOSED APARTMENTS ARE TO BE SERVED BY THE CITY OF BEACON MUNICIPAL SEWER SYSTEM. INSTALLATION OF ALL COMPONENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY CODE, CHAPTER 179.
2. REFER TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH STANDARD NOTES FOR ADDITIONAL PERTINENT INFORMATION.
3. THE DUTCHESS COUNTY DEPARTMENT OF HEALTH, CITY OF BEACON CHIEF SEWER OPERATOR, AND THE CERTIFYING PROFESSIONAL ENGINEER SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF THE SEWER MAIN INSTALLATION.
4. SEWER MAIN MATERIAL SHALL BE 8" DIAMETER SDR-35 OR SDR-26 PVC BELL AND SPIGOT GRAVITY SEWER PIPE, WITH GASTIGHT AND WATERTIGHT JOINTS.
5. SEWER MAIN SHALL BE LAID IN STRAIGHT ALIGNMENT. MANHOLES SHALL BE CONSTRUCTED AT ALL CHANGES IN SLOPE, ALIGNMENT OR AT INTERVALS NOT EXCEEDING 400 LINEAR FEET. STRAIGHT ALIGNMENT SHALL BE VERIFIED BY DEFLECTION TESTING.
6. THE SEWER MAIN SHALL BE INSTALLED AND TESTED FOR EXFILTRATION PRIOR TO BEING PERMITTED TO OPERATE. ALL NEW SANITARY SEWER GRAVITY LINES SHALL PASS A LOW PRESSURE AIR TEST IN ACCORDANCE WITH ASTM C-828 AT A PRESSURE OF 3.5 PSI.
7. MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH ASTM C-1244. IF PRESSURE DROP EXCEEDS THE SPECIFIED AMOUNT, THE NECESSARY REPAIRS OR REPLACEMENTS REQUIRED SHALL BE MADE TO REDUCE THE PRESSURE DROP TO WITHIN THE SPECIFIED LIMIT, AND THE TESTS SHALL BE REPEATED UNTIL THE REQUIREMENT IS MET.
8. SERVICE LATERALS SHALL BE 6" DIAMETER SDR-35 PVC WITH A MINIMUM SLOPE OF 1%, UNLESS OTHERWISE NOTED ON THE PLAN.
9. ALL SANITARY SEWER MAINS AND MANHOLES UP TO, BUT NOT INCLUDING, THE EXISTING CONNECTION MANHOLE ON BRANCH STREET SHALL BE OWNED, OPERATED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.

WATER NOTES:

1. THE PROPOSED APARTMENT BUILDINGS ARE TO BE SERVED BY THE CITY OF BEACON MUNICIPAL WATER SYSTEM. INSTALLATION OF ALL COMPONENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY CODE, CHAPTER 219.
2. REFER TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH STANDARD NOTES FOR ADDITIONAL PERTINENT INFORMATION.
3. THE WATER MAIN SHALL BE INSTALLED, PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C600 (SEE NOTES BELOW).
4. THE DUTCHESS COUNTY DEPARTMENT OF HEALTH, CITY OF BEACON WATER OPERATOR, AND THE CERTIFYING PROFESSIONAL ENGINEER SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF THE WATER MAIN INSTALLATION.
5. THE WATER MAIN SHALL BE DISINFECTED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C651 (SEE NOTES BELOW).
6. WATER MAIN MATERIAL SHALL BE CLASS 52 CEMENT LINED DUCTILE IRON PIPE WITH MECHANICAL JOINTS AND SHALL MEET THE REQUIREMENTS OF AWWA C150 AND ANSI A21.51.
7. MEGALUG RESTRAINING SYSTEMS SHALL BE USED AT ALL FITTINGS, VALVES AND HYDRANTS (SEE SCHEDULE ON SHEET 14).
8. GATE VALVES SHALL BE MUELLER RESILIENT WEDGE, NON-RISING STEM, MECHANICAL JOINT.
9. HYDRANTS SHALL BE A-423 MUELLER CENTURION, WITH A MUELLER GATE VALVE BEFORE THE HYDRANT.
10. SERVICE LINES SHALL BE 6"ø CL 52 DIP, UNLESS OTHERWISE NOTED ON THE PLAN.
11. THE CONTRACTOR SHALL VERIFY THE EXISTING WATER MAIN MATERIAL AND BE PREPARED TO PROVIDE A SPECIAL COUPLING FOR CONNECTION OF THE PROPOSED DUCTILE IRON WATER MAIN.
12. A PRESSURE REDUCING VALVE SHALL BE INSTALLED FOR EACH NEW TOWNHOME, WATTS MODEL 25AUB-Z3 OR EQUAL AS APPROVED BY THE CITY OF BEACON WATER DEPARTMENT.
13. THE CITY OF BEACON SHALL OWN, OPERATE AND MAINTAIN THE WATER MAIN THROUGHOUT THE SITE, INCLUDING ALL APPURTENANCES.
14. THE HOA OR OWNER SHALL ANNUALLY EXERCISE ALL WATER VALVES.

WATER MAIN PRESSURE & LEAKAGE TESTING

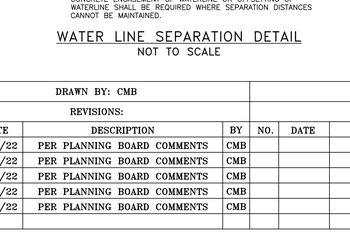
GENERAL: ALL PIPING SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF AWWA C600, EXCEPT AS ADDED OR AMENDED BELOW:
1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR ANY AND ALL REQUIRED PIPE TAPS FOR TESTING, AND AS NECESSARY FOR TESTING AS SPECIFIED. EQUIPMENT WILL BE SUCH THAT THE ENGINEER MAY INSTALL HIS OWN PRESSURE GAUGE.
2. A PRESSURE TEST AND LEAKAGE TEST ARE REQUIRED FOR ALL PIPE.
3. TESTING TO BE PERFORMED ONLY AFTER PARTIAL OR COMPLETE BACKFILL AND RESTRAINT BLOCKING (USING HIGH EARLY CEMENT) HAS HAD 36 HOURS TO CURE OR BLOCKING USING STANDARD CEMENT HAS HAD 7 DAYS TO CURE.
4. THE MAIN SHALL BE PARTIALLY BACKFILLED OR BRACED AGAINST MOVEMENT DURING THE TEST. ALL AIR MUST BE BLED OUT OF THE SECTION TO BE TESTED. IF NECESSARY, CONTRACTOR SHALL INSTALL CORPORATION STOPS AT THE HIGH POINTS, FOR BLOW-OFFS. AFTER ALL AIR HAS BEEN EXPELLED, THE CORPORATION COCKS SHALL BE CLOSED AND THE PRESSURE TEST APPLIED. AFTER EXAMINATION OF EXPOSED PARTS OF THE SYSTEM, THE TEST PRESSURE SHALL BE INCREASED TO 1 1/2 TIMES THE NORMAL PRESSURE, BASED UPON THE ELEVATION OF THE LOWEST POINT IN THE LINE OR SECTION UNDER THE TEST, BUT SUCH PRESSURE SHALL NOT BE LESS THAN 150 PSI NOR MORE THAN 200 PSI, AND EXPOSED PARTS AGAIN EXAMINED. THE MINIMUM DURATION OF THE LEAKAGE TEST SHALL BE TWO (2) HOURS.
5. ALLOWABLE SYSTEM LEAKAGE AS SPECIFIED IN THE REFERENCED STANDARDS. IF LEAKAGE IN SYSTEM IS GREATER THAN ALLOWABLE, CONTRACTOR WILL LOCATE AND REPAIR SYSTEM AT HIS EXPENSE AND RETEST, CONTINUE TO TEST AND REPAIR THE SYSTEM UNTIL LEAKAGE IS WITHIN ACCEPTABLE LIMITS.
6. NO DUCTILE IRON PIPE INSTALLATION WILL BE ACCEPTED IF THE LEAKAGE IS GREATER THAN THAT DETERMINED BY THE FOLLOWING FORMULA:

$$L = \frac{SD\sqrt{P}}{148{,}000}$$

WHERE
L = LEAKAGE IN GALLONS PER HOUR
S = LENGTH OF PIPE TESTED, IN FEET
D = NOMINAL DIAMETER OF PIPE IN INCHES
P = AVERAGE TEST PRESSURE DURING LEAKAGE TEST, IN PSI (GAUGE)

WATERMAIN DISINFECTION & TESTING

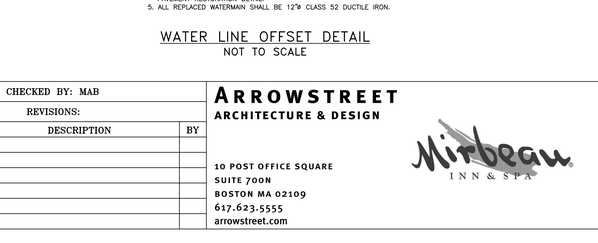
1. THE CONTRACTOR SHALL NOTIFY THE CITY OF BEACON WATER DEPARTMENT PRIOR TO TESTING AND SHALL ALSO COORDINATE HIS ACTIONS WITH THE CITY ENGINEER SO AS TO AVOID UNDUE DISTURBANCE OF THE WATER SUPPLY TO ANY EXISTING USERS.
2. THE CONTRACTOR SHALL INFORM THE DESIGN ENGINEER'S AND CITY ENGINEER'S OFFICE A MINIMUM OF 24 HOURS PRIOR TO TESTING SUCH THAT WITNESSING CAN TAKE PLACE AND PROPER CERTIFICATIONS CAN BE ISSUED.
3. ALL NEWLY INSTALLED WATER MAINS SHALL BE FLUSHED AT A MINIMUM VELOCITY OF 2.5 FT/SECOND BEFORE AND AFTER DISINFECTION.
4. ALL WATER LINES SHALL BE DISINFECTED USING THE PROCEDURES DESCRIBED IN THE LATEST EDITION OF AWWA C651 SPECIFICATIONS FOR DISINFECTION OF WATER LINES (WITH THE EXCEPTION OF THE TABLET METHOD). WATER ENTERING THE NEW MAIN SHALL RECEIVE A DOSE OF CHLORINE FED AT A CONSTANT RATE SUCH THAT THE WATER WILL HAVE NOT LESS THAN 25 MG/L FREE CHLORINE. CHLORINE APPLICATION SHALL NOT CEASE UNTIL THE ENTIRE MAIN IS FILLED WITH HEAVILY CHLORINATED WATER.
5. DISINFECTED WATER SHALL REMAIN IN THE NEWLY INSTALLED WATER LINE FOR A MINIMUM OF 24 HOURS. AFTER THIS RETENTION PERIOD, THE HEAVILY CHLORINATED WATER SHALL BE FLUSHED FROM THE MAIN UNTIL CHLORINE MEASUREMENTS SHOW A CONCENTRATION IN THE WATER LEAVING THE MAIN HAS NO HIGHER THAN THAT GENERALLY PREVAILING IN THE SYSTEM. AT SUCH TIME, BACTERIOLOGICAL SAMPLING FOR SUBMITTAL TO STATE HEALTH LABORATORIES SHALL BE PERFORMED BY THE CONTRACTOR.
6. WATER SAMPLES SHALL BE TESTED FOR TOTAL COLIFORM, TPC (HETEROTROPHIC PLATE COUNT), TURBIDITY & COLOR.
7. CONTRACTOR WILL CONTINUE FLUSHING AND DISINFECTION OPERATION UNTIL ACCEPTABLE BACTERIOLOGICAL RESULTS ARE OBTAINED. TWO (2) SUCCESSIVE SAMPLES ARE TO BE TAKEN AT TWENTY-FOUR (24) HOUR INTERVALS.
8. THE ENVIRONMENT INTO WHICH THE HEAVILY CHLORINATED WATER IS TO BE DISCHARGED SHALL BE INSPECTED, AND IF THERE IS ANY LIKELIHOOD THAT THE CHLORINATED DISCHARGE WILL CAUSE DAMAGE, THEN A REDUCING AGENT SHALL BE APPLIED TO THE WATER TO BE WASTED TO THOROUGHLY NEUTRALIZE THE CHLORINE RESIDUAL IN THE WATER. PERMITS MAY BE REQUIRED. THE CITY ENGINEER SHALL BE NOTIFIED PRIOR TO DISPOSAL OF HIGHLY CHLORINATED WATER.



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, ENLOGATED PARTICLES, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.
3. IN AREAS WHERE 5' COVER REQUIREMENT CANNOT BE MET, THE CONTRACTOR SHALL PROVIDE PIPE INSULATION TO PREVENT FREEZING.

WATER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



NOTES:

1. THE GATE VALVE SHALL BE LOCATED THIRTY SIX (36) INCHES FROM THE HYDRANT CENTER LINE.
2. ½" STEEL TIE RODS TO BE PROVIDED BETWEEN THE GATE VALVE AND THE HYDRANT.
3. ALL HYDRANTS SHALL BE PAINTED RED IN ACCORDANCE WITH NFPA AND CITY OF BEACON SPECIFICATIONS.

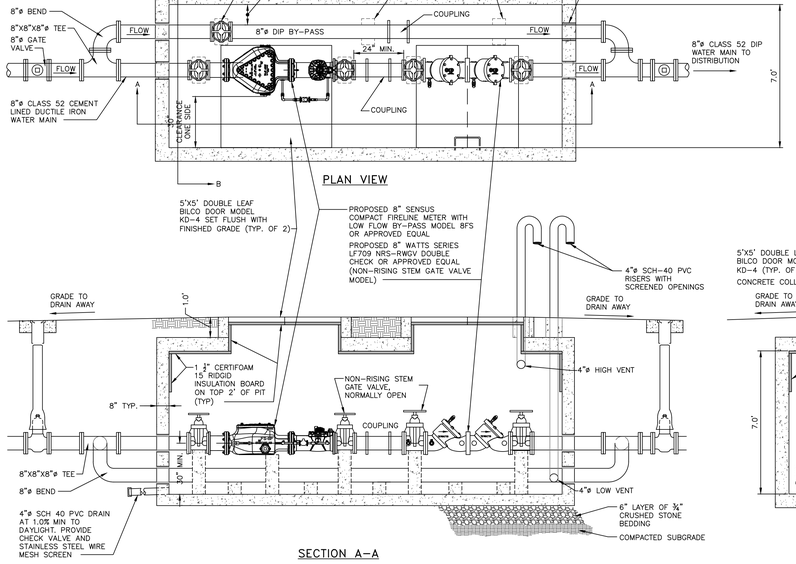
HYDRANT DETAIL
NOT TO SCALE

WATER MAIN TRENCH DETAIL
NOT TO SCALE

NOTES:

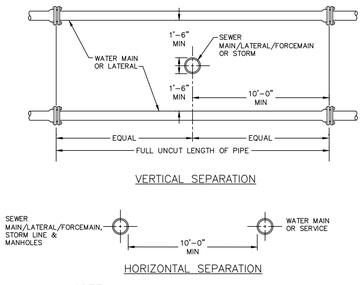
1. CONCRETE COLLAR TO BE PROVIDED IN AREAS THAT ARE NOT PAVED. THE COLLAR SHALL BE 6" FROM THE COVER AND SHALL EXTEND 6" BELOW FINAL GRADE.

GATE VALVE DETAIL
NOT TO SCALE



1. WATER METER PIT AND ASSEMBLY AND SHOP DRAWING SHALL BE SUBJECT TO REVIEW AND FINAL APPROVAL BY THE CITY OF BEACON WATER DEPARTMENT.
2. WATER METER SHALL BE PROVIDED WITH A REMOTE READING SYSTEM WITH BRONZE WATERTIGHT ENCLOSURE. WATER PROOF REGISTERS SHALL BE PROVIDED. LOCATION SHALL BE APPROVED BY THE CITY OF BEACON WATER DEPARTMENT PRIOR TO CONSTRUCTION.
3. AN ALUMINUM WARNING PLATE SHALL BE RIVETED OR OTHERWISE PERMANENTLY ATTACHED TO THE MANHOLE COVER. THE PLATE SHALL BE A MINIMUM OF 12"x12" AND SHALL BE ENGRAVED WITH THE FOLLOWING LANGUAGE: "WARNING: CONFINED SPACE – ENTRY PROHIBITED WITHOUT AUTHORIZATION – CALL OWNER FOR APPROVAL TO ACCESS". VENTILATION SHALL CONFORM TO EXISTING LOCAL AND/OR STATE CODES AND AS PER SECTION 6.2.5 OF "RECOMMENDED STANDARDS FOR WATER WORKS – 1997" (TEN STATES STANDARDS).
4. PREPARED SURFACE (I.E., BOTTOM) OF EXCAVATION FOR PLACEMENT OF WATER METER PIT SHALL CONSIST OF A MINIMUM 9" DEPTH OF 3/4" CRUSHED STONE, LEVELED AND LAID OVER STABLE NATIVE SOIL. IF EXCAVATION REVEALS UNSTABLE SOIL MATERIAL, THIS BEDDING REQUIREMENT SHALL BE MODIFIED BY THE PROJECT ENGINEER.
5. WHEN INSTALLING FIRELINE METERS WITH A STRAINER, A MINIMUM OF TWO AND A HALF (2 1/2) PIPE DIAMETERS OF STRAIGHT RUN PIPE OR EQUIVALENT FULL OPEN COMPONENTS IS REQUIRED UPSTREAM AND DOWNSTREAM OF THE METER INLET FLANGE.
6. METER PIT TO BE PROVIDED WITH STEPS.

METER PIT DETAIL
SCALE: 1"=±3'



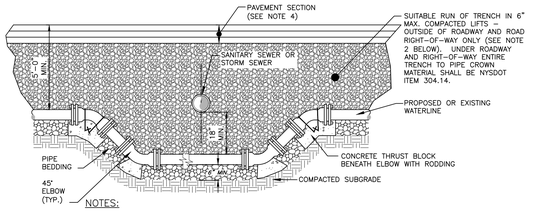
VERTICAL SEPARATION

HORIZONTAL SEPARATION

NOTE:

1. NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE EXPRESS APPROVAL OF THE DUTCHESS COUNTY DEPARTMENT OF HEALTH AND THE CITY OF BEACON. CONCRETE ENCASEMENT OF WATERLINE OR OFFSETTING OF WATERLINE SHALL BE REQUIRED WHERE SEPARATION DISTANCES CANNOT BE MAINTAINED.

WATER LINE SEPARATION DETAIL
NOT TO SCALE



NOTES:

1. WHEN THE ELEVATION OF THE SANITARY OR STORM SEWER CAN NOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER SERVICE LINE OR MAIN SHALL BE RELOCATED TO PROVIDE THIS REQUIRED SEPARATION OR RECONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF TEN (10) FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATERMAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR AWAY FROM THE SEWER AS POSSIBLE.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, ENLOGATED PARTICLES, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.
3. THE RELOCATED WATER MAIN/SERVICE LINE SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA, NYSDOH AND DCDOH STANDARDS.
4. PAVEMENT RESTORATION SHALL BE IN ACCORDANCE WITH THE PAVEMENT RESTORATION DETAIL.
5. ALL REPLACED WATERMAIN SHALL BE 12"ø CLASS 52 DUCTILE IRON.

WATER LINE OFFSET DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____ SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/25/22	PER PLANNING BOARD COMMENTS	CMB				
2	6/28/22	PER PLANNING BOARD COMMENTS	CMB				
3	7/26/22	PER PLANNING BOARD COMMENTS	CMB				
4	8/30/22	PER PLANNING BOARD COMMENTS	CMB				
5	9/27/22	PER PLANNING BOARD COMMENTS	CMB				

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• Civil Engineering
• Environmental Services
• Land Surveying
• Land Planning

HUDSON LAND DESIGN

STATE OF NEW YORK MICHAEL A. BOKSER 084484 LICENSED PROFESSIONAL ENGINEER
SEAL

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PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
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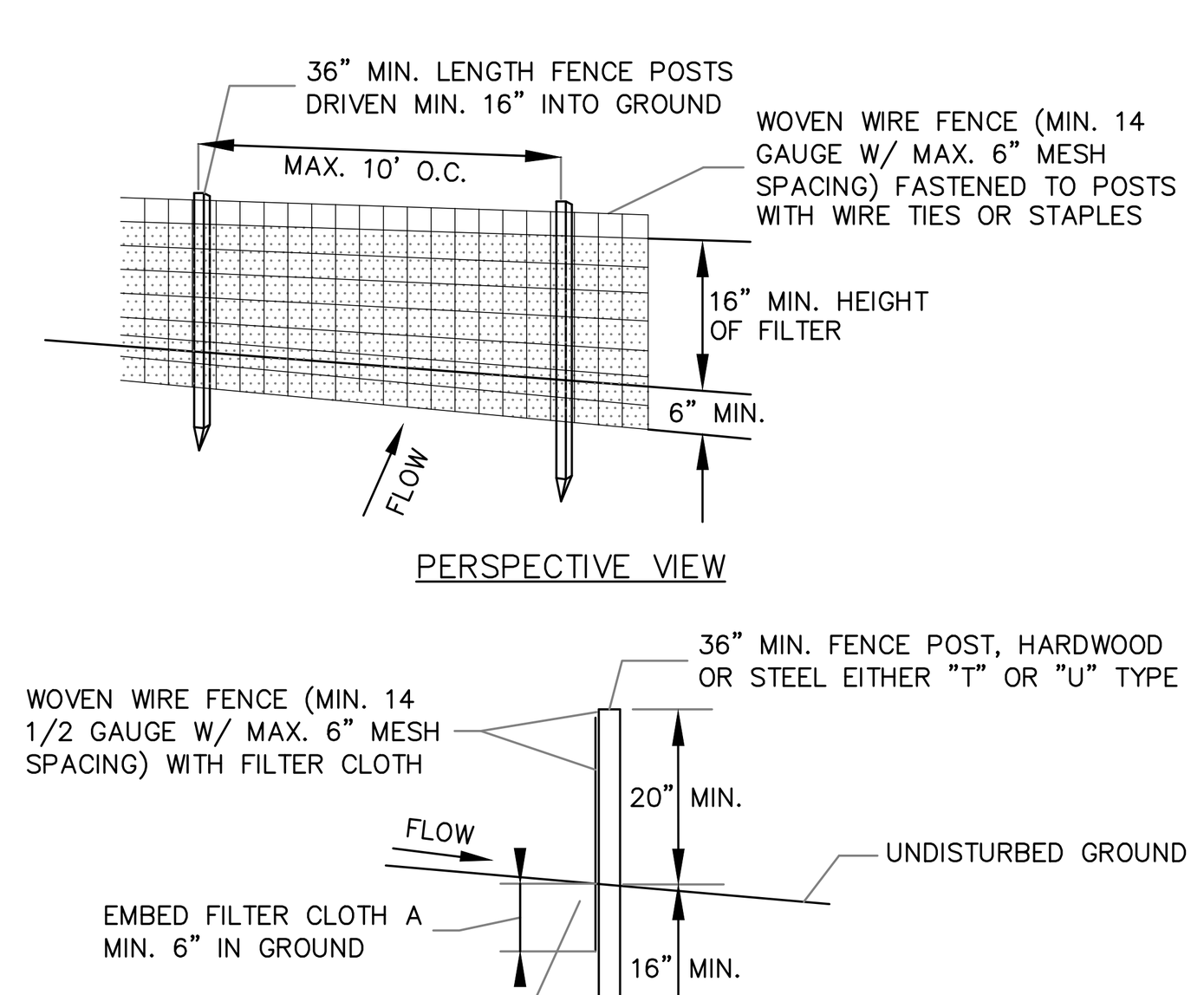
CONSTRUCTION DETAILS

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/



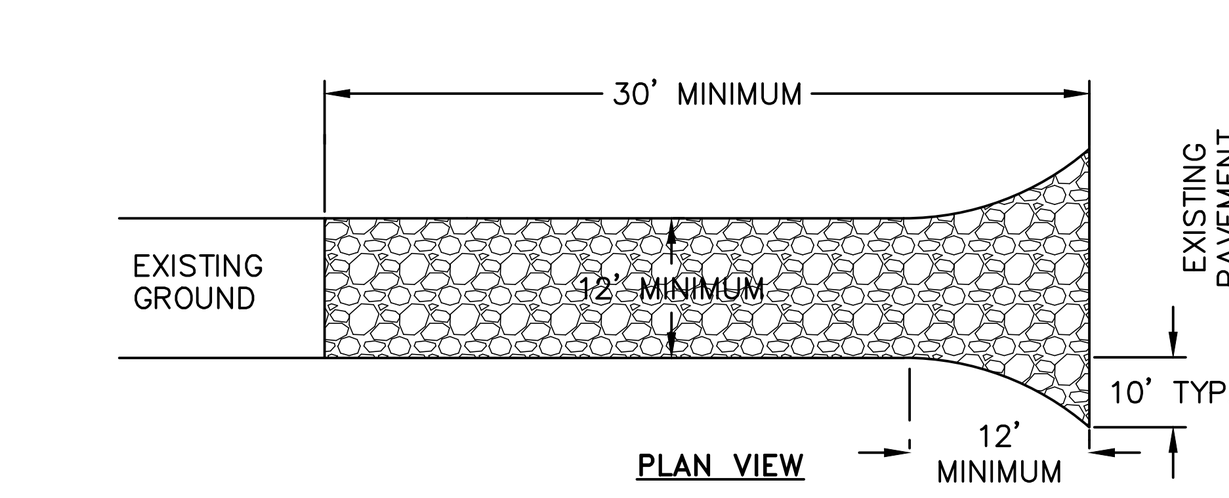
NOTES:
1. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.

2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.

3. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE OR APPROVED EQUAL.

4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL
NOT TO SCALE



NOTES:
1) STONE SIZE – USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.

2) LENGTH – NOT LESS THAN 30 FEET FOR A SINGLE RESIDENCE LOT.

3) THICKNESS – NOT LESS THAN SIX (6) INCHES.

4) WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.

5) GEOTEXTILE – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.

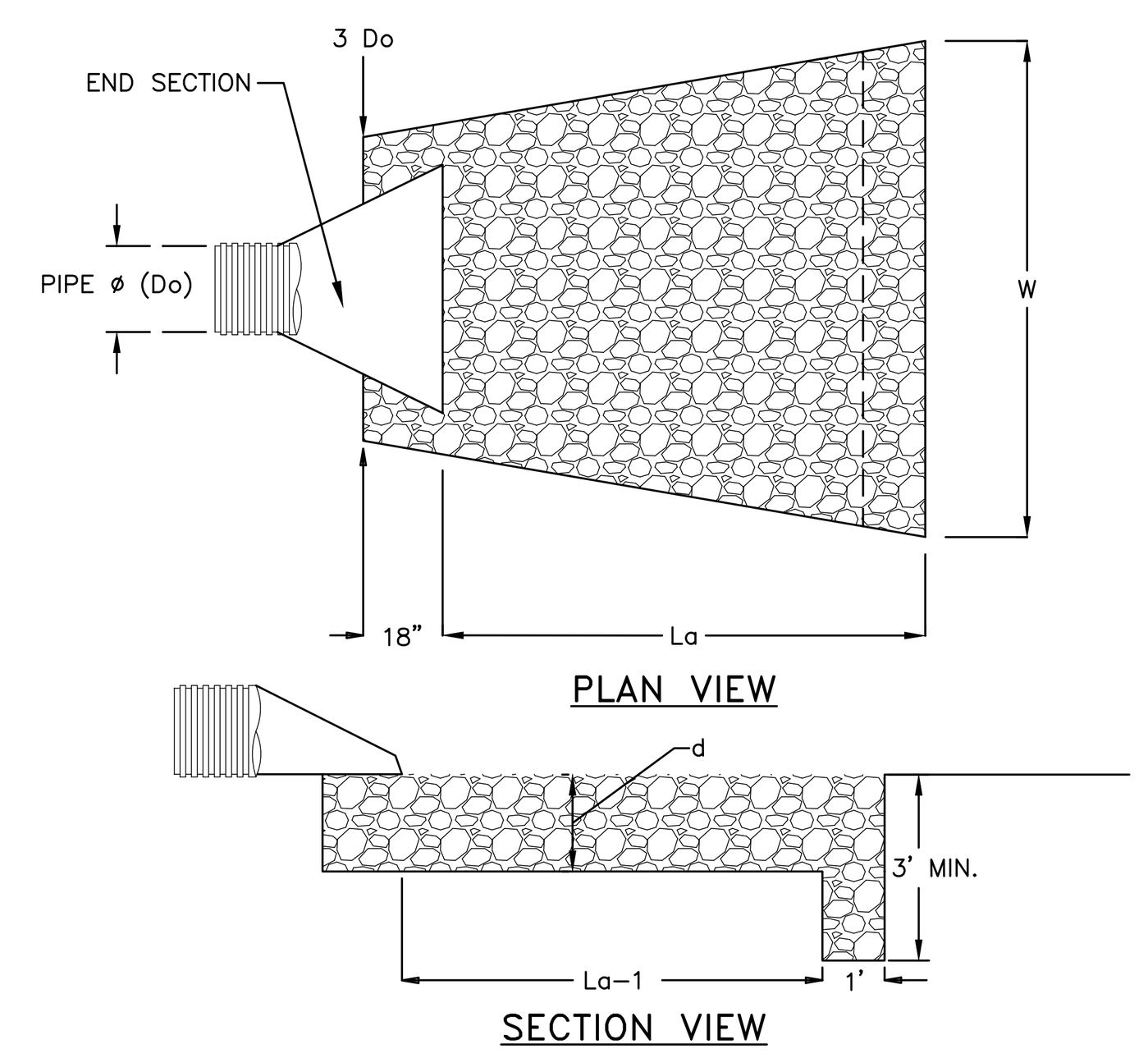
6) SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

7) MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

8) WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

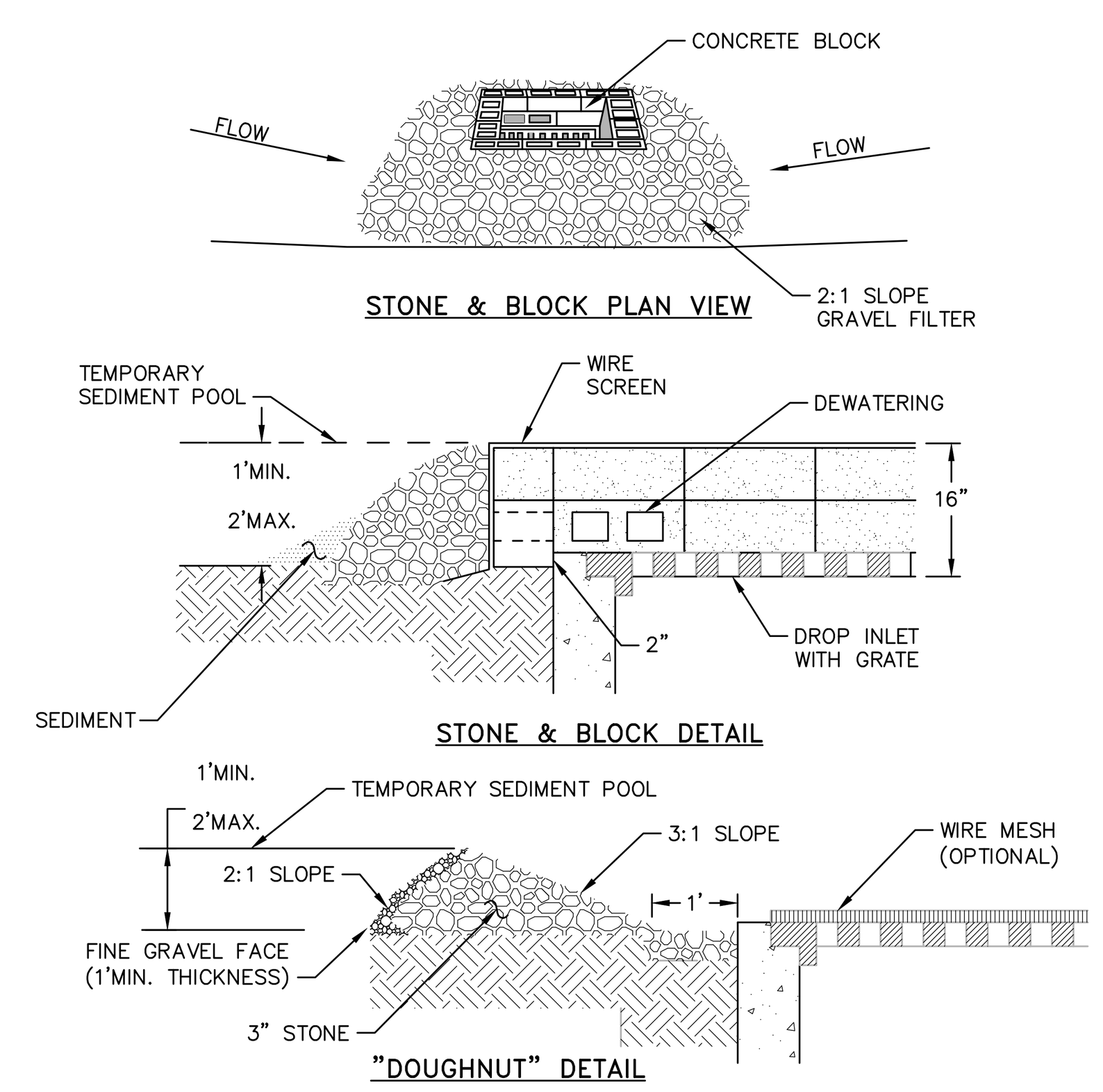
9) PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



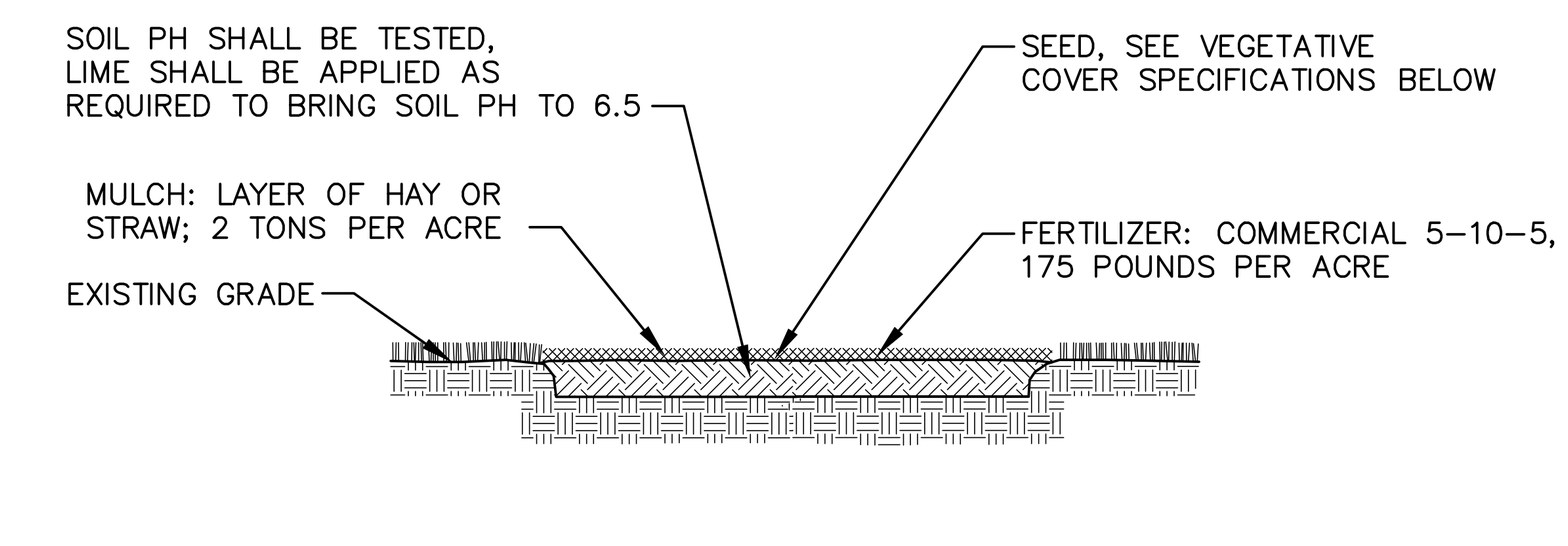
NOTES:
1. SIZING INFORMATION TAKEN FROM FIGURE 5B.12 (PAGE 5B.25) AND/OR FIGURE 5B.13 (PAGE 5B.26) OF THE "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" 2016 EDITION.
2. RIPRAP SHALL BE COMPOSED OF A WELL-GRADED MIXTURE OF STONE SIZE SO THAT 50% OF THE PIECES SHALL BE LARGER, BY WEIGHT, THAN THE SPECIFIED d50. THE LARGEST STONE SIZE SHALL BE 1.5 TIMES d50.
3. THE MINIMUM THICKNESS OF THE RIPRAP LAYER SHALL BE 1.5 TIMES THE MAXIMUM STONE DIAMETER FOR d50 OF 15 INCHES OR LESS; AND 1.2 TIMES THE MAXIMUM STONE SIZE FOR d50 GREATER THAN 15 INCHES.
4. A LAYER OF FILTER FABRIC (THICKNESS 20-60 MILS, GRAB STRENGTH 90-120 LBS, SHALL CONFORM TO ASTM D-1777 AND ASTM D-1682) SHALL BE PLACED BETWEEN THE RIPRAP AND THE UNDERLYING SOIL SURFACE. FILTER FABRIC SHALL HAVE A MINIMUM 1' OVERLAP AT ALL SEEMS.

ROCK OUTLET PROTECTION DETAIL
NOT TO SCALE



NOTES:
1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS. MAXIMUM DRAINAGE AREA 1 ACRE

CATCH BASIN INLET PROTECTION DETAIL
NOT TO SCALE



NOTES:
1. TOPSOIL, SEED, MULCH, AND FERTILIZE DISTURBED SOIL AREAS THAT WILL BE LEFT EXPOSED FOR 14 DAYS OR MORE.
2. SEED MIXTURE FOR USE ON LAWNS IN SUNNY AREAS:

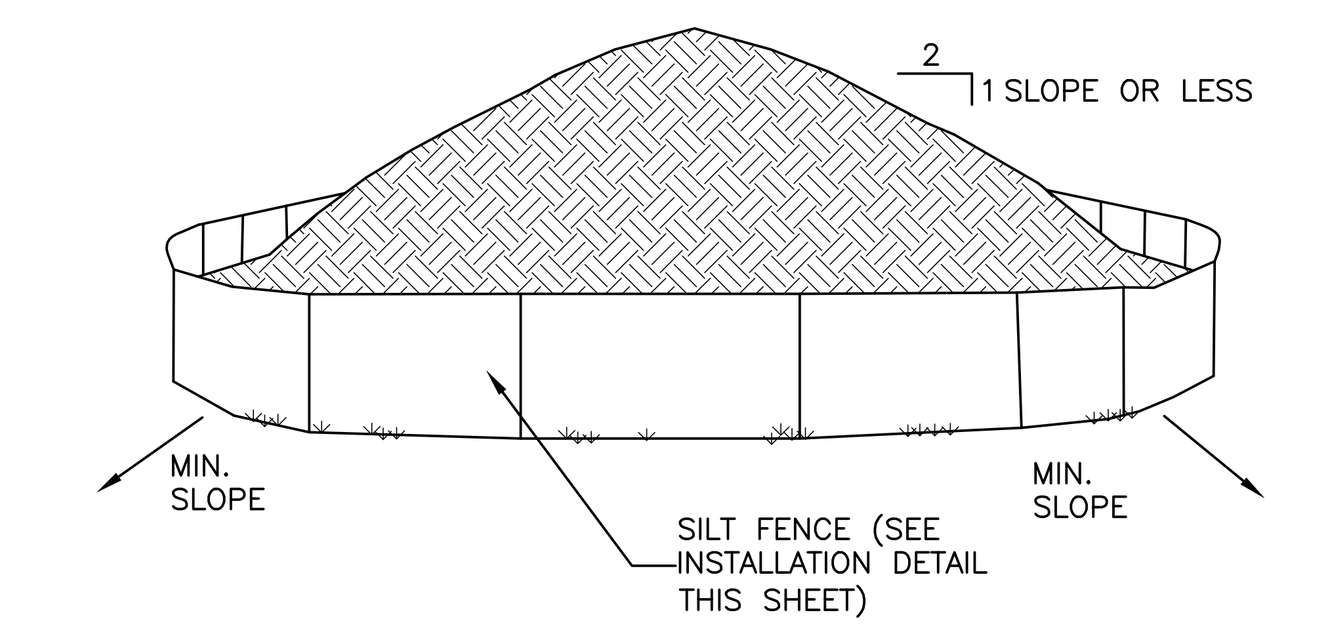
65% KENTUCKY BLUE GRASS BLEND	114 POUNDS PER ACRE
20% PERENNIAL RYEGRASS	35 POUNDS PER ACRE
15% FINE FESCUE	26 POUNDS PER ACRE
	175 POUNDS PER ACRE

3. SEED MIXTURE FOR USE IN SHADY AREAS:

80% BLEND OF SHADE TOLERANT KENTUCKY BLUEGRASS	138 POUNDS PER ACRE
20% FINE FESCUE	37 POUNDS PER ACRE
	175 POUNDS PER ACRE

4. SEED BETWEEN APRIL 1ST AND MAY 15TH OR AUGUST 15TH AND OCTOBER 15TH. SEEDING MAY OCCUR BETWEEN MAY 15TH AND AUGUST 15TH IF ADEQUATE IRRIGATION IS PROVIDED.
5. TOPSOIL SHALL HAVE AT LEAST 6% BY WEIGHT OF FINE TEXTURED STABLE ORGANIC MATERIAL, AND NO GREATER THAN 20%. TOPSOIL SHALL HAVE NOT LESS THAN 20% FINE TEXTURED MATERIAL (PASSING THE NO. 200 SIEVE) AND NOT MORE THAN 15% CLAY.

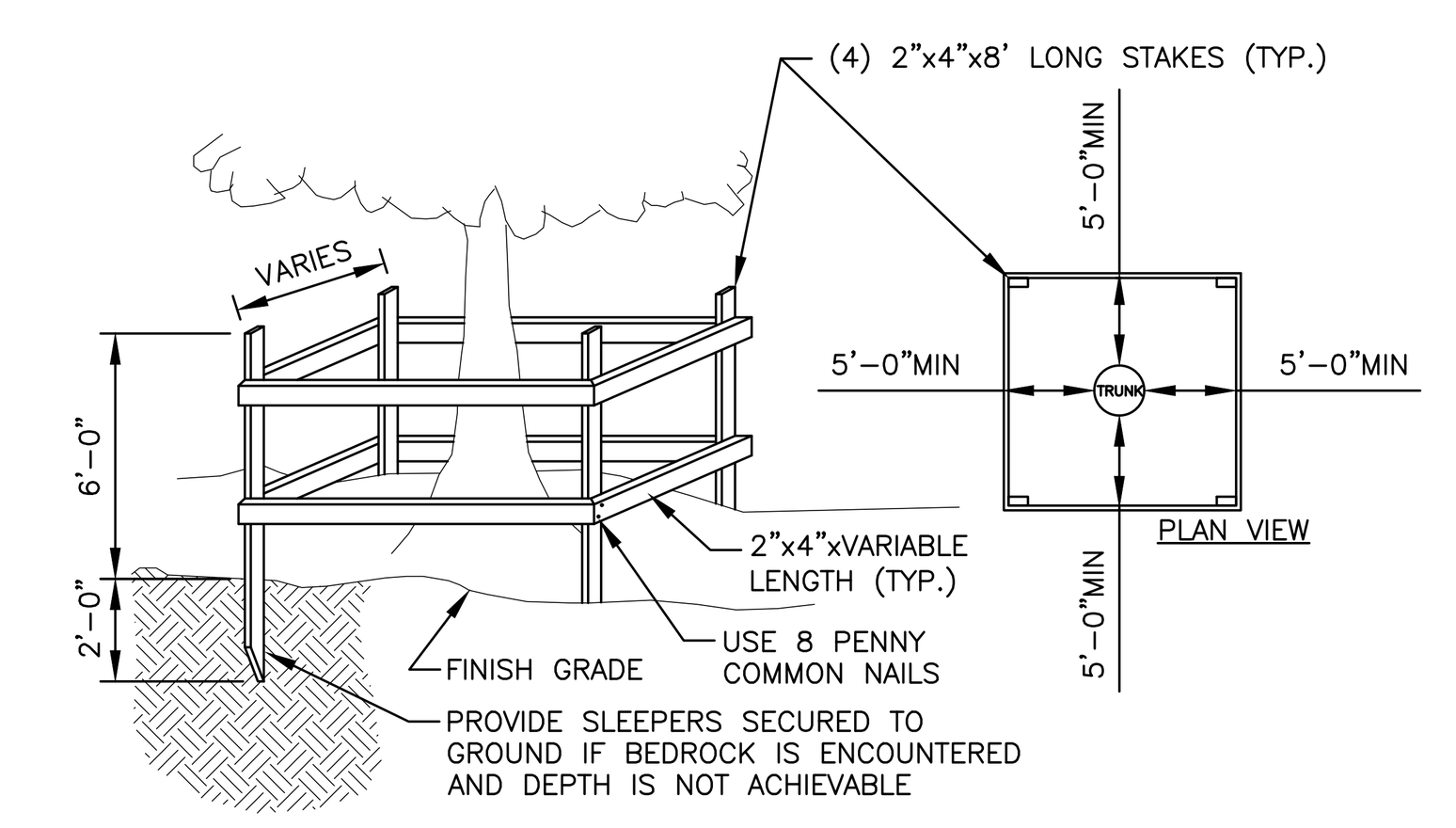
TOPSOIL, SEED AND MULCH DETAIL
NOT TO SCALE



NOTES:

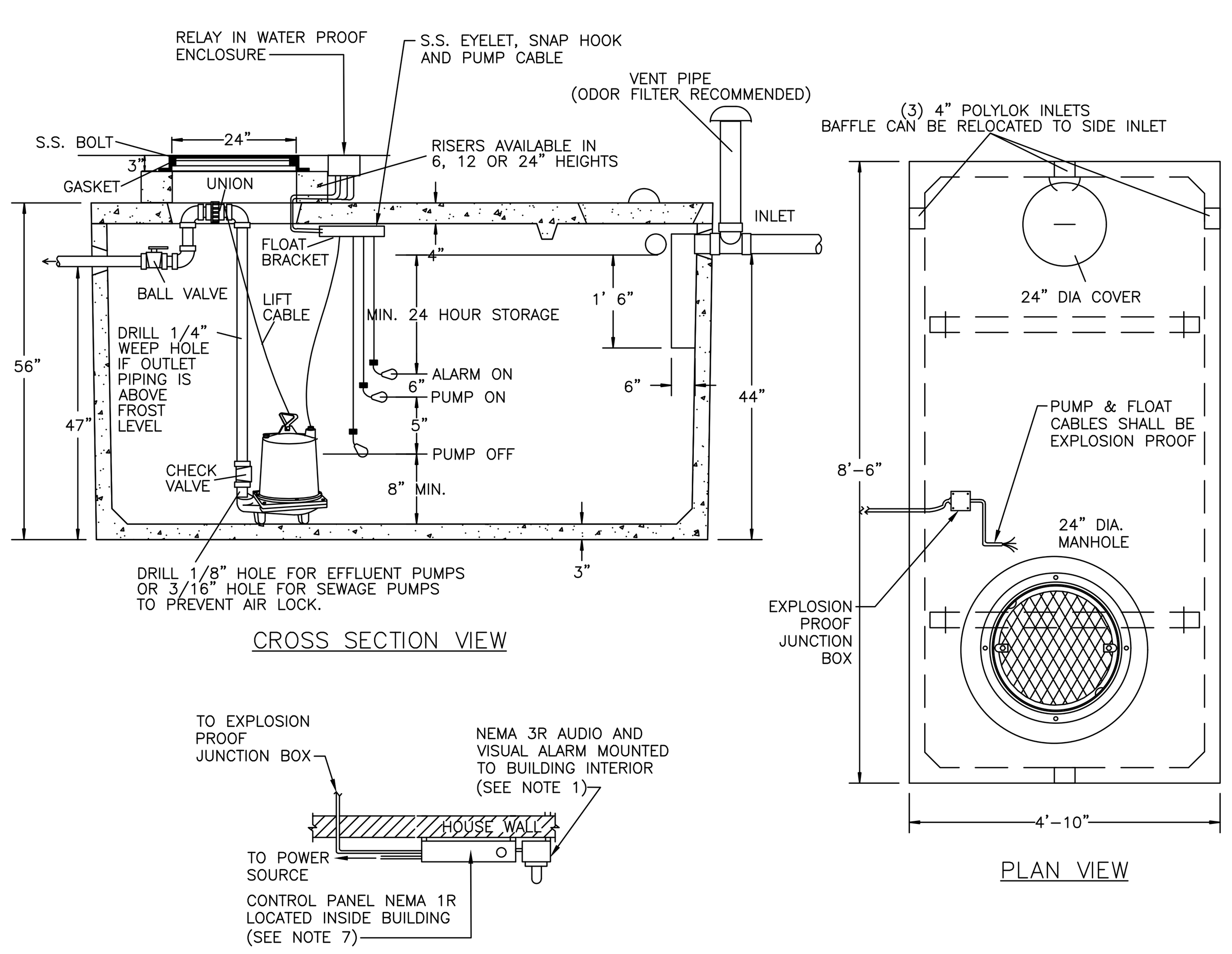
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.

TEMPORARY SOIL STOCKPILE DETAIL
NOT TO SCALE



NOTES:
1. TREES TO REMAIN NOTED ON EXISTING CONDITIONS PLAN.
2. NOT ALL TREES TO REMAIN REQUIRE PROTECTION. TREE PROTECTION TO BE UTILIZED ON TREES WHERE CONSTRUCTION TRAFFIC WOULD COMPACT THE ROOT ZONE OF THE TREE.

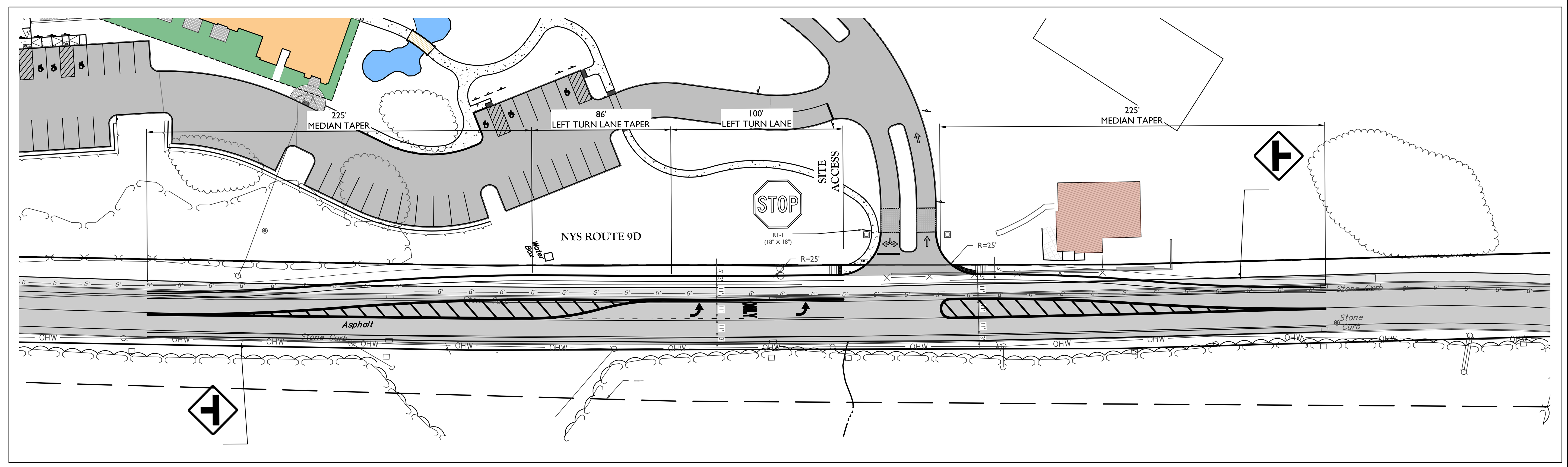
TEMPORARY TREE PROTECTION DETAIL
NOT TO SCALE



PUMP CHAMBER NOTES
1. THREE FLOAT SWITCHES SHALL BE INSTALLED: PUMP ON, PUMP OFF, AND HIGH ALARM. VISIBLE AND AUDIBLE ALARMS SHALL BE PROVIDED. THE ALARMS SHALL BE LOCATED INSIDE THE HOUSE, CLEARLY VISIBLE AND AUDIBLE.
2. ALL ELECTRICAL WORK AND MATERIAL FOR PUMP INSTALLATION SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE.
3. AN ELECTRICAL UNDERWRITER'S CERTIFICATE FOR THE PUMP CHAMBER MUST BE PROVIDED TO THE ORANGE COUNTY DEPARTMENT OF HEALTH PRIOR TO THE ORANGE COUNTY DEPARTMENT OF HEALTH CONDUCTING A FINAL INSPECTION ON THE PUMP CHAMBER.
4. THERE SHALL BE A MINIMUM OF 2.5' COVER OVER THE CONDUIT CONVEYING THE FLOAT PUMP CABLES AND CONTROL WIRING. CONDUITS FROM ALARM BOX AND CONTROL PANEL TO RELAY PANEL AT PUMP CHAMBER SHALL SHARE THE SAME TRENCH.
5. PROVIDE ADDITIONAL CONDUIT FOR CONTROL WIRING AS PER THE MANUFACTURERS RECOMMENDATIONS. MINIMUM COVER SHALL BE 2.5'.
6. AN ALUMINUM WARNING PLATE SHALL BE RIVETED OR OTHERWISE PERMANENTLY ATTACHED TO THE CHAMBER COVER. THE PLATE SHALL BE A MINIMUM OF 12"x12" AND SHALL BE ENGRAVED WITH THE FOLLOWING LANGUAGE: "WARNING – CONFINED SPACE – ENTRY PROHIBITED WITHOUT AUTHORIZATION – CALL OWNER FOR APPROVAL TO ACCESS".
7. CONTROL PANELS SHALL BE LOCATED WITHIN THE BUILDING.
8. 4" ø SDR PVC SCREENED VENT SHALL EXTEND TO BUILDING ROOF LINE (REFER TO NOTE 12).
9. A WATER TIGHTNESS TEST SHALL BE COMPLETED BY THE CONTRACTOR, WITNESSED BY THE ENGINEER, AND SHALL INCLUDE FILLING THE TANK AND MEASURING WATER LEVEL.
10. CONTRACTOR SHALL CAULK INLET AND OUTLET JOINTS AND OTHER CONDUIT PENETRATIONS.
11. INSTALL STAINLESS STEEL GUIDE RAIL FOR PUMP REMOVAL AND MAINTENANCE.
12. LOCATION OF 4" DIA. SDR PVC VENTILATION PIPE SHALL BE APPROVED BY THE OWNER AND SHALL PROVIDE POSITIVE SLOPE TO SURFACE (IE: NO DIPS OR SAGS ALLOWED). THE INVERT OF THE VENT PIPE SHALL MATCH INLET INVERT. THE VENT PIPE SHALL BE SECURELY MOUNTED TO THE EXTERIOR OF THE BUILDING AND SHALL VENT A MINIMUM OF 12" ABOVE ROOF LINE. VENT PIPE AND BRACKETS TO MATCH EXTERIOR HOUSE COLOR. BUILDING OWNER HAS THE OPTION TO TIE VENT TO INTERIOR VENTING PIPING.
13. ALL ELECTRICAL WORK AND MATERIAL FOR PUMP INSTALLATION SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE.
14. AN ELECTRICAL UNDERWRITER'S CERTIFICATE FOR THE PUMP CHAMBER MUST BE PROVIDED TO THE DEPARTMENT PRIOR TO THE DEPARTMENT CONDUCTING A FINAL INSPECTION ON THE PUMP CHAMBER.
15. A PROFESSIONAL ENGINEER SHALL CERTIFY INSTALLATION AND TESTING OF PUMP CHAMBER TO PUTNAM COUNTY DEPARTMENT OF HEALTH.
16. PRE-CAST PUMP CHAMBER SHOWN IS GT-750, 750 GALLON RESIDENTIAL PUMP CHAMBER BY EXPANDED SUPPLY PRODUCTS, INC. 3330 ROUTE 9, COLD SPRING, NY 10516 (845) 265-3771.
17. PROVIDE AN ALL WEATHER JUNCTION BOX WITH AN OUTLET AND SCREWED COVER AT OR ABOVE GRADE AT THE PUMP CHAMBER TO ALLOW FOR A PLUG IN CONNECTION FOR THE PUMP.

	DOSE		STORAGE (1 DAY)						
RIM ELEVATION	DEPTH	VOLUME (GAL)	REQ'D (GAL)	DEPTH PROVIDED	VOLUME PROVIDED (GAL)	PUMP MAKE AND MODEL	FORCE MAIN SIZE	NO. OF PUMPS	PUMP TANK MODEL
153.5	4"	86.4	120	26"	562.3	GOULDS, MODEL 2WD 3/4 HP	2"	1	GT-750 PUMP CHAMBER

PUMP CHAMBER DETAIL
NOT TO SCALE



NYS DOT ENTRANCE DETAIL
1" = 40'

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

______________ DAY OF ________________, 20_______, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS __________________ DAY OF ______________, 20_____, BY

_____________________________ CHAIRMAN

_____________________________ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB

REVISIONS:

NO.	DATE	DESCRIPTION	BY
1	5/25/22	PER PLANNING BOARD COMMENTS	CMB
2	6/28/22	PER PLANNING BOARD COMMENTS	CMB
3	7/26/22	PER PLANNING BOARD COMMENTS	CMB
4	8/30/22	PER PLANNING BOARD COMMENTS	CMB

CHECKED BY: MAB

REVISIONS:

NO.	DATE	DESCRIPTION	BY

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STATE OF NEW YORK MICHAEL A. BODENDORF LICENSED PROFESSIONAL ENGINEER 084466
SEAL

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PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

CONSTRUCTION DETAILS
MIRBEAU BEACON
7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	AS SHOWN
TITLE:	CD-4
SHEET:	19 OF 28

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

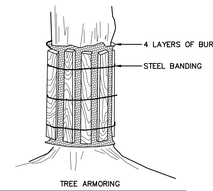
LEGEND:

STANDING STUMP (BEECH) — EXISTING TREE TO BE REMOVED

30" SUGAR MAPLE — EXSTING TREE TO REMAIN AND PROTECT

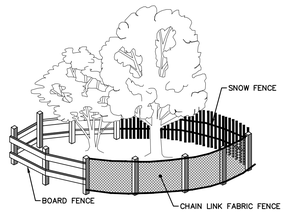
REMOVE
36" MAPLE POOR FORM & CONDITION
TREES PREVIOUSY REMOVED
30" BASSWOOD V. POOR FORM & CONDITION
24" MAPLE V. POOR FORM & CONDITION
30"BEECH (LOPSIDED FORM)
TWIN 18" WALNUT
48" MAPLE V. POOR FORM & CONDITION
48" White Pine STUMP
48" White Pine (DOWN)
48" WHITE PINE (STUMP ONLY)
60" WHITE PINE
30" YELLOW BUCKEYE
60" LARCH
60" LARCH
60" LARCH
MAJOR DOWNED BEECH STUMP - REMOVE
GROUP OF 7 BEECHES AT 24-30" AROUND STUMP OF MOTHER w/ GROUP OF 6-8" DIA. CHERRIES FACING OUT TO MEADOW
8' DIA. SPRUCE
30" BEECH W/SMALLER BEECHES
30" BEECH W/SMALLER BEECHES
STANDING STUMP (BEECH)
60" TULIP TREE
BEECH STUMP
TWN 8" BOX ELDER
30" DEAD CEDAR w/ 60" STUMP
12" RED CEDAR
15" TULIP TREE (w/ BROKEN TOP)
15" AILANTHUS (INVASIVE)
TRIPLE 24&30" SPRUCE w/ADD'L. BROKEN MAIN BRANCH
DEAD WHITE PINE
42" Spruce
28" SPRUCE (VERY TIRED)
42" SPRUCE (DEAD & BITTERSWEET COVERED)
42" SILVER MAPLE
6" DOGWOODS (4) (DISFIGURED & NEARLY DEAD)
18" BASSWOOD
42" NORWAY MAPLE
MS 6-8" JAPANESE MAPLE
15" TULIP TREE
48" SILVER MAPLE
TWIN FIRS 48" & 30"
TWIN TULIP TREE 8-10" ACROSS
Multi-Story Office Building
Concrete Fence (Remains)
Chain Link Fence (Remains)
Bldg. Corner
Bldg. Corner
Stone Curb
Concrete Sidewalk
Concrete Sidewalk
Stone Curb
Wires (Typical)
PROPERTY LINE
A.K.A. HOWLAND AVENUE
ROUTE 9D
N.Y.S. DOT PERMANENT EASEMENT
N/F N.Y.S.
Metal Post
Metal Post
Asphalt Driveway
Cottage #3 FF: 146.26
Cottage #2 FF: 150.26
Cottage #1 FF: 154.26
Main House FF: 157.26
Gazebo
Gazebo
Gazebo





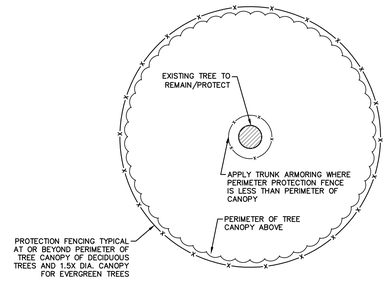
TREE ARMORING

CONSTRUCTION AREA WHERE PAVED SURFACES MAKE IT IMPRACTICAL TO ESTABLISH TREE PROTECTION ZONE.



FENCING AT TREE PROTECTION ZONES

INSTALL ONE OF THE FENCE TYPES (MIN. FENCE HT. 42") NOTED ABOVE UNLESS SPECIFICALLY INDICATED ON PLANS. MAY BE INSTALLED CONTINUOUSLY AROUND GROUPS OF TREES TO REMAIN.



X TREE PROTECTION DETAIL
SCALE: N.T.S.

GRAPHIC SCALE
40 40 0 290
SCALE IN FEET

Dig Safely. New York. Call 811 before you dig

DRAWN BY: HT/CH/DW				CHECKED BY: HT			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/25/22	ADDED SHEET	HT				
2	7/26/22	SITE PLAN REVISIONS	HT				
3	8/30/22	SITE PLAN RE-PLOT	HT				
4	9/27/22	SITE PLAN REVISIONS	HT				

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ARCHITECTURE & DESIGN
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PH: 845-440-6926
F: 845-440-6637

TREE REMOVAL & PROTECTION PLAN - SOUTH

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	5/25/2022
SCALE:	1" = 40'
TITLE:	TP-3
SHEET:	21 OF 28

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



LEGEND:

- Existing Signficant Deciduous & Evergreen Trees
- Deciduous Shade / Major Trees
- Ornamental and Flowering Trees (Understory Scale)
- Evergreen Trees (Major & Minor)
- Low Shrub Mass - 3-4' ht.
- Groundcovers
- Perennials and Grasses

SEEDING LEGEND:

SEED MIX A = LOW - MOW LAWN
SEED MIX B = FUZZ & BUZZ MIX
SEED MIX C = RAIN GARDEN GRASS MIX
SEED MIX D = CONTRACTOR'S LAKEVIEW CONSERVATION MIX

PLANTING NOTES:

1. THE LANDSCAPE PLAN AND DETAIL SHEET ARE FOR LANDSCAPING INFORMATION ONLY. PLEASE REFER TO THE SITE LAYOUT PLAN, LIGHTING PLAN, GRADING PLAN AND UTILITIES PLAN FOR ALL OTHER INFORMATION.
2. THE CONTRACTOR SHALL GUARANTEE THAT ALL PLANTS, TREES, AND SHRUBS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY OWNER OR LANDSCAPE ARCHITECT. CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS AT CONTRACTOR'S EXPENSE. PLANT MATERIAL REPLACEMENTS SHALL BE GUARANTEED FOR ONE FULL YEAR FROM DATE OF REPLACEMENT. FINAL ACCEPTANCE SHALL BE MADE IF ALL PLANTS MEET THE GUARANTEE REQUIREMENTS INCLUDING MAINTENANCE. MAINTENANCE RESPONSIBILITIES INCLUDE CULTIVATING, SPRAYING, WEEDING, WATERING, TIGHTENING GUYS, PRUNING, FERTILIZING, MULCHING, AND ANY OTHER OPERATIONS NECESSARY TO MAINTAIN PLANT VIABILITY. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL THE END OF THE ONE YEAR GUARANTEE PERIOD.
3. THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND LISTED IN THE PLANT SCHEDULE. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY.
4. ALL SHRUB MASSINGS SHALL BE MULCHED TO A DEPTH OF 3". ANNUAL AND PERENNIAL BEDS SHALL BE MULCHED TO A DEPTH OF 2" WITH SHREDDED HARDWOOD BARK MULCH.
5. NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY ENGINEER. STAKING THE LOCATION OF ALL TREES AND SHRUBS SHALL BE COMPLETED PRIOR TO PLANTING FOR APPROVAL BY THE OWNER OR LANDSCAPE ARCHITECT. STAKING OF THE INSTALLED TREE MUST BE COMPLETED THE SAME DAY AS IT IS INSTALLED. ALL TREES SHALL BE STAKED OR GUYED PER DETAIL. SEE SHEET 38 FOR PLANTING DETAILS.
6. COORDINATE PLANT MATERIAL LOCATIONS WITH SITE UTILITIES. SEE SITE LAYOUT, GRADING AND UTILITY DRAWINGS FOR STORM, SANITARY AND WATER LINES, SEE LIGHTING PLAN FOR ELECTRICAL AND LIGHTING LAYOUT AND DETAILS. UTILITY LOCATIONS ARE APPROXIMATE. EXERCISE CARE WHEN DIGGING IN AREAS OF POTENTIAL CONFLICT WITH UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONTRACTOR'S NEGLIGENCE AND SHALL REPLACE OR REPAIR ANY DAMAGE AT CONTRACTOR'S EXPENSE.
7. LANDSCAPE PLANTING PITS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SUBGRADE, AND BLASTED ROCK SHALL BE REMOVED FROM WITHIN TRAFFIC ISLANDS TO BE LANDSCAPED TO A DEPTH OF 2' OR TO A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL WITHIN ISLANDS WITH MODERATELY COMPACTED LOAM OR SANDY LOAM FREE FROM STONES AND RUBBISH 1" OR GREATER IN DIAMETER AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT. PLANTING INSTALLATION WITHIN ISLANDS SHALL BE AS DETAILED AND CONTAIN PLANTING MIX AS SPECIFIED.
8. PLANTING SOIL MIXTURE FOR TREES AND SHRUBS:
   - 1 PART PEAT MOSS
   - 3 PARTS TOPSOIL
   - FERTILIZER/LIME (APPLY AS RECOMMENDED BY SOIL ANALYSIS)
   - MYCORHIZA INOCULANT – "TRANSPLANT 1-STEP" AS MANUFACTURED BY ROOTS, INC. OR APPROVED EQUAL. USE PER MANUFACTURER'S RECOMMENDATIONS FOR TREES AND SHRUBS.
9. PLANTING SOIL MIXTURE FOR PERENNIAL AND ORNAMENTAL GRASS BEDS:
   - 1 PART PEAT MOSS
   - 1 PART MANURE (WEED FREE)
   - 3 PARTS TOPSOIL
   - FERTILIZER/LIME (APPLY AS RECOMMENDED BY SOIL ANALYSIS)
   - MILORGANITE APPLIED AT 5 LBS. PER 100 S.F.
10. TIME OF PLANTING: NEW PLANT MATERIALS SHALL BE INSTALLED BETWEEN APRIL 1 AND JUNE 1, OR AFTER SEPTEMBER 15TH AND NO LATER THAN OCTOBER 31ST.
11. TOPSOIL SHALL BE INSTALLED AT A MINIMUM DEPTH OF 6". CONTRACTOR SHALL SUBMIT TOPSOIL TO A CERTIFIED TESTING LABORATORY TO DETERMINE PH, FERTILITY, ORGANIC CONTENT AND MECHANICAL COMPOSITION. THE CONTRACTOR SHALL SUBMIT THE TEST RESULTS FROM REGIONAL EXTENSION OFFICE OF USDA TO THE OWNER OR LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. CONTRACTOR SHALL INCORPORATE AMENDMENTS FOR GOOD PLANT GROWTH AND PROPER SOIL ACIDITY RECOMMENDED FROM THE TOPSOIL TEST.
12. SEED MIX A:
    "LOW-MOW SEED MIX" – BLEND OF 3-5 CREEPING RED FESCUES.
    SEEDING RATE: 4.5 LBS PER 1,000 S.F. (ADD 10% TO QUANTITY IF HYDROSEEDED).
    SEEDING DATE: AUGUST 15-OCTOBER 1 AND APRIL 15-JUNE 15 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.
13. SEED MIX B:
    "FUZZ & BUZZ MIX-PREMIUM" – ERNMX-147 AS BLENDED BY ERNST CONSERVATION SEEDS, MEADVILLE, PA; 1-800-873-3321.
    SEEDING RATE: 42 LBS PER ACRE
    SEEDING DATE: AUGUST 15-OCTOBER 1 AND APRIL 15-JUNE 15 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.
14. SEED MIX C:
    "RAIN GARDEN GRASS MIX" – ERNMX-180-1 AS BLENDED BY ERNST CONSERVATION SEEDS, MEADVILLE, PA; 1-800-873-3321.
    SEEDING RATE: 15 LBS PER ACRE
    SEEDING DATE: AUGUST 15-OCTOBER 1 AND APRIL 15-JUNE 15 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.
15. SEED MIX D:
    "CONTRACTOR'S LAKEVIEW CONSERVATION MIX" – ERNMX-116-AS BLENDED BY ERNST CONSERVATION SEEDS, MEADVILLE, PA; 1-800-873-3321.
    SEEDING RATE: 75-150 LBS PER ACRE (3LBS PER 1,000 S.F.)
    SEEDING DATE: AUGUST 15-OCTOBER 1 AND APRIL 15-JUNE 15 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.
16. ALL SLOPES GREATER THAN 3:1 RECEIVING A GRASS SEEDING MIXTURE SHALL BE COVERED WITH AN EROSION CONTROL BLANKET.

GRAPHIC SCALE
00 00 0 00
SCALE IN FEET

See sheet LL-3 for Plant List & sheet LL-5 for Planting Details.

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REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/25/22	PER PLANNING BOARD COMMENTS	HT				
2	7/26/22	SITE PLAN REVISIONS	HT				
3	8/30/22	SITE PLAN REVISIONS	CH				
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F: 845-440-6637

PRELIMINARY PLANTING PLAN – NORTH

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 40'
TITLE:	LL-2
SHEET:	22 OF 28

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PLANT LIST:

	CODE	QTY.	BOTANICAL NAME	COMMON NAME	ROOT	SIZE INSTALLED	SIZE MATURE	COMMENTS
SPECIMEN & SHADE TREES:	APT	5	ACER PLATANOIDES x TRUNCATUM 'C.S.'	CRIMSON SUNSET MAPLE	B&B	2.5–3" cal.	35'h 25'w	Purple leaf tolerates HOT sun
	ARO	1	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	B&B	3–3.5" cal.	40'h 25'w	Upright pyramidal crown
	ARR	6	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	B&B	3–3.5" cal.	50'h 30'w	Upright rounded crown
	ASG	1	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGAR MAPLE	B&B	3–3.5" cal.	55' ht.	Upright oval crown
	BPW	37	BETULA POPULIFOLIA 'WHITESPIRE'	WHITESPIRE GRAY BIRCH	B&B	12–14' ht.	30'h 25'w	MULTI-STEM
	BPW1	6	BETULA POPULIFOLIA 'WHITESPIRE'	WHITESPIRE GRAY BIRCH	B&B	5–6' ht.	30'h 25'w	MULTI-STEM
	GTH	1	GLEDITSIA T. INERMIS 'HALKA'	HALKA HONEYLOCUST	B&B	3–3.5" cal.	60' ht.	
	LS	2	LIQUIDAMBAR STYRACIFLUA	AMERICAN SWEETGUM	B&B	3.5–4" cal.	60' ht.	SPECIMEN GRADE
	LT	1	LIRIODENDRON TULIPIFERA	TULIP TREE	B&B	3–3.5" cal.	80' ht.	
	PAB	2	PLATANUS ACERIFOLIA 'BLOODGOOD'	LONDON PLANE TREE	B&B	3–3.5" cal.	50' ht.	Rounded crown
	PSP	1	PRUNUS SUB. 'PENDULA'	WEEPING HIGAN CHERRY	B&B	2.5–3" cal.	20–25' ht.	Pink–White bloom April–May
	PCC	1	PYRUS CALLERYANA 'CHANTICLEER'	CHANTICLEER FLOWERING PEAR	B&B	2.5–3" cal.	30' ht.	15' WIDE
	QP	3	QUERCUS PALUSTRIS	PIN OAK	B&B	3–3.5" cal.	50–75' ht.	Orange–Scarlet fall
	QR	4	QUERCUS RUBRA	NORTHERN RED OAK	B&B	3–3.5" cal.	75' ht.	
	SGC	2	SALIX MATSUDANA 'GOLDEN CURLS'	GOLDEN CURLS CORKSCREW WILLOW	B&B	3–3.5" cal.	20'x30' ht.	
	UA	2	ULMUS AMERICANA 'VALLEY FORGE'	VALLEY FORGE AMERICAN ELM	B&B	3–3.5" cal.	70' h/w	
SMALL SCALE TREES:	AMC	9AME	LANCHIER CANADENSIS	SHADBLOW	B&B	8–10' ht.	25' ht.	Clump Form
	AMA	8	AMELANCHIER x AUTUMN BRILLIANCE	AUTUMN BRILLIANCE SHADBLOW	B&B	6–8' ht.	15–25' h/w	Clump Form
	CFF	5	CARPINUS BET. 'FRANS FONTAINE'	FRANS FONTAINE HORNBEAM	B&B	2.5–3" cal.	35'h/15'w	
	CC	2	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	B&B	2–2.5" cal.	25–35' ht.	
	CFC	14	CORNUS FLORIDA 'CHEROKEE PRINCESS'	WHITE FLOWERING DOGWOOD	B&B	2–2.5" cal.	20–25' ht.	White
	CFR	18	CORNUS FLORIDA 'RUBRA'	PINK FLOWERING DOGWOOD	B&B	2–2.5" cal.	20–25' ht.	Pink
	MSJ	4	MAGNOLIA STELLATA 'JANE PLATT'	JANE PLATT STAR MAGNOLIA	Cont.	5–6' ht.	12'h/8'w	Pink
	SPC	1	STEWARTIA PSEUDOCAMELLIA	JAPANESE STEWARTIA	B&B	2.5–3" cal.	25'h/15w	July Flowers
EVERGREEN TREES:	AF	5	ABIES FRASERI	FRASIER FIR	B&B	7–8' ht.	30–50' ht.	
	IO	3	ILEX OPACA	AMERICAN HOLLY	B&B	7–8' ht.	40–50' ht.	20–40'w
	IJP	4	ILEX OPACA 'JERSEY PRINCESS'	JERSEY PRINCESS AMERICAN HOLLY	B&B	7–8' ht.	30–35' ht.	
	PA	20	PICEA ABIES	NORWAY SPRUCE	B&B	8–10' ht.	40–60' ht.	
	PAS	7	PICEA OMORIKA	SERBIAN SPRUCE	B&B	8–10' ht.	50–60' ht.	20–25'w
	PG	14	PICEA GLAUCA	WHITE OR CANADIAN SPRUCE	B&B	8–10' ht.	20'x60' ht.	
	PPG	3	PICEA PUNGENS GLAUCA	COLORADO BLUE SPRUCE	B&B	9–10' ht.	60' ht.	
LARGE SHRUBS:	AZ1	10	RHODENDRON 'ROBLEX' PP25073	AUTUMN LILY ENCORE AZALEA	CONT.	#7	4–5'h, 4'w	White bloom
	AZ2	11	RHODENDRON 'ROBLEO' PP19899	AUTUMN BELLE ENCORE AZALEA	CONT.	#7	5'h x 4'w	Pale pink bloom
	CLP	4	CHAEMACYPARIS L. 'PEMBURY BLUE'	PEMBURY BLUE LAWSON CYPRESS	B&B	3–4" ht.	8–10' ht.	4–5'w
	CLG	5	CHAEMACYPARIS L. 'PIN. BLUE & GOLD'	PINPOINT BLUE & GOLD LAWSON CYPRESS	B&B	3–4" ht.	6–8' ht.	5–6'w
	CPS	4	CHAEMACYPARIS PISIFERA 'SOFT SERVE'	SOFT SERVE SAWARA CYPRESS	B&B	30" min.ht.	6–8' ht.	5–6'w; fern like foliage
	HQR	8	HYDRANGEA QUERC. 'RUBY SLIPPERS'	RUBY SLIPPERS OAKLEAF HYDRANGEA	CONT.	#7	6–8' ht.	White to Pink
	IGS	33	ILEX GLABRA 'SHAMROCK'	INKBERRY	CONT.	24–30" ht.	3–5' ht.	Compact
	IVJ	2	ILEX VERTICILLATA 'JIM DANDY'	JIM DANDY (MALE) WINTERBERRY	CONT.	#5	6–8' ht.	
	IVR	25	ILEX VERTICILLATA 'RED SPRITE'	RED SPRITE WINTERBERRY	CONT.	#5	6' ht.	
	MPS	87	MORELLA PENSYLVANICA 'SILVER SPRITE'	SILVER SPRITE BAYBERRY	CONT.	30" min.ht.	4–5'h/5'w	
	PM	11	PINUS MUGO VAR. 'PUMILIO'	DWARF MUGO PINE	CONT.	24" min.ht.	4–5'h/6'w	
	TMG	15	TAXUS x MEDIA 'GREENWAVE'	GREEN WAVE YEW	CONT.	24–30" ht.	4'x4'	
SMALL SHRUBS:	AZ3	17	RHODODENRON 'ROBLEN' PP16248	AUTUMN SUNSET ENCORE AZALEA	CONT.	#7	3' h/w	Salmon–Red blooms
	CSA	236	CORNUS SERICEA 'ARCTIC FIRE'	ARCTIC FIRE REDTWIG DOGWOOD	CONT.	24" min.ht.	3–4' ht.	
	FGA	141	FOTHERGILLA GARDENII 'APPALACHIA'	DWARF FOTHERGILLA	CONT.	24" min.ht.	2–3' ht.	
	FGB	12	FOTHERGILLA GARDENII 'BLUE MIST'	BLUE MIST DWARF FOTHERGILLA	CONT.	24" min.ht.	2–3' ht.	
	ICH	14	ILEX CRENATA 'HELLERI'	DWARF JAPANESE HOLLY	CONT.	#7	2–3'h, 4'w	
	PO1	28	PHYSOCARPUS OPULIFOLIUS 'TINY WINE'	TINY WINE NINEBARK	CONT.	24" min.ht.	3–4' ht.	
GROUND COVER SHRUBS:	AML	330	ARONIA MEL. LOW SCAPE MOUND	LOW SCAPE MOUND CHOKEBERRY	CONT.	#3	12–24" ht.	
	VCL	29	VIBURNUM CASSINOIDES 'LIL DITTY'	LIL DITTY WITHEROD VIBURNUM	CONT.	#5	12–24" ht.	
PERENNIALS:	AAB	–	ACHILLEA MILLE. 'APPLE BLOSSOM'	APPLE BLOSSOM YARROW	CONT.	#SP4	24" ht.	15" o.c.; Lilac Pink
	AST	–	ACHILLEA MILLE. 'STRAWBERY SEDUCTION'	STRAWBERRY SEDUCTION YARROW	CONT.	#SP4	18–20" ht.	15" o.c.; Dk. Red
	ADK	–	ASTER DUMOSUS 'PROF. KIPPENBURG'	PROFESSOR KIPPENBERG ASTER	CONT.	#SP4	20" ht.	18" o.c.; Lav–Blue Late Sum.
	ANB	–	ASTER NOVAE–BELGII 'MARIE BALLARD'	MARIE BALLARD (NY) ASTER	POT	#SP5	30" ht.	18" o.c.; Vio–blue Late Sum.
	ANW	–	ASTER NOVAE–BELGII 'WIN. CHURCHILL'	WINSTON CHURCHILL (NY) ASTER	POT	#SP5	36" ht.	18" o.c.; Deep Red Fall
	ECH	–	ECHINACAEA 'B'S KNEES'	B'S KNEES ECHINACEA	CONT.	#SP5	30" ht.	18" o.c.
	EDB	–	EUPATORIUM DUBIUM 'BABY JOE'	BABY JOE PIEWEED	POT	#SP5	16–24" ht.	24" o.c.; Lav–Rose
	GSR	–	GERANIUM 'ROZANNE'	ROZANNE GERANIUM	CONT.	#SP5	20–24" ht.	18" o.c.; Deep Blue; Ju–Oct.
	GSH	–	GERANIUM 'SWEET HEIDI'	SWEET HEIDI GERANIUM	CONT.	#SP5	14–18" ht.	18" o.c.; Lav blue; Sp–Fall
	IVC	–	IRIS VERSICOLOR	NORTHERN BLUE FLAG	POT	#SP5	36" ht.	Red–Purple
	NN	–	NIPPONANTHEMUM NIPPONICUM	MONTAUK DAISY	CONT.	#2	30–36" ht.	
	PVR	–	PANICUM VIRGATUM 'RUBY RIBBONS'	RUBY RIBBONS SWITCHGRASS	CONT.	#2	3' ht.	Red Blades; 2' o.c.
	PAL	–	PENNISETUM ALOPCUROIDES	FOUNTAIN GRASS	POT	#3	2–4' Blades	3–5' Tassels; 2' o.c.
	PAH	–	PENNISETUM ALOPCUROIDES 'HAMELN'	HAMELN DWARF FOUNTAIN GRASS	CONT.	#2	24" ht.	18" o.c.
	POA	–	POLYSTICHUM ACROSTICHOIDES	CHRISTMAS FERN	CONT.	#1	1–3' ht.	Dark leathery fronds
	RFF	–	RUDBECKIA FULGIDA var. 'FULGIDA'	CONEFLOWER (Black Eyed Susan)	POT	#SP5	24–30" HT.	15" o.c.; July–Oct.
	SAL	–	SALVIA NEMEROSA 'BLUE HILL'	BLUE HILL SALVIA	POT	#SP5	24" ht.	15" o.c.; Blue.
	SNM	–	SALVIA NEMEROSA 'MAY NIGHT'	BLUE MAY NIGHT	POT	#SP5	24" ht.	15" o.c.; Violet.

GRAPHIC SCALE
00 00 0 00
SCALE IN FEET

See sheet LL-2 for Planting Notes & sheet LL-5 for Planting Details.

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DRAWN BY: HT/CH/DW	CHECKED BY: HT

REVISIONS:

NO.	DATE	DESCRIPTION	BY
1	5/25/22	PER PLANNING BOARD COMMENTS	HT
2	7/26/22	SITE PLAN REVISIONS	HT
3	8/30/22	SITE PLAN REVISIONS	CH
4	9/27/22	SITE PLAN/LANDSCAPE REVISIONS	HT

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SEAL

PRELIMINARY PLANTING PLAN – SOUTHEAST

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 40'
TITLE:	LL-3
SHEET:	23 OF 28

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LOW-MOW GRASS SEED MIX TO LIMITS OF DISTURBANCE

RAIN GARDEN GRASS SEED MIX

CATTAILS, SEDGES AND FERNS AROUND POND EDGE

LOWER POND

UPPER POND

WATER LILY & LOTUS THROUGHOUT POND EDGE

OBSERVATION DECK

STREAM WITH RAPIDS TO POND

FOOT BRIDGE

MONET BRIDGE

FOOT BRIDGE

ORNAMENTAL METAL PERGOLA

STAIR FROM ROOF TERRACE

PERENNIALS & ORNAMENTAL GRASSES TYP.

LOW ORNAMENTAL GRASSES OR SUCCULENT BEDS TYP.

GROTTO ROOM PATIO TYP.

PERIMETER OF LEVEL 01 (Main)

ROOF TERRACE (PAVED)

FF 179.75

AQUA TERRACE

AQUA TERRACE

PERIMETER OF LEVEL 00 (Spa)

PERIMETER OF LEVEL 01 (Main)

ROOFTOP BALCONIES TYP.

PERENNIALS & ORNAMENTAL GRASSES TYP.

LOW ORNAMENTAL GRASSES OR SUCCULENT BEDS TYP.

Spa FF: 165.75

STREAM TO POND

WATERFALL FEATURE

RENOVATED PATIO

STILL POND

FOOTBRIDGE

SARGENT WEEPING HEMLOCK (Existing)

FF: 179.75 Main 165.75 Spa

SEEDED LAWN (LOW-MOW)

GROUNDCOVER AND PERENNIALS TYP.

SODDED LAWN

ORNAMENTAL GRASSES (TYP.)

GROUNDCOVER AND PERENNIALS TYP.

ORNAMENTAL FOUNTAIN

PERENNIALS & ANNUAL BED

PERENNIALS, GRASSES AND ANNUALS IN ISLAND

PERENNIALS & ORNAMENTAL GRASSES TYP.

PERENNIALS & ORN. GRASSES TYP.

PERENNIALS & ORNAMENTAL GRASSES TYP.

PERENNIALS AND ANNUAL BED

GROUNDCOVERS & PERENNIALS

Concrete Sidewalk

Asphalt

SEEDED LAWN

GRAPHIC SCALE

SCALE IN FEET

See sheet LL-2 for Planting Notes, LL-3 for Plant List & sheet LL-5 for Planting Details.

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SEAL

PRELIMINARY PLANTING PLAN – SOUTHWEST

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2021
SCALE:	1" = 20'
TITLE:	LL-4
SHEET:	24 OF 28

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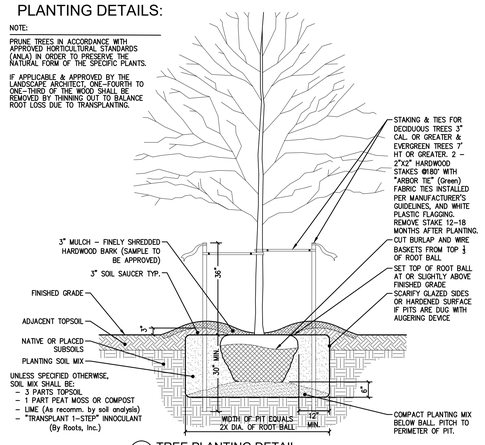
PLANTING DETAILS:

NOTE:

PRUNE TREES IN ACCORDANCE WITH APPROVED HORTICULTURAL STANDARDS (ANLA) IN ORDER TO PRESERVE THE NATURAL FORM OF THE SPECIFIC PLANTS.

IF APPLICABLE & APPROVED BY THE LANDSCAPE ARCHITECT, ONE-FOURTH TO ONE-THIRD OF THE WOOD SHALL BE REMOVED BY THINNING OUT TO BALANCE ROOT LOSS DUE TO TRANSPLANTING.

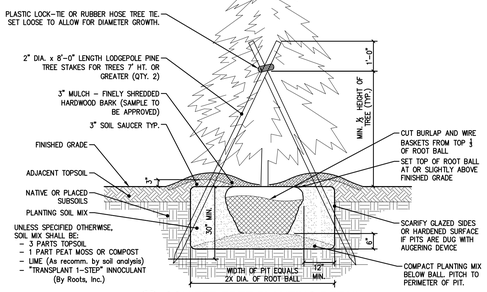


1 TREE PLANTING DETAIL
SCALE: 1/2" = 1'-0"

NOTE:

PRUNE TREES IN ACCORDANCE WITH APPROVED HORTICULTURAL STANDARDS (ANLA) IN ORDER TO PRESERVE THE NATURAL FORM OF THE SPECIFIC PLANTS.

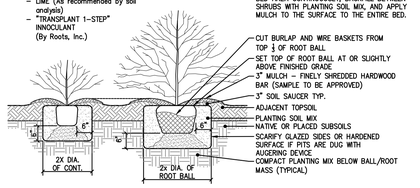
IF APPLICABLE & APPROVED BY THE LANDSCAPE ARCHITECT, ONE-FOURTH TO ONE-THIRD OF THE WOOD SHALL BE REMOVED BY THINNING OUT TO BALANCE ROOT LOSS DUE TO TRANSPLANTING.



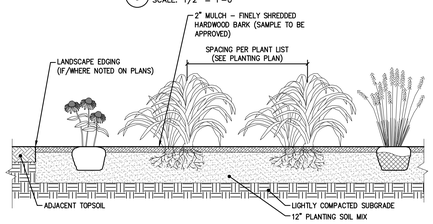
2 CONIFER TREE PLANTING DETAIL
SCALE: 1/2" = 1'-0"

UNLESS SPECIFIED OTHERWISE, SOIL MIX SHALL BE:
- 3 PARTS TOPSOIL
- 1 PART PEAT MOSS OR COMPOST
- LIME (As recommended by soil analysis)
- "TRANSPLANT 1-STEP" INNOCULANT (By Roots, Inc.)

NOTE: IN AREAS OF MASS PLANTING, EXCAVATE BED AREA CONTINUOUSLY, BACKFILL BETWEEN SHRUBS WITH PLANTING SOIL MIX, AND APPLY MULCH TO THE SURFACE TO THE ENTIRE BED.



3 SHRUB PLANTING DETAIL
SCALE: 1/2" = 1'-0"

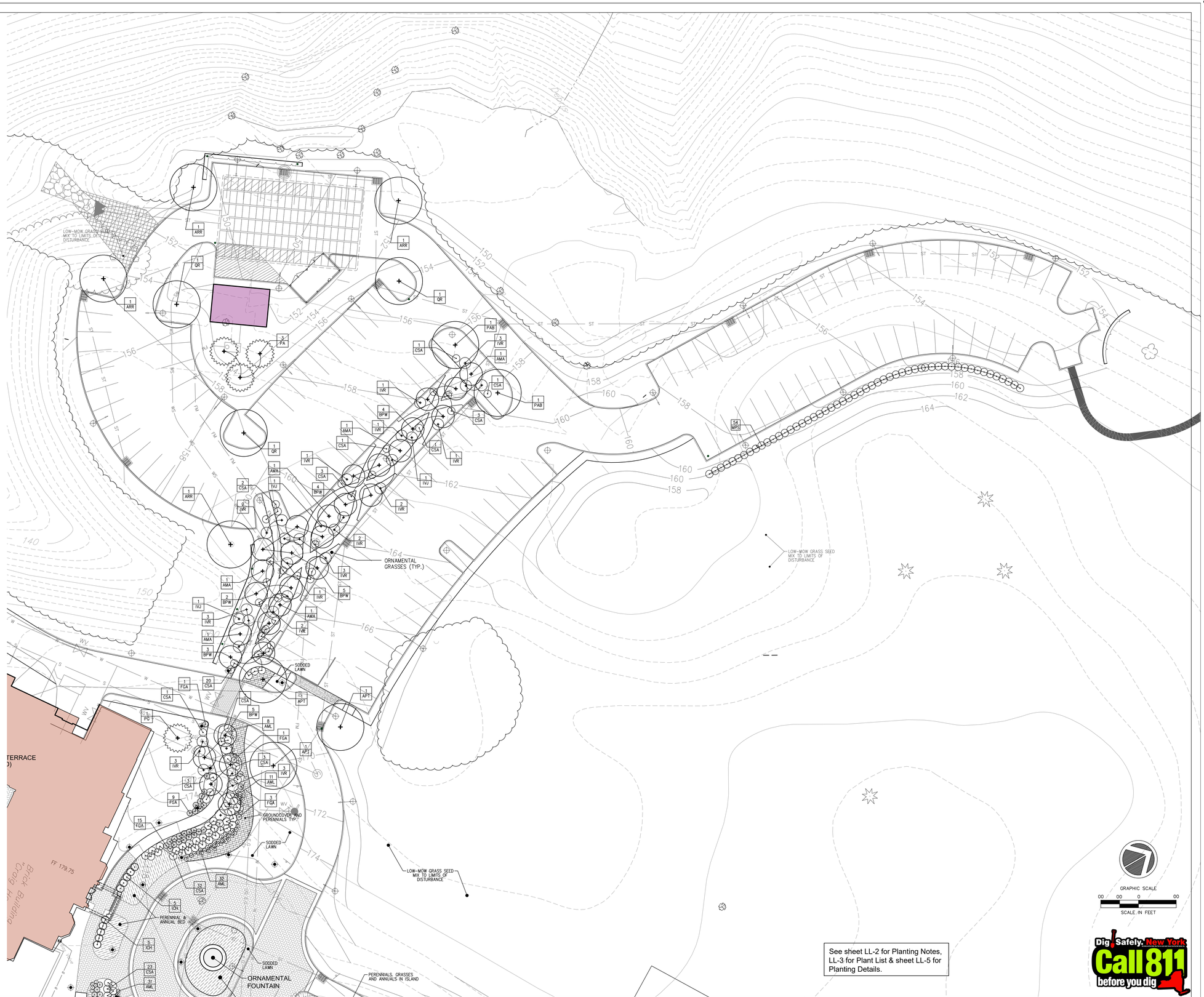


SECTION THROUGH PERENNIAL BED

PERENNIAL NOTES:
1. BULB/CORM PERENNIALS TO BE PLANTED IN FALL. POTTED PERENNIALS MAY BE PLANTED APRIL 15 TO OCTOBER 1.
2. ROTOTILL FERTILIZER AND LIME INTO SOIL PRIOR TO PLANTING AND IN ACCORDANCE TO SOIL ANALYSIS RECOMMENDATIONS.
3. DO NOT OVER COMPACT PLANTING BED. WATER THOROUGHLY AFTER PLANTING BULBS.
4. ADJUST PLANTING DEPTH AS RECOMMENDED BY BULB SUPPLIER.
5. PROVIDE DRAINAGE AS REQUIRED (PERF PIPE 4" ADS) WHEN SUBGRADE IS CLASSIFIED AS A HEAVY SOIL OR EXCESSIVELY COMPACTED.

UNLESS SPECIFIED OTHERWISE, PERENNIAL BED SOIL MIX SHALL BE:
- 3 PARTS TOPSOIL
- 1 PART MANURE (WEED FREE)
- 1 PART PEAT MOSS OR COMPOST
- LIME (As recommended by soil analysis)
- "MILORGANITE" AT 5 LBS. PER 100 SF.

4 ANNUAL/PERENNIAL AND GROUND COVER BEDS DETAIL
SCALE: 1/2" = 1'-0"



See sheet LL-2 for Planting Notes, LL-3 for Plant List & sheet LL-5 for Planting Details.

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DRAWN BY: HT/CH/DW				CHECKED BY: HT			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/25/22	ADDED SHEET	HT				
2	7/26/22	SITE PLAN REVISIONS	HT				
3	8/30/22	SITE PLAN REVISIONS	CH				
4	9/27/22	SITE PLAN/LANDSCAPE REVISIONS	HT				

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SEAL

PRELIMINARY PLANTING PLAN - SOUTHWEST

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 20'
TITLE:	LL-5
SHEET:	25 OF 28

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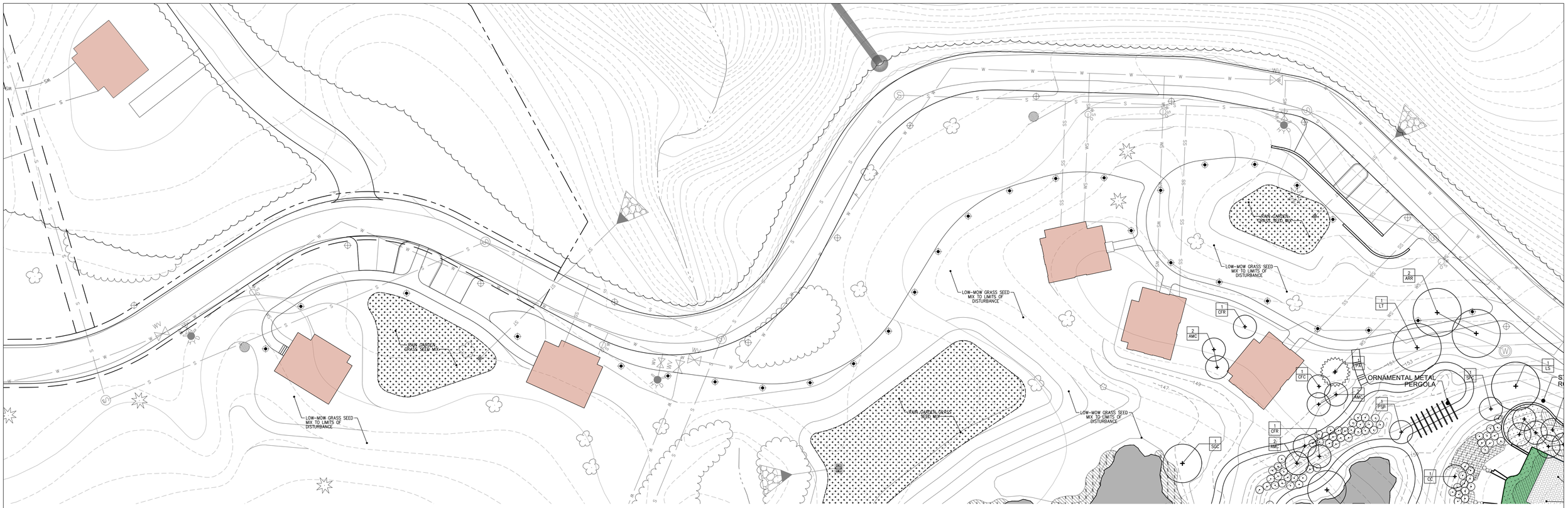



See sheet LL-2 for Planting Notes, LL-3 for Plant List & sheet LL-5 for Planting Details.

GRAPHIC SCALE
00 00 0 00
SCALE IN FEET

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DRAWN BY: HT/CH/DW			CHECKED BY: HT			
REVISIONS:			REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/25/22	ADDED SHEET	HT				
2	7/26/22	SITE PLAN REVISIONS	HT				
3	8/30/22	SITE PLAN – REPLOT	HT				
4	9/27/22	SITE PLAN/LANDSCAPE REVISIONS	HT				

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PRELIMINARY PLANTING PLAN – SOUTHWEST

MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 20'
TITLE:	LL-6
SHEET:	26 OF 28

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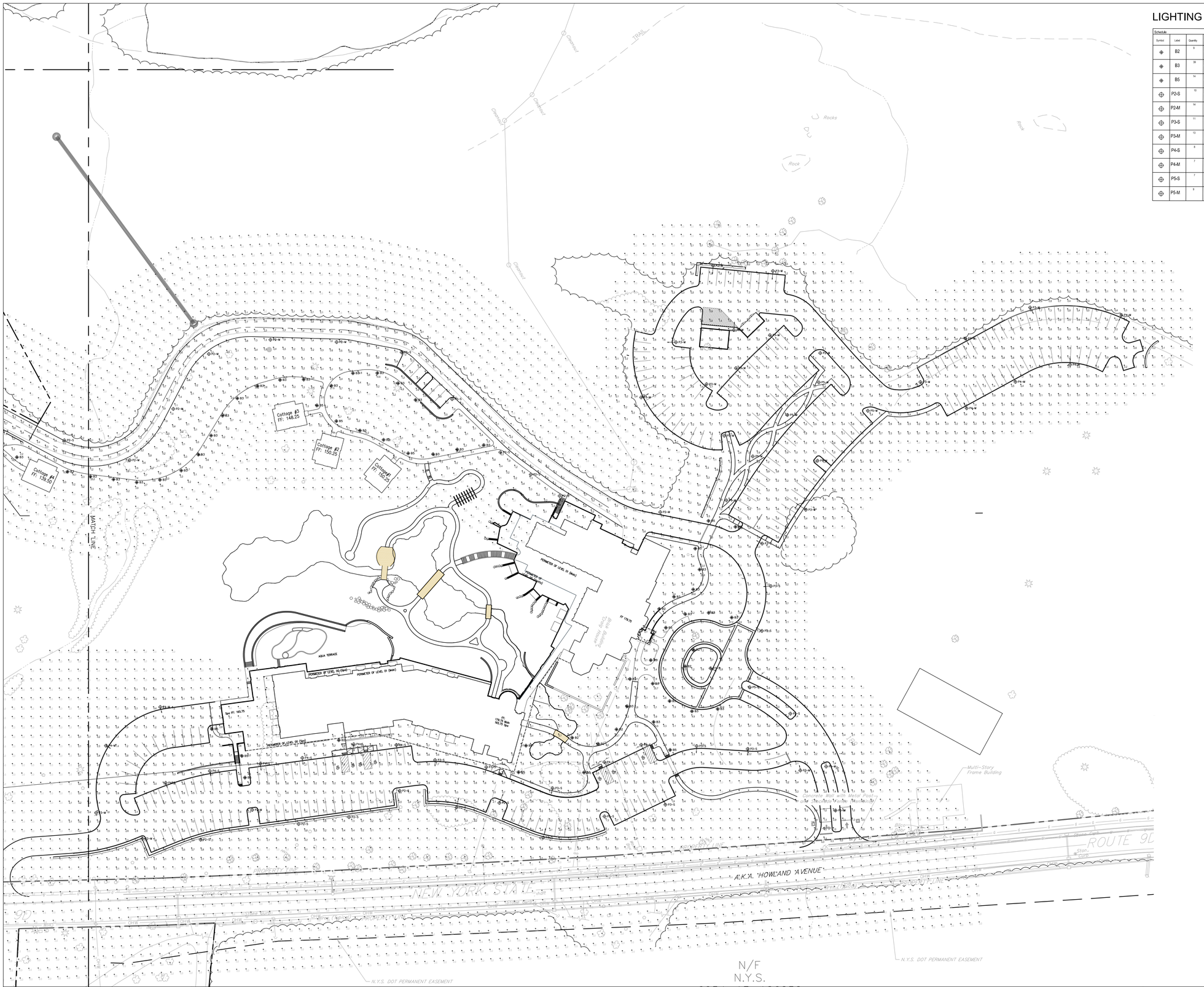


LIGHTING SCHEDULE:

Schedule										
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Filename	LLF:Line Factor	Total Lamp Lumens	Wattage	Plot
⊕	B2	9	ARCHITECTURAL AREA LIGHTING	PROB/V3-3030	PROVIDENCE BOLLARD WITH CLEAR FLAT GLASS LENS - TYPE 2	LED 3000K	B2 - PROB/V3-3030.ies	0.9	2977	43.2	
⊕	B3	39	ARCHITECTURAL AREA LIGHTING	PROB/V3-3030	PROVIDENCE BOLLARD WITH CLEAR FLAT GLASS LENS - TYPE 3	LED 3000K	B3 - PROB/V3-3030.ies	0.9	3031	43.7	
⊕	B5	14	ARCHITECTURAL AREA LIGHTING	PROB/V5-3030	PROVIDENCE BOLLARD WITH CLEAR FLAT GLASS LENS - TYPE 5	LED 3000K	B5 - PROB/V5-3030.ies	0.9	2993	43.2	
⊕	P2-S	10	ARCHITECTURAL AREA LIGHTING	PROS/10-2030	PROVIDENCE SMALL WITH CLEAR FLAT GLASS LENS - TYPE 2	LED 3000K	P2-VS - PROS/V10-2030.ies	0.9	1782	25.1	
⊕	P2-M	14	ARCHITECTURAL AREA LIGHTING	PROV/3-36L-295-3K7-2	PROVIDENCE MEDIUM 2 - TYPE 2	LED 3000K	P2-VS - PROV/3-36L-295-3K7-2.ies	0.9	3596	54.1	
⊕	P3-S	11	ARCHITECTURAL AREA LIGHTING	PROS/10-2030	PROVIDENCE SMALL WITH CLEAR FLAT GLASS LENS - TYPE 3	LED 3000K	P3-10 - PROS/V10-2030.ies	0.9	1830	25.1	
⊕	P3-M	13	ARCHITECTURAL AREA LIGHTING	PROV/3-36L-295-3K7-3	PROVIDENCE MEDIUM 2 - TYPE 3	LED 3000K	P3-VS - PROV/3-36L-295-3K7-3.ies	0.9	3489	54.1	
⊕	P4-S	8	ARCHITECTURAL AREA LIGHTING	PROS/14W-2030	PROVIDENCE SMALL WITH CLEAR FLAT GLASS LENS - TYPE 4 WIDE	LED 3000K	P4-10 - PROS/14W-2030.ies	0.9	1783	25.1	
⊕	P4-M	7	ARCHITECTURAL AREA LIGHTING	PROV/3-36L-295-3K7-4W	PROVIDENCE MEDIUM 2 - TYPE 4 WIDE	LED 3000K	P4W-VS - PROV/3-36L-295-3K7-4W.ies	0.9	3498	54.1	
⊕	P5-S	7	ARCHITECTURAL AREA LIGHTING	PROS/V5-2030	PROVIDENCE SMALL WITH CLEAR FLAT GLASS LENS - TYPE 5	LED 3000K	P5-10 - PROS/V5-2030.ies	0.9	1735	25.1	
⊕	P5-M	9	ARCHITECTURAL AREA LIGHTING	PROV/3-36L-295-3K7-5G	PROVIDENCE MEDIUM 2 2 - TYPE 5	LED 3000K	P5G-VS - PROV/3-36L-295-3K7-5G.ies	0.9	3616	54.1	

KEY TO LIGHT FIXTURES:

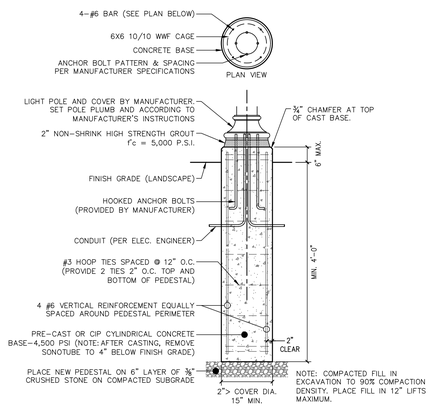
P2-S, P2-M, P3-S, P3-M, P4-S, P4M, P5-S & P5-M — POLE MOUNTED LIGHTS: "PROVIDENCE" BY ARCHITECTURAL AREA LIGHTING WITH LED LAMP TYPE WITH COLOR TEMPERATURE OF 3000K. LAMP IS FITTED IN CAP OF FIXTURE WITH POLE HEIGHTS TO SET FACE DOWNWARD AT A 10° OR 16° HEIGHT ABOVE GRADE PER PLAN. OPTICAL DISTRIBUTION PATTERNS TYPE 2, 3, 4 ND 5 AS NOTED ON PLAN. LED FIXTURE PERFORMANCE IS FULL CUT-OFF. ALL LAMPS SHALL HAVE A CRI OF 80 OR GREATER.

B2, B3 & B5 — BOLLARD LIGHTS: "PROVIDENCE" BOLLARD BY ARCHITECTURAL AREA LIGHTING WITH LED LAMP TYPE WITH COLOR TEMPERATURE OF 3000K. HEIGHT TO BASE OF LAMP HEAD IS 42" ABOVE GRADE. OPTICAL DISTRIBUTION PATTERNS ARE TYPE 2, 3 OR 5 AS NOTED ON PLAN AND SHOWN ON CUT SHEET. ALL LAMPS SHALL HAVE A CRI OF 80 OR GREATER.

NOTE: ALL BOLLARD LIGHTS TO BE EQUIPPED WITH DIMMER CONTROLS TO ALLOW FOR REDUCING LIGHT OUTPUT TO 50% OF FULL LIGHT LEVELS SHOWN ON THE PHOTOMETRIC PLAN.

See sheet LP-3 for Fixture Specification Order Sheets.

LIGHT POLE BASE DETAIL:



1 CONC. LIGHT POLE BASE-ROUND
SCALE: 1/2" = 1'-0"

POST TOP FIXTURE IMAGERY:



GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

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DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/25/22	PER PLANNING BOARD COMMENTS	HT				
2	7/26/22	SITE PLAN REVISIONS	HT				
3	8/30/22	SITE PLAN REVISIONS - PARKING	HT				
4	9/27/22	SITE PLAN REVISIONS	DW				

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SEAL

SITE LIGHTING PLAN - NORTH
MIRBEAU BEACON

7 CRAIG HOUSE LANE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-13-001258

JOB #:	2021:051
DATE:	3/29/2022
SCALE:	1" = 40'
TITLE:	LP-2
SHEET:	27 OF 28

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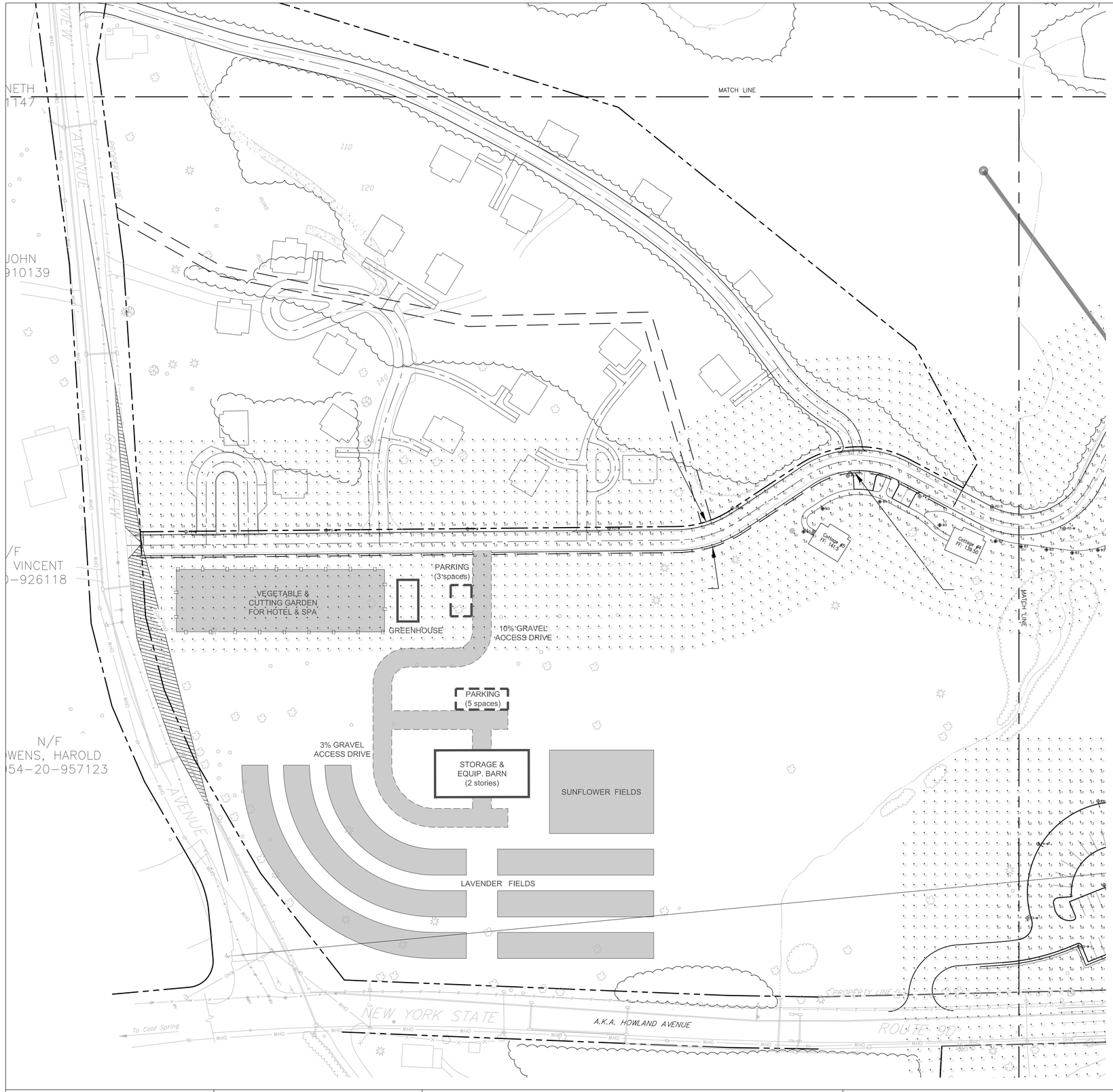
MATCH LINE
NETH
1147
JOHN
910139
/F
VINCENT
)-926118
N/F
WENS, HAROLD
54-20-957123
AVENUE
MHO
PARKING
(3 spaces)
VEGETABLE &
CUTTING GARDEN
FOR HOTEL & SPA
GREENHOUSE
10% GRAVEL
ACCESS DRIVE
PARKING
(5 spaces)
3% GRAVEL
ACCESS DRIVE
STORAGE &
EQUIP. BARN
(2 stories)
SUNFLOWER FIELDS
LAVENDER FIELDS
Cottage #5
FF: 141.5
Cottage #4
FF: 139.50
P-1
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P-40

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Valhalla, New York 10595
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Colliers
Engineering & Design

Via E-Mail
September 26, 2022

Chairman John Gunn
Beacon Planning Board
City of Beacon City Hall
1 Municipal Plaza
Beacon, NY 12508

Mirbeau Beacon - 7 Craig House Lane
City of Beacon, Dutchess County, New York
Colliers Engineering & Design Project No. 21007271A

Dear Chairman Gunn and Members of the Planning Board,

We are writing on behalf of the Applicant for the Mirbeau Beacon Project to provide response to the comments contained in the letter from Creighton Manning Engineering, LLP (CM) dated September 9, 2022. The comment and our response are provided below.

1. CM has no further comments regarding the on-site circulation.

   Response: ***Comment noted.***

2. The supplemental study for Tented Events with 250 attendees provides a conservative analysis as there was no credit taken for internal capture between the lodge, spa, and event space. Furthermore, it assumes that all event goers will enter and exit the site within the same hour, which is unlikely given most events take place over multiple hours.

   Response: ***Comment noted. No further response required.***

3. Figure 26E does not depict the 2025 Full Build Traffic Volumes for a Friday PM peak hour. However, CM was able to confirm that the volumes used in the Synchro analysis were correct. CM concurs with the findings of the Synchro analysis indicating that the project will not have a significant adverse impact on the roadway network.

   Response: ***Figure No. 26E has been corrected and is attached. As noted the volumes analyzed in the Synchro analysis were corrected and indicate that the Project will not have an adverse impact on the roadway network.***

Colliers Engineering & Design

4. The Synchro analysis does not account for the northbound left-turn lane on NYS Route 9D at the Site Driveway. While CM acknowledges that the inclusion of this improvement will benefit operations at the intersection, it should be accounted for in the analysis. Please update the Synchro report.

   Response: ***Analysis of the Site Access driveway has been conducted with the proposed left turn lane along NYS Route 9D. The analysis for the Friday PM and Saturday Peak Hours are attached. The analysis indicates that the intersection will operate at a Level of Service "D" under these event conditions.***

5. In the initial northbound left-turn lane concept, dated March 24, 2022, the proposed widening to accommodate the new lane and tapers was to occur asymmetrically towards the subject site. The site plan now depicts the widening occurring symmetrically along NYS Route 9D. CM recommends that the applicant reconsider this design and widen asymmetrically towards the subject site in order to avoid the utility poles located along the east side of the roadway.

   Response: ***The Site Plan has been modified to reflect all left turn lane widening on the west side of Route 9D. A detailed, construction level design of this left turn lane is currently being prepared and will be submitted for the City's review upon completion.***

6. Please include the advance warning signs – Driveway Ahead (W2-2) – as shown on the initial northbound left-turn lane concept, dated March 24, 2022, on the site plan. Please include these signs in the sign schedule on Sheet 16. CM recommends that the proposed Left-Turn Lane Must Turn Left (R3-7) signs not be included as they are not required and could potentially lead to over signing the roadside.1

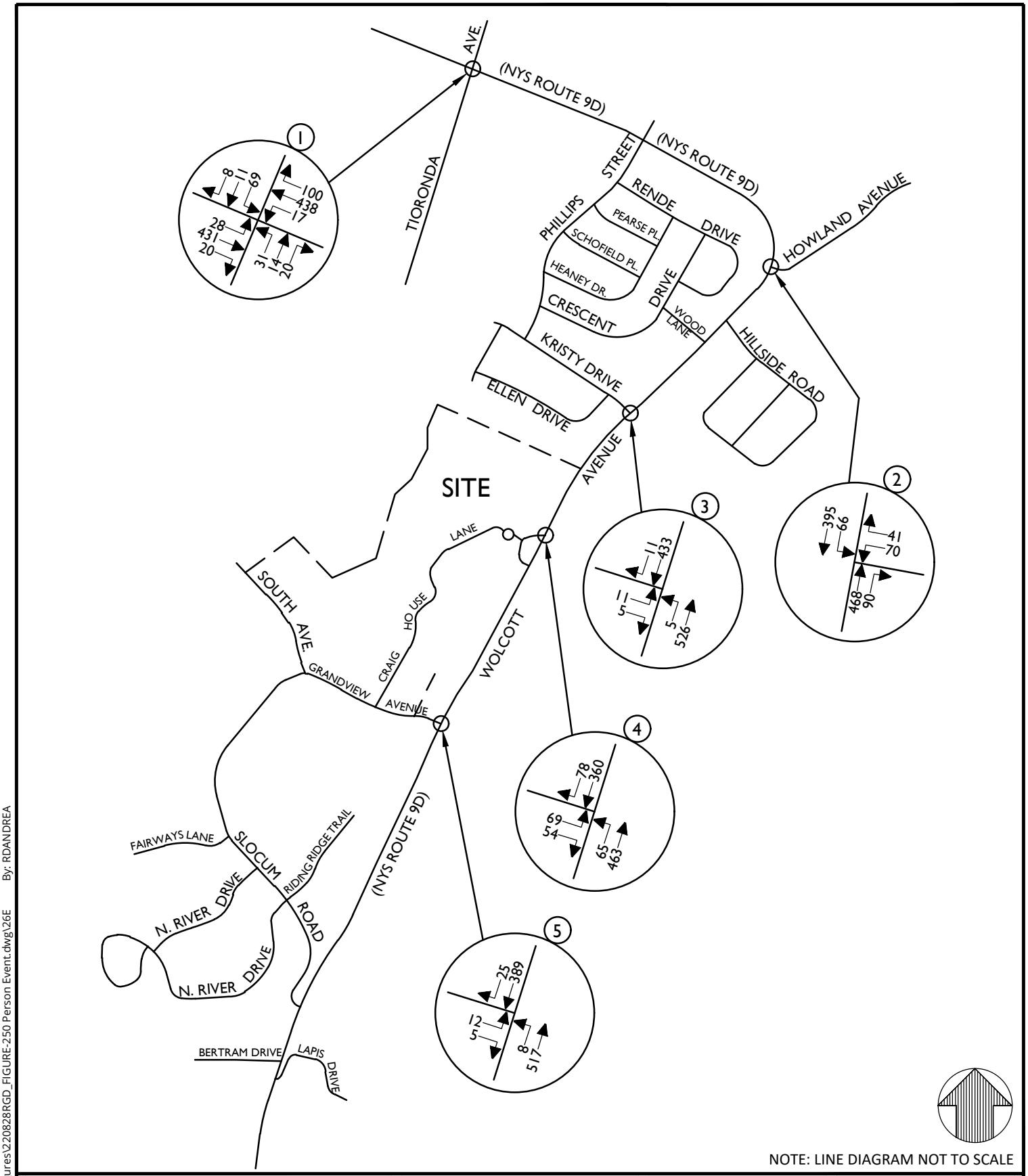
   Response: ***The Left Turn Lane Must Turn Left Signs have been removed from the plan. The Driveway Ahead Sign (W2-2) will be added to the plans as part of the detailed design plans being prepared for this left turn lane.***

Sincerely,

Colliers Engineering & Design CT, P.C.
(DBA Maser Consulting Engineering & Land Surveying)

Richard D'Andrea, P.E., PTOE
Assistant Department Manager

R:\Projects\2021\21007271A-Mirbeau Spa\Correspondence\OUT\220926RGD_CM 9.9.22 Comment Response.docx



NOTE: LINE DIAGRAM NOT TO SCALE

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TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	5/24/22	R.H.	P.J.G.

PROJECT NUMBER: 21007271A
DRAWING NAME: 220828RGD_FIGURE-250 PERSON EVENT

SHEET TITLE:
2025 FULL BUILD TRAFFIC VOLUMES
WEEKDAY PEAK FRIDAY PM HOUR
(EVENT CONDITIONS)

SHEET NUMBER: 26E

7271A-Mirbeau Spa\Reports\TrafficFigures\220828RGD_FIGURE-250 Person Event.dwg\26E By: RDANDREA



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	69	54	65	463	360	78
Future Volume (vph)	69	54	65	463	360	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12
Grade (%)	1%			-3%	1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.941				0.976	
Flt Protected	0.973		0.950			
Satd. Flow (prot)	1697	0	1796	1775	1694	0
Flt Permitted	0.973		0.950			
Satd. Flow (perm)	1697	0	1796	1775	1694	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	263			1447	440	
Travel Time (s)	6.0			32.9	10.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	5%	6%	2%
Adj. Flow (vph)	77	60	72	514	400	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	0	72	514	487	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.98	1.02	1.05	1.01
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	69	54	65	463	360	78
Future Vol, veh/h	69	54	65	463	360	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-3	1	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	5	6	2
Mvmt Flow	77	60	72	514	400	87

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1102	444	487	0	-	0
Stage 1	444	-	-	-	-	-
Stage 2	658	-	-	-	-	-
Critical Hdwy	6.62	6.32	4.12	-	-	-
Critical Hdwy Stg 1	5.62	-	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	220	606	1076	-	-	-
Stage 1	631	-	-	-	-	-
Stage 2	497	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	205	606	1076	-	-	-
Mov Cap-2 Maneuver	205	-	-	-	-	-
Stage 1	589	-	-	-	-	-
Stage 2	497	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28.2	1.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1076	-	289	-	-
HCM Lane V/C Ratio	0.067	-	0.473	-	-
HCM Control Delay (s)	8.6	-	28.2	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0.2	-	2.4	-	-

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	71	57	55	415	416	70
Future Volume (vph)	71	57	55	415	416	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	11	11	12
Grade (%)	1%			-3%	1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.940				0.980	
Flt Protected	0.973		0.950			
Satd. Flow (prot)	1695	0	1796	1775	1699	0
Flt Permitted	0.973		0.950			
Satd. Flow (perm)	1695	0	1796	1775	1699	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	263			1447	440	
Travel Time (s)	6.0			32.9	10.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	5%	6%	2%
Adj. Flow (vph)	79	63	61	461	462	78
Shared Lane Traffic (%)						
Lane Group Flow (vph)	142	0	61	461	540	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.98	1.02	1.05	1.01
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	71	57	55	415	416	70
Future Vol, veh/h	71	57	55	415	416	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	1	-	-	-3	1	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	5	6	2
Mvmt Flow	79	63	61	461	462	78

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1084	501	540	0	-	0
Stage 1	501	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Critical Hdwy	6.62	6.32	4.12	-	-	-
Critical Hdwy Stg 1	5.62	-	-	-	-	-
Critical Hdwy Stg 2	5.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	226	562	1028	-	-	-
Stage 1	592	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	213	562	1028	-	-	-
Mov Cap-2 Maneuver	213	-	-	-	-	-
Stage 1	557	-	-	-	-	-
Stage 2	540	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28.2	1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1028	-	294	-	-
HCM Lane V/C Ratio	0.059	-	0.484	-	-
HCM Control Delay (s)	8.7	-	28.2	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0.2	-	2.5	-	-

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FILED MAY 26, 2022



CURRENT ENTRY VIEW





NEW ENTRY VIEW

NOTE:
Elevation at driveway entrance to match RT. 9D = 183
Elevation at Mansion exterior ground under portico = 178.6

5/17/2022 4:17:48 PM

CLIENT:

Mirbeau INN & SPA

ARCHITECT:

ARROWSTREET
ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT:

PROJECT INFORMATION:

MIRBEAU BEACON

7 CRAIG HOUSE LANE
BEACON, NY 12508

ISSUANCE:

SPECIAL USE PERMIT APPLICATION

REVISIONS:

No.	Date	Description

DRAWING TITLE:

PROPERTY ENTRY VIEW RENDERING

09/27/22

DRAWING NUMBER:

A 0.01

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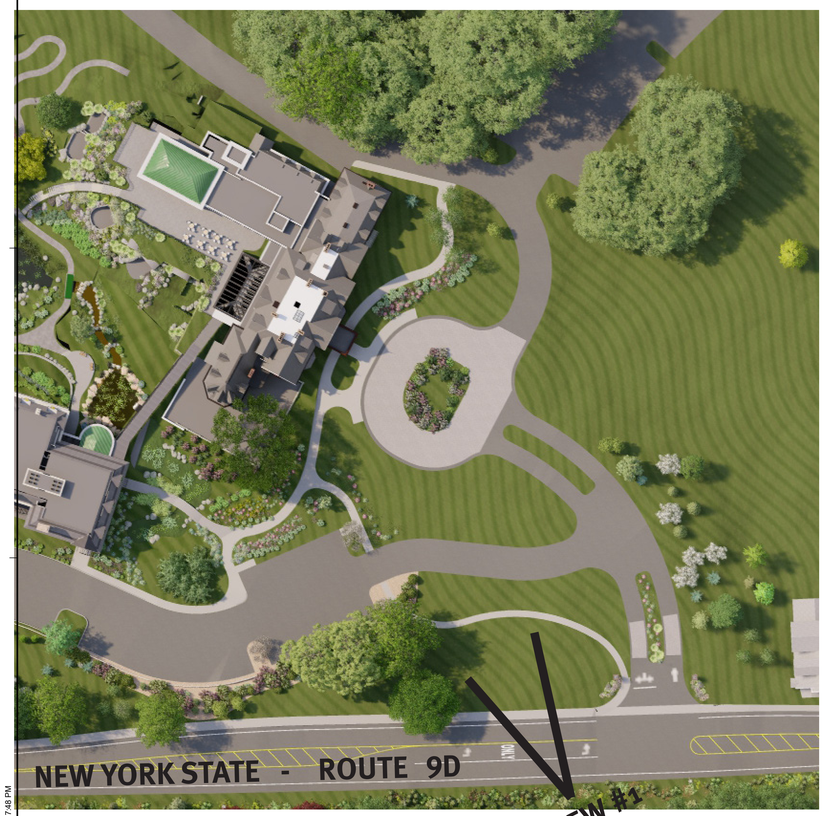
#1: PRIMARY VIEW SHED



CURRENT VIEW
SOUTH OF FORMER CURB CUT





NEW VIEW #1

NOTE:
Elevation at “View #1” = 185
Elevation at Mansion exterior ground under portico = 178.6

5/17/2022 4:17:48 PM

CLIENT:
Mirbeau INN & SPA

ARCHITECT:
ARROWSTREET
ARCHITECTURE & DESIGN
10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT:

PROJECT INFORMATION:
MIRBEAU BEACON
7 CRAIG HOUSE LANE
BEACON, NY 12508

ISSUANCE:
SPECIAL USE PERMIT APPLICATION

REVISIONS:

No.	Date	Description

DRAWING TITLE:
PRIMARY VIEW SHED RENDERING

09/27/22

DRAWING NUMBER:
A 0.02

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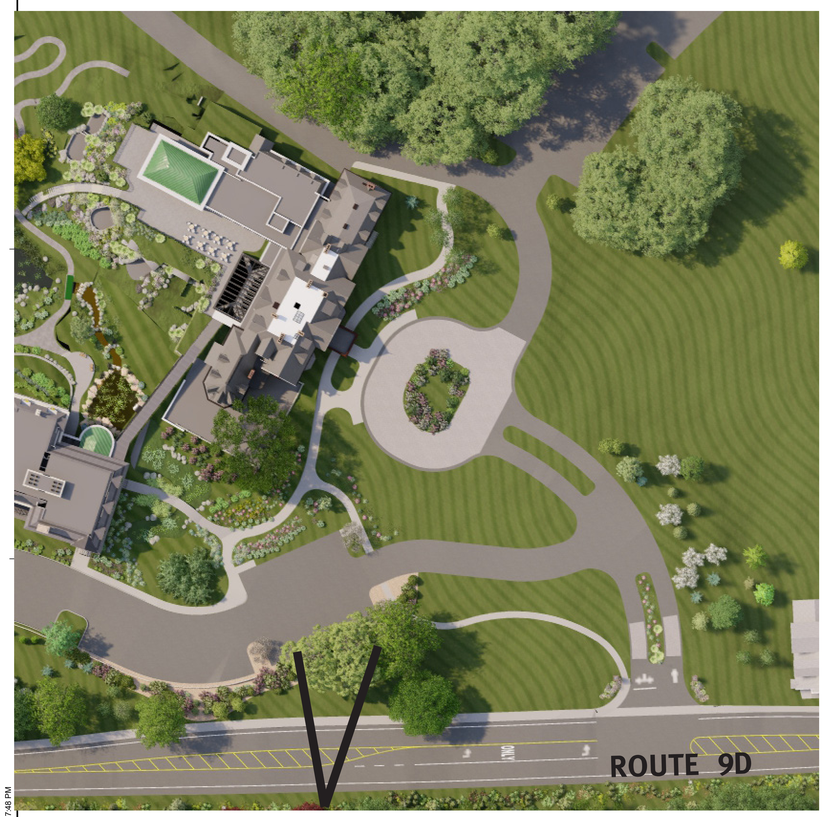
#2: SECONDARY VIEW SHED



CURRENT VIEW
PERPENDICULAR TO MANSION





NEW VIEW #2

NOTE:
Elevation at “View #2” = 189
Elevation at Mansion exterior ground under portico = 178.6

5/17/2022 4:17:48 PM

CLIENT:

Mirbeau INN & SPA

ARCHITECT:

ARROWSTREET
ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT:

PROJECT INFORMATION:

MIRBEAU BEACON

7 CRAIG HOUSE LANE
BEACON, NY 12508

ISSUANCE:

SPECIAL USE PERMIT APPLICATION

REVISIONS:

No.	Date	Description

DRAWING TITLE:

SECONDARY VIEW SHED RENDERING

09/27/22

DRAWING NUMBER:

A 0.03

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MANSION REAR PORCH VIEW



NOTE:
Mansion rear porch FF elevation: 179.75
Cottage #1 + #2 FF elevation: 150.25; Roof peak elevation: 175.
Cottage #3 FF elevation: 148.25
Cottage #4 FF elevation: 139.50
Cottage #5 FF elevation: 141.5
Cottage #4 is 600’ away from Mansion rear porch.



CURRENT VIEW



NEW VIEW

5/17/2022 4:17:48 PM

CLIENT:

Mirbeau INN & SPA

ARCHITECT:

ARROWSTREET
ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT:

PROJECT INFORMATION:

MIRBEAU BEACON

7 CRAIG HOUSE LANE
BEACON, NY 12508

ISSUANCE:

SPECIAL USE PERMIT APPLICATION

REVISIONS:

No.	Date	Description

DRAWING TITLE:
MANSION PORCH VIEW RENDERING

09/27/22

DRAWING NUMBER:
A 0.04

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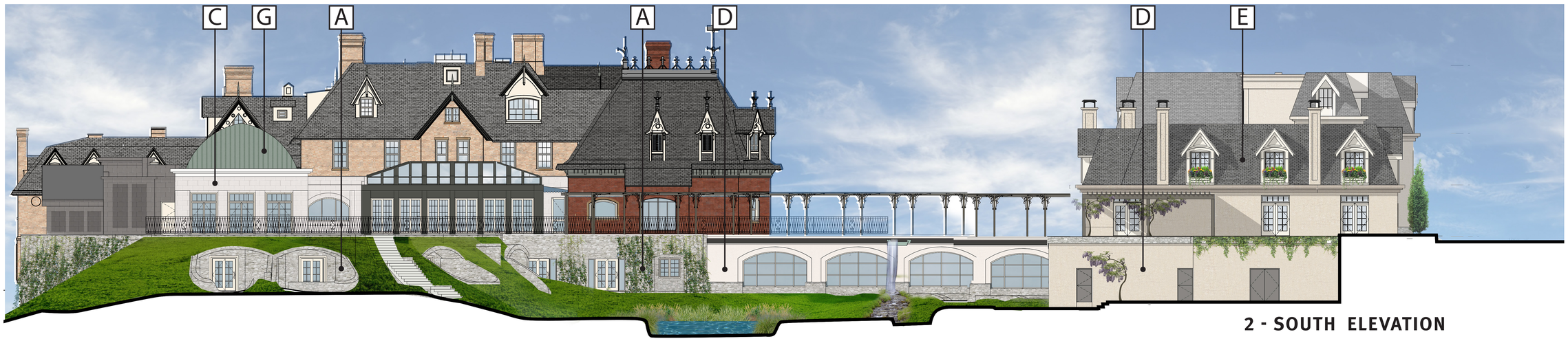
ELEVATIONS

1 - NORTH ELEVATION





2 - SOUTH ELEVATION

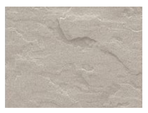
MATERIAL KEY



A: STONE VENEER



B: MASONRY VENEER



C: TEXTURED FIBER CEMENT



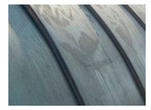
D: STUCCO



E: SYNTHETIC SLATE



F: ARCHITECTURAL SHINGLE



G: METAL ROOFING



H: FIBER CEMENT

5/19/2022 2:06:41

CLIENT:

Mirbeau INN & SPA

ARCHITECT:

ARROWSTREET
ARCHITECTURE & DESIGN

10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT:

PROJECT INFORMATION:

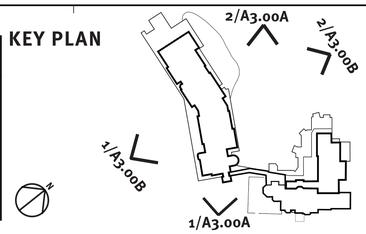
MIRBEAU BEACON

7 CRAIG HOUSE LANE
BEACON, NY 12508

ISSUANCE:

SPECIAL USE PERMIT APPLICATION

KEY PLAN



REVISIONS:

No.	Date	Description

DRAWING TITLE:

OVERALL ELEVATIONS

Project No.	21047	Drawn By	---
Date	09/27/2022	Scale	

DRAWING NUMBER:

A3.00A

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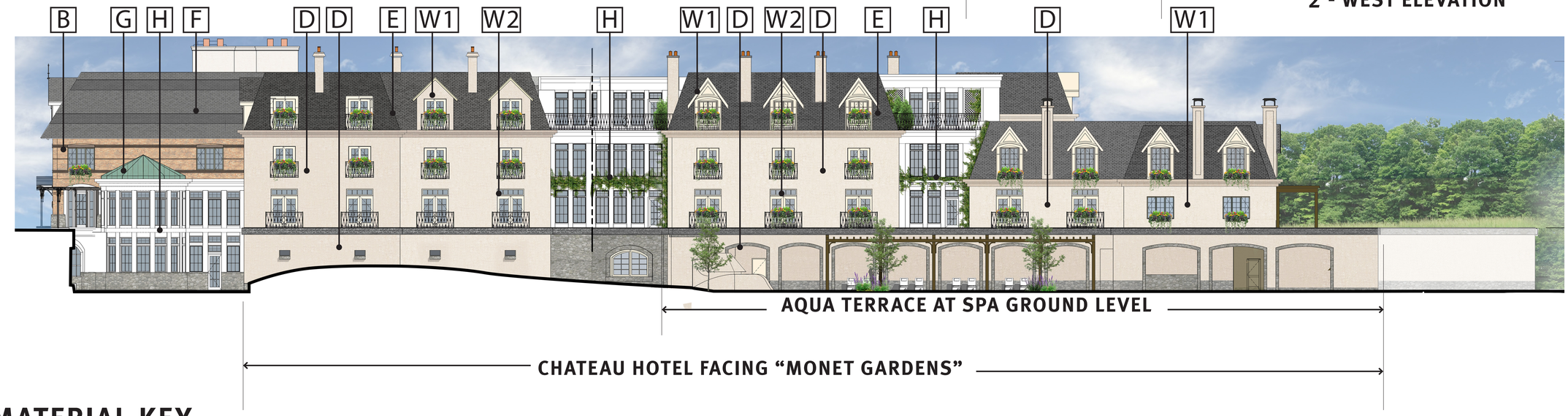
ELEVATIONS

1 - EAST ELEVATION



2 - WEST ELEVATION



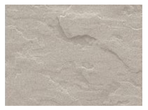
MATERIAL KEY



A: STONE VENEER



B: MASONRY VENEER



C: TEXTURED FIBER CEMENT



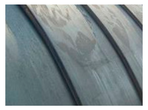
D: STUCCO



E: SYNTHETIC SLATE



F: ARCHITECTURAL SHINGLE



G: METAL ROOFING



H: FIBER CEMENT

8/25/2022 4:28:04 PM

CLIENT:

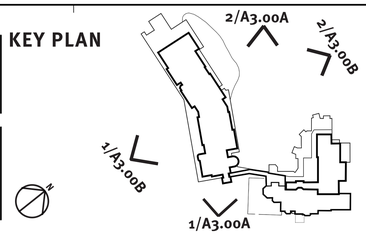
ARCHITECT:
ARROWSTREET
ARCHITECTURE & DESIGN
10 POST OFFICE SQUARE
SUITE 700N
BOSTON MA 02109
617.623.5555
arrowstreet.com

CONSULTANT:

PROJECT INFORMATION:
MIRBEAU BEACON
7 CRAIG HOUSE LANE
BEACON, NY 12508

ISSUANCE:
SPECIAL USE PERMIT APPLICATION

KEY PLAN



REVISIONS:

No.	Date	Description

DRAWING TITLE:
OVERALL ELEVATIONS

Project No.	21047	Drawn By	Author
Date	09/27/2022	Scale	

DRAWING NUMBER:
A3.00B

Dutchess County Department of Planning and Development

Fax Info Only		
	To	Date #pgs
	Co./Dept.	From
	Fax #	Phone #

239 Planning/Zoning Referral - Exemption Communities

Please Fill in this section

Municipality: **City of Beacon**

Referring Agency: **Planning Board**

Tax Parcel Numbers(s): **0012580000**

Project Name: **Mirbeau Inn & Spa**

Applicant: **The Mirbeau Companies**

Address of Property: **7 Craig House Ln, Beacon, NY 125080000**

**Exempt Actions:*
239 Review is NOT Required**

- Administrative Amendments (fees, procedures, penalties, etc.)
- Special Permits for residential uses (accessory apts, home occupations, etc.)
- Use Variances for residential uses
- Area Variances for residential uses
- Renewals/Extension of Site Plans or Special Permits that have no changes from previous approvals

No Authority to review these Actions

- Subdivisions / Lot Line Adjustments
- Interpretations

☐ Exempt Action submitted for informal review

Actions Requiring 239 Review

- ☐ Comprehensive/Master Plans
- ☐ Zoning Amendments (standards, uses, definitions, district regulations, etc.)
- ☐ Other Local Laws associated with zoning (wetlands, historic preservation, affordable housing, architectural review, etc.)
- ☐ Rezonings involving all map changes
- ☐ Architectural Review
- ☑ Site Plans (all)
- ☑ Special Permits for all non-residential uses
- ☐ Use Variances for all non-residential uses
- ☐ Area Variances for all non-residential uses
- ☐ Other (Describe):

Parcels within 500 feet of:

- ☑ State Road: **9D**
- ☐ County Road:
- ☑ State Property (with recreation area or public building)
- ☐ County Property (with recreation area or public building)
- ☑ Municipal Boundary
- ☐ Farm operation in an Agricultural District

Date Response Requested: **10/11/2022**

Entered By: **Caputo, Amanda**

These actions are only exempt in municipalities that signed an intermunicipal agreemment with Dutchess County to that effect.

For County Office Use Only

Response From Dutchess County Department of Planning and Development

No Comments:

- ☐ Matter of Local Concern
- ☐ No Jurisdiction
- ☐ No Authority
- ☐ Withdrawn
- ☐ Incomplete - municipality must resubmit to County
- ☐ Exempt from 239 Review
- ☐ None

Comments Attached:

- ☑ Local Concern with Comments
- ☐ Conditional
- ☐ Denial
- ☐ Incomplete with Comments- municipality must resubmit to County
- ☐ Informal Comments Only (Action Exempt from 239 Review)

Date Submitted: **9/19/2022**	Notes:	☑ Major Project
Date Received: **9/19/2022**		Referral #: **ZR22-275**
Date Requested: **10/11/2022**		
Date Required: **10/18/2022**	☐ Also mailed hard copy	Reviewer:
Date Transmitted: **10/4/2022**		

MARCUS J. MOLINARO
COUNTY EXECUTIVE

EOIN WRAFTER, AICP
COMMISSIONER

COUNTY OF DUTCHESS

DEPARTMENT OF PLANNING AND DEVELOPMENT

October 4, 2022

To: Planning Board, City of Beacon
Re: ZR22-275 – Mirbeau Inn and Spa

The Dutchess County Department of Planning and Development has reviewed the subject referral within the framework of General Municipal Law (Article 12B, Sections 239-l and 239-m).

ACTION

The applicant is seeking site plan and special permit approval for construction of a 75-room hotel with spa, restaurant, and other amenities.

COMMENTS

1. We concur with the City's planner that a sidewalk/path along Grandview and South Road should be incorporated. If the Board and Applicant wish to include that amenity as part of a later phase, it should be depicted on the plans similar to other elements of later phases.

2. The bollards are creating significant lighting hot spots. The Board and applicant could consider whether a different fixture could provide a more evenly-distributed and lower level of lighting.

RECOMMENDATION

The Department recommends that the Board rely upon its own study of the facts in the case with due consideration of the above comments.

Eoin Wrafter, AICP
Commissioner
By

Dylan Tuttle
Planner

85 Civic Center Plaza, Suite 107, Poughkeepsie, New York 12601 • (845) 486-3600 • Fax (845) 486-3610
www.dutchessny.gov

Amanda Caputo

From: Matt George <matgeorge@gmail.com>
Sent: Saturday, September 17, 2022 6:20 AM
To: Amanda Caputo
Subject: Mirbeau Inn & Spa at Howland Estate

Follow Up Flag: Follow up
Flag Status: Flagged

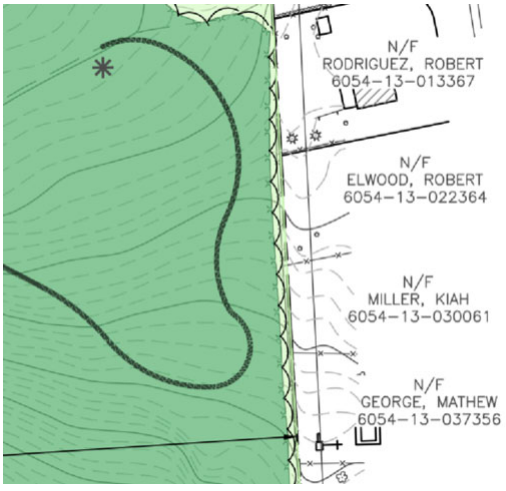
Hello,

I am a Beacon resident residing at 18 Ellen Drive and I had a concern about the proposed Mirbeau Inn & Spa at Howland Estate development. Looking more closely at the plan, l see there is a proposed walking trail that would wind through an area clearly viewable from my backyard and I would probably also see from my front yard. I will attend the next zoning meeting to bring up my concern, but also wanted a written communication on the record as well. Three of the four homes that would be impacted have small children and my concern is the proximity of this path to our backyards and accessibility.

I'm not sure if the plan would include a barrier of some sort between the residents property and the property of 7 Craig House Lane, but I think if a walking path will be established in this close proximity to to backyards, one should be established with the security of children in mind. If that's not an option, an alternate path should be considered so our current serene view isn't altered to a view of random strangers walking through wooded area, which would possibly increase noise levels and other negative impacts to the wooded area.

Thank you for your time and please forward my concern accordingly if necessary.

Mathew George
18 Ellen Drive



18 ELLEN DRIVE
BEACON NY 12508

SEPTEMBER 19, 2022

Mr. John Gunn
Chairman Planning Board - City of Beacon
One Municipal Plaza. Beacon, NY 12508

Dear Mr .Gunn,

I hope all is well. I have been a resident of Beacon for the past 16 years and a lifelong resident of the Hudson Valley. When we purchased our home in 2006, my wife and I fell in love with the quiet neighborhood and how secluded and private the backyard was.

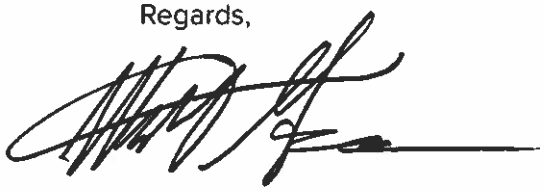
The project that is currently being developed at 7 Craig House Lane seems like it would be a welcome addition to Beacon and I've reached out to Mirbeau welcoming them to the neighborhood. It is an exciting time to be in Beacon with all the changes, for sure!

After reviewing the packet agenda from the last meeting regarding the development of this property, I noticed that there is a proposed walking path that ends at my neighbor's home, Mrs. Brend De Leon, and winds through the natural setting of several of my neighbors backyards, including mine (added below for your convenience). As the father of two girls this is a bit concerning as we are not accustomed to people walking through this area behind our home.

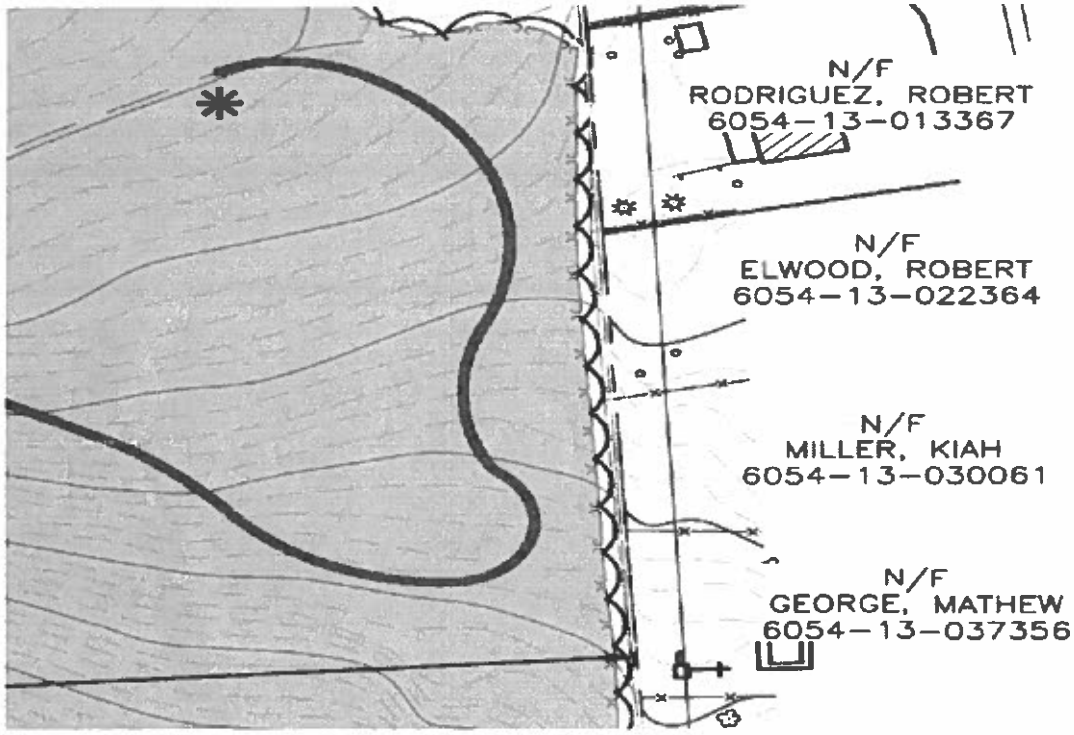
I hope this path can be adjusted away from residential property or Mirbeau would consider installing a barrier of tall evergreens or tall fencing to account for the need of privacy and mitigate the sound emanating from the business.

Thank you for your time and I hope my concern is taken into consideration by Mirbeau and the Zoning Board of Beacon. I look forward to hearing from you and wish all the best to Mirbeau for their success.

Regards,



\Mathew George


N/F
RODRIGUEZ, ROBERT
6054-13-013367
N/F
ELWOOD, ROBERT
6054-13-022364
N/F
MILLER, KIAH
6054-13-030061
N/F
GEORGE, MATHEW
6054-13-037356

Amanda Caputo

From: Matt George <matgeorge@gmail.com>
Sent: Friday, October 7, 2022 10:39 AM
To: Amanda Caputo
Subject: Re: Mirbeau Inn & Spa at Howland Estate
Attachments: PATH.png

Follow Up Flag: Follow up
Flag Status: Flagged

Hello,

Thank you. I noticed the Agenda Packet for the October 12th meeting has an updated Master Site Plan that now shows an additional proposed walking path coming from a parking lot and connecting to the original path route in the area behind my yard (see attached). I spoke to several of my neighbors that this would impact and I'd like to raise the concern again for privacy and foot traffic that would ensue to the wooded area behind our property. I would ask the developer, with input from residents, to consider fencing and/or privacy trees for their residential neighbors.

Thank you.

Mathew George
18 Ellen Dr, Beacon, NY 12508

On Tue, Sep 20, 2022 at 9:18 AM Amanda Caputo <acaputo@beaconny.gov> wrote:

> Good morning, your email has been forwarded to the full Planning Board and entered into the record for the next meeting.
>
> Please let me know if you need anything else or have any questions.
>
> Amanda C. Caputo
>
> Municipal Secretary – Building/Planning/Zoning
>
> 845-838-5002
>
> **From:** Matt George <matgeorge@gmail.com>
> **Sent:** Saturday, September 17, 2022 6:20 AM

John Clarke Planning and Design jclarkeplandesign@gmail.com
845.797.4152

To: John Gunn, Chair, and the City of Beacon Planning Board
Date: October 7, 2022
Re: **Mirbeau Inn & Spa, 7 Craig House Lane Special Permit, Site Plan, and Subdivision Plan**

I have reviewed two September 27, 2022 response letters from The Mirbeau Companies and Hudson Land Design, September 26, 2022 response letter from Colliers Engineering & Design, 6-sheet view and building elevation renderings by Arrowstreet, dated September 27, 2002, September 27, 2002 Preliminary Subdivision Plat, and a 28-sheet Site Plan and Special Permit set by Arrowstreet, LRC Group, and Hudson Land Design, dated September 27, 2002.

Proposal

The applicant is proposing to convert the Howland Estate into a 75-room hotel with additions to the renovated Mansion, spa, 110-seat restaurant, five cottages, and an event space. Future phases will include restoration of the former school and south gatehouse, farming operations, recreational uses, and additional rental cottages. The 64.39-acre site is in the R1-80 zoning district and in the Historic District and Landmark Overlay (HDLO) zone.

Comments and Recommendations

1. The renderings of key public viewpoints toward the historic mansion from Route 9D seem to block views of vehicles and highlight the historic mansion. The mixture of year-round screening vegetation and open views toward the mansion appears to be effective.

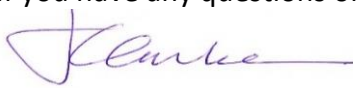
2. The applicant's position is that a public trail along the east side of the Fishkill Creek is not practical because of wetlands and other access issues. The flagged wetlands should be clearly hatched or colored on Sheet 2. The Board can also discuss possibilities for a shorter spur trail on the east side of the creek to Tioronda Falls and a walkway along the South Avenue and Grandview Avenue frontages to connect the Tioronda Bridge with the Route 9D sidewalk and Settlement Camp park.

3. The turning lane detail on Sheet 19 should show the location of the 36-inch horse-chestnut and any other trees that may be too close to the relocated sidewalk. The turning lane should be designed in a way that preserves this significant tree at the entrance to the site.

4. Any new additions to the historic buildings or exterior construction must meet the standards in Chapter 134, Historic Preservation, and will require a Certificate of Appropriateness. The Architectural Review Subcommittee met with the applicants and project architects on July 22, 2022 and again on September 16, 2022. The architecture for the five cottages should also be included in the plans.

5. The proposed materials include brick and stone veneers, fiber-cement panels and siding, and traditional stucco. The elevations should specify whether the brick will be full dimension and individually set or thin brick and panels. The stone must be real and the Board should consider whether it appears as laid field stone or an ashlar pattern. The fiber-cement siding must be shown as smooth, not with a textured grain.

If you have any questions or need additional information, please feel free to contact me.



John Clarke, Beacon Planning Consultant

c: Dave Buckley, Building Inspector
Jennifer L. Gray, Esq., City Attorney
Arthur R. Tully, P.E., City Engineer
John Russo, P.E., City Engineer
Ed Kellogg, Project Representative
Michael Bodendorf, P. E. Project Engineer

LANC & TULLY

ENGINEERING AND SURVEYING, P.C.

John J. O'Rourke, P.E., Principal
David E. Higgins, P.E., Principal
John Queenan, P.E., Principal
Rodney C. Knowlton, L.S., Principal
Jerry A. Woods, L.S., Principal
John D. Russo, P.E., Principal
John Lanc, P.E., L.S.
Arthur R. Tully, P.E.

October 6, 2022

Mr. John Gunn
Beacon Planning Board Chair
City of Beacon
1 Municipal Plaza
Beacon, NY 12508

RE: Mirbeau of Beacon, LLC
City of Beacon
Tax Map No. 6054-13-001258

Dear Mr. Gunn:

My office has received the following in regard to the above application:

- Cover letter from Mirbeau Companies, dated September 27, 2022.
- Correspondence from Colliers Engineering & Design dated September 26, 2022.
- Correspondence from Hudson Land Design dated September 27, 2022.
- Report titled "Preliminary Water and Sewer Engineer's Report for Mirbeau Inn & Spa Beacon", with the latest revision date of September 27, 2022, as prepared by Hudson Land Design.
- Report titled "Stormwater Pollution Prevention Plan for Mirbeau Beacon Inn & Spa", with the latest revision date of September 27, 2022, as prepared by Hudson Land Design.
- View Shed Renderings and Elevations Sheets A0.01, A0.02, A0.03, A0.04, A3.00A and A3.00B, dated September 27, 2022, as prepared by Arrow Street Architecture.
- Preliminary Subdivision Plat – Mirbeau Beacon", with the latest revision date of September 27, 2022, as prepared by Hudson Land Design.
- Plan set titled "Mirbeau Beacon Inn & Spa", with the latest revision date of September 27, 2022, and consisting of Sheets 1 of 28 through 28, as prepared by Hudson Land Design, Arrow Street Architecture, and LRC Group.

The applicant is proposing to develop a Spa and Inn at the Craig House property located on the southerly side of the City along Wolcott Avenue, which is 64.39 acres in size. They are also proposing to subdivide 7 acres from the parent parcel, along Grandview Avenue, that will contain Phase II of the project in the future.

Based upon our review of the above referenced documents and plans, we offer the following comments:

General Comments:

1. The project will require Dutchess County Department of Health approval for the proposed private water system and proposed sewer collection system. As the collection both systems are private and will be traversing across more than one parcel, a Transportation Corporation will need to be formed for the water and sewer systems. ***Applicant's consultant notes that plans will be submitted to the DCDOH once SEQRA is closed.***

2. As the proposed retaining walls on site will reach heights of 9.4 feet, retaining walls will need to be design by a licensed engineer in the State of New York. The design of these walls shall be submitted for review. ***Applicant's consultant states that signed and sealed drawing for the walls will be provided to the Building Department prior to building permit.***

3. A stormwater control and maintenance agreement and easement will need to be prepared for the project and submitted for review.

4. An Inflow and Infiltration study has been conducted of the site and is included within the Engineer's Report for the water and sewer. Based upon the study conducted, it was found that roof leaders and a sump pump may be connected to the City's sanitary sewer collection system. Based upon the drainage areas connected to these conveyance systems, this would contribute an additional 26,488 gallons per day during a 1-year storm event, or 46,955 gallons per day for a 10-year storm event. These flows will be eliminated form the City's sanitary sewer collection system through the construction of the proposed project. It should be noted that the I&I flows to the City's sanitary sewer collection system are significantly greater than the actual expected projected project flows of 18,910 gallons per day.

5. Based upon the number of concerns raised by the adjacent residents about traffic on Grandview Avenue and pedestrians, the applicant should consider installing a walkway along Grandview Avenue to allow for separation between pedestrians and motor vehicle traffic.

Water & Sewer Engineer's Report:

1. Paragraph 2 of Section 3.2, states that a note has been added to the site plans requiring the existing sump pump to be disconnected from the building's sanitary plumbing, but we were unable to find this note on the plans. Please ensure the note has been added to the plans and is prominent.

2. A note shall be added to the plans stating which building shall receive sprinkler systems.

3. Section 5.0 should be updated to reflect a sewer generation of 18,910 gallons per day as per the Section 3.0 of the report.

4. Consideration should be given to providing a generator hook-up for the proposed pump-station, to allow for emergency power during power outages.

5. The "Pump Calculations" include a title of "Proposed Primary Absorption Field" in two locations. This title should be revised, as there are not absorption fields proposed for the project.

SWPPP Report:

1. Section 6.3.2. notes the use of 2 rain gardens. As rain gardens are no longer proposed, the reference to them should be removed.

2. Section 6.3.2. notes the use of green roofs. Additional information shall be provided as to what buildings on the project site will contain green roofs and the size of the green roof areas. This information could be added to Section 6.7.3.3. of the report.

3. Additional soil testing should be conducted at the bioretention practices to see if infiltration in these systems can be achieved. ***Project Engineer notes that this testing will be coordinated with the City Engineer's office.*** Once soil testing has been completed, the SWPPP will need to be updated to reflect the additional testing and any changes to the bioretention areas, as well as drainage calculations.

Preliminary Subdivision Plat:

1. The metes and bounds along each of the easements shall be provided on the plan. This would include all necessary easements for utilities and access drives.

2. The hatching to the left and right of the access drive as it intersects Grandview Avenue, which represents required clearing areas as per Sheet 5 of 28, should be removed from the plat.

Site Plan Sheets

Sheet 3 of 28:

1. There are several leader lines that do not have any notes associated with them. Either the notes should be added to these leader lines, or the leader lines removed.

Sheet 4 of 28:

1. The labels within the buildings should be increased in size so they are legible.

2. The leader line for "Proposed Retention Pond B" should not be run through the hydrant. Leader lines in general should be cleaned up so that they are not running through text on the plan.

Sheet 5 of 28:

1. A water valve is shown in the middle of the Mirbeau Lane in front of the green house, as though connected to the road center line. If this valve is not necessary, it should be removed.

2. The meter and backflow prevention pit show near the Grandview Avenue intersection with Mirbeau Lane should be shifted so that it is not located under the roadway.

Sheet 6 of 28:

1. The plan is currently showing what appears to be 2 water lines running down South Avenue, between Grandview and the Fishkill Creek. This should be verified, as the City is aware of only a single water line running along the road.

Sheet 7 of 28:

1. The plans are not legible along the front of the site, as there is a significant amount of work being shown that overlaps with other work. We would recommend that this area be provided at a larger scale, or a separate sheet be provided to break out the various aspects of work being shown in this location.

2. Is the second island within the entrance drive raised? If so, the proposed contour lines should be adjusted as they currently represent uniform slope without a raised island. We would also recommend spot elevations be provided along the curb lines for these islands.

3. In the area of the mechanics building there are two green lines. The first line is represented as the force main, but what does the 2nd green line represent?

Sheet 9 of 28:

1. The sewer line on South Avenue above SMH-1 should be shifted to the east so that the utility poles on the west side of the road are impacted during the construction of the sewer line.

Sheet 10 of 28:

1. Labeling along the front of the site needs to cleaned up so plan is legible.

Sheet 16 of 28:

1. Pavement Restoration Detail shall be revised to reflect an 8" of asphaltic base course (installed in two 4" lifts), not a 8" subbase course material, for work within Wolcott Avenue.

Sheet 28 of 28:

1. The lighting cut sheets provided on the plan need to be enlarged so they are legible.

This completes our review at this time. Further comments may be forth coming based upon future submissions. **A written response letter addressing each of the above comments should be provided with the next submission.** If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.

John Russo, P.E.

Cc: John Clarke, Planner
Jennifer Gray, Esq.
David Buckley, Building Inspector

October 7, 2022

Mr. John Gunn, Chairman
Beacon Planning Board
City of Beacon City Hall
1 Municipal Plaza
Beacon, NY 12508

RE: Site Plan, Traffic and Parking Study Review #6 for **Mirbeau Beacon**, 7 Craig House Lane, City of Beacon, Dutchess County, New York; CM Project No. 121-295

Dear Mr. Gunn:

Creighton Manning Engineering, LLP (CM) reviewed the documents contained in the City of Beacon Planning Board Agenda Packet for the October 11, 2022 meeting. Below, please find our most recent comments for consideration by the Board.

1. The hatching associated with the proposed widening extends in front of existing driveways on the east side of NYS Route 9D. CM recommends that the applicant investigate a design that allows for these left-turns. One potential solution is to provide a two-way left-turn lane beginning just south of the proposed left-turn bay at the site driveway.
2. In discussions with the Planner for the City of Beacon Planning Board, there is desire to consider a marked crosswalk on NYS Route 9D. Chapter 3, Section 3B.18 of the Manual on Uniform Traffic Control Devices (MUTCD) states that: *"an engineering study should be performed before a marked crosswalk is installed at a location away from a traffic control signal or an approach controlled by a STOP or YIELD sign. The engineering study should consider the number of lanes, the presence of a median, the distance from adjacent signalized intersections, the pedestrian volumes and delays, the average daily traffic (ADT), the posted or statutory speed limit or 85th-percentile speed, the geometry of the location, the possible consolidation of multiple crossing points, the availability of street lighting, and other appropriate factors. New marked crosswalks alone, without other measures designed to reduce traffic speeds, shorten crossing distances, enhance driver awareness of the crossing, and/or provide active warning of pedestrian presence, should not be installed across uncontrolled roadways where the speed limit exceeds 40 mph and either:*
    A. *The roadway has four or more lanes of travel without a raised median or pedestrian refuge island and an ADT of 12,000 vehicles per day or greater; or*
    B. *The roadway has four or more lanes of travel with a raised median or pedestrian refuge island and an ADT of 15,000 vehicles per day or greater."*

    If a crosswalk is to be considered as part of the improvements on NYS Route 9D, the aforementioned study should be conducted by the applicant. The findings and recommendations of that study would be reviewed by CM. Additionally, the logical location and termini of the crosswalk should be discussed. CM notes that the east side of the roadway, which the applicant does not own, does not currently provide a sidewalk.

If you have any questions about the above comments, please do not hesitate to contact our office at (914) 800-9201. In an effort to make the comment-response process as efficient as possible, we are available to attend a meeting via Zoom to discuss the project and the matters raised in this letter.

Respectfully,
Creighton Manning Engineering, LLP

Frank A. Filiciotto, PE
Associate

Starke W. Hipp, PE
Project Engineer

N:\Projects\2021\121-295 Beacon - 2021 Traffic Reviews\Working\Correspondence\Mirbeau\Mirbeau_Rev 6.docx

City of Beacon Planning Board Agenda
10/12/2022

Title:

Continue Public Hearing on application for Special Use Permit and Site Plan Approval, accessory apartment, 281 Rombout Avenue, submitted by Mariann Corsa

ATTACHMENTS

2022-09-27 - 281 Rombout Ave Response to Requests.pdf

2022-09-27 - 281 Rombout Ave.pdf

2022-09-27 - 1596 - 281 Rombout-Application Letter.pdf

utility plan 09232022.pdf

Planners Comments Rombout Av Acc Apt 10.7.22.pdf

Engineers Comments 281 Rombout 10-04-22.pdf

calderón
architecture
& design
studio

Amanda Caputo
Planning Board Secretary
City of Beacon
One Municipal Plaza
Beacon, NY 12508

September 27, 2022

re: 281 Rombout Avenue, Beacon, NY 12508
Accessory Dwelling Unit /Garage Conversion Application

Dear Amanda,

The following is part of CADS' revised submission for a special permit application. It consists of responses to the comments of John Russo, P.E. from the letter dated September 7, 2022, and responses to the comments of John Clarke, Beacon Planning Consultant, from the letter dated September 9, 2022.

As per the request of John Russo, the following items have been addressed:

Re: Utility Plan:

1. The labeling has been revised.
2. A clean out and detail have been provided.
3. The existing sewer has been confirmed as vitrified clay pipe and labeled as such.
4. The sewer connection detail has been updated and model updated.
5. Item 304.12 has now been specified and a note has been added about backfill compaction.
6. The material has been updated in the detail.
7. The schedule has been edited.

Re: Site Plan Drawings:

1. The location of the sewer main on the site plan has been amended to be accurate.
2. The site plan has been amended as requested to provide sufficient room for maneuvering a vehicle in and out of the site.

As per the request of John Clarke, the following items have been addressed:

1. The site plan has been amended as requested to reflect consistently the 306 SF proposed floor area for the accessory apartment area. The proposed first floor area is 222 SF and the proposed second floor area is 84 SF.
2. The site plan has been amended as requested with a wider taper from the parking spaces to the property line to allow sufficient room for access to the western space.

calderón
architecture
& design
studio

Please let me know if you have any questions.

Thank you.

Sincerely,



J.C. Calderón, AIA, NOMA, LEED AP
Principal

5 Cliff Street, Beacon, New York 12508
845-504-3706 · 212-369-2766 · info@calderonarchitecture.com

GARAGE CONVERSION TO ACCESSORY DWELLING UNIT
281 ROMBOUT AVENUE
BEACON, NY 12508

SEPTEMBER 27, 2022

CLIENT:
MARI ANN CORSA
281 ROMBOUT AVENUE
BEACON, NY 12508

ARCHITECT:
calderón architecture
& design studio p.c.
5 CLIFF STREET
BEACON, NY 12508

1

ARCHITECTURAL DRAWING LIST			
#	DWG.	TITLE	DATE
1	T-100.00	TITLE SHEET, NOTES & PLOT PLAN	09/27/2022
2	A-001.00	CADS GENERAL NOTES	09/27/2022
3	A-002.00	CADS GENERAL NOTES CONTINUED	09/27/2022
4	A-100.00	PROPOSED SITE PLAN & ZONING	09/27/2022
5	A-101.00	PROPOSED PLANS & ELEVATIONS	09/27/2022

SITE DATA	
LOCATION:	281 ROMBOUT AVENUE BEACON, NY 12508
TAX ID (FILE MAP - FILE #): (SECTION - BLOCK - LOT):	8181-1 5954-44-985708
STORIES: PRINCIPAL BLDG: ACCESSORY BLDG:	 2 2
OWNER(S):	MARI ANN CORSA
WORK AREA:	±460 SF
ZONING DISTRICT(S):	R1-5
OCCUPANCY CLASS:	1-FAMILY RESIDENCE
FLOOD AREA:	NO

ARCHITECT NOTE:

DUE TO THE INACCESSIBILITY TO PART OF THE PREMISES AND/OR STRUCTURE, THE VARIOUS DIMENSIONS AND CONDITIONS SHOWN ARE PRESUMED TO BE REASONABLY CORRECT. THE ARCHITECT SHALL NOT HAVE CONTROL OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, DEVIATIONS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.

FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUB-CONTRACTORS OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK; OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS TO VERIFY AND TO BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS THEREIN AND (S)HE SHALL REPORT IMMEDIATELY TO THE ARCHITECT ANY DISCREPANCY.

THE CONTRACTOR, BEFORE COMMENCING ANY WORK, SHALL PROVIDE WORKER'S COMPENSATION AND ANY NOTIFICATION TO ALL PROPER AUTHORITIES HAVING JURISDICTION UPON COMPLETION AND AS MAY BE REQUIRED. THE CONTRACTOR IS TO FURNISH ALL REQUIRED CERTIFICATES, PERMITS AND APPROVALS FOR THE WORK.

BUILDING DEPARTMENT NOTES:

1. ALL REFERENCES TO THE 'BUILDING CODE' OR 'THE CODE' SHALL REFER TO THE RESIDENTIAL CODE OF THE STATE OF NEW YORK (2020) UNLESS OTHERWISE STATED.

2. CONTRACTORS SHALL COMPLY WITH ALL REQUIREMENTS OF NEW YORK STATE CODES, STATE LABOR LAW AND ALL REGULATIONS OF NEW YORK STATE. ALL PERMITS SHALL BE PROPERLY DISPLAYED.

3. MEANS OF EGRESS SHALL BE KEPT UNOBSTRUCTED AT ALL TIMES AS PER 2020 NYS FIRE CODE CHAPTER 10.

GENERAL PROJECT NOTES:

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NEW YORK STATE RESIDENTIAL CODE, CITY OF BEACON CODE, UTILITY CO. REQUIREMENTS, AND THE BEST TRADE PRACTICES.

2. BEFORE COMMENCING WORK, THE CONTRACTOR SHALL FILE ALL REQUIRED CERTIFICATES OF INSURANCE WITH THE DEPARTMENT OF BUILDINGS, OBTAIN ALL REQUIRED PERMITS, AND ENSURE THAT ALL FEES REQUIRED BY GOVERNING AGENCIES INCLUDING THE CITY OF BEACON HAVE BEEN PAID.

3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO COMMENCING WORK, AND SHALL REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE FIELD CONDITIONS TO THE ARCHITECT.

4. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED BUT NECESSARY FOR PROPER CONSTRUCTION OF ANY PART OF THE WORK SHALL BE INCLUDED AS IF THEY WERE INDICATED IN THE PLANS.

5. THE CONTRACTOR SHALL COORDINATE ALL WORK PROCEDURES WITH THE REQUIREMENTS OF LOCAL AUTHORITIES.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL CONDITIONS AND MATERIALS WITHIN THE PROPOSED CONSTRUCTION AREA. THE CONTRACTOR SHALL DESIGN AND INSTALL ADEQUATE SHORING AND BRACING FOR ALL STRUCTURAL OR REMOVAL TASKS. THE CONTRACTOR SHALL HAVE SOLE RESPONSIBILITY FOR ANY DAMAGE OR INJURIES CAUSED BY OR DURING THE EXECUTION OF THE WORK.

7. THE CONTRACTOR SHALL LAY OUT HIS/HER OWN WORK, AND SHALL PROVIDE ALL DIMENSIONS REQUIRED FOR OTHER TRADES (PLUMBING, ELECTRICAL, ETC.).

8. PLUMBING AND ELECTRICAL WORK SHALL BE PERFORMED BY PERSONS LICENSED IN THEIR TRADES, WHO SHALL ARRANGE FOR AND OBTAIN INSPECTIONS AND REQUIRED SIGN-OFFS.

9. THE CONTRACTOR SHALL DO ALL CUTTING, PATCHING, REPAIRING AS REQUIRED TO PERFORM ALL OF THE WORK INDICATED ON THE DRAWINGS, AND ALL OTHER WORK THAT MAY BE REQUIRED TO COMPLETE THE JOB.

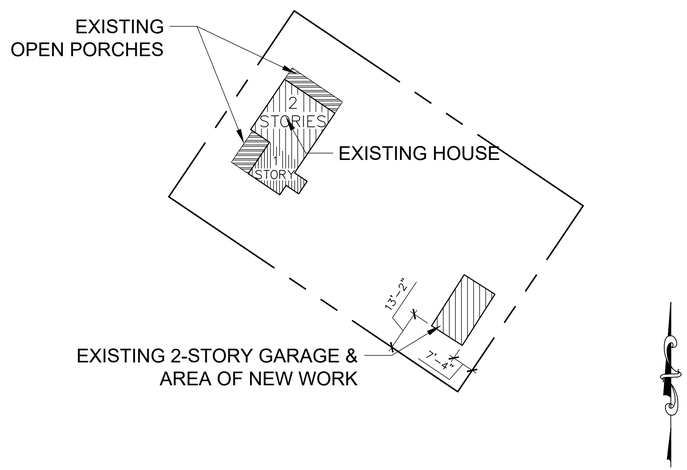
10. THE CONTRACTOR, UPON COMPLETION OF THE WORK, SHALL APPLY FOR DEPARTMENT OF BUILDINGS INSPECTIONS AND SIGN-OFFS AS REQUIRED.

PROJECT DATA		
APPLICABLE CODE(S):	PROPOSED USE:	NARRATIVE:
2020 NYS RESIDENTIAL CODE; CITY OF BEACON CODE	ACCESSORY APARTMENT; NO PROPOSED CHANGE TO EGRESS OR OCCUPANCY.	CONVERSION OF EXISTING 12'X20' 2-STORY GARAGE INTO NEW ACCESSORY DWELLING UNIT INCLUDING KITCHEN/BATH.

CODE OF THE CITY OF BEACON
§223-24.1
ACCESSORY APARTMENTS [ADDED 11-20-1989]
A.
PURPOSE AND INTENT. IT IS THE PURPOSE AND INTENT OF ALLOWING ACCESSORY APARTMENTS ON SINGLE-FAMILY PROPERTIES IN ALL RESIDENCE DISTRICTS TO PROVIDE THE OPPORTUNITY AND ENCOURAGEMENT FOR THE DEVELOPMENT OF SMALL, RENTAL HOUSING UNITS DESIGNED TO MEET THE SPECIAL HOUSING NEEDS OF SINGLE PERSONS, COUPLES, OTHER SMALL HOUSEHOLDS, THE YOUNG, THE ELDERLY, PERSONS OF LOW AND MODERATE INCOME AND RELATIVES OF FAMILIES PRESENTLY LIVING IN BEACON. IT IS THE FURTHER PURPOSE AND INTENT OF THIS PROVISION TO ALLOW THE MORE EFFICIENT USE OF THE CITY'S EXISTING STOCK OF DWELLINGS AND ACCESSORY BUILDINGS, TO PROVIDE ECONOMIC SUPPORT FOR PRESENT RESIDENT FAMILIES OF LIMITED INCOME AND TO OTHERWISE HELP TO PROTECT AND PRESERVE PROPERTY VALUES.
B.
OWNER OCCUPANCY REQUIRED. THE OWNER OF THE SINGLE-FAMILY LOT UPON WHICH AN ACCESSORY APARTMENT IS LOCATED SHALL OCCUPY AT LEAST ONE OF THE DWELLING UNITS ON SAID LOT.
C.
LOCATION ON THE LOT. AN ACCESSORY APARTMENT MAY BE LOCATED EITHER IN A DETACHED SINGLE-FAMILY DWELLING OR IN AN ACCESSORY BUILDING ON SUCH A SINGLE-FAMILY LOT.
D.
APARTMENT SIZE. THE MINIMUM FLOOR AREA FOR AN ACCESSORY APARTMENT WITHIN A DETACHED SINGLE-FAMILY DWELLING SHALL BE 400 SQUARE FEET. THE MAXIMUM FLOOR AREA SHALL BE 650 SQUARE FEET, BUT IN NO CASE SHALL THE FLOOR AREA OF THE APARTMENT EXCEED 30% OF THE TOTAL FLOOR AREA OF THE DWELLING BUILDING IN WHICH IT IS LOCATED. **FOR AN ACCESSORY APARTMENT LOCATED IN AN ACCESSORY BUILDING, THE MINIMUM FLOOR AREA SHALL BE 300 SQUARE FEET, AND THE MAXIMUM SHALL BE 600 SQUARE FEET, EXCEPT THAT THE PLANNING BOARD MAY PERMIT A SMALLER OR LARGER ACCESSORY APARTMENT WHERE APPROPRIATE IN AN EXISTING ACCESSORY BUILDING CONSTRUCTED PRIOR TO AUGUST 1, 1989.** THERE SHALL BE NO MORE THAN ONE ACCESSORY APARTMENT PERMITTED PER SINGLE-FAMILY LOT. HOWEVER, IN THE CASE OF A LOT WHICH CONTAINS AN EXISTING ACCESSORY BUILDING OR BUILDINGS THAT COMPLY WITH THE MINIMUM REQUIRED SETBACKS REQUIRED FOR A PRINCIPAL BUILDING IN THE ZONING DISTRICT IN WHICH THE LOT IS LOCATED AND THAT WERE CONSTRUCTED PRIOR TO AUGUST 1, 1989, ONE ACCESSORY APARTMENT SHALL BE PERMITTED IN EACH SUCH ACCESSORY BUILDING IN ADDITION TO THE ONE PERMITTED IN THE DETACHED SINGLE-FAMILY DWELLING; THE AREA OF SUCH LOT SHALL BE AT LEAST 100% LARGER THAN THE MINIMUM LOT AREA REQUIRED IN THE DISTRICT IN WHICH THE LOT IS LOCATED FOR EACH ACCESSORY APARTMENT IN EXCESS OF THE FIRST ONE. [AMENDED 6-15-2020 BY L.L. NO. 7-2020]
E.
EXTERIOR APPEARANCE. IF AN ACCESSORY APARTMENT IS LOCATED IN A DETACHED SINGLE-FAMILY DWELLING, THE ENTRY TO SUCH UNIT AND ITS DESIGN SHALL BE SUCH THAT, TO THE DEGREE REASONABLY FEASIBLE, THE EXTERIOR APPEARANCE OF THE BUILDING WILL REMAIN THAT OF A SINGLE-FAMILY RESIDENCE.
F.
OFF-STREET PARKING. A MINIMUM OF ONE OFF-STREET PARKING SPACE SHALL BE PROVIDED FOR EACH ACCESSORY APARTMENT IN ADDITION TO THE OFF-STREET PARKING REQUIRED FOR OTHER USES EXISTING ON THE LOT. [AMENDED 6-15-2020 BY L.L. NO. 7-2020]
G.
RENEWAL INSPECTIONS. EACH ACCESSORY APARTMENT SHALL BE INSPECTED BY THE BUILDING DEPARTMENT EVERY TWO YEARS IN ORDER TO DETERMINE WHETHER THE APARTMENT REMAINS IN COMPLIANCE WITH THIS SECTION. UPON A SATISFACTORY INSPECTION REPORT, THE ACCESSORY APARTMENT OWNER SHALL BE REISSUED A CERTIFICATE OF OCCUPANCY. IN THE EVENT THAT THE INSPECTION INDICATES THAT THE APARTMENT IS NO LONGER IN COMPLIANCE, THE CERTIFICATE OF OCCUPANCY SHALL BE REVOKED UNTIL THE VIOLATIONS ARE CURED. [ADDED 9-3-1996 BY L.L. NO. 9-1996[1]]
[1] EDITOR'S NOTE: SECTION 2 OF THIS LOCAL LAW ALSO PROVIDED THAT IT "SHALL APPLY TO ALL ACCESSORY APARTMENTS THAT ARE ISSUED A PERMIT FROM THE ENACTMENT OF § 223-24, 11-20-1989, FORWARD."

PLOT PLAN

SCALE: N.T.S.



PROJECT NAME:
GARAGE CONVERSION TO ACCESSORY DWELLING UNIT
281 ROMBOUT AVENUE
BEACON, NY 12508

CLIENT:
MARI ANN CORSA
281 ROMBOUT AVENUE
BEACON, NY 12508

ARCHITECT:
calderón architecture
& design studio p.c.
5 CLIFF STREET
BEACON, NY 12508
(212) 369-2766
info@calderonarchitecture.com

No.	SUBMISSION / REVISION	DATE
9		
8		
7		
6		
5		
4		
3	BLDG DEPT/PB REVISED SUBMISSION	2022-09-27
2	BLDG DEPT/PB REVISED SUBMISSION	2022-08-30
1	BLDG DEPT/PB SUBMISSION	2022-07-26

© 2022 CALDERON ARCHITECTURE
& DESIGN STUDIO P.C.

SEAL & SIGNATURE:
REGISTERED ARCHITECT
JOHN CORTÉS CALDERÓN
026455
STATE OF NEW YORK

THESE CADD FILES MAY NOT BE USED, DUPLICATED, MODIFIED OR CHANGED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF:
CALDERON ARCHITECTURE & DESIGN STUDIO, P.C.
THE USER AND ITS AGENTS WILL BE LIABLE FOR ANY UNAUTHORIZED USE, DUPLICATION, MODIFICATION OR CHANGE.

JOB NUMBER:
1596/2022

DRAWING TITLE:
TITLE SHEET & GENERAL CONSTRUCTION NOTES

DRAWING NO.
T-100.00

SHEET NO:
1 of 5

DATE: AUGUST 30, 2022
SCALE: AS NOTED
DRAWN BY: DD
CHECKED BY: JCC

CADS GENERAL NOTES:

1.1 GOVERNING AGENCIES:

1.1.1 ALL WORK PERFORMED BY THE CONTRACTOR/SUB CONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF MUNICIPAL, LOCAL OR FEDERAL AND STATE LAWS, AS WELL AS ANY OTHER GOVERNING AGENCIES WHETHER OR NOT SPECIFIED ON THE DRAWINGS.

1 1.1.2 WHERE THE CONTRACT, NOTES OR DRAWINGS CALL FOR ANY WORK OF A MORE STRINGENT NATURE THAN THAT REQUIRED BY THE NEW YORK STATE RESIDENTIAL CODE OR ANY OTHER DEPARTMENT HAVING JURISDICTION OVER THE WORK, THE WORK OF THE MORE STRINGENT NATURE CALLED FOR BY THE CONTRACT, CONSTRUCTION NOTES OR DRAWINGS SHALL BE FURNISHED IN ALL CASES.

1.1.3 ALL WORK SHALL COMPLY WITH THE REGULATIONS OF THE GOVERNMENTAL AUTHORITIES HAVING JURISDICTION. THE NOTES SHALL BE SUPPLEMENTAL TO ALL LAWS AND CODES OF GOVERNMENTAL BODIES RELATING TO BUILDINGS AND ALL APPLICABLE REQUIREMENTS SPECIFIED IN THE NOTES OR DRAWINGS. THIS SHALL NOT, HOWEVER BE CONSTRUED TO MEAN BECAUSE THEY ARE SPECIFICALLY NOTED BY SUCH CODES OR LAWS.

1.2 EXECUTION, CORRELATION AND INTENT OF DOCUMENTS:

1.2.1 CONTRACTORS SHALL VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO SUBMITTING BIOS AND/OR COMMENCING ANY WORK AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.

1.2.2 CONTRACTOR SHALL REVIEW PLANS AND THE AREA OF CONSTRUCTION CAREFULLY TO ENSURE FULL UNDERSTANDING OF EXACT SCOPE OR WORK. THE ARCHITECT WILL BE AVAILABLE TO REVIEW AND CLARIFY ALL WORK ON SITE AND RESOLVE ANY UNCLEAR ITEMS.

1.2.3 THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY IF (S)HE CANNOT COMPLY WITH ALL NOTES CALLED FOR IN THESE NOTES AND ON ALL OTHER DRAWINGS.

1.2.4 ALL BIDDERS BEFORE SUBMITTING PROPOSALS SHALL VISIT THE PREMISES, FAMILIARIZE THEMSELVES AS TO THE NATURE AND SCOPE OF THE WORK AND THE DIFFICULTIES THAT ATTEND ITS EXECUTION. THE SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR LABOR, EQUIPMENT AND/OR MATERIALS REQUIRED OR FOR DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN MADE WILL NOT BE RECOGNIZED.

1.2.5 BEFORE COMMENCING ANY WORK THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND SHALL REQUEST CLARIFICATION OF ANY DISCREPANCIES BETWEEN THE DRAWINGS, THE CONSTRUCTION NOTES AND FIELD CONDITIONS.

1.2.6 ALL DRAWINGS AND ALL CONSTRUCTION NOTES ARE COMPLIMENTARY AND WHAT IS CALLED FOR BY EITHER WILL BE BINDING AS IF CALLED FOR BY ALL. ANY WORK SHOWN OR REFERRED TO ON ANY ONE SET OF DRAWINGS SHALL BE PROVIDED AS THOUGH SHOWN OR REFERRED TO ON ALL RELATED DRAWINGS.

1.2.7 THE USE OF THE WORDS "PROVIDE" OR "PROVIDED" IN CONNECTION WITH ANY ITEM SPECIFIED IS INTENDED TO MEAN, UNLESS OTHERWISE NOTED, THAT SUCH BE FURNISHED AND INSTALLED, AND CONNECTED WHERE SO REQUIRED.

1.2.8 WHERE THE TERMS "APPROVED EQUAL", "OTHER APPROVED", "EQUAL TO", "ACCEPTABLE", OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGEMENT OF THE ARCHITECT.

1.2.9 THE GENERAL CONTRACTOR SHALL INCLUDE IN HIS/HER ESTIMATE ALL COSTS (INCLUDING OVERTIME WORK) FOR REMOVAL. NEW INSTALLATION AND REINSTALLATION WORK FOR ANY PLUMBING, CEILING, (TAKE DOWN AND REINSTALLATION), ELECTRICAL, TELEPHONE, COMMUNICATIONS EQUIPMENT, H.V.A.C. WORK ETC., CEILING PLENUM OF FLOOR BELOW TO COMPLETE WORK ON FLOOR UNDER CONSTRUCTION.

1.2.10 THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON FLOOR DURING ALL PHASES OF CONSTRUCTION FOR USE BY ALL TRADES AND THE CLIENT'S FIELD REPRESENTATIVES.

1.2.11 THE GENERAL CONTRACTOR UPON ACCEPTANCE OF THE DRAWINGS ASSUMES FULL RESPONSIBILITY FOR THE CONSTRUCTION. MATERIAL AND WORKMANSHIP OF THE WORK DESCRIBED IN THESE NOTES AND DRAWINGS, AND HE/SHE WILL BE EXPECTED TO COMPLY WITH THE SPIRIT AS WELL AS THE LETTER IN WHICH THEY WERE WRITTEN.

1.2.12 THE GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL SUBMIT CERTIFICATES TO THE ARCHITECT UPON COMPLETION OF WORK, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
(A) FIREPROOF WOOD TEST REPORT (IF REQUIRED).
(B) ELECTRICAL AND PLUMBING CERTIFICATES ISSUED BY: DEPARTMENT OF WATER & SUPPLY, GAS & ELECTRICITY BOARD OF FIRE UNDERWRITERS.

1.2.13 ALL EXISTING APPURTENANCES NOT BEING REMOVED SHALL BE REFURBISHED WHERE REQUIRED, ANY LOOSE ITEM TIGHTENED (CEILING EXIT SIGNS, ETC.) AND ANY MISSING PARTS REPLACED BY THE GENERAL CONTRACTOR TO ACHIEVE A FINISHED FIRST-CLASS INSTALLATION AND APPEARANCE.

1.2.14 ALL REQUIRED EXITS, WAY OF APPROACH THERETO, AND WAY OF TRAVEL FROM THE EXIT INTO THE STREET SHALL CONTINUOUSLY BE MAINTAINED FREE FROM ALL OBSTRUCTIONS AND IMPEDIMENTS FOR UNOBSTRUCTED EGRESS IN THE CASE OF FIRE OR OTHER EMERGENCY.

1.2.15 DURING THE ENTIRE PERIOD OF DEMOLITION AND CONSTRUCTION ALL EXISTING LIGHTING, FIRE PROTECTIVE DEVICES AND ALARMS SHALL BE CONTINUOUSLY MAINTAINED.

1.2.16 WHERE OPENINGS OCCUR IN EXISTING FIRE RATED AREAS OR PARTITIONS DUE TO EXISTING OR NEW CONDUIT RUNS, DUCTWORK, CABLES, PIPING, ETC., AND/OR WHERE EXISTING FIREPROOFING HAS BEEN REMOVED AS A RESULT OF EXISTING OR NEW CONSTRUCTION WORK THE GENERAL CONTRACTOR SHALL CLOSE AND/OR PATCH AS REQUIRED All OPENINGS TO MATCH IMMEDIATE ADJACENT AREAS IN MATERIAL, FINISH AND FIRE RATING ESCUTCHEON PLATES, ETC.

1.2.17 THE GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL FIRE EXTINGUISHERS AS REQUIRED BY THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) AND BY FIRE DEPARTMENT REGULATIONS.

1.2.18 ALL WORK IS TO CONFORM WITH DRAWINGS AND SPECIFICATIONS.

1.2.19 ALL WORK SHALL BE DONE BY SKILLED WORKERS, AND THE ENTIRE WORK SHALL BE ACCOMPLISHED IN A NEAT AND ORDERLY MANNER.

1.2.20 THE CHARACTER AND SCOPE OF THE WORK ARE ILLUSTRATED BY THE DRAWINGS LISTED. ANY ADDITIONAL DETAIL DRAWINGS REQUIRED TO INTERPRET AND EXPLAIN THE DRAWINGS AND OTHER INFORMATION DEEMED NECESSARY SHALL BE FURNISHED TO THE CONTRACTOR AS REQUIRED BY THE WORK. IT SHALL BE UNDERSTOOD THAT THIS ADDITIONAL DATA SHALL BE CONSIDERED AS FORMING A PART OF THESE NOTES AS THEY RELATE.

1.2.21 WHERE DRAWINGS CALL FOR A SPECIFIC MANUFACTURER OR SUB-CONTRACTOR THE GENERAL CONTRACTOR'S ACCEPTANCE OF THE CONTRACT OBLIGES HIM/HER TO USE THESE MANUFACTURERS OR SUB-CONTRACTORS. THE ARCHITECT WILL REVIEW AND APPROVE A LIST OF ALL OTHER SUB-CONTRACTORS ON THE JOB.

1.2.22 DRAWINGS ARE NOT TO BE SCALED FOR INFORMATION. LARGE SCALE DETAILS GOVERN OVER SMALLER SCALE PLANS.

1.2.23 ALL WORK LISTED ON THE CONSTRUCTION NOTE SHEETS AND SHOWN OR IMPLIED ON ALL DRAWINGS SHALL BE SUPPLIED AND INSTALLED BY THE GENERAL CONTRACTOR UNLESS OTHERWISE NOTED ON DRAWINGS, HOWEVER, IT IS EXPECTED THAT THE GENERAL CONTRACTOR SHALL CLOSELY COORDINATE HIS/HER WORK WITH THE WORK OF ALL CONTRACTORS TO ASSURE THAT ALL SCHEDULES ARE MET.

1.3 PERMITS:

1.3.1 IF THE CONTRACTOR VIOLATES ANY BUILDING DEPARTMENT CODES, LAWS, ORDINANCE OR REGULATION IN PERFORMING THE WORK, (S)HE SHALL, AT HIS/HER OWN EXPENSE, BEAR ALL PENALTIES AND COSTS AND SHALL INDEMNIFY AND HOLD HARMLESS THE ARCHITECT AND THE CLIENT AGAINST ANY DAMAGES WHICH MAY RESULT FROM SUCH VIOLATIONS.

1.4 INSURANCE

1.4.1 THE GENERAL CONTRACTOR SHALL PURCHASE AND MAINTAIN SUCH INSURANCE AS MADE MANDATORY BY THE REQUIREMENTS OF THE LANDLORD. THE CONTRACTOR SHALL REQUEST FROM THE LANDLORD THE EXACT COVERAGE REQUIRED AND UPON PROCURING SUCH REQUIREMENTS SHALL PROVE TO THE LANDLORD THAT ALL COVERAGE HAS BEEN FULFILLED PRIOR TO COMMENCEMENT OF THE WORK.

1.5 TAXES:

1.5.1 THE CONTRACTOR SHALL MAINTAIN AND BEAR ALL COSTS ARISING FROM ALL MANDATORY UNEMPLOYMENT INSURANCE AND FEDERAL OLD AGE BENEFITS IMPOSED BY THE STATE OR FEDERAL GOVERNMENT AND MEASURED BY WAGES, SALARY, OR OTHER REMUNERATION PAID FOR WORK PERFORMED UNDER THE CONTRACT.

1.6 SCHEDULES & PROGRESS MEETINGS:

1.6.1 PRIOR TO BEGINNING ANY WORK, THE GENERAL CONTRACTOR SHALL FURNISH A CONSTRUCTION SCHEDULE SHOWING THE CHRONOLOGICAL PHASES OF HIS/HER WORK, AND ALL OF THE CLIENTS CONTRACTORS' WORK FOR THE COMPLETION OF THE PROJECT. THE SCHEDULE SHALL INDICATE ALL ORDERING LEAD TIME, LENGTH OF TIME FOR EACH PHASE, ITS START AND COMPLETION, WITH A PROJECTED COMPLETION DATE.

1.6.2 THE GENERAL CONTRACTOR SHALL FURNISH PROJECT MANAGER SCHEDULES FOR ALL PHASES OF CONSTRUCTION WHICH SHALL BE UPDATED EVERY TWO WEEKS.

1.6.3 THE GENERAL CONTRACTOR AND THE PROJECT MANAGER SHALL HOLD PROGRESS MEETINGS AT A MUTUALLY AGREED PLACE AND TIME INTERVAL TO REVIEW THAT WHICH INCLUDES BUT IS NOT LIMITED TO: OPEN ITEMS, SCHEDULES, JOB CONDITIONS, ETC.

1.7 SUPERVISION:

1.7.1 THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SUPERVISION BY A PERSON ESPECIALLY QUALIFIED AND EXPERIENCED IN HANDLING THE WORK. THIS INDIVIDUAL AND HIS/HER QUALIFICATIONS SHALL BE SATISFACTORY AND APPROVED BY THE ARCHITECT. THE CONTRACTOR SHALL CAREFULLY EXAMINE ALL DRAWINGS, SPECIFICATIONS AND OTHER INFORMATION GIVEN TD IT BY THE ARCHITECT AS TO MATERIALS AND METHODS OF INSTALLATION AND SHALL PROMPTLY NOTIFY THE ARCHITECT OF ANY DEFECTS, ERRORS, INCONSISTENCIES OR AMBIGUITIES IN SUCH DRAWINGS AND SPECIFICATIONS.

THE CONTRACTOR SHALL CONSULT WITH THE ARCHITECT SHOULD AN ERROR OR INCONSISTENCY DEVELOP IN THE DRAWINGS AND SPECIFICATIONS, OR SHOULD ANY WORK NOT BE SUFFICIENTLY DETAILED AND EXPLAINED ON THE DRAWINGS AND IN THE SPECIFICATIONS. IN NO CASE SHALL THE CONTRACTOR PROCEED WITH THE WORK AFTER BECOMING AWARE OF ANY SUCH ERROR, INCONSISTENCY OR LACK OF SUFFICIENT DETAIL WITHOUT HAVING CONSULTED WITH THE ARCHITECT.

1.7.2 THE CONTRACTOR SHALL BE ENTIRELY RESPONSIBLE FOR THE PROPER LAYING OUT OF THE WORK AND FOR ANY DAMAGE WHICH MAY OCCUR BECAUSE OF ITS ERRORS OR INACCURACIES.

1.8 WORKMANSHIP AND MATERIALS

1.8.1 ALL WORK SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER BY MECHANICS SKILLED IN THEIR RESPECTIVE TRADES.

1.8.2 THESE CONSTRUCTION NOTES AND/OR DRAWINGS ARE SUPPLIED TO ILLUSTRATE THE DESIGN AND THE GENERAL TYPE OF CONSTRUCTION DESIRED AND ARE INTENDED TO IMPLY TO THE FINEST QUALITY OF CONSTRUCTION, MATERIAL AND WORKMANSHIP THROUGHOUT.

1.8.3 THE CONTRACTOR WARRANTS AND GUARANTEES THAT NONE BUT EXPERIENCED WORKERS WILL BE EMPLOYED ON THE WORK AND THAT ALL FURNISHINGS FABRICATED AND/OR PROVIDED BY IT SHALL BE THE BEST OF THEIR RESPECTIVE KINDS. IT IS UNDERSTOOD THAT NO INFERIOR WORK OR MATERIALS WILL BE ACCEPTED, WHETHER DISCOVERED AT THE TIME THEY'RE INCORPORATED IN THE WORK OR AFTERWARDS. THE CONTRACTOR SHALL, WHEN REQUIRED BY THE ARCHITECT, PRODUCE SUCH EVIDENCE AS MAY BE REQUIRED BY THE ARCHITECT, TO SHOW THE KIND AND QUALITY OF MATERIALS USED. ALL THE MATERIALS FURNISHED SHALL HAVE THE SAME CHARACTER, FINISH, COLOR, TEXTURE AND QUALITY OF WORKMANSHIP AS THE APPROVED SAMPLES.

1.8.4 WHERE NOTED, EQUIVALENT PRODUCTS OF MANUFACTURERS OTHER THAN THOSE LISTED WILL BE ACCEPTABLE, PROVIDING PROOF THAT THEY ARE OF AN EQUIVALENT QUALITY, CONSTRUCTION, MATERIAL, FUNCTION AND DESIGN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH THE ARCHITECT WITH SAMPLES, CATALOGUES, INDEPENDENT LABORATORY PERFORMANCE AND TEST REPORTS, AND OTHER PRODUCT INFORMATION WHICH THE ARCHITECT MAY REQUIRE BEFORE FINAL APPROVAL OF THE PRODUCT IS GIVEN. IN ANY CASE, APPROVAL OF SUCH EQUIVALENT WILL BE SOLELY AT THE DISCRETION OF THE ARCHITECT.

1.8.5 SHOULD THE CONTRACTOR WISH TO USE ANY MATERIALS OR EQUIPMENT OTHER THAN THOSE NAMED, (S)HE SHALL SO STATE IN HIS/HER BID, NAMING THE PROPOSED SUBSTITUTION AND INDICATING WHAT DIFFERENCE, IF ANY, WILL BE MADE IN THE CONTRACT PRICE FOR SUCH SUBSTITUTION, SHOULD IT BE ACCEPTED.

1.8.6 THE ARCHITECT MAY REJECT ALL WORKMANSHIP AND MATERIALS WHICH DO NOT CONFORM TO THE DRAWINGS AND SPECIFICATIONS. ALL SUCH REJECTED WORK OR MATERIALS SHALL BE REMOVED FORTHWITH AND IMMEDIATELY REPLACED WITH PROPER AND ACCEPTABLE WORK AND MATERIALS. FAILURE TO EXERCISE SUCH POWER, HOWEVER, SHALL NOT BE CONSTRUED OR HELD BY THE CONTRACTOR AS A WAIVER OF THE ARCHITECT'S RIGHT TO REJECT SUCH NONCONFORMING WORK OR MATERIAL.

1.9 SHOP DRAWINGS

1.9.1 THE GENERAL CONTRACTOR SHALL SUPPLY CUTS OF ALL FIXTURES AND EQUIPMENT CALLED FOR ON THE ARCHITECT'S DRAWINGS, IE: LIGHT FIXTURES, HARDWARE, ETC., FOR WRITTEN APPROVAL PRIOR TO ORDERING OR FABRICATION.

1.9.2 THE GENERAL CONTRACTOR SHALL SUBMIT FABRICATION SHOP DRAWINGS TO THE ARCHITECT FOR APPROVAL. THREE COPIES OF SHOP DRAWINGS TOGETHER WITH ONE SEPIA TRANSPARENCY SHALL BE SUBMITTED. SUBMIT SAMPLES AS REQUIRED BY THE CLIENT.

1.9.3 ALL CUTS OF FIXTURES AND EQUIPMENT, SHOP AND ENGINEERING DRAWINGS SIGNED "APPROVED" SHALL SUPERSEDE ORIGINATING DRAWINGS IN DESIGN APPEARANCE ONLY. CONTRACTORS AND ENGINEERS SHALL ASSUME RESPONSIBILITY FOR ERRORS IN THEIR DRAWINGS.

CONTINUED ON PAGE A-002.

PROJECT NAME:
GARAGE CONVERSION TO ACCESSORY DWELLING UNIT
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No.	SUBMISSION / REVISION	DATE
9		
8		
7		
6		
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3	BLDG DEPT/PB REVISED SUBMISSION	2022-09-27
2	BLDG DEPT/PB REVISED SUBMISSION	2022-08-30
1	BLDG DEPT/PB SUBMISSION	2022-07-26

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JOB NUMBER:
1596/2022

DRAWING TITLE:
GENERAL CONSTRUCTION NOTES CONTINUED

DRAWING NO.
A-001.00

SHEET NO:
2 of 5

DATE: AUGUST 30, 2022
SCALE: AS NOTED
DRAWN BY: DD
CHECKED BY: JCC

CADS GENERAL NOTES CONTINUED:

1.9.4 BY APPROVING AND SUBMITTING SHOP DRAWINGS, SAMPLES AND PRODUCE DATA THE CONTRACTOR REPRESENTS THAT (S)HE HAS VERIFIED FIELD MEASUREMENTS, CONDITIONS AND RELATED CONSTRUCTION TO THE SUBMISSION AND THAT (S)HE HAS CHECKED AND COORDINATED THE SUBMISSION WITH THE REQUIREMENTS OF ALL OTHER WORK IN THE CONTRACT DOCUMENTS.
1.9.5 THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR ANY DEVIATIONS, ERRORS OR OMISSIONS FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE ARCHITECT'S APPROVAL OF THE SUBMISSION.

1.10 TEMPORARY FACILITIES

1.10.1 THE GENERAL CONTRACTOR SHALL FURNISH AND PAY FOR ALL TEMPORARY LIGHT AND POWER, COMPLETE WITH ALL WIRING LAMPS AND SIMILAR EQUIPMENT, AS REQUIRED FOR THE COMPLETION OF THE WORK. (S)HE SHALL REMOVE ALL TEMPORARY LIGHT AND POWER WIRING WHEN DIRECTED.

1.10.2 THE CONTRACTOR SHALL ONLY USE TOILET FACILITIES AND WATER AS ASSIGNED BY THE LANDLORD. THE CONTRACTOR SHALL MAINTAIN THOSE FACILITIES IN A SANITARY CONDITION AND BE RESPONSIBLE FOR DAMAGES TO THE TOILET AREAS.

1.11 SEPARATE CONTRACTS:

1.11.1 THE CLIENT RESERVES THE RIGHT TO LET OTHER CONTRACTS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL AFFORD OTHER CONTRACTORS REASONABLE ACCESS AND OPPORTUNITY FOR THE INTRODUCTION AND STORAGE OF THEIR MATERIALS AND THE EXECUTION OF THEIR WORK, AND SHALL PROPERLY CONNECT AND COORDINATE ITS WORK WITH THEIRS.

1.11.2 IF ANY PART OF THE CONTRACTOR'S WORK DEPENDS, FOR PROPER EXECUTION OR RESULT, UPON THE WORK OF THE CLIENT OR ANY OTHER CONTRACTOR, THE CONTRACTOR SHALL INSPECT AND PROMPTLY REPORT TO THE ARCHITECT ANY DEFECTS IN SUCH WORK THAT RENDER IT UNSUITABLE FOR SUCH PROPER EXECUTION AND RESULTS. A FAILURE BY THE CONTRACTOR TO SO INSPECT AND RE.PORT SHALL CONSTITUTE AN ACCEPTANCE OF THE OTHER CONTRACTOR'S WORK AS FIT AND PROPER FOR THE RECEPTION OF HIS/HER WORK, EXCEPT AS TO DEFECTS WHICH MAY DEVELOP IN THE OTHER CONTRACTOR'S WORK AFTER THE EXECUTION OF ITS WORK.

1.11.3 THE LANDLORD AND THE ARCHITECT SHALL BE INFORMED IMMEDIATELY IN WRITING, PRIOR TO ANY CORRECTIVE WORK, THAT DAMAGES OCCURRED BECAUSE OF ANOTHER CONTRACTOR.

1.12 CHANGES IN WORK:

THE CLIENT, WITHOUT INVALIDATING THE CONTRACT, MAY ORDER EXTRA WORK OR MAKE CHANGES BY ALTERING, ADDING TO OR DEDUCTING FROM THE WORK, THE CONTRACT SUM BEING ADJUSTED ACCORDINGLY. ALL SUCH WORK SHALL BE EXECUTED UNDER THE: CONDITIONS OF THE ORIGINAL CONTRACT EXCEPT THAT ANY CLAIM FOR EXTENSIONS OF TIME CAUSED THEREBY SHALL BE ADJUSTED AT THE TIME OF ORDERING SUCH CHANGE. THE WORK SHALL BE ADJUSTED BY ONE OF THE FOLLOWING PROCEDURES:
1.12.1 CHANGE ORDER:

A CHANGE ORDER TO THE CONTRACTOR, INITIATED BY THE CLIENT AUTHORIZES AN ADJUSTMENT IN THE CONTRACT SUM OR THE CONTRACT TIME. UPON REVIEW OF THE CHANGE ORDER THE CONTRACTOR SHALL SUBMIT TO THE CLIENT A COST OR CREDIT RESULTING FROM THIS CHANGE IN THE WORK. WITH THE FOLLOWING INFORMATION:

(A) DATE & NUMBER OF THE CHANGE ORDER.

(B) THE CONSTRUCTION SPACE NUMBER OF THE AREA UNDER CONSTRUCTION.

(C) A COMPLETE DESCRIPTION OF THE WORK BEING PERFORMED.

(D) A LUMP SUM SUPPORTED BY SUFFICIENT ITEMIZED DATA TO PERMIT EVALUATION OR A UNIT PRICE WHICH WAS SUBSEQUENTLY AGREED UPON.

(E) DATE OF WHICH WORK WILL START.

(F) DATE OF WHICH WORK WILL BE COMPLETED.

ONLY UPON AGREEMENT OF THE ABOVE AND SIGNED BY THE CLIENT AND ARCHITECT UNLESS OTHER AGREED. NO PAYMENT ON SUCH BILLS WILL BE MADE UNTIL FINAL COMPLETION OF THE WORK.

1.12.2 FIELD ORDER:

A FIELD ORDER TO THE CONTRACTOR AUTHORIZES NO ADJUSTMENT IN THE CONTRACT TIME, HOWEVER, THE CONTRACTOR UPON REVIEW OF THE FIELD ORDER WILL ISSUE TO THE CLIENT THE FOLLOWING INFORMATION:

(A) DATE & NUMBER OF THE FIELD ORDER.

(B) DATE OF WHICH WORK WILL START.

(C) DATE OF WHICH WORK WILL BE COMPLETED.

1.12.3 CLAIMS FOR ADDITIONAL WORK:

IF THE CONTRACTOR WOULD LIKE TO MAKE A CLAIM FOR AN INCREASE IN THE CONTRACT SUM OR TIME, (S)HE SHALL MAKE A REQUEST TO THE CLIENT IN THE FORM OF A CHANGE ORDER, EXCEPT IN AN EMERGENCY ENDANGERING LIFE OR PROPERTY.

1.13 DELIVERY OF MATERIAL:

1.13.1 CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING OF ELEVATORS OR OTHER HOISTING FACILITIES FOR HANDLING MATERIALS.

1.13.2 THE GENERAL CONTRACTOR AGREES TO PAY ALL TRANSPORTATION CHARGES FOR SUPPLIES AND EQUIPMENT TO THE POINT OF USE, AND SHALL BE RESPONSIBLE FOR ALL CHECKING AND STORAGE OF SAME IN CONNECTION WITH THIS CONTRACT.

1.13.3 ALL CONTRACTORS SHALL CONTACT THE BUILDING MANAGEMENT TO DETERMINE THE RULES OF THE BUILDING OWNER FOR CONSTRUCTION TO DETERMINE WHEN AND HOW DELIVERIES CAN BE MADE (SEE BELOW), WHAT PHASES OF CONSTRUCTION CAN BE DONE ON REGULAR OR. OVERTIME, AND IN GENERAL, ANY SPECIAL BUILDING REQUIREMENTS WHICH WILL AFFECT THEIR WORK. (IF OVERTIME WORK IS REQUIRED BY ANY TRADE, APPROVAL MUST BE OBTAINED PRIOR TO THE EXECUTION OF ANY WORK INCLUDING COST.) THE GENERAL INTENT IS THAT ALL CONSTRUCTION WORK SHALL BE DONE ON REGULAR TIME EXCEPT NOISY WORK.

1.13.4 EACH WORKER SHALL MAKE ALL REQUIRED ARRANGEMENTS FOR DELIVERY OF EQUIPMENT AND/OR MATERIALS. IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO CHECK THE RULES AND REGULATIONS GOVERNING WORK ON THE PREMISES, INCLUDING THE FOLLOWING:

(A) DATE AND TIME OF DELIVERY SHALL BE ESTABLISHED IN CONJUNCTION WITH THE PERSON HAVING JURISDICTION OVER PREMISES (OVERTIME CHARGES AND/OR IF NECESSARY EXPENSE SHALL BE PAID BY CONTRACTOR REQUIRING SERVICE.)

(B) BUILDING CONDITIONS, INCLUDING SIZE AND LOADING CAPACITY OF ELEVATORS, SIZE OF DOORWAYS, CORRIDORS, WINDOW OPENINGS, ETC., SHALL BE CHECKED FOR ITEMS BEING DELIVERED BY CONTRACTOR REQUESTING DELIVERY.

(C) ALL CHARGES INVOLVING THE INSTALLATION AND/OR OPERATION OF A HOIST SYSTEM IF REQUIRED, SHALL BE BORNE BY THE CONTRACTOR USING THE SYSTEM. CHARGES INVOLVING THE TEMPORARY REMOVAL AND REINSTALLATION OF WINDOW SASH AND/OR FIXED PANELS REQUIRED FOR DELIVERY SHALL BE BORNE BY THE CONTRACTOR.

1.14 PROTECTION OF WORK AND PROPERTY:

1.14.1 THE GENERAL CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS. ORDINANCES, REGULATIONS AND ANY OTHER GOVERNING AGENCY WHICH HAS JURISDICTION OVER THE PROTECTION AND SAFETY OF PERSONS AND OR PROPERTY.

1.14.2 THE CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY EXISTING FIELD CONDITIONS, THROUGH THE PROGRESS OF THE WORK, ALL SAFEGUARDS FOR SAFETY INCLUDING POSTING DANGER SIGNS AND OTHER WARNINGS AGAINST HAZARDS, ENFORCING ALL SAFETY REGULATIONS AND PROTECTION OF PROPERTY.

1.14.3 THE GENERAL CONTRACTOR SHALL PROPERLY PROTECT THE OWNER'S AND ANY ADJOINING PROPERTY OR WORK AND ANY DAMAGE TO SAME CAUSED BY HIS/HER WORK OR WORKERS MUST BE MADE GOOD WITHOUT DELAY. PATCHING AND REPLACING OF DAMAGED WORK SHALL BE DONE AT THE COST AND EXPENSE OF THE CONTRACTOR RESPONSIBLE FOR HIS/HER SUB-CONTRACTORS.

1.14.4 THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION AGAINST DIRT AND DAMAGE WITHIN THE PREMISES, AS WELL AS PUBLIC AREAS AND SHALL BE RESPONSIBLE FOR KEEPING THESE AREAS CLEAN AND FREE OF MATERIALS AT ALL TIMES UNTIL THE PREMISES ARE TURNED OVER TO THE CLIENT.

1.14.5 THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF THE CONSTRUCTION AREAS UNTIL THE PREMISES ARE TURNED OVER TO THE CLIENT.

1.14.6 WHEN FLAMMABLE MATERIALS ARE PLACED IN STORAGE THE CONTRACTOR SHALL EXERCISE THE UTMOST CARE AS PRESCRIBED BY THE MANUFACTURERS AND/OR FIRE DEPARTMENT OR OTHER GOVERNING AGENCY.

1.15 CLEANING OF WORK:

1.15.1 THE GENERAL CONTRACTOR SHALL PERIODICALLY REMOVE ALL RUBBISH AND WASTE MATERIALS, OF BOTH HIS/HER OWN AND OTHER SUB-CONTRACTOR'S EMPLOYEES, INCLUDING THAT RUBBISH WHICH IS A BY-PRODUCT OF CARPET AND CABINET INSTALLATION, TELEPHONE COMPANY INSTALLATION, ETC., AND AT THE COMPLETION OF THE WORK, SHALL LEAVE THE JOB SITE BROOM CLEAN AND FREE OF ALL MATERIALS.

1.15.2 THE GENERAL CONTRACTOR SHALL THOROUGHLY CLEAN OUT ALL DEBRIS AND VACUUM CLEAN WITHIN THE CONVECTOR ENCLOSURE BEFORE THESE UNITS ARE PAINTED OR A FINISH FLOOR INSTALLED.

1.15.3 THE GENERAL CONTRACTOR SHALL THOROUGHLY CLEAN COVE BASE AND STRAIGHT BASE, ANY CORRIDOR VINYL WALL COVERING, ALL DOORS AND CONVECTOR ENCLOSURES, ETC., PRIOR TO COMPLETION OF THE WORK.

1.16 CUTTING AND PATCHING OF WORK:

1.16.1 THE GENERAL CONTRACTOR SHALL DO ALL CUTTING, FITTING AND PATCHING WORK THAT MAY BE REQUIRED TO MAKE ALL PARTS COME TOO ETHER PROPERLY AND FIT TO RECEIVE OR BE RECEIVED BY WORK OF OTHER CONTRACTORS.

1.16.2 THE GENERAL CONTRACTOR SHALL NOT DAMAGE ANY PORTION OF HIS/HER WORK OR THE WORK OF OTHER CONTRACTORS BY CUTTING OR PATCHING.

1.17 SUBSTANTIAL COMPLETION:

1.17.1 SUBSTANTIAL COMPLETION OF THE WORK IS DEFINED AS THE DATE CERTIFIED BY THE ARCHITECT WHEN CONSTRUCTION IS SUFFICIENTLY COMPLETE, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, SO THE CUE NT CAN OCCUPY OR UTILIZE THE WORK FOR THE USE FOR WHICH IT IS INTENDED.

1.7.2 WHEN THE CONTRACTOR CONSIDERS THAT THE WORK IS ACCEPTABLE, THE ARCHITECT WILL PREPARE A PUNCH LIST OF OPEN ITEMS TO BE COMPLETED OR CORRECTED. FAILURE OF THE ARCHITECT TO INCLUDE OR REVIEW ANY ITEMS ON THE PUNCH LIST DOES NOT RELIEVE THE CONTRACTOR TO COMPLETE ALL WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. UPON FIELD INSPECTION AND VERIFICATION OF THE LIST, THE CLIENT WILL APPROVE THAT THE WORK IS SUBSTANTIALLY COMPLETE. IN TURN, THE CONTRACTOR WILL ESTABLISH A DATE OF FINAL COMPLETION AND A SCHEDULE OF HIS/HER REMAINING OPEN ITEMS WITH THE WORK OF OTHER CONTRACTORS.

1.17.3 UPON WRITTEN NOTICE FROM THE CONTRACTOR TO THE ARCHITECT THAT THE WORK IS READY FOR FINAL INSPECTION, THE ARCHITECT WILL PROMPTLY MAKE AN INSPECTION AND WHEN ALL WORK HAS BEEN DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THAT THE ENTIRE BALANCE SHALL BE DUE TO THE CONTRACTOR THE CLIENT WILL ISSUE FINAL PAYMENT. UNDER THE FOLLOWING CONDITIONS:

(A) AN AFFIDAVIT THAT ALL PAYROLLS, BILLS FOR MATERIALS AND EQUIPMENT AND OTHER INDEBTEDNESS CONNECTED WITH THE WORK HAVE BEEN PAID.

(B) ALL LIEN AND RELEASES HAVE BEEN WAIVED.

(C) FAULTY OR DEFECTIVE WORK HAS BEEN CORRECTED.

(D) WORK COMPLIES WITH THE CONTRACT DOCUMENTS.

(E) TERMS OF ANY SPECIAL WARRANTIES HAVE BEEN MET.

(F) ALL WARRANTIES. MANUALS, ETC., HAVE BEEN TURNED OVER TO THE CLIENT.

(G) ALL PANEL BOXES, SWITCHES, ETC., THAT ARE MAINTAINED BY THE CLIENT ARE TAGGED AND LABELED. ACCEPTANCE OF FINAL PAYMENT CONSTITUTES A WAIVER OF ALL CLAIMS EXCEPT THOSE PREVIOUSLY MAKE IN WRITING AS UNSETTLED AT THE TIME OF FINAL PAYMENT.

1.18 DEFECTIVE WORK:

1.18.1 THE GENERAL CONTRACTOR SHALL REPLACE ALL BROKEN OR CRACKED WINDOW GLAZING. ALL WINDOW SASH SHALL BE INSPECTED BY THE CONTRACTOR AND ALL INOPERABLE CONDITIONS SHALL BE REPAIRED.

1.18.2 THE GENERAL CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECERTIFICATION OF ALL DAMAGED AND DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT WORK. (S)HE SHALL REPLACE OR REPAIR AS DIRECTED ALL DEFECTIVE MATERIALS WHICH SHALL APPEAR WITHIN A PERIOD OF ONE YEAR OF DATE OF SUBSTANTIAL COMPLETION.

1.19 GUARANTEES:

1.19.1 IN ADDITION TO ANY SPECIFIC GUARANTEES WHICH MAY BE REQUIRED BY OTHER SECTIONS OF THE SPECIFICATIONS AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL GUARANTEE ALL WORK PERFORMED AND MATERIALS FURNISHED UNDER THE CONTRACT AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.

1.19.2 THE CONTRACTOR SHALL, WITHIN A REASONABLE TIME AFTER RECEIPT OF WRITTEN NOTICE THEREOF, AND AT ITS OWN COST AND EXPENSE AND WITHOUT COST TO THE CLIENT, MAKE GOOD ANY DEFECTS IN MATERIALS OR WORKMANSHIP WHICH MAY DEVELOP WITHIN PERIODS FOR WHICH SAID MATERIALS AND WORKMANSHIP ARE GUARANTEED AND ALSO MAKE GOOD ANY DAMAGE TO OTHER WORK OR OTHER PROPERTY OF THE CLIENT CAUSED BY THE REPAIRING OF SUCH DEFECTS All REPAIRS OF SUCH DEFECTS IN MATERIALS AND WORKMANSHIP SHALL BE PERFORMED AT TIMES AND IN A MANNER WHICH WILL NOT INTERFERE WITH THE CLIENT'S BUSINESS OPERATION.

1.19.3 NEITHER THE FINAL PAYMENT NOR ANY PROVISIONS IN THE CONTRACT SHALL RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR NEGLIGENCE, FAULTY MATERIALS, OR WORKMANSHIP EVIDENCED WITHIN THE EXTENT OF THE GUARANTEE. UPON WRITTEN NOTICE, HE/SHE SHALL REMEDY ANY SUCH DEFECTS AND PAY ALL EXPENSES FOR ANY DAMAGES TO OTHER WORK RESULTING THEREFROM.

1.20 INDEMNIFICATION:

1.20.1 TO THE FULLEST EXTENT PERMITTED BY LAW, THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ARCHITECT AND THE CLIENT AND THEIR AGENTS AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES RESULTING FROM THE PERFORMANCE OF THE WORK PROVIDED THAT SUCH CLAIM IS ATTRIBUTABLE TO BODILY INJURY, SICKNESS, DISEASE OR DEATH WHICH HAS CAUSED IN WHOLE OR IN PART BY ANY NEGLIGENT ACT OR OMISSION OF THE CONTRACTOR AND/OR ANYONE LIABLE UNDER HIS/HER EMPLOY.

PROJECT NAME:

GARAGE CONVERSION TO ACCESSORY DWELLING UNIT
281 ROMBOUT AVENUE
BEACON, NY 12508

CLIENT:

MARI ANN CORSA
281 ROMBOUT AVENUE
BEACON, NY 12508

ARCHITECT:

calderón architecture
& design studio p.c.

5 CLIFF STREET
BEACON, NY 12508
(212) 369-2766
info@calderonarchitecture.com

No.	SUBMISSION / REVISION	DATE
9		
8		
7		
6		
5		
4		
2 3	BLDG DEPT/PB REVISED SUBMISSION	2022-09-27
1 2	BLDG DEPT/PB REVISED SUBMISSION	2022-08-30
1	BLDG DEPT/PB SUBMISSION	2022-07-26

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SEAL & SIGNATURE:

REGISTERED ARCHITECT
JOHN CORTÉS CALDERÓN
028455
STATE OF NEW YORK

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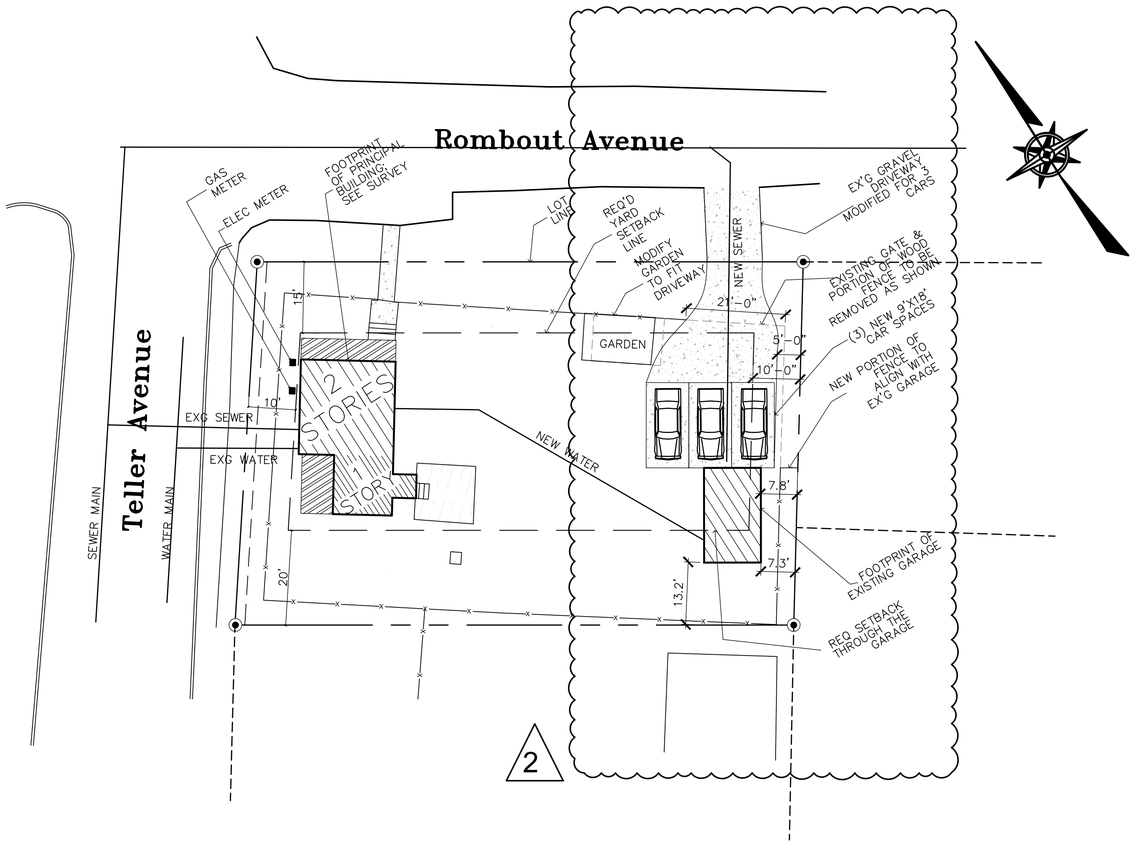
JOB NUMBER: 1596/2022

DRAWING TITLE: GENERAL CONSTRUCTION NOTES CONTINUED

DRAWING NO.: A-002.00

SHEET NO.: 3 of 5

DATE: AUGUST 30, 2022
SCALE: AS NOTED
DRAWN BY: DD
CHECKED BY: JCC



1 SITE PLAN

SCALE: 1/16" = 1'-0"

ZONING INFORMATION

CITY OF BEACON
DUTCHESS COUNTY, NY
ZONE: R1-5 (ZONING MAP DATE July 30, 2020)

281 Rombout Ave. 12508
LOT AREA = 0.191 ACRES (8,324 SQUARE FEET)

SECTION: 5954
BLOCK: 44
LOT: 985708

EXISTING HOUSE FOOTPRINT = 581 SF
EXISTING GARAGE FOOTPRINT = 252 SF

1

PROPOSED ACCESSORY APARTMENT FOOTPRINT = 252 SF
PROPOSED ACCESSORY APARTMENT FLOOR AREA = 306 SF
PROPOSED ACCESSORY APARTMENT FIRST FLOOR AREA = 222 SF
PROPOSED ACCESSORY APARTMENT SECOND FLOOR AREA = 84 SF

2

LOT AND PRINCIPAL BUILDING

	LOT AREA	MIN. LOT PER UNIT	MIN. LOT WIDTH	MIN. LOT DEPTH	MIN. FRONT YARD SETBACK	MIN. SIDE YARD SETBACK	MIN. REAR YARD SETBACK	MIN DISTANCE BTWN BLDGS ON LOT	MAX. HEIGHT MAIN BLDG	MAX. % BLDG COVERAGE	MAX. # OF UNITS PER BLDG	MIN. OPEN SPACE	OFF STREET PARKING SPACES
ORDINANCE REQUIREMENT:	5,000 SF, MIN	5,000 S.F.	50'-0"	100'-0"	15'-0"	10'-0"	20'-0"	NR	2.5 ST / 35'-0"	NR	1	NR	3[b]
EXISTING:	8,324 SF		111.23'	74.00'	19.8'	10.0'	20.9'	NA	2 ST / 25'	NR	NC	NR	1
PROPOSED:	NC		NC	NC	NC	NC	NC	NA	NC / NC	NR	NC	NR	3

1

ACCESSORY BUILDINGS

	MIN. FRONT YARD SETBACK[a]	MIN. SIDE YARD SETBACK	MIN. REAR YARD SETBACK	STRUCTURE HEIGHT	HABITABLE FLOOR AREA	MAX CUMULATIVE SF FOR ALL ACCESSORY BLDGS	MAX SF FOR EACH ACCESSORY BLDG (BASED ON FOOTPRINT OF PRINCIPAL BLDG PER §223-17(E))	MAX # OF SHEDS
ORDINANCE REQUIREMENT:	NA	5'-0"	5'-0"	-	-	720 SF	40%	1
EXISTING GARAGE:	NA	7.3'	13.2'	16'-6"	252 SF	252 SF	NA: EXG GARAGE PERMIT 2019-0245	0
PROPOSED ACCESSORY APARTMENT:	NA	7.3'	-	16'-6"	306 SF	252 SF	NA: EXG GARAGE PERMIT 2019-0245	0

2

NA - NOT APPLICABLE
NC - NO CHANGE
NR - NO REQUIREMENT
X - NOT PERMITTED

a - ACCESSORY BUILDINGS NOT PERMITTED IN FRONT YARDS
b - TWO (2) PARKING SPACES FOR 1-FAMILY DWELLING PLUS ONE (1) PARKING SPACE FOR APARTMENT PER §223-26(F)

PROJECT NAME:
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BEACON, NY 12508

ARCHITECT:
calderón architecture & design studio p.c.
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BEACON, NY 12508
(212) 369-2766
info@calderonarchitecture.com

No.		
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2 3	BLDG DEPT/PB REVISED SUBMISSION	2022-09-27
1 2	BLDG DEPT/PB REVISED SUBMISSION	2022-08-30
1	BLDG DEPT/PB SUBMISSION	2022-07-26
No.	SUBMISSION / REVISION	DATE

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SEAL & SIGNATURE:

REGISTERED ARCHITECT JOHN CORTÉS CALDERÓN 026455 STATE OF NEW YORK

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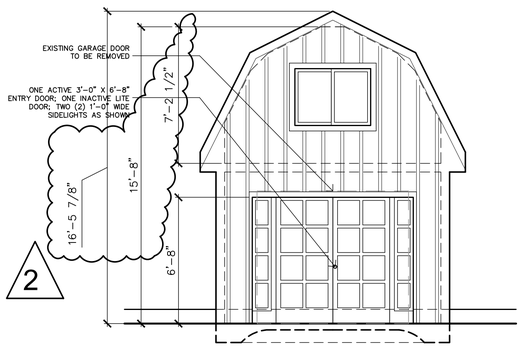
JOB NUMBER: 1596/2022

DRAWING TITLE: PROPOSED PLANS & ELEVATIONS

DRAWING NO. A-100.00

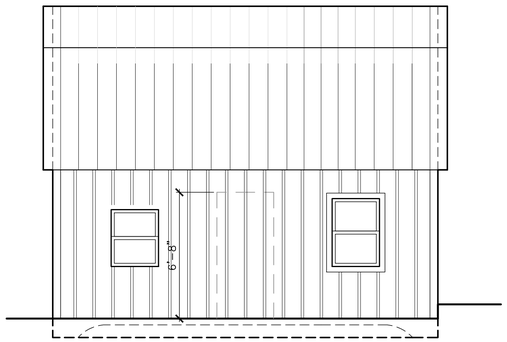
SHEET NO: 4 of 5

DATE: AUGUST 30, 2022
SCALE: AS NOTED
DRAWN BY: DD
CHECKED BY: JCC



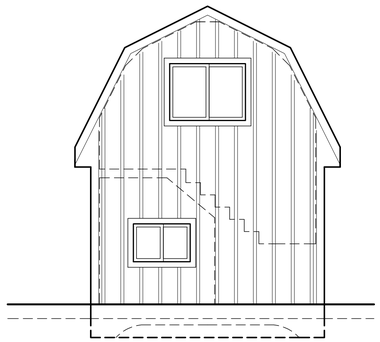
1 NORTH ELEVATION

SCALE: 1/4" = 1'-0"



2 WEST ELEVATION

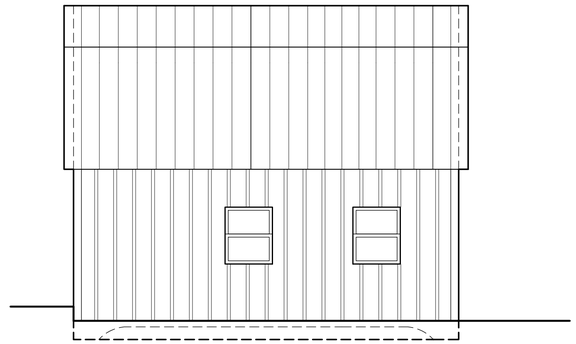
SCALE: 1/4" = 1'-0"



SOUTH ELEVATION 3

SCALE: 1/4" = 1'-0"

NO CHANGE



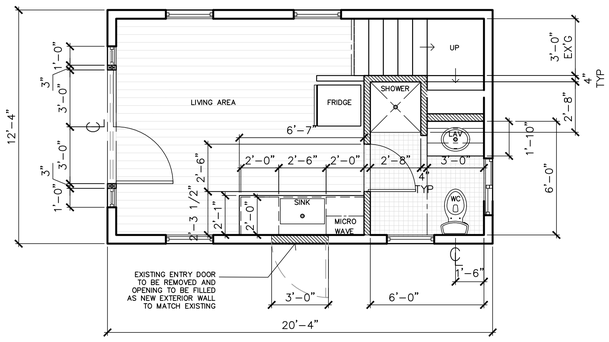
EAST ELEVATION 4

SCALE: 1/4" = 1'-0"

NO CHANGE

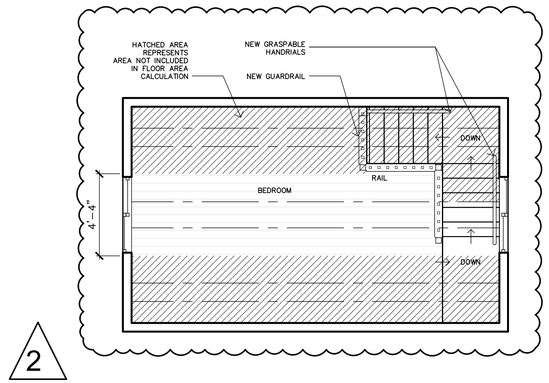
LEGEND

- EX'G CONSTRUCTION TO REMAIN
- EX'G CONSTRUCTION TO BE REMOVED
- NEW PARTITION (2X4 WOOD STUDS WITH (1) 5/8" DRYWALL EITHER SIDE)
- ELECTRICAL PANEL
- OUTLET (DUPLEX/QUADRUPLEX)
- SMOKE & CO DETECTOR
- $ LIGHT SWITCH
- CEILING MOUNTED LIGHT FIXTURE



5 FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



SECOND FLOOR PLAN 6

SCALE: 1/4" = 1'-0"

PROJECT NAME:

GARAGE CONVERSION TO ACCESSORY DWELLING UNIT
281 ROMBOUT AVENUE
BEACON, NY 12508

CLIENT:

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281 ROMBOUT AVENUE
BEACON, NY 12508

ARCHITECT:

calderón architecture
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1	BLDG DEPT/PB SUBMISSION	2022-07-26

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SEAL & SIGNATURE:

REGISTERED ARCHITECT
JOHN CORTÉS CALDERÓN
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JOB NUMBER:

1596/2022

DRAWING TITLE:

PLANS & ELEVATIONS

DRAWING NO.

A-101.00

SHEET NO:

5 of 5

DATE: AUGUST 30, 2022

SCALE: AS NOTED

DRAWN BY: DD

CHECKED BY: JCC

calderón
architecture
& design
studio

Amanda Caputo
Planning Board Secretary
City of Beacon
One Municipal Plaza
Beacon, NY 12508

September 27, 2022

re: 281 Rombout Avenue
Beacon, NY 12508

Accessory Dwelling Unit /Garage Conversion Application

Dear Amanda,

The applicant is proposing to create an accessory dwelling unit in the existing garage on the property with an existing single-family house. The approximately 12’ x 20’ 2 story garage will include living space, kitchenette, and a bathroom in the R1-5 district.

In response to last months comments, please find enclosed:

- (5) sets of Sheets 1 through 5 (revised) dated September 27, 2022 by Calderon Architecture & Design Studio P.C.
- (5) sets of Utility Plan (revised) dated September 23, 2022 by Burns Engineering Services P.C.

Please let me know if you have any questions.

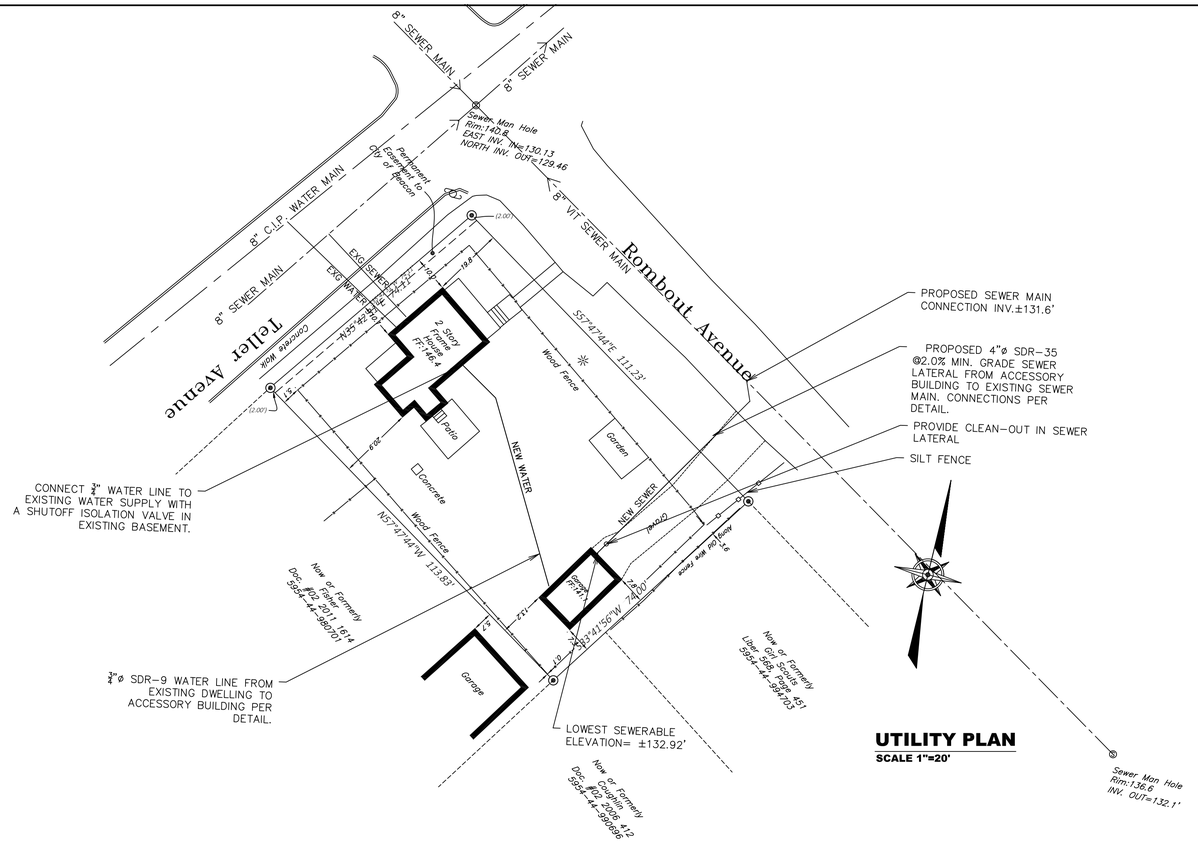
Thank you.

Sincerely,

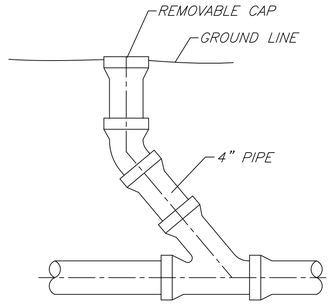


J.C. Calderón, AIA, NOMA, LEED AP
Principal

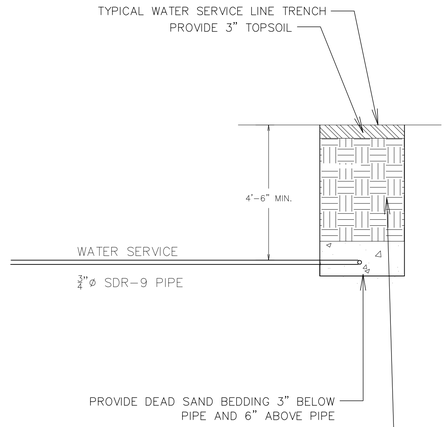
5 Cliff Street, Beacon, New York 12508
845-504-3706 · 212-369-2766 · info@calderonarchitecture.com



UTILITY PLAN
SCALE 1"=20'



CLEANOUT DETAIL
N.T.S.



WATER SERVICE TRENCH SECTION
NOT TO SCALE

Flexible Tap Saddles Installation

The faster and less costly way to make sewer main connections.

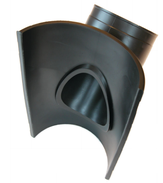




1. Excavate the trench exposing the outside diameter of the sewer main
2. Core a hole in the sewer main of appropriate diameter matching the contour of the Tap Saddle locating ring
   a. Use a 5" Coring Bit or Hole Saw for TST-4 and TSW-4
   b. Use a 7" Coring Bit or Hole Saw for TST-6 and TSW-6
3. Clean the pipe surface and remove any sharp edges
4. Wrap the clamps around the pipe, engage, and slide one to each side of the cored hole

**Refer to and follow the installation instructions for TSPK-46 when using the Fernco Tap Saddle Pressure Kit*

5. Position the Tap Saddle gasket over the pipe with the locating ring inside the cored hole
6. Holding the Tap Saddle firmly against the pipe and slide clamps in place and snug the clamps by pulling on the tail
7. Tighten clamps to 60"lbs. torque
8. Connect lateral pipe of appropriate size, tighten to 60"lbs. torque



Fernco Inc.

United States
PH: 810-503-9000
FX: 810-503-1015

www.fernco.com

Canada
PH: 519-332-6711
FX: 519-332-8010

7/08 R1108

NOTE:
USE FERNCO TSW-4 SADDLE FOR SEWER CONNECTIONS.

Petroleum Contaminated Soil Remediation (EMERGENCY SPILL CLEANUP PROCEDURE)
IF A SPILL OCCURS-
1. Excavate all visibly impacted media and temporarily stockpile it onsite.(on and covered with plastic sheeting) in advance of final deposition if required.
2.Field screening of the excavation with a properly calibrated Photo-ionization Detector.(PID)to verify removal of all contaminated soils.
3. Collect a soil sample for laboratory analysis of confirmatory soil as well as a profile sample for the disposal facility.
4. Use a Licensed transporter to haul and dispose of PSC.
5. Prepare and submit a "Spill Closure Report" to the NYSDEC

Erosion Control Maintainance Plan (During Construction)
1.Silt Fence shall be installed prior to construction activity.
2. Any vegitated area that has eroded as a result of runoff shall be filled, fertilized, reseeded and mulched to maintain a vigorous cover.
3. Sediment will be removed from behind silt fence when the level of sediment reaches 0.5 feet. Any damaged silt fence shall be replaced.
4. All other erosion control devices shall be maintained and repaires made as necessary to insure proper operation of the erosion control device.

STORMWATER CONTROL MAINTIANANCE SCHEDULE			
STRUCTURE	INSPECTION	MAINTAINENCE REQUIRED	STRUCTURE TYPE
SILT FENCE	WEEKLY	REPAIR, REPLACE	TEMPORARY
DUST	DAILY	SPRAYING	--
VEGETATION ESTABLISHMENT	WEEKLY	WATERING, SEEDING	PERMANENT

SEEDING & MULCHING NOTES

1) ALL SEDIMENT & EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THESE PLANS & DETAILS. CHANGES, OMISSIONS AND/OR OTHER ALTERATIONS CAN NOT BE MADE TO THESE PLANS WITHOUT THE CONSENT OF THE DESIGN ENGINEER.

2) SILT FENCE SHALL BE INSTALLED AS SHOWN ON THIS DRAWING PRIOR TO BEGINNING ANY CLEARING, GRUBBING AND EARTHWORK.

3) EXPOSED SLOPES AND ALL GRADED AREAS SHALL BE SEEDED WITH THE FOLLOWING GRASS SEED MIX IMMEDIATELY UPON COMPLETION OF ITS CONSTRUCTION, OR IF PLANNED TO BE LEFT UNDISTURBED FOR MORE THAN 21 DAYS. GRASS SEED MIX TO BE APPLIED AT A RATE OF 50 POUNDS PER ACRE IN THE FOLLOWING PROPORTIONS

KENTUCKY BLUEGRASS	40%
CREEPING RED FESCUE	40%
RYE GRASS	20%

4) GRASS SEED MIX MAY BE APPLIED BY EITHER MECHANICAL OR HYDROSEEDING METHODS. HYDROSEEDING SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF THE NYSDOT STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS, SECTION 610-3.02, METHOD No. 1.

5) SEEDED AREAS SHALL BE MULCHED WITH STRAW AT A RATE OF 2 TONS PER ACRE, OR 90 LBS. PER 1,000 SQUARE FEET, SUCH THAT IT FORMS A CONTINUOUS BLANKET.

6) SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A DAILY BASIS BY THE OWNER'S FIELD REPRESENTATIVE.

7) DUST SHALL BE CONTROLLED BY SPRINKLING OF WATER OR OTHER APPROVED METHODS AS NECESSARY AS DIRECTED BY THE OWNER'S FIELD REPRESENTATIVE.

8) CUTS AND FILLS SHALL NOT ENDANGER ADJOINING PROPERTY, NOR DIVERT SURFACE WATER ONTO ADJOINING PROPERTIES.

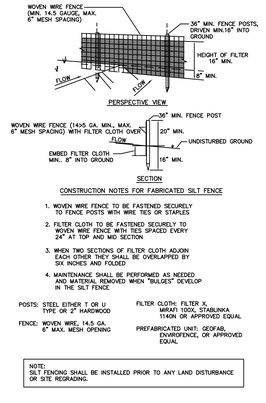
9) ALL FILLS SHALL BE COMPACTED TO PROVIDE STABILITY OF MATERIALS AND TO PREVENT SETTLEMENT.

10) EXCAVATIONS AND FILLS TO BE ROLLED, SEALED AND STABILIZED AT COMPLETION OF EACH DAY'S WORK.

11) THE OWNER'S FIELD REPRESENTATIVE SHALL INSPECT THE DOWNSTREAM CONDITIONS FOR EVIDENCE OF SEDIMENTATION ON A WEEKLY BASIS AND AFTER RAINSTORMS.

12) AS WARRANTED BY FIELD CONDITIONS, SPECIAL ADDITIONAL SEDIMENTATION AND EROSION CONTROL MEASURES MAY BE ADDED TO THIS PLAN BY THE SITE ENGINEER, TOWN OF BEACON AND/OR ITS AGENT(S). ANY REVISIONS TO THIS PLAN MUST BE SUBMITTED TO THE TOWN'S ENGINEER. ANY CHANGES DEEMED NECESSARY TO THIS PLAN SHALL BE DICTATED BY THE SITE ENGINEER AS NECESSARY TO CARRY-OUT THE INTENT OF THIS PLAN.

13) ALL AREAS OF DISTURBANCE IN EXCESS OF 7% SHALL HAVE TEMPORARY SEEDING OF FAST GERMINATION RYE GRASS., 1 TO 1.5 LBS PER 1,000 SQ.FT. APPLIED IF LEFT UNDISTURBED FOR 14 OR MORE DAYS.



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE

POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

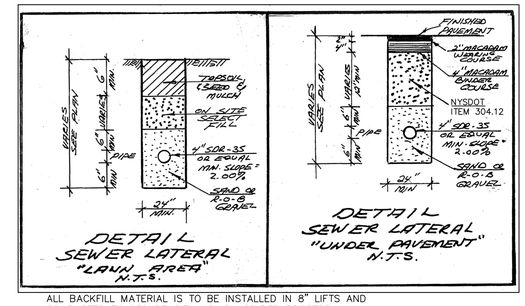
FENCE: WOVEN WIRE, 14.5 GA. 6" MAX. MESH OPENING

FILTER CLOTH: FILTER X, MIRAFI 100X, STABLINKA 1140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

NOTE:
SILT FENCING SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBANCE OR SITE REGRADING.

TYPICAL SILT FENCE DETAIL
NOT TO SCALE



ALL BACKFILL MATERIAL IS TO BE INSTALLED IN 8" LIFTS AND COMPACTED TO 95% DENSITY USING MODIFIED PROCTOR.

STATE OF NEW YORK
STEPHEN K. BURNS
LICENSED PROFESSIONAL ENGINEER
087236

REVISION NUMBER	DESCRIPTION	DRAWN BY:	DATE:
1	ENGINEERING REVIEW	SKB	09/23/22

Burns Engineering Services, P.C.
58 Teller Ave.
Beacon, NY 12508
SBurns@BurnsEngineeringServices.Com
(845) 546-3310
Fax (845) 440-7343

BURNS ENGINEERING SERVICES, P.C.

UTILITY PLAN For 281 Rombout Avenue

Burns Engineering Services, P.C.
58 Teller Avenue TEL:845-546-3310
Beacon, New York 12508 FAX:845-546-6613
SBurns@BurnsEngineeringServices.com

281 ROMBOUT AVENUE
CITY OF BEACON
DUTCHESS COUNTY, NY

DATE: 08/22/22 | SCALE: | **SHEET 1 OF 1**

DRAWN BY: SKB

John Clarke Planning and Design jclarkeplandesign@gmail.com
845.797.4152

To: John Gunn, Chair, and the City of Beacon Planning Board
Date: October 7, 2022
Re: **281 Rombout Avenue, Site Plan for Accessory Apartment**

I have reviewed a response letter from Calderon Architecture and Design and a 5-sheet Special Permit set, all dated September 27, 2022.

Proposal

The applicant is proposing to create a two-level accessory apartment in an existing garage on a 0.191-acre lot in the R1-5 district.

Comments and Recommendations

1. On September 19, 2022, the Beacon City Council adopted a revised Section 223-24.1 regulating accessory apartments, as well as changes to the use, dimensional, and accessory building tables. Among the amendments, a special permit is no longer required, the minimum size for an accessory apartment is now 200 square feet, the maximum size is 1,000 square feet, and an accessory building can now be up to 50% of the total square footage of the principal building. The new law will be effective as soon as it is filed with the Department of State, which should happen very soon. This proposed accessory apartment appears compliant with the revised zoning.

2. All my other previous comments have been addressed.

If you have any questions or need additional information, please feel free to contact me.

John Clarke, Beacon Planning Consultant

c: Dave Buckley, Building Inspector
Jennifer L. Gray, Esq., City Attorney
Arthur R. Tully, P.E., City Engineer
John Russo, P.E., City Engineer
J. C. Calderon, Project Architect

LANC & TULLY
ENGINEERING AND SURVEYING, P.C.

John J. O'Rourke, P.E., Principal
David E. Higgins, P.E., Principal
John Queenan, P.E., Principal
Rodney C. Knowlton, L.S., Principal
Jerry A. Woods, L.S., Principal
John D. Russo, P.E., Principal
John Lanc, P.E., L.S.
Arthur R. Tully, P.E.

October 4, 2022

Mr. John Gunn
Beacon Planning Board Chair
City of Beacon
1 Municipal Plaza
Beacon, NY 12508

RE: 281 Rombout Ave.
Tax Parcel 5954-44-985708
Accessory Apartment
City of Beacon

Dear Mr. Gunn:

My office has received the following regarding the above application:

- Response correspondence dated September 27, 2022, from Calderon Architecture & Design Studio.
- Plan titled "Utility Plan for 281 Rombout Avenue", with latest revision date of September 23, 2022, as prepared by Burns Engineering Services, P.C.
- Plans titled "Garage Conversion to Accessory Dwelling Unit – 281 Rombout Avenue", consisting of 5 sheets, having the latest revision date of September 27, 2022, as prepared by Calderon Architecture.

The proposed project is located in the R1-5 Zone and entails the conversion of a 2-story garage into a 306 square foot accessory apartment. Based upon our review of the submitted documents and plans, we offer the following comments:

Utility Plan:

1. As the proposed clean-out is shown to be located within the proposed driveway area, we would recommend that the cleanout be provided within a structure to protect it from vehicular damage. The detail on the plan shall be modified to reflect this.

Site Plan Drawings:

1. A "Missing or Invalid Reference ..." note appears on the bottom of the first sheet just below the Plot Plan. It is unclear if this is in reference to the Plot Plan on the sheet that appears to be incomplete.

This completes our review at this time. Further comments may be provided based on future submissions. **A written response letter addressing each of the above comments should be provided with the next submission.** If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.

John Russo, P.E.

cc: John Clarke, Planner
Jennifer Gray, Esq.
David Buckley, Building Inspector

City of Beacon Planning Board Agenda
10/12/2022

Title:

Continue Public Hearing on application for Site Plan Approval, artist studios, 5 Henry Street, submitted by Michael Braden

ATTACHMENTS

5 Henry Street - Arc Plans.pdf

5 Henry Street - Engineering Plans.pdf

5 Henry Street - Response Letter.pdf

220927 - Front Facade Rendering Studies 07 - FINAL.jpg

220927 - Front Facade Rendering Studies 08 - FINAL.jpg

220927 - Front Facade Rendering Studies 09 - FINAL.jpg

Planners Comments 5 Henry St 10.7.22.pdf

Engineers Comments Garage Studios 10-04-22.pdf

GENERAL NOTES (MEANS OF EGRESS)

1. EXIT SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED
2. EXIT SIGNS ILLUMINATE BY AN EXTERNAL SOURCE SHALL HAVE AN INTENSITY OF NOT LESS THAN 5 FOOT CANDLES (54 LUX)
3. INTERNALLY ILLUMINATED SIGNS SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND
4. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES.
5. EXIT SIGNS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM THAT WILL PROVIDE AN ILLUMINATION OF NOT LESS THAN 90 MINUTES IN CASE OF PRIMARY POWER LOSS
6. EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.
7. DOOR HANDLES, LOCK AND OTHER OPERATING DEVICES SHALL BE INSTALLED AT A MIN. 34" AND A MAX. 48" ABOVE THE FINISHED FLOOR
8. THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED.
9. THE MEANS OF EGRESS, INCLUDING THE EXIT DISCHARGE, SHALL BE ILLUMINATED AT ALL TIMES THE BUILDING SPACE SERVED BY THE MEANS OF EGRESS ARE OCCUPIED
10. THE MEANS OF EGRESS ILLUMINATION LEVEL SHALL NOT BE LESS THAN 1 FOOT-CANDLE AT THE WALKING SURFACE
11. THE POWER SUPPLY FOR MEANS OF EGRESS ILLUMINATION SHALL NORMALLY BE PROVIDED BY THE PREMISES' ELECTRICAL SUPPLY. IN THE EVENT OF POWER SUPPLY FAILURE, AN EMERGENCY ELECTRICAL SYSTEM SHALL AUTOMATICALLY ILLUMINATE THE FOLLOWING AREAS:

    I.) AISELS AND UNENCLOSED EGRESS STAIRWAYS IN ROOMS AND SPACE THAT REQUIRE TWO OR MORE MEANS OF EGRESS

    II.) CORRIDORS, EXIT ENCLOSURES AND EXIT PASSAGEWAYS IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS

    III.) EXTERIOR EGRESS COMPONENTS AT OTHER THAN THE LEVEL OF EXIT DISCHARGE UNTIL EXIT DISCHARGE IS ACCOMPLISHED FOR BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS

    IV.) INTERIOR EXIT DISCHARGE ELEMENTS, AS PERMITTED IN SECTION 1028.1, IN BUILDINGS REQUIRED TO HAVE TWO EXITS

    V.) EXTERIOR LANDINGS, AS REQUIRED BY SECTION 1010.1.6 FOR EXIT DISCHARGE DOORWAYS IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS

13. THE EMERGENCY POWER SYSTEM SHALL PROVIDE POWER FOR A DURATION OF NOT LESS THAN 90 MINUTES AND SHALL CONSIST OF STORAGE BATTERIES, UINT EQUIPMENT OR AN ON-SITE GENERATOR.
14. EMERGENCY LIGHTING FACILITIES SHALL BE ARRANGES TO PROVIDE INITIAL ILLUMINATION THAT IS AT LEAST AN AVERAGE OF 1 FOOT-CANDLE (11 LUX) AND A MINIMUM AT ANY POINT OF A 0.1 FOOT CANDLE (1 LUX) MEASURED ALONG THE PATH OF EGRESS AT FLOOR LEVEL. ILLUMINATION LEVELS SHALL BE PERMITTED TO DECLINE TO 0.6 FOOT-CANDLE (6 LUX) AVERAGE AND A MINIMUM AT ANY POINT OF 0.06 FOOT-CANDLES (.6 LUX) AT THE END OF THE EMERGENCY LIGHTING TIME DURATION. A MAXIMUM-TO-MINIMUM ILLUMINATION UNIFORMITY RATIO OF 40 TO 1 SHALL NOT BE EXCEEDED.
15. ALL REQUIRED EXITS SHALL BE MAINTAINED UNTIL ARRIVAL AT GRADE OR THE PUBLIC WAY.
16. EXIT SIGNS SHALL BE LOCATED AS NECESSARY TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL. NO POINT SHALL BE MORE THAN 100 FEET FROM THE NEAREST VISIBLE SIGN.
17. TWO EXITS ARE REQUIRED FROM EACH SPACE OR STORY.

    I.) OCCUPANT LOAD > 49 (A, B, E, F, M, U)

GENERAL NOTES

ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS, COMMERCIAL BUILDINGS AND PUBLIC HOUSING

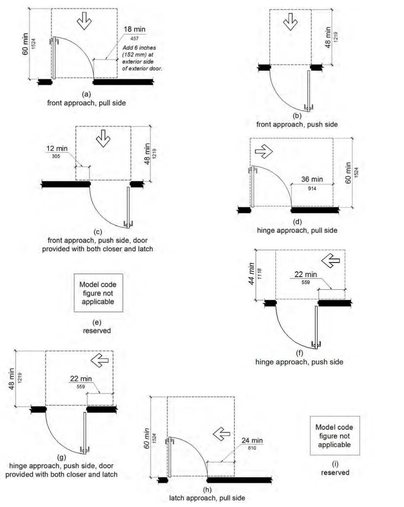
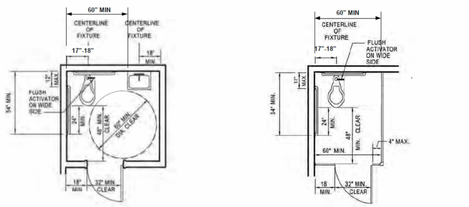


FIGURE 11B-404.2.4.1
MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS AND GATES

552 RNIA BUILDING CODE

FIGURE 11B-404.2.4.1—continued
MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS AND GATES

ACCESSIBILITY: DOOR DIAGRAMS



SINGLE-ACCOMMODATION TOILET FACILITY

ACCESSIBLE WATER CLOSET COMPARTMENT WITHIN A MULTIPLE-ACCOMMODATION TOILET FACILITY

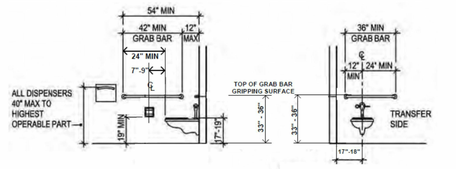


FIGURE 11B-604.7
DISPENSER OUTLET LOCATION

FIGURE 11B-604.5.2
REAR WALL GRAB BAR AT WATER CLOSETS

FIGURE 11B-604.5.1
SIDE WALL GRAB BAR AT WATER CLOSETS

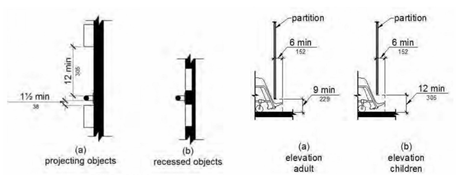


FIGURE 11B-609.3
SPACING OF GRAB BARS

FIGURE 11B-604.8.1.4
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT TOE CLEARANCE

ACCESSIBILITY: BATHROOM DIAGRAMS

PLANNING AND ZONING:

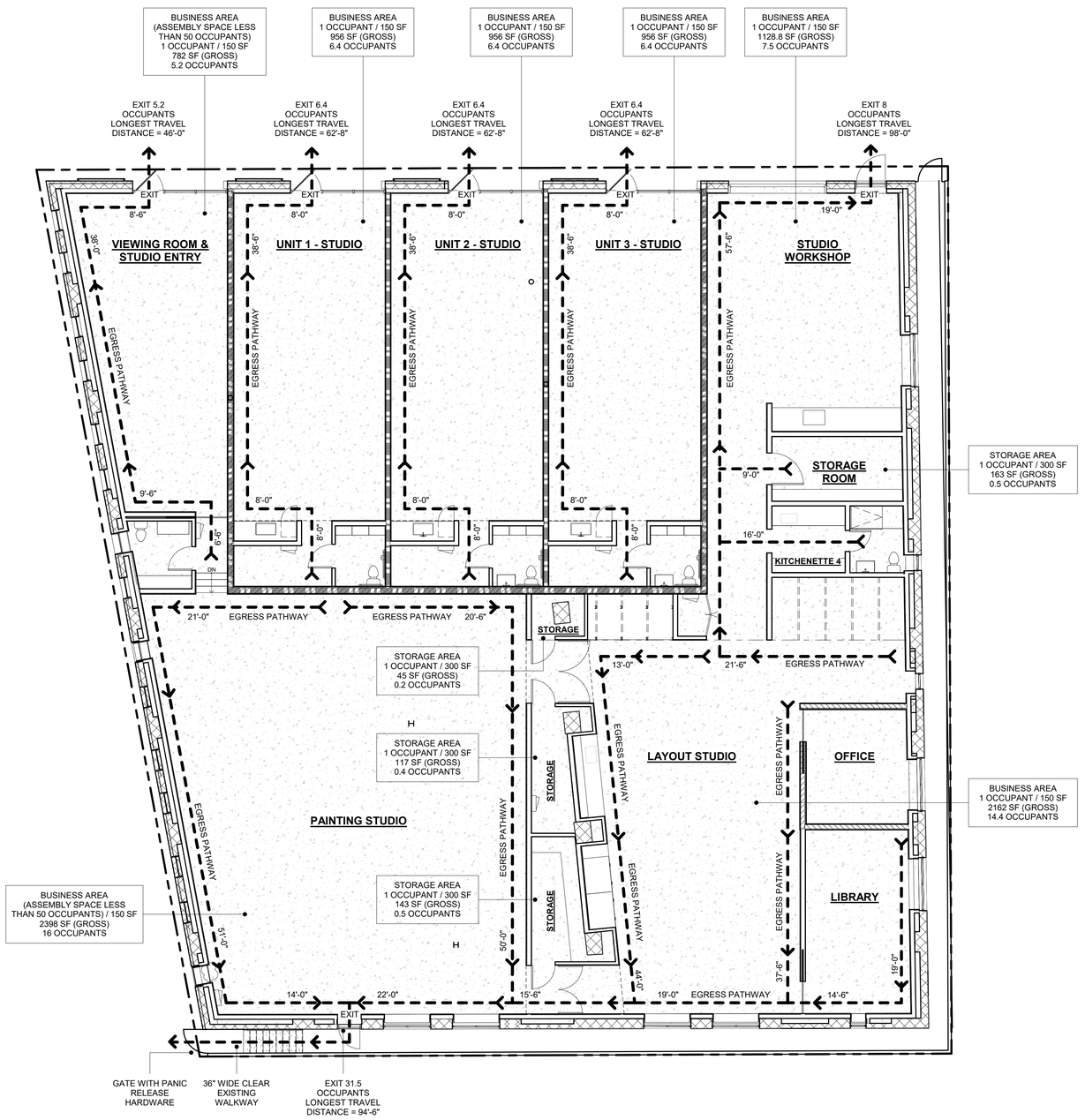
-OCCUPANCY: B-BUSINESS / S-STORAGE
-USE: ARTISTS STUDIO

SPRINKLERS: NON SPRINKLERED (BOTH USES)

NUMBER OF EXITS:
-OCCUPANT LOAD 49 OR LESS: ONE EXIT
-OCCUPANT GREATER THAN 45: TWO EXITS

EGRESS CODE COMPONENT WIDTHS :
-STAIRWAYS: 36" MIN, OCCUPANT LOAD < 50
-CORRIDORS: 36" MIN, OCCUPANT LOAD < 50
-DOORS: 36" MIN, OCCUPANT LOAD < 50

MAXIMUM EXIT TRAVEL DISTANCE: 100'



1 EGRESS AND EXITING DIAGRAM
1/8" = 1'-0"

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ZONING CORRECTIONS

ISSUE DATE
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REVISIONS

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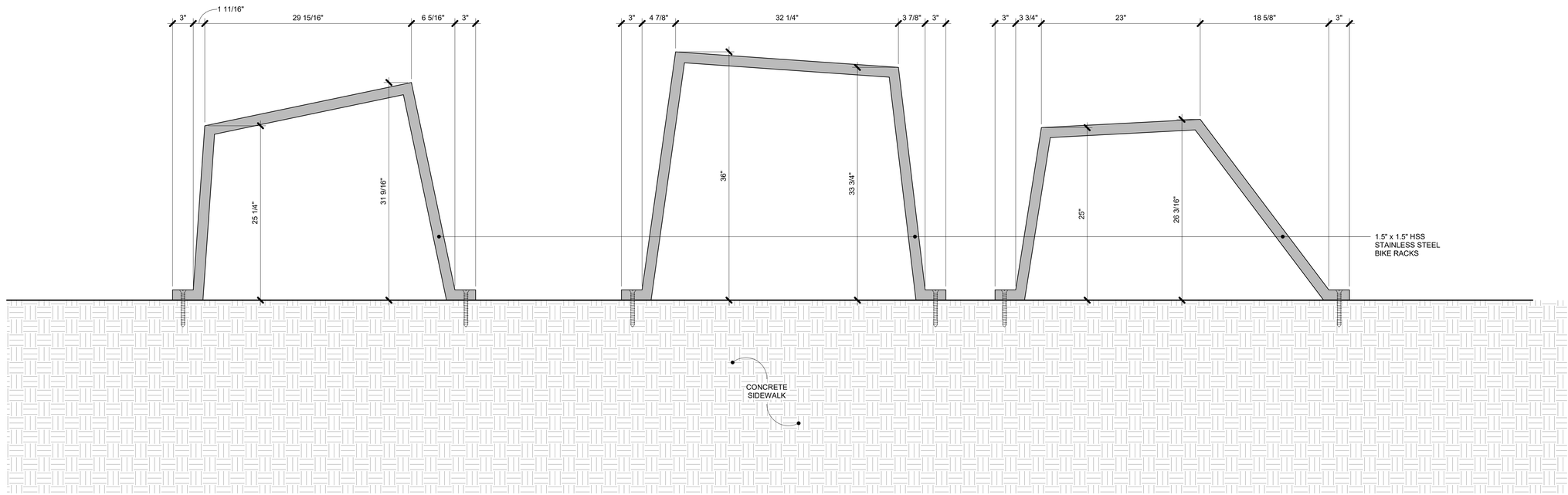
1	Date 1	Revision 1

EXITING AND ACCESSIBILITY DIAGRAMS

A002



1 BIKE RACK ELEVATIONS
1 1/2" = 1'-0"

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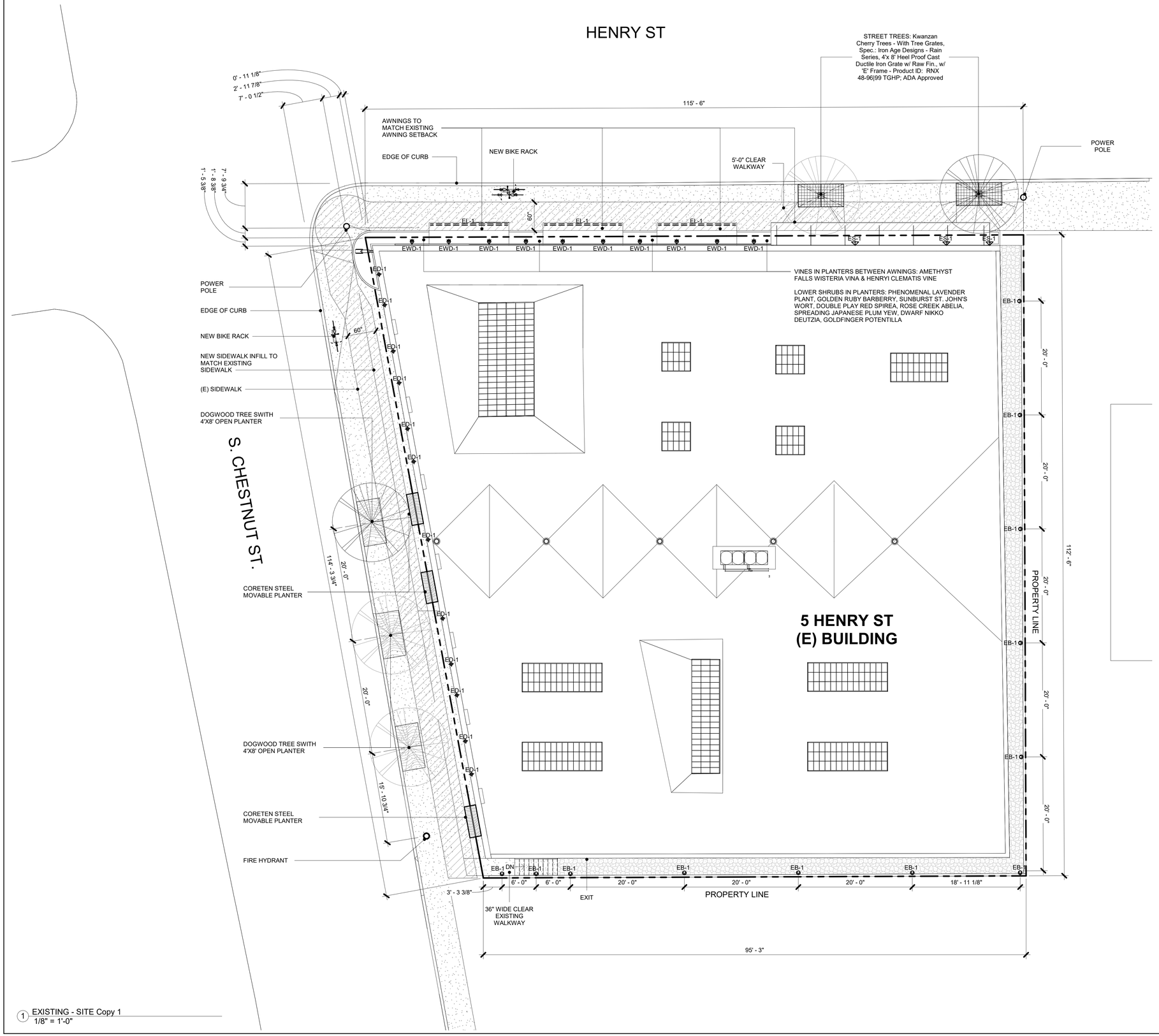
SITE DETAILS - BIKE RACKS

A101



1 EXISTING - SITE Copy 1
1/8" = 1'-0"

SITE PLAN LEGEND

- PROPERTY LINE
- EXTERIOR GRAVEL
- LANDSCAPING / IN-GROUND PLANTER
- 5'-0" CLEAR WALKWAY
- TREE GRATE
- CORETEN PLANTER

EXTERIOR LIGHT SCHEDULE

FIXTURE SYMBOL & TAG	FIXTURE TYPE & SPEC.	HT. FROM GRADE	DIMMING	WATTS	CRI	COLOR TEMP.	QTY.
EL-1	EXTERIOR LINEAR DOWNLIGHT - MOUNTED IN THE FRONT OF THE ENTRY AWNINGS	10'-10"FT MAX	YES	3/LF	95+	2700K	3
ES-1	EXTERIOR WALL SCONCE WITH LIGHT FACING DOWN	7'-4"FT MAX	YES	2	90+	2700K	3
ED-1	EXTERIOR DOWNWARD PUCK LIGHT - MOUNTED IN THE ART NICHES	4'-10"FT MAX	YES	3	85+	2700K	11
EWD-1	EXTERIOR WALL MOUNTED DOWNLIGHT - MOUNTED TO THE PLANT SCREEN	15'-0"FT MAX	YES	14	90	2700K	4
EB-1	EXTERIOR DOWNWARD BALLARD PATH EGRESS LIGHT	20"	YES	9	90	2700K	19

Lighting Fixtures Notes:

All light fixtures shall meet the following requirements (*Per City of Beacon Code 223-14. B*):

(2) Such lighting shall use full cutoff fixtures that do not emit light above the horizontal plane into the night sky, except for lighting for short-term events or holidays, flagpole lighting, decorative light sources under 600 lumens, public parks and other public specialty lighting, as determined by the Building Inspector.

(3) Hours of lighting and fixture height, type, design, intensity, and color temperature may be determined by the Planning Board in acting on any site development plan upon consideration of the following considerations:

(a) Lighting fixtures in pedestrian areas should be a maximum of 15 feet in height and parking lot lighting fixtures should be a maximum of 20 feet.

(b) Pedestrian and parking lot areas should average approximately one footcandle. Only high security areas may require lighting in the two to five footcandle range, while over five footcandles is usually a waste of energy and a source of glare.

(c) Color temperatures should be in the range of 2,400 to 4,000 Kelvin degrees.

(d) The color rendering index should be in the range of 80 to 100.

(e) Adaptive controls, such as dimmers, timers, and motion sensor shut-off lighting, should be used whenever appropriate.

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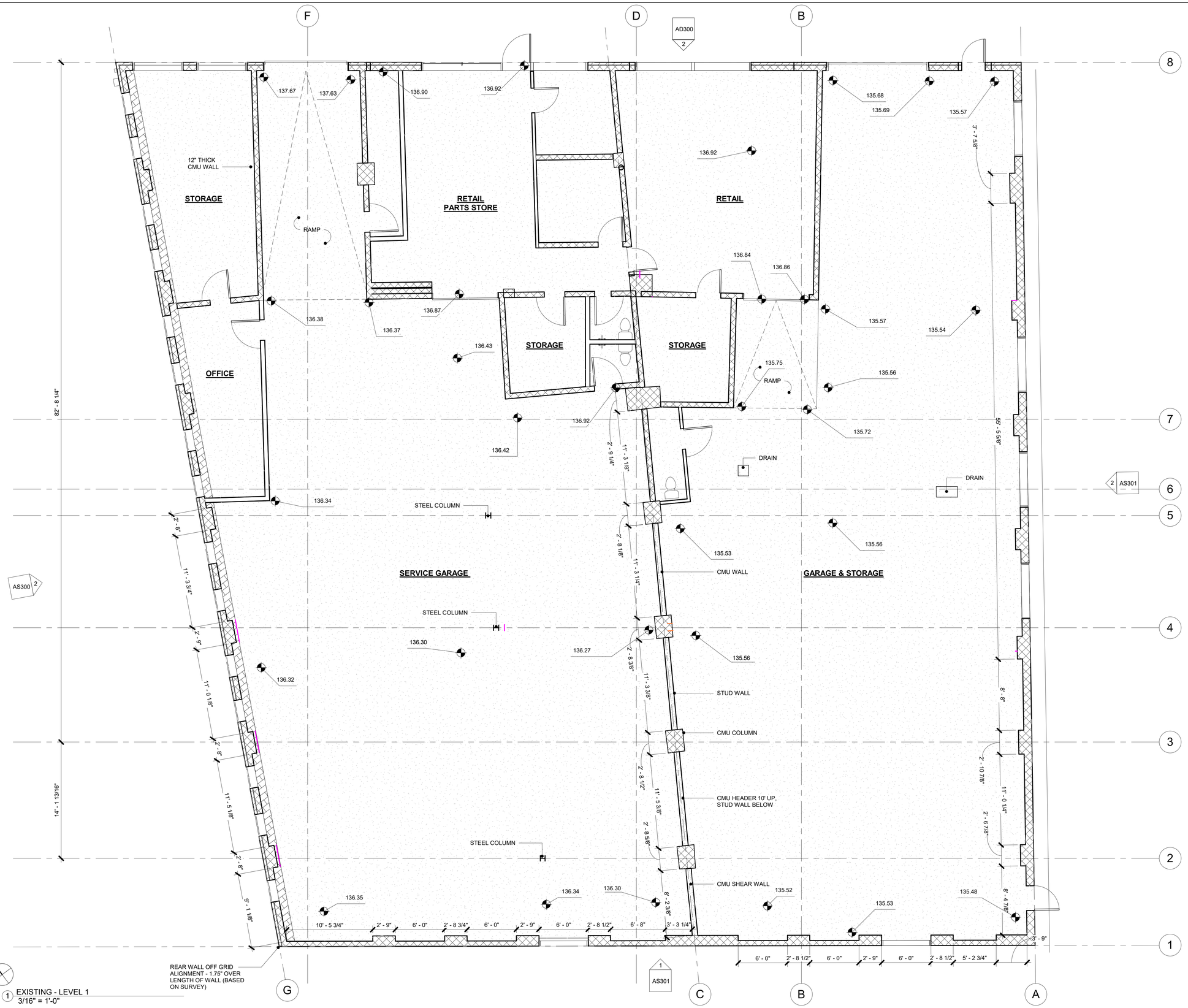
SITE PLAN

A100



1 EXISTING - LEVEL 1
3/16" = 1'-0"

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PLAN NOTES

THE GARAGE ART STUDIOS

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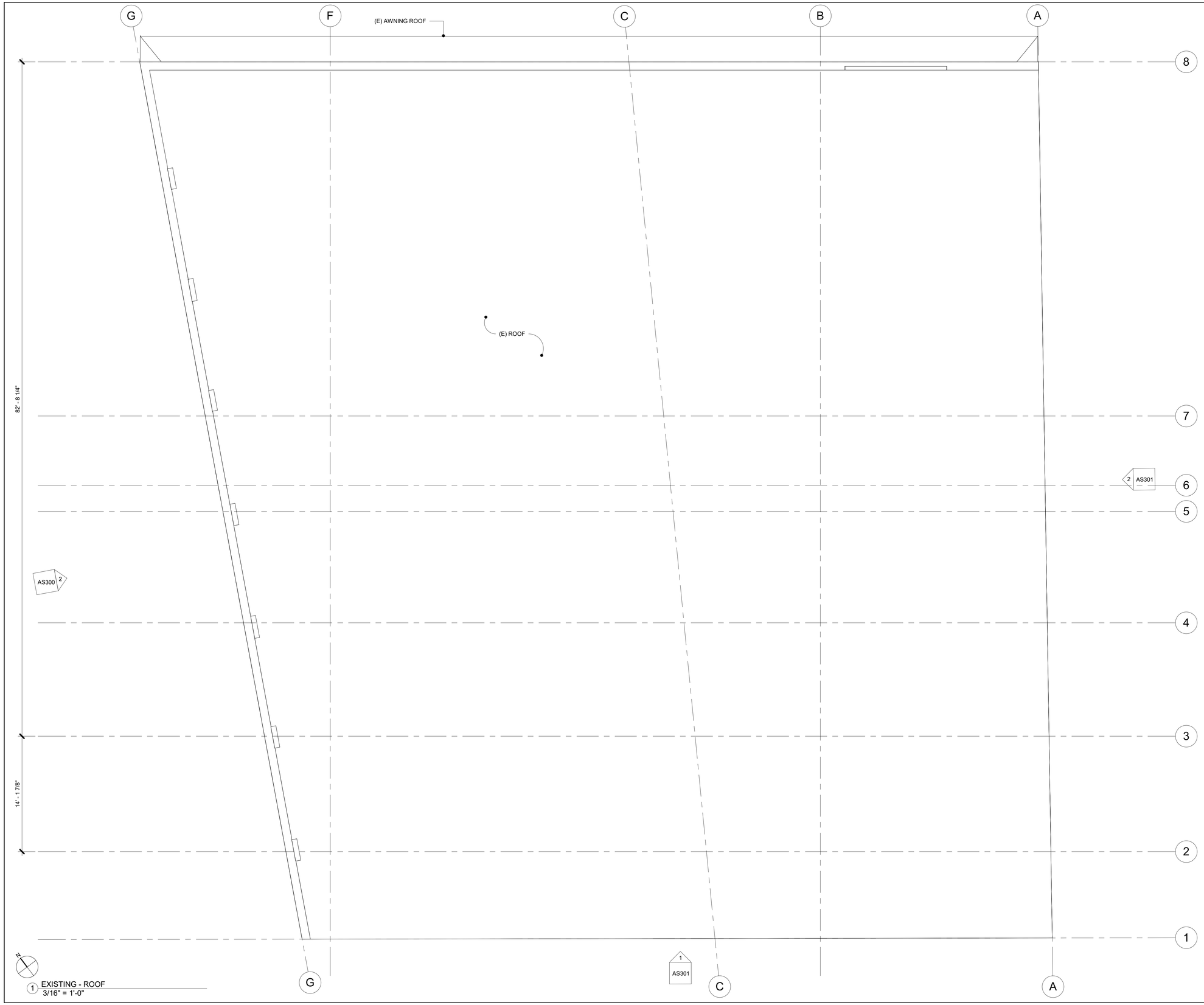
LEVEL 1 FLOOR PLAN

AS200



PLAN NOTES

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Number	Date	Description

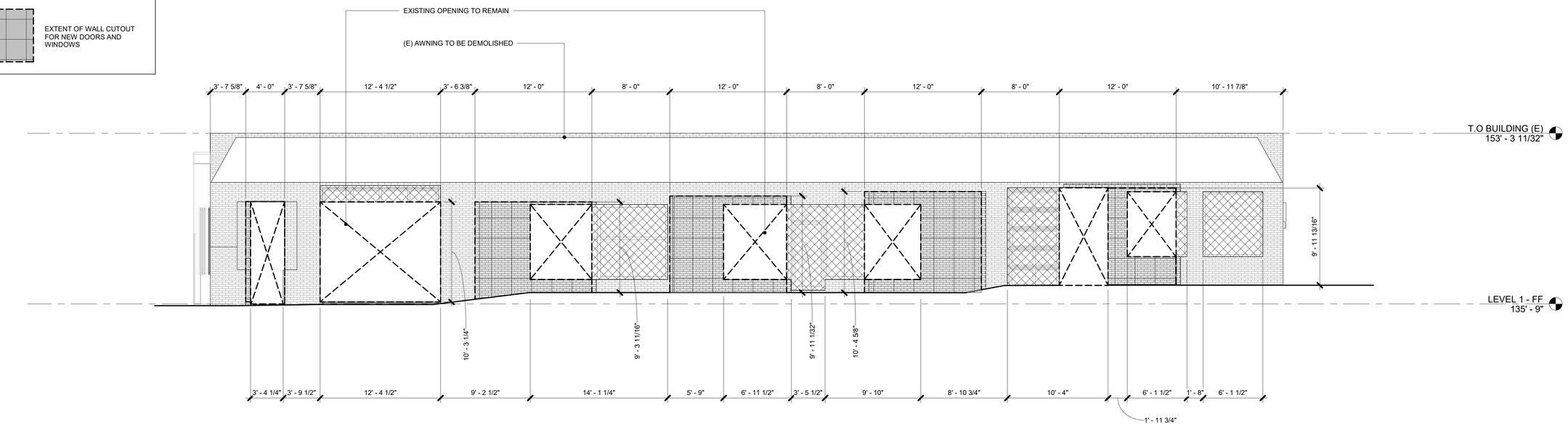
ROOF PLAN

AS201

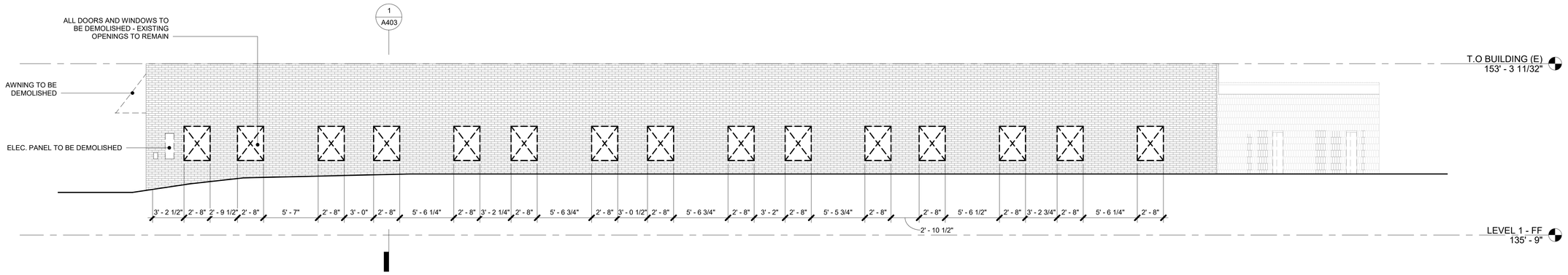
DEMOLITION ELEVATION LEGEND

EXISTING OPENING TO BE INFILLED WITH BRICK

EXTENT OF WALL CUTOUT FOR NEW DOORS AND WINDOWS



2 DEMOLITION - NORTH ELEVATION
3/16" = 1'-0"



1 DEMOLITION - WEST ELEVATION
3/16" = 1'-0"

PROJECT DIRECTORY

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ZONING CORRECTIONS

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Number	Date	Description

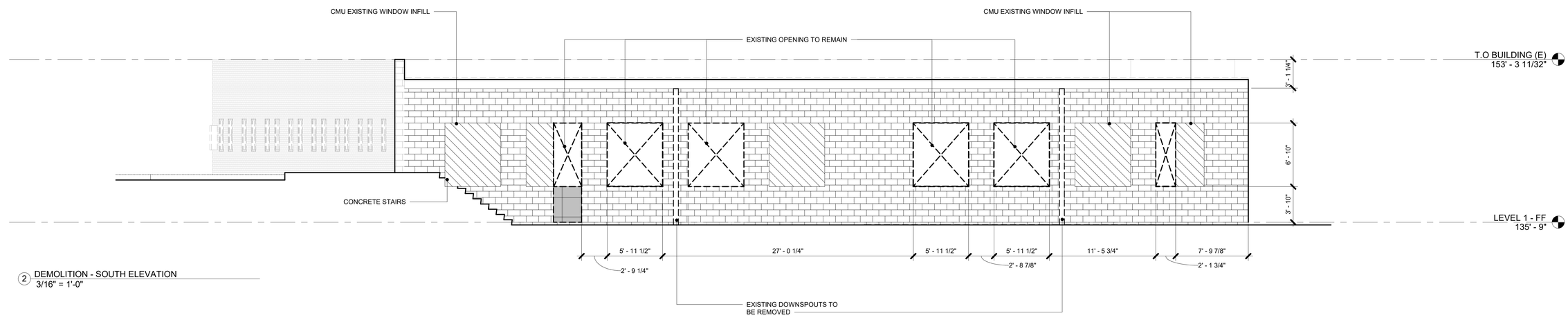
DEMOLITION ELEVATIONS

AD300

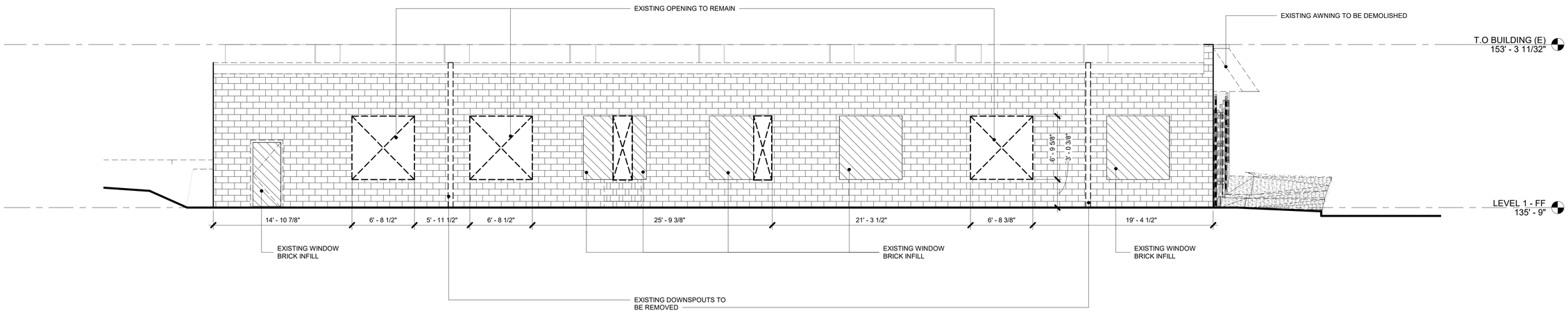
DEMOLITION ELEVATION LEGEND

EXISTING OPENING TO BE INFILLED WITH BRICK

EXTENT OF WALL CUTOUT FOR NEW DOORS AND WINDOWS



2 DEMOLITION - SOUTH ELEVATION
3/16" = 1'-0"



1 DEMOLITION - EAST ELEVATION
3/16" = 1'-0"

PROJECT DIRECTORY

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ZONING CORRECTIONS

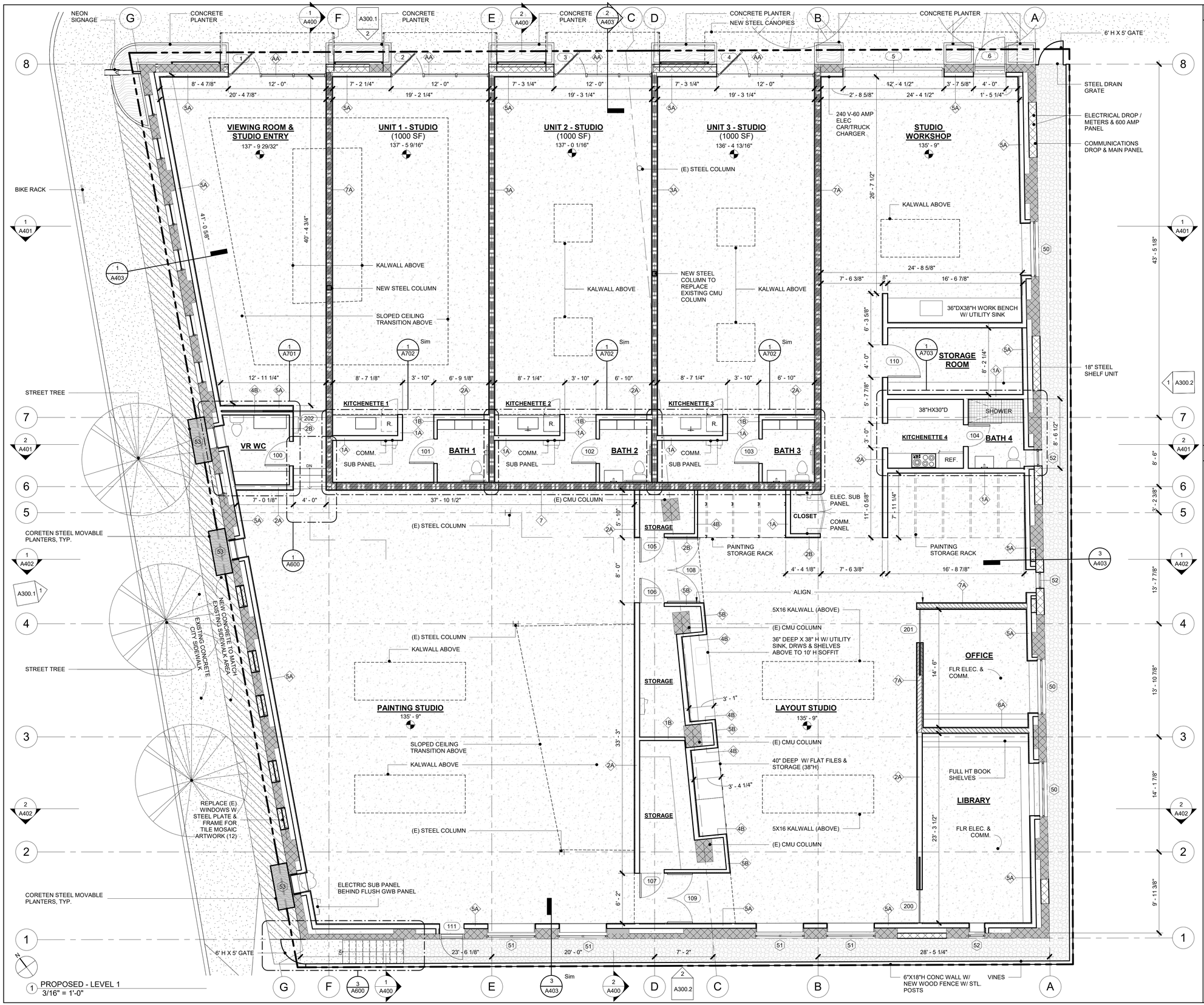
ISSUE DATE
AUGUST 26, 2022

REVISIONS

Number	Date	Description

DEMOLITION ELEVATIONS

AD301



PLAN LEGEND

- PROPERTY LINE
- EXISTING WALL/ELEMENT
- EXISTING CMU WALL
- NEW WALL/ELEMENT
- NEW CMU/BRICK INFILL WALL
- SOUND MITIGATION WALL
- FIRE RATED WALL
- FIRE RATED WALL SOUND MITIGATION WALL
- TILE FLOORING; SEE ENLARGED PLANS FOR SPECS.
- POLISHED CONCRETE FLOOR
- EXTERIOR GRAVEL
- EXISTING EXTERIOR HARDSCAPING
- NEW EXTERIOR CONCRETE HARDSCAPING TO MATCH EXISTING SIDEWALK FINISH
- NEW DECORATIVE EXTERIOR CONCRETE HARDSCAPING, W/ MIN. 2% SLOPE AS REQ.
- LANDSCAPING
- Sm/Cm — SMOKE/CARBON MONOXIDE DETECTOR WITHIN SPACE, SEE LTG. PLANS FOR LOCATION AND SPECS.
- BATHROOM FAN WITHIN SPACE, SEE MECHANICAL PLANS FOR LOCATION AND SPECS.

PLAN NOTES

PROJECT DIRECTORY

OWNER:
Michael Braden
40 Hellbrook Lane,
Ulster Park, NY 12487
mbradenworks@gmail.com
818.309.3530

ARCHITECT:
Christopher Hatch McLean
HATCH ARCHITECTURE INC.
122 Lincoln Blvd. Venice, CA 90291
christopher@hatch-inc.com
907.841.6970

STRUCTURAL ENGINEER:
Michael Gillespie
M. Gillespie & Associates, Consulting Engineering, PLLC.
847 Route 376,
Wappingers Falls, NY 12509
845.227.6227
admin@mgaengrs.com
mgillespie@mgaengrs.com

M.E.P.:
Andy McCaddin, PE.
Oak Engineering Group
109 South William Street, Floor 1,
Newburgh, NY 12550
845.293.6023

LAND SURVEYING:
Gerald L. Lynn, Land Surveyor, PC
66 Middlebush Road,
Wappingers Falls, NY, 12509
845.463.2733
larry@lynnsbls.com

THE GARAGE ART STUDIOS

5 Henry St., Beacon, NY 12508

HATCH ARCHITECTURE INC.
122 LINCOLN BLVD. STE. 201A
VENICE, CA 90291

+1.907.841.6970
WWW.HATCH-INC.COM
INFO@HATCH-INC.COM

ZONING CORRECTIONS

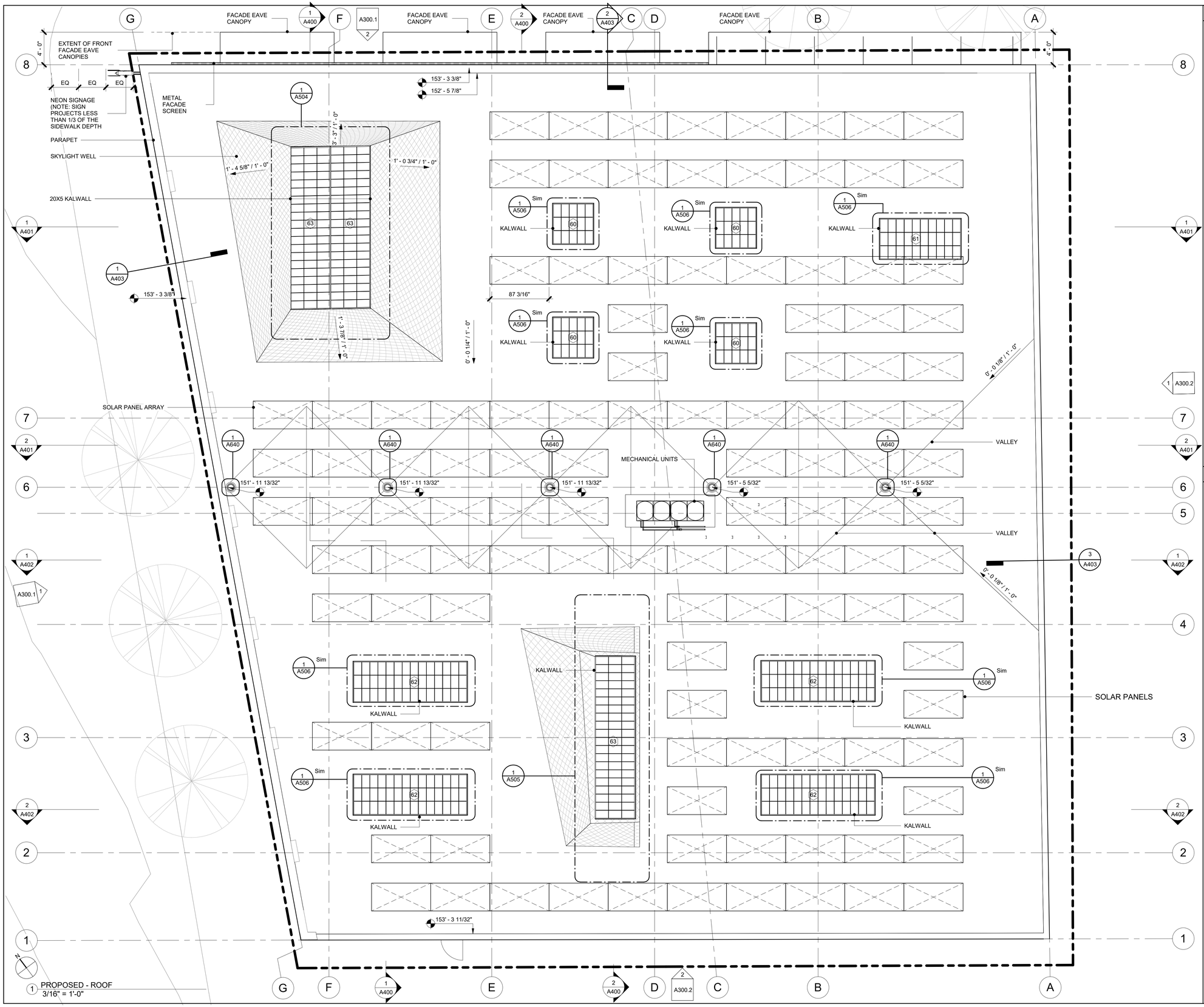
ISSUE DATE
AUGUST 26, 2022

REVISIONS

Number	Date	Description
1	Date 1	Revision 1

LEVEL 1 FLOOR PLAN

A201



ROOF PLAN LEGEND

- PROPERTY LINE
- EXISTING WALL/ELEMENT
- NEW WALL/ELEMENT
- ROOFING HIP OR VALLEY
- ZINC METAL ROOFING TILES
- SOLAR PANELS - 114 TOTAL

PLAN NOTES

PROJECT DIRECTORY

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ZONING CORRECTIONS

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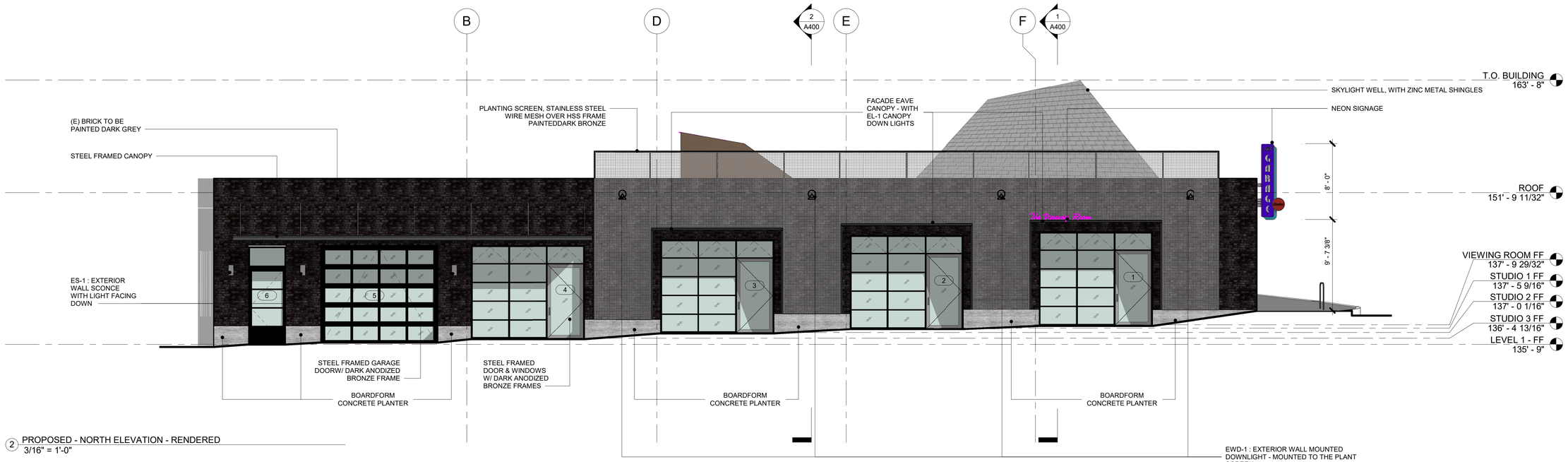
AUGUST 26, 2022

REVISIONS

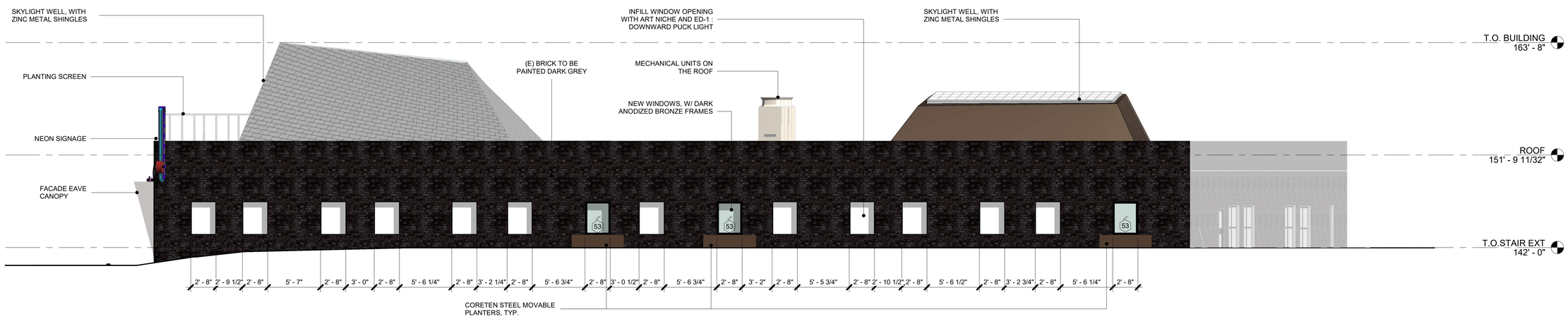
Number	Date	Description

ROOF PLAN

A202



2 PROPOSED - NORTH ELEVATION - RENDERED
3/16" = 1'-0"



1 PROPOSED - WEST ELEVATION - RENDERED
3/16" = 1'-0"

PROJECT DIRECTORY

OWNER:
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40 Hellbrook Lane,
Ulster Park, NY 12487
mbradenworks@gmail.com
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ZONING CORRECTIONS

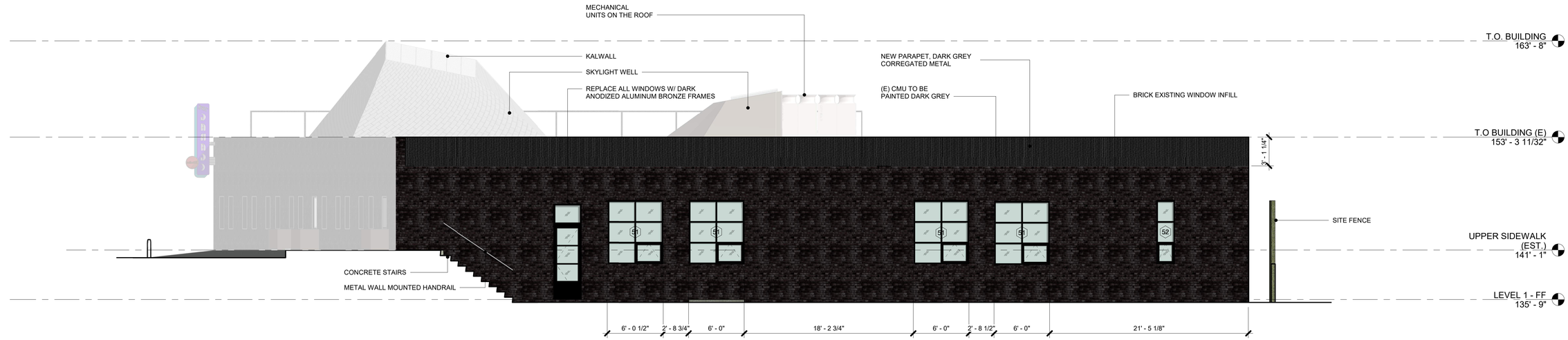
ISSUE DATE
AUGUST 27, 2022

REVISIONS

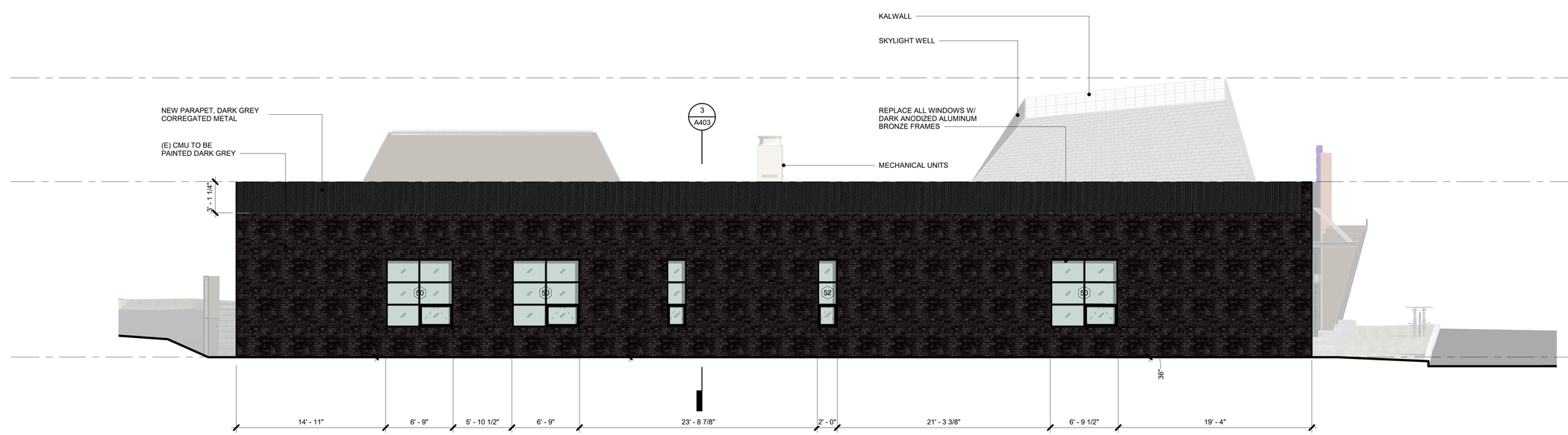
Number	Date	Description

ELEVATIONS - RENDERED

A300.1



2 PROPOSED - SOUTH ELEVATION - REAR YARD - RENDERED
3/16" = 1'-0"



1 PROPOSED - EAST ELEVATION - SIDE YARD - RENDERED
3/16" = 1'-0"

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ZONING CORRECTIONS

ISSUE DATE
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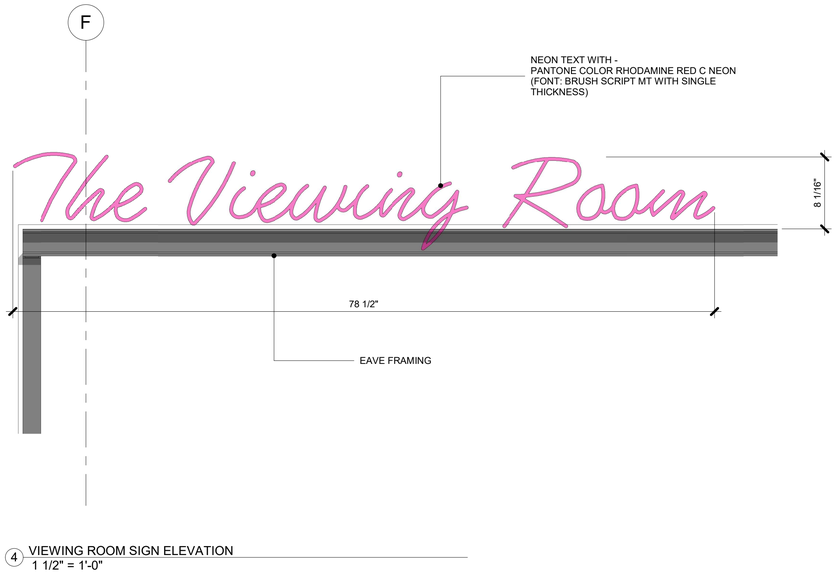
REVISIONS

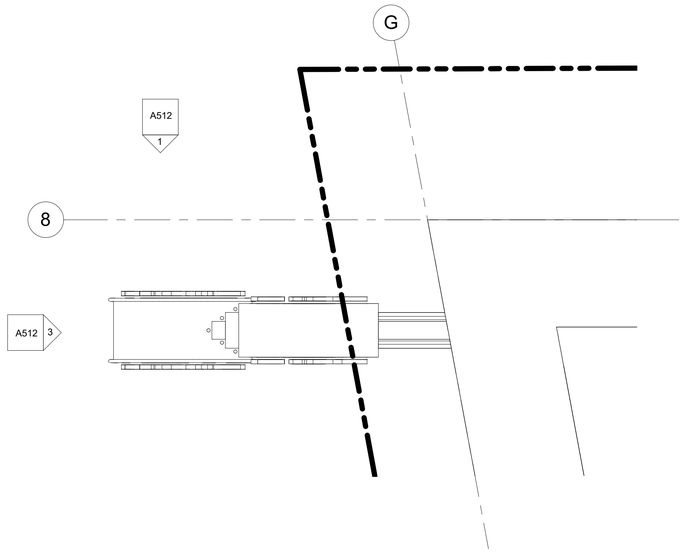
Number	Date	Description

ELEVATIONS - RENDERED

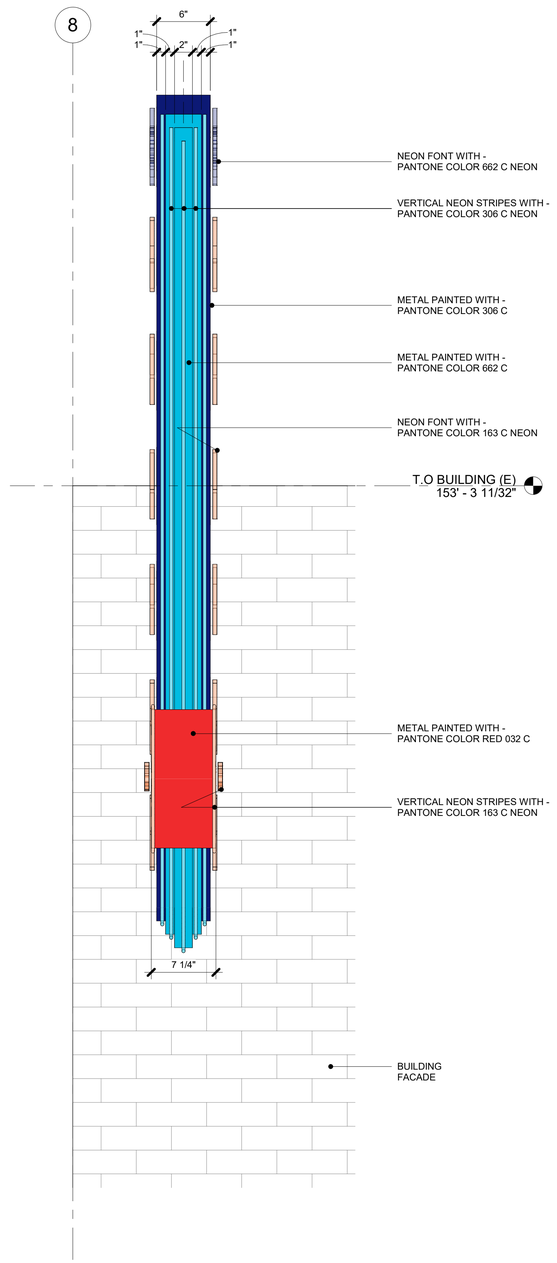
A300.2



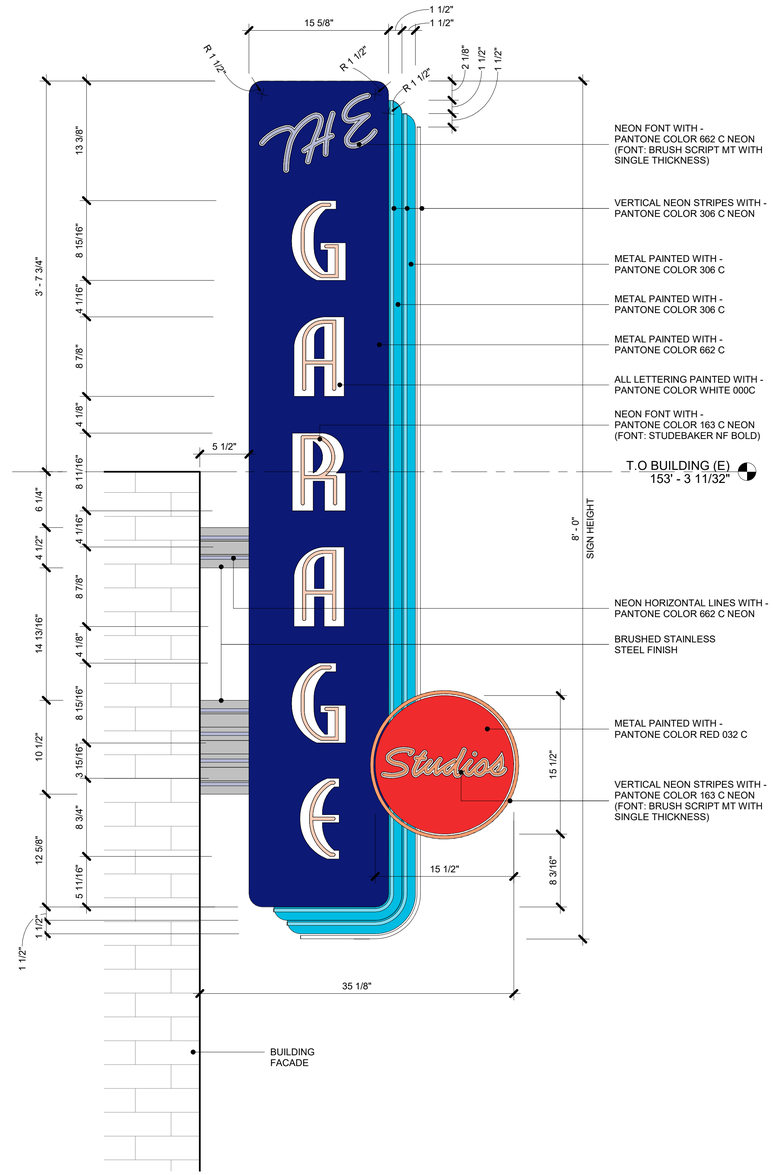
4 VIEWING ROOM SIGN ELEVATION
1 1/2" = 1'-0"



2 SIGN PLAN
1 1/2" = 1'-0"



3 PROPOSED - NEON SIGN ENLARGED SIDE ELEVATION
1 1/2" = 1'-0"



1 PROPOSED - NEON SIGN ENLARGED FRONT ELEVATION
1 1/2" = 1'-0"

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ZONING CORRECTIONS

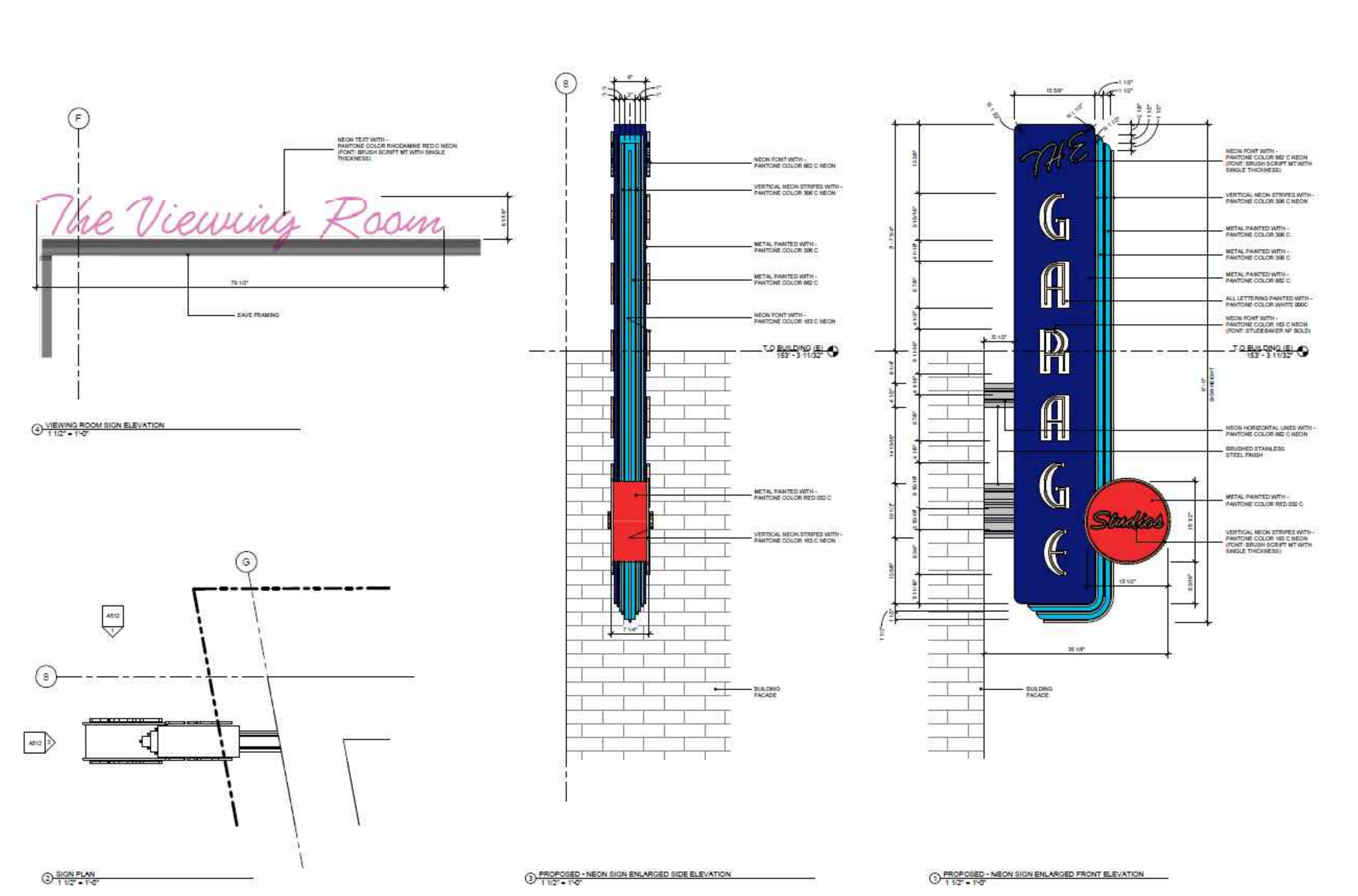
ISSUE DATE
AUGUST 27, 2022

REVISIONS

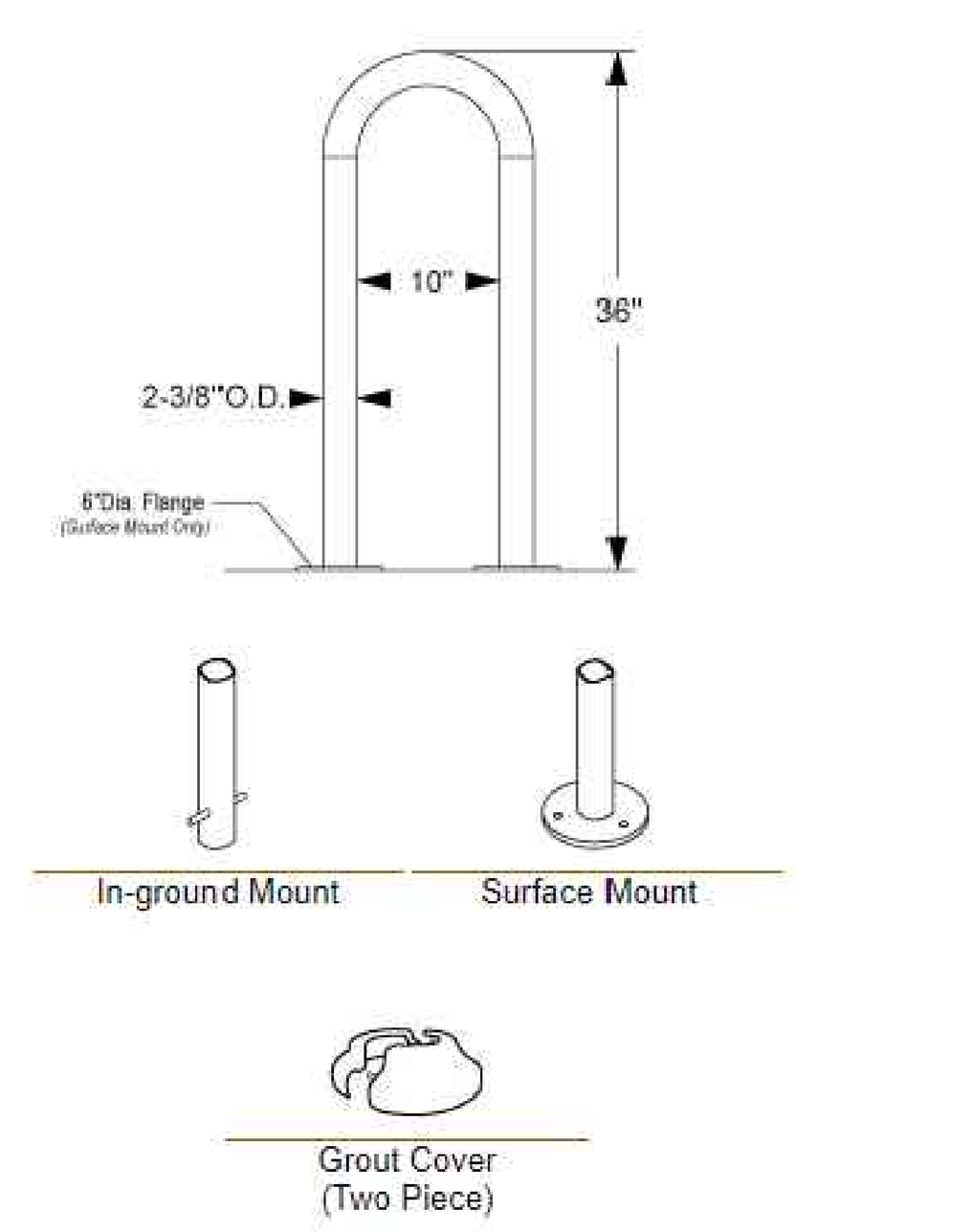
Number	Date	Description

SIGNAGE DETAILS

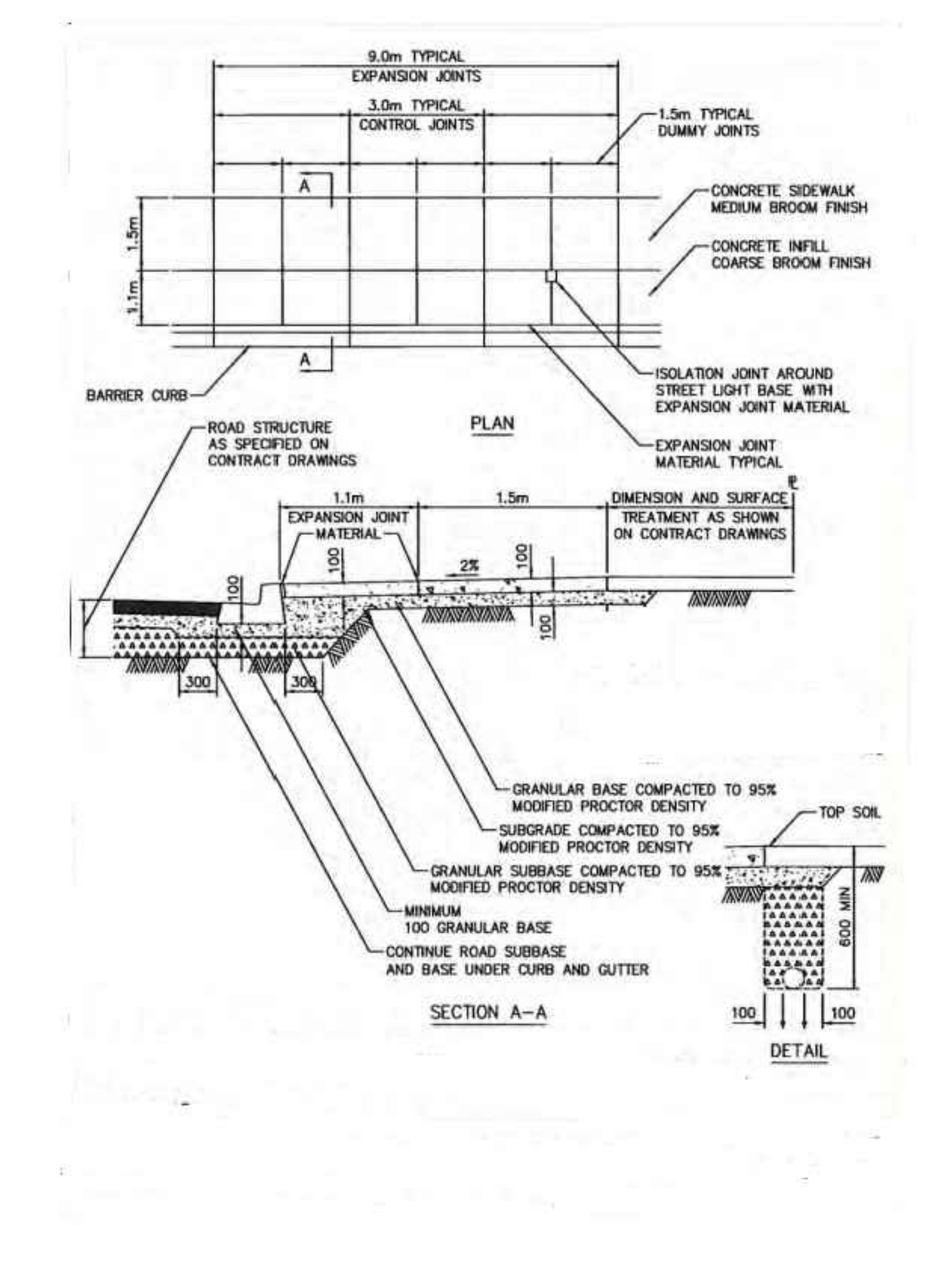
A512



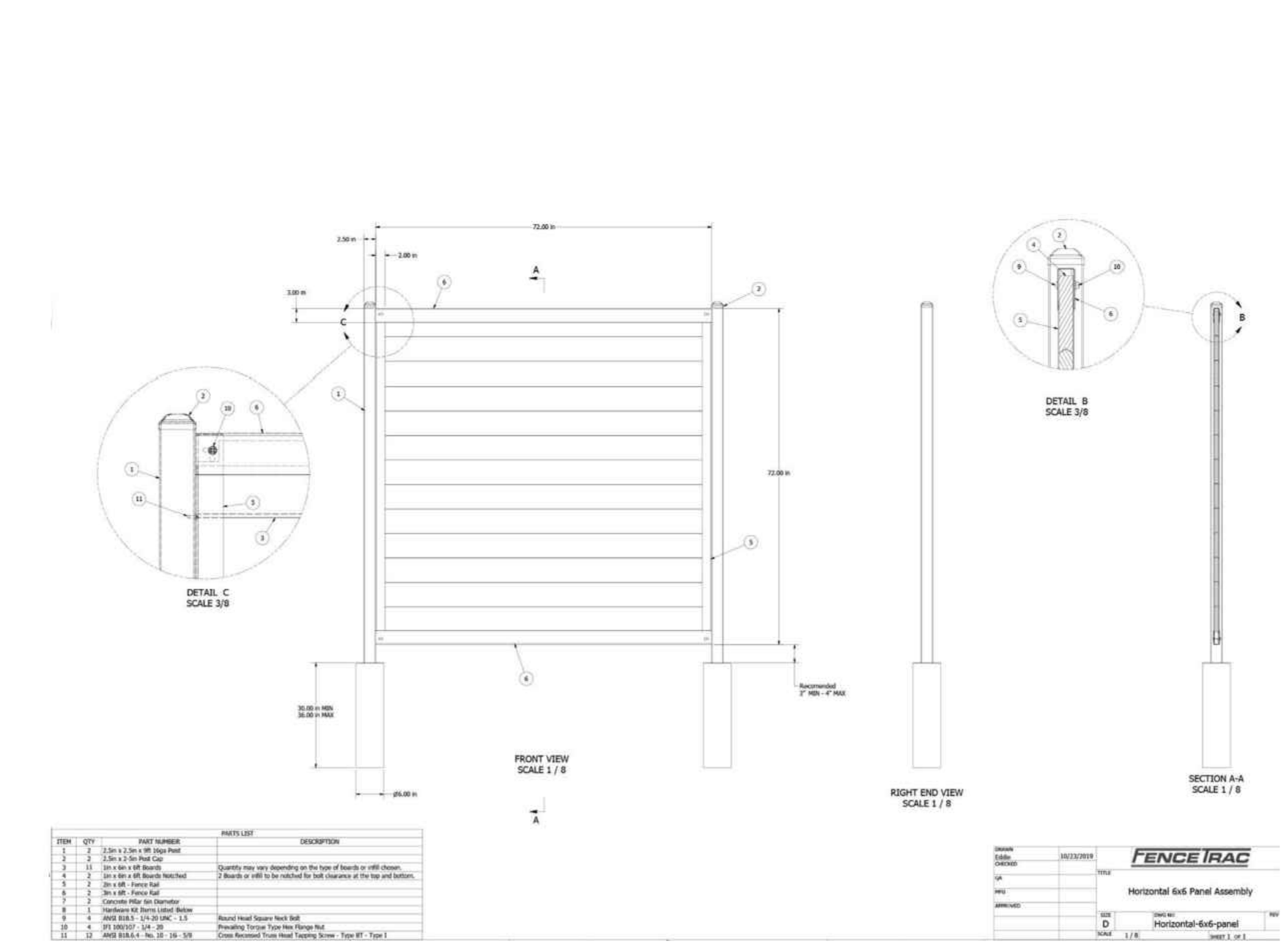
PROPOSED SIGNAGE DETAILS
NOT TO SCALE



PROPOSED SIGNAGE DETAILS
NOT TO SCALE



PROPOSED SIGNAGE DETAILS
NOT TO SCALE



PROPOSED SIGNAGE DETAILS
NOT TO SCALE

ADJOINING PROPERTY OWNERS WITHIN 250'

MATTHEW T. KEAVENEY
94 CATHERINE ST
BEACON, NY 12508
FOR PROPERTY:130200005954003369487870000

RUBIQ LLC
170 SECOND AVE APT 15D
NEW YORK, NY 10003
FOR PROPERTY:130200005954003369238090000

DENNIS EDSON
20 CEDAR ST S
BEACON, NY 12508
FOR PROPERTY:130200005954003369098270000

RUBIQ LLC
170 SECOND AVE APT 15D
NEW YORK, NY 10003
FOR PROPERTY:130200005954003369188390000

NANCY LEVINE
22 CEDAR ST S
BEACON, NY 12508
FOR PROPERTY:130200005954003369068230000

WAYNE TABONE
24 CEDAR ST S
BEACON, NY 12508
FOR PROPERTY:130200005954003369058190000

MICHAEL LOUGHRAN
18 CHESTNUT ST S
BEACON, NY 12508
FOR PROPERTY:130200005954003369308320000

J & S RITTER REALTY
2 CEDARCLIFF LN
POUGHKEEPSIE, NY 12601
FOR PROPERTY:130200005954003369398440000

323 MAIN STREET LLC
49 FOREST VIEW AVE
WAPPINGERS FALLS, NY 12590
FOR PROPERTY:130200005954003369328450000

JOSEPH W. WASSWEILER
44 CHESTNUT ST S
BEACON, NY 12508
FOR PROPERTY:130200005954003369157940000

ST ROCCO SOCIETY
26 CHESTNUT ST S
BEACON, NY 12508
FOR PROPERTY:130200005954003369188210000

FISCH DEVELOPMENT CORP
761 HUNTINGTON DR
FISHKILL, NY 12524
FOR PROPERTY:130200005954003369628250000

ALBERTO MORA
PO BOX 1267
BEACON, NY 12508
FOR PROPERTY:130200005954003369517840000

NANCY FEDORCHAK
24 LOOCKERMAN AVE
POUGHKEEPSIE, NY 12601
FOR PROPERTY:130200005954003369168130000

LORRAINE F. KOSCAL, LT
17 PINE ST
CORNWALL ON HUDSON, NY 12520
FOR PROPERTY:130200005954003369637900000

DANIEL MURGATROYD
PO BOX 187
BEACON, NY 12508
FOR PROPERTY:130200005954003369158350000

JOHN T. GRAHAM
59 CATHERINE ST
BEACON, NY 12508
FOR PROPERTY:130200005954003369058050000

CITY OF BEACON
1 MUNICIPAL PLZ
BEACON, NY 12508
FOR PROPERTY:130200005954003369568150000

SRI KRISHNA INC
335 MAIN ST
BEACON, NY 12508
FOR PROPERTY:130200005954003369488360000

JOHN K. TAYLOR
1115 5TH AVE 14C
NEW YORK, NY 10128
FOR PROPERTY:130200005954003369327990000

CALEB HONEYCHURCH
92 CATHERINE ST
BEACON, NY 12508
FOR PROPERTY:130200005954003369447900000

ANTHONY J. FURCO, TRUSTEE
19 HENRY ST
BEACON, NY 12508
FOR PROPERTY:130200005954003369557960000

NINNIE MANAGEMENT CORP
PO BOX 328
BEACON, NY 12508
FOR PROPERTY:130200005954003369398080000

THOMAS JOSEPH LABELLE
39 CHESTNUT ST S
BEACON, NY 12508
FOR PROPERTY:130200005954003369297840000

SEAN KRAFT
30 WILKES ST
BEACON, NY 12508
FOR PROPERTY:130200005954003369567810000

LUIS MUNOZ
40 CHESTNUT ST S
BEACON, NY 12508
FOR PROPERTY:130200005954003369187990000

MICHAEL THOMAS SCHAEFER, TRUSTEE
PO BOX 716
BEACON, NY 12508
FOR PROPERTY:130200005954003369397940000

KARIMI ENTERPRISES LLC
361 MAIN ST
BEACON, NY 12508
FOR PROPERTY:130200005954003369718180000

U S POST OFFICE
369 MAIN ST
BEACON, NY 12508
FOR PROPERTY:130200005954003369738030000

HUDSON RIVER HEALTHCARE INC
341 MAIN ST
BEACON, NY 12508
FOR PROPERTY:130200005954003369538310000

MELISSA BROOKS
65 CATHERINE ST
BEACON, NY 12508
FOR PROPERTY:130200005954003369118010000

J & S RITTER REALTY
2 CEDARCLIFF LN
POUGHKEEPSIE, NY 12601
FOR PROPERTY:130200005954003369358360000

DAVID M. DEVINE
22 BEACH RD
POUGHQUAG, NY 12570
FOR PROPERTY:130200005954003369267780000

BEACON 355 LLC
355 MAIN ST
BEACON, NY 12508
FOR PROPERTY:130200005954003369658220000

ANDREW J. ANTALEK
52 CHESTNUT ST S
BEACON, NY 12508
FOR PROPERTY:130200005954003369127880000

CATHERINE STREET PROPERTIES LL
105 CATHERINE ST
BEACON, NY 12508
FOR PROPERTY:130200005954003369377710000

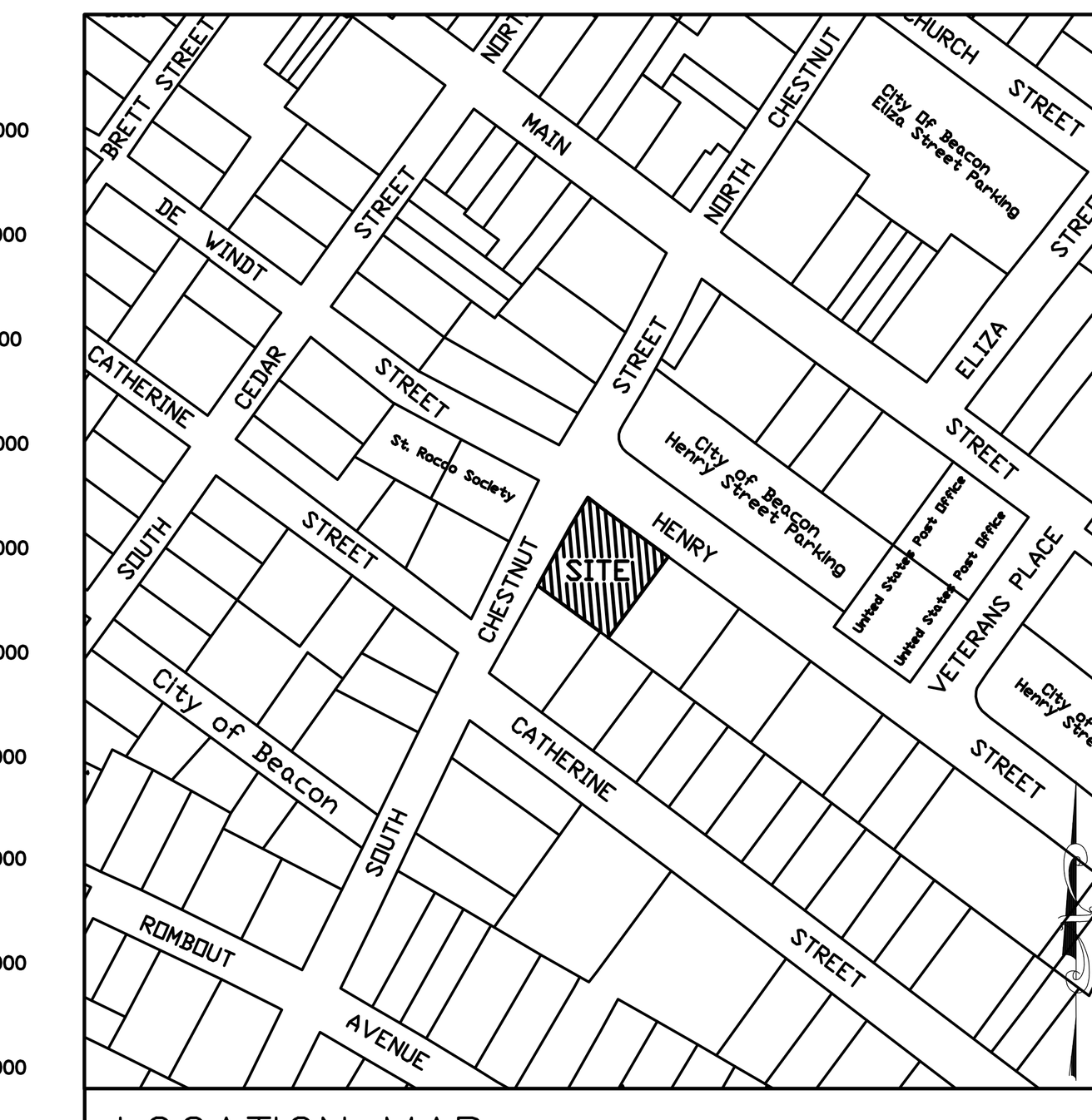
J & S RITTER REALTY
2 CEDARCLIFF LN
POUGHKEEPSIE, NY 12601
FOR PROPERTY:130200005954003369228410000

ST ROCCO SOCIETY
26 CHESTNUT ST S
BEACON, NY 12508
FOR PROPERTY:130200005954003369268170000

HUDSON TODD LLC
4 CROSS ST
BEACON, NY 12508
FOR PROPERTY:130200005954003369238430000

GARTH T. MARK
7 HENRY ST 4
BEACON, NY 12508
FOR PROPERTY:130200005954003369488020000

JEFFREY R. MCHUGH
20 CHESTNUT ST S
BEACON, NY 12508
FOR PROPERTY:130200005954003369288280000



LOCATION MAP
SCALE: 1" = 200'

APWA UNIFORM COLOR CODE
FOR MARKING
UNDERGROUND UTILITY LINES

WHITE	PROPOSED EXCAVATION
PINK	TEMPORARY SURVEY MARKINGS
RED	ELECTRICAL POWER LINES, CABLES CONDUIT AND LIGHTING CABLES
YELLOW	GAS, OIL STEAM, PETROLEUM OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES CABLES, OR CONDUIT
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION AND SLURRY LINES
GREEN	SEWER & DRAIN LINES

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- Wait The Required Time
- Confirm Utility Response
- Respect The Marks
- Dig With Care

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www.digsafelynewyork.com

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- The i-notice will satisfy all the requirements of an excavation notification as mandated by Code Rule 753
- No waiting on the phone
- Electronic maps are available to help pin point accurate dig site locations
- The only requirement is access to the internet and Microsoft Internet Explorer 4.0 or newer.
- Verbal transcription errors are eliminated.
- Self-paced on line tutorials and site training is available.
- The i-notice services is FREE!

Simply send an e-mail to: register@digsafelynewyork.com expressing your interest in participating in this innovative time efficient and user friendly method to create your OWN stake-out notice.

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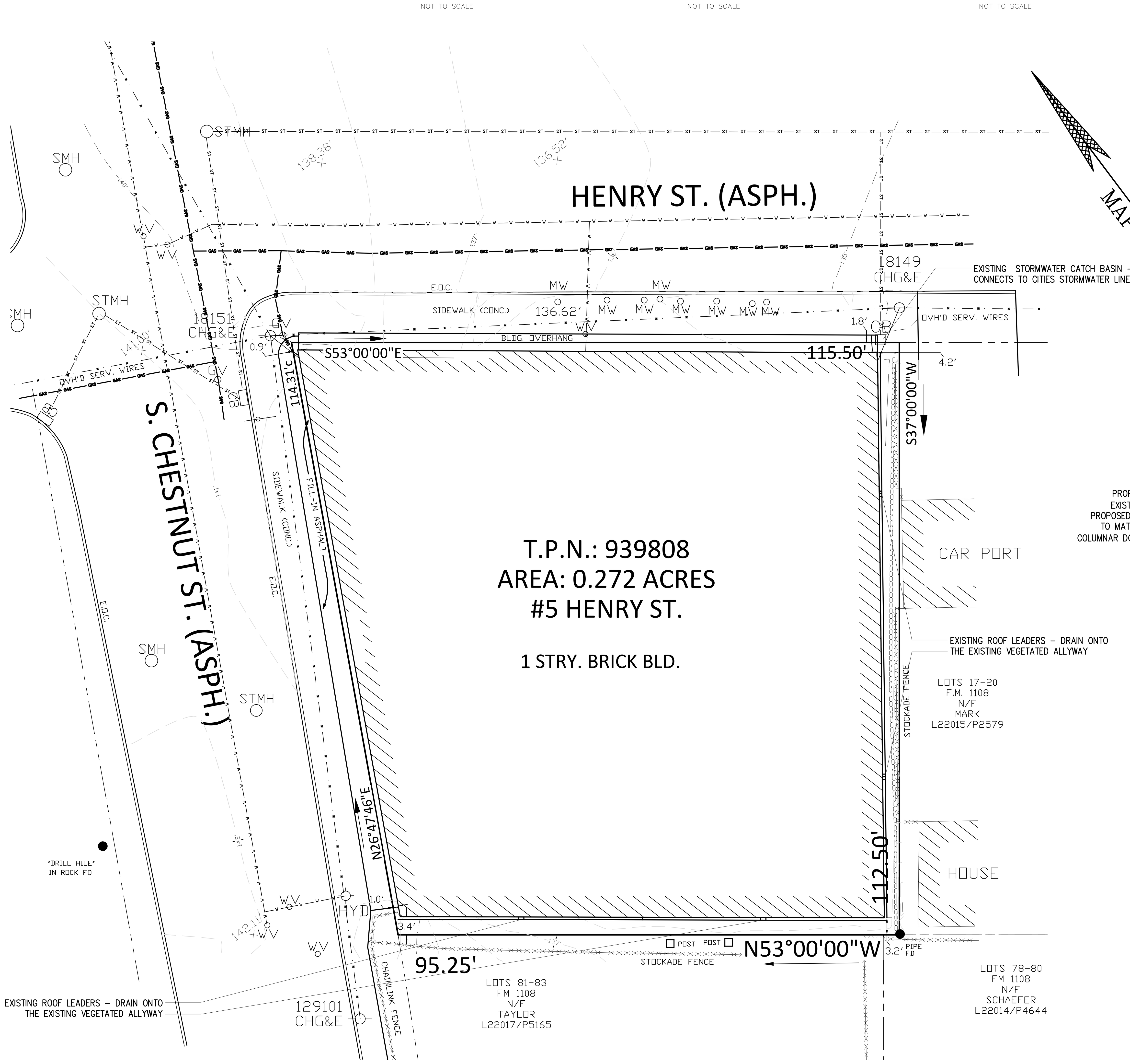
NEW YORK
1-800-962-7962
www.digsafelynewyork.com

SITE PLAN

THE GARAGE STUDIOS - BRADEN

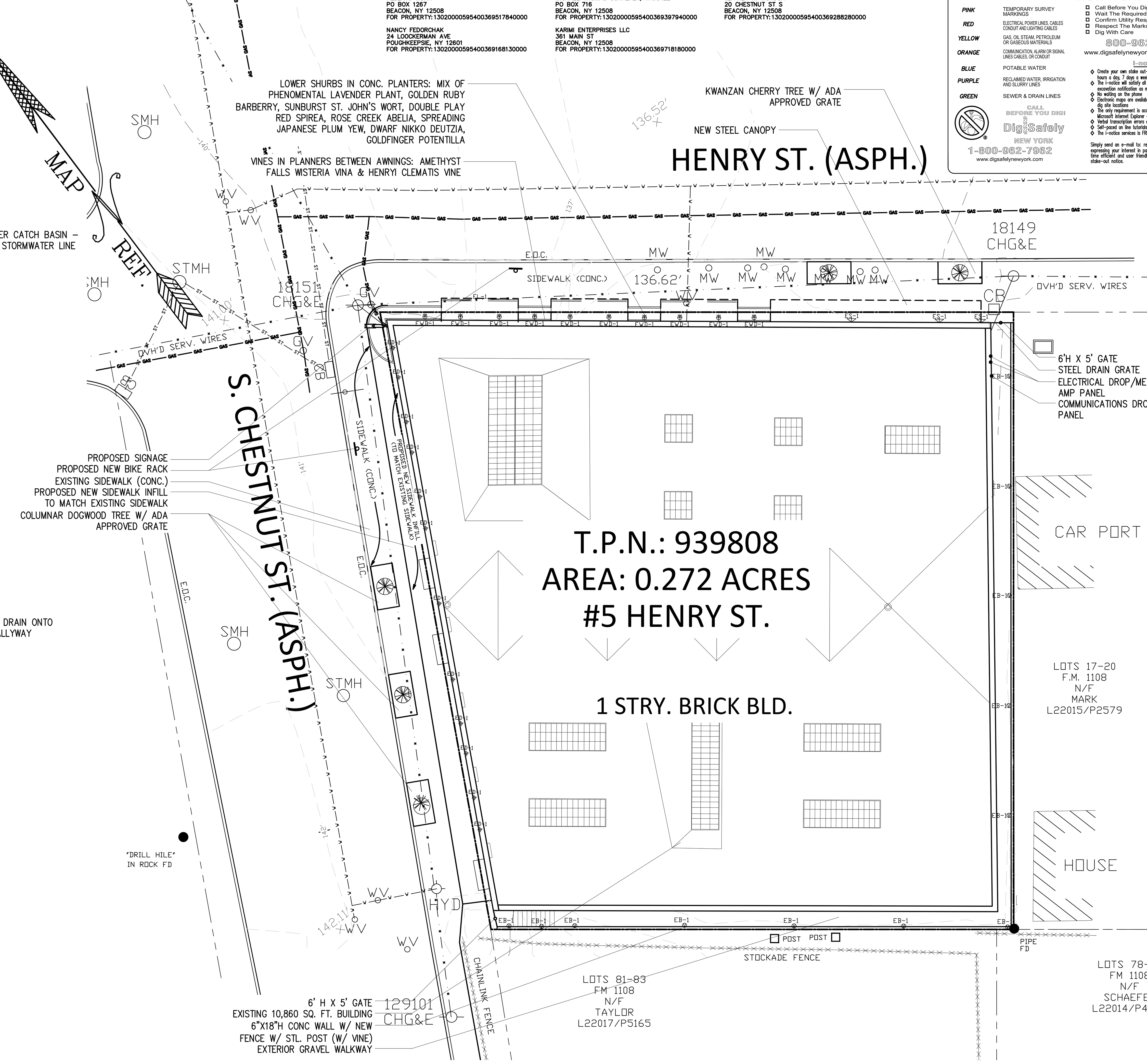
DUTCHESS CO., NEW YORK
JUNE 27, 2022

CITY OF BEACON
SCALE(S) - AS NOTED



EXISTING CONDITIONS SITE PLAN

SCALE: 1" = 10'



PROPOSED CONDITIONS SITE PLAN

SCALE: 1" = 10'

LEGEND

Symbol	Description
——— – – ———	ADJOINING LOTS
—v—v—v—v—	WATER SERVICE
××××××××	STOCKADE FENCE
oooooooo	WALL
—GAS—GAS—	GAS SERVICE
—·—·—·—	UTILITY LINE
——— – ———	LOT LINE
STMH	STORMWATER MANHOLE
SMH	SEWER MANHOLE
MW	WATER MIAN
WV	WATER VALVE

T BULK REQUIREMENTS

	REQUIRED	PROPOSED
MINIMUM LOT AREA (SF)	5,000	11,854.7
MINIMUM WIDTH (FT.)	50	105.4
MINIMUM DEPTH (FT.)	100	112.5
MINIMUM FRONT YARD (FT.)	10	1.66*
MINIMUM SIDE YARD (FT.)	10	0.97*
MINIMUM REAR YARD (FT.)	20	3.34*
MINIMUM DISTANCE BETWEEN BUILDINGS (SAME LOT)	--	N/A
MINIMUM HEIGHT (STORIES/FT.)	2.5/35	<35
PARKING REQUIREMENT (ARTIST STUDIO)	22	0**

REFERENCE: CITY OF BEACON ZONING -233 ATTACHMENT 1 - 223-17. SCHEDULE OF BULK REGULATIONS
*PRE-EXISTING AND NON-CONFORMING
**AS PER CITY OF BEACON CODE BOOK SECTION 223-26.B.1&2 NO ADDITIONAL SPOTS ARE REQUIRED.
IN 1964 THE CAR DEALERSHIP WAS UNDER B OCCUPANCY WHICH REQUIRED 1 SPACE PER 300 SF OF FLOOR AREA + 2 SPACES PER OFFICE. BY THOSE STANDARDS THE PARKING REQUIREMENT WOULD BE 37 SPACES + 2 SPACES PER OFFICE (NUMBER OF OFFICES UNKNOWN) WHICH IS GREATER THAN THE 22 REQUIRED PARKING SPACES FOR AN ARTIST STUDIO, THEREFORE NO ADDITIONAL PARKING SPACES ARE REQUIRED.

PARCEL INFORMATION

TAX GRID PARCEL NUMBER(S)	130200-5954-36-939808
ZONING DISTRICT	T (TRANSITIONAL)
TOTAL AREA	0.27 ACRES
ADDRESS	5 HENERY STREET, BEACON, NY 12508
SCHOOL DISTRICT	--
FIRE DISTRICT	BEACON FIRE
SANITARY DISPOSAL	MUNICIPAL SEWER
WATER SUPPLY	MUNICIPAL WATER

PLAN SET TABLE OF CONTENTS

SHEET	TITLE
1	SITE PLAN
2	LIGHTING PLAN & DETAILS
3	LANDSCAPING PLAN & DETAILS

CITY OF BEACON PLANNING BOARD APPROVAL

Approved by Resolution of the Beacon Planning Board on the ______ day of ________________________, 20_________ subject to all conditions as stated therein

Chairman, City Planning Board **Date**

OWNER

NINNIE MANAGEMENT CORP.
PO BOX 328
BEACON, NY 12508

APPLICANT

MICHAEL BRADEN
40 HELLBROOK LANE
ULSTER PARK, NY 12487

APPLICANT'S CONSENT

THE UNDERSIGNED OWNER OF THIS PROPERTY HEREON STATES THAT HE/SHE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON AND TO THE FILING OF THIS MAP WITH THE OFFICE OF THE DUTCHESS COUNTY CLERK.

OWNER DATE

M. GILLESPIE & ASSOCIATES
CONSULTING ENGINEERING, P.L.L.C.
847 ROUTE 376 - WAPPINGERS FALLS, NY 12590
P. (845) 227-6227 F. (845) 226-1430
WWW.MGILLESPIEASSOCIATES.COM

PROJECT NO: 2022:065
DRAWN BY: IAT
CHECKED BY: MEG
REVISIONS:
JULY 25, 2022
AUGUST 29, 2022
SEPTEMBER 27, 2022

NYSPE# 074666

SHEET No.
S1
S3

LIGHTING SPECIFICATION AND DETAILS

EXTERIOR LIGHT SCHEDULE

FIXTURE SYMBOL & TAG	FIXTURE TYPE & SPEC.	HT. FROM GRADE	DIMMING	CRI	COLOR TEMP.	QTY.
EL-1	EXTERIOR LINEAR DOWNLIGHT - MOUNTED IN THE FRONT OF THE ENTRY AWNINGS	10'-10"FT MAX	YES	95+	2700K	3
ES-1	EXTERIOR WALL SCONCE WITH LIGHT FACING DOWN	7'-4"FT MAX	YES	90+	2700K	3
ED-1	EXTERIOR DOWNWARD PUCK LIGHT - MOUNTED IN THE ART NICHES	4'-10"FT MAX	YES	85+	2700K	11
EWD-1	EXTERIOR WALL MOUNTED DOWNLIGHT - MOUNTED TO THE PLANT SCREEN	15'-0"FT MAX	YES	90	2700K	4
EB-1	EXTERIOR DOWNWARD BALLARD PATH EGRESS LIGHT	20"	YES	90	2700K	19

Lighting Fixtures Notes:

All light fixtures shall meet the following requirements (*Per City of Beacon Code 223-14. B*):

(2) Such lighting shall use full cutoff fixtures that do not emit light above the horizontal plane into the night sky, except for lighting for short-term events or holidays, flagpole lighting, decorative light sources under 600 lumens, public parks and other public specialty lighting, as determined by the Building Inspector.

(3) Hours of lighting and fixture height, type, design, intensity, and color temperature may be determined by the Planning Board in acting on any site development plan upon consideration of the following considerations:

(a) Lighting fixtures in pedestrian areas should be a maximum of 15 feet in height and parking lot lighting fixtures should be a maximum of 20 feet.

(b) Pedestrian and parking lot areas should average approximately one footcandle. Only high security areas may require lighting in the two to five footcandle range, while over five footcandles is usually a waste of energy and a source of glare.

(c) Color temperatures should be in the range of 2,400 to 4,000 Kelvin degrees.

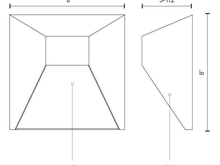
(d) The color rendering index should be in the range of 80 to 100.

(e) Adaptive controls, such as dimmers, timers, and motion sensor shut-off lighting, should be used whenever appropriate.

EB-1 SPECIFICATION AND DETAILS

DESCRIPTION

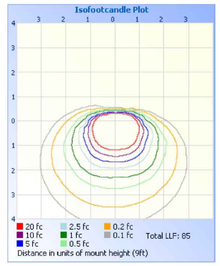
Formed aluminum with powder-coated finish, inlaid stone and glass diffuser. Available in 3 finishes

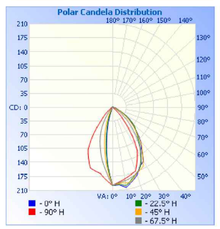


Lumens Per Zone

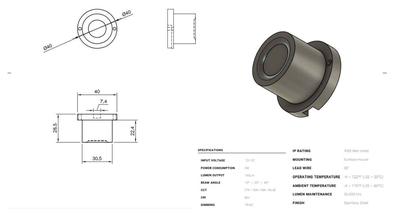
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	16.0	7.9%	90-100	0.7	0.4%
10-20	37.8	18.6%	100-110	0.5	0.3%
20-30	46.2	22.8%	110-120	0.4	0.2%
30-40	42.4	20.9%	120-130	0.4	0.2%
40-50	28.9	14.3%	130-140	0.4	0.2%
50-60	16.5	8.1%	140-150	0.3	0.2%
60-70	6.9	3.4%	150-160	0.3	0.1%
70-80	3.1	1.5%	160-170	0.2	0.1%
80-90	1.4	0.7%	170-180	0.1	0%



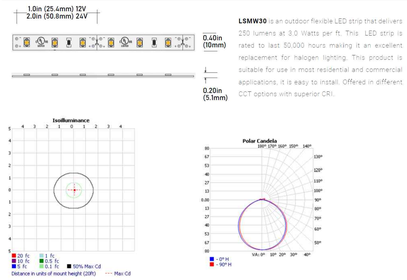




ED-1 SPECIFICATION AND DETAILS



EL-1 SPECIFICATION AND DETAILS



EL-1 SPECIFICATION AND DETAILS



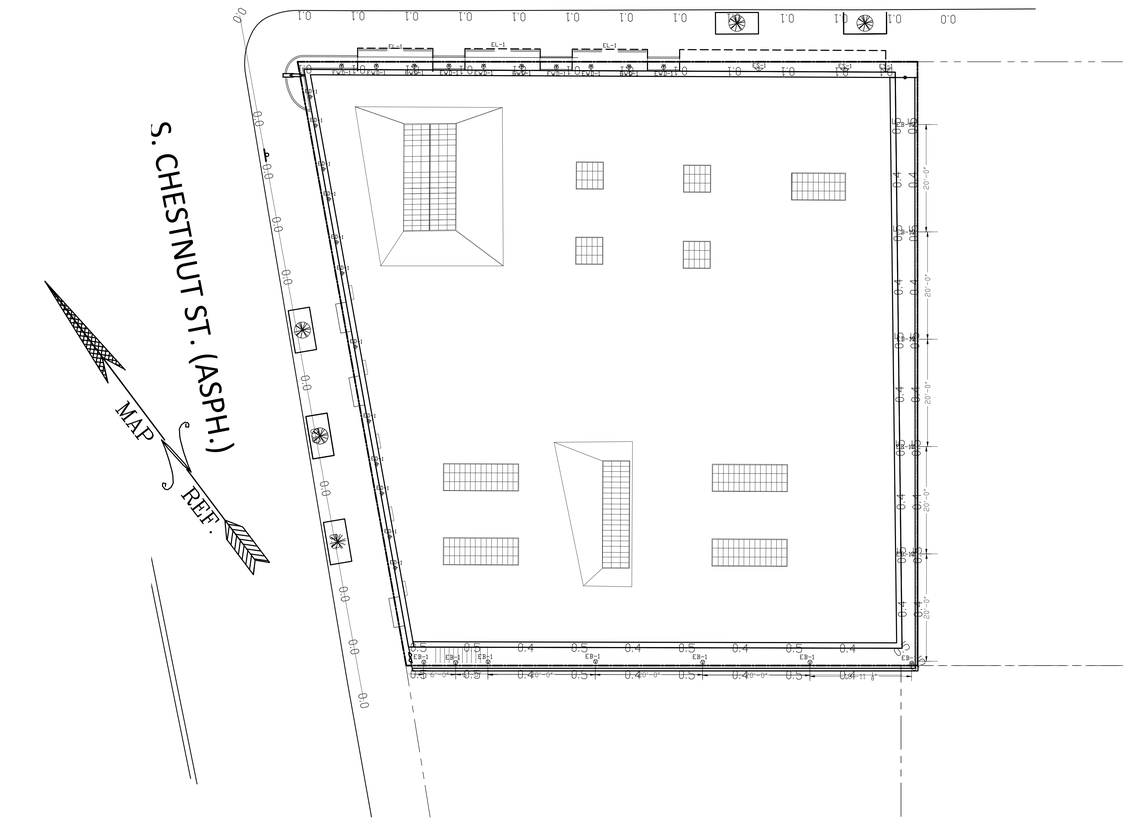
EL-1 SPECIFICATION AND DETAILS



HENRY ST. (ASPH.)

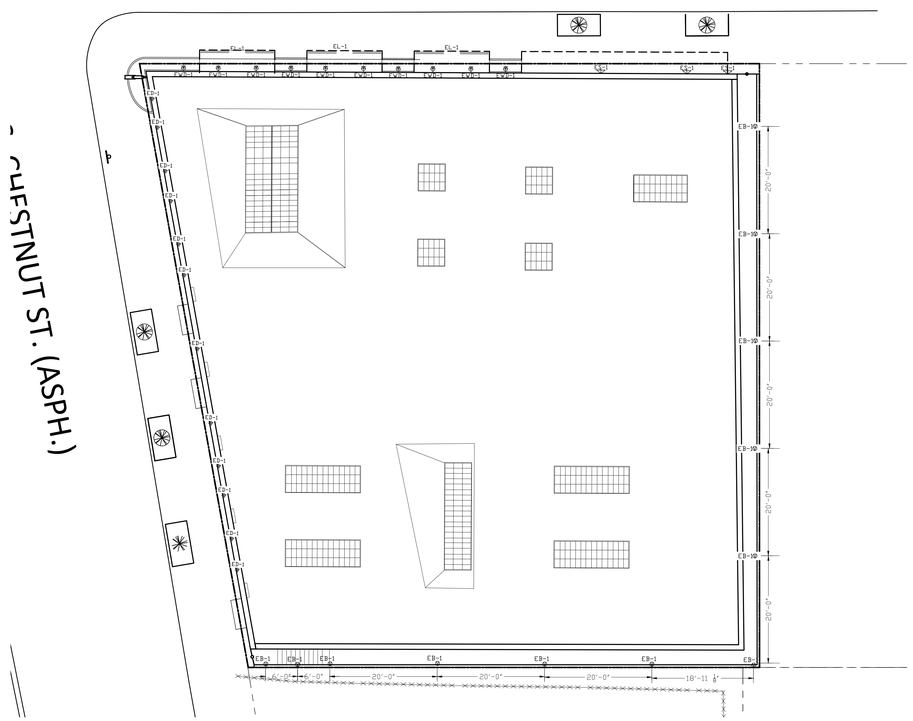
S. CHESTNUT ST. (ASPH.)

MAP REF.



PHOTOMETRIC PLAN

SCALE: 1" = 20'



PROPOSED LIGHTING PLAN

SCALE: 1" = 10'

LIGHTING PLAN

THE GARAGE STUDIOS - BRADEN

DUTCHESS CO., NEW YORK
JUNE 27, 2022

CITY OF BEACON
SCALE(S) - AS NOTED

M. GILLESPIE & ASSOCIATES
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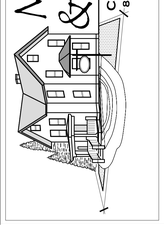

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OWNER DATE

SHEET No.

S2
S3

TREE PLANTING SCHEDULE

QUANTITY	SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	REMARKS/SIZING
2	✻	COLUMNAR KWANZAN CHERRY TREE	--	MIN. 3" CALIPER	FIRST BRANCHES BEGINNING 54" MIN FROM GRADE – PINK FLOWER & FALL COLOR
3	✻	KOUSA DOGWOOD	CORNUS 'KOUSA'	MIN. 3" CALIPER	FIRST BRANCHES BEGINNING 54" MIN FROM GRADE – WHITE FLOWER & FALL COLOR

VINES PLANTING SCHEDULE

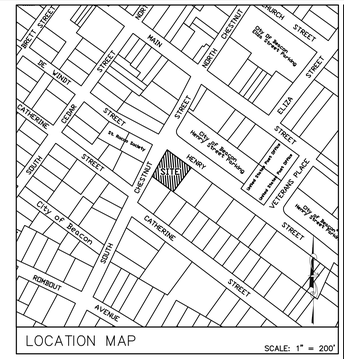
COMMON NAME	SCIENTIFIC NAME	REMARKS/SIZING
AMETHYST FALLS WIARWEIA VINE	WISTERIA FRUTESCENS	PRIMARY VINE – PURPLE FLOWER – MATURE 20' TO 30', PLANTS TO BE 10' TO 12' TALL
HENRYI CLEMATIS VINE	CLEMATIS 'HENRYI'	HIGHLIGHT – WHITE FLOWER – MATURE 10' TO 12'
CRIMSON DELIGHT TRUMPET VINE	CAMPSIS RADICANS	ALTERNATIVE PRIMARY VINE – ORANGE FLOWER – MATURE 15' TO 20' – PLANTS TO BE 10' TO 12' TALL
CRIMSON DELIGHT TRUMPET VINE	CAMPSIS RADICANS	FENCE VINE – ORANGE FLOWER – MATURE 15' TO 20' – PLANTS TO BE 10' TO 12' TALL

SHRUB PLANTING SCHEDULE

COMMON NAME	SCIENTIFIC NAME	REMARKS/SIZING/QUAINTLY
PHENOMENAL LAVENDER PLAN	LAVANDULA INTERMEDIA 'PHENOMENAL'	PLANT 1 GAL
GOLDEN RUBY BARBERRY	BERBERIS THUNBERGII 'GORUZAM'	PLANT 1 GAL
SUNBURST ST. JOHN'S WORT	HYPERICUM FRONDOSUM 'SUNBURST'	PLANT 1 GAL
DOUBLE PLAY RED SPIREA	SPIREA JAPONICA	PLANT 3 GAL
ROSE CREEK ABELIA	ABELIA X CHINENSIS 'ROSE CREEK'	PLANT 3 GAL
SPREADING JAPANESE PLUM YEW	CEPHALOTAXUS HARRINGTONIA 'PROSTRATA'	PLANT 1 GAL
DWARF NIKKO DEUTZIA	DEUTZIA GRACILS 'NIKKO'	PLANT 1 GAL
GOLDFINGER POTENTILLA OR SIM	POTENTILLA FRUTICOS 'GOLDFINGER'	PLANT 3 GAL
KARL FOERSTER GRASS	CALAMAGROSTIS X ACUTIFLORA ' KARL FOESTER'	PLANT 5 GAL – PLANTERS AT CORNER OF HENRY ST & CHESTNUT ST.
BLACK MONDO GRASS	OPHIOPOGON PLANISCAPUS 'NIGRESCENS'	PLANT 1 GAL – PLANTERS AT CORNER OF HENRY ST & CHESTNUT ST.

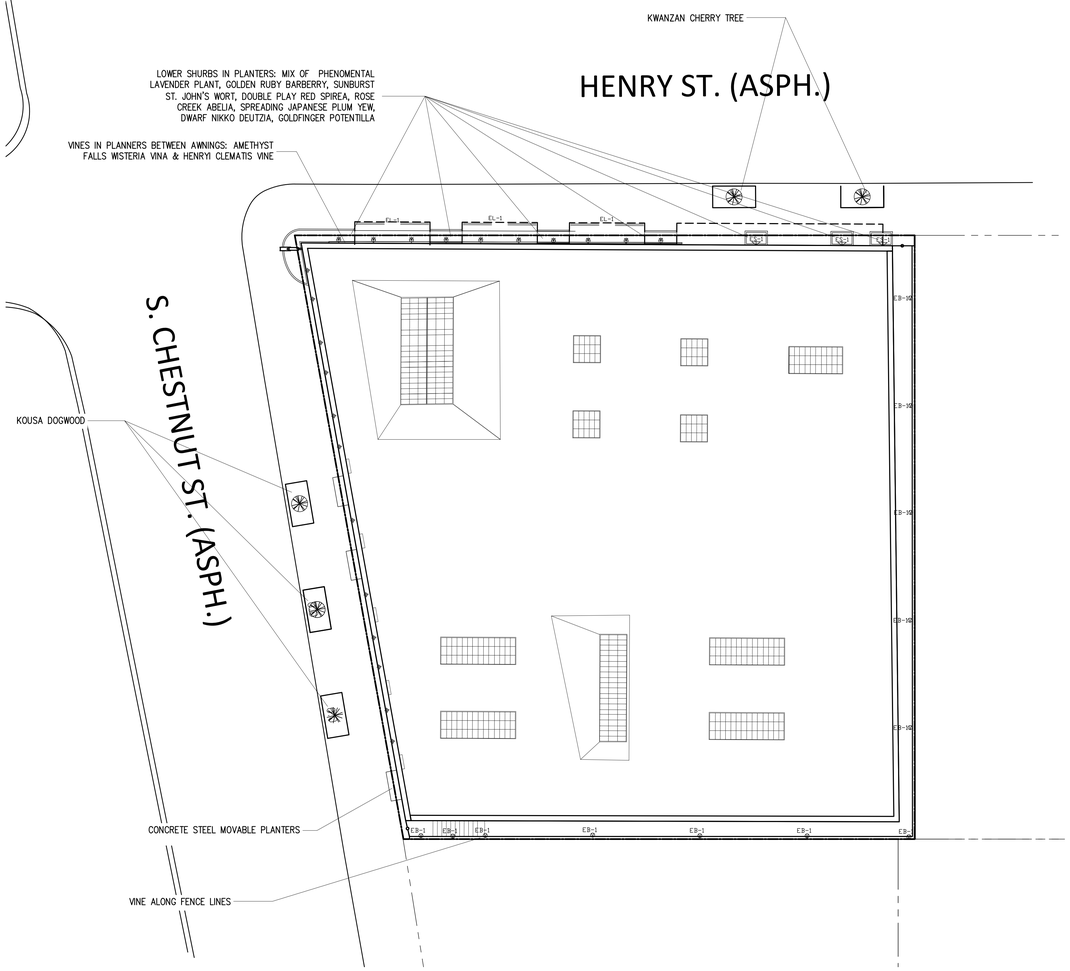
SITE SPECIFIC NOTES:

A. THE PARCEL LIES WITHIN THE T (TRANSITIONAL) ZONING DISTRICT. BUSINESSES ARE A PERMITTED USE WITHIN THIS DISTRICT. CONSULTING WITH THE CITY ZONING ADMINISTRATOR IS RECOMMENDED TO ASSURE ALL TOWN ZONING REQUIREMENTS ARE BEING MET.
B. ALTERATION OF THIS DOCUMENT, EXCEPT BY A NEW YORK STATE LICENSED ENGINEER OR LAND SURVEYOR WITH A 7208-N EXEMPTION OF THE NEW YORK STATE EDUCATION LAW, IS ILLEGAL.
C. WHEN SOIL IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHALL BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME.



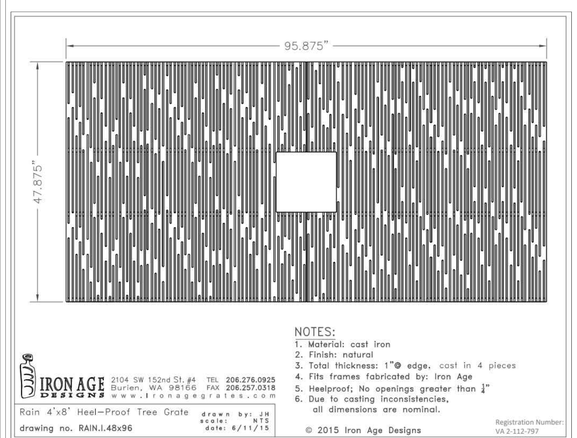
LOCATION MAP SCALE: 1" = 200'

MAP REF.



LANDSCAPING PLAN

SCALE: 1" = 10'



IRON AGE DESIGNS 2104 SW 152nd St. #4 Burien, WA 98166 TEL 206.276.0925 FAX 206.257.0318 www.ironagegrates.com

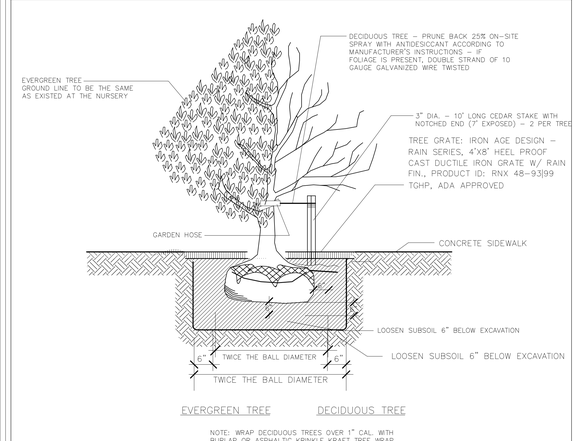
Rain 4'x8' Heel-Proof Tree Grate drawn by: JH scale: NTS date: 6/11/15

drawing no. RAIN.I.48x96

NOTES:
1. Material: cast iron
2. Finish: natural
3. Total thickness: 1"@ edge, cast in 4 pieces
4. Fits frames fabricated by: Iron Age
5. Heelproof; No openings greater than ½"
6. Due to casting inconsistencies, all dimensions are nominal.

© 2015 Iron Age Designs Registration Number: VA 2-112-797

TREE GRATE DETAIL NOT TO SCALE



NOTE: WRAP DECIDUOUS TREES OVER 1" CAL. WITH BURLAP OR ASPHALTIC KRINKLE KRAFT TREE WRAP.

TREE PLANTING DETAIL NOT TO SCALE

LANDSCAPING PLAN & DETAILS

THE GARAGE STUDIOS - BRADEN

CITY OF BEACON DUTCHESS CO., NEW YORK

SCALE(S) - AS NOTED JUNE 27, 2022

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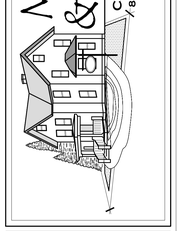

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_____ _____
OWNER DATE

SHEET No.

S3 / S3

M. GILLESPIE & ASSOCIATES
CONSULTING ENGINEERING, P.L.L.C.
CIVIL, SANITARY, ENVIRONMENTAL, ARCHITECTURAL AND SITE
847 ROUTE 376 - WAPPINGERS FALLS, NY 12590 - P. (845) 227-6227 F. (845) 226-1430 - MGAENGRS.COM

September 27, 2022

City of Beacon Planning Board
Attn: Amadna Caputo, Planning Board Secretary
1 Municipal Plaza
Beacon, NY 12508

Re: ***Site Plan for***
The GARAGE Studios - Braden
Tax Map No. 5954-36-939808 – 0.27 ac.
5 Henry St.
City of Beacon

SENT VIA HAND DELIVERY AND EMAIL *(acaputo@beaconny.gov)* ***– 5 pages + attachments***

Dear Madam Secretary -

Please see enclosed within this submission the following:

- Five (5) copies of the Site Plan entitled "The GARAGE Studios – Braden" dated last revised September 27, 2022
- Five (5) copies of the Architectural Plans entitled "5 Henery St. Artist's Studios" dated last revised September 27, 2022

This office is in receipt of a comment letter from John Russo of Lanc & Tully Engineering and Surveying, P.C. dated September 8, 2022 and John Clarke of John Clarke Planning and Design dated September 9, 2022. The plans/documents have been revised and I offer the following formal responses -

John Russo Comments -

General

1. The applicant's consultant has completed an Infiltration and Inflow study of the site and found that there are no connections to the sanitary system that would allow for the inflow of stormwater/groundwater into the City's sanitary sewer system.
   Response: The above comment has been noted.

Site Plan:

1. *The plan shall show where the sewer service leaves the building and the size of the sewer service. Applicant notes this will be provided as part of a future submission.*
   Response: Dye testing has been scheduled to locate the existing line. When information is available it will be added to the plans.

2. Details for the proposed sign called out on the "Proposed Conditions Site Plan" on Sheet S1 should be provided on the drawings. This would include the dimensions of the sign, colors, height, etc.
   Response: The details for the proposed signage has been added to SI of the plans.

3. The "Legend" on Sheet S1 should be updated to reflect all symbols represented on the plan such as, MW, WV, SMH, STMH, etc.
   Response: The Above labels have been added to the legend table.

4. Although street trees are proposed along both South Chestnut and Henry Street, the applicant was previously advised that they would need to contact the utility companies due to the overhead wires located above where the trees are to be planted to determine if there are any restrictions with regards to these proposed plantings due to the overhead lines. The applicant's consultant notes that they have contacted the utility companies and are waiting for a response.
   Response: On 9/16 at 12:20pm I, Illeana Tucker, has a conversation with one of the five utility Forester, Peter McFarland, from Central Hudson. He stated that there are no restrictions/requirements regarding street trees under the overhang wires, but it should be noted that if the tree starts grow into the clearance zone, which is directly under the overhang wire, the tree will be trimmed.

5. The various hatchings and line work on Sheet S2 should be reduced in color scale so that the location of the proposed light fixtures is clear and visible. We would also recommend that each of the light fixtures on the plans be labeled "tag" so that it is clear as to what each fixture will be around the building.
   Response: The plan on S2 has been revised in order to make the lighting visible.

6. The "Shrub Planting Schedule" on Sheet S3 should be revised to include the quantity of each shrub to be planted.
   Response: The quantity is represented in gallons has been added to the shrub schedule.

7. As previously requested, the plans shall include all necessary and pertinent construction details. This would include details for the sidewalk infill, bike racks, fencing, etc.
   Response: Engineering details for the above have been added to the plans.

John Clarke Comments -

1. For the Sheet S1 Site Plan, the proposed bike racks should be shown in a detail on the plans.
   Response: The proposed u-shaped bite rack detail has been added to S1.

2. For the Sheet S2 Lighting Plan
   a. The plans should include pictures of the proposed lighting fixtures and light output, usually in lumens, or a photometric plan. With so many proposed fixtures, the site may be overlit.
      Response: The amount of lighting has been revised. Additionally, the photometric plan has been provided on S2.

   b. The location of the fixtures should be more clearly represented on the Lighting Plan (like Sheet A100) and building elevations.
      Response: The fixtures and labels have been revised to be more visible.

3. For the Sheet S3 Landscaping Plan:

a. The applicant should consult with the Tree Advisory Committee to determine the best well treatment. In a previous Main Street referral, the Committee recommended permeable pavers level to the sidewalk rather than a tree grate.
Response: The Tree Advisory Committee was reached out to on September 16, 2022 and changes to the plans have been made per recommendations. Additionally, while Pete Bailey received response to the changes as per recommendation, below are the formal responses to Pete Bailey comments.

b. The three trees along Chestnut Street are different than the tree species shown on sheets 1and A100.
Response: The tree species on A100 has been corrected.

c. Note A refers to the wrong district.
Response: Note A has been revised to refer to the T district.

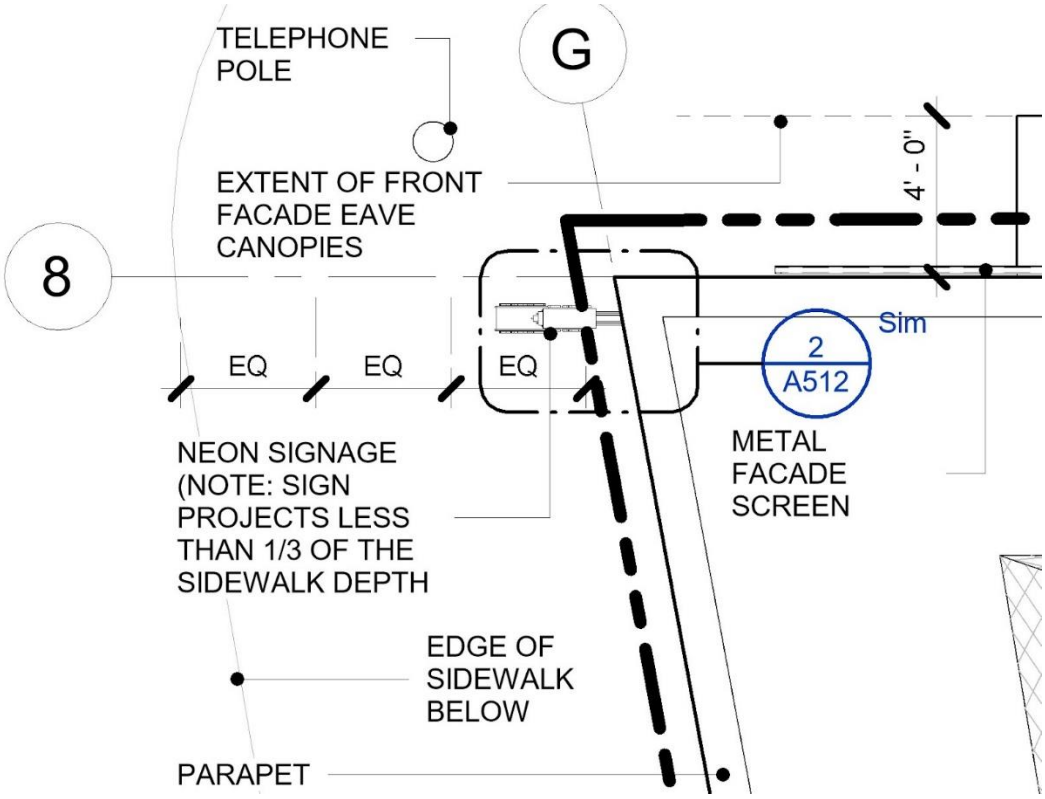
4. The architectural design has been referred to the Architectural Review Subcommittee.
Response: The above comment has been noted.

5. The proposed sign may be inconsistent with provisions in Section 223-15E, as determined by the Building Inspector.
Response: Please refer to the below response from Christopher Hatch.

5 Henry Street Signage Compliance - Responses to the below code requirements are shown in **Blue**

E. Signs in nonresidence districts. In nonresidence districts, the following signs are hereby authorized:

(1) Not more than one sign affixed to the outer wall of the structure within which the permitted use is situated, which outer wall faces the principal street giving access to such structure, provided that: - This requirement is met
(a) The aggregate area of each such sign shall not exceed one square foot for each linear foot of building facing the street. - The sign is approximately 1.55ft wide x 8ft tall = 12.4square feet
(b) No such sign shall exceed two feet in height, except that a vertical projecting wall sign shall not exceed eight feet in height. A vertical projecting wall sign is defined as any sign which is attached to the building wall or structure which is perpendicular to the face of such wall or structure. - The proposed sign on the project is 8ft tall
(c) No sign shall project above the eaves of the building on which it is affixed or, if no eaves exist thereon, the roof, nor shall any sign extend more than six inches into any required yard. - No eaves exist, and the proposed roof is significantly taller than the sign. No yard exists within the location of the signage
(d) No sign shall face an abutting residential zoning district if located within 50 feet of such district. - This requirement is met, the adjacent zone is a transitional zone
(e) Vertical projecting wall signs shall not have more than two faces. - This requirement is met
(f) The exterior edge of a vertical projecting wall sign shall not extend more than five feet from the outer wall of the structure or 1/3 the width of the sidewalk, whichever is less. - This requirement is met, see the diagram below:



(g) No part of a vertical projecting wall sign shall extend into vehicular traffic areas, and any part over pedestrian areas shall have a minimum clearance of seven feet, six inches. - The bottom sign is approximately 9'-7 ⅜" above the sidewalk as indicated in the building elevation drawings.

G. Sign regulations in nonresidence districts.

(1) Illumination. Permitted signs may be internally or externally illuminated, provided that such illumination shall not be twinkling, flashing, intermittent, of changing degrees of intensity or projected outward from the property onto adjacent properties or public rights-of-way and provided that the source of such illumination shall not be visible beyond the boundaries of the lot on which it is located. Notwithstanding the above, neon, LCD and LED signs may be permitted. - This requirement is met; the sign will be illuminated with neon and will have a consistent illumination level when on

(2) Placement. No sign shall be located so as to obscure any signs displayed by public authority, nor shall any sign be placed in such a way as to obstruct proper sight distance or otherwise interfere with pedestrian or traffic flow. - This requirement is met; the sign is not near any existing or proposed street signage.

(3) Setback. Unless otherwise specified, all signs shall be located within the setback lines of the lot or on the building. - There is no setback located in the area of this sign

(4) Repair. All signs and components thereof shall be kept in good repair and in safe, neat, clean and attractive condition. – Understood

(5) Animation. No sign shall be mechanically animated, such as moving, rotating or revolving. - This sign is intended to be static with no operable or moving components

Pete Bailey Comments –

This office is in recipe of comments/recommendation sent via email on September 16, 2022 from Peter Bailey from the Tree Advisory Committee. While a email in response to the comments has been sent to Peter Bailey, below are the following formal response for the planning board records.

1. Please consider planning "Kwanzan Cherry" trees instead of cherry trees. They have similar flowering but do not drop fruit, therefore making them a more manageable tree for the sidewalk/street. The dogwood trees are a great idea.
   Response: The Cherry Trees have been revised to "Kwanza Cherry Tree".

2. When installing the grates, please ensure there is a large enough diameter for the tree to grow without making contact with grate opening. These grates should also be removable to avoid gurgling at the trunk. This will also allow for future weeding, which is not the case with many grates around town.
   Response: The tree grate has a large opening and will easily accommodate these trees.

3. Ther are two trees in the plots that I assume you will need to remove. If possible, we would like to salvage these trees and re-home them instead of simply discarding them. The tree committee would be happy to assist with the. Please let us know your timeline and if this would be possible.
   Response: There are no existing trees on the property.

We would respectfully request that a review commence at your earliest convenience. If you have any additional questions or concerns, please do not hesitate to call. Thank You.

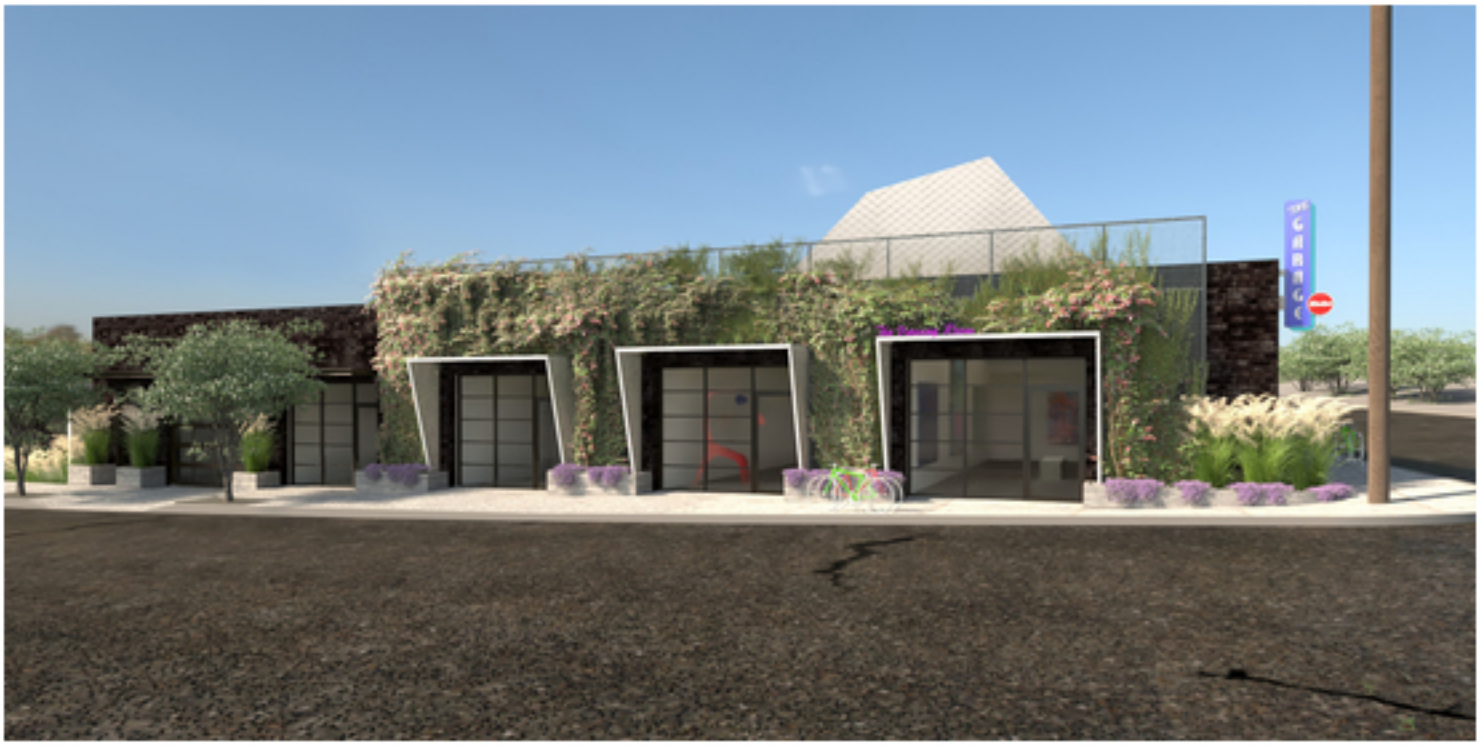
Very truly yours,

Illeana A. Tucker, Associate Engineer
M. Gillespie & Associates, Consulting Engineering, PLLC

cc: file

cg:MEG


GARAGE





John Clarke Planning and Design jclarkeplandesign@gmail.com
845.797.4152

To: John Gunn, Chair, and the City of Beacon Planning Board
Date: October 7, 2022
Re: **The Garage Studios, 5 Henry Street Site Plan**

I have reviewed the September 27, 2022 response letter from M. Gillespie & Associates, 3 undated architectural renderings of the building, 3-sheet Site Plan set from M. Gillespie & Associates, dated September 27, 2022, and a 12-sheet Site Plan set by Hatch Architecture, dated August 26-27, 2022.

Proposal

The applicant is proposing to convert an existing one-story auto repair building into artist studios with 10,860 total square feet of commercial space. The 0.27-acre site is in the Transitional (T) district.

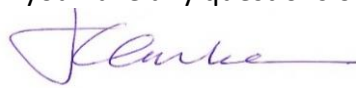
Comments and Recommendations

1. For the Sheet S1 Site Plan:
    a. Three of the four detail drawings are mis-labeled as signage details.
    b. The text on the sign and fence details are too small to be readable.
2. For the Sheet S2 Lighting Plan:
    a. The EB-1 fixture drawing, if it is a bollard-mounted light, should show the post and fixture.
    b. Three different fixtures are labeled as EL-1.
    c. Some of the lighting specification text is too small and light to be readable.
    d. The Photometric Plan should confirm that there is no spillover light onto the adjacent residential properties.
3. For the Sheet S3 Landscaping Plan:
    a. The applicant consulted with the Tree Advisory Committee to determine the best well treatment. Tree grates are acceptable, as long as the center opening is large enough to avoid future contact with the tree trunk and the grates are removable for weeding. Will the proposed grates be removable for cleaning?
    b. Sheet A100 shows the tree wells along South Chestnut Street as landscaped with no grates. What is the proposed planting treatment for these wells?
    c. During discussions with the Planning Board and Architectural Review Subcommittee, the applicant agreed to remove barberry from the Planting Schedule, but it is still on the list.

4. The Architectural Review Subcommittee met with the applicant on September 16, 2022. Six "action items" were identified for further consideration.

5. The Building Inspector generally determines sign compliance, such as whether the proposed projecting sign is taller than the roof, particularly on parcels that are not within the Historic District and Landmark Overlay zone.

If you have any questions or need additional information, please feel free to contact me.



John Clarke, Beacon Planning Consultant

c: Dave Buckley, Building Inspector
Jennifer L. Gray, Esq., City Attorney
Arthur R. Tully, P.E., City Engineer
John Russo, P.E., City Engineer
Michael Gillespie, P.E., Project Engineer

LANC & TULLY
ENGINEERING AND SURVEYING, P.C.

John J. O'Rourke, P.E., Principal
David E. Higgins, P.E., Principal
John Queenan, P.E., Principal
Rodney C. Knowlton, L.S., Principal
Jerry A. Woods, L.S., Principal
John D. Russo, P.E., Principal
John Lanc, P.E., L.S.
Arthur R. Tully, P.E.

October 4, 2022

Mr. John Gunn
Beacon Planning Board Chair
City of Beacon
1 Municipal Plaza
Beacon, NY 12508

RE: The GARAGE Studios - Braden
5 Henry Street
Tax No. 5954-36-939808
City of Beacon

Dear Mr. Gunn:

My office has received the following regarding a site plan for 5 Henry Street:

- Response correspondence dated September 27, 2022, from M. Gillespie & Associates.
- Architectural plan set titled "The Garage Art Studio", consisting of 12 sheets, with sheets 1 and 4 thru 9 having a date of August 26, 2022, and sheets 2, 3, and 10 thru 12 having a date of August 27, 2022, as prepared by Hatch Architecture Inc.
- Plan set titled "The Garage Studios - Braden", with the latest revision date of September 27, 2022, consisting of Sheets S1 through S3 of S3, prepared by M. Gillespie & Associates.

The proposed project entails the re-use of an existing building located at the intersection of Henry Street and South Chestnut Street for an art studio. The site is located in the T Zone. Based on our review of the above documents and plans, we would like to offer the following comments:

General Comments:

Site Plan Set:

1. All the details located at the top of the 1st sheet on the site plan shall be properly titled, as they currently are all titled "Proposed Signage Details".

2. The plan shall show where the sewer service leaves the building and the size of the sewer service. ***Applicant notes this will be provided as part of a future submission.***

3. The proposed sidewalk and curb detail on the top of the first sheet shall reflect a full curb depth, and the sidewalk and curb shall be monolithic. The detail shall also clarify where the proposed underdrain shown within the detail is to be installed. The plan shall clearly show where new sidewalk and curbing are to be installed as part of the project.

4. The "Legend" on Sheet S1 should be revised to reflect the water main as the "-w-w-" symbol, not as a water service. Also, the legend notes the MW symbol on the plan to be the water main, but the water main is clearly shown out within the roadway. Again, what do the MW symbols on the plan represent that are shown along the front of the building on Henry Street?

5. The "Shrub Planting Schedule" on Sheet S3 should be revised to include the quantity of each shrub to be planted. The gallon size listed is typically the size of the container that a single shrub is supplied in. We again recommend tha that the planting plan be updated to reflect the number of each shrub to be planted.

6. As trees are being planted within the City's road right-of-way, who will be responsible for maintaining these trees? If the applicant will be maintaining these trees and the tree planters, a note shall be added to the plans stating such.

This completes our review at this time. Further comments may be provided based on future submissions. **A written response letter addressing each of the above comments should be provided with the next submission.** If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.

John Russo, P.E.

cc: John Clarke, Planner
Jennifer Gray, Esq.
David Buckley, Building Inspector

City of Beacon Planning Board Agenda
10/12/2022

Title:

Continue Public Hearing on SEQRA environmental review on application for Subdivision Approval, 12 Highland Place, submitted by Lori Joseph Builders, Inc **(POSTPONED TO NOVEMBER 9, 2022)**

ATTACHMENTS

City of Beacon_12 Highland Place Subdivision Response Letter_2022-0927.pdf

Highland Place Subdivision_Sheet 1_Cover Sheet.pdf

Highland Place Subdivision_Sheet 2_Existing Conditions Plan.pdf

Highland Place Subdivision_Sheet 3_Subdivision Plat.pdf

Highland Place Subdivision_Sheet 4_Subdivision Plan.pdf

Highland Place Subdivision_Sheet 5_Grading & Utility Plan.pdf

Highland Place Subdivision_Sheet 6_Erosion & Sediment Control Plan.pdf

Highland Place Subdivision_Sheet 7_Construction Details.pdf

Highland Place Subdivision_Sheet 8_Construction Details.pdf

Planners Comments 12 Highland Pl Sub 10.7.22.pdf

Engineers Comments 12 Highland 10-06-22.pdf

HUDSON
LAND DESIGN

Civil & Environmental Engineering Consultants
174 Main Street, Beacon, New York 12508 (Main Office and Mailing Address)
13 Chambers Street, Newburgh, NY 12550 (Satellite Office)
Phone: 845-440-6926 Fax: 845-440-6637
www.HudsonLandDesign.com

September 27, 2022

Hon. John Gunn, Chairman
City of Beacon Planning Board
1 Municipal Plaza
Beacon, NY 12508

Re: 12 Highland Place Subdivision
Lori Joseph Builders, Inc. (Applicant)
12 Highland Place
Tax Parcel: 6054-31-306777, ±1.07 ac.
City of Beacon, NY

Dear Chairman Gunn and Members of the Planning Board:

On behalf of the Applicant for the above referenced project, Hudson Land Design (HLD) has revised the plans in response to John Clarke Planning and Design's September 9, 2022 comment letter, and Lanc & Tully's September 6, 2022 comment letter. Responses to public comments is also provided in this letter. Below is a point-by-point response to the comment letters and public comments.

John Clark Planning and Design September 9, 2022 Comment Letter

1. All previous comments have been addressed. It is noted that Lots 1, 2 and 3, all front on Grove street with a sidewalk leading to the intersection at Grove Street and Highland Place, as the gabion retaining wall prevents direct access to Grove Street.

Lanc & Tully September 6, 2022 Comment Letter

General Comments

1. Comment noted.
2. Comment noted. A maintenance agreement for the private road will be provided in a future submittal after SEQR is closed.
3. Comment noted. A bond estimate will be provided in a future submittal after SEQR is closed.
4. Comment noted. Easement descriptions will be provided in a future submittal after SEQR is closed.

Sheet 2 of 7:

1. Test Pit No.1 has been revised to note bedrock.

Sheet 4 of 7:

1. The previously proposed retaining walls on Lot 3 and 4 have been removed from the project. A 1-2' high tree well is proposed surrounding the existing Maple to be protected on Lot 3. It is noted that stairs to front doors are now proposed on Lots 1, 2 and 3. A handrail detail will be provided in a future submittal once the style is selected.
2. See response 1. The retaining walls have been removed and the tree well is not greater than 4 feet in height.
3. The rim on YD1 has been lowered such that it will receive surface runoff along the frontage of Lots 1 and 2. The basin has also been raised to minimum depth in order to reduce the amount of rock removal. A note has been added to the plans requiring Lots 1 and 2 to be provided with sump pumps for the footing drains; however, excess groundwater is not expected to be an issue as the site lies at a highpoint.
4. Comment Noted. The footing drain has been removed from Lot 5. It is noted that an additional Sheet 5 has been added to the plans illustrating the grading and utility plan only for clarity. Sheet 4 "Subdivision Plan" illustrates only site plan items and dimensions. The Erosion and Sediment Control Plan has been moved to Sheet 6.
5. The rim of catch basin 1 has been lowered to be slightly below the edge of pavement elevation.
6. A 12" HDPE culvert is now provided beneath the private road to intercept drainage from the swale line from the private road, and from Highland Place.
7. The slope of the 15" storm pipe running between CB-1 and CB-2 is provided on the plan.
8. The legend has been revised to include the "BV" symbol.
9. The swale line has been shifted away from the 1" water service line.

Sheet 6 of 7:

1. The private road cross section detail has been revised to note that the finished surface is to be a minimum of 18 feet in width.

Sheet 7 of 7:

1. A temporary tree protection detail has been added to sheet 8 of 8.

Public Comments

1. *Impacts on Traffic*

   Response: The proposed subdivision of 4 new single family dwelling units will only add an average of 8 vehicles to the City streets per day. Trip Generation Analysis per Institute of Transportation Engineers (ITE) 11th Edition standards show 5 trips in the AM peak hour, and 5 to 6 trips in the PM peak hour. The total daily trips generated would be approximately 25 trips in and 25 trips out. This number of trips is not enough to impact traffic patterns, traffic function or change the level of service of the local streets surrounding the proposed project.

2. *Drainage Impacts*

   Response: A closed pipe network drainage system is proposed for the project that will collect runoff from the majority of the site and convey it to the City's closed drainage system. Existing catch basins are located at the intersection of Grove Street and Highland Place, and at Grove Street and Anderson Street. Both existing catch basins are located on the project side of the intersections and currently collect all runoff from the site. They will continue to collect all runoff generated from the site. The drainage system in the vicinity of the project was replaced in 2002 with additional catch basins and larger pipe sizes. The system should be more than adequate to accept runoff from the proposed project. It is noted that the driveways for Lots 1, 2 and 3 have been further reduced from 20 feet wide to 18 feet wide to reduce proposed impervious surface. It is further noted that an erosion and sediment control (E&SC) plan has been prepared for the project that will provide E&SC measures to contain disturbed soil on the site and minimize offsite impacts.

3. *Sewer Impacts*

   Response: Proposed Lots 1, 2, 4 and 5 will be connected to the 8" sewer within Highland Place and Lot 3 will use the existing connections to Grove Street. The 8" line in Highland Place is sloped at 6%. There are only 4 existing residential dwellings on the 8" line currently. Four additional dwellings will be added to the line. Conservatively estimating if all contributing dwellings were 4 bedrooms, the total daily flow at 110 gallons per day (GPD) per bedroom to that line would only be 3,520 GPD. An 8" sewer line flowing full at 6% slope can carry up to 1,973,098 GPD, which amounts to approximately 4,484 four-bedroom homes. There will only be 8 homes on that line. Therefore, the 8" line within Highland Place has excess capacity to accept the additional flows. Therefore, there will be no impact to the 8" line within Highland Place. The 8" line from Highland Place flows into a manhole at Grove Street and continues west along Grove Street. The line in Grove Street is also 8" that was replaced during the 2002 improvements. It is noted that an 8" sewer main size is the most common sewer main size within the City of Beacon; many of which carry many more houses than will be on the Highland Place 8" line.

4. *Parking Impacts*

   Response: Two parking spaces are provided on each lot which meets the requirements in code section 223-26 F..

5. *Removal or Rock and Noise Impacts*

   Response: It is noted that soil tests have been conducted at the center of each proposed house location. Lots 1, 2 and 3 rock depths are at 72", 60" and 84" respectively. Lots 1 and 2 have been raised since the last submission to further minimize any rock removal necessary for the installation of basements and foundations based upon the soil test results on the site. Lot 3 was already at an elevation that would not require rock removal based upon the soil test. Yard Basin 1 and Catch Basin 2 have also been raised as much as possible to minimize rock removal. Rock removal may require removal by hammering at times. The Applicant has committed to following construction timeframes allowable by code and minimizing hammering of rock, and noise associated with it. The Applicant is also committed to not hammering rock on weekends.

6. *Removal of Rock and Vibration Impacts*

   Response: See response #6. The rock removal that was conducted during the 2002 improvements in Grove Street were very close to structures along Grove Street (within 10 feet) that claimed were impacted by the hammering of rock. The rock removal (if required) that will take place on the site will be located farther away (about 35 -40 feet) from the closest residential dwellings to the site. The removal of rock is farther away from adjacent structures than the improvements that were completed in 2002, and the amount of rock removal is much less.

7. *"Highland Place is like a private road and can't handle additional traffic"*

   Response: Highland Place pavement width ranges from 22- 23 feet wide along the frontage of the proposed subdivision which is wider than an 18' wide private road. It is further noted that Highland Place is a City Street, not a private road and is not bound by curbing along its edges. Therefore, there is additional available shoulder buffer than the 22–23-foot pavement width with curbing would allow.

8. *Indiana Bat Impacts and Tree Removal*

   Response: Indiana bats roost and forage in trees during their active period, and 85% of all Indian Bats hibernate in seven caves or mines. Therefore, they do not "live" on the subject property during hibernation. The NYSDEC recognizes that impacts to bats can come from cutting trees during the active period or if trees are removed within 0.25 miles of known bat hibernacula. There are no known caves within 0.25 miles of the subject site, nor is there a known roost site on the subject property. Indiana bats are known to roost in larger numbers (300-400 bats per square foot). This small parcel does not support roosting habitat as it is located within an urban area with roads on three sides. It is noted that this parcel just falls within the Indiana Bat check zone as delineated by the NYSDEC Environmental Resource Mapper. A note has been added to the plans requiring that trees will only be removed during the bats' hibernation period which is from October 1 through March 31st. It is noted that only 7 trees with a caliper of 8" or greater are being removed, and that 5 deciduous trees and 6 conifers for a total of 11 trees are being added as part of the project.

9. *Reference to Code Section 195-24 G.(1)*

   Response: Proposed Lots 1, 2 and 3 are within the R 1-5 zoning district and conform to said district. Proposed Lots 4 and 5 are located within the R 1-10 zoning district and comply with said zoning district. Lot 4 is the only lot that crosses a zoning district line; however, if fully complies with the R 1-10 bulk regulations. The existing garage for Lot 4 is right on the zoning district line. The lot had to be extended into the R 1-5 district to provide the minimum side-yard setback within the R 1-10 district.

10. *Reference to Spot Zoning*

    Response: The southern portion of the site lies within the R 1-5 zoning district, and the north portion lies within the R 1-10 zoning district. The parcels have been zoned in these districts for several years. It is noted that the R 1-5 ZD extends all of the way south to Madsion Avenue and is the predominant zoning district in all of Beacon.

11. *Reference to Address and Mailbox Locations*

    Response: Dutchess County 911 will establish the addresses for the lots. A mailbox cluster will be placed at the edge of the proposed private road approximately 25 feet into the parcel

for mail carrier convenience and to keep the subdivision residence from blocking Highland Place when picking up mail.

12. Reference to Cutting Trees Off Property

Response: No trees are proposed to be cut outside of the property except for some small trees and brush along the Highland Place frontage.

The proposed deciduous trees have been diversified as requested by the planning board. In addition, 6 Thuja Green Giants are proposed at the east side of Lot 1 and 2 driveways to screen parked cars from Highland Place. The Applicant plans on a 12–24-month construction timeframe. It is our opinion that the proposed project meets all applicable code and addresses all environmental impacts associated with a project of this size.

Please find five (5) hard copies of the revised subdivision set consisting of 8 sheets for review. We look forward to your October 11, 2022 planning board agenda to close SEQR, and to schedule a Subdivision public hearing. Should you have any questions, please feel free to contact me at 845-440-6926.

Sincerely,



Michael A. Bodendorf, P.E.
Principal

cc: Gary Joseph (w/ attachments)
Daniel G. Koehler, P.E. (HLD file)

HIGHLAND PLACE SUBDIVISION

RESIDENTIAL SUBDIVISION

12 HIGHLAND PLACE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK

PARCEL INFORMATION:
TAX ID: 6054-31-306777
TOTAL LOT AREA: ±1.07 ACRES
ZONING DISTRICT: R1-10 & R1-5

PROJECT INFORMATION:	
PARCEL OWNER:	GARY JOSEPH, XXX, BEACON NY 12508
PROJECT ENGINEER:	HUDSON LAND DESIGN P.C., 174 MAIN STREET, BEACON NY 12508
PARCEL LOCATION:	12 HIGHLAND PLACE, BEACON NY 12508
TAX PARCEL ID:	6054-31-306777
PARCEL AREA:	±1.07 ACRES
WATER SUPPLY:	PROPOSED MUNICIPAL
SEWAGE DISPOSAL:	PROPOSED MUNICIPAL



SITE LOCATION MAP SCALE: 1" = 400'

ADJOINING OWNERS (WITHIN 100 FEET):
PARCEL: OWNER & ADDRESS
1. HOWARD BANICK, 18 MEAD AVENUE, BEACON NY 12508
2. ANNE THOMAS, 22 HIGHLAND PLACE, BEACON NY 12508
3. EVERETT GIFFORD, 21 HIGHLAND PLACE, BEACON NY 12508
4. JASON MCREDO, 11 HIGHLAND PLACE, BEACON NY 12508
5. PAUL LYONS, 7 HIGHLAND PLACE, BEACON NY 12508
6. ANNE GUAQUIE, 64 GROVE STREET, BEACON NY 12508
7. SANDRA FITZGERALD, 14 GARDEN PLACE, BEACON NY 12508
8. PATRICIA KOMISAR, 43 GROVE STREET, BEACON NY 12508
9. CARLTON GOOD, 39 GROVE STREET, BEACON NY 12508
10. AHLENA LEON, 31 GROVE STREET, BEACON NY 12508
11. MEREDITH HEUER, 24 GROVE STREET, BEACON NY 12508
12. CITY OF BEACON SCHOOL DISTRICT, 10 EDUCATION DRIVE, BEACON NY 12508

PROJECT ENGINEER:
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN STREET
BEACON, NEW YORK 12508
PH: 845-440-6926
F: 845-440-6637

OWNER/APPLICANT:
GARY JOSEPH
LORI JOSEPH BUILDERS, INC.
1 EAST MAIN STREET
BEACON, NEW YORK 12508
PH: 845-416-1808

PROJECT SURVEYOR:
BRENDAN JOHNSON, PLS
10 MEADOW LANE
PLEASANT VALLEY, NEW YORK 12569
PH: 845-380-0528

DRAWING INDEX:
SHEET 1: COVER SHEET (CV-1)
SHEET 2: EXISTING CONDITIONS & REMOVALS PLAN (XC-1)
SHEET 3: PRELIMINARY SUBDIVISION PLAT (PT-1)
SHEET 4: SUBDIVISION PLAN (SP-1)
SHEET 5: GRADING & UTILITY PLAN (GU-1)
SHEET 6: EROSION & SEDIMENT CONTROL PLAN (ESC-1)
SHEET 7: CONSTRUCTION DETAILS (CD-1)
SHEET 8: CONSTRUCTION DETAILS (CD-2)

OWNER'S CONSENT:
THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
GARY JOSEPH DATE

DCDBCH APPROVAL BLOCK
DUTCHESS COUNTY DEPARTMENT OF HEALTH
POUGHKEESPIE, NEW YORK

RECOMMENDED FOR APPROVAL BY:

_____

THIS IS TO CERTIFY THAT THE PROPOSED ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL FOR THE RESIDENTIAL SUBDIVISION TO BE KNOWN AS

HIGHLAND PLACE SUBDIVISION

IN THE CITY OF BEACON WERE APPROVED ON_____

IN ACCORDANCE WITH PLANS ON FILE IN THE OFFICE OF THE DUTCHESS COUNTY DEPARTMENT OF HEALTH. CONSENT IS HEREBY GIVEN TO THE FILING OF THE MAP ON WHICH THIS ENDORSEMENT APPEARS IN THE OFFICE OF THE COUNTY CLERK OF DUTCHESS COUNTY IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 11 TITLE 2 OF THE NEW YORK STATE PUBLIC HEALTH LAW AND ARTICLE 17 TITLE 15 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW, AND ARTICLE 11 OF THE DUTCHESS COUNTY SANITARY CODE.

_____
SUPERVISING PUBLIC HEALTH ENGINEER

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	7/26/22	PER PLANNING BOARD COMMENTS	CMB				
2	8/29/22	PER PLANNING BOARD COMMENTS	CMB				
3	9/27/22	PER PLANNING BOARD COMMENTS	CMB				

Dig Safely. New York Call 811 before you dig

STATE OF NEW YORK MICHAEL A. BODENDORF 084468 LICENSED PROFESSIONAL ENGINEER
SEAL

HUDSON LAND DESIGN
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

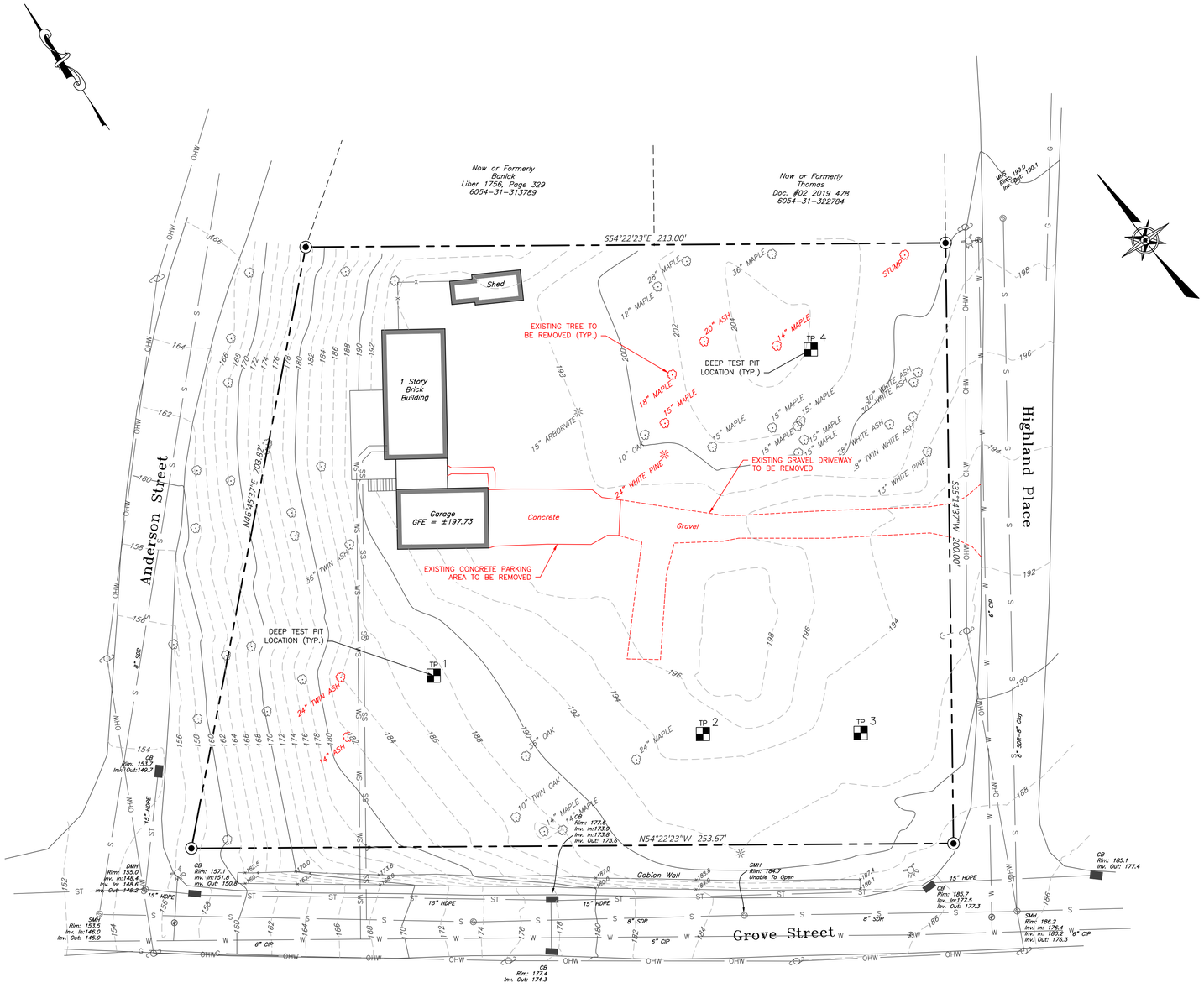
COVER SHEET

HIGHLAND PLACE SUBDIVISION

12 HIGHLAND PLACE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-306777

JOB #: 2022:011
DATE: 6/28/2022
SCALE: AS SHOWN
TITLE: CV-1
SHEET: 1 OF 8

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- ZONING DISTRICT BOUNDARY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- EXISTING WATER LINE
- EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING ROOF LEADER
- EXISTING CATCH BASIN

SURVEY REFERENCE:

1. "BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED FOR JOSEPH" DATED JUNE 6, 2022 AS PREPARED BY BRENDAN JOHNSON PLS. (845) 380-0528.

SURVEY NOTES:

1. COPYRIGHT JOHNSON SURVEYING. ALL RIGHTS RESERVED. REPRODUCTION OR COPYING OF THIS DOCUMENT MAY BE A VIOLATION OF COPYRIGHT LAW UNLESS PERMISSION OF THE AUTHOR AND / OR COPYRIGHT HOLDER IS OBTAINED.
2. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.
3. ONLY BOUNDARY SURVEY MAPS WITH THE SURVEYOR'S EMBOSSED OR RED INKED SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE SURVEYOR'S ORIGINAL WORK AND OPINION. A COPY OF THIS DOCUMENT WITHOUT A PROPER APPLICATION OF THE SURVEYOR'S EMBOSSED OR RED INKED SEAL SHOULD BE ASSUMED TO BE AN UNAUTHORIZED COPY.
4. CERTIFICATIONS ON THIS BOUNDARY SURVEY MAP SIGNIFY THAT THE MAP WAS PREPARED IN ACCORDANCE WITH THE CURRENT EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS, INC. THE CERTIFICATION IS LIMITED TO PERSONS FOR WHOM THE BOUNDARY SURVEY MAP IS PREPARED, TO THE TITLE COMPANY, TO THE GOVERNMENTAL AGENCY, AND TO THE LENDING INSTITUTION LISTED ON THIS BOUNDARY SURVEY MAP.
5. THE CERTIFICATIONS HEREIN ARE NOT TRANSFERABLE.
6. THE LOCATION OF UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS ARE NOT ALWAYS KNOWN AND OFTEN MUST BE ESTIMATED. IF ANY UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS EXIST OR ARE SHOWN, THE IMPROVEMENTS OR ENCROACHMENTS ARE NOT COVERED BY THIS CERTIFICATE.
7. SUBJECT TO THE FINDINGS OF A CURRENT TITLE SEARCH.
8. SUBJECT TO COVENANTS, EASEMENTS, RESTRICTIONS, CONDITIONS AND AGREEMENTS OF RECORD.
9. SUBJECT TO ANY RIGHT, TITLE OR INTEREST THE PUBLIC MAY HAVE FOR HIGHWAY USE.
10. BEARINGS AND NORTH SHOWN HEREON ARE REFERENCED TO NAD 83-NY EAST USING NYSNET RTN GPS.
11. CONTOUR INTERVAL IS TWO FOOT. ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD 88 USING NYSNET RTN GPS.

DEEP TEST HOLE TABLE:

DEEP TEST HOLE RESULTS ESTABLISHED ON AUGUST 25, 2022 AND DIRECTED BY HLD.

TP1: 3" TOPSOIL, 3"-84" SAND-GRAVELLY LOAM. BEDROCK AT 84".
TP2: 4" TOPSOIL, 4"-48" SAND-GRAVELLY LOAM. BEDROCK AT 48".
TP3: 3" TOPSOIL, 3"-94" SANDY-SILTY LOAM. BEDROCK SHELF (SOUTH SIDE) AT 72".
TP4: 2" TOPSOIL. BEDROCK AT 2".

EXISTING CONDITIONS & REMOVALS PLAN

SCALE: 1" = 20'

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

OWNER'S CONSENT:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ GARY JOSEPH

_____ DATE

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	7/26/22	PER PLANNING BOARD COMMENTS	CMB				
2	8/29/22	PER PLANNING BOARD COMMENTS	CMB				
3	9/27/22	PER PLANNING BOARD COMMENTS	CMB				

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STATE OF NEW YORK MICHAEL A. BODENDORF 084466 LICENSED PROFESSIONAL ENGINEER

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13 CHAMBERS ST, NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

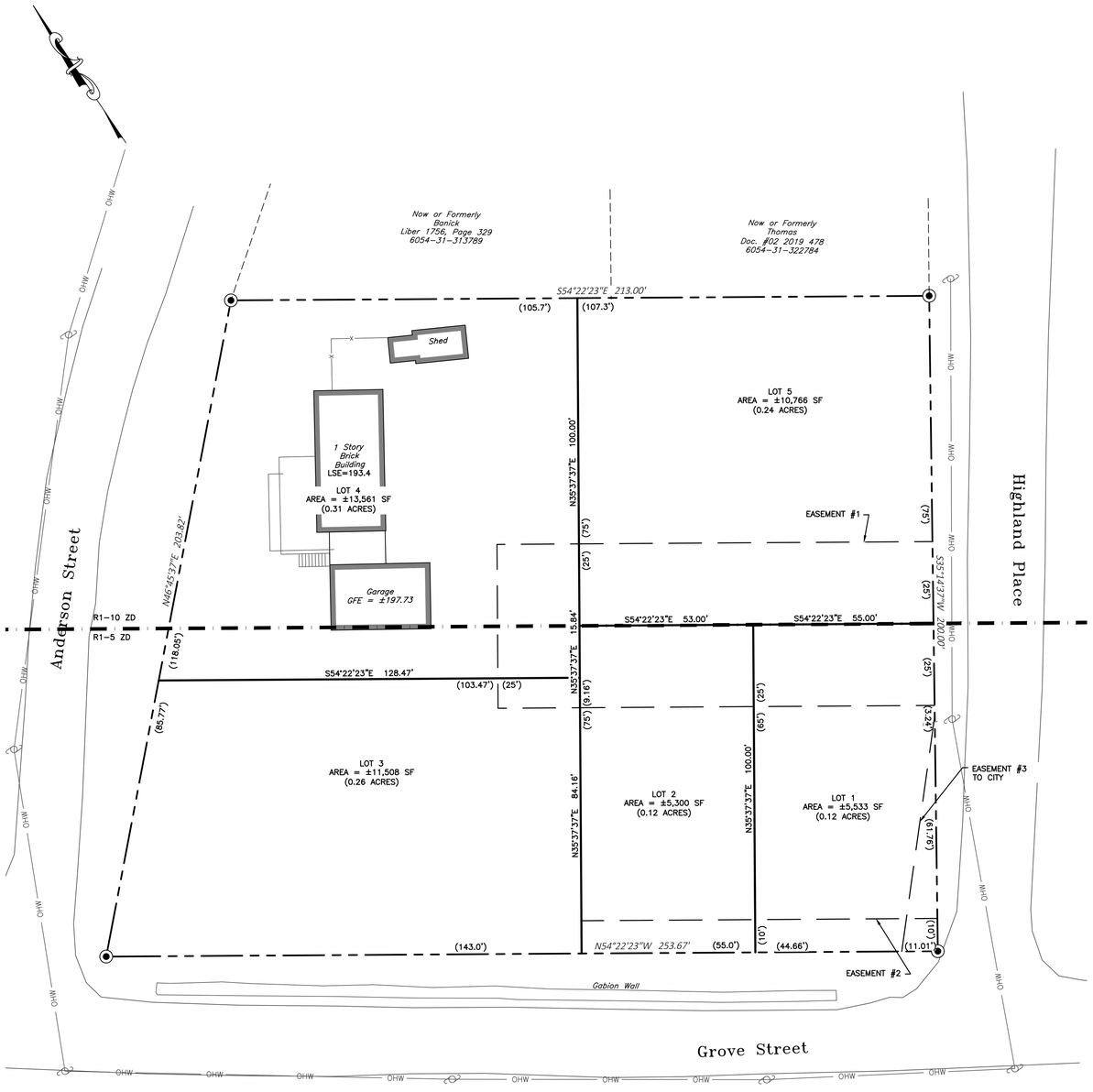
EXISTING CONDITIONS & REMOVALS PLAN

HIGHLAND PLACE SUBDIVISION

12 HIGHLAND PLACE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-306777

JOB #: 2022:011
DATE: 6/28/2022
SCALE: 1" = 20'
TITLE: XC-1
SHEET: 2 OF 8

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



SUBDIVISION PLAT
SCALE: 1" = 20'

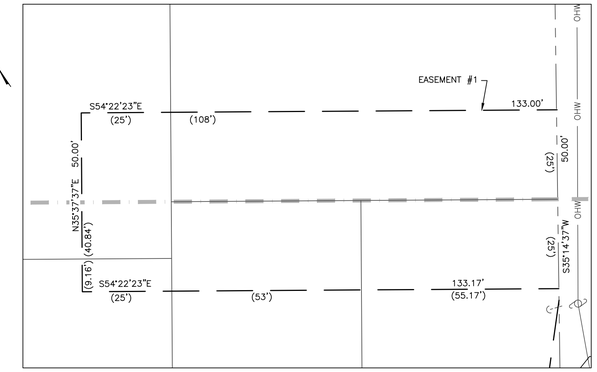
GRAPHIC SCALE

20 0 10 20 40 80

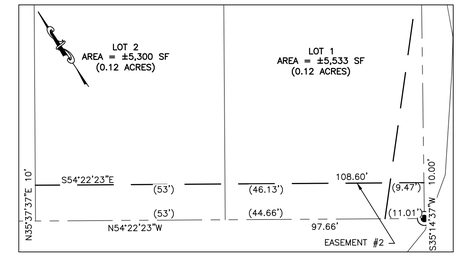
(IN FEET)
1 inch = 20 ft.

LEGEND:

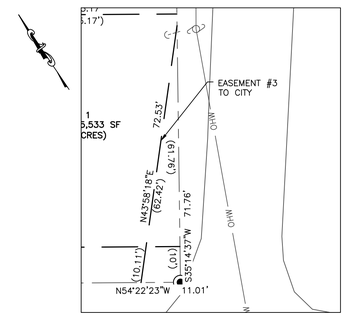
- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- ZONING DISTRICT BOUNDARY
- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- PROPOSED EASEMENT



EASEMENT #1
SCALE: 1" = 20'



EASEMENT #2
SCALE: 1" = 20'



EASEMENT #3
SCALE: 1" = 20'

SCHEDULE OF REGULATIONS (R1-5 ZONING DISTRICT) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT	LOT #1	LOT #2	LOT #3
LOT AREA:	5,000 SQUARE FEET MIN.	5,533 S.F.	5,300 S.F.	11,508 S.F.
LOT WIDTH:	50 FEET MINIMUM	55 FEET	53 FEET	84.16 FEET
LOT DEPTH:	100 FEET MINIMUM	100 FEET	100 FEET	128.47 FEET

SCHEDULE OF REGULATIONS (R1-10 ZONING DISTRICT) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT	LOT 4	LOT 5
LOT AREA:	10,000 SQFT MIN./UNIT	±13,561 SQFT	±10,766 SQFT
LOT WIDTH:	85 FEET MINIMUM	±115.8 FEET	±100 FEET
LOT DEPTH:	100 FEET MINIMUM	±105.7 FEET	±107.3 FEET

SURVEY REFERENCE:
1. "BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED FOR JOSEPH" DATED JUNE 6, 2022 AS PREPARED BY BRENDAN JOHNSON PLS. (845) 380-0528.

SURVEY NOTES:
1. COPYRIGHT JOHNSON SURVEYING. ALL RIGHTS RESERVED. REPRODUCTION OR COPYING OF THIS DOCUMENT MAY BE A VIOLATION OF COPYRIGHT LAW UNLESS PERMISSION OF THE AUTHOR AND / OR COPYRIGHT HOLDER IS OBTAINED.
2. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.
3. ONLY BOUNDARY SURVEY MAPS WITH THE SURVEYOR'S EMBOSSED OR RED INKED SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE SURVEYOR'S ORIGINAL WORK AND OPINION. A COPY OF THIS DOCUMENT WITHOUT A PROPER APPLICATION OF THE SURVEYOR'S EMBOSSED OR RED INKED SEAL SHOULD BE ASSUMED TO BE AN UNAUTHORIZED COPY.
4. CERTIFICATIONS ON THIS BOUNDARY SURVEY MAP SIGNIFY THAT THE MAP WAS PREPARED IN ACCORDANCE WITH THE CURRENT EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS, INC. THE CERTIFICATION IS LIMITED TO PERSONS FOR WHOM THE BOUNDARY SURVEY MAP IS PREPARED, TO THE TITLE COMPANY, TO THE GOVERNMENTAL AGENCY, AND TO THE LENDING INSTITUTION LISTED ON THIS BOUNDARY SURVEY MAP.
5. THE CERTIFICATIONS HEREIN ARE NOT TRANSFERABLE.
6. THE LOCATION OF UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS ARE NOT ALWAYS KNOWN AND OFTEN MUST BE ESTIMATED. IF ANY UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS EXIST OR ARE SHOWN, THE IMPROVEMENTS OR ENCROACHMENTS ARE NOT COVERED BY THIS CERTIFICATE.
7. SUBJECT TO THE FINDINGS OF A CURRENT TITLE SEARCH.
8. SUBJECT TO COVENANTS, EASEMENTS, RESTRICTIONS, CONDITIONS AND AGREEMENTS OF RECORD.
9. SUBJECT TO ANY RIGHT, TITLE OR INTEREST THE PUBLIC MAY HAVE FOR HIGHWAY USE.
10. BEARINGS AND NORTH SHOWN HEREON ARE REFERENCED TO NAD 83-NY EAST USING NYSNET RTN GPS.
11. CONTOUR INTERVAL IS TWO FOOT. ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD 88 USING NYSNET RTN GPS.

TOTAL PARCEL AREA:
±46,669 SF OR 1.071 ACRES

TAX MAP REFERENCE:
CITY OF BEACON 6054-31-306777

FLOOD BOUNDARY:
SUBJECT PARCEL IS LOCATED IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANGE FLOODPLAIN) PER PANEL 36027C0464E DATED MAY 2, 2012.

WETLAND NOTE:
NO NYSDEC OR FEDERAL WETLANDS WERE FOUND ONSITE.

SUBDIVISION NOTES:
1. EASEMENT #1 IS AN ACCESS AND UTILITY EASEMENT OVER LOTS 1, 2, 3, 4 AND 5 FOR PRIVATE ROAD ACCESS TO ALL LOTS, AND UNDERGROUND UTILITIES TO LOTS 2 & 4.
2. EASEMENT #2 IS A UTILITY EASEMENT OVER LOT 1 FOR THE BENEFIT OF LOT 2.
3. EASEMENT #3 IS A UTILITY EASEMENT OVER LOT 1 FOR THE BENEFIT OF THE CITY OF BEACON.
4. THE SUBDIVISION CONTAINS A PRIVATE ROAD WHICH THE CITY OF BEACON HAS NO RESPONSIBILITY TO MAINTAIN, PROVIDE SERVICE FOR, NOR MAKE ANY IMPROVEMENTS TO; ALL SUCH COSTS SHALL BE BORNE BY THE PROPERTY OWNERS USING SAID ROAD IN ACCORDANCE WITH THE TERMS OF A MAINTENANCE DECLARATION OR AGREEMENT.

I HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED ON FEBRUARY 16, 2022.

BY: _____
BRENDAN JOHNSON, P.L.S. N.Y. State Lic. no. 50031

OWNER'S CONSENT:
THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
GARY JOSEPH DATE

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_____ SECRETARY

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PRELIMINARY SUBDIVISION PLAT

HIGHLAND PLACE SUBDIVISION

12 HIGHLAND PLACE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-306777

JOB #:	2022:011
DATE:	6/28/2022
SCALE:	1" = 20'
TITLE:	PT-1
SHEET:	3 OF 8

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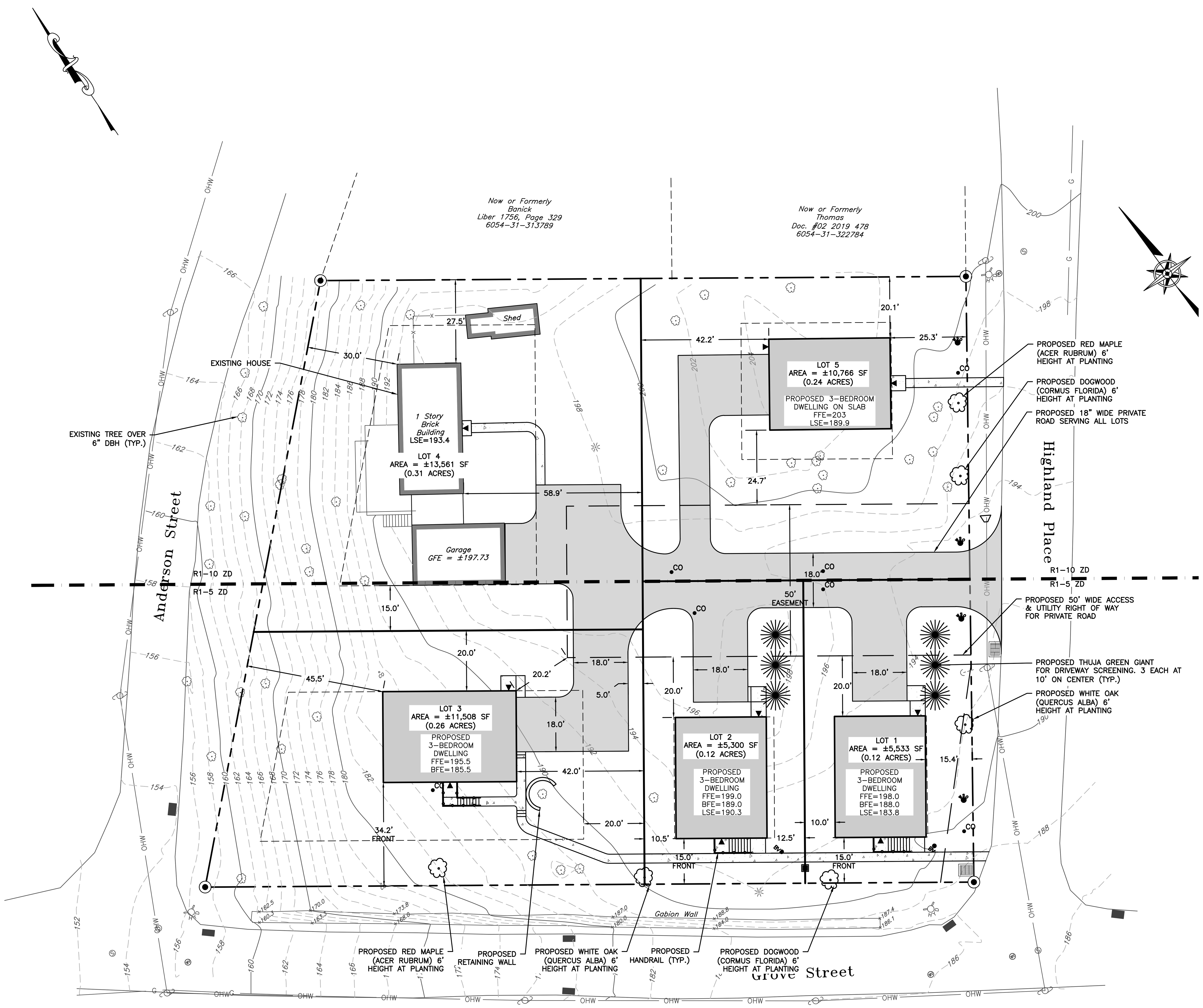

SUBDIVISION PLAN

SCALE: 1" = 20'

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- ZONING DISTRICT BOUNDARY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- EXISTING WATER LINE
- EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING ROOF LEADER
- EXISTING CATCH BASIN
- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- PROPOSED EASEMENT
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED STORM WATER LINE
- PROPOSED ROOF LEADER LINE
- PROPOSED FOOTING DRAIN LINE
- PROPOSED YARD DRAIN
- PROPOSED BACKFLOW PREVENTION DEVICE
- PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED ENTRY DOOR LOCATION

SCHEDULE OF REGULATIONS (R1-5 ZONING DISTRICT) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT	LOT #1	LOT #2	LOT #3
LOT AREA:	5,000 SQUARE FEET MIN	5,533 S.F.	5,300 S.F.	11,508 S.F.
LOT WIDTH:	50 FEET MINIMUM	55 FEET	53 FEET	84.16 FEET
LOT DEPTH:	100 FEET MINIMUM	100 FEET	100 FEET	128.47 FEET
YARD SETBACKS (RESIDENTIAL USE):				
FRONT YARD:	15 FEET MINIMUM	15 FEET	15 FEET	34.2 FEET
SIDE YARD:	10 FEET MINIMUM	10 FEET	10.5 FEET	42 FEET
REAR YARD:	20 FEET MINIMUM	20 FEET	20 FEET	20 FEET
MAX. BUILDING HEIGHT:	MAX 35 FEET, 2.5 STORIES	≤35 FEET	≤35 FEET	≤35 FEET
DWELLING UNITS PER LOT:	MAX 1	1	1	1

SCHEDULE OF REGULATIONS (R1-10 ZONING DISTRICT) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT	LOT 4	LOT 5
LOT AREA:	10,000 SQFT MIN./UNIT	±13,561 SQFT	±10,766 SQFT
LOT WIDTH:	85 FEET MINIMUM	±115.8 FEET	±100 FEET
LOT DEPTH:	100 FEET MINIMUM	±105.7 FEET	±107.3 FEET
YARD SETBACKS (RESIDENTIAL USE):			
FRONT YARD:	25 FEET	±30 FEET	±25.3 FEET
SIDE YARD:	15 FEET	±15 FEET	±20.1 FEET
REAR YARD:	35 FEET MINIMUM	±58.9 FEET	±42.2 FEET
MAX. BUILDING HEIGHT:	35 FT, 2.5 STORIES	≤35 FEET	≤35 FEET
MAX. BUILDING COVERAGE:	25% MAX.	±14%	±11%
MAX. UNITS/BUILDING:	1 MAX	1	1

SITE SPECIFIC NOTES:

1. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UFPO @ 1-800-962-7962. SPECIFIC ATTENTION SHALL BE PAID TO THE LOCATIONS OF THE GAS (IF APPLICABLE), WATER AND SEWER MAINS WITH RESPECT TO THE PROPOSED LOCATIONS FOR THE SERVICE LINES.
2. THE CONTRACTOR SHALL CONTACT THE CITY OF BEACON WATER AND SEWER DEPARTMENTS TO SCHEDULE A PRE-CONSTRUCTION MEETING TO ENSURE THAT THE ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL ARE COMMENCED IN ACCORDANCE WITH THE APPROVED PLANS AND AMENDMENTS THERETO AND GENERALLY ACCEPTED STANDARDS.
3. THE PROPOSED LOT SHALL BE SERVED BY THE CITY OF BEACON MUNICIPAL WATER AND SEWER SERVICES.
4. THE WATER SERVICE LINE AND METER SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BEACON WATER DEPARTMENT REQUIREMENTS.
5. THE WATER SERVICE LINE SHALL BE 3/4"ø K-COPPER ON LOTS 1, 3 & 5. LOTS 2 & 4 SHALL BE 1"ø K-COPPER.
6. THE SEWER SERVICE LINE SHALL BE 4"ø SDR 35 PVC PIPE WITH PITCH AS SHOWN ON THE PLAN (MINIMUM OF ¼" PER FOOT SHALL BE MAINTAINED).
7. A ROAD OPENING PERMIT SHALL BE REQUIRED FOR THE INSTALLATION OF THE PROPOSED WATER AND SEWER SERVICES FOR THE NEW LOT. STREET CLOSURE FOR WATER AND SEWER SERVICE CONNECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF BEACON REQUIREMENTS.
8. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. THE PROPOSED DRIVEWAY SHALL HAVE A STABILIZED CONSTRUCTION ENTRANCE.
9. ROOF LEADER CONNECTIONS TO BE MINIMUM 4"ø PVC OR HDPE @ 2.0% MIN. AND DIRECTED TOWARDS THE PROPOSED STORMWATER SYSTEM.
10. SUMP PUMP TO BE PROVIDED FOR FOOTING DRAINS, IF NECESSARY ON PROPOSED LOTS 1, 2 AND 5. THE TYPE OF PUMP AND METHODS USED TO ENSURE PROPER DRAINAGE SHALL BE ACCEPTABLE TO THE CITY OF BEACON BUILDING DEPARTMENT. BACKFLOW PREVENTION DEVICES SHALL BE PLACED ON THE FOOTING DRAINS TO PREVENT BACKFLOW INTO THE FOOTING DRAIN.
11. THE PROPOSED DRIVEWAY SIGHT DISTANCE SHALL BE IN COMPLIANCE WITH THE CITY OF BEACON'S 192-9(B) CODE AND THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REQUIREMENTS. THE STATE UTILIZES THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) GUIDELINES FOR INTERSECTION SIGHT DISTANCES. FOR ROADS WITH A SPEED LIMIT OF 30 MPH, AASHTO DESIGN TABLES CALL FOR A SIGHT DISTANCE OF 290 FEET TO THE LEFT AND 335 FEET TO THE RIGHT. THE MEASURED SIGHT DISTANCE IS AS FOLLOWS:

    PROPOSED: SLSD LEFT = ±239 FEET TO THE 90° TURN WITHIN HIGHLAND PLACE.
    SLSD RIGHT = ±120 FEET TO THE INTERSECTION WITH GROVE STREET.
    STOPPING SIGHT DISTANCE (SSD) WAS OBSERVED TO BE ±225 FEET WHEN APPROACHING THE PROPOSED DRIVEWAY FROM THE NORTH ON HIGHLAND PLACE.

    THE SLSD LEFT AND RIGHT FOR THE PRIVATE ROAD IS LESS THAN THE MINIMUM REQUIRED SIGHT DISTANCE; HOWEVER, THE MEASUREMENTS ARE TO A SHARP 90° TURN WITHIN HIGHLAND PLACE LOOKING LEFT, AND A ROAD INTERSECTION WITH GROVE STREET TO THE RIGHT. APPROACHING VEHICLES CANNOT BE TRAVELING AT THE POSTED SPEED LIMIT WHILE BEING ABLE TO NAVIGATE THESE TURNS. THEREFORE, THE DESIGN SPEED LIMITS ARE LOWER THAN 30 M.P.H. AT THE TURN/INTERSECTION, AND WILL LIKELY NOT REACH 30 M.P.H. AT THE DRIVEWAY LOCATIONS DUE TO THE SHORT STRETCH OF ROAD.

12. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL CATCH BASINS, STORM SEWER LINES, SANITARY MANHOLES, SEWER LINES, WATERLINES, AND UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT. INVESTIGATIVE TEST PITS MAY BE REQUIRED TO VERIFY LOCATIONS.
13. THE CONTRACTOR SHALL EXCAVATE TEST PITS ON PROPOSED LOT 3 AT THE PROPOSED CONNECTION POINTS WITH THE EXISTING WATER AND SEWER SERVICE LINES FROM PROPOSED LOT 4 TO VERIFY THE LOCATION AND DEPTHS OF THE EXISTING LINES. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER OF ANY CONFLICTS OR OTHER ISSUES WITH THE SERVICE LINES.
14. THE NEW SERVICE LINES FOR PROPOSED LOT 4 SHALL BE CONSTRUCTED AND PLACED INTO SERVICE PRIOR TO DISCONTINUATION OF THE EXISTING WATER AND SEWER SERVICE LINES.
15. THE EXISTING PORTION OF THE WATER AND SEWER SERVICE LINES ON PROPOSED LOT 3 SHALL BE REMOVED UP TO THE PROPERTY LINE WITH LOT 4 AND ABANDONED IN PLACE ON PROPOSED LOT 4 AFTER THE NEW CONNECTIONS ARE MADE TO THE SERVICE LINES.
16. IF ROCK IS ENCOUNTERED DURING EXCAVATION, IT SHALL BE REMOVED BY MECHANICAL MEANS. NO BLASTING SHALL BE PERMITTED WITHOUT APPROVAL FROM THE BUILDING DEPARTMENT. LOT 5 DWELLING SHALL BE CONSTRUCTION ON SLAB.

GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UFPO @ 1-800-962-7962.
2. WATER, SEWER AND STORM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS. ALL OTHER UTILITIES (TELEPHONE, ELECTRIC, GAS, CABLE, ETC.) SHALL BE INCORPORATED FOLLOWING SITE PLAN APPROVAL. ALL SUCH UTILITY DESIGNS SHALL BE DEVELOPED IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANIES.
3. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE, LOCATION, DEPTH AND CONDITION OF ALL UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT.
4. THE CONTRACTOR SHALL CONSTRUCT ALL IMPROVEMENTS AS SHOWN ON PLANS. ANY FIELD CONDITIONS THAT MAY RESULT IN A VARIATION FROM THE PLAN SET SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IN WRITING. VARIATIONS FROM THE PLAN WITHOUT APPROVAL FROM THE ENGINEER WILL BE CONSIDERED DEFICIENT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ON-SITE OR OFF-SITE DAMAGES TO VEGETATION OR PROPERTY CAUSED BY HIS OPERATIONS. SUCH DAMAGES SHALL BE REPAIRED OR REPLACED AT THE CONTRACTORS COST TO THE SATISFACTION OF THE ENGINEER, PROPERTY OWNER OR AGENCY HAVING JURISDICTION.
6. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL KEEP THE SITE IN A CLEAN AND ORDERLY MANNER.
8. THE CONTRACTOR SHALL NOT INTERRUPT EXISTING ACCESS OR OPERATIONS FOR THE REMAINDER OF THE SITE.

OWNER'S CONSENT:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

________________________ GARY JOSEPH

__________ DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

______________ DAY OF ________________, 20_______, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS __________________ DAY OF ______________, 20____, BY

____________________________ CHAIRMAN

____________________________ SECRETARY

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Dig Safely. New York Call 811 before you dig

STATE OF NEW YORK · MICHAEL A. BODENDORF · 084466 · LICENSED PROFESSIONAL ENGINEER

SEAL

HUDSON LAND DESIGN
HUDSON LAND DESIGN PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
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PH: 845-440-6926
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SUBDIVISION PLAN

HIGHLAND PLACE SUBDIVISION

12 HIGHLAND PLACE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-306777

JOB #:	2022:011
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SCALE:	1" = 20'
TITLE:	SP-1
SHEET:	4 OF 8

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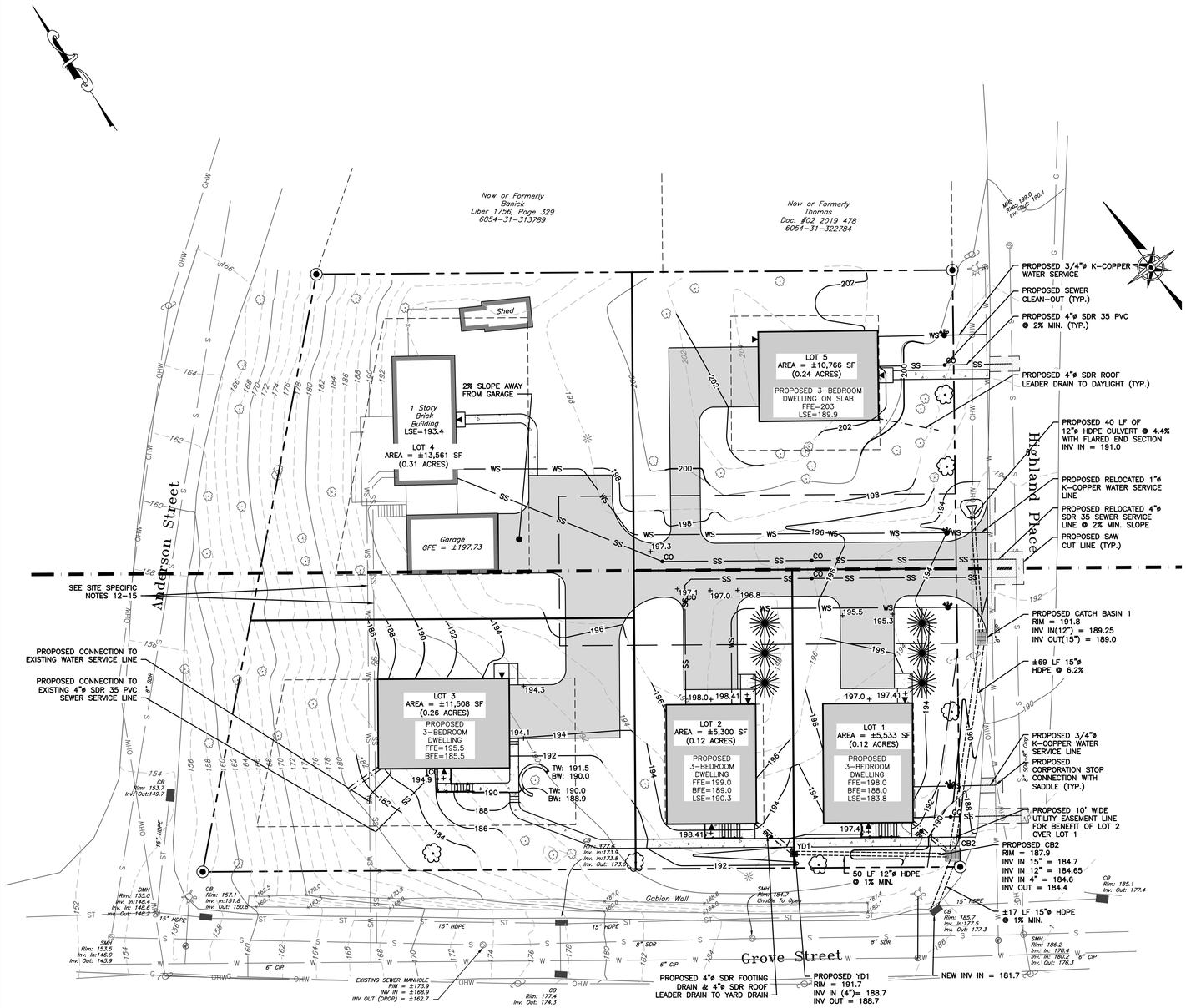

GRADING & UTILITY PLAN

SCALE: 1" = 20'

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- ZONING DISTRICT BOUNDARY
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR
- OHW EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- SS EXISTING SEWER SERVICE LINE
- S EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- CO EXISTING SEWER CLEAN OUT
- W EXISTING WATER LINE
- WS EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER VALVE
- ST EXISTING STORM WATER LINE
- RL EXISTING ROOF LEADER
- EXISTING CATCH BASIN
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- RL PROPOSED ROOF LEADER LINE
- FD PROPOSED FOOTING DRAIN LINE
- PROPOSED YARD DRAIN
- BV PROPOSED BACKFLOW PREVENTION DEVICE
- WS PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED ENTRY DOOR LOCATION

UTILITY NOTES:

1. ALL WATER & SEWER CONNECTIONS SHALL COMPLY WITH CITY WATER AND SEWER DISTRICT REQUIREMENTS.
2. THE PROPOSED BUILDING SHALL BE SET AT SUCH ELEVATION TO ENSURE GRAVITY FLOW FROM THE RAW SEWER LINE TO THE POINT OF CONNECTION WITH THE EXISTING SEWER MAIN, WHILE MAINTAINING PROPER EARTH COVER ABOVE ALL PIPING.
3. NO CELLAR, ROOF, OR FOOTING DRAINS SHALL BE DISCHARGED INTO THE SANITARY SEWER SYSTEM.
4. LOTS 1 AND 2 SHALL HAVE SUMP PUMPS WITHIN THE BASEMENTS. THE SUMP PUMPS SHALL BE DISCHARGED TO THE PROPOSED DRAINAGE STRUCTURES ON EACH LOT.

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

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_____ SECRETARY

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OWNER'S CONSENT:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
GARY JOSEPH DATE

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	7/26/22	PER PLANNING BOARD COMMENTS	CMB				
2	8/29/22	PER PLANNING BOARD COMMENTS	CMB				
3	9/27/22	SHEET ADDED	CMB				

Dig Safely. New York Call 811 before you dig

STATE OF NEW YORK MICHAEL A. BOSEBOOM 084465 LICENSED PROFESSIONAL ENGINEER

SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

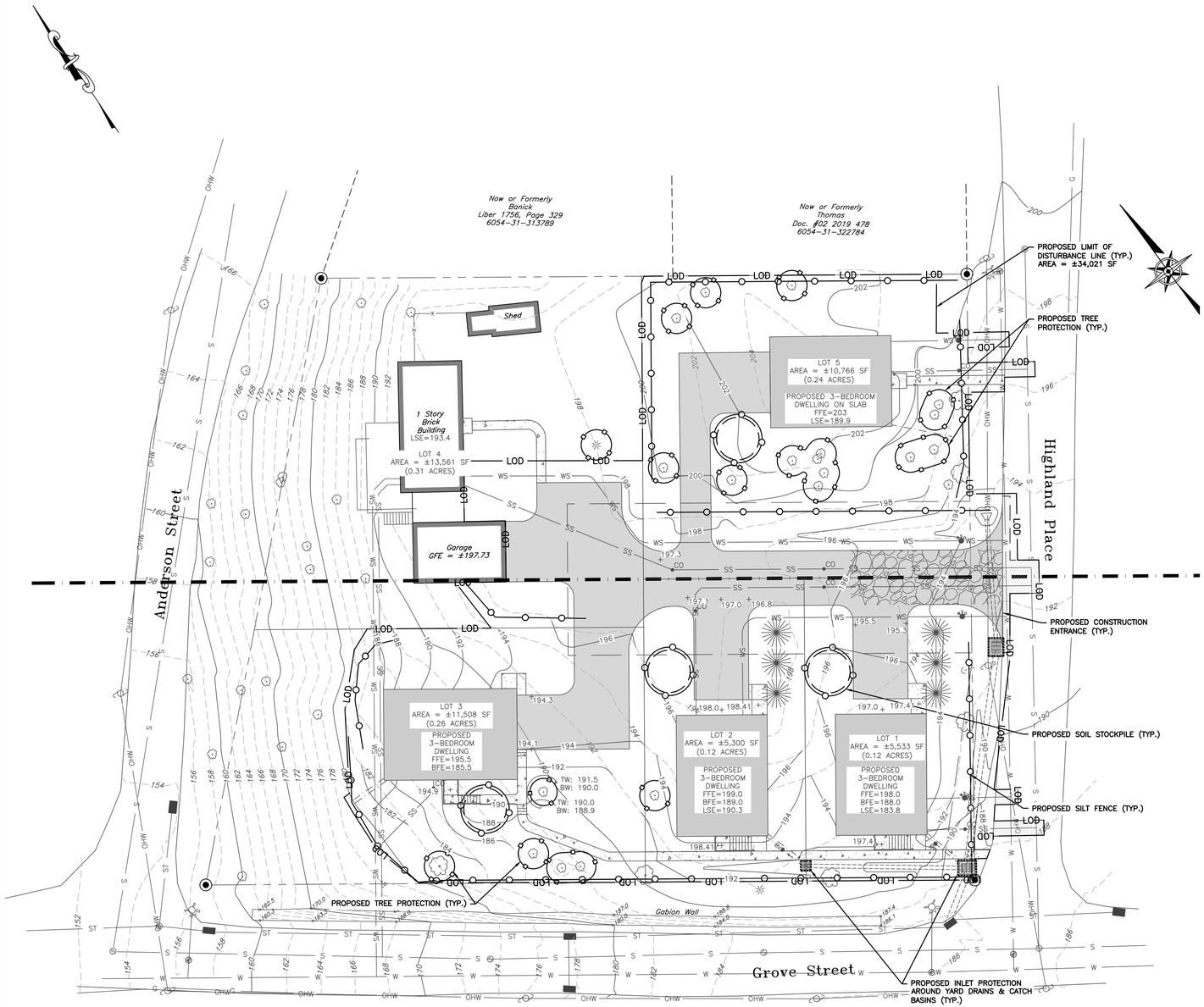
GRADING & UTILITY PLAN

HIGHLAND PLACE SUBDIVISION

12 HIGHLAND PLACE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-306777

JOB #:	2022:011
DATE:	6/28/2022
SCALE:	1" = 20'
TITLE:	GU-1
SHEET:	5 OF 8

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



EROSION & SEDIMENT CONTROL PLAN

SCALE: 1" = 20'

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- ZONING DISTRICT BOUNDARY
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- EXISTING WATER LINE
- EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING ROOF LEADER
- EXISTING CATCH BASIN
- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- PROPOSED EASEMENT
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED STORM WATER LINE
- PROPOSED ROOF LEADER LINE
- PROPOSED FOOTING DRAIN LINE
- PROPOSED YARD DRAIN
- PROPOSED BACKFLOW PREVENTION DEVICE
- PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED ENTRY DOOR LOCATION
- PROPOSED SILT FENCE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED CATCH BASIN INLET PROTECTION
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED TREE PROTECTION

EROSION AND SEDIMENT CONTROL NOTES:

1. ALL EROSION CONTROL MEASURES EMPLOYED DURING THE CONSTRUCTION PROCESS SHALL BE INSPECTED BY THE CONTRACTOR IN ACCORDANCE WITH THE MAINTENANCE SCHEDULE. ALL EROSION CONTROL STRUCTURES SHALL BE REPAIRED AND MAINTAINED AS NECESSARY BY THE CONTRACTOR.
2. ALL STORMWATER MANAGEMENT STRUCTURES (E.G. CATCH BASINS) SHALL BE REGULARLY INSPECTED FOR SEDIMENT ACCUMULATIONS. CATCH BASINS SHALL BE CLEANED WHEN SEDIMENT DEPTH REACHES A MAXIMUM OF ONE-HALF THE AVAILABLE SUMP DEPTH.
3. ALL EROSION CONTROL INSTALLATION AND MAINTENANCE MEASURES SHALL MEET THE REQUIREMENTS OF THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
4. ANY PILE OF POTENTIALLY EROSIVE MATERIAL TEMPORARILY STOCKPILED ON THE SITE DURING THE CONSTRUCTION PROCESS SHALL BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE AND SHALL BE PROPERLY PROTECTED FROM EROSION BY A SURROUNDING SILT FENCE.
5. PERMANENT SEEDED AREAS FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH DETAIL AND SPECIFICATIONS ON THIS PLAN.
6. AREAS UNDERGOING CLEARING OR GRADING AND WHERE WORK IS DELAYED OR COMPLETED AND WILL NOT BE REDISTURBED FOR A PERIOD OF 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT VEGETATIVE COVER WITHIN 14 DAYS.
7. ON-SITE DUST CONTROL SHALL BE ACCOMPLISHED BY STANDARD METHODS OF LIGHTLY WATERING ALL EXPOSED SOIL AND RAPIDLY STABILIZING THE REGRADED AREAS WITH TOPSOIL, LOAM AND/OR SEEDING.
8. THE CITY ENGINEER AND PROJECT ENGINEER SHALL BE NOTIFIED NO LESS THAN 48 HOURS PRIOR TO THE START OF ANY SITE WORK, AND BY SUCH NOTIFICATION, SHALL BE PROVIDED WITH THE NAME AND TELEPHONE NUMBER OF THE GENERAL CONTRACTOR RESPONSIBLE FOR SUCH WORK.
9. THE CITY AND/OR ITS REPRESENTATIVES MAY INSPECT EROSION AND SEDIMENT CONTROL PRACTICES ON THE SITE DURING CONSTRUCTION AND RECOMMEND THAT THE CONTRACTOR INSTALL ADDITIONAL EROSION CONTROL MEASURES IF DEEMED NECESSARY TO PROTECT ANY UNDISTURBED AREAS OF THE SITE. ANY SUCH REQUESTS SHALL BE MADE DIRECTLY TO THE CONTRACTOR AND QUALIFIED PROFESSIONAL AND FOLLOWED UP WITH A WRITTEN NOTIFICATION TO THE DEVELOPER. IN ADDITION, THE PROJECT ENGINEER SHALL BE CONSULTED ON ANY SPECIAL ADDITIONS OR DELETIONS OF EROSION CONTROL MEASURES WARRANTED BY CHANGING FIELD CONDITIONS.
10. IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONSTRUCT A DEWATERING PIT IN ACCORDANCE WITH NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL TO FILTER WATER FOR PUMPING TO A SUITABLE LOCATION.
11. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED.

INSPECTION SCHEDULE & MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES

PERMANENT AND TEMPORARY VEGETATION:
INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. ALL AREAS DAMAGED BY EROSION OR WHERE SEED HAS NOT ESTABLISHED SHALL BE REPAIRED AND RESTABILIZED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE:
INSPECT THE ENTRANCE PAD EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. CHECK FOR MUD, SEDIMENT BUILD-UP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING WET WEATHER. REGRADE PAD AS NEEDED FOR RUNOFF CONTROL. WASH AND REPLACE STONE AS NEEDED. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF SITE BY VEHICLES. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. REMOVE TEMPORARY CONSTRUCTION ENTRANCE AS SOON AS THEY ARE NO LONGER NEEDED TO PROVIDE ACCESS TO THE SITE AS DIRECTED BY PROJECT ENGINEER.

SILT FENCE:
INSPECT FOR DAMAGE EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ONE-QUARTER THE HEIGHT OF THE FENCE. IF FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.

SOIL STOCKPILE:
INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ONE-QUARTER THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCKPILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.

DUST CONTROL:
SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORKS. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WATER). STRUCTURAL MEASURES (MULCH, SEEDING) SHALL BE INSTALLED IN DISTURBED AREAS BEFORE SIGNIFICANT BLOWING PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.

INDIANA BAT PROTECTION NOTES:

1. TREE CLEARING SHALL BE RESTRICTED TO THE PERIOD BETWEEN OCTOBER 1 AND MARCH 31.
2. THE LIMITS OF DISTURBANCE SHALL BE DEMARCATED BY INSTALLING ORANGE CONSTRUCTION FENCE FOR THE GENERAL IMPROVEMENT AND INFRASTRUCTURE CONSTRUCTION ACTIVITIES AND FOR THE INDIVIDUAL LOT CONSTRUCTION. THESE LIMITS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
3. DUST CONTROL DURING CONSTRUCTION SHALL BE IMPLEMENTED. THIS INCLUDES USE OF CONSTRUCTION ENTRANCES, APPLYING LIGHT WATER, AND ESTABLISHING VEGETATION.
4. STREET LIGHTS ARE NOT PERMITTED. RESIDENTIAL LIGHTING SHALL BE DIRECTED DOWNWARD TO REDUCE IMPACTS TO BATS FORAGING FOR FOOD.

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

OWNER'S CONSENT:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ GARY JOSEPH

_____ DATE

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EROSION & SEDIMENT CONTROL PLAN

HIGHLAND PLACE SUBDIVISION

12 HIGHLAND PLACE
CITY OF BEACON
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TAX ID: 6054-31-306777

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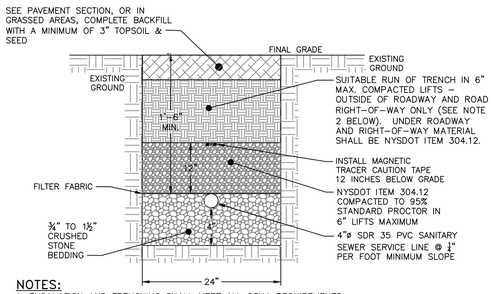
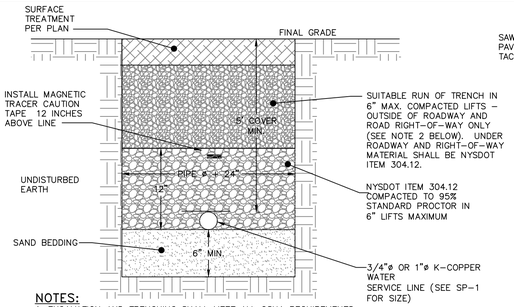


NOTES:
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.

SANITARY SEWER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



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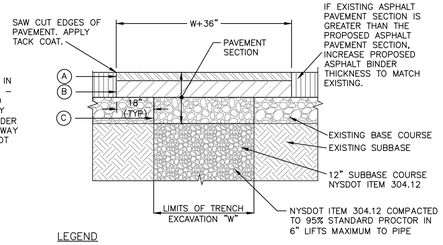
3. IN AREAS WHERE 5' COVER REQUIREMENT CANNOT BE MET, THE CONTRACTOR SHALL PROVIDE PIPE INSULATION TO PREVENT FREEZING.
4. IF WATER SERVICE AND SEWER SERVICE LINE CROSSINGS ARE NEEDED, PROVIDE 18" OF VERTICAL SEPARATION

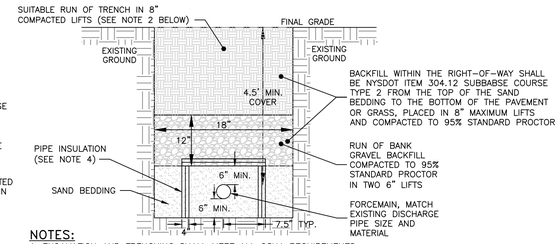
WATER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



LEGEND
- (A) 1.5" ASPHALT CONCRETE TOP COURSE– NYSDOT TYPE F1
- (B) 3.0" ASPHALT CONCRETE BINDER COURSE– NYSDOT TYPE F9
- (C) 3.0" ASPHALT BASE COURSE– NYSDOT TYPE F9

NOTES:
1. SAW CUT MIN. 18" BEYOND EXCAVATION WITH SMOOTH EDGES. 18" JOINT BETWEEN EXISTING AND NEW TOP COURSE TO BE MILLED. JOINT TO BE SEALED WITH POLYMER MODIFIED SEALER.
2. FURNISH, PLACE, AND COMPACT SUBBASE.
3. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.
4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.
5. ALL SEAMS SHALL BE SEALED.

PAVEMENT RESTORATION DETAIL
NOT TO SCALE



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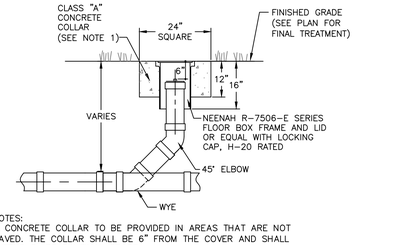
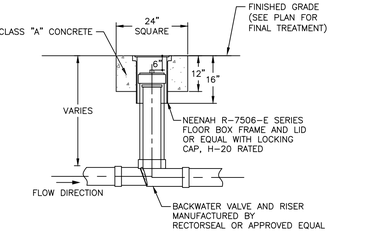
3. CONTRACTOR TO VERIFY ALL PIPE CROSSINGS PRIOR TO CONSTRUCTION (E.G., WATER SERVICES, SEWER SERVICES, GAS LINES, ETC.).
4. WHERE MINIMUM 4.5' COVER REQUIREMENT CANNOT BE MET, PROVIDE PIPE INSULATION BOARD CERTIFOAM 40 OR APPROVED EQUAL, CLOSED CELL EXTRUDED POLYSTYRENE FOAM MEETING ASTM C578 TYPE VI WITH MINIMUM 40 PSI COMPRESSIVE STRENGTH PER ASTM D1621, 0.1% MAXIMUM WATER ABSORPTION PER ASTM C272. PROVIDE TWO 2" THICK BOARDS, OVERLAP ALL INSULATION BOARD JOINTS.

SUMP PUMP FORCEMAIN TRENCH DETAIL
NOT TO SCALE

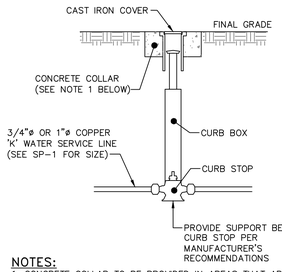


NOTES:
1. CONCRETE COLLAR TO BE PROVIDED IN AREAS THAT ARE NOT PAVED. THE COLLAR SHALL BE 6" FROM THE COVER AND SHALL EXTEND 6" BELOW FINAL GRADE.

CLEANOUT DETAIL
NOT TO SCALE

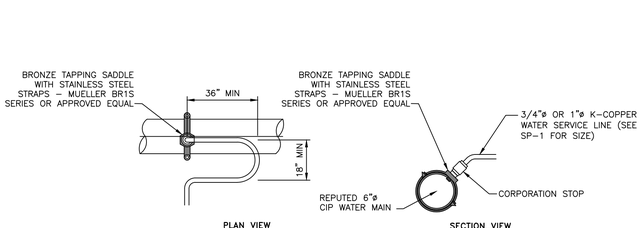


BACKWATER VALVE FOR FOOTING DRAIN DETAIL
NOT TO SCALE



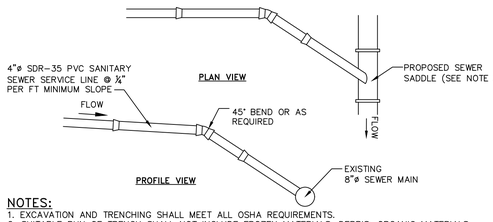
NOTES:
1. CONCRETE COLLAR TO BE PROVIDED IN AREAS THAT ARE NOT PAVED. THE COLLAR SHALL BE 6" FROM THE COVER AND SHALL EXTEND 6" BELOW FINAL GRADE.
2. CURB STOP TO BE COMPRESSION TYPE BY MUELLER.
3. AREA AROUND CURB BOX TO BE BACKFILLED WITH GRAVELLY MATERIAL.

WATER SHUT–OFF VALVE DETAIL
NOT TO SCALE



NOTES:
1. A MINIMUM 5' COVER SHALL BE PROVIDED ON THE WATER SERVICE LINE (CONDITIONED ON ACTUAL 5' MIN. WATER MAIN DEPTH).
2. CORPORATION STOP TO BE COMPRESSION TYPE BY MUELLER.
3. WATER SERVICE LINE TO HAVE A 'GOOSENECK' NEAR CORPORATION STOP.
4. CORPORATION STOP TO BE INSTALLED IN THE UPPER HALF OF THE WATER MAIN AT AN ANGLE OF APPROXIMATELY 45° FROM HORIZONTAL.
5. THE CONTRACTOR SHALL INSTALL A FULL BODIED STAINLESS STEEL TAPPING SLEEVE AT THE PROPOSED WATER SERVICE LOCATION.

WATER SERVICE CONNECTION DETAIL
NOT TO SCALE



NOTES:
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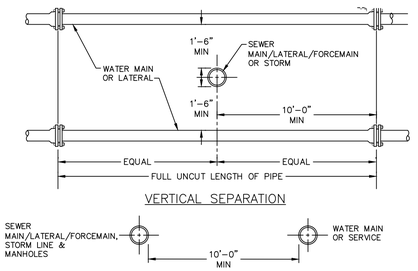
3. TAPPING SADDLE FOR CONNECTION OF THE PROPOSED SERVICE LINE TO THE EXISTING SEWER MAIN TO BE A 4" PREDCO HUB TAP SADDLE – MODEL #HTS4/E.

SANITARY SEWER SERVICE CONNECTION DETAIL
NOT TO SCALE

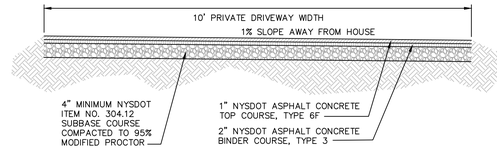


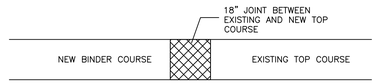
VERTICAL SEPARATION

HORIZONTAL SEPARATION

NOTE:
1. NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE EXPRESS APPROVAL OF THE DUTCHESS COUNTY DEPARTMENT OF HEALTH AND THE CITY OF BEACON. CONCRETE ENCASEMENT OF WATERLINE OR OFFSETTING OF WATERLINE SHALL BE REQUIRED WHERE SEPARATION DISTANCES CANNOT BE MAINTAINED.

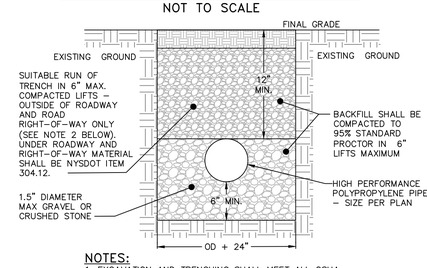
WATER LINE SEPARATION DETAIL
NOT TO SCALE





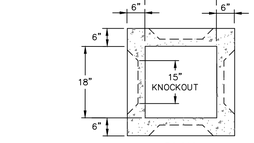
PLAN VIEW

PAVED DRIVEWAY SECTION DETAIL
NOT TO SCALE

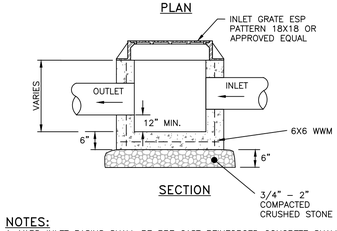


NOTES:
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

STORM LINE TRENCH DETAIL
NOT TO SCALE



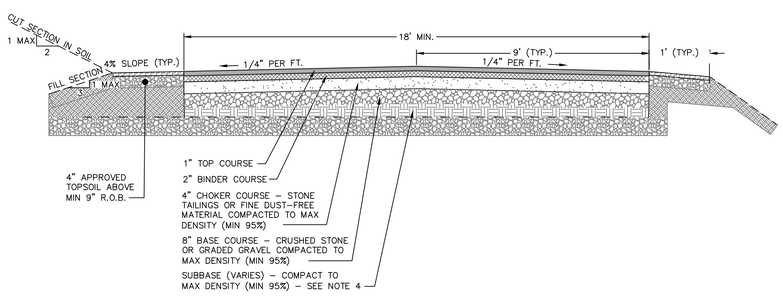
PLAN



SECTION

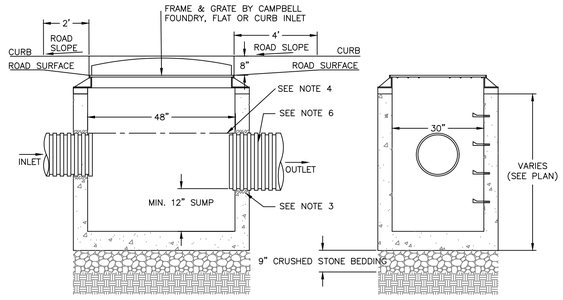
NOTES:
1. YARD INLET BASINS SHALL BE PRE CAST REINFORCED CONCRETE SHALL HAVE A MINIMUM 28–DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND SHALL BE IN CONFORMANCE WITH ASTM 478–68. WALLS AND BASE SHALL BE ONE PIECE CONSTRUCTION. YARD INLET BASIN SHOWN BY EXPANDED SUPPLY PRODUCTS (ESP), 3330 ROUTE 9, COLD SPRING, NY (845) 265–3771.
2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE BASIN AND PARGED AROUND.
3. PIPES SHALL BE PARGED AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN 10 FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATERTIGHT.
4. PROVIDE A MINIMUM 0.1' DROP BETWEEN INLET AND OUTLET INVERTS (MATCH CROWNS FOR PIPES WITH DIFFERENT SIZE) UNLESS OTHERWISE NOTED ON THE PLAN.
5. BACKFILL USING SELECT MATERIAL, COMPACTED IN 6" LIFTS.
6. SUMP SHALL BE 12".
7. FRAMES AND GRATES SHALL BE SET IN A FULL BED OF MORTAR.

PRE–CAST CONCRETE YARD INLET DETAIL
NOT TO SCALE



NOTES:
1. 1' WIDE SHOULDERS TO BE ITEM 4 COMPACTED TO MAX DENSITY (MIN 95%).
2. RIGHT OF WAY WIDTH = 50' (EXCEPT FOR TURNING AREAS).
3. WHERE GRADE ALTERATION IS REQUIRED, SUBBASE SHALL BE SUPPLEMENTED WITH ITEM 4 COMPACTED TO MAX DENSITY (MIN 95%).

CITY OF BEACON PRIVATE ROAD SECTION
SCALE: NOT TO SCALE



FRONT VIEW SIDE VIEW

NOTES:
1. PRECAST CONCRETE CATCH BASIN WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.
2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE CATCH BASIN AND PARGED AROUND.
3. PIPES SHALL BE PARGED AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN 10 FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATERTIGHT.
4. PROVIDE A MINIMUM 0.1' DROP BETWEEN INLET AND OUTLET INVERTS (MATCH CROWNS FOR PIPES WITH DIFFERENT SIZE) UNLESS OTHERWISE NOTED ON THE PLAN.
5. CATCH BASINS WITH AN INTERIOR DEPTH OF 4' AND GREATER SHALL BE FURNISHED WITH STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS AT 12" INTERVALS.
6. HDPE PIPE SHALL BE PROVIDED WITH WATERTIGHT CONNECTIONS. ADS MODEL N12 WT IB OR APPROVED EQUAL.

CATCH BASIN DETAIL
NOT TO SCALE

OWNER'S CONSENT:
THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
GARY JOSEPH DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	7/26/22	PER PLANNING BOARD COMMENTS	CMB				
2	8/29/22	PER PLANNING BOARD COMMENTS	CMB				
3	9/27/22	PER PLANNING BOARD COMMENTS	CMB				

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F: 845–440–6637

CONSTRUCTION DETAILS

HIGHLAND PLACE SUBDIVISION

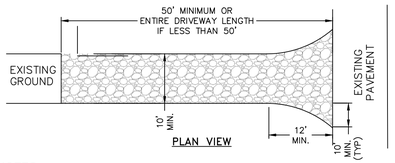
12 HIGHLAND PLACE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054–31–306777

JOB #: 2022:011
DATE: 6/28/2022
SCALE: AS SHOWN
TITLE: CD–1
SHEET: 7 OF 8

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

GENERAL RETAINING WALL NOTES:

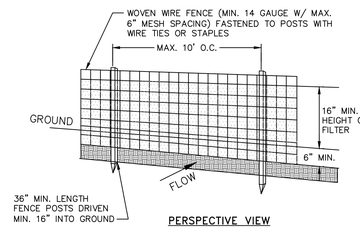
1. PROPOSED RETAINING WALL TO BE UNILOCK CONCORD WALL XL OR ESTATE WALL (SEE PLAN AND PROFILE SHEETS). ALL WALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
2. THE CONTRACTOR SHALL VERIFY MATERIAL COLORS WITH THE OWNER.
3. LEVELING BASE IS THE COMPACTED GRANULAR SOIL, OR IF SPECIFIED IN THE CONSTRUCTION DOCUMENTS AN UNREINFORCED CONCRETE FOOTING, PLACED BENEATH THE FIRST COURSE OF SEGMENTAL RETAINING WALL UNITS.
   - 3.1. THE LEVELING BASE MATERIAL SHALL BE NON-FROST SUSCEPTIBLE, WELL GRADED, COMPACTED ANGULAR GRAVEL-SAND MIXTURE (GW AS PER ASTM D2487).
4. DRAINAGE FILL IS A FREE DRAINING AGGREGATE WITH HIGH PERMEABILITY PLACED DIRECTLY BEHIND THE MODULAR CONCRETE UNITS. THIS WILL INCLUDE A DRAINAGE PIPE AND MAY BE SEPARATED FROM OTHER FILL WITH A SUITABLE GEOTEXTILE FILTER.
   - 4.1. THE DRAINAGE FILL SHALL BE A FREE DRAINING ANGULAR, GRAVEL MATERIAL OF UNIFORM PARTICLE SIZE SMALLER THAN 1 INCH AND GREATER THAN 1/4 INCH. THE DRAINAGE FILL SHALL BE SEPARATED FROM THE REINFORCED FILL OR RETAINED FILL BY A SPECIFIED GEOTEXTILE FILTER.
5. DRAINAGE PIPE IS A PERFORATED PIPE USED TO CARRY WATER, COLLECTED FROM WITHIN THE SEGMENTAL RETAINING WALL, TO OUTLETS, TO PREVENT PORE WATER PRESSURES FROM BUILDING UP WITHIN THE SEGMENTAL RETAINING WALL AND SPECIFICALLY BEHIND THE SEGMENTAL RETAINING WALL UNITS.
   - 5.1. THE DRAINAGE PIPE SHALL BE A PERFORATED CORRUGATED POLYETHYLENE OR PERFORATED PVC PIPE, WITH A MINIMUM DIAMETER OF 4 INCHES, PROTECTED BY A GEOTEXTILE FILTER TO PREVENT THE MIGRATION OF SOIL PARTICLES INTO THE DRAINAGE PIPE.
6. GEOTEXTILE FILTER IS A PERMEABLE PLANAR POLYMER STRUCTURE THAT WILL ALLOW THE PASSAGE OF WATER FROM ONE SOIL MEDIUM TO ANOTHER WHILE PREVENTING THE MIGRATION OF FINE PARTICLES THAT MIGHT CLOG THE DOWNSTREAM FILL. SELECTION OF A GEOTEXTILE FILTER IS BASED ON THE CHARACTERISTICS OF THE DIFFERENT SOILS USED IN AND SURROUNDING THE SEGMENTAL RETAINING WALL.
   - 6.1. THE GEOTEXTILE FILTER SHALL BE NEEDLE PUNCHED NONWOVEN (FOR DRAINAGE AND SEPARATION) BY ADS OR APPROVED EQUAL.
7. DESIGN ASSUMPTIONS:
   - 7.1. THE FOUNDATION SOILS WILL PRODUCE ACCEPTABLE TOTAL AND DIFFERENTIAL SETTLEMENT GIVEN THE APPLIED LOAD OF THE SEGMENTAL RETAINING WALL.
   - 7.2. THE MAXIMUM GROUNDWATER ELEVATION IS AT LEAST 2/3 X H (HEIGHT) BELOW THE BASE OF THE SEGMENTAL RETAINING WALL.
   - 7.3. THERE WILL BE NO HYDROSTATIC PRESSURE WITHIN OR BEHIND THE SEGMENTAL RETAINING WALL.
   - 7.4. THE SURROUNDING STRUCTURES WILL NOT EXERT ANY ADDITIONAL LOADING ON THE SEGMENTAL RETAINING WALL.
   - 7.5. THERE ARE NO STRUCTURES (UTILITIES SUCH AS GAS/WATER MAINS, STORM SEWERS, ELECTRICAL/COMMUNICATIONS CABLES, ETC) TO BE PLACED WITHIN OR BELOW THE REINFORCED FILL DURING OR AFTER CONSTRUCTION. (NOT APPLICABLE – NO REINFORCED FILL THIS PROJECT).
8. IF UNEXPECTED SOURCES OF WATER ARE IDENTIFIED (E.G., A HIGHER WATER TABLE OR WEEPING SOIL LAYERS), ADDITIONAL DRAINAGE STRUCTURES MAY BE REQUIRED (E.G., BLANKET DRAINS OR CHIMNEY DRAINS). THE SPECIFIC DETAILS WILL NEED TO BE DETERMINED BY THE DESIGN ENGINEER. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IF UNEXPECTED SOURCES OF WATER ARE IDENTIFIED DURING INITIAL EXCAVATION.
9. GENERAL INSTALLATION GUIDES ILLUSTRATING PROPER METHODS AND TECHNIQUES FOR GOOD CONSTRUCTION ARE AVAILABLE TO THE INSTALLER FROM RISI STONE SYSTEMS OR THE SEGMENTAL RETAINING WALL MANUFACTURER UPON REQUEST.
10. CONSTRUCTION: SITE PREPARATION.
    - 10.1. COMPLY WITH ALL CURRENT FEDERAL, STATE, AND LOCAL REGULATIONS FOR EXECUTION OF THE WORK, INCLUDING LOCAL BUILDING CODES AND EXCAVATION REGULATIONS. PROVIDE EXCAVATION SUPPORT AS REQUIRED TO MAINTAIN STABILITY OF THE AREA DURING EXCAVATION AND SEGMENTAL RETAINING WALL CONSTRUCTION AND TO PROTECT EXISTING STRUCTURES, UTILITIES, LANDSCAPE FEATURES, PROPERTY OR IMPROVEMENTS.
    - 10.2. PRIOR TO GRADING OR EXCAVATION OF THE SITE, CONFIRM THE LOCATION OF THE SEGMENTAL RETAINING WALL AND ALL UNDERGROUND FEATURES, INCLUDING UTILITY LOCATIONS WITHIN THE AREA OF CONSTRUCTION. ENSURE SURROUNDING STRUCTURES ARE PROTECTED FROM EFFECTS OF SEGMENTAL RETAINING WALL EXCAVATION.
    - 10.3. COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH SEGMENTAL RETAINING WALL INSTALLATION.
    - 10.4. CONTROL SURFACE WATER DRAINAGE AND PREVENT INUNDATION OF THE SEGMENTAL RETAINING WALL CONSTRUCTION AREA DURING THE CONSTRUCTION PROCESS.
    - 10.5. THE FOUNDATION SOIL SHALL BE EXCAVATED OR FILLED AS REQUIRED TO THE GRADES AND DIMENSIONS SHOWN ON THE PLAN.
    - 10.6. THE FOUNDATION SOIL SHALL BE PROOF ROLLED AND EXAMINED BY THE GENERAL REVIEW ENGINEER TO ENSURE THAT IT MEETS THE MINIMUM STRENGTH REQUIREMENTS SPECIFIED IN THE CONSTRUCTION DOCUMENTS. IF UNACCEPTABLE FOUNDATION SOIL IS ENCOUNTERED, THE GENERAL REVIEW ENGINEER SHOULD CONTACT THE DESIGN ENGINEER TO DISCUSS OPTIONS AND DETERMINE THE MOST APPROPRIATE COURSE OF ACTION.
    - 10.7. IN CUT SITUATIONS, THE NATIVE SOIL SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN IN THE CONSTRUCTION DOCUMENTS AND REMOVED FROM THE SITE OR STOCKPILED FOR REUSE AS REINFORCED OR RETAINED FILL AS IDENTIFIED ON THE PLAN. CARE SHOULD BE TAKEN NOT TO CONTAMINATE OR OVERLY SATURATE THE STOCKPILED FILL MATERIAL.
11. CONSTRUCTION: INSTALLING DRAINAGE SYSTEM.
    - 11.1. THE APPROVED GEOTEXTILE FILTER SHALL BE SET AGAINST THE BACK OF THE FIRST SEGMENTAL RETAINING WALL UNIT, OVER THE PREPARED FOUNDATION SOIL EXTENDING TOWARDS THE BACK OF THE EXCAVATION, UP THE EXCAVATION FACE AND EVENTUALLY OVER THE TOP OF THE DRAINAGE FILL TO THE BACK OF THE SEGMENTAL RETAINING WALL UNITS NEAR THE TOP OF THE WALL OR AS SHOWN ON THE PLAN. GEOTEXTILE OVERLAPS SHALL BE A MINIMUM OF 1 FOOT AND SHALL BE SHINGLED DOWN THE FACE OF THE EXCAVATION IN ORDER TO PREVENT THE MIGRATION OF PARTICLES FROM ONE FILL TYPE TO ANOTHER.
    - 11.2. THE DRAINAGE PIPE SHALL BE PLACED AS SHOWN ON THE PLAN, IN ACCORDANCE WITH THE OVERALL DRAINAGE PLAN FOR THE SITE. THE MAIN COLLECTION DRAIN PIPE SHALL BE A MINIMUM OF 4 INCHES IN DIAMETER. THE PIPE SHALL BE LAID TO ENSURE GRAVITY FLOW OF WATER FROM THE REINFORCED FILL. CONNECT DRAINAGE COLLECTION PIPE AT A STORM SEWER CATCH BASIN OR DAYLIGHT ALONG SLOPE AT AN ELEVATION LOWER THAN LOWEST POINT OF PIPE, EVERY 50 FEET MAXIMUM.
    - 11.3. IF OTHER SOURCES OF WATER ARE DISCOVERED DURING EXCAVATION OR ANTICIPATED, REFER TO NOTE 8 ABOVE.
12. CONSTRUCTION: INSTALLING SEGMENTAL RETAINING WALL UNITS.
    - 12.1. THE BOTTOM ROW OF SEGMENTAL RETAINING WALL UNITS SHALL BE PLACED ON THE LEVELING BASE AS SHOWN IN THE CONSTRUCTION DOCUMENTS. THE UNITS SHALL BE PLACED IN THE MIDDLE OF THE LEVELING BASE. CARE SHALL BE TAKEN TO ENSURE THAT THE SEGMENTAL RETAINING WALL UNITS ARE ALIGNED PROPERLY, LEVELED FROM SIDE TO SIDE AND FRONT TO BACK AND ARE IN COMPLETE CONTACT WITH THE LEVELING BASE.
    - 12.2. THE SEGMENTAL RETAINING WALL UNITS ABOVE THE BOTTOM COURSE SHALL BE PLACED TO INTERCONNECT THE SHEAR KEY AND THEN PUSHED FORWARD, CREATING THE SPECIFIED BATTER OF THE SEGMENTAL RETAINING WALL FACE.
    - 12.3. THE SEGMENTAL RETAINING WALL UNITS SHALL BE SWEPT CLEAN BEFORE PLACING ADDITIONAL COURSES TO ENSURE THAT NO DIRT, CONCRETE OR OTHER FOREIGN MATERIALS BECOME LODGED BETWEEN SUCCESSIVE LIFTS OF THE SEGMENTAL RETAINING WALL UNITS.
    - 12.4. SUCCESSIVE COURSES SHALL BE PLACED TO CREATE A RUNNING BOND PATTERN WITH THE EDGE OF ALL UNITS BEING APPROXIMATELY ALIGNED WITH THE MIDDLE OF THE UNIT IN THE COURSE BELOW IT. CUT SEGMENTAL RETAINING WALL UNITS MAY NEED TO BE PLACED TO ENSURE THE VERTICAL LINE BETWEEN ADJACENT SEGMENTAL RETAINING WALL UNITS REMAINS WITHIN THE MIDDLE THIRD OF THE SEGMENTAL RETAINING WALL UNIT BELOW.
    - 12.5. WHERE APPLICABLE, A MAXIMUM OF 3 COURSES OF SEGMENTAL RETAINING WALL UNITS CAN BE PLACED ABOVE THE LEVEL OF THE REINFORCED FILL AT ANY TIME.
    - 12.6. THE INSTALLER SHALL CHECK THE LEVEL OF SEGMENTAL RETAINING WALL UNITS WITH EACH LIFT TO ENSURE THAT NO GAPS ARE FORMED BETWEEN SUCCESSIVE LIFTS THAT MAY AFFECT THE PERFORMANCE OF THE SEGMENTAL RETAINING WALL.
    - 12.7. CARE SHALL BE TAKEN TO ENSURE THAT THE SEGMENTAL RETAINING WALL UNITS AND GEOSYNTHETIC REINFORCEMENT, WHERE APPLICABLE, ARE NOT DAMAGED DURING HANDLING AND PLACEMENT.
    - 12.8. NO HEAVY EQUIPMENT, FOR COMPACTION, FILL PLACEMENT OR OTHER, SHALL BE ALLOWED WITHIN 3 FEET OF THE BACK OF THE SEGMENTAL RETAINING WALL UNITS.
13. CONSTRUCTION: DRAINAGE FILL.
    - 13.1. THE DRAINAGE FILL WILL BE PLACED BEHIND THE SEGMENTAL RETAINING WALL UNITS WITH A MINIMUM WIDTH OF 1 FOOT AND SEPARATED FROM OTHER SOILS USING THE SPECIFIED GEOTEXTILE FILTER. DUE TO SITE CONSTRAINTS, THE DRAINAGE FILL MINIMUM WIDTH IS 6 INCHES FOR THIS PROJECT).
    - 13.2. DRAINAGE FILL SHALL BE PLACED BEHIND THE SEGMENTAL RETAINING WALL FACING IN MAXIMUM LIFTS OF 6 INCHES AND COMPACTED TO A MINIMUM DENSITY OF 95% STANDARD PROCTOR.
14. CONSTRUCTION: SECURE COPING.
    - 14.1. COPING UNITS SHALL BE SECURED TO THE TOP OF THE SEGMENTAL RETAINING WALL WITH TWO 3/8 INCH BEADS OF CONCRETE ADHESIVE POSITIONED 2 INCHES IN FRONT AND BEHIND THE TONGUE OF THE LAST COURSE OF SEGMENTAL RETAINING WALL UNITS.



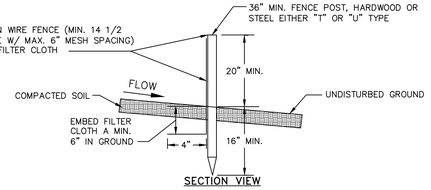
PLAN VIEW

NOTES:
1. STONE SIZE – USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. THICKNESS – NOT LESS THAN SIX (6) INCHES.
3. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.
4. GEOTEXTILE – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
5. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
6. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
7. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



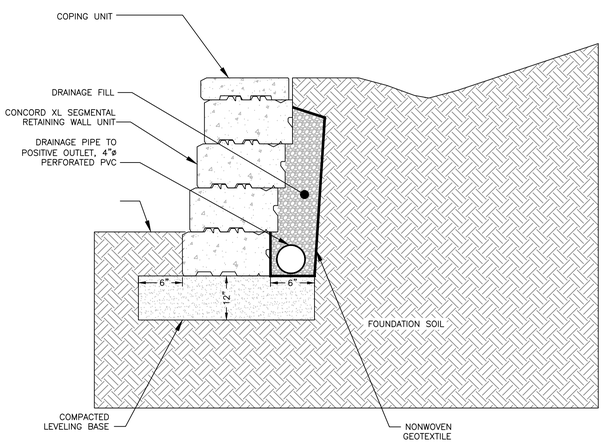
PERSPECTIVE VIEW



SECTION VIEW

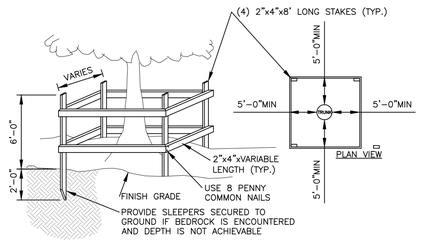
NOTES:
1. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
3. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE OR APPROVED EQUAL.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL
NOT TO SCALE



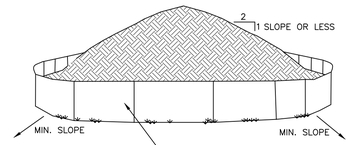
NOTES:
1. REFER TO RETAINING WALL NOTES, THIS SHEET.

SEGMENTAL RETAINING WALL DETAIL – GRAVITY WALL SECTION
NOT TO SCALE



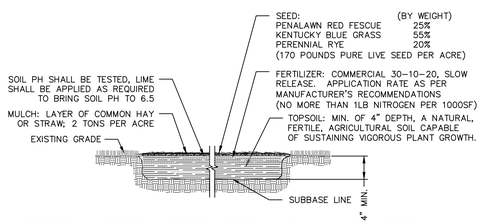
NOTES:
1. TREES TO REMAIN NOTED ON EXISTING CONDITIONS PLAN.
2. NOT ALL TREES TO REMAIN REQUIRE PROTECTION. TREE PROTECTION TO BE UTILIZED ON TREES WHERE CONSTRUCTION TRAFFIC WOULD COMPACT THE ROOT ZONE OF THE TREE.

TEMPORARY TREE PROTECTION DETAIL
NOT TO SCALE

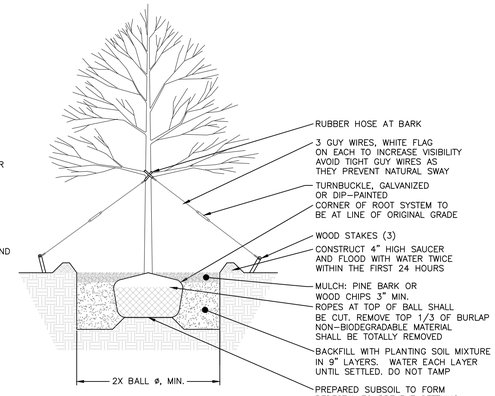


NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.

TEMPORARY SOIL STOCKPILE DETAIL
NOT TO SCALE



TOPSOIL SEED, FERTILIZER AND MULCH DETAIL
NOT TO SCALE



NOTES:
1. PROPOSED TREES TO BE RED MAPLE. REFER TO SHEET 4 PLANS FOR LOCATIONS.

TREE PLANTING DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

OWNER'S CONSENT:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ GARY JOSEPH

_____ DATE

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	7/26/22	PER PLANNING BOARD COMMENTS	CMB				
2	8/29/22	PER PLANNING BOARD COMMENTS	CMB				
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PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

CONSTRUCTION DETAILS

HIGHLAND PLACE SUBDIVISION

12 HIGHLAND PLACE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-306777

JOB #:	2022:011
DATE:	6/28/2022
SCALE:	AS SHOWN
TITLE:	CD-2
SHEET:	8 OF 8

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

John Clarke Planning and Design jclarkeplandesign@gmail.com
845.797.4152

To: John Gunn, Chair, and the City of Beacon Planning Board
Date: October 7, 2022
Re: **12 Highland Place Subdivision**

I have reviewed a response letter from Hudson Land Design and an 8-sheet Subdivision Plan set, all dated September 27, 2022.

Proposal

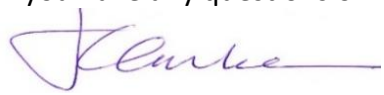
The applicant is proposing to subdivide a 1.07-arcre parcel with one existing house into five lots for the construction of four additional houses. Proposed Lot 1 has 5,533 square feet, Lot 2 has 5,300 square feet, Lot 3 has 11,508 square feet, Lot 4 with the existing house has 13,561 square feet, and Lot 5 has 10,766 square feet. The parcel is split by the R1-5 and R1-10 zoning districts.

Comments and Recommendations

1. The latest submission switched the designated front lot line for Lot 3 from Anderson Street to Grove Street and added an entrance and walkway connection on the Grove Street side of the proposed house. However, having the designated front yard along Grove Street does not provide the required lot depth of 100 feet. The House entry features are an improvement and may remain, but for the lot to be zoning compliant the designated front lot line would need to be along Anderson Street. The definition for front lot line under Section 223-63 allows the owner to elect any abutting street as the front.

2. All my other previous comments have been addressed.

If you have any questions or need additional information, please feel free to contact me.



John Clarke, Beacon Planning Consultant

c: Dave Buckley, Building Inspector
Jennifer L. Gray, Esq., City Attorney
Arthur R. Tully, P.E., City Engineer
John Russo, P.E., City Engineer
Daniel G. Koehler, P.E., Project Engineer

LANC & TULLY

ENGINEERING AND SURVEYING, P.C.

John J. O'Rourke, P.E., Principal
David E. Higgins, P.E., Principal
John Queenan, P.E., Principal
Rodney C. Knowlton, L.S., Principal
Jerry A. Woods, L.S., Principal
John D. Russo, P.E., Principal
John Lanc, P.E., L.S.
Arthur R. Tully, P.E.

October 6, 2022

Mr. John Gunn
Beacon Planning Board Chair
City of Beacon
1 Municipal Plaza
Beacon, NY 12508

RE: 12 Highland Place
5-Lot Subdivision
Tax No. 6054-31-306777
City of Beacon

Dear Mr. Gunn:

My office has received the following regarding a 5-lot subdivision of the parcel located at 12 Highland Place:

- Correspondence from Hudson Land Design dated September 27, 2022.
- Plan set titled "Highland Place Subdivision" as prepared by Hudson Land Design and consisting of the following sheets, all having the latest revision date of September 27, 2022:
  - Sheet 1 of 8 – Cover Sheet (CV-1)
  - Sheet 2 of 8 – Existing Conditions & Removal Plan (XC-1)
  - Sheet 3 of 8 – Preliminary Subdivision Plat (PT-1)
  - Sheet 4 of 8 – Subdivision Plan (SP-1)
  - Sheet 5 of 8 – Grading & Utility Plan
  - Sheet 6 of 8 – Erosion & Sediment Control Plan (ESC-1)
  - Sheet 7 of 8 – Construction Details (CD-1)
  - Sheet 8 of 8 – Construction Details (CD-2)

The proposed project entails the subdivision of a 46,669± square foot (1.071 acres) parcel located at 12 Highland Place into 5 lots with a private road, with proposed lots ranging in size from 5,500 square feet to 13,330 square feet in size. The existing parcel (proposed Lot 4) has a single-family residence, detached garage, and shed located on it at this time, which are proposed to remain. The parent parcel is bisected by a Zoning line, with the southern portion of the site being in the R1-5 Zone and the northerly portion of the site project being located in the R1-10 Zone.

Based on our review of the above plans, we would like to offer the following comments:

General Comments:

1. As a private road is now proposed for the project, the Applicant will need to prepare and submit for review a maintenance declaration or agreement for the private road in accordance with Section 195-22, Paragraph A(9)(b) of the City Code, which shall be filed with the Dutchess County Clerk's Office at the time of the filing of the subdivision plat and prior to the transfer of any subdivision lot. ***Applicant notes that this will be provided as part of a future submission.***

2. As a condition of approval, the Applicant shall provide the City of Beacon with a performance guarantee and inspection fees as stated in Section 195-22, Paragraph A(10) of the City Code. The project engineer shall submit a cost estimate for the construction of the private road for review, as the project progresses. ***Applicant notes that this will be provided as part of a future submission.***

3. Documents and descriptions for the proposed easements shall be provided for review. ***Applicant notes that these will be provided as part of a future submission.***

Sheet 2 of 8:

1. The manhole structure located at the intersection of Highland Place and Grove Street notes a 6" cast iron pipe (CIP) entering the manhole from Highland Place. This should be confirmed, as the sewer line on Highland Place is noted as being an 8" clay pipe, which is consistent with City records.

Sheet 3 of 8:

1. Note No. 2 listed under "Subdivision Notes" on the right side of the sheet shall be revised, as this easement will also pertain to the proposed walkway that is proposed to service Lots 1, 2 and 3.

Sheet 4 of 8:

1. The plan shall note the tree species and size for the 3 trees to be planted along the east side of the driveways on Lots 1 and 2.

2. As currently shown, it appears that the front of the house for Lot 3 is facing Grove Street. If Grove Street is proposed as the front of the lot, then the lot does not comply with the required "Lot Depth" for the R1-5 zone. This lot should be reconfigured to comply with the zoning.

Sheet 5 of 8:

1. The "Site Specific Notes" and "General Construction Notes" found on Sheet 4 shall be included on Sheet 5.

2. The curb stop and sewer clean out proposed for Lot No. 1 should be shifted further to the west to avoid conflict with the proposed storm drainage line along Highland Place.

3. The grading and layout of Lot 3 may have to be revised to address Comment No. 2 noted above for Sheet 4 of 8.

This completes our review at this time. Further comments may be provided based on future submissions. **A written response letter addressing each of the above comments should be provided with the next submission.** If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.

John Russo, P.E.

cc: John Clarke, Planner
Jennifer Gray, Esq.
David Buckley, Building Inspector

City of Beacon Planning Board Agenda
10/12/2022

Title:

Public Hearing on application for Site Plan Approval, Special Use Permit, and Subdivision (lot merger) Approval, Multi-Family residential (62 units), 16 West Main Street, submitted by Farrell Building Company

ATTACHMENTS

A-100 - Building Plans_Planning Board Submittal_11_220927.pdf

A-101 - Building Plans_Planning Board Submittal_11_220927.pdf

A-102 Building PlansPlanning Board Submittal_11_220927.pdf

A-200 - Elevations_Planning Board Submittal_11_220927.pdf

0 - LtrGunn 2022-09-27.pdf

02 - Aryeh Siegel Architect Drawings.pdf

01 - JMC Site Plans 2022-09-27.pdf

03 - Draft Stormwater Maintenance and Easement Agreement 2022-08-30.pdf

04 - Draft Water Main Easement Agreement.pdf

05 - Engineering Report.pdf

1-18119-COVER-COVER.pdf

2-18119-EXISTING-EXIST.pdf

3-18119-EXISTING-DEMO.pdf

4-18119-SITE-LAY.pdf

5-18119-SITE-GRAD.pdf

6-18119-SITE-UTIL.pdf

7-18119-SITE-UTILITY PROFILE.pdf

8-18119-SITE-STORM PROFILE.pdf

9-18119-SITE-ESMNT.pdf

10-18119-SITE-S&E.pdf

11-18119-LIGHTING-LIGHTING.pdf

12-18119-LIGHTING-LIGHT SPEC.pdf

13-18119-SITE-TRUCK-1.pdf

14-18119-SITE-TRUCK-3.pdf

15-18119-SITE-TRUCK-4.pdf

16-18119-SITE-TRUCK-5.pdf

17-18119-SITE-AERIAL.pdf

18-18119-SITE-SIGHT.pdf

19-18119-AERIAL-C-802.pdf

20-18119-DETAILS-C-900.pdf

21-18119-DETAILS-C-901.pdf

22-18119-DETAILS-C-902.pdf

23-18119-DETAILS-C-903.pdf

24-18119-DETAILS-C-904.pdf

25-18119-DETAILS-C-905.pdf

26-18119-DETAILS-C-906.pdf

27-18119-DETAILS-C-907.pdf

28-18119-DETAILS-C-908.pdf

29-18119-L-100-LAND.pdf

Planners Comments Beacon Commons 10.7.22.pdf

Engineers Comments 16 West Main 10-06-22.pdf

NOTE THAT THE FLOOR PLANS OF THE PROPOSED BUILDING DESIGN SHOWN HERE ARE A SCHEMATIC REPRESENTATION OF THE PROPOSED DESIGN OF THE BUILDINGS ONLY, AND ARE NOT INTENDED AS DETAILED REPRESENTATIONS OF THE FINAL DESIGN OR OF SITE CONDITIONS. CHANGES TO WINDOW & DOOR PLACEMENT MAY OCCUR IN THE FINAL CONSTRUCTION DOCUMENTS TO SUIT TENANT LAYOUTS AND BUILDING CODE REQUIREMENTS.



1st Floor Plan



Basement Plan

62 Total Apartments

= 1 Bedroom Apartment (Qty. = 34)	= 2 Bedroom Apartment (Qty. = 20)	*BMR = Below-market-rate Unit (3) 1-Bedroom Units (2) 2- Bedroom Units
= Live Work (Qty. = 7)	= Studio Apartment (Qty. = 1)	

GRAPHIC SCALE
0 8' 16' 32'
SCALE: 1/16" = 1'-0"

No.	Revision	Date	By
1	REVISED PER PLANNING BOARD COMMENTS	11/26/19	AJS
2	REVISED PER PLANNING BOARD COMMENTS	12/31/19	AJS
3	REVISED PER PLANNING BOARD COMMENTS	01/28/20	AJS
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8	REVISED PER PLANNING BOARD COMMENTS	06/28/22	AJS
9	REVISED PER PLANNING BOARD COMMENTS	09/27/22	AJS
	Previous Editions Obsolete		

Drawn: PW Approved: AS
Scale: 1/16" = 1'-0"
Date: 09/24/2019
Project No: 18119
Drawing No: A-100 (1 of 4)

APPLICANT/OWNER:
FARRELL BUILDING COMPANY
2317 MONTAUK HIGHWAY
BRIDGEHAMPTON, NY 11932

ARCHITECT:
ARYEH SIEGEL ARCHITECT
84 MASON CIRCLE
BEACON, NY 12508

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
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BUILDING PLANS

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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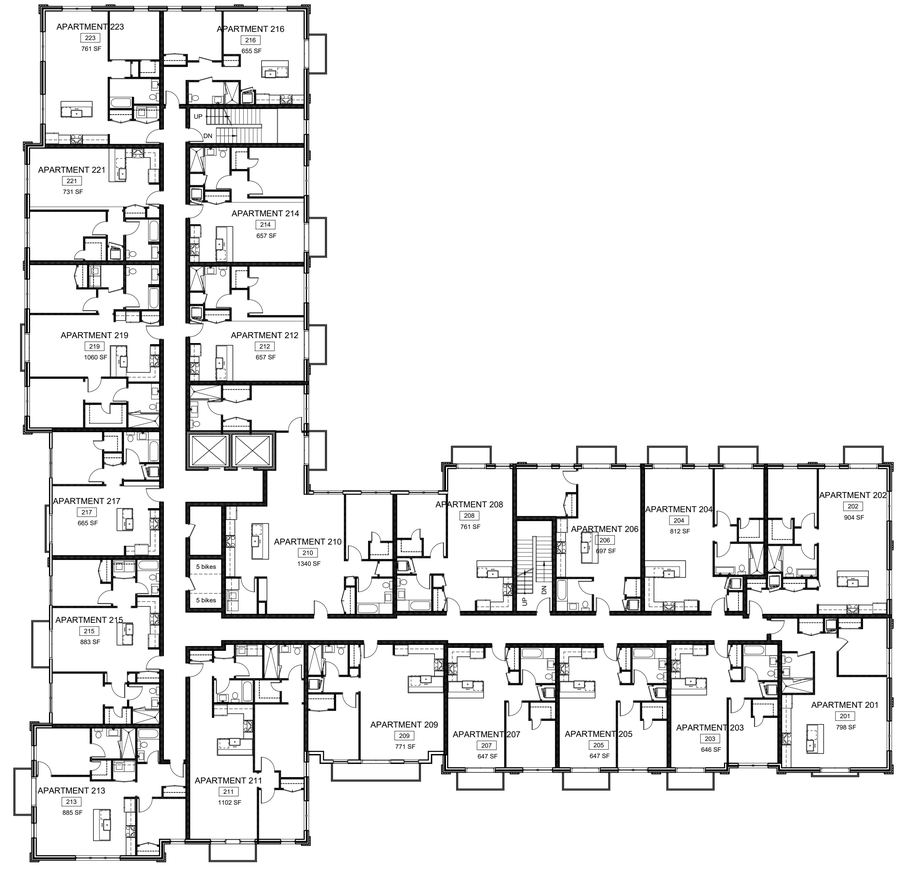
3rd Floor Plan



2nd Floor Plan

62 Total Apartments

= 1 Bedroom Apartment (Qty. = 34)

= 2 Bedroom Apartment (Qty. = 20)

*BMR = Below-market-rate Unit
(3) 1-Bedroom Units
(3) 2- Bedroom Units

= Live Work (Qty. = 7)

= Studio Apartment (Qty. = 1)

0 8' 16' 32'

SCALE: 1/16" = 1'-0"

No.	Revision	Date	By
1	REVISED PER PLANNING BOARD COMMENTS	11/26/19	AJS
2	REVISED PER PLANNING BOARD COMMENTS	12/31/19	AJS
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7	REVISED PER PLANNING BOARD COMMENTS	05/31/22	AJS
8	REVISED PER PLANNING BOARD COMMENTS	06/28/22	AJS
9	REVISED PER PLANNING BOARD COMMENTS	09/27/22	AJS
	Previous Editions Obsolete		

Drawn: PW Approved: AS
Scale: 1/16" = 1'-0"
Date: 09/24/2019
Project No: 18119
Drawing No: A- 101 (2 of 4)

APPLICANT/OWNER:
FARRELL BUILDING COMPANY
2317 MONTAUK HIGHWAY
BRIDGEHAMPTON, NY 11932

ARCHITECT:
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BUILDING PLANS

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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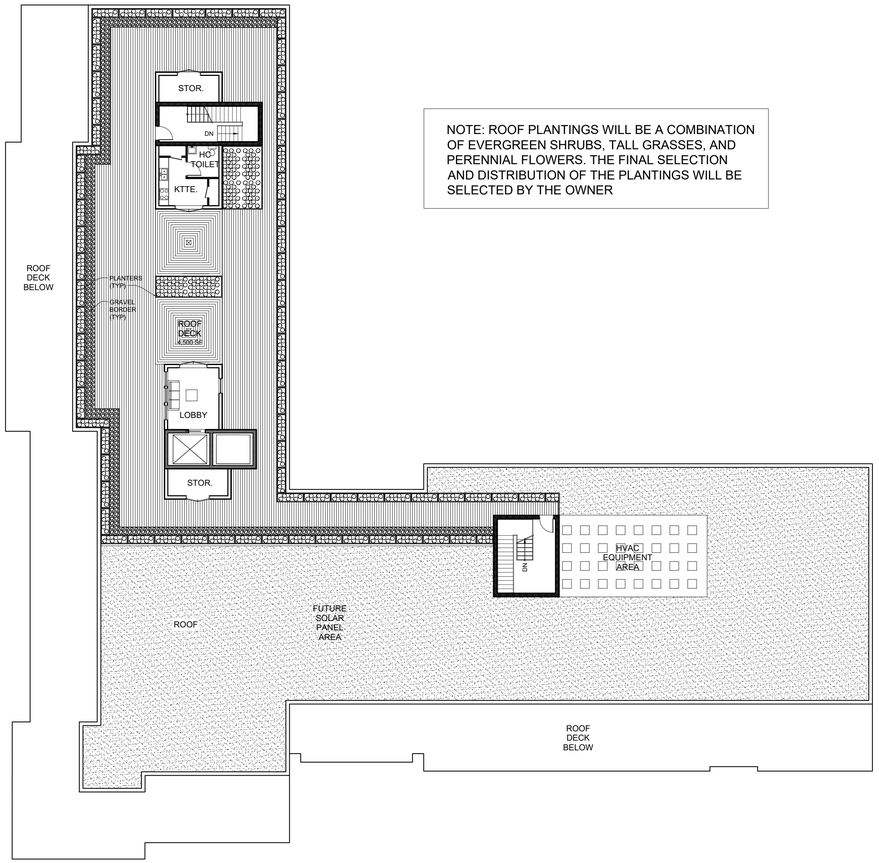
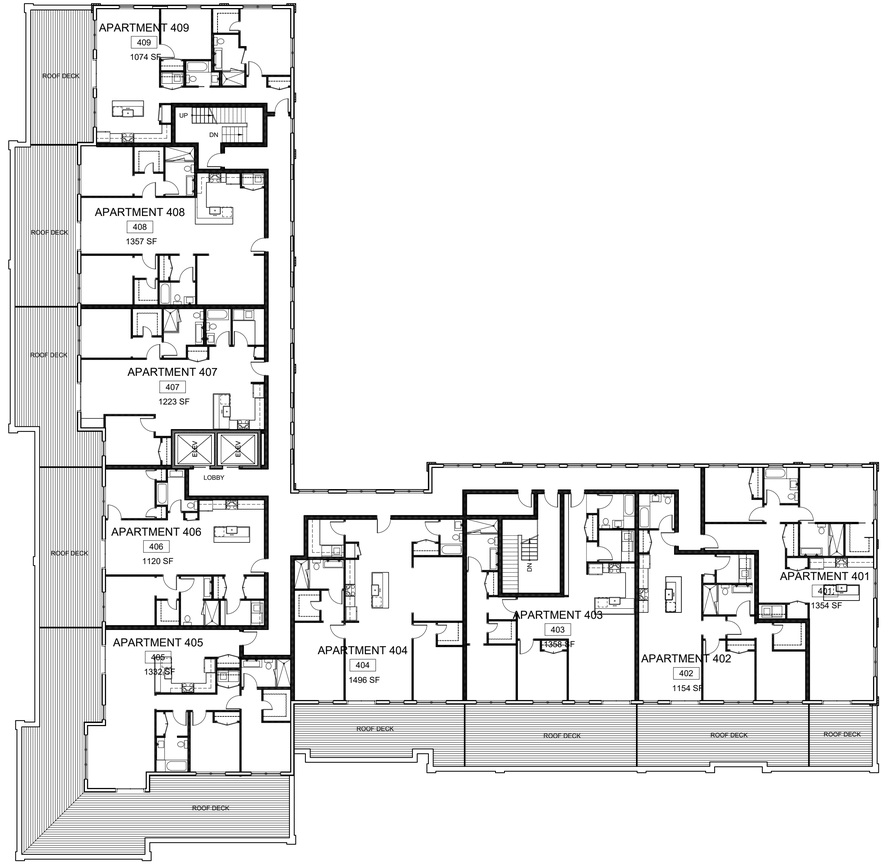
NOTE: ROOF PLANTINGS WILL BE A COMBINATION OF EVERGREEN SHRUBS, TALL GRASSES, AND PERENNIAL FLOWERS. THE FINAL SELECTION AND DISTRIBUTION OF THE PLANTINGS WILL BE SELECTED BY THE OWNER



Roof Plan



4th Floor Plan

62 Total Apartments

	= 1 Bedroom Apartment (Qty. = 34)		= 2 Bedroom Apartment (Qty. = 20)
	= Live Work (Qty. = 7)		= Studio Apartment (Qty. = 1)

*BMR = **Below-market-rate Unit**
(3) 1-Bedroom Units
(3) 2- Bedroom Units

0 8' 16' 32'
SCALE: 1/16" = 1'-0"

No.	Revision	Date	By
1	REVISED PER PLANNING BOARD COMMENTS	11/26/19	AJS
2	REVISED PER PLANNING BOARD COMMENTS	12/31/19	AJS
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8	REVISED PER PLANNING BOARD COMMENTS	06/28/22	AJS
9	REVISED PER PLANNING BOARD COMMENTS	09/27/22	AJS
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Drawn: PW Approved: AS
Scale: 1/16" = 1'-0"
Date: 09/24/2019
Project No: 18119
Drawing No: A- 102 (3 of 4)

APPLICANT/OWNER:
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BRIDGEHAMPTON, NY 11932

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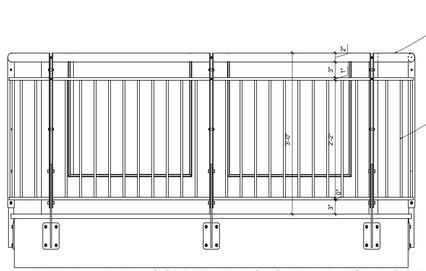

DETAIL AT BALCONY RAILING (SIMILAR FOR ROOF RAILING)

NOTE THAT THE RENDERINGS ARE ARTISTIC INTERPRETATIONS OF THE PROPOSED BUILDING DESIGN TO AID IN REVIEWING THE PROPOSED DESIGN OF THE BUILDINGS ONLY, AND ARE NOT INTENDED AS DETAILED REPRESENTATIONS OF THE FINAL DESIGN OR OF SITE CONDITIONS. APPROVAL IS BASED ON THE ELEVATIONS AND SITE PLAN. NOTE THAT CHANGES TO WINDOW & DOOR PLACEMENT, AND MINOR DESIGN CHANGES MAY OCCUR IN THE FINAL CONSTRUCTION DOCUMENTS TO SUIT TENANT LAYOUTS AND BUILDING CODE REQUIREMENTS.



ELEVATION - SOUTH



ELEVATION - NORTH



ELEVATION - EAST



ELEVATION - WEST



PERSPECTIVE - CORNER OF WEST MAIN STREET & BANK STREET



PERSPECTIVE - LOOKING WEST ON WEST MAIN STREET



PERSPECTIVE - LOOKING NORTHWEST ON WEST MAIN STREET

		Date	By
		11/26/19	AJS
		12/31/19	AJS
		01/28/20	AJS
4	REVISED PER PLANNING BOARD COMMENTS	09/29/20	AJS
5	REVISED PER PLANNING BOARD COMMENTS	07/27/21	AJS
6	REVISED PER PLANNING BOARD COMMENTS	03/25/22	AJS
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BRIDGEHAMPTON, NY 11932

ARCHITECT:
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ELEVATIONS

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

Drawn: PW Approved: AS
Scale: NTS
Date: 09/24/2019
Project No: 18119

Drawing No: A- 200 (4 of 4)

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September 27, 2022

Honorable Chairman John Gunn and Members of the Board
City of Beacon Planning Board
One Municipal Plaza
Beacon, NY 12508

Re: JMC Project 18119
Beacon Commons
16 West Main Street
City of Beacon, NY 12508

Site Plan Approval

Dear Chairman Gunn and Members of the Board:

On behalf of Farrell Building Company, we are pleased to provide five (5) sets of the following revised documents in support of Site Plan Approval for the above captioned project:

1. **JMC Site Plans**

Dwg	Title	Last Revised Date
C-000	Cover Sheet	09/27/2022
C-010	Existing Conditions Plan	09/27/2022
C-020	Demolition Plan	09/27/2022
C-100	Site Plan	09/27/2022
C-200	Grading Plan	09/27/2022
C-300	Utilities Plan	09/27/2022
C-310	Utility Profiles	09/27/2022
C-320	Storm Profiles	09/27/2022
C-330	Easements Plan	09/27/2022
C-400	Sediment and Erosion Control Plan	09/27/2022
C-600	Lighting Plan	09/27/2022
C-601	Lighting Specifications	09/27/2022
C-700	Garbage Truck Turning Plan (Front-Loading)	09/27/2022
C-702	Fire Truck Turning Plan (Scenario 1)	09/27/2022
C-703	Fire Truck Turning Plan (Scenario 2)	09/27/2022
C-704	Fire Truck Turning Plan (Scenario 3)	09/27/2022

C-800	Aerial Site Plan	09/27/2022
C-801	Sight Distance Plan	09/27/2022
C-802	Conceptual Improvements Plan	09/27/2022
C-900	Construction Details	09/27/2022
C-901	Construction Details	09/27/2022
C-902	Construction Details	09/27/2022
C-903	Construction Details	09/27/2022
C-904	Construction Details	09/27/2022
C-905	Construction Details	09/27/2022
C-906	Construction Details	09/27/2022
C-907	Construction Details	09/27/2022
C-908	Construction Details	09/27/2022
L-100	Landscaping Plan	09/27/2022

2. **Aryeh Siegel Architect Drawing List:**

Dwg	Title	Last Revised Date
A-100	Building Plans	09/27/2022
A-101	Building Plans	09/27/2022
A-102	Building Plans	09/27/2022
A-200	Elevations	09/27/2022

3. Draft Stormwater Maintenance Easement Agreement

4. Draft Water Main Easement Agreement

5. Engineering Report - Sanitary Sewer & Water Main, dated 08/22/2022

A. Below please find our responses to the comments within the John Clarke Planning and Design Memorandum, dated September 9, 2022.

Comment No. 1

The City Council has referred to the Board a draft Local Law, which would allow the Planning Board to issue a Special Permit in this case for parking on the adjacent residentially zoned parcel. I suggest that the Board provide a positive recommendation to the Council.

Response No. 1

At the 09/13/2022 meeting, the Planning Board voted to provide a positive recommendation to the City Council. The City Council met on 09/20/2022 and adopted the local law.

Comment No. 2

The Architectural Review Subcommittee met with the project architect for the 4th time on June 17, 2022. The Subcommittee was generally satisfied with the architecture and agreed to refer the design back to the full Board for final review (see attached report).

Response No. 2

So noted. Our understanding is that the project has completed its review with the Architectural Review Subcommittee.

Comment No. 3

No architectural drawings were included in the applicant's submission for the September 13, 2022 meeting, but the previous rendering note on Sheet A-200 should add that Planning Board approval is based on the Site Plan drawings and Building Elevations.

Response No. 3

A revised Sheet A-200 is provided to address the comment.

B. Below please find our responses to the comments within the Lanc & Tully comment letter dated September 8, 2022.

General Comments:

Comment No. 1

A Performance Bond will need to be posted for all public improvements proposed as part of the project. As the project progresses, the applicant's engineer should prepare an itemized cost estimate for all public improvements and submit to the City Engineer's office for review. ***Applicant acknowledges this comment.***

Response No. 1

So noted. A construction estimate is being prepared by the project team and it will be submitted for review. We respectfully request this comment be made a condition of approval in the resolution.

Comment No. 2

The easement agreement between Farrell Communities Beacon and Beacon Todd, although submitted, has not been executed. A fully executed copy of the agreement

shall be submitted for review by the Planning Board Attorney. ***Applicant has noted that once the agreement has been executed it shall be provided.***

Response No. 2

The easement agreements between Farrell Building Company (16 West Main Street) and Beacon Todd (18 West Main Street) are still awaiting final signatures which are expected soon. The final documents can be submitted for City review prior to filing with the County Clerk.

Comment No. 3

The construction schedule provided in the response correspondence seems a little unrealistic, as site work and construction of the walls is proposed to start in October and take 4 months to complete. As this will bring you into the winter months, we this goal hard to achieve, as the ground and materials could be frozen. We would ask that this be looked at realistically given the time of year the work is proposed. ***Applicant has stated that a construction logistics plan and schedule shall be prepared by the project construction manager once they are added to the team and it will be submitted for review. The applicant is requesting that this be made a condition of approval at this time.***

Response No. 3

The construction schedule provided to date has been approximated. A revised construction schedule can be submitted prior to construction once a construction manager has been contracted by the applicant. We respectfully request this comment be made a condition of approval in the resolution.

Comment No. 4

A sheet shall be provided in the plan set showing the location of all easements, along with providing the metes and bounds along each course of said easement.

Response No. 4

A new drawing, Sheet C-320 "Easements Plan" has been added to the site plans set of drawings.

Stormwater Maintenance Agreement:

Comment No. 1

The Planning Board Attorney, upon reviewing the document, should consider if paragraph 11 should be modified, as I do not believe the City of Beacon is looking to take on the maintenance, repair or replacement of these facilities.

Response No. 1

We are awaiting feedback from the Planning Board Attorney who is coordinating with the City Attorney on this comment. The Stormwater Maintenance Agreement shall be revised and resubmitted once direction is provided. We respectfully request this comment be made a condition of approval in the resolution.

Demolition Plan (Sheet 3 of 28):

Comment No. 1

As the plan is showing the sidewalk along West Main to be removed, a pedestrian accessway shall be established to allow pedestrians walking along the roadway to continue in a safe manner since there is no sidewalk on the opposite side of the roadway. This would also apply to the sidewalk along Bank Street. ***The Applicant states a construction logistics plan and schedule shall be prepared by the project construction manager once they are added to the team and it will be submitted for review.*** *This will need to be reviewed by the Beacon Building Department once prepared.* ***The applicant is requesting that this be a condition of approval in the resolution.***

Response No. 1

So noted. A construction logistics plan and schedule shall be submitted to the City Building Department for approval prior to construction. We respectfully request this comment be made a condition of approval in the resolution.

Storm Profile (Sheet 7 of 28):

Comment No. 1

The "Upper Bank Street Water Profile" shall be adjusted to eliminate the high point created in the line below the existing gas main. We would recommend that that after the connection to the existing water main, the new line run at a downward slope to the proposed hydrant, avoiding the creation of any high points that could trap air.

Response No. 1

The location of the water service was shifted to be coordinated with the water closet with the basement mechanical room. The profile was updated accordingly.

We trust that the enclosed documents and above responses are sufficient for the Planning Board's review and we look forward to discussing the project at the next meeting. In the interim, if you have questions or require additional information, please do not hesitate to contact our office at (914) 273-5225.

Sincerely,

JMC Planning Engineering Landscape Architecture & Land Surveying, PLLC

Stephen Spina

Stephen Spina, PE
Senior Project Manager

cc: Mr. Steve Zagoren
Mr. Greg Pancost
Mr. Aryeh Siegel

p:\2018\18119\admin\ltrgunn 2022-09-27.docx

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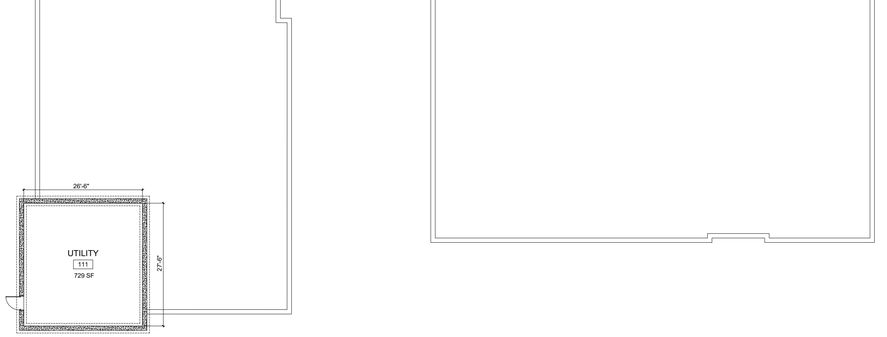
1st Floor Plan



Basement Plan

62 Total Apartments

= 1 Bedroom Apartment (Qty. = 34)	= 2 Bedroom Apartment (Qty. = 20)	*BMR = Below-market-rate Unit (3) 1-Bedroom Units (2) 2- Bedroom Units
= Live Work (Qty. = 7)	= Studio Apartment (Qty. = 1)	

GRAPHIC SCALE
0 8' 16' 32'
SCALE: 1/16" = 1'-0"

No.	Revision	Date	By
1	REVISED PER PLANNING BOARD COMMENTS	11/26/19	AJS
2	REVISED PER PLANNING BOARD COMMENTS	12/31/19	AJS
3	REVISED PER PLANNING BOARD COMMENTS	01/28/20	AJS
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8	REVISED PER PLANNING BOARD COMMENTS	06/28/22	AJS
9	REVISED PER PLANNING BOARD COMMENTS	09/27/22	AJS
	Previous Editions Obsolete		

Drawn: PW Approved: AS
Scale: 1/16" = 1'-0"
Date: 09/24/2019
Project No: 18119
Drawing No: A-100 (1 of 4)

APPLICANT/OWNER:
FARRELL BUILDING COMPANY
2317 MONTAUK HIGHWAY
BRIDGEHAMPTON, NY 11932

ARCHITECT:
ARYEH SIEGEL ARCHITECT
84 MASON CIRCLE
BEACON, NY 12508

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JMC Site Development Consultants, LLC
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voice 914.273.5225 • fax 914.273.2102
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BUILDING PLANS

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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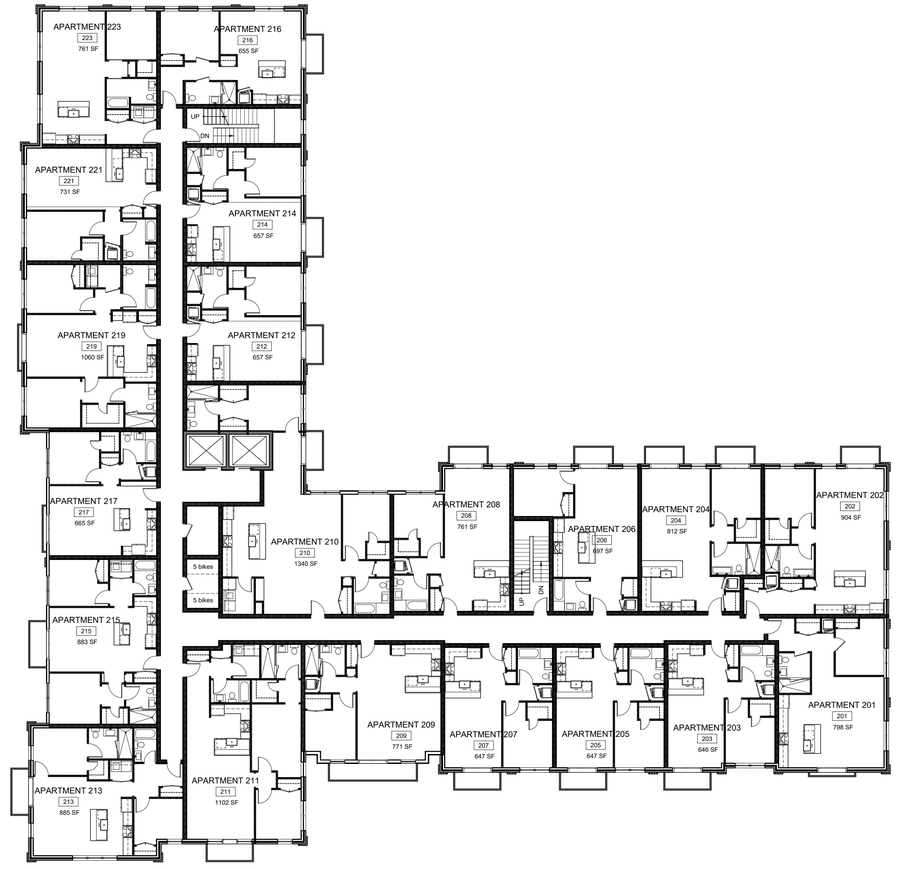
3rd Floor Plan



2nd Floor Plan

62 Total Apartments

= 1 Bedroom Apartment (Qty. = 34)

= 2 Bedroom Apartment (Qty. = 20)

*BMR = Below-market-rate Unit
(3) 1-Bedroom Units
(3) 2- Bedroom Units

= Live Work (Qty. = 7)

= Studio Apartment (Qty. = 1)

0 8' 16' 32'

SCALE: 1/16" = 1'-0"

No.	Revision	Date	By
1	REVISED PER PLANNING BOARD COMMENTS	11/26/19	AJS
2	REVISED PER PLANNING BOARD COMMENTS	12/31/19	AJS
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BUILDING PLANS

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

Drawn:	PW
Approved:	AS
Scale:	1/16" = 1'-0"
Date:	09/24/2019
Project No:	18119
Drawing No:	A- 101 (2 of 4)

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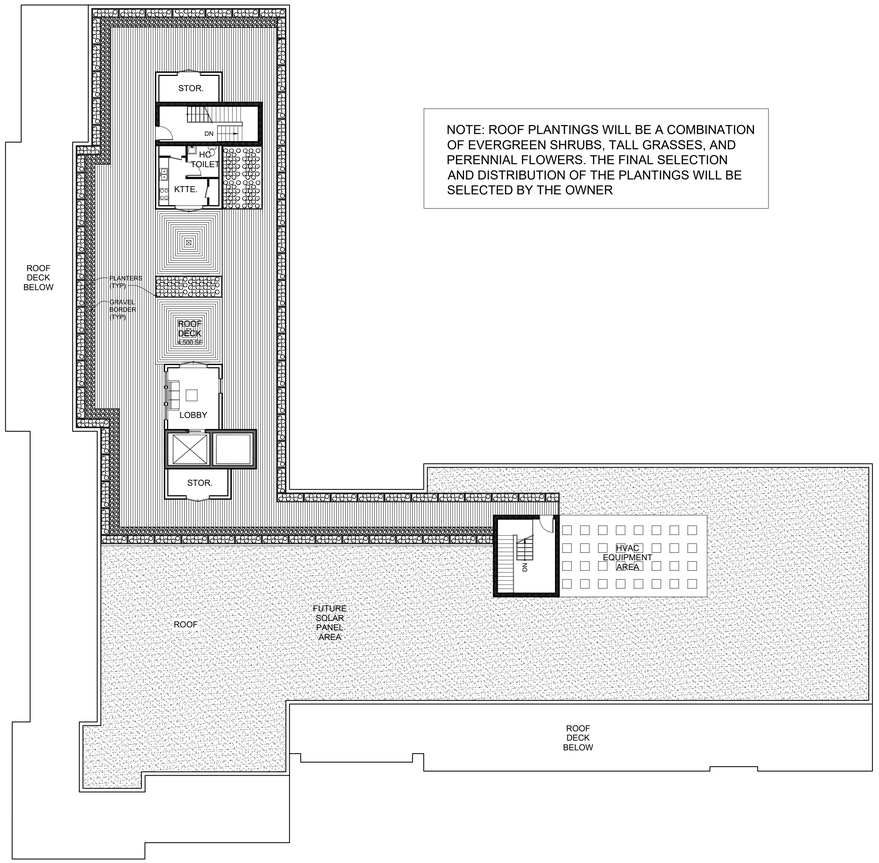
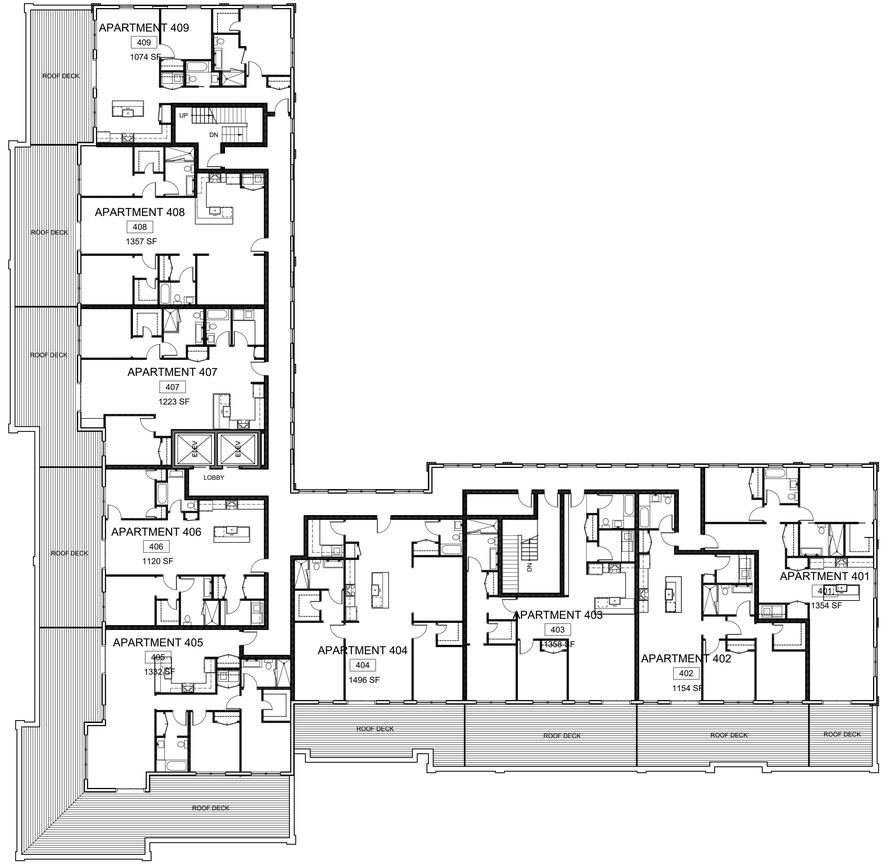


NOTE: ROOF PLANTINGS WILL BE A COMBINATION OF EVERGREEN SHRUBS, TALL GRASSES, AND PERENNIAL FLOWERS. THE FINAL SELECTION AND DISTRIBUTION OF THE PLANTINGS WILL BE SELECTED BY THE OWNER

Roof Plan



4th Floor Plan

62 Total Apartments

= 1 Bedroom Apartment (Qty. = 34)	= 2 Bedroom Apartment (Qty. = 20)	*BMR =	**Below-market-rate Unit** (3) 1-Bedroom Units (3) 2- Bedroom Units
= Live Work (Qty. = 7)	= Studio Apartment (Qty. = 1)		

0 8' 16' 32'

SCALE: 1/16" = 1'-0"

No.	Revision	Date	By
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2	REVISED PER PLANNING BOARD COMMENTS	12/31/19	AJS
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9	REVISED PER PLANNING BOARD COMMENTS	09/27/22	AJS
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BRIDGEHAMPTON, NY 11932

ARCHITECT:
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BUILDING PLANS

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

Drawn: PW Approved: AS
Scale: 1/16" = 1'-0"
Date: 09/24/2019
Project No: 18119
Drawing No: A- 102 (3 of 4)

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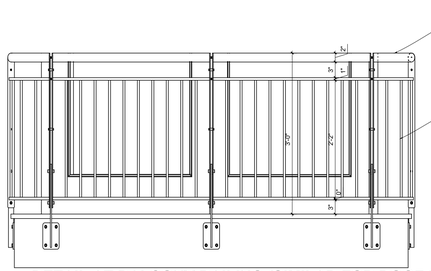

DETAIL AT BALCONY RAILING (SIMILAR FOR ROOF RAILING)

NOTE THAT THE RENDERINGS ARE ARTISTIC INTERPRETATIONS OF THE PROPOSED BUILDING DESIGN TO AID IN REVIEWING THE PROPOSED DESIGN OF THE BUILDINGS ONLY, AND ARE NOT INTENDED AS DETAILED REPRESENTATIONS OF THE FINAL DESIGN OR OF SITE CONDITIONS. APPROVAL IS BASED ON THE ELEVATIONS AND SITE PLAN. NOTE THAT CHANGES TO WINDOW & DOOR PLACEMENT, AND MINOR DESIGN CHANGES MAY OCCUR IN THE FINAL CONSTRUCTION DOCUMENTS TO SUIT TENANT LAYOUTS AND BUILDING CODE REQUIREMENTS.



ELEVATION - SOUTH



ELEVATION - NORTH



ELEVATION - EAST



ELEVATION - WEST



PERSPECTIVE - CORNER OF WEST MAIN STREET & BANK STREET



PERSPECTIVE - LOOKING WEST ON WEST MAIN STREET



PERSPECTIVE - LOOKING NORTHWEST ON WEST MAIN STREET

		Date	By
		11/26/19	AJS
		12/31/19	AJS
		01/28/20	AJS
4	REVISED PER PLANNING BOARD COMMENTS	09/29/20	AJS
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	Previous Editions Obsolete		

APPLICANT/OWNER:
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2317 MONTAUK HIGHWAY
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ELEVATIONS

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

Drawn:	PW
Approved:	AS
Scale:	NTS
Date:	09/24/2019
Project No:	18119

Drawing No: A- 200 (4 of 4)

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SITE PLAN DRAWINGS

BEACON COMMONS

TAX MAP SECTION 5954 | BLOCK 25 | LOT 616969
DUTCHESS COUNTY
16 WEST MAIN STREET
BEACON, NY 12508

Applicant:
FARRELL COMMUNITIES BEACON LLC
PO BOX 14
BRIDGEHAMPTON, NY 11932
(631) 549-9800

Architect:
ARYEH SIEGEL ARCHITECT
84 MASON CIRCLE
BEACON, NY 12508
(845) 838-2490

Site Planner, Civil & Traffic Engineer, Surveyor and Landscape Architect:
120 BEDFORD ROAD
ARMONK, NY 10504
(914) 273-5225

Geotechnical Engineer:
CARLIN-SIMPSON & ASSOCIATES
61 MAIN STREET
SAYREVILLE, NJ 08872
(732) 432-5757

NLG ENGINEERING, PC
3062 9W, SUITE 500
NEW WINDSOR, NEW YORK, 12553
(845) 562-7005

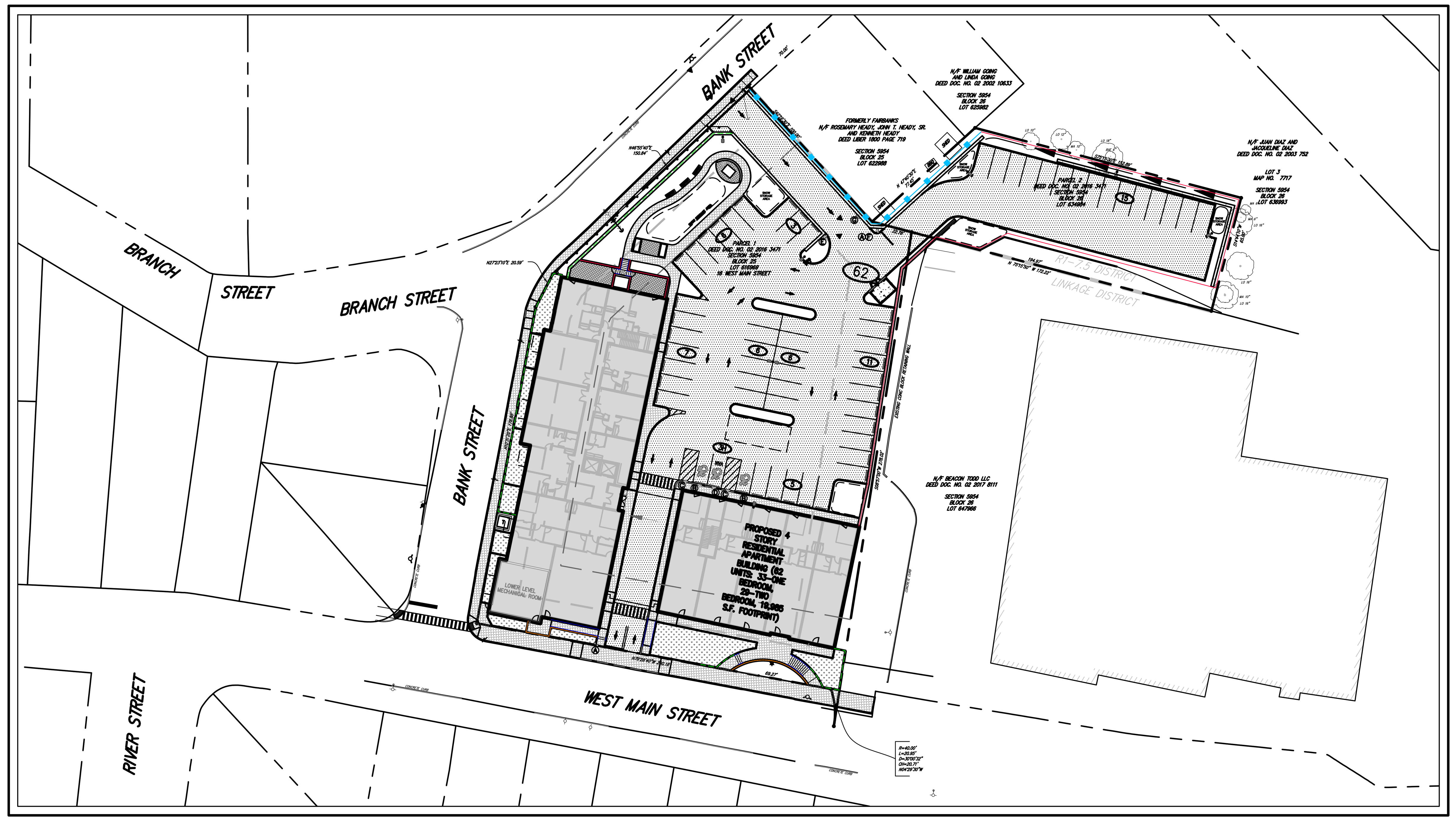
Structural Engineer:
A DEGREE OF FREEDOM, STRUCTURAL ENGINEER, PLLC
34 WEST 15TH STREET, 7TH FLOOR
NEW YORK, NY 10011
(212) 495-9370

JMC Drawing List:

C-000	(SHEET 1 OF 29)	COVER SHEET
C-010	(SHEET 2 OF 29)	EXISTING CONDITIONS PLAN
C-020	(SHEET 3 OF 29)	DEMOLITION PLAN
C-100	(SHEET 4 OF 29)	SITE PLAN
C-200	(SHEET 5 OF 29)	GRADING PLAN
C-300	(SHEET 6 OF 29)	UTILITIES PLAN
C-310	(SHEET 7 OF 29)	UTILITY PROFILES
C-320	(SHEET 8 OF 29)	STORM PROFILES
C-330	(SHEET 9 OF 29)	EASEMENT PLAN
C-400	(SHEET 10 OF 29)	SEDIMENT AND EROSION CONTROL PLAN
C-600	(SHEET 11 OF 29)	LIGHTING PLAN
C-601	(SHEET 12 OF 29)	LIGHTING SPECIFICATIONS
C-700	(SHEET 13 OF 29)	GARBAGE TRUCK TURNING PLAN (FRONT-LOADING)
C-702	(SHEET 14 OF 29)	FIRE TRUCK TURNING PLAN (SCENARIO 1)
C-703	(SHEET 15 OF 29)	FIRE TRUCK TURNING PLAN (SCENARIO 2)
C-704	(SHEET 16 OF 29)	FIRE TRUCK TURNING PLAN (SCENARIO 3)
C-800	(SHEET 17 OF 29)	AERIAL SITE PLAN
C-801	(SHEET 18 OF 29)	SIGHT DISTANCE PLAN
C-802	(SHEET 19 OF 29)	CONCEPTUAL IMPROVEMENTS PLAN
C-900	(SHEET 20 OF 29)	CONSTRUCTION DETAILS
C-901	(SHEET 21 OF 29)	CONSTRUCTION DETAILS
C-902	(SHEET 22 OF 29)	CONSTRUCTION DETAILS
C-903	(SHEET 23 OF 29)	CONSTRUCTION DETAILS
C-904	(SHEET 24 OF 29)	CONSTRUCTION DETAILS
C-905	(SHEET 25 OF 29)	CONSTRUCTION DETAILS
C-906	(SHEET 26 OF 29)	CONSTRUCTION DETAILS
C-907	(SHEET 27 OF 29)	CONSTRUCTION DETAILS
C-908	(SHEET 28 OF 29)	CONSTRUCTION DETAILS
L-100	(SHEET 29 OF 29)	LANDSCAPING PLAN

ARYEH SIEGEL ARCHITECT Drawing List:

A-100	(SHEET 1 OF 4)	BUILDING PLANS (BASEMENT AND 1ST FLOOR)
A-101	(SHEET 2 OF 4)	BUILDING PLANS (2ND FLOOR AND 3RD FLOOR)
A-102	(SHEET 3 OF 4)	BUILDING PLANS (4TH FLOOR AND ROOF)
A-200	(SHEET 4 OF 4)	BUILDING ELEVATIONS

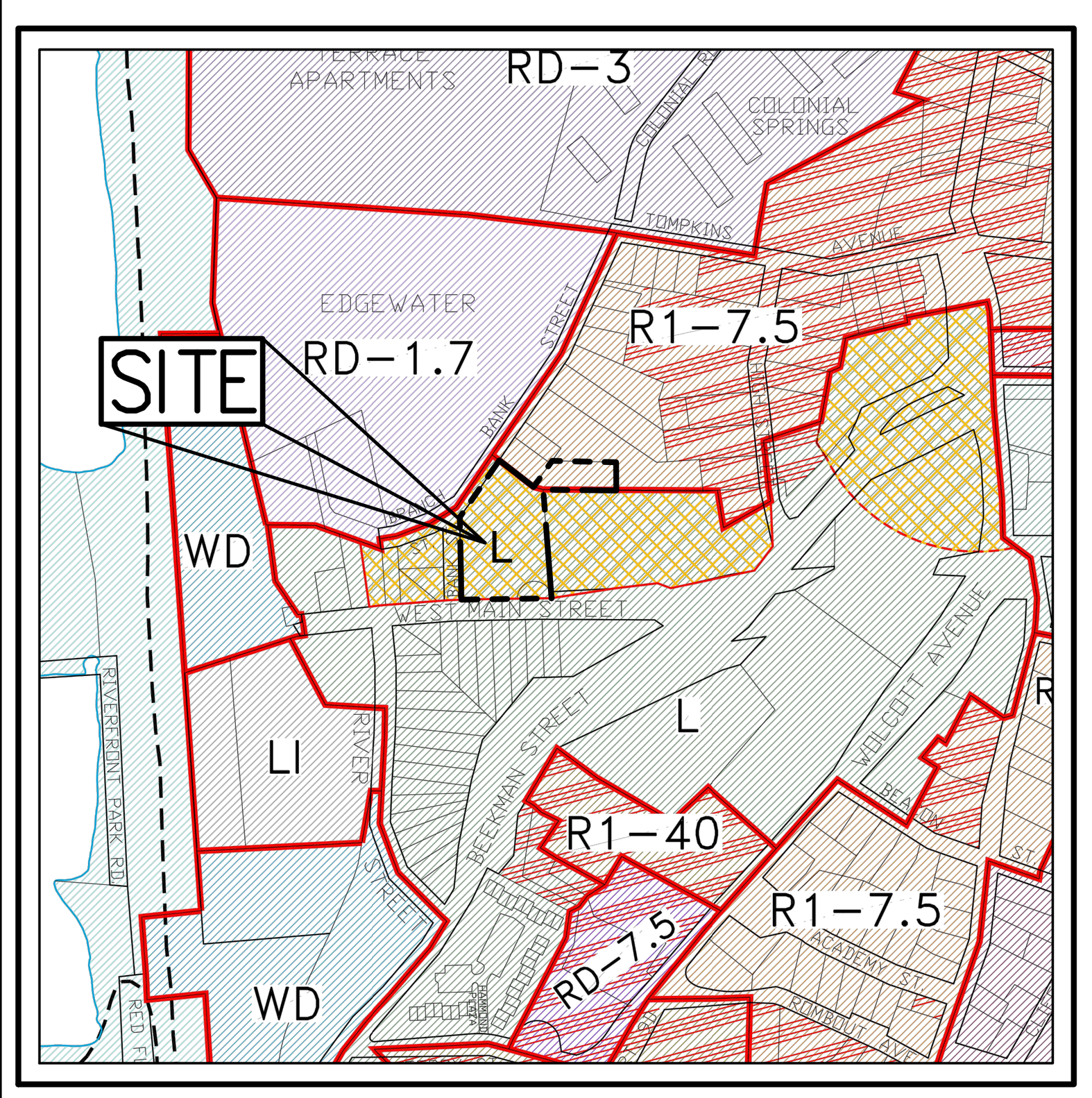


AREA MAP
SCALE: 1" = 50'

TABLE OF LAND USE

SECTION 5954, BLOCK 25, LOT 616969
ZONE "L" – "LINKAGE DISTRICT"
PROPOSED USE: RESIDENTIAL
FIRE DISTRICT: CITY OF BEACON
WATER DISTRICT: CITY OF BEACON
BEACON CITY SCHOOL DISTRICT
SEWER DISTRICT: CITY OF BEACON

DESCRIPTION		REQUIRED	EXISTING	PROPOSED
LOT AREA (PARCELS 1, 2 & 3)	(FEET)	–	1.5 ACRES	1.5 ACRES
LOT WIDTH	(FEET)	–	201'	201'
LOT FRONTAGE	(FEET)	–	555'	555'
LOT DEPTH	(FEET)	75'	320'	320'
BUILDING HEIGHT	(FEET/STORIES)	48'/4 STORIES	–	48'/4 STORIES
FLOOR AREA RATIO		–	–	–
LOT COVERAGE BY LANDSCAPING	(PERCENT)	15% MIN.	47%	17%
YARDS				
FRONT BUILDING SETBACK	(FEET)	MIN. 0'/MAX. 20'	53'/107'	4'
REAR BUILDING SETBACK	(FEET)	MIN. 25'	88'	112'
SIDE BUILDING SETBACK (CORNER LOT)	(FEET)	MIN. 0'/MAX. 30'	13'	3'
PARKING SETBACKS				
FRONT/SIDE (FOR CORNER) PARKING SETBACK	(FEET)	40'/40'	29'/24'	97'/40'
REAR PARKING SETBACK	(FEET)	–	–	–
SIDE PARKING SETBACK	(FEET)	–	–	–
PARKING SUMMARY				
TOTAL SPACES REQUIRED	(1 SPACE/UNIT)	62	28	62
STANDARD SPACES		59	26	59
ACCESSIBLE SPACES		3	2	3



ZONING / VICINITY MAP
SCALE: 1" = 500'
CITY OF BEACON.ORG:
ZONING / 10/04/2017

LEGEND

(dash-dot line)	SITE PROPERTY LINE
(red line)	ZONING BOUNDARY
(thin line)	LOT LINE
L	LINKAGE
LI	LIGHT INDUSTRIAL
WD	WATER FRONT DEVELOPMENT
R1-40	ONE FAMILY RESIDENTIAL
R1-7.5	ONE FAMILY RESIDENTIAL
RD-1.7	DESIGNED RESIDENCE
CB	CENTRAL BUSINESS

GENERAL CONSTRUCTION NOTES APPLY TO ALL WORK HEREIN:

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CALL 811 "DIG SAFELY" (1–800–962–7962) TO HAVE UNDERGROUND UTILITIES LOCATED. EXPLORATORY EXCAVATIONS SHALL COMPLY WITH CODE 753 REQUIREMENTS. NO WORK SHALL COMMENCE UNTIL ALL THE OPERATORS HAVE NOTIFIED THE CONTRACTOR THAT THEIR UTILITIES HAVE BEEN LOCATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE UNDERGROUND AND SURFACE UTILITIES AND STRUCTURES AT OR ADJACENT TO THE SITE OF CONSTRUCTION, INSOFAR AS THEY MAY BE ENDANGERED BY THE CONTRACTOR'S OPERATIONS. THIS SHALL HOLD TRUE WHETHER OR NOT THEY ARE SHOWN ON THE CONTRACT DRAWINGS. IF THEY ARE SHOWN ON THE DRAWINGS, THEIR LOCATIONS ARE NOT GUARANTEED EVEN THOUGH THE INFORMATION WAS OBTAINED FROM THE BEST AVAILABLE SOURCES, AND IN ANY EVENT, OTHER UTILITIES ON THESE PLANS MAY BE ENCOUNTERED IN THE FIELD. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, IMMEDIATELY REPAIR OR REPLACE ANY STRUCTURES OR UTILITIES THAT HE DAMAGES, AND SHALL CONSTANTLY PROCEED WITH CAUTION TO PREVENT UNDUE INTERRUPTION OF UTILITY SERVICE.
2. CONTRACTOR SHALL HAND DIG TEST PITS TO VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL VERIFY EXISTING UTILITIES DEPTHS AND ADVISE OF ANY CONFLICTS WITH PROPOSED UTILITIES. IF CONFLICTS ARE PRESENT. THE OWNER'S FIELD REPRESENTATIVE, JMC, PLLC AND THE APPLICABLE MUNICIPALITY OR AGENCY SHALL BE NOTIFIED IN WRITING. THE EXISTING/PROPOSED UTILITIES RELOCATION SHALL BE DESIGNED BY JMC, PLLC.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY AND ALL LOCAL PERMITS REQUIRED.
4. ALL WORK SHALL BE DONE IN STRICT COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES, STANDARDS, ORDINANCES, RULES, AND REGULATIONS. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL SAFETY CODES. APPLICABLE SAFETY CODES MEAN THE LATEST EDITION INCLUDING ANY AND ALL AMENDMENTS, REVISIONS, AND ADDITIONS THERETO, TO THE FEDERAL DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S OCCUPATIONAL SAFETY AND HEALTH STANDARDS (OSHA); AND APPLICABLE SAFETY, HEALTH REGULATIONS AND BUILDING CODES FOR CONSTRUCTION IN THE STATE OF NEW YORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GUARDING AND PROTECTING ALL OPEN EXCAVATIONS IN ACCORDANCE WITH THE PROVISION OF SECTION 107–05 (SAFETY AND HEALTH REQUIREMENTS) OF THE NYSDOT STANDARD SPECIFICATIONS. IF THE CONTRACTOR PERFORMS ANY HAZARDOUS CONSTRUCTION PRACTICES, ALL OPERATIONS IN THE AFFECTED AREA SHALL BE DISCONTINUED AND IMMEDIATE ACTION SHALL BE TAKEN TO CORRECT THE SITUATION TO THE SATISFACTION OF THE APPROVAL AUTHORITY HAVING JURISDICTION.
5. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES AFFECTED BY THE SCOPE OF WORK SHOWN HEREON AT ALL TIMES TO THE SATISFACTION OF THE OWNERS REPRESENTATIVE. RAMPING CONSTRUCTION TO PROVIDE ACCESS MAY BE CONSTRUCTED WITH SUBBASE MATERIAL EXCEPT THAT TEMPORARY ASPHALT CONCRETE SHALL BE PLACED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE PEDESTRIAN ACCESS AT ALL TIMES.

SUBSURFACE UTILITY LOCATIONS ARE BASED ON A COMPILATION OF FIELD EVIDENCE, AVAILABLE RECORD PLANS AND/OR UTILITY MARK-OUTS. THE LOCATION OR COMPLETENESS OF UNDERGROUND INFORMATION CANNOT BE GUARANTEED. VERIFY THE ACTUAL LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION OR CONSTRUCTION.

811 Know what's below. Call before you dig.

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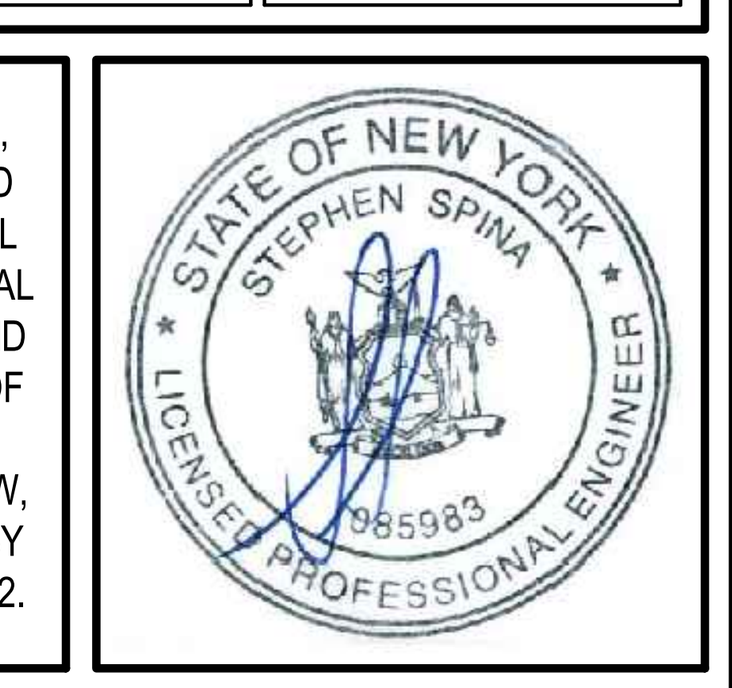

No.	Revision	Date	By
3.	REVISED PER CITY COMMENTS	09/29/2020	AH
4.	REVISED PER CITY COMMENTS	07/27/2021	BMS
5.	REVISED PER CITY COMMENTS	03/25/2022	BMS
6.	REVISED PER CITY COMMENTS	05/31/2022	BMS
7.	REVISED PER CITY COMMENTS	06/28/2022	BMS
8.	REVISED PER CITY COMMENTS	08/30/2022	SMN
9.	REVISED PER CITY COMMENTS	09/27/2022	SMN
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Date: 10/29/2019	
Project No: 18119	
18119-COVER	COVER / COVER.scr
Drawing No: C–000 (Sheet 1 of 29)	

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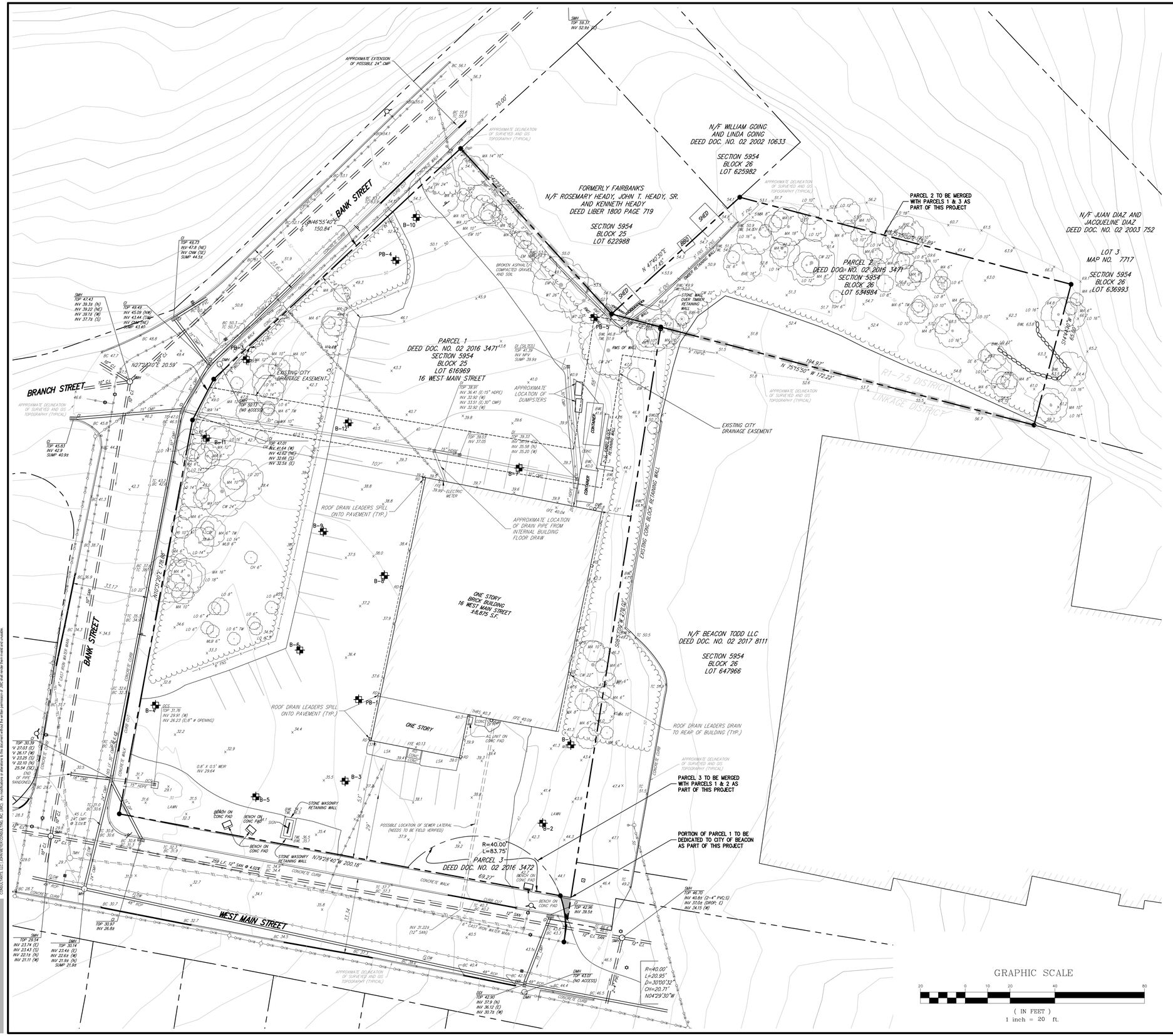

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING INDEX CONTOUR
- EXISTING CONTOUR
- EXISTING SPOT GRADE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- EXISTING TREE LINE
- EXISTING PARKING
- EXISTING STORM DRAIN LINE AND SIZE
- EXISTING SANITARY LINE AND SIZE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- BORING LOCATION & DESIGNATION

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC SURVEY," PREPARED BY JMC PLANNING ENGINEERING LANDSCAPE ARCHITECURE & LAND SURVEYING, PLLC, DATED 09/20/2018, LAST REVISED 03/02/2020.
2. THE TOPOGRAPHY SHOWN IS REFERENCED FROM NAVD88 VERTICAL DATUM AS SHOWN ON THE ABOVE TOPOGRAPHIC SURVEY.
3. SUPPLEMENTAL TOPOGRAPHY BEYOND THE LIMIT OF SURVEYED TOPOGRAPHY IS TAKEN FROM DUTCHESS COUNTY GIS.
4. THE PROJECT SITE IS LOCATED IN ZONE X, "AREA OF MINIMAL FLOOD HAZARD," ACCORDING TO FEMA MAP NO. 36027C0463E, EFFECTIVE 05/02/2012.
5. THE EXISTING SANITARY SEWER SERVICE LATERAL WAS NOT LOCATED AND IS PROPOSED TO BE REMOVED. IT IS ASSUMED TO BE LOCATED FROM THE SOUTH SIDE OF THE BUILDING TO THE MAIN WITHIN WEST MAIN STREET. THE CONTRACTOR SHALL VERIFY AND REMOVE IN ACCORDANCE WITH DUTCHESS COUNTY HEALTH DEPARTMENT AND CITY OF BEACON STANDARDS.
6. SOIL BORING DATA SHOWN ON THIS PLAN WAS TAKEN FROM THE "REPORT ON SUBSURFACE SOIL AND FOUNDATION INVESTIGATION," DATED 09/28/2020, LAST REVISED 03/02/2022, PREPARED BY CARLIN SIMPSON & ASSOCIATES.

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STATE OF NEW YORK · STEPHEN SPINA · LICENSED PROFESSIONAL ENGINEER · 085983

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Date: 10/29/2019
Project No: 18119
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Drawing No: C–010 (Sheet 2 of 29)

EXISTING CONDITIONS PLAN

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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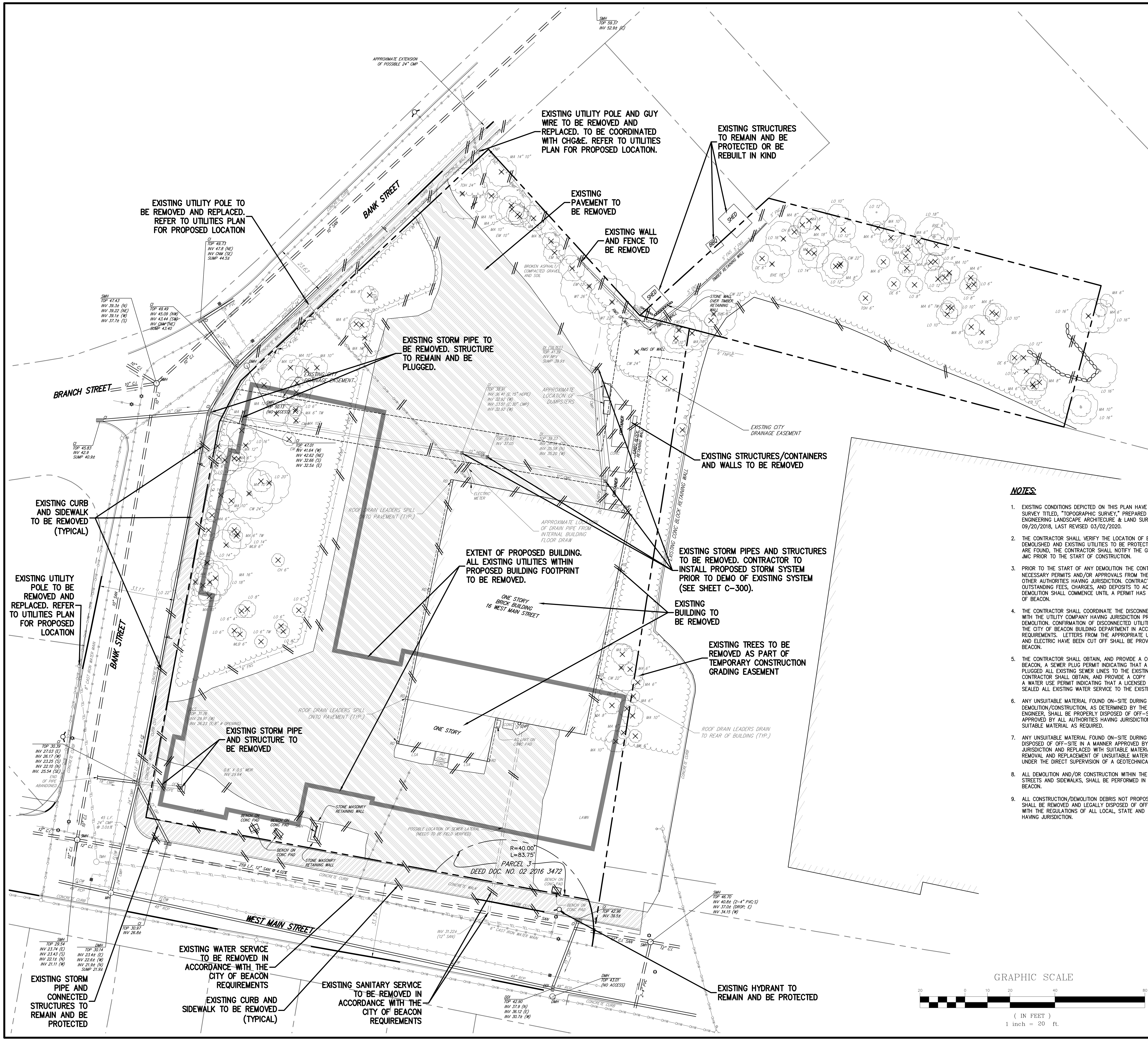

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING RETAINING WALL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- EXISTING TREE TO BE REMOVED
- EXISTING TREE LINE
- EXISTING PARKING
- EXISTING STORM DRAIN LINE AND SIZE
- EXISTING SANITARY LINE AND SIZE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING FEATURE TO BE REMOVED
- PAVEMENT REMOVAL
- CONCRETE REMOVAL
- PROPOSED BUILDING FOOTPRINT

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC SURVEY," PREPARED BY JMC PLANNING ENGINEERING LANDSCAPE ARCHITECURE & LAND SURVEYING, PLLC, DATED 09/20/2018, LAST REVISED 03/02/2020.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES TO BE DEMOLISHED AND EXISTING UTILITIES TO BE PROTECTED. IF ANY DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR AND JMC PRIOR TO THE START OF CONSTRUCTION.
3. PRIOR TO THE START OF ANY DEMOLITION THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND/OR APPROVALS FROM THE CITY OF BEACON AND ALL OTHER AUTHORITIES HAVING JURISDICTION. CONTRACTOR SHALL PAY ALL OUTSTANDING FEES, CHARGES, AND DEPOSITS TO ACQUIRE SAID PERMITS. NO DEMOLITION SHALL COMMENCE UNTIL A PERMIT HAS BEEN OBTAINED FROM CITY OF BEACON.
4. THE CONTRACTOR SHALL COORDINATE THE DISCONNECTION OF ALL UTILITIES WITH THE UTILITY COMPANY HAVING JURISDICTION PRIOR TO THE START OF DEMOLITION. CONFIRMATION OF DISCONNECTED UTILITIES SHALL BE PROVIDED TO THE CITY OF BEACON BUILDING DEPARTMENT IN ACCORDANCE WITH THEIR REQUIREMENTS. LETTERS FROM THE APPROPRIATE UTILITIES STATING THAT GAS AND ELECTRIC HAVE BEEN CUT OFF SHALL BE PROVIDED TO THE CITY OF BEACON.
5. THE CONTRACTOR SHALL OBTAIN, AND PROVIDE A COPY TO THE CITY OF BEACON, A SEWER PLUG PERMIT INDICATING THAT A LICENSED PLUMBER HAS PLUGGED ALL EXISTING SEWER LINES TO THE EXISTING BUILDING. THE CONTRACTOR SHALL OBTAIN, AND PROVIDE A COPY TO THE CITY OF BEACON, A WATER USE PERMIT INDICATING THAT A LICENSED PLUMBER HAS CUT AND SEALED ALL EXISTING WATER SERVICE TO THE EXISTING BUILDING.
6. ANY UNSUITABLE MATERIAL FOUND ON-SITE DURING DEMOLITION/CONSTRUCTION, AS DETERMINED BY THE PROJECT'S GEOTECHNICAL ENGINEER, SHALL BE PROPERLY DISPOSED OF OFF-SITE IN A MANNER APPROVED BY ALL AUTHORITIES HAVING JURISDICTION AND REPLACED WITH SUITABLE MATERIAL AS REQUIRED.
7. ANY UNSUITABLE MATERIAL FOUND ON-SITE DURING CONSTRUCTION SHALL BE DISPOSED OF OFF-SITE IN A MANNER APPROVED BY ALL AUTHORITIES HAVING JURISDICTION AND REPLACED WITH SUITABLE MATERIAL AS REQUIRED. ALL REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL SHALL BE COMPLETED UNDER THE DIRECT SUPERVISION OF A GEOTECHNICAL ENGINEER.
8. ALL DEMOLITION AND/OR CONSTRUCTION WITHIN THE RIGHT-OF-WAY, INCLUDING STREETS AND SIDEWALKS, SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF BEACON.
9. ALL CONSTRUCTION/DEMOLITION DEBRIS NOT PROPOSED TO BE RECYCLED SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE IN ACCORDANCE WITH THE REGULATIONS OF ALL LOCAL, STATE AND FEDERAL AGENCIES HAVING JURISDICTION.
10. PRIOR TO THE START OF SITE DEMOLITION, EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF BEACON, AS REQUIRED AND/OR DIRECTED BY THE CITY OF BEACON OR JMC.
11. EXISTING DRAINAGE PATTERNS ON SITE SHALL BE MAINTAINED TO THE MAXIMUM EXTENT PRACTICABLE.
12. ALL EXISTING UTILITY CASTINGS WHICH ARE TO REMAIN SHALL BE REMOVED AND RESET TO THE NEW PROPOSED GRADES IN ACCORDANCE WITH THE DIRECTIONS OF THE OWNER'S FIELD REPRESENTATIVE. EXISTING CASTINGS WHICH ARE DAMAGED OR UNFIT FOR INSTALLATION IN THE NEW CONSTRUCTION, AS DETERMINED BY THE OWNER'S FIELD REPRESENTATIVE, SHALL BE REPLACED.
13. ALL EXISTING SIDEWALKS, CURBS, PAVEMENT, ETC. TO REMAIN, WHICH ARE DISTURBED OR DAMAGED DUE TO THE NEW CONSTRUCTION, ARE TO BE REPLACED WITH MATERIALS CONSISTENT WITH EXISTING CONDITIONS.
14. THESE PLANS ARE TO BE PROVIDED TO BOTH THE DEMOLITION CONTRACTOR AND THE SITE CONTRACTOR FOR THEIR USE, INFORMATION AND COORDINATION. ANY QUESTIONS OF CONTRACTOR RESPONSIBILITY AND/OR SEPARATION OF WORK SHALL BE DIRECTED TO THE GENERAL CONTRACTOR IN WRITING PRIOR TO ISSUANCE OF BID.
15. THE OWNER SHALL RETAIN A LICENSED AND QUALIFIED PROFESSIONAL, CERTIFIED BY THE CITY OF BEACON, TO INSPECT FOR THE PRESENCE OF ASBESTOS AND/OR OTHER HAZARDOUS MATERIALS WITHIN DEMOLITION AREAS PRIOR TO THE COMMENCEMENT OF DEMOLITION. IF REMEDIATION IS REQUIRED, THE OWNER SHALL DO SO IN ACCORDANCE WITH THE NYS ASBESTOS RULES AND REGULATIONS AND/OR ANY AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED DOCUMENTATION TO THE NYS PRIOR TO OBTAINING A DEMOLITION PERMIT.
16. THE CONTRACTOR SHALL EXTERMINATE RODENTS AS REQUIRED BY THE DUTCHESS COUNTY DEPARTMENT OF HEALTH AND MENTAL HYGIENE. A LETTER FROM THE HEALTH DEPARTMENT CERTIFYING THAT A LICENSED EXTERMINATOR HAS TREATED THE EXITING BUILDING SHALL BE PROVIDED TO THE CITY OF BEACON DEPARTMENT OF BUILDINGS.
17. PRIOR TO COMMENCEMENT OF DEMOLITION, THE CONTRACTOR MUST PROVIDE 24-HOUR NOTIFICATION TO THE CITY OF BEACON.
18. THE CONTRACTOR SHALL PROVIDE VERIFICATION TO THE CITY OF BEACON THAT FIVE (5) DAYS' PRIOR NOTIFICATION WAS GIVEN TO ALL ADJOINING OWNERS AND THAT NOTIFICATION WAS GIVEN TO THE APPROPRIATE COMMUNITY BOARD PRIOR TO THE COMMENCEMENT OF DEMOLITION.
19. REFER TO "REPORT ON SUBSURFACE SOIL AND FOUNDATION INVESTIGATION," DATED 09/28/2020, LAST REVISED 03/02/2022 FOR GEOTECHNICAL INFORMATION.
20. TREE REMOVAL SHOULD BE CONDUCTED DURING THE WINTER TIME FRAME OF NOVEMBER 1ST TO MARCH 31ST TO AVOID ADVERSE IMPACTS TO THE BATS. IF TREE REMOVAL IS PLANNED OUTSIDE OF THIS TIME FRAME, A SITE ASSESSMENT BY A BAT BIOLOGIST OR A QUALIFIED BAT SURVEYOR SHOULD BE PERFORMED.

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DEMOLITION PLAN

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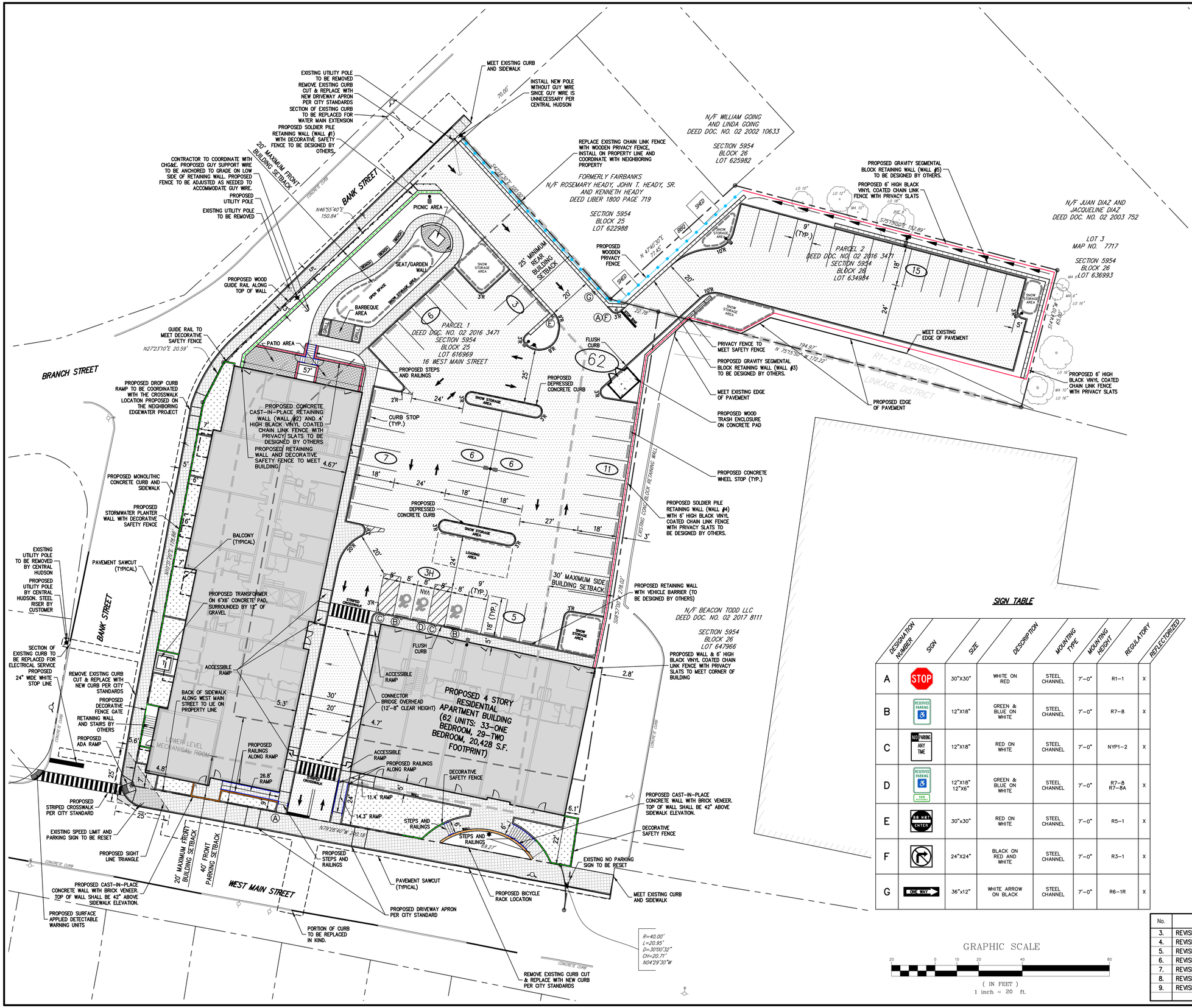

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING BUILDING SETBACK LINE
- EXISTING PARKING SETBACK LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- EXISTING PARKING
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE FLUSH CURB
- PROPOSED SAWCUT LINE
- PROPOSED ACCESSIBLE PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED CONCRETE SIDEWALK
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVERS
- PROPOSED CONCRETE PAD
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED CONCRETE WALL WITH BRICK VENEER (42" ABOVE SIDEWALK)
- PROPOSED BLACK VINYL COATED CHAIN LINK FENCE WITH PRIVACY SLATS
- PROPOSED DECORATIVE SAFETY FENCE
- PROPOSED PRIVACY FENCE
- PROPOSED HANDRAILS
- PROPOSED WOOD GUIDE RAIL
- PROPOSED 12" WIDE WHITE STOP LINE
- PROPOSED ARROW MARKING ON PAVEMENT
- TRAFFIC SIGN LOCATION & DESIGNATION
- PEDESTRIAN CROSSING
- PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED BOLLARD LIGHTING STANDARD

SIGN TABLE

DESIGNATION NUMBER	SIGN	SIZE	DESCRIPTION	MOUNTING TYPE	MOUNTING HEIGHT	REGULATORY	REFLECTORIZED
A	STOP	30"X30"	WHITE ON RED	STEEL CHANNEL	7'-0"	R1-1	X
B	RESERVED PARKING	12"X18"	GREEN & BLUE ON WHITE	STEEL CHANNEL	7'-0"	R7-8	X
C	NO PARKING ANY TIME	12"X18"	RED ON WHITE	STEEL CHANNEL	7'-0"	NYP1-2	X
D	RESERVED PARKING VAN ACCESSIBLE	12"X18" 12"X6"	GREEN & BLUE ON WHITE	STEEL CHANNEL	7'-0"	R7-8 R7-8A	X
E	EB NBL ENTER	30"x30"	RED ON WHITE	STEEL CHANNEL	7'-0"	R5-1	X
F		24"X24"	BLACK ON RED AND WHITE	STEEL CHANNEL	7'-0"	R3-1	X
G	ONE WAY	36"x12"	WHITE ARROW ON BLACK	STEEL CHANNEL	7'-0"	R6-1R	X

NOTES:

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2. SNOW REMOVAL SHALL BE STORED IN THE DESIGNATED AREAS ON THIS PLAN. THE PROPERTY MANAGER SHALL MAINTAIN ALL AVAILABLE PARKING AS PART OF THEIR RESPONSIBILITY TO THE PROPERTY OWNER AND TENANTS. SNOW SHALL BE CLEARED AND STORED ON-SITE AND/OR REMOVED IN A TIMELY MANNER AND DISPOSED OFF-SITE.

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SITE PLAN

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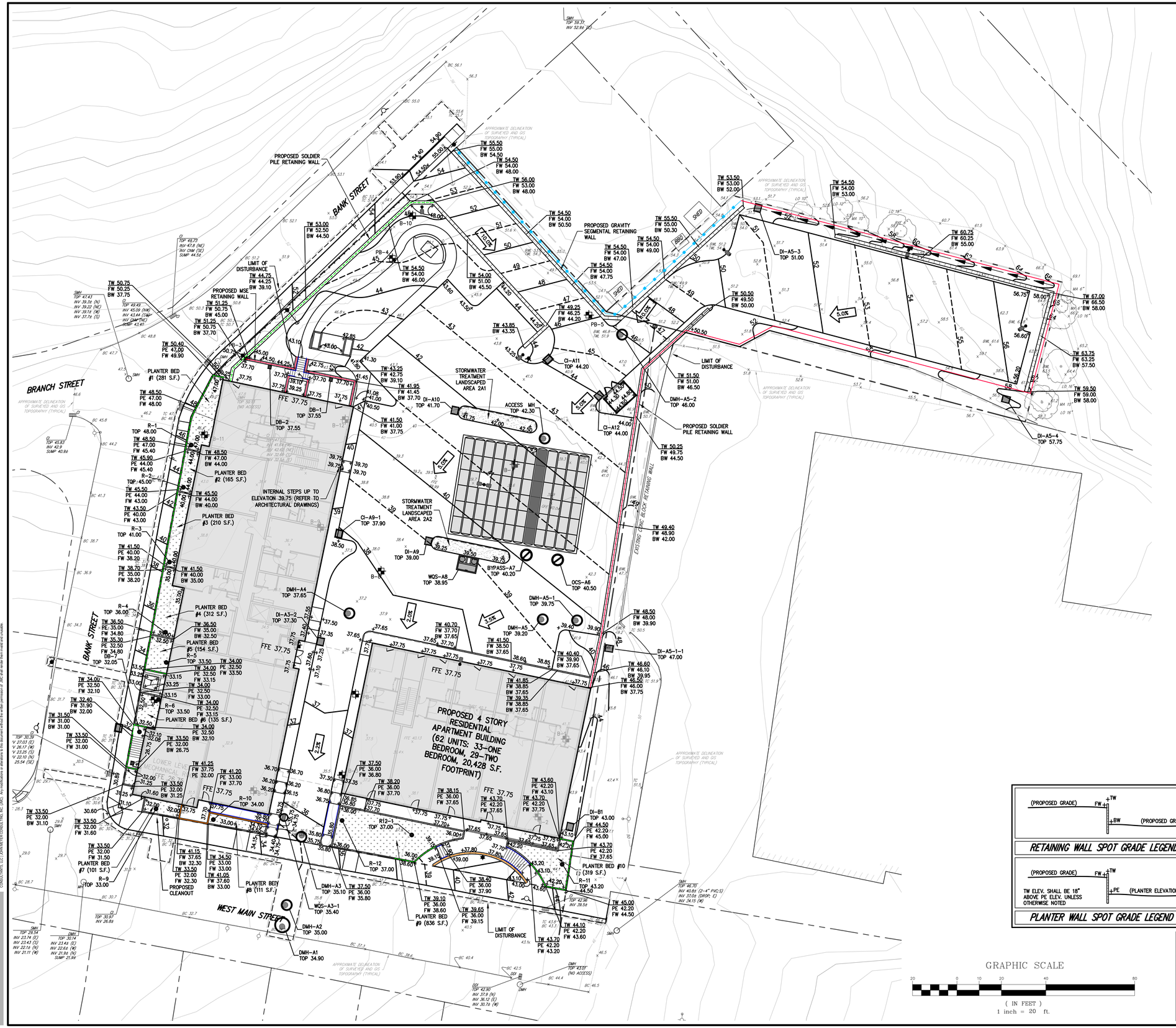

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING BUILDING LINE
- EXISTING CURB LINE
- EXISTING INDEX CONTOUR
- EXISTING CONTOUR
- EXISTING SPOT GRADE
- EXISTING RETAINING WALL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING BORING LOCATION & DESIGNATION
- PROPOSED BORING LOCATION & DESIGNATION
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE SIDEWALK
- PROPOSED FINISHED GRADE
- PROPOSED SPOT GRADE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED TYPE CI DRAIN INLET
- PROPOSED TYPE DI DRAIN INLET
- PROPOSED TYPE DB DRAIN BASIN
- PROPOSED WATER QUALITY STRUCTURE
- PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- PROPOSED CLEANOUT
- PROPOSED WOOD GUIDE RAIL
- PROPOSED RETAINING WALL AND SAFETY FENCE (DESIGN BY OTHERS)
- PROPOSED PRIVACY RAIL
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED LIGHTING STANDARD (DESIGN BY OTHERS)

NOTES:

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3. FILL MATERIAL, TO BE PLACED IN ADVANCE OF CONSTRUCTION, IS TO BE COORDINATED WITH LATEST GEOTECHNICAL REPORT BY CARLIN SIMPSON & ASSOCIATES AND MONITORED BY CARLIN SIMPSON & ASSOCIATES.
4. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.
5. ALL FILLS SHALL BE COMPACTED TO PROVIDE STABILITY OF MATERIAL AND TO PREVENT SETTLEMENT.
6. EXCAVATIONS AND FILLS SHALL NOT ENDANGER ADJOINING PROPERTIES, NOR DIVERT WATER ONTO THE PROPERTY OF OTHERS AT ANY TIME DURING THE COURSE OF CONSTRUCTION.
7. CONTRACTOR SHALL REFER TO EROSION AND SEDIMENT CONTROL PLAN FOR FURTHER DIRECTION REGARDING SITE STABILIZATION THROUGHOUT THE COURSE OF CONSTRUCTION.
8. FILL MATERIAL SHALL BE PLACED 2 TO 3 MONTHS PRIOR TO CONSTRUCTION OF BUILDING AND ALL INSTALLATION SHALL BE WITNESSED BY CARLIN SIMPSON & ASSOCIATES.
9. REFER TO LATEST REVISION OF REPORT ON SUBSURFACE SOIL AND FOUNDATION INVESTIGATION, BY CARLIN SIMPSON & ASSOCIATES. ALL PILES FOR THE PROPOSED BUILDING ARE TO BE DRILLED.
10. AS INDICATED ON THE LATEST CARLIN SIMPSON & ASSOCIATES GEOTECHNICAL REPORT, ALL PILE OPERATIONS SHALL BE DRILLED.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

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GRADING PLAN

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16 WEST MAIN STREET
BEACON, NY 12508

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

STATE OF NEW YORK · STEPHEN SPINA · 085983 · LICENSED PROFESSIONAL ENGINEER

Drawn:	BMS
Approved:	SS
Scale:	1" = 20'
Date:	10/29/2019
Project No:	18119
18119-SITE	GRAD	GRAD.scr
Drawing No:	C–200 (Sheet 5 of 29)

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NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC SURVEY," PREPARED BY JMC PLANNING ENGINEERING LANDSCAPE ARCHITECURE & LAND SURVEYING, PLLC, DATED 09/20/2018, LAST REVISED 03/02/2020.
2. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.
3. UNLESS OTHERWISE SPECIFIED, PIPE FOR STORM DRAINS SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE) WITH A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS IN ACCORDANCE WITH ASTM F-2648. JOINTS SHALL BE WATERTIGHT IN ACCORDANCE WITH ASTM D-3212.
4. UNLESS OTHERWISE SPECIFIED, PIPE FOR SANITARY SEWER GRAVITY LINES SHALL BE POLYVINYL CHLORIDE PIPE (PVCP), SDR-35, WITH PUSH-ON JOINTS IN ACCORDANCE WITH ASTM D-3034 AND D-3212.
5. UNLESS OTHERWISE SPECIFIED, PIPE FOR WATER LINES SHALL BE DOUBLE CEMENT-LINED DUCTILE IRON PIPE (DIP), CLASS 54, WITH PUSH-ON JOINTS IN ACCORDANCE WITH AWWA C-150, C-151, C-104 AND C-111.
6. ELECTRIC, TELEPHONE, FIRE ALARM AND CABLE TELEVISION LINES SHALL BE INSTALLED UNDERGROUND IN CONDUIT IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY HAVING JURISDICTION.
7. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES TO BE CONNECTED TO AND EXISTING UTILITIES TO REMAIN AND BE PROTECTED. IF ANY DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR AND JMC PRIOR TO THE START OF CONSTRUCTION. EXISTING 12" SANITARY MAIN INVERT AT CROSSING OF NEW 30" STORM PIPE IS 26.37. EXISTING WATER MAIN, GAS MAIN, AND TELEPHONE/DATA LINE MAY NEED TO BE ADJUSTED TO AVOID CONFLICT WITH PROPOSED STORM. THE DEPTH OF THE EXISTING WATER MAIN AND SEWER MAIN SHALL BE VERIFIED WITH TEST PITS TO CONFIRM THERE IS ADEQUATE SPACE FOR THE PROPOSED TAPPING SLEEVE AND GATE VALVE CONNECTIONS.
8. ALL STORMWATER FACILITIES TO BE CONSTRUCTED AS PART OF THIS PROJECT SHALL BE INSPECTED BY A LICENSED ENGINEER ON A YEARLY BASIS, WITH A COPY OF THE REPORT BEING PROVIDED TO THE CITY BUILDING DEPARTMENT. THE REPORT SHALL INCLUDE ALL FINDINGS AND RECOMMENDATIONS.
9. UPON COMPLETION OF CONSTRUCTION, A TOPOGRAPHIC AS-BUILT DRAWING SHALL BE PREPARED FOR THE PROJECT AND SUBMITTED TO THE CITY OF BEACON.

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- EXISTING STORM DRAIN LINE AND SIZE
- EXISTING SANITARY LINE AND SIZE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED EASEMENT LINE
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DROP CURB AND RAMP
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED TYPE CI DRAIN INLET
- PROPOSED TYPE DI DRAIN INLET
- PROPOSED TYPE DB DRAIN BASIN
- PROPOSED WATER QUALITY STRUCTURE
- PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- PROPOSED CLEANOUT
- PROPOSED STORM DRAIN LINE & SIZE
- PROPOSED SANITARY SEWER LINE & SIZE
- PROPOSED WATER LINE & SIZE
- PROPOSED TELEPHONE LINE
- PROPOSED OVERHEAD WIRES
- PROPOSED WATER VALVE
- PROPOSED GAS VALVE
- PROPOSED WOOD GUIDE RAIL
- PROPOSED RETAINING WALL AND SAFETY FENCE (DESIGN BY OTHERS)
- PROPOSED PRIVACY FENCE
- PROPOSED UTILITY POLE
- PROPOSED THRUST BLOCK
- PROPOSED EASEMENT

APPLICANT/OWNER:
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JMC

UTILITIES PLAN

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

WEST MAIN STREET AND BANK STREET BLOWUP
SCALE: 1" = 10'

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

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STATE OF NEW YORK
STEPHEN SPINA
LICENSED PROFESSIONAL ENGINEER
085983

No.	Revision	Date	By
3.	REVISED PER CITY COMMENTS	09/29/2020	AH
4.	REVISED PER CITY COMMENTS	07/27/2021	BMS
5.	REVISED PER CITY COMMENTS	03/25/2022	BMS
6.	REVISED PER CITY COMMENTS	05/31/2022	BMS
7.	REVISED PER CITY COMMENTS	06/28/2022	BMS
8.	REVISED PER CITY COMMENTS	08/30/2022	SMN
9.	REVISED PER CITY COMMENTS	09/27/2022	SMN
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Project No:	18119		
18119-SITE	UTIL	UTIL.scr	
Drawing No:	C–300 (Sheet 6 of 29)		

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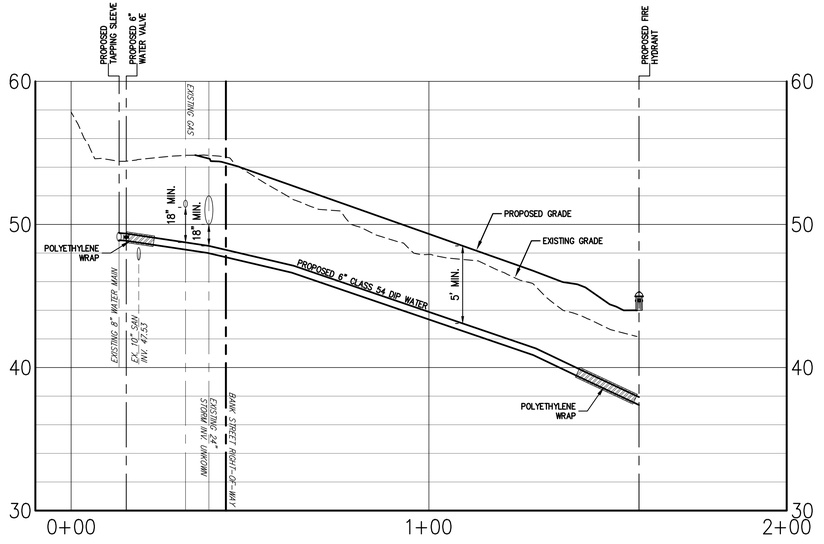
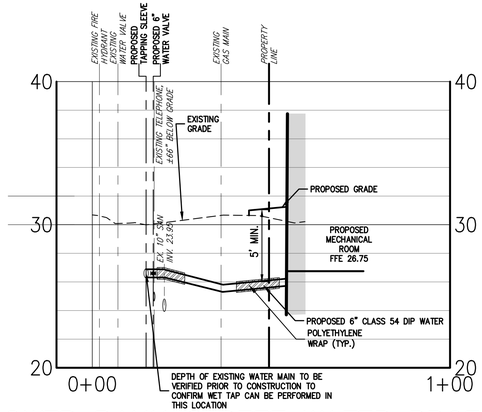


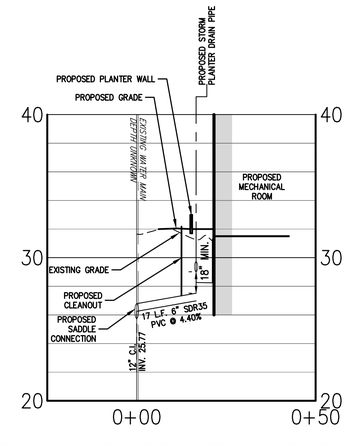
UPPER BANK STREET WATER PROFILE

SCALE
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'



LOWER BANK STREET WATER PROFILE

SCALE
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'



SANITARY SEWER SERVICE PROFILE

SCALE
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'

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ARCHITECT:
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UTILITY PROFILES

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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STATE OF NEW YORK
STEPHEN SPINA
085983
LICENSED PROFESSIONAL ENGINEER

No.	Revision	Date	By
1.	REVISED PER CITY COMMENTS	07/27/2021	BMS
2.	REVISED PER CITY COMMENTS	03/25/2022	BMS
3.	REVISED PER CITY COMMENTS	05/31/2022	BMS
4.	REVISED PER CITY COMMENTS	06/28/2022	BMS
5.	REVISED PER CITY COMMENTS	08/30/2022	SMN
6.	REVISED PER CITY COMMENTS	09/27/2022	SMN
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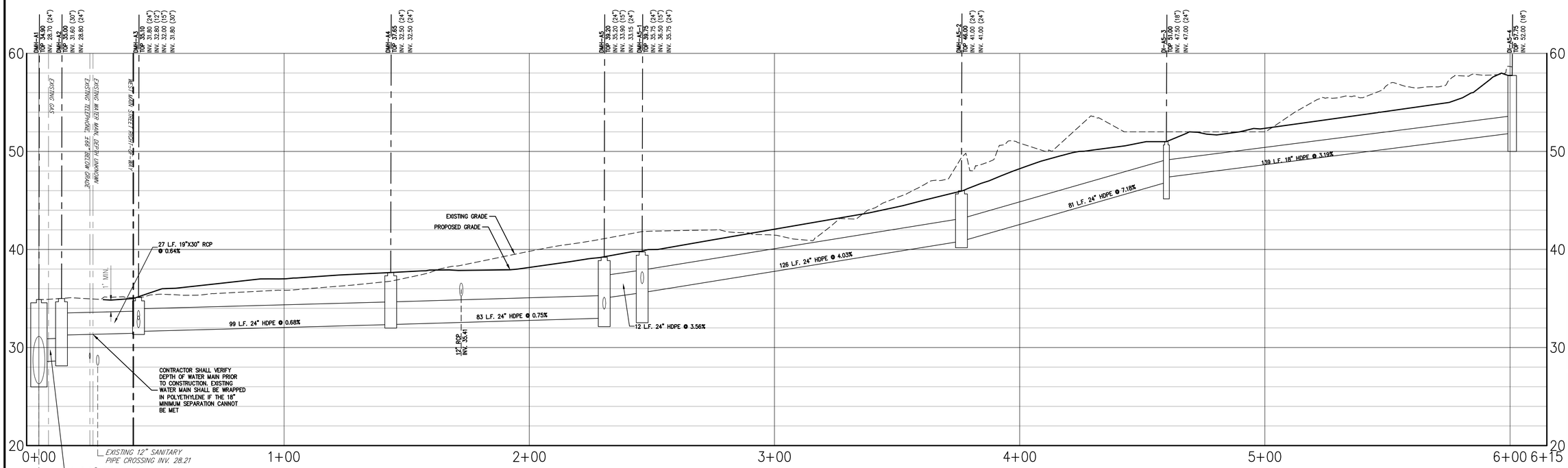
Scale: AS SHOWN
Date: 09/29/2020
Project No: 18119
18119-SITE | UTILITY PROFILE | UTIL.scr
Drawing No:
C-310
(Sheet 7 of 29)



DMH-A1 to DI-A5-4 STORMWATER PROFILE

SCALE
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'

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STORM PROFILES

BEACON COMMONS
16 WEST MAIN STREET
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STATE OF NEW YORK
STEPHEN SPINA
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085983

No.	Revision	Date	By
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2.	REVISED PER CITY COMMENTS	09/27/2022	SMN

Previous Editions Obsolete

Drawn: BMS Approved: SS
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Date: 09/29/2020
Project No: 18119
18119-SITE STORM PROFILE UTIL.scr
Drawing No: C-320
(Sheet 8 of 29)

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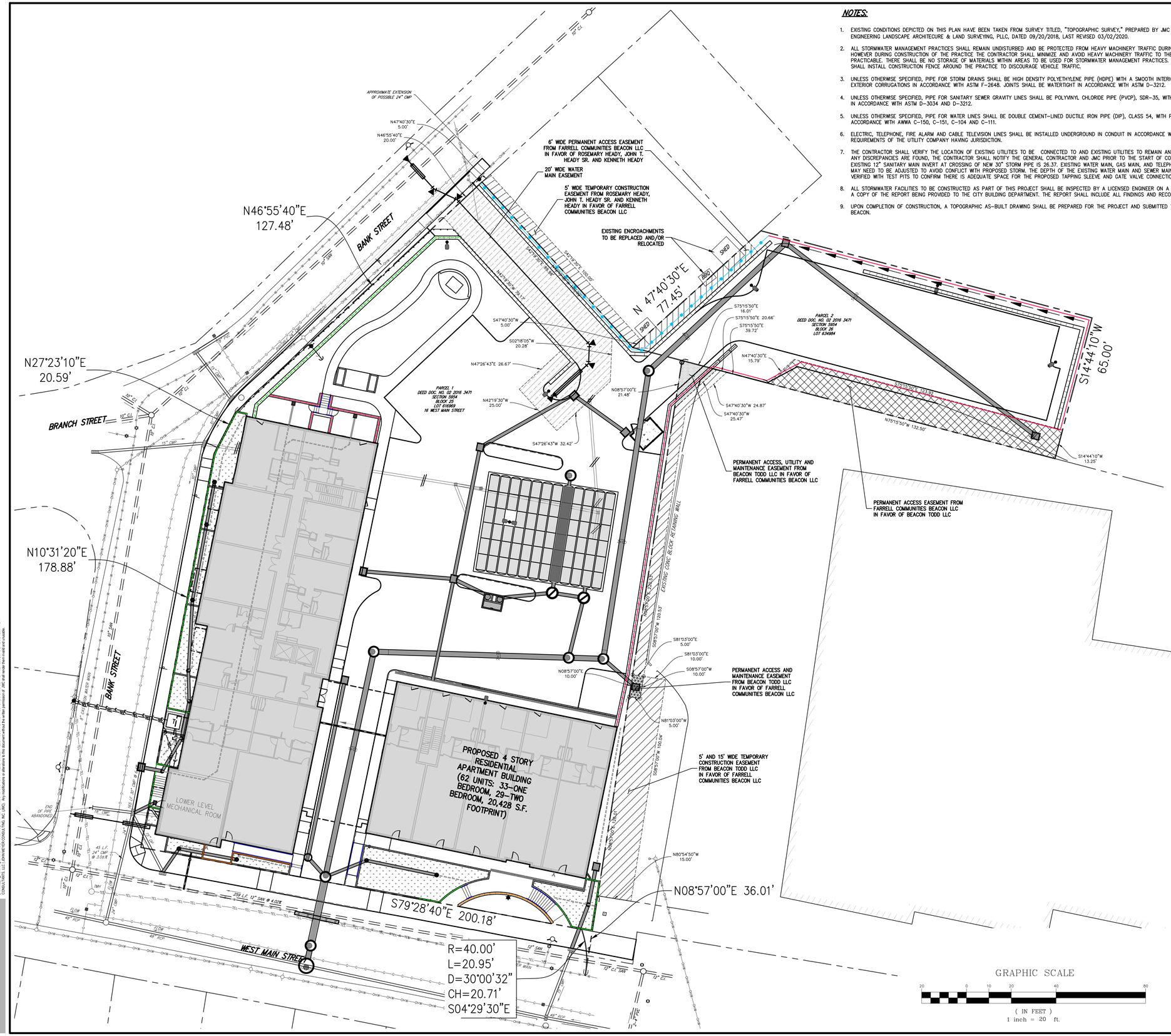

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- 36" RCP — EXISTING STORM DRAIN LINE AND SIZE
- 8" SAN — EXISTING SANITARY LINE AND SIZE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- GV — EXISTING GAS VALVE
- WV — EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED EASEMENT LINE
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DROP CURB AND RAMP
- DMH — PROPOSED STORM DRAIN MANHOLE
- CI — PROPOSED TYPE CI DRAIN INLET
- DI — PROPOSED TYPE DI DRAIN INLET
- DB — PROPOSED TYPE DB DRAIN BASIN
- WQS — PROPOSED WATER QUALITY STRUCTURE
- OCS — PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- CO — PROPOSED CLEANOUT
- 15" HDPE — PROPOSED STORM DRAIN LINE & SIZE
- 6" PVC — PROPOSED SANITARY SEWER LINE & SIZE
- 6" WATER — PROPOSED WATER LINE & SIZE
- TEL — PROPOSED TELEPHONE LINE
- OHW — PROPOSED OVERHEAD WIRES
- PROPOSED WATER VALVE
- PROPOSED GAS VALVE
- PROPOSED WOOD GUIDE RAIL
- PROPOSED RETAINING WALL AND SAFETY FENCE (DESIGN BY OTHERS)
- PROPOSED PRIVACY FENCE
- PROPOSED UTILITY POLE
- PROPOSED THRUST BLOCK
- PROPOSED EASEMENT

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EASEMENT PLAN

BEACON COMMONS
16 WEST MAIN STREET
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STATE OF NEW YORK · STEPHEN SPINA · 085983 · LICENSED PROFESSIONAL ENGINEER

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1.	REVISED PER CITY COMMENTS	09/27/2022	SMN
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Scale:	1" = 20'		
Date:	11/26/2019		
Project No:	18119		
18119-SITE	ESMNT	UTIL.scr	

Drawing No:
C-330
(Sheet 9 of 28)

PROPOSED CONSTRUCTION ACCESS

PROPOSED TEMPORARY CONSTRUCTION FENCE (TYPICAL)

PROPOSED TEMPORARY SOIL STOCKPILE AREA SURROUNDED BY SILT FENCE

PROPOSED SILT SACK (TYPICAL)

BANK STREET

BRANCH STREET

WEST MAIN STREET

PROPOSED TEMPORARY CONSTRUCTION FENCE (TYPICAL)

PROPOSED TEMPORARY TREE PROTECTION FENCE

PROPOSED STONE CHECK DAM (TYPICAL)

PROPOSED DIVERSION SWALE FOR OFFSITE FLOW

EXISTING CITY DRAINAGE EASEMENT

PROPOSED TEMPORARY CONSTRUCTION FENCE (TYPICAL)

PROPOSED EXCAVATED DROP INLET PROTECTION (TYPICAL)

PROPOSED CONCRETE TRUCK WASHOUT AREA

ROOF DRAIN LEADERS DRAIN TO REAR OF BUILDING (TYP.)

PROPOSED 4 STORY RESIDENTIAL APARTMENT BUILDING (62 UNITS: 33 ONE BEDROOM, 29 TWO BEDROOM, 20,428 S.F. FOOTPRINT)

ONE STORY BRICK BUILDING 16 WEST MAIN STREET

PROPOSED EXCAVATED DROP INLET PROTECTION (TYPICAL)

PROPOSED SILT SACK (TYPICAL)

PROPOSED SILT FENCE AND TEMPORARY CONSTRUCTION FENCE

PROPOSED EXCAVATED DROP INLET PROTECTION

PROPOSED SILT SACK (TYPICAL)

LEGEND

- PROPOSED EXCAVATED DROP INLET PROTECTION
- PROPOSED SILT SACK
- PROPOSED CONSTRUCTION FENCE
- PROPOSED TEMP. TREE PROTECTION FENCE
- PROPOSED SILT FENCE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED STOCKPILE AREA
- EXISTING TREE AND DESIGNATION (MA 6")

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC SURVEY," PREPARED BY JMC PLANNING ENGINEERING LANDSCAPE ARCHITECURE & LAND SURVEYING, PLLC, DATED 09/20/2018, LAST REVISED 03/02/2020.
2. THIS PLAN IS FOR TEMPORARY EROSION AND SEDIMENT CONTROL INFORMATION ONLY.
3. PRIOR TO BEGINNING ANY CLEARING, GRUBBING OR EXCAVATION, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH ALL THE PLANS AND SPECIFICATIONS. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL THE SITE IS STABILIZED. FINAL STABILIZATION OF LANDSCAPED AREAS SHALL BE IN ACCORDANCE WITH THE LANDSCAPE PLAN.
4. THE CONTRACTOR SHALL INSPECT AND MAINTAIN ON-SITE EROSION AND SEDIMENT CONTROL MEASURES ON A DAILY BASIS. ALL COLLECTED SEDIMENT WITHIN SEDIMENT BARRIERS SHALL BE REMOVED PERIODICALLY AS REQUIRED TO MAINTAIN THE FUNCTION OF THE SEDIMENT BARRIERS. ALL SEDIMENT COLLECTED SHALL BE RESPREAD ON-SITE WITHIN STABILIZED AREAS AS DIRECTED BY THE OWNERS REPRESENTATIVE.
5. THE CONTRACTOR SHALL INSPECT DOWNSTREAM CONDITIONS FOR EVIDENCE OF SEDIMENTATION ON A WEEKLY BASIS, AFTER EACH RAINSTORM, AND AS MAY BE REQUIRED OR DIRECTED BY ALL APPLICABLE APPROVALS AND PERMITS. THE CONTRACTOR SHALL IMMEDIATELY PROVIDE A WRITTEN REPORT ON FINDINGS OF SEDIMENT IN DOWNSTREAM AREAS TO ALL AUTHORITIES HAVING JURISDICTION AND MAKE REPAIRS AS REQUIRED OR DIRECTED.
6. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR AS REQUIRED/WARRANTED BY FIELD CONDITIONS AND AS DIRECTED BY THE OWNERS REPRESENTATIVE, JMC, AND/OR ANY AUTHORITY HAVING JURISDICTION.
7. STOCKPILING OF CONSTRUCTION MATERIAL SHALL BE PLACED ON-SITE IN THE AREA DESIGNATED ON THIS PLAN OR AS APPROVED BY THE OWNERS REPRESENTATIVE. STOCKPILED EXCAVATED MATERIAL SHALL HAVE TWO ROWS OF SILT FENCE LOCATED AROUND ITS PERIMETER. ALL STOCKPILED MATERIAL SHALL BE MAINTAINED IN AN ORDERLY MANNER SO AS NOT TO IMPEDE ON PEDESTRIAN AND/OR VEHICULAR TRAFFIC CIRCULATION ROUTES.
8. DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE OWNERS REPRESENTATIVE.
9. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.
10. ALL EXPOSED SLOPES AND GRADED/DISTURBED AREAS, THAT WILL NOT BE FURTHER DISTURBED WITHIN 14 CALENDAR DAYS (7 DAYS FOR CONSTRUCTION SITES THAT EITHER DIRECTLY DISCHARGE TO ONE OF THE 303(d) SEGMENTS LISTED IN APPENDIX E OF THE GENERAL PERMIT OR ARE LOCATED WITHIN ONE OF THE WATERSHEDS LISTED IN APPENDIX C OF THE GENERAL PERMIT), SHALL BE TEMPORARILY SEEDED WITHIN 24 HOURS OF DISTURBANCE, IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) "EROSION AND SEDIMENT CONTROL GUIDELINES" AND THE ANSI A300 "BEST MANAGEMENT PRACTICES FOR TREE AND SHRUB PLANTING, TRANSPLANTING, MAINTENANCE AND CARE," PREPARED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA), LATEST EDITIONS, AS FOLLOWS:
    - A. SEED MIXTURE AND RATE OF APPLICATION:
        - A.1. IN SPRING, SUMMER OR EARLY FALL, SEED THE AREA WITH RYEGRASS (ANNUAL OR PERENNIAL) AT 30 POUNDS PER ACRES (APPROXIMATELY 0.7 POUNDS/1000 SQUARE FEET OR USE 1 POUND/1000 SQUARE FEET).
        - A.2. IN LATE FALL OR EARLY WINTER, SEED THE AREA WITH CERTIFIED "AROOSTOOK" WINTER RYE (CEREAL RYE) AT 100 POUNDS PER ACRE (2.5 POUNDS/1000 SQUARE FEET).
    - B. APPLICATION SHALL BE UNIFORM BY MECHANICAL OR HYDROSEED METHODS.
    - C. MULCH ALL SEEDED AREAS WITH STRAW AT A RATE OF 2 TONS PER ACRE (90 POUNDS PER 1,000 SQUARE FEET) SUCH THAT THE MULCH FORMS A CONTINUOUS BLANKET.
11. ALL SEEDED AREAS SHALL BE FERTILIZED, RESEEDED, AND MULCHED AS NECESSARY TO MAINTAIN VIGOROUS, DENSE VEGETATIVE COVER.
12. TEMPORARY SEED MIXTURES SHALL NOT BE PLACED ON AREAS WHERE FINAL GRADE HAS BEEN ESTABLISHED AND TOPSOIL HAS BEEN PLACED UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT.
13. SUMPS SHALL BE INSTALLED FOR DEWATERING OF GROUNDWATER DURING CONSTRUCTION. PUMPED GROUNDWATER WILL BE DISCHARGED INTO SEDIMENT SETTLING TANKS AND THEN DISCHARGE LINE SHALL HAVE A FILTER SOCK ON THE END OF THE LINE. THE FILTERED GROUNDWATER SHALL THEN BE DISCHARGED OFF-SITE WITHIN ADJACENT DRAINAGE STRUCTURES.
14. ACCORDING TO THE U.S. FISH AND WILDLIFE SERVICE (USFWS), TREE REMOVAL SHOULD BE CONDUCTED DURING THE WINTER TIME FRAME OF NOVEMBER 1ST TO MARCH 31ST TO AVOID ADVERSE IMPACTS TO THE BATS. IF TREE REMOVAL IS PLANNED OUTSIDE OF THIS TIME FRAME, A SITE ASSESSMENT BY A BAT BIOLOGIST OR A QUALIFIED BAT SURVEYOR SHOULD BE PERFORMED. SUCH A SURVEY WILL IDENTIFY POTENTIAL CONCERNS AND ALLOW FOR IMPLEMENTATION OF SITE ACTIVITY PROTECTIONS.

SEQUENCE OF CONSTRUCTION

CONSTRUCTION SHALL BE SEQUENCED IN SUCH A MANNER THAT ANY AREA WHICH IS DISTURBED SHALL FIRST BE PROTECTED WITH SEDIMENT EROSION CONTROLS AS INDICATED ON THIS PLAN. PARTICULAR REQUIREMENTS ARE GIVEN AS FOLLOWS:

1. INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES AS INDICATED ON THIS PLAN.
2. PRE-CONSTRUCTION MEETING WITH SITE CONTRACTOR, CITY OF BEACON PERSONNEL, AND SITE ENGINEER.
3. DEMOLITION OF EXISTING BUILDING AS REQUIRED..
4. CLEAR UNDEVELOPED PORTION OF PROPERTY WHICH IS TO BE DEVELOPED.
5. STRIP AND STOCK PILE TOPSOIL.
6. INSTALL PROPOSED OFFSITE STORMWATER SYSTEM PRIOR TO DEMOLITION OF EXISTING STORM SYSTEM.
7. BEGIN ROUGH GRADING, RETAINING WALLS CONSTRUCTION, BUILDING CONSTRUCTION, AND PARKING LOT CONSTRUCTION.
8. INSTALL STORM DRAIN SYSTEM COMPLETE (IMMEDIATELY INSTALL INLET PROTECTION ON ALL INLETS).
9. INSTALL PUBLIC UTILITIES (GAS, ELECTRIC AND TELEPHONE) AS REQUIRED.
10. INSTALL CONCRETE AND ASPHALT CONCRETE PAVEMENT COMPLETE.
11. FINISH GRADING, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION AND/OR LANDSCAPING.
12. CLEAN PAVEMENTS AND STORM DRAIN SYSTEM OF ALL ACCUMULATED SEDIMENT IN CONJUNCTION WITH THE REMOVAL OF ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES.
13. COMPLETE SITE AND BUILDING CONSTRUCTION.

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

STATE OF NEW YORK · STEPHEN SPINA · 085983 · LICENSED PROFESSIONAL ENGINEER

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

No.	Revision	Date	By
3.	REVISED PER CITY COMMENTS	09/29/2020	AH
4.	REVISED PER CITY COMMENTS	07/27/2021	BMS
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9.	REVISED PER CITY COMMENTS	09/27/2022	SMN
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Drawn: BMS Approved: SS
Scale: 1" = 20'
Date: 10/29/2019
Project No: 18119
18119-SITE | S&E | S&E.scr
Drawing No:

C-400
(Sheet 10 of 29)

APPLICANT/OWNER:
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SEDIMENT AND EROSION CONTROL PLAN

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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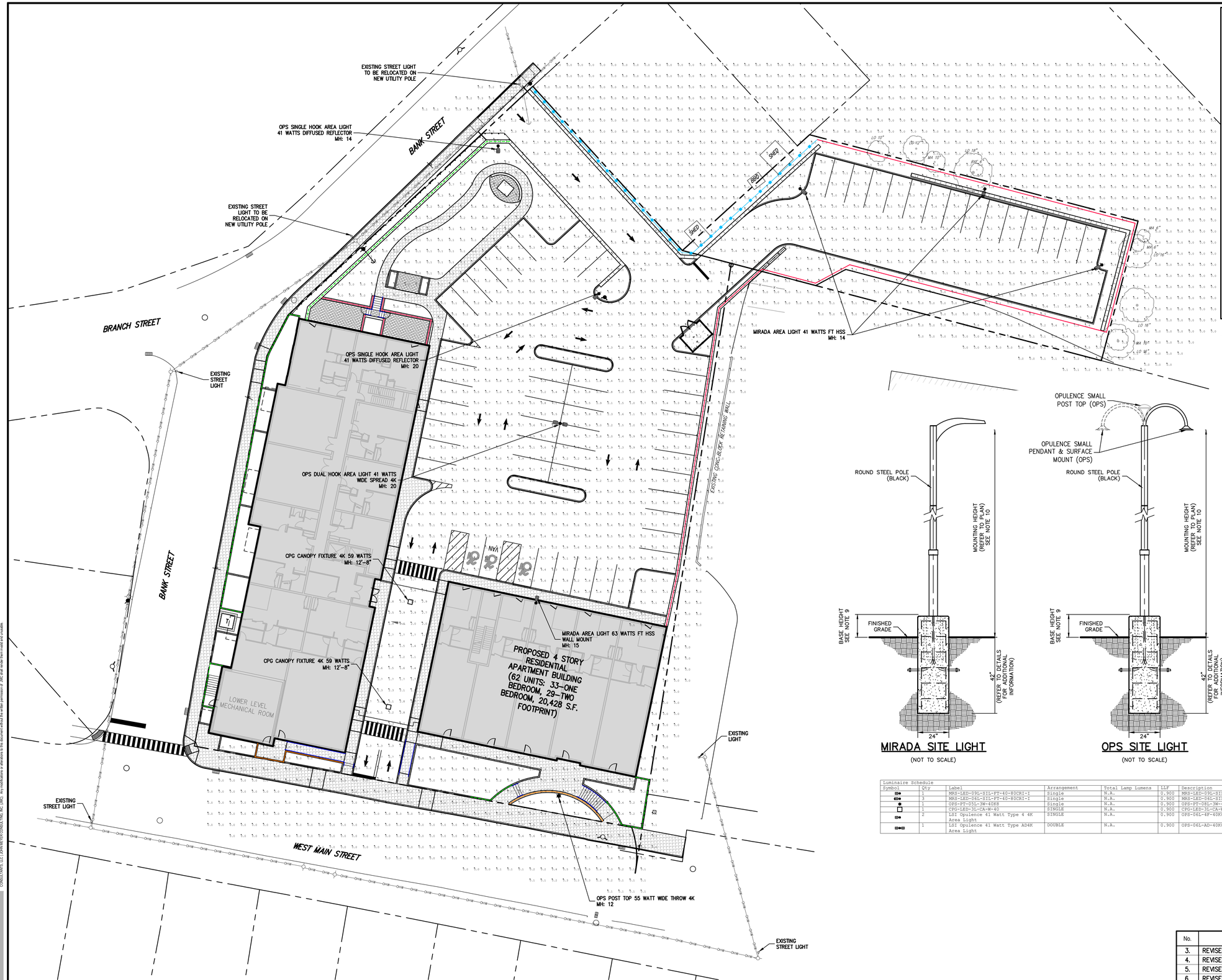

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING BUILDING LINE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING FENCE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE SIDEWALK
- PROPOSED WOOD GUIDE RAIL
- PROPOSED CONCRETE WALL WITH BRICK VENEER (42" ABOVE SIDEWALK)
- PROPOSED BLACK VINYL COATED CHAIN LINK FENCE WITH PRIVACY SLATS
- PROPOSED DECORATIVE SAFETY FENCE
- PROPOSED PRIVACY FENCE
- PROPOSED HANDRAILS
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED LIGHTING STANDARD
- PROPOSED UNDERPASS LIGHT
- PROPOSED ILLUMINANCE IN FOOT-CANDLES

NOTES:

1. ALL CABLES AND WIRING SHALL BE INSTALLED UNDERGROUND IN CONDUIT. CONDUIT SHALL BE SCHEDULE 40 PVC INSTALLED WITH TWO (2) FEET OF COVER. MINIMUM SIZE OF CONDUIT SHALL BE TWO (2) INCH DIAMETER.
2. CIRCUIT WIRING SHALL BE DESIGNED BY THE PROJECT ELECTRICAL ENGINEER.
3. LIGHTING LEVELS ARE MEASURED AT GROUND SURFACE ELEVATION.
4. THE PROPOSED SITE LIGHT FIXTURES SHALL;
   (1) HAVE A COLOR RENDERING INDEX (CRI) IN THE RANGE OF 80-100.
   (2) HAVE A TEMPERATURE OF 3,000 K.
   (3) BE FULL CUT-OFF THAT DO NOT LIGHT ABOVE HORIZONTAL PLANE.
   (4) BE DARK SKY COMPLIANT.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND VERIFY ALL ANCHOR BOLT DIMENSIONS (SIZE, BOLT CIRCLE, ETC.) WITH THE POLE MANUFACTURER PRIOR TO INSTALLATION OF THE FOUNDATIONS.
6. CHAMFER EXPOSED EDGES OF ALL FOUNDATIONS.
7. PROVIDE INSULATED GROUNDING BUSHING ON EXPOSED ENDS (IN BASE OF POLE) OF ALL GALVANIZED STEEL BENDS.
8. COLOR OF LUMINAIRE SHALL MATCH COLOR OF POLE.
9. CONCRETE BASE IN PARKING AREAS: 2'-6" CONCRETE BASE IN LANDSCAPED AREAS: 2'
10. LIGHT POLE LENGTHS SHALL BE ADJUSTED DEPENDING ON MOUNTING APPLICATION SUCH AS LAWN AREAS, IN PARKING AREAS. AND MH: MOUNTING HEIGHT IS THE DISTANCE FROM THE GROUND BELOW THE LIGHT TO THE TOP OF THE LIGHT FIXTURE.
11. LIGHT FIXTURES ARE DARK SKY COMPLIANT WITH FULL CUT-OFF SHIELDS.
12. LUMINAIRES AND POLES ARE TO BE THE PRODUCT OF LSI OR APPROVED EQUAL.

MIRADA SITE LIGHT

(NOT TO SCALE)

OPS SITE LIGHT

(NOT TO SCALE)

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	1	MRS-LED-09L-SIL-FT-40-80CRI-I	Single	N.A.	0.900	MRS-LED-09L-SIL-FT-40-80CRI-IH
	3	MRS-LED-06L-SIL-FT-40-80CRI-I	Single	N.A.	0.900	MRS-LED-06L-SIL-FT-40-80CRI-IH
	1	OPS-FT-05L-3W-40K8	Single	N.A.	0.900	OPS-FT-09L-3W-40K8
	1	CPG-LED-3L-CA-W-40	SINGLE	N.A.	0.900	CPG-LED-3L-CA-W-40
	2	LSI Opulence 41 Watt Type 4 4K Area Light	SINGLE	N.A.	0.900	OPS-06L-4F-40K8_IES
	1	LSI Opulence 41 Watt Type AD4K Area Light	DOUBLE	N.A.	0.900	OPS-06L-AD-40K8_IES

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JMC

LIGHTING PLAN

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

Drawn:	BMS
Approved:	SS
Scale:	1" = 20'
Date:	10/29/2019
Project No:	18119
18119-LIGHTING	LIGHTING	LIGHT.scr
Drawing No:	C-600 (Sheet 11 of 29)

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Catalog #: ______ Project: ______
Prepared By: ______ Date: ______ Type: ______

Mirada Small Area (MRS)

Outdoor LED Area Light

IP66 IK08



OVERVIEW	
Lumen Package	6,000 - 24,000
Wattage Range	41 - 196
Efficacy Range (LPW)	112 - 156
Fixture Weight lbs (kg)	20 (9.1)

QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction
- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Fixtures are finished with LSI's DuraGrip polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 27 lbs in carton.

Optical System
- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated seal.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in distribution types 2, 3, 5W, and FT.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377
- Minimum CRI of 70. Shall be between 80-100.
- Integral louver (IL) and house-side shield (IH) options available for improved backlight control without sacrificing street side performance. ~~See page 3 for more details.~~ Full cut-off.

Electrical
- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- L70 Calculated Life: >60k Hours
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F).
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls
- Optional integral passive infrared Bluetooth™ motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7.

Installation
- Designed to mount to square or round poles.
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes LSI's traditional B3 drill pattern.

Warranty
- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsicorp.com/resources/terms-conditions-warranty/ for more information.

Listings
- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications are qualified.
- IK08 rated luminiare per IEC 66262 mechanical impact code
- DesignLights Consortium® Listings in progress.

Specifications and dimensions subject to change without notice.

Catalog # : ______ Project : ______
Prepared By : ______ Date : ______

CPG Series
LED Compact Parking Garage



The LSI CPG LED Compact Parking Garage Series is designed to optimize LED life and light output. Housing is hinged for quick and easy mounting and entrance. Using high brightness, high LED count technology, more usable light output is produced while eliminating glare.

Features & Specifications

Optical System
- The optics have been engineered specifically for parking garage applications. The distribution pattern has been created to optimize fixture spacing and reduce fixture counts while delivering improved visual comfort and eliminating glare.
- Lens assembly is designed to provide high efficiency and to target the light where needed to satisfy parking garage requirements.
- Positioning of the LEDs result in the light being directed to desired locations eliminating glare.
- 3000K | 4000K | 5000K color temperatures.
- Minimum CRI of 80.
- L70 Calculated Life: >200k Hours

Electrical
- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0-10 volt dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz
- Total harmonic distortion: <20%
- Power factor: >.85
- Driver Off-State Power is 0 watts.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.
- Minimum 4kV surge rating

Controls

Wireless Controls System

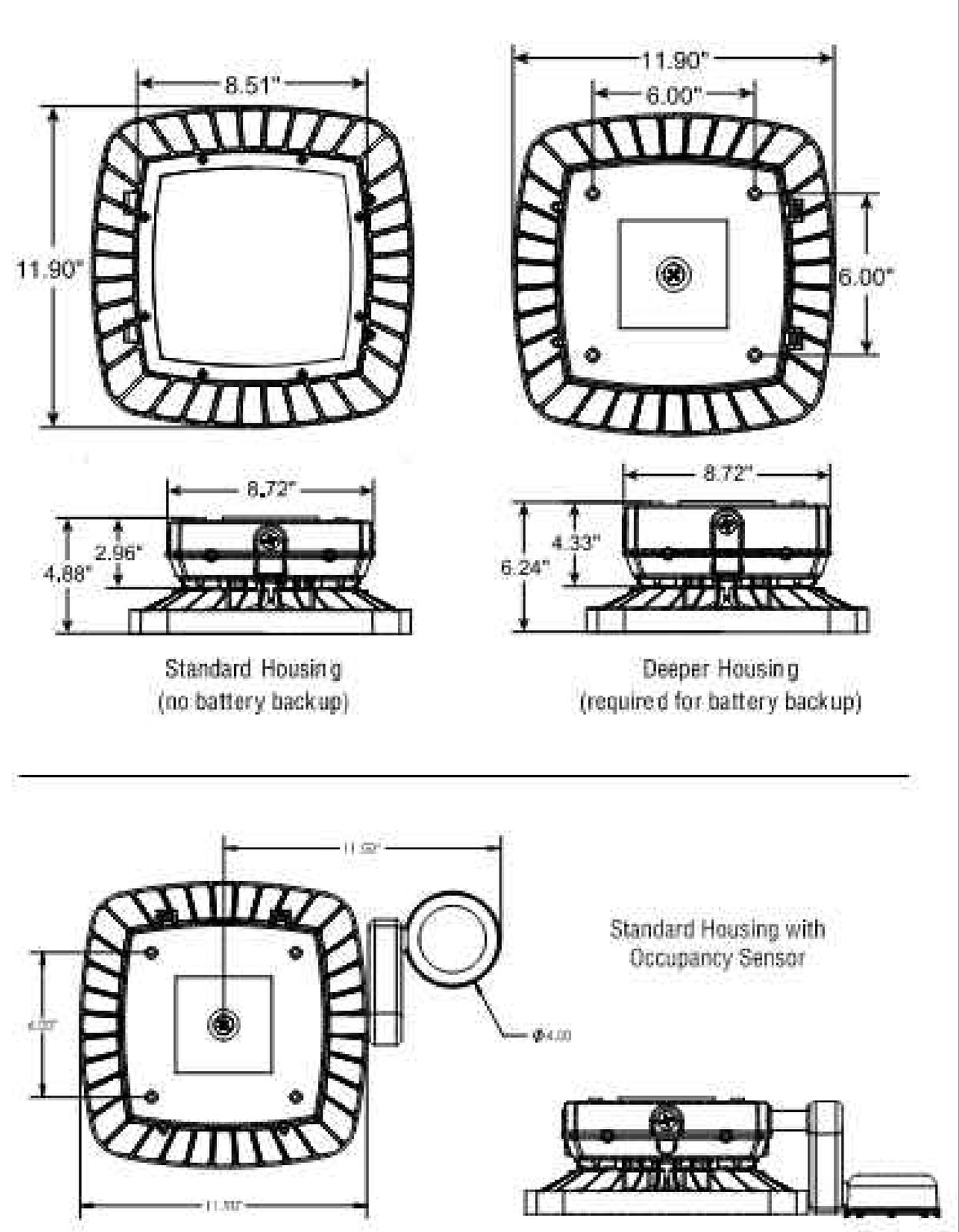
To make Airlink ready, order one of the following options:

a. The integrated Wireless Lighting Controller: ALSC (see ordering guide) as the controls option, or

b. Integrated Wireless Controller option (above) with integrated motion sensor: ALSCS (ordering guide for mounting heights)

For more information on our AirLink products, visit our website: www.lsi airlink.com/airlink-synapse/

Dimensions



Catalog #: ______ Project: ______
Prepared By: ______ Date: ______ Type: ______

Opulence Small Pendant & Surface Mount (OPS)

Outdoor Pendant & Surface Mount Luminaire

IP66



OVERVIEW	
Lumen Output Range	3,000 -14,000
Wattage	22 - 103
Efficacy Range (LPW)	95 - 168
Fixture Weight lbs (kg)	16 (7.3)

QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction
- Rugged die-cast aluminum housing.
- Architecturally pleasing with no visible electronics, hardware, or seams from ground level.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Optional spun aluminum shroud provides a streamlined transition from stem to luminaire while also deterring nesting (3/4" stem/pendant only).

Optical System
- High density LED optical system delivers industry leading optical performance and visual comfort.
- 7 distribution types 3W, 4F, 5Q, 5C, 5R, 5D & AD
- Diffused lens version provides maximum visual comfort with reduced brightness and LED pixelization.
- Zero uplight.
- Available in 5000K, 4000K, 3500K, 3000K and 2700K color temperatures per ANSI C78.377.
- Minimum CRI of 80

Electrical
- High-performance driver features overvoltage, under-voltage, short-circuit and over temperature protection (6kV surge standard).
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +40°C (-40°F to +104°F).
- Power factor: >.90
- Input power stays constant over life.
- Optional 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls
- Integral passive infrared Bluetooth™ motion and photocell sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app.
- LSI's AirLink™ Blue lighting control system is a simple feature rich wireless Bluetooth mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule. Updates and modifications to the control strategy are easily implemented via an intuitive iOS app.

Installation
- Pendant mounting via rigid 3/4" stem (order stem seperately), 6' wire leads provided.
- Direct/surface mounts to a 4" (102mm) square or octagon box (box by others).
- Hinged 16ga galvanized mounting bracket provided for ease of installation and maintenance.
- Optional stainless steel crown for mounting to 2" tenon (order tenon seperately). Wire leads pass through compression seal fitting to prevent water entry. Once-piece silicone gasket provides water and dust tight seal.
- For wall mount arm please reference OPS wall mount spec sheet.

Warranty
- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsicorp.com/resources/terms-conditions-warranty/ for more information.

Listings
- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K and warmer color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Specifications and dimensions subject to change without notice.

Catalog #: ______ Project: ______
Prepared By: ______ Date: ______ Type: ______

Opulence Small Post Top (OPS)

Outdoor Decorative Post Top

IP66



OVERVIEW	
Lumen Output Range	3,000 - 14,000
Wattage	20 - 100
Efficacy Range (LPW)	114 - 148
Fixture Weight lbs (kg)	25.0 (11.3)

QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction
- Rugged die-cast aluminum housing.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.

Optical System
- High density LED optical system delivers industry leading optical performance and visual comfort.
- 7 distribution types 3W, 4F, 5Q, 5C, 5R, 5D & AD
- Diffused lens version provides maximum visual comfort with reduced brightness and LED pixelization
- Available in 5000K, 4000K, 3500K, 3000K and 2700K color temperatures per ANSI C78.377.
- Minimum CRI of 80

Electrical
- High-performance driver features overvoltage, under-voltage, short-circuit and over temperature protection (6kV surge standard).
- 0-10V dimming driver (optional extended leads).
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +40°C (-40°F to +104°F).
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls
- Integral passive infrared Bluetooth™ motion and photocell sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app.
- LSI's AirLink™ Blue lighting control system is a simple feature rich wireless Bluetooth mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule. Updates and modifications to the control strategy are easily implemented via an intuitive iOS app.

Installation
- Designed to mount directly to a 2 3/8" - 3" outer diameter tenon (4" tall).
- Optional flush mount accesory slips inside the top of a 4" round pole for a virtually seamless transition from pole to luminaire.

Warranty
- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsicorp.com/resources/terms-conditions-warranty/ for more information.

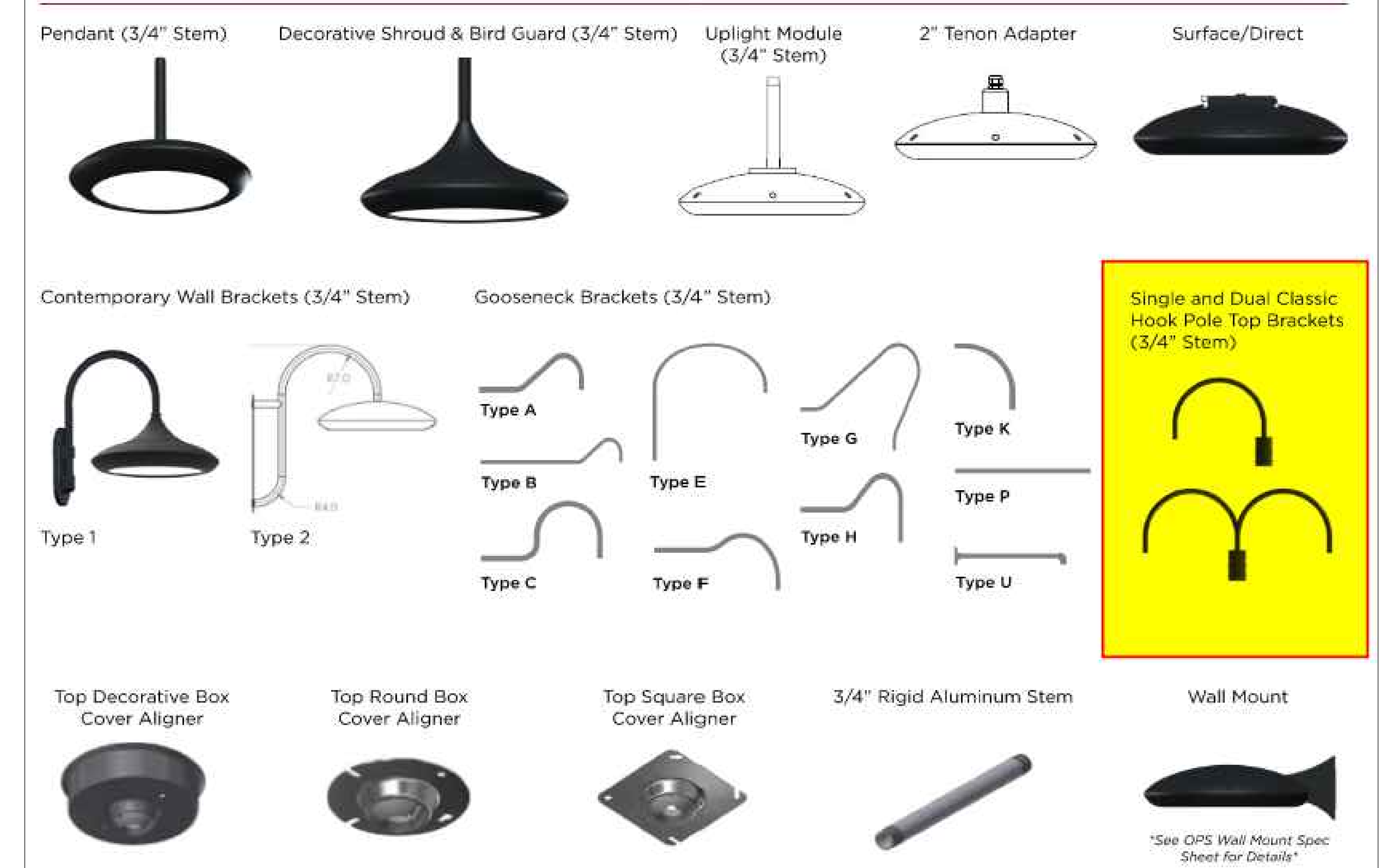
Listings
- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K and warmer color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Specifications and dimensions subject to change without notice.

Type: ______

Opulence Small Pendant & Surface Mount

MOUNTING OPTIONS



CONTROLS

Integral Bluetooth™ Motion and Photocell Sensor (IMSBT)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is rated for cold and wet locations (-30° C to 70° C). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click here to learn more about IMSBT.

AirLink Blue

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/Site, Wall Mounted, Parking Garage and Canopy luminaires.

Click here to learn more about AirLink Blue.

IDA DARK SKY APPROVED by the International Dark-Sky Association darksky.org

APPLICANT/OWNER:
FARRELL COMMUNITIES BEACON LLC
PO BOX 14
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ARCHITECT:
ARYEH SIEGEL ARCHITECT
84 MASON CIRCLE
BEACON, NY 12508

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LIGHTING SPECIFICATIONS

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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No.	Revision	Date	By
1.	REVISED PER CITY COMMENTS	08/30/2022	SMN
2.	REVISED PER CITY COMMENTS	09/27/2022	SMN
	Previous Editions Obsolete		

Drawn: BMS	Approved: SS
Scale: NTS	
Date: 06/28/2022	
Project No: 18119	
18119-LIGHTING	LIGHT SPEC · LIGHT.scr
Drawing No: C-601 (Sheet 12 of 29)	

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Front-Load Garbage Truck	
Overall Length	35.000ft
Overall Width	8.375ft
Overall Body Height	10.646ft
Min Body Ground Clearance	1.000ft
Track Width	8.375ft
Lock-to-lock time	6.0s
Curb to Curb Turning Radius	29.300ft

PROFILE

SCALE: NTS

NOTES:

1. PICK-UP SHALL BE DURING OFF-PEAK HOURS.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

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GARBAGE TRUCK TURNING PLAN (FRONT LOADING)

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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8.	REVISED PER CITY COMMENTS	08/30/2022	SMN
9.	REVISED PER CITY COMMENTS	09/27/2022	SMN
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Drawn:	BMS	Approved:	SS
Scale:	1" = 20'		
Date:	10/29/2019		
Project No:	18119		
18119-SITE	TRUCK-1	TRUCK.scr	

Drawing No:

C-700
(Sheet 13 of 29)

EXISTING FIRE HYDRANT

BANK STREET

BRANCH STREET

WEST MAIN STREET

N/F WILLIAM GOING AND LINDA GOING
DEED DOC. NO. 02 2002 10633

SECTION 5954
BLOCK 26
LOT 625982

FORMERLY FAIRBANKS
N/F ROSEMARY HEADY, JOHN T. HEADY, SR. AND KENNETH HEADY
DEED LIBER 1800 PAGE 719

SECTION 5954
BLOCK 25
LOT 622988

N/F JUAN DIAZ AND JACQUELINE DIAZ
DEED DOC. NO. 02 2003 752

LOT 3
MAP NO. 7717

SECTION 5954
BLOCK 26
LOT 636993

PARCEL 1
DEED DOC. NO. 02 2016 3471
SECTION 5954
BLOCK 25
LOT 615009
16 WEST MAIN STREET

PARCEL 2
DEED DOC. NO. 02 2016 3471
SECTION 5954
BLOCK 26
LOT 634984

N/F BEACON TODD LLC
DEED DOC. NO. 02 2017 8111

SECTION 5954
BLOCK 26
LOT 647966

PROPOSED 4 STORY RESIDENTIAL APARTMENT BUILDING (62 UNITS: 33-ONE BEDROOM, 29-TWO BEDROOM, 20,428 S.F. FOOTPRINT)

LOWER LEVEL MECHANICAL ROOM

PROPOSED BUILDING OVER DRIVEWAY MINIMUM HEIGHT CLEARANCE TO BE 12'-8"

PROPOSED FIRE HYDRANT

EXISTING FIRE HYDRANT

PROPOSED FIRE DEPARTMENT CONNECTION

PROPOSED SIGHT LINE TRIANGLE

SNOW STORAGE AREA

PARK STRIPE AREA

EXISTING CONC. BLOCK RETAINING WALL

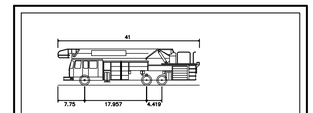
CONCRETE CURB

R1-7.5 DISTRICT
LINKAGE DISTRICT

R=40.00'
L=20.95'
D=30°00'32"
CH=20.71'
N04°29'30"W

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

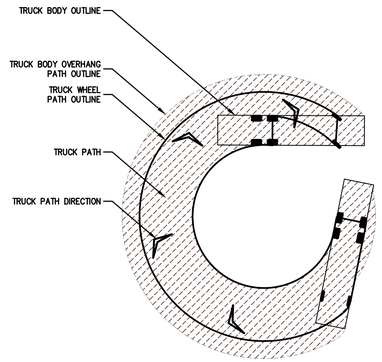
*MINIMUM HEIGHT CLEARANCE FOR THE DRIVEWAY UNDER THE BUILDING WILL BE 12'-8"



Beacon Fire Truck	
Overall Length	41.000ft
Overall Width	8.333ft
Overall Body Height	11.500ft
Min Body Ground Clearance	0.935ft
Track Width	8.417ft
Lock-to-lock time	4.083
Curb to Curb Turning Radius	34.833ft

PROFILE

SCALE: NTS



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FIRE TRUCK TURNING PLAN (SCENARIO 1)

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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Scale:	1" = 20'		
Date:	10/29/2019		
Project No:	18119		
18119-SITE	TRUCK-3	TRUCK.scr	

Drawing No:
C-702
(Sheet 14 of 29)

EXISTING FIRE HYDRANT

BANK STREET

70.00'

N46°55'30"E 58.94'

N272'3'10"E 220.58'

BRANCH STREET

N/F WILLIAM GOING AND LINDA GOING
DEED DOC. NO. 02 2002 10633

SECTION 5954
BLOCK 26
LOT 625982

S42°28'10"E 182.00'

FORMERLY FAIRBANKS
N/F ROSEMARY HEADY, JOHN T. HEADY, SR. AND KENNETH HEADY
DEED LIBER 1800 PAGE 719

SECTION 5954
BLOCK 25
LOT 622988

SHED

N 47°40'30"E 77.42'

SHED

PARCEL 1
DEED DOC. NO. 02 2016 3471
SECTION 5954
BLOCK 25
LOT 616969
16 WEST MAIN STREET

PROPOSED FIRE HYDRANT

22.78'

S75°39'50"E 152.89'

N/F JUAN DIAZ AND JACQUELINE DIAZ
DEED DOC. NO. 02 2003 752

LOT 3
MAP NO. 7717

SECTION 5954
BLOCK 26
LOT 636993

PARCEL 2
DEED DOC. NO. 02 2016 3471
SECTION 5954
BLOCK 26
LOT 634984

S74°41'10"W 65.80'

194.97'
N 75°15'50" W 172.22'

R1-7.5 DISTRICT
LINKAGE DISTRICT

EXISTING CONC. BLOCK RETAINING WALL

S08°57'00"W 278.07'

N/F BEACON TODD LLC
DEED DOC. NO. 02 2017 8111

SECTION 5954
BLOCK 26
LOT 647966

PROPOSED 4 STORY RESIDENTIAL APARTMENT BUILDING (62 UNITS: 33-ONE BEDROOM, 29-TWO BEDROOM, 20,428 S.F. FOOTPRINT)

LOWER LEVEL MECHANICAL ROOM

PROPOSED BUILDING OVER DRIVEWAY MINIMUM HEIGHT CLEARANCE TO BE 12'-8"

EXISTING FIRE HYDRANT

PROPOSED FIRE DEPARTMENT CONNECTION

PROPOSED SIGHT LINE TRIANGLE

N76°54'40"W 230.18'

69.27'

PROPOSED FIRE DEPARTMENT CONNECTION

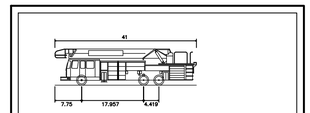
EXISTING FIRE HYDRANT

WEST MAIN STREET

CONCRETE CURB

R=40.00'
L=20.95'
D=30°00'32"
CH=20.71'
N04°29'30"W

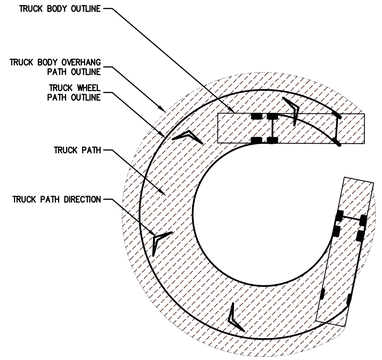
*MINIMUM HEIGHT CLEARANCE FOR THE DRIVEWAY UNDER THE BUILDING WILL BE 12'-8"



Beacon Fire Truck	
Overall Length	41.000ft
Overall Width	8.333ft
Overall Body Height	11.500ft
Min Body Ground Clearance	0.935ft
Track Width	8.417ft
Lock-to-lock time	4.083
Curb to Curb Turning Radius	34.833ft

PROFILE

SCALE: NTS



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

APPLICANT/OWNER:
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PO BOX 14
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ARCHITECT:
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FIRE TRUCK TURNING PLAN (SCENARIO 2)

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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7.	REVISED PER CITY COMMENTS	06/28/2022	BMS
8.	REVISED PER CITY COMMENTS	08/30/2022	SMN
9.	REVISED PER CITY COMMENTS	09/27/2022	SMN
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Drawn:	BMS	Approved:	SS
Scale:	1" = 20'		
Date:	10/29/2019		
Project No:	18119		
18119-SITE	TRUCK-4	TRUCK.scr	

Drawing No:
C-703
(Sheet 15 of 29)

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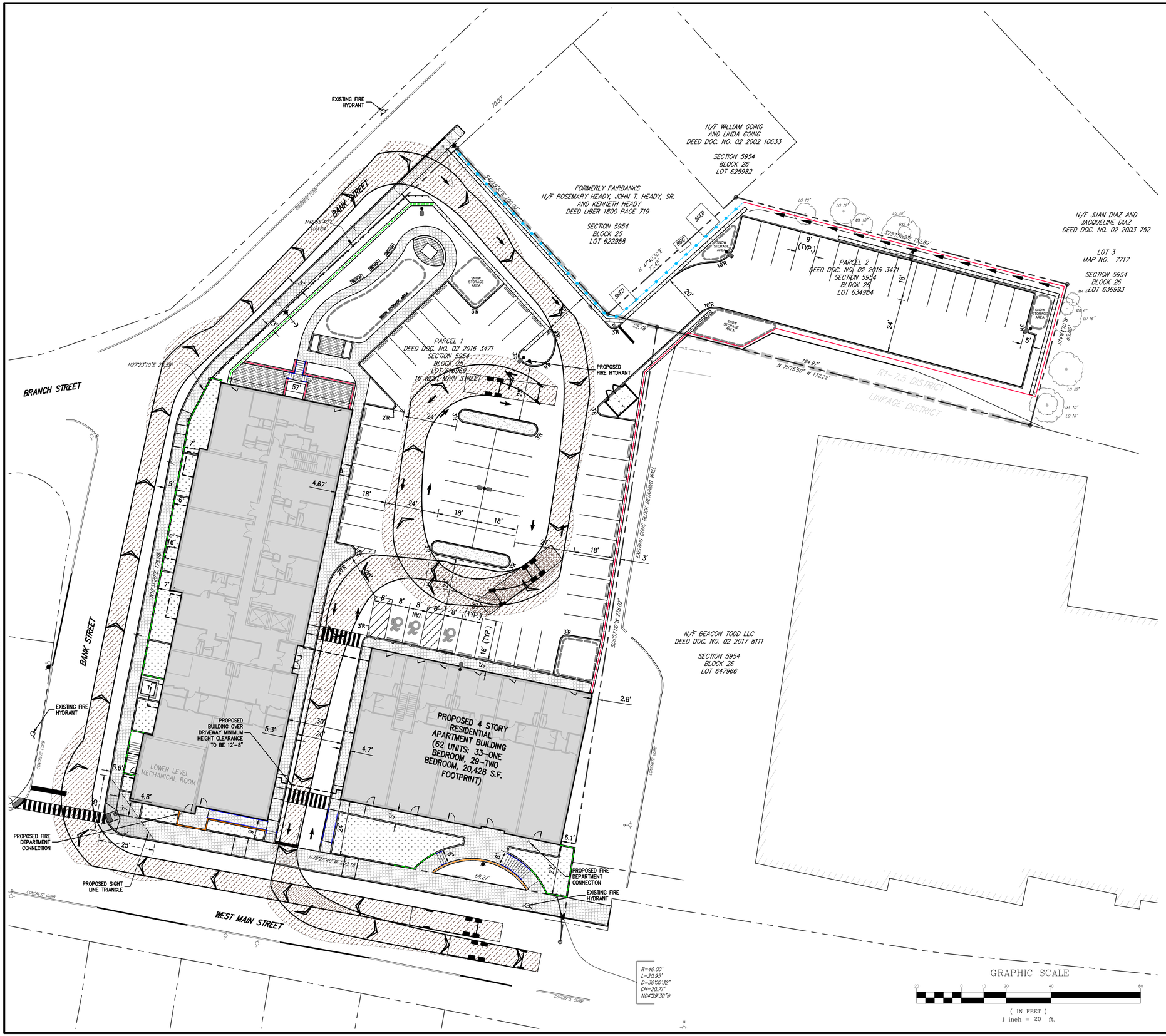
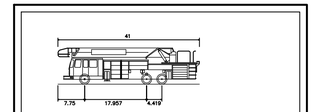
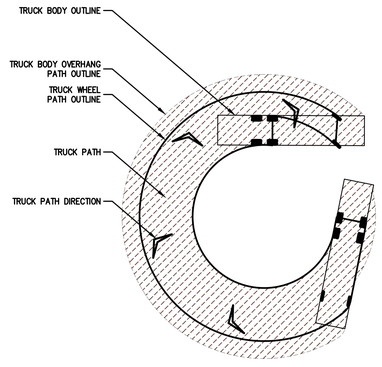




PROFILE

SCALE: NTS



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

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FIRE TRUCK TURNING PLAN (SCENARIO 3)

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

Drawn:	BMS	Approved:	SS
Scale:	1" = 20'		
Date:	10/29/2019		
Project No:	18119		
18119-SITE	TRUCK-5	TRUCK.scr	

Drawing No:

C-704
(Sheet 16 of 29)

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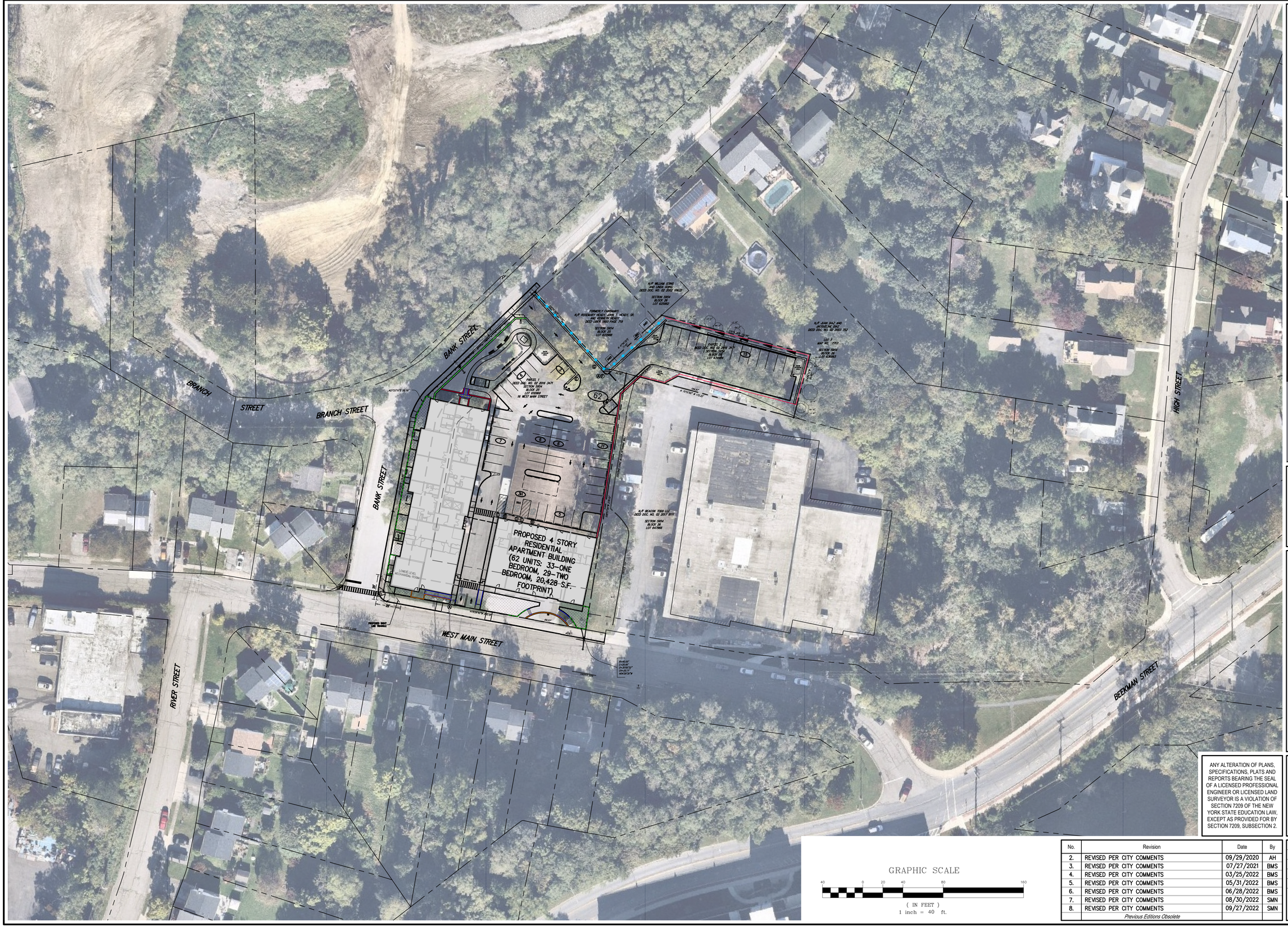

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AERIAL SITE PLAN

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

STATE OF NEW YORK
STEPHEN SPINA
985983
LICENSED PROFESSIONAL ENGINEER

Drawn:	BMS	Approved:	SS
Scale:	1" = 40'		
Date:	12/30/2019		
Project No:	18119		
18119-SITE	AERIAL	AERIAL.scr	
Drawing No:	C-800 (Sheet 17 of 29)		

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NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC SURVEY," PREPARED BY JMC PLANNING ENGINEERING LANDSCAPE ARCHITECURE & LAND SURVEYING, PLLC, DATED 09/20/2018, REVISED 09/23/2019.
2. THE STOPPING SIGHT DISTANCE HAS BEEN CALCULATED FOLLOWING THE PROCEDURE OUTLINED IN "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS 2018, 7TH EDITION" PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).
3. STOPPING SIGHT DISTANCE CALCULATIONS

   $SSD = 1.47\ V\ t + \frac{V^2}{30[(a/32.2)\pm G]}$

   V = DESIGN SPEED, 30 MPH
   t = BRAKE REACTION TIME, 2.5 S
   a = DECELERATION RATE, 11.2 FT/S^2
   G = MAJOR ROAD APPROACH GRADE, RISE/RUN, FT/FT

   ONTO WEST MAIN STREET:

   POSTED SPEED LIMIT = 25 MPH
   DESIGN SPEED = 30 MPH

   LEFT TURN (LOOKING RIGHT):

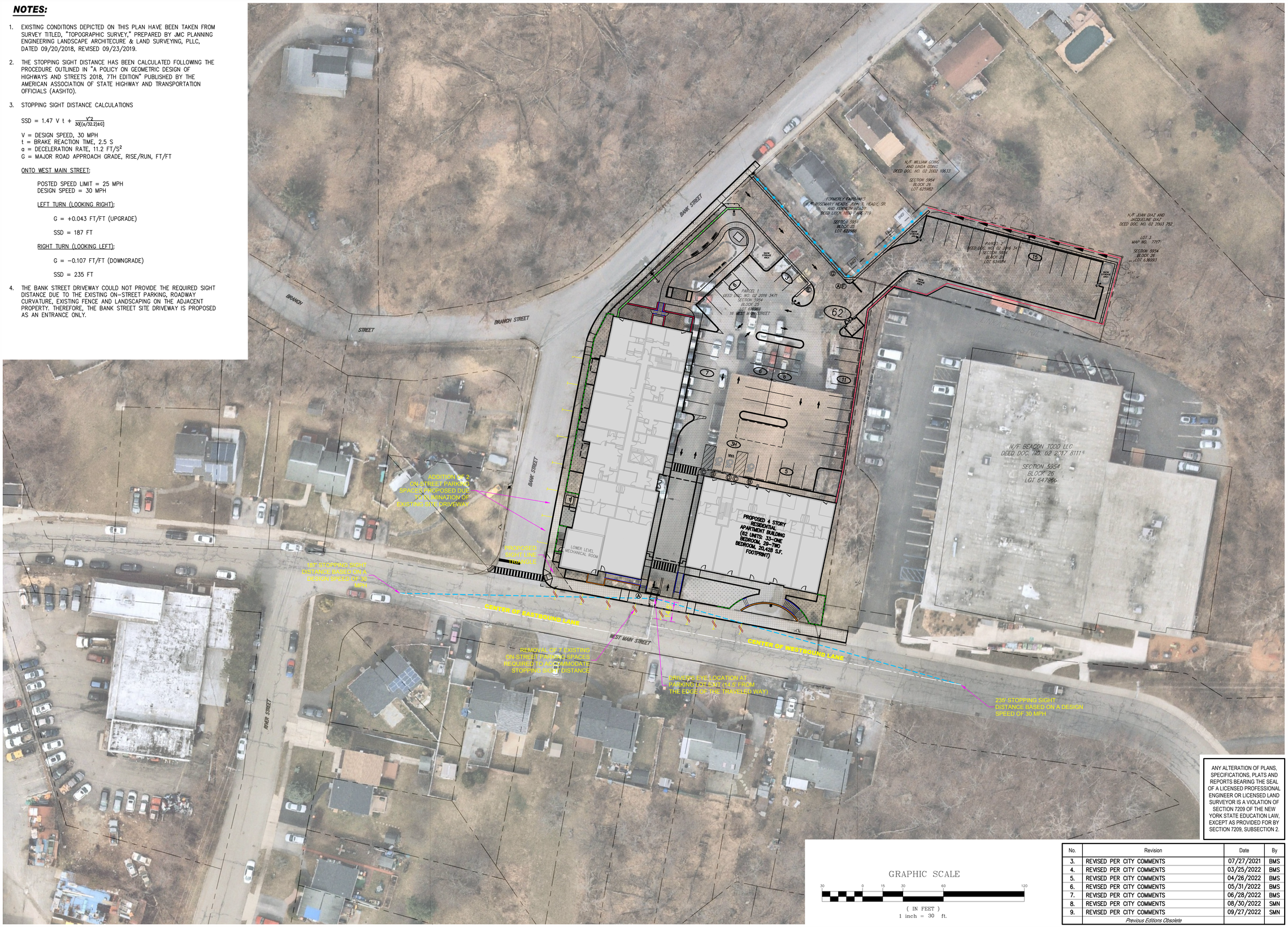
   G = +0.043 FT/FT (UPGRADE)

   SSD = 187 FT

   RIGHT TURN (LOOKING LEFT):

   G = −0.107 FT/FT (DOWNGRADE)

   SSD = 235 FT
4. THE BANK STREET DRIVEWAY COULD NOT PROVIDE THE REQUIRED SIGHT DISTANCE DUE TO THE EXISTING ON-STREET PARKING, ROADWAY CURVATURE, EXISTING FENCE AND LANDSCAPING ON THE ADJACENT PROPERTY. THEREFORE, THE BANK STREET SITE DRIVEWAY IS PROPOSED AS AN ENTRANCE ONLY.



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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BRIDGEHAMPTON, NY 11932

ARCHITECT:
ARYEH SIEGEL ARCHITECT
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120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
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SIGHT DISTANCE PLAN

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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STATE OF NEW YORK · STEPHEN SPIRA · 085983 · LICENSED PROFESSIONAL ENGINEER

Drawn:	BMS	Approved:	SS
Scale:	1" = 30'		
Date:	12/30/2019		
Project No:	18119		
18119-SITE	SIGHT	1_ISD.scr	

Drawing No:
C–801
(Sheet 18 of 29)

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GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 ft.

APPLICANT/OWNER:
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CONCEPTUAL IMPROVEMENTS PLAN

BEACON COMMONS
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STATE OF NEW YORK
STEPHEN SPINA
LICENSED PROFESSIONAL ENGINEER
085983

No.	Revision	Date	By
1.	REVISED PER CITY COMMENTS	08/30/2022	SMN
2.	REVISED PER CITY COMMENTS	09/27/2022	SMN
	Previous Editions Obsolete		

Drawn:	BMS
Approved:	SS
Scale:	1" = 100'
Date:	06/28/2022
Project No:	18119
18119-AERIAL	C-802
Drawing No:	C-802 (Sheet 19 of 29)

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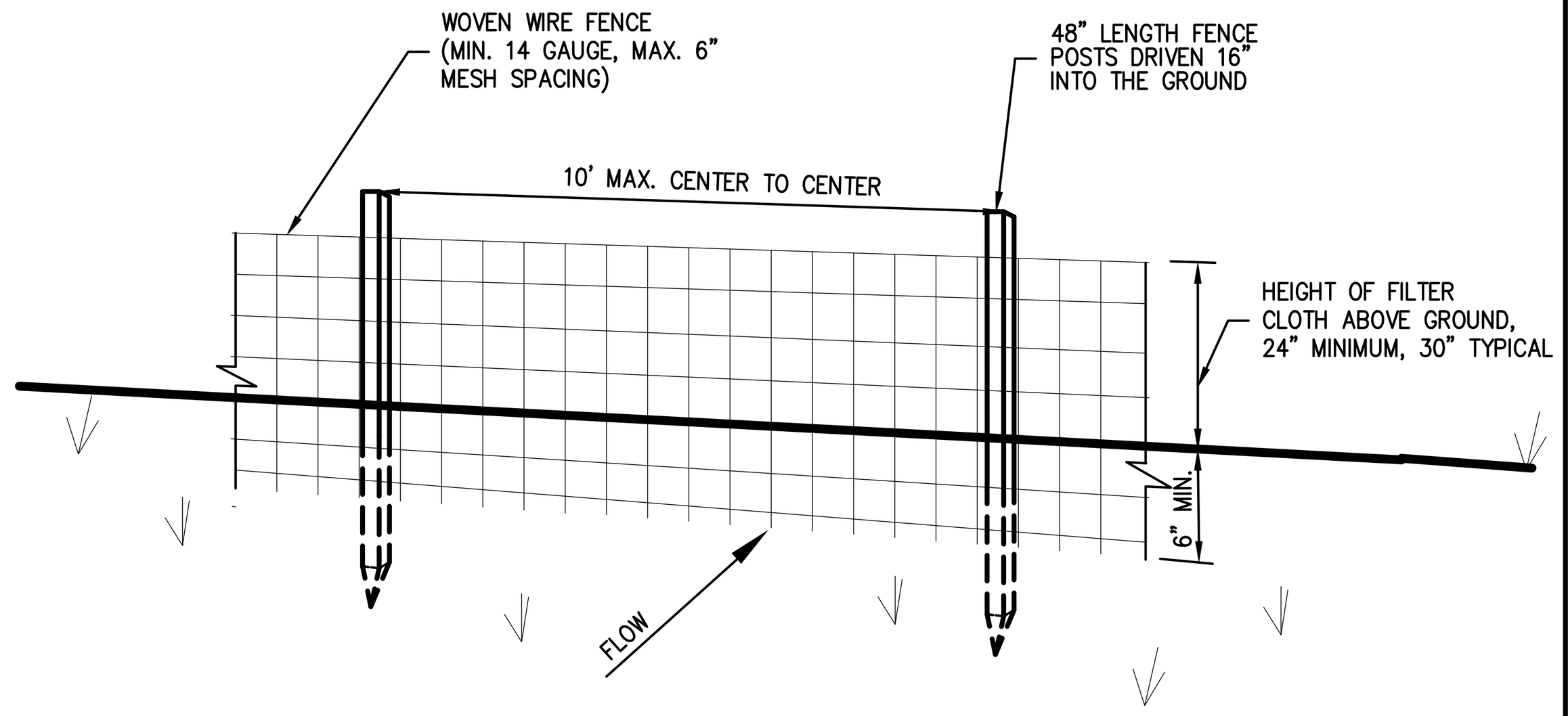
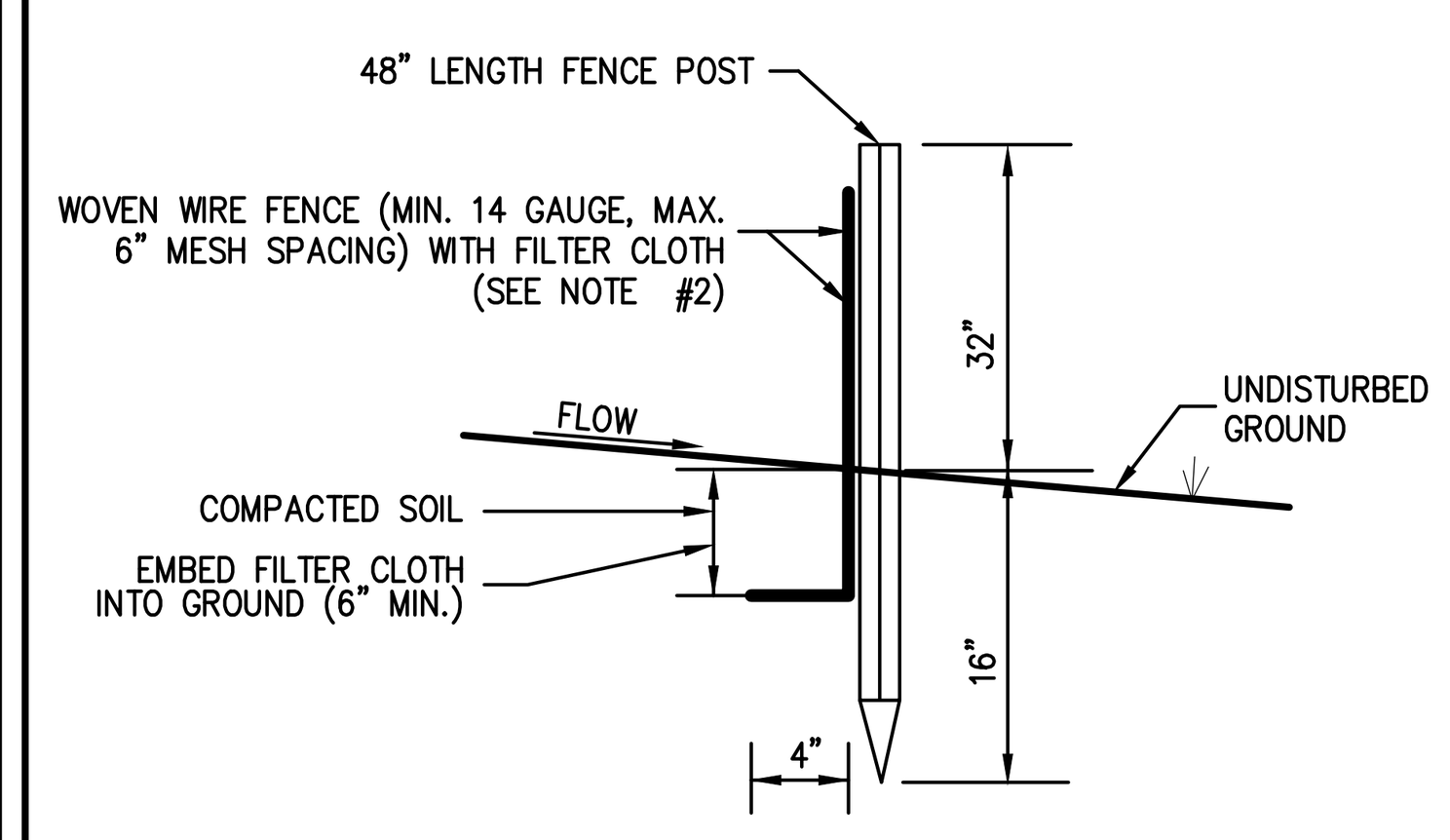


PERSPECTIVE VIEW



SECTION

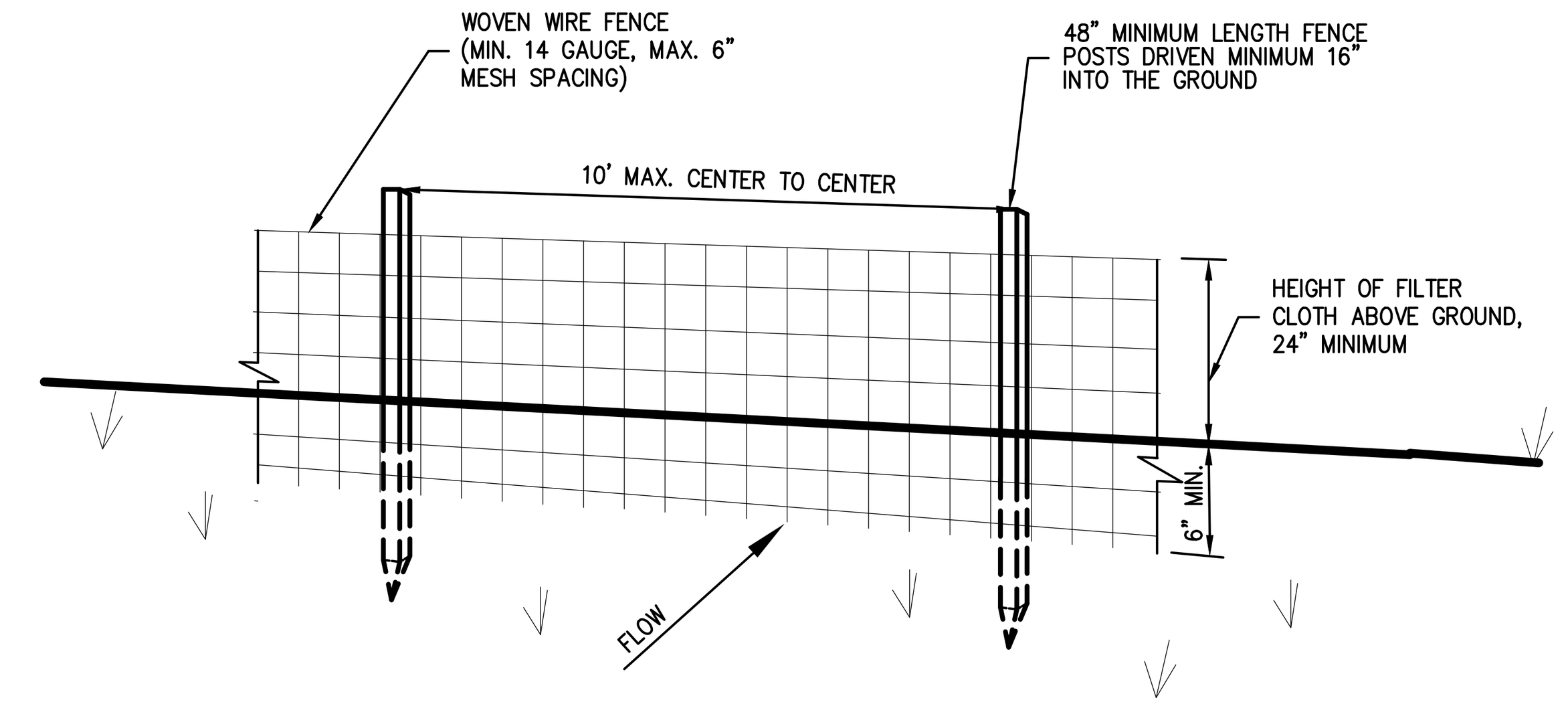
SLOPE	STEEPNESS	SLOPE LENGTH/FENCE LENGTH (FT.)
2–10%	50:1 TO 10:1	250/2000
10–20%	10:1 TO 5:1	150/1000
20–33%	5:1 TO 3:1	80/750
33–50%	3:1 TO 2:1	70/350
>50%	>2:1	30/175

*ALL SILT FENCES SHALL BE PLACED AS CLOSE TO THE DISTURBED AREA AS POSSIBLE, BUT AT LEAST 10 FEET FROM THE TOE OF A SLOPE STEEPER THAN 3H:1V, TO ALLOW FOR MAINTENANCE AND ROLL DOWN. THE AREA BEYOND THE FENCE MUST BE UNDISTURBED OR STABILIZED.

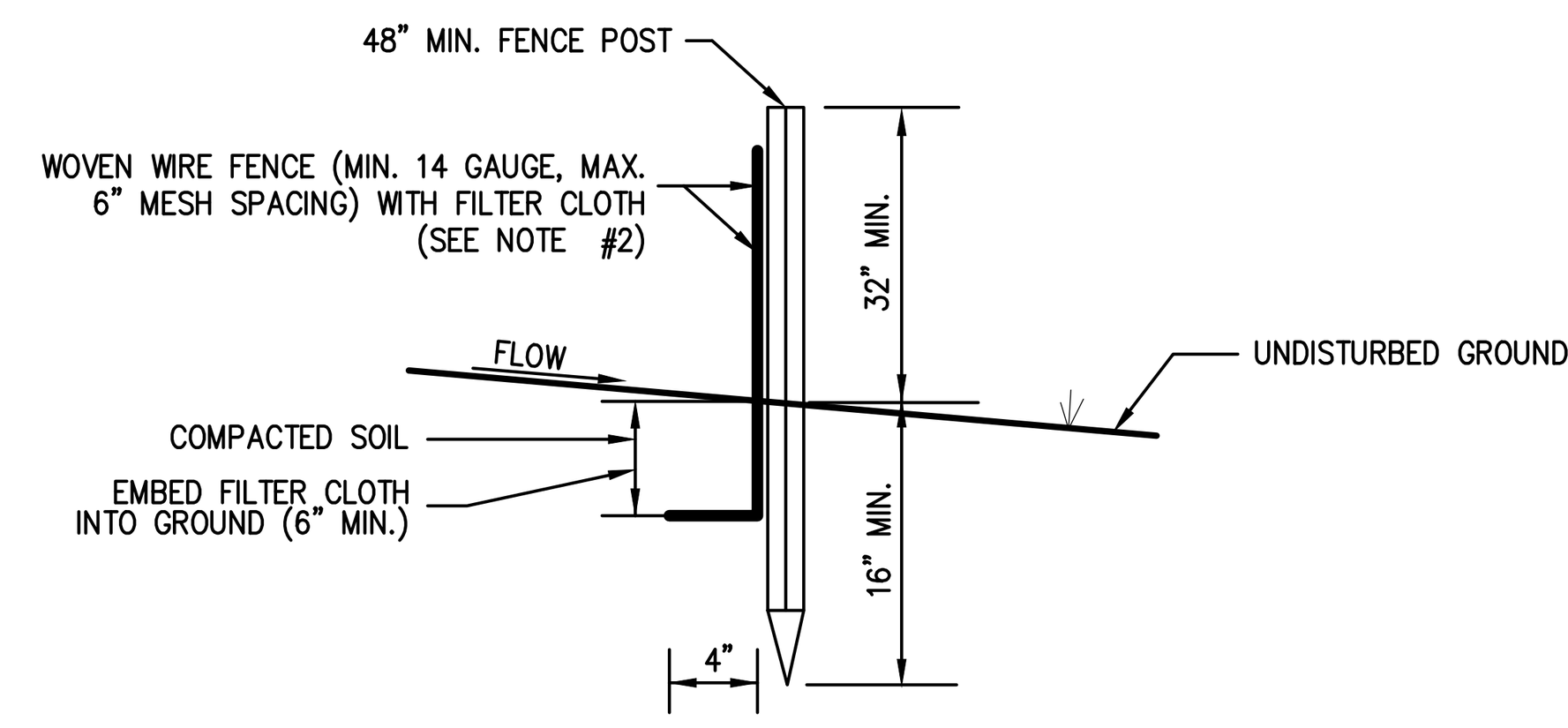
NOTES:

1. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL, EITHER T OR U TYPE OR HARDWOOD.
2. FILTER CLOTH SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUAL.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.
5. INSPECT WEEKLY AND AFTER EACH RAIN. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AND REPLACED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

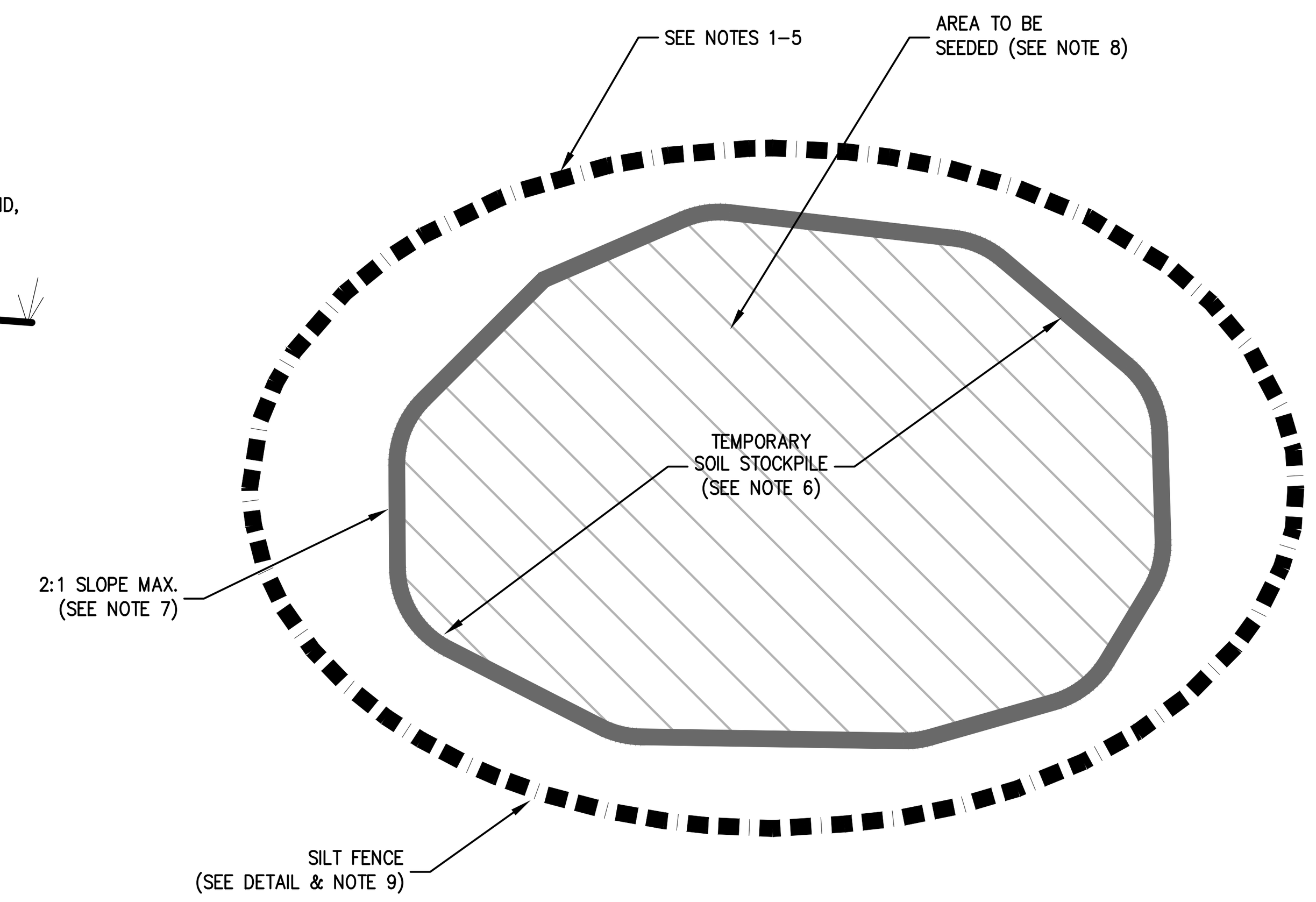
SILT FENCE — 1



PERSPECTIVE VIEW



SECTION

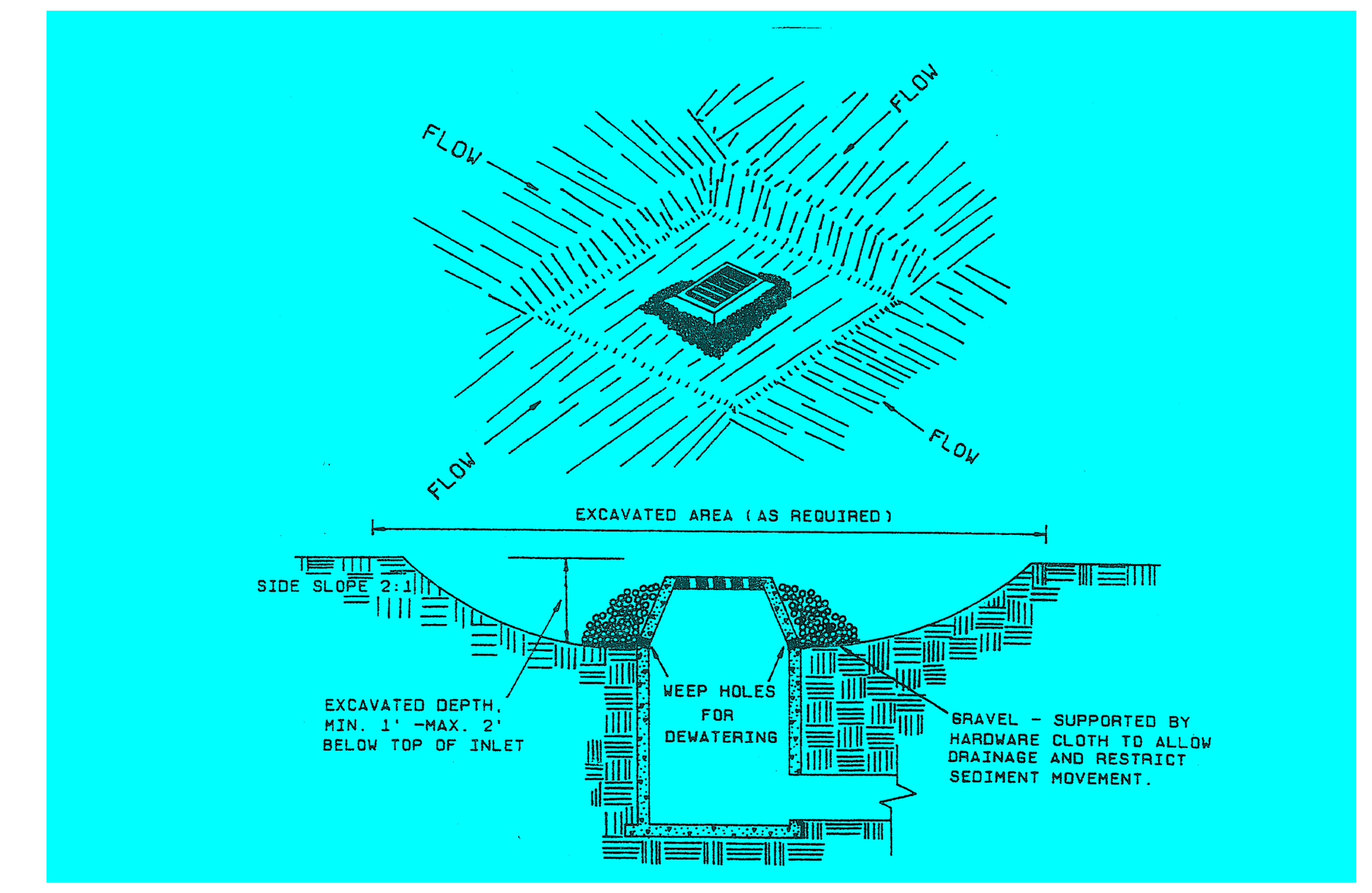


PLAN VIEW

NOTES:

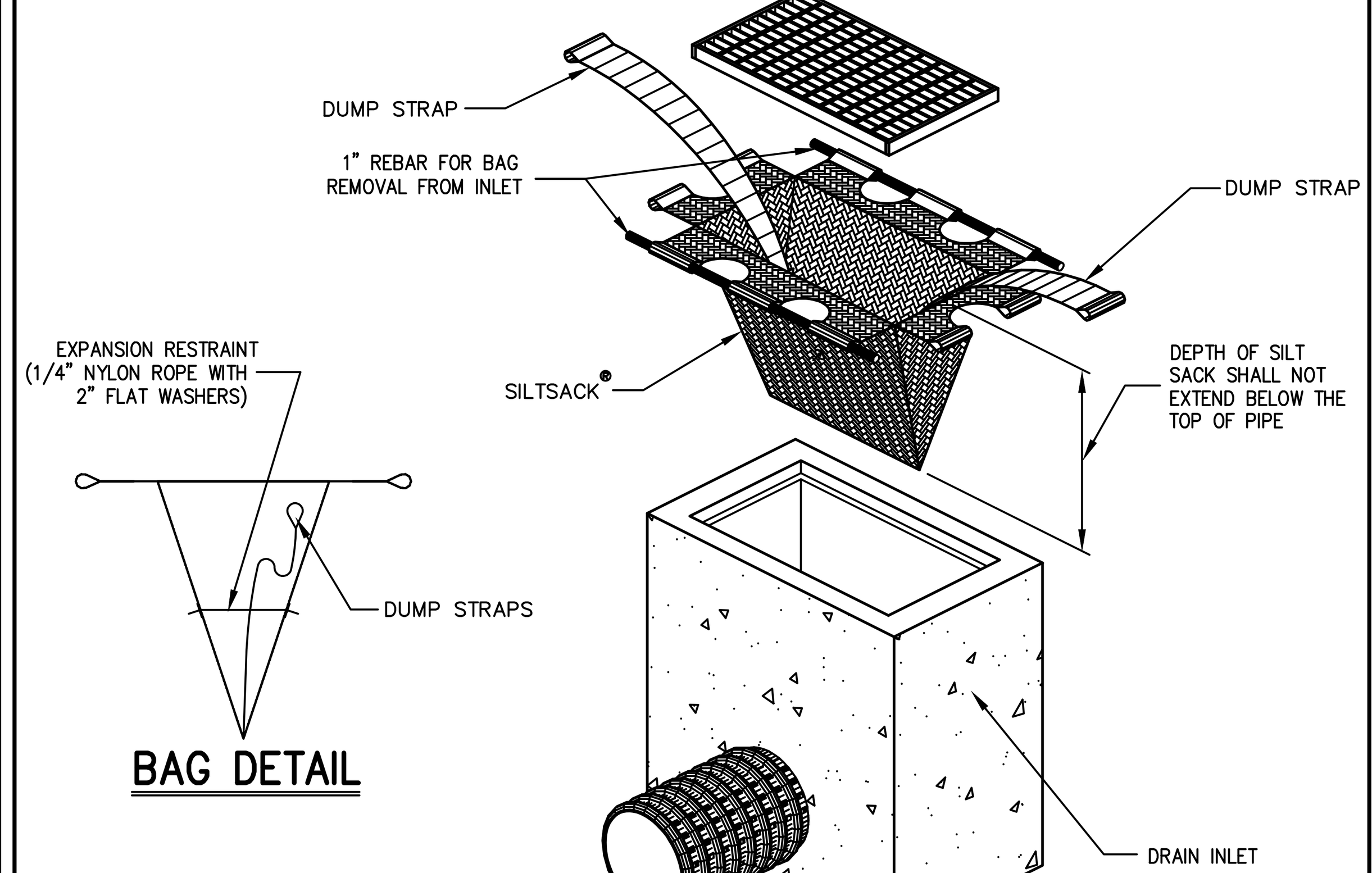
1. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL, EITHER T OR U TYPE OR HARDWOOD.
2. FILTER CLOTH SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUAL.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.
5. INSPECT WEEKLY AND AFTER EACH RAIN. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AND REPLACED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
6. THE AREA CHOSEN FOR ALL TEMPORARY SOIL STOCKPILES SHALL BE DRY AND STABLE.
7. ALL STOCKPILED SOIL SHALL NOT CONTAIN SLOPES GREATER THAN 2:1.
8. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SEEDED WITHIN 24 HOURS. PERENNIAL OR ANNUAL RYEGRASS SHALL BE PLANTED DURING SPRING, SUMMER OR EARLY FALL. WINTER RYE (CEREAL RYE) SHALL BE PLANTED DURING LATE FALL OR EARLY WINTER.
9. ALL STOCKPILES SHALL BE PROTECTED WITH SILT FENCING INSTALLED AROUND THE PERIMETER.

TEMPORARY SOIL STOCKPILE WITH SILT FENCE — 2



1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
3. WEEP HOLES SHALL BE PROCTECTED BY/STONE.
4. PROVIDE FREQUENT INSPECTION AND MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AND REPAIR OR REPLACE INLET PROTECTION TO MAINTAIN EFFECTIVENESS OF THE INSTALLATION.
5. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA. SEAL WEEP HOLES FILL BASIN WITH STABLE SOIL TO FINAL GRADE. COMPACT IT PROPERLY AND STABILIZE WITH PERMANET SEEDING.

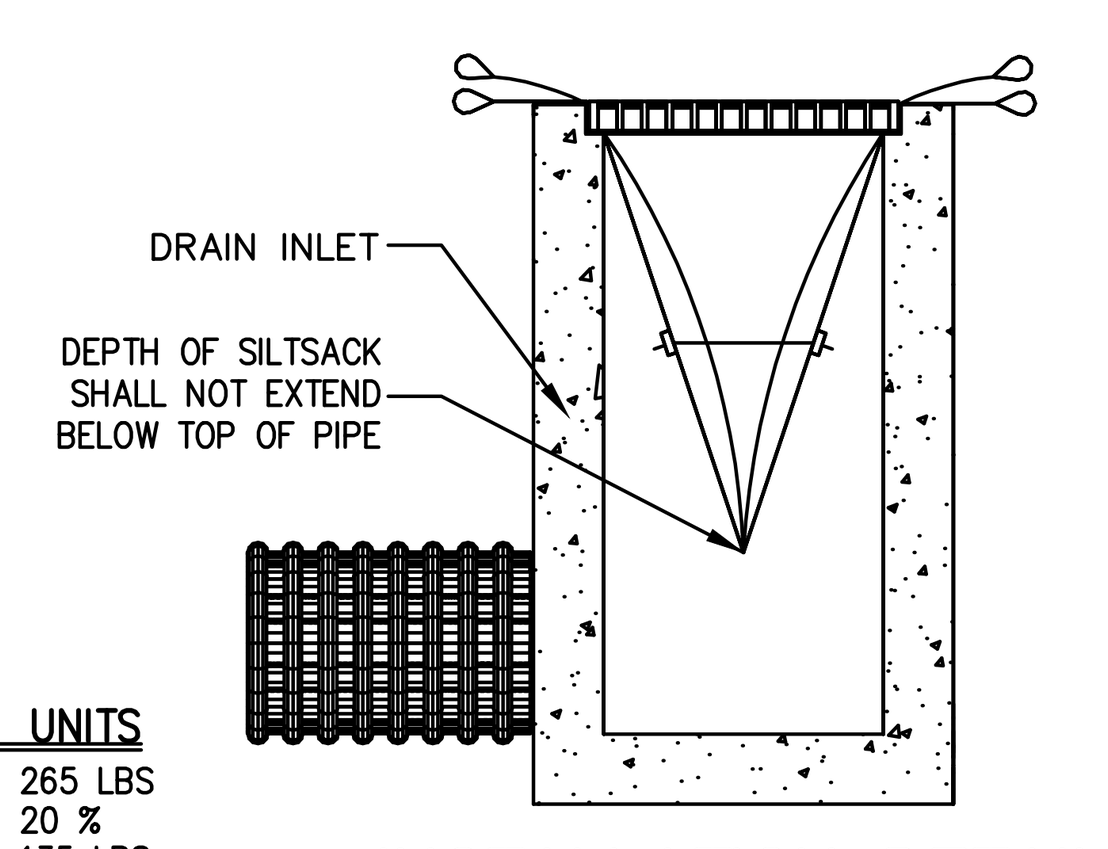
EXCAVATED DROP INLET PROTECTION — 3



BAG DETAIL

NOTES:

1. CURB INLETS SHALL BE TYPE B WITH CURB DEFLECTOR.
2. INLET PROTECTION SHALL BE INSPECTED WEEKLY AND AFTER EACH RAIN. SEDIMENT SHALL BE REMOVED AS NECESSARY. FILTER FABRIC, CRUSHED STONE, AND ANY OTHER COMPONENTS SHALL BE REPLACED IF DAMAGED. ALL MATERIALS SHALL BE CHECKED FOR PROPER ANCHORAGE AND SECURED AS NECESSARY.



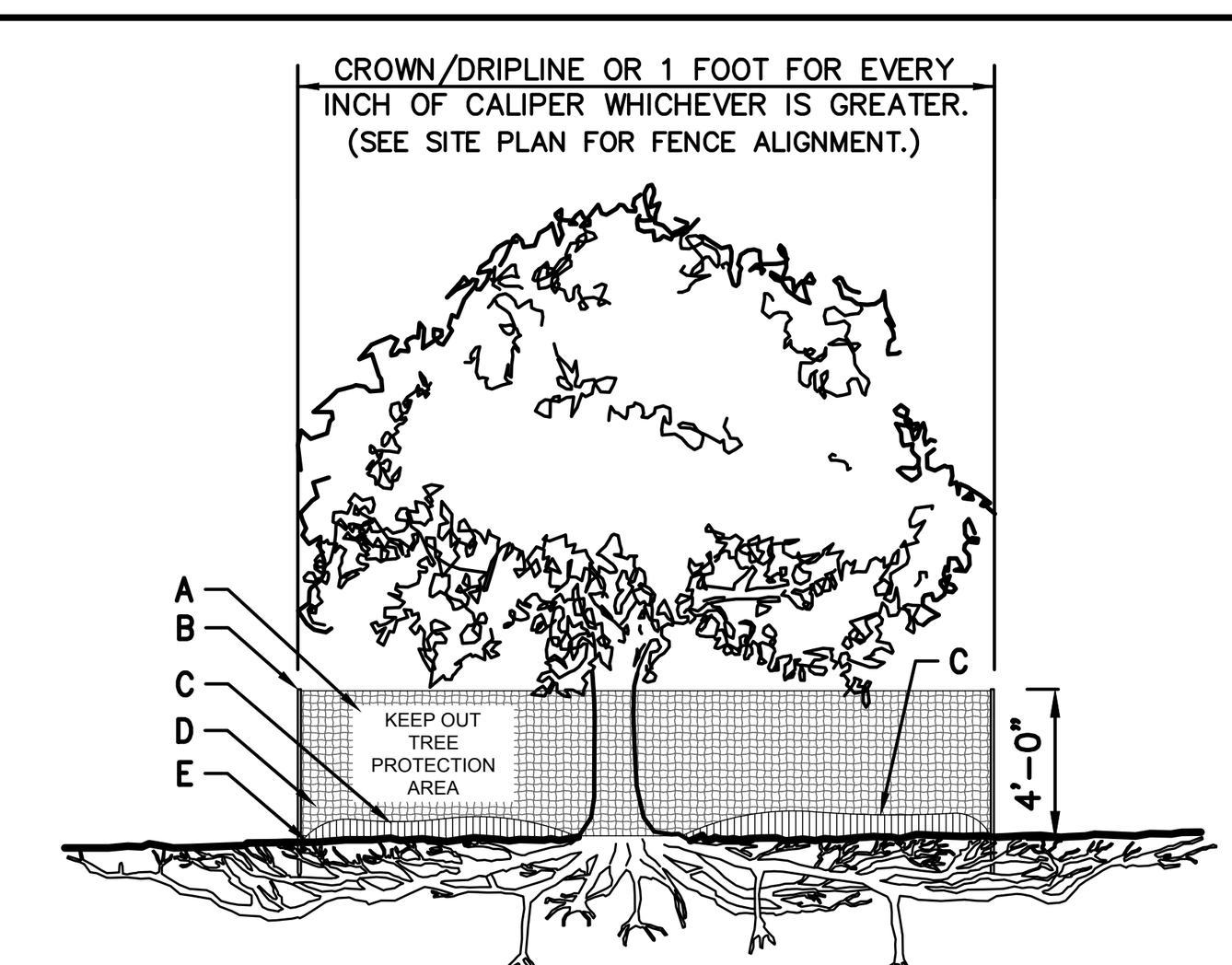
INSTALLATION DETAIL

HI–FLOW SILT SACK AS MANUFACTURED BY ACF ENVIRONMENTAL OR APPROVED EQUAL®

(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN–OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D–4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D–4632	20 %
PUNCTURE	ASTM D–4833	135 LBS
MULLEN BURST	ASTM D–3786	420 PSI
TRAPEZOID TEAR	ASTM D–4533	45 LBS
UV RESISTANCE	ASTM D–4355	90 %
APPARENT OPENING SIZE	ASTM D–4751	20 US SIEVE
FLOW RATE	ASTM D–4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D–4491	1.5 SEC –1

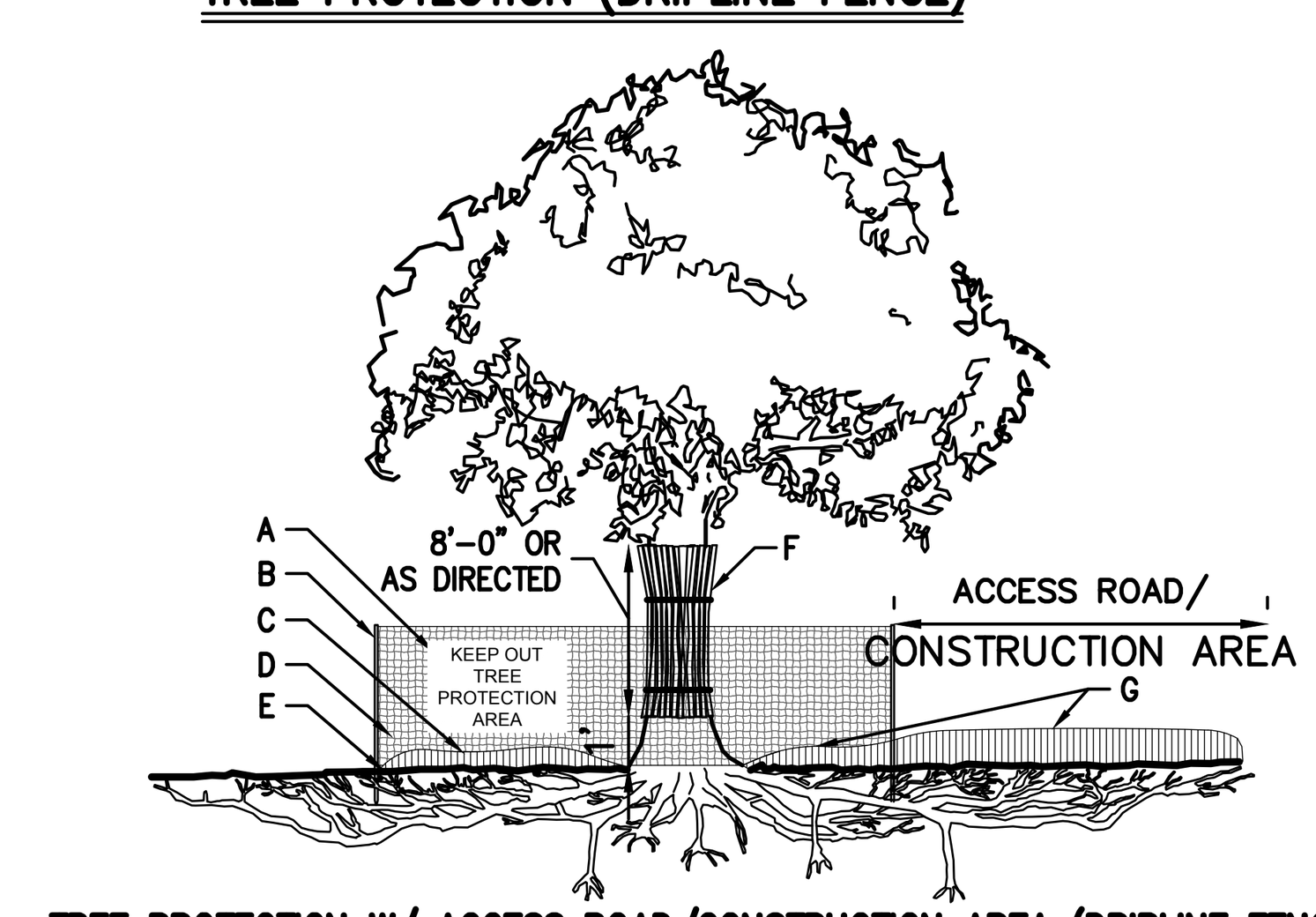
SILT SACK — 4



TREE PROTECTION (DRIPLINE FENCE)

A	8.5"X11" SIGN LAMINATED IN PLASTIC SPACED EVERY 50' ALONG FENCE
B	2"X6' STEEL POSTS OR APPROVED EQUAL.
C	5" THICK LAYER OF MULCH.
D	TREE PROTECTION FENCE: HIGH DENSITY POLYETHYLENE FENCING WITH 3.5" X 1.5" OPENINGS; COLOR ORANGE. STEEL POSTS INSTALLED AT 8' O.C.
E	MAINTAIN EXISTING GRADE WITHIN THE TREE PROTECTION FENCE UNLESS OTHERWISE INDICATED ON THE PLANS.
F	INSTALL ROUGH SAWN WOOD WHERE AND AS DIRECTED BY PROJECT LANDSCAPE ARCHITECT OR PROFESSIONAL ARBORIST. SEE CHART FOR WOOD SIZE BOUND WITH 9 GAUGE WIRE.
G	8"–12" THICK LAYER OF MULCH ON MAINTENANCE ROAD. 5" THICK LAYER INSIDE TREE PROTECTION AREA.

TREE DIAMETER	ROUGH SAWN WOOD SIZE
<12"	2"X2"
13"–24"	2"X4"
>25"	2"X6"

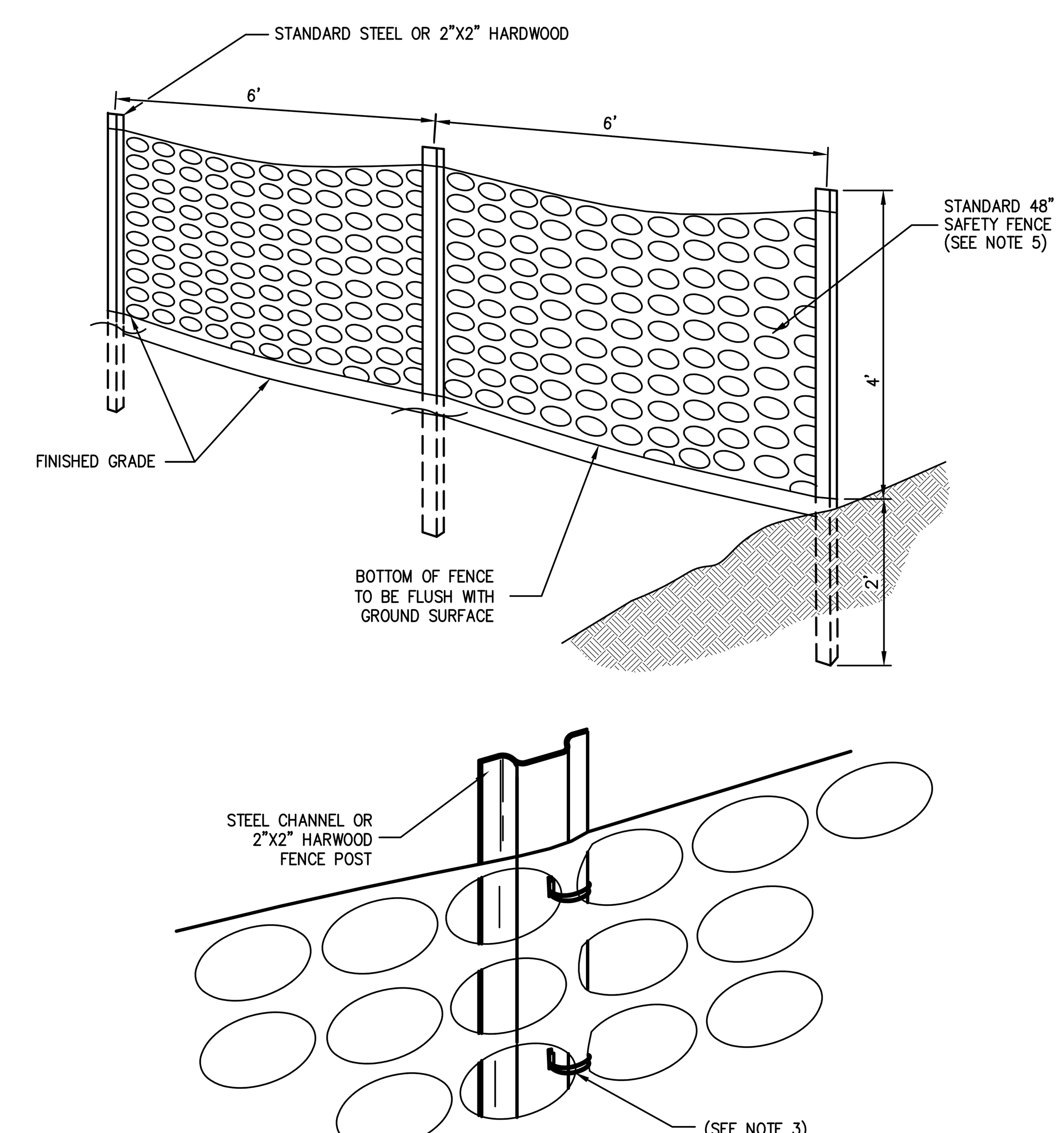


TREE PROTECTION W/ ACCESS ROAD/CONSTRUCTION AREA (DRIPLINE FENCE)

NOTES:

1. SEE SPECIFICATIONS FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
2. IF THERE IS NO EXISTING IRRIGATION, SEE SPECIFICATIONS FOR WATERING REQUIREMENTS.
3. NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST.
4. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
5. SEE SITE PLANS FOR IDENTIFICATIONS/LOCATIONS OF INDIVIDUAL TREES TO BE PROTECTED.
6. ALL EXCAVATION WITHIN THE CROWN/DRIPLINE OF ANY TREE SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF THE PROJECT LANDSCAPE ARCHITECT OR PROFESSIONAL ARBORIST. SPECIAL MEASURES, SUCH AS THE USE OF AN AIR SPADE MAY BE REQUIRED.
7. THE CONTRACTOR MAY PROPOSE THE USE OF ENGINEERED MATTING OR OTHER ENGINEERED PRODUCTS IN LIEU OF MULCH, WHICH SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF ALL AUTHORITIES HAVING JURISDICTION.

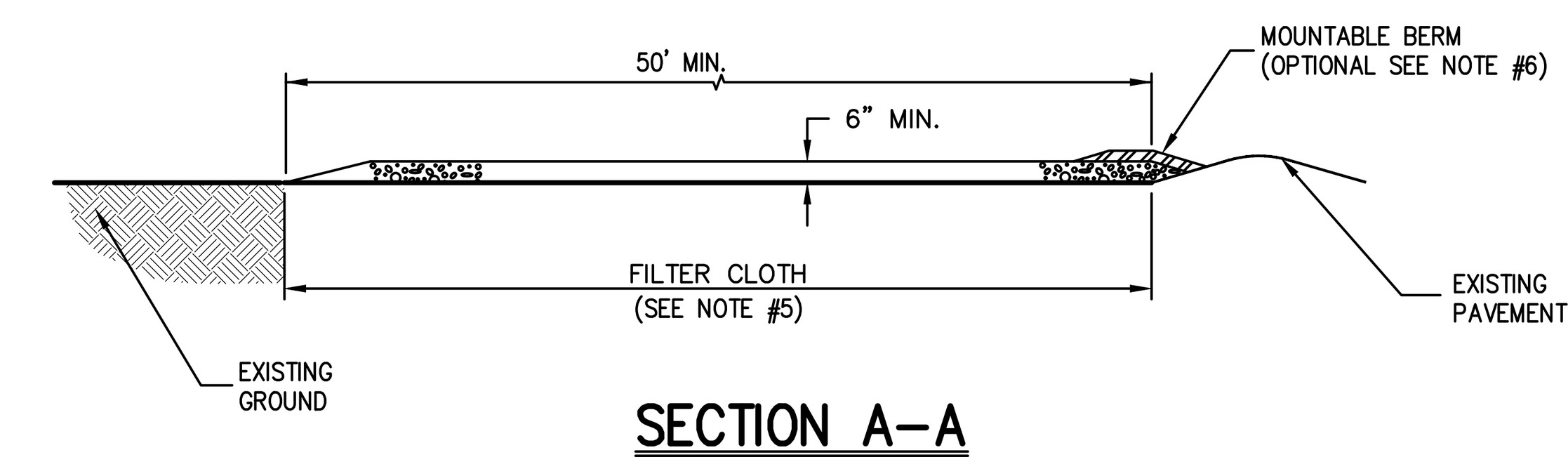
TREE PROTECTION — 5



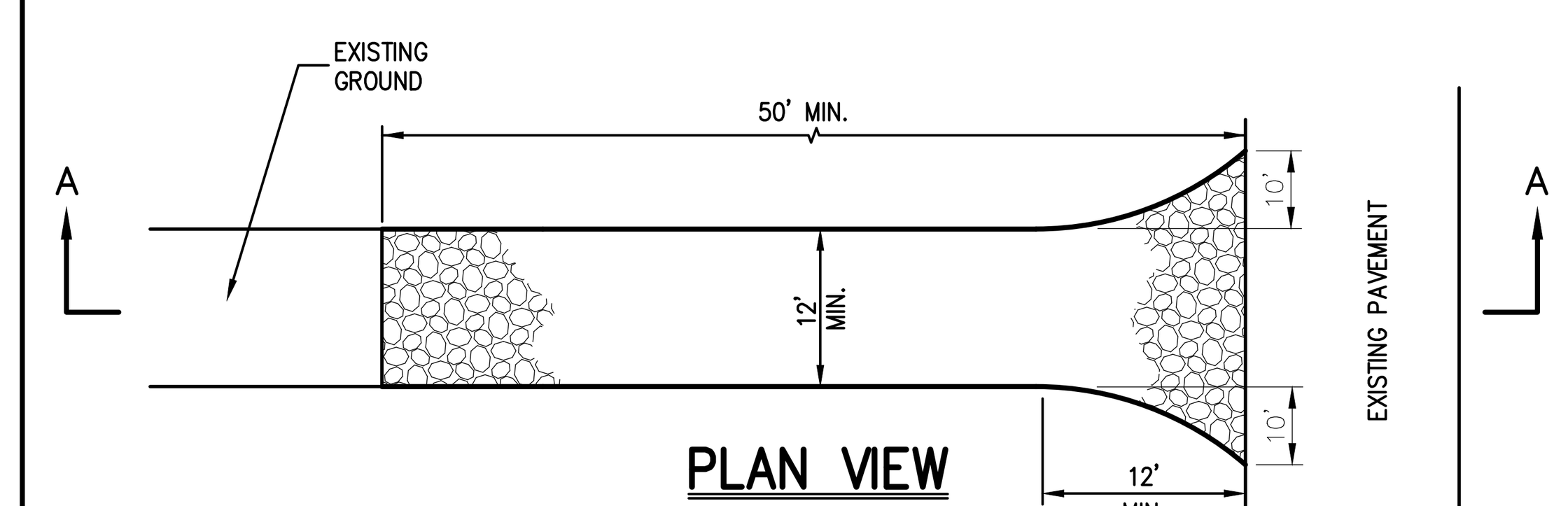
NOTES:

1. SPACE SUPPORT FENCE POSTS AT 6 FOOT INTERVALS.
2. DRIVE SUPPORT POSTS 2 FEET INTO GROUND.
3. FIRMLY FASTEN FENCE MATERIAL IN PLACE BY WIRING TO FENCE POST WHILE MAINTAINING TENSION ACROSS FULL HEIGHT OF FENCE. WIRING SHALL BE DONE IN A MANNER THAT WILL PREVENT SAGGING OF FENCE MATERIAL.
4. PROVIDE PERIODIC INSPECTION AND MAINTENANCE OF FENCE INCLUDING REPAIRS AS NECESSARY AND REQUIRED.
5. PLASTIC FENCE SHALL BE INTERNATIONAL ORANGE COLOR, AS MANUFACTURED BY ADPI ENTERPRISES, INC. OR APPROVED EQUAL.
6. REMOVE CONSTRUCTION FENCE AS DIRECTED BY THE OWNER'S FIELD REPRESENTATIVE.

CONSTRUCTION FENCE — 6



SECTION A–A



PLAN VIEW

NOTES

1. STONE SIZE – USE 1" TO 4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH TO BE PLACED OVER THE ENTIRE WIDTH AND LENGTH OF AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS–OF–WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. DAILY INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE — 7

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
6.	REVISED PER CITY COMMENTS	05/31/2022
7.	REVISED PER CITY COMMENTS	06/28/2022
8.	REVISED PER CITY COMMENTS	08/30/2022
9.	REVISED PER CITY COMMENTS	09/27/2022

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STATE OF NEW YORK · STEPHEN SPINA · 085983 · LICENSED PROFESSIONAL ENGINEER

Drawn: BMS		Approved: SS	
Scale:	NOT TO SCALE		
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18119–DETAILS	C–900	–	
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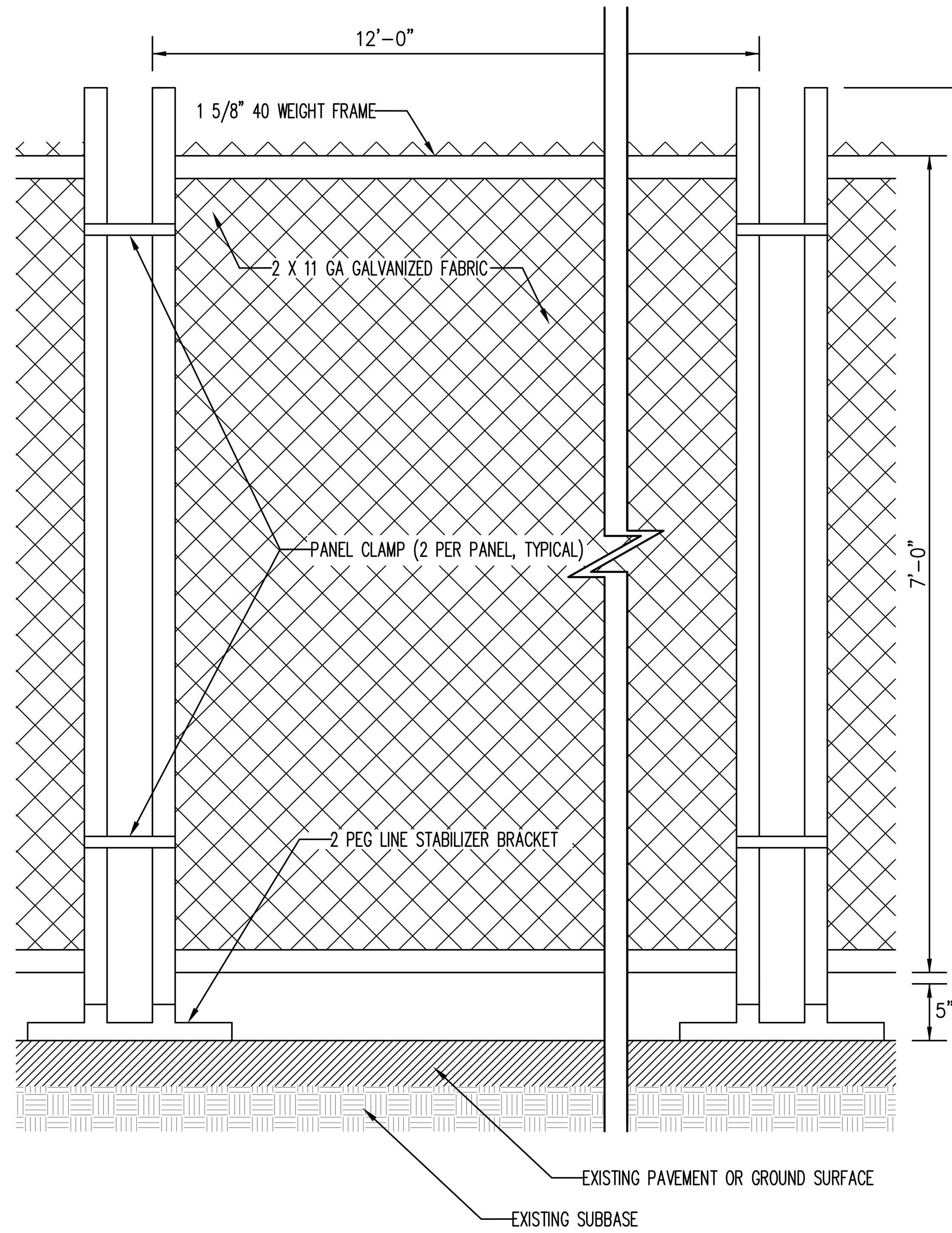
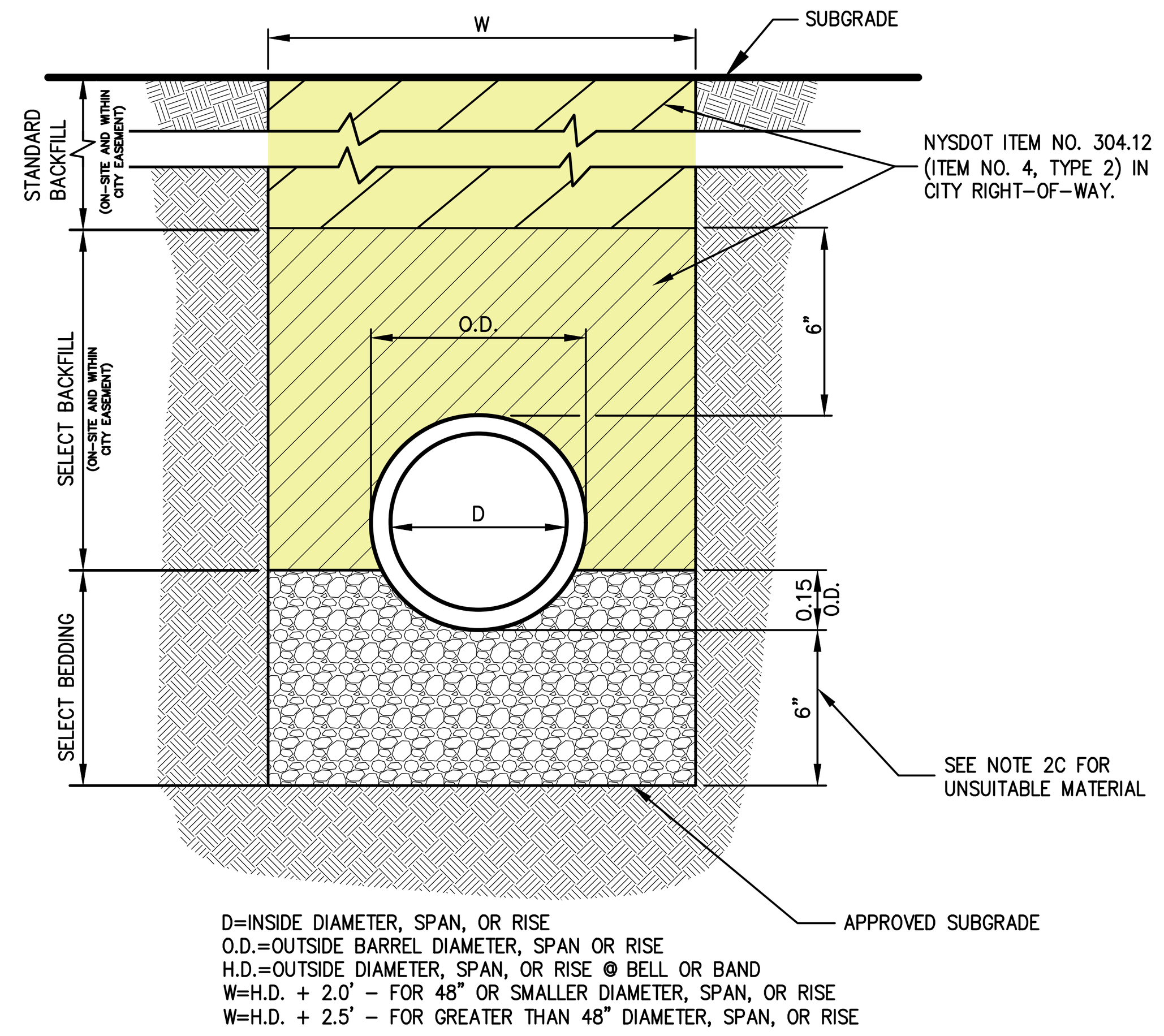


NOTE:
STABILIZED BRACKET TO BE HOT DIPPED GALVANIZED STEEL PIPE.

TEMPORARY CHAIN LINK CONSTRUCTION FENCE — 8

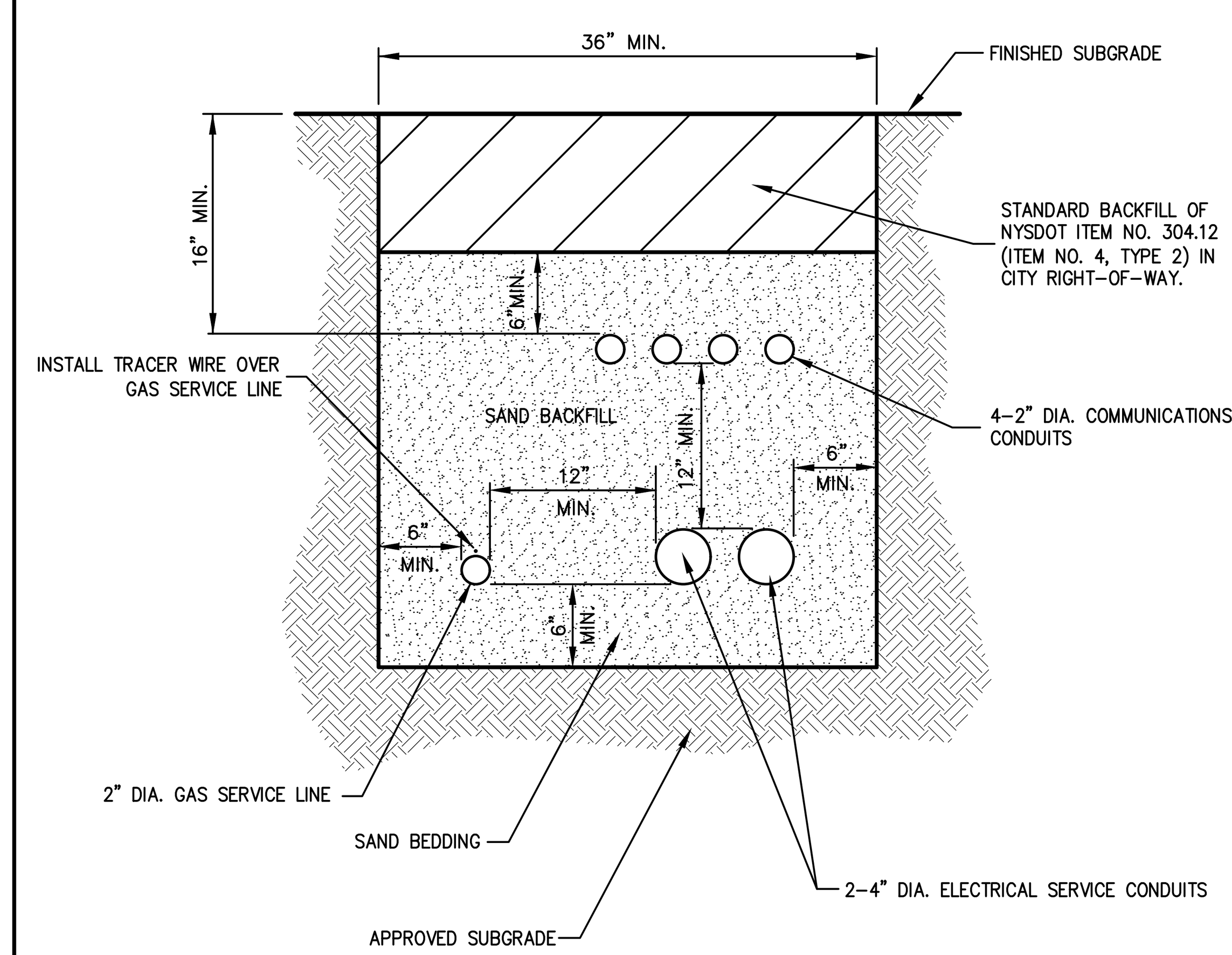


D=INSIDE DIAMETER, SPAN, OR RISE
O.D.=OUTSIDE BARREL DIAMETER, SPAN OR RISE
H.D.=OUTSIDE DIAMETER, SPAN, OR RISE @ BELL OR BAND
W=H.D. + 2.0' – FOR 48" OR SMALLER DIAMETER, SPAN, OR RISE
W=H.D. + 2.5' – FOR GREATER THAN 48" DIAMETER, SPAN, OR RISE

NOTES:

1. FOR TYPE II TRENCH, MATERIAL FOR SELECT BEDDING SHALL BE SAND. SELECT BACKFILL SHALL BE ITEM NO. 4, TYPE 2 IN CITY RIGHT-OF-WAY AND SAND ON-SITE.
2. TYPE II TRENCH SHALL BE USED IN ALL OF THE FOLLOWING CASES:
   A. FOR ALL CORRUGATED POLYETHYLENE DRAIN PIPE (HDPE), PVC PIPE, DUCTILE IRON PIPE, AND CONDUIT INSTALLATION.
   B. WHEN ROCK OR HARDPAN IS ENCOUNTERED IN BOTTOM OF TRENCH.
   C. WHEN UNSUITABLE MATERIAL IS ENCOUNTERED IN BOTTOM OF TRENCH. IN SUCH CASE DEPTH OF UNDERCUTTING SHALL BE AS DIRECTED BY THE ENGINEER WITH 6" MINIMUM.
3. FOR ALL TRENCH EXCAVATION IN FILL AREAS, ALL EMBANKMENTS SHALL BE CONSTRUCTED TO A MINIMUM OF 2 FEET ABOVE THE OUTSIDE TOP (AT THE BELL) OF THE PIPE PRIOR TO BEGINNING ANY TRENCH EXCAVATION.
4. BACKFILL FOR PIPE AND CONDUIT SHALL BE PLACED EVENLY AND CAREFULLY AROUND AND OVER THE PIPE OR CONDUIT IN SIX (6) INCH MAXIMUM LAYERS. EACH LAYER SHALL BE THOROUGHLY AND CAREFULLY COMPACTED UNTIL TWELVE (12) INCHES OF COVER EXISTS OVER THE PIPE OR CONDUIT. THE REMAINDER OF THE BACKFILL MAY THEN BE PLACED AND COMPACTED IN A MAXIMUM OF TWELVE (12) INCH LAYERS. EACH LAYER SHALL BE COMPACTED BY APPROVED MECHANICAL TAMPING MACHINES. UNLESS OTHERWISE SPECIFIED BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 95% MAXIMUM MODIFIED DENSITY IN ACCORDANCE WITH ASTM DESIGNATION D-1557 IN THE MANNER HEREIN DESCRIBED. BACKFILL SHALL PROCEED UP TO THE LINES AND GRADES AS SHOWN ON THE DRAWINGS.

TYPE II TRENCH — 9



NOTES:

1. UTILITIES TO BE INSTALLED IN ACCORDANCE WITH THE REGULATIONS AND REQUIREMENTS OF THE UTILITY COMPANY HAVING JURISDICTION.
2. BACKFILL FOR PIPE AND CONDUIT SHALL BE PLACED EVENLY AND CAREFULLY AROUND AND OVER THE PIPE OR CONDUIT IN SIX (6) INCH MAXIMUM LAYERS. EACH LAYER SHALL BE THOROUGHLY AND CAREFULLY COMPACTED UNTIL TWELVE (12) INCHES OF COVER EXISTS OVER THE PIPE OR CONDUIT. THE REMAINDER OF THE BACKFILL MAY THEN BE PLACED AND COMPACTED IN A MAXIMUM OF TWELVE (12) INCH LAYERS. EACH LAYER SHALL BE COMPACTED BY APPROVED MECHANICAL TAMPING MACHINES. UNLESS OTHERWISE SPECIFIED BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 95% MAXIMUM MODIFIED DENSITY IN ACCORDANCE WITH ASTM DESIGNATION D-1557 IN THE MANNER HEREIN DESCRIBED. BACKFILL SHALL PROCEED UP TO THE LINES AND GRADES AS SHOWN ON THE DRAWINGS.
3. CONTRACTOR SHALL STAKE THE PROPOSED SERVICE LINES AND CONDUITS PRIOR TO BACKFILLING TO ENSURE SERVICES DO NOT MOVE WITHIN TRENCH.

UTILITY TRENCH DETAIL — 10

NOTES PERTAINING TO DRAIN INLETS

A-1 STEPS WILL NOT BE REQUIRED IN INLETS LESS THAN FOUR (4) FEET IN DEPTH. STEPS WILL BE REQUIRED IN INLETS FOUR (4) FEET OR GREATER IN DEPTH. DEPTHS FOR DRAIN INLETS SHALL BE MEASURED FROM FINISHED GRADE TO INSIDE BOTTOM OF STRUCTURE (INCLUDING SUMP AS APPLICABLE).

A-2 WHEN STEPS ARE REQUIRED, STEPS SHALL COMPLY WITH THE SAME REQUIREMENTS OF ASTM STANDARD C-478, ARTICLE 13 ENTITLED "MANHOLE STEPS & LADDERS".

A-3 FOR MASONRY STRUCTURES, THE FIRST COURSE OF MASONRY SHALL BE SET IN THE CONCRETE FOUNDATION BEFORE THE CONCRETE HAS SET. CONCRETE FOUNDATION SHALL BE CLASS "A"(4000 psi) CONCRETE, TWELVE (12) INCHES THICK AND SHALL EXTEND SIX (6) INCHES BEYOND THE OUTSIDE FACE THE STRUCTURE.

A-4 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH AND CONSTRUCT THE PROPER SIZE STRUCTURE INCLUDING THE NECESSARY OPENINGS TO ACCOMMODATE THE WORK AS SHOWN ON THE PLANS OR ORDERED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

A-5 ALL NECESSARY PATCHING FOR DRAIN STRUCTURES SHALL BE ACCOMPLISHED WITH NON-SHRINKING CEMENT MORTAR GROUT, APPROVED EQUAL TO SIKA-SET AS MANUFACTURED BY THE SIKA CHEMICAL CORP.

A-6 FOUNDATIONS FOR PRECAST CONCRETE STRUCTURES SHALL BE SET ON A COMPACTED LAYER OF APPROVED CRUSHED STONE HAVING A MINIMUM COMPACTED THICKNESS OF EIGHT (8) INCHES.

A-7 ALL PIPES SHALL BE CUT FLUSH WITH THE INSIDE WALL OF THE STRUCTURE.

A-8 PROVIDE REINFORCED CONCRETE TOP SLAB FOR OVERSIZED DRAIN INLETS WITH PROPER SIZE OPENING TO ACCOMMODATE INSTALLATION OF FRAME & GRATE.

A-9 FOR MASONRY STRUCTURES GREATER THAN TEN (10) FEET IN DEPTH, THICKNESS OF MASONRY WALLS SHALL BE INCREASED TO TWELVE (12) INCHES.

A-10 FOR ALL STRUCTURES GREATER THAN 10 FEET IN DEPTH, STRUCTURES SHALL PROVIDE MINIMUM INSIDE DIMENSIONS OF 4 FEET X 4 FEET.

NOTES PERTAINING TO MANHOLES

B-1 PRECAST CONCRETE MANHOLES SHALL COMPLY WITH ASTM STANDARD C-478. MANHOLE JOINTS SHALL COMPLY WITH ASTM STANDARD C-443.

B-2 FOR PRECAST CONCRETE MANHOLES FIVE (5) FEET OR LESS IN HEIGHT, TOP CONE SECTION SHALL BE REPLACED WITH PRECAST REINFORCED CONCRETE SLAB (6" MIN. THICKNESS) WITH OPENING OF SUFFICIENT SIZE TO ACCOMMODATE MANHOLE CASTING.

B-3 FOR MANHOLES 10 FEET OR MORE IN DEPTH, MANHOLE DIAMETER SHALL BE FIVE (5) FEET.

B-4 TERMINAL MANHOLE FLOORS SHALL BE SLOPED TOWARD OUTFALL PIPE.

B-5 INVERT CHANNELS FOR PRECAST CONCRETE MANHOLES SHALL BE CONSTRUCTED OF CONCRETE.

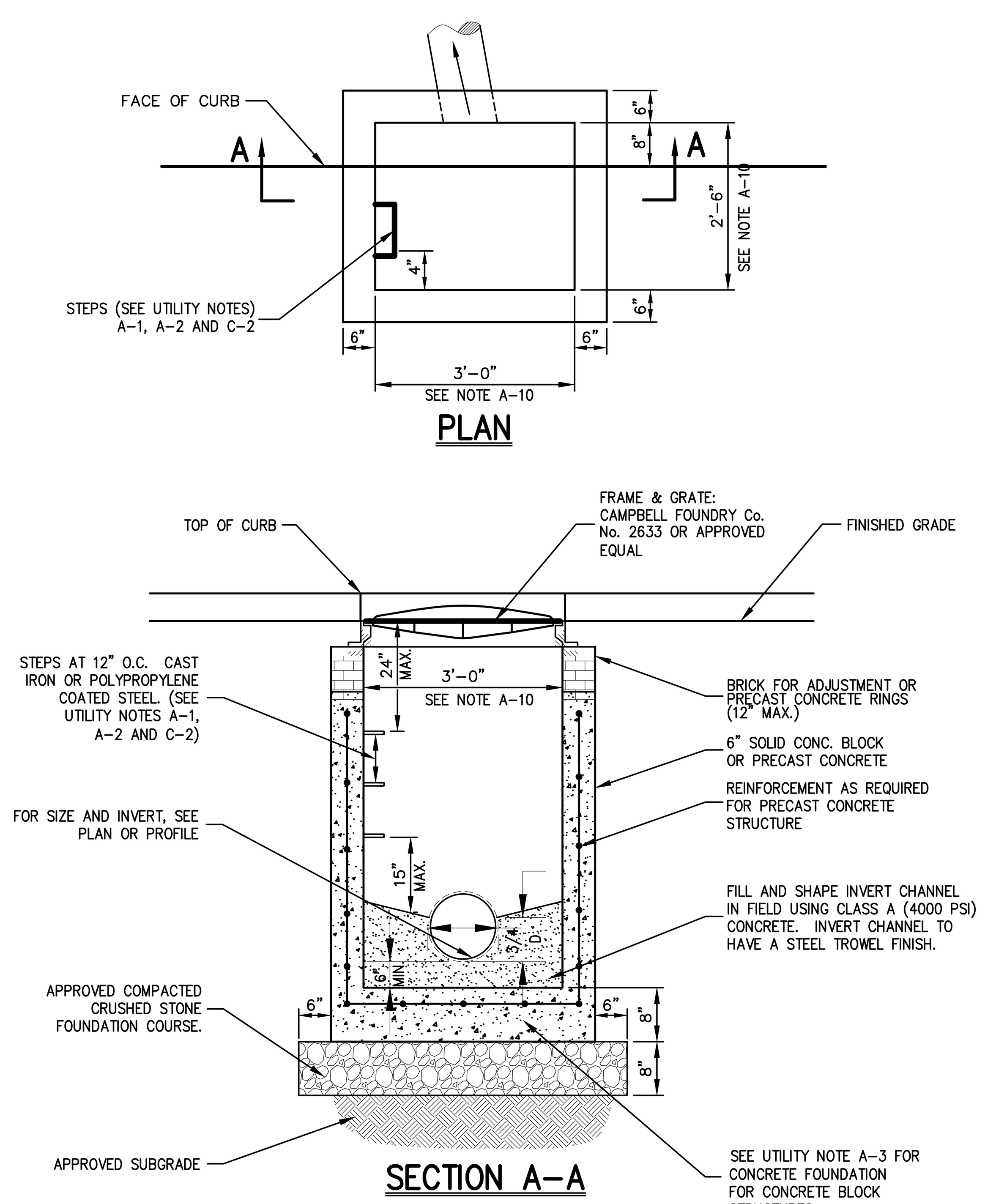
B-6 NOTES A-1, A-2, A-4, A-5, A-6 & A-7 UNDER "NOTES PERTAINING TO DRAIN INLETS" ABOVE SHALL APPLY TO MANHOLES.

NOTES PERTAINING TO PRECAST CONCRETE STRUCTURES FOR STORM DRAINS, SANITARY SEWERS AND WATER LINES

C-1 ALL PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO ACCOMMODATE AN H-20 DESIGN LOAD.

C-2 STEPS SHALL BE LOCATED WITHIN STRUCTURE TO AVOID PLACEMENT OVER PIPES WHEN PRACTICABLE.

UTILITY NOTES — 11

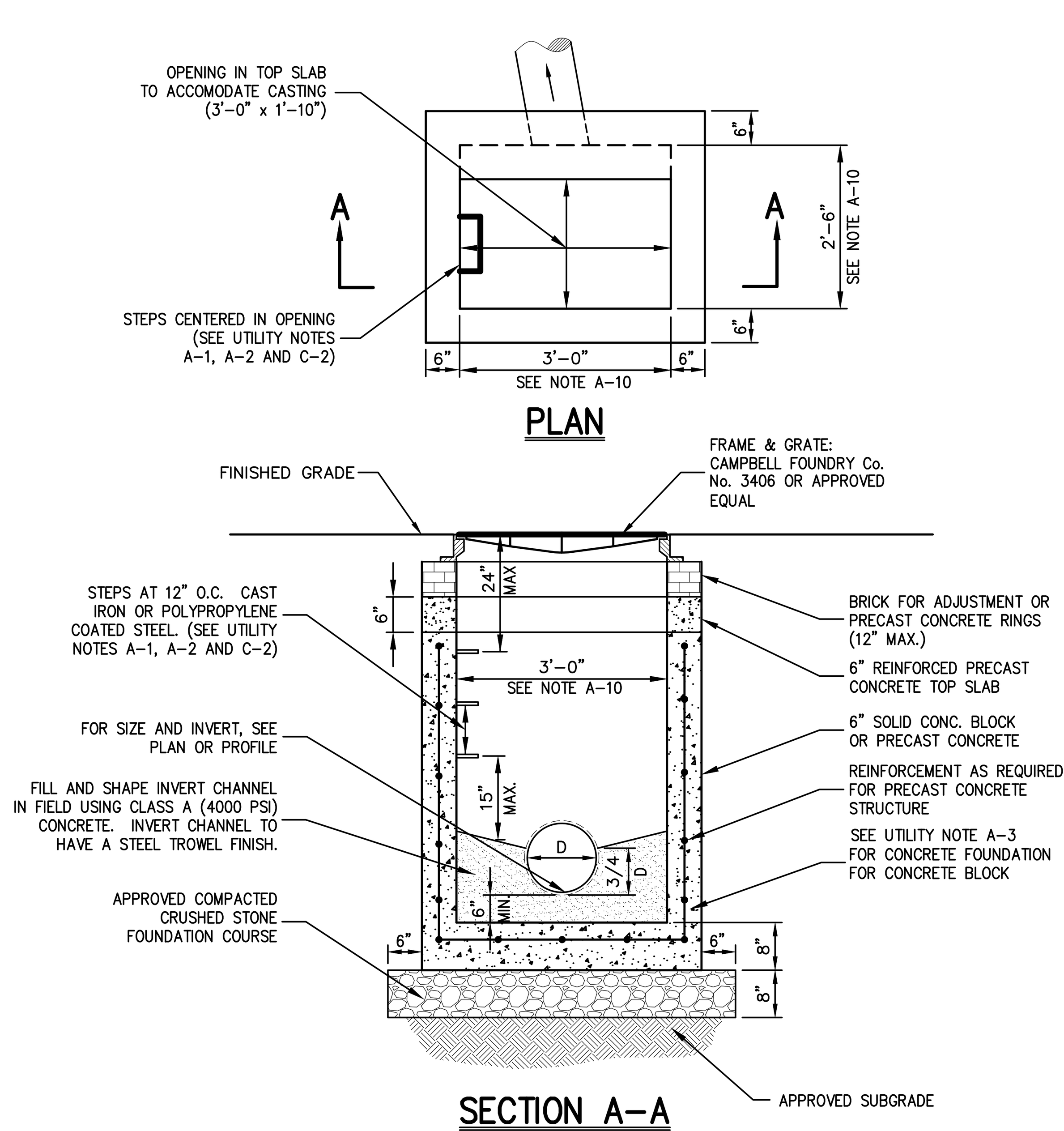


NOTE:

1. SEE NOTES PERTAINING TO DRAIN INLETS UNDER UTILITY NOTES ON DRAWING C-901
2. DRAIN INLETS SHALL BE INSPECTED MONTHLY FOR BLOCKAGE AND/OR EROSION AT TOP OF EACH INLET. BLOCKAGE SHALL BE REMOVED AND INLETS SHALL BE REPAIRED AS NECESSARY.

DRAIN INLET (TYPE CI) — 12

(w/o sump–w/o finger underdrains)

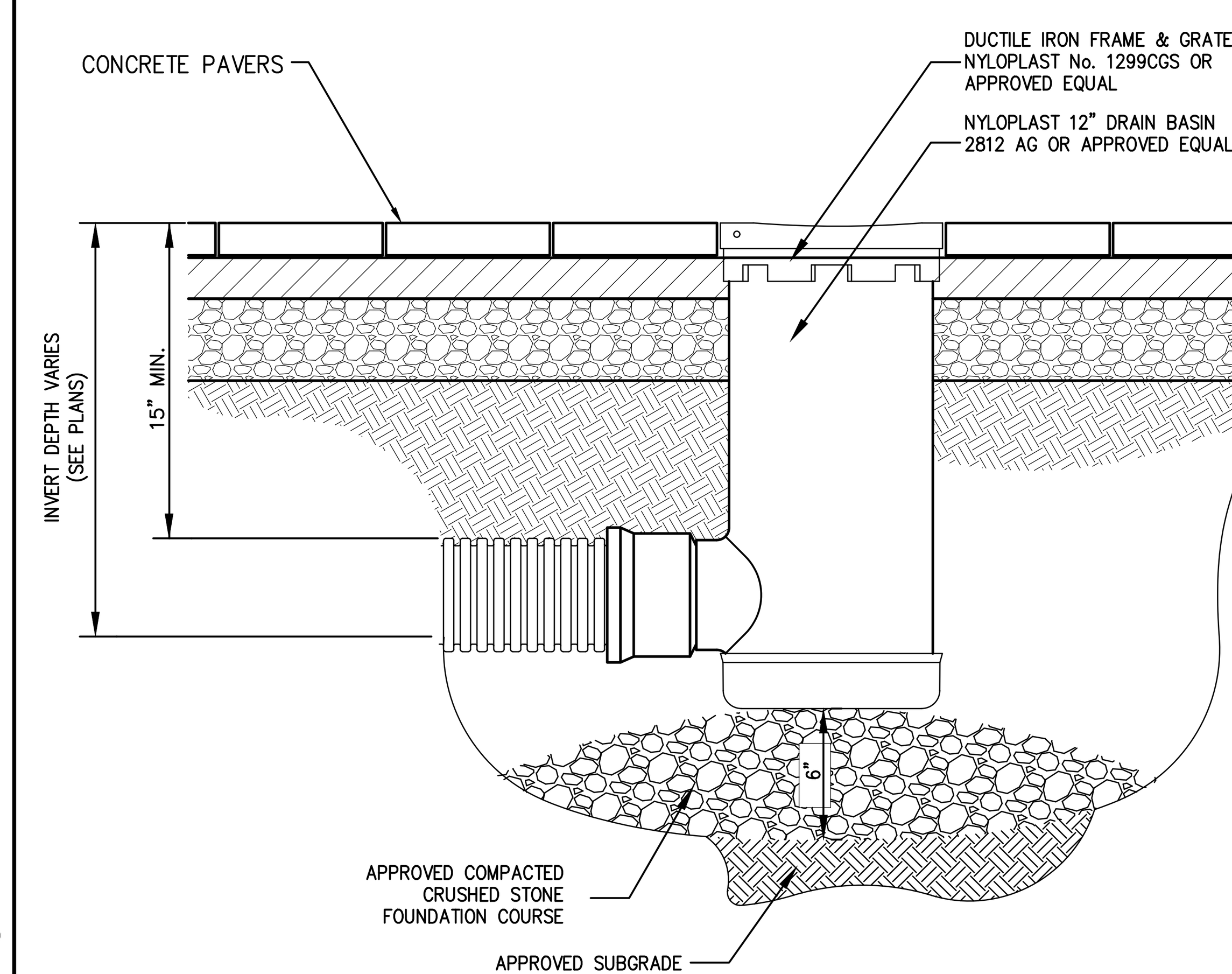


NOTE

1. REINFORCE PRECAST CONCRETE TOP SLAB AND REINFORCE PRECAST CONCRETE STRUCTURE SHALL BE DESIGNED TO ACCOMMODATE AN H-20 DESIGN LOAD.
2. LOCATIONS OF FINGER UNDERDRAINS MAY VARY FROM THAT AS SHOWN DEPENDING UPON NUMBER AND SIZE OF STORM DRAIN LINES ENTERING AND EXITING THE STRUCTURE.
3. SEE NOTES PERTAINING TO DRAIN INLETS UNDER UTILITY NOTES ON DRAWING C-901
4. DRAIN INLETS SHALL BE INSPECTED MONTHLY FOR BLOCKAGE AND/OR EROSION AT TOP OF EACH INLET. BLOCKAGE SHALL BE REMOVED AND INLETS SHALL BE REPAIRED AS NECESSARY.

DRAIN INLET (TYPE DI) — 13

(w/o sump–w/o finger underdrains)

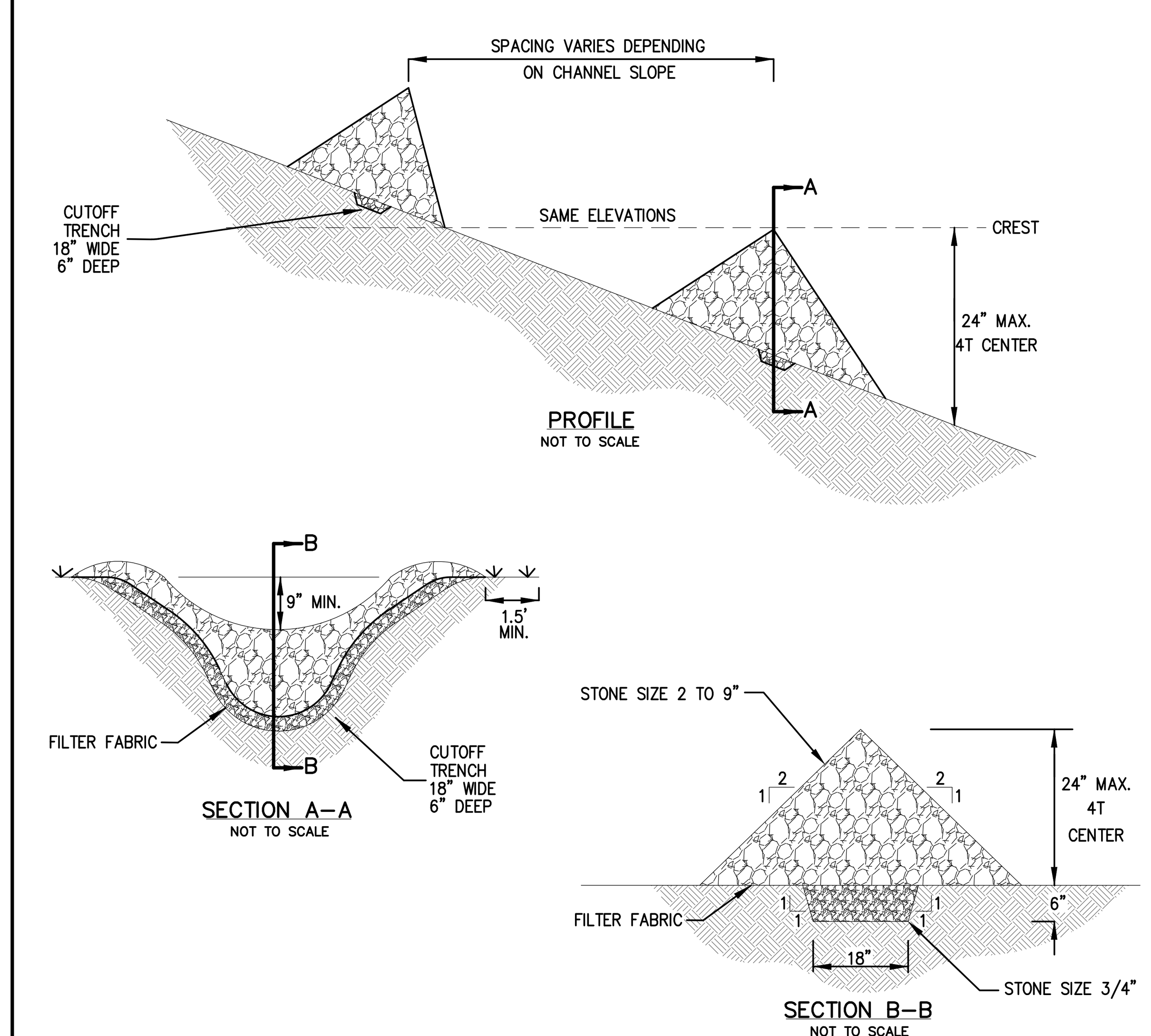


NOTES:

1. ALL MATERIALS SHALL BE PRODUCT OF NYLOPLAST OR APPROVED EQUAL.
   ADDRESS: 3130 VERONA AVENUE, BUFORD, GA 30518
   PHONE: (770) 932 2443.
2. ALL MATERIALS SHALL BE DESIGNED TO ACCOMODATE AN H-20 DESIGN LOAD.
3. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
4. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
5. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE.

DRAIN BASIN (TYPE DB) — 14

(w/o sump)



CONSTRUCTION SPECIFICATIONS:

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSURE THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANK TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

MAXIMUM DRAINAGE AREA 2 ACRES.

STONE CHECK DAM — 14A

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
6.	REVISED PER CITY COMMENTS	05/31/2022
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18119-DETAILS	C-901	–	

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(Sheet 21 OF 29)

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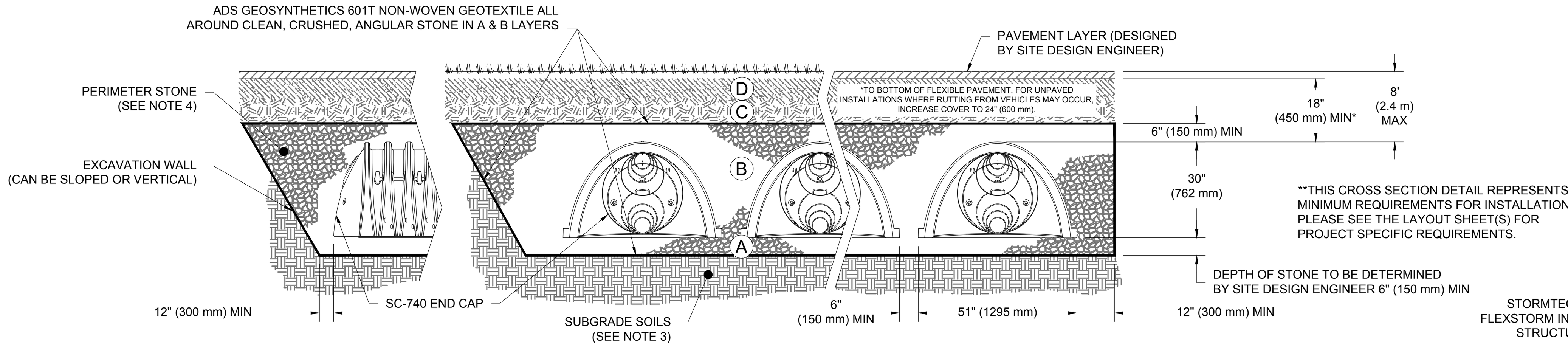
NOT FOR CONSTRUCTION

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

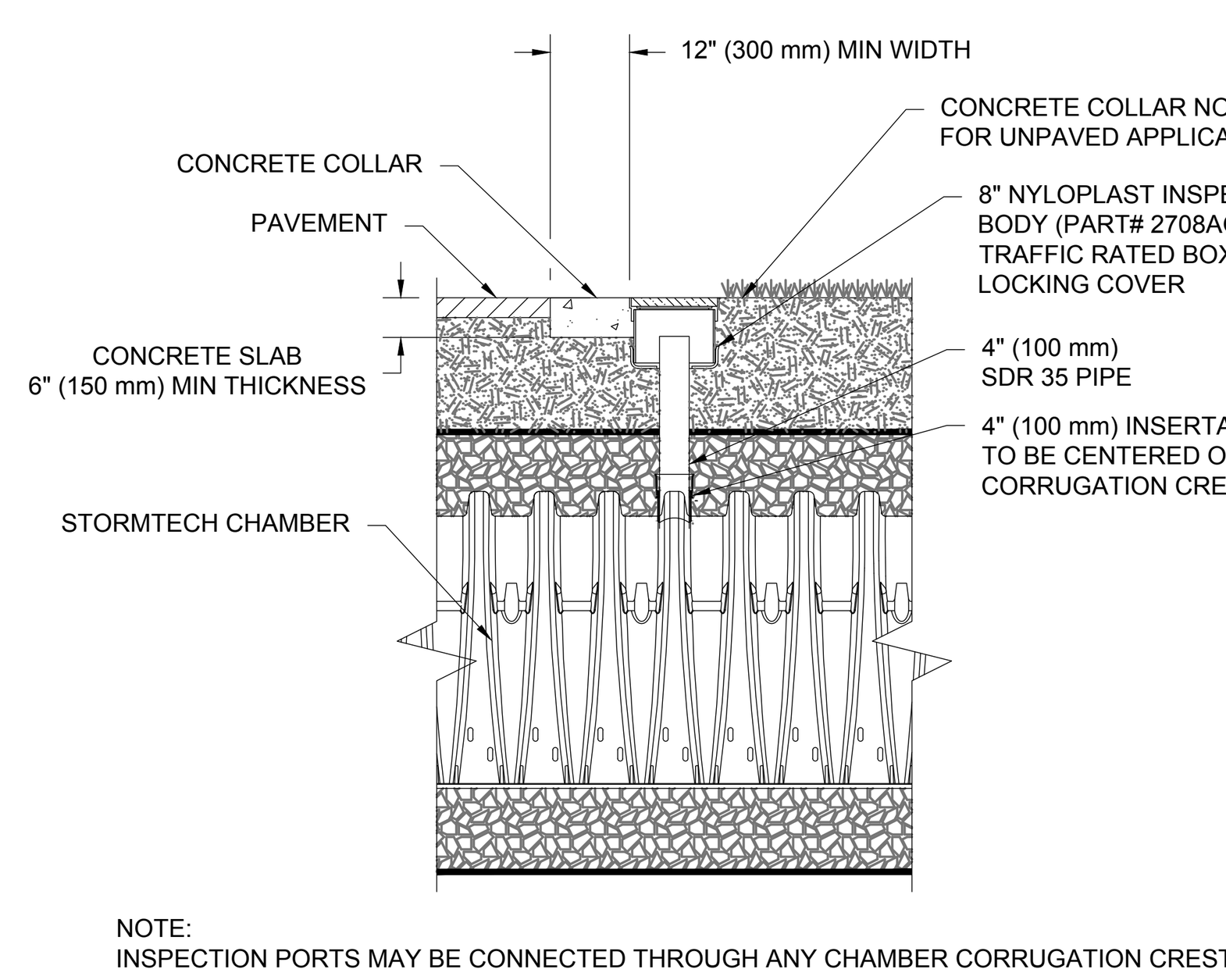
PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

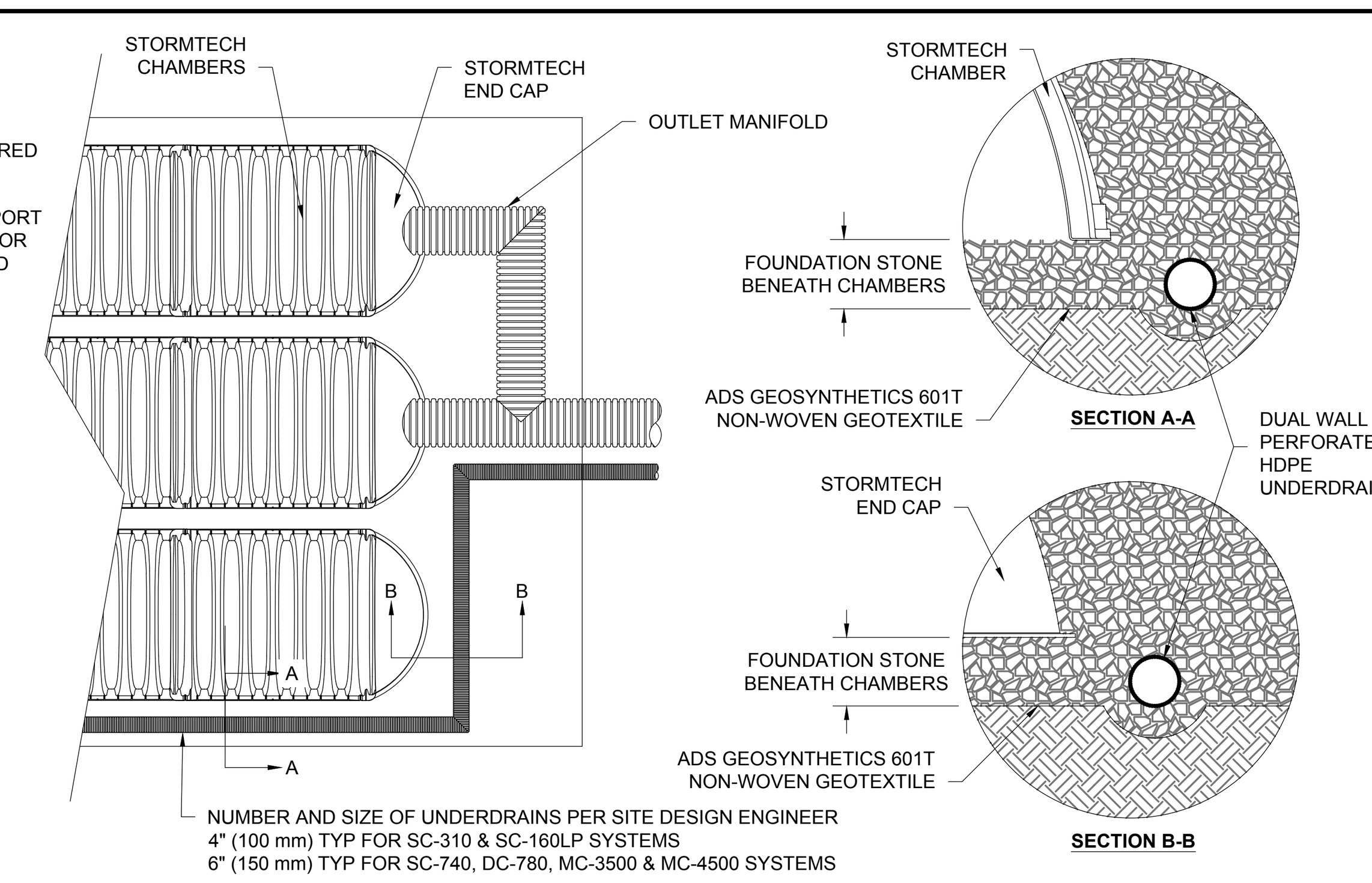
1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

SC-740 CROSS SECTION DETAIL



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

4" PVC INSPECTION PORT DETAIL (SC SERIES CHAMBER)



UNDERDRAIN DETAIL

SEE MAINTENANCE GUIDELINES IN APPENDIX E OF SWPPP REPORT. LEVEL OF SEDIMENT ACCUMULATED WITHIN THE ISOLATOR ROW SHALL BE INSPECTED THROUGH THE ACCESS MANHOLE. IF 3 INCHES OF SEDIMENT OR GREATER HAS ACCUMULATED, IT SHALL BE CLEANED OUT UTILIZING A HIGH-PRESSURE WATER NOZZLE TO SCOUR AND SUSPEND SEDIMENTS. ALL SEDIMENT SHALL BE FLUSHED TO ACCESS MANHOLE AND REMOVED USING A VACUUM TRUCK.

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

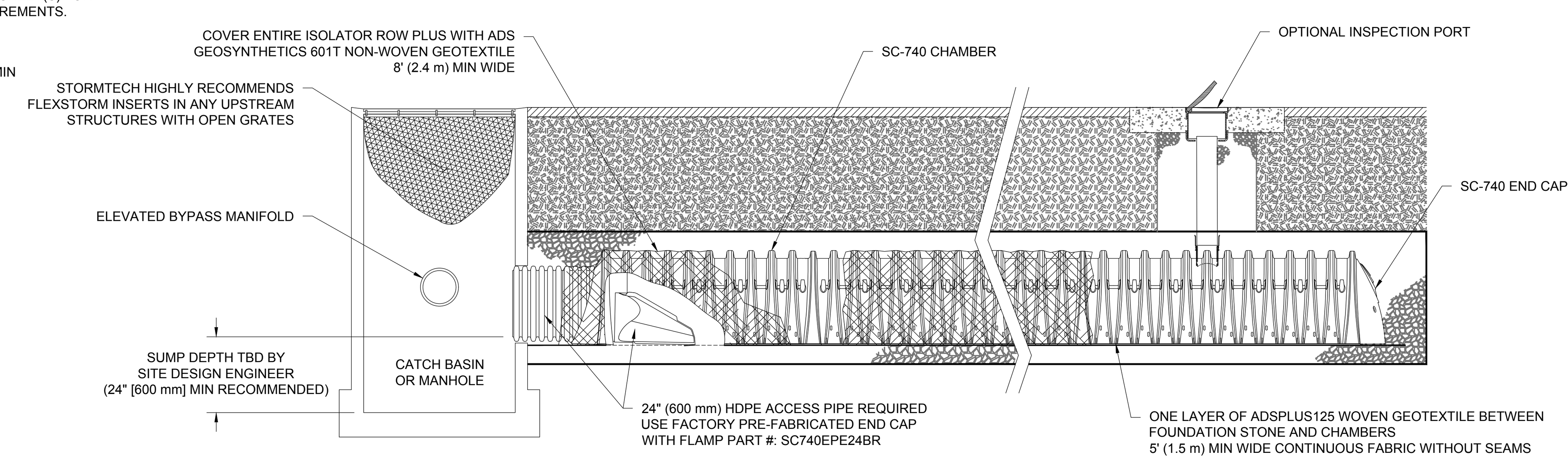
STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

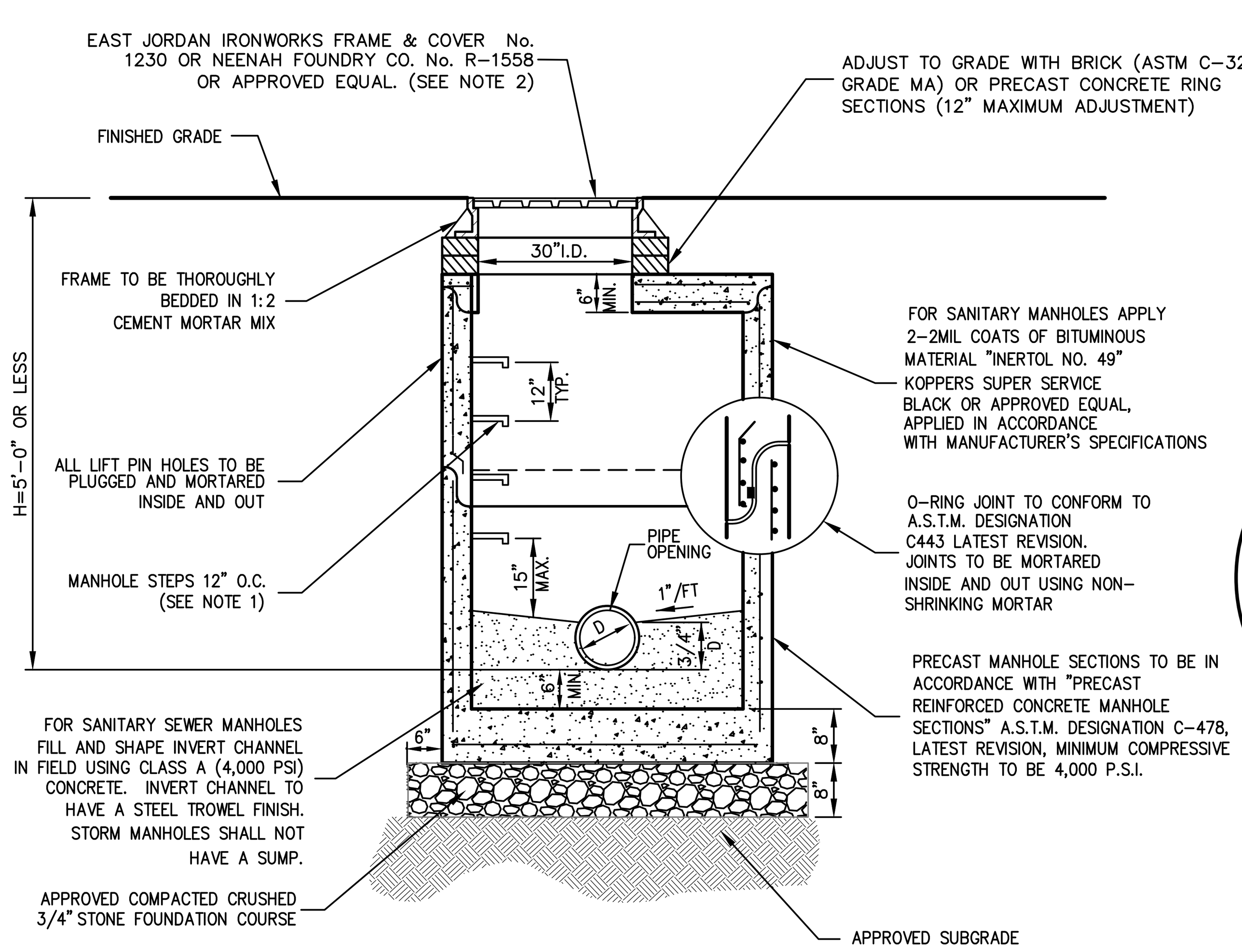
1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

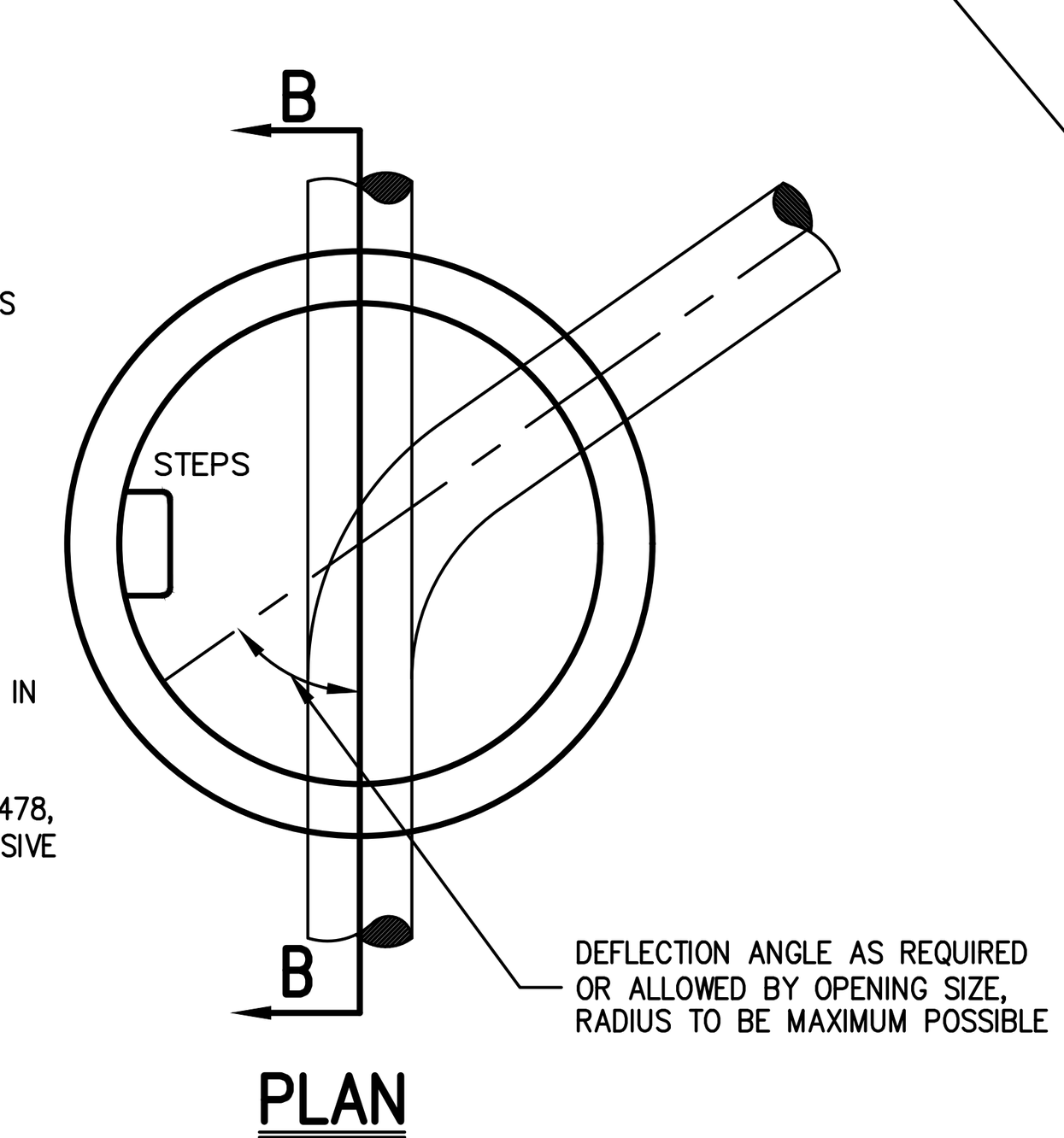


SC-740 ISOLATOR ROW PLUS DETAIL

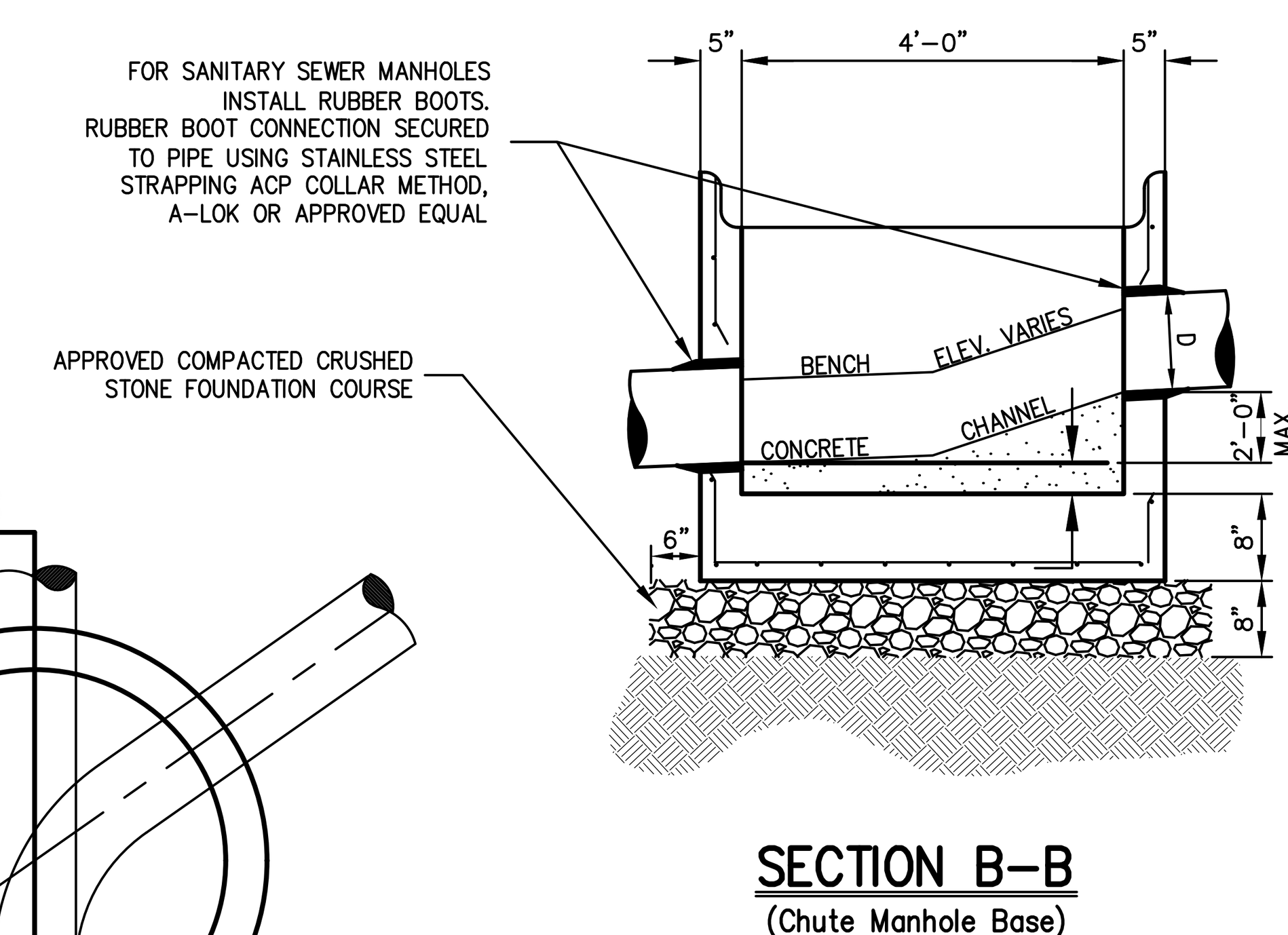
DETENTION SYSTEM
(STORMTECH CHAMBERS SC-740)

15

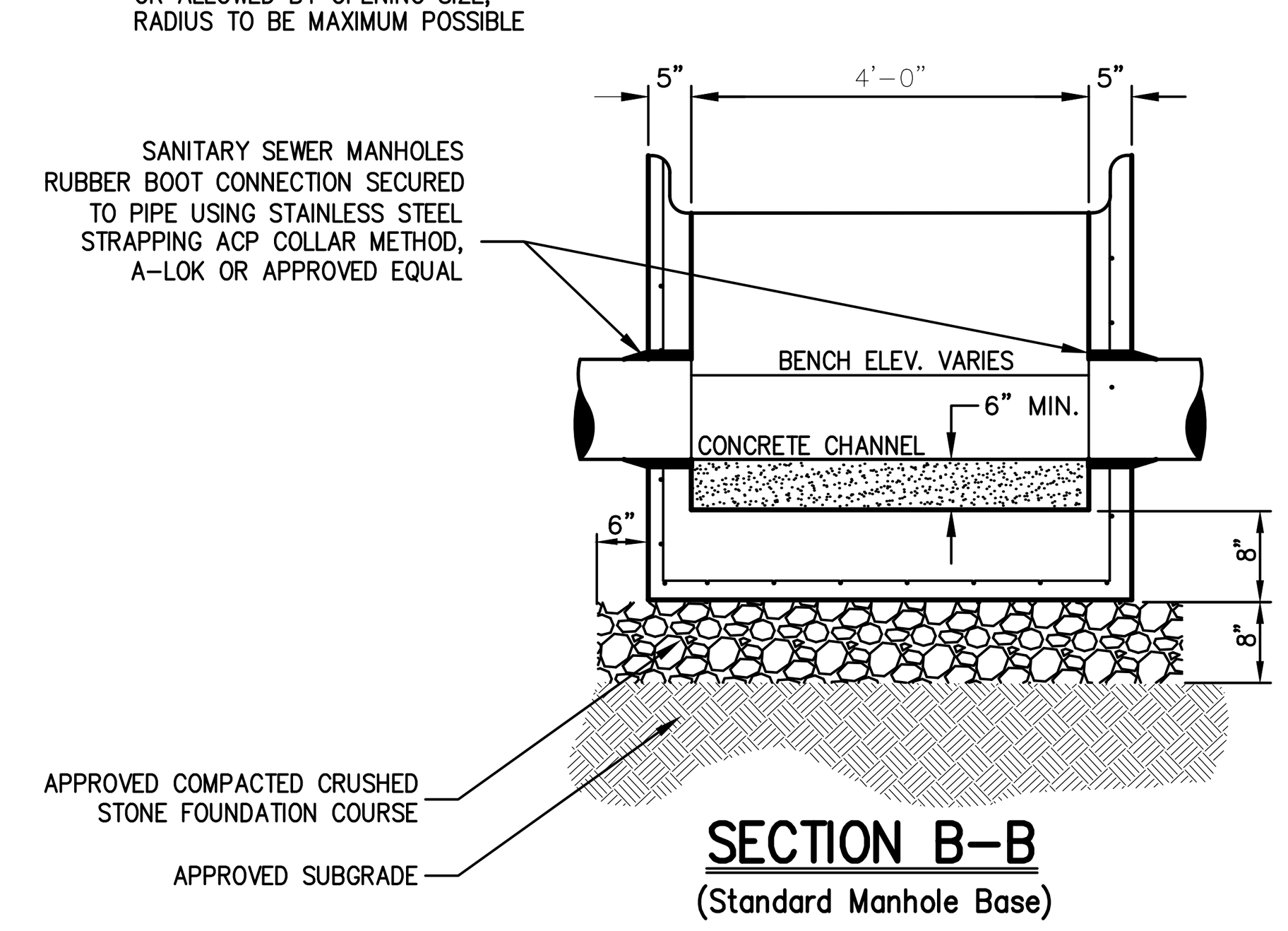




PLAN



SECTION B-B
(Chute Manhole Base)



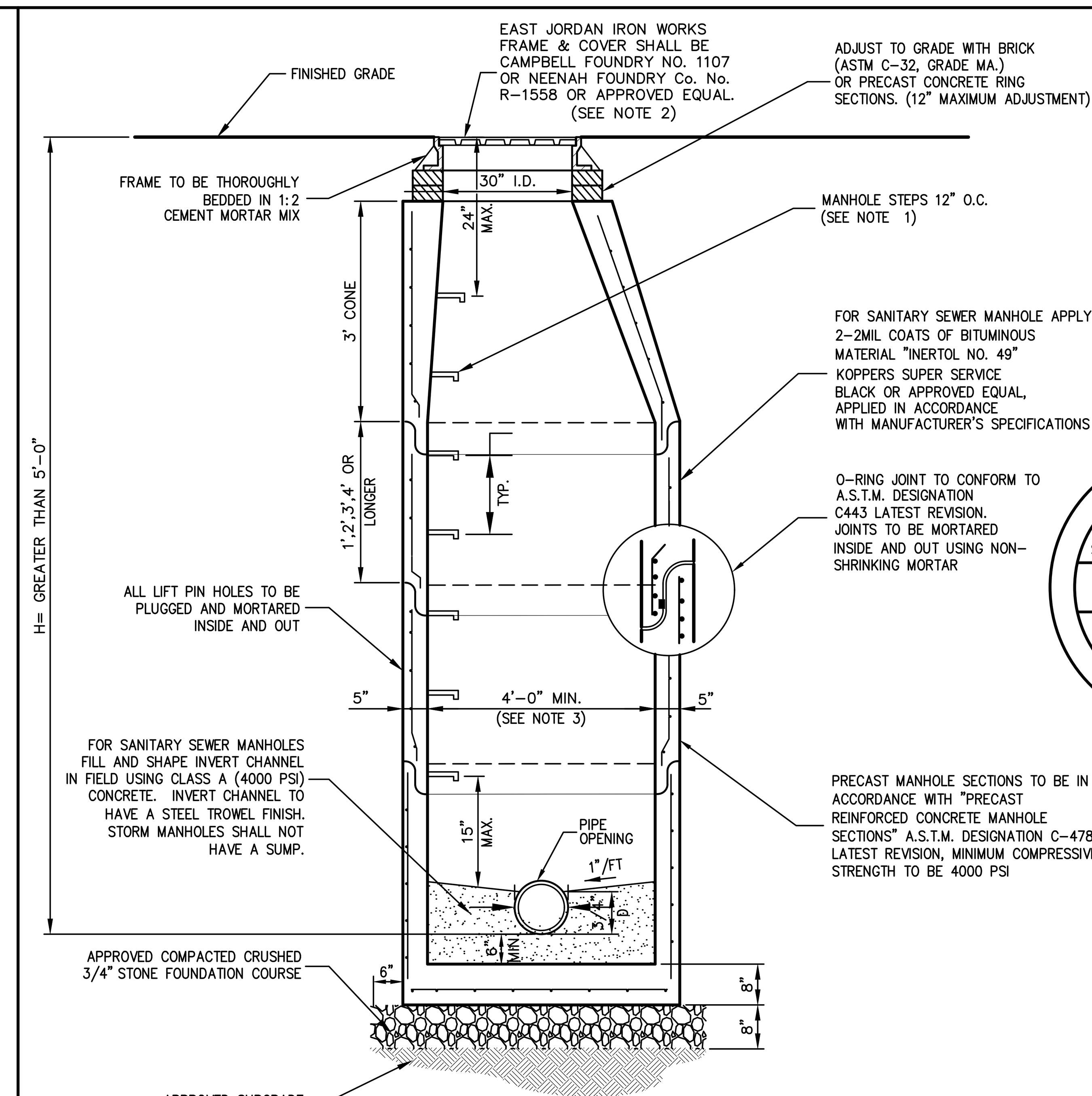
SECTION B-B
(Standard Manhole Base)

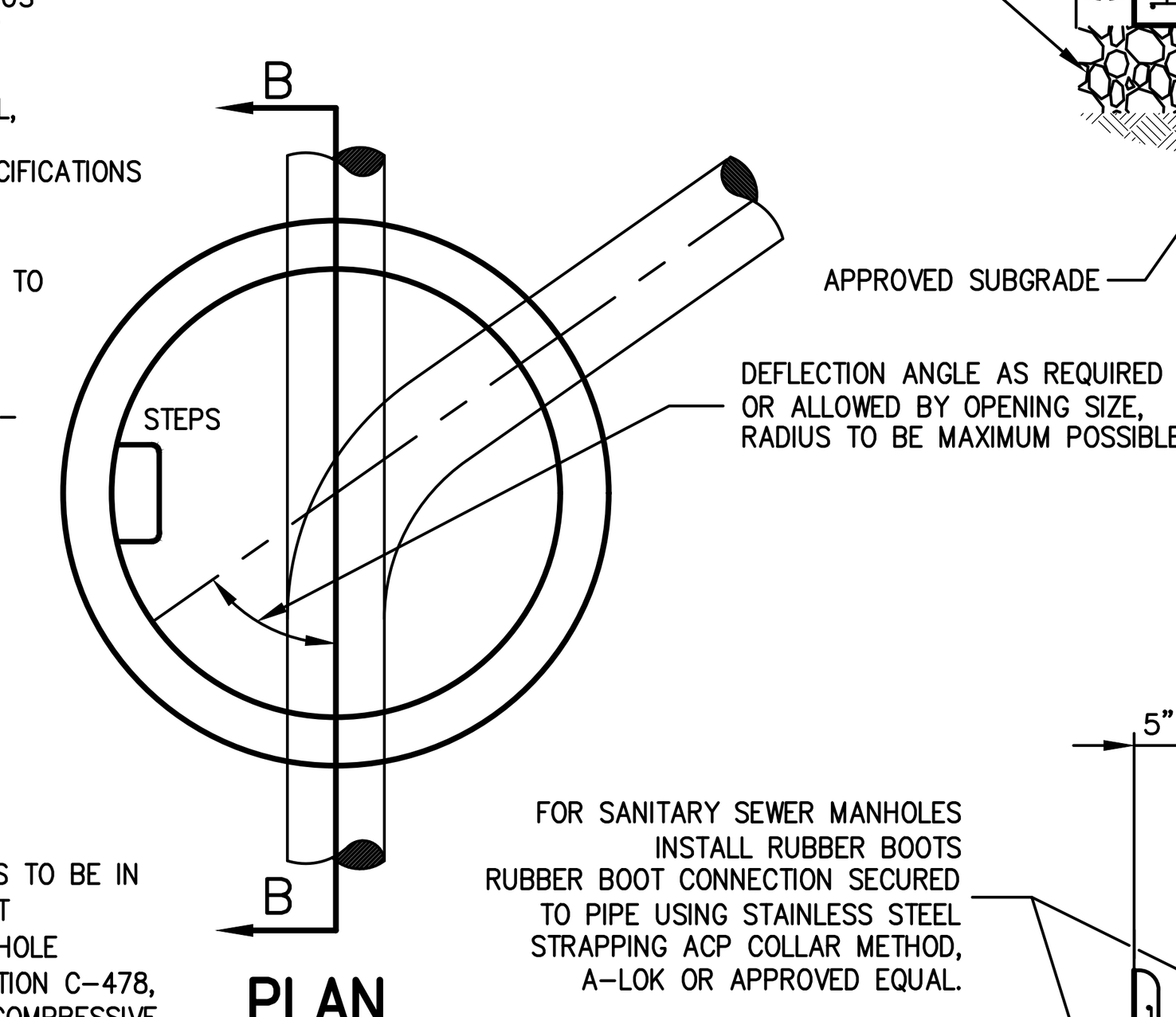
NOTES:

1. MANHOLE STEPS SHALL BE CAST IRON NEENAH No. R-1981-0 OR CAMPBELL FOUNDRY No. 2588-1 OR POLYPROPYLENE COATED STEEL (SEE SPECIFICATIONS) OR APPROVED EQUAL.
2. UNLESS OTHERWISE SPECIFIED, SANITARY SEWER MANHOLES SHALL HAVE LETTERS "SEWER" AND STORM DRAIN MANHOLES SHALL HAVE LETTERS "DRAIN" CAST ON COVER. THE COVERS FOR STORM DRAIN MANHOLES ONLY SHALL HAVE VENT HOLES.
3. MANHOLES SHALL MEET OR EXCEED A.S.T.M. AND O.S.H.A. REQUIREMENTS.
4. SEE "NOTES PERTAINING TO MANHOLES" UNDER "UTILITY NOTES" ON DRAWING C-901
5. COATING SHALL BE TOUCHED UP ON SITE AS NEEDED OR AS DIRECTED BY CITY ENGINEER.

MANHOLE (TYPE A)
(H < 5'-0")

16





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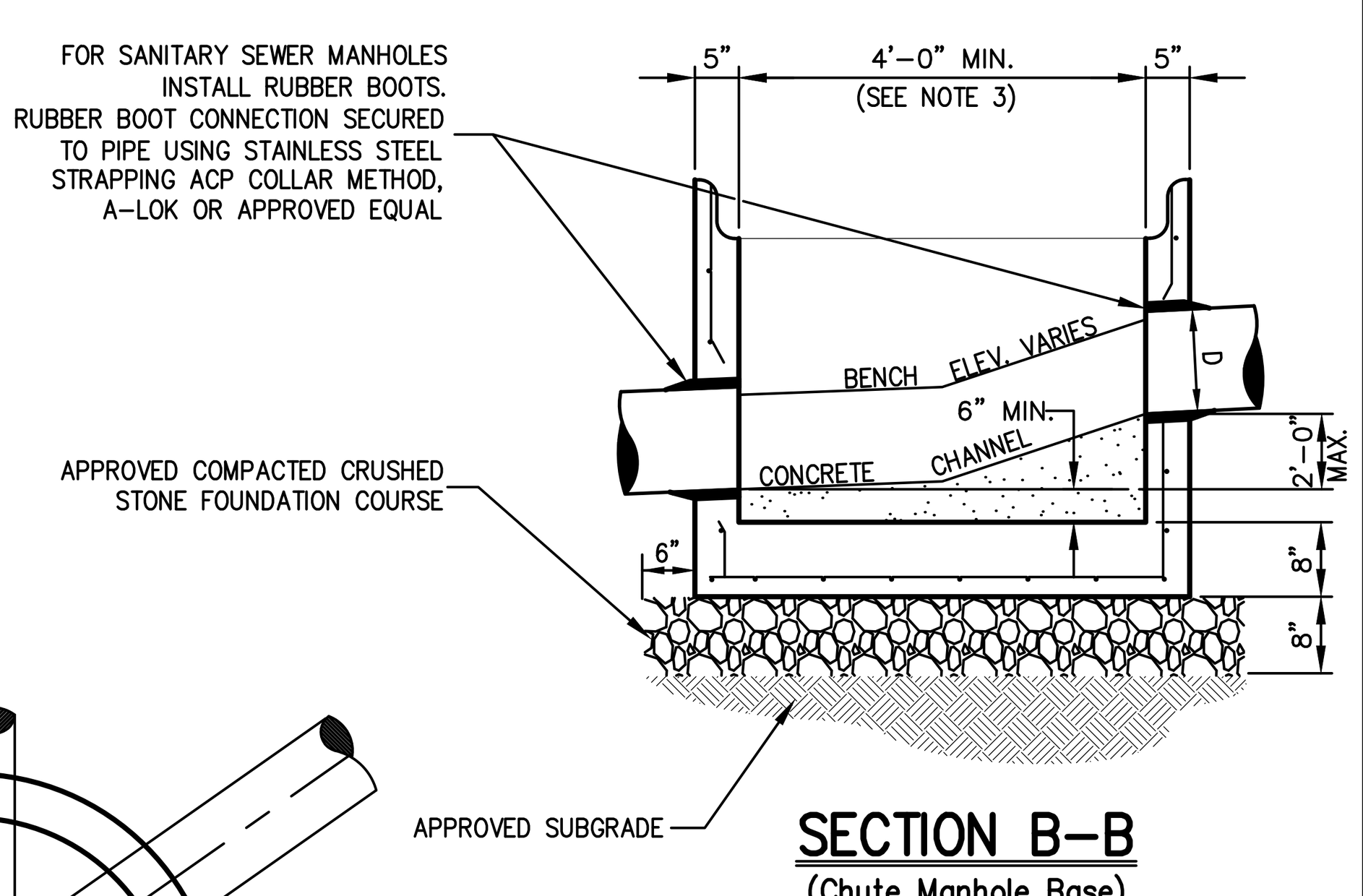
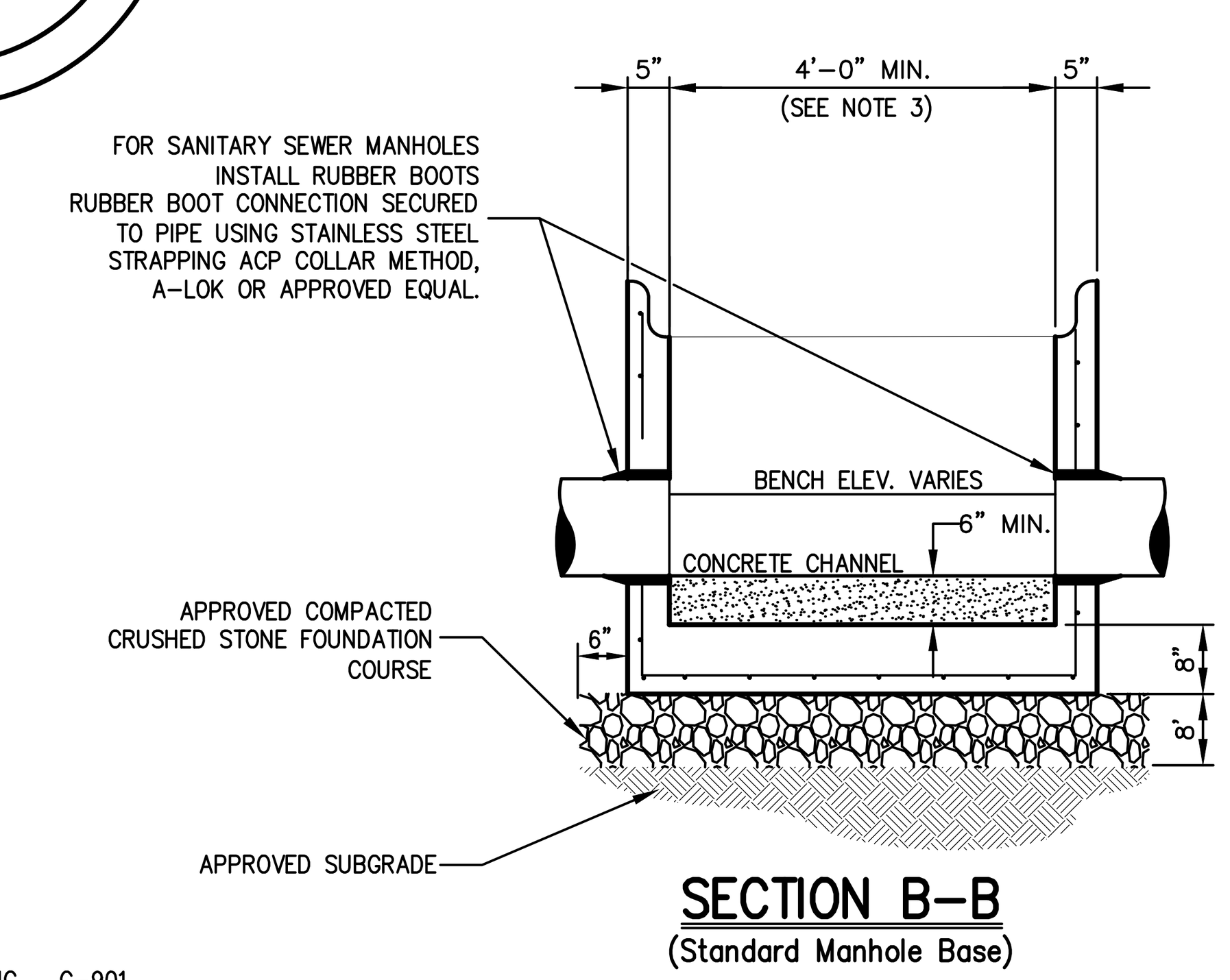


SECTION B-B
(Chute Manhole Base)



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(Standard Manhole Base)

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3. MANHOLES WITH DEPTH (h) 10' OR GREATER SHALL BE FIVE (5) FEET IN DIAMETER.
4. MANHOLES SHALL MEET OR EXCEED A.S.T.M. AND O.S.H.A. REQUIREMENTS.
5. SEE "NOTES PERTAINING TO MANHOLES" UNDER "UTILITY NOTES" ON DRAWING C-901

MANHOLE (TYPE B)
(H > 5'-0")<10'-0")

17

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
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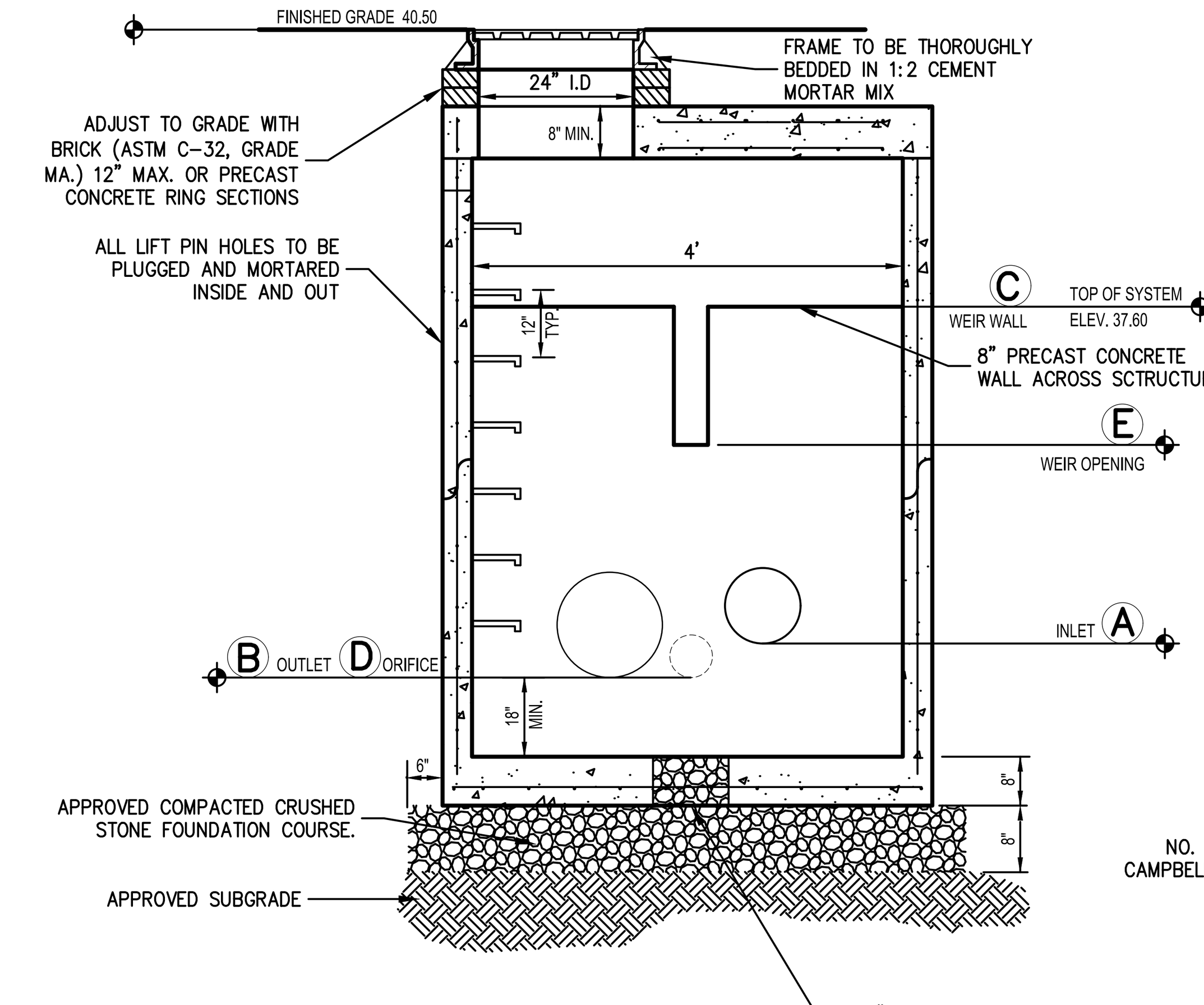
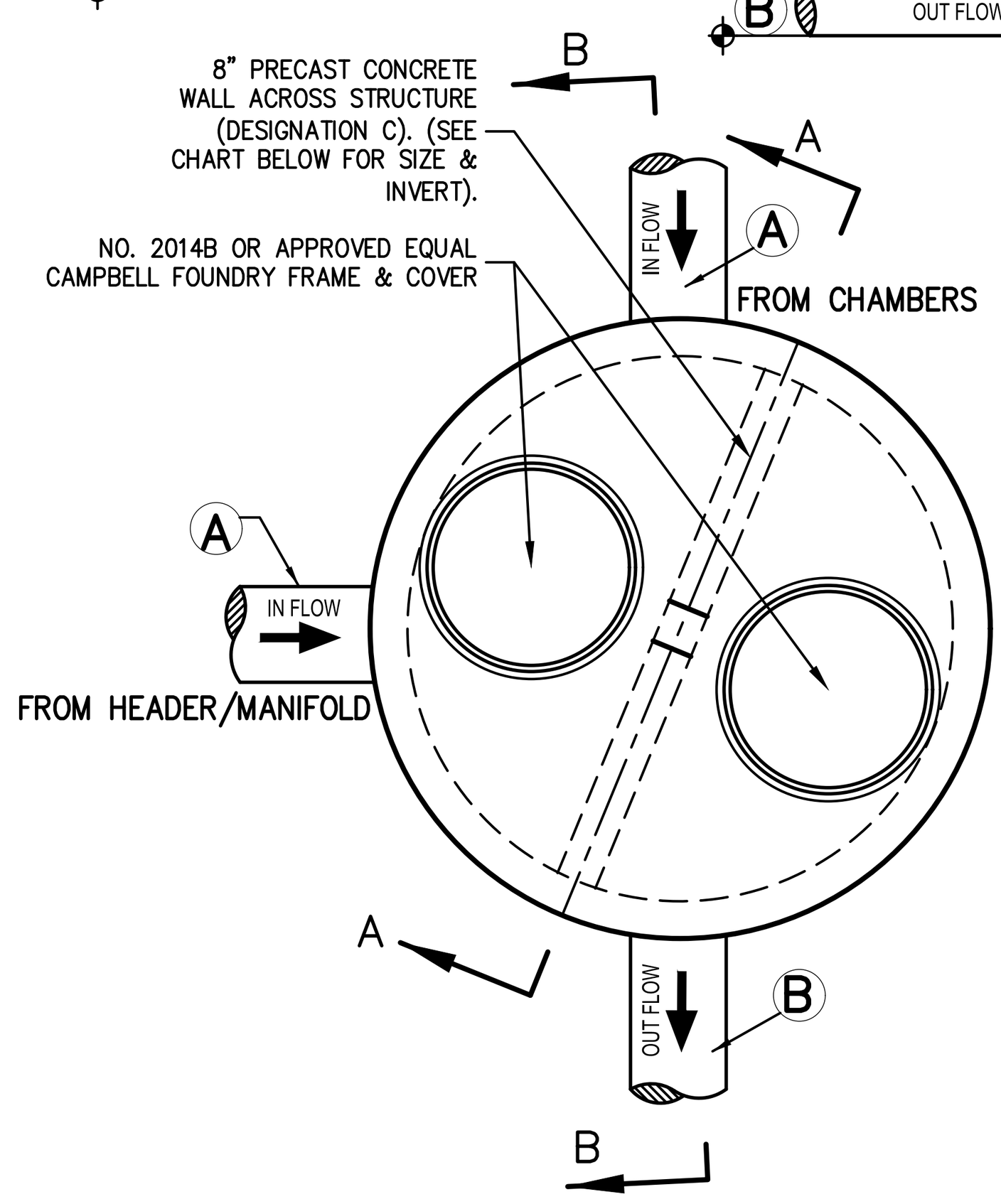
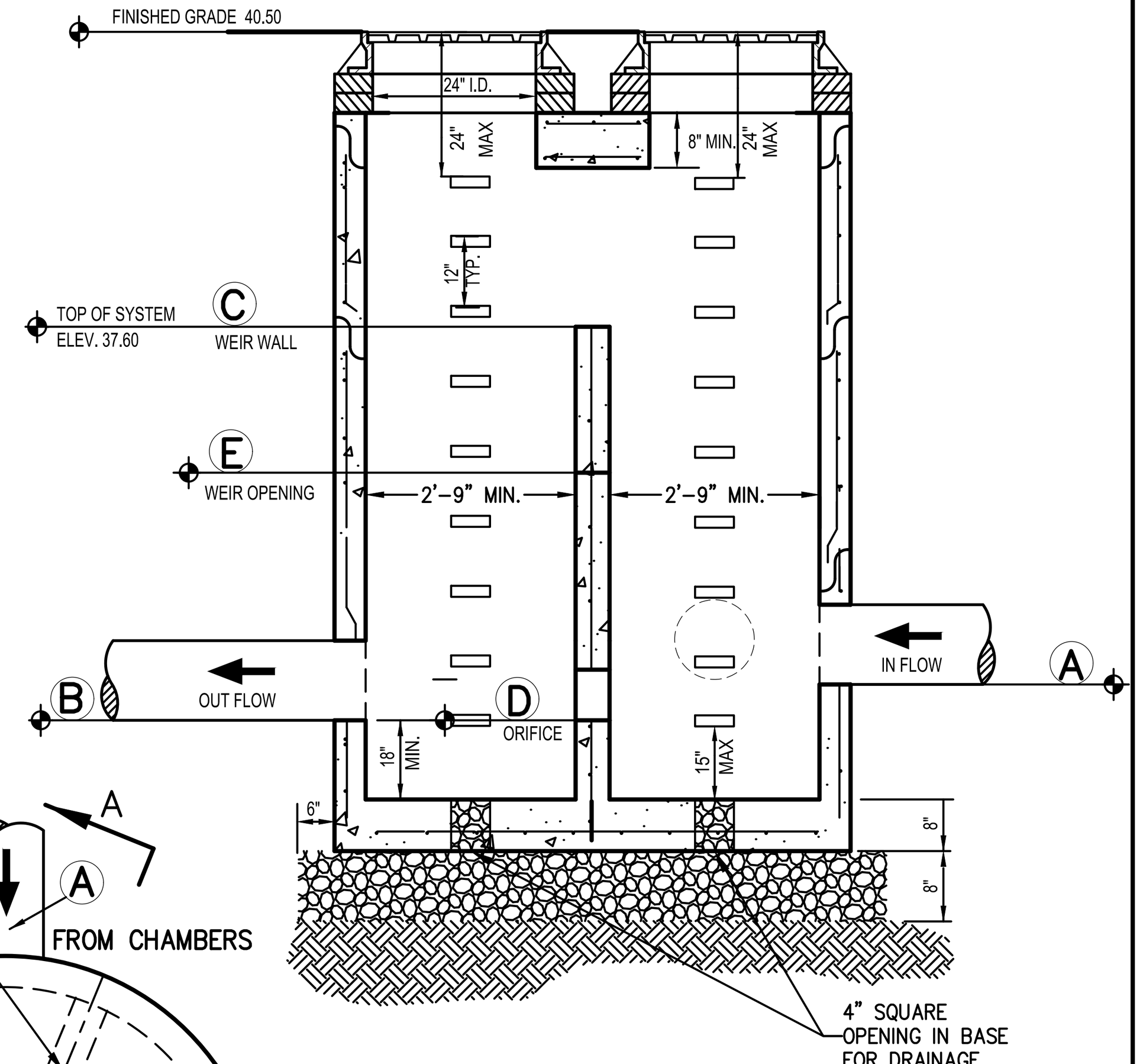
OUTLET CONTROL STRUCTURE — 18



SECTION A–A
N.T.S.



PLAN VIEW
N.T.S.



SECTION B–B
N.T.S.

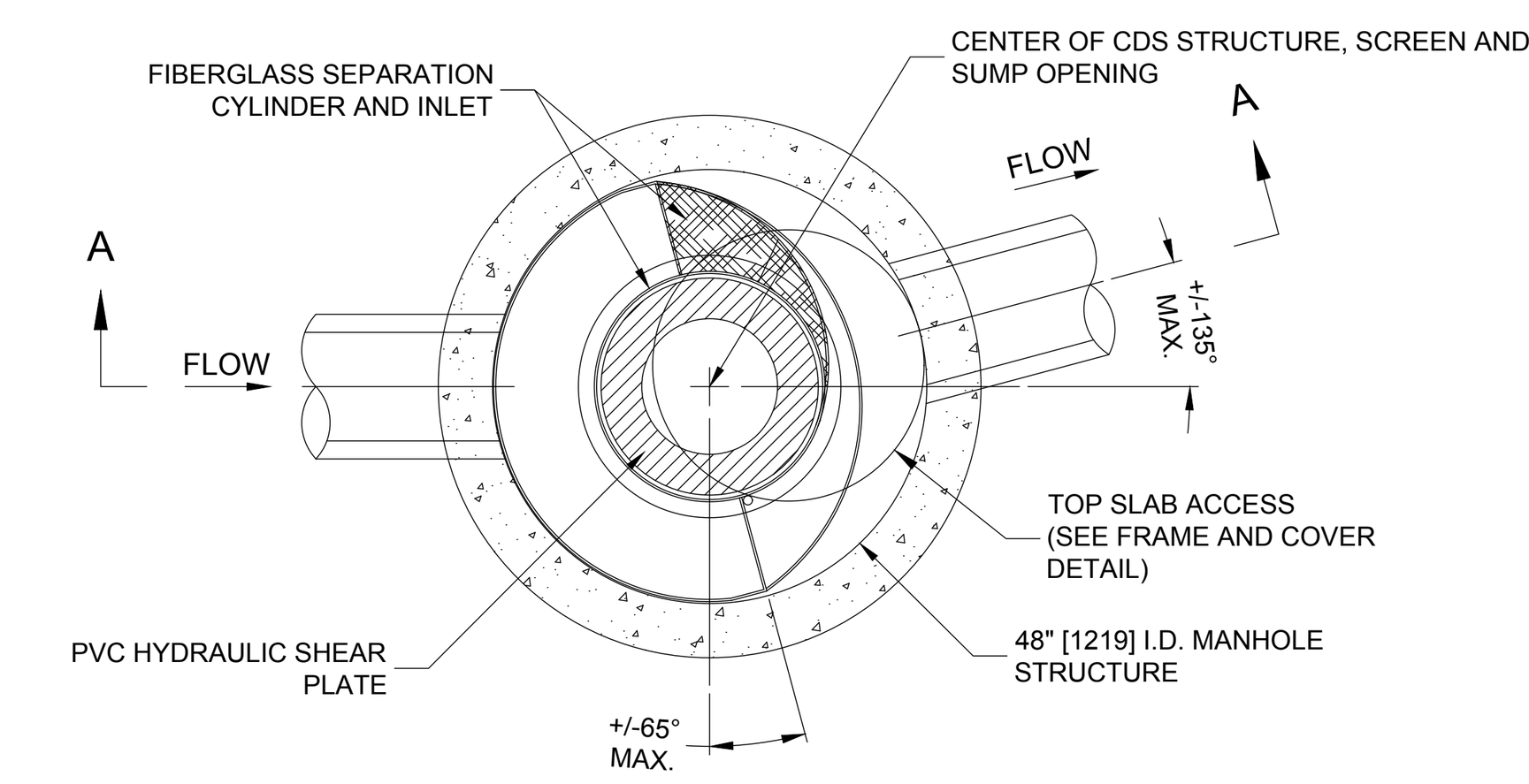
SCHEDULE OF INVERTS

DESIGNATION	(A) INLET		(B) OUTLET		(C) WEIR TOP		(D) ORIFICE		(E) WEIR OPENING	
	SIZE	INVERT	SIZE	INVERT	SIZE	INVERT	SIZE	ELEVATION	SIZE	ELEVATION
OCS–A6	15" HDPE	34.60	15" HDPE	34.10	WEIR WALL	37.60	4"	34.10	4"	35.15

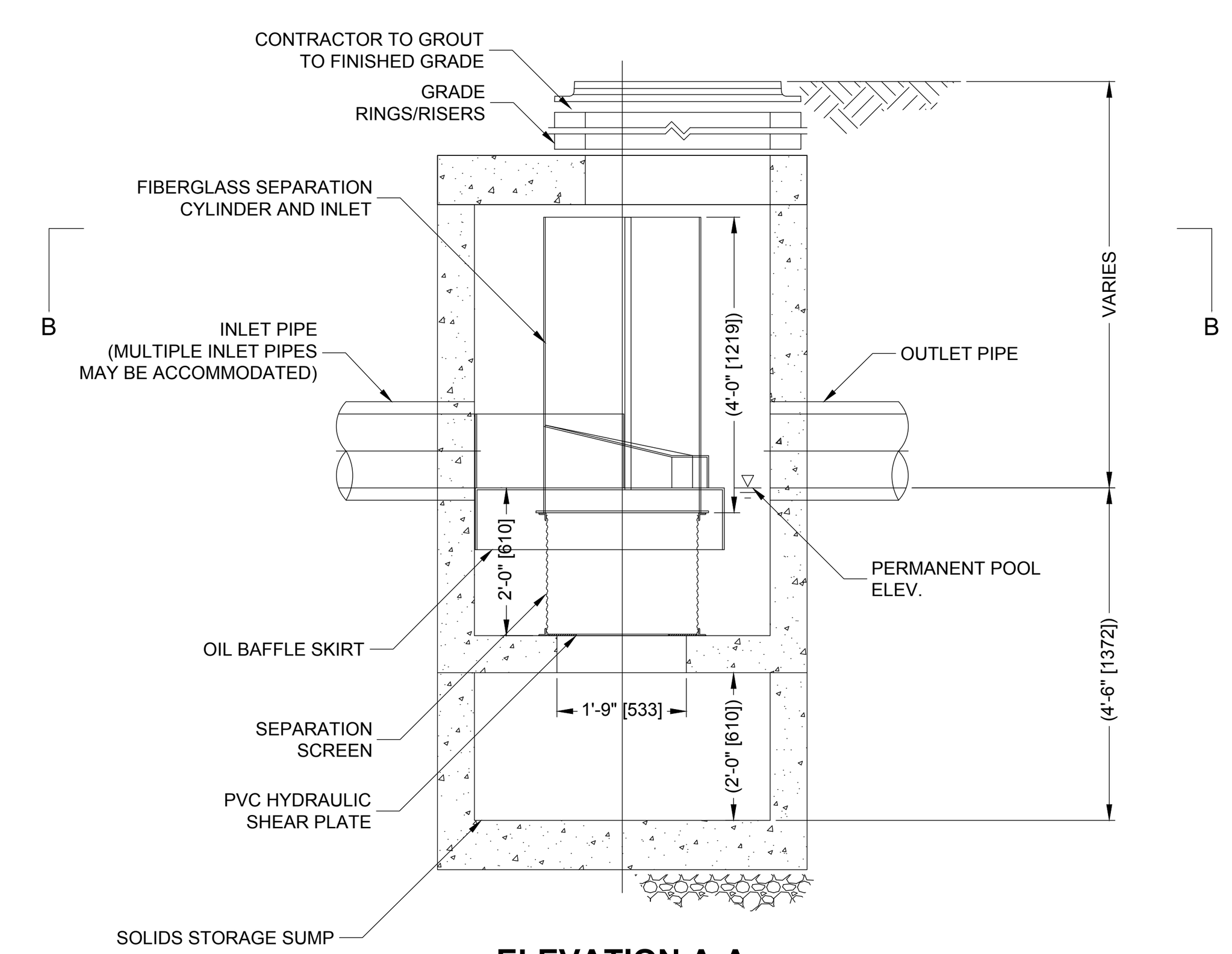
NOTES:

1. STEPS SHALL BE CAST IRON NEENAH No. R–1981–0 OR CAMPBELL FOUNDRY No. 2588–1 OR POLYPROPYLENE COATED STEEL (SEE SPECIFICATIONS) OR APPROVED EQUAL.
2. STRUCTURES SHALL MEET OR EXCEED A.S.T.M AND O.S.H.A REQUIREMENTS.
3. STRUCTURES SHALL BE DESIGNED TO ACCOMMODATE H–20 LOADING.
4. SEE UTILITY NOTES ON DRAWING C–901.

HYDRODYNAMIC WATER QUALITY STRUCTURE — 19



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

CDS

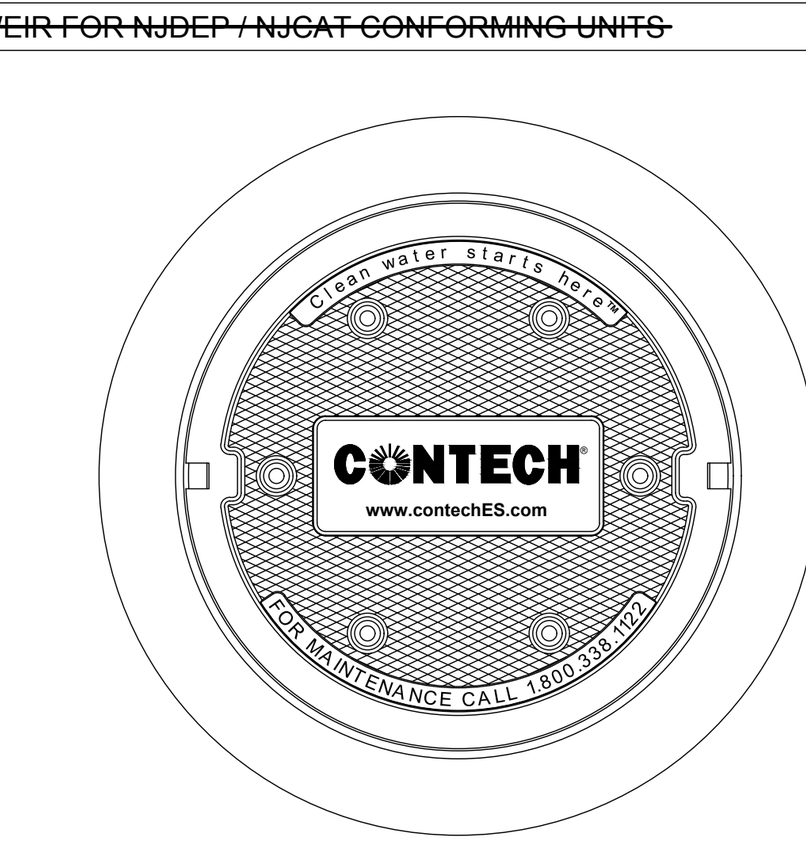
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,788,848; 6,641,720; 6,511,595; 6,581,783; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

CDS2015-4-C DESIGN NOTES

THE STANDARD CDS2015-4-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION

~~GRATED INLET ONLY (NO INLET PIPE)~~
GRATED INLET WITH INLET PIPE OR PIPES
~~CURB INLET ONLY (NO INLET PIPE)~~
~~CURB INLET WITH INLET PIPE OR PIPES~~
~~SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)~~
~~SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS~~



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			WQS-A3-1
WATER QUALITY FLOW RATE (CFS OR L/s)			0.7
PEAK FLOW RATE (CFS OR L/s)			0.7
RETURN PERIOD OF PEAK FLOW (YRS)			1
SCREEN APERTURE (2400 OR 4700)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	32.15	HDPE	15"
INLET PIPE 2	*	*	*
OUTLET PIPE	32.15	HDPE	15"
RIM ELEVATION			35.40
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

NOTE

1. SEE MAINTENANCE GUIDLINES IN APPENDIX E OF SWPPP REPORT. OPEN ACCESS COVER FOR VISUAL INSPECTION AND MEASURE THE DISTANCE FROM THE STANDING WATER SURFACE TO THE SEDIEMENT PILE WITH A MEASURING STICK OR TAPE. IF LESS THAN 4 FEET, INSERT HOSE FROM VACUUM TRUCK INTO THE SUMP AND SCREEN THROUGH BOTH ACCESS COVERS TO CLEAN OUT THE STANDING WATER, LAYER OF OIL, SEDIMENT, TRASH, ETC. THE SCREEN MUST BE POWERWASHED TO ENSURE IT IS FREE OF TRASH AND DEBRIS.

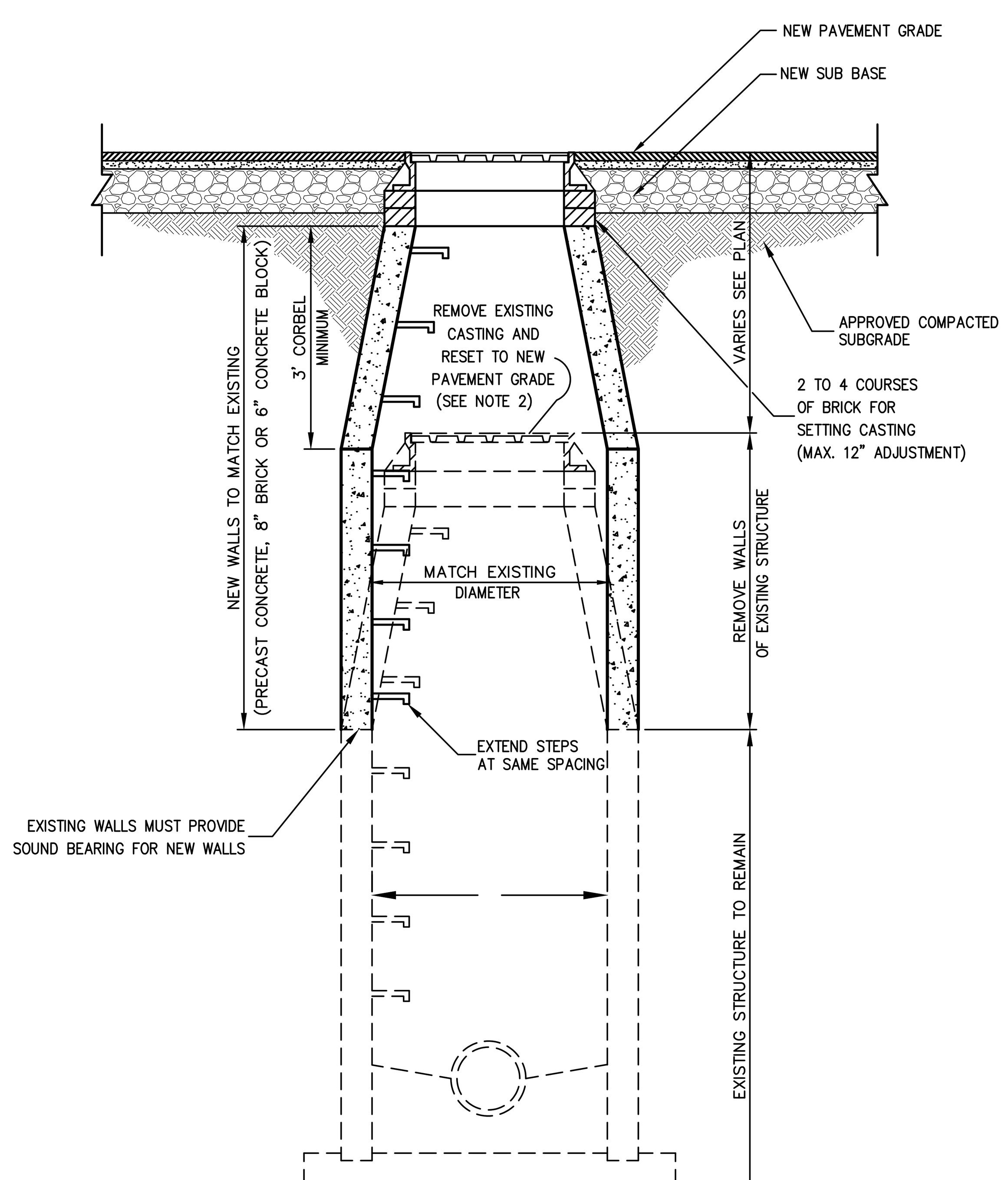
GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2015-4-C
INLINE CDS
STANDARD DETAIL

EXISTING MANHOLE RECONSTRUCTED AND RAISED — 20

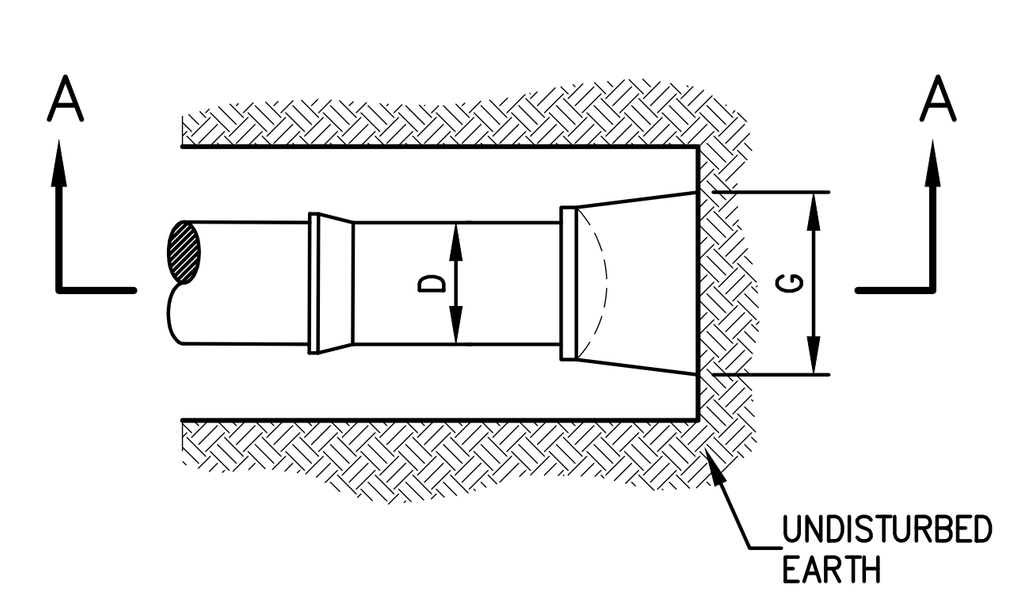


NOTES:

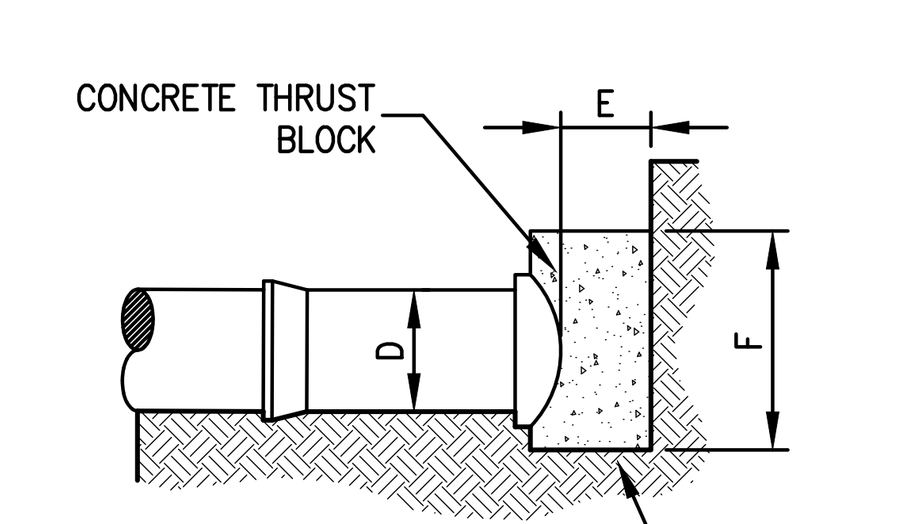
1. SEE "UTILITY NOTES" ON DRAWING C–901 WHICH SHALL APPLY TO THIS DETAIL.
2. IF EXISTING CASTING IS UNFIT FOR RESETTING IN THE NEW CONSTRUCTION, AS DETERMINED BY THE OWNER'S FIELD REPRESENTATIVE, CONTRACTOR SHALL FURNISH AND SET NEW CASTING.

ANCHOR AND THRUST BLOCKS — 21

END CAP

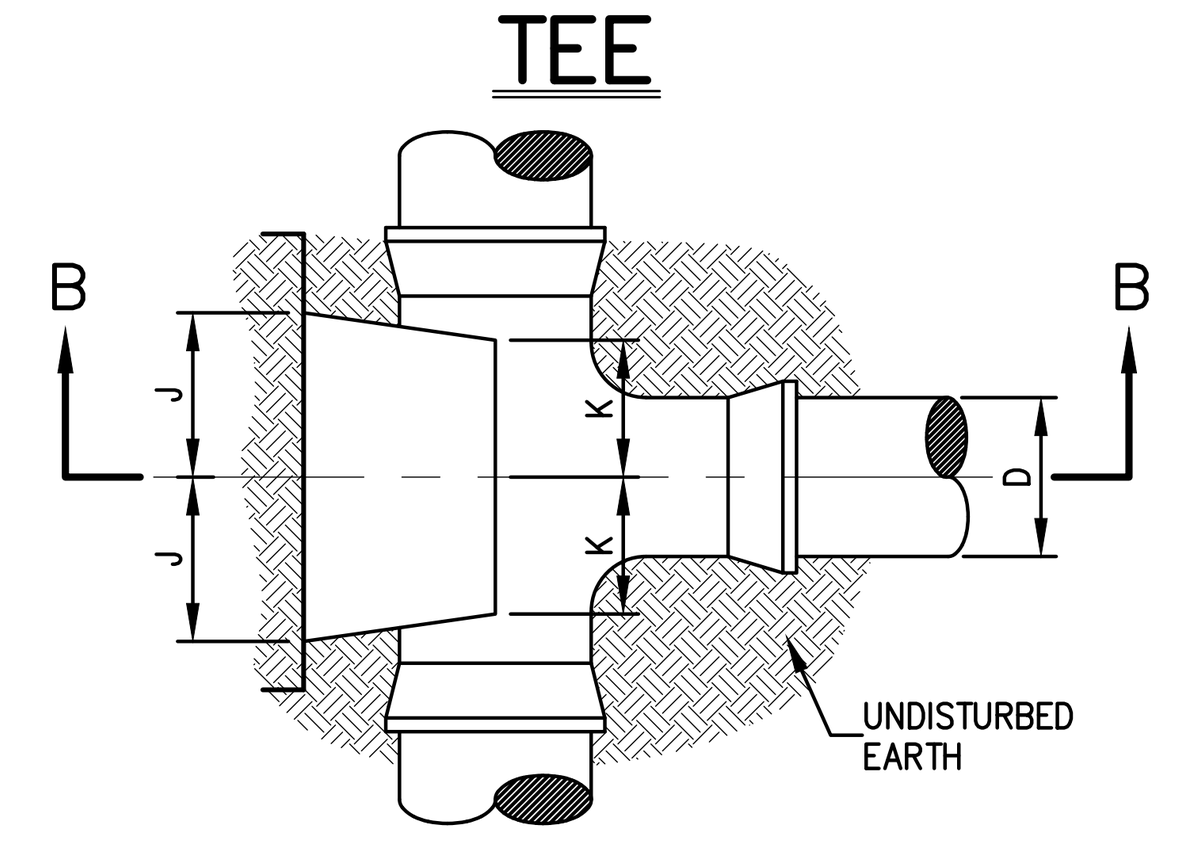


PLAN VIEW

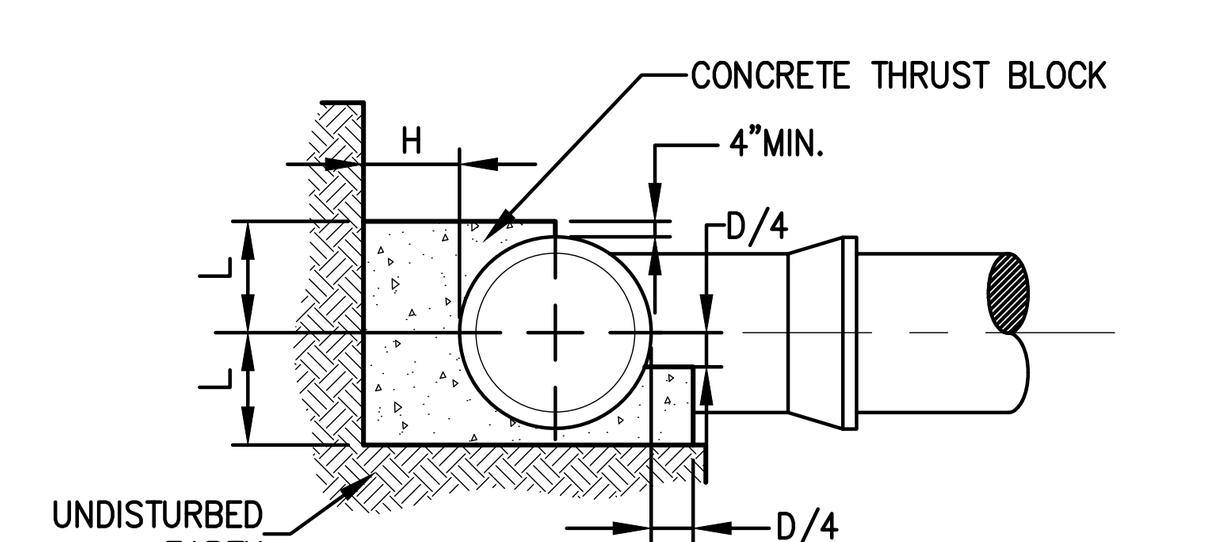


SECTION A–A

TEE

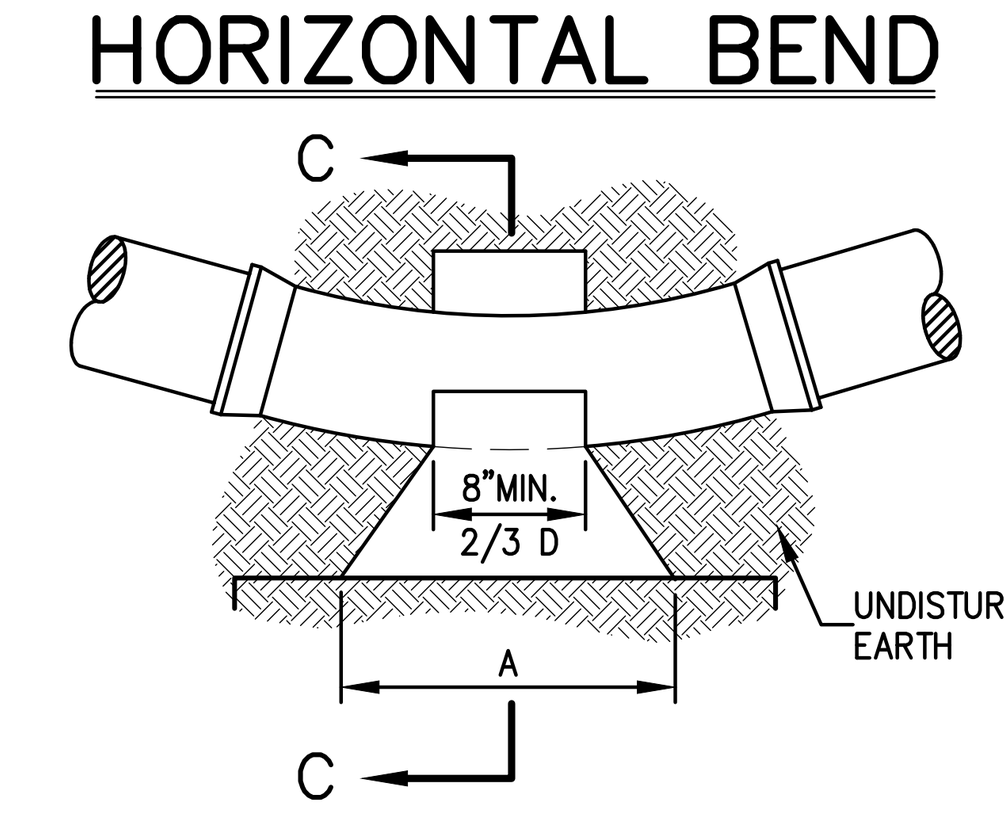


PLAN VIEW

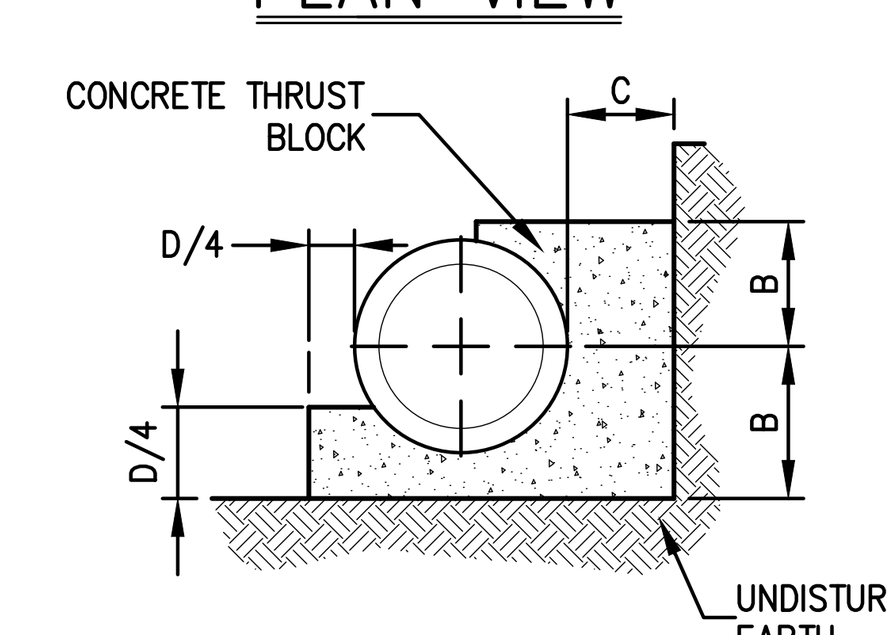


SECTION B–B

HORIZONTAL BEND

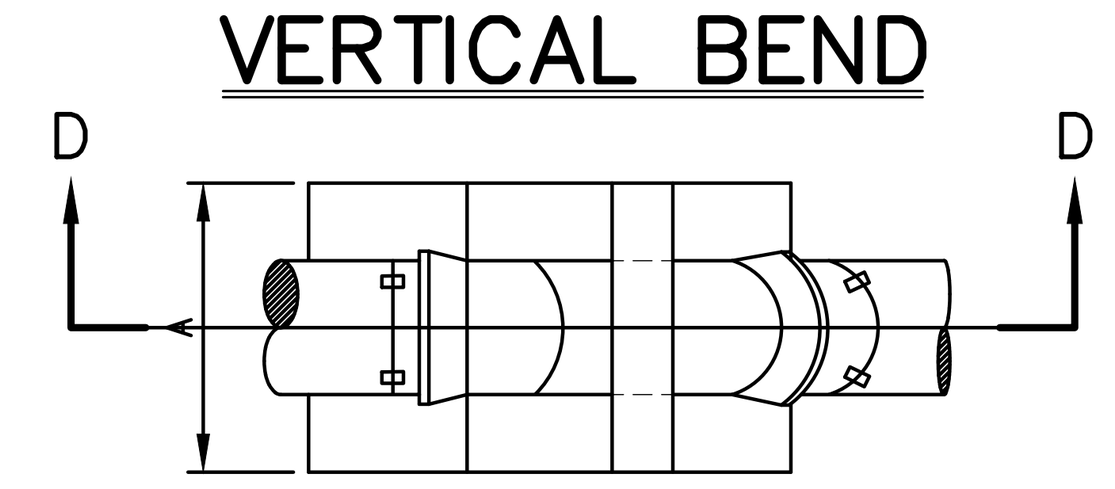


PLAN VIEW

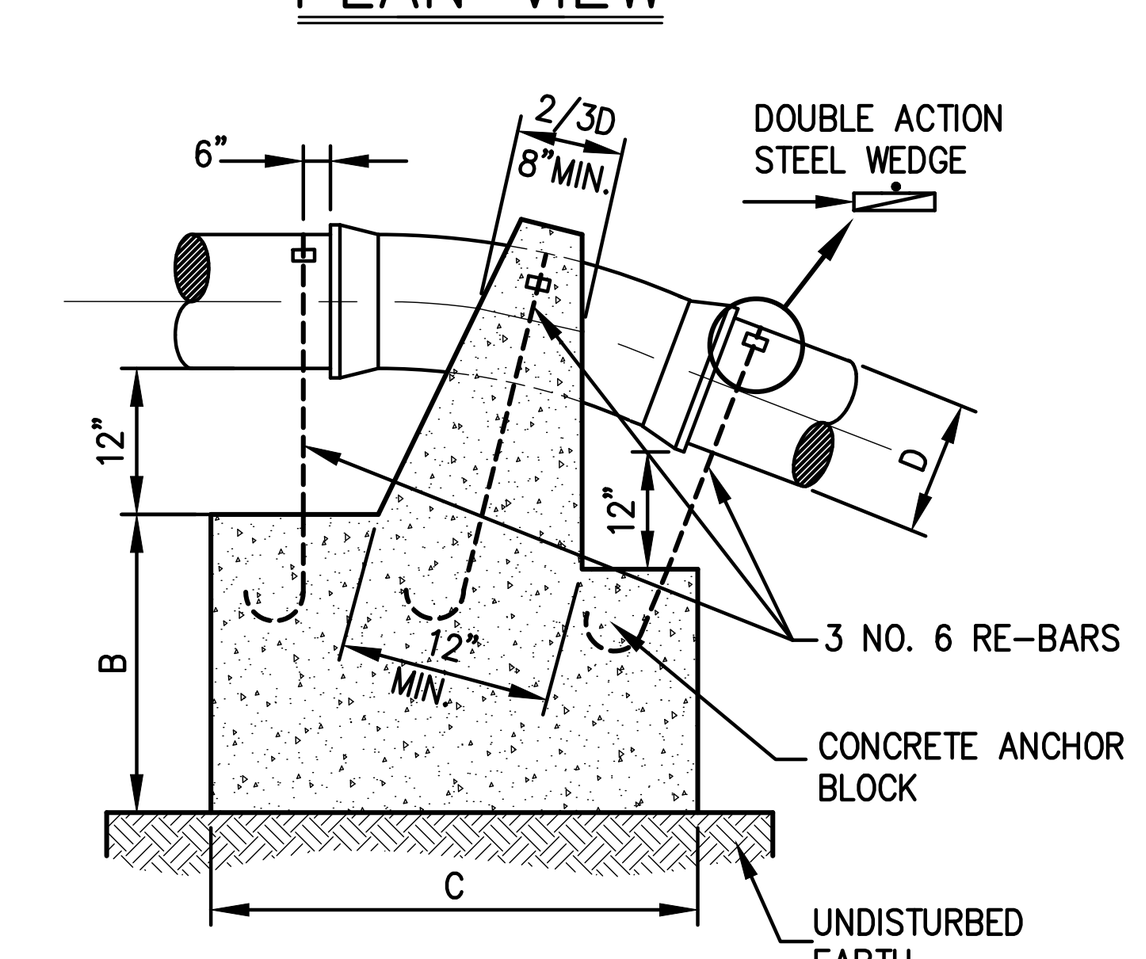


SECTION C–C

VERTICAL BEND



PLAN VIEW



SECTION D–D

END CAP CHART

D	4"	6"	8"	10"	12"
E	6"	6"	8"	8"	10"
F	12"	12"	1'–4"	1'–8"	2'–0"
G	1'–5"	1'–5"	2'–0"	2'–5"	3'–0"

TEE CHART

D	4"	6"	8"	10"	12"
H	6"	7"	9"	10"	12"
L	8"	8"	10"	12"	1'–3"
J	7"	7"	9"	12"	1'–2"
K	6"	6"	8"	8"	8"

HORIZONTAL BEND CHART

BEND (DEGREES)		DIAMETER (D) 4"	6"	8"	10"	12"
1/32 (11¼°)	A	8"	8"	8"	10"	12"
	B	7"	7"	8"	9"	10"
	C	7"	7"	7"	8"	8"
1/16 (22½°)	A	9"	9"	12"	1'–6"	1'–9"
	B	7"	7"	8"	9"	10"
	C	8"	8"	9"	10"	11"
1/8 (45°)	A	1'–3"	1'–3"	1'–8"	2'–1"	2'–6"
	B	7"	7"	8"	9"	11"
	C	8"	8"	9"	10"	11"
1/4 (90°)	A	2'–0"	2'–0"	2'–6"	3'–0"	3'–6"
	B	7"	7"	9"	12"	1'–3"
	C	2'–0"	2'–0"	1'–9"	1'–8"	1'–7"

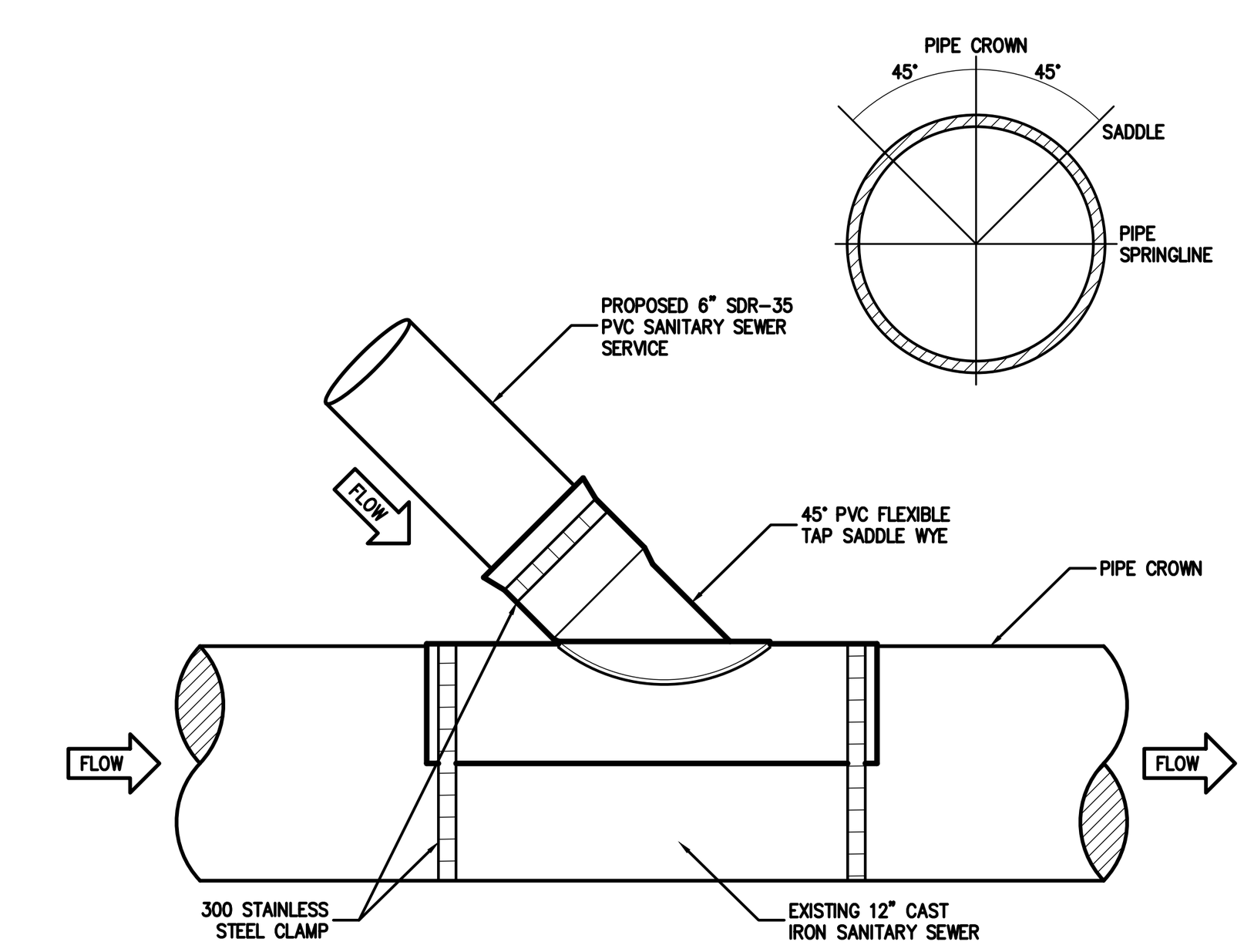
VERTICAL BEND CHART

BEND (DEGREES)		DIAMETER (D) 4"	6"	8"	10"	12"	16"
1/32 (11¼°)	A	1'–6"	1'–6"	2'–0"	2'–6"	3'–0"	3'–6"
	B	1'–3"	1'–3"	1'–9"	1'–3"	2'–0"	2'–0"
	C	2'–0"	2'–0"	2'–6"	2'–9"	3'–0"	4'–0"
1/16 (22½°)	A	2'–0"	2'–0"	3'–4"	3'–8"	4'–0"	4'–4"
	B	1'–9"	1'–9"	2'–3"	2'–6"	2'–6"	2'–6"
	C	2'–6"	2'–6"	2'–8"	4'–0"	4'–0"	5'–6"
1/8 (45°)	A	2'–6"	2'–6"	3'–0"	4'–0"	4'–6"	5'–2"
	B	2'–6"	2'–6"	2'–9"	3'–0"	3'–6"	4'–0"
	C	3'–0"	3'–0"	4'–0"	4'–6"	4'–9"	6'–6"

NOTES:

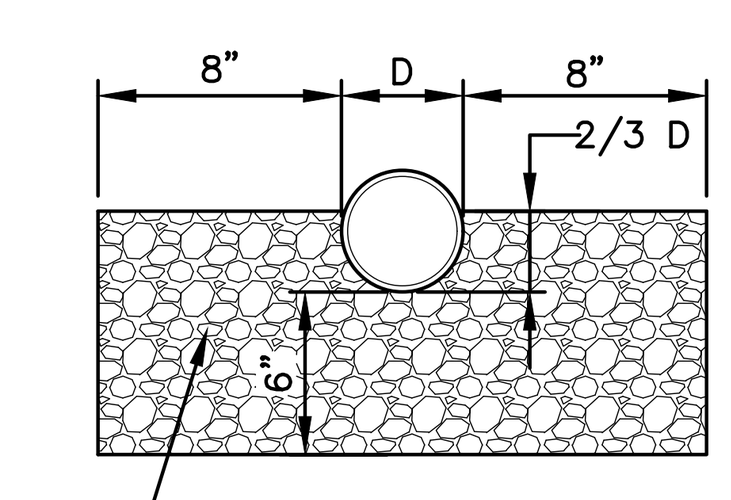
1. ALL CONCRETE TO BE CLASS A (4,000 PSI).
2. ALL DIMENSIONS ARE MINIMUMS; ALL ANCHOR AND THRUST BLOCKS SHALL BEAR ON UNDISTURBED EARTH.
3. IN ALL CASES SHOWN, MEASUREMENT "D" REFERS TO THE INSIDE PIPE DIAMETER.
4. ANCHOR AND THRUST BLOCK DIMENSIONS SHOWN ARE MINIMUM FOR 100 PSI WATER PRESSURE AND SOIL RESISTANCE OF 2 KIPS PER SQ FT. CONTRACTOR SHALL ADJUST FOR OTHER CONDITIONS AND SUBMIT FOR APPROVAL.
5. IF THE OWNER OF THE WATER SYSTEM REQUIRES A METHOD THAT RESTRAINS INDIVIDUAL JOINTS, EACH JOINT THAT FALLS WITHIN THE MINIMUM RESTRAINED LENGTH, MEASURED FROM THE CENTER OF THE FITTING, AS SHOWN ON THESE SHEETS SHALL BE RESTRAINED, AND SHALL WITHSTAND THE MAXIMUM PRESSURE APPLIED TO THE SYSTEM.
6. CLASS A CONCRETE SHALL NOT BE PLACED UNDER WATER. THE CONTRACTOR SHALL DEWATER THE EXCAVATION OR PLACE TYPE G CONCRETE USING APPROPRIATE UNDERWATER PLACEMENT TECHNIQUES.
7. CONCRETE FOR THRUST BLOCKS SHALL NOT BE ALLOWED TO COVER OR INTERFERE WITH JOINT OR RESTRAINT HARDWARE, PLASTIC SHEETING OR BUILDING FELT MAY BE PLACED OVER PIPE OR FITTINGS TO PREVENT CONCRETE FROM ADHERING TO SURFACES.
8. FOR BENDS, BEARING AREA SHALL BE PARALLEL TO THE EDGE OF THE FITTING AT THE FITTING MIDPOINT.
9. FOR TEES, BEARING AREA SHALL BE PERPENDICULAR TO THE BRANCH (SINGLE LEG) AXIS.
10. FOR REDUCERS, BEARING AREA SHALL BE PERPENDICULAR TO THE FITTING AXIS. THE MINIMUM THICKNESS ALONG THE FITTING AXIS SHALL BE 1'–0" OR THE LENGTH BETWEEN THE BELLS, WHICHEVER IS SMALLER.
11. THRUST RESTRAINTS FOR SIZES OR FITTINGS NOT SHOWN ON THESE SHEETS WILL BE DESIGNED ON A CASE BY CASE BASIS, AND WILL BE SHOWN IN THE CONTRACT DOCUMENTS.

SANITARY SEWER SERVICE CONNECTION — 22

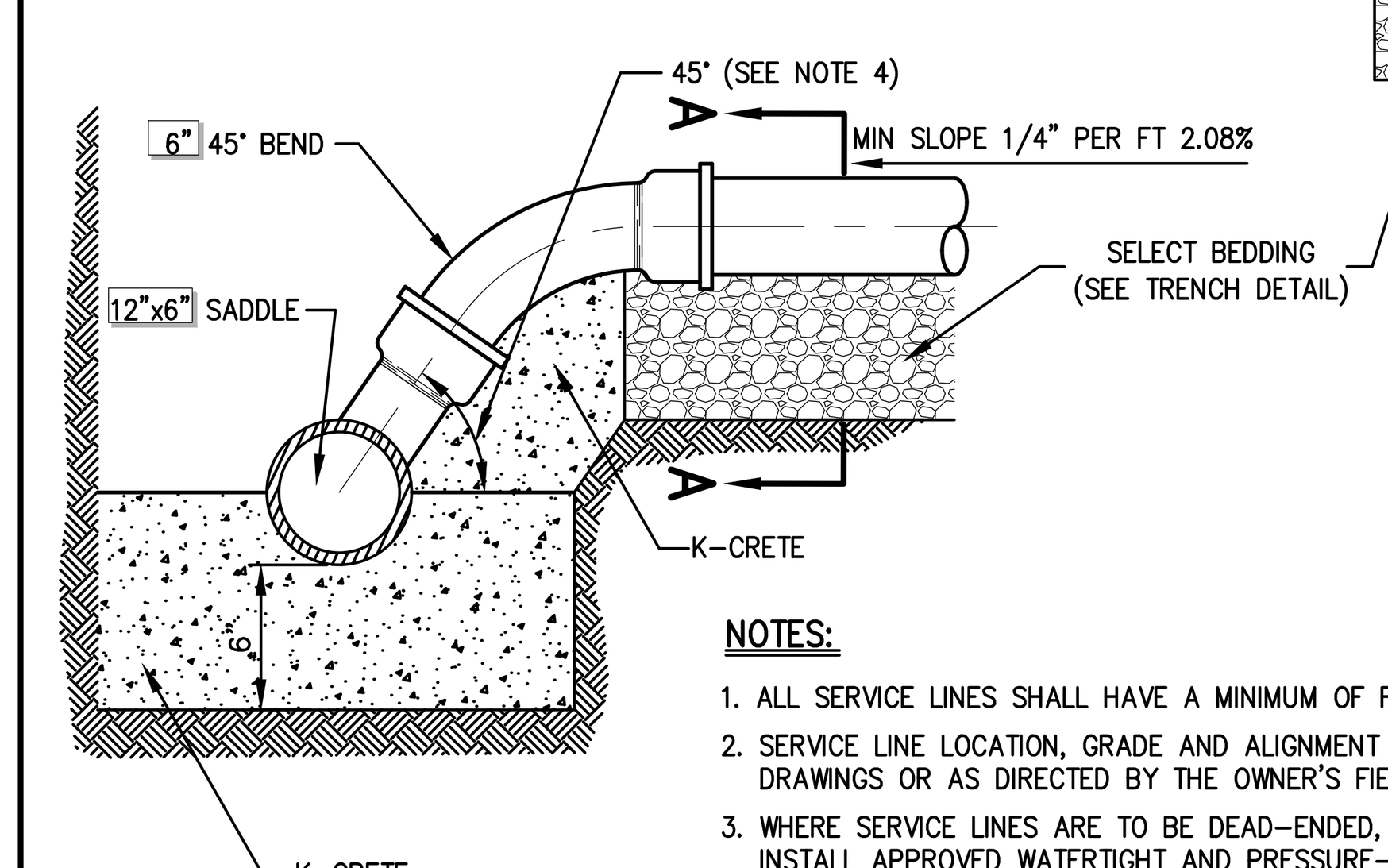


NOTE:

1. SADDLE TO BE ZORO #: G2051399 OR EQUAL.



SECTION A–A



NOTES:

1. ALL SERVICE LINES SHALL HAVE A MINIMUM OF FOUR (4) FEET OF COVER.
2. SERVICE LINE LOCATION, GRADE AND ALIGNMENT SHALL BE AS SHOWN ON DRAWINGS OR AS DIRECTED BY THE OWNER'S FIELD REPRESENTATIVE.
3. WHERE SERVICE LINES ARE TO BE DEAD–ENDED, CONTRACTOR SHALL INSTALL APPROVED WATERTIGHT AND PRESSURE–TIGHT PLUGS.
4. IF MINIMUM COVER CANNOT BE ATTAINED WHILE MAINTAINING MINIMUM SLOPE, THE ANGLE OF CONNECTION MAY BE REDUCED TO 22.5°, IF APPROVED BY THE OWNER'S FIELD REPRESENTATIVE AND GOVERNING BODY WITH JURISDICTION.
5. SANITARY SEWER SERVICE LINE INCLUDING FITTINGS SHALL BE PVC, SDR 35.

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
6.	REVISED PER CITY COMMENTS	05/31/2022
7.	REVISED PER CITY COMMENTS	06/28/2022
8.	REVISED PER CITY COMMENTS	08/30/2022
9.	REVISED PER CITY COMMENTS	09/27/2022

Previous Editions Obsolete

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John Meyer Consulting, Inc.
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JMC

CONSTRUCTION DETAILS

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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Drawn: BMS	Approved: SS
Scale:	NOT TO SCALE
Date:	10/29/2019
Project No:	18119
18119–DETAILS	C–903 –
Drawing No:	C–903 (Sheet 23 OF 29)

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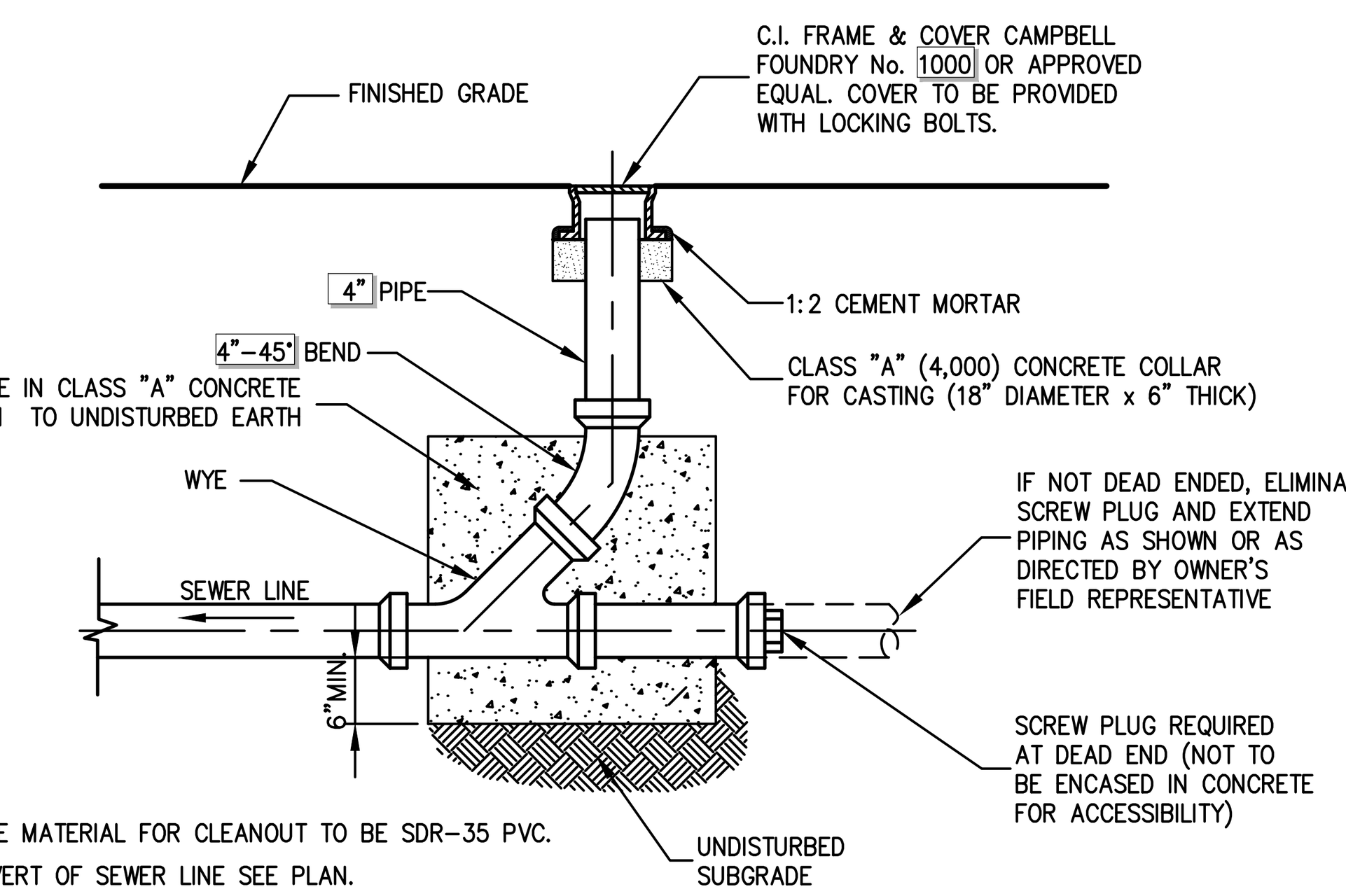
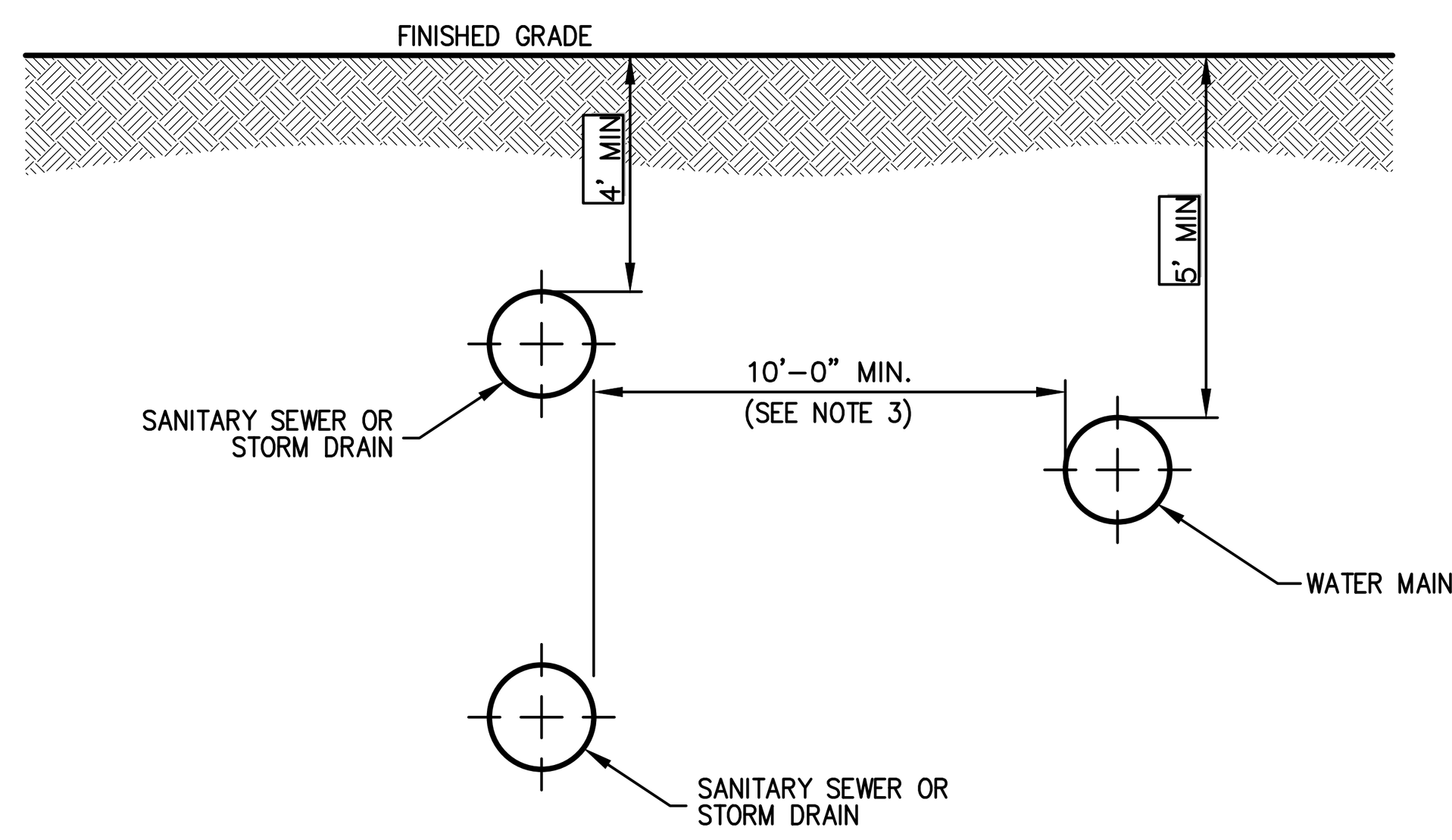
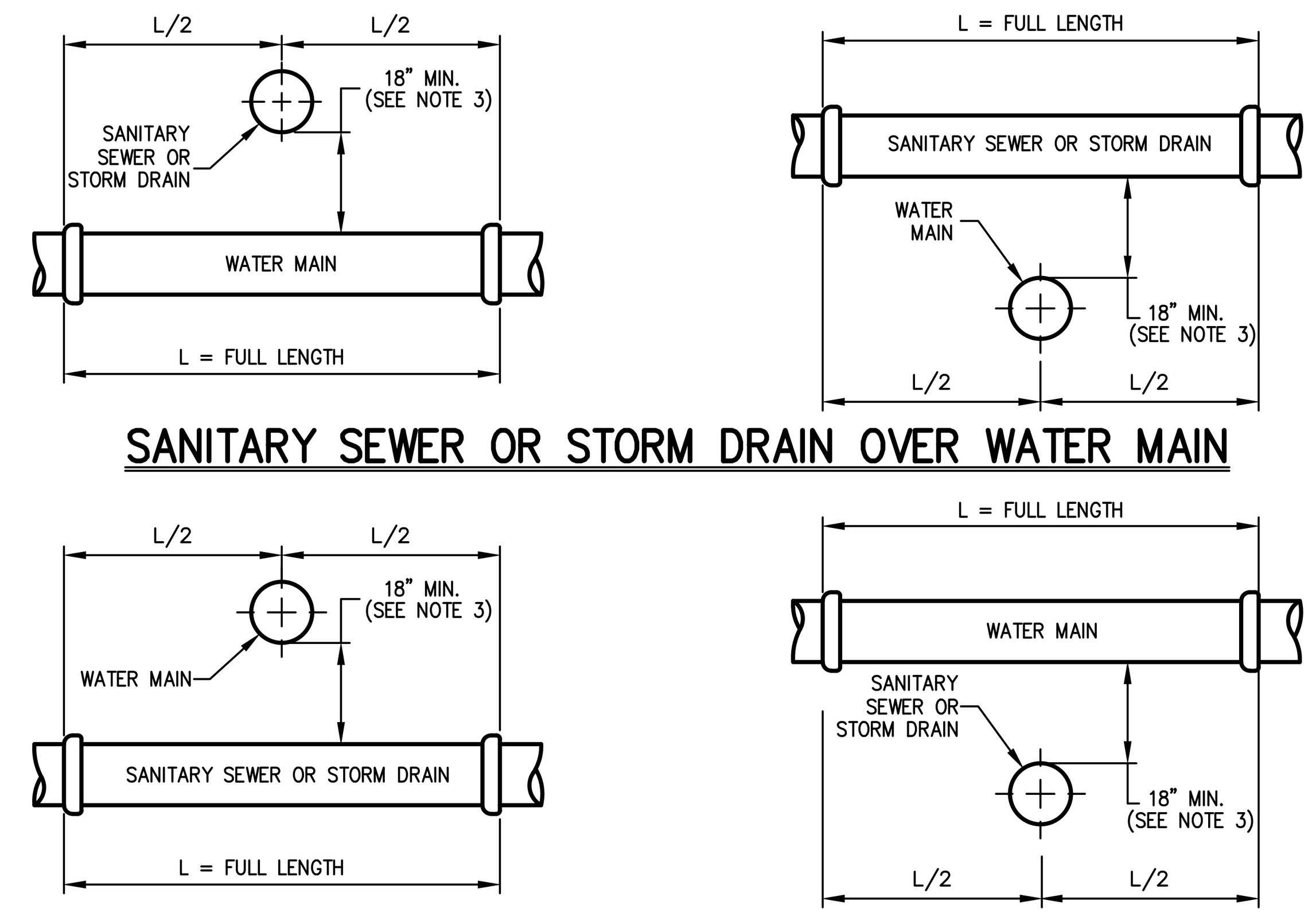


NOTES:
1. ALL PIPE MATERIAL FOR CLEANOUT TO BE SDR-35 PVC.
2. FOR INVERT OF SEWER LINE SEE PLAN.

CLEANOUT W/O MANHOLE — 23



HORIZONTAL SEPARATION



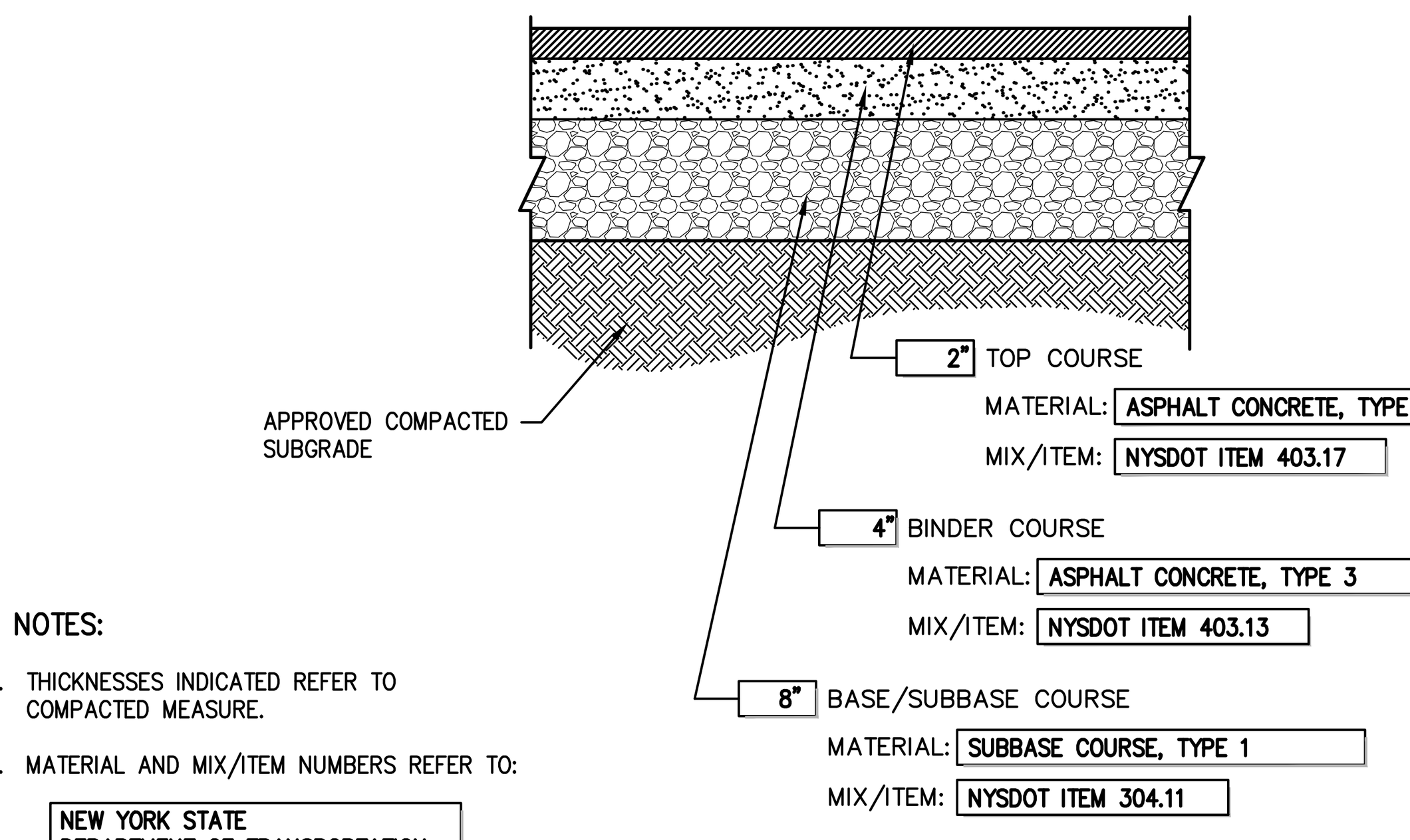
VERTICAL SEPARATION

NOTES:

1. NORMAL CONDITIONS:
   A. WHENEVER A WATER MAIN MUST CROSS OVER OR UNDER A SANITARY SEWER OR STORM DRAIN, THE PIPES SHALL BE LAID TO PROVIDE A VERTICAL SEPARATION BETWEEN THEM OF AT LEAST 18 INCHES, AS MEASURED FROM THE BOTTOM OF THE HIGHER PIPE TO THE CROWN OF THE LOWER PIPE.
   B. FULL LENGTH OF WATER PIPE MUST BE CENTERED AT THE POINT OF CROSSING; NO JOINTS WILL BE PERMITTED AT THE POINT OF CROSSING.
2. WATER MAIN CROSSING UNDER SANITARY SEWERS:
   A. VERTICAL SEPARATION OF 18 INCHES MUST BE PROVIDED.
   B. ADEQUATE STRUCTURAL SUPPORT MUST BE PROVIDED FOR THE SANITARY SEWER TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING.
   C. FULL LENGTH OF WATER PIPE MUST BE CENTERED AT THE POINT OF CROSSING; NO JOINTS WILL BE PERMITTED AT THE POINT OF CROSSING.
3. IF DURING CONSTRUCTION IT IS FOUND THAT THE REQUIRED SEPARATION OF WATER MAINS, SANITARY SEWERS, STORM SEWERS AND BUILDING SANITARY SEWERS CANNOT BE MET, THE CONTRACTOR OR HIS AUTHORIZED REPRESENTATIVE SHALL IN WRITING ADVISE JMC OF THE SPECIFIC CONDITIONS ENCOUNTERED. APPROVAL OF ALTERNATIVE SEPARATION CRITERIA SHALL BE OBTAINED FROM THE CITY OF BEACON AND THE DUTCHESS COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION.

   POLYETHYLENE WRAP SHALL BE INSTALLED AROUND THE DUCTILE IRON PIPE PRIOR TO INSTALLATION OF K-CRETE (IF REQUIRED). POLYETHYLENE PROTECTIVE WRAPPIING ("POLYWRAP") SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AWWA C105/A21.5 AND BE EIGHT (8) MIL THICK TUBING OF VIRGIN POLYETHYLENE (DUPONT ALATHON, U.S. 1. PETROTHENE RESIN, OR APPROVED EQUAL) OR FOUR (4) MIL THICK HIGH-DENSITY, CROSS-LAMINATED (HDCL) POLYETHYLENE. THE COLOR SHALL BE (A) NATURAL (WHERE EXPOSURE TO SUNLIGHT WILL BE LESS THAN 48 HOURS); OR (B) BLACK, CONTAINING 2.0 TO 2.5% WELL DISPERSED CARBON BLACK WITH STABILIZERS (WHERE EXPOSURE TO SUNLIGHT MAY BE UP TO 10 DAYS). TUBING SHALL BE TAPED AND SECURED WITH GENERAL PURPOSE POLYETHYLENE TAPE, 2 INCHES WIDE AND 10 MILS THICK (SCOTCHRAP No. 50, PLICOFLEX No. 340, PROTECTO WRAP No. 200, POLYKEN No. 900, OR APPROVED EQUAL).

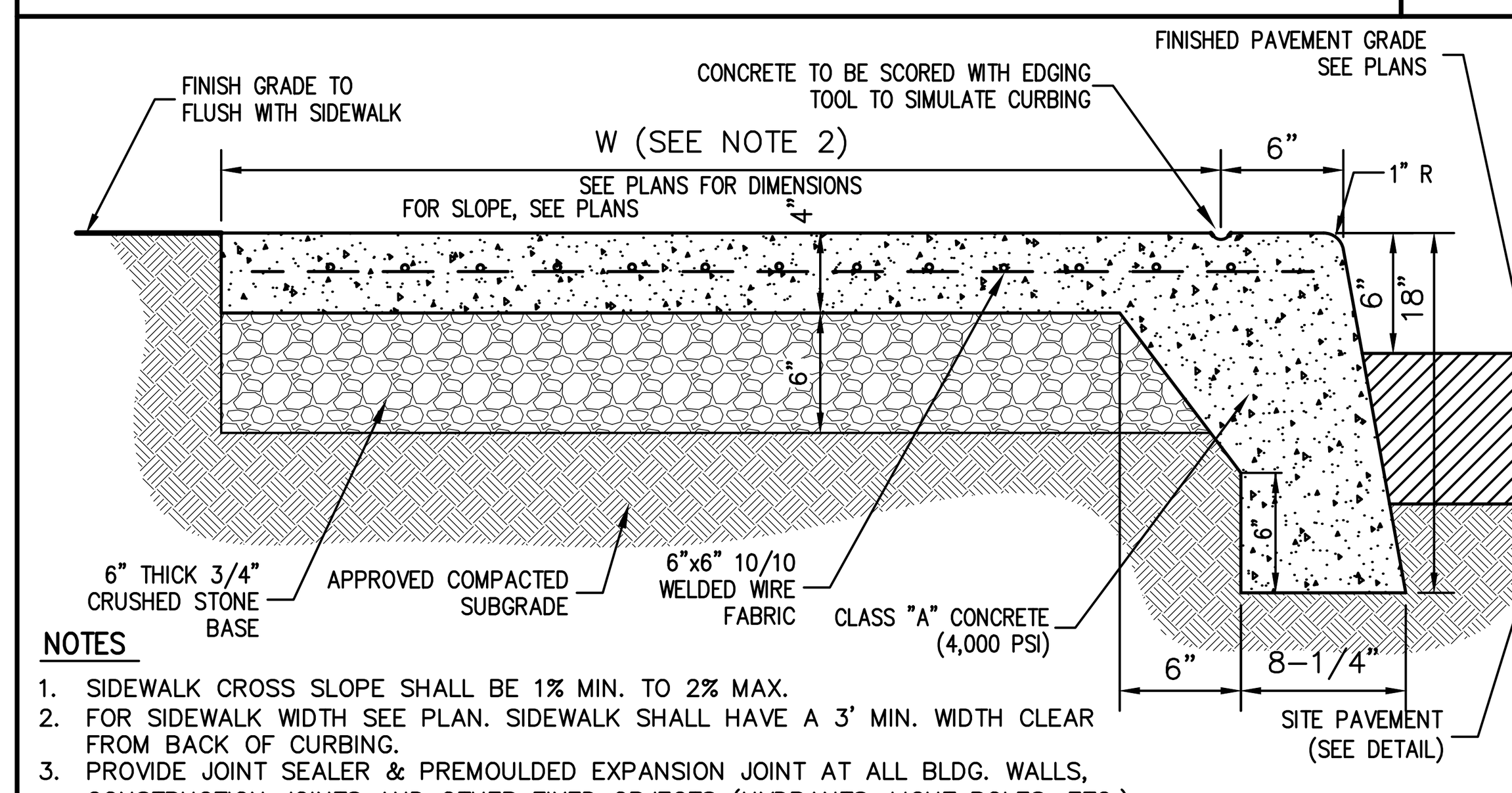
SEPARATION OF WATER AND SANITARY SEWER/STORM DRAIN LINES — 24



NOTES:
1. THICKNESSES INDICATED REFER TO COMPACTED MEASURE.
2. MATERIAL AND MIX/ITEM NUMBERS REFER TO:

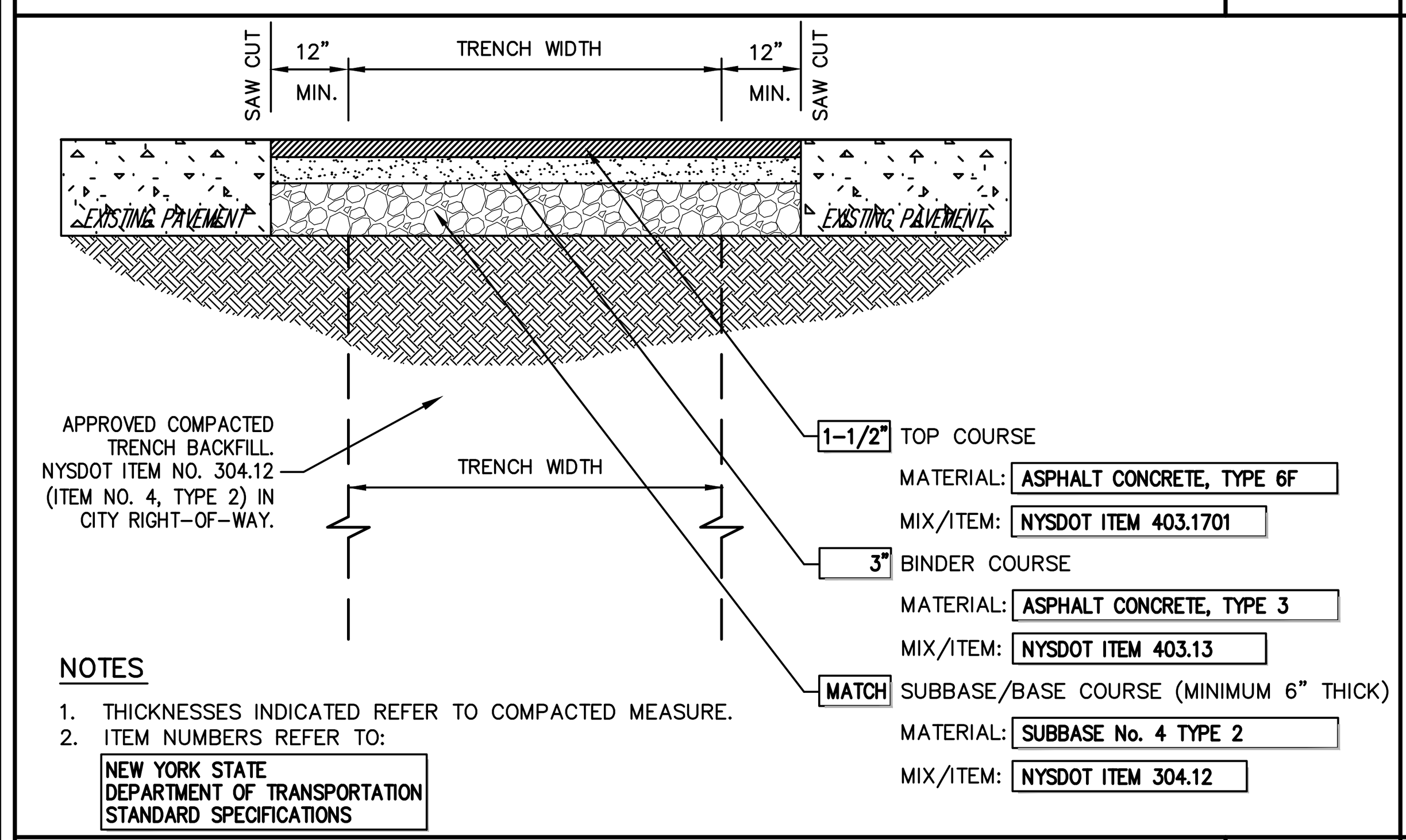
NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS

SITE PAVEMENT — 25



NOTES
1. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. TO 2% MAX.
2. FOR SIDEWALK WIDTH SEE PLAN. SIDEWALK SHALL HAVE A 3' MIN. WIDTH CLEAR FROM BACK OF CURBING.
3. PROVIDE JOINT SEALER & PREMOULDED EXPANSION JOINT AT ALL BLDG. WALLS, CONSTRUCTION JOINTS AND OTHER FIXED OBJECTS (HYDRANTS, LIGHT POLES, ETC.)
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH.
5. PROVIDE 1/2" PREMOULDED EXPANSION JOINTS AT 10 FOOT INTERVALS AND SCORE WITH EDGING TOOL TO SIMULATE JOINTS AT MIDPOINTS BETWEEN EXPANSION JOINTS.
6. REINFORCEMENT SHALL NOT EXTEND THROUGH EXPANSION JOINTS.
7. CONCRETE SIDEWALK SHALL BE SEALED TO PROTECT AGAINST DE-ICING AGENTS.

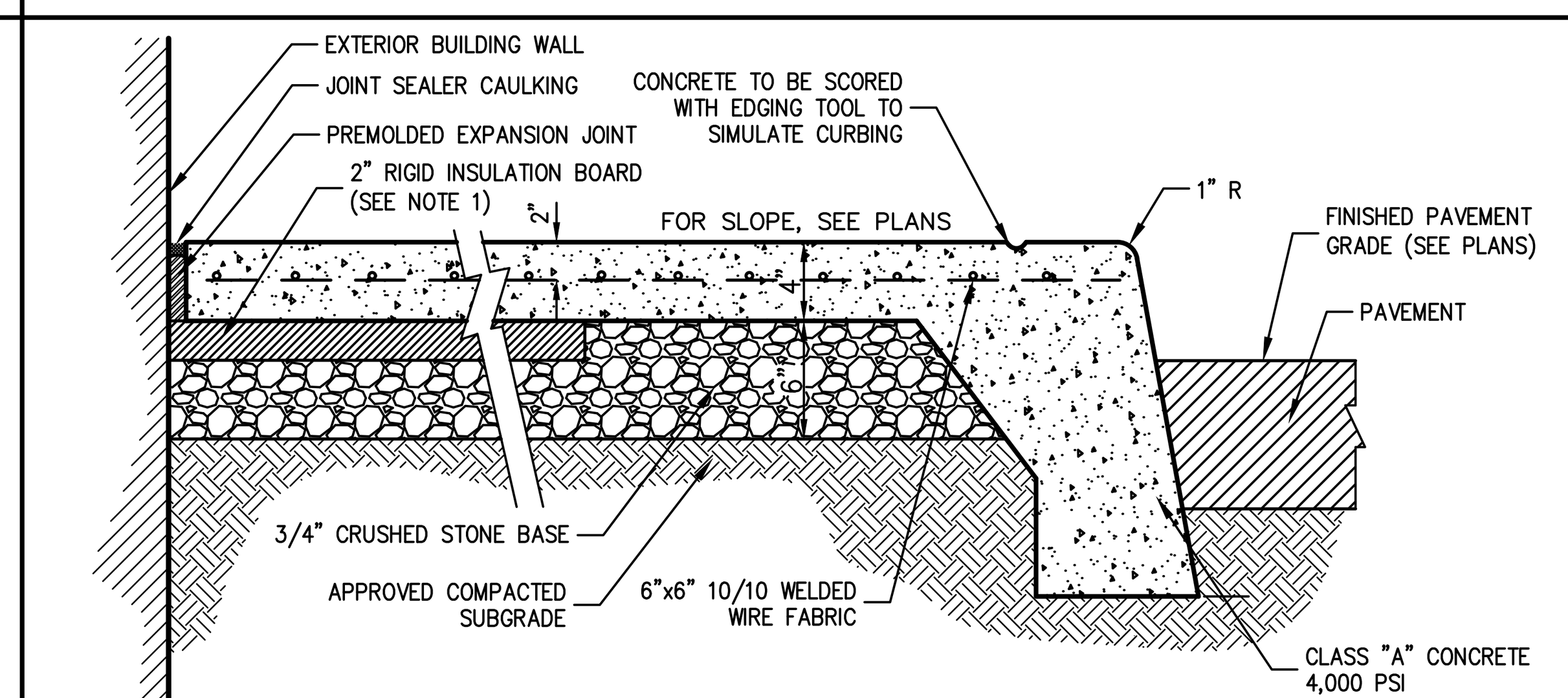
MONOLITHIC CONCRETE CURB AND SIDEWALK (WITHIN RIGHT-OF-WAY) — 26



NOTES
1. THICKNESSES INDICATED REFER TO COMPACTED MEASURE.
2. ITEM NUMBERS REFER TO:

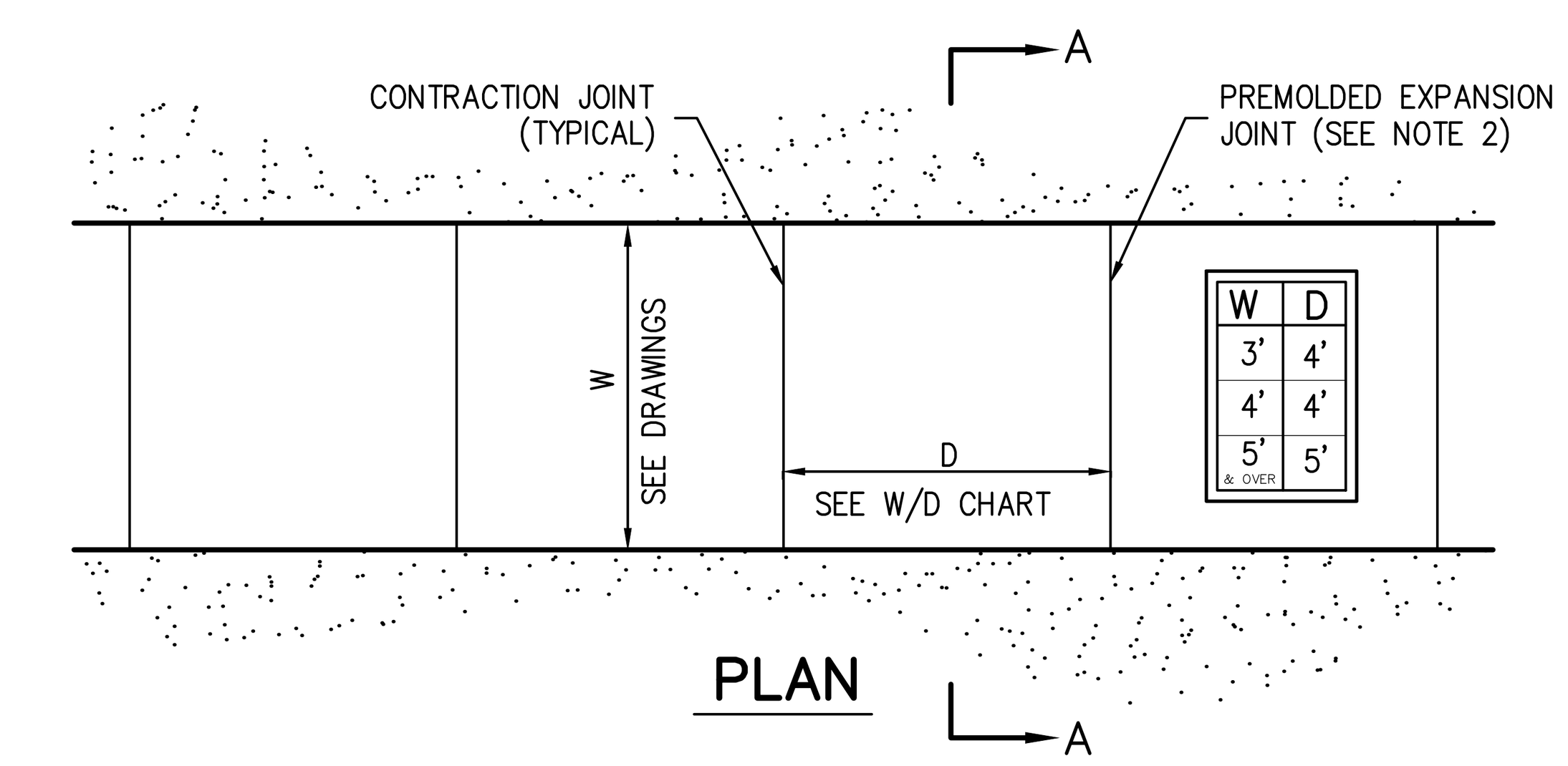
NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS

PAVEMENT REPLACEMENT OVER TRENCH — 27

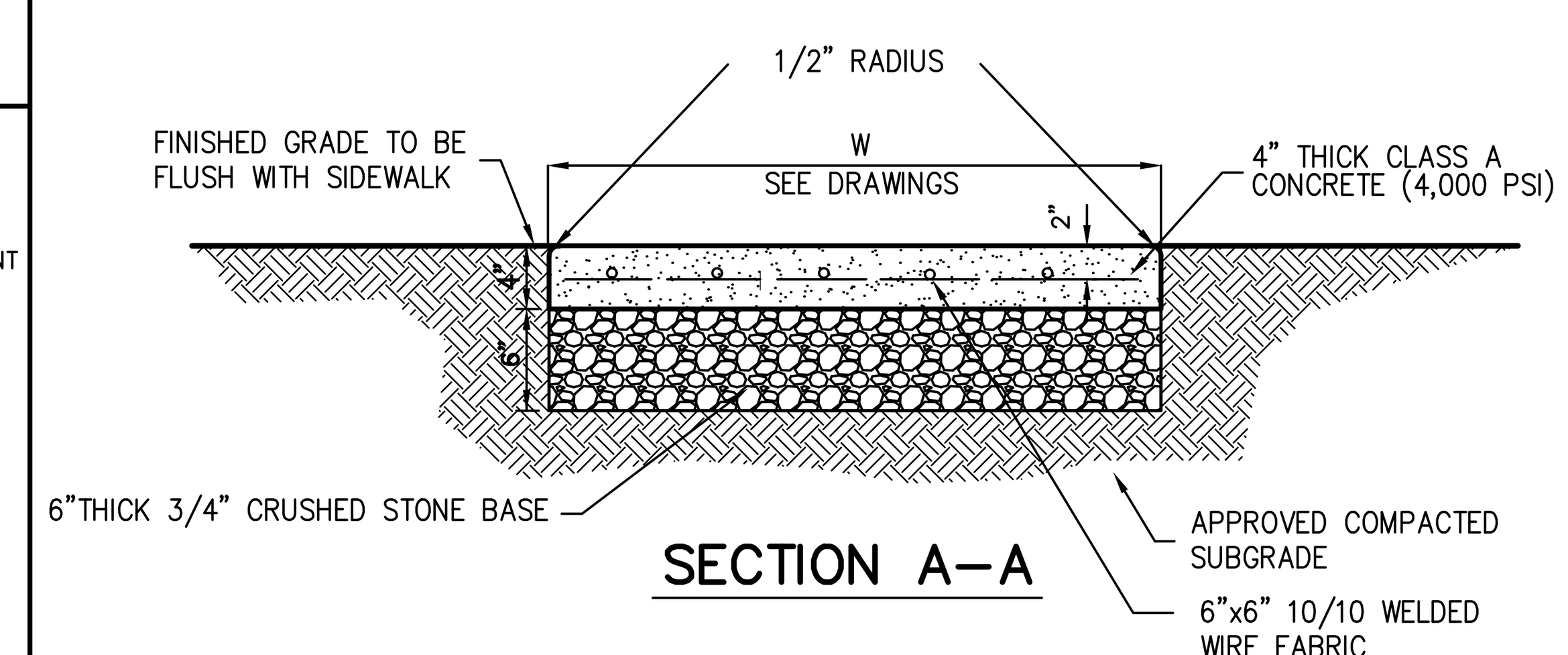


NOTES:
1. PROVIDE 2" RIGID INSULATION BOARD AT ALL DOORWAY OPENINGS AND EXTEND 8' MIN. IN ALL DIRECTIONS OR TO CONSTRUCTION/CONTRACTION JOINT, WHICHEVER IS GREATER.
2. JOINT SEALER CAULKING SHALL BE PSI-641 LOW MODULUS SILICONE SEALANT, BY POLYMERIC SYSTEMS INC. OR APPROVED EQUAL. PREMOULDED EXPANSION JOINT SHALL BE FLEXCELL OR APPROVED EQUAL.
3. PROVIDE JOINT SEALER & PREMOULDED EXPANSION JOINT AT ALL BLDG. WALLS, CONSTRUCTION JOINTS AND OTHER FIXED OBJECTS (HYDRANTS, LIGHT POLES, ETC.)
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH
5. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. 2% MAX.
6. FOR SIDEWALK WIDTH SEE PLAN. SIDEWALK SHALL HAVE A 3' MIN. WIDTH CLEAR FROM BACK OF CURBING.

BUILDING PERIMETER MONOLITHIC CURB & SIDEWALK — 29



W	D
3'	4'
4'	4'
5' & OVER	5'

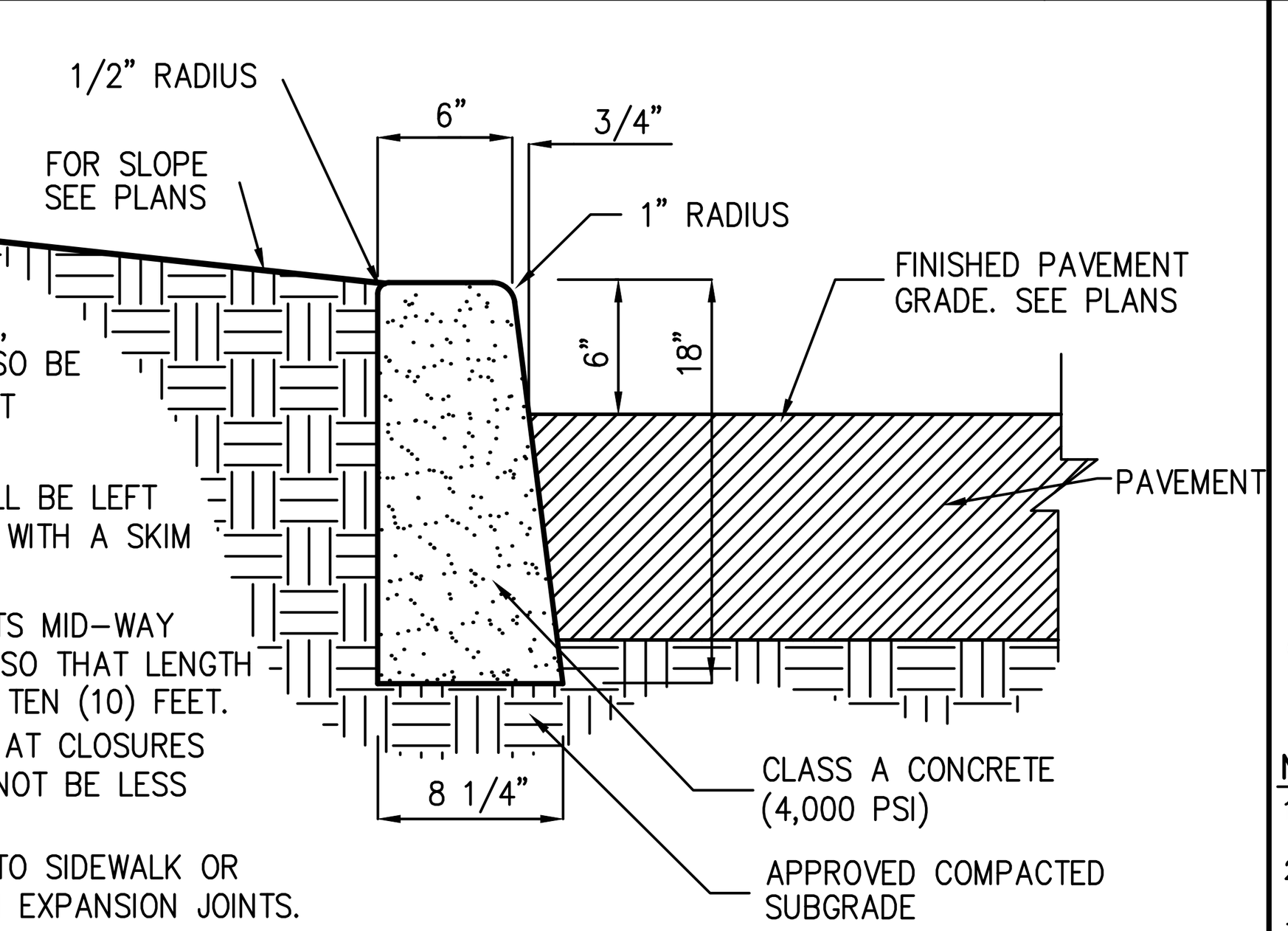


SECTION A-A

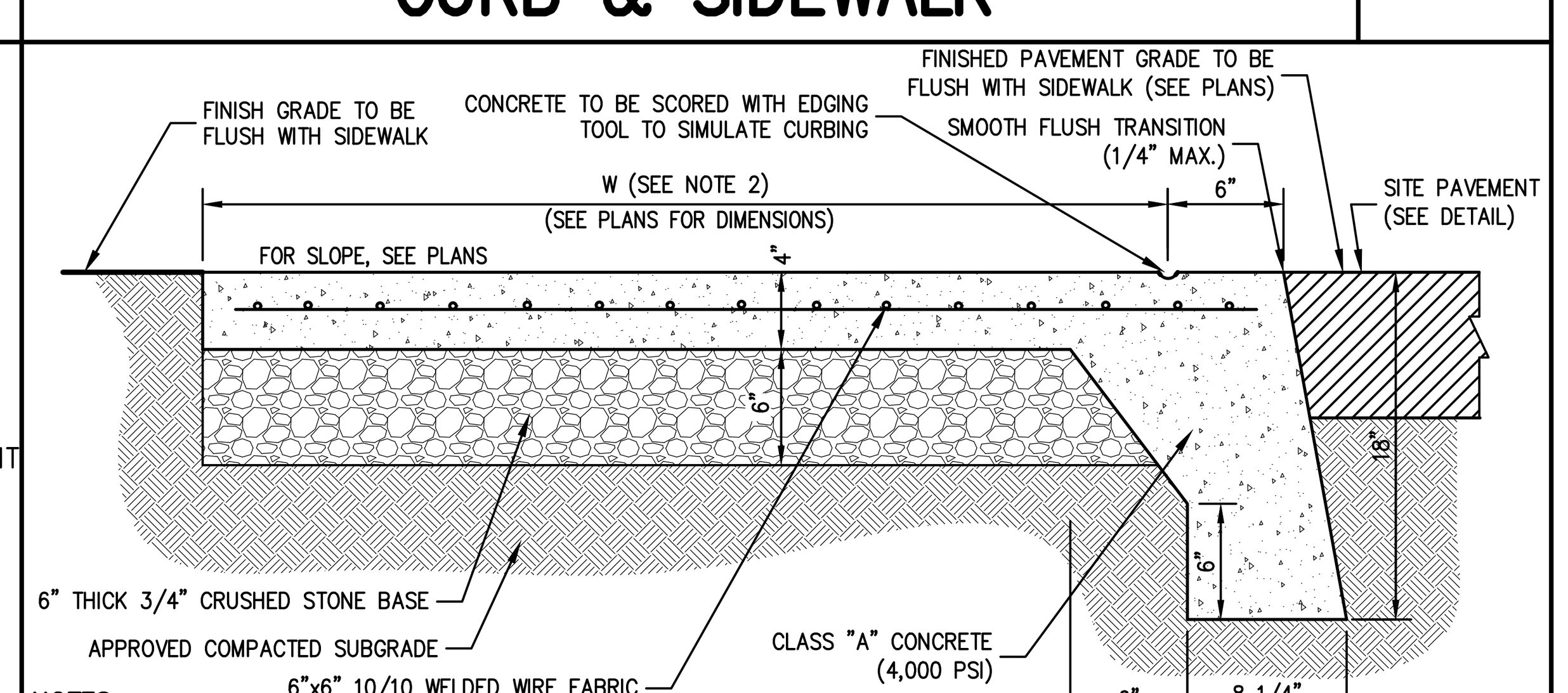
NOTES:
1. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. TO 2% MAX.
2. PROVIDE 1/2" PREMOLDED EXPANSION JOINTS AT 20' INTERVALS UNLESS OTHERWISE DIRECTED.
3. REINFORCING SHALL NOT EXTEND THROUGH EXPANSION JOINTS.
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH

CONCRETE SIDEWALK — 31

NOTES:
1. INSTALL 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT EVER 20 FEET.
2. UNLESS DIRECTED OTHERWISE, EXPANSION JOINTS SHALL ALSO BE INSTALLED AT THE PC AND PT OF ALL RADIUS CURB.
3. EACH EXPANSION JOINT SHALL BE LEFT EXPOSED AND NOT COVERED WITH A SKIM COAT OF CONCRETE.
4. INSTALL CONSTRUCTION JOINTS MID-WAY BETWEEN EXPANSION JOINTS SO THAT LENGTH OF CURB SEGMENTS WILL BE TEN (10) FEET.
5. LENGTH OF CURB SEGMENTS AT CLOSURES MAY BE VARIED BUT SHALL NOT BE LESS THAN FOUR (4) FEET.
6. WHEN INSTALLED ADJACENT TO SIDEWALK OR CONCRETE PAVEMENT, MATCH EXPANSION JOINTS.

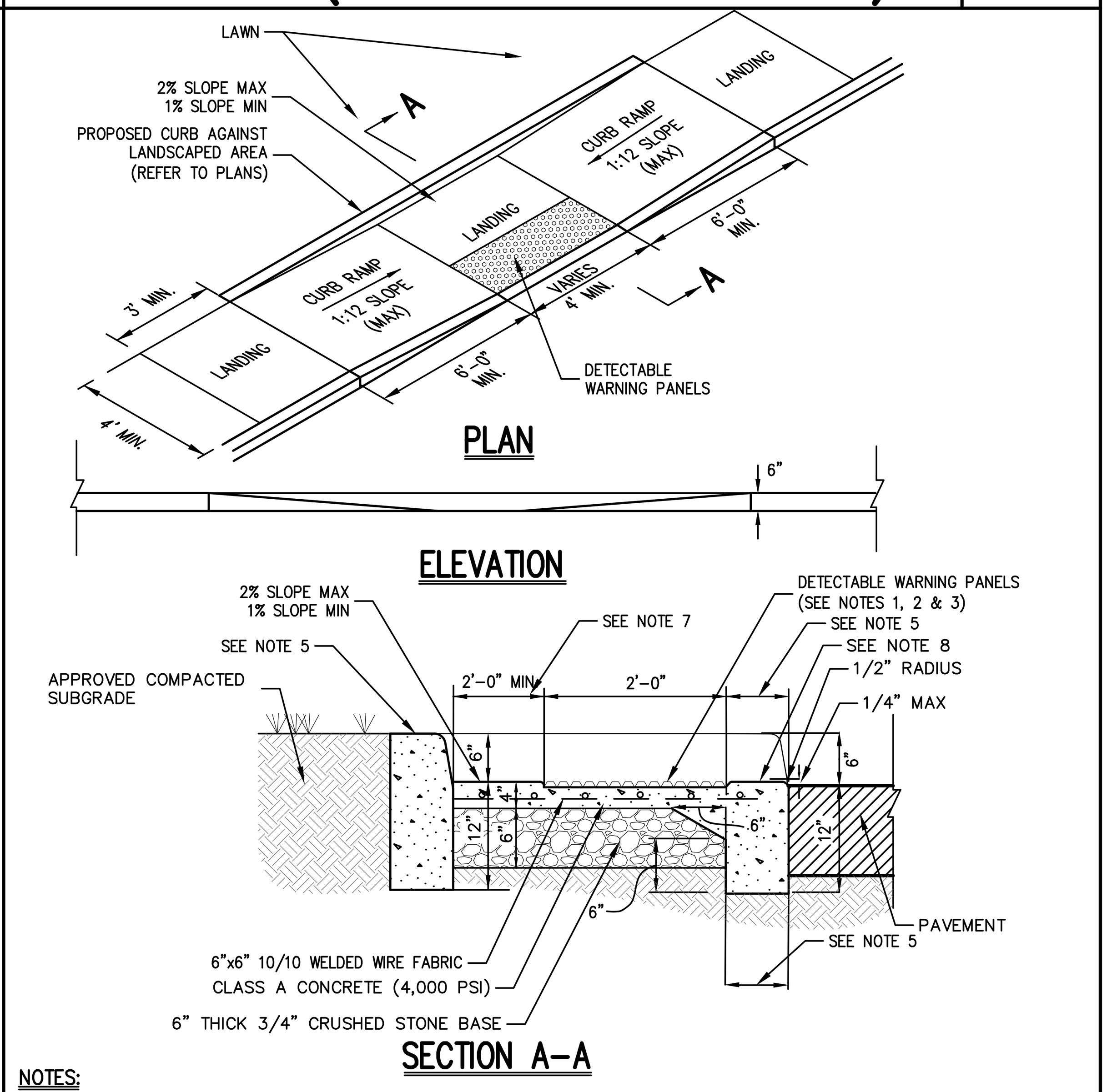


CAST-IN-PLACE CONCRETE CURB — 28



NOTES
1. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. TO 2% MAX.
2. FOR SIDEWALK WIDTH SEE PLAN. SIDEWALK SHALL HAVE A 3' MIN. WIDTH CLEAR FROM BACK OF CURBING.
3. PROVIDE JOINT SEALER & PREMOULDED EXPANSION JOINT AT ALL BLDG. WALLS, CONSTRUCTION JOINTS AND OTHER FIXED OBJECTS (HYDRANTS, LIGHT POLES, ETC.)
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH.
5. PROVIDE 1/2" PREMOULDED EXPANSION JOINTS AT 20 FOOT INTERVALS UNLESS OTHERWISE DIRECTED.
6. REINFORCEMENT SHALL NOT EXTEND THROUGH EXPANSION JOINTS.

MONOLITHIC CONCRETE FLUSH CURB AND SIDEWALK — 30



SECTION A-A

NOTES:
1. RAMPS SHALL HAVE CAST IN PLACE DETECTABLE/TACTILE WARNING SURFACE TILES AS MANUFACTURED BY ARMOR-TILE (OR APPROVED EQUAL) AND SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCHES.
2. DETECTABLE WARNING PANELS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT IN ACCORDANCE WITH SECTION 4.29.2, FEDERAL REGISTER, VOLUME 56, NO. 144, RULES AND REGULATIONS, APPENDIX A TO PART 36 - STANDARDS FOR ACCESSIBLE DESIGN (AMERICANS WITH DISABILITIES ACT), LATEST EDITION.
3. 24" WIDTH OF PANELS TO BE INSTALLED DIRECTLY BEHIND CURB AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE AND SEE CURB DETAIL FOR DIMENSIONS.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. WHEN LANDING OF RAMP ADJOINS A DOORWAY THEN THE MINIMUM DOORWAY MANEUVERING AREA SHALL BE AT LEAST THE WIDTH OF THE DOORWAY AND SHALL HAVE A MINIMUM DEPTH OF:
   MANUAL SWING DOORS = 60" MIN.
   FULL POWERED AUTOMATIC SLIDING DOORS = 48" MIN.
8. CONTRACTOR TO ENSURE TOP OF CURB MATCHES SLOPE OF RAMP.

DROP CURB & RAMP (TYPE B) — 32

WITH DETECTABLE WARNING

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
6.	REVISED PER CITY COMMENTS	05/31/2022
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9.	REVISED PER CITY COMMENTS	09/27/2022

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STATE OF NEW YORK · STEPHEN SPINA · LICENSED PROFESSIONAL ENGINEER · 085983

Drawn: BMS	Approved: SS
Scale: NOT TO SCALE	
Date: 10/29/2019	
Project No: 18119	
18119-DETAILS	C-904 –
Drawing No: C-904	(Sheet 24 OF 29)

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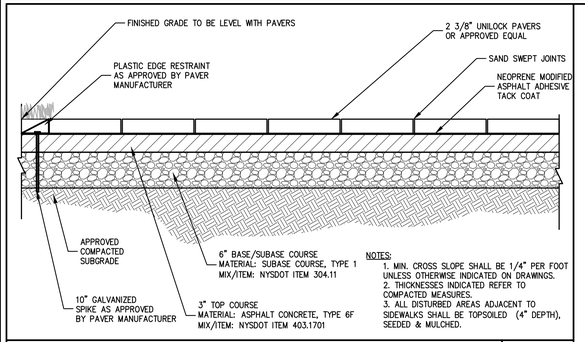
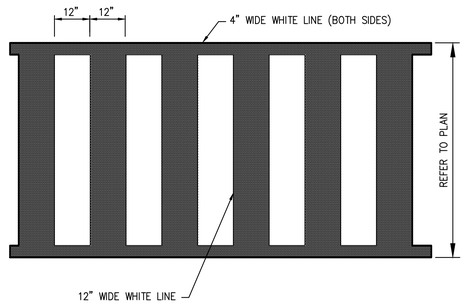
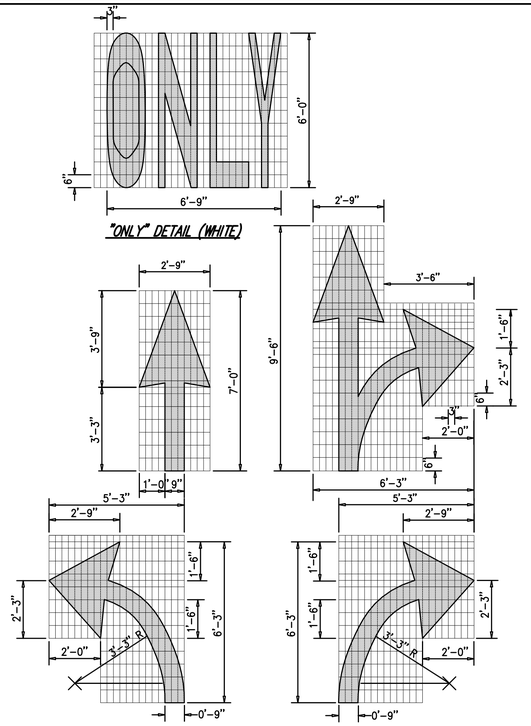


NOTES:
1. MIN. CROSS SLOPE SHALL BE 1/4" PER FOOT UNLESS OTHERWISE INDICATED ON DRAWINGS.
2. THICKNESSES INDICATED REFER TO COMPACTED MEASURES.
3. ALL DISTURBED AREAS ADJACENT TO SIDEWALKS SHALL BE TOPSOILED (4" DEPTH), SEEDED & MULCHED.

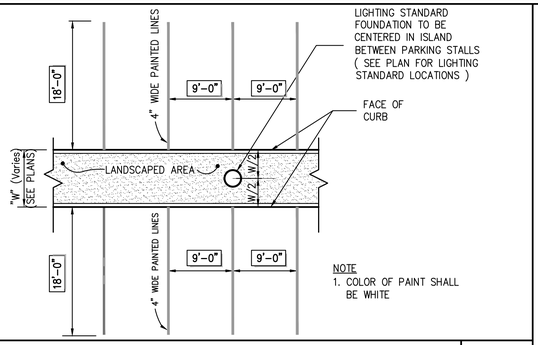
PATIO 33



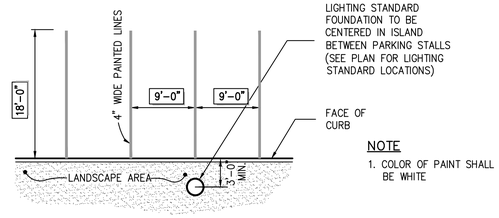
PEDESTRIAN CROSSING 34



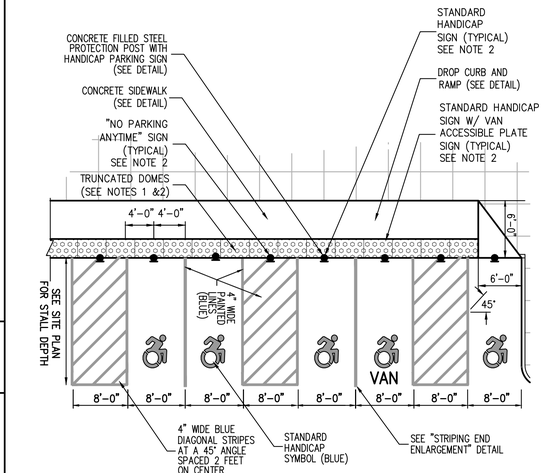
PAVEMENT TEXT & ARROWS (ON-SITE) 35



90° PARKING (SINGLE STRIPING – CURBED ISLAND) 36

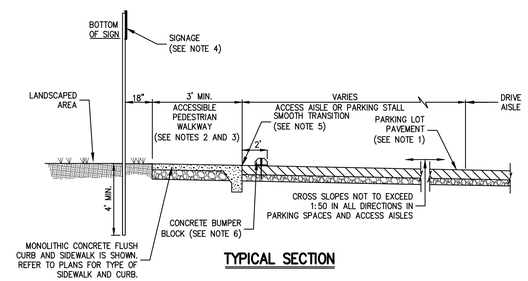


90° PARKING (SINGLE STRIPING – CURBED PERIMETER) 37



NOTES:
1. RAMPS AND SIDE RAMPS SHALL HAVE DETECTABLE WARNINGS CONSISTING OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCHES.
2. THEY SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT–ON–DARK OR DARK–ON–LIGHT IN ACCORDANCE WITH SECTION 4.29.2, FEDERAL REGISTER, VOLUME 56, NO. 144, RULES AND REGULATIONS, APPENDIX A TO PART 36 – STANDARDS FOR ACCESSIBLE DESIGN (AMERICANS WITH DISABILITIES ACT), DATED JULY 26, 1991 AND SUBSEQUENT REVISIONS.
3. SLOPES IN HANDICAP PARKING AREAS SHALL NOT EXCEED 1.5%.
4. SEE SITE PLANS/SIGN TABLE FOR SIGN DESIGNATIONS, LOCATIONS AND SPECIFICATIONS.

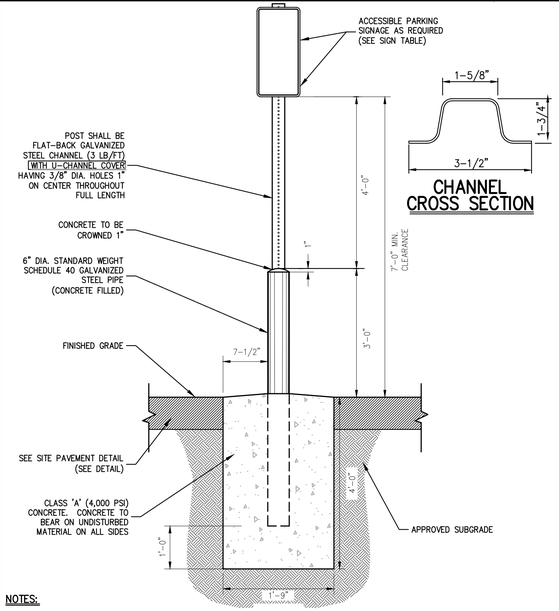
HANDICAP PARKING 38
SINGLE STRIPING – CURBLINE ALIGNMENT – W/SIDEWALK)
(NEW YORK)



TYPICAL SECTION

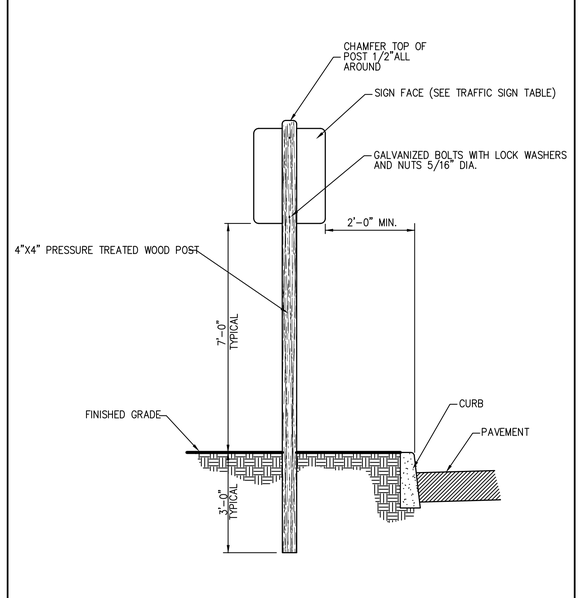
NOTES:
1. THIS SHEET IS INTENDED TO DEPICT THE DIMENSIONAL REQUIREMENTS OF TYPICAL ACCESSIBLE PARKING SPACES. THE SIDEWALK, CURBING, AND PAVEMENT MATERIAL SHALL BE AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS.
2. LOCATION – PARKING SPACES FOR USE BY PERSONS WITH DISABILITIES SHALL BE IN THE SPACES CLOSEST TO THE NEAREST ACCESSIBLE BUILDING OR FACILITY ENTRANCE ON AN ACCESSIBLE ROUTE.
3. SURFACE SLOPES – SLOPES AT ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ADJOINING WALKWAYS SHALL NOT EXCEED 1:50 IN ANY DIRECTION.
4. SIGNAGE – EACH ACCESSIBLE PARKING SPACE SHALL BE MARKED BY PERMANENTLY INSTALLED ABOVE GROUND SIGNS WHICH DISPLAY THE INTERNATIONAL SYMBOL OF ACCESS. EACH ACCESS AISLE SHALL BE MARKED BY PERMANENTLY INSTALLED ABOVE GROUND SIGNS INDICATING THAT PARKING IS NOT PERMITTED IN THE AISLE. SIGNS SHALL NOT BLOCK THE ACCESSIBLE CLEAR WIDTH OF ADJACENT WALKWAYS, SIGNS LOCATED WHERE THEY MAY BE HIT BY VEHICLES BEING PARKED SHALL BE INSTALLED AS SHOWN IN THE PROTECTION POST BASE DETAIL. THE BOTTOMS OF THE SIGNS LOCATED ON POST INSTALLED IN PAVED AREAS SHALL BE AT LEAST 7' ABOVE THE WALKWAY SURFACE. THE BOTTOMS OF SIGNS LOCATED IN UNPAVED AREAS SHALL BE 7' ABOVE THE ADJACENT PAVEMENT SURFACE.
5. A SMOOTH, FLUSH TRANSITION MUST BE PROVIDED BETWEEN ALL PEDESTRIAN WALKWAYS AND THE ACCESSIBLE PARKING SPACES AND AISLES.
6. VEHICLE SIDE FACE OF CONCRETE BUMPER BLOCKS SHALL BE SET 2' BACK FROM EDGE OF PARKING STALL. CONCRETE BLOCKS SHALL NOT BE INSTALLED WITHIN ACCESS AISLES.

TYPICAL ACCESSIBLE PARKING STALL AND AISLE (TYPE B) 39

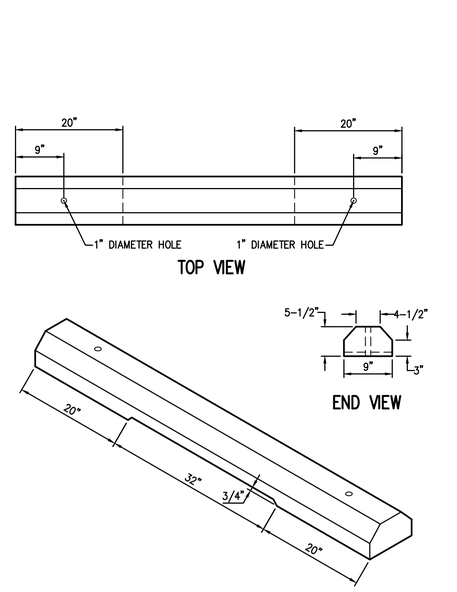


NOTES:
1. GALVANIZED STEEL CHANNEL SHALL BE EMBEDDED A MIN. OF 3 FT. INTO THE CONCRETE
2. POSTS FOR HANDICAP PARKING STALLS AND ACCESS AISLES SHALL BE PAINTED BLUE AS FOLLOWS:
   A. SOLVENT CLEAN TO REMOVE OIL, GREASE AND OTHER CONTAMINANTS.
   B. APPLY METAL PRIMER FOR GALVANIZED SURFACES.
   C. APPLY TWO (2) FINISH COATS OF APPROVED EXTERIOR PAINT FOR METAL SURFACES.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF THE PARKING SIGNS, BOLLARDS AND FOUNDATIONS WITH THE DESIGN AND INSTALLATION OF THE SITE SIDEWALKS, CURBING, PAVEMENT AND ANY OTHER SITE FEATURES SHOWN ON THE PLANS.
4. FASTEN SIGN TO POSTS WITH GALVANIZED STEEL BOLTS, LOCK WASHERS, AND NUTS (5/16" DIA.)
5. U-CHANNEL COVERS FOR POSTS SHALL BE BLUE WITH WHITE STRIPE FOR HANDICAP PARKING STALLS AND HANDICAP ACCESS AISLES.

ACCESSIBLE PARKING SIGN DETAIL 40



TRAFFIC SIGN POST (WOOD) 41



NOTES
1. CONCRETE MINIMUM STRENGTH–4,000 PSI AT 28 DAYS
2. REINFORCEMENT–#4 REBAR

CONCRETE BUMPER BLOCK 42

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
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7.	REVISED PER CITY COMMENTS	06/28/2022
8.	REVISED PER CITY COMMENTS	08/30/2022
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STATE OF NEW YORK · STEPHEN SPINA · LICENSED PROFESSIONAL ENGINEER · 085983

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Scale: NOT TO SCALE	
Date: 10/29/2019	
Project No: 18119	
18119-DETAILS	C-905 –
Drawing No: C-905 (Sheet 25 OF 29)	

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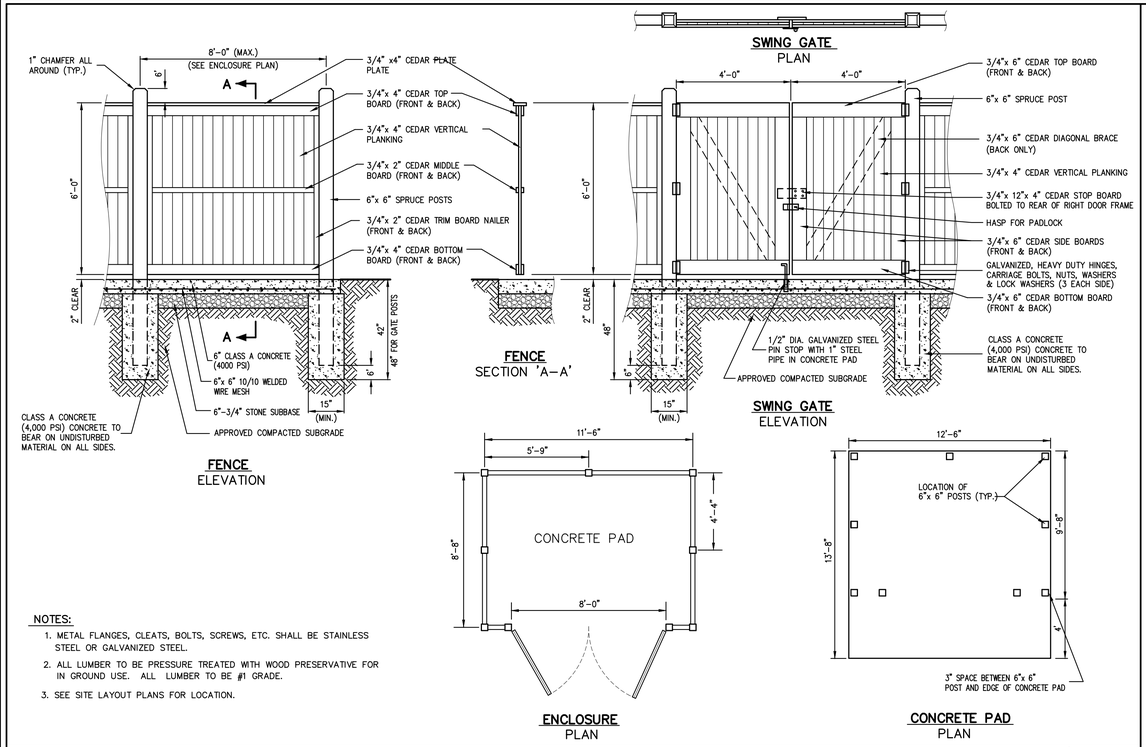


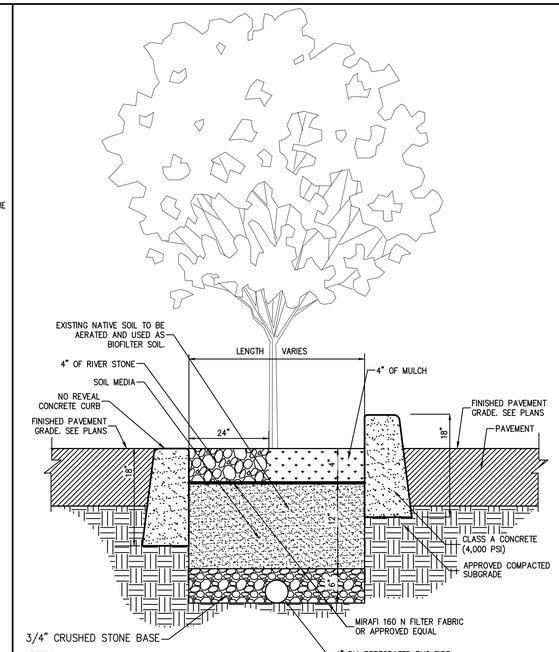
NOTES:

1. METAL FLANGES, CLEATS, BOLTS, SCREWS, ETC. SHALL BE STAINLESS STEEL OR GALVANIZED STEEL.
2. ALL LUMBER TO BE PRESSURE TREATED WITH WOOD PRESERVATIVE FOR IN GROUND USE. ALL LUMBER TO BE #1 GRADE.
3. SEE SITE LAYOUT PLANS FOR LOCATION.

TRASH ENCLOSURE WITH CONCRETE PAD

(WOOD)

43



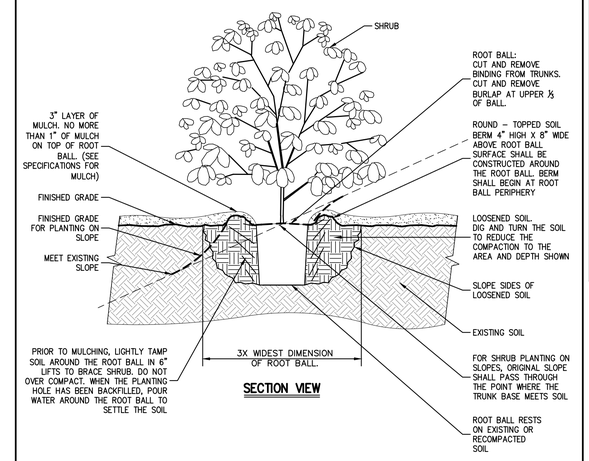
NOTES:

1. INSTALL 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT EVERY 20 FEET.
2. INSTALL CONSTRUCTION JOINTS MID-WAY BETWEEN EXPANSION JOINTS SO THAT LENGTH OF CURB SEGMENTS WILL BE TEN (10) FEET.
3. LENGTH OF CURB SEGMENTS AT CLOSURES MAY BE VARIED BUT SHALL NOT BE LESS THAN FOUR (4) FEET.
4. THE SOIL MEDIA FOR THE RAIN GARDEN IS BASED ON THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL SPECIFICATIONS. THE SOIL COMPOSITION SHOULD CONSIST OF 50% TO 70% SAND (LESS THAN 5% CLAY CONTENT), 50% TO 30% TOPSOIL WITH AN AVERAGE OF 5% ORGANIC MATERIAL, SUCH AS COMPOST OR PEAT, FREE OF STONES, ROOTS, WOODY DEBRIS AND ANIMAL WASTE. THE DEPTH OF SOIL SHOULD BE APPROXIMATELY 4 INCHES BELOW THE BOTTOM OF THE DEEPEST ROOT BALL OF ANY TREES OR SHRUBS WITHIN THE RAIN GARDEN.

STORMWATER TREATMENT LANDSCAPED AREA 2A1, 2A2

(W/ UNDERDRAIN)

44



NOTES:

1. ALL PLANTING BEDS SHALL BE FREE OF WEEDS AND GRASS PRIOR TO AND FOLLOWING INSTALLATION OF PLANTS.
2. PLANTS IN CONTAINERS MUST HAVE THE FIBROUS ROOTS PULLED APART.
3. PROPOSED PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS EXISTING GRADE.

SHRUB PLANTING

45

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
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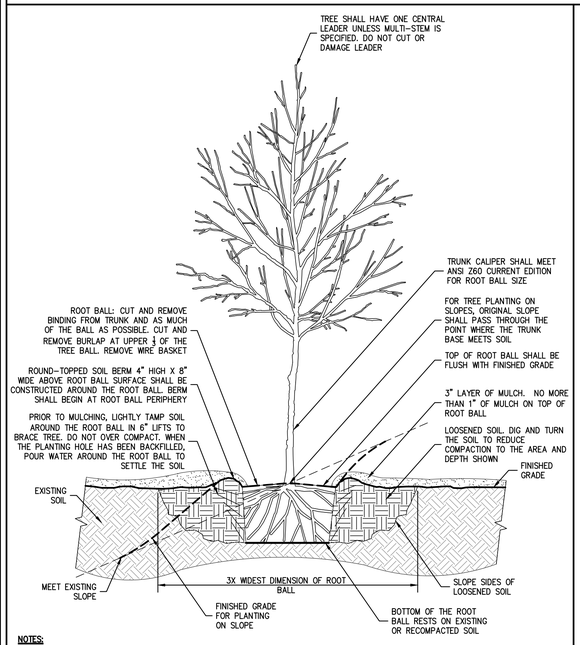


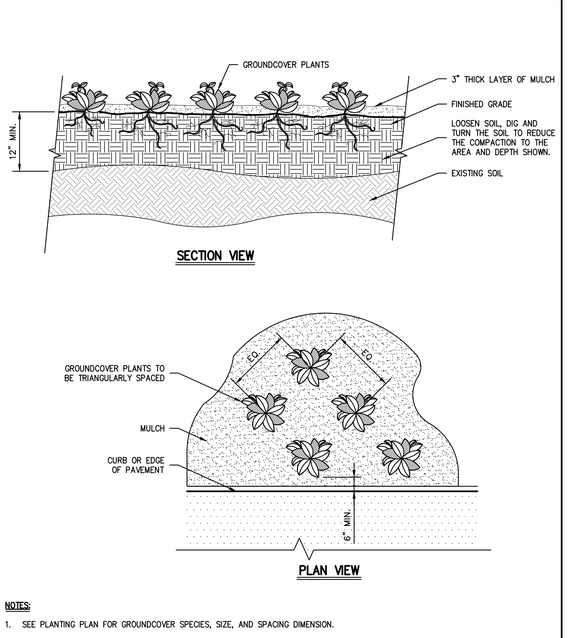
NOTES:

1. ALL PLANTING BEDS SHALL BE FREE OF WEEDS AND GRASS PRIOR TO AND FOLLOWING INSTALLATION OF PLANTS.
2. PLANTS IN CONTAINERS MUST HAVE THE FIBROUS ROOTS PULLED APART.
3. PROPOSED PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS EXISTING GRADE.
4. SEE TREE STAKING DETAIL IF STAKING IS REQUIRED.

TREE PLANTING

(DECIDUOUS AND EVERGREEN)

46

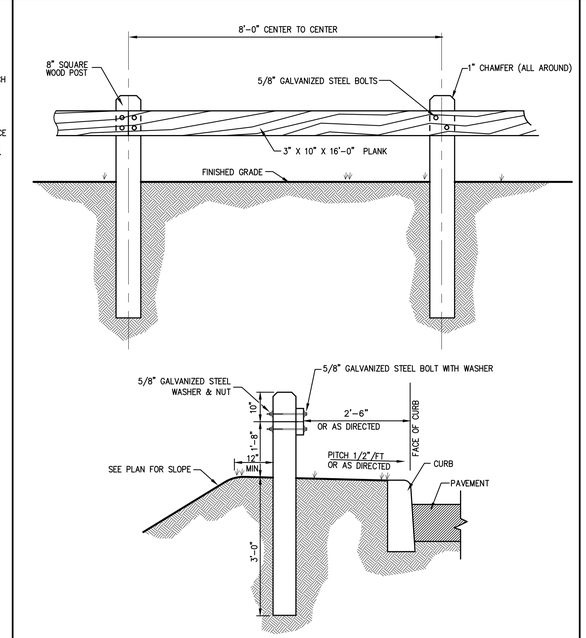


NOTES:

1. SEE PLANTING PLAN FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSION.
2. SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PLANT PRIOR TO MULCHING.
3. ALL PLANTING BEDS SHALL BE FREE OF WEEDS AND GRASS PRIOR TO AND FOLLOWING INSTALLATION OF PLANTS.
4. PLANTS IN CONTAINERS MUST HAVE THE FIBROUS ROOTS PULLED APART.
5. PROPOSED PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS EXISTING GRADE.

GROUNDCOVER

47

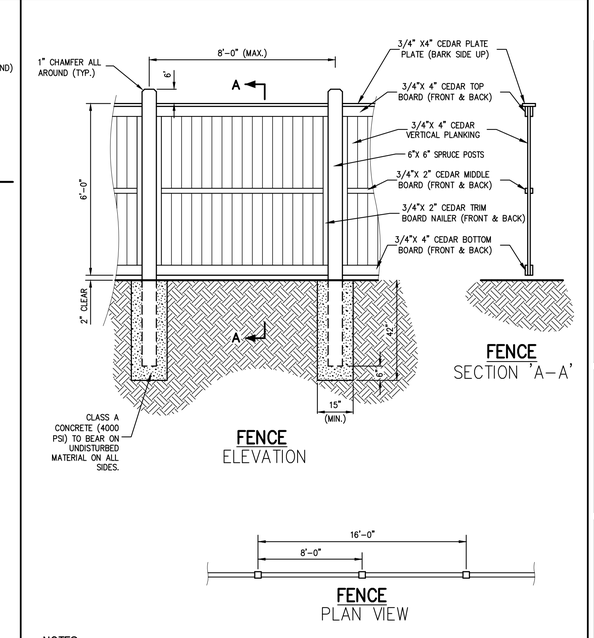


NOTES

1. ALL WOOD TO BE SEASONED NO.1 DOUGLAS FIR, SOUTHERN PINE OR OTHER APPROVED STRUCTURAL LUMBER.
2. GALVANIZED BOLT AND NUT TO BE 4000# MIN., 5400# MAX. TENSILE STRENGTH. AFTER GALVANIZING BOLT AND NUT, THE NUT SHALL BE FREE RUNNING ON THE BOLT.

WOOD GUIDE RAIL

48



NOTES:

1. METAL FLANGES, CLEATS, BOLTS, SCREWS, ETC. SHALL BE STAINLESS STEEL OR GALVANIZED STEEL.
2. ALL LUMBER, EXCEPT WHERE NOTED ON FENCE, TO BE PRESSURE TREATED WITH WOOD PRESERVATIVE FOR IN GROUND USE. ALL LUMBER TO BE #1 GRADE.
3. SEE SITE LAYOUT PLAN FOR LOCATION.

WOODEN PRIVACY FENCE

49

CONSTRUCTION DETAILS

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

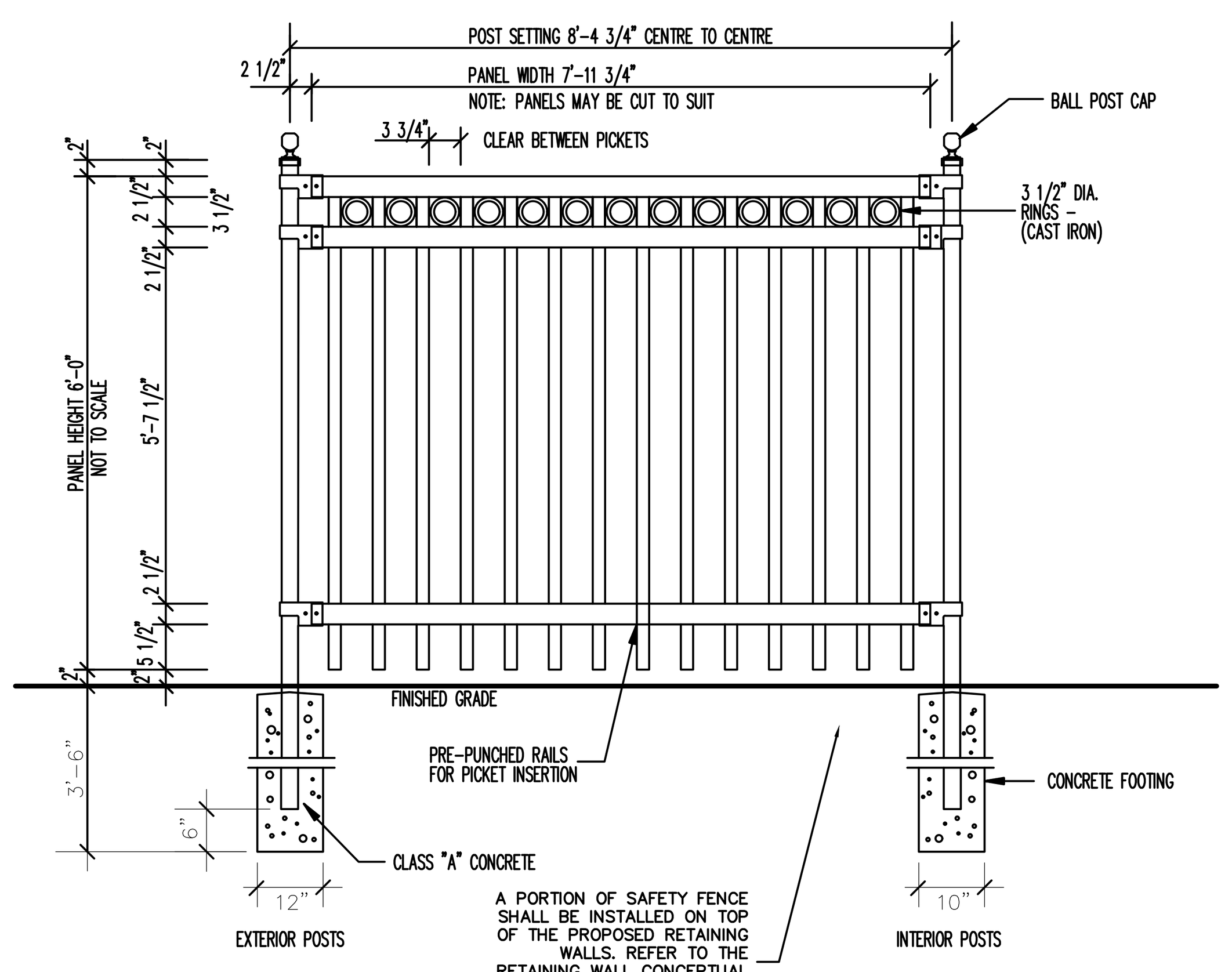
ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

STATE OF NEW YORK
STEPHEN SPINA
085983
LICENSED PROFESSIONAL ENGINEER

Drawn:	BMS
Approved:	SS
Scale:	NOT TO SCALE
Date:	10/29/2019
Project No:	18119
18119-DETAILS	C-906	-

Drawing No:

C-906
(Sheet 26 OF 29)

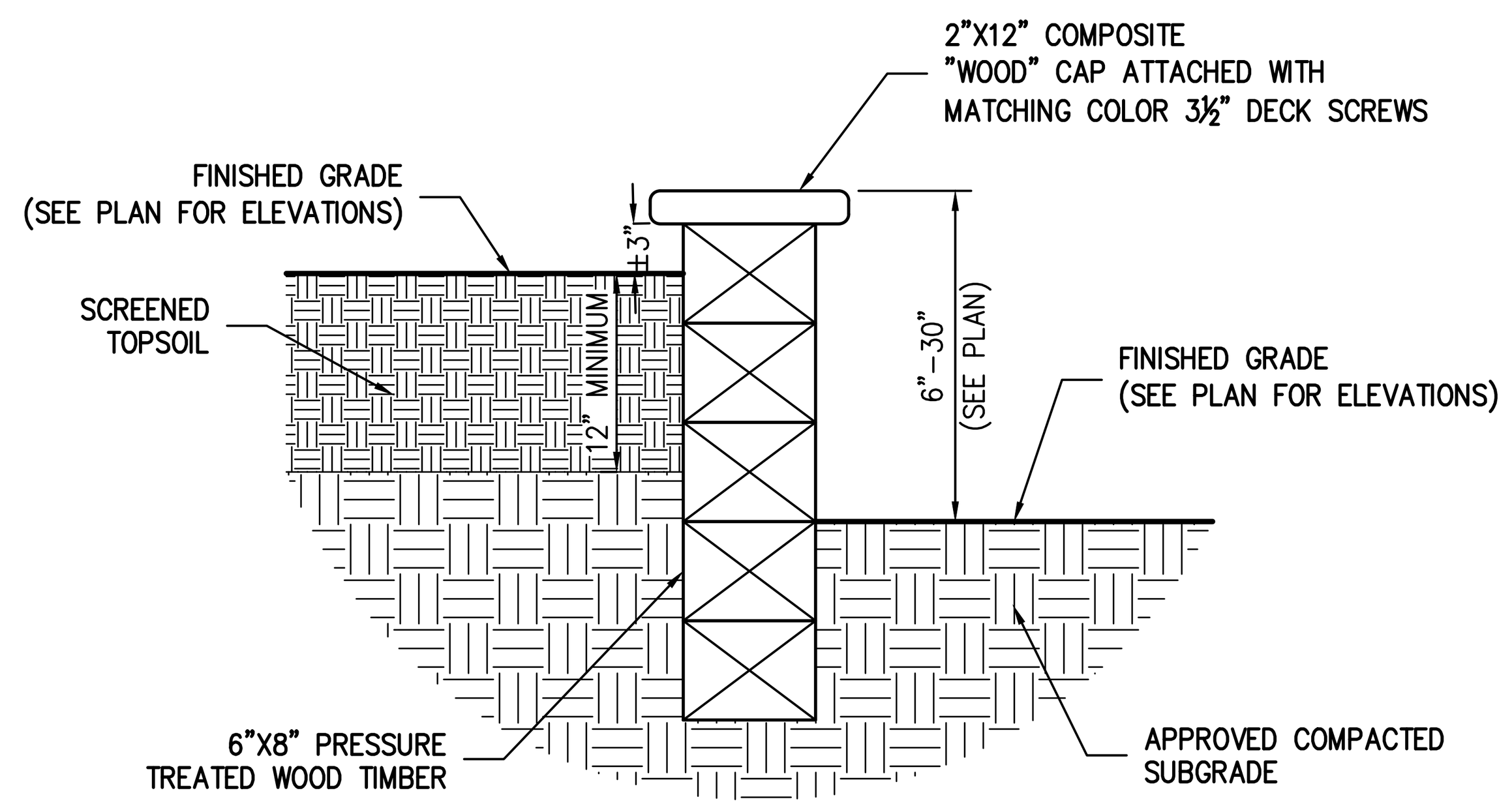


SPECIFICATIONS:

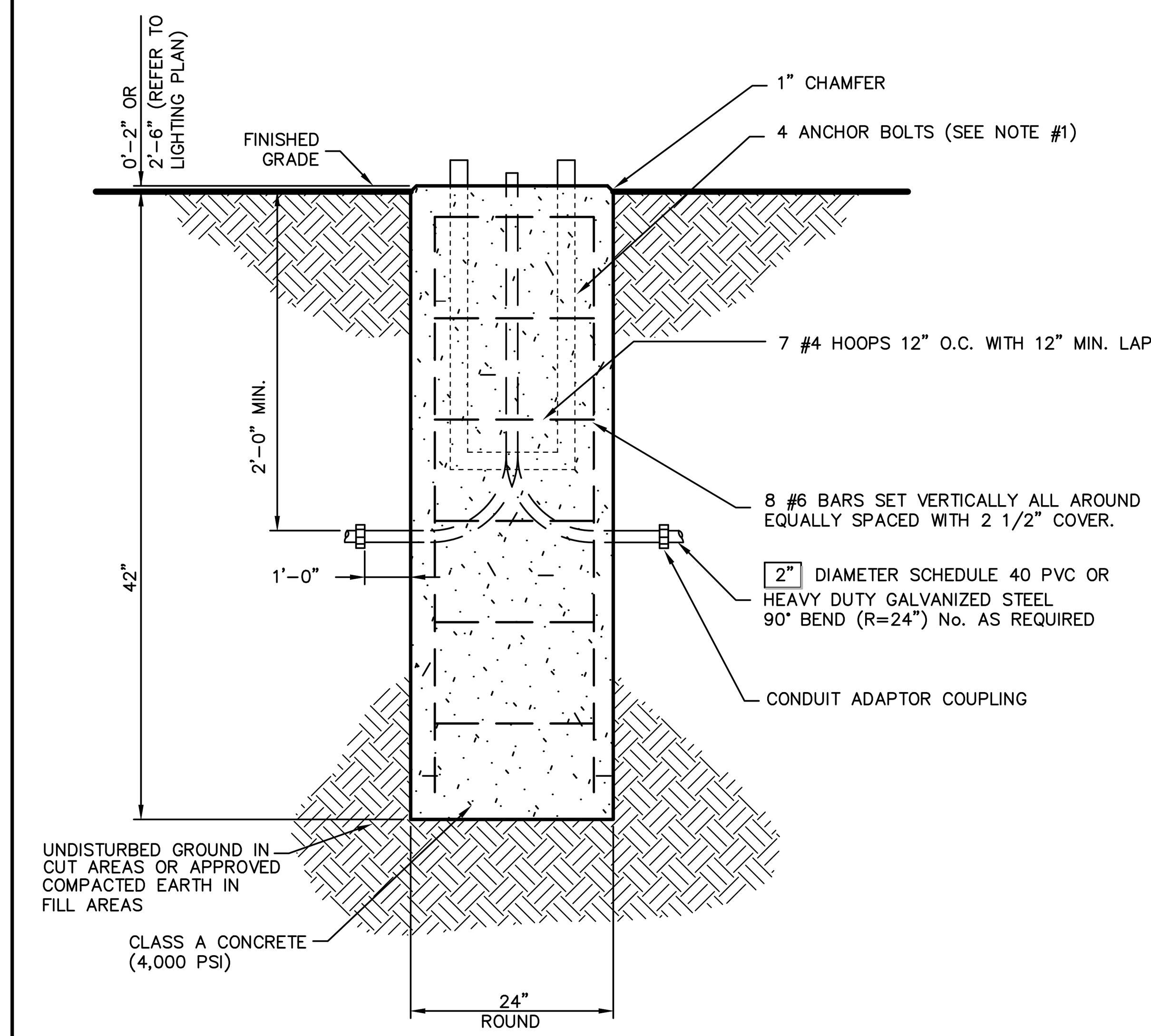
POSTS, RAILS : & PICKETS	COLD FORMED STEEL TUBING INTERIOR & EXTERIOR GALVALUME™ COATING CHROMATE CONVERSION COATING ELECTROSTATICALLY APPLIED THERMALLY BONDED POLYESTER POWDER COATING MINIMUM FILM THICKNESS 2.5 mils	PICKETS:	3/4" x 1 1/2", 16 GAUGE
		FITTINGS:	12 GAUGE STAMP FORGED FACTORY FINISH AS ABOVE
		WELDS:	STAINLESS STEEL
POSTS:	3"x3", 14 GAUGE OR SCH 40 POST SPACING (CENTRE TO CENTRE): 8'-4 3/4"	PANEL:	WIDTH OF 7'-11 3/4" HEIGHT OF 6'
POST FLANGES:	8"x8" x 1/2" 10"x10" x 1/2"	COLOUR:	BLACK
POST CAP:	BALL	WARRANTY:	5 YEAR MAINTENANCE FREE
RAILS:	1 1/2" x 2 1/2", 16 GAUGE		

FENCE TO BE SILVER EAGLE C/W RINGS AS MANUFACTURED BY IRON EAGLE INDUSTRIES, INC. OF MISSISSAUGA, ONTARIO OR APPROVED EQUAL.

DECORATIVE SAFETY FENCE (BLACK ALUMINUM) 50



SEAT/GARDEN WALL 51



NOTES:

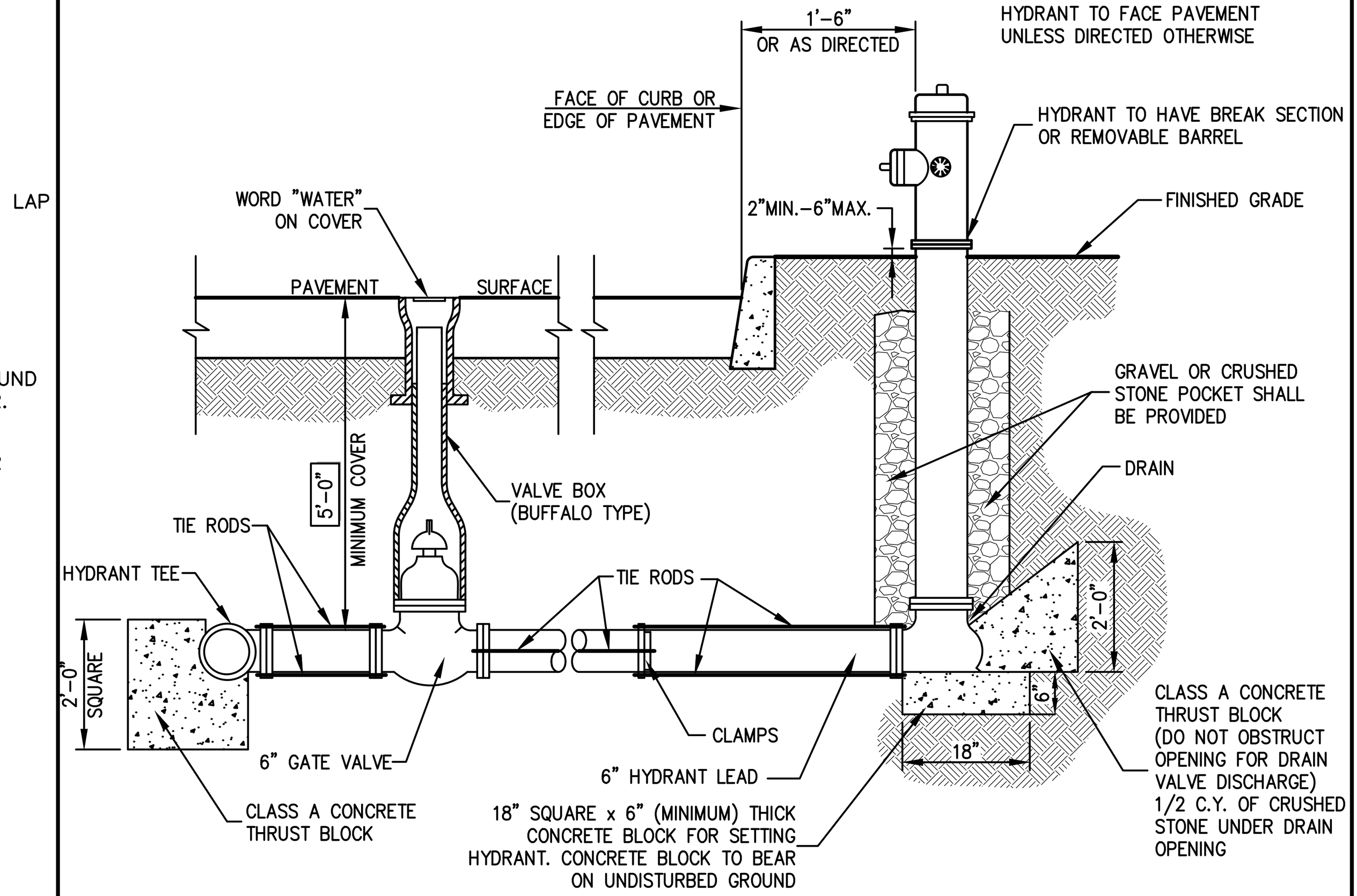
1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND VERIFY ALL ANCHOR BOLT DIMENSIONS (SIZE, BOLT CIRCLE, ETC.) WITH THE CONTRACTOR WHO WILL BE INSTALLING THE LIGHTING STANDARD PRIOR TO INSTALLATION OF THE FOUNDATIONS.
2. CHAMFER EXPOSED EDGES OF ALL FOUNDATIONS.
3. PROVIDE INSULATED GROUNDING BUSHING ON EXPOSED ENDS (IN BASE OF POLE) OF ALL GALVANIZED STEEL BENDS.
4. POLES AND LUMINAIRES WILL BE FURNISHED AND INSTALLED BY OTHERS.

SITE LIGHTING STANDARD FOUNDATION 52
(ROUND)

FIRE HYDRANT TO BE:
MUELLER SUPER CENTURION HYDRANT WITH 5 1/4" VALVE. THE VALVE SHALL BE A MUELLER RESILIENT WEDGE GATE VALVE.

FIRE HYDRANT TO BE PAINTED IN ACCORDANCE WITH:
CITY OF BEACON

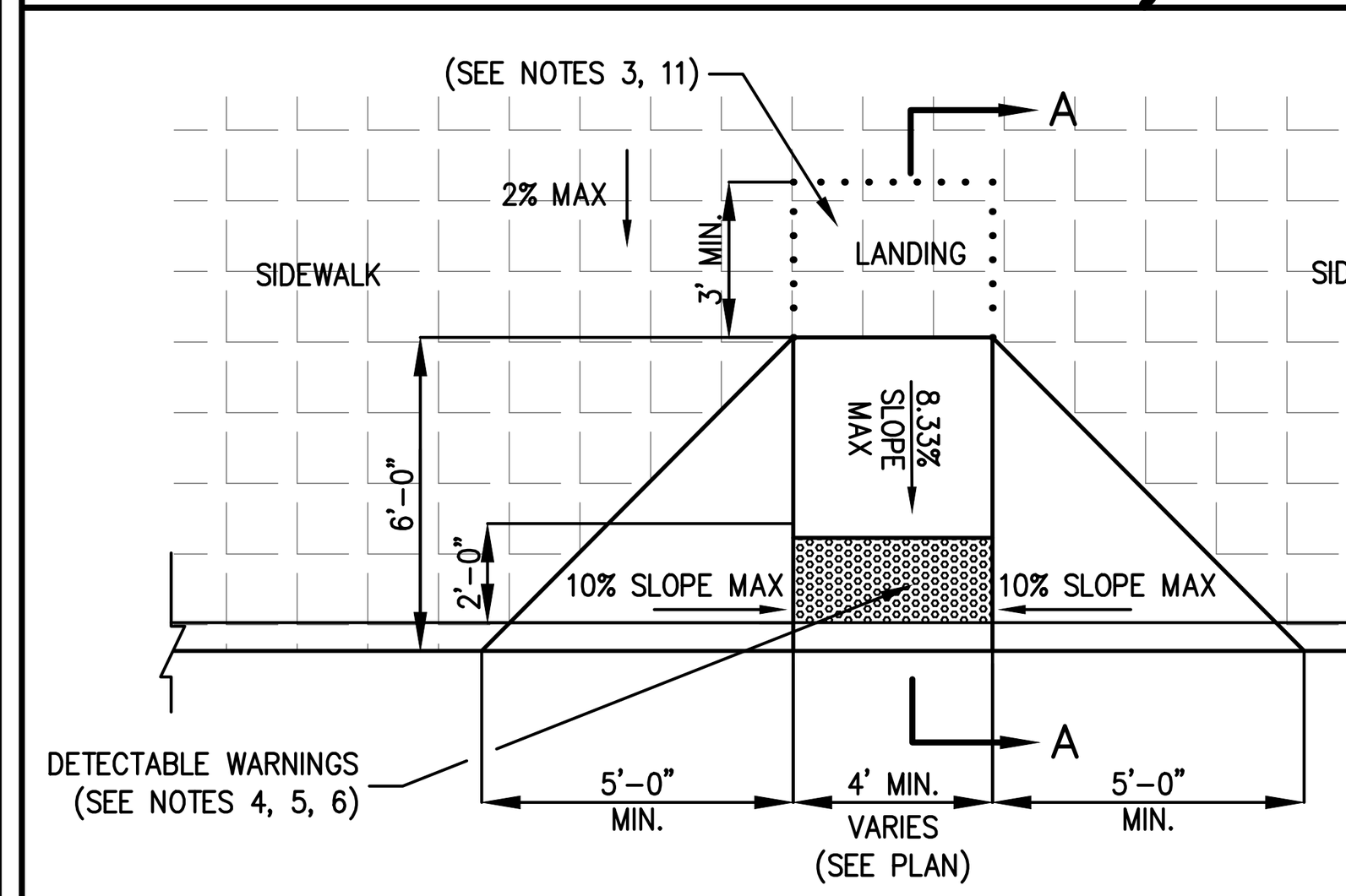
HYDRANT TO FACE PAVEMENT UNLESS DIRECTED OTHERWISE



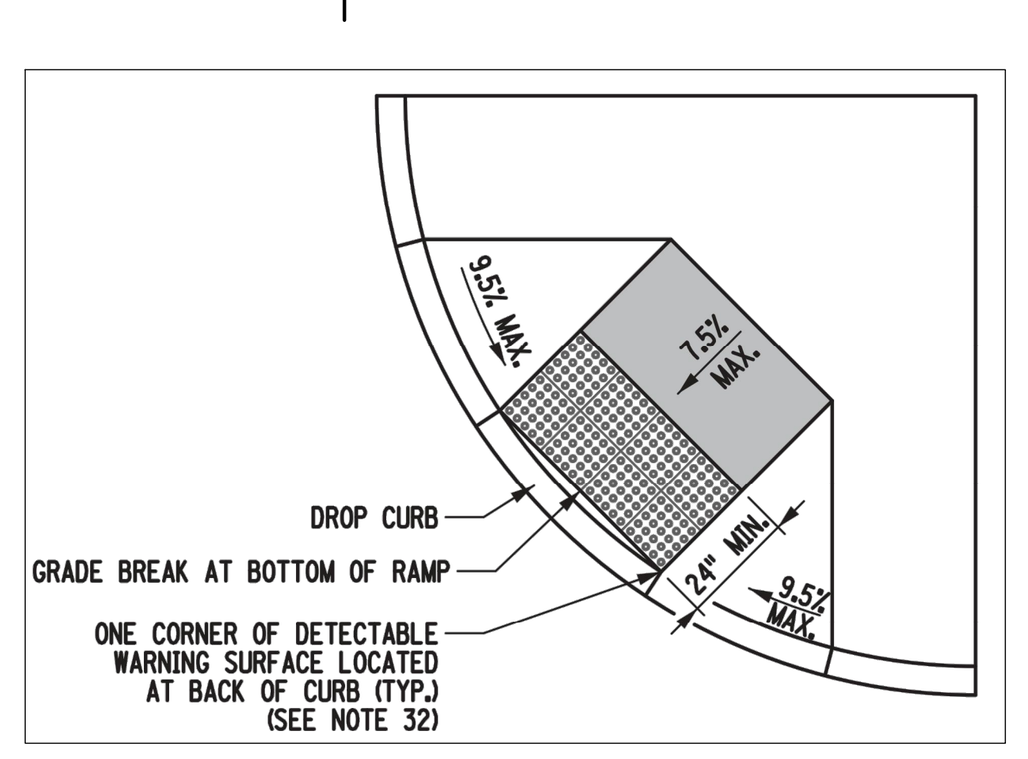
NOTES:

1. ALL CONCRETE THRUST BLOCKS SHALL BEAR ON UNDISTURBED GROUND.
2. RODDING SHALL CONSIST OF TWO 3/4" THREADED STEEL TIE RODS WITH NUTS AND WASHERS COMPLETE WITH ALL NECESSARY AND REQUIRED CLAMPS, CAREFULLY AND THOROUGHLY COVERED WITH ASPHALT OR OTHER ACCEPTABLE CORROSIVE RETARDING MATERIAL. IN GENERAL, THE METHOD AND TYPES OF MATERIAL REQUIRED IN THE INSTALLATION OF CLAMPS AND THE RODS SHALL BE IN ACCORDANCE WITH THE LATEST NATIONAL FIRE PROTECTION STANDARDS.
3. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR WITHIN TEN (10) FEET OF SANITARY SEWERS OR STORM DRAINS.
4. IF GROUND WATER IS FOUND WITHIN SEVEN (7) FEET OF THE SURFACE, HYDRANT DRAINS ARE TO BE PLUGGED. WHEN DRAINS ARE TO BE PLUGGED, THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. SUCH HYDRANTS SHALL BE IDENTIFIED WITH A VISIBLE MARKING AS APPROVED BY THE WATER AUTHORITY.

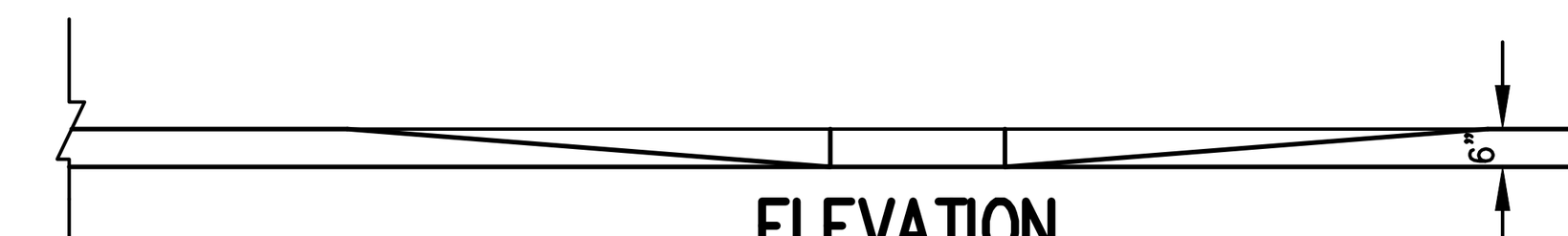
HYDRANT INSTALLATION 53



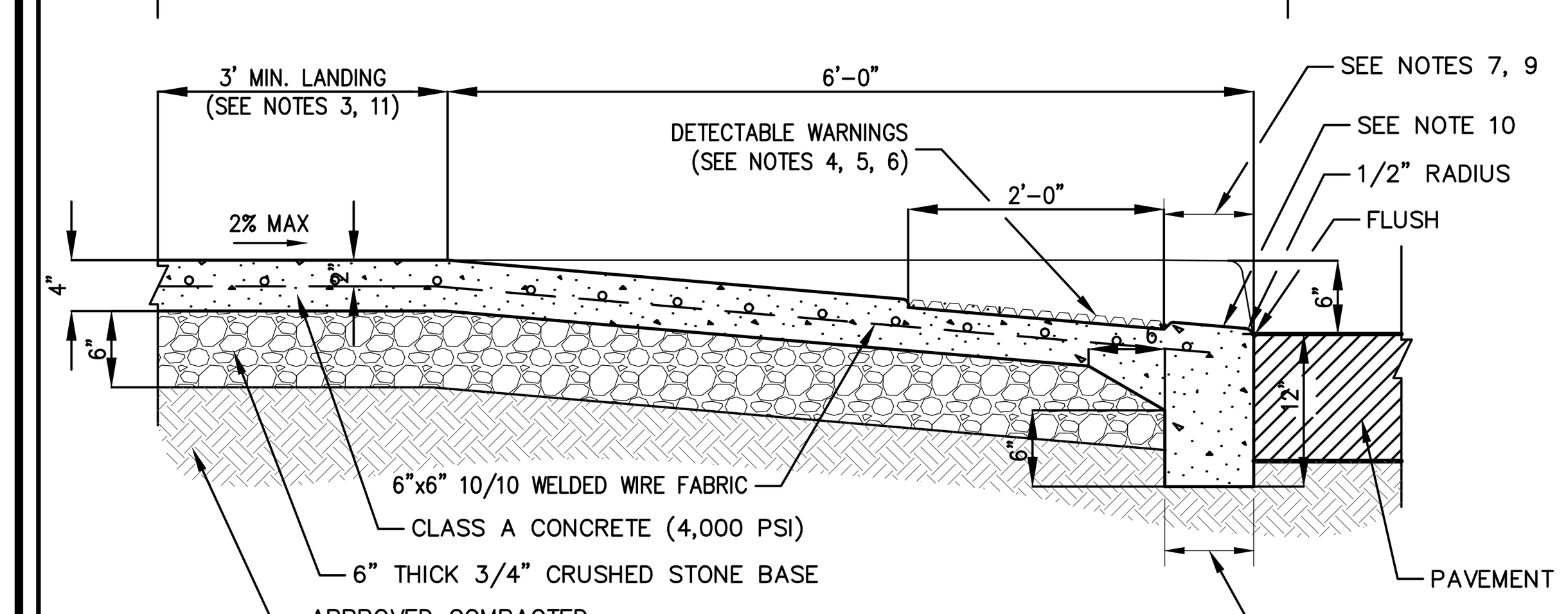
PLAN



OPTION ON CURB



ELEVATION

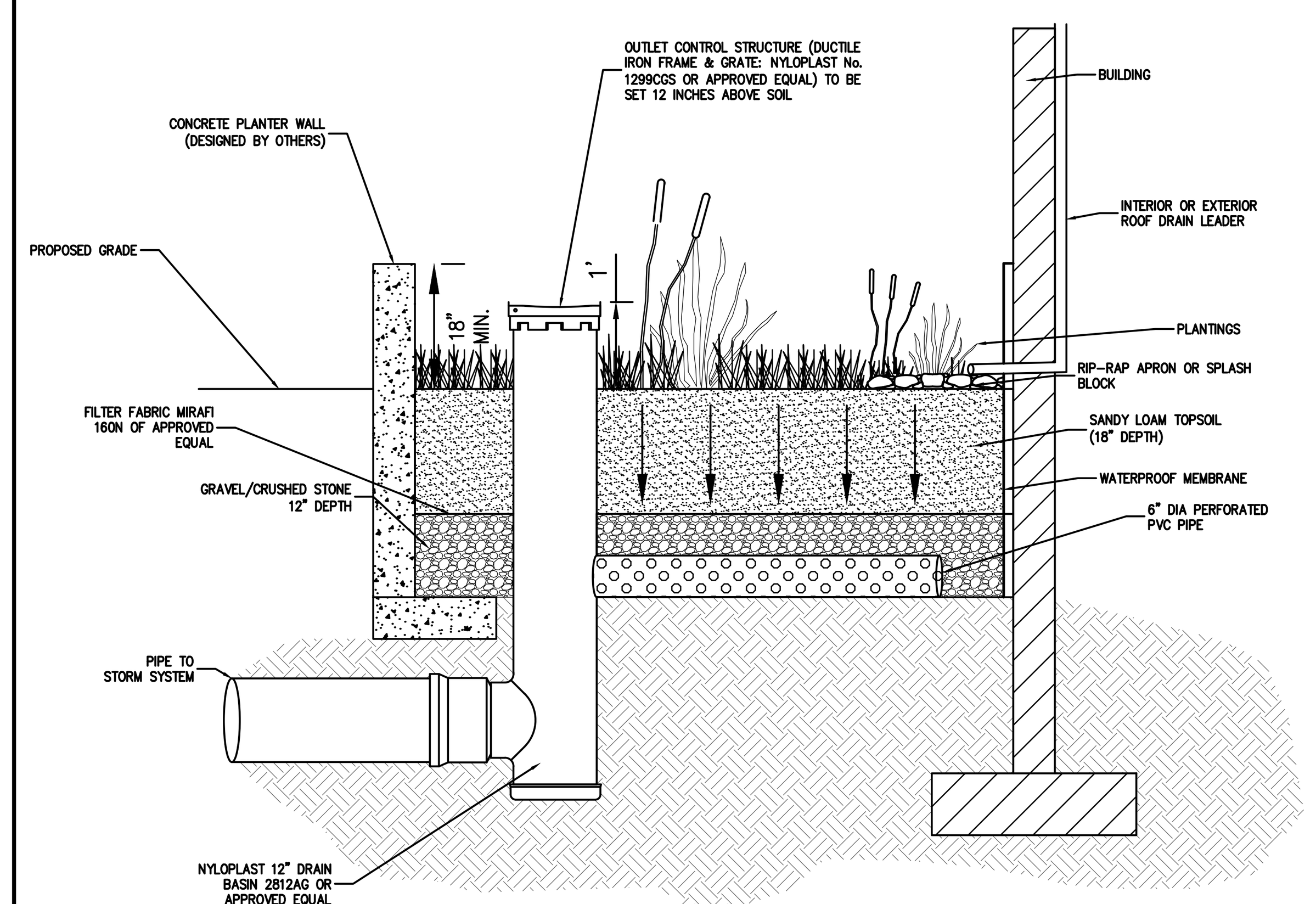


SECTION A-A

NOTES:

1. THE MAXIMUM RUNNING SLOPE OF A CURB RAMP SHALL BE 8.33%, THE MAXIMUM CROSS SLOPE SHALL BE 2.0%, AND WHERE PROVIDED, CURB RAMP FLARES SHALL NOT EXCEED 10% ALONG CURB MEASURED WITH A 2 FOOT SMART LEVEL AS SPECIFIED IN "DIMENSIONAL TOLERANCES IN CONSTRUCTION AND FOR SURFACE ACCESSIBILITY", BY UNITED STATES ACCESS BOARD, LATEST EDITION.
2. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 5%. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS AND STREETS SHALL BE AT THE SAME LEVEL.
3. LANDINGS SHALL BE PROVIDED AT THE TOP OF CURB RAMPS. THE CLEAR LENGTH OF THE LANDING SHALL BE THIRTY-SIX (36) INCHES MINIMUM. THE CLEAR WIDTH OF THE LANDING SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2% IN ANY DIRECTION MEASURED WITH A 2 FOOT SMART LEVEL AS SPECIFIED IN "DIMENSIONAL TOLERANCES IN CONSTRUCTION AND FOR SURFACE ACCESSIBILITY", BY UNITED STATES ACCESS BOARD, LATEST EDITION.
4. RAMPS SHALL HAVE CAST IN PLACE DETECTABLE WARNINGS AS MANUFACTURED BY ARMOR-TILE (OR APPROVED EQUAL) AND SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A BASE DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 1.6 INCHES.
5. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT IN ACCORDANCE WITH THE ADA STANDARDS FOR ACCESSIBLE DESIGN, THE BUILDING CODE, AND APPLICABLE LOCAL LAWS AND REGULATIONS, LATEST EDITIONS.
6. 24" WIDTH OF PANELS TO BE INSTALLED DIRECTLY BEHIND CURB AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
7. SEE PLANS AND DETAILS FOR CURB TYPE AND DIMENSIONS.
8. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
9. CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
10. CONTRACTOR TO ENSURE TOP OF CURB MATCHES SLOPE OF RAMP.
11. CURB RAMPS SHALL NOT BE LOCATED IN AN AREA THAT INTERFERES WITH MINIMUM MANEUVERING CLEARANCES AT DOORS AND GATES.
12. CURB RAMP SHALL HAVE LIGHT BROOM FINISH.
13. THE MINIMUM WIDTH OF A CURB SHALL BE 4'-0".
14. THE GRADE (RUNNING SLOPE) OF A CURB RAMP SHALL BE A MINIMUM OF 5%. THE GRADE FOR DESIGN AND LAYOUT SHALL BE A MAXIMUM OF 7.5% OF THE GRADE FOR ADA ACCESSIBILITY AND WORK ACCEPTANCE SHALL BE A MAXIMUM OF 8.3%.
15. THE CROSS SLOPE OF THE CURB RAMP SHALL BE AS FLAT AS POSSIBLE AND STILL PROVIDE POSITIVE DRAINAGE. THE CROSS SLOPE OF A CURB RAMP SHALL BE 1.5% MAXIMUM FOR DESIGN AND LAYOUT, AND 2% MAXIMUM FOR WORK ACCEPTANCE.
16. WHERE A PEDESTRIAN CIRCULAR PATH CROSSES THE CURB RAMP, FLARED SIDES SHALL BE INSTALLED WITH A MAXIMUM SLOPE OF 9.5% FOR DESIGN AND LAYOUT, AND 10% MAXIMUM FOR WORK ACCEPTANCE. THE SLOPE OF FLARED SIDES IS MEASURED PARALLEL TO THE CURB LINE.
17. WHERE A CHANGE IN DIRECTION IS REQUIRED TO UTILIZE A CURB RAMP, A TURNING SPACE SHALL BE PROVIDED AT THE BASE OR THE TOP OF A CURB RAMP AS APPLICABLE. TURNING SPACES SHALL BE PERMITTED TO OVERLAP CLEAR SPACES.
18. DETECTABLE WARNING SURFACES SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS ON PEDESTRIAN ACCESS ROUTES:
    A. CURB RAMPS AND BLENDED TRANSITIONS AT PEDESTRIAN STREET CROSSINGS.
    B. PEDESTRIAN REFUGE ISLANDS (WHERE THE LENGTH OF THE PEDESTRIAN ACCESS ROUTE ACROSS THE REFUGE ISLAND IS GREATER THAN OR EQUAL TO 6 FEET).
    C. PEDESTRIAN AT-GRADE RAIL CROSSINGS NOT LOCATED WITHIN A STREET OR HIGHWAY.
19. DETECTABLE WARNING SURFACES SHALL BE PROVIDED WHERE THE PEDESTRIAN ACCESS ROUTE CROSSES DRIVEWAYS WITH SIGNAL, YIELD OR STOP CONTROL. DETECTABLE WARNING SURFACES SHALL NOT BE PROVIDED AT CROSSINGS OR UNCONTROLLED DRIVEWAY APRONS.
20. SOME DETECTABLE WARNING PRODUCTS REQUIRE A CONCRETE BORDER FOR PROPER INSTALLATION. IF REQUIRED, THE BORDER SHALL NOT EXCEED 2". WHERE THE BACK OF CURB EDGE IS TOOLED TO PROVIDE A RADIUS, THE BORDER DIMENSION SHALL BE MEASURED FROM THE INSIDE EDGE OF THE CURB RADIUS.

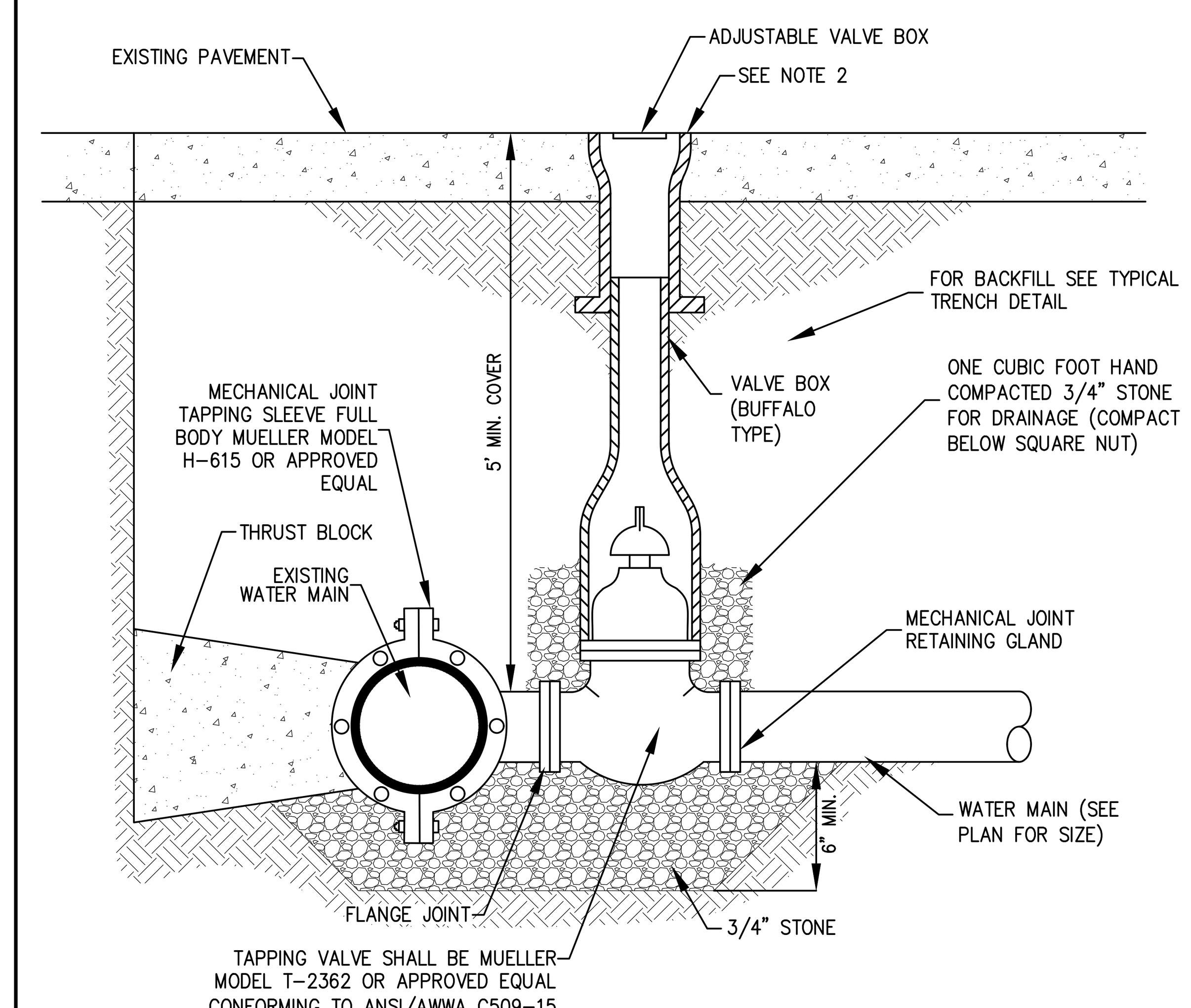
PERPENDICULAR CURB RAMP 54
(WITH DETECTABLE WARNING)



NOTES:

1. FLOW-THROUGH AND INFILTRATION STORMWATER PLANTERS SHOULD NOT RECEIVE DRAINAGE FROM IMPERVIOUS AREAS GREATER THAN 15,000 SQUARE FEET.
2. INFILTRATION PLANTERS SHOULD BE LOCATED A MINIMUM DISTANCE OF TEN FEET FROM STRUCTURES.
3. RIP-RAP MUST BE PLACED BELOW DOWNSPOUTS OR WHERE STORMWATER ENTERS THE PLANTER TO PREVENT EROSION.
4. STORMWATER PLANTERS ARE DESIGNED TO POND WATER LESS THEN 12 HOURS, WITH A MAXIMUM OF PONDING DEPTH OF 12 INCHES.
5. FLOW-THROUGH AND INFILTRATION PLANTERS MUST HAVE A MINIMUM WIDTH OF 1.5 AND 2.5 FEET, RESPECTIVELY.
6. SOILS SPECIFICATIONS FOR THE STORMWATER PLANTERS GROWING MEDIUM SHOULD ALLOW AN INFILTRATION RATE OF 2 INCHES PER HOUR, AND 5 INCHES AN HOUR FOR THE DRAINAGE LAYER.
7. SOIL COMPACTION MUST BE NO GREATER THAN 85% IN THE PLANTER.
8. THE GROWING MEDIUM DEPTH FOR ALL THREE STORMWATER PLANTERS TYPES SHOULD BE AT LEAST 18 INCHES. GROWING MEDIA SHOULD BE A UNIFORM MIXTURE OF 70% SAND (100% PASSING THE 1-INCH SIEVE AND 5% PASSING THE NO. 200 SIEVE) AND 30% TOPSOIL WITH AN AVERAGE OF 5% ORGANIC MATERIAL, SUCH AS COMPOST OR PEAT, FREE OF STONES, ROOTS AND WOODY DEBRIS AND ANIMAL WASTE.
9. FOR INFILTRATION AND FLOW-THROUGH PLANTERS THE DRAINAGE LAYER SHOULD HAVE A MINIMUM DEPTH OF 12 INCHES. DRAINAGE LAYER SHOULD BE CLEAN SAND WITH 100% PASSING THE 1-INCH SIEVE AND 5% PASSING THE NO. 200 SIEVE.
10. A MINIMUM INFILTRATION DEPTH OF 3 FEET SHOULD BE PROVIDED BETWEEN THE BOTTOM OF THE INFILTRATION PRACTICE AND ANY IMPERMEABLE BOUNDARIES, SUCH AS THE SEASONAL HIGH GROUNDWATER LEVEL OR ROCK.
11. INFILTRATION PLANTERS MUST BE DESIGNED AND CONSTRUCTED WITH NO LONGITUDINAL OR LATERAL SLOPE.

FLOW-THROUGH STORMWATER PLANTER 55
(WITH UNDER DRAIN)



NOTES:

1. MAXIMUM BRANCH TAP IS MAIN DIAMETER - 2".
2. PROVIDE TWO LAYERS OF 15# ASPHALT FELT ROOFING PAPER BETWEEN VALVE BOX AND CONCRETE COLLAR TO PREVENT CONCRETE FROM ADHERING TO RISER.

WET TAP MAIN CONNECTION 56

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
6.	REVISED PER CITY COMMENTS	05/31/2022
7.	REVISED PER CITY COMMENTS	06/28/2022
8.	REVISED PER CITY COMMENTS	08/30/2022
9.	REVISED PER CITY COMMENTS	09/27/2022

Previous Editions Obsolete

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JMC

CONSTRUCTION DETAILS

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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Drawn: BMS		Approved: SS	
Scale:	NOT TO SCALE		
Date:	10/29/2019		
Project No:	18119		
18119-DETAILS	C-907	-	

Drawing No: C-907 (Sheet 27 OF 29)

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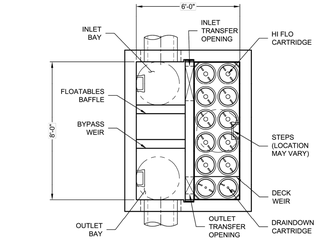
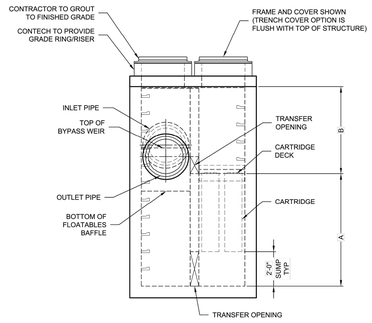
NOT FOR CONSTRUCTION

JELLYFISH FILTER



PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)



ELEVATION VIEW

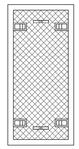
JELLYFISH DESIGN NOTES

JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD

CARTRIDGE SELECTION				
CARTRIDGE LENGTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE HI-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	1.96	1.47	0.98	0.54
DECK TO INSIDE TOP (MIN) (B)	5.00	4.00	4.00	4.00



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.



24" TRENCH COVER
(LENGTH VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	*
WATER QUALITY FLOW RATE (cfs)	*
PEAK FLOW RATE (cfs)	*
RETURN PERIOD OF PEAK FLOW (yrs)	*
# OF CARTRIDGES REQUIRED (HF / DD)	*
CARTRIDGE LENGTH	*

PIPE DATA:	I.E.	MAT'L	DIA	SLOPE %	HGL
INLET #1	*	*	*	*	*
INLET #2	*	*	*	*	*
OUTLET	*	*	*	*	*

SEE GENERAL NOTES 6-7 FOR INLET AND OUTLET HYDRAULIC AND SIZING REQUIREMENTS.

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.ContechES.com
3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0' - 10', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.
6. OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
7. THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.
8. NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

INSTALLATION NOTES:
A. ANY SUB-BASE/ BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).
D. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.

Jellyfish® Filter
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING: U.S. PATENT NO. 7,425,262; 7,615,155; 8,123,935; OTHER INTERNATIONAL PATENTS PENDING

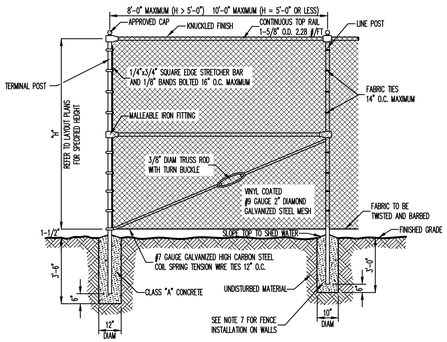
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

JELLYFISH JFPD0806
STANDARD DETAIL
PEAK DIVERSION CONFIGURATION

57

SAFETY FENCE (BLACK VINYL COATED CHAIN LINK FENCE)

"H" (FT)	LINE POST	TERMINAL POST
5' OR LESS	2" O.D./2.72 #/FT	2.5" O.D./3.65 #/FT
> 5'-0"	2.5" O.D./3.65 #/FT	3" O.D./5.79 #/FT



NOTES:

REQUIRED MAINTENANCE FOR THE JELLYFISH FILTER IS BASED UPON RESULTS OF THE MOST RECENT INSPECTION, HISTORICAL MAINTENANCE RECORDS, OR THE SITE SPECIFIC WATER QUALITY MANAGEMENT PLAN; WHICHEVER IS MORE FREQUENT. IN GENERAL, MAINTENANCE REQUIRES SOME COMBINATION OF THE FOLLOWING:

1. SEDIMENT REMOVAL FOR DEPTHS REACHING 12 INCHES OR GREATER, OR WITHIN 3 YEARS OF THE MOST RECENT SEDIMENT CLEANING, WHICHEVER OCCURS SOONER.
2. FLOATABLE TRASH, DEBRIS AND OIL REMOVAL.
3. DECK CLEANED AND FREE FROM SEDIMENT.
4. FILTER CARTRIDGES RINSED AND RE-INSTALLED AS REQUIRED BY THE MOST RECENT INSPECTION RESULTS, OR WITHIN 12 MONTHS OF THE MOST RECENT FILTER RINSING, WHICHEVER OCCURS SOONER.
5. REPLACE TENTACLES IF RINSING DOES NOT RESTORE ADEQUATE HYDRAULIC CAPACITY, REMOVE ACCUMULATED SEDIMENT, OR IF DAMAGED OR MISSING. IT IS RECOMMENDED THAT TENTACLES SHOULD REMAIN IN SERVICE NO LONGER THAN 5 YEARS BEFORE REPLACEMENT.
6. DAMAGED OR MISSING CARTRIDGE DECK COMPONENTS MUST BE REPAIRED OR REPLACED AS INDICATED BY RESULTS OF THE MOST RECENT INSPECTION.
7. THE UNIT MUST BE CLEANED OUT AND FILTER CARTRIDGES INSPECTED IMMEDIATELY AFTER AN UPSTREAM OIL, FUEL, OR CHEMICAL SPILL. Filter CARTRIDGE TENTACLES SHOULD BE REPLACES IF DAMAGED OR COMPROMISED BY THE SPILL.

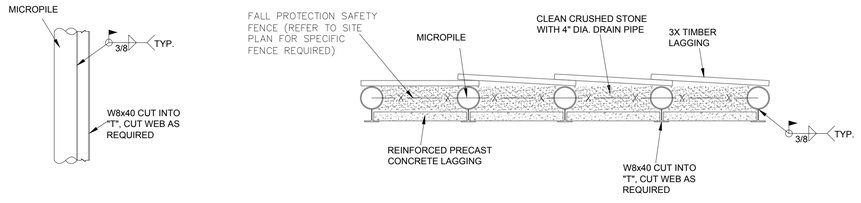
NOTES:

1. ALL POSTS, RAILS, FABRIC AND ACCESSORIES SHALL BE VINYL COATED. COLOR OF VINYL COATING SHALL BE BLACK.
2. POST AND RAILS SHALL BE STANDARD FULL WEIGHT VINYL COATED GALVANIZED SCHEDULE 40 PIPE MANUFACTURED AND GALVANIZED IN ACCORDANCE WITH ASTM A-120. ALL MATERIALS SHALL BE NEW AND FIRST CLASS AND SHALL NOT INCLUDE RECONDITIONED OR REROLLED PIPE.
3. FITTINGS SHALL BE VINYL COATED MALLEABLE IRON FITTINGS CONFORMING TO THE REQUIREMENTS OF ASTM A-47 GALVANIZED IN ACCORDANCE WITH ASTM A-153.
4. FABRIC SHALL BE 9 GAUGE GALVANIZED 2" MESH, WHICH SHALL BE VINYL CLAD IN CONFORMANCE WITH THE REQUIREMENTS OF AASHTO M-181, TYPE III. VINYL COATING SHALL BE FIRMLY AND CONTINUOUSLY EXTRUSION BONDED TO THE GALVANIZED STEEL WIRE. TOP SELVAGE SHALL HAVE KNUCKLED FINISH.
5. TENSION WIRE SHALL BE VINYL COATED 7 GAUGE MEETING THE REQUIREMENTS OF ASTM A-641 AS MODIFIED HEREIN. THE TENSILE STRENGTH SHALL BE AT LEAST 80,000 PSI WITH A GALVANIZED COATING OF NOT LESS THAN 0.7 OZ. PER SQUARE FOOT.
6. FABRIC TIES SHALL BE MINIMUM 9 GAUGE VINYL COATED GALVANIZED STEEL OR ALUMINUM. MINIMUM SPACING SHALL BE AS FOLLOWS:
   A. 14" O.C. AT LINE POSTS
   B. 24" O.C. AT TOP RAIL
   C. 12" O.C. AT TENSION WIRE
7. WHERE CHAIN LINK FENCE IS TO BE INSTALLED ON WALLS, THE FENCE POSTS SHALL BE IMBEDDED A MINIMUM OF TWELVE (12) INCHES IN THE WALL. NEWLY CONSTRUCTED WALLS SHALL BE PROVIDED WITH PROPER SIZE SLEEVES TO ACCOMMODATE FENCE POSTS. FENCE POSTS SHALL BE SECURELY GROUTED IN PLACE USING AN APPROVED HIGH STRENGTH, NON-SHRINKING, NON-STAINING GROUT.
8. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT SHOP AND ERECTION DRAWINGS INDICATING MATERIALS, SIZES AND DIMENSIONS OF FENCING TO THE OWNER'S FIELD REPRESENTATIVE PRIOR TO ORDERING MATERIALS FOR HIS REVIEW AND APPROVAL.
9. PRIOR TO INSTALLATION OF THE FENCE, THE CONTRACTOR SHALL CHECK THE FENCE LAYOUT WITH THE OWNER'S FIELD REPRESENTATIVE WHO MUST APPROVE THE LAYOUT BEFORE ANY OF THE WORK IS TO BE DONE.
10. REFER TO SITE PLAN FOR HEIGHT AND LOCATIONS WHERE PRIVACY SLATS ARE REQUIRED

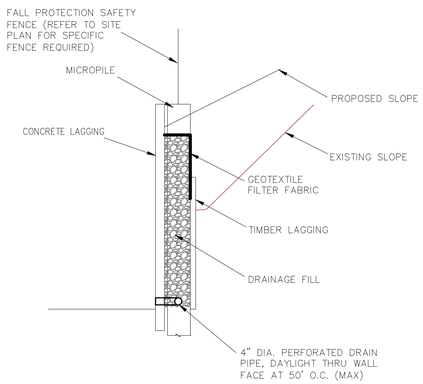
58

SOLDIER PILE RETAINING WALL

(FOR REFERENCE ONLY)



PLAN



TYPICAL SECTION



EXAMPLE IMAGE

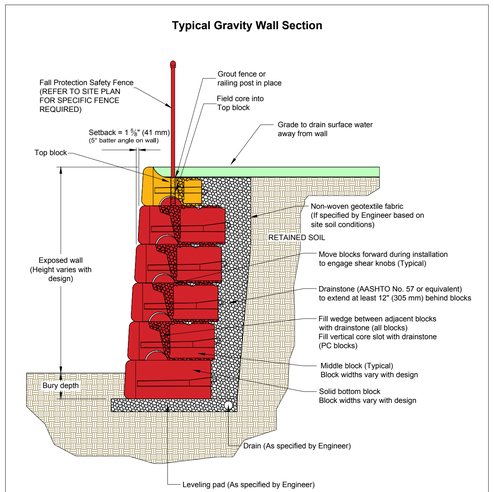
NOTE:

1. RETAINING WALLS THAT INCLUDE FALL PROTECTION SHALL USE ALUMINUM DECORATIVE FENCE AND INSTALL PER MANUFACTURERS RECOMMENDATIONS.

59

REDI ROCK GRAVITY WALL

(FOR REFERENCE ONLY)



This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site.

DRAWN BY:	JRJ	TITLE:	Typical Gravity Wall Detail
APPROVED BY:	JRJ		
DATE:	17MAR2016	FILE:	1 Typical Gravity Wall Detail 031716.dwg
SHEET:	1 of 1		

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(5481 US 31 SOUTH, CHARLEVOIX, MI 49720
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EXAMPLE IMAGE

NOTE:

1. RETAINING WALLS THAT INCLUDE FALL PROTECTION SHALL USE FENCE TYPE DESIGNATED ON THE SITE PLAN AND SPECIFIED IN THE DETAILS AND SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.

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No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
6.	REVISED PER CITY COMMENTS	05/31/2022
7.	REVISED PER CITY COMMENTS	06/28/2022
8.	REVISED PER CITY COMMENTS	08/30/2022
9.	REVISED PER CITY COMMENTS	09/27/2022

Previous Editions Obsolete

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
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JMC

CONSTRUCTION DETAILS

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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STATE OF NEW YORK
STEPHEN SPINA
LICENSED PROFESSIONAL ENGINEER
085983

Drawn:	BMS	Approved:	SS
Scale:	NOT TO SCALE		
Date:	09/29/2020		
Project No:	18119		
18119-DETAILS	C-908	-	

Drawing No:
C-908
(Sheet 28 OF 29)

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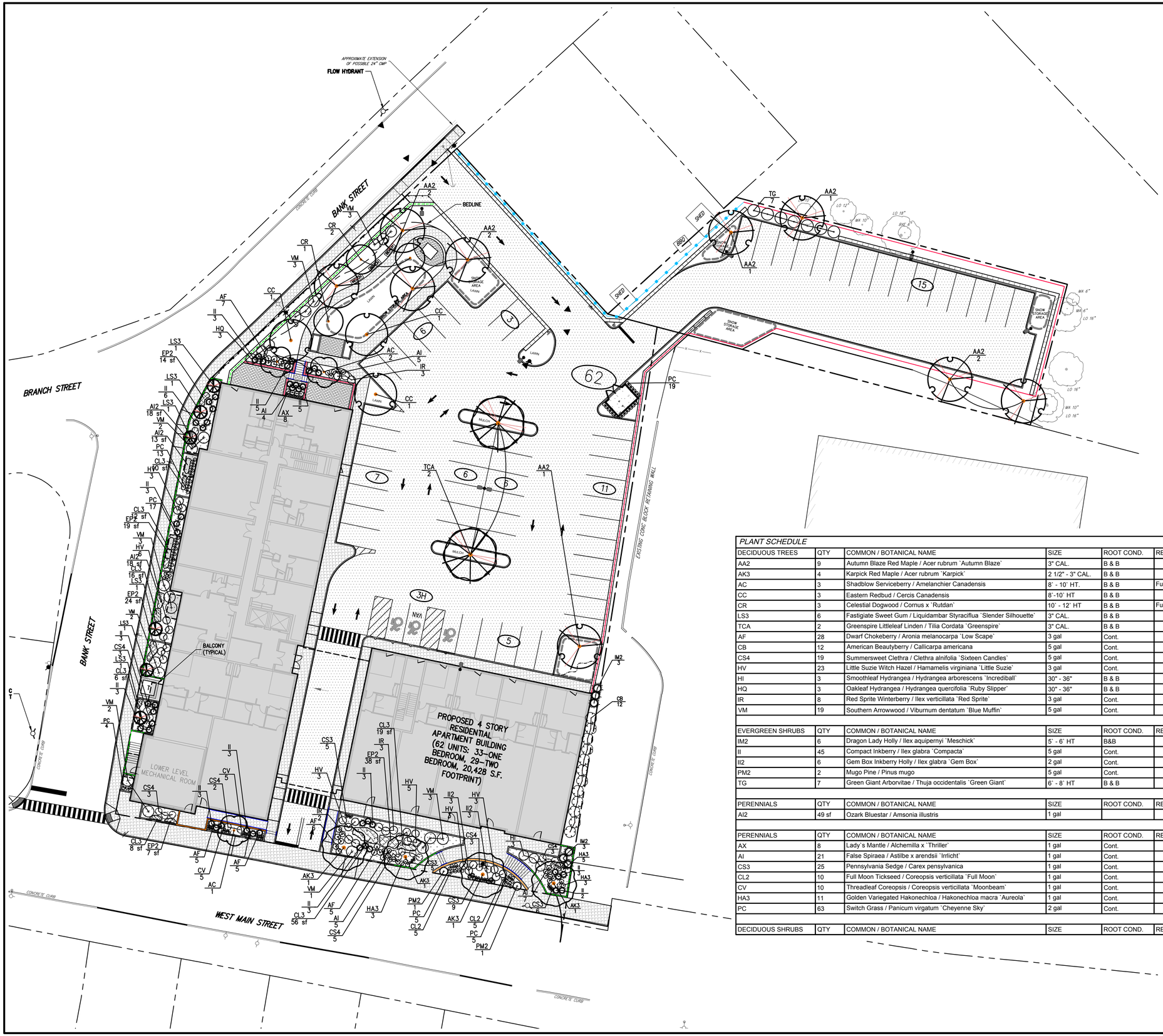

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NOT FOR CONSTRUCTION

LEGEND

- EXISTING TREE AND DESIGNATION
- PROPOSED DECIDUOUS TREE
- PROPOSED FLOWERING TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED SHRUBS
- PROPOSED CONCRETE WALL WITH BRICK VENEER (42" ABOVE SIDEWALK)
- PROPOSED BLACK VINYL COATED CHAIN LINK FENCE WITH PRIVACY SLATS
- PROPOSED DECORATIVE SAFETY FENCE
- PROPOSED PRIVACY FENCE
- PROPOSED HANDRAILS

NOTES:

1. ALL PLANT MATERIAL SHALL BE FIRST QUALITY STOCK. PLANTED MATERIAL AND METHODS OF INSTALLATION SHALL CONFORM TO THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION, AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION.
2. ALL AREAS OF THE SITE NOT OCCUPIED BY BUILDING OR PAVEMENT AND NOT SPECIFIED AS BEING PLANTED WITH TREES, SHRUBS OR GROUND COVER SHALL BE LAWN.
3. ALL PLANTING BEDS SHALL BE MULCHED WITH 3" OF BROWN MULCH. MULCH SHALL BE CLEAN, NON-DYED, TOXIC FREE, SHREDDED HARDWOOD.
4. PLANT MATERIALS AS SPECIFIED ON THE DRAWINGS AND DELIVERED TO THE SITE SHALL BE NURSERY GROWN AND CERTIFIED TRUE TO THEIR GENUS, SPECIES AND VARIETY. SUBSTITUTIONS ARE NOT PERMITTED WITHOUT THE PROJECT LANDSCAPE ARCHITECTS WRITTEN APPROVAL.
5. ALL LANDSCAPING SHALL CONTINUE TO BE MAINTAINED IN A HEALTHY GROWING CONDITION THROUGHOUT THE DURATION OF THE PROJECT. ANY PLANTING NOT SO MAINTAINED SHALL BE REPLACED WITH NEW PLANTS AT THE BEGINNING OF THE NEXT, IMMEDIATELY FOLLOWING, GROWING SEASON.
6. ALL TREES AND SHRUBS SHALL BE PRUNED AND SHAPED AND BE SUBJECT TO THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT AND GOVERNMENTAL AUTHORITIES HAVING JURISDICTION. ANY TREES AND SHRUBS THAT WILL POSSIBLY MATURE AND GROW TOWARDS THE BUILDING, LIGHT POLES, RETAINING WALLS, FENCES, PARKING SPACES, ETC. SHALL BE TRIMMED/PRUNED BACK APPROPRIATELY.
7. PLANTING STOCK SHALL BE WELL-BRANCHED AND WELL-FORMED, SOUND, VIGOROUS, HEALTHY, FREE FROM DISEASE, SUN-SCALE, WINDBURN, ABRASION, AND HARMFUL INSECTS OR INSECTS EGGS; AND SHALL HAVE HEALTHY, NORMAL UNBROKEN ROOT SYSTEMS. DECIDUOUS TREES AND SHRUBS SHALL BE SYMMETRICALLY DEVELOPED, OF UNIFORM HABIT OF GROWTH, WITH STRAIGHT TRUNKS OR STEMS, AND FREE FROM OBJECTIONABLE DISFIGUREMENTS. EVERGREEN TREES AND SHRUBS SHALL HAVE WELL-DEVELOPED SYMMETRICAL TOPS WITH TYPICAL SPREAD OF BRANCHES FOR EACH PARTICULAR SPECIES OR VARIETY. ONLY VINES AND GROUND COVER PLANTS WELL ESTABLISHED IN REMOVAL CONTAINERS, INTEGRAL CONTAINERS, OR FORMED HOMOGENEOUS SOIL SECTIONS SHALL BE USED. PLANTS SHALL BE GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT.
8. ALL STOCK SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN STOCK, UNLESS OTHERWISE SPECIFIED. BARE ROOT STOCK OF ANY KIND IS UNACCEPTABLE UNLESS SPECIFIED.
9. ALL PLANTING BEDS, LAWNS AND LANDSCAPED AREAS SHALL RECEIVE A MINIMUM 4" THICK LAYER OF TOPSOIL, UNLESS OTHERWISE SPECIFIED.

PLANT SCHEDULE

DECIDUOUS TREES	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT COND.	REMARKS
AA2	9	Autumn Blaze Red Maple / Acer rubrum `Autumn Blaze`	3" CAL.	B & B	
AK3	4	Karpick Red Maple / Acer rubrum `Karpick`	2 1/2" - 3" CAL.	B & B	
AC	3	Shadblow Serviceberry / Amelanchier Canadensis	8' - 10' HT.	B & B	Full Heavy Multi Ste
CC	3	Eastern Redbud / Cercis Canadensis	8'-10' HT	B & B	
CR	3	Celestial Dogwood / Cornus x `Rutdan`	10' - 12' HT	B & B	Full Heavy
LS3	6	Fastigiate Sweet Gum / Liquidambar Styraciflua `Slender Silhouette`	3" CAL.	B & B	
TCA	2	Greenspire Littleleaf Linden / Tilia Cordata `Greenspire`	3" CAL.	B & B	
AF	28	Dwarf Chokeberry / Aronia melanocarpa `Low Scape`	3 gal	Cont.	
CB	12	American Beautyberry / Callicarpa americana	5 gal	Cont.	
CS4	19	Summersweet Clethra / Clethra alnifolia `Sixteen Candles`	5 gal	Cont.	
HV	23	Little Suzie Witch Hazel / Hamamelis virginiana `Little Suzie`	3 gal	Cont.	
HI	3	Smoothleaf Hydrangea / Hydrangea arborescens `Incrediball`	30" - 36"	B & B	
HQ	3	Oakleaf Hydrangea / Hydrangea quercifolia `Ruby Slipper`	30" - 36"	B & B	
IR	8	Red Sprite Winterberry / Ilex verticillata `Red Sprite`	3 gal	Cont.	
VM	19	Southern Arrowwood / Viburnum dentatum `Blue Muffin`	5 gal	Cont.	
EVERGREEN SHRUBS	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT COND.	REMARKS
IM2	6	Dragon Lady Holly / Ilex aquipernyi `Meschick`	5` - 6` HT	B&B	
II	45	Compact Inkberry / Ilex glabra `Compacta`	5 gal	Cont.	
II2	6	Gem Box Inkberry Holly / Ilex glabra `Gem Box`	2 gal	Cont.	
PM2	2	Mugo Pine / Pinus mugo	5 gal	Cont.	
TG	7	Green Giant Arborvitae / Thuja occidentalis `Green Giant`	6` - 8` HT	B & B	
PERENNIALS	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT COND.	REMARKS
AI2	49 sf	Ozark Bluestar / Amsonia illustris	1 gal		
PERENNIALS	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT COND.	REMARKS
AX	8	Lady`s Mantle / Alchemilla x `Thriller`	1 gal	Cont.	
AI	21	False Spiraea / Astilbe x arendsii `Irricht`	1 gal	Cont.	
CS3	25	Pennsylvania Sedge / Carex pensylvanica	1 gal	Cont.	
CL2	10	Full Moon Tickseed / Coreopsis verticillata `Full Moon`	1 gal	Cont.	
CV	10	Threadleaf Coreopsis / Coreopsis verticillata `Moonbeam`	1 gal	Cont.	
HA3	11	Golden Variegated Hakonechloa / Hakonechloa macra `Aureola`	1 gal	Cont.	
PC	63	Switch Grass / Panicum virgatum `Cheyenne Sky`	2 gal	Cont.	
DECIDUOUS SHRUBS	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT COND.	REMARKS

APPLICANT/OWNER:
FARRELL COMMUNITIES BEACON LLC
PO BOX 14
BRIDGEHAMPTON, NY 11932

ARCHITECT:
ARYEH SIEGEL ARCHITECT
84 MASON CIRCLE
BEACON, NY 12508

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
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120 BEDFORD ROAD • ARMONK, NY 10504
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LANDSCAPING PLAN

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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STATE OF NEW YORK · STEPHEN SPINA · LICENSED PROFESSIONAL ENGINEER · 085983

No.	Revision	Date	By
3.	REVISED PER CITY COMMENTS	09/29/2020	AH
4.	REVISED PER CITY COMMENTS	07/27/2021	BMS
5.	REVISED PER CITY COMMENTS	03/25/2022	BMS
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7.	REVISED PER CITY COMMENTS	06/28/2022	BMS
8.	REVISED PER CITY COMMENTS	08/30/2022	SMN
9.	REVISED PER CITY COMMENTS	09/27/2022	SMN
	Previous Editions Obsolete		

Drawn: BMS Approved: SS
Scale: 1" = 20'
Date: 10/29/2019
Project No: 18119
18119-LAND | LAND | LAND.scr
Drawing No:
L-100
(Sheet 29 of 29)

STORMWATER CONTROL FACILITY

MAINTENANCE AGREEMENT AND EASEMENT

WHEREAS, the **CITY OF BEACON** ("Municipality"), ") and Farrell Communities Beacon LLC, a New York limited liability company and having an address at 2317 Montauk Highway, Bridgehampton, New York 11932 ("Facility Owner") desire to enter into this agreement (the "Agreement"), dated this ____ day of _____, 2022, to provide for the long term maintenance and continuation of stormwater control measures approved by the Municipality for certain real property located at 16 West Main Street, Beacon, NY 12508, shown on the "Survey of Property" prepared by JMC Planning, Engineering Landscape Architecture & Land Surveying PLLC, and further described by metes and bounds in Schedule A annexed hereto (the "Premises"); and

WHEREAS, this Agreement is provided in connection with a residential development project known as Beacon Commons, which received Subdivision and Site Plan approval from the City of Beacon Planning Board on _____, based on plans entitled _____ and on file at the City of Beacon Building Department ("Approved Project Plans"), which Approved Project Plans include certain stormwater management facilities and stormwater control measures (collectively, the "Facility") required to be constructed and maintained in accordance with the Approved Project Plans and the approved Stormwater Pollution Prevention Plan ("SWPPP") dated _____; and

WHEREAS, the Municipality and the Facility Owner desire that the Facility be built in accordance with the Approved Project Plans and thereafter be maintained, cleaned, repaired, replaced and continued in perpetuity in order to ensure optimum performance of the Facility;

NOW, THEREFORE, IN WITNESS WHEREOF, the Municipality and the Facility Owner agree as follows:

1. This Agreement binds the Municipality and the Facility Owner, its successors and assigns, to the maintenance provisions depicted in the Approved Project Plans and described in the approved SWPPP, which are included in Schedule C of this Agreement.

2. The Facility Owner shall maintain, clean, repair, and replace the Facility and keep the Facility in continuous operation in accordance with the in the Approved Project Plans and the SWPPP as necessary to ensure optimum performance of the stormwater control measures to design specifications. The stormwater control measures shall include, if applicable, but shall not be limited to, the following items located at the Premises: underground detention system, stormwater planters, water quality structures, drainage swales, drain inlets and pipes as shown on the "Stormwater Maintenance and Easement Agreement Exhibit (Schedule B)", prepared by JMC Planning, Engineering Landscape Architecture & Land Surveying PLLC which is included in Schedule B of this Agreement. The maintenance schedule of the SWPPP is included in Schedule C of this Agreement.

3. The Facility Owner hereby grants unto the Municipality, its successors and assigns a perpetual easement and right-of-way to enter upon the Premises in order to access the Facility at reasonable times and in a reasonable manner for periodic inspection by the Municipality to ensure that the Facility is maintained in proper working condition and meets the design standards established by the SWPPP.

4. The Facility Owner shall be responsible for all expenses related to the maintenance of the Facility and shall establish a means for the collection and distribution of expenses among parties for any commonly owned facilities, as applicable, except as otherwise set forth hereinafter.

5. The Facility Owner shall provide for the periodic inspection of the Facility in accordance with the SWPPP, and shall have the facilities inspected on a yearly basis by a Professional Engineer licensed by the State of New York, to determine the condition and integrity of the stormwater control measures. The inspecting professional shall prepare and submit to the Municipality within 30 days of the inspection but not later than June 1 of each year, a written report of the findings including recommendations for those actions necessary for the continuation of the stormwater control measures.

6. The Facility Owner shall not authorize, undertake or permit alteration, abandonment, modification or discontinuation of the Facility except in accordance with written approval of the Municipality which approval shall not be unreasonably withheld, delayed or conditioned.

7. The Facility Owner shall promptly undertake necessary repairs and replacement of the Facility at the direction of the Municipality or in accordance with the recommendations of the inspecting professional.

8. The Facility Owner hereby covenants that it is seized of the Premises in fee simple and has full authority to execute this Agreement; shall do nothing in the Premises which would prevent, impede or disturb the full use and intended purpose of this Agreement; and shall execute and deliver any further documents reasonably necessary to assure the benefits of this Agreement to the Municipality.

9. This Agreement shall not confer unto the Municipality any duty or obligation to repair or maintain the Facility. Further, the Municipality’s acceptance of any rights pursuant to this Agreement shall not be deemed as the acceptance of any duty or obligation to repair or maintain the Facility, except that any damage to the Facility caused by the Municipality's negligence during inspections or otherwise shall be restored, repaired or otherwise remedied by the Municipality at the Municipality’s sole cost.

10. This Agreement shall be recorded in the Office of the County Clerk, County of Dutchess as a condition of final site plan approval and as a condition to the issuance of a building permit.

11. If ever the Municipality determines that the Facility Owner has failed to construct or maintain the Facility in accordance with the Approved Project Plan or SWPPP, or has

failed to undertake corrective action specified by the Municipality or by the inspecting engineer, the Municipality shall provide the Facility Owner with written notice via certified mail, return receipt requested, specifying such failure. Copies of any written notices to the Facility Owner shall be contemporaneously provided to the Fee Owner, if different from the Facility Owner, via certified mail, return receipt requested. The written notice shall provide that the Facility Owner has fifteen (15) days to cure any defect and/or failure specified therein. In the event the failure cannot be cured within fifteen (15) days, the Facility Owner shall advise the Municipality as to same in writing within fifteen (15) days of receipt of the Municipality's notice to cure. The Facility Owner shall be afforded the opportunity to request a reasonable time frame to cure said failure/defect if the Facility Owner so desires. If the Facility Owner fails to provide written notice requesting an extension of time to cure a failure/defect and the Facility Owner does not cure said failure/defect, the Municipality is authorized to undertake such steps as are reasonably necessary for the preservation, continuation or maintenance of the Facility and to affix the expenses thereof as a lien against the Premises.

12. In the event the Municipality exercises its rights hereunder, it shall return the Premises to a reasonably similar condition as it existed prior to the exercise of such rights.

13. All notice and demands shall be made in writing and delivered by certified mail, return receipt requested, with postage pre-paid thereon, addressed as follows:

City of Beacon:
City Administrator
City Hall
1 Municipal Plaza
Beacon, New York 12508

Facility Owner:
Farrell Communities Beacon LLC
16 West Main Street
Beacon, NY 12508

With a copy to:
Keane & Beane, P.C.
445 Hamilton Avenue, Ste 1500
White Plains, New York 10601
Attn: Jennifer Gray, Esq.

With a copy to:

14. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, and all of which, when taken together, shall constitute one and the same instrument.

Signature pages follow.

IN WITNESS WHEREOF, the Facility Owner and the Municipality have each executed this Agreement as of the date first herein above set forth.

CITY OF BEACON

By: _____
Name:
Title:

Farrell Communities Beacon LLC

By: _____
Name:
Title:

STATE OF NEW YORK)
) SS.:
COUNTY OF_____)

On the ____ day of _____, 2022, before me, the undersigned, a Notary Public in and for said State, personally appeared _____ personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public – State of New York

STATE OF NEW YORK)
) SS.:
COUNTY OF_____)

On the ____ day of _____ 2022, before me, the undersigned, a Notary Public in and for said State, personally appeared _____ personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public – State of New York

Record & Return:
Keane & Beane, P.C.
445 Hamilton Avenue, Ste 1500
White Plains, New York 10601
Attn: Jennifer Gray, Esq.

Section:
Block:
Lot(s):
County: Dutchess

Schedule A

Description of Premises

All that certain parcel of land situate in the City of Beacon, Dutchess County and State of New York, being and intended to be the lands described in a deed to Beacon Realty Management of America Corp. from Lo-Rac Fuel Corp., dated May 5, 2016 and recorded June 6, 2016 as Deed Document No. 02 2016 3471 and a deed to Beacon Realty Management of America Corp. from City of Beacon, dated May 2, 2016 and recorded June 6, 2016 as Deed Document No. 02 2016 3472, more particularly bounded and described as follows:

BEGINNING at a point along the northerly line of West Main Street at its point of intersection with the easterly line of Bank Street;

Thence along said easterly line of Bank Street the following three (3) course and distances;

1) North 10 degrees 31 minutes 20 seconds East, 178.88 feet;
2) North 27 degrees 23 minutes 10 seconds East, 20.59 feet;
3) North 46 degrees 55 minutes 40 seconds East, 150.84 feet to its point of intersection with the southwesterly line of lands now or formerly of Rosemary Heady et al as described in Deed Liber 1800 at Page 719;

Thence along said southwesterly line, South 42 degrees 19 minutes 30 seconds East, 100.00 feet to a point

Thence continuing along said lands and in part along the southeasterly line of lands now or formerly of William Going and Linda Going as described in Deed Document No. 02 2002 10633, North 47 degrees 40 minutes 30 seconds East, 77.45 feet to its point of intersection with the southerly line of lands now or formerly of Juan Diaz and Jaqueline Diaz as described in Deed Document No. 02 2003 752;

Thence along said lands, South 75 degrees 15 minutes 50 seconds East, 152.89 feet and South 14 degrees 44 minutes 10 seconds West, 65.00 feet to its point of intersection with the northerly line of lands now or formerly of Beacon Todd LLC as described in Deed Document No. 02 2017 8111;

Thence along said lands, North 75 degrees 15 minutes 50 seconds West, 172.22 feet and South 08 degrees 57 minutes 00 seconds West, 278.02 feet to a point in the pavement of West Main Street;

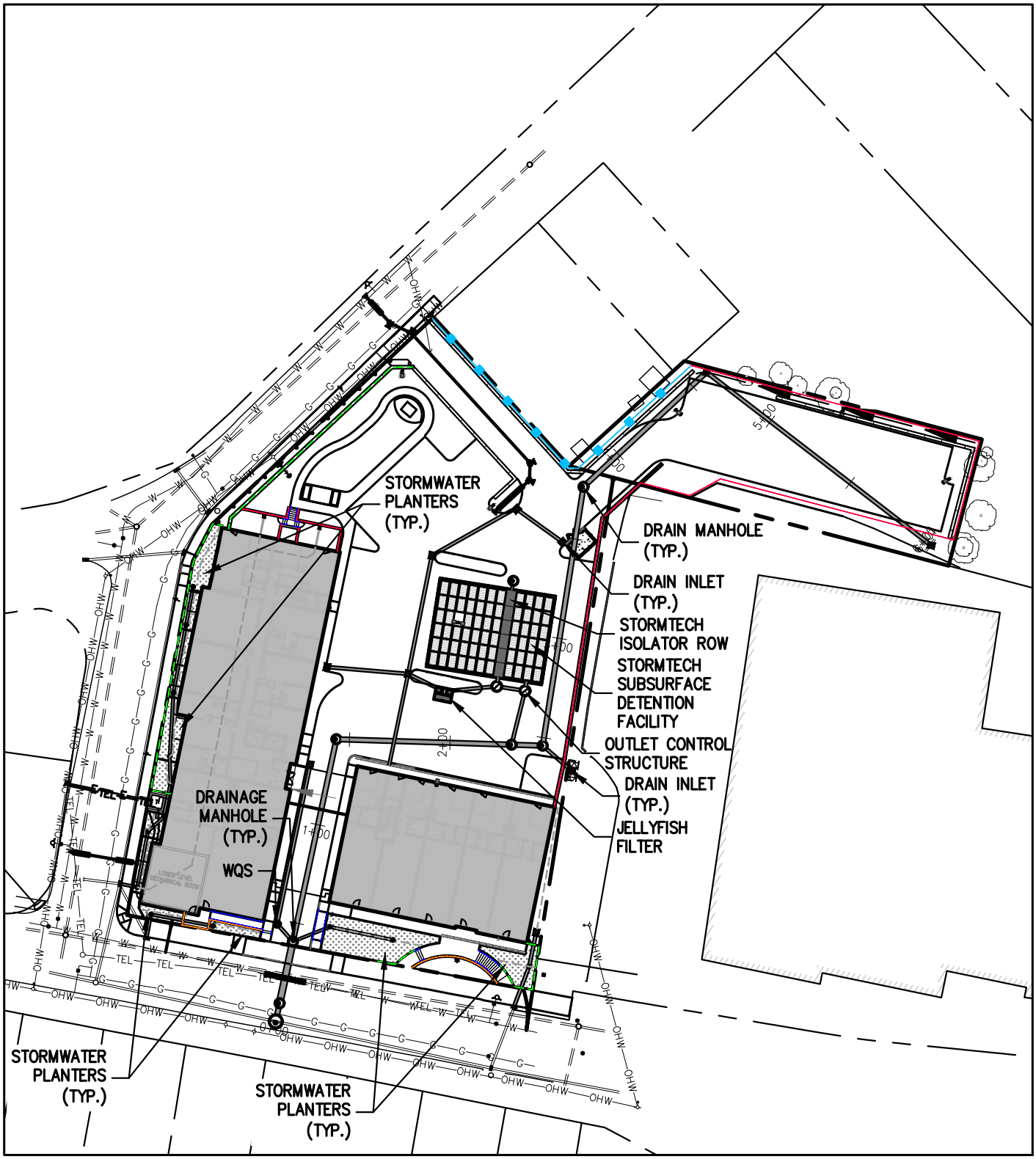
Thence northerly through said pavement along the arc of a curve to the left having a radius of 40.00 feet, a central angle of 30 degrees 00 minutes 32 seconds, an arc length of 20.95 feet and being subtended by a chord bearing North 04 degrees 29 minutes 30

seconds West, 20.71 feet to the aforesaid northerly line of West Main Street;

Thence along said northerly line of West Main Street, North 79 degrees 28 minutes 40 seconds West, 200.18 feet to the Point of Beginning.

Schedule B

Stormwater Maintenance Figure



BEACON COMMONS

16 WEST MAIN STREET BEACON, NY 12508

STORMWATER MAINTENANCE AND EASEMENT AGREEMENT EXHIBIT (SCHEDULE B)

DATE: 08/26/2022 JMC PROJECT: 18119

SCHEDULE B SCALE: 1" = 70'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

JMCPLLC.COM

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Schedule C

Stormwater Maintenance Inspection and Maintenance Program

General

The JMC Site Plan drawings are integral components of the post-construction stormwater facility inspection and maintenance program. The owner, its successors and/or assigns shall completely familiarize themselves with the plans, details, and notes.

The drainage collection system, detention system, manufactured treatment devices, stormwater planters, conveyance system, and their related appurtenances shall be collectively referred to herein as the "stormwater facilities."

The owner, its successors and/or assigns shall be responsible for the ongoing inspection and maintenance of the stormwater facilities. The purpose of the inspection/maintenance program is to provide basic instructions to the owner as to the proper inspection and maintenance of the stormwater facilities and related appurtenances and to help the owner identify if these facilities are not performing properly.

The applicant must execute a maintenance and access agreement that shall be binding on all subsequent landowners served by the stormwater management facilities. The agreement shall provide for access to the facility at reasonable times for periodic inspection by the City of Beacon to ensure that the facility is maintained in proper working condition to meet design standards and any other provisions established by the Town. The agreement shall be recorded by the grantor in the office of the County Clerk and Town Clerk after approval by the Town Attorney for the City of Beacon.

I. Maintenance and Inspection Requirements:

Maintenance and inspections are required in order to ensure the stormwater and erosion & sediment control practices are acting as designed. Inspections will be performed once a week during construction by a qualified inspector. Upon completion of construction and the subsequent filing of the Notice of Termination, maintenance and inspections are expected to be minimal. Temporary and permanent maintenance and inspection requirements are further discussed below. Proper maintenance and inspections will ensure the longevity and effectiveness of the stormwater pollution prevention plan, and erosion and sediment control plan.

II. Long Term Maintenance and Inspection Requirements:

Once final stabilization is achieved, and construction is complete, maintenance and inspections will be limited to the permanent practices. The Maintenance and Inspection Checklists from Appendix "E" of the approved Stormwater Pollution Prevention Plan (SWPPP), prepared by JMC and the New York State Stormwater Management Design Manual shall serve as a guide for maintaining and inspecting the infiltration facilities. Appendix "E" can be found as part of the SWPPP on file with the City of Beacon and is included in Schedule “C” of this agreement.

JMC Project 18119
Beacon Commons
16 West Main Street
City of Beacon, NY

Permanent Stormwater Management Practice Inspection & Maintenance Checklist

Stormwater Management Practice	Inspection/Maintenance Intervals	Inspection/Maintenance Requirements
StormTech Subsurface Detention Facility	(See Maintenance Guidelines in Schedule C)	• Check level of sediment accumulated within the isolator row through the access manhole. If 3 inches of sediment or greater, clean out utilizing a high pressure water nozzle to scour and suspend sediments. • Flush all sediment to access manhole and remove using a vacuum truck.
Drain Inlets	Monthly	• Check for blockage and/or erosion at top of each inlet. Repair/remove as necessary. • Check for sediment and debris collected within sumps and clean out as necessary.
Hydrodynamic Separator Water Quality Structure	(See Maintenance Guidelines in Schedule C)	• Open access cover for visual inspection and measure the distance from the standing water surface to the sediment pile with a measuring stick or tape. If less than 4 feet, insert hose from vacuum truck into the sump and screen through both access covers to clean out the standing water, layer of oil, sediment, trash, etc. • The screen must be powerwashed to ensure it is free of trash and debris.

Stormwater Planters	Early Spring (before new growth is 3 inches high)	• Cut and remove dead stalks and seed heads remaining from previous season. • Remove sticks and debris. • Prune shrubs if necessary. • Divide and move perennials if they are too crowded. • Replenish mulch layer to maintain a • 3 inch layer of shredded bark.
	Late Spring	• Remove weeds. • Water as needed during periods of drought.
	Fall	• Removed weeds and diseased plants. • Remove excess leaves. • If fall is dry, continue to water trees and shrubs until ground begins to freeze (later October). These woody plants need moisture entering winter to ensure survival.

The owner/operator responsible for inspection and maintenance as outlined above:

Farrell Building Company
Mr. Stephen Zagoren
2317 Montauk Highway
Bridgehampton, NY 11932
Phone: (631) 766-0023
Email: zags1413@gmail.com

Isolator® Row
O&M Manual



ADS StormTech 489™

The Isolator® Row

Introduction

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row is a technique to inexpensively enhance Total Suspended Solids (TSS) and Total Phosphorus (TP) removal with easy access for inspection and maintenance.

The Isolator Row

The Isolator Row is a row of StormTech chambers, either SC-160, SC-310, SC-310-3, SC-740, DC-780, MC-3500 or MC-7200 models, that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for sediment settling and filtration as stormwater rises in the Isolator Row and passes through the filter fabric. The open bottom chambers and perforated sidewalls (SC-310, SC- 310-3 and SC-740 models) allow stormwater to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row protecting the adjacent stone and chambers storage areas from sediment accumulation.

ADS geotextile fabric is placed between the stone and the Isolator Row chambers. The woven geotextile provides a media for stormwater filtration, a durable surface for maintenance, prevents scour of the underlying stone and remains intact during high pressure jetting. A non-woven fabric is placed over the chambers to provide a filter media for flows passing through the chamber's sidewall. The non-woven fabric is not required over the SC-160, DC-780, MC-3500 or MC-7200 models as these chambers do not have perforated side walls.

The Isolator Row is designed to capture the "first flush" runoff and offers the versatility to be sized on a volume basis or a flow-rate basis. An upstream manhole provides access to the Isolator Row and includes a high/low concept such that stormwater flow rates or volumes that exceed the capacity of the Isolator Row bypass through a manifold to the other chambers. This is achieved with an elevated bypass manifold or a high-flow weir. This creates a differential between the Isolator Row row of chambers and the manifold to the rest of the system, thus allowing for settlement time in the Isolator Row. After Stormwater flows through the Isolator Row and into the rest of the chamber system it is either exfiltrated into the soils below or passed at a controlled rate through an outlet manifold and outlet control structure.

The Isolator Row may be part of a treatment train system. The treatment train design and pretreatment device selection by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, StormTech recommend using the Isolator Row to minimize maintenance requirements and maintenance costs.

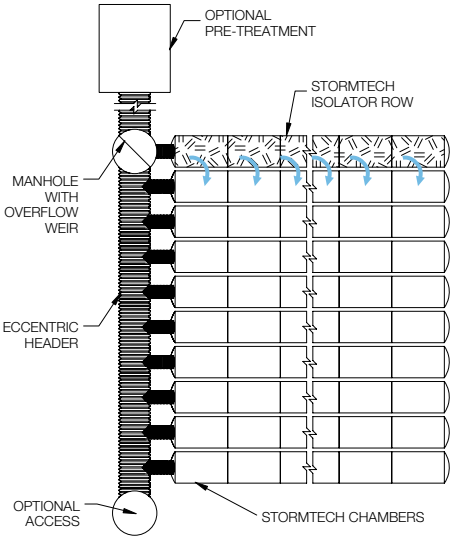
Note: *See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row.*



Looking down the Isolator Row from the manhole opening, woven geotextile Fabric is shown between the chamber and stone base.



StormTech Isolator Row with Overflow Spillway (*not to scale*)



Isolator Row Inspection/Maintenance

Inspection

The frequency of inspection and maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial, residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the **actual frequency of inspection and maintenance practices.**

At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

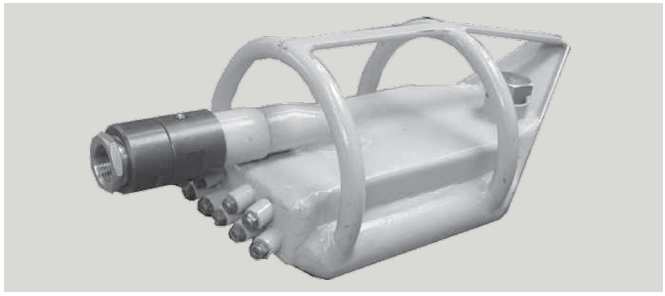
The Isolator Row incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row, clean-out should be performed.

Maintenance

The Isolator Row was designed to reduce the cost of periodic maintenance. By “isolating” sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45” are best. JetVac reels can vary in length. For ease of maintenance, ADS recommends Isolator Row lengths up to 200" (61 m). **The JetVac process shall only be performed on StormTech Isolator Rows that have AASHTO class 1 woven geotextile (as specified by StormTech) over their angular base stone.**

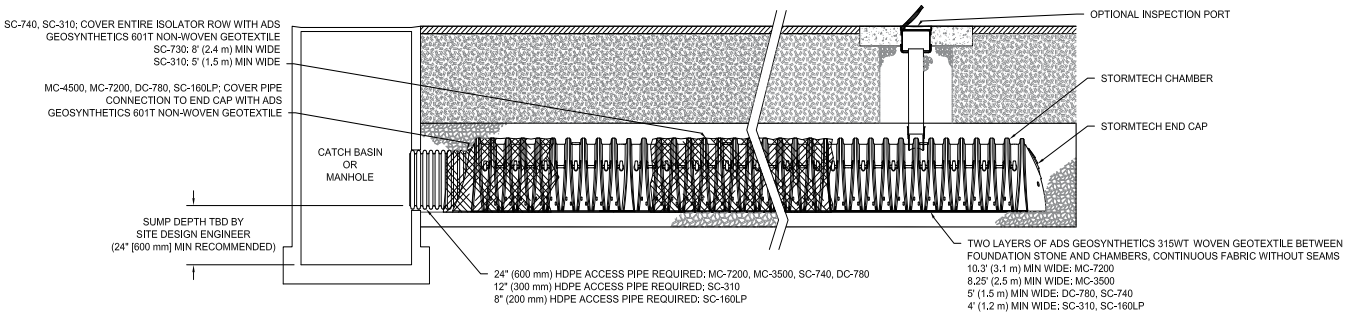






StormTech Isolator Row (not to scale)

Note: *Non-woven fabric is only required over the inlet pipe connection into the end cap for SC-160LP, DC-780, MC-3500 and MC-7200 chamber models and is not required over the entire Isolator Row.*



Isolator Row Step By Step Maintenance Procedures

Step 1

Inspect Isolator Row for sediment.

A) Inspection ports (if present)
   i. Remove lid from floor box frame
   ii. Remove cap from inspection riser
   iii. Using a flashlight and stadia rod,measure depth of sediment and record results on maintenance log.
   iv. If sediment is at or above 3 inch depth, proceed to Step 2. If not, proceed to Step 3.

B) All Isolator Row
   i. Remove cover from manhole at upstream end of Isolator Row
   ii. Using a flashlight, inspect down Isolator Row through outlet pipe
      1. Mirrors on poles or cameras may be used to avoid a confined space entry
      2. Follow OSHA regulations for confined space entry if entering manhole
   iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches), proceed to Step 2. If not, proceed to Step 3.

Step 2

Clean out Isolator Row using the JetVac process.

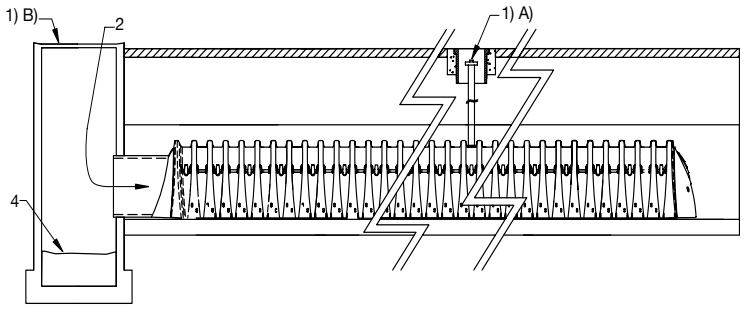
A) A fixed floor cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable
B) Apply multiple passes of JetVac until backflush water is clean
C) Vacuum manhole sump as required

Step 3

Replace all caps, lids and covers, record observations and actions.

Step 4

Inspect & clean catch basins and manholes upstream of the StormTech system.



Sample Maintenance Log

Date	Stadia Rod Readings		Sedi-ment Depth (1)–(2)	Observations/Actions	Inspector
	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)			
3/15/11	6.3 ft	none		New installation. Fixed point is CI frame at grade	DJM
9/24/11		6.2	0.1 ft	Some grit felt	SM
6/20/13		5.8	0.5 ft	Mucky feel, debris visible in manhole and in Isolator Row, maintenance due	NV
7/7/13	6.3 ft		0	System jetted and vacuumed	DJM

adspipe.com
800-821-6710

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CONTECH®
ENGINEERED SOLUTIONS

Jellyfish® Filter
Owner's Manual



Jellyfish® Filter

493

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THANK YOU FOR PURCHASING THE JELLYFISH® FILTER!

Contech Engineered Solutions would like to thank you for selecting the Jellyfish Filter to meet your project's stormwater treatment needs. With proper inspection and maintenance, the Jellyfish Filter is designed to deliver ongoing, high levels of stormwater pollutant removal.

If you have any questions, please feel free to call us or e-mail us:

Contech Engineered Solutions
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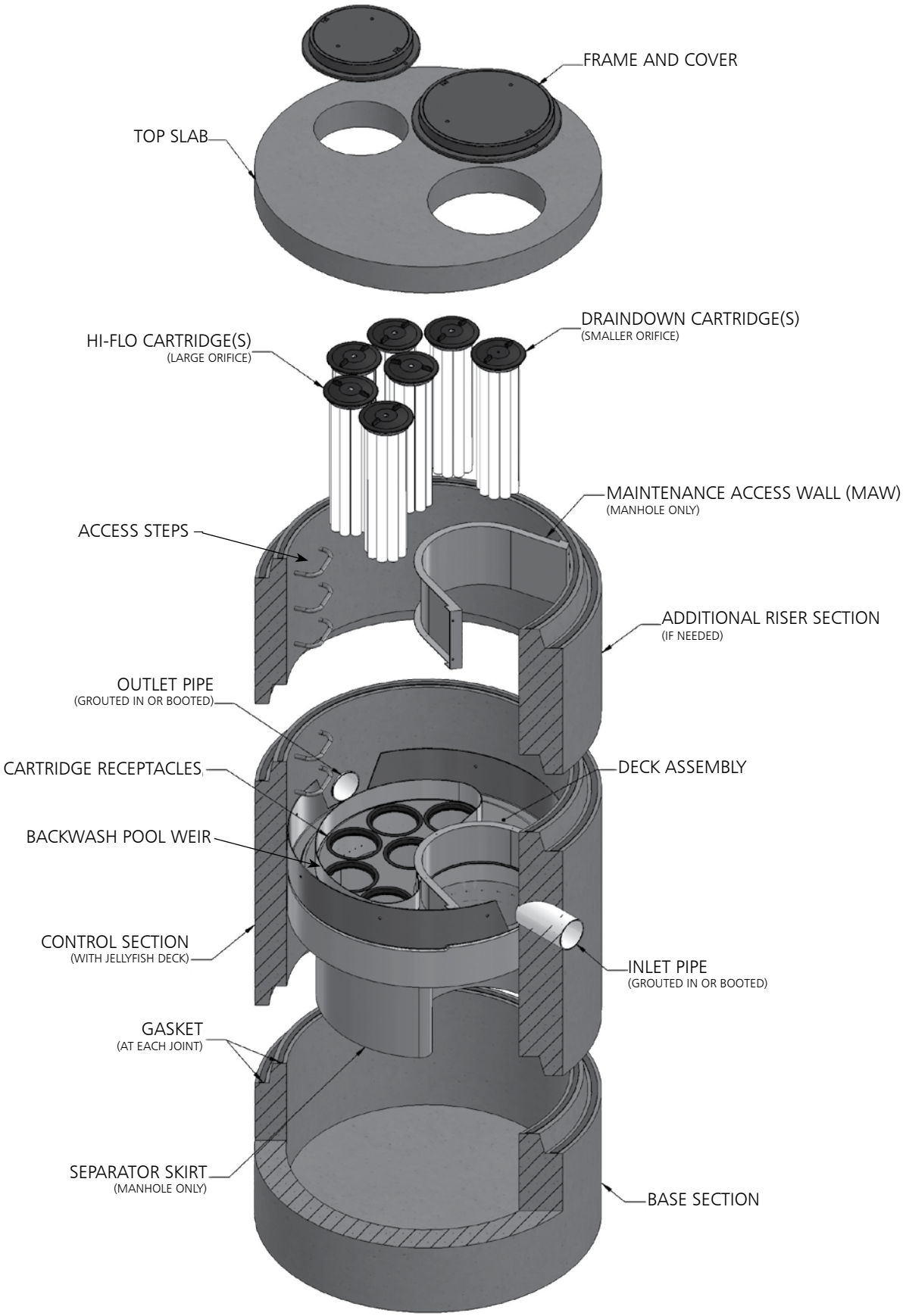

FRAME AND COVER
TOP SLAB
DRAINDOWN CARTRIDGE(S)
(SMALLER ORIFICE)
HI-FLO CARTRIDGE(S)
(LARGE ORIFICE)
MAINTENANCE ACCESS WALL (MAW)
(MANHOLE ONLY)
ACCESS STEPS
ADDITIONAL RISER SECTION
(IF NEEDED)
OUTLET PIPE
(GROUTED IN OR BOOTED)
CARTRIDGE RECEPTACLES
DECK ASSEMBLY
BACKWASH POOL WEIR
CONTROL SECTION
(WITH JELLYFISH DECK)
INLET PIPE
(GROUTED IN OR BOOTED)
GASKET
(AT EACH JOINT)
SEPARATOR SKIRT
(MANHOLE ONLY)
BASE SECTION

WARNINGS / CAUTION

1. FALL PROTECTION may be required.
2. WATCH YOUR STEP if standing on the Jellyfish Filter Deck at any time; Great care and safety must be taken while walking or maneuvering on the Jellyfish Filter Deck. Attentive care must be taken while standing on the Jellyfish Filter Deck at all times to prevent stepping onto a lid, into or through a cartridge hole or slipping on the deck.
3. The Jellyfish Filter Deck can be SLIPPERY WHEN WET.
4. If the Top Slab, Covers or Hatches have not yet been installed, or are removed for any reason, great care must be taken to NOT DROP ANYTHING ONTO THE JELLYFISH FILTER DECK. The Jellyfish Filter Deck and Cartridge Receptacle Rings can be damaged under high impact loads. This type of activity voids all warranties. All damaged items to be replaced at owner's expense.
5. Maximum deck load 2 persons, total weight 450 lbs.

Safety Notice

Jobsite safety is a topic and practice addressed comprehensively by others. The inclusions here are intended to be reminders to whole areas of Safety Practice that are the responsibility of the Owner(s), Manager(s) and Contractor(s). OSHA and Canadian OSH, and Federal, State/Provincial, and Local Jurisdiction Safety Standards apply on any given site or project. The knowledge and applicability of those responsibilities is the Contractor's responsibility and outside the scope of Contech Engineered Solutions.

Confined Space Entry

Secure all equipment and perform all training to meet applicable local and OSHA regulations regarding confined space entry. It is the Contractor's or entry personnel's responsibility to proceed safely at all times.

Personal Safety Equipment

Contractor is responsible to provide and wear appropriate personal protection equipment as needed including, but not limited to safety boots, hard hat, reflective vest, protective eyewear, gloves and fall protection equipment as necessary. Make sure all equipment is staffed with trained and/or certified personnel, and all equipment is checked for proper operation and safety features prior to use.

- Fall protection equipment
- Eye protection
- Safety boots
- Ear protection
- Gloves
- Ventilation and respiratory protection
- Hard hat
- Maintenance and protection of traffic plan

Chapter 1

1.0 – Owner Specific Jellyfish Filter Product Information

Below you will find a reference page that can be filled out according to your Jellyfish Filter specification to help you easily inspect, maintain and order parts for your system.

Owner Name:	
Phone Number:	
Site Address:	
Site GPS Coordinates/unit location:	
Unit Location Description:	
Jellyfish Filter Model No.:	
Contech Project & Sequence Number	
No. of Hi-Flo Cartridges	
No. of Cartridges:	
Length of Draindown Cartridges:	
No. of Blank Cartridge Lids:	
Bypass Configuration (Online/Offline):	

Notes:

_____

_____

_____

_____

Chapter 2

2.0 – Jellyfish Filter System Operations and Functions

The Jellyfish Filter is an engineered stormwater quality treatment technology that removes a high level and wide variety of stormwater pollutants. Each Jellyfish Filter cartridge consists of eleven membrane - encased filter elements ("filtration tentacles") attached to a cartridge head plate. The filtration tentacles provide a large filtration surface area, resulting in high flow and high pollutant removal capacity.

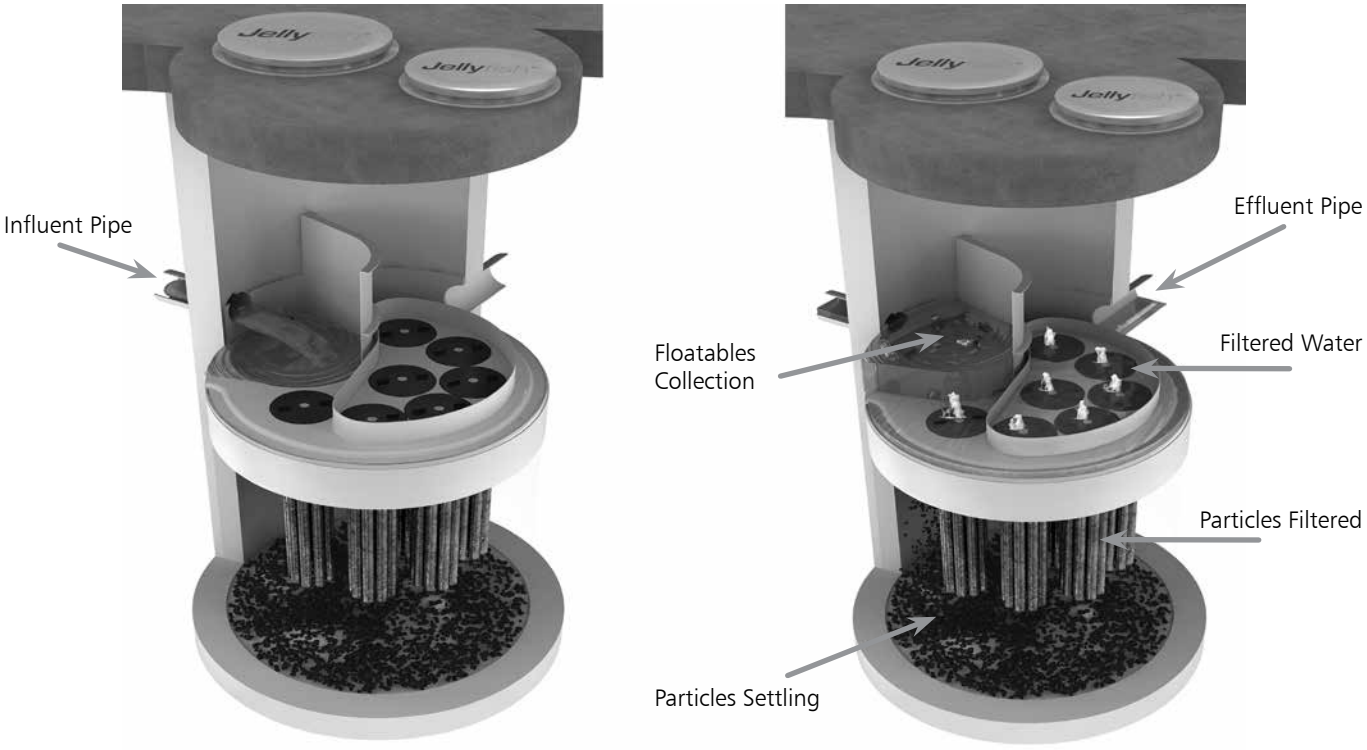
The Jellyfish Filter functions are depicted in Figure 1 below.

FIGURE 1

Jellyfish Filter Treatment Functions

Membrane Filtration

Section View with Maintenance Access Wall (MAW) Cutaway



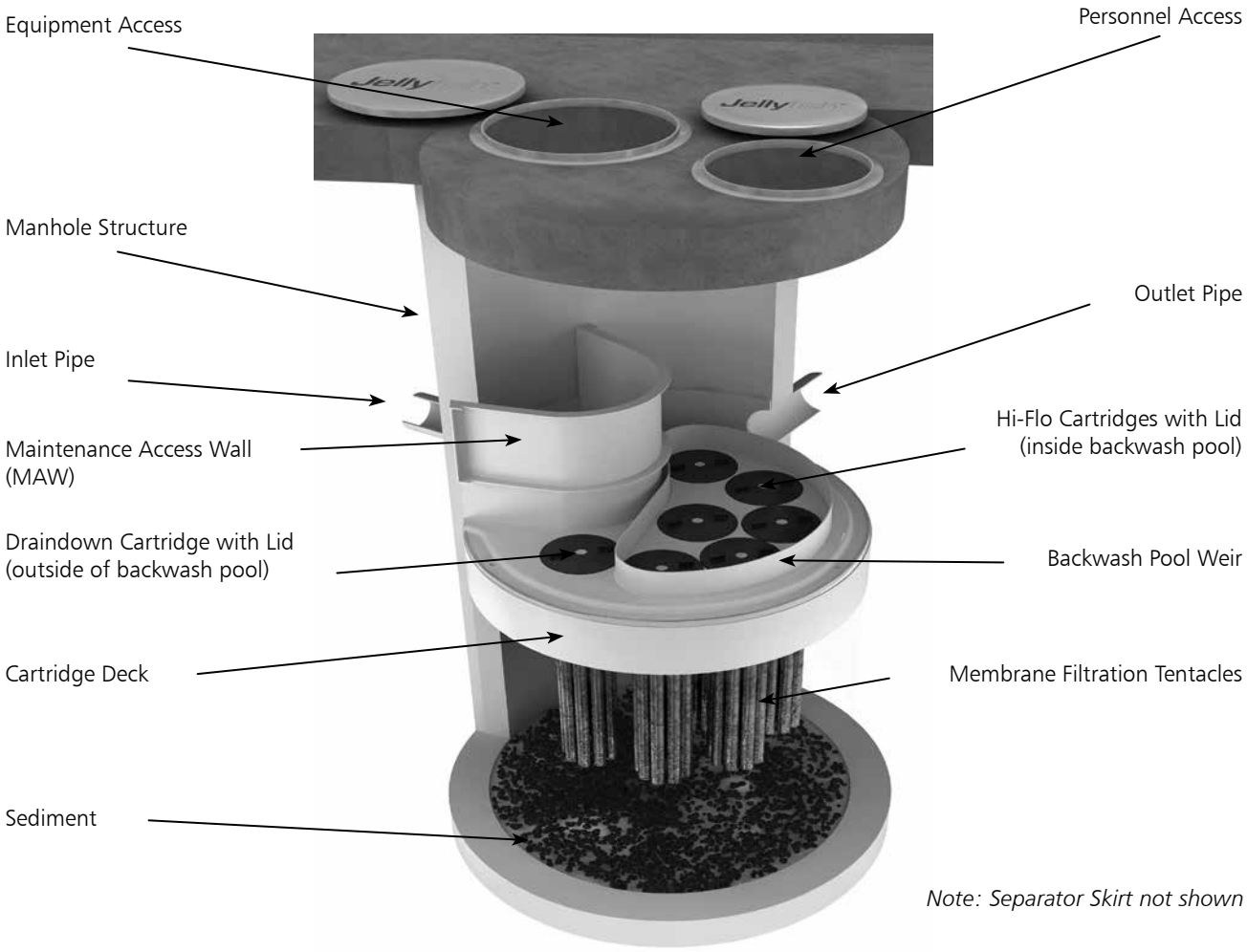
Jellyfish Filter cartridges are backwashed after each peak storm event, which removes accumulated sediment from the membranes. This backwash process extends the service life of the cartridges and increases the time between maintenance events.

For additional details on the operation and pollutant capabilities of the Jellyfish Filter please refer to additional details on our website at www.ContechES.com.

2.1 – Components and Cartridges

The Jellyfish Filter and components are depicted in Figure 2 below.

FIGURE 2 **Jellyfish Filter Components**



Tentacles are available in various lengths as depicted in Table 1 below.

Table 1 – Cartridge Lengths / Weights and Cartridge Lid Orifice Diameters

Cartridge Lengths	Dry Weight	Hi-Flo Orifice Diameter	Draindown Orifice Diameter
15 inches (381 mm)	10 lbs (4.5 kg)	35 mm	20 mm
27 inches (686 mm)	14.5 lbs (6.6 kg)	45 mm	25 mm
40 inches (1,016 mm)	19.5 lbs (8.9 kg)	55 mm	30 mm
54 inches (1,372 mm)	25 lbs (11.4 kg)	70 mm	35 mm

2.2 – Jellyfish Membrane Filtration Cartridge Assembly

The Jellyfish Filter utilizes multiple membrane filtration cartridges. Each cartridge consists of removable cylindrical filtration "tentacles" attached to a cartridge head plate. Each filtration tentacle has a threaded pipe nipple and o-ring. To attach, insert the top pipe nipples with the o-ring through the head plate holes and secure with locking nuts. Hex nuts to be hand tightened and checked with a wrench as shown below.

2.3 – Jellyfish Membrane Filtration Cartridge Installation

- Cartridge installation will be performed by trained individuals and coordinated with the installing site Contractor. Flow diversion devices are required to be in place until the site is stabilized (final paving and landscaping in place). Failure to address this step completely will reduce the time between required maintenance.
- Descend to the cartridge deck (see Safety Notice and page 3).
- Refer to Contech's submittal drawings to determine proper quantity and placement of Hi-Flo, Draindown and Blank cartridges with appropriate lids. Lower the Jellyfish membrane filtration cartridges into the cartridge receptacles within the cartridge deck. It is possible that not all cartridge receptacles will be filled with a filter cartridge. In that case, a blank headplate and blank cartridge lid (no orifice) would be installed.



Cartridge Assembly

Do not force the tentacles down into the cartridge receptacle, as this may damage the membranes. Apply downward pressure on the cartridge head plate to seat the lubricated rim gasket (thick circular gasket surrounding the circumference of the head plate) into the cartridge receptacle. (See Figure 3 for details on approved lubricants for use with rim gasket.)

- Examine the cartridge lids to differentiate lids with a small orifice, a large orifice, and no orifice.
  - Lids with a small orifice are to be inserted into the Draindown cartridge receptacles, outside of the backwash pool weir.
  - Lids with a large orifice are to be inserted into the Hi-Flo cartridge receptacles within the backwash pool weir.
  - Lids with no orifice (blank cartridge lids) and a blank headplate are to be inserted into unoccupied cartridge receptacles.
- To install a cartridge lid, align both cartridge lid male threads with the cartridge receptacle female threads before rotating approximately 1/3 of a full rotation until firmly seated. Use of an approved rim gasket lubricant may facilitate installation.

3.0 Inspection and Maintenance Overview

The primary purpose of the Jellyfish® Filter is to capture and remove pollutants from stormwater runoff. As with any filtration system, these pollutants must be removed to maintain the filter's maximum treatment performance. Regular inspection and maintenance are required to insure proper functioning of the system.
Maintenance frequencies and requirements are site specific and vary depending on pollutant loading. Additional maintenance activities may be required in the event of non-storm event runoff, such as base-flow or seasonal flow, an upstream chemical spill or due to excessive sediment loading from site erosion or extreme runoff events. It is a good practice to inspect the system after major storm events.
Inspection activities are typically conducted from surface observations and include:

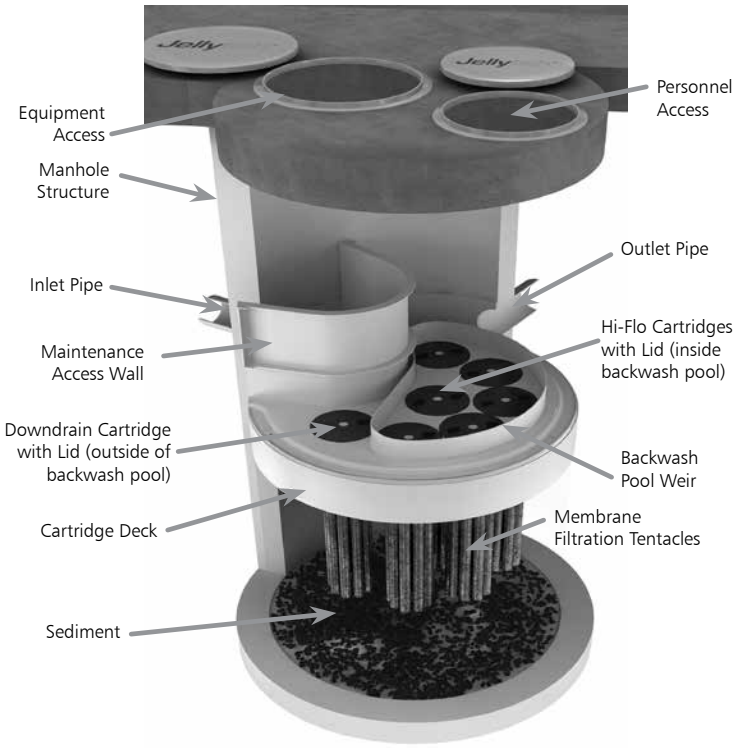
- Observe if standing water is present
- Observe if there is any physical damage to the deck or cartridge lids
- Observe the amount of debris in the Maintenance Access Wall (MAW) or inlet bay for vault systems

Maintenance activities include:

- Removal of oil, floatable trash and debris
- Removal of collected sediments
- Rinsing and re-installing the filter cartridges
- Replace filter cartridge tentacles, as needed

4.0 Inspection Timing

Inspection of the Jellyfish Filter is key in determining the maintenance requirements for, and to develop a history of, the site's pollutant loading characteristics. In general, inspections should be performed at the times indicated below; *or per the approved project stormwater quality documents (if applicable), whichever is more frequent*.



Note: Separator Skirt not shown

1. A minimum of quarterly inspections during the first year of operation to assess the sediment and floatable pollutant accumulation, and to ensure proper functioning of the system.
2. Inspection frequency in subsequent years is based on the inspection and maintenance plan developed in the first year of operation. Minimum frequency should be once per year.
3. Inspection is recommended after each major storm event.
4. Inspection is required immediately after an upstream oil, fuel or other chemical spill.

5.0 Inspection Procedure

The following procedure is recommended when performing inspections:

1. Provide traffic control measures as necessary.
2. Inspect the MAW or inlet bay for floatable pollutants such as trash, debris, and oil sheen.
3. Measure oil and sediment depth in several locations, by lowering a sediment probe until contact is made with the floor of the structure. Record sediment depth, and presences of any oil layers.
4. Inspect cartridge lids. Missing or damaged cartridge lids to be replaced.
5. Inspect the MAW (where appropriate), cartridge deck and receptacles, and backwash pool weir, for damaged or broken components.

5.1 Dry weather inspections

- Inspect the cartridge deck for standing water, and/or sediment on the deck.
- No standing water under normal operating conditions.
- Standing water inside the backwash pool, but not outside the backwash pool indicates, that the filter cartridges need to be rinsed.



Inspection Utilizing Sediment Probe

- Standing water outside the backwash pool is not anticipated and may indicate a backwater condition caused by high water elevation in the receiving water body, or possibly a blockage in downstream infrastructure.
- Any appreciable sediment (≥1/16") accumulated on the deck surface should be removed.

5.2 Wet weather inspections

- Observe the rate and movement of water in the unit. Note the depth of water above deck elevation within the MAW or inlet bay.
- Less than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges (i.e. cartridges located outside the backwash pool).
- Greater than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges and each of the hi-flo cartridges (i.e. cartridges located inside the backwash pool), and water should be overflowing the backwash pool weir.
- 18 inches or greater and relatively little flow is exiting the cartridge lids and outlet pipe, this condition indicates that the filter cartridges need to be rinsed.

6.0 Maintenance Requirements

Required maintenance for the Jellyfish Filter is based upon results of the most recent inspection, historical maintenance records, or the site specific water quality management plan; whichever is more frequent. In general, maintenance requires some combination of the following:

1. Sediment removal for depths reaching 12 inches or greater, or within 3 years of the most recent sediment cleaning, whichever occurs sooner.
2. Floatable trash, debris, and oil removal.
3. Deck cleaned and free from sediment.
4. Filter cartridges rinsed and re-installed as required by the most recent inspection results, or within 12 months of the most recent filter rinsing, whichever occurs sooner.
5. Replace tentacles if rinsing does not restore adequate hydraulic capacity, remove accumulated sediment, or if damaged or missing. It is recommended that tentacles should remain in service no longer than 5 years before replacement.
6. Damaged or missing cartridge deck components must be repaired or replaced as indicated by results of the most recent inspection.
7. The unit must be cleaned out and filter cartridges inspected immediately after an upstream oil, fuel, or chemical spill. Filter cartridge tentacles should be replaced if damaged or compromised by the spill.

7.0 Maintenance Procedure

The following procedures are recommended when maintaining the Jellyfish Filter:

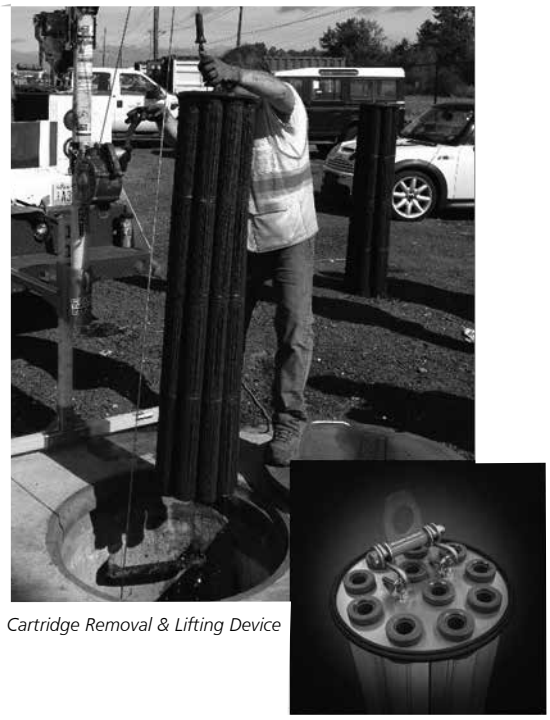
1. Provide traffic control measures as necessary.
2. Open all covers and hatches. Use ventilation equipment as required, according to confined space entry procedures. *Caution: Dropping objects onto the cartridge deck may cause damage*.
3. Perform Inspection Procedure prior to maintenance activity.
4. To access the cartridge deck for filter cartridge service, descend into the structure and step directly onto the deck. Caution: Do not step onto the maintenance access wall (MAW) or backwash pool weir, as damage may result. Note that the cartridge deck may be slippery.
5. Maximum weight of maintenance crew and equipment on the cartridge deck not to exceed 450 lbs.

7.1 Filter Cartridge Removal

1. Remove a cartridge lid.
2. Remove cartridges from the deck using the lifting loops in the cartridge head plate. Rope or a lifting device (available from Contech) should be used. *Caution: Should a snag occur, do not force the cartridge upward as damage to the tentacles may result. Wet cartridges typically weigh between 100 and 125 lbs*.
3. Replace and secure the cartridge lid on the exposed empty receptacle as a safety precaution. Contech does not recommend exposing more than one empty cartridge receptacle at a time.

7.2 Filter Cartridge Rinsing

1. Remove all 11 tentacles from the cartridge head plate. Take care not to lose or damage the O-ring seal as well as the plastic threaded nut and connector.
2. Position tentacles in a container (or over the MAW), with the threaded connector (open end) facing down, so rinse water is flushed through the membrane and captured in the container.



Cartridge Removal & Lifting Device

3. Using the Jellyfish rinse tool (available from Contech) or a low-pressure garden hose sprayer, direct water spray onto the tentacle membrane, sweeping from top to bottom along the length of the tentacle. Rinse until all sediment is removed from the membrane. *Caution: Do not use a high pressure sprayer or focused stream of water on the membrane. Excessive water pressure may damage the membrane*.
4. Collected rinse water is typically removed by vacuum hose.

5. Reassemble cartridges as detailed later in this document. Reuse O-rings and nuts, ensuring proper placement on each tentacle.

7.3 Sediment and Flotables Extraction

1. Perform vacuum cleaning of the Jellyfish Filter only after filter cartridges have been removed from the system. Access the lower chamber for vacuum cleaning only through the maintenance access wall (MAW) opening. Be careful not to damage the flexible plastic separator skirt that is attached to the underside of the deck on manhole systems. Do not lower the vacuum wand through a cartridge receptacle, as damage to the receptacle will result.
2. Vacuum floatable trash, debris, and oil, from the MAW opening or inlet bay. Alternatively, floatable solids may be removed by a net or skimmer.
3. Pressure wash cartridge deck and receptacles to remove all



Rinsing Cartridge with Contech Rinse Tool

sediment and debris. Sediment should be rinsed into the sump area. Take care not to flush rinse water into the outlet pipe.

4. Remove water from the sump area. Vacuum or pump equipment should only be introduced through the MAW or inlet bay.
5. Remove the sediment from the bottom of the unit through the MAW or inlet bay opening.
6. For larger diameter Jellyfish Filter manholes (≥8-ft) and some



Vacuuming Sump Through MAW

vaults complete sediment removal may be facilitated by removing a cartridge lid from an empty receptacle and inserting a jetting wand (not a vacuum wand) through the receptacle. Use the sprayer to rinse loosened sediment toward the vacuum hose in the MAW opening, being careful not to damage the receptacle.

7.4 Filter Cartridge Reinstallation and Replacement

1. Cartridges should be installed after the deck has been cleaned. It is important that the receptacle surfaces be free from grit and debris.
2. Remove cartridge lid from deck and carefully lower the filter cartridge into the receptacle until head plate gasket is seated squarely in receptacle. *Caution: Do not force the cartridge downward; damage may occur.*
3. Replace the cartridge lid and check to see that both male threads are properly seated before rotating approximately 1/3 of a full rotation until firmly seated. Use of an approved rim gasket lubricant may facilitate installation. See next page for additional details.
4. If rinsing is ineffective in removing sediment from the tentacles, or if tentacles are damaged, provisions must be made to replace the spent or damaged tentacles with new tentacles. Contact Contech to order replacement tentacles.

7.5 Chemical Spills

Caution: If a chemical spill has been captured, do not attempt maintenance. Immediately contact the local hazard response agency and contact Contech.

7.6 Material Disposal

The accumulated sediment found in stormwater treatment and conveyance systems must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals (such as pesticides and petroleum products). Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads. Sediments and water must be disposed of in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. This typically requires coordination with a local landfill for solid waste disposal. For liquid waste disposal a number of options are available including a municipal vacuum truck decant facility, local waste water treatment plant or on-site treatment and discharge.

Jellyfish Filter Components & Filter Cartridge Assembly and Installation

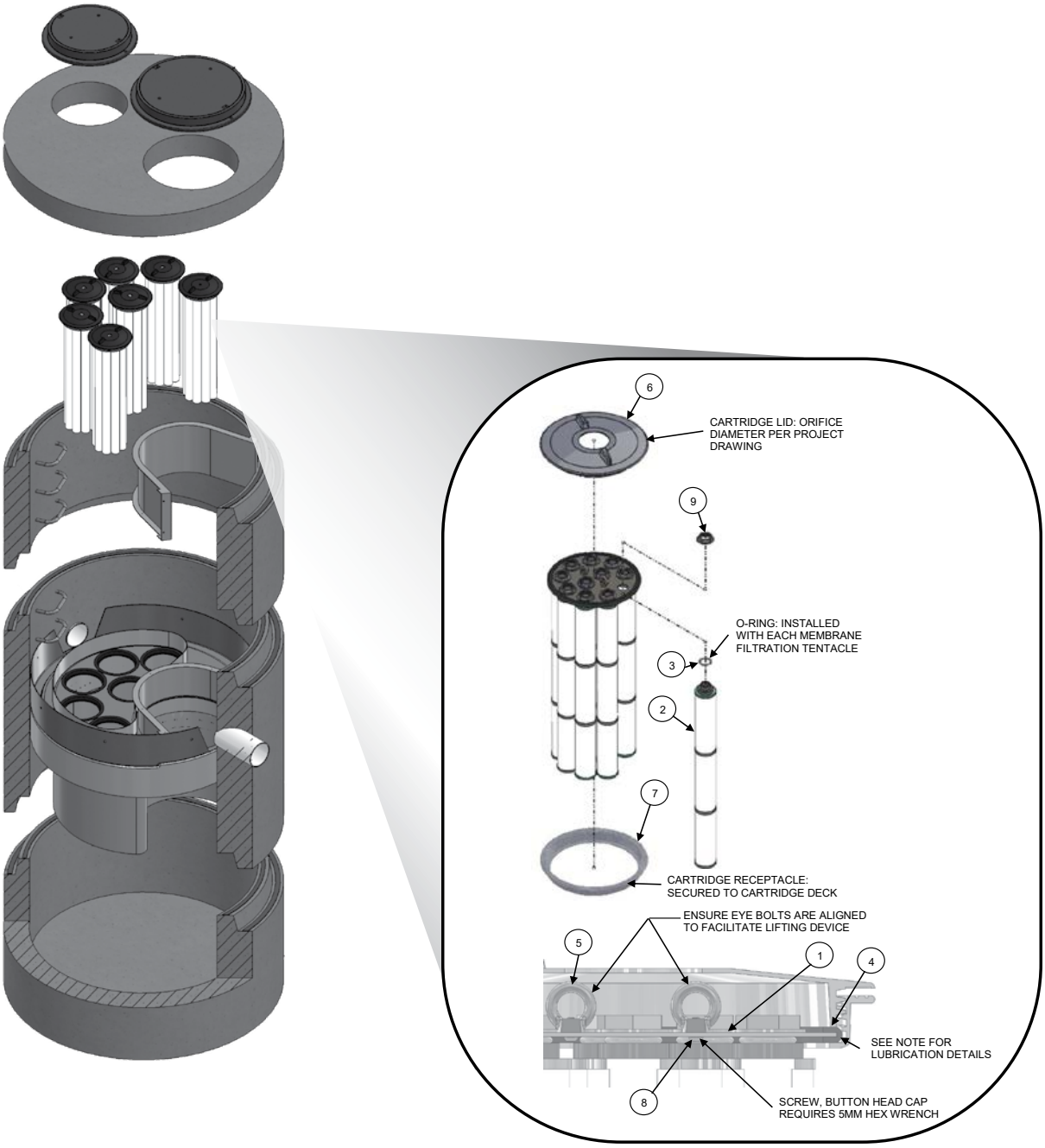


TABLE 1: BOM

ITEM NO.	DESCRIPTION
1	JF HEAD PLATE
2	JF TENTACLE
3	JF O-RING
4	JF HEAD PLATE GASKET
5	JF CARTRIDGE EYELET
6	JF 14IN COVER
7	JF RECEPTACLE
8	BUTTON HEAD CAP SCREW M6X14MM SS
9	JF CARTRIDGE NUT

TABLE 2: APPROVED GASKET LUBRICANTS

PART NO.	MFR	DESCRIPTION
78713	LA-CO	LUBRI-JOINT
40501	HERCULES	DUCK BUTTER
30600	OATEY	PIPE LUBRICANT
PSLUBXL1Q	PROSELECT	PIPE JOINT LUBRICANT

NOTES:

Head Plate Gasket Installation:
Install Head Plate Gasket (Item 4) onto the Head Plate (Item 1) and liberally apply a lubricant from Table 2: Approved Gasket Lubricants onto the gasket where it contacts the Receptacle (Item 7) and Cartridge Lid (Item 6). Follow Lubricant manufacturer's instructions.

Lid Assembly:
Rotate Cartridge Lid counter-clockwise until both male threads drop down and properly seat. Then rotate Cartridge Lid clock-wise approximately one-third of a full rotation until Cartridge Lid is firmly secured, creating a watertight seal.

Jellyfish Filter Inspection and Maintenance Log

Owner: _____ Jellyfish Model No.:_____

Location: _____ GPS Coordinates: _____

Land Use: Commercial:_____ Industrial: _____ Service Station:_____

Road/Highway:____ Airport: _____ Residential: _____ Parking Lot:_____

Date/Time:					
Inspector:					
Maintenance Contractor:					
Visible Oil Present: (Y/N)					
Oil Quantity Removed					
Floatable Debris Present: (Y/N)					
Floatable Debris removed: (Y/N)					
Water Depth in Backwash Pool					
Cartridges externally rinsed/re-commissioned: (Y/N)					
New tentacles put on Cartridges: (Y/N)					
Sediment Depth Measured: (Y/N)					
Sediment Depth (inches or mm):					
Sediment Removed: (Y/N)					
Cartridge Lids intact: (Y/N)					
Observed Damage:					
Comments:					

DECLARATION OF IRREVOCABLE ACCESS AND WATER LINE EASEMENT

In consideration of the sum of $ 10.00 and other good and valuable consideration, the receipt and legal sufficiency of which is hereby acknowledged, this IRREVOCABLE ACCESS AND WATER LINE EASEMENT, is made this ___ day of August, 2022, by Farrell Building Company Inc., a New York corporation with an address at 2317 Montauk Highway, Bridgehampton, New York 11932, its heirs and successors, as "Grantor", and in favor of The City of Beacon, a municipal corporation with an address at 1 Municipal Plaza, Beacon, New York 12508 its heirs and successors, as "Grantee".

WHEREAS, Grantor is the owner of certain property located in the City of Beacon, Dutchess County, New York (S/B/L 5954 - 25- 616969) and located at 16 West Main Street, Beacon, New York (the "Property"). A portion of the Property, as per the attached Schedule "A" figure entitled "Water Main Easement Plan", dated 07/22/2022 and further described in the "Water Easement", dated 07/28/2022, prepared by JMC Planning, Engineering Landscape Architecture & Land Surveying, PLLC constitutes the subject easement (hereafter, the Easement"). By this instrument, an Irrevocable water line and access Easement is created on such property for the benefit of the Grantee and Grantor, their successors or assigns as set forth herein.

WHEREAS, pursuant to the agreement of the parties a water line and access Easement is required and herewith created, it is

DECLARED that an Easement for the benefit of Grantee, its heirs , successors and assigns, to use for all purposes of ingress, regress and egress together with placement, use and maintenance of the water line, measuring 20 feet wide along the majority of the water line and as more specifically described in Schedule "A" annexed hereto and made part hereof, is herewith created and declared.

IT IS FURTHER DECLARED that Grantor hereby grants to Grantee the right to install, use and maintain in the Easement a water line, and that Grantee will install the water line at its own cost

and expense and be responsible for restoring the property to its previous condition, that whenever Grantee needs to access to install and/ or maintain the water line Grantee shall give Grantor reasonable notice.

IT IS FURTHER DECLARED that Grantor hereby grants to Grantee the right of ingress, egress and regress in and to the Easement and to fully utilize the Easement as a non-restricted primary means of ingress/egress to its Property, that Grantee shall be responsible for its fair share of the cost for the maintenance of the easement (e.g., liability insurance etc.) to be split pro rata on the basis of the percentage of each party's net square footage of occupied space on the respective parcels serviced by the Easement. In addition Grantee shall at its cost pay the difference for any necessary upgrade (i.e. pavement type, grade, size etc.) if such is required as part of municipal approvals to accommodate any additional uses.

BOTH PARTIES AGREE and commit to be good faith and friendly neighbors and not to cause any hardships and/or disturbances to each other's activity and land use and each party shall keep shall not obstruct the Easement area or use the Easement for storage of any kind.

The Easement rights and responsibilities set forth in this Agreement shall be perpetual and shall run with the land and shall be binding upon and inure to the benefit of the heirs, successors and assigns of and as may apply to the undersigned Grantor and Grantee.

IN WITNESS WHEREOF, Farrell Building Company Inc., as Grantor, and The City of Beacon have executed this instrument as of the day and date first set forth above.

GRANTOR: **GRANTEE:**

_____ _____

by: by:

\

Notary page follows

ACKNOWLEDGMENT OF CONVEYANCE

STATE OF NEW YORK)
)ss.:
COUNTY OF)

On the ____ day of August, 2022, before me, the undersigned, a Notary Public in and for the State of New York, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

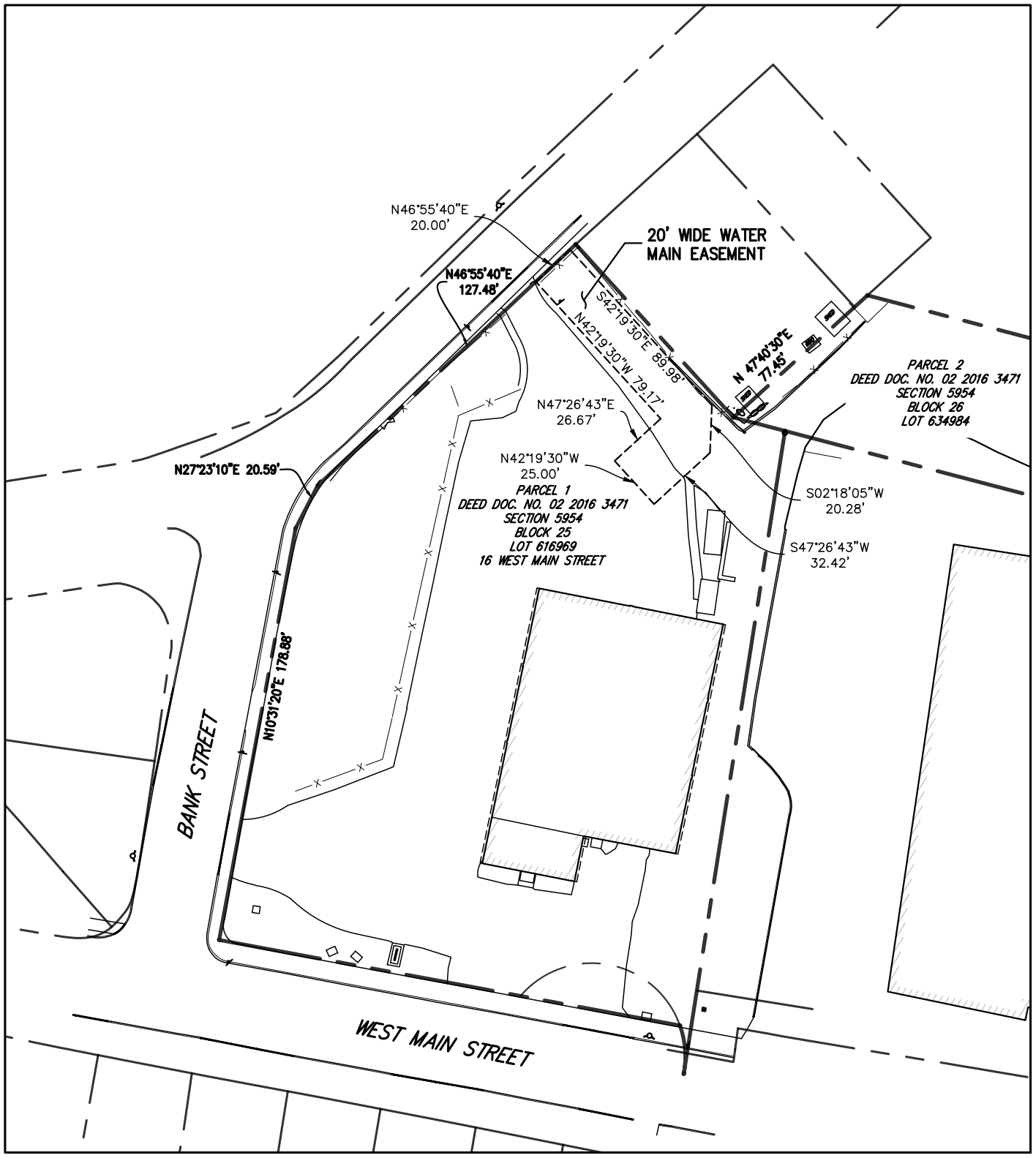
_____
NOTARY PUBLIC

STATE OF NEW YORK)
)ss.:
COUNTY OF)

On the ____ day of August, 2022, before me, the undersigned, a Notary Public in and for the State of New York, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the with in instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
NOTARY PUBLIC

RECORD AND RETURN TO:



BEACON COMMONS

16 WEST MAIN STREET BEACON, NY 12508

WATER MAIN EASEMENT PLAN

DATE: 07/22/2022 JMC PROJECT: 18119

FIGURE: SCHEDULE 'A' SCALE: 1" = 60'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

JMCPLLC.COM

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18119-SITE.dwg; EASEMENT-WATER.tab; EASEMENT.scr

JMC Project 18119
Beacon Commons
16 West Main Street
Town of Newburgh
Dutchess County, New York
July 28, 2022

Water Easement

A water easement over a portion of land formerly of Beacon Realty Management of America Corp. as described in deed dated May 5, 2016 and recorded in the Dutchess County Clerk's Office as Document No. 02 2016 3471 on June 2, 2016;

COMMENCING at a point along the easterly line of Bank Street at its point of intersection with the northerly line of West Main Street;

Thence along said easterly line of Bank Street the following three (3) course and distances;

1) North 10 degrees 31 minutes 20 seconds East, 178.88 feet to a point;
2) North 27 degrees 23 minutes 10 seconds East, 20.59 feet to a point;
3) North 46 degrees 55 minutes 40 seconds East, 127.48 feet to the Point of Beginning;

Thence continuing along said easterly line of Bank Street, North 46 degrees 55 minutes 40 seconds East, 20.00 feet to a point;

Thence through said lands formerly of Beacon Realty Management of America Corp. the following six (6) course and distances;

1) South 42 degrees 19 minutes 30 seconds East, 89.98 feet to a point;
2) South 02 degrees 18 minutes 05 seconds West, 20.28 feet to a point;
3) South 47 degrees 26 minutes 43 seconds West, 32.42 feet to a point;
4) North 42 degrees 19 minutes 30 seconds West, 25.00 feet to a point;
5) North 47 degrees 26 minutes 43 seconds East, 26.67 feet to a point;
6) North 42 degrees 19 minutes 30 seconds West, 79.17 feet to the Point of Beginning.

P:\2018\18119\ADMIN\Legal Descriptions\G Legal Description Water Easement 2020 07 28 28.doc

ENGINEERING REPORT –
SANITARY SEWER & WATER MAIN

BEACON COMMONS

16 WEST MAIN STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK

Prepared for: **Farrell Building Company**
2317 Montauk Highway
Bridgehampton, NY 11932

Prepared by:

JMC Project **18119**

Date: August 22, 2022

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APPENDICIES:

A. FIRE HYDRANT FLOW TEST
B. SANITARY SEWER AND WATER MAIN SPECIFICATIONS

I. INTRODUCTION & SCOPE

This Engineering Report has been prepared for the 1.3 acre Beacon Commons site, located in the City of Beacon, Dutchess County, New York. The site is bordered by West Main Street to the South & Bank Street to the West. This report has been prepared for the City of Beacon and Dutchess County Health Department's review and approval.

The Project consists of demolishing an existing 1 story commercial building and the development of a 62-unit, 4-story multifamily building consisting of 33 one-bedroom units and 29 two-bedroom units. The Project also includes parking areas and associated improvements such as new curbs, sidewalks and landscaping along its frontage. A private water service is proposed to connect to the existing City main along Bank Street. A public water main extension is proposed to support a proposed fire hydrant in the rear parking area of the property as requested by the City Fire Department. The public water main extension is proposed within an easement to the City for access and maintenance. A private sanitary sewer service is proposed to connect to the existing City main along West Main Street.

The proposed sanitary sewer service will connect via a saddle connection into the existing City sewer main within West Main Street. The site proposes to convey wastewater via 6-inch PVC pipe to a cleanout to be situated at the southern portion of the building, along West Main Street. The project includes abandonment of the existing sewer lateral that connects to the current existing building on the site that is to be demolished.

The proposed water distribution will extend on site via a proposed 6-inch DIP that will connect to the existing 8-inch cast iron water line in the Bank Street right of way as well as a 6 inch hydrant extension down the northern driveway off Bank Street. The proposed water service will result in abandonment of the existing water service connecting to the existing building on the site, which is to be demolished.

The proposed project has been before the City of Beacon Planning Board since late 2019. The Planning Board recently adopted the SEQRA negative declaration resolution and should be receiving site plan approval and other entitlements within the next few months.

II. SUPPORTING PLANS

Dwg. No.	Title
C-100	"Site Plan"
C-200	"Grading Plan"
C-300	"Utilities Plan"
C-310	"Utilities Profile"
DOH-910	"DOH Construction Details"
DOH-911	"DOH Construction Details"

III. SANITARY SEWER SERVICE

A. Existing System

Under existing conditions, wastewater is collected and routed to the existing sewer laterals located at the southern part of the existing building, along West Main Street of the subject property. The existing conditions shall be abandoned in accordance with the Dutchess County Department of Health.

B. Proposed System and Anticipated Design Flows

The proposed sewer connection will convey wastewater from the proposed building on the site. A saddle connection will be constructed to connect the flow coming from the proposed building to the existing 12-inch sewer line in the West Main Street right of way. The proposed water distribution system will be of 6-inch DIP water main. The proposed 6-inch sewer service will connect to the 12-inch main in West Main Street with a saddle. The proposed sewer service will come from the proposed mechanical room at the corner of West Main Street and Bank Street. The service will be SDR-35 PVC pipe and shall conform to the requirements of ASTM specification D2729, latest version.. A clean-out is proposed along the service line.

The project is a proposed four-story residential apartment building with 62 units, 33 one-bedroom units & 29 two-bedroom units, resulting in a total of 91 bedrooms. Based on the NYSDEC Design Standards for Intermediate Sized Wastewater Treatment Systems, circa 2014, the anticipated flow rate is 10,010 GPD or 6.95 GPM for 91 proposed bedrooms.

C. Testing

The Contractor shall test the completed sanitary sewer service for leakage as specified herein. In the event of conflict between the leakage test requirements specified herein and the leakage test requirements of the Dutchess County Health Department and City of Beacon, the more restrictive requirements shall govern.

The tests shall be conducted by the Contractor, as directed by the Engineer. The Contractor shall furnish all necessary equipment, materials and labor for the tests as specified. The Contractor shall notify the Engineer at least 48 hours prior to the start of testing so the Dutchess County Health Department and City of Beacon can be notified. Testing shall be done only in the presence of the Engineer.

Gravity Sewers - shall be tested as follows:

Low-Pressure Air Test of Pipe Lines – Plug all openings in the test section. Add air until the internal pressure of the line is raised to approximately 4.0 psi. After this pressure is reached, allow the pressure to stabilize. The pressure will normally drop as the air temperature stabilizes. This usually takes 2 to 5 min. depending on the pipe size. The pressure may be reduced to 3.5 psi before starting the test.

When the pressure has stabilized and is at or above the starting test pressure of 3.5 psi, start the test. If the pressure drops more than 1.0 psi during the test time, the line is presumed to have failed the test. If a 1.0-psi drop does not occur within the test time, the line has passed the test.

Test times are for a 1.0 psi pressure drop from 3.5 to 2.5 psi. If the section of line to be tested includes more than one pipe size, calculate the test time for each size and add the test times to arrive at the total test time for the section. Minimum test times for various pipe sizes shall be as specified in ASTM Designation F-1417 "Standard Test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air." Minimum test times for various pipe sizes shall be as specified in ASTM Designation F-1417

"Standard Test Method for Installation Acceptance of Plastics Gravity Sewer Lines Using Low-Pressure Air." Minimum test times for various pipe sizes in inches are as follows:

Size (Inches)	Time (Min:Sec.)
4	3:46
6	5:40
8	7:34

For materials other than plastic, depending on the pipe material, ASTM Designation C828 "Standard Test Method for Low-Pressure Air Test of Vitrified Clay Pipe," shall be utilized. According to Appendix E "Sewer and Manhole Leakage Tests" of the NYSDEC publication "New York State Design Standards for Intermediate Sized Wastewater Treatment Systems," dated March 5, 2014, ASTM C828 "may be used for other sanitary pipe material not mentioned above and is not limited to a maximum diameter of 12 inches."

Prior to activating the sewer line into service, satisfactory testing results must be reviewed and approved by the Dutchess County Health Department and City of Beacon.

IV. WATER SERVICE

A. Existing System

Under existing conditions, the building is served from a water connection located at the southern part of the existing building, along West Main Street of the subject property. The existing conditions shall be abandoned in accordance with the Dutchess County Department of Health.

B. Proposed System and Anticipated Design Flows

The proposed water distribution system will be of 6-inch DIP water main. The proposed 6-inch water main will connect to the 8-inch main in Bank Street with a wet tap. The proposed water service will run to the western portion of the proposed building into the proposed mechanical room at the corner of West Main Street and Bank Street. The main will be class

54 double cement lined ductile iron pipe (DIP) and shall conform to the requirements of ANSI/AWWA specification C104-08, C111-17, C151-09/A21.51, & C-151. A water valve will be provided as part of the wet tap and the main will split within the mechanical room for fire and domestic services.

As stated above, the project includes a total of 91 bedrooms which results in an anticipated flow rate of 10,010 GPD or 6.95 GPM according to the NYSDEC Design Standards for Intermediate Sized Wastewater Treatment Systems.

C. Hydrant Flow Test

One hydrant flow test was conducted by JMC on 07/11/2022 in the presence of representatives of the City of Beacon Water Department. A pressure gauge was installed on the hydrant within the project site to read the static and residual pressures. At a flow rate of 1,680 GPM The static pressure was 134 psi and, at a flow rate of 1,680 GPM, the residual pressure was 120 psi. These two pressures will be used to determine the projected flowrate, Q_r, at 20 psi. See calculations below:

$$Q_r = Q_f x \left(h_b / h_f\right)^{0.54}$$

Where: Q_f = the measured flow from the hydrant

h_b= static pressure – 20 psi

h_f= static pressure – residual pressure

$$Q_r = Q_f x \left(h_b / h_f\right)^{0.54} = 1{,}680\ GPM\ x\ (\frac{134\ psi - 20\ psi}{134\ psi - 120\ psi})^{0.54} = 1{,}680\ GPM\ x\ 8.14^{0.54}$$

$$= 5{,}213\ GPM$$

The Hydrant Test can be found in Appendix B of this report.

D. Testing and Disinfection

The construction of the water distribution system will conform to the requirements of the City of Beacon, Dutchess County Department of Health and AWWA Specification C-600-17. The Town of Newburgh is to be given 48-hour notice prior to test. Upon installation of the new water distribution system, the lines shall be pressure and leakage tested in

accordance with AWWA Specification C-600-17. Upon passing these tests, the lines will be disinfected in accordance with AWWA Standard C-651-14 except for Section 4.3.1 (Tablet Method) for disinfecting water mains which shall not be used.

Prior to activating the water lines into service, satisfactory sanitary results from a certified lab must be submitted to the City of Beacon Water Department. The City must approve the water main being placed into service. The test samples must be collected by a representative of the testing laboratory and witnessed by the City of Beacon Water Department.

Respectfully submitted,

JMC Planning Engineering Landscape Architecture & Land Surveying, PLLC



Stephen Spina, PE
Project Manager

APPENDIX A

HYDRANT FLOW TEST

HYDRANT FLOW TEST RESULTS

Location: 16 West Main Street Date: 07/11/2022 JMC Job No. : 18119

Test made by: Stephen Spina Time: 8:15 AM

Representative of: JMC

Witness: City of Beacon Water Department, Rick Kolakowski

State purpose of test: Determine flow and pressure of water system for proposed building Sprinkler system design to be done by project plumbing engineer.

If pumps affect test, indicate pumps operation: N/A

Flow hydrants: Bank Street at Northwest corner of property

Size nozzle:	2 1/2 inch
GPM:	1,680 gpm
Static:	134 psi
Residual:	120 psi

Computed Fire Flow Results with 20 psi Residual per AWWA M-17
$Q_R = Q_F \times (h_R^{0.54} / h_F^{0.54})$
Q_R = Flow available at desired residual pressure (20 psi)
Q_F = Flow during test = 1,680 gpm
h_R = Pressure drop to desired residual pressure = 134 psi – 20 psi = 114 psi
h_F = Pressure drop during test = Static – Residual = 14 psi

Q_R = 1,680 gpm x ($114^{0.54} / 14^{0.54}$) = 5,213 gpm @ 20 psi residual pressure

(This is an approximate result as AWWA recommends a 5 psi drop in pressure for the calculation to be accurate)

Remarks:

Refer to JMC Sketch "Hydrant Locations", dated 07/11/2022.

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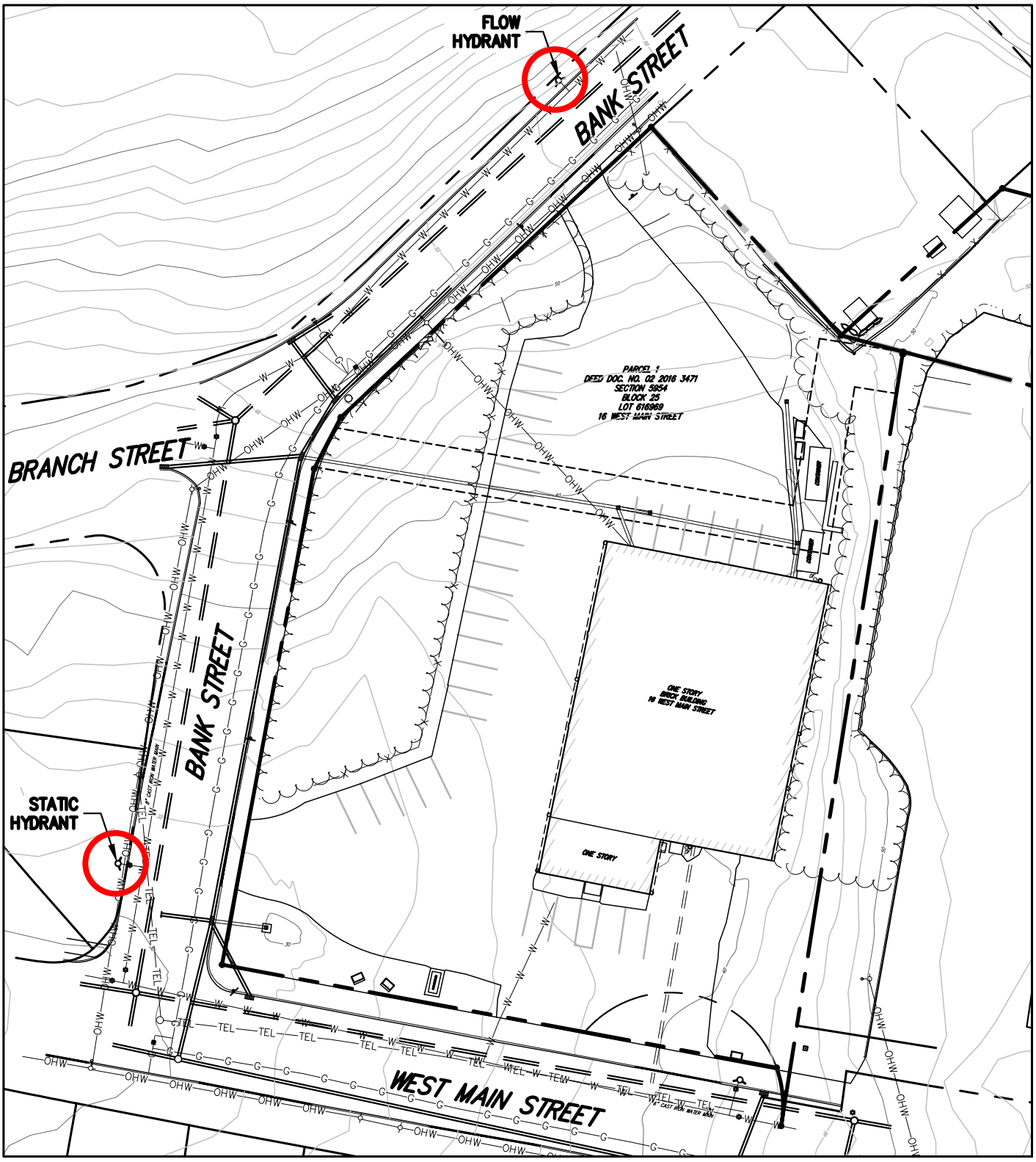

BEACON COMMONS

16 WEST MAIN STREET BEACON, NY 12508

HYDRANT LOCATIONS

DATE: 07/11/2022 JMC PROJECT: 18119

FIGURE: H-1 SCALE: 1" = 50'

120 BEDFORD RD
ARMONK
NY 10504

(914) 273-5225
fax 273-2102

JMCPLLC.COM

APPENDIX B

SANITARY SEWER AND WATER MAIN SPECIFICATIONS

SPECIFICATIONS
FOR
INSTALLATION OF SANITARY SEWER & WATER LINES

BEACON COMMONS
16 WEST MAIN STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK

OWNER: **Farrell Building Company**
2317 Montauk Highway
Bridgehampton, NY 11932

SITE ENGINEER: **JMC, PLLC**
120 Bedford Road
Armonk, New York 10504

JMC Project: 18119
Date: 08/22/2022
Document Id: P:\2018\18119\ADMIN\SPEC\18119 SPEC SEWER AND WATER 2022-08-22.doc

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ARTICLE 1 - TRENCH EXCAVATION AND BACKFILL

1. DESCRIPTION

A. SCOPE

(1) The Contractor shall provide all labor, plant, material and equipment necessary and required to properly excavate and backfill all utility systems and subsurface structures to be installed under this Contract. Work shall include, but not be limited to:

(a) All necessary excavation, including disposal of unsuitable and/or surplus excavated material.

(b) All necessary bedding, backfill and compaction, including furnishing approved bedding material and additional suitable backfill material as required.

(c) Sheeting, shoring and bracing as necessary and required.

(d) Dewatering of trenches as necessary and required.

B. WORK SPECIFIED UNDER OTHER ARTICLES

(1) The following related work is specified under other Articles:

(a) Sanitary Sewers (Article 2)

(b) Water Lines (Article 3)

C. EXISTING UTILITIES AND SUBSURFACE STRUCTURES

(1) The Contractor is referred to project conditions and procedures regarding existing utilities and structures given under separate Articles of these Specifications and on the Drawings.

2. CONSTRUCTION DETAILS

A. GENERAL

(1) Trench excavation shall be carried out by the Contractor to conform with the line and grade of the various utilities and the bottom of the foundations and/or footings for subsurface structures as shown on the Drawings and as specified herein.

(2) All excavations shall be kept free from water, snow and ice during construction.

(3) The Contractor shall be responsible, at all times, for conducting all operations in a safe and prudent manner so that all workmen and the public will be protected from hazard. The Contractor shall observe all applicable Local, County, State and Federal requirements, and he shall obtain all necessary permits and pay all fees, deposits and charges required for acquiring said permits.

(4) In fill areas, all embankments shall be constructed to a minimum of 2 feet above the outside top (at the bell) of the pipes prior to beginning any trench excavation.

(5) The Contractor is referred to the report by the Geotechnical Engineer,Carlin-Simpson & Associates, dated September 10, 2003 for recommended procedures regarding the installation of utilities. The most stringent requirements stated in the geotechnical report by the Geotechnical Engineer or any other place in the Contract Documents shall be adhered to by the Contractor.

B. TRENCH EXCAVATION

(1) General Requirements - The Contractor shall be responsible for the excavation of all materials encountered, and with the exception of "Additional Trench Excavation" as hereinafter described, there will be no extra compensation for any excavation, regardless of the character or type of soils or materials encountered.

(2) Method of Trenching - Trench excavation shall be done with excavating machinery, except in such places where work performed in this manner will injure trees, buildings or existing utilities or structures, or where the use of machinery is specifically forbidden, in which case hand methods shall be employed.

(3) Preparation of Bottom of Trench - The trench bottoms shall be prepared to conform to the details on the Drawings and as specified herein. Special precautions shall be exercised to insure that pipe and conduit, when installed, will not rest on rock, masonry or any other materials which would present a non-uniform foundation. For bell and spigot pipe, bell holes shall be provided at each pipe joint to prevent bearing on the bell of the pipe. Where two or more pipes or conduits are to be laid in the same trench, the Contractor shall excavate the trench so that all pipe and conduit are laid on undisturbed or approved properly compacted material.

(4) Unsuitable Material at Bottom of Trench - When the material at the bottom of a trench is unsuitable, as determined by the Owner's Field Representative and/or Geotechnical Engineer, it shall be removed to such depth as the Owner's Field Representative and/or Geotechnical Engineer may direct, and backfilled with suitable and properly compacted granular material obtained from the Project excavation, or from borrow material if it is not available within the Project. Compaction of this replacement material shall be not less than 95% Maximum Modified Density (ASTM Designation D-1557).

(5) Excavation Below Required Grade - Excavation below the grade of pipe, conduit or subsurface structures shown on the Drawings, necessitated by changes in grades in accordance with the directions of the Site Engineer and/or Owner's Field Representative, will be paid for under "Additional Trench Excavation", as hereinafter defined. However, if removal of unsuitable material and replacement with suitable material is required as a result of the Contractor's operations or negligence, it shall be the Contractors responsibility to correct the condition at his own cost and expense, and no additional payment shall be made to the Contractor by the Owner for removal and replacement of such material. Removal and replacement of material without written authorization, is performed at the Contractor's expense.

Excavation carried below the required level without the authorization of the Owner's Field Representative shall be backfilled by the Contractor at his expense with suitable compacted granular material as directed by the Owner's Field Representative. Compaction of backfill material shall be as specified above under Paragraph 2.B.(4).

(6) Excavation in Paved Areas - When excavations are to be made in paved surfaces, the paved surfaces shall be line cut on each side of the trench and ahead of the excavation by means of saw cutting or other approved tools to provide a clean, uniform edge, with minimum disturbance of the remaining pavement. The pavement so removed shall not be used for trench backfill, but shall be disposed of as directed by the Owner's Field Representative.

(7) Unsuitable Excavated Material - Unsuitable excavated material shall be disposed of by the Contractor in accordance with the directions of the Owner's Field Representative and/or Geotechnical Engineer.

(8) Surplus Excavated Material - Excavated material which is not required for trench backfill shall be disposed of by the Contractor where and as directed by the Owner's Field Representative. In general, suitable surplus excavated material may be used as fill material.

C. TRENCH EXCAVATION IN ROCK

(1) General Requirements - If rock is encountered in trench, the Contractor shall excavate, remove and dispose of rock in trench within the limits specified and in accordance with the Drawings and Specifications and/or as approved by the Owner's Field Representative.

Trench excavation in rock shall be defined as removal of boulders larger than one (1) cubic yard in volume and removal of ledge rock, concrete or masonry structures which cannot be ripped with a one and one-half (1-1/2) cubic yard backhoe or equivalent and requires drilling, blasting, or other special methods for removal. Removal of concrete pavement over trench is not considered trench excavation in rock.

For pipe and conduit installation, rock excavation shall be carried to a level at least six (6) inches below the bottom of the pipe or conduit. The trench shall then be brought to proper grade for laying of the pipe or conduit by the placing of Select Bedding as directed by the Owner's Field Representative.

(2) Shattered Rock - If, in the course of rock excavation, the rock below grade is shattered due to over-drilling or over-blasting, and the Owner's Field Representative and/or Geotechnical Engineer considers such shattered rock to be unfit for support of pipe, conduit or structures, the shattered rock shall be removed and the excavation backfilled with concrete, gravel or crushed stone, as the Owner's Field Representative and/or Geotechnical Engineer directs. All such removal, backfilling and corrective work shall be done by and at the expense of the Contractor.

(3) Blasting - When drilling and blasting are permitted, the Contractor must employ licensed personnel, and adhere to all Local, County, State and OSHA Regulations regarding the use and storage of explosives, and he shall acquire all necessary insurance, permits and licenses. The Contractor shall be responsible for all damages due either directly or indirectly to such operations.

Blasting, when permitted, shall be done only at such times as the Owner and those Authorities having jurisdiction shall approve and under such conditions and restrictions as they may impose.

As soon as rock is encountered in trench, it shall be uncovered by the Contractor, and the Owner's Field Representative shall be notified. The Contractor shall employ a licensed land surveyor, approved by the Owner's Field Representative, to accurately measure in the field the rock surface elevations along the length of the trench. These rock elevations shall be

accurately plotted to scale on trench profiles, as approved by the Site Engineer, and shall be certified by the surveyor. The expense of taking said profiles and the plotting of same by the licensed land surveyor shall be borne by the Contractor.

A reproducible set of the certified profiles and a copy of the surveyor's field notes shall be provided to the Site Engineer who shall use this data to compute the amount of rock excavated.

The amount of rock excavated will be determined by the "Method of Average End Areas," with planimeter accuracy. Payment lines for trench excavation in rock shall be as follows:

(a) Pipes, Conduits and Culverts

Bottom Payment Line - The elevation of the bottom payment line shall be six (6) inches below the bottom of the pipe, conduit or culvert as shown on the details of the Drawings or as directed by the Owner's Field Representative.

Top Payment Line - The top payment line shall be existing rock surface if below subgrade surface, or subgrade surface if below existing rock surface. Rock located above subgrade surface shall be excavated in accordance with the requirements specified under the Article of these Specifications entitled "Excavation and Embankment." The item of "Trench Excavation in Rock" is only applicable below subgrade surface; payment for removal of rock above subgrade surface shall be considered as included in the Contract Sum.

Side Payment Lines - The width of excavation shall be based on a one (1) foot clearance on each side of the outside wall of pipes, conduits or culverts and vertical to the bottom of the trench as shown on the details of the Drawings.

(b) Underground Structures Including Manholes, Catch Basins, Drain Inlets

Bottom Payment Line - The elevation of the bottom payment line shall be the bottom of the footing or base.

Top Payment Line - Same as for pipes, conduits and culverts.

Side Payment Lines - The width of excavation shall be one (1) foot outside the wall of the structure and vertical to bottom of the trench as shown on the details of the Drawings.

The unit price bid for "Trench Excavation in Rock" shall include furnishing and placing the approved bedding and backfill as shown on the details of the Drawings.

D. ADDITIONAL TRENCH EXCAVATION

(1) Authorized Changes and/or Alterations - The Site Engineer and/or Owner's Field Representative may, as a result of unforeseen conditions arising during the progress of the Work, order the grade or location of any pipe or structure changed from that established on the Drawings or from a location previously designated in the field, or may order the raising, lowering or alteration of any existing pipeline or structure.

(2) Additional Payment to Contractor - Should such changes or alterations result in an addition to the quantity of trench excavation, this additional excavation shall be considered as Extra Work and payment for same shall be made to the Contractor under the unit price in the Contract for "Additional Trench Excavation".

(3) Credit to Owner - Should such changes or alterations result in a reduction in the quantity of excavation, then the unit price in the Contract for "Additional Trench Excavation" shall be applied to the quantity of reduced excavation to determine a credit to the Owner for the reduction in the amount of excavation occasioned by such change.

(4) Method of Measurement - The quantity of "Additional Trench Excavation" measured for payment to the Contractor or reduction of trench excavation measured for credit to the Owner shall be determined by plotting the profile of the bottom of the trench for pipe and/or structures as indicated on the Drawings and the profile of the bottom of the trench for pipe and/or structures(s) in their final location and computing the difference in trench volume. The volume of additional trench excavation (in the case of additional payment to the Contractor) or reduced trench excavation (in the case of credit to the Owner) shall be measured using a constant width of trench equal to the outside pipe diameter plus two (2) feet for pipe and one (1) foot outside of walls for structure(s). The depth of the excavation shall be measured from subgrade elevation in cut areas and from two (2) feet above the outside top of pipe in embankment areas.

E. BEDDING

(1) General Requirements - Bedding in trench for pipe and conduit shall be as shown in the detail on the Drawings and as specified herein. Particular requirements are defined for trenching within the City right-of-way. Requirements for bedding shall be as follows:

(a) Standard Bedding - shall consist of bedding the pipe or conduit on a properly prepared foundation of natural undisturbed earth for trench excavation in cut areas and properly compacted earth for trench excavation in fill areas as shown in detail on the Drawings. The bed shall have recesses to receive the bell of bell and spigot pipe.

(b) Select Bedding - shall consist of a bed of properly compacted granular bedding material (sand as specified) having a compacted thickness of at least six (6) inches below the bottom of the pipe or conduit and extending around the pipe or conduit for at least 30% of its diameter or rise. The layer of bedding material shall be shaped to fit the pipe or conduit for at least 15% of the outside diameter or rise of the pipe or conduit and shall have recesses shaped to receive the bell of bell and spigot pipe. Sand bedding shall be clean, well-graded sand consisting of hard, durable particles free from lumps of clay, loam and all other deleterious substances. Item No. 4 shall be Type 2 NYSDOT Item 304.12. When When Select Bedding is specified, the Contractor shall furnish, place and compact all necessary and required select bedding material at no additional cost to the Owner.

Select Bedding shall be used for all polyethylene, polyvinyl chloride pipe, ductile iron pipe and conduit installation. Except for polyethylene and polyvinyl chloride pipe and conduit installation, and unless otherwise shown on the details of the Drawings, specified or directed by the Owner's Field Representative, Standard Bedding may be used.

F. BACKFILLING

(1) General Requirements - Upon approval by the Owner's Field Representative of bedding and pipe installation, and after proper inspection and tests have been made, excavations shall be backfilled by the Contractor with the type of backfill material specified. Particular requirements are defined for trenching within the City right-of-way. Excavations shall be backfilled and compacted as specified herein and in accordance with the details of the Drawings using the following materials:

(a) Standard Backfill - shall consist of on-site material (earth) approved by the Owner's Field Representative and/or Geotechnical Engineer. Should there be a deficiency of proper on-site material for backfilling, the Contractor shall furnish, place and compact additional proper backfill material, at no additional cost to the Owner.

(b) Select Backfill - shall consist of granular material (sand or item 4 as specified) as approved by the Owner's Field Representative and/or Geotechnical Engineer. Sand shall consist of clean, well graded, hard, durable particles, free of lumps of clay, loam and all other deleterious substances. Item No. 4 shall be Type 2 NYSDOT Item 304.12. When Select Backfill is specified, the Contractor shall furnish, place and compact all necessary and required select backfill material at no additional cost to the Owner.

All backfill material shall be free from large stones, clods, topsoil, sod, frozen earth, wood or any other objectionable material as determined by the Owner's Field Representative and/or Geotechnical Engineer.

For all polyethylene and polyvinyl chloride pipe, ductile iron pipe and conduit installation, Select Backfill shall be used to backfill the trench until there is a minimum of six (6) inches of cover over the pipe or conduit. Above this level, and unless specified otherwise or directed by the Owner's Field Representative, Standard Backfill may be used.

Except for polyethylene and polyvinyl chloride pipe and conduit installation and unless otherwise shown on the details of the Drawings, specified, or directed by the Owner's Field Representative, Standard Backfill may be used.

Where use of Standard Backfill is permitted, the material used to backfill the trench up to a level two (2) feet above the top of the pipe shall be approved clean earth and shall contain no stone or broken rock greater than one (1) inch in size. Above a level two (2) feet higher than the top of pipe, the material used for backfill shall be approved material, which may contain not more than fifteen (15) percent stone or broken rock with no stone or piece thereof exceeding four (4) inches in size. Such stone or broken rock shall be thoroughly mixed with the earth so that there will be no voids in the backfill.

(2) Placement and Compaction - Backfill for pipe and conduit shall be placed evenly and carefully around and over the pipe or conduit in six (6) inch maximum layers. Each layer shall be thoroughly and carefully compacted until twelve (12) inches of cover exists over the pipe or conduit. The

remainder of the backfill may then be placed and compacted in maximum twelve (12) inch layers. Each layer shall be compacted by approved mechanical tamping machines.

Backfill shall be compacted to not less than 92% Maximum Modified Density in accordance with ASTM Designation D-1557 in the manner herein described.

Backfill shall proceed up to the lines and grades as shown on the Drawings and/or as directed by the Owner's Field Representative. Backfill areas which settle shall be corrected by the Contractor to the satisfaction of the Owner's Field Representative at the Contractor's expense.

(3) Removal of Sheeting - During backfill operations, no sheeting which is to be removed shall, at any time, extend into the backfill which is being compacted. The sheeting shall be withdrawn so as to always be above the backfill.

Any voids created while removing sheeting shall be immediately corrected by filling with select backfill material and compacting to the required density by the Contractor to the satisfaction of the Owner's Field Representative.

(4) Protection - The Contractor shall be responsible for safeguarding all pipes, conduits and structures being backfilled, and any damage occurring to same either during the backfilling operations or after the backfilling operations have been completed shall be corrected by the Contractor to the satisfaction of the Owner's Field Representative at the Contractor's expense.

G. SHEETING, SHORING AND BRACING

(1) General Requirements - At his own expense, the Contractor shall furnish, install and maintain such sheeting, shoring, bracing and cofferdamming, etc., as may be needed to support the sides and roofs of excavations and to prevent any earth or rock movements which might in any way diminish or affect the necessary width of the excavation, endanger the safety of persons, injure or delay the Work, or jeopardize the safety of adjacent pavements, property, buildings or other structures. The work of sheeting, shoring and bracing shall, at all times, be in accordance with the requirements of all Authorities having jurisdiction, including OSHA.

(2) Contractor to be Solely Responsible - The Contractor shall be entirely and solely responsible for the adequacy and sufficiency of all supports and of all sheeting, bracing, shoring, cofferdamming, etc. The Contractor shall assume entire and sole liability for damages on account of injury to

persons, adjacent pavements, and public and private property including, but not limited to, the work under construction, buildings and other structures, which injury shall result directly or indirectly from the Contractor's failure to install or to leave in place adequate and sufficient supports, sheeting, bracing, shoring, cofferdamming, etc.

H. DISPOSAL OF WATER

(1) General Requirements - The Contractor shall remove, by pumping or other means approved by the Owner's Field Representative, any surface or groundwater which may accumulate in excavations, and he shall at all times keep excavations dry while work is being done in them.

The water table shall be lowered below the bottom of the proposed excavation prior to making excavations extending below the water table. Any soil disturbed and which becomes unstable for support of pipes, foundations, structures, etc., shall be replaced by the Contractor as directed by the Owner's Field Representative and/or Geotechnical Engineer with an approved aggregate at the Contractor's expense.

(2) Grading of Adjacent Areas - Areas adjacent to any excavation shall be graded so as to prevent water from running into the excavations.

(3) Method of Disposal - The water from the excavations shall be disposed of in such a manner as will not cause injury or damage to the public health, public or private property, nearby streams, ditches, channels, rivers, water impoundment areas, the work contemplated or in progress, surfaces of the streets, nor cause any interference with the use of the same. The disposal of this water shall be done in a manner satisfactory to the Owner's Field Representative and/or Geotechnical Engineer and Authorities having jurisdiction.

Off-Site discharge shall adhere to all Local, State and Federal regulations.

(4) Erosion Control - The Contractor is advised that all operations must conform to the Article of these Specifications entitled "Temporary Soil Erosion, Sediment and Dust Control".

(5) Protection of Masonry and Concrete - Newly laid masonry and concrete shall be protected from damage resulting from dewatering operations by the use of canvas or other methods as may be approved. No water shall be allowed to run through newly laid masonry, concrete or pipes except with the approval of the Owner's Field Representative.

END OF ARTICLE 1

ARTICLE 2 - SANITARY SEWERS

1. DESCRIPTION

A. SCOPE

(1) The Contractor shall provide all labor, plant, material and equipment necessary and required to install all of the sanitary sewer facilities in accordance with the Contract Documents. Work shall include, but not be limited to:

(a) Installation of the sanitary sewer system consisting of all manholes, pipe and all necessary and required accessory items and operations including connection(s) to existing sanitary sewer facilities.

(b) Alteration and/or reconstruction of existing structures, including resetting existing and/or new castings to grade as required.

(c) Alteration, reconstruction and/or relocation of existing sanitary sewer facilities as required.

(d) Installation of building sanitary sewer service line(s) consisting of all pipe, fittings, and required accessory items and operations, including connection(s) to the proposed and/or existing sanitary sewer system.

(e) Installation of sanitary sewer facilities within the Public R.O.W. and/or easements.

B. WORK SPECIFIED UNDER OTHER ARTICLES

(1) The following related work is specified under other Articles:

(a) Trench Excavation and Backfill (Article 1)

C. OTHER REQUIREMENTS

(1) In addition to the requirements specified herein, the Contractor shall comply with the requirements as specified on the Drawings.

2. CONSTRUCTION DETAILS

A. GENERAL

(1) The Contractor shall install all sanitary sewer structures and pipe in the locations shown on the Drawings and/or as directed by the Owner's Field

Representative. Pipe shall be of the type and sizes specified and shall be laid accurately to line and grade. Structures shall be accurately located and properly oriented.

(2) The installation of all sanitary sewer structures and pipe shall conform to the requirements of all Authorities having jurisdiction.

(3) The requirements of the Health Department and any other Authority having jurisdiction shall govern the horizontal and vertical separation of sanitary sewers from water lines.

(4) Sanitary sewer lines which are to be installed within easements as shown on the Drawings shall be installed in accordance with requirements of the Sewer Authority. Prior to acceptance of the Work by the Owner, the Contractor will be required to submit a plan prepared by a licensed land surveyor, registered in the State in which the Work is performed, certifying the location of the sanitary sewer lines within the easements. The plan shall also show the location of all manholes with ties from three accessible points of reference to each manhole. All additional information required by the Sewer Authority shall also be included.

B. TRENCH EXCAVATION AND BACKFILL

(1) The provisions of the Article of these Specifications entitled "Trench Excavation and Backfill" shall govern all work under this Article.

C. STORAGE AND HANDLING

(1) Storage - Storage of sanitary sewer pipe and appurtenances on the job shall be in accordance with the manufacturers' recommendations, subject to the approval of the Owner's Field Representative. Storage locations of pipe and appurtenances on the site shall be subject to the approval of the Owner's Field Representative.

(2) Handling - All sanitary sewer pipe and appurtenances shall be protected against impact, shock and free fall, and only equipment of sufficient capacity and proper design shall be used in handling the pipe and appurtenances.

D. DAMAGE

(1) General - Sanitary sewer pipe and appurtenances which are defective from any cause, including damage caused by handling, and determined by the Owner's Field Representative as unrepairable, shall be unacceptable for installation and shall be replaced by the Contractor at no cost to the Owner.

Sanitary sewer pipe and appurtenances that are damaged or disturbed through any cause prior to acceptance of the Work shall be repaired, realigned or replaced by the Contractor as directed by the Owner's Field Representative, at the Contractor's expense.

E. PIPE INSTALLATION

(1) Laying Pipe - Each length of pipe shall be laid with firm, full and even bearing throughout its entire length, in a trench prepared and maintained in accordance with the details as shown on the Drawings and the Article of these Specifications entitled "Trench Excavation and Backfill". Pipe shall be laid upgrade with bells uphill unless otherwise directed by the Owner's Field Representative.

Every length of pipe shall be inspected and cleaned of all dirt and debris before being laid. The interior of the pipe and the jointing seal shall be free from sand, dirt and debris before installing the line. Extreme care shall be taken to keep the bells of the pipe free from dirt and debris so that joints may be properly assembled without overstressing the bells. No pipe is to be trimmed or chipped to fit.

No length of pipe shall be laid until the preceding lengths of pipe have been thoroughly embedded in place, so as to prevent movement or disturbance of the pipe.

(2) Full Lengths of Pipe - Only full lengths of pipe are to be used in the installation except that partial lengths of pipe may be used at the entrance to structures where necessary to obtain a proper connection to the structure.

(3) Pipe Entrances to Structures - All pipe entering structures shall be cut flush with the inside face of the structure, and the cut ends of the pipe and surface of the structure shall be properly rounded and finished so that there will be no protrusion, ragged edges, or imperfections that will impede the flow or affect the hydraulic characteristics of the installation. The method of cutting and finishing shall be subject to the approval of the Owner's Field Representative. Connections shall be made watertight by the use of approved rubber seals.

(4) Bedding and Backfilling - The type of materials to be used in bedding and backfilling and the method of placement shall conform to the requirements of the Article of these Specifications entitled "Trench Excavation and Backfill" and as shown on the details of the Drawings.

(5) Protection During Construction - The Contractor shall protect the installation at all times during construction. Movement of construction equipment, vehicles and loads over and adjacent to any pipe shall be done at the Contractor's risk.

At all times when pipe laying is not in progress, all open ends of pipes shall be closed by approved temporary watertight plugs. If water is in the trench when work is resumed, the plug shall not be removed until the trench has been pumped dry and all danger of water entering the pipe has been eliminated.

The Contractor shall furnish a sufficient pumping plant and shall provide and maintain at his own expense satisfactory drainage wherever needed in the trench and other excavations during the progress of the Work and at its completion for final inspection. No pipe or other structure shall be laid in water and water shall not be allowed to flow or rise under any concrete or other masonry. All water pumped or bailed from the trench or other excavation shall be conveyed in proper manner to a suitable point of discharge. The flow in all sewers, drains and watercourses encountered on the Work and in gutters along the sides of or across the Work shall be entirely provided for, both temporarily and permanently, as required, by the Contractor at his expense. All offensive water shall be removed from the Work at once.

(6) Grade and Alignment

(a) Gravity Sewers – Pipe for sanitary sewer gravity lines shall be laid accurately to the line and grade shown on the Drawings and/or as directed by the Owner's Field Representative. Each section of pipe shall be checked for line and grade after being laid. A survey instrument shall be used at all times during pipe laying operations, and all adjustments which must be made shall be made by removing material or filling with select bedding material under the barrel of the pipe as necessary and not by wedging or blocking any portion of the pipe. Deviations from line and grade shall be a basis for rejection of the line of pipe by the Owner's Field Representative. Any line which has been rejected shall be rebuilt to the correct line and grade by the Contractor at his own expense.

F. PIPE JOINTS

(1) All joints are to be made watertight in accordance with the requirements specified herein and on the Drawings.

(2) Unless otherwise permitted, jointing of all pipe and fittings shall be done entirely in the trench.

G. STRUCTURES (if needed)

(1) General Requirements - All sanitary sewer structures shall be built in accordance with the details and at the locations shown on the Drawings and as specified herein. Where a specific material of construction is indicated, no substitution will be allowed unless authorized in writing by the Owner's Field Representative and/or Site Engineer. Where more than one type of material of construction is indicated, the Contractor shall have the option of constructing the structure of any one of the materials specified. Precast concrete structures shall require shop drawing submission for review by the Site Engineer.

Cast-in-place concrete and/or masonry shall not be laid when the temperature is below 40 degrees F., or when indications are for lower temperatures within 24 hours, unless protection of concrete and masonry is approved by the Owner's Field Representative. In this event, the Contractor shall take measures to prevent concrete and masonry from being exposed to freezing temperatures for a period of not less than five (5) days after installation. Approval of the method of protection by the Owner's Field Representative shall not relieve the Contractor of his responsibility to protect the concrete and masonry from freezing, and any damage to the structure because of freezing shall be corrected by the Contractor at his own expense, to the satisfaction of the Owner's Field Representative.

All cast-in-place concrete and masonry shall be installed by personnel experienced and skilled in this work, and any person not deemed to be such by the Owner's Field Representative shall be removed and replaced by a person so qualified.

Sanitary sewer structures are to be constructed as soon as the pipe laying reaches the location of the structures. Should the Contractor continue his pipe laying without making provision for completion of the structures, the Owner's Field Representative shall have the authority to stop the pipe laying operations until the structure is completed.

In constructing manholes and other sanitary sewer structures, the Contractor shall accurately locate each structure and set accurate templates to conform to the required line and grade. Any structure which is mislocated or oriented improperly shall be removed and rebuilt in its proper location, alignment and orientation at the Contractor's expense.

The Contractor shall use extreme care in the handling of precast concrete structures. Any damage occurring to the precast concrete structures due to carelessness in handling or due to any of the Contractor's operations shall be repaired or replaced by the Contractor at his own expense to the complete satisfaction of the Owner's Field Representative and Site Engineer.

Unless otherwise specified, all structures shall be constructed on concrete foundations. All foundations shall rest on firm soil of uniform bearing. If the soil beneath the foundation is unsuitable, the Contractor shall remove this unsuitable material as directed by the Owner's Field Representative and/or Geotechnical Engineer and replace it with and approved properly compacted granular backfill material conforming to the requirements of the Article of these Specifications entitled "Trench Excavation and Backfill" to the bottom elevation of the structure.

Pipe connections to structures shall be made watertight.

(2) Cast-in-Place Concrete Structures - Cast-in-place concrete structures shall be constructed of Class "A" concrete with reinforcing as shown in detail on the Drawings and as specified herein.

Material and construction requirements shall be as specified under the Article of these Specifications entitled "Site Concrete".

(3) Precast Concrete Structures - Precast concrete structures shall be installed only after shop drawings have received final review by the Site Engineer. All precast concrete structures shall be designed and fabricated for an H-20 loading.

The base of the precast concrete structures shall be set on a foundation pad of crushed stone eight (8) inches in compacted thickness. Foundations of all precast concrete structures shall rest on firm soil of uniform bearing. If soil beneath the foundation is unsuitable, the Contractor shall remove the unsuitable material as directed by the Owner's Field Representative and/or Geotechnical Engineer and replace it with and approved properly compacted granular material conforming to the requirements of the Article of these Specifications entitled "Trench Excavation and Backfill" to the bottom elevation of the crushed stone pad.

Provisions shall be made for installation of approved watertight connections at pipe entrances to precast concrete structures.

The precast concrete top section shall be set sufficiently below finished grade to permit adjustment of the casting using brick or precast concrete

adjustment rings as risers to adjust the grade of the casting (minimum 4" – maximum 12" adjustment). Manhole frames shall be set on a grout pad as specified hereinabove.

(4) Shallow Circular Structures - For shallow circular structures, the top conical section shall be replaced by a flat reinforced concrete slab with the proper size opening to accommodate the specified casting. The reinforced concrete slab shall have a minimum thickness of six (6) inches and shall be designed and fabricated for a H-20 loading. In general, and unless otherwise specified or directed by the Owner's Field Representative and/or Site Engineer, the flat slab top shall be used for circular structures whose depth from pipe invert to finished grade is five (5) feet or less.

(5) Inverts - Smooth invert channels shall be constructed in all manholes. Unless otherwise specified, inverts channels shall be constructed of concrete.

If brick inverts are specified or permitted, special care shall be taken in laying brick inverts. Joints shall not exceed three-sixteenth (3/16) inch in thickness and each brick shall be carefully laid in full cement mortar joints on bottom, sides and ends in one operation. No grouting or working in of mortar after laying of the brick shall be permitted.

Extreme care shall be taken by the Contractor to construct invert channels to the shape, elevations and dimensions shown, specified or ordered by the Owner's Field Representative and/or Site Engineer.

When a curve in the invert channel or some other condition prevents the use of channels as shown on the Drawings, then such channels shall be constructed in accordance with the directions of the Owner's Field Representative and/or Site Engineer.

When pipes entering and leaving a manhole are of different diameters, the invert channel shall be constructed so as to provide a smooth transition from the inflow pipe(s) to the outflow pipe.

The invert channel shall be carried up to the elevations shown on the Drawings and/or as directed by the Owner's Field Representative. Channels shall slope smoothly and evenly from the inflow pipe(s) to the outflow pipe.

Invert channels shall be built for future extensions where shown on the Drawings and/or where directed by the Owner's Field Representative.

(6) Frames and Covers - Frames and covers for sewer structures shall be of the types and sizes indicated on the Drawings. Frames shall be well bedded in mortar and shall be set accurately to the correct alignment and grade. In areas to be paved, frames shall be set by using four (4) points of reference, set 90 degrees apart, to insure accurate setting to proposed pavement grade.

(7) Steps - Steps shall be installed in all manholes. Steps shall be set securely in place during fabrication of the wall section for precast concrete structures. Spacing of steps shall be as shown in detail on the Drawings.

H. CONNECTIONS TO EXISTING FACILITIES

(1) General Requirements - The Contractor shall make all required connections of the proposed sanitary sewer into existing sanitary sewer facilities where and as shown on the Drawings and/or as directed by the Owner's Field Representative.

(2) Compliance with Requirements of Owner of Facility - Connections made into existing sanitary sewer facilities owned by others shall be done in accordance with the requirements of the owner of the facility. The Contractor shall be required to comply with all such requirements, including securing of all required permits, and paying the costs thereof. The cost of making the connections in accordance with the requirements of the owner of the existing facility shall be included in the Contract Sum.

I. ALTERATION AND/OR RECONSTRUCTION OF EXISTING STRUCTURES

(1) General Requirements – Existing structures shall be altered and/or reconstructed where as shown on the Drawings, and/or directed by the Owner's Field Representative. In general, alterations shall be made with the same type of material used in the original construction unless otherwise indicated on the Drawings or directed by the Owner's Field Representative.

(2) Adjustment to New Grade and Alignment - All castings on existing structures that are to remain shall be adjusted to new grade and alignment. When such adjustment is required the castings shall be carefully removed and the walls of the structures reconstructed as required. The castings shall be cleaned and reset in a firm mortar bed to the new grade and alignment. Existing castings which are broken, damaged or otherwise unfit for incorporation into the new work shall be replaced under the Contract Sum.

(3) Removal of Portions of Walls of Existing Structures - In all cases of alteration and/or reconstruction of existing structures, existing walls shall be removed to a point where the existing walls will provide sound and

adequate foundation for the construction of the new walls as determined by the Owner's Field Representative.

(4) Reconstruction and/or Rebuilding of Existing Invert - Where new pipes are to be installed into an existing structure, the existing invert shall be reconstructed and/or rebuilt as directed to accommodate installation of the new pipes and provide for proper transition of flows into and out of the structure.

(5) Damage to Existing Structure and/or Pipe - Extreme care shall be exercised by the Contractor during such alteration and/or reconstruction so as not to damage any portions of the structure and/or pipe shown to remain. Any such damage shall be repaired by the Contractor at his own expense, to the satisfaction of the Owner's Field Representative.

(6) Structures to be Cleaned - Upon completion of alteration and/or reconstruction of existing structures, all structures shall be cleaned of any accumulation of silt, debris or foreign matter of any kind and shall be kept clean of such accumulation until final acceptance of the work.

J. RELOCATION AND/OR ABANDONMENT OF EXISTING FACILITIES

(1) The Contractor shall not abandon, disconnect, obstruct or in any other way interfere with the operation of an existing sewer facility until such time as adequate permanent or temporary substitute facilities have been constructed and placed in operation.

K. SERVICE LINES

(1) General Requirements - The Contractor shall make all required connection(s) of the building sanitary sewer service line(s) into the on-site sanitary sewer system where and as shown on the Drawings and/or as directed by the Owner's Field Representative. Work shall include making the service line connection(s) into the on-site sanitary sewer system, furnishing and installing all service line pipe from the on-site sanitary sewer system to point(s) located five (5) feet outside of the building lines and properly sealing the end(s) with watertight plugs, except that, if the building plumbing contractor has installed his portion of the sanitary sewer service line, work shall also include final connection(s) of the sanitary sewer service line(s) five (5) feet outside of the building lines to the building service line installed by the building plumbing contractor. The connection(s) shall be made utilizing proper fittings compatible with the building service line(s) providing watertight connection(s) and shall be done at no additional cost to the Owner.

(2) Coordination with Building Plumbing Contractor - The Contractor will be required to coordinate his work with the work of the building plumbing contractor to determine the exact location(s) and elevation(s) of the point(s) of entry into the building(s).

N. TESTS

(1) General Requirements - The Contractor shall test the completed sanitary sewer for leakage and deflection as specified herein. In the event of conflict between the test requirements specified herein and the test requirements of Authorities having jurisdiction over all or any portion of the sanitary sewer installed under this Contract, the more restrictive requirements shall govern.

The tests shall be conducted by the Contractor, as directed by the Owner's Field Representative and Site Engineer, and the Contractor shall furnish all necessary equipment, materials and labor for the tests as specified.

The Contractor shall notify the Owner's Field Representative and Site Engineer at least 48 hours prior to the start of testing. Testing shall be done only in the presence of the Owner's Field Representative and Site Engineer.

Runs of pipe and/or manholes tested for leakage prior to completion of the Project shall be subject to additional leakage tests, if warranted, in the opinion of the Owner's Field Representative or Site Engineer.

(2) Gravity Sewers - shall be tested as follows:

(a) Leakage Tests - The test length intervals and type of leakage test shall be approved by the Owner's Field Representative and Site Engineer. In the case of sewers laid on steep grades, the length of line to be tested by exfiltration at any one time may be limited by the maximum allowable internal pressure on the pipe and joints at the lower end of the line. Depending on field conditions and/or desire of the Contractor, the following tests for leakage may be employed:

1. Hydrostatic Test

The test period, wherein the measurements are taken shall not be less than four (4) hours in either type of test. The total leakage of any section tested shall not exceed the rate of 100 gallons per mile of pipe per 24 hours per inch of nominal pipe diameter. For purposes of determining the maximum allowable leakage, manholes shall be considered as sections

of pipe and shall be tested at a level above the highest joint prior to the concrete/rim connection.

(i) Infiltration Test - This test may be used only when ground water levels are at least two (2) feet above the top of the pipe for the entire length of the section to be tested during the entire period of the test. Ground water levels may be measured in an open trench or in standpipes previously placed in backfilled trenches during the backfilling operations. When standpipes are installed in the backfill for ground water measurement, the lower ends of these shall be satisfactorily embedded in a mass of crushed stone or gravel to maintain free percolation and drainage. Infiltration through joints shall be measured by using a watertight weir or any other approved device for volumetric measurement installed at the lower end of the section under test.

(ii) Exfiltration Test - This test consists of filling the pipe with water to provide a head of at least two (2) feet above the top of the pipe or two (2) feet above ground water, whichever is higher, at the highest point of the pipe line under test, and then measuring the loss of water from the line by the amount which must be added to maintain the original level. In this test the line must remain filled with water for at least twenty-four (24) hours prior to the taking of measurements. Exfiltration shall be measured by the drop of water level in a closed-end standpipe or in one of the sewer manholes available for convenient measuring.

When a standpipe and plug arrangement is used in the upper manhole of a line under test, there must be some positive method of releasing entrapped air in the sewer prior to taking measurements.

2. Vacuum Testing of Manholes – shall conform to the requirements of ASTM Designation C-1244 "Standard Test Method for Concrete Sewer Manholes by Negative Air Pressure (Vacuum) Test Prior to Backfill".

3. Low-Pressure Air Test of Plastic Pipe Lines – shall conform to the requirements of ASTM Designation F-1417 "Standard

Test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air".

(b) Deflection Tests - The Contractor shall test all thermoplastic main line pipe by use of a calibrated mandrel or other device approved by the Owner's Field Representative to ensure that no pipe deflection has occurred greater than 5 percent of the inside diameter of the pipe. The Contractor shall test the entire length of the sewer installed. Any pipe section exhibiting greater than 5 percent deflection shall be replaced and retested, at no additional cost to the Owner. If a second deflection test is required, it will be at the Contractor's expense.

(4) Correction of Defective Work - If the tests exceed the specified amount, the Contractor shall, at his own expense, make the necessary repairs or replacements required to permanently reduce the leakage and/or deflection to within the specified limit, and the tests shall be repeated until the test requirements are met. All additional tests required by the Owner and Authorities having jurisdiction shall be at the Contractor's expense.

Any defects found in the sanitary sewers shall be made good by and at the expense of the Contractor so as to conform strictly to the Specifications and to the satisfaction of the Owner's Field Representative. All repairs shown necessary by the tests shall be made, broken or cracked pipe replaced, all deposits removed, and the sanitary sewers left true to line and grade and entirely clean, free from lumps of cement, protruding gaskets, bulkheads, etc., and ready for use before final acceptance shall be made by the Owner.

O. CLEANING AND REPAIR

(1) The Contractor will be required to clean the entire sanitary sewer system of all debris and obstructions. This shall include, but not be limited to, removal of all formwork from structures, concrete and mortar droppings, construction debris and dirt. The system shall be thoroughly flushed clean and the Contractor shall furnish all necessary hose, pumps, pipe and other equipment that may be required for this purpose. No debris shall be flushed into existing sanitary sewers or streams. All debris shall be removed from the system.

After the system has been cleaned, the Contractor shall thoroughly inspect the system and all repairs shown to be necessary shall be promptly performed by the Contractor.

All work of cleaning and repair as specified herein shall be performed at the Contractor's expense and to the complete satisfaction of the Owner's Field Representative.

P. FINAL INSPECTION

(1) Upon completion of the Work and before final acceptance by the Owner, the entire sanitary sewer system shall be subjected to a final inspection in the presence of the Site Engineer and/or Owner's Field Representative. The work shall not be considered complete until all requirements for line, grade, cleanliness, tests and workmanship have been met.

3. MATERIALS

The materials to be used in the construction shall be those indicated on the Drawings and specified herein, and the Contractor shall supply to the Owner's Field Representative, prior to installation, certificates of compliance for the materials used. The Contractor shall also submit shop drawings and catalog cuts of all sanitary sewer items and appurtenances (pipe, fittings, castings, steps, precast concrete structures, etc.) to the Site Engineer for review prior to ordering.

A. SANITARY SEWER PIPE, FITTINGS AND JOINTS

(1) Polyvinyl Chloride Pipe and Fittings For Gravity Lines (PVCP) - shall conform to the requirements of ASTM Designation D-3034 for SDR-35 extra strength pipe and fittings. Pipe shall have integral wall bell and spigot joints. Assembly shall be by means of push-on joints using flexible elastomeric seals conforming to ASTM Designation D-3212.

All fittings and accessories shall be furnished by the pipe manufacturer. Joint lubricant shall be as recommended by the pipe manufacturer.

B. STRUCTURES (if needed)

(1) General - Where material requirements specified hereinafter conflicts with the requirements of those Authorities having jurisdiction, the requirements of the Authority having jurisdiction shall govern.

(2) Brick - shall conform to the "Specifications for Sewer and Manhole Brick (made from Clay or Shale)", AASHTO Designation M-91, Grade MS.

(3) Concrete Block - shall be solid block and shall conform to the "Specifications for Concrete Masonry Units for Construction of Catch Basins and Manholes," ASTM Designation C-139.

(4) Precast Concrete Structures - Prior to fabrication, the Contractor shall submit four (4) sets of plans of the proposed precast concrete structures to the Site Engineer for review along with design criteria and certification from the manufacturer by a licensed Professional Engineer registered in the State in which the Work is performed that the structure will support the design load. All precast concrete structures shall be designed and fabricated for an H-20 loading. The minimum compressive strength of the concrete used for all precast concrete structures shall be 4,000 psi.

Precast concrete manhole sections shall conform to ASTM Designation C-478. Precast concrete square or rectangular box structures shall conform to ASTM Designation C-913.

Joints in the structures shall be tongue and groove joints, formed in such a manner so that a watertight rubber seal can be applied. Joints for precast concrete manhole sections shall conform to ASTM Designation C-443 or ASTM designation C-990. Joints for precast concrete box sections shall conform to ASTM Designation C-990. Provisions shall be made for installation of approved watertight connections to precast concrete structures.

Where steps are required in structures, steps shall be installed during the casting of the structures, aligned as specified herein. Steps shall be spaced 12 inches vertically on-centers, and shall be arranged so that the lowest rung is no more than 15 inches above the bench in structures with an invert and above the bottom of the structures with no invert. The top rung is to be installed no more than 24 inches below the top of the casting. Steps shall be arranged out of the alignment of the pipes and/or floor channel and shall be centered in the opening of the cover.

No precast concrete structure shall be fabricated or delivered to the job site until it has received final review status by the Site Engineer. All structures shall have an identifying number and manufacturer's name on each section.

When precast concrete structures are to be used, the Contractor shall bear all responsibility for the proper locations and sizes of all openings to receive the pipe. Final review of shop drawings by the Site Engineer shall not relieve the Contractor of his responsibility in this matter.

(5) Manhole Frames and Covers - shall be as specified on the Drawings. Castings shall be gray cast iron, American made by a nationally recognized casting manufacturer conforming to the requirements of AASHTO Designation M-105, Class 30, and shall be true to pattern in form and dimensions as specified, and shall be free from pouring faults, sponginess, cracks, blowholes and other defects that affect their strength and other

characteristics for the intended use. All surfaces shall have a workmanlike finish.

All component parts shall fit together in a satisfactory manner and frames and covers shall be of a design that will prevent rocking or rattling under traffic. Frames and covers that are warped or rocking, as determined by the Owner's Field Representative, shall be rejected and shall be removed and replaced to the satisfaction of the Owner's Field Representative at no cost to the Owner.

Unless otherwise specified, the word "SEWER" shall be integrally cast on the cover in raised letters and centered. Letter size shall be two (2) inches.

If directed, and at no additional cost to the Owner, castings shall be coated with an asphalt paint which shall result in a smooth coating and not be tacky or brittle.

(6) Concrete and Reinforcing - shall conform to the requirements as specified herein under the Article entitled "Site Concrete".

(7) Mortar - shall be composed of one (1) part Portland cement and two (2) parts sand by volume. Material requirements shall be as follows:

(a) Portland Cement - shall conform to the requirements of AASHTO Designation M-85.

(b) Mortar Sand - shall conform to the requirements of AASHTO Designation M-45, except that aggregate shall be no coarser than #8 sieve size.

(c) Water - shall be clean and shall not contain any oil, acid, alkali, salts, vegetable matter, organic matter or other deleterious substances. When possible, water shall be from a municipal system.

Hand mixing of mortar will be permitted only when, in the opinion of the Owner's Field Representative, the amount of mortar to be used makes machine mixing undesirable. When hand mixing is used, the ingredients must first be thoroughly mixed dry in a tight box. The proper quantity of clean water shall then be gradually added, and the materials shall be hoed or worked until a uniform mixture is secured. Admixtures may be added only with the prior written consent of the Owner's Field Representative.

No greater quantity of mortar is to be prepared than is required for immediate use, and it shall be worked over constantly with hoe or shovel until used. No mortar shall be retempered, and none shall be used more

than one and one-half (1-1/2) hours after mixing. All mortar which remains upon stopping work shall be discarded.

(8) Steps - Steps in sanitary sewer structures shall be as specified herein and on the details of the Drawings and shall meet the requirements for steps and ladders as specified under ASTM Designation C-478.

(a) Plastic Coated Steel - shall be No. 4 deformed reinforcement bar meeting the requirements of ASTM Designation A-615, Grade 60 which shall be coated with polypropylene plastic meeting the requirements of ASTM Designation D-2146 for Type II, Grade 49108.

All steps shall be true to pattern, form dimensions, and free from defects which would affect their strength. Steps having defects filled with putty or cement of any kind shall be rejected.

C. IDENTIFICATON

(1) Detectable Marking Tape – Marking tape shall be a composite plastic metallic tape, at least 5 mils in thickness with impervious plastic film on both sides and aluminum foil in the center. The minimum tensile strength shall be 185 pounds. The tape shall be at least 3 inches in width, colored green and shall be permanently printed on both sides "CAUTION SEWER LINE BURIED BELOW".

Marking tape shall be installed between 12 and 24 inches of cover.

Subject to the compliance with requirements, provide plastic line markers of one of the following:

Allen System, Inc.
Seton Name Plate Corp.
Emed Co., Inc.

END OF ARTICLE 2

ARTICLE 3 - WATER LINES

1. DESCRIPTION

A. SCOPE

(1) The Contractor shall provide all labor, plant, material and equipment necessary and required to install all of the water line facilities and irrigation system in accordance with the Contract Documents. Work shall include, but not be limited to:

(a) Installation of water distribution system consisting of all pipe, fittings, valves, valve boxes, hydrants, anchor and/or thrust blocks, and all necessary and required appurtenances, accessory items and operations including connection(s) to the existing water main(s).

(b) Installation of building water service line(s), consisting of all pipe, fittings, valves and valve boxes, anchor and/or thrust blocks, and all necessary and required accessory items and operations, including connection(s) to the water distribution system.

(c) Installation of water lines within the public right-of-way and/or easements.

(d) Testing and disinfection.

B. WORK SPECIFIED UNDER OTHER ARTICLES

(1) The following related work is specified under other Articles:

(a) Trench Excavation and Backfill (Article 1)

C. OTHER REQUIREMENTS

(1) In addition to the requirements specified herein, the Contractor shall comply with the requirements as specified on the Drawings.

2. CONSTRUCTION DETAILS

A. GENERAL

(1) The Contractor shall install all water line pipe, fittings and appurtenances in the locations as shown on the Drawings and/or as directed by the Owner's Field Representative. Pipe and fittings shall be of the type and sizes specified and shall be laid accurately to line and grade. Hydrants, valves

and all other water line appurtenances shall be accurately located and properly oriented.

(2) The installation of all water lines shall conform to the requirements of all Authorities having jurisdiction. The Water Authority as referred to herein shall be understood to refer to the City of Beacon Water Department.

(3) The requirements of the Health Department and any other Authority having jurisdiction shall govern the horizontal and vertical separation of water lines from sanitary sewers and storm drains and the hydrostatic testing and disinfection of the water line.

(4) Water lines which are to be installed within easements as shown on the Drawings shall be installed in accordance with requirements of the Water Authority. Prior to acceptance of the Work by the Owner, the Contractor will be required to submit a plan prepared by a licensed land surveyor, registered in the State in which the Work is performed, certifying the location of the water lines within the easements. The plan shall also show the location of all hydrants and gate valves with ties from three accessible points of reference to each gate valve. All additional information required by the Water Authority shall also be included.

B. TRENCH EXCAVATION AND BACKFILL

(1) The provisions of the Article of these Specifications entitled "Trench Excavation and Backfill" shall govern all work under this Article.

C. STORAGE AND HANDLING

(1) Storage - Storage of pipe, fittings, valves, hydrants and other water line appurtenances on the job shall be in accordance with the manufacturers' recommendations, subject to the approval of the Owner's Field Representative. Location of storage areas on the site shall be subject to the approval of the Owner's Field Representative.

(2) Handling - All pipe, fittings, valves, hydrants and other water line appurtenances shall be protected against impact, shock and free fall, and only equipment of sufficient capacity and proper design shall be used in their handling. Special care shall be taken to prevent damage to pipe coatings. The interior of the pipe shall be cleaned before being laid and shall be kept clean until accepted.

All material shall be carefully inspected for defects in workmanship and materials; all debris and foreign material cleaned out of valve openings, etc.; all operating mechanisms operated to check their proper functioning;

and all nuts and bolts checked for tightness. Valves, hydrants and other equipment which do not operate easily or are otherwise defective shall be repaired or replaced to the satisfaction of the Owner's Field Representative and Site Engineer at the Contractor's expense.

D. DAMAGE

(1) General - Pipe, fittings, valves, hydrants and other water line appurtenances which are defective from any cause, including damage caused by handling, and determined by the Owner's Field Representative as unrepairable, shall be unacceptable for installation and shall be replaced at no cost to the Owner as directed by the Owner's Field Representative.

(2) Damage Due to Cutting - All cutting of ductile iron pipe shall be done with an approved power-driven or mechanical cutter. All cut ends shall be thoroughly examined for possible cracks caused by cutting, and any cut pipe found to have such cracks shall be rejected. The cut ends of all pipe shall be beveled and ground smooth.

(3) Inspection for Damage - All pipe and fittings shall be subjected to a careful inspection and proper testing just before being laid. Any pipe, fitting or appurtenance which shows a crack or which has received a severe blow that may have caused an incipient fracture even though no such fracture can be seen, shall be marked as rejected and removed at once from the Work.

(4) Damage Prior to Acceptance - Pipe and all water line appurtenances that are damaged or disturbed through any cause prior to acceptance of the Work shall be repaired, realigned or replaced as directed by the Owner's Field Representative, at the Contractor's expense.

E. PIPE INSTALLATION

(1) Laying Pipe - Each length of pipe shall be laid with firm, full and even bearing throughout its entire length, in a trench prepared and maintained in accordance with the details on the Drawings and the Article of these Specifications entitled "Trench Excavation and Backfill". Pipe shall be laid upgrade with bells uphill unless otherwise directed by the Owner's Field Representative, with the top of pipe at a minimum depth as specified hereinafter, except where otherwise noted on the Drawings or directed by the Owner's Field Representative.

No pipe, valve, blow-off or fitting shall be laid on wood blocks. Similarly, no pieces of rock, brick, or other material other than earth or gravel shall be left under or adjacent to the pipe. Pipe laying, in general, shall conform to

the latest Standard Specifications of the AWWA for laying ductile iron pipe.

Generally, trenches shall not be opened for more than 200 feet in advance of pipe laying nor left unfilled for more than 100 feet in the rear of pipe laying. New trenches will not be permitted when earlier trenches require backfilling.

Every length of pipe shall be inspected and cleaned of all dirt and debris before being laid. The interior of the pipe and the jointing seal shall be free from sand, dirt and debris before installing in the line. Extreme care shall be taken to keep the bells of the pipe free from dirt and debris so that joints may be properly assembled.

No length of pipe shall be laid until the preceding lengths of pipe have been thoroughly embedded in place, to prevent movement or disturbance of the pipe.

(2) Bedding and Backfilling - The type of materials to be used in bedding and backfilling and the method of placement shall conform to the requirements of the Article of these Specifications entitled "Trench Excavation and Backfill" and as shown on the details of the Drawings.

(3) Protection During Construction - The Contractor shall protect the installation at all times during construction, and movement of construction equipment, vehicles and loads over and adjacent to any pipe shall be done at the Contractor's risk.

At all times when pipe laying is not in progress, all open ends of pipes shall be closed by approved temporary watertight plugs. If water is in the trench when work is resumed, the plug shall not be removed until the trench has been pumped dry and all danger of water entering the pipe has been eliminated.

The Contractor shall furnish a sufficient pumping plant and shall provide and maintain at his own expense satisfactory drainage wherever needed in the trench and other excavations during the progress of the Work and at its completion for final inspection. No pipe or other structure shall be laid in water, and water shall not be allowed to flow or rise under any concrete or other masonry. All water pumped or bailed from the trench or other excavation shall be conveyed in proper manner to a suitable point of discharge. The flow in all sewers, drains and watercourses encountered on the Work and in gutters along the sides of or across the Work shall be entirely provided for, both temporarily and permanently, as required, by the

Contractor at his expense. All offensive water shall be removed from the Work at once.

(4) Pipe Deflection - Maximum allowable deflection for pipe laid without fittings shall not exceed the pipe manufacturer's requirements and the requirements of the Water Authority. Deflection which exceeds the maximum allowable as established by the pipe manufacturer and the Water Authority or any other Authority having jurisdiction shall be grounds for rejection of the line of pipe by the Owner's Field Representative.

(5) Cover on Main - The water main shall be laid so as to provide a minimum cover of 5 feet below finished grade, or meet the requirements of the Water Authority, whichever is greater. The Contractor is advised that at pipe crossings, minimum cover must be maintained and also proper clearance between pipes must be maintained. No additional payment will be made for increased depth of trench to comply with crossing requirements.

F. JOINTS

(1) All joints are to be made watertight and pressure-tight in accordance with the requirements specified herein.

(2) Unless otherwise permitted, jointing of all pipe and fittings shall be done entirely in the trench.

(3) Except as may be otherwise specified herein, all sections of the pipe to be joined shall have a bell end and a plain end. Installation of cut sections of pipe without a bell end will not be allowed, except as specifically authorized by the Owner's Field Representative and/or Site Engineer in instances where repairs are to be made or pipe closures are required. In such instances, the design of the joint shall be as approved by the Site Engineer.

G. WATER LINE APPURTENANCES

(1) Fittings

(a) Fittings shall be used at all breaks in grade or alignment where deflection of the pipe exceeds the maximum allowable pipe deflection as specified hereinabove. Only proper fittings shall be used to obtain the required deflection.

(2) Valves and Valve Boxes

(a) Gate valves shall be installed on all water lines where and as shown on the Drawings and as specified herein. Unless otherwise stated, valves shall be of the same size as the line.

(b) Gate valves shall be installed on all hydrant laterals where and as shown on the Drawings.

(c) Valves shall be installed on all service lines in the locations shown and/or where directed by the Owner's Field Representative.

(d) Valve boxes shall be placed over all buried valves. Valve boxes shall be placed so as not to transmit vehicle loads or shock to the valves and shall be centered and set plumb over the operating nut of the valve. The cover of the box shall be set even with finished grade.

(3) Hydrants

(a) Hydrants shall be installed where and as shown on the Drawings and as specified herein.

(b) Hydrants shall be installed vertical and plumb, with the proper cover over the hydrant lateral and proper vehicular clearance from curb line and/or edge of pavement. The installation shall provide proper access for fire department connections.

(c) Hydrants and their installation shall conform to the requirements of the Water Authority and Fire Department.

(4) Restraining Devices

(a) All joints in the water distribution system shall be restrained joints and conform to the requirements of the Water Authority.

(b) At hydrants, the installation shall be rodded in accordance with the detail shown on the Drawings and/or as directed by the Owner's Field Representative.

(c) All plugs, caps, dead-ends and other fittings as may be directed shall be harnessed to the adjacent pipe with steel clamps and tie rods. If directed by the Owner's Field Representative, harnessing shall be extended beyond the adjacent pipe to provide proper length of restrained pipe.

(d) The installation of the restrained joints and rodding shall be as approved by the Site Engineer and the Water Authority.

(5) Concrete Blocking

(a) Where pipes change horizontal and vertical direction, at hydrants, tees and other fittings, and whenever abnormal thrust forces are developed, the Contractor shall construct thrust and/or anchor blocks as detailed on the Drawings. They shall be constructed of Class "A" concrete, of minimum dimensions as detailed on the Drawings or of adequate size to suit actual conditions to withstand the pressures anticipated, and shall be founded in virgin soil.

H. CONNECTIONS TO EXISTING FACILITIES

(1) General Requirements - The Contractor shall make all required connections of the proposed water line facilities into existing water line facilities, where and as shown on the Drawings and/or as directed by the Owner's Field Representative.

(2) Compliance with Requirements of Owner of Facility - Connections made into existing water line facilities owned by others shall be done in accordance with the requirements of the owner of the facility. The Contractor shall be required to comply with all such requirements, including securing of all required permits, and paying the costs thereof. The cost of making the connections in accordance with the requirements of the owner of the existing facility shall be included in the Contract Sum.

I. RELAYING AND/OR ALTERATION OF EXISTING WATER LINE

(1) General Requirements - The Contractor shall relay portions of the existing water line which interfere with the proposed construction where and as shown on the Drawings and/or as directed by the Owner's Field Representative.

(2) Compliance with Requirements of Owner of Facility - Relaying and/or alteration of existing water line facilities shall be done in accordance with the requirements of the owner of the facility. The Contractor shall be required to comply with all such requirements, including securing of all required permits, and paying the costs thereof. The cost of relaying and/or alterations in accordance with the requirements of the owner of the existing facility shall be included in the Contract Sum.

(3) Damage to Existing Water Line - The Contractor shall exercise extreme care during such relaying and/or alteration so as not to damage any portions of the water line which are to remain. Any such damage shall be repaired by the Contractor at his own expense and to the satisfaction of the Owner's Field Representative and the owner of the facility.

J. SERVICE LINES

(1) General Requirements - The Contractor shall make all required connection(s) of the building water service line(s) into the on-site water distribution system where and as shown on the Drawings and/or as directed by the Owner's Field Representative. Work shall include making the service line connection(s) to the on-site water distribution system, furnishing and installing service line valve(s), valve box(es) and all service line pipe from the on-site water distribution system to point(s) located five (5) feet outside of the building line and properly sealing the end(s) with watertight and pressure-tight plug(s), except that, if the building plumbing contractor has installed his portion of the water service lines, work shall also include final connection(s) of the water service lines five (5) feet outside of the building line to the building service line(s) installed by the building plumbing contractor. The connection(s) shall be made utilizing proper fittings compatible with the building service line(s) providing watertight and pressure-tight connection(s) and shall be done at no additional cost to the Owner.

(2) Service Lines Smaller than Three (3) Inches - All underground water service lines smaller than three (3) inches in diameter shall be Type K copper tubing. Joints in underground copper water service lines shall be made with flared fittings or with compression fittings (Mueller Company or approved equal); Sweat joints shall not be permitted. Each service line shall be valved with curb stop where and as directed, and a curb box shall be installed over the curb stop. A corporation stop shall be used to connect the service line to the main. Taps shall be made using proper tools and proper procedures as recommended by the manufacturer of the water pipe. Unless otherwise specified, there shall be no joints in the service line between the water main and the curb stop.

(3) Service Lines Three (3) Inches and Greater - All underground water service lines three inches and greater in diameter shall be Double Cement-Lined Ductile Iron Pipe (DIP), Class 54, with mechanical joints in accordance with AWWA C-150, C-151, C-104 and C-111. The service line shall connect with a tapping sleeve and gate valve where and as directed.

(4) Coordination with Building Plumbing Contractor - The Contractor will be required to coordinate his work with the work of the building plumbing

contractor to determine the exact location(s) and elevation(s) of the point(s) of entry into the building(s).

K. POLYETHYLENE ENCASEMENT

(1) All underground ductile iron water lines and service lines including appurtenances that do not meet vertical and horizontal separation requirements shall be encased in polyethylene in accordance with AWWA Specification C-105 and the requirements of the Water Authority.

M. WATER LINE TESTS

(1) The Contractor shall provide all necessary equipment and shall perform all work required in connection with all tests as specified herein. All pipe shall be tested by hydrostatic pressure, fifty (50) percent in excess of the normal psi working pressure but not less than 150 psi or more than the design rating of the pipe or appurtenances, in accordance with AWWA Specification C-600-05. The test pressure shall be determined by the Water Authority and/or Owner's Field Representative. Each section tested shall be slowly filled with water, care being taken to expel all air from the pipes. If necessary, the pipes shall be tapped at high points to vent the air. Required pressure, as measured at the point of lowest elevation, shall be applied for not less than two (2) hours, and all pipe, fittings, valves, hydrants and joints shall be carefully examined for defects. Leaky joints shall be made watertight.

(2) A leakage test shall also be conducted in accordance with AWWA Specification C-600-05. Permissible leakage shall be in accordance with AWWA Specification C-600-05

Testing allowance shall be defined as the maximum quantity of makeup water that is added into a pipeline undergoing hydrostatic pressure testing, or any valved section thereof, in order to maintain pressure within ±5 psi of the specific test pressure (after the pipeline has been filled with water and the air has been expelled). No pipe installation will be accepted if the quantity of makeup water is greater than that determined by the following formula:

In inch-pound units,

$$L = \frac{SD\sqrt{P}}{148{,}000}$$

Where:

L = testing allowance (makeup water), in gallons per hour

S = length of pipe tested, in feet

D = nominal diameter of the pipe, in inches

P = average test pressure during the hydrostatic test, in pounds per square inch (gauge)

A 48 hour advance notice must be given to the Water Authority and Health Department prior to pressure testing of the water lines.

(3) If the section being tested shall fail to pass the pressure test or the leakage test, or both, the Contractor shall do everything necessary to locate, uncover, and repair or replace the defective pipe, fittings or joints, and all such work shall be done at his expense and at no additional cost to the Owner.

(4) In the event of conflict between the tests specified herein and the test requirements of the Water Authority, Health Department or any other Authority having jurisdiction over all or any portion of the water lines installed under this Contract, the more restrictive requirements shall govern.

N. DISINFECTION OF COMPLETED LINE

(1) After the water line has passed the required pressure and leakage tests and before being placed in service, the entire line shall be disinfected. All disinfecting methods and materials shall be in accordance with AWWA Specification C-651. All disinfection operations and procedures shall meet with the approval of the Water Authority and Health Department.

(2) If the initial bacteriological tests are not satisfactory, the Contractor shall do everything necessary to obtain satisfactory bacteriological tests including making provisions to isolate shorter sections of the line if necessary to locate the source of contamination. All work necessary and required to obtain satisfactory bacteriological tests shall be at the Contractor's expense and at no additional cost to the Owner.

(3) In the event of conflict between the tests specified herein and the test requirements of the Water Authority, Health Department or any other Authority having jurisdiction over all or any portion of the water lines installed under this Contract, the more restrictive requirements shall govern.

3. MATERIALS

The materials to be used in the construction shall be those indicated on the Drawings and specified herein, and the Contractor shall supply to the Owner's Field Representative, prior to installation, certificates of compliance for the material used. The Contractor shall also submit shop drawings and catalog cuts of all water line items and appurtenances (pipes, fittings, valves, valve boxes, hydrants, etc.), to the Site Engineer for review prior to ordering.

A. WATER SYSTEM AND APPURTENANCES

(1) General - All materials for water lines and appurtenances shall be in accordance with the requirements of the Water Authority.

(2) Ductile Iron Pipe (DIP) - All water lines shall be ductile iron pipe, Class 54, for pipe and shall conform to the requirements of AWWA Specifications C-150 and C-151. Pipe shall be furnished in eighteen (18) or twenty (20) foot nominal lengths.

Lining and Coating - All pipe shall be double cement lined and bituminous coated in conformance with AWWA Specification C-104.

Joints - shall be push-on joints in accordance with AWWA Specification C-111 and shall be furnished complete with brass wedges to permit electrical conductivity across the joints (2 wedges per joint).

(3) Fittings - All iron fittings shall be ductile iron in accordance with AWWA Specification C-110, or AWWA Specification C-153, pressure rated 350 psi, and shall be furnished with mechanical joints in accordance with AWWA Specification C-111. Fittings shall be cement lined and bituminous coated in conformance with AWWA Specification C-104. All joints shall be furnished complete with accessories consisting of cast iron glands, steel alloy high-strength bolts and nuts, and plain tipped rubber gaskets.

(4) Hydrants - All hydrants shall be Water Authority standard. Hydrant must be approved by the Water Authority and Fire Department having jurisdiction.

(5) Resilient Seated Gate Valves - shall be made in accordance with AWWA Specification C-509. Gate valves shall be iron body, bronze mounted, non-rising stem assembly, with O-Ring seals and mechanical joint ends complete with fittings. The body and bonnet shall be coated with 8 mils minimum fusion bonded epoxy complying with AWWA Specification C-550. Valves are to be rated at 250 psi for AWWA service and 200 psi for

ULFM service. All valves are to be hydrostatically tested at 400 psi. Gate valves shall conform to the requirements of the Water Authority.

(6) Gate Valve Boxes - shall be sliding "Buffalo" type and shall be made of cast iron (heavy pattern), having a minimum interior diameter of 5 1/4 inches, length as required. It shall have a base of the proper size to fit the valve upon which it is installed and shall have a drop cover marked "WATER".

(7) Service Lines - All service lines two (2) inches or less in diameter shall be Type K copper conforming to the "Specifications for Seamless Copper Water Tube" ASTM Designation B-88 and AWWA Specification C-800.

All service lines greater than two (2) inches in diameter shall be ductile iron pipe conforming to the requirements specified elsewhere in this Article for Ductile Iron Pipe.

(8) Corporation Stops - shall be approved equal to Mueller Oriseal H-15000 series with Mueller 110 conductive compression connection and shall conform to AWWA Specification C-800.

(9) Curb Stops - shall be approved equal to Mueller Oriseal H-15000 series with Mueller 110 conductive compression connection, copper to copper, with tee head, and shall conform to AWWA Specification C-800.

(10) Curb Box for Curb Stop - shall be cast iron, approved equal to Mueller H-10350 "Buffalo" type, arch pattern, adjustable curb box complete with necessary extension section, lid and brass locking screw.

END OF ARTICLE 3

SITE PLAN DRAWINGS

BEACON COMMONS

TAX MAP SECTION 5954 | BLOCK 25 | LOT 616969

DUTCHESS COUNTY

16 WEST MAIN STREET

BEACON, NY 12508

Applicant:
FARRELL COMMUNITIES BEACON LLC
PO BOX 14
BRIDGEHAMPTON, NY 11932
(631) 549-9800

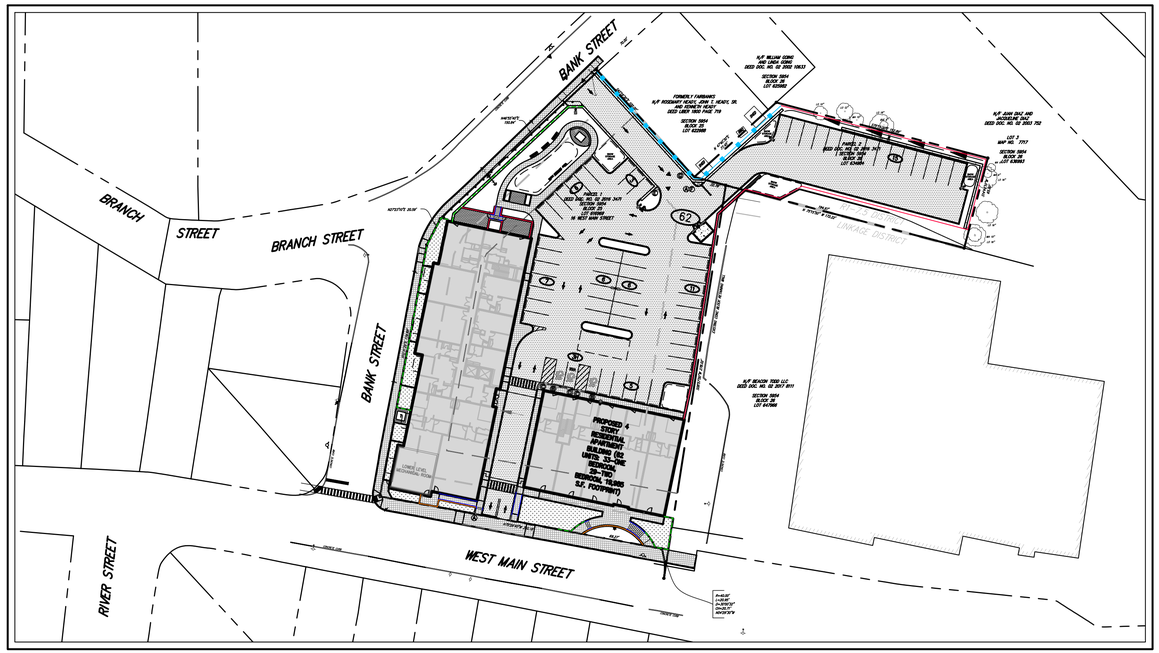
Architect:
ARYEH SIEGEL ARCHITECT
84 MASON CIRCLE
BEACON, NY 12508
(845) 838-2490

Site Planner, Civil & Traffic Engineer, Surveyor and Landscape Architect:
120 BEDFORD ROAD
ARMONK, NY 10504
(914) 273-5225

Geotechnical Engineer:
CARLIN-SIMPSON & ASSOCIATES
61 MAIN STREET
SAYREVILLE, NJ 08872
(732) 432-5757

NLG ENGINEERING, PC
3062 9W, SUITE 500
NEW WINDSOR, NEW YORK, 12553
(845) 562-7005

Structural Engineer:
A DEGREE OF FREEDOM, STRUCTURAL ENGINEER, PLLC
34 WEST 15TH STREET, 7TH FLOOR
NEW YORK, NY 10011
(212) 495-9370



AREA MAP
SCALE: 1" = 50'

JMC Drawing List:

C-000	(SHEET 1 OF 29)	COVER SHEET
C-010	(SHEET 2 OF 29)	EXISTING CONDITIONS PLAN
C-020	(SHEET 3 OF 29)	DEMOLITION PLAN
C-100	(SHEET 4 OF 29)	SITE PLAN
C-200	(SHEET 5 OF 29)	GRADING PLAN
C-300	(SHEET 6 OF 29)	UTILITIES PLAN
C-310	(SHEET 7 OF 29)	UTILITY PROFILES
C-320	(SHEET 8 OF 29)	STORM PROFILES
C-330	(SHEET 9 OF 29)	EASEMENT PLAN
C-400	(SHEET 10 OF 29)	SEDIMENT AND EROSION CONTROL PLAN
C-600	(SHEET 11 OF 29)	LIGHTING PLAN
C-601	(SHEET 12 OF 29)	LIGHTING SPECIFICATIONS
C-700	(SHEET 13 OF 29)	GARBAGE TRUCK TURNING PLAN (FRONT-LOADING)
C-702	(SHEET 14 OF 29)	FIRE TRUCK TURNING PLAN (SCENARIO 1)
C-703	(SHEET 15 OF 29)	FIRE TRUCK TURNING PLAN (SCENARIO 2)
C-704	(SHEET 16 OF 29)	FIRE TRUCK TURNING PLAN (SCENARIO 3)
C-800	(SHEET 17 OF 29)	AERIAL SITE PLAN
C-801	(SHEET 18 OF 29)	SIGHT DISTANCE PLAN
C-802	(SHEET 19 OF 29)	CONCEPTUAL IMPROVEMENTS PLAN
C-900	(SHEET 20 OF 29)	CONSTRUCTION DETAILS
C-901	(SHEET 21 OF 29)	CONSTRUCTION DETAILS
C-902	(SHEET 22 OF 29)	CONSTRUCTION DETAILS
C-903	(SHEET 23 OF 29)	CONSTRUCTION DETAILS
C-904	(SHEET 24 OF 29)	CONSTRUCTION DETAILS
C-905	(SHEET 25 OF 29)	CONSTRUCTION DETAILS
C-906	(SHEET 26 OF 29)	CONSTRUCTION DETAILS
C-907	(SHEET 27 OF 29)	CONSTRUCTION DETAILS
C-908	(SHEET 28 OF 29)	CONSTRUCTION DETAILS
L-100	(SHEET 29 OF 29)	LANDSCAPING PLAN

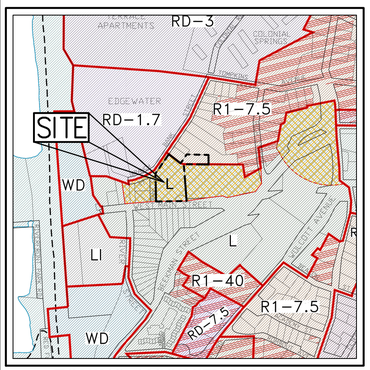
ARYEH SIEGEL ARCHITECT Drawing List:

A-100	(SHEET 1 OF 4)	BUILDING PLANS (BASEMENT AND 1ST FLOOR)
A-101	(SHEET 2 OF 4)	BUILDING PLANS (2ND FLOOR AND 3RD FLOOR)
A-102	(SHEET 3 OF 4)	BUILDING PLANS (4TH FLOOR AND ROOF)
A-200	(SHEET 4 OF 4)	BUILDING ELEVATIONS

TABLE OF LAND USE

SECTION 5954, BLOCK 25, LOT 616969
ZONE "L" – "LINKAGE DISTRICT"
PROPOSED USE: RESIDENTIAL
FIRE DISTRICT: CITY OF BEACON
WATER DISTRICT: CITY OF BEACON
BEACON CITY SCHOOL DISTRICT
SEWER DISTRICT: CITY OF BEACON

DESCRIPTION		REQUIRED	EXISTING	PROPOSED
LOT AREA (PARCELS 1, 2 & 3)	(FEET)	–	1.5 ACRES	1.5 ACRES
LOT WIDTH	(FEET)	–	201'	201'
LOT FRONTAGE	(FEET)	–	555'	555'
LOT DEPTH	(FEET)	75'	320'	320'
BUILDING HEIGHT	(FEET/STORIES)	48'/4 STORIES	–	48'/4 STORIES
FLOOR AREA RATIO		–	–	–
LOT COVERAGE BY LANDSCAPING	(PERCENT)	15% MIN.	47%	17%
YARDS				
FRONT BUILDING SETBACK	(FEET)	MIN. 0'/MAX. 20'	53'/107'	4'
REAR BUILDING SETBACK	(FEET)	MIN. 25'	88'	112'
SIDE BUILDING SETBACK (CORNER LOT)	(FEET)	MIN. 0'/MAX. 30'	13'	3'
PARKING SETBACKS				
FRONT/SIDE (FOR CORNER) PARKING SETBACK	(FEET)	40'/40'	29'/24'	97'/40'
REAR PARKING SETBACK	(FEET)	–	–	–
SIDE PARKING SETBACK	(FEET)	–	–	–
PARKING SUMMARY				
TOTAL SPACES REQUIRED	(1 SPACE/UNIT)	62	28	62
STANDARD SPACES		59	26	59
ACCESSIBLE SPACES		3	2	3



ZONING / VICINITY MAP
SCALE: 1" = 500'
CITY OF BEACON.ORG:
ZONING / 10/04/2017

LEGEND

	SITE PROPERTY LINE
	ZONING BOUNDARY
	LOT LINE
L	LINKAGE
LI	LIGHT INDUSTRIAL
WD	WATER FRONT DEVELOPMENT
R1-40	ONE FAMILY RESIDENTIAL
R1-7.5	ONE FAMILY RESIDENTIAL
RD-1.7	DESIGNED RESIDENCE
CB	CENTRAL BUSINESS

GENERAL CONSTRUCTION NOTES APPLY TO ALL WORK HEREIN:

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CALL 811 "DIG SAFELY" (1-800-962-7962) TO HAVE UNDERGROUND UTILITIES LOCATED. EXPLORATORY EXCAVATIONS SHALL COMPLY WITH CODE 753 REQUIREMENTS. NO WORK SHALL COMMENCE UNTIL ALL THE OPERATORS HAVE NOTIFIED THE CONTRACTOR THAT THEIR UTILITIES HAVE BEEN LOCATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE UNDERGROUND AND SURFACE UTILITIES AND STRUCTURES AT OR ADJACENT TO THE SITE OF CONSTRUCTION, INSOFAR AS THEY MAY BE ENDANGERED BY THE CONTRACTOR'S OPERATIONS. THIS SHALL HOLD TRUE WHETHER OR NOT THEY ARE SHOWN ON THE CONTRACT DRAWINGS. IF THEY ARE SHOWN ON THE DRAWINGS, THEIR LOCATIONS ARE NOT GUARANTEED EVEN THOUGH THE INFORMATION WAS OBTAINED FROM THE BEST AVAILABLE SOURCES, AND IN ANY EVENT, OTHER UTILITIES ON THESE PLANS MAY BE ENCOUNTERED IN THE FIELD. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, IMMEDIATELY REPAIR OR REPLACE ANY STRUCTURES OR UTILITIES THAT HE DAMAGES, AND SHALL CONSTANTLY PROCEED WITH CAUTION TO PREVENT UNDUE INTERRUPTION OF UTILITY SERVICE.
2. CONTRACTOR SHALL HAND DIG TEST PITS TO VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL VERIFY EXISTING UTILITIES DEPTHS AND ADVISE OF ANY CONFLICTS WITH PROPOSED UTILITIES. IF CONFLICTS ARE PRESENT. THE OWNER'S FIELD REPRESENTATIVE, JMC, PLLC AND THE APPLICABLE MUNICIPALITY OR AGENCY SHALL BE NOTIFIED IN WRITING. THE EXISTING/PROPOSED UTILITIES RELOCATION SHALL BE DESIGNED BY JMC, PLLC.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY AND ALL LOCAL PERMITS REQUIRED.
4. ALL WORK SHALL BE DONE IN STRICT COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES, STANDARDS, ORDINANCES, RULES, AND REGULATIONS. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL SAFETY CODES. APPLICABLE SAFETY CODES MEAN THE LATEST EDITION INCLUDING ANY AND ALL AMENDMENTS, REVISIONS, AND ADDITIONS THERETO, TO THE FEDERAL DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S OCCUPATIONAL SAFETY AND HEALTH STANDARDS (OSHA); AND APPLICABLE SAFETY, HEALTH REGULATIONS AND BUILDING CODES FOR CONSTRUCTION IN THE STATE OF NEW YORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GUARDING AND PROTECTING ALL OPEN EXCAVATIONS IN ACCORDANCE WITH THE PROVISION OF SECTION 107-05 (SAFETY AND HEALTH REQUIREMENTS) OF THE NYSDOT STANDARD SPECIFICATIONS. IF THE CONTRACTOR PERFORMS ANY HAZARDOUS CONSTRUCTION PRACTICES, ALL OPERATIONS IN THE AFFECTED AREA SHALL BE DISCONTINUED AND IMMEDIATE ACTION SHALL BE TAKEN TO CORRECT THE SITUATION TO THE SATISFACTION OF THE APPROVAL AUTHORITY HAVING JURISDICTION.
5. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES AFFECTED BY THE SCOPE OF WORK SHOWN HEREON AT ALL TIMES TO THE SATISFACTION OF THE OWNERS REPRESENTATIVE. RAMPING CONSTRUCTION TO PROVIDE ACCESS MAY BE CONSTRUCTED WITH SUBBASE MATERIAL EXCEPT THAT TEMPORARY ASPHALT CONCRETE SHALL BE PLACED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE PEDESTRIAN ACCESS AT ALL TIMES.

SUBSURFACE UTILITY LOCATIONS ARE BASED ON A COMPILATION OF FIELD EVIDENCE, AVAILABLE RECORD PLANS AND/OR UTILITY MARK-OUTS. THE LOCATION OR COMPLETENESS OF UNDERGROUND INFORMATION CANNOT BE GUARANTEED. VERIFY THE ACTUAL LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION OR CONSTRUCTION.

811 Know what's below. Call before you dig.

No.	Revision	Date	By
3.	REVISED PER CITY COMMENTS	09/29/2020	AH
4.	REVISED PER CITY COMMENTS	07/27/2021	BMS
5.	REVISED PER CITY COMMENTS	03/25/2022	BMS
6.	REVISED PER CITY COMMENTS	05/31/2022	BMS
7.	REVISED PER CITY COMMENTS	06/28/2022	BMS
8.	REVISED PER CITY COMMENTS	08/30/2022	SMN
9.	REVISED PER CITY COMMENTS	09/27/2022	SMN
	Previous Editions Obsolete		

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STATE OF NEW YORK · STEPHEN SHINA · 085983 · LICENSED PROFESSIONAL ENGINEER

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JMC Site Development Consultants, LLC
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Drawn:	BMS	Approved:	SS
Scale:	AS SHOWN		
Date:	10/29/2019		
Project No:	18119		
18119-COVER	COVER	COVER.scr	
Drawing No:	C-000 (Sheet 1 of 29)		

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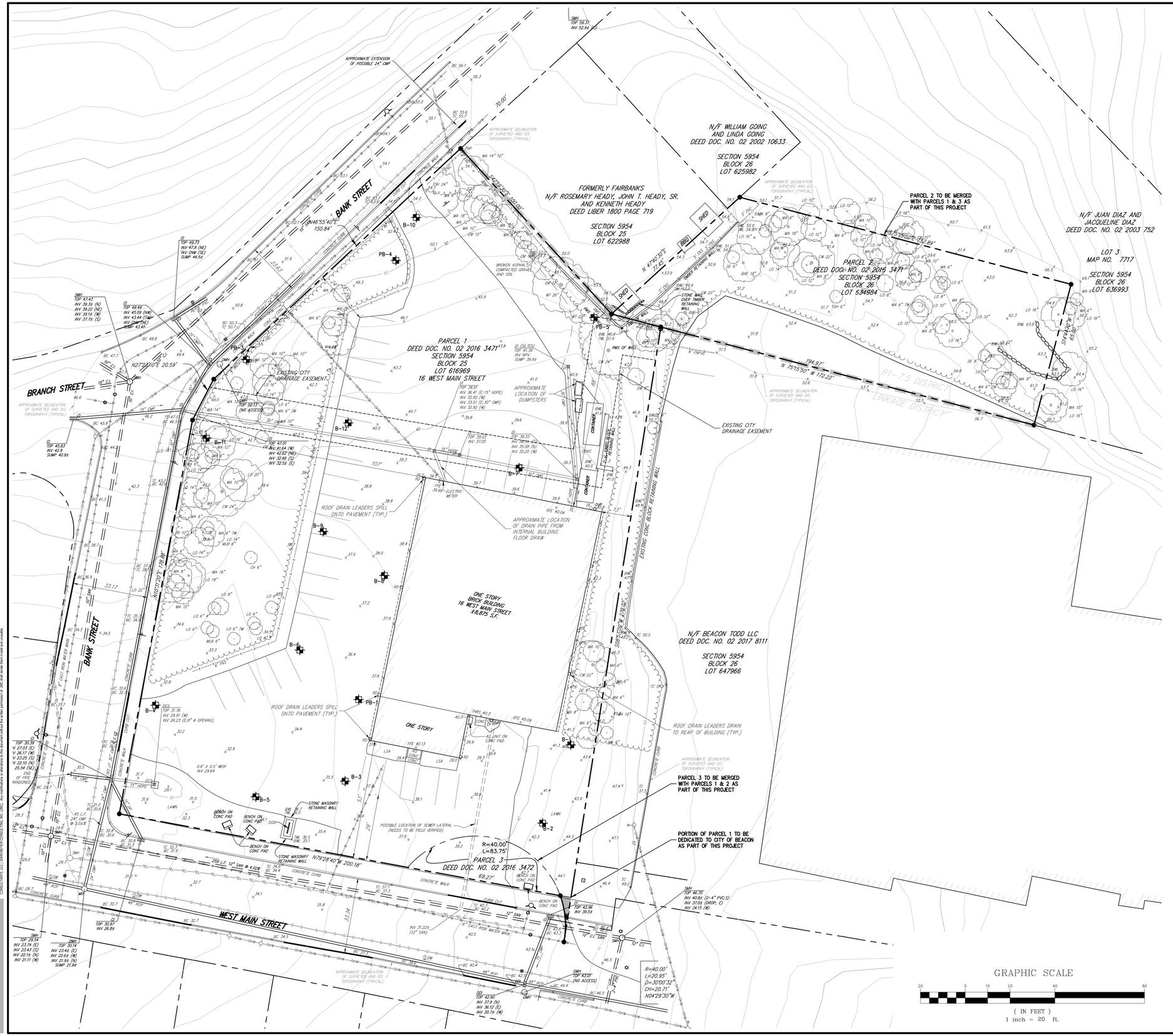

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING INDEX CONTOUR
- EXISTING CONTOUR
- EXISTING SPOT GRADE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- EXISTING TREE LINE
- EXISTING PARKING
- EXISTING STORM DRAIN LINE AND SIZE
- EXISTING SANITARY LINE AND SIZE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- BORING LOCATION & DESIGNATION

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC SURVEY," PREPARED BY JMC PLANNING ENGINEERING LANDSCAPE ARCHITECURE & LAND SURVEYING, PLLC, DATED 09/20/2018, LAST REVISED 03/02/2020.
2. THE TOPOGRAPHY SHOWN IS REFERENCED FROM NAVD88 VERTICAL DATUM AS SHOWN ON THE ABOVE TOPOGRAPHIC SURVEY.
3. SUPPLEMENTAL TOPOGRAPHY BEYOND THE LIMIT OF SURVEYED TOPOGRAPHY IS TAKEN FROM DUTCHESS COUNTY GIS.
4. THE PROJECT SITE IS LOCATED IN ZONE X, "AREA OF MINIMAL FLOOD HAZARD," ACCORDING TO FEMA MAP NO. 36027C0463E, EFFECTIVE 05/02/2012.
5. THE EXISTING SANITARY SEWER SERVICE LATERAL WAS NOT LOCATED AND IS PROPOSED TO BE REMOVED. IT IS ASSUMED TO BE LOCATED FROM THE SOUTH SIDE OF THE BUILDING TO THE MAIN WITHIN WEST MAIN STREET. THE CONTRACTOR SHALL VERIFY AND REMOVE IN ACCORDANCE WITH DUTCHESS COUNTY HEALTH DEPARTMENT AND CITY OF BEACON STANDARDS.
6. SOIL BORING DATA SHOWN ON THIS PLAN WAS TAKEN FROM THE "REPORT ON SUBSURFACE SOIL AND FOUNDATION INVESTIGATION," DATED 09/28/2020, LAST REVISED 03/02/2022, PREPARED BY CARLIN SIMPSON & ASSOCIATES.

APPLICANT/OWNER:
FARRELL COMMUNITIES BEACON LLC
PO BOX 14
BRIDGEHAMPTON, NY 11932

ARCHITECT:
ARYEH SIEGEL ARCHITECT
84 MASON CIRCLE
BEACON, NY 12508

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EXISTING CONDITIONS PLAN

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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STATE OF NEW YORK · STEPHEN SPINA · LICENSED PROFESSIONAL ENGINEER · 085983

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	Previous Editions Obsolete		

Drawn:	BMS	Approved:	SS
Scale:	1" = 20'		
Date:	10/29/2019		
Project No:	18119		
18119-EXISTING	EXIST	EXIST.scr	

Drawing No: C–010 (Sheet 2 of 29)

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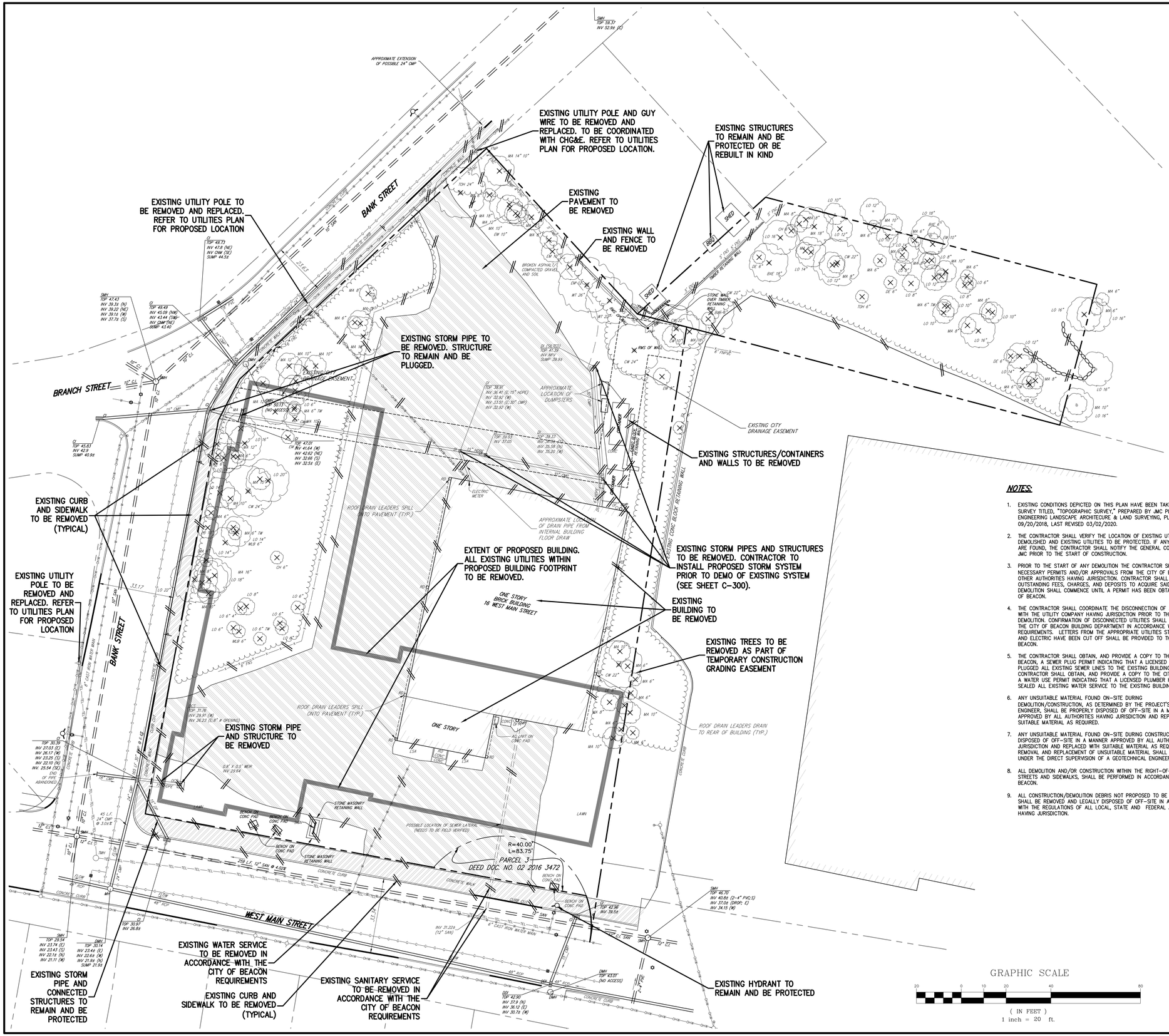
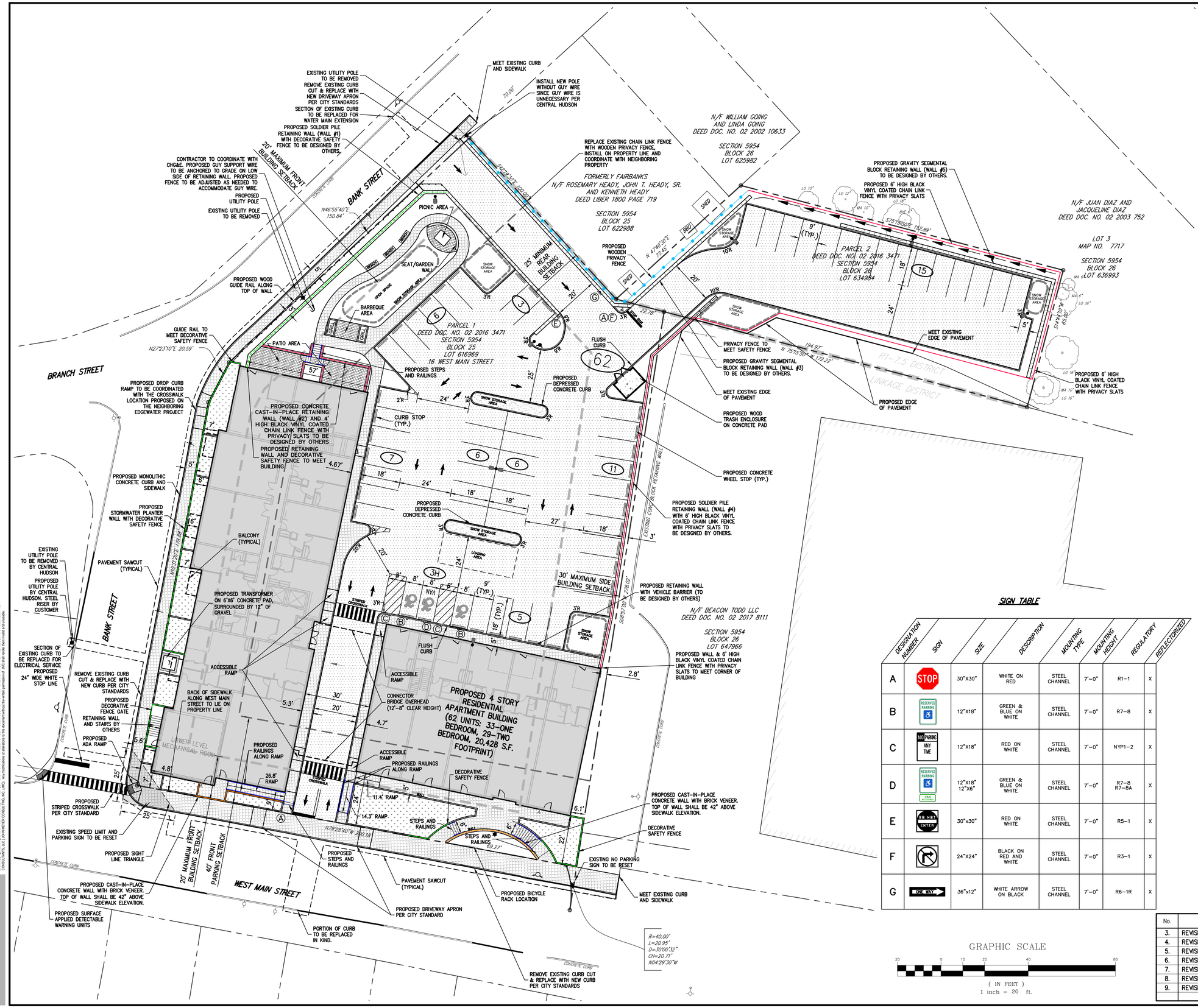

EXISTING UTILITY POLE AND GUY WIRE TO BE REMOVED AND REPLACED. TO BE COORDINATED WITH CHG&E. REFER TO UTILITIES PLAN FOR PROPOSED LOCATION.
EXISTING STRUCTURES TO REMAIN AND BE PROTECTED OR BE REBUILT IN KIND
EXISTING UTILITY POLE TO BE REMOVED AND REPLACED. REFER TO UTILITIES PLAN FOR PROPOSED LOCATION
EXISTING PAVEMENT TO BE REMOVED
EXISTING WALL AND FENCE TO BE REMOVED
EXISTING STORM PIPE TO BE REMOVED. STRUCTURE TO REMAIN AND BE PLUGGED.
EXISTING STRUCTURES/CONTAINERS AND WALLS TO BE REMOVED
EXISTING CURB AND SIDEWALK TO BE REMOVED (TYPICAL)
EXTENT OF PROPOSED BUILDING. ALL EXISTING UTILITIES WITHIN PROPOSED BUILDING FOOTPRINT TO BE REMOVED.
EXISTING STORM PIPES AND STRUCTURES TO BE REMOVED. CONTRACTOR TO INSTALL PROPOSED STORM SYSTEM PRIOR TO DEMO OF EXISTING SYSTEM (SEE SHEET C-300).
EXISTING BUILDING TO BE REMOVED
EXISTING TREES TO BE REMOVED AS PART OF TEMPORARY CONSTRUCTION GRADING EASEMENT
EXISTING UTILITY POLE TO BE REMOVED AND REPLACED. REFER TO UTILITIES PLAN FOR PROPOSED LOCATION
EXISTING STORM PIPE AND STRUCTURE TO BE REMOVED
EXISTING WATER SERVICE TO BE REMOVED IN ACCORDANCE WITH THE CITY OF BEACON REQUIREMENTS
EXISTING CURB AND SIDEWALK TO BE REMOVED (TYPICAL)
EXISTING SANITARY SERVICE TO BE REMOVED IN ACCORDANCE WITH THE CITY OF BEACON REQUIREMENTS
EXISTING STORM PIPE AND CONNECTED STRUCTURES TO REMAIN AND BE PROTECTED
EXISTING HYDRANT TO REMAIN AND BE PROTECTED
BANK STREET
BRANCH STREET
WEST MAIN STREET
ONE STORY BRICK BUILDING 16 WEST MAIN STREET
ONE STORY
SHED
BBQ
EXISTING CITY DRAINAGE EASEMENT
APPROXIMATE LOCATION OF DUMPSTERS
APPROXIMATE LOCATION OF DRAIN PIPE FROM INTERNAL BUILDING FLOOR DRAW
ROOF DRAIN LEADERS SPILL ONTO PAVEMENT (TYP.)
ROOF DRAIN LEADERS DRAIN TO REAR OF BUILDING (TYP.)
POSSIBLE LOCATION OF SEWER LATERAL (NEEDS TO BE FIELD VERIFIED)
R=40.00'
L=83.75'
PARCEL 3
DEED DOC. NO. 02 2016 3472
STONE MASONRY RETAINING WALL
EXISTING CONC BLOCK RETAINING WALL
BROKEN ASPHALT/ COMPACTED GRAVEL AND SOIL
STONE WALL OVER TIMBER RETAINING WALL
CONCRETE CURB
CONCRETE WALK
LAWN
BENCH ON CONC PAD
AC UNIT ON CONC PAD
APPROXIMATE EXTENSION OF POSSIBLE 24" CMP
EXISTING DRAINAGE EASEMENT
ELECTRIC METER
6" WATER
8" SAN
8" RCP
12" RCP
15" RCP
24" RCP
10" CI
12" CI
10" GAS
10" OHW
10" SAN
10" CMP
15" CMP
18" CMP
24" CMP
259 L.F. 12" SAN @ 4.02%
45 L.F. 18" CMP @ 3.0±%
SMH TOP 59.37 INV 52.96 (C)
SMH TOP 48.73 INV 47.8 (NE) INV DM (SE) SUMP 44.52
SMH TOP 43.43 INV 39.34 (N) INV 39.22 (NE) INV 39.16 (W) INV 37.74 (S)
CI TOP 49.49 INV 45.09 (NW) INV 43.44 (SW) INV DM (NE) SUMP 43.40
CI TOP 45.83 INV 42.9 SUMP 40.94
SMH TOP 50.13 (NO ACCESS)
CI TOP 47.01 INV 41.64 (W) INV 42.62 (NE) INV 32.66 (S) INV 32.54 (E)
CI TOP 38.93 INV 38.41 (E 15" HDPE) INV 32.92 (W) INV 33.51 (C 30" CMP) INV 32.92 (W)
CI TOP 39.03 INV 33.03
CI TOP 39.53 INV 39.24 (E) INV 35.58 (N) INV 35.20 (W)
CI TOP 37.76 INV 29.97 (N) INV 34.23 (S 8" # GRDNG)
0.8' X 0.5' WIER INV 29.64
TOP 30.30 INV 27.03 (E) INV 26.12 (W) INV 23.25 (S) INV 22.10 (N) INV. 25.54 (SE) END OF PIPE ABANDONED
SMH TOP 29.54 INV 23.74 (E) INV 23.43 (S) INV 22.1± (W) INV 21.11 (W)
SMH TOP 30.14 INV 23.46 (E) INV 22.6± (W) INV 21.9± (N) SUMP 21.9±
CI TOP 30.70 INV 26.8±
CI TOP 43.36 INV 39.5±
SMH TOP 46.70 INV 40.8± (2-4" PVC:S) INV 37.0± (DROP: E) INV 34.1± (W)
SMH TOP 43.01 (NO ACCESS)
CI TOP 43.90 INV 37.9 (N) INV 36.1± (E) INV 33.7± (W)
MH TOP 31.22± INV 31.22± (12" SAN)
MH TOP 33.17± INV 33.17± (12" CMP)
6" CAST IRON WATER MAIN
6" DIP WATER MAIN
6" FIRE LINE
6" DOM
6" IRR
6" GAS
6" TW
6" OHW
6" SAN
6" CMP
6" RCP
6" CI
6" ELEC
6" TEL
6" CATV
6" GAS



LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING BUILDING SETBACK LINE
- EXISTING PARKING SETBACK LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- EXISTING PARKING
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE FLUSH CURB
- PROPOSED SAWCUT LINE
- PROPOSED ACCESSIBLE PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED PARKING SPACES WITH NUMBER OF SPACES INDICATED (REFER TO STRIPING DETAILS)
- PROPOSED CONCRETE SIDEWALK
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVERS
- PROPOSED CONCRETE PAD
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED CONCRETE WALL WITH BRICK VENEER (42" ABOVE SIDEWALK)
- PROPOSED BLACK VINYL COATED CHAIN LINK FENCE WITH PRIVACY SLATS
- PROPOSED DECORATIVE SAFETY FENCE
- PROPOSED PRIVACY FENCE
- PROPOSED HANDRAILS
- PROPOSED WOOD GUIDE RAIL
- PROPOSED 12" WIDE WHITE STOP LINE
- PROPOSED ARROW MARKING ON PAVEMENT
- TRAFFIC SIGN LOCATION & DESIGNATION
- PEDESTRIAN CROSSING
- PROPOSED DOUBLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED SINGLE ARM LIGHTING STANDARD (DESIGN BY OTHERS)
- PROPOSED BOLLARD LIGHTING STANDARD

SIGN TABLE

DESIGNATION NUMBER	SIGN	SIZE	DESCRIPTION	MOUNTING TYPE	MOUNTING HEIGHT	REGULATORY	REFLECTORIZED
A	STOP	30"X30"	WHITE ON RED	STEEL CHANNEL	7'-0"	R1-1	X
B	RESERVED PARKING	12"X18"	GREEN & BLUE ON WHITE	STEEL CHANNEL	7'-0"	R7-8	X
C	NO PARKING ANY TIME	12"X18"	RED ON WHITE	STEEL CHANNEL	7'-0"	NYP1-2	X
D	RESERVED PARKING VAN ACCESSIBLE	12"X18" 12"X6"	GREEN & BLUE ON WHITE	STEEL CHANNEL	7'-0"	R7-8 R7-8A	X
E	ONE WAY ENTER	30"x30"	RED ON WHITE	STEEL CHANNEL	7'-0"	R5-1	X
F		24"X24"	BLACK ON RED AND WHITE	STEEL CHANNEL	7'-0"	R3-1	X
G	ONE WAY	36"x12"	WHITE ARROW ON BLACK	STEEL CHANNEL	7'-0"	R6-1R	X

NOTES:

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2. SNOW REMOVAL SHALL BE STORED IN THE DESIGNATED AREAS ON THIS PLAN. THE PROPERTY MANAGER SHALL MAINTAIN ALL AVAILABLE PARKING AS PART OF THEIR RESPONSIBILITY TO THE PROPERTY OWNER AND TENANTS. SNOW SHALL BE CLEARED AND STORED ON-SITE AND/OR REMOVED IN A TIMELY MANNER AND DISPOSED OFF-SITE.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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STATE OF NEW YORK · STEPHEN SPINA · LICENSED PROFESSIONAL ENGINEER · 085983

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SITE PLAN

BEACON COMMONS
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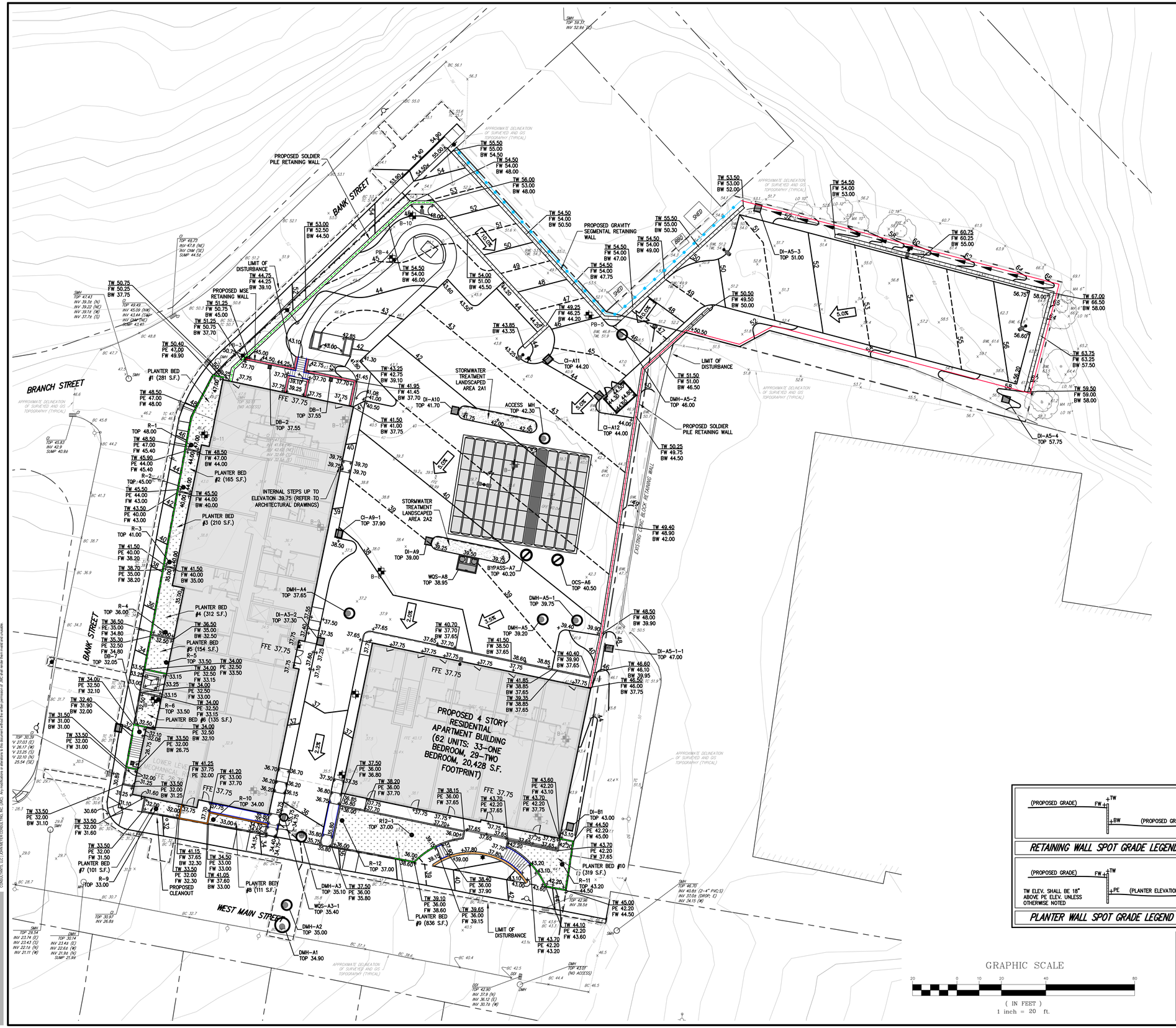

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING BUILDING LINE
- EXISTING CURB LINE
- EXISTING INDEX CONTOUR
- EXISTING CONTOUR
- EXISTING SPOT GRADE
- EXISTING RETAINING WALL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- EXISTING BORING LOCATION & DESIGNATION
- PROPOSED BORING LOCATION & DESIGNATION
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE SIDEWALK
- PROPOSED FINISHED GRADE
- PROPOSED SPOT GRADE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED TYPE CI DRAIN INLET
- PROPOSED TYPE DI DRAIN INLET
- PROPOSED TYPE DB DRAIN BASIN
- PROPOSED WATER QUALITY STRUCTURE
- PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- PROPOSED CLEANOUT
- PROPOSED WOOD GUIDE RAIL
- PROPOSED RETAINING WALL AND SAFETY FENCE (DESIGN BY OTHERS)
- PROPOSED PRIVACY RAIL
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED LIGHTING STANDARD (DESIGN BY OTHERS)

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC SURVEY," PREPARED BY JMC PLANNING ENGINEERING LANDSCAPE ARCHITECURE & LAND SURVEYING, PLLC, DATED 09/20/2018, LAST REVISED 03/02/2020.
2. SOIL BORING DATA SHOWN ON THIS PLAN WAS TAKEN FROM THE "REPORT ON SUBSURFACE SOIL AND FOUNDATION INVESTIGATION," DATED 09/28/2020, LAST REVISED 03/02/2022, PREPARED BY CARLIN SIMPSON & ASSOCIATES.
3. FILL MATERIAL, TO BE PLACED IN ADVANCE OF CONSTRUCTION, IS TO BE COORDINATED WITH LATEST GEOTECHNICAL REPORT BY CARLIN SIMPSON & ASSOCIATES AND MONITORED BY CARLIN SIMPSON & ASSOCIATES.
4. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.
5. ALL FILLS SHALL BE COMPACTED TO PROVIDE STABILITY OF MATERIAL AND TO PREVENT SETTLEMENT.
6. EXCAVATIONS AND FILLS SHALL NOT ENDANGER ADJOINING PROPERTIES, NOR DIVERT WATER ONTO THE PROPERTY OF OTHERS AT ANY TIME DURING THE COURSE OF CONSTRUCTION.
7. CONTRACTOR SHALL REFER TO EROSION AND SEDIMENT CONTROL PLAN FOR FURTHER DIRECTION REGARDING SITE STABILIZATION THROUGHOUT THE COURSE OF CONSTRUCTION.
8. FILL MATERIAL SHALL BE PLACED 2 TO 3 MONTHS PRIOR TO CONSTRUCTION OF BUILDING AND ALL INSTALLATION SHALL BE WITNESSED BY CARLIN SIMPSON & ASSOCIATES.
9. REFER TO LATEST REVISION OF REPORT ON SUBSURFACE SOIL AND FOUNDATION INVESTIGATION, BY CARLIN SIMPSON & ASSOCIATES. ALL PILES FOR THE PROPOSED BUILDING ARE TO BE DRILLED.
10. AS INDICATED ON THE LATEST CARLIN SIMPSON & ASSOCIATES GEOTECHNICAL REPORT, ALL PILE OPERATIONS SHALL BE DRILLED.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

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GRADING PLAN

BEACON COMMONS
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STATE OF NEW YORK · STEPHEN SPINA · 085983 · LICENSED PROFESSIONAL ENGINEER

Drawn:	BMS
Approved:	SS
Scale:	1" = 20'
Date:	10/29/2019
Project No:	18119
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Drawing No:	C–200 (Sheet 5 of 29)

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NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC SURVEY," PREPARED BY JMC PLANNING ENGINEERING LANDSCAPE ARCHITECURE & LAND SURVEYING, PLLC, DATED 09/20/2018, LAST REVISED 03/02/2020.
2. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.
3. UNLESS OTHERWISE SPECIFIED, PIPE FOR STORM DRAINS SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE) WITH A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS IN ACCORDANCE WITH ASTM F-2648. JOINTS SHALL BE WATERTIGHT IN ACCORDANCE WITH ASTM D-3212.
4. UNLESS OTHERWISE SPECIFIED, PIPE FOR SANITARY SEWER GRAVITY LINES SHALL BE POLYVINYL CHLORIDE PIPE (PVCP), SDR-35, WITH PUSH-ON JOINTS IN ACCORDANCE WITH ASTM D-3034 AND D-3212.
5. UNLESS OTHERWISE SPECIFIED, PIPE FOR WATER LINES SHALL BE DOUBLE CEMENT-LINED DUCTILE IRON PIPE (DIP), CLASS 54, WITH PUSH-ON JOINTS IN ACCORDANCE WITH AWWA C-150, C-151, C-104 AND C-111.
6. ELECTRIC, TELEPHONE, FIRE ALARM AND CABLE TELEVISION LINES SHALL BE INSTALLED UNDERGROUND IN CONDUIT IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY HAVING JURISDICTION.
7. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES TO BE CONNECTED TO AND EXISTING UTILITIES TO REMAIN AND BE PROTECTED. IF ANY DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR AND JMC PRIOR TO THE START OF CONSTRUCTION. EXISTING 12" SANITARY MAIN INVERT AT CROSSING OF NEW 30" STORM PIPE IS 26.37. EXISTING WATER MAIN, GAS MAIN, AND TELEPHONE/DATA LINE MAY NEED TO BE ADJUSTED TO AVOID CONFLICT WITH PROPOSED STORM. THE DEPTH OF THE EXISTING WATER MAIN AND SEWER MAIN SHALL BE VERIFIED WITH TEST PITS TO CONFIRM THERE IS ADEQUATE SPACE FOR THE PROPOSED TAPPING SLEEVE AND GATE VALVE CONNECTIONS.
8. ALL STORMWATER FACILITIES TO BE CONSTRUCTED AS PART OF THIS PROJECT SHALL BE INSPECTED BY A LICENSED ENGINEER ON A YEARLY BASIS, WITH A COPY OF THE REPORT BEING PROVIDED TO THE CITY BUILDING DEPARTMENT. THE REPORT SHALL INCLUDE ALL FINDINGS AND RECOMMENDATIONS.
9. UPON COMPLETION OF CONSTRUCTION, A TOPOGRAPHIC AS-BUILT DRAWING SHALL BE PREPARED FOR THE PROJECT AND SUBMITTED TO THE CITY OF BEACON.

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION
- EXISTING STORM DRAIN LINE AND SIZE
- EXISTING SANITARY LINE AND SIZE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED EASEMENT LINE
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DROP CURB AND RAMP
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED TYPE CI DRAIN INLET
- PROPOSED TYPE DI DRAIN INLET
- PROPOSED TYPE DB DRAIN BASIN
- PROPOSED WATER QUALITY STRUCTURE
- PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- PROPOSED CLEANOUT
- 15" HDPE — PROPOSED STORM DRAIN LINE & SIZE
- 6" PVC — PROPOSED SANITARY SEWER LINE & SIZE
- 6" WATER — PROPOSED WATER LINE & SIZE
- PROPOSED TELEPHONE LINE
- PROPOSED OVERHEAD WIRES
- PROPOSED WATER VALVE
- PROPOSED GAS VALVE
- PROPOSED WOOD GUIDE RAIL
- PROPOSED RETAINING WALL AND SAFETY FENCE (DESIGN BY OTHERS)
- PROPOSED PRIVACY FENCE
- PROPOSED UTILITY POLE
- PROPOSED THRUST BLOCK
- PROPOSED EASEMENT

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UTILITIES PLAN

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Drawing No:
C–300
(Sheet 6 of 29)

WEST MAIN STREET AND BANK STREET BLOWUP
SCALE: 1" = 10'

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

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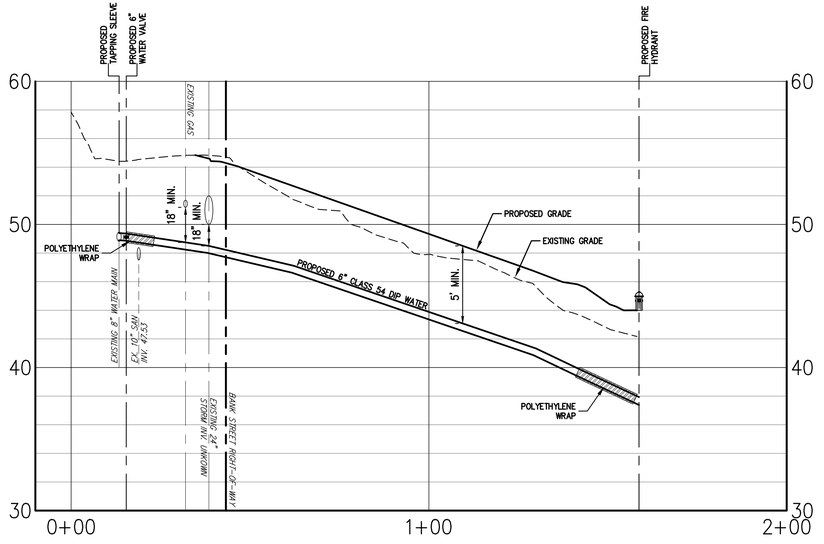
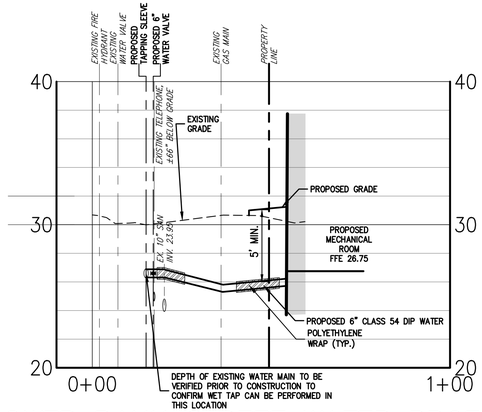


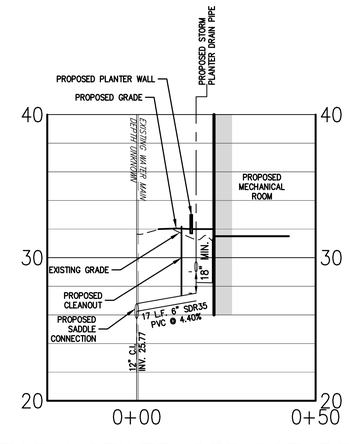
UPPER BANK STREET WATER PROFILE

SCALE
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'



LOWER BANK STREET WATER PROFILE

SCALE
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'



SANITARY SEWER SERVICE PROFILE

SCALE
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'

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UTILITY PROFILES

BEACON COMMONS
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STATE OF NEW YORK
STEPHEN SPINA
085983
LICENSED PROFESSIONAL ENGINEER

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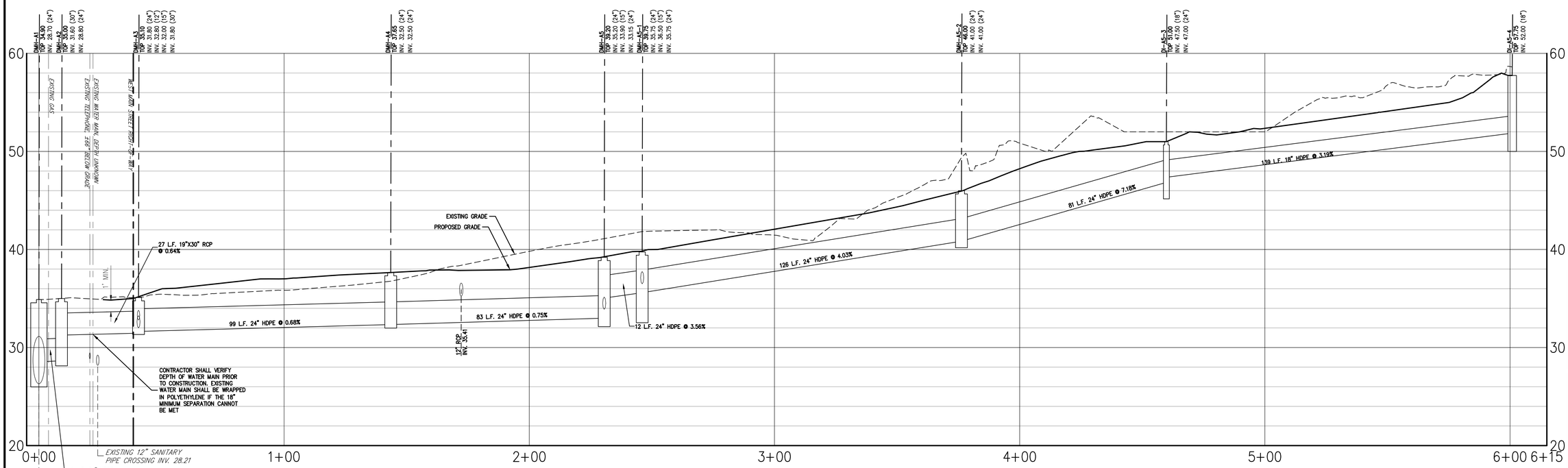
Date: 09/29/2020
Project No: 18119
18119-SITE | UTILITY PROFILE | UTIL.scr
Drawing No:
C-310
(Sheet 7 of 29)



DMH-A1 to DI-A5-4 STORMWATER PROFILE

SCALE
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'

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STORM PROFILES

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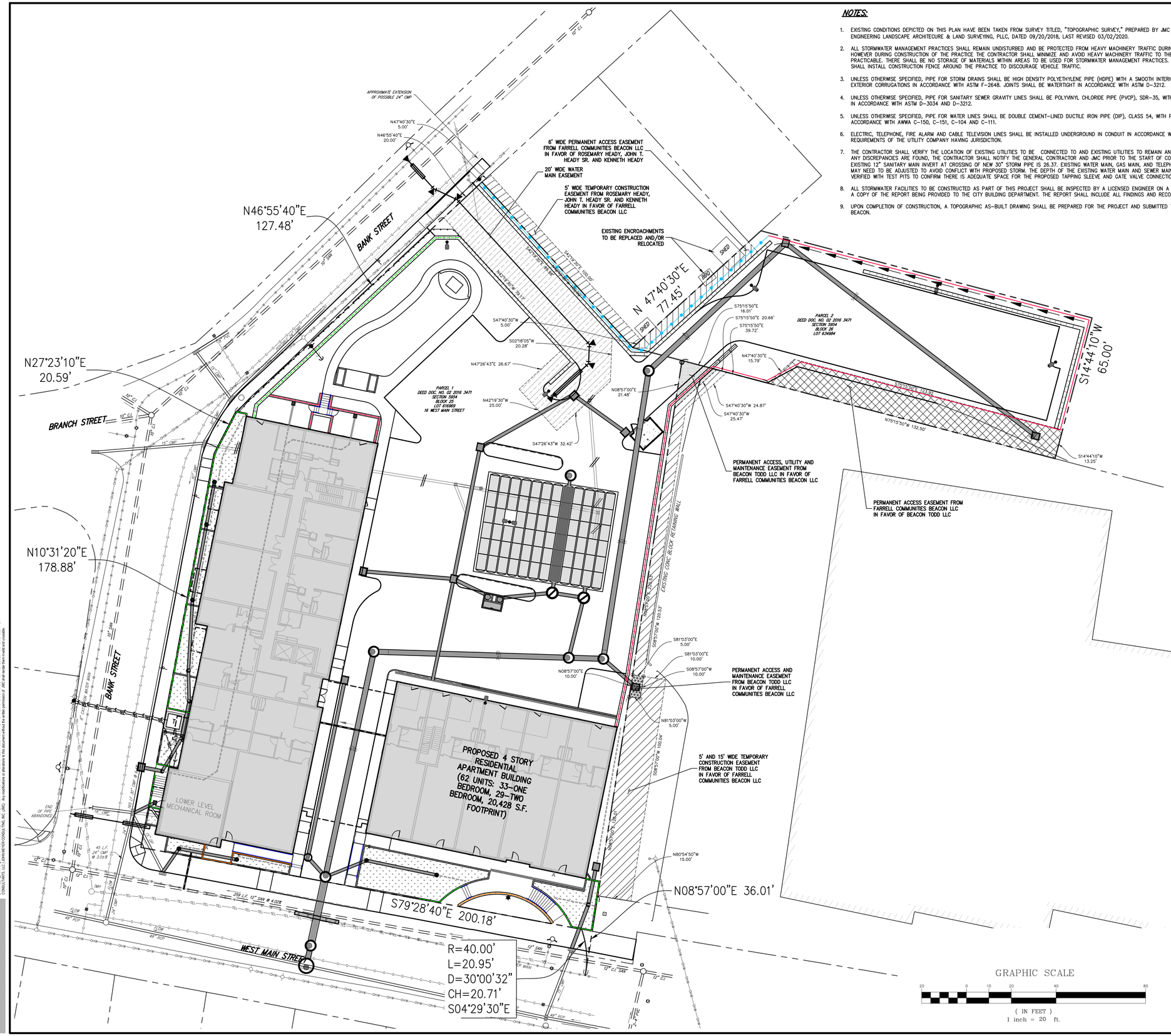
Drawing No:
C-320
(Sheet 8 of 29)

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC SURVEY," PREPARED BY JMC PLANNING ENGINEERING LANDSCAPE ARCHITECURE & LAND SURVEYING, PLLC, DATED 09/20/2018, LAST REVISED 03/02/2020.
2. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.
3. UNLESS OTHERWISE SPECIFIED, PIPE FOR STORM DRAINS SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE) WITH A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS IN ACCORDANCE WITH ASTM F-2648. JOINTS SHALL BE WATERTIGHT IN ACCORDANCE WITH ASTM D-3212.
4. UNLESS OTHERWISE SPECIFIED, PIPE FOR SANITARY SEWER GRAVITY LINES SHALL BE POLYVINYL CHLORIDE PIPE (PVCP), SDR-35, WITH PUSH-ON JOINTS IN ACCORDANCE WITH ASTM D-3034 AND D-3212.
5. UNLESS OTHERWISE SPECIFIED, PIPE FOR WATER LINES SHALL BE DOUBLE CEMENT-LINED DUCTILE IRON PIPE (DIP), CLASS 54, WITH PUSH-ON JOINTS IN ACCORDANCE WITH AWWA C-150, C-151, C-104 AND C-111.
6. ELECTRIC, TELEPHONE, FIRE ALARM AND CABLE TELEVISION LINES SHALL BE INSTALLED UNDERGROUND IN CONDUIT IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY HAVING JURISDICTION.
7. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES TO BE CONNECTED TO AND EXISTING UTILITIES TO REMAIN AND BE PROTECTED. IF ANY DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR AND JMC PRIOR TO THE START OF CONSTRUCTION. EXISTING 12" SANITARY MAIN INVERT AT CROSSING OF NEW 30" STORM PIPE IS 26.37. EXISTING WATER MAIN, GAS MAIN, AND TELEPHONE/DATA LINE MAY NEED TO BE ADJUSTED TO AVOID CONFLICT WITH PROPOSED STORM. THE DEPTH OF THE EXISTING WATER MAIN AND SEWER MAIN SHALL BE VERIFIED WITH TEST PITS TO CONFIRM THERE IS ADEQUATE SPACE FOR THE PROPOSED TAPPING SLEEVE AND GATE VALVE CONNECTIONS.
8. ALL STORMWATER FACILITIES TO BE CONSTRUCTED AS PART OF THIS PROJECT SHALL BE INSPECTED BY A LICENSED ENGINEER ON A YEARLY BASIS, WITH A COPY OF THE REPORT BEING PROVIDED TO THE CITY BUILDING DEPARTMENT. THE REPORT SHALL INCLUDE ALL FINDINGS AND RECOMMENDATIONS.
9. UPON COMPLETION OF CONSTRUCTION, A TOPOGRAPHIC AS-BUILT DRAWING SHALL BE PREPARED FOR THE PROJECT AND SUBMITTED TO THE CITY OF BEACON.



GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING LINE
- EXISTING PAVEMENT EDGE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING FENCE
- EXISTING TREE AND DESIGNATION (DIA. 6")
- 36" RCP — EXISTING STORM DRAIN LINE AND SIZE
- 8" SAN — EXISTING SANITARY LINE AND SIZE
- EXISTING WATER LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD WIRES
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- EXISTING FIRE HYDRANT
- GV — EXISTING GAS VALVE
- WV — EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SIGN
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED EASEMENT LINE
- PROPOSED CONCRETE SIDEWALK
- PROPOSED DROP CURB AND RAMP
- DMH — PROPOSED STORM DRAIN MANHOLE
- CI — PROPOSED TYPE CI DRAIN INLET
- DI — PROPOSED TYPE DI DRAIN INLET
- DB — PROPOSED TYPE DB DRAIN BASIN
- WQS — PROPOSED WATER QUALITY STRUCTURE
- OCS — PROPOSED SUBSURFACE DRAINAGE OUTLET CONTROL STRUCTURE
- CO — PROPOSED CLEANOUT
- 15" HDPE — PROPOSED STORM DRAIN LINE & SIZE
- 6" PVC — PROPOSED SANITARY SEWER LINE & SIZE
- 6" WATER — PROPOSED WATER LINE & SIZE
- PROPOSED TELEPHONE LINE
- PROPOSED OVERHEAD WIRES
- PROPOSED WATER VALVE
- PROPOSED GAS VALVE
- PROPOSED WOOD GUIDE RAIL
- PROPOSED RETAINING WALL AND SAFETY FENCE (DESIGN BY OTHERS)
- PROPOSED PRIVACY FENCE
- PROPOSED UTILITY POLE
- PROPOSED THRUST BLOCK
- PROPOSED EASEMENT

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EASEMENT PLAN

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Drawing No:
C-330
(Sheet 9 of 28)

PROPOSED CONSTRUCTION ACCESS

PROPOSED TEMPORARY CONSTRUCTION FENCE (TYPICAL)

PROPOSED TEMPORARY SOIL STOCKPILE AREA SURROUNDED BY SILT FENCE

PROPOSED SILT SACK (TYPICAL)

PROPOSED TEMPORARY CONSTRUCTION FENCE (TYPICAL)

PROPOSED TEMPORARY TREE PROTECTION FENCE

PROPOSED STONE CHECK DAM (TYPICAL)

PROPOSED DIVERSION SWALE FOR OFFSITE FLOW

EXISTING CITY DRAINAGE EASEMENT

PROPOSED TEMPORARY CONSTRUCTION FENCE (TYPICAL)

PROPOSED EXCAVATED DROP INLET PROTECTION (TYPICAL)

PROPOSED CONCRETE TRUCK WASHOUT AREA

PROPOSED EXCAVATED DROP INLET PROTECTION (TYPICAL)

PROPOSED SILT SACK (TYPICAL)

PROPOSED SILT FENCE AND TEMPORARY CONSTRUCTION FENCE

PROPOSED EXCAVATED DROP INLET PROTECTION

PROPOSED SILT SACK (TYPICAL)

PROPOSED 4 STORY RESIDENTIAL APARTMENT BUILDING (62 UNITS: 33 ONE BEDROOM, 29 TWO BEDROOM, 20,428 S.F. FOOTPRINT)

ONE STORY BRICK BUILDING 16 WEST MAIN STREET

LOWER LEVEL MECHANICAL ROOM

BANK STREET

BRANCH STREET

WEST MAIN STREET

ROOF DRAIN LEADERS DRAIN TO REAR OF BUILDING (TYP.)

ROOF DRAIN LEADERS SPILL ONTO PAVEMENT (TYP.)

LEGEND

- PROPOSED EXCAVATED DROP INLET PROTECTION
- PROPOSED SILT SACK
- PROPOSED CONSTRUCTION FENCE
- PROPOSED TEMP. TREE PROTECTION FENCE
- PROPOSED SILT FENCE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED STOCKPILE AREA
- EXISTING TREE AND DESIGNATION (MA 6")

NOTES:

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2. THIS PLAN IS FOR TEMPORARY EROSION AND SEDIMENT CONTROL INFORMATION ONLY.
3. PRIOR TO BEGINNING ANY CLEARING, GRUBBING OR EXCAVATION, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH ALL THE PLANS AND SPECIFICATIONS. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL THE SITE IS STABILIZED. FINAL STABILIZATION OF LANDSCAPED AREAS SHALL BE IN ACCORDANCE WITH THE LANDSCAPE PLAN.
4. THE CONTRACTOR SHALL INSPECT AND MAINTAIN ON-SITE EROSION AND SEDIMENT CONTROL MEASURES ON A DAILY BASIS. ALL COLLECTED SEDIMENT WITHIN SEDIMENT BARRIERS SHALL BE REMOVED PERIODICALLY AS REQUIRED TO MAINTAIN THE FUNCTION OF THE SEDIMENT BARRIERS. ALL SEDIMENT COLLECTED SHALL BE RESPREAD ON-SITE WITHIN STABILIZED AREAS AS DIRECTED BY THE OWNERS REPRESENTATIVE.
5. THE CONTRACTOR SHALL INSPECT DOWNSTREAM CONDITIONS FOR EVIDENCE OF SEDIMENTATION ON A WEEKLY BASIS, AFTER EACH RAINSTORM, AND AS MAY BE REQUIRED OR DIRECTED BY ALL APPLICABLE APPROVALS AND PERMITS. THE CONTRACTOR SHALL IMMEDIATELY PROVIDE A WRITTEN REPORT ON FINDINGS OF SEDIMENT IN DOWNSTREAM AREAS TO ALL AUTHORITIES HAVING JURISDICTION AND MAKE REPAIRS AS REQUIRED OR DIRECTED.
6. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR AS REQUIRED/WARRANTED BY FIELD CONDITIONS AND AS DIRECTED BY THE OWNERS REPRESENTATIVE, JMC, AND/OR ANY AUTHORITY HAVING JURISDICTION.
7. STOCKPILING OF CONSTRUCTION MATERIAL SHALL BE PLACED ON-SITE IN THE AREA DESIGNATED ON THIS PLAN OR AS APPROVED BY THE OWNERS REPRESENTATIVE. STOCKPILED EXCAVATED MATERIAL SHALL HAVE TWO ROWS OF SILT FENCE LOCATED AROUND ITS PERIMETER. ALL STOCKPILED MATERIAL SHALL BE MAINTAINED IN AN ORDERLY MANNER SO AS NOT TO IMPEDE ON PEDESTRIAN AND/OR VEHICULAR TRAFFIC CIRCULATION ROUTES.
8. DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE OWNERS REPRESENTATIVE.
9. ALL STORMWATER MANAGEMENT PRACTICES SHALL REMAIN UNDISTURBED AND BE PROTECTED FROM HEAVY MACHINERY TRAFFIC DURING CONSTRUCTION. HOWEVER DURING CONSTRUCTION OF THE PRACTICE THE CONTRACTOR SHALL MINIMIZE AND AVOID HEAVY MACHINERY TRAFFIC TO THE MAXIMUM EXTENT PRACTICABLE. THERE SHALL BE NO STORAGE OF MATERIALS WITHIN AREAS TO BE USED FOR STORMWATER MANAGEMENT PRACTICES. THE CONTRACTOR SHALL INSTALL CONSTRUCTION FENCE AROUND THE PRACTICE TO DISCOURAGE VEHICLE TRAFFIC.
10. ALL EXPOSED SLOPES AND GRADED/DISTURBED AREAS, THAT WILL NOT BE FURTHER DISTURBED WITHIN 14 CALENDAR DAYS (7 DAYS FOR CONSTRUCTION SITES THAT EITHER DIRECTLY DISCHARGE TO ONE OF THE 303(d) SEGMENTS LISTED IN APPENDIX E OF THE GENERAL PERMIT OR ARE LOCATED WITHIN ONE OF THE WATERSHEDS LISTED IN APPENDIX C OF THE GENERAL PERMIT), SHALL BE TEMPORARILY SEEDED WITHIN 24 HOURS OF DISTURBANCE, IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) "EROSION AND SEDIMENT CONTROL GUIDELINES" AND THE ANSI A300 "BEST MANAGEMENT PRACTICES FOR TREE AND SHRUB PLANTING, TRANSPLANTING, MAINTENANCE AND CARE," PREPARED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA), LATEST EDITIONS, AS FOLLOWS:
    - A. SEED MIXTURE AND RATE OF APPLICATION:
        - A.1. IN SPRING, SUMMER OR EARLY FALL, SEED THE AREA WITH RYEGRASS (ANNUAL OR PERENNIAL) AT 30 POUNDS PER ACRES (APPROXIMATELY 0.7 POUNDS/1000 SQUARE FEET OR USE 1 POUND/1000 SQUARE FEET).
        - A.2. IN LATE FALL OR EARLY WINTER, SEED THE AREA WITH CERTIFIED "AROOSTOOK" WINTER RYE (CEREAL RYE) AT 100 POUNDS PER ACRE (2.5 POUNDS/1000 SQUARE FEET).
    - B. APPLICATION SHALL BE UNIFORM BY MECHANICAL OR HYDROSEED METHODS.
    - C. MULCH ALL SEEDED AREAS WITH STRAW AT A RATE OF 2 TONS PER ACRE (90 POUNDS PER 1,000 SQUARE FEET) SUCH THAT THE MULCH FORMS A CONTINUOUS BLANKET.
11. ALL SEEDED AREAS SHALL BE FERTILIZED, RESEEDED, AND MULCHED AS NECESSARY TO MAINTAIN VIGOROUS, DENSE VEGETATIVE COVER.
12. TEMPORARY SEED MIXTURES SHALL NOT BE PLACED ON AREAS WHERE FINAL GRADE HAS BEEN ESTABLISHED AND TOPSOIL HAS BEEN PLACED UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT.
13. SUMPS SHALL BE INSTALLED FOR DEWATERING OF GROUNDWATER DURING CONSTRUCTION. PUMPED GROUNDWATER WILL BE DISCHARGED INTO SEDIMENT SETTLING TANKS AND THEN DISCHARGE LINE SHALL HAVE A FILTER SOCK ON THE END OF THE LINE. THE FILTERED GROUNDWATER SHALL THEN BE DISCHARGED OFF-SITE WITHIN ADJACENT DRAINAGE STRUCTURES.
14. ACCORDING TO THE U.S. FISH AND WILDLIFE SERVICE (USFWS), TREE REMOVAL SHOULD BE CONDUCTED DURING THE WINTER TIME FRAME OF NOVEMBER 1ST TO MARCH 31ST TO AVOID ADVERSE IMPACTS TO THE BATS. IF TREE REMOVAL IS PLANNED OUTSIDE OF THIS TIME FRAME, A SITE ASSESSMENT BY A BAT BIOLOGIST OR A QUALIFIED BAT SURVEYOR SHOULD BE PERFORMED. SUCH A SURVEY WILL IDENTIFY POTENTIAL CONCERNS AND ALLOW FOR IMPLEMENTATION OF SITE ACTIVITY PROTECTIONS.

SEQUENCE OF CONSTRUCTION

CONSTRUCTION SHALL BE SEQUENCED IN SUCH A MANNER THAT ANY AREA WHICH IS DISTURBED SHALL FIRST BE PROTECTED WITH SEDIMENT EROSION CONTROLS AS INDICATED ON THIS PLAN. PARTICULAR REQUIREMENTS ARE GIVEN AS FOLLOWS:

1. INSTALLATION OF SEDIMENT AND EROSION CONTROL MEASURES AS INDICATED ON THIS PLAN.
2. PRE-CONSTRUCTION MEETING WITH SITE CONTRACTOR, CITY OF BEACON PERSONNEL, AND SITE ENGINEER.
3. DEMOLITION OF EXISTING BUILDING AS REQUIRED..
4. CLEAR UNDEVELOPED PORTION OF PROPERTY WHICH IS TO BE DEVELOPED.
5. STRIP AND STOCK PILE TOPSOIL.
6. INSTALL PROPOSED OFFSITE STORMWATER SYSTEM PRIOR TO DEMOLITION OF EXISTING STORM SYSTEM.
7. BEGIN ROUGH GRADING, RETAINING WALLS CONSTRUCTION, BUILDING CONSTRUCTION, AND PARKING LOT CONSTRUCTION.
8. INSTALL STORM DRAIN SYSTEM COMPLETE (IMMEDIATELY INSTALL INLET PROTECTION ON ALL INLETS).
9. INSTALL PUBLIC UTILITIES (GAS, ELECTRIC AND TELEPHONE) AS REQUIRED.
10. INSTALL CONCRETE AND ASPHALT CONCRETE PAVEMENT COMPLETE.
11. FINISH GRADING, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION AND/OR LANDSCAPING.
12. CLEAN PAVEMENTS AND STORM DRAIN SYSTEM OF ALL ACCUMULATED SEDIMENT IN CONJUNCTION WITH THE REMOVAL OF ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES.
13. COMPLETE SITE AND BUILDING CONSTRUCTION.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

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SEDIMENT AND EROSION CONTROL PLAN

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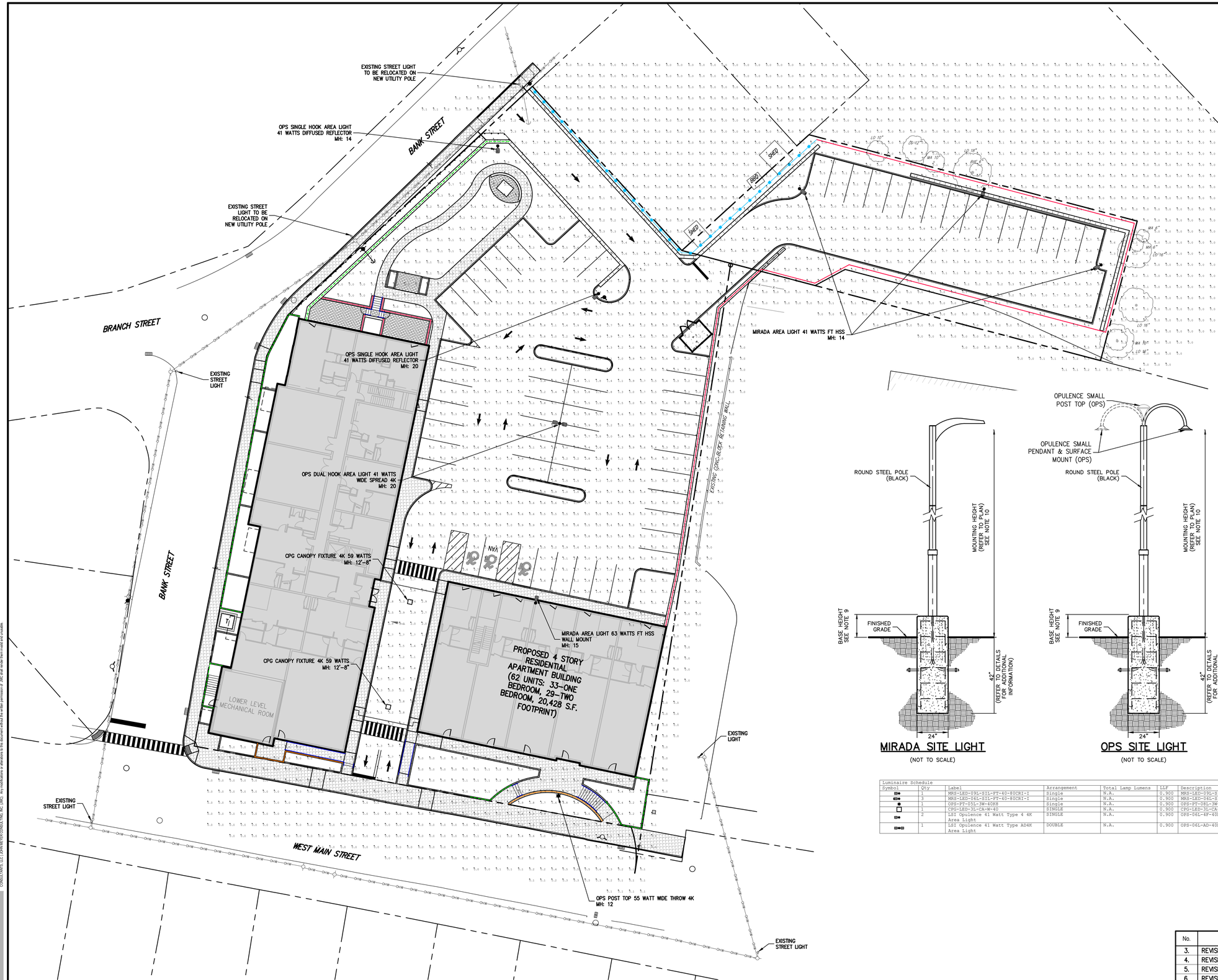

LEGEND

- EXISTING PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING BUILDING LINE
- EXISTING CURB LINE
- EXISTING STONE WALL
- EXISTING RETAINING WALL
- EXISTING FENCE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- PROPOSED BUILDING LINE
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE SIDEWALK
- PROPOSED WOOD GUIDE RAIL
- PROPOSED CONCRETE WALL WITH BRICK VENEER (42" ABOVE SIDEWALK)
- PROPOSED BLACK VINYL COATED CHAIN LINK FENCE WITH PRIVACY SLATS
- PROPOSED DECORATIVE SAFETY FENCE
- PROPOSED PRIVACY FENCE
- PROPOSED HANDRAILS
- PROPOSED RETAINING WALL (DESIGN BY OTHERS)
- PROPOSED LIGHTING STANDARD
- PROPOSED UNDERPASS LIGHT
- PROPOSED ILLUMINANCE IN FOOT-CANDLES

NOTES:

1. ALL CABLES AND WIRING SHALL BE INSTALLED UNDERGROUND IN CONDUIT. CONDUIT SHALL BE SCHEDULE 40 PVC INSTALLED WITH TWO (2) FEET OF COVER. MINIMUM SIZE OF CONDUIT SHALL BE TWO (2) INCH DIAMETER.
2. CIRCUIT WIRING SHALL BE DESIGNED BY THE PROJECT ELECTRICAL ENGINEER.
3. LIGHTING LEVELS ARE MEASURED AT GROUND SURFACE ELEVATION.
4. THE PROPOSED SITE LIGHT FIXTURES SHALL;
   (1) HAVE A COLOR RENDERING INDEX (CRI) IN THE RANGE OF 80-100.
   (2) HAVE A TEMPERATURE OF 3,000 K.
   (3) BE FULL CUT-OFF THAT DO NOT LIGHT ABOVE HORIZONTAL PLANE.
   (4) BE DARK SKY COMPLIANT.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND VERIFY ALL ANCHOR BOLT DIMENSIONS (SIZE, BOLT CIRCLE, ETC.) WITH THE POLE MANUFACTURER PRIOR TO INSTALLATION OF THE FOUNDATIONS.
6. CHAMFER EXPOSED EDGES OF ALL FOUNDATIONS.
7. PROVIDE INSULATED GROUNDING BUSHING ON EXPOSED ENDS (IN BASE OF POLE) OF ALL GALVANIZED STEEL BENDS.
8. COLOR OF LUMINAIRE SHALL MATCH COLOR OF POLE.
9. CONCRETE BASE IN PARKING AREAS: 2'-6" CONCRETE BASE IN LANDSCAPED AREAS: 2'
10. LIGHT POLE LENGTHS SHALL BE ADJUSTED DEPENDING ON MOUNTING APPLICATION SUCH AS LAWN AREAS, IN PARKING AREAS. AND MH: MOUNTING HEIGHT IS THE DISTANCE FROM THE GROUND BELOW THE LIGHT TO THE TOP OF THE LIGHT FIXTURE.
11. LIGHT FIXTURES ARE DARK SKY COMPLIANT WITH FULL CUT-OFF SHIELDS.
12. LUMINAIRES AND POLES ARE TO BE THE PRODUCT OF LSI OR APPROVED EQUAL.

MIRADA SITE LIGHT

(NOT TO SCALE)

OPS SITE LIGHT

(NOT TO SCALE)

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	1	MRS-LED-09L-SIL-FT-40-80CRI-I	Single	N.A.	0.900	MRS-LED-09L-SIL-FT-40-80CRI-IH
	3	MRS-LED-06L-SIL-FT-40-80CRI-I	Single	N.A.	0.900	MRS-LED-06L-SIL-FT-40-80CRI-IH
	1	OPS-FT-05L-3W-40K8	Single	N.A.	0.900	OPS-FT-09L-3W-40K8
	1	CPG-LED-3L-CA-W-40	SINGLE	N.A.	0.900	CPG-LED-3L-CA-W-40
	2	LSI Opulence 41 Watt Type 4 4K Area Light	SINGLE	N.A.	0.900	OPS-06L-4F-40K8_IES
	1	LSI Opulence 41 Watt Type AD4K Area Light	DOUBLE	N.A.	0.900	OPS-06L-AD-40K8_IES

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No.	Revision	Date	By
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4.	REVISED PER CITY COMMENTS	07/27/2021	BMS
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	Previous Editions Obsolete		

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JMC

LIGHTING PLAN

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

STATE OF NEW YORK
STEPHEN SPINA
LICENSED PROFESSIONAL ENGINEER
085983

Drawn:	BMS	Approved:	SS
Scale:	1" = 20'		
Date:	10/29/2019		
Project No:	18119		
18119-LIGHTING	LIGHTING	LIGHT.scr	

Drawing No:
C-600
(Sheet 11 of 29)

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574

Catalog #: ______ Project: ______
Prepared By: ______ Date: ______ Type: ______

Mirada Small Area (MRS)

Outdoor LED Area Light

IP66 IK08



OVERVIEW	
Lumen Package	6,000 - 24,000
Wattage Range	41 - 196
Efficacy Range (LPW)	112 - 156
Fixture Weight lbs (kg)	20 (9.1)

QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction
- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 27 lbs in carton.

Optical System
- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated seal.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in distribution types 2, 3, 5W, and FT.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377
- Minimum CRI of 70. Shall be between 80-100.
- Integral louver (IL) and house-side shield (IH) options available for improved backlight control without sacrificing street side performance. ~~See page 3 for more details.~~ Full cut-off.

Electrical
- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- L70 Calculated Life: >60k Hours
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F).
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls
- Optional integral passive infrared Bluetooth™ motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7.

Installation
- Designed to mount to square or round poles.
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes LSI's traditional B3 drill pattern.

Warranty
- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsicorp.com/resources/terms-conditions-warranty/ for more information.

Listings
- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications are qualified.
- IK08 rated luminiare per IEC 66262 mechanical impact code
- DesignLights Consortium® Listings in progress.

Specifications and dimensions subject to change without notice.

Catalog #: ______ Project: ______
Prepared By: ______ Date: ______ Type: ______

Opulence Small Pendant & Surface Mount (OPS)

Outdoor Pendant & Surface Mount Luminaire

IP66



OVERVIEW	
Lumen Output Range	3,000 -14,000
Wattage	22 - 103
Efficacy Range (LPW)	95 - 168
Fixture Weight lbs (kg)	16 (7.3)

QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction
- Rugged die-cast aluminum housing.
- Architecturally pleasing with no visible electronics, hardware, or seams from ground level.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Optional spun aluminum shroud provides a streamlined transition from stem to luminaire while also deterring nesting (3/4" stem/pendant only).

Optical System
- High density LED optical system delivers industry leading optical performance and visual comfort.
- 7 distribution types 3W, 4F, 5Q, 5C, 5R, 5D & AD
- Diffused lens version provides maximum visual comfort with reduced brightness and LED pixelization.
- Zero uplight.
- Available in 5000K, 4000K, 3500K, 3000K and 2700K color temperatures per ANSI C78.377.
- Minimum CRI of 80

Electrical
- High-performance driver features overvoltage, under-voltage, short-circuit and over temperature protection (6kV surge standard).
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +40°C (-40°F to +104°F).
- Power factor: >.90
- Input power stays constant over life.
- Optional 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls
- Integral passive infrared Bluetooth™ motion and photocell sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app.
- LSI's AirLink™ Blue lighting control system is a simple feature rich wireless Bluetooth mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule. Updates and modifications to the control strategy are easily implemented via an intuitive iOS app.

Installation
- Pendant mounting via rigid 3/4" stem (order stem seperately), 6' wire leads provided.
- Direct/surface mounts to a 4" (102mm) square or octagon box (box by others).
- Hinged 16ga galvanized mounting bracket provided for ease of installation and maintenance.
- Optional stainless steel crown for mounting to 2" tenon (order tenon seperately). Wire leads pass through compression seal fitting to prevent water entry. Once-piece silicone gasket provides water and dust tight seal.
- For wall mount arm please reference OPS wall mount spec sheet.

Warranty
- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsicorp.com/resources/terms-conditions-warranty/ for more information.

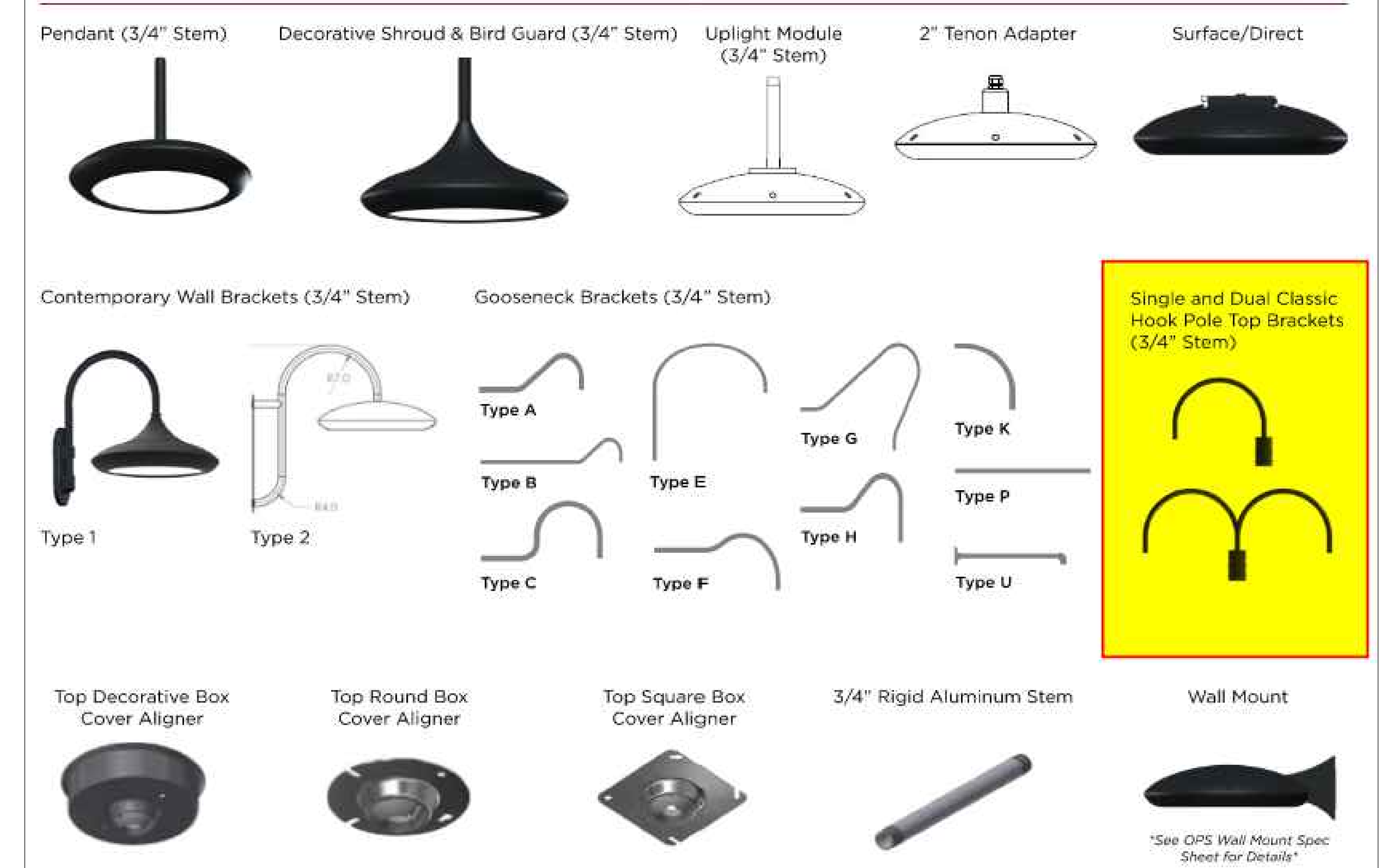
Listings
- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K and warmer color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Specifications and dimensions subject to change without notice.

Type: ______

Opulence Small Pendant & Surface Mount

MOUNTING OPTIONS



CONTROLS

Integral Bluetooth™ Motion and Photocell Sensor (IMSBT)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is rated for cold and wet locations (-30° C to 70° C). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click here to learn more about IMSBT.

AirLink Blue

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/Site, Wall Mounted, Parking Garage and Canopy luminaires.

Click here to learn more about AirLink Blue.

Catalog # :	Project :
Prepared By :	Date :

CPG Series

LED Compact Parking Garage



The LSI CPG LED Compact Parking Garage Series is designed to optimize LED life and light output. Housing is hinged for quick and easy mounting and entrance. Using high brightness, high LED count technology, more usable light output is produced while eliminating glare.

Features & Specifications

Optical System
- The optics have been engineered specifically for parking garage applications. The distribution pattern has been created to optimize fixture spacing and reduce fixture counts while delivering improved visual comfort and eliminating glare.
- Lens assembly is designed to provide high efficiency and to target the light where needed to satisfy parking garage requirements.
- Positioning of the LEDs result in the light being directed to desired locations eliminating glare.
- 3000K | 4000K | 5000K color temperatures.
- Minimum CRI of 80.
- L70 Calculated Life: >200k Hours

Electrical
- High-performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0-10 volt dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz
- Total harmonic distortion: <20%
- Power factor: >.85
- Driver Off-State Power is 0 watts.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can be easily be accessed.
- Minimum 4kV surge rating

Controls

Wireless Controls System

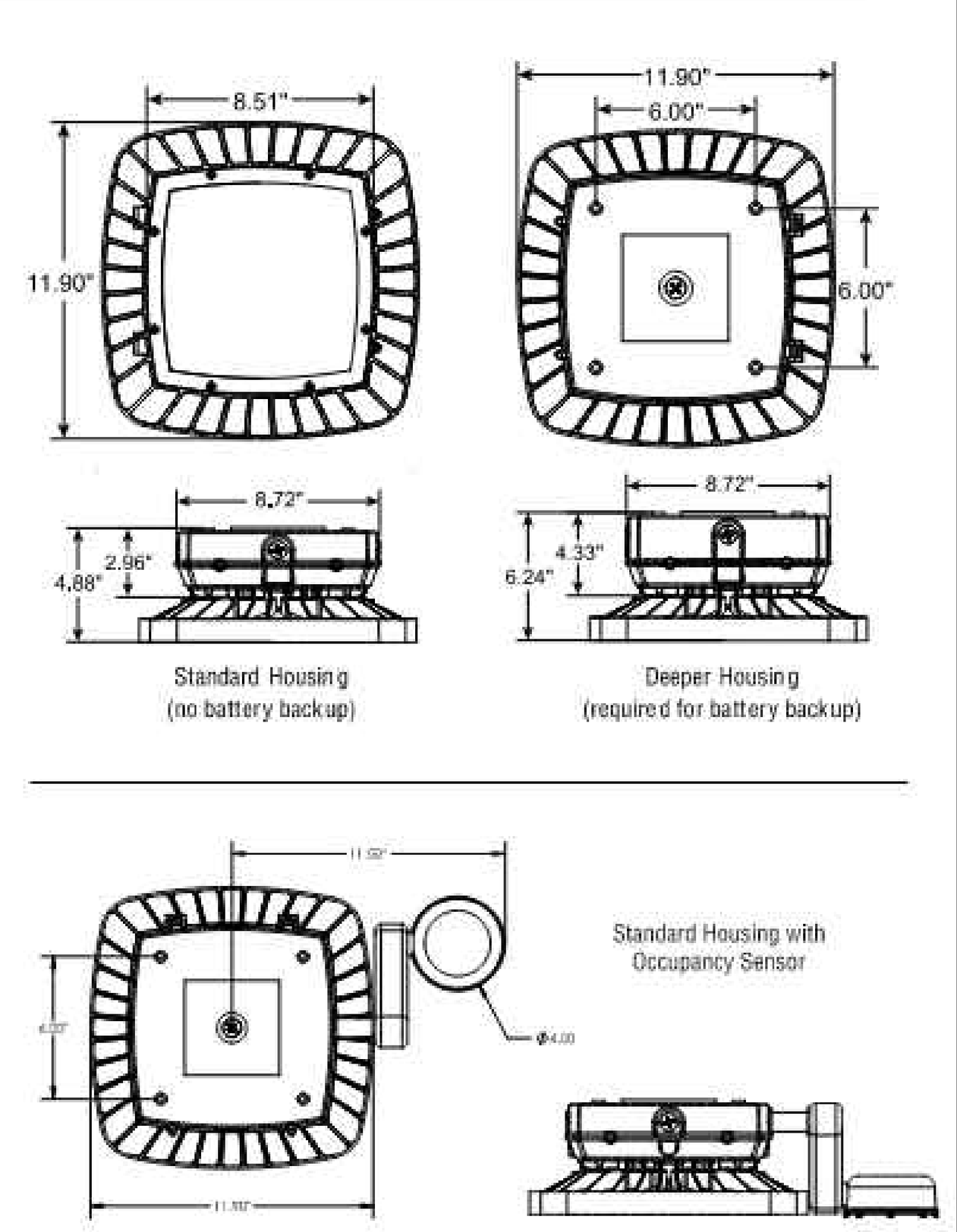
To make Airlink ready, order one of the following options:

a. The integrated Wireless Lighting Controller: ALSC (see ordering guide) as the controls option, or

b. Integrated Wireless Controller option (above) with integrated motion sensor: ALSCS (ordering guide for mounting heights)

For more information on our AirLink products, visit our website: www.lsi airlink.com/airlink-synapse/

Dimensions



Catalog #: ______ Project: ______
Prepared By: ______ Date: ______ Type: ______

Opulence Small Post Top (OPS)

Outdoor Decorative Post Top

IP66



OVERVIEW	
Lumen Output Range	3,000 - 14,000
Wattage	20 - 100
Efficacy Range (LPW)	114 - 148
Fixture Weight lbs (kg)	25.0 (11.3)

QUICK LINKS

Ordering Guide | Performance | Photometrics | Dimensions

FEATURES & SPECIFICATIONS

Construction
- Rugged die-cast aluminum housing.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.

Optical System
- High density LED optical system delivers industry leading optical performance and visual comfort.
- 7 distribution types 3W, 4F, 5Q, 5C, 5R, 5D & AD
- Diffused lens version provides maximum visual comfort with reduced brightness and LED pixelization
- Available in 5000K, 4000K, 3500K, 3000K and 2700K color temperatures per ANSI C78.377.
- Minimum CRI of 80

Electrical
- High-performance driver features overvoltage, under-voltage, short-circuit and over temperature protection (6kV surge standard).
- 0-10V dimming driver (optional extended leads).
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +40°C (-40°F to +104°F).
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls
- Integral passive infrared Bluetooth™ motion and photocell sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app.
- LSI's AirLink™ Blue lighting control system is a simple feature rich wireless Bluetooth mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule. Updates and modifications to the control strategy are easily implemented via an intuitive iOS app.

Installation
- Designed to mount directly to a 2 3/8" - 3" outer diameter tenon (4" tall).
- Optional flush mount accesory slips inside the top of a 4" round pole for a virtually seamless transition from pole to luminaire.

Warranty
- LSI luminaires carry a 5-year limited warranty. Refer to https://www.lsicorp.com/resources/terms-conditions-warranty/ for more information.

Listings
- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K and warmer color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Specifications and dimensions subject to change without notice.

ida DARK SKY APPROVED by the International Dark-Sky Association darksky.org

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LIGHTING SPECIFICATIONS

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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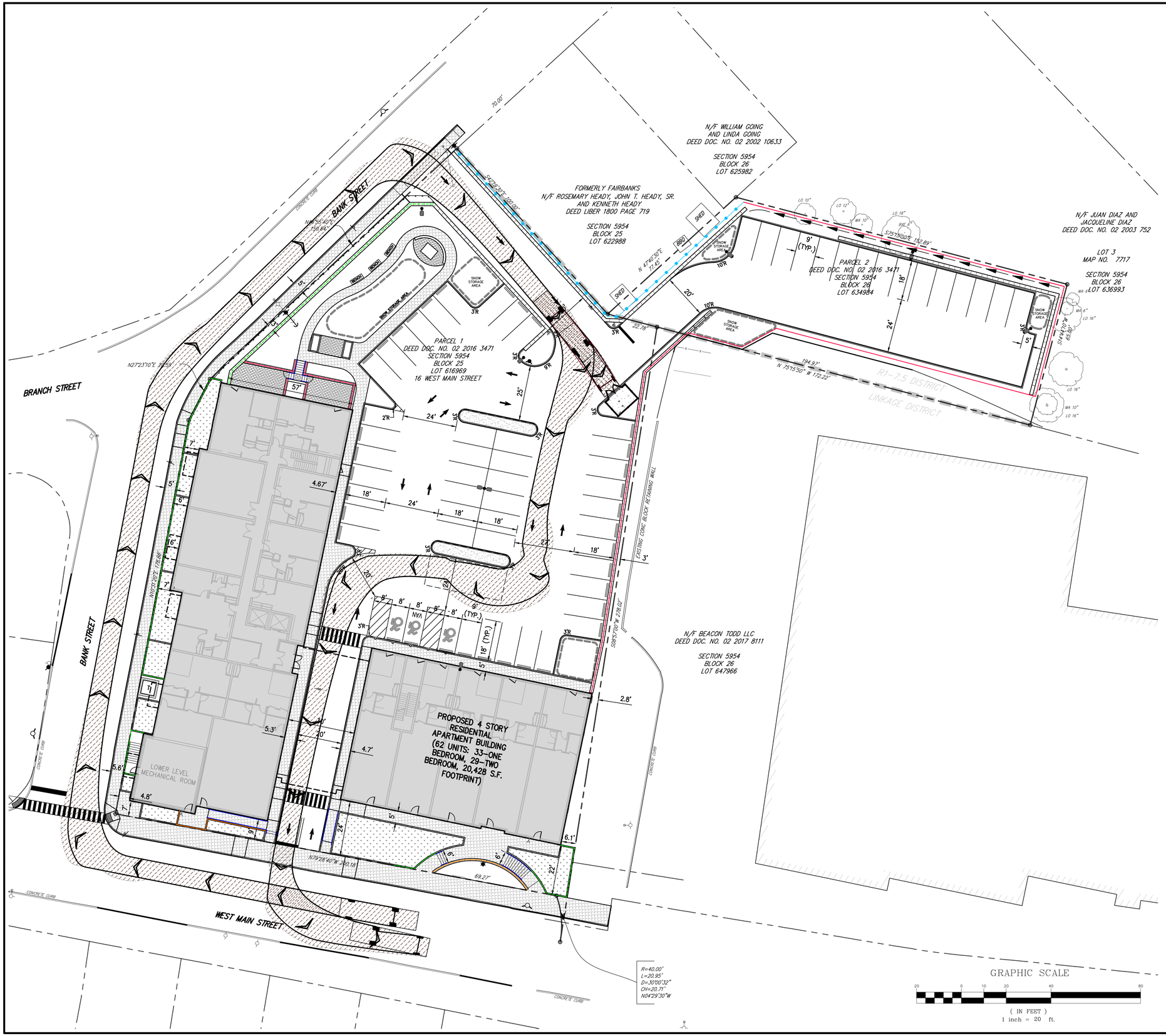
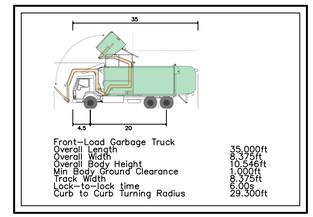
STATE OF NEW YORK • STEPHEN SPINA • LICENSED PROFESSIONAL ENGINEER • 085983

No.	Revision	Date	By
1.	REVISED PER CITY COMMENTS	08/30/2022	SMN
2.	REVISED PER CITY COMMENTS	09/27/2022	SMN
	Previous Editions Obsolete		

Drawn: BMS	Approved: SS
Scale: NTS	
Date: 06/28/2022	
Project No: 18119	
18119-LIGHTING	LIGHT SPEC / LIGHT.scr
Drawing No: C-601 (Sheet 12 of 29)	





Front-Load Garbage Truck	
Overall Length	35.000ft
Overall Width	8.375ft
Overall Body Height	10.5416ft
Min Body Ground Clearance	1.000ft
Track Width	8.375ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	29.300ft

PROFILE

SCALE: NTS

NOTES:

1. PICK-UP SHALL BE DURING OFF-PEAK HOURS.

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GARBAGE TRUCK TURNING PLAN (FRONT LOADING)

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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8.	REVISED PER CITY COMMENTS	08/30/2022	SMN
9.	REVISED PER CITY COMMENTS	09/27/2022	SMN
	Previous Editions Obsolete		

Drawn:	BMS	Approved:	SS
Scale:	1" = 20'		
Date:	10/29/2019		
Project No:	18119		
18119-SITE	TRUCK-1	TRUCK.scr	
Drawing No:	C-700 (Sheet 13 of 29)		

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EXISTING FIRE HYDRANT

BANK STREET

BRANCH STREET

WEST MAIN STREET

N46°55'40"E 150.84'

N27°23'10"E 20.59'

N72°36'10"E 128.00'

N 47°40'30"E 77.42'

S72°36'10"W 65.80'

S75°39'50"E 152.89'

N 75°15'50" W 172.22'

S08°57'00"W 278.07'

N79°56'40"W 210.18'

70.00'

FORMERLY FAIRBANKS
N/F ROSEMARY HEADY, JOHN T. HEADY, SR.
AND KENNETH HEADY
DEED LIBER 1800 PAGE 719

SECTION 5954
BLOCK 25
LOT 622988

N/F WILLIAM GOING
AND LINDA GOING
DEED DOC. NO. 02 2002 10633

SECTION 5954
BLOCK 26
LOT 625982

N/F JUAN DIAZ AND
JACQUELINE DIAZ
DEED DOC. NO. 02 2003 752

LOT 3
MAP NO. 7717

SECTION 5954
BLOCK 26
LOT 636993

PARCEL 1
DEED DOC. NO. 02 2016 3471
SECTION 5954
BLOCK 25
LOT 615009
16 WEST MAIN STREET

PARCEL 2
DEED DOC. NO. 02 2016 3471
SECTION 5954
BLOCK 26
LOT 634984

N/F BEACON TODD LLC
DEED DOC. NO. 02 2017 8111

SECTION 5954
BLOCK 26
LOT 647966

PROPOSED 4 STORY
RESIDENTIAL
APARTMENT BUILDING
(62 UNITS: 33-ONE
BEDROOM, 29-TWO
BEDROOM, 20,428 S.F.
FOOTPRINT)

LOWER LEVEL
MECHANICAL ROOM

PROPOSED
BUILDING OVER
DRIVEWAY MINIMUM
HEIGHT CLEARANCE
TO BE 12'-8"

PROPOSED
FIRE HYDRANT

EXISTING FIRE
HYDRANT

PROPOSED FIRE
DEPARTMENT
CONNECTION

PROPOSED FIRE
DEPARTMENT
CONNECTION

PROPOSED SIGHT
LINE TRIANGLE

EXISTING CONC. BLOCK RETAINING WALL

CONCRETE CURB

SNOW STORAGE AREA

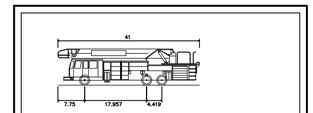
SHED

R1-7.5 DISTRICT
LINKAGE DISTRICT

R=40.00'
L=20.95'
D=30°00'32"
CH=20.71'
N04°29'30"W

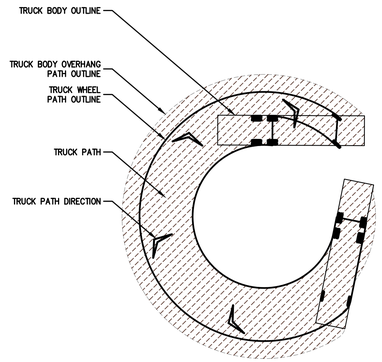
*MINIMUM HEIGHT CLEARANCE FOR THE DRIVEWAY UNDER THE BUILDING WILL BE 12'-8"

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.



Beacon Fire Truck	
Overall Length	41.000ft
Overall Width	8.333ft
Overall Body Height	11.500ft
Min Body Ground Clearance	0.958ft
Track Width	8.417ft
Lock-to-lock time	4.083
Curb to Curb Turning Radius	34.833ft

PROFILE
SCALE: NTS



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FIRE TRUCK TURNING PLAN (SCENARIO 1)

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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STATE OF NEW YORK
STEPHEN SPINA
085583
LICENSED PROFESSIONAL ENGINEER

No.	Revision	Date	By
3.	REVISED PER CITY COMMENTS	09/29/2020	AH
4.	REVISED PER CITY COMMENTS	07/27/2021	BMS
5.	REVISED PER CITY COMMENTS	03/25/2022	BMS
6.	REVISED PER CITY COMMENTS	05/31/2022	BMS
7.	REVISED PER CITY COMMENTS	06/28/2022	BMS
8.	REVISED PER CITY COMMENTS	08/30/2022	SMN
9.	REVISED PER CITY COMMENTS	09/27/2022	SMN
	Previous Editions Obsolete		

Drawn: BMS	Approved: SS
Scale: 1" = 20'	
Date: 10/29/2019	
Project No: 18119	
18119-SITE	TRUCK-3 TRUCK.scr
Drawing No: C-702 (Sheet 14 of 29)	

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EXISTING FIRE HYDRANT

70.00'

BANK STREET

N46°55'30"E 58.94'

N/F WILLIAM GOING AND LINDA GOING
DEED DOC. NO. 02 2002 10633

SECTION 5954
BLOCK 26
LOT 625982

S47°28'10"E 182.00'

FORMERLY FAIRBANKS
N/F ROSEMARY HEADY, JOHN T. HEADY, SR. AND KENNETH HEADY
DEED LIBER 1800 PAGE 719

SECTION 5954
BLOCK 25
LOT 622988

SHED

N 47°40'30"E 77.42'

SHED

N/F JUAN DIAZ AND JACQUELINE DIAZ
DEED DOC. NO. 02 2003 752

LOT 3
MAP NO. 7717

SECTION 5954
BLOCK 26
LOT 636993

S75°39'05"E 152.89'

LO 10" LO 12" MA 10" LO 18" BYE 6"

9' (TYP.)

PARCEL 2
DEED DOC. NO. 02 2016 3471
SECTION 5954
BLOCK 26
LOT 634984

18'

24'

10'R

20'

SNOW STORAGE AREA

3'R

5'

S74°41'10"W 65.80'

MA 6" LO 16"

LO 16"

MA 10" LO 16"

N272°31'0"E 220.58'

BRANCH STREET

PARCEL 1
DEED DOC. NO. 02 2016 3471
SECTION 5954
BLOCK 25
LOT 616969
16 WEST MAIN STREET

PARK STORAGE AREA

RESIDENTIAL

57'

2'R

24'

18'

18'

18'

27'

18'

3'

7'

5'

4.67'

16'

7'

N10°33'27"E 72.88'

1'

5.3'

30'

20'

4.7'

2.8'

5.6'

4.8'

25'

1'

PROPOSED BUILDING OVER DRIVEWAY MINIMUM HEIGHT CLEARANCE TO BE 12'-8"

LOWER LEVEL MECHANICAL ROOM

PROPOSED 4 STORY RESIDENTIAL APARTMENT BUILDING (62 UNITS: 33-ONE BEDROOM, 29-TWO BEDROOM, 20,428 S.F. FOOTPRINT)

PROPOSED FIRE HYDRANT

22.78'

194.97'

N 75°15'50" W 172.22'

R1-7.5 DISTRICT

LINKAGE DISTRICT

EXISTING CONC. BLOCK RETAINING WALL

S08°57'00"W 278.07'

CONCRETE CURB

N/F BEACON TODD LLC
DEED DOC. NO. 02 2017 8111

SECTION 5954
BLOCK 26
LOT 647966

PROPOSED FIRE DEPARTMENT CONNECTION

EXISTING FIRE HYDRANT

PROPOSED SIGHT LINE TRIANGLE

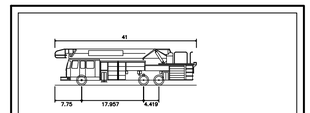
N76°56'40"W 230.18'

69.27'

WEST MAIN STREET

R=40.00'
L=20.95'
D=30°00'32"
CH=20.71'
N04°29'30"W

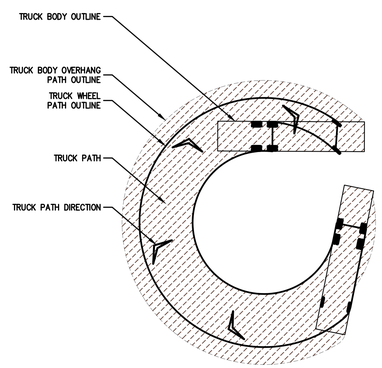
*MINIMUM HEIGHT CLEARANCE FOR THE DRIVEWAY UNDER THE BUILDING WILL BE 12'-8"



Beacon Fire Truck	
Overall Length	41.000ft
Overall Width	8.333ft
Overall Body Height	11.500ft
Min Body Ground Clearance	0.935ft
Track Width	8.417ft
Lock-to-lock time	4.083
Curb to Curb Turning Radius	34.833ft

PROFILE

SCALE: NTS



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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APPLICANT/OWNER:
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PO BOX 14
BRIDGEHAMPTON, NY 11932

ARCHITECT:
ARYEH SIEGEL ARCHITECT
84 MASON CIRCLE
BEACON, NY 12508

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
voice 914.273.5225 • fax 914.273.2102
www.jmcpllc.com

FIRE TRUCK TURNING PLAN (SCENARIO 2)

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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STATE OF NEW YORK · STEPHEN SPINA · 085583 · LICENSED PROFESSIONAL ENGINEER

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8.	REVISED PER CITY COMMENTS	08/30/2022	SMN
9.	REVISED PER CITY COMMENTS	09/27/2022	SMN
	Previous Editions Obsolete		

Drawn:	BMS	Approved:	SS
Scale:	1" = 20'		
Date:	10/29/2019		
Project No:	18119		
18119-SITE	TRUCK-4	TRUCK.scr	

Drawing No:
C-703
(Sheet 15 of 29)

EXISTING FIRE HYDRANT

70.00'

GRAPHIC SCALE

BANK STREET

N49°55'40"E 150.94'

GROUP 1166

N/F WILLIAM GOING AND LINDA GOING
DEED DOC. NO. 02 2002 10633

SECTION 5954
BLOCK 26
LOT 625982

FORMERLY FAIRBANKS
N/F ROSEMARY HEADY, JOHN T. HEADY, SR. AND KENNETH HEADY
DEED LIBER 1800 PAGE 719

SECTION 5954
BLOCK 25
LOT 622988

S42°38'10"E 120.00'

N 47°40'30"E 77.42'

SHED

BBQ

SHED

N/F JUAN DIAZ AND JACQUELINE DIAZ
DEED DOC. NO. 02 2003 752

LOT 3
MAP NO. 7717

SECTION 5954
BLOCK 26
LOT 636993

S75°39'05"E 152.89'

LO 10"
LO 12"
MA 10"
LO 18"
BIR 6"
MA 6"
LO 16"

9' (TYP.)

PARCEL 2
DEED DOC. NO. 02 2016 3471
SECTION 5954
BLOCK 26
LOT 634984

10'R

20'

18'

24'

5'

3'R

SNOW STORAGE AREA

22.78'

194.97'
N 75°15'50" W 172.22'

S9°44'10" W 65.80'

R1-7.5 DISTRICT
LINKAGE DISTRICT

PARCEL 1
DEED DOC. NO. 02 2016 3471
SECTION 5954
BLOCK 25
LOT 626969
16 WEST MAIN STREET

PROPOSED FIRE HYDRANT

N27°23'10"E 21.59'

BRANCH STREET

57'

2'R

24'

5'R

9'R

18'

18'

18'

20'

3'

EXISTING CONC. BLOCK RETAINING WALL

N10°35'27"E 72.88'

7'

5'

4.67'

16'

1'

20'R

8'

8'

8'

9'

8' (TYP.)

NVA

18' (TYP.)

3'R

5'

2.8'

5.3'

30'

20'

4.7'

5.6'

4.8'

LOWER LEVEL MECHANICAL ROOM

PROPOSED BUILDING OVER DRIVEWAY MINIMUM HEIGHT CLEARANCE TO BE 12'-8"

PROPOSED 4 STORY RESIDENTIAL APARTMENT BUILDING (62 UNITS: 33-ONE BEDROOM, 29-TWO BEDROOM, 20,428 S.F. FOOTPRINT)

6.1'

24'

9'

6'

69.27'

N79°28'40"W 230.18'

S08°57'00"W 278.07'

N/F BEACON TODD LLC
DEED DOC. NO. 02 2017 8111

SECTION 5954
BLOCK 26
LOT 647966

EXISTING FIRE HYDRANT

PROPOSED BUILDING OVER DRIVEWAY MINIMUM HEIGHT CLEARANCE TO BE 12'-8"

PROPOSED FIRE DEPARTMENT CONNECTION

PROPOSED SIGHT LINE TRIANGLE

PROPOSED FIRE DEPARTMENT CONNECTION

EXISTING FIRE HYDRANT

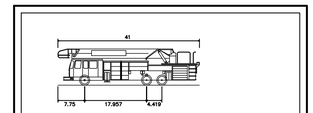
WEST MAIN STREET

CONCRETE CURB

R=40.00'
L=20.95'
D=30°00'32"
CH=20.71'
N04°29'30"W

(IN FEET)
1 inch = 20 ft.

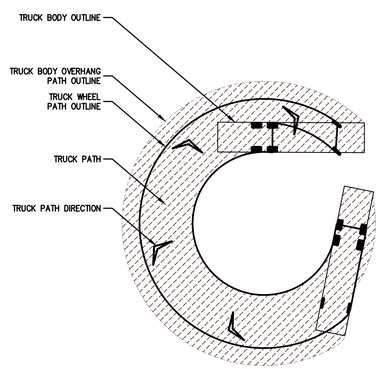
*MINIMUM HEIGHT CLEARANCE FOR THE DRIVEWAY UNDER THE BUILDING WILL BE 12'-8"



Beacon Fire Truck	
Overall Length	41.000ft
Overall Width	8.333ft
Overall Body Height	11.500ft
Min Body Ground Clearance	0.935ft
Track Width	8.417ft
Lock-to-lock time	4.083
Curb to Curb Turning Radius	34.833ft

PROFILE

SCALE: NTS



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STATE OF NEW YORK · STEPHEN SPINA · LICENSED PROFESSIONAL ENGINEER · 085589

No.	Revision	Date	By
3.	REVISED PER CITY COMMENTS	09/29/2020	AH
4.	REVISED PER CITY COMMENTS	07/27/2021	BMS
5.	REVISED PER CITY COMMENTS	03/25/2022	BMS
6.	REVISED PER CITY COMMENTS	05/31/2022	BMS
7.	REVISED PER CITY COMMENTS	06/28/2022	BMS
8.	REVISED PER CITY COMMENTS	08/30/2022	SMN
9.	REVISED PER CITY COMMENTS	09/27/2022	SMN
	Previous Editions Obsolete		

Drawn: BMS Approved: SS
Scale: 1" = 20'
Date: 10/29/2019
Project No: 18119
18119-SITE | TRUCK-5 | TRUCK.scr
Drawing No: C-704 (Sheet 16 of 29)

APPLICANT/OWNER:
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BRIDGEHAMPTON, NY 11932

ARCHITECT:
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BEACON, NY 12508

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FIRE TRUCK TURNING PLAN (SCENARIO 3)

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

No.	Revision	Date	By
2.	REVISED PER CITY COMMENTS	09/29/2020	AH
3.	REVISED PER CITY COMMENTS	01/27/2021	BMS
4.	REVISED PER CITY COMMENTS	03/25/2022	BMS
5.	REVISED PER CITY COMMENTS	05/31/2022	BMS
6.	REVISED PER CITY COMMENTS	06/28/2022	BMS
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8.	REVISED PER CITY COMMENTS	09/27/2022	SMN

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Drawing No: C-800 (Sheet 17 of 29)

Drawn: BMS Approved: SS
Scale: 1" = 40'
Date: 12/30/2019
Project No: 18119
RPA-RE | AERIAL | AERIAL-02

LICENSED PROFESSIONAL ENGINEER — STEPHEN M. SIWIK — STATE OF NEW YORK

AERIAL SITE PLAN

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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BRIDGEHAMPTON, NY 11932

ARCHITECT:
ARYEH SIEGEL ARCHITECT
84 MASON CIRCLE
BEACON, NY 12508

NOTES:

1. EXISTING CONDITIONS DEPICTED ON THIS PLAN HAVE BEEN TAKEN FROM SURVEY TITLED, "TOPOGRAPHIC SURVEY," PREPARED BY JMC PLANNING ENGINEERING LANDSCAPE ARCHITECTURE & LAND SURVEYING, PLLC, DATED 09/20/2018, REVISED 09/23/2019.

2. THE STOPPING SIGHT DISTANCE HAS BEEN CALCULATED FOLLOWING THE PROCEDURE OUTLINED IN "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS 2018, 7TH EDITION" PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO).

3. STOPPING SIGHT DISTANCE CALCULATIONS

   $SSD = 1.47\ V\ t + \frac{V^2}{30[(a/32.2)\pm G]}$

   V = DESIGN SPEED, 30 MPH
   t = BRAKE REACTION TIME, 2.5 S
   a = DECELERATION RATE, 11.2 FT/S^2
   G = MAJOR ROAD APPROACH GRADE, RISE/RUN, FT/FT

   ONTO WEST MAIN STREET:

   POSTED SPEED LIMIT = 25 MPH
   DESIGN SPEED = 30 MPH

   LEFT TURN (LOOKING RIGHT):

   G = +0.043 FT/FT (UPGRADE)

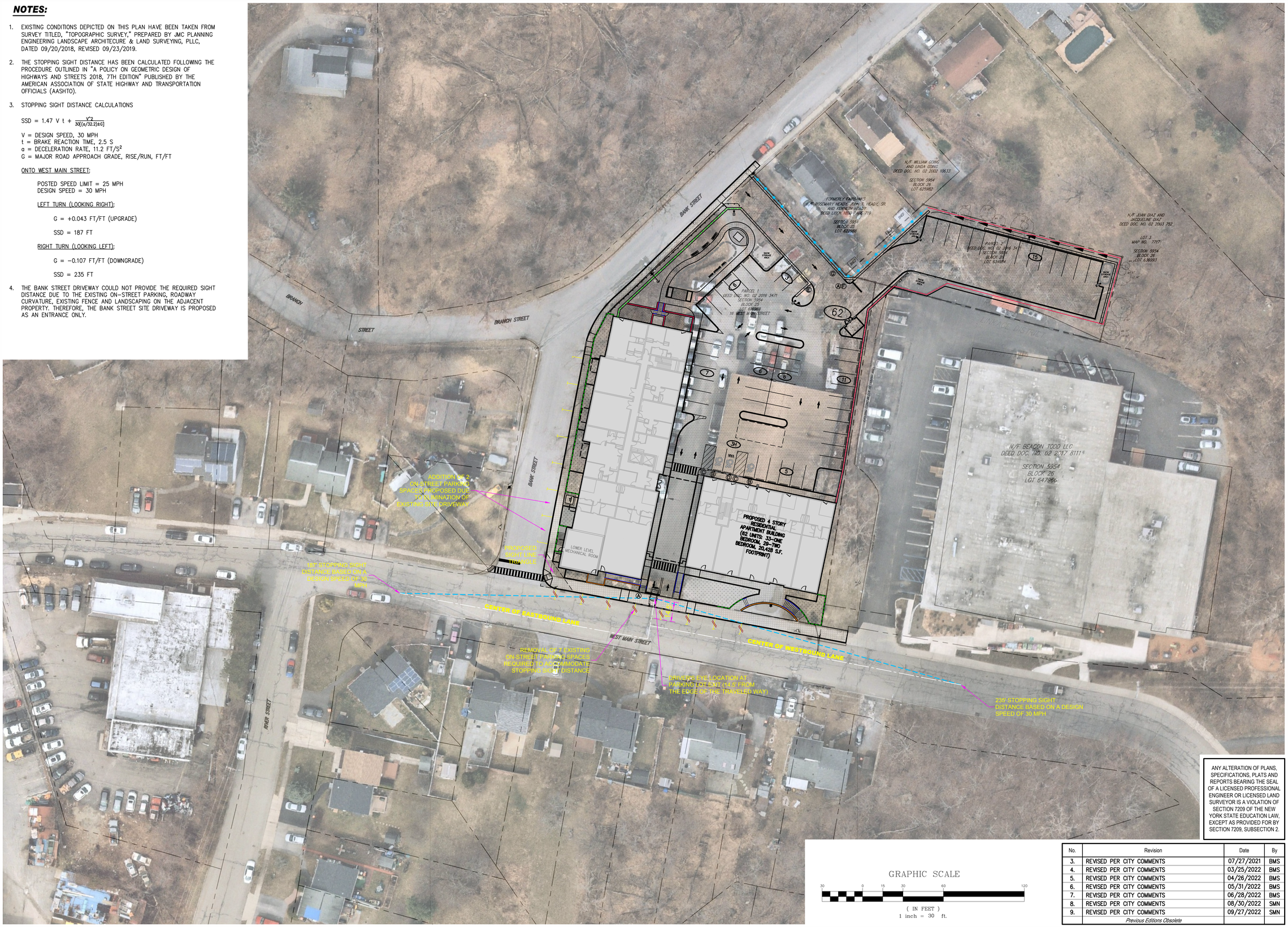
   SSD = 187 FT

   RIGHT TURN (LOOKING LEFT):

   G = −0.107 FT/FT (DOWNGRADE)

   SSD = 235 FT

4. THE BANK STREET DRIVEWAY COULD NOT PROVIDE THE REQUIRED SIGHT DISTANCE DUE TO THE EXISTING ON-STREET PARKING, ROADWAY CURVATURE, EXISTING FENCE AND LANDSCAPING ON THE ADJACENT PROPERTY. THEREFORE, THE BANK STREET SITE DRIVEWAY IS PROPOSED AS AN ENTRANCE ONLY.



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

No.	Revision	Date	By
3.	REVISED PER CITY COMMENTS	07/27/2021	BMS
4.	REVISED PER CITY COMMENTS	03/25/2022	BMS
5.	REVISED PER CITY COMMENTS	04/26/2022	BMS
6.	REVISED PER CITY COMMENTS	05/31/2022	BMS
7.	REVISED PER CITY COMMENTS	06/28/2022	BMS
8.	REVISED PER CITY COMMENTS	08/30/2022	SMN
9.	REVISED PER CITY COMMENTS	09/27/2022	SMN
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SIGHT DISTANCE PLAN

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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STATE OF NEW YORK · STEPHEN SPIRA · 085983 · LICENSED PROFESSIONAL ENGINEER

Drawn:	BMS	Approved:	SS
Scale:	1" = 30'		
Date:	12/30/2019		
Project No:	18119		
18119-SITE	SIGHT	1_ISD.scr	

Drawing No:
C–801
(Sheet 18 of 29)

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GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 ft.

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CONCEPTUAL IMPROVEMENTS PLAN

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

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STATE OF NEW YORK
STEPHEN SPINA
LICENSED PROFESSIONAL ENGINEER
085983

No.	Revision	Date	By
1.	REVISED PER CITY COMMENTS	08/30/2022	SMN
2.	REVISED PER CITY COMMENTS	09/27/2022	SMN
	Previous Editions Obsolete		

Drawn:	BMS	Approved:	SS
Scale:	1" = 100'		
Date:	06/28/2022		
Project No:	18119		
18119-AERIAL	C-802		-
Drawing No:	C-802 (Sheet 19 of 29)		

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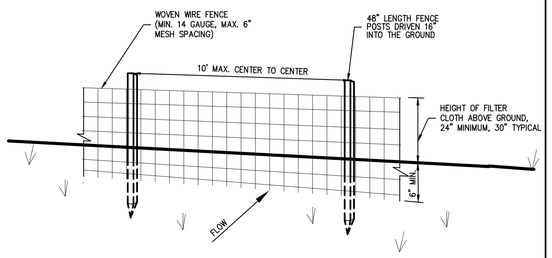
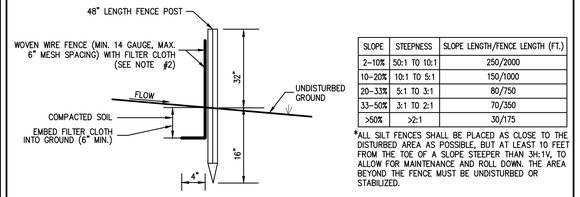


PERSPECTIVE VIEW



SECTION

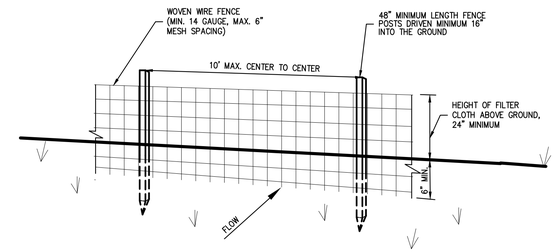
SLOPE	STEEPNESS	SLOPE LENGTH/FENCE LENGTH (FT.)
2–10%	50:1 TO 10:1	250/2000
10–20%	10:1 TO 5:1	150/1000
20–33%	5:1 TO 3:1	80/750
33–50%	3:1 TO 2:1	70/350
>50%	>2:1	30/175

*ALL SILT FENCES SHALL BE PLACED AS CLOSE TO THE DISTURBED AREA AS POSSIBLE, BUT AT LEAST 10 FEET FROM THE TOE OF A SLOPE STEEPER THAN 3H:1V, TO ALLOW FOR MAINTENANCE AND ROLL DOWN. THE AREA BEYOND THE FENCE MUST BE UNDISTURBED OR STABILIZED.

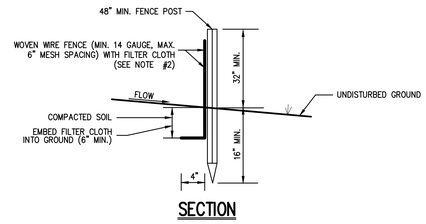
NOTES:

1. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL, EITHER T OR U TYPE OR HARDWOOD.
2. FILTER CLOTH SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUAL.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVROFENCE, OR APPROVED EQUAL.
5. INSPECT WEEKLY AND AFTER EACH RAIN. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AND REPLACED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE | 1



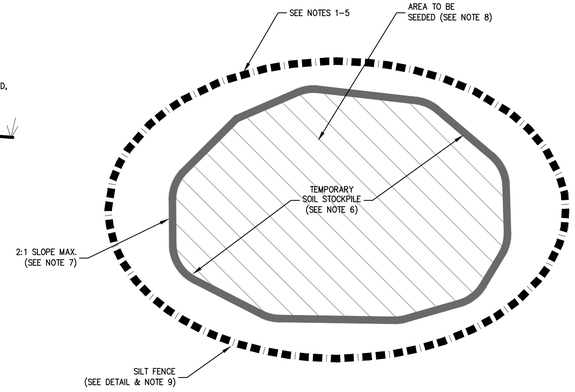
PERSPECTIVE VIEW



SECTION

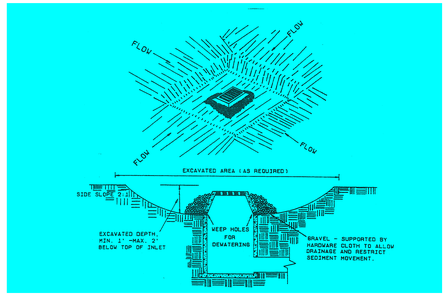
NOTES:

1. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL, EITHER T OR U TYPE OR HARDWOOD.
2. FILTER CLOTH SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUAL.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVROFENCE, OR APPROVED EQUAL.
5. INSPECT WEEKLY AND AFTER EACH RAIN. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AND REPLACED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
6. THE AREA CHOSEN FOR ALL TEMPORARY SOIL STOCKPILES SHALL BE DRY AND STABLE.
7. ALL STOCKPILED SOIL SHALL NOT CONTAIN SLOPES GREATER THAN 2:1.
8. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SEEDED WITHIN 24 HOURS. PERENNIAL OR ANNUAL RYEGRASS SHALL BE PLANTED DURING SPRING, SUMMER OR EARLY FALL. WINTER RYE (CEREAL RYE) SHALL BE PLANTED DURING LATE FALL OR EARLY WINTER.
9. ALL STOCKPILES SHALL BE PROTECTED WITH SILT FENCING INSTALLED AROUND THE PERIMETER.



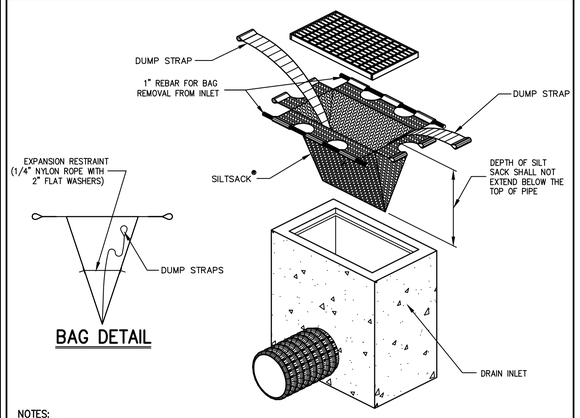
PLAN VIEW

TEMPORARY SOIL STOCKPILE WITH SILT FENCE | 2



1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
3. WEEP HOLES SHALL BE PROCTECTED BY/STONE.
4. PROVIDE FREQUENT INSPECTION AND MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AND REPAIR OR REPLACE INLET PROTECTION TO MAINTAIN EFFECTIVENESS OF THE INSTALLATION.
5. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA. SEAL WEEP HOLES FILL BASIN WITH STABLE SOIL TO FINAL GRADE. COMPACT IT PROPERLY AND STABILIZE WITH PERMANET SEEDING.

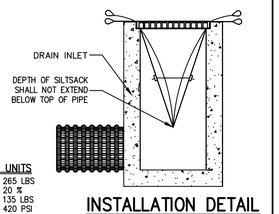
EXCAVATED DROP INLET PROTECTION | 3



BAG DETAIL

NOTES:

1. CURB INLETS SHALL BE TYPE B WITH CURB DEFLECTOR.
2. INLET PROTECTION SHALL BE INSPECTED WEEKLY AND AFTER EACH RAIN. SEDIMENT SHALL BE REMOVED AS NECESSARY. FILTER FABRIC, CRUSHED STONE, AND ANY OTHER COMPONENTS SHALL BE REPLACED IF DAMAGED. ALL MATERIALS SHALL BE CHECKED FOR PROPER ANCHORAGE AND SECURED AS NECESSARY.



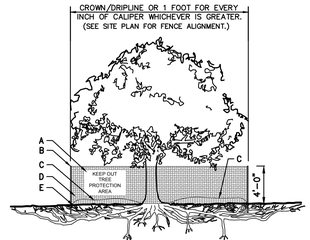
INSTALLATION DETAIL

HI-FLOW SILT SACK AS MANUFACTURED BY ACF ENVIRONMENTAL OR APPROVED EQUAL©

(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

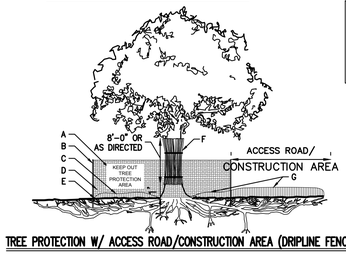
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC $^{-1}$

SILT SACK | 4



A	8.5"X11" SIGN LAMINATED IN PLASTIC SPACED EVERY 50' ALONG FENCE.
B	2"X6" STEEL POSTS OR APPROVED EQUAL.
C	5" THICK LAYER OF MULCH.
D	TREE PROTECTION FENCE: HIGH DENSITY POLYETHYLENE FENCING WITH 3.5" X 1.5" OPENINGS; COLOR ORANGE. STEEL POSTS INSTALLED AT 8' O.C.
E	MAINTAIN EXISTING GRADE WITHIN THE TREE PROTECTION FENCE UNLESS OTHERWISE INDICATED ON THE PLANS.
F	INSTALL ROUGH SAWN WOOD WHERE AND AS DIRECTED BY PROJECT LANDSCAPE ARCHITECT OR PROFESSIONAL ARBORIST. SEE CHART FOR WOOD SIZE BOUND WITH 9 GAUGE WIRE.
G	8"–12" THICK LAYER OF MULCH ON MAINTENANCE ROAD. 5" THICK LAYER INSIDE TREE PROTECTION AREA.

TREE PROTECTION (DRIPLINE FENCE)



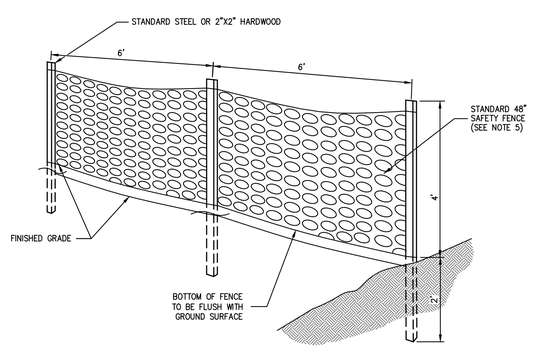
TREE DIAMETER	ROUGH SAWN WOOD SIZE
<12"	2"X2"
13"–24"	2"X4"
>25"	2"X6"

TREE PROTECTION W/ ACCESS ROAD/CONSTRUCTION AREA (DRIPLINE FENCE)

NOTES:

1. SEE SPECIFICATIONS FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
2. IF THERE IS NO EXISTING IRRIGATION, SEE SPECIFICATIONS FOR WATERING REQUIREMENTS.
3. NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST.
4. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
5. SEE SITE PLANS FOR IDENTIFICATIONS/LOCATIONS OF INDIVIDUAL TREES TO BE PROTECTED.
6. ALL EXCAVATION WITHIN THE CROWN/DRIPLINE OF ANY TREE SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF THE PROJECT LANDSCAPE ARCHITECT OR PROFESSIONAL ARBORIST. SPECIAL MEASURES, SUCH AS THE USE OF AN AIR SPADE MAY BE REQUIRED.
7. THE CONTRACTOR MAY PROPOSE THE USE OF ENGINEERED MATTING OR OTHER ENGINEERED PRODUCTS IN LIEU OF MULCH, WHICH SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF ALL AUTHORITIES HAVING JURISDICTION.

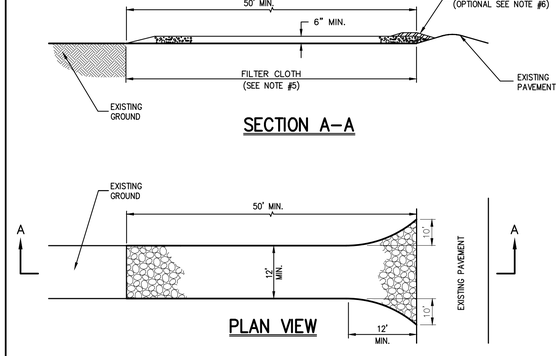
TREE PROTECTION | 5



NOTES:

1. SPACE SUPPORT FENCE POSTS AT 6 FOOT INTERVALS.
2. DRIVE SUPPORT POSTS 2 FEET INTO GROUND.
3. FIRMLY FASTEN FENCE MATERIAL IN PLACE BY WIRING TO FENCE POST WHILE MAINTAINING TENSION ACROSS FULL HEIGHT OF FENCE. WIRING SHALL BE DONE IN A MANNER THAT WILL PREVENT SAGGING OF FENCE MATERIAL.
4. PROVIDE PERIODIC INSPECTION AND MAINTENANCE OF FENCE INCLUDING REPAIRS AS NECESSARY AND REQUIRED.
5. PLASTIC FENCE SHALL BE INTERNATIONAL ORANGE COLOR, AS MANUFACTURED BY ADPI ENTERPRISES, INC. OR APPROVED EQUAL.
6. REMOVE CONSTRUCTION FENCE AS DIRECTED BY THE OWNER'S FIELD REPRESENTATIVE.

CONSTRUCTION FENCE | 6



NOTES

1. STONE SIZE – USE 1" TO 4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH TO BE PLACED OVER THE ENTIRE WIDTH AND LENGTH OF AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. DAILY INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE | 7

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
6.	REVISED PER CITY COMMENTS	05/31/2022
7.	REVISED PER CITY COMMENTS	06/28/2022
8.	REVISED PER CITY COMMENTS	08/30/2022
9.	REVISED PER CITY COMMENTS	09/27/2022

Previous Editions Obsolete

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JMC

CONSTRUCTION DETAILS

BEACON COMMONS
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BEACON, NY 12508

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STATE OF NEW YORK · STEPHEN SKIRA · 085983 · LICENSED PROFESSIONAL ENGINEER

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Scale:	NOT TO SCALE		
Date:	10/29/2019		
Project No:	18119		
18119-DETAILS	C-900	-	
Drawing No:	C-900 (Sheet 20 OF 29)		

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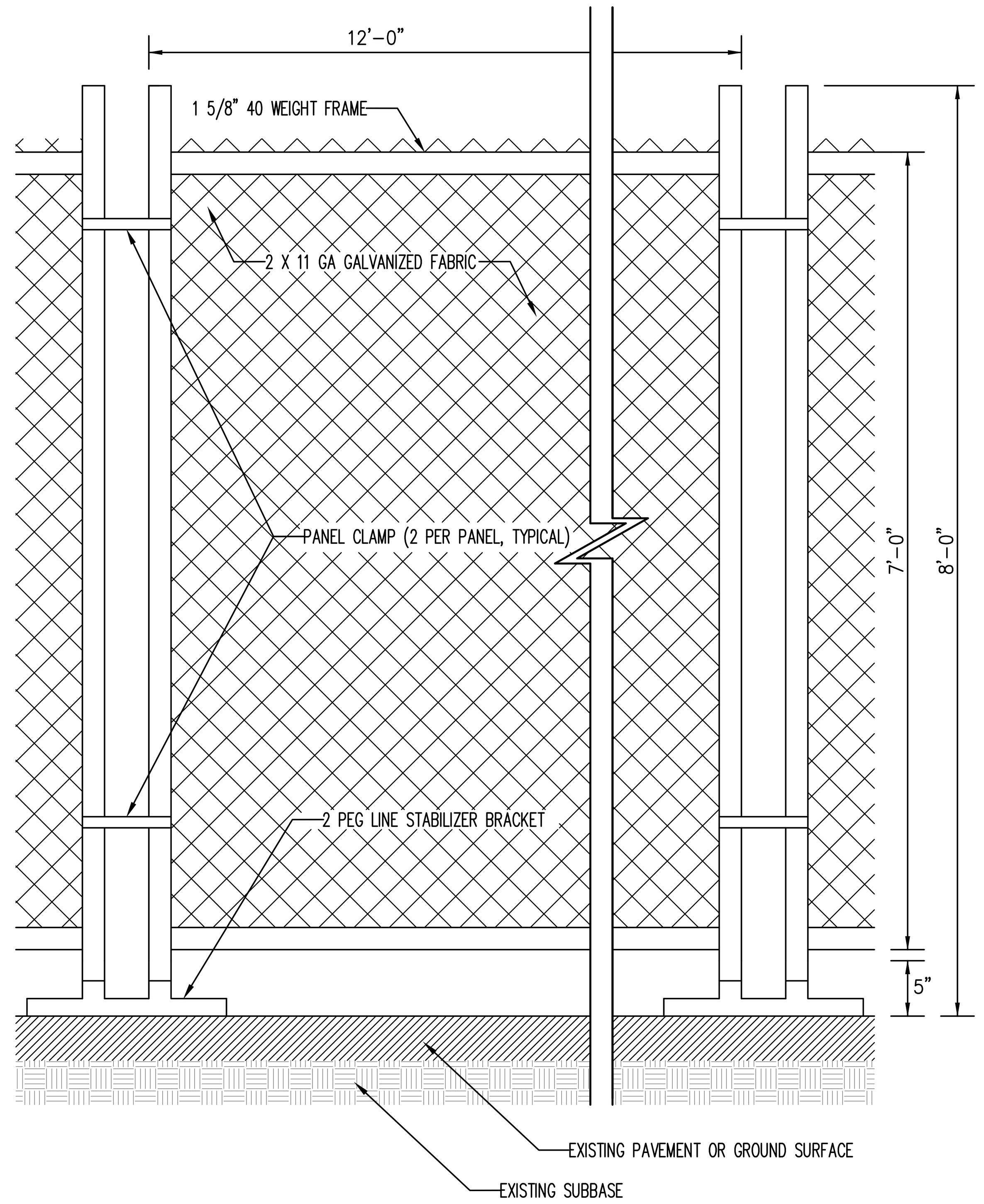
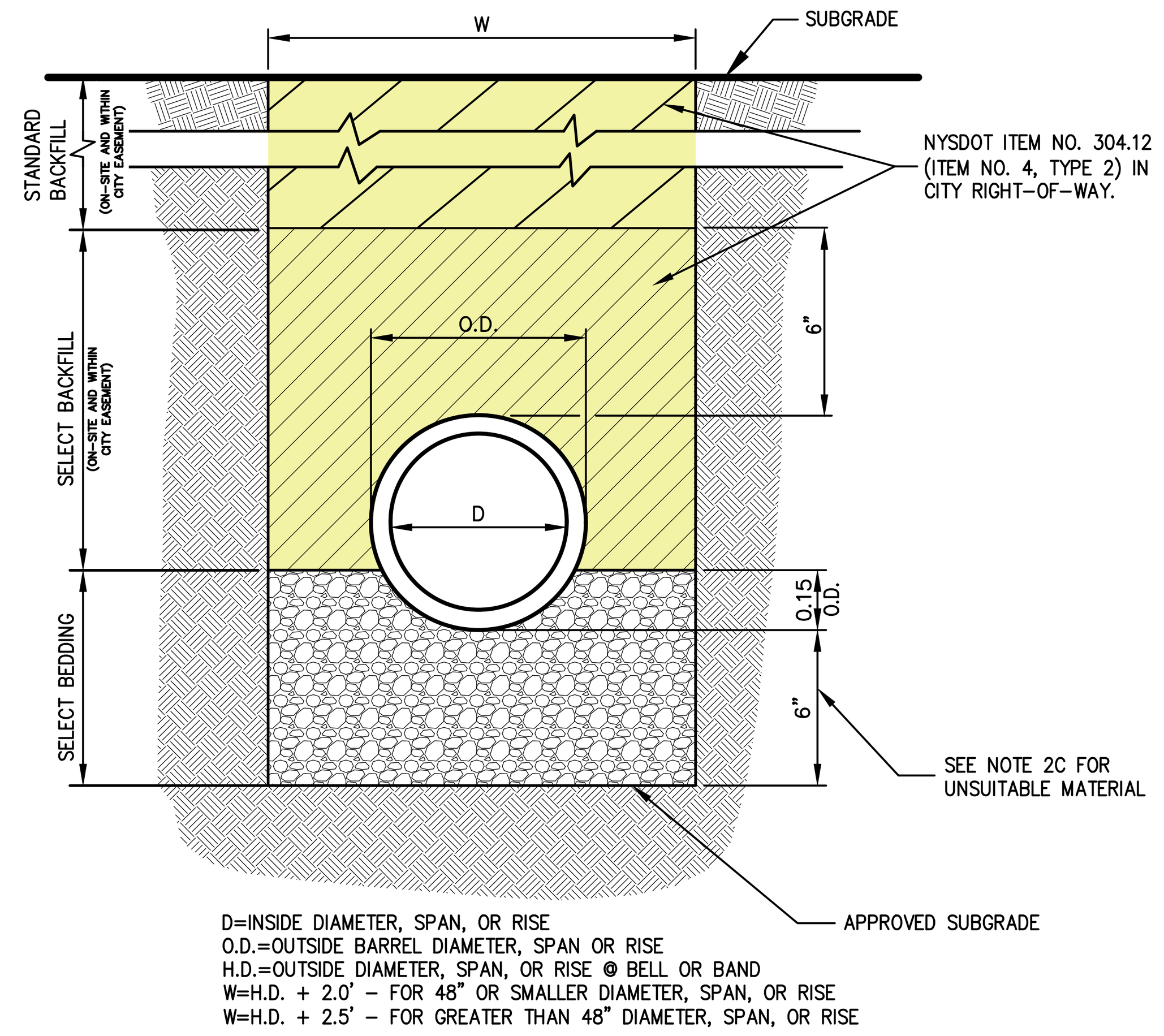
NOT FOR CONSTRUCTION



NOTE:
STABILIZED BRACKET TO BE HOT DIPPED GALVANIZED STEEL PIPE.

TEMPORARY CHAIN LINK CONSTRUCTION FENCE — 8

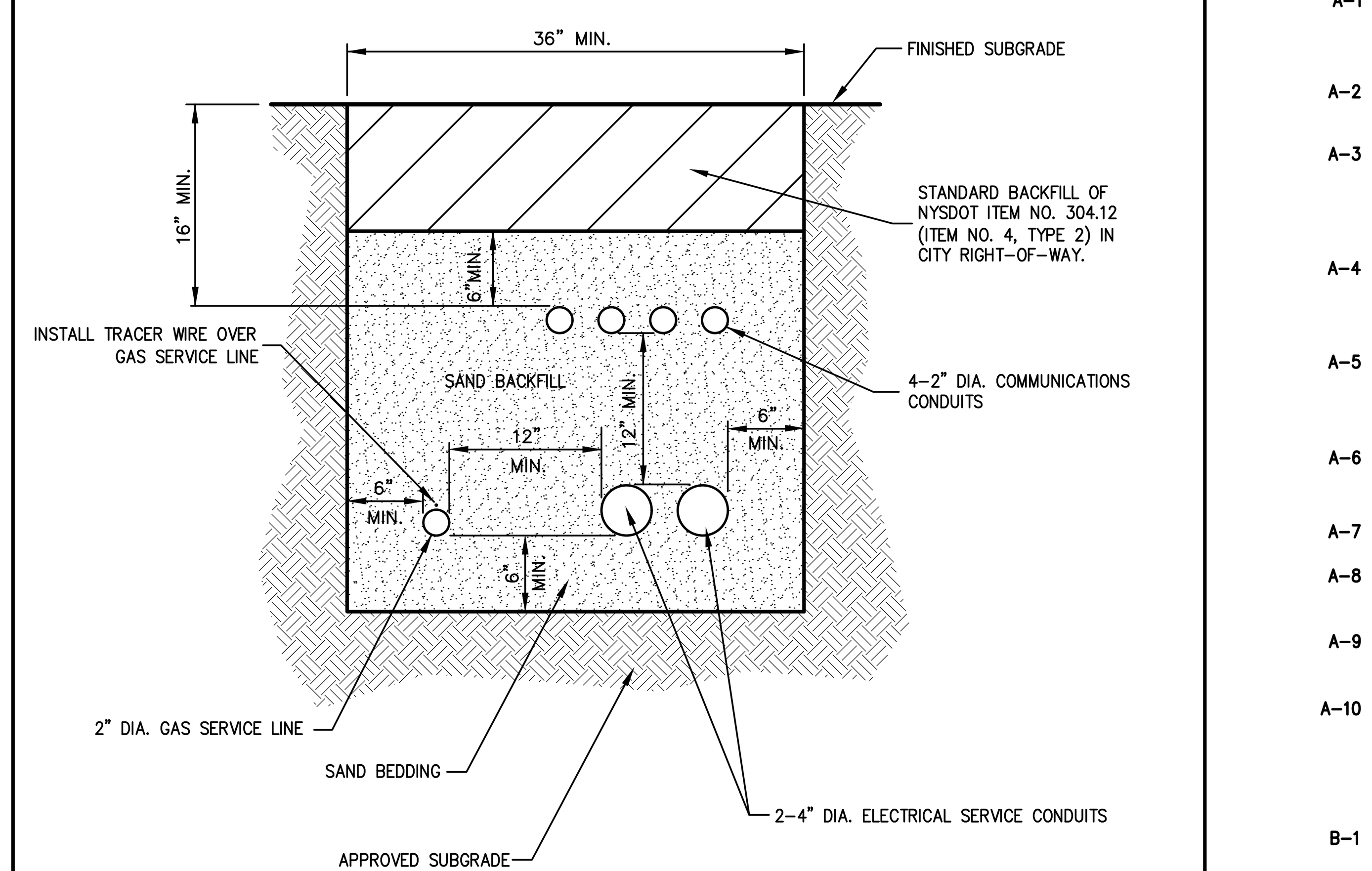


D=INSIDE DIAMETER, SPAN, OR RISE
O.D.=OUTSIDE BARREL DIAMETER, SPAN OR RISE
H.D.=OUTSIDE DIAMETER, SPAN, OR RISE @ BELL OR BAND
W=H.D. + 2.0' – FOR 48" OR SMALLER DIAMETER, SPAN, OR RISE
W=H.D. + 2.5' – FOR GREATER THAN 48" DIAMETER, SPAN, OR RISE

NOTES:

1. FOR TYPE II TRENCH, MATERIAL FOR SELECT BEDDING SHALL BE SAND. SELECT BACKFILL SHALL BE ITEM NO. 4, TYPE 2 IN CITY RIGHT–OF–WAY AND SAND ON–SITE.
2. TYPE II TRENCH SHALL BE USED IN ALL OF THE FOLLOWING CASES:
   A. FOR ALL CORRUGATED POLYETHYLENE DRAIN PIPE (HDPE), PVC PIPE, DUCTILE IRON PIPE, AND CONDUIT INSTALLATION.
   B. WHEN ROCK OR HARDPAN IS ENCOUNTERED IN BOTTOM OF TRENCH.
   C. WHEN UNSUITABLE MATERIAL IS ENCOUNTERED IN BOTTOM OF TRENCH. IN SUCH CASE DEPTH OF UNDERCUTTING SHALL BE AS DIRECTED BY THE ENGINEER WITH 6" MINIMUM.
3. FOR ALL TRENCH EXCAVATION IN FILL AREAS, ALL EMBANKMENTS SHALL BE CONSTRUCTED TO A MINIMUM OF 2 FEET ABOVE THE OUTSIDE TOP (AT THE BELL) OF THE PIPE PRIOR TO BEGINNING ANY TRENCH EXCAVATION.
4. BACKFILL FOR PIPE AND CONDUIT SHALL BE PLACED EVENLY AND CAREFULLY AROUND AND OVER THE PIPE OR CONDUIT IN SIX (6) INCH MAXIMUM LAYERS. EACH LAYER SHALL BE THOROUGHLY AND CAREFULLY COMPACTED UNTIL TWELVE (12) INCHES OF COVER EXISTS OVER THE PIPE OR CONDUIT. THE REMAINDER OF THE BACKFILL MAY THEN BE PLACED AND COMPACTED IN A MAXIMUM OF TWELVE (12) INCH LAYERS. EACH LAYER SHALL BE COMPACTED BY APPROVED MECHANICAL TAMPING MACHINES. UNLESS OTHERWISE SPECIFIED BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 95% MAXIMUM MODIFIED DENSITY IN ACCORDANCE WITH ASTM DESIGNATION D–1557 IN THE MANNER HEREIN DESCRIBED. BACKFILL SHALL PROCEED UP TO THE LINES AND GRADES AS SHOWN ON THE DRAWINGS.

TYPE II TRENCH — 9



NOTES:

1. UTILITIES TO BE INSTALLED IN ACCORDANCE WITH THE REGULATIONS AND REQUIREMENTS OF THE UTILITY COMPANY HAVING JURISDICTION.
2. BACKFILL FOR PIPE AND CONDUIT SHALL BE PLACED EVENLY AND CAREFULLY AROUND AND OVER THE PIPE OR CONDUIT IN SIX (6) INCH MAXIMUM LAYERS. EACH LAYER SHALL BE THOROUGHLY AND CAREFULLY COMPACTED UNTIL TWELVE (12) INCHES OF COVER EXISTS OVER THE PIPE OR CONDUIT. THE REMAINDER OF THE BACKFILL MAY THEN BE PLACED AND COMPACTED IN A MAXIMUM OF TWELVE (12) INCH LAYERS. EACH LAYER SHALL BE COMPACTED BY APPROVED MECHANICAL TAMPING MACHINES. UNLESS OTHERWISE SPECIFIED BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 95% MAXIMUM MODIFIED DENSITY IN ACCORDANCE WITH ASTM DESIGNATION D–1557 IN THE MANNER HEREIN DESCRIBED. BACKFILL SHALL PROCEED UP TO THE LINES AND GRADES AS SHOWN ON THE DRAWINGS.
3. CONTRACTOR SHALL STAKE THE PROPOSED SERVICE LINES AND CONDUITS PRIOR TO BACKFILLING TO ENSURE SERVICES DO NOT MOVE WITHIN TRENCH.

UTILITY TRENCH DETAIL — 10

NOTES PERTAINING TO DRAIN INLETS

A–1 STEPS WILL NOT BE REQUIRED IN INLETS LESS THAN FOUR (4) FEET IN DEPTH. STEPS WILL BE REQUIRED IN INLETS FOUR (4) FEET OR GREATER IN DEPTH. DEPTHS FOR DRAIN INLETS SHALL BE MEASURED FROM FINISHED GRADE TO INSIDE BOTTOM OF STRUCTURE (INCLUDING SUMP AS APPLICABLE).

A–2 WHEN STEPS ARE REQUIRED, STEPS SHALL COMPLY WITH THE SAME REQUIREMENTS OF ASTM STANDARD C–478, ARTICLE 13 ENTITLED "MANHOLE STEPS & LADDERS".

A–3 FOR MASONRY STRUCTURES, THE FIRST COURSE OF MASONRY SHALL BE SET IN THE CONCRETE FOUNDATION BEFORE THE CONCRETE HAS SET. CONCRETE FOUNDATION SHALL BE CLASS "A"(4000 psi) CONCRETE, TWELVE (12) INCHES THICK AND SHALL EXTEND SIX (6) INCHES BEYOND THE OUTSIDE FACE THE STRUCTURE.

A–4 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH AND CONSTRUCT THE PROPER SIZE STRUCTURE INCLUDING THE NECESSARY OPENINGS TO ACCOMMODATE THE WORK AS SHOWN ON THE PLANS OR ORDERED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

A–5 ALL NECESSARY PATCHING FOR DRAIN STRUCTURES SHALL BE ACCOMPLISHED WITH NON–SHRINKING CEMENT MORTAR GROUT, APPROVED EQUAL TO SIKA–SET AS MANUFACTURED BY THE SIKA CHEMICAL CORP.

A–6 FOUNDATIONS FOR PRECAST CONCRETE STRUCTURES SHALL BE SET ON A COMPACTED LAYER OF APPROVED CRUSHED STONE HAVING A MINIMUM COMPACTED THICKNESS OF EIGHT (8) INCHES.

A–7 ALL PIPES SHALL BE CUT FLUSH WITH THE INSIDE WALL OF THE STRUCTURE.

A–8 PROVIDE REINFORCED CONCRETE TOP SLAB FOR OVERSIZED DRAIN INLETS WITH PROPER SIZE OPENING TO ACCOMMODATE INSTALLATION OF FRAME & GRATE.

A–9 FOR MASONRY STRUCTURES GREATER THAN TEN (10) FEET IN DEPTH, THICKNESS OF MASONRY WALLS SHALL BE INCREASED TO TWELVE (12) INCHES.

A–10 FOR ALL STRUCTURES GREATER THAN 10 FEET IN DEPTH, STRUCTURES SHALL PROVIDE MINIMUM INSIDE DIMENSIONS OF 4 FEET X 4 FEET.

NOTES PERTAINING TO MANHOLES

B–1 PRECAST CONCRETE MANHOLES SHALL COMPLY WITH ASTM STANDARD C–478. MANHOLE JOINTS SHALL COMPLY WITH ASTM STANDARD C–443.

B–2 FOR PRECAST CONCRETE MANHOLES FIVE (5) FEET OR LESS IN HEIGHT, TOP CONE SECTION SHALL BE REPLACED WITH PRECAST REINFORCED CONCRETE SLAB (6" MIN. THICKNESS) WITH OPENING OF SUFFICIENT SIZE TO ACCOMMODATE MANHOLE CASTING.

B–3 FOR MANHOLES 10 FEET OR MORE IN DEPTH, MANHOLE DIAMETER SHALL BE FIVE (5) FEET.

B–4 TERMINAL MANHOLE FLOORS SHALL BE SLOPED TOWARD OUTFALL PIPE.

B–5 INVERT CHANNELS FOR PRECAST CONCRETE MANHOLES SHALL BE CONSTRUCTED OF CONCRETE.

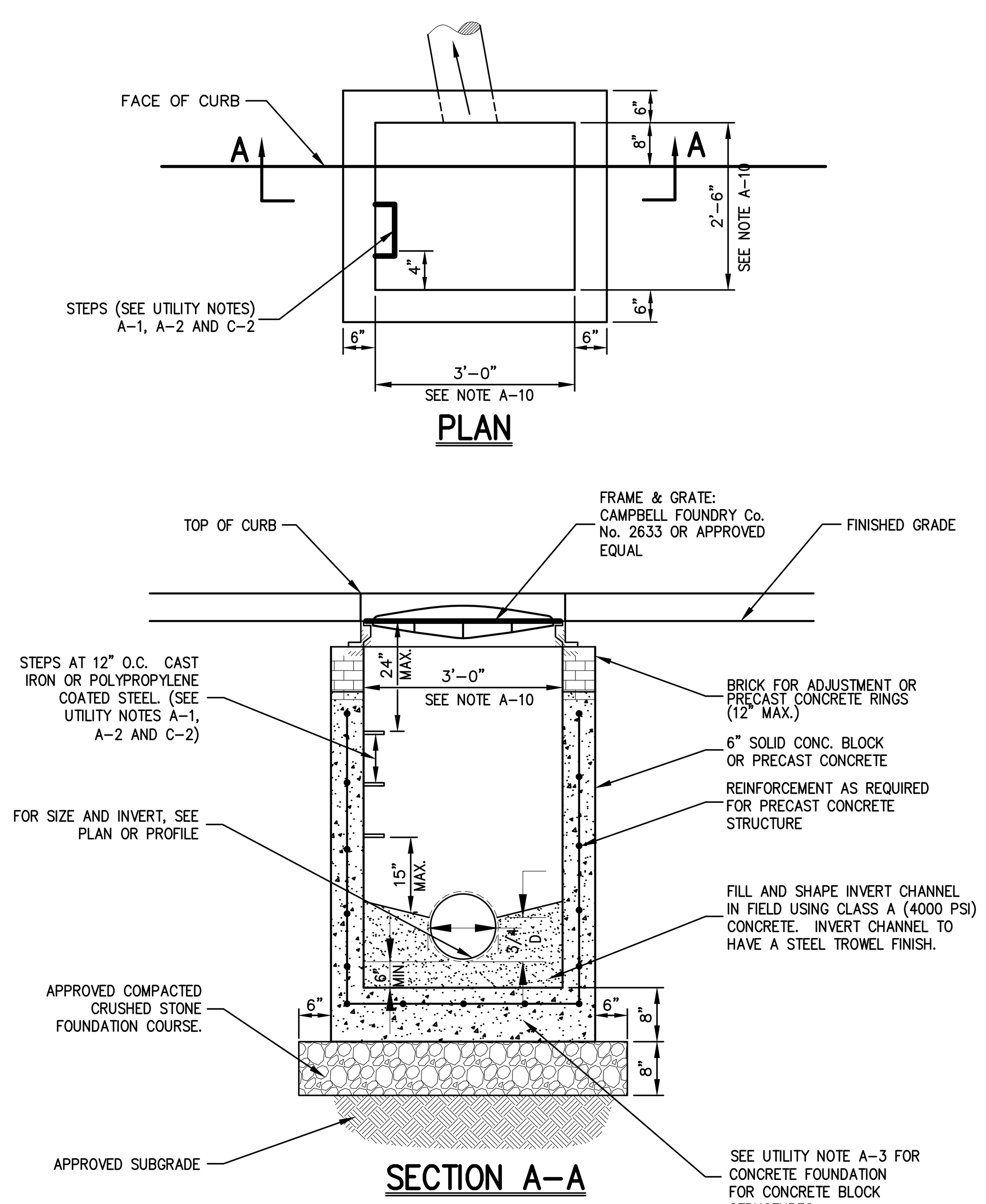
B–6 NOTES A–1, A–2, A–4, A–5, A–6 & A–7 UNDER "NOTES PERTAINING TO DRAIN INLETS" ABOVE SHALL APPLY TO MANHOLES.

NOTES PERTAINING TO PRECAST CONCRETE STRUCTURES FOR STORM DRAINS, SANITARY SEWERS AND WATER LINES

C–1 ALL PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO ACCOMMODATE AN H–20 DESIGN LOAD.

C–2 STEPS SHALL BE LOCATED WITHIN STRUCTURE TO AVOID PLACEMENT OVER PIPES WHEN PRACTICABLE.

UTILITY NOTES — 11

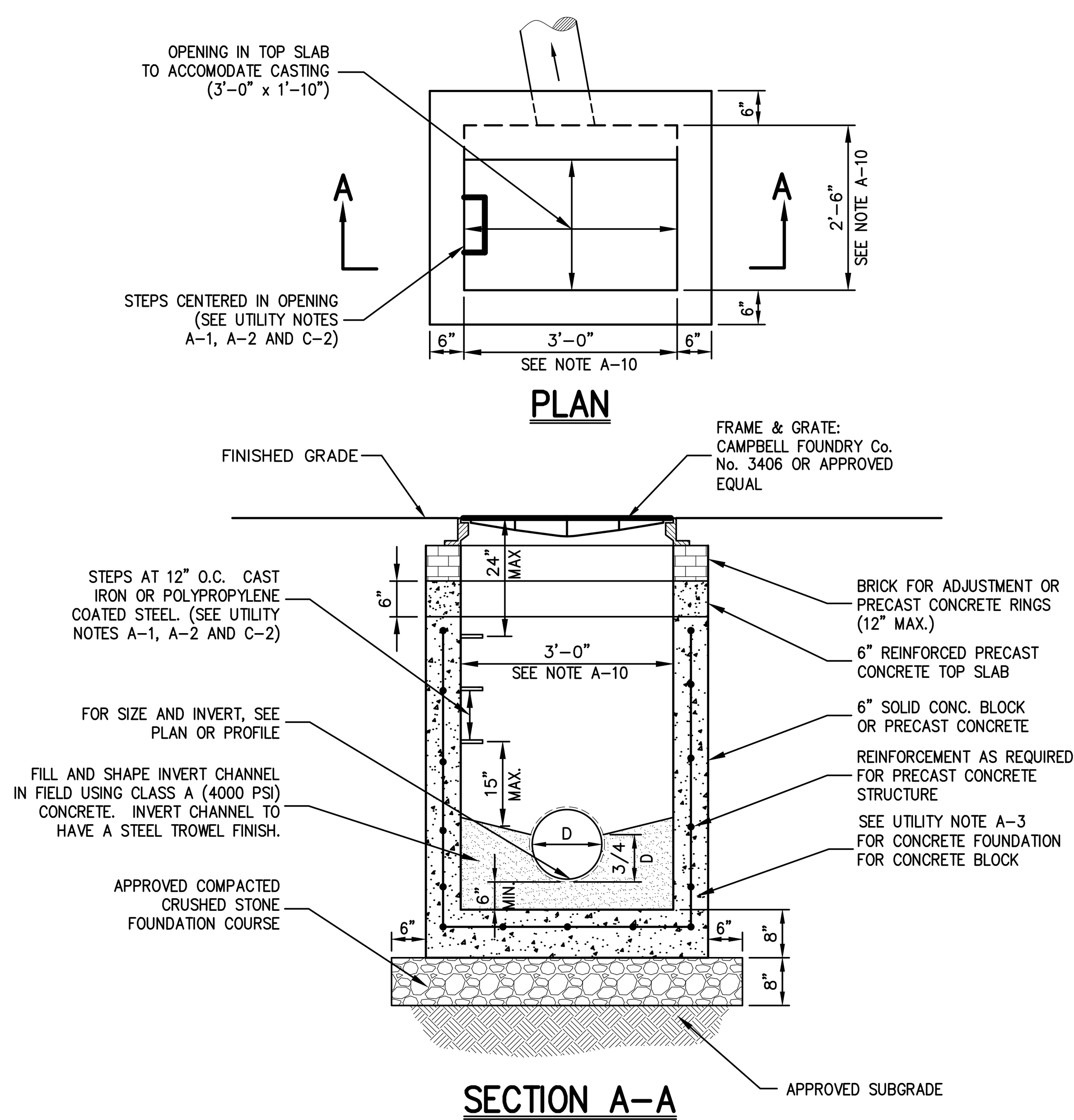


NOTE:

1. SEE NOTES PERTAINING TO DRAIN INLETS UNDER UTILITY NOTES ON DRAWING C–901
2. DRAIN INLETS SHALL BE INSPECTED MONTHLY FOR BLOCKAGE AND/OR EROSION AT TOP OF EACH INLET. BLOCKAGE SHALL BE REMOVED AND INLETS SHALL BE REPAIRED AS NECESSARY.

DRAIN INLET (TYPE CI) — 12

(w/o sump–w/o finger underdrains)

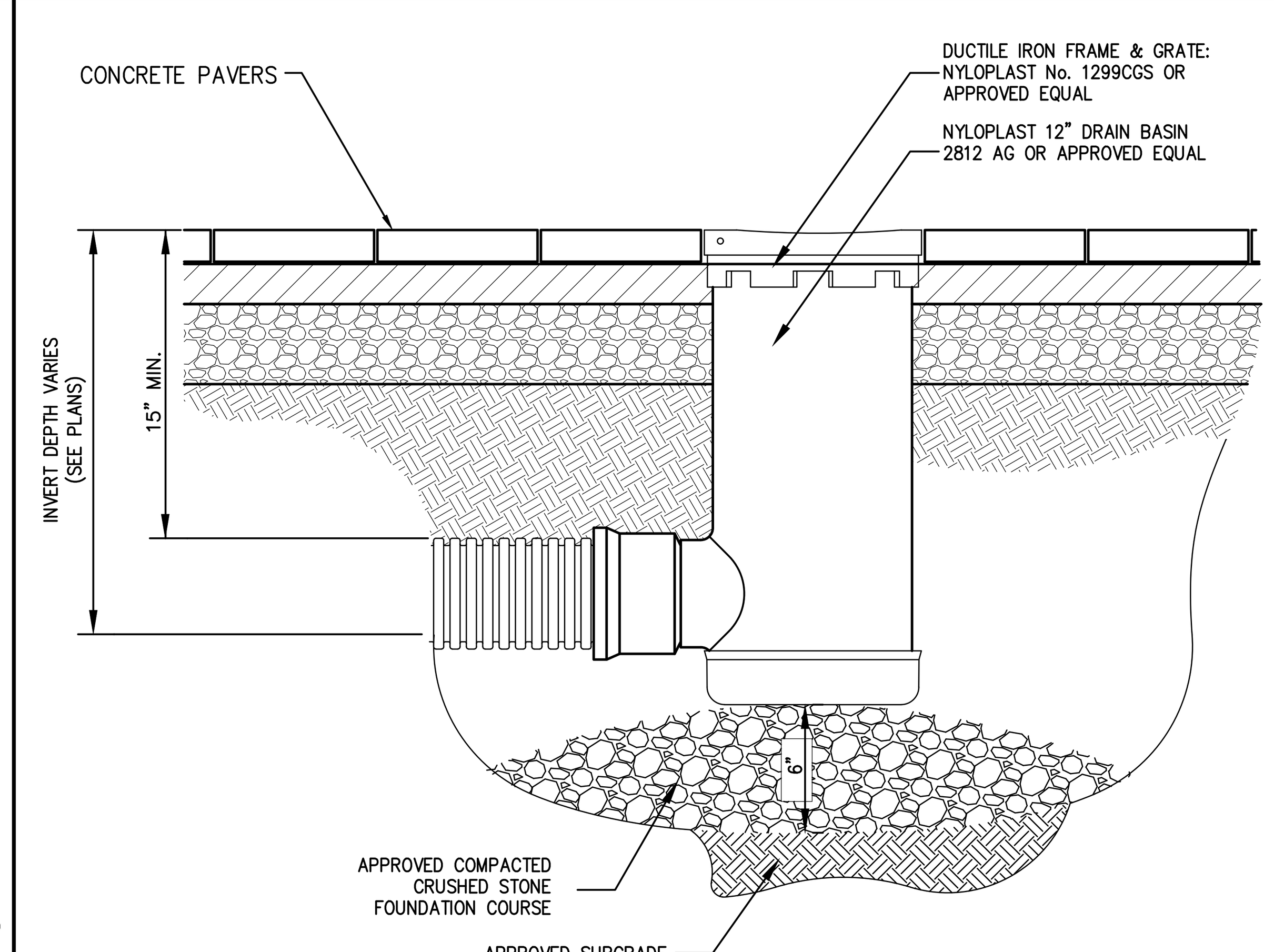


NOTE

1. REINFORCE PRECAST CONCRETE TOP SLAB AND REINFORCE PRECAST CONCRETE STRUCTURE SHALL BE DESIGNED TO ACCOMMODATE AN H–20 DESIGN LOAD.
2. LOCATIONS OF FINGER UNDERDRAINS MAY VARY FROM THAT AS SHOWN DEPENDING UPON NUMBER AND SIZE OF STORM DRAIN LINES ENTERING AND EXITING THE STRUCTURE.
3. SEE NOTES PERTAINING TO DRAIN INLETS UNDER UTILITY NOTES ON DRAWING C–901
4. DRAIN INLETS SHALL BE INSPECTED MONTHLY FOR BLOCKAGE AND/OR EROSION AT TOP OF EACH INLET. BLOCKAGE SHALL BE REMOVED AND INLETS SHALL BE REPAIRED AS NECESSARY.

DRAIN INLET (TYPE DI) — 13

(w/o sump–w/o finger underdrains)

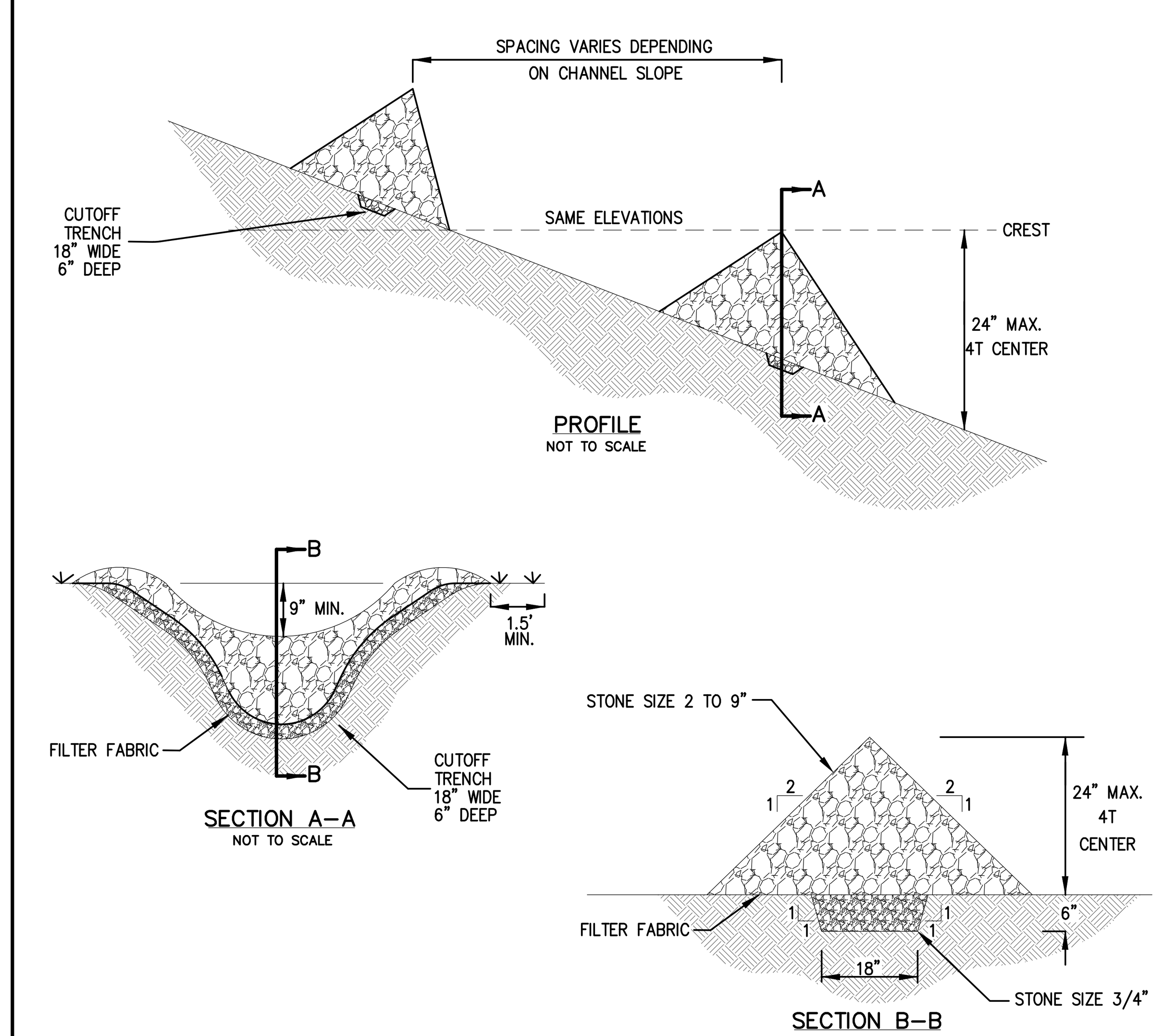


NOTES:

1. ALL MATERIALS SHALL BE PRODUCT OF NYLOPLAST OR APPROVED EQUAL.
   ADDRESS: 3130 VERONA AVENUE, BUFORD, GA 30518
   PHONE: (770) 932 2443.
2. ALL MATERIALS SHALL BE DESIGNED TO ACCOMODATE AN H–20 DESIGN LOAD.
3. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70–50–05.
4. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70–50–05.
5. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE.

DRAIN BASIN (TYPE DB) — 14

(w/o sump)



CONSTRUCTION SPECIFICATIONS:

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSURE THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANK TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

MAXIMUM DRAINAGE AREA 2 ACRES.

STONE CHECK DAM — 14A

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
6.	REVISED PER CITY COMMENTS	05/31/2022
7.	REVISED PER CITY COMMENTS	06/28/2022
8.	REVISED PER CITY COMMENTS	08/30/2022
9.	REVISED PER CITY COMMENTS	09/27/2022

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Drawn: BMS	Approved: SS	
Scale: NOT TO SCALE		
Date: 10/29/2019		
Project No: 18119		
18119–DETAILS	C–901	–
Drawing No: C–901 (Sheet 21 OF 29)		

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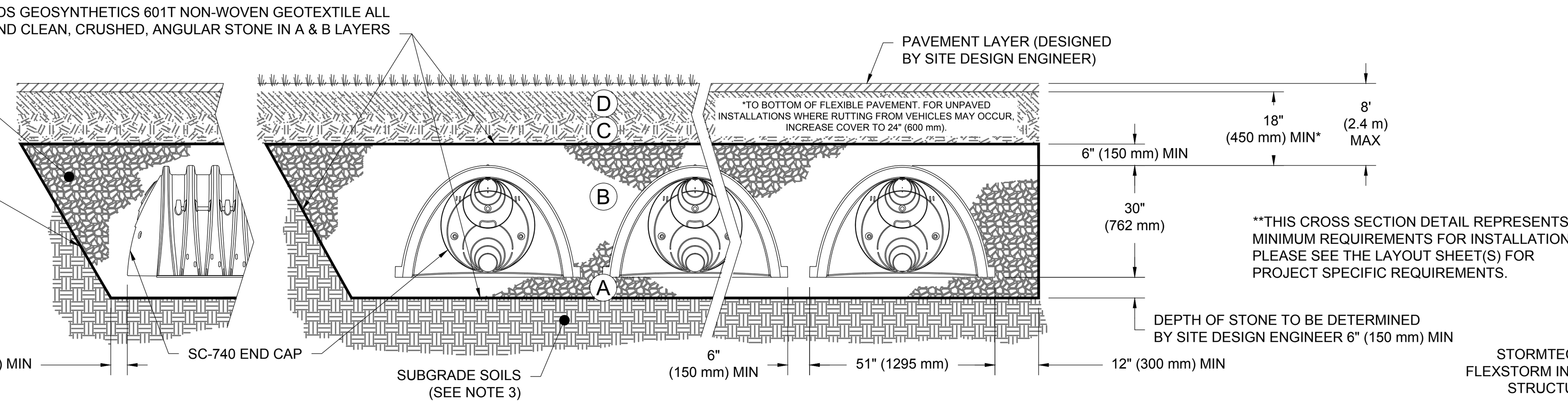
ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

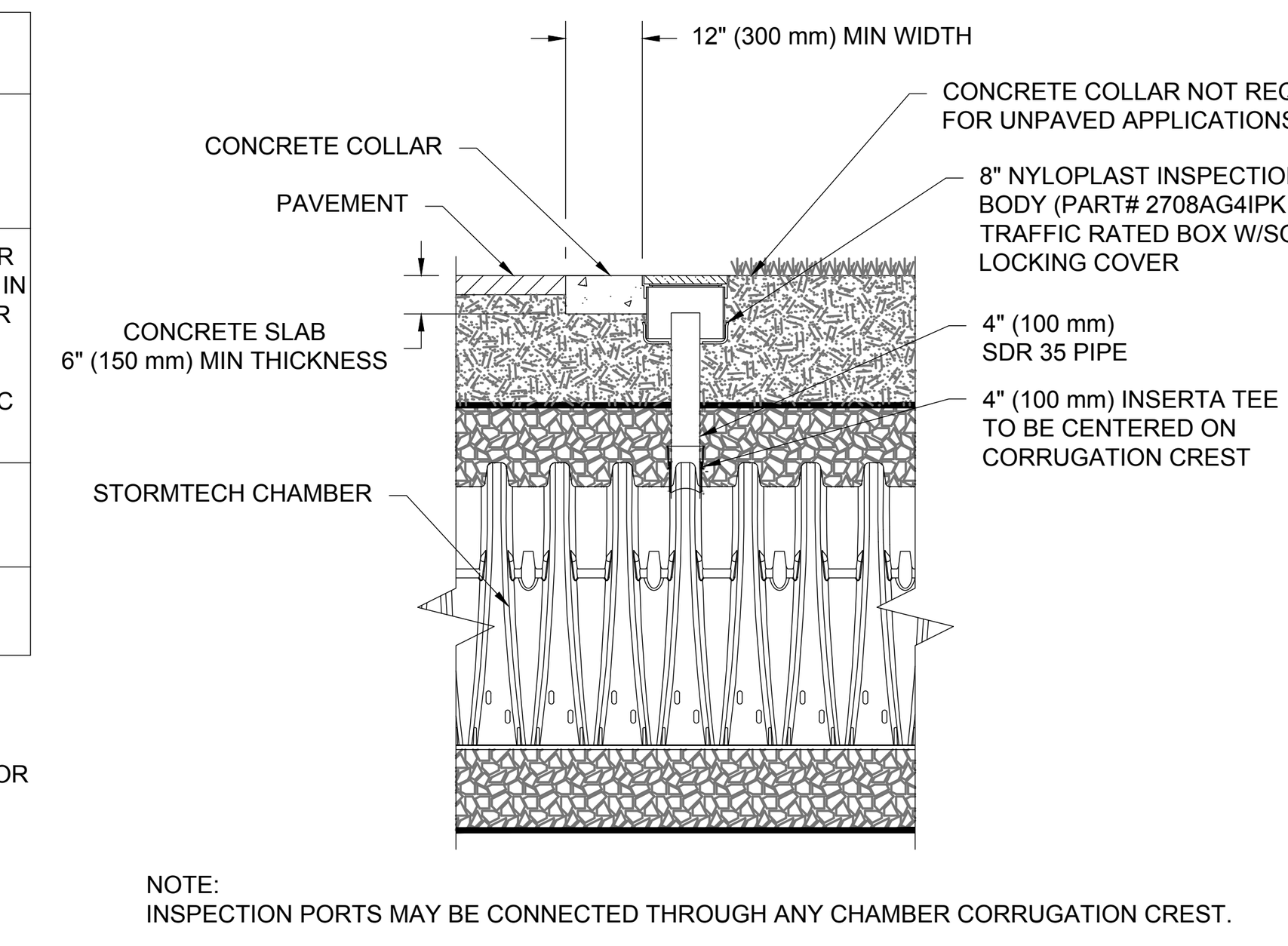
PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

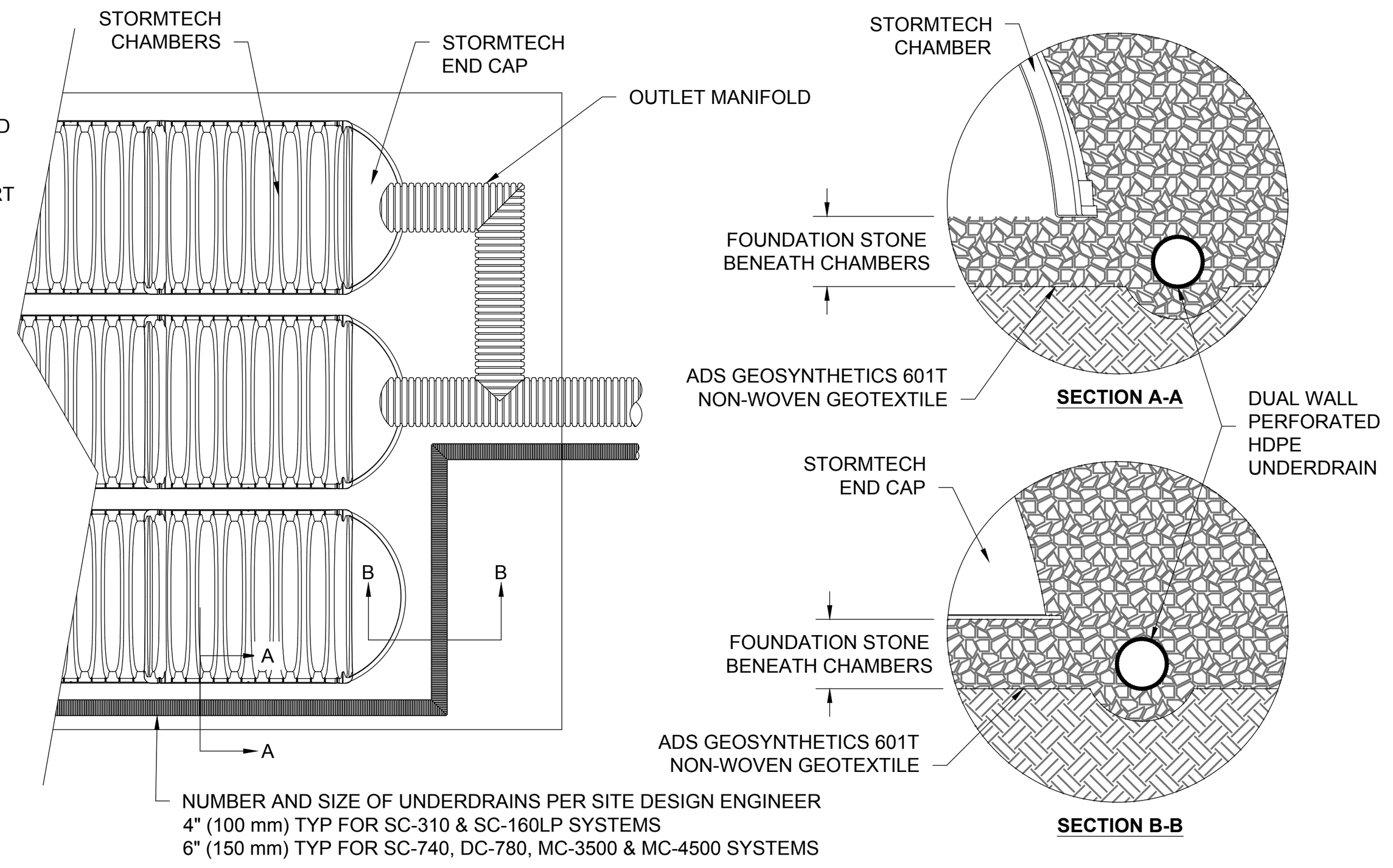
1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

SC-740 CROSS SECTION DETAIL



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION CREST.

4" PVC INSPECTION PORT DETAIL
(SC SERIES CHAMBER)



UNDERDRAIN DETAIL

SEE MAINTENANCE GUIDELINES IN APPENDIX E OF SWPPP REPORT. LEVEL OF SEDIMENT ACCUMULATED WITHIN THE ISOLATOR ROW SHALL BE INSPECTED THROUGH THE ACCESS MANHOLE. IF 3 INCHES OF SEDIMENT OR GREATER HAS ACCUMULATED, IT SHALL BE CLEANED OUT UTILIZING A HIGH-PRESSURE WATER NOZZLE TO SCOUR AND SUSPEND SEDIMENTS. ALL SEDIMENT SHALL BE FLUSHED TO ACCESS MANHOLE AND REMOVED USING A VACUUM TRUCK.

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

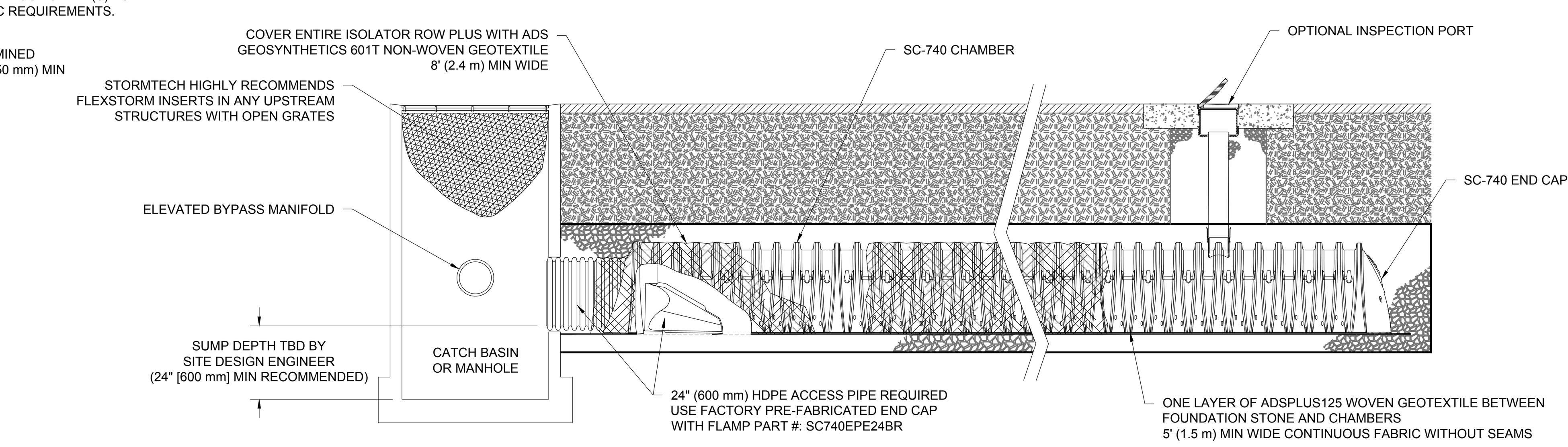
STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

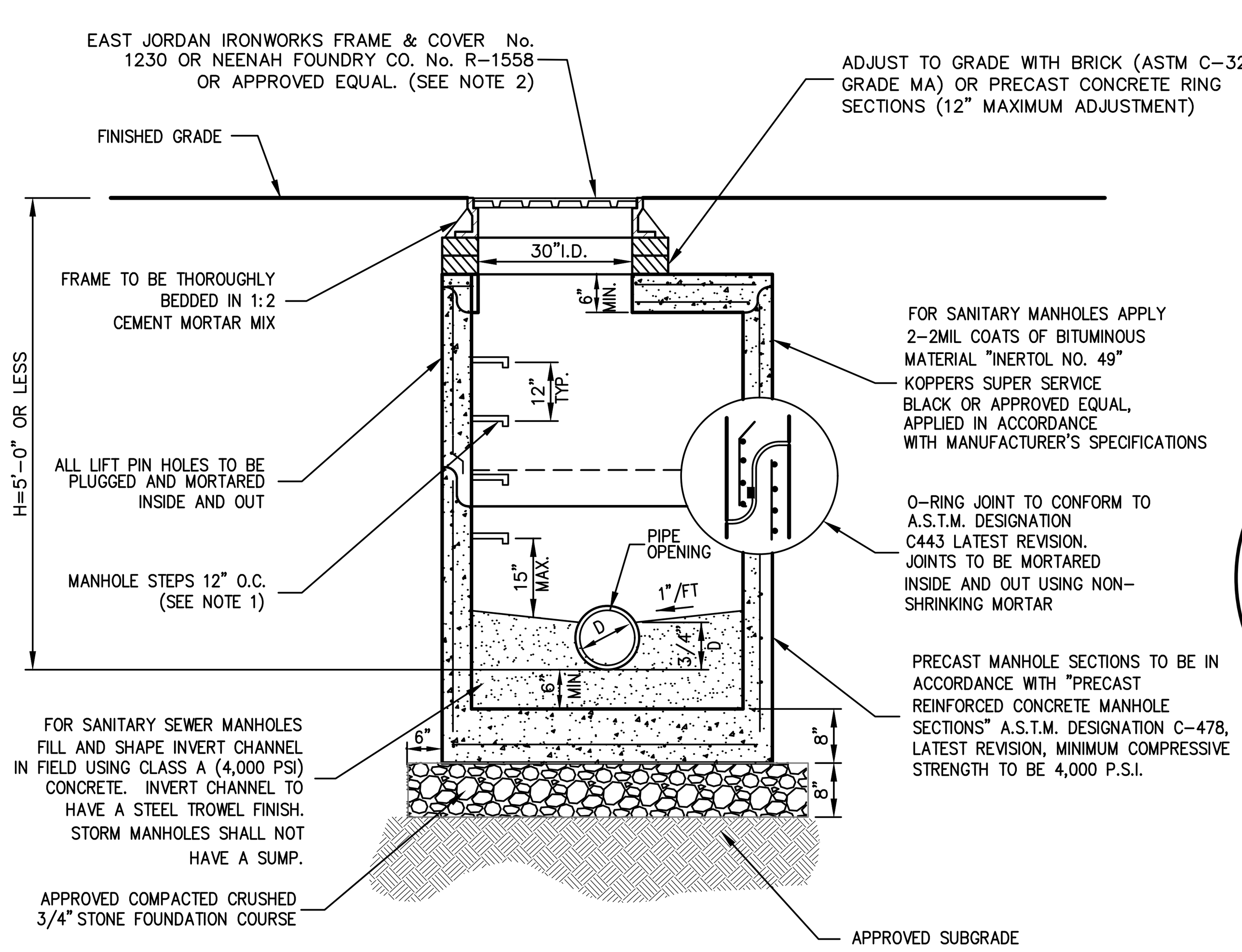
1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

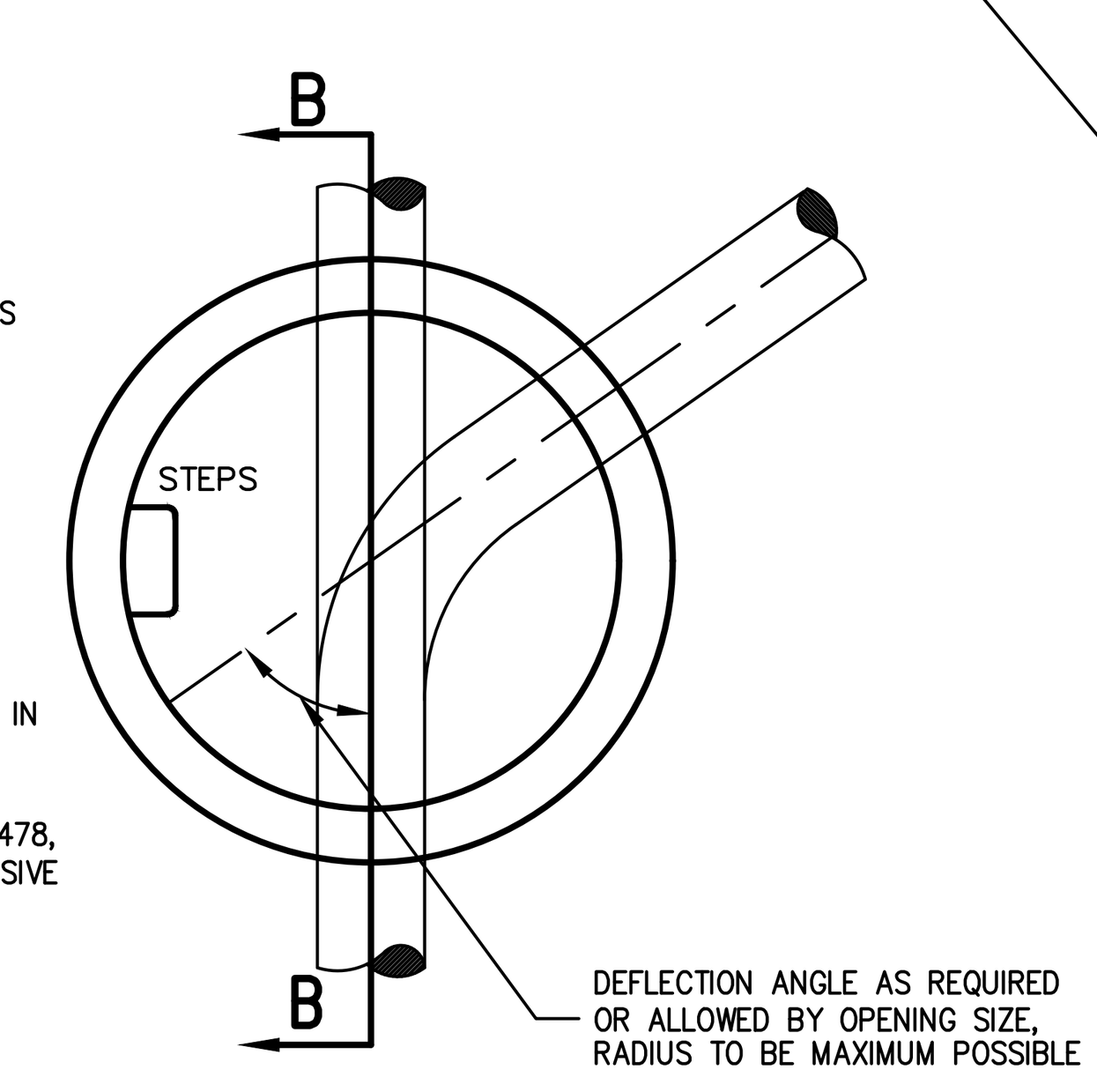


SC-740 ISOLATOR ROW PLUS DETAIL

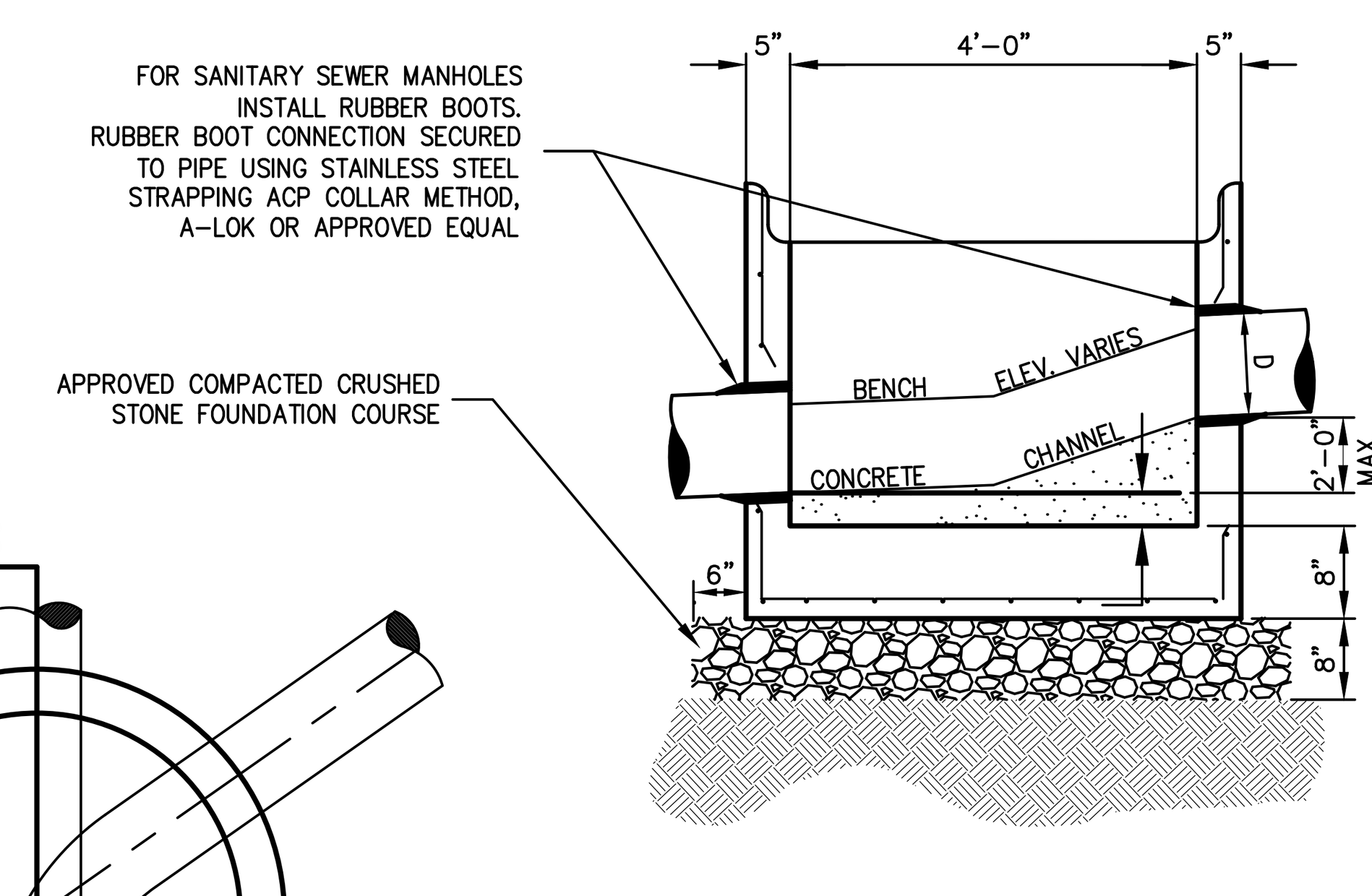
DETENTION SYSTEM
(STORMTECH CHAMBERS SC-740)

15

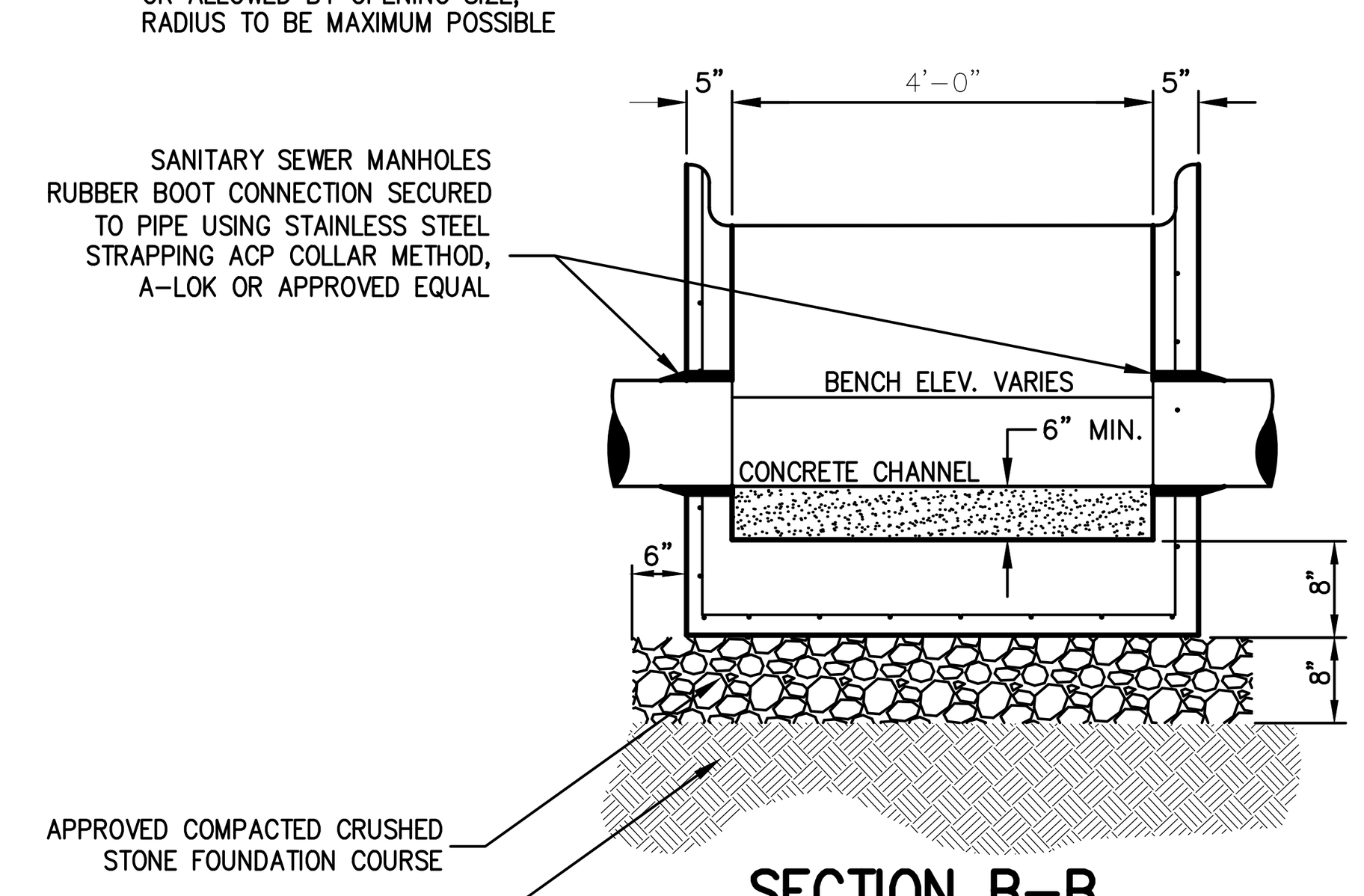




PLAN



SECTION B-B
(Chute Manhole Base)

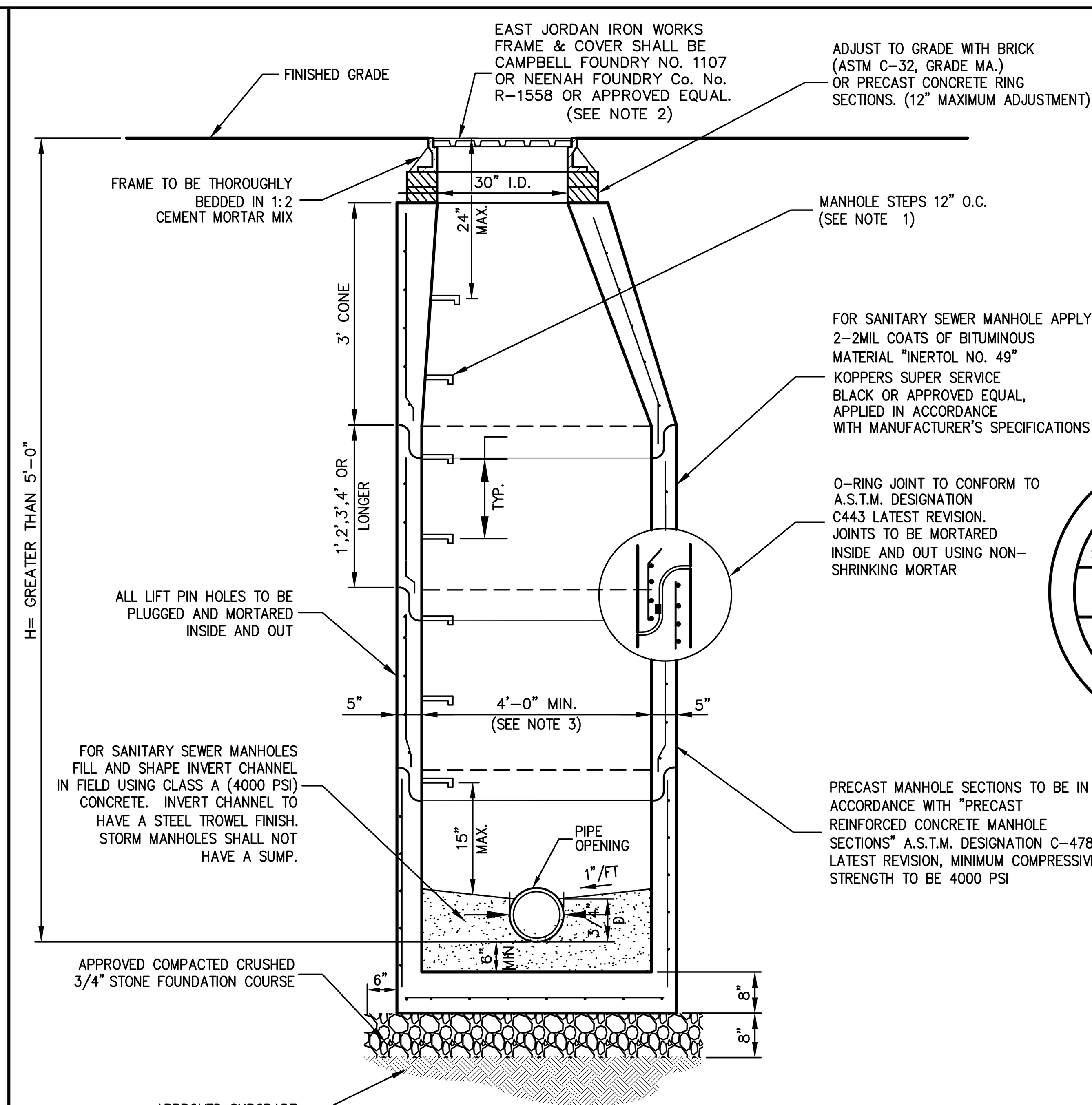


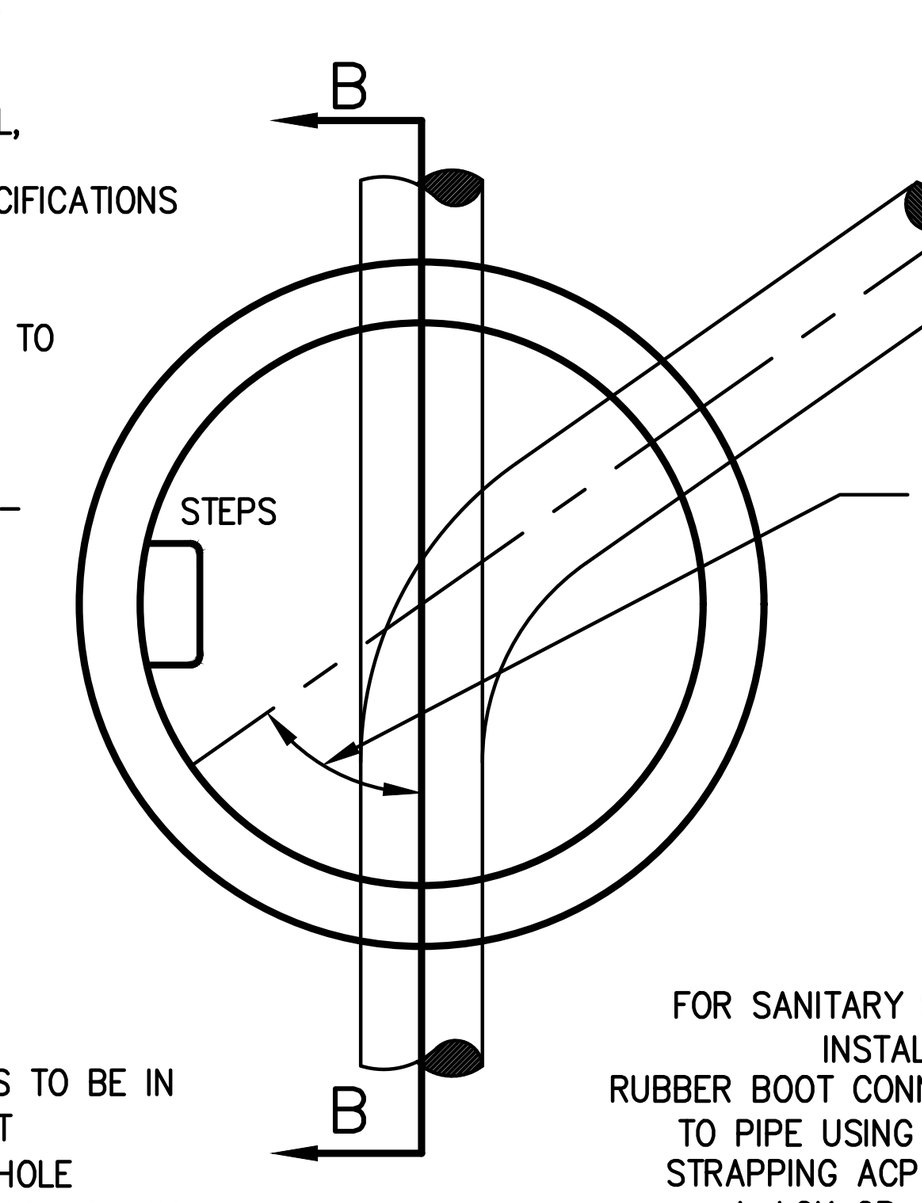
SECTION B-B
(Standard Manhole Base)

NOTES:
1. MANHOLE STEPS SHALL BE CAST IRON NEENAH No. R-1981-0 OR CAMPBELL FOUNDRY No. 2588-1 OR POLYPROPYLENE COATED STEEL (SEE SPECIFICATIONS) OR APPROVED EQUAL.
2. UNLESS OTHERWISE SPECIFIED, SANITARY SEWER MANHOLES SHALL HAVE LETTERS "SEWER" AND STORM DRAIN MANHOLES SHALL HAVE LETTERS "DRAIN" CAST ON COVER. THE COVERS FOR STORM DRAIN MANHOLES ONLY SHALL HAVE VENT HOLES.
3. MANHOLES SHALL MEET OR EXCEED A.S.T.M. AND O.S.H.A. REQUIREMENTS.
4. SEE "NOTES PERTAINING TO MANHOLES" UNDER "UTILITY NOTES" ON DRAWING C-901
5. COATING SHALL BE TOUCHED UP ON SITE AS NEEDED OR AS DIRECTED BY CITY ENGINEER.

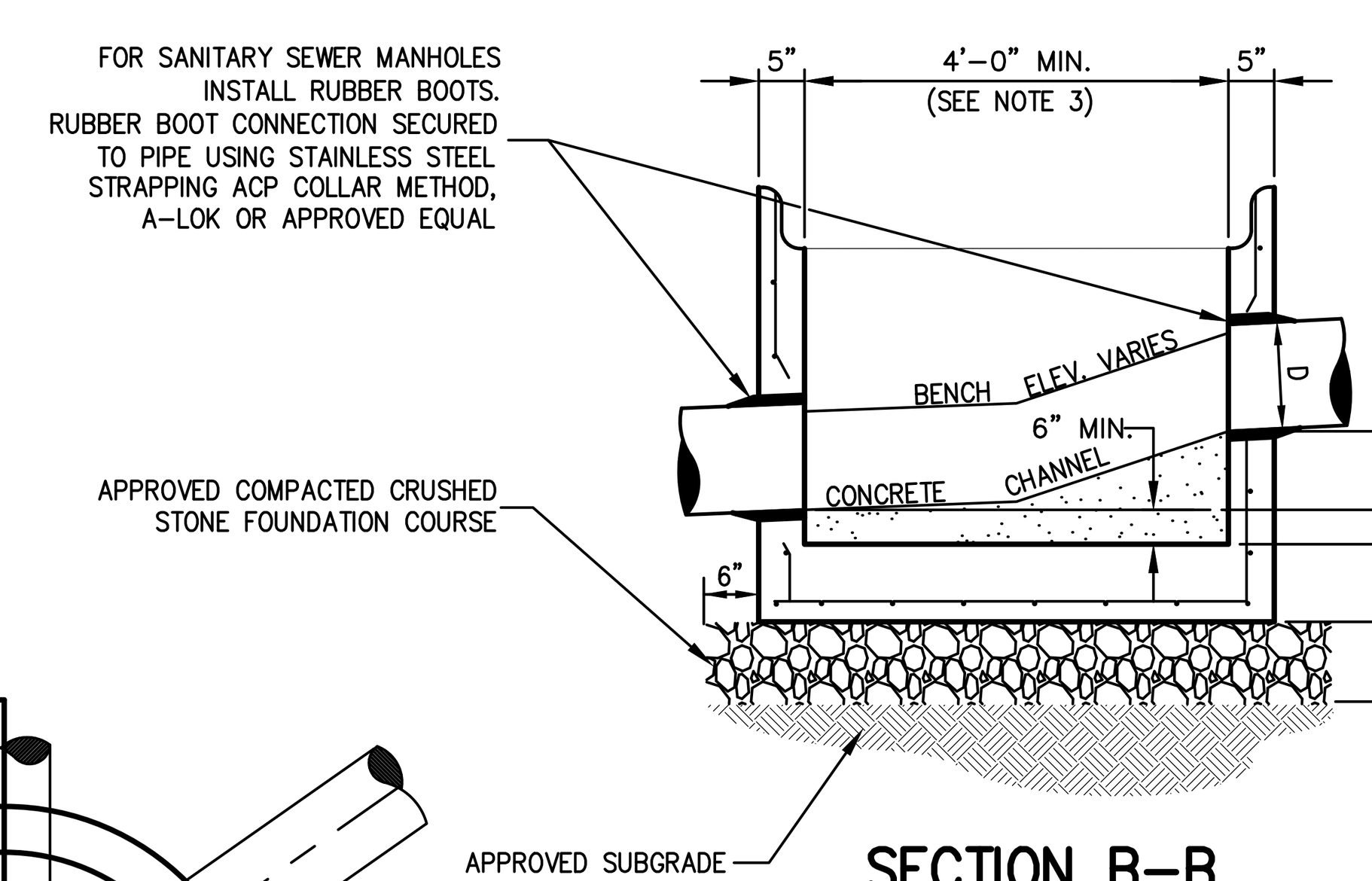
MANHOLE (TYPE A)
(H < 5'-0")

16

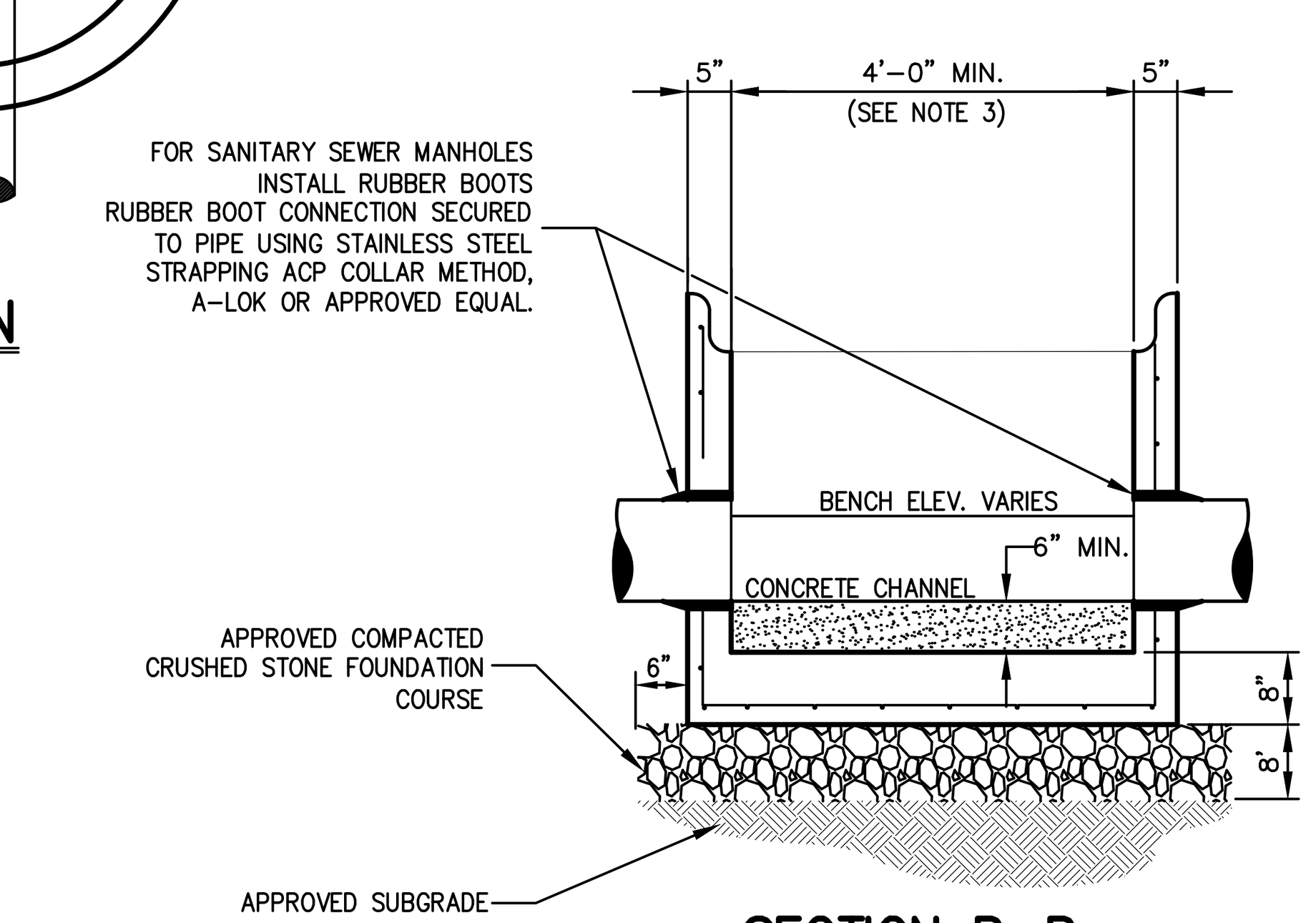




PLAN



SECTION B-B
(Chute Manhole Base)



SECTION B-B
(Standard Manhole Base)

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2. UNLESS OTHERWISE SPECIFIED, SANITARY SEWER MANHOLES SHALL HAVE LETTERS "SEWER" AND STORM DRAIN MANHOLES SHALL HAVE LETTERS "DRAIN" CAST ON COVER. THE COVERS FOR STORM DRAIN MANHOLES ONLY SHALL HAVE VENT HOLES.
3. MANHOLES WITH DEPTH (h) 10' OR GREATER SHALL BE FIVE (5) FEET IN DIAMETER.
4. MANHOLES SHALL MEET OR EXCEED A.S.T.M. AND O.S.H.A. REQUIREMENTS.
5. SEE "NOTES PERTAINING TO MANHOLES" UNDER "UTILITY NOTES" ON DRAWING C-901

MANHOLE (TYPE B)
(H > 5'-0")<10'-0")

17

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
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(Sheet 22 OF 29)

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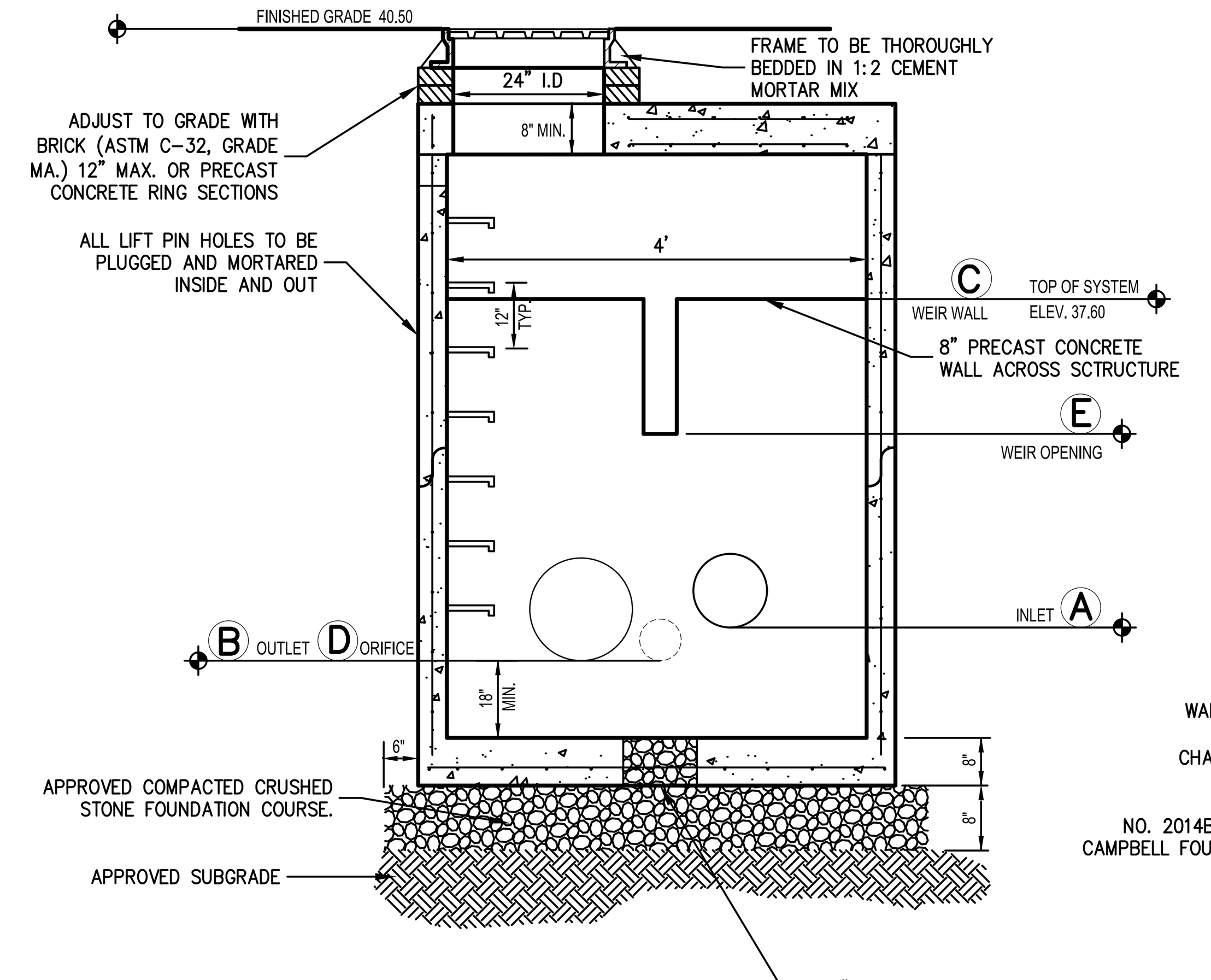
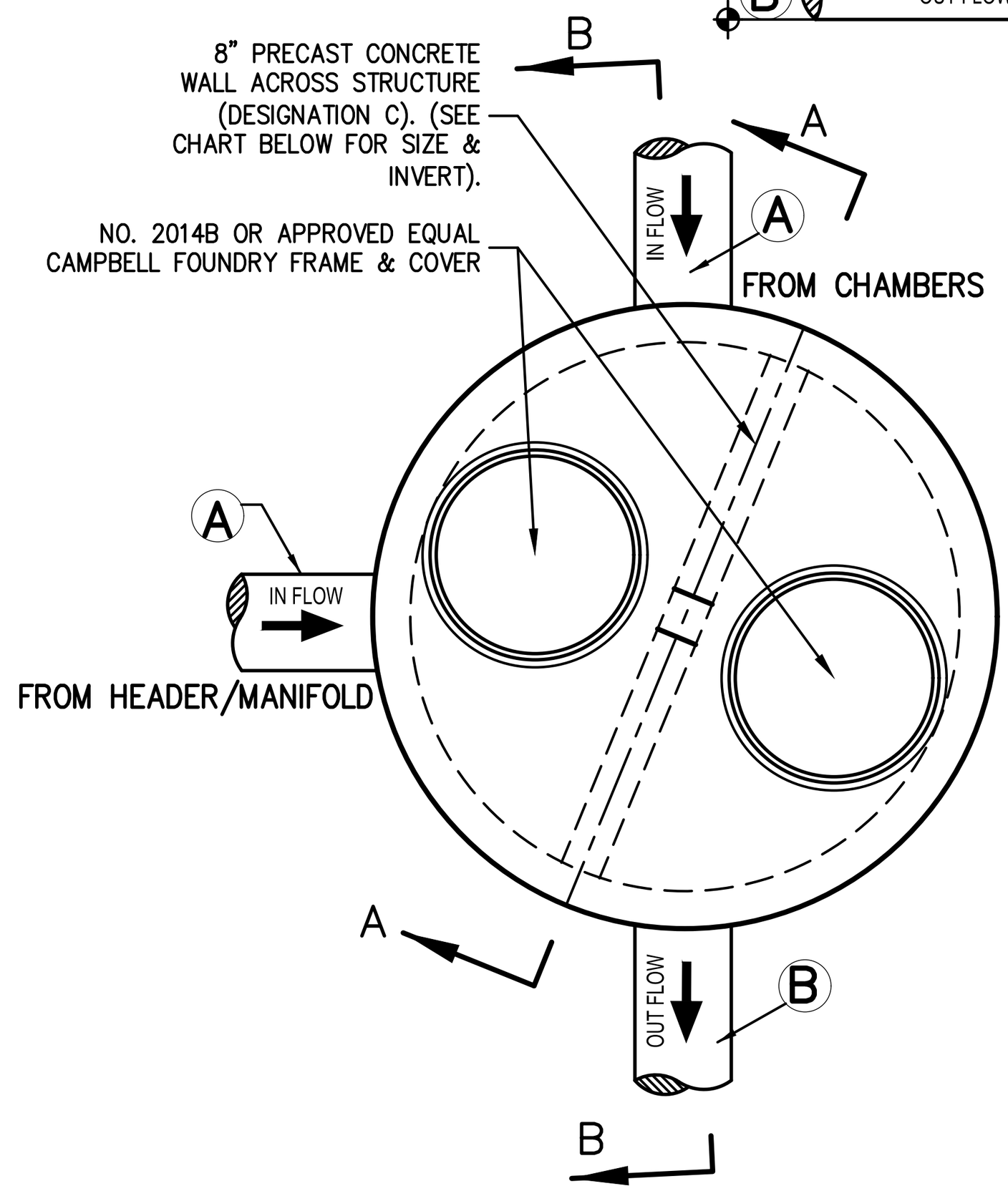
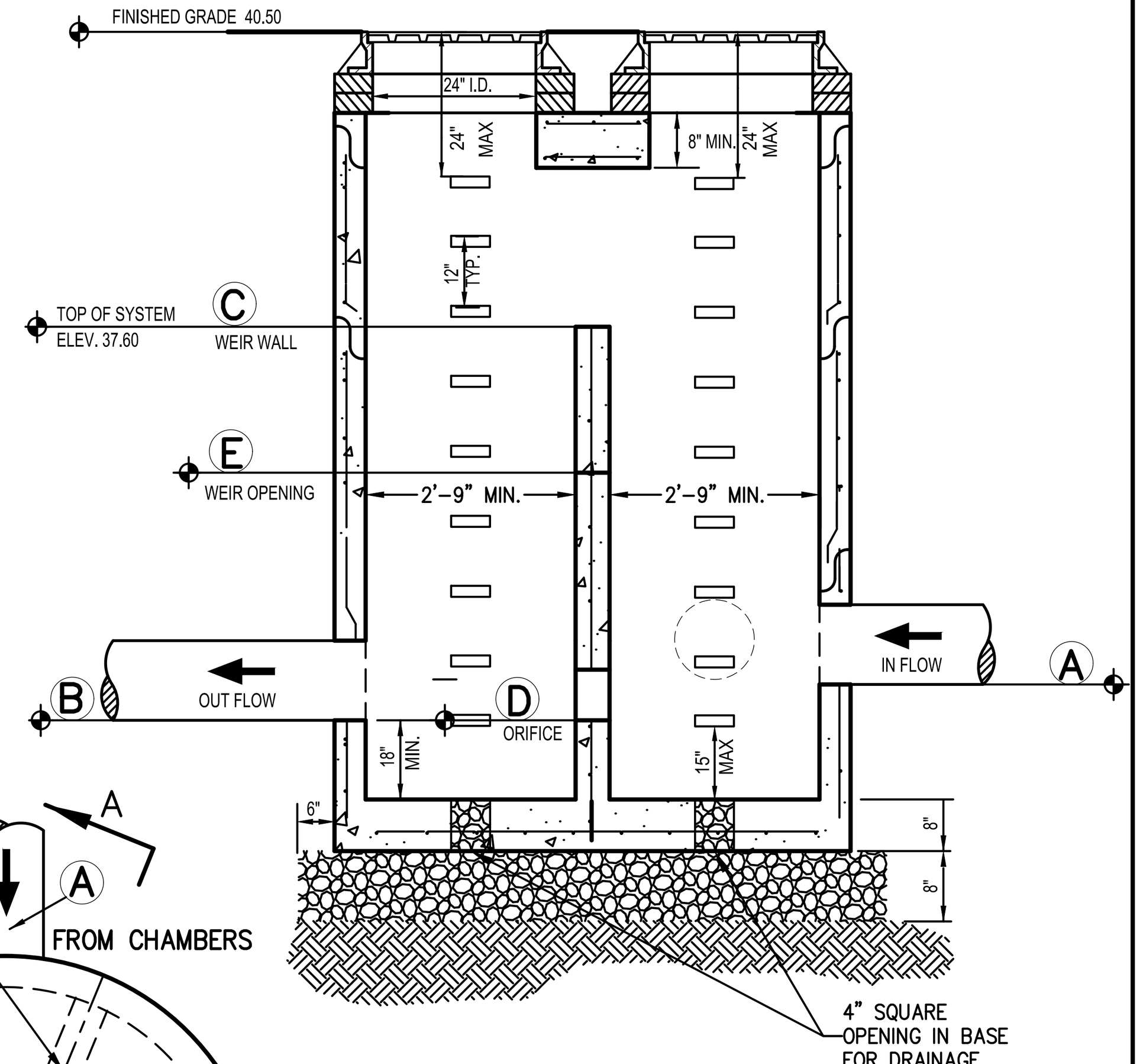


SECTION A–A
N.T.S.



PLAN VIEW
N.T.S.



SECTION B–B
N.T.S.

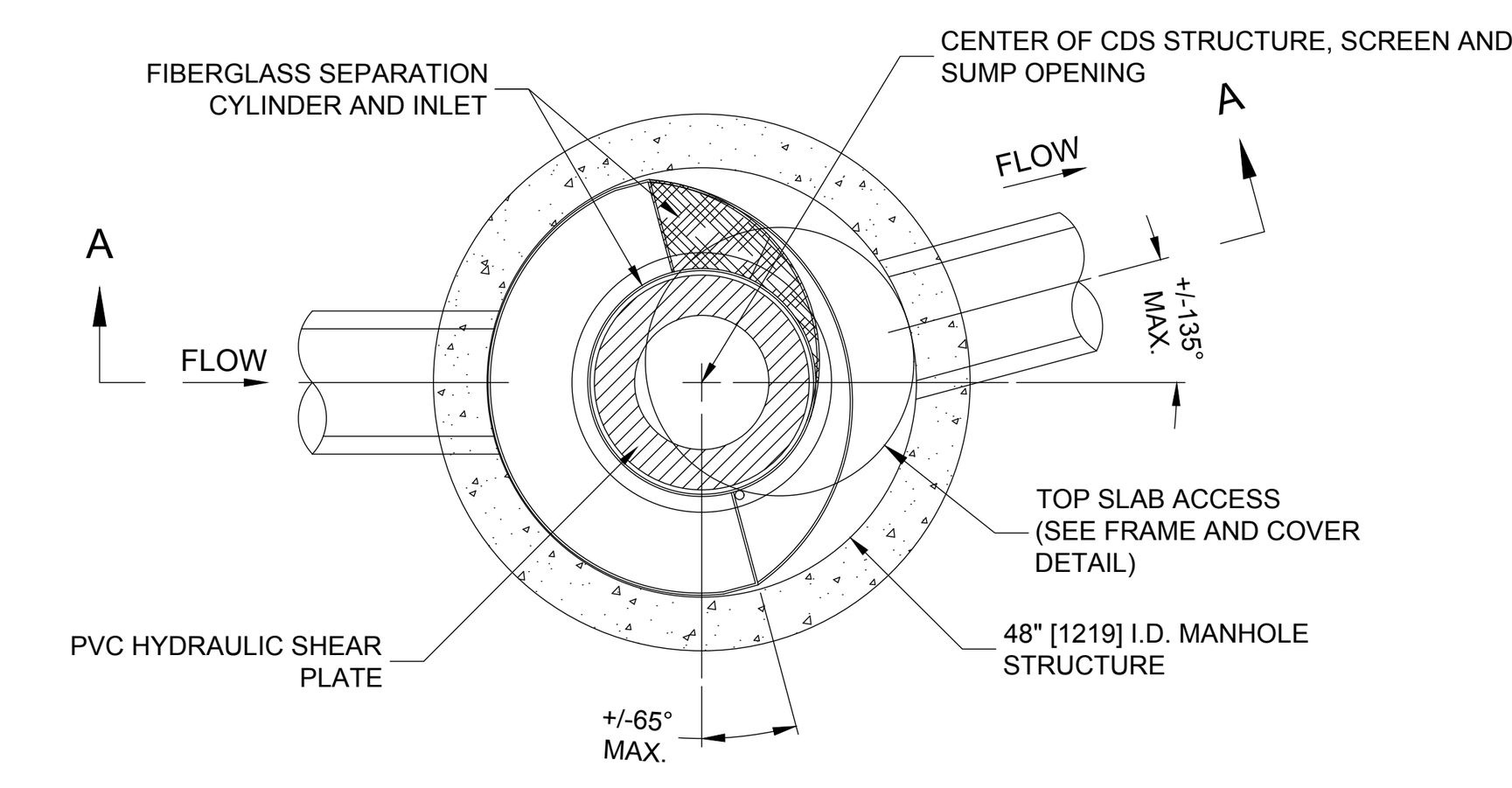
SCHEDULE OF INVERTS

DESIGNATION	(A) INLET		(B) OUTLET		(C) WEIR TOP		(D) ORIFICE		(E) WEIR OPENING	
	SIZE	INVERT	SIZE	INVERT	SIZE	INVERT	SIZE	ELEVATION	SIZE	ELEVATION
OCS–A6	15" HDPE	34.60	15" HDPE	34.10	WEIR WALL	37.60	4"	34.10	4"	35.15

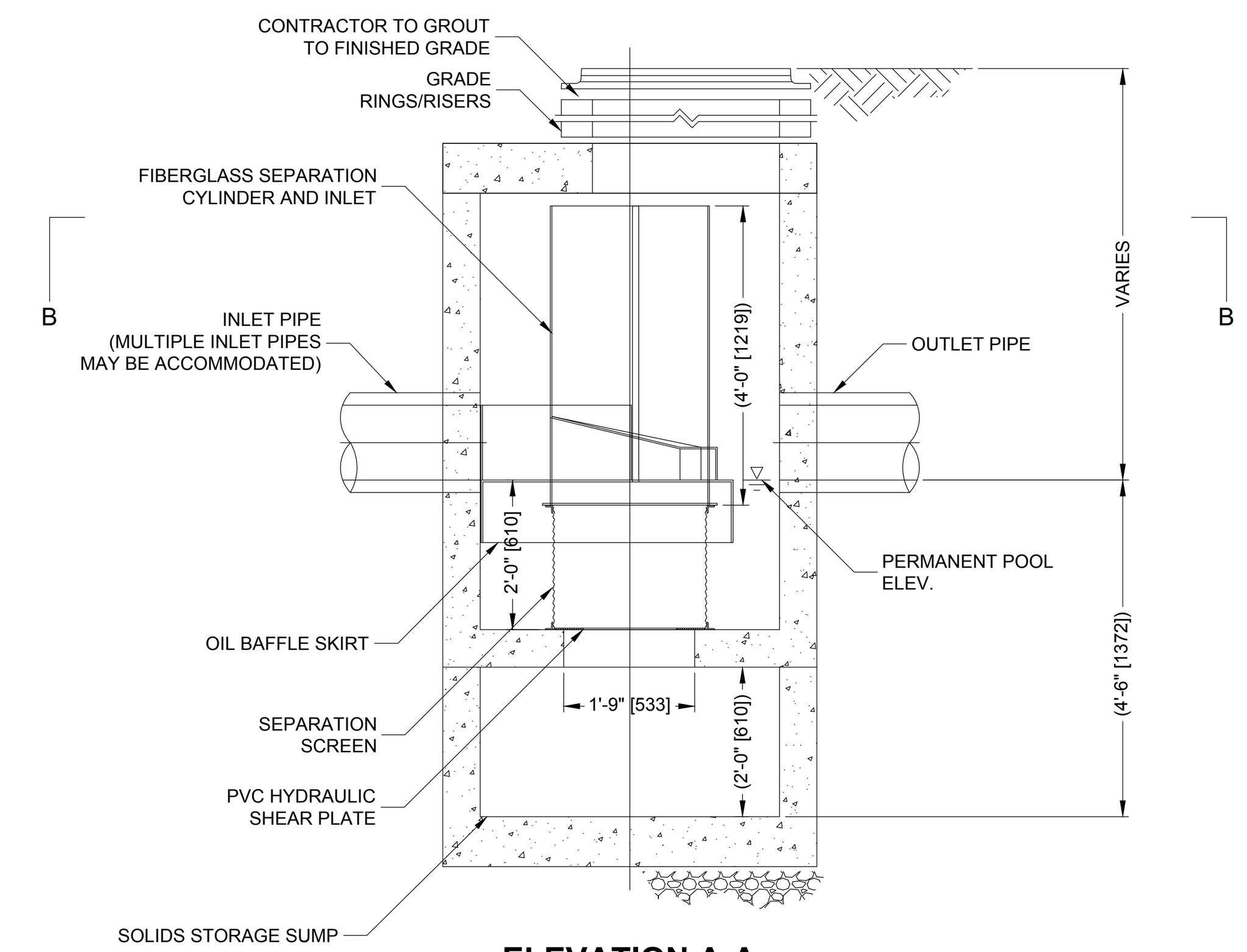
NOTES:

1. STEPS SHALL BE CAST IRON NEENAH No. R–1981–0 OR CAMPBELL FOUNDRY No. 2588–1 OR POLYPROPYLENE COATED STEEL (SEE SPECIFICATIONS) OR APPROVED EQUAL.
2. STRUCTURES SHALL MEET OR EXCEED A.S.T.M AND O.S.H.A REQUIREMENTS.
3. STRUCTURES SHALL BE DESIGNED TO ACCOMMODATE H–20 LOADING.
4. SEE UTILITY NOTES ON DRAWING C–901.

OUTLET CONTROL STRUCTURE — 18



PLAN VIEW B-B
N.T.S.



ELEVATION A-A
N.T.S.

CDS

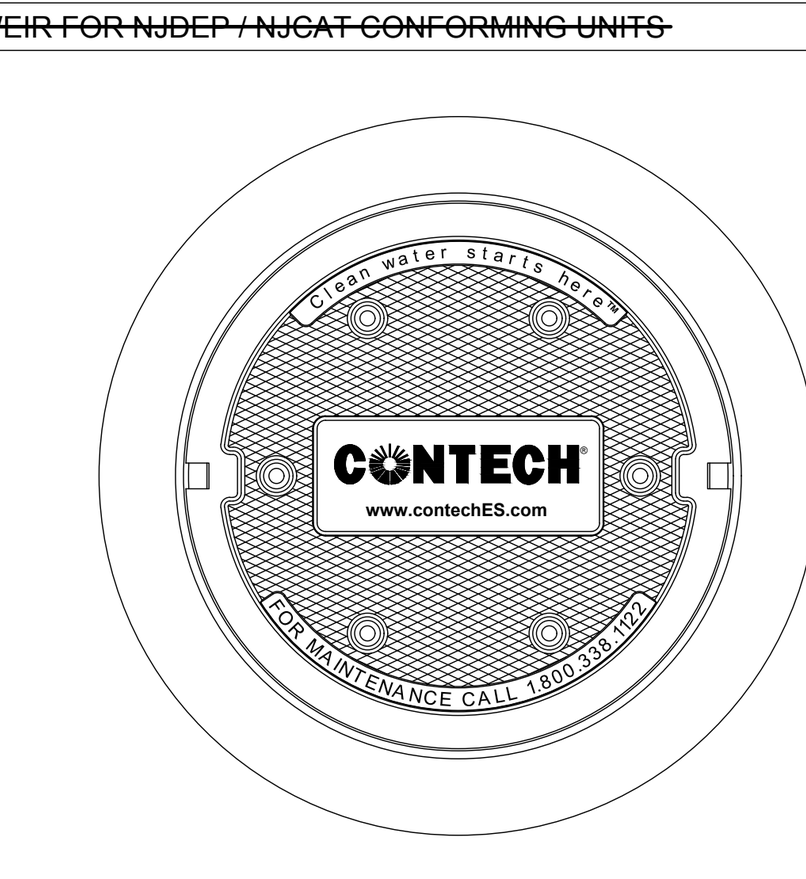
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,788,848; 6,641,720; 6,511,595; 6,581,783; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

CDS2015-4-C DESIGN NOTES

THE STANDARD CDS2015-4-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION

~~GRATED INLET ONLY (NO INLET PIPE)~~
GRATED INLET WITH INLET PIPE OR PIPES
~~CURB INLET ONLY (NO INLET PIPE)~~
~~CURB INLET WITH INLET PIPE OR PIPES~~
~~SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)~~
~~SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS~~



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			WQS-A3-1
WATER QUALITY FLOW RATE (CFS OR L/s)			0.7
PEAK FLOW RATE (CFS OR L/s)			0.7
RETURN PERIOD OF PEAK FLOW (YRS)			1
SCREEN APERTURE (2400 OR 4700)			*
PIPE DATA:	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	32.15	HDPE	15"
INLET PIPE 2	*	*	*
OUTLET PIPE	32.15	HDPE	15"
RIM ELEVATION			35.40
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		*	*
NOTES/SPECIAL REQUIREMENTS:			

* PER ENGINEER OF RECORD

NOTE

1. SEE MAINTENANCE GUIDLINES IN APPENDIX E OF SWPPP REPORT. OPEN ACCESS COVER FOR VISUAL INSPECTION AND MEASURE THE DISTANCE FROM THE STANDING WATER SURFACE TO THE SEDIEMENT PILE WITH A MEASURING STICK OR TAPE. IF LESS THAN 4 FEET, INSERT HOSE FROM VACUUM TRUCK INTO THE SUMP AND SCREEN THROUGH BOTH ACCESS COVERS TO CLEAN OUT THE STANDING WATER, LAYER OF OIL, SEDIMENT, TRASH, ETC. THE SCREEN MUST BE POWERWASHED TO ENSURE IT IS FREE OF TRASH AND DEBRIS.

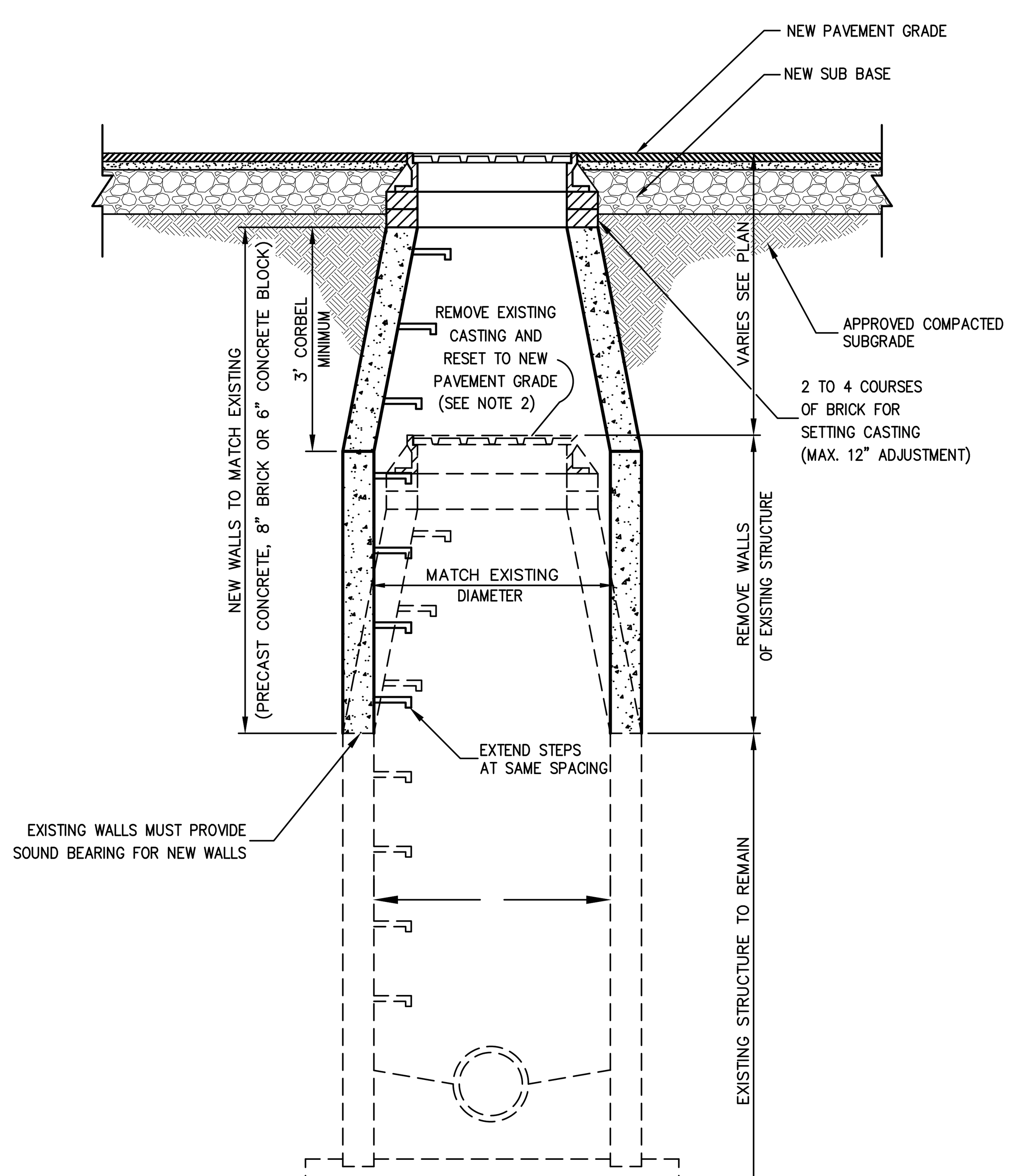
GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2015-4-C
INLINE CDS
STANDARD DETAIL

HYDRODYNAMIC WATER QUALITY STRUCTURE — 19

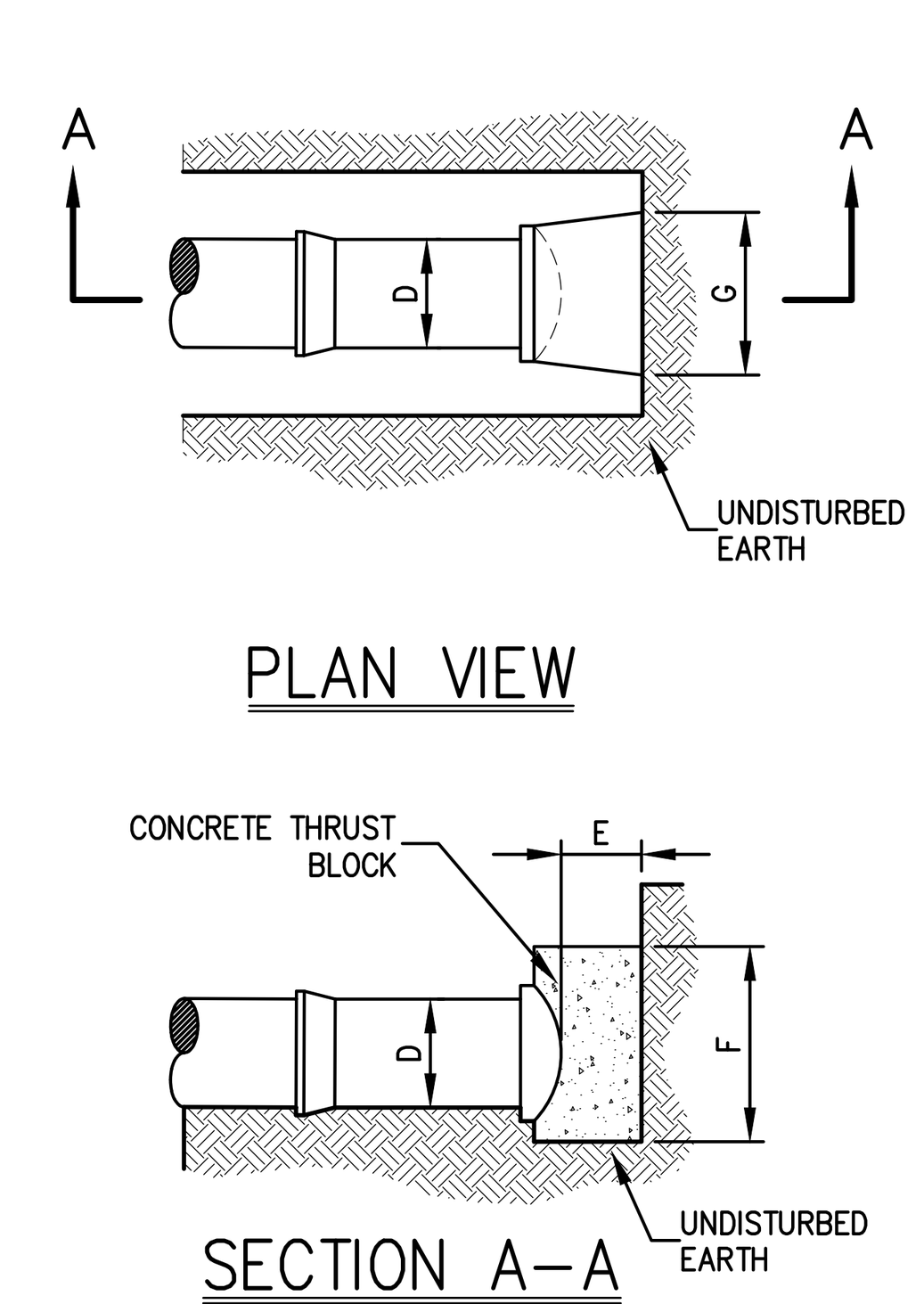


NOTES:

1. SEE "UTILITY NOTES" ON DRAWING C–901 WHICH SHALL APPLY TO THIS DETAIL.
2. IF EXISTING CASTING IS UNFIT FOR RESETTING IN THE NEW CONSTRUCTION, AS DETERMINED BY THE OWNER'S FIELD REPRESENTATIVE, CONTRACTOR SHALL FURNISH AND SET NEW CASTING.

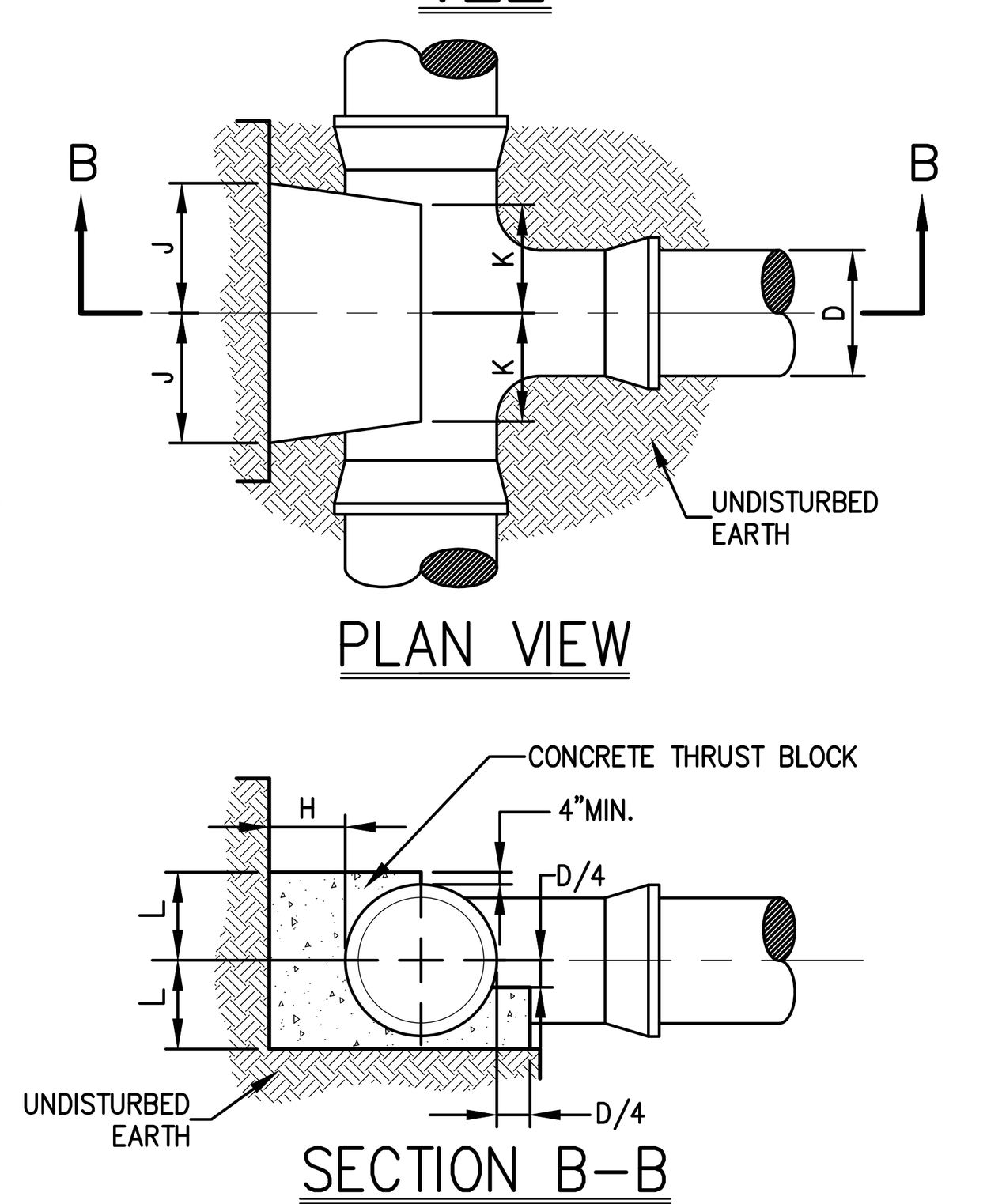
EXISTING MANHOLE RECONSTRUCTED AND RAISED — 20

END CAP



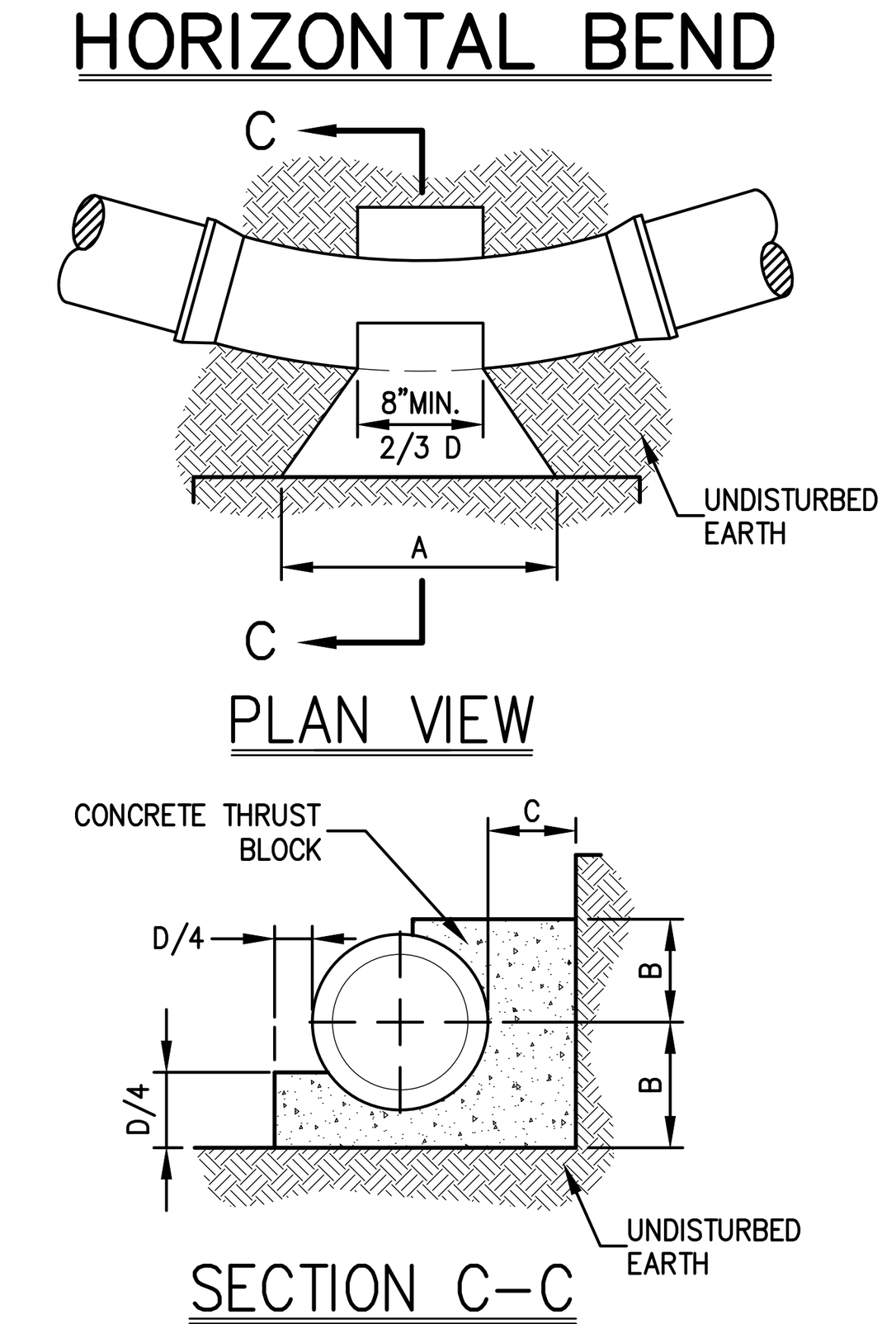
SECTION A–A

TEE



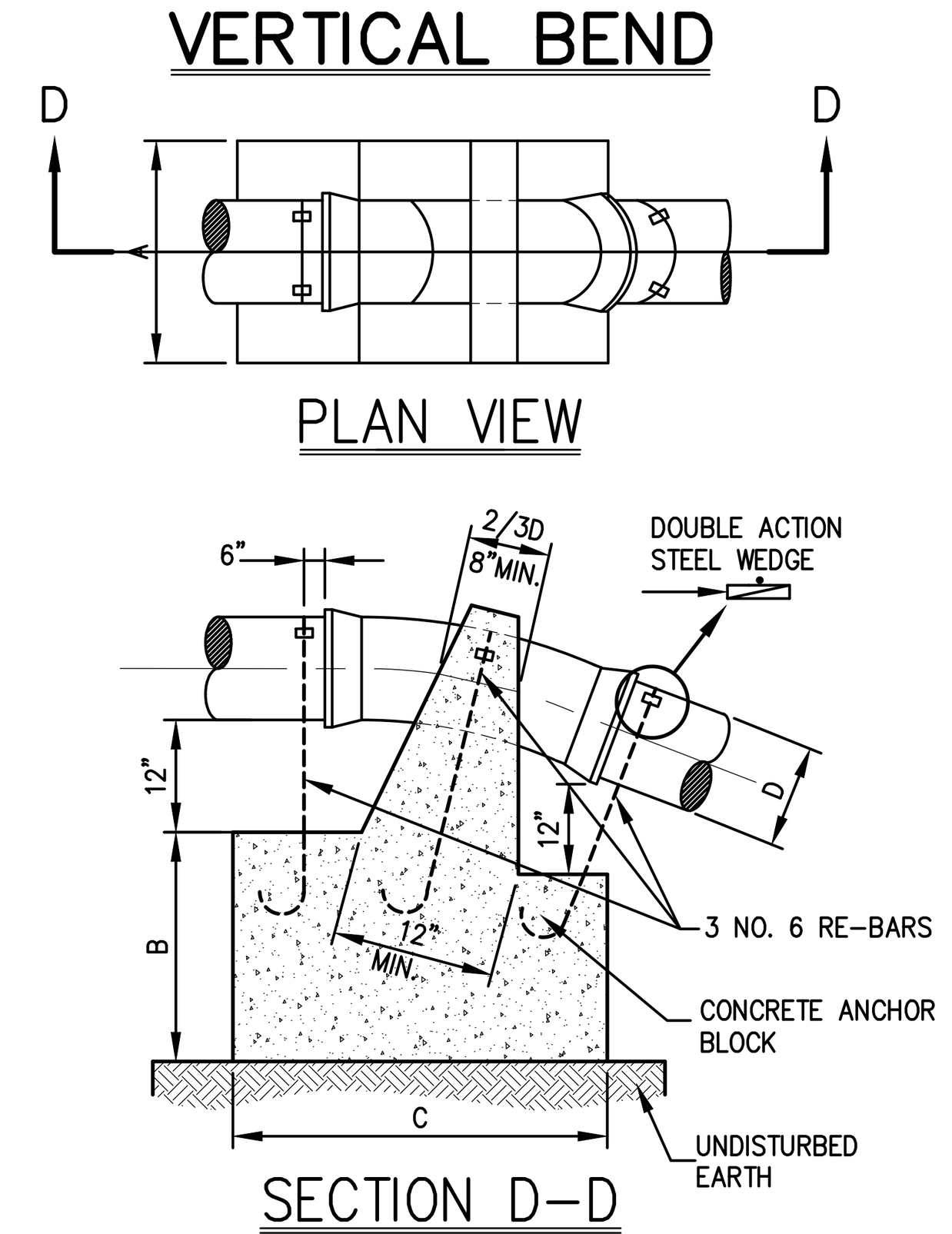
SECTION B–B

HORIZONTAL BEND



SECTION C–C

VERTICAL BEND



SECTION D–D

END CAP CHART

D	4"	6"	8"	10"	12"
E	6"	6"	8"	8"	10"
F	12"	12"	1'–4"	1'–8"	2'–0"
G	1'–5"	1'–5"	2'–0"	2'–5"	3'–0"

TEE CHART

D	4"	6"	8"	10"	12"
H	6"	7"	9"	10"	12"
L	8"	8"	10"	12"	1'–3"
J	7"	7"	9"	12"	1'–2"
K	6"	6"	8"	8"	8"

HORIZONTAL BEND CHART

BEND (DEGREES)		DIAMETER (D) 4"	6"	8"	10"	12"
1/32 (11¼°)	A	8"	8"	8"	10"	12"
	B	7"	7"	8"	9"	10"
	C	7"	7"	7"	8"	8"
1/16 (22½°)	A	9"	9"	12"	1'–6"	1'–9"
	B	7"	7"	8"	9"	10"
	C	8"	8"	9"	10"	11"
1/8 (45°)	A	1'–3"	1'–3"	1'–8"	2'–1"	2'–6"
	B	7"	7"	8"	9"	11"
	C	8"	8"	9"	10"	11"
1/4 (90°)	A	2'–0"	2'–0"	2'–6"	3'–0"	3'–6"
	B	7"	7"	9"	12"	1'–3"
	C	2'–0"	2'–0"	1'–9"	1'–8"	1'–7"

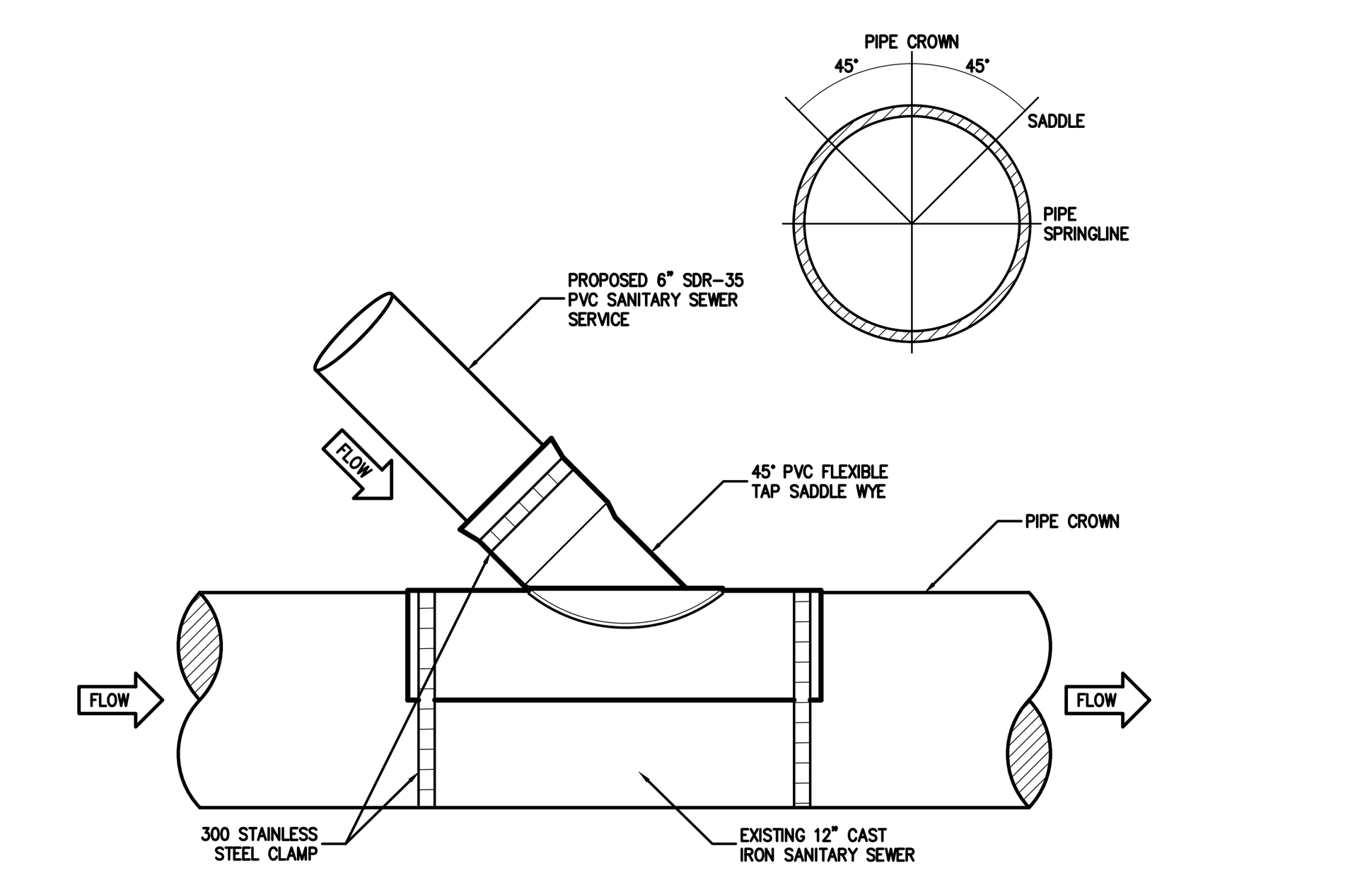
VERTICAL BEND CHART

BEND (DEGREES)		DIAMETER (D) 4"	6"	8"	10"	12"	16"
1/32 (11¼°)	A	1'–6"	1'–6"	2'–0"	2'–6"	3'–0"	3'–6"
	B	1'–3"	1'–3"	1'–9"	1'–3"	2'–0"	2'–0"
	C	2'–0"	2'–0"	2'–6"	2'–9"	3'–0"	4'–0"
1/16 (22½°)	A	2'–0"	2'–0"	3'–4"	3'–8"	4'–0"	4'–4"
	B	1'–9"	1'–9"	2'–3"	2'–6"	2'–6"	2'–6"
	C	2'–6"	2'–6"	2'–8"	4'–0"	4'–0"	5'–6"
1/8 (45°)	A	2'–6"	2'–6"	3'–0"	4'–0"	4'–6"	5'–2"
	B	2'–6"	2'–6"	2'–9"	3'–0"	3'–6"	4'–0"
	C	3'–0"	3'–0"	4'–0"	4'–6"	4'–9"	6'–6"

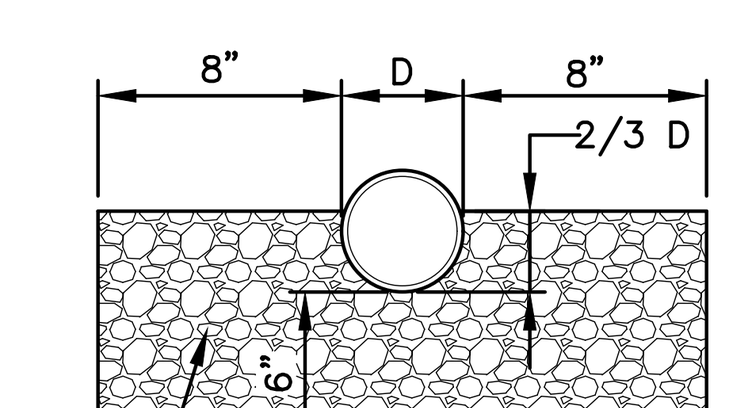
NOTES:

1. ALL CONCRETE TO BE CLASS A (4,000 PSI).
2. ALL DIMENSIONS ARE MINIMUMS; ALL ANCHOR AND THRUST BLOCKS SHALL BEAR ON UNDISTURBED EARTH.
3. IN ALL CASES SHOWN, MEASUREMENT "D" REFERS TO THE INSIDE PIPE DIAMETER.
4. ANCHOR AND THRUST BLOCK DIMENSIONS SHOWN ARE MINIMUM FOR 100 PSI WATER PRESSURE AND SOIL RESISTANCE OF 2 KIPS PER SQ FT. CONTRACTOR SHALL ADJUST FOR OTHER CONDITIONS AND SUBMIT FOR APPROVAL.
5. IF THE OWNER OF THE WATER SYSTEM REQUIRES A METHOD THAT RESTRAINS INDIVIDUAL JOINTS, EACH JOINT THAT FALLS WITHIN THE MINIMUM RESTRAINED LENGTH, MEASURED FROM THE CENTER OF THE FITTING, AS SHOWN ON THESE SHEETS SHALL BE RESTRAINED, AND SHALL WITHSTAND THE MAXIMUM PRESSURE APPLIED TO THE SYSTEM.
6. CLASS A CONCRETE SHALL NOT BE PLACED UNDER WATER. THE CONTRACTOR SHALL DEWATER THE EXCAVATION OR PLACE TYPE G CONCRETE USING APPROPRIATE UNDERWATER PLACEMENT TECHNIQUES.
7. CONCRETE FOR THRUST BLOCKS SHALL NOT BE ALLOWED TO COVER OR INTERFERE WITH JOINT OR RESTRAINT HARDWARE, PLASTIC SHEETING OR BUILDING FELT MAY BE PLACED OVER PIPE OR FITTINGS TO PREVENT CONCRETE FROM ADHERING TO SURFACES.
8. FOR BENDS, BEARING AREA SHALL BE PARALLEL TO THE EDGE OF THE FITTING AT THE FITTING MIDPOINT.
9. FOR TEES, BEARING AREA SHALL BE PERPENDICULAR TO THE BRANCH (SINGLE LEG) AXIS.
10. FOR REDUCERS, BEARING AREA SHALL BE PERPENDICULAR TO THE FITTING AXIS. THE MINIMUM THICKNESS ALONG THE FITTING AXIS SHALL BE 1'–0" OR THE LENGTH BETWEEN THE BELLS, WHICHEVER IS SMALLER.
11. THRUST RESTRAINTS FOR SIZES OR FITTINGS NOT SHOWN ON THESE SHEETS WILL BE DESIGNED ON A CASE BY CASE BASIS, AND WILL BE SHOWN IN THE CONTRACT DOCUMENTS.

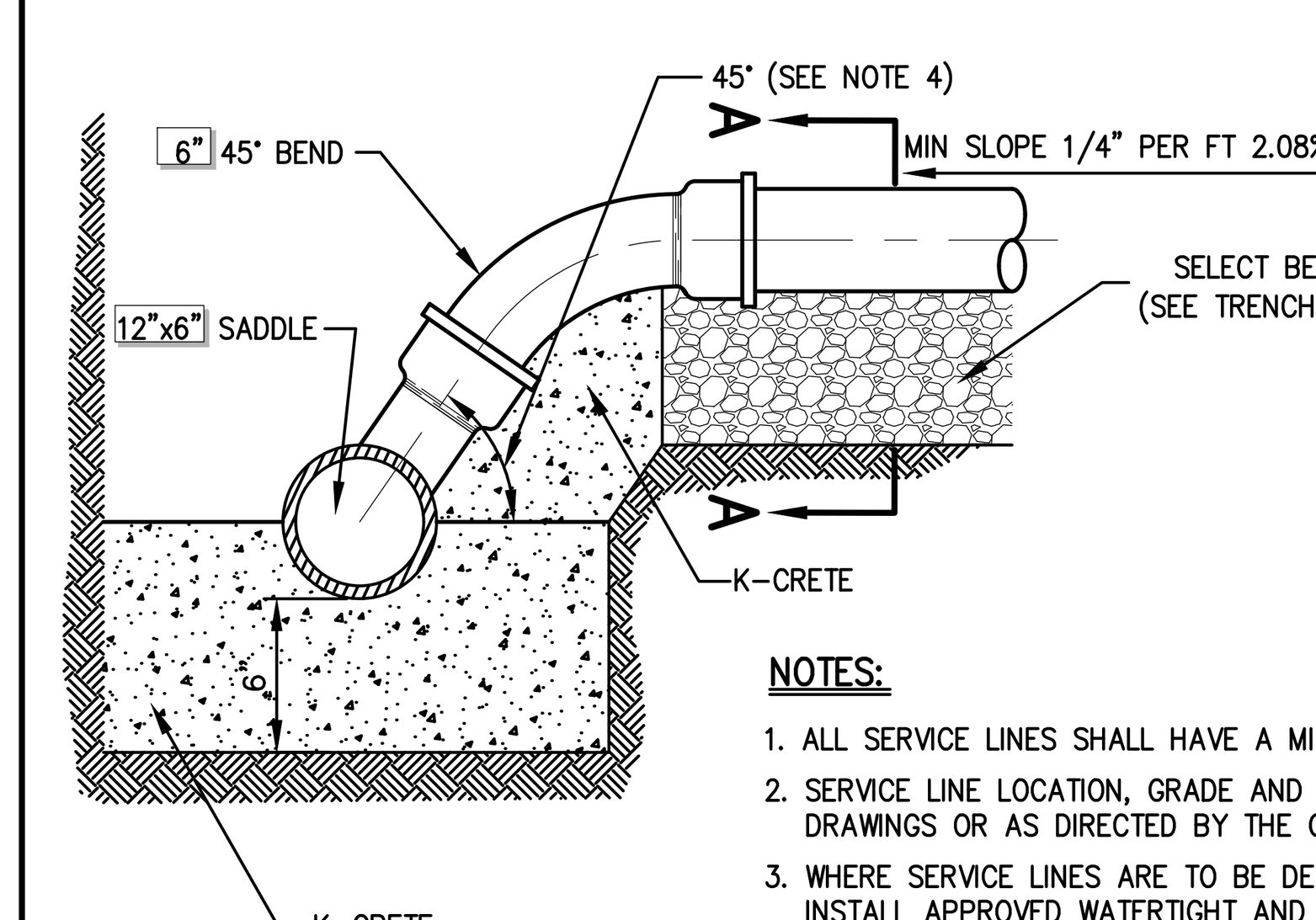
ANCHOR AND THRUST BLOCKS — 21



NOTE:
1. SADDLE TO BE ZORO #: G2051399 OR EQUAL.



SECTION A–A



NOTES:

1. ALL SERVICE LINES SHALL HAVE A MINIMUM OF FOUR (4) FEET OF COVER.
2. SERVICE LINE LOCATION, GRADE AND ALIGNMENT SHALL BE AS SHOWN ON DRAWINGS OR AS DIRECTED BY THE OWNER'S FIELD REPRESENTATIVE.
3. WHERE SERVICE LINES ARE TO BE DEAD–ENDED, CONTRACTOR SHALL INSTALL APPROVED WATERTIGHT AND PRESSURE–TIGHT PLUGS.
4. IF MINIMUM COVER CANNOT BE ATTAINED WHILE MAINTAINING MINIMUM SLOPE, THE ANGLE OF CONNECTION MAY BE REDUCED TO 22.5°, IF APPROVED BY THE OWNER'S FIELD REPRESENTATIVE AND GOVERNING BODY WITH JURISDICTION.
5. SANITARY SEWER SERVICE LINE INCLUDING FITTINGS SHALL BE PVC, SDR 35.

SANITARY SEWER SERVICE CONNECTION — 22

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
6.	REVISED PER CITY COMMENTS	05/31/2022
7.	REVISED PER CITY COMMENTS	06/28/2022
8.	REVISED PER CITY COMMENTS	08/30/2022
9.	REVISED PER CITY COMMENTS	09/27/2022

Previous Editions Obsolete

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STATE OF NEW YORK — STEPHEN SPINA — LICENSED PROFESSIONAL ENGINEER — 085983

Drawn: BMS Approved: SS
Scale: NOT TO SCALE
Date: 10/29/2019
Project No: 18119
18119–DETAILS C–903 –
Drawing No: C–903
(Sheet 23 OF 29)

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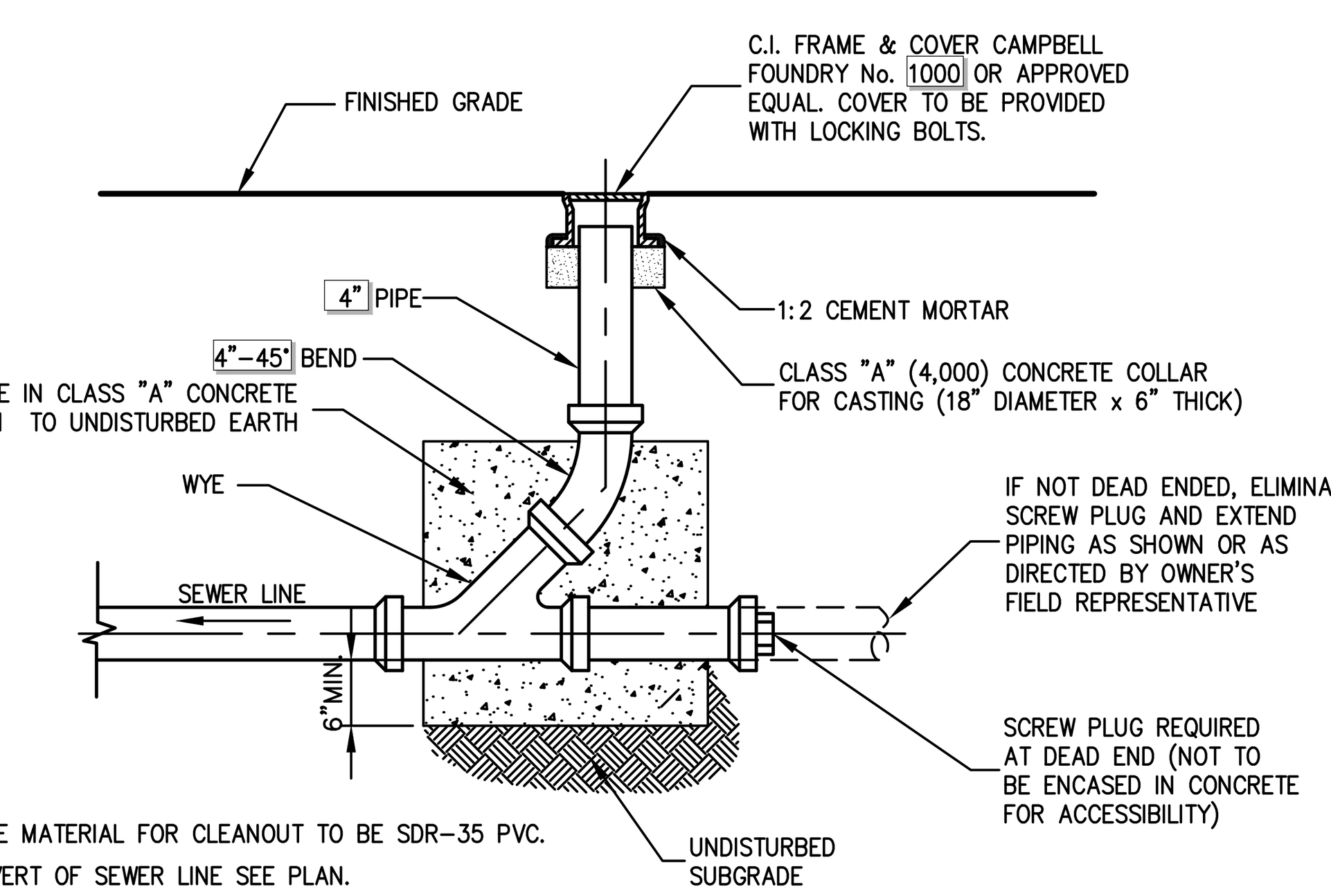
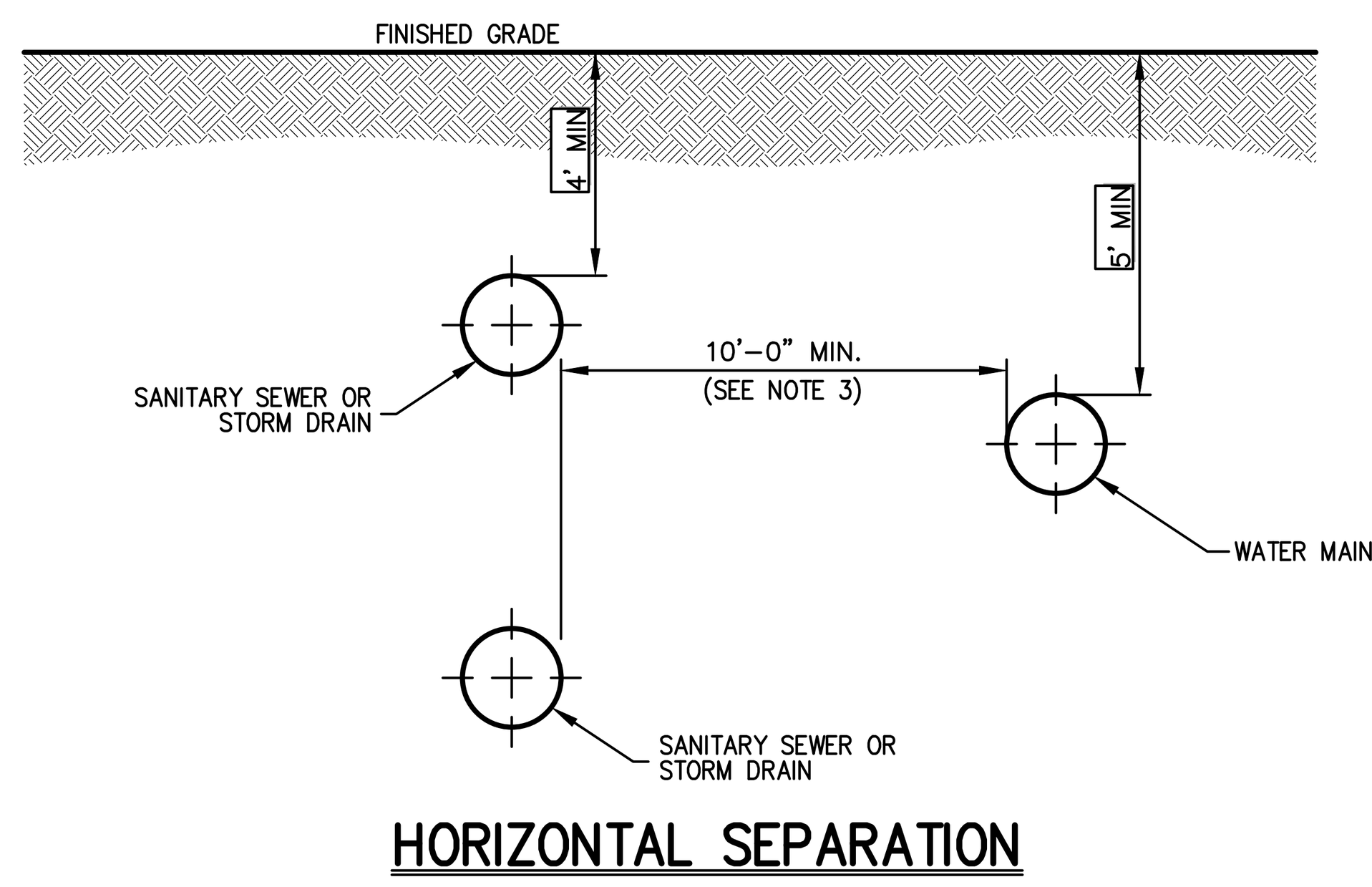
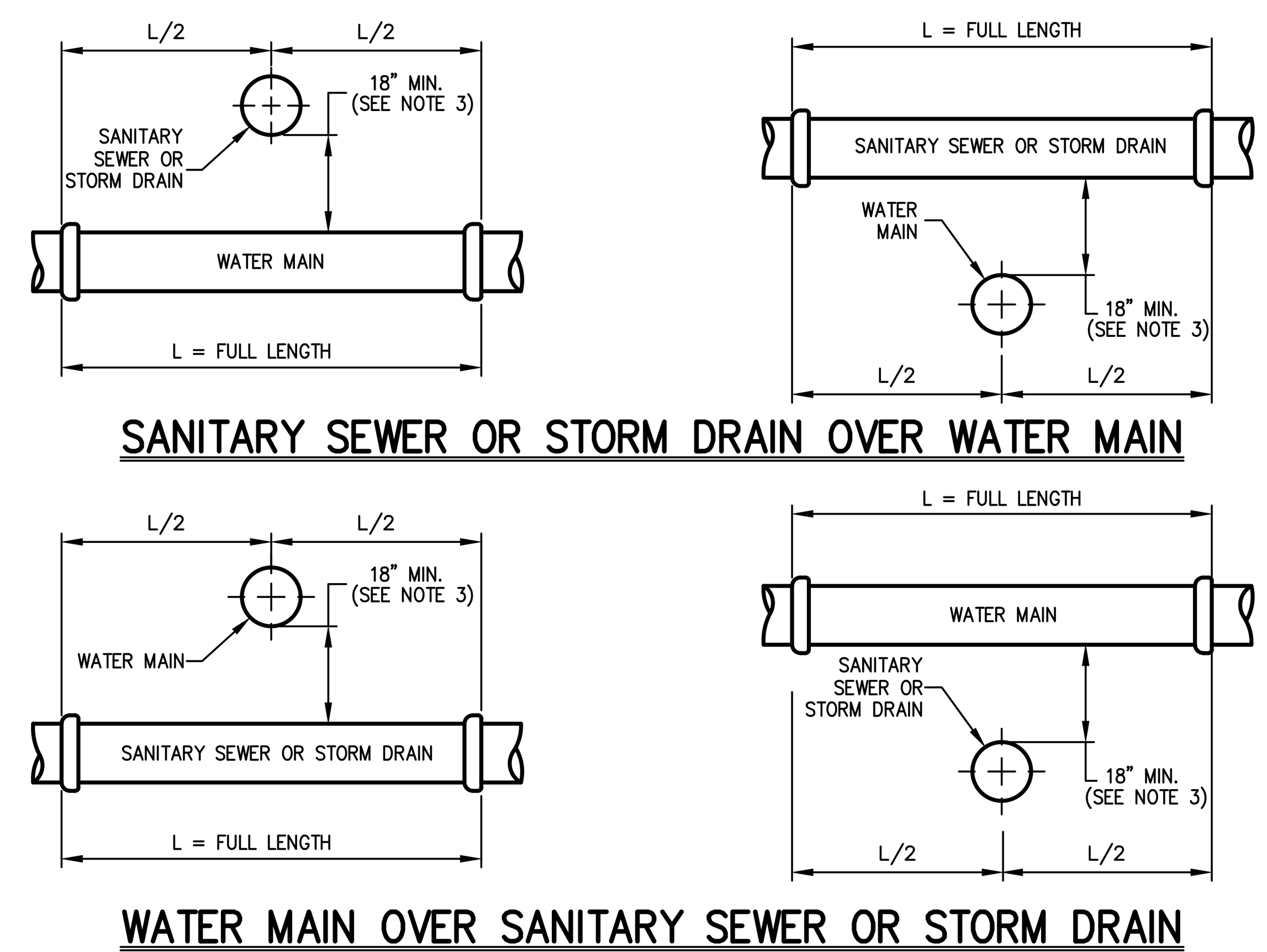


NOTES:

1. ALL PIPE MATERIAL FOR CLEANOUT TO BE SDR-35 PVC.
2. FOR INVERT OF SEWER LINE SEE PLAN.

CLEANOUT W/O MANHOLE — 23





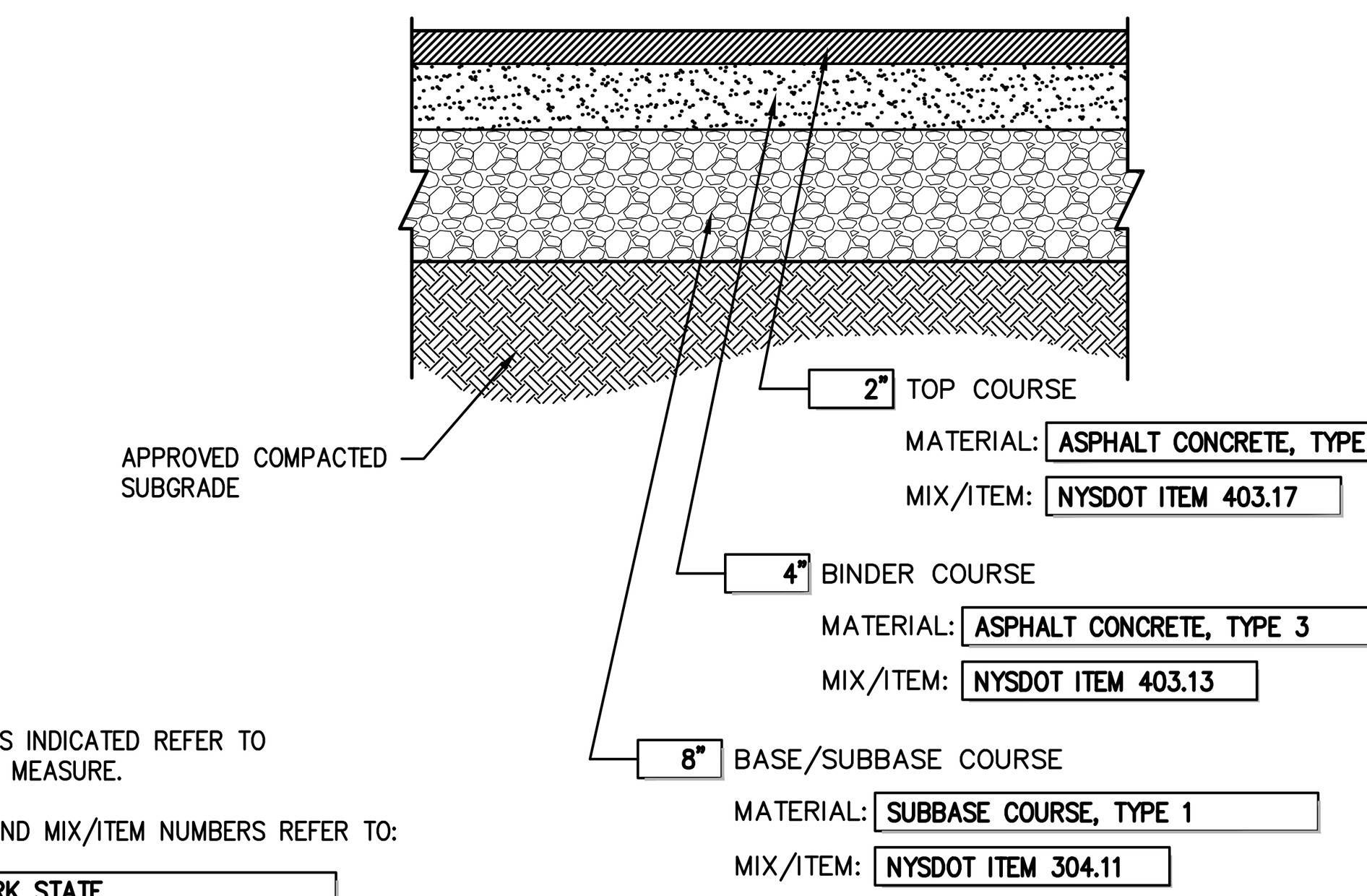
VERTICAL SEPARATION

NOTES:

1. NORMAL CONDITIONS:
   A. WHENEVER A WATER MAIN MUST CROSS OVER OR UNDER A SANITARY SEWER OR STORM DRAIN, THE PIPES SHALL BE LAID TO PROVIDE A VERTICAL SEPARATION BETWEEN THEM OF AT LEAST 18 INCHES, AS MEASURED FROM THE BOTTOM OF THE HIGHER PIPE TO THE CROWN OF THE LOWER PIPE.
   B. FULL LENGTH OF WATER PIPE MUST BE CENTERED AT THE POINT OF CROSSING; NO JOINTS WILL BE PERMITTED AT THE POINT OF CROSSING.
2. WATER MAIN CROSSING UNDER SANITARY SEWERS:
   A. VERTICAL SEPARATION OF 18 INCHES MUST BE PROVIDED.
   B. ADEQUATE STRUCTURAL SUPPORT MUST BE PROVIDED FOR THE SANITARY SEWER TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING.
   C. FULL LENGTH OF WATER PIPE MUST BE CENTERED AT THE POINT OF CROSSING; NO JOINTS WILL BE PERMITTED AT THE POINT OF CROSSING.
3. IF DURING CONSTRUCTION IT IS FOUND THAT THE REQUIRED SEPARATION OF WATER MAINS, SANITARY SEWERS, STORM SEWERS AND BUILDING SANITARY SEWERS CANNOT BE MET, THE CONTRACTOR OR HIS AUTHORIZED REPRESENTATIVE SHALL IN WRITING ADVISE JMC OF THE SPECIFIC CONDITIONS ENCOUNTERED. APPROVAL OF ALTERNATIVE SEPARATION CRITERIA SHALL BE OBTAINED FROM THE CITY OF BEACON AND THE DUTCHESS COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION.

   POLYETHYLENE WRAP SHALL BE INSTALLED AROUND THE DUCTILE IRON PIPE PRIOR TO INSTALLATION OF K-CRETE (IF REQUIRED). POLYETHYLENE PROTECTIVE WRAPPIING ("POLYWRAP") SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AWWA C105/A21.5 AND BE EIGHT (8) MIL THICK TUBING OF VIRGIN POLYETHYLENE (DUPONT ALATHON, U.S. 1. PETROTHENE RESIN, OR APPROVED EQUAL) OR FOUR (4) MIL THICK HIGH-DENSITY, CROSS-LAMINATED (HDCL) POLYETHYLENE. THE COLOR SHALL BE (A) NATURAL (WHERE EXPOSURE TO SUNLIGHT WILL BE LESS THAN 48 HOURS); OR (B) BLACK, CONTAINING 2.0 TO 2.5% WELL DISPERSED CARBON BLACK WITH STABILIZERS (WHERE EXPOSURE TO SUNLIGHT MAY BE UP TO 10 DAYS). TUBING SHALL BE TAPED AND SECURED WITH GENERAL PURPOSE POLYETHYLENE TAPE, 2 INCHES WIDE AND 10 MILS THICK (SCOTCHRAP No. 50, PLICOFLEX No. 340, PROTECTO WRAP No. 200, POLYKEN No. 900, OR APPROVED EQUAL).

SEPARATION OF WATER AND SANITARY SEWER/STORM DRAIN LINES — 24

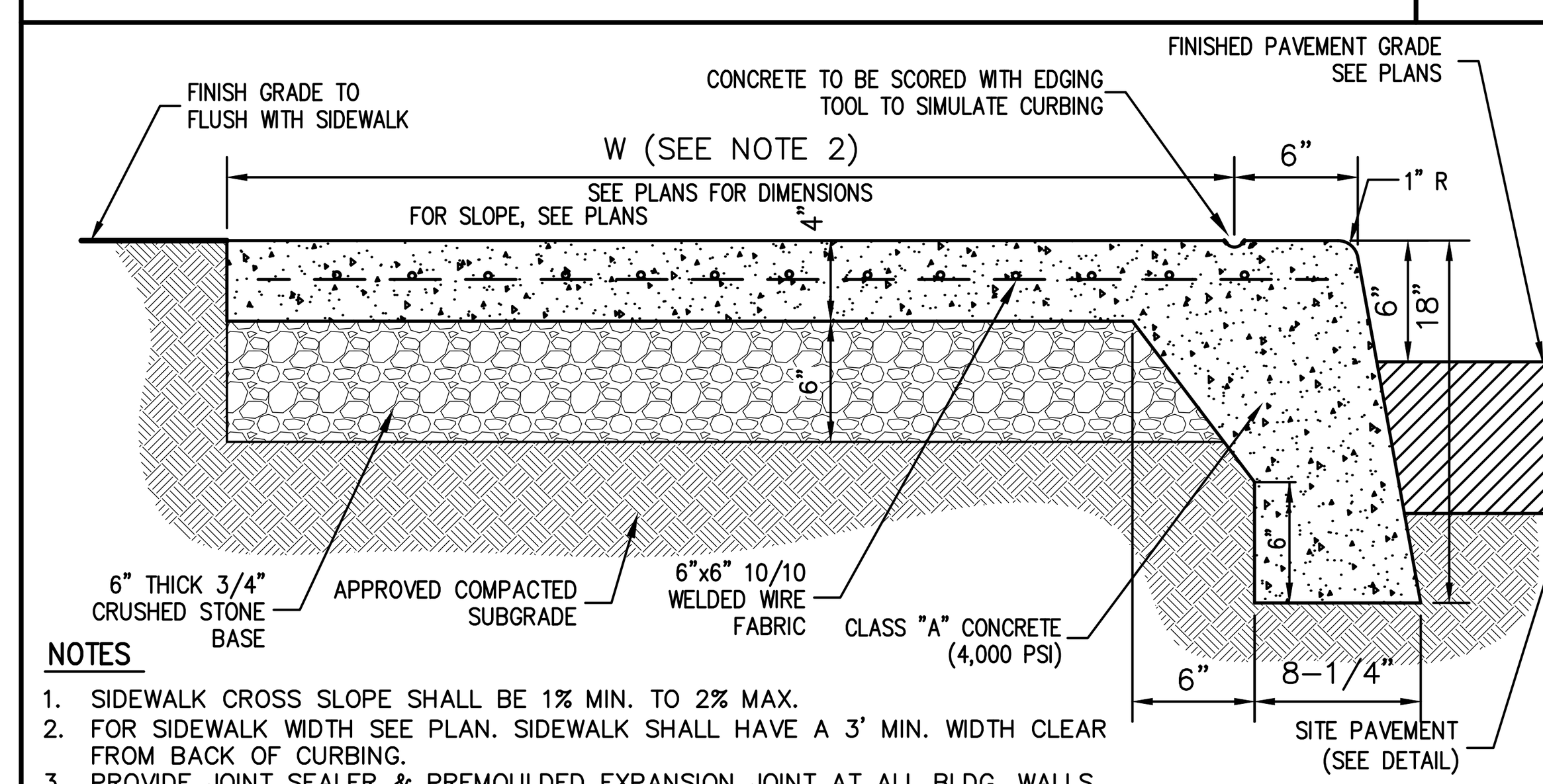


NOTES:

1. THICKNESSES INDICATED REFER TO COMPACTED MEASURE.
2. MATERIAL AND MIX/ITEM NUMBERS REFER TO:

NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS

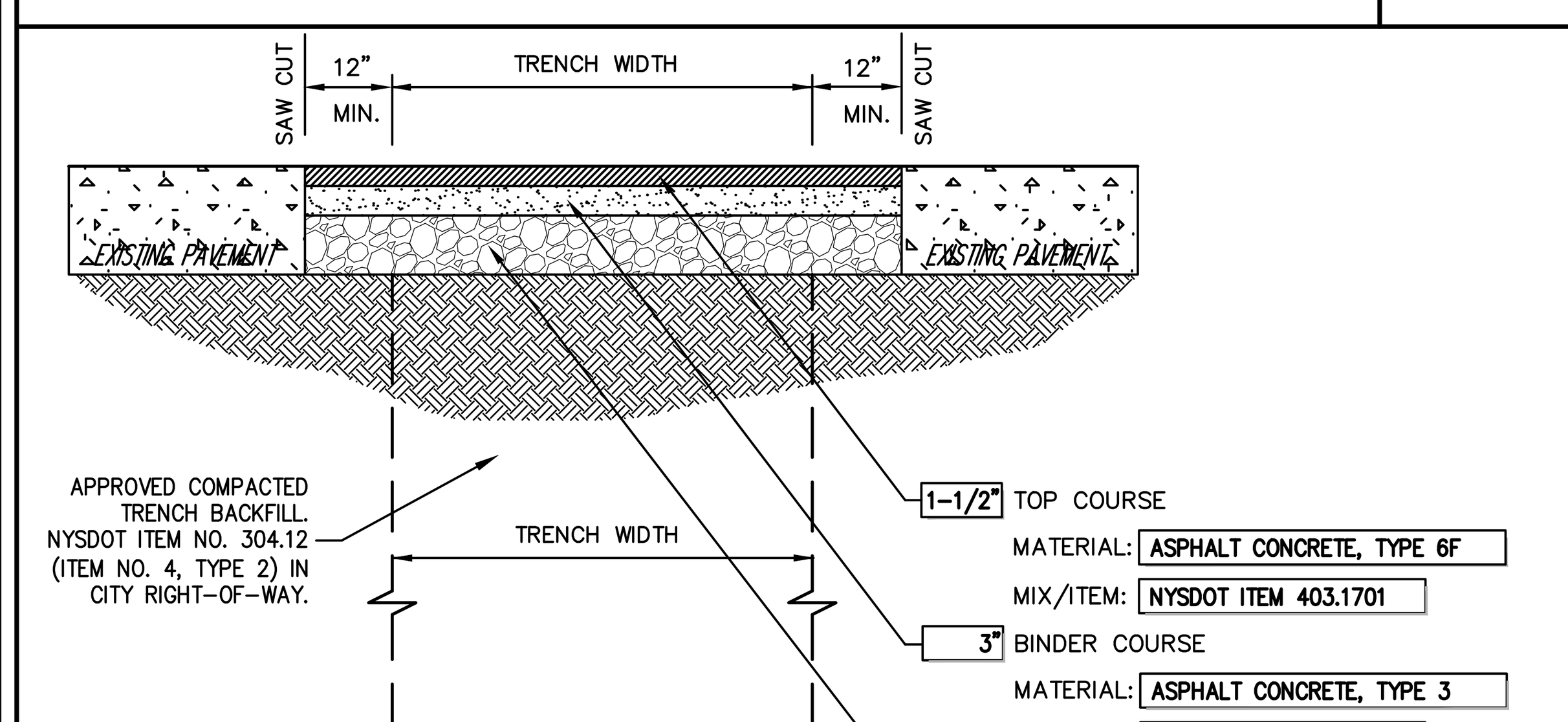
SITE PAVEMENT — 25



NOTES

1. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. TO 2% MAX.
2. FOR SIDEWALK WIDTH SEE PLAN. SIDEWALK SHALL HAVE A 3' MIN. WIDTH CLEAR FROM BACK OF CURBING.
3. PROVIDE JOINT SEALER & PREMOULDED EXPANSION JOINT AT ALL BLDG. WALLS, CONSTRUCTION JOINTS AND OTHER FIXED OBJECTS (HYDRANTS, LIGHT POLES, ETC.)
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH.
5. PROVIDE 1/2" PREMOULDED EXPANSION JOINTS AT 10 FOOT INTERVALS AND SCORE WITH EDGING TOOL TO SIMULATE JOINTS AT MIDPOINTS BETWEEN EXPANSION JOINTS.
6. REINFORCEMENT SHALL NOT EXTEND THROUGH EXPANSION JOINTS.
7. CONCRETE SIDEWALK SHALL BE SEALED TO PROTECT AGAINST DE-ICING AGENTS.

MONOLITHIC CONCRETE CURB AND SIDEWALK (WITHIN RIGHT-OF-WAY) — 26

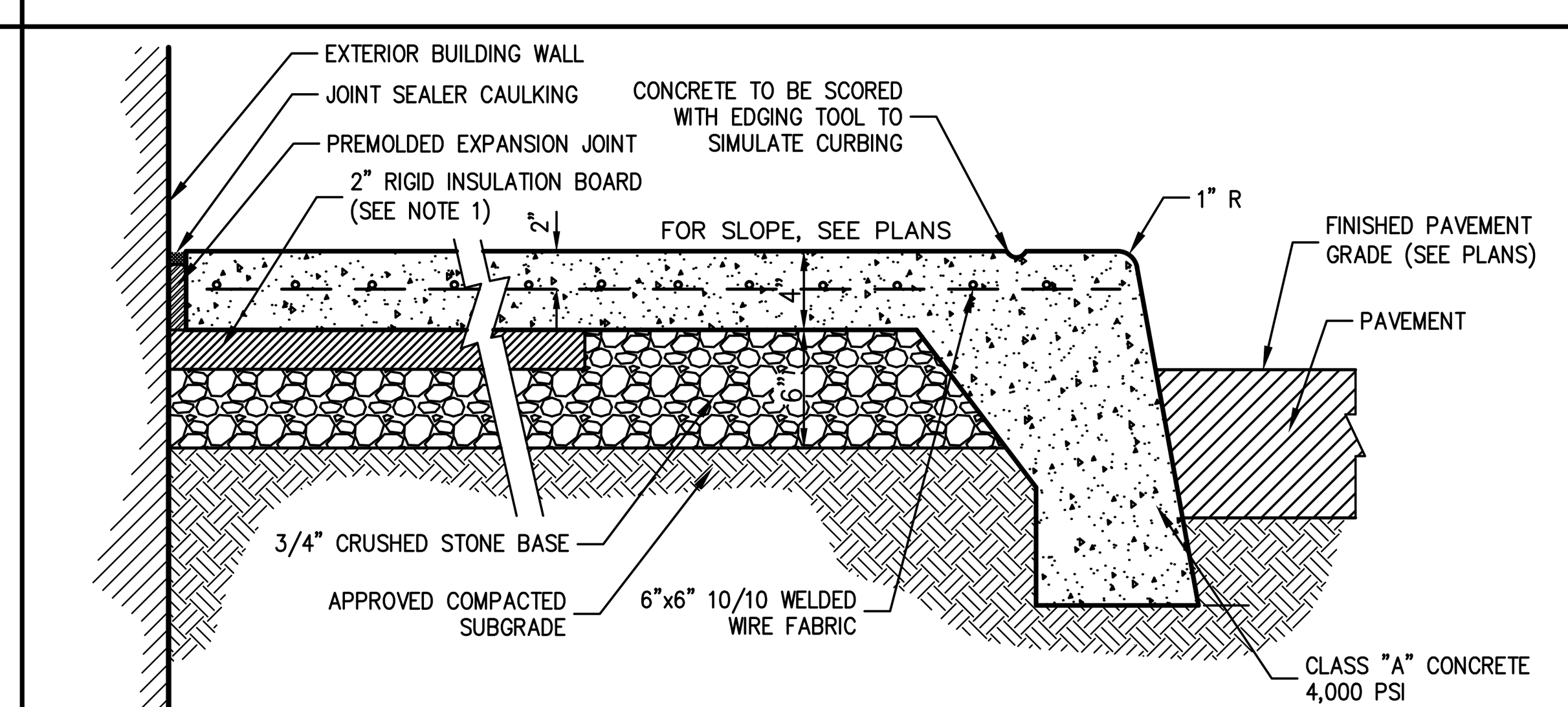


NOTES

1. THICKNESSES INDICATED REFER TO COMPACTED MEASURE.
2. ITEM NUMBERS REFER TO:

NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS

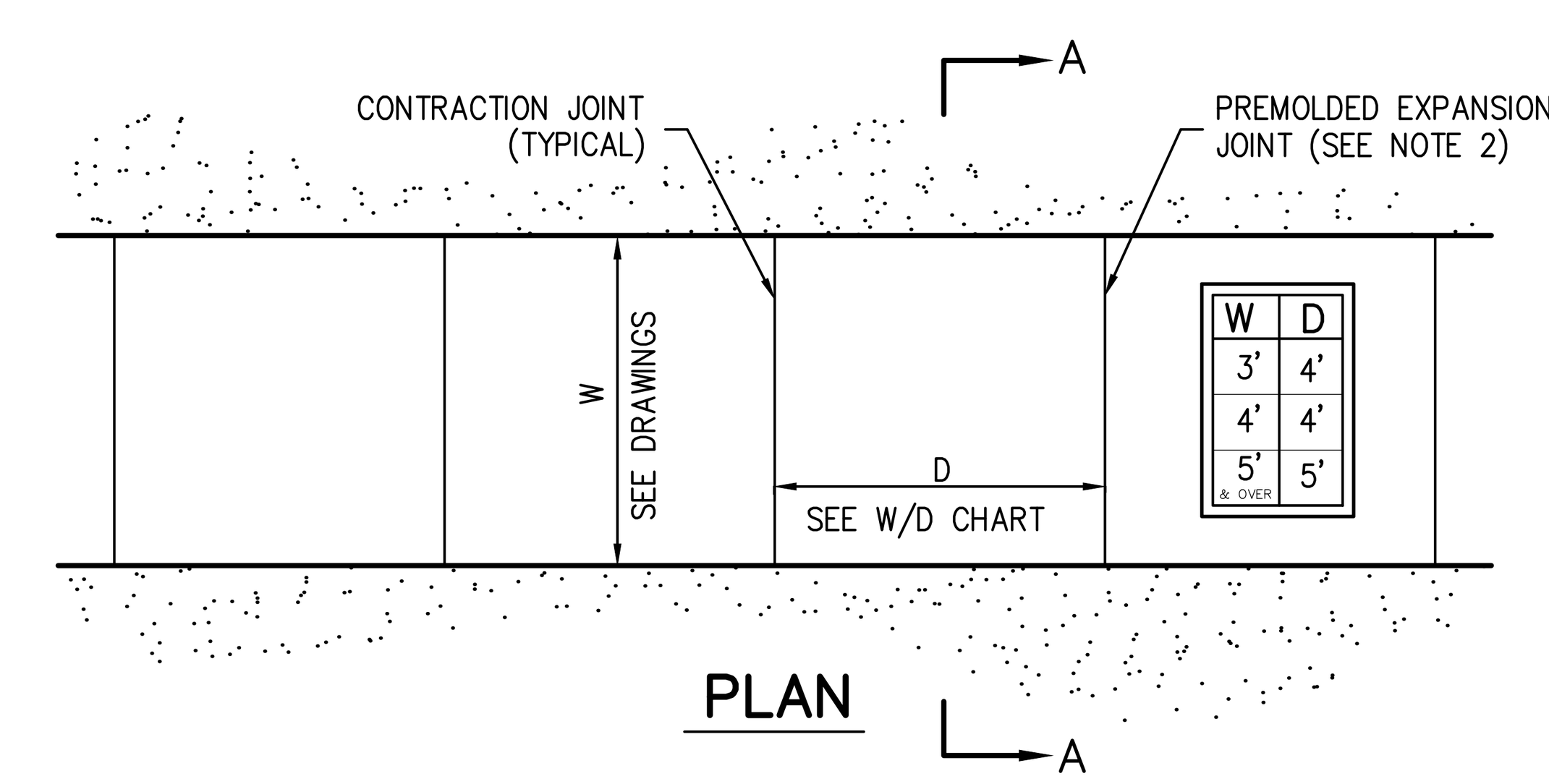
PAVEMENT REPLACEMENT OVER TRENCH — 27

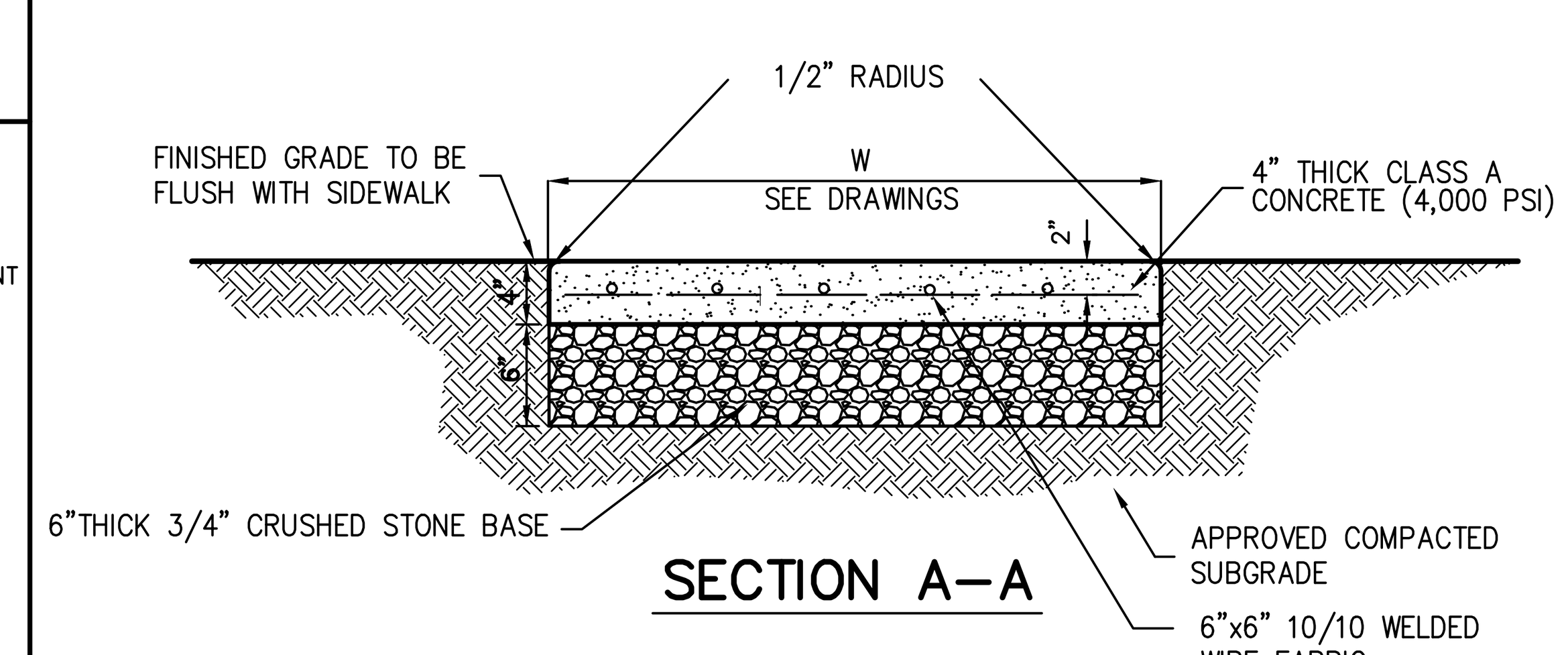


NOTES:

1. PROVIDE 2" RIGID INSULATION BOARD AT ALL DOORWAY OPENINGS AND EXTEND 8' MIN. IN ALL DIRECTIONS OR TO CONSTRUCTION/CONTRACTION JOINT, WHICHEVER IS GREATER.
2. JOINT SEALER CAULKING SHALL BE PSI-641 LOW MODULUS SILICONE SEALANT, BY POLYMERIC SYSTEMS INC. OR APPROVED EQUAL. PREMOULDED EXPANSION JOINT SHALL BE FLEXCELL OR APPROVED EQUAL.
3. PROVIDE JOINT SEALER & PREMOULDED EXPANSION JOINT AT ALL BLDG. WALLS, CONSTRUCTION JOINTS AND OTHER FIXED OBJECTS (HYDRANTS, LIGHT POLES, ETC.)
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH
5. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. 2% MAX.
6. FOR SIDEWALK WIDTH SEE PLAN. SIDEWALK SHALL HAVE A 3' MIN. WIDTH CLEAR FROM BACK OF CURBING.

BUILDING PERIMETER MONOLITHIC CURB & SIDEWALK — 29





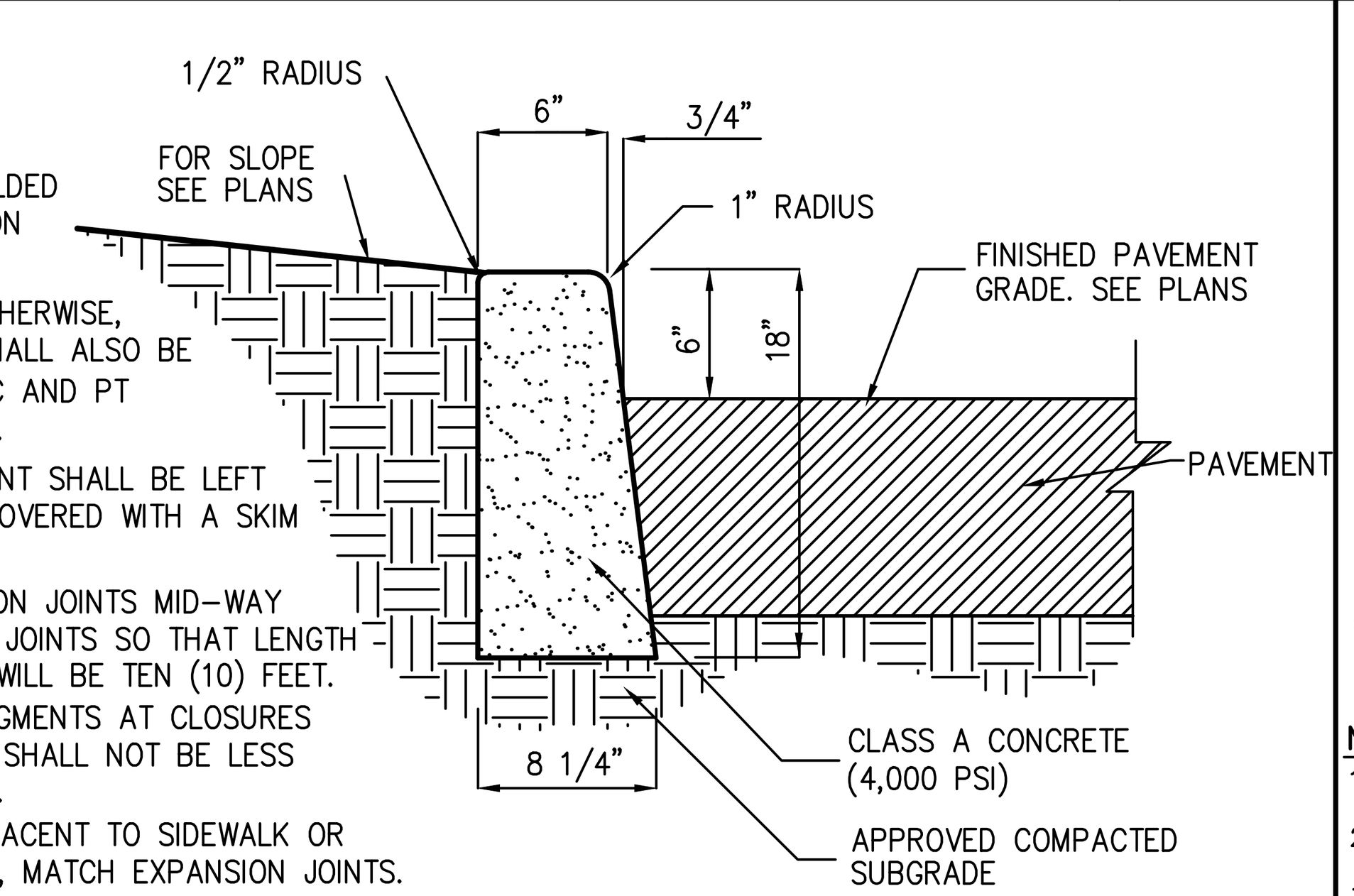
NOTES:

1. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. TO 2% MAX.
2. PROVIDE 1/2" PREMOLDED EXPANSION JOINTS AT 20' INTERVALS UNLESS OTHERWISE DIRECTED.
3. REINFORCING SHALL NOT EXTEND THROUGH EXPANSION JOINTS.
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH

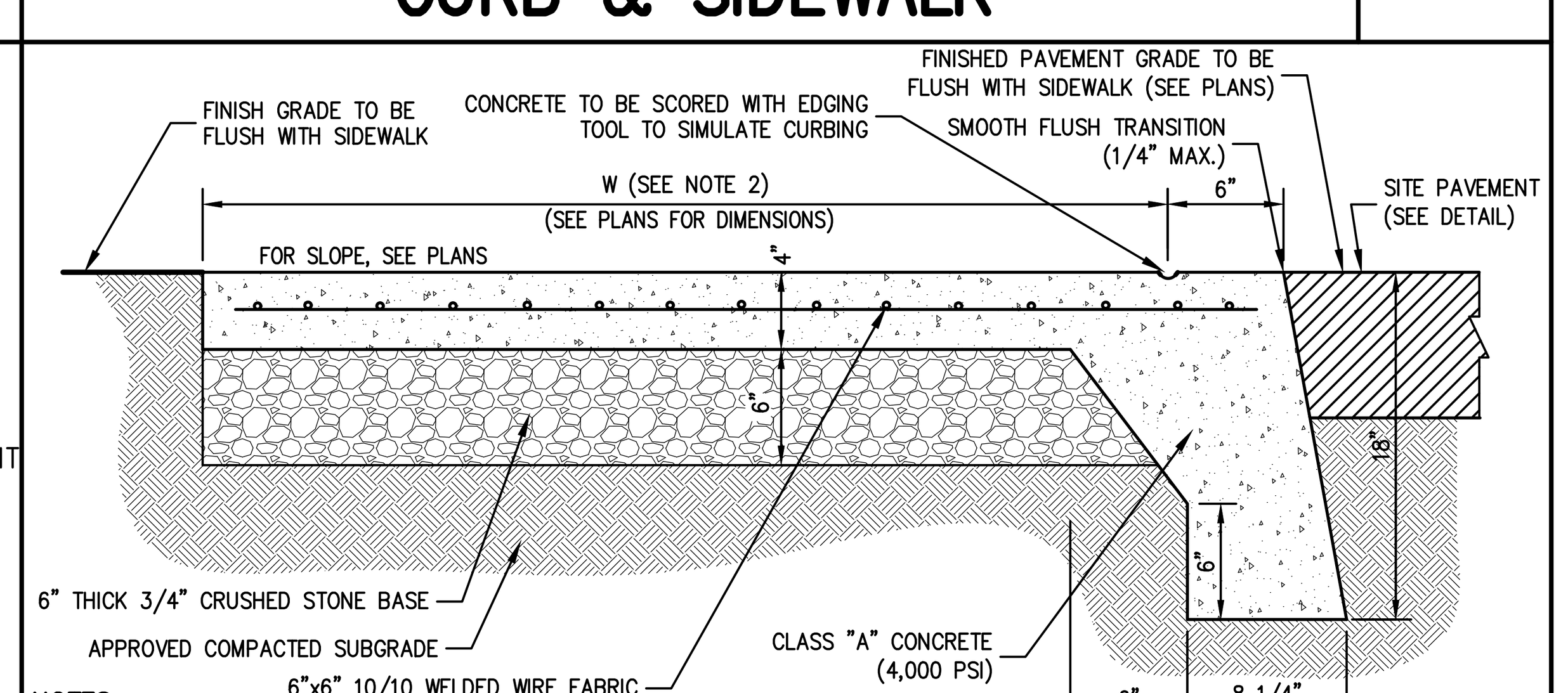
CONCRETE SIDEWALK — 31

NOTES:

1. INSTALL 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT EVER 20 FEET.
2. UNLESS DIRECTED OTHERWISE, EXPANSION JOINTS SHALL ALSO BE INSTALLED AT THE PC AND PT OF ALL RADIUS CURB.
3. EACH EXPANSION JOINT SHALL BE LEFT EXPOSED AND NOT COVERED WITH A SKIM COAT OF CONCRETE.
4. INSTALL CONSTRUCTION JOINTS MID-WAY BETWEEN EXPANSION JOINTS SO THAT LENGTH OF CURB SEGMENTS WILL BE TEN (10) FEET.
5. LENGTH OF CURB SEGMENTS AT CLOSURES MAY BE VARIED BUT SHALL NOT BE LESS THAN FOUR (4) FEET.
6. WHEN INSTALLED ADJACENT TO SIDEWALK OR CONCRETE PAVEMENT, MATCH EXPANSION JOINTS.



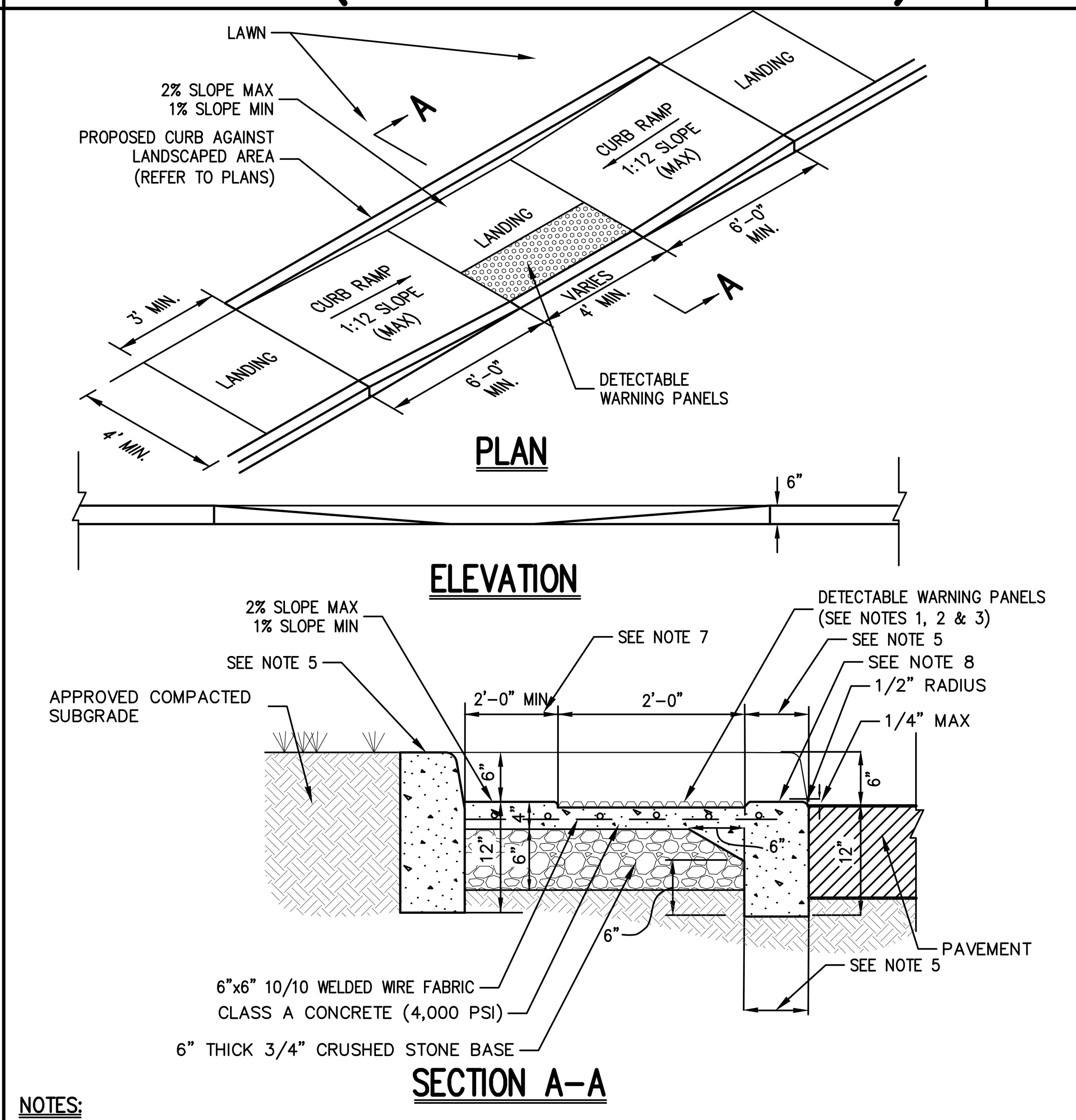
CAST-IN-PLACE CONCRETE CURB — 28



NOTES

1. SIDEWALK CROSS SLOPE SHALL BE 1% MIN. TO 2% MAX.
2. FOR SIDEWALK WIDTH SEE PLAN. SIDEWALK SHALL HAVE A 3' MIN. WIDTH CLEAR FROM BACK OF CURBING.
3. PROVIDE JOINT SEALER & PREMOULDED EXPANSION JOINT AT ALL BLDG. WALLS, CONSTRUCTION JOINTS AND OTHER FIXED OBJECTS (HYDRANTS, LIGHT POLES, ETC.)
4. SIDEWALK SHALL HAVE LIGHT BROOM FINISH.
5. PROVIDE 1/2" PREMOULDED EXPANSION JOINTS AT 20 FOOT INTERVALS UNLESS OTHERWISE DIRECTED.
6. REINFORCEMENT SHALL NOT EXTEND THROUGH EXPANSION JOINTS.

MONOLITHIC CONCRETE FLUSH CURB AND SIDEWALK — 30



NOTES:

1. RAMPS SHALL HAVE CAST IN PLACE DETECTABLE/TACTILE WARNING SURFACE TILES AS MANUFACTURED BY ARMOR-TILE (OR APPROVED EQUAL) AND SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCHES.
2. DETECTABLE WARNING PANELS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT IN ACCORDANCE WITH SECTION 4.29.2, FEDERAL REGISTER, VOLUME 56, NO. 144, RULES AND REGULATIONS, APPENDIX A TO PART 36 - STANDARDS FOR ACCESSIBLE DESIGN (AMERICANS WITH DISABILITIES ACT), LATEST EDITION.
3. 24" WIDTH OF PANELS TO BE INSTALLED DIRECTLY BEHIND CURB AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE AND SEE CURB DETAIL FOR DIMENSIONS.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. WHEN LANDING OF RAMP ADJOINS A DOORWAY THEN THE MINIMUM DOORWAY MANEUVERING AREA SHALL BE AT LEAST THE WIDTH OF THE DOORWAY AND SHALL HAVE A MINIMUM DEPTH OF:
   MANUAL SWING DOORS = 60" MIN.
   FULL POWERED AUTOMATIC SLIDING DOORS = 48" MIN.
8. CONTRACTOR TO ENSURE TOP OF CURB MATCHES SLOPE OF RAMP.

DROP CURB & RAMP (TYPE B) — 32

WITH DETECTABLE WARNING

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
6.	REVISED PER CITY COMMENTS	05/31/2022
7.	REVISED PER CITY COMMENTS	06/28/2022
8.	REVISED PER CITY COMMENTS	08/30/2022
9.	REVISED PER CITY COMMENTS	09/27/2022

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Drawn: BMS	Approved: SS
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Date: 10/29/2019	
Project No: 18119	
18119-DETAILS	C-904 –
Drawing No: C-904 (Sheet 24 OF 29)	

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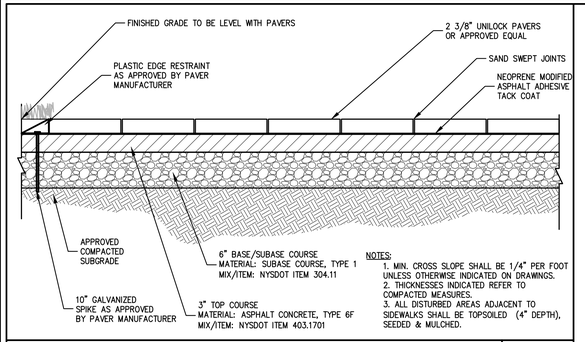
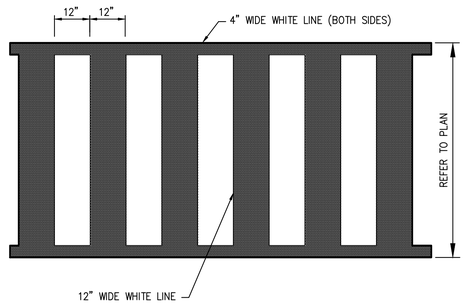
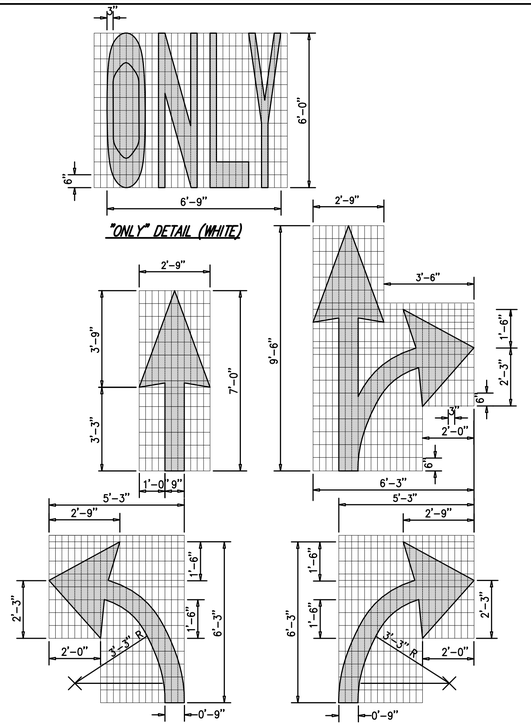


NOTES:
1. MIN. CROSS SLOPE SHALL BE 1/4" PER FOOT UNLESS OTHERWISE INDICATED ON DRAWINGS.
2. THICKNESSES INDICATED REFER TO COMPACTED MEASURES.
3. ALL DISTURBED AREAS ADJACENT TO SIDEWALKS SHALL BE TOPSOILED (4" DEPTH), SEEDED & MULCHED.

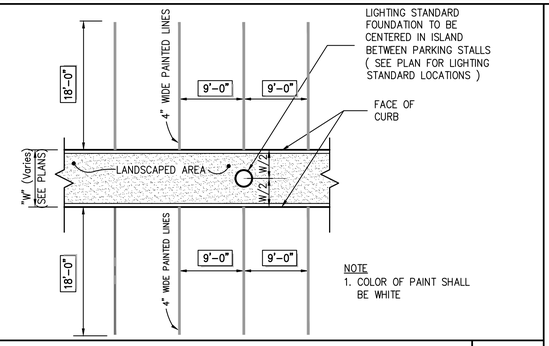
PATIO 33



PEDESTRIAN CROSSING 34

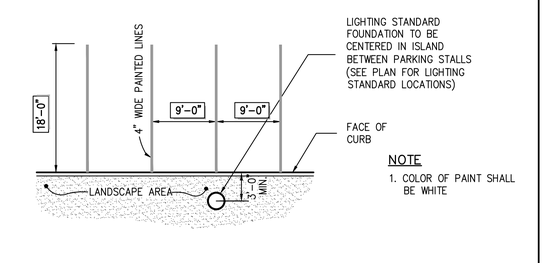


PAVEMENT TEXT & ARROWS (ON-SITE) 35



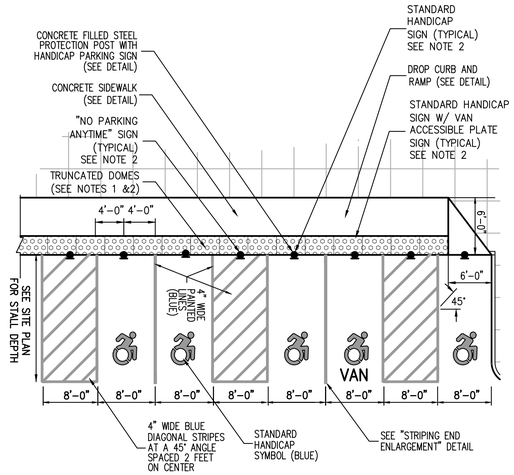
NOTE
1. COLOR OF PAINT SHALL BE WHITE

90° PARKING (SINGLE STRIPING – CURBED ISLAND) 36



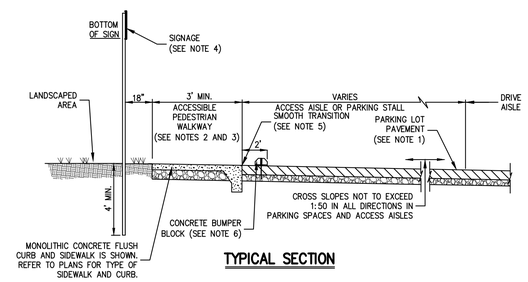
NOTE
1. COLOR OF PAINT SHALL BE WHITE

90° PARKING (SINGLE STRIPING – CURBED PERIMETER) 37



NOTES:
1. RAMPS AND SIDE RAMPS SHALL HAVE DETECTABLE WARNINGS CONSISTING OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCHES.
2. THEY SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT–ON–DARK OR DARK–ON–LIGHT IN ACCORDANCE WITH SECTION 4.29.2, FEDERAL REGISTER, VOLUME 56, NO. 144, RULES AND REGULATIONS, APPENDIX A TO PART 36 – STANDARDS FOR ACCESSIBLE DESIGN (AMERICANS WITH DISABILITIES ACT), DATED JULY 26, 1991 AND SUBSEQUENT REVISIONS.
3. SLOPES IN HANDICAP PARKING AREAS SHALL NOT EXCEED 1.5%.
4. SEE SITE PLANS/SIGN TABLE FOR SIGN DESIGNATIONS, LOCATIONS AND SPECIFICATIONS.

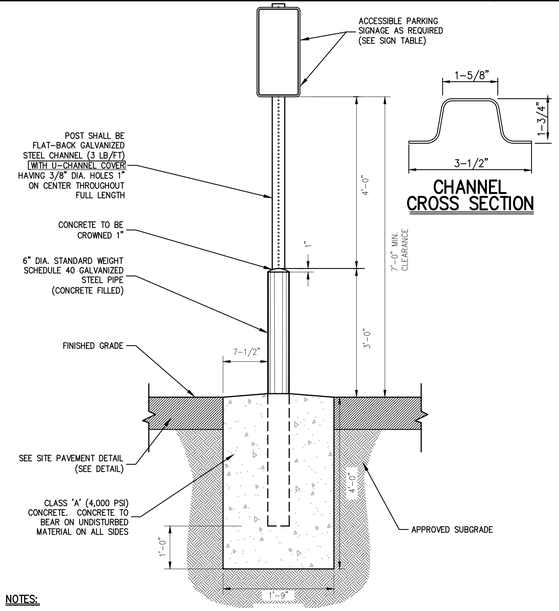
HANDICAP PARKING 38
SINGLE STRIPING – CURBLINE ALIGNMENT – W/SIDEWALK)
(NEW YORK)



TYPICAL SECTION

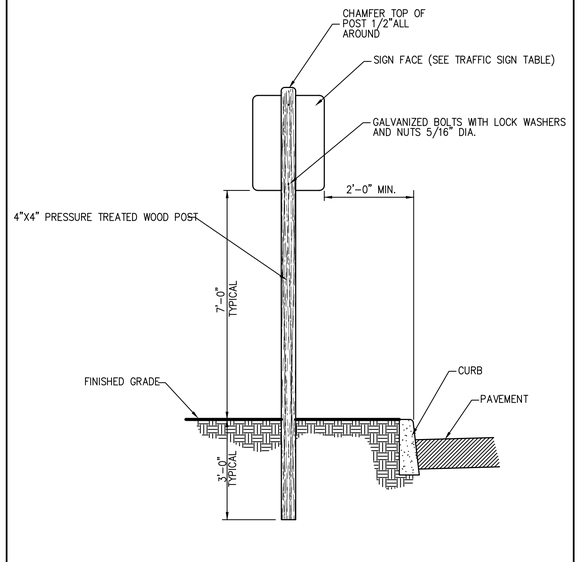
NOTES:
1. THIS SHEET IS INTENDED TO DEPICT THE DIMENSIONAL REQUIREMENTS OF TYPICAL ACCESSIBLE PARKING SPACES. THE SIDEWALK, CURBING, AND PAVEMENT MATERIAL SHALL BE AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS.
2. LOCATION – PARKING SPACES FOR USE BY PERSONS WITH DISABILITIES SHALL BE IN THE SPACES CLOSEST TO THE NEAREST ACCESSIBLE BUILDING OR FACILITY ENTRANCE ON AN ACCESSIBLE ROUTE.
3. SURFACE SLOPES – SLOPES AT ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ADJOINING WALKWAYS SHALL NOT EXCEED 1:50 IN ANY DIRECTION.
4. SIGNAGE – EACH ACCESSIBLE PARKING SPACE SHALL BE MARKED BY PERMANENTLY INSTALLED ABOVE GROUND SIGNS WHICH DISPLAY THE INTERNATIONAL SYMBOL OF ACCESS. EACH ACCESS AISLE SHALL BE MARKED BY PERMANENTLY INSTALLED ABOVE GROUND SIGNS INDICATING THAT PARKING IS NOT PERMITTED IN THE AISLE. SIGNS SHALL NOT BLOCK THE ACCESSIBLE CLEAR WIDTH OF ADJACENT WALKWAYS, SIGNS LOCATED WHERE THEY MAY BE HIT BY VEHICLES BEING PARKED SHALL BE INSTALLED AS SHOWN IN THE PROTECTION POST BASE DETAIL. THE BOTTOMS OF THE SIGNS LOCATED ON POST INSTALLED IN PAVED AREAS SHALL BE AT LEAST 7' ABOVE THE WALKWAY SURFACE. THE BOTTOMS OF SIGNS LOCATED IN UNPAVED AREAS SHALL BE 7' ABOVE THE ADJACENT PAVEMENT SURFACE.
5. A SMOOTH, FLUSH TRANSITION MUST BE PROVIDED BETWEEN ALL PEDESTRIAN WALKWAYS AND THE ACCESSIBLE PARKING SPACES AND AISLES.
6. VEHICLE SIDE FACE OF CONCRETE BUMPER BLOCKS SHALL BE SET 2' BACK FROM EDGE OF PARKING STALL. CONCRETE BLOCKS SHALL NOT BE INSTALLED WITHIN ACCESS AISLES.

TYPICAL ACCESSIBLE PARKING STALL AND AISLE (TYPE B) 39

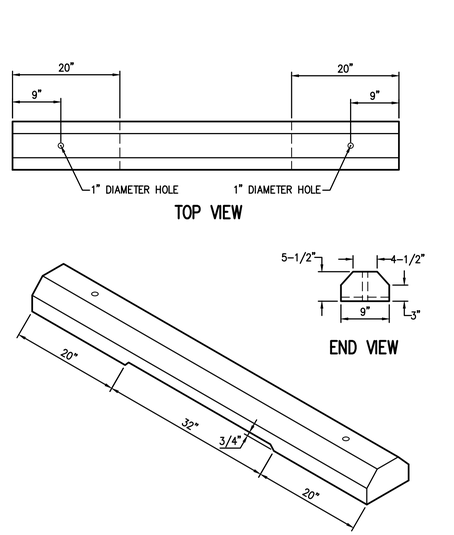


NOTES:
1. GALVANIZED STEEL CHANNEL SHALL BE EMBEDDED A MIN. OF 3 FT. INTO THE CONCRETE
2. POSTS FOR HANDICAP PARKING STALLS AND ACCESS AISLES SHALL BE PAINTED BLUE AS FOLLOWS:
   A. SOLVENT CLEAN TO REMOVE OIL, GREASE AND OTHER CONTAMINANTS.
   B. APPLY METAL PRIMER FOR GALVANIZED SURFACES.
   C. APPLY TWO (2) FINISH COATS OF APPROVED EXTERIOR PAINT FOR METAL SURFACES.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF THE PARKING SIGNS, BOLLARDS AND FOUNDATIONS WITH THE DESIGN AND INSTALLATION OF THE SITE SIDEWALKS, CURBING, PAVEMENT AND ANY OTHER SITE FEATURES SHOWN ON THE PLANS.
4. FASTEN SIGN TO POSTS WITH GALVANIZED STEEL BOLTS, LOCK WASHERS, AND NUTS (5/16" DIA.)
5. U-CHANNEL COVERS FOR POSTS SHALL BE BLUE WITH WHITE STRIPE FOR HANDICAP PARKING STALLS AND HANDICAP ACCESS AISLES.

ACCESSIBLE PARKING SIGN DETAIL 40



TRAFFIC SIGN POST (WOOD) 41



NOTES
1. CONCRETE MINIMUM STRENGTH–4,000 PSI AT 28 DAYS
2. REINFORCEMENT–#4 REBAR

CONCRETE BUMPER BLOCK 42

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
6.	REVISED PER CITY COMMENTS	05/31/2022
7.	REVISED PER CITY COMMENTS	06/28/2022
8.	REVISED PER CITY COMMENTS	08/30/2022
9.	REVISED PER CITY COMMENTS	09/27/2022

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STATE OF NEW YORK · STEPHEN SPINA · LICENSED PROFESSIONAL ENGINEER · 085983

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Scale: NOT TO SCALE	
Date: 10/29/2019	
Project No: 18119	
18119-DETAILS	C-905 –

Drawing No: C-905
(Sheet 25 OF 29)

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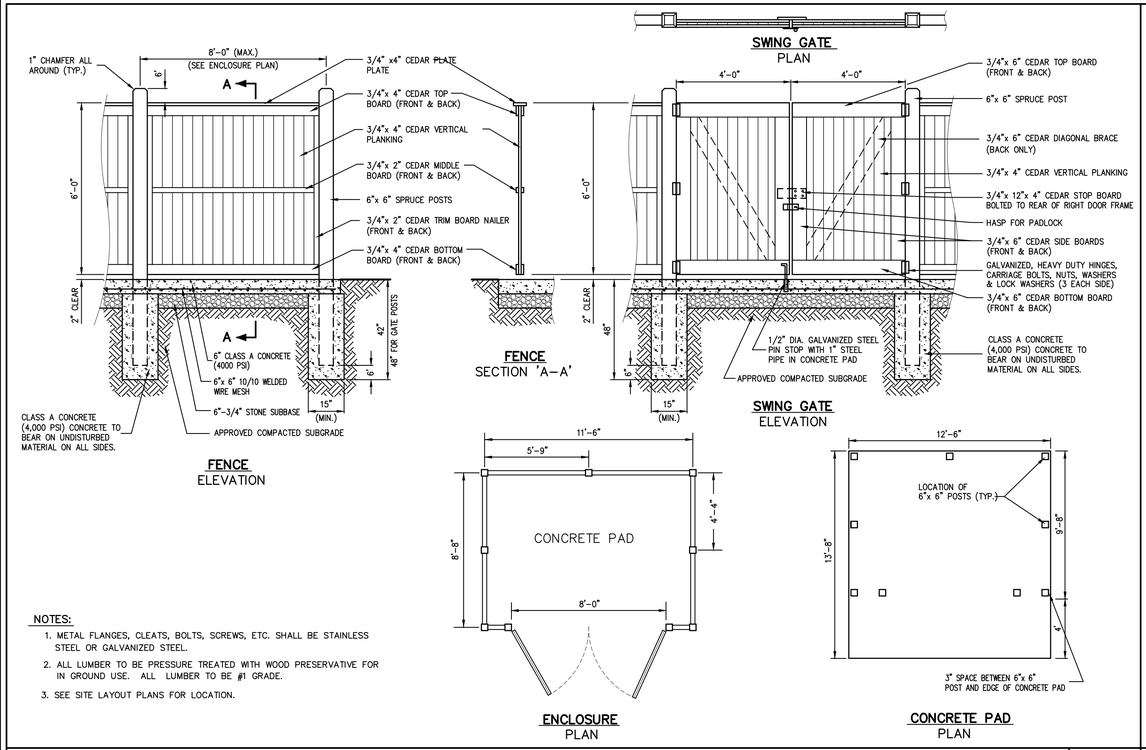


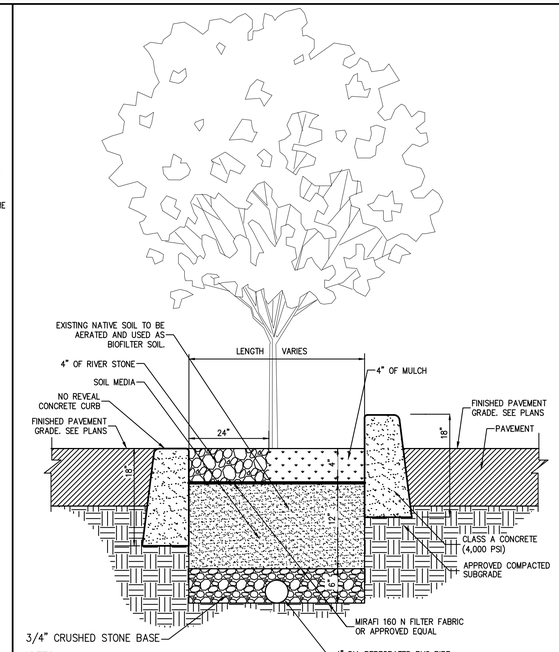
NOTES:

1. METAL FLANGES, CLEATS, BOLTS, SCREWS, ETC. SHALL BE STAINLESS STEEL OR GALVANIZED STEEL.
2. ALL LUMBER TO BE PRESSURE TREATED WITH WOOD PRESERVATIVE FOR IN GROUND USE. ALL LUMBER TO BE #1 GRADE.
3. SEE SITE LAYOUT PLANS FOR LOCATION.

TRASH ENCLOSURE WITH CONCRETE PAD

(WOOD)

43



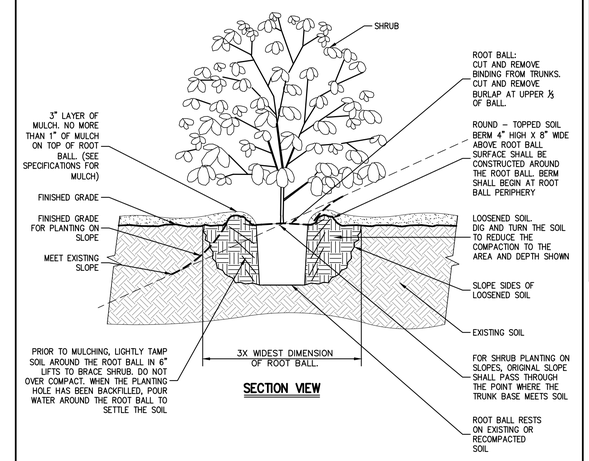
NOTES:

1. INSTALL 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT EVERY 20 FEET.
2. INSTALL CONSTRUCTION JOINTS MID-WAY BETWEEN EXPANSION JOINTS SO THAT LENGTH OF CURB SEGMENTS WILL BE TEN (10) FEET.
3. LENGTH OF CURB SEGMENTS AT CLOSURES MAY BE VARIED BUT SHALL NOT BE LESS THAN FOUR (4) FEET.
4. THE SOIL MEDIA FOR THE RAIN GARDEN IS BASED ON THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL SPECIFICATIONS. THE SOIL COMPOSITION SHOULD CONSIST OF 50% TO 70% SAND (LESS THAN 5% CLAY CONTENT), 50% TO 30% TOPSOIL WITH AN AVERAGE OF 5% ORGANIC MATERIAL, SUCH AS COMPOST OR PEAT, FREE OF STONES, ROOTS, WOODY DEBRIS AND ANIMAL WASTE. THE DEPTH OF SOIL SHOULD BE APPROXIMATELY 4 INCHES BELOW THE BOTTOM OF THE DEEPEST ROOT BALL OF ANY TREES OR SHRUBS WITHIN THE RAIN GARDEN.

STORMWATER TREATMENT LANDSCAPED AREA 2A1, 2A2

(W/ UNDERDRAIN)

44

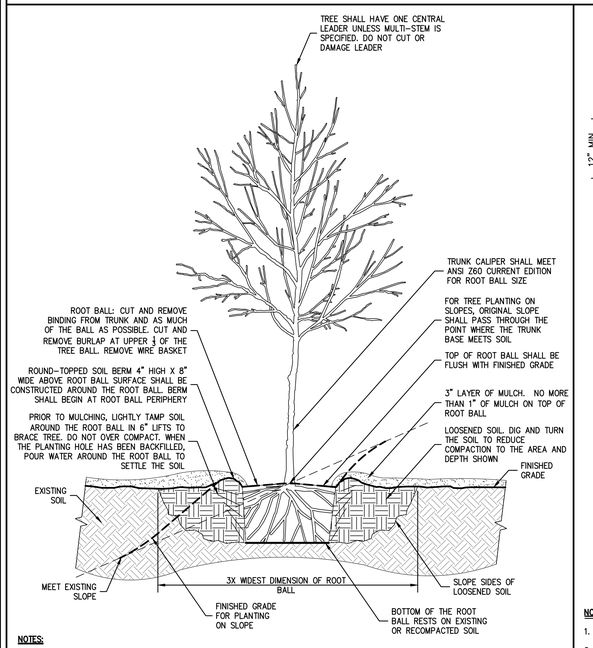


NOTES:

1. ALL PLANTING BEDS SHALL BE FREE OF WEEDS AND GRASS PRIOR TO AND FOLLOWING INSTALLATION OF PLANTS.
2. PLANTS IN CONTAINERS MUST HAVE THE FIBROUS ROOTS PULLED APART.
3. PROPOSED PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS EXISTING GRADE.

SHRUB PLANTING

45



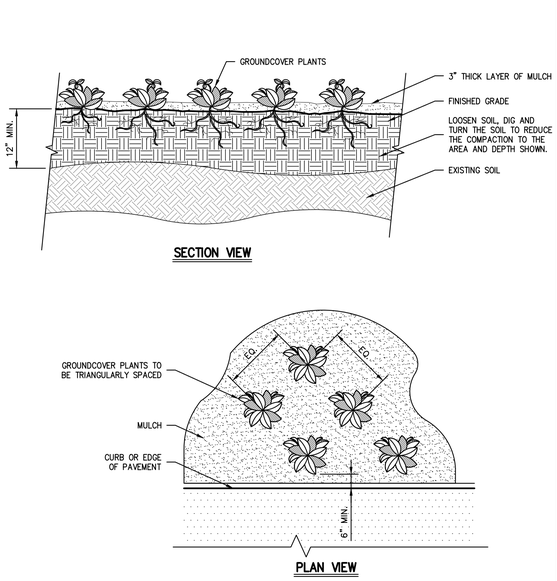
NOTES:

1. ALL PLANTING BEDS SHALL BE FREE OF WEEDS AND GRASS PRIOR TO AND FOLLOWING INSTALLATION OF PLANTS.
2. PLANTS IN CONTAINERS MUST HAVE THE FIBROUS ROOTS PULLED APART.
3. PROPOSED PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS EXISTING GRADE.
4. SEE TREE STAKING DETAIL IF STAKING IS REQUIRED.

TREE PLANTING

(DECIDUOUS AND EVERGREEN)

46

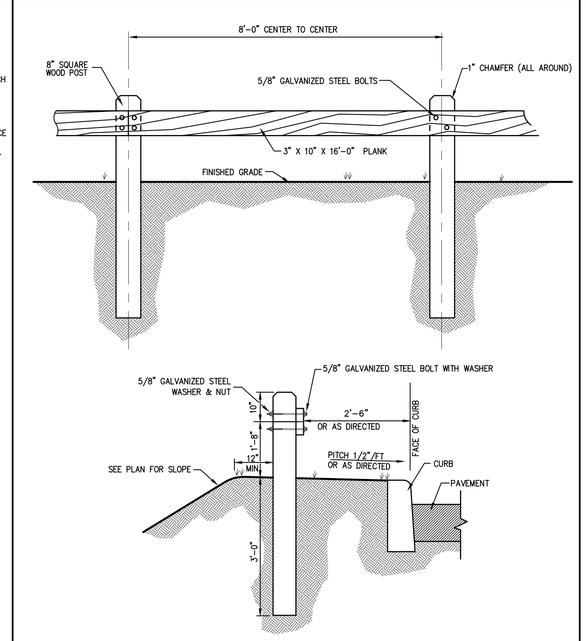


NOTES:

1. SEE PLANTING PLAN FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSION.
2. SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PLANT PRIOR TO MULCHING.
3. ALL PLANTING BEDS SHALL BE FREE OF WEEDS AND GRASS PRIOR TO AND FOLLOWING INSTALLATION OF PLANTS.
4. PLANTS IN CONTAINERS MUST HAVE THE FIBROUS ROOTS PULLED APART.
5. PROPOSED PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS EXISTING GRADE.

GROUNDCOVER

47

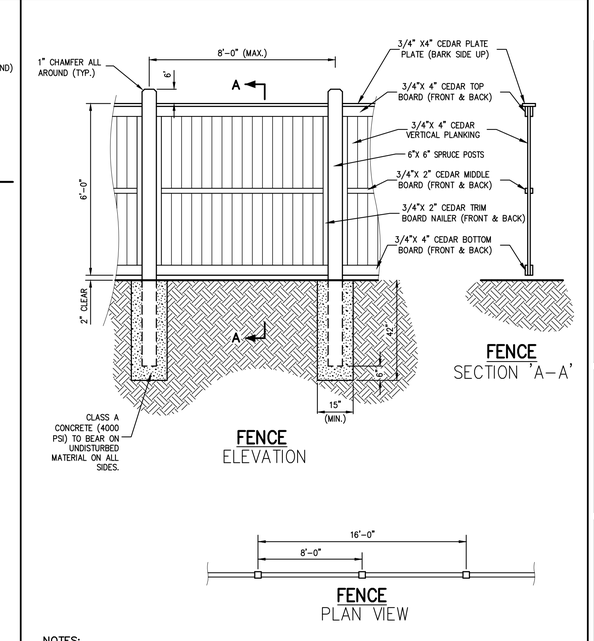


NOTES

1. ALL WOOD TO BE SEASONED NO.1 DOUGLAS FIR, SOUTHERN PINE OR OTHER APPROVED STRUCTURAL LUMBER.
2. GALVANIZED BOLT AND NUT TO BE 4000# MIN., 5400# MAX. TENSILE STRENGTH. AFTER GALVANIZING BOLT AND NUT, THE NUT SHALL BE FREE RUNNING ON THE BOLT.

WOOD GUIDE RAIL

48



NOTES:

1. METAL FLANGES, CLEATS, BOLTS, SCREWS, ETC. SHALL BE STAINLESS STEEL OR GALVANIZED STEEL.
2. ALL LUMBER, EXCEPT WHERE NOTED ON FENCE, TO BE PRESSURE TREATED WITH WOOD PRESERVATIVE FOR IN GROUND USE. ALL LUMBER TO BE #1 GRADE.
3. SEE SITE LAYOUT PLAN FOR LOCATION.

WOODEN PRIVACY FENCE

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No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
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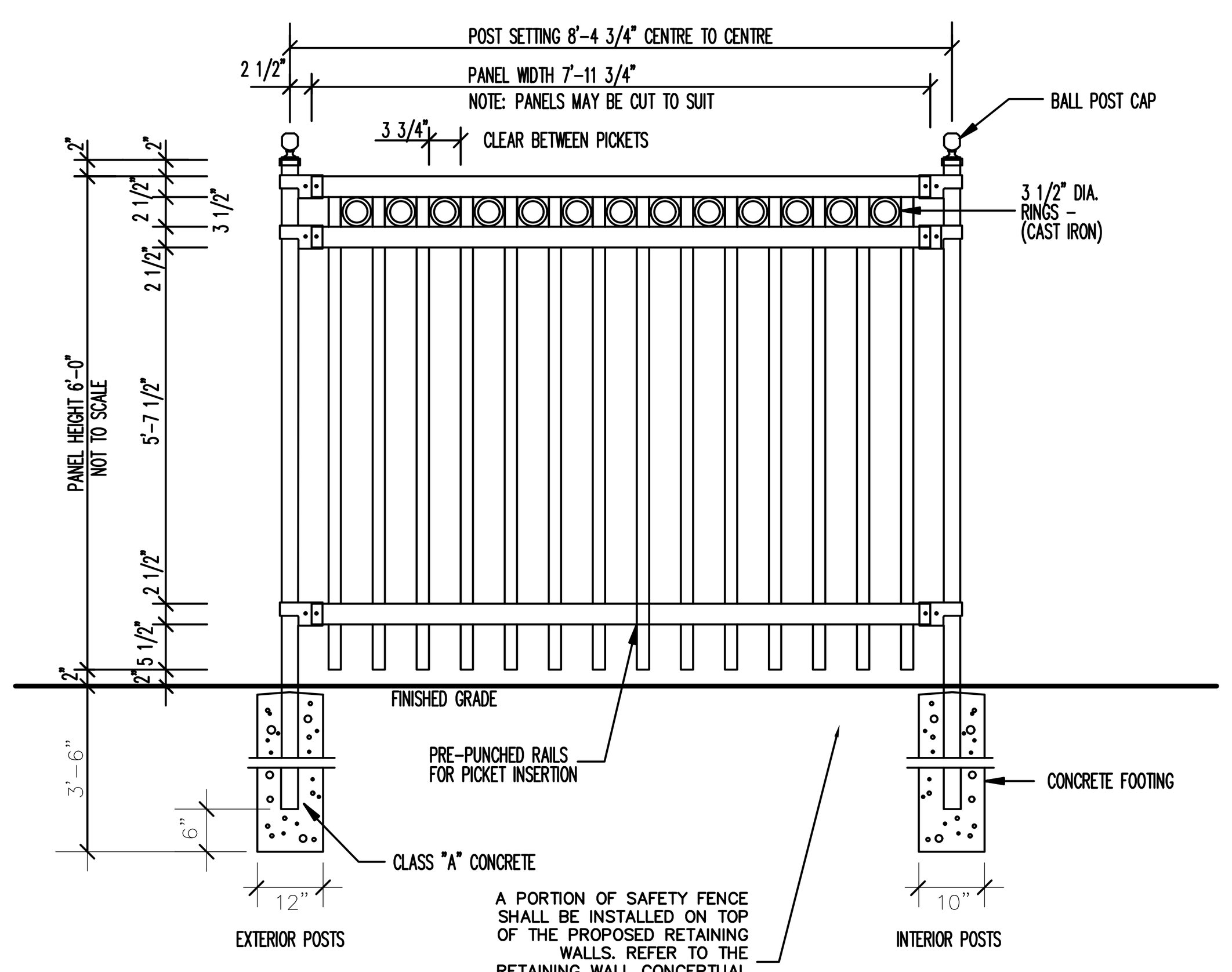
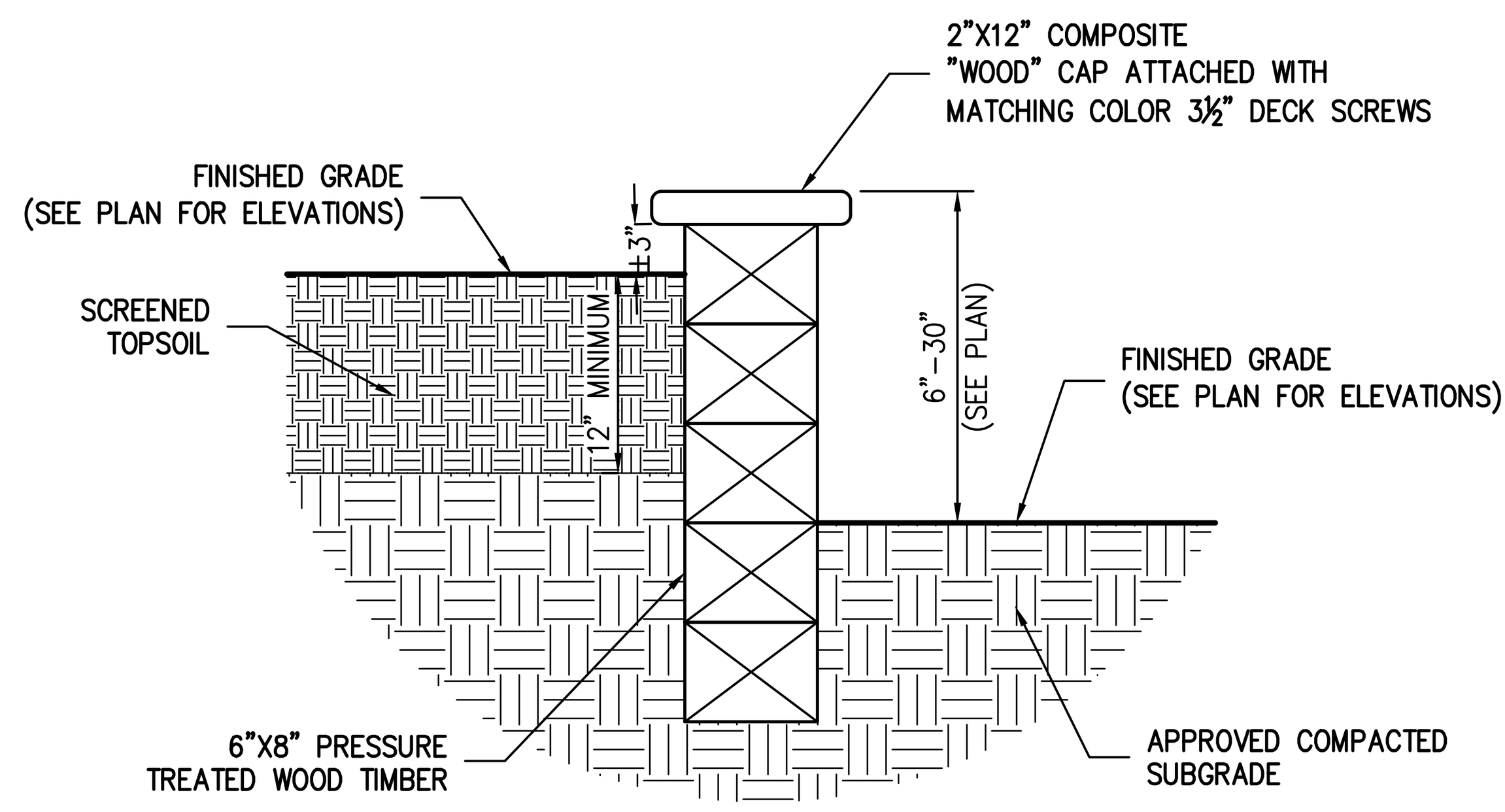


SPECIFICATIONS:

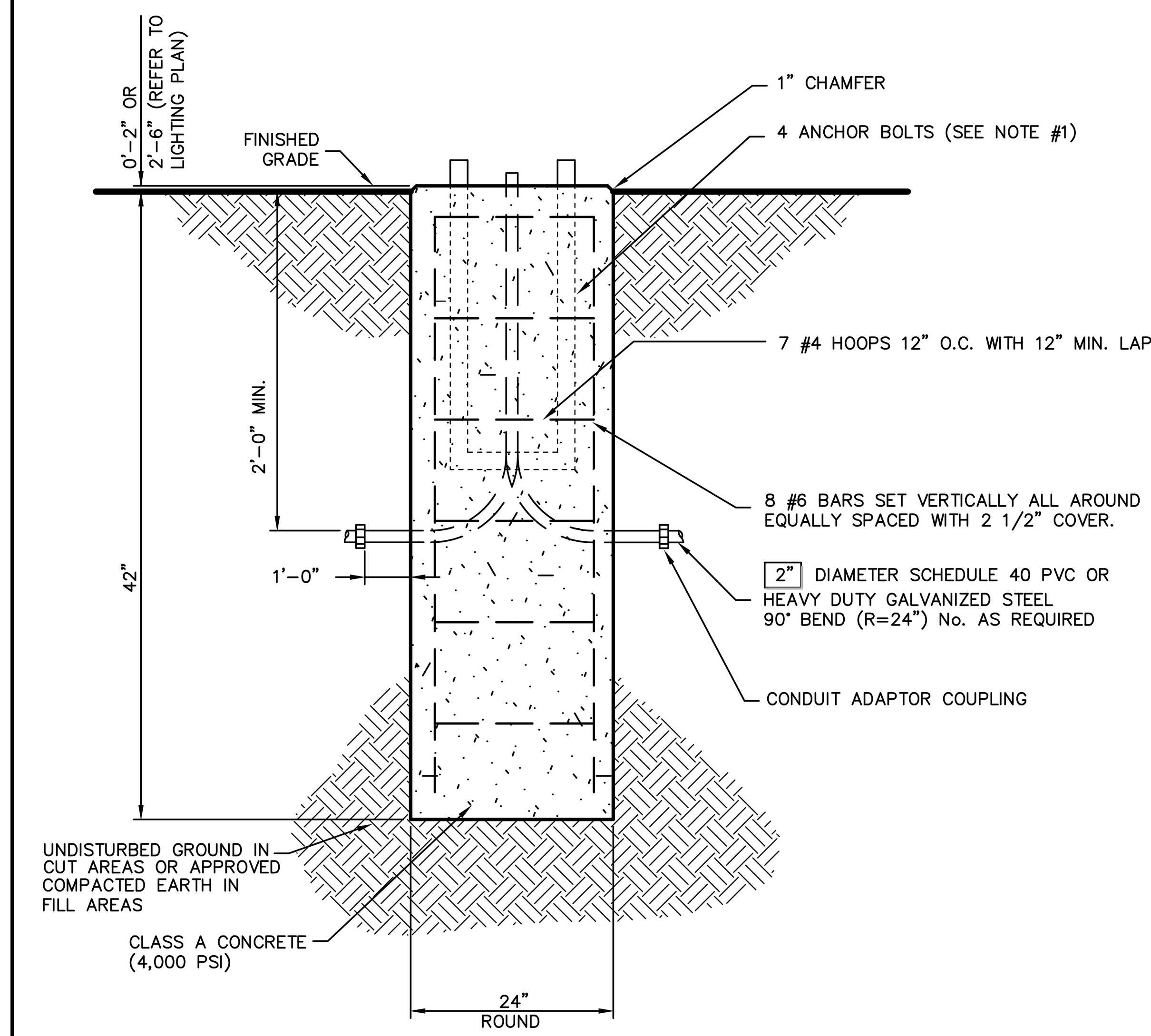
POSTS, RAILS : & PICKETS	COLD FORMED STEEL TUBING INTERIOR & EXTERIOR GALVALUME™ COATING CHROMATE CONVERSION COATING ELECTROSTATICALLY APPLIED THERMALLY BONDED POLYESTER POWDER COATING MINIMUM FILM THICKNESS 2.5 mils	PICKETS:	3/4" x 1 1/2", 16 GAUGE
		FITTINGS:	12 GAUGE STAMP FORGED FACTORY FINISH AS ABOVE
		WELDS:	STAINLESS STEEL
POSTS:	3"x3", 14 GAUGE OR SCH 40 POST SPACING (CENTRE TO CENTRE): 8'-4 3/4"	PANEL:	WIDTH OF 7'-11 3/4" HEIGHT OF 6'
POST FLANGES:	8"x8" x 1/2" 10"x10" x 1/2"	COLOUR:	BLACK
POST CAP:	BALL	WARRANTY:	5 YEAR MAINTENANCE FREE
RAILS:	1 1/2" x 2 1/2", 16 GAUGE		

FENCE TO BE SILVER EAGLE C/W RINGS AS MANUFACTURED BY IRON EAGLE INDUSTRIES, INC. OF MISSISSAUGA, ONTARIO OR APPROVED EQUAL.

DECORATIVE SAFETY FENCE (BLACK ALUMINUM) 50



SEAT/GARDEN WALL 51



NOTES:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND VERIFY ALL ANCHOR BOLT DIMENSIONS (SIZE, BOLT CIRCLE, ETC.) WITH THE CONTRACTOR WHO WILL BE INSTALLING THE LIGHTING STANDARD PRIOR TO INSTALLATION OF THE FOUNDATIONS.
2. CHAMFER EXPOSED EDGES OF ALL FOUNDATIONS.
3. PROVIDE INSULATED GROUNDING BUSHING ON EXPOSED ENDS (IN BASE OF POLE) OF ALL GALVANIZED STEEL BENDS.
4. POLES AND LUMINAIRES WILL BE FURNISHED AND INSTALLED BY OTHERS.

SITE LIGHTING STANDARD FOUNDATION 52

(ROUND)

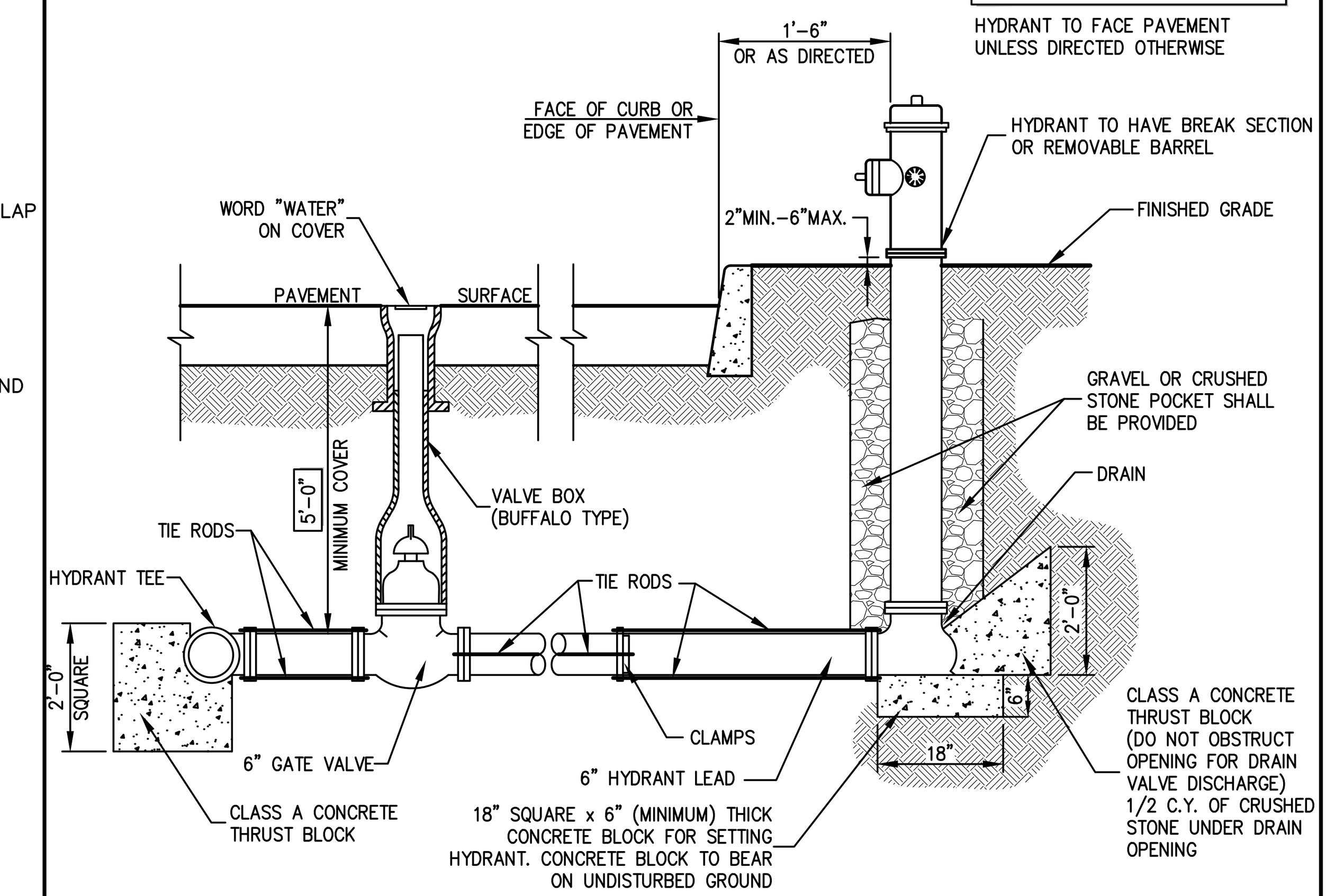
FIRE HYDRANT TO BE:

MUELLER SUPER CENTURION HYDRANT WITH 5 1/4" VALVE. THE VALVE SHALL BE A MUELLER RESILIENT WEDGE GATE VALVE.

FIRE HYDRANT TO BE PAINTED IN ACCORDANCE WITH:

CITY OF BEACON

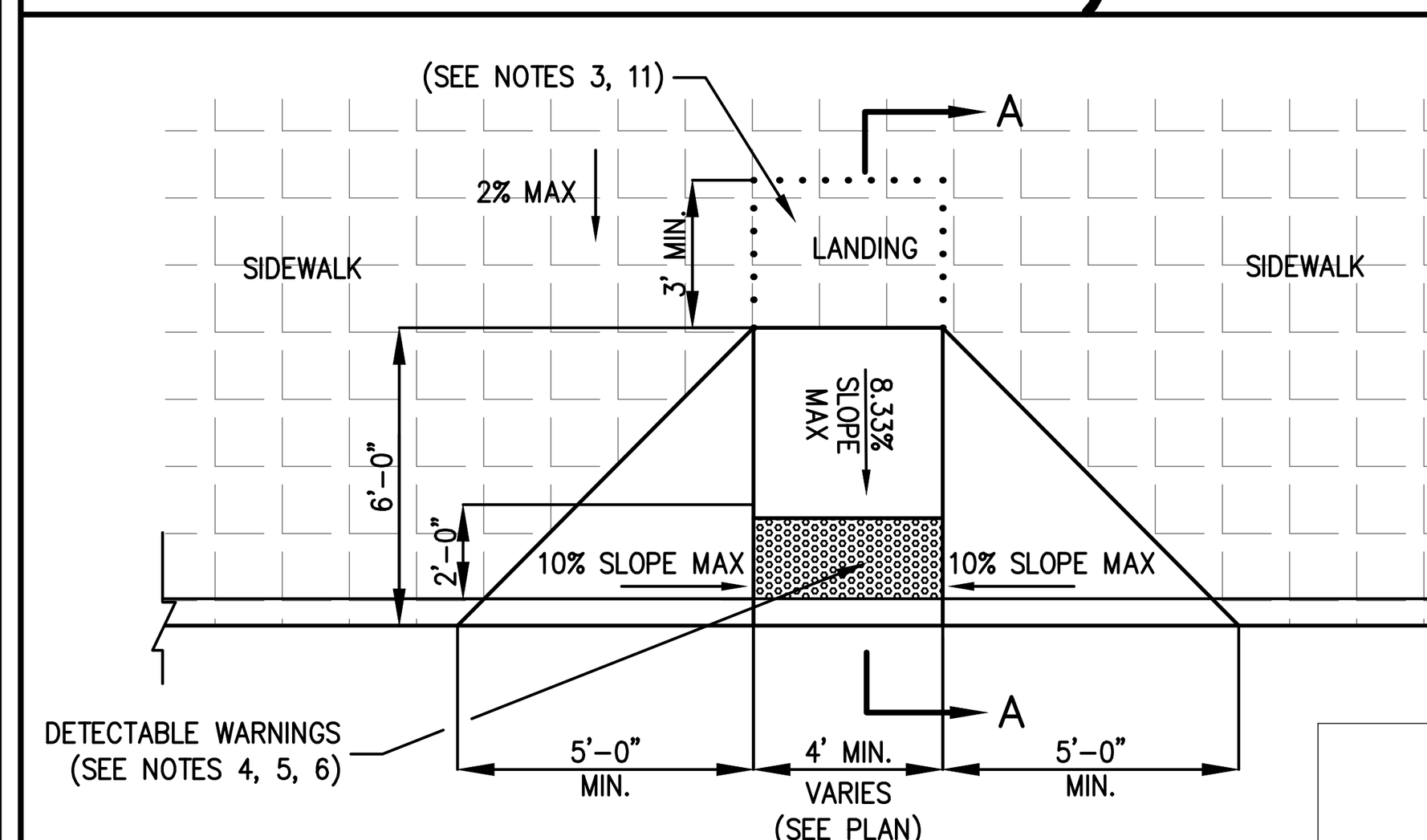
HYDRANT TO FACE PAVEMENT UNLESS DIRECTED OTHERWISE



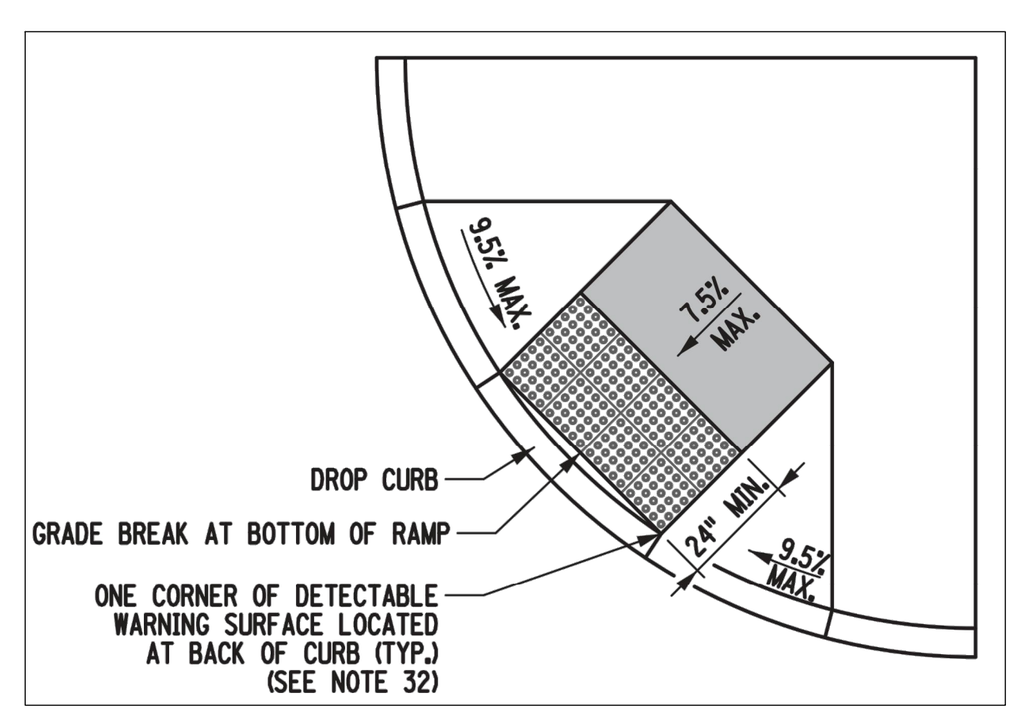
NOTES:

1. ALL CONCRETE THRUST BLOCKS SHALL BEAR ON UNDISTURBED GROUND.
2. RODDING SHALL CONSIST OF TWO 3/4" THREADED STEEL TIE RODS WITH NUTS AND WASHERS COMPLETE WITH ALL NECESSARY AND REQUIRED CLAMPS, CAREFULLY AND THOROUGHLY COVERED WITH ASPHALT OR OTHER ACCEPTABLE CORROSIVE RETARDING MATERIAL. IN GENERAL, THE METHOD AND TYPES OF MATERIAL REQUIRED IN THE INSTALLATION OF CLAMPS AND THE RODS SHALL BE IN ACCORDANCE WITH THE LATEST NATIONAL FIRE PROTECTION STANDARDS.
3. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR WITHIN TEN (10) FEET OF SANITARY SEWERS OR STORM DRAINS.
4. IF GROUND WATER IS FOUND WITHIN SEVEN (7) FEET OF THE SURFACE, HYDRANT DRAINS ARE TO BE PLUGGED. WHEN DRAINS ARE TO BE PLUGGED, THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. SUCH HYDRANTS SHALL BE IDENTIFIED WITH A VISIBLE MARKING AS APPROVED BY THE WATER AUTHORITY.

HYDRANT INSTALLATION 53



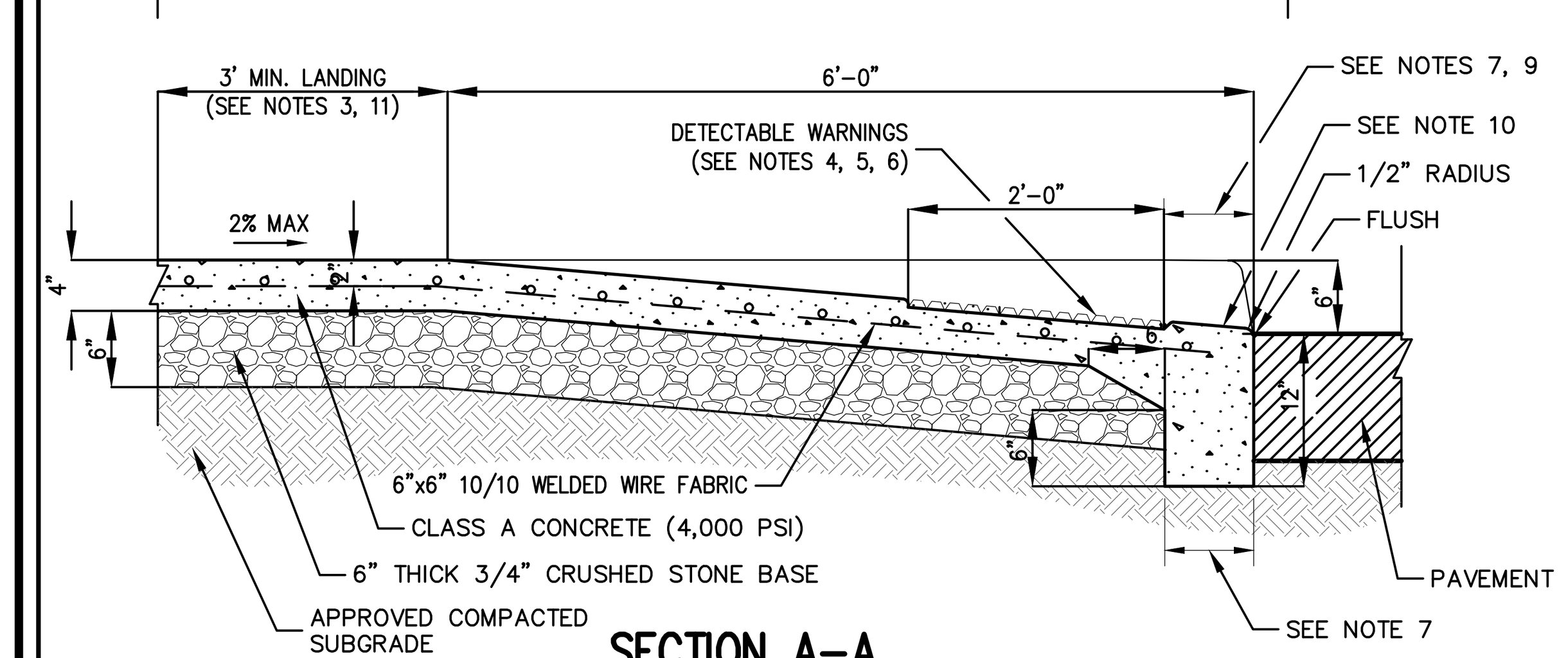
PLAN



OPTION ON CURB



ELEVATION



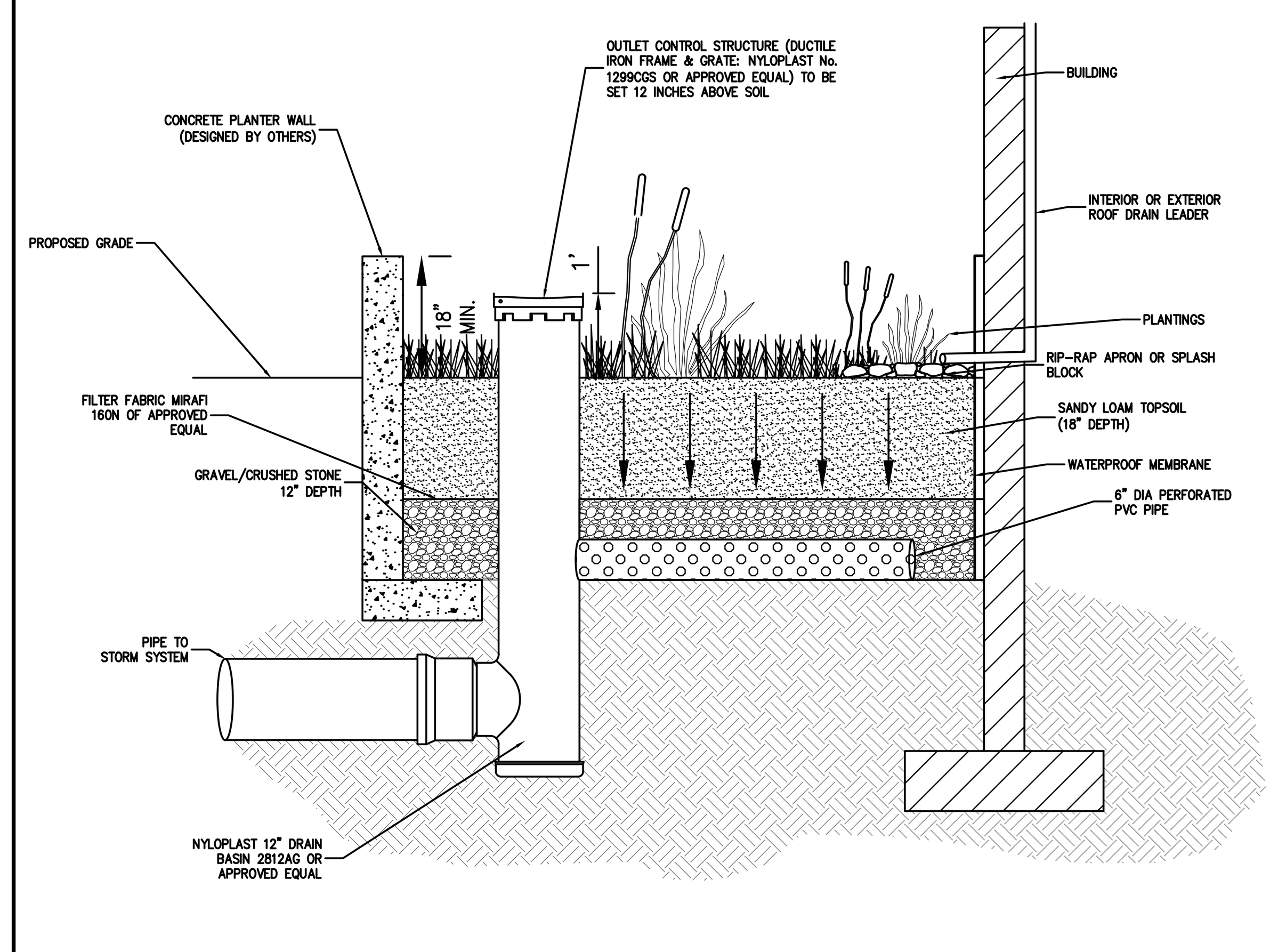
SECTION A-A

NOTES:

1. THE MAXIMUM RUNNING SLOPE OF A CURB RAMP SHALL BE 8.33%, THE MAXIMUM CROSS SLOPE SHALL BE 2.0%, AND WHERE PROVIDED, CURB RAMP FLARES SHALL NOT EXCEED 10% ALONG CURB MEASURED WITH A 2 FOOT SMART LEVEL AS SPECIFIED IN "DIMENSIONAL TOLERANCES IN CONSTRUCTION AND FOR SURFACE ACCESSIBILITY", BY UNITED STATES ACCESS BOARD, LATEST EDITION.
2. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 5%. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS AND STREETS SHALL BE AT THE SAME LEVEL.
3. LANDINGS SHALL BE PROVIDED AT THE TOP OF CURB RAMPS. THE CLEAR LENGTH OF THE LANDING SHALL BE THIRTY-SIX (36) INCHES MINIMUM. THE CLEAR WIDTH OF THE LANDING SHALL BE AT LEAST AS WIDE AS THE CURB RAMP, EXCLUDING FLARED SIDES, LEADING TO THE LANDING. LANDINGS SHALL HAVE A SLOPE NOT STEEPER THAN 2% IN ANY DIRECTION MEASURED WITH A 2 FOOT SMART LEVEL AS SPECIFIED IN "DIMENSIONAL TOLERANCES IN CONSTRUCTION AND FOR SURFACE ACCESSIBILITY", BY UNITED STATES ACCESS BOARD, LATEST EDITION.
4. RAMPS SHALL HAVE CAST IN PLACE DETECTABLE WARNINGS AS MANUFACTURED BY ARMOR-TILE (OR APPROVED EQUAL) AND SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A BASE DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 1.6 INCHES.
5. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT IN ACCORDANCE WITH THE ADA STANDARDS FOR ACCESSIBLE DESIGN, THE BUILDING CODE, AND APPLICABLE LOCAL LAWS AND REGULATIONS, LATEST EDITIONS.
6. 24" WIDTH OF PANELS TO BE INSTALLED DIRECTLY BEHIND CURB AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
7. SEE PLANS AND DETAILS FOR CURB TYPE AND DIMENSIONS.
8. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
9. CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.
10. CONTRACTOR TO ENSURE TOP OF CURB MATCHES SLOPE OF RAMP.
11. CURB RAMPS SHALL NOT BE LOCATED IN AN AREA THAT INTERFERES WITH MINIMUM MANEUVERING CLEARANCES AT DOORS AND GATES.
12. CURB RAMP SHALL HAVE LIGHT BROOM FINISH.
13. THE MINIMUM WIDTH OF A CURB SHALL BE 4'-0".
14. THE GRADE (RUNNING SLOPE) OF A CURB RAMP SHALL BE A MINIMUM OF 5%. THE GRADE FOR DESIGN AND LAYOUT SHALL BE A MAXIMUM OF 7.5% OF THE GRADE FOR ADA ACCESSIBILITY AND WORK ACCEPTANCE SHALL BE A MAXIMUM OF 8.3%.
15. THE CROSS SLOPE OF THE CURB RAMP SHALL BE AS FLAT AS POSSIBLE AND STILL PROVIDE POSITIVE DRAINAGE. THE CROSS SLOPE OF A CURB RAMP SHALL BE 1.5% MAXIMUM FOR DESIGN AND LAYOUT, AND 2% MAXIMUM FOR WORK ACCEPTANCE.
16. WHERE A PEDESTRIAN CIRCULAR PATH CROSSES THE CURB RAMP, FLARED SIDES SHALL BE INSTALLED WITH A MAXIMUM SLOPE OF 9.5% FOR DESIGN AND LAYOUT, AND 10% MAXIMUM FOR WORK ACCEPTANCE. THE SLOPE OF FLARED SIDES IS MEASURED PARALLEL TO THE CURB LINE.
17. WHERE A CHANGE IN DIRECTION IS REQUIRED TO UTILIZE A CURB RAMP, A TURNING SPACE SHALL BE PROVIDED AT THE BASE OR THE TOP OF A CURB RAMP AS APPLICABLE. TURNING SPACES SHALL BE PERMITTED TO OVERLAP CLEAR SPACES.
18. DETECTABLE WARNING SURFACES SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS ON PEDESTRIAN ACCESS ROUTES:
    A. CURB RAMPS AND BLENDED TRANSITIONS AT PEDESTRIAN STREET CROSSINGS.
    B. PEDESTRIAN REFUGE ISLANDS (WHERE THE LENGTH OF THE PEDESTRIAN ACCESS ROUTE ACROSS THE REFUGE ISLAND IS GREATER THAN OR EQUAL TO 6 FEET).
    C. PEDESTRIAN AT-GRADE RAIL CROSSINGS NOT LOCATED WITHIN A STREET OR HIGHWAY.
19. DETECTABLE WARNING SURFACES SHALL BE PROVIDED WHERE THE PEDESTRIAN ACCESS ROUTE CROSSES DRIVEWAYS WITH SIGNAL, YIELD OR STOP CONTROL. DETECTABLE WARNING SURFACES SHALL NOT BE PROVIDED AT CROSSINGS OR UNCONTROLLED DRIVEWAY APRONS.
20. SOME DETECTABLE WARNING PRODUCTS REQUIRE A CONCRETE BORDER FOR PROPER INSTALLATION. IF REQUIRED, THE BORDER SHALL NOT EXCEED 2". WHERE THE BACK OF CURB EDGE IS TOOLED TO PROVIDE A RADIUS, THE BORDER DIMENSION SHALL BE MEASURED FROM THE INSIDE EDGE OF THE CURB RADIUS.

PERPENDICULAR CURB RAMP 54

(WITH DETECTABLE WARNING)

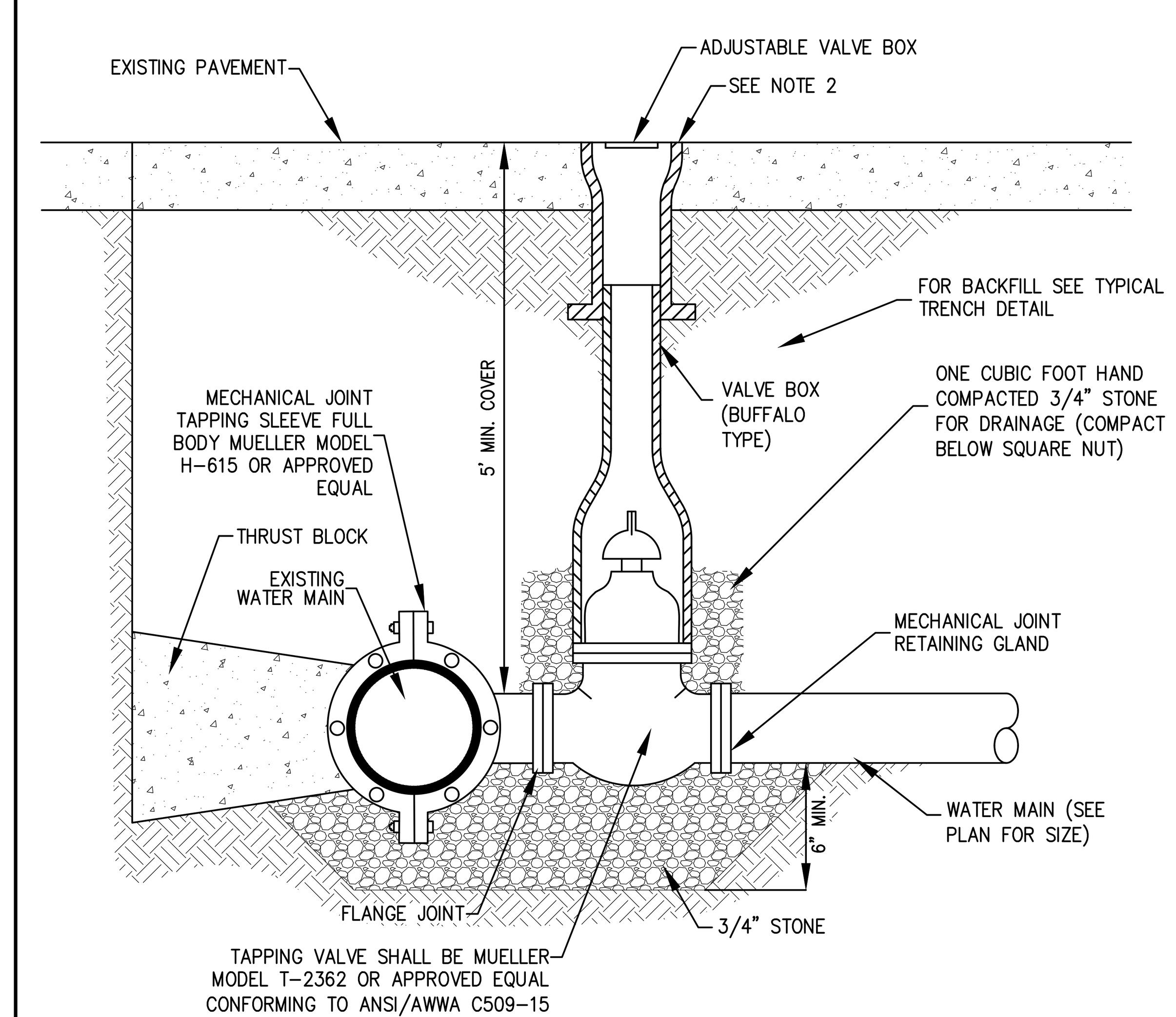


NOTES:

1. FLOW-THROUGH AND INFILTRATION STORMWATER PLANTERS SHOULD NOT RECEIVE DRAINAGE FROM IMPERVIOUS AREAS GREATER THAN 15,000 SQUARE FEET.
2. INFILTRATION PLANTERS SHOULD BE LOCATED A MINIMUM DISTANCE OF TEN FEET FROM STRUCTURES.
3. RIP-RAP MUST BE PLACED BELOW DOWNSPOUTS OR WHERE STORMWATER ENTERS THE PLANTER TO PREVENT EROSION.
4. STORMWATER PLANTERS ARE DESIGNED TO POND WATER LESS THEN 12 HOURS, WITH A MAXIMUM OF PONDING DEPTH OF 12 INCHES.
5. FLOW-THROUGH AND INFILTRATION PLANTERS MUST HAVE A MINIMUM WIDTH OF 1.5 AND 2.5 FEET, RESPECTIVELY.
6. SOILS SPECIFICATIONS FOR THE STORMWATER PLANTERS GROWING MEDIUM SHOULD ALLOW AN INFILTRATION RATE OF 2 INCHES PER HOUR, AND 5 INCHES AN HOUR FOR THE DRAINAGE LAYER.
7. SOIL COMPACTION MUST BE NO GREATER THAN 85% IN THE PLANTER.
8. THE GROWING MEDIUM DEPTH FOR ALL THREE STORMWATER PLANTERS TYPES SHOULD BE AT LEAST 18 INCHES. GROWING MEDIA SHOULD BE A UNIFORM MIXTURE OF 70% SAND (100% PASSING THE 1-INCH SIEVE AND 5% PASSING THE NO. 200 SIEVE) AND 30% TOPSOIL WITH AN AVERAGE OF 5% ORGANIC MATERIAL, SUCH AS COMPOST OR PEAT, FREE OF STONES, ROOTS AND WOODY DEBRIS AND ANIMAL WASTE.
9. FOR INFILTRATION AND FLOW-THROUGH PLANTERS THE DRAINAGE LAYER SHOULD HAVE A MINIMUM DEPTH OF 12 INCHES. DRAINAGE LAYER SHOULD BE CLEAN SAND WITH 100% PASSING THE 1-INCH SIEVE AND 5% PASSING THE NO. 200 SIEVE.
10. A MINIMUM INFILTRATION DEPTH OF 3 FEET SHOULD BE PROVIDED BETWEEN THE BOTTOM OF THE INFILTRATION PRACTICE AND ANY IMPERMEABLE BOUNDARIES, SUCH AS THE SEASONAL HIGH GROUNDWATER LEVEL OR ROCK.
11. INFILTRATION PLANTERS MUST BE DESIGNED AND CONSTRUCTED WITH NO LONGITUDINAL OR LATERAL SLOPE.

FLOW-THROUGH STORMWATER PLANTER 55

(WITH UNDER DRAIN)



NOTES:

1. MAXIMUM BRANCH TAP IS MAIN DIAMETER - 2".
2. PROVIDE TWO LAYERS OF 15# ASPHALT FELT ROOFING PAPER BETWEEN VALVE BOX AND CONCRETE COLLAR TO PREVENT CONCRETE FROM ADHERING TO RISER.

WET TAP MAIN CONNECTION 56

No.	Revision	Date
3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
5.	REVISED PER CITY COMMENTS	03/25/2022
6.	REVISED PER CITY COMMENTS	05/31/2022
7.	REVISED PER CITY COMMENTS	06/28/2022
8.	REVISED PER CITY COMMENTS	08/30/2022
9.	REVISED PER CITY COMMENTS	09/27/2022

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Date:	10/29/2019		
Project No:	18119		
18119-DETAILS	C-907	-	

Drawing No: C-907
(Sheet 27 OF 29)

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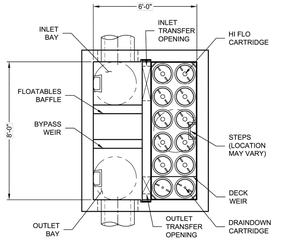
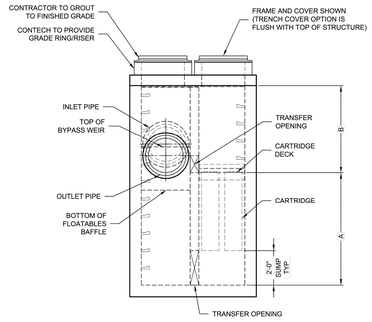


PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)



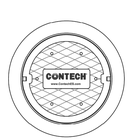
ELEVATION VIEW

JELLYFISH DESIGN NOTES

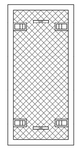
JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD

CARTRIDGE SELECTION

CARTRIDGE LENGTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE HI-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	1.96	1.47	0.98	0.54
DECK TO INSIDE TOP (MIN) (B)	5.00	4.00	4.00	4.00



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.



24" TRENCH COVER
(LENGTH VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	*
WATER QUALITY FLOW RATE (cfs)	*
PEAK FLOW RATE (cfs)	*
RETURN PERIOD OF PEAK FLOW (yrs)	*
# OF CARTRIDGES REQUIRED (HF / DD)	*
CARTRIDGE LENGTH	*

PIPE DATA:	I.E.	MAT'L	DIA	SLOPE %	HGL
INLET #1	*	*	*	*	*
INLET #2	*	*	*	*	*
OUTLET	*	*	*	*	*

SEE GENERAL NOTES 6-7 FOR INLET AND OUTLET HYDRAULIC AND SIZING REQUIREMENTS.

RIM ELEVATION	*

ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.ContechES.com
3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0' - 10', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.
6. OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
7. THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.
8. NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

INSTALLATION NOTES:
A. ANY SUB-BASE/ BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).
D. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.

Jellyfish® Filter
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING: U.S. PATENT NO. 7,425,262; 7,470,126; 8,512,556; 8,703,806; OTHER INTERNATIONAL PATENTS PENDING

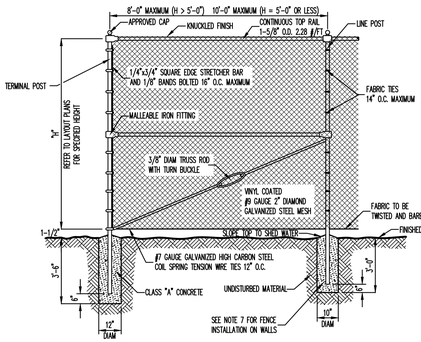
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

JELLYFISH JFPD0806
STANDARD DETAIL
PEAK DIVERSION CONFIGURATION

JELLYFISH FILTER

57

"H" (FT)	LINE POST	TERMINAL POST
5' OR LESS	2" O.D./2.72 #/FT	2.5" O.D./3.65 #/FT
> 5'-0"	2.5" O.D./3.65 #/FT	3" O.D./5.79 #/FT



NOTES:

REQUIRED MAINTENANCE FOR THE JELLYFISH FILTER IS BASED UPON RESULTS OF THE MOST RECENT INSPECTION, HISTORICAL MAINTENANCE RECORDS, OR THE SITE SPECIFIC WATER QUALITY MANAGEMENT PLAN; WHICHEVER IS MORE FREQUENT. IN GENERAL, MAINTENANCE REQUIRES SOME COMBINATION OF THE FOLLOWING:

1. SEDIMENT REMOVAL FOR DEPTHS REACHING 12 INCHES OR GREATER, OR WITHIN 3 YEARS OF THE MOST RECENT SEDIMENT CLEANING, WHICHEVER OCCURS SOONER.
2. FLOATABLE TRASH, DEBRIS AND OIL REMOVAL.
3. DECK CLEANED AND FREE FROM SEDIMENT.
4. FILTER CARTRIDGES RINSED AND RE-INSTALLED AS REQUIRED BY THE MOST RECENT INSPECTION RESULTS, OR WITHIN 12 MONTHS OF THE MOST RECENT FILTER RINSING, WHICHEVER OCCURS SOONER.
5. REPLACE TENTACLES IF RINSING DOES NOT RESTORE ADEQUATE HYDRAULIC CAPACITY, REMOVE ACCUMULATED SEDIMENT, OR IF DAMAGED OR MISSING. IT IS RECOMMENDED THAT TENTACLES SHOULD REMAIN IN SERVICE NO LONGER THAN 5 YEARS BEFORE REPLACEMENT.
6. DAMAGED OR MISSING CARTRIDGE DECK COMPONENTS MUST BE REPAIRED OR REPLACED AS INDICATED BY RESULTS OF THE MOST RECENT INSPECTION.
7. THE UNIT MUST BE CLEANED OUT AND FILTER CARTRIDGES INSPECTED IMMEDIATELY AFTER AN UPSTREAM OIL, FUEL, OR CHEMICAL SPILL. Filter CARTRIDGE TENTACLES SHOULD BE REPLACES IF DAMAGED OR COMPROMISED BY THE SPILL.

SAFETY FENCE (BLACK VINYL COATED CHAIN LINK FENCE)

58

NOTES:

1. ALL POSTS, RAILS, FABRIC AND ACCESSORIES SHALL BE VINYL COATED. COLOR OF VINYL COATING SHALL BE BLACK.
2. POST AND RAILS SHALL BE STANDARD FULL WEIGHT VINYL COATED GALVANIZED SCHEDULE 40 PIPE MANUFACTURED AND GALVANIZED IN ACCORDANCE WITH ASTM A-120. ALL MATERIALS SHALL BE NEW AND FIRST CLASS AND SHALL NOT INCLUDE RECONDITIONED OR REROLLED PIPE.
3. FITTINGS SHALL BE VINYL COATED MALLEABLE IRON FITTINGS CONFORMING TO THE REQUIREMENTS OF ASTM A-47 GALVANIZED IN ACCORDANCE WITH ASTM A-153.
4. FABRIC SHALL BE 9 GAUGE GALVANIZED 2" MESH, WHICH SHALL BE VINYL CLAD IN CONFORMANCE WITH THE REQUIREMENTS OF AASHTO M-181, TYPE III. VINYL COATING SHALL BE FIRMLY AND CONTINUOUSLY EXTRUSION BONDED TO THE GALVANIZED STEEL WIRE. TOP SELVAGE SHALL HAVE KNUCKLED FINISH.
5. TENSION WIRE SHALL BE VINYL COATED 7 GAUGE MEETING THE REQUIREMENTS OF ASTM A-641 AS MODIFIED HEREIN. THE TENSILE STRENGTH SHALL BE AT LEAST 80,000 PSI WITH A GALVANIZED COATING OF NOT LESS THAN 0.7 OZ. PER SQUARE FOOT.
6. FABRIC TIES SHALL BE MINIMUM 9 GAUGE VINYL COATED GALVANIZED STEEL OR ALUMINUM. MINIMUM SPACING SHALL BE AS FOLLOWS:
   A. 14" O.C. AT LINE POSTS
   B. 24" O.C. AT TOP RAIL
   C. 12" O.C. AT TENSION WIRE
7. WHERE CHAIN LINK FENCE IS TO BE INSTALLED ON WALLS, THE FENCE POSTS SHALL BE IMBEDDED A MINIMUM OF TWELVE (12) INCHES IN THE WALL. NEWLY CONSTRUCTED WALLS SHALL BE PROVIDED WITH PROPER SIZE SLEEVES TO ACCOMMODATE FENCE POSTS. FENCE POSTS SHALL BE SECURELY GROUTED IN PLACE USING AN APPROVED HIGH STRENGTH, NON-SHRINKING, NON-STAINING GROUT.
8. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT SHOP AND ERECTION DRAWINGS INDICATING MATERIALS, SIZES AND DIMENSIONS OF FENCING TO THE OWNER'S FIELD REPRESENTATIVE PRIOR TO ORDERING MATERIALS FOR HIS REVIEW AND APPROVAL.
9. PRIOR TO INSTALLATION OF THE FENCE, THE CONTRACTOR SHALL CHECK THE FENCE LAYOUT WITH THE OWNER'S FIELD REPRESENTATIVE WHO MUST APPROVE THE LAYOUT BEFORE ANY OF THE WORK IS TO BE DONE.
10. REFER TO SITE PLAN FOR HEIGHT AND LOCATIONS WHERE PRIVACY SLATS ARE REQUIRED

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3.	REVISED PER CITY COMMENTS	09/29/2020
4.	REVISED PER CITY COMMENTS	07/27/2021
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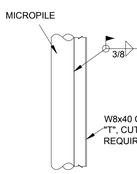
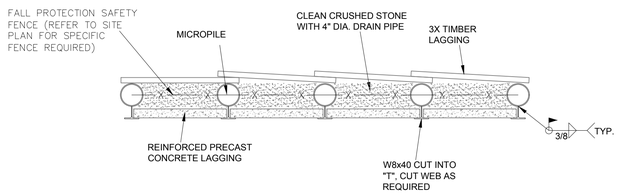
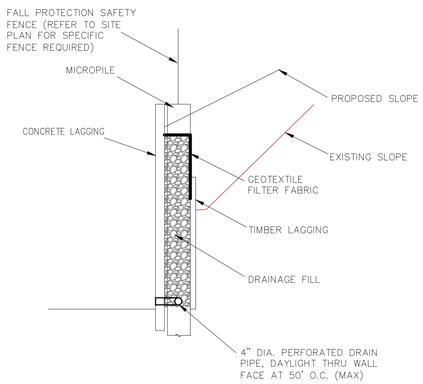




PLAN



TYPICAL SECTION



EXAMPLE IMAGE

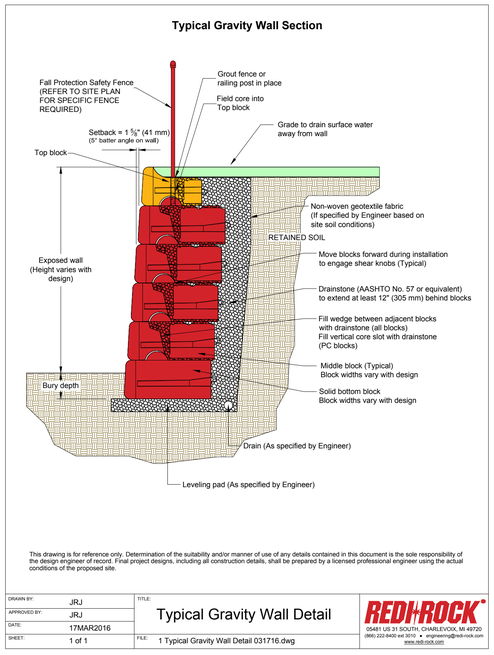
NOTE:

1. RETAINING WALLS THAT INCLUDE FALL PROTECTION SHALL USE ALUMINUM DECORATIVE FENCE AND INSTALL PER MANUFACTURERS RECOMMENDATIONS.

SOLDIER PILE RETAINING WALL

(FOR REFERENCE ONLY)

59



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DRAWN BY:	JRJ	TITLE: Typical Gravity Wall Detail	REDI ROCK® 05481 US 31 SOUTH, CHARLEVOIX, MI 49720 (866) 222-8400 ext 3010 • engineering@redi-rock.com www.redi-rock.com
APPROVED BY:	JRJ		
DATE:	17MAR2016		
SHEET:	1 of 1	FILE: 1 Typical Gravity Wall Detail 031716.dwg	



EXAMPLE IMAGE

NOTE:

1. RETAINING WALLS THAT INCLUDE FALL PROTECTION SHALL USE FENCE TYPE DESIGNATED ON THE SITE PLAN AND SPECIFIED IN THE DETAILS AND SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.

REDI ROCK GRAVITY WALL

(FOR REFERENCE ONLY)

60

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18119-DETAILS	C-908	–	

Drawing No: C-908 (Sheet 28 OF 29)

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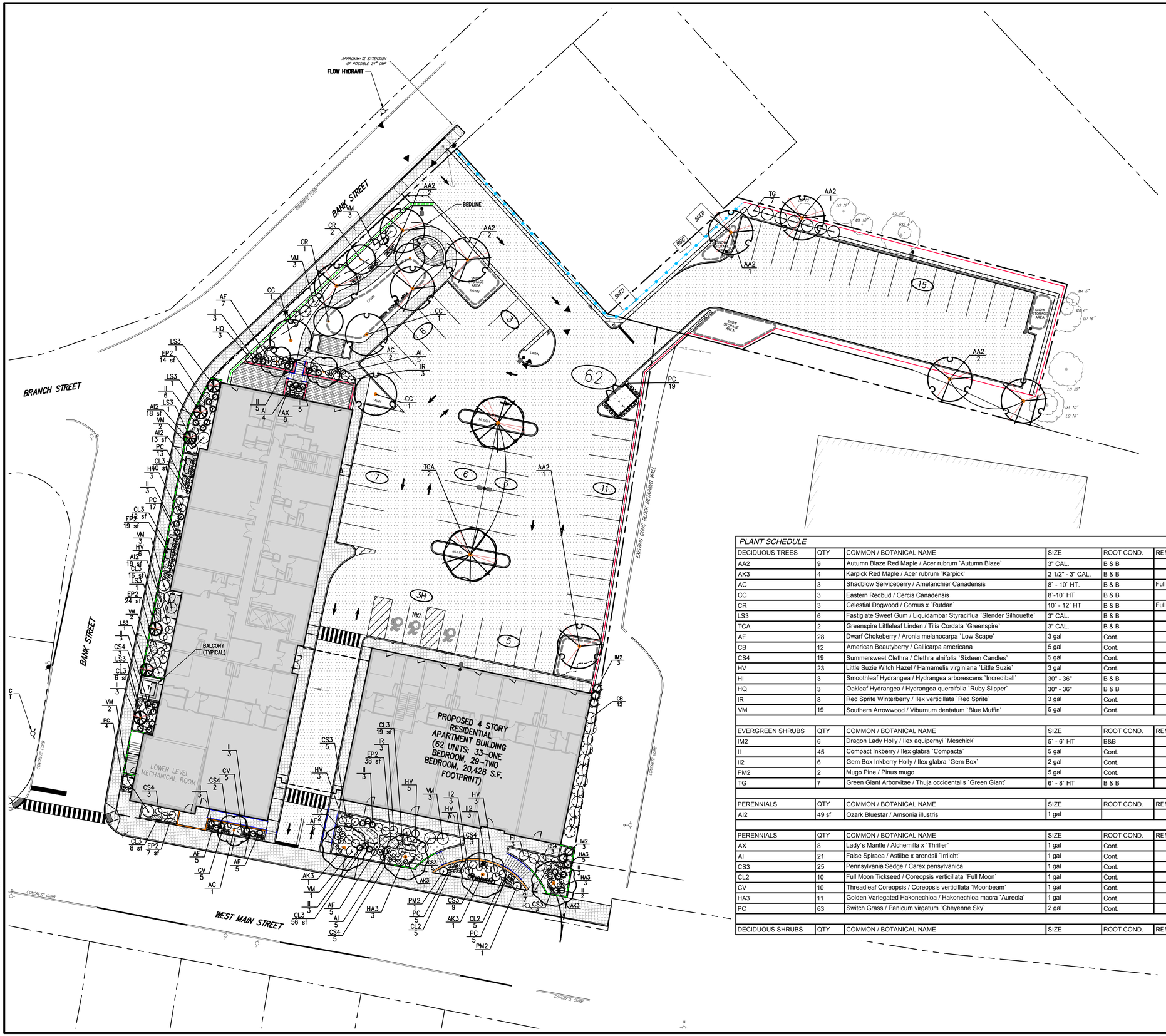

LEGEND

- EXISTING TREE AND DESIGNATION
- PROPOSED DECIDUOUS TREE
- PROPOSED FLOWERING TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED SHRUBS
- PROPOSED CONCRETE WALL WITH BRICK VENEER (42" ABOVE SIDEWALK)
- PROPOSED BLACK VINYL COATED CHAIN LINK FENCE WITH PRIVACY SLATS
- PROPOSED DECORATIVE SAFETY FENCE
- PROPOSED PRIVACY FENCE
- PROPOSED HANDRAILS

NOTES:

1. ALL PLANT MATERIAL SHALL BE FIRST QUALITY STOCK. PLANTED MATERIAL AND METHODS OF INSTALLATION SHALL CONFORM TO THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION, AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION.
2. ALL AREAS OF THE SITE NOT OCCUPIED BY BUILDING OR PAVEMENT AND NOT SPECIFIED AS BEING PLANTED WITH TREES, SHRUBS OR GROUND COVER SHALL BE LAWN.
3. ALL PLANTING BEDS SHALL BE MULCHED WITH 3" OF BROWN MULCH. MULCH SHALL BE CLEAN, NON-DYED, TOXIC FREE, SHREDDED HARDWOOD.
4. PLANT MATERIALS AS SPECIFIED ON THE DRAWINGS AND DELIVERED TO THE SITE SHALL BE NURSERY GROWN AND CERTIFIED TRUE TO THEIR GENUS, SPECIES AND VARIETY. SUBSTITUTIONS ARE NOT PERMITTED WITHOUT THE PROJECT LANDSCAPE ARCHITECTS WRITTEN APPROVAL.
5. ALL LANDSCAPING SHALL CONTINUE TO BE MAINTAINED IN A HEALTHY GROWING CONDITION THROUGHOUT THE DURATION OF THE PROJECT. ANY PLANTING NOT SO MAINTAINED SHALL BE REPLACED WITH NEW PLANTS AT THE BEGINNING OF THE NEXT, IMMEDIATELY FOLLOWING, GROWING SEASON.
6. ALL TREES AND SHRUBS SHALL BE PRUNED AND SHAPED AND BE SUBJECT TO THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT AND GOVERNMENTAL AUTHORITIES HAVING JURISDICTION. ANY TREES AND SHRUBS THAT WILL POSSIBLY MATURE AND GROW TOWARDS THE BUILDING, LIGHT POLES, RETAINING WALLS, FENCES, PARKING SPACES, ETC. SHALL BE TRIMMED/PRUNED BACK APPROPRIATELY.
7. PLANTING STOCK SHALL BE WELL-BRANCHED AND WELL-FORMED, SOUND, VIGOROUS, HEALTHY, FREE FROM DISEASE, SUN-SCALE, WINDBURN, ABRASION, AND HARMFUL INSECTS OR INSECTS EGGS; AND SHALL HAVE HEALTHY, NORMAL UNBROKEN ROOT SYSTEMS. DECIDUOUS TREES AND SHRUBS SHALL BE SYMMETRICALLY DEVELOPED, OF UNIFORM HABIT OF GROWTH, WITH STRAIGHT TRUNKS OR STEMS, AND FREE FROM OBJECTIONABLE DISFIGUREMENTS. EVERGREEN TREES AND SHRUBS SHALL HAVE WELL-DEVELOPED SYMMETRICAL TOPS WITH TYPICAL SPREAD OF BRANCHES FOR EACH PARTICULAR SPECIES OR VARIETY. ONLY VINES AND GROUND COVER PLANTS WELL ESTABLISHED IN REMOVAL CONTAINERS, INTEGRAL CONTAINERS, OR FORMED HOMOGENEOUS SOIL SECTIONS SHALL BE USED. PLANTS SHALL BE GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT.
8. ALL STOCK SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN STOCK, UNLESS OTHERWISE SPECIFIED. BARE ROOT STOCK OF ANY KIND IS UNACCEPTABLE UNLESS SPECIFIED.
9. ALL PLANTING BEDS, LAWNS AND LANDSCAPED AREAS SHALL RECEIVE A MINIMUM 4" THICK LAYER OF TOPSOIL, UNLESS OTHERWISE SPECIFIED.

PLANT SCHEDULE

DECIDUOUS TREES	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT COND.	REMARKS
AA2	9	Autumn Blaze Red Maple / Acer rubrum `Autumn Blaze`	3" CAL.	B & B	
AK3	4	Karpick Red Maple / Acer rubrum `Karpick`	2 1/2" - 3" CAL.	B & B	
AC	3	Shadblow Serviceberry / Amelanchier Canadensis	8' - 10' HT.	B & B	Full Heavy Multi Ste
CC	3	Eastern Redbud / Cercis Canadensis	8'-10' HT	B & B	
CR	3	Celestial Dogwood / Cornus x `Rutdan`	10' - 12' HT	B & B	Full Heavy
LS3	6	Fastigiate Sweet Gum / Liquidambar Styraciflua `Slender Silhouette`	3" CAL.	B & B	
TCA	2	Greenspire Littleleaf Linden / Tilia Cordata `Greenspire`	3" CAL.	B & B	
AF	28	Dwarf Chokeberry / Aronia melanocarpa `Low Scape`	3 gal	Cont.	
CB	12	American Beautyberry / Callicarpa americana	5 gal	Cont.	
CS4	19	Summersweet Clethra / Clethra alnifolia `Sixteen Candles`	5 gal	Cont.	
HV	23	Little Suzie Witch Hazel / Hamamelis virginiana `Little Suzie`	3 gal	Cont.	
HI	3	Smoothleaf Hydrangea / Hydrangea arborescens `Incrediball`	30" - 36"	B & B	
HQ	3	Oakleaf Hydrangea / Hydrangea quercifolia `Ruby Slipper`	30" - 36"	B & B	
IR	8	Red Sprite Winterberry / Ilex verticillata `Red Sprite`	3 gal	Cont.	
VM	19	Southern Arrowwood / Viburnum dentatum `Blue Muffin`	5 gal	Cont.	
EVERGREEN SHRUBS	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT COND.	REMARKS
IM2	6	Dragon Lady Holly / Ilex aquipernyi `Meschick`	5` - 6` HT	B&B	
II	45	Compact Inkberry / Ilex glabra `Compacta`	5 gal	Cont.	
II2	6	Gem Box Inkberry Holly / Ilex glabra `Gem Box`	2 gal	Cont.	
PM2	2	Mugo Pine / Pinus mugo	5 gal	Cont.	
TG	7	Green Giant Arborvitae / Thuja occidentalis `Green Giant`	6` - 8` HT	B & B	
PERENNIALS	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT COND.	REMARKS
AI2	49 sf	Ozark Bluestar / Amsonia illustris	1 gal		
PERENNIALS	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT COND.	REMARKS
AX	8	Lady`s Mantle / Alchemilla x `Thriller`	1 gal	Cont.	
AI	21	False Spiraea / Astilbe x arendsii `Irricht`	1 gal	Cont.	
CS3	25	Pennsylvania Sedge / Carex pensylvanica	1 gal	Cont.	
CL2	10	Full Moon Tickseed / Coreopsis verticillata `Full Moon`	1 gal	Cont.	
CV	10	Threadleaf Coreopsis / Coreopsis verticillata `Moonbeam`	1 gal	Cont.	
HA3	11	Golden Variegated Hakonechloa / Hakonechloa macra `Aureola`	1 gal	Cont.	
PC	63	Switch Grass / Panicum virgatum `Cheyenne Sky`	2 gal	Cont.	
DECIDUOUS SHRUBS	QTY	COMMON / BOTANICAL NAME	SIZE	ROOT COND.	REMARKS

APPLICANT/OWNER:
FARRELL COMMUNITIES BEACON LLC
PO BOX 14
BRIDGEHAMPTON, NY 11932

ARCHITECT:
ARYEH SIEGEL ARCHITECT
84 MASON CIRCLE
BEACON, NY 12508

JMC Planning, Engineering, Landscape Architecture & Land Surveying, PLLC
JMC Site Development Consultants, LLC
John Meyer Consulting, Inc.
120 BEDFORD ROAD • ARMONK, NY 10504
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www.jmcpllc.com

JMC

LANDSCAPING PLAN

BEACON COMMONS
16 WEST MAIN STREET
BEACON, NY 12508

ANY ALTERATION OF PLANS, SPECIFICATIONS, PLATS AND REPORTS BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PROVIDED FOR BY SECTION 7209, SUBSECTION 2.

STATE OF NEW YORK · STEPHEN SPINA · LICENSED PROFESSIONAL ENGINEER · 085983

No.	Revision	Date	By
3.	REVISED PER CITY COMMENTS	09/29/2020	AH
4.	REVISED PER CITY COMMENTS	07/27/2021	BMS
5.	REVISED PER CITY COMMENTS	03/25/2022	BMS
6.	REVISED PER CITY COMMENTS	05/31/2022	BMS
7.	REVISED PER CITY COMMENTS	06/28/2022	BMS
8.	REVISED PER CITY COMMENTS	08/30/2022	SMN
9.	REVISED PER CITY COMMENTS	09/27/2022	SMN
	Previous Editions Obsolete		

Drawn: BMS Approved: SS
Scale: 1" = 20'
Date: 10/29/2019
Project No: 18119
18119-LAND | LAND | LAND.scr
Drawing No:
L-100
(Sheet 29 of 29)

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John Clarke Planning and Design jclarkeplandesign@gmail.com
845.797.4152

To: John Gunn, Chair, and the City of Beacon Planning Board
Date: October 7, 2022
Re: **Beacon Commons, 16 West Main Street, Site Plan, Special Permit and Merger of Three Lots**

I have reviewed the response letter from JMC, 28-sheet Site Plan set from JMC, and 4-sheet Building Plans set from JMC and Aryeh Siegel, all dated September 27, 2022.

Proposal

The applicant is proposing to construct a 62-unit multifamily building on a 1.5-acre site in the Linkage and R1-7.5 districts and within the Local Waterfront Revitalization Program (LWRP) boundary.

Comments and Recommendations

1. The City Council adopted a law on October 3, 2022, which allows the Planning Board to issue a special permit in this case for parking on the adjacent residentially zoned parcel. Once the law has been filed and becomes effective, the Board can move forward on the special permit.

2. The Sheet 4 Site Plan now includes chain link fencing on top of the retaining walls. Chain link fencing is not permitted in the Linkage district under Section 223-41.21K(10).

3. The Architectural Review Subcommittee met with the project architect for the 4th time on June 17, 2022. The Subcommittee was generally satisfied with the architecture and agreed to refer the design back to the full Board for final review.

4. Sheet A-200 should add correct brick and vertical board patterns to the north, east, and west Building Elevations, consistent with the renderings.

If you have any questions or need additional information, please feel free to contact me.

John Clarke, Beacon Planning Consultant

c: Dave Buckley, Building Inspector
Jennifer L. Gray, Esq., City Attorney
Arthur R. Tully, P.E., City Engineer
John Russo, P.E., City Engineer
Stephen Spina, P.E., Project Engineer
Aryeh Siegel, Project Architect

LANC & TULLY
ENGINEERING AND SURVEYING, P.C.

John J. O'Rourke, P.E., Principal
David E. Higgins, P.E., Principal
John Queenan, P.E., Principal
Rodney C. Knowlton, L.S., Principal
Jerry A. Woods, L.S., Principal
John D. Russo, P.E., Principal
John Lanc, P.E., L.S.
Arthur R. Tully, P.E.

October 6, 2022

Mr. John Gunn
Beacon Planning Board Chair
City of Beacon
1 Municipal Plaza
Beacon, NY 12508

RE: 16 West Main Street/Beacon Commons
City of Beacon
Tax Map No. 5954-25-616969

Dear Mr. Gunn:

My office has received the following in regard to the above application:

- Response correspondence from JMC Consulting dated September 27, 2022.
- Stormwater Control Facility Maintenance Agreement and Easement.
- Declaration of Irrevocable Access and Water Line Easement.
- Report titled "Beacon Commons – Engineering Report – Sanitary Sewer & Water Main", dated August 22, 2022.
- Plan set titled "Building Plans – Beacon Commons" , with the latest revision date of September 27, 2022, and consisting of Sheets 1 of 4 through 4 of 4, as prepared by Aryeh Siegel, Architect.
- Plan set titled "Site Plan Drawings – Beacon Commons", with the latest revision date of September 27, 2022, and consisting of Sheets 1 of 29 through 29 of 29, as prepared by JMC Consulting.

Based upon our review of the above referenced documents and plans, we offer the following comments:

General Comments:

1. The Applicant has submitted the plans to the Dutchess County Department of Health (DCDOH). The Applicant should provide a brief summary to the Planning Board as to the status of the review and approval by the DCDOH.

2. A Performance Bond will need to be posted for all public improvements proposed as part of the project. As the project progresses, the applicant's engineer should prepare an itemized cost estimate for all public improvements and submit to the City Engineer's office for review. ***Applicant acknowledges this comment and states that a construction estimate is being prepared and will be submitted for review, and is requesting that this be made part of the conditions of approval in the resolution.***

3. The easement agreement between Farrell Communities Beacon and Beacon Todd, although submitted, has not been executed. A fully executed copy of the agreement shall be submitted for review by the Planning Board Attorney. ***Applicant has noted that once the agreement has been executed it shall be provided.***

4. The construction schedule provided in the response correspondence seems a little unrealistic, as site work and construction of the walls is proposed to start in October and take 4 months to complete. As this will bring you into the winter months, we this goal hard to achieve, as the ground and materials could be frozen. We would ask that this be looked at realistically given the time of year the work is proposed. ***Applicant has stated that a construction logistics plan and schedule shall be prepared by the project construction manager once they are added to the team and it will be submitted for review. The applicant is requesting that this be made a condition of approval at this time.***

Stormwater Maintenance Agreement:

1. The Planning Board Attorney, upon reviewing the document, should consider if paragraph 11 should be modified, as I do not believe the City of Beacon is looking to take on the maintenance, repair or replacement of these facilities. ***Applicant notes that they are awaiting feedback from the City Attorney on this agreement, and request that this be made a condition of approval in the resolution.***

Demolition Plan (Sheet 3 of 28):

1. As the plan is showing the sidewalk along West Main to be removed, a pedestrian accessway shall be established to allow pedestrians walking along the roadway to continue in a safe manner since there is no sidewalk on the opposite side of the roadway. This would also apply to the sidewalk along Bank Street. ***The Applicant states a construction logistics plan and schedule shall be prepared by the project construction manager once they are added to the team and it will be submitted for review.*** This will need to be reviewed by the Beacon Building Department once prepared. ***The applicant is requesting that this be a condition of approval in the resolution.***

Easement Plan (Sheet 9 of 29):

1. A note shall be added to Sheet 9 of 29 (C-330) with regards to the easement for inspection of the stormwater facilities at the site in accordance with the submitted "Stormwater Control Facility Maintenance Agreement and Easement" document.

2. The sheet number on Sheet C-330 shall be revised to reflect the sheet as Sheet 9 of 29. The sheet currently read Sheet 9 of 28.

This completes our review at this time. Further comments may be forth coming based upon future submissions. **A written response letter addressing each of the above comments should be provided with the next submission.** If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.

John Russo, P.E.

Cc: John Clarke, Planner
Jennifer Gray, Esq.
David Buckley, Building Inspector

City of Beacon Planning Board Agenda
10/12/2022

Title:

Continue review of application for Subdivision Approval, 2-lot residential, 46 Judson Street, submitted by 46 Judson LLC

ATTACHMENTS

01_JC27SP22DE_Reponds.pdf

02_SB26242__R05_V22-SUBDIVISION.pdf

03_SB26242__R05_V22-DETAIL 1.2.pdf

04_SB26242__R05_V22-DETAIL 2.2.pdf

05_SB26242__R05_V22-DRAINAGE.pdf

06_SB26242__R05_V22-E&S CONTROL.pdf

07_SB26242__R05_V22-IMPROVEMENT.pdf

08_SB26242__R05_V22-REMOVALS & EXISTING.pdf

SB26242__R05_V22.pdf

Planners Comments 46 Judson St Sub 10.7.22.pdf

Planners Comments 46 Judson St Sub 10.7.22.pdf

BADEY & WATSON
Surveying & Engineering, D.P.C.

September 27, 2022

John Gunn, Chair
Beacon Planning Board
1 Municipal Plaza
Beacon, NY 12508

Re: Application of 46 Judson Street, LLC – Submission of Revised Materials

Dear Mr. Gunn and Members of the Planning Board:

Accompanying this letter are 5 sets of the revised plat and plans for the captioned application, as follows:

1. Preliminary Subdivision Plat
2. Plan Set Sheet 1 of 6 Removals & Existing Conditions
3. Plan Set Sheet 2 of 6 Improvement Plan
4. Plan Set Sheet 3 of 6 Drainage Plan
5. Plan Set Sheet 4 of 6 Erosion & Sediment Control Plan
6. Plan Set Sheet 5 of 6 Details (1 of 2)
7. Plan Set Sheet 6 of 6 Details (2 of 2).

These plans have been revised in response to comments expressed during the Public Hearings held on the matter during your September 2022 meeting. More specifically, as you review the plans you will find the following changes have been made.

1. The proposed red maple at the easterly most corner of Lot E2 has been replaced with an American Holly to reduce shading and leaf drop onto the neighbor's pool.
2. The proposed red maple by the garage on Lot E1 has been replaced with an Eastern Red Cedar Hedge to provide screening between Lots E1 and E2.
3. The propose red maple along the driveway on Judson Street has been changed to a River Birch to provide additional diversity.
4. A row of Japanese Cedars has been added along the rear of Lot E1 to provide screening of the pool on the adjacent lands of Flynn from the deck that will be constructed on the existing house on Lot E1.
5. A Planting Schedule has been added to the plans. It appears on Sheet 2 of 6 of the plan set.
6. The house has been shifted 0.8 feet northerly to correct the setback from Union Street
7. A note has been added to the plans specifying "that any rock encountered that requires removal shall be done by mechanical means only".

We trust that you will find these changes consistent with the comments and discussions that occurred during the Public Hearings and in Mr. Russo's August letter to the Planning Board.

We look forward to your consideration of granting preliminary approval to the application during your October 12th meeting.

Thank you for your continued attention to this application.

Yours truly,
BADEY & WATSON
Surveying & Engineering, D.P.C.



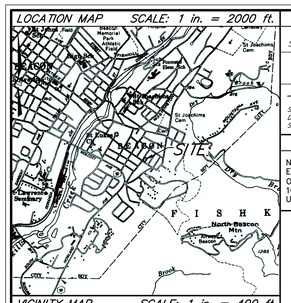
by
Glennon J. Watson, L.S.

cc: John Russo, PE
John Clarke, Planner
Paula Dowd, 46 Judson Street, LLC

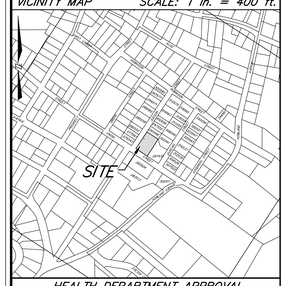
GEOGRAPHIC INDEX 41-29-49.3 -73-57-26.7

599

LOCATION MAP SCALE: 1 in. = 2000 ft.



VICINITY MAP SCALE: 1 in. = 400 ft.



HEALTH DEPARTMENT APPROVAL

This plan does not constitute a Realty Subdivision as defined by Article XI, Title II Section 1115, of the Public Health Law of the State of New York, and Article XI of the Dutchess County Sanitary Code.

Permission is hereby granted for the filing of this map with the clerk of Dutchess County. Approval for arrangements for water supply and/or sewage disposal is neither sought nor granted.

_____

Authorized Representative of the Commissioner of Health

PLANNING BOARD APPROVAL

"Approved by Resolution of the Planning Board of the City of Beacon, New York, on the _____ day of_____, 2022, subject to
All requirements and conditions of said Resolution. Any change, erasure, modification or revision of this plat, as approved, shall void this approval.

Signed this ____ day of _____, 2022, by
_____, Chairman
_____, Secretary

In absence of the Chairman or Secretary, the Acting Chairman or Acting Secretary Respectively may sign in this place

NOTES

1. Unauthorized alteration or addition to a document prepared by a licensed Land Surveyor or licensed Professional Engineer is a violation of Section 7209, Sub-Division 2 of the New York State Education Law.
2. The topographic data hereon was compiled from an actual field survey conducted by Badey & Watson on January 20, 2022.
3. The vertical datum hereon is North American Vertical Datum of 1988 (NAVD 1988).
4. No NYSDEC or Federal Wetlands were found onsite.
5. The Federal Emergency Management Agency (FEMA) has determined that this property lies within Flood Hazard Zone X as indicated hereon. The Zone boundaries were taken from Flood Insurance Rate Maps (FIRM)Community Map No. 36027C0577E with an effective date of May 2, 2012.
6. Pipe size and material based on City's sewer mapping & manhole inspection, and information provided by City Engineer.
7. Any rock encountered that requires removal shall be done by mechanical means only.

REVISIONS

See Title	R01	Original Drawing.
May 31, 2022	R02	Planning Board Comments
July 25, 2022	R03	Planning Board Comments
Aug. 29, 2022	R04	Planning Board Comments Repositioned Drainage Easement Structure on Lot E1 Updated
Sept. 27, 2022	R05	Repositioned Structure on Lot E2 Note 7 Added

LEGEND

—350—	CONTOUR LINE
CIP	CAST IRON PIPE
CPP	CORRUGATED PLASTIC PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
362.8	SPOT ELEVATION
FF=362.8	FIRST FLOOR ELEVATION
FS=361.8	FIRST FLOOR SILL ELEVATION
SUBTERRANEAN	
—G—	GAS LINE (PLATE PROVIDED)
5	DEEP TEST LOCATION W/DESIGNATION

SURVEYED & PREPARED BY

BADEY & WATSON
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Cold Spring, NY 10516
www.Badey-Watson.com
845.265.9217
877.3.141593 (Toll Free)

SOILS LEGEND

Map Symbol	Hydrologic Group	Soil Name
SrB	C	Stockbridge-Urban land complex, 3 to 8 percent slopes

———— = Soil delineation (boundary) lines

Soils classifications and delineated lines have been derived from U.S. Department of Agriculture, Natural Resources Conservation Service "Soil Survey of Dutchess County, New York" compiled 1999

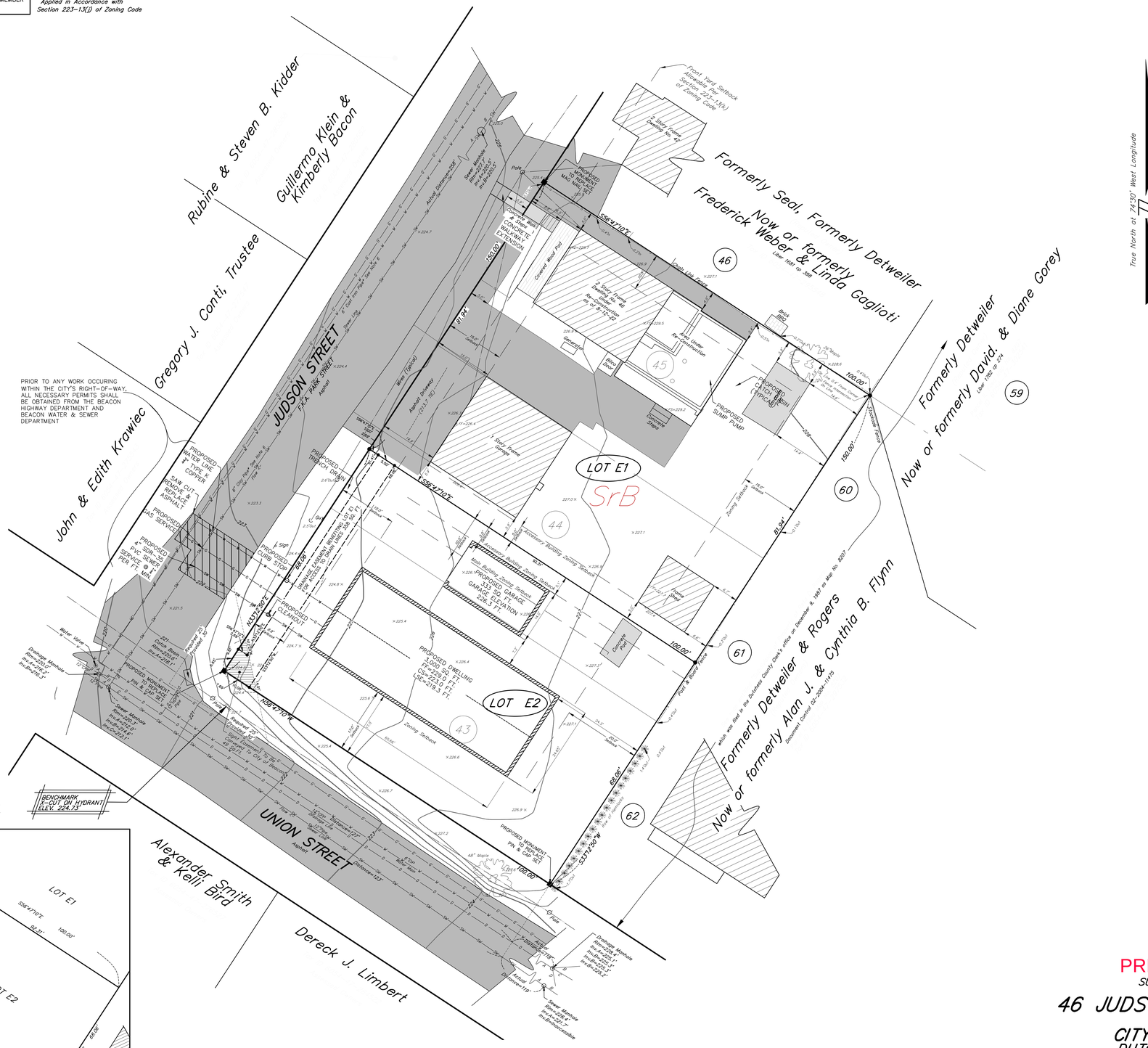
UNDERGROUND WARNING -- CODE RULE 753

NEW YORK STATE INDUSTRIAL CODE 753 REQUIRES EXCAVATORS TO CALL THE DIG SAFELY NEW YORK ORGANIZATION (DIAL 811) AT LEAST 2, BUT NO MORE THAN 10 WORKING DAYS PRIOR TO AN EXCAVATION. NON-MEMBER UTILITIES MUST BE CONTACTED SEPARATELY.

ZONING REQUIREMENTS (R1-5)

	REQUIRED (R1-5)	LOT E1 EXISTING	LOT E1 PROPOSED	LOT E2 EXISTING	LOT E2 PROPOSED
Min. Lot Area	5,000 Sq. Ft.	15,000 Sq. Ft.	8,194 Sq. Ft.	N/A	6,806 Sq. Ft.
Min. Lot Width	50 Ft.	150 Ft.	81.9 Ft.	N/A	68.1 Ft.
Min. Lot Depth	100 Ft.	100 Ft.	N/A	N/A	100 Ft
Min. Setback from Front Yard	15 Ft.	8.8 Ft.	N/A	N/A	15 Ft.
Alt. Min. Front Yard Setback* Section 223-13(k)	8.8 Ft.	8.8 Ft.	8.8 Ft.	N/A	15 Ft.
Min. Setback from Rear Yard	20 Ft.	6.6 Ft.	N/A	N/A	24.3 Ft.
Min. Setback from Side Yard**	10 Ft.	4.9 Ft.	N/A	N/A	16.2 Ft.
Max. Building Height	35 ft./2½ Stories	29.9 Ft.	N/A	N/A	30.6 Ft.
Max. Lot Coverage	N/A	2,274.3 Sq. Ft.	2,274.3 Sq. Ft.	N/A	2,306.4 Sq. Ft.
Min. Accessory Building	5 Ft.	5.9 Ft.	5.0 Ft.	N/A	5.1 Ft.

**Setback Along Union Street Applied in Accordance with Section 223-13(J) of Zoning Code*

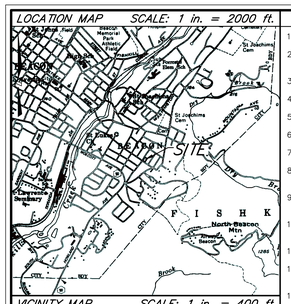

Rubine & Steven B. Kidder
Guillermo Klein & Kimberly Bacon
Gregory J. Conti, Trustee
John & Edith Krawiec
JUDSON STREET
F.K.A. PARK STREET
Asphalt
UNION STREET
Asphalt
Alexander Smith & Kelli Bird
Dereck J. Limbert
Formerly Seal, Formerly Detweiler
Now or formerly Frederick Weber & Linda Goglioti
Liber 1681 at 308
Formerly Detweiler
Now or formerly David. & Diane Gorey
Liber 1682 at 314
Formerly Detweiler & Rogers
Now or formerly Alan J. & Cynthia B. Flynn
which was filed in the Dutchess County Clerk's office on December 8, 1987 as Map No. 8207
Document Control 02-2004-11475
Front Yard Setback Calculation Per Section 223-13(k) of Zoning Code
LOT E1
SrB
LOT E2
PROPOSED DWELLING 2,306.4 SQ. FT. CS=229.0 FT. GS=223.0 FT. SS=219.3 FT.
PROPOSED GARAGE 432 SQ. FT. GARAGE SLAB ELEVATION = 226.5 FT.
PROPOSED MONUMENT TO ROCK W/ PIN & CAP SET
PROPOSED CATCH BASIN (TYPICAL)
PROPOSED SUMP PUMP
PROPOSED TRENCH DRAIN
PROPOSED CLEANOUT
PROPOSED WATER LINE 1" TYPE K COPPER
SAW CUT, REMOVE & REPLACE ASPHALT
PROPOSED GAS SERVICE
PROPOSED 4" SDR-35 PVC SEWER SERVICE @ 1.0% MIN. SLOPE
PROPOSED STOP SIGN
Sign
Water Valve
Bollard
Water Meter
Gas Meter
Electric Meter
Telephone Pedestal
Generator
Concrete Walk
Stone Walk
Concrete Walk w/ Stone Curb & Concrete Walkway Extension
Concrete Wood Pad
Chain Link Fence
2 Story Frame Dwelling No. 46 To Be Removed For Construction of 1 Family Dwelling
1 Story Frame Garage
Asphalt Driveway (223.7' ±@)
Brick BBQ
Brick Patio
Wood Deck
Wood Steps
Wood Shed
Concrete Steps
Accessory Building
Main Building Setback
Accessory Building Setback
Zoning Setback
Existing Shed
Chimney
Roof Overhang
Front Porch
Wood Fence
Chain Link Fence
Stockade Fence
Utility Pole
Overhead Wires
Guy Wire
Catch Basin
Drainage Manhole
Sewer Manhole
Sewer Line
Water Line
Gas Line
Underground Electric
Underground Telephone
Existing Contour
Proposed Contour
Spot Elevation
Rock Outcrop
Tree
Shrub
Brook
Pond
Lake
Wetland
Boundary
Lot Line
Easement
Setback
Zoning Setback
Drainage Easement to the City of Beacon
Proposed Drainage Easement to the City of Beacon
Proposed Sewer Easement to the City of Beacon
Proposed Roadway Easement to the City of Beacon
Proposed Water Easement to the City of Beacon
Proposed Gas Easement to the City of Beacon
Proposed Electric Easement to the City of Beacon
Proposed Telephone Easement to the City of Beacon
Proposed Cable Easement to the City of Beacon
Proposed Combined Utility Easement to the City of Beacon
Proposed Access

GEOGRAPHIC INDEX 41-29-49.3 -73-57-26.7

600

LOCATION MAP

SCALE: 1 in. = 2000 ft.

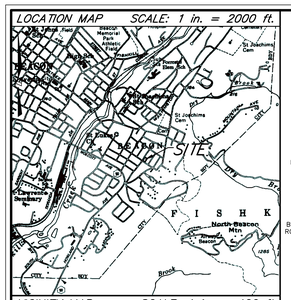

SITE
Beacon
Fishkill
Matteawan
Glenham
Wiccopee
Tioronda
Dutchess Stadium
Dutchess Junction
Dutchess Junction Park
Dutchess Junction Cem.
Dutchess Junction Cem.
Dutchess Junction Cem.

GEOGRAPHIC INDEX 41-29-49.3 -73-57-26.7

603

Drawing Name: SB26242__R05_V22 Layout: DETAIL 2.2 W.O. No. 26242 Checked by JMR Spell checked by JFT/MEY Drawn by JFT/MEY Closed by GJW On 02-02-22 T.M. : 6054-47-290539

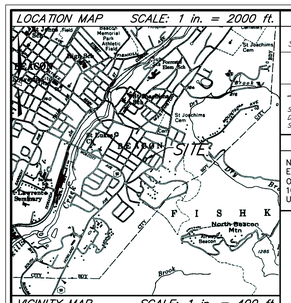
LOCATION MAP SCALE: 1 in. = 2000 ft.


SITE
Beacon
Fishkill
Matteawan
Glenham
Wiccopee
Tioronda
Dutchess Stadium
Memorial Park
Veterans Memorial Park
Dennings Point
Long Dock Park
Riverfront Park
Madam Brett Park
Denning's Point
Dutchess Rail Trail
Fishkill Creek
Hudson River
Mount Beacon
North Beacon Mtn
Mount Beacon Park
Mount Beacon Incline Railway
Route 9D
Route 52
Route 84
Route 9
Route 84
Route 52
Route 9D
Route 9
Route 84
Route 52
Route 9D
Route 9
Route 84
Route 52
Route 9D

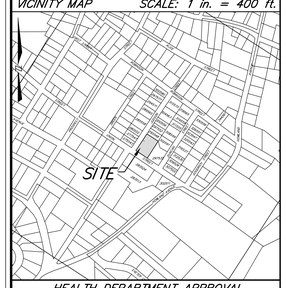
GEOGRAPHIC INDEX 41-29-49.3 -73-57-26.7

602

LOCATION MAP SCALE: 1 in. = 2000 ft.



VICINITY MAP SCALE: 1 in. = 400 ft.



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See Title	*R01*	*Original Drawing.*
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Aug 29, 2022	*R04*	*Planning Board Comments Repositioned Drainage and Corresponding Drainage Easement*
Sept 27, 2022	*R05*	*Repositioned Structure on Lot 2 Note 7 Added*

LEGEND

350	*CONTOUR LINE*
CIP	*CAST IRON PIPE*
CPP	*CORRUGATED PLASTIC PIPE*
HDPE	*HIGH DENSITY POLYETHYLENE PIPE*
362.8	*SPOT ELEVATION*
FF=362.8	*FIRST FLOOR ELEVATION*
FF=362.8	*FIRST FLOOR SILL ELEVATION*
	SUBTERRANEAN GAS LINE (PLATE PROVIDED)
5	*DEEP TEST LOCATION W/DESIGNATION*

SOILS LEGEND

Map Symbol	*Hydrologic Group*	*Soil Name*
SrB	*C*	*Stockbridge-Urban land complex, 3 to 8 percent slopes*

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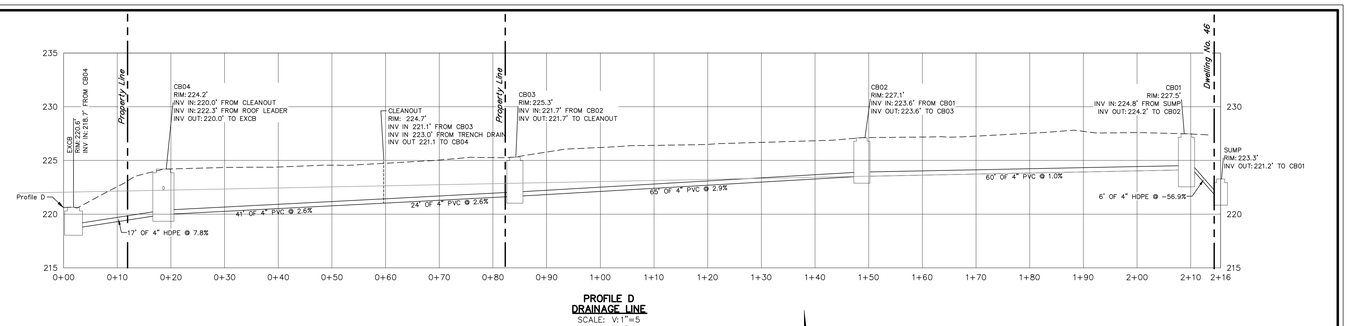
NEW YORK STATE INDUSTRIAL CODE 753 REQUIRES EXCAVATORS TO CALL THE DIG SAFELY NEW YORK ORGANIZATION (DIAL 811) AT LEAST 2, BUT NO MORE THAN 10 WORKING DAYS PRIOR TO AN EXCAVATION. NON-MEMBER UTILITIES MUST BE CONTACTED SEPARATELY.

FIELD TEST RESULTS

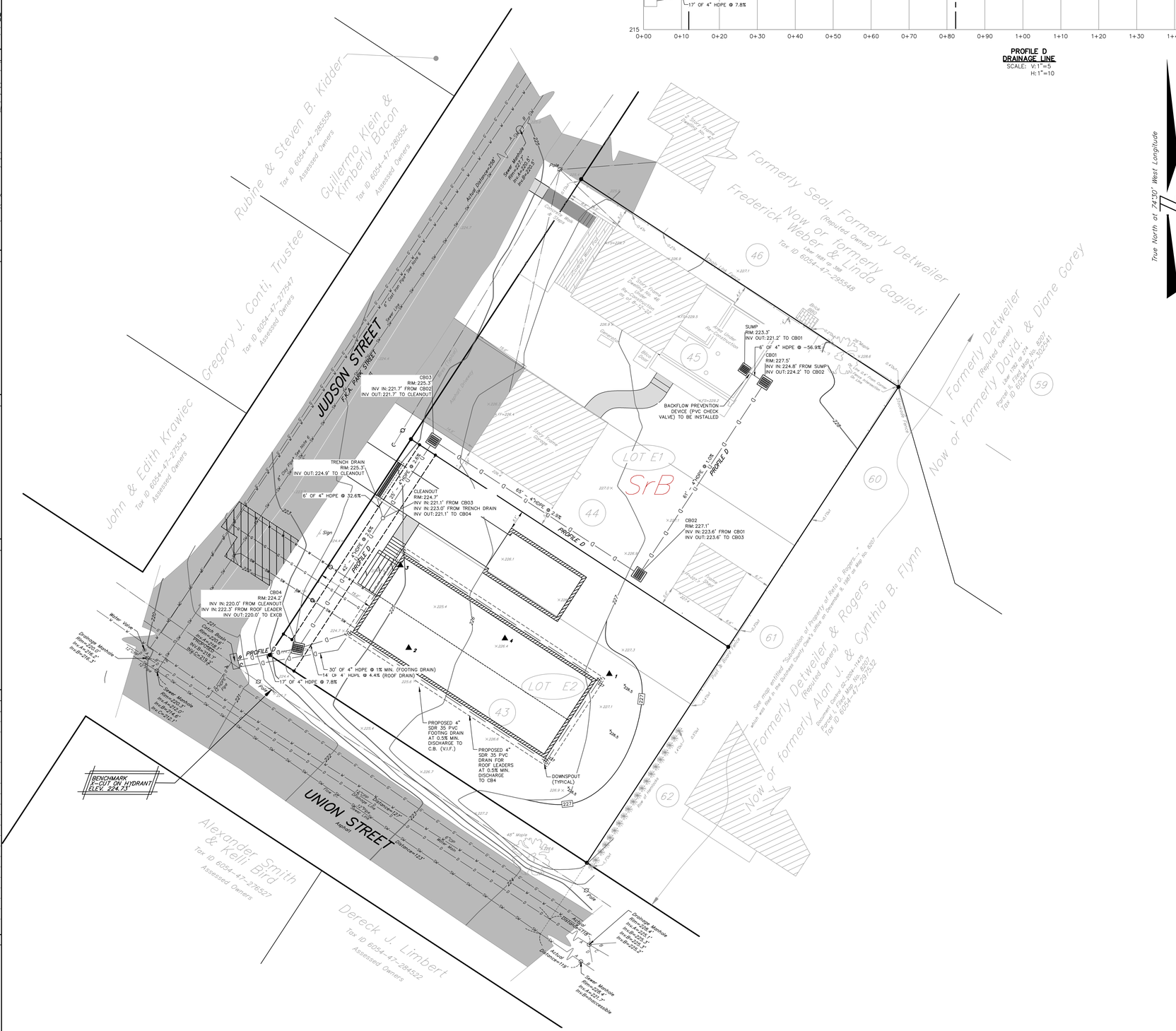
DEEP TEST HOLES

NO. 1		NO. 2		NO. 3		NO. 4		SOIL LAYER DESCRIPTION
2022		2022		2022		2022		
0	8	0	8	0	8	0	8	TOPSOIL
–	–	–	8	8	36	8	42	LIGHT BROWN CLAY LOAM
8	28	–	–	–	–	–	–	LIGHT BROWN SANDY LOAM
28	32	8	36	36	48	42	72	RED BROWN SANDY LOAM W/ FINE SAND
32		36		48		72		BEDROCK

NOTE: ALL DEPTHS ARE IN INCHES FROM TOP OF HOLE.
NO GROUND WATER ENCOUNTERED
ROCK ENCOUNTERED THROUGHOUT



PROFILE D
DRAINAGE LINE
SCALE: V:1"=5
H:1"=10

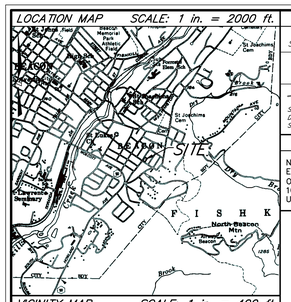

JUDSON STREET
F.K.A. PARK STREET
UNION STREET
Rubine & Steven B. Kidder
Tax ID 6054-47-285538
Assessed Owners
Guillermo Klein & Kimberly Bacon
Tax ID 6054-47-280552
Assessed Owners
Gregory J. Conti, Trustee
Tax ID 6054-47-27547
Assessed Owners
John & Edith Krawiec
Tax ID 6054-47-27554
Assessed Owners
Alexander Smith & Kelli Bird
Tax ID 6054-47-276527
Assessed Owners
Dereck J. Limbert
Tax ID 6054-47-284522
Assessed Owners
Formerly Seal, Formerly Detweiler
Now or formerly
Frederick Weber & Linda Caglioti
Liber 1681 Pg. 388
Tax ID 6054-47-295548
Formerly Detweiler
(Reputed Owner)
Now or formerly David, & Diane Gorey
Liber 1783 Pg. 247
Parcel II, Filed Map No. 6207
Tax ID 6054-47-302541
See map entitled "Subdivision of Property of Reta A. Rogers..." which was filed in the Dutchess County Clerk's office as Revised Filed Map No. 6207
Formerly Detweiler & Rogers
Now or formerly Alan J. & Cynthia B. Flynn
Liber 1783 Pg. 247
Parcel I, Filed Map No. 6207
Tax ID 6054-47-293532
Dutchess County Clerk's office as Revised Filed Map No. 6207
Tax ID 6054-47-293532
Dwelling No. 46
Dwelling No. 44
Dwelling No. 45
Dwelling No. 43
Dwelling No. 59
Dwelling No. 60
Dwelling No. 61
Dwelling No. 62
LOT E1
LOT E2
SrB
CB03
RIM: 225.3'
INV IN: 221.7' FROM CB02
INV OUT: 221.7' TO CLEANOUT
SUMP
RIM: 223.3'
INV OUT: 221.2' TO CB01
6' OF 4" HDPE @ -56.9%
CB01
RIM: 227.5'
INV IN: 224.8' FROM SUMP
INV OUT: 224.2' TO CB02
BACKFLOW PREVENTION DEVICE (PVC CHECK VALVE) TO BE INSTALLED
CB02
RIM: 227.1'
INV IN: 223.6' FROM CB01
INV OUT: 223.6' TO CB03
TRENCH DRAIN
RIM: 225.3'
INV OUT: 224.9' TO CLEANOUT
6" OF 4" HDPE @ 32.6%
CLEANOUT
RIM: 224.7'
INV IN: 221.1' FROM CB03
INV IN: 223.0' FROM TRENCH DRAIN
INV OUT: 221.1' TO CB04
65' OF 4" HDPE @ 2.9%
61' OF 4" HDPE @ 1.0%
PROFILE D
CB04
RIM: 224.2'
INV IN: 220.0' FROM CLEANOUT
INV IN: 222.3' FROM ROOF LEADER
INV OUT: 220.0' TO EXCB
EXCB
RIM: 223.0'
INV IN: 218.7' FROM CB04
17' OF 4" HDPE @ 7.8%
30' OF 4" HDPE @ 1% MIN. (FOOTING DRAIN)
14' OF 4" HDPE @ 4.4% (ROOF DRAIN)
PROPOSED 4" SDR 35 PVC FOOTING DRAIN AT 0.5% MIN. DISCHARGE TO C.B. (V.I.F.)
PROPOSED 4" SDR 35 PVC DRAIN FOR ROOF LEADERS AT 0.5% MIN. DISCHARGE TO CB4
DOWNSPOUT (TYPICAL)
Water Valve
Drainage Manhole Rim=224.1' Inv.=216.2'
Sewer Manhole Rim=223.0' Inv.=217.6' Inv.=217.2'
Sewer Manhole Rim=225.5' Inv.=218.5' Inv.=220.3'
Sewer Manhole Rim=226.1' Inv.=217.9' Inv.=218.1'
Drainage Manhole Rim=226.1' Inv.=217.9' Inv.=223.1' Inv.=223.2'
Sewer Manhole Rim=226.1' Inv.=221.1' Inv.=Unknown
Catch Basin Rim=225.6' Inv.=220.1' Inv.=220.3' Inv.=220.3'
Catch Basin Rim=224.7' Inv.=220.3'
Catch Basin Rim=224.4' Inv.=220.3'
Catch Basin Rim=224.4' Inv.=220.3'
Catch Basin Rim=224.4

GEOGRAPHIC INDEX 41-29-49.3 -73-57-26.7

603

Drawing Name: SB26242__R05_V22 Layout: E&S CONTROL W.O. No. 26242 Checked by JMR Spell checked by JFT/AEY Drawn by JFT/AEY Closed by GJW On 02-02-22 T.M. : 6054-47-290539

LOCATION MAP SCALE: 1 in. = 2000 ft.


SITE
Beacon
Fishkill
Creek
Brook
Matteawan
Glenham
Wiccopee
Pond
Fishkill Creek
Fishkill Ridge
Mount Beacon
Mount Beacon Park
Mount Beacon Incline Railway
Beacon Historic Trail
Beacon Reservoir
Dutchess Stadium
Dutchess Rail Trail
Metro-North Railroad
Hudson River
Newburgh-Beacon Bridge
Interstate 84
Route 9D
Route 52
Route 9
Route 84
Route 32
Route 300
Route 376
Route 82
Route 55
Route 199
Route 213
Route 208
Route 9W
Route 52

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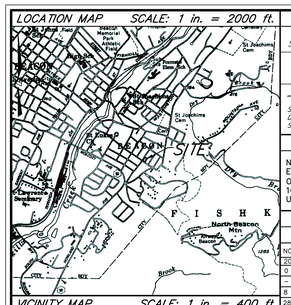
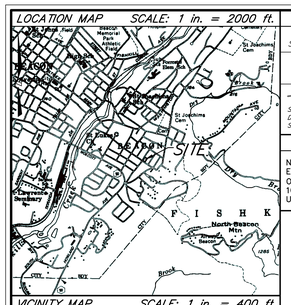

SITE
Beacon High School
Athletic Fields
Dutchess Day School
St Joachims Cem
St Joachims Cem
Beacon Reservoir
North Beacon Mtn
Beacon Reservoir
F I S H K
Brook
Brook
Lines
Lines
Lines

GEOGRAPHIC INDEX 41-29-49.3 -73-57-26.7

605

LOCATION MAP SCALE: 1 in. = 2000 ft.



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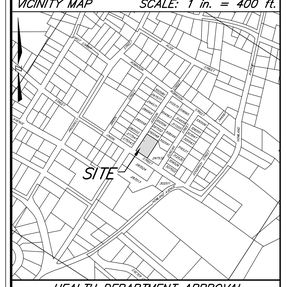

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Sept 29, 2022	R05	Note 7 Added

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CPP	CORRUGATED PLASTIC PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
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FS=363.8	FIRST FLOOR SILL ELEVATION
	SUBTERRANEAN
—G—	GAS LINE (PLATE PROVIDED)
5	DEEP TEST LOCATION W/DESIGNATION

SURVEYED & PREPARED BY

BADEY & WATSON
Surveying & Engineering, D.P.C.
3063 Route 9
Cold Spring, NY 10516
www.Badey-Watson.com
845.265.9217
877.3.141593 (Toll Free)

SOILS LEGEND

Map Symbol	Hydrologic Group	Soil Name
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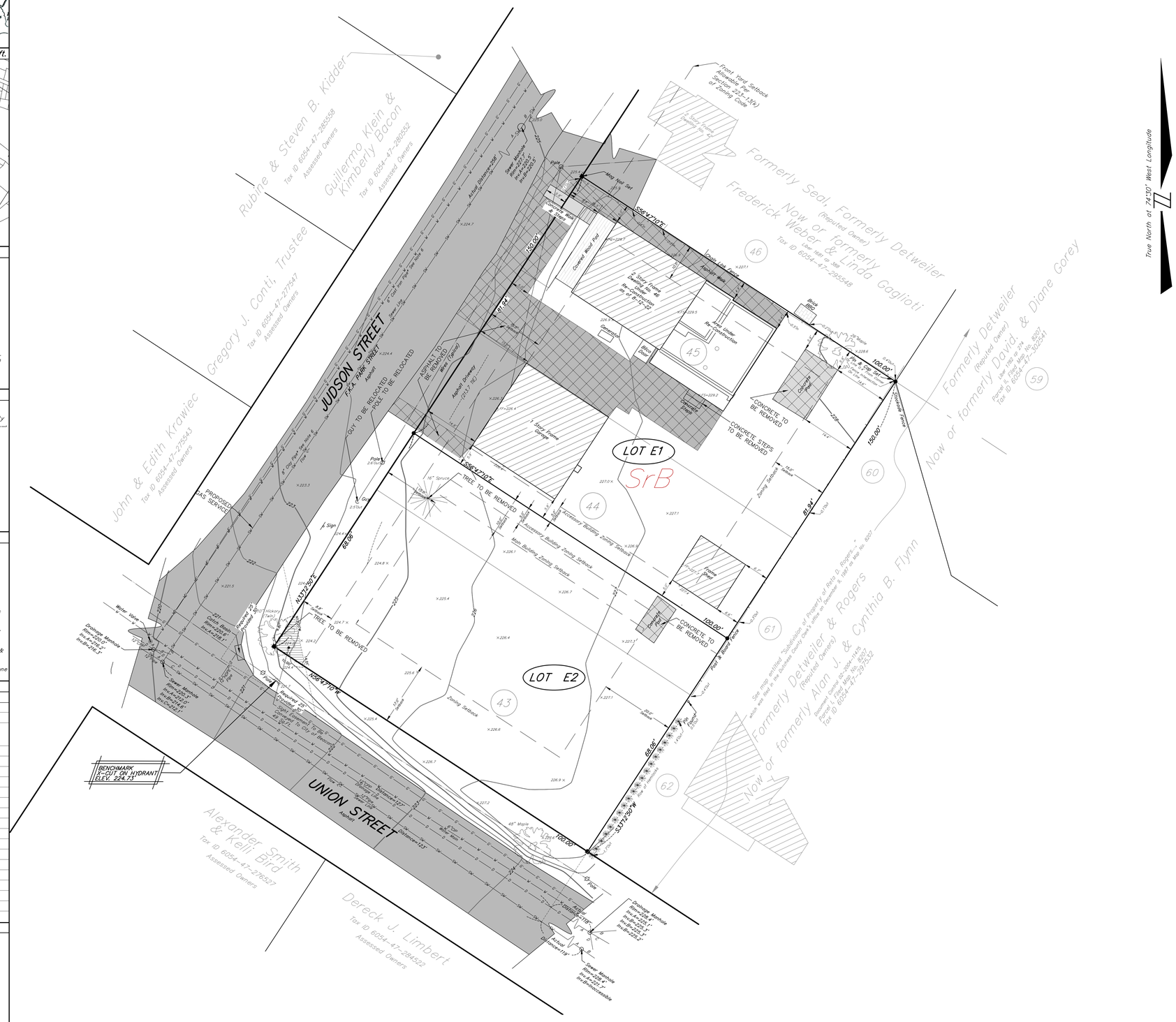
ZONING REQUIREMENTS (R1-5)

	REQUIRED (R1-5)	LOT E1 EXISTING	LOT E1 PROPOSED	LOT E2 EXISTING	LOT E2 PROPOSED
Min. Lot Area	5,000 Sq. Ft.	15,000 Sq. Ft.	8,194 Sq. Ft.	N/A	6,806 Sq. Ft.
Min. Lot Width	50 Ft.	150 Ft.	81.9 Ft.	N/A	68.1 Ft.
Min. Lot Depth	100 Ft.	100 Ft.	N/A	N/A	100 Ft
Min. Setback from Front Yard	15 Ft.	8.8 Ft.	N/A	N/A	15 Ft.
Alt. Min. Front Yard Setback* Section 223-13(k)	8.8 Ft.	8.8 Ft.	8.8 Ft.	N/A	15 Ft.
Min. Setback from Rear Yard	20 Ft.	6.6 Ft.	N/A	N/A	24.3 Ft.
Min. Setback from Side Yard**	10 Ft.	4.9 Ft.	N/A	N/A	16.2 Ft.
Max. Building Height	35 ft./2½ Stories	29.9 Ft.	N/A	N/A	30.6 Ft.
Max. Lot Coverage	N/A	2,274.3 Sq. Ft.	2,274.3 Sq. Ft.	N/A	2,306.4 Sq. Ft.
Min. Accessory Building	5 Ft.	5.9 Ft.	5.0 Ft.	N/A	5.1 Ft.

**Setback Along Union Street Applied in Accordance with Section 223-13(J) of Zoning Code*



True North at 74°30' West Longitude

SURVEYOR	ENGINEER	OWNER & APPLICANT	OWNER'S APPROVAL	PROPERTY DATA
PRELIMINARY License No. 50389	PRELIMINARY License No. 103021	46 Judson Street LLC 8 Churchill Street Beacon, New York	*The undersigned, owner(s) of the property hereon, states that they are familiar with this map, its contents and its legends and hereby consents to the filing of this map.* *Signed this ____ day of _____, 2022.* *46 JUDSON STREET LLC* *by_____* *Paula Dowd, Member*	*Tax Map Designation: 6054-47-290539* *Zoning District: R1-5 Total* *Area: 15,000 Sq. Ft.*

PRELIMINARY

SHEET 1 of 6

REMOVALS & EXISTING CONDITIONS PLAN

PREPARED FOR

46 JUDSON STREET LLC

SITUATE IN THE

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK

SCALE 1 in. = 10 ft. APRIL 15, 2022

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

For latest issue date see revision box.

PRINTED
September 27, 2022
BADEY & WATSON
Surveying & Engineering, D.P.C.

FILE No. 75-9022

Drawing Name: SB26242__R05_V22 Layout: REMOVALS & EXISTING W.O. No. 26242 Checked by JMR Spell checked by JFT/MEY Drawn by JFT/MEY Closed by GJW On 02-02-22 T.M. : 6054-47-290539

GEOGRAPHIC INDEX 41-29-49.3 -73-57-26.7

606

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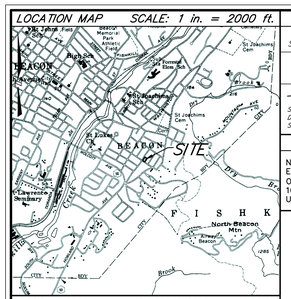

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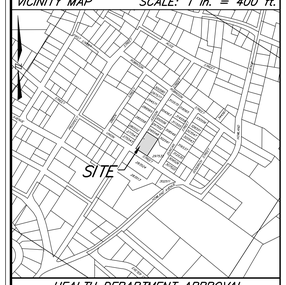

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362.8	SPOT ELEVATION
FF=362.8	FIRST FLOOR ELEVATION
FS=360.8	FIRST FLOOR SILL ELEVATION
SUBTERRANEAN	
—G—	GAS LINE (PLATE PROVIDED)
5	DEEP TEST LOCATION W/DESIGNATION

SURVEYED & PREPARED BY

BADEY & WATSON
Surveying & Engineering, D.P.C.
3063 Route 9
Cold Spring, NY 10516
www.Badey-Watson.com
845.265.9217
877.3.141593 (Toll Free)

SOILS LEGEND

Map Symbol	Hydrologic Group	Soil Name
SrB	C	Stockbridge–Urban land complex, 3 to 8 percent slopes

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ZONING REQUIREMENTS (R1-5)

	REQUIRED (R1-5)	LOT E1 EXISTING	LOT E1 PROPOSED	LOT E2 EXISTING	LOT E2 PROPOSED
Min. Lot Area	5,000 Sq. Ft.	15,000 Sq. Ft.	8,194 Sq. Ft.	N/A	6,806 Sq. Ft.
Min. Lot Width	50 Ft.	150 Ft.	81.9 Ft.	N/A	68.1 Ft.
Min. Lot Depth	100 Ft.	100 Ft.	N/A	N/A	100 Ft
Min. Setback from Front Yard	15 Ft.	8.8 Ft.	N/A	N/A	15 Ft.
Alt. Min. Front Yard Setback* Section 223-13(k)	8.8 Ft.	8.8 Ft.	8.8 Ft.	N/A	15 Ft.
Min. Setback from Rear Yard	20 Ft.	6.6 Ft.	N/A	N/A	24.3 Ft.
Min. Setback from Side Yard**	10 Ft.	4.9 Ft.	N/A	N/A	16.2 Ft.
Max. Building Height	35 ft./2½ Stories	29.9 Ft.	N/A	N/A	30.6 Ft.
Max. Lot Coverage	N/A	2,274.3 Sq. Ft.	2,274.3 Sq. Ft.	N/A	2,306.4 Sq. Ft.
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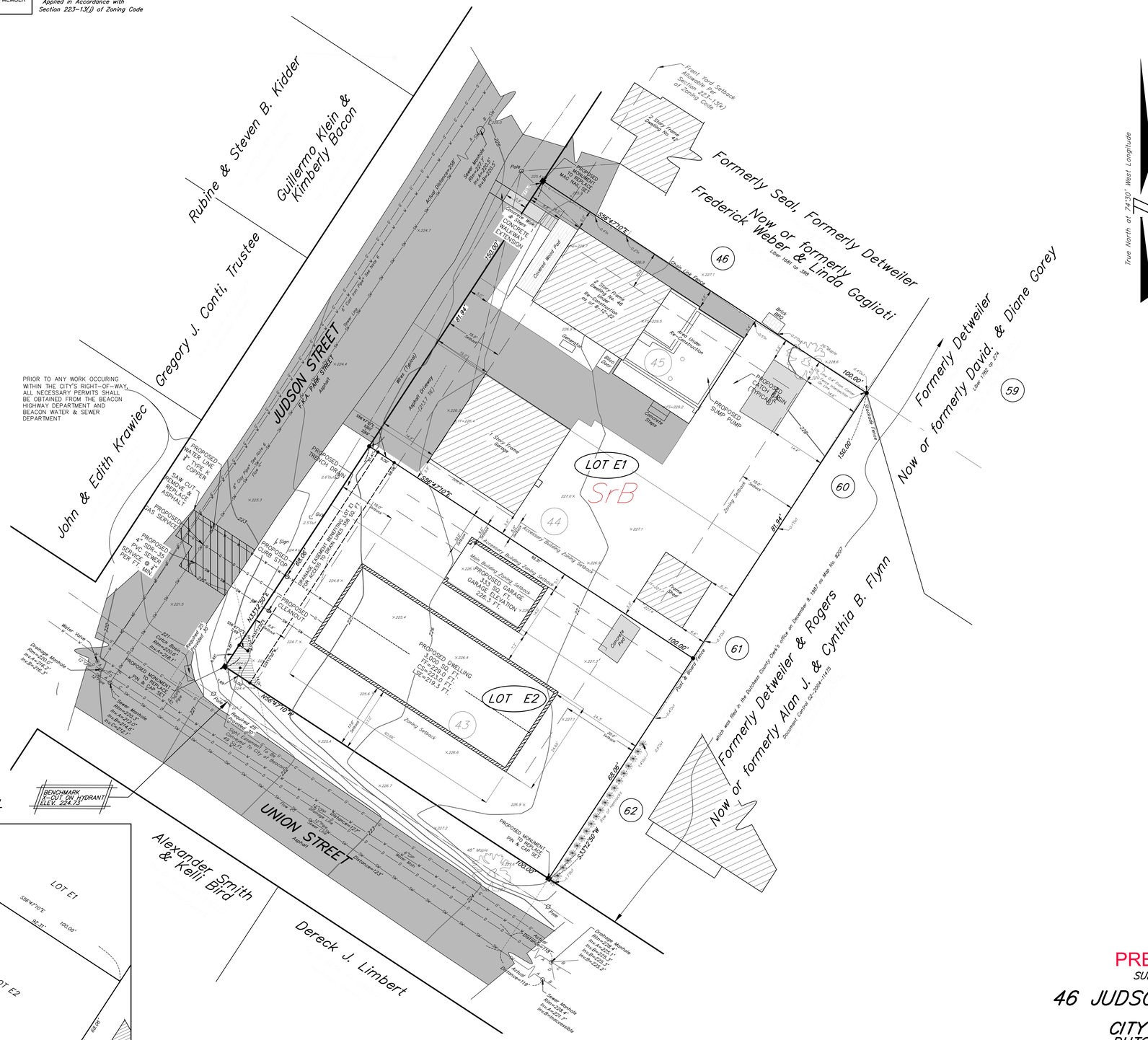
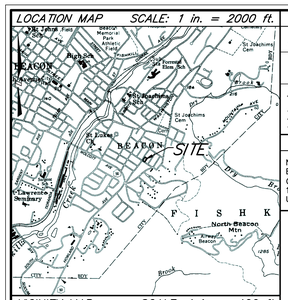
**Setback Along Union Street Applied in Accordance with Section 223-13(j) of Zoning Code*


Rubine & Steven B. Kidder
Guillermo Klein & Kimberly Bacon
Gregory J. Conti, Trustee
John & Edith Krawiec
JUDSON STREET
F.K.A. PARK STREET
Asphalt
UNION STREET
Alexander Smith & Kelli Bird
Dereck J. Limbert
Formerly Seal, Formerly Detweiler
Now or formerly Frederick Weber & Linda Gaglioti
Liber 1681 at 308
Formerly Detweiler
Now or formerly David. & Diane Gorey
Liber 1182 at 314
Now or formerly Alan J. & Cynthia B. Flynn
which was filed in the Dutchess County Clerk's office on December 8, 1987 as Map No. 8207
Formerly Detweiler & Rogers
Document Control 02-20041-1475
LOT E1
LOT E2
SrB
PROPOSED DWELLING 1,008 SQ. FT. CS=229.0 FT. GS=223.0 FT. GF=219.3 FT.
PROPOSED GARAGE 441 SQ. FT. GARAGE ELEVATION = 226.5 FT.
PROPOSED MONUMENT TO BE SET PIN & CAP SET
PROPOSED CATCH BASIN (TYPICAL)
PROPOSED SUMP PUMP
PROPOSED FRENCH DRAIN
PROPOSED CURB STOP
PROPOSED WATER LINE 1" TYPE K COPPER
SAW CUT, REMOVE & REPLACE ASPHALT
PROPOSED GAS SERVICE
PROPOSED 4" SDR-35 PVC SEWER SERVICE, 45 FEET @ 2.0%
PROPOSED CLEANOUT
Water Valve
Hydrant
Sewer Manhole
Rim=229.37'
Inv.E=225.3'
Inv.W=225.2'
Inv.S=225.1'
Inv.E=225.2'
Inv.N=225.3'
Drainage Manhole
Rim=229.37'
Inv.N=225.3'
Inv.W=225.2'
Inv.S=225.1'
Inv.E=225.2'
Inv.N=225.3'
BENCHMARK X-CUT ON HYDRANT ELEV. 224.73'
Front Yard Setback Calculation Per Section 223-13(k) of Zoning Code
Stone Frame of Dwelling No. 45
Brick Shed
Concrete Slabs
Wood Frame Garage
Concrete Pad
Gazebo
Shed
Asphalt Driveway
Wood Frame Garage
Concrete Slabs
Concrete Walk
Concrete Walkway Extension
Concrete Wall
Concrete Wall Pad
Stone Frame of Dwelling No. 43
Paved Walk & Stone Patio
Stone Wall
Retaining Wall
Fence
Utility Pole
Guy Wire
Sign
Curb Inlet
Catch Basin
Manhole
Gas Valve
Gas Meter
Electric Meter
Cable TV Box
Telephone Pedestal
Electric Box
Overhead Wires
Underground Electric
Underground Telephone
Underground Cable TV
Gas Line
Water Line
Sanitary Line
Storm Line
Edge of Pavement
Top of Bank
Bottom of Bank
Tree Line
Edge of Woods
Edge of Brush
Edge of Grass
Rock Outcrop
Boulder
Accessory Building Setback
Main Building Setback
Zoning Setback
Accessory Building Setback
Main Building Setback
Zoning Setback
Accessory Building Setback
Main Building Setback
Zoning Setback
Front Yard Setback
Rear Yard Setback
Side Yard Setback
Side Yard Setback
Rear Yard Setback
Front Yard Setback
Driveway Apron
Driveway Apron
Driveway Apron

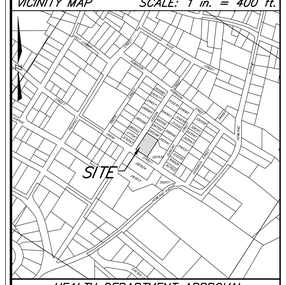
GEOGRAPHIC INDEX 41-29-49.3 -73-57-26.7

607

LOCATION MAP SCALE: 1 in. = 2000 ft.



VICINITY MAP SCALE: 1 in. = 400 ft.



HEALTH DEPARTMENT APPROVAL

This plan does not constitute a Realty Subdivision as defined by Article XI, Title II Section 1115, of the Public Health Law of the State of New York, and Article XI of the Dutchess County Sanitary Code.

Permission is hereby granted for the filing of this map with the clerk of Dutchess County. Approval for arrangements for water supply and/or sewage disposal is neither sought nor granted.

_____

Authorized Representative of the Commissioner of Health

PLANNING BOARD APPROVAL

"Approved by Resolution of the Planning Board of the City of Beacon, New York, on the _____ day of_____, 2022, subject to
All requirements and conditions of said Resolution. Any change, erasure, modification or revision of this plat, as approved, shall void this approval.

Signed this ____ day of _____, 2022, by
_____, Chairman
_____, Secretary

In absence of the Chairman or Secretary, the Acting Chairman or Acting Secretary Respectively may sign in this place

NOTES

1. *Unauthorized alteration or addition to a document prepared by a licensed Land Surveyor or licensed Professional Engineer is a violation of Section 7209, Sub-Division 2 of the New York State Education Law.*
2. *The topographic data hereon was compiled from an actual field survey conducted by Badey & Watson on January 20, 2022.*
3. *The vertical datum hereon is North American Vertical Datum of 1988 (NAVD 1988).*
4. *No NYSDEC or Federal Wetlands were found onsite.*
5. *The Federal Emergency Management Agency (FEMA) has determined that this property lies within Flood Hazard Zone X as indicated hereon. The Zone boundaries were taken from Flood Insurance Rate Maps (FIRM)Community Map No. 3602720577E with an effective date of May 2, 2012.*
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7. *Any rock encountered that requires removal shall be done by mechanical means only.*

REVISIONS

See Title	*R01*	*Original Drawing.*
May 31, 2022	*R02*	*Planning Board Comments*
July 25, 2022	*R03*	*Planning Board Comments*
Aug 29, 2022	*R04*	*Planning Board Comments* *Structure on Lot E1 Updated*
Sept. 29, 2022	*R05*	*Note 7 Added*

LEGEND

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CIP	CAST IRON PIPE
CPP	CORRUGATED PLASTIC PIPE
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362.8	SPOT ELEVATION
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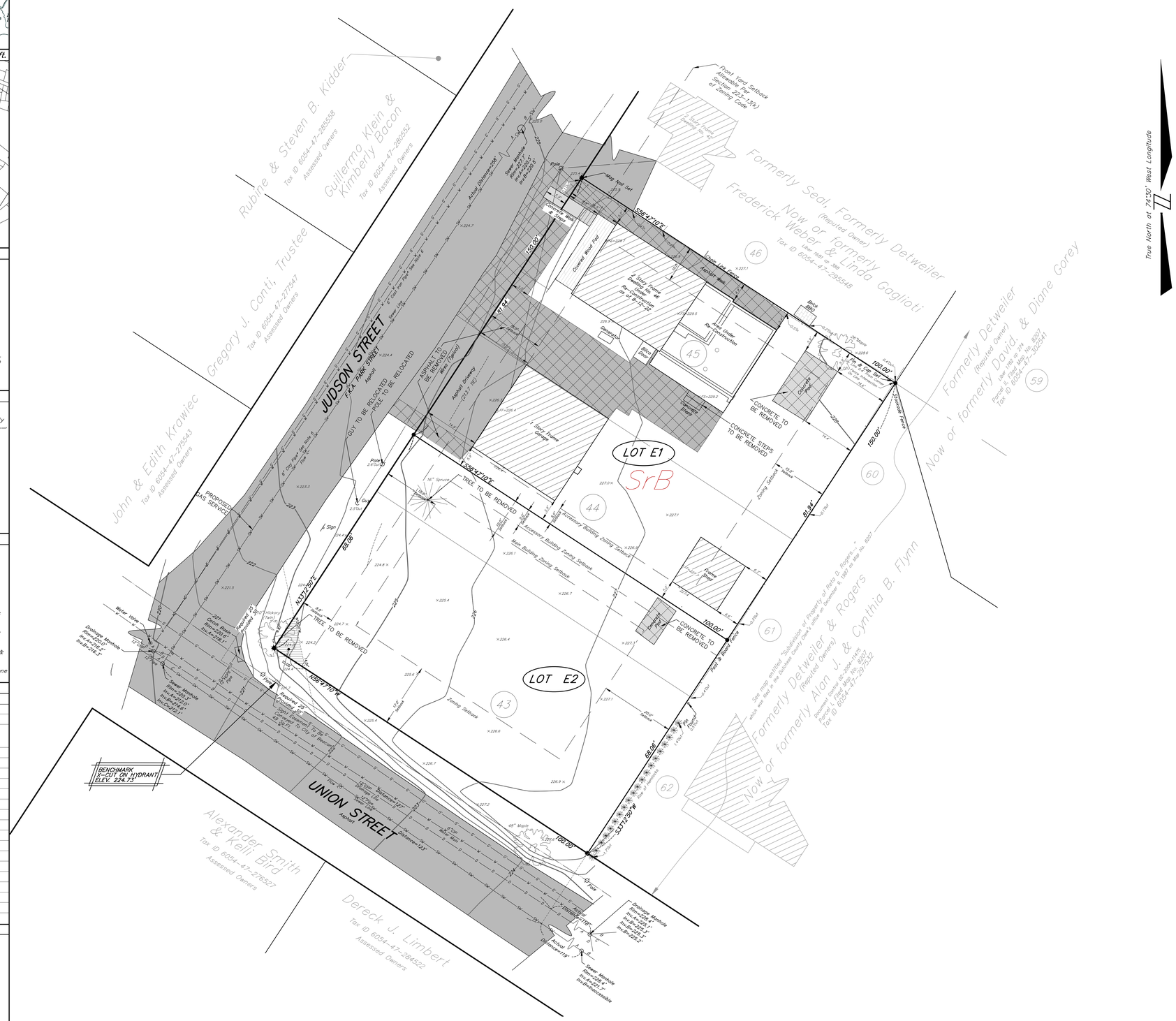
JUDSON STREET
F.K.A. PARK STREET
Asphalt
UNION STREET
Asphalt
LOT E1
SrB
LOT E2
S56°47'10"E
150.00'
N56°47'10"W
68.08'
N33°13'50"E
100.00'
S33°13'50"W
81.92'
ASPHALT TO BE REMOVED
CURB TO BE RELOCATED
CURB TO BE RELOCATED
Asphalt Driveway
Concrete Walk
Covered Wood Pad
2 Story Frame Dwelling #46
Block Retaining Wall
Shed
Concrete Pad
CONCRETE TO BE REMOVED
CONCRETE STEPS TO BE REMOVED
Concrete Patio
Wood Deck
Frame Garage
Shed
Pool
Gazebo
Sign
16" Spruce
TREE TO BE REMOVED
TREE TO BE REMOVED
TREE TO BE REMOVED
Accessory Building Setback
Main Building Zoning Setback
Zoning Setback
Asphalt Driveway
Paved Patio
Frame Shed
Hall & Bissell Fence
Chainlink Fence
PROPOSED GAS SERVICE
Water Valve
Drainage Manhole Rim=226.0' Inv.#1=216.9' Inv.#2=216.7'
Sewer Manhole Rim=227.0' Inv.#1=217.6' Inv.#2=217.4' Inv.#3=217.2'
Sewer Manhole Rim=224.0' Inv.#1=214.6' Inv.#2=214.4'
Catch Basin Rim=224.1' Inv.#=216.1'
Proposed 6" Gas Service Line
Proposed 6" Gas Service Line
Proposed Gas Meter
Proposed Gas Service Line To Be Installed By Central Hudson
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Proposed

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608

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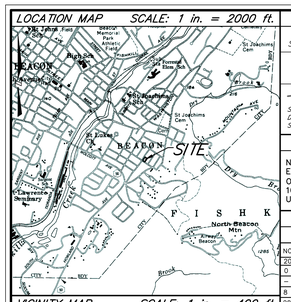

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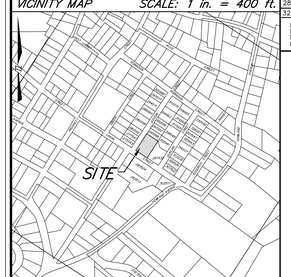

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Aug 29, 2022	R04	Planning Board Comments Structure on Lot E1 Updated
Sept. 27, 2022	R05	Plant Screening Added, Tree Types Changed, Planting Schedule Added Repositioned Structure on Lot 2 Added, Drainage Structures Labeled Note 7 added

LEGEND

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FIELD TEST RESULTS

DEEP TEST HOLES

NO. 1	NO. 2	NO. 3	NO. 4	SOIL LAYER DESCRIPTION
2022	2022	2022	2022	
0 8	0 8	0 8	0 8	TOPSOIL
– –	– –	8 36	8 42	LIGHT BROWN CLAY LOAM
8 28	– –	– –	– –	LIGHT BROWN SANDY LOAM
28 32	8 36	36 48	42 72	RED BROWN SANDY LOAM W/ FINE SAND
32 36		48 72		BEDROCK

NOTE: ALL DEPTHS ARE IN INCHES FROM TOP OF HOLE.
MOTTLING THROUGHOUT
NO GROUND WATER ENCOUNTERED
ROCK ENCOUNTERED THROUGHOUT

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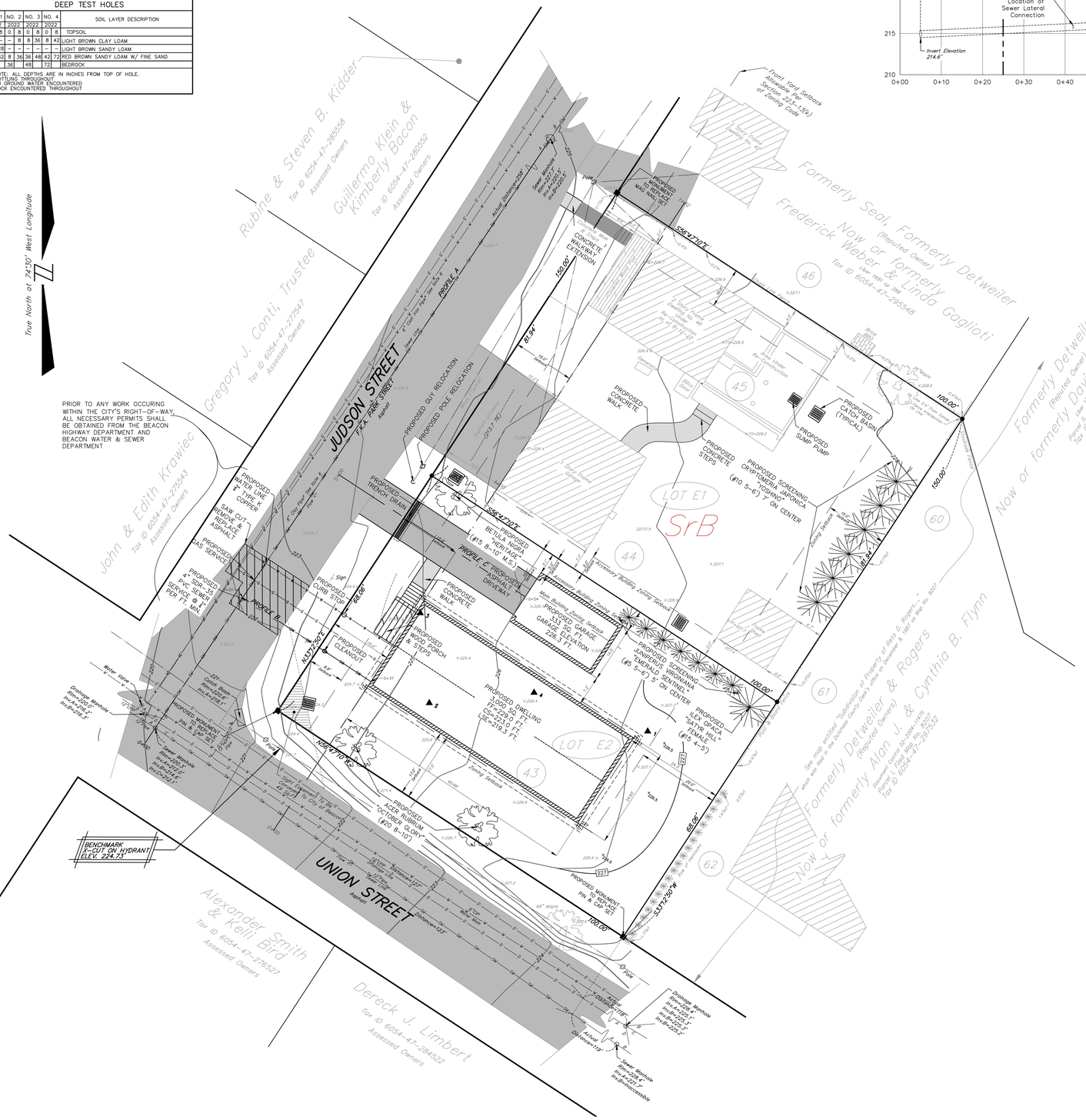
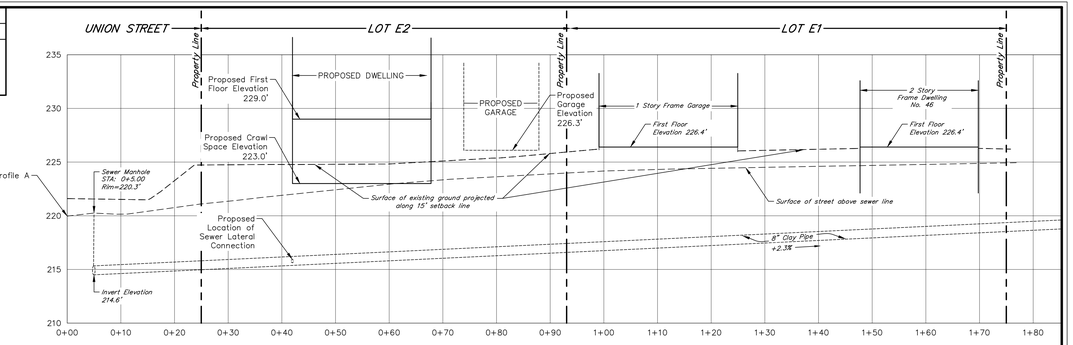
**Setback Along Union Street Applied in Accordance with Section 223-13(j) of Zoning Code*

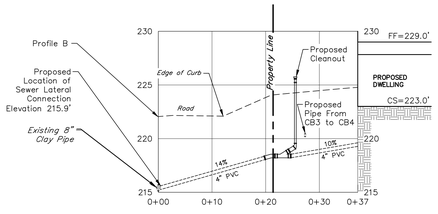
PLANTING SCHEDULE

SCIENTIFIC NAME	COMMON NAME	CONT.	HEIGHT	QTY.
ACER RUBRUM 'OCTOBER GLORY'	RED MAPLE	#20	8–10'	2
BETULA NIGRA 'HERITAGE'	RIVER BIRCH	#15	8–10' MS	1
CRYPTOMERIA JAPONICA 'YOSHINO'	JAPANESE CEDAR	#10	5–6'	6
ILEX OPACA 'SATYR HILL'	AMERICAN HOLLY	#15	4–5'	1
JUNIPERUS VIRGINIANA 'EMERALD SENTINEL'	EASTERN RED CEDAR	#15	5–6'	7

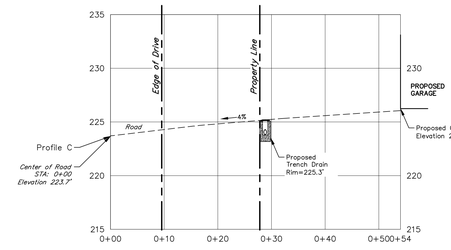




PROFILE A
EXISTING SEWER LINE IN RELATION TO FRONT YARD
SCALE: V:1"=5
H:1"=10



PROFILE B
HOUSE SEWER SERVICE CONNECTION
SCALE: V:1"=5
H:1"=10



PROFILE C
DRIVEWAY
SCALE: V:1"=5
H:1"=10

SURVEYOR	ENGINEER	OWNER & APPLICANT	OWNER'S APPROVAL	PROPERTY DATA
PRELIMINARY License No. 50389	PRELIMINARY License No. 103021	46 Judson Street LLC 8 Churchill Street Beacon, New York	The undersigned, owner(s) of the property hereon, states that they are familiar with this map, its contents and its legends and hereby consents to the filing of this map. Signed this _____ day of _____, 2022. 46 JUDSON STREET LLC by_____ Paula Dowd, Member	Tax Map Designation: 6054-47-290539 Zoning District: R1-5 Total Area: 15,000 Sq. Ft.

PRELIMINARY
SHEET 2 of 6
IMPROVEMENT PLAN
PREPARED FOR
46 JUDSON STREET LLC
SITUATE IN THE
CITY OF BEACON
DUTCHESS COUNTY
NEW YORK

SCALE 1 in. = 10 ft. APRIL 15, 2022

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

For latest issue date see revision box.

PRINTED
September 27, 2022
BADEY & WATSON
Surveying & Engineering, D.P.C.

FILE No. 75-9022

Drawing Name: SB26242___R05_V22 Layout: IMPROVEMENT W.O. No. 26242 Checked by: JMR Spell checked by: JFT/MEY Drawn by: JFT/MEY Closed by: GJW On 02-02-22 T.M. : 6054-47-290539

GEOGRAPHIC INDEX 41-29-49.3 -73-57-26.7

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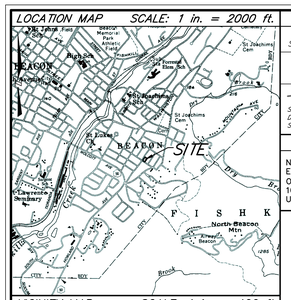
BEACON
SITE
Mount Beacon
Beacon High School
Beacon Middle School
Memorial Park
Veterans Memorial Park
Beacon Reservoir
Beacon Reservoir
Dutchess Quarry
Dutchess Quarry
Dutchess Quarry

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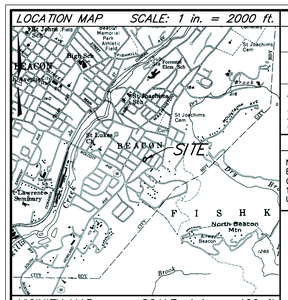
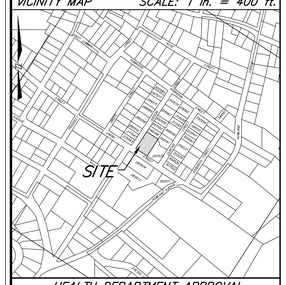
Drawing Name: SB26242__R05_V22 Layout: E&S CONTROL W.O. No. 26242 Checked by JMR Spell checked by JFT/AEY Drawn by JFT/AEY Closed by GJW On 02-02-22 T.M. : 6054-47-290539

LOCATION MAP SCALE: 1 in. = 2000 ft.



VICINITY MAP SCALE: 1 in. = 400 ft.



HEALTH DEPARTMENT APPROVAL

This plan does not constitute a Realty Subdivision as defined by Article XI, Title II Section 1115, of the Public Health Law of the State of New York, and Article XI of the Dutchess County Sanitary Code.

Permission is hereby granted for the filing of this map with the clerk of Dutchess County. Approval for arrangements for water supply and/or sewage disposal is neither sought nor granted.

_____

Authorized Representative of the Commissioner of Health

PLANNING BOARD APPROVAL

"Approved by Resolution of the Planning Board of the City of Beacon, New York, on the _____ day of_____ 2022, subject to
All requirements and conditions of said Resolution. Any change, erasure, modification or revision of this plat, as approved, shall void this approval.

Signed this ____ day of _____, 2022, by
_____, Chairman
_____, Secretary

In absence of the Chairman or Secretory, the Acting Chairman or Acting Secretary Respectively may sign in this place

NOTES

1. *Unauthorized alteration or addition to a document prepared by a licensed Land Surveyor or licensed Professional Engineer is a violation of Section 7209, Sub-Division 2 of the New York State Education Law.*
2. *The topographic data hereon was compiled from an actual field survey conducted by Badey & Watson on January 20, 2022.*
3. *The vertical datum hereon is North American Vertical Datum of 1988 (NAVD 1988).*
4. *No NYSDEC or Federal Wetlands were found onsite.*
5. *The Federal Emergency Management Agency (FEMA) has determined that this property lies within Flood Hazard Zone X as indicated hereon. The Zone boundaries were taken from Flood Insurance Rate Maps (FIRM)Community Map No. 36027C0577E with an effective date of May 2, 2012.*
6. *Pipe size and material based on City's sewer mapping & manhole inspection, and information provided by City Engineer.*
7. *Any rock encountered that requires removal shall be done by mechanical means only.*

REVISIONS

See Title	R01	Original Drawing.
May. 31, 2022	R02	Planning Board Comments
July 25, 2022	R03	Planning Board Comments
Aug 29, 2022	R04	Planning Board Comments Added Tree Protection & Inlet Protection
Sept. 27, 2022	R05	Repositioned Structure on Lot 2 Note 7 Added

LEGEND

—350—	CONTOUR LINE
CIP	CAST IRON PIPE
CPP	CORRUGATED PLASTIC PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
×x.x	SPOT ELEVATION
FF=xx.x	FIRST FLOOR ELEVATION
FS=xx.x	FIRST FLOOR SILL ELEVATION
	SUBTERRANEAN
—G—	GAS LINE (PLATE PROVIDED)
▲ 5	DEEP TEST LOCATION W/DESIGNATION

SURVEYED & PREPARED BY

BADEY & WATSON
Surveying & Engineering, D.P.C.
3063 Route 9
Cold Spring, NY 10516
www.Badey-Watson.com
845.265.9217
877.3.141593 (Toll Free)

SOILS LEGEND

Map Symbol	Hydrologic Group	Soil Name
SrB	C	Stockbridge–Urban land complex, 3 to 8 percent slopes

———— = Soil delineation (boundary) lines

Soils classifications and delineated lines have been derived from U.S. Department of Agriculture, Natural Resources Conservation Service "Soil Survey of Dutchess County, New York" compiled 1999

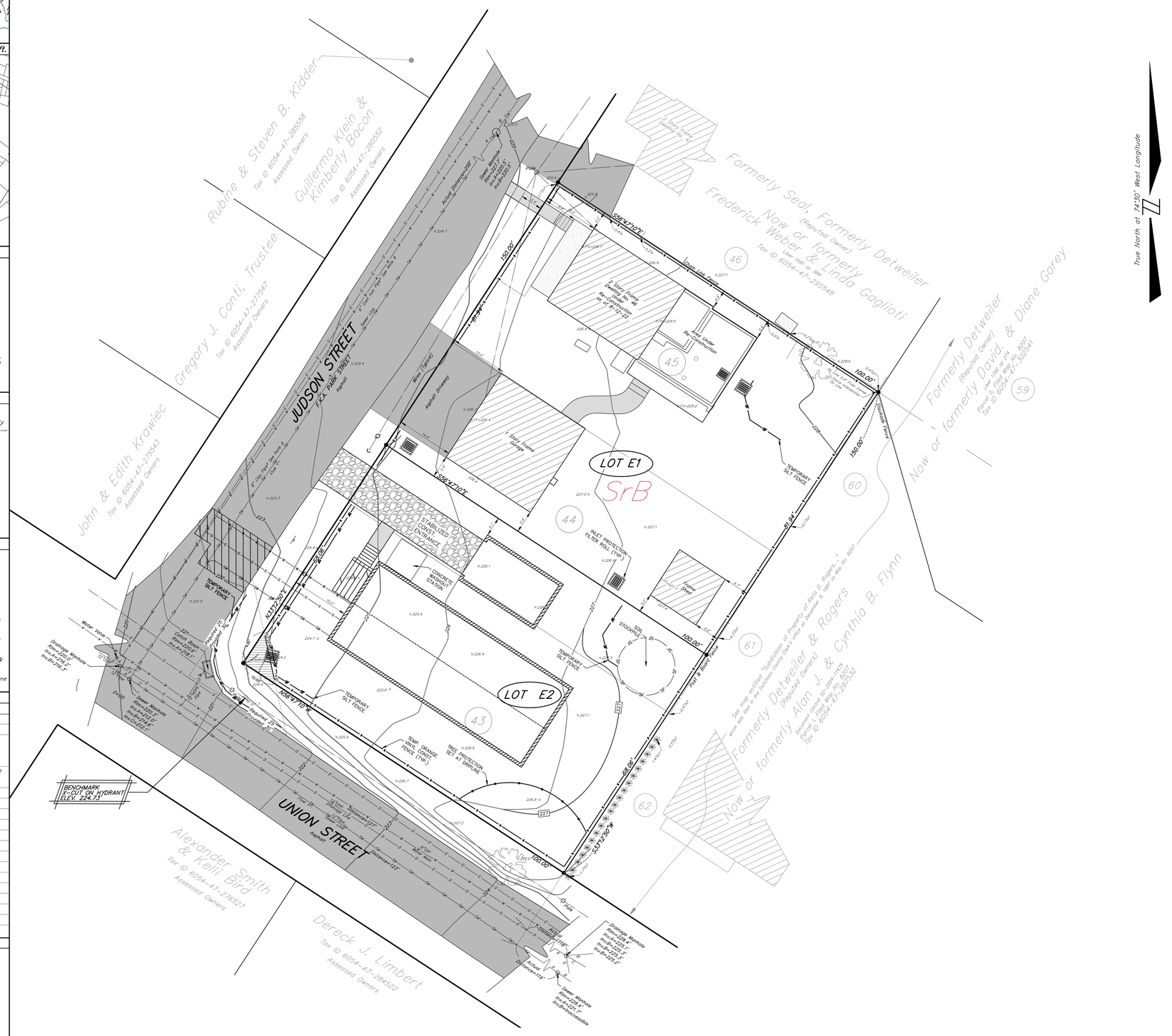
UNDERGROUND WARNING -- CODE RULE 753

NEW YORK STATE INDUSTRIAL CODE 753 REQUIRES EXCAVATORS TO CALL THE DIG SAFELY NEW YORK ORGANIZATION (DIAL 811) AT LEAST 2, BUT NO MORE THAN 10 WORKING DAYS PRIOR TO AN EXCAVATION. NON-MEMBER UTILITIES MUST BE CONTACTED SEPARATELY.

ZONING REQUIREMENTS (R1-5)

	REQUIRED (R1-5)	LOT E1		LOT E2	
		EXISTING	PROPOSED	EXISTING	PROPOSED
Min. Lot Area	5,000 Sq. Ft.	15,000 Sq. Ft.	8,194 Sq. Ft.	N/A	6,806 Sq. Ft.
Min. Lot Width	50 Ft.	150 Ft.	81.9 Ft.	N/A	68.1 Ft.
Min. Lot Depth	100 Ft.	100 Ft.	N/A	N/A	100 Ft
Min. Setback from Front Yard	15 Ft.	8.8 Ft.	N/A	N/A	15 Ft.
Alt. Min. Front Yard Setback* Section 223-13(k)	8.8 Ft.	8.8 Ft.	8.8 Ft.	N/A	15 Ft.
Min. Setback from Rear Yard	20 Ft.	6.6 Ft.	N/A	N/A	24.3 Ft.
Min. Setback from Side Yard**	10 Ft.	4.9 Ft.	N/A	N/A	16.2 Ft.
Max. Building Height	35 ft./2½ Stories	29.9 Ft.	N/A	N/A	30.6 Ft.
Max. Lot Coverage	N/A	2,274.3 Sq. Ft.	2,274.3 Sq. Ft.	N/A	2,306.4 Sq. Ft.
Min. Accessory Building	5 Ft.	5.9 Ft.	5.0 Ft.	N/A	5.1 Ft.

**Setback Along Union Street Applied in Accordance with Section 223-13(j) of Zoning Code*



True North at 74°30' West Longitude

SURVEYOR	ENGINEER	OWNER & APPLICANT	OWNER'S APPROVAL	PROPERTY DATA
PRELIMINARY License No. 50389	PRELIMINARY License No. 103021	46 Judson Street LLC 8 Churchill Street Beacon, New York	*The undersigned, owner(s) of the property hereon, states that they are familiar with this map, its contents and its legends and hereby consents to the filing of this map.* *Signed this ____ day of _____, 2022.* *46 JUDSON STREET LLC* *by*_____ *Paula Dowd, Member*	*Tax Map Designation: 6054-47-290539* *Zoning District: R1-5 Total* *Area: 15,000 Sq. Ft.*

PRELIMINARY

SHEET 4 of 6

EROSION & SEDIMENT CONTROL PLAN

PREPARED FOR

46 JUDSON STREET LLC

SITUATE IN THE

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK

SCALE 1 in. = 10 ft. APRIL 15, 2022

GRAPHIC SCALE

10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

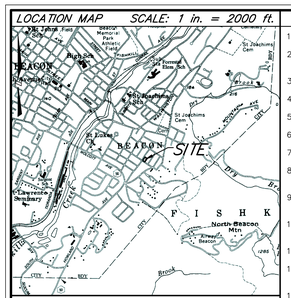
For latest issue date see revision box.

PRINTED
September 27, 2022
BADEY & WATSON
Surveying & Engineering, D.P.C.

FILE No. 75-9022

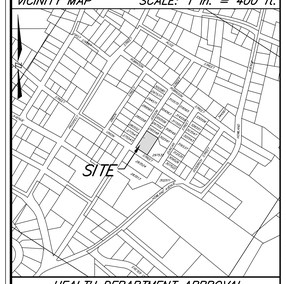
LOCATION MAP

SCALE: 1 in. = 2000 ft.



VICINITY MAP

SCALE: 1 in. = 400 ft.



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_____, Secretary

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REVISIONS

See Title	*R01*	*Original Drawing.*
May 31, 2022	*R02*	*Planning Board Comments*
July 25, 2022	*R03*	*Planning Board Comments*
Aug 29, 2022	*R04*	*Planning Board Comments Added Concrete Washout & Orange Construction Fence Detail*
Sept. 29, 2022	*R05*	*Note 7 Added*

LEGEND

- 350 — CONTOUR LINE
- CIP — CAST IRON PIPE
- CPP — CORRUGATED PLASTIC PIPE
- HDPE — HIGH DENSITY POLYETHYLENE PIPE
- 362.8 — SPOT ELEVATION
- FF=362.8 — FIRST FLOOR ELEVATION
- FS=362.8 — FIRST FLOOR SILL ELEVATION
- G — SUBTERRANEAN GAS LINE (PLATE PROVIDED)
- 5 — DEEP TEST LOCATION W/DESIGNATION

EROSION & SEDIMENT CONTROL NOTES

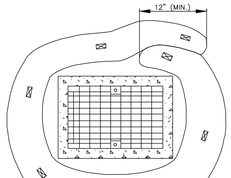
1. PRIOR TO THE START OF CONSTRUCTION ACTIVITY, THE TEMPORARY STRUCTURAL SEDIMENT CONTROLS (SILT FENCE, STABILIZED CONSTRUCTION ENTRANCE, ETC.) FOR THE ANTICIPATED WORK MUST BE INSTALLED.
2. THE LIMITS OF LAND DISTURBANCE MUST BE PHYSICALLY MARKED ON-SITE WITH ORANGE CONSTRUCTION FENCE. SILT FENCE MUST BE INSTALLED ON-CONTOUR AND SHALL NOT BE USED TO DELINEATE THE LIMIT OF CONTRACT, OR PROPERTY LINE.
3. MASS CLEARINGS AND GRADING MUST BE AVOIDED. CLEAR AND GRUB ONLY WHAT IS REQUIRED FOR IMMEDIATE CONSTRUCTION ACTIVITY.
4. EXPOSED SOILS ANTICIPATED TO REMAIN IDLE FOR MORE THAN FOURTEEN (14) DAYS SHALL BE IMMEDIATELY STABILIZED WITH TEMPORARY SEED AND MULCH.
5. WHEREVER POSSIBLE, NATURAL VEGETATION IS TO BE PROTECTED BY LIMITING THE CLEARING AND GRUBBING OPERATION, AS WELL AS RESTRICTING CONSTRUCTION EQUIPMENT TO THE WORK AREA.
6. WHERE FEASIBLE, LARGE TREES TO BE PRESERVED SHALL BE FENCED OFF SO THAT THE ROOT SYSTEM AND OVERHANGING BRANCHES ARE PROTECTED FROM CONSTRUCTION EQUIPMENT.
7. OFF-SITE RUNOFF SHOULD BE DIVERTED FROM HIGHLY ERODIBLE SOILS AND STEEP SLOPES TO STABLE AREAS WITH TEMPORARY DIKES AND/OR SWALES.
8. PERMANENT SEEDING SHOULD OPTIMALLY BE UNDERTAKEN IN THE SPRING FROM MARCH THROUGH MAY, AND IN LATE SUMMER AND EARLY FALL FROM SEPTEMBER TO OCTOBER 15. PERMANENT SEEDING MAY BE UNDERTAKEN DURING THE SUMMER, PROVIDING AN ADEQUATE WATERING SCHEDULE IS MAINTAINED.
9. DURING THE PEAK SUMMER MONTHS AND IN THE FALL AFTER OCTOBER 15, WHEN SEEDING IS OTHERWISE FOUND TO BE IMPRACTICABLE, AN APPROPRIATE TEMPORARY MULCH SHALL BE APPLIED. TEMPORARY SEEDING WITH RYE CAN BE UTILIZED THROUGH NOVEMBER.
10. ALL SLOPES STEEPER THAN 3H:1V AS WELL AS PERIMETER DIKES, SEDIMENT BASINS OR TRAPS, AND EMBANKMENTS SHALL, UPON COMPLETION, BE IMMEDIATELY STABILIZED WITH SOD, SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES (RECP).
11. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION. AREAS OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM SHALL NOT BE DISTURBED.
12. AREAS WHERE PERMANENT VEGETATION IS TO BE ESTABLISHED SHALL BE DRESSED WITH A MINIMUM OF 4 INCHES OF TOPSOIL. COMPACTED SUB-SOILS SHALL BE DISKED OR TILLED PRIOR TO PLACEMENT OF TOPSOIL. SURFACE SHALL BE RAKED SMOOTH, REMOVING STICKS, FOREIGN MATTER, AND STONES OVER 1" IN DIAMETER.
13. TOPSOIL SHALL HAVE AT LEAST 6% BY WEIGHT OF FINE TEXTURED STABLE ORGANIC MATERIAL, AND NO GREATER THAN 20% IT SHALL HAVE NOT LESS THAN 20% OF MATERIAL PASSING THE NO. 200 SIEVE, AND NO MORE THAN 15% CLAY. IT SHALL BE RELATIVELY FREE OF STONES OVER 1-1/2" INCHES IN DIAMETER, TRASH, NOXIOUS WEEDS, AND SHALL HAVE LESS THAN 10% GRAVEL.
14. SEEDING FOR TEMPORARY STABILIZATION OR IN PREPARATION OF WINTER SHUTDOWN SHALL BE APPLIED AT THE FOLLOWING RATE AND SCHEDULE: SPRING OR SUMMER OR EARLY FALL, USE RYEGRASS AT 30 LBS PER ACRE. LATE FALL OR EARLY WINTER, USE WINTER RYE AT 100 LBS PER ACRE.
15. PERMANENT SEEDING FOR FINAL STABILIZATION SHOULD BE APPLIED EITHER FROM SPRING-THAW TO MID-MAY OR MID-AUGUST TO EARLY OCTOBER WITH A 65/20/15 MIX OF KENTUCKY BLUEGRASS/PERENNIAL RYEGRASS/FINE FESCUE AT 160 LBS. PER ACRE. IF SEEDING IS DONE BETWEEN MID-MAY AND MID-AUGUST, IRRIGATION MAY BE REQUIRED TO ACHIEVE FINAL STABILIZATION.
16. HAY OR STRAW MULCH SHALL BE APPLIED TO ALL SEEDED AREAS, TEMPORARY OR PERMANENT, AT A RATE OF 2 TONS PER ACRE (OR 3 BALES PER 1,000 SQ FT).
17. WHEN SPECIFIED, ROLLED EROSION CONTROL BLANKET SHALL BE STRAW BIODEGRADABLE DOUBLE-NET BLANKET (EBX-S2 NN) AS MANUFACTURED BY CARTHAGE MILLS, SHALL BE PROVIDED ON ALL FINAL GRADES STEEPER THAN 1 VERTICAL OVER 3 HORIZONTAL (UP TO 2H:1V).
18. WHEN SPECIFIED, INLET PROTECTION SHALL BE INSTALLED CONCURRENTLY WITH CATCH BASIN INSTALLATION. IN THE SAME MANNER, ROCK OUTLET PROTECTION SHALL BE INSTALLED CONCURRENTLY WITH PIPE DISCHARGE INSTALLATION.
19. EROSION AND SEDIMENT CONTROL PRACTICES WITHIN THE ACTIVE WORK AREA SHALL BE INSPECTED DAILY TO ENSURE THAT THEY ARE BEING MAINTAINED IN EFFECTIVE OPERATING CONDITION AT ALL TIMES.
20. IN AREAS WHERE SOIL DISTURBANCE ACTIVITY HAS TEMPORARILY OR PERMANENTLY CLEARED, THE APPLICATION OF SOIL STABILIZATION MEASURES MUST BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN FOURTEEN (14) DAYS FROM THE DATE THE CURRENT SOIL DISTURBANCE ACTIVITY CEASED.
21. DISCHARGES FROM DEWATERING ACTIVITIES, INCLUDING DISCHARGES FROM DEWATERING OF TRENCHES AND EXCAVATIONS, MUST BE MANAGED BY APPROPRIATE CONTROL MEASURES.
22. STABILIZED CONSTRUCTION ENTRANCE(S) SHALL BE MAINTAINED SO AS TO PREVENT THE TRACKING OF SEDIMENT OFF-SITE. SEDIMENT TRACKED ONTO PAVED RIGHTS-OF-WAY SHALL BE SWEPT CLEAN AT THE END OF EACH WORK DAY.
23. SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT BECOMES 6" DEEP AT THE FABRIC. SILT FENCE SHALL BE REPLACED WHEN FABRIC BECOMES RIPPED OR FRAYED.
24. SEDIMENT SHALL BE REMOVED FROM SEDIMENT TRAPPING DEVICES WHEN ACCOMMODATION REACHES 50% OF DESIGN CAPACITY. STONE SHALL BE CLEANED OR REPLACED WHEN SEDIMENT POOL NO LONGER DRAINS PROPERLY.

GOOD HOUSEKEEPING

1. ALL WASTE MATERIAL WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER SUPPLIED BY A WASTE HANDLER THAT IS A LICENSED SOLID WASTE MANAGEMENT COMPANY. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER(S). THE DUMPSTER SHALL BE EMPTIED ON AN AS-NEEDED BASIS AND THE TRASH WILL BE HAULED TO AN APPROVED LANDFILL. NO CONSTRUCTION MATERIALS WILL BE BURIED ON-SITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL.
2. ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF TWO TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.
3. GOOD HOUSEKEEPING AND SPILL CONTROL PRACTICES WILL BE FOLLOWED DURING CONSTRUCTION TO MINIMIZE STORMWATER CONTAMINATION FROM PETROLEUM PRODUCTS, FERTILIZERS, PAINTS, AND CONCRETE. TO PREVENT STORMWATER CONTAMINATION FROM THE SITE, GOOD HOUSEKEEPING PRACTICES ARE LISTED BELOW:
- FERTILIZERS WILL ONLY BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER, UNLESS SPECIFIED OTHERWISE BY THE ENGINEER AND WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER.
- FERTILIZERS WILL BE STORED IN A COVERED SHED AND PARTIALLY USED BAGS WILL BE TRANSFERRED TO A SEALABLE BIN TO AVOID SPILLS.
- A COVERED DUMPSTER WILL BE USED FOR ALL WASTE MATERIALS.
- MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEAN-UP WILL BE KEPT IN THE TEMPORARY MATERIAL STORAGE TRAILER ON-SITE. EQUIPMENT WILL INCLUDE BUT NOT BE LIMITED TO: BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, FAST ABSORBENT MATERIAL, SAND, SAW DUST, AND PLASTIC AND METAL TRASH CONTAINERS.
- CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.
- WHEN TESTING/CLEANING OF WATER SUPPLY LINES, THE DISCHARGE FROM THE TESTED PIPE WILL BE COLLECTED AND CONVEYED TO A COMPLETED STORMWATER COLLECTION SYSTEM.
- A STABILIZED CONSTRUCTION ENTRANCE WILL BE CONSTRUCTED TO REDUCE VEHICLE TRACKING OF SEDIMENT.
- DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.
- ANY RUTS CAUSED BY EQUIPMENT USED FOR SITE CLEARING AND GRADING WILL BE ELIMINATED BY RE-GRADING.
4. VEHICLE MAINTENANCE – ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. ANY VEHICLE LEAKING FUEL OR HYDRAULIC FUEL WILL BE IMMEDIATELY SCHEDULED FOR REPAIRS AND USE WILL BE DISCONTINUED UNTIL REPAIRS ARE MADE.
5. SPILL PREVENTION AND RESPONSE – THE FOLLOWING CONTROLS AND PROCEDURES SHALL BE USED TO MINIMIZE THE POTENTIAL FOR LEAKS, SPILLS AND OTHER RELEASES:
- PERSONNEL WILL BE MADE AWARE OF EMERGENCY TELEPHONE NUMBERS.
- THE OWNER/OPERATOR AND OR CONTRACTOR SHALL IMMEDIATELY CONTACT NYSDEC IN THE EVENT OF A SPILL, AND SHALL TAKE ALL APPROPRIATE STEPS TO CONTAIN THE SPILL, INCLUDING CONSTRUCTION OF A DIKE AROUND THE SPILL AND PLACING ABSORBENT MATERIAL OVER THIS SPILL.
- THE OWNER/OPERATOR AND OR CONTRACTOR SHALL INSTRUCT PERSONNEL THAT SPILLAGE OF FUELS, OILS, AND SIMILAR CHEMICALS MUST BE AVOIDED.
- OILS AND CHEMICALS WILL BE STORED IN APPROPRIATE AND TIGHTLY CAPPED CONTAINERS. CONTAINERS SHALL NOT BE DISPOSED OF ON THE PROJECT SITE.
- OILS, CHEMICALS, MATERIAL, EQUIPMENT, AND SANITARY FACILITIES WILL BE STORED/LOCATED AWAY FROM TREES AND AT LEAST 100 FEET FROM STREAMS, WELLS, WET AREAS, AND OTHER ENVIRONMENTALLY SENSITIVE SITES.
- DISPOSE OF CHEMICAL CONTAINERS AND SURPLUS CHEMICALS OFF THE PROJECT SITE IN ACCORDANCE WITH LABEL DIRECTIONS AND LEGAL REQUIREMENTS.
- USE TIGHT CONNECTIONS AND HOSES WITH APPROPRIATE NOZZLES IN ALL OPERATIONS INVOLVING FUELS.
- USE FUNNELS WHEN POURING FUELS, LUBRICATING MATERIALS OR CHEMICALS.
- REFUELING OF CONSTRUCTION EQUIPMENT WILL TAKE PLACE IN PARKING AREAS TO PROVIDE RAPID RESPONSE TO EMERGENCY SITUATIONS.
- PETROLEUM SPILLS AND MOST HAZARDOUS MATERIALS SPILLS MUST BE REPORTED TO THE NYS DEC HOTLINE (1-800-457-7362), UNLESS THEY MEET ALL OF THE FOLLOWING CRITERIA:
  THE SPILL IS KNOWN TO BE LESS THAN 5 GALLONS; AND
  THE SPILL IS CONTAINED AND UNDER THE CONTROL OF THE SPILLER; AND
  THE SPILL HAS NOT AND WILL NOT REACH THE STATE'S WATER OR ANY LAND; AND
  THE SPILL IS CLEANED UP WITHIN 2 HOURS OF DISCOVERY.
- SPILLS SHALL ALSO BE REPORTED TO THE LOCAL AUTHORITIES, IF REQUIRED. FOR SPILLS NOT DEEMED REPORTABLE, THE FACTS CONCERNING THE INCIDENT SHALL BE DOCUMENTED BY THE SPILLER, AND A RECORD MAINTAINED FOR ONE YEAR.

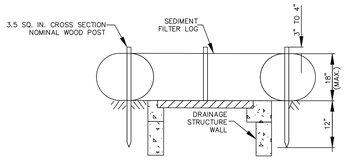
INLET PROTECTION FILTER LOG

(NOT TO SCALE)



PLAN

DRAINAGE STRUCTURE INLET PROTECTION – TEMPORARY (SEDIMENT FILTER LOG)

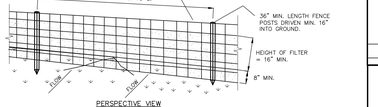


CROSS SECTION

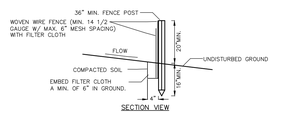
DRAINAGE STRUCTURE INLET PROTECTION – TEMPORARY (SEDIMENT FILTER LOG)

SILT FENCE

SYMBOL SF



PERSPECTIVE VIEW



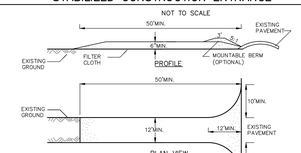
SECTION VIEW

CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

STABILIZED CONSTRUCTION ENTRANCE

SYMBOL



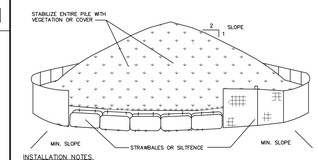
PLAN VIEW

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE, IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

SOIL STOCKPILE DETAIL

(NOT TO SCALE)



INSTALLATION NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SILT FENCE DETAIL FOR INSTALLATION OF SILTFENCE.

TIMING

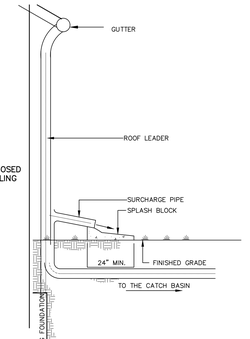
TOPSOIL SHOULD NOT BE STRIPPED, STOCKPILED, OR REPLACED UNTIL APPROPRIATE SEDIMENT CONTROL DEVICES ARE IN PLACE. TOPSOILING SHOULD NOT OCCUR DURING WINTER MONTHS. SOILS SHOULD NOT BE STRIPPED OR STOCKPILED UNLESS CONSTRUCTION IS SCHEDULED WITHIN THE SAME BUILDING SEASON.

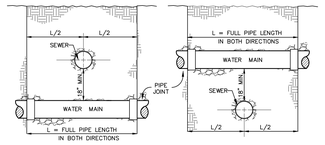
MAINTENANCE

PERIMETER SEDIMENT CONTROLS MUST BE MAINTAINED ACCORDING TO THE STANDARDS DESCRIBED IN THIS MANUAL. STOCKPILES AND FILL AREAS SHALL BE INSPECTED PERIODICALLY (I.E. WEEKLY) FOR SIGNS OF EROSION OR PROBLEMS WITH PLANT ESTABLISHMENT.

ROOF LEADER DETAIL

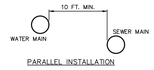
(NOT TO SCALE)





SEWER OVER WATER CROSSINGS

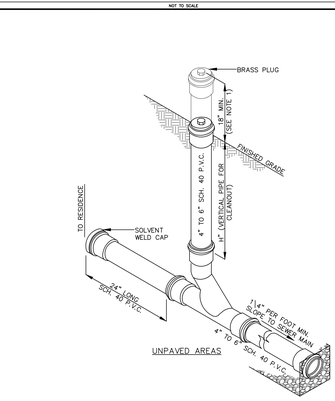
WATER OVER SEWER CROSSINGS



PARALLEL INSTALLATION

SEPARATION OF WATER & SANITARY SEWER MAIN

NOT TO SCALE



NOTES:

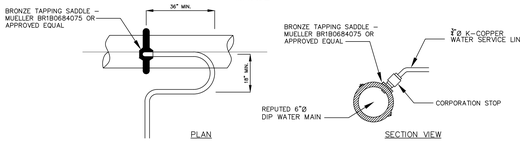
1. CLEANOUT STACK SHALL EXTEND A MINIMUM OF 18" ABOVE GRADE FOR NEW CONSTRUCTION UNTIL SERVICE IS CONNECTED AND/OR FINISHED GRADE IS ESTABLISHED. CLEANOUTS SHALL BE INSTALLED AT GRADE FOR EXISTING SERVICES UNLESS OTHERWISE DIRECTED.
2. WYE, LATERAL, & C.O. ASSEMBLY MUST BE BEDDED IN 1/4" TO 3/4" WASHED GRAVEL

SE-007 TYPICAL P.V.C. SEWER CLEANOUT DETAIL

NOT TO SCALE

WATER SERVICE CONNECTION DETAIL

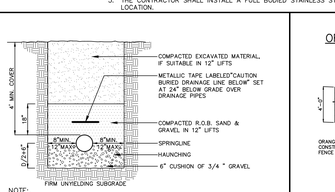
NOT TO SCALE



PLAN SECTION VIEW

NOTES:

1. A MINIMUM 5' COVER SHALL BE PROVIDED ON THE WATER SERVICE LINE (CONDITIONED ON ACTUAL 5' MIN. WATER MAIN DEPTH).
2. CORPORATION STOP TO BE COMPRESSION TYPE MUELLER.
3. WATER SERVICE LINE TO HAVE A "GOOSENECK" NEAR THE CORPORATION STOP.
4. CORPORATION STOP TO BE INSTALLED IN THE UPPER HALF OF THE WATER MAIN AT AN ANGLE APPROXIMATELY 45° FROM HORIZONTAL.
5. THE CONTRACTOR SHALL INSTALL A FULL BODIED STAINLESS STEEL TAPPING SLEEVE AT THE PROPOSED WATER SERVICE LOCATION.



NOTE:
NO OTHER UTILITIES ARE TO BE INSTALLED WITHIN THIS TRENCH

TYPICAL STORM DRAINAGE TRENCH DETAIL

(NOT TO SCALE)

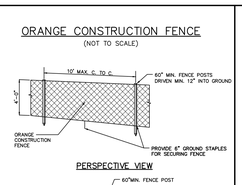
NOTE:
1. NO OTHER UTILITIES ARE TO BE INSTALLED WITHIN THIS TRENCH
2. BACKFILL WITHIN THE CITY'S ROAD RIGHT-OF-WAY SHALL BE NYSDOT ITEM 304.12, TYPE 2 – ITEM 4, FOR THE ENTIRE TRENCH DEPTH, COMPACTED IN 6" LIFTS TO 95% MODIFIED PROCTOR

WA-015 WATER LINE TRENCH DETAIL

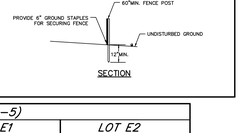
NOT TO SCALE

ORANGE CONSTRUCTION FENCE

(NOT TO SCALE)



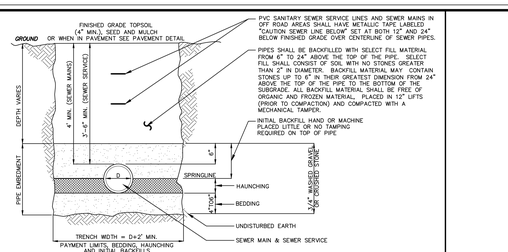
PERSPECTIVE VIEW



SECTION

SE-001 SEWER MAIN/SEWER SERVICE TRENCH DETAIL

NOT TO SCALE

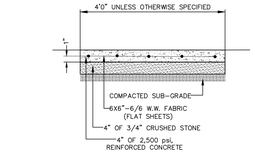


NOTES:

1. NO ROCK IS TO PROJECT INTO WITHIN THE EDGES OF THE TRENCH.
2. IN ROCK EXCAVATION PIPE SHALL BE A MIN. OF 6" OVER AND AWAY FROM ROCK.
3. BACKFILL SHALL BE PLACED SO AS TO NOT DISTURB THE PIPE ALIGNMENT.
4. BACKFILL WITHIN THE CITY'S RIGHT-OF-WAY SHALL BE TYPE 2 – ITEM 4, FOR THE ENTIRE TRENCH DEPTH, COMPACTED IN 6" LIFTS TO 95% MODIFIED PROCTOR.

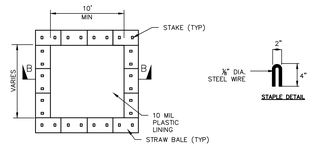
PV-040 CONCRETE WALK DETAIL

NOT TO SCALE



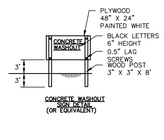
NOTE:
SCORE PANELS EVERY 5'-0" TRANSVERSE EXPANSION JOINTS 20'-0" O.C. OR AS DIRECTED SET 1/4" BELOW SURFACE OF WALK AND SEAL.

SEE PLAN FOR ADJACENT CONDITIONS PITCH AWAY FROM BUILDING OR TOWARDS DRIVE.

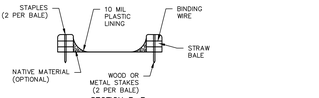


PLAN

TYPE "ABOVE GRADE" WITH STRAW BALES



CONCRETE WASHOUT SIGN DETAIL (OR EQUIVALENT)

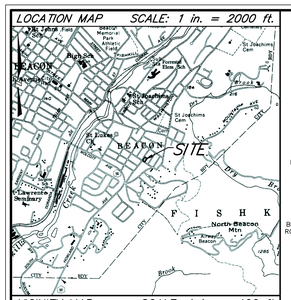


SECTION B-B

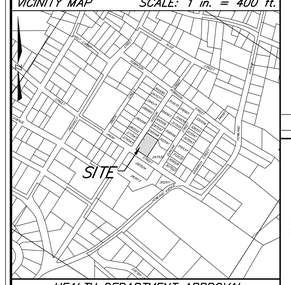
NOTES:

1. NO WASHING OUT OF CONCRETE TRUCKS OR WASHING OF SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS IS ALLOWED.
2. EXCESS CONCRETE IS NOT ALLOWED TO BE DUMPED ON-SITE, EXCEPT IN DESIGNATED TEMPORARY CON

LOCATION MAP SCALE: 1 in. = 2000 ft.



VICINITY MAP SCALE: 1 in. = 400 ft.



HEALTH DEPARTMENT APPROVAL

This plan does not constitute a Realty Subdivision as defined by Article XI, Title II Section 1115, of the Public Health Law of the State of New York, and Article XI of the Dutchess County Sanitary Code.

Permission is hereby granted for the filing of this map with the clerk of Dutchess County. Approval for arrangements for water supply and/or sewage disposal is neither sought nor granted.

_____

Authorized Representative of the Commissioner of Health

PLANNING BOARD APPROVAL

"Approved by Resolution of the Planning Board of the City of Beacon, New York, on the _____ day of_____, 2022, subject to
All requirements and conditions of said Resolution. Any change, erasure, modification or revision of this plat, as approved, shall void this approval.

Signed this ____ day of _____, 2022, by
_____, Chairman
_____, Secretary

In absence of the Chairman or Secretary, the Acting Chairman or Acting Secretary Respectively may sign in this place

NOTES

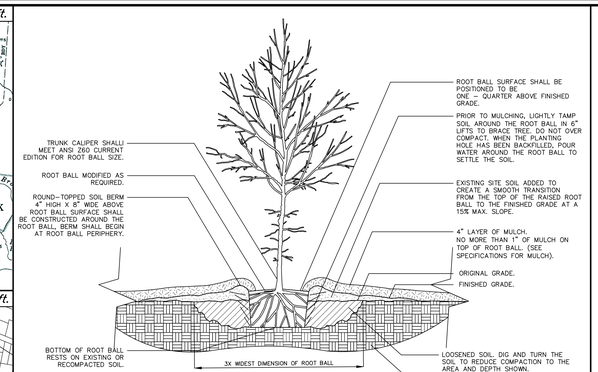
1. *Unauthorized alteration or addition to a document prepared by a licensed Land Surveyor or licensed Professional Engineer is a violation of Section 7209, Sub-Division 2 of the New York State Education Law.*
2. *The topographic data hereon was compiled from an actual field survey conducted by Badey & Watson on January 20, 2022.*
3. *The vertical datum hereon is North American Vertical Datum of 1988 (NAVD 1988).*
4. *No NYSDEC or Federal Wetlands were found onsite.*
5. *The Federal Emergency Management Agency (FEMA) has determined that this property lies within Flood Hazard Zone X as indicated hereon. The Zone boundaries were taken from Flood Insurance Rate Maps (FIRM)Community Map No. 36027C0577E with an effective date of May 2, 2012.*
6. *Pipe size and material based on City's sewer mapping & manhole inspection, and information provided by City Engineer.*
7. *Any rock encountered that requires removal shall be done by mechanical means only.*

REVISIONS

See Title	*R01*	*Original Drawing.*
May 31, 2022	*R02*	*Planning Board Comments*
July 25, 2022	*R03*	*Planning Board Comments*
Aug 29, 2022	*R04*	*Planning Board Comments* *Added Tree Protection Detail*
Sept. 29, 2022	*R05*	*Note 7 Added*

LEGEND

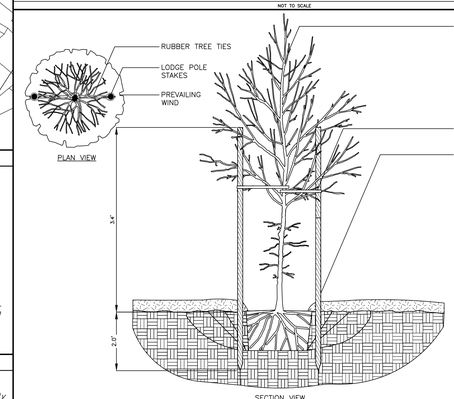
—350—	CONTOUR LINE
CIP	CAST IRON PIPE
CPP	CORRUGATED PLASTIC PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
362.8	SPOT ELEVATION
FF=362.8	FIRST FLOOR ELEVATION
FS=362.8	FIRST FLOOR SILL ELEVATION
SUBTERRANEAN	
G	GAS LINE (PLATE PROVIDED)
▲ S	DEEP TEST LOCATION W/DESIGNATION



SECTION VIEW

TYPICAL TREE PLANTING DETAIL

NOT TO SCALE

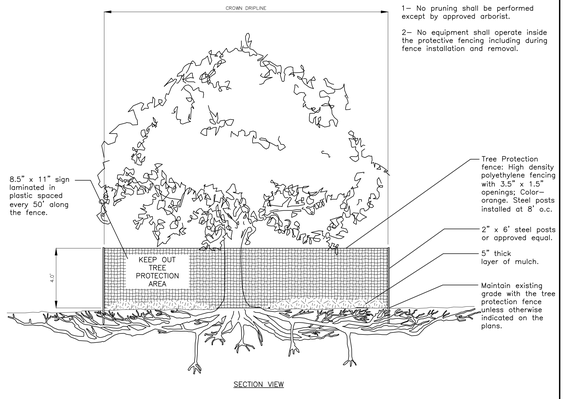


PLAN VIEW

SECTION VIEW

TYPICAL TREE GUYING DETAIL

NOT TO SCALE



Notes:

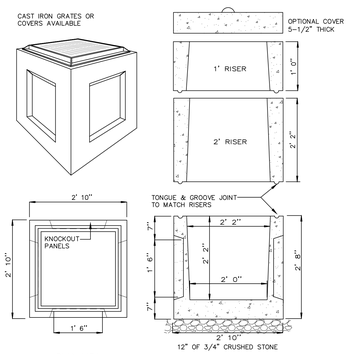
1- No pruning shall be performed except by approved arborist.

2- No equipment shall operate inside the protective fencing including during fence installation and removal.

SECTION VIEW

TYPICAL TREE PROTECTION DETAIL

NOT TO SCALE



PLAN VIEW

ELEVATION

SPECIFICATIONS	PRECAST CATCH BASIN MODEL CB-2X2
Concrete Min. Strength: 4,000 psi at 28 days Reinforcement: #4 Rebar/ASTM A615 Air Entrainment: 5% Construction Joint: Butyl Rubber Sealant Weights: Base = 1,300 lbs, Riser = 500 lbs/vf Load Rating: H20/ASTM C857 www.woodardsconcrete.com	Woodard's Concrete Products, Inc. 629 Lybolt Road, Bullville, NY 10915 (845) 361-3471 / Fax 361-1050 Page 61 3/24/05

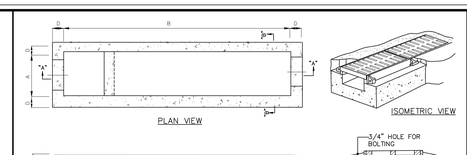
WO-011 CATCH BASIN (24"x24") DETAIL

NOT TO SCALE

NOTES:
1. BACKFILL WITHIN THE CITY'S RIGHT-OF-WAY SHALL BE NYSDOT ITEM 304.12, TYPE 3 – ITEM 4, FOR THE ENTIRE TRENCH DEPTH, COMPACTED IN 6" LIFTS TO 95% MODIFIED PROCTOR.
2. PRIOR TO PAVEMENT RESTORATION ALL PAVEMENT EDGES SHALL HAVE TACK COAT APPLIED
3. ONCE PAVEMENT RESTORATION IS COMPLETE, ALL PAVEMENT SEAMS SHALL BE SEALED WITH A CRACK SEALANT.

PV-027 ASPHALT PAVEMENT DETAIL

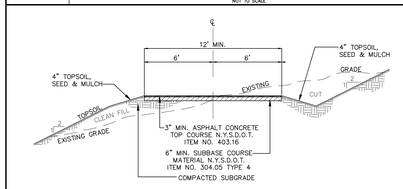
NOT TO SCALE



DIMENSION SCHEDULE	
A	12"
B	LENGTH AS REQUIRED 4'-0" MINIMUM
C	DEPTH AS REQUIRED
D	6" OR 8" #
# OTHER SIZES AVAILABLE AS REQUIRED	

DR-064 TRENCH DRAIN

NOT TO SCALE



PV-011 ASPHALT DRIVE DETAIL

NOT TO SCALE

SURVEYED & PREPARED BY	SURVEYOR	ENGINEER	OWNER & APPLICANT	OWNER'S APPROVAL	PROPERTY DATA
BADEY & WATSON Surveying & Engineering, D.P.C. 3063 Route 9 Cold Spring, NY 10516 www.Badey-Watson.com 845.265.9217 877.3.141593 (Toll Free)	PRELIMINARY License No. 50389	PRELIMINARY License No. 103021	*46 Judson Street LLC* *8 Churchill Street* *Beacon, New York*	*The undersigned, owner(s) of the property hereon, states that they are familiar with this map, its contents and its legends and hereby consents to the filing of this map.* *Signed this ____ day of _____, 2022.* *46 JUDSON STREET LLC* *by_____* *Paula Dowd, Member*	*Tax Map Designation: 6054-47-290539* *Zoning District: R1-5 Total* *Area: 15,000 Sq. Ft.*

ZONING REQUIREMENTS (R1-5)

	REQUIRED (R1-5)	LOT E1		LOT E2		
		EXISTING	PROPOSED	EXISTING	PROPOSED	
Min. Lot Area	*5,000 Sq. Ft.*	*15,000 Sq. Ft.*	*8,194 Sq. Ft.*	*N/A*	*6,806 Sq. Ft.*	
Min. Lot Width	*50 Ft.*	*150 Ft.*	*81.9 Ft.*	*N/A*	*68.1 Ft.*	
Min. Lot Depth	*100 Ft.*	*100 Ft.*	*N/A*	*N/A*	*100 Ft*	
Min. Setback from Front Yard	*15 Ft.*	*8.8 Ft.*	*N/A*	*N/A*	*15 Ft.*	
Alt. Min. Front Yard Setback Section 223-13(k)*	*8.8 Ft.*	*8.8 Ft.*	*8.8 Ft.*	*N/A*	*15 Ft.*	
Min. Setback from Rear Yard	*20 Ft.*	*6.6 Ft.*	*N/A*	*N/A*	*24.3 Ft.*	
*Min. Setback from Side Yard***	*10 Ft.*	*4.9 Ft.*	*N/A*	*N/A*	*16.2 Ft.*	
Max. Building Height	*35 ft./2½ Stories*	*29.9 Ft.*	*N/A*	*N/A*	*30.6 Ft.*	
Max. Lot Coverage	*N/A*	*2,274.3 Sq. Ft.*	*2,274.3 Sq. Ft.*	*N/A*	*2,306.4 Sq. Ft.*	
Min. Accessory Building	*5 Ft.*	*3.9 Ft.*	*5.0 Ft.*	*N/A*	*5.1 Ft.*	

***Setback Along Union Street Applied in Accordance with Section 223-13(j) of Zoning Code*

PRELIMINARY

SHEET 6 of 6

DETAILS (2 of 2)

PREPARED FOR

46 JUDSON STREET LLC

SITUATE IN THE

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK

NOT TO SCALE *APRIL 15, 2022*

For latest issue date see revision box.

PRINTED

September 27, 2022

BADEY & WATSON
Surveying & Engineering, D.P.C.

FILE No. 75-9022

Drawing Name: SB26242__R05_V22 Layout: DETAIL 2.2 W.O. No. 26242 Checked by JMR Spell checked by JFT/MEY Drawn by JFT/MEY Closed by GJW On 02-02-22 T.M. : 6054-47-290539

John Clarke Planning and Design jclarkeplandesign@gmail.com
845.797.4152

To: John Gunn, Chair, and the City of Beacon Planning Board
Date: October 7, 2022
Re: **46 Judson Street Subdivision**

I have reviewed the September 27, 2022 response letter from Badey & Watson, September 27, 2022 Preliminary Plat, and a 6-sheet Preliminary Subdivision Plan set, with sheets 1, 5, and 6 dated September 29, 2022 and sheets 2, 3, and 4 dated September 27, 2022.

Proposal

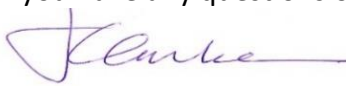
The applicant is proposing to subdivide a 15,000 square foot parcel with one existing house into two lots for the construction of an additional house. Parcel E1 would have 8,194 square feet and Parcel E2 would have 6,806 square feet. The proposed parcels are in the R1-5 zoning district.

Comments and Recommendations

1. The side yard setback along Union Street has been changed from the previously proposed 16.2 feet to 17 feet. The Zoning Requirements tables should match the setback shown on the plans.

2. The proposed row of Japanese Cedars along the rear property line can mature to 30-40 feet in height, which may be tall enough to shade the existing pool on the adjacent property.

If you have any questions or need additional information, please feel free to contact me.



John Clarke, Beacon Planning Consultant

c: Dave Buckley, Building Inspector
Jennifer L. Gray, Esq., City Attorney
Arthur R. Tully, P.E., City Engineer
John Russo, P.E., City Engineer
Glenn Watson, L.S., Badey & Watson Surveying and Engineering, D.P.C.

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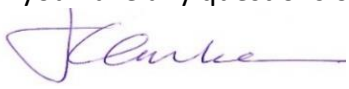

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Glenn Watson, L.S., Badey & Watson Surveying and Engineering, D.P.C.

City of Beacon Planning Board Agenda
10/12/2022

Title:

Continue review of application for Site Plan Approval (revised since 2019), "Two Cross Street" 4 Cross Street/172 Main Street, three-story mixed-use building, submitted by Hudson Todd, LLC

ATTACHMENTS

9.27response to JohnClarke comments.pdf

9.27letter to planning Board.pdf

SLR-NG-LED-L-12-19 (1) (3).pdf

SLR-NG-LED-L-12-19 (1) (2).pdf

invue-msa-mesa-lightsquare-spec (2).pdf

invue-msa-mesa-lightsquare-spec (3).pdf

invue-clearcurve-wall-spec (2).pdf

2 Cross Street_Civil Plan Set_2022-0926 (1).pdf

2 Cross Street Dutchess County Planning Response.pdf

9.27response to JohnRusso comments.pdf

Engineers Comments Two Cross Street 10-03-22.pdf

Planners Comments Two Cross St 10.7.22.pdf

Two Cross Street - Site Plan Cert of Appropriateness Resolution.pdf

Two Cross Street - SEQRA Negative Declaration.pdf

Two Cross Street FEAF Part 2.pdf

Two Cross Street FEAF Part 3.pdf

Hudson Todd LLC

4 Cross Street, Beacon, NY 12508 | 646-284-3118 | jDonovan@HudsonTodd.com

To: Mr. John Clarke, City Planner, Mr. John Gunn, Chairman, and Members of the City of Beacon Planning Board
From: Hudson Land Design on behalf of Hudson Todd, LLC
Date: September 27, 2022
Re: Two Cross / mixed use building proposal

Comments and Recommendations

1. Comment: The Sheet 6 Lighting Table should include columns for color temperature and Color Rendering Index. The attached specifications for the L2, L4, and L6 fixtures have a CRI of 70, outside the zoning requirement of 80-100.
Response: The requested column has been added. In addition, the updated lighting cut sheets are being provided for the record.

2. Comment: The new decorative pole light on Main Street may not be necessary. The January 2022 draft Main Street Access Committee Advisory Report to the City Council considered the street lighting in this area too bright and suggested relocating every other pole to replace the highway-scale lighting in other areas along Main Street. Also, the proposed fixture does not appear to exactly match the existing fixtures, so it may look out-of-place in the row of lights on Main Street.
Response: The previously proposed street light shown along Main Street has been removed, and we have provided a supplemental note regarding lighting conditions following construction. The applicant would be satisfied with using the same light as the City uses. However, we have modeled the area using the fixture L2 as proposed. We do not think there will be a discernable difference, particularly for the L2 fixture along the walking path to the 152 Main Street parking area.

3. Comment: This HDLO property requires a certificate of appropriateness approval, consistent with the design criteria in the Historic Preservation chapter, Section 134-7. The Architectural Review Subcommittee has met twice on this proposal and has referred the final design back to the full Board.
Response: So noted.

Hudson Todd LLC

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September 27, 2022

Chairman John Gunn
and Members of the Planning Board
City of Beacon Planning Board
1 Municipal Place
Beacon, NY 12508

Re: Hudson Todd—Two Cross Street Project—October 2022 meeting

Dear Chairman Gunn and Members of the Planning Board,

We are pleased to provide five (5) sets of plans for your review. Since the September 13, 2022 review of the project by the Planning Board, the project has incorporated the comments from members of the Planning Board, City Planner and City Engineer into the building and site plan. We submit this letter and attached documents as our response to further the review of the Application for Site Plan Approval.

We appreciate the Board's consideration of the submitted materials and look forward to a comprehensive discussion of the project at the October 11,, 2022 meeting. If you have any questions or require any other materials, please do not hesitate to contact me at 646-284-3118.

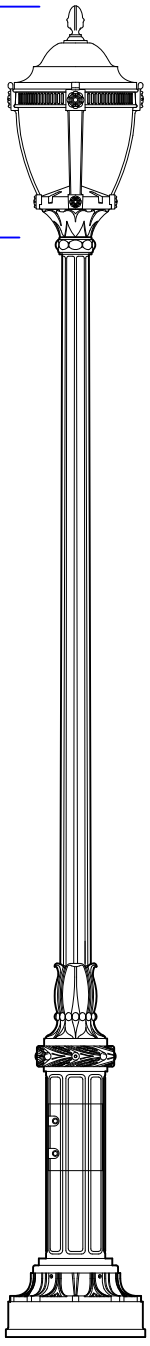
With thanks,

Joseph Donovan
Hudson Todd, LLC

SLR-NG-LED Riverside *Luminaires: Tulips - Struts*

Luminaire Height: *29 1/2" to 38 1/2"*
Diameter: 18"

With prominent finial and decorative bas-relief around its dome, the Riverside luminaire evokes the historical theme of many North American landmark parks and cities while delivering the benefits associated with solid state lighting technology. Most notably, this luminaire features a globeless design, resulting in dark skies friendly performance. There is no uplight emitted directly from the light-emitting optical surfaces.



Shown with 12 ft. cast iron pole. Catalog #: SCI-B-S-12'

High-strength cast aluminum structure for durability and vandal resistance. Several decorative bases are available for appropriate mating with a variety of ornamental posts.



For Ordering Information see reverse.



SLR-NG utilizes the most current solid state technology to deliver high lumen output, exceptional light distribution, superior visual comfort, extended service life, and energy reduction.

Sentry ELECTRIC

SLR-NG-LED Riverside

Sentry Electric LLC
185 Buffalo Avenue, Freeport, New York, 11520
Telephone: 516.379.4660 Fax: 516.378.0624
www.sentrylighting.com info@sentrylighting.com

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SLR-NG-LED Riverside

Luminaires: Tulips - Struts

Product Features

Construction
All components and decorative base shall be high-strength ASTM 356.1 cast aluminum. Luminaire shall be fully welded creating one integral housing. Dome top shall create a weather tight chamber for the LED components, driver, and internal optics. Top shall be easily removable. LED components and driver are securely affixed to the mechanical structures. A thermal management system dissipates heat to insure compliance with ratings of the LED components and driver.

Optical
Internal optics in combination with horizontal luminous planar surface. Available in symmetric and asymmetric configurations to optimize performance, distribution, and visual comfort.

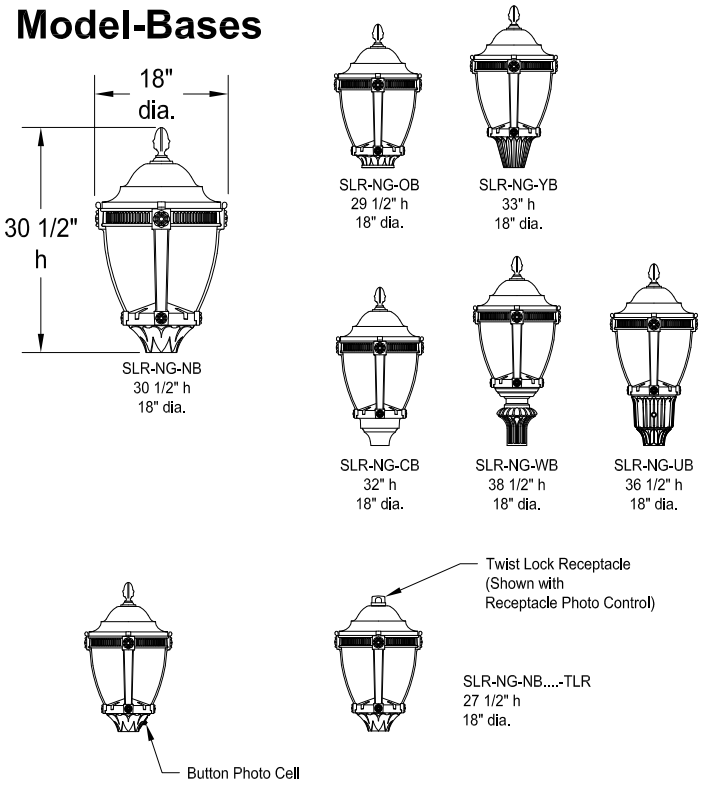
Electrical
Meets UL 1598 for Safety. Utilizes voltage sensing 120-277V driver. Rated life of 50,000 hours at 70% lumen maintenance at 25°C. Compatible with 0-10V lighting control systems. Surge protected line-neutral, line-ground, and neutral-ground in accordance with ANSI/IEEE 62.41, Category C3. Luminaires shall be prewired and factory tested.

Ambient Temperature
-40° C minimum to 35° C maximum (Luminaire not to operate at maximum temperature for a period of time longer than 15% of total operating hours.).

Finish
To insure product durability, all exposed metallic surfaces shall be finished with a high performance coating consisting of high gloss Super Durable polyester powder coat paint to be applied utilizing a multistage process that includes phosphate pretreatment, electrostatic powder application, and convection curing. Paint shall be weather, corrosion, abrasion, and UV resistant in compliance with specification AAMA 2604-05. Color to be specified.

Mounting
Mounts to a Ø3" by 3" tall tenon. Three (3) 3/8"-16 UNC stainless steel allen head cup point set screws secure luminaire to post top tenon. All mounting hardware shall be stainless steel.

Model-Bases



Light Source	(2x12)LEDS50-0.7A		(2x12)LEDS50-0.53A		(2x12)LEDS50-0.35A	
Wattage	55W		39W		25W	
Color Temp	3000K		3000K		3000K	
	Delivered Lumens	Lumens Per Watt	Delivered Lumens	Lumens Per Watt	Delivered Lumens	Lumens Per Watt
STRI-T2L (Type II)	5590	102	4261	109	2887	115
STRI-T3L (Type III)	5706	104	4350	112	2947	118
STRI-T4B (Type IV)	5784	105	4409	113	2987	119
STRI-VSM (Type V Square)	5616	102	4281	110	2901	116

Ordering Information

Choose the **boldface** catalog references that best suit your needs.

Model Base Light Source Color Temp Distribution Options Voltage Finish

Example: ~~**SLR-NG - NB - (2x12)LEDS50-0.53A - 730 - STRI-T2L - BPC - 120V - BK**~~
SLR-NG - NB - (2)LEDV18C-0.35A - 830 - KHJ3 - XXX - XXXX - BK

Model	Base	Light Source & Wattage	CRI & Color Temperature	Distribution	Options	Finish
SLR-NG	**NB** Nightbridge **OB** Oberon **YB** Yorkshire **CB** Cambridge **WB** Westbury **UB** Upbury	**(2x12)LEDS50-0.7A** 55 watts **(2x12)LEDS50-0.53A** 39 watts **(2x12)LEDS50-0.35A** 25 watts Above part number is for a CRI of 80, 3000 Kelvin Color Temp.	**730** 70 CRI, 3000K **740** 70 CRI, 4000K Consult factory for additional light source and color temperature options.	**STRI-VSM** Type V **STRI-T4B** Type IV **STRI-T3L** Type III **STRI-T2L** Type II Consult factory for additional distribution options.	**BPC** Button Photo Cell **TLR** Twist Lock Receptacle **TLR7** Twist Lock Receptacle, 7 Pin with Dimming and Control Contacts **HSS** House Side Shield **Accessories** **RPC** Receptacle Photo Control **Voltage** **(blank)** 120V thru 277V (Standard) **120V** 120V (With BPC Only) **208-277V** 208V thru 277V (With BPC Only)	**BK** Black **BZ** Bronze **FG** Federal Green **GY** Gray **WH** White **SIL** Silver **BLU** Blue **SBRZ** Statuary Bronze Consult factory for additional finishes.

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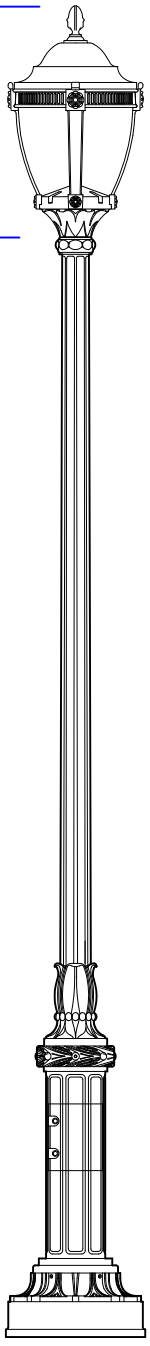

Shown with 12 ft. cast iron pole. Catalog #: SCI-B-S-12'

High-strength cast aluminum structure for durability and vandal resistance. Several decorative bases are available for appropriate mating with a variety of ornamental posts.



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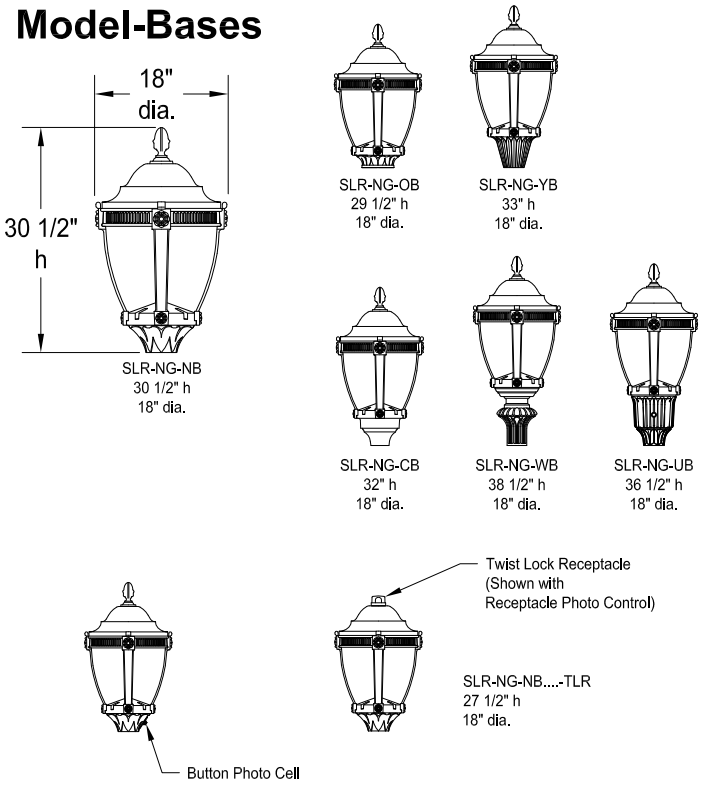

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STRI-VSM (Type V Square)	5616	102	4281	110	2901	116

Ordering Information

Choose the **boldface** catalog references that best suit your needs.

Example: ~~**SLR-NG - NB - (2x12)LEDS50-0.53A - 730 - STRI-T2L - BPC - 120V - BK**~~
SLR-NG - NB - (2)LEDV18C-0.35A - 830 - KHJ3 - XXX - XXXX - BK

Model	Base	Light Source & Wattage	CRI & Color Temperature	Distribution	Options	Finish
SLR-NG	**NB** Button Photo Cell **OB** Twist Lock Receptacle **YB** Twist Lock Receptacle, 7 Pin **CB** with Dimming and Control Contacts **WB** House Side Shield **UB**	**(2x12)LEDS50-0.7A** 55 watts **(2x12)LEDS50-0.53A** 39 watts **(2x12)LEDS50-0.35A** 25 watts Above part number is for a CRI of 80, 3000 Kelvin Color Temp.	**730** 70 CRI, 3000K **740** 70 CRI, 4000K Consult factory for additional light source and color temperature options.	**STRI-VSM** Type V **STRI-T4B** Type IV **STRI-T3L** Type III **STRI-T2L** Type II Consult factory for additional distribution options.	**BPC** Button Photo Cell **TLR** Twist Lock Receptacle **TLR7** Twist Lock Receptacle, 7 Pin with Dimming and Control Contacts **HSS** House Side Shield **Accessories** **RPC** Receptacle Photo Control **Voltage** **(blank)** 120V thru 277V (Standard) **120V** 120V (With BPC Only) **208-277V** 208V thru 277V (With BPC Only)	**BK** Black **BZ** Bronze **FG** Federal Green **GY** Gray **WH** White **SIL** Silver **BLU** Blue **SBRZ** Statuary Bronze Consult factory for additional finishes.

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Project		Catalog #		Type	
Prepared by		Notes		Date	







Invue

MSA MESA

Decorative Area Luminaire

Product Features

WaveLinx

Light ARchitect™

Interactive Menu

- Order Information page 2
- Optical Distributions page 3
- Product Specifications page 4
- Energy & Performance data page 5
- Control Options page 13

Product Certifications

IP66

1.5G VIB

3G VIB

5 YEAR

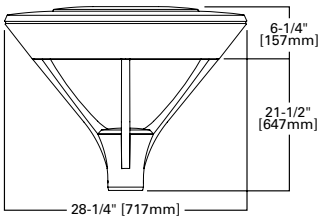
CLASS A

CAN ICES-005

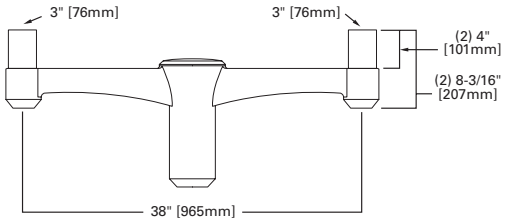
Quick Facts

- Die-cast aluminum housing and door
- Lumens packages ranging from 3,000 - 29,000 lumens
- Choice of 13 high-efficiency, patented AccuLED Optics™
- Base casting slip fits over a standard 3" O.D. tenon
- Wall, single and dual-mount configurations available
- 10kV/10vkA surge protection standard
- LED fixture features a five-year warranty

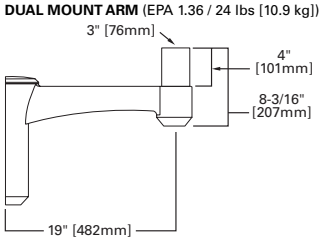
Dimensional and Mounting Details



WALL MOUNT ARM (15 lbs [8.8 kg])



DUAL MOUNT ARM (EPA 1.36 / 24 lbs [10.9 kg])



Ordering Information

SAMPLE NUMBER: **MSA-SA4A-740-U-T3-GM**

Product Family [1,2]	Light Engine		Color Temperature	Voltage	Distribution	Finish [5]
	Configuration	Drive Current				
MSA=Mesa	**SA1**=1 Square **SA2**=2 Squares **SA3**=3 Squares **SA4**=4 Squares	**A**=615mA **B**=800mA **C**=1050mA(1A) **D**=1200mA(1.2A)	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI,6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **835**=80CRI, 3500K **AMB**=590nm, Amber [3]	**U**=Universal (120-277V) **9**=347V **8**=480V	**T2**=Type II **T3**=Type III **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90 Spill Light Eliminator Left **SLR**=90 Spill Light Eliminator Right **RW**=Rectangular Wide Type I **5NQ**=Type V Square Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide	**AP**=Grey **BK**=Black **BZ**=Bronze **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White **CC**=Coastal Construction

Options (Add as Suffix)		Accessories (Order Separately) [17]
10MSP=10kV MOV Surge Protection Device **20K**=20kV UL 1449 Fused Surge Protection Device **20MSP**=20kV MOV Surge Protection Device **3**=Three Position Terminal Block **2L**=UL Listed / CSA Certified [6,7] **DIM**=External 0-10V Dimming Leads **EBP**=Emergency Battery Pack [8,23] **CBP**=Cold Weather Emergency Battery Pack [8,23] **CC**=Coastal Construction [9] **UL**=UL Listed / CSA Certified **HSS**=House Side Shield [10] **G3**=3G Vibration Rated **HA**=50°C High Ambient Temperature **IH**=Internal Dome Hinge [7] **LCF**=Light Square Trim Plate Painted to Match Housing **DALI**=DALI Driver [11] **BPC**=Button Type Photocontrol	**PR**=NEMA 3-PIN Twistlock Photocontrol Receptacle **PR7**=NEMA 7-PIN Twistlock Photocontrol Receptacle **LLPC**=Long Life Twistlock NEMA Photocontrol [12] **MS/DIM-L08**=Motion Sensor for Dimming Operation, Up to 8' Mounting Height [11,13] **MS/DIM-L20**=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [11,13] **MS/DIM-L40**=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height [11,13] **LWR-LW**=Enlighted Sensor, 8'-16' MH [11,13,14] **LWR-LN**=Enlighted Sensor, 16'-40' MH [11,13,14] **ZD**=DALI-enabled 4-PIN Twistlock Receptacle [11,13] **ZW**=WaveLinx-enabled 4-PIN Twistlock Receptacle [11,13] **SWPD4XX**=WaveLinx Wireless Sensor, 7' - 15' Mounting Height [15,16,17,18] **SWPD5XX**=WaveLinx Wireless Sensor, 15' - 40' Mounting Height [15,16,17,18]	**SA6028-XX**=Dual Mount Arm [2] **SA6029-XX**=Wall Mount Arm [2] **OA/RA1013**=Photocontrol Shorting Cap **OA/RA1016**=NEMA Photocontrol - Multi-Tap **OA/RA1027**=NEMA Photocontrol - 480V **OA/RA1201**=NEMA Photocontrol - 347V **OA1223**=10kV Circuit Module Replacement **FSIR-100**=Wireless Configuration Tool for Motion Sensor [20] **LS/HSS**=House Side Shield [10,21] **SWPD4-XX**=WaveLinx Wireless Sensor, 7' - 15' Mounting Height [15,16,17,18] **SWPD5-XX**=WaveLinx Wireless Sensor, 15' - 40' Mounting Height [15,16,17,18] **WOLC-7P-10A**=WaveLinx Outdoor Control Module [22]

NOTES:

1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
2. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
3. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
4. Not available with sensor options at 1.2A drive current. Not available in combination with HA high ambient and sensor options at 1A drive current.
5. Custom and RAL color matching available upon request. Consult your lighting representative at Cooper Lighting Solutions for more information.
6. Not available with LWR or SWPD sensor options. Not available with SA1 light square configuration. 2L is with MS/DIM sensors only available with UNV voltage.
7. Not available with EBP or CBP battery pack options.
8. Not available with high ambient (HA), high voltage (8 or 9), or 1.2A drive current configurations. Universal voltage (UNV) and drive currents 1A and lower only. Rated to maximum 25C ambient operating temperatures.
9. Salt spray tested to 5,000hrs per ASTM B117. Scribe rating of 9 per ASTM D1654.
10. House side shield not for use with 5NQ, 5MQ, 5WQ, or RW distributions. The Light Square trim plate is painted black when the HSS option is selected.
11. Utilizes internal step-down transformer when 347V or 480V is selected.
12. Requires PR or PR7 photocontrol receptacle option.
13. Controls system is not available with photocontrol (BPC), photocontrol receptacle (PR or PR7), or other controls systems (MS, ZD, ZW, LWR, DALI, or DIM).
14. Enlighted wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1 and LWP-PoE8 in appropriate quantities. See website for Enlighted application information.
15. Requires 4-PIN twistlock receptacle (ZD or ZW) option.
16. Replace XX with sensor color (WH, BZ or BK).
17. Sensor passive infrared (PIR) may be overly sensitive with operating below -20°C (-4°F).
18. For this device to be field-configurable, requires WAC Gateway components WAC-PoE and WPOE-120 in appropriate quantities. Only compatible with WaveLinx system and software and requires system components to be installed for operation. See website for more WaveLinx application information.
19. Replace XX with paint color.
20. This tool enables adjustment to Motion Sensor (MS) parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative for more information.
21. Must order one per light square when ordering as a field-installable accessory.
22. Requires 7-PIN NEMA twistlock receptacle (PR7) option. The WOLC-7 cannot be used in conjunction with other control systems (MS, ZW, ZD or LWR). Operates on 120-347V input voltages.
23. Must specify voltage, available in 120V or 277V

Product Specifications

Construction

- Die-cast aluminum main housing and permanent mold spider mount base maintain a minimum Ø.125" wall thickness.
- Integral aluminum heat sink provides superior thermal +40°C ambient with optional 50°C environments.
- Standard 1.5G vibration, 3G optional.
- Top mounted door assembly, heavy wall, diecast aluminum door maintains a nominal Ø.125 thickness
- Door includes a 4.5" stainless steel safety tether standard or an optional self-retaining interior hinge.
- Continuous silicone gasket provided to seal housing door assembly and optic tray
- Downlight lens is LED board integrated acrylic over optics, each individually sealed for IP66 rating.
- Four inset fasteners on underside of housing provide access to luminaire interior.

Optics

- Choice of thirteen patented, high efficiency AccuLED Optic™ technology manufactured from injection-molded acrylic. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing.
- AccuLED Optic technology creates consistent distributions with the scalability to meet customized application requirements
- Offered in multiple CCTs (+/-275K). For the ultimate level of spill light control, an optional house side shield accessory can be field or factory installed.

Electrical

- LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life.
- Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 50°C ambient environments.
- All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection.
- Lightsquares feature an IP66 enclosure rating.
- Occupancy sensor and dimming options available.

Mounting

- Fitter assembly mounts over 3" O.D. Tenon via four concealed, steel set screws and jam-setscrews.

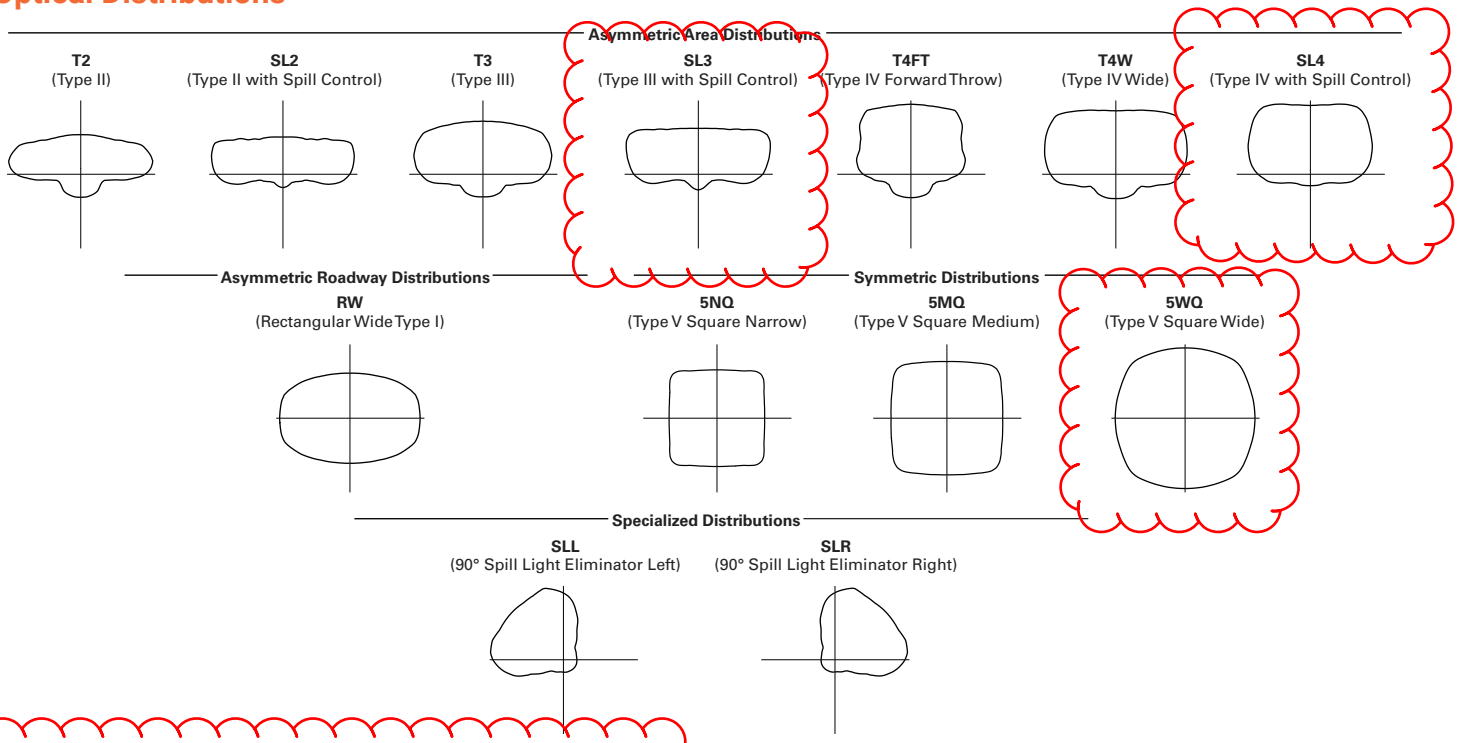
Finish

- Housing is finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear.
- Lightsquares cover plates are standard white and may be specified to match finish of luminaire housing.
- Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection.
- Available in Costal Construction, salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.

Warranty

- Five year limited warranty, consult website for details. www.cooperlighting.com/legal

Optical Distributions



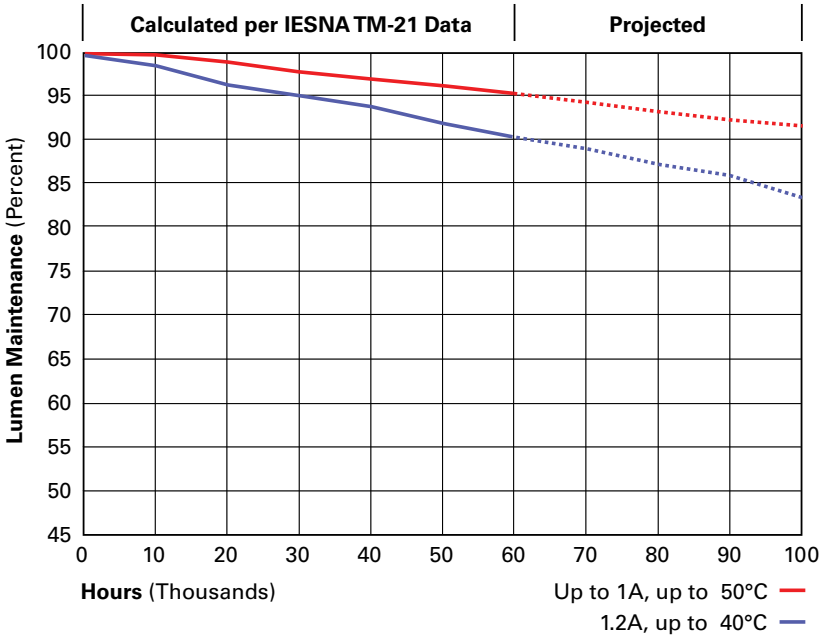
Lumen Maintenance

Drive Current	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Project L70 (Hours)
Up to 1A	Up to 50˚C	> 95%	416,000
1.2A	Up to 40˚C	> 90%	205,000

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

View PMM Mesa IES files



Energy and Performance Data

Power and Lumens (1.2A)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		67	129	191	258
Input Current @ 120V (A)		0.58	1.16	1.78	2.31
Input Current @ 208V (A)		0.33	0.63	0.93	1.27
Input Current @ 240V (A)		0.29	0.55	0.80	1.10
Input Current @ 277V (A)		0.25	0.48	0.70	0.96
Input Current @ 347V (A)		0.20	0.39	0.57	0.78
Input Current @ 480V (A)		0.15	0.30	0.43	0.60
Optics					
T2	4000K/5000K Lumens	6,840	13,452	19,853	26,239
	4000K/5000K Lumens Per Watt	102	104	104	102
	3000K Lumens	6,229	12,251	18,080	23,896
	3000K Lumens Per Watt	93	95	95	93
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4
T3	4000K/5000K Lumens	6,848	13,468	19,876	26,270
	4000K/5000K Lumens Per Watt	102	104	104	102
	3000K Lumens	6,236	12,266	18,101	23,924
	3000K Lumens Per Watt	93	95	95	93
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4
T4FT	4000K/5000K Lumens	6,873	13,519	19,951	26,369
	4000K/5000K Lumens Per Watt	103	105	104	102
	3000K Lumens	6,260	12,312	18,170	24,014
	3000K Lumens Per Watt	93	95	95	93
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4
T4W	4000K/5000K Lumens	6,953	13,675	20,182	26,674
	4000K/5000K Lumens Per Watt	104	106	106	103
	3000K Lumens	6,332	12,454	18,380	24,292
	3000K Lumens Per Watt	95	97	96	94
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4
SL2	4000K/5000K Lumens	6,812	13,399	19,773	26,134
	4000K/5000K Lumens Per Watt	102	104	104	101
	3000K Lumens	6,204	12,202	18,008	23,801
	3000K Lumens Per Watt	93	95	94	92
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4
SL3	4000K/5000K Lumens	6,729	13,234	19,531	25,813
	4000K/5000K Lumens Per Watt	100	103	102	100
	3000K Lumens	6,128	12,053	17,787	23,509
	3000K Lumens Per Watt	91	93	93	91
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4

1.2A continued on next page

Power and Lumens (1.2A)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		67	129	191	258
Input Current @ 120V (A)		0.58	1.16	1.78	2.31
Input Current @ 208V (A)		0.33	0.63	0.93	1.27
Input Current @ 240V (A)		0.29	0.55	0.80	1.10
Input Current @ 277V (A)		0.25	0.48	0.70	0.96
Input Current @ 347V (A)		0.20	0.39	0.57	0.78
Input Current @ 480V (A)		0.15	0.30	0.43	0.60
Optics					
SL4	4000K/5000K Lumens	6,680	13,138	19,389	25,625
	4000K/5000K Lumens Per Watt	100	102	102	99
	3000K Lumens	6,083	11,965	17,657	23,337
	3000K Lumens Per Watt	91	93	92	90
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4
5NQ	4000K/5000K Lumens	7,017	13,801	20,368	26,920
	4000K/5000K Lumens Per Watt	105	107	107	104
	3000K Lumens	6,390	12,569	18,549	24,516
	3000K Lumens Per Watt	95	97	97	95
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
5MQ	4000K/5000K Lumens	7,386	14,527	21,439	28,336
	4000K/5000K Lumens Per Watt	110	113	112	110
	3000K Lumens	6,727	13,230	19,525	25,806
	3000K Lumens Per Watt	100	103	102	100
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3
5WQ	4000K/5000K Lumens	7,356	14,469	21,352	28,221
	4000K/5000K Lumens Per Watt	110	112	112	109
	3000K Lumens	6,699	13,177	19,446	25,701
	3000K Lumens Per Watt	100	102	102	100
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4
SLL/SLR	4000K/5000K Lumens	5,874	11,554	17,051	22,536
	4000K/5000K Lumens Per Watt	88	90	89	87
	3000K Lumens	5,350	10,522	15,529	20,524
	3000K Lumens Per Watt	80	82	81	80
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4
RW	4000K/5000K Lumens	7,042	13,851	20,441	27,017
	4000K/5000K Lumens Per Watt	105	107	107	105
	3000K Lumens	6,414	12,614	18,616	24,605
	3000K Lumens Per Watt	96	98	97	95
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2

Power and Lumens (1.2A)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		59	113	166	225
Input Current @ 120V (A)		0.51	1.02	1.53	2.03
Input Current @ 208V (A)		0.29	0.56	0.82	1.11
Input Current @ 240V (A)		0.26	0.48	0.71	0.96
Input Current @ 277V (A)		0.23	0.42	0.61	0.83
Input Current @ 347V (A)		0.17	0.32	0.50	0.64
Input Current @ 480V (A)		0.14	0.24	0.37	0.48
Optics					
T2	4000K/5000K Lumens	6,256	12,304	18,158	23,999
	4000K/5000K Lumens Per Watt	106	109	109	107
	3000K Lumens	5,697	11,205	16,537	21,856
	3000K Lumens Per Watt	97	99	100	97
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4
T3	4000K/5000K Lumens	6,263	12,318	18,179	24,027
	4000K/5000K Lumens Per Watt	106	109	110	107
	3000K Lumens	5704	11219	16556	21882
	3000K Lumens Per Watt	97	99	100	97
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4
T4FT	4000K/5000K Lumens	6,287	12,365	18,248	24,118
	4000K/5000K Lumens Per Watt	107	109	110	107
	3000K Lumens	5,725	11,261	16,618	21,964
	3000K Lumens Per Watt	97	100	100	98
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4
T4W	4000K/5000K Lumens	6,359	12,508	18,459	24,397
	4000K/5000K Lumens Per Watt	108	111	111	108
	3000K Lumens	5,792	11,391	16,811	22,219
	3000K Lumens Per Watt	98	101	101	99
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4
SL2	4000K/5000K Lumens	6,231	12,255	18,085	23,903
	4000K/5000K Lumens Per Watt	106	108	109	106
	3000K Lumens	5,674	11,161	16,471	21,769
	3000K Lumens Per Watt	96	99	99	97
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4
SL3	4000K/5000K Lumens	6,154	12,104	17,863	23,610
	4000K/5000K Lumens Per Watt	104	107	108	105
	3000K Lumens	5,605	11,024	16,268	21,502
	3000K Lumens Per Watt	95	98	98	96
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4

1A continued on next page

Power and Lumens (1A)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		59	113	166	225
Input Current @ 120V (A)		0.51	1.02	1.53	2.03
Input Current @ 208V (A)		0.29	0.56	0.82	1.11
Input Current @ 240V (A)		0.26	0.48	0.71	0.96
Input Current @ 277V (A)		0.23	0.42	0.61	0.83
Input Current @ 347V (A)		0.17	0.32	0.50	0.64
Input Current @ 480V (A)		0.14	0.24	0.37	0.48
Optics					
SL4	4000K/5000K Lumens	6,109	12,016	17,733	23,438
	4000K/5000K Lumens Per Watt	104	106	107	104
	3000K Lumens	5,564	10,943	16,150	21,345
	3000K Lumens Per Watt	94	97	97	95
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4
5NQ	4000K/5000K Lumens	6,418	12,623	18,629	24,622
	4000K/5000K Lumens Per Watt	109	112	112	109
	3000K Lumens	5,845	11,496	16,966	22,423
	3000K Lumens Per Watt	99	102	102	100
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
5MQ	4000K/5000K Lumens	6,756	13,287	19,609	25,917
	4000K/5000K Lumens Per Watt	115	118	118	115
	3000K Lumens	6,152	12,101	17,858	23,603
	3000K Lumens Per Watt	104	107	108	105
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3
5WQ	4000K/5000K Lumens	5,728	13,233	19,530	25,812
	4000K/5000K Lumens Per Watt	97	117	118	115
	3000K Lumens	6,127	12,052	17,786	23,507
	3000K Lumens Per Watt	104	107	107	104
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3
SLL/ SLR	4000K/5000K Lumens	5,373	10,568	15,595	20,612
	4000K/5000K Lumens Per Watt	91	94	94	92
	3000K Lumens	4,893	9,624	14,203	18,772
	3000K Lumens Per Watt	83	85	86	83
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4
RW	4000K/5000K Lumens	6,441	12,669	18,696	24,710
	4000K/5000K Lumens Per Watt	109	112	113	110
	3000K Lumens	5,866	11,538	17,027	22,504
	3000K Lumens Per Watt	99	102	103	100
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2

Power and Lumens (800mA)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		44	85	124	171
Input Current @ 120V (A)		0.39	0.77	1.13	1.54
Input Current @ 208V (A)		0.22	0.44	0.62	0.88
Input Current @ 240V (A)		0.19	0.38	0.54	0.76
Input Current @ 277V (A)		0.17	0.36	0.47	0.72
Input Current @ 347V (A)		0.15	0.24	0.38	0.49
Input Current @ 480V (A)		0.11	0.18	0.29	0.37
Optics					
T2	4000K/5000K Lumens	5,051	9,935	14,662	19,378
	4000K/5000K Lumens Per Watt	115	117	118	113
	3000K Lumens	4,600	9,048	13,353	17,648
	3000K Lumens Per Watt	105	106	108	103
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3
T3	4000K/5000K Lumens	5,057	9,947	14,679	19,401
	4000K/5000K Lumens Per Watt	115	117	118	113
	3000K Lumens	4,606	9,059	13,368	17,669
	3000K Lumens Per Watt	105	107	108	103
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3
T4FT	4000K/5000K Lumens	5,076	9,984	14,734	19,474
	4000K/5000K Lumens Per Watt	115	117	119	114
	3000K Lumens	4,623	9,093	13,419	17,735
	3000K Lumens Per Watt	105	107	108	104
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G4
T4W	4000K/5000K Lumens	5,135	10,100	14,905	19,700
	4000K/5000K Lumens Per Watt	117	119	120	115
	3000K Lumens	4,676	9,198	13,574	17,941
	3000K Lumens Per Watt	106	108	109	105
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4
SL2	4000K/5000K Lumens	5,031	9,895	14,603	19,301
	4000K/5000K Lumens Per Watt	114	116	118	113
	3000K Lumens	4,582	9,012	13,299	17,577
	3000K Lumens Per Watt	104	106	107	103
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B3-U0-G3
SL3	4000K/5000K Lumens	4,969	9,774	14,424	19,064
	4000K/5000K Lumens Per Watt	113	115	116	111
	3000K Lumens	4,526	8,901	13,136	17,362
	3000K Lumens Per Watt	103	105	106	102
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3
SL4	4000K/5000K Lumens	4,933	9,703	14,319	18,925
	4000K/5000K Lumens Per Watt	112	114	115	111
	3000K Lumens	4,493	8,836	13,041	17,235
	3000K Lumens Per Watt	102	104	105	101
	BUG Rating	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4

800mA continued on next page

Power and Lumens (800mA)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		44	85	124	171
Input Current @ 120V (A)		0.39	0.77	1.13	1.54
Input Current @ 208V (A)		0.22	0.44	0.62	0.88
Input Current @ 240V (A)		0.19	0.38	0.54	0.76
Input Current @ 277V (A)		0.17	0.36	0.47	0.72
Input Current @ 347V (A)		0.15	0.24	0.38	0.49
Input Current @ 480V (A)		0.11	0.18	0.29	0.37
Optics					
5NQ	4000K/5000K Lumens	5,182	10,193	15,042	19,881
	4000K/5000K Lumens Per Watt	118	120	121	116
	3000K Lumens	4,720	9,283	13,699	18,106
	3000K Lumens Per Watt	107	109	110	106
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2
5MQ	4000K/5000K Lumens	5,455	10,729	15,833	20,927
	4000K/5000K Lumens Per Watt	124	126	128	122
	3000K Lumens	4,968	9,771	14,420	19,058
	3000K Lumens Per Watt	113	115	116	111
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
5WQ	4000K/5000K Lumens	5,433	10,685	15,769	20,842
	4000K/5000K Lumens Per Watt	123	126	127	122
	3000K Lumens	4,948	9,731	14,361	18,981
	3000K Lumens Per Watt	112	114	116	111
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3
SLL/SLR	4000K/5000K Lumens	4,338	8,533	12,593	16,644
	4000K/5000K Lumens Per Watt	99	100	102	97
	3000K Lumens	3,951	7,771	11,468	15,157
	3000K Lumens Per Watt	90	91	92	89
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3
RW	4000K/5000K Lumens	5,201	10,229	15,096	19,953
	4000K/5000K Lumens Per Watt	118	120	122	117
	3000K Lumens	4,737	9,316	13,749	18,171
	3000K Lumens Per Watt	108	110	111	106
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2

Power and Lumens (600mA)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		34	66	96	129
Input Current @ 120V (A)		0.30	0.58	0.86	1.16
Input Current @ 208V (A)		0.17	0.34	0.49	0.65
Input Current @ 240V (A)		0.15	0.30	0.43	0.56
Input Current @ 277V (A)		0.14	0.28	0.41	0.52
Input Current @ 347V (A)		0.11	0.19	0.30	0.39
Input Current @ 480V (A)		0.08	0.15	0.24	0.30
Optics					
T2	4000K/5000K Lumens	4,031	7,928	11,700	14,563
	4000K/5000K Lumens Per Watt	119	120	122	113
	3000K Lumens	3,671	7,220	10,655	14,082
	3000K Lumens Per Watt	108	109	111	109
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2
T3	4000K/5000K Lumens	4,035	7,937	11,713	15,481
	4000K/5000K Lumens Per Watt	119	120	122	120
	3000K Lumens	2,675	7,228	10,667	14,099
	3000K Lumens Per Watt	79	110	111	109
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3
T4FT	4000K/5000K Lumens	4,051	7,967	11,757	15,539
	4000K/5000K Lumens Per Watt	119	121	122	120
	3000K Lumens	3,689	7,255	10,708	14,152
	3000K Lumens Per Watt	109	110	112	110
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3
T4W	4000K/5000K Lumens	4,097	8,059	11,894	15,719
	4000K/5000K Lumens Per Watt	121	122	124	122
	3000K Lumens	3,732	7,340	10,832	14,316
	3000K Lumens Per Watt	110	111	113	111
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G3
SL2	4000K/5000K Lumens	4,015	7,896	11,653	15,401
	4000K/5000K Lumens Per Watt	118	120	121	119
	3000K Lumens	3,656	7,191	10,612	14,026
	3000K Lumens Per Watt	108	109	111	109
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3
SL3	4000K/5000K Lumens	3,965	7,799	11,510	15,212
	4000K/5000K Lumens Per Watt	117	118	120	118
	3000K Lumens	3,611	7,103	10,482	13,854
	3000K Lumens Per Watt	106	108	109	107
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3
SL4	4000K/5000K Lumens	3,936	7,742	11,426	15,101
	4000K/5000K Lumens Per Watt	116	117	119	117
	3000K Lumens	3,585	7,051	10,406	13,753
	3000K Lumens Per Watt	105	107	108	107
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3

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Power and Lumens (600mA)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		34	66	96	129
Input Current @ 120V (A)		0.30	0.58	0.86	1.16
Input Current @ 208V (A)		0.17	0.34	0.49	0.65
Input Current @ 240V (A)		0.15	0.30	0.43	0.56
Input Current @ 277V (A)		0.14	0.28	0.41	0.52
Input Current @ 347V (A)		0.11	0.19	0.30	0.39
Input Current @ 480V (A)		0.08	0.15	0.24	0.30
Optics					
5NQ	4000K/5000K Lumens	4,135	8,133	12,003	15,864
	4000K/5000K Lumens Per Watt	122	123	125	123
	3000K Lumens	3,766	7,407	10,931	14,448
	3000K Lumens Per Watt	111	112	114	112
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2
5MQ	4000K/5000K Lumens	4,353	8,561	12,634	16,698
	4000K/5000K Lumens Per Watt	128	130	132	129
	3000K Lumens	3,964	7,797	11,506	15,208
	3000K Lumens Per Watt	117	118	120	118
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
5WQ	4000K/5000K Lumens	4,335	8,526	12,583	16,631
	4000K/5000K Lumens Per Watt	128	129	131	129
	3000K Lumens	3,948	7,765	11,460	15,146
	3000K Lumens Per Watt	116	118	119	117
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
SLL/SLR	4000K/5000K Lumens	3,462	6,809	10,048	13,281
	4000K/5000K Lumens Per Watt	102	103	105	103
	3000K Lumens	3,153	6,201	9,151	12,095
	3000K Lumens Per Watt	93	94	95	94
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G3	B2-U0-G3
RW	4000K/5000K Lumens	4,150	8,163	12,046	15,921
	4000K/5000K Lumens Per Watt	122	124	125	123
	3000K Lumens	3,780	7,434	10,971	14,500
	3000K Lumens Per Watt	111	113	114	112
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2

Control Options

0-10V (DIM)
The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

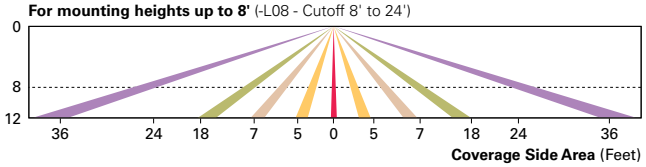
Photocontrol (PR and PR7)
Optional photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

Dimming Occupancy Sensor (MS/DIM-LXX, MS/X-LXX and MS-LXX)
These sensors are factory installed in the luminaire housing. When the MS/DIM-LXX sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. The MS/X-LXX is also preset for five minutes and only controls the specified number of light engines to maintain steady output from the remaining light engines.

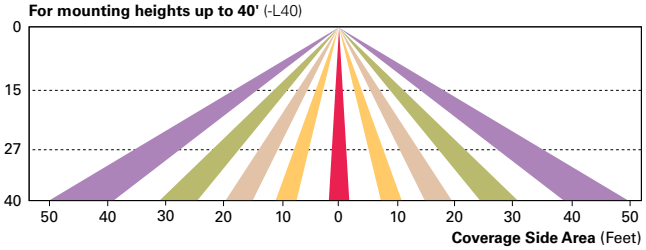
These occupancy sensors includes an integral photocell that can be activated with the FSIR-100 accessory for "dusk-to-dawn" control or daylight harvesting - the factory preset is OFF. The FSIR-100 is a wireless tool utilized for changing the dimming level, time delay, sensitivity and other parameters.

A variety of sensor lens are available to optimize the coverage pattern for mounting heights from 8'-40'.

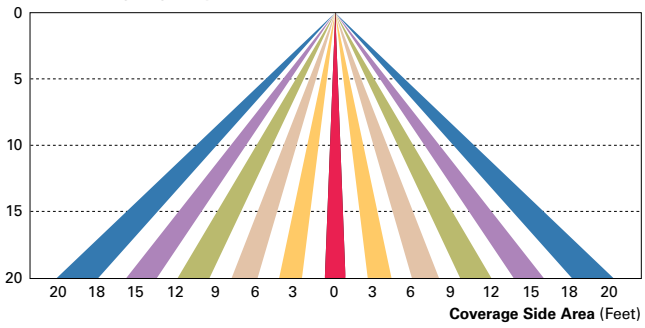
For mounting heights up to 8' (-L08 - Cutoff 8' to 24')



For mounting heights up to 40' (-L40)

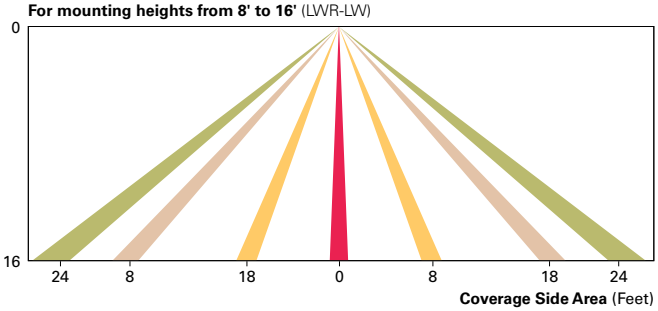


For mounting heights up to 20' (-L20)

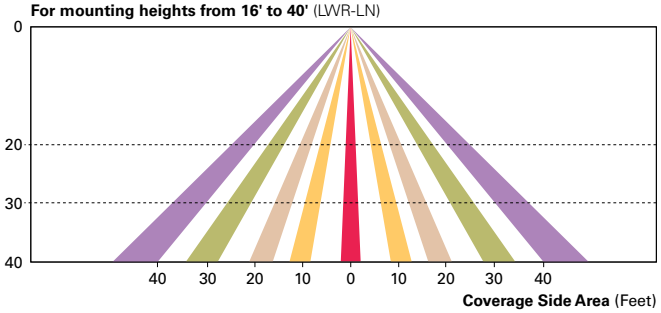


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN)
Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)

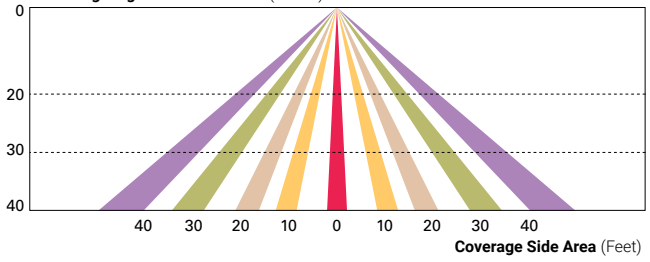


WaveLinx Wireless Control and Monitoring System Available in 7-PIN or 4-PIN configurations, the WaveLinx Outdoor control platform operates on a wireless mesh network based on IEEE 802.15.4 standards enabling wireless control of outdoor lighting. Use the WaveLinx Mobile application for set-up and configuration. At least one Wireless Area Controller (WAC) is required for full functionality and remote communication (including wadjustment of any factory pre-sets).

WaveLinx Outdoor Control Module (WOLC-7P-10A) A photocontrol that enables astronomic or time-based schedules to provide ON, OFF and dimming control of fixtures utilizing a 7-PIN receptacle. The out-of-box functionality is ON at dusk and OFF at dawn.

WaveLinx Wireless Sensor (SWPD4 and SWPD5) These outdoor sensors offer passive infrared (PIR) occupancy and a photocell for closed loop daylight sensing. These sensors can be factory installed or field-installed via simple, tool-less integration into luminaires equipped with the Zhaga Book 18 compliant 4-PIN receptacle (ZD or ZW). These sensors are factory preset to dim down to approximately 50 percent power after 15 minutes of no activity detected. These occupancy sensors include an integral photocell for "dusk-to-dawn" control or daylight harvesting that is factory-enabled. A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 7'-40'.

For mounting heights from 16' to 40' (SWPD)



Cooper Lighting Solutions
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Peachtree City, GA 30269
P: 770-486-4800
www.cooperlighting.com

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Specifications and dimensions
subject to change without notice.

Project		Catalog #		Type	
Prepared by		Notes		Date	







Invue

MSA MESA

Decorative Area Luminaire

Product Features

WaveLinx

Light ARchitect™

Interactive Menu

- Order Information page 2
- Optical Distributions page 3
- Product Specifications page 4
- Energy & Performance data page 5
- Control Options page 13

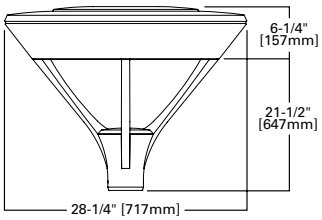
Product Certifications

ISO Systems Certified · UL Certified · DLC Listed · DLC Listed Premium · RoHS Compliant · IP66 · 1.5G VIB · 3G VIB · 5 Year Limited Warranty · ida Dark Sky Approved · FC Class A CAN ICES-005

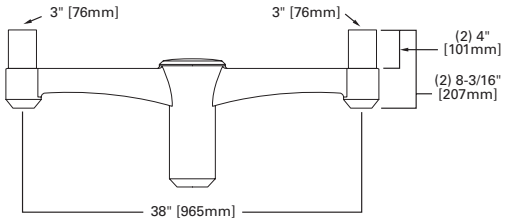
Quick Facts

- Die-cast aluminum housing and door
- Lumens packages ranging from 3,000 - 29,000 lumens
- Choice of 13 high-efficiency, patented AccuLED Optics™
- Base casting slip fits over a standard 3" O.D. tenon
- Wall, single and dual-mount configurations available
- 10kV/10vkA surge protection standard
- LED fixture features a five-year warranty

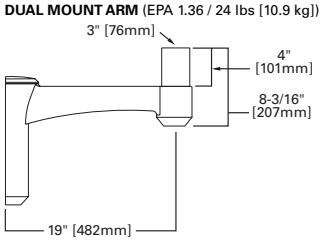
Dimensional and Mounting Details



WALL MOUNT ARM (15 lbs [8.8 kg])



DUAL MOUNT ARM (EPA 1.36 / 24 lbs [10.9 kg])



Ordering Information

SAMPLE NUMBER: **MSA-SA4A-740-U-T3-GM**

Product Family [1,2]	Light Engine		Color Temperature	Voltage	Distribution	Finish [5]
	Configuration	Drive Current				
MSA=Mesa	**SA1**=1 Square **SA2**=2 Squares **SA3**=3 Squares **SA4**=4 Squares	**A**=615mA **B**=800mA **C**=1050mA(1A) **D**=1200mA(1.2A)	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI,6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **835**=80CRI, 3500K **AMB**=590nm, Amber [3]	**U**=Universal (120-277V) **9**=347V **8**=480V	**T2**=Type II **T3**=Type III **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90 Spill Light Eliminator Left **SLR**=90 Spill Light Eliminator Right **RW**=Rectangular Wide Type I **5NQ**=Type V Square Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide	**AP**=Grey **BK**=Black **BZ**=Bronze **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White **CC**=Coastal Construction

Options (Add as Suffix)		Accessories (Order Separately) [17]
10MSP=10kV MOV Surge Protection Device **20K**=20kV UL 1449 Fused Surge Protection Device **20MSP**=20kV MOV Surge Protection Device **3**=Three Position Terminal Block **2L**=UL Listed / CSA Certified [6,7] **DIM**=External 0-10V Dimming Leads **EBP**=Emergency Battery Pack [8,23] **CBP**=Cold Weather Emergency Battery Pack [8,23] **CC**=Coastal Construction [9] **UL**=UL Listed / CSA Certified **HSS**=House Side Shield [10] **G3**=3G Vibration Rated **HA**=50°C High Ambient Temperature **IH**=Internal Dome Hinge [7] **LCF**=Light Square Trim Plate Painted to Match Housing **DALI**=DALI Driver [11] **BPC**=Button Type Photocontrol	**PR**=NEMA 3-PIN Twistlock Photocontrol Receptacle **PR7**=NEMA 7-PIN Twistlock Photocontrol Receptacle **LLPC**=Long Life Twistlock NEMA Photocontrol [12] **MS/DIM-L08**=Motion Sensor for Dimming Operation, Up to 8' Mounting Height [11,13] **MS/DIM-L20**=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [11,13] **MS/DIM-L40**=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height [11,13] **LWR-LW**=Enlighted Sensor, 8'-16' MH [11,13,14] **LWR-LN**=Enlighted Sensor, 16'-40' MH [11,13,14] **ZD**=DALI-enabled 4-PIN Twistlock Receptacle [11,13] **ZW**=WaveLinx-enabled 4-PIN Twistlock Receptacle [11,13] **SWPD4XX**=WaveLinx Wireless Sensor, 7' - 15' Mounting Height [15,16,17,18] **SWPD5XX**=WaveLinx Wireless Sensor, 15' - 40' Mounting Height [15,16,17,18]	**SA6028-XX**=Dual Mount Arm [2] **SA6029-XX**=Wall Mount Arm [2] **OA/RA1013**=Photocontrol Shorting Cap **OA/RA1016**=NEMA Photocontrol - Multi-Tap **OA/RA1027**=NEMA Photocontrol - 480V **OA/RA1201**=NEMA Photocontrol - 347V **OA1223**=10kV Circuit Module Replacement **FSIR-100**=Wireless Configuration Tool for Motion Sensor [20] **LS/HSS**=House Side Shield [10,21] **SWPD4-XX**=WaveLinx Wireless Sensor, 7' - 15' Mounting Height [15,16,17,18] **SWPD5-XX**=WaveLinx Wireless Sensor, 15' - 40' Mounting Height [15,16,17,18] **WOLC-7P-10A**=WaveLinx Outdoor Control Module [22]

NOTES:

1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
2. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
3. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
4. Not available with sensor options at 1.2A drive current. Not available in combination with HA high ambient and sensor options at 1A drive current.
5. Custom and RAL color matching available upon request. Consult your lighting representative at Cooper Lighting Solutions for more information.
6. Not available with LWR or SWPD sensor options. Not available with SA1 light square configuration. 2L is with MS/DIM sensors only available with UNV voltage.
7. Not available with EBP or CBP battery pack options.
8. Not available with high ambient (HA), high voltage (8 or 9), or 1.2A drive current configurations. Universal voltage (UNV) and drive currents 1A and lower only. Rated to maximum 25C ambient operating temperatures.
9. Salt spray tested to 5,000hrs per ASTM B117. Scribe rating of 9 per ASTM D1654.
10. House side shield not for use with 5NQ, 5MQ, 5WQ, or RW distributions. The Light Square trim plate is painted black when the HSS option is selected.
11. Utilizes internal step-down transformer when 347V or 480V is selected.
12. Requires PR or PR7 photocontrol receptacle option.
13. Controls system is not available with photocontrol (BPC), photocontrol receptacle (PR or PR7), or other controls systems (MS, ZD, ZW, LWR, DALI, or DIM).
14. Enlighted wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1 and LWP-PoE8 in appropriate quantities. See website for Enlighted application information.
15. Requires 4-PIN twistlock receptacle (ZD or ZW) option.
16. Replace XX with sensor color (WH, BZ or BK).
17. Sensor passive infrared (PIR) may be overly sensitive with operating below -20°C (-4°F).
18. For this device to be field-configurable, requires WAC Gateway components WAC-PoE and WPOE-120 in appropriate quantities. Only compatible with WaveLinx system and software and requires system components to be installed for operation. See website for more WaveLinx application information.
19. Replace XX with paint color.
20. This tool enables adjustment to Motion Sensor (MS) parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative for more information.
21. Must order one per light square when ordering as a field-installable accessory.
22. Requires 7-PIN NEMA twistlock receptacle (PR7) option. The WOLC-7 cannot be used in conjunction with other control systems (MS, ZW, ZD or LWR). Operates on 120-347V input voltages.
23. Must specify voltage, available in 120V or 277V

Product Specifications

Construction

- Die-cast aluminum main housing and permanent mold spider mount base maintain a minimum Ø.125" wall thickness.
- Integral aluminum heat sink provides superior thermal +40°C ambient with optional 50°C environments.
- Standard 1.5G vibration, 3G optional.
- Top mounted door assembly, heavy wall, diecast aluminum door maintains a nominal Ø.125 thickness
- Door includes a 4.5" stainless steel safety tether standard or an optional self-retaining interior hinge.
- Continuous silicone gasket provided to seal housing door assembly and optic tray
- Downlight lens is LED board integrated acrylic over optics, each individually sealed for IP66 rating.
- Four inset fasteners on underside of housing provide access to luminaire interior.

Optics

- Choice of thirteen patented, high efficiency AccuLED Optic™ technology manufactured from injection-molded acrylic. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing.
- AccuLED Optic technology creates consistent distributions with the scalability to meet customized application requirements
- Offered in multiple CCTs (+/-275K). For the ultimate level of spill light control, an optional house side shield accessory can be field or factory installed.

Electrical

- LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life.
- Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 50°C ambient environments.
- All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection.
- Lightsquares feature an IP66 enclosure rating.
- Occupancy sensor and dimming options available.

Mounting

- Fitter assembly mounts over 3" O.D. Tenon via four concealed, steel set screws and jam-setscrews.

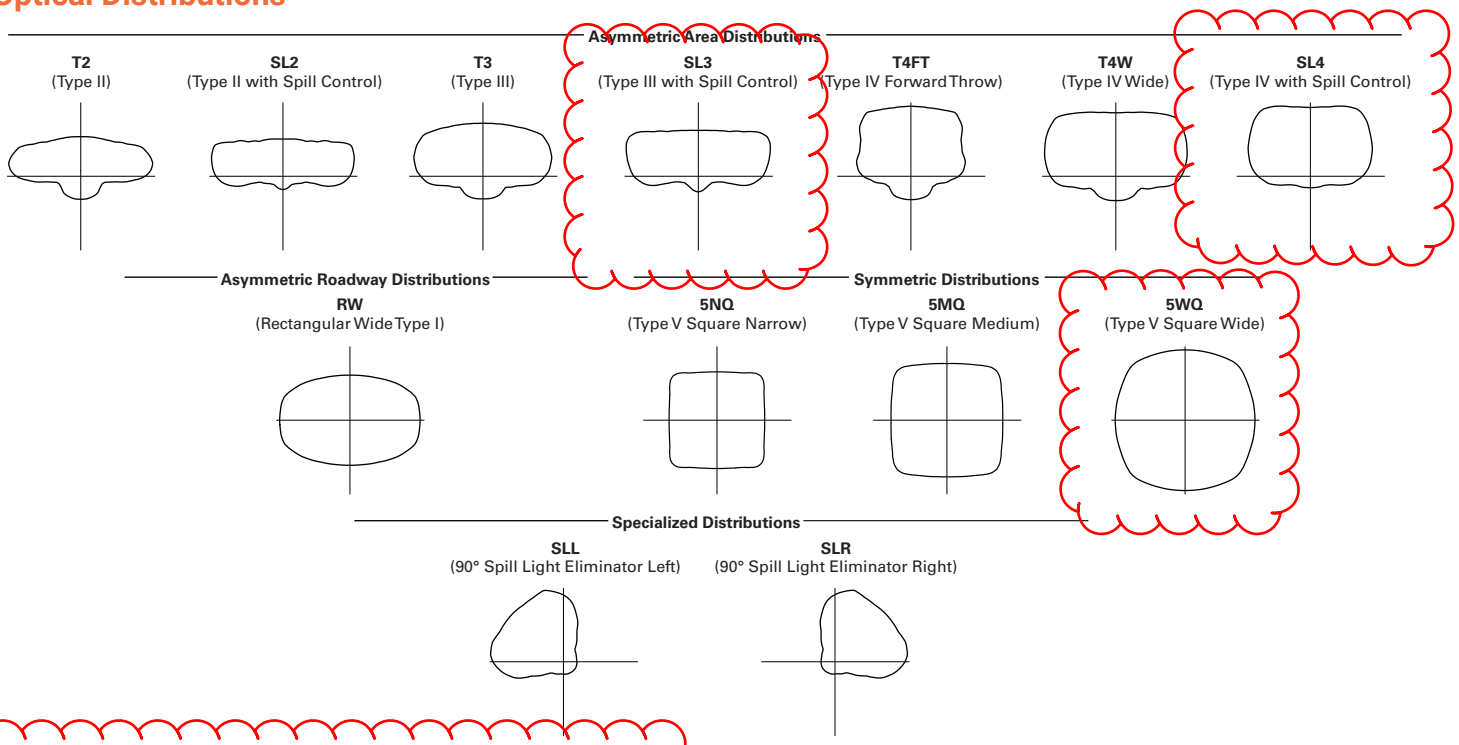
Finish

- Housing is finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear.
- Lightsquares cover plates are standard white and may be specified to match finish of luminaire housing.
- Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection.
- Available in Costal Construction, salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.

Warranty

- Five year limited warranty, consult website for details. www.cooperlighting.com/legal

Optical Distributions



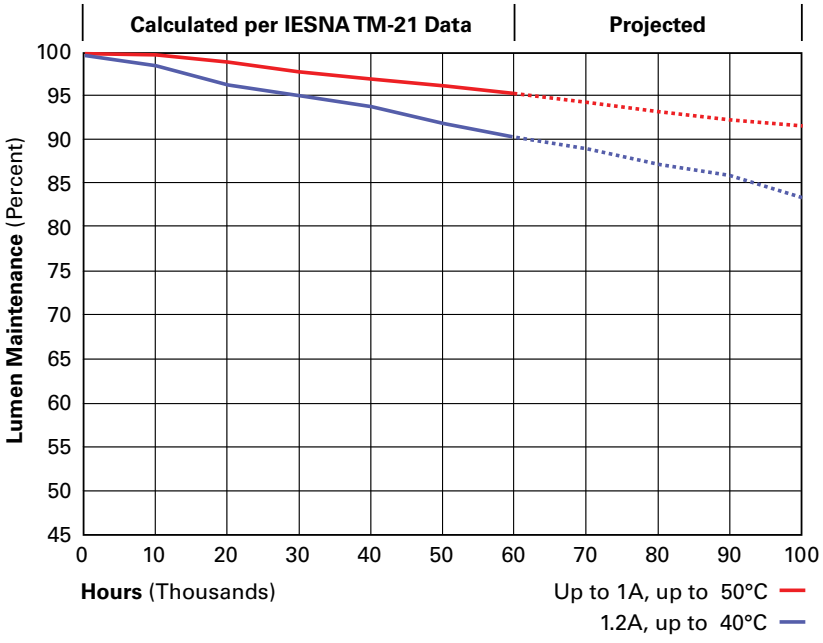
Lumen Maintenance

Drive Current	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Project L70 (Hours)
Up to 1A	Up to 50˚C	> 95%	416,000
1.2A	Up to 40˚C	> 90%	205,000

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

View PMM Mesa IES files



Energy and Performance Data

Power and Lumens (1.2A)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		67	129	191	258
Input Current @ 120V (A)		0.58	1.16	1.78	2.31
Input Current @ 208V (A)		0.33	0.63	0.93	1.27
Input Current @ 240V (A)		0.29	0.55	0.80	1.10
Input Current @ 277V (A)		0.25	0.48	0.70	0.96
Input Current @ 347V (A)		0.20	0.39	0.57	0.78
Input Current @ 480V (A)		0.15	0.30	0.43	0.60
Optics					
T2	4000K/5000K Lumens	6,840	13,452	19,853	26,239
	4000K/5000K Lumens Per Watt	102	104	104	102
	3000K Lumens	6,229	12,251	18,080	23,896
	3000K Lumens Per Watt	93	95	95	93
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4
T3	4000K/5000K Lumens	6,848	13,468	19,876	26,270
	4000K/5000K Lumens Per Watt	102	104	104	102
	3000K Lumens	6,236	12,266	18,101	23,924
	3000K Lumens Per Watt	93	95	95	93
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4
T4FT	4000K/5000K Lumens	6,873	13,519	19,951	26,369
	4000K/5000K Lumens Per Watt	103	105	104	102
	3000K Lumens	6,260	12,312	18,170	24,014
	3000K Lumens Per Watt	93	95	95	93
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4
T4W	4000K/5000K Lumens	6,953	13,675	20,182	26,674
	4000K/5000K Lumens Per Watt	104	106	106	103
	3000K Lumens	6,332	12,454	18,380	24,292
	3000K Lumens Per Watt	95	97	96	94
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4
SL2	4000K/5000K Lumens	6,812	13,399	19,773	26,134
	4000K/5000K Lumens Per Watt	102	104	104	101
	3000K Lumens	6,204	12,202	18,008	23,801
	3000K Lumens Per Watt	93	95	94	92
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4
SL3	4000K/5000K Lumens	6,729	13,234	19,531	25,813
	4000K/5000K Lumens Per Watt	100	103	102	100
	3000K Lumens	6,128	12,053	17,787	23,509
	3000K Lumens Per Watt	91	93	93	91
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4

1.2A continued on next page

Power and Lumens (1.2A)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		67	129	191	258
Input Current @ 120V (A)		0.58	1.16	1.78	2.31
Input Current @ 208V (A)		0.33	0.63	0.93	1.27
Input Current @ 240V (A)		0.29	0.55	0.80	1.10
Input Current @ 277V (A)		0.25	0.48	0.70	0.96
Input Current @ 347V (A)		0.20	0.39	0.57	0.78
Input Current @ 480V (A)		0.15	0.30	0.43	0.60
Optics					
SL4	4000K/5000K Lumens	6,680	13,138	19,389	25,625
	4000K/5000K Lumens Per Watt	100	102	102	99
	3000K Lumens	6,083	11,965	17,657	23,337
	3000K Lumens Per Watt	91	93	92	90
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4
5NQ	4000K/5000K Lumens	7,017	13,801	20,368	26,920
	4000K/5000K Lumens Per Watt	105	107	107	104
	3000K Lumens	6,390	12,569	18,549	24,516
	3000K Lumens Per Watt	95	97	97	95
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
5MQ	4000K/5000K Lumens	7,386	14,527	21,439	28,336
	4000K/5000K Lumens Per Watt	110	113	112	110
	3000K Lumens	6,727	13,230	19,525	25,806
	3000K Lumens Per Watt	100	103	102	100
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3
5WQ	4000K/5000K Lumens	7,356	14,469	21,352	28,221
	4000K/5000K Lumens Per Watt	110	112	112	109
	3000K Lumens	6,699	13,177	19,446	25,701
	3000K Lumens Per Watt	100	102	102	100
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4
SLL/SLR	4000K/5000K Lumens	5,874	11,554	17,051	22,536
	4000K/5000K Lumens Per Watt	88	90	89	87
	3000K Lumens	5,350	10,522	15,529	20,524
	3000K Lumens Per Watt	80	82	81	80
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4
RW	4000K/5000K Lumens	7,042	13,851	20,441	27,017
	4000K/5000K Lumens Per Watt	105	107	107	105
	3000K Lumens	6,414	12,614	18,616	24,605
	3000K Lumens Per Watt	96	98	97	95
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2

Power and Lumens (1.2A)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		59	113	166	225
Input Current @ 120V (A)		0.51	1.02	1.53	2.03
Input Current @ 208V (A)		0.29	0.56	0.82	1.11
Input Current @ 240V (A)		0.26	0.48	0.71	0.96
Input Current @ 277V (A)		0.23	0.42	0.61	0.83
Input Current @ 347V (A)		0.17	0.32	0.50	0.64
Input Current @ 480V (A)		0.14	0.24	0.37	0.48
Optics					
T2	4000K/5000K Lumens	6,256	12,304	18,158	23,999
	4000K/5000K Lumens Per Watt	106	109	109	107
	3000K Lumens	5,697	11,205	16,537	21,856
	3000K Lumens Per Watt	97	99	100	97
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4
T3	4000K/5000K Lumens	6,263	12,318	18,179	24,027
	4000K/5000K Lumens Per Watt	106	109	110	107
	3000K Lumens	5704	11219	16556	21882
	3000K Lumens Per Watt	97	99	100	97
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4
T4FT	4000K/5000K Lumens	6,287	12,365	18,248	24,118
	4000K/5000K Lumens Per Watt	107	109	110	107
	3000K Lumens	5,725	11,261	16,618	21,964
	3000K Lumens Per Watt	97	100	100	98
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4
T4W	4000K/5000K Lumens	6,359	12,508	18,459	24,397
	4000K/5000K Lumens Per Watt	108	111	111	108
	3000K Lumens	5,792	11,391	16,811	22,219
	3000K Lumens Per Watt	98	101	101	99
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4
SL2	4000K/5000K Lumens	6,231	12,255	18,085	23,903
	4000K/5000K Lumens Per Watt	106	108	109	106
	3000K Lumens	5,674	11,161	16,471	21,769
	3000K Lumens Per Watt	96	99	99	97
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4
SL3	4000K/5000K Lumens	6,154	12,104	17,863	23,610
	4000K/5000K Lumens Per Watt	104	107	108	105
	3000K Lumens	5,605	11,024	16,268	21,502
	3000K Lumens Per Watt	95	98	98	96
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4

1A continued on next page

Power and Lumens (1A)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		59	113	166	225
Input Current @ 120V (A)		0.51	1.02	1.53	2.03
Input Current @ 208V (A)		0.29	0.56	0.82	1.11
Input Current @ 240V (A)		0.26	0.48	0.71	0.96
Input Current @ 277V (A)		0.23	0.42	0.61	0.83
Input Current @ 347V (A)		0.17	0.32	0.50	0.64
Input Current @ 480V (A)		0.14	0.24	0.37	0.48
Optics					
SL4	4000K/5000K Lumens	6,109	12,016	17,733	23,438
	4000K/5000K Lumens Per Watt	104	106	107	104
	3000K Lumens	5,564	10,943	16,150	21,345
	3000K Lumens Per Watt	94	97	97	95
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4
5NQ	4000K/5000K Lumens	6,418	12,623	18,629	24,622
	4000K/5000K Lumens Per Watt	109	112	112	109
	3000K Lumens	5,845	11,496	16,966	22,423
	3000K Lumens Per Watt	99	102	102	100
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
5MQ	4000K/5000K Lumens	6,756	13,287	19,609	25,917
	4000K/5000K Lumens Per Watt	115	118	118	115
	3000K Lumens	6,152	12,101	17,858	23,603
	3000K Lumens Per Watt	104	107	108	105
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3
5WQ	4000K/5000K Lumens	5,728	13,233	19,530	25,812
	4000K/5000K Lumens Per Watt	97	117	118	115
	3000K Lumens	6,127	12,052	17,786	23,507
	3000K Lumens Per Watt	104	107	107	104
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3
SLL/ SLR	4000K/5000K Lumens	5,373	10,568	15,595	20,612
	4000K/5000K Lumens Per Watt	91	94	94	92
	3000K Lumens	4,893	9,624	14,203	18,772
	3000K Lumens Per Watt	83	85	86	83
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4
RW	4000K/5000K Lumens	6,441	12,669	18,696	24,710
	4000K/5000K Lumens Per Watt	109	112	113	110
	3000K Lumens	5,866	11,538	17,027	22,504
	3000K Lumens Per Watt	99	102	103	100
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2

Power and Lumens (800mA)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		44	85	124	171
Input Current @ 120V (A)		0.39	0.77	1.13	1.54
Input Current @ 208V (A)		0.22	0.44	0.62	0.88
Input Current @ 240V (A)		0.19	0.38	0.54	0.76
Input Current @ 277V (A)		0.17	0.36	0.47	0.72
Input Current @ 347V (A)		0.15	0.24	0.38	0.49
Input Current @ 480V (A)		0.11	0.18	0.29	0.37
Optics					
T2	4000K/5000K Lumens	5,051	9,935	14,662	19,378
	4000K/5000K Lumens Per Watt	115	117	118	113
	3000K Lumens	4,600	9,048	13,353	17,648
	3000K Lumens Per Watt	105	106	108	103
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3
T3	4000K/5000K Lumens	5,057	9,947	14,679	19,401
	4000K/5000K Lumens Per Watt	115	117	118	113
	3000K Lumens	4,606	9,059	13,368	17,669
	3000K Lumens Per Watt	105	107	108	103
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3
T4FT	4000K/5000K Lumens	5,076	9,984	14,734	19,474
	4000K/5000K Lumens Per Watt	115	117	119	114
	3000K Lumens	4,623	9,093	13,419	17,735
	3000K Lumens Per Watt	105	107	108	104
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G4
T4W	4000K/5000K Lumens	5,135	10,100	14,905	19,700
	4000K/5000K Lumens Per Watt	117	119	120	115
	3000K Lumens	4,676	9,198	13,574	17,941
	3000K Lumens Per Watt	106	108	109	105
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4
SL2	4000K/5000K Lumens	5,031	9,895	14,603	19,301
	4000K/5000K Lumens Per Watt	114	116	118	113
	3000K Lumens	4,582	9,012	13,299	17,577
	3000K Lumens Per Watt	104	106	107	103
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B3-U0-G3
SL3	4000K/5000K Lumens	4,969	9,774	14,424	19,064
	4000K/5000K Lumens Per Watt	113	115	116	111
	3000K Lumens	4,526	8,901	13,136	17,362
	3000K Lumens Per Watt	103	105	106	102
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3
SL4	4000K/5000K Lumens	4,933	9,703	14,319	18,925
	4000K/5000K Lumens Per Watt	112	114	115	111
	3000K Lumens	4,493	8,836	13,041	17,235
	3000K Lumens Per Watt	102	104	105	101
	BUG Rating	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4

800mA continued on next page

Power and Lumens (800mA)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		44	85	124	171
Input Current @ 120V (A)		0.39	0.77	1.13	1.54
Input Current @ 208V (A)		0.22	0.44	0.62	0.88
Input Current @ 240V (A)		0.19	0.38	0.54	0.76
Input Current @ 277V (A)		0.17	0.36	0.47	0.72
Input Current @ 347V (A)		0.15	0.24	0.38	0.49
Input Current @ 480V (A)		0.11	0.18	0.29	0.37
Optics					
5NQ	4000K/5000K Lumens	5,182	10,193	15,042	19,881
	4000K/5000K Lumens Per Watt	118	120	121	116
	3000K Lumens	4,720	9,283	13,699	18,106
	3000K Lumens Per Watt	107	109	110	106
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2
5MQ	4000K/5000K Lumens	5,455	10,729	15,833	20,927
	4000K/5000K Lumens Per Watt	124	126	128	122
	3000K Lumens	4,968	9,771	14,420	19,058
	3000K Lumens Per Watt	113	115	116	111
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
5WQ	4000K/5000K Lumens	5,433	10,685	15,769	20,842
	4000K/5000K Lumens Per Watt	123	126	127	122
	3000K Lumens	4,948	9,731	14,361	18,981
	3000K Lumens Per Watt	112	114	116	111
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3
SLL/SLR	4000K/5000K Lumens	4,338	8,533	12,593	16,644
	4000K/5000K Lumens Per Watt	99	100	102	97
	3000K Lumens	3,951	7,771	11,468	15,157
	3000K Lumens Per Watt	90	91	92	89
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3
RW	4000K/5000K Lumens	5,201	10,229	15,096	19,953
	4000K/5000K Lumens Per Watt	118	120	122	117
	3000K Lumens	4,737	9,316	13,749	18,171
	3000K Lumens Per Watt	108	110	111	106
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2

Power and Lumens (600mA)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		34	66	96	129
Input Current @ 120V (A)		0.30	0.58	0.86	1.16
Input Current @ 208V (A)		0.17	0.34	0.49	0.65
Input Current @ 240V (A)		0.15	0.30	0.43	0.56
Input Current @ 277V (A)		0.14	0.28	0.41	0.52
Input Current @ 347V (A)		0.11	0.19	0.30	0.39
Input Current @ 480V (A)		0.08	0.15	0.24	0.30
Optics					
T2	4000K/5000K Lumens	4,031	7,928	11,700	14,563
	4000K/5000K Lumens Per Watt	119	120	122	113
	3000K Lumens	3,671	7,220	10,655	14,082
	3000K Lumens Per Watt	108	109	111	109
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2
T3	4000K/5000K Lumens	4,035	7,937	11,713	15,481
	4000K/5000K Lumens Per Watt	119	120	122	120
	3000K Lumens	2,675	7,228	10,667	14,099
	3000K Lumens Per Watt	79	110	111	109
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3
T4FT	4000K/5000K Lumens	4,051	7,967	11,757	15,539
	4000K/5000K Lumens Per Watt	119	121	122	120
	3000K Lumens	3,689	7,255	10,708	14,152
	3000K Lumens Per Watt	109	110	112	110
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3
T4W	4000K/5000K Lumens	4,097	8,059	11,894	15,719
	4000K/5000K Lumens Per Watt	121	122	124	122
	3000K Lumens	3,732	7,340	10,832	14,316
	3000K Lumens Per Watt	110	111	113	111
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G3
SL2	4000K/5000K Lumens	4,015	7,896	11,653	15,401
	4000K/5000K Lumens Per Watt	118	120	121	119
	3000K Lumens	3,656	7,191	10,612	14,026
	3000K Lumens Per Watt	108	109	111	109
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3
SL3	4000K/5000K Lumens	3,965	7,799	11,510	15,212
	4000K/5000K Lumens Per Watt	117	118	120	118
	3000K Lumens	3,611	7,103	10,482	13,854
	3000K Lumens Per Watt	106	108	109	107
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3
SL4	4000K/5000K Lumens	3,936	7,742	11,426	15,101
	4000K/5000K Lumens Per Watt	116	117	119	117
	3000K Lumens	3,585	7,051	10,406	13,753
	3000K Lumens Per Watt	105	107	108	107
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3

600mA continued on next page

Power and Lumens (600mA)

Number of Light Squares		1	2	3	4
Nominal Power (Watts)		34	66	96	129
Input Current @ 120V (A)		0.30	0.58	0.86	1.16
Input Current @ 208V (A)		0.17	0.34	0.49	0.65
Input Current @ 240V (A)		0.15	0.30	0.43	0.56
Input Current @ 277V (A)		0.14	0.28	0.41	0.52
Input Current @ 347V (A)		0.11	0.19	0.30	0.39
Input Current @ 480V (A)		0.08	0.15	0.24	0.30
Optics					
5NQ	4000K/5000K Lumens	4,135	8,133	12,003	15,864
	4000K/5000K Lumens Per Watt	122	123	125	123
	3000K Lumens	3,766	7,407	10,931	14,448
	3000K Lumens Per Watt	111	112	114	112
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2
5MQ	4000K/5000K Lumens	4,353	8,561	12,634	16,698
	4000K/5000K Lumens Per Watt	128	130	132	129
	3000K Lumens	3,964	7,797	11,506	15,208
	3000K Lumens Per Watt	117	118	120	118
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
5WQ	4000K/5000K Lumens	4,335	8,526	12,583	16,631
	4000K/5000K Lumens Per Watt	128	129	131	129
	3000K Lumens	3,948	7,765	11,460	15,146
	3000K Lumens Per Watt	116	118	119	117
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
SLL/SLR	4000K/5000K Lumens	3,462	6,809	10,048	13,281
	4000K/5000K Lumens Per Watt	102	103	105	103
	3000K Lumens	3,153	6,201	9,151	12,095
	3000K Lumens Per Watt	93	94	95	94
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G3	B2-U0-G3
RW	4000K/5000K Lumens	4,150	8,163	12,046	15,921
	4000K/5000K Lumens Per Watt	122	124	125	123
	3000K Lumens	3,780	7,434	10,971	14,500
	3000K Lumens Per Watt	111	113	114	112
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2

Control Options

0-10V (DIM)
The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

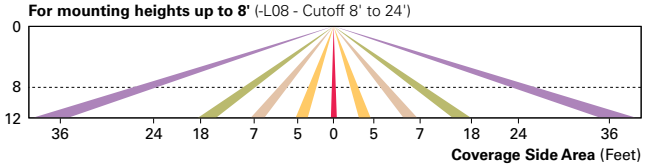
Photocontrol (PR and PR7)
Optional photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

Dimming Occupancy Sensor (MS/DIM-LXX, MS/X-LXX and MS-LXX)
These sensors are factory installed in the luminaire housing. When the MS/DIM-LXX sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. The MS/X-LXX is also preset for five minutes and only controls the specified number of light engines to maintain steady output from the remaining light engines.

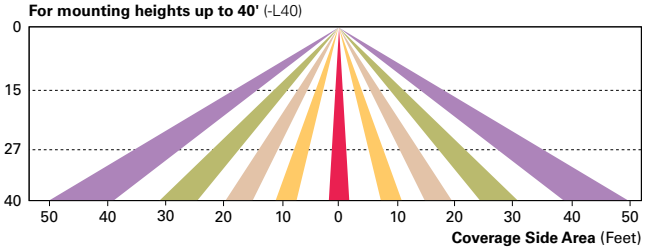
These occupancy sensors includes an integral photocell that can be activated with the FSIR-100 accessory for "dusk-to-dawn" control or daylight harvesting - the factory preset is OFF. The FSIR-100 is a wireless tool utilized for changing the dimming level, time delay, sensitivity and other parameters.

A variety of sensor lens are available to optimize the coverage pattern for mounting heights from 8'-40'.

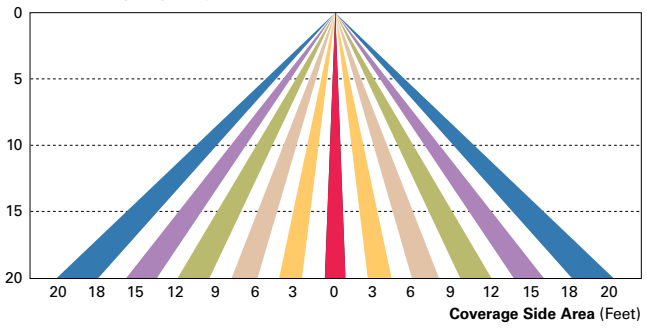
For mounting heights up to 8' (-L08 - Cutoff 8' to 24')



For mounting heights up to 40' (-L40)

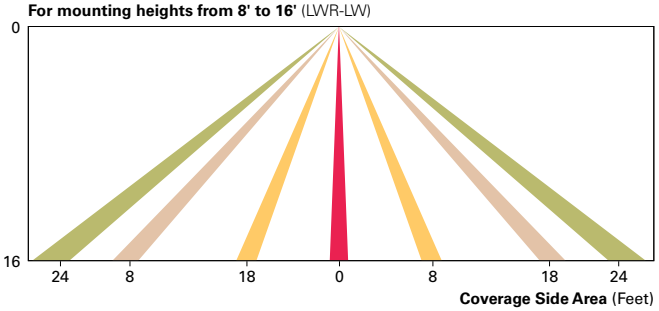


For mounting heights up to 20' (-L20)

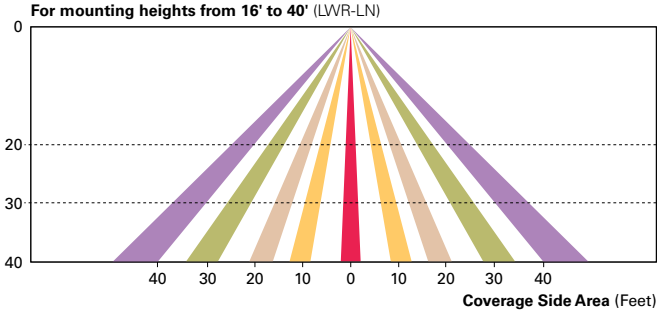


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN)
Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)

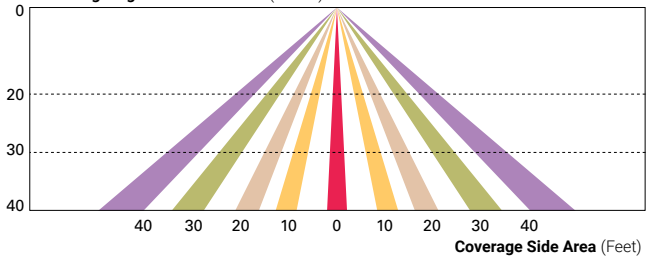


WaveLinx Wireless Control and Monitoring System Available in 7-PIN or 4-PIN configurations, the WaveLinx Outdoor control platform operates on a wireless mesh network based on IEEE 802.15.4 standards enabling wireless control of outdoor lighting. Use the WaveLinx Mobile application for set-up and configuration. At least one Wireless Area Controller (WAC) is required for full functionality and remote communication (including wadjustment of any factory pre-sets).

WaveLinx Outdoor Control Module (WOLC-7P-10A) A photocontrol that enables astronomic or time-based schedules to provide ON, OFF and dimming control of fixtures utilizing a 7-PIN receptacle. The out-of-box functionality is ON at dusk and OFF at dawn.

WaveLinx Wireless Sensor (SWPD4 and SWPD5) These outdoor sensors offer passive infrared (PIR) occupancy and a photocell for closed loop daylight sensing. These sensors can be factory installed or field-installed via simple, tool-less integration into luminaires equipped with the Zhaga Book 18 compliant 4-PIN receptacle (ZD or ZW). These sensors are factory preset to dim down to approximately 50 percent power after 15 minutes of no activity detected. These occupancy sensors include an integral photocell for "dusk-to-dawn" control or daylight harvesting that is factory-enabled. A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 7'-40'.

For mounting heights from 16' to 40' (SWPD)



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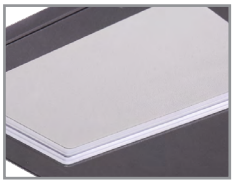
Specifications and dimensions
subject to change without notice.

Project		Catalog #		Type	
Prepared by		Notes		Date	





WaveStream



LightSquares

Invue

ClearCurve Wall

Wall Mount Luminaire

Interactive Menu

- Ordering Information page 2
- Product Specifications page 3
- Energy and Performance Data page 3
- Control Options page 15

Product Certifications

ISO CERTIFIED, IP66, DLC LISTED [1], DLC LISTED PREMIUM [1], UL CERTIFIED, 5 YEAR LIMITED WARRANTY, BAA BUY AMERICAN ACT AVAILABLE

Quick Facts

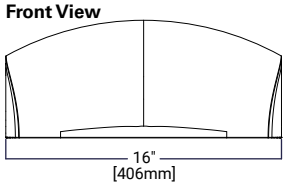
- Available with Visual Comfort or Discrete optics configurations
- Lumen packages range from 1,600 up to 12,000 lumens (18W - 110W)
- Efficacy up to 149 lumens per watt

Connected Systems

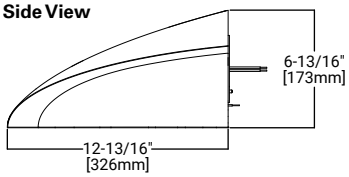
- WaveLinx

Dimensional Details

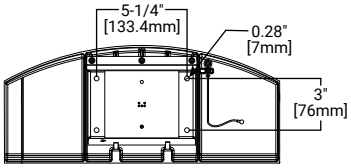
Front View



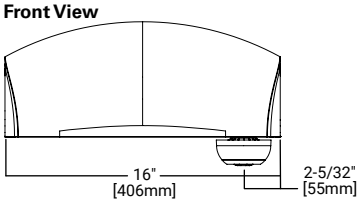
Side View



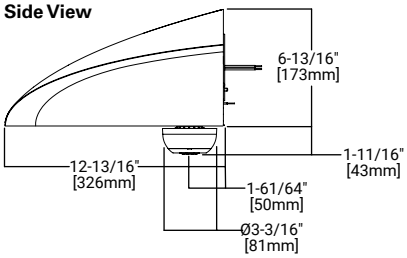
Back View

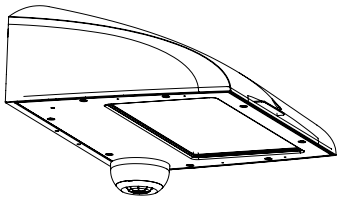


Front View



Side View





NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.

Ordering Information

SAMPLE NUMBER: **CCW-VA4-740-U-T4W-GM**

Product Family [1]	Light Engine Visual Comfort Configurations	Color Temperature	Voltage	Distribution	Finish
CCW=ClearCurve Wall **BAA-CCW**=ClearCurve Wall Buy American Act Compliant [26] **TAA-CCW**=ClearCurve Wall Trade Agreements Act Compliant [26]	**VA1**=Wavestream, 2,800 lumens **VA2**=Wavestream, 3,800 lumens **VA3**=Wavestream, 4,500 lumens **VA4**=Wavestream, 6,000 lumens **VA5**=Wavestream, 8,000 lumens [2] **VA6**=Wavestream, 10,000 lumens [2] **Discrete Configurations**: **SA1**=1 Light Square; **SA2**=2 Light Squares **Drive Current**: **A**=350mA; **B**=450mA; **C**=615mA; **D**=800mA; **E**=1050mA; **F**=1200mA [3]	**727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **835**=80CRI, 3500K **840**=80CRI, 4000K **850**=80CRI, 5000K **AMB**=Amber 590nm	**U**=Universal, 120-277V **H**=347-480V **C**=277-480V **9**=347V **8**=480V [4]	**T1**=Type I [5] **T2**=Type II **T3**=Type III **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **SL2**=Type II w/Spill Control [5] **SL3**=Type III w/Spill Control [5] **SL4**=Type IV w/Spill Control [5] **SLL**=90° Spill Light Eliminator Left [5] **SLR**=90° Spill Light Eliminator Right [5]	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix)

FF=Double Fuse
10MSP=10kV MOV Surge Protective Device
20MSP=20kV MOV Surge Protective Device
20K=20kV UL 1449 Fused Surge Protective Device
2L=Two Circuits [5, 6, 7]
EBP=Emergency Battery Pack (Ambient Temp, 0° to 40°C) [7, 8]
CBP=Cold Weather Emergency Battery Pack (Ambient Temp, -20° to 40°C) [7, 8]
CBP-CEC=Cold Weather Emergency Battery Pack, CEC Compliant (Ambient Temp, -20° to 40°C) [7, 8]
ITS=Internal Transfer Switch, UL Recognized Component [7]
L90=Optics Rotated 90° Left [5]
R90=Optics Rotated 90° Right [5]
HSS= House Side Shield (Factory Installed) [5, 9]
C1=1/2" NPT Double Conduit Entry
C2= 3/4" NPT Double Conduit Entry
HA=50°C High Ambient Temperature [10]
TR=Tamper Resistant Hardware
CC=Coastal Construction [11]
DALI=DALI Driver [12, 13]
BPC=Button Type Photocontrol [7, 12]
PR=NEMA 3-PIN Twistlock Photocontrol Receptacle [5, 7, 14]
PR7=NEMA 7-PIN Twistlock Photocontrol Receptacle [5, 7, 14]
AHD145=After Hours Dim, 5 Hours [15]
AHD245=After Hours Dim, 6 Hours [15]
AHD255=After Hours Dim, 7 Hours [15]
AHD355=After Hours Dim, 8 Hours [15]
MS/DIM-L08=Motion Sensor for Dimming Operation, Up to 8' Mounting Height [7, 12, 16]
MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [7, 12, 16]
SPB1=Motion Sensor for Dimming Operation, BLE Interface, Up to 8' Mounting Height [7, 12, 17]
SPB2=Motion Sensor for Dimming Operation, BLE Interface, 8' - 20' Mounting Height [7, 12, 17]
ZD=DALI-enabled 4-PIN Twistlock Receptacle [7, 12, 18, 19]
ZW=Wavelinx-enabled 4-PIN Twistlock Receptacle [7, 12, 18, 19]
SWPD4XX=Wavelinx Wireless Sensor, 7' - 15' Mounting Height [7, 12, 18, 19, 20, 21]
SWPD5XX=Wavelinx Wireless Sensor, 15' - 40' Mounting Height [7, 12, 18, 19, 20, 21]
X=No 10k surge protector

Accessories (Order Separately) [27]

OA/RA1013=Photocontrol Shorting Cap
OA/RA1014=NEMA Photocontrol - 120V
OA/RA1016=NEMA Photocontrol - Multi-Tap 105-285V
OA/RA1201=NEMA Photocontrol - 347V
OA/RA1027=NEMA Photocontrol - 480V
LS/HSS=House Side Shield [5, 22]
FSIR-100=Wireless Configuration Tool for Motion Sensor [23]
SWPD4-XX=WaveLinx Wireless Sensor, 7' - 15' Mounting Height [18, 19, 20, 21, 25]
SWPD5-XX=WaveLinx Wireless Sensor, 15' - 40' Mounting Height [18, 19, 20, 21, 25]
WOLC-7P-10A=WaveLinx Outdoor Control Module (7-PIN) [24, 25]

NOTES:

1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
2. Only available with T4W.
3. Not available with 2 Light Squares (SA2x).
4. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
5. Not available with Visual Comfort Light Engines (VAx).
6. Not available with 1 Light Square (SA1x). Not available with VAx.
7. Option is not available with other emergency options (2L, EBP, CBP, CBP-CEC, or ITS), photocontrols / receptacles (BPC, PR, or PR7), or controls systems (MS, ZD or ZW).
8. Only available with Universal, 120-277V (UNV) voltage. Not available with VA6 or SA2E Light Engines.
9. Light Square trim plate will be painted Black when HSS option is selected.
10. Not available with VA6 or SA2E Light Engine. Not available with emergency options (EBP, CBP, or CBP-CEC).
11. Not available with TR option. Finish tested to over 5,000-hours per ASTM B117. Scribe rating of 9 per ASTM D1654.
12. Not available with voltages 347-480V (H) or 277-480V (C).
13. Not available with emergency options (EBP, CBP, CBP-CEC, or ITS) or controls systems (MS or ZW) or controls systems (MS, ZD or ZW)
14. If 347-480V (H) or 277-480V (C) voltage is specified, use a photocontrol that matches the input voltage used (either 277V, 347V, or 480V).
15. Requires the use of photocontrol BPC or PR or PR7. See After Hours Dim supplemental guide for additional information.
16. Utilizes the Wattstopper sensor FSP-211. Sensor color white unless specified otherwise via PDR.
17. Utilizes the Wattstopper sensor FSP-3xx. Sensor color determined by product finish.
18. Sensor passive infrared (PIR) may be overly sensitive when operating below -20°C (-4°F).
19. In order for the device to be field-configurable, requires WAC Gateway components WAC-PoE and WPOE-120 in appropriate quantities. Only compatible with WaveLinx system and software and requires system components to be installed for operation. See website for more Wavelinx application information.
20. Replace XX with sensor color (WH, BZ or BK).
21. Requires 4-PIN twistlock receptacle option (ZD or ZW) option.
22. Must order one per Light Square when ordering as a field-installable accessory (1 or 2).
23 This tool enables adjustment to Motion Sensor (MS) parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative for more information.
24. Requires 7-PIN NEMA twistlock photocontrol receptacle (PR7) option. The WOLC-7 cannot be used in conjunction with other controls system (MS, ZD, ZW, SPB1 or SPB2). Only for use at 120-347V.
25. IEEE 802.15.4 communication standard
26. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
27. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

Product Specifications

Construction
- Low copper content, die-cast aluminum housing provides a clean smooth aesthetic
- Patent pending housing design
- IP66 rated
- 1.5G vibration rated

Optics
- Visual Comfort WaveStream TM technology or high-efficiency injection-molded AccuLED
- Comprehensive range of Color Temperature choices
- Visual Comfort - Four optical distributions utilizing patented visual comfort WaveStreamTM technology
- Visual Comfort - 6 lumen packages, ranging from 2,800 to 10,000 lumens
- AccuLED – 18 distributions including HSS shielding
- AccuLED – 11 lumen packages, ranging from 1,600 to 12,000 lumens
- AccuLED - Patented, high-efficiency injection molded AccuLED Optics technology

Electrical
- Approx. 90% lumen maintenance at 60,00 hours
- 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation
- 10kV surge module standard
- 10MSP, 20MSP, 20kv and X are optional
- Standard with 0-10V dimming
- Suitable for operation in -40°C to 40°C ambient environment
- Optional 50°C high ambient (HA) configurations available

Mounting
- Gasketed and zinc plated rigid steel mounting attachment
- "Hook-N-Lock" mechanism for easy installation

Finish
- Finishes include white, black, bronze, gray, dark platinum and graphite metallic
- RAL and custom color matches available
- Super housing durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Coastal Construction (CC) option available, providing 5,000 hour salt spray rating per ASTM B117, with a scribe rating of 9 per ASTM D1654

Warranty
- Five year warranty

Energy and Performance Data

Supplemental Performance Guide

VA Performace

Lumen Package	VA1	VA2	VA3	VA4	VA5	VA6
Power Wattage (Watts)*	28.5W	41W	49W	58.6W	78W	106W
Input Current (mA) @120V	240	340	406	493	676	933
Input Current (mA) @277V	105	148	175	221	285	388
Power Wattage (Watts)*	31.5W	44W	53.5W	65W	83W	115W
Input Current (mA) @347V	93	125	155	188	237	321
Input Current (mA) @480V	67	92	114	138	175	243

Supplemental Performance Guide

SA Performace

Lumen Package	SA1A (350mA)	SA1B (450mA)	SA1C (615mA)	SA1D (800mA)	SA1E (1050mA)	SA1F (1200mA)	SA2A (350mA)	SA2B (450mA)	SA2C (615mA)	SA2D (800mA)	SA2E (1050mA)
Power Wattage (Watts)*	18W	24W	32W	44W	59W	67W	37W	47W	64W	84W	111W
Input Current (mA) @120V	150	200	270	370	490	564	320	400	538	700	925
Input Current (mA) @277V	72	90	120	162	210	251	150	184	236	303	397
Power Wattage (Watts)*	21W	26.5W	35W	47W	61.5W	72W	42W	53W	70W	89W	116W
Input Current (mA) @347V	63	78	100	135	180	210	123	154	201	257	335
Input Current (mA) @480V	45	57	75	99	131	153	90	113	147	188	245

Energy and Performance Data

VA Performace

Supplemental Performance Guide

CCT	Optics		VA1	VA2	VA3	VA4	VA5	VA6
730	T2 (Type II)	Lumens	2,709	3,627	4,290	5,519	--	--
		Lumens per Watt	90.9	90	89	85	--	--
		BUG Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	--	--
	T3 (Type III)	Lumens	2,765	3,701	4,377	5,631	--	--
		Lumens per Watt	92	90	90	87.2	--	--
		BUG Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	--	--
	T4FT (Type IV Forward Throw)	Lumens	3,230	4,368	5,116	6,257	--	--
		Lumens per Watt	107	107	104	97	--	--
		BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	--	--
	T4W (Type IV Wide)	Lumens	3,122	4,254	5,049	6,140	7,720	9,785
		Lumens per Watt	108	109	108	107	104	96.8
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
740	T2 (Type II)	Lumens	2,794	3,741	4,424	5,692	--	--
		Lumens per Watt	93.8	92	92	88	--	--
		BUG Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	--	--
	T3 (Type III)	Lumens	2,851	3,817	4,514	5,807	--	--
		Lumens per Watt	95	93	92	89.9	--	--
		BUG Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	--	--
	T4FT (Type IV Forward Throw)	Lumens	3,332	4,505	5,276	6,453	--	--
		Lumens per Watt	110	111	108	99.9	--	--
		BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	--	--
	T4W (Type IV Wide)	Lumens	3,220	4,388	5,207	6,332	7,961	10,091
		Lumens per Watt	111	112	111	110	107	99.8
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
827	T2 (Type II)	Lumens	2,452	3,282	3,882	4,995	--	--
		Lumens per Watt	82.3	81	80	77	--	--
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	--	--
	T3 (Type III)	Lumens	2,502	3,349	3,961	5,096	--	--
		Lumens per Watt	83	82	81	78.9	--	--
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	--	--
	T4FT (Type IV Forward Throw)	Lumens	2,924	3,954	4,630	5,662	--	--
		Lumens per Watt	97	97	94	87.7	--	--
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	--	--
	T4W (Type IV Wide)	Lumens	2,826	3,850	4,569	5,557	6,986	8,856
		Lumens per Watt	97	98	98	97	94	87.6
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
830	T2 (Type II)	Lumens	2,542	3,404	4,026	5,179	--	--
		Lumens per Watt	85	84	83	80	--	--
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G3	--	--
	T3 (Type III)	Lumens	2,595	3,473	4,108	5,284	--	--
		Lumens per Watt	86	85	84	81.8	--	--
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	--	--
	T4FT (Type IV Forward Throw)	Lumens	3,031	4,099	4,801	5,871	--	--
		Lumens per Watt	100	101	98	90.9	--	--
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	--	--
	T4W (Type IV Wide)	Lumens	2,930	3,992	4,738	5,762	7,244	9,182
		Lumens per Watt	101	102	101	100	98	90.8
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3

Energy and Performance Data

VA Performace

Supplemental Performance Guide

CCT	Optics		VA1	VA2	VA3	VA4	VA5	VA6
835	T2 (Type II)	Lumens	2,588	3,464	4,097	5,271	--	--
		Lumens per Watt	86.8	86	85	82	--	--
		BUG Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	--	--
	T3 (Type III)	Lumens	2,641	3,535	4,181	5,378	--	--
		Lumens per Watt	88	86	86	83.3	--	--
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	--	--
	T4FT (Type IV Forward Throw)	Lumens	3,085	4,172	4,886	5,976	--	--
		Lumens per Watt	102	103	100	92.5	--	--
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	--	--
	T4W (Type IV Wide)	Lumens	2,982	4,064	4,822	5,864	7,373	9,346
		Lumens per Watt	103	104	103	102	99	92.4
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3

SA Performace

Supplemental Performance Guide

CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
730	T1 (Type I)	Lumens	2,208	2,768	3,546	4,618	5,651	5,906	5,132	6,435	8,243	10,357	11,252
		Lumens per Watt	121	118	111	106	98	94	141	137	129	124	103
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	T2 (Type II)	Lumens	2,220	2,784	3,566	4,644	5,683	5,939	5,161	6,471	8,289	10,415	11,316
		Lumens per Watt	122	119	111.4	106.3	98.8	95	141.8	138.3	129.5	125	103.5
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	T2-HSS (Type II House Side Shield)	Lumens	1,609	2,018	2,585	3,366	4,120	4,305	3,741	4,691	6,009	7,550	8,203
		Lumens per Watt	88.4	86.2	80.8	77	71.6	68.9	102.8	100.2	93.9	90.6	75
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
	T3 (Type III)	Lumens	2,249	2,820	3,612	4,704	5,756	6,016	5,227	6,554	8,396	10,549	11,462
		Lumens per Watt	123.6	120.5	112.9	107.6	100.1	96.3	143.6	140	131.2	126.6	104.9
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	T3-HSS (Type III House Side Shield)	Lumens	1,622	2,034	2,606	3,393	4,153	4,340	3,771	4,728	6,057	7,610	8,268
		Lumens per Watt	89.1	86.9	81.4	77.6	72.2	69.4	103.6	101	94.6	91.4	75.6
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4FT (Type IV Forward Throw)	Lumens	2,224	2,789	3,572	4,652	5,693	5,950	5,170	6,482	8,304	10,434	11,336
		Lumens per Watt	122.2	119.2	111.6	106.5	99	95.2	142	138.5	129.8	125.3	103.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3
	T4FT-HSS (Type IV Forward Throw House Side Shield)	Lumens	1,613	2,023	2,591	3,374	4,129	4,315	3,750	4,702	6,023	7,568	8,222
		Lumens per Watt	88.6	86.4	81	77.2	71.8	69	103	100.5	94.1	90.8	75.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2

Energy and Performance Data

SA Performace

Supplemental Performance Guide

CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
730	T4W (Type IV Wide)	Lumens	2,242	2,810	3,600	4,688	5,737	5,996	5,210	6,533	8,369	10,515	11,424
		Lumens per Watt	123.2	120.1	112.5	107.3	99.8	95.9	143.1	139.6	130.8	126.2	104.5
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	T4W-HSS (Type IV Wide House Side Shield)	Lumens	1,624	2,037	2,609	3,397	4,158	4,345	3,776	4,734	6,065	7,620	8,279
		Lumens per Watt	89.2	87	81.5	77.7	72.3	69.5	103.7	101.2	94.8	91.5	75.7
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL2 (Type II w/ Spill Control)	Lumens	2,203	2,762	3,538	4,608	5,639	5,893	5,121	6,421	8,226	10,335	11,229
		Lumens per Watt	121	118	110.6	105.4	98.1	94.3	140.7	137.2	128.5	124.1	102.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3
	SL2-HSS (Type II w/ Spill Control, House Side Shield)	Lumens	1,785	2,238	2,867	3,734	4,570	4,776	4,150	5,203	6,665	8,375	9,099
		Lumens per Watt	98.1	95.7	89.6	85.4	79.5	76.4	114	111.2	104.1	100.5	83.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL3 (Type III w/ Spill Control)	Lumens	2,200	2,759	3,534	4,602	5,632	5,886	5,115	6,413	8,216	10,322	11,215
		Lumens per Watt	120.9	117.9	110.4	105.3	98	94.2	140.5	137	128.4	123.9	102.6
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
	SL3-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,835	2,300	2,947	3,838	4,696	4,908	4,265	5,348	6,850	8,607	9,351
		Lumens per Watt	100.8	98.3	92.1	87.8	81.7	78.5	117.2	114.3	107	103.3	85.6
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL4 (Type III w/ Spill Control)	Lumens	2,164	2,714	3,476	4,527	5,540	5,789	5,031	6,308	8,080	10,153	11,031
		Lumens per Watt	118.9	116	108.6	103.6	96.3	92.6	138.2	134.8	126.3	121.9	100.9
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SL4-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,834	2,299	2,945	3,836	4,694	4,906	4,263	5,345	6,847	8,603	9,347
		Lumens per Watt	100.8	98.3	92	87.8	81.6	78.5	117.1	114.2	107	103.3	85.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLR (90° Spill Light Eliminator Right)	Lumens	1,925	2,413	3,091	4,026	4,927	5,149	4,474	5,610	7,186	9,029	9,810
		Lumens per Watt	105.8	103.1	96.6	92.1	85.7	82.4	122.9	119.9	112.3	108.4	89.7
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3
	SLR-HSS (90° Spill Light Eliminator Right, House Side Shield)	Lumens	1,596	2,001	2,563	3,337	4,084	4,268	3,709	4,651	5,958	7,485	8,133
		Lumens per Watt	87.7	85.5	80.1	76.4	71	68.3	101.9	99.4	93.1	89.9	74.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLL (90° Spill Light Eliminator Left)	Lumens	1,925	2,413	3,091	4,026	4,927	5,149	4,474	5,610	7,186	9,029	9,810
		Lumens per Watt	105.8	103.1	96.6	92.1	85.7	82.4	122.9	119.9	112.3	108.4	89.7
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3
	SLL-HSS (90° Spill Light Eliminator Left, House Side Shield)	Lumens	1,596	2,001	2,563	3,337	4,084	4,268	3,709	4,651	5,958	7,485	8,133
		Lumens per Watt	87.7	85.5	80.1	76.4	71	68.3	101.9	99.4	93.1	89.9	74.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2

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740	T1 (Type I)	Lumens	2,292	2,874	3,681	4,794	5,867	6,132	5,328	6,680	8,558	10,752	11,682
		Lumens per Watt	126	123	115	110	102	98	146	143	134	129	107
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	T2 (Type II)	Lumens	2,305	2,890	3,702	4,821	5,900	6,166	5,358	6,718	8,606	10,813	11,748
		Lumens per Watt	126.6	123.5	115.7	110.3	102.6	98.7	147.2	143.5	134.5	129.8	107.5
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	T2-HSS (Type II House Side Shield)	Lumens	1,671	2,095	2,684	3,495	4,277	4,470	3,884	4,870	6,239	7,838	8,516
		Lumens per Watt	91.8	89.5	83.9	80	74.4	71.5	106.7	104.1	97.5	94.1	77.9
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T3 (Type III)	Lumens	2,335	2,927	3,750	4,883	5,976	6,246	5,427	6,805	8,717	10,953	11,900
		Lumens per Watt	128.3	125.1	117.2	111.7	103.9	99.9	149.1	145.4	136.2	131.5	108.9
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	T3-HSS (Type III House Side Shield)	Lumens	1,684	2,112	2,705	3,523	4,311	4,506	3,915	4,909	6,288	7,901	8,584
		Lumens per Watt	92.5	90.2	84.5	80.6	75	72.1	107.6	104.9	98.3	94.9	78.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4FT (Type IV Forward Throw)	Lumens	2,309	2,895	3,709	4,830	5,911	6,177	5,368	6,730	8,622	10,833	11,769
		Lumens per Watt	126.9	123.7	115.9	110.5	102.8	98.8	147.5	143.8	134.7	130	107.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3
	T4FT-HSS (Type IV Forward Throw House Side Shield)	Lumens	1,675	2,100	2,690	3,503	4,287	4,480	3,893	4,881	6,253	7,857	8,536
		Lumens per Watt	92	89.7	84.1	80.2	74.6	71.7	107	104.3	97.7	94.3	78.1
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4W (Type IV Wide)	Lumens	2,327	2,918	3,738	4,867	5,957	6,225	5,409	6,783	8,689	10,917	11,861
		Lumens per Watt	127.9	124.7	116.8	111.4	103.6	99.6	148.6	144.9	135.8	131.1	108.5
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	T4W-HSS (Type IV Wide House Side Shield)	Lumens	1,686	2,114	2,708	3,527	4,316	4,511	3,920	4,915	6,296	7,911	8,595
		Lumens per Watt	92.7	90.4	84.6	80.7	75.1	72.2	107.7	105	98.4	95	78.6
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL2 (Type II w/ Spill Control)	Lumens	2,287	2,868	3,674	4,784	5,855	6,119	5,317	6,666	8,540	10,730	11,658
		Lumens per Watt	125.7	122.6	114.8	109.5	101.8	97.9	146.1	142.4	133.4	128.8	106.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3
	SL2-HSS (Type II w/ Spill Control, House Side Shield)	Lumens	1,854	2,324	2,977	3,877	4,744	4,958	4,308	5,402	6,920	8,695	9,447
		Lumens per Watt	101.8	99.3	93	88.7	82.5	79.3	118.4	115.4	108.1	104.4	86.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL3 (Type III w/ Spill Control)	Lumens	2,285	2,864	3,669	4,778	5,848	6,111	5,310	6,658	8,529	10,717	11,643
		Lumens per Watt	125.5	122.4	114.7	109.3	101.7	97.8	145.9	142.3	133.3	128.7	106.5
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
	SL3-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,905	2,388	3,059	3,984	4,876	5,096	4,428	5,552	7,112	8,936	9,709
		Lumens per Watt	104.7	102.1	95.6	91.2	84.8	81.5	121.6	118.6	111.1	107.3	88.8
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL4 (Type III w/ Spill Control)	Lumens	2,247	2,817	3,609	4,700	5,751	6,011	5,223	6,549	8,389	10,541	11,452
		Lumens per Watt	123.5	120.4	112.8	107.5	100	96.2	143.5	139.9	131.1	126.5	104.8
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3

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740	SL4-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,904	2,387	3,058	3,982	4,873	5,093	4,426	5,549	7,109	8,932	9,704
		Lumens per Watt	104.6	102	95.6	91.1	84.8	81.5	121.6	118.6	111.1	107.2	88.8
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLR (90° Spill Light Eliminator Right)	Lumens	1,998	2,505	3,209	4,179	5,115	5,345	4,645	5,824	7,461	9,374	10,184
		Lumens per Watt	109.8	107.1	100.3	95.6	89	85.5	127.6	124.4	116.6	112.5	93.2
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
	SLR-HSS (90° Spill Light Eliminator Right, House Side Shield)	Lumens	1,657	2,077	2,661	3,465	4,240	4,432	3,851	4,828	6,185	7,771	8,443
		Lumens per Watt	91	88.8	83.1	79.3	73.7	70.9	105.8	103.2	96.6	93.3	77.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLL (90° Spill Light Eliminator Left)	Lumens	1,998	2,505	3,209	4,179	5,115	5,345	4,645	5,824	7,461	9,374	10,184
		Lumens per Watt	109.8	107.1	100.3	95.6	89	85.5	127.6	124.4	116.6	112.5	93.2
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
	SLL-HSS (90° Spill Light Eliminator Left, House Side Shield)	Lumens	1,657	2,077	2,661	3,465	4,240	4,432	3,851	4,828	6,185	7,771	8,443
		Lumens per Watt	91	88.8	83.1	79.3	73.7	70.9	105.8	103.2	96.6	93.3	77.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
827	T1 (Type I)	Lumens	1,685	2,113	2,706	3,524	4,313	4,507	3,917	4,911	6,291	7,904	8,588
		Lumens per Watt	93	90	85	81	75	72	108	105	98	95	79
		BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
	T2 (Type II)	Lumens	1,694	2,124	2,721	3,544	4,337	4,533	3,939	4,938	6,326	7,949	8,636
		Lumens per Watt	93.1	90.8	85	81.1	75.4	72.5	108.2	105.5	98.8	95.4	79
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2
	T2-HSS (Type II House Side Shield)	Lumens	1,228	1,540	1,973	2,569	3,144	3,286	2,855	3,580	4,586	5,762	6,260
		Lumens per Watt	67.5	65.8	61.6	58.8	54.7	52.6	78.4	76.5	71.7	69.2	57.3
		BUG Rating	B0-U0-G0	B0-U0-G0	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2
	T3 (Type III)	Lumens	1,716	2,152	2,756	3,590	4,393	4,591	3,990	5,002	6,408	8,051	8,747
		Lumens per Watt	94.3	92	86.1	82.1	76.4	73.5	109.6	106.9	100.1	96.7	80
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2

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CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
827	T3-HSS (Type III House Side Shield)	Lumens	1,238	1,552	1,989	2,590	3,169	3,312	2,878	3,609	4,623	5,808	6,310
		Lumens per Watt	68	66.3	62.1	59.3	55.1	53	79.1	77.1	72.2	69.7	57.7
		BUG Rating	B0-U0-G0	B0-U0-G0	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
	T4FT (Type IV Forward Throw)	Lumens	1,698	2,128	2,726	3,550	4,345	4,541	3,946	4,947	6,338	7,963	8,652
		Lumens per Watt	93.3	91	85.2	81.2	75.6	72.7	108.4	105.7	99	95.6	79.2
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3
	T4FT-HSS (Type IV Forward Throw House Side Shield)	Lumens	1,231	1,544	1,977	2,575	3,151	3,293	2,862	3,588	4,597	5,776	6,275
		Lumens per Watt	67.6	66	61.8	58.9	54.8	52.7	78.6	76.7	71.8	69.3	57.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4W (Type IV Wide)	Lumens	1,711	2,145	2,748	3,578	4,379	4,576	3,977	4,986	6,387	8,025	8,719
		Lumens per Watt	94	91.7	85.9	81.9	76.2	73.2	109.2	106.5	99.8	96.3	79.8
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2
	T4W-HSS (Type IV Wide House Side Shield)	Lumens	1,240	1,554	1,991	2,593	3,173	3,316	2,882	3,613	4,628	5,815	6,318
		Lumens per Watt	68.1	66.4	62.2	59.3	55.2	53.1	79.2	77.2	72.3	69.8	57.8
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL2 (Type II w/ Spill Control)	Lumens	1,681	2,108	2,700	3,517	4,304	4,498	3,908	4,900	6,278	7,887	8,570
		Lumens per Watt	92.4	90.1	84.4	80.5	74.8	72	107.4	104.7	98.1	94.7	78.4
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3
	SL2-HSS (Type II w/ Spill Control, House Side Shield)	Lumens	1,363	1,708	2,188	2,850	3,488	3,645	3,167	3,971	5,087	6,392	6,944
		Lumens per Watt	74.9	73	68.4	65.2	60.7	58.3	87	84.9	79.5	76.7	63.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
	SL3 (Type III w/ Spill Control)	Lumens	1,679	2,106	2,697	3,512	4,299	4,492	3,904	4,895	6,270	7,878	8,559
		Lumens per Watt	92.3	90	84.3	80.4	74.8	71.9	107.2	104.6	98	94.6	78.3
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SL3-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,400	1,756	2,249	2,929	3,584	3,746	3,255	4,081	5,228	6,569	7,137
		Lumens per Watt	76.9	75	70.3	67	62.3	59.9	89.4	87.2	81.7	78.9	65.3
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL4 (Type III w/ Spill Control)	Lumens	1,652	2,071	2,653	3,455	4,228	4,418	3,839	4,814	6,167	7,748	8,418
		Lumens per Watt	90.8	88.5	82.9	79.1	73.5	70.7	105.5	102.9	96.4	93	77
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3
	SL4-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,400	1,755	2,248	2,927	3,582	3,744	3,253	4,079	5,226	6,566	7,133
		Lumens per Watt	76.9	75	70.2	67	62.3	59.9	89.4	87.2	81.6	78.8	65.3
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLR (90° Spill Light Elimina-tor Right)	Lumens	1,469	1,842	2,359	3,072	3,760	3,929	3,414	4,281	5,484	6,891	7,487
		Lumens per Watt	80.7	78.7	73.7	70.3	65.4	62.9	93.8	91.5	85.7	82.7	68.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3
	SLR-HSS (90° Spill Light Eliminator Right, House Side Shield)	Lumens	1,218	1,527	1,956	2,547	3,117	3,258	2,831	3,549	4,547	5,713	6,207
		Lumens per Watt	66.9	65.2	61.1	58.3	54.2	52.1	77.8	75.8	71	68.6	56.8
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2

Energy and Performance Data

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Supplemental Performance Guide

CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
827	SLL (90° Spill Light Elimina-tor Left)	Lumens	1,469	1,842	2,359	3,072	3,760	3,929	3,414	4,281	5,484	6,891	7,487
		Lumens per Watt	80.7	78.7	73.7	70.3	65.4	62.9	93.8	91.5	85.7	82.7	68.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3
	SLL-HSS (90° Spill Light Eliminator Left, House Side Shield)	Lumens	1,218	1,527	1,956	2,547	3,117	3,258	2,831	3,549	4,547	5,713	6,207
		Lumens per Watt	66.9	65.2	61.1	58.3	54.2	52.1	77.8	75.8	71	68.6	56.8
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
830	T1 (Type I)	Lumens	1,821	2,284	2,925	3,809	4,662	4,872	4,234	5,308	6,800	8,544	9,283
		Lumens per Watt	100	98	91	87	81	78	116	113	106	103	85
		BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
	T2 (Type II)	Lumens	1,832	2,296	2,942	3,831	4,688	4,900	4,258	5,338	6,838	8,592	9,335
		Lumens per Watt	100.6	98.1	91.9	87.7	81.5	78.4	117	114.1	106.8	103.1	85.4
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2
	T2-HSS (Type II House Side Shield)	Lumens	1,328	1,665	2,132	2,777	3,398	3,552	3,086	3,870	4,957	6,228	6,767
		Lumens per Watt	73	71.1	66.6	63.5	59.1	56.8	84.8	82.7	77.5	74.8	61.9
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
	T3 (Type III)	Lumens	1,855	2,326	2,980	3,880	4,749	4,963	4,312	5,407	6,927	8,703	9,455
		Lumens per Watt	101.9	99.4	93.1	88.8	82.6	79.4	118.5	115.5	108.2	104.5	86.5
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2
	T3-HSS (Type III House Side Shield)	Lumens	1,338	1,678	2,149	2,799	3,426	3,580	3,111	3,901	4,997	6,278	6,821
		Lumens per Watt	73.5	71.7	67.2	64.1	59.6	57.3	85.5	83.3	78.1	75.4	62.4
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4FT (Type IV Forward Throw)	Lumens	1,835	2,301	2,947	3,838	4,697	4,908	4,265	5,348	6,851	8,608	9,352
		Lumens per Watt	100.8	98.3	92.1	87.8	81.7	78.5	117.2	114.3	107	103.3	85.6
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3
	T4FT-HSS (Type IV Forward Throw House Side Shield)	Lumens	1,331	1,669	2,137	2,783	3,406	3,560	3,094	3,879	4,969	6,243	6,783
		Lumens per Watt	73.1	71.3	66.8	63.7	59.2	57	85	82.9	77.6	74.9	62.1
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4W (Type IV Wide)	Lumens	1,849	2,318	2,970	3,868	4,733	4,947	4,298	5,389	6,904	8,675	9,425
		Lumens per Watt	101.6	99.1	92.8	88.5	82.3	79.1	118.1	115.2	107.9	104.1	86.2
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3
	T4W-HSS (Type IV Wide House Side Shield)	Lumens	1,340	1,680	2,152	2,803	3,430	3,585	3,115	3,905	5,003	6,286	6,830
		Lumens per Watt	73.6	71.8	67.3	64.1	59.6	57.4	85.6	83.4	78.2	75.5	62.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL2 (Type II w/ Spill Control)	Lumens	1,818	2,279	2,919	3,801	4,652	4,862	4,225	5,297	6,786	8,526	9,263
		Lumens per Watt	99.9	97.4	91.2	87	80.9	77.8	116.1	113.2	106	102.4	84.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	SL2-HSS (Type II w/ Spill Control, House Side Shield)	Lumens	1,473	1,847	2,365	3,080	3,770	3,940	3,423	4,292	5,499	6,909	7,506
		Lumens per Watt	80.9	78.9	73.9	70.5	65.6	63	94	91.7	85.9	82.9	68.7
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL3 (Type III w/ Spill Control)	Lumens	1,818	2,279	2,915	3,797	4,646	4,856	4,220	5,291	6,778	8,516	9,252
		Lumens per Watt	99.7	97.3	91.1	86.9	80.8	77.7	115.9	113	105.9	102.2	84.6
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3

Energy and Performance Data

SA Performace

Supplemental Performance Guide

CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
830	SL3-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,514	1,898	2,431	3,166	3,874	4,049	3,518	4,411	5,651	7,100	7,714
		Lumens per Watt	83.2	81.1	76	72.4	67.4	64.8	96.7	94.3	88.3	85.2	70.6
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL4 (Type III w/ Spill Control)	Lumens	1,785	2,239	2,868	3,734	4,570	4,776	4,150	5,204	6,666	8,376	9,100
		Lumens per Watt	98.1	95.7	89.6	85.5	79.5	76.4	114	111.2	104.2	100.5	83.3
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SL4-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,513	1,897	2,430	3,164	3,872	4,047	3,517	4,409	5,649	7,097	7,711
		Lumens per Watt	83.1	81.1	75.9	72.4	67.3	64.8	96.6	94.2	88.3	85.2	70.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLR (90° Spill Light Elimina-tor Right)	Lumens	1,588	1,991	2,550	3,321	4,064	4,247	3,691	4,628	5,928	7,448	8,093
		Lumens per Watt	87.2	85.1	79.7	76	70.7	68	101.4	98.9	92.6	89.4	74
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SLR-HSS (90° Spill Light Eliminator Right, House Side Shield)	Lumens	1,316	1,650	2,114	2,753	3,369	3,521	3,060	3,837	4,915	6,175	6,709
		Lumens per Watt	72.3	70.5	66.1	63	58.6	56.3	84.1	82	76.8	74.1	61.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLL (90° Spill Light Elimina-tor Left)	Lumens	1,588	1,991	2,550	3,321	4,064	4,247	3,691	4,628	5,928	7,448	8,093
		Lumens per Watt	87.2	85.1	79.7	76	70.7	68	101.4	98.9	92.6	89.4	74
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SLL-HSS (90° Spill Light Eliminator Left, House Side Shield)	Lumens	1,316	1,650	2,114	2,753	3,369	3,521	3,060	3,837	4,915	6,175	6,709
		Lumens per Watt	72.3	70.5	66.1	63	58.6	56.3	84.1	82	76.8	74.1	61.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
835	T1 (Type I)	Lumens	1,889	2,368	3,033	3,950	4,834	5,052	4,390	5,505	7,052	8,860	9,626
		Lumens per Watt	104	101	95	90	84	81	121	118	110	106	88
		BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	T2 (Type II)	Lumens	1,899	2,381	3,050	3,973	4,862	5,081	4,415	5,536	7,091	8,910	9,680
		Lumens per Watt	104.4	101.8	95.3	90.9	84.5	81.3	121.3	118.3	110.8	107	88.6
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2
	T2-HSS (Type II House Side Shield)	Lumens	1,377	1,726	2,211	2,880	3,524	3,683	3,200	4,013	5,141	6,459	7,017
		Lumens per Watt	75.6	73.8	69.1	65.9	61.3	58.9	87.9	85.7	80.3	77.5	64.2
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
	T3 (Type III)	Lumens	1,924	2,412	3,090	4,024	4,924	5,146	4,472	5,607	7,183	9,025	9,805
		Lumens per Watt	105.7	103.1	96.6	92.1	85.6	82.3	122.9	119.8	112.2	108.3	89.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2

Energy and Performance Data

SA Performace

Supplemental Performance Guide

CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
835	T3-HSS (Type III House Side Shield)	Lumens	1,388	1,740	2,229	2,903	3,552	3,713	3,226	4,045	5,182	6,511	7,073
		Lumens per Watt	76.3	74.4	69.7	66.4	61.8	59.4	88.6	86.4	81	78.2	64.7
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4FT (Type IV Forward Throw)	Lumens	1,903	2,386	3,056	3,980	4,870	5,090	4,423	5,546	7,104	8,926	9,698
		Lumens per Watt	104.5	101.9	95.5	91.1	84.7	81.4	121.5	118.5	111	107.2	88.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3
	T4FT-HSS (Type IV Forward Throw House Side Shield)	Lumens	1,386	1,730	2,217	2,886	3,532	3,692	3,208	4,022	5,153	6,474	7,034
		Lumens per Watt	75.8	73.9	69.3	66.1	61.4	59.1	88.1	85.9	80.5	77.7	64.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4W (Type IV Wide)	Lumens	1,918	2,404	3,080	4,011	4,908	5,130	4,457	5,589	7,159	8,995	9,773
		Lumens per Watt	105.4	102.7	96.2	91.8	85.4	82.1	122.5	119.4	111.9	108	89.4
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	T4W-HSS (Type IV Wide House Side Shield)	Lumens	1,390	1,742	2,232	2,906	3,557	3,717	3,230	4,050	5,188	6,519	7,082
		Lumens per Watt	76.3	74.5	69.7	66.5	61.9	59.5	88.7	86.5	81.1	78.3	64.8
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL2 (Type II w/ Spill Control)	Lumens	1,885	2,363	3,027	3,942	4,824	5,042	4,381	5,493	7,037	8,841	9,606
		Lumens per Watt	103.6	101	94.6	90.2	83.9	80.7	120.4	117.4	109.9	106.1	87.9
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	SL2-HSS (Type II w/ Spill Control, House Side Shield)	Lumens	1,527	1,915	2,453	3,194	3,909	4,086	3,550	4,451	5,702	7,165	7,784
		Lumens per Watt	83.9	81.8	76.7	73.1	68	65.4	97.5	95.1	89.1	86	71.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL3 (Type III w/ Spill Control)	Lumens	1,882	2,360	3,023	3,937	4,818	5,036	4,376	5,486	7,028	8,831	9,594
		Lumens per Watt	103.4	100.9	94.5	90.1	83.8	80.6	120.2	117.2	109.8	106	87.8
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3
	SL3-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,570	1,968	2,521	3,283	4,018	4,199	3,649	4,575	5,860	7,363	8,000
		Lumens per Watt	86.2	84.1	78.8	75.1	69.9	67.2	100.2	97.7	91.6	88.4	73.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL4 (Type III w/ Spill Control)	Lumens	1,852	2,321	2,974	3,872	4,739	4,953	4,304	5,396	6,913	8,685	9,436
		Lumens per Watt	101.7	99.2	92.9	88.6	82.4	79.2	118.2	115.3	108	104.3	86.3
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SL4-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,569	1,967	2,520	3,281	4,016	4,197	3,647	4,572	5,858	7,360	7,996
		Lumens per Watt	86.2	84.1	78.7	75.1	69.8	67.1	100.2	97.7	91.5	88.4	73.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2

Energy and Performance Data

Supplemental Performance Guide

SA Performace

CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
835	SLR (90° Spill Light Elimina-tor Right)	Lumens	1,647	2,064	2,644	3,444	4,215	4,405	3,827	4,799	6,148	7,724	8,392
		Lumens per Watt	90.5	88.2	82.6	78.8	73.3	70.5	105.1	102.5	96.1	92.7	76.8
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SLR-HSS (90° Spill Light Eliminator Right, House Side Shield)	Lumens	1,365	1,712	2,192	2,855	3,494	3,652	3,173	3,979	5,097	6,404	6,957
		Lumens per Watt	75	73.1	68.5	65.3	60.8	58.4	87.2	85	79.6	76.9	63.7
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLL (90° Spill Light Elimina-tor Left)	Lumens	1,647	2,064	2,644	3,444	4,215	4,405	3,827	4,799	6,148	7,724	8,392
		Lumens per Watt	90.5	88.2	82.6	78.8	73.3	70.5	105.1	102.5	96.1	92.7	76.8
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SLL-HSS (90° Spill Light Eliminator Left, House Side Shield)	Lumens	1,365	1,712	2,192	2,855	3,494	3,652	3,173	3,979	5,097	6,404	6,957
		Lumens per Watt	75	73.1	68.5	65.3	60.8	58.4	87.2	85	79.6	76.9	63.7
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2

SA Performace

CCT	Optics		1 Square	2 Square
Amber	T1 (TYPE I)	Lumens	747	1,736
		Lumens per Watt	37	43
		BUG Rating	B1-U0-G1	B1-U0-G1
	T2 (TYPE II)	Lumens	749	1,741
		Lumens per Watt	37	43
		BUG Rating	B0-U0-G0	B0-U0-G1
	T2-HSS (TYPE II HOUSE SIDE SHIELD)	Lumens	552	1,284
		Lumens per Watt	28	32
		BUG Rating	B0-U0-G0	B0-U0-G0
	T3 (TYPE III)	Lumens	781	1,817
		Lumens per Watt	39	45
		BUG Rating	B0-U0-G0	B1-U0-G1

CCT	Optics		1 Square	2 Square
Amber	T3-HSS (TYPE III HOUSE SIDE SHIELD)	Lumens	564	1,312
		Lumens per Watt	28	33
		BUG Rating	B0-U0-G0	B0-U0-G0
	T4FT (TYPE IV FORWARD THROW)	Lumens	760	1,768
		Lumens per Watt	38	44
		BUG Rating	B0-U0-G1	B0-U0-G1
	T4FT-HSS (TYPE IV FOR-WARD THROW HOUSE SIDE SHIELD)	Lumens	563	1,308
		Lumens per Watt	28	33
		BUG Rating	B0-U0-G0	B0-U0-G1
	T4W (TYPE IV WIDE)	Lumens	776	1,804
		Lumens per Watt	39	45
		BUG Rating	B0-U0-G1	B1-U0-G1

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Supplemental Performance Guide

CCT	Optics		1 Square	2 Square
Amber	T4W-HSS (TYPE IV WIDE HOUSE SIDE SHIELD)	Lumens	559	1,299
		Lumens per Watt	28	32
		BUG Rating	B0-U0-G0	B0-U0-G1
	SL2 (TYPE II W/ SPILL CONTROL)	Lumens	773	1,797
		Lumens per Watt	38	45
		BUG Rating	B0-U0-G1	B1-U0-G1
	SL2-HSS (TYPE II W/ SPILL CONTROL, HOUSE SIDE SHIELD)	Lumens	606	1,408
		Lumens per Watt	30	35
		BUG Rating	B0-U0-G0	B0-U0-G1
	SL3 (TYPE III W/ SPILL CONTROL)	Lumens	758	1,762
		Lumens per Watt	38	44
		BUG Rating	B0-U0-G1	B0-U0-G1

CCT	Optics		1 Square	2 Square
Amber	SL3-HSS (TYPE III W/ SPILL CONTROL, HOUSE SIDE SHIELD)	Lumens	636	1,480
		Lumens per Watt	32	37
		BUG Rating	B0-U0-G0	B0-U0-G1
	SL4 (TYPE III W/ SPILL CONTROL)	Lumens	748	1,740
		Lumens per Watt	37	43
		BUG Rating	B0-U0-G1	B0-U0-G1
	SL4-HSS (TYPE III W/ SPILL CONTROL, HOUSE SIDE SHIELD)	Lumens	629	1,463
		Lumens per Watt	31	36
		BUG Rating	B0-U0-G1	B0-U0-G1

Energy and Performance Data

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0ºC	1.02
10ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.97

Lumen Maintenance (TM-21)

Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 (Hours)**
25ºC	94.4%	90.4%	89.0%	83.0%	>199,000
40ºC	94.6%	90.9%	89.4%	83.9%	>212,000
50ºC	91.8%	87.0%	85.2%	78.2%	>151,000

NOTES:
* Supported by IESTM-21 standards
** Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, that explains proper use of IESTM-21 and LM-80.

Control Options

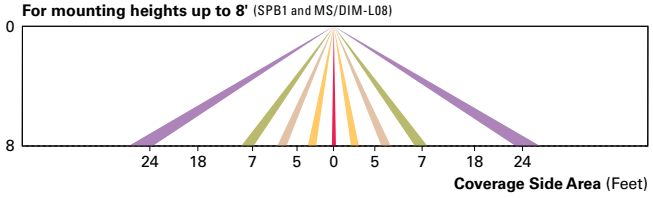
0-10V
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (BPC)
Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

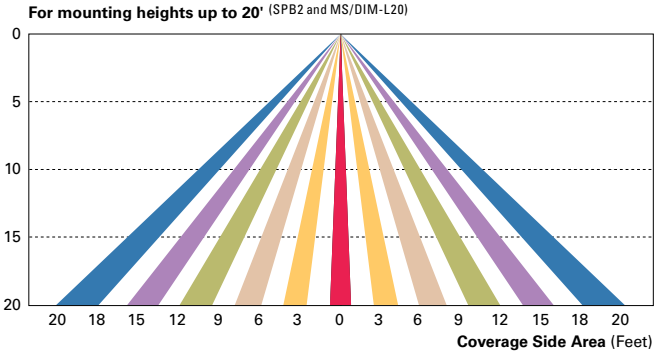
After Hours Dim (AHD)
This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

Dimming Occupancy Sensor (SPB and MS/DIM)
These sensors are factory installed in the luminaire, dimming after five minutes of no motion detected. When motion is detected, the luminaire output is 100%. Includes an integral photocell that can be programmed for "dusk-todawn" operation. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The MS/DIM requires the FSIR-100 programming tool to adjust factory defaults. Two lens options provide optimal coverage patterns for mounting heights up to 20'.

For mounting heights up to 8' (SPB1 and MS/DIM-L08)



For mounting heights up to 20' (SPB2 and MS/DIM-L20)



WaveLinx Receptacle (ZW)
Includes the WaveLinx control module, integrated 4-Pin receptacle, and standard 0-10V dimming driver, enabling the subsequent addition of a WaveLinx sensor.

Cooper Lighting Solutions
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Specifications and dimensions
subject to change without notice.

TWO CROSS STREET

152 & 172 MAIN STREET; 2 & 4 CROSS STREET
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-27-799966, 774986, 784996 & 808975
LOT AREA: ±1.243 ACRES TOTAL
CMS & T ZONING DISTRICTS

ADJOINING PARCELS:

PARCEL: OWNER & MAILING ADDRESS
1: NICHOLAS PAGE, 16 WEST MAIN STREET, BEACON NY 12508
2: MARGARET CULLEN, 18 WEST CHURCH STREET, BEACON NY 12508
3: JAMES BOOTH JR., 22 WEST CHURCH STREET, BEACON NY 12508
4: BRIAN DEWEY, 139 EAST 33RD STREET, NEW YORK NY 10016
5: LISA TRAVELLA, 25 WEST CHURCH STREET, BEACON NY 12508
6: JEREMY GOULDER, 11 CROSS STREET, BEACON NY 12508
7: CROSSIX LLC., 50 SIMMONS LANE, BEACON NY 12508
8: CITY OF BEACON, 1 MUNICIPAL PLAZA, BEACON NY 12508
9: HOSE COMPANY LLC., 162 MAIN STREET, BEACON NY 12508
10: BARBARA SIMS, 5 KITTERIDGE PLACE, BEACON NY 12508
11: MOVIL DEVELOPMENT CORP., 284 MAIN STREET, BEACON NY 12508
12: 151 MAIN STREET LLC., PO BOX 910, BEACON NY 12508
13: THE LINDLEY TODD LLC. 4 CROSS STREET, BEACON NY 12508
14: THE LINDLEY TODD LLC. 4 CROSS STREET, BEACON NY 12508
15: THE LINDLEY TODD LLC. 4 CROSS STREET, BEACON NY 12508
16: THE LINDLEY TODD LLC. 4 CROSS STREET, BEACON NY 12508
17: THE LINDLEY TODD LLC. 4 CROSS STREET, BEACON NY 12508
18: THE LINDLEY TODD LLC. 4 CROSS STREET, BEACON NY 12508
19: THE LINDLEY TODD LLC. 4 CROSS STREET, BEACON NY 12508
20: 7215-18TH AVENUE REALTY CORP., PO BOX 417, SHRUB OAK NY 10588
21: BERISHA BROTHERS INC., 169 MAIN STREET, BEACON NY 12508
22: BERISHA BROTHERS INC., 169 MAIN STREET, BEACON NY 12508
23: MOVIL DEVELOPMENT CORP., 284 MAIN STREET, BEACON NY 12508
24: CHASE PROPERTY MGMT LLC., 110 ANDERSON STREET, BEACON NY 12508
25: JOSE SANTIAGO, 8 CROSS STREET, BEACON NY 12508

SIGHT DISTANCE NOTES:

THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION UTILIZES THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) GUIDELINES FOR INTERSECTION SIGHT DISTANCES. FOR ROADS WITH A SPEED LIMIT OF 30 MPH, AASHTO DESIGN TABLES CALL FOR A SIGHT DISTANCE (SLSD) OF 290 FEET TO THE LEFT AND 335 FEET TO THE RIGHT, AND 200 FEET IN BOTH DIRECTIONS FOR STOPPING SIGHT DISTANCE (SSD). THE MEASURED SLSD AND SSD AT THE PROPOSED ENTRANCES ARE AS FOLLOWS:

152 MAIN STREET PARKING ENTRANCE ON MAIN STREET:
SLSD LEFT = ±289 FEET
SLSD RIGHT = ±84 FEET
SSD LEFT = ±615 FEET
SSD RIGHT = ±296 FEET

152 MAIN STREET PARKING ENTRANCE ON CHURCH STREET:
SLSD LEFT = ±122 FEET
SLSD LEFT = ±230 FEET (MEASURED AT ±4 FEET FROM PAVEMENT EDGE TO AVOID TREE)
SLSD RIGHT = ±120 FEET
SLSD RIGHT = ±146 FEET (MEASURED AT ±4 FEET FROM PAVEMENT EDGE TO AVOID PARKED CARS)
SSD LEFT = ±217 FEET
SSD RIGHT = ±310 FEET (TO INTERSECTION WITH ROUTE 9D)

2 CROSS STREET ENTRANCE:
SLSD LEFT = ±62 FEET
SLSD LEFT = ±155 FEET (MEASURED AT ±9 FEET FROM PAVEMENT EDGE TO INTERSECTION WITH MAIN STREET)
SSD LEFT = ±127 FEET (TO INTERSECTION WITH MAIN STREET)

INFILTRATION AND INFLOW MITIGATION NOTES:

1. THE ROOF LEADERS WITHIN 172 MAIN STREET ARE TIED INTO BUILDING SEWER. IN ADDITION, THERE IS A SUMP PUMP WITHIN THE BASEMENT OF THE BUILDING WHICH IS ALSO TIED INTO THE SEWER SERVICE PIPE. NO ILLICIT CONNECTIONS WERE FOUND AT 4 CROSS STREET.
2. THE ROOF LEADER AND SUMP PUMP WITHIN 172 MAIN ST. SHALL BE DISCONNECTED FROM THE SANITARY SEWER LINE. NEW ROOFTOP DRAINAGE SHALL BE PER THIS PLAN. ANY NEW SUMP PUMP SHALL BE IN ACCORDANCE WITH SITE SPECIFIC NOTE 9 ON THIS PLAN.

RETAINING WALL NOTES:

1. ALL RETAINING WALLS SHOWN ON THIS PLAN SHALL BE DESIGNED BY A NEW YORK STATE LICENSED ENGINEER AND PLANS SHALL BE SUBMITTED TO THE BEACON BUILDING DEPARTMENT PRIOR TO CONSTRUCTION.

ADA CONSTRUCTION NOTES:

1. ADA ACCESSIBLE COMPONENTS AND ACCESS ROUTES FOR THE SITE MUST COMPLY WITH ALL APPLICABLE STATE AND LOCAL ACCESSIBILITY LAWS AND REGULATIONS AND THE CURRENT ADA STANDARDS. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE FROM PARKING SPACE OR PEDESTRIAN ACCESS TO POINTS OF ACCESSIBLE BUILDING INGRESS/OR EGRESS, MUST COMPLY WITH ADA REQUIREMENTS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
   1.1. PARKING SPACES AND PARKING AISLES – SLOPE SHALL NOT EXCEED 1:48 IN ANY DIRECTION.
   1.2. CURB RAMPS – SLOPE MUST NOT EXCEED 1:12 (8.3%) FOR A MAXIMUM OF SIX (6) FEET.
   1.3. LANDINGS – MUST BE PROVIDED AT EACH END OF RAMPS, MUST PROVIDE POSITIVE DRAINAGE, AND MUST NOT EXCEED 1:48 IN ANY DIRECTION.
   1.4. PATH OF TRAVEL ALONG ACCESSIBLE ROUTE – MUST PROVIDE A 36-INCH OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL. THE SLOPE MUST BE NO GREATER THAN 1:20 IN THE DIRECTION OF TRAVEL, AND MUST NOT EXCEED 1:48 IN CROSS SLOPE. WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:20, ADA RAMP STANDARDS MUST BE MET WITH A MAXIMUM SLOPE OF 1:12, FOR A MAXIMUM RISE OF 30 INCHES. RAMPS MUST HAVE ADA HAND RAILS AND LANDINGS AT BOTH THE TOP AND BOTTOM OF EACH RAMP, WITH CROSS SLOPES NO MORE THAN 1:48 IN ANY DIRECTION.
   1.5. DOORWAYS – MUST HAVE A LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED AWAY FROM THE DOOR NO MORE THAN 1:48 AND MUST BE NO LESS THAN 60 INCHES LONG.
2. WHEN THE PROPOSED CONSTRUCTION INCLUDES CONNECTION TO EXISTING ADA COMPONENTS, CONTRACTOR MUST VERIFY EXISTING ELEVATIONS SHOWN. NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF THERE ARE ANY DISCREPANCIES OR FIELD CONDITIONS THAT DIFFER FROM WHAT IS SHOWN BEFORE COMMENCING WORK. CONSTRUCTED IMPROVEMENTS MUST COMPLY WITH THE MAXIMUM AND MINIMUM ADA REQUIREMENTS.
3. THE CONTRACTOR MUST VERIFY THE SLOPES OF THE FORMWORK PRIOR TO POURING CONCRETE. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND REPLACE NON-CONFORMING CONCRETE.

DRAWING INDEX:

SHEET 1: COVER SHEET – CV-1
SHEET 2: EXISTING CONDITIONS & REMOVALS PLAN – XC-1
SHEET 3: OVERALL SITE PLAN – SP-1
SHEET 4: GRADING & UTILITY PLAN – GU-1
SHEET 5: EROSION & SEDIMENT CONTROL PLAN – ESC-1
SHEET 6: LIGHTING & LANDSCAPING PLAN – LT-1
SHEET 7: CONSTRUCTION DETAILS 1 – CD-1
SHEET 8: CONSTRUCTION DETAILS 2 – CD-2
SHEET 9: CONSTRUCTION DETAILS 3 – CD-3

ARCHITECTURAL DRAWING INDEX:

A1: PROJECT TITLE SHEET
A2: ZONING: AREA AND UNIT COUNTS
A3: FLOOR PLANS: GROUND FLOOR & SECOND FLOOR
A4: FLOOR PLANS: THIRD FLOOR & ROOF PLAN
A5: FLOOR PLANS: CELLAR FLOOR PLAN
A6: ELEVATIONS
A7: RENDERING: VIEW LOOKING EAST
A8: RENDERING: MAIN STREET – LOOKING NORTH
A9: RENDERING: VIEW LOOKING WEST
A10: RENDERING: CROSS STREET – LOOKING EAST
A11: RENDERING: CROSS STREET – LOOKING SOUTH



AREA MAP SCALE: 1" = 100'

OWNER & APPLICANT:
HUDSON TODD, LLC
4 CROSS STREET
BEACON, NY 12508
PH: 646-284-3118

PROJECT SURVEYOR:
JOHNSON SURVEYING
10 MEADOW LANE
PLEASANT VALLEY, NEW YORK 12569
PH: 845-380-0528

PROJECT ENGINEER:
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN STREET
BEACON, NEW YORK 12508
PH: 845-440-6926
F: 845-440-6637

PROJECT ARCHITECT:
JOSEPH E. TORHAN ARCHITECT
19 WILDWOOD DRIVE
POUGHKEEPSIE, NY 12603
PH: 203-256-8700

SITE SPECIFIC NOTES:

1. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UFPO @ 1-800-962-7962. SPECIFIC ATTENTION SHALL BE PAID TO THE LOCATIONS OF THE GAS, WATER AND SEWER MAINS WITH RESPECT TO THE PROPOSED LOCATIONS FOR THE SERVICE AND DRAINAGE LINES.
2. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL DRAINAGE, SANITARY SEWER, WATER AND GAS LINES AND STRUCTURES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT.
3. THE PROPOSED BUILDING AND ADDITION SHALL BE SERVED BY THE CITY OF BEACON MUNICIPAL WATER AND SEWER SERVICES. AS SUCH, THE CONTRACTOR SHALL CONTACT THE CITY OF BEACON WATER AND SEWER DEPARTMENTS TO SCHEDULE A PRE-CONSTRUCTION MEETING TO ENSURE THAT THE ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL ARE COMMENCED IN ACCORDANCE WITH THE APPROVED PLANS AND AMENDMENTS THERETO AND GENERALLY ACCEPTED STANDARDS.
4. THE WATER SERVICE LINE AND METER FOR EACH UNIT SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BEACON WATER DEPARTMENT REQUIREMENTS.
5. THE NEW WATER SERVICE LINE TO THE NEW BUILDING SHALL BE 4"ø DIP, SUBJECT TO THE MEP ENGINEER'S CALCULATIONS AND VERIFICATION.
6. THE SEWER SERVICE LINE SHALL BE 6"ø SDR-35 PVC PIPE WITH PITCH AS SHOWN ON THE PLAN (MINIMUM OF ¼" PER FOOT SHALL BE MAINTAINED).
7. STREET CLOSURE FOR WATER, SEWER AND GAS SERVICE CONNECTIONS AND DRIVEWAY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF BEACON REQUIREMENTS. A PLAN SHALL BE IN PLACE FOR MAINTENANCE AND PROTECTION OF TRAFFIC.
8. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. MAIN STREET AND CROSS STREET SHALL BE KEPT CLEAN AND SWEPT DURING CONSTRUCTION.
9. SUMP PUMPS TO BE PROVIDED FOR FOOTING DRAINS, AS REQUIRED. THE TYPES OF PUMPS AND METHODS USED TO ENSURE PROPER DRAINAGE SHALL BE ACCEPTABLE TO THE CITY OF BEACON BUILDING DEPARTMENT. ALL SUMP PUMPS SHALL DISCHARGE TO DAYLIGHT, OR TO THE CITY OF BEACON DRAINAGE SYSTEM. SUMP PUMPS ARE NOT PERMITTED TO DISCHARGE TO THE CITY OF BEACON SANITARY SEWER SYSTEM.
10. THE BUILDING DEPARTMENT SHALL HAVE THE RIGHT TO INSPECT THE EXISTING BUILDING TO CONFIRM THAT THERE ARE NOT EXISTING STORMWATER CONNECTIONS TO THE CITY'S SANITARY SEWER SYSTEM PRIOR TO THE MAP BEING SIGNED. AN INFLOW & INFILTRATION (I&I) STUDY HAS BEEN CONDUCTED ON 172 MAIN STREET, AND 4 CROSS STREET. REFER TO I&I NOTES FOR MITIGATION PROCEDURES.

INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES

CATCH BASINS AND PIPING:

ALL CATCH BASINS SHALL BE INSPECTED AFTER EACH STORM EVENT FOR SEDIMENT ACCUMULATION, AND DEBRIS, AND REMOVE AS NECESSARY. WHEN SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN SUMP REACHES 1/2 OF THE SUMP DEPTH, IT SHALL BE REMOVED. ASSOCIATED PIPING SHALL BE INSPECTED ANNUALLY AND ACCUMULATED SEDIMENT SHALL BE REMOVED AS NEEDED.

UNDERGROUND INFILTRATION SYSTEM:

BEST MANAGEMENT PRACTICE FOR MAINTAINING OPTIMUM PERFORMANCE OF THE UNDERGROUND INFILTRATION SYSTEM IS A COMBINATION OF THE FOLLOWING:
1. REMOVAL OF ACCUMULATED SEDIMENT FROM THE UPSTREAM CATCH BASIN AND STORMWATER COLLECTION SYSTEM, AND
2. MAINTAINING THE SITE IMPERVIOUS AND LAWN AREAS IN A STABLE CONDITION. ANY FUTURE LAND DISTURBANCE ASSOCIATED WITH MAINTENANCE OF THE BUILDINGS AND GROUNDS SHALL CAREFULLY PREPARE AN EROSION AND SEDIMENT CONTROL PLAN TO LIMIT TRANSPORT OF SEDIMENT LADEN RUNOFF TO THE COLLECTION SYSTEM.

THE CULTEC SYSTEM SHALL BE EQUIPPED WITH AN INSPECTION PORT LOCATED ON THE INLET ROW. THE INSPECTION PORT IS A CIRCULAR CAST BOX PLACED IN A RECTANGULAR CONCRETE COLLAR. WHEN THE LID IS REMOVED, A 6-INCH PIPE WITH A SCREW-IN PLUG WILL BE EXPOSED. REMOVE THE PLUG. THIS WILL PROVIDE ACCESS TO THE CULTEC CHAMBER ROW BELOW. FROM THE SURFACE, THROUGH THIS ACCESS, THE SEDIMENT MAY BE MEASURED AT THIS LOCATION. A STADIA ROD MAY BE USED TO MEASURE THE DEPTH OF SEDIMENT IF ANY IN THIS ROW. ADDITIONALLY, CCTV INSPECTION OF THIS ROW CAN BE DEPLOYED THROUGH THIS ACCESS PORT TO DETERMINE IF ANY SEDIMENT HAS ACCUMULATED. IF THE DEPTH OF SEDIMENT IS IN EXCESS OF 3 INCHES, THEN THIS ROW SHOULD BE CLEANED WITH HIGH PRESSURE WATER THROUGH A CULVERT CLEANING NOZZLE. THIS WOULD BE CARRIED OUT THROUGH THE UPSTREAM STRUCTURE. THE ACCESS POINT THROUGH THE UPSTREAM STRUCTURE REQUIRES A TECHNICIAN TRAINED IN CONFINED SPACE ENTRY WITH PROPER GAS DETECTION EQUIPMENT. THIS INDIVIDUAL MUST BE EQUIPPED WITH THE PROPER SAFETY EQUIPMENT FOR ENTRY INTO THE STRUCTURE. THE INLET ROW IS PLACED ON A POLYETHYLENE LINER TO PREVENT SCOURING OF THE WASHED STONE BENEATH THIS ROW. THIS FACILITATES THE FLUSHING OF THIS ROW WITH HIGH PRESSURE WATER THROUGH A CULVERT CLEANING NOZZLE. THE NOZZLE IS DEPLOYED THROUGH THE UPSTREAM STRUCTURE AND EXTENDED TO THE END OF THE ROW. THE WATER IS TURNED ON AND THE INLET ROW IS BACK-FLUSHED INTO THE INLET STRUCTURE WHERE IT IS REMOVED BY USING A VACUUM TRUCK.

MAINTENANCE GUIDELINES:
1. THE OWNER SHALL KEEP A MAINTENANCE LOG WHICH SHALL INCLUDE DETAILS OF ANY EVENTS WHICH WOULD HAVE AN EFFECT ON THE SYSTEM'S OPERATIONAL CAPACITY.
2. THE OPERATION AND MAINTENANCE PROCEDURE SHALL BE REVIEWED PERIODICALLY AND CHANGED TO MEET SITE CONDITIONS.
3. MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE PERFORMED BY QUALIFIED WORKERS AND SHALL FOLLOW APPLICABLE OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS.
4. DEBRIS REMOVED FROM THE STORMWATER MANAGEMENT SYSTEM SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS.

SUGGESTED MAINTENANCE SCHEDULE (TO BE RE-ASSESSED BY THE OPERATOR PERIODICALLY BASED ON SITE CONDITIONS AND EVALUATION OF SYSTEM FUNCTIONALITY):
1. YEAR 1: INSPECT INLETS AND OUTLETS MONTHLY FOR ANY CLOGGING, AND REMOVE DEBRIS AS MAY BE NECESSARY. INSPECT THE SURFACE AROUND THE CHAMBERS FOR ANY DEPRESSIONS.
2. YEAR 2 AND AFTER: INSPECT INLETS AND OUTLETS EVERY SPRING AND FALL FOR ANY CLOGGING, AND REMOVE DEBRIS AS MAY BE NECESSARY. INSPECT THE SURFACE AROUND THE CHAMBERS FOR ANY DEPRESSIONS.
3. 2 YEARS AFTER COMMISSIONING: INSPECT THE INTERIOR OF THE STORMWATER MANAGEMENT CHAMBERS THROUGH INSPECTION PORT FOR DEFICIENCIES USING CCTV OR COMPARABLE TECHNIQUE.
4. 9 YEARS AFTER COMMISSIONING, AND EVERY 9 YEARS THEREAFTER (OR AS MAY BE NEEDED): CLEAN STORMWATER MANAGEMENT CHAMBERS AND FEED CONNECTORS OF ANY DEBRIS. INSPECT THE INTERIOR OF THE STORMWATER MANAGEMENT CHAMBERS THROUGH INSPECTION PORT FOR DEFICIENCIES USING CCTV OR COMPARABLE TECHNIQUE.
5. 45 YEARS AFTER COMMISSIONING: A PROFESSIONAL ENGINEER SHALL ASSESS THE REMAINING LIFE EXPECTANCY OF THE STORMWATER MANAGEMENT CHAMBERS AND RECOMMEND ACTIONS TO REHABILITATE, RESTORE OR REPLACE THE STORMWATER MANAGEMENT CHAMBERS AS MAY BE REQUIRED.
6. ANNUALLY: CONFIRM THAT NO UNAUTHORIZED MODIFICATIONS HAVE BEEN PERFORMED TO THE SITE THAT MAY IMPACT THE ADEQUATE FUNCTIONING OF THE SYSTEM.
7. PERIODICALLY: MONITOR WATER LEVELS IN THE CHAMBER SYSTEM FOLLOWING SIGNIFICANT STORM EVENTS. DEWATERING OF THE SYSTEM SHOULD TAKE NO LONGER THAN 24 HOURS.

THE FACILITY OWNER SHALL PROVIDE FOR THE PERIODIC INSPECTION OF THE STORMWATER FACILITIES IN ACCORDANCE WITH THE DRAINAGE REPORT, AND SHALL HAVE THE FACILITIES INSPECTED ON A YEARLY BASIS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK, TO DETERMINE THE CONDITION AND INTEGRITY OF THE STORMWATER CONTROL MEASURES. THE INSPECTING PROFESSIONAL SHALL PREPARE AND SUBMIT TO THE CITY OF BEACON WITHIN 30 DAYS OF THE INSPECTION BUT NOT LATER THAN JUNE 1 OF EACH YEAR, A WRITTEN REPORT OF THE FINDINGS INCLUDING RECOMMENDATIONS FOR THOSE ACTIONS NECESSARY FOR THE CONTINUATION OF THE STORMWATER CONTROL MEASURES.

OWNER'S CONSENT:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENT TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
JOSEPH DONOVAN DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_____ DAY OF _____ 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____ 20_____ BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	7/26/22	PER PLANNING BOARD COMMENTS	ESR				
2	8/29/22	PER PLANNING BOARD COMMENTS	ESR				
3	9/26/22	PER PLANNING BOARD COMMENTS	ESR				

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SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

COVER SHEET

TWO CROSS STREET

152 & 172 MAIN STREET; 2 & 4 CROSS STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-27-799966, 774986, 784996 & 808975

JOB #: 2019:036
DATE: 8/27/19
SCALE: 1"=100'
TITLE: CV-1
SHEET: 1 OF 9

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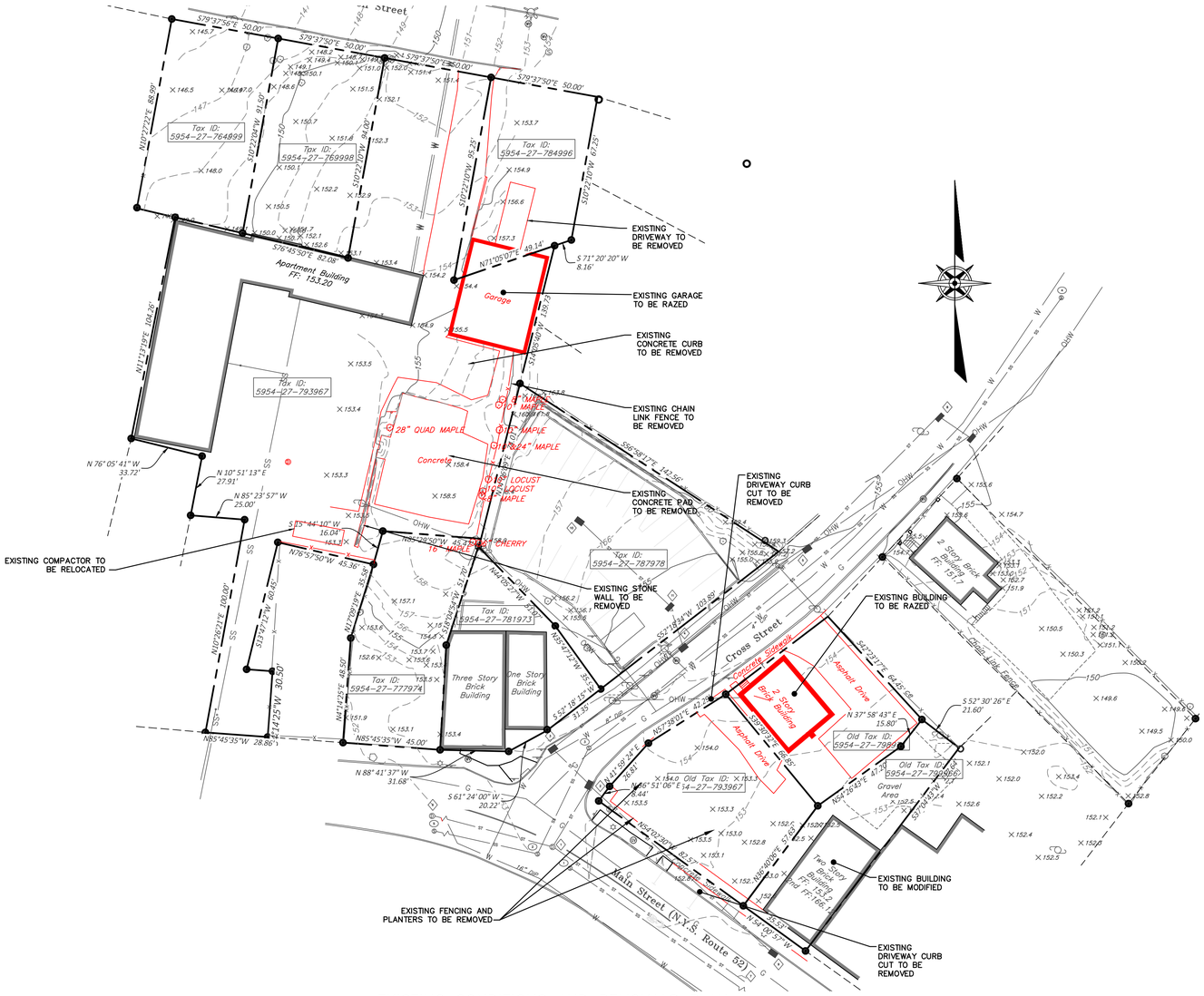

EXISTING CONDITIONS AND REMOVALS PLAN
SCALE: 1" = 30'

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

DEMOLITION NOTES:

1. BUILDING/STRUCTURE TO BE DEMOLISHED ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE NOT TO BE DEMOLISHED AS PART OF THIS WORK. PRIOR TO DEMOLISHING ANY BUILDINGS/STRUCTURES, THE CONTRACTOR SHALL PERFORM A PRE-DEMOLITION SURVEY IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS GOVERNING THE DISPOSAL OF SOLID WASTE. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS BY THE AUTHORITY HAVING JURISDICTION. ALL DEBRIS RESULTING FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE AT A FACILITY APPROVED TO RECEIVE THE DEBRIS.
2. CONFORM TO APPLICABLE CODE FOR DEMOLITION OF STRUCTURES, SAFETY OF ADJACENT STRUCTURES, DUST CONTROL, RUNOFF CONTROL, AND HAULING, DISPOSAL AND STORAGE OF DEBRIS.
3. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES.
4. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION.
5. NOTIFY ADJACENT OWNERS OF WORK THAT MAY AFFECT THEIR PROPERTY, POTENTIAL NOISE, UTILITY OUTAGE, OR DISRUPTION. COORDINATE WITH OWNER.
6. PREVENT MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES. PROVIDE BRACING AND SHORING.
7. LOCATE AND IDENTIFY ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA. DISCONNECT AND SEAL OR CAP OFF UTILITY SERVICES THAT WILL BE AFFECTED BY THIS PROJECT. NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED.
8. DEMOLISH AND REMOVE COMPONENTS IN AN ORDERLY AND CAREFUL MANNER.
9. PROTECT EXISTING FEATURES THAT ARE NOT TO BE DEMOLISHED.
10. CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESSES.
11. MAINTAIN EGRESS AND ACCESS AT ALL TIMES. DO NOT CLOSE OR OBSTRUCT ROADWAYS, OR SIDEWALKS WITHOUT PERMITS.
12. CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER. NOTIFY AUTHORITY HAVING JURISDICTION.
13. ROUGH GRADE AND COMPACT AREAS AFFECTED BY DEMOLITION TO MAINTAIN SITE GRADES AND CONTOURS.
14. FIELD VERIFY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED ON DEMOLITION PLAN TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
15. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATION.
16. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH SELECTIVE DEMOLITION OPERATIONS.
17. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA.
18. USE WATER MIST, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS TO LIMIT THE SPREAD OF DUST AND DIRT. COMPLY WITH GOVERNING ENVIRONMENTAL PROTECTION REGULATIONS. DO NOT USE WATER WHEN IT MAY DAMAGE EXISTING CONSTRUCTION, SUCH AS ICE, FLOODING, AND POLLUTION.
19. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
20. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF SELECTIVE DEMOLITIONS.
21. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. DO NOT BURN DEMOLISHED MATERIALS ON-SITE.

UTILITY ABANDONMENT NOTES:

1. EXISTING WATER AND SEWER SERVICES TO BE ABANDONED IN ACCORDANCE WITH CITY OF BEACON WATER & SEWER DEPARTMENT REQUIREMENTS.
2. ABANDONMENT WILL BE COORDINATED WITH THE CITY OF BEACON WATER & SEWER DEPARTMENT.



LOCATION MAP SCALE: 1" = 200'

MAP REFERENCES:

1. BOUNDARY AND TOPOGRAPHICAL SURVEY PER "BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED FOR CROSS STREET PROJECT" AS PREPARED BY JOHNSON SURVEYING DATED MAY 30, 2022.

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- OHW EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- SS EXISTING SEWER SERVICE LINE
- S EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- W EXISTING WATER LINE
- WS EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING ROOF LEADER
- EXISTING CATCH BASIN

Sanitary Sewer Information

	Top of Structure	Invert	Invert	Invert	Invert
0	153.0'	144.1' 8" CIP			
1	153.1'	140.3' 12" ACP*	140.1' 12" ACP*		
2	153.6'	146.4' 12" ACP*	146.3' 12" VCP		
3	155.8'	148.7' 12" VCP	148.6' 12" VCP		
4	150.8'	137.9' xx	137.8' xx		
5	151.0'	142.0' xx	141.9' xx		
			*Pipe material from City of Beacon Sewer mapping.		

Storm Sewer Information

	Top of Structure	Invert	Invert	Invert	Invert
0	153.3'	144.6' 24" RCP	140.7' 36" RCP	140.5' 36" RCP	
1	153.0'	149.0' 15" RCP	148.9' 30" RCP		
2	153.4'	149.3' 15" RCP	149.3' 15" CPP		
3	154.2'	149.5' 15" CPP	149.5' 15" CPP	149.8' 12" CPP	
4	154.3'	149.8' 15" CPP	149.7' 15" CPP		
5	151.0'	xx	xx		
6	150.9'	142.7' 36" RCP	142.6' 36" RCP		
7	154.7'	150.2' 15" CCP			
8	151.6'	143.6' 15" RCP			
9	154.7'	1151.8' 12" CCP			
11	154.7'	150.4' 12" CCP	150.2' 12" CCP		

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____ SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	2/21/22	REVISED BUILDING & LAYOUT	DGK				
2	3/29/22	PER PLANNING BOARD COMMENTS	CMB				
3	7/26/22	PER PLANNING BOARD COMMENTS	ESR				
4	8/29/22	PER PLANNING BOARD COMMENTS	ESR				
5	9/26/22	PER PLANNING BOARD COMMENTS	ESR				

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STATE OF NEW YORK DANIEL G. KOGUT 082716 LICENSED PROFESSIONAL ENGINEER

SEAL

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13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

EXISTING CONDITIONS AND REMOVALS PLAN

TWO CROSS STREET

152 & 172 MAIN STREET; 2 & 4 CROSS STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-27-799966, 774986, 784996 & 808975

JOB #: 2019:036
DATE: 10/29/19
SCALE: 1"=30'
TITLE: XC-1
SHEET: 2 OF 9

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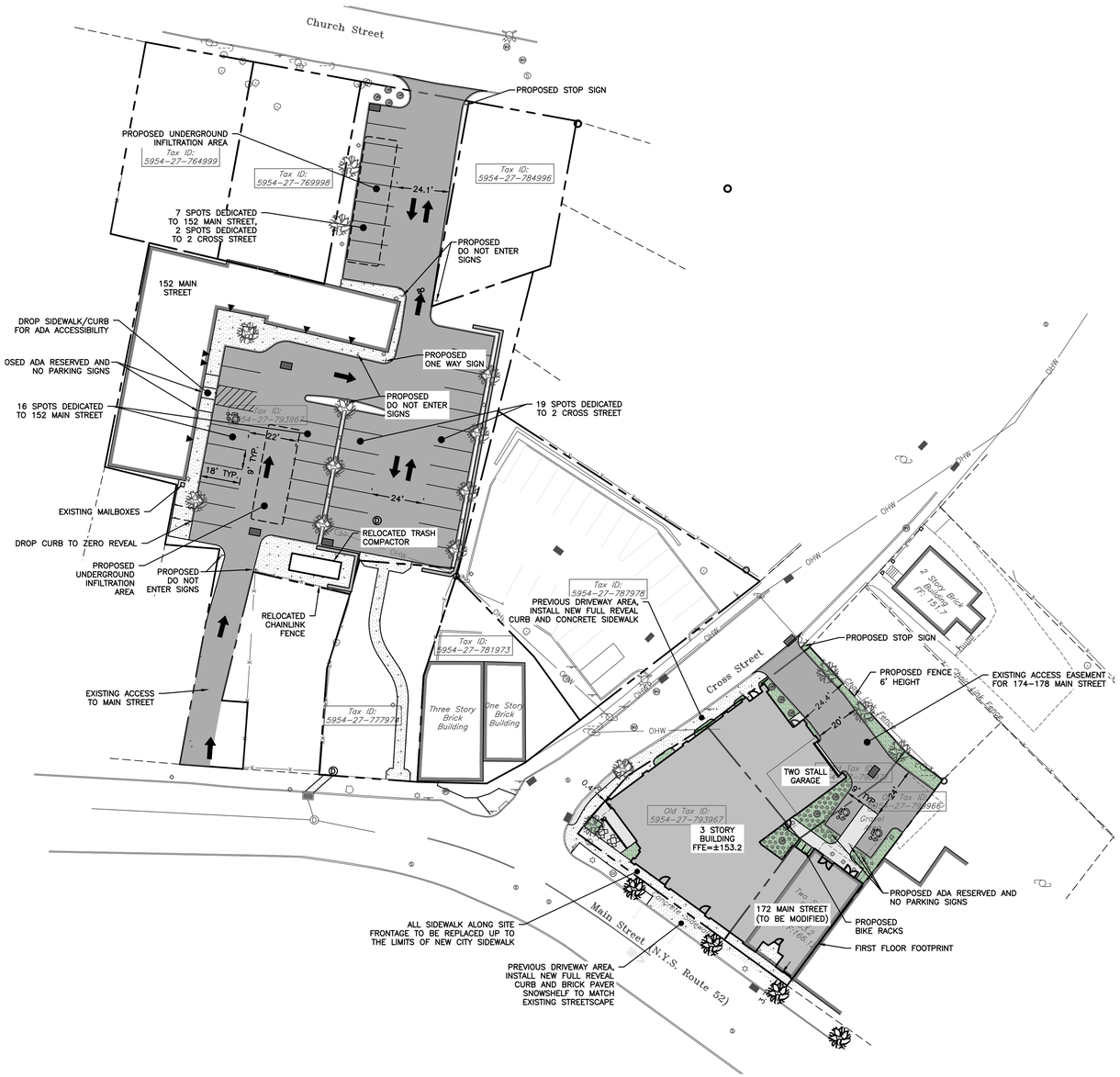

OVERALL SITE PLAN

SCALE: 1" = 30'

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR
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- EXISTING UTILITY POLE
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- EXISTING SEWER CLEAN OUT
- W EXISTING WATER LINE
- WS EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING ROOF LEADER
- EXISTING CATCH BASIN

- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- 250 PROPOSED MAJOR CONTOUR
- 252 PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- S PROPOSED SEWER LINE
- SS PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED SDS LATERAL
- PROPOSED SDS SOLID LINE
- ST PROPOSED STORM WATER LINE
- RL PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- W PROPOSED WATER LINE
- WS PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE

SCHEDULE OF REGULATIONS (CMS ZONING DISTRICT) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT	EXISTING	PROVIDED
LOT AREA:	N/A	12,957 SQ. FT.*	12,957 SQ. FT.
LOT WIDTH:	N/A	N/A	N/A
LOT DEPTH:	75 FEET MINIMUM	123.9 FEET	123.9 FEET
YARD SETBACKS:			
FRONT YARD:	0-10 FEET	1.8 FEET CROSS, 3.7 FEET MAIN	0.4 FEET CROSS, 3.7 FEET MAIN
SIDE YARD:	0 FEET	0 FEET	0 FEET
REAR YARD:	20 FEET	28.2 FEET	24.4 FEET
MAX. BUILDING HEIGHT:	38 FEET, 3 STORIES	2 STORIES	38 FEET, 3 STORIES
MAX. BUILDING COVERAGE:	N/A	N/A	N/A
MIN. OPEN SPACE:	10% (5% IF PUBLIC)	±33.3%	10.0%

*PARCEL 799966 (172 MAIN, 2 & 4 CROSS STREETS)

SCHEDULE OF REGULATIONS (T ZONING DISTRICT) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT	EXISTING	PROVIDED
LOT AREA:	5,000 SQUARE FEET	N/A	N/A
LOT WIDTH:	50 FEET MINIMUM	N/A	N/A
LOT DEPTH:	100 FEET MINIMUM	83.3 FEET	83.3 FEET
YARD SETBACKS:			
FRONT YARD:	10 FEET	74 FEET	N/A
SIDE YARD:	10 FEET	N/A	N/A
REAR YARD:	20 FEET	0 FEET	N/A
MAX. BUILDING HEIGHT:	35 FEET, 2.5 STORIES	1 STORY	N/A
MAX. BUILDING COVERAGE:	N/A	N/A	N/A

* NO STRUCTURES ARE PROPOSED IN THE T ZONING DISTRICT. THE EXISTING GARAGE ON PARCEL 5954-27-784996 TO BE RAZED.

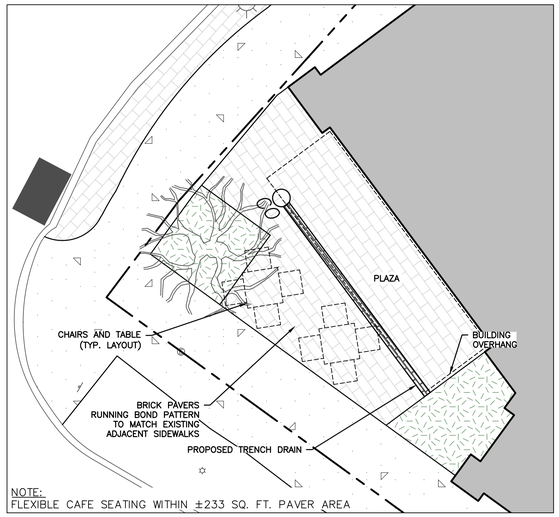
OFF STREET PARKING TABULATION:

USE	CODE REFERENCE	SIZE	REQUIRED SPACES	PROPOSED SPACES
SENIOR CITIZEN:	2 SPACES FOR EACH 3 DWELLING UNITS. PER ARTICLE III GENERAL REGULATIONS § 223-26 F.	9 DWELLING UNITS	2/3 X 9 = 6	
RESIDENTIAL:	1 SPACE PER UNIT. PER ARTICLE IVD (CMS) § 223-41.18 G (2) (a).	9 UNITS	1 X 9 = 9	
RETAIL:	2 SPACES PER 1,000 SF OF FLOOR AREA. PER ARTICLE IVD (CMS) § 223-41.18 G (2) (c).	4,980 SF	2 X 4.9 = 10	
152 MAIN STREET EXISTING RESIDENTIAL:	PER THE APPROVED 1985 SITE PLAN		23	
TOTAL OFF-STREET PARKING:			48	48*

* INCLUDES 2 ADA ACCESSIBLE PARKING SPACES FOR THE 2 CROSS STREET PROJECT, AND 1 ADA ACCESSIBLE PARKING SPACE FOR THE RENOVATED 152 MAIN STREET PARKING LOT.

MAP REFERENCES:

1. BOUNDARY AND TOPOGRAPHICAL SURVEY PER "BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED FOR CROSS STREET PROJECT" AS PREPARED BY JOHNSON SURVEYING DATED MAY 30, 2022.



NOTE:
FLEXIBLE CAFE SEATING WITHIN ±233 SQ. FT. PAVER AREA

PLAZA SITE PLAN CONCEPTUAL LAYOUT

SCALE: 1" = 5'

GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft.

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	7/26/22	PER PLANNING BOARD COMMENTS	ESR				
2	8/29/22	PER PLANNING BOARD COMMENTS	ESR				
3	9/26/22	PER PLANNING BOARD COMMENTS	ESR				

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PH: 845-440-6926
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OVERALL SITE PLAN

TWO CROSS STREET

152 & 172 MAIN STREET; 2 & 4 CROSS STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-27-799966, 774986, 784996 & 808975

JOB #:	2019:036
DATE:	8/27/19
SCALE:	1"=30'
TITLE:	SP-1
SHEET:	3 OF 9

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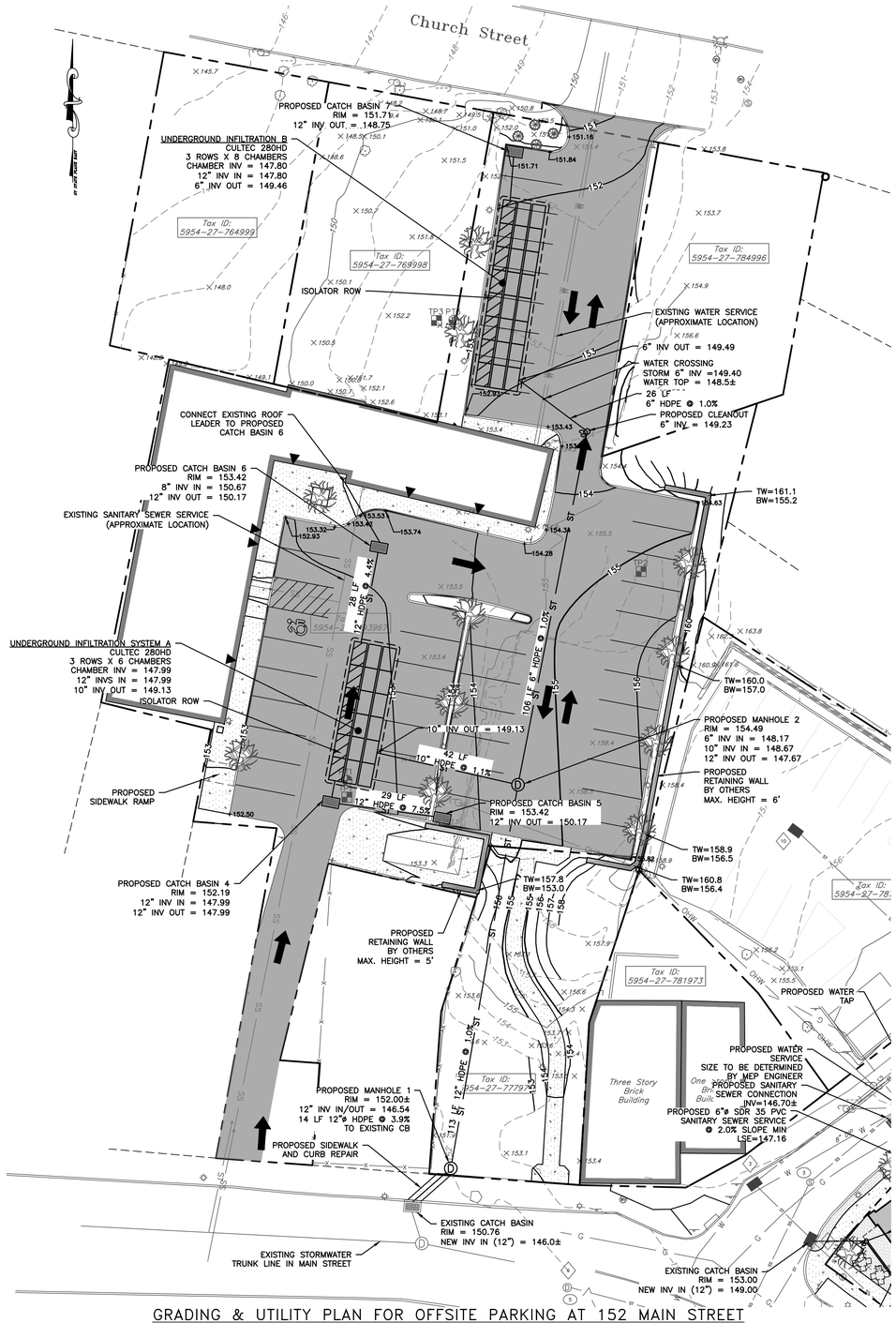
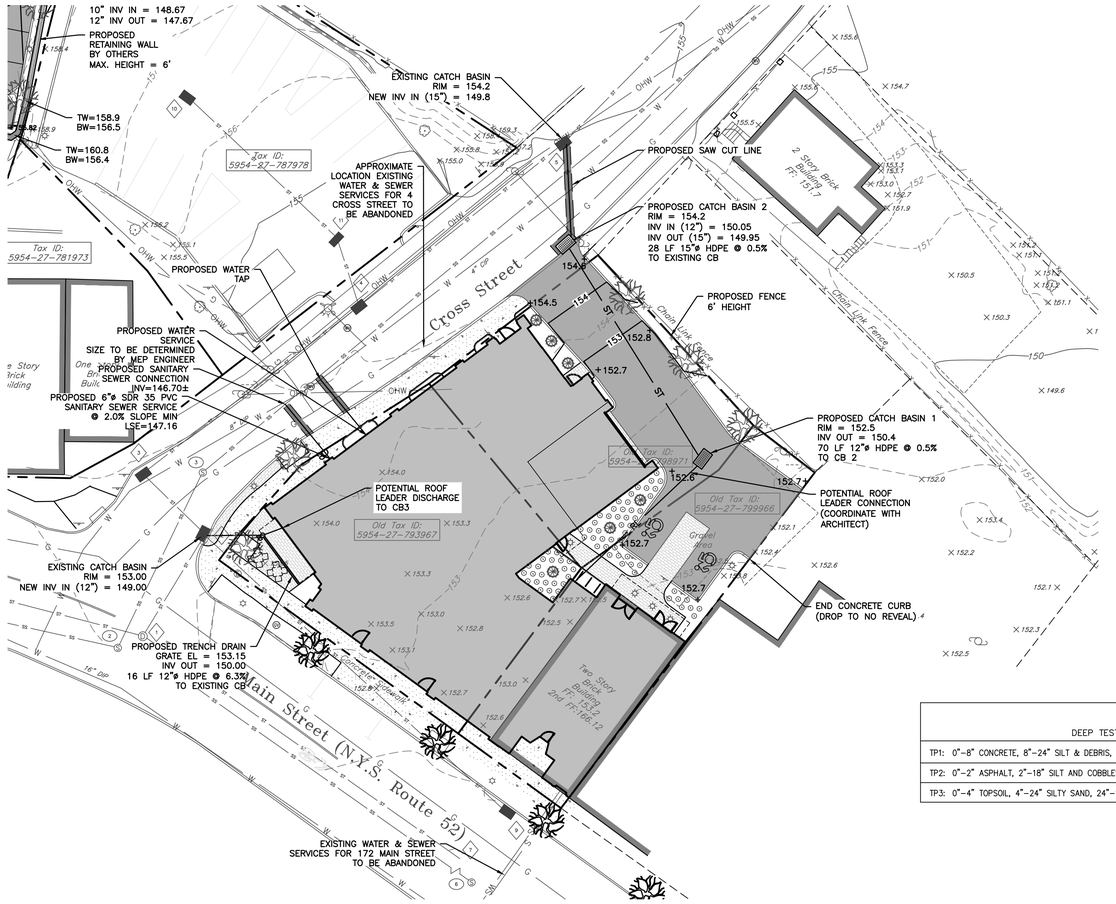


GRADING & UTILITY PLAN FOR OFFSITE PARKING AT 152 MAIN STREET
SCALE: 1" = 20'



GRADING & UTILITY PLAN FOR 2 CROSS STREET
SCALE: 1" = 20'

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- OHW EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- SS SS EXISTING SEWER SERVICE LINE
- S EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- W EXISTING WATER LINE
- WS WS EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- WV EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- RL EXISTING STORM WATER LINE
- EXISTING ROOF LEADER
- EXISTING CATCH BASIN

- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- 250 PROPOSED MAJOR CONTOUR
- 252 PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- S PROPOSED SEWER LINE
- SS SS PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED SDS LATERAL
- PROPOSED SDS SOLID LINE
- ST PROPOSED STORM WATER LINE
- RL PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- W PROPOSED WATER LINE
- WS WS PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- WV PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE

STORMWATER INFILTRATION TEST TABLE:

DEEP TEST HOLE RESULTS ESTABLISHED ON JULY 12, 2022

TEST HOLE #	DEPTH (INCHES)	RESULTS (MINUTES: SECONDS/INCH)
PT1	84	4:26, 4:39, 5:07, 6:18
PT3	84	19:34, 25:47, 31:06

DEEP TEST HOLE TABLE:

DEEP TEST HOLE RESULTS ESTABLISHED ON JULY 12, 2022

TP1: 0"–8" CONCRETE, 8"–24" SILT & DEBRIS, 24"–80" CLAYEY SILT, 80"–108" CLAYEY SILT WITH CLAY. NO SEEPAGE, MOTTLING, OR BEDROCK
TP2: 0"–2" ASPHALT, 2"–18" SILT AND COBBLES. NO SEEPAGE OR MOTTLING, BEDROCK (SHALE) @ 18"
TP3: 0"–4" TOPSOIL, 4"–24" SILTY SAND, 24"–124" SILTY CLAY. NO SEEPAGE, MOTTLING, OR BEDROCK

GRADING NOTES:

1. ALL PROPOSED SPOT ELEVATIONS REPRESENT BOTTOM CURB ELEVATION UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL ENSURE POSITIVE SURFACE WATER FLOW TO THE INTENDED DRAINAGE FACILITIES.
3. SEE ALSO ADA CONSTRUCTION NOTES ON SHEET CV–1.

Storm Sewer Information

◇	Top of Structure	Invert	Invert	Invert	Invert
1	153.3'	144.6' 24" RCP	140.7' 36" RCP	140.5' 36" RCP	
2	153.0'	149.0' 15" RCP	148.9' 30" RCP		
3	153.4'	149.3' 15" RCP	149.3' 15" CPP		
4	154.2'	149.5' 15" CPP	149.5' 15" CPP	149.8' 12" CPP	
5	154.3'	149.8' 15" CPP	149.7' 15" CPP		
6	151.0'	xx	xx		
7	150.9'	142.7' 36" RCP	142.6' 36" RCP		
8	154.7'	150.2' 15" CCP			
9	151.6'	143.6' 15" RCP			
10	154.7'	1151.8' 12" CCP			
11	154.7'	150.4' 12" CCP	150.2' 12" CCP		

Sanitary Sewer Information

◇	Top of Structure	Invert	Invert	Invert	Invert
1	153.0'	144.1' 8" CIP			
2	153.1'	140.3' 12" ACP*	140.1' 12" ACP*		
3	153.6'	146.4' 12" ACP*	146.3' 12" VCP		
4	155.8'	148.7' 12" VCP	148.6' 12" VCP		
5	150.8'	137.9' xx	137.8' xx		
6	151.0'	142.0' xx	141.9' xx		
		*Pipe material from City of Beacon Sewer mapping.			

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REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
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2	3/29/22	PER PLANNING BOARD COMMENTS	CMB				
3	7/26/22	PER PLANNING BOARD COMMENTS	ESR				
4	8/29/22	PER PLANNING BOARD COMMENTS	ESR				
5	9/26/22	PER PLANNING BOARD COMMENTS	ESR				

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GRADING & UTILITY PLAN

TWO CROSS STREET

152 & 172 MAIN STREET; 2 & 4 CROSS STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-27-799966, 774986, 784996 & 808975

JOB #: 2019:036
DATE: 10/29/19
SCALE: 1"=20'
TITLE: GU-1
SHEET: 4 OF 9

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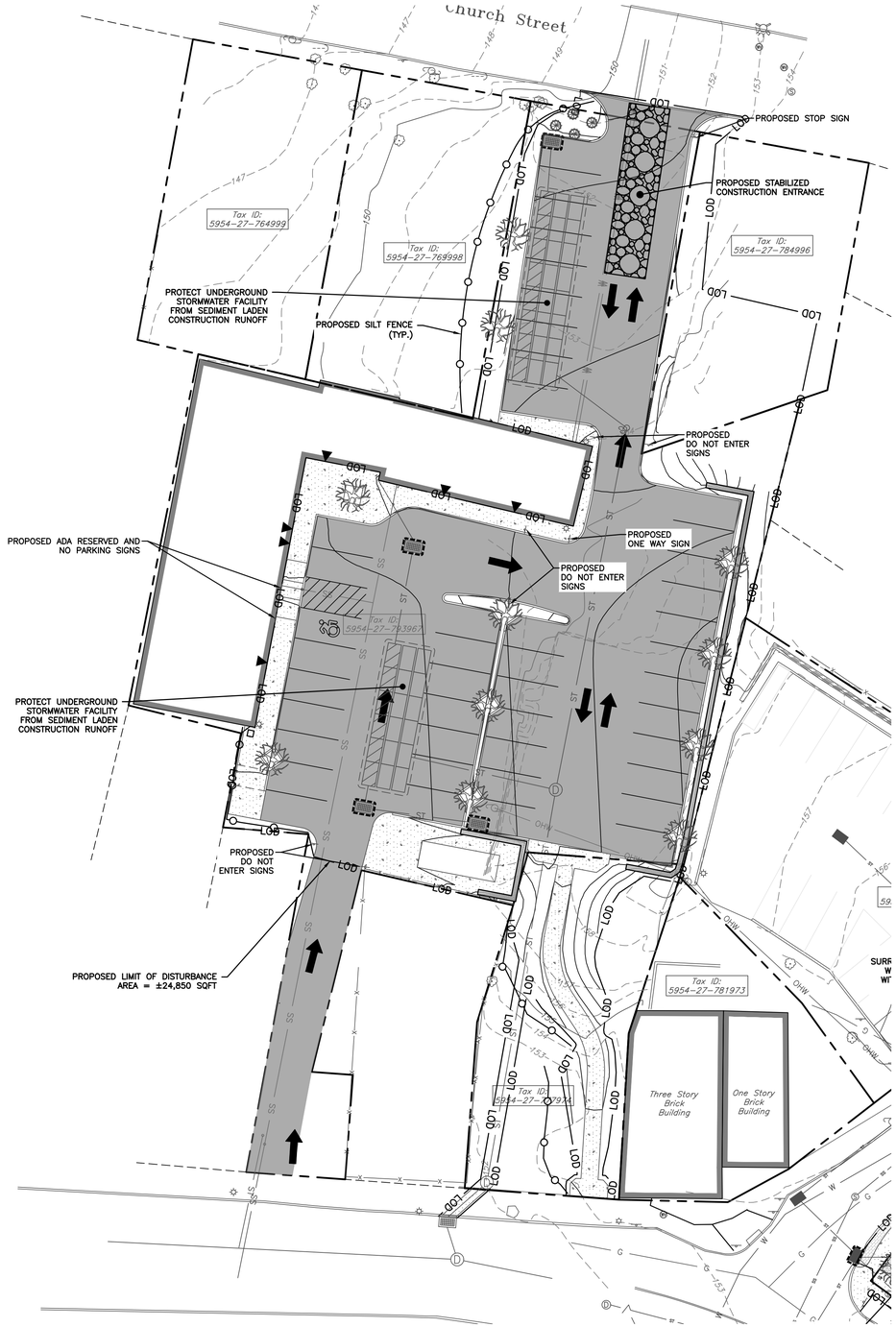
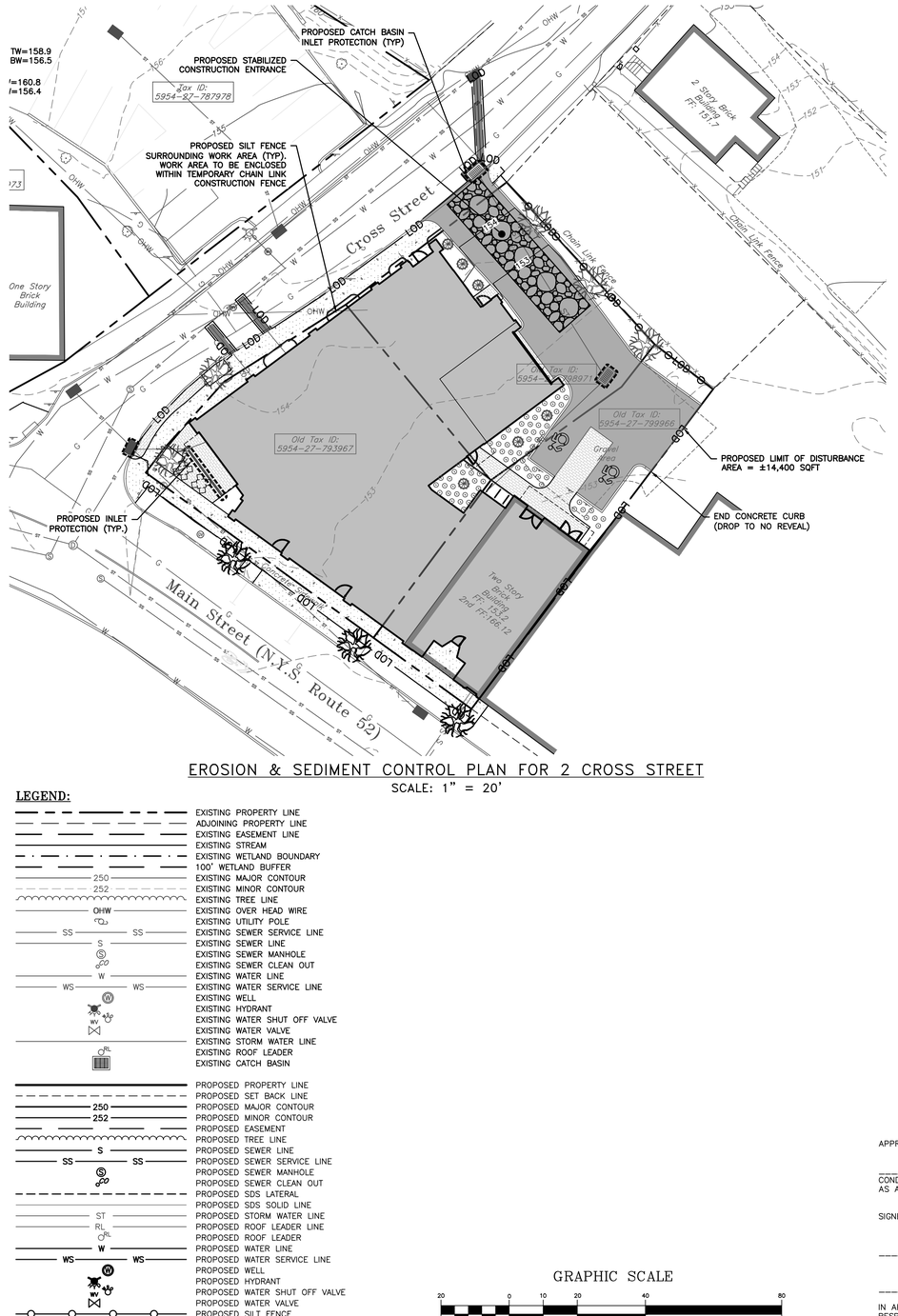


EROSION & SEDIMENT CONTROL PLAN FOR OFFSITE PARKING AT 152 MAIN STREET

SCALE: 1" = 20'



EROSION & SEDIMENT CONTROL PLAN FOR 2 CROSS STREET

SCALE: 1" = 20'

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- OHW EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- SS EXISTING SEWER SERVICE LINE
- S EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- W EXISTING WATER LINE
- WS EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- RL EXISTING ROOF LEADER
- EXISTING CATCH BASIN
- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- 250 PROPOSED MAJOR CONTOUR
- 252 PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- S PROPOSED SEWER LINE
- SS PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED SDS LATERAL
- PROPOSED SDS SOLID LINE
- ST PROPOSED STORM WATER LINE
- RL PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- W PROPOSED WATER LINE
- WS PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE
- PROPOSED SILT FENCE
- LOD PROPOSED LIMIT OF DISTURBANCE
- PROPOSED CATCH BASIN INLET PROTECTION
- PROPOSED CONSTRUCTION ENTRANCE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

INSPECTION SCHEDULE & MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES

PERMANENT AND TEMPORARY VEGETATION:
INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. CHECK FOR MUD, SEDIMENT BUILD-UP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING WET WEATHER. REGRADE PAD AS NEEDED FOR RUNOFF CONTROL. WASH AND REPLACE STONE AS NEEDED. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF SITE BY VEHICLES. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. REMOVE TEMPORARY CONSTRUCTION ENTRANCE AS SOON AS THEY ARE NO LONGER NEEDED TO PROVIDE ACCESS TO THE SITE AS DIRECTED BY PROJECT ENGINEER.

SILT FENCE:
INSPECT FOR DAMAGE EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ONE-QUARTER THE HEIGHT OF THE FENCE. IF FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.

SOIL STOCKPILE:
INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ONE-QUARTER THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCKPILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.

DUST CONTROL:
SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORKS. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WATER). STRUCTURAL MEASURES (MULCH, SEEDING) SHALL BE INSTALLED IN DISTURBED AREAS BEFORE SIGNIFICANT BLOWING PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.

CHECK DAM:
INSPECT CHECK DAMS EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. IF SIGNIFICANT EROSION OCCURS BETWEEN STRUCTURES, A LINER OF STONE OR OTHER SUITABLE MATERIAL SHOULD BE INSTALLED IN THAT PORTION OF THE CHANNEL. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAM AS NEEDED TO ALLOW CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. REPLACE STONES AS NEEDED TO MAINTAIN THE DESIGN CROSS SECTION OF THE STRUCTURES. REMOVE CHECK DAMS AS PER APPROVAL OF THE PROJECT ENGINEER.

EROSION CONTROL BLANKET:
INSPECT THE BLANKET EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. REPLACE WIRE STAPLES AS REQUIRED. REPAIR AND RESEED WHERE CRACKS AND DAMAGED VEGETATION IS EVIDENT. WHEN DAMAGED BEYOND REPAIR OR NO LONGER FUNCTIONING, THE BLANKET SHALL BE REPLACED.

DEWATERING PITS:
(IF REQUIRED) – INSPECT DAILY DURING OPERATION FOR CLOGGING OR OVERFLOW. CLEAR INLET AND DISCHARGE PIPES OF OBSTRUCTIONS. IF A FILTER MATERIAL BECOMES CLOGGED WITH SEDIMENT, PIT SHALL BE DISMANTLED AND NEW PITS SHALL BE CONSTRUCTED AS NEEDED.

SEDIMENT TRAP:
SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO THE ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF OF THE DESIGN DEPTH OF THE TRAP. SEDIMENT REMOVED FROM THE TRAP SHALL BE DEPOSITED IN A PROTECTED AREA IN SUCH A MANNER THAT IT WILL NOT ERODE.

CATCH BASINS:
ALL CATCH BASINS SHALL BE INSPECTED AFTER EACH STORM EVENT FOR SEDIMENT ACCUMULATION, AND DEBRIS, AND REMOVE AS NECESSARY. THE INLET PROTECTION SHALL BE INSPECTED FOR SEDIMENT ACCUMULATION AND REPLACED AS NECESSARY. WHEN SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN SUMP REACHES 1/2 OF THE SUMP DEPTH, IT SHALL BE REMOVED.

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EROSION & SEDIMENT CONTROL PLAN

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SCALE:	1"=20'
TITLE:	EC-1
SHEET:	5 OF 9

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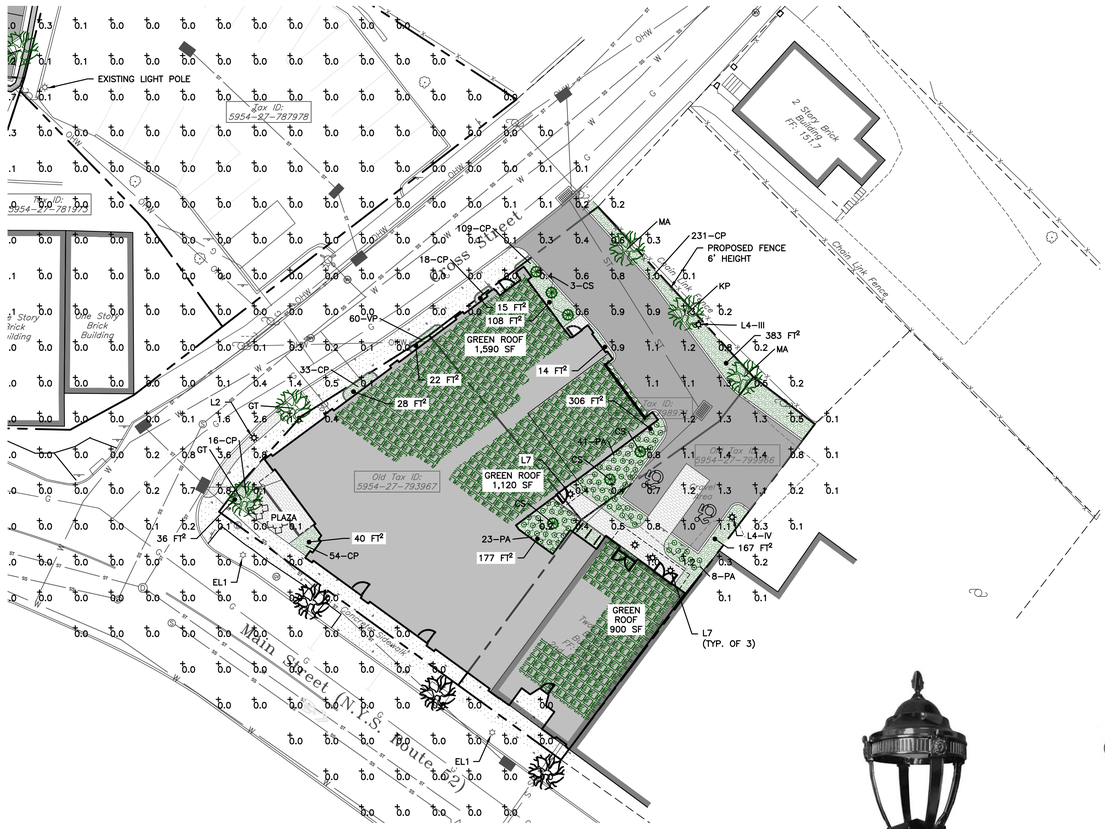
LIGHTING & LANDSCAPING PLAN FOR OFFSITE PARKING AT 152 MAIN STREET

SCALE: 1" = 20'



LIGHTING & LANDSCAPING PLAN FOR 2 CROSS STREET

SCALE: 1" = 20'

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR
- EXISTING TREE LINE
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- SS SS EXISTING SEWER SERVICE LINE
- S EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- W EXISTING WATER LINE
- WS WS EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING ROOF LEADER
- EXISTING CATCH BASIN

- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- 250 PROPOSED MAJOR CONTOUR
- 252 PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- S PROPOSED SEWER LINE
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- PROPOSED ROOF LEADER
- W PROPOSED WATER LINE
- WS WS PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE

PROPOSED LIGHT "L2"

NOT TO SCALE



PROPOSED LIGHT "L4"

NOT TO SCALE



PROPOSED LIGHT "L6"

NOT TO SCALE

LANDSCAPING NOTES:

1. NEW BRICK WALK INFILL, SPECIFICATION TO MATCH EXISTING ADJACENT BRICK PAVING.
2. CONTAINER PLANTS AND FURNITURE, SPECIFICATIONS TO BE DETERMINED.
3. PERENNIAL PLANTING BED, SPECIES AND SPECIFICATIONS TO BE DETERMINED.
4. BUFFER PLANTER BED,PERENNIAL AND SHRUBS,
5. SPECIES AND SPECIFICATIONS TO BE DETERMINED.
6. PAVED WALKS WITH CONTAINER GARDEN, SPECIES AND SPECIFICATIONS TO BE DETERMINED.
7. PERMEABLE GRAVEL BEDS, SPECIFICATIONS TO BE DETERMINED.
8. LAWN, SEED MIX AND SPECIFICATIONS TO BE DETERMINED.
9. NEW TREE PIT TO MATCH EXISTING ADJACENT TREE PITS. NEW 3-INCH CALIPER DECIDUOUS TREE.
10. GREEN ROOF PLANTING: MIX OF SEDUMS IN CONTINUOUS TRAYS WITH GROWING MEDIA APPROXIMATELY 4" DEEP. SPECIES MIX INCLUDING COMBINATION OF SEDUM ALBUM, SEDUM ACRE, SEDUM KAMTSCHATICUM ELLACOMBIANUM, SEDUM PULCHELLUM MICHAUX, SEDUM REFLEXUM, AND SEDUM SPURIUM.
11. ROOF PLANTERS: MIX OF ANNUAL, PERENNIAL AND SHRUB PLANTINGS IN LINED BOXES WITH BOTH ELEVATED AND DECK-MOUNTED LOCATIONS. CEDAR, CYPRESS OR SIMILAR DECAY-RESISTANT WOOD ENCLOSURES. SPECIES TO INCLUDE: THUJA, SEDGE, HYACINTH, PRIMROSE, BEGONIA.

PLANTING SCHEDULE

TREES

KEY	QTY	BOTANICAL NAME	COMMON NAME	CALIPER	SPACING
KP	7	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	3 INCH (DBH)	AS SHOWN
MA	7	MAACKIA AMURENSIS	AMUR MAACKIA	3 INCH (DBH)	AS SHOWN
GT	2	GLEDITSIA TRIACANTHOS INERMIS	HONEY LOCUST	3 INCH (DBH)*	AS SHOWN

*NOTE – THE STREET TREE AT THE PLAZA SHALL BE 6" CALIPER

SHRUBS/GRASSES

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
CS	10	CORNUS SERICEA	RED TWIG DOGWOOD	36"-48"	AS SHOWN
PA	72	POLYSTICUM ARCOSTICHOIDES	CHRISTMAS FERN	1 GALLON	30"
VP	60	VIOLA PEDATA	BIRD'S FOOT VIOLET	4" POT	9"
CP	461	CAREX PENNSYLVANICA	PENNSYLVANIA SEDGE	PLUG	12"

LIGHTING NOTES:

EL1 EXISTING DECORATIVE POLE LIGHT
L2 NEW DECORATIVE POLE
L4 NEW POST MOUNTED PARKING LOT LIGHT
EL5 EXISTING WALL MOUNTED PARKING LOT LIGHT
L6 NEW WALL MOUNTED PARKING LOT LIGHT
L7 NEW SOFFIT MOUNTED LIGHT

GENERAL:

1. ALL LIGHTING SHALL BE DARK SKY COMPLIANT WITH CUTOFF SHIELDS AS NOTED.
2. ILLUMINATION IN FOOT-CANDLES, ONLY CONSIDERS PROPOSED LIGHTING.
3. EXISTING LIGHTING LEVELS ALONG MAIN STREET NOT MODELED. PER THE 2022 DRAFT MAIN STREET ACCESS COMMITTEE ADVISORY REPORT, THIS AREA OF MAIN STREET WAS CONSIDERED TOO BRIGHT. IN THE EVENT THAT SAFE LIGHTING LEVELS ARE NOT OBTAINED AFTER CONSTRUCTION, THE STOREFRONTS MAY NEED TO SUPPLEMENT ENTRY LIGHTING.

Luminaire Schedule

Label	Qty	Arrangement	Lum. Lumens	Lum. Watts	Arr. Watts	Total Watts	Color Temp./CRI	LLD	LDD	BF	LLF	BUG Rating	Description
L2	2	SINGLE	4300	41	41	82	3000K / 80	0.950	0.950	1.000	0.451	B1-U2-G1	SLR-NG-NB-(2)LEDV18C-0.7A-830-KH13-COLOR
L4-III	1	SINGLE	3822	34	34	34	3000K / 80	0.950	0.950	1.000	0.903	B0-U0-G1	MSA-SA1A-830-U-SL3-HSS
L4-IV	5	SINGLE	3044	34	34	170	3000K / 80	0.950	0.950	1.000	0.903	B0-U0-G1	MSA-SA1A-830-U-SL4-HSS
L4-VW	2	SINGLE	3948	34	34	68	3000K / 80	0.950	0.950	1.000	0.903	B3-U0-G1	MSA-SA1A-830-U-SWQ
L6	3	SINGLE	1785	18.2	18.2	54.6	3000K / 80	0.950	0.950	1.000	0.903	B0-U0-G1	CCW-SA-830-1B-U-SL2-HSS

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION, ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	2/21/22	REVISED BUILDING & LAYOUT	DGK				
2	3/29/22	PER PLANNING BOARD COMMENTS	CMB				
3	7/26/22	PER PLANNING BOARD COMMENTS	ESR				
4	8/29/22	PER PLANNING BOARD COMMENTS	ESR				
5	9/26/22	PER PLANNING BOARD COMMENTS	ESR				

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STATE OF NEW YORK DANIEL G. KOENIG 082716 LICENSED PROFESSIONAL ENGINEER

SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

LIGHTING & LANSCAPING PLAN

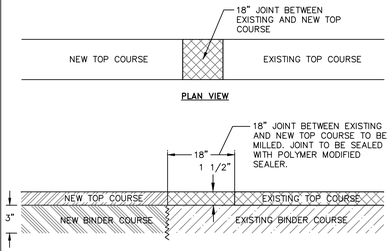
TWO CROSS STREET

152 & 172 MAIN STREET; 2 & 4 CROSS STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-27-799966, 774986, 784996 & 808975

JOB #:	2019:036
DATE:	10/29/19
SCALE:	1"=20'
TITLE:	LT-1
SHEET:	6 OF 9

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

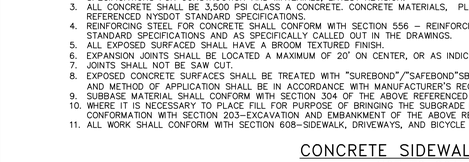
SITE DETAILS



NOTES:

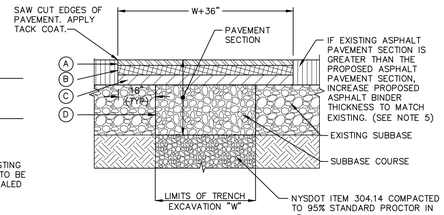
1. 3" BINDER COURSE AND 1½" TOP COURSE TO BE USED FOR RESTORATION OF PAVEMENT WITHIN CITY ROADS.
2. EXCAVATIONS ARE TO BE SAW CUT SMOOTH, ALL EDGES TACK COATED, AND ALL SEAMS SEALED WITH A HOT POLYMER MODIFIED CRACK SEALANT.
3. IF EXISTING ASPHALT PAVEMENT DEPTH IS GREATER THAN THE PROPOSED ASPHALT PAVEMENT SECTION, INCREASE PROPOSED ASPHALT BINDER THICKNESS TO MATCH EXISTING.

MILLED KEYWAY DETAIL
NOT TO SCALE



NOTE:
THE CONCRETE PAVER DRIVE SHALL SUPPORT A MINIMUM OF 75,000 POUNDS PER APPENDIX "D" OF THE 2015 INTERNATIONAL BUILDING CODE

CONCRETE PAVER DETAIL
NOT TO SCALE



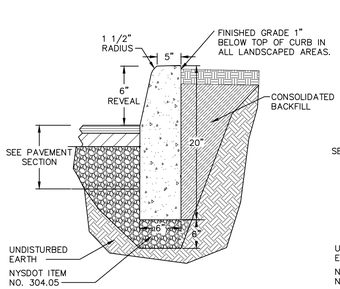
LEGEND

(A) 1-1/2" ASPHALT CONCRETE TOP COURSE- NYSDOT TYPE 6F
(B) 3" ASPHALT CONCRETE BINDER COURSE- NYSDOT TYPE 3
(C) 3" ASPHALT CONCRETE BASE COURSE- NYSDOT TYPE 1
(D) 6" GRANULAR SUBBASE COURSE- NYSDOT ITEM 304.12

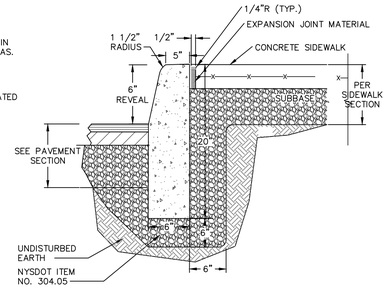
NOTES:

1. SAW CUT MIN. 18" BEYOND EXCAVATION WITH SMOOTH EDGES. 18" JOINT BETWEEN EXISTING AND NEW TOP COURSE TO BE MILLED. JOINT TO BE SEALED WITH POLYMER MODIFIED SEALER.
2. FURNISH, PLACE, AND COMPACT SUBBASE.
3. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.
4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.

PAVEMENT RESTORATION DETAIL
NOT TO SCALE



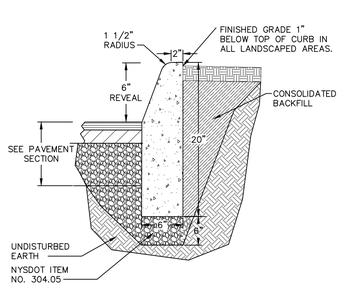
ABUTTING GRASS OR LANDSCAPE



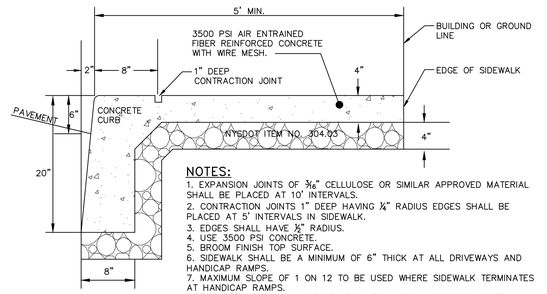
ABUTTING SIDEWALK

NOTES:
1. CONCRETE CURB SHALL BE 4,000 PSI CAST-IN-PLACE, AND IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION SECTION 609.
2. EXPANSION JOINTS OF 1/2" CELLULOSE OR SIMILAR MATERIAL SHALL BE PLACED AT 10 FOOT INTERVALS.
3. FOR MOUNTABLE CURBS ABUTTING SIDEWALK OR OTHER HARDSCAPE, REFER TO "ABUTTING SIDEWALK" DETAIL.

CAST-IN-PLACE CONCRETE CURB DETAIL
NOT TO SCALE

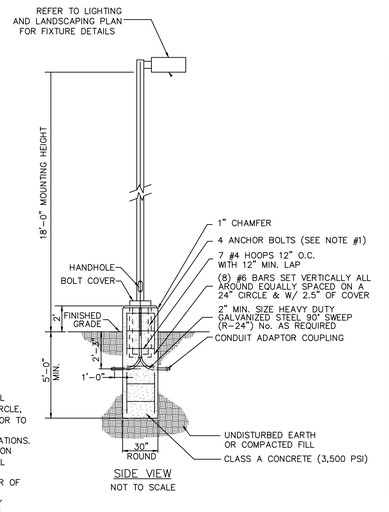


MOUNTABLE CURB
ABUTTING GRASS OR LANDSCAPE
NOT TO SCALE



NOTES:
1. EXPANSION JOINTS OF 3/16" CELLULOSE OR SIMILAR APPROVED MATERIAL SHALL BE PLACED AT 10' INTERVALS.
2. CONTRACTION JOINTS 1" DEEP HAVING ¼" RADIUS EDGES SHALL BE PLACED AT 5' INTERVALS IN SIDEWALK.
3. EDGES SHALL HAVE ½" RADIUS.
4. USE 3500 PSI CONCRETE.
5. BROOM FINISH TOP SURFACE.
6. SIDEWALK SHALL BE A MINIMUM OF 6" THICK AT ALL DRIVEWAYS AND HANDICAP RAMPS.
7. MAXIMUM SLOPE OF 1 ON 12 TO BE USED WHERE SIDEWALK TERMINATES AT HANDICAP RAMPS.
8. THE SIDEWALKS SHALL BE SEALED WITH A SEALING COMPOUND TO PROTECT AGAINST DE-ICING AGENTS.

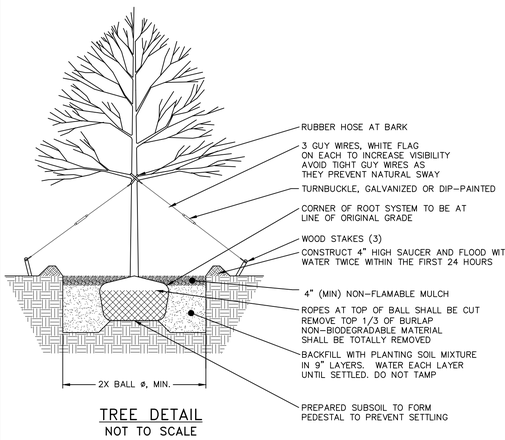
MONOLITHIC CURB AND SIDEWALK DETAIL
FOR SIDEWALKS ALONG CITY STREET
NOT TO SCALE



NOTES
1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHECK AND VERIFY ALL ANCHOR BOLT DIMENSIONS (SIZE, BOLT CIRCLE, ETC.) WITH THE POLE MANUFACTURER PRIOR TO INSTALLATION OF THE FOUNDATIONS.
2. CHAMFER EXPOSED EDGES OF ALL FOUNDATIONS.
3. PROVIDE INSULATED GROUNDING BUSHING ON EXPOSED ENDS (IN BASE OF POLE) OF ALL GALVANIZED STEEL SWEEPS.
4. COLOR OF LUMINAIRE SHALL MATCH COLOR OF POLE.
5. THE LIGHT SOURCE SHALL BE COMPLETELY SHIELDED TO PREVENT HORIZONTAL GLARE.

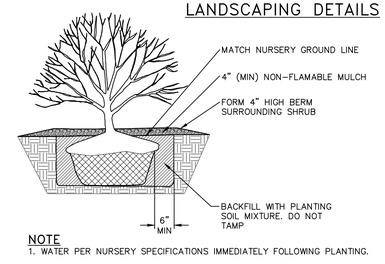
SIDE VIEW
NOT TO SCALE

POLE AND LUMINARE DETAIL
NOT TO SCALE



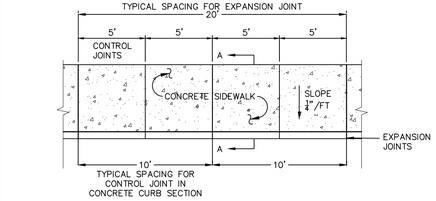
TREE DETAIL
NOT TO SCALE

LANDSCAPING DETAILS

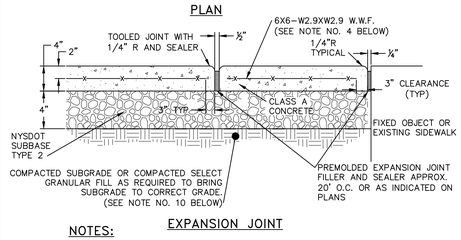


NOTE
1. WATER PER NURSERY SPECIFICATIONS IMMEDIATELY FOLLOWING PLANTING.
2. DETAIL IS FOR BOTH BALL & BURLAPPED OR CONTAINERED SHRUBS.

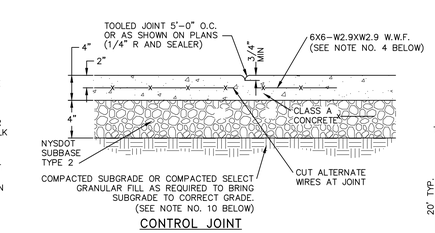
SHRUB PLANTING DETAIL
NOT TO SCALE



PLAN



EXPANSION JOINT

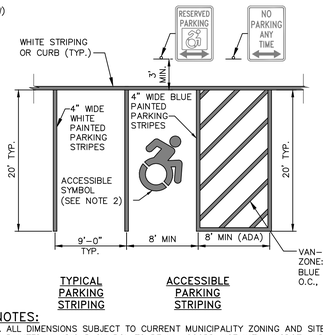


CONTROL JOINT

NOTES:
1. 10' SPACING OF CONTROL JOINTS SHALL BE USED FOR CAST IN PLACE CONCRETE CURBS.
2. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, LATEST REVISION.
3. ALL CONCRETE SHALL BE 3,500 PSI CLASS A CONCRETE. CONCRETE MATERIALS, PLACEMENT, AND CONSTRUCTION SHALL CONFORM WITH SECTION 500 OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
4. REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH SECTION 556 – REINFORCING STEEL FOR CONCRETE STRUCTURES OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND AS SPECIFICALLY CALLED OUT IN THE DRAWINGS.
5. ALL EXPOSED SURFACED SHALL HAVE A BROOM TEXTURED FINISH.
6. EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20' ON CENTER, OR AS INDICATED ON PLANS.
7. JOINTS SHALL NOT BE SAW CUT.
8. EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH "SUREBOND"/"SAFEBOND"SB-7000 INTENSIFIER BRIGHT PROTECTOR AND SIDEWALK SEALER, OR EQUAL. RATE AND METHOD OF APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
9. SUBBASE MATERIAL SHALL CONFORM WITH SECTION 304 OF THE ABOVE REFERENCED NYSDOT STANDARD.
10. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMATION WITH SECTION 203-EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
11. ALL WORK SHALL CONFORM WITH SECTION 608-SIDEWALK, DRIVEWAYS, AND BICYCLE PATHS OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.

CONCRETE SIDEWALK DETAIL
NOT TO SCALE

SECTION A-A

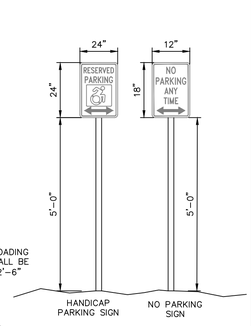


TYPICAL PARKING STRIPING

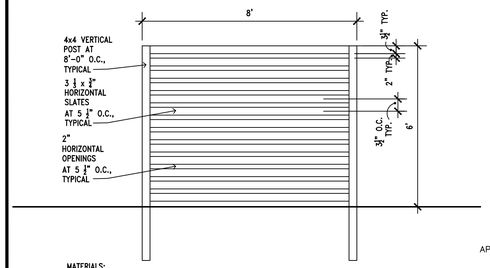
ACCESSIBLE PARKING STRIPING

NOTES:
1. ALL DIMENSIONS SUBJECT TO CURRENT MUNICIPALITY ZONING AND SITE REGULATIONS.
2. PAINTED HANDICAP SYMBOL TO BE IN ACCORDANCE WITH NYSDOT AND ADA STANDARDS.
3. IF PARKING ABUTS A SIDEWALK, THEN THE REGULATORY SIGNS SHALL BE PLACED BEHIND THE SIDEWALK.
4. PARALLEL SPACES SHALL BE 10'W X 20L'.

PARKING AND STRIPING DETAIL
NOT TO SCALE



SIGN DETAILS
NOT TO SCALE



MATERIALS:
- ALL VERTICAL POSTS AND HORIZONTAL SLATES TO BE STAINED CEDAR.
- ALL FASTENERS TO BE GALVANIZED OR STAINLESS STEEL.

6' HEIGHT FENCE DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	2/21/22	REVISED BUILDING & LAYOUT	DGK				
2	3/29/22	PER PLANNING BOARD COMMENTS	CMB				
3	7/26/22	PER PLANNING BOARD COMMENTS	ESR				
4	8/29/22	PER PLANNING BOARD COMMENTS	ESR				
5	9/26/22	PER PLANNING BOARD COMMENTS	ESR				

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13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

CONSTRUCTION DETAILS 1

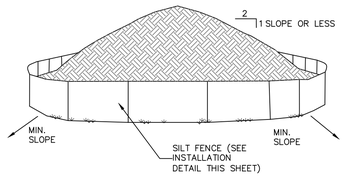
TWO CROSS STREET

152 & 172 MAIN STREET; 2 & 4 CROSS STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-27-799966, 774986, 784996 & 808975

JOB #: 2019:036
DATE: 10/29/19
SCALE: AS SHOWN
TITLE: CD-1
SHEET: 7 OF 9

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

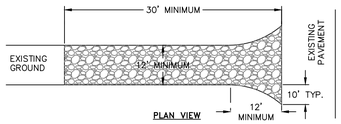
EROSION AND SEDIMENT CONTROL DETAILS



NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.

TEMPORARY SOIL STOCKPILE DETAIL
NOT TO SCALE



NOTES:

1) STONE SIZE – USE 1–4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.

2) LENGTH – NOT LESS THAN 30 FEET FOR A SINGLE RESIDENCE LOT.

3) THICKNESS – NOT LESS THAN SIX (6) INCHES.

4) WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.

5) GEOTEXTILE – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.

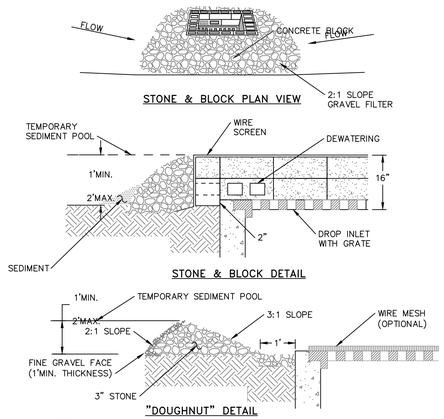
6) SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

7) MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.

8) WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

9) PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

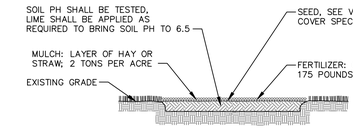
STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



NOTES:

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2–3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS. MAXIMUM DRAINAGE AREA 1 ACRE

CATCH BASIN INLET PROTECTION DETAIL
NOT TO SCALE



NOTES:

1. TOPSOIL, SEED, MULCH, AND FERTILIZE DISTURBED SOIL AREAS THAT WILL BE LEFT EXPOSED FOR 14 DAYS OR MORE.
2. SEED MIXTURE FOR USE ON LAWNS IN SUNNY AREAS:

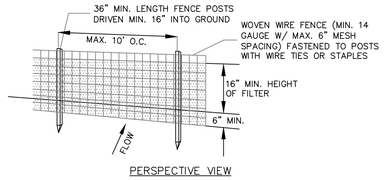
65% KENTUCKY BLUE GRASS BLEND	114 POUNDS PER ACRE
20% PERENNIAL RYEGRASS	35 POUNDS PER ACRE
15% FINE FESCUE	26 POUNDS PER ACRE
	175 POUNDS PER ACRE

3. SEED MIXTURE FOR USE IN SHADY AREAS:

80% BLEND OF SHADE TOLERANT	
KENTUCKY BLUEGRASS	138 POUNDS PER ACRE
20% FINE FESCUE	37 POUNDS PER ACRE
	175 POUNDS PER ACRE

4. SEED BETWEEN APRIL 1ST AND MAY 15TH OR AUGUST 15TH AND OCTOBER 15TH. SEEDING MAY OCCUR BETWEEN MAY 15TH AND AUGUST 15TH IF ADEQUATE IRRIGATION IS PROVIDED.
5. TOPSOIL SHALL HAVE AT LEAST 6% BY WEIGHT OF FINE TEXTURED STABLE ORGANIC MATERIAL, AND NO GREATER THAN 20%. TOPSOIL SHALL HAVE NOT LESS THAN 20% FINE TEXTURED MATERIAL (PASSING THE NO. 200 SIEVE) AND NOT MORE THAN 15% CLAY.

TOPSOIL, SEED AND MULCH DETAIL
NOT TO SCALE

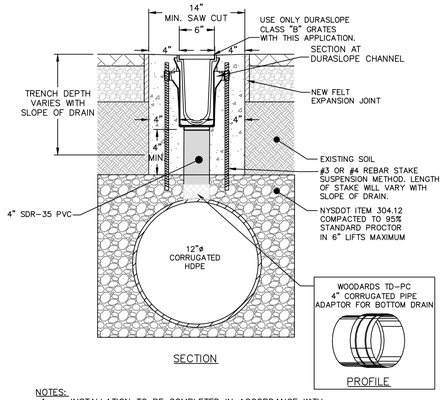


NOTES:

1. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER–LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
3. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE OR APPROVED EQUAL.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL
NOT TO SCALE

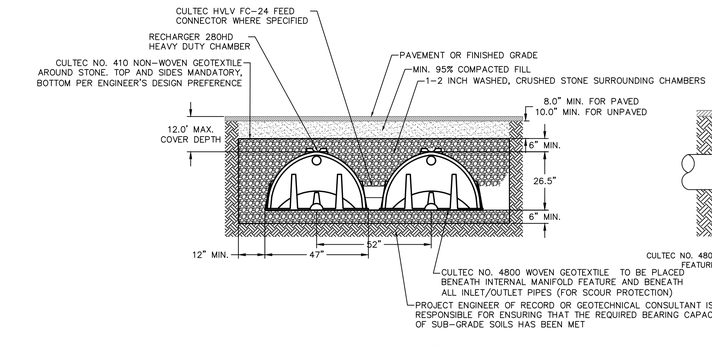
STORMWATER DETAILS



NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. TRENCH DRAIN SHALL BE NDS DURA–SLOPE TRENCH DRAIN, CLASS B LOADING, MODEL NUMBER: DS–091N OR APPROVED EQUAL.
3. PIPE ADAPTOR FOR BOTTOM DRAIN SHALL BE WOODARDS 4" CORRUGATED PIPE ADAPTOR, MODEL NUMBER: TD–PC OR APPROVED EQUAL.

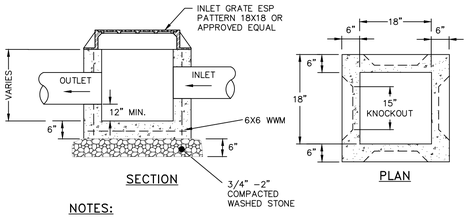
NDS DURA–SLOPE TRENCH DRAIN WITH CONNECTION TO STORMWATER CONVEYANCE
NOT TO SCALE



NOTES:

1. CULTEC RECHARGER 280HD CHAMBERS BY CULTEC, INC. OF BROOKFIELD, CT. ALL CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH CULTEC INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
2. THE BED OF THE SYSYTEM FOOTPRINT SHALL BE LAID NEARLY LEVEL.
3. THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IF SUBSURFACE CONDITIONS IN THE AREAS OF THE INFILTRATOR TRENCHES IS NOT CONSISTENT WITH THE TEST PIT OR PERCOLATION DATA (E.G. GROUNDWATER OR BEDROCK ENCOUNTERED, SOIL PROPERTIES ARE NOT CONSISTENT, ETC.).
4. THE FOOTPRINT OF THE STONE SHALL BE 37'LX10.33'WX38.5" DEEP.

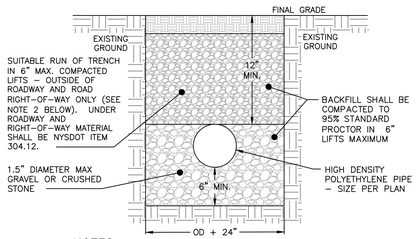
UNDERGROUND DETENTION SYSTEM DETAIL
NOT TO SCALE



NOTES:

1. YARD INLET BASINS SHALL BE PRE CAST REINFORCED CONCRETE SHALL HAVE A MINIMUM 28–DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND SHALL BE IN CONFORMANCE WITH ASTM 478–68. WALLS AND BASE SHALL BE ONE PIECE CONSTRUCTION. YARD INLET BASIN SHOWN BY EXPANDED SUPPLY PRODUCTS (ESP), 3330 ROUTE 9, COLD SPRING, NY (845) 265–3771.
2. BACKFILL USING SELECT MATERIAL, COMPACTED IN 6" LIFTS.
3. SUMP SHALL BE 12".
4. FRAMES AND GRATES SHALL BE SET IN A FULL BED OF MORTAR.

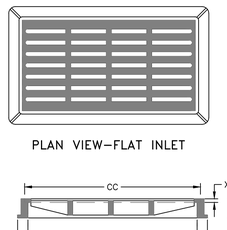
PRE–CAST CONCRETE YARD INLET DETAIL
NOT TO SCALE



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

STORM LINE TRENCH DETAIL
NOT TO SCALE



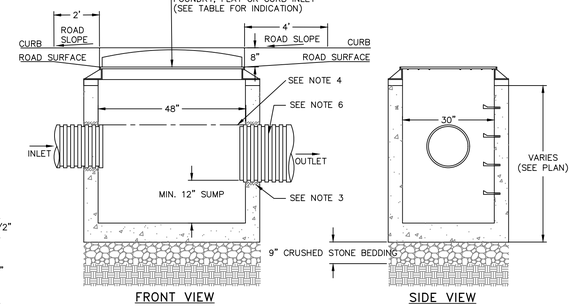
DIMENSION TABLE:

B	C	E	F	X	BB	CC	FF
30"	24"	4"	22"	1"	41"	36"	34"

NOTES:

1. HEAVY DUTY RECTANGULAR STORMWATER FLAT INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 3433, OR APPROVED EQUAL.
2. HEAVY DUTY RECTANGULAR STORMWATER CURB INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 2541, OR APPROVED EQUAL.
3. ALL CASTINGS LOCATED IN THE CITY RIGHT–OF–WAY SHALL BE DOMESTICALLY MADE.

CAST IRON STORMWATER FLAT AND CURB INLET GRATE DETAIL
NOT TO SCALE



NOTES:

1. PRECAST CONCRETE CATCH BASIN WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.
2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE CATCH BASIN AND PARGED AROUND.
3. PIPES SHALL BE PARGED AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN 10 FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATERTIGHT.
4. PROVIDE A MINIMUM 0.1' DROP BETWEEN INLET AND OUTLET INVERTS (MATCH CROWNS FOR PIPES WITH DIFFERENT SIZE) UNLESS OTHERWISE NOTED ON THE PLAN.
5. CATCH BASINS WITH AN INTERIOR DEPTH OF 4' AND GREATER SHALL BE FURNISHED WITH STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS AT 12" INTERVALS.
6. HDPE PIPE SHALL BE PROVIDED WITH WATERTIGHT CONNECTIONS. ADS MODEL N12 WT IB OR APPROVED EQUAL.

CATCH BASIN DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____ SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____ BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB | CHECKED BY: DGK

REVISIONS:

NO.	DATE	DESCRIPTION	BY
1	2/21/22	REVISED BUILDING & LAYOUT	DGK
2	3/29/22	PER PLANNING BOARD COMMENTS	CMB
3	7/26/22	PER PLANNING BOARD COMMENTS	ESR
4	8/29/22	PER PLANNING BOARD COMMENTS	ESR
5	9/26/22	PER PLANNING BOARD COMMENTS	ESR

REVISIONS:

NO.	DATE	DESCRIPTION	BY

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SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845–440–6926
F: 845–440–6637

CONSTRUCTION DETAILS 2

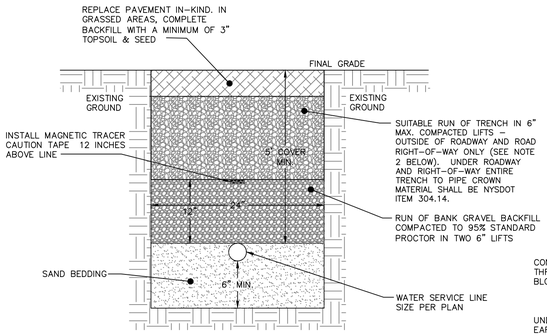
TWO CROSS STREET

152 & 172 MAIN STREET; 2 & 4 CROSS STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954–27–799966, 774986, 784996 & 808975

JOB #: 2019:036
DATE: 10/29/19
SCALE: AS SHOWN
TITLE: CD–2
SHEET: 8 OF 9

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

WATER & SEWER DETAILS



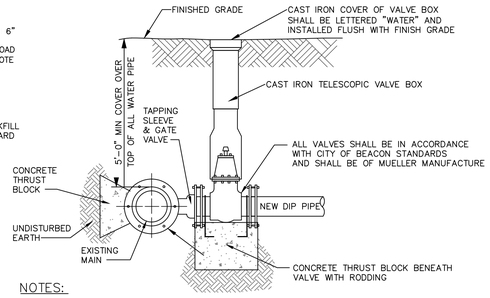
NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, ENLOGATED PARTICLES, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.

3. IN AREAS WHERE 5' COVER REQUIREMENT CANNOT BE MET, THE CONTRACTOR SHALL PROVIDE PIPE INSULATION TO PREVENT FREEZING.

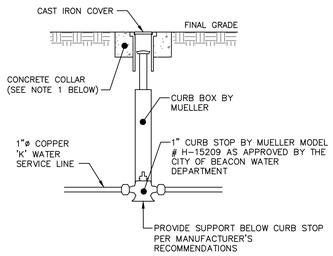
WATER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



NOTES:

1. ALL VALVES SHALL OPEN BY TURNING LEFT (COUNTERCLOCKWISE) AND HAVE A 2-INCH SQUARE-OPERATING NUT PAINTED RED.
2. ALL VALVES SHALL BE M.J. RESILIENT WEDGE TYPE WITH "O" RING PACKING, DESIGNED FOR A WORKING PRESSURE OF 150 PSI AND BE IN FULL CONFORMANCE WITH AWWA C500.
3. TAPPING SLEEVE AND GATE VALVE SHOWN ARE MUELLER H-615, AND T-2631 RESPECTIVELY.
4. ALL VALVE BOXES LOCATED IN THE CITY RIGHT-OF-WAY SHALL BE DOMESTICALLY MADE.

TAPPING SLEEVE DETAIL
NOT TO SCALE



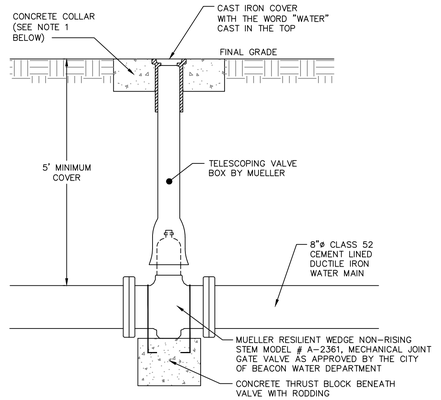
NOTES:

1. CONCRETE COLLAR TO BE PROVIDED IN AREAS THAT ARE NOT PAVED. THE COLLAR SHALL BE 6" FROM THE COVER AND SHALL EXTEND 6" BELOW FINAL GRADE.

2. CURB STOP TO BE COMPRESSION TYPE BY MUELLER.

3. AREA AROUND CURB BOX TO BE BACKFILLED WITH GRAVELLY MATERIAL.

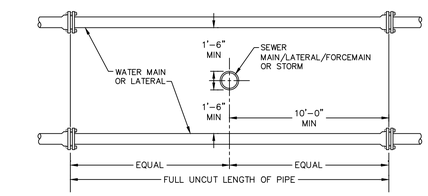
WATER SHUT-OFF VALVE DETAIL
NOT TO SCALE



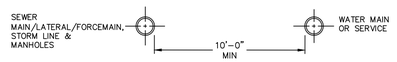
NOTES:

1. CONCRETE COLLAR TO BE PROVIDED IN AREAS THAT ARE NOT PAVED. THE COLLAR SHALL BE 6" FROM THE COVER AND SHALL EXTEND 6" BELOW FINAL GRADE.
2. ALL VALVE BOXES LOCATED IN THE CITY RIGHT-OF-WAY SHALL BE DOMESTICALLY MADE.

GATE VALVE DETAIL
NOT TO SCALE



VERTICAL SEPARATION

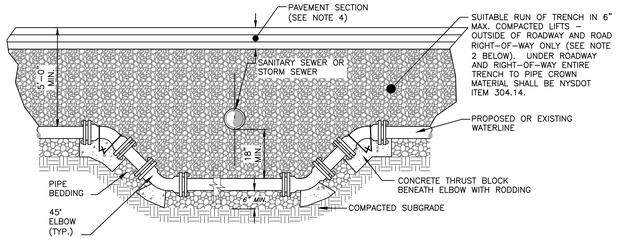


HORIZONTAL SEPARATION

NOTE:

1. NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE EXPRESS APPROVAL OF THE DUTCHESS COUNTY DEPARTMENT OF HEALTH AND THE CITY OF BEACON. CONCRETE ENCASEMENT OF WATERLINE OR OFFSETTING OF WATERLINE SHALL BE REQUIRED WHERE SEPARATION DISTANCES CANNOT BE MAINTAINED.

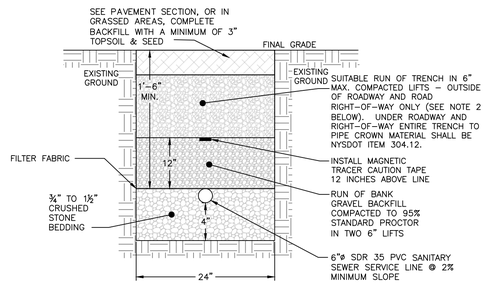
WATER LINE SEPARATION DETAIL
NOT TO SCALE



NOTES:

1. WHEN THE ELEVATION OF THE SANITARY OR STORM SEWER CAN NOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER SERVICE LINE OR MAIN SHALL BE RELOCATED TO PROVIDE THIS REQUIRED SEPARATION OR RECONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF TEN (10) FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATERMAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR AWAY FROM THE SEWER AS POSSIBLE.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, ENLOGATED PARTICLES, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.
3. THE RELOCATED WATER MAIN/SERVICE LINE SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA, NYSDOH AND DCDOH STANDARDS.
4. PAVEMENT RESTORATION SHALL BE IN ACCORDANCE WITH THE PAVEMENT RESTORATION DETAIL.
5. ALL REPLACED WATERMAIN SHALL MATCH THE EXISTING DIAMETER OF THE EXISTING MAIN, AND SHALL BE CLASS 52 DUCTILE IRON.

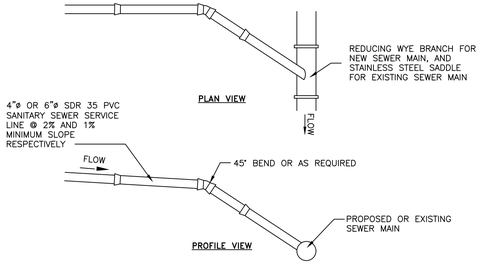
WATER LINE OFFSET DETAIL
NOT TO SCALE



NOTES:
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.

SANITARY SEWER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.

SANITARY SEWER SERVICE CONNECTION DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_____ DAY OF _____, 20_____ SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	2/21/22	REVISED BUILDING & LAYOUT	DGK				
2	3/29/22	PER PLANNING BOARD COMMENTS	CMB				
3	7/26/22	PER PLANNING BOARD COMMENTS	ESR				
4	8/29/22	PER PLANNING BOARD COMMENTS	ESR				
5	9/26/22	PER PLANNING BOARD COMMENTS	ESR				

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HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

CONSTRUCTION DETAILS 3

TWO CROSS STREET

152 & 172 MAIN STREET; 2 & 4 CROSS STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-27-799966, 774986, 777974, 784996 & 808975

JOB #: 2019:036
DATE: 10/29/19
SCALE: AS SHOWN
TITLE: CD-3
SHEET: 9 OF 9

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

Dutchess County Department of Planning and Development

Fax Info Only		
	To	Date #pgs
	Co./Dept.	From
	Fax #	Phone #

239 Planning/Zoning Referral - Exemption Communities

Please Fill in this section

Municipality: **City of Beacon**

Referring Agency: **Planning Board**

Tax Parcel Numbers(s): **7999660000**

Project Name: **Two Cross Street**

Applicant: **Hudson Todd, LLC**

Address of Property: **172 Main St, Beacon, NY 125080000**

**Exempt Actions:*
239 Review is NOT Required**

- Administrative Amendments (fees, procedures, penalties, etc.)
- Special Permits for residential uses (accessory apts, home occupations, etc.)
- Use Variances for residential uses
- Area Variances for residential uses
- Renewals/Extension of Site Plans or Special Permits that have no changes from previous approvals

No Authority to review these Actions

- Subdivisions / Lot Line Adjustments
- Interpretations

☐ Exempt Action submitted for informal review

Actions Requiring 239 Review

- ☐ Comprehensive/Master Plans
- ☐ Zoning Amendments (standards, uses, definitions, district regulations, etc.)
- ☐ Other Local Laws associated with zoning (wetlands, historic preservation, affordable housing, architectural review, etc.)
- ☐ Rezonings involving all map changes
- ☐ Architectural Review
- ☑ Site Plans (all)
- ☐ Special Permits for all non-residential uses
- ☐ Use Variances for all non-residential uses
- ☐ Area Variances for all non-residential uses
- ☐ Other (Describe):

Parcels within 500 feet of:

- ☐ State Road:
- ☐ County Road:
- ☐ State Property (with recreation area or public building)
- ☐ County Property (with recreation area or public building)
- ☐ Municipal Boundary
- ☐ Farm operation in an Agricultural District

Date Response Requested: **10/11/2022**

Entered By: **Caputo, Amanda**

These actions are only exempt in municipalities that signed an intermunicipal agreemment with Dutchess County to that effect.

For County Office Use Only

Response From Dutchess County Department of Planning and Development

No Comments:

- ☐ Matter of Local Concern
- ☐ No Jurisdiction
- ☐ No Authority
- ☐ Withdrawn
- ☐ Incomplete - municipality must resubmit to County
- ☐ Exempt from 239 Review
- ☐ None

Comments Attached:

- ☑ Local Concern with Comments
- ☐ Conditional
- ☐ Denial
- ☐ Incomplete with Comments- municipality must resubmit to County
- ☐ Informal Comments Only (Action Exempt from 239 Review)

Date Submitted: **9/19/2022**	Notes:	☐ Major Project
Date Received: **9/19/2022**		Referral #: **ZR22-274**
Date Requested: **10/11/2022**		
Date Required: **10/18/2022**	☐ Also mailed hard copy	Reviewer:
Date Transmitted: **10/4/2022**		

MARCUS J. MOLINARO
COUNTY EXECUTIVE

EOIN WRAFTER, AICP
COMMISSIONER

COUNTY OF DUTCHESS

DEPARTMENT OF PLANNING AND DEVELOPMENT

October 4, 2022

To: Planning Board, City of Beacon
Re: ZR22-274 – Two Cross Street

The Dutchess County Department of Planning and Development has reviewed the subject referral within the framework of General Municipal Law (Article 12B, Sections 239-l and 239-m).

ACTION

The applicant is seeking site plan approval for a mixed-use building with ground floor commercial and 18 upper-floor apartments, along with associated off-site parking.

COMMENTS

1. The location of the proposed pathway from the off-site parking lot is through a separate lot that fronts on Main Street. The board could consider whether there is a viable alternative location for the path that does not inhibit the development potential of a lot with Main Street frontage.

2. The large corner windows on the upper floors of the proposed building could create privacy—and related aesthetic—concerns, particularly as the building provides a terminating vista to those heading east along Main Street from Route 9D. Residents are unlikely to want passersby to have a clear view into their apartments and may use curtains or other screening to block the windows. The appeal of the building could be affected by how the residents handle those privacy concerns.

RECOMMENDATION

The Department recommends that the Board rely upon its own study of the facts in the case with due consideration of the above comments.

Eoin Wrafter, AICP
Commissioner
By

Dylan Tuttle
Planner

Hudson Todd LLC

4 Cross Street, Beacon, NY 12508 | 646-284-3118 | jDonovan@HudsonTodd.com

To: Mr. John Russo, City Engineer, Mr. John Gunn, Chairman, and Members of the City of Beacon Planning Board
From: Hudson Land Design on behalf of Hudson Todd, LLC
Date: September 27, 2022
Re: Two Cross / mixed use building proposal

Comments and Recommendations

General Comments:

1. Comment: The applicant's engineer shall prepare, and submit for review, a cost estimate for all work proposed within the City's road right-of-ways (pavement restoration, drainage installation, sidewalks, etc.).
Response: The cost estimate will be prepared following conditional site plan approval by the Planning Board.
2. Comment: The submitted Drainage Report, with the latest revision date of August 30, 2022, was found to be acceptable.
Response: So noted. No response necessary.

Overall Site Plan (Sheet 3 of 9):

1. Comment: As the parking lot on the 152 Main Street parcel is being reconfigured, the applicant should look to provide some ADA compliant spaces within the parking lot, near the existing building, if possible. Any ADA spaces shall be provided with the required access aisle, signage, and appropriate striping.
Response: An ADA accessible parking space and loading zone has been added to the 152 Main Street parking lot.

Grading & Utility Plan (Sheet 4 of 9).

1. Comment: The plan shows retaining walls to be constructed on the 152 Main Street parcel as part of the project yet notes that these are "by others". Information should be provided on these walls at this time as to the type of wall system to be used, construction details for the wall system, wall system facing and color, etc. The retaining wall system shall be design by a licensed engineer in the State of New York given the heights of the wall exceeding 4 feet. The applicant has noted that a professional engineer will provide a design in the future submissions and that the wall design will provide root space for all plantings.
Response: The applicant has preliminarily engaged with a structural engineer to address the retaining wall design.

2. Comment: Will any temporary or permanent easement need to be acquired for the construction and maintenance of the proposed retaining walls? The retaining wall on the east side of the parcel is just about on the property line of the City's parking lot on Cross Street. Applicant notes that they do not anticipate on needing easements, but this would be subject to

the final wall design.
Response: This item is still under investigation by the design team and will be finalized upon design of the retaining wall.

3. Comment: Although the plan shows limits of trenching for utilities to be installed in the roads and through the sidewalk, the plan shall show the actual limits of the sidewalk and pavement to be restored. Pavement restoration shall be completed in accordance with the City& Road Opening Permit, whereas sidewalk restoration would include the replacement of the entire sidewalk panel, not just a portion where trenched through.
Response: We are proposing new sidewalk along the frontage of the site up to the point where it meets the City sidewalk at the corner that was recently poured.

Lighting & Landscaping (Sheet 6 of 9):
Comment: The consultant should verify that there is sufficient room to install the proposed trees in front of the easterly retaining wall proposed on the 152 Main Street parcel. Consideration should be given to the size of the root ball for a 3' tree. Applicant notes that this will be looked at further upon completion of the wall design.
Response: This item is still under investigation by the design team and will be finalized upon design of the retaining wall.

Construction Details 1 (Sheet 7 of 9):
Comment: The “Monolithic Curb and Sidewalk” detail shall be updated to include a note that sidewalks shall sealed with a sealing compound to protect against de-icing agents.
Response: The detail has been revised as requested.

Construction Details 2 (Sheet 8 of 9):
Comment: The construction detail for the catch basin castings shall include a note that all castings to be located within the City’s road are to be “Domestically Made”.
Response: The detail has been revised as requested.

Construction Details 3 (Sheet 9 of 9):
Comment: The “Gate Valve Detail” and the “Tapping Sleeve Detail” shall both include a note that the valve box shall be "Domestically Made” when located within the City road.
Response: The details have been revised as requested.

LANC & TULLY

ENGINEERING AND SURVEYING, P.C.

John J. O'Rourke, P.E., Principal
David E. Higgins, P.E., Principal
John Queenan, P.E., Principal
Rodney C. Knowlton, L.S., Principal
Jerry A. Woods, L.S., Principal
John D. Russo, P.E., Principal
John Lanc, P.E., L.S.
Arthur R. Tully, P.E.

October 3, 2022

Mr. John Gunn
Beacon Planning Board Chair
City of Beacon
1 Municipal Plaza
Beacon, NY 12508

RE: Two Cross Street – Hudson Todd
City of Beacon
Special Use & Site Plan Application

Dear Mr. Gunn:

My office has received the following in regard to the Two Cross Street – Hudson Todd LLC project:

- Correspondence from Hudson Todd, LLC., dated September 27, 2022.
- Response correspondence to John Clarke's comments from Hudson Todd, LLC, dated September 27, 2022.
- Response correspondence to John Russo's comments from Hudson Todd, LLC, dated September 27, 2022.
- Dutchess County Department of Planning correspondence dated October 4, 2022.
- Cut sheets of proposed site lights and building mounted lights.
- Architectural Drawing Sheet A6, dated September 26, 2022, as prepared by Joseph Torhan, Architect.
- Plans titled "Two Cross Street", with the latest revision date of September 26, 2022, and consisting of Sheets 1 through 9 of 9, as prepared by Hudson Land Design.

The Applicant is proposing to build a 24,185 square foot building at 2 Cross Street consisting of retail space on the first floor and residential uses on the 2nd and 3rd floors of the building. Parking for the project will be accomplished at 2 locations, with 4 spaces will be located on the 2 Cross Street parcel, and an additional 44 spaces will be located on the 152 Main Street Parcel. To achieve the additional parking on the 152 Main Street parcel, the applicant is removing and existing garage and reconfiguring the existing parking lot. The applicant will also be providing a green roof on the newly proposed structure as well as providing two stormwater infiltration systems to reduce the amount of stormwater runoff generated from the 152 Main Street Parcel where parking is to be located.

Based on our review of the above materials, we would like to offer the following comments:

General Comments:

1. The applicant's engineer shall prepare, and submit for review, a cost estimate for all work proposed within the City's road right-of-way (pavement restoration, drainage installation, sidewalks, etc.). ***Applicant states that this will be prepared following conditional site plan approval.***

Grading & Utility Plan (Sheet 4 of 9):

1. The plan shows retaining walls to be constructed on the 152 Main Street parcel as part of the project yet notes that these are "by others". Information should be provided on these walls at this time as to the type of wall system to be used, construction details for the wall system, wall system facing and color, etc. The retaining wall system shall be design by a licensed engineer in the State of New York given the heights of the wall exceeding 4 feet. ***The applicant has engaged a structural engineer to address the retaining wall design.***

2. Will any temporary or permanent easement need to be acquired for the construction and maintenance of the proposed retaining walls? The retaining wall on the east side of the parcel is just about on the property line of the City's parking lot on Cross Street. ***Applicant notes that this is still under investigation by the design team and will be finalized upon design of the retaining wall.***

3. Although the plan shows limits of trenching for utilities to be installed in the roads and through the sidewalk, the plan shall show the actual limits of the sidewalk and pavement to be restored. Pavement restoration shall be completed in accordance with the City's Road Opening Permit, whereas sidewalk restoration would include the replacement of the entire sidewalk panel, not just a portion where trenched through. ***Applicant states that they are proposing new sidewalk along the frontage of the site up to the point where it meets the City sidewalk at the corner that was recently poured.*** The comment raised was specific to the area of the drainage line that will be installed from the 152 parcel to the catch basin within Main Street. A trench repair of the sidewalk is not acceptable, and the applicant shall replace full panels of the sidewalk where sidewalk is cut and/or damaged for the proposed work. Full replacement of these panels shall be shown on the plans.

4. The size of the water tap proposed for the project shall be provided on the plans. Note No. 5 on the Cover sheet states that the line will be a minimum of 4" in size but shall be confirmed with MEP engineer. The MEP engineer shall provide the required size of the water service line to feed the building at this time so that it can be accurately reflected on the plans.

5. The sheet has a note with a leader line to Cross Street stating "Approximate location of existing water & sewer services for 4 Cross Street to be abandoned", but the location of these services are not shown on the plan. The plan shall be revised to reflect the location of these services.

6. The existing utility pole located in the parking lot of the 152 Main Street parcel near the compactor shall be noted as being relocated, as it currently shown in the middle of a proposed parking stall.

Lighting & Landscaping (Sheet 6 of 9):

1. The consultant should verify that there is sufficient room to install the proposed trees in front of the easterly retaining wall proposed on the 152 Main Street parcel. Consideration should be given to the size of the root ball for a 3" tree. ***Applicant notes that this is still under investigation by the design team and will be finalized upon design of the retaining wall.***

This completes our review at this time. Further comments may be forth coming based upon future submissions. A written response letter addressing each of the above comments should be provided with the next submission. If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.

John Russo, P.E.

cc: John Clarke, Planner
Jennifer Gray, Esq.
David Buckley, Building Inspector

John Clarke Planning and Design jclarkeplandesign@gmail.com
25 Beech Street, Rhinebeck NY 12572 845.797.4152

To: John Gunn, Chair, and the City of Beacon Planning Board
Date: October 7, 2022
Re: **2 Cross Street, Site Plan**

I have reviewed a September 27, 2022 cover letter and two response letters from Hudson Todd LLC, October 4, 2022 review letter from Dutchess County Planning and Development, lighting specification sheets, September 26, 2022 revised Sheet A6 from a previous 11-sheet set of architectural drawings, and a 9-sheet set of engineering drawings from Hudson Land Design, dated September 26, 2022.

Proposal

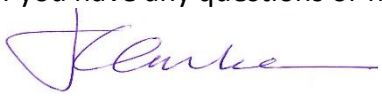
The applicant is proposing to construct a 3-story mixed-use building with 4,980 square feet of ground-floor commercial and 18 apartments, incorporating an existing historic building into the design. The parcel is in the Central Main Street (CMS) district. The Main Street frontage is also in the Historic District and Landmark Overlay (HDLO) zone, but not the brick building on Cross Street, which is proposed to be demolished.

Comments and Recommendations

1. This HDLO property requires a certificate of appropriateness approval, consistent with the design criteria in the Historic Preservation chapter, Section 134-7. The Architectural Review Sub-committee has met twice on this proposal and has referred the final design back to the full Board.

2. The applicant should be prepared to respond to the comments by the Dutchess County Department of Planning and Development.

If you have any questions or need additional information, please feel free to contact me.



John Clarke, Beacon Planning Consultant

c: Dave Buckley, Building Inspector
Jennifer L. Gray, Esq., City Attorney
Arthur R. Tully, P.E., City Engineer
John Russo, P.E., City Engineer
Joseph Torhan, Project Architect
Joseph Donovan, Hudson Todd LLC

RESOLUTION

PLANNING BOARD
BEACON, NEW YORK

SITE PLAN &
CERTIFICATE OF APPROPRIATENESS
APPROVALS FOR
TWO CROSS STREET

Parcel ID Nos: 5954-27-799966, 774986, 777974 & 784996

WHEREAS, the Beacon Planning Board received an application for approval of a Site Plan and Certificate of Appropriateness from Hudson Todd, LLC (the "Applicant") to construct a 3-story mixed use building consisting of 24,185 square feet, including 4,980 square feet of ground floor commercial and 18 apartments on the second and third floors (9 affordable senior citizen units; 9 market rate units), which building includes a green roof and incorporates an existing historic building into the design, along with associated site improvements and improvements for purposes of off-street parking on parcels in close proximity to the proposed building (the "Project" or "Proposed Action"); and

WHEREAS, the proposed 3-story building and associated site improvements is located at 2 & 4 Cross Street and 172 Main Street, consisting of approximately 12,957 square feet, said premises being known and designated on the tax map of the City of Beacon as Parcel ID 5954-27-799966, located in the Central Main Street (CMS) District and the portion of such property fronting on Main Street is also located in the Historic District and Landmark Overlay (HDLO) District (the "Property"); and

WHEREAS, the proposed improvements for off-street parking are located at 152 Main Street, 160 Main Street and a vacant lot on West Church Street, being known and designated on the tax map of the City of Beacon as Parcel ID 5954-27-774986, 5954-27-777974 and 5954-27-784996, respectively, and located in the CMS and Transitional (T) Zoning District (the "Off-Street Parking Property"); and

WHEREAS, as originally submitted in Fall 2019 the Project included a Special Use Permit seeking to construct a fourth story, however, during the Planning Board's review of the application the Project was modified to eliminate the proposed fourth story and accordingly a Special Use Permit is no longer required; and

WHEREAS, the Planning Board is the approval authority for the Site Plan pursuant to City of Beacon Code §223-25; and

WHEREAS, the Proposed Action includes a request for a Certificate of Appropriateness from the Planning Board pursuant to the criteria set forth in §§ 134-7 and 223-41.18(J) of the City of Beacon Code; and

WHEREAS, the application consists of application forms, correspondence, and the Full Environmental Assessment Form ("EAF"); and

WHEREAS, the Site Plan is shown on the following drawings, entitled, "Two Cross Street" prepared by Hudson Land Design Professional Engineering, P.C., last revised September 26, 2022 (consisting of 9 sheets), and plans entitled, "Two Cross Street – Hudson Todd LLC" prepared by Joseph E. Torhan, Architect, last revised July 26, 2022 (consisting of 11 sheets); and

WHEREAS, the application includes 9 affordable senior apartments which is in compliance with the requirement of Article IVB of the Beacon City Code that all projects of 10 or more apartments provide at least 10% of those apartments as affordable; and

WHEREAS, the 9 proposed senior apartments are proposed to be managed by Hudson River Housing, Inc. through the New York State Supportive Housing Initiative (ESSHI), as per the March 22, 2022 letter to the Planning Board from Hudson River Housing, Inc.; and

WHEREAS, in November 2019, the Planning Board circulated to all known Involved and Interested Agencies notice of its intent to declare itself Lead Agency for the environmental review of the Proposed Action pursuant to SEQRA and no objections were received; and

WHEREAS, as originally submitted in Fall 2019 the Project consisted of more than 25,000 square feet of floor area and was therefore classified as a Type I action pursuant to the State Environmental Quality Review Act ("SEQRA") (6 NYCRR 617.4(b)(9)), however, during the Planning Board's review of the application the Project was modified to reduce the overall square footage of the proposed building and due to those reductions the Project is now classified as an Unlisted Action rather than Type I; and

WHEREAS, following the Fall 2019 submission of the application the Planning Board reviewed the modified application at meetings held on March 8, 2022, April 12, 2022, August 9, 2022, September 13, 2022 and October 12, 2022; and

WHEREAS, on April 12, 2022 the Planning Board referred the application to the Architectural Review Subcommittee for its advisory review and report; and

WHEREAS, the Architectural Review Subcommittee met with the Applicant in May and June 2022 and submitted a Report to the Planning Board on the proposed architecture; and

WHEREAS, on September 13, 2022 the Planning Board opened a duly noticed public hearing on the application, at which time all those interested were given an opportunity to be heard and the public hearing was closed on September 13, 2022; and

WHEREAS, on September 19, 2022 the application was referred to Dutchess County Department of Planning and Development and a response dated October 4, 2022 was received and discussed at the Planning Board's meeting on October 12, 2022; and

WHEREAS, after taking a "hard look" at each of the relevant areas of environmental concern through review of the EAF and all associated materials prepared in connection with the Proposed Action, the Planning Board determined that the Proposed Action will not result in any significant adverse environmental impacts and adopted a Negative Declaration on October 12, 2022; and

WHEREAS, the Planning Board has reviewed the application for Certificate of Appropriateness pursuant to the requirements set forth in § 134-7 of the City of Beacon Code and the design standards set forth in § 223-41.18(J); and

WHEREAS, the Planning Board is fully familiar with the Proposed Action and has reviewed the Proposed Action relative to all applicable provisions of the City Code.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Board hereby finds pursuant to the City of Beacon Code § 134-7 that the Proposed Action to construct a 3-story mixed use building consisting of 24,185 square feet, including 4,980 square feet of ground floor commercial and 18 apartments on the second and third floors (9 affordable senior citizen units; 9 market rate units), which building includes a green roof and incorporates an existing historic building into the design, along with associated site improvements, located at 2 & 4 Cross Street and 172 Main Street, will be consistent with the historic character of the surrounding area. Property located at 2 Cross Street and 172 Main Street are located in the City's HDLO District. The existing building at 172 Main Street is identified as contributing to the Lower Main Street National Register Historic District. Also identified is the adjacent Dondero Block (174-178 Main Street). The proposed design preserves 172 Main Street and incorporates it into the proposed building while preserving the façade, restoring the pediment and maintaining the tile mosaic at the entryway of the building. In addition, floor heights in the new building will be set at elevation to match the floor elevations in 172 Main Street. The design of the new building will not negatively impact the historic or architectural features, value or significance of 172 Main Street or its neighboring historical structures, nor will it detract from the historic district. Accordingly, the Planning Board hereby grants a Certificate of Appropriateness for the Project, as shown on the application materials referenced herein.

BE IT FURTHER RESOLVED, that the Planning Board hereby finds that pursuant to Section 223-41.18.G(3)(f) of the City Code the proposed off-site location for parking supporting the proposed building at the Property is sufficient for the proposed use in terms of its proximity and proposed easement which will secure use of such off-site location for the proposed use.

BE IT FURTHER RESOLVED, that the Planning Board hereby grants Site Plan Approval as set forth and detailed on the plans entitled, "Two Cross Street" prepared by Hudson Land Design Professional Engineering, P.C., last revised September 26, 2022

(consisting of 9 sheets), and plans entitled, "Two Cross Street – Hudson Todd LLC" prepared by Joseph E. Torhan, Architect, last revised July 26, 2022 (consisting of 11 sheets), subject to the following conditions set forth below and any other requirements which must be met by law:

A. The following conditions shall be fulfilled prior to the signing of the Site Plan by the Chairman of the Planning Board.

1. All application review fees shall be paid in full.
2. The Applicant shall seek and obtain all required permits and/or approvals from the appropriate agencies for the Project, including but not necessarily limited to approval from the Dutchess County Department of Health, and shall meet all conditions contained in such approvals, as required therein.
3. The comments contained in the City Engineer's letter to the Planning Board dated October 3, 2022, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Engineer.
4. The comments contained in the City Planner's letter to the Planning Board dated October 7, 2022, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Planner.
5. All existing and proposed easements shall be shown on the Site Plan to the satisfaction of the City Engineer and City Attorney. Proposed easement agreements, declarations of restrictive covenants, offers of dedication, or other appropriate documents corresponding with the easements and notes shown on the Site Plan, including a stormwater management maintenance and easement agreement, shall be prepared, as applicable, and submitted to the City Attorney for review as to form and shall be recorded in the Dutchess County Clerk's Office simultaneously with the Subdivision Plat, with a copy of the recorded documents submitted to the City Clerk for filing.
6. Pursuant to Section 223-41.10.N of the City Code, The Applicant shall seek and obtain from the Beacon City Council any and all waivers required from the provisions of Article IVB of the Beacon City Code pertaining to below-market-rate housing units, including but not limited to a waiver from Section 223-41.10.G which requires categories of priority to be considered when selecting occupants for the affordable units.

When the conditions above have been satisfied, six (6) sets of the above referenced plans revised as per the conditions above shall be submitted for endorsement by the Planning Board Chairman. One set of the endorsed plans will be returned to the Applicant, one set will be retained by the City Clerk, one set will be provided to the Planning Board, and one set each will be forwarded to the Building Inspector, City Engineer and City Planner.

B. Prior to the issuance of a Building Permit, the following conditions shall be fulfilled:

1. Prior to commencement of any site work for the Project, the Applicant shall fund an escrow account with the City of Beacon for the construction observation and monthly stormwater inspections of the proposed utilities and site improvements in an amount as determined by the City Engineer. The Applicant's engineer shall prepare a cost estimate for review by the City Engineer for determining value of escrow to be established.

2. The Applicant shall post a performance guaranty with the City of Beacon for all work proposed within the City's road right-of-way. The Applicant's engineer shall prepare a cost estimate for the work (pavement restoration, drainage installation, sidewalks, etc.) and provide to the City Engineer for review and approval.

C. The following are general conditions which shall be fulfilled:

1. Based on the current and anticipated future need for park and recreational opportunities in the City of Beacon, as set forth in the analysis provided by BFJ Planning, and the demands of the future population of the Project, the Planning Board hereby finds that additional recreation/parkland should be created as a condition of approval. However, the Planning Board hereby determines that recreation/parkland of adequate size and location cannot be provided on the Project Site. Therefore, that Applicant shall pay a Recreation Fee as prescribed under Sections 223-25.H(4) and 223-61.A(7) of the Zoning Law. The Planning Board hereby requires that, prior to the issuance of a Certificate of Occupancy, the Applicant shall pay a Recreation Fee for each of the 18 new dwellings in accordance with Sections 223-25.H(4) and 223-61.A(7) of the Zoning Law, as per the City's Fee Schedule in effect at the time of payment.

2. The Project shall comply in all respects with Article IVB, Affordable-Workforce Housing, of the City Code except as otherwise waived or modified by the Beacon City Council pursuant to Section 223-41.10.N of the City Code. The Applicant shall be responsible for the payment of any and all fees established by the City Council now or in the future or as otherwise required for the ongoing implementation of the provisions of Article IVB, Affordable-Workforce Housing, of the City Code as said Article applies to the Project.

3. The proposed infiltration system on the Off-Street Parking Property shall be maintained and inspected pursuant to the Drainage Report. Copies of all inspection reports shall be provided to the City of Beacon's Building Department and the inspection report shall contain at a minimum the date of the inspection, who performed the inspection, recommendations based upon the inspection and any actions taken based upon the recommendations.

4. The Building Inspector and the City Engineer shall have the right to direct the Applicant to cause the placement, cleaning and/or repair of sedimentation and erosion control devices wherever and whenever deemed necessary during construction.

5. The Applicant shall be responsible for the payment of all application review costs incurred by the City in its review and approval of this project. Such fees shall be paid by the Applicant within thirty (30) days of each notification by the City that such fees are due. If such fees are not paid within said thirty (30) day period, and an extension therefore has not been granted by the City, this resolution shall be rendered null and void.

6. As used herein, the term "Applicant" shall include its successors and assigns, and where applicable its contractors and employees.

7. If any of the conditions enumerated in this resolution upon which this approval is granted are found to be invalid or unenforceable, then the integrity of this resolution and the remaining conditions shall remain valid and intact.

8. The approvals granted by this resolution do not supersede the authority of any other entity.

9. This approval is conditioned upon compliance with all of the mitigation measures specified in the Applicant's EAF and the Negative Declaration granted pursuant thereto. The Applicant shall be responsible for the funding and/or implementation of all such identified mitigation measures. Where the terms of this Resolution may be inconsistent with the EAF, the terms of this Resolution shall be controlling.

10. Pursuant to the City of Beacon Code § 223-25.J, the Site Plan Approval granted herein shall expire in the event the Applicant does not submit a bona fide building permit application to the Building Department within one year of the adoption date of this Resolution, provided however, that the Planning Board may extend such time period from time to time for good cause shown upon written request from the Applicant.

11. Any proposed revision to the approved Site Plan Drawings, except revisions determined by the Building Inspector and City Engineer to be field changes, shall be submitted to the Planning Board. The Planning Board, in its discretion, shall determine the appropriate procedures for consideration of the proposed revision, and whether such revision is material enough to require further environmental analysis and/or further project review, as the Board may deem appropriate.

Resolution Adopted: October 12, 2022
Beacon, New York

_____ _____

Site Plan & Certificate of Appropriateness Approvals
Two Cross Street

J. Randall Williams, Acting Chairman Date
City of Beacon Planning Board

Motion by _____, seconded by _____:

Kevin Byrne	Voting	Leonard Warner	Voting
Karen Quiana	Voting	J. Randall Williams	Voting
Jill Reynolds	Voting	John Gunn, Chairman	Voting EXCUSED

Resolution: Approved
Denied

ATTACHMENT TO
NEGATIVE DECLARATION
REASONS SUPPORTING DETERMINATION

APPLICATION FOR SITE PLAN AND
CERTIFICATE OF APPROPRIATENESS APPROVAL
FOR TWO CROSS STREET

Parcel ID Nos: 5954-27-799966, 774986, 777974 & 784996

CONCLUSIONS

This Part 3 analysis has been prepared to address all relevant areas of environmental concern as identified in the review by the Planning Board. This Part 3 analysis will discuss and explain the analysis of the potential impacts, and why a particular element of the proposed action will not result in a significant adverse environmental impact. Such analysis is appropriately set forth in Part 3, even if the potential impact was identified as "none" or "small." Based upon a review of Parts 1 and 2 of the Full Environmental Assessment Form (EAF) and all other application materials that were submitted in support of the Proposed Action, along with reports from City staff and consultants, information from involved and interested agencies, and information from the public, the Planning Board, acting as Lead Agency, provides the following rationale for its SEQRA Determination.

Project Description:

The Proposed Action is the construction of a 3-story mixed use building consisting of 24,185 square feet, including 4,980 square feet of ground floor commercial and 18 apartments incorporating an existing historic building into the design. Parking for the Project is proposed in two locations with 4 spaces located on the 2 & 4 Cross Street parcel, and an additional 44 spaces located on the 152 Main Street parcel. Removal of an existing garage and reconfiguration of existing parking is proposed on the 152 Main Street parcel. The subject property is located at 2 & 4 Cross Street and 172 Main Street in the Central Main Street (CMS) Zoning District and the Main Street frontage of that parcel is also located in the Historic District and Landmark Overlay (HDLO) Zoning District (the "Property"). The Property is identified on the Tax Map as Parcel No. 5954-27-799996. The existing brick building identified as 4 Cross Street is proposed to be demolished and is not located in the HDLO District. The other property which is the subject of the Proposed Action as the location of off-street parking 152 Main Street (Parcel No. 5954-27-774986), 160 Main Street (Parcel No. 5954-27-777974) and an adjacent vacant parcel on West Church Street (Parcel No. 5954-27-784996) in the CMS and Transitional (T) Zoning Districts (the "Off-Street Parking Property").

The Proposed Action is an Unlisted action. The Planning Board circulated its Notice of Intent to act as Lead Agency and received no objections.[1]

[1] When the Project was proposed in 2019 it included the construction of a building greater than 25,000 s.f. which resulted in a Type I classification due to the Project's location in the Lower Main Street Historic District (6 NYCRR 617.4(b)(9)). When the Project was revised in March 2022 the proposed building was less than the 25,000 s.f. threshold. Therefore, the Project is now considered an Unlisted Action.

Summary of Rationale for Negative Declaration

The Proposed Action will not result in any significant adverse impacts on the environment. In summary:

- **Impact on Land: The Proposed Action will not have a significant adverse environmental impact as a result of any physical change to the project site.**

  The project site is located in the CMS, HDLO and T Zoning Districts. The Property is currently improved with a 2-story brick building identified as 4 Cross Street which is proposed to be demolished. The other building located on the Property is a 2-story historic brick building identified as 172 Main Street which is proposed to be maintained but modified. The Property also currently contains an area that has been used as a public gathering space and garden.

  The Off-Street Parking Property is currently improved with an apartment building, garage and trash compactor. The garage is proposed to be demolished and the parking areas on the Off-Street Parking Property are proposed to be reconfigured. Two stormwater infiltration systems are proposed for the Off-Street Parking Property to reduce the amount of stormwater runoff from the site. Sufficient parking for the apartment building will remain dedicated to such use. In total, the Off-Street Parking Property will retain 23 parking spaces for the apartment building and 25 parking spaces for use by 2 Cross Street. In addition, a walkway is proposed on the 160 Main Street parcel for access to the Off-Street Parking Property from Main Street.

  The Proposed Action would involve the construction of new 3-story mixed use building on the Property consisting of 24,185 square feet that includes 4,980 square feet of ground floor commercial and 18 apartments (9 affordable senior citizen; 9 market rate). The design of the building includes a green roof and incorporates the existing historic building at 172 Main Street. A brick-paver public plaza is proposed for the corner of Main Street and Cross Street to consist of a tree, flexible café seating and a 40 s.f. landscaped area. There are no wetlands, water bodies, steep slopes or other environmentally sensitive areas on the Property. The construction would involve typical grading and associated site work. Excavation is proposed for the foundation and cellar and is estimated to result in 2,000 cubic yards of fill to be exported from the site.

  The Proposed Action will not have a significant adverse environmental impact as a result of physical changes to the Property.

- **Impact on Geological Features: The Proposed Action will not have a significant adverse environmental impact on any unique or unusual land forms on the site.**

  There are no unique geological features on the Property.

- **Impacts on Surface Water and Groundwater: The Proposed Action will not have a significant adverse environmental impact on surface or groundwater quality or quantity.**

A Drainage Report, prepared by Hudson Land Design Professional Engineering, P.C., dated July 26, 2022 and last revised August 30, 2022, was reviewed by the City Engineer and found to be acceptable. The Project will result in 6,656 s.f. of additional impervious surface coverage and approximately 43,335 s.f. of disturbance. Thus, the Project is not subject to the requirements of NYSDEC GP-0-20-001 General Permit for Construction Activities. The proposed building will connect to the adjacent City stormwater collection system and includes a green roof to reduce stormwater impacts. The Project includes the implementation of erosion and sediment controls during construction. The Off Street Parking Property will include two stormwater infiltration systems to reduce the amount of stormwater runoff from the site. Based on the results of the Drainage Report, it is expected that stormwater runoff rates post-development will be less than the pre-development condition.

There will be no bulk storage of petroleum or chemicals on-site. The Project does not include or require wastewater discharged to groundwater.

The Project will be connected to the existing public water distribution and sanitary sewer systems. Based on the calculations provided in the EAF, it is anticipated that the Project will carry a demand of 2,818 gpd of water and generate 2,818 gpd of sanitary sewer flows. Adequate water supply and sewer capacity exist for these additional flows.

For these reasons, the Proposed Action will not result in any significant adverse impact to surface or groundwater quality or quantity.

- **Impact on Flooding: The Proposed Action will not have a significant adverse environmental impact on or alter drainage flows or patterns, or surface water runoff.**

According to the EAF the Property is not located within a regulated flood plain and there are no wetlands. The portion of the Project at 2 Cross Street will connect to the City's stormwater collection system and two underground stormwater infiltration systems are proposed on the Off Street Parking Property. The Drainage Report referenced above concludes that the post-development rate of stormwater runoff will be less than the pre-development conditions. For these reasons and those stated above, the Proposed Action will not have a significant adverse impact on drainage flows or patterns, or surface water runoff.

Impact on Air: The Proposed Action will not have a significant adverse environmental impact on air quality.

Construction activities associated with grading and excavation could result in temporary air quality impacts. Air quality in the area, however, is not expected to be significantly impacted by project construction because the construction activities will be temporary and confined to the Property. Construction vehicles will emit certain air pollutants through engine exhaust. There is also the potential for fugitive dust to be created during the construction period from site preparation activities, including removal of existing impervious surfaces and vegetation, and site grading. Fugitive dust emissions will be mitigated by wetting and stabilizing soils to suppress dust generation. Other dust suppression methods will include the spraying of soil stockpiles during dry periods and covering trucks carrying solid and other dry materials. These unavoidable

short term impacts to air quality will cease upon project completion. Construction will be conducted in accordance with all applicable federal, state and local codes. It is anticipated that nearby properties will experience temporary fugitive dust and an elevation in vehicle emissions from construction vehicles throughout occasional periods during construction of the proposed project. This is a temporary, construction-related, unavoidable impact that is not significant.

For these reasons, the Proposed Action will not have a significant adverse environmental impact on air quality.

- **Impact on Plants and Animals: The Proposed Action will not have a significant adverse environmental impact on flora or fauna.**

The EAF indicates that the Property (and the Off-Street Parking Property) may contain or serve as habitat for the Indiana Bat. Pursuant to NYSDEC recommendations, removal of trees greater than four (4) inches in diameter at the Project Site will take place between October 1 and April 1 during the bat hibernation period to avoid the removal of trees which may be utilized by Indiana Bats as roosting trees. Approximately 10 trees are proposed to be removed from the east side of the Off-Street Parking Property, but it is highly unlikely that these trees serve as habitat for the Indiana bat due to the urban environment in which the trees are located.

The EAF also indicates the Off-Street Parking Property may contain or serve as habitat for the Atlantic Sturgeon and Shortnose Sturgeon. No water body is located on or near the site and thus no impacts to these species will occur as a result of the Project.

For these reasons, the Proposed Action will not have a significant adverse environmental impact on flora or fauna.

- **Impact on Agricultural Resources: The Proposed Action will not have a significant adverse environmental impact on agricultural resources.**

There are no agricultural resources in the vicinity of the Property.

- **Impact on Aesthetic Resources: The Proposed Action will not have a significant adverse environmental impact on aesthetic resources.**

The Proposed Action will not result in the obstruction, elimination or significant screening of one or more officially designated scenic views. The Proposed Action is visible from the surrounding streets but no designated scenic views are impacted.

For these reasons, the Proposed Action will not have a significant adverse environmental impact on aesthetic resources.

- **Impact on Historic and Archeological Resources: The Proposed Action will not have a significant adverse environmental impact on historic or archeological resources.**

The Property is located in the Lower Main Street Historic District which is on the National Register of Historic Places. To preserve a building that contributes to the Lower Main Street

Historic District the Applicant has committed that the façade of 172 Main will be preserved and restored. The Applicant has further stated that the pediment will be researched and restored, along with the tile mosaic at the entryway into the building. Floor heights in the new building will be set at elevation to match the floor elevations in 172 Main Street. For exterior alterations, the threshold of the existing door will be adjusted for accessibility.

The Architectural Review Subcommittee reviewed the proposed architectural plans at its May and June 2022 meetings and made recommendations regarding the architecture to the full Planning Board at the conclusion of its review. Based on the proposed design and architecture of the building, the Planning Board finds the building is consistent with the character of the surrounding Lower Main Street Historic District.

For these reasons, the Proposed Action will not have a significant adverse impact on historic or agricultural resources.

- **Impact on Open Space and Recreation: The Proposed Action will not have a significant adverse environmental impact on open space and recreation.**

The area of the Proposed Action is not designated as open space by the City of Beacon. The Proposed Action will not result in the loss of a current or future recreational resource, eliminate significant open space, or result in loss of an area now used informally by the community as an open space resource. A recreation set aside or fee may be required which will be used for the future need for park and recreational opportunities in the City of Beacon.

For these reasons, the Proposed Action will not have a significant adverse impact on open space and recreation.

- **Impact on Critical Environmental Areas: The Proposed Action will not have a significant adverse environmental impact on Critical Environmental Areas.**

The Proposed Action is not located in a Critical Environmental Area.

- **Impact on Transportation: The Proposed Action will not have a significant adverse environmental impact on transportation.**

The construction of 4,980 s.f. of commercial space, plus 18 new apartments, 9 of which are proposed to be reserved for affordable senior housing, will not result in a significant adverse traffic impact. The existing area roadways have capacity to accommodate the number of vehicle trips generated from this level of development. Further, the Project is providing all required off-street parking.

- **Impact on Energy: The Proposed Action will not have a significant adverse environmental impact on energy.**

The existing energy infrastructure will adequately serve the additional demand associated with the Project. The Proposed Action does not require a new, or an upgrade to any existing

substation. For these reasons, the Proposed Action will not have a significant adverse impact on energy.

- **Impact on Noise, Odor and Light: The Proposed Action will not have a significant adverse environmental impact as a result of objectionable odors, noise or light.**

  The Proposed Action is not anticipated to generate any noxious odors. The proposed lighting is consistent with the surrounding mixed-use area. Noise impacts associated with the proposed Project will be limited to temporary impacts generated during construction. Temporary noise impacts associated with construction will be mitigated by limiting construction activities to the hours between 7:00 a.m. and 7:00 p.m. If rock is encountered during excavation, it shall be removed by mechanical means. No blasting shall be permitted without approval from the Building Department and no on-site rock processing shall be permitted. Such activities shall be performed in accordance with all applicable state and local requirements. In addition, there will be no significant noise impacts post-construction.

  For these reasons, the Proposed Action will not have a significant adverse environmental impact as a result of objectionable odors, noise or light.

- **Impact on Human Health: The Proposed Action will not have a significant adverse environmental impact on human health from exposure to new or existing sources of contaminants.**

  The EAF indicates that the site is within 2,000 feet of the remediation site known as 314069 and B00130 in the NYSDEC Environmental Remediation database. Site 314069 is classified as requiring no further remediation action at this time and B00130 is complete.

  For these reasons, the Proposed Action will not have a significant adverse environmental impact on human health from exposure to new or existing sources of contaminants.

- **Consistency with Community Plans and Community Character: The Proposed Action is not inconsistent with adopted community plans and community character.**

  The Proposed Action is generally consistent with the Comprehensive Plan and City Zoning Code, will not have a significant impact on municipal services, and is consistent with the character of the existing neighborhood.

Based upon this information and the information in the Full Environmental Assessment Form and all other documents and information in the record, the Planning Board finds that the Proposed Action will not have any significant adverse impacts upon the environment. This Negative Declaration indicates that no environmental impact statement need be prepared and that the SEQRA process is complete.

Adopted: October 12, 2022
Beacon, New York

Motion by _____, seconded by _____:

Kevin Byrne	Voting:	Len Warner	Voting:
Karen Quiana	Voting:	Randall Williams, Acting Chairman	Voting:
Jill Reynolds	Voting:	John Gunn, Chairman	Voting: EXCUSED

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes"** to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No"** to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)
If "Yes", answer questions a - j. If "No", move on to Section 2.

☐ NO ☑ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☑	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☑	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☑	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☑	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☑	☐
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☑	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☑	☐
h. Other impacts: _____ _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	☐	☐
c. Other impacts: _____ _____		☐	☐

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) ☑ NO ☐ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☐	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☐	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☐	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☐	☐
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☐	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☐	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☐	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☐	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☐	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☐	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☐	☐

l. Other impacts: _____ _____		□	□

4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)

☐ NO ☑ YES

If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☑	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☑	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☑	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☑	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☑	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☑	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☑	☐
h. Other impacts: _____ _____		☐	☐

5. Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1. E.2)

☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	□	□
b. The proposed action may result in development within a 100 year floodplain.	E2j	□	□
c. The proposed action may result in development within a 500 year floodplain.	E2k	□	□
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	□	□
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	□	□
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	□	□

g. Other impacts: _____ _____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: _____ _____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☐ NO ☑ YES

If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☑	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☑	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☑	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☑	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☑	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☑	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☑	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ _____	E1b	☑	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☑	☐
j. Other impacts: _____ _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	□	□
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, Elb	□	□
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	□	□
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	□	□
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	El a, E1b	□	□
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	□	□
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	□	□
h. Other impacts: _____		□	□

9. Impact on Aesthetic Resources

The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.) ☐ NO ☐ YES

If "Yes", answer questions a - g. If "No", go to Section 10.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☐	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☐	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	 ☐ ☐	 ☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	 ☐ ☐	 ☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☐	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☐	☐
g. Other impacts: _____ _____		☐	☐

10. Impact on Historic and Archeological Resources

The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.) ☐ NO ☑ YES

If "Yes", answer questions a - e. If "No", go to Section 11.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.	E3e	☑	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☐	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☑	☐

d. Other impacts: _____ _____		☐	☐
e. If any of the above (a-d) are answered "Moderate to large impact may occur", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☐	☐
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☐	☐

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.
(See Part 1. C.2.c, E.1.c., E.2.q.)
If "Yes", answer questions a - e. If "No", go to Section 12.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	□	□
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	□	□
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	□	□
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	□	□
e. Other impacts: _____ _____		□	□

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)
If "Yes", answer questions a - c. If "No", go to Section 13.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	□	□
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	□	□
c. Other impacts: _____ _____		□	□

13. Impact on Transportation

The proposed action may result in a change to existing transportation systems. ☑ NO ☐ YES
(See Part 1. D.2.j)
If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☐	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☐	☐
c. The proposed action will degrade existing transit access.	D2j	☐	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☐	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☐	☐
f. Other impacts: _____ _____		☐	☐

14. Impact on Energy

The proposed action may cause an increase in the use of any form of energy. ☐ NO ☑ YES
(See Part 1. D.2.k)
If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☑	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☑	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☑	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☑	☐
e. Other Impacts: _____ _____		☐	☐

15. Impact on Noise, Odor, and Light

The proposed action may result in an increase in noise, odors, or outdoor lighting. ☐ NO ☑ YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☑	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☑	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☑	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☑	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☑	☐
f. Other impacts: _____ _____		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☐ NO ☑ YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☑	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☑	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☑	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☑	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☑	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☑	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☑	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☑	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☑	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☑	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☑	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☑	☐
m. Other impacts: _____ _____		☐	☐

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. ☑ NO ☐ YES

(See Part 1. C.1, C.2. and C.3.)

If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, Elb	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _____ _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. ☑ NO ☐ YES

(See Part 1. C.2, C.3, D.2, E.3)

If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☐
g. Other impacts: _____ _____		☐	☐

PRINT FULL FORM

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:
To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

See attached.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☐ Type 1 ☑ Unlisted

Identify portions of EAF completed for this Project: ☑ Part 1 ☑ Part 2 ☑ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information
All application materials submitted by the applicant, memoranda from City staff and consultants, agency and public comments, and testimony from meetings held on the application.

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the City of Beacon Planning Board as lead agency that:

☑ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Two Cross Street	
Name of Lead Agency: City of Beacon Planning Board	
Name of Responsible Officer in Lead Agency: John Gunn	
Title of Responsible Officer: Chairman	
Signature of Responsible Officer in Lead Agency:	Date:
Signature of Preparer (if different from Responsible Officer)	Date:

For Further Information:

Contact Person: Amanda Caputo, Planning Board Secretary

Address: One Municipal Plaza, Beacon, NY 12508

Telephone Number: 845-838-5002

E-mail: acaputo@beaconny.gov

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

City of Beacon Planning Board Agenda
10/12/2022

Title:

Review application for Site Plan Approval, accessory apartment, 5 Willow Street, submitted by Susan Battersby

ATTACHMENTS

5 Willow Street Accessory Apartment Application Forms_220927.pdf

L220927_Amanda_5 Willow Street.pdf

Sheet 1_Site Plan_Planning Board Submission_1_220927.pdf

Sheet 2_Existing Conditions Demolition Plan_Planning Board Submission_1_220927.pdf

Sheet 3_Building Plans_Planning Board Submission_1_220927.pdf

Planners Comments 5 Willow St Acc Apt 10.7.22.pdf

Engineers Comments 5 Willow 10-05-22.pdf

APPLICATION FOR SPECIAL USE PERMIT

Submit to Planning Board Secretary, One Municipal Plaza, Suite One, Beacon, New York 12508

IDENTIFICATION OF APPLICANT

Name: Susan Battersby

Address: 5 Willow Street

Beacon, NY 12508

Signature: _____

Date: September 27, 2022

Phone: _____

(For Official Use Only)

	Date	Initials
Application & Fee Rec'd		
Initial Review		
PB Public Hearing		
Sent to City Council		
City Council Workshop		
City Council Public Hearing		
City Council Approve/Disapprove		

IDENTIFICATION OF REPRESENTATIVE / DESIGN PRFESSIONAL

Name: Aryeh Siegel Architect

Address: 84 Mason Circle

Beacon, NY 12508

Phone: 845-838-2490

Fax: 845-838-2657

Email address: ajs@ajsarch.com

IDENTIFICATION OF SUBJECT PROPERTY:

Property Address: 5 Willow Street

Tax Map Designation: Section 5954 Block 27 Lot(s) 820961

Land Area: 8,604 sf

Zoning District(s) R1-5

DESCRIPTION OF PROPOSED DEVELOPMENT:

Proposed Use: Existing Single Family Residence plus Accessory Apartment

Gross Non-Residential Floor Space: Existing 0 Proposed 0

TOTAL: 0

Dwelling Units (by type): Existing 1 Proposed 1 accessory apartment

TOTAL: 2

ITEMS TO ACCOMPANY THIS APPLICATION

a. Five (5) **folded** copies and One (1) digital copy of a site location sketch showing the location of the subject property and the proposed development with respect to neighboring properties and developments.

b. Five (5) **folded** copies and One (1) digital copy of the proposed site development plan, consisting of sheets, showing the required information as set forth on the back of this form and other such information as deemed necessary by the City Council or the Planning Board to determine and provide for the property enforcement of the Zoning Ordinance.

c. Five (5) **folded** copies and One (1) digital copy of additional sketches, renderings or other information.

d. An application fee, payable to the City of Beacon, computed per the attached fee schedule.

e. An initial escrow amount, payable to the City of Beacon, as set forth in the attached fee schedule.

APPLICATION PROCESSING RESTRICTION LAW

Affidavit of Property Owner

Property Owner: Susan Battersby

If owned by a corporation, partnership or organization, please list names of persons holding over 5% interest.

List all properties in the City of Beacon that you hold a 5% interest in:

Applicant Address: 5 Willow Street

Project Address: 5 Willow Street

Project Tax Grid # 5954-27-820961

Type of Application Special Use Permit

Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent (5%) interest in a corporation or partnership or other business.

I, Susan Battersby, the undersigned owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true.

1. No violations are pending for ANY parcel owned by me situated within the City of Beacon [X]
2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon [ ]
3. ALL tax payments due to the City of Beacon are current [X]
4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon [ ]
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon [ ]
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current [X]

Rob Susan Battersby

Signature of Owner

Title if owner is corporation

Office Use Only:	NO	YES	Initial
Applicant has violations pending for ANY parcel owned within the City of Beacon (Building Dept.)	___	___	_____
ALL taxes are current for properties in the City of Beacon are current (Tax Dept.)	___	___	_____
ALL Special Assessments, i.e. water, sewer, fines, etc. are current (Water Billing)	___	___	_____

CITY OF BEACON

SITE PLAN SPECIFICATION FORM

Name of Application: 5 Willow Street Accessory Apartment

PLEASE INDICATE WHETHER THE SITE PLAN DRAWINGS SHOW THE SUBJECT INFORMATION BY PLACING A CHECK MARK IN THE APPROPRIATE BOXES BELOW.

	YES	NO
The site plan shall be clearly marked "Site Plan", it shall be prepared by a legally certified individual of firm, such as a Registered Architect or Professional Engineer, and it shall contain the following information:	☑	☐
LEGAL DATA		
Name and address of the owner of record.	☑	☐
Name and address of the applicant (if other than the owner).	☑	☐
Name and address of person, firm or organization preparing the plan.	☑	☐
Date, north arrow, and written and graphic scale.		
NATURAL FEATURES		
Existing contours with intervals of two (2) feet, referred to a datum satisfactory to the Planning Board.	☐	☑
Approximate boundaries of any areas subject to flooding or stormwater overflows.	☐	☑
Location of existing watercourses, wetlands, wooded areas, rock outcrops, isolated trees with a diameter of eight (8) inches or more measured three (3) feet above the base of the trunk, and any other significant existing natural features.	☐	☑
EXISTING STRUCTURES, UTILITIES, ETC.		
Outlines of all structures and the location of all uses not requiring structures. Paved areas, sidewalks, and vehicular access between the site and public streets.	☑	☐
Locations, dimensions, grades, and flow direction of any existing sewers, culverts, water lines, as well as other underground and above ground utilities within and adjacent to the property.	☑	☐
Other existing development, including fences, retaining walls, landscaping, and screening.	☑	☐
Sufficient description or information to define precisely the boundaries of the property.	☑	☐
The owners of all adjoining lands as shown on the latest tax records.	☑	☐
The locations, names, and existing widths of adjacent streets and curb lines.	☑	☐
Location, width, and purpose of all existing and proposed easements, setbacks, reservations, and areas dedicated to private or public use within or adjacent to the properties.	☐	☑

PROPOSED DEVELOPMENT	YES	NO
The location, use and design of proposed buildings or structural improvements.	✔	
The location and design of all uses not requiring structures, such as outdoor storage (if permitted), and off-street parking and unloading areas.	✔	
Any proposed division of buildings into units of separate occupancy.	✔	
The location, direction, power, and time of use for any proposed outdoor lighting.	✔	
The location and plans for any outdoor signs.		✔
The location, arrangement, size(s) and materials of proposed means of ingress and egress, including sidewalks, driveways, or other paved areas.		
Proposed screening and other landscaping including a planting plan and schedule prepared by a qualified individual or firm.		✔
The location, sizes and connection of all proposed water lines, valves, and hydrants and all storm drainage and sewer lines, culverts, drains, etc.		✔
Proposed easements, deed restrictions, or covenants and a notation of any areas to be dedicated to the City.		✔
Any contemplated public improvements on or adjoining the property.		✔
Any proposed new grades, indicating clearly how such grades will meet existing grades of adjacent properties or the street.		✔
Elevations of all proposed principal or accessory structures.	✔	
Any proposed fences or retaining walls.		✔
MISCELLANEOUS		
A location map showing the applicant's entire property and adjacent properties and streets, at a convenient scale.	✔	
Erosion and sedimentation control measures.		✔
A schedule indicating how the proposal complies with all pertinent zoning standards, including parking and loading requirements.	✔	
An indication of proposed hours of operation.		✔
If the site plan only indicates a first stage, a supplementary plan shall indicate ultimate development.		✔

For all items marked "NO" above, please explain below why the required information has not been provided:

Items marked NO above are not applicable to this project.

Applicant/Sponsor Name: Susan Battersby

Signature: Per Susan Battersby

Date: September 27, 2022

City of Beacon
New York

Certificate of Inspection Application

Parcel Address 5 Wilcox St **Tax ID Number** 5954-27-829961

Property Owners Information:

Name Susan Battersby (Trust)

Mailing Address 1 Mountain Lane, Beacon, NY 12508

Business Phone # _____ Home Phone # 831.3457

Cell Phone # 845.705.4580 E-mail Address jeff@reynsport.com

POA Susan Battersby

Signature of Owner

For office use only:

	Connected to sanitary sewer	Disconnected	Waiver Requested	Waiver Approved
Roof Leaders	_____	_____	_____	_____
Sump Pump	_____	_____	_____	_____
Yard drain	_____	_____	_____	_____
Other (describe)	_____	_____	_____	_____

_____

Signature of Inspector

Inspection Date_____

Expiration Date_____

FEE: $50.00

FOR OFFICE USE ONLY
Application #

CITY OF BEACON

1 Municipal Plaza, Beacon, NY
Telephone (845) 838-5000 · http://cityofbeacon.org/

INDIVIDUAL DISCLOSURE FORM

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any person(s))

Disclosure of the names and addresses of all persons) filing a land-use application with the City is required pursuant to Section 223-62 of the City Code of the City of Beacon. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

SECTION A

Name of Applicant: Susan Battersby (Trust of)

Address of Applicant: 1 Hawkins Lane, Beacon, NY 12508 c/o Jeff Battersby

Telephone Contact Information: 845.705.4590

SECTION B. List all owners of record of the subject property or any part thereof.

Name	Residence or Business Address	Telephone Number	Date and Manner title was acquired	Date and place where the deed or document of conveyance was recorded or filed.
Same as Applicant				

SECTION B. Is any owner of record an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon ?

☐ Yes ☒ No

YES NO

If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

Agency	Title	Date of Hire, Date Elected, or Date Appointed	Position or Nature of Relationship

SECTION C. If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application.

SECTION D. Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.

☐ YES ☒ NO

I, Jeffrey Battersby (& Susan Battersby) being first duly sworn, according to law, deposes and says that the statements made herein are true, accurate, and complete.

(Print) JEFFREY BATTERSBY

(Signature) _____

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. **The applicant or project sponsor is responsible for the completion of Part 1.** Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project: 5 Willow Street Accessory Apartment		
Project Location (describe, and attach a location map): 5 Willow Street		
Brief Description of Proposed Action: Create Accessory Apartment in existing garage.		
Name of Applicant or Sponsor: Susan Battersby	Telephone: E-Mail:	
Address: 5 Willow Street		
City/PO: Beacon	State: NY	Zip Code: 12508

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval:	☑	☐

3. a. Total acreage of the site of the proposed action? 0.198 acres
   b. Total acreage to be physically disturbed? 0 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.198 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☑ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☑ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☑	☐
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☑

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: _____	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____	☐	☑

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____	☐	☑

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☐	☑
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☐	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☑ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered? Indiana Bat	☐	☑
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☑	☐
If Yes, a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☑	☐
If Yes, briefly describe:		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? *If Yes, explain the purpose and size of the impoundment:*	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? *If Yes, describe:*	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? *If Yes, describe:*	☐	☑

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Susan Battersby Date: 9.23.22

Signature: Pat Susan Battersby Title:

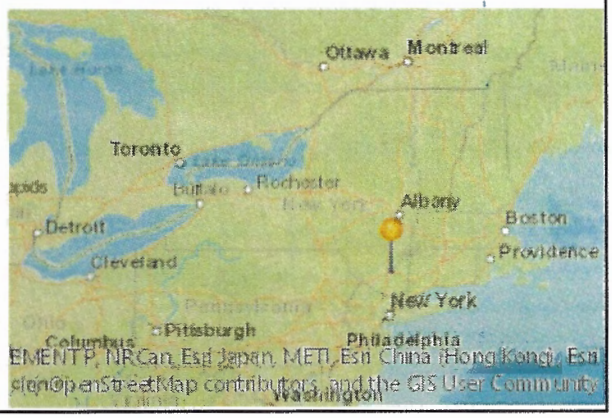
PRINT FORM

EAF Mapper Summary Report

Thursday, September 22, 2022 5:02 PM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	Yes
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	No
Part 1 / Question 15 [Threatened or Endangered Animal]	Yes
Part 1 / Question 15 [Threatened or Endangered Animal - Name]	Indiana Bat
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	Yes

ARYEH SIEGEL
ARCHITECT

Amanda Caputo
Planning Board Secretary
City of Beacon
One Municipal Plaza
Beacon, NY 12508

Re: 5 Willow Street
Accessory Apartment Application

September 27, 2022

Dear Amanda,

Please find enclosed:

- (5) sets of Sheets 1 through 3
- (1) Application Form
- (1) EAF Mapper
- (1) Individual Disclosure Form
- Checks for Application Fee and Escrow
- CD-ROM

Thank you. Please let me know if you have any questions.

Sincerely,



Aryeh Siegel
Aryeh Siegel, Architect

84 Mason Circle
Beacon, New York 12508
ajs@ajsarch.com
www.ajsarch.com
Tel 845 838 2490
Fax 845 838 2657



EXTERIOR WALL SCONCE (L1)

KIRKHAM BRONZE 8 1/2" WIDE DARK SKY LED OUTDOOR WALL LIGHT

- 8 1/2" WIDE X 6" HIGH. EXTENDS 10 1/2" FROM THE WALL
- 10 WATT BUILT-IN LED IS COMPARABLE TO A 45 WATT INCANDESCENT BULB
- 450 LUMENS
- 2700K. 79 CRI
- ASPEN BRONZE FINISH. METAL SHADE. HAMMERED GLASS.
- DARK SKY APPROVED FOR FULL CUT OFF

NOTE THAT THE ACCESSORY APARTMENT WILL COMPLY WITH THE FOLLOWING REQUIREMENTS FROM SECTION 223-24.1 OF THE CITY OF BEACON ZONING CODE:

Accessory Apartments

A. Owner occupancy required. The owner of the single-family lot upon which an accessory apartment is located shall occupy at least one of the dwelling units on said lot.

B. Location on the lot. An accessory apartment may be located either in a detached single-family dwelling or in an accessory building on such a single-family lot.

C. Apartment size. The minimum floor area for an accessory apartment within a detached single-family dwelling shall be 400 square feet. The maximum floor area shall be 650 square feet, but in no case shall the floor area of the apartment exceed 30% of the total floor area of the dwelling building in which it is located.

D. Exterior appearance. If an accessory apartment is located in a detached single-family dwelling, the entry to such unit and its design shall be such that, to the degree reasonably feasible, the exterior appearance of the building will remain that of a single-family residence.

E. Off-street parking. A minimum of one off-street parking space shall be provided for each accessory apartment in addition to the off-street parking required for other uses existing on the lot.

F. Renewal inspections. Each accessory apartment shall be inspected by the Building Department every two years in order to determine whether the apartment remains in compliance with this section. Upon a satisfactory inspection report, the accessory apartment owner shall be reissued a certificate of occupancy. In the event that the inspection indicates that the apartment is no longer in compliance, the certificate of occupancy shall be revoked until the violations are cured.



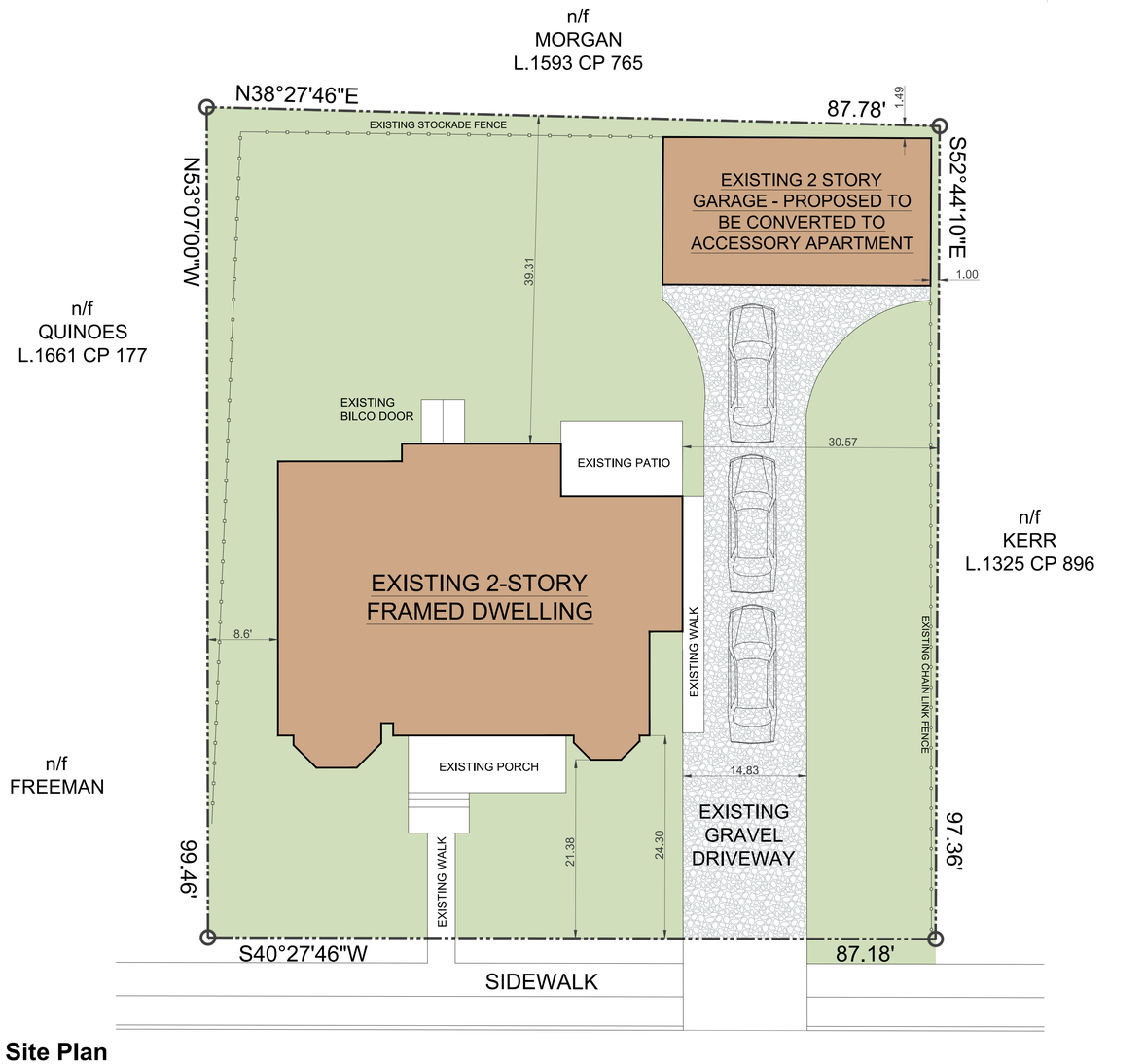


Existing Photos

Zoning Regulations Table

	Required Setbacks Main Structure			Existing Setbacks Main Building			Required Setbacks Accessory Building		Existing Setbacks Accessory Building		Maximum Cumulative Square Footage for All Accessory Buildings	Existing Cumulative Square Footage for All Accessory Buildings	Maximum Square Footage Permitted For Accessory Apartment	Proposed Square Footage For Accessory Apartment	Existing Building Coverage	Maximum Main Building Height	Existing Main Building Height
	Front	Side	Rear	Front	Side	Rear	Side	Rear	Side	Rear							
Zoning District																	
R1-5	15'	10'	20'	21.38'	8.6' 30.57'	39.31'	5'	5'	1'	1.5'	720 sf	1,040 sf existing garage	600 sf	1,040 sf	25%	2.5 Stories 35'	2 Stories existing

Note: Existing Main and Accessory Building setbacks are existing non-conforming conditions.

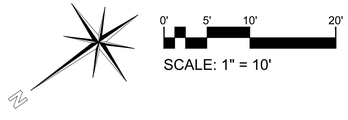


Site Plan

Scale: 1" = 10'

WILLOW STREET

SITE PLAN INFORMATION FROM A SURVEY BY PETER HUSTIS, L.L.S. DATED JULY 28, 2003



5 WILLOW STREET



Location Plan

1" = 200'

Zoning Summary

Zoning District:	R1-5
Tax Map No.:	5954-27-820961
Lot Area:	8,604 square feet
Existing Building Footprint:	1,569 square feet
Proposed Accessory Apartment Area:	1,040 square feet
Historical Overlay District:	No
Parking Overlay District:	No
Existing Use:	Single Family Residential
Proposed Use:	Single Family Residential with Accessory Apartment

Parking & Loading

Use & Parking Requirements	Proposed Area	Parking Requirement
Residential		
2 spaces for each dwelling unit +1 space for accessory apartment	1 dwelling unit + 1 accessory apartment	3 parking spaces
Total Required Parking Spaces		***3 Parking Spaces***
Total Proposed Parking Spaces		**3 Parking Spaces**

Notes:

1. Apartment size: For an accessory apartment located in an accessory building, the minimum floor area shall be 300 square feet, and the maximum shall be 600 square feet, except that the Planning Board may permit a smaller or larger accessory apartment where appropriate in an existing accessory building constructed prior to August 1, 1989.

   The proposed Accessory Apartment is located in an existing accessory building constructed prior to August 1, 1989. The proposed Accessory Apartment area is 1,040 square feet. Therefore, the size of the accessory apartment is larger than the maximum permitted size of 600 square feet. However, the Planning Board may permit the proposed accessory apartment per the Zoning regulations in the existing 2-story accessory building.

2. The Applicant proposes to occupy the existing 2nd floor of the existing accessory building as part of the accessory apartment. Per Section 223-14 (3) E: Space provided above the grade story shall be utilized for storage only.

   The Applicant will apply to the Zoning Board for relief from Section 223-14 (3) E: to allow habitable space on the 2nd floor of the existing accessory building.

3. Off-street parking: A minimum of one off-street parking space shall be provided for each accessory apartment in addition to the off-street parking required for other uses existing on the lot. Two parking spaces are required for the existing single family residence.

   The 3 required parking spaces are provided in the existing driveway behind the front plane of the house, and more than 5 feet from the side yard property line.

4. Note that exterior lighting fixtures for the accessory building shall comply with the requirements of Section 223-14B, specifically:
   a. The type, location, and shading of such lighting shall prevent the spillover of light onto any adjacent residential or multifamily property or direct glare onto any public sidewalk or street.
   b. Such lighting shall use full cutoff fixtures that do not emit light above the horizontal plane into the night sky, except for lighting for short-term events or holidays, flagpole lighting, decorative light sources under 600 lumens, public parks and other public specialty lighting, as determined by the Building Inspector.
   c. Color temperatures should be in the range of 2,400 to 4,000 Kelvin degrees.
   d. The color rendering index should be in the range of 80 to 100.
   e. Adaptive controls, such as dimmers, timers, and motion sensor shut-off lighting, should be used whenever appropriate.

Index of Drawings

Sheet 1 of 3	Site Plan
Sheet 2 of 3	Survey / Existing Conditions Plan
Sheet 3 of 3	Accessory Apartment Plans and Elevations

REVISIONS:			
NO.	DATE	DESCRIPTION	BY

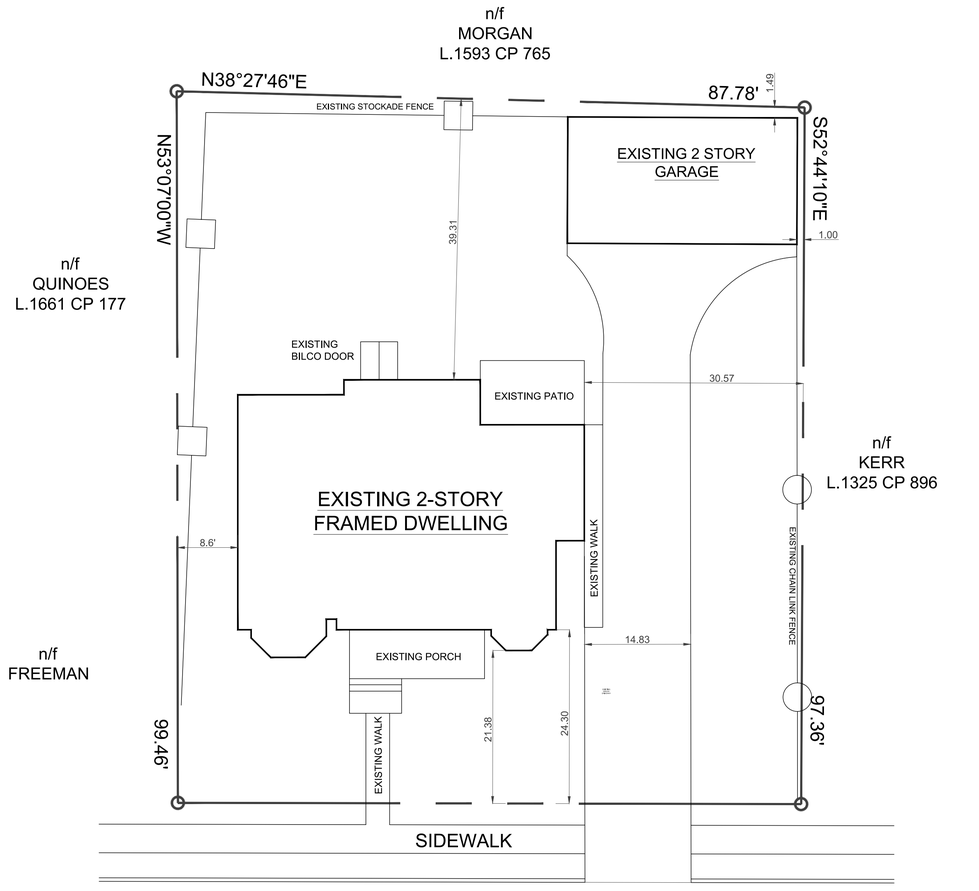
Special Use Permit - Accessory Apartment

Sheet 1 of 3 - Site Plan

Owner:
Susan Battersby
5 Willow Street
Beacon, NY 12508

Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

5 Willow Street
Beacon, New York
Scale: As Noted
September 1, 2022



EXISTING CONDITIONS INFORMATION FROM A PAPER COPY OF A SURVEY BY PETER HUSTIS, L.L.S. DATED JULY 28, 2003

REVISIONS:			
NO.	DATE	DESCRIPTION	BY

Existing Conditions & Demolition Plan

Scale: 1" = 10'

Special Use Permit - Accessory Apartment

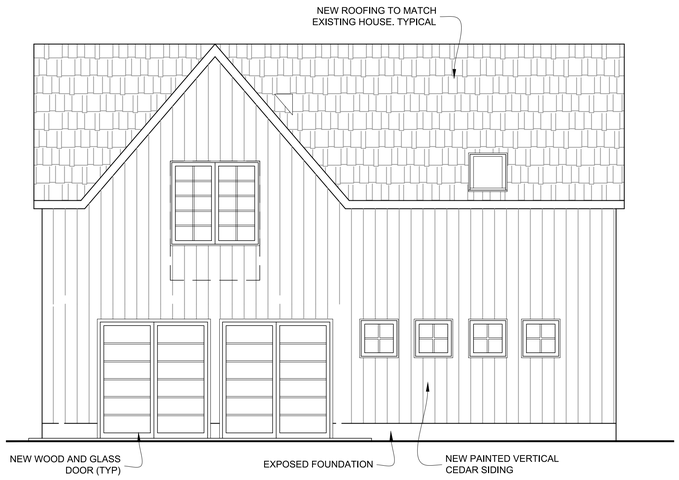
Sheet 2 of 3 - Survey / Existing Conditions Plan

Owner:
Susan Battersby
5 Willow Street
Beacon, NY 12508

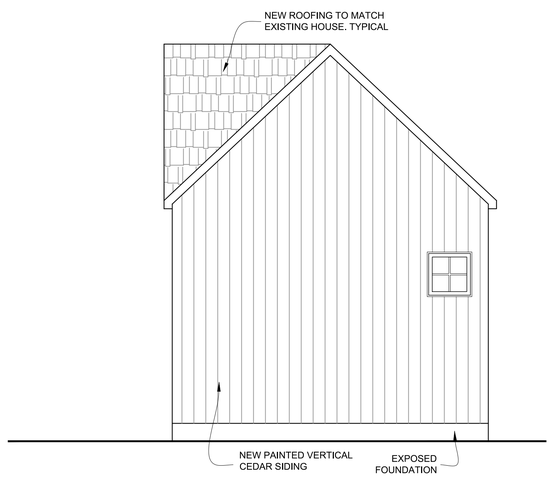
Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

5 Willow Street
Beacon, New York
Scale: As Noted
September 1, 2022

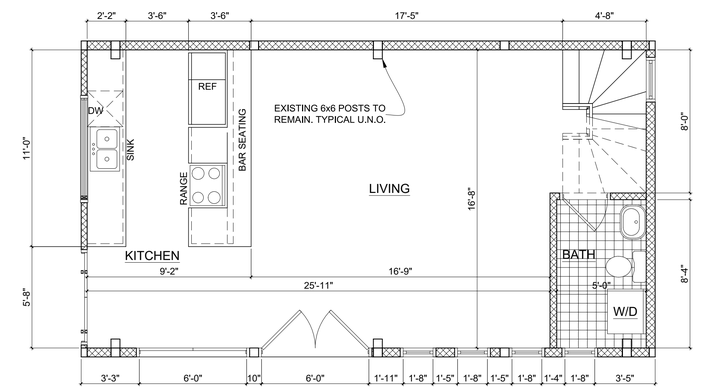
REVISIONS:			
NO.	DATE	DESCRIPTION	BY



Front Elevation

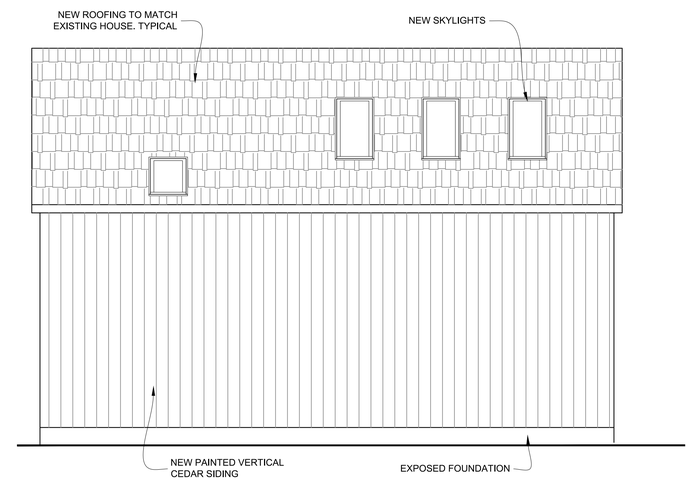


Right Side Elevation

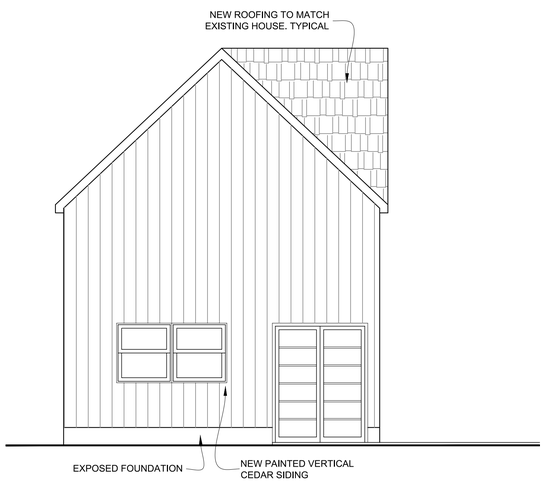


1st Floor Plan

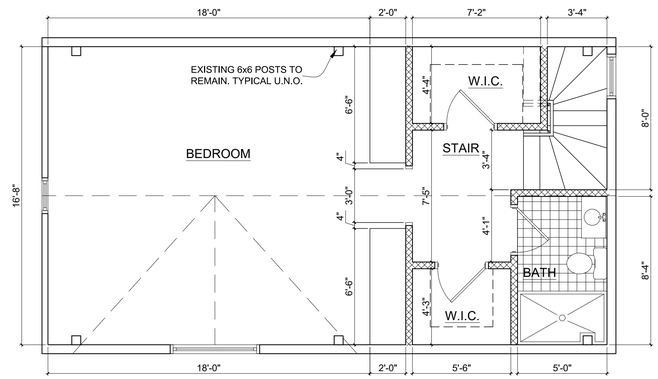
Scale: $\frac{1}{4}$" = 1'-0"



Rear Elevation



Left Side Elevation



2nd Floor Plan

Scale: $\frac{1}{4}$" = 1'-0"

Special Use Permit - Accessory Apartment

Sheet 3 of 3 - Accessory Apartment Plans & Elevations

Owner:
Susan Battersby
5 Willow Street
Beacon, NY 12508

Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

5 Willow Street
Beacon, New York
Scale: As Noted
September 1, 2022

John Clarke Planning and Design jclarkeplandesign@gmail.com
845.797.4152

To: John Gunn, Chair, and the City of Beacon Planning Board
Date: October 7, 2022
Re: **Willow Street, Site Plan for Accessory Apartment**

I have reviewed a September 27, 2022 cover letter from Aryeh Siegel, September 27, 2022 Special Permit Application, and a 3-sheet Special Permit set, dated September 1, 2022.

Proposal

The applicant is proposing to create an accessory apartment in an existing garage/carriage house on an 8,604 square foot lot in the Transitional (T) district.

Comments and Recommendations

1. On September 19, 2022, the Beacon City Council adopted a revised Section 223-24.1, regulating accessory apartments, as well as changes to the use, dimensional, and accessory building tables. Among the amendments, a special permit is no longer required, the minimum size for an accessory apartment is now 200 square feet, the maximum size is 1,000 square feet, and an accessory building can now be up to 50% of the total square footage of the principal building. The new law will be effective as soon as it is filed with the Department of State, which should happen very soon. The labels, tables, and notes for this new application will need to be consistent with the zoning revisions.

2. An accessory apartment on an existing lot is a Type II action under SEQRA, so no EAF is necessary.

3. The parcel is within the T zoning district, not the R1-5 district.

4. Accessory apartments are only permitted on single-family lots. The County's Parcel Access lists this property as a two-family use.

5. For Note 2, Zoning Code Section 223-14E(3) does not now apply to accessory apartments, so no variance is required.

6. According to the new law Section 223-24.1H, an existing structure that does not conform to the yard requirements of Chapter 223 may be converted into an accessory apartment without a variance from the ZBA, if the proposed use will not enlarge or increase the dimensional nonconformity. The existing garage/carriage house appears to be consistent with this provision.

7. The Planning Board may now permit an accessory apartment with more than 1,000 square feet, if the existing building is more than 5 years old. This 1,040 square foot proposal should qualify for Planning Board consideration.

8. The cars represented on the plan are oversized in scale. The plan should show the required parking as 9' X 18' spaces.

9. The applicant could consider 2 or 3 street trees along the property frontage.

If you have any questions or need additional information, please feel free to contact me.

John Clarke, Beacon Planning Consultant

c: Dave Buckley, Building Inspector
Jennifer L. Gray, Esq., City Attorney
Arthur R. Tully, P.E., City Engineer
John Russo, P.E., City Engineer
Aryeh Siegel, Project Architect

LANC & TULLY

ENGINEERING AND SURVEYING, P.C.

John J. O'Rourke, P.E., Principal
David E. Higgins, P.E., Principal
John Queenan, P.E., Principal
Rodney C. Knowlton, L.S., Principal
Jerry A. Woods, L.S., Principal
John D. Russo, P.E., Principal
John Lanc, P.E., L.S.
Arthur R. Tully, P.E.

October 5, 2022

Mr. John Gunn
Beacon Planning Board Chair
City of Beacon
1 Municipal Plaza
Beacon, NY 12508

RE: 5 Willow Street
Accessory Apartment
Tax No. 5954-27-820961
City of Beacon

Dear Mr. Gunn:

My office has received the following regarding the above application:

- Correspondence dated September 27, 2022, from Aryeh Siegel, Architect.
- Application for Special Use Permit, Certificate of Inspection Application, and Individual Disclosure Form.
- Short Environmental Assessment Form dated September 23, 2022.
- Plans titled "Special Use Permit – Accessory Apartment – 5 Willow Street", consisting of 3 sheets dated September 1, 2022, as prepared by Aryeh Siegel, Architect.

The proposed project is located in the R1-5 Zone and entails the conversion of 2-story accessory structure to a 1,040 square foot accessory apartment. Based upon our review of the submitted documents and plans, we offer the following comments:

General Comments:

1. The "Certificate of Inspection Application" shall be completed by the City of Beacon Building Department, or a formal Inflow and Infiltration (I&I) study shall be provided by the applicant's consultant.

2. Question 20 on the Short EAF shall be fully completed, as a description is required since the answer to the question of remediation is "yes".

3. The plans shall be revised to show how water and sewer shall be provided to the proposed accessory apartment structure, along with providing all pertinent construction details.

4. The location of the exterior wall light shown on Sheet 1, shall be shown on the elevation plans on Sheet 3.

5. The floor plans for the accessory apartment do not show the location of a mechanical room for a water heater and/or furnace. The plans should be updated to reflect where these units will be located.

This completes our review at this time. Further comments may be provided based on future submissions. **A written response letter addressing each of the above comments should be provided with the next submission.** If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.

John Russo, P.E.

cc: John Clarke, Planner
Jennifer Gray, Esq.
David Buckley, Building Inspector

City of Beacon Planning Board Agenda
10/12/2022

Title:

City Council request to review Fire Station facade

ATTACHMENTS

20220831 Rendering- Brick Front- Angle.jpg

20220831 Rendering- Brick Front.jpg

Beacon-221006-Brick-3.jpg

IMG_7551_1280x960.JPG




CITY OF BEACON FIRE DEPARTMENT


DEPARTMENT


HUDSON BEACH GLASS

City of Beacon Planning Board Agenda
10/12/2022

Title:

Consider request for one 90-day extension of Site Plan and Subdivision Approval, 364 Main Street, submitted by O'Donnell Construction Corp

ATTACHMENTS

364 Main Street - Planning Board Extension Request.pdf

CUDDY +FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
T 914 761 1300
F 914 761 5372
cuddyfeder.com

Taylor M. Palmer, Esq.
tpalmer@cuddyfeder.com

September 27, 2022

VIA E-MAIL
Hon. John Gunn
And Members of the Planning Board
City of Beacon
1 Municipal Plaza
Beacon, New York 12508

Re: Request for 90-Day Extension - Site Plan and Subdivision Approval Resolution
Premises: 364 Main Street & Eliza Street, Beacon, New York

Dear Chairman Gunn and Members of the Planning Board:

On behalf of O'Donnell Construction Corp. (the "Applicant"), we are writing to request a 90-day extension of the April 12, 2022 Amended Site Plan and Preliminary & Final Subdivision Approval Resolution (the "Approval Resolution"). This request is timely, as 180 days (6 months) have not elapsed since the date of the adopted Approval Resolution.[1]

At this time, the Applicant's consultants have resolved all outstanding City consultant comments regarding the Project's plan sets and we understand that the Final Site Plans have been signed by the Planning Board Chairman. The Applicant is now coordinating the completion of the Final Subdivision Plat and intends to submit the same to Planning Board Chairman for his signature, shortly, so that it may ultimately be filed at the County Clerk's Office.

Given the particular circumstances noted above, we respectfully submit this formal request for a 90-day extension of the Preliminary and Final Subdivision Approval, thus extending to January 7, 2023, the date by which the Applicant must satisfy the remaining conditions – limited to having the final plat signed and filed – set forth in the Approval Resolution. This Board has the authority to grant the requested limited extension pursuant to City of Beacon Code Section 195-14(D).

We respectfully request that you please place this matter on the next available Planning Board Agenda for consideration of the Applicant's request for a 90-day extension. In the event that the Applicant is able to file the Final Subdivision Plat with the County prior to the October 9th expiration of the Approval Resolution, the Applicant will withdraw its application for an extension.

[1] A copy of the April 12, 2022 Approval Resolution is attached to this letter as **Exhibit A.**

In the meantime, should the Planning Board or City Staff have any questions or comments with regard to the foregoing, please do not hesitate to contact me.

Very truly yours,

Taylor M. Palmer

Enclosure

cc: Jennifer L. Gray, Esq., Planning Board Attorney
Allison Fausner, Esq.

Exhibit A

RESOLUTION

PLANNING BOARD
BEACON, NEW YORK

PRELIMINARY & FINAL SUBDIVISION PLAT AND SITE PLAN APPROVALS FOR 364 MAIN STREET

PARCEL ID NOS: 6054-29-006819 & 6054-29-004836

WHEREAS, the Beacon Planning Board received an application for approval of a Preliminary and Final Subdivision Plat and Site Plan from O'Donnell Construction Corp. (the "Applicant") to construct a three-story, mixed use building consisting of 8,892 square feet of first floor commercial space, a first floor residential common area of 1,607 square feet and 20 apartments (31 total bedrooms) on the second and third floors for a total of 25,120 square feet, as well as associated site improvements (the "Proposed Action") on parcels located at 364 Main Street in the Central Main Street (CMS) District consisting of approximately 0.54 acres and on Eliza Street in the Transition (T) District consisting of approximately 0.31 acres, said premises being known and designated on the tax map of the City of Beacon as **6054-29-006819** and **6054-29-004836,** respectively (together referred to herein as the "Property"); and

WHEREAS, the applicant seeks to consolidate the parcels to create one 0.85 acre parcel as shown on the Subdivision Plat referenced below; and

WHEREAS, as originally submitted the Project included a Special Use Permit seeking to construct a fourth story, however, during the Planning Board's review of the application the Project was modified to eliminate the proposed fourth story and accordingly a Special Use Permit is no longer required; and

WHEREAS, the Planning Board is the approval authority for the Subdivision (lot merger) and Site Plan pursuant to City of Beacon Code §§ 195-2 and 223-25; and

WHEREAS, the application consists of application forms, correspondence, and the Full Environmental Assessment Form ("EAF"); and

WHEREAS, the Subdivision is shown on the drawing, entitled "Lot Line Change for the Lands of O'Donnell Construction Corp.," prepared by Robert V. Oswald, Land Surveying, LaGrangeville, New York, last revised March 28, 2022; and

WHEREAS, the Site Plan is shown on the following drawings, generally entitled "Site Plan Application-364 Main Street," prepared by Aryeh Siegal Architect, Day & Stokosa Engineering, P.C. and Landscape Restorations, dated October 4, 2021, last revised March 29, 2022:

Sheet	Title
1 of 14	*Site Plan*
2 of 14	*Existing Conditions & Demolition Plan*
3 of 14	*Landscape Plan & Planting Schedule*
4 of 14	*Building Plans*
5 of 14	*Building Elevations & Renderings*
6 of 14	*UP.1 – Utility Plan*
7 of 14	*LP.1 – Lighting Plan*
8 of 14	*VM.1 – Refuse Truck Movement Plan*
9 of 14	*VM.2 – 30' Truck Movement Plan*
10 of 14	*CD.1 – Construction Details*
11 of 14	*CD.2 – Construction Details*
12 of 14	*CD.3 – Construction Details*
13 of 14	*ESC.1 – Erosion & Sediment Control Plan*
14 of 14	*ESC.2 – Erosion & Sediment Control Details*; and

WHEREAS, the Proposed Action is an Unlisted Action, pursuant to the New York State Environmental Quality Review Act ("SEQRA"); and

WHEREAS, in August 2021, the Planning Board circulated to all known Involved and Interested Agencies notice of its intent to declare itself Lead Agency for the environmental review of the Proposed Action pursuant to SEQRA and no objections were received; and

WHEREAS, on November 9, 2021, the Planning Board, as Lead Agency, opened a public hearing to consider comments regarding any environmental impacts associated with the Proposed Action and continued the hearing to December 14, 2021, and January 11, 2022, at which time the public hearing was closed; and

WHEREAS, on December 14, 2021 the Planning Board referred the application to the Architectural Review Subcommittee for its advisory review and report;

WHEREAS, the Architectural Subcommittee met with the Applicant on January 19, 2022, February 11, 2022 and March 18, 2022 and submitted a Report to the Planning Board dated March 18, 2022; and

WHEREAS, after taking a "hard look" at each of the relevant areas of environmental concern through review of the EAF and all associated materials prepared in connection with the Proposed Action, the Planning Board determined that the Proposed Action will not result in any significant adverse environmental impacts and adopted a Negative Declaration on January 11, 2022; and

WHEREAS, on January 11, 2022 the Planning Board opened a duly noticed public hearing on the application for Subdivision and Site Plan approvals concerning the Proposed Action and continued the public hearing to February 8, 2022, March 8, 2022 and April 12,

2022, at which time all those interested were given an opportunity to be heard and the public hearing was closed on April 12, 2022; and

WHEREAS, the Planning Board is fully familiar with the Proposed Action and has reviewed the Proposed Action relative to all applicable provisions of the City Code.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Board hereby grants Preliminary Subdivision Plat Approval (lot merger) for the Proposed Action, as shown on the plan entitled "Lot Line Change for the Lands of O'Donnell Construction Corp.," prepared by Robert V. Oswald, Land Surveying, LaGrangeville, New York, last revised March 28, 2022.

BE IT FURTHER RESOLVED, that the Planning Board hereby finds the Final Subdivision Plat will not be substantively changed from the Preliminary Subdivision Plat and hereby determines that a public hearing on the Final Plat is not required.

BE IT FURTHER RESOLVED, that the Planning Board hereby grants Final Subdivision Plat Approval (lot merger), as shown on the plan entitled "Lot Line Change for the Lands of O'Donnell Construction Corp.," prepared by Robert V. Oswald, Land Surveying, LaGrangeville, New York, last revised March 28, 2022, subject to the conditions and modifications set forth herein.

BE IT FURTHER RESOLVED, that the Planning Board hereby grants Site Plan Approval as set forth and detailed on the plans prepared by prepared by Aryeh Siegal Architect, Day & Stokosa Engineering, P.C. and Landscape Restorations, last revised March 29, 2022, subject to the following conditions set forth below and any other requirements which must be met by law:

A. The following conditions shall be fulfilled prior to the signing of the Final Subdivision Plat by the Chairman of the Planning Board:

1. All application review fees shall be paid in full.
2. The Subdivision Plat shall be revised to include all information and endorsements required by Section 195-29.B of the City Code.
3. The Applicant shall seek and obtain all required permits and/or approvals from the appropriate agencies for the Project, including but not necessarily limited to approval from the Dutchess County Department of Health, and shall meet all conditions contained in such approvals, as required therein.
4. The comments contained in the City Engineer's letter to the Planning Board dated April 6, 2022, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Engineer.
5. The comments contained in the City Planner's letter to the Planning Board dated April 7, 2022, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Planner.

6. The comments contained in the City Traffic Engineer's letter to the Planning Board dated February 7, 2022 and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Traffic Engineer.

7. All existing and proposed easements and offers of dedication, as applicable, shall be shown on the Final Subdivision Plat to the satisfaction of the City Engineer and City Attorney. Proposed easement agreements, declarations of restrictive covenants, offers of dedication, or other appropriate documents corresponding with the easements and notes shown on the Final Subdivision Plat shall be prepared, as applicable, and submitted to the City Attorney for review as to form and shall be recorded in the Dutchess County Clerk's Office simultaneously with the Subdivision Plat, with a copy of the recorded documents submitted to the City Clerk for filing.

When the conditions above have been satisfied, six (6) sets of the above referenced plans revised as per the conditions above shall be submitted for endorsement by the Planning Board Chairman. One set of the endorsed plans will be returned to the Applicant, one set will be retained by the City Clerk, one set will be provided to the Planning Board, and one set each will be forwarded to the Building Inspector, City Engineer and City Planner.

B. The following conditions shall be fulfilled prior to the signing of the Site Plan by the Chairman of the Planning Board.

1. All application review fees shall be paid in full.

2. The Applicant shall seek and obtain all required permits and/or approvals from the appropriate agencies for the Project, including but not necessarily limited to approval from the Dutchess County Department of Health, and shall meet all conditions contained in such approvals, as required therein.

3. The comments contained in the City Engineer's letter to the Planning Board dated April 6, 2022, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Engineer.

4. The comments contained in the City Planner's letter to the Planning Board dated April 7, 2022, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Planner.

5. The comments contained in the City Traffic Engineer's letter to the Planning Board dated February 7, 2022, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Traffic Engineer.

6. A note shall be added to the plans to state:

    i. Refuse pick-up shall be limited to off-peak hours.

ii. Delivery vehicles shall be limited to a maximum size of a Single Unit 30' box truck. To the maximum extent practicable, trucks for deliveries and moving purposes shall be coordinated to avoid conflicts with on-site parking operations.

7. A note shall be added to the plans to state:

All landscaping shown on the Site Plan shall be maintained in a vigorous growing condition for the duration of the use and shall be trimmed so as to not interfere with pedestrian use of the sidewalk. All plants not so maintained shall be replaced with new plants of comparable size and quality at the beginning of the next immediately following growing season in compliance with the Site Plan, at the sole cost and expense of the property owner.

When the conditions above have been satisfied, six (6) sets of the above referenced plans revised as per the conditions above shall be submitted for endorsement by the Planning Board Chairman. One set of the endorsed plans will be returned to the Applicant, one set will be retained by the City Clerk, one set will be provided to the Planning Board, and one set each will be forwarded to the Building Inspector, City Engineer and City Planner.

C. Prior to the issuance of a Building Permit, the following conditions shall be fulfilled:

1. Prior to commencement of any site work for the Project, the Applicant shall fund an escrow account with the City of Beacon for the construction observation and monthly stormwater inspections of the proposed utilities and site improvements in an amount as determined by the City Engineer. The Applicant's engineer shall prepare a cost estimate for review by the City Engineer for determining value of escrow to be established.

2. Pursuant to the City of Beacon Code § 223-41.10.A, the Applicant shall submit floor plans which provide a mix of unit types in the same proportion as all other units in the development, subject to approval by the Planning Board. The floor plans should indicate the location of each BMR unit to be provided.

D. The following are general conditions which shall be fulfilled:

1. Based on the current and anticipated future need for park and recreational opportunities in the City of Beacon, as set forth in the analysis provided by BFJ Planning, and the demands of the future population of the Project, the Planning Board hereby finds that additional recreation/parkland should be created as a condition of approval. However, the Planning Board hereby determines that recreation/parkland of adequate size and location cannot be provided on the Project Site. Therefore, that Applicant shall pay a Recreation Fee as prescribed under Sections 223-25.H(4) and 223-61.A(7) of the Zoning Law. The Planning

Board hereby requires that, prior to the issuance of a Certificate of Occupancy, the Applicant shall pay a Recreation Fee for each of the 20 new dwellings in accordance with Sections 223-25.H(4) and 223-61.A(7) of the Zoning Law, as per the City's Fee Schedule in effect at the time of payment.

2. The Project shall comply in all respects with Article IVB, Affordable-Workforce Housing, of the City of Beacon Zoning Law. The Applicant shall be responsible for the payment of any and all fees established by the City Council now or in the future or as otherwise required for the ongoing implementation of the provisions of Article IVB, Affordable-Workforce Housing, of the City of Beacon Zoning Law as said Article applies to the Project.

3. Prior to the issuance of a Certificate of Occupancy, the Applicant shall seek and obtain all necessary permits and approvals from the City of Beacon for the installation of the proposed off-site traffic signage, including the "Stop" sign on the Veterans Road approach and a "One-Way" sign across from the Eliza Street driveway exit. The "No Left Turn" sign at the driveway exit approach to Eliza Street is proposed to be located on-site, so no further permits or approvals are required for such installation.

4. Due to the necessity for a refuse truck to back-out onto Eliza Street from the Property, refuse pick-up shall be limited to off-peak hours. Also, delivery vehicles shall be limited to a maximum size of a Single Unit 30' box truck. To the maximum extent practicable, trucks for deliveries and moving purposes shall be coordinated to avoid conflicts with on-site parking operations.

5. The Applicant may utilize assigned parking for residential tenants in the future should the need or preference for such assignments become evident. Conversion to an assigned parking system for residential tenants shall not require an amended site plan approval from the Planning Board.

6. The Applicant will use best efforts to negotiate an easement or license agreement for the benefit of the owner of Parcel ID No. 5954-36-991830 to provide access for rear ingress and egress, should such access become necessary.

7. The Building Inspector and the City Engineer shall have the right to direct the Applicant to cause the placement, cleaning and/or repair of sedimentation and erosion control devices wherever and whenever deemed necessary during construction.

8. The Applicant shall be responsible for the payment of all application review costs incurred by the City in its review and approval of this project. Such fees shall be paid by the Applicant within thirty (30) days of each notification by the City that such fees are due. If such fees are not paid within said thirty (30) day period, and an extension therefore has not been granted by the City, this resolution shall be rendered null and void.

9. As used herein, the term "Applicant" shall include its heirs, successors and assigns, and where applicable its contractors and employees.

10. If any of the conditions enumerated in this resolution upon which this approval is granted are found to be invalid or unenforceable, then the integrity of this resolution and the remaining conditions shall remain valid and intact.

11. The approvals granted by this resolution do not supersede the authority of any other entity.

12. This approval is conditioned upon compliance with all of the mitigation measures specified in the Applicant's EAF and the Negative Declaration granted pursuant thereto. The Applicant shall be responsible for the funding and/or implementation of all such identified mitigation measures. Where the terms of this Resolution may be inconsistent with the EAF, the terms of this Resolution shall be controlling.

13. Conditional approval of the Final Subdivision Plat shall expire one hundred eighty (180) days from the date of the adoption of this resolution unless all items in Condition A above have been certified as completed and the Final Plat has been submitted for endorsement by the Planning Board Chairman, or unless a written request for an extension of Final Subdivision Plat Approval is granted. The Planning Board may grant ninety (90) day extensions to said time period.

14. Once the Final Subdivision Plat has been endorsed by the Planning Board Chairman, said plat must be filed in the Dutchess County Clerk's Office within sixty-two (62) days. After said filing, two (2) copies of the Final Plat certified by Dutchess County shall be submitted to the Planning Board Secretary. One (1) certified copy of the Final Plat shall be retained by the Planning Board and the other certified copy shall be transmitted to the City Clerk along with a signed copy of this resolution and proof of recording of the easement documents described above.

15. Pursuant to the City of Beacon Code § 223-25.J, the Site Plan Approval granted herein shall expire in the event the Applicant does not submit a bona fide building permit application to the Building Department within one year of the adoption date of this Resolution, provided however, that the Planning Board may extend such time period from time to time for good cause shown upon written request from the Applicant.

16. Any proposed revision to the approved Subdivision or Site Plan Drawings, except revisions determined by the Building Inspector and City Engineer to be field changes, shall be submitted to the Planning Board. The Planning Board, in its discretion, shall determine the appropriate procedures for consideration of the proposed revision, and whether such revision is material enough to require further environmental analysis and/or further project review, as the Board may deem appropriate.

Resolution Adopted: April 12, 2022
Beacon, New York



4/20/2022.

John Gunn Chairman
City of Beacon Planning Board

Date

Motion by Mr. Williams, seconded by Ms. Reynolds:

Kevin Byrne	Voting: AYE	Leonard Warner	Voting: AYE
J.C. Calderon	Voting: EXCUSED	J. Randall Williams	Voting: AYE
Karen Quiana	Voting: EXCUSED	John Gunn, Chairman	Voting: AYE
Jill Reynolds	Voting: AYE		

Resolution Approved: 5-0

City of Beacon Planning Board Agenda
10/12/2022

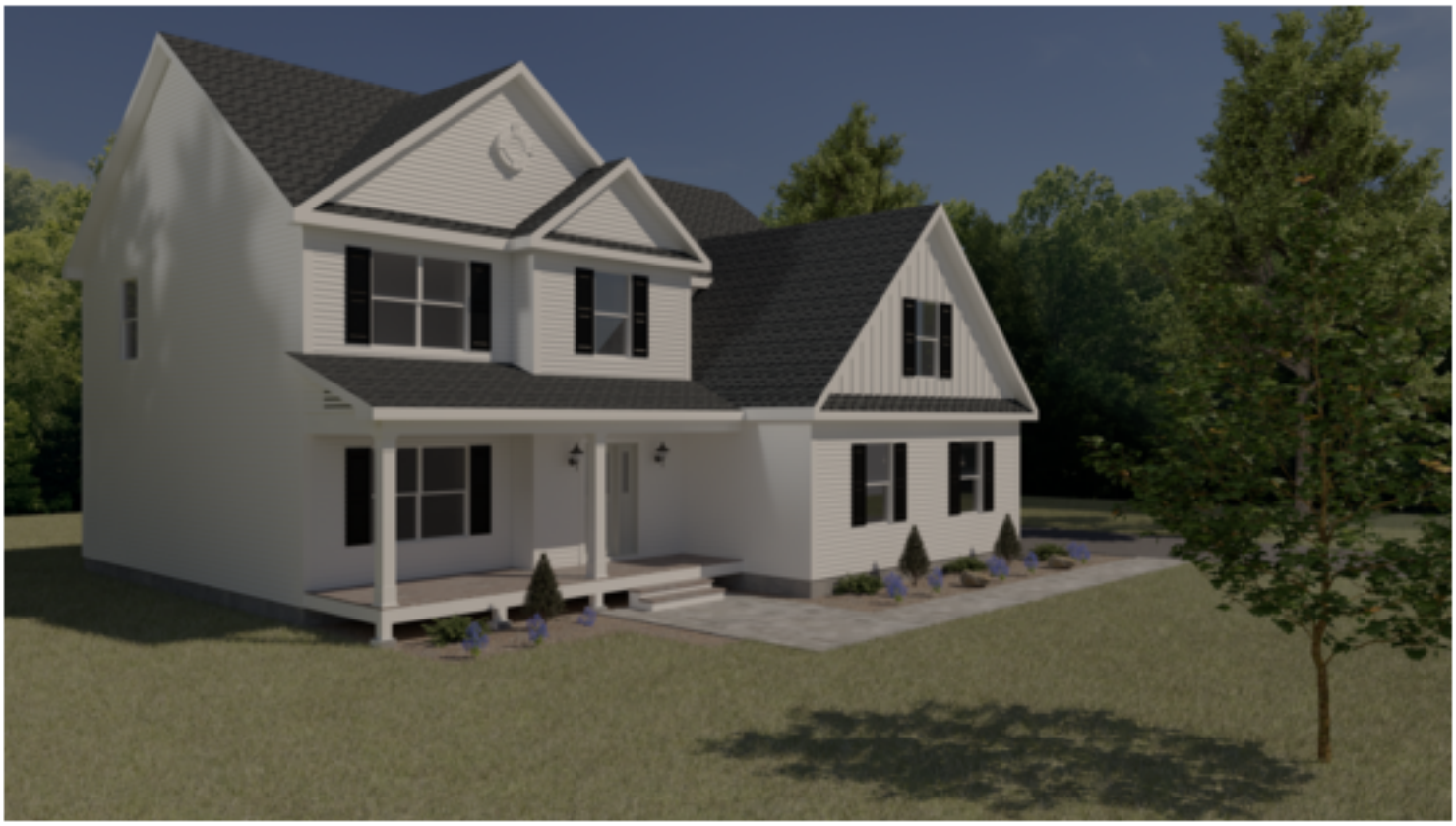
Title:

Single Family House - 14 Howland Avenue

ATTACHMENTS

14 Howland Avenue Final Rendering.png

14 Howland Updated Application.pdf



ARCHITECTURAL REVIEW BOARD APPLICATION

Date: 09/27/2022

Project Address: 14 ~~B~~ Howland Ave

Project Architect/Engineer: _____

Owner/Builder: _____

Contact Phone No.: _____

Approval Requested: _____ Certificate of Appropriateness ✓ New Single Family House

Color/Materials:

Siding: white vinyl 4" over 4" & Board n Batten (white)

Roofing: GAF Timberline charcoal

Windows: Color: White Type: _____

Trim: _____

Garage Door: Black

Stone/Brick: _____

[signature]

Signature of Owner

FOR OFFICE USE ONLY:

The Architectural Review Board has reviewed the plans submitted for approval for the project listed above and has determined:

Plan Denied _____
(Date)

Plan Approved _____
(Date)

Subject to the following:

_____

_____

FEE: $100.00

City of Beacon Planning Board Agenda
10/12/2022

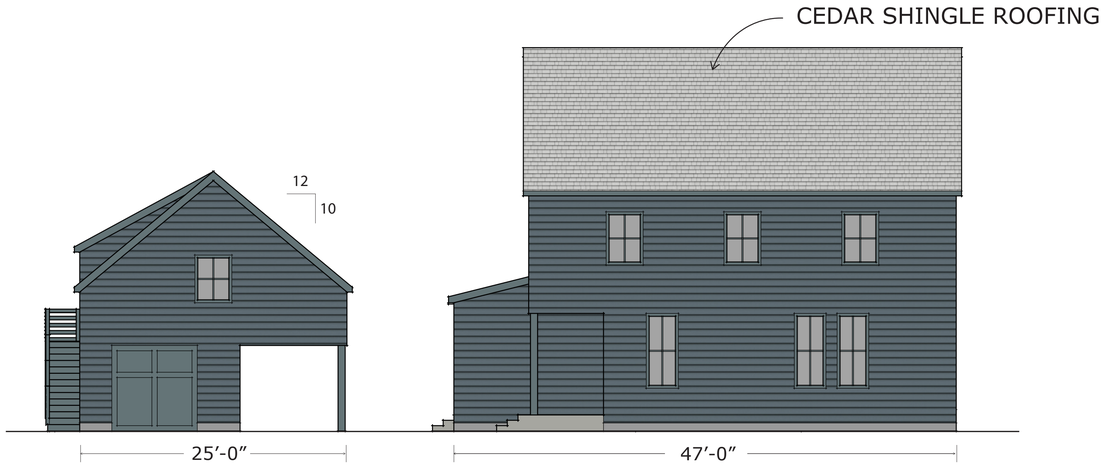
Title:

Single Family House - 16 Coyne Hill

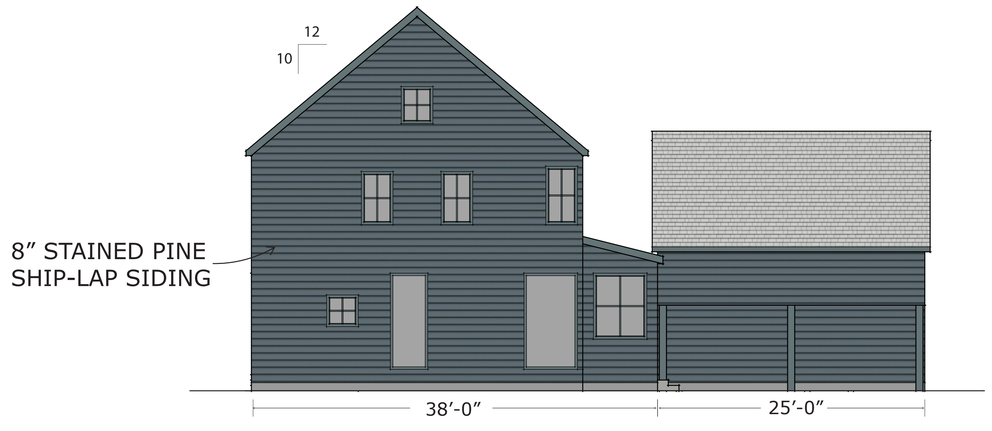
ATTACHMENTS

Coyne Hill Arch. Review Oct 2022.pdf

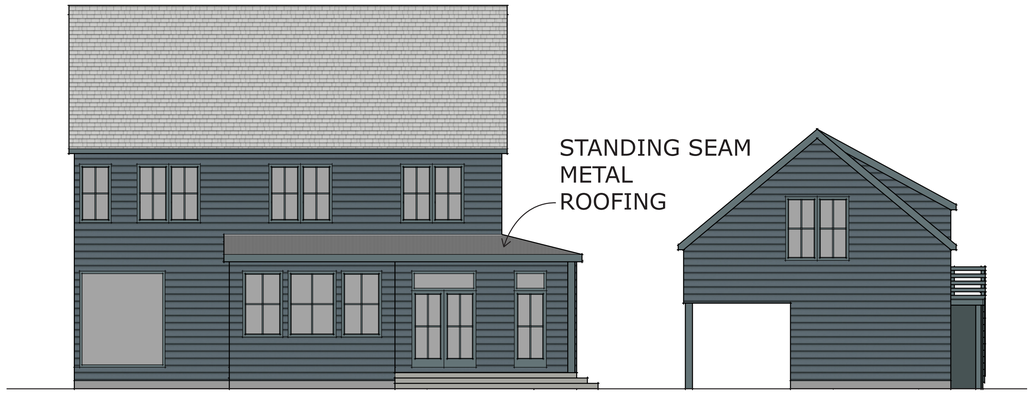
16 Coyne Hill Arch Review App.pdf



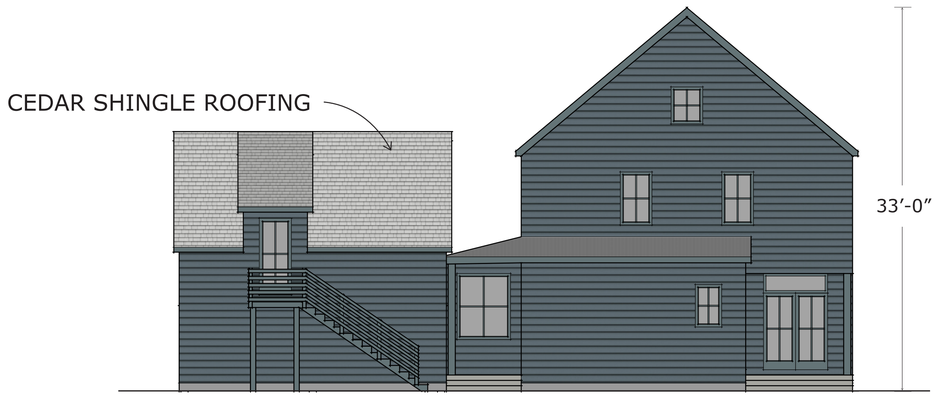
FRONT ELEVATION



RIGHT SIDE ELEVATION



REAR ELEVATION



LEFT SIDE ELEVATION

TIPLEY/ SPACCARELLI

16 COYNE HILL ROAD, BEACON,
DUTCHESS COUNTY, NEW YORK

project: NEW SINGLE FAMILY HOUSE

drawing: ELEVATIONS FOR ARCH REVIEW

date: OCT/ 2022

scale: NTS

page: 1/1

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: September 27, 2022

Project Address: 16 Coyne Hill Road

Project Architect/Engineer: Roy Fredricksen

Owner/Builder: Stephen Spaccarelli/ Claire Tipley

Contact Phone No.: 845-264-4239

Approval Requested: _____Certificate of Appropriateness ___x___New Single Family House

Color/Materials:

Siding: 8" Ship-lap Pine Siding, Benjamin Moore Arborcoat Semi-solid "Spellbound" 1659

Roofing: Western Red Cedar Shingles, 18" Perfection 5.5" Reveal
Standing Seam Metal Roofing, 16 OC Everlast "Charcoal"

Windows: Color: "Oceanside" Blue Type: Weather Shield Contemporary Casement

Trim: Pine, Benjamin Moore Arborcoat Semi-solid Spellbound 1659

Garage Door: Fiberglass "Oceanside" Blue

Stone/Brick: N/A

Signature of Owner

FOR OFFICE USE ONLY:

The Architectural Review Board has reviewed the plans submitted for approval for the project listed above and has determined:

Plan Denied _____
(Date)

Plan Approved _____
(Date)

Subject to the following:

FEE: $100.00