CITY OF BEACON, NEW YORK
THE PLANNING BOARD WILL MEET ON TUESDAY, JULY 14, 2020 AT 7:00 PM. DUE TO PUBLIC HEALTH AND SAFETY CONCERNS RELATED TO COVID-19, THE PLANNING BOARD WILL NOT BE MEETING IN-PERSON. IN ACCORDANCE WITH THE GOVERNOR?S EXECUTIVE ORDER 202.1, THE JULY 14, 2020 MEETING WILL BE HELD VIA VIDEOCONFERENCING, AND A TRANSCRIPT WILL BE PROVIDED AT A LATER DATE. THE PUBLIC CAN WATCH THE LIVE MEETING ONLINE AT YOUTUBE AT HTTPS://WWW.YOUTUBE.COM/CHANNEL/UCVPPIGGWZDERSUDXG. IF ANY INTERESTED MEMBERS OF THE PUBLIC WOULD LIKE TO PROVIDE COMMENTS ON THE APPLICATION, COMMENTS CAN BE CALLED IN DURING THE MEETING AT (929) 205-6099; WEBINAR ID: 843 6836 8312; PASSWORD 321666. COMMENTS CAN ALSO BE PROVIDED VIA EMAIL NO LATER THAN 5PM ON JULY 14, 2020 TO ETHA GROGAN, PLANNING BOARD SECRETARY, AT EGROGAN@CITYOFBEACON.ORG. PLEASE CHECK THE MEETING MATERIALS POSTED ON THE CITY WEBSITE (WWW.CITYOFBEACON.ORG) AND FOR FURTHER

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

INSTRUCTIONS TO ACCESS
THE VIRTUAL MEETING AND
FOR UPDATED INFORMATION.

July 14, 2020
7:00 PM
Planning Board Agenda

Regular Meeting

1. Continue public hearing for SEQRA environmental review on applications for Subdivision and Site Plan Approval Beacon Views Townhouses 40 units Conklin Street submitted by Beacon Views LLC
2. Continue review application for Site Plan Approval, retail/residential, 416-420 Main Street, mixed-use commercial, office & residential development, submitted by 416 Main Street Beacon, LLC & 420 Main Street, LLC (D/B/A 420 Main St., LLC

Miscellaneous Business

1. Zoning Board of Appeals â€“ July agenda
2. Consider request for two 90-day extensions of Subdivision Approval & Site Plan Approval â€“Â 23-28 Creek Drive, submitted by 23-28 Creek Drive, LLC

Architectural Review
Single Family House - Howland Avenue

1. Certificate of Appropriateness â€“ 424 Main Street; new faÃ§ade color
2. Certificate of Appropriateness â€“ 1183 North Avenue (amendment)
3. Certificate of Appropriateness â€“ 25 East Main Street
4. Single Family House â€“ 18 Maple Street
5. Single Family House â€“ Willow Street (corner of Verplanck)
6. Single Family House - Howland Avenue

City of Beacon Planning Board Agenda
07/14/2020

Title:

Continue public hearing for SEQRA environmental review on applications for Subdivision and Site Plan Approval Beacon Views Townhouses 40 units Conklin Street submitted by Beacon Views LLC

ATTACHMENTS

Beacon Views Engineer Cover Letter.pdf

Beacon Views Full EAF.pdf

Beacon Views Preliminary Plat.pdf

Beacon Views Sheet 1 Cover Sheet.pdf

Beacon Views Sheet 1 Floor Plans Front Garage.pdf

Beacon Views Sheet 2 Existing Conditions.pdf

Beacon Views Sheet 2 Floor Plans Rear Garage.pdf

Beacon Views Sheet 3 Layout & Landscape Plan.pdf

Beacon Views Sheet 3 Renderings.pdf

Beacon Views Sheet 4 Grading & Drainage.pdf

Beacon Views Sheet 5 Utilities.pdf

Beacon Views Sheet 6 Erosion & Sediment Control.pdf

Beacon Views Sheet 7 Enlarged Plan.pdf

Beacon Views Sheet 8 Vehicle Manuevering Plan.pdf

Beacon Views Sheet 9 Lighting Plan.pdf

Beacon Views Sheet 10 Drainage Profiles.pdf

Beacon Views Sheet 11 Water & Sewer Profiles.pdf

Beacon Views Sheet 12 Details 1.pdf

Beacon Views Sheet 13 Details 2.pdf

Beacon Views Sheet 14 Details 3.pdf

Beacon Views Sheet 15 Detail 4.pdf

Beacon Views Sheet 16 Details 5.pdf

Beacon Views Species List NY Ecological Services Field Office.pdf

Beacon Views SWPPP.pdf

Beacon Views Threatened and Endangered Species Report.PDF

Beacon Views Traffic Comment Response.pdf

Traffic Greenplan Comment 2020-06-26-Beacon-Views-Comments.pdf

Traffic Maser Response to Greenplan 6.26.20 Comment Response.pdf

Planner Review Letter.pdf

Engineer Review Letter.pdf

20200713_BeaconViewsDevelopmentImpact.pdf

20200713_ImpactsOfBeaconViews_TechMemo.pdf

INSITE
ENGINEERING, SURVEYING &
LANDSCAPE ARCHITECTURE, P.C.

June 30, 2020

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

RE: Beacon Views Site Plan and Conservation Subdivision
Conklin Street
Beacon, New York
Tax Parcel ID: 6055-03-331123

Dear Chairman Gunn and Members of the Board:

Enclosed please find the following documents in support of the subject application:

- Preliminary Plat, revised June 30, 2020.
- Revised Site Plan Set (consisting of sheets 01 CS-1 through 16 D-5), revised June 30, 2020.
- Amended SWPPP, revised June 30, 2020.
- Revised Architectural Plans prepared by Aryeh Siegel Architect, revised June 30, 2020.
- Response letter to traffic comments from Maser Consulting P.A., dated June 30, 2020.
- Wetland Evaluation & Impact Report & Attachments, dated June 12, 2020 from Ecological Solutions, LLC.
- Full Environmental Assessment Form, revised June 30, 2020.

The Preliminary Plat, Site Plans, and reports have been revised in response to comments received from the City's consultants.

In response to the comments provided in a letter from John Clarke Planning and Design, dated June 5, 2020, we offer the following responses:

1. The sidewalk that extends to the 25 Townsend Street subdivision has been moved 5' from the curb line as requested.

2. The lighting plan (LP-1) has been revised. A new pole mounted light has been incorporated which meets the City code.

3. Plans have been submitted to the Fire Department and the attached revised plans have been resubmitted for any further comment.

4. A revised architectural rendering has been provided showing the brick on all sides of the first level.

5. A detailed Wetland Mitigation Plan has been provided on sheet SP-5 as requested. The revised Wetland Report addresses the Federal and State Threatened and Endangered species, and the application to the Army Corps of Engineers has been submitted.

6. Notes acknowledging the requirement for four below-market-rate townhouses have been added to sheets CS-1 & EX-1.

7. The applicant has sought input from the owner of the Highland Meadows senior facility regarding their concerns with the applicant's use of the easement, and discussions are on-going. However, as has been stated previously by City attorney, the use of the easement and interpretations thereto are a private matter between the property owners, and should not forestall the Planning Board's deliberations, and closing of the Public Hearing.

In response to the comments provided in a letter from Lanc & Tully Engineering and Surveying, P.C., dated May 11, 2020 we offer the following responses:

General Comments

1. Based upon guidance from the Planning Board and staff, the proposed access to the project would be through the 25 Townsend Street subdivision. By the rights granted in the access and utility easement held by the applicant over a portion of the Highland Meadows Senior Housing property, a road would also be constructed connecting the site to Hastings Drive and Delavan Avenue. The anticipated function of this road would be to serve as a gated emergency access. However, in the event of a delay in the construction of the proposed road on the 25 Townsend property, the road to Hastings Drive would function as the primary access, until such time that the 25 Townsend road was constructed. At which time, the access road to Hastings would be transitioned to the emergency access as described above, and the 25 Townsend road would become the primary project access.

2. A plan for the improvements to the Highland Meadows Senior Housing property, as required by the Easement agreement, will be developed as discussions with the property owner go forward.

3. The wetland mitigation area is shown both on the subject property and the neighboring parcel within the easement area. The project attorney is discussing the applicant's rights within the easement with the City attorney.

4. Based on the city's agreement with the Town of Fishkill it is understood that the property has rights to connect to the water main based on a fair share payment to Fishkill. The plans have been revised and the applicant is pursuing a connection to the 12" Town of Fishkill water transmission line.

Water & Sewer Report Comments

1. The applicant is currently pursuing the connection to the Town of Fishkill transmission line as previously proposed. Testing of the system will be scheduled with the City and once the dynamics of the system are known, a final Water and Sewer Report will be submitted for review incorporating all comments received to date on the connection.

Wetlands Evaluation & Impacts Report Comments

1. The revised Wetland Report addresses the Federal and State Threatened and Endangered species.

2. A detailed Wetland mitigation Plan has been provided on sheet SP-5 as requested.

Preliminary Subdivision Plat:

1. Revision dates have been added to the plat.

2. The final plat will include bearings and distances for the proposed property lines.

3. Written descriptions will be provided with a future submission.

Cover Sheet:

1. A note has been added, indicating that the proposed right of way will be retained and maintained by the applicant and subsequent ownership until such time as the 25 Townsend Street access is built. At which time, the right of way will be dedicated to the city as proposed.

Layout & Landscape Plan

1. The Pin Oak has been relocated.
2. The Red Maple has been relocated.
3. The retaining wall has been moved outside the right of way.

Grading and Utilities Plan

1. These comments are addressed above.
2. The retaining wall and drainage have been moved, so there is sufficient distance between the wall and drain line to accommodate the geogrid.
3. It is understood that the responsibility of the maintenance of the onsite stormwater management practices lies with the applicant.
4. The revised plans include a note granting the City the right to maintain the proposed city drainage from CB 3 to ES 1, if the applicant fails to fulfill their maintenance obligations.

Utilities Plan:

1. Notes have been added to sheets SP-2.1 & SP-2.2 addressing the stormwater, sewer and water utilities to be dedicated to the city.
2. The plans have been revised to show the proposed connection to the Town of Fishkill transmission line that traverses the property.
3. The applicant no longer proposes to connect to the water main on Conklin Street. As previously stated the existing system will be tested to determine the system dynamics based on the proposed fire and domestic demand for the subject project.
4. The project no longer proposes the connection to the existing City water main in Conklin Street.
5. The proposed fire hydrant near unit #34 has been relocated as suggested.
6. The proposed fire hydrant near unit #1 has been relocated as suggested.
7. Additional in line valves have been added to the proposed watermain loop for ease of potential future maintenance.
8. Additional valves have been added to either side of the hydrant tee near unit #1 to facilitate future testing and maintenance of the system.
9. Stationing of the proposed water main have been added to the plan for correlation with the profile sheets.
10. Plans have been submitted to the Fire Department and the attached revised plans have been resubmitted for any further comment.

Site Access Plan

1. The additional vehicle maneuvers have been added to the plan as requested. It is the applicant's understanding that provisions for the realignment of the 25 Townsend Street road, including the elimination of the circle, in the event that it was to become a through road, were included and approved with that application.

2. Coordination with the 25 Townsend project will be required to show the utility sizing on the through connection and will be provided with future submission.

Water & Sewer Profiles

1. The proposed vertical and horizontal bends have been labeled as requested.
2. The portion of the water main in question has been eliminated from the proposed system.
3. The connection through 25 Townsend is no longer proposed, therefore profiles in this area are no longer required.

Detail Sheets (Sheet 11 of 15)

1. The sidewalk detail has been revised as requested.

Detail Sheets (Sheet 14 of 15)

1. The hydrant detail has been revised as requested.
2. The water, sewer and storm line trench details have been revised.
3. The plans have been revised to note that valve boxes shall be domestically made for all boxes dedicated to the City.

Detail Sheets (Sheet 15 of 15)

1. The plans have been revised to note that all drainage castings shall be domestically made for all structures to be dedicated to the City.

SWPPP Comments

1. The Design Line for the stormwater analysis has been revised to be the same in the pre and post development condition.
2. The time of concentration calculations for subcatchments 1.0S, 1.1S, and 1.2S have been revised to include pipe flow.
3. The designation of the proposed stormwater pond has been changed to a P-5 Pocket Pond per the NYS Stormwater Management Design Manual.
4. The stream channel protection table in the SWPPP has been revised to include flow rate discharged from the pond over 24 hours.
5. Section 5.1 of the SWPPP has been revised to include specific endangered animal restrictions for the subject project.
6. The requested level spreader sizing calculations have been added to the project plans.
7. Rock outlet protection sizing has been added to the detail on the project plans.
8. The revised plans include a detail for the proposed rock outlet protection.
9. Full size pre and post development drainage maps are included with the hard copy submission of the SWPPP.
10. The access road connection to the 25 Townsend project will be collected and treated in the stormwater management system for the subject project.
11. The perimeter swale conveyance to the stormwater management practice for the 25 Townsend project is shown to represent the original 25 Townsend SWPPP design on Drawing SP-4.
12. The outlet pipe from the 25 Townsend stormwater basin is an 18" diameter pipe at 1% slope. The proposed piping through the Beacon Views project will be at least 18" at 1% slope to convey the stormwater basin discharge through the subject project.

13. The grading along the west side of the housing units 35-40 has been revised to provide a failure mode path around the proposed units for the potential overtopping of the stormwater basin on the 25 Townsend project.

14. A draft NOI has been added as an Appendix in the revised SWPPP.

15. The witnessed testing for the proposed infiltration area was completed and the results of the testing are shown in the revised SWPPP.

16. It is acknowledged that the NYSDOT has requested a copy of the drainage study for the subject project, and the revised SWPPP will be submitted for their review. Copies of the correspondence to and from the NYSDOT will be forwarded to the Planning Board.

Based on the comments received from the Board and the public at the last meeting, we offer the following:

1. Downstream impacts to watercourses and wetlands have been addressed in the project SWPPP.

2. Comments relating to traffic as presented by the neighbor are being addressed by Maser Consulting PA.

3. The permitted density for the project is 50 units in the Multifamily RD-5 Zone. The current proposal is for 40 units of townhomes.

4. The wetland mitigation area has been expanded in density and further detailed.

5. Sheet SP-4 includes and inset to expand the connection to Conklin Street for emergency access if this option is necessary.

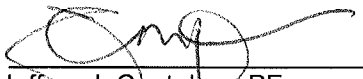
6. In response to a letter received from the consultant representing the neighboring property, we have provided an updated Full Environmental Assessment Form. Changes precipitated by the evolution of the project from our initial submission are now reflected in the EAF.

We request appearance before the Board at their July 14, 2020 meeting to further discuss the revised materials we have provided.

Should you have any questions or comments regarding this information, please feel free to contact our office.

Very truly yours,

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

By: 

Jeffrey J. Contelmo, PE
Senior Principal Engineer

JJC/adt

Enclosures

cc: Nathan Kahn
Greg Kamedulski
Richard Cantor, Esq. (Email Only
Aryeh Siegel (Email Only)
Phil Grealy, P.E. (Email Only)

Insite File No. 19131.100

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. 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; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Beacon Views Townhouses		
Project Location (describe, and attach a general location map): 100 Conklin Street, Beacon, NY 12508		
Brief Description of Proposed Action (include purpose or need): Application for Site Development Plan approval proposing the development of 40 townhomes subdivided into individual townhouse lots, and supporting improvements including a road, stormwater management facilities and public utility connections.		
Name of Applicant/Sponsor: Beacon Views, LLC	Telephone: 718-258-9027 E-Mail: ctadult@aol.com	
Address: 500 River Avenue, Suite 145		
City/PO: Lakewood	State: NJ	Zip Code: 08701
Project Contact (if not same as sponsor; give name and title/role): Greg Kamedulski	Telephone: 203-313-9412 E-Mail: gkamedulsky@gmail.com	
Address: 500 River Avenue, Suite 145		
City/PO: Lakewood	State: NJ	Zip Code: 08701
Property Owner (if not same as sponsor): Highlands at Beacon LLC	Telephone: 917-539-7132 E-Mail: ctadult@aol.com	
Address: 2847 Church Street		
City/PO: Pine Plains	State: NY	Zip Code: 12567

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☐Yes ☑No		
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	City of Beacon Planning Board - Site Plan Approval & Subdivision Approval	8/27/19
c. City, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☐Yes ☑No		
e. County agencies ☑Yes ☐No	Dutchess County Planning Dutchess County Department of Health	10/1/19
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	NYSDEC GP-0-20-001 Stormwater General Permit	10/1/19
h. Federal agencies ☑Yes ☐No	ACOE Wetland General Permit	10/1/19

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☑Yes ☐No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes ☑No

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
RD-5 - Designed Residence District

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Beacon City Schools

b. What police or other public protection forces serve the project site?
City of Beacon Police

c. Which fire protection and emergency medical services serve the project site?
City of Beacon Fire Department

d. What parks serve the project site?
City of Beacon Parks and Recreation, Memorial Park

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Residential

b. a. Total acreage of the site of the proposed action? 8.6 acres
b. Total acreage to be physically disturbed? 4.26 onsite, 1.44 addl for offsite access and utility improvements acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 8.6 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☑ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
Residential, Creation of townhouse lots.
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? 42 (40 Townhouses/2 Common)
iv. Minimum and maximum proposed lot sizes? Minimum 1,800 Maximum 3.2 ac

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 24 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	40			
At completion of all phases	40			

g. Does the proposed action include new non-residential construction (including expansions)? ☐ Yes ☑ No

If Yes,

i. Total number of structures _____

ii. Dimensions (in feet) of largest proposed structure: _____ height; _____ width; and _____ length

iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☑ Yes ☐ No

If Yes,

i. Purpose of the impoundment: Stormwater Management

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑ Other specify: Stormwater runoff

iii. If other than water, identify the type of impounded/contained liquids and their source.

iv. Approximate size of the proposed impoundment. Volume: 0.5 million gallons; surface area: 0.4 acres

v. Dimensions of the proposed dam or impounding structure: 5'-6" height; 390' length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): Earth Fill

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i. What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe. _____

v. What is the total area to be dredged or excavated? _____ acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☑ Yes ☐ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): Federal flagged wetland PF01E

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
The proposed project would fill the existing wetland by approximately 13,880.

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☑Yes ☐No
If Yes, describe: In order to limit disturbance into the wetland, retaining walls will be installed.

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☑Yes ☐No
If Yes:

- acres of aquatic vegetation proposed to be removed: .22 ac±
- expected acreage of aquatic vegetation remaining after project completion: 2.33 ac±
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): Site grading.
- proposed method of plant removal: Excavation
- if chemical/herbicide treatment will be used, specify product(s): None

v. Describe any proposed reclamation/mitigation following disturbance:
1 to 1 creation of wetlands

c. Will the proposed action use, or create a new demand for water? ☑Yes ☐No
If Yes:

i. Total anticipated water usage/demand per day: 13,200 (max day) gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑Yes ☐No
If Yes:

- Name of district or service area: City of Beacon
- Does the existing public water supply have capacity to serve the proposal? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No
- Do existing lines serve the project site? ☑Yes ☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☑No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district:

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐Yes ☐No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑Yes ☐No
If Yes:

i. Total anticipated liquid waste generation per day: 13,200 (max day) gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑Yes ☐No
If Yes:

- Name of wastewater treatment plant to be used: City of Beacon
- Name of district: City of Beacon
- Does the existing wastewater treatment plant have capacity to serve the project? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No

- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will a line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

  If Yes:
  - Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:
- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 2.26 acres (impervious surface)

_____ Square feet or 8.6 acres (parcel size)

ii. Describe types of new point sources. Roadway catch basins, roof drain connections, cut off swales

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Onsite stormwater management facilities

- If to surface waters, identify receiving water bodies or wetlands: Onsite wetland
- Will stormwater runoff flow to adjacent properties? ☑ Yes ☐ No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑ Yes ☐ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑ Yes ☐ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Heavy equipment during construction.

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

None.

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

Natural gas boilers for each residential unit.

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:
- _____ Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____ Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____ Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____ Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

iii. Parking spaces: Existing 0 Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☐No

N/A

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7 am - 5 pm
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: _____
- Saturday: _____
- Sunday: _____
- Holidays: _____

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Typical noise associated with excavation and general construction during business hours.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☑ Yes ☐ No

Describe: Limited tree clearing for improvements. New landscape screening will be installed.

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Roadway pole mounted lights at 18' high with house side shields.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☑ Yes ☐ No

Describe: Limited tree clearing for improvements. New landscape screening will be installed.

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☐ No

N/A

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☐ No

N/A

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☑ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces		2.1 ac±	
• Forested	6.0 ac±	2.6 ac±	
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)	2.6 ac±	2.3 ac±	
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: Slope, Lawn and Landscape Areas		1.6 ac±	

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No

If Yes,

i. Identify Facilities:

Beacon High School, Roundbout Middle School, Wingate at Beacon, Hedgewood Home for Adults, and Highland Meadows Senior Housing.

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☐ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 6.5 feet average feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site:

Bernardston Silt (BeB) (BeC)	52 %
Canandaigua Silt (Ca)	29 %
Nassau Cardigan Complex (NwC)	19 %

d. What is the average depth to the water table on the project site? Average: 2 feet average feet

e. Drainage status of project site soils:
☑ Well Drained: 66 % of site
☐ Moderately Well Drained: ____ % of site
☑ Poorly Drained 34 % of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 50 % of site
☑ 10-15%: 15 % of site
☑ 15% or greater: 35 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.
i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑ Yes ☐ No
ii. Do any wetlands or other waterbodies adjoin the project site? ☑ Yes ☐ No
If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.
iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑ Yes ☐ No
iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Federal Wetland PF01E Approximate Size 2.55 ac onsite
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No
If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:
i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:
Whitetail Deer, Gray Squirrel
Racoon

n. Does the project site contain a designated significant natural community? ☐Yes ☑No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation):
ii. Source(s) of description or evaluation:
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐No
If Yes:
i. Species and listing (endangered or threatened):
Indiana Bat

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☑No
If Yes:
i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐Yes ☑No
If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐Yes ☑No
If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐Yes ☑No
i. If Yes: acreage(s) on project site?
ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No
If Yes:
i. CEA name:
ii. Basis for designation:
iii. Designating agency and date:

e. 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? ☑ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☑ Historic Building or District

ii. Name: Matteawan State Hospital

iii. Brief description of attributes on which listing is based:
Area of social history, health and medicine and institutional architecture

f. 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? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Hudson Highlands Scenic Area

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Hudson River Valley Scenic Area of Statewide Significance

iii. Distance between project and resource: 2.4 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

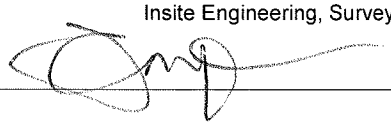
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

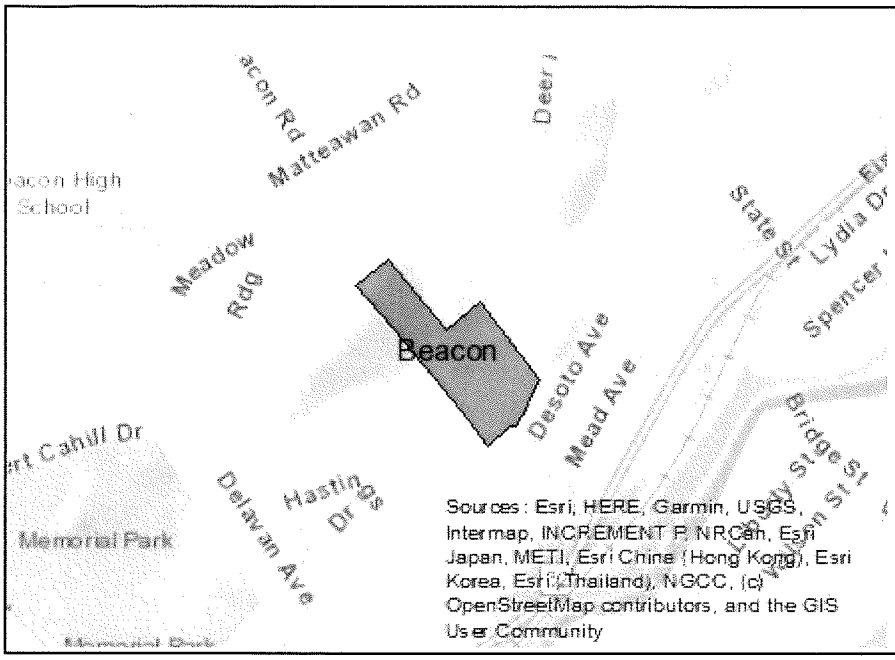
I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Jeffrey J. Contelmo, P.E. Date 6/30/20

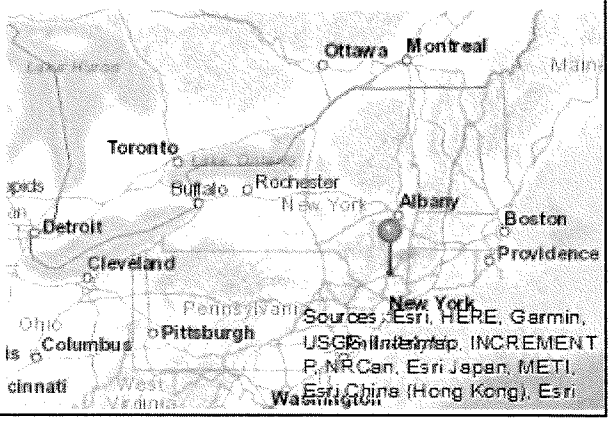
Insite Engineering, Surveying & Landscape Architecture, P.C.

Signature  Title Senior Principal Engineer

PRINT FORM

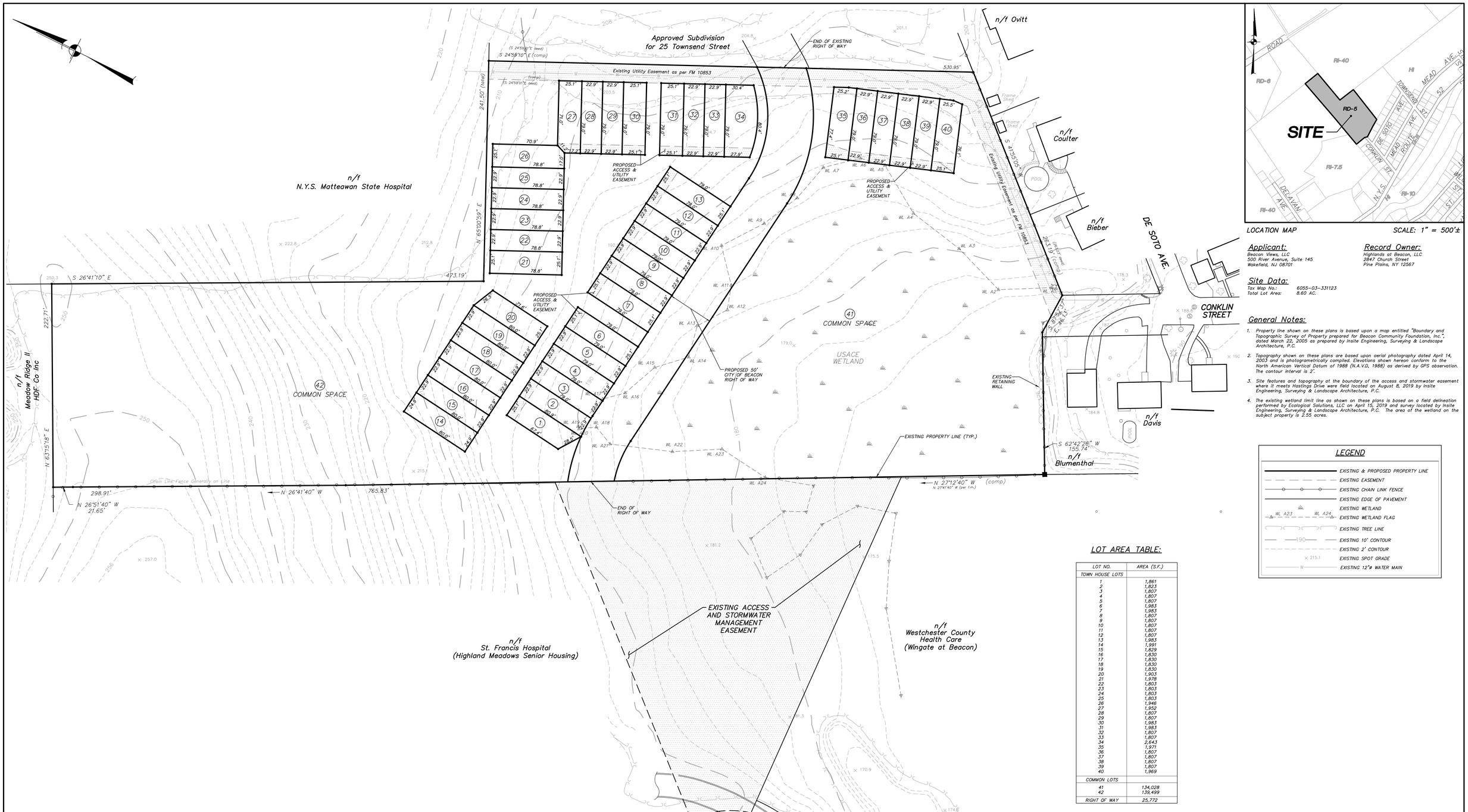


Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the 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.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes

Name]	
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No



LOCATION MAP SCALE: 1" = 500'±

Applicant:
Beacon Views, LLC
500 River Avenue, Suite 145
Wakefield, NJ 08701

Record Owner:
Highlands at Beacon, LLC
2847 Church Street
Pine Plains, NY 12567

Site Data:
Tax Map No.: 6055-03-331123
Total Lot Area: 8.60 AC.

General Notes:

1. Property line shown on these plans is based upon a map entitled "Boundary and Topographic Survey of Property prepared for Beacon Community Foundation, Inc.", dated March 22, 2005 as prepared by Insite Engineering, Surveying & Landscape Architecture, P.C.
2. Topography shown on these plans are based upon aerial photography dated April 14, 2003 and is photogrametrically compiled. Elevations shown hereon conform to the North American Vertical Datum of 1988 (N.A.V.D. 1988) as derived by GPS observation. The contour interval is 2'.
3. Site features and topography at the boundary of the access and stormwater easement where it meets Hastings Drive were field located on August 8, 2019 by Insite Engineering, Surveying & Landscape Architecture, P.C.
4. The existing wetland limit line as shown on these plans is based on a field delineation performed by Ecological Solutions, LLC on April 15, 2019 and survey located by Insite Engineering, Surveying & Landscape Architecture, P.C. The area of the wetland on the subject property is 2.55 acres.

LEGEND

- EXISTING & PROPOSED PROPERTY LINE
- EXISTING EASEMENT
- EXISTING CHAIN LINK FENCE
- EXISTING EDGE OF PAVEMENT
- EXISTING WETLAND
- WL A23 / WL A24 — EXISTING WETLAND FLAG
- EXISTING TREE LINE
- 190 — EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- × 215.1 — EXISTING SPOT GRADE
- W — EXISTING 12"ø WATER MAIN

LOT AREA TABLE:

LOT NO.	AREA (S.F.)
TOWN HOUSE LOTS	
1	1,861
2	1,823
3	1,807
4	1,807
5	1,807
6	1,983
7	1,983
8	1,807
9	1,807
10	1,807
11	1,807
12	1,807
13	1,983
14	1,991
15	1,829
16	1,830
17	1,830
18	1,830
19	1,830
20	1,903
21	1,978
22	1,803
23	1,803
24	1,803
25	1,803
26	1,946
27	1,952
28	1,807
29	1,807
30	1,983
31	1,983
32	1,807
33	1,807
34	2,643
35	1,971
36	1,807
37	1,807
38	1,807
39	1,807
40	1,969
COMMON LOTS	
41	134,028
42	139,499
RIGHT OF WAY	25,772

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 IN. = 40 FT.

Dutchess County Health Department

This plan does not constitute a realty subdivision as defined by Article XI, Title II of Section 1116 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.

Date:_____

_____
Authorized Representative of the Commissioner of Health

Consent to File

The undersigned applicant for the property and the undersigned owner of the property shown herein certify that they are familiar with this map and its notes and its contents as stated hereon including all conditions of approval. The applicant and the owner understand their obligation to the Town to comply with all conditions of subdivision approval and consent to the filing of this map in the Office of the Dutchess County Clerk.

Owner _____
Date _____
Applicant _____
Date _____

Engineering and Land Surveying by Insite Engineering, Surveying & Landscape Architecture, P.C.

Professional Engineer	Professional Land Surveyor	Land Surveyor's Certification
		I hereby certify that the survey shown hereon was completed on ; that this map was completed 2020; and that this survey has been prepared in accordance with the existing Code of Practice for Land Surveys as adopted by the New York State Association of Professional Land Surveyors, Inc.

_____
NICHOLAS G. CHAPIS, L.S.
New York State License No. 049330

City of Beacon Endorsement

Approved by Resolution of the Planning Board of the City of Beacon, New York, on the ____ day of _____ , 20__ subject to all requirements ad 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

Preliminary Plat

Prepared for the

Beacon Views

Situate in the

City of Beacon
Dutchess County, New York

Date: April 24, 2020
Rev: June 30, 2020

Prepared by:
INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place • Carmel, New York 10512
Phone (845) 225-9690 • Fax (845) 225-9717
www.insite-eng.com

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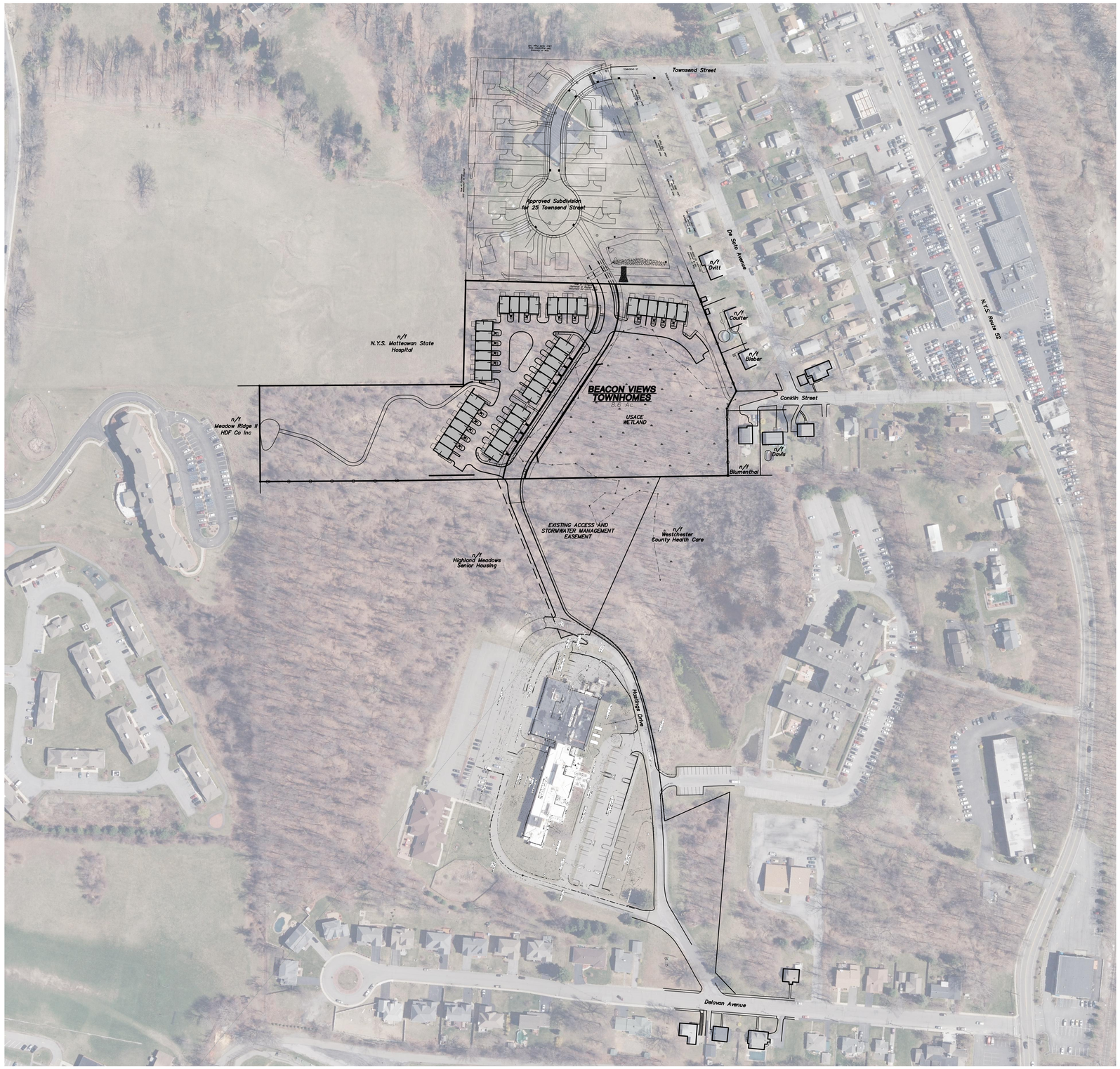
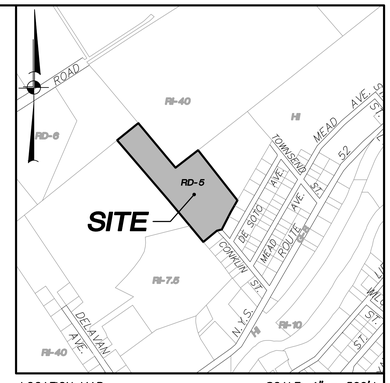
BEACON VIEWS

HASTINGS DRIVE / CONKLIN STREET
CITY OF BEACON, NY





LOCATION MAP SCALE: 1" = 500'±

Applicant:
Beacon Views, LLC
500 River Avenue, Suite 145
Wakefield, NJ 08701

Record Owner:
Highlands at Beacon, LLC
2847 Church Street
Pine Plains, NY 12567

Site Data:

Tax Map No.:	6055-03-331123
Total Lot Area:	8.6 AC.
Zone:	RD-5

General Notes:

1. Property line shown on these plans is based upon a map entitled "Boundary and Topographic Survey of Property prepared for Beacon Community Foundation, Inc.", dated March 22, 2005 as prepared by Insite Engineering, Surveying & Landscape Architecture, P.C.
2. Topography shown on these plans are based upon aerial photography dated April 14, 2003 and is photogrametrically compiled. Elevations shown hereon conform to the North American Vertical Datum of 1988 (N.A.V.D. 1988) as derived by GPS observation. The contour interval is 2'.
3. Site features and topography at the boundary of the access and stormwater easement where it meets Hastings Drive were field located on August 8, 2019 by Insite Engineering, Surveying & Landscape Architecture, P.C.
4. The existing wetland limit line as shown on these plans is based on a field delineation performed by Ecological Solutions, LLC on April 15, 2019 and survey located by Insite Engineering, Surveying & Landscape Architecture, P.C. The area of the wetland on the subject property is 2.55 acres.

SITE PLAN DRAWING LIST

DRAWING NO.	DRAWING NAME	SHEET NO.
CS-1	COVER SHEET	1
EX-1	EXISTING CONDITIONS & REMOVALS PLAN	2
SP-1	LAYOUT & LANDSCAPE PLAN	3
SP-2.1	GRADING & DRAINAGE PLAN	4
SP-2.2	UTILITIES PLAN	5
SP-3	EROSION & SEDIMENT CONTROL PLAN	6
SP-4	ENLARGED PLANS	7
SP-5	VEHICLE MANEUVERING PLAN	8
LP-1	LIGHTING PLAN	9
PR-1	DRAINAGE PROFILES	10
PR-2	WATER & SEWER PROFILES	11
D-1	DETAILS	12
D-2	DETAILS	13
D-3	DETAILS	14
D-4	DETAILS	15
D-5	DETAILS	16

Site Access Notes:

1. The applicant seeks to utilize the proposed connection to the right of way through the approved subdivision on 25 Townsend Street as its primary means of access for the Beacon Views Properties.
2. The road shown in the existing easement on the Highland Meadows Senior Housing Property would be utilized as an emergency access only, in this case.
3. In the event there is a delay in the construction of the road in the approved 25 Townsend Street right of way, the applicant would exercise the easement over the Highland Meadows Senior Housing Property, and utilize the proposed road thereon as the primary access to the site, until such time as the 25 Townsend Street road was constructed. At which time the road through the Highland Meadows Senior Housing Property easement would be gated and transitioned to emergency access only, as stated above.
4. In the event that the road through the 25 Townsend Street subdivision is not built, the applicant and subsequent owner will retain ownership of the main road shown within the proposed right of way, and will be responsible for maintaining it. When the 25 Townsend Street access is constructed, the right of way will be dedicated to the city, as proposed.

Affordable-Workforce-Housing Notes:

1. The project shall comply with the requirements of city code Chapter 223 Zoning, Article IVB Affordable Workforce Housing.
2. Based on the proposed unit count of 40 townhomes, there shall be four (4) townhomes meeting the requirements for below-market-rate requirements of the code.

Habitat Protection Notes:

1. Trees clearing will only occur between the period of October 1 through March 31 when bats are not in the vicinity of the site.
2. Lighting on the site will use City of Beacon Planning Board approved light fixtures that have tops that direct light down to minimize light pollution and not interfere with potential bat foraging activities.
3. Implementing soil conservation and dust control best management practices, such as watering dry disturbed soil areas to keep dust down, and using staked, recessed silt fence and anti tracking pads to prevent erosion and sedimentation in surface waters on the site.
4. Stormwater pond/s will not be maintained with any chemicals that might adversely affect bats or insect populations on which they may feed.

NO.	DATE	REVISION	BY
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

Site Plan

Approved by resolution of the Beacon Planning Board on the 30th day of June, 2020.

Chairman, City Planning Board — Date

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
COVER SHEET

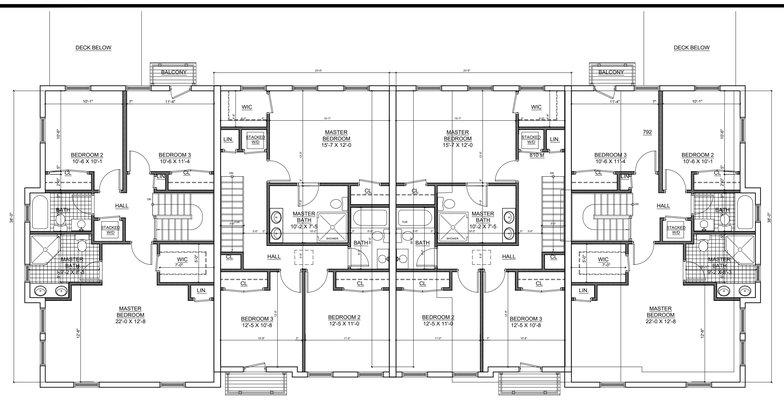
STATE OF NEW YORK — JEFFREY L. CONKLIN — 81933 — LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8-27-19	DRAWN BY	J.F.R.
SCALE	1" = 100'	CHECKED BY	A.D.T.

DRAWING NO. CS-1 SHEET 1 / 16

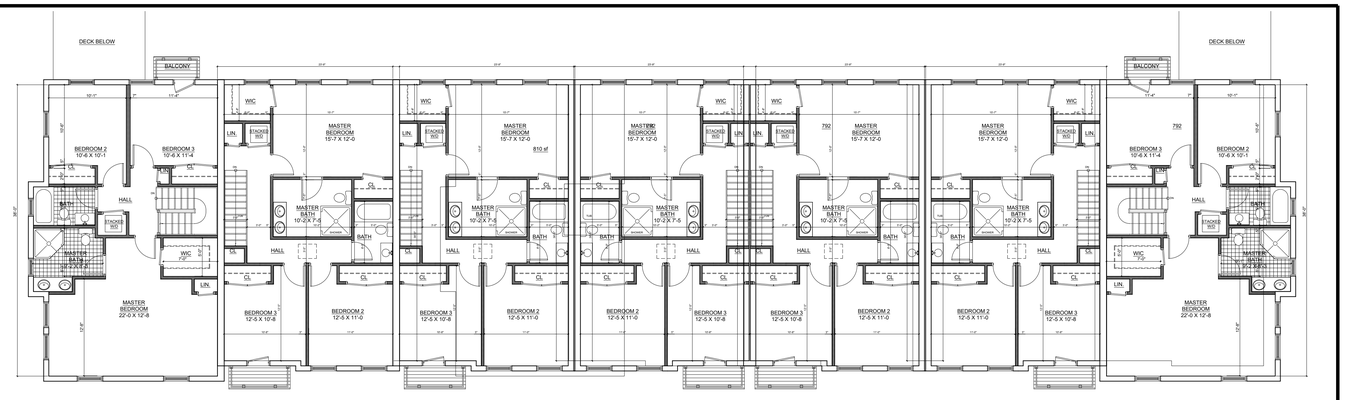
ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

Z:\E\19131\100\Admin\01 CS-1.dwg, 6/30/2020 10:17:58 AM, nagelpw, 1:1



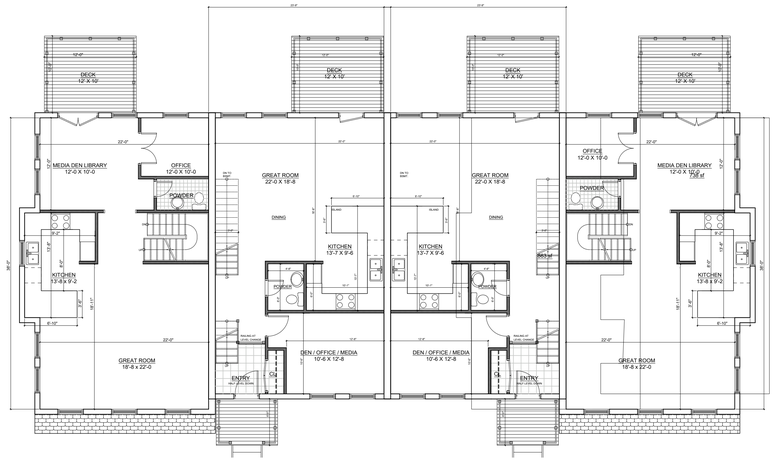
2nd Floor Plan

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



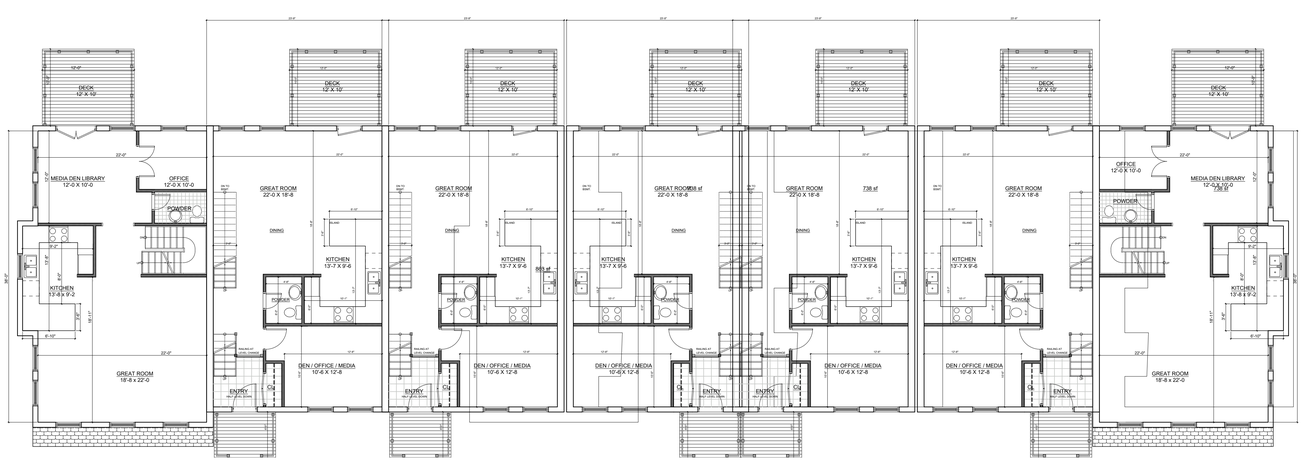
2nd Floor Plan

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



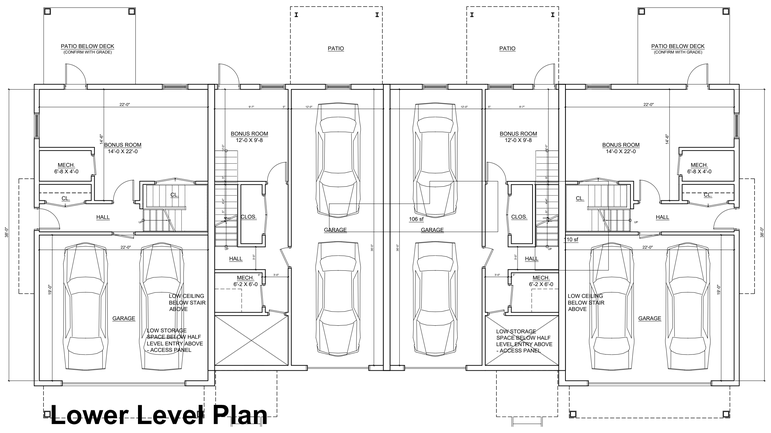
1st Floor Plan

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



1st Floor Plan

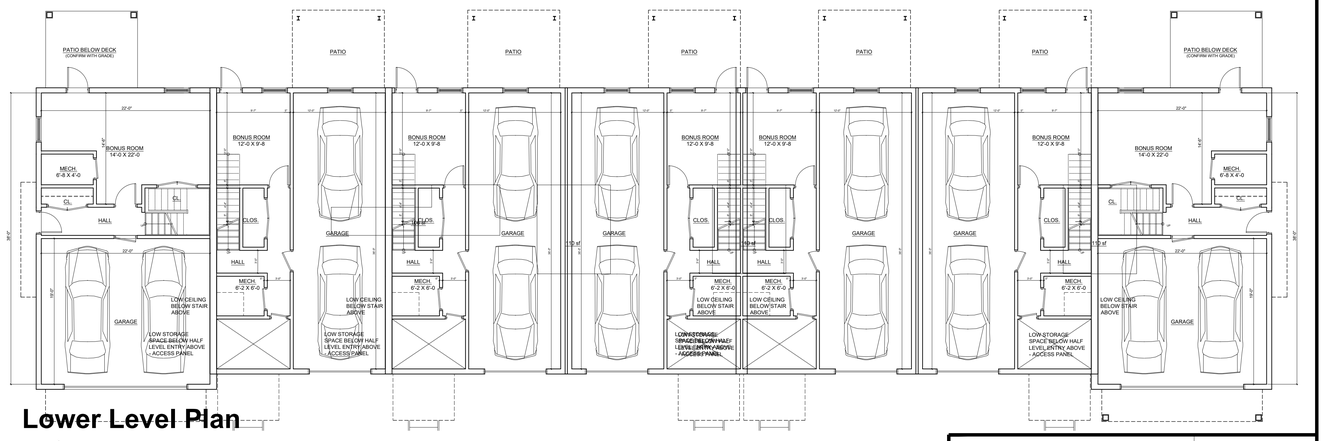
Scale: $\frac{1}{8}$" = 1'-0"



Lower Level Plan

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

4 Unit Townhouse Plans - Front Garage



Lower Level Plan

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

7 Unit Townhouse Plans - Front Garage

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.

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

NO.	DATE	REVISION	BY
4	6/30/20	NO CHANGE	AJS
3	5/26/20	NO CHANGE	AJS
2	4/28/20	REVISED PER PLANNING BOARD COMMENTS	AJS
1	2/25/20	REVISED PER PLANNING BOARD COMMENTS	AJS

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

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT: BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING: Building Plans – Front Garage

PROJECT NUMBER	19131.100	PROJECT MANAGER	
DATE	10-29-19	DRAWN BY	AJS
SCALE	Not to Scale	CHECKED BY	

DRAWING NO. A-1 SHEET 2/3

Approved Subdivision for 25 Townsend Street

n/f N.Y.S. Matteawan State Hospital

n/f Ovitt

n/f Coulter

n/f Bieber

n/f Davis

n/f Blumenthal

n/f Meadow Ridge II HDF Co Inc

n/f Highland Meadows Senior Housing

n/f Westchester County Health Care (Wingate at Beacon)

DE SOTO AVE.

CONKLIN STREET

HASTINGS DRIVE

USACE WETLAND

Existing Utility Easement as per FM 10853

EXISTING CHAIN LINK FENCE TO BE REMOVED

EXISTING ACCESS AND STORMWATER MANAGEMENT EASEMENT

Lot 4 Lot Line Realignment prepared for JCMW, Inc. (filed September 30, 1987 as map no. 8138)

S 24°59'01" E (deed)
S 24°56'10" E (comp)

S 24°59'01" E (deed)
S 24°59'10" E (comp)

241.50' (total)

25' REAR YARD SETBACK

N 65°00'59" E
241.50'

473.19'

S 26°41'10" E

222.71'

N 63°15'18" E

298.91'

N 26°51'40" W
21.65'

N 26°41'40" W
765.83'

17.5' SIDE YARD SETBACK

530.95'

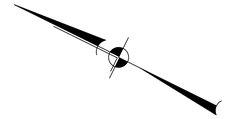
S 41°55'10" W
269.91' (comp)
S 41°55'10" W
269.91' (meas)

30' FRONT YARD SETBACK

S 62°42'26" W
155.74'

N 27°12'40" W
N 27°41'40" W (per f.m.)
229.78' (comp)

Drain Line-Fence Generally on Line



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING CHAIN LINK FENCE
- EXISTING EDGE OF PAVEMENT
- EXISTING WETLAND
- WL A23 / WL A24 — EXISTING WETLAND FLAG
- EXISTING TREE LINE
- 190 — EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- × 215.1 — EXISTING SPOT GRADE
- EXISTING ITEMS TO BE REMOVED

General Notes:

1. Property line shown on these plans is based upon a map entitled "Boundary and Topographic Survey of Property prepared for Beacon Community Foundation, Inc.", dated March 22, 2005 as prepared by Insite Engineering, Surveying & Landscape Architecture, P.C.
2. Topography shown on these plans are based upon aerial photography dated April 14, 2003 and is photogrametricaly compiled. Elevations shown hereon conform to the North American Vertical Datum of 1988 (N.A.V.D. 1988) as derived by GPS observation. The contour interval is 2'.
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4. The existing wetland limit line as shown on these plans is based on a field delineation performed by Ecological Solutions, LLC on April 15, 2019 and survey located by Insite Engineering, Surveying & Landscape Architecture, P.C. The area of the wetland on the subject property is 2.55 acres.

UNIT DENSITY CALCULATIONS (RD–5)

Based on note "q" of Chapter 223–17c Schedule of Regulations for Residential Districts

Total Parcel (8.55 acres)	= 372,438 SF±
Wetland	= 111,078 SF±
Slopes 25% or Greater	= 8,500 SF±
Buildable Area	= 252,860 SF
Permitted Units @ 5,000 SF per Unit	= 50 Units
Proposed Units	= 40 Units

* Pursuant to article IVB of the city code, four (4) units of the proposed forty (40) are to be below–market–rate.

GRAPHIC SCALE
0 20 40 80
(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY
3	6–30–20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5–26–20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4–28–20	RESUBMISSION TO PLANNING BOARD	JFR

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225–9690
(845) 225–9717 fax
www.insite–eng.com

PROJECT: BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING: EXISTING CONDITIONS & REMOVALS PLAN

STATE OF NEW YORK — JANET J. CONFALONE — 21931 — LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8–27–19	DRAWN BY	J.F.R.
SCALE	1" = 40'	CHECKED BY	A.D.T.

DRAWING NO. EX–1
SHEET 2 / 16

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

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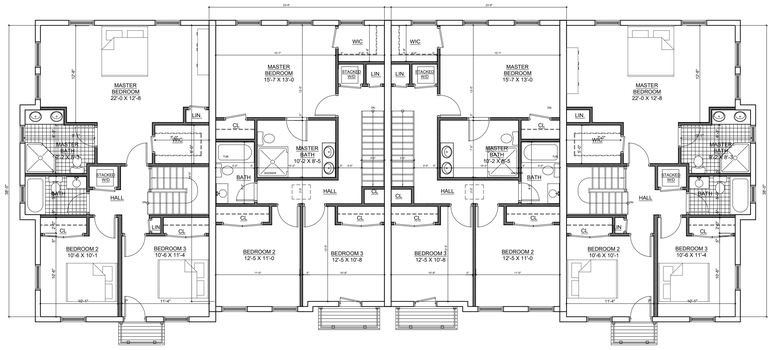
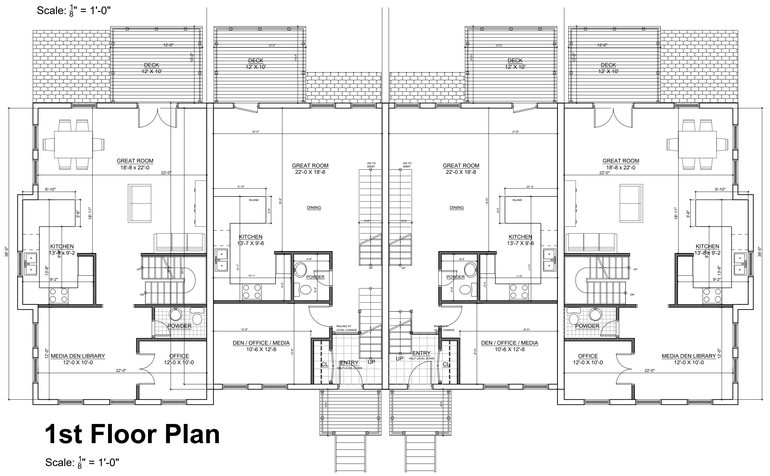


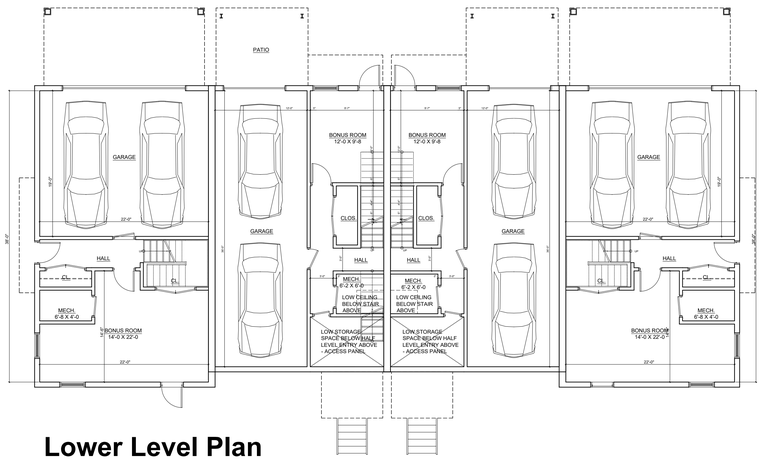
2nd Floor Plan

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



1st Floor Plan

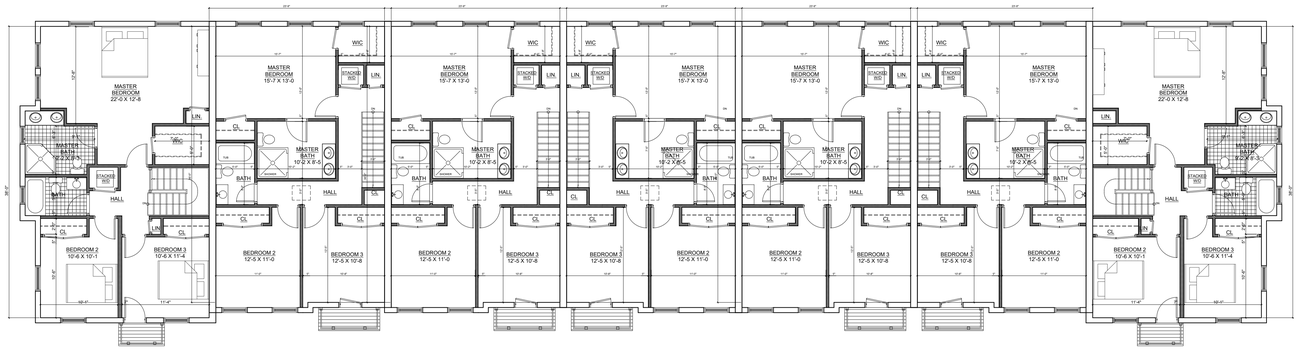
Scale: $\frac{1}{8}$" = 1'-0"



Lower Level Plan

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

4 Unit Townhouse Plans - Rear Garage



2nd Floor Plan

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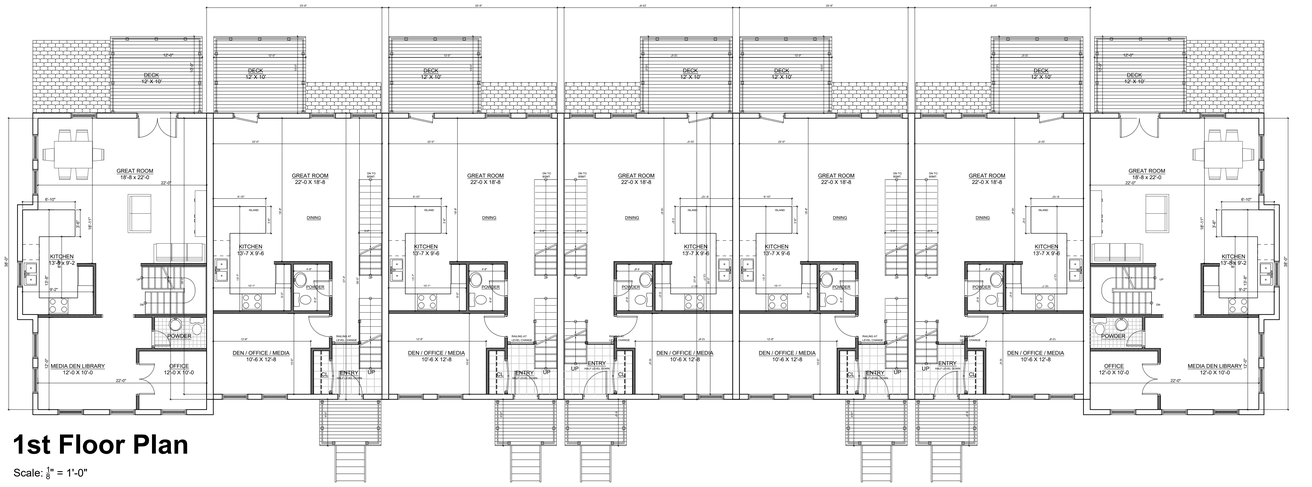
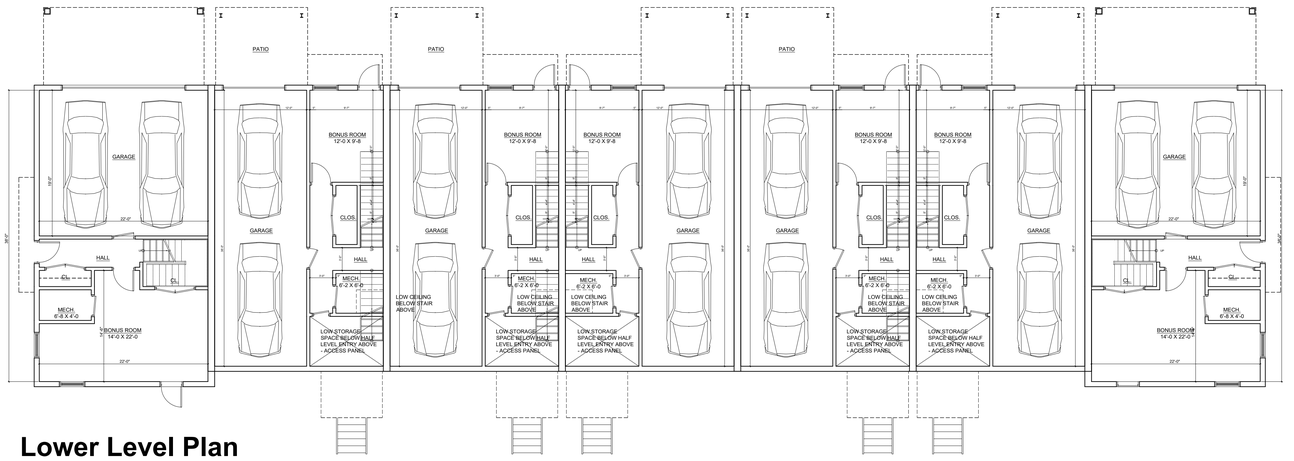


1st Floor Plan

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



Lower Level Plan

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

7 Unit Townhouse Plans - Rear Garage

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	REVISION	BY
4	6/30/20	NO CHANGE	AJS
3	5/26/20	NO CHANGE	AJS
2	4/28/20	REVISED PER PLANNING BOARD COMMENTS	AJS
1	2/25/20	REVISED PER PLANNING BOARD COMMENTS	AJS

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

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Carmel, NY 10512
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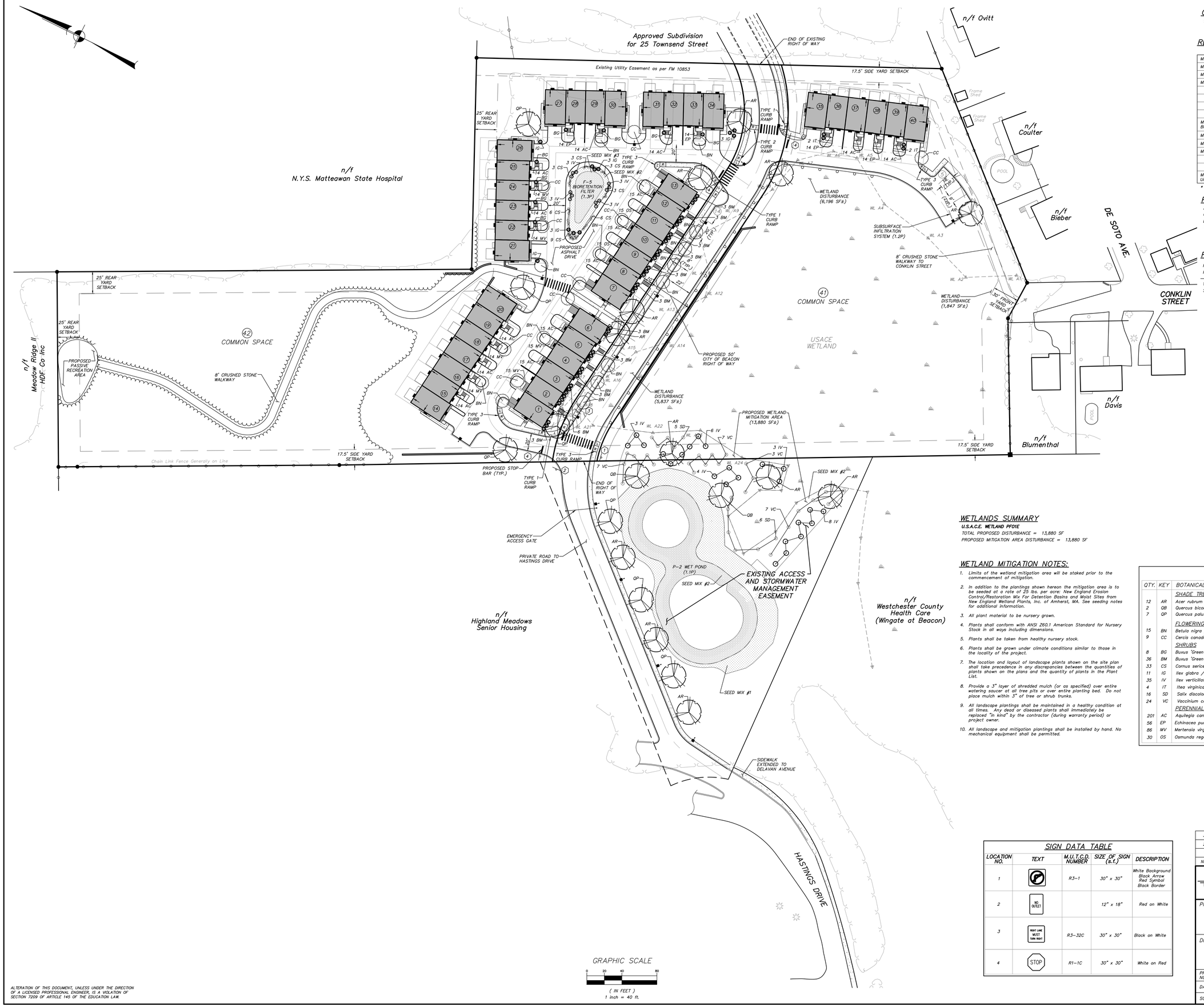
PROJECT: BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING: Building Plans – Rear Garage

PROJECT NUMBER	19131.100	PROJECT MANAGER	
DATE	10-29-19	DRAWN BY	AJS
SCALE	Not to Scale	CHECKED BY	

DRAWING NO. A-2 SHEET 3 / 3



GENERAL NOTES:

1) Trash and recycling to be collected at each unit by a privately hired waste management contractor.

RD–5 ZONE REQUIREMENTS:

	Required/Permitted:	Provided:
Minimum Lot Area:	5,000 SF	374,518 SF±
Minimum Lot Width:	50'	440'±
Minimum Lot Depth:	100'	848'±
Minimum Yard Setbacks:		
Front:	30'	30'
Minimum Side:	17.5'	35'
Total of 2:	20'	75'
Rear:	25'	25'
Minimum Distance Between Buildings on the Same Lot:	30'	20'*
Maximum Building Height:	3 Stories or 35'	Less than 35'
Minimum Building Height:	1 Story and 12'	More than 12'
Maximum Building Coverage		
Multi–family:	20%	8.1%
Other uses:	30%	0%
Maximum No. of Dwelling Units per Building	16	7

* Seeking relief from minimum distance as part of terms of conservation subdivision

PARKING REQUIREMENTS:

2 per Dwelling Unit + .25 Spaces per Bedroom	= 110 Spaces
Garage Spaces	= 80 Spaces
Driveway Spaces	= 40 Spaces
Visitor Spaces	= 19 Spaces
	= 139 Spaces Provided

RECREATION AREAS SUMMARY

Required SF @ 2,000 for First 20 Units Required 100 SF for Each Additional Unit	= 4,000 SF Required
Western Trail Passive Recreation Area	= 7,590 SF
Southern Trail to Conklin Street Area	= 1,385 SF
	= 8,975 SF Provided

LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING CHAIN LINK FENCE
- EXISTING EDGE OF PAVEMENT
- EXISTING WETLAND
- EXISTING WETLAND FLAG (WL A23 – WL A24)
- EXISTING TREE LINE
- PROPOSED SIGN (1)
- PROPOSED DOOR LOCATION
- PROPOSED # OF STALLS TO BE STRIPED (9)
- PROPOSED CONCRETE CURB
- PROPOSED EDGE OF SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED PAINTED STOPBAR
- PROPOSED CROSSWALK
- PROPOSED PARKING STRIPING
- PROPOSED LANDSCAPING
- PROPOSED GUIDE RAIL
- PROPOSED POLE MOUNTED LIGHT
- PROPOSED BUILDING MOUNTED LIGHT

WETLANDS SUMMARY

U.S.A.C.E. WETLAND PFOIE

TOTAL PROPOSED DISTURBANCE = 13,880 SF

PROPOSED MITIGATION AREA DISTURBANCE = 13,880 SF

WETLAND MITIGATION NOTES:

1. Limits of the wetland mitigation area will be staked prior to the commencement of mitigation.
2. In addition to the plantings shown hereon the mitigation area is to be seeded at a rate of 25 lbs. per acre: New England Erosion Control/Restoration Mix For Detention Basins and Moist Sites from New England Wetland Plants, Inc. of Amherst, MA. See seeding notes for additional information.
3. All plant material to be nursery grown.
4. Plants shall conform with ANSI Z60.1 American Standard for Nursery Stock in all ways including dimensions.
5. Plants shall be taken from healthy nursery stock.
6. Plants shall be grown under climate conditions similar to those in the locality of the project.
7. The location and layout of landscape plants shown on the site plan shall take precedence in any discrepancies between the quantities of plants shown on the plans and the quantity of plants in the Plant List.
8. Provide a 3" layer of shredded mulch (or as specified) over entire watering saucer at all tree pits or over entire planting bed. Do not place mulch within 3" of tree or shrub trunks.
9. All landscape plantings shall be maintained in a healthy condition at all times. Any dead or diseased plants shall immediately be replaced "in kind" by the contractor (during warranty period) or project owner.
10. All landscape and mitigation plantings shall be installed by hand. No mechanical equipment shall be permitted.

PLANT LIST

QTY.	KEY	BOTANICAL/COMMON NAME	SIZE	ROOT
		SHADE TREES		
12	AR	Acer rubrum / Red Maple	10'–12' HT.	B&B
2	QB	Quercus bicolor / Swamp White Oak	10'–12' HT.	B&B
7	QP	Quercus palustris / Pin Oak	10'–12' HT.	B&B
		FLOWERING TREES		
15	BN	Betula nigra / River Birch	8'–10' HT.	B&B
9	CC	Cercis canadensis / Eastern Redbud	8'–10' HT.	B&B
		SHRUBS		
8	BG	Buxus 'Green Gem' / Green Gem Boxwood		#3 CONT./3' O.C.
36	BM	Buxus 'Green Mountain' / Green Mountain Boxwood		#3 CONT./3' O.C.
33	CS	Cornus sericea / Red Twig Dogwood		#3 CONT./4' O.C.
11	IG	Ilex glabra / Inkberry		#3 CONT./4' O.C.
35	IV	Ilex verticillata / Winterberry		#5 CONT./5' O.C.
4	IT	Itea virginica / Virginia Sweetspire		#3 CONT./3' O.C.
16	SD	Salix discolor / Pussy Willow		#5 CONT./5' O.C.
24	VC	Vaccinium corymbosum / Highbush Blueberry		#5 CONT./5' O.C.
		PERENNIALS/GROUND COVERS		
201	AC	Aquilegia canadensis / Columbine		#1 CONT./18" O.C.
56	EP	Echinacea purpurea / Purple Coneflower		#1 CONT./18" O.C.
86	MV	Mertensia virginica / Virginia Bluebells		#1 CONT./18" O.C.
30	OS	Osmunda regalis / Royal Fern		#1 CONT./18" O.C.

SIGN DATA TABLE

LOCATION NO.	TEXT	M.U.T.C.D. NUMBER	SIZE OF SIGN (s.f.)	DESCRIPTION
1		R3–1	30" x 30"	White Background Black Arrow Red Symbol Black Border
2	NO OUTLET		12" x 18"	Red on White
3	RIGHT LANE MUST TURN RIGHT	R3–32C	30" x 30"	Black on White
4	STOP	R1–1C	30" x 30"	White on Red

GRAPHIC SCALE

0 20 40 80

(IN FEET)

1 inch = 40 ft.

NO.	DATE	REVISION	BY
3	6–30–20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5–26–20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4–28–20	RESUBMISSION TO PLANNING BOARD	JFR

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Carmel, NY 10512
(845) 225–9690
(845) 225–9717 fax
www.insite–eng.com

PROJECT: BEACON VIEWS

CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING: LAYOUT & LANDSCAPE PLAN

STATE OF NEW YORK — JEFFREY J. CONTENTO — 21931 — LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.	DRAWING NO.	SHEET 3 / 16
DATE	8–27–19	DRAWN BY	J.F.R.	SP–1	
SCALE	AS SHOWN	CHECKED BY	A.D.T.		

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

Z:\19131\100 Admin\03 SP-1.dwg, 6/30/2020 11:26:45 AM, JeffPenta 3.1

ROOF:
ARCHITECTURAL ASPHALT SHINGLES. COLOR: GRAY

PARAPETS:
SHEET METAL FLASHING. COLOR: LEAD GRAY

WINDOWS:
VINYL CLAD DOUBLE HUNG WINDOWS BY ANDERSEN OR APPROVED EQUAL. COLOR: WHITE

SIDING:
HORIZONTAL VINYL SIDING. COLOR: VARIATIONS ON LIGHT GRAY SHADES. NOTE THAT EACH BUILDING GROUP WILL BE ONE COLOR, BUT THERE WILL BE 3 COLORS OF SIDING THROUGHOUT THE PROJECT

WINDOW TRIM:
AZEK. COLOR: WHITE

PORCH & BALCONY TRIM:
AZEK. COLOR: LIGHT GRAY

Elevation: Front

BRICK:
GLEN GARY THIN BRICK. COLOR: 56DD OR APPROVED EQUAL

Elevation: Right Side

Elevation: Left Side

RAILING:
TREX RAILING SYSTEM AND DECKING, OR APPROVED EQUAL. COLOR: LIGHT GRAY

GARAGE DOOR:
AUTOMATIC ROLLUP GARAGE DOOR. PANELS AND GLAZING SIMILAR TO DRAWING. COLOR: LIGHT GRAY

Elevation: Rear

Elevations: Rear Garage Entrance

Scale: $\frac{1}{16}$" = 1'-0"

View at Garage Side

Not to Scale

ROOF:
ARCHITECTURAL ASPHALT SHINGLES. COLOR: GRAY

PARAPETS:
SHEET METAL FLASHING. COLOR: LEAD GRAY

WINDOWS:
VINYL CLAD DOUBLE HUNG WINDOWS BY ANDERSEN OR APPROVED EQUAL. COLOR: WHITE

SIDING:
HORIZONTAL VINYL SIDING. COLOR: VARIATIONS ON LIGHT GRAY SHADES. NOTE THAT EACH BUILDING GROUP WILL BE ONE COLOR, BUT THERE WILL BE 3 COLORS OF SIDING THROUGHOUT THE PROJECT

WINDOW TRIM:
AZEK. COLOR: WHITE

PORCH & BALCONY TRIM:
AZEK. COLOR: LIGHT GRAY

Elevation: Front

BRICK:
GLEN GARY THIN BRICK. COLOR: 56DD OR APPROVED EQUAL

Elevation: Right Side

Elevation: Left Side

RAILING:
TREX RAILING SYSTEM AND DECKING, OR APPROVED EQUAL. COLOR: LIGHT GRAY

GARAGE DOOR:
AUTOMATIC ROLLUP GARAGE DOOR. PANELS AND GLAZING SIMILAR TO DRAWING. COLOR: LIGHT GRAY

Elevation: Rear

Elevations: Front Garage Entrance

Scale: $\frac{1}{16}$" = 1'-0"

View at Entry Side

Not to Scale

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 SITE CONDITIONS. CHANGES TO DESIGN ELEMENTS MAY OCCUR IN THE FINAL CONSTRUCTION DOCUMENTS TO SUIT TENANT LAYOUTS AND BUILDING CODE REQUIREMENTS

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.

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

NO.	DATE	REVISION	BY
4	6/30/20	UPDATE RENDERING	AJS
3	5/26/20	NO CHANGE	AJS
2	4/28/20	REVISED PER PLANNING BOARD COMMENTS	AJS
1	2/25/20	REVISED PER PLANNING BOARD COMMENTS	AJS

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

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Carmel, NY 10512
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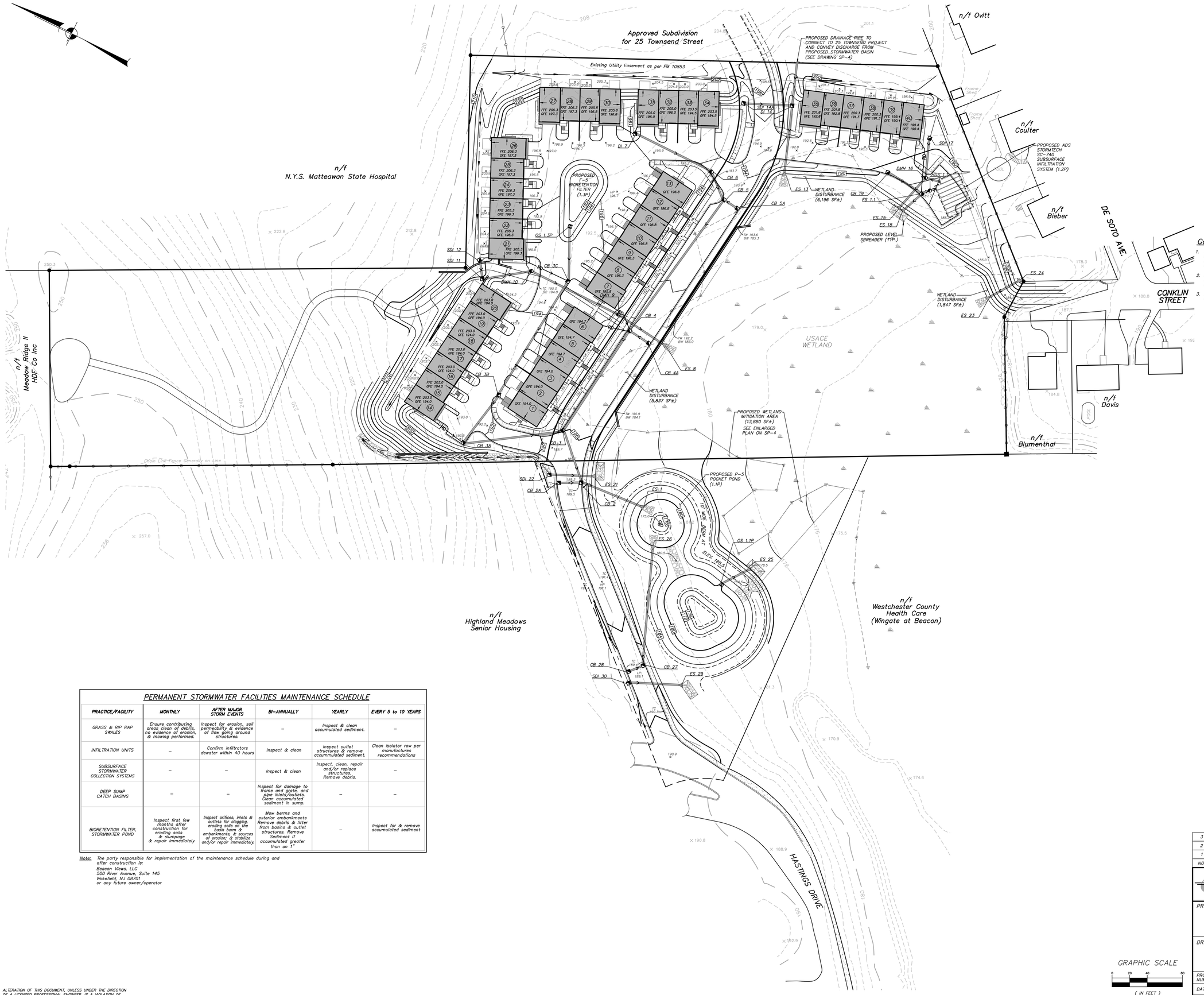
PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

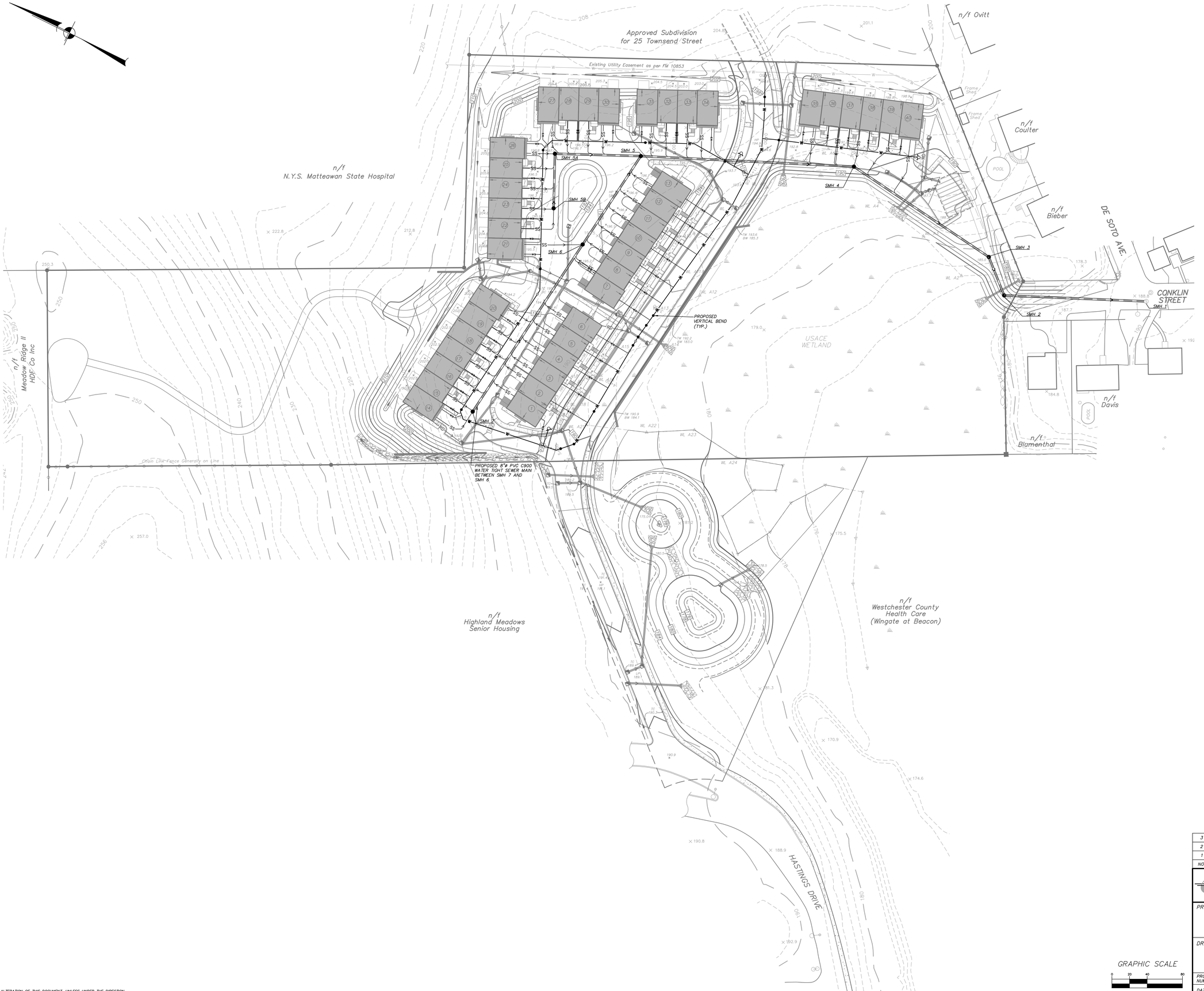
DRAWING:
Elevations / Views

PROJECT NUMBER	19131.100	PROJECT MANAGER	
DATE	10-29-19	DRAWN BY	AJS
SCALE	Not to Scale	CHECKED BY	

DRAWING NO. A-3

SHEET 3 / 3


Approved Subdivision
for 25 Townsend Street
n/f
N.Y.S. Matteawan State Hospital
n/f
Meadow Ridge II
HDF Co Inc
n/f Ovitt
n/f Coulter
n/f Bieber
n/f Davis
n/f Blumenthal
DE SOTO AVE.
CONKLIN STREET
n/f
Highland Meadows
Senior Housing
n/f
Westchester County
Health Care
(Wingate at Beaconi)
HASTINGS DRIVE
USACE WETLAND
Existing Utility Easement as per FM 10853
PROPOSED DRAINAGE PIPE TO CONNECT TO 25 TOWNSEND PROJECT AND CONVEY DISCHARGE FROM PROPOSED STORMWATER BASIN (SEE DRAWING SP-4)
PROPOSED ADS STORMTECH SC-740 SUBSURFACE INFILTRATION SYSTEM (1.2P)
PROPOSED F-7 BIORETENTION FILTER (1.3P)
PROPOSED LEVEL SPREADER (TYP.)
WETLAND DISTURBANCE (6,196 SF±)
WETLAND DISTURBANCE (1,847 SF±)
WETLAND DISTURBANCE (5,837 SF±)
PROPOSED WETLAND MITIGATION AREA (13,880 SF±)
SEE ENLARGED PLAN ON SP-4
PROPOSED P-5 POCKET POND (1.1P)
MIN. BASIN AT ELEV. 185.4
Drain Line Fence Generally on Line
Frame Shed
Frame Shed
FFE 206.3 GFE 197.3
FFE 206.3 GFE 197.3
FFE 205.8 GFE 196.8
FFE 205.8 GFE 196.8
FFE 205.0 GFE 196.0
FFE 205.0 GFE 196.0
FFE 203.5 GFE 194.5
FFE 203.5 GFE 194.5
FFE 201.8 GFE 192.8
FFE 201.8 GFE 192.8
FFE 200.3 GFE 191.3
FFE 200.3 GFE 191.3
FFE 199.4 GFE 190.4
FFE 199.4 GFE 190.4
FFE 206.5 GFE 197.5
FFE 206.3 GFE 197.3
FFE 206.3 GFE 197.3
FFE 205.3 GFE 196.3
FFE 205.3 GFE 196.3
FFE 205.3 GFE 196.3
FFE 203.0 GFE 194.0
FFE 203.0 GFE 194.0
FFE 203.0 GFE 194.0
FFE 203.0 GFE 194.0
FFE 203.0 GFE 194.0
FFE 203.0 GFE 194.0
FFE 203.0 GFE 194.0
GFE 198.8
GFE 198.8
GFE 198.8
GFE 196.3
GFE 196.3
GFE 196.3
GFE 194.7
GFE 194.7
GFE 194.7
GFE 194.0
GFE 194.0
GFE 194.0
DMH 16
DMH 10
DMH 9
HDS 1.1
OS 1.1P
OS 1.3P
OS 1.2P
DI 7
DI 14
DI 14A
SDI 12
SDI 11
SDI 17
SDI 22
SDI 30
CB 6
CB 5
CB 5A
CB 5C
CB 4
CB 4A
CB 3A
CB 3B
CB 3C
CB 2
CB 24
CB 28
CB 27
ES 13
ES 15
ES 18
ES 24
ES 23
ES 8
ES 21
ES 1
ES 26
ES 25
ES 29
FS 1.1
CB 19
CONTROL STRUCTURE
TW 193.6
BW 185.3
TW 192.2
BW 183.0
TW 190.9
BW 184.1
TC 191.4
IP 191.1
BC 191.1
TC 190.3
IP 189.1
TC 189.2
IP 189.1
TC 191.4
IP 191.1
BC 191.1
TW 193.7
BW 184.5
TW 195.0
BC 194.8
TW 194.9
BW 184.6
TW 196.7
BW 187.5
TW 196.7
BW 187.5
TW 196.7
BW 187.5



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING CHAIN LINK FENCE
- EXISTING EDGE OF PAVEMENT
- EXISTING WETLAND
- EXISTING WETLAND FLAG (Wl. A23 – Wl. A24)
- EXISTING 10' CONTOUR (190)
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE (× 215.1)
- EXISTING 12"ø WATER MAIN (W)
- PROPOSED 10' CONTOUR (190)
- PROPOSED 2' CONTOUR
- PROPOSED SPOT ELEVATION (× 188.8 / 188.8)
- PROPOSED TOP OF WALL & BOTTOM OF WALL ELEVATIONS (TW 187.8 / BW 184.0)
- PROPOSED SEWER MANHOLE
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED OUTLET STRUCTURE
- PROPOSED END SECTION
- PROPOSED WATER GATE VALVE (⊗ GV)
- PROPOSED FIRE HYDRANT
- PROPOSED HDPE DRAINAGE PIPE (SIZE AS NOTED)
- PROPOSED 8"ø PVC SDR 35 SEWER MAIN (UNLESS OTHERWISE NOTED)
- PROPOSED 4"ø PVC SDR 35 SEWER SERVICE (SS)
- PROPOSED 8"ø DIP CLASS 52 WATER MAIN (W)
- PROPOSED 1"ø DIP WATER SERVICE LINE (ws)
- PROPOSED GRASS SWALE

PROPOSED SEWER TABLE

STRUCTURE	RIM.	INV.	PIPE	LENGTH	SLOPE
SMH 7	192.5	188.0			
			8" PVC	227 L.F.	0.8%
SMH 6	194.7	IN 186.2 | OUT 186.1			
			8" PVC	120 L.F.	0.8%
SMH 5	196.0	IN 185.1 | OUT 185.0			
			8" PVC	242 L.F.	1.1%
SMH 4	190.4	IN 182.4 | OUT 182.3			
			8" PVC	184 L.F.	0.8%
SMH 3	185.0	IN 180.8 | OUT 180.7			
			8" PVC	47 L.F.	0.9%
SMH 2	184.5	IN 180.3 | OUT 180.2			
			8" PVC	161 L.F.	0.8%
SMH 1	188.8	178.9			
SMH 5B	195.8	191.6			
			8" PVC	62 L.F.	0.8%
SMH 5A	196.6	IN 191.1 | OUT 191.0			
			8" PVC	97 L.F.	6.1%
SMH 5	196.1	IN 185.1 | OUT 185.0			

General Notes:

1. The City of Beacon shall own, operate and maintain the water main and all hydrants/stubs.
2. All sanitary sewer mains and manholes up to the existing manhole shall be owned, operated, and maintained by the City of Beacon.
3. Blanket agreements and easements to be granted to the City of Beacon for access and utility maintenance purposes.

GRAPHIC SCALE
0 20 40 80
(IN FEET)
1 inch = 40 ft.

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NO.	DATE	REVISION	BY
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR

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PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

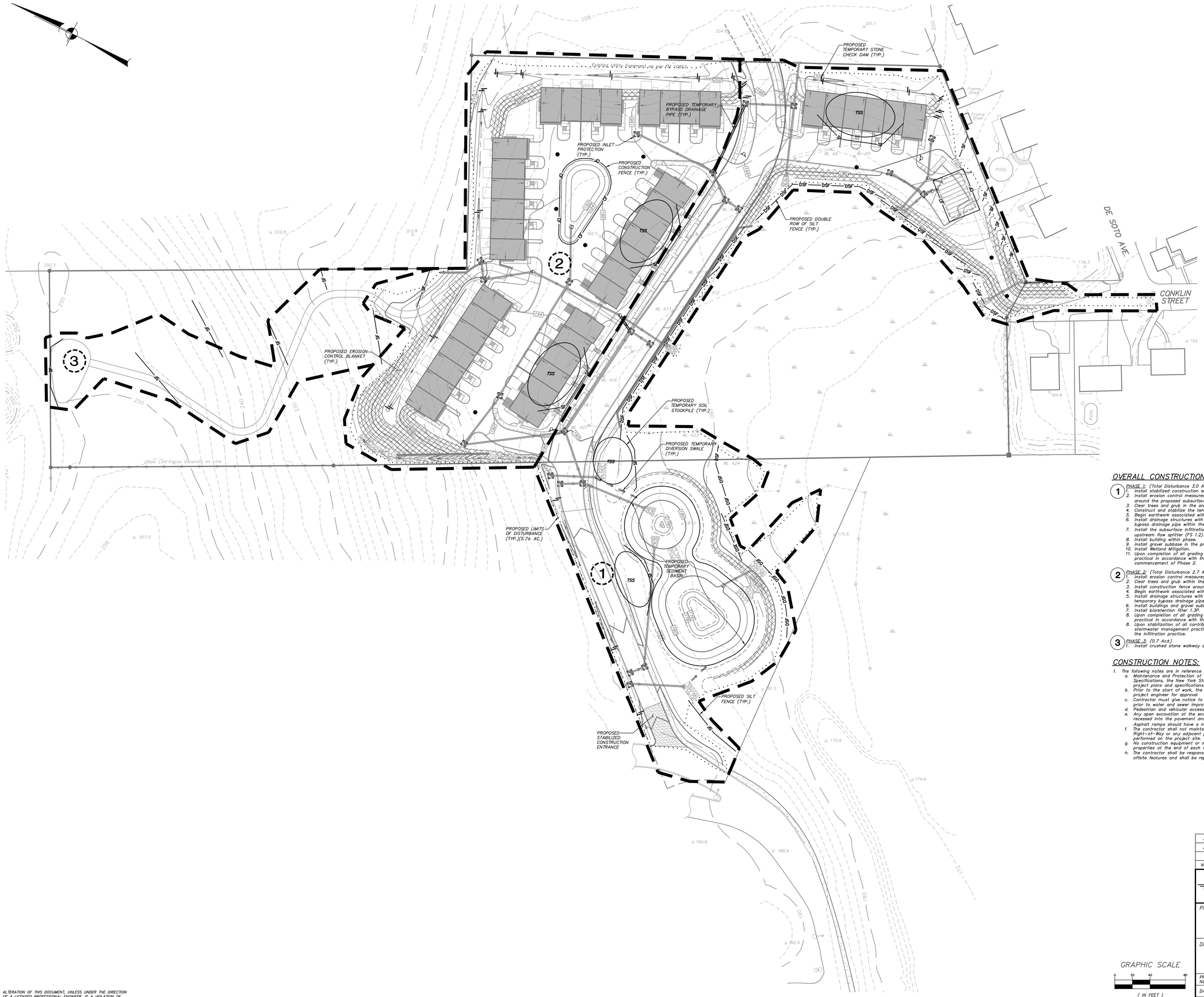
DRAWING:
UTILITIES PLAN

STATE OF NEW YORK · JAMES J. CONSTANTINO · 21931 · LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8-27-19	DRAWN BY	J.F.R.
SCALE	1" = 40'	CHECKED BY	A.D.T.

DRAWING NO. SP-2.2
SHEET 5 / 16

Z:\E\19131\00 insite\05 SP-2.2.dwg, 6/30/2020 12:27:27 PM, ryanbohne, 1:1



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING CHAIN LINK FENCE
- EXISTING EDGE OF PAVEMENT
- EXISTING WETLAND
- EXISTING WETLAND FLAG
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SEWER MANHOLE
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED OUTLET STRUCTURE
- PROPOSED END SECTION
- PROPOSED FIRE HYDRANT
- PROPOSED GRASS SWALE
- PROPOSED SILT FENCE
- PROPOSED CONSTRUCTION FENCE
- PROPOSED STONE RIP-RAP
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED STONE CHECK DAM
- PROPOSED TEMPORARY DIVERSION SWALE
- PROPOSED TEMPORARY SOIL STOCKPILE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED EROSION CONTROL BLANKET
- PROPOSED DRAINAGE STRUCTURE W/ INLET PROTECTION
- PROPOSED PHASING LINE
- PROPOSED PHASING NUMBER

OVERALL CONSTRUCTION SEQUENCE:

1 PHASE 1: (Total Disturbance 3.0 Ac. ±)
1. Install stabilized construction entrances in accordance with the notes and details at location shown on drawing.
2. Install erosion control measures shown on the plan in accordance with the details. Install construction fence around the proposed subsurface infiltration system (1.2P).
3. Clear trees and grub in the area of stormwater basin 1.1P.
4. Construct and stabilize the temporary sediment basin in accordance with the notes and details.
5. Begin earthwork associated with the road, parking area and building within limits of the phase.
6. Install drainage structures with inlet protection as shown and pipes within limits of phase. Install temporary bypass drainage pipe within the phase to direct stormwater runoff to the temporary sediment basin.
7. Install the subsurface infiltration system (1.2P) and plug the outlet pipe to the infiltration practice in the upstream flow splitter (FS 1.2).
8. Install building within phase.
9. Install gravel subbase in the proposed paved areas.
10. Install Wetland Mitigation.
11. Upon completion of all grading operations topsoil, seed, and mulch any and all disturbed areas as soon as practical in accordance with the sedimentation and erosion control notes. Phase 1 must be stabilized prior to the commencement of Phase 2.

2 PHASE 2: (Total Disturbance 2.7 Ac. ±)
1. Install erosion control measures shown on the plan in accordance with the details.
2. Clear trees and grub within the limits of the phase.
3. Install construction fence around the proposed bioretention filter (1.3P).
4. Begin earthwork associated with the parking area and buildings.
5. Install drainage structures with inlet protection as shown and pipes within the limits of the phase. Install temporary bypass drainage pipe within the phase to direct stormwater runoff to the temporary sediment basin.
6. Install buildings and gravel subbase in the proposed paved areas.
7. Install bioretention filter 1.3P.
8. Upon completion of all grading operations topsoil, seed, and mulch any and all disturbed areas as soon as practical in accordance with the sedimentation and erosion control notes.
8. Upon stabilization of all contributing area complete, convert the temporary sediment basin to the proposed stormwater management practice per the notes and details and remove plug from primary outlet in FS 1.2 to the infiltration practice.

3 PHASE 3: (0.7 Ac±)
1. Install crushed stone walkway and passive recreation area.

CONSTRUCTION NOTES:

1. The following notes are in reference to the proposed water and sewer main improvements on Conklin Street:
   a. Maintenance and Protection of Traffic shall be provide in accordance with Section 619 of the Standard Specifications, the New York State Manual of Uniform Control Devices, and any provisions contained in the project plans and specifications.
   b. Prior to the start of work, the contractor shall submit a Maintenance and Protection of Traffic Plan to the project engineer for approval.
   c. Contractor must give notice to all effected residential dwellings on Conklin Street fourty-eight (48) hours prior to water and sewer improvement connections on Conklin Street.
   d. Pedestrian and vehicular access to all residence must be maintained at all times during construction.
   e. Any open excavation at the end of the work day must be covered with steel plates. Plates must be recessed into the pavement and pinned or pinned with asphalt ramps placed along all sides of the plate. Asphalt ramps should have a maximum slope of ½ inch per foot.
   f. The contractor shall not maintain construction equipment or stored overnight within the City of Beacon Right-of-Way or any adjacent properties. Construction equipment maintenance and storage must be performed on the project site.
   g. No construction equipment or material is to be left within the City of Beacon Right-of-Way or adjacent properties at the end of each work day.
   h. The contractor shall be responsible for the restoration of any offsite disturbance and/or damage to existing offsite features and shall be repaired or replaced in kind at the expense of the contractor.

GRAPHIC SCALE
0 20 40 80
(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR

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(845) 225-9717 fax
www.insite-eng.com

PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
EROSION & SEDIMENT CONTROL PLAN

STATE OF NEW YORK — JEFFREY J. CONTRADA — 91931 — LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8-27-19	DRAWN BY	J.F.R.
SCALE	1" = 40'	CHECKED BY	A.D.T.

DRAWING NO. SP-3
SHEET 6 / 16

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

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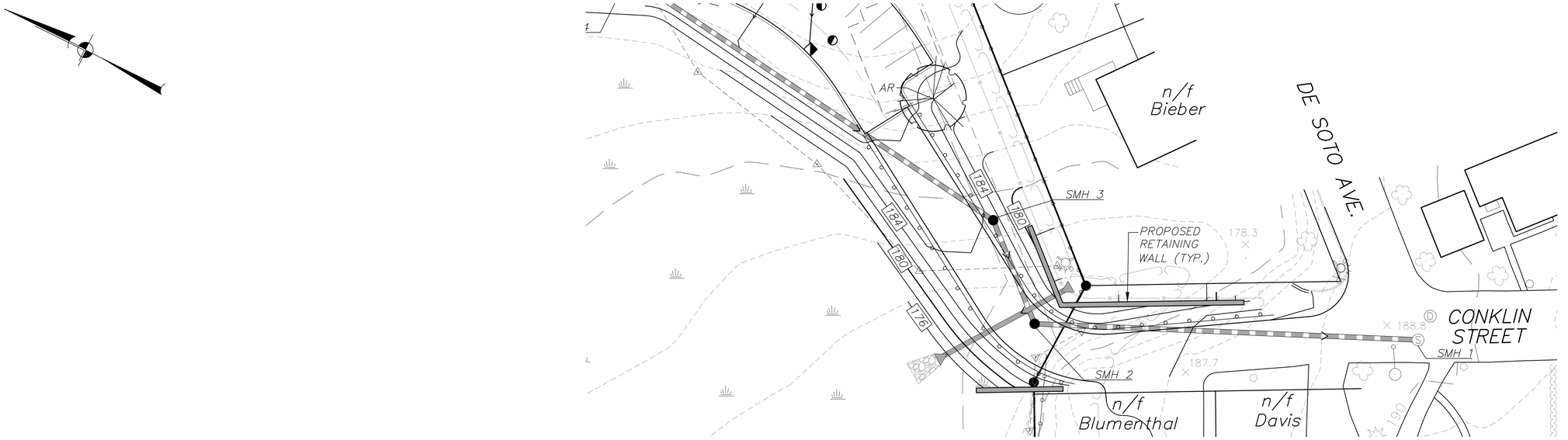


ALTERNATIVE GRADING PLAN FOR CONKLIN STREET EMERGENCY ACCESS

Note: The above grading is proposed in the event that an emergency access must be connected through to Conklin Street. See Site Access Notes for primary and contingency options for accessing the subdivision.

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1 inch = 20 ft.

LEGEND

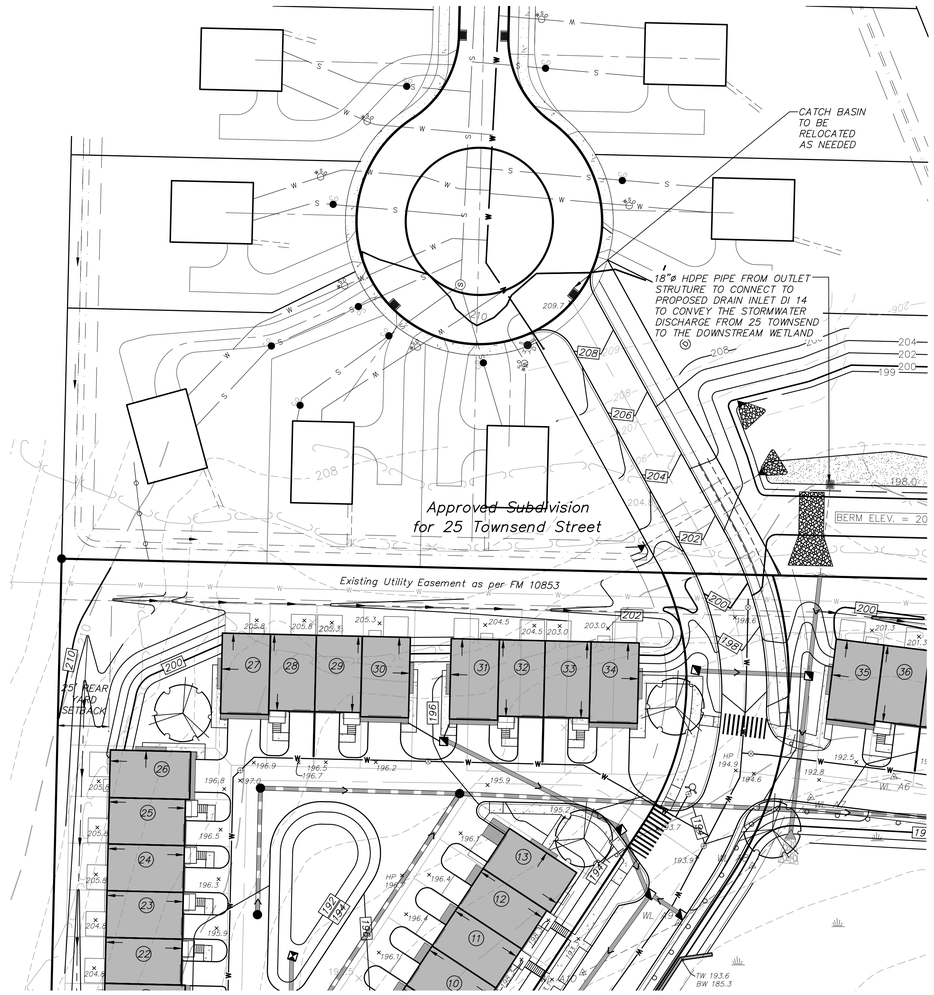
- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING CHAIN LINK FENCE
- EXISTING EDGE OF PAVEMENT
- EXISTING WETLAND
- WL A23 / WL A24 — EXISTING WETLAND FLAG
- EXISTING TREE LINE
- PROPOSED SIGN
- PROPOSED DOOR LOCATION
- (9) PROPOSED # OF STALLS TO BE STRIPED
- PROPOSED CONCRETE CURB
- PROPOSED EDGE OF SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED PAINTED STOPBAR
- PROPOSED CROSSWALK
- PROPOSED PARKING STRIPING
- PROPOSED LANDSCAPING
- PROPOSED GUIDE RAIL
- PROPOSED POLE MOUNTED LIGHT
- PROPOSED BUILDING MOUNTED LIGHT

Site Access Notes:

1. The applicant seeks to utilize the proposed connection to the right of way through the approved subdivision on 25 Townsend Street as its primary means of access for the Beacon Views Properties.
2. The road shown in the existing easement on the Highland Meadows Senior Housing Property would be utilized as an emergency access only, in this case.
3. In the event there is a delay in the construction of the road in the approved 25 Townsend Street right of way, the applicant would exercise the easement over the Highland Meadows Senior Housing Property, and utilize the proposed road thereon as the primary access to the site, until such time as the 25 Townsend Street road was constructed. At which time the road through the Highland Meadows Senior Housing Property easement would be gated and transitioned to emergency access only, as stated above.

WETLAND MITIGATION NOTES:

1. Limits of the wetland mitigation area will be staked prior to the commencement of mitigation.
2. In addition to the plantings shown hereon the mitigation area is to be seeded at a rate of 25 lbs. per acre: New England Erosion Control/Restoration Mix For Detention Basins and Moist Sites from New England Wetland Plants, Inc. of Amherst, MA. See seeding notes for additional information.
3. All plant material to be nursery grown.
4. Plants shall conform with ANSI Z60.1 American Standard for Nursery Stock in all ways including dimensions.
5. Plants shall be taken from healthy nursery stock.
6. Plants shall be grown under climate conditions similar to those in the locality of the project.
7. The location and layout of landscape plants shown on the site plan shall take precedence in any discrepancies between the quantities of plants shown on the plans and the quantity of plants in the Plant List.
8. Provide a 3" layer of shredded mulch (or as specified) over entire watering saucer at all tree pits or over entire planting bed. Do not place mulch within 3" of tree or shrub trunks.
9. All landscape plantings shall be maintained in a healthy condition at all times. Any dead or diseased plants shall immediately be replaced "in kind" by the contractor (during warranty period) or project owner.
10. All landscape and mitigation plantings shall be installed by hand. No mechanical equipment shall be permitted.

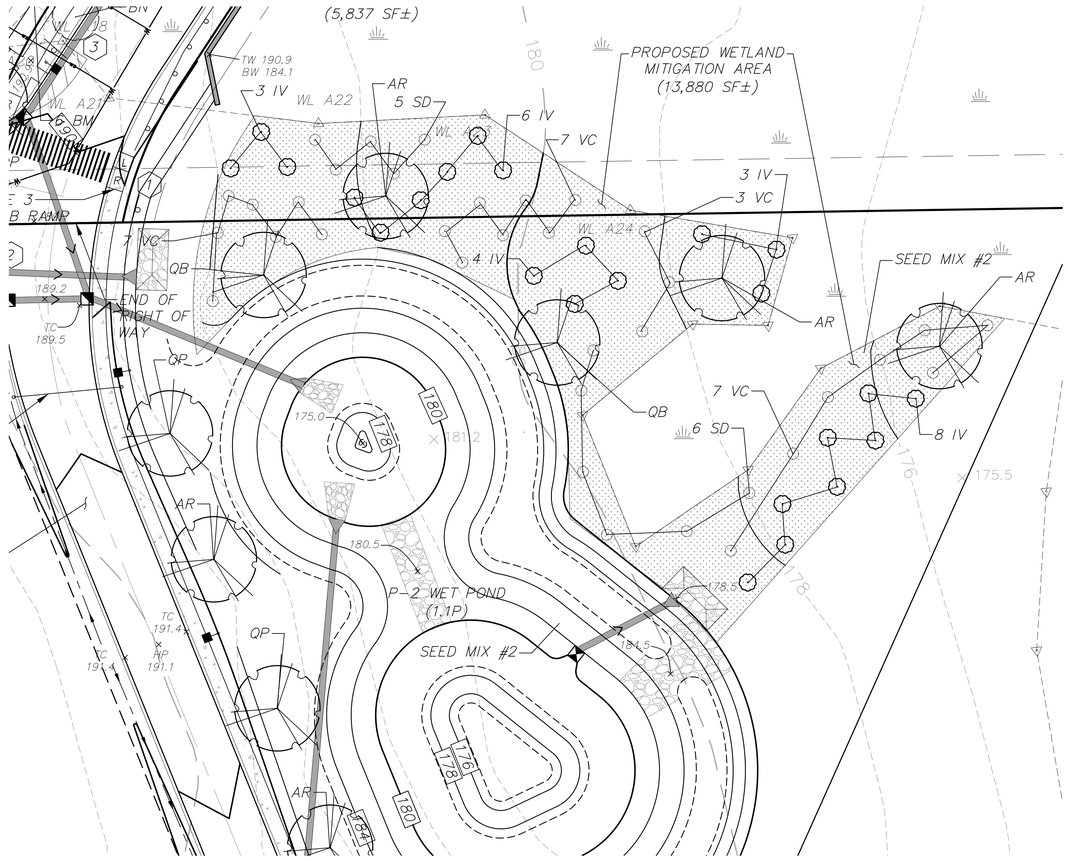


25 TOWNSEND STREET THROUGH CONNECTION

GRAPHIC SCALE

0 15 30

(IN FEET)
1 inch = 30 ft.



WETLAND MITIGATION PLAN

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1 inch = 20 ft.

NO.	DATE	REVISION	BY
1	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR

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PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
ENLARGED PLANS

STATE OF NEW YORK — JEFFREY J. CONTRATTO — 091931 — LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	5-26-20	DRAWN BY	J.F.R.
SCALE	AS SHOWN	CHECKED BY	A.D.T.

DRAWING NO. SP-4 — SHEET 7 / 16

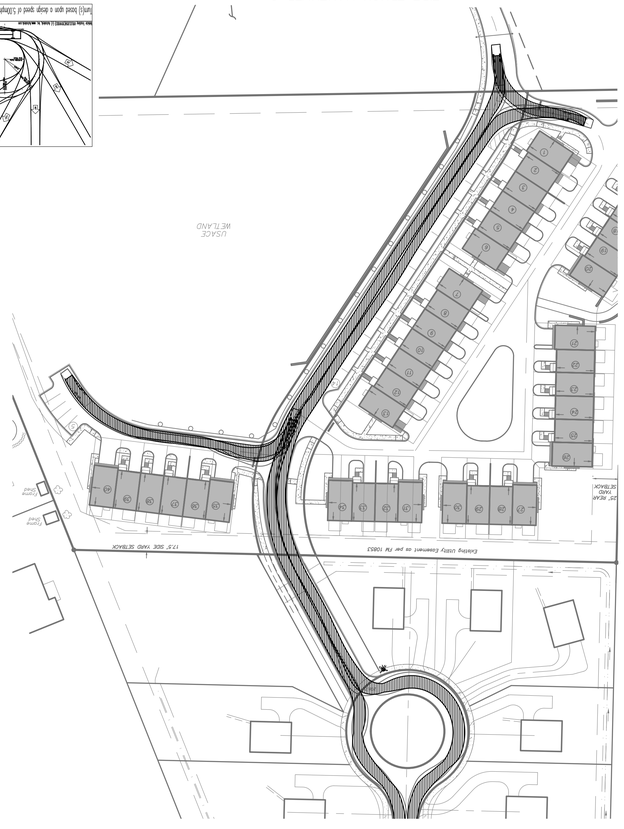
ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

Z:\C\19131\02 Admin\07 SP-4.dwg, 6/30/2020 12:26:27 PM, speckhen, 11

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

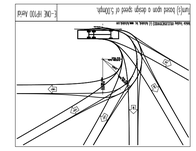
FIRE TRUCK MANEUVER 1

SCALE : 1" = 60'



FIRE TRUCK MANEUVER 2

SCALE : 1" = 60'

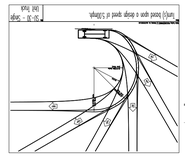


DELIVERY TRUCK MANEUVER 1

SCALE : 1" = 60'

DELIVERY TRUCK MANEUVER 2

SCALE : 1" = 60'

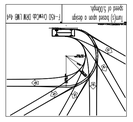


PLOW TRUCK MANEUVER 1

SCALE : 1" = 60'

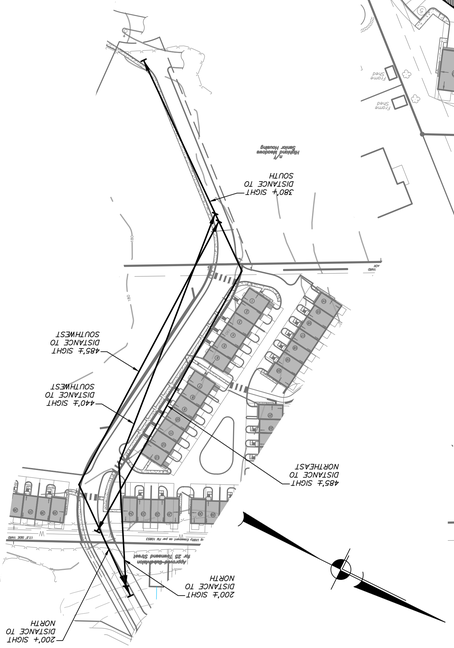
PLOW TRUCK MANEUVER 2

SCALE : 1" = 60'



SIGHT DISTANCE ANALYSIS

SCALE : 1" = 100'



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING CHAIN LINK FENCE
- EXISTING EDGE OF PAVEMENT
- EXISTING WETLAND FLAG
- EXISTING WETLAND
- EXISTING TREE LINE
- PROPOSED SIGN
- PROPOSED DOOR LOCATION
- PROPOSED # OF STALLS TO BE STRIPED
- PROPOSED CONCRETE CURB
- PROPOSED EDGE OF SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED PAINTED STOPBAR
- PROPOSED CROSSWALK
- PROPOSED PARKING STRIPING
- PROPOSED LANDSCAPING
- PROPOSED GUIDE RAIL
- PROPOSED POLE MOUNTED LIGHT
- PROPOSED BUILDING MOUNTED LIGHT

Site Access Notes:

1. The applicant seeks to utilize the proposed connection to the right of way through the approved subdivision on 25 Townsend Street as it's primary means of access for the Beacon Views Properties.
2. The road shown in the existing easement on the Highland Meadows Senior Housing Property would be utilized as an emergency access only, in this case.
3. In the event there is a delay in the construction of the road in the approved 25 Townsend Street right of way, the applicant would exercise the easement over the Highland Meadows Senior Housing Property and utilize the proposed road thereon as the primary access to the site, until such time as the 25 Townsend Street road was constructed. At which time the road through the Highland Meadows Senior Housing Property easement would be gated and transitioned to emergency access only, as stated above.

NO.	DATE	REVISION	BY
1	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR

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PROJECT:
BEACON VIEWS

CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
VEHICLE MANEUVERING PLAN

STATE OF NEW YORK — MARK C. TAYLOR — 81931 — LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.L.C.
DATE	6-30-20	DRAWN BY	J.F.R.
SCALE	AS SHOWN	CHECKED BY	A.D.T.

DRAWING NO. SP-5 SHEET 8 / 16

LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING CHAIN LINK FENCE
- EXISTING EDGE OF PAVEMENT
- EXISTING WETLAND
- WL A23 / WL A24 — EXISTING WETLAND FLAG
- EXISTING TREE LINE
- PROPOSED SIGN
- PROPOSED DOOR LOCATION
- (9) — PROPOSED # OF STALLS TO BE STRIPED
- PROPOSED CONCRETE CURB
- PROPOSED EDGE OF SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED PAINTED STOPBAR
- PROPOSED CROSSWALK
- PROPOSED GUIDE RAIL
- PROPOSED POLE MOUNTED LIGHT
- PROPOSED BUILDING MOUNTED LIGHT

LIGHTING NOTES:

1. All lighting shall be as noted on the plan or approved equal.
2. Style and finish of all luminaires to be selected by owner and approved by the Planning Board.
3. Site lights will be on photocells and will run from dusk to dawn.
4. Photometrics for building mounted lights are not depicted in this plan.
5. Type, location, and shading of all proposed lighting shall prevent the spillover of light onto all adjacent residential properties.

LIGHT CONTOUR LEGEND

- 0.1 — 0.10 Foot Candles
- 0.5 — 0.50 Foot Candles
- 1 — 1.00 Foot Candles

* Photometric calculations shown on plan are in foot candles.

LUMINAIRE SCHEDULE

Symbol	Qty	Catalog Number	Description	Lamp	Mounting Height
▪■	14	GAN-AF-01-LED -U-T4W-8030	Galleon Area and Roadway Luminaire, 80 CRI, 3000K, Type 4 Distribution	LED	12' – 0"
▬	120	–	1-Light Zinc Outdoor Wall Barn Sconce Lantern Outfitted with 2700K 9W LED Bulbs CRI 80	LED	7' – 0"

GRAPHIC SCALE

0 20 40 80

(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR

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(845) 225-9717 fax
www.insite-eng.com

PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
LIGHTING PLAN

STATE OF NEW YORK — JEFFREY J. CONNOLLY — 21931 — LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8-27-19	DRAWN BY	J.F.R.
SCALE	1" = 40'	CHECKED BY	A.D.T.

DRAWING NO. LP-1 SHEET 9 / 16

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

Streetworks

DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

GAN=Galleon
AF=1A Drive Current
01=1
LED=Solid
U=Universal (120-277V)
T4W=Type IV Wide
8030=80 CRI 3000K[1]

DIMENSIONS

GAN
GALLEON LED

1-10 Light Squares
Solid State LED

AREA / ROADWAY LUMINAIRE
GAN-AF-01-LED-U-T4W-8030

1-Light Zinc Outdoor Wall Barn Light Sconce Lantern

by **Hampton Bay**

Details

Compatible Bulb Type	CFL,Incandescent,LED	Exterior Lighting Product Type	Outdoor Lanterns
Fixture Color/Finish	Zinc	Fixture Material	Stainless Steel
Glass/Lens Type	No Glass/Lens	Included	Hardware Included
Light Bulb Base Code	E26	Light Bulb Type Included	No Bulbs Included
Maximum Bulb Wattage	60	Maximum Wattage (watts)	0
Number of Lights	1 Light	Outdoor Lighting Features	Dark Sky,Dimmable,Weather Resistant
Power Type	Hardwired	Power Type	Hardwired
Product Size	Small	Product Size	Medium
Product Weight (lb.)	1.756	Recommended Light Bulb Shape Code	A19
Returnable	180-Day	Sconce Type	Barn Light
Size	Medium	Style	Farmhouse,Industrial,Rustic
UL Listing	1-UL Listed	Voltage Type	Line Voltage

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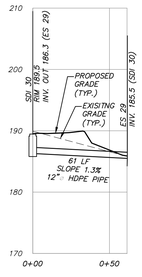
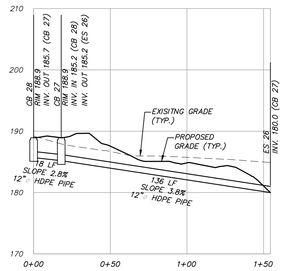


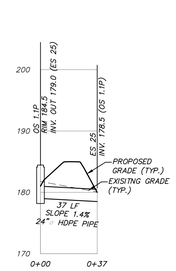
SDI 30 TO ES 29

SCALE: HORIZ. 1" = 40'
VER. 1" = 10'



CB 28 TO ES 26

SCALE: HORIZ. 1" = 40'
VER. 1" = 10'



OS 1.1P TO ES 25

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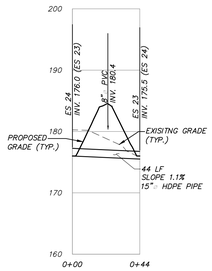
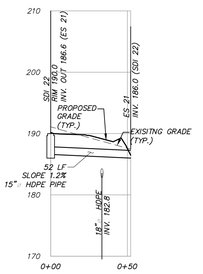
VER. 1" = 10'



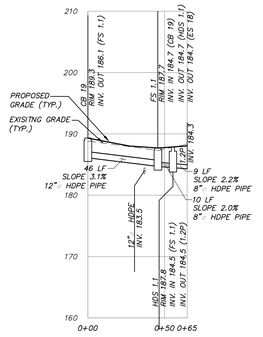
ES 24 TO ES 23

SCALE: HORIZ. 1" = 40'
VER. 1" = 10'



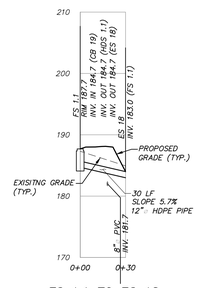
SDI 22 TO ES 21

SCALE: HORIZ. 1" = 40'
VER. 1" = 10'



CB 19 TO INFILTRATION SYSTEM 1.2P

SCALE: HORIZ. 1" = 40'
VER. 1" = 10'



FS 1.1 TO ES 18

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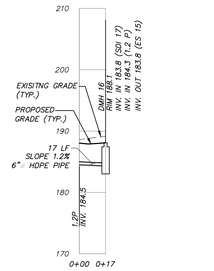
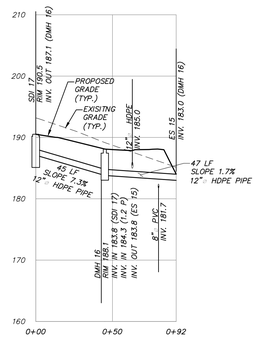


INFILTRATION SYSTEM 1.1P TO DMH 16

SCALE: HORIZ. 1" = 40'
VER. 1" = 10'



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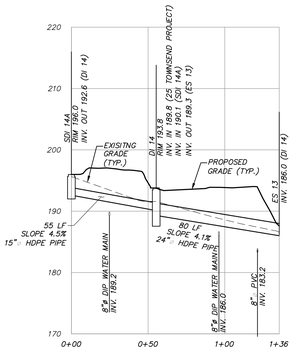

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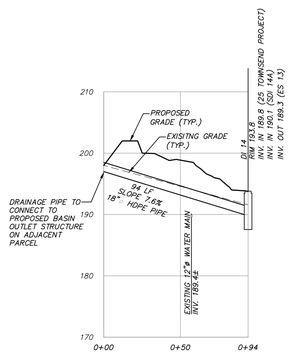

DRAINAGE EXTENSION FROM ADJACENT PROJECT TO DI 14

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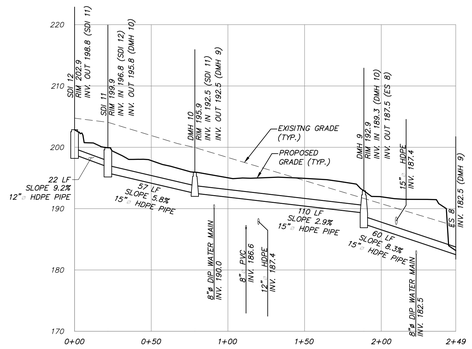
VER. 1" = 10'



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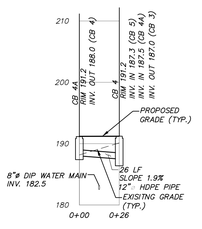

CB 4A TO CB 4

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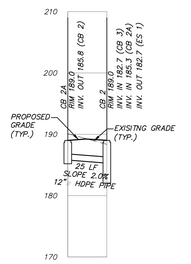
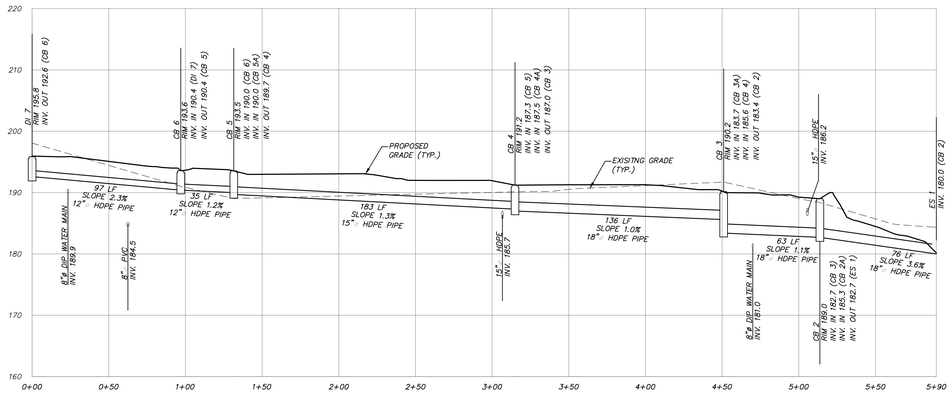


CB 2A TO CB 2

SCALE: HORIZ. 1" = 40'
VER. 1" = 10'



DI 7 TO ES 1

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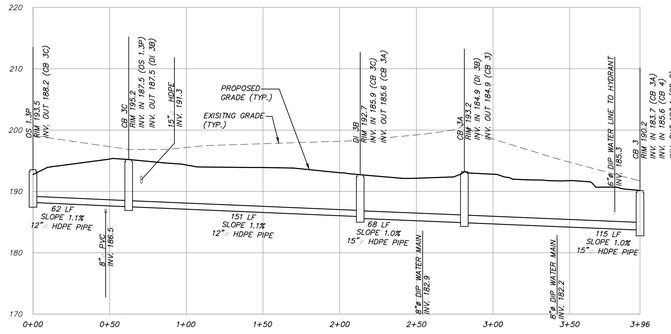
VER. 1" = 10'



OS 1.3P TO CB 3

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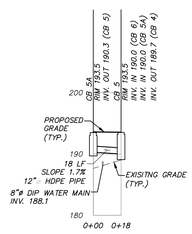
VER. 1" = 10'



CB 5A TO CB 5

SCALE: HORIZ. 1" = 40'
VER. 1" = 10'

GRAPHIC SCALE

0 20 40 80

(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY
1	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR

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(845) 225-9717 fax
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PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
DRAINAGE PROFILES

STATE OF NEW YORK · JEFFREY J. CONTENTO · 21931 · LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8-27-19	DRAWN BY	E.J.P.
SCALE	AS SHOWN	CHECKED BY	Z.M.P.

DRAWING NO. PR-1 SHEET 10/16

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

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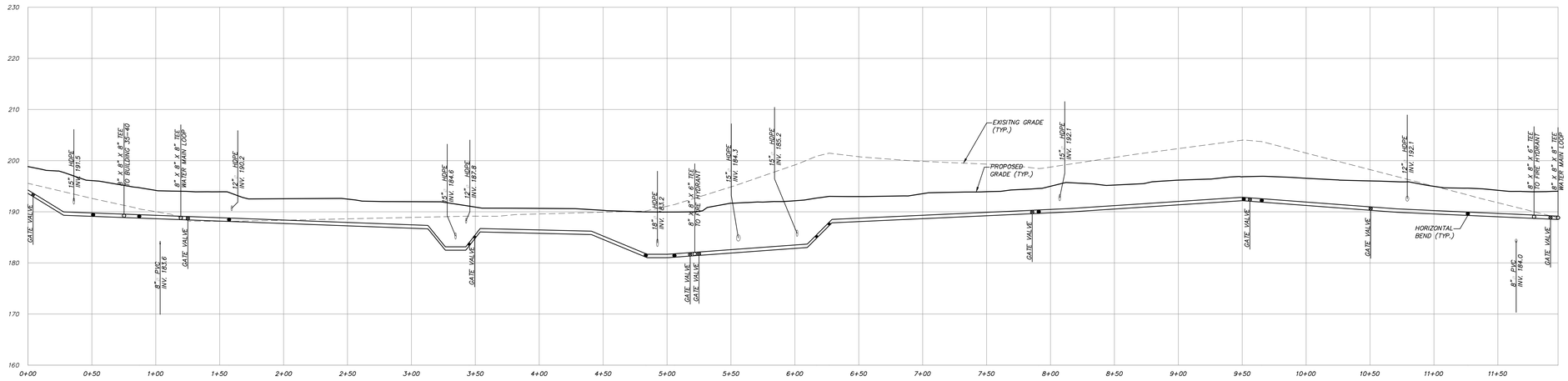
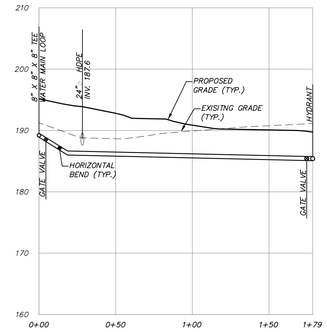


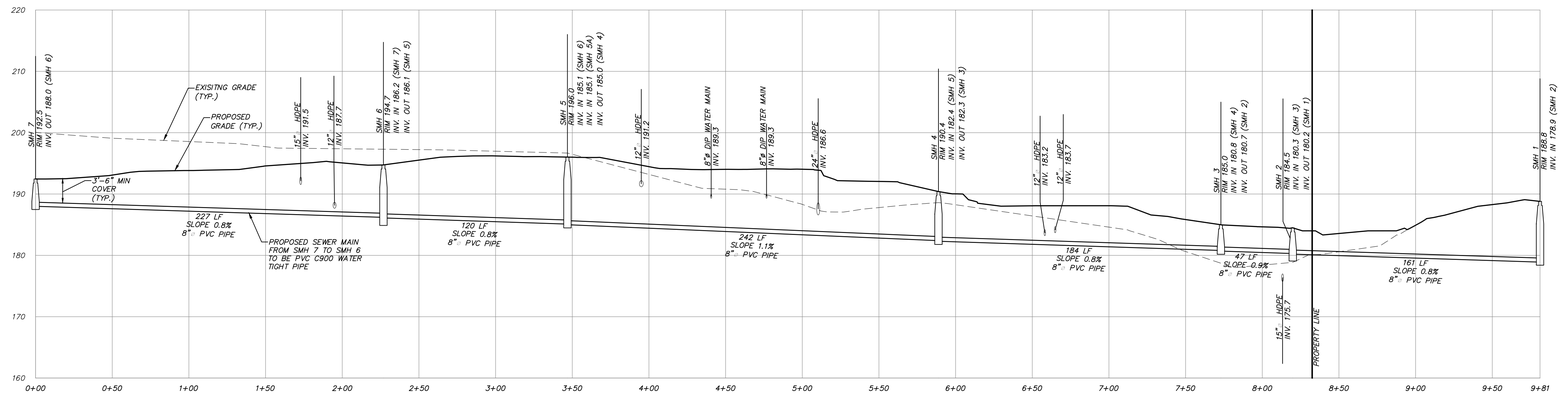
PROPOSED WATER MAIN LOOP PROFILE

SCALE: HORIZ. 1" = 40'
VER. 1" = 10'



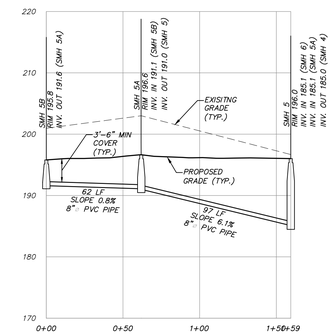
PROPOSED WATER MAIN EXTENSION TO BUILDING 35-40

SCALE: HORIZ. 1" = 40'
VER. 1" = 10'



SMH 7 TO SMH 1

SCALE: HORIZ. 1" = 40'
VER. 1" = 10'



SMH 5B TO SMH 5

SCALE: HORIZ. 1" = 40'
VER. 1" = 10'

GRAPHIC SCALE

0 20 40 80

(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY
1	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR

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(845) 225-9717 fax
www.insite-eng.com

PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
WATER & SEWER PROFILES

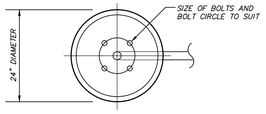
STATE OF NEW YORK — JEFFREY J. CONTANT — 21931 — LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8-27-19	DRAWN BY	E.J.P.
SCALE	AS SHOWN	CHECKED BY	Z.M.P.

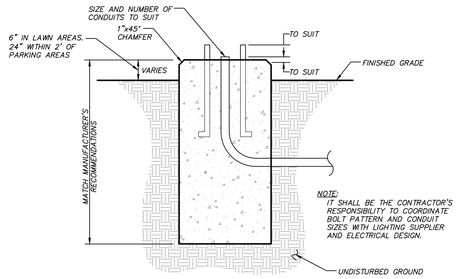
DRAWING NO. PR-2 SHEET 11 / 16

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

Z:\C19\19100-19199\19131\PR 1-2.dwg, 8/30/2020 12:05:42 PM, cassano, 1:1



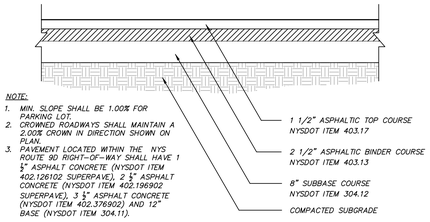
PLAN VIEW



SECTION

LIGHT POLE BASE DETAIL

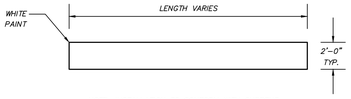
(N.T.S.)



NOTE:
1. MIN. SLOPE SHALL BE 1.00% FOR PARKING LOT.
2. CROWNED ROADWAYS SHALL MAINTAIN A 2.00% CROWN IN DIRECTION SHOWN ON PLAN.
3. PAVEMENT LOCATED WITHIN THE NYS ROUTE 9D RIGHT-OF-WAY SHALL HAVE 1 ½" ASPHALT CONCRETE (NYSDOT ITEM 402.126102 SUPERPAVE), 2 ½" ASPHALT CONCRETE (NYSDOT ITEM 402.196902 SUPERPAVE), 3 ½" ASPHALT CONCRETE (NYSDOT ITEM 402.376902) AND 12" BASE (NYSDOT ITEM 304.11).

SITE PAVEMENT DETAIL

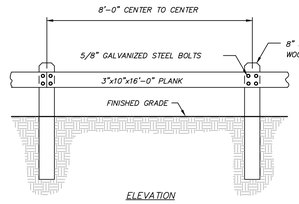
(N.T.S.)



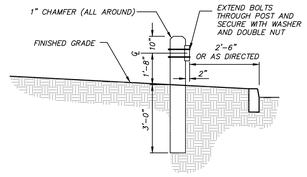
NOTE: INSTALLATION TO CONFORM WITH CURRENT NYSDOT STANDARDS AND SPECIFICATIONS.

PAINTED STOP BAR DETAIL

(N.T.S.)



ELEVATION

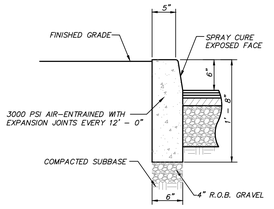


SECTION

NOTES:
1. ALL WOOD TO BE SEASONED NO.1 DOUGLAS FIR, SOUTHERN PINE OR OTHER APPROVED STRUCTURAL LUMBER.
2. ALL WOOD TO BE TREATED WITH AN APPROVED WOOD PRESERVATIVE SUITABLE FOR INSTALLATION IN AND ADJACENT TO GROUND SURFACES.

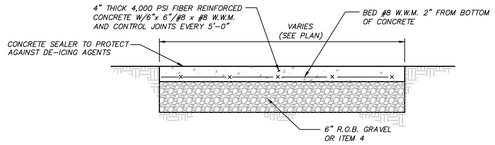
WOOD GUIDE RAIL DETAIL

(N.T.S.)



CONCRETE CURB DETAIL

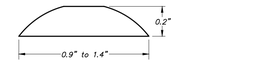
(N.T.S.)



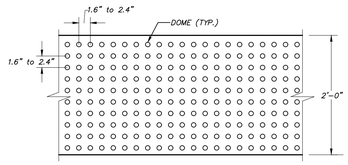
NOTE: INSTALL EXPANSION JOINTS EVERY 10'-0" AND CONTROL JOINTS EVERY 5'-0"

CONCRETE SIDEWALK DETAIL

(N.T.S.)



TRUNCATED DOME SECTION



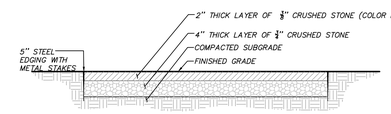
TRUNCATED DOME SPACING

TRUNCATED DOME DETAIL

(N.T.S.)

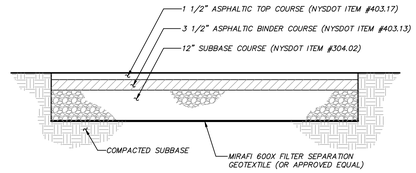
TRUNCATED DOME DETECTABLE WARNING FIELD NOTES:

1. The detectable warning field shall consist of raised truncated domes with a nominal diameter of 0.9 inches, a nominal height of 0.2 inches, and a nominal spacing of 2.35 inches on center in accordance with the most recent version of ANSI ICC A117.1.
2. The details provided are not drawn to scale. The quantity of domes depicted on the detectable warning field (the domes and the entire 24 inch level surface) is for illustration only.
3. The size of the detectable warning field shall be 24 inches in the direction of travel and shall extend the full width of the curb ramp or flush surface, exclusive of side flares.
4. Detectable warnings shall be located so that the edge of the warning field nearest to the roadway or street surface is 6 inches to 9 inches from the edge of the roadway/street, or from the front of the dropped curb, where a dropped curb continues across the bottom of the sidewalk curb ramp.
5. Domes shall be aligned on a square grid in the predominant direction of travel.
6. The detectable warning field shall be yellow.



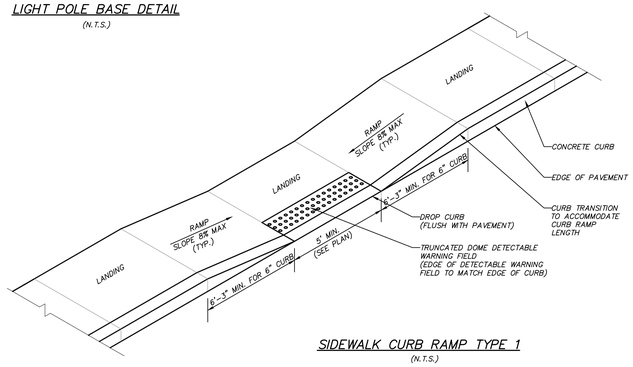
GRAVEL WALKWAY DETAIL

(N.T.S.)



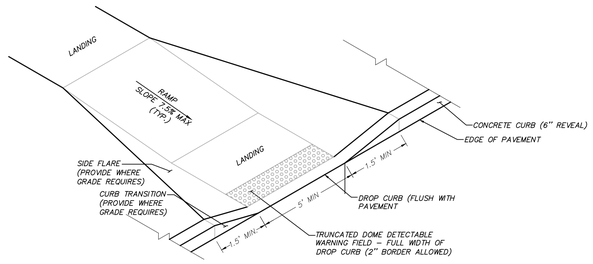
RIGHT OF WAY ASPHALT DETAIL

(N.T.S.)



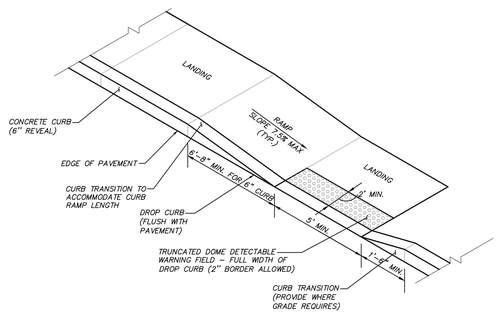
SIDEWALK CURB RAMP TYPE 1

(N.T.S.)



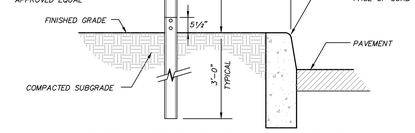
SIDEWALK CURB RAMP TYPE 2

(N.T.S.)



SIDEWALK CURB RAMP TYPE 3

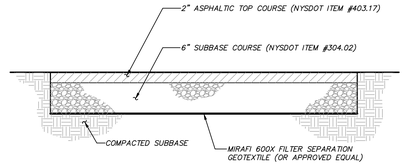
(N.T.S.)



NOTE: FOR HANDICAP PARKING SIGNAGE, SIGNS SHALL BE INSTALLED AT A CLEAR HEIGHT OF BETWEEN 5'-0" AND 7'-0" ABOVE GRADE OF PARKING SPACE AND SUCH THAT SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.

TRAFFIC SIGN DETAIL

(N.T.S.)



PRIVATE DRIVEWAY ASPHALT DETAIL

(N.T.S.)

NO.	DATE	REVISION	BY
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-emp.com

PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
DETAILS

STATE OF NEW YORK — JAMES J. CONTINO — 21931 — LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.	DRAWING NO.	SHEET
DATE	8-27-19	DRAWN BY	J.F.R.	D-1	12 / 16
SCALE	AS NOTED	CHECKED BY	A.D.T.		

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

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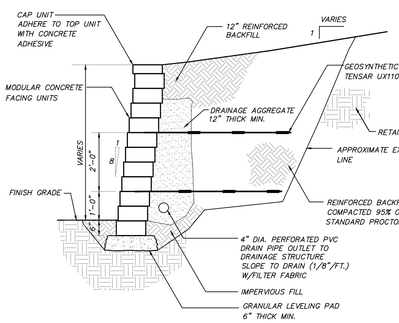
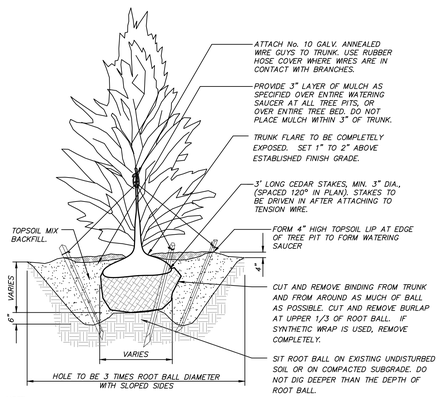


NOTES:

1. STRIP VEGETATION AND ORGANIC SOIL FROM WALL AND GEOSYNTHETIC ALIGNMENT.
2. BENCH CUT ALL EXCAVATED SLOPES.
3. DO NOT OVER EXCAVATE UNLESS DIRECTED BY SITE ENGINEER TO REMOVE UNSUITABLE SOIL.
4. SITE ENGINEER SHALL VERIFY FOUNDATION SOILS AS BEING COMPETENT PER THE DESIGN STANDARDS AND PARAMETERS.
5. LEVELING PAD SHALL CONSIST OF COMPACTED COARSE SAND OR CRUSHED GRAVEL, 6" THICK MIN.
6. CONTRACTOR MAY OPT FOR A LEAN CONCRETE PAD. CONCRETE PAD SHALL BE UNREINFORCED, 3" THICK MAXIMUM.
7. MINIMUM EMBEDMENT OF WALL BELOW FINISH GRADE SHALL BE 6".
8. FOR UNITS TO BE EMBEDDED, COMPACT FILL IN FRONT OF UNITS AT THE SAME TIME FILL BEHIND UNITS IS COMPACTED.
9. DRAINAGE AGGREGATE SHALL BE INSTALLED DIRECTLY BEHIND THE WALL WITHIN 12" OF THE TOP OF THE WALL. DRAINAGE AGGREGATE SHALL NOT EXTEND BELOW FINAL GRADE IN FRONT OF WALL.
10. COMPACTION SHALL BE TO 95% OF MAXIMUM STANDARD PROCTOR DENSITY.(ASTM D-698)
11. COMPACTION TESTS SHALL BE TAKEN AS THE WALL IS INSTALLED. THE MINIMUM NUMBER OF TESTS SHALL BE DETERMINED BY THE SITE SOILS ENGINEER.
12. COMPACTION WITHIN 3 FT. OF WALL SHALL BE LIMITED TO HAND OPERATED EQUIPMENT.
13. GEOSYNTHETIC SHALL BE PLACED WITH STRONGEST DIRECTION PERPENDICULAR TO WALL. FOLLOW GEOSYNTHETIC MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS.
14. CONTRACTOR SHALL DIRECT SURFACE RUNOFF TO AVOID DAMAGING WALL WHILE UNDER CONSTRUCTION.
15. ANY SURFACE DRAINAGE FEATURES, FINISH GRADING, PAVEMENT, OR TURF SHALL BE INSTALLED IMMEDIATELY AFTER WALL IS COMPLETED.
16. FOLLOW APPLICABLE PROVISIONS OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS.
17. MODULAR BLOCK RETAINING WALL AT STEPS TO BE INSTALLED VERTICALLY (NO BATTER)
18. MODULAR BLOCK RETAINING WALL MANUFACTURER TO SUPPLY CONSTRUCTION DETAILS OF WALL SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF NEW YORK.

MODULAR BLOCK RETAINING WALL DETAIL

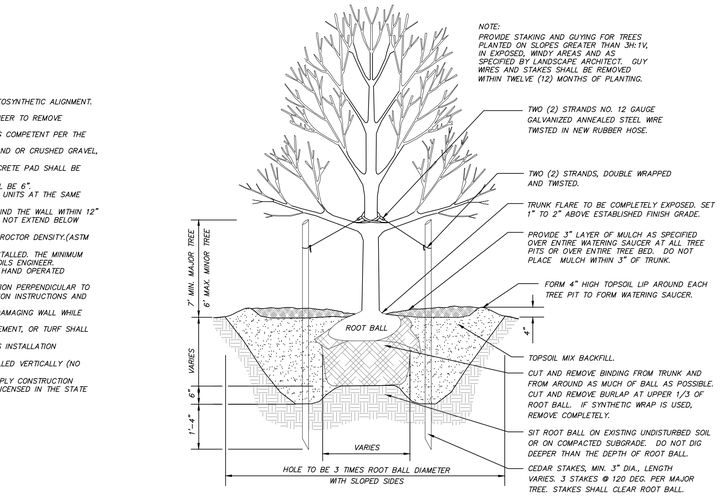
(N.T.S.)



NOTE:
PROVIDE STAKING AND GUYING FOR TREES PLANTED ON SLOPES GREATER THAN 3H:1V, IN EXPOSED, WINDY AREAS AND AS SPECIFIED BY LANDSCAPE ARCHITECT. GUY WIRES AND STAKES SHALL BE REMOVED WITHIN TWELVE MONTHS OF PLANTING.

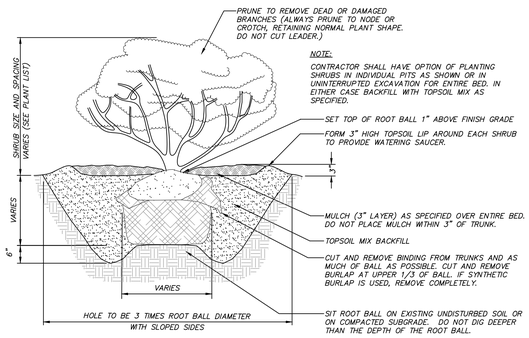
EVERGREEN TREE PLANTING DETAIL

(N.T.S.)



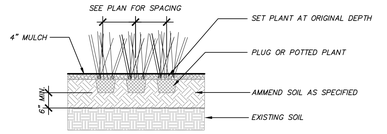
TREE PLANTING DETAIL

(N.T.S.)



SHRUB PLANTING DETAIL

(N.T.S.)



PERENNIAL / ORNAMENTAL GRASS PLANTING DETAIL

(N.T.S.)

GENERAL SITE SEEDING NOTES:

1. All proposed seeded areas to receive 4" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
2. Upon final grading and placement of topsoil and any required soil amendments, areas to receive permanent vegetation cover in combination with suitable mulch as follows:
   - select seed mixture per drawings and seeding notes.
   - fertilizer applied at the manufacturer's recommended rate using Lesco 10-0-18 (no phosphorous) fertilizer or equivalent.
   - mulch: salt hay or small grain straw applied at a rate of 90 lbs./1000 s.f. or 2 tons/acre, to be applied and anchored according to New York State Standards and Specifications for Erosion and Sediment Control, August 2005.
   - if the season prevents the establishment of a permanent vegetation cover, the disturbed areas will be mulched with straw or equivalent.
3. The seed mixes as specified on these drawings are as follows:
   A. Seed Mix for lawn areas and mow strip along roads at a rate of 100 lbs. per acre:

Kentucky Bluegrass	20%
Creeping Red Fescue	40%
Perennial Ryegrass	20%
Annual Ryegrass	20%

4. Seed Mix #2 for areas as shown on the drawings, including tops of berms and backslopes of embankments of stormwater basins at a rate of 25 lbs. per acre: New England Conservation/Wildlife Mix from New England Wetland Plants, Inc. of Amherst, MA.
5. Seed Mix #3 for areas as shown on the drawings in the bioFiltration filter at a rate of 18 lbs per acre: Erosion Control/ Restoration Mix for Detention Basins and Moist Sites from New England Wetland Plants, Inc. of Amherst MA.

GENERAL PLANTING NOTES:

1. All proposed planting beds to receive a 12" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
2. Any new soils added will be amended as required by results of soil testing and placed using a method that will not cause compaction.
3. No fertilizer shall be added in stormwater basin plantings. Nutrient requirements to be met by incorporation of acceptable organic matter.
4. All plant material to be nursery grown.
5. Plants shall conform with ANSI Z60.1 American Standard for Nursery Stock in all ways including dimensions.
6. Plant material shall be taken from healthy nursery stock.
7. All plants shall be grown under climate conditions similar to those in the locality of the project.
8. Plants shall be planted in all locations designed on the plan or as staked in the field by the Landscape Architect.
9. The location and layout of landscape plants shown on the site plan shall take precedence in any discrepancies between the quantities of plants shown on the plans and the quantity of plants in the Plant List.
10. Provide a 3" layer of shredded pine bark mulch (or as specified) over entire watering saucer at all tree pits or over entire planting bed. Do not place mulch within 3" of tree or shrub trunks.
11. All landscape plantings shall be maintained in a healthy condition at all times. Any dead or diseased plants shall immediately be replaced "in kind" by the contractor (during warranty period) or project owner.

GENERAL SITE SEEDING NOTES:

1. All proposed seeded areas to receive 4" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
2. Upon final grading and placement of topsoil and any required soil amendments, areas to receive permanent vegetation cover in combination with suitable mulch as follows:
   - select seed mixture per drawings and seeding notes.
   - fertilizer applied at the manufacturer's recommended rate using Lesco 10-0-18 (no phosphorous) fertilizer or equivalent.
   - mulch: salt hay or small grain straw applied at a rate of 90 lbs./1000s.f. or 2 tons/acre, to be applied and anchored according to New York State Standards and Specifications for Erosion and Sediment Control, August 2005.
   - if the season prevents the establishment of a permanent vegetation cover, the disturbed areas will be mulched with straw or equivalent.
3. Seed Mix #1 for areas as shown on the drawings, including tops of berms and backslopes of embankments of stormwater basins at a rate of 25 lbs. per acre: New England Conservation/Wildlife Mix from New England Wetland Plants, Inc. of Amherst, MA.
4. Seed Mix #2 for areas as shown on the drawings in stormwater basins with no standing water at a rate of 18 lbs per acre: Erosion Control/ Restoration Mix for Detention Basins and Moist Sites from New England Wetland Plants, Inc. of Amherst MA.
5. Seed Mix #3 for all other disturbed areas not specified as seed mix #1 or #2. Primarily for lawn areas and mow strip along roads at a rate of 100 lbs. per acre:

Kentucky Bluegrass	20%
Creeping Red Fescue	40%
Perennial Ryegrass	20%
Annual Ryegrass	20%

6. Seed mixes to be planted between March 21 and May 20, or between August 15 and October 15 or as directed by project representative.
7. Mulch: Salt hay or small grain straw applied at a rate of 90 lbs./1000 S.F. or 2 tons/acre, to be applied and anchored according to "New York Standards and Specification For Erosion and Sediment Control," latest edition.
8. Grass seed mix may be applied by either mechanical or hydroseeding methods. Seeding shall be performed in accordance with the current edition of the "NYSDOT Standard Specification, Construction and Materials, Section 610-3.02, Method No. 1". Hydroseeding shall be performed using materials and methods as approved by the site engineer.

NO.	DATE	REVISION	BY
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
DETAILS

STATE OF NEW YORK — JEFFREY J. CONTARINO — 31937 — LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.	DRAWING NO.	SHEET
DATE	8-27-19	DRAWN BY	J.F.R.	D-2	13 / 16
SCALE	AS NOTED	CHECKED BY	A.D.T.		

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

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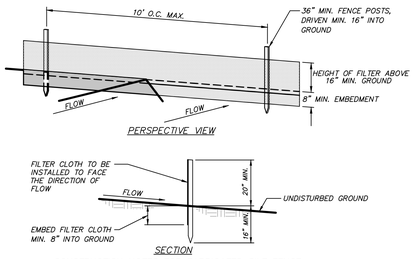


CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. FILTER CLOTH TO BE FASTENED SECURELY TO POSTS AT TOP AND MID SECTION.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

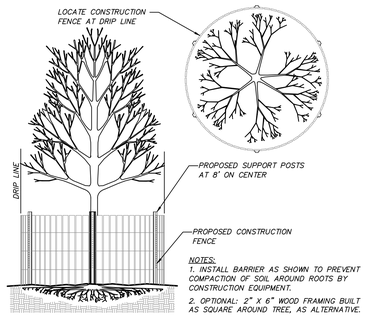
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FILTER CLOTH: FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

SILT FENCE DETAIL

(N.T.S.)



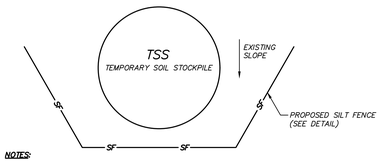
NOTES:
1. INSTALL BARRIER AS SHOWN TO PREVENT COMPACTION OF SOIL AROUND ROOTS BY CONSTRUCTION EQUIPMENT.
2. OPTIONAL: 2" X 6" WOOD FRAMING BUILT AS SQUARE AROUND TREE, AS ALTERNATIVE.

TREE PROTECTION DETAIL

(N.T.S.)

TREE PROTECTION NOTES:

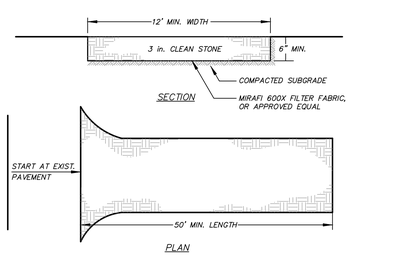
1. Trees to be preserved in proximity to disturbance areas shall be marked in the field by the Landscape Architect prior to start of construction.
2. Install tree protection measures prior to start of site clearing & construction.
3. No construction equipment shall be parked and no earth or construction materials shall be stockpiled or stored under the canopy of trees to be preserved.
4. During tree removal operations associated with construction, do not damage adjacent trees to remain. Lower limbs and tree trunks, do not drop them.
5. Carefully tie back any tree branches that conflict with construction equipment.
6. Where trenching for utilities is required within a root zone, tunneling under and around roots shall be by hand digging. If roots 3" or larger are encountered immediately adjacent to the location of new construction and relocation is not practical, the roots shall be hand pruned under the supervision of a Certified Arborist or Landscape Architect to 6" back from the new construction limit. All exposed roots to receive appropriate treatment prior to backfilling.
7. If tree protection fencing to protect the root zone is not possible, six to eight inches of wood chip mulch and 3/4 inch plywood shall be placed over the entire affected root zone area to prevent soil compaction.
8. Any tree damaged during construction activities must be immediately repaired by a qualified arborist at no additional cost to the owner.



NOTES:
1. AREA CHOSEN FOR STOCKPILE LOCATION SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE IMMEDIATELY SEEDED WITH K31 PERENNIAL TALL FESCUE.
4. ALL STOCKPILES SHALL BE PROTECTED WITH SILT FENCING INSTALLED ON THE DOWNGRADIENT SIDE.

TEMPORARY SOIL STOCKPILE DETAIL

(N.T.S.)

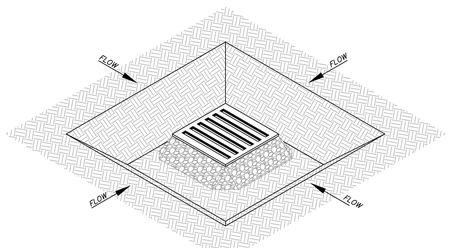


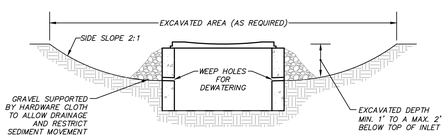
INSTALLATION NOTES

1. STONE SIZE – USE 3" STONE
2. LENGTH – AS REQUIRED, BUT 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 – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF SPING 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 RIGHT OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT 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. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

(N.T.S.)





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 PROTECTED BY GRAVEL
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL EXCAVATION WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY, AND STABILIZE WITH PERMANENT SEEDING
5. MAXIMUM DRAINAGE AREA = 1 ACRE

EXCAVATED DROP INLET PROTECTION DETAIL

(N.T.S.)

REQUIRED EROSION CONTROL SWPPP CONTENTS:

Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP–0–20–001), all Stormwater Pollution Prevention Plan's (SWPPP) shall include erosion and sediment control practices designed in conformance with the most current version of the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." Where erosion and sediment control practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of required SWPPP components is provided in accordance with Part III.B.1a–l of General Permit GP–0–20–001:

a. Background Information: The subject project consists of the construction of (7) townhome buildings with appurtenances and utilities.

b. Site map / construction drawing: These plans serve to satisfy this SWPPP requirement.

c. Description of the soils present at the site: Onsite soils located within the proposed limits of disturbance consist of Bernardston Silt Loam (BnB), Canandigua Silt Loam (Ca), and Nassau–Cardigan Complex (NwC) as identified on the Soil Conservation Service Websoil Survey. These soil types belong to the Hydrologic Soil Group "C/D" and "D".

d. Construction phasing plan / sequence of operations: The Construction Sequence and phasing found on these plans provide the required phasing. A Construction Sequence and Erosion and Sediment Control Maintenance Schedule has been provided. The Sedimentation and Erosion Control Notes contained hereon outline a general sequence of operations for the proposed project. In general all erosion and sediment control facilities shall be installed prior to commencement with land disturbing activities, and areas of disturbance shall be limited to the shortest period of time as practicable.

e. Description of erosion and sediment control practices: This plan, and details / notes shown hereon serve to satisfy this SWPPP requirement.

f. Temporary and permanent soil stabilization plan: The Sedimentation and Erosion Control Notes and Details provided heron identify temporary and permanent stabilization measures to be employed with respect to specific elements of the project, and at the various stages of development.

g. Site map / construction drawing: This plan set serves to satisfy this SWPPP requirement.

h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices: The details, Erosion and Sediment Control Notes, and Erosion and Sediment Control Maintenance Schedule serve to satisfy this SWPPP requirement.

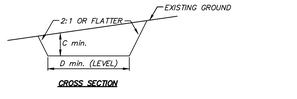
i. An inspection schedule: Inspections are to be performed twice weekly and by a qualified professional as required by the General Permit GP–0–20–001. In addition the NYSDEC Trained Contractor shall perform additional inspections as cited in the Erosion and Sediment Control Notes.

j. A description of pollution prevention measures that will be used to control litter, construction chemicals and construction debris: In general, all construction litter / debris shall be collected and removed from the site. The general contractor shall supply either waste barrels or dumpster for proper waste disposal. Any construction chemicals utilized during construction shall either be removed from site daily by the contractor or stored in a structurally sound and weatherproof building. No hazardous waste shall be disposed of onsite, and shall ultimately be disposed of in accordance with all federal, state and local regulations. Material Safety Data Sheets (MSDS), material inventory, and emergency contact numbers shall be maintained by the general contractor for all construction chemicals utilized onsite. Finally, temporary sanitary facilities (portable toilets) shall be provided onsite during the entire length of construction, and inspected weekly for evidence of leaking holding tanks.

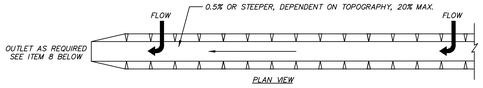
k. A description and location of any stormwater discharges associated with industrial activity other than construction at the site: There are no known industrial stormwater discharges present or proposed at the site.

l. Identification of any elements of the design that are not in conformance with the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." All proposed elements of this SWPPP have been designed in accordance with the "New York Standards and Specifications for Erosion and Sediment Control."

SWALE A (< 5 AC.)	SWALE B (5–10 AC.)
C 1'	1'
D 4'	6'



CROSS SECTION



PLAN VIEW

CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON–EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTION–ABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULAR–ITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PRO–VIDED AFTER EACH RAIN EVENT.
9. STABILIZATION SHALL BE AS PER THE CHART BELOW:

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	A (5 AC. OR LESS)	B (5–10 AC.)
1	0.5–3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1–5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3	5.1–8.0%	SEED WITH JUTE OR EXCELSIOR; SOD	LINED RIP–RAP 4–8" RECYCLED CONCRETE EQUIVALENT
4	8.1–20%	LINED 4–8" RIP–RAP	ENGINEERED DESIGN

TEMPORARY SWALE DETAIL

(N.T.S.)

REQUIRED POST–CONSTRUCTION STORMWATER MANAGEMENT PRACTICE COMPONENTS:

1. Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP–0–20–001), all construction projects needing post–construction stormwater management practices shall prepare a SWPPP that also includes practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual ("Design Manual"). Where post–construction stormwater management practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of SWPPP components is provided in accordance with Part III.B.2a–g and III.B.3:

   a. Identification of all post–construction stormwater management practices to be constructed as part of the project; This plan, and details/notes shown hereon serve to satisfy this SWPPP requirement.

   b. A site map/construction drawing(s) showing the specific location and size of each post–construction stormwater management practice; This plan, and details/notes shown hereon serve to satisfy this SWPPP requirement.

   A Stormwater Modeling and Analysis Report including pre–development conditions, post–development conditions, the results of the stormwater modeling, a summary table demonstrating that each practice has been designed in conformance with the sizing criteria, identification of and justification for any deviations from the Design Manual, and identification of any design criteria that are not required. The required analysis will be provided in a Preliminary Stormwater Pollution Prevention Plan.

   c. Soil testing results and locations. This SWPPP requirement will be provided in the Preliminary Stormwater Pollution Prevention Plan.

   d. Infiltration testing results. This SWPPP requirement will be provided in the Preliminary Stormwater Pollution Prevention Plan.

   e. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post–construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice. The Permanent Stormwater Facilities Maintenance Schedule provided on these plans serves to satisfy this requirement.

2. Enhanced Phosphorus Removal Standards – Beginning on September 30, 2008, all construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post–construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the most current version of the technical standard, New York Stormwater Management Design Manual. At a minimum, the post–construction stormwater management practice component of the SWPPP shall include items 2.a – 2.f above: These standards do not apply to the subject project.

EROSION & SEDIMENT CONTROL NOTES:

1. The Erosion and Sediment Control Plan is only to be referred to for the installation of erosion and sediment control measures. For all other construction related activities, including, but not limited to, grading and utilities, refer to the appropriate drawings.
2. Each contractor or subcontractor responsible for soil disturbance shall have a NYSDEC trained contractor onsite during soil disturbing activities. The NYSDEC trained contractor will be responsible to comply with the stormwater pollution prevention plan and for the implementation and maintenance of erosion and sediment control measures on this site prior to and during construction. The NYSDEC trained contractor shall sign a certification statement required by GP–0–20–001.
3. All construction activities involving the removal or disposition of soil are to be provided with appropriate protective measures to minimize erosion and contain sediment disposition within. Minimum soil erosion and sediment control measures shall be implemented as shown on the plans and shall be installed in accordance with "New York Standards and Specifications For Erosion and Sediment Control," latest edition.
4. Wherever feasible, natural vegetation should be retained and protected. Disturbance shall be minimized in the areas required to perform construction. No more than 5 acres of unprotected soil shall be exposed at any one time, unless prior authorization is granted by the MS4.
5. When land is exposed during development, the exposure shall be kept to the shortest practical period of time, but in no case more than 7 days after the construction activity in that portion of the site has ceased. Disturbance shall be minimized in the areas required to perform construction.
6. All construction vehicles shall be kept clear of the watercourses and wetland control areas and outside the areas of proposed development. Silt fence and orange construction fence shall be installed in the areas where the grading is in close proximity of the watercourses or wetland control areas.
7. The stabilized construction entrance and silt fence shall be installed as shown on the plans prior to beginning any clearing, grubbing or earthwork.
8. All topsoil to be stripped from the area being developed shall be stockpiled and immediately seeded with a rye grass mixture having a quick germination time.
9. Any graded areas not subject to further disturbance or construction traffic shall, within 7 days of final grading, receive permanent vegetation cover in combination with a suitable mulch. Refer to "Site Seeding Notes" for additional detail and application rate.
10. Grass seed mix may be applied by either mechanical or hydroseeding methods. Turf establishment shall be performed in accordance with the current edition of the "NYSDOT Standard Specification, Construction and Materials, Section 610–3.02, Method No. 1".
11. Cut or fill (all) slopes steeper than 3:1 shall be stabilized immediately after grading with a rolled erosion control product (RECP) such as, Curlex I Single Net Erosion Control Blanket, or approved equal.
12. Paved roadways shall be kept clean at all times.
13. The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities.
14. All storm drainage outlets shall be stabilized, as required, before the discharge points become operational.
15. Stormwater from disturbed areas must be passed through erosion control barriers before discharge beyond disturbed areas or discharged into other drainage systems.
16. Erosion and sediment control measures shall be inspected and maintained on a daily basis by the NYSDEC Trained Contractor. to insure that channels, temporary and permanent ditches and pipes are clear of debris, that embankments and berms have not been breached and that all straw bales and silt fences are intact. Any failure of erosion and sediment control measures shall be immediately repaired by the contractor and inspected for approval by the site engineer.
17. Dust shall be controlled by sprinkling or other approved methods as necessary, or as directed by the trained contractor or site engineer.
18. Cut and fills shall not endanger adjoining property, nor divert water onto the property of others.
19. All fills shall be placed and compacted in 6" lifts to provide stability of material and to prevent settlement.
20. The NYSDEC Trained Contractor shall inspect downstream conditions for evidence of sedimentation on a weekly basis and after rainstorms.
21. As warranted by field conditions, special additional erosion and sediment control measures, as specified by the site engineer and the Town Engineer shall be installed by the contractor.
22. Erosion and sediment control measures shall remain in place until all disturbed areas are suitably stabilized.
23. After completion of the site improvements, the owner will assume responsibility for maintenance of the access drive, parking lot, drainage system and stormwater facilities. Each spring the paved areas shall be cleaned to remove the winter accumulation of traction sand. After this is completed all drain inlet and catch basin sumps should be cleaned. All pipes should be checked for debris and blockage and cleaned as required. During the cleaning process, the drain inlets, catch basins and pipes should be inspected for structural integrity and overall condition. Repairs and/or replacements should be made as required.
24. Inspection of the stormwater basin should be performed every 6 months and after large storm events. These inspections should, at a minimum, check the outlet pipes for blockage and the general overall integrity of the basin and appurtenances.
25. Maintain basin vegetation including removal of trees and replacement of vegetation that should die. Remove any litter which accumulates as necessary. Typically, the accumulated silt will be required to be removed every 10 to 20 years. Any accumulated silt shall be removed from the stormwater basins once the site has been stabilized.
26. Refer to the Stormwater Pollution Prevention Plan for additional details regarding long–term maintenance of the storm drainage facilities.

EROSION AND SEDIMENT CONTROL MAINTENANCE SCHEDULE

	MONITORING REQUIREMENTS			MAINTENANCE REQUIREMENTS	
PRACTICE	DAILY	WEEKLY	AFTER RAINFALL	DURING CONSTRUCTION	AFTER CONSTRUCTION
SILT FENCE BARRIER	–	Inspect	Inspect	Clean/Replace	Remove
STABILIZED CONSTRUCTION ENTRANCE	Inspect	–	Inspect	Clean/Replace Stone and Fabric	Remove
DUST CONTROL	Inspect	–	Inspect	Mulching/ Spraying Water	N/A
*VEGETATIVE ESTABLISHMENT	–	Inspect	Inspect	Water/Reseed/ Remulch	Reseed to 80% Coverage
INLET PROTECTION	–	Inspect	Inspect	Clean/Repair/ Replace	Remove
SOIL STOCKPILES	–	Inspect	Inspect	Mulching/ Silt Fence Repair	Remove
SWALES	–	Inspect	Inspect	Clean/Mulch/ Repair	Mow Permanent Grass/Replace/ Repair Rip Rap
CHECK DAMS	–	Inspect	Inspect	Clean/Replace Stones/Repair	Clean/Replace Stones/Repair
CONCRETE DRAINAGE STRUCTURES	–	Inspect	Inspect	Clean Sumps/ Remove Debris/ Repair/Replace	Clean Sumps/ Remove Debris/ Repair/Replace
DRAINAGE PIPES	–	Inspect	Inspect	Clean/Repair	Clean/Repair
ROAD & PAVEMENT	–	Inspect	Inspect	Clean	Clean

* Permanent vegetation is considered stabilized when 80% of the plant density is established. Erosion control measures shall remain in place until all disturbed areas area permanently stabilized.

Note: The party responsible for implementation of the maintenance schedule during and after construction is:

BEACON VIEWS, LLC
500 RIVER AVENUE
WAKEFIELD, NEW JERSEY 08701

and/or the current owner(s) of the subject property.

SOIL RESTORATION REQUIREMENTS[1,2]

(ONSITE SOILS WITHIN THE LIMIT OF DISTURBANCE BELONG TO THE HYDROLOGIC SOIL GROUP (HSG) C/D)

TYPE OF SOIL DISTURBANCE	SOIL RESTORATION REQUIREMENT		COMMENTS/EXAMPLES
No soil disturbance	Restoration not permitted		Preservation of Natural Features
Minimal soil disturbance	Restoration not required		Clearing and grubbing
Areas where topsoil is stripped only – no change in grade	~~HSG A & B~~	HSG C & D	Protect area from any ongoing construction activities
	~~Apply 6" of topsoil~~	Aerate[3] and apply 6" of topsoil	
Areas of cut or fill	~~HSG A & B~~	HSG C & D	
	~~Aerate and apply 6" of topsoil~~	Apply full Soil Restoration[4]	
Heavy traffic areas on site (especially in a zone 5–25 feet around buildings but not within a 5 foot perimeter around foundation walls.)	Apply full Soil Restoration[5] (de–compaction and compost enhancement)[6]		
Areas where runoff reduction and/or infiltration practices are applied	Restoration not required, but may be applied for appropriate practices.		Keep construction equipment from crossing these areas. To protect newly installed practices from any ongoing construction activities construction a single phase operation fence area.
~~Redevelopment projects~~	~~Soil restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.~~		

1. Table taken from Chapter 5 of the "New York State Stormwater Management Design Manual"
2. Items struck out on the table are items that are not applicable to this project.
3. 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 functions like a mini–subsoiler.
4. Per "Deep Ripping and Decompaction, DEC 2008"
5. During periods of relatively low to moderate subsoil moisture, the disturbed soils are returned to rough grade and the following Soil Restoration steps applied:
   5.1. Apply 3 inches of compost over subsoil.
   5.2. Till compost into subsoil to a depth of at least 12 inches using a cat–mounted ripper, tractor–mounted disc, or tiller, mixing, and circulating air and compost into subsoils.
   5.3. Rock–pick until uplifted stone/rock materials of four inches and larger size area cleaned off the site.
   5.4. Apply topsoil to a depth of 6 inches.
   5.5. Vegetate as required by Erosion & Sediment Control Note #9.
   5.6. Tilling should not be performed within the drip line of any existing trees or over any utility installations that are within 24 inches of the surface
6. Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half inch screen and have a pH suitable to grow desired plants.

NO.	DATE	REVISION	BY
3	6–30–20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5–26–20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4–28–20	RESUBMISSION TO PLANNING BOARD	JFR

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ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225–9690
(845) 225–9717 fax
www.insite–eng.com

PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
DETAILS

STATE OF NEW YORK – ANTHONY J. COSTANZO – 21931 – LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8–27–19	DRAWN BY	J.F.R.
SCALE	AS NOTED	CHECKED BY	A.D.T.

DRAWING NO. D–3
SHEET 14 / 16

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

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SEWER TESTING PROCEDURES

TESTS FOR NON-PRESSURE PIPELINES FOR TRANSPORT OF SEWAGE

The leakage shall be determined by exfiltration, infiltration or low pressure air.

A. Exfiltration Testing

1. Exfiltration tests shall be made by filling a section of pipeline with water and measuring the quantity of leakage.
2. The head of water at the beginning of the test shall be at least 2 feet above the highest pipe within the section being tested.
   a. Should groundwater be present within the section being tested, the head of water for the test shall be 2 feet above the hydraulic gradient of the groundwater.
   b. Should the requirement of 2 feet of water above the highest pipe subject any joint at the lower end of the test section to a differential head of greater than 11.5 feet, another method of testing shall be employed.

B. Infiltration Testing

1. Infiltration tests will be allowed only when the water table gauges determine the groundwater level to be 2 feet or more above the highest pipe of the section being tested.
2. Infiltration test shall be made by measuring the quantity of water leaking into a section of pipeline.
3. Measurement of the infiltration shall be by means of a calibrated weir constructed at the outlet of the section being tested.

C. Allowable Leakage for Non-Pressure Pipelines

1. The allowable leakage (exfiltration or infiltration) for non-pressure pipelines shall not exceed the following in gallons per 24 hours per inch of diameter per 1000 feet of pipe:

Type of Pipe	Leakage
Ductile iron – mechanical or push-on joints	100
Polyvinyl chloride, thermal plastic or fiberglass with rubber joints	100
Cast iron soil pipe	0

2. Regardless of the above allowable leakage, any spurting leaks detected shall be permanently stopped.

D. Low Pressure Air Testing

1. Air testing for acceptance shall not be performed until the backfilling has been completed.
2. Low pressure air tests shall conform to ASTM F1417-92, Section 8.2.2, Time-Pressure Drop Method for a 0.5 psi drop, except as specified herein and shall not be limited to type or size of pipe.
3. All sections of pipelines shall be cleaned and flushed prior to testing.
4. The air test shall be based on the starting pressure of 3.5 to 4.0 psi gauge. The time allowed for the 0.5 psi drop in pressure, measured in seconds, will be computed based on the size and length of the test section by the Engineer.
   a. When groundwater is present, the average test pressure of 3 psig shall be above any back pressure due to the groundwater level.
   b. The maximum pressure allowed under any condition in air testing shall be 10 psig. The maximum groundwater level for air testing is 1.3 feet above the top of the pipe.
5. The equipment required for air testing shall be furnished by the Contractor and shall include the necessary compressor, valves, gauges and plugs to allow for the monitoring of the pressure, release of pressure and a separable test gauge.
   a. The test gauge shall be sized to allow for the measuring of the 0.5 psig loss allowed during the test period and shall be on a separate line to the test section.

E. Deflection Testing

1. Deflection testing shall be performed 30 days after backfilling. The test shall be made by passing a ball or cylinder no less then 95% of the pipe diameter through the pipe. The test shall be performed without mechanical pulling devices.

F. Manhole Testing

1. General
   a. Each manhole shall be tested by vacuum testing.
2. Vacuum testing shall be performed after backfilling in accordance with the latest revision of ASTM C1244-11 as follows:
   a. The test head shall be placed at the top of the manhole in accordance with the manufacturer's recommendations.
   b. A vacuum of 10 in. of mercury shall be drawn on the manhole, the valve on the vacuum line of the test head closed, and the vacuum pump shut off. The time shall be measured for the vacuum to drop to 9 in. of mercury.
   c. The manhole shall pass if the time for the vacuum reading to drop from 10 in. of mercury to 9 in. of mercury meets or exceeds the values indicated below:

Minimum Test Times for Various Manhole Diameters in Seconds:

Depth (ft)	Diameter (inches) 48	60
	Time (seconds)	
8 or less	20	26
10	25	33
12	30	39
14	35	46
16	40	52
18	45	59
20	50	65

   d. If the manhole fails the initial test, necessary repairs shall be made by an approved method. The manhole shall then be retested until a satisfactory test is obtained.

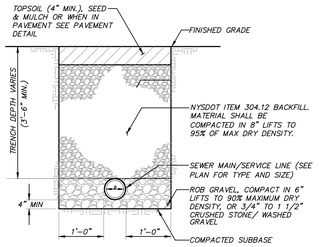
Dutchess County Department of Health Notes:

Standard Notes for Projects with Central Water & Sewer

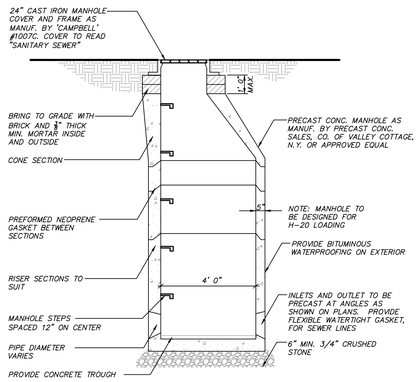
1. The design, construction and installation shall be in accordance with this plan and generally accepted standards in effect at the time of construction which include:
   - "New York State Design Standards for Intermediate Sized Wastewater Treatment Systems", NYSDEC
   - "Recommended Standards for Sewage Treatment Works, (Ten States)."
   - "Recommended Standards for Water Works, (Ten States)."
   - "New York State Department of Health and Dutchess County Environmental Health Services Division policies, procedures and standards."
   - "Dutchess County and New York State Sanitary Codes."
   - "Dutchess County Environmental Health Services Division Certificate of Approval letter."
2. This plan is approved as meeting the appropriate and applied technical standards, guidelines, policies and procedures for arrangement of sewage disposal and water supply facilities.
3. Upon completion of the facilities, the finished works shall be inspected, tested, and certified complete to the DC EHSD by the New York State licensed Professional Engineer supervising construction. No part of the facilities shall be placed into service until accepted by the DC EHSD.
4. Approval of any plan(s) or amendment thereto shall be valid for a period of five (5) years from the date of approval. Following the expiration of said approval, the plan(s) shall be re-submitted to the Commissioner of Health for consideration for re-approval. Re-submission or revised submission of plans and/or associated documents shall be subject to compliance with the technical standards, guidelines, policies and procedures in effect at the time of the re-submission.
5. No cellar, footing, floor, garage, cooler or roof drains shall be discharged into the sewage collection system.
6. All buildings shall be constructed at an elevation high enough to ensure gravity flow to the sewage collection system.
7. All required Erosion & Sediment Control and Stormwater Pollution Prevention Water Quality & Quantity Control structures, permanent and temporary, are shown on the plans.
8. The DC EHSD shall be notified sixty days prior to any change in use; use changes may require re-approval by the DC EHSD.
9. No buildings are to be occupied and the new water system shall not be placed into service, until a "Completed Works Approval" is issued under section 5-1.22(d) of Part 5 of the New York State Sanitary Code (10NYCRR5).
10. No buildings are to be occupied and the new wastewater collection system shall not be placed into service until, a "Certificate of Construction Compliance" is issued under section 19.7 of Article 19 of the Dutchess County Sanitary Code.
11. All service lines are the responsibility of the owner up to the property line. The water and sewer companies shall be responsible for all valves and pipes which are not on the owner's property.
12. The retaining wall / slope stabilization details shown on the project plans are not certified for structural integrity by the DC EHSD.
13. The undersigned owners of the property hereon state that they are familiar with this map, its contents and its legends and hereby consent to all said terms and conditions as stated hereon.

_____ Owner Signature _____ Date

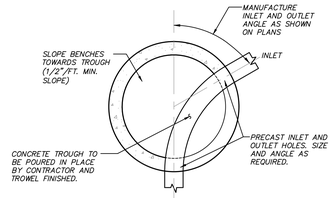
ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.



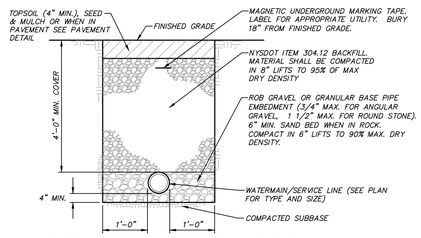
SANITARY SEWER / SANITARY SERVICE LINE TRENCH DETAIL
(N.T.S.)



SANITARY MANHOLE DETAIL
(N.T.S.)



MANHOLE TROUGH DETAIL
(N.T.S.)



NOTE: THE WATER TRENCH SHALL BE COMPLETELY BACKFILLED WITH NYSDOT ITEM 304.12 WITHIN THE NYSDOT RIGHT OF WAY

WATERMAIN/SERVICE LINE TRENCH DETAIL
(N.T.S.)

DUCTILE IRON PIPE WATER TESTING PROCEDURES

TESTS ON PRESSURE PIPING FOR TRANSPORT OF WATER

A. Hydrostatic Pressure Test
Hydrostatic testing shall be performed in accordance with the revision of AWWA C600, Section 5.2, "Hydrostatic Testing".

1. Test pressure shall be as scheduled or, where no pressure is scheduled, shall be 150 psi, or 1.25 times the static operating pressure, whichever is higher.
2. Test pressure shall be held on the piping for a period of at least 2 hours, unless a longer period is requested by the Engineer.
3. The test medium shall be water.

B. Hydrostatic Leakage Test

1. The leakage test shall be conducted concurrently with the pressure test.
2. The rate of leakage shall be determined at 15-minute intervals by means of volumetric measurement of the makeup water added to maintain the test pressure. The test shall proceed until the rate of leakage has stabilized or is decreasing below an allowable value, for three consecutive 15-minute intervals. After this, the test pressure shall be maintained for at least another 15 minutes.
   a. At the completion of the test, the pressure shall be released at the furthermost point from the point of application.
3. All exposed piping shall be examined during the test and all leaks, defective material or joints shall be repaired or replaced before repeating the tests.
4. The allowable leakage will be determined by the following formula.

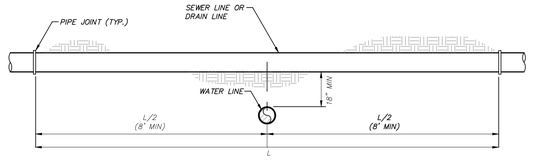
$$Q = \frac{LD\sqrt{P}}{148{,}000}$$

Where:
Q = quantity of makeup water, in gallons per hour
L = 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)

5. Regardless of the above allowables, any visible leaks shall be permanently stopped.
6. The test medium shall be water.

C. Disinfection
Prior to placing the water main into service, the new pipe shall be cleaned and disinfected in accordance with the latest revision of AWWA C651, Section 4.4.3, "The Continuous Feed Method". The "Tablet Method" will not be accepted.

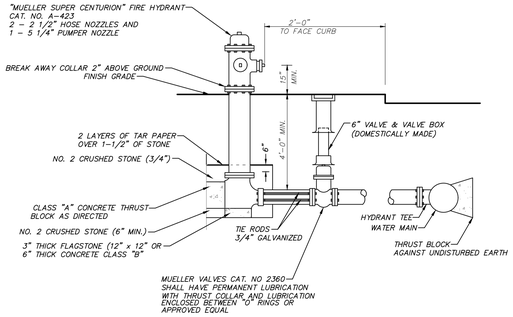
1. All work under this section shall be performed in the presence of the Design Engineer, and a representative of the public health authority having jurisdiction, as required.
2. Chlorination shall be scheduled such that sampling and flushing will be performed during normal daylight working hours. The contractor shall provide acceptable backflow prevention on all supply water to prevent any potential backflow contamination or cross connection.
3. Chlorination shall be by the use of a solution of water and liquid chlorine, calcium hypochlorite or sodium hypochlorite and the solution shall be contained in the pipe or structure as specified.
4. Prior to chlorination, all dirt and foreign matter shall be removed by a thorough cleaning and flushing of the pipeline or structure.
5. The chlorine solution shall be introduced to pipelines through corporation stops placed in the horizontal axis of the pipe, to structures by means of tubing extending directly into the structure, or other approved methods.
6. The application of the chlorine solution shall be by means of a controlled solution feed device. The rate of chlorine solution flow shall be in such proportion to the rate of water entering the pipe or structure that the resulting free chlorine residual shall be between 25 and 50 parts per million (PPM) or milligrams per liter (mg/l).
7. The chlorine treated water shall be retained in the pipe or structure at least 24 hours, unless otherwise directed. During the retention period, all valves and hydrants within the treated sections shall be operated.
8. The chlorine residual shall be not less than 10 PPM (or mg/l) at any point in the pipe or structure at the end of the 24-hour retention period.
9. When making repairs to, or when specified, structures and portions of pipelines shall be chlorinated by a concentrated chlorine solution containing not less than 200 PPM (mg/l) of free chlorine. The solution shall be applied with a brush or sprayed on the entire inner surface of the empty pipes or structures. The structures disinfected shall remain in contact with the strong chlorine solution for at least 30 minutes.
10. After the required retention of chlorinated water in the pipe or structures, they shall be thoroughly flushed until the replacement water shall, upon test, both chemically and bacteriological, be proven equal to water quality served by the public from the existing water supply system.
11. The disposal of chlorinated water from any pipe or structure shall be such that it will not cause damage to any vegetation, fish, or animal life.
12. The Contractor shall make all arrangements for the testing of water quality by an approved independent laboratory. Two acceptable bacteriological test, taken at least 24 hours apart, shall be collected from the new water main. At least 1 set of samples must be collected from every 1,000 LF of the new water main, plus one set from the end of the line and at least one set from each branch. The results for all tests shall be forwarded to the Design Engineer and the public health authority having jurisdiction.
13. All water quality requirements shall be fulfilled prior to the passage of any water through the new system to a public supply or the use of the new system.



WATER LINE CROSSING UNDER SANITARY SEWER LINE OR STORM DRAIN LINE

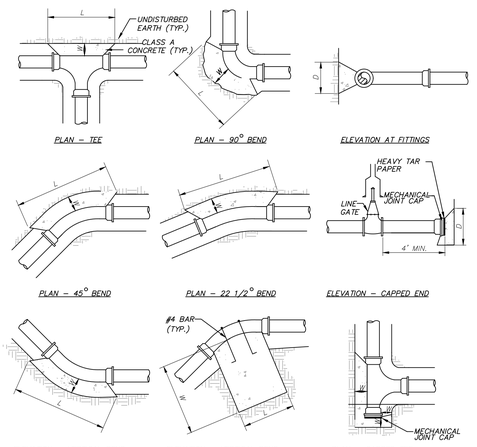
NOTES:
1. WHEN 18" SEPARATION CANNOT BE MAINTAINED, THE WATER LINE SHALL BE ENCASED IN CONCRETE (SEE DETAIL) ONLY WITH PRIOR APPROVAL OF THE DESIGN ENGINEER AND DEPARTMENT OF HEALTH.
2. PROVIDE PIPE AND FITTING RESTRAINT AS REQUIRED.
3. THE 18" SEPARATION APPLIES TO WATER MAINS AND WATER SERVICE CONNECTIONS.

WATER LINE CROSSING DETAIL
(N.T.S.)



HYDRANT NOTES:
1. PUMPER OUTLET SHALL FACE STREET;
2. HOSE OUTLETS SHALL BE PARALLEL TO STREET.
3. 1-1/2" STONE SHALL BE PLACED AROUND THE HYDRANT FROM THE BOTTOM OF THE TRENCH, BUT AT LEAST 6" BELOW THE BASE OF THE HYDRANT TO 6" ABOVE THE WASTE OPENING AND TO A DISTANCE OF 12" AROUND THE ELBOW.
4. IF GROUND WATER IS ENCOUNTERED WITHIN 7' OF SURFACE, THEN HYDRANT DRAINS SHOULD BE PLUGGED. WHEN THE DRAINS ARE PLUGGED, THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. WHERE HYDRANT DRAINS ARE NOT PLUGGED, A GRAVEL POCKET OR DRY WELL SHALL BE PROVIDED UNLESS THE NATURAL SOILS WILL PROVIDE ADEQUATE DRAINAGE. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR LOCATED WITHIN 10 FEET OF SANITARY SEWERS OR STORM DRAINS.

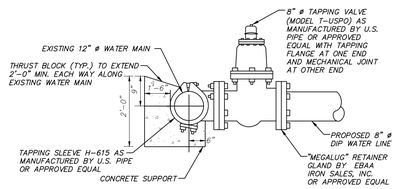
HYDRANT DETAIL
(N.T.S.)



THRUST BLOCK SCHEDULE

PIPE SIZE	CAP/TEE L	CAP/TEE D	22 1/2° L	22 1/2° D	45° L	45° D	90° L	90° D	W
6"	2'	1.5'	2'	1.5'	2'	1.5'	2'	1.5'	1.5'

THRUST BLOCK DETAILS
(N.T.S.)



TAPPING SLEEVE, VALVE, AND THRUST BLOCK DETAIL
(N.T.S.)

NO.	DATE	REVISION	BY
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

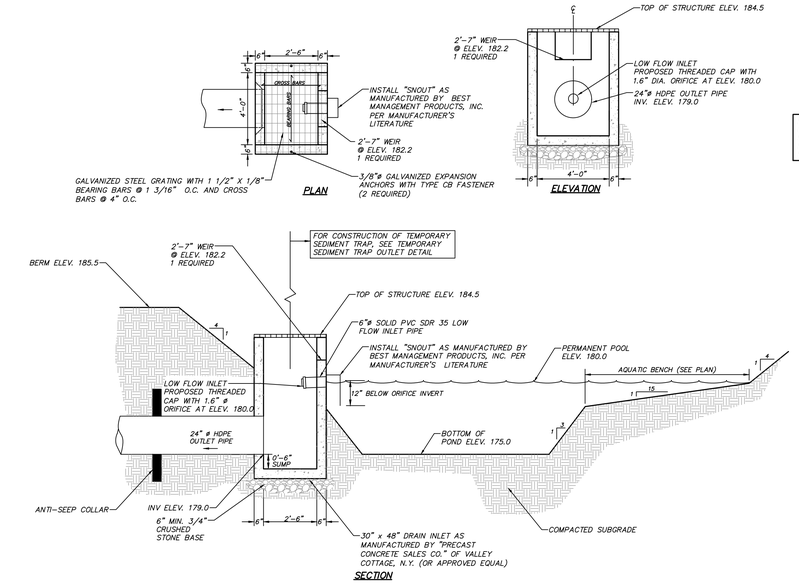
DRAWING:
DETAILS

STATE OF NEW YORK – JEFFREY J. CONKLIN – 61931 – LICENSED PROFESSIONAL ENGINEER

PROJECT NUMBER	191.31.100	PROJECT MANAGER	J.J.C.
DATE	8-27-19	DRAWN BY	J.F.R.
SCALE	AS NOTED	CHECKED BY	A.D.T.

DRAWING NO. D-4
SHEET 15/16

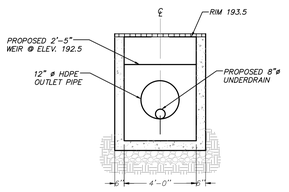
Z:\DWG\2019\191.31.100\Arch\D-5 - 5.dwg, 8/29/2020 10:39:42 AM, jfraser, 1:1



NOTE: THE "SNOUT" ON THE OUTLET STRUCTURE IS PROVIDED AS AN ANTI-CLOGGING DEVICE TO MEET THE REQUIREMENTS OF THE "NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL".

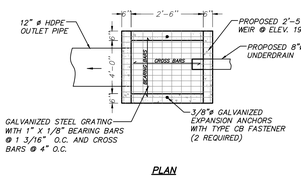
1.1P POCKET POND (NYSDEC DESIGN P-5) PERMANENT OUTLET STRUCTURE DETAIL

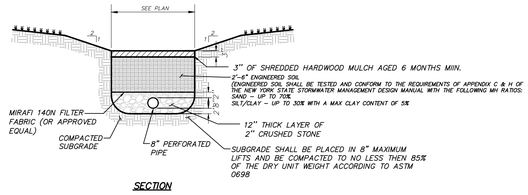
(N.T.S.)



WET POND OUTLET NOTES

1. THE POCKET POND (1.1P) BASIN IS PROPOSED TO BE UTILIZED AS TEMPORARY SEDIMENT BASINS DURING CONSTRUCTION.
2. AFTER THE CONTRIBUTING AREAS TO THE BASIN HAS BEEN PERMANENTLY STABILIZED, THE FOLLOWING SHALL BE ACCOMPLISHED:
   - A. CLEAN BASIN AND OUTLET STRUCTURE AND REMOVE 6"ø PERFORATED VERTICAL RISER PIPE, CRUSHED STONE AND FILTER FABRIC.
   - B. ADD THREADED CAP WITH ORIFICE AT DISCHARGE END OF 6"ø SOLID PVC SDR 35 PIPES PER DETAIL.
   - C. REPLACE THE PERFORATED PIPE AND CRUSHED STONE. DO NOT REPLACE FILTER FABRIC.
   - D. ESTABLISH THE FINAL VEGETATION IN THE BASIN IN ACCORDANCE WITH THE TYPICAL P-2 WET POND BASIN PLANTING DETAIL.
3. FOLLOWS: * WHEN INITIALLY USED AS THE TEMPORARY SEDIMENT BASIN DEWATERING DEVICE THE RISER SHALL BE WRAPPED WITH TYPAR 3201 GEOTEXTILE OR APPROVED EQUAL AND SURROUNDED WITH 2"ø STONE. THE TOP OF THE RISER SHALL BE SET AT THE SAME ELEVATION AS THE WEIRS AS SHOWN IN THE STORMWATER BASIN OUTLET STRUCTURE DETAILS.

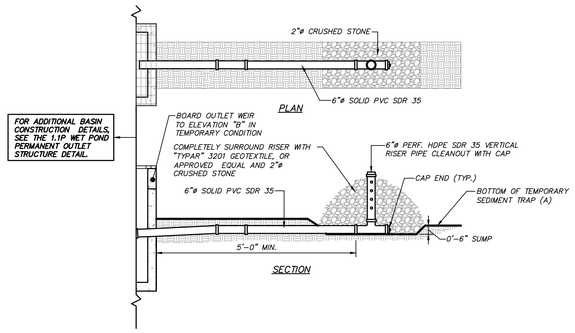




ROCK OUTLET PROTECTION DETAIL

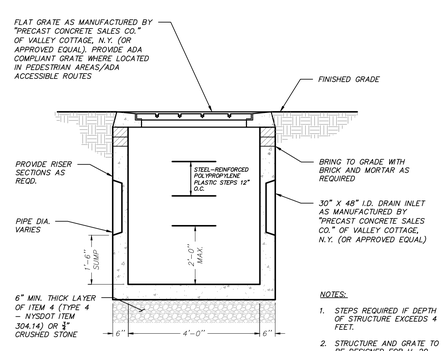
(N.T.S.)

END SECTION ID	OUTLET PIPE DIAMETER (D_o)	CONTRIBUTING DRAINAGE AREA (AC.)	DISCHARGE (100-YEAR)	D50 RIP RAP SIZE	MAX. RIP RAP SIZE	THICKNESS RIP RAP (T)	LENGTH (L_a)MIN.	SUMP DEPTH (S)
ES 1	18"	3.4	8.1 CFS	6"	9"	14"	11 FT	2 FT.
ES 8	15"	4.3	8.3 CFS	6"	9"	14"	8 FT	2 FT.
ES 13	24"	4.4	8.4 CFS	6"	9"	14"	12 FT	2 FT.
ES 23	15"	0.8	4.1 CFS	6"	9"	14"	8 FT	2 FT.
ES 26	12"	0.2	1.1 CFS	6"	9"	14"	6 FT	2 FT.



TEMPORARY SEDIMENT TRAP OUTLET STRUCTURE DETAIL

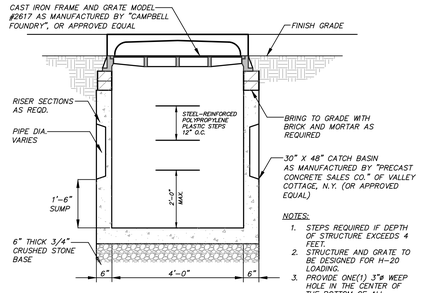
(N.T.S.)



NOTES:
1. STEPS REQUIRED IF DEPTH OF STRUCTURE EXCEEDS 4 FEET.
2. STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING.

30" X 48" DRAIN INLET DETAIL

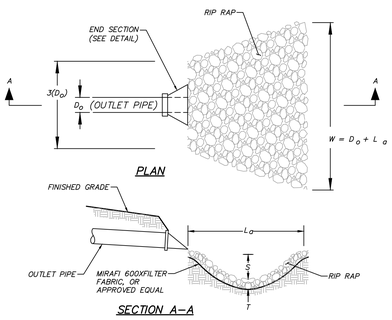
(N.T.S.)

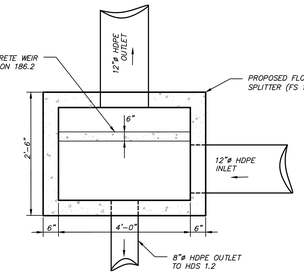


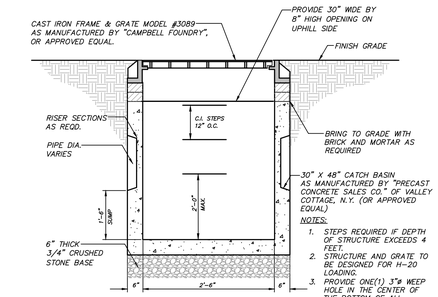
NOTES:
1. STEPS REQUIRED IF DEPTH OF STRUCTURE EXCEEDS 4 FEET.
2. STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING.
3. PROVIDE ONE(1) 3"ø WEEP HOLE IN THE CENTER OF THE BOTTOM OF ALL STRUCTURES WITH SUMPS.

CATCH BASIN DETAIL

(N.T.S.)





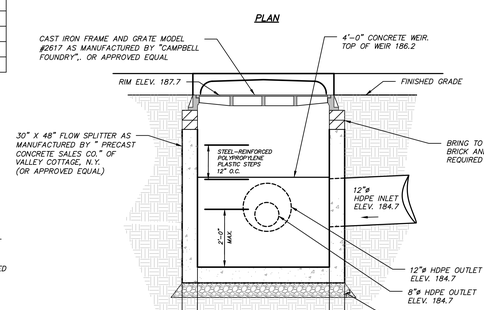


NOTES:
1. STEPS REQUIRED IF DEPTH OF STRUCTURE EXCEEDS 4 FEET.
2. STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING.
3. PROVIDE ONE(1) 3"ø WEEP HOLE IN THE CENTER OF THE BOTTOM OF ALL STRUCTURES WITH SUMPS.

SIDE DRAIN INLET DETAIL

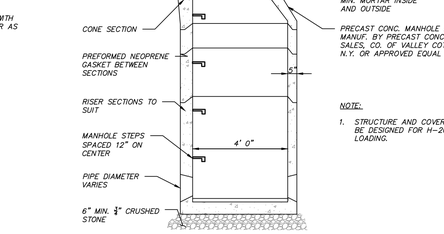
(N.T.S.)

(STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING)



FLOW SPLITTER FS 1.2 DETAIL

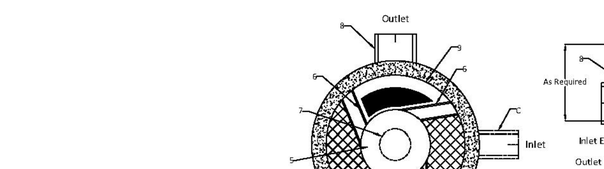
(N.T.S.)



NOTE:
1. STRUCTURE AND COVER TO BE DESIGNED FOR H-20 LOADING.

DRAINAGE MANHOLE DETAIL

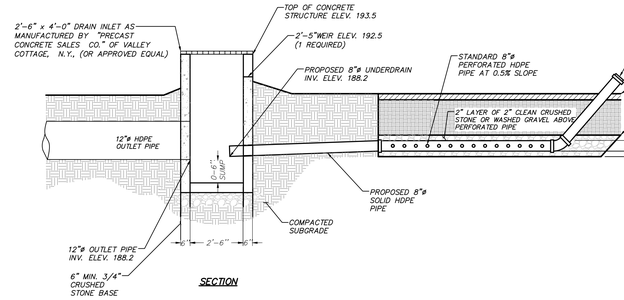
(N.T.S.)



END SECTION ID	DRAINAGE AREA (ac)	100-YEAR PEAK FLOW (cfs)	LENGTH (ft.)	ELEVEATION (A)	ELEVATION (B)
ES 15 & ES 18	1.0	3.8	8	183.0	181.5
ES 21	2.2	4.2	9	186.0	184.5
ES 25	3.5	8.9	18	178.5	177.0
ES 29	1.5	2.9	6	185.5	184.0

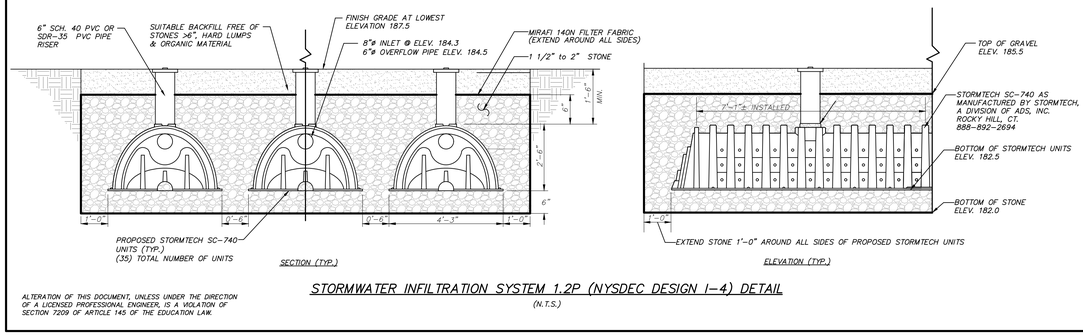
LEVEL SPREADER DETAIL

(N.T.S.)



BIORETENTION FILTER OUTLET STRUCTURE DETAIL (NYSDEC DESIGN F-5)

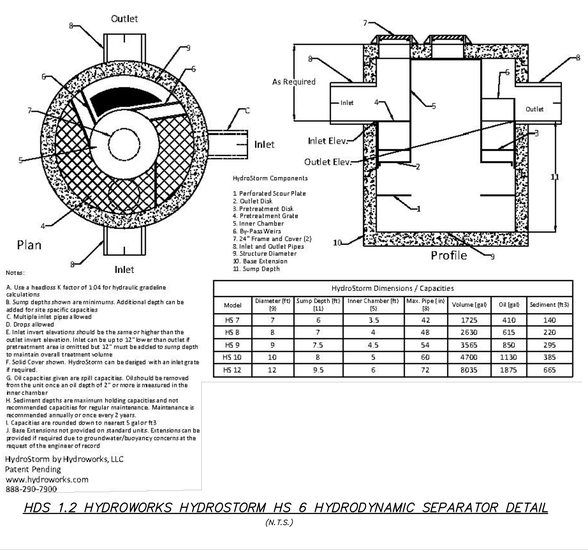
(N.T.S.)



ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

STORMWATER INFILTRATION SYSTEM 1.2P (NYSDEC DESIGN I-4) DETAIL

(N.T.S.)



Notes:
A. Use a headloss K factor of 1.04 for hydraulic gradeline calculations.
B. Sump depths shown are minimums. Additional depth can be added for site specific capacities
C. Multiple inlet pipes allowed
D. Drops allowed
E. Inlet invert elevations should be the same or higher than the outlet invert elevation. Inlet can be up to 12" lower than outlet if pretreatment area is omitted but 12" must be added to sump depth to maintain overall treatment volume.
F. Solid Cover shown. HydroStorm can be designed with an inlet grate if required.
G. Oil capacities given are spill capacities. Oil should be removed from the unit once an oil depth of 2" or more is measured in the inner chamber
H. Sediment depths are maximum holding capacities and not recommended capacities for regular maintenance. Maintenance is recommended annually or once every 2 years.
I. Capacities are rounded down to nearest 5 gal or ft3
J. Base Extensions not provided on standard units. Extensions can be provided if required due to groundwater/buoyancy concerns at the request of the engineer of record

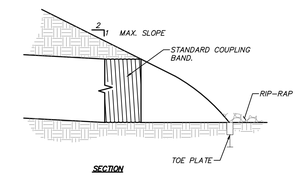
HydroStorm by Hydroworks, LLC
Patent Pending
www.hydroworks.com
888-290-7900

HydroStorm Dimensions / Capacities

Model	Diameter (ft) [D]	Sump Depth (ft) [LL]	Inner Chamber (ft) [S]	Max. Pipe (in) [B]	Volume (gal)	Oil (gal)	Sediment (ft3)
HS 7	7	6	3.5	42	1725	410	140
HS 8	8	7	4	48	2630	615	220
HS 9	9	7.5	4.5	54	3505	850	295
HS 10	10	8	5	60	4700	1130	385
HS 12	12	9.5	6	72	8035	1875	665

HDS 1.2 HYDROWORKS HYDROSTORM HS 6 HYDRODYNAMIC SEPARATOR DETAIL

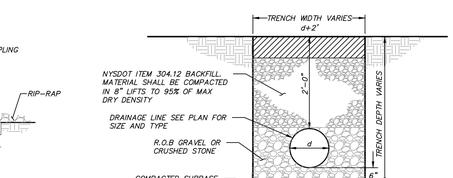
(N.T.S.)



NOTE:
END SECTION CONNECTIONS TO CONFORM TO MANUF. RECOMMENDATIONS FOR VARIOUS PIPE SIZES

END SECTION DETAIL

(N.T.S.)



DRAINAGE LINE TRENCH DETAIL

(N.T.S.)

NO.	DATE	REVISION	BY
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT: BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING: DETAILS

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8-27-19	DRAWN BY	J.F.R.
SCALE	AS NOTED	CHECKED BY	A.D.T.

STATE OF NEW YORK – JEFFREY F. RAGAZZO – 21931 – LICENSED PROFESSIONAL ENGINEER

DRAWING NO. D-5
SHEET 16 / 16

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
http://www.fws.gov/northeast/nyfo/es/section7.htm

In Reply Refer To: June 12, 2020
Consultation Code: 05E1NY00-2020-SLI-3270
Event Code: 05E1NY00-2020-E-09846
Project Name: Beacon Views

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: http://www.fws.gov/northeast/nyfo/es/section7.htm

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/

eagle_guidance.html). Additionally, wind energy projects should follow the Services wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2020-SLI-3270

Event Code: 05E1NY00-2020-E-09846

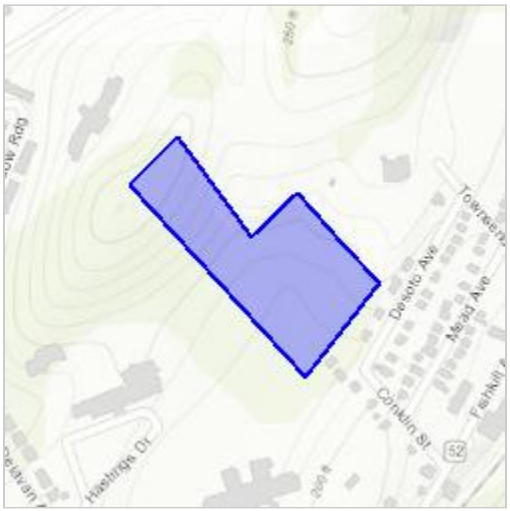
Project Name: Beacon Views

Project Type: DEVELOPMENT

Project Description: Multifamily housing development

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/41.512441694944414N73.95547023412527W



Counties: Dutchess, NY

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

INSITE
ENGINEERING, SURVEYING &
LANDSCAPE ARCHITECTURE, P.C.

STORMWATER POLLUTION PREVENTION PLAN

Prepared For

BEACON VIEWS

City of Beacon, New York

June 30, 2020

Applicant Information:

Beacon Views, LLC
500 River Avenue
Wakefield, New Jersey 08701

Note: This report in conjunction with the project plans make up the complete Stormwater Pollution Prevention Plan.

Prepared by:
Insite Engineering, Surveying & Landscape Architecture, P.C.
3 Garrett Place
Carmel, New York 10512

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APPENDICES

Appendix A	NYSDEC Water Quality Volume and Runoff Reduction Calculations
Appendix B	Pre-Development Computer Data
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Appendix D	Project and Owner information
Appendix E	NYSDEC SPDES for Construction Activities Construction Site Log Book
Appendix F	NYSDEC Stormwater Design Manual Chapter 5 Analysis
Appendix G	NYSDEC Stormwater Management Practice Construction and Maintenance Inspection Checklist
Appendix H	Hydrodynamic Separator Sizing and Maintenance Manual
Appendix I	Bioretention Filter Sizing Calculations
Appendix J	NYSDEC Full Environmental Assessment Form
Appendix K	Pipe Sizing Calculations
Appendix L	Swale Sizing Calculations
Appendix M	Draft NYSDEC Notice of Intent

FIGURES

Figure 1: Location Map
Figure 2: Pre-Development Drainage Map
Figure 3: Post-Development Drainage Map
Figure 4: Testing Plan

1.0 INTRODUCTION

1.1 Project Description

The proposed project is located off of Conklin Street in the City of Beacon. The site is approximately 8.6 acres and is identified as Tax Map No. 6055-03-331123. The parcel is located in the RD-5 zoning district. The subject parcel and surroundings are shown on Figure 1. The project proposes seven (7) multi-family townhouse buildings (40 total townhouse units) and associated appurtenances. The primary access to the site will be off Hastings Drive, through the adjoining the former St. Francis Hospital property. An emergency access drive will be provided to the north, through the adjacent parcel. It is proposed to capture and treat the stormwater runoff associated with the proposed improvements.

1.2 Existing Stormwater Runoff Conditions

The subject project is located on one tax parcel off of Conklin Street, immediately north of Hastings Drive. The existing ground cover on the site is characterized as a mixture of woods, open grassed meadow areas and impervious surfaces from the adjacent properties. The property generally drains from north to south down to the onsite wetland.

The hydrologic soils groups for the project consists of C/D soils. The designations of the onsite soils located within the proposed limits of disturbance consist of Bernardston Silt Loam (BeB), Canandigua Silt Loam (Ca), and Nassau-Cardigan Complex (NwC) as identified on the Soil Conservation Service Web Soil Survey. The soils boundaries are shown on Figure 2 and 3 of this report.

As previously stated, the stormwater runoff from the existing property generally drains from north to south towards the existing onsite wetland. Approximately 20 acres of offsite stormwater runoff is conveyed through the subject property from offsite runoff. The analysis included in the project SWPPP utilizes one design line, Design Line 1, to assess the stormwater runoff from the property and any potential impacts from development to the existing natural resources on the property. Design Line 1 is located along a portion of the proposed wetland boundary in the post-development condition in order to analyze the stormwater runoff from all developed areas in the post-development condition. The Pre-Development Drainage Map (Figure 2 of this report) shows the location of Design Line 1. The contributing area to Design Line 1 is identified as subcatchment PRE.

1.3 Proposed Stormwater Runoff Conditions

As previously stated, the proposed application includes the construction of seven (7) multi-family town house buildings, asphalt driveway, parking areas and associated appurtenances. Stormwater mitigation for the newly created impervious surfaces will be provided in the form of proposed stormwater management practices (SMP's) discussed further in later sections of this report. The proposed SMP's will be designed to capture and treat runoff from the impervious surfaces associated with the proposed buildings, driveway, parking areas and pedestrian walkways.

It is proposed to maintain the existing drainage patterns on the site to the maximum extent practical in the proposed condition to minimize the impact to the existing downstream wetland. As previously discussed, the stormwater analysis included in the SWPPP utilizes one design line, Design Line 1. Design Line 1, is located along the proposed wetland boundary line in order to analyze the stormwater runoff from all areas of the propose development. Stormwater treatment for the subject project will be accomplished with several different practices including a bioretention filter, subsurface infiltration system and a P-5 Pocket Pond. The stormwater management practices have been sized to capture and treat the Water Quality Volume from the developed area. A hydrodynamic separator is proposed upstream of the subsurface infiltration system for pretreatment only to satisfy the requirements of the Design Manual.

The stormwater runoff from the proposed development will be captured in a collection system and conveyed to the stormwater management practices. The stormwater runoff will be treated by three (3) stormwater management practices, including a I-4 Subsurface Infiltration System (1.2P), F-5 Biorentention Filter (1.3P) and a P-5 Pocket Pond (1.1P). Pretreatment of the stormwater runoff will be provided with a hydrodynamic separator upstream of the proposed subsurface infiltration system, gravel diaphragm and mulch layer for the bioretention filter and a forebay in the pocket pond. A flow splitter is proposed upstream of the subsurface infiltration system to discharge the water quality volume to the practice for treatment and bypass the larger storm events.

The contributing area to the subsurface infiltration system (1.2P) is shown as subcatchment 1.2S. Subcatchment 1.2S consists of proposed impervious surface on the southeast side of the project site including townhouse units 35-40 and associated parking area and is collected and conveyed to the proposed infiltration system through roof drains, drain inlets and drainage piping. The contributing area to the bioretention filter (1.3P) and pocket pond (1.1P) are shown as subcatchment 1.3S and 1.1S, respectively. Subcatchment 1.3S consists of a portion of the proposed lawn area between townhouse units 26 and 27 and the proposed pavement area that sheet flows to the proposed filter. Subcatchment 1.2S consists of the majority of the proposed impervious area that is collected and conveyed through roof drains, drainage structures and drainage piping. The untreated/undeveloped area directly tributary to Design Line 1 in the post-development condition is shown as subcatchment 1.0S. The subcatchments are shown in Figure 3 of this report. A summary of the subcatchments in the post-development condition including the downstream treatment practice, total area and amount of impervious area within the subcatchment is shown in Table 1.3.1 below.

Table 1.3.1 – Post Development Subcatchment Summary

Subcatchment	Stormwater Management Practice	Total Area[1] (ac)	Impervious Area[1] (ac)
1.0S	Not Treated	18.4	0.5[2]
1.1S	1.1P	3.15	2.15
1.2S	1.2P	0.55	0.45
1.3S	1.3P	0.4	0.2

[1] Refer to subcatchment areas in Appendix C.
[2] The impervious area within subcatchment 1.0S is existing from the properties adjacent to the project site that are also tributary to Design Line 1.

As shown in the following sections of this report, the stormwater quality and quantity for the proposed development have been mitigated to the maximum extent practicable to minimize the impacts to the existing conditions of the downstream, onsite wetland. Additionally, an erosion and sediment control plan has been prepared in accordance with the *New York State Standards and Specifications for Erosion and Sediment Control* to protect the existing waterbodies and drainage features during construction activities and in the post development condition.

2.0 STORMWATER MANAGEMENT

The proposed stormwater management system for the Beacon Views has been designed to meet the requirements of local, city, and state stormwater ordinances and guidelines, including but not limited to those of the City of Beacon and the NYSDEC.

Since the subject project proposes the disturbance of more than one (1) acre, coverage under the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit No. GP-0-20-001 is required. In order to meet the requirements, set forth by this permit, the latest edition of the NYSDEC *New York State Stormwater Management Design Manual* (NYSSMDM) was referenced for the design of the proposed stormwater management system. The NYSSMDM specifies five design criteria that are discussed in detail below. They are Runoff Reduction Volume, Water Quality Volume, Stream Channel

Protection Volume, Overbank Flood Control, and Extreme Flood Control. The first two of the requirements relates to treating water quality, while the later pertain to stormwater quantity (peak flow) attenuation.

To address stormwater quantity requirements of the NYSDEC, the "HydroCAD" Stormwater Modeling System," by HydroCAD Software Solutions LLC in Tamworth, New Hampshire, was used to model and assess the peak stormwater flows for the subject project. HydroCAD is a computer aided design program for modeling the hydrology and hydraulics of stormwater runoff. It is based primarily on hydrology techniques developed by the United States Department of Agriculture, Soil Conservation Service (USDA, SCS) TR-20 method combined with standard hydraulic calculations. For details on the input data for the subcatchments and design storms, please refer to Appendices B and C.

The input requirements for the HydroCAD computer program are as follows:

Subcatchments (contributing watershed/sub-watersheds)

- Design storm rainfall in inches
- CN (runoff curve number) values which are based on soil type and land use/ground cover
- Tc (time of concentration) flow path information
- Watershed Area in Acres

Stormwater Basins

- Surface area at appropriate elevations
- Flood elevation
- Outlet structure information

The precipitation values and intensity duration frequency (IDF) curves for the 1-Year, 10-Year, 100-Year 24-hour design storm events and rainfall distribution curves utilized for this report were obtained from the information provided by Northeast Regional Climate Center (NRCC) and the Natural Resources Conservation Service (NRCS) which is available online at *www.precip.eas.cornell.edu.* The values provided for all design storms analyzed have been listed below.

Table 2.0.1 – Precipitation Values for Corresponding Design Storms

Design Storm	24-Hour Rainfall
1-Year	2.6"
10-Year	4.7"
100-Year	8.3"

The CN (runoff curve number) values utilized in this report were referenced from the USDA, SCS publication *Urban Hydrology for Small Watersheds*. The following is a summary of the various land uses/ground covers and their associated CN values utilized in this report.

Table 2.0.2 – Project Ground Cover and Associated Curve Numbers (CN)

Land Use/Ground Cover	CN Value
Woods, D Soil	77
Meadow, D Soil	78
>75% Grass Cover, D Soil	80
Impervious Surface	98

2.1 NYSDEC Runoff Reduction Volume, RR_v

The Runoff Reduction Volume (RR_v) criterion is intended to replicate pre-development hydrology by maintaining preconstruction infiltration, peak flow runoff, discharge volume, as well as minimizing concentrated stormwater flow. As stated in Chapter 4 of the Design Manual, RR_v may be treated with standard SMP's with RR_v capacity sized in accordance with the Chapter 4/6 requirements, or with green infrastructure practices (GIP's) sized in accordance with the requirements set forth in Chapter 5. Runoff reduction is achieved when runoff from a site is captured, directed to a SMP or a GIP, infiltrated to the ground, reused, or removed by evapotranspiration, so it does not contribute to the stormwater discharge from the site. The goal for each site is to reduce the entire WQ_v (100%) through the implementation of GIP's and standard SMP's with RR_v capacity. However, if 100% of the WQ_v cannot be reduced by applying a combination of green infrastructure techniques and standard SMP's with RR_v capacity, "they must, at a minimum, reduce runoff from a percentage of the impervious area constructed as part of the project using the green infrastructure techniques and standard SMPs with RR_v capacity. In addition, the designer must provide justification in the SWPPP that evaluates each of the green infrastructure techniques listed in Table 3.2 and identify the specific site limitations that make application of the technique(s) infeasible."

The project SWPPP cannot provide 100% of the WQ_v through the implementation of GIP's or standard SMP's with RR_v capacity. This is because the onsite soils conditions and depth to groundwater in portions of the site, thus minimizing the area where infiltration practices for treatment of the RR_v / WQ_v is possible. With respect to runoff volume, the project SWPPP addresses and satisfies the RR_V requirements of the Design Manual. In order to meet these requirements to the maximum extent practicable, the project SWPPP has minimized the creation of impervious surfaces to the maximum extent practicable. The types of GIP's and standard SMP's with RR_v capacity that can be employed onsite are limited. The project SWPPP as required by the Design Manual meets and exceeds the RR_v minimum required. In addition, as required by the Design Manual, an analysis evaluating each of the green infrastructure techniques in Table 3.2 has been provided in Appendix F. For this project there are two (2) types of practices employed towards meeting the RR_v requirements.

The project proposes a F-5 Bioretention Filter and an I-4 Subsurface Infiltration System in an area of the project site where the soil conditions meet the Design Manual requirements. These two stormwater practices, sized in accordance with the Design Manual, will be applied as a GIP/SMP with volume reduction towards meeting the RR_v minimum. The biorentention filter sizing calculations have been provided in Appendix I of this SWPPP. Sizing calculations for the subsurface infiltration practice are provided in Section 2.2 below.

For a calculation of the Initial WQ_v / RR_v, the RR_v minimum, the RR_v / WQ_v required, and the RR_v provided, refer to Appendix A. In calculating the RR_v minimum, onsite soils belongs to the Hydrologic Soil Groups D. These soil groups have a specific reduction factor of 0.20. The table below summarizes the RR_v requirements for the site, as calculated in Appendix A.

Table 2.1.1 Runoff Reduction Volume Summary

Design Line	Initial WQ_v / RR_v (c.f.)[1]	RR_v Minimum (c.f.)	WQ_v RR_v Required (Initial WQ_v / RR_v minus RR_v provided through GIP with Area Reduction) (c.f.)	RR_v Provided (c.f.)	WQ_v Required for Downstream SMP (c.f.)
Design Line 1	13,346	2,704	13,346	3,856	9,490

[1] Refer to Appendix A for Initial WQ_v Calculations

As noted in the table above the project has provided greater than the RR_v minimum. By implementing GIP's to the greatest extent practicable, and exceeding the RR_v minimum, the NYSDEC RR_v requirement has been addressed. As previously stated, 100% of the WQ_v/RR_v required could not be provided due to onsite soil conditions and the limited area where infiltration is feasible. As 100% of the WQ_v / RR_v required was not provided for the subcatchments, a downstream standard SMP must be provided to treat the difference between the WQ_v / RR_v required and the RR_v provided. A P-5 Pocket Pond will be provided as the primary downstream stormwater management practice to treat the remaining WQ_v for the subcatchments. As the WQv for subcatchment 1.1S, shown in Table 2.2.1, is greater than the WQv required, the Pocket Pond has been sized to treat the greater WQ_v. The proposed Pocket Pond is being provided to meet stormwater quality/quantity requirements of the NYSDEC.

2.2 NYSDEC Water Quality Volume, WQ_v

The stormwater management practices have been designed in accordance with the *Performance Criteria* (Chapter 4) of the NYSSMDM. As outlined in Chapter 4, the WQv is the runoff volume produced during the 90% storm. The proposed infiltration practices have been designed to treat the WQv in accordance with the NYSSMDM. The following equation, per Chapter 4, was used to determine the water quality volume for the 90% storm for each of the contributing areas to the treatment practices:

$$\text{The water quality volume shall be } WQ_v = \frac{(P)(R_v)(A)}{12}$$

Where,

WQ_v = water quality volume (in acre-feet)
P = 90% Rainfall Event Number
R_v = 0.05 + 0.009(I), where I is percent impervious cover
A = site area in acres

The stormwater management practices have been designed in accordance with the *Performance Criteria* (Chapter 4) of the NYSSMDM. As outlined in Chapter 4, the WQv is the runoff volume produced during the 90% storm. The proposed infiltration practices have been designed to treat the WQv in accordance with the NYSSMDM. The equation above, per Chapter 4, was used to determine the water quality volume for the 90% storm for each of the contributing areas to the treatment practices:

Table 2.2.1 - Water Quality Volume Calculation Summary

Subcatchment	WQ_v[1] (cf)
1.1S	10,268
1.2S	2,136
1.3S	942

[1] For detailed calculations see Appendix A

As previously stated, there are three stormwater management practices proposed as part of the development of the site to meet both the WQv and RRv requirements. Each practice has been designed to treat the Water Quality Volume from the contributing area. The subsurface infiltration practice is designed as an offline practice with a flow splitter upstream of the practice. The infiltration practice is sized to treat at a minimum the WQv from the contributing area, while allowing portions of larger storms to discharge from the infiltration practice through an overflow pipe as allowed by the NYSSMDM. The overflow pipe is set to allow the full WQv storage within the practice as required by the Design Manual. The calculation of the WQv is performed per the methods of the NYSSMDM in Appendix A.

Soil testing was performed in the location of the proposed stormwater management practices. Infitlration testing was performed for the proposed subsurface infiltration system. Testing results can be found on Figure 4. Soil and infiltration test results meet the stormwater infiltration practice requirements set forth in the Design Manual for separation to distances and an infiltration rate greater than 0.5 inches per hour.

Pretreatment has been provided for the proposed subsurface infiltration system in the form of a hydrodynamic separator. The hydrodynamic separator is proposed for pretreatment only and is not deisnged as a proprietary stormwater management practice to treat the stormwater runoff. The peak flow for the 1-year storm was used to size the hydrodynamic separator used as pretreatment for the infiltration system. Per the Design Manual requirements a minimum pretreatment volume of 25% of the WQ_v must be provided for an infiltration facility where the infiltration rate for the underlaying soils is less than 2.0 inches per hour. By sizing the hydrodynamic separator for the peak flow from the 1-year storm event, pretreatment for greater than 100% of the WQ_v is provided. The data (including capacities) for the hydrodynamic separator is included in Appendix H. Although the Hydroworks HydroStorm HS 6 does not meet the NYSDEC requirements of TSS and phosphorous removal to be used as a proprietary practice to treat new impervious development, it is a verified proprietary practice to be used for pretreatment. The table below summarizes the WQv-year peak flows and hydrodynamic separate flow rates.

Table 2.2.2 – Pretreatment Hydrodynamic Separator Summary

Stormwater Management Practice	WQv[1] Peak Flow (C.F.S).	Hydrodynamic Separator Model	Hydrodynamic Separator Capacity (C.F.S.)
1.2P	1.84	HydroStorm HS 6	1.98 CFS

[1] For detailed calculations see Appendix A

As noted in the table above the capacity of the hydrodynamic separator exceeds the calculated WQv peak flow. The hydrodynamic separator has an internal bypass capable of passing the flows from the contributing areas from the larger storm events.

As previously stated above the F-5 Bioretention Filter has been sized to treat the WQv from the contributing area. Sizing calculations for the biorententio filter per the Design Manual Requirements are shown in Appendix I of the SWPPP.

The P-5 pocket pond has been sized in accordance with Chapter 6 of the Design Manual as shown in the table below. The P-5 Pocket Pond has been sized to store a minimum of 50% of the WQv in the permanent pool and a maximum of 50% in extended detention. As previously stated, the P-5 Pocket Pond has been sized for the WQv calculated in Appendix A as the WQv from the contributing area. The provided volume for the P-5 Pocket Pond can be verified in the stage storage tables contained in Appendix C. A P-5 Pocket Pond was chosen due to the overall contributing area to the proposed basin.

Table 2.1.3 P-5 Pocket Pond Summary

Design Elements	Required	Provided	Remarks
Pond Location	Not within Jurisdictional Waters	Outside of Jurisdictional Waters	See Project Plans
Forebay Volume	10% of WQv (1,027 cubic feet)	20% of WQv (2,050 cubic feet)	See Appendix C
Forebay Depth	4' Min. – 6' Max.	5' Provided	See Project Plans
WQv Storage	50% Min. within Permanent Pool (5,134 cubic feet)	50%+ within Permanent Pool (10,715 cubic feet)	See Appendix C
Minimum Length to Width Ratio	1.5 : 1	Greater than 2 : 1	See Project Plans
Minimum Surface Area to Drainage Area Ratio	1 : 100	1 : 39	See Project Plans
Benches at Water Level	Aquatic Bench	Aquatic Bench	See Project Plans
Landscaping	Pond and Buffer Plantings Required	Pond and Buffer Plantings Provided	See Project Plans
Center-of-Mass Detention Time (1-Year, 24-Hour Storm Event)	1,440 minutes	1,465 minutes	See Appendix C

2.3 NYSDEC Stream Channel Protection Volume, CP_v

The Stream Channel Protection (CP_v) criterion is intended to protect stream channels from erosion and is accomplished by the 24-hour extended detention of the 1-year, 24-hour storm event or by fully infiltrating the stormwater runoff from the 1-year, 24-hour storm event. The Stream Channel Protection Volume is calculated using the runoff volume from 1-year, 24-hour storm event from the HydroCAD modeling in Appendix C. Table 2.3.1 below provides a summary of the peak flow rate from each stormwater management practice proposed to provide CP_v for the 1-year, 24-hour storm event. As shown in Appendix C, the proposed I-4 Subsurface Infiltration System has been designed to fully infiltrate the stormwater runoff from the 1-year, 24-hour design storm and the P-5 Pocket Pond has been designed to provide 24-hour extended detention of the 1-year, 24-hour storm, therefore the CPv criterion has been met for the proposed areas of new development.

Table 2.2.1 – Stream Channel Protection Volume Summary

Stormwater Management Practice	CP_v[1] (cfs)
1.1S	0.1
1.2S	0.0

[1] See Appendix C for the runoff volume from the 1-Year, 24-Hour Storm Event

2.4 NYSDEC Overbank Flood Control, Q_p, and Extreme Flood Control, Q_f

The Overbank Flood Control (Q_p) requirement is intended to prevent an increase in the frequency and magnitude of out-of-bank flooding events generated by urban development. Overbank control requires storage to attenuate the post-development 10-year, 24-hour peak discharge to pre-development rates. The Extreme Flood Control (Q_f) requirement is intended to prevent the increased risk of flood damage from large storm events, maintain the boundaries of the pre-development 100-year flood plain, and protect the physical integrity of stormwater management practices. Extreme flood control requires storage to attenuate the post-development 100-year, 24-hour peak discharge to pre-development rates. As shown in Table 2.4.1 attenuation for both the 10-year and 100-year 24-hour storms has been provided thus satisfying the Q_p and Q_f requirements. As requested by the City

of Beacon, in addition to the requirements of the Design Manual, attenuation of the peak flows for the 1-year, 24-hour design storm has been provided as shown in Table 2.4.1. The following table summarizes the pre and post development peak flows expected for the proposed project.

Table 2.4.1– Pre and Post-Development Peak Flows

24-HOUR DESIGN STORM PEAK FLOWS (c.f.s.)						
	1-YEAR		10-YEAR (Overbank Flood Control)		100-YEAR (Extreme Flood Control)	
	Pre	Post	Pre	Post	Pre	Post
Design Line 1	14.1	12.6	39.7	35.2	84.5	78.5

As shown in the above table the peak flows discharging to the design line in the proposed condition have been mitigated to slightly below the existing condition levels. Since the rate of runoff in the proposed condition is less than the existing condition, the proposed onsite stormwater improvements will mitigate the potential impact of the peak flows downstream in the final condition.

3.0 STORMWATER CONVEYANCE SYSTEM

The stormwater collection and conveyance systems for the project will consist of catch basins, drain inlets, drainage manholes, swales and HDPE pipe. The system will be sized to collect and convey at minimum the 100-year, 1-hour design storm using the Rational Method. The Rational Method is a standard method used by engineers to develop flow rates for sizing collection systems. The Rational Method calculates flows based on a one-hour design storm. Calculations are provided in Appendix K and L.

4.0 EROSION AND SEDIMENT CONTROL

Erosion and sediment control should be accomplished by four basic principles: diversion of clean water, containment of sediment, treatment of dirty water, and stabilization of disturbed areas. Diversion of clean water should be accomplished with swales. This diverted water should be safely conveyed around the construction area as necessary and discharged downstream of the disturbed areas. Sediment should be contained with the use of silt fence at the toe of disturbed slopes and excavation of the temporary sediment basin. Disturbed areas should be permanently stabilized within 14 days of final grading to limit the required length of time that the temporary facilities must be utilized. The owner will be responsible for the maintenance of the temporary erosion control facilities.

4.1 Temporary Erosion and Sediment Control Facilities

Temporary erosion and sediment control facilities should be installed and maintained as required to reduce the impacts to off-site properties. The owner will be required to provide maintenance for the temporary erosion and sediment control facilities. In general, the following temporary methods and materials should be used to control erosion and sedimentation from the project site:

- Stabilized Construction Entrance
- Silt Fence Barriers
- Storm Drain Inlet Protection

A stabilized construction entrance should be installed at the entrance to the site as shown on the plan. The design drawings will include details to guide the contractor in the construction of this entrance. The intent of the stabilized construction entrance is to prevent the “tracking” of soil from the site. Dust control should be accomplished with water sprinkling trucks if required. During dry periods, sprinkler trucks should wet all exposed earth surfaces as required to prevent the transport of air-borne particles to adjoining areas.

Siltation barriers constructed of geosynthetic filter cloth should be installed at the toe of all disturbed slopes. The intent of these barriers is to contain silt and sediment at the source and inhibit its transport by stormwater runoff. The siltation barriers will also help reduce the rate of runoff by creating filters through which the stormwater must pass.

4.2 Permanent Erosion and Sediment Control Facilities

Permanent erosion and sediment control will be accomplished by diverting stormwater runoff from steep slopes, controlling/reducing stormwater runoff velocities and volumes, and vegetative and structural surface stabilization. All of the permanent facilities are relatively maintenance free and only require periodic inspections. The owner will provide maintenance for all the permanent erosion and sediment control facilities.

The temporary sediment trap shall be cleaned of all sediment and debris, and converted to an extended detention dry stormwater basin per the final elevations and dimensions, and stabilized with the vegetation as indicated on the project drawings. Riprap aprons will be used at the discharge end of all piped drainage systems. Runoff velocities will be reduced to levels that are non-erosive to the receiving waterbodies through use of these aprons.

Other than the buildings and paved surfaces, disturbed surfaces will be stabilized with vegetation. The vegetation will control stormwater runoff by preventing soil erosion, reducing runoff volume and velocities, and providing a filter medium. Permanent seeding should optimally be undertaken in the spring from March 21st through May 20th and in late summer from August 15th to October 15th.

5.0 IMPLEMENTATION, MAINTENANCE & GENERAL HOUSEKEEPING

5.1 Construction Phase

Details associated with the implementation and maintenance of the proposed stormwater facilities and erosion control measures during construction are shown on the project drawings. A Construction Sequence has been provided on the project plans to guide the contractor in the installation of the erosion control measures as well as the site plan features. In accordance with NYSDEC SPDES General Permit GP-0-20-001 no phase will exceed the maximum of 5 acres of disturbance at any given time as less than 5 acres of disturbance is proposed. The erosion control plan includes associated details and notes to aid the contractor in implementing the plan.

During construction, a Site Log Book, Appendix E, is required to be kept per NYSDEC SPDES General Permit GP-0-20-001. Erosion and sediment control inspections are required to be conducted as necessary under coverage of the permit (minimum twice a week) and an updated logbook and a copy of the SWPPP is required to be kept on site for the duration of the construction activities. The Construction Site Log Book is an appendix taken from the *New York Standards and Specifications for Erosion and Sediment Control* (Blue Book).

In addition to the proposed erosion and sediment control facilities, the following good housekeeping best management practices shall be implemented to mitigate potential pollution during the construction phase of the project. The general contractor overseeing the day-to-day site operation shall be responsible for the good housekeeping best management practices included in the following general categories:

- Material Handling and Waste Management
- Establishment of Building Material Staging Areas
- Establishment of Washout Areas
- Proper Equipment Fueling and Maintenance Practices
- Spill Prevention and Control Plan

All construction waste materials shall be collected and removed from the site regularly by the general contractor. The general contractor shall supply waste barrels for proper disposal of waste materials. All personnel working on the site shall be instructed of the proper procedures for construction waste disposal.

Although it is not anticipated any hazardous waste materials will be utilized during construction, any hazardous waste materials shall be disposed of in accordance with federal, state, and local regulations. No hazardous waste shall be disposed of on-site. Hazardous waste materials shall be stored in appropriate and clearly marked containers and segregated from the other non-waste materials. All hazardous waste shall be stored in a structurally sound and sealed shipping containers located in the staging areas. Material safety data sheets, material inventory, and emergency contact numbers will be maintained in the office trailer. All personnel working on the site shall be instructed of the proper procedures for hazardous waste disposal.

Temporary sanitary facilities (portable toilets) shall be provided on site during the entire length of construction. The sanitary facilities shall be in an alternate area away from the construction activities on the site. The portable toilets shall be inspected weekly for evidence of leaking holding tanks.

All recyclables, including wood pallets, cardboard boxes, and all other recyclable construction scraps shall be disposed of in a designated recycling barrel provided by the contractor and removed from the site regularly. All personnel working on the site shall be instructed of the proper procedures for construction waste recycling.

All construction equipment and maintenance materials shall be stored in a designated staging area. Silt fence shall be installed down gradient of the construction staging area. Shipping containers shall be utilized to store hand tools, small parts, and other construction materials, not taken off site daily. Construction waste barrels, recycling barrels and if necessary hazardous waste containers shall be located within the limits of the construction staging area.

Throughout the construction of the project, several types of vehicles and equipment will be used on-site. Fueling of the equipment shall occur within the limits of the construction staging area. Fuel will be delivered to the site as needed, by the general contractor, or a party chosen by the general contractor. Only minor vehicle equipment maintenance shall occur on-site, all major maintenance shall be performed off-site. All equipment fluids generated from minor maintenance activities shall be disposed of into designated drums and stored in accordance with the hazardous waste storage as previously discussed.

Vehicles and equipment shall be inspected on each day of use. Any leak discovered shall be repaired immediately. All leaking equipment unable to be repaired shall be removed from the site. Ample supplies of absorbent, spill-cleanup materials, and spill kits shall be located in the construction staging area. All spills shall be cleaned up immediately upon discovery. Spent absorbent materials and rags shall be hauled off-site immediately after the spill is cleaned for disposal at a local landfill. All personnel working on the site shall be instructed of the proper procedures for spill prevention and control. Any spill large enough to discharge to surface water will be immediately reported to the local fire / police departments and the National Response Center 1-800-424-8802.

During the initial year of planting, the plants may require watering to germinate and establish. Note that several seedings may be required during the first year to completely establish vegetation on the site.

As shown in the NYSDEC Full Environmental Assessment Form in Appendix J of this report, the project site is located in an area with threatened or endangered animals. The Indiana Bat and is listed as a threatened or endangered animal in the area of the proposed project site. Additional care should be taken during construction to monitor for the Indiana Bat and appropriate measures should be taken for protection of the Indiana Bat if one is to be observed onsite. The following conservation measures are proposed for the project:

- Tree clearing will only occur between the period of October 1 through March 31 when bats are not in the vicinity of the site.
- Lighting on the site will use City of Beacon Planning Board approved light fixtures that have tops that direct light down to minimize light pollution and not interfere with potential bat foraging activities.
- Implementing soil conservation and dust control best management practices, such as watering dry disturbed soil areas to keep dust down, recessed silt fence and anti-tracking pads to prevent erosion and sediment in surface waters on the site.
- Stormwater pond(s) will not be maintained with any chemicals that might adversely affect bats or insect populations on which they may feed.

5.2 Soil Restoration

Soil Restoration is required to be applied across areas of the development site where soils have been disturbed and will be vegetated. The purpose is to recover the original properties and porosity of the soil compacted during construction activity. Soil Restoration is applied in the cleanup, restoration, and landscaping phase of construction followed by the permanent establishment of an appropriate, deep-rooted groundcover to help maintain the restored soil structure. Soil restoration includes mechanical decompaction and compost amendment. The table below describes various soil disturbance activities related to land development, soil types and the requirements for soil restoration for each activity as identified in the Design Manual. Restoration is applied across areas of a development site where soils have been compacted and will be vegetated according to the criteria defined in the table below:

<table>
<tr><th colspan="4">Soil Restoration Requirements[1, 2,4]
(Onsite soils within the limit of disturbance belong to Hydrologic Soil Groups (HSG) D)</th></tr>
<tr><th>Type of Soil Disturbance</th><th colspan="2">Soil Restoration Requirement</th><th>Comments/Examples</th></tr>
<tr><td>No soil disturbance</td><td colspan="2">Restoration not permitted</td><td>Preservation of Natural Features</td></tr>
<tr><td>Minimal soil disturbance</td><td colspan="2">Restoration not required</td><td>Clearing and grubbing</td></tr>
<tr><td rowspan="2">Areas where topsoil is stripped only - no change in grade</td><td>HSG A & B</td><td>HSG C&D</td><td rowspan="2">Protect area from any ongoing construction activities.</td></tr>
<tr><td>Apply 6 inches of topsoil</td><td>Aerate[3] and apply 6 inches of topsoil</td></tr>
<tr><td rowspan="2">Areas of cut or fill</td><td>HSG A &B</td><td>HSG C&D</td><td rowspan="2"></td></tr>
<tr><td>Aerate[1] and apply 6 inches of topsoil</td><td>Apply full Soil Restoration [2]</td></tr>
<tr><td>Heavy traffic areas on site (especially in a zone 5-25 feet around buildings but not within a 5-foot perimeter around foundation walls)</td><td colspan="2">Apply full Soil Restoration (decompaction and compost Enhancement[6])</td><td></td></tr>
<tr><td>Areas where Runoff Reduction and/or Infiltration practices are applied</td><td colspan="2">Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.</td><td>Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single phase operation fence area</td></tr>
</table>

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

1. 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.
2. Per "Deep Ripping and De-compaction, DEC 2008".
3. 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 functions like a mini-subsoiler.
4. During periods of relatively low to moderate subsoil moisture, the disturbed soils are returned to rough grade and the following Soil Restoration steps applied:
   - 5.1. Apply 3 inches of compost over subsoil.
   - 5.2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils.
   - 5.3. Rock-pick until uplifted stone/rock materials of four inches and larger size area cleaned off the site.
   - 5.4. Apply topsoil to a depth of 6 inches.
   - 5.5. Vegetate as required by seeding notes located on the project drawings.
   - 5.6. Tilling should not be performed within the drip line of any existing trees or over any utility installations that are within 24 inches of the surface.
6. Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half inch screen and have a pH suitable to grow desired plants.

After soil restoration is completed an inspector should be able to push a 3/8" metal bar twelve inches into the soil with just body weight. Following decompaction/soil restoration activities, the following maintenance is anticipated during the first year:

- Initial inspections for the first six months (once after each storm greater than a half-inch).
- Reseeding to repair bare or eroding areas to assure grass stabilization.
- Water once every three days for first month, and then provide a half inch of water per week during first year. Irrigation plan may be adjusted according to the rain event.
- Fertilization may be needed in the fall after the first growing season to increase plant vigor.

In order to ensure the soil remains decompacted the following ongoing maintenance is recommended:

- Planting the appropriate ground cover with deep roots to maintain the soil structure.
- Keeping the site free of vehicular and foot traffic or other weight loads. Consider pedestrian footpaths (sometimes it may be necessary to de-thatch the turf every few years).

5.3 Long Term Maintenance Plan

Each spring the paved areas should be cleaned to remove the winter's accumulation of traction sand. After this is completed, all drain inlets sumps and the stormwater basins should be cleaned. All pipes should be checked for debris and blockages and cleaned as required. During the cleaning process, the drain inlets, catch basins, and pipes should be inspected for structural integrity and overall condition; repairs and/or replacement will be made as required.

The stormwater facilities for the subject project have been designed to minimize the required maintenance. This section discusses the minimum maintenance requirements to insure long-term performance of the stormwater facilities. Initially the stormwater facilities will require an increased maintenance and inspection schedule until all portions of the site are stable. Generally, the stormwater facilities consist of either collection and conveyance components or treatment components.

The stormwater collection and conveyance system is composed of HDPE, drainage pipe and precast concrete drainage structures. The owner will assume the maintenance responsibilities for the drainage system. Minimal maintenance is typically required for these facilities. All pipes should be checked for debris and blockages and cleaned as required. All drain inlet sumps, including the sumps within the hydrodynamic separators, shall be inspected bi-annually and cleaned to removed deposited sediment. During the cleaning process, the pipes should be inspected for structural integrity and overall

condition; repairs and/or replacement should be made as required. Additionally, the detention systems shall be checked for deposited sediment as well. Visual inspection of system through the inspection ports shall take place yearly, and the system shall be cleaned / jetted as necessary to remove deposited sediment.

The stormwater facilities have been designed to limit the routine maintenance requirements. Initially the filter will require regular maintenance until the permanent vegetation is established. Permanent vegetation is considered established when 80% of the final plant density is established. Vegetation should be inspected weekly during construction as part of coverage under NYSDEC SPDES General Permit GP-0-20-001 during construction and in the permanent condition. Damaged areas should be immediately re-seeded and re-mulched. The floor of the filter will be planted with a seed mixture that contains plants that are tolerant of occasional flooding. The seed mixtures contain several plant species that vary slightly in their needs for survival. It is expected that not all of the species will survive within the basin due to variations such as water, nutrients, and light. During the initial year of planting, the plants may require watering to germinate and become established. Note that several seedings may be required during the first year to completely establish vegetation within the basin. After the initial year of establishment, the filter does not need to be fertilized or watered. A natural selection process will occur over the first few years, such that the species within the seed mixture most suitable to the conditions will survive.

Refer to the Infiltration Trench and Basin Inspection & Maintenance checklist found in Appendix G of this report prepared for all portions of this project the requirements to insure long-term performance of all stormwater facilities

Refer to the Hydroworks Hydrostorm Operations & Maintenance Manual in Appendix H of this report for the manufacture maintenance requirements for the proposed hydrodynamic separator.

APPENDIX A

NYSDEC Water Quality Volume and Runoff Reduction Calculations

WQv Calculation Worksheet

Project: Beacon Views, LLC
Project #: 19131.100
Date: 5/26/2020

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

The following calculation determines the water quality flow rate for the 90% Water Quality Event using the Small Storm Hydrology Method specified in Appendix B of the New York State Stormwater Management Design Manual.

Subcatchment ID: 1.1

1.Water Quality Volume $=WQ_v = \frac{P * R_v * A}{12}$

P = WQv 24-hour Rainfall Amount	=	1.4	in.
A = Subcatchment Area	=	135400	SF
Ai= Impervious Area within Subcatchment Area	=	90500	
I = Ai/A	=	66.8	%
Rv = 0.05 + 0.009 (I%)	=	0.65	
WQv = Water Quality Volume	=	10,268	CF

Subcatchment ID: 1.2

1.Water Quality Volume $=WQ_v = \frac{P * R_v * A}{12}$

P = WQv 24-hour Rainfall Amount	=	1.4	in.
A = Subcatchment Area	=	21800	SF
Ai= Impervious Area within Subcatchment Area	=	19100	
I = Ai/A	=	87.6	%
Rv = 0.05 + 0.009 (I%)	=	0.84	
WQv = Water Quality Volume	=	2,136	CF

WQv Calculation Worksheet

Project: Beacon Views, LLC
Project #: 19131.100
Date: 5/26/2020

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

The following calculation determines the water quality flow rate for the 90% Water Quality Event using the Small Storm Hydrology Method specified in Appendix B of the New York State Stormwater Management Design Manual.

Subcatchment ID: 1.3S

1.Water Quality Volume $=WQ_v = \frac{P * R_v * A}{12}$

P = WQv 24-hour Rainfall Amount	=	1.4	in.
A = Subcatchment Area	=	16480	SF
Ai= Impervious Area within Subcatchment Area	=	8140	
I = Ai/A	=	49.4	%
Rv = 0.05 + 0.009 (I%)	=	0.49	
WQv = Water Quality Volume	=	942	CF

RRv Calculation Worksheet - Design Line 1

Project: Beacon Views, LLC
Project #: 19131.100
Date: 5/26/2020

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

1. RRv Initial = Water Quality Volume (WQv) *0.306 ac-ft* = *13,346 c.f.*
(refer to Water Quality Volume Calculation Sheet)

2. *RRv Minimum* = [(P) (Rv) (S) (Aic)] /12 where…

P = Rainfall (in.)	=	1.40	in.
Rv = 0.05 + 0.009 (100%)	=	0.95	
S = Hydrologic Soil Group Specific Reduction Factor	=	0.20	
[HSG A = 0.55] [HSG B = 0.40] [HSG C = 0.30] [HSG D = 0.20]			
Aic = Total area of new impervious cover	=	2.8	Acres
RRv Minimum	=	*2,704*	*c.f.*

3. *RRv Required* = RRv Initial - Green Infrastructure Practice (GIP) with Area Reduction

GIP with Area Reduction Applied in Project		
5.3.1 Conservation of Natural Area	N/A	
5.3.2 Sheet Flow to Riparian Buffers or Filter Strips	N/A	
5.3.4 Tree Planting / Tree Box (37 trees at 100 s.f. per tree)		c.f.
5.3.5 Disconnection of Rooftop Runoff	-	
5.3.6 Stream Daylighting	N/A	
RRv Required(=WQv-RRV by area)	= 13,346	c.f.

4. *RRv Provided*

GIP with Volume Reduction Applied in Project	WQv Treated (c.f.)	% of WQv Applied to *RRv Provided*	*RRv Provided (c.f.)*
5.3.3 Vegetated Open Swales		20%	0
[HSG A / B = 20%] [HSG C / D = 10%] {Modified HSG C - D = 15% - 12%]		10%	0
5.3.7 Rain Garden		40%	0
[No underdrains / Good Soils = 100%] [With underdrains / Poor Soils = 40%]			
5.3.8 Green Roof		100%	N/A
[RRv provided equals volume provided in Green Roof]			
5.3.9 Stormwater Planters		45%	N/A
[Infiltration Planters = 100%] [Flow Through HSG C = 45%] [Flow Though HSG D = 30%]			
5.3.10 Rain Tank / Cisterns		100%	N/A
5.3.11 Porous Pavement		100%	0
Infiltration Practice (Standard SMP)	3572	100%	3,572
Bioretention Practice (Standard SMP)	709	40%	284
[Without Underdrains HSG A/B = 80%] [With Underdrain HSG C\D = 40%]			
Dry Swale (Open Channel Practice) (Standard SMP)		20%	N/A
[HSG A/B = 40%] [HSG C/D = 20%]			
RRv Provided =			*3,856*

5. Summary

RRv Initial	=	13,346 c.f.	
RRv Required	=	13,346 c.f.	
RRv Minimum	=	2,704 c.f.	
RRv Provided	=	3,856 c.f.	
WQv Required for Downstream SMP	=	9,490 c.f.	(= RRv Required - RRv Provided)

Is RRv Provided greater than or equal to RRv Minimum? Yes

APPENDIX B

Pre-Development Computer Data

Subcat Reach Pond Link

Routing Diagram for Pre Development

Prepared by Insite Engineering, Surveying & Landscape Architecture, P.C., Printed 6/30/2020

HydroCAD® 10.00-15 s/n 02171 © 2015 HydroCAD Software Solutions LLC

Summary for Subcatchment PRE:

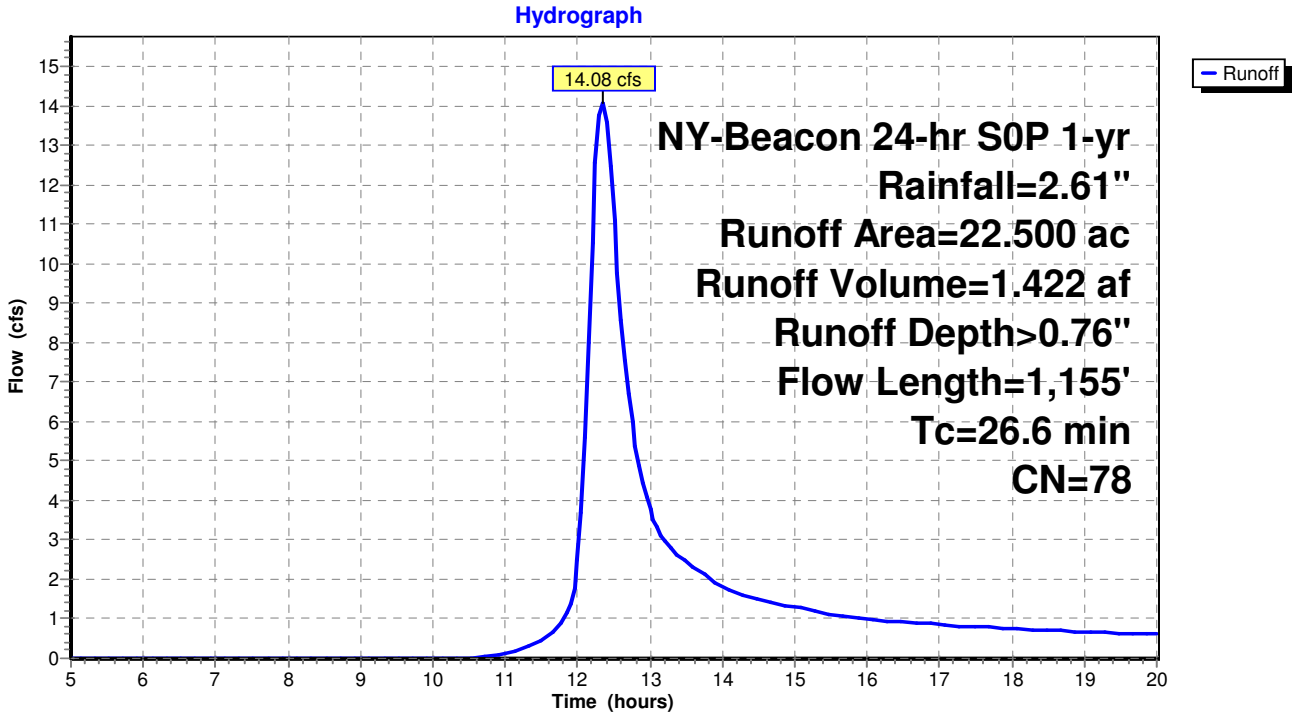
Runoff = 14.08 cfs @ 12.34 hrs, Volume= 1.422 af, Depth> 0.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

Area (ac)	CN	Description
15.700	77	Woods, Good, HSG D
5.800	78	Meadow, non-grazed, HSG D
0.500	80	>75% Grass cover, Good, HSG D
0.500	98	Paved parking, HSG D
22.500	78	Weighted Average
22.000		97.78% Pervious Area
0.500		2.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.9	100	0.0600	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.16"
4.7	345	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.4	170	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.6	340	0.1000	1.58		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.0	200	0.0500	1.12		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
26.6	1,155	Total			

Subcatchment PRE:



Summary for Subcatchment PRE:

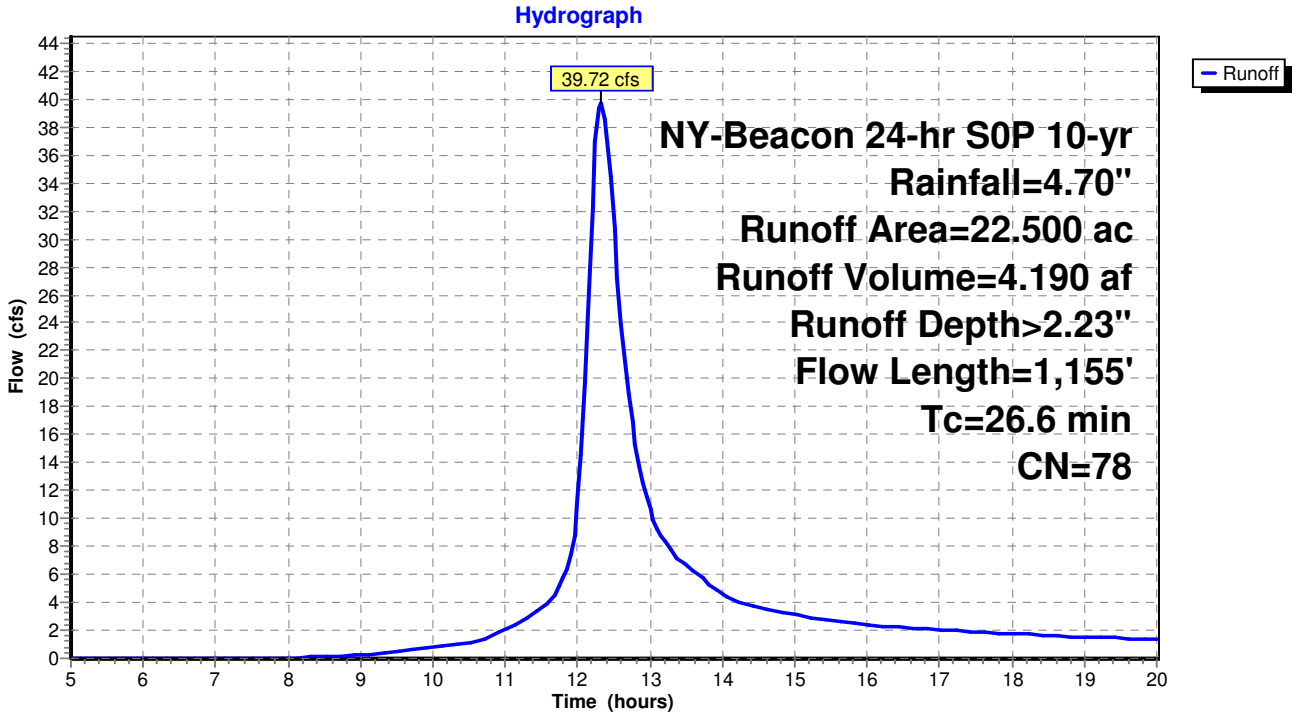
Runoff = 39.72 cfs @ 12.33 hrs, Volume= 4.190 af, Depth> 2.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

Area (ac)	CN	Description
15.700	77	Woods, Good, HSG D
5.800	78	Meadow, non-grazed, HSG D
0.500	80	>75% Grass cover, Good, HSG D
0.500	98	Paved parking, HSG D
22.500	78	Weighted Average
22.000		97.78% Pervious Area
0.500		2.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.9	100	0.0600	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.16"
4.7	345	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.4	170	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.6	340	0.1000	1.58		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.0	200	0.0500	1.12		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
26.6	1,155	Total			

Subcatchment PRE:



Summary for Subcatchment PRE:

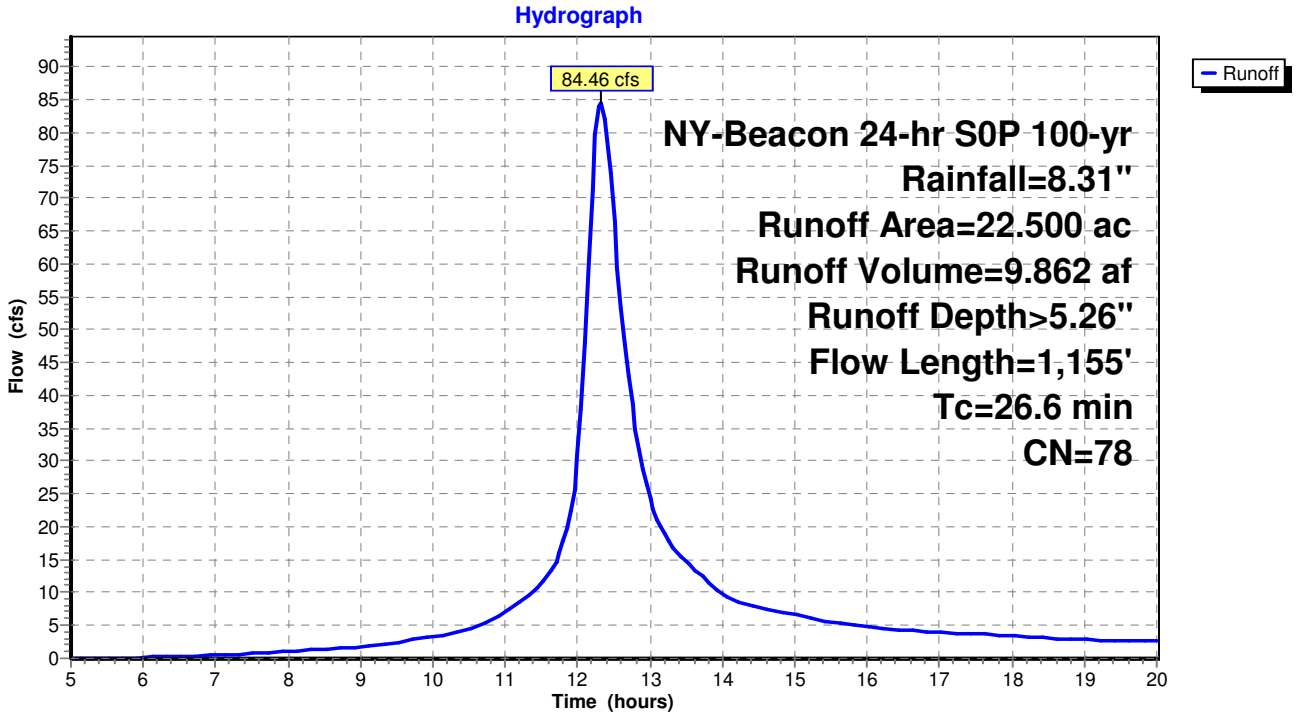
Runoff = 84.46 cfs @ 12.32 hrs, Volume= 9.862 af, Depth> 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

Area (ac)	CN	Description
15.700	77	Woods, Good, HSG D
5.800	78	Meadow, non-grazed, HSG D
0.500	80	>75% Grass cover, Good, HSG D
0.500	98	Paved parking, HSG D
22.500	78	Weighted Average
22.000		97.78% Pervious Area
0.500		2.22% Impervious Area

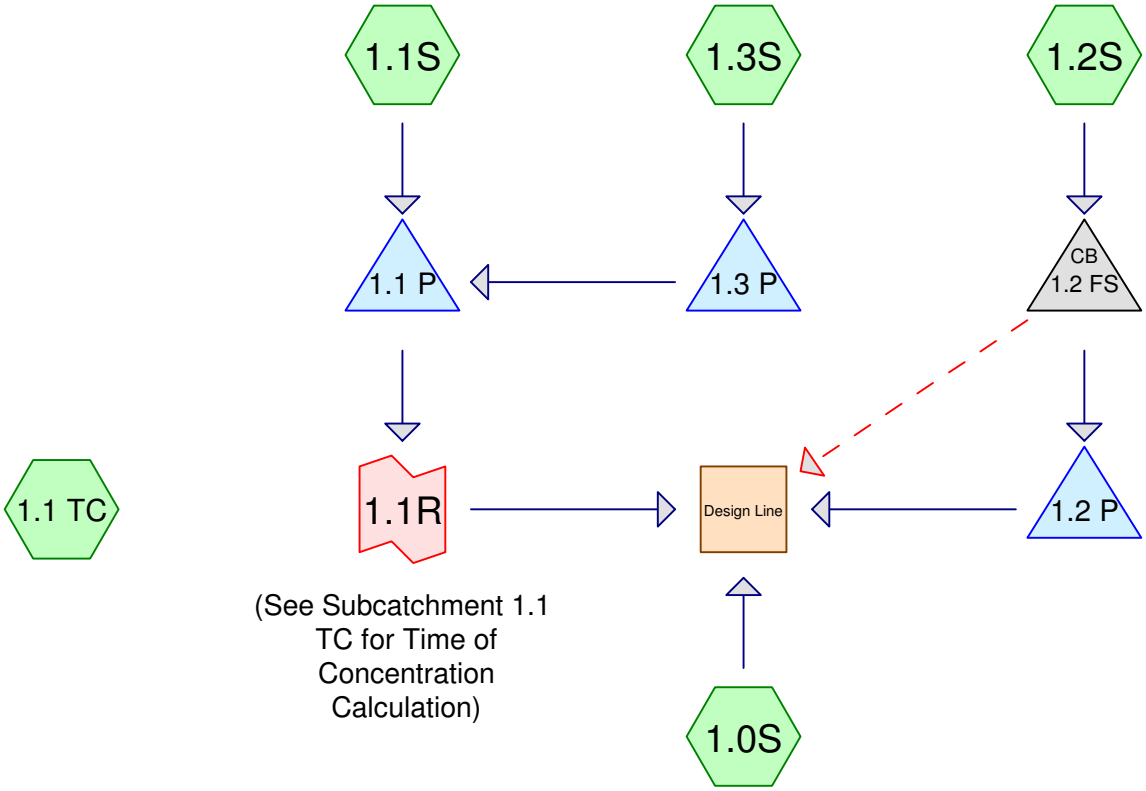
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.9	100	0.0600	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.16"
4.7	345	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.4	170	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.6	340	0.1000	1.58		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.0	200	0.0500	1.12		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
26.6	1,155	Total			

Subcatchment PRE:



APPENDIX C

Post-Development Computer Data



Subcat Reach Pond Link

Routing Diagram for Post Development

Prepared by Insite Engineering, Surveying & Landscape Architecture, P.C., Printed 6/30/2020

HydroCAD® 10.00-15 s/n 02171 © 2015 HydroCAD Software Solutions LLC

Summary for Subcatchment 1.0S:

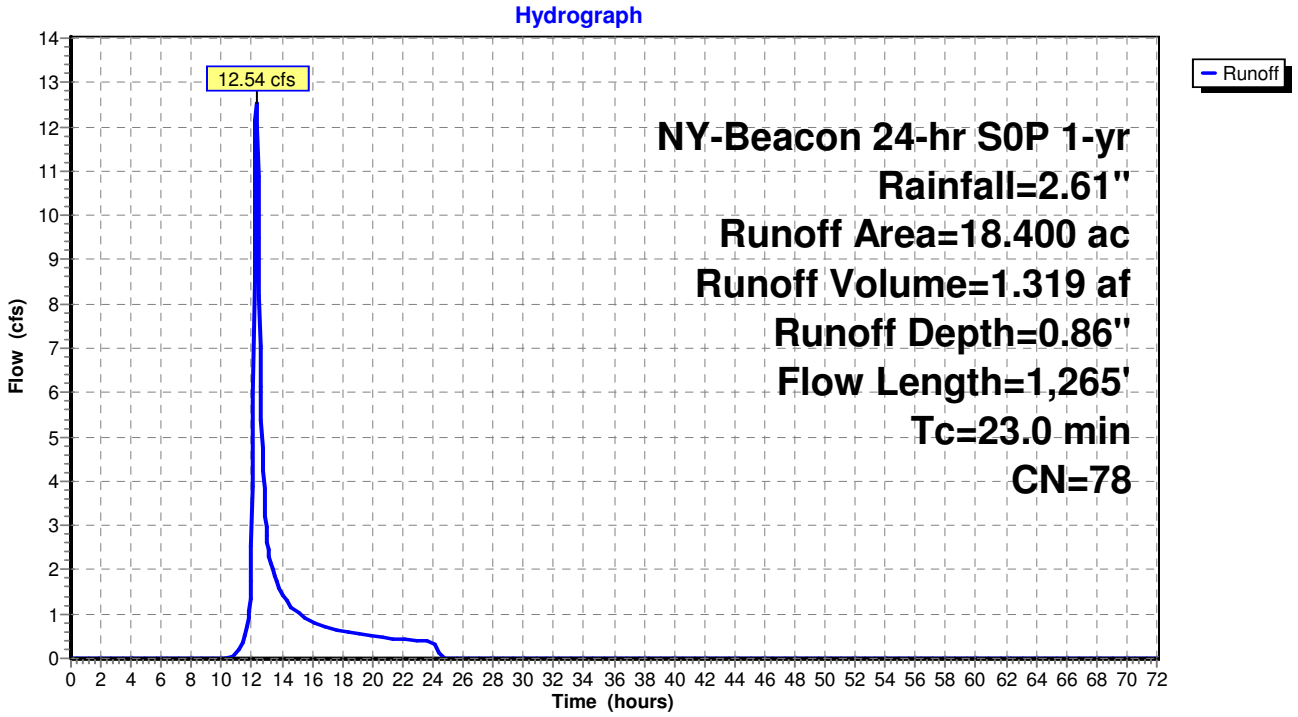
Runoff = 12.54 cfs @ 12.30 hrs, Volume= 1.319 af, Depth= 0.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

Area (ac)	CN	Description
11.100	77	Woods, Good, HSG D
5.800	78	Meadow, non-grazed, HSG D
1.000	80	>75% Grass cover, Good, HSG D
0.500	98	Paved parking, HSG D
18.400	78	Weighted Average
17.900		97.28% Pervious Area
0.500		2.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	100	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.16"
4.7	345	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.4	170	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.1	280	0.0900	1.50		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.2	235	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.1	55	0.0450	11.17	13.70	**Pipe Channel, SDI 14A TO DI 14** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.1	80	0.0410	14.58	45.81	**Pipe Channel, DI 14 TO ES 13** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
23.0	1,265	Total			

Subcatchment 1.0S:



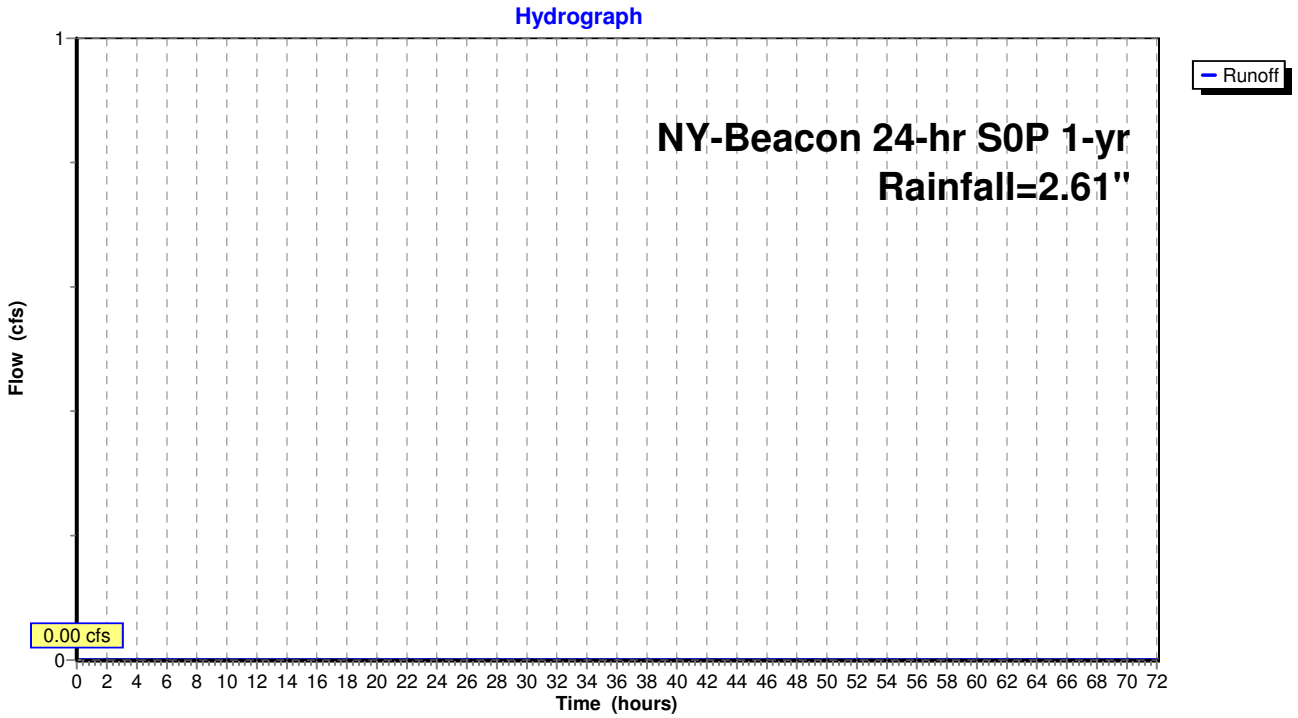
Summary for Subcatchment 1.1 TC:

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.4	100	0.0300	0.09		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.16"
0.6	30	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
19.0	130	Total			

Subcatchment 1.1 TC:



Summary for Subcatchment 1.1S:

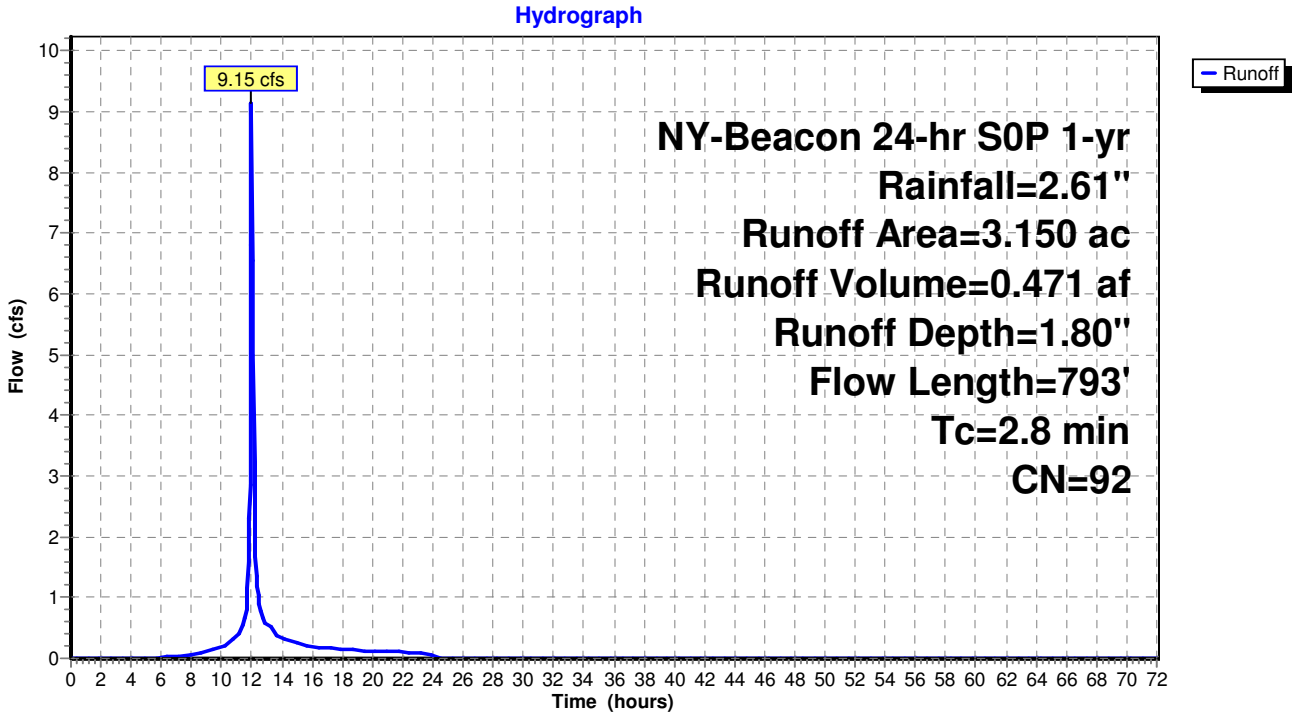
Runoff = 9.15 cfs @ 12.00 hrs, Volume= 0.471 af, Depth= 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

Area (ac)	CN	Description
2.150	98	Paved parking, HSG D
1.000	80	>75% Grass cover, Good, HSG D
3.150	92	Weighted Average
1.000		31.75% Pervious Area
2.150		68.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0600	2.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.7	200	0.0500	4.54		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	35	0.0120	4.97	3.90	**Pipe Channel, CB 6 TO CB 5** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.5	183	0.0130	6.00	7.37	**Pipe Channel, CB 5 TO CB 4** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.4	136	0.0100	5.94	10.50	**Pipe Channel, CB 4 TO CB 3** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
0.2	63	0.0100	5.94	10.50	**Pipe Channel, CB 3 TO CB 2** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
0.1	76	0.0360	11.28	19.93	**Pipe Channel, CB 2 TO ES 1** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
2.8	793	Total			

Subcatchment 1.1S:



Summary for Subcatchment 1.2S:

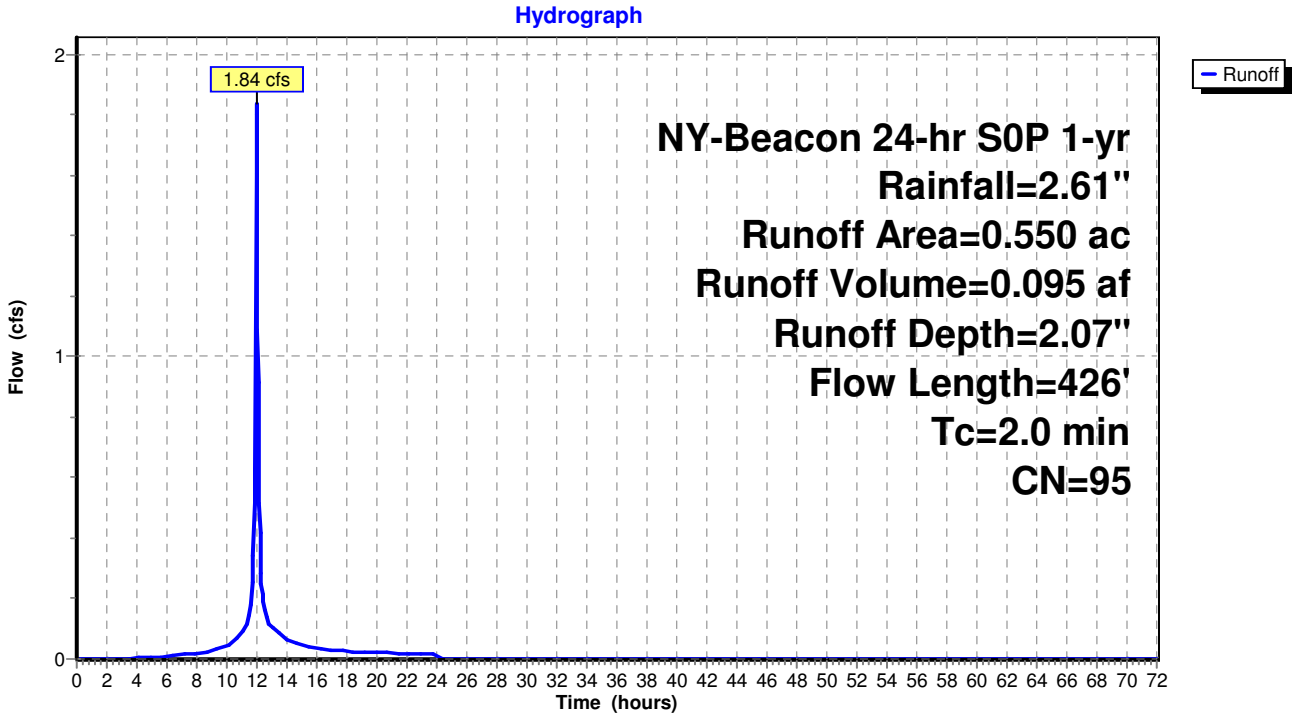
Runoff = 1.84 cfs @ 11.99 hrs, Volume= 0.095 af, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

Area (ac)	CN	Description
0.450	98	Paved parking, HSG D
0.100	80	>75% Grass cover, Good, HSG D
0.550	95	Weighted Average
0.100		18.18% Pervious Area
0.450		81.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0600	2.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.4	120	0.0600	4.97		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.7	160	0.0350	3.80		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	46	0.0300	7.86	6.17	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
2.0	426	Total			

Subcatchment 1.2S:



Summary for Subcatchment 1.3S:

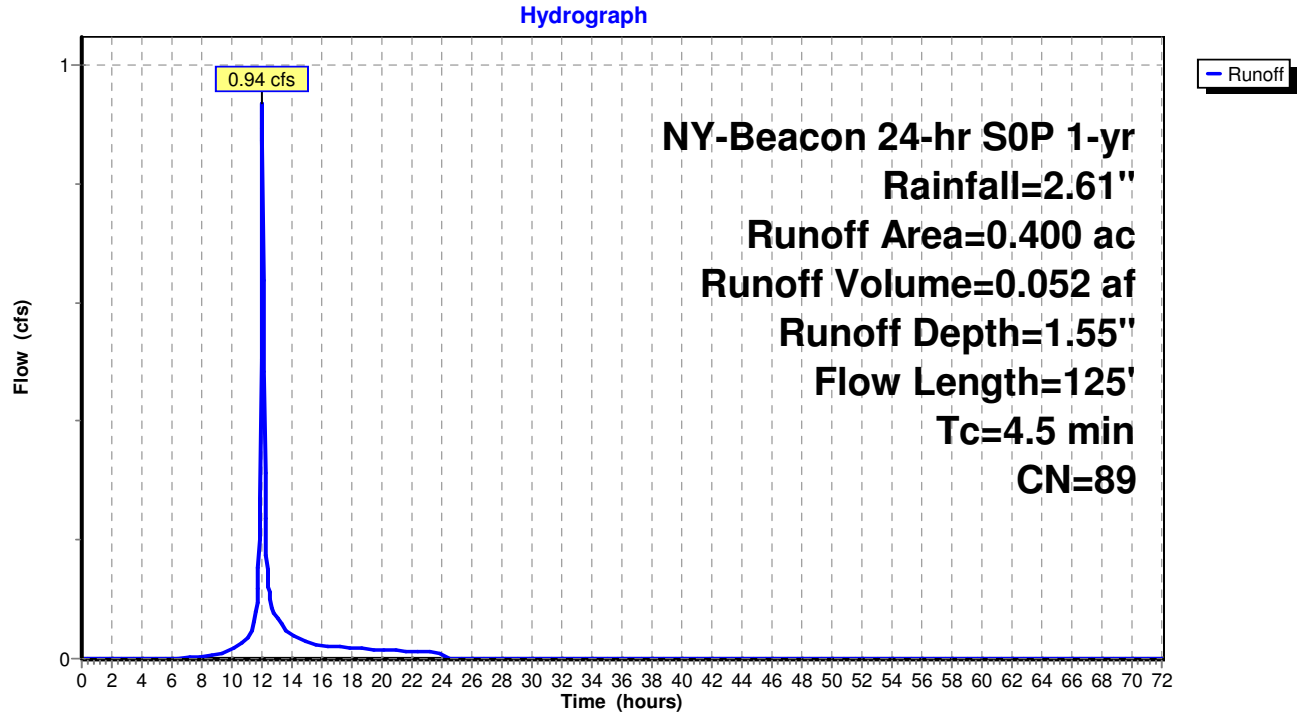
Runoff = 0.94 cfs @ 12.02 hrs, Volume= 0.052 af, Depth= 1.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

Area (ac)	CN	Description
0.200	98	Paved parking, HSG D
0.200	80	>75% Grass cover, Good, HSG D
0.400	89	Weighted Average
0.200		50.00% Pervious Area
0.200		50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	85	0.1100	0.32		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.16"
0.1	40	0.0500	4.54		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
4.5	125	Total			

Subcatchment 1.3S:

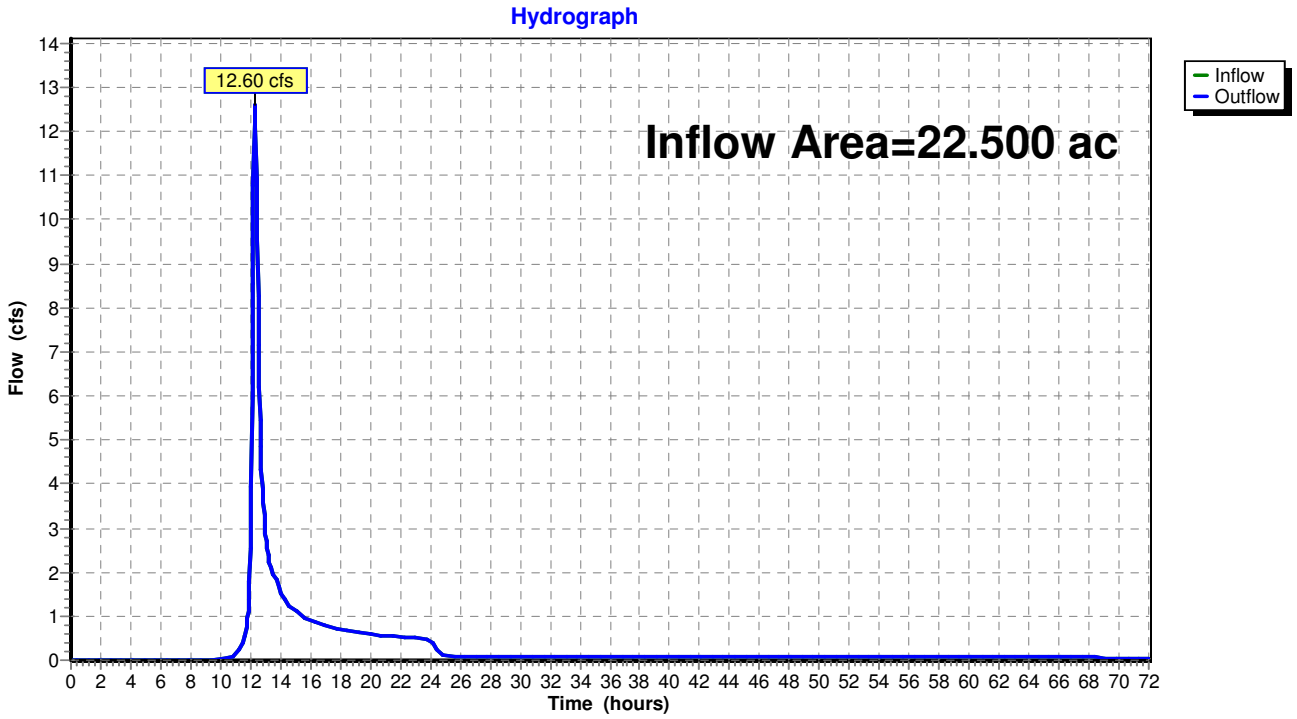


Summary for Reach Design Line:

Inflow Area = 22.500 ac, 14.67% Impervious, Inflow Depth > 0.92" for 1-yr event
Inflow = 12.60 cfs @ 12.30 hrs, Volume= 1.732 af
Outflow = 12.60 cfs @ 12.30 hrs, Volume= 1.732 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach Design Line:



Summary for Pond 1.1 P:

Inflow Area = 3.550 ac, 66.20% Impervious, Inflow Depth = 1.77" for 1-yr event
Inflow = 9.15 cfs @ 12.00 hrs, Volume= 0.523 af
Outflow = 0.11 cfs @ 22.64 hrs, Volume= 0.415 af, Atten= 99%, Lag= 638.7 min
Primary = 0.11 cfs @ 22.64 hrs, Volume= 0.415 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 180.00' Surf.Area= 7,640 sf Storage= 10,715 cf
Peak Elev= 182.13' @ 22.64 hrs Surf.Area= 13,303 sf Storage= 28,184 cf (17,469 cf above start)
Flood Elev= 184.50' Surf.Area= 19,225 sf Storage= 60,459 cf (49,744 cf above start)

Plug-Flow detention time= 2,721.1 min calculated for 0.169 af (32% of inflow)
Center-of-Mass det. time= 1,465.2 min (2,322.0 - 856.8)

Volume	Invert	Avail.Storage	Storage Description
#1	175.00'	2,050 cf	**Forebay (Prismatic)** Listed below (Recalc)
#2	175.00'	67,360 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		69,410 cf	Total Available Storage

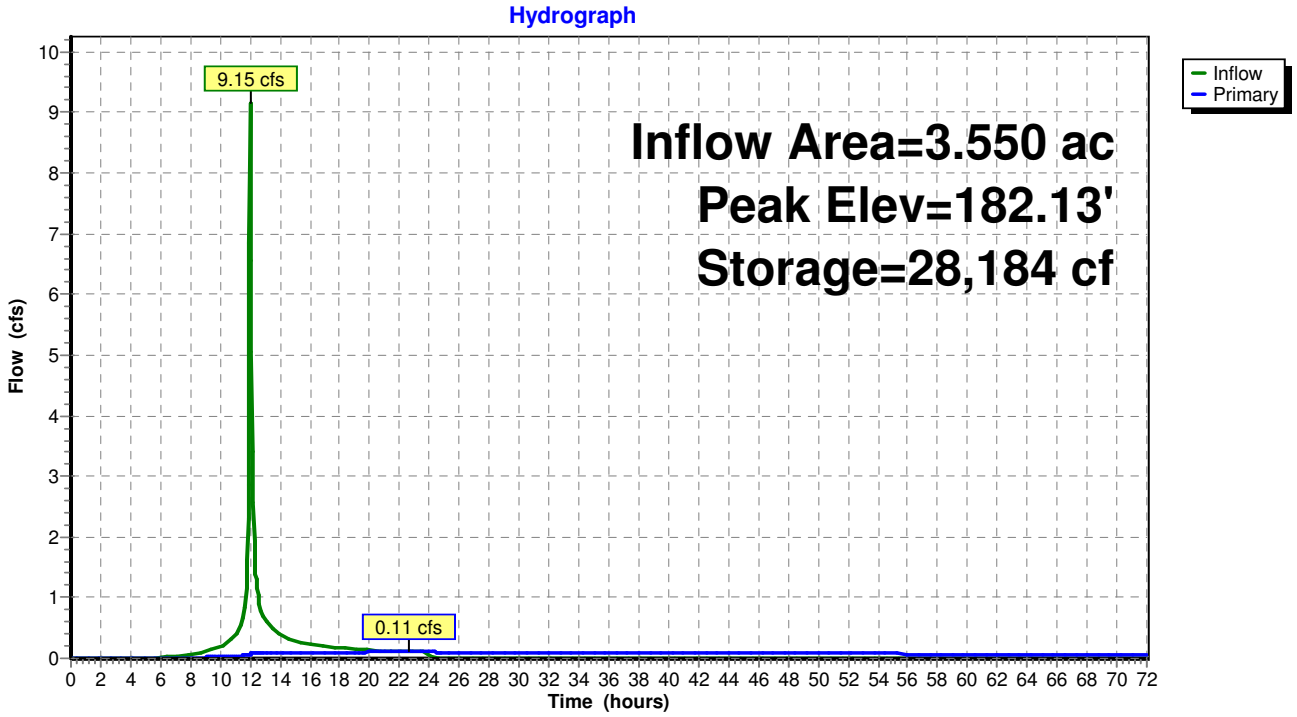
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
175.00	5	0	0
177.00	110	115	115
179.00	450	560	675
180.00	2,300	1,375	2,050

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
175.00	500	0	0
177.00	1,180	1,680	1,680
179.00	2,090	3,270	4,950
180.00	5,340	3,715	8,665
182.00	10,730	16,070	24,735
184.00	14,970	25,700	50,435
185.00	18,880	16,925	67,360

Device	Routing	Invert	Outlet Devices
#1	Primary	179.00'	**18.0" Round Culvert** L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 179.00' / 178.50' S= 0.0135 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	180.00'	**1.6" Vert. Orifice/Grate** C= 0.600
#3	Device 1	182.10'	**1.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.11 cfs @ 22.64 hrs HW=182.13' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 0.11 cfs of 13.12 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.10 cfs @ 6.91 fps)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 0.01 cfs @ 0.47 fps)

Pond 1.1 P:


Hydrograph
Inflow Area=3.550 ac
Peak Elev=182.13'
Storage=28,184 cf
9.15 cfs
0.11 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 1 2 3 4 5 6 7 8 9 10
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72

Stage-Area-Storage for Pond 1.1 P:

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
175.00	0	180.20	11,837
175.10	52	180.30	12,438
175.20	109	180.40	13,067
175.30	169	180.50	13,722
175.40	233	180.60	14,404
175.50	302	180.70	15,113
175.60	374	180.80	15,849
175.70	450	180.90	16,612
175.80	530	181.00	17,403
175.90	613	181.10	18,219
176.00	701	181.20	19,063
176.10	793	181.30	19,934
176.20	889	181.40	20,832
176.30	988	181.50	21,757
176.40	1,092	181.60	22,709
176.50	1,199	181.70	23,687
176.60	1,310	181.80	24,693
176.70	1,426	181.90	25,725
176.80	1,545	182.00	26,785
176.90	1,668	182.10	27,869
177.00	1,795	182.20	28,973
177.10	1,927	182.30	30,099
177.20	2,065	182.40	31,247
177.30	2,210	182.50	32,415
177.40	2,361	182.60	33,605
177.50	2,518	182.70	34,815
177.60	2,681	182.80	36,047
177.70	2,851	182.90	37,301
177.80	3,027	183.00	38,575
177.90	3,209	183.10	39,871
178.00	3,398	183.20	41,187
178.10	3,592	183.30	42,525
178.20	3,793	183.40	43,885
178.30	4,000	183.50	45,265
178.40	4,214	183.60	46,667
178.50	4,433	183.70	48,089
178.60	4,659	183.80	49,533
178.70	4,891	183.90	50,999
178.80	5,130	184.00	52,485
178.90	5,374	184.10	54,002
179.00	5,625	184.20	55,557
179.10	5,904	184.30	57,152
179.20	6,235	184.40	58,786
179.30	6,617	184.50	60,459
179.40	7,049	184.60	62,171
179.50	7,533	184.70	63,922
179.60	8,067	184.80	65,712
179.70	8,652	184.90	67,542
179.80	9,289	185.00	**69,410**
179.90	9,977		
180.00	10,715		
180.10	11,262		

Summary for Pond 1.2 FS:

Inflow Area = 0.550 ac, 81.82% Impervious, Inflow Depth = 2.07" for 1-yr event
Inflow = 1.84 cfs @ 11.99 hrs, Volume= 0.095 af
Outflow = 1.84 cfs @ 11.99 hrs, Volume= 0.095 af, Atten= 0%, Lag= 0.0 min
Primary = 1.84 cfs @ 11.99 hrs, Volume= 0.095 af
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

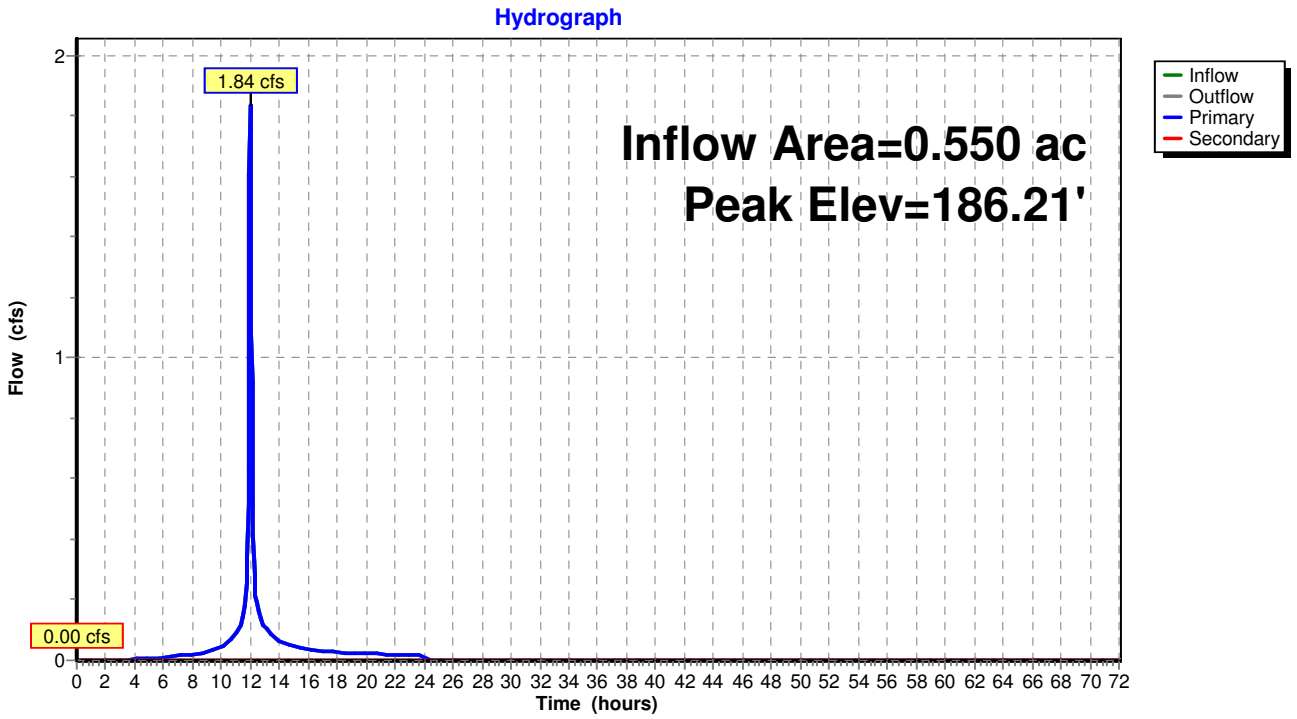
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 186.21' @ 11.99 hrs
Flood Elev= 187.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	184.70'	**8.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 184.70' / 184.50' S= 0.0167 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Secondary	184.70'	**12.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 184.70' / 184.00' S= 0.0233 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	186.20'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.75 cfs @ 11.99 hrs HW=186.11' TW=182.48' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 1.75 cfs @ 5.00 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=184.70' TW=0.00' (Dynamic Tailwater)
└**2=Culvert** (Controls 0.00 cfs)
└**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1.2 FS:


Hydrograph
Inflow Area=0.550 ac
Peak Elev=186.21'
1.84 cfs
0.00 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0 1 2
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72

Stage-Area-Storage for Pond 1.2 FS:

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
184.70	**0**	185.74	0	186.78	0
184.72	0	185.76	0	186.80	0
184.74	0	185.78	0	186.82	0
184.76	0	185.80	0	186.84	0
184.78	0	185.82	0	186.86	0
184.80	0	185.84	0	186.88	0
184.82	0	185.86	0	186.90	0
184.84	0	185.88	0	186.92	0
184.86	0	185.90	0	186.94	0
184.88	0	185.92	0	186.96	0
184.90	0	185.94	0	186.98	0
184.92	0	185.96	0	187.00	0
184.94	0	185.98	0	187.02	0
184.96	0	186.00	0	187.04	0
184.98	0	186.02	0	187.06	0
185.00	0	186.04	0	187.08	0
185.02	0	186.06	0	187.10	0
185.04	0	186.08	0	187.12	0
185.06	0	186.10	0	187.14	0
185.08	0	186.12	0	187.16	0
185.10	0	186.14	0	187.18	0
185.12	0	186.16	0	187.20	0
185.14	0	186.18	0	187.22	0
185.16	0	186.20	0	187.24	0
185.18	0	186.22	0	187.26	0
185.20	0	186.24	0	187.28	0
185.22	0	186.26	0	187.30	0
185.24	0	186.28	0	187.32	0
185.26	0	186.30	0	187.34	0
185.28	0	186.32	0	187.36	0
185.30	0	186.34	0	187.38	0
185.32	0	186.36	0	187.40	0
185.34	0	186.38	0	187.42	0
185.36	0	186.40	0	187.44	0
185.38	0	186.42	0	187.46	0
185.40	0	186.44	0	187.48	0
185.42	0	186.46	0	187.50	0
185.44	0	186.48	0	187.52	0
185.46	0	186.50	0	187.54	0
185.48	0	186.52	0	187.56	0
185.50	0	186.54	0	187.58	0
185.52	0	186.56	0	187.60	0
185.54	0	186.58	0	187.62	0
185.56	0	186.60	0	187.64	0
185.58	0	186.62	0	187.66	0
185.60	0	186.64	0	187.68	0
185.62	0	186.66	0	187.70	0
185.64	0	186.68	0		
185.66	0	186.70	0		
185.68	0	186.72	0		
185.70	0	186.74	0		
185.72	0	186.76	0		

Summary for Pond 1.2 P:

Inflow Area = 0.550 ac, 81.82% Impervious, Inflow Depth = 2.07" for 1-yr event
Inflow = 1.84 cfs @ 11.99 hrs, Volume= 0.095 af
Outflow = 0.64 cfs @ 11.95 hrs, Volume= 0.095 af, Atten= 65%, Lag= 0.0 min
Discarded = 0.64 cfs @ 11.95 hrs, Volume= 0.095 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 182.77' @ 12.14 hrs Surf.Area= 0.030 ac Storage= 0.013 af

Plug-Flow detention time= 4.0 min calculated for 0.095 af (100% of inflow)
Center-of-Mass det. time= 4.0 min (792.2 - 788.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	182.00'	0.028 af	**34.75'W x 38.04'L x 3.50'H Field A** 0.106 af Overall - 0.037 af Embedded = 0.069 af x 40.0% Voids
#2A	182.50'	0.037 af	**ADS_StormTech SC-740** x 35 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 7 rows
		0.065 af	Total Available Storage

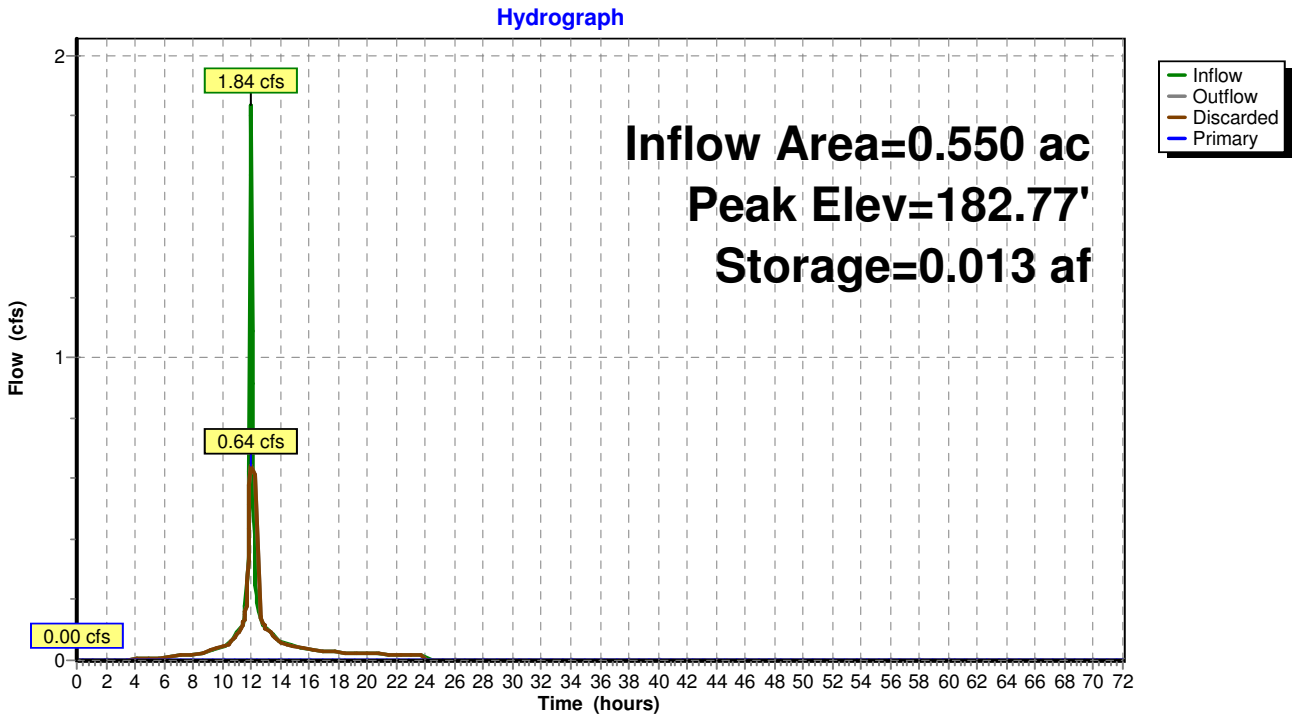
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	182.00'	**21.000 in/hr Exfiltration over Horizontal area** Phase-In= 0.10'
#2	Primary	184.50'	**6.0" Round Culvert** L= 17.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 184.50' / 184.30' S= 0.0118 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=0.64 cfs @ 11.95 hrs HW=182.26' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.64 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=182.00' TW=0.00' (Dynamic Tailwater)
2=Culvert (Controls 0.00 cfs)

Pond 1.2 P:


Hydrograph
Inflow Area=0.550 ac
Peak Elev=182.77'
Storage=0.013 af
1.84 cfs
0.64 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72
0
1
2

Stage-Area-Storage for Pond 1.2 P:

Elevation (feet)	Horizontal (acres)	Storage (acre-feet)
182.00	**0.030**	0.000
182.05	0.030	0.001
182.10	0.030	0.001
182.15	0.030	0.002
182.20	0.030	0.002
182.25	0.030	0.003
182.30	0.030	0.004
182.35	0.030	0.004
182.40	0.030	0.005
182.45	0.030	0.005
182.50	0.030	0.006
182.55	0.030	0.007
182.60	0.030	0.009
182.65	0.030	0.010
182.70	0.030	0.011
182.75	0.030	0.012
182.80	0.030	0.014
182.85	0.030	0.015
182.90	0.030	0.016
182.95	0.030	0.017
183.00	0.030	0.018
183.05	0.030	0.020
183.10	0.030	0.021
183.15	0.030	0.022
183.20	0.030	0.023
183.25	0.030	0.024
183.30	0.030	0.026
183.35	0.030	0.027
183.40	0.030	0.028
183.45	0.030	0.029
183.50	0.030	0.030
183.55	0.030	0.032
183.60	0.030	0.033
183.65	0.030	0.034
183.70	0.030	0.035
183.75	0.030	0.036
183.80	0.030	0.037
183.85	0.030	0.038
183.90	0.030	0.039
183.95	0.030	0.040
184.00	0.030	0.041
184.05	0.030	0.043
184.10	0.030	0.044
184.15	0.030	0.045
184.20	0.030	0.046
184.25	0.030	0.047
184.30	0.030	0.048
184.35	0.030	0.049
184.40	0.030	0.050
184.45	0.030	0.050
184.50	0.030	0.051
184.55	0.030	0.052
184.60	0.030	0.053
184.65	0.030	0.054
184.70	0.030	0.055
184.75	0.030	0.056
184.80	0.030	0.056
184.85	0.030	0.057
184.90	0.030	0.058
184.95	0.030	0.058
185.00	0.030	0.059
185.05	0.030	0.059
185.10	0.030	0.060
185.15	0.030	0.061
185.20	0.030	0.061
185.25	0.030	0.062
185.30	0.030	0.062
185.35	0.030	0.063
185.40	0.030	0.064
185.45	0.030	0.064
185.50	0.030	**0.065**

Summary for Pond 1.3 P:

Inflow Area = 0.400 ac, 50.00% Impervious, Inflow Depth = 1.55" for 1-yr event
Inflow = 0.94 cfs @ 12.02 hrs, Volume= 0.052 af
Outflow = 0.27 cfs @ 12.23 hrs, Volume= 0.052 af, Atten= 71%, Lag= 12.7 min
Primary = 0.27 cfs @ 12.23 hrs, Volume= 0.052 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 192.61' @ 12.23 hrs Surf.Area= 1,630 sf Storage= 886 cf

Plug-Flow detention time= 464.5 min calculated for 0.052 af (100% of inflow)
Center-of-Mass det. time= 465.3 min (1,291.8 - 826.5)

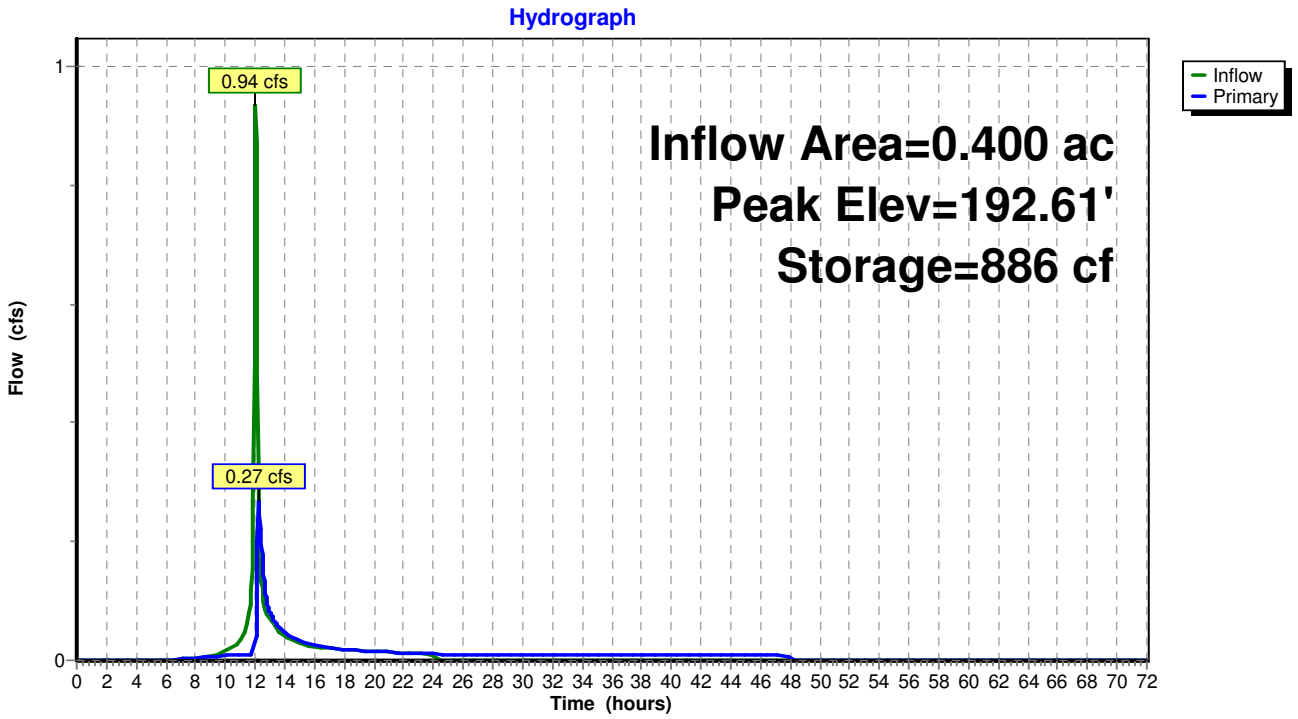
Volume	Invert	Avail.Storage	Storage Description
#1	192.00'	3,720 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
192.00	1,270	0	0
194.00	2,450	3,720	3,720

Device	Routing	Invert	Outlet Devices
#1	Primary	188.20'	**12.0" Round Culvert** L= 62.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 188.20' / 187.50' S= 0.0113 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	192.00'	**0.250 in/hr Exfiltration over Horizontal area**
#3	Device 1	192.50'	**2.5' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.26 cfs @ 12.23 hrs HW=192.61' TW=181.47' (Dynamic Tailwater)
└**1=Culvert** (Passes 0.26 cfs of 6.88 cfs potential flow)
  └**2=Exfiltration** (Exfiltration Controls 0.01 cfs)
  └**3=Broad-Crested Rectangular Weir** (Weir Controls 0.26 cfs @ 0.93 fps)

Pond 1.3 P:


Hydrograph
Inflow Area=0.400 ac
Peak Elev=192.61'
Storage=886 cf
0.94 cfs
0.27 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0
1
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72

Stage-Area-Storage for Pond 1.3 P:

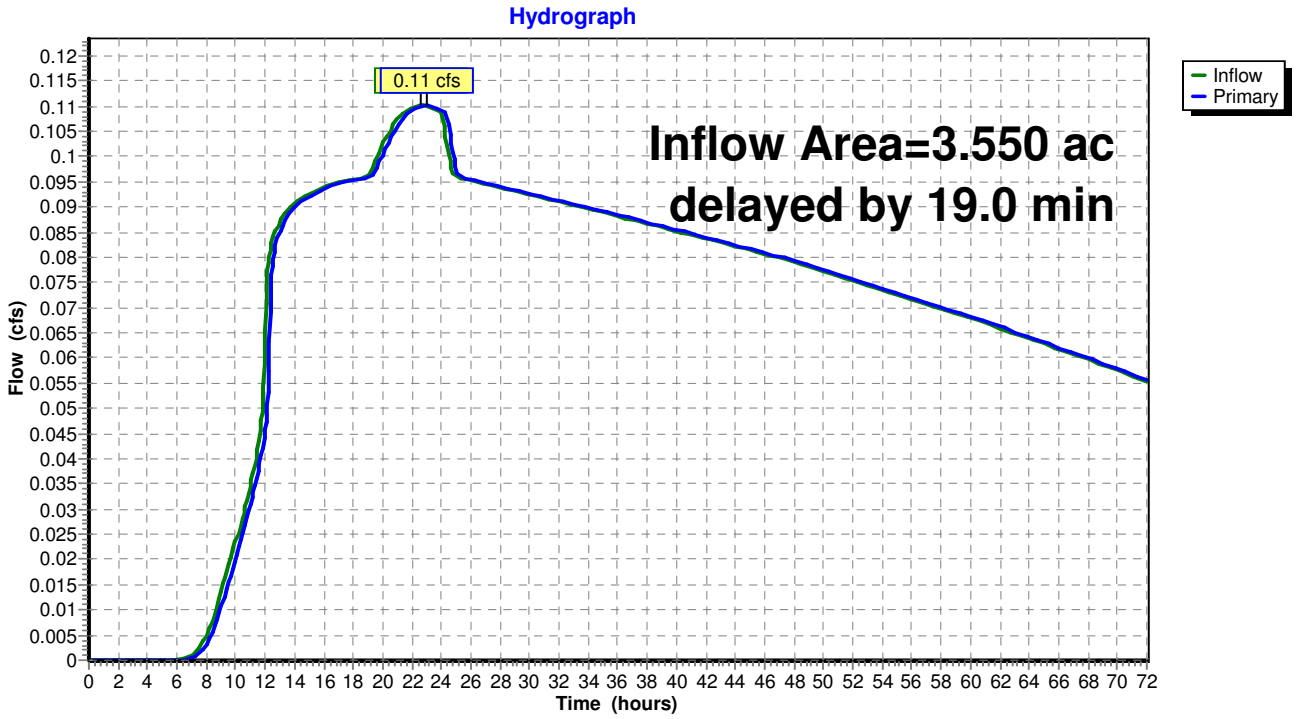
Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
192.00	1,270	1,270	0
192.05	1,300	1,300	64
192.10	1,329	1,329	130
192.15	1,359	1,359	197
192.20	1,388	1,388	266
192.25	1,418	1,418	336
192.30	1,447	1,447	408
192.35	1,476	1,476	481
192.40	1,506	1,506	555
192.45	1,535	1,535	631
192.50	1,565	1,565	709
192.55	1,595	1,595	788
192.60	1,624	1,624	868
192.65	1,654	1,654	950
192.70	1,683	1,683	1,034
192.75	1,713	1,713	1,118
192.80	1,742	1,742	1,205
192.85	1,771	1,771	1,293
192.90	1,801	1,801	1,382
192.95	1,830	1,830	1,473
193.00	1,860	1,860	1,565
193.05	1,890	1,890	1,659
193.10	1,919	1,919	1,754
193.15	1,949	1,949	1,851
193.20	1,978	1,978	1,949
193.25	2,008	2,008	2,048
193.30	2,037	2,037	2,150
193.35	2,066	2,066	2,252
193.40	2,096	2,096	2,356
193.45	2,125	2,125	2,462
193.50	2,155	2,155	2,569
193.55	2,185	2,185	2,677
193.60	2,214	2,214	2,787
193.65	2,244	2,244	2,899
193.70	2,273	2,273	3,012
193.75	2,303	2,303	3,126
193.80	2,332	2,332	3,242
193.85	2,361	2,361	3,359
193.90	2,391	2,391	3,478
193.95	2,420	2,420	3,598
194.00	**2,450**	**2,450**	**3,720**

Summary for Link 1.1R: (See Subcatchment 1.1 TC for Time of Concentration Calculation)

Inflow Area = 3.550 ac, 66.20% Impervious, Inflow Depth > 1.40" for 1-yr event
Inflow = 0.11 cfs @ 22.64 hrs, Volume= 0.415 af
Primary = 0.11 cfs @ 22.96 hrs, Volume= 0.413 af, Atten= 0%, Lag= 19.0 min

Primary outflow = Inflow delayed by 19.0 min, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 1.1R: (See Subcatchment 1.1 TC for Time of Concentration Calculation)



Summary for Subcatchment 1.0S:

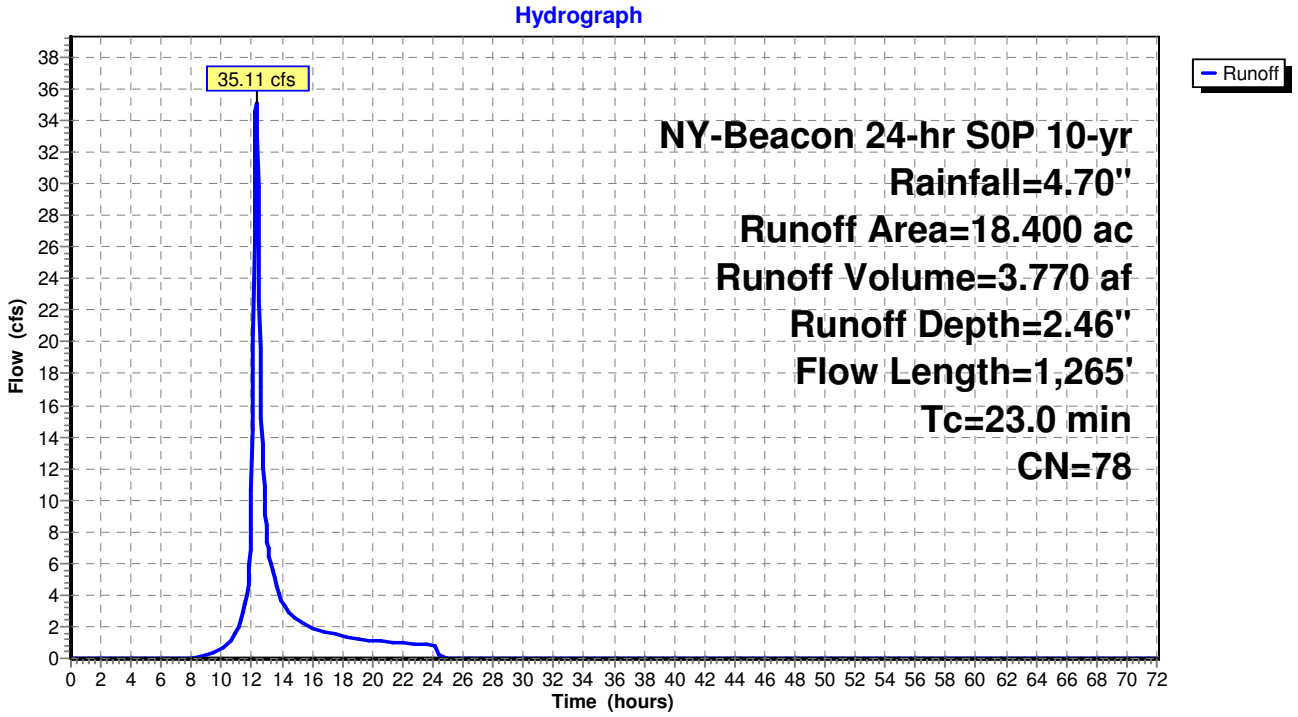
Runoff = 35.11 cfs @ 12.28 hrs, Volume= 3.770 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

Area (ac)	CN	Description
11.100	77	Woods, Good, HSG D
5.800	78	Meadow, non-grazed, HSG D
1.000	80	>75% Grass cover, Good, HSG D
0.500	98	Paved parking, HSG D
18.400	78	Weighted Average
17.900		97.28% Pervious Area
0.500		2.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	100	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.16"
4.7	345	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.4	170	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.1	280	0.0900	1.50		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.2	235	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.1	55	0.0450	11.17	13.70	**Pipe Channel, SDI 14A TO DI 14** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.1	80	0.0410	14.58	45.81	**Pipe Channel, DI 14 TO ES 13** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
23.0	1,265	Total			

Subcatchment 1.0S:



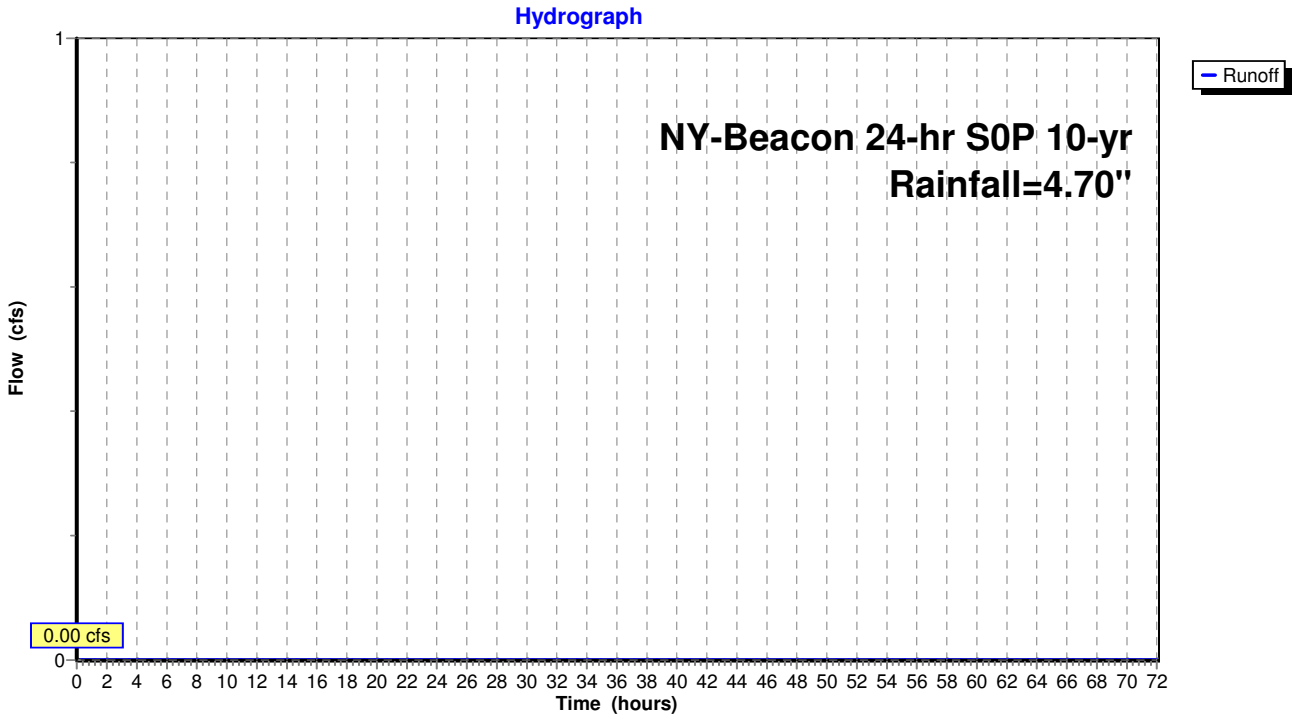
Summary for Subcatchment 1.1 TC:

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.4	100	0.0300	0.09		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.16"
0.6	30	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
19.0	130	Total			

Subcatchment 1.1 TC:



Summary for Subcatchment 1.1S:

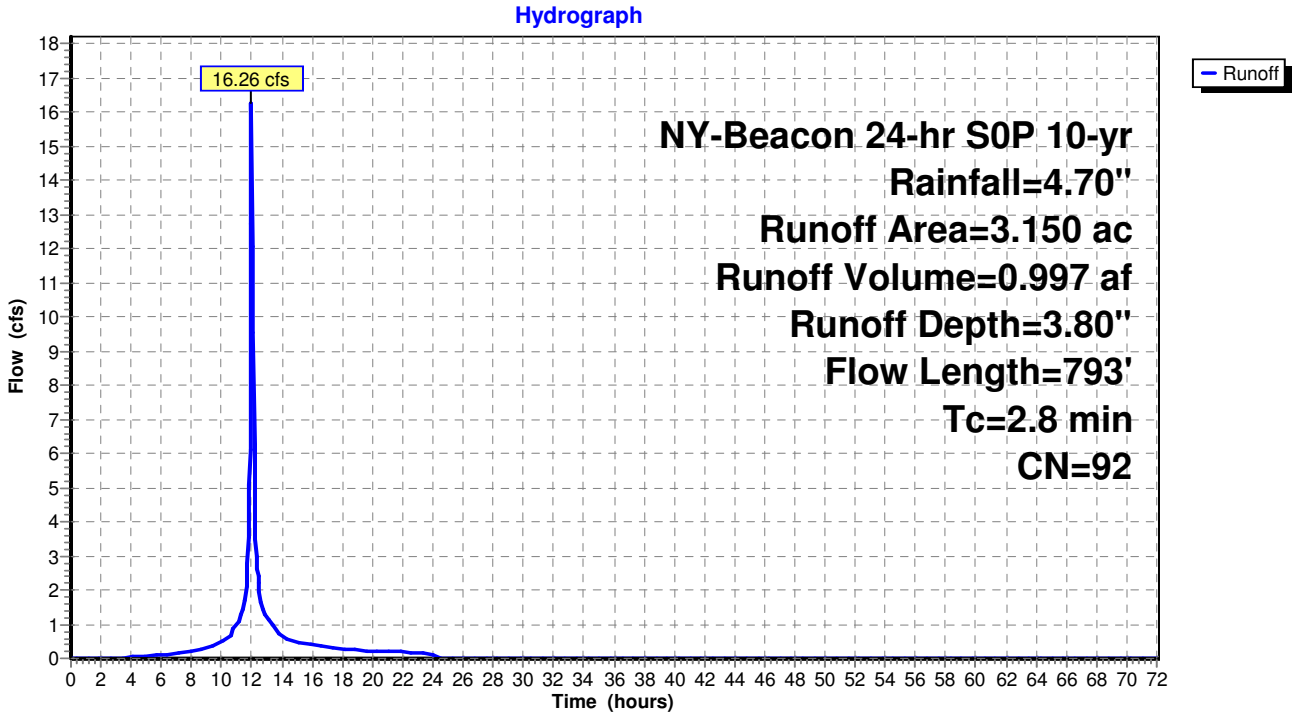
Runoff = 16.26 cfs @ 12.00 hrs, Volume= 0.997 af, Depth= 3.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

Area (ac)	CN	Description
2.150	98	Paved parking, HSG D
1.000	80	>75% Grass cover, Good, HSG D
3.150	92	Weighted Average
1.000		31.75% Pervious Area
2.150		68.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0600	2.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.7	200	0.0500	4.54		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	35	0.0120	4.97	3.90	**Pipe Channel, CB 6 TO CB 5** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.5	183	0.0130	6.00	7.37	**Pipe Channel, CB 5 TO CB 4** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.4	136	0.0100	5.94	10.50	**Pipe Channel, CB 4 TO CB 3** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
0.2	63	0.0100	5.94	10.50	**Pipe Channel, CB 3 TO CB 2** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
0.1	76	0.0360	11.28	19.93	**Pipe Channel, CB 2 TO ES 1** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
2.8	793	Total			

Subcatchment 1.1S:



Summary for Subcatchment 1.2S:

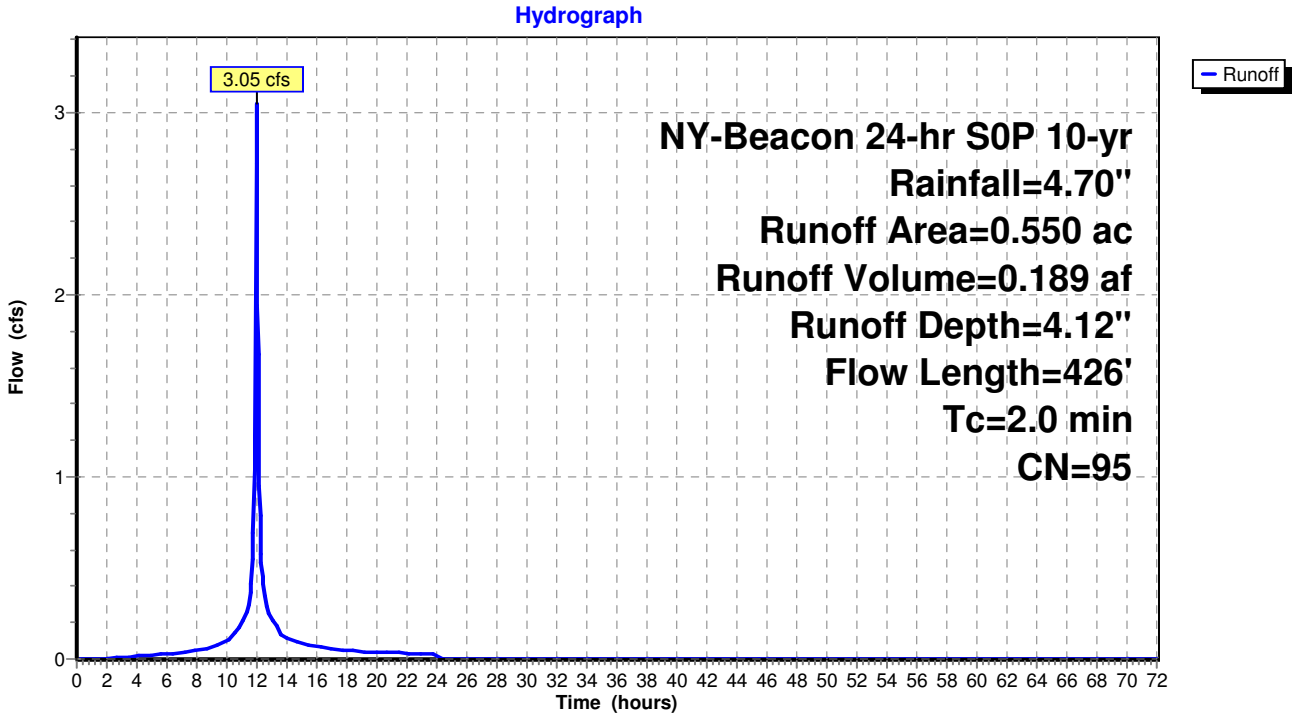
Runoff = 3.05 cfs @ 11.99 hrs, Volume= 0.189 af, Depth= 4.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

Area (ac)	CN	Description
0.450	98	Paved parking, HSG D
0.100	80	>75% Grass cover, Good, HSG D
0.550	95	Weighted Average
0.100		18.18% Pervious Area
0.450		81.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0600	2.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.4	120	0.0600	4.97		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.7	160	0.0350	3.80		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	46	0.0300	7.86	6.17	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
2.0	426	Total			

Subcatchment 1.2S:



Summary for Subcatchment 1.3S:

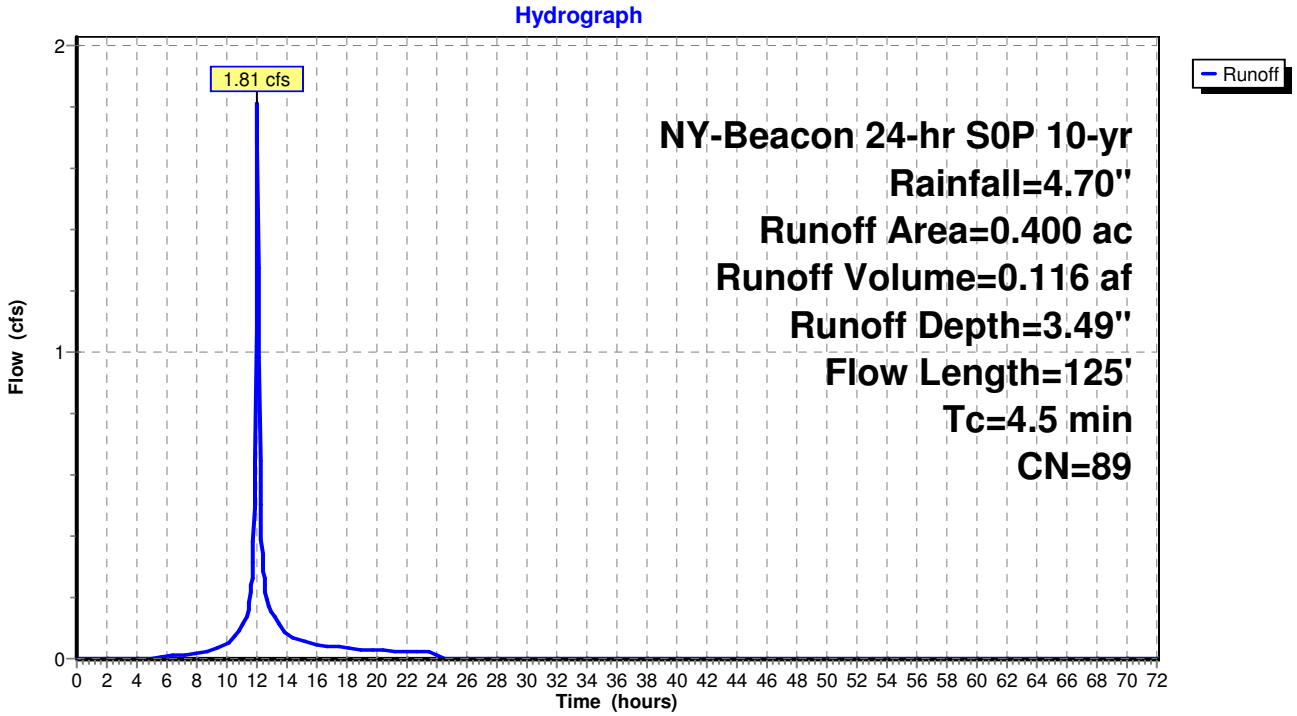
Runoff = 1.81 cfs @ 12.02 hrs, Volume= 0.116 af, Depth= 3.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

Area (ac)	CN	Description
0.200	98	Paved parking, HSG D
0.200	80	>75% Grass cover, Good, HSG D
0.400	89	Weighted Average
0.200		50.00% Pervious Area
0.200		50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	85	0.1100	0.32		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.16"
0.1	40	0.0500	4.54		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
4.5	125	Total			

Subcatchment 1.3S:

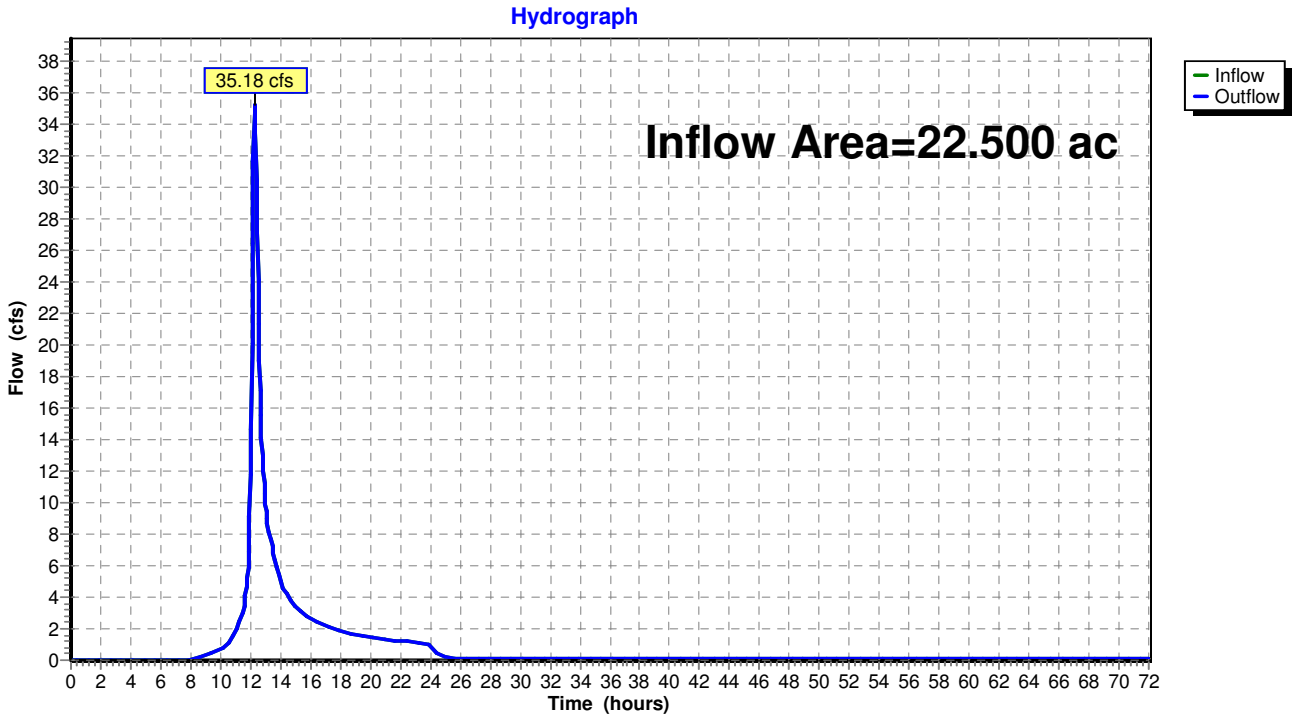


Summary for Reach Design Line:

Inflow Area = 22.500 ac, 14.67% Impervious, Inflow Depth > 2.55" for 10-yr event
Inflow = 35.18 cfs @ 12.28 hrs, Volume= 4.773 af
Outflow = 35.18 cfs @ 12.28 hrs, Volume= 4.773 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach Design Line:



Summary for Pond 1.1 P:

Inflow Area = 3.550 ac, 66.20% Impervious, Inflow Depth = 3.76" for 10-yr event
Inflow = 17.17 cfs @ 12.00 hrs, Volume= 1.113 af
Outflow = 2.13 cfs @ 12.56 hrs, Volume= 0.996 af, Atten= 88%, Lag= 33.8 min
Primary = 2.13 cfs @ 12.56 hrs, Volume= 0.996 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 180.00' Surf.Area= 7,640 sf Storage= 10,715 cf
Peak Elev= 182.83' @ 12.56 hrs Surf.Area= 14,795 sf Storage= 36,450 cf (25,735 cf above start)
Flood Elev= 184.50' Surf.Area= 19,225 sf Storage= 60,459 cf (49,744 cf above start)

Plug-Flow detention time= 1,075.6 min calculated for 0.750 af (67% of inflow)
Center-of-Mass det. time= 702.2 min (1,512.4 - 810.2)

Volume	Invert	Avail.Storage	Storage Description
#1	175.00'	2,050 cf	**Forebay (Prismatic)** Listed below (Recalc)
#2	175.00'	67,360 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		69,410 cf	Total Available Storage

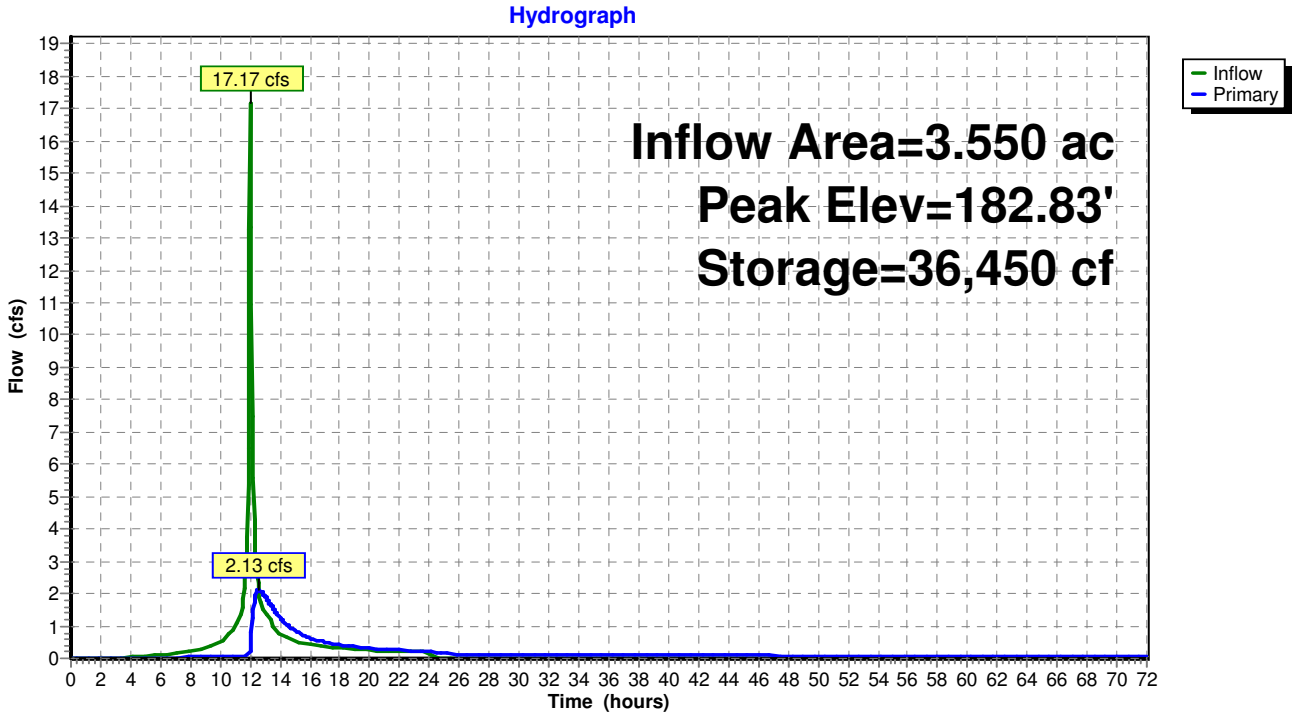
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
175.00	5	0	0
177.00	110	115	115
179.00	450	560	675
180.00	2,300	1,375	2,050

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
175.00	500	0	0
177.00	1,180	1,680	1,680
179.00	2,090	3,270	4,950
180.00	5,340	3,715	8,665
182.00	10,730	16,070	24,735
184.00	14,970	25,700	50,435
185.00	18,880	16,925	67,360

Device	Routing	Invert	Outlet Devices
#1	Primary	179.00'	**18.0" Round Culvert** L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 179.00' / 178.50' S= 0.0135 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	180.00'	**1.6" Vert. Orifice/Grate** C= 0.600
#3	Device 1	182.10'	**1.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.13 cfs @ 12.56 hrs HW=182.83' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 2.13 cfs of 14.94 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 0.11 cfs @ 8.01 fps)
  └─**3=Broad-Crested Rectangular Weir** (Weir Controls 2.02 cfs @ 2.76 fps)

Pond 1.1 P:


Hydrograph
Inflow Area=3.550 ac
Peak Elev=182.83'
Storage=36,450 cf
17.17 cfs
2.13 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72

Stage-Area-Storage for Pond 1.1 P:

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
175.00	0	180.20	11,837
175.10	52	180.30	12,438
175.20	109	180.40	13,067
175.30	169	180.50	13,722
175.40	233	180.60	14,404
175.50	302	180.70	15,113
175.60	374	180.80	15,849
175.70	450	180.90	16,612
175.80	530	181.00	17,403
175.90	613	181.10	18,219
176.00	701	181.20	19,063
176.10	793	181.30	19,934
176.20	889	181.40	20,832
176.30	988	181.50	21,757
176.40	1,092	181.60	22,709
176.50	1,199	181.70	23,687
176.60	1,310	181.80	24,693
176.70	1,426	181.90	25,725
176.80	1,545	182.00	26,785
176.90	1,668	182.10	27,869
177.00	1,795	182.20	28,973
177.10	1,927	182.30	30,099
177.20	2,065	182.40	31,247
177.30	2,210	182.50	32,415
177.40	2,361	182.60	33,605
177.50	2,518	182.70	34,815
177.60	2,681	182.80	36,047
177.70	2,851	182.90	37,301
177.80	3,027	183.00	38,575
177.90	3,209	183.10	39,871
178.00	3,398	183.20	41,187
178.10	3,592	183.30	42,525
178.20	3,793	183.40	43,885
178.30	4,000	183.50	45,265
178.40	4,214	183.60	46,667
178.50	4,433	183.70	48,089
178.60	4,659	183.80	49,533
178.70	4,891	183.90	50,999
178.80	5,130	184.00	52,485
178.90	5,374	184.10	54,002
179.00	5,625	184.20	55,557
179.10	5,904	184.30	57,152
179.20	6,235	184.40	58,786
179.30	6,617	184.50	60,459
179.40	7,049	184.60	62,171
179.50	7,533	184.70	63,922
179.60	8,067	184.80	65,712
179.70	8,652	184.90	67,542
179.80	9,289	185.00	**69,410**
179.90	9,977		
180.00	10,715		
180.10	11,262		

Summary for Pond 1.2 FS:

Inflow Area = 0.550 ac, 81.82% Impervious, Inflow Depth = 4.12" for 10-yr event
Inflow = 3.05 cfs @ 11.99 hrs, Volume= 0.189 af
Outflow = 3.05 cfs @ 11.99 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min
Primary = 1.97 cfs @ 11.98 hrs, Volume= 0.181 af
Secondary = 1.07 cfs @ 11.99 hrs, Volume= 0.008 af

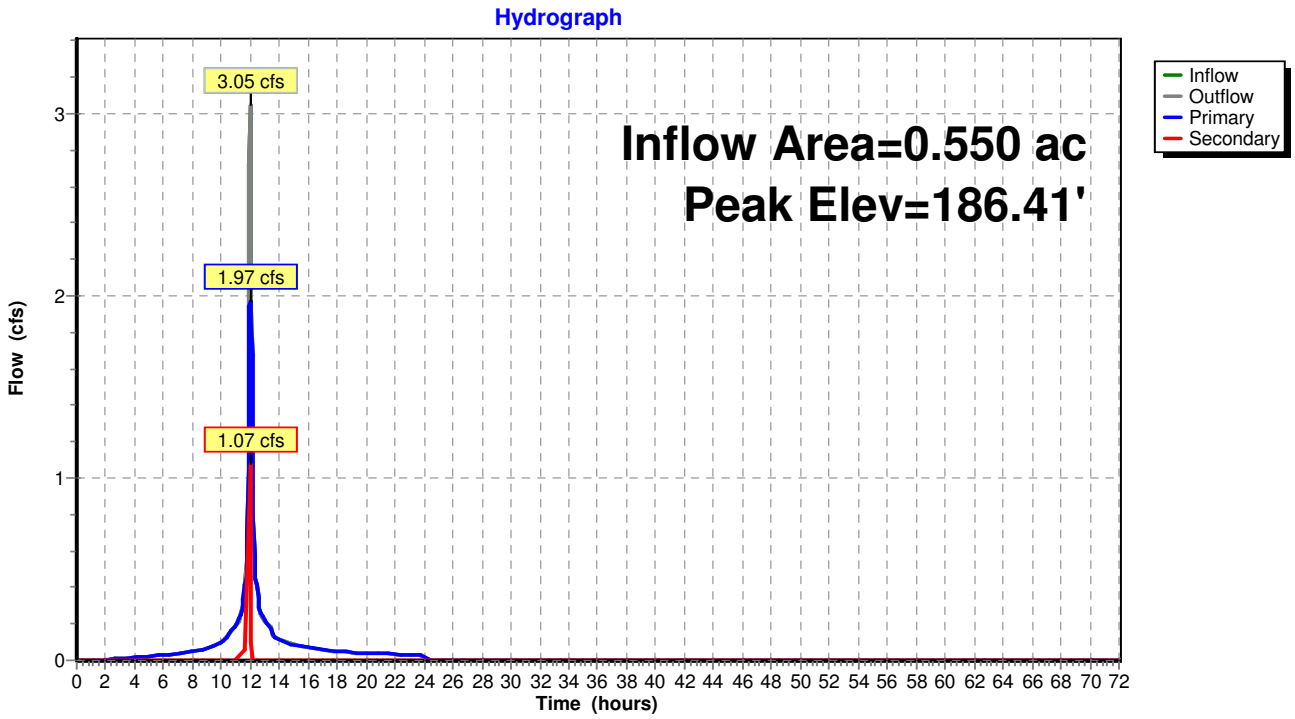
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 186.41' @ 11.98 hrs
Flood Elev= 187.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	184.70'	**8.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 184.70' / 184.50' S= 0.0167 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Secondary	184.70'	**12.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 184.70' / 184.00' S= 0.0233 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	186.20'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.96 cfs @ 11.98 hrs HW=186.39' TW=182.73' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 1.96 cfs @ 5.61 fps)

Secondary OutFlow Max=0.95 cfs @ 11.99 hrs HW=186.39' TW=0.00' (Dynamic Tailwater)
└**2=Culvert** (Passes 0.95 cfs of 4.13 cfs potential flow)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 0.95 cfs @ 1.23 fps)

Pond 1.2 FS:


Hydrograph
Inflow Area=0.550 ac
Peak Elev=186.41'
3.05 cfs
1.97 cfs
1.07 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0 1 2 3
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72

Stage-Area-Storage for Pond 1.2 FS:

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
184.70	**0**	185.74	0	186.78	0
184.72	0	185.76	0	186.80	0
184.74	0	185.78	0	186.82	0
184.76	0	185.80	0	186.84	0
184.78	0	185.82	0	186.86	0
184.80	0	185.84	0	186.88	0
184.82	0	185.86	0	186.90	0
184.84	0	185.88	0	186.92	0
184.86	0	185.90	0	186.94	0
184.88	0	185.92	0	186.96	0
184.90	0	185.94	0	186.98	0
184.92	0	185.96	0	187.00	0
184.94	0	185.98	0	187.02	0
184.96	0	186.00	0	187.04	0
184.98	0	186.02	0	187.06	0
185.00	0	186.04	0	187.08	0
185.02	0	186.06	0	187.10	0
185.04	0	186.08	0	187.12	0
185.06	0	186.10	0	187.14	0
185.08	0	186.12	0	187.16	0
185.10	0	186.14	0	187.18	0
185.12	0	186.16	0	187.20	0
185.14	0	186.18	0	187.22	0
185.16	0	186.20	0	187.24	0
185.18	0	186.22	0	187.26	0
185.20	0	186.24	0	187.28	0
185.22	0	186.26	0	187.30	0
185.24	0	186.28	0	187.32	0
185.26	0	186.30	0	187.34	0
185.28	0	186.32	0	187.36	0
185.30	0	186.34	0	187.38	0
185.32	0	186.36	0	187.40	0
185.34	0	186.38	0	187.42	0
185.36	0	186.40	0	187.44	0
185.38	0	186.42	0	187.46	0
185.40	0	186.44	0	187.48	0
185.42	0	186.46	0	187.50	0
185.44	0	186.48	0	187.52	0
185.46	0	186.50	0	187.54	0
185.48	0	186.52	0	187.56	0
185.50	0	186.54	0	187.58	0
185.52	0	186.56	0	187.60	0
185.54	0	186.58	0	187.62	0
185.56	0	186.60	0	187.64	0
185.58	0	186.62	0	187.66	0
185.60	0	186.64	0	187.68	0
185.62	0	186.66	0	187.70	0
185.64	0	186.68	0		
185.66	0	186.70	0		
185.68	0	186.72	0		
185.70	0	186.74	0		
185.72	0	186.76	0		

Summary for Pond 1.2 P:

Inflow Area = 0.550 ac, 81.82% Impervious, Inflow Depth = 3.95" for 10-yr event
Inflow = 1.97 cfs @ 11.98 hrs, Volume= 0.181 af
Outflow = 0.64 cfs @ 11.80 hrs, Volume= 0.181 af, Atten= 67%, Lag= 0.0 min
Discarded = 0.64 cfs @ 11.80 hrs, Volume= 0.181 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 183.37' @ 12.24 hrs Surf.Area= 0.030 ac Storage= 0.027 af

Plug-Flow detention time= 8.1 min calculated for 0.181 af (100% of inflow)
Center-of-Mass det. time= 8.1 min (778.3 - 770.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	182.00'	0.028 af	**34.75'W x 38.04'L x 3.50'H Field A** 0.106 af Overall - 0.037 af Embedded = 0.069 af x 40.0% Voids
#2A	182.50'	0.037 af	**ADS_StormTech SC-740** x 35 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 7 rows
		0.065 af	Total Available Storage

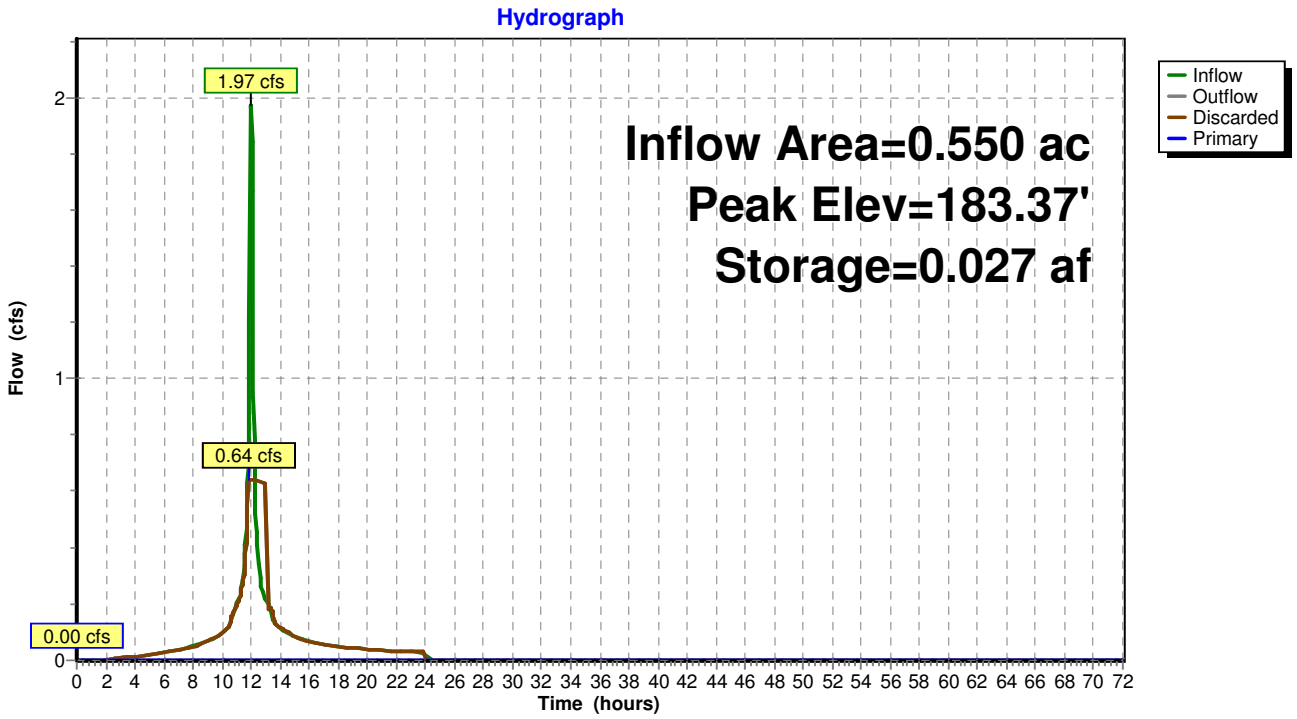
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	182.00'	**21.000 in/hr Exfiltration over Horizontal area** Phase-In= 0.10'
#2	Primary	184.50'	**6.0" Round Culvert** L= 17.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 184.50' / 184.30' S= 0.0118 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=0.64 cfs @ 11.80 hrs HW=182.11' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.64 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=182.00' TW=0.00' (Dynamic Tailwater)
2=Culvert (Controls 0.00 cfs)

Pond 1.2 P:


Hydrograph
Inflow Area=0.550 ac
Peak Elev=183.37'
Storage=0.027 af
1.97 cfs
0.64 cfs
0.00 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72
0
1
2

Stage-Area-Storage for Pond 1.2 P:

Elevation (feet)	Horizontal (acres)	Storage (acre-feet)
182.00	**0.030**	0.000
182.05	0.030	0.001
182.10	0.030	0.001
182.15	0.030	0.002
182.20	0.030	0.002
182.25	0.030	0.003
182.30	0.030	0.004
182.35	0.030	0.004
182.40	0.030	0.005
182.45	0.030	0.005
182.50	0.030	0.006
182.55	0.030	0.007
182.60	0.030	0.009
182.65	0.030	0.010
182.70	0.030	0.011
182.75	0.030	0.012
182.80	0.030	0.014
182.85	0.030	0.015
182.90	0.030	0.016
182.95	0.030	0.017
183.00	0.030	0.018
183.05	0.030	0.020
183.10	0.030	0.021
183.15	0.030	0.022
183.20	0.030	0.023
183.25	0.030	0.024
183.30	0.030	0.026
183.35	0.030	0.027
183.40	0.030	0.028
183.45	0.030	0.029
183.50	0.030	0.030
183.55	0.030	0.032
183.60	0.030	0.033
183.65	0.030	0.034
183.70	0.030	0.035
183.75	0.030	0.036
183.80	0.030	0.037
183.85	0.030	0.038
183.90	0.030	0.039
183.95	0.030	0.040
184.00	0.030	0.041
184.05	0.030	0.043
184.10	0.030	0.044
184.15	0.030	0.045
184.20	0.030	0.046
184.25	0.030	0.047
184.30	0.030	0.048
184.35	0.030	0.049
184.40	0.030	0.050
184.45	0.030	0.050
184.50	0.030	0.051
184.55	0.030	0.052
184.60	0.030	0.053
184.65	0.030	0.054
184.70	0.030	0.055
184.75	0.030	0.056
184.80	0.030	0.056
184.85	0.030	0.057
184.90	0.030	0.058
184.95	0.030	0.058
185.00	0.030	0.059
185.05	0.030	0.059
185.10	0.030	0.060
185.15	0.030	0.061
185.20	0.030	0.061
185.25	0.030	0.062
185.30	0.030	0.062
185.35	0.030	0.063
185.40	0.030	0.064
185.45	0.030	0.064
185.50	0.030	**0.065**

Summary for Pond 1.3 P:

Inflow Area = 0.400 ac, 50.00% Impervious, Inflow Depth = 3.49" for 10-yr event
Inflow = 1.81 cfs @ 12.02 hrs, Volume= 0.116 af
Outflow = 1.39 cfs @ 12.10 hrs, Volume= 0.116 af, Atten= 23%, Lag= 4.5 min
Primary = 1.39 cfs @ 12.10 hrs, Volume= 0.116 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 192.83' @ 12.10 hrs Surf.Area= 1,761 sf Storage= 1,261 cf

Plug-Flow detention time= 225.7 min calculated for 0.116 af (100% of inflow)
Center-of-Mass det. time= 226.7 min (1,026.4 - 799.8)

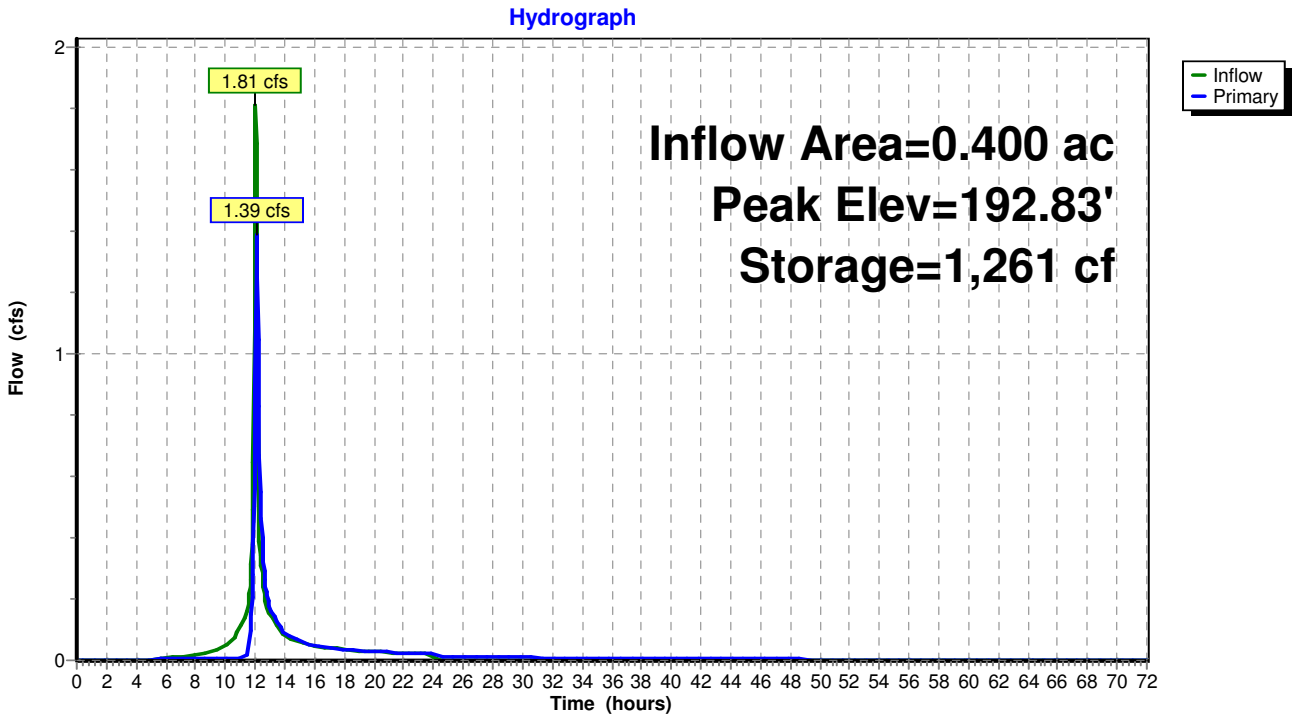
Volume	Invert	Avail.Storage	Storage Description
#1	192.00'	3,720 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
192.00	1,270	0	0
194.00	2,450	3,720	3,720

Device	Routing	Invert	Outlet Devices
#1	Primary	188.20'	**12.0" Round Culvert** L= 62.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 188.20' / 187.50' S= 0.0113 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	192.00'	**0.250 in/hr Exfiltration over Horizontal area**
#3	Device 1	192.50'	**2.5' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.38 cfs @ 12.10 hrs HW=192.83' TW=182.48' (Dynamic Tailwater)
└**1=Culvert** (Passes 1.38 cfs of 7.07 cfs potential flow)
  ├**2=Exfiltration** (Exfiltration Controls 0.01 cfs)
  └**3=Broad-Crested Rectangular Weir** (Weir Controls 1.37 cfs @ 1.66 fps)

Pond 1.3 P:


Hydrograph
Inflow Area=0.400 ac
Peak Elev=192.83'
Storage=1,261 cf
1.81 cfs
1.39 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0
1
2
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72

Stage-Area-Storage for Pond 1.3 P:

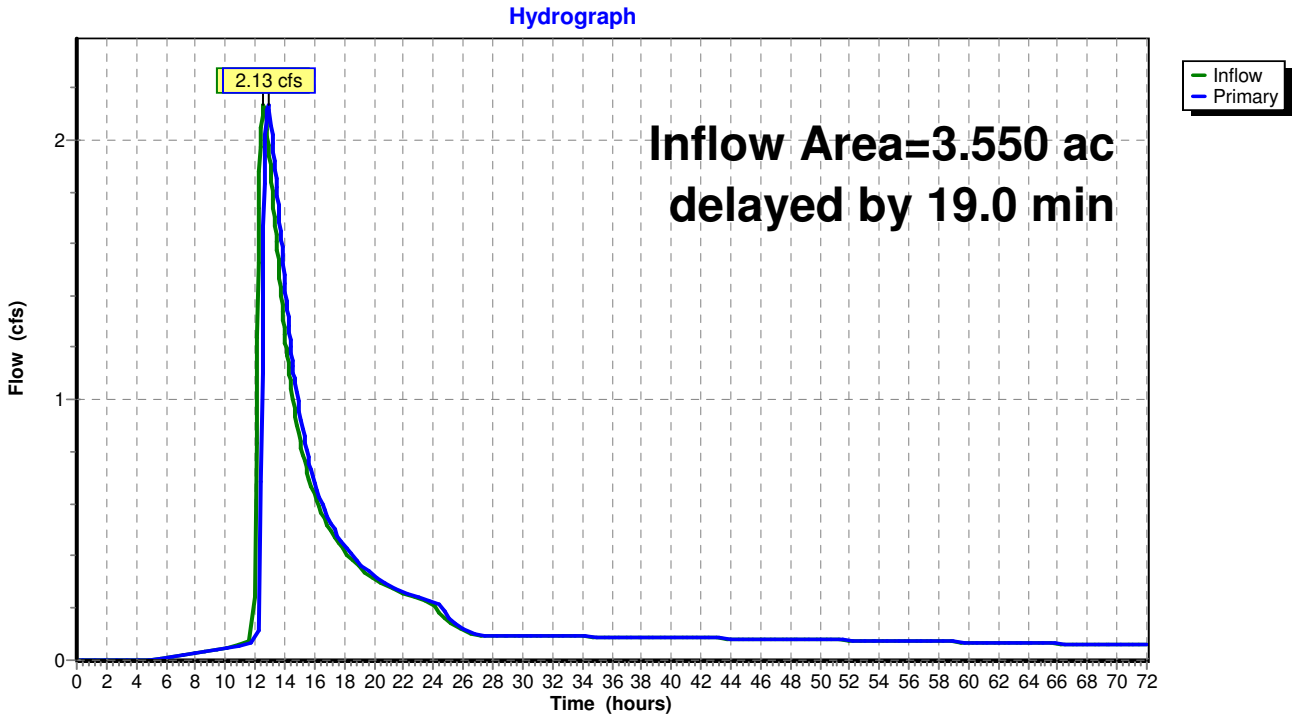
Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
192.00	1,270	1,270	0
192.05	1,300	1,300	64
192.10	1,329	1,329	130
192.15	1,359	1,359	197
192.20	1,388	1,388	266
192.25	1,418	1,418	336
192.30	1,447	1,447	408
192.35	1,476	1,476	481
192.40	1,506	1,506	555
192.45	1,535	1,535	631
192.50	1,565	1,565	709
192.55	1,595	1,595	788
192.60	1,624	1,624	868
192.65	1,654	1,654	950
192.70	1,683	1,683	1,034
192.75	1,713	1,713	1,118
192.80	1,742	1,742	1,205
192.85	1,771	1,771	1,293
192.90	1,801	1,801	1,382
192.95	1,830	1,830	1,473
193.00	1,860	1,860	1,565
193.05	1,890	1,890	1,659
193.10	1,919	1,919	1,754
193.15	1,949	1,949	1,851
193.20	1,978	1,978	1,949
193.25	2,008	2,008	2,048
193.30	2,037	2,037	2,150
193.35	2,066	2,066	2,252
193.40	2,096	2,096	2,356
193.45	2,125	2,125	2,462
193.50	2,155	2,155	2,569
193.55	2,185	2,185	2,677
193.60	2,214	2,214	2,787
193.65	2,244	2,244	2,899
193.70	2,273	2,273	3,012
193.75	2,303	2,303	3,126
193.80	2,332	2,332	3,242
193.85	2,361	2,361	3,359
193.90	2,391	2,391	3,478
193.95	2,420	2,420	3,598
194.00	**2,450**	**2,450**	**3,720**

Summary for Link 1.1R: (See Subcatchment 1.1 TC for Time of Concentration Calculation)

Inflow Area = 3.550 ac, 66.20% Impervious, Inflow Depth > 3.37" for 10-yr event
Inflow = 2.13 cfs @ 12.56 hrs, Volume= 0.996 af
Primary = 2.13 cfs @ 12.88 hrs, Volume= 0.994 af, Atten= 0%, Lag= 19.1 min

Primary outflow = Inflow delayed by 19.0 min, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 1.1R: (See Subcatchment 1.1 TC for Time of Concentration Calculation)



Summary for Subcatchment 1.0S:

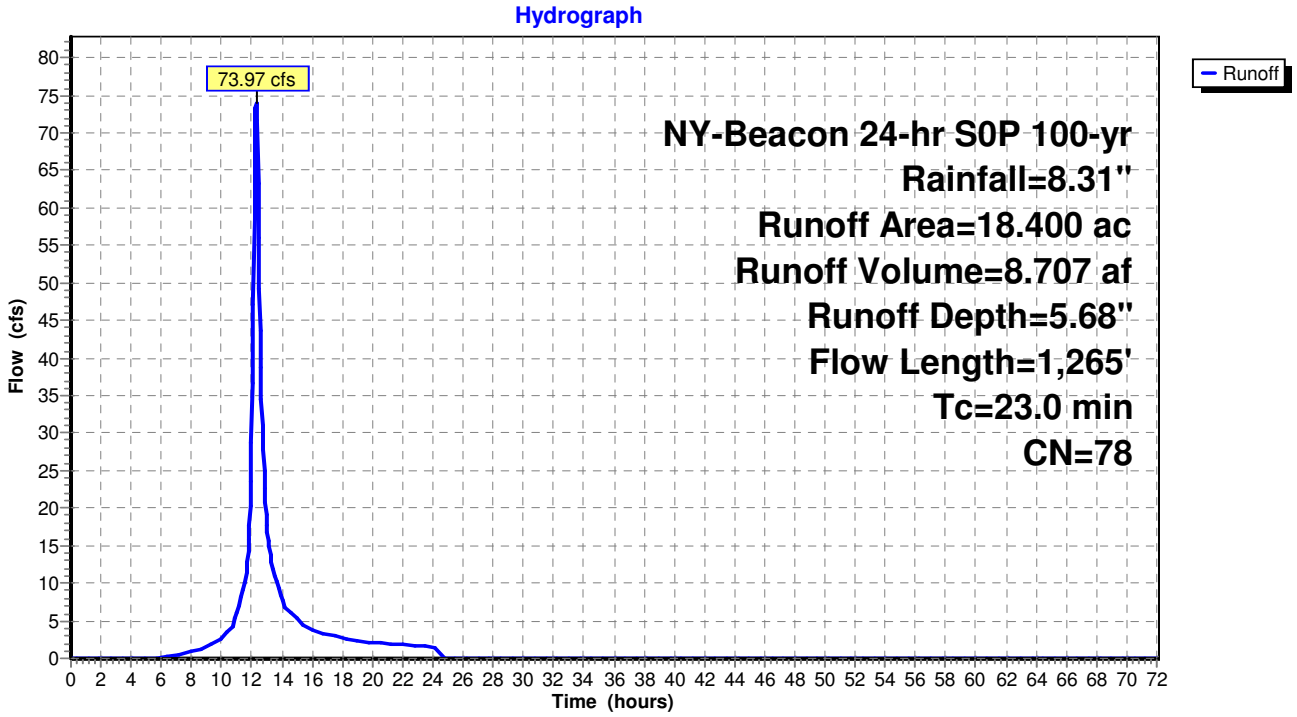
Runoff = 73.97 cfs @ 12.28 hrs, Volume= 8.707 af, Depth= 5.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

Area (ac)	CN	Description
11.100	77	Woods, Good, HSG D
5.800	78	Meadow, non-grazed, HSG D
1.000	80	>75% Grass cover, Good, HSG D
0.500	98	Paved parking, HSG D
18.400	78	Weighted Average
17.900		97.28% Pervious Area
0.500		2.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	100	0.0800	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.16"
4.7	345	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.4	170	0.0800	1.98		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.1	280	0.0900	1.50		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.2	235	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.1	55	0.0450	11.17	13.70	**Pipe Channel, SDI 14A TO DI 14** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.1	80	0.0410	14.58	45.81	**Pipe Channel, DI 14 TO ES 13** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.013 Corrugated PE, smooth interior
23.0	1,265	Total			

Subcatchment 1.0S:



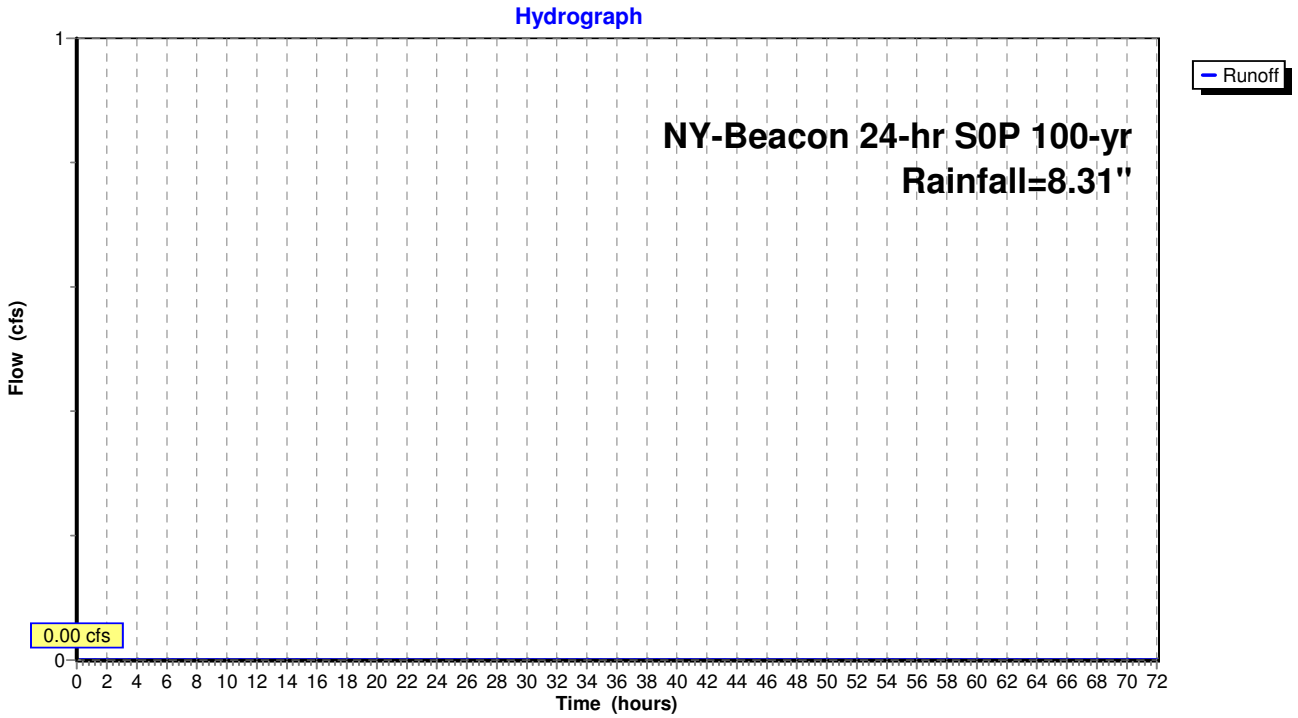
Summary for Subcatchment 1.1 TC:

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.4	100	0.0300	0.09		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.16"
0.6	30	0.0300	0.87		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
19.0	130	Total			

Subcatchment 1.1 TC:



Summary for Subcatchment 1.1S:

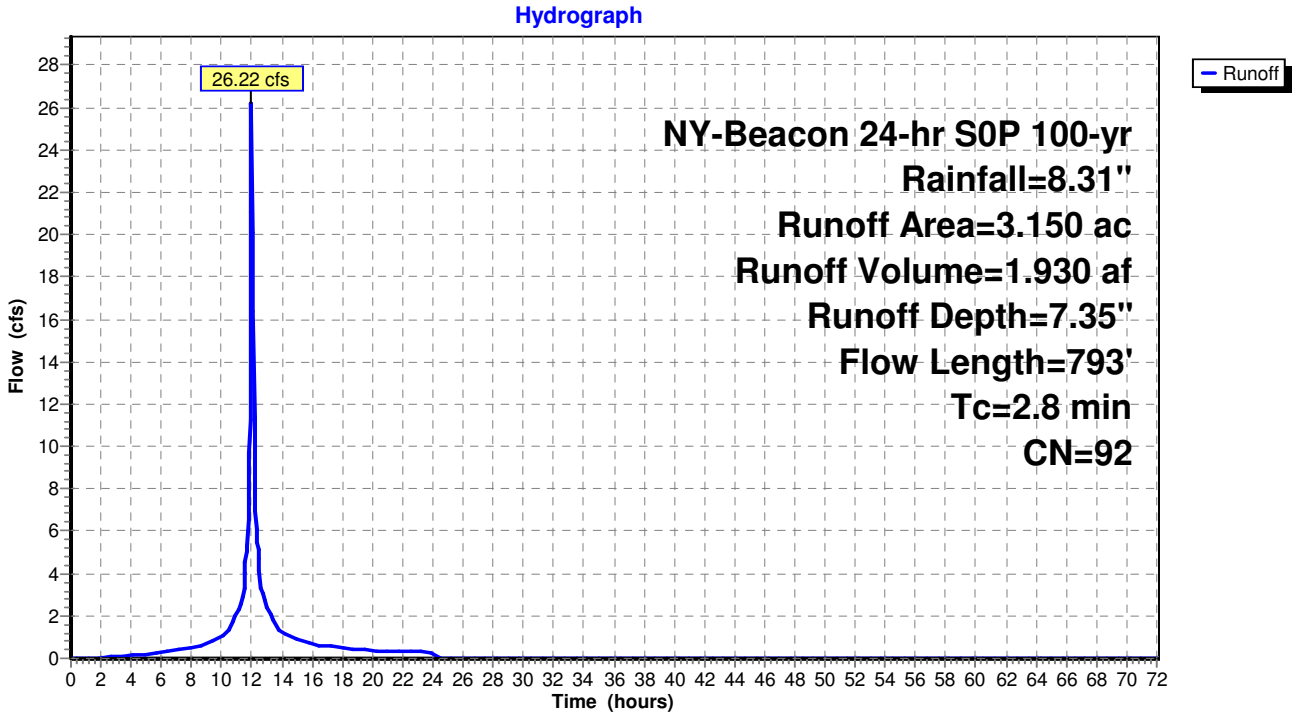
Runoff = 26.22 cfs @ 12.00 hrs, Volume= 1.930 af, Depth= 7.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

Area (ac)	CN	Description
2.150	98	Paved parking, HSG D
1.000	80	>75% Grass cover, Good, HSG D
3.150	92	Weighted Average
1.000		31.75% Pervious Area
2.150		68.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0600	2.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.7	200	0.0500	4.54		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	35	0.0120	4.97	3.90	**Pipe Channel, CB 6 TO CB 5** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.5	183	0.0130	6.00	7.37	**Pipe Channel, CB 5 TO CB 4** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.4	136	0.0100	5.94	10.50	**Pipe Channel, CB 4 TO CB 3** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
0.2	63	0.0100	5.94	10.50	**Pipe Channel, CB 3 TO CB 2** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
0.1	76	0.0360	11.28	19.93	**Pipe Channel, CB 2 TO ES 1** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
2.8	793	Total			

Subcatchment 1.1S:



Summary for Subcatchment 1.2S:

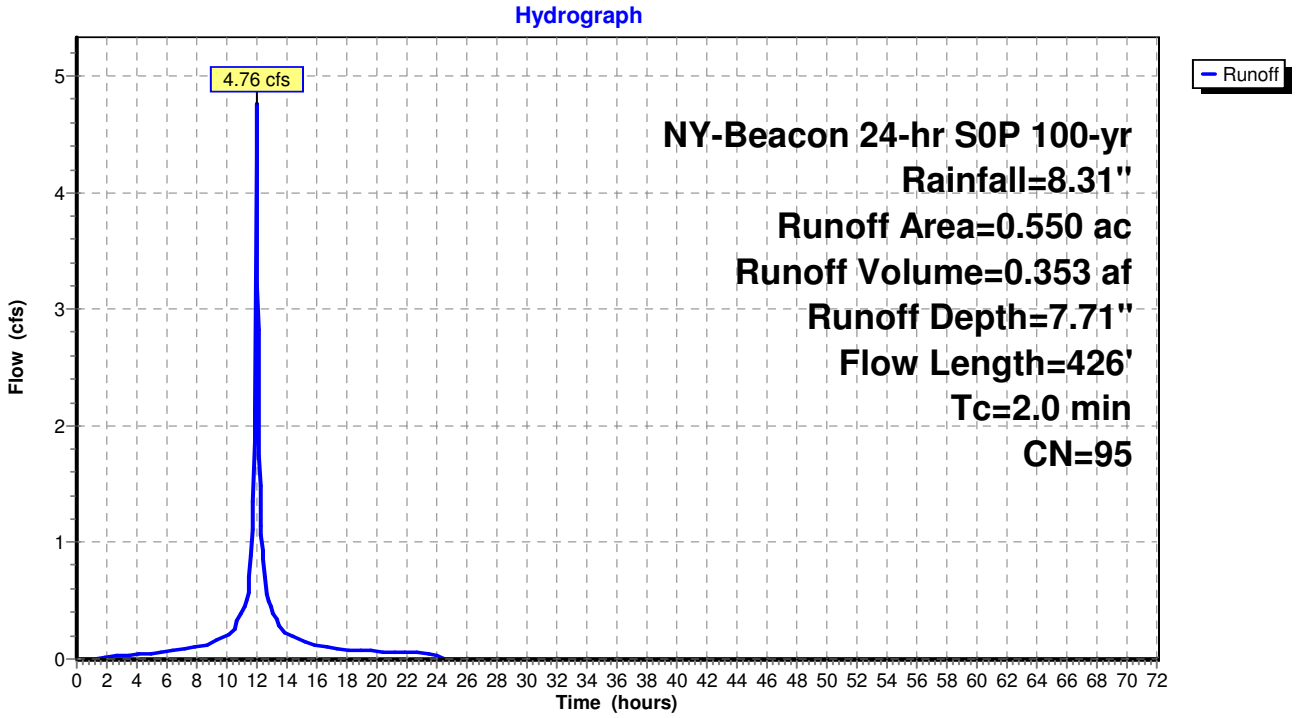
Runoff = 4.76 cfs @ 11.99 hrs, Volume= 0.353 af, Depth= 7.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

Area (ac)	CN	Description
0.450	98	Paved parking, HSG D
0.100	80	>75% Grass cover, Good, HSG D
0.550	95	Weighted Average
0.100		18.18% Pervious Area
0.450		81.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	100	0.0600	2.12		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.16"
0.4	120	0.0600	4.97		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.7	160	0.0350	3.80		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	46	0.0300	7.86	6.17	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
2.0	426	Total			

Subcatchment 1.2S:



Summary for Subcatchment 1.3S:

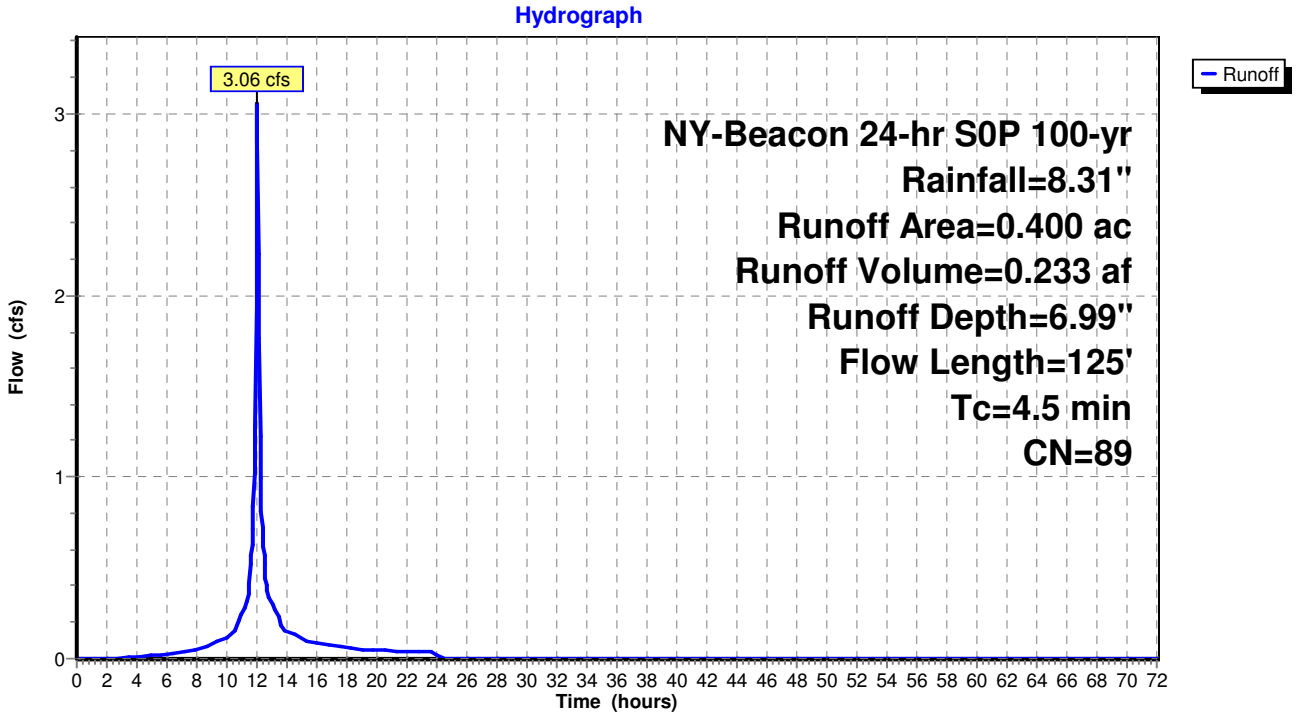
Runoff = 3.06 cfs @ 12.02 hrs, Volume= 0.233 af, Depth= 6.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

Area (ac)	CN	Description
0.200	98	Paved parking, HSG D
0.200	80	>75% Grass cover, Good, HSG D
0.400	89	Weighted Average
0.200		50.00% Pervious Area
0.200		50.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.4	85	0.1100	0.32		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.16"
0.1	40	0.0500	4.54		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
4.5	125	Total			

Subcatchment 1.3S:

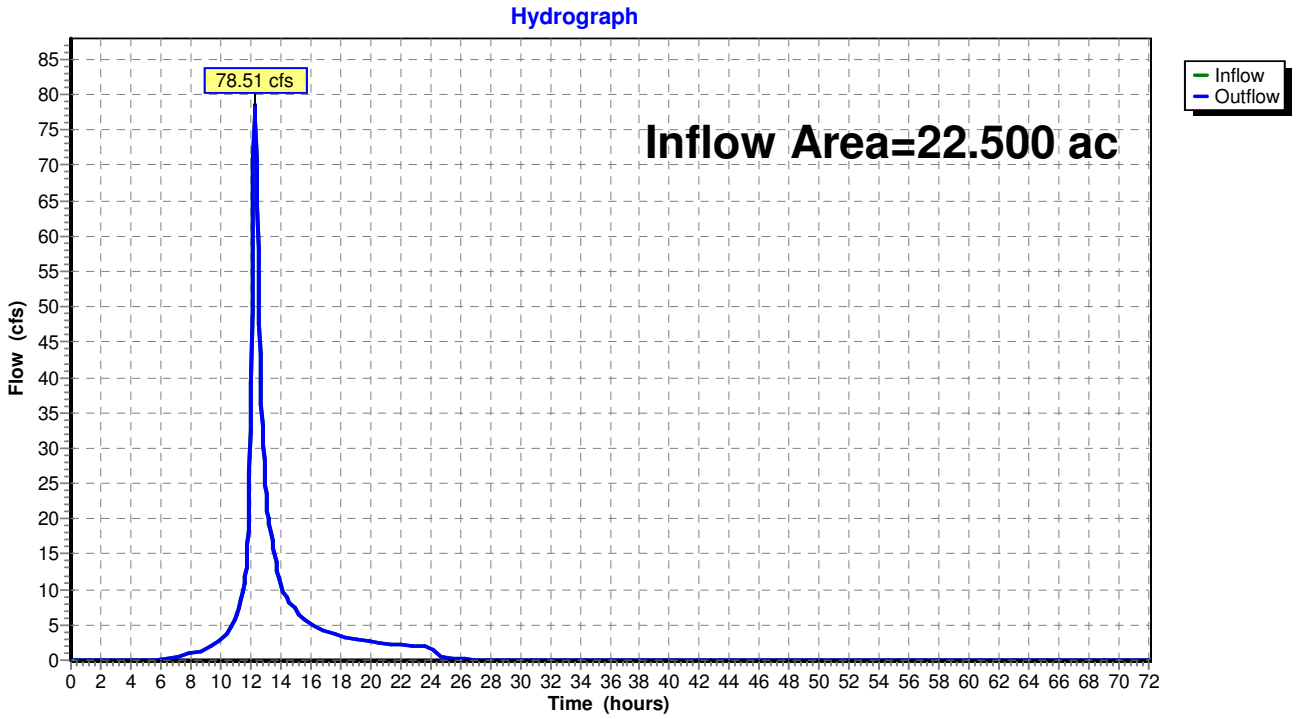


Summary for Reach Design Line:

Inflow Area = 22.500 ac, 14.67% Impervious, Inflow Depth > 5.75" for 100-yr event
Inflow = 78.51 cfs @ 12.30 hrs, Volume= 10.781 af
Outflow = 78.51 cfs @ 12.30 hrs, Volume= 10.781 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Reach Design Line:



Summary for Pond 1.1 P:

Inflow Area = 3.550 ac, 66.20% Impervious, Inflow Depth = 7.31" for 100-yr event
Inflow = 28.07 cfs @ 12.00 hrs, Volume= 2.163 af
Outflow = 8.89 cfs @ 12.24 hrs, Volume= 2.042 af, Atten= 68%, Lag= 14.6 min
Primary = 8.89 cfs @ 12.24 hrs, Volume= 2.042 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Starting Elev= 180.00' Surf.Area= 7,640 sf Storage= 10,715 cf
Peak Elev= 184.01' @ 12.24 hrs Surf.Area= 17,302 sf Storage= 52,609 cf (41,894 cf above start)
Flood Elev= 184.50' Surf.Area= 19,225 sf Storage= 60,459 cf (49,744 cf above start)

Plug-Flow detention time= 534.0 min calculated for 1.794 af (83% of inflow)
Center-of-Mass det. time= 388.4 min (1,169.5 - 781.1)

Volume	Invert	Avail.Storage	Storage Description
#1	175.00'	2,050 cf	**Forebay (Prismatic)** Listed below (Recalc)
#2	175.00'	67,360 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
		69,410 cf	Total Available Storage

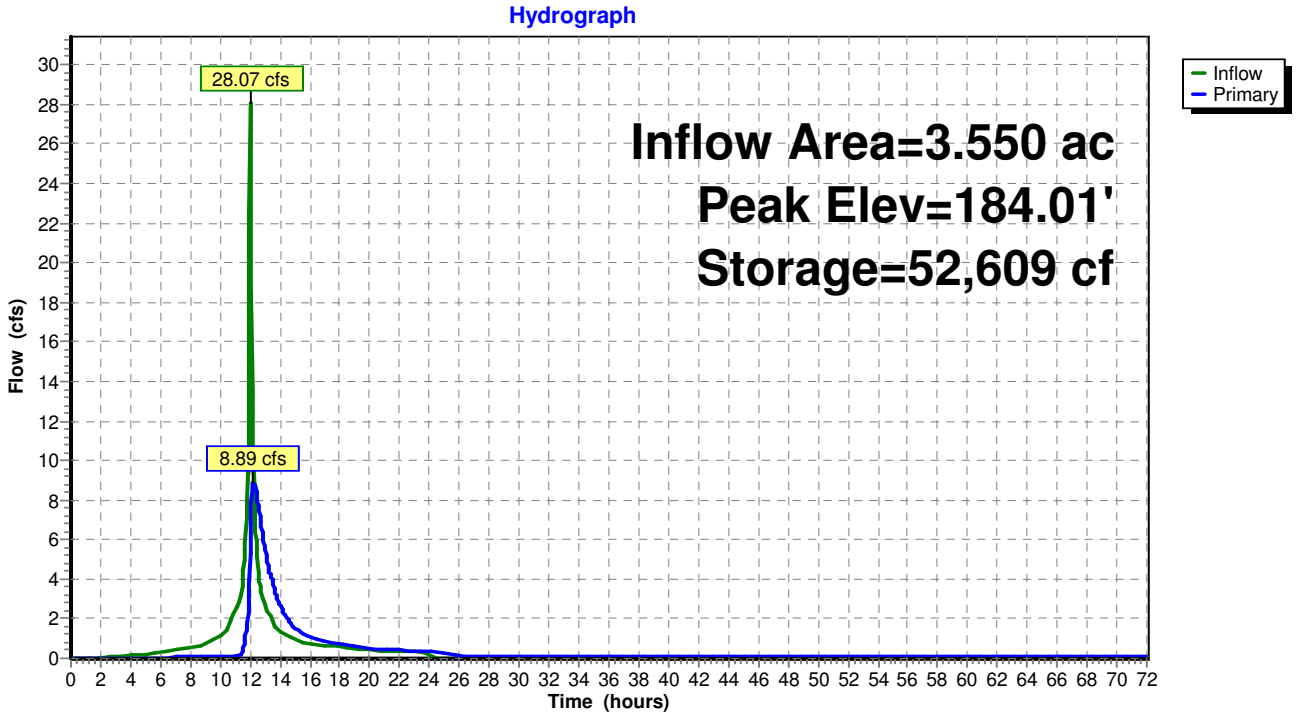
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
175.00	5	0	0
177.00	110	115	115
179.00	450	560	675
180.00	2,300	1,375	2,050

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
175.00	500	0	0
177.00	1,180	1,680	1,680
179.00	2,090	3,270	4,950
180.00	5,340	3,715	8,665
182.00	10,730	16,070	24,735
184.00	14,970	25,700	50,435
185.00	18,880	16,925	67,360

Device	Routing	Invert	Outlet Devices
#1	Primary	179.00'	**18.0" Round Culvert** L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 179.00' / 178.50' S= 0.0135 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	180.00'	**1.6" Vert. Orifice/Grate** C= 0.600
#3	Device 1	182.10'	**1.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=8.88 cfs @ 12.24 hrs HW=184.01' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 8.88 cfs of 17.56 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.13 cfs @ 9.56 fps)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 8.74 cfs @ 4.58 fps)

Pond 1.1 P:


Hydrograph
Inflow Area=3.550 ac
Peak Elev=184.01'
Storage=52,609 cf
28.07 cfs
8.89 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72

Stage-Area-Storage for Pond 1.1 P:

Elevation (feet)	Storage (cubic-feet)
175.00	0
175.10	52
175.20	109
175.30	169
175.40	233
175.50	302
175.60	374
175.70	450
175.80	530
175.90	613
176.00	701
176.10	793
176.20	889
176.30	988
176.40	1,092
176.50	1,199
176.60	1,310
176.70	1,426
176.80	1,545
176.90	1,668
177.00	1,795
177.10	1,927
177.20	2,065
177.30	2,210
177.40	2,361
177.50	2,518
177.60	2,681
177.70	2,851
177.80	3,027
177.90	3,209
178.00	3,398
178.10	3,592
178.20	3,793
178.30	4,000
178.40	4,214
178.50	4,433
178.60	4,659
178.70	4,891
178.80	5,130
178.90	5,374
179.00	5,625
179.10	5,904
179.20	6,235
179.30	6,617
179.40	7,049
179.50	7,533
179.60	8,067
179.70	8,652
179.80	9,289
179.90	9,977
180.00	10,715
180.10	11,262
180.20	11,837
180.30	12,438
180.40	13,067
180.50	13,722
180.60	14,404
180.70	15,113
180.80	15,849
180.90	16,612
181.00	17,403
181.10	18,219
181.20	19,063
181.30	19,934
181.40	20,832
181.50	21,757
181.60	22,709
181.70	23,687
181.80	24,693
181.90	25,725
182.00	26,785
182.10	27,869
182.20	28,973
182.30	30,099
182.40	31,247
182.50	32,415
182.60	33,605
182.70	34,815
182.80	36,047
182.90	37,301
183.00	38,575
183.10	39,871
183.20	41,187
183.30	42,525
183.40	43,885
183.50	45,265
183.60	46,667
183.70	48,089
183.80	49,533
183.90	50,999
184.00	52,485
184.10	54,002
184.20	55,557
184.30	57,152
184.40	58,786
184.50	60,459
184.60	62,171
184.70	63,922
184.80	65,712
184.90	67,542
185.00	**69,410**

Summary for Pond 1.2 FS:

Inflow Area = 0.550 ac, 81.82% Impervious, Inflow Depth = 7.71" for 100-yr event
Inflow = 4.76 cfs @ 11.99 hrs, Volume= 0.353 af
Outflow = 4.76 cfs @ 11.99 hrs, Volume= 0.353 af, Atten= 0%, Lag= 0.0 min
Primary = 2.09 cfs @ 11.98 hrs, Volume= 0.324 af
Secondary = 2.67 cfs @ 11.99 hrs, Volume= 0.030 af

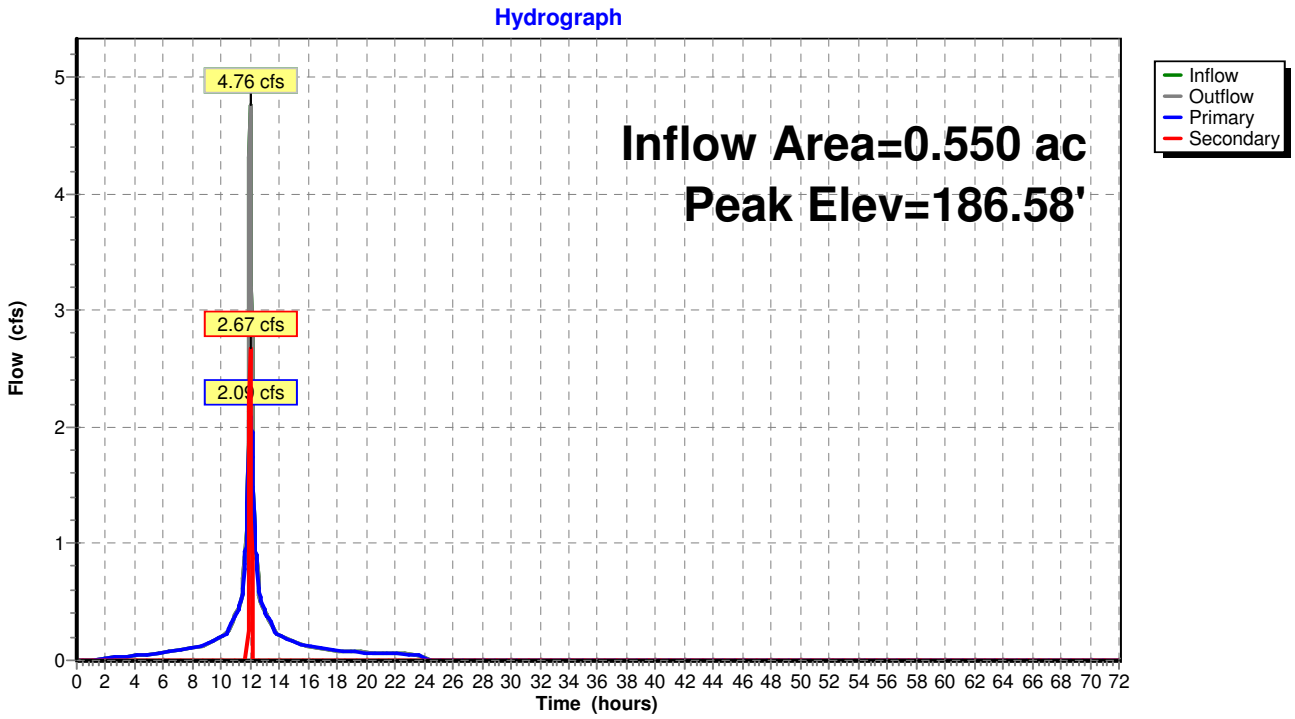
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 186.58' @ 11.98 hrs
Flood Elev= 187.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	184.70'	**8.0" Round Culvert** L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 184.70' / 184.50' S= 0.0167 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Secondary	184.70'	**12.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 184.70' / 184.00' S= 0.0233 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	186.20'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.08 cfs @ 11.98 hrs HW=186.56' TW=183.38' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 2.08 cfs @ 5.95 fps)

Secondary OutFlow Max=2.49 cfs @ 11.99 hrs HW=186.56' TW=0.00' (Dynamic Tailwater)
└**2=Culvert** (Passes 2.49 cfs of 4.41 cfs potential flow)
└**3=Broad-Crested Rectangular Weir** (Weir Controls 2.49 cfs @ 1.73 fps)

Pond 1.2 FS:


Hydrograph
Inflow Area=0.550 ac
Peak Elev=186.58'
4.76 cfs
2.67 cfs
2.09 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0 1 2 3 4 5
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72

Stage-Area-Storage for Pond 1.2 FS:

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
184.70	**0**	185.74	0	186.78	0
184.72	0	185.76	0	186.80	0
184.74	0	185.78	0	186.82	0
184.76	0	185.80	0	186.84	0
184.78	0	185.82	0	186.86	0
184.80	0	185.84	0	186.88	0
184.82	0	185.86	0	186.90	0
184.84	0	185.88	0	186.92	0
184.86	0	185.90	0	186.94	0
184.88	0	185.92	0	186.96	0
184.90	0	185.94	0	186.98	0
184.92	0	185.96	0	187.00	0
184.94	0	185.98	0	187.02	0
184.96	0	186.00	0	187.04	0
184.98	0	186.02	0	187.06	0
185.00	0	186.04	0	187.08	0
185.02	0	186.06	0	187.10	0
185.04	0	186.08	0	187.12	0
185.06	0	186.10	0	187.14	0
185.08	0	186.12	0	187.16	0
185.10	0	186.14	0	187.18	0
185.12	0	186.16	0	187.20	0
185.14	0	186.18	0	187.22	0
185.16	0	186.20	0	187.24	0
185.18	0	186.22	0	187.26	0
185.20	0	186.24	0	187.28	0
185.22	0	186.26	0	187.30	0
185.24	0	186.28	0	187.32	0
185.26	0	186.30	0	187.34	0
185.28	0	186.32	0	187.36	0
185.30	0	186.34	0	187.38	0
185.32	0	186.36	0	187.40	0
185.34	0	186.38	0	187.42	0
185.36	0	186.40	0	187.44	0
185.38	0	186.42	0	187.46	0
185.40	0	186.44	0	187.48	0
185.42	0	186.46	0	187.50	0
185.44	0	186.48	0	187.52	0
185.46	0	186.50	0	187.54	0
185.48	0	186.52	0	187.56	0
185.50	0	186.54	0	187.58	0
185.52	0	186.56	0	187.60	0
185.54	0	186.58	0	187.62	0
185.56	0	186.60	0	187.64	0
185.58	0	186.62	0	187.66	0
185.60	0	186.64	0	187.68	0
185.62	0	186.66	0	187.70	0
185.64	0	186.68	0		
185.66	0	186.70	0		
185.68	0	186.72	0		
185.70	0	186.74	0		
185.72	0	186.76	0		

Summary for Pond 1.2 P:

Inflow Area = 0.550 ac, 81.82% Impervious, Inflow Depth = 7.06" for 100-yr event
Inflow = 2.09 cfs @ 11.98 hrs, Volume= 0.324 af
Outflow = 0.82 cfs @ 12.46 hrs, Volume= 0.324 af, Atten= 61%, Lag= 28.5 min
Discarded = 0.64 cfs @ 11.55 hrs, Volume= 0.319 af
Primary = 0.17 cfs @ 12.46 hrs, Volume= 0.004 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 184.77' @ 12.46 hrs Surf.Area= 0.030 ac Storage= 0.056 af

Plug-Flow detention time= 18.7 min calculated for 0.323 af (100% of inflow)
Center-of-Mass det. time= 18.7 min (774.4 - 755.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	182.00'	0.028 af	**34.75'W x 38.04'L x 3.50'H Field A** 0.106 af Overall - 0.037 af Embedded = 0.069 af x 40.0% Voids
#2A	182.50'	0.037 af	**ADS_StormTech SC-740** x 35 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap Row Length Adjustment= +0.44' x 6.45 sf x 7 rows
		0.065 af	Total Available Storage

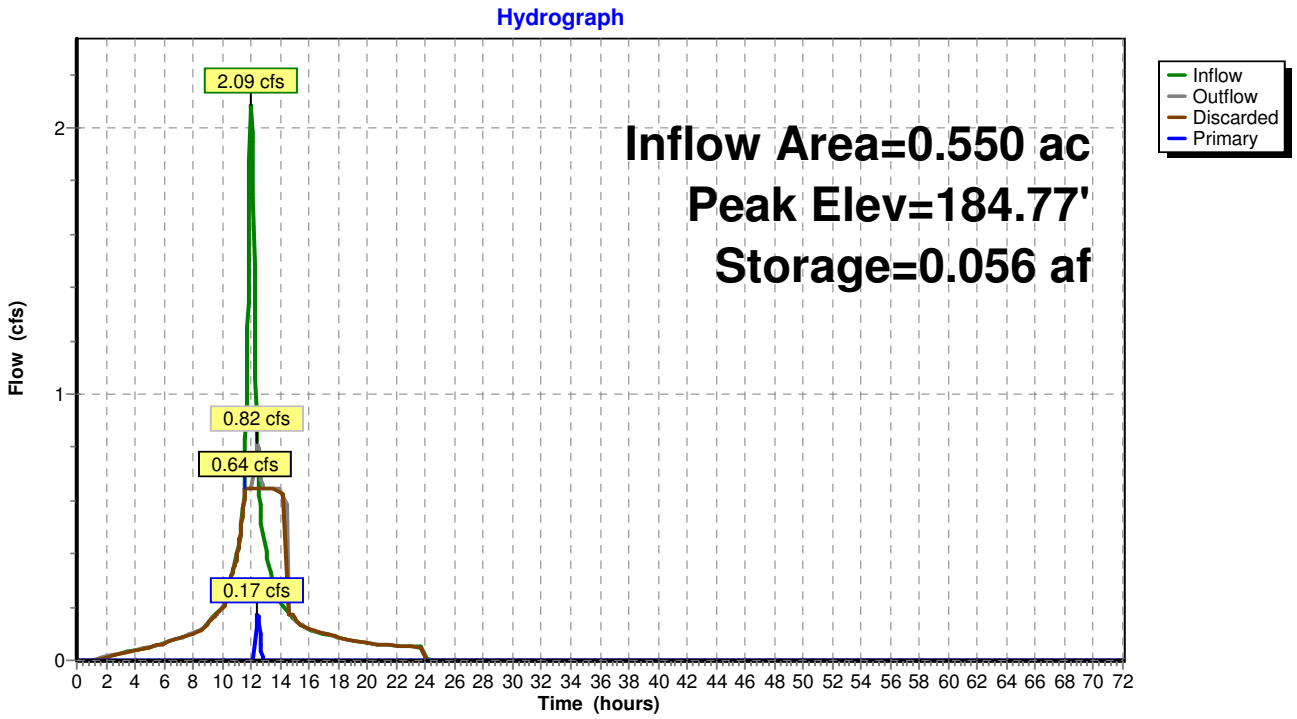
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	182.00'	**21.000 in/hr Exfiltration over Horizontal area** Phase-In= 0.10'
#2	Primary	184.50'	**6.0" Round Culvert** L= 17.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 184.50' / 184.30' S= 0.0118 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=0.64 cfs @ 11.55 hrs HW=182.12' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.64 cfs)

Primary OutFlow Max=0.17 cfs @ 12.46 hrs HW=184.77' TW=0.00' (Dynamic Tailwater)
↑—**2=Culvert** (Barrel Controls 0.17 cfs @ 2.34 fps)

Pond 1.2 P:


Hydrograph
Inflow Area=0.550 ac
Peak Elev=184.77'
Storage=0.056 af
2.09 cfs
0.82 cfs
0.64 cfs
0.17 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72
0
1
2

Stage-Area-Storage for Pond 1.2 P:

Elevation (feet)	Horizontal (acres)	Storage (acre-feet)
182.00	**0.030**	0.000
182.05	0.030	0.001
182.10	0.030	0.001
182.15	0.030	0.002
182.20	0.030	0.002
182.25	0.030	0.003
182.30	0.030	0.004
182.35	0.030	0.004
182.40	0.030	0.005
182.45	0.030	0.005
182.50	0.030	0.006
182.55	0.030	0.007
182.60	0.030	0.009
182.65	0.030	0.010
182.70	0.030	0.011
182.75	0.030	0.012
182.80	0.030	0.014
182.85	0.030	0.015
182.90	0.030	0.016
182.95	0.030	0.017
183.00	0.030	0.018
183.05	0.030	0.020
183.10	0.030	0.021
183.15	0.030	0.022
183.20	0.030	0.023
183.25	0.030	0.024
183.30	0.030	0.026
183.35	0.030	0.027
183.40	0.030	0.028
183.45	0.030	0.029
183.50	0.030	0.030
183.55	0.030	0.032
183.60	0.030	0.033
183.65	0.030	0.034
183.70	0.030	0.035
183.75	0.030	0.036
183.80	0.030	0.037
183.85	0.030	0.038
183.90	0.030	0.039
183.95	0.030	0.040
184.00	0.030	0.041
184.05	0.030	0.043
184.10	0.030	0.044
184.15	0.030	0.045
184.20	0.030	0.046
184.25	0.030	0.047
184.30	0.030	0.048
184.35	0.030	0.049
184.40	0.030	0.050
184.45	0.030	0.050
184.50	0.030	0.051
184.55	0.030	0.052
184.60	0.030	0.053
184.65	0.030	0.054
184.70	0.030	0.055
184.75	0.030	0.056
184.80	0.030	0.056
184.85	0.030	0.057
184.90	0.030	0.058
184.95	0.030	0.058
185.00	0.030	0.059
185.05	0.030	0.059
185.10	0.030	0.060
185.15	0.030	0.061
185.20	0.030	0.061
185.25	0.030	0.062
185.30	0.030	0.062
185.35	0.030	0.063
185.40	0.030	0.064
185.45	0.030	0.064
185.50	0.030	**0.065**

Summary for Pond 1.3 P:

Inflow Area = 0.400 ac, 50.00% Impervious, Inflow Depth = 6.99" for 100-yr event
Inflow = 3.06 cfs @ 12.02 hrs, Volume= 0.233 af
Outflow = 2.52 cfs @ 12.08 hrs, Volume= 0.233 af, Atten= 17%, Lag= 3.7 min
Primary = 2.52 cfs @ 12.08 hrs, Volume= 0.233 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 192.98' @ 12.08 hrs Surf.Area= 1,851 sf Storage= 1,535 cf

Plug-Flow detention time= 127.2 min calculated for 0.233 af (100% of inflow)
Center-of-Mass det. time= 128.1 min (906.2 - 778.1)

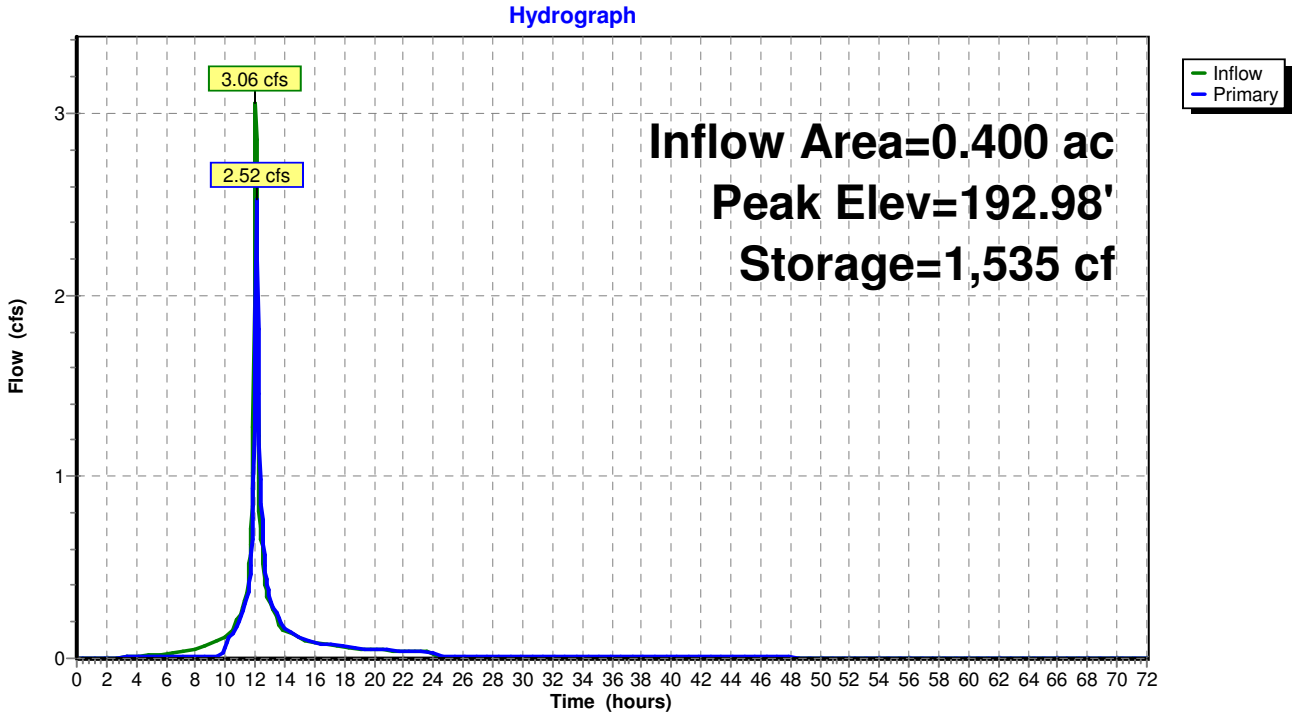
Volume	Invert	Avail.Storage	Storage Description
#1	192.00'	3,720 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
192.00	1,270	0	0
194.00	2,450	3,720	3,720

Device	Routing	Invert	Outlet Devices
#1	Primary	188.20'	**12.0" Round Culvert** L= 62.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 188.20' / 187.50' S= 0.0113 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	192.00'	**0.250 in/hr Exfiltration over Horizontal area**
#3	Device 1	192.50'	**2.5' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.48 cfs @ 12.08 hrs HW=192.98' TW=183.81' (Dynamic Tailwater)
└**1=Culvert** (Passes 2.48 cfs of 7.19 cfs potential flow)
  └**2=Exfiltration** (Exfiltration Controls 0.01 cfs)
  └**3=Broad-Crested Rectangular Weir** (Weir Controls 2.47 cfs @ 2.07 fps)

Pond 1.3 P:


Hydrograph
3.06 cfs
2.52 cfs
Inflow Area=0.400 ac
Peak Elev=192.98'
Storage=1,535 cf
Inflow
Primary
Flow (cfs)
Time (hours)
0
1
2
3
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72

Stage-Area-Storage for Pond 1.3 P:

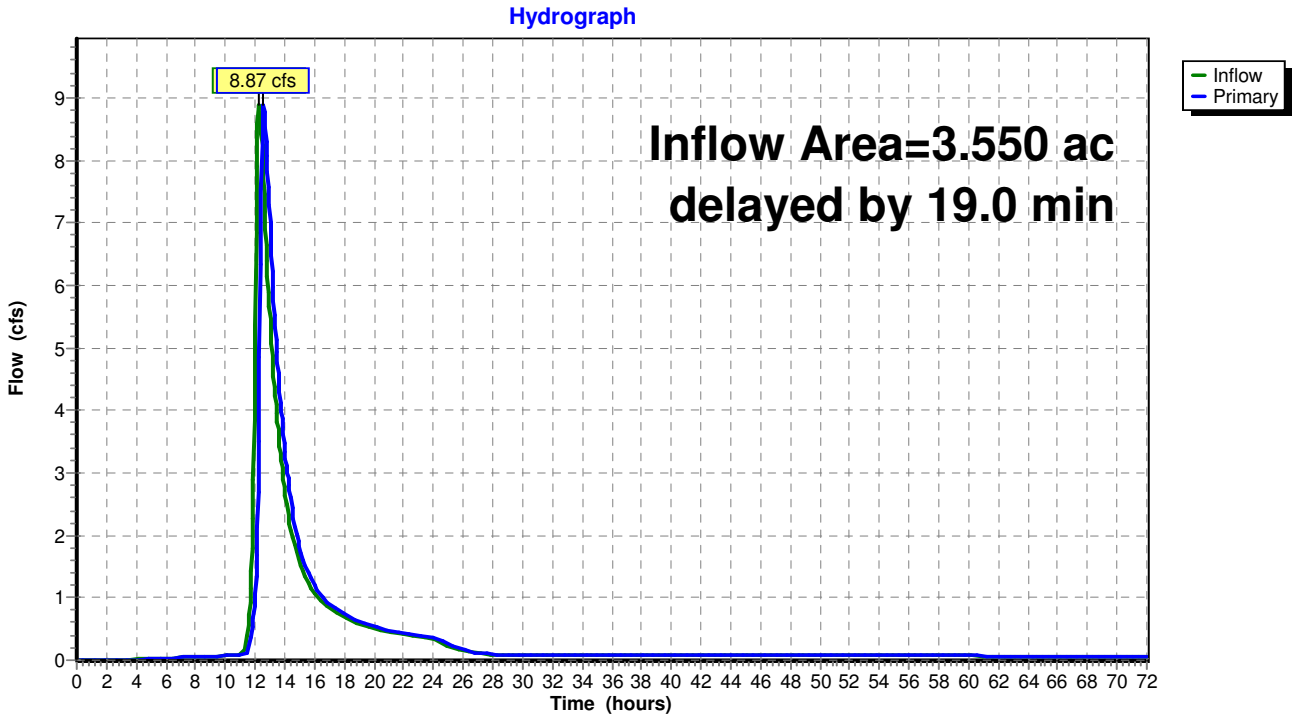
Elevation (feet)	Surface (sq-ft)	Horizontal (sq-ft)	Storage (cubic-feet)
192.00	1,270	1,270	0
192.05	1,300	1,300	64
192.10	1,329	1,329	130
192.15	1,359	1,359	197
192.20	1,388	1,388	266
192.25	1,418	1,418	336
192.30	1,447	1,447	408
192.35	1,476	1,476	481
192.40	1,506	1,506	555
192.45	1,535	1,535	631
192.50	1,565	1,565	709
192.55	1,595	1,595	788
192.60	1,624	1,624	868
192.65	1,654	1,654	950
192.70	1,683	1,683	1,034
192.75	1,713	1,713	1,118
192.80	1,742	1,742	1,205
192.85	1,771	1,771	1,293
192.90	1,801	1,801	1,382
192.95	1,830	1,830	1,473
193.00	1,860	1,860	1,565
193.05	1,890	1,890	1,659
193.10	1,919	1,919	1,754
193.15	1,949	1,949	1,851
193.20	1,978	1,978	1,949
193.25	2,008	2,008	2,048
193.30	2,037	2,037	2,150
193.35	2,066	2,066	2,252
193.40	2,096	2,096	2,356
193.45	2,125	2,125	2,462
193.50	2,155	2,155	2,569
193.55	2,185	2,185	2,677
193.60	2,214	2,214	2,787
193.65	2,244	2,244	2,899
193.70	2,273	2,273	3,012
193.75	2,303	2,303	3,126
193.80	2,332	2,332	3,242
193.85	2,361	2,361	3,359
193.90	2,391	2,391	3,478
193.95	2,420	2,420	3,598
194.00	**2,450**	**2,450**	**3,720**

Summary for Link 1.1R: (See Subcatchment 1.1 TC for Time of Concentration Calculation)

Inflow Area = 3.550 ac, 66.20% Impervious, Inflow Depth > 6.90" for 100-yr event
Inflow = 8.89 cfs @ 12.24 hrs, Volume= 2.042 af
Primary = 8.87 cfs @ 12.56 hrs, Volume= 2.040 af, Atten= 0%, Lag= 19.2 min

Primary outflow = Inflow delayed by 19.0 min, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Link 1.1R: (See Subcatchment 1.1 TC for Time of Concentration Calculation)



APPENDIX D

Project and Owner information

Site Data:

Beacon Views
City of Beacon
Dutchess County, New York

Owner Information:

Highlands @ Beacon, LLC
2847 Church Street
Pine Plains, New York 12567

Applicant Information:

Beacon Views, LLC
500 River Avenue
Wakefield, New Jersey 08701

Party Responsible for Implementation of the Stormwater Pollution Prevention Plan (Including Maintenance During and After Construction):

Beacon Views, LLC
500 River Avenue
Wakefield, New Jersey 08701

Qualified Professional Responsible for Inspection of the Stormwater Pollution Prevention Plan:

Inspector to be determined at time of construction

APPENDIX E

NYSDEC SPDES for Construction Activities Construction Site Log Book

APPENDIX F
CONSTRUCTION SITE INSPECTION AND MAINTENANCE LOG BOOK

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION ACTIVITIES

SAMPLE CONSTRUCTION SITE LOG BOOK

Table of Contents

I. Pre-Construction Meeting Documents
   a. Preamble to Site Assessment and Inspections
   b. Pre-Construction Site Assessment Checklist

II. Construction Duration Inspections
   a. Directions
   b. Modification to the SWPPP

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? _____

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 F

NYSDEC Stormwater Design Manual Chapter 5 Analysis

Table Key: • = Practice Used in Accordance with Chapter 5 Requirements
o = Practice Not Used
- = Practice is Not Applicable

NYSDEC Chapter 5 Requirements	Subcatchments			Remarks
	1.1	1.2	1.3	
Chapter 5, Section 5.1: Preservation if Natural Features and Conservation Design				
Practices				
Preservation of Undisturbed Areas	•	•	•	See Note #2
Preservation of Buffers	-	-		
Reduction of Clearing & Grading	•	•	•	See Note #4
Locating Development in Less Sensitive Areas	•	•	•	See Note #4
Open Space Design	-	-		
Soil Restoration	•	•	•	See Note #5
Chapter 5, Section 5.2: Reduction of Impervious Cover				
Practices				
Roadway Reduction	•	-	-	See Note #1
Sidewalk Reduction	•	•	•	
Driveway Reduction	•	•	•	See Note #1
Cul-de-sac Reduction	-	-		
Building Footprint Reduction	•	•	•	See Note #3
Parking Reduction	•	•	•	See Note #4
Conservation of Natural Areas	•	•	•	See Note #2
Sheetflow to Riparian Buffers or Filter Strips	-	-	-	
Vegetated Swale	•	-	-	
Tree Planting / Tree Pit	-	-	-	
Disconnection of Rooftop Runoff	-	-	-	
Stream Daylighting	-	-	-	
Rain Gardens	-	-	-	
Green Roofs	-	-	-	
Stormwater Planters	-	-	-	
Rain Barrels / Cisterns	-	-	-	
Porous Pavement	-	-	-	

Notes:

1. The proposed driveways and road have been designed to provide a minimum width for safe ingress and egress for the development.
2. Although no formal calculations have been provided, the subject project has provided conservation of natural areas to the maximum extent practical.
3. The proposed buildings are multi-story, thus minimize the building footprints.
4. The reduction in clearing and grading, as well as the driveway and parking areas foot print reduction will be enforced with the approval of the project SWPPP. Notes on the project plans, establish that any changes in the project plans would require an amended approval from the necessary regulatory agencies
5. Soil restoration requirements per NYSDEC stantards shown on project plans.

APPENDIX G

NYSDEC Stormwater Management Practice Construction and Maintenance Inspection Checklist

Stormwater/Wetland Pond Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
Pre-Construction/Materials and Equipment		
Pre-construction meeting		
Pipe and appurtenances on-site prior to construction and dimensions checked		
1. Material (including protective coating, if specified)		
2. Diameter		
3. Dimensions of metal riser or pre-cast concrete outlet structure		
4. Required dimensions between water control structures (orifices, weirs, etc.) are in accordance with approved plans		
5. Barrel stub for prefabricated pipe structures at proper angle for design barrel slope		
6. Number and dimensions of prefabricated anti-seep collars		
7. Watertight connectors and gaskets		
8. Outlet drain valve		
Project benchmark near pond site		
Equipment for temporary de-watering		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
2. Subgrade Preparation		
Area beneath embankment stripped of all vegetation, topsoil, and organic matter		
3. Pipe Spillway Installation		
Method of installation detailed on plans		
A. Bed preparation		
Installation trench excavated with specified side slopes		
Stable, uniform, dry subgrade of relatively impervious material (If subgrade is wet, contractor shall have defined steps before proceeding with installation)		
Invert at proper elevation and grade		
B. Pipe placement		
Metal / plastic pipe		
1. Watertight connectors and gaskets properly installed		
2. Anti-seep collars properly spaced and having watertight connections to pipe		
3. Backfill placed and tamped by hand under “haunches” of pipe		
4. Remaining backfill placed in max. 8 inch lifts using small power tamping equipment until 2 feet cover over pipe is reached		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
3. Pipe Spillway Installation		
Concrete pipe		
1. Pipe set on blocks or concrete slab for pouring of low cradle		
2. Pipe installed with rubber gasket joints with no spalling in gasket interface area		
3. Excavation for lower half of anti-seep collar(s) with reinforcing steel set		
4. Entire area where anti-seep collar(s) will come in contact with pipe coated with mastic or other approved waterproof sealant		
5. Low cradle and bottom half of anti-seep collar installed as monolithic pour and of an approved mix		
6. Upper half of anti-seep collar(s) formed with reinforcing steel set		
7. Concrete for collar of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
8. Forms stripped and collar inspected for honeycomb prior to backfilling. Parge if necessary.		
C. Backfilling		
Fill placed in maximum 8 inch lifts		
Backfill taken minimum 2 feet above top of anti-seep collar elevation before traversing with heavy equipment		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
4. Riser / Outlet Structure Installation		
Riser located within embankment		
A. Metal riser		
Riser base excavated or formed on stable subgrade to design dimensions		
Set on blocks to design elevations and plumbed		
Reinforcing bars placed at right angles and projecting into sides of riser		
Concrete poured so as to fill inside of riser to invert of barrel		
B. Pre-cast concrete structure		
Dry and stable subgrade		
Riser base set to design elevation		
If more than one section, no spalling in gasket interface area; gasket or approved caulking material placed securely		
Watertight and structurally sound collar or gasket joint where structure connects to pipe spillway		
C. Poured concrete structure		
Footing excavated or formed on stable subgrade, to design dimensions with reinforcing steel set		
Structure formed to design dimensions, with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
Forms stripped & inspected for “honeycomb” prior to backfilling; parge if necessary		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
5. Embankment Construction		
Fill material		
Compaction		
Embankment		
1. Fill placed in specified lifts and compacted with appropriate equipment		
2. Constructed to design cross-section, side slopes and top width		
3. Constructed to design elevation plus allowance for settlement		
6. Impounded Area Construction		
Excavated / graded to design contours and side slopes		
Inlet pipes have adequate outfall protection		
Forebay(s)		
Pond benches		
7. Earth Emergency Spillway Construction		
Spillway located in cut or structurally stabilized with riprap, gabions, concrete, etc.		
Excavated to proper cross-section, side slopes and bottom width		
Entrance channel, crest, and exit channel constructed to design grades and elevations		

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
8. Outlet Protection		
A. End section		
Securely in place and properly backfilled		
B. Endwall		
Footing excavated or formed on stable subgrade, to design dimensions and reinforcing steel set, if specified		
Endwall formed to design dimensions with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing, if necessary)		
Forms stripped and structure inspected for "honeycomb" prior to backfilling; parge if necessary		
C. Riprap apron / channel		
Apron / channel excavated to design cross-section with proper transition to existing ground		
Filter fabric in place		
Stone sized as per plan and uniformly place at the thickness specified		
9. Vegetative Stabilization		
Approved seed mixture or sod		
Proper surface preparation and required soil amendments		
Excelsior mat or other stabilization, as per plan		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
10. Miscellaneous		
Drain for ponds having a permanent pool		
Trash rack / anti-vortex device secured to outlet structure		
Trash protection for low flow pipes, orifices, etc.		
Fencing (when required)		
Access road		
Set aside for clean-out maintenance		
11. Stormwater Wetlands		
Adequate water balance		
Variety of depth zones present		
Approved pondscaping plan in place Reinforcement budget for additional plantings		
Plants and materials ordered 6 months prior to construction		
Construction planned to allow for adequate planting and establishment of plant community (April-June planting window)		
Wetland buffer area preserved to maximum extent possible		

Comments:

Actions to be Taken:

Infiltration Trench Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Pre-Construction		
Pre-construction meeting		
Runoff diverted		
Soil permeability tested		
Groundwater / bedrock sufficient at depth		
2. Excavation		
Size and location		
Side slopes stable		
Excavation does not compact subsoils		
3. Filter Fabric Placement		
Fabric specifications		
Placed on bottom, sides, and top		

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
4. Aggregate Material		
Size as specified		
Clean / washed material		
Placed properly		
5. Observation Well		
Pipe size		
Removable cap / footplate		
Initial depth =_____feet		
6. Final Inspection		
Pretreatment facility in place		
Contributing watershed stabilized prior to flow diversion		
Outlet		

Comments:

Actions to be Taken:

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:

Stormwater Pond/Wetland Operation, Maintenance and Management Inspection Checklist

Project _____
Location: _____
Site Status: _____

Date: _____
Time: _____

Inspector: _____

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
1. Embankment and emergency spillway (Annual, After Major Storms)		
1. Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of dam		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6.Pond, toe & chimney drains clear and functioning		
7.Seeps/leaks on downstream face		
8.Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam “As-Built”		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)		
Type: Reinforced concrete _____ Corrugated pipe _____ Masonry _____ 1. Low flow orifice obstructed		
2. Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
3. Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
5. Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
8. Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (monthly)		
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1.Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual , After Major Storms)		
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4.Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
1. Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
2. Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
4. Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants “choked” with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		

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:

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:

APPENDIX H

Hydrodynamic Separator Sizing and Maintenance Manual

State of New Jersey

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Mail Code – 401-02B
Division of Water Quality
Bureau of Nonpoint Pollution Control
P.O. Box 420 – 401 E. State St.
Trenton, NJ 08625-0420
Phone: (609) 633-7021 / Fax: (609) 777-0432
http://www.state.nj.us/dep/dwq/bnpc_home.htm

CATHERINE R. McCABE
Acting Commissioner

March 27, 2018

Graham Bryant, M.Sc., P.E.
President
Hydroworks, LLC
136 Central Avenue
Clark, NJ 07066

Re: MTD Lab Certification
HydroStorm Hydrodynamic Separator by Hydroworks, LLC
Online Installation

TSS Removal Rate 50%

Dear Mr. Bryant:

The Stormwater Management rules under N.J.A.C. 7:8-5.5(b) and 5.7 (c) allow the use of manufactured treatment devices (MTDs) for compliance with the design and performance standards at N.J.A.C. 7:8-5 if the pollutant removal rates have been verified by the New Jersey Corporation for Advanced Technology (NJCAT) and have been certified by the New Jersey Department of Environmental Protection (NJDEP). Hydroworks, LLC has requested an MTD Laboratory Certification for the Hydroworks HydroStorm Hydrodynamic Separator.

The project falls under the "Procedure for Obtaining Verification of a Stormwater Manufactured Treatment Device from New Jersey Corporation for Advance Technology" dated January 25, 2013. The applicable protocol is the "New Jersey Laboratory Testing Protocol to Assess Total Suspended Solids Removal by a Hydrodynamic Sedimentation Manufactured Treatment Device" dated January 25, 2013.

NJCAT verification documents submitted to the NJDEP indicate that the requirements of the aforementioned protocol have been met or exceeded. The NJCAT letter also included a recommended certification TSS removal rate and the required maintenance plan. The NJCAT Verification Report with the Verification Appendix (dated February 2018) for this device is published online at http://www.njcat.org/verification-process/technology-verification-database.html.

The NJDEP certifies the use of the HydroStorm by Hydroworks, LLC at a TSS removal rate of 50% when designed, operated, and maintained in accordance with the information provided in the Verification Appendix and the following conditions:

New Jersey is an Equal Opportunity Employer
Printed on Recycled Paper and Recyclable

1. The maximum treatment flow rate (MTFR) for the manufactured treatment device (MTD) is calculated using the New Jersey Water Quality Design Storm (1.25 inches in 2 hrs) in N.J.A.C. 7:8-5.5.

2. The HydroStorm shall be installed using the same configuration reviewed by NJCAT and shall be sized in accordance with the criteria specified in item 6 below.

3. This HydroStorm cannot be used in series with another MTD or a media filter (such as a sand filter) to achieve an enhanced removal rate for total suspended solids (TSS) removal under N.J.A.C. 7:8-5.5.

4. Additional design criteria for MTDs can be found in Chapter 9.6 of the New Jersey Stormwater Best Management Practices (NJ Stormwater BMP) Manual, which can be found online at www.njstormwater.org.

5. The maintenance plan for a site using this device shall incorporate, at a minimum, the maintenance requirements for the Hydrostorm. A copy of the maintenance plan is attached to this certification. However, it is recommended to review the maintenance website at http://www.hydroworks.com/hydrostormo&m.pdf for any changes to the maintenance requirements.

6. Sizing Requirement:

   The example below demonstrates the sizing procedure for the Hydrostorm:

   Example: A 0.25-acre impervious site is to be treated to 50% TSS removal using a HydroStorm. The impervious site runoff (Q) based on the New Jersey Water Quality Design Storm was determined to be 0.79 cfs.

   Maximum Treatment Flow Rate (MTFR) Evaluation:

   The site runoff (Q) was based on the following:
   time of concentration = 10 minutes
   i = 3.2 in/hr (page 5-8, Fig. 5-3 of the NJ Stormwater BMP Manual)
   c = 0.99 (runoff coefficient for impervious)
   Q = ciA = 0.99 x 3.2 x 0.25 = 0.79 cfs

   Given the site runoff is 0.79 cfs and based on Table 1 below, the HydroStorm Model HS4 with a MTFR of 0.88 cfs could be used for this site to remove 50% of the TSS from the impervious area without exceeding the MTFR.

   The sizing table corresponding to the available system models is noted below. Additional specifications regarding each model can be found in the Verification Appendix under Table A-1.

Table 1 HydroStorm Sizing Information

HydroStorm Model	NJDEP 50% TSS Maximum Treatment Flow Rate (cfs)	Treatment Area (ft^2)	Hydraulic Loading Rate (gpm/ft^2)	50% Maximum Sediment Storage (ft^3)
HS3	0.50	7.1	31.4	3.6
HS4	0.88	12.6	31.4	6.3
HS5	1.37	19.6	31.4	9.8
HS6	1.98	28.3	31.4	14.2
HS7	2.69	38.5	31.4	19.3
HS8	3.52	50.3	31.4	25.2
HS9	4.45	63.6	31.4	31.8
HS10	5.49	78.5	31.4	39.3
HS11	6.65	95.0	31.4	47.5
HS12	7.91	113.0	31.4	56.5

A detailed maintenance plan is mandatory for any project with a Stormwater BMP subject to the Stormwater Management Rules, N.J.A.C. 7:8. The plan must include all of the items identified in the Stormwater Management Rules, N.J.A.C. 7:8-5.8. Such items include, but are not limited to, the list of inspection and maintenance equipment and tools, specific corrective and preventative maintenance tasks, indication of problems in the system, and training of maintenance personnel. Additional information can be found in Chapter 8: Maintenance and Retrofit of Stormwater Management Measures.

If you have any questions regarding the above information, please contact Brian Salvo or Nick Grotts of my office at (609) 633-7021.

Sincerely,

James J. Murphy, Chief
Bureau of Nonpoint Pollution Control

Attachment: Maintenance Plan

cc: Chron File
Richard Magee, NJCAT
Vince Mazzei, NJDEP - DLUR
Ravi Patraju, NJDEP - BES
Gabriel Mahon, NJDEP - BNPC
Brian Salvo, NJDEP – BNPC
Nick Grotts, NJDEP – BNPC

Hydroworks® HydroStorm

Operations & Maintenance Manual

Version 1.0

Please call Hydroworks at 888-290-7900 or email us at support@hydroworks.com if you have any questions regarding the Inspection Checklist. Please fax a copy of the completed checklist to Hydroworks at 888-783-7271 for our records.

Introduction

The HydroStorm is a state of the art hydrodynamic separator. Hydrodynamic separators remove solids, debris and lighter than water (oil, trash, floating debris) pollutants from stormwater. Hydrodynamic separators and other water quality measures are mandated by regulatory agencies (Town/City, State, Federal Government) to protect storm water quality from pollution generated by urban development (traffic, people) as part of new development permitting requirements.

As storm water treatment structures fill up with pollutants they become less and less effective in removing new pollution. Therefore, it is important that storm water treatment structures be maintained on a regular basis to ensure that they are operating at optimum performance. The HydroStorm is no different in this regard and this manual has been assembled to provide the owner/operator with the necessary information to inspect and coordinate maintenance of their HydroStorm.

Hydroworks® HydroStorm Operation

The Hydroworks HydroStorm (HS) separator is a unique hydrodynamic by-pass separator. It incorporates a protected submerged pretreatment zone to collect larger solids, a treatment tank to remove finer solids, and a dual set of weirs to create a high flow bypass. High flows are conveyed directly to the outlet and do not enter the treatment area, however, the submerged pretreatment area still allows removal of coarse solids during high flows.

Under normal or low flows, water enters an inlet area with a horizontal grate. The area underneath the grate is submerged with openings to the main treatment area of the separator. Coarse solids fall through the grate and are either trapped in the pretreatment area or conveyed into the main treatment area depending on the flow rate. Fines are transported into the main treatment area. Openings and weirs in the pretreatment area allow entry of water and solids into the main treatment area and cause water to rotate in the main treatment area creating a vortex motion. Water in the main treatment area is forced to rise along the walls of the separator to discharge from the treatment area to the downstream pipe.

The vortex motion forces solids and floatables to the middle of the inner chamber. Floatables are trapped since the inlet to the treatment area is submerged. The design maximizes the retention of settled solids since solids are forced to the center of the inner chamber by the vortex motion of water while water must flow up the walls of the separator to discharge into the downstream pipe.

A set of high flow weirs near the outlet pipe create a high flow bypass over both the pretreatment area and main treatment chamber. The rate of flow into the treatment area is regulated by the number and size of openings into the treatment chamber and the height of by-pass weirs. High flows flow over the weirs directly to the outlet pipe preventing the scour and resuspension of any fines collected in the treatment chamber.

A central access tube is located in the structure to provide access for cleaning. The arrangement of the inlet area and bypass weirs near the outlet pipe facilitate the use of multiple inlet pipes.

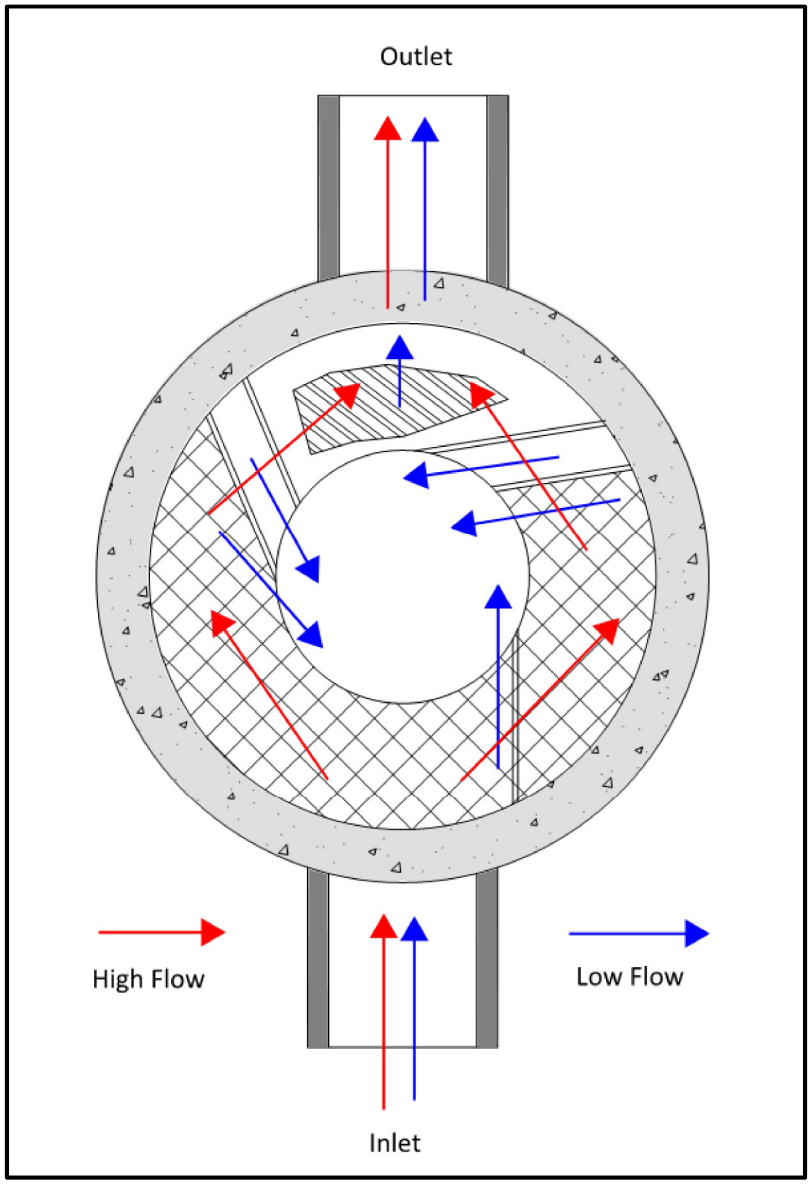


Figure 1. Hydroworks HydroStorm Operation – Plan View

Figure 2 is a profile view of the HydroStorm separator showing the flow patterns for low and high flows.

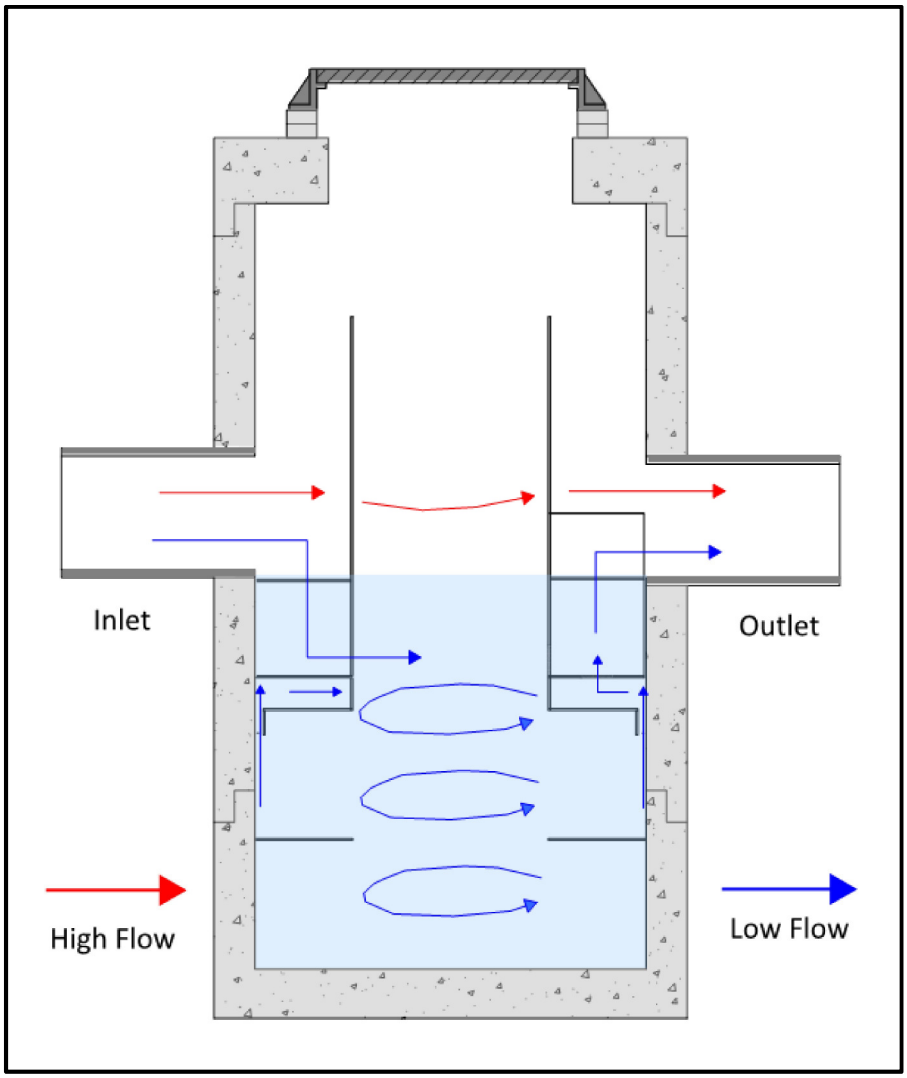


Figure 2. Hydroworks HydroStorm Operation – Profile View

The HS 4i is an inlet version of the HS 4 separator. There is a catch-basin grate on top of the HS 4i. A funnel sits sits underneath the grate on the frame and directs the water to the inlet side of the separator to ensure all lows flows are properly treated. The whole funnel is removed for inspection and cleaning.

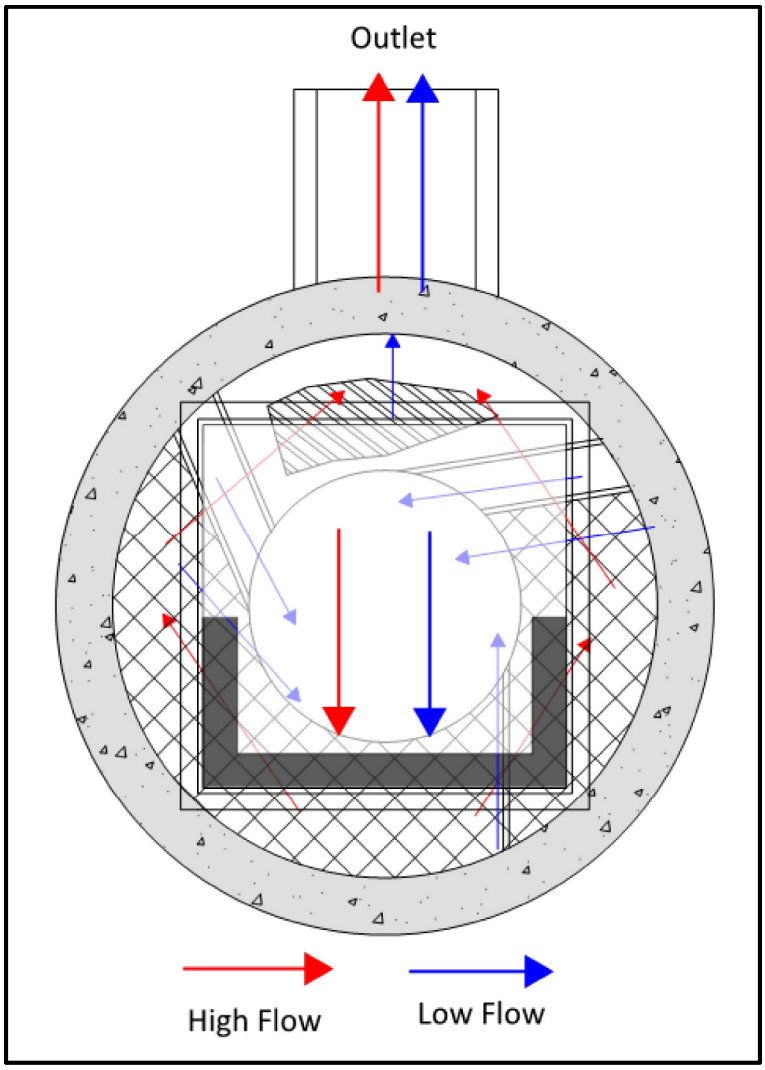


Figure 3. Hydroworks HS 4i Funnel

Inspection

Procedure

Floatables

A visual inspection can be conducted for floatables by removing the covers and looking down into the center access tube of the separator. Separators with an inlet grate (HS 4i or custom separator) will have a plastic funnel located under the grate that must be removed from the frame prior to inspection or maintenance. If you are missing a funnel please contact Hydroworks at the numbers provided at the end of this document.

TSS/Sediment

Inspection for TSS build-up can be conducted using a Sludge Judge®, Core Pro®, AccuSludge® or equivalent sampling device that allows the measurement of the depth of TSS/sediment in the unit. These devices typically have a ball valve at the bottom of the tube that allows water and TSS to flow into the tube when lowering the tube into the unit. Once the unit touches the bottom of the device, it is quickly pulled upward such that the water and TSS in the tube forces the ball valve closed allowing the user to see a full core of water/TSS in the unit. The unit should be inspected for TSS through each of the access covers. Several readings (2 or 3) should be made at each access cover to ensure that an accurate TSS depth measurement is recorded.

Frequency

Construction Period

The HydroStorm separator should be inspected every four weeks and after every large storm (over 0.5" (12.5 mm) of rain) during the construction period.

Post-Construction Period

The Hydroworks HydroStorm separator should be inspected during the first year of operation for normal stabilized sites (grassed or paved areas). If the unit is subject to oil spills or runoff from unstabilized (storage piles, exposed soils) areas the HydroStorm separator should be inspected more frequently (4 times per year). The initial annual inspection will indicate the required future frequency of inspection and maintenance if the unit was maintained after the construction period.

Reporting

Reports should be prepared as part of each inspection and include the following information:

1. Date of inspection
2. GPS coordinates of Hydroworks unit
3. Time since last rainfall
4. Date of last inspection
5. Installation deficiencies (missing parts, incorrect installation of parts)
6. Structural deficiencies (concrete cracks, broken parts)
7. Operational deficiencies (leaks, blockages)
8. Presence of oil sheen or depth of oil layer
9. Estimate of depth/volume of floatables (trash, leaves) captured
10. Sediment depth measured
11. Recommendations for any repairs and/or maintenance for the unit
12. Estimation of time before maintenance is required if not required at time of inspection

A sample inspection checklist is provided at the end of this manual.

Maintenance

Procedure

The Hydroworks HydroStorm unit is typically maintained using a vacuum truck. There are numerous companies that can maintain the HydroStorm separator. Maintenance with a vacuum truck involves removing all of the water and sediment together. The water is then separated from the sediment on the truck or at the disposal facility.

A central access opening (24” or greater) is provided to the gain access to the lower treatment tank of the unit. This is the primary location to maintain by vacuum truck. The pretreatment area can also be vacuumed and/or flushed into the lower treatment tank of the separator for cleaning via the central access once the water level is lowered below the pretreatment floor.

In instances where a vacuum truck is not available other maintenance methods (i.e. clamshell bucket) can be used, but they will be less effective. If a clamshell bucket is used the water must be decanted prior to cleaning since the sediment is under water and typically fine in nature. Disposal of the water will depend on local requirements. Disposal options for the decanted water may include:

1. Discharge into a nearby sanitary sewer manhole
2. Discharge into a nearby LID practice (grassed swale, bioretention)
3. Discharge through a filter bag into a downstream storm drain connection

The local municipality should be consulted for the allowable disposal options for both water and sediments prior to any maintenance operation. Once the water is decanted the sediment can be removed with the clamshell bucket.

Disposal of the contents of the separator depend on local requirements. Maintenance of a Hydroworks HydroStorm unit will typically take 1 to 2 hours based on a vacuum truck and longer for other cleaning methods (i.e. clamshell bucket).

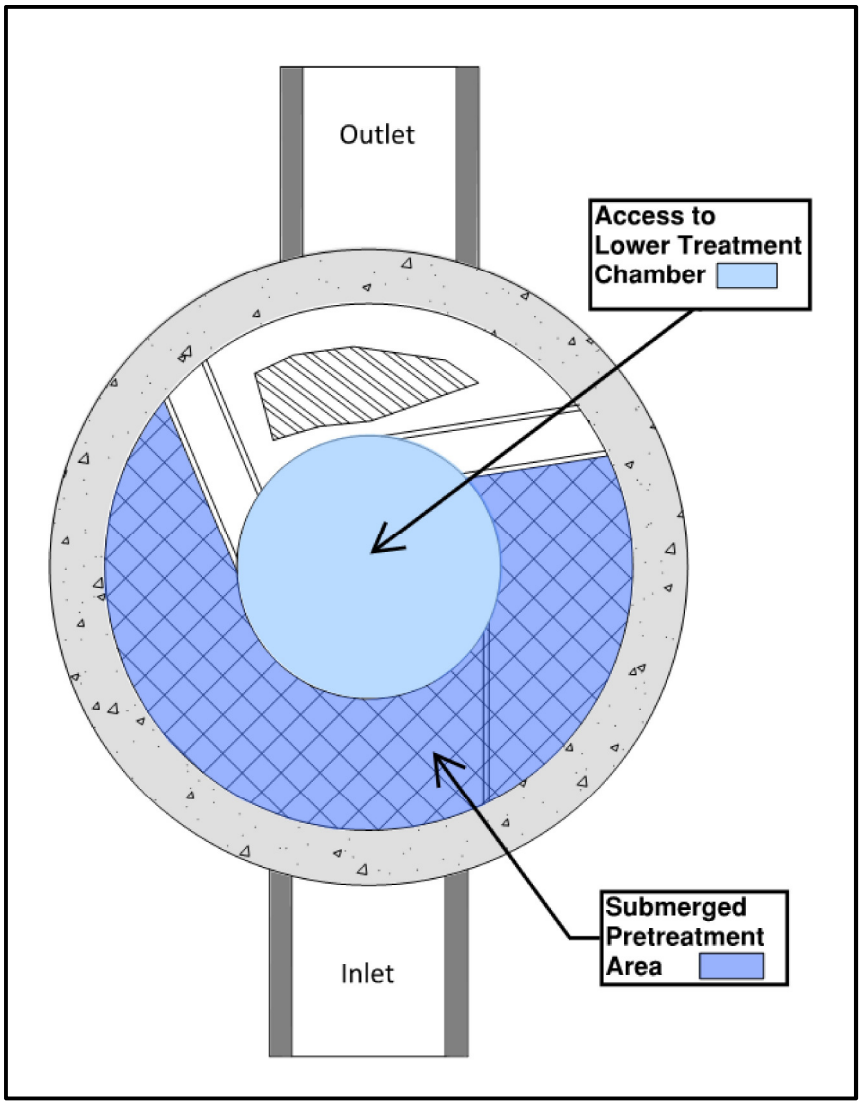


Figure 3. Maintenance Access

Frequency

Construction Period

A HydroStorm separator can fill with construction sediment quickly during the construction period. The HydroStorm must be maintained during the construction period when the depth of TSS/sediment reaches 24" (600 mm). It must also be maintained during the construction period if there is an appreciable depth of oil in the unit (more than a sheen) or if floatables other than oil cover over 50% of the area of the separator

The HydroStorm separator should be maintained at the end of the construction period, prior to operation for the post-construction period.

Post-Construction Period

The HydroStorm was independently tested by Alden Research Laboratory in 2017. A HydroStorm HS 4 was tested for scour with a 50% sediment depth of 0.5 ft. Therefore, maintenance for sediment accumulation is required if the depth of sediment is 1 ft or greater in separators with standard water (sump) depths (Table 1).

There will be designs with increased sediment storage based on specifications or site-specific criteria. A measurement of the total water depth in the separator through the central access tube should be taken and compared to water depth given in Table 1. The standard water depth from Table 1 should be subtracted from the measured water depth and the resulting extra depth should be added to the 1 ft to determine the site-specific sediment maintenance depth for that separator.

For example, if the measured water depth in the HS-7 is 7 feet, then the sediment maintenance depth for that HS-7 is 2 ft (= 1 + 7 – 6) and the separator does not need to be cleaned for sediment accumulation until the measure sediment depth is 2 ft.

The HydroStorm separator must also be maintained if there is an appreciable depth of oil in the unit (more than a sheen) or if floatables other than oil cover over 50% of the water surface of the separator.

Table 1 Standard Dimensions for Hydroworks HydroStorm Models

Model	Diameter (ft)	Total Water Depth (ft)	Sediment Maintenance Depth for Table 1 Total Water Depth(ft)
HS-3	3	3	1
HS-4	4	4	1
HS-5	5	4	1
HS-6	6	4	1
HS-7	7	6	1
HS-8	8	7	1
HS-9	9	7.5	1
HS-10	10	8	1
HS-11	11	9	1
HS-12	12	9.5	1

HYDROSTORM INSPECTION SHEET

Date _____
Date of Last Inspection _____

Site _____
City _____
State _____
Owner _____

GPS Coordinates _____

Date of last rainfall _____

Site Characteristics	**Yes**	**No**
Soil erosion evident	☐	☐
Exposed material storage on site	☐	☐
Large exposure to leaf litter (lots of trees)	☐	☐
High traffic (vehicle) area	☐	☐

HydroStorm	**Yes**	**No**
Obstructions in the inlet or outlet	☐ *	☐
Missing internal components	☐ **	☐
Improperly installed inlet or outlet pipes	☐ ***	☐
Internal component damage (cracked, broken, loose pieces)	☐ **	☐
Floating debris in the separator (oil, leaves, trash)	☐	☐
Large debris visible in the separator	☐ *	☐
Concrete cracks/deficiencies	☐ ***	☐
Exposed rebar	☐ **	☐
Water seepage (water level not at outlet pipe invert)	☐ ***	☐
Water level depth below outlet pipe invert _____"		

Routine Measurements

Floating debris depth	**< 0.5" (13mm)**	☐	**>0.5" 13mm)**	☐ *
Floating debris coverage	**< 50% of surface area**	☐	**> 50% surface area**	☐ *
Sludge depth	**< 12" (300mm)**	☐	**> 12" (300mm)**	☐ *

* Maintenance required
** Repairs required
*** Further investigation is required

Hydroworks

Other Comments:

Hydroworks® HydroStorm

One Year Limited Warranty

Hydroworks, LLC warrants, to the purchaser and subsequent owner(s) during the warranty period subject to the terms and conditions hereof, the Hydroworks HydroStorm to be free from defects in material and workmanship under normal use and service, when properly installed, used, inspected and maintained in accordance with Hydroworks written instructions, for the period of the warranty. The standard warranty period is 1 year.

The warranty period begins once the separator has been manufactured and is available for delivery. Any components determined to be defective, either by failure or by inspection, in material and workmanship will be repaired, replaced or remanufactured at Hydroworks' option provided, however, that by doing so Hydroworks, LLC will not be obligated to replace an entire insert or concrete section, or the complete unit. This warranty does not cover shipping charges, damages, labor, any costs incurred to obtain access to the unit, any costs to repair/replace any surface treatment/cover after repair/replacement, or other charges that may occur due to product failure, repair or replacement.

This warranty does not apply to any material that has been disassembled or modified without prior approval of Hydroworks, LLC, that has been subjected to misuse, misapplication, neglect, alteration, accident or act of God, or that has not been installed, inspected, operated or maintained in accordance with Hydroworks, LLC instructions and is in lieu of all other warranties expressed or implied. Hydroworks, LLC does not authorize any representative or other person to expand or otherwise modify this limited warranty.

The owner shall provide Hydroworks, LLC with written notice of any alleged defect in material or workmanship including a detailed description of the alleged defect upon discovery of the defect. Hydroworks, LLC should be contacted at 136 Central Ave., Clark, NJ 07066 or any other address as supplied by Hydroworks, LLC. (888-290-7900).

This limited warranty is exclusive. There are no other warranties, express or implied, or merchantability or fitness for a particular purpose and none shall be created whether under the uniform commercial code, custom or usage in the industry or the course of dealings between the parties. Hydroworks, LLC will replace any goods that are defective under this warranty as the sole and exclusive remedy for breach of this warranty.

Subject to the foregoing, all conditions, warranties, terms, undertakings or liabilities (including liability as to negligence), expressed or implied, and howsoever arising, as to the condition, suitability, fitness, safety, or title to the Hydroworks HydroStorm are hereby negated and excluded and Hydroworks, LLC gives and makes no such representation, warranty or undertaking except as expressly set forth herein. Under no circumstances shall Hydroworks, LLC be liable to the Purchaser or to any third party for product liability claims; claims arising from the design, shipment, or installation of the HydroStorm, or the cost of other goods or services related to the purchase and installation of the HydroStorm. For this Limited Warranty to apply, the HydroStorm must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and Hydroworks' written installation instructions.

Hydroworks, LLC expressly disclaims liability for special, consequential or incidental damages (even if it has been advised of the possibility of the same) or breach of expressed or implied warranty. Hydroworks, LLC shall not be liable for penalties or liquidated damages, including loss of production and profits; labor and materials; overhead costs; or other loss or expense incurred by the purchaser or any third party. Specifically excluded from limited warranty coverage are damages to the HydroStorm arising from ordinary wear and tear; alteration, accident, misuse, abuse or neglect; improper maintenance, failure of the product due to improper installation of the concrete sections or improper sizing; or any other event not caused by Hydroworks, LLC. This limited warranty represents Hydroworks' sole liability to the purchaser for claims related to the HydroStorm, whether the claim is based upon contract, tort, or other legal basis.

APPENDIX I

Bioretention Filter Sizing Calculations

SMP 1.3P - NYSDEC Bioretention Filter (Design F-5)

Project: Beacon Views, LLC
Project #: 19131.100
Date: 6/30/2020

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

1a. WQv Required for Downstream SMP = 0.022 ac-ft 942 c.f.

1b. Subcatchment % Imperviousness = 50.0% %

2. Required Practice Volume

2a. Total required volume = 75% of WQv (in filter) = 707 c.f.

2b. Total volume provided in filter = = 709 c.f.
(Calculated using Stage - Volume information in HydroCAD output. Volume calculated at elevation 194.5)

3. Pretreatment Requirements:
Pretreatment will be provided by a grass filter strip, gravel diaphragm and mulch layer.

4. Required Filter Area:

4a. Required Filter Area = $\frac{WQv\ (df)}{k\ (hf + df) + tf}$

df= 2.50 ft.
hf= 0.25 ft.
k= 0.50 ft./day
tf= 1.67 days
Required Filter Area= 1026 s.f.

4b. Provided Filter Area = 1,270 s.f.

APPENDIX J

NYSDEC Full Environmental Assessment Form

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. 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; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Beacon Views Townhouses		
Project Location (describe, and attach a general location map): 100 Conklin Street, Beacon, NY 12508		
Brief Description of Proposed Action (include purpose or need): Application for Site Development Plan approval proposing the development of 40 townhomes subdivided into individual townhouse lots, and supporting improvements including a road, stormwater management facilities and public utility connections.		
Name of Applicant/Sponsor: Beacon Views, LLC	Telephone: 718-258-9027 E-Mail: ctadult@aol.com	
Address: 500 River Avenue, Suite 145		
City/PO: Lakewood	State: NJ	Zip Code: 08701
Project Contact (if not same as sponsor; give name and title/role): Greg Kamedulski	Telephone: 203-313-9412 E-Mail: gkamedulsky@gmail.com	
Address: 500 River Avenue, Suite 145		
City/PO: Lakewood	State: NJ	Zip Code: 08701
Property Owner (if not same as sponsor): Highlands at Beacon LLC	Telephone: E-Mail:	
Address: 2847 Church Street		
City/PO: Pine Plains	State: NY	Zip Code: 12567

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☐Yes ☑No		
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	City of Beacon Planning Board - Site Plan Approval & Subdivision Approval	8/27/19
c. City, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☐Yes ☑No		
e. County agencies ☑Yes ☐No	Dutchess County Planning Dutchess County Department of Health	10/1/19
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	NYSDEC GP-0-20-001 Stormwater General Permit	10/1/19
h. Federal agencies ☑Yes ☐No	ACOE Wetland General Permit	10/1/19

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☑Yes ☐No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

_____

_____

_____

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
RD-5 - Designed Residence District

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Beacon City Schools

b. What police or other public protection forces serve the project site?
City of Beacon Police

c. Which fire protection and emergency medical services serve the project site?
City of Beacon Fire Department

d. What parks serve the project site?
City of Beacon Parks and Recreation, Memorial Park

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Residential

b. a. Total acreage of the site of the proposed action? 8.55 acres
b. Total acreage to be physically disturbed? 3.25 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 8.55 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☑ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
Residential, Creation of townhouse lots.
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? 43
iv. Minimum and maximum proposed lot sizes? Minimum 1,800 Maximum 6.8 ac

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 24 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	40			
At completion of all phases	40			

g. Does the proposed action include new non-residential construction (including expansions)? ☐ Yes ☑ No

If Yes,

i. Total number of structures _____

ii. Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length

iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☑ Yes ☐ No

If Yes,

i. Purpose of the impoundment: Stormwater Management

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☑ Other specify: Stormwater runoff

iii. If other than water, identify the type of impounded/contained liquids and their source.

iv. Approximate size of the proposed impoundment. Volume: 0.5 million gallons; surface area: 0.4 acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): Earth Fill

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i .What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe. _____

v. What is the total area to be dredged or excavated? _____acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☑ Yes ☐ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): Federal flagged wetland PF01E

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
The proposed project would fill the existing wetland by approximately 9,460 s.f.

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☑ Yes ☐ No
If Yes, describe: In order to limit disturbance into the wetland, retaining walls will be installed.

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☑ Yes ☐ No
If Yes:

- acres of aquatic vegetation proposed to be removed: .22 ac±
- expected acreage of aquatic vegetation remaining after project completion: 2.33 ac±
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): Site grading.
- proposed method of plant removal: Excavation
- if chemical/herbicide treatment will be used, specify product(s): None

v. Describe any proposed reclamation/mitigation following disturbance:
1 to 1 creation of wetlands

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No
If Yes:

i. Total anticipated water usage/demand per day: 13,860 (max day) gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No
If Yes:

- Name of district or service area: City of Beacon
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district:

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☐ No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: 13,860 (max day) gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: City of Beacon
- Name of district: City of Beacon
- Does the existing wastewater treatment plant have capacity to serve the project? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No

- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will a line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 2.26 acres (impervious surface)

_____ Square feet or 8.55 acres (parcel size)

ii. Describe types of new point sources. Roadway catch basins, roof drain connections, cut off swales

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Onsite stormwater management facilities

- If to surface waters, identify receiving water bodies or wetlands: Onsite wetland
- Will stormwater runoff flow to adjacent properties? ☑ Yes ☐ No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑ Yes ☐ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑ Yes ☐ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Heavy equipment during construction.

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

None.

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

Boilers for each residential unit.

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

_____

iii. Parking spaces: Existing 0 Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☐No

N/A

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

_____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7 am - 5 pm
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: _____
- Saturday: _____
- Sunday: _____
- Holidays: _____

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Typical noise associated with excavation and general construction during business hours.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☑ Yes ☐ No

Describe: Limited tree clearing for improvements. New landscape screening will be installed.

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Roadway pole mounted lights at 18' high with house side shields.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☑ Yes ☐ No

Describe: Limited tree clearing for improvements. New landscape screening will be installed.

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☐ No

N/A

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☐ No

N/A

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☑ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces		2.1 ac±	
• Forested	6.0 ac±	2.6 ac±	
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)	2.6 ac±	2.3 ac±	
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: Slope, Lawn and Landscape Areas		1.6 ac±	

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No

If Yes,

i. Identify Facilities:

Beacon High School, Roundbout Middle School, Wingate at Beacon, Hedgewood Home for Adults.

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☐ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? varies feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site:

Bernardston Silt (BeB) (BeC)	52 %
Canandaigua Silt (Ca)	29 %
Nassau Cardigan Complex (NwC)	19 %

d. What is the average depth to the water table on the project site? Average: varies feet

e. Drainage status of project site soils:
☑ Well Drained: 66 % of site
☐ Moderately Well Drained: _____% of site
☑ Poorly Drained 34 % of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 50 % of site
☑ 10-15%: 15 % of site
☑ 15% or greater: 35 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑ Yes ☐ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Federal Wetland PF01E Approximate Size 2.55 ac onsite
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:
Whitetail Deer, Gray Squirrel
Racoon

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation): _____
ii. Source(s) of description or evaluation: _____
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐ No
If Yes:
i. Species and listing (endangered or threatened):
Indiana Bat

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No
If Yes:
i. Species and listing: _____

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No
If yes, give a brief description of how the proposed action may affect that use: _____

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No
If Yes, provide county plus district name/number: _____

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No
i. If Yes: acreage(s) on project site? _____
ii. Source(s) of soil rating(s): _____

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No
If Yes:
i. CEA name: _____
ii. Basis for designation: _____
iii. Designating agency and date: _____

e. 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? ☑ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☑ Historic Building or District

ii. Name: Matteawan State Hospital

iii. Brief description of attributes on which listing is based:
Area of social history, health and medicine and institutional architecture

f. 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? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Hudson Highlands Scenic Area

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Hudson River Valley Scenic Area of Statewide Significance

iii. Distance between project and resource: 2.4 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Jeffrey J. Contelmo, P.E. Date 8/27/19

Insite Engineering, Surveying & Landscape Architecture, P.C.

Signature _____ Title Senior Principal Engineer

PRINT FORM

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.

B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes

E.2.o. [Endangered or Threatened Species - Name]	Indiana Bat
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

APPENDIX K

Pipe Sizing Calculations

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

DRAINAGE SYSTEM CALCULATIONS
Design Storm: 100-Year

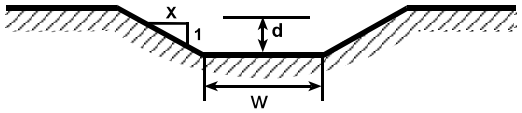
PROJECT: Beacon Views
JOB NUMBER: 19131.100
BY: EJP DATE: 6-30-2020
CHK: ZMP

STRUCTURE		IMPERVIOUS AREA			PERVIOUS AREA			CA	TIME OF CONC. (min.)			I	Q (cfs)		PIPE DESIGN				
FROM	TO	A (ac.)	C	CA	A (ac.)	C	CA		INLET	PIPE	TOTAL		DESIGN	CAP.	V(ft/s)	n	s (%)	L (ft)	DIA (in)
DI 7	CB 6	**0.20**	0.9	0.18	**0.02**	0.3	0.01	0.19	**6**	-	6	**9.2**	1.7	5.9	6.5	**0.012**	**2.3**	**97**	**12**
CB 6	CB 5	**0.16**	0.9	0.14	**0.02**	0.3	0.01	0.34	**6**	-	6	**9.2**	3.1	4.2	5.9	**0.012**	**1.2**	**35**	**12**
CB 5	CB 4	**0.10**	0.9	0.09	**0.06**	0.3	0.02	0.47	**6**	-	6	**9.2**	4.3	8.0	6.6	**0.012**	**1.3**	**183**	**15**
CB 4	CB 3	**0.40**	0.9	0.36	**0.10**	0.3	0.03	0.92	**6**	-	6	**9.2**	8.5	11.4	7.1	**0.012**	**1.0**	**136**	**18**
CB 3	CB 2	**0.15**	0.9	0.14	**0.06**	0.3	0.02	1.17	**6**	-	6	**9.2**	10.8	11.9	7.7	**0.012**	**1.1**	**63**	**18**
CB 2	ES 1	**0.11**	0.9	0.10	**0.00**	0.3	0.00	1.36	**6**	-	6	**9.2**	12.5	21.6	12.7	**0.012**	**3.6**	**76**	**18**
CB 5A	CB 5	**0.02**	0.9	0.02	**0.00**	0.3	0.00	0.02	**6**	-	6	**9.2**	0.2	5.0	3.1	**0.012**	**1.7**	**18**	**12**
CB 4A	CB 4	**0.07**	0.9	0.06	**0.00**	0.3	0.00	0.06	**6**	-	6	**9.2**	0.6	5.3	4.4	**0.012**	**1.9**	**26**	**12**
CB 2A	CB 2	**0.10**	0.9	0.09	**0.00**	0.3	0.00	0.09	**6**	-	6	**9.2**	0.8	5.5	5.0	**0.012**	**2.0**	**25**	**12**
OS 1.3P	CB 3C	**SIZED IN HYDROCAD (2.5 CFS)**																	
CB 3C	CB 3B	**0.28**	0.9	0.25	**0.02**	0.3	0.01	0.26	**6**	-	6	**9.2**	2.4	4.0	5.4	**0.012**	**1.1**	**151**	**12**
CB 3B	CB 3A	**0.20**	0.9	0.18	**0.02**	0.3	0.01	0.45	**6**	-	6	**9.2**	4.1	7.0	6.0	**0.012**	**1.0**	**68**	**15**
CB 3A	CB 3	**0.23**	0.9	0.21	**0.10**	0.3	0.03	0.69	**6**	-	6	**9.2**	6.3	7.0	6.5	**0.012**	**1.0**	**115**	**15**
SDI 22	ES 21	**0.00**	0.9	0.00	**2.20**	0.3	0.66	0.66	**15**	-	15	**6.4**	4.2	7.7	6.4	**0.012**	**1.2**	**52**	**15**
SDI 12	SDI 11	**0.00**	0.9	0.00	**1.60**	0.3	0.48	0.48	**15**	-	15	**6.4**	3.1	11.7	12.6	**0.012**	**9.2**	**22**	**12**
SDI 11	DMH 10	**0.00**	0.9	0.00	**2.70**	0.3	0.81	1.29	**15**	-	15	**6.4**	8.3	16.9	13.7	**0.012**	**5.8**	**57**	**15**
DMH 10	DMH 9	**0.00**	0.9	0.00	**0.00**	0.3	0.00	1.29	**15**	-	15	**6.4**	8.3	11.9	10.5	**0.012**	**2.9**	**110**	**15**
DMH 9	ES 8	**0.00**	0.9	0.00	**0.00**	0.3	0.00	1.29	**15**	-	15	**6.4**	8.3	20.2	15.6	**0.012**	**8.3**	**60**	**15**
SDI 14A	DI 14	**0.00**	0.9	0.00	**4.30**	0.3	1.29	1.29	**15**	-	15	**6.4**	8.3	14.8	12.4	**0.012**	**4.5**	**55**	**15**
DI 14	ES 13	**0.00**	0.9	0.00	**0.00**	0.3	0.00	1.29	**15**	-	15	**6.4**	8.3	49.6	11.8	**0.012**	**4.1**	**80**	**24**
25 TOWNSEND	DI 14	**18" DIAMETER HDPE (TAKEN FROM 25 TOWNSEND STREET APPROVED PLANS)**																	
SDI 17	DMH 16	**0.00**	0.9	0.00	**0.40**	0.3	0.12	0.12	**15**	-	15	**6.4**	0.8	10.4	7.8	**0.012**	**7.3**	**45**	**12**
DMH 16	ES 15	**0.00**	0.9	0.00	**0.00**	0.3	0.00	0.12	**15**	-	15	**6.4**	1.1	5.0	5.1	**0.012**	**1.7**	**47**	**12**
CB 19	FS 1.1	**0.25**	0.9	0.23	**0.01**	0.3	0.00	0.23	**6**	-	6	**9.2**	2.1	6.8	7.7	**0.012**	**3.1**	**46**	**12**
FS 1.1	ES 18	**SIZED IN HYDROCAD**																	
FS 1.1	HDS 1.1	**SIZED IN HYDROCAD**																	
HDS 1.1	1.2P	**SIZED IN HYDROCAD**																	
1.2P	DMH 16	**SIZED IN HYDROCAD (0.29 CFS)**																	
ES 24	ES 23	**0.50**	0.9	0.45	**0.30**	0.3	0.09	0.54	**10**	-	10	**7.5**	4.1	7.3	6.1	**0.012**	**1.1**	**44**	**15**
OS 1.1P	ES 25	**SIZED IN HYDROCAD**																	
CB 28	CB 27	**0.07**	0.9	0.06	**0.00**	0.3	0.00	0.06	**6**	-	6	**9.2**	0.6	6.5	5.0	**0.012**	**2.8**	**18**	**12**
CB 27	ES 26	**0.07**	0.9	0.06	**0.00**	0.3	0.00	0.12	**6**	-	6	**9.2**	1.1	7.5	6.9	**0.012**	**3.8**	**136**	**12**
SDI 30	ES 29	**0.00**	0.9	0.00	**1.50**	0.3	0.45	0.45	**15**	-	15	**6.4**	2.9	4.4	6.0	**0.012**	**1.3**	**61**	**12**

APPENDIX L

Swale Sizing Calculations

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.



Appendix L
SWALE SIZING CALCULATIONS

Design Storm: 100-Year
Project: Beacon Views
Job #: 19131.100
Date: 6/30/2020
By: EJP
Sheet: 1 of 1

SMP ID	Swale Type	Q (cfs)	w (ft)	d (ft)	x	n	S (%)	A (ft^2)	W_p (ft)	R_h (ft)	V (ft/s)	Q (cfs)
		design flow	swale bottom width	depth of flow	swale side slope (x:1)	Manning's "n"	swale slope	swale area	wetted perimeter	hydraulic radius	swale velocity	swale capacity
A	Grass	0.8	1.00	0.3	2.00	0.035	2.00	0.40	2.16	0.18	1.9	**0.8**
A	Grass	0.8	1.00	0.1	2.00	0.035	20.00	0.18	1.63	0.11	4.4	**0.8**
B	Grass	8.3	1.00	0.8	2.00	0.035	2.00	2.27	4.78	0.48	3.7	**8.3**
B	Grass	8.3	1.00	0.5	2.00	0.035	13.00	1.14	3.43	0.33	7.3	**8.3**
C	Grass	3.1	1.00	0.5	2.00	0.035	2.00	1.09	3.37	0.32	2.8	**3.1**
C	Grass	3.1	1.00	0.4	2.00	0.035	10.00	0.61	2.59	0.23	5.1	**3.1**
D	Grass	5.2	1.00	0.7	2.00	0.035	2.00	1.60	4.04	0.40	3.3	**5.2**
D	Grass	5.2	1.00	0.5	2.00	0.035	5.00	1.14	3.44	0.33	4.6	**5.2**
E	Rip Rap	1.3	1.00	0.3	2.00	0.050	5.00	0.55	2.48	0.22	2.4	**1.3**
E	Rip Rap	1.3	1.00	0.2	2.00	0.050	20.00	0.34	2.03	0.17	4.0	**1.3**
F	Grass	3.0	1.00	0.6	2.00	0.035	1.00	1.39	3.77	0.37	2.2	**3.0**
F	Grass	3.0	1.00	0.5	2.00	0.035	2.00	1.06	3.33	0.32	2.8	**3.0**
G	Grass	1.5	1.00	0.4	2.00	0.035	1.00	0.83	2.97	0.28	1.8	**1.5**
G	Grass	1.5	1.00	0.4	2.00	0.035	2.00	0.64	2.65	0.24	2.3	**1.5**

Swale A is located behind Units 35-40 and is tributary to SDI 17
Swale B is located behind Units 27-34 and is tributary to SDI 14A
Swale C is located behind Units 21-26 and is tributary to SDI 12
Swale D is located behind Units 14-20 and is tributary to SDI 11
Swale E is located along between the western property line and proposed retaining wall and is tributary to SDI 22
Swale F is located along the entrance drive off Hastings Drive and is tributary to SDI 22
Swale G is located along the entrance drive off Hastings Drive and is tributary to SDI 30

APPENDIX M

Draft NYSDEC Notice of Intent

0644089821

NOTICE OF INTENT

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR _____
(for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-

RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
BEACON VIEWS, LLC

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
KAMEDULSKI

Owner/Operator Contact Person First Name
GREGORY

Owner/Operator Mailing Address
500 RIVER AVENUE, SUITE 145

City
LAKEWOOD

State
NJ

Zip
08701-____

Phone (Owner/Operator)
203-313-9412

Fax (Owner/Operator)
___-___-____

Email (Owner/Operator)
GKAMEDULSKI@GMAIL.COM

FED TAX ID
__-_____ (not required for individuals)

Project Site Information

Project/Site Name
BEACON VIEWS

Street Address (NOT P.O. BOX)
100 CONKLIN STREET

Side of Street
● **North** ○ **South** ○ **East** ○ **West**

City/Town/Village (THAT ISSUES BUILDING PERMIT)
BEACON

State NY | Zip 12508- | County DUTCHESS | DEC Region 3

Name of Nearest Cross Street
DESOTO AVENUE

Distance to Nearest Cross Street (Feet)
100

Project In Relation to Cross Street
○ **North** ○ **South** ○ **East** ● **West**

Tax Map Numbers
Section-Block-Parcel
6055-03-331123

Tax Map Numbers

1. Provide the Geographic Coordinates for the project site. To do this, go to the NYSDEC Stormwater Interactive Map on the DEC website at:

https://gisservices.dec.ny.gov/gis/stormwater/

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located the centroid of your project site, go to the bottom right hand corner of the map for the X, Y coordinates. Enter the coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting)
-73.955
Ex. -73.749

Y Coordinates (Northing)
41.512
Ex. 42.652

2. What is the nature of this construction project?

● **New Construction**

○ **Redevelopment with increase in impervious area**

○ **Redevelopment with no increase in impervious area**

3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use	**Post-Development Future Land Use**
● FOREST	○ SINGLE FAMILY HOME
○ PASTURE/OPEN LAND	● SINGLE FAMILY SUBDIVISION — Number of Lots: 42
○ CULTIVATED LAND	○ TOWN HOME RESIDENTIAL
○ SINGLE FAMILY HOME	○ MULTIFAMILY RESIDENTIAL
○ SINGLE FAMILY SUBDIVISION	○ INSTITUTIONAL/SCHOOL
○ TOWN HOME RESIDENTIAL	○ INDUSTRIAL
○ MULTIFAMILY RESIDENTIAL	○ COMMERCIAL
○ INSTITUTIONAL/SCHOOL	○ MUNICIPAL
○ INDUSTRIAL	○ ROAD/HIGHWAY
○ COMMERCIAL	○ RECREATIONAL/SPORTS FIELD
○ ROAD/HIGHWAY	○ BIKE PATH/TRAIL
○ RECREATIONAL/SPORTS FIELD	○ LINEAR UTILITY (water, sewer, gas, etc.)
○ BIKE PATH/TRAIL	○ PARKING LOT
○ LINEAR UTILITY	○ CLEARING/GRADING ONLY
○ PARKING LOT	○ DEMOLITION, NO REDEVELOPMENT
○ OTHER	○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
	○ OTHER

***Note**: for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site Area	**Total Area To Be Disturbed**	**Existing Impervious Area To Be Disturbed**	**Future Impervious Area Within Disturbed Area**
8.6	5.7	0.0	2.8

5. Do you plan to disturb more than 5 acres of soil at any one time? ○ **Yes** ● **No**

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	**B**	**C**	**D**
0 %	0 %	0 %	100 %

7. Is this a phased project? ● **Yes** ○ **No**

8. Enter the planned start and end dates of the disturbance activities.

Start Date 08/01/2020 – **End Date** 12/01/2022

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name

USACE WETLAND PF01E

9a. Type of waterbody identified in Question 9?

- ○ Wetland / State Jurisdiction On Site (Answer 9b)
- ○ Wetland / State Jurisdiction Off Site
- ● Wetland / Federal Jurisdiction On Site (Answer 9b)
- ○ Wetland / Federal Jurisdiction Off Site
- ○ Stream / Creek On Site
- ○ Stream / Creek Off Site
- ○ River On Site
- ○ River Off Site
- ○ Lake On Site
- ○ Lake Off Site
- ○ Other Type On Site
- ○ Other Type Off Site

9b. How was the wetland identified?

- ○ Regulatory Map
- ● Delineated by Consultant
- ○ Delineated by Army Corps of Engineers
- ○ Other (identify)

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001? ○ **Yes** ● **No**

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001? ○ **Yes** ● **No**

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? ○ **Yes** ● **No**
If no, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ○ **Yes** ○ **No**
If Yes, what is the acreage to be disturbed?

.

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? ○ **Yes** ● **No**

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ○ **Yes** ● **No** ○ **Unknown**

16. What is the name of the municipality/entity that owns the separate storm sewer system?

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ○ **Yes** ● **No** ○ **Unknown**

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? ○ **Yes** ● **No**

19. Is this property owned by a state authority, state agency, federal government or local government? ○ **Yes** ● **No**

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ○ **Yes** ● **No**

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ● **Yes** ○ **No**

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ● **Yes** ○ **No**
If No, skip questions 23 and 27-39.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ● **Yes** ○ **No**

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ● **Professional Engineer (P.E.)**
- ○ **Soil and Water Conservation District (SWCD)**
- ○ **Registered Landscape Architect (R.L.A)**
- ○ **Certified Professional in Erosion and Sediment Control (CPESC)**
- ○ **Owner/Operator**
- ○ **Other**

SWPPP Preparer

INSITE ENGINEERING

Contact Name (Last, Space, First)

CONTELMO, JEFFREY

Mailing Address

3 GARRETT PLACE

City

CARMEL

State NY Zip 10512-

Phone 845-225-9690 Fax --- - --- - ----

Email

JCONTELMO@INSITE-ENG.COM

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name JEFFREY **MI** J

Last Name CONTELMO, PE

Signature

Date __ / __ / ____

25. Has a construction sequence schedule for the planned management practices been prepared? ● Yes ○ No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural

- ● Check Dams
- ○ Construction Road Stabilization
- ● Dust Control
- ○ Earth Dike
- ● Level Spreader
- ○ Perimeter Dike/Swale
- ○ Pipe Slope Drain
- ○ Portable Sediment Tank
- ○ Rock Dam
- ● Sediment Basin
- ○ Sediment Traps
- ● Silt Fence
- ● Stabilized Construction Entrance
- ● Storm Drain Inlet Protection
- ○ Straw/Hay Bale Dike
- ○ Temporary Access Waterway Crossing
- ● Temporary Stormdrain Diversion
- ● Temporary Swale
- ○ Turbidity Curtain
- ○ Water bars

Biotechnical

- ○ Brush Matting
- ○ Wattling

Vegetative Measures

- ○ Brush Matting
- ○ Dune Stabilization
- ● Grassed Waterway
- ● Mulching
- ○ Protecting Vegetation
- ○ Recreation Area Improvement
- ● Seeding
- ○ Sodding
- ○ Straw/Hay Bale Dike
- ○ Streambank Protection
- ○ Temporary Swale
- ● Topsoiling
- ○ Vegetating Waterways

Permanent Structural

- ○ Debris Basin
- ○ Diversion
- ○ Grade Stabilization Structure
- ○ Land Grading
- ○ Lined Waterway (Rock)
- ○ Paved Channel (Concrete)
- ○ Paved Flume
- ● Retaining Wall
- ○ Riprap Slope Protection
- ● Rock Outlet Protection
- ○ Streambank Protection

Other

Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ○ **Preservation of Undisturbed Areas**
- ○ **Preservation of Buffers**
- ● **Reduction of Clearing and Grading**
- ○ **Locating Development in Less Sensitive Areas**
- ● **Roadway Reduction**
- ○ **Sidewalk Reduction**
- ○ **Driveway Reduction**
- ○ **Cul-de-sac Reduction**
- ● **Building Footprint Reduction**
- ● **Parking Reduction**

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ● All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ○ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required

		0	.	3	0	6

acre-feet

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

	Total Contributing Area (acres)		Total Contributing Impervious Area (acres)
RR Techniques (Area Reduction)			
○ Conservation of Natural Areas (RR-1)		and/or	
○ Sheetflow to Riparian Buffers/Filters Strips (RR-2)		and/or	
○ Tree Planting/Tree Pit (RR-3)		and/or	
○ Disconnection of Rooftop Runoff (RR-4)		and/or	
RR Techniques (Volume Reduction)			
○ Vegetated Swale (RR-5)			
○ Rain Garden (RR-6)			
○ Stormwater Planter (RR-7)			
○ Rain Barrel/Cistern (RR-8)			
○ Porous Pavement (RR-9)			
○ Green Roof (RR-10)			
Standard SMPs with RRv Capacity			
○ Infiltration Trench (I-1)			
○ Infiltration Basin (I-2)			
○ Dry Well (I-3)			
● Underground Infiltration System (I-4)			0.45
● Bioretention (F-5)			0.20
○ Dry Swale (O-1)			
Standard SMPs			
○ Micropool Extended Detention (P-1)			
○ Wet Pond (P-2)			
○ Wet Extended Detention (P-3)			
○ Multiple Pond System (P-4)			
● Pocket Pond (P-5)			2.15
○ Surface Sand Filter (F-1)			
○ Underground Sand Filter (F-2)			
○ Perimeter Sand Filter (F-3)			
○ Organic Filter (F-4)			
○ Shallow Wetland (W-1)			
○ Extended Detention Wetland (W-2)			
○ Pond/Wetland System (W-3)			
○ Pocket Wetland (W-4)			
○ Wet Swale (O-2)			

Table 2 - Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Alternative SMP	Total Contributing Impervious Area(acres)
○ **Hydrodynamic**	
○ **Wet Vault**	
○ **Media Filter**	
○ **Other**	

Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Name

Manufacturer

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

Total RRv provided

0.089 **acre-feet**

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28).

○ **Yes** ● **No**

If Yes, go to question 36.
If No, go to question 32.

32. Provide the Minimum RRv required based on HSG.
[Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)]

Minimum RRv Required

0.062 **acre-feet**

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

● **Yes** ○ **No**

If Yes, go to question 33.
Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

0.245 **acre-feet**

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a). 0.334

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ● **Yes** ○ **No**

If Yes, go to question 36.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

0.618 **acre-feet**

CPv Provided

0.618 **acre-feet**

36a. The need to provide channel protection has been waived because:

○ Site discharges directly to tidal waters or a fifth order or larger stream.

○ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

39.7 **CFS**

Post-development

35.2 **CFS**

Total Extreme Flood Control Criteria (Qf)

Pre-Development

84.5 **CFS**

Post-development

78.5 **CFS**

37a. The need to meet the Qp and Qf criteria has been waived because:

- ○ Site discharges directly to tidal waters or a fifth order or larger stream.
- ○ Downstream analysis reveals that the Qp and Qf controls are not required

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? ● **Yes** ○ **No**

If Yes, Identify the entity responsible for the long term Operation and Maintenance

BEACON VIEWS, LLC

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a) This space can also be used for other pertinent project information.

40. Identify other DEC permits, existing and new, that are required for this project/facility.

- ○ Air Pollution Control
- ○ Coastal Erosion
- ○ Hazardous Waste
- ○ Long Island Wells
- ○ Mined Land Reclamation
- ○ Solid Waste
- ○ Navigable Waters Protection / Article 15
- ○ Water Quality Certificate
- ○ Dam Safety
- ○ Water Supply
- ○ Freshwater Wetlands/Article 24
- ○ Tidal Wetlands
- ○ Wild, Scenic and Recreational Rivers
- ○ Stream Bed or Bank Protection / Article 15
- ○ Endangered or Threatened Species(Incidental Take Permit)
- ○ Individual SPDES
- ○ SPDES Multi-Sector GP [N][Y][R][ ][ ][ ][ ][ ][ ]
- ○ Other [ ]
- ● None

41. Does this project require a US Army Corps of Engineers Wetland Permit? ● **Yes** ○ **No**
If Yes, Indicate Size of Impact. [ ][ ][ ][ ][0].[3]

42. Is this project subject to the requirements of a regulated, traditional land use control MS4? ● **Yes** ○ **No**
(If No, skip question 43)

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI? ● **Yes** ○ **No**

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned. [N][Y][R][ ][ ][ ][ ][ ][ ]

Owner/Operator Certification

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 hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name

GREGORY

MI

Print Last Name

KAMEDULSKI

Owner/Operator Signature

Date

/ /

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

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:	BEACON VIEWS, LLC
2. Contact Person:	GREGORY KAMEDULSKI
3. Street Address:	500 RIVER AVENUE, SUITE 145
4. City/State/Zip:	LAKEWOOD, NEW JERSEY 08701
II. Project Site Information	
5. Project/Site Name:	BEACON VIEWS
6. Street Address:	100 CONKLIN STREET
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:	
12. MS4 SPDES Permit Identification Number: NYR20A	
13. Contact Person:	
14. Street Address:	
15. City/State/Zip:	
16. Telephone Number:	

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:

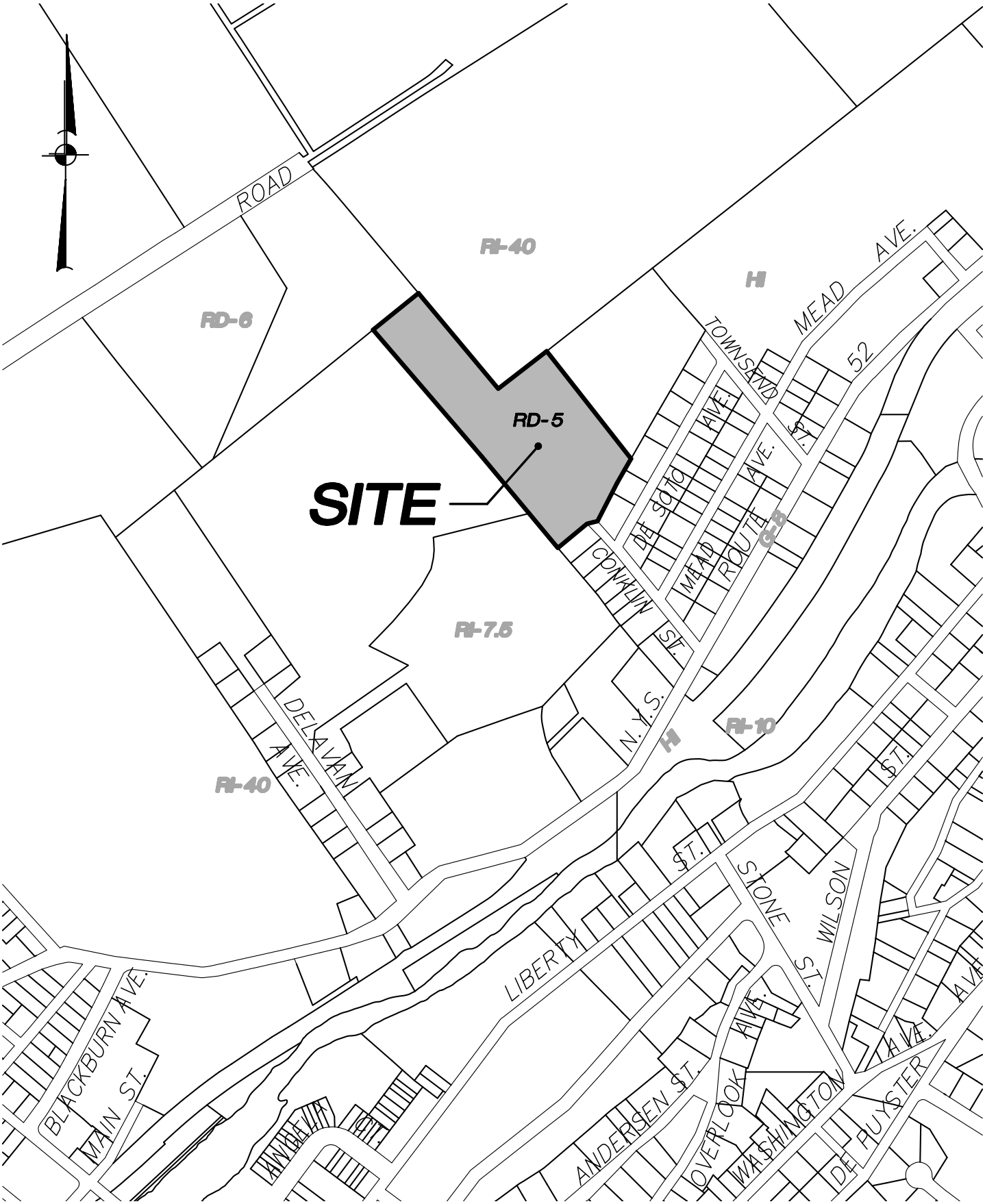
Signature:

Date:

VI. Additional Information

(NYS DEC - MS4 SWPPP Acceptance Form - January 2015)

FIGURES



PROJECT: BEACON VIEWS CITY OF BEACON, DUTCHESS COUNTY, NEW YORK	PREPARED BY: INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C. 3 Garrett Place • Carmel, New York 10512 Phone (845) 225-9690 • Fax (845) 225-9717 www.insite-eng.com	DATE: 8-26-19
		SCALE: 1" = 500'
		PROJECT NO.: 19131.100
DRAWING: LOCATION MAP		FIGURE: 1

Z:\E\19131100\Stormwater\Figures\Figure 1 - Location Map.dwg, 8/26/2019 7:56:56 AM, ependleton, 1:1

TOWNSEND STREET

EXISTING BUILDING

Approved Subdivision for 25 Townsend Street

SF

SCF

BeC

BeB

Ca

NwC

PRE

DESIGN LINE 1

n/f Ovitt

n/f Coulter

n/f Weber

DE SOTO AVE.

CONKLIN STREET

n/f Davis

n/f Blumenthal

USACE WETLAND

n/f N.Y.S. Matteawan State Hospital

n/f Meadow Ridge II HDF Co Inc

n/f Westchester County Health Care

n/f Highland Meadows Senior Housing

TOPOGRAPHY BOUNDARY (SEE GENERAL NOTE #1)

TOPOGRAPHY BOUNDARY (SEE GENERAL NOTE #2)

HASTINGS DRIVE

Existing Utility Easement as per FN 10853

SOILS LEGEND

SOILS	DESCRIPTION	HYDROLOGICAL GROUP
BeB	Bernardston Silt Loam, 3% to 8% slope	C/D
BeC	Bernardston Silt Loam, 8% to 15% slope	C/D
Ca	Canandaigua Silt Loam, Nuetral Substratum	C/D
NwC	Nassau–Cardigan Complex, Rolling, Very Rocky	D
	NRCS Soil Boundary Line	

LEGEND

PRE	SUBCATCHMENT
SF →	TIME OF CONCENTRATION SHEET FLOW
SCF →	TIME OF CONCENTRATION SHALLOW CONCENTRATED FLOW
DESIGN LINE	DESIGN LINE
	SUBCATCHMENT CONTRIBUTING AREA

General Notes:

1. Topography shown hereon within the project site and topography boundary are based upon aerial photography dated April 14, 2003 and is photogrametrically compiled. Elevations shown hereon conform to the North American Vertical Datum of 1988 (N.A.V.D. 1988) as derived by GPS observation. The contour interval is 2'.
2. Topography shown hereon outside of the topography boundary are based upon Dutchess County 2' contour, GIS data.
3. Design Line 1 generally follows the wetland boundary on the project site. Portions of the Design Line were adjusted within the wetland to include all drainage areas in the post–development condition in the stormwater analysis.

GRAPHIC SCALE

0 25 50 100

(IN FEET)
1 inch = 50 ft.

NO.	DATE	REVISION	BY
2	6–30–20	REVISED PER PLANNING BOARD COMMENTS	EJP
1	5–26–20	REVISED PER PLANNING BOARD COMMENTS	EJP

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PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
PRE–DEVELOPMENT DRAINAGE MAP

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8–26–19	DRAWN BY	E.J.P.
SCALE	1" = 50'	CHECKED BY	Z.M.P.

FIGURE NO. 2

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

Z:\E\19131\00 Admin\Stormwater\Figures\Figure 2 - Pre Development.dwg, 8/30/2020 1:09:02 AM, ejpadmin, 1:1

TOWNSEND STREET

EXISTING BUILDING

Approved Subdivision for 25 Townsend Street

FOR OFFSITE IMPROVEMENTS SEE DRAWING SP-4

BeC

BeB

Ca

NwC

10S

11S

12S

13S

1.1P

1.2P

1.3P

1.1R

SF

SCF

PF

CF

DESIGN LINE 1

n/f N.Y.S. Matteawan State Hospital

n/f Meadow Ridge II HDF Co Inc

n/f Ovitt

n/f Coulter

n/f Kleber

n/f Davis

n/f Blumenthal

n/f Westchester County Health Care

n/f Highland Meadows Senior Housing

USACE WETLAND

DE SOTO AVE

CONKLIN STREET

HASTINGS DRIVE

TOPOGRAPHY BOUNDARY (SEE GENERAL NOTE #1)

TOPOGRAPHY BOUNDARY (SEE GENERAL NOTE #2)

Existing Utility Easement as per FM 10853

SOILS LEGEND

SOILS	DESCRIPTION	HYDROLOGICAL GROUP
BeB	Bernardston Silt Loam, 3% to 8% slope	C/D
BeC	Bernardston Silt Loam, 8% to 15% slope	C/D
Ca	Canandaigua Silt Loam, Nuetral Substratum	C/D
NwC	Nassau–Cardigan Complex, Rolling, Very Rocky	D
	NRCS Soil Boundary Line	

LEGEND

- 10S — SUBCATCHMENT
- 11P — STORMWATER MANAGEMENT PRACTICE
- SF — TIME OF CONCENTRATION SHEET FLOW
- SCF — TIME OF CONCENTRATION SHALLOW CONCENTRATED FLOW
- PF — TIME OF CONCENTRATION PIPE FLOW
- CF — TIME OF CONCENTRATION CHANNEL FLOW
- DESIGN LINE — DESIGN LINE
- SUBCATCHMENT CONTRIBUTING AREA
- STORMWATER MANAGEMENT PRACTICE AREA

General Notes:

1. Topography shown hereon within the project site and topography boundary are based upon aerial photography dated April 14, 2003 and is photogrametrically compiled. Elevations shown hereon conform to the North American Vertical Datum of 1988 (N.A.V.D. 1988) as derived by GPS observation. The contour interval is 2'.
2. Topography shown hereon outside of the topography boundary are based upon Dutchess County 2' contour, GIS data.
3. Design Line 1 generally follows the wetland boundary on the project site. Portions of the Design Line were adjusted within the wetland to include all drainage areas in the post–development condition in the stormwater analysis.

GRAPHIC SCALE

0 25 50 100

(IN FEET)

1 inch = 50 ft.

NO.	DATE	REVISION	BY
3	6–30–20	REVISED PER PLANNING BOARD COMMENTS	EJP
2	5–26–20	REVISED PER PLANNING BOARD COMMENTS	EJP
1	4–28–20	RESUBMISSION TO PLANNING BOARD	EJP

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(845) 225–9717 fax
www.insite–eng.com

PROJECT: BEACON VIEWS

CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

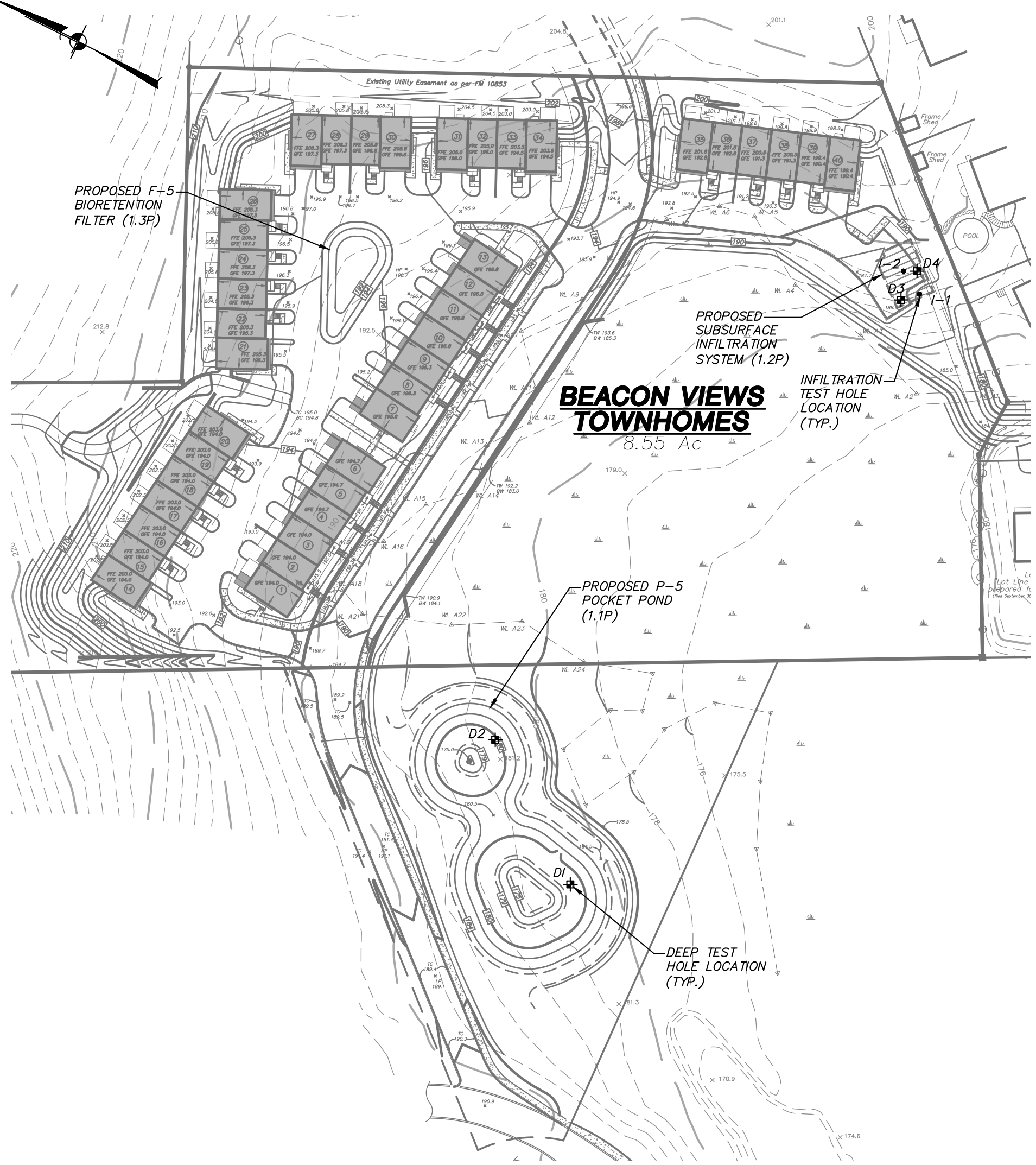
DRAWING: POST–DEVELOPMENT DRAINAGE MAP

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8–26–19	DRAWN BY	E.J.P.
SCALE	1" = 50'	CHECKED BY	Z.M.P.

FIGURE NO. 3

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

Z:\CIVIL\19131\00 Admin\Submissions\Figures\Figure 3 - Post Development.dwg, 6/30/2020 10:59:18 AM, ejpeckham, 1:1



DEEP HOLE TEST RESULTS:

DEEP TESTS PERFORMED: 12-16-2019 (D-1, D-2, D-3) & 6-24-2020 (D-4)
DEEP TESTS WITNESSED BY:
EVAN PENDLETON (INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.) & CASSANDRA BIBBO AND SCOTT SICINA (LANC AND TULLY ENGINEERING AND SURVEYING, P.C.)

D-1:	0"-2"	TOPSOIL
	2"-64"+	BROWN SILTY LOAM
		GROUNDWATER @ 36". NO ROCK.
D-2:	0"-2"	TOPSOIL
	2"-48"+	BROWN SILTY LOAM
		GROUNDWATER @ 18". NO ROCK.
D-3:	0"-2"	TOPSOIL
	2"-84"+	BROWN LOAM
		GROUNDWATER @ 84". NO ROCK.
D-4:	0"-6"	TOPSOIL
	6"-48"	COMPACT BROWN LOAM
	48"-102"+	BROWN LOAM

INFILTRATION TEST RESULTS:

INFILTRATION TEST PERFORMED: 6-25-20
INFILTRATION TESTS PERFORMED BY: EVAN PENDLETON (INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.)
WITNESSED BY: STEVEN PADIN (LANC AND TULLY ENGINEERING AND SURVEYING, P.C.)

I-3:	60" IN./HR.
I-4:	21" IN./HR.

GRAPHIC SCALE

0 40 80 160

(IN FEET)
1 inch = 80 ft.

PROJECT: BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING: TESTING PLAN

PREPARED BY:
INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place • Carmel, New York 10512
Phone (845) 225-9690 • Fax (845) 225-9717
www.insite-eng.com

DATE: 6-30-20
SCALE: 1" = 80'
PROJECT NO.: 19131.100
FIGURE: FIG - 4

Z:\E\19131100 Kahn\Stormwater\Figures\Figure 4 - Testing Plan.dwg, 6/30/2020 6:23:29 AM, ependleton, 1:1

Threatened and Endangered Species Habitat Suitability Assessment Report

Beacon Views
Conklin Street
City of Beacon, New York

June 12, 2020

Prepared by:

Michael Nowicki
Ecological Solutions, LLC
1248 Southford Road
Southbury, CT 06488
(203) 910-4716

1.0 INTRODUCTION 3
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1.0 INTRODUCTION

Ecological Solutions, LLC completed a threatened and endangered species habitat suitability assessment on the Beacon Views site totaling 8.6 acres located on Conklin Street in the City of Beacon, Dutchess County, New York (*Figure 1*). The project proposes seven (7) multi-family townhouse buildings (40 total townhouse units) and associated appurtenances. The primary access to the site will be through an adjacent subdivision to the north connecting to Townsend Street. An emergency access drive will be provided to the south through the adjoining Highland Meadows Senior Housing facility to Delavan Avenue.

A Habitat Suitability Assessment was completed for two federally listed species including the Indiana bat (*Myotis sodalis*) and Northern long-eared bat (*Myotis septentrionalis*) as part of the US Army Corps of Engineers (USACE) Nationwide Permit requirements for the project and US Fish and Wildlife Service (USFWS) species list for the site (*Attachment 1*) and the New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper (*Attachment 2*).

A field assessment was conducted on June 10, 2020 and habitat on the site was observed and is listed in Table 1.

TABLE 1
COVER TYPES IDENTIFIED ON THE PROPERTY[1]

NO.		ACRES IDENTIFIED ON PROPERTY	PROPOSED IMPACTS
1	Red Maple Hardwood Swamp	3.0	0.26
2	Rich Mesophytic Forest	5.6	4.0
Total		8.6	4.26

Rich Mesophytic Forest - This forest type also occurs on moist, well-drained areas of the site. The dominant trees include a mixture of tulip tree (*Liriodendron tulipifera)*, sugar maple (*Acer saccharum*), red oak (*Quercus rubra),* black birch (*Betula lenta)*, beech (*Fagus grandifolia),* sassafras (*Sassafras albidum*), American basswood (*Tilia cordata*), red maple *(Acer rubrum),* and white oak *(Quercus alba).* The shrub layer includes flowering dogwood (*Cornus florida)* spicebush *(Lindera benzoin)*, witch-hazel (*Hamamelis virginiana),* and black cherry *(Prunus serotina)*. This cover type contained mixed age second growth and climax forest areas made up of trees ranging in size from 4 to 12 inches dbh, with larger specimen trees scattered throughout.

Red Maple Swamp - In general on the site this ecological community is a hardwood swamp that dominates the wetland type on the site. Herbaceous species identified included *Symplocarpus foetidus* (skunk cabbage), *Onoclea sensibilis* (sensitive fern), *Osmunda cinnamomea* (cinnamon fern), *Carex stricta* (tussock sedge), and *Viola sp.* (violet). Shrub species observed included *Acer rubrum* (red maple), and

[1] Acreages are approximate

Lindera benzoin (spicebush), *Ilex verticillata* (winterberry), and *Cornus amomum* (silky dogwood). Tree species included *Acer rubrum* (red maple), *Ostrya virginiana* (eastern hophornbeam), F*raxinus pennsylvanica* (green ash), *Ulmus americana* (American elm), *Quercus bicolor*, (swamp white oak), and *Platanus occidentalis* (American sycamore) all in a ranges of 4-16" dbh. This ecological community exists at the lower slope of the site and will remain almost completely undisturbed by the proposed development except for improvements for the proposed road.

2.0 HABITAT SUITABILITY ASSESSMENT/METHODS

2.1 Indiana bat

The Indiana bat typically hibernates in caves/mines in the winter and roosts under bark or in tree crevices in the spring, summer, and fall. Suitable potential summer roosting habitat is characterized by trees (dead, dying, or alive) or snags with exfoliating or defoliating bark, or containing cracks or crevices that could potentially be used by Indiana bats as a roost. The minimum diameter of roost trees observed to date is 2.5 inches for males and 4.3 inches for females. However, maternity colonies generally use trees greater than or equal to 9 inches dbh. Overall, roost tree structure appears to be more important to Indiana bats than a particular tree species or habitat type. Females appear to be more habitat specific than males presumably because of the warmer temperature requirements associated with gestation and rearing of young. As a result, they are generally found at lower elevations than males may be found. Roosts are warmed by direct exposure to solar radiation, thus trees exposed to extended periods of direct sunlight are preferred over those in shaded areas. However, shaded roosts may be preferred in very hot conditions. As larger trees afford a greater thermal mass for heat retention, they appear to be preferred over smaller trees.

Streams associated with floodplain forests, and impounded water bodies (ponds, wetlands, reservoirs, etc.) where abundant supplies of flying insects are likely found provide preferred foraging habitat for Indiana bats, some of which may fly up to 2-5 miles from upland roosts on a regular basis. Indiana bats also forage within the canopy of upland forests, over clearings with early successional vegetation (*e.g.,* old fields), along the borders of croplands, along wooded fencerows, and over farm ponds in pastures. While Indiana bats appear to forage in a wide variety of habitats, they seem to tend to stay fairly close to tree cover.

Conclusion - This site is within range of known instances of the Indiana bat a state and federal endangered species. The wooded wetland and wooded upland habitat on the site contains suitable trees for use by this species for roosting and foraging. Approximately 4 acres of tree removal is proposed for the project. The following conservation measures are proposed. A note will be placed on the plan set that states the following:

- Trees clearing will only occur between the period of October 1 through March 31 when bats are not in the vicinity of the site.
- Lighting on the site will use City of Beacon Planning Board approved light fixtures that have tops that direct light down to minimize light pollution and not interfere with potential bat foraging activities;
- Implementing soil conservation and dust control best management practices, such as watering dry disturbed soil areas to keep dust down, and using staked, recessed silt fence and anti tracking pads to prevent erosion and sedimentation in surface waters on the site, and;
- Stormwater pond/s will not be maintained with any chemicals that might adversely affect bats or insect populations on which they may feed.

These measures result in the determination that project is 'not likely to adversely affect this species".

2.2 Northern long eared bats

Winter Habitat: Same as the Indiana bat northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They typically use large caves or mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Specific areas where they hibernate have very high humidity, so much so that droplets of water are often seen on their fur. Within hibernacula, surveyors find them in small crevices or cracks, often with only the nose and ears visible.

Summer Habitat: During summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species based on suitability to retain bark or provide cavities or crevices. It has also been found, rarely, roosting in structures like barns and sheds. Feeding Habits: Northern long-eared bats emerge at dusk to fly through the understory of forested hillsides and ridges feeding on moths, flies, leafhoppers, caddisflies, and beetles, which they catch while in flight using echolocation. This bat also feeds by gleaning motionless insects from vegetation and water surfaces.

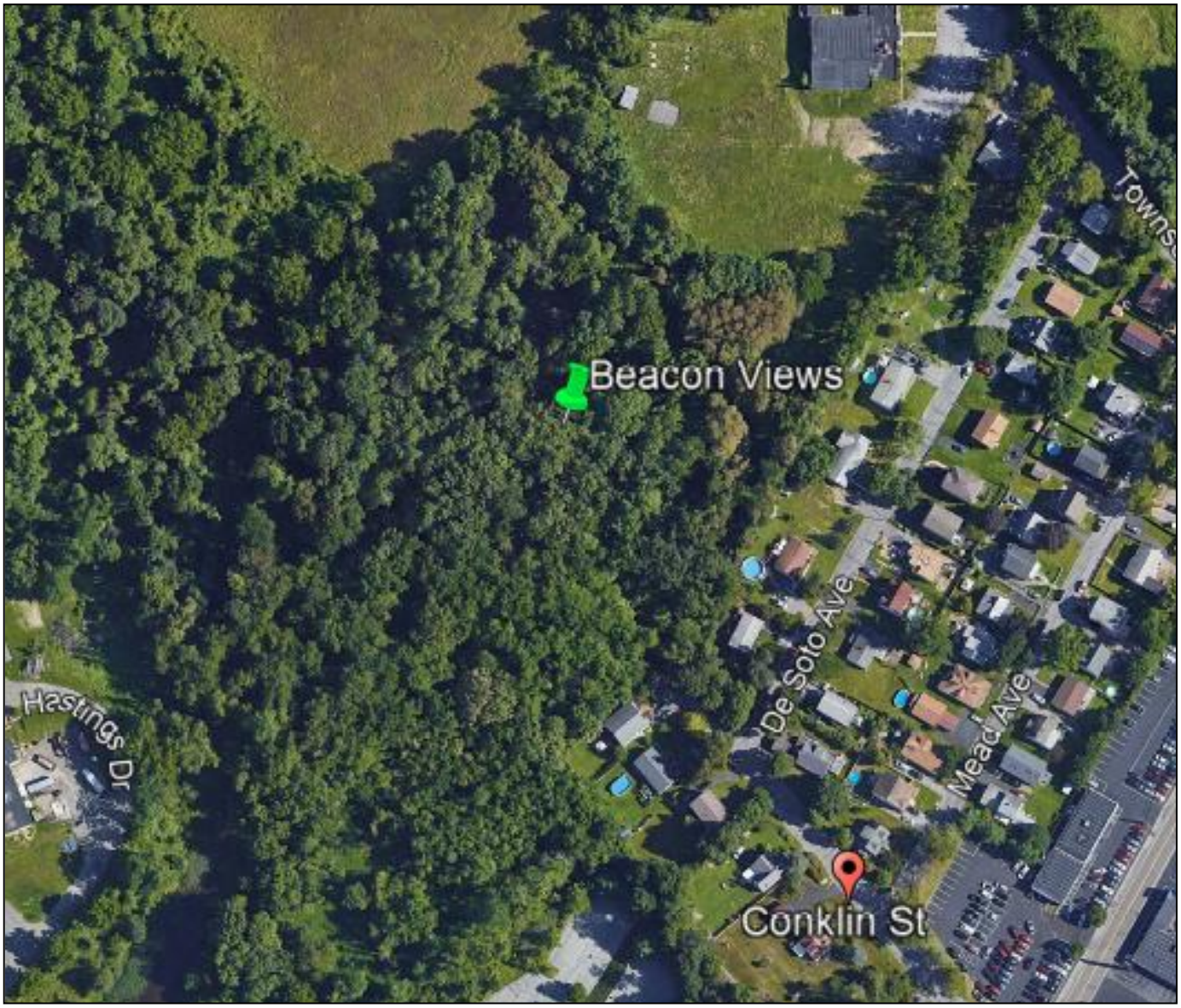
Conclusion -The northern long eared bat requires/occupies practically the same habitat niche as the Indiana bat. Impacts to habitat and mitigation would be consistent with the recommendations for the Indiana bat.

3.0 PHOTOGRAPHS

Wetland area

Upland building area

Figure 1 - Location Map



Attachment 1 - USFWS

Attachment 2 - NYSDEC Mapper

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June 30, 2020

VIA EMAIL

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

Re: Beacon Views
City of Beacon, New York
MC Project No. 19002075A

Dear Chairman Gunn and Members of the Planning Board:

We have received a copy of the June 26, 2020 letter from Greenplan relative to the above referenced project and are responding and/or providing additional information relative to traffic comments made within the letter.

Comments on Beacon Views Traffic Study

Page 2, Paragraph 2:
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Response: ***The last statement of this paragraph does not reflect that our March 26, 2020 Traffic Impact Study provided a complete analysis of both access scenarios, with the preferred scenario through 25 Townsend Street, and also included a complete analysis with access through Hastings Drive.***

Page 2, Paragraph 5:

What is missing from the traffic analysis of Hastings Drive is the extent of impact from the Panichi Center, which is located at 15 Hastings Drive. The Highland Meadows Traffic Study, completed in 2012 and further assessed in 2016 (see Attachment), estimated that the Panichi Center, with a projected 28 employees and 48 students on a daily basis, was found to generate most of the traffic on Hastings Drive. While Highland Meadows was expected to generate 237 vehicle trips per day, Wingate at Beacon was calculated to generate 379 vehicle trips per day. The Panichi Center, however, was calculated to have a daily vehicle generation of 788 vehicles per day, which represented more than one-half of the expected traffic on Hastings Drive. The Beacon Views' Traffic Impact Study fails to consider traffic generated by the Panichi Center and needs to be updated to reflect current conditions, including all traffic generators on Hastings Drive.

Response: ***As I have indicated in previous presentations to the Planning Board as per the New York State Department of Transportation (NYSDOT) and City of Beacon requirements, the traffic analysis focuses on peak hours in terms of assessing capacity and potential impacts which consists of other projects that the City of Beacon has reviewed. As part of the traffic evaluation for Beacon Views the Panichi Center, which is located at 15 Hastings Drive, was included as part of the background traffic volumes. The 28 employees and 48 students referenced in this comment occur on a daily basis and the critical component is the amount of traffic that is generated in each of the peak hours which is included as part of the background traffic evaluation. The fact that this center generates 237 vehicle trips per day does not change the effect on the ability of Hastings Drive to accommodate additional traffic loadings.***

In summary, the Beacon Views Traffic Impact Study accounts for all developments (even though not all projects were specifically mentioned in the text) located along and utilizing Hastings Drive as well as all uses and traffic utilizing Delavan Avenue to connect to Route 52 and appropriately evaluates peak hour conditions, for both AM and PM peak periods.

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Furthermore, the potential addition of daily traffic from Beacon Views onto Hastings Drive would result in an estimated 293 additional trips, more than a 20 percent increase in traffic on Hastings Drive. Given the above, daily traffic on Hastings Drive is projected to jump to 1,697 vehicle trips each day.

Response: ***As a point of correction, the Beacon Views project based on the Institute of Transportation Engineers (ITE), 10th Edition data would generate 262 additional trips not the 293 trips quoted. Regardless, as previously noted, the evaluation of a capacity of a roadway should focus on peak hour volumes as was presented in our Traffic Impact Study.***

Page 3, Paragraph 1:

An increase in traffic of this magnitude represents an unreasonable impact on the operations of Highland Meadows. Highland Meadows is home to 73 senior citizens living in 68 apartments who choose to locate within the City of Beacon and at Highland Meadows because of its high quality of life based upon a quiet, peaceful, and scenic setting close to City services. Residents range from 62 to more than 96 and many are active seniors who also enjoy outdoor living. The additional traffic on Hastings Drive will disrupt their quality of life and the additional traffic will make daily living for them more constrained due to the potential danger of increased traffic on Hastings.

Response: ***The expected peak hour trip generation for the Beacon Views development along Hastings Drive would be between approximately 25 to 30 vehicles per hour or less than one vehicle every two to three minutes (total volume in both directions) Based on traffic engineering standards, this volume would be able to be accommodated in the capacity of the existing roadway as presented in the analysis in the Traffic Impact Study.***

Page 3, Paragraph 2:

The Traffic Study fails to assess the suitability of Hastings Drive to accommodate the increase in daily traffic, the potential for vehicle-pedestrian incidents on Hastings, as well as potential impacts, including noise, from truck and other heavy traffic that would use Hastings Drive during the construction phase. This needs to be included in a revised Traffic Study.

Response: ***The truck and other traffic related with construction of the Beacon View project will be temporary in nature and these activities will be coordinated with the City of Beacon as part of the site plan approval process. A Maintenance and Protection of Traffic Plan will be prepared to coordinate and ensure the safety of all motor vehicles and pedestrians during this time period.***

Page 3, Comment A:

A. The Description of the Action references 42 townhomes. My understanding is that this has been reduced to 40 townhomes. Thresholds and references to information based on the 42 units should be modified so that a revised EAF addresses the correct number of units proposed.

Response: ***Table No. 1 of the March Traffic Impact Study includes the trip generation for the currently proposed 40 townhouse units.***

We will be available to answer any questions the Board may have at its upcoming Planning Board meeting.

If you have any questions regarding the above, please do not hesitate to contact us.

Very truly yours,

MASER CONSULTING P.A.

Philip J. Grealy, Ph.D., P.E.
Principal/ Department Manager

PJG/ces
Enclosures
cc: R. Cantor, Esq.
G. Kamedulski
A. Thyberg
J. Contelmo
F. Filiciotto

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GREENPLAN

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Friday, June 26, 2020

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

Re.: Proposed Beacon Views Townhouse Development
Planning Board SEQRA Process
City of Beacon

Dear Chairman Gunn and Members of the Planning Board:

My firm represented Hudson Valley Housing Development Fund Company, Inc. and Highland Meadows Senior Limited Partnership (Highland Meadows) in seeking Site Plan approval from the City of Beacon Planning Board in 2013 for the Highland Meadows Affordable Senior Housing development. I have been asked to review and provide comments on the potential impacts from the proposed Beacon Views Townhouse development, which adjoins the Highland Meadows site.

The Beacon Views project is currently before the City of Beacon Planning Board and requires Subdivision and Site Plan approvals. My understanding is that the Planning Board conducted a Public Hearing for the SEQRA environmental review of the applications on May 12, 2020 and extended the time period in which written comments may be submitted. This letter will present comments relevant to the Board's SEQRA review process. I respectfully request that the following comments be entered into the Public Hearing record on behalf of Highland Meadows and be considered by the Planning Board prior to making a SEQRA Determination of Significance.

During the City Council's SEQRA review of the Highland Meadows project in 2012 and 2013, a Traffic Impact Study was prepared for the City Council by FitzPatrick Engineering, LLC for this proposed development. The Traffic Impact Study completed for Highland Meadows is relevant to the Planning Board's review of the Beacon Views Townhouse development.

Comments on Beacon Views Traffic Study

The Highland Meadows Traffic Impact Study examined the traffic generation from Highland Meadows, which was proposed at that time as a 68 unit senior citizen development. Expected traffic from Highland Meadows indicated there would be 237 trips expected each day and the Planning Board found there would be essentially no impacts on peak hour traffic in the area due to the senior age restrictions.

Maser Consulting P.A. prepared and submitted to the Planning Board a Traffic Impact Study for Beacon Views dated August 16, 2019 and updated to March 26, 2020. The August 16, 2019 Traffic Impact Study considered traffic impacts with the then proposed primary ingress/egress from Hastings Drive. The March 26, 2020 Traffic Study was predicated on primary access to the Beacon Views site from the 25 Townsend Street site. A secondary emergency access from Hastings Drive was also examined in the Beacon Views Traffic Study.

Currently, Highland Meadows, the Panichi Center For Communication and Learning (Panichi Center) and Wingate at Beacon Nursing Home (Wingate) have access through Hastings Drive. If Beacon Views was unable to obtain access through 25 Townsend Street and had to depend on Hastings Drive, this would result in an untenable situation for Highland Meadows since Hastings Drive is unsuitable for the traffic generation that would result. In addition, there are other developments that could complicate matters further.

The Beacon Views Traffic Study states: *"Hastings Drive, which currently serves the St. Francis Hospital property as well as Wingate at Beacon and Highland Meadow Senior Apartments, has the capacity to accommodate the additional traffic from the Beacon Views project without significantly impacting the operation along this circular drive. Based on our review of the existing and future traffic volumes with the anticipated peak hour generation for Beacon Views development, the site access drive connection to this circular drive is also expected to operate at a Level of Service 'A' during peak hours (see attached capacity analysis."*

What is missing from the traffic analysis of Hastings Drive is the extent of impact from the Panichi Center, which is located at 15 Hastings Drive. The Highland Meadows Traffic Study, completed in 2012 and further assessed in 2016 (see Attachment), estimated that the Panichi Center, with a projected 28 employees and 48 students on a daily basis, was found to generate most of the traffic on Hastings Drive. While Highland Meadows was expected to generate 237 vehicle trips per day, Wingate at Beacon was calculated to generate 379 vehicle trips per day. The Panichi Center however, was calculated to have a daily vehicle generation of 788 vehicles per day, which represented more than one-half of the expected traffic on Hastings Drive. The Beacon Views' Traffic Impact Study fails to consider traffic generated by the Panichi Center and needs to updated to reflect current conditions, including <u>all</u> traffic generators on Hastings Drive.

Furthermore, the potential addition of daily traffic from Beacon Views onto Hastings Drive would result in an estimated 293 additional trips, more than a 20 percent increase in traffic on Hastings Drive. Given the above, daily traffic on Hastings Drive is projected to jump to 1,697 vehicle trips

each day. An increase in traffic of this magnitude represents an unreasonable impact on the operations of Highland Meadows. Highland Meadows is home to 73 senior citizens living in 68 apartments who choose to locate within the City of Beacon and at Highland Meadows because of its high quality of life based upon a quiet, peaceful, and scenic setting close to City services. Residents range from 62 to more than 96 and many are active seniors who also enjoy outdoor living. The additional traffic on Hastings Drive will disrupt their quality of life and the additional traffic will make daily living for them more constrained due to the potential danger of increased traffic on Hastings.

The Traffic Study fails to assess the suitability of Hastings Drive to accommodate the increase in daily traffic, the potential for vehicle-pedestrian incidents on Hastings, as well as potential impacts, including noise, from truck and other heavy traffic that would use Hastings Drive during the construction phase. This needs to be included in a revised Traffic Study.

Comments on Beacon Views Part 1 Environmental Assessment Form

I have reviewed the SEQRA Part 1 Environmental Assessment Form (EAF) dated 8/27/19 and have the following comments for the Planning Board's consideration. I may have additional comments when the Part 2 and Part 3 EAF are prepared.

A. The Description of the Action references 42 townhomes. My understanding is that this has been reduced to 40 townhomes. Thresholds and references to information based on the 42 units should be modified so that a revised EAF addresses the correct number of units proposed.

   The EAF is missing a telephone number and an email address for the Property Owner. This should be corrected.

B. The ACOE Wetland General Permit, information listed in response to B.h, should be provided in a Part 1F, as directed on the EAF form.

C. The yes response to C.2 needs to include an explanation as to how the City of Beacon Comprehensive Plan describes the site of the proposed project.

D. The response to D.1.d.iii indicates 43 lots, which is not consistent with the Description of the Action (i.e. 42 lots - see comment A above). Does this mean the project consists of 40 townhomes but 41 lots to be subdivided? The additional lot should be explained further.

   The response to D.1.h.ii indicates that stormwater will be impounded on the site. However, the required follow up questions in D.1.h.iv and v were left blank. This should be corrected.

   What is the source of the material for the "Earth Fill" provided in response to D.1.h.vi?

A Federal Jurisdictional Wetland is proposed to be filled, as indicated in the responses to D.2.b.i through v. The source of the fill needs to be identified. The General Permit that allows the fill activity to be carried out needs to be identified and the conditions on the fill activity permitted by the ACOE General Permit needs to be included in the EAF. When the Parts 2 and 3 EAF are prepared, the impacts on the wetland need to be identified in terms of the loss of wetland functions and values, and the impacts of the proposed retaining wall assessed. Further, mitigation for the loss of wetlands also needs to be disclosed since it involves a 1 to 1 creation of wetlands. How will the recreation of compensatory wetlands affect the functions and values of the wetland? What practicable alternatives exist? How will the fill and wetland creation activity affect the quality and quantity of aquatic resources within the watershed where the wetland is located? Is there a watershed plan available to assess impacts? If not, then the current trends in habitat loss or conversion that exist in the City and area should be assessed along with an analysis of cumulative impacts of past development activities in the watershed, current development trends in the watershed, the presence and needs of sensitive species in the wetland, and any unique site conditions that favor or hinder the success of the compensatory mitigation proposed. The Part 2 and 3 EAF should additionally include a mitigation plan that describes the objectives of the compensatory mitigation plan, how the site will be protected following the wetland creation, baseline information describing the existing area targeted for fill and creation, the credit determination methodology used, a mitigation work plan, a maintenance plan, ecological performance standards to assess success of the plan, monitoring requirements after site work is completed, a long-term management plan, an adaptive management plan in the event the wetland creation is unsuccessful, and financial assurances that future additional work will guarantee the mitigation is successful over time.

Response D.2.f.iii indicates that boilers will be used for each residential unit and will be a source of air emissions from fuel combustion. What is the fuel source for the boilers? If fossil fuels, then what will be the carbon emissions generated from the 40 units? How will the plan to use fossil fueled boilers meet New York State's goal of reducing greenhouse gas emissions from all anthropogenic sources by 100% over 1990 levels by the year 2050, with an incremental target of at least a 40 percent reduction in climate pollution by the year 2030, in line with the United States Global Change Research Program and the Intergovernmental Panel on Climate Change projections of what is necessary to avoid the most severe impacts of climate change?

Response D.2.j indicates that the increase in traffic will not be "substantial." As discussed above under Comments on Beacon Views Traffic Impact Study, the increase in traffic on Hastings will result in more than a 20 percent increase in traffic and will have adverse impacts on the quality of life of Highland Meadows residents. The answer to this question should be further explained. Also, the second part of the question asks whether the action will or will not "generate substantial new demand for transportation facilities or services." Use of Hastings Drive needs to be considered a new demand for transportation facilities and services since it was not intended to serve Beacon Views until applications were made to the Planning Board.

Response D.2.k indicates that the proposed 40 new townhomes will not create a new demand for energy. This must be corrected. The EAF has already disclosed that there will be 40 new boilers, assumed to be fueled by natural gas or home heating oil and if the 40 new homes will not be using electricity, then how will they be powered for lighting, cooking, water heating, and all other home appliances and services?

Response D.2.M indicates an increase in noise during construction. How will existing sensitive receptors like Highland Meadows be protected from the adverse effects of noise during this period.

The response to D.2.q indicates that the action, including during construction and future operation as a residential development will not use any pesticides like herbicides and insecticides, is not applicable. Although this question applies to commercial, industrial and recreational projects, the presence of surface waters on the site requires that this information be disclosed.

E. Response D.2.b.ii indicates that the on-site Federal Wetland will be filled by approximately 9,460 square feet. Yet, the response to E.1.b indicates that there will be a loss of 13,068 square feet of wetlands. This represents an increase of 38 percent in size from the prior disclosure. This must be further explained.

Response E.1.d fails to include Highland Meadows in its list of facilities serving the elderly and people with disabilities. Highland Meadows is a senior housing facility that includes an elderly population as well as people with disabilities. The answer to the question must be corrected.

Response E.2.a is unacceptable. The question is what the “average depth to bedrock” is on the site and the answer is “varies.” All sites contain an assumed variable depth to bedrock, which is why the question asks for the “average” to be disclosed. This is especially important if there is an average depth that will require blasting or use large heavy equipment that could disrupt residential housing, including sensitive receptors in the vicinity.

Response E.2.d is also unacceptable because the answer is that the average depth to the water table varies, which is precisely why an average is required in the answer.

Response E.2.o indicates that the Indiana bat may be present on the site but the species listing (endangered or threatened) is not answered. This must be corrected. Further, the Part 2 and 3 EAF must include appropriate mitigation measures to avoid or reduce impacts to the species or its habitats. Unless this information is disclosed and proper mitigation measures included in the review process and conditions of approval, then a Part 182 Take Permit may be needed from the NY State Department of EnvironmentaL Conservation.

The site is located within an area known to be sensitive for archaeological resources as

indicated in response to E.3.e and f. The Cultural Resource Study completed as required un the New York State Historic Preservation Act needs to be part of the record of the Planning Board's SEQRA review and included in the analysis prepared for the Part 2 and 3 EAF.

I thank you for considering the above comments on the Beacon Views Traffic Study. There may be additional SEQRA comments provided based upon further information submitted by the applicant.

Very Truly Yours,

J. Theodore Fink, AICP

Cc: Margaret T. O'Leary,
Javid Afzali, Esq.

Attachment: FitzPatrick Traffic Analysis for Highland Meadows

WILLIAM D. FITZPATRICK, P.E., P.T.O.E.

FELLC Work Product

CASE: **Generation Comparison**

November 04, 2016

Generation Source: ITE Calculations

Facility One: 68 Unit Senior Citizen Housing

Facility Two: 160 Bed Nursing Home

Facility Three: Teaching/Day Care with 28 Employees & 48 Students

This is a work product of FitzPatrick Engineering, LLC prepared for the exclusive use of M.T. O'Leary, CEO Community Services Programs, Inc.

PROJECT	*LAND USE*	*VARIABLE*	*24/7 VEHICLE GENERATION*
Highland Meadows	68 Senior Citizen Housing Units	Housing Units	237
WC Nursing Facility	160 Bed Nursing Home	Beds	379
WC Teaching/Day Care Facility	28 Employees & 48 Students	Employees	788

FITZPATRICK ENGINEERING, LLC
26 JULIA DRIVE · HYDE PARK, NEW YORK · 12538-2924
PHONE 845.229.7753 CELL 845.224.5539
FITZPATRICKENGINEERING@GMAIL.COM

PERCENT OF 24/7 TRIP GENERATION:

Highland Meadows	17%		17%
WC Nursing Facility	27%		
		}	83%
WC Teaching/Day Care Facility	56%		

Based upon the Institute of Transportation Engineers' database, approximately 83% of vehicular activity on a joint driveway will be generated by the Westchester County's two facilities on a typical day.

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June 30, 2020

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

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City of Beacon, New York
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Page 3, Paragraph 2:

The Traffic Study fails to assess the suitability of Hastings Drive to accommodate the increase in daily traffic, the potential for vehicle-pedestrian incidents on Hastings, as well as potential impacts, including noise, from truck and other heavy traffic that would use Hastings Drive during the construction phase. This needs to be included in a revised Traffic Study.

Response: ***The truck and other traffic related with construction of the Beacon View project will be temporary in nature and these activities will be coordinated with the City of Beacon as part of the site plan approval process. A Maintenance and Protection of Traffic Plan will be prepared to coordinate and ensure the safety of all motor vehicles and pedestrians during this time period.***

Page 3, Comment A:

A. The Description of the Action references 42 townhomes. My understanding is that this has been reduced to 40 townhomes. Thresholds and references to information based on the 42 units should be modified so that a revised EAF addresses the correct number of units proposed.

Response: ***Table No. 1 of the March Traffic Impact Study includes the trip generation for the currently proposed 40 townhouse units.***

We will be available to answer any questions the Board may have at its upcoming Planning Board meeting.

If you have any questions regarding the above, please do not hesitate to contact us.

Very truly yours,

MASER CONSULTING P.A.

Philip J. Grealy, Ph.D., P.E.
Principal/ Department Manager

PJG/ces
Enclosures
cc: R. Cantor, Esq.
G. Kamedulski
A. Thyberg
J. Contelmo
F. Filiciotto

r:\projects\2019\19002075a_beacon views\correspondence\out\200630pjg_greenplan 6.26.20 comment response.docx

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: July 9, 2020
Re: **Beacon Views Townhouses Site Plan and Subdivision**

I have reviewed the following documents:

- Response letter from Insite Engineering, dated June 30, 2020;
- Updated Full EAF, Part 1, dated June 30, 2020;
- Fish and Wildlife Service letter re: endangered and threatened species, dated June 12, 2020;
- Threatened and Endangered Species Report by Ecological Solutions, dated June 12, 2020;
- GREENPLAN SEQRA comment letter, dated June 26, 2020;
- Traffic response letter from Maser Consulting, dated June 30, 2020;
- Preliminary Plat by Insite Engineering, dated June 30, 2020; and
- 19-sheet Site Plan set by Insite Engineering, dated June 30, 2020.

Proposal

The applicant is proposing to subdivide and develop an 8.6-acre site with 40 for-sale townhouse units. The parcel is in the RD-5 zoning district. The applicant is requesting a conservation subdivision under Section 223-12 J. This allows the Board to modify lot sizes, setbacks, building separations, streets, and other requirements in order to help preserve natural features in the site.

Comments and Recommendations

1. For the Cover Sheet CS-1, the Drawing List should include the floor plans and elevations sheets.

2. The Lot Area square footage should be consistent on sheets EX-1 and SP-1. Also, the Unit Density Calculations are now based on note h of Section 223-17D, Schedule of Dimensional Regulations.

3. For the Sheet SP-1 Layout and Landscape Plan, the previous April 28, 2020 version had what appeared to be paths through the central landscaped island, which are now missing. Can this green area be designed to be more usable, with walkways, benches, and a few shade trees?

4. For Sheet A-3, the renderings have been updated to show brick on the first level all around the buildings. However, two of the elevations still have vinyl siding on the first level.

5. For Sheet SP-4, if the option for an emergency access to Conklin Street is required, the plans should provide information on any additional wetland area that will have to be filled and any necessary modifications to the wetland mitigation plan.

6. The applicant should be prepared to update the Board on the status for the following issues:
    a. Use of the easement parcel for access, stormwater management, and wetland mitigation;
    b. Fire Department review for emergency access; and
    c. Army Corps of Engineers and NYSDEC permit review of the Wetland Evaluation and Impact Report, Federal and State Threatened and Endangered Species Habitat Assessment Report, and wetland mitigation plan.

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
Jeffrey Contelmo, 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 Lane, P.E., L.S.
Arthur R. Tully, P.E.

July 10, 2020

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

RE: Beacon Views
City of Beacon
Special Use & Site Plan Application

Dear Mr. Gunn:

Our office has received the following in regard to the Beacon Views project, located adjacent to the 25 Townsend project and The Highland Meadows Senior Housing parcel:

- Response correspondence from INSITE Engineering & Surveying, dated June 30, 2020.
- Updated Full Environmental Assessment Form, dated June 30, 2020.
- Report titled "Threatened and Endangered Species Habitat Suitablity Assessment Report – Beacon Views", dated June 12, 2020, as prepared by Ecological Solutions, LLC.
- Correspondence from Greenplan, dated June 26, 2020.
- Response correspondence from Maser Consulting, dated June 30, 2020, in response to Greenplan correspondence of June 26, 2020.
- Report titled "Stormwater Pollution Prevention Plan prepared for Beacon Views", dated June 30, 2020, as prepared by INSITE Engineering and Surveying.
- Plan titled "Preliminary Plat prepared for the Beacon Views", with the latest revision date of June 30, 2020, as prepared by INSITE Engineering and Surveying.
- Plan set titled "Beacon Views", with the latest revision date of June 30, 2020 and consisting of Sheets 1 of 16 through 16, as prepared by INSITE Engineering and Surveying.

Based on our review of the above materials, we would like to offer the following comments:

General Comments:

1. Note No. 3 under the "Site Access Notes" on Sheet 1 of 16 should be revised to reflect the emergency access from Conklin Street into the project site in the event the access over the Highland Meadows parcel is to be used as the primary access due to 25 Townsend not being constructed, as discussed at the last Planning Board meeting and a noted in the recent response correspondence.

2. The engineering plans should be expanded to show all proposed improvements offsite as required by the agreement between the subject parcel and that of the Highlands Meadows Senior Housing parcel. This would include all sidewalks, lighting, landscaping, and any other site improvements as required by the easement agreement. ***The applicant has stated that "A plan for the improvements to the Highland Meadows Senior Housing property, as required by the Easement Agreement, will be developed as discussions with the property owner goes forward."***

3. The current plans show an area of wetland mitigation to be on the subject parcel as well as on the Highland Meadows parcel. Although it's the applicant's position that the creation of the wetlands mitigation area is permitted in the easement, we again request that documentation be provided to the Planning Board Attorney showing that the applicant has approval to build a portion of the wetland mitigation on the neighboring parcel.

4. The plans shall be submitted to emergency services for their review as to access and hydrant layout. A letter should be received emergency services regarding any comments they have or noting their acceptance.

5. We would recommend that the Building Layout and Elevation View plans prepared by Aryeh Siegel, Architect, be made part of the overall site plan set, and included in the Drawing List Table on Sheet 1, and the additional sheets numbered in sequence with the entire plan set.

6. The applicant should be able to state the status of submission to the Army Corp. of Engineers for the proposed wetland disturbance and mitigation proposed as part of the project.

7. The proposed water and sewer system will need to be reviewed and approved by the Dutchess County Department of Health (DCDOH). All correspondences to and from the DCDOH shall be copied to the Planning Board and City Engineer's office.

Water & Sewer Report Comments:

The applicant notes that they are currently revising the report as they are pursuing a connection to the Town of Fishkill transmission line that runs through the parcel. As such, the following comments remain outstanding until such time as a new report is submitted that either addresses or negates the following comments.

1. The 2nd paragraph of the Introduction should be updated to note the size of the line in Conklin Street that the project proposes to connect to.

2. Table 2 notes that the occupancy of a 3-bedroom unit would be 3 people per unit. I believe that this should be modified to 4 people per unit, as some units may be occupied by families consisting of a husband & wife and 2 children.

3. Section 3.1 should be revised to reflect the size of the existing water main in Conklin Street that the project is proposing to connect to.

4. Section 3.1 notes "The dynamics of the system in the project area are not yet known and will be addressed as the project advances." The report will need to be updated as the dynamics of the system are determined.

5. Section 3.2 states that discussions with the Town of Fishkill and City of Beacon water departments will be required regarding the potential connection to the existing water line. It is unclear why discussions with the Town of Fishkill would need to occur if the project is proposing to connect to the City's water line.

6. The applicant's consultant will need to perform testing on the existing hydrants located along the existing water main that runs through the subject parcel and along Conklin Street to acquire the existing fire flows and pressures (static & residual) available. This information shall be provided in the report, along with a map showing what hydrants were used for flows and pressure reading.

7. The applicant's consultant shall revise the report to include calculations for expected fire flows and pressures at proposed project hydrants. Although the applicant is proposing a connection out to Conklin Street and another to the 25 Townsend project, the report should reflect fire flows and pressures as if both connections were made, as well as fire flows and pressures if only a single connection were made out to Conklin Street since it is unclear when 25 Townsend will be constructed.

8. With regards to the connection of the project sanitary sewer to the City's wastewater collection system, the project will need to have the sewer conveyance system modeled between the connection manhole on Conklin Street to the Beacon Wastewater Treatment Facility to ensure the system can handle the additional flows as proposed from the project, as previously noted in our September 2019 review correspondence. The City of Beacon currently uses HDR Engineer for modeling of their sanitary sewer collection and conveyance system. Based upon recent modeling completed for the 511 Fishkill Avenue project, sewer improvements are required along Fishkill Avenue to allow for the additional flows from that project so that the system is not impacted negatively. The modeling that was previously completed will need to be updated at this time to determine if there will be any impacts on the sewer system from this proposed project. ***The applicant has noted that they have contacted the City's Consultant (HDR) with regards to the requested modeling of the sewer system.***

Threatened and Endangered Species Report Comments:

1. Attachment 2 – NYSDEC Mapper, was found to be missing from the report. The report should be updated to include this information.

Preliminary Subdivision Plat Comments:

1. Plat shall show all metes and bounds for all proposed parcel boundary lines and easements. ***The applicant has stated "The final plat will include bearings and distances for the proposed property lines".***

2. Descriptions shall be prepared for easements and the road right-of-way and provided to the Planning Board Attorney and City Engineer for review. ***The applicant has stated "Written descriptions will be provided with a future submission".***

Layout & Landscape Plan (Sheet 3 of 16):

1. The Red Maple located to the right of the parking area, which is situated to the south of Unit 40, should be relocated as it is directly over the proposed stormwater subsurface infiltration system.

Grading & Drainage Plan (Sheet 4 of 16):

1. Although a note has been added to the plan stating "In an emergency event the City of Beacon will have the right to maintain the drainage between CB-3 and ES-1, if the applicant or subsequent owners fail to fulfill their maintenance obligations", it is not clear how this note allows for the City of Beacon to enter onto the neighboring parcel which is under different ownership. Documentation would need to be provided by the neighboring parcel owner stating that the City of Beacon would have the right to enter onto their property to perform this task in the event of an emergency.

2. Top and bottom spot elevations should be provided along all retaining walls proposed on the site.

Utilities Plan (Sheet 5 of 16):

1. The lowest sewerable elevation (LSE) for each of the proposed dwelling units should be noted on the plan.

2. It is recommended that sewer manhole SMH-5B be shifted approximately 40 feet to the south-west to avoid the number of bends proposed in the sewer lateral for Unit 22 and to avoid the excess lateral run from Unit 21.

3. Clean-outs shall be provided for each of the proposed sewer laterals in accordance with Section C.2 of the New York State Design Standards for Intermediate Sized Wastewater Treatment Systems. A construction detail should be added to the plans detailing the construction of the clean-outs.

4. The size and material of the proposed water mains should be labeled on the plan.

Enlarged Plans (Sheet 7 of 16):

1. The "25 Townsend Street Through Connection" plan should be revised in accordance with 195-21 E(2) and E(3) of the City Code, which essentially states that the cul-de-sac on the 25 Townsend project would be reconfigured so that a through road was created and the land outside of the through road right-of-way would be dedicated back to the adjacent land owner.

Vehicle Maneuvering Plan (Sheet 8 of 16):

1. The details for the vehicles used should be enlarged so that they are legible.
2. As noted in Comment No. 1 for Sheet 7 of 16 above, the cul-de-sac would need to be modified to provide for a through road in accordance with the City Code. The vehicle maneuvering plans should be revised to reflect this.

Water & Sewer Profiles (Sheet 11 of 16):

1. All vertical and horizontal bends should be labeled on the plans and profiles for the proposed water system.

2. Water profiles shall be adjusted to minimize high points will entrap air within the water lines, such as in the case on the proposed water line at Sta. 3+55 and Sta. 9+50.

3. The profile should also show the location for each of the sewer services that will be crossing over the proposed water line to ensure that minimum separation distances are obtained.

Details (Sheets 15 & 16 of 16):

1. As previously noted, the details shall note that all manhole castings and catch basin casting are to be domestically made for any structure located within the City right-of-way or to be dedicated to the City.

SWPPP Comments:

1. It does not appear that the proposed Pocket Pond meets the requirements of 50% of the WQv within the permeant pool. The deep test conducted within the storage area of the proposed P-5 Pond showed ground water at 36" and the test appeared to be conducted at approximately elevation 181.00, this would put the ground water table at approximately 178.00. The required WQv for the P-5 pond was 10,268 so approximately 5,134 CF should be stored below elevation 178.00.

2. The provided aquatic bench is to be located below the permanent pool elevation.

3. The provided aquatic bench shall only rise a maximum of 18", it appears that it currently rises 24".

4. A Landscaping plan shall be provided for the Pocket Pond.

5. The channel protection volume calculation and allowable discharge rate in cfs shall be provided, it is noted that you meet the requirements of CPv.

6. The pipe between DI-14 and ES-13 should be checked to ensure that it can handle the flows from both the proposed upstream SMP on the 25 Townsend project as well as the flow that will be collected and conveyed to DI-14 via SDI-14A as this collects a large portion of offsite drainage.

7. What is the maximum flow rate for the swale provided behind housing units 35-40?

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.

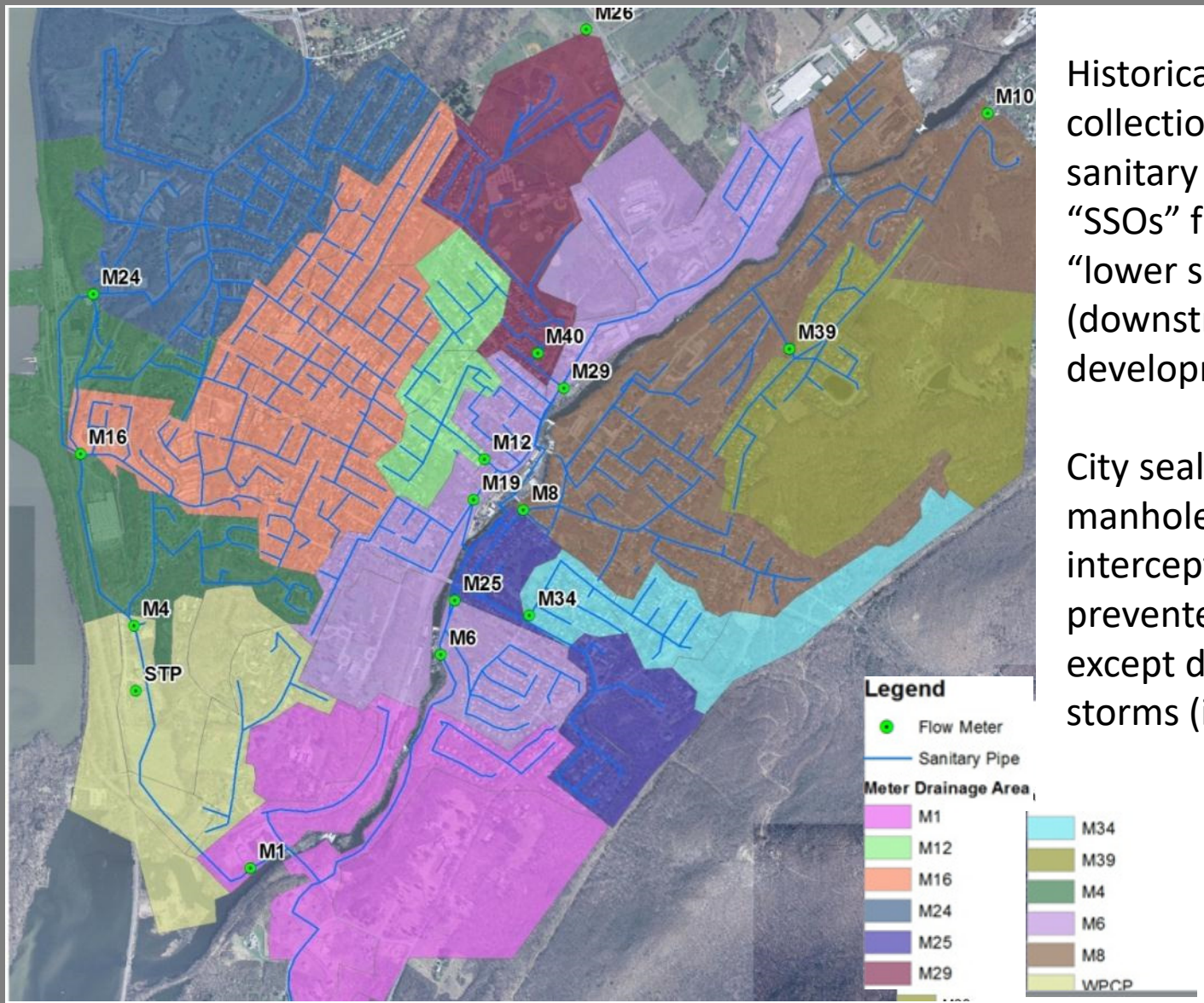
John Russo, P.E.

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

Sewer-Capacity Impact
Beacon Views Development

07/13/2020

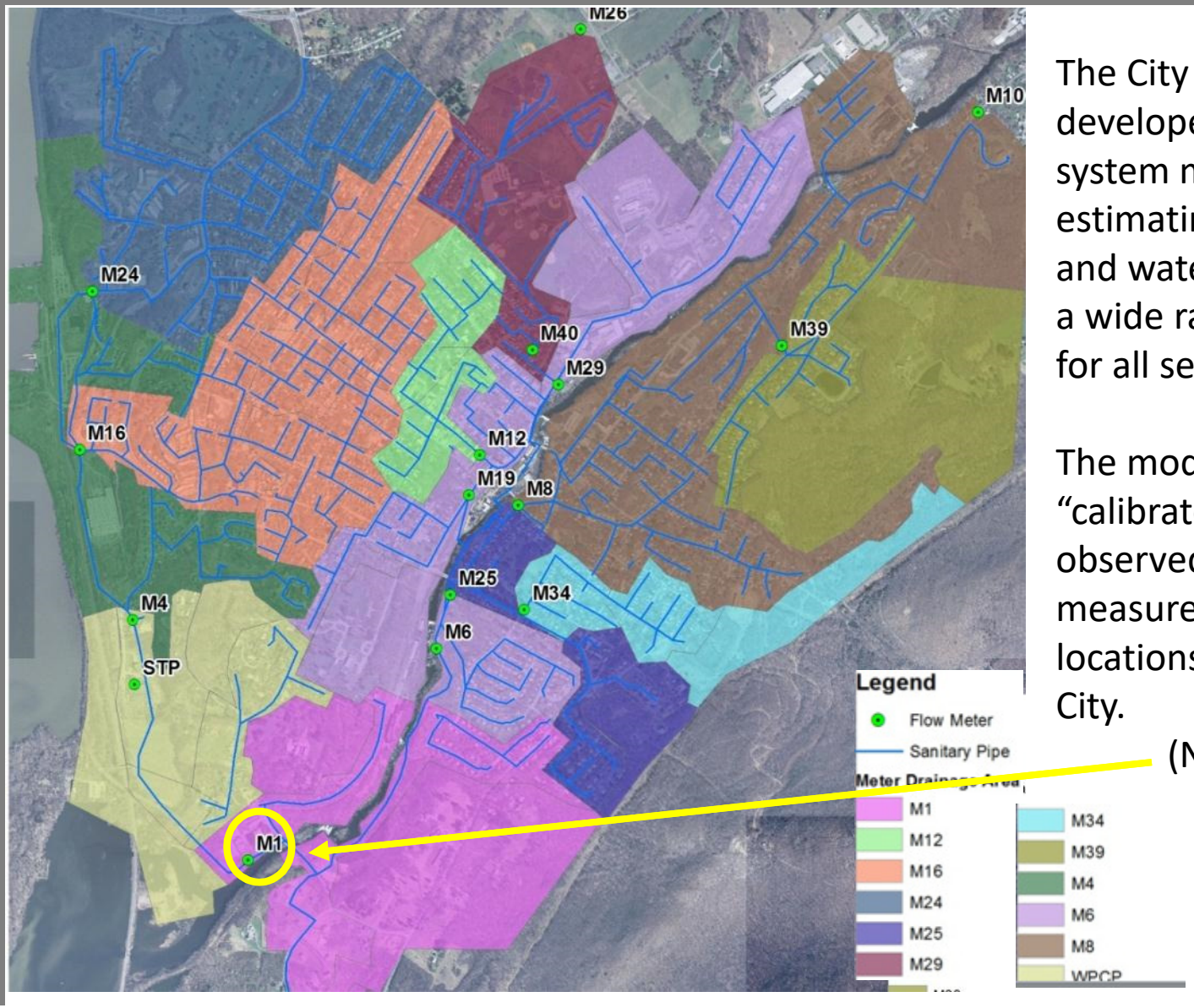
City of Beacon – Sanitary Sewer System and Historical Flow Metering Locations



Historically, Beacon's collection system had sanitary sewer overflows "SSOs" from the "lower south interceptor" (downstream of where the development would tie in)

City sealed low-lying manholes and cleaned the interceptor, which has prevented further SSOs except during exceptional storms (i.e., Hurricane Irene)

City of Beacon – Sanitary Sewer System and Historical Flow Metering Locations



The City of Beacon has developed a collection system model capable of estimating hydraulics (flows and water elevations) during a wide range of conditions for all sewers 10” and larger.

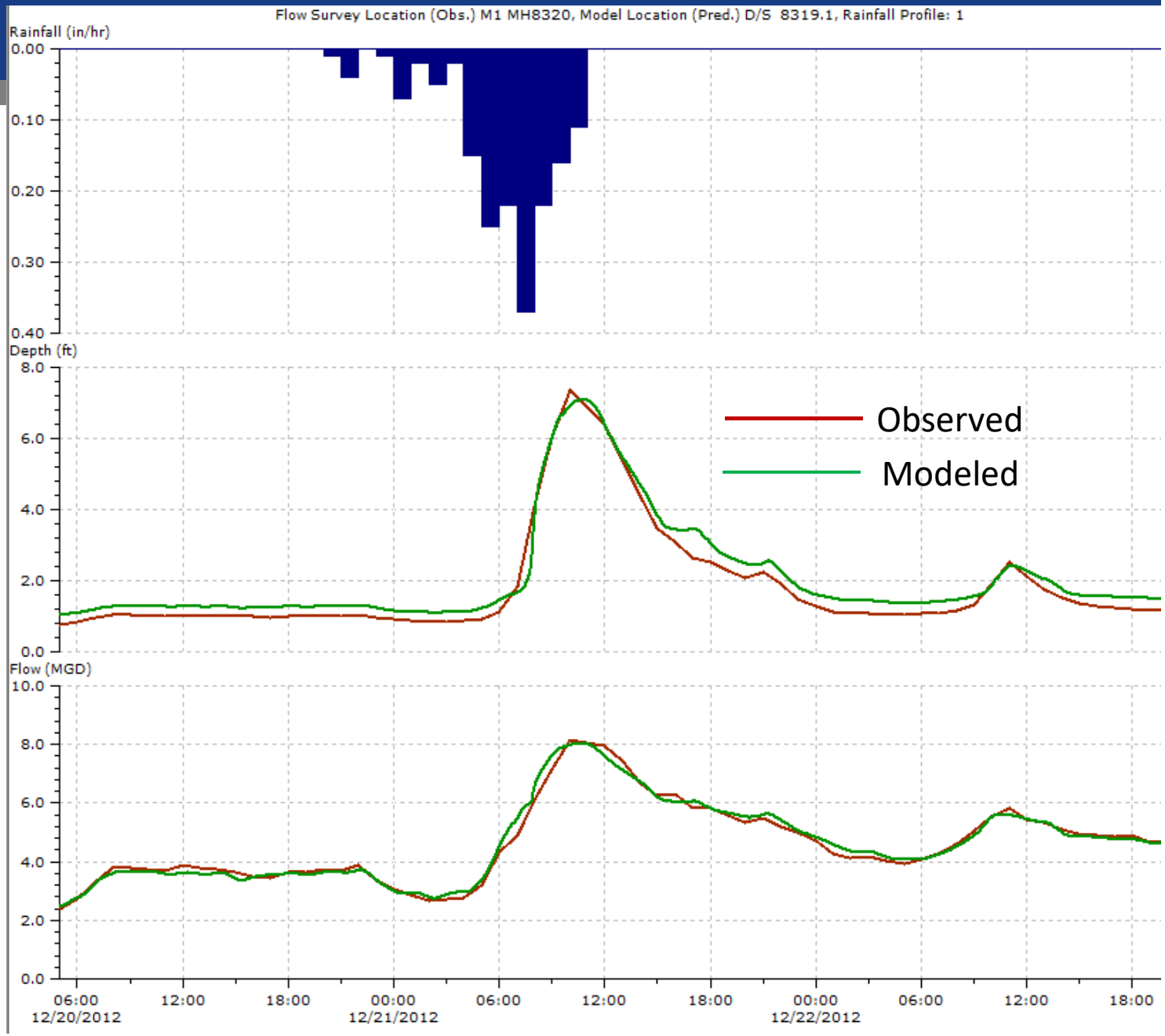
The model has been “calibrated” and matches observed flow and levels measured at multiple meter locations throughout the City.

(Note location of M1)

Background: Sewer System Model Calibrations

Model and Data at Meter M1 for Dec 20-21 2012

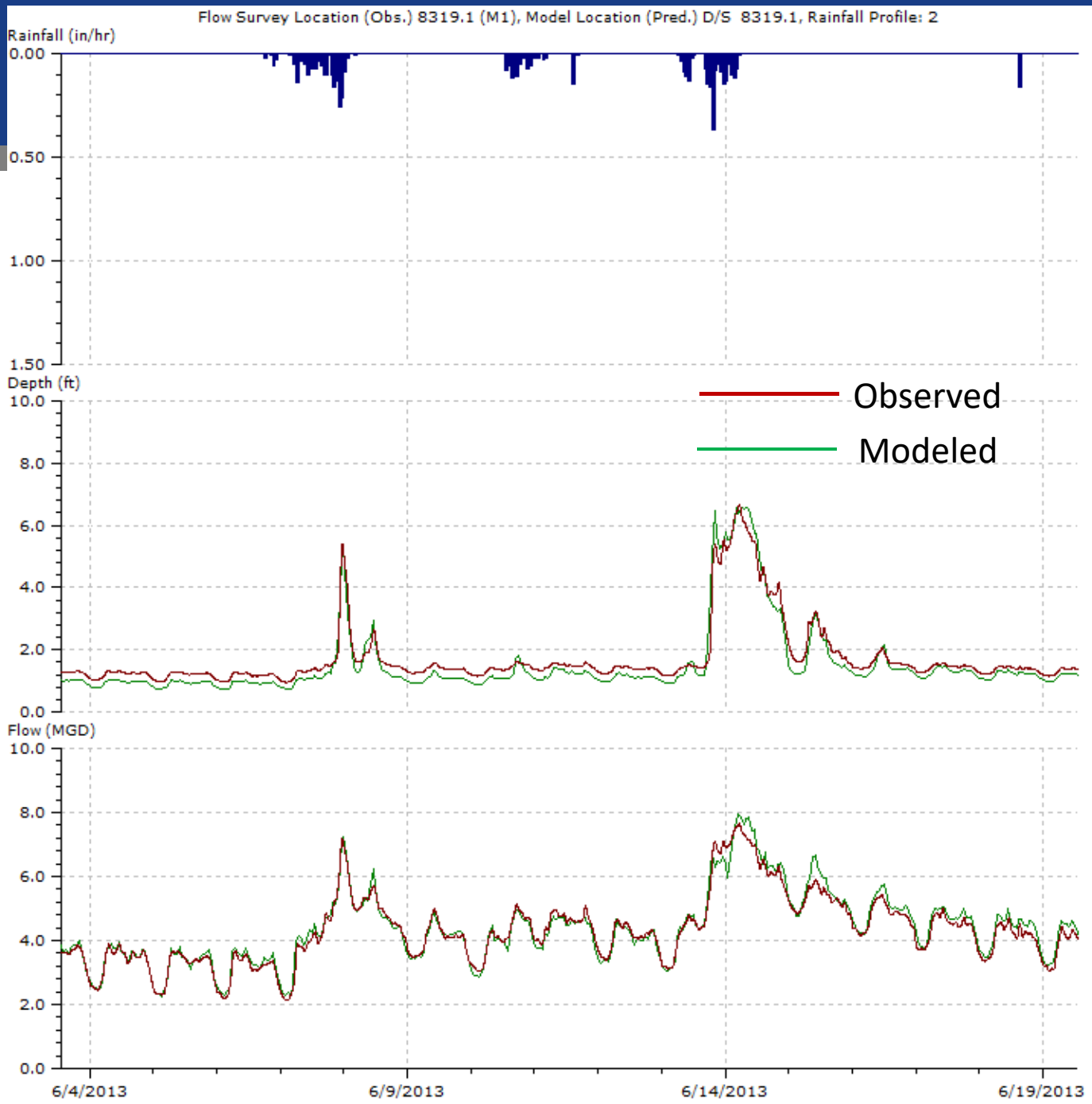
good match!



(continued)

Model and Data at Meter M1 Jun 4-6 2013

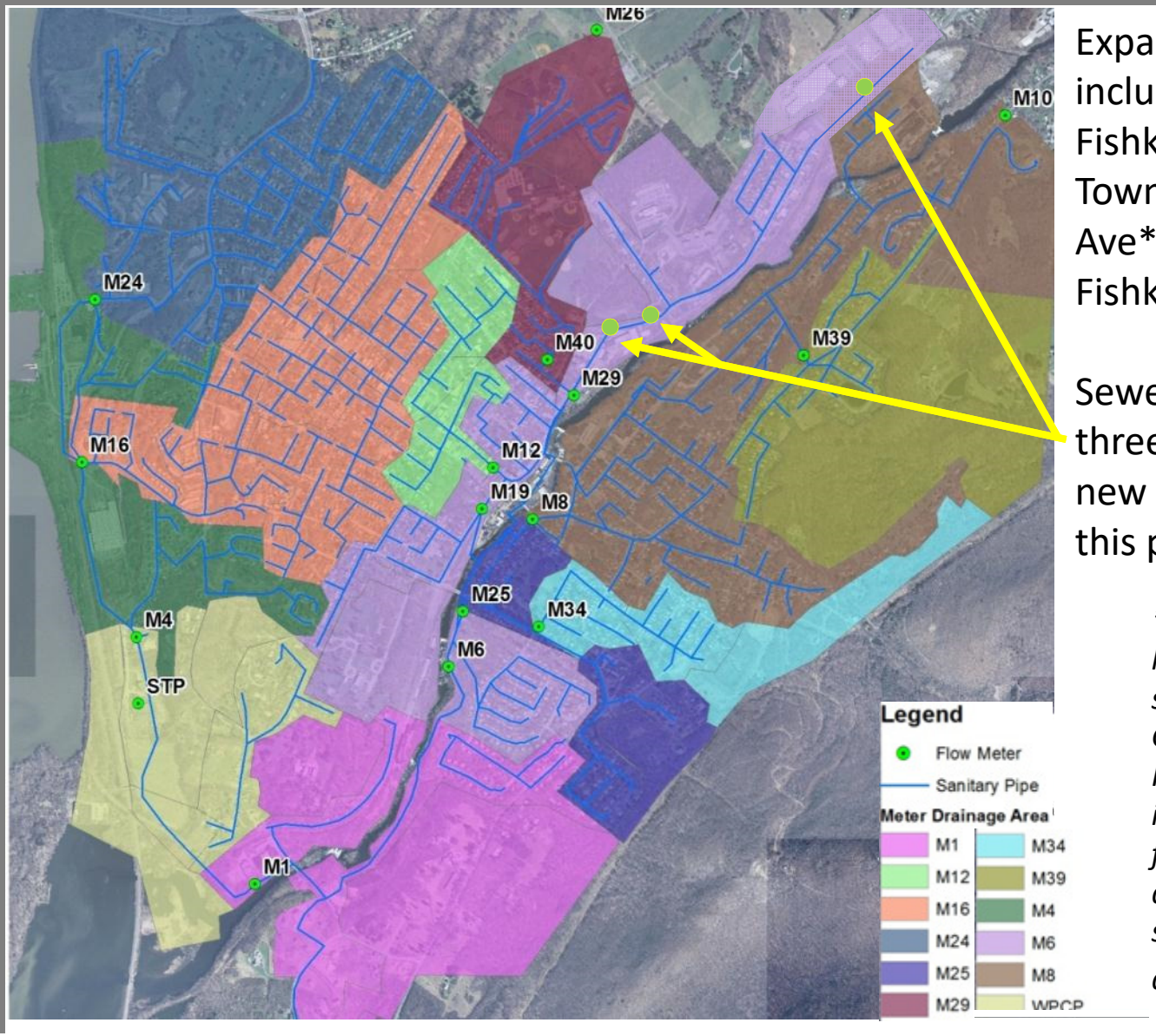
good match!



Background:
Using Calibrated Model to Project Future Conditions

- Because model matches data, can say the model is “calibrated”
- We can use a calibrated model to ***project*** to hypothetical conditions, in this case, larger sized storms.
- Results of these model projections show the expected flow rates and in-sewer water levels for a range of storms. This shows whether sanitary sewer overflows (SSOs) would occur for any particular storm/condition.

Upper Fishkill Ave Project Model Update:



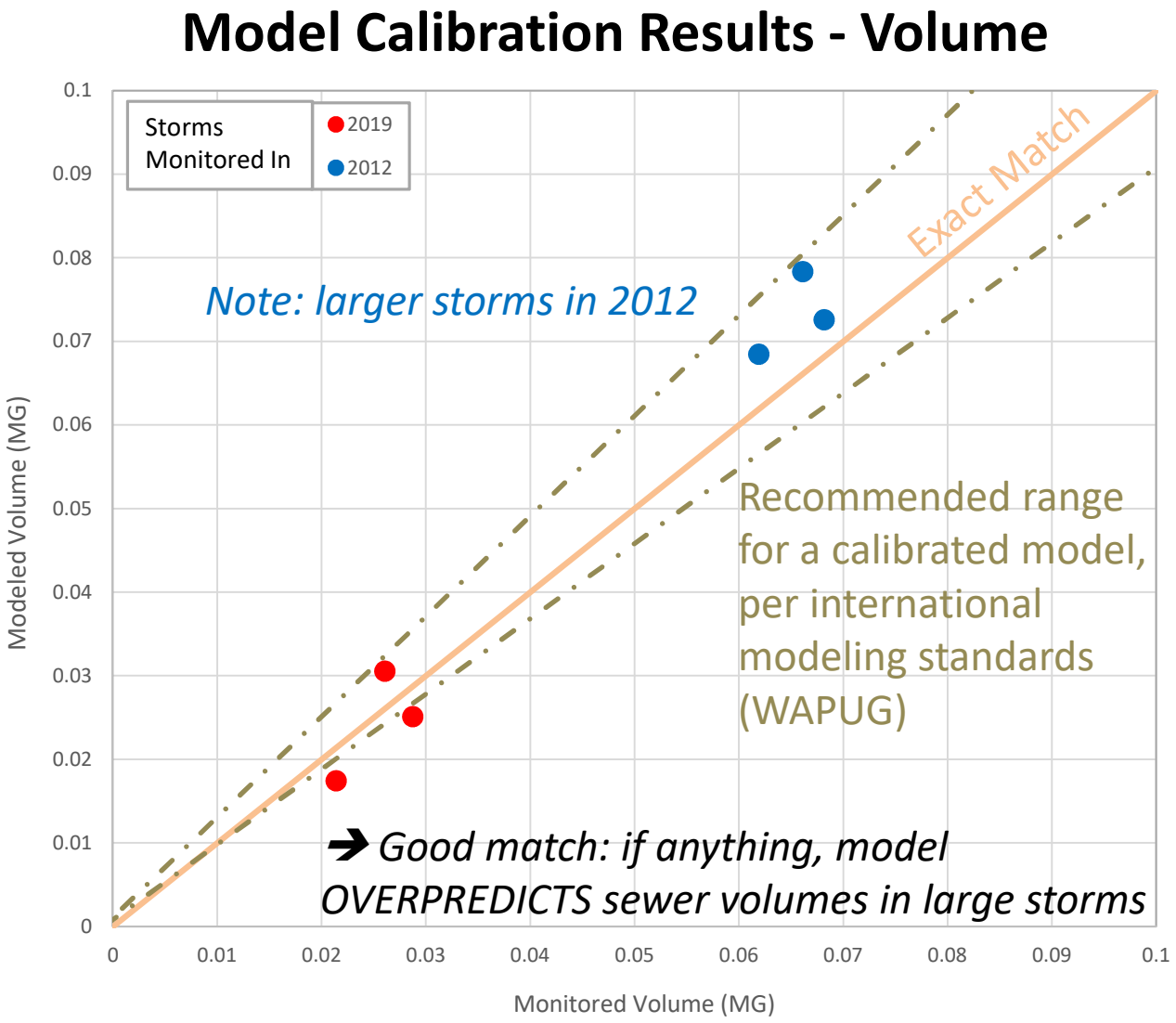
Expanded the model to include sewer pipes along Fishkill Ave upstream from Townsend St to 511 Fishkill Ave*. This area includes the Fishkill Ave Pump Station.

Sewer data collected from three locations (also includes new 2019 metering) validated this portion of the model.

**Note: the prior model version had a few parcels on the north side of Fishkill Ave draining via Groveville across Fishkill Creek. Information from the City and inspections verified the correct flow path. This change involved a slight reduction in the sanitary flow running south along Fishkill Ave.*

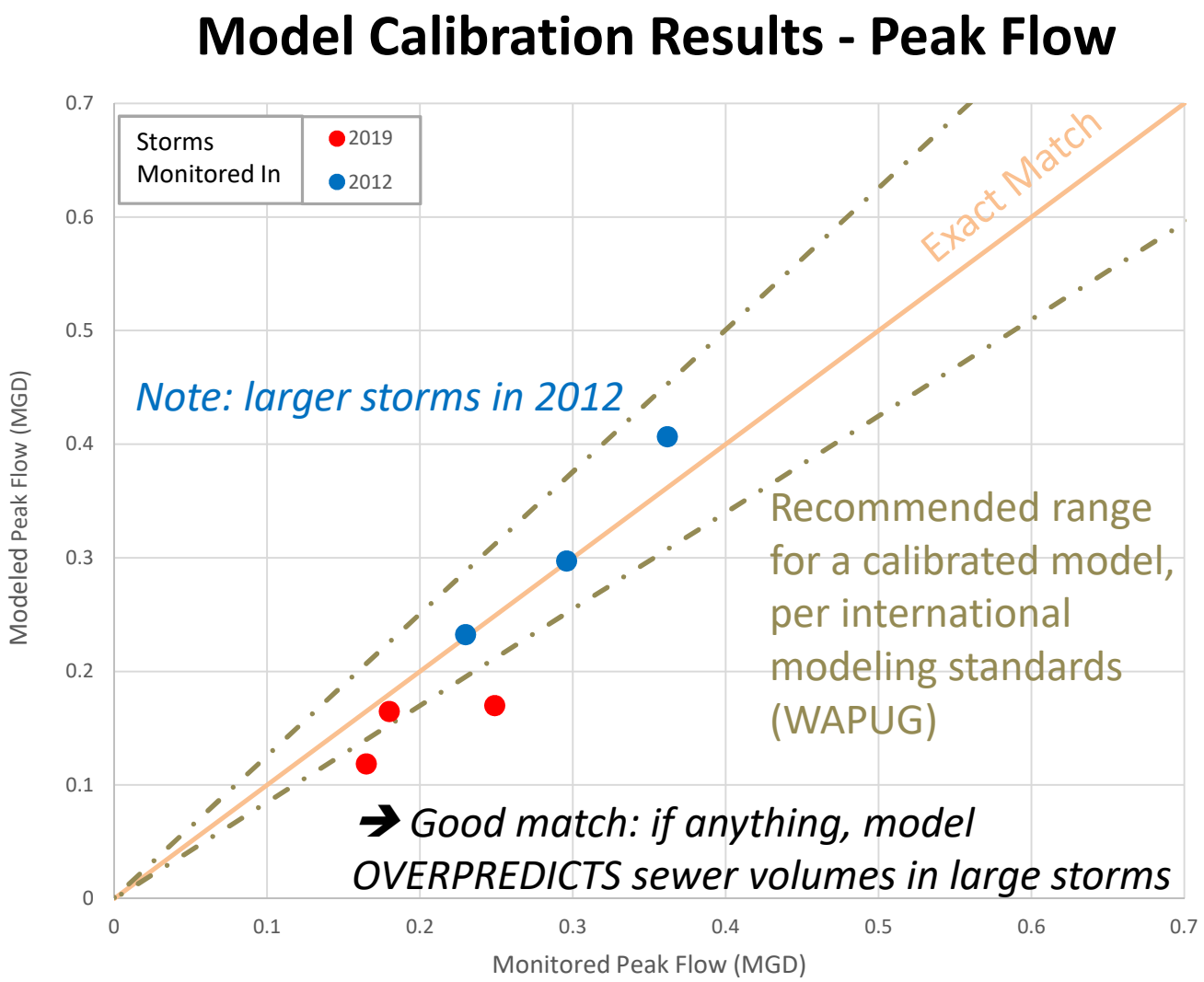
Model Calibrations: Storm-Volume Comparison

good match!



Model Calibrations: Peak Flow Comparison

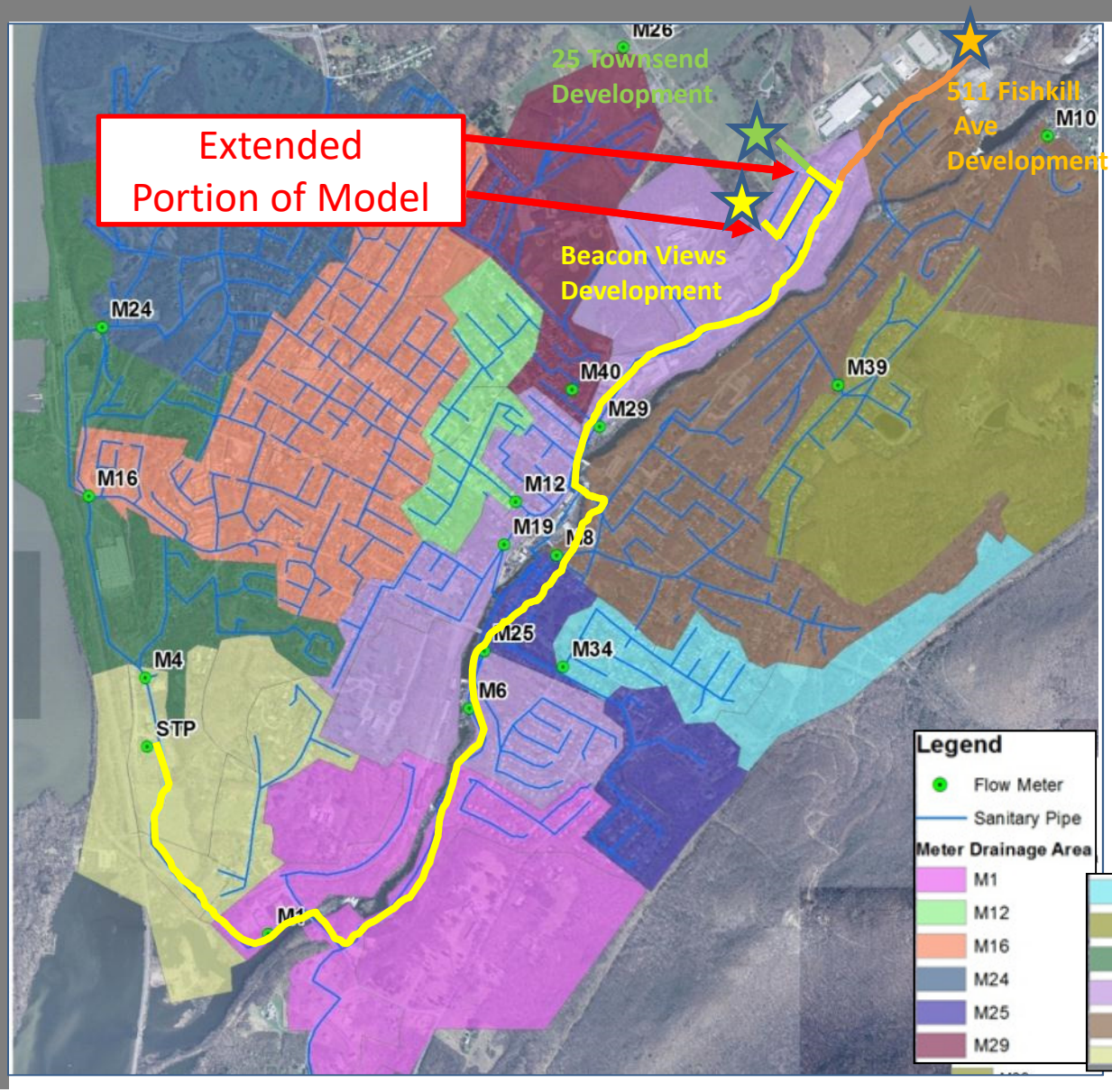
good match!



Using Model to Determine Impact of Proposed Development at Beacon Views

- Use calibrated model of existing infrastructure along with already planned developments to determine the performance of the sewer system under critical conditions as a “Baseline”
  - As in prior analyses, we will use the 5.6” Tropical Storm Irene
- Incorporate the proposed developments in to the model, use that model to determine the performance of the sewer system under the same critical conditions to show:
  - What if any increase in Hydraulic Grade Line (HGL) will occur due to proposed developments, from point of connection to Sewage Treatment Plant (STP)?
  - Will proposed developments cause Sanitary Sewer Overflow (SSO)?

Application of Model to Evaluate Sewer Capacity With Proposed Beacon Views Development



To analyze the impact of the proposed development at Beacon Views, HDR extended the model to include the 8" sewers from Mead Ave to Conklin St.

The map at left highlights the sewer from Beacon Views to the Sewage Treatment Plant (STP).

The map also highlights the 25 Townsend and 511 Fishkill Ave Developments.

Sanitary Contribution for Beacon Views Development

- Design flow[1] is 13,200 gallons/day for site, assuming:
  - 40 Residential Plots with Single Family Homes
  - 3 Bedrooms per unit
  - 110 gallons/day per bedroom
- Peaking Factor flow[2] 56,760 gallons/day for site, using:
  - Population of 120
  - Peaking factor of 4.3

1) NYSDEC Manual "NYS Design Standards for Intermediate Sized Wastewater Treatment Systems" (March 2014)

2) 10 State Standard "Recommended Standards Policies for the Design, Review, and Approval of Plans and Specification for Wastewater Collection and Treatment Facilities (2014)

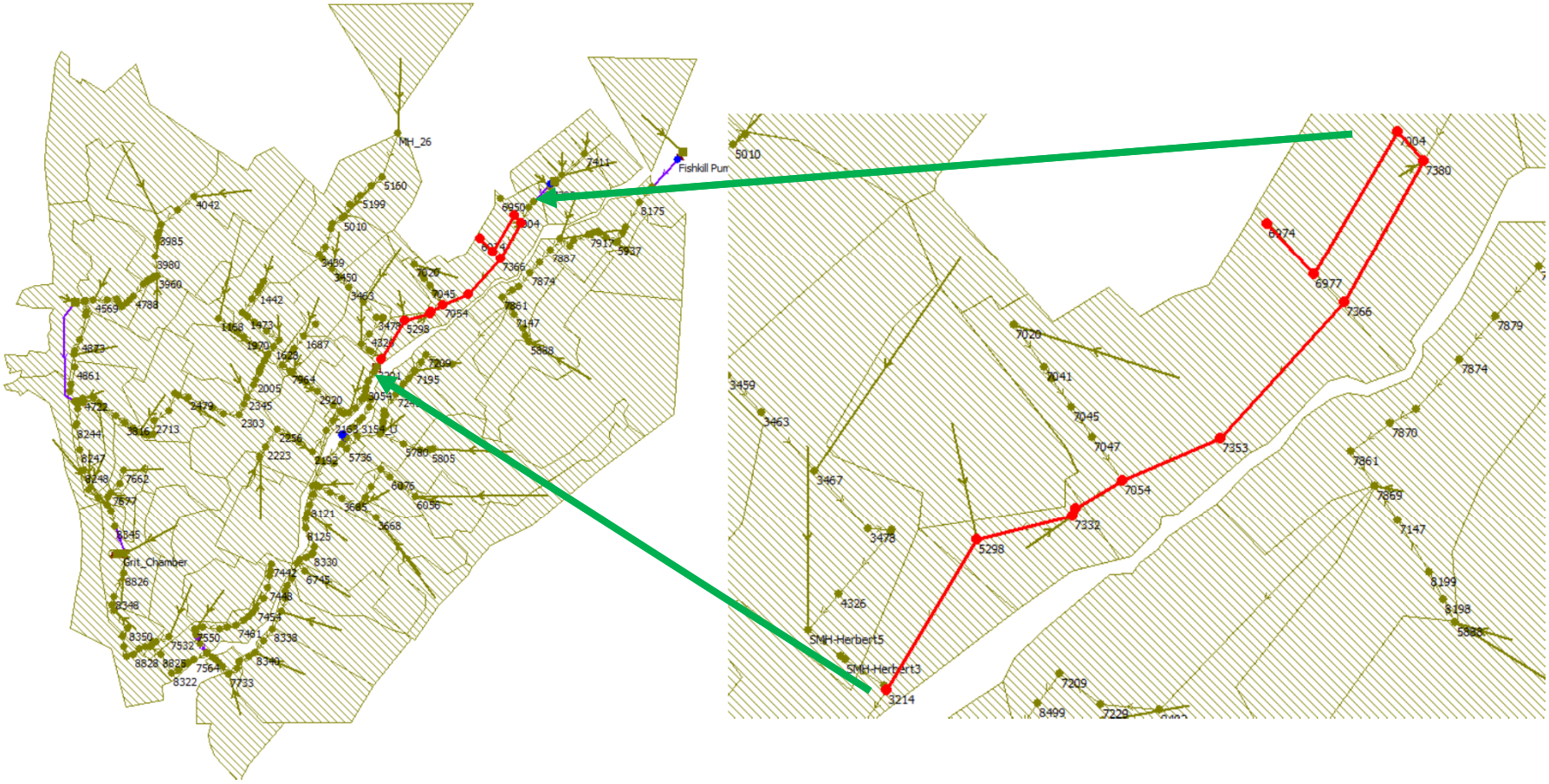
Model Results: Projected[1] Hydraulic Grade Line Beacon Views to Wastewater Treatment Plant

Location	Manhole ID	Peak Water Level (ft)		
		Future Baseline[2]	Future With Proposed Beacon Views Development	Difference
Fishkill Ave at Townsend	7380	172.48	172.53	0.05
Fishkill Ave at Delevan	7054	149.87	151.14	1.27
Herbert and Main St	3214	119.18	119.25	0.08
S. Interceptor north of Wolcott	8277	74.35	74.41	0.06
S. Interceptor near Heaney	8125	61.52	61.62	0.10
S. Interceptor near Kristy	8325	51.55	51.61	0.06
S. Interceptor near South Ave	8809	27.88	28.00	0.12
Sewage Treatment Plant	STP_Junction	13.02	13.03	0.01

1. With 5.6” storm (September 27, 2011)
2. Future Baseline includes already approved developments proposed at 25 Townsend St and 511 Fishkill Ave.

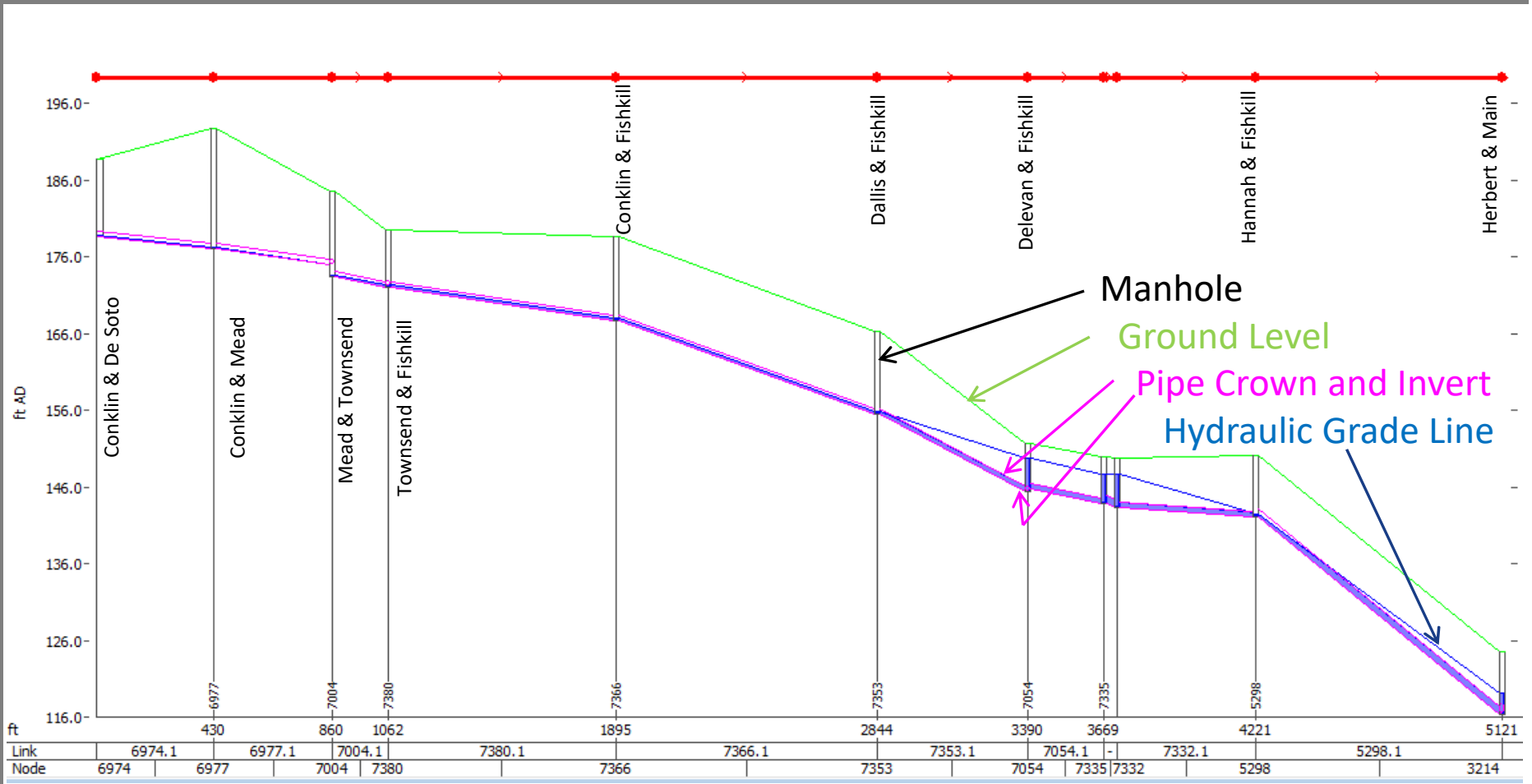
➔ **No overflows occur during Baseline or with Proposed Development**

Model Projection (5.60-in storm from 9/29/11): Details



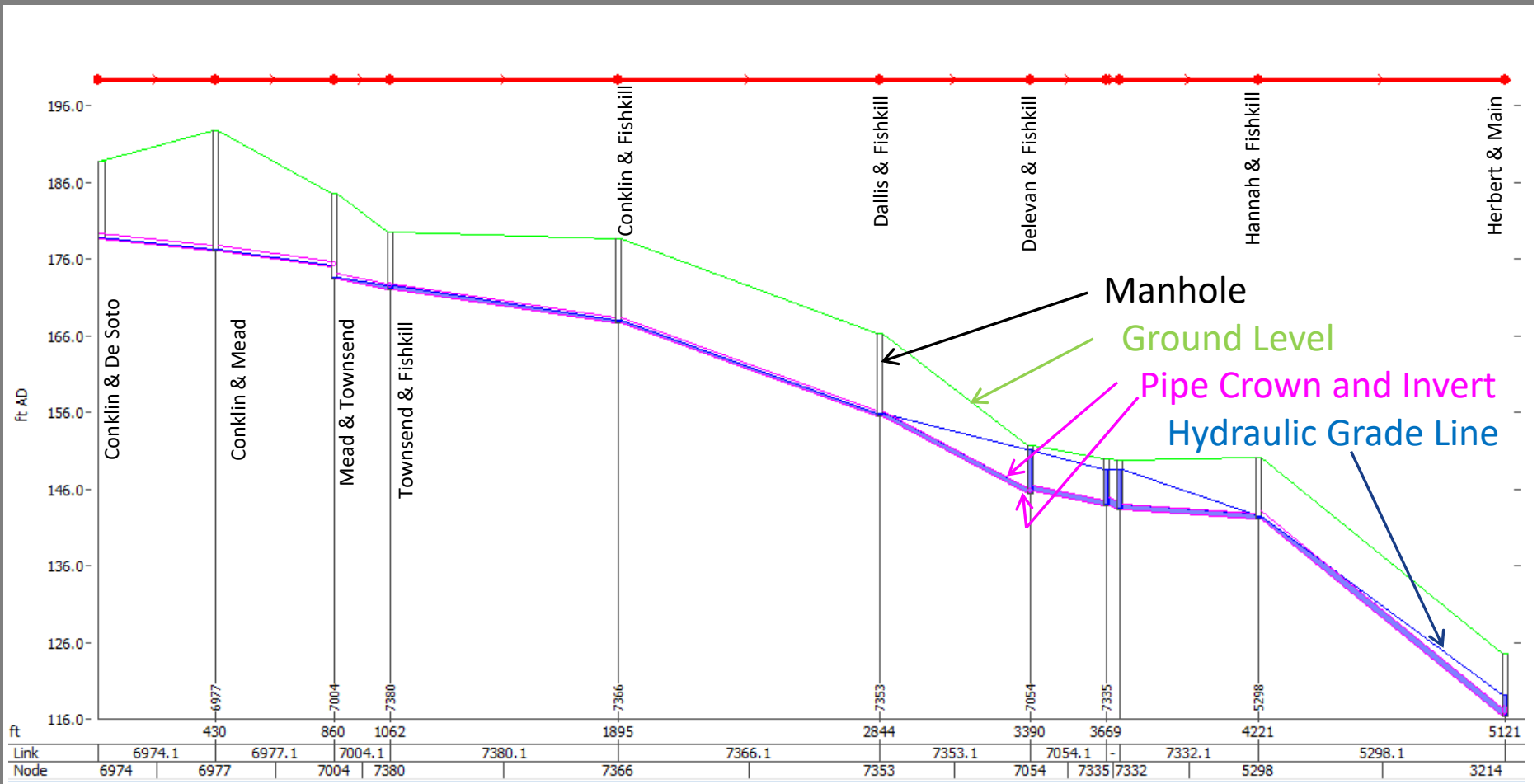
The following slides show a profile view of peak water levels in the pipes from Beacon Views downstream to Main Street and Herbert (highlighted in red in the above graphic; manhole #s indicated on graphic).

Model Projection (5.60-in storm from 9/29/11): in Existing Conditions (baseline)



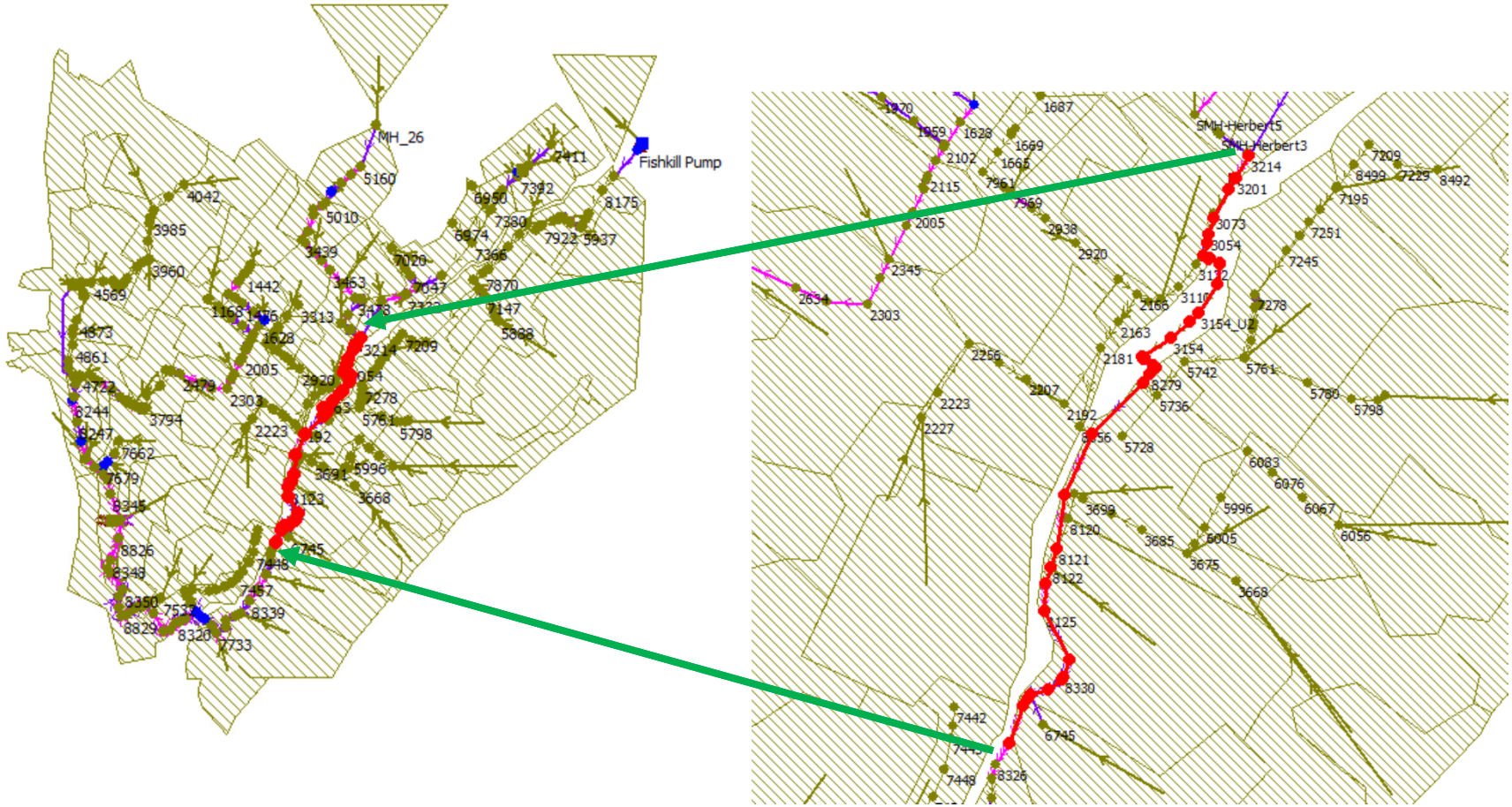
Toggle between slides to see difference in projected water level

Model Projection (5.60-in storm from 9/29/11): in Existing Conditions (baseline)



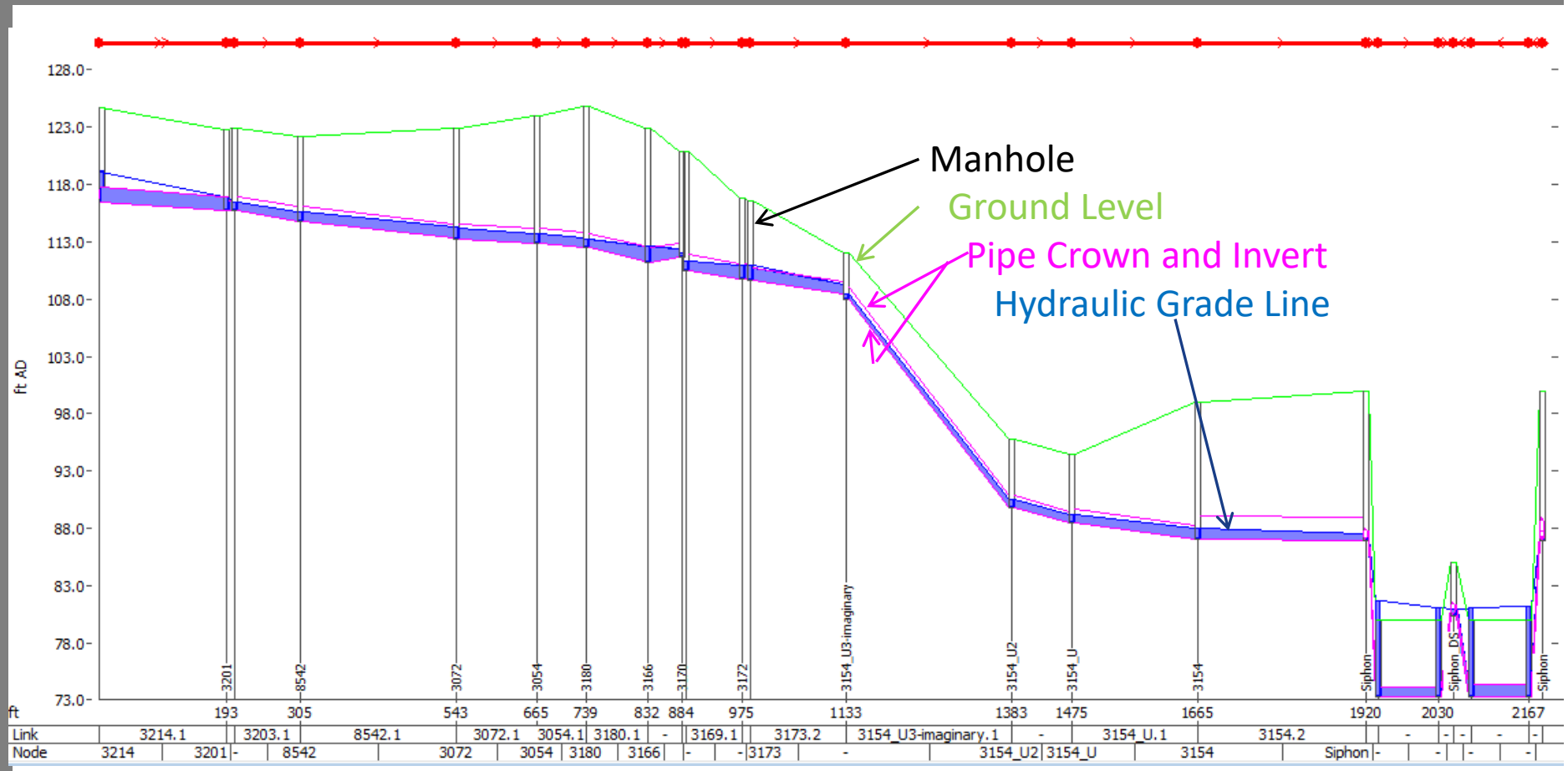
Toggle between slides to see difference in projected water level

Model Projection (5.60-in storm from 9/29/11): Details



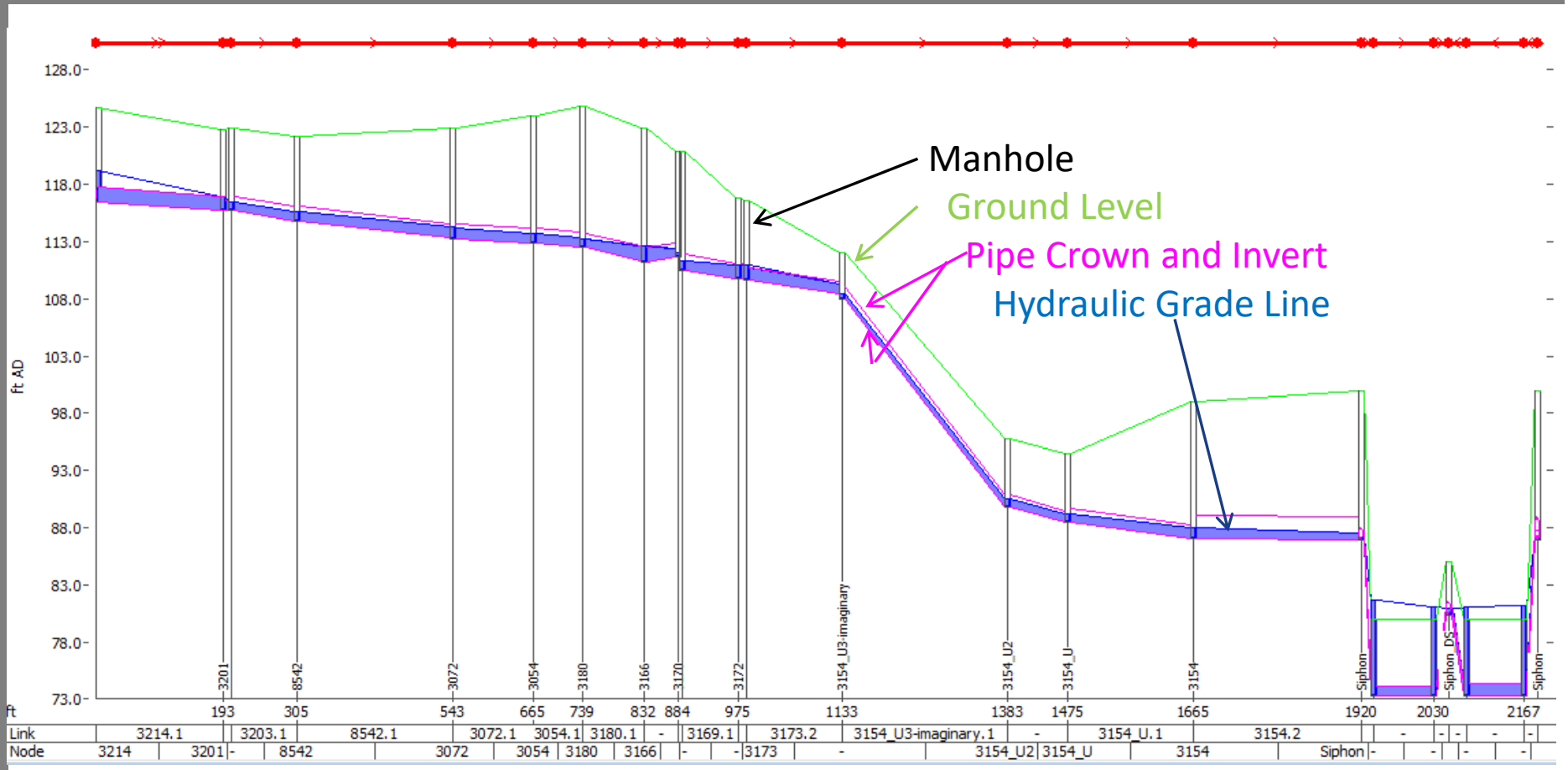
The following slides show a profile view of peak water levels in the pipes from Main Street and Herbert downstream to the South Interceptor on Kristy (highlighted in red in the above graphic; manhole #s indicated on graphic).

Model Projection (5.60-in storm from 9/29/11): in Existing Conditions (baseline)



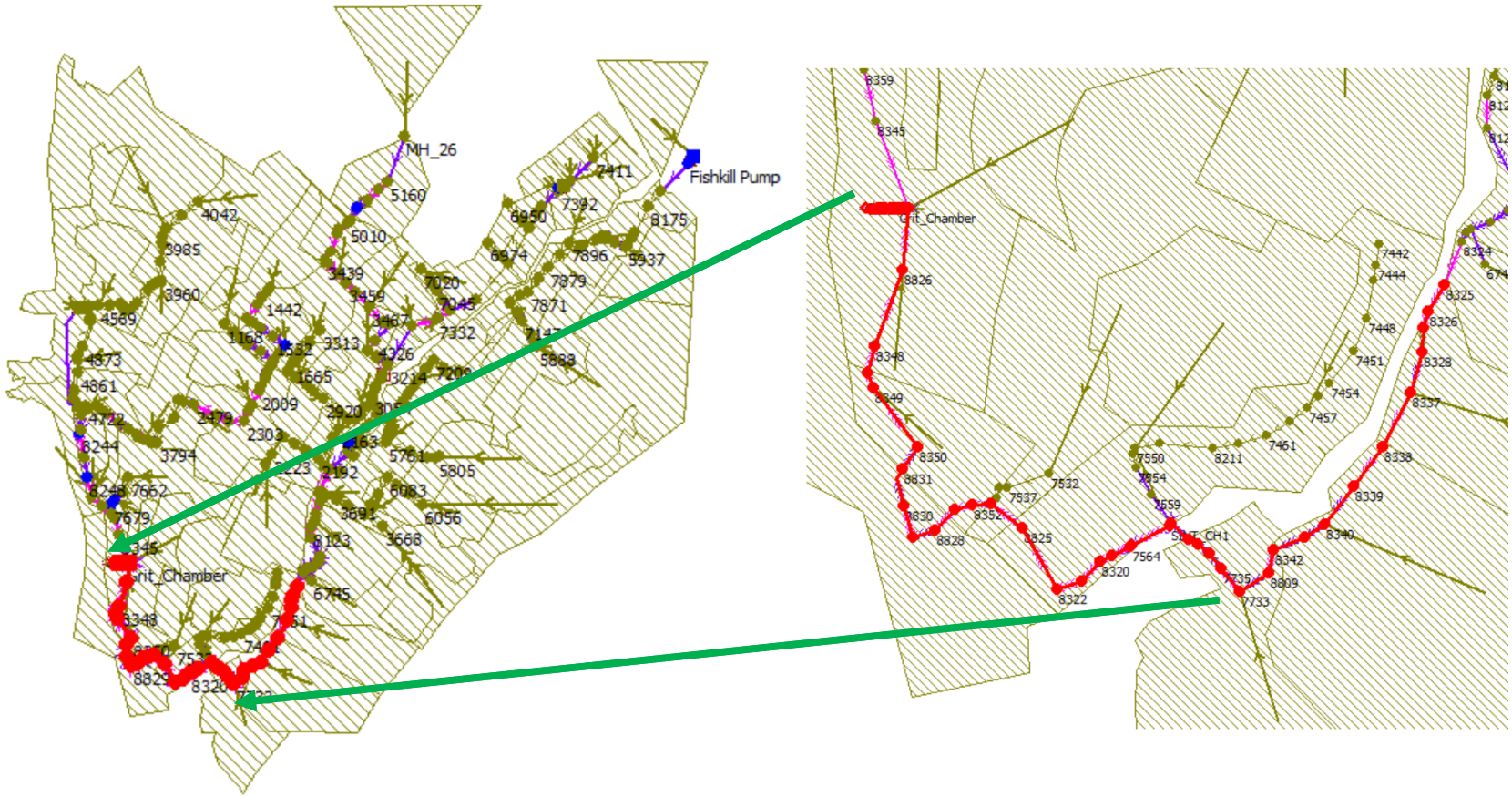
Toggle between slides to see difference in projected water level

Model Projection (5.60-in storm from 9/29/11): With Beacon Views Development



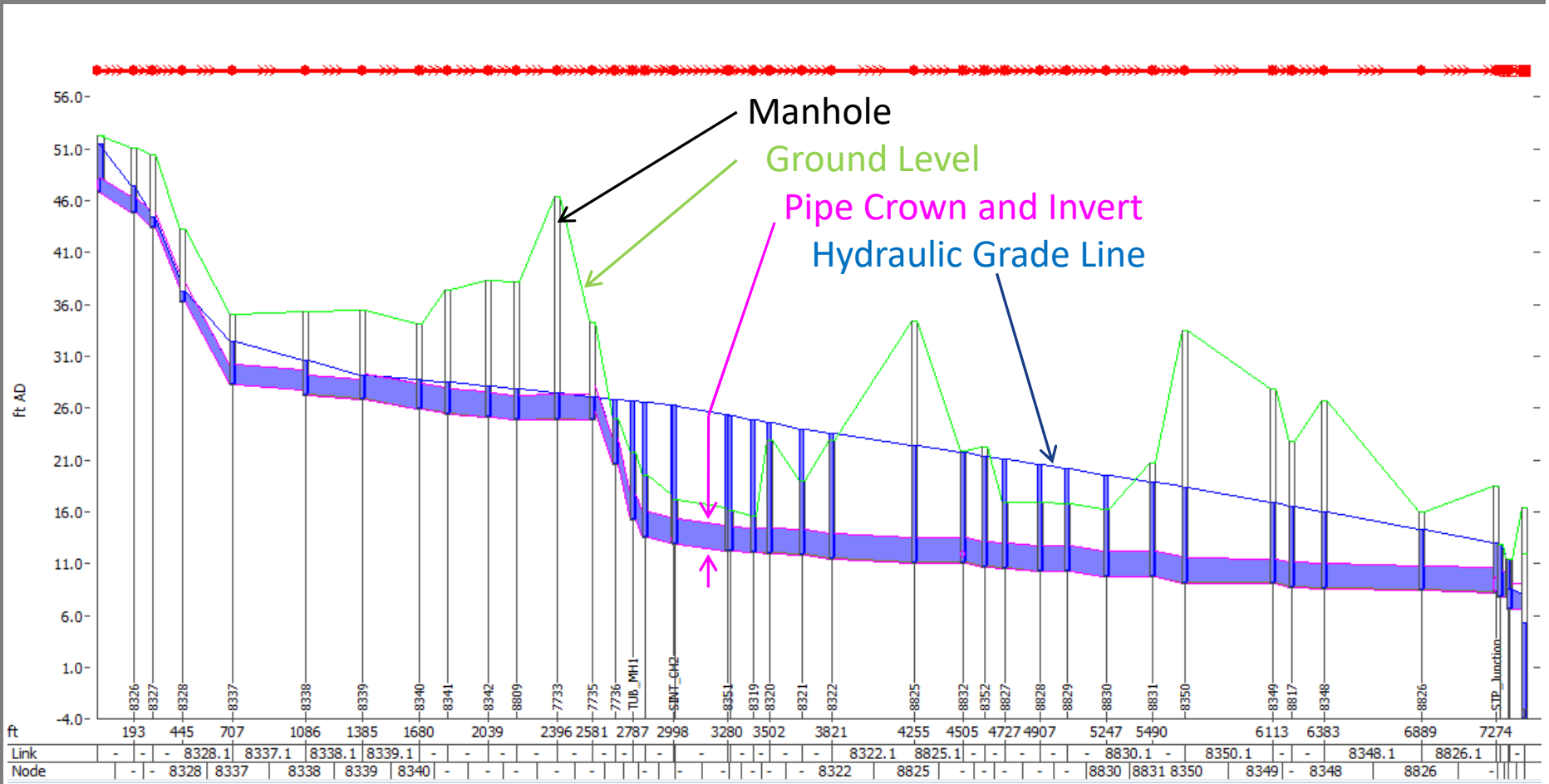
Toggle between slides to see difference in projected water level

Model Projection (5.60-in storm from 9/29/11): Details



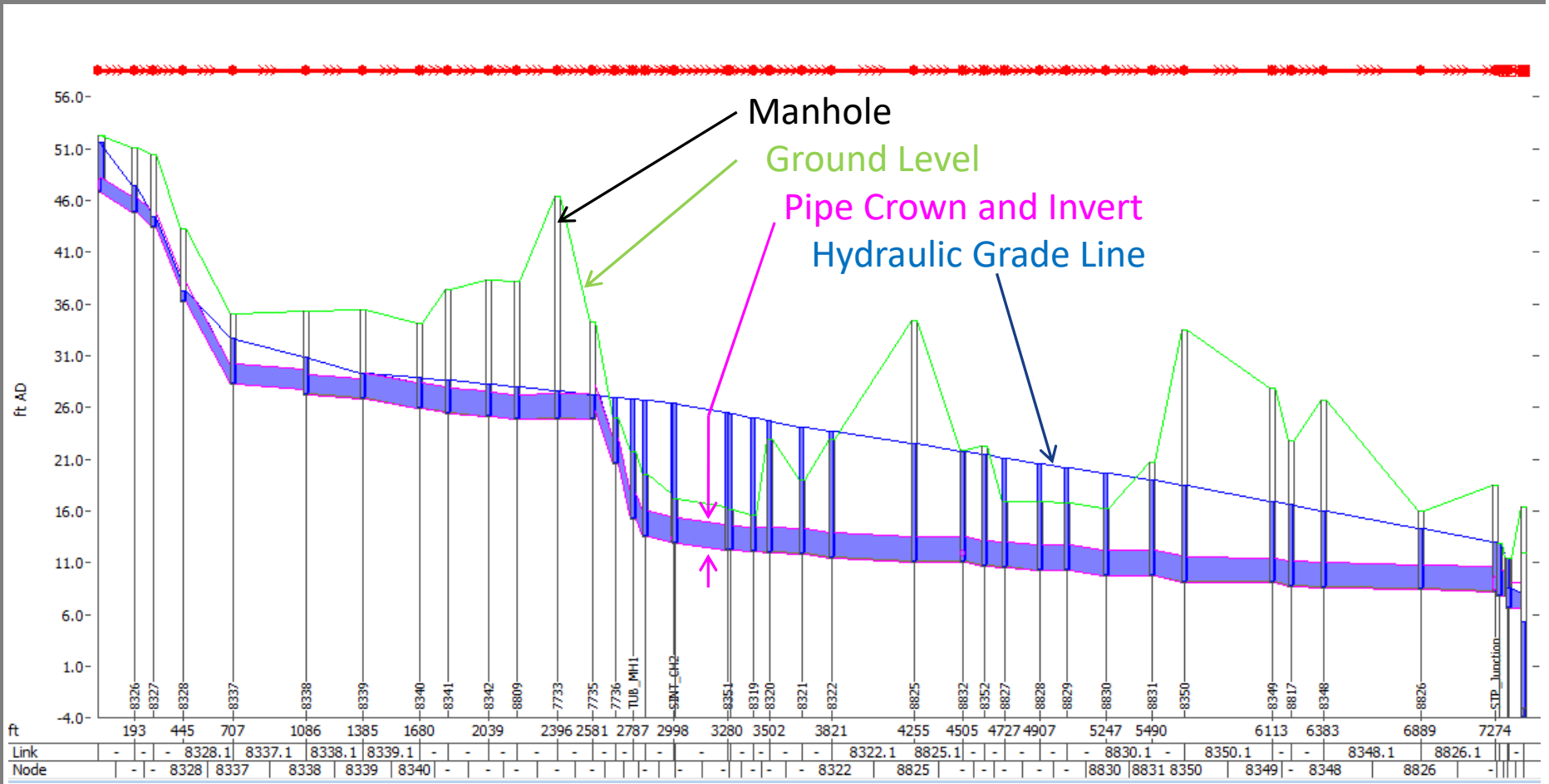
The following slides show a profile view of peak water levels in the pipes from the South Interceptor on Kristy to the Wastewater Treatment Plant (highlighted in red in the above graphic; manhole #s indicated on graphic).

Model Projection (5.60-in storm from 9/29/11): in Existing Conditions (baseline)



Toggle between slides to see difference in projected water level

Model Projection (5.60-in storm from 9/29/11): With Beacon Views Development



Toggle between slides to see difference in projected water level

Memo

Date:	Monday, July 13, 2020
To:	Anthony Ruggiero, Ed Balicki, Nick Ward Willis, John Russo
From:	Nitin Katiyar, PE Yingying Wu
Subject:	Hydraulic Impact Analyses of Proposed Development with Sewer Connection at Beacon Views (Conklin St at De Soto Ave)

Henningson, Durham & Richardson Architecture and Engineering, PC (HDR) evaluated the impact of the development proposed for connection at Beacon Views development on the hydraulic capacity of the City of Beacon's (City) sanitary sewer system during critical conditions. This memorandum presents a high-level summary of the results and conclusions of that analysis.

Methodology

HDR applied the City's InfoWorks CS sanitary sewer system model to evaluate the impact of the development proposed for connection at Conklin St at De Soto Ave on sewer system hydraulics from the point of connection to the Sewage Treatment Plant (STP). This development represent an additional average daily flow of 13,200 gpd, or additional peak hourly flow of 56,760 gpd using a peaking factor of 4.3 (in accordance with the Ten State Standards.) In order to analyze the impact of this additional flow on the sewer system hydraulics, HDR expanded the existing model, which previously extended only to Townsend St, to extend to the point of connection at Conklin St at De Soto Ave. For purposes of this analysis, and to be consistent with previous similar analyses, HDR applied conditions associated with a large, 5.6-inch rainfall event from September 27, 2011 (a one-in-17-year storm event). These analyses also assume that previously approved developments at 25 Townsend Ave and 511 Fishkill Ave would also be in place.

The results of the analysis indicate that no sanitary sewer overflows (SSOs) are expected to occur anywhere in the sewer system from the proposed connection point through to the STP, with or without the proposed development. Table 1 summarizes the calculated increases in peak water levels at locations from the point of connection to the STP. In segments where the sewer pipe is 8 inches (Hanna Street to Conklin St), the proposed development is expected to increase peak water levels as much as 1.27 ft.

Conclusions

1. The additional flow from development proposed for connection to Beacon's sewer system at Beacon Views development is not expected to cause SSOs, even during extreme conditions associated with a large (5.6-inch, 1-in-17-year) storm.

2. During extreme wet-weather conditions, the proposed developments are expected to increase hydraulic grade lines by as much as 1.27 ft. along Fishkill Ave near Delevan

St. Table 1 provides the differences in hydraulic grade lines expected at several locations from the point of connection to the STP.

Table 1.
Model Results for Peak Water Levels, With and Without Proposed Development, During Critical Conditions (5.6-inch Storm)

Location	Manhole ID	Peak Water Level (ft)		
		Future Baseline	Future With Proposed Development	Difference
Fishkill Ave at Townsend	7380	172.48	172.53	0.05
Fishkill Ave at Delevan	7054	149.87	151.14	1.27
Herbert and Main St	3214	119.18	119.25	0.08
S. Interceptor north of Wolcott	8277	74.35	74.41	0.06
S. Interceptor near Heaney	8125	61.52	61.62	0.10
S. Interceptor near Kristy	8325	51.55	51.61	0.06
S. Interceptor near South Ave	8809	27.88	28.00	0.12
Sewage Treatment Plant	STP_Junction	13.02	13.03	0.01

Please do not hesitate to contact us with any questions that you may have regarding this analysis.

City of Beacon Planning Board Agenda
07/14/2020

Title:

Continue review application for Site Plan Approval, retail/residential, 416-420 Main Street, mixed-use commercial, office & residential development, submitted by 416 Main Street Beacon, LLC & 420 Main Street, LLC (D/B/A 420 Main St., LLC

ATTACHMENTS

416-420 Attorney Cover Letter.pdf

416-420 Main Street Exhibit A - Maser Consulting Response to Comments 5-8-20(4503746.1).pdf

416-420 Main Street Exhibit B - Updated Traffic Impact and Parking Study 6-29-20(4503744.1).pdf

416-420 Main Street Exhibit C - 30 Space Parking Variance Approval Resolution - 416 Main Street(4503742.1).pdf

416-420 Main Street Exhibit D - Aryeh Seigel Comment Response Letter_416 Main Street_200630(4503758.1).pdf

416-420 Main Street Exhibit E - Hudson Land Design Response to Comments Letter - 416 Main Street(4503902.1).pdf

416-420 Main Street Site Plan Set 6-30-20 Supplemental Submission(4503939.1).pdf

416-420 Main Street Supplemental Cover Letter.PDF

416-420 Main Street - Subdivision Application Form.PDF

Planner Review Letter.pdf

Engineer Review Letter.pdf

416-420 Main Street Traffic Review 2.pdf

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June 30, 2020

VIA E-MAIL

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

Re: Application for Special Use Permit, Subdivision (Lot Line Change) & Site Plan Approvals
Supplemental Submission
Premises: 416-420 Main Street, Beacon, New York
Tax Parcel IDs: (6054-29-056780 & 6054-29-056774)

Dear Chairman Gunn and Members of the Planning Board:

On behalf of 416 Main Street Beacon, LLC and 420 Main Street, LLC, D/B/A 420 Main St. Beacon, LLC (collectively, the "Applicant"), the owners of the above-referenced Premises, we respectfully submit this letter and referenced enclosures in furtherance of the Applicant's pending Application for a Special Use Permit Approval (the "Applications").[1]

Since we last appeared before your Board on May 12, 2020, the Applicant spent a great deal of time significantly updating and improving the building program to reflect comments from the Planning Board and its consultants, and in response to comments at the community forum the Applicant held via Zoom with members of the Beacon community on May 20th. Additionally, the Applicant appeared at the City Council's June 29, 2020 Work Session for an informal discussion regarding the Applicant's refined building program and to get feedback from the Council to incorporate into the design of the Project.

REFINED BUILDING PROGRAM:

As is more fully detailed in the updated site plans included in the enclosed updated site plan set, the Applicant has significantly refined the building program in response to the Planning Board's comments. As this Board is aware, the Applicant originally proposed a 14,703 sq. ft. mixed-use building and a 2,145 sq. ft. artist live/work space (collectively, 16,848+/- sq. ft. of improvements).

[1] Note: The Application also involves the removal of the existing lot line (Subdivision Approval) and Site Plan review by the City of Beacon Planning Board. Additionally, in accordance with the City of Beacon Zoning Code Section 223-18(B)(1), an "[a]pplication for required special permits shall be made to the Planning Board as agent for the City Council..."

Specifically, the refined building program consists of:

- An 11,715 sq. ft. mixed-use building, comprised of a 4,295 sq. ft. ground floor retail space, as well as 6,220 sq. ft. of commercial office space on the second and third floors and 1,200 sq. ft. of residential space containing one (1) apartment unit (reduced from two (2) units) on the stepped-back fourth floor; and
- An 1,140 sq. ft. artist live/work space in the rear of the Premises, fronting on South Street.

In support of this supplemental submission, we respectfully submit copies of the revised site plans and renderings entitled "Site Plan Application – 416-420 Main Street", prepared by Aryeh Siegel, Architect, and Hudson Land Design Professional Engineering, P.C., dated April 28, 2020, last revised June 30, 2020 and numbered and titled as follows:

- Sheet 1 of 1 – Preliminary Subdivision Plat;
- Sheet 1 of 10 – Site Plan;
- Sheet 2 of 10 – Existing Conditions & Demolition Plan;[2]
- Sheet 3 of 10 – Landscape Plan & Planting Schedule;
- Sheet 4 of 10 – Building Plans;
- Sheet 5 of 10 – Building Plans & Renderings;
- Sheet 6 of 10 – Grading & Utility Plan;
- Sheet 7 of 10 – Erosion and Sediment Control Details;
- Sheet 8 of 10 – Utility Profiles;
- Sheet 9 of 10 – Construction Details; and
- Sheet 10 of 10 – Construction Details.

UPDATED TRAFFIC IMPACT AND PARKING STUDY:

In addition to the foregoing, following the Applicant's presentation at the May 12th Planning Board meeting, the Applicant's traffic consultant reviewed additional traffic and parking data that the Planning Board requested to be included in the Traffic Impact and Parking Study for the Project.

As is more fully detailed in the Response to Comments letter enclosed as **Exhibit A**, which was prepared by Maser Consulting in response to the comments in the letter prepared by Creighton Manning dated May 8, 2020, as well as in the Updated Traffic Impact and Parking Study enclosed as **Exhibit B,** as a result of the reduced building program the total off-street parking required for the Project has been reduced to 23 spaces, which is down from 26 spaces. The Updated Traffic

[2] Note: There are no changes to Sheet 2 at this time.

Impact and Parking Study concludes that:

> "... The traffic associated with the proposed 416-420 Main Street Mixed-Use Development is not expected to cause any significant impact in overall operation. Furthermore, based on the observations of the existing available parking in the vicinity of the Site as well as the analysis of the required parking demand of the development, the parking needs for the proposed development can be accommodated by the public parking in the vicinity of the Site during both Weekday and Weekend peak parking periods."

See **Exhibit B**, page 16.

Additionally, we would note that this property is unique in that it has been the subject of a few prior proposals, including an application for a 144-seat movie theater on the 416 Main Street lot. Indeed, in 2013, the Zoning Board of Appeals ("ZBA") granted a 30-space parking variance for the commercial use, where six (6) total off-street parking spaces were proposed and 36 spaces were required. *See* **Exhibit C** – 30 Space Parking Variance. Further, the former Ella's Bellas space (now and to remain Kitchen + Coffee, which will remain) did not have any existing off-street parking. Collectively, given the unique layout of the site and the Applicant's proposal to develop two (2) upper floors of office space above first floor commercial space along Main Street – while providing all if the required off-street parking for the limited residential components of the Project – we respectfully submit that the parking waiver sought herein is *de minimis*, and will not cause any potentially significant environmental impacts.

ADDITIONAL RESPONSE TO COMMENTS MEMORANDA & INDEX OF ENCLOSED DOCUMENTS:

Additionally, in further support of this Application, enclosed please find copies of the following Response to Comments letters prepared by the Applicant's Architect Aryeh Seigel, and the Applicant's Engineering Consultant, Hudson Land Design:

- Aryeh Seigel Architect Response to Comments Letter Dated June 30, 2020, in response to the letters prepared by Lanc & Tully and John Clarke Planning and Design both dated May 8, 2020 (**Exhibit D**); and
- Hudson Land Design Response to Comments Letter Dated June 30, 2020, in response to the letters prepared by Lanc & Tully and John Clarke Planning and Design both dated May 8, 2020 (**Exhibit E**).

For ease of reference, in addition to the updated site plan sheets referenced above, the following documents are enclosed herein for consideration in advance of the Planning Board's July 14th meeting Agenda:[3]

Exhibit A: Maser Consulting Response to Comments Letter Prepared in Response to the Comments in the Letter Prepared by Creighton Manning dated May 8, 2020;

Exhibit B: Updated Traffic Impact and Parking Study, last revised June 29, 2020;

Exhibit C: ZBA Parking Variance for 30 Off-Street Parking Spaces for Premises;

Exhibit D: Aryeh Seigel Architect Response to Comments Letter Dated June 30, 2020, in response to the letters prepared by Lanc & Tully and John Clarke Planning and Design both dated May 8, 2020; and

Exhibit E: Hudson Land Design Response to Comments Letter Dated June 30, 2020, in response to the letters prepared by Lanc & Tully and John Clarke Planning and Design both dated May 8, 2020.

We look forward to appearing at the Planning Board's July 14th regular meeting to continue the review of the Project and to initiate the environmental review process. 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
Land & Tully
Aryeh J. Seigel Architect
Michael A. Bodendorf, P.E. – Hudson Land Design Professional Engineering, P.C.
Maser Consulting P.A.

[3] Note: Pursuant to our communications with the City of Beacon Building Department, only electronic submissions are requested at this time.

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June 29, 2020

VIA EMAIL

Chairman John Gunn
City of Beacon Planning Board
City of Beacon City Hall
1 Municipal Plaza
Beacon, NY 12508

Re: 416-420 Main Street
City of Beacon, Dutchess County, New York
MC Project No. 20000282A

Dear Chairman Gunn and Members of the Planning Board:

The following items are in response to the Creighton Manning Engineering (CM) letter to you dated May 8, 2020. The items are numbered according to their review comments.

Site Plan

1. Sight lines should be shown on plans for both proposed driveways.

   Response: Sight lines will be added to the Site plans for both proposed driveways.

2. CM recommends providing pavers under bicycle racks rather than grass/turf for ease of maintenance.

   Response: Comment noted.

Traffic Impact Study

1. The applicant accurately describes the existing parking permitted on both sides of Main Street. It is also noted that alternate side of the street parking is enforced from 4:00 AM to 9:00 AM.

   Response: ***Comment noted. A reference to the alternate side of the street parking restriction has been added to the Revised Traffic Impact Study.***

2. CM agrees with the values shown in appended Table No. 1 for anticipated site-generated trips: 24 total trips during the weekday morning peak hour, 28 total trips during the weekday evening peak hour, and 25 total trips during the Saturday peak hour. The capacity analysis findings, which demonstrate minimal changes in levels of service, are consistent with NYSDOT and ITE's guideline stating that projects generating fewer than 100 trips are not anticipated to result in a significant impact.

   Response: ***Comment noted. The overall development has been somewhat reduced in size since submission of the April 24, 2020 Traffic Impact Study. The Revised TIS has been updated to reflect the current development sizes. As indicated in Table No. 1 of the Revised TIS, the estimated site generated trips for each of the peak hours are now 17 total trips during the weekday morning peak hour, 21 total trips during the weekday evening peak hour, and 19 total trips during the Saturday peak hour. The traffic analysis has also been revised to reflect these new trip generation estimates resulting in similar traffic operating conditions.***

3. CM agrees with the values shown on Figures 14 and 15 for arrival and departure distributions.

   Response: ***Comment noted.***

4. The applicant is seeking a substantial waiver/variance in the number of off-street parking spaces required for the project – 26 spaces are required and four are proposed. The project's location in the heart of Beacon's central business district lends itself to this kind of request since a project of this kind could not be realized if it satisfied the off-street parking requirement. The applicant identified several existing public parking areas within 500 feet of the subject site that may be available to tenants and visitors of the proposed development.

The 500-foot radius is an acceptance and reasonable walking distance, and the methodology for collecting existing parking conditions data is sound.

a. Has the parking analysis been coordinated with other pending projects that may be utilizing the same public parking areas to satisfy their parking requirements? Similarly, have vacancies in existing buildings with no off-street parking been considered?
b. Notwithstanding the preceding question, CM agrees that the available on-street parking is sufficient for the retail and office uses on a weekday. The Saturday and Sunday data demonstrates that the existing demand for parking is approaching the available supply with as few as 30 spaces available. Given that the study was performed in the winter, CM recommends that the parking data be seasonally adjusted.
c. Of the proposed two spaces for the residential units located on the 4th floor, one is an ADA-accessible space. If at least one of the tenants does not meet the requirements to use the ADA-accessible space, how will the parking needs be addressed?

Response: ***We are unaware of any projects in the vicinity of the Site that would result in any significant additional parking occupancy within the 500 ft. parking study area. Furthermore, it is possible that parking conditions could differ during warmer months when compared to the February time period when the parking data was collected. However, even if the existing parking availability was to decrease by 5%, or 15 spaces (299 total spaces in 500 ft. area x 5%), to account for seasonal adjustment as well as other potential developments in the area, the Weekday parking availability would be approximately 110 spaces, while the Saturday Sunday parking availability would be approximately 15 spaces. There would still be sufficient parking during each time period to accommodate the proposed development, but parking availability on Saturday/Sunday would continue to be scarce.***

It should be noted that the parking study area was limited to 500 ft. from Site location, however the City Code requires that sufficient parking be provided within 800 ft. of the proposed development (see Code Section 223-41.18.G.(3)). Based on a review of the area between 500 ft. and 800 ft. from the proposed development, there would be a total of approximately 79 additional parking spaces along Main Street, Henry Street, Veterans Place and Tioronda Avenue. Assuming a similar occupancy ratio for these spaces

during the Weekday and Saturday/Sunday periods, this could provide an additional 29 to 33 available parking spaces during the weekday and 4 to 8 available spaces during the weekend.

Finally, the number of residential units within the mixed-use building has been reduced from 2 units under the original proposal to 1 unit under the current proposal. In addition, the two (2) parking spaces provided for the mixed-use building are not proposed to be designated as ADA-accessible, but each will be constructed to be ADA-accessible for use as needed.

5. The applicant seeks to mitigate its parking shortfall by proposing striped parking spaces on the east side of Schenck Avenue between Main Street and South Street. CM's site visit in early May 2020 revealed that there is a No Parking restriction on the east side of Schenck Avenue presumably due to width of this roadway, approximately 25 feet (see photo below). Although traffic volumes are low on Schenck Avenue, permitting curbside parking on the east side on Schenck Avenue would leave an approximately 10-foot-wide area for two-way traffic, which is too narrow unless Schenck Avenue was changed to a one-way street for this block, as Maser discussed on page 14. The applicant should clarify if the on-street parking supply on Schenck Avenue (19 spaces) includes the east side of the street where parking is restricted.

   Response: ***The on-street parking supply on Schenck Avenue does include parking on the east side of the street but only for 2-3 spaces at the north end near North South Street, where vehicles are known to park today. The potential proposed additionally striped spaces are not included in the parking analysis.***

General

1. As noted above, the applicant discusses the potential for Schenck Avenue being converted to a one-way northbound street for at least the block between Main Street and South Street. The applicant is correct that traffic volumes on Schenck Avenue are relatively low; presumably traffic volumes on South Street are also relatively low. Residents of South Street could experience a "doubling" of traffic as a result of the new traffic pattern plus a portion of the site's exiting traffic that could not longer use Schenck Avenue to return to Main Street. Capacity is not an issue with such a change in traffic patterns, but a change in character could be a concern. Further study and outreach to affected residents are advised.

Response: ***This potential modification of the flow on Shenck Avenue was presented as a possible alternative for the consideration of the City due to the existing pavement width of the roadway. However, based on initial discussion at the last planning board meeting it was clear that modifying Schenck Avenue to a one-way street was not preferred by the City at this time and therefore this will not be pursued as part of this project and no further analysis has been conducted.***

2. The crosswalk spanning Main Street at Schenck Avenue does provide the requisite pedestrian crossing signs. With the potential for an increase in pedestrian activity at this intersection resulting from the project, the applicant should show the appropriate MUTCD-compliant signs on the plan.

Response: ***Comment noted. Crosswalk signing will be installed as indicated in the below figure for the Main Street crosswalk at Schenck Avenue. This will be incorporated into the Site plans.***

3. A "Stop" sign and stop line are missing from the Schenck Avenue approach to Main Street, With the potential for an increase in vehicular activity at this intersection resulting from the project, the plans should detail these traffic control features on the plan.

   Response: ***As indicated the above figure, a "Stop sign and painted white stop bar will be installed on Schenck Avenue at its intersection with South Street. Note that in order to accommodate the painted white stop bar, the existing yellow hatching on either side of Schenck Avenue will be required to be removed to provide sufficient roadway width for the stop bar and to maintain two-way traffic. The yellow hatching, which is non-standard was installed to reinforce the no parking condition in this area, however the existing "No Parking Here to Corner" signs are proposed to remain to designate this no parking area. These modifications will also be coordinated with the Site plans.***

If you have any questions regarding the above, please do not hesitate to contact us.

Very truly yours,

MASER CONSULTING P.A.

Richard G. D'Andrea, P.E., PTOE
Principal Associate/Project Manager

RGD/ces
Enclosures
cc:

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Engineers Planners Surveyors Landscape Architects Environmental Scientists

MASER CONSULTING P. A.

Traffic Impact Study

416-420 Main Street

City of Beacon, Dutchess County, New York

April 28, 2020
Revised June 29, 2020

Prepared For

416 Main Street, LLC
420 Main Street, LLC, D/B/A 420 Main St. Beacon, LLC
319 Lafayette #151
New York, NY 101

Prepared By

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MC Project No. 20000282A

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I. INTRODUCTION

A. PROJECT DESCRIPTION AND LOCATION

(Figure No. 1)

This report, which is an update of our original April 28, 2020 report, has been prepared to evaluate the potential traffic and parking impacts associated with the proposed 416-420 Main Street Mixed-Use Development, which is proposed to be developed on the property located on the northeast corner of the Main Street/Schenck Avenue intersection and extended to South Street in the City of Beacon, Dutchess County, New York. The Site, which currently consist of an existing one (1)-story retail building and a vacant adjoining lot, is proposed to consist of two (2) buildings totaling 14,595 sq. ft. including 13,155 sq. ft. at the front mixed-use building (fronting on Main Street) and 1,440 sq. ft. at the rear building (fronting on South Street). This represents a reduction in the overall building size since the time of our original traffic study. The mixed-use building fronting on Main Street will consist of a total of 4,295 sq. ft. of first floor retail space, which will include the existing 1,720 sq. ft. Kitchen & Coffee (formerly Ella's Bellas Café) that will remain, as well as 6,220 sq. ft. of commercial office space on the second and third floors and approximately 1,200 sq. ft. of residential space containing one (1) residential apartment unit on the fourth floor. The rear lot building will consist of a 1,440 sq. ft. residential live/work building that will contain one (1) residential unit. The Site will provide limited off-street parking facilities with one (1) driveway connection to Schenck Avenue for two (2) off-street parking spaces for use by the mixed-use building tenants while a second driveway connection will be provided to South Street for use by the residential building to the rear of the Site, which will also provide two (2) off-street parking spaces.

A Design Year of 2025 has been utilized in completing the traffic analysis in order to evaluate future traffic conditions associated with this proposed development.

B. SCOPE OF STUDY

This study has been prepared to identify current and future traffic operating conditions on the surrounding roadway network and to assess the potential traffic impacts of the proposed 416-420 Main Street Mixed-Use Development. Existing and future parking conditions were also evaluated.

All available traffic count data for the study area intersections were obtained from previous reports prepared by our office. These data were supplemented with new traffic counts collected by representatives of Maser Consulting, P.A. These data were also compared to count data obtained from the New York State Department of Transportation (NYSDOT). Together these data were utilized to establish the Year 2020 Existing Traffic Volumes representing existing traffic conditions in the vicinity of the site.

The Year 2020 Existing Traffic Volumes were then projected to the 2025 Design Year to take into account background traffic growth. In addition, traffic for other specific potential or approved developments in the area were estimated and then added to the Projected Traffic Volumes to obtain the Year 2025 No-Build Traffic Volumes.

Estimates were then made of the potential traffic that the proposed development would generate during each of the peak hours (see Section III-C for further discussion). The resulting site generated traffic volumes were then added to the roadway system and combined with the Year 2020 No-Build Traffic Volumes resulting in the Year 2020 Build Traffic Volumes.

The Existing, No-Build and Build Traffic Volumes were then compared to roadway capacities based on the procedures from the Highway Capacity Manual to determine existing and future Levels of Service and operating conditions. Recommendations for improvements were made where necessary to serve the existing and/or future traffic volumes.

In addition to the traffic analysis summarized above, a detailed parking analysis has also been conducted, which identifies the current available parking supply in the vicinity of the site based on observations of the occupied and available parking spaces during weekday and weekend peak periods. The available parking supply was then compared to the required parking spaces as determined by the City of Beacon Zoning Code parking requirements.

II. EXISTING ROADWAY AND TRAFFIC DESCRIPTIONS

A. DESCRIPTION OF EXISTING ROADWAYS

(Figure No. 1)

As shown on Figure No. 1, the proposed 416-420 Main Street Mixed-Use Development will be accessed from Main Street, Schenck Avenue and South Street. One driveway connection will be provided to Schenck Avenue for parking to be provided for the building with Main Street frontage while a second driveway connection will be provided to South Street for use by the residential building to the rear of the Site. The following is a brief description of the roadways located within the study area. In addition, Section III-F provides a further description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service and any recommended improvements for each of the study area intersections. Appendix "D" contains copies of the capacity analyses which indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied.

1. Main Street

Main Street is a City street that consists of one lane in each direction and traverses in a northwest/southeast direction between NYS Route 9D and Churchill Street. Beyond Churchill Street, Main Street continues in a more northeasterly direction. Northwest of Fishkill Avenue, the roadway is classified as an Urban Major Collector, southeast of Fishkill Avenue it is classified as a local roadway. In the vicinity of the site, the roadway intersects with Schenck Avenue at an unsignalized "T" shaped intersection as well as with Fishkill Avenue/Teller Avenue (NYS Route 52) at a signalized full movement intersection. Sidewalks are provided on both sides of the street and striped pedestrian crossings are provided at the Schenck Avenue intersection. Signalized pedestrian crossings are provided at the Fishkill Avenue/Teller Avenue intersection. Parking is permitted on both sides of Main Street for its entire length with the parking limited to two-hour parking between 9AM and 5PM seven days a week. Main Street has a City Speed Limit of 30 MPH northeast of Fishkill Avenue, while the speed limit southwest of Fishkill Avenue is 25 MPH.

2. Schenck Avenue

Schenck Avenue is a local City street that consists of one lane in each direction and traverses in a north/south direction. Within the study area, the roadway intersects with Main Street and South Street at two unsignalized "T" shaped intersections. Sidewalks and on-street parking, with no parking restrictions, are provided on both sides of the roadway between Main Street and Van Nydeck Avenue. South of Van Nydeck Avenue a sidewalk is only provided on the west side of the roadway.

3. Fishkill Avenue/Teller Avenue (NYS Route 52)

Fishkill Avenue and Teller Avenue are classified as Urban Minor Arterials. These roadways are also known as NYS Route 52 but are owned and maintained by the City. Fishkill Avenue and Teller Avenue each consist of one lane in each direction and traverse in a generally north/south direction. The roadway intersects Main Street at a full movement signalized intersection. Sidewalks are provided on both sides of the roadway to the north and south of Main Street. On street parking is not permitted along Teller Avenue, while limited on street parking is permitted along the east side of Fishkill Avenue. Fishkill Avenue and Teller Avenue each have a posted City Speed Limit of 30 MPH.

B. YEAR 2019 EXISTING TRAFFIC VOLUMES

(Figures No. 2, 3 and 4)

Manual traffic counts were collected by representatives of Maser Consulting, P.A. on Tuesday February 4, 2020 for the AM and PM Peak Hours and Saturday February 1, 2020 for the Saturday Midday Peak Hour to determine the existing traffic volume conditions at the study area intersections. These traffic counts were then compared to traffic volume data from previous traffic studies conducted by our office and to traffic volume data available from the New York State Department of Transportation (NYSDOT) for the Fishkill Avenue/Teller Avenue (NYS Route 52) Corridor. Based on this information, the Year 2020 Existing Traffic Volumes were established for the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours at the following study area intersections.

- Fishkill Avenue/Teller Avenue (NYS Route 52) and Main Street
- Main Street and Schenck Avenue

Based upon a review of the traffic counts, the peak hours were generally identified as follows:

- Weekday Peak AM Hour 8:30 AM – 9:30 AM
- Weekday Peak PM Hour 3:45 PM – 4:45 PM
- Saturday Peak Hour 12:00 PM – 1:00 PM

The resulting Year 2020 Existing Traffic Volumes are shown on Figures No. 2, 3 and 4 for the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours, respectively.

III. EVALUATION OF FUTURE TRAFFIC CONDITIONS

A. YEAR 2025 NO-BUILD TRAFFIC VOLUMES

(Figure No. 5 through 13)

The Year 2020 Existing Traffic Volumes were increased by a growth factor of 2.0% per year to account for general background growth resulting in the Year 2025 Projected Traffic Volumes, which are shown on Figures No. 5, 6 and 7 for each of the Peak Hours. In addition, traffic associated with the proposed 13 Creek Drive Development was also accounted for. The resulting Other Development traffic volumes associated with that development are shown on Figures No. 8, 9 and 10 for each of the peak hours. These volumes were added to the 2025 Projected Traffic Volumes resulting in the Year 2025 No-Build Traffic Volumes, which are shown on Figures No. 11, 12 and 13 for the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours, respectively.

B. SITE GENERATED TRAFFIC VOLUMES

(Table No. 1)

Estimates of the amount of traffic to be generated by the proposed residential development during each of the peak hours were developed based on information published by the Institute of Transportation Engineers (ITE) as contained in the report entitled "Trip Generation", 10th Edition, 2017, based on Land Use Category – 820 – Retail, 710 – Office Building and 220 – Multifamily Home and 210 – Single Family Home. Table No. 1 summarizes the trip generation rates and corresponding site generated traffic volumes for the Weekday Peak AM, Weekday Peak PM and Saturday Hours.

It should be noted that the Kitchen & Coffee use (formerly Ella's Bellas Café), which consists of 1,675 sq. ft. is an existing operating use that will be incorporated into the overall development but will remain upon completion. Traffic associated with this use has been captured in the existing traffic volume counts identified above, therefore no additional traffic generation associated with this use has been accounted for in the analysis.

In addition, the rear lot which is currently zoned PB – Business Off-Street, may be rezoned into to the T-Transitional Zone in the near future. Under this zoning, even if the proposed single-family home artist/live work space was be modified to two (2) artist live-work units, it is expected that this would result in similar traffic generation to the single live-work space and therefore no separate analysis has been conducted for this condition.

C. ARRIVAL/DEPARTURE DISTRIBUTIONS

(Figures No. 14 and 15)

It was necessary to establish arrival and departure distributions to assign the site generated traffic volumes to the surrounding roadway network. Based on a review of the Existing Traffic Volumes and the expected travel patterns on the surrounding roadway network, the distributions were identified. The anticipated arrival and departure distributions are shown on Figures No. 14 and 15, respectively.

D. 2020 BUILD CONDITIONS TRAFFIC VOLUMES

(Figures No. 16 through 21)

The Site Generated Traffic Volumes were assigned to the roadway network based on the arrival and departure distributions referenced above. The resulting site generated traffic volumes for each of the study area intersections are shown on Figures No. 16, 17 and 18 for each of the peak hours, respectively. The site generated traffic volumes were then added to the Year 2025 No-Build Traffic Volumes to obtain the Year 2025 Build Traffic Volumes. The resulting Year 2025 Build Traffic Volumes are shown on Figures No. 19, 20 and 21 for the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours, respectively.

E. DESCRIPTION OF ANALYSIS PROCEDURES

It was necessary to perform capacity analyses in order to determine existing and future traffic operating conditions at the study area intersections. The following is a brief description of the analysis method utilized in this report:

- Signalized Intersection Capacity Analysis
  The capacity analysis for a signalized intersection was performed in accordance with the procedures described in the *Highway Capacity Manual, 6th Edition*, published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service "A" represents the best condition and a Level of Service "F" represents the worst condition. A Level of Service "C" is generally used as a design standard while a Level of Service "D" is acceptable during peak periods. A Level of Service "E" represents an operation near capacity. In order to identify an intersection's Level of Service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

- Unsignalized Intersection Capacity Analysis
  The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in the *Highway Capacity Manual, 6th Edition*. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement to the intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in Appendix "C" of this report.

F. RESULTS OF ANALYSIS

(Tables No. 2AM, 2PM and 2SAT)

Capacity analyses which take into consideration appropriate truck percentages, pedestrian activity, roadway grades and other factors were performed at the study area intersections utilizing the procedures described above to determine the Levels of Service and average vehicle delays. Summarized below are a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service as well as any recommended improvements.

Tables No. 2AM, 2PM and 2SAT, contained in Appendix "B" summarize the results of the capacity analysis for the 2020 Existing, 2025 No-Build and 2025 Build Conditions for each of the peak hours analyzed, respectively. Appendix "D" contains copies of the capacity analysis which also indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied.

1. Fishkill Avenue/Teller Avenue (NYS Route 52) and Main Street
   Fishkill Avenue/Teller Avenue and Main Street intersect at a full movement signalized intersection. Each of the approaches to the intersection consist of a single lane and signalized pedestrian crosswalks are provided on all four intersection approaches. "Right Turns on Red" are also prohibited on all four approaches. On-street parking is also provided on each of the Main Street intersection approaches as well as the east side of Fishkill Avenue within approximately 250 ft. of the intersection.

Capacity analysis was conducted for this intersection utilizing the 2020 Existing, 2025 No-Build and 2025 Build Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service "B" during each of the peak hours and will remain under all analysis conditions (existing, no-build and build).

2. Main Street and Schenck Avenue

Main Street and Schenck Avenue intersect at a "T" shaped unsignalized intersection. Main Street consists of one lane in each direction and on-street parallel parking is provided on both sides of the street. Schenck Avenue also consists of one lane in each direction and is controlled by a "Stop" sign approaching the intersection. On-street parallel parking is provided on the west side of Schenck Avenue only. Painted pedestrian crosswalks are provided on the eastbound and southbound approaches to the intersection.

Capacity analysis was conducted for this intersection utilizing the 2020 Existing, 2025 No-Build and 2025 Build Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service "B" or better during all time periods and that this level of service will be maintained under future No-Build and Build conditions.

Associated with the project, additional signing and striping will be installed at the Main Street/Schenck Avenue intersection including new crosswalk warning signs for the crosswalk spanning Main Street. A new "Stop" sign and painted white stop bar will also be installed on Schenck Avenue at its intersection with Main Street. These proposed signing and striping modifications area identified in Exhibit No. 1 below. It should be noted that in order to accommodate the installation of the painted white stop bar, the existing yellow hatching on either side of Schenck Avenue will be required to be removed to provide sufficient roadway width for the stop bar and to maintain two-way traffic. The yellow hatching, which is non-standard was installed to reinforce the no parking condition in this area, however the existing "No Parking Here to Corner" signs are proposed to remain to designate this no parking area.

EXHIBIT NO. 1
MAIN STREET/SCHENCK AVENUE SIGNING & STRIPING IMPROVEMENTS

IV. PARKING ANALYSIS

A. EXISTING PARKING CONDITIONS

(Figure 1P, Tables P-1, P-2, P-3)

Manual parking counts of the available and occupied parking spaces were collected by representatives of Maser Consulting, P.A. for all on-street and off-street public parking spaces found within 500± ft. of the proposed project Site location, in order to identify the existing parking conditions in the area. These parking counts included the following areas, which are also identified on Figure 1P contained in Appendix "A":

- Main Street between Tioronda Avenue & Veterans Place (On-Street)
- Van Nydeck Avenue between Tioronda Avenue & Fishkill Avenue (On-Street)
- Schenck Avenue between Main Street & North Street (On-Street)
- South Street between Schenck Avenue & Locust Place (On-Street)
- North Street between Schenck Avenue & North Street (On-Street)
- Main Street/Van Nydeck Street Public Lot (70 Spaces Off-Street)
- Van Nydeck Street Public Lot (23 Spaces Off-Street)
- Veterans Place/Henry Street Public Lot (70 Spaces Off-Street)

Figure No. 1P also provides a summary of the parking restrictions for the study area including in the off-street public parking lots and all area roadways listed above with on-street parking provided. It should also be noted that alternate side of the street parking is enforced from 4:00 AM to 9:00AM along Main Street.

The parking counts were conducted on Wednesday February 5th, 2020 during the AM (7AM-9AM), Midday (11AM-2PM) and PM (3:30PM-7PM) peak periods, on Saturday February 8th, 2020 between 11:00 AM and 2:30 PM and Sunday February 9th, 202 between 11:00 AM and 2:00 PM.

The parking counts are summarized in Tables P-1, P-2 and P-3, contained in Appendix "B", for the Weekday, Saturday and Sunday parking counts respectively. The tables identify the total parking spaces, the total occupied spaces and the total available (unoccupied) spaces within the studied area. The parking count data indicates that during the Weekday periods there are in excess of 125 available (unoccupied) parking spaces within the 500± ft. study area, while during the Saturday and Sunday peak periods there are as few as 30 available parking spaces in the vicinity of the site.

B. FUTURE PARKING CONDITIONS

The parking requirements for the proposed development based on the City of Beacon Code as identified in Section 223-26.F and 223-41.18.G.(2) were reviewed in order to determine the required parking supply for the development. The below summarizes the required City Code parking supply ratios and the equivalent required number of parking spaces for each use within the proposed development. Note that the below parking requirements does not account for the parking required for the existing Kitchen & Coffee (formerly Ella's Bellas Café) since this is an existing use and any parking currently associated with this use is already accounted for in the parking counts discussed above.

SUMMARY OF OFF-STREET PARKING REQUIREMENTS PER CITY OF BEACON CITY CODE		
USE	**REQUIRED PARKING RATIO**	**REQUIRED PARKING SPACES**
MIXED-USE BUILDING FRONTING MAIN STREET (CMS – CENTRAL MAIN STREET ZONING DISTRICT)		
NEW RETAIL (2,575 SQ.FT.)	2 SPACE/1,000 SQ. FT.	6 SPACES
OFFICE (6,220 SQ.FT.)	2 SPACE/1,000 SQ. FT.	13 SPACES
APARTMENTS (1 UNITS)	1 SPACE/DWELLING UNIT	1 SPACES
REAR LOT BUILDING (PB- BUSINESS OFF-STREET ZONING DISTRICT)		
RESIDENTIAL (1 UNIT)	2 SPACES/DWELLING UNIT	2 SPACES
	TOTAL	**22 SPACES**

The proposed development will be provided a total of four (4) off-street parking spaces, two (2) spaces for the use of the mixed-use building's tenants and two (2) spaces for the rear residential building. No designated parking will be provided for the retail or commercial office space in the mixed-use building. The rear lot building will be provided with two (2) off-street parking spaces in the driveway for the one (1) live/work unit. The remaining of the required 18 parking spaces would have to be accommodated by public parking, both on-street and in City of Beacon Public Parking lots in the area. In addition, as part of the proposed development, the Applicant proposes to stripe new on-street parking spaces along the east side of Schenck Avenue between Main Street and South Street and along both sides of South Street in the vicinity of the Site in order better define parking in

this area. Furthermore, the elimination of one (1) of the two (2) existing curb cuts to the subject property from Schenck Avenue will provide for an additional parking space along the east side of Schenck Avenue.

As indicated previously, during a typical weekday, greater than 125 parking spaces were found to be available within 500 ft. of the proposed development, which would more than accommodate the required parking that is not captured by the on-site parking provided. During the Weekend (Saturday & Sunday) peak parking periods, as few as 30 parking spaces were found to be available within 500 ft. of the proposed development. However, on Saturday and Sunday the second and third floor office uses are anticipated to be closed and/or have very limited activity. In fact, based on Institute of Transportation Engineers (ITE) data contained in their publication entitled Parking Generation Manual, 5th Edition, an office use of this size can be expected to generate a peak parking demand of between 2 (based on average parking rate) and 5 vehicles (based on 85th percentile parking rate) on a Saturday. Using the ITE parking data for a Saturday, the development would require 14 total parking spaces on Saturday and a similar total would be required on Sunday. Including the four (4) parking spaces provided on-site the net parking demand on the weekend would be approximately 10 spaces, which can be accommodated by the available public parking in the vicinity of the site.

In addition to the above, per Section 223-26C(6) of the City Code *"…the Planning Board may approve the joint use of parking spaces by two or more establishments on the same lot or on contiguous lots, the total capacity of which is less than the sum of the spaces required for each, provided that said Board finds that the capacity to be provided will substantially meet the intent of this article by reason of variation in the probable time of maximum use by patrons or employees at such establishments and provided that such approval of such joint use shall be automatically terminated upon a change of use at any such establishment."* Shared on-street parking can be expected to occur within 500 ft. of the Site between the proposed project and other uses along Main Street where patrons may park along the Main Street area to visit multiple properties/uses in the same trip and/or spaces occupied by residential tenants during the nighttime hours may be available for use by retail and commercial patrons during the daytime hours. While shared parking may occur as indicated, no credit for this has been accounted for in the parking analysis discussed above.

Finally, it should also be noted that as indicate in the City Code Section 223-41.18.G.(3) the CMS Zone parking requires identified in Section 223-41.18.G.(2) may be modified by the Planning, in its discretion, based on information provided demonstrating one or more of the following.

(a) That the projected operational characteristics of the proposed use require a different amount of parking.
(b) That adequate shared parking, contractually obligated for the duration of the proposed use, is available within 500 feet of the site and within the CMS or PB Districts.
(c) That the applicant has provided sufficient bicycle parking to reduce anticipated vehicular travel demand.
(d) That there is sufficient public parking available within 800 feet of the site and within the CMS or PB Districts to meet foreseeable parking needs of the proposed use and surrounding uses for the duration of the proposed use.
(e) That the applicant will voluntarily dedicate land for public parking on site or will acquire land by purchase or long-term lease (for the duration of the proposed use) within 800 feet of the site and within the CMS or PB Districts and voluntarily dedicate such land to the City for public parking.
(f) That a professional parking study of the proposed use and the surrounding area demonstrates that a different amount of parking would be appropriate for the use in its particular location and/or that existing and/or proposed off-site parking is sufficient.

The information presented herein demonstrates that items (b), (d), (e) and (f) are met for this development. The Applicant is also proposing to provide two (2) sets of bicycle racks at the rear of the front lot building for public use, which satisfies item (c) as well.

C. OTHER PARKING RELATED CONSIDERATIONS

1. Off-Street Loading – No separate off-street loading space is provided as part of the proposed development. Per City Code Section 233-26H.2.(a) and (b) no off-street loading spaces are required for retail buildings with a gross floor of less than 5,000 sq. ft. and for office establishments of less than 10,000 sq. ft.

2. Rear Lot Zoning – As previously indicated the rear lot is currently zoned PB – Business Off-Street but may be rezoned to the T-Transitional Zone in the future by the City. Under this zoning, even if the proposed single-family artist live/work space was modified to one (1) artist live-work unit with two bedrooms, the unit would require the same number of parking spaces (two (2) spaces - 1 space per dwelling unit + 1/4 for

each bedroom + 1/2 for the live/work space) as the apartment unit, which results in the same parking conclusions as discussed above.

3. Schenck Avenue One-Way – Schenck Avenue is currently a two-way roadway with on-street parking on both sides of the roadway. Between Main Street and South Street, the roadway has an approximate width of 26 ft. curb-to-curb. Assuming a 7 ft. parking lane on each side of the street this leaves an approximately 12 ft. travel lane between parked vehicles to accommodate two-way traffic. While hourly volumes on this road are relatively low, less than 70 cars per hour, the City could consider making this roadway a one-way roadway from Main Street to South Street. This would result in southbound traffic traveling towards Main Street being redirected to other local roadways, but it is not anticipated that this would result in any significant traffic impacts. Appropriate signing would be necessary at the Main Street/Schenck Avenue and Schenck Avenue/South Street intersections would be required to accommodate this modification. A modification to one-way flow on this portion of Schenck Avenue would better accommodate the existing two-sided parking.

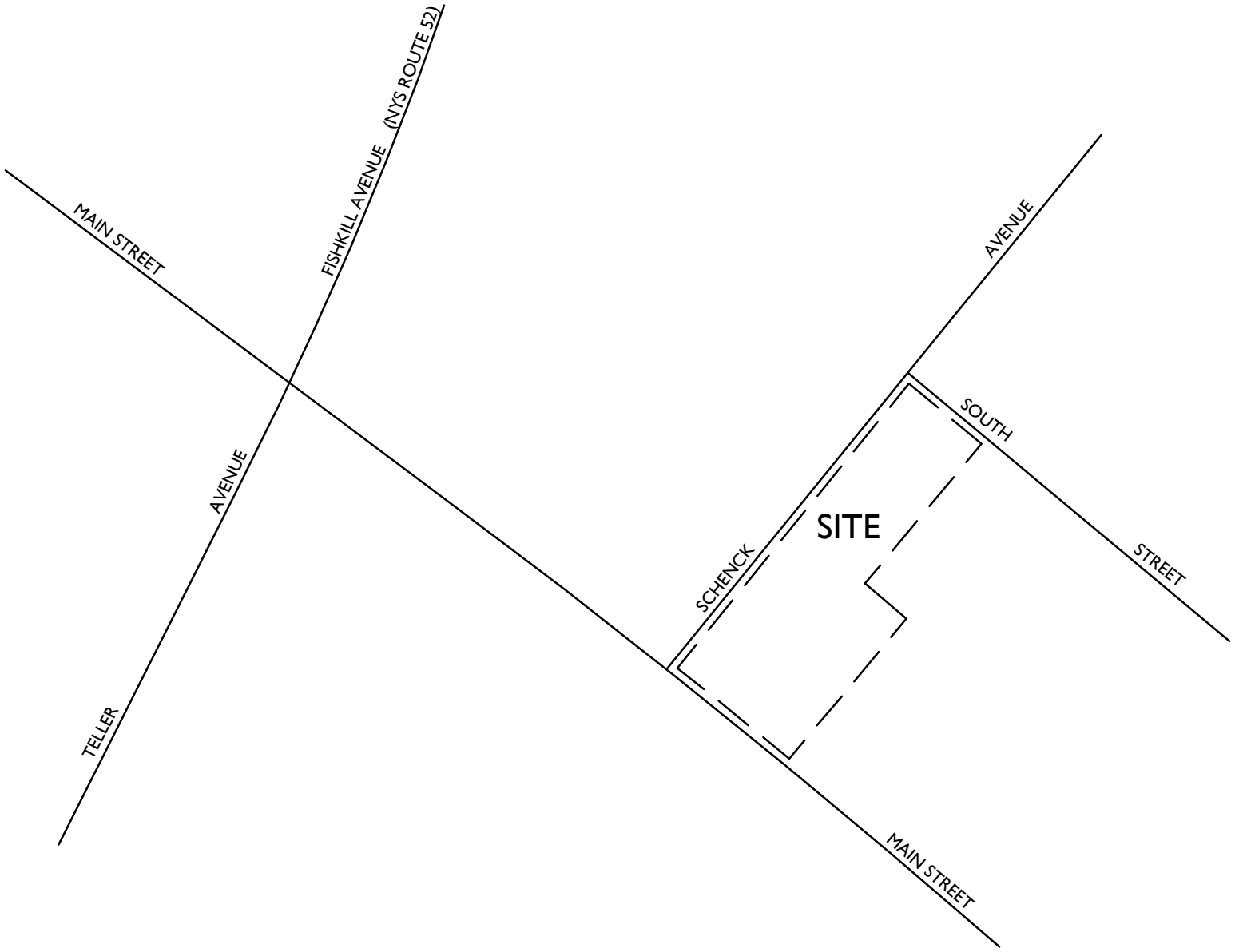
V. SUMMARY AND CONCLUSION

Based on the above analysis, similar Levels of Service and delays will be experienced at the area intersections under the future No-Build and future Build Conditions. Thus, the traffic associated with the proposed 416-420 Main Street Mixed-Use Development is not expected to cause any significant impact in overall operation. Furthermore, based on the observations of the existing available parking in the vicinity of the Site as well as the analysis of the required parking demand of the development, the parking needs for the proposed development can be accommodated by the public parking in the vicinity of the Site during both Weekday and Weekend peak parking periods.

416 – 420 MAIN STREET

APPENDIX A

FIGURES



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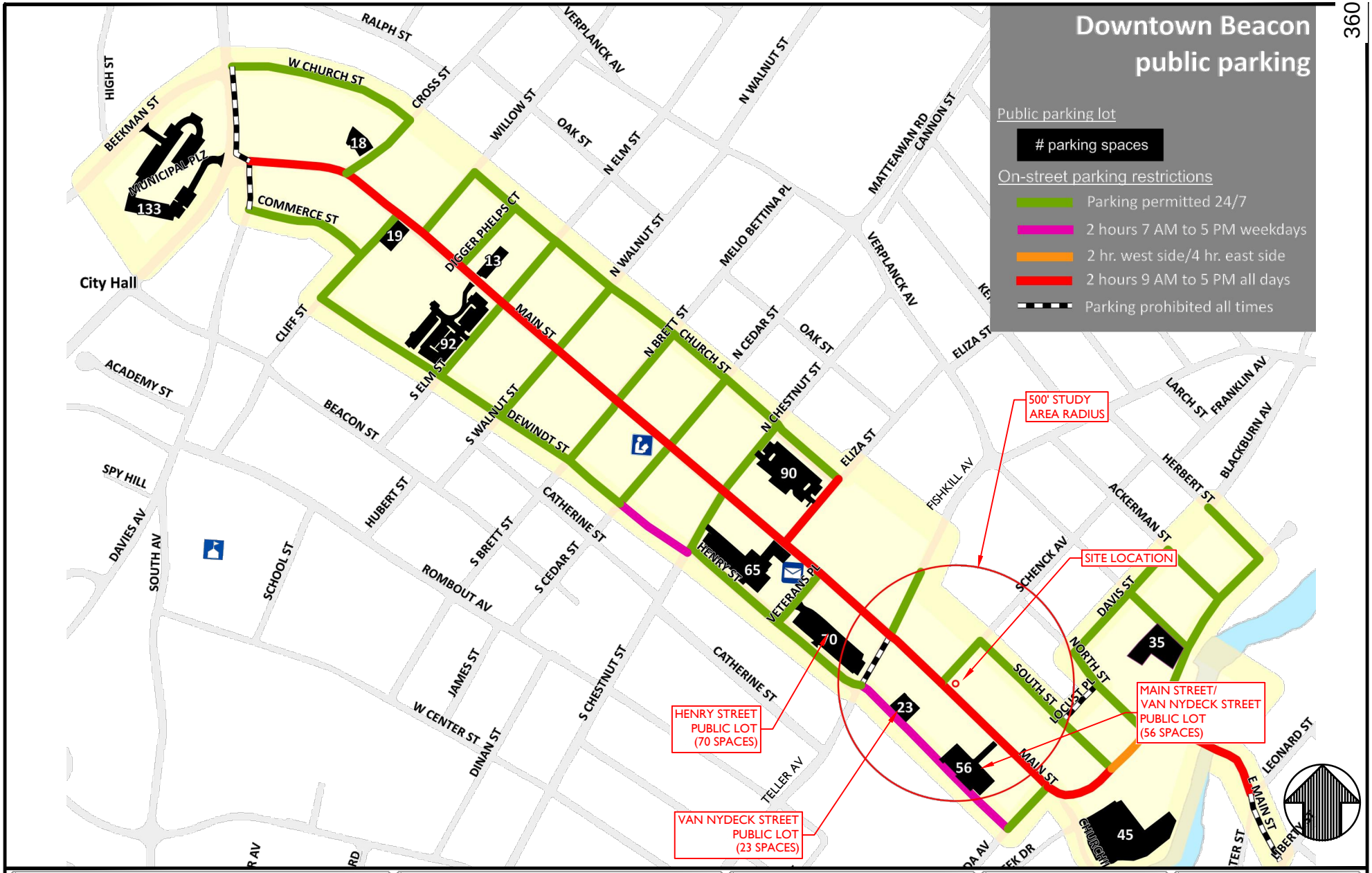

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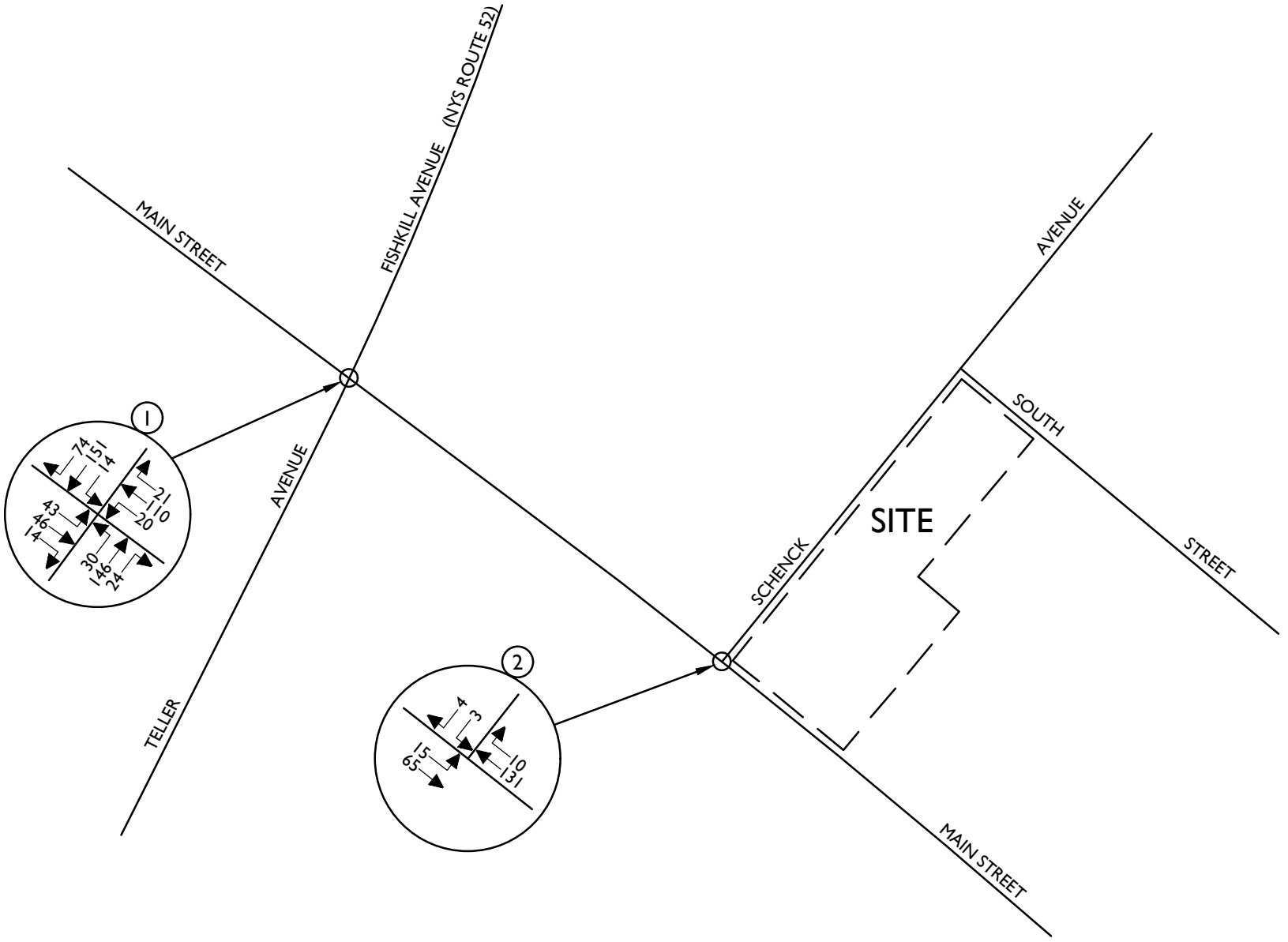

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WEEKDAY PEAK AM HOUR

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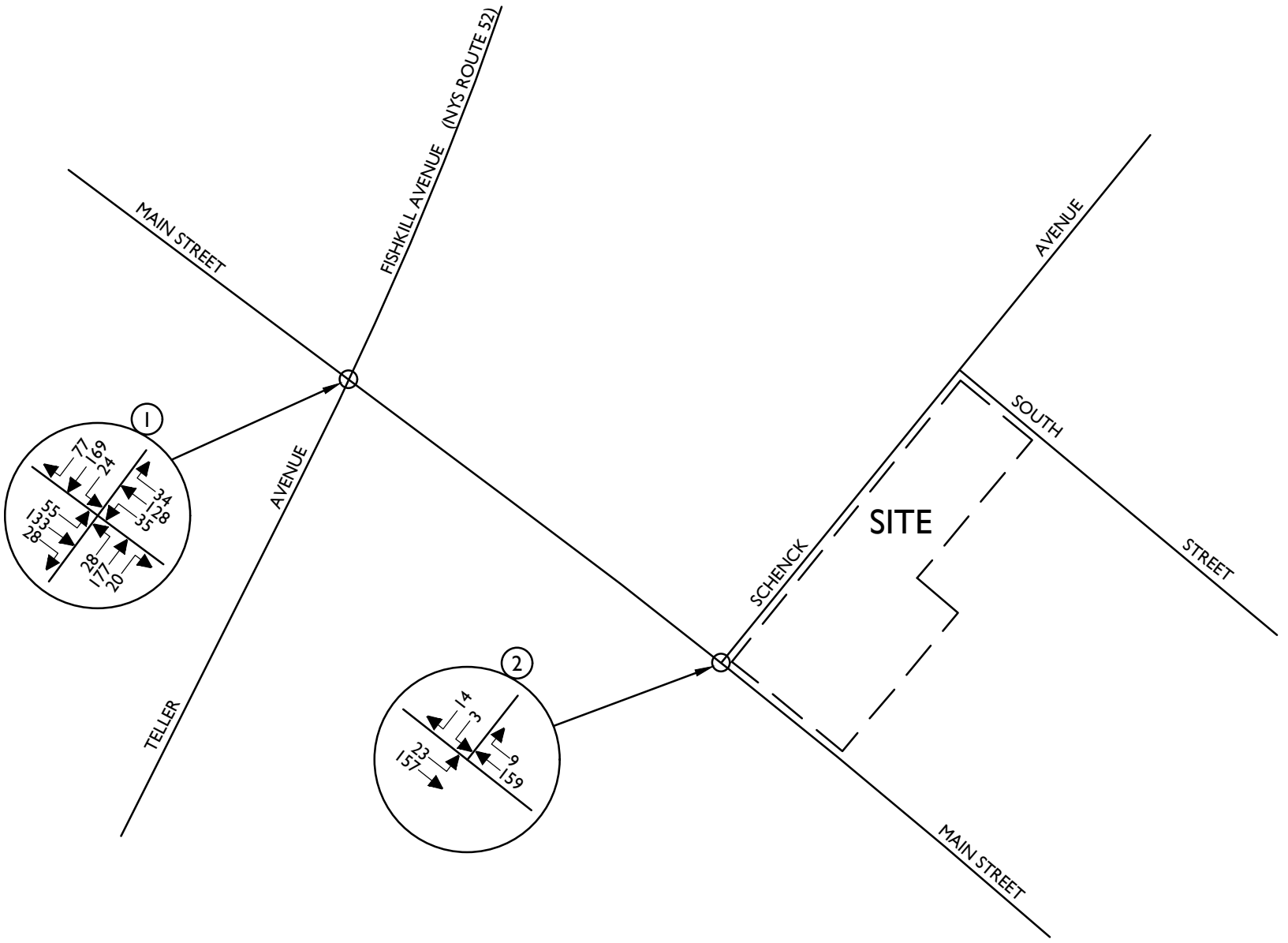

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PROJECT NUMBER: 20000282A
DRAWING NAME: 200626RGD_FIGURE

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2020 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
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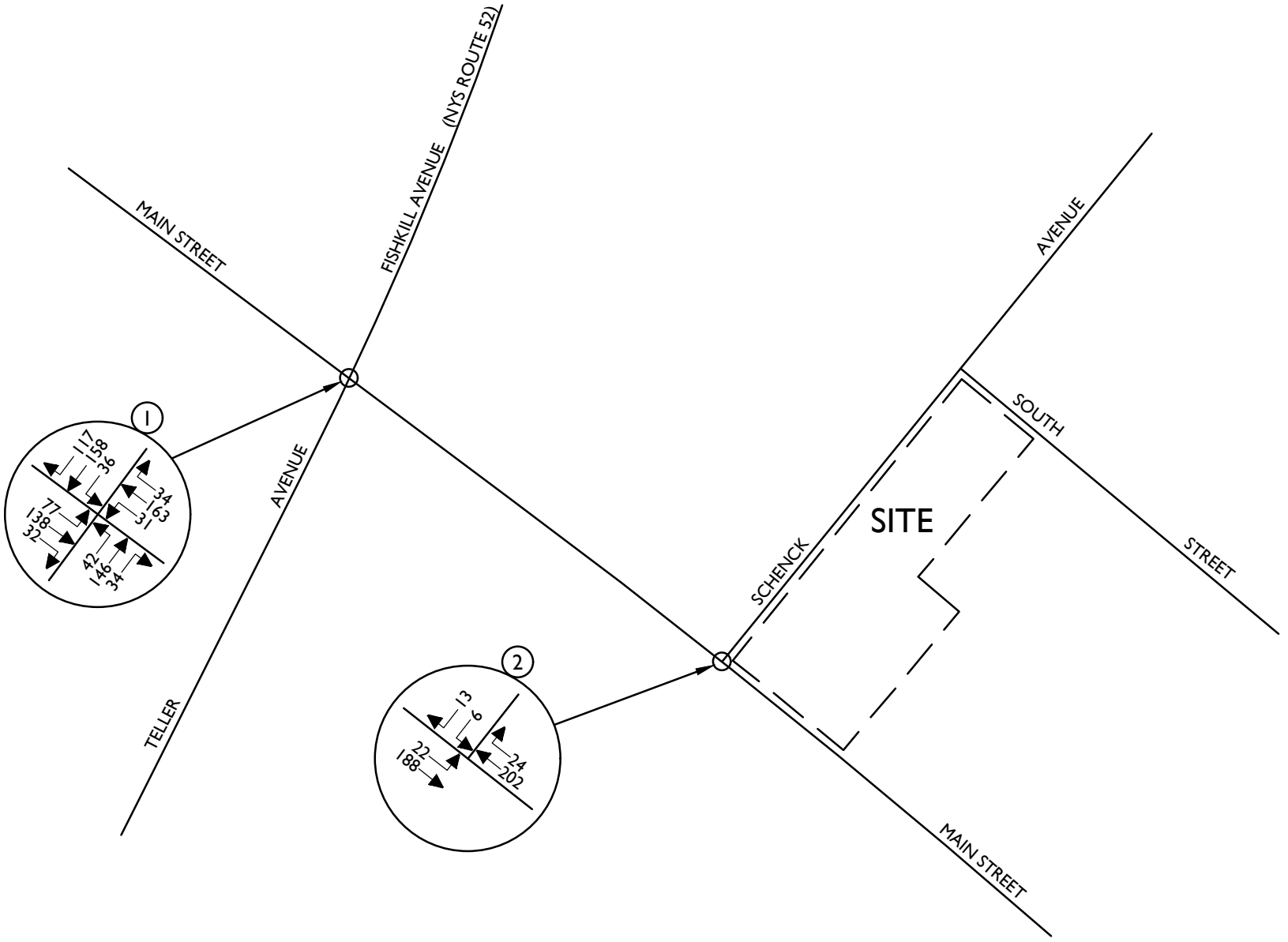

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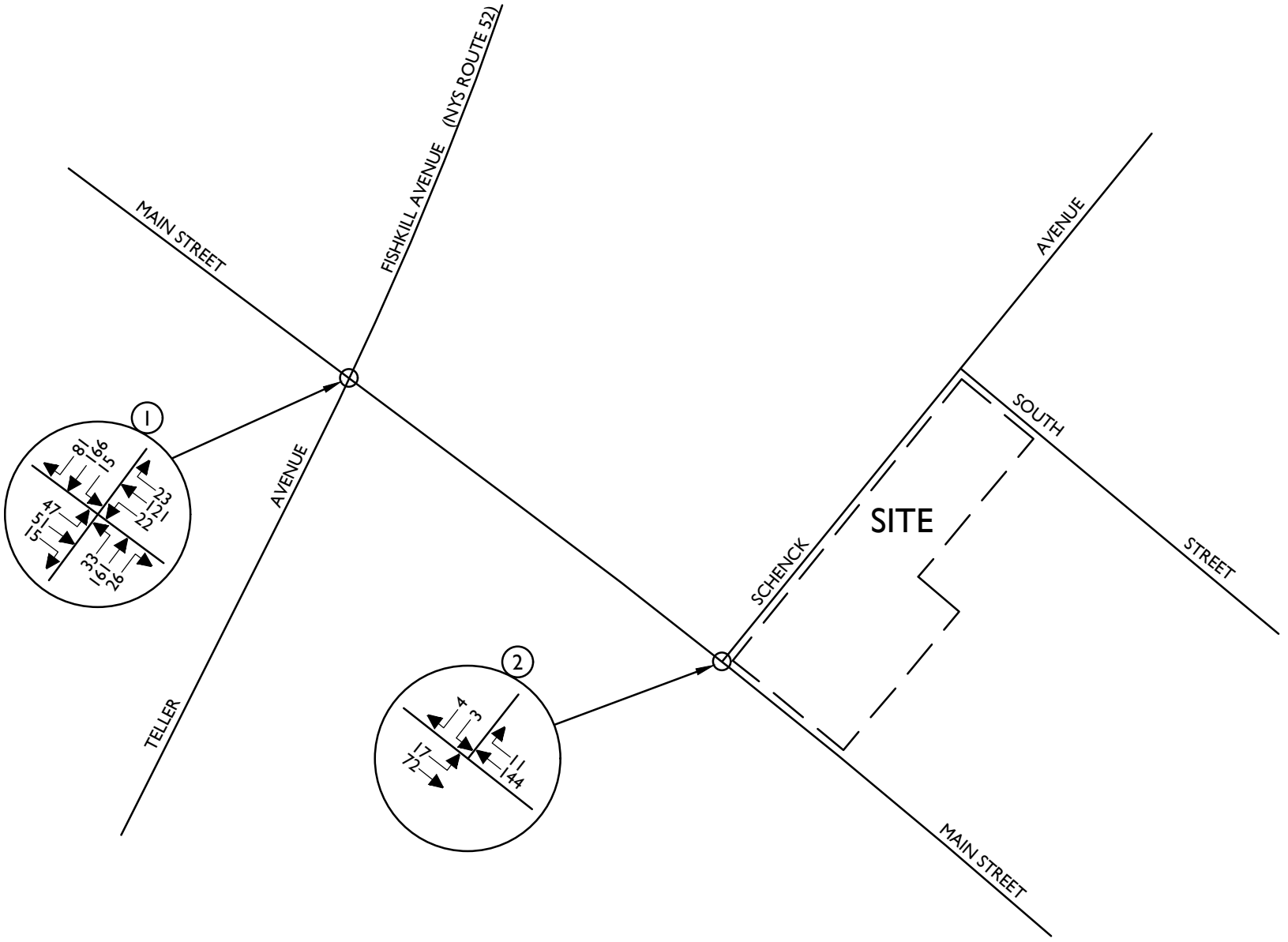
AS SHOWN	4/28/20	R.H.	R.D.

PROJECT NUMBER: 20000282A
DRAWING NAME: 200626RGD_FIGURE

SHEET TITLE:
2020 EXISTING TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER:
4



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PROJECT NUMBER: 20000282A
DRAWING NAME: 200626RGD_FIGURE

SHEET TITLE:
2025 PROJECTED
TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
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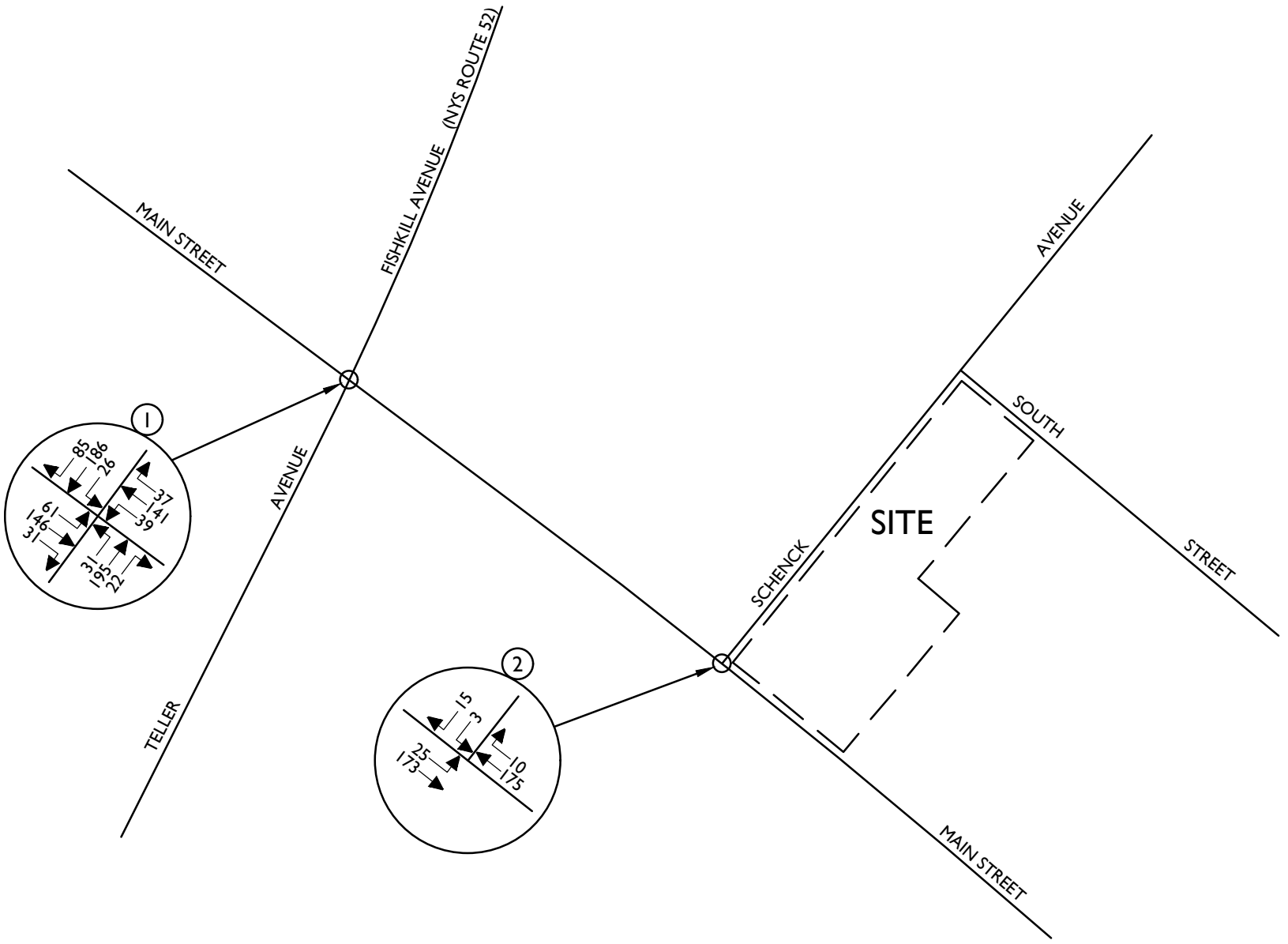

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SHEET TITLE:
2025 PROJECTED
TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
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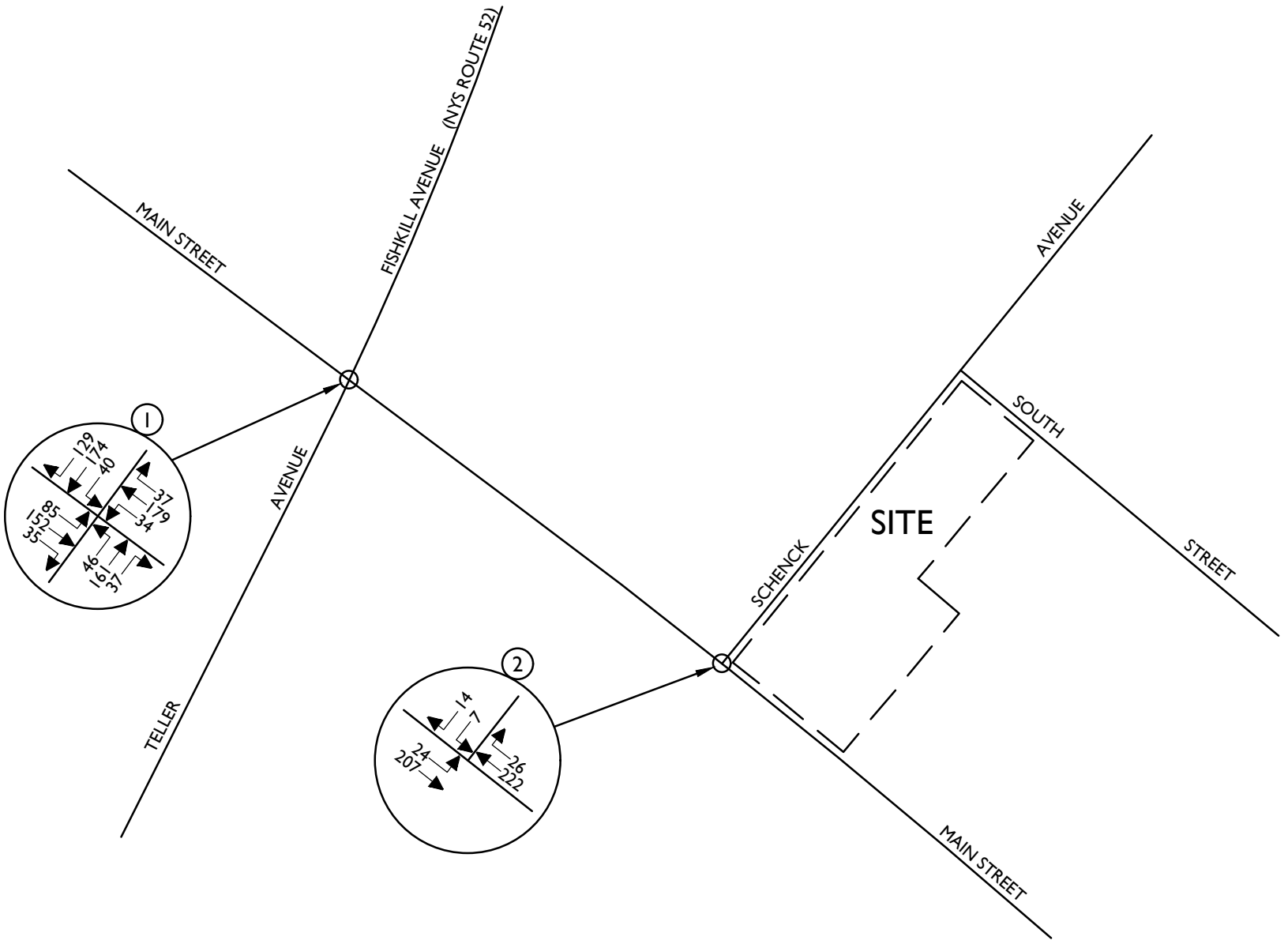

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PROJECT NUMBER: 20000282A
DRAWING NAME: 200626RGD_FIGURE

SHEET TITLE:
2025 PROJECTED
TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER:
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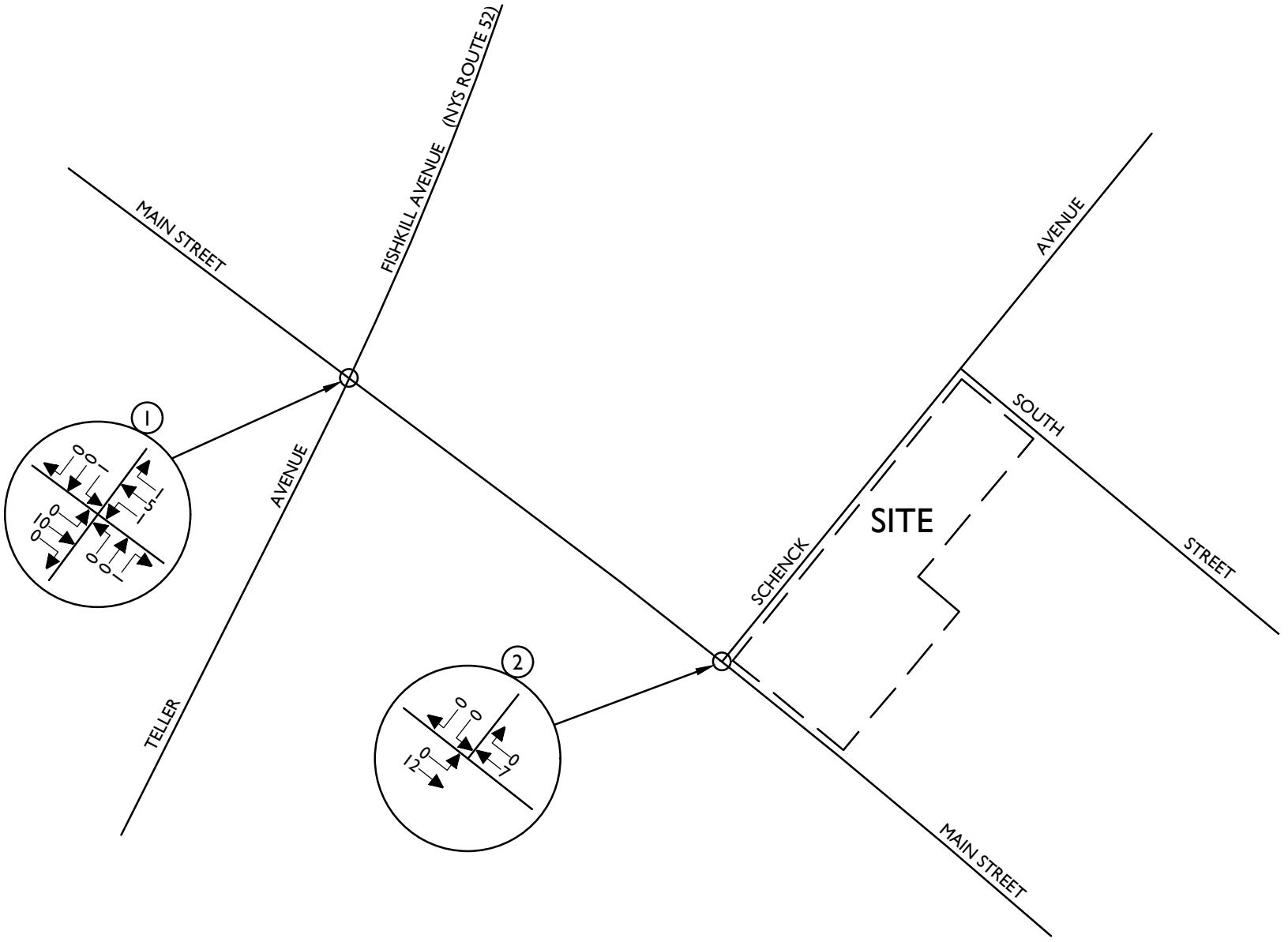

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PROJECT NUMBER:	DRAWING NAME:
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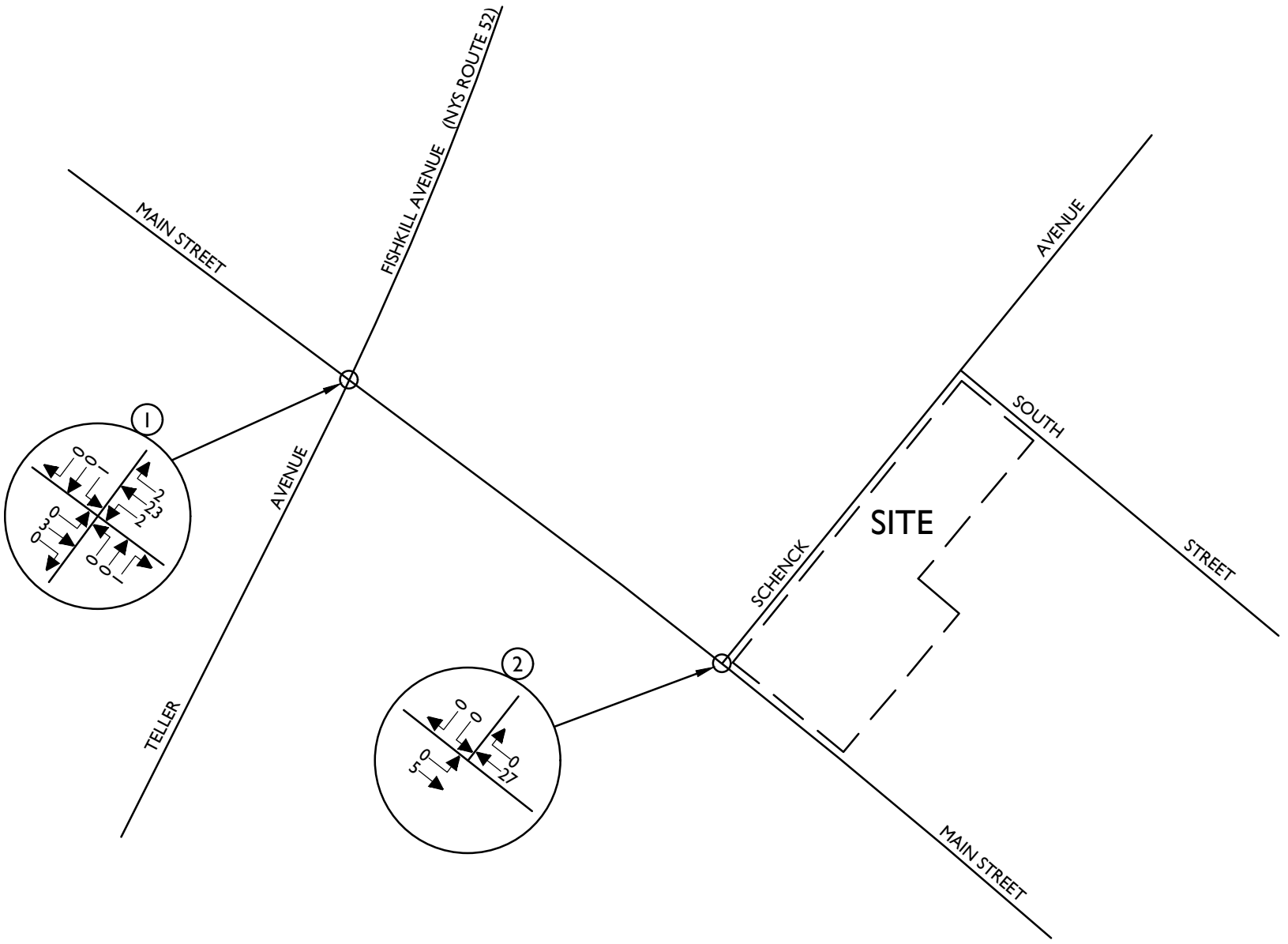
SHEET TITLE:
OTHER DEVELOPMENT
TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
8



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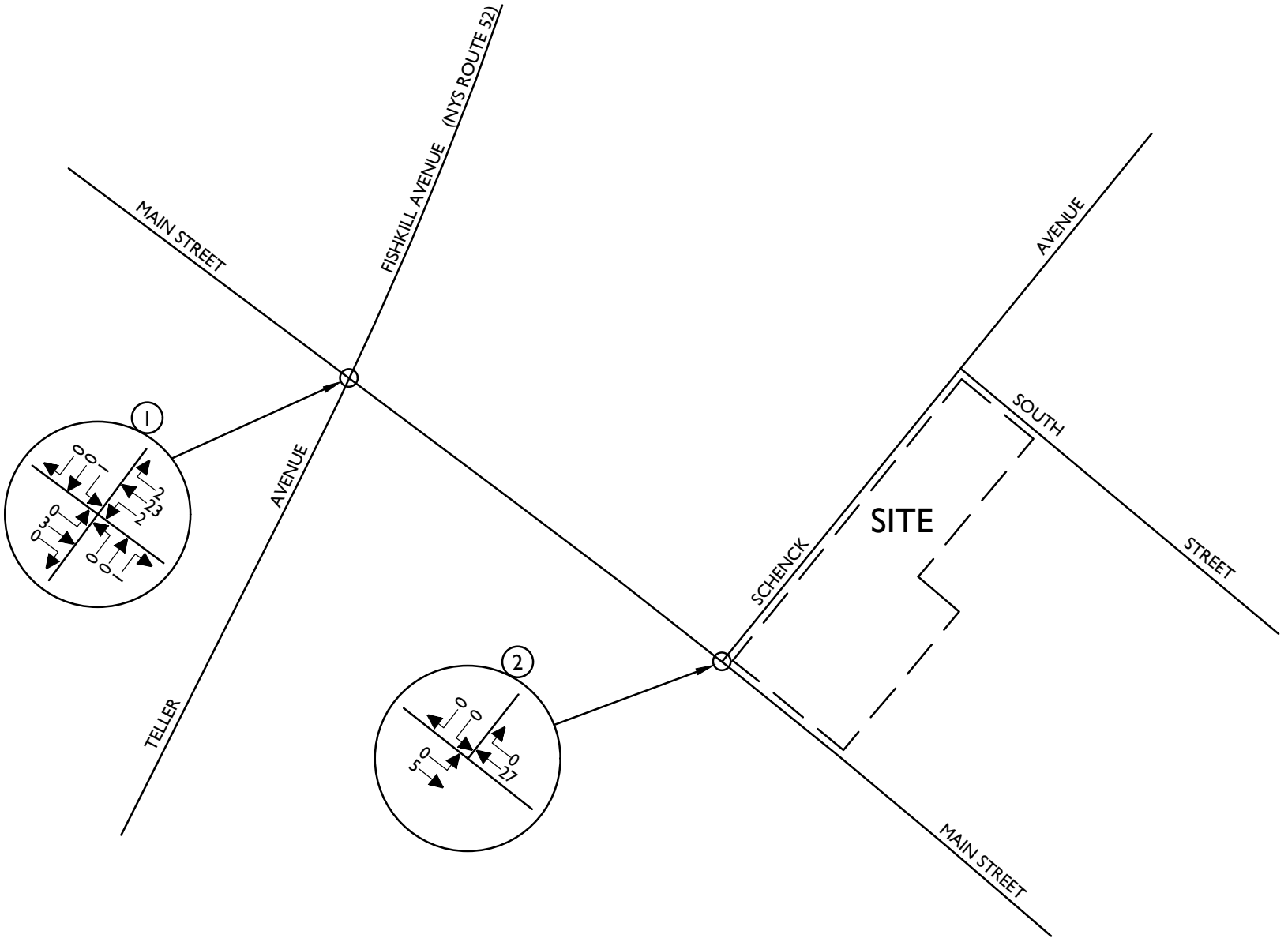
PROJECT NUMBER: 20000282A
DRAWING NAME: 200626RGD_FIGURE

SHEET TITLE:
OTHER DEVELOPMENT
TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
9



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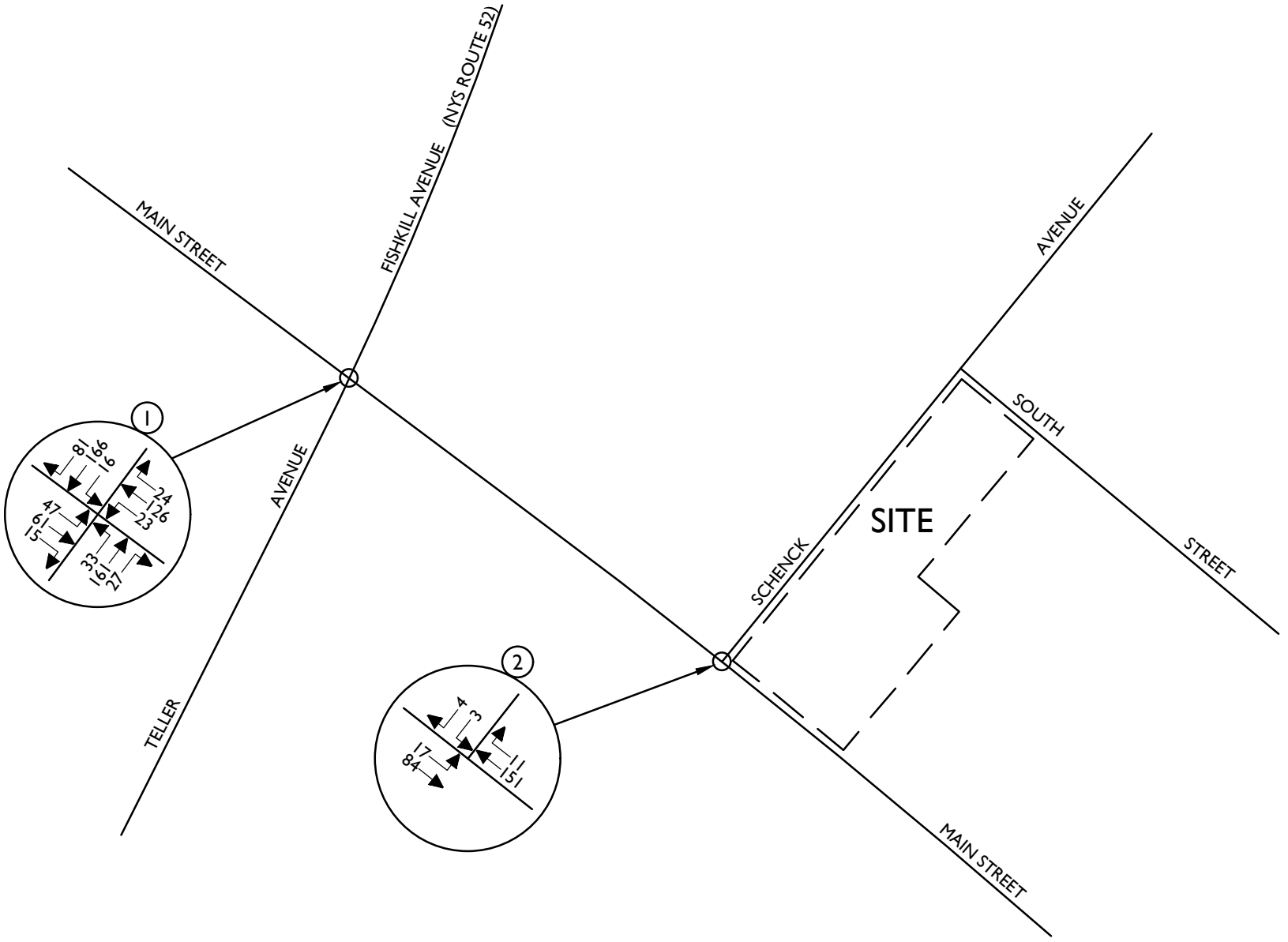
OTHER DEVELOPMENT
TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER:
10



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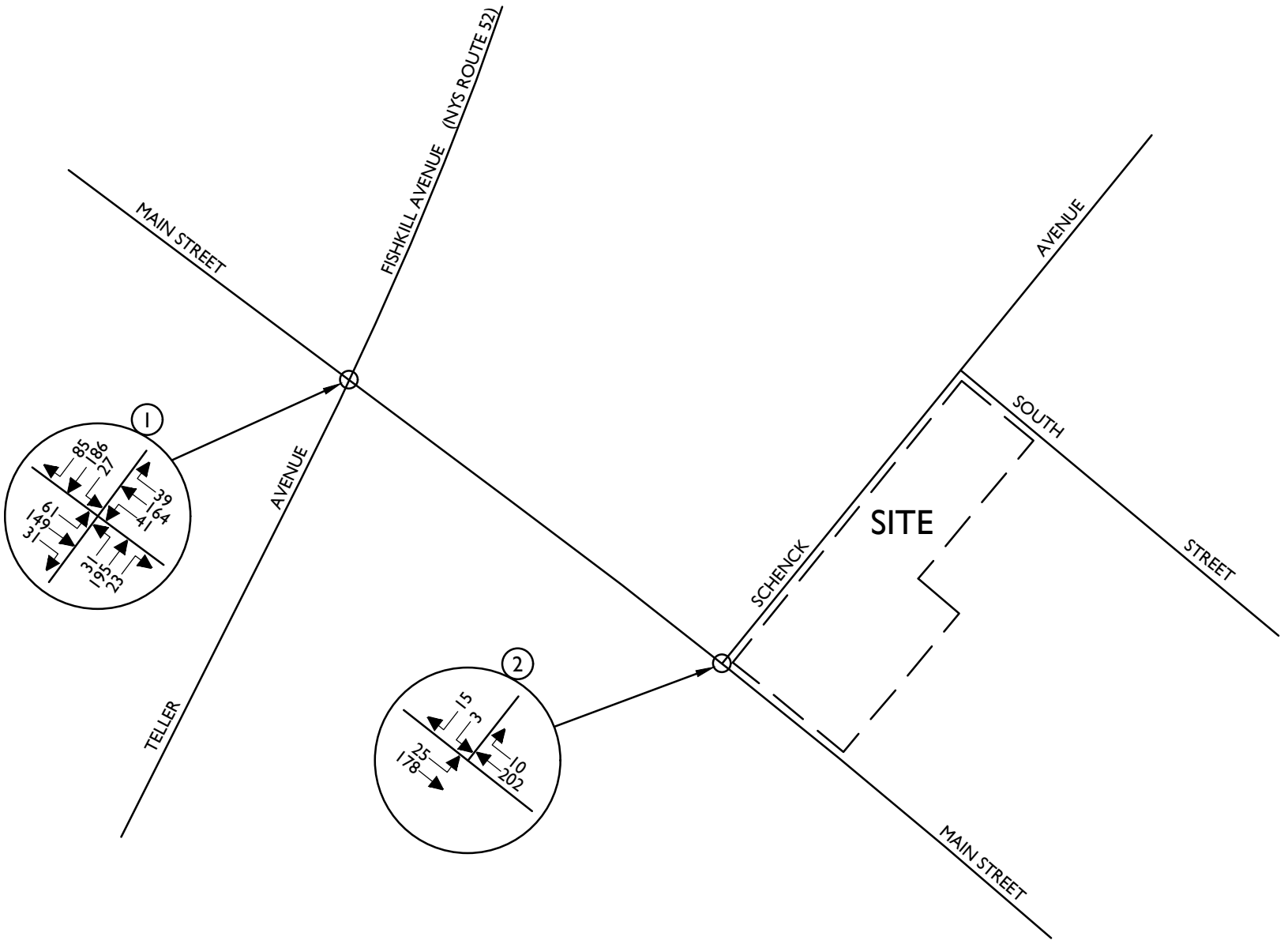
PROJECT NUMBER: 20000282A
DRAWING NAME: 200626RGD_FIGURE

SHEET TITLE:
2025 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
11



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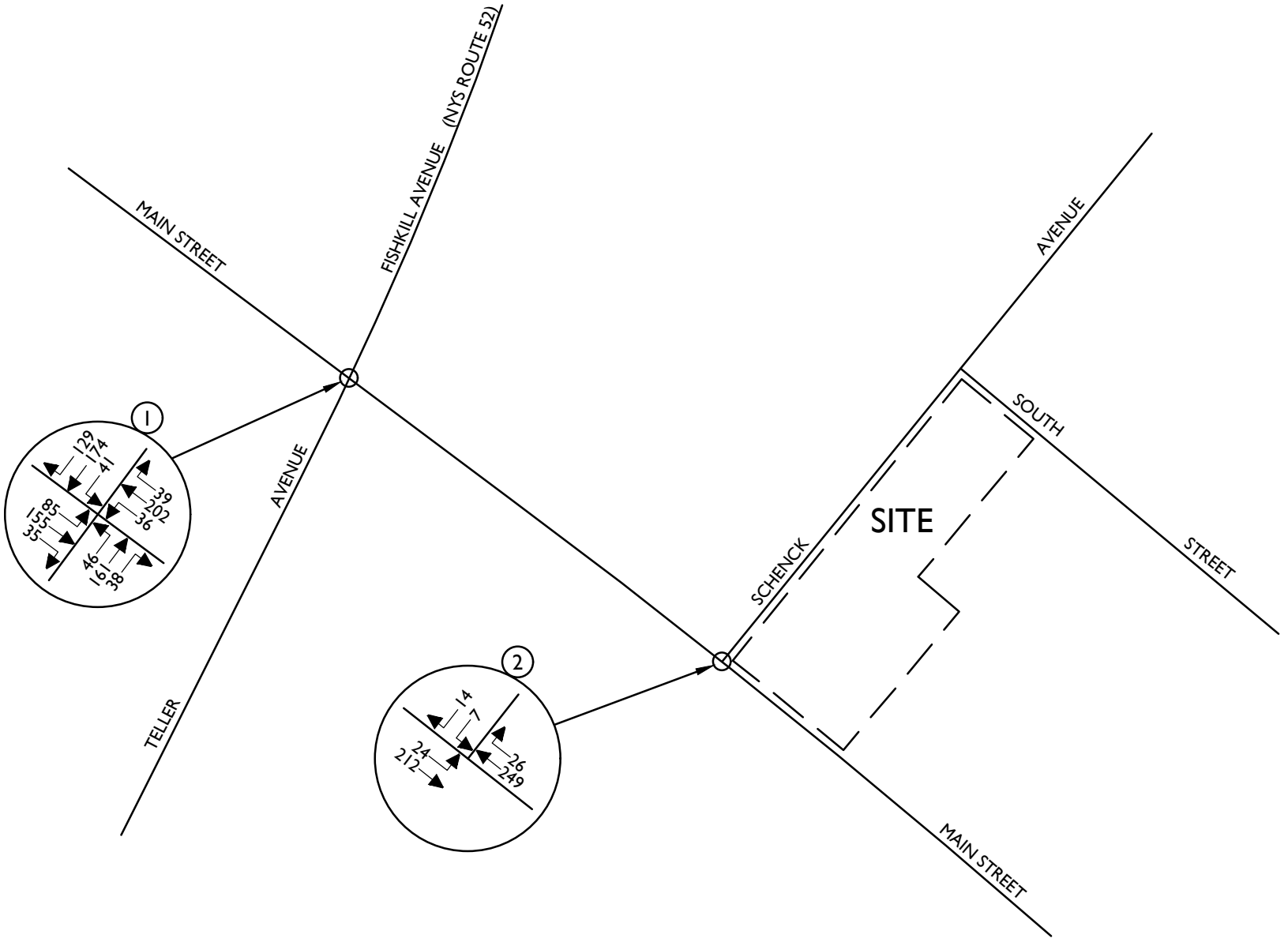

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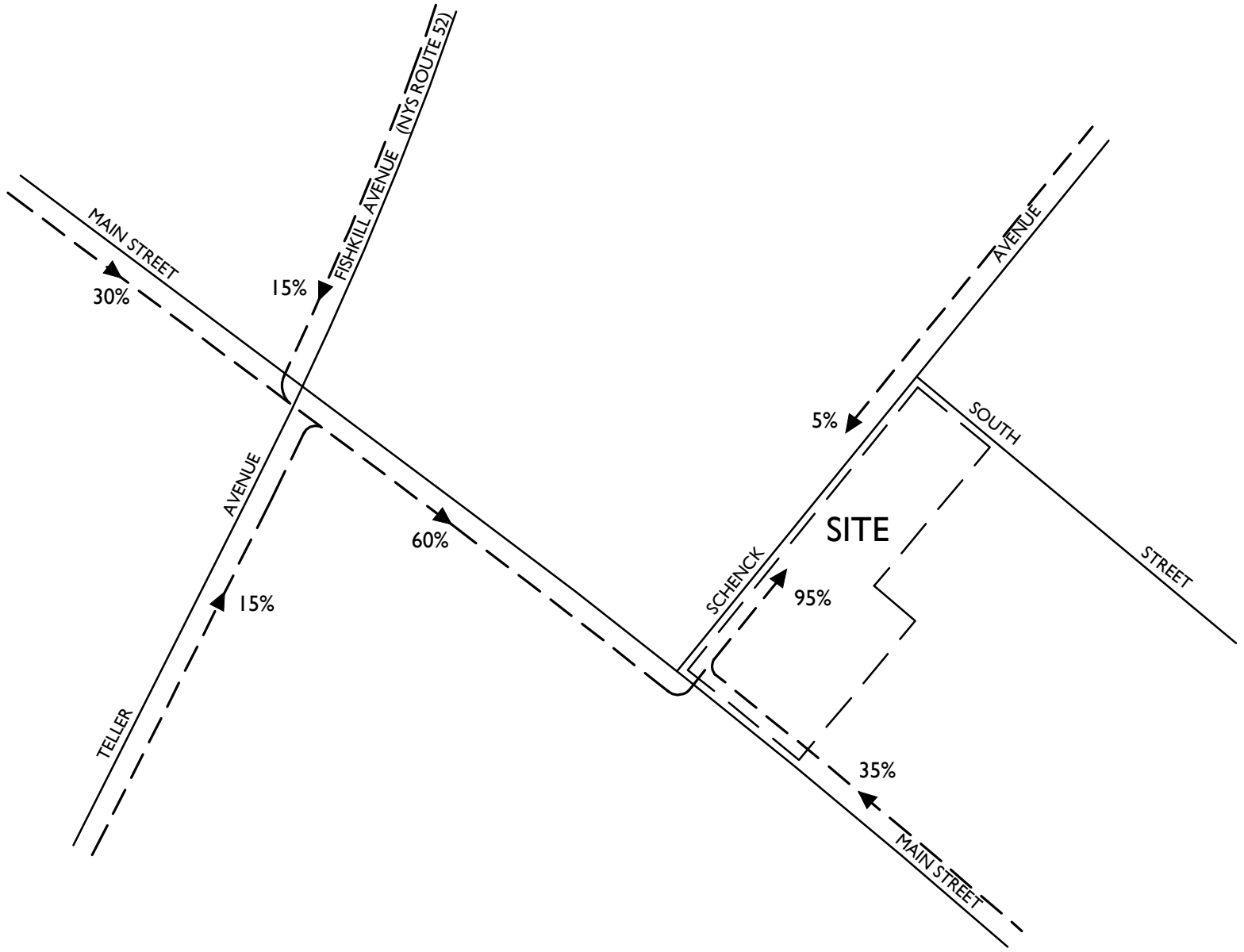
SHEET NUMBER:
13



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416 - 420 MAIN STREET

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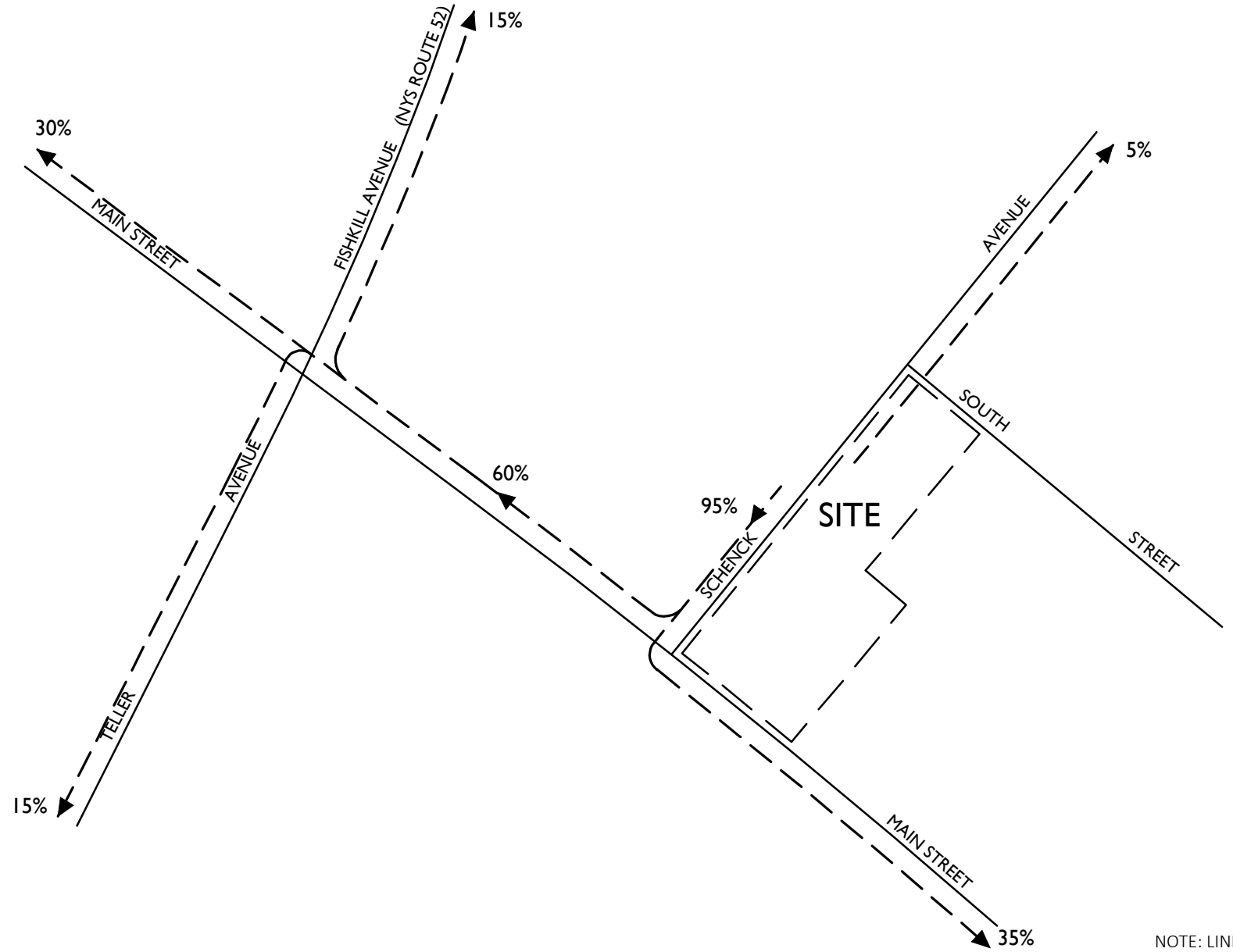
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	4/28/20	R.H.	R.D.

PROJECT NUMBER: 20000282A

DRAWING NAME: 200626RGD_FIGURE

SHEET TITLE:
ARRIVAL DISTRIBUTION
(ALL VALUES ARE EXPRESSED AS %)

SHEET NUMBER:
14



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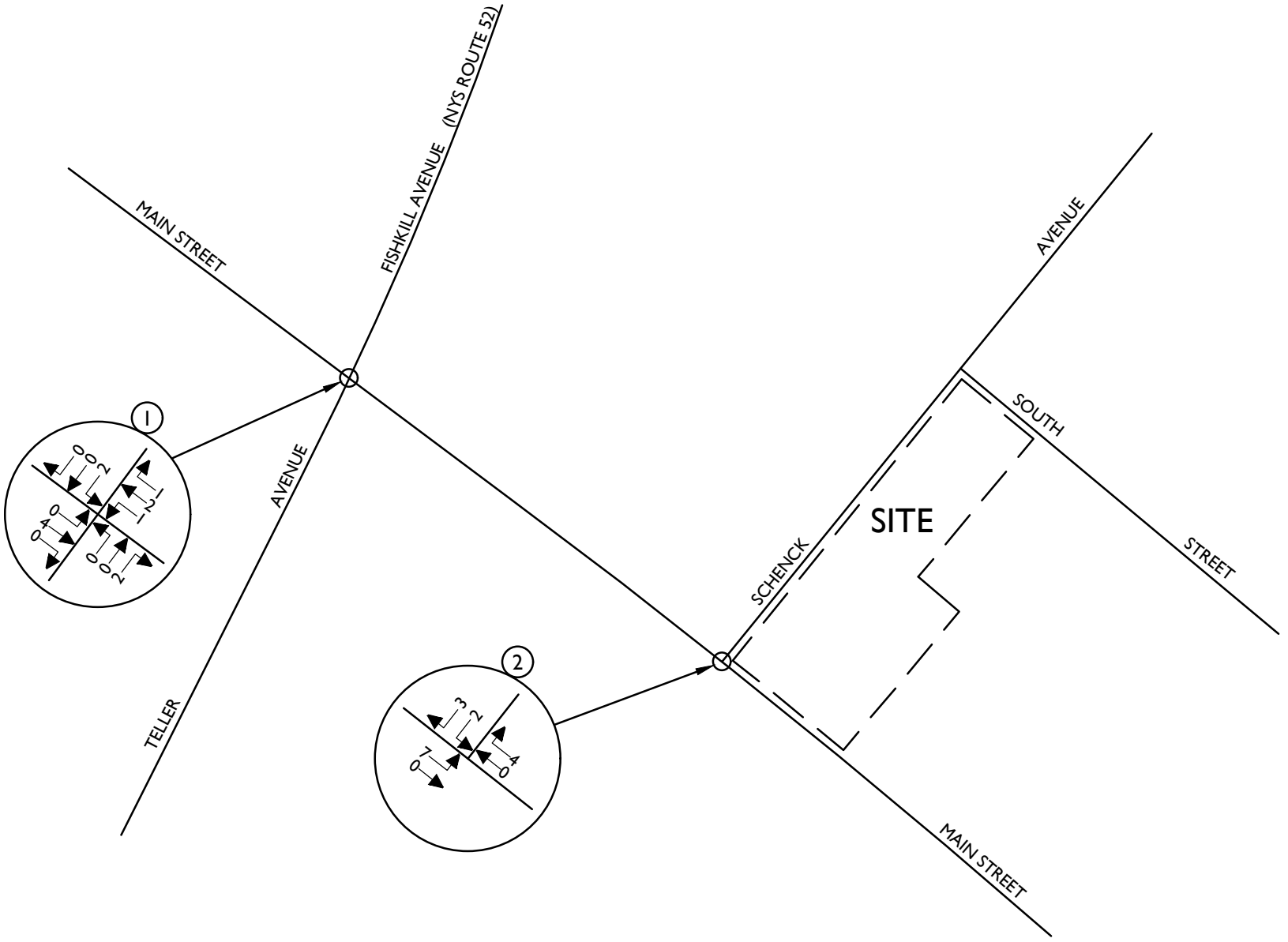
PROJECT NUMBER: 20000282A

DRAWING NAME: 200626RGD_FIGURE

SHEET TITLE:
DEPARTURE DISTRIBUTION
(ALL VALUES ARE EXPRESSED AS %)

SHEET NUMBER:
15



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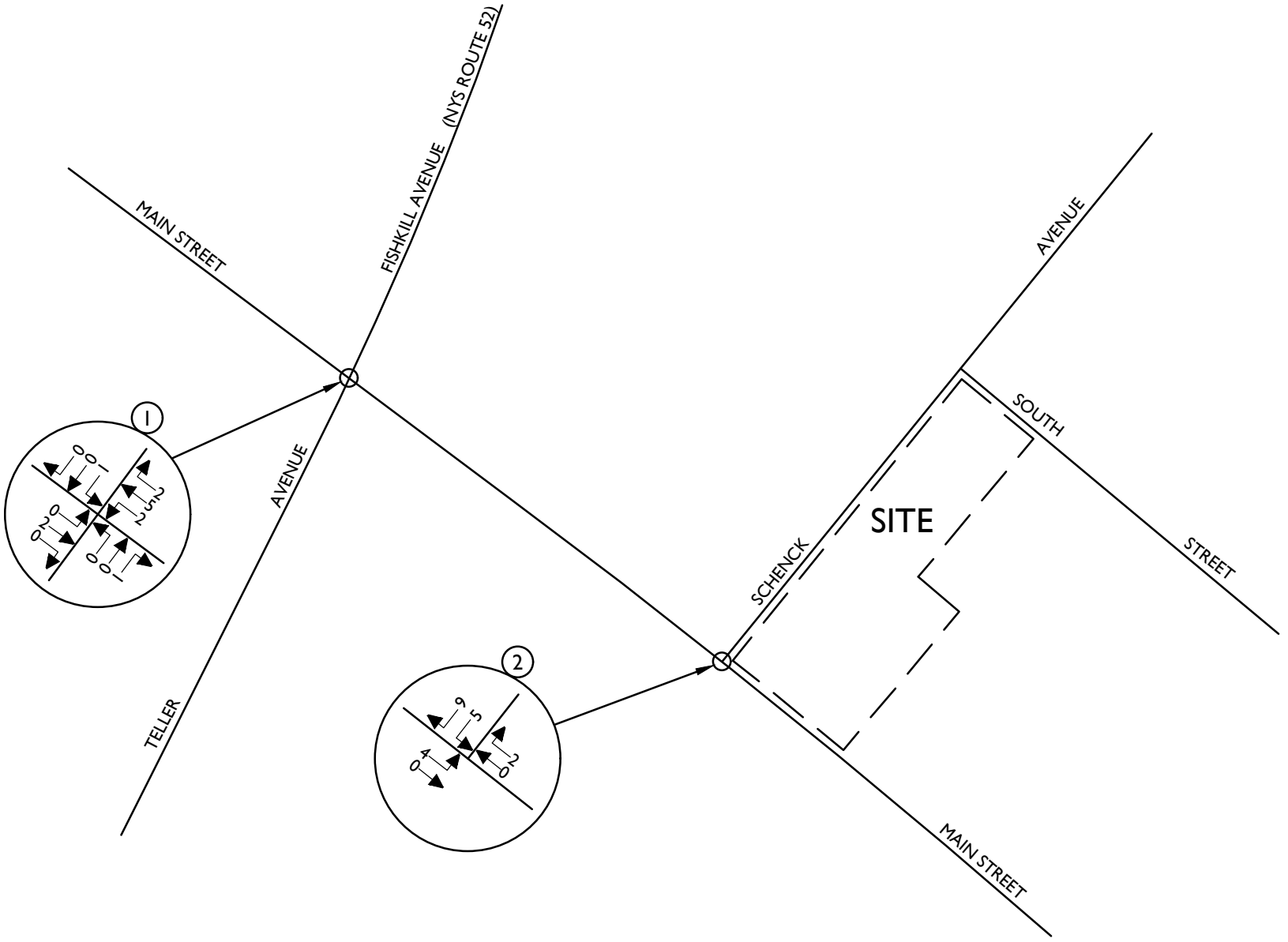
AS SHOWN	4/28/20	R.H.	R.D.

PROJECT NUMBER:	DRAWING NAME:
20000282A	200626RGD_FIGURE

SHEET TITLE:
SITE GENERATED
TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
16



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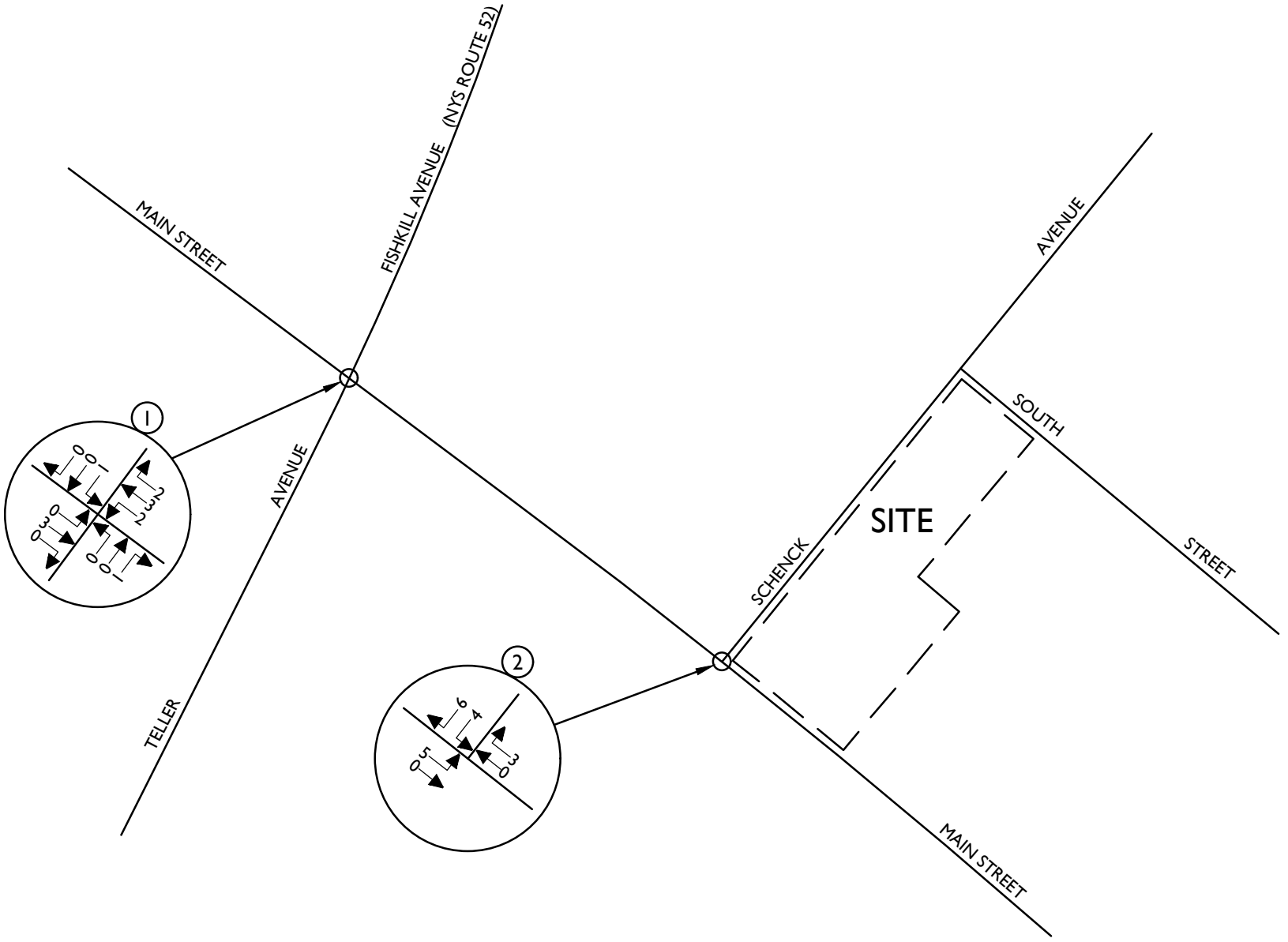
PROJECT NUMBER:	DRAWING NAME:
20000282A	200626RGD_FIGURE

SHEET TITLE:
SITE GENERATED
TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
17



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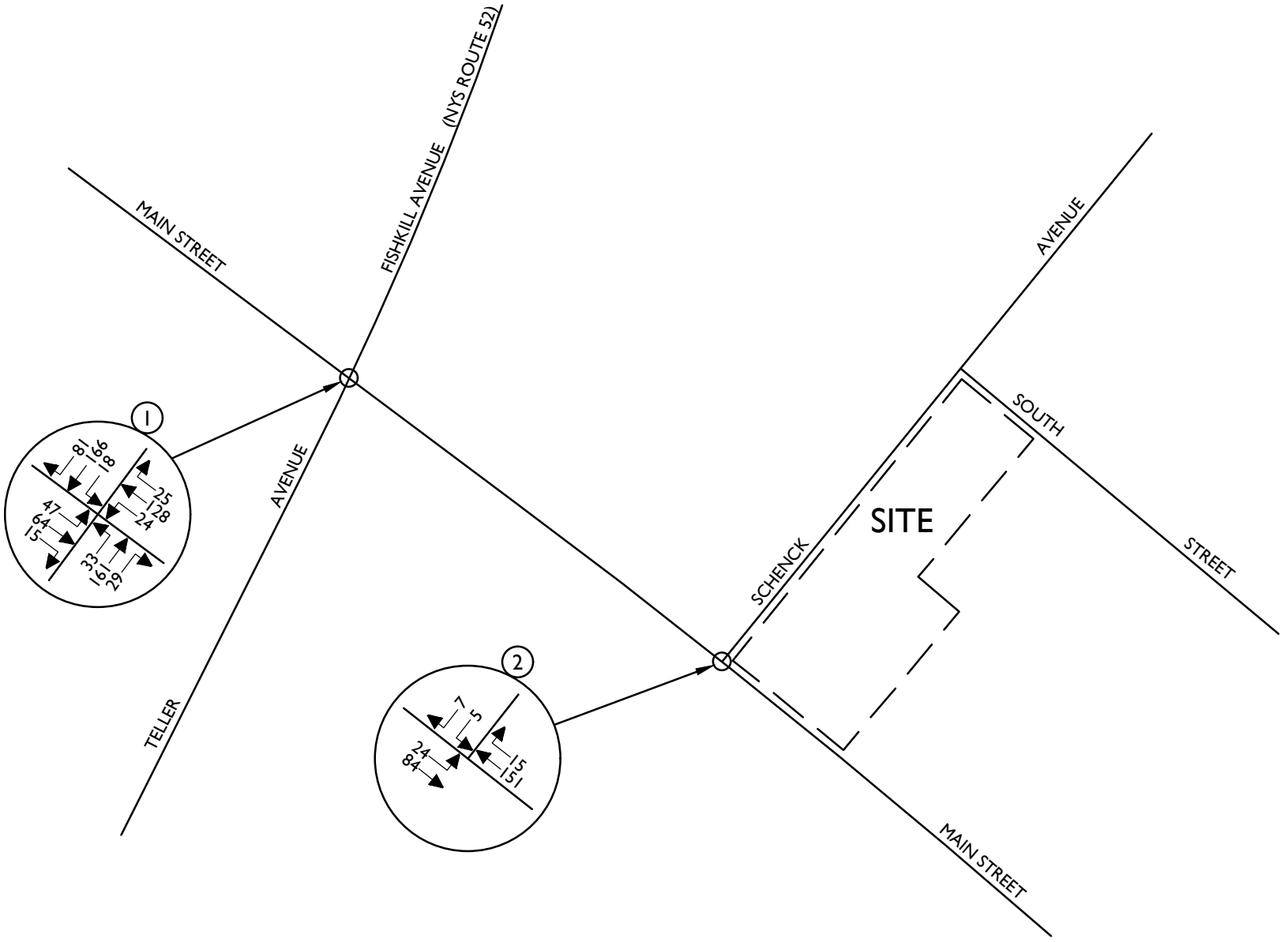
PROJECT NUMBER: 20000282A
DRAWING NAME: 200626RGD_FIGURE

SHEET TITLE:
SITE GENERATED
TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER:
18



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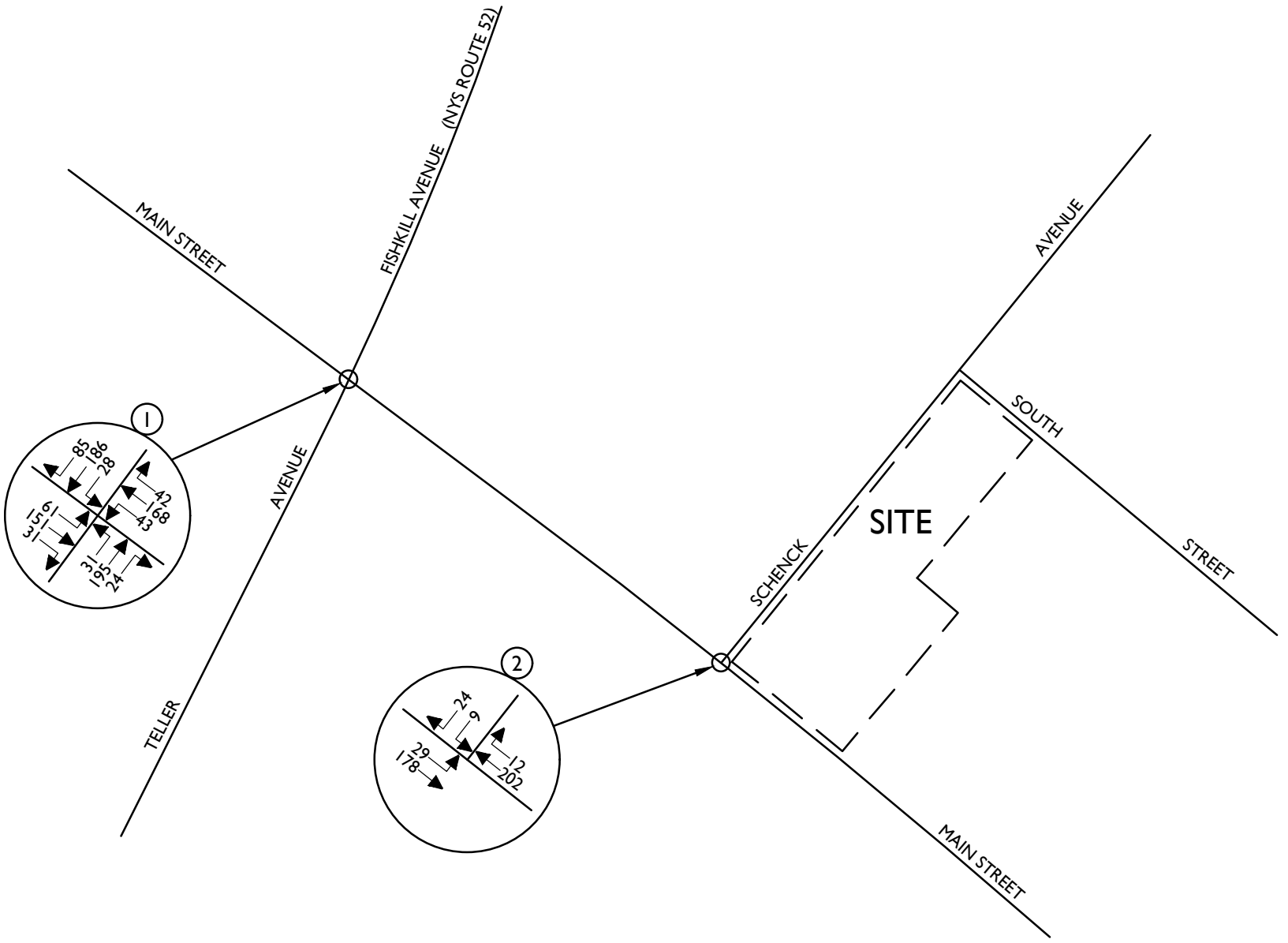
PROJECT NUMBER: 20000282A
DRAWING NAME: 200626RGD_FIGURE

SHEET TITLE:
2025 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
19



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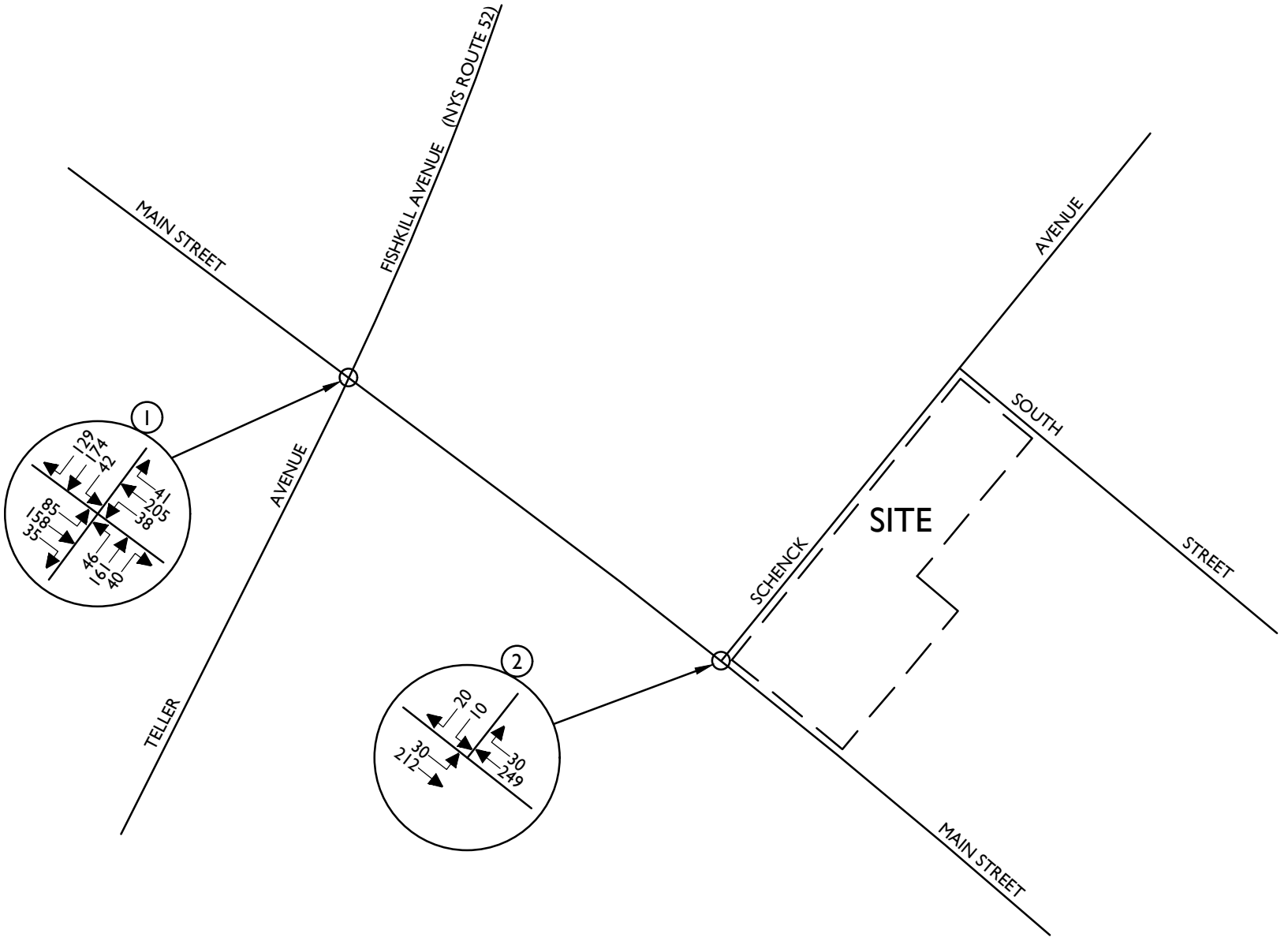
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
20



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PROJECT NUMBER: 20000282A
DRAWING NAME: 200626RGD_FIGURE

SHEET TITLE:
2025 BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER:
21

416 – 420 MAIN STREET

APPENDIX B

TABLES

TABLE NO. 1

HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

416-420 MAIN STREET CITY OF BEACON, NEW YORK	ENTRY		EXIT	
	HTGR[1]	VOLUME	HTGR[1]	VOLUME
NEW RETAIL[2] (2,575 S.F.)				
PEAK AM HOUR	1.55	4	1.55	4
PEAK PM HOUR	1.94	5	2.33	6
SATURDAY PEAK HOUR	2.33	6	2.33	6
OFFICE (6,220 S.F.)				
PEAK AM HOUR	0.96	6	0.16	1
PEAK PM HOUR	0.16	1	1.13	7
SATURDAY PEAK HOUR	0.16	1	0.32	2
APARTMENTS 4TH FLOOR RESIDENTIAL (1 DWELLING UNITS)				
PEAK AM HOUR	1.00	1	0.00	0
PEAK PM HOUR	0.00	0	1.00	1
SATURDAY PEAK HOUR	1.00	1	1.00	1
APARTMENTS REAR LOT RESIDENTIAL (1 DWELLING UNITS)				
PEAK AM HOUR	1.00	1	0.00	0
PEAK PM HOUR	0.00	0	1.00	1
SATURDAY PEAK HOUR	1.00	1	1.00	1
TOTAL				
PEAK AM HOUR	-	12	-	5
PEAK PM HOUR	-	6	-	15
SATURDAY PEAK HOUR	-	9	-	10

NOTES:

1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 10TH EDITION, 2017. ITE LAND USE CODE - 820 - SHOPPING CENTER, ITE LAND USE CODE - 710 - OFFICE BUILDING, ITE LAND USE CODE - 220 - MULTIFAMILY HOME, AND ITE LAND USE CODE - 210 - SINGLE FAMILY.

2) KITCHEN AND COFFEE, FORMERLY ELLA'S BELLAS CAFÉ, (1,675 S.F.) IS AN EXISTING USE THAT WILL BE INCORPORATED INTO THE PROPOSED DEVELOPMENT. TRAFFIC GENERATION ASSOCIATED WITH THIS USE IS CAPTURED IN THE EXISTING TRAFFIC VOLUME COUNTS AND THEREFORE NO NEW TRAFFIC GENERATION HAS BEEN ASSUMED FOR THIS USE. THE TOTAL RETAIL SPACE INCLUDED IN THE DEVELOPMENT WILL BE 3,620 S.F.

TABLE NO. 2 AM

LEVEL OF SERVICE SUMMARY TABLE

				2020 EXISTING			2025 NO-BUILD			2025 BUILD			CHANGE IN DELAY NO-BUILD TO BUILD
	AM			V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	
1	MAIN STREET & TELLER AVENUE/ FISHKILL AVENUE	**SIGNALIZED**											
	MAIN STREET	EB	LTR	0.20	B	14.1	0.22	B	14.2	0.22	B	14.2	0.0
	MAIN STREET	WB	LTR	0.26	B	14.7	0.27	B	14.7	0.27	B	14.7	0.0
	TELLER AVENUE	NB	LTR	0.27	B	11.6	0.30	B	11.9	0.30	B	11.9	0.0
	FISHKILL AVENUE	SB	LTR	0.30	B	11.9	0.33	B	12.2	0.34	B	12.3	0.1
		OVERALL		**-**	**B**	**12.7**	**-**	**B**	**13.0**	**-**	**B**	**13.0**	0.0
2	MAIN STREET & SCHENCK AVENUE	**UNSIGNALIZED**											
	MAIN STREET	EB	LT	0.01	A	7.7	0.01	A	7.8	0.02	A	7.8	0.0
	SCHENCK AVENUE	SB	LR	0.01	A	9.8	0.01	B	10.0	0.02	B	10.1	0.1

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

TABLE NO. 2 PM

LEVEL OF SERVICE SUMMARY TABLE

				2020 EXISTING			2025 NO-BUILD			2025 BUILD			CHANGE IN DELAY NO-BUILD TO BUILD
		PM		V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	
1	MAIN STREET & TELLER AVENUE/ FISHKILL AVENUE	**SIGNALIZED**											
	MAIN STREET	EB	LTR	0.37	B	16.2	0.42	B	16.8	0.42	B	16.9	0.1
	MAIN STREET	WB	LTR	0.32	B	15.5	0.40	B	16.5	0.41	B	16.6	0.1
	TELLER AVENUE	NB	LTR	0.28	B	11.6	0.31	B	12.0	0.31	B	12.0	0.0
	FISHKILL AVENUE	SB	LTR	0.32	B	12.1	0.35	B	12.4	0.35	B	12.4	0.0
		OVERALL		**-**	**B**	**13.7**	**-**	**B**	**14.3**	**-**	**B**	**14.4**	0.1
2	MAIN STREET & SCHENCK AVENUE	**UNSIGNALIZED**											
	MAIN STREET	EB	LT	0.02	A	7.9	0.02	A	8.0	0.03	A	8.1	0.1
	SCHENCK AVENUE	SB	LR	0.03	B	10.6	0.03	B	10.9	0.06	B	11.3	0.4

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

TABLE NO. 2 SAT

LEVEL OF SERVICE SUMMARY TABLE

				2020 EXISTING			2025 NO-BUILD			2025 BUILD			CHANGE IN DELAY NO-BUILD TO BUILD
		SAT		V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	
1	MAIN STREET & TELLER AVENUE/ FISHKILL AVENUE	**SIGNALIZED**											
	MAIN STREET	EB	LTR	0.45	B	17.3	0.50	B	18.2	0.50	B	18.3	0.1
	MAIN STREET	WB	LTR	0.37	B	16.2	0.45	B	17.3	0.46	B	17.5	0.2
	TELLER AVENUE	NB	LTR	0.28	B	11.7	0.31	B	12.0	0.32	B	12.0	0.0
	FISHKILL AVENUE	SB	LTR	0.37	B	12.7	0.42	B	13.2	0.42	B	13.2	0.0
		OVERALL		**-**	**B**	**14.4**	**-**	**B**	**15.2**	**-**	**B**	**15.3**	0.1
2	MAIN STREET & SCHENCK AVENUE	**UNSIGNALIZED**											
	MAIN STREET	EB	LT	0.02	A	8.3	0.02	A	8.5	0.03	A	8.5	0.0
	SCHENCK AVENUE	SB	LR	0.04	B	12.7	0.05	B	13.4	0.07	B	13.6	0.2

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

TABLE P-1

SUMMARY OF BEACON PARKING SPACE UTILIZATION
WEEKDAY PEAK PARKING CONDITIONS

JOB # 20000282A
LOCATION: BEACON, NY
DAY: WEDNESDAY
DATE: 02/05/20
TIME: 7:00 AM - 9:30AM, 11:00 AM - 2:30 PM, & 3:30 PM - 7:00 PM

	PARKING AREA CAPACITY[1]								TOTAL OCCUPIED PARKING SPACES	TOTAL UNOCCUPIED PARKING SPACES
	HENRY STREET PUBLIC LOT	VAN NYDECK AVENUE PUBLIC LOT	MAIN STREET/ VAN NYDECK AVENUE PUBLIC LOT	VAN NYDECK AVENUE ON-STREET PARKING	MAIN STREET ON-STREET PARKING	SCHENCK AVENUE ON-STREET PARKING[2]	SOUTH STREET ON-STREET PARKING[2]	NORTH STREET ON-STREET PARKING[2]		
299 TOTAL PARKING SPACES	72	23	57	34	60	19	21	13		
TIME	**OCCUPIED PARKING SPACES**									
7:00 AM 7:30 AM	3	0	30	15	15	3	6	2	**74**	**225**
7:30 AM 8:00 AM	6	0	27	15	9	3	8	3	**71**	**228**
8:00 AM 8:30 AM	11	0	23	15	11	3	8	1	**72**	**227**
8:30 AM 9:00 AM	17	0	22	12	14	3	6	2	**76**	**223**
9:00 AM 9:30 AM	26	0	23	14	24	6	10	2	**105**	**194**
11:00 AM 11:30 AM	51	1	27	14	44	8	14	1	**160**	**139**
11:30 AM 12:00 PM	48	0	29	13	47	8	10	1	**156**	**143**
12:00 PM 12:30 PM	43	1	28	13	47	7	12	1	**152**	**147**
12:30 PM 1:00 PM	46	1	32	13	48	8	12	1	**161**	**138**
1:00 PM 1:30 PM	44	1	35	12	48	9	11	3	**163**	**136**
1:30 PM 2:00 PM	45	1	44	11	47	9	11	3	**171**	**128**
2:00 PM 2:30 PM	43	1	43	11	47	10	10	3	**168**	**131**
3:30 PM 4:00 PM	34	1	42	11	50	9	8	2	**157**	**142**
4:00 PM 4:30 PM	39	1	39	11	39	7	7	2	**145**	**154**
4:30 PM 5:00 PM	41	2	37	12	37	5	6	2	**142**	**157**
5:00 PM 5:30 PM	40	1	40	13	48	2	7	2	**153**	**146**
5:30 PM 6:00 PM	43	2	40	14	42	3	7	4	**155**	**144**
6:00 PM 6:30 PM	33	1	40	13	46	3	9	4	**149**	**150**
6:30 PM 7:00 PM	27	1	41	11	45	2	8	5	**140**	**159**

NOTES:

1) CAPACITY OF IDENTIFIED PARKING AREAS INCLUDING TOTAL SPACES AND OCCUPIED SPACES BY TIME INTERVAL FOR EACH AREA ARE BASED ON PARKING COUNT DATA COLLECTED BY REPRESENTATIVES OF MASER CONSULTING ON FEBRUARY 4, 2020. SEE FIGURE 1P CONTAINED IN APPENDIX A FOR FURTHER IDENTIFICATION OF PARKING AREAS AND INFORMATION ON PARKING RESTRICTIONS.

2) ON-STREET PARKING SPACES ALONG SCHENCK AVENUE, SOUTH STREET AND NORTH STREET ARE NOT STRIPED. TOTAL AVAILABLE PARKING SPACES IS AN ESTIAMTE OF THE APPOXIMATE CAPACITY ALONG EACH ROADWAY.

TABLE P-2

SUMMARY OF BEACON PARKING SPACE UTILIZATION
SATURDAY PEAK PARKING CONDITIONS

JOB # 20000282A
LOCATION: BEACON, NY
DAY: SATURDAY
DATE: 02/08/20
TIME: 11:00 AM - 2:30 PM

	PARKING AREA CAPACITY[1]								TOTAL OCCUPIED PARKING SPACES	TOTAL UNOCCUPIED PARKING SPACES
	HENRY STREET PUBLIC LOT	VAN NYDECK AVENUE PUBLIC LOT	MAIN STREET/ VAN NYDECK AVENUE PUBLIC LOT[3]	VAN NYDECK AVENUE ON-STREET PARKING	MAIN STREET ON-STREET PARKING	SCHENCK AVENUE ON-STREET PARKING[2]	SOUTH STREET ON-STREET PARKING[2]	NORTH STREET ON-STREET PARKING[2]		
299 TOTAL PARKING SPACES	72	23	57	34	60	19	21	13		
TIME	**OCCUPIED PARKING SPACES**									
11:00 AM 11:30 AM	68	2	55	23	55	10	15	6	**234**	**65**
11:30 AM 12:00 PM	64	2	57	24	56	15	17	5	**240**	**59**
12:00 PM 12:30 PM	70	2	54	30	57	16	15	4	**248**	**51**
12:30 PM 1:00 PM	72	2	56	26	59	14	16	3	**248**	**51**
1:00 PM 1:30 PM	72	6	57	31	59	17	19	4	**265**	**34**
1:30 PM 2:00 PM	72	6	57	29	57	16	18	5	**260**	**39**
2:00 PM 2:30 PM	70	5	57	29	58	14	15	3	**251**	**48**

NOTES:

1) CAPACITY OF IDENTIFIED PARKING AREAS INCLUDING TOTAL SPACES AND OCCUPIED SPACES BY TIME INTERVAL FOR EACH AREA ARE BASED ON PARKING COUNT DATA COLLECTED BY REPRESENTATIVES OF MASER CONSULTING ON FEBRUARY 4, 2020. SEE FIGURE 1P CONTAINED IN APPENDIX A FOR FURTHER IDENTIFICATION OF PARKING AREAS AND INFORMATION ON PARKING RESTRICTIONS.

2) ON-STREET PARKING SPACES ALONG SCHENCK AVENUE, SOUTH STREET AND NORTH STREET ARE NOT STRIPED. TOTAL AVAILABLE PARKING SPACES IS AN ESTIAMTE OF THE APPOXIMATE CAPACITY ALONG EACH ROADWAY.

3) THE MAIN STREET/VAN NYDECK AVENUE PUBLIC LOT WAS OBSERVED TO HAVE ADDITIONAL VEHICLES PARKED BEYOND ITS AVAILABLE CAPACITY IN UN MARKED PARKING SPACES DURING PEAK PARKING PERIODS.

TABLE P-3

SUMMARY OF BEACON PARKING SPACE UTILIZATION
SUNDAY PEAK PARKING CONDITIONS

JOB # 20000282A
LOCATION: BEACON, NY
DAY: SUNDAY
DATE: 02/09/20
TIME: 11:00 AM - 2:30 PM

	PARKING AREA CAPACITY[1]								TOTAL OCCUPIED PARKING SPACES	TOTAL UNOCCUPIED PARKING SPACES
	HENRY STREET PUBLIC LOT	VAN NYDECK AVENUE PUBLIC LOT	MAIN STREET/ VAN NYDECK AVENUE PUBLIC LOT[3]	VAN NYDECK AVENUE ON-STREET PARKING	MAIN STREET ON-STREET PARKING	SCHENCK AVENUE ON-STREET PARKING[2]	SOUTH STREET ON-STREET PARKING[2]	NORTH STREET ON-STREET PARKING[2]		
299 TOTAL PARKING SPACES	72	23	57	34	60	19	21	13		
TIME	**OCCUPIED PARKING SPACES**									
11:00 AM 11:30 AM	46	4	46	16	50	7	9	9	**187**	**112**
11:30 AM 12:00 PM	47	5	51	21	53	7	14	8	**206**	**93**
12:00 PM 12:30 PM	46	6	57	28	53	9	16	9	**224**	**75**
12:30 PM 1:00 PM	56	3	57	28	58	13	16	8	**239**	**60**
1:00 PM 1:30 PM	60	6	57	31	60	13	21	6	**254**	**45**
1:30 PM 2:00 PM	68	14	57	31	59	14	20	6	**269**	**30**
2:00 PM 2:30 PM	62	12	57	32	57	13	20	6	**259**	**40**

NOTES:

1) CAPACITY OF IDENTIFIED PARKING AREAS INCLUDING TOTAL SPACES AND OCCUPIED SPACES BY TIME INTERVAL FOR EACH AREA ARE BASED ON PARKING COUNT DATA COLLECTED BY REPRESENTATIVES OF MASER CONSULTING ON FEBRUARY 4, 2020. SEE FIGURE 1P CONTAINED IN APPENDIX A FOR FURTHER IDENTIFICATION OF PARKING AREAS AND INFORMATION ON PARKING RESTRICTIONS.

2) ON-STREET PARKING SPACES ALONG SCHENCK AVENUE, SOUTH STREET AND NORTH STREET ARE NOT STRIPED. TOTAL AVAILABLE PARKING SPACES IS AN ESTIAMTE OF THE APPOXIMATE CAPACITY ALONG EACH ROADWAY.

3) THE MAIN STREET/VAN NYDECK AVENUE PUBLIC LOT WAS OBSERVED TO HAVE ADDITIONAL VEHICLES PARKED BEYOND ITS AVAILABLE CAPACITY IN UN MARKED PARKING SPACES DURING PEAK PARKING PERIODS.

416 – 420 MAIN STREET

APPENDIX C

LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay and volume-to-capacity (v/c) ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

LOS A describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate.

LOS D describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long.

LOS E describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long.

LOS F describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long.

A lane group can incur a delay less than 80 s/veh when the volume-to-capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to-capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

The Level of Service Criteria for signalized intersections are given in Exhibit 19-8 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 19-8

	LOS by Volume-to-Capacity Ratio	
Control Delay (s/veh)	**v/c ≤1.0**	**v/c >1.0**
≤10	A	F
>10-20	B	F
>20-35	C	F
>35-55	D	F
>55-80	E	F
>80	F	F

For approach-based and intersection wide assessments, LOS is defined solely by control delay.

LEVEL OF SERVICE CRITERIA
FOR TWO-WAY STOP-CONTROLLED (TWSC) UNSIGNALIZED INTERSECTIONS

Level of Service (LOS) for a two-way stop-controlled (TWSC) intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns. LOS is not defined for the intersection as a whole or for major-street approaches.

The Level of Service Criteria for TWSC unsignalized intersections are given in Exhibit 20-2 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 20-2

	LOS by Volume-to-Capacity Ratio	
Control Delay (s/veh)	**v/c ≤1.0**	**v/c >1.0**
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

As Exhibit 20-2 notes, LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

The Level of Service Criteria for unsignalized intersections are somewhat different from the criteria for signalized intersections.

LEVEL OF SERVICE CRITERIA
FOR ALL-WAY STOP-CONTROLLED (AWSC) UNSIGNALIZED INTERSECTIONS

The Levels of Service (LOS) for all-way stop-controlled (AWSC) intersections are given in Exhibit 21-8. As the exhibit notes, LOS F is assigned if the volume-to-capacity (v/c) ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

The Level of Service Criteria for AWSC unsignalized intersections are given in Exhibit 21-8 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 21-8

	LOS by Volume-to-Capacity Ratio	
Control Delay (s/veh)	**v/c ≤1.0**	**v/c >1.0**
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

For approaches and intersection wide assessment, LOS is defined solely by control delay.

416 – 420 MAIN STREET

APPENDIX D

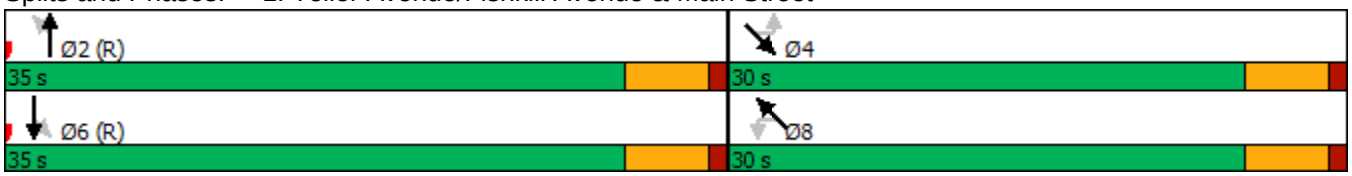
CAPACITY ANALYSIS

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	30	146	24	14	151	74	43	46	14	20	110	21
Future Volume (vph)	30	146	24	14	151	74	43	46	14	20	110	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	15	12	12	8	12	12	8	12
Grade (%)		3%			-1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99			0.98			0.99	
Frt		0.984			0.958			0.982			0.981	
Flt Protected		0.993			0.997			0.979			0.993	
Satd. Flow (prot)	0	1955	0	0	1921	0	0	1512	0	0	1568	0
Flt Permitted		0.930			0.979			0.840			0.959	
Satd. Flow (perm)	0	1828	0	0	1886	0	0	1279	0	0	1511	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		179			231			204			315	
Travel Time (s)		4.1			5.3			4.6			7.2	
Confl. Peds. (#/hr)	11		7	7		11	31		14	14		31
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	10%	5%	4%	2%	4%	2%	2%	4%	7%	5%	2%	2%
Parking (#/hr)									0			0
Adj. Flow (vph)	34	166	27	16	172	84	49	52	16	23	125	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	227	0	0	272	0	0	117	0	0	172	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.02	0.86	1.02	0.99	0.88	0.99	1.01	1.21	1.01	0.99	1.19	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	53.8%	53.8%		53.8%	53.8%		46.2%	46.2%		46.2%	46.2%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Pedestrian Calls (#/hr)	9	9		9	9		22	22		22	22	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio		0.27			0.31			0.24			0.30	
Control Delay		11.9			12.3			15.2			15.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.9			12.3			15.2			15.7	
Queue Length 50th (ft)		52			64			30			46	
Queue Length 95th (ft)		91			108			62			86	
Internal Link Dist (ft)		99			151			124			235	
Turn Bay Length (ft)												
Base Capacity (vph)		843			870			491			581	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.27			0.31			0.24			0.30	

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Pretimed	

Splits and Phases: 1: Teller Avenue/Fishkill Avenue & Main Street



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	30	146	24	14	151	74	43	46	14	20	110	21
Future Volume (veh/h)	30	146	24	14	151	74	43	46	14	20	110	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	0.97		0.96	0.97		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1773	1844	1773	1879	1954	1879	1835	1761	1835	1949	1871	1949
Adj Flow Rate, veh/h	34	166	27	16	172	84	49	52	16	23	125	24
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	5	5	5	4	4	4	4	4	4	2	2	2
Cap, veh/h	138	615	93	78	562	260	262	251	69	108	478	85
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	161	1333	202	41	1218	562	476	653	179	117	1243	220
Grp Volume(v), veh/h	227	0	0	272	0	0	117	0	0	172	0	0
Grp Sat Flow(s),veh/h/ln	1696	0	0	1821	0	0	1308	0	0	1580	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.0	0.0	0.0	6.1	0.0	0.0	3.3	0.0	0.0	4.7	0.0	0.0
Prop In Lane	0.15		0.12	0.06		0.31	0.42		0.14	0.13		0.14
Lane Grp Cap(c), veh/h	846	0	0	899	0	0	582	0	0	671	0	0
V/C Ratio(X)	0.27	0.00	0.00	0.30	0.00	0.00	0.20	0.00	0.00	0.26	0.00	0.00
Avail Cap(c_a), veh/h	846	0	0	899	0	0	582	0	0	671	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.8	0.0	0.0	11.1	0.0	0.0	13.3	0.0	0.0	13.8	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	2.4	0.0	0.0	1.2	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.6	0.0	0.0	11.9	0.0	0.0	14.1	0.0	0.0	14.7	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		227			272			117			172	
Approach Delay, s/veh		11.6			11.9			14.1			14.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	35.0	30.0	35.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	30.0	25.0	30.0	25.0
Max Q Clear Time (g_c+I1), s	7.0	5.3	8.1	6.7
Green Ext Time (p_c), s	0.9	0.4	1.1	0.6

Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	15	65	131	10	3	4
Future Volume (vph)	15	65	131	10	3	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	8	12
Grade (%)		1%	1%		-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.990		0.923	
Flt Protected		0.991			0.979	
Satd. Flow (prot)	0	1806	1835	0	1495	0
Flt Permitted		0.991			0.979	
Satd. Flow (perm)	0	1806	1835	0	1495	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		315	242		417	
Travel Time (s)		7.2	5.5		9.5	
Confl. Peds. (#/hr)	34			29	29	34
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	7%	3%	2%	2%	2%	2%
Parking (#/hr)				0		0
Adj. Flow (vph)	16	71	144	11	3	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	87	155	0	7	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		8	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.16	0.97
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.8

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	15	65	131	10	3	4
Future Vol, veh/h	15	65	131	10	3	4
Conflicting Peds, #/hr	34	0	0	29	29	34
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	1	-	-5	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	7	3	2	2	2	2
Mvmt Flow	16	71	144	11	3	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	189	0	-	0	316	218
Stage 1	-	-	-	-	184	-
Stage 2	-	-	-	-	132	-
Critical Hdwy	4.17	-	-	-	5.42	5.72
Critical Hdwy Stg 1	-	-	-	-	4.42	-
Critical Hdwy Stg 2	-	-	-	-	4.42	-
Follow-up Hdwy	2.263	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1355	-	-	-	739	847
Stage 1	-	-	-	-	892	-
Stage 2	-	-	-	-	928	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1326	-	-	-	698	802
Mov Cap-2 Maneuver	-	-	-	-	698	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	908	-

Approach	SE	NW	SW
HCM Control Delay, s	1.5	0	9.8
HCM LOS			A

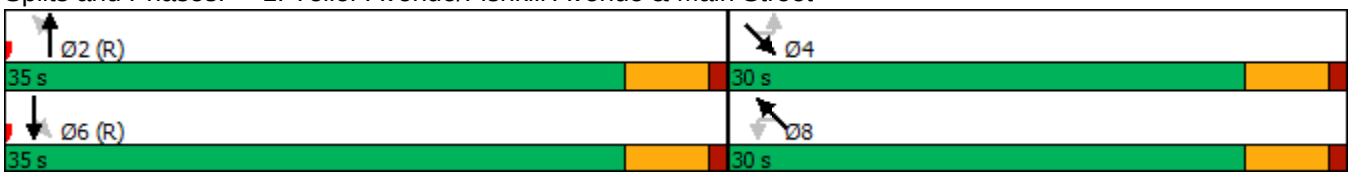
Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1326	-	754
HCM Lane V/C Ratio	-	-	0.012	-	0.01
HCM Control Delay (s)	-	-	7.7	0	9.8
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	28	177	20	24	169	77	55	133	28	35	128	34
Future Volume (vph)	28	177	20	24	169	77	55	133	28	35	128	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	15	12	12	8	12	12	8	12
Grade (%)		3%			-1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99			0.97			0.97	
Frt		0.988			0.961			0.983			0.977	
Flt Protected		0.994			0.996			0.987			0.991	
Satd. Flow (prot)	0	1971	0	0	1929	0	0	1543	0	0	1544	0
Flt Permitted		0.943			0.964			0.879			0.920	
Satd. Flow (perm)	0	1868	0	0	1866	0	0	1352	0	0	1423	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		179			231			204			315	
Travel Time (s)		4.1			5.3			4.6			7.2	
Confl. Peds. (#/hr)	9		7	7		9	61		39	39		61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	6%	5%	2%	4%	2%	2%	2%	2%	3%	2%	3%
Parking (#/hr)									0			0
Adj. Flow (vph)	29	186	21	25	178	81	58	140	29	37	135	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	236	0	0	284	0	0	227	0	0	208	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.02	0.86	1.02	0.99	0.88	0.99	1.01	1.21	1.01	0.99	1.19	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	53.8%	53.8%		53.8%	53.8%		46.2%	46.2%		46.2%	46.2%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Pedestrian Calls (#/hr)	8	8		8	8		50	50		50	50	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio		0.27			0.33			0.44			0.38	
Control Delay		11.9			12.5			18.1			17.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.9			12.5			18.1			17.0	
Queue Length 50th (ft)		55			67			64			58	
Queue Length 95th (ft)		97			117			120			108	
Internal Link Dist (ft)		99			151			124			235	
Turn Bay Length (ft)												
Base Capacity (vph)		862			861			520			547	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.27			0.33			0.44			0.38	

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Pretimed	

Splits and Phases: 1: Teller Avenue/Fishkill Avenue & Main Street



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	28	177	20	24	169	77	55	133	28	35	128	34
Future Volume (veh/h)	28	177	20	24	169	77	55	133	28	35	128	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	0.95		0.92	0.95		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1758	1828	1758	1879	1954	1879	1864	1790	1864	1949	1871	1949
Adj Flow Rate, veh/h	29	186	21	25	178	81	58	140	29	37	135	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	4	4	4	2	2	2	2	2	2
Cap, veh/h	118	666	71	95	563	238	172	366	69	131	413	100
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	121	1444	153	75	1219	516	267	952	178	171	1073	260
Grp Volume(v), veh/h	236	0	0	284	0	0	227	0	0	208	0	0
Grp Sat Flow(s),veh/h/ln	1717	0	0	1810	0	0	1397	0	0	1504	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.3	0.0	0.0	6.3	0.0	0.0	7.0	0.0	0.0	6.0	0.0	0.0
Prop In Lane	0.12		0.09	0.09		0.29	0.26		0.13	0.18		0.17
Lane Grp Cap(c), veh/h	855	0	0	896	0	0	607	0	0	644	0	0
V/C Ratio(X)	0.28	0.00	0.00	0.32	0.00	0.00	0.37	0.00	0.00	0.32	0.00	0.00
Avail Cap(c_a), veh/h	855	0	0	896	0	0	607	0	0	644	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.8	0.0	0.0	11.1	0.0	0.0	14.4	0.0	0.0	14.1	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.9	0.0	0.0	1.8	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	2.5	0.0	0.0	2.5	0.0	0.0	2.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.6	0.0	0.0	12.1	0.0	0.0	16.2	0.0	0.0	15.5	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		236			284			227			208	
Approach Delay, s/veh		11.6			12.1			16.2			15.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	35.0	30.0	35.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	30.0	25.0	30.0	25.0
Max Q Clear Time (g_c+I1), s	7.3	9.0	8.3	8.0
Green Ext Time (p_c), s	0.9	0.8	1.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	23	157	159	9	3	14
Future Volume (vph)	23	157	159	9	3	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	8	12
Grade (%)		1%	1%		-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.993		0.886	
Flt Protected		0.994			0.992	
Satd. Flow (prot)	0	1842	1840	0	1454	0
Flt Permitted		0.994			0.992	
Satd. Flow (perm)	0	1842	1840	0	1454	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		315	242		417	
Travel Time (s)		7.2	5.5		9.5	
Confl. Peds. (#/hr)	57			48	48	57
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Parking (#/hr)				0		0
Adj. Flow (vph)	26	178	181	10	3	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	204	191	0	19	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		8	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.16	0.97
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	23	157	159	9	3	14
Future Vol, veh/h	23	157	159	9	3	14
Conflicting Peds, #/hr	57	0	0	48	48	57
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	1	-	-5	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	178	181	10	3	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	248	0	-	0	521	300
Stage 1	-	-	-	-	243	-
Stage 2	-	-	-	-	278	-
Critical Hdwy	4.12	-	-	-	5.42	5.72
Critical Hdwy Stg 1	-	-	-	-	4.42	-
Critical Hdwy Stg 2	-	-	-	-	4.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1318	-	-	-	596	771
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	831	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1270	-	-	-	541	703
Mov Cap-2 Maneuver	-	-	-	-	541	-
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	801	-

Approach	SE	NW	SW
HCM Control Delay, s	1	0	10.6
HCM LOS			B

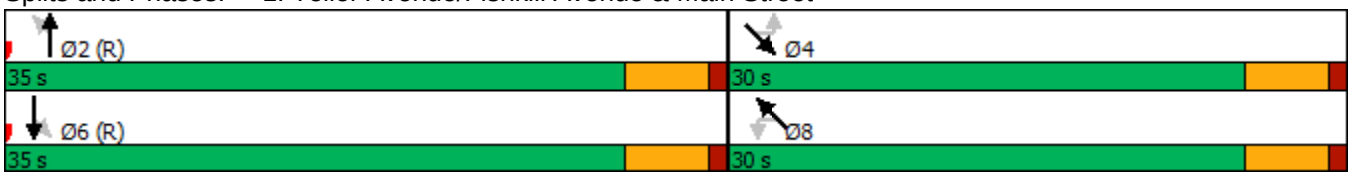
Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1270	-	668
HCM Lane V/C Ratio	-	-	0.021	-	0.029
HCM Control Delay (s)	-	-	7.9	0	10.6
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.1

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	42	146	34	36	158	117	77	138	32	31	163	34
Future Volume (vph)	42	146	34	36	158	117	77	138	32	31	163	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	15	12	12	8	12	12	8	12
Grade (%)		3%			-1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98			0.95			0.96	
Frt		0.979			0.949			0.983			0.980	
Flt Protected		0.991			0.994			0.985			0.993	
Satd. Flow (prot)	0	2005	0	0	1902	0	0	1527	0	0	1536	0
Flt Permitted		0.894			0.947			0.845			0.934	
Satd. Flow (perm)	0	1801	0	0	1808	0	0	1269	0	0	1429	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		179			231			204			315	
Travel Time (s)		4.1			5.3			4.6			7.2	
Confl. Peds. (#/hr)	25		15	15		25	106		83	83		106
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	7%	2%	2%
Parking (#/hr)									0			0
Adj. Flow (vph)	45	155	36	38	168	124	82	147	34	33	173	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	236	0	0	330	0	0	263	0	0	242	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.02	0.86	1.02	0.99	0.88	0.99	1.01	1.21	1.01	0.99	1.19	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	53.8%	53.8%		53.8%	53.8%		46.2%	46.2%		46.2%	46.2%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Pedestrian Calls (#/hr)	20	20		20	20		55	55		55	55	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio		0.28			0.40			0.54			0.44	
Control Delay		12.0			13.3			20.6			18.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.0			13.3			20.6			18.0	
Queue Length 50th (ft)		55			81			79			69	
Queue Length 95th (ft)		98			138			146			126	
Internal Link Dist (ft)		99			151			124			235	
Turn Bay Length (ft)												
Base Capacity (vph)		831			834			488			549	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.28			0.40			0.54			0.44	

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Pretimed	

Splits and Phases: 1: Teller Avenue/Fishkill Avenue & Main Street



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	42	146	34	36	158	117	77	138	32	31	163	34
Future Volume (veh/h)	42	146	34	36	158	117	77	138	32	31	163	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.97	0.92		0.86	0.92		0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1817	1890	1817	1909	1986	1909	1864	1790	1864	1949	1871	1949
Adj Flow Rate, veh/h	45	155	36	38	168	124	82	147	34	33	173	36
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	550	118	114	459	308	201	320	67	107	454	87
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	224	1191	255	113	995	667	334	833	173	115	1180	226
Grp Volume(v), veh/h	236	0	0	330	0	0	263	0	0	242	0	0
Grp Sat Flow(s),veh/h/ln	1670	0	0	1776	0	0	1341	0	0	1521	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.2	0.0	0.0	7.7	0.0	0.0	8.5	0.0	0.0	7.1	0.0	0.0
Prop In Lane	0.19		0.15	0.12		0.38	0.31		0.13	0.14		0.15
Lane Grp Cap(c), veh/h	837	0	0	881	0	0	588	0	0	648	0	0
V/C Ratio(X)	0.28	0.00	0.00	0.37	0.00	0.00	0.45	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	837	0	0	881	0	0	588	0	0	648	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.8	0.0	0.0	11.5	0.0	0.0	14.9	0.0	0.0	14.5	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	1.2	0.0	0.0	2.4	0.0	0.0	1.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	2.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.7	0.0	0.0	12.7	0.0	0.0	17.3	0.0	0.0	16.2	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		236			330			263			242	
Approach Delay, s/veh		11.7			12.7			17.3			16.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	35.0	30.0	35.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	30.0	25.0	30.0	25.0
Max Q Clear Time (g_c+I1), s	7.2	10.5	9.7	9.1
Green Ext Time (p_c), s	0.9	1.0	1.4	0.8

Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	22	188	202	24	6	13
Future Volume (vph)	22	188	202	24	6	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	8	12
Grade (%)		1%	1%		-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.986		0.905	
Flt Protected		0.995			0.985	
Satd. Flow (prot)	0	1844	1827	0	1475	0
Flt Permitted		0.995			0.985	
Satd. Flow (perm)	0	1844	1827	0	1475	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		315	242		417	
Travel Time (s)		7.2	5.5		9.5	
Confl. Peds. (#/hr)	113			104	104	113
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Parking (#/hr)				0		0
Adj. Flow (vph)	24	202	217	26	6	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	226	243	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		8	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.16	0.97
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.9

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	22	188	202	24	6	13
Future Vol, veh/h	22	188	202	24	6	13
Conflicting Peds, #/hr	113	0	0	104	104	113
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	1	-	-5	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	202	217	26	6	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	356	0	-	0	697	456
Stage 1	-	-	-	-	343	-
Stage 2	-	-	-	-	354	-
Critical Hdwy	4.12	-	-	-	5.42	5.72
Critical Hdwy Stg 1	-	-	-	-	4.42	-
Critical Hdwy Stg 2	-	-	-	-	4.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1203	-	-	-	494	644
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	784	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1117	-	-	-	415	533
Mov Cap-2 Maneuver	-	-	-	-	415	-
Stage 1	-	-	-	-	716	-
Stage 2	-	-	-	-	728	-

Approach	SE	NW	SW
HCM Control Delay, s	0.9	0	12.7
HCM LOS			B

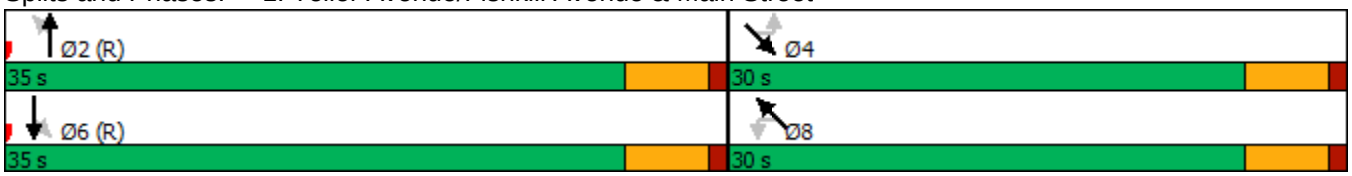
Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1117	-	489
HCM Lane V/C Ratio	-	-	0.021	-	0.042
HCM Control Delay (s)	-	-	8.3	0	12.7
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.1

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	33	161	27	16	166	81	47	61	15	23	126	24
Future Volume (vph)	33	161	27	16	166	81	47	61	15	23	126	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	15	12	12	8	12	12	8	12
Grade (%)		3%			-1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99			0.98			0.99	
Frt		0.983			0.958			0.983			0.981	
Flt Protected		0.993			0.997			0.981			0.993	
Satd. Flow (prot)	0	1953	0	0	1921	0	0	1366	0	0	1411	0
Flt Permitted		0.923			0.977			0.840			0.955	
Satd. Flow (perm)	0	1812	0	0	1882	0	0	1155	0	0	1354	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		179			231			204			315	
Travel Time (s)		4.1			5.3			4.6			7.2	
Confl. Peds. (#/hr)	11		7	7		11	31		14	14		31
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	10%	5%	4%	2%	4%	2%	2%	4%	7%	5%	2%	2%
Parking (#/hr)								0			0	
Adj. Flow (vph)	38	183	31	18	189	92	53	69	17	26	143	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	252	0	0	299	0	0	139	0	0	196	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.02	0.86	1.02	0.99	0.88	0.99	1.01	1.38	1.01	0.99	1.35	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	53.8%	53.8%		53.8%	53.8%		46.2%	46.2%		46.2%	46.2%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Pedestrian Calls (#/hr)	9	9		9	9		22	22		22	22	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio		0.30			0.34			0.31			0.38	
Control Delay		12.2			12.6			16.5			17.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.2			12.6			16.5			17.1	
Queue Length 50th (ft)		59			72			37			54	
Queue Length 95th (ft)		101			119			75			100	
Internal Link Dist (ft)		99			151			124			235	
Turn Bay Length (ft)												
Base Capacity (vph)		836			868			444			520	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.30			0.34			0.31			0.38	

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Pretimed	

Splits and Phases: 1: Teller Avenue/Fishkill Avenue & Main Street



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	33	161	27	16	166	81	47	61	15	23	126	24
Future Volume (veh/h)	33	161	27	16	166	81	47	61	15	23	126	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	0.97		0.96	0.97		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1773	1844	1773	1879	1954	1879	1835	1761	1835	1949	1871	1949
Adj Flow Rate, veh/h	38	183	31	18	189	92	53	69	17	26	143	27
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	5	5	5	4	4	4	4	4	4	2	2	2
Cap, veh/h	138	609	96	79	561	258	259	313	69	112	533	93
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	161	1319	208	44	1215	560	475	813	180	128	1385	242
Grp Volume(v), veh/h	252	0	0	299	0	0	139	0	0	196	0	0
Grp Sat Flow(s),veh/h/ln	1688	0	0	1819	0	0	1468	0	0	1755	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.7	0.0	0.0	6.8	0.0	0.0	3.5	0.0	0.0	4.8	0.0	0.0
Prop In Lane	0.15		0.12	0.06		0.31	0.38		0.12	0.13		0.14
Lane Grp Cap(c), veh/h	843	0	0	898	0	0	641	0	0	738	0	0
V/C Ratio(X)	0.30	0.00	0.00	0.33	0.00	0.00	0.22	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	843	0	0	898	0	0	641	0	0	738	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.0	0.0	0.0	11.2	0.0	0.0	13.4	0.0	0.0	13.8	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.0	0.0	0.0	0.8	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	2.7	0.0	0.0	1.4	0.0	0.0	2.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.9	0.0	0.0	12.2	0.0	0.0	14.2	0.0	0.0	14.7	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		252			299			139			196	
Approach Delay, s/veh		11.9			12.2			14.2			14.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	35.0	30.0	35.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	30.0	25.0	30.0	25.0
Max Q Clear Time (g_c+I1), s	7.7	5.5	8.8	6.8
Green Ext Time (p_c), s	1.0	0.5	1.2	0.7

Intersection Summary	
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	17	84	151	11	3	4
Future Volume (vph)	17	84	151	11	3	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	8	12
Grade (%)		1%	1%		-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.991		0.923	
Flt Protected		0.992			0.979	
Satd. Flow (prot)	0	1809	1837	0	1495	0
Flt Permitted		0.992			0.979	
Satd. Flow (perm)	0	1809	1837	0	1495	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		315	242		417	
Travel Time (s)		7.2	5.5		9.5	
Confl. Peds. (#/hr)	34			29	29	34
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	7%	3%	2%	2%	2%	2%
Parking (#/hr)				0		0
Adj. Flow (vph)	19	92	166	12	3	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	111	178	0	7	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		8	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.16	0.97
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.7

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	17	84	151	11	3	4
Future Vol, veh/h	17	84	151	11	3	4
Conflicting Peds, #/hr	34	0	0	29	29	34
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	1	-	-5	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	7	3	2	2	2	2
Mvmt Flow	19	92	166	12	3	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	212	0	-	0	365	240
Stage 1	-	-	-	-	206	-
Stage 2	-	-	-	-	159	-
Critical Hdwy	4.17	-	-	-	5.42	5.72
Critical Hdwy Stg 1	-	-	-	-	4.42	-
Critical Hdwy Stg 2	-	-	-	-	4.42	-
Follow-up Hdwy	2.263	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1329	-	-	-	702	826
Stage 1	-	-	-	-	877	-
Stage 2	-	-	-	-	909	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1300	-	-	-	661	782
Mov Cap-2 Maneuver	-	-	-	-	661	-
Stage 1	-	-	-	-	845	-
Stage 2	-	-	-	-	889	-

Approach	SE	NW	SW
HCM Control Delay, s	1.3	0	10
HCM LOS			B

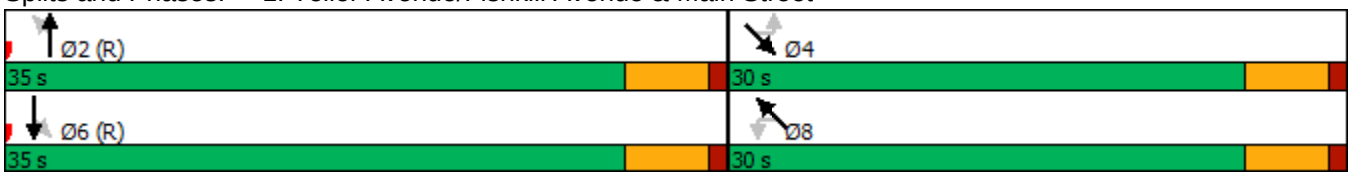
Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1300	-	725
HCM Lane V/C Ratio	-	-	0.014	-	0.011
HCM Control Delay (s)	-	-	7.8	0	10
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0	-	0

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	31	195	23	27	186	85	61	149	31	41	164	39
Future Volume (vph)	31	195	23	27	186	85	61	149	31	41	164	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	15	12	12	8	12	12	8	12
Grade (%)		3%			-1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99			0.98			0.98	
Frt		0.988			0.962			0.982			0.978	
Flt Protected		0.994			0.996			0.988			0.992	
Satd. Flow (prot)	0	1971	0	0	1931	0	0	1543	0	0	1550	0
Flt Permitted		0.936			0.960			0.864			0.915	
Satd. Flow (perm)	0	1854	0	0	1860	0	0	1330	0	0	1421	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		179			231			204			315	
Travel Time (s)		4.1			5.3			4.6			7.2	
Confl. Peds. (#/hr)	9		7	7		9	61		39	39		61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	6%	5%	2%	4%	2%	2%	2%	2%	3%	2%	3%
Parking (#/hr)									0			0
Adj. Flow (vph)	33	205	24	28	196	89	64	157	33	43	173	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	262	0	0	313	0	0	254	0	0	257	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.02	0.86	1.02	0.99	0.88	0.99	1.01	1.21	1.01	0.99	1.19	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	53.8%	53.8%		53.8%	53.8%		46.2%	46.2%		46.2%	46.2%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Pedestrian Calls (#/hr)	8	8		8	8		50	50		50	50	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio		0.31			0.36			0.50			0.47	
Control Delay		12.2			12.9			19.4			18.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.2			12.9			19.4			18.6	
Queue Length 50th (ft)		61			76			74			74	
Queue Length 95th (ft)		107			129			137			135	
Internal Link Dist (ft)		99			151			124			235	
Turn Bay Length (ft)												
Base Capacity (vph)		855			858			511			546	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.31			0.36			0.50			0.47	

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Pretimed	

Splits and Phases: 1: Teller Avenue/Fishkill Avenue & Main Street



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	31	195	23	27	186	85	61	149	31	41	164	39
Future Volume (veh/h)	31	195	23	27	186	85	61	149	31	41	164	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	0.95		0.92	0.95		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1758	1828	1758	1879	1954	1879	1864	1790	1864	1949	1871	1949
Adj Flow Rate, veh/h	33	205	24	28	196	89	64	157	33	43	173	41
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	4	4	4	2	2	2	2	2	2
Cap, veh/h	120	659	72	96	561	237	170	368	70	125	429	93
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	124	1428	157	78	1215	514	263	957	182	157	1116	242
Grp Volume(v), veh/h	262	0	0	313	0	0	254	0	0	257	0	0
Grp Sat Flow(s),veh/h/ln	1709	0	0	1807	0	0	1402	0	0	1514	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.0	0.0	0.0	7.1	0.0	0.0	7.8	0.0	0.0	7.6	0.0	0.0
Prop In Lane	0.13		0.09	0.09		0.28	0.25		0.13	0.17		0.16
Lane Grp Cap(c), veh/h	851	0	0	894	0	0	609	0	0	647	0	0
V/C Ratio(X)	0.31	0.00	0.00	0.35	0.00	0.00	0.42	0.00	0.00	0.40	0.00	0.00
Avail Cap(c_a), veh/h	851	0	0	894	0	0	609	0	0	647	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.0	0.0	0.0	11.3	0.0	0.0	14.7	0.0	0.0	14.6	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.1	0.0	0.0	2.1	0.0	0.0	1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	2.8	0.0	0.0	2.8	0.0	0.0	2.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.0	0.0	0.0	12.4	0.0	0.0	16.8	0.0	0.0	16.5	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		262			313			254			257	
Approach Delay, s/veh		12.0			12.4			16.8			16.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	35.0	30.0	35.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	30.0	25.0	30.0	25.0
Max Q Clear Time (g_c+I1), s	8.0	9.8	9.1	9.6
Green Ext Time (p_c), s	1.0	0.9	1.2	0.9

Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	25	178	202	10	3	15
Future Volume (vph)	25	178	202	10	3	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	8	12
Grade (%)		1%	1%		-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.994		0.885	
Flt Protected		0.994			0.993	
Satd. Flow (prot)	0	1842	1842	0	1454	0
Flt Permitted		0.994			0.993	
Satd. Flow (perm)	0	1842	1842	0	1454	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		315	242		417	
Travel Time (s)		7.2	5.5		9.5	
Confl. Peds. (#/hr)	57			48	48	57
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Parking (#/hr)				0		0
Adj. Flow (vph)	28	202	230	11	3	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	230	241	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		8	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.16	0.97
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.9

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	25	178	202	10	3	15
Future Vol, veh/h	25	178	202	10	3	15
Conflicting Peds, #/hr	57	0	0	48	48	57
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	1	-	-5	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	202	230	11	3	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	298	0	-	0	599	350
Stage 1	-	-	-	-	293	-
Stage 2	-	-	-	-	306	-
Critical Hdwy	4.12	-	-	-	5.42	5.72
Critical Hdwy Stg 1	-	-	-	-	4.42	-
Critical Hdwy Stg 2	-	-	-	-	4.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1263	-	-	-	549	728
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	813	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1217	-	-	-	497	664
Mov Cap-2 Maneuver	-	-	-	-	497	-
Stage 1	-	-	-	-	771	-
Stage 2	-	-	-	-	784	-

Approach	SE	NW	SW
HCM Control Delay, s	1	0	10.9
HCM LOS			B

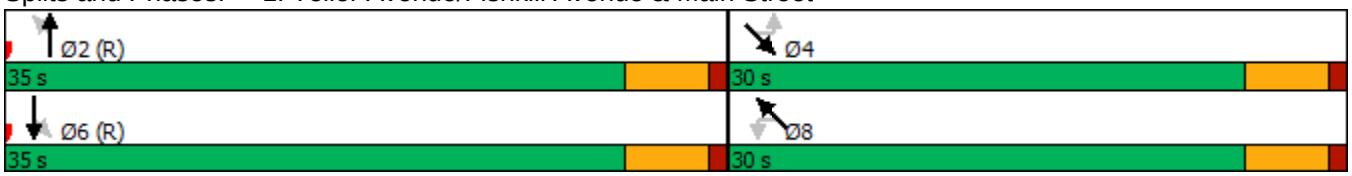
Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1217	-	629
HCM Lane V/C Ratio	-	-	0.023	-	0.033
HCM Control Delay (s)	-	-	8	0	10.9
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.1

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	46	161	38	41	174	129	85	155	35	36	202	39
Future Volume (vph)	46	161	38	41	174	129	85	155	35	36	202	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	15	12	12	8	12	12	8	12
Grade (%)		3%			-1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98			0.95			0.97	
Frt		0.979			0.949			0.983			0.981	
Flt Protected		0.991			0.994			0.985			0.994	
Satd. Flow (prot)	0	2005	0	0	1902	0	0	1528	0	0	1542	0
Flt Permitted		0.885			0.939			0.825			0.930	
Satd. Flow (perm)	0	1783	0	0	1793	0	0	1244	0	0	1428	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		179			231			204			315	
Travel Time (s)		4.1			5.3			4.6			7.2	
Confl. Peds. (#/hr)	25		15	15		25	106		83	83		106
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	7%	2%	2%
Parking (#/hr)									0			0
Adj. Flow (vph)	49	171	40	44	185	137	90	165	37	38	215	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	260	0	0	366	0	0	292	0	0	294	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.02	0.86	1.02	0.99	0.88	0.99	1.01	1.21	1.01	0.99	1.19	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	53.8%	53.8%		53.8%	53.8%		46.2%	46.2%		46.2%	46.2%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Pedestrian Calls (#/hr)	20	20		20	20		55	55		55	55	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio		0.32			0.44			0.61			0.54	
Control Delay		12.4			14.0			22.8			19.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.4			14.0			22.8			19.9	
Queue Length 50th (ft)		61			93			90			87	
Queue Length 95th (ft)		107			155			167			157	
Internal Link Dist (ft)		99			151			124			235	
Turn Bay Length (ft)												
Base Capacity (vph)		822			827			478			549	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.32			0.44			0.61			0.54	

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Pretimed	

Splits and Phases: 1: Teller Avenue/Fishkill Avenue & Main Street



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	46	161	38	41	174	129	85	155	35	36	202	39
Future Volume (veh/h)	46	161	38	41	174	129	85	155	35	36	202	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.97	0.93		0.86	0.93		0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1817	1890	1817	1909	1986	1909	1864	1790	1864	1949	1871	1949
Adj Flow Rate, veh/h	49	171	40	44	185	137	90	165	37	38	215	41
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	550	118	118	454	306	199	323	65	104	464	82
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	219	1191	256	122	984	662	328	841	170	109	1206	213
Grp Volume(v), veh/h	260	0	0	366	0	0	292	0	0	294	0	0
Grp Sat Flow(s),veh/h/ln	1667	0	0	1769	0	0	1338	0	0	1528	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.8	0.0	0.0	8.7	0.0	0.0	9.9	0.0	0.0	9.0	0.0	0.0
Prop In Lane	0.19		0.15	0.12		0.37	0.31		0.13	0.13		0.14
Lane Grp Cap(c), veh/h	835	0	0	878	0	0	587	0	0	650	0	0
V/C Ratio(X)	0.31	0.00	0.00	0.42	0.00	0.00	0.50	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	835	0	0	878	0	0	587	0	0	650	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.0	0.0	0.0	11.8	0.0	0.0	15.2	0.0	0.0	15.1	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	1.5	0.0	0.0	3.0	0.0	0.0	2.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	3.5	0.0	0.0	3.5	0.0	0.0	3.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.0	0.0	0.0	13.2	0.0	0.0	18.2	0.0	0.0	17.3	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		260			366			292			294	
Approach Delay, s/veh		12.0			13.2			18.2			17.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	35.0	30.0	35.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	30.0	25.0	30.0	25.0
Max Q Clear Time (g_c+I1), s	7.8	11.9	10.7	11.0
Green Ext Time (p_c), s	1.0	1.1	1.5	1.0

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	24	212	249	26	7	14
Future Volume (vph)	24	212	249	26	7	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	8	12
Grade (%)		1%	1%		-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.987		0.912	
Flt Protected		0.995			0.983	
Satd. Flow (prot)	0	1844	1829	0	1483	0
Flt Permitted		0.995			0.983	
Satd. Flow (perm)	0	1844	1829	0	1483	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		315	242		417	
Travel Time (s)		7.2	5.5		9.5	
Confl. Peds. (#/hr)	113			104	104	113
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Parking (#/hr)				0		0
Adj. Flow (vph)	26	228	268	28	8	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	254	296	0	23	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		8	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.16	0.97
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.9

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	24	212	249	26	7	14
Future Vol, veh/h	24	212	249	26	7	14
Conflicting Peds, #/hr	113	0	0	104	104	113
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	1	-	-5	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	228	268	28	8	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	409	0	-	0	779	508
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	384	-
Critical Hdwy	4.12	-	-	-	5.42	5.72
Critical Hdwy Stg 1	-	-	-	-	4.42	-
Critical Hdwy Stg 2	-	-	-	-	4.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1150	-	-	-	452	606
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	766	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1067	-	-	-	378	502
Mov Cap-2 Maneuver	-	-	-	-	378	-
Stage 1	-	-	-	-	685	-
Stage 2	-	-	-	-	711	-

Approach	SE	NW	SW
HCM Control Delay, s	0.9	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1067	-	453
HCM Lane V/C Ratio	-	-	0.024	-	0.05
HCM Control Delay (s)	-	-	8.5	0	13.4
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.2

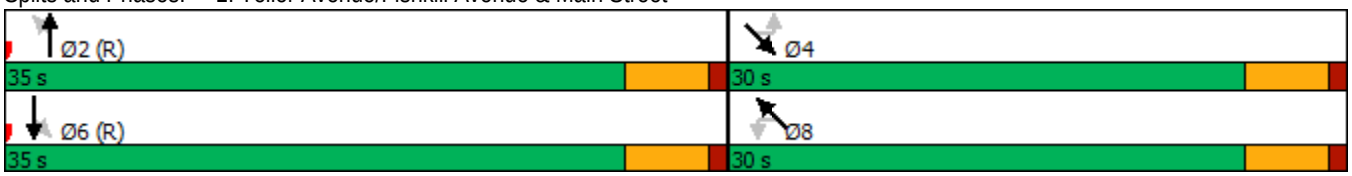
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	33	161	29	18	166	81	47	64	15	24	127	25
Future Volume (vph)	33	161	29	18	166	81	47	64	15	24	127	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	15	12	12	8	12	12	8	12
Grade (%)		3%			-1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99			0.98			0.99	
Frt		0.982			0.959			0.984			0.981	
Flt Protected		0.993			0.997			0.982			0.993	
Satd. Flow (prot)	0	1951	0	0	1924	0	0	1369	0	0	1411	0
Flt Permitted		0.923			0.973			0.843			0.953	
Satd. Flow (perm)	0	1810	0	0	1876	0	0	1161	0	0	1351	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		179			231			204			315	
Travel Time (s)		4.1			5.3			4.6			7.2	
Confl. Peds. (#/hr)	11		7	7		11	31		14	14		31
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	10%	5%	4%	2%	4%	2%	2%	4%	7%	5%	2%	2%
Parking (#/hr)								0			0	
Adj. Flow (vph)	38	183	33	20	189	92	53	73	17	27	144	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	254	0	0	301	0	0	143	0	0	199	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.02	0.86	1.02	0.99	0.88	0.99	1.01	1.38	1.01	0.99	1.35	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	53.8%	53.8%		53.8%	53.8%		46.2%	46.2%		46.2%	46.2%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Pedestrian Calls (#/hr)	9	9		9	9		22	22		22	22	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio		0.30			0.35			0.32			0.38	
Control Delay		12.2			12.7			16.6			17.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.2			12.7			16.6			17.2	
Queue Length 50th (ft)		60			72			39			55	
Queue Length 95th (ft)		102			119			77			102	
Internal Link Dist (ft)		99			151			124			235	
Turn Bay Length (ft)												
Base Capacity (vph)		835			865			446			519	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.30			0.35			0.32			0.38	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 55
Control Type: Pretimed

Splits and Phases: 1: Teller Avenue/Fishkill Avenue & Main Street



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	33	161	29	18	166	81	47	64	15	24	127	25
Future Volume (veh/h)	33	161	29	18	166	81	47	64	15	24	127	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	0.97		0.96	0.97		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1773	1844	1773	1879	1954	1879	1835	1761	1835	1949	1871	1949
Adj Flow Rate, veh/h	38	183	33	20	189	92	53	73	17	27	144	28
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	5	5	5	4	4	4	4	4	4	2	2	2
Cap, veh/h	137	604	101	83	558	256	253	323	67	114	528	95
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	159	1309	219	51	1210	555	460	839	175	132	1372	246
Grp Volume(v), veh/h	254	0	0	301	0	0	143	0	0	199	0	0
Grp Sat Flow(s),veh/h/ln	1687	0	0	1815	0	0	1475	0	0	1751	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.8	0.0	0.0	6.8	0.0	0.0	3.6	0.0	0.0	4.9	0.0	0.0
Prop In Lane	0.15		0.13	0.07		0.31	0.37		0.12	0.14		0.14
Lane Grp Cap(c), veh/h	842	0	0	897	0	0	643	0	0	736	0	0
V/C Ratio(X)	0.30	0.00	0.00	0.34	0.00	0.00	0.22	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	842	0	0	897	0	0	643	0	0	736	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.0	0.0	0.0	11.3	0.0	0.0	13.4	0.0	0.0	13.8	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.0	0.0	0.0	0.8	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	2.7	0.0	0.0	1.4	0.0	0.0	2.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.9	0.0	0.0	12.3	0.0	0.0	14.2	0.0	0.0	14.7	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		254			301			143			199	
Approach Delay, s/veh		11.9			12.3			14.2			14.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.0		30.0		35.0		30.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		25.0		30.0		25.0				
Max Q Clear Time (g_c+I1), s		7.8		5.6		8.8		6.9				
Green Ext Time (p_c), s		1.0		0.5		1.2		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			13.0									
HCM 6th LOS			B									

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	23	84	151	15	5	7
Future Volume (vph)	23	84	151	15	5	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	8	12
Grade (%)		1%	1%		-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.988		0.917	
Flt Protected		0.989			0.981	
Satd. Flow (prot)	0	1800	1831	0	1489	0
Flt Permitted		0.989			0.981	
Satd. Flow (perm)	0	1800	1831	0	1489	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		315	242		417	
Travel Time (s)		7.2	5.5		9.5	
Confl. Peds. (#/hr)	34			29	29	34
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	7%	3%	2%	2%	2%	2%
Parking (#/hr)				0		0
Adj. Flow (vph)	25	92	166	16	5	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	117	182	0	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		8	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.16	0.97
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.1

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	23	84	151	15	5	7
Future Vol, veh/h	23	84	151	15	5	7
Conflicting Peds, #/hr	34	0	0	29	29	34
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	1	-	-5	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	7	3	2	2	2	2
Mvmt Flow	25	92	166	16	5	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	216	0	-	0	379	242
Stage 1	-	-	-	-	208	-
Stage 2	-	-	-	-	171	-
Critical Hdwy	4.17	-	-	-	5.42	5.72
Critical Hdwy Stg 1	-	-	-	-	4.42	-
Critical Hdwy Stg 2	-	-	-	-	4.42	-
Follow-up Hdwy	2.263	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1325	-	-	-	692	824
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	901	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1296	-	-	-	648	780
Mov Cap-2 Maneuver	-	-	-	-	648	-
Stage 1	-	-	-	-	839	-
Stage 2	-	-	-	-	881	-

Approach	SE	NW	SW
HCM Control Delay, s	1.7	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1296	-	719
HCM Lane V/C Ratio	-	-	0.02	-	0.018
HCM Control Delay (s)	-	-	7.8	0	10.1
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.1

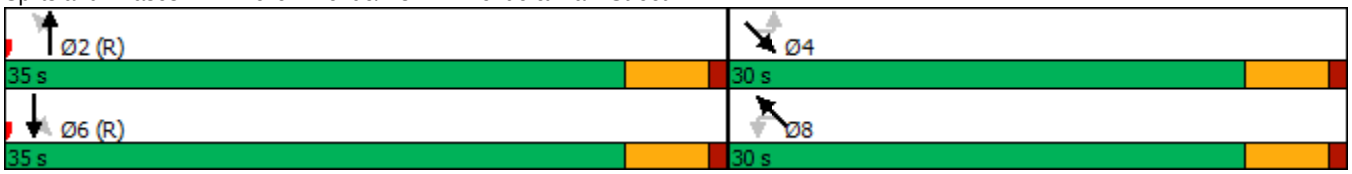
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	31	195	24	28	186	85	61	151	31	42	168	41
Future Volume (vph)	31	195	24	28	186	85	61	151	31	42	168	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	15	12	12	8	12	12	8	12
Grade (%)		3%			-1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99			0.98			0.98	
Frt		0.987			0.962			0.983			0.978	
Flt Protected		0.994			0.995			0.988			0.992	
Satd. Flow (prot)	0	1969	0	0	1929	0	0	1545	0	0	1549	0
Flt Permitted		0.936			0.958			0.863			0.915	
Satd. Flow (perm)	0	1852	0	0	1856	0	0	1330	0	0	1420	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		179			231			204			315	
Travel Time (s)		4.1			5.3			4.6			7.2	
Confl. Peds. (#/hr)	9		7	7		9	61		39	39		61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	6%	5%	2%	4%	2%	2%	2%	2%	3%	2%	3%
Parking (#/hr)									0			0
Adj. Flow (vph)	33	205	25	29	196	89	64	159	33	44	177	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	263	0	0	314	0	0	256	0	0	264	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.02	0.86	1.02	0.99	0.88	0.99	1.01	1.21	1.01	0.99	1.19	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	53.8%	53.8%		53.8%	53.8%		46.2%	46.2%		46.2%	46.2%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Pedestrian Calls (#/hr)	8	8		8	8		50	50		50	50	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio		0.31			0.37			0.50			0.48	
Control Delay		12.3			12.9			19.5			18.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.3			12.9			19.5			18.8	
Queue Length 50th (ft)		62			76			75			77	
Queue Length 95th (ft)		108			130			139			139	
Internal Link Dist (ft)		99			151			124			235	
Turn Bay Length (ft)												
Base Capacity (vph)		854			856			511			546	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.31			0.37			0.50			0.48	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 55
Control Type: Pretimed

Splits and Phases: 1: Teller Avenue/Fishkill Avenue & Main Street



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	31	195	24	28	186	85	61	151	31	42	168	41
Future Volume (veh/h)	31	195	24	28	186	85	61	151	31	42	168	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	0.95		0.92	0.95		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1758	1828	1758	1879	1954	1879	1864	1790	1864	1949	1871	1949
Adj Flow Rate, veh/h	33	205	25	29	196	89	64	159	33	44	177	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	4	4	4	2	2	2	2	2	2
Cap, veh/h	119	656	75	98	559	236	169	370	70	125	427	95
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	124	1422	162	82	1212	512	260	963	181	156	1111	246
Grp Volume(v), veh/h	263	0	0	314	0	0	256	0	0	264	0	0
Grp Sat Flow(s),veh/h/ln	1708	0	0	1805	0	0	1404	0	0	1513	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.0	0.0	0.0	7.1	0.0	0.0	7.9	0.0	0.0	7.8	0.0	0.0
Prop In Lane	0.13		0.10	0.09		0.28	0.25		0.13	0.17		0.16
Lane Grp Cap(c), veh/h	851	0	0	893	0	0	609	0	0	647	0	0
V/C Ratio(X)	0.31	0.00	0.00	0.35	0.00	0.00	0.42	0.00	0.00	0.41	0.00	0.00
Avail Cap(c_a), veh/h	851	0	0	893	0	0	609	0	0	647	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.0	0.0	0.0	11.3	0.0	0.0	14.7	0.0	0.0	14.7	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.1	0.0	0.0	2.1	0.0	0.0	1.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	2.9	0.0	0.0	2.9	0.0	0.0	2.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.0	0.0	0.0	12.4	0.0	0.0	16.9	0.0	0.0	16.6	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		263			314			256			264	
Approach Delay, s/veh		12.0			12.4			16.9			16.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.0		30.0		35.0		30.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		25.0		30.0		25.0				
Max Q Clear Time (g_c+I1), s		8.0		9.9		9.1		9.8				
Green Ext Time (p_c), s		1.0		0.9		1.3		0.9				

Intersection Summary												
HCM 6th Ctrl Delay			14.4									
HCM 6th LOS			B									

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	33	178	202	12	8	23
Future Volume (vph)	33	178	202	12	8	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	8	12
Grade (%)		1%	1%		-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.992		0.900	
Flt Protected		0.992			0.987	
Satd. Flow (prot)	0	1839	1839	0	1470	0
Flt Permitted		0.992			0.987	
Satd. Flow (perm)	0	1839	1839	0	1470	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		315	242		417	
Travel Time (s)		7.2	5.5		9.5	
Confl. Peds. (#/hr)	57			48	48	57
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Parking (#/hr)				0		0
Adj. Flow (vph)	38	202	230	14	9	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	240	244	0	35	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		8	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.16	0.97
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.4

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	33	178	202	12	8	23
Future Vol, veh/h	33	178	202	12	8	23
Conflicting Peds, #/hr	57	0	0	48	48	57
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	1	-	-5	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	202	230	14	9	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	301	0	-	0	620	351
Stage 1	-	-	-	-	294	-
Stage 2	-	-	-	-	326	-
Critical Hdwy	4.12	-	-	-	5.42	5.72
Critical Hdwy Stg 1	-	-	-	-	4.42	-
Critical Hdwy Stg 2	-	-	-	-	4.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1260	-	-	-	536	727
Stage 1	-	-	-	-	821	-
Stage 2	-	-	-	-	801	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1214	-	-	-	481	663
Mov Cap-2 Maneuver	-	-	-	-	481	-
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	772	-

Approach	SE	NW	SW
HCM Control Delay, s	1.3	0	11.3
HCM LOS			B

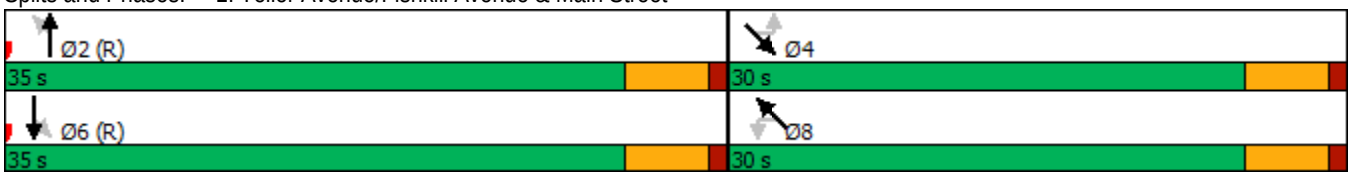
Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1214	-	604
HCM Lane V/C Ratio	-	-	0.031	-	0.058
HCM Control Delay (s)	-	-	8.1	0	11.3
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.2

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	46	161	40	42	174	129	85	157	35	37	205	41
Future Volume (vph)	46	161	40	42	174	129	85	157	35	37	205	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	12	12	15	12	12	8	12	12	8	12
Grade (%)		3%			-1%			1%			-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.98			0.96			0.97	
Frt		0.978			0.950			0.983			0.980	
Flt Protected		0.991			0.994			0.985			0.994	
Satd. Flow (prot)	0	2002	0	0	1904	0	0	1528	0	0	1538	0
Flt Permitted		0.886			0.937			0.822			0.929	
Satd. Flow (perm)	0	1783	0	0	1791	0	0	1240	0	0	1424	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		179			231			204			315	
Travel Time (s)		4.1			5.3			4.6			7.2	
Confl. Peds. (#/hr)	25		15	15		25	106		83	83		106
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	7%	2%	2%
Parking (#/hr)									0			0
Adj. Flow (vph)	49	171	43	45	185	137	90	167	37	39	218	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	263	0	0	367	0	0	294	0	0	301	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.02	0.86	1.02	0.99	0.88	0.99	1.01	1.21	1.01	0.99	1.19	0.99
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	53.8%	53.8%		53.8%	53.8%		46.2%	46.2%		46.2%	46.2%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0		15.0	15.0		15.0	15.0	
Pedestrian Calls (#/hr)	20	20		20	20		55	55		55	55	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
v/c Ratio		0.32			0.44			0.62			0.55	
Control Delay		12.4			14.0			23.0			20.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		12.4			14.0			23.0			20.3	
Queue Length 50th (ft)		62			93			91			90	
Queue Length 95th (ft)		109			156			169			162	
Internal Link Dist (ft)		99			151			124			235	
Turn Bay Length (ft)												
Base Capacity (vph)		822			826			476			547	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.32			0.44			0.62			0.55	

Intersection Summary	
Area Type:	Other
Cycle Length: 65	
Actuated Cycle Length: 65	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Pretimed	

Splits and Phases: 1: Teller Avenue/Fishkill Avenue & Main Street



Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	46	161	40	42	174	129	85	157	35	37	205	41
Future Volume (veh/h)	46	161	40	42	174	129	85	157	35	37	205	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.97	0.93		0.86	0.93		0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1817	1890	1817	1909	1986	1909	1864	1790	1864	1949	1871	1949
Adj Flow Rate, veh/h	49	171	43	45	185	137	90	167	37	39	218	44
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	544	126	120	453	304	197	324	65	105	458	86
Arrive On Green	0.46	0.46	0.46	0.46	0.46	0.46	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	216	1178	272	126	981	659	324	844	168	110	1190	223
Grp Volume(v), veh/h	263	0	0	367	0	0	294	0	0	301	0	0
Grp Sat Flow(s),veh/h/ln	1666	0	0	1766	0	0	1336	0	0	1523	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.9	0.0	0.0	8.7	0.0	0.0	10.0	0.0	0.0	9.3	0.0	0.0
Prop In Lane	0.19		0.16	0.12		0.37	0.31		0.13	0.13		0.15
Lane Grp Cap(c), veh/h	835	0	0	877	0	0	586	0	0	648	0	0
V/C Ratio(X)	0.32	0.00	0.00	0.42	0.00	0.00	0.50	0.00	0.00	0.46	0.00	0.00
Avail Cap(c_a), veh/h	835	0	0	877	0	0	586	0	0	648	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.0	0.0	0.0	11.8	0.0	0.0	15.3	0.0	0.0	15.2	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	1.5	0.0	0.0	3.0	0.0	0.0	2.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0	3.5	0.0	0.0	3.5	0.0	0.0	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.0	0.0	0.0	13.2	0.0	0.0	18.3	0.0	0.0	17.5	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		263			367			294			301	
Approach Delay, s/veh		12.0			13.2			18.3			17.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.0		30.0		35.0		30.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		30.0		25.0		30.0		25.0				
Max Q Clear Time (g_c+I1), s		7.9		12.0		10.7		11.3				
Green Ext Time (p_c), s		1.1		1.1		1.5		1.0				

Intersection Summary												
HCM 6th Ctrl Delay			15.3									
HCM 6th LOS			B									

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	29	212	249	29	9	19
Future Volume (vph)	29	212	249	29	9	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	8	12
Grade (%)		1%	1%		-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.986		0.910	
Flt Protected		0.994			0.984	
Satd. Flow (prot)	0	1842	1827	0	1482	0
Flt Permitted		0.994			0.984	
Satd. Flow (perm)	0	1842	1827	0	1482	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		315	242		417	
Travel Time (s)		7.2	5.5		9.5	
Confl. Peds. (#/hr)	113			104	104	113
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Parking (#/hr)				0		0
Adj. Flow (vph)	31	228	268	31	10	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	259	299	0	30	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		8	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	1.01	1.01	1.16	0.97
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.1

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	29	212	249	29	9	19
Future Vol, veh/h	29	212	249	29	9	19
Conflicting Peds, #/hr	113	0	0	104	104	113
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	1	-	-5	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	31	228	268	31	10	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	412	0	-	0	791	510
Stage 1	-	-	-	-	397	-
Stage 2	-	-	-	-	394	-
Critical Hdwy	4.12	-	-	-	5.42	5.72
Critical Hdwy Stg 1	-	-	-	-	4.42	-
Critical Hdwy Stg 2	-	-	-	-	4.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1147	-	-	-	447	605
Stage 1	-	-	-	-	758	-
Stage 2	-	-	-	-	760	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1065	-	-	-	372	501
Mov Cap-2 Maneuver	-	-	-	-	372	-
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	705	-

Approach	SE	NW	SW
HCM Control Delay, s	1	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1065	-	451
HCM Lane V/C Ratio	-	-	0.029	-	0.067
HCM Control Delay (s)	-	-	8.5	0	13.6
HCM Lane LOS	-	-	A	A	B
HCM 95th %tile Q(veh)	-	-	0.1	-	0.2

2013-09

City of Beacon
Zoning Board of Appeals

RESOLUTION

By Member: **Vakirtzis**

WHEREAS **DTE Diversified Interests, LLC (property owned by FIR Properties)**

has applied to the Zoning Board of Appeals for an AREA variance on the following property:

Address: **416 Main Street**

Zoning District **CB and R1-5**

Variance Requested: **Relief from Section 223.26(F) to provide 6 off-street parking spaces where 36 are required**

(Tax ID #30-6054-29-056780-00)

WHEREAS, the Board conducted a public hearing on **April 16, 2013** at which time all persons wishing to support or object to the application were given the opportunity to speak, and

WHEREAS, the Board reviewed the application taking into consideration the benefit to the applicant if the variance is granted, as weighed against the detriment to the health, safety and welfare of the neighborhood and found:

1. An undesirable change **will not** be produced in the character of the neighborhood or a detriment to nearby properties **will not** be created by the granting of the variance; and

2. The benefit **cannot** be achieved by some method feasible for the applicant, other than the variance; and

3. The requested variance **is not** substantial; and

4. The proposed variance **will not** have an adverse effect or impact on the physical or environmental condition of the neighborhood; and

5. The difficulty **was not** self-created;

RESOLVED, that the Zoning Board of Appeals has determined that the proposed action **will not** have a significant impact on the environment, and be it further

RESOLVED, that the requested variance be **granted.**

Seconded by Member **Haug**

Vote:	YES	NO	ABSTAIN
Chairman Dunne	X		
Member Kish	X		
Member Haug	X		
Member Vakirtzis	X		
Member Smith	X		
Member Sullivan	X		
Member Heron	X		

ARYEH SIEGEL
ARCHITECT

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

Re: 416-420 Main STreet, Beacon, New York
Site Plan Application – Responses to Comments

June 30, 2020

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 May, 2020, and Lanc & Tully's letter dated May 8, 2020. Please find additional responses in Hudson Land Design's separate letter

John Clarke Planning and Design Comment Responses:

1. The Schedule of Regulations will be updated.

2. For Sheet 1 – Site Plan:
    a The CMS Zoning Table has been corrected
    b The PB Zoning Table has been eliminated because the City Council created the T District.
    c The size of the Live Work building has been reduced, and the side yard now complies with zoning, eliminated the need for a variance
    d The square foot areas have been revised in the Parking Table
    e The Applicant proposes to provide parking for the residential uses, and requests a waiver for the commercial parking. It's the Applicant's intent to maximize green space on the property
    f The bike racks have been relocated to avoid interference with vehicle traffic
    g The Applicant proposes to provide a new, updated planter to replace the existing dated and damaged one.

3. For Sheet 3 Landscaping
    a A Landscape Schedule will be provided in a future submission.

4. For Sheet 4 and 5 – Building Plans

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

a The proposed partial 4th floor requires a special permit from the City Council. The tower has been eliminated.
b Additional detail for the elevations have been provided.
c Comment acknowledged. Once the Board is in general agreement about the design approach, the project will be referred to the ARB Subcommittee.

5. The plans will address how trash is handled.

6. Comment acknowledged. The Applicant will review the plans for Schenck Avenue with the Board.

Lanc & Tully Comment Responses:

1. An application for subdivision approval will be submitted as required.

2. The Applicant will provide further information to the Board regarding the question of a lot for every building.

3. The rear portion is now in the T District, and the rear building has been reduced and is now compliant with the requirements of the T District.

4. Comment acknowledged.

5. The PB Zone has been eliminated. Therefore, that table has been removed from the drawing.

6. Sheet 1 of 10 shows the Zoning line between the CMS and T Districts.

7. The Zoning and Parking tables have been updated.

8. The Line/Symbol Legend on Sheet 3 has been enlarged for clarity

9. A Planting Schedule will be added in a future submission

10. Planting will be clarified in a future submission. The plantings along the property line with the adjoining Dacey parcel are existing to remain

11. Please refer to Hudson Land Design's comment response letter.

12. Please refer to Hudson Land Design's comment response letter.

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

Sincerely,

Aryeh Siegel
Aryeh Siegel, Architect

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

June 30, 2020

Hon. John Gunn, Chairman
City of Beacon Planning Board
1 Municipal Plaza
Beacon, NY 12508

Re: 416-420 Main Street Subdivision, Site Plan and Special Use Permit
416-420 Main Street
Tax parcels: 6054-29-056780, ±0.18 ac. (416 Main Street)
6054-29-056774, ±0.07 ac. (418-420 Main Street)
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 John Clark Planning and Design's May 8, 2020 comment letter and Lanc & Tully's May 8, 2020 comment letter. Below is a point-by-point response to the comments received. Please note that Aryeh Siegel has prepared Sheets 1 through 5 of the plan set and has responded to certain comments that pertain his sheets under separate cover.

John Clarke Planning and Design May 8, 2020 Comment Letter

1. The City Council adopted the change from PB to the new Transitional Zoning District in the rear of the property at their June 15, 2020 meeting. The bulk table has been updated with this information.
2. Aryeh Siegel has responded to this comment.
3. Aryeh Siegel has responded to this comment.
4. Aryeh Siegel has responded to this comment.
5. Handling of trash is still being thought out and will be provided in a future submission.
6. Comment noted. The Applicant will further discuss parking arrangements with the board.

Lanc & Tully May 8, 2020 Comment Letter

1. A subdivision application will be submitted under separate cover in a future submission.
2. The Applicant's attorney will provide further information in support of our proposal for more than one building per lot at the planning board meeting.
3. Comment noted. The City Council adopted the change from PB to Transitional (T) in the rear of the parcel at their June 15, 2020 meeting. The Applicant's attorney will provide information in support of our proposal in compliance with the T district regulations at the planning board meeting.
4. Aryeh Siegel has responded to this comment.
5. Aryeh Siegel has responded to this comment.
6. Aryeh Siegel has responded to this comment.
7. Aryeh Siegel has responded to this comment.
8. Aryeh Siegel has responded to this comment.
9. Aryeh Siegel has responded to this comment.
10. Aryeh Siegel has responded to this comment.
11. The size and material of the water mains within Schenck Avenue have been added to the plans.
12. The utility profile on Sheet 8 of 10 has been updated to include water and sewer mains that the proposed storm line crosses.

Enclosed electronically for your continued review is the following:

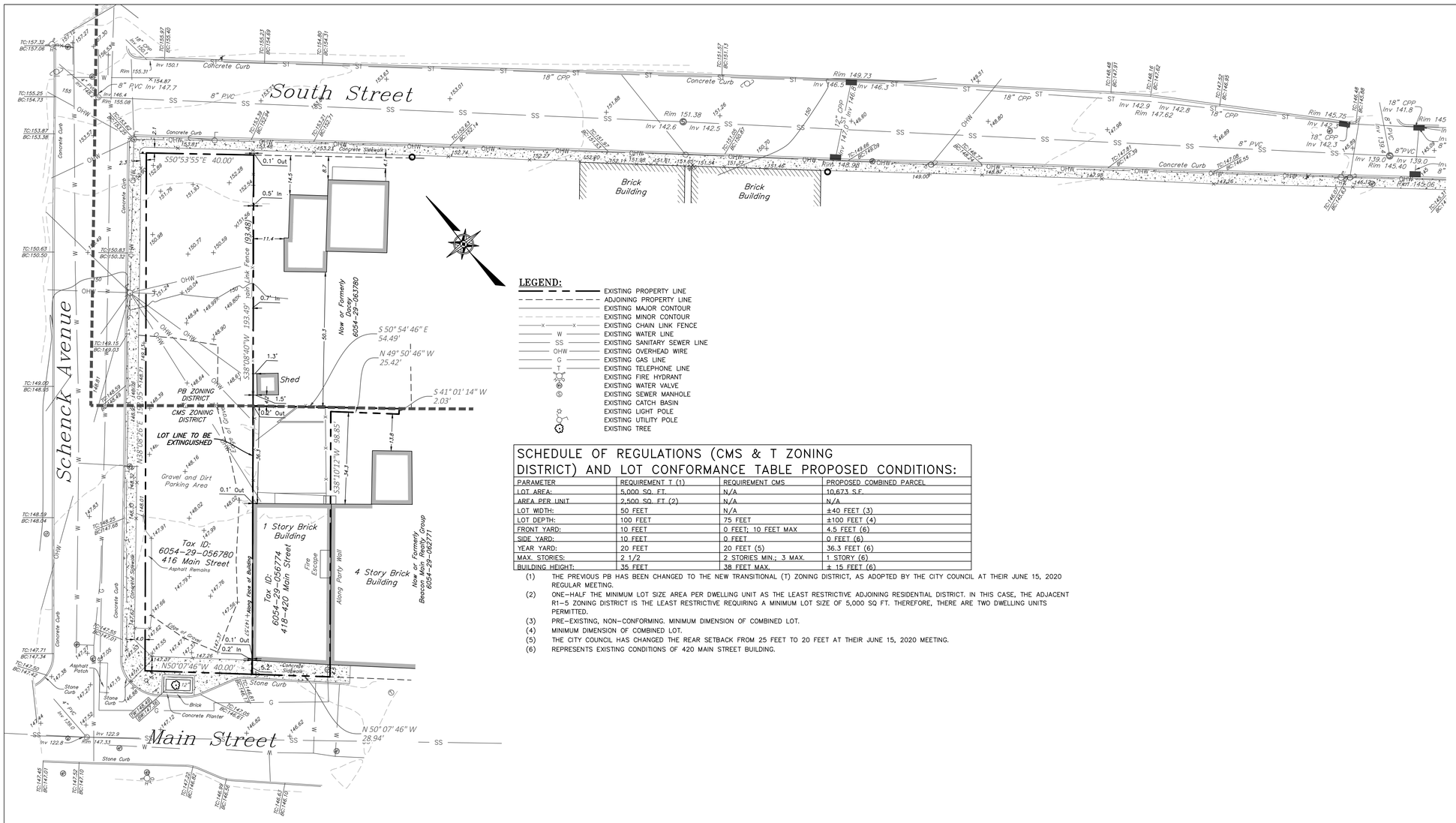
- Preliminary Subdivision Plat Sheet 1 of 1 (1 copy), and
- Site Plan set consisting of 10 sheets (1 copy).

Please note that HLD has prepared Sheets 6 through 10 of the site plan set, and Aryeh Siegel has prepare Sheets 1 through 5. We look forward to discussing this project at your next available 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: 416 Main Street Beacon, LLC & 420 Main Street Beacon, LLC
Taylor Palmer, Esq.
Aryeh Siegel, AIA
Daniel G. Koehler, P.E. (HLD file)



SITE LOCATION MAP SCALE: 1" = 400'

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING CHAIN LINK FENCE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING OVERHEAD WIRE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING SEWER MANHOLE
- EXISTING CATCH BASIN
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING TREE

SCHEDULE OF REGULATIONS (CMS & T ZONING DISTRICT) AND LOT CONFORMANCE TABLE PROPOSED CONDITIONS:

PARAMETER	REQUIREMENT T (1)	REQUIREMENT CMS	PROPOSED COMBINED PARCEL
LOT AREA:	5,000 SQ. FT.	N/A	10,673 S.F.
AREA PER UNIT	2,500 SQ. FT (2)	N/A	N/A
LOT WIDTH:	50 FEET	N/A	±40 FEET (3)
LOT DEPTH:	100 FEET	75 FEET	±100 FEET (4)
FRONT YARD:	10 FEET	0 FEET; 10 FEET MAX	4.5 FEET (6)
SIDE YARD:	10 FEET	0 FEET	0 FEET (6)
YEAR YARD:	20 FEET	20 FEET (5)	36.3 FEET (6)
MAX. STORIES:	2 1/2	2 STORIES MIN.; 3 MAX.	1 STORY (6)
BUILDING HEIGHT:	35 FEET	38 FEET MAX.	± 15 FEET (6)

(1) THE PREVIOUS PB HAS BEEN CHANGED TO THE NEW TRANSITIONAL (T) ZONING DISTRICT, AS ADOPTED BY THE CITY COUNCIL AT THEIR JUNE 15, 2020 REGULAR MEETING.
(2) ONE-HALF THE MINIMUM LOT SIZE AREA PER DWELLING UNIT AS THE LEAST RESTRICTIVE ADJOINING RESIDENTIAL DISTRICT. IN THIS CASE, THE ADJACENT R1-5 ZONING DISTRICT IS THE LEAST RESTRICTIVE REQUIRING A MINIMUM LOT SIZE OF 5,000 SQ FT. THEREFORE, THERE ARE TWO DWELLING UNITS PERMITTED.
(3) PRE-EXISTING, NON-CONFORMING. MINIMUM DIMENSION OF COMBINED LOT.
(4) MINIMUM DIMENSION OF COMBINED LOT.
(5) THE CITY COUNCIL HAS CHANGED THE REAR SETBACK FROM 25 FEET TO 20 FEET AT THEIR JUNE 15, 2020 MEETING.
(6) REPRESENTS EXISTING CONDITIONS OF 420 MAIN STREET BUILDING.

PRELIMINARY SUBDIVISION PLAT

SCALE: 1"=20'

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

MAP REFERENCES:

1. EXISTING FEATURES AS SHOWN ON THIS PLAN PROVIDED BY A SURVEY COMPLETED IN DECEMBER 22, 2019, BY TEC LAND SURVEYING P.C..

SURVEY NOTES:

1. COPYRIGHT TEC LAND 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 ONE FOOT. ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD 88 USING NYSNET RTN GPS.

DEED REFERENCE

Doc. #02 2016 8895
DTE Diverified LLC
To
McDermott Properties
December 15, 2016

Doc. #02 2014 5391
Fir Properties, Inc.
To
EB 1 LLC
September 10, 2014

TAX PARCEL NUMBER

City of Beacon, Dutchess County, New York
6054-29-056774
6054-29-056780

AREA

6054-29-056744
2,947 Square Feet
0.068 Acres

6054-29-056780
7,726 Square Feet
0.177 Acre

DATE OF SURVEY

Field Completion: December 22, 2019

OWNERS

416 Main Street Beacon, LLC
420 Main Street, LLC D/B/A 420 Main Street Beacon, LLC

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.

DCDOH STANDARD NOTE:

FOR PERMISSION TO FILE

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 DATE

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	06/30/2020	PER PLANNING BOARD COMMENTS	MAB				

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.

_____ _____
TOM LEE DATE

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

PRELIMINARY SUBDIVISION PLAT

416 MAIN STREET

416-420 MAIN STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-056780 & 056774

JOB #: 2020:005
DATE: 4/28/2020
SCALE: 1" = 20'
TITLE: SUB-1
SHEET: 1 OF 1

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

Bulk Zoning Regulations Table - Main Building

	Required Setbacks			Proposed Setbacks			Main Street Frontage Required	Main Street Frontage Required	Minimum Lot Depth	Proposed Lot Depth	Allowable Building Height	Proposed Building Height	Lot Area	Proposed Floor Area
	Front	Side	Rear	Front	Side	Rear								
Zoning District														
CMS*	0'	0'	25'	6'-3" - 7'-3" **	0'	25'	100%	100%	75'	Varies: 105' - 192'-11"	3 | 38' & 4th Story w/ Special Permit	4 Stories ***	10,674 SF	11,715 SF

Lot 6054-29-056780 (416 Main Street) is located in both CMS & PB Zoning Districts
* Main Building lies within the CMS District
** Front setback varies along Main Street
*** Seeking special permit for 4th-Story w/ 15' Building stepback

Bulk Zoning Regulations Table - Live/Work Residence

	Required Setbacks			Proposed Setbacks			Lot Depth Required	Lot Depth Existing	Allowable Building Height	Proposed Building Height	Lot Area	Proposed Floor Area
	Front	Side	Rear	Front	Side	Rear						
Zoning District												
T*	10'	10'	20'	10'	10'/10'	146'	100'	192'-11"	2.5 | 35'	2 stories | 34'	10,674 SF	1,440 SF

Lot 6054-29-056780 (416 Main Street) is located in both CMS & T Zoning Districts
* Live/Work Residence lies within the T District.
** 10' side yard towards neighbor. 1' yard towards Schenck Ave.

Parking & Loading

Use & Parking Requirements	Proposed Area	Current Parking Requirement
Residential		
(1) space per unit (CMS)	(1) Apartments in Main Building	1 parking space
(2) spaces per dwelling unit	(1) Live/Work Residence	2 parking spaces

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	06/24/20	CITY COUNCIL PRESENTATION	AJS
2	06/30/20	REVISED PER PLANNING BOARD COMMENTS	AJS

Location Map

Scale: 1" = 400'

Site Plan

Scale: 1" = 20'

Zoning Summary

Zoning District:	CMS (Central Main Street) & T (Transition Zone)
Tax Map No.:	6054-29-056780 (416 Main Street) & 6054-29-056774 (418-420 Main Street)
Lot Area:	0.177 Acres & 0.068 Acres = 0.245 Acres Total
Building Footprint:	4,616 SF (Front Building) & 720 SF (Back Building) = 5,336 SF Total Footprint
Historical Overlay District:	Yes
Parking Overlay District:	Partial, not the portion of the lot in the T District where the Back Building will be located.
Existing Use:	Vacant (416 Main Street) & Commercial (Restaurant/Coffee House)
Proposed Use:	Mixed-Use: Retail/Office/Residential (Front Building) & Live Work Residential (Back Building)

Parking & Loading

Use & Parking Requirements	Proposed Area	Current Parking Requirement
Residential		
(1) space per unit (CMS)	(1) Apartments in Front Building	1 parking spaces
(2) spaces per dwelling unit	(1) Single Family Residence in Back Building	2 parking spaces
Commercial		
(2) spaces per 1,000 SF (CMS) for Retail	4,295 sf	8 parking spaces
(2) spaces per 1,000 SF (CMS) for Office	6,220 sf	12 parking spaces
Total Required		**23 parking spaces**
Total Provided		**4 parking spaces** See Note 1

Notes:

1. The Applicant proposes to provide 4 parking spaces for the residential uses and requests a waiver of the parking for commercial uses.
2. There are public parking lots within 800' of the property.
3. No signage is proposed as part of this application. Retail tenants will apply separately to the Planning Board for their own signage

Index of Drawings

Sheet 1 of 1	Subdivision Plat
Sheet 1 of 10	Site Plan
Sheet 2 of 10	Existing Conditions & Demolition Plan
Sheet 3 of 10	Landscape Plan & Planting Schedule
Sheet 4 of 10	Building Plans
Sheet 5 of 10	Building Elevations & Renderings
Sheet 6 of 10	Grading & Utility Plan
Sheet 7 of 10	Erosion and Sediment Control Plan
Sheet 8 of 10	Utility Profiles
Sheet 9 of 10	Construction Details
Sheet 10 of 10	Construction Details

Site Plan Application

Sheet 1 of 10 - Site Plan

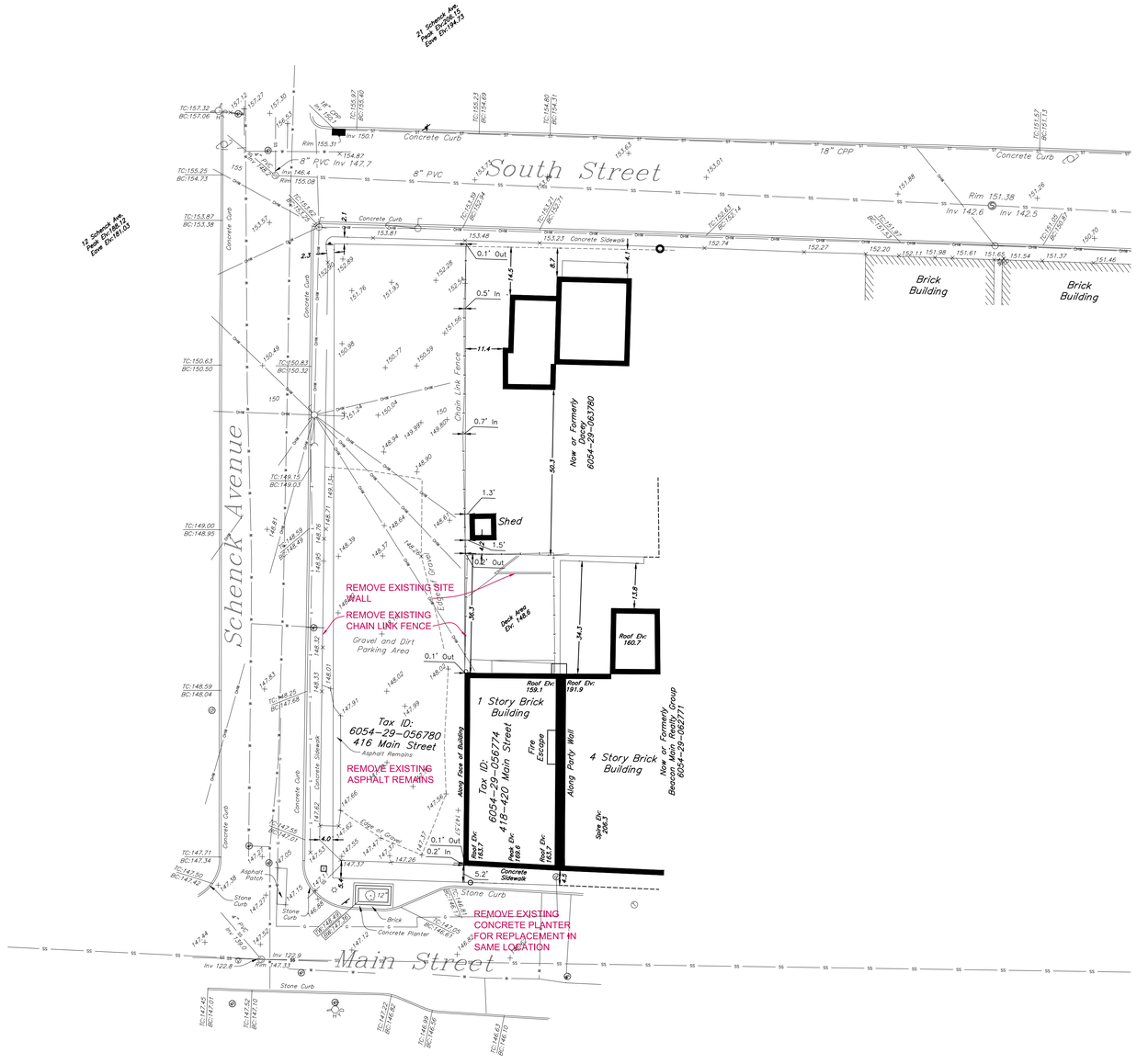
Owner:
416 Main Street Beacon, LLC and 420 Main St. Beacon, LLC
C/O Cuddy & Feder LLP
445 Hamilton Avenue
White Plains, NY 10601

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:
TEC Surveying
831 Route 52, Suite 2C
Fishkill, New York 12524

416-420 Main Street
Beacon, New York
Scale: 1/16" = 1'-0"
April 28, 2019



REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	06/24/20	CITY COUNCIL PRESENTATION	AJS
2	06/30/20	REVISED PER PLANNING BOARD COMMENTS	AJS

Existing Conditions & Demolition Plan

Scale: 1" = 20'

Site Plan Application

Sheet 2 of 10 -Existing Conditions & Demolition Plan

Owner:
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POLE MOUNTED LIGHT (L1)

SELUX LIGHTING "BETA PENDANT" POLE MOUNTED 100W FIXTURE. MODEL #BPC-L-R2-1-H100-BK-120-HS-PC WITH LOW GLARE CUTOFF SHIELD. COLOR: BLACK. PHOTOCELL CONTROL. OR APPROVED EQUAL. MOUNTING HEIGHT ON A35 SERIES BLACK ALUMINUM POLE = 12 FEET

NOTE: AS AN ALTERNATE, THE OWNER MAY INSTALL EQUIVALENT WATTAGE LED FIXTURES CONFORMING TO THE COLOR TEMPERATURES SPECIFIED IN THE CITY OF BEACON ZONING CODE IN PLACE OF THE INCANDESCENT FIXTURES SHOWN. LED LIGHTING WILL MEET THE SAME SPECIFICATIONS FOR LOW GLARE CUT OFF CONTROLS, EITHER BY SHIELDING OR INTERNAL CONTROLS.

WALL MOUNTED HOUSE LIGHT (L2)

BARNLIGHT ELECTRIC WALL MOUNTED FIXTURE. MODEL "WESCO GOOSENECK", 100W, COLOR: DARK GREEN METAL SHADE, OR APPROVED EQUAL. MOUNTING HEIGHT = 7 FEET.

NOTE THAT THE MANUFACTURER DOES NOT PROVIDE FOOTCANDLE DIAGRAMS FOR THIS FIXTURE. THE FIXTURE IS SHADED AND DOES NOT EMIT GLARE

LIGHTING NOTES:

ALL EXTERIOR LIGHTING ON THE SITE SHALL CONFORM TO BEACON ZONING CODE SECTION 223-14B: EXTERIOR LIGHTING. ALL EXTERIOR LIGHTING ACCESSORY TO A RESIDENTIAL, INDUSTRIAL, MULTIFAMILY OR NONRESIDENTIAL USE, INCLUDING THE LIGHTING OF SIGNS, SHALL BE SUBJECT TO THE FOLLOWING STANDARDS: [AMENDED 12-9-2019 BY L.L. NO. 11-2019]

(1) 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.

(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.

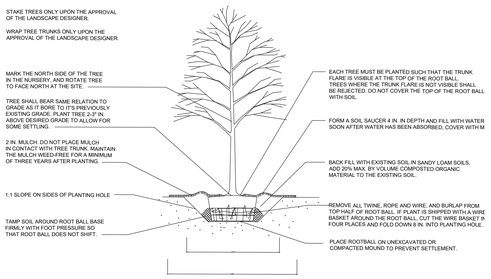
HATCHING & LANDSCAPE LEGEND

- CONCRETE SIDEWALK
- ASPHALT PAVING
- GRAVEL PATH (STEEL EDGING)
- CONSERVATION BUFFER – WEST
- CONSERVATION BUFFER – EAST
- WETLAND RESTORATION AREA
- NATIVE MEADOW
- INDIAN SWITCHGRASS (G-PV)
- CUSTOM GRASS MIX – (ERNMX-CUS1)
- SEDGE (G-CP)
- EVERGREEN SHRUB (S-IG)
- BIO-RETENTION AREA MIX
- PROPOSED NEW ORNAMENTAL NATIVE TREE (T-XX)
- PROPOSED NATIVE EVERGREEN
- EXISTING TREE TO REMAIN (WITH CALIPER)

DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

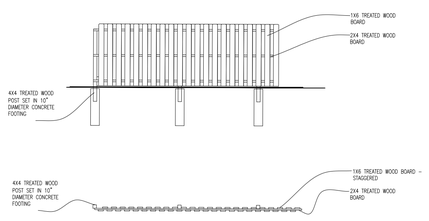
STAKE TREES ONLY UPON THE APPROVAL OF THE LANDSCAPE DESIGNER.

WRAP TREE TRUNKS ONLY UPON THE APPROVAL OF THE LANDSCAPE DESIGNER.



Tree Planting Detail

Scale: NTS



Shadowbox Fence Detail

Scale: NTS

Landscaping & Lighting Plan

Scale: 1" = 20'

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Site Plan Application

Sheet 3 of 10 - Landscaping & Lighting Plan

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445 Hamilton Avenue
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Architect:
Aryeh Siegel, Architect
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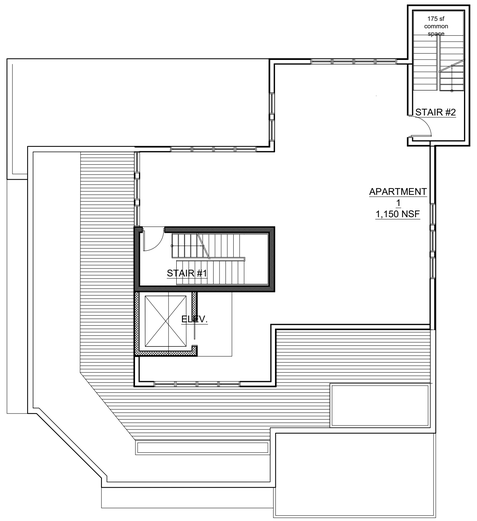

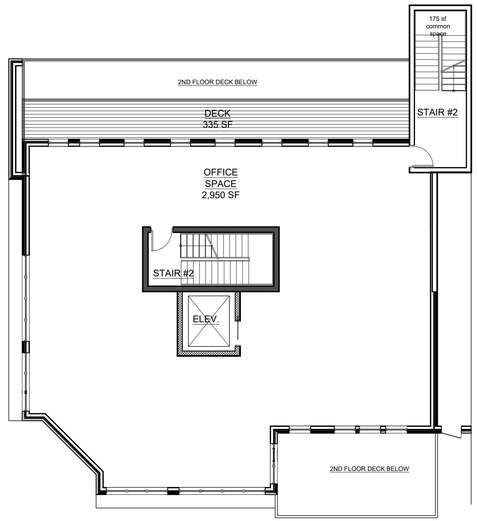

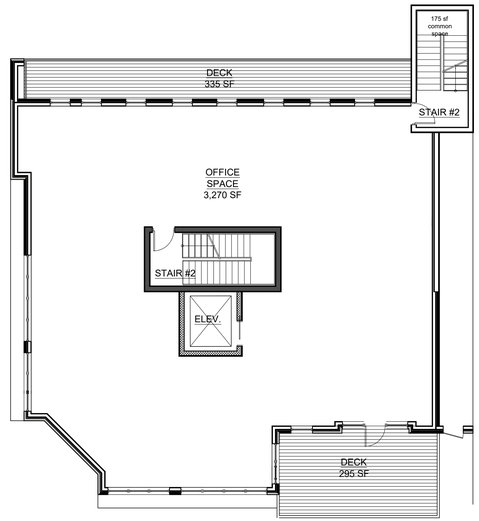

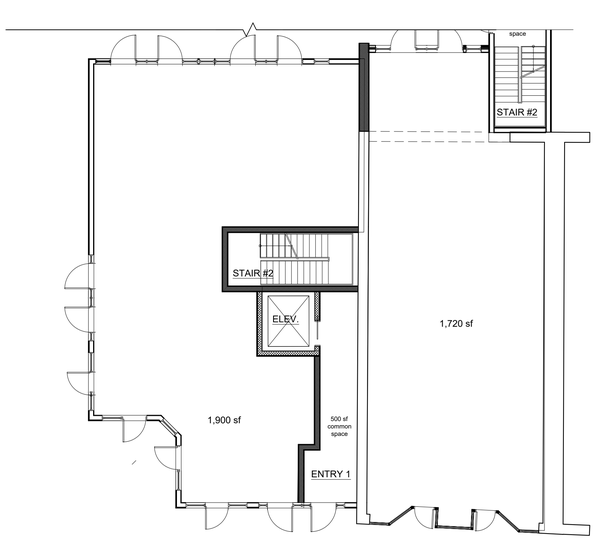

4th Floor Plan

3rd Floor Plan

2nd Floor Plan

1st Floor Plan

Main Building Floor Plans

Site Plan Application

Sheet 4 of 10 - Building Plans

Owner:
416 Main Street Beacon, LLC and 420 Main St. Beacon, LLC
C/O Cuddy & Feder LLP
445 Hamilton Avenue
White Plains, NY 10601

Architect:
Aryeh Siegel, Architect
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Beacon, New York 12508

Site / Civil Engineer:
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416-420 Main Street
Beacon, New York
Scale: $^{3}/_{32}$" = 1'-0"
April 28, 2019

ROOF:
STANDING SEAM METAL.
COLOR: ZINC

CORNICE:
PAINTED AZEK TRIM AND PAINTED FIBERGLASS CORBELS.

WINDOWS:
CASEMENT WINDOWS BY ANDERSEN OR APPROVED EQUAL. COLOR: BLACK

SIDING:
STANDING SEAM METAL TO MATCH ROOF AT 4TH FLOOR.

PAINTED WOOD AT CORNER TOWER

GLEN GARY 56DD BRICK AT EXTERIOR WALLS

CANOPY:
SHEET METAL. COLOR: BRICK RED

STOREFRONTS:
ALUMINUM & GLASS.
COLOR: GRAY

Elevations: Front

Scale: $\frac{1}{16}$" = 1'-0"

Elevations: Side

Scale: $\frac{1}{16}$" = 1'-0"

CORNICE:
PAINTED AZEK TRIM AND PAINTED FIBERGLASS CORBELS.

WINDOWS:
CASEMENT WINDOWS BY ANDERSEN OR APPROVED EQUAL. COLOR: BLACK

SIDING:
STANDING SEAM METAL TO MATCH ROOF AT 4TH FLOOR.

PAINTED WOOD AT CORNER TOWER

GLEN GARY 56DD BRICK AT EXTERIOR WALLS

CANOPY:
SHEET METAL. COLOR: BRICK RED

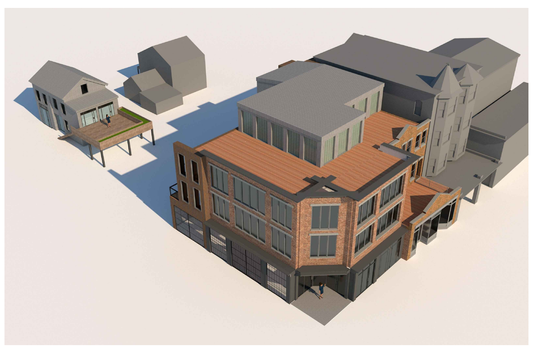
Elevations: Rear

Scale: $\frac{1}{16}$" = 1'-0"

View from Schenck Avenue

View from Main Street

View from Corner



Aerial View

View from Main Street

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Site Plan Application

Sheet 5 of 10 - Building Elevations & Renderings

Owner:
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445 Hamilton Avenue
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Architect:
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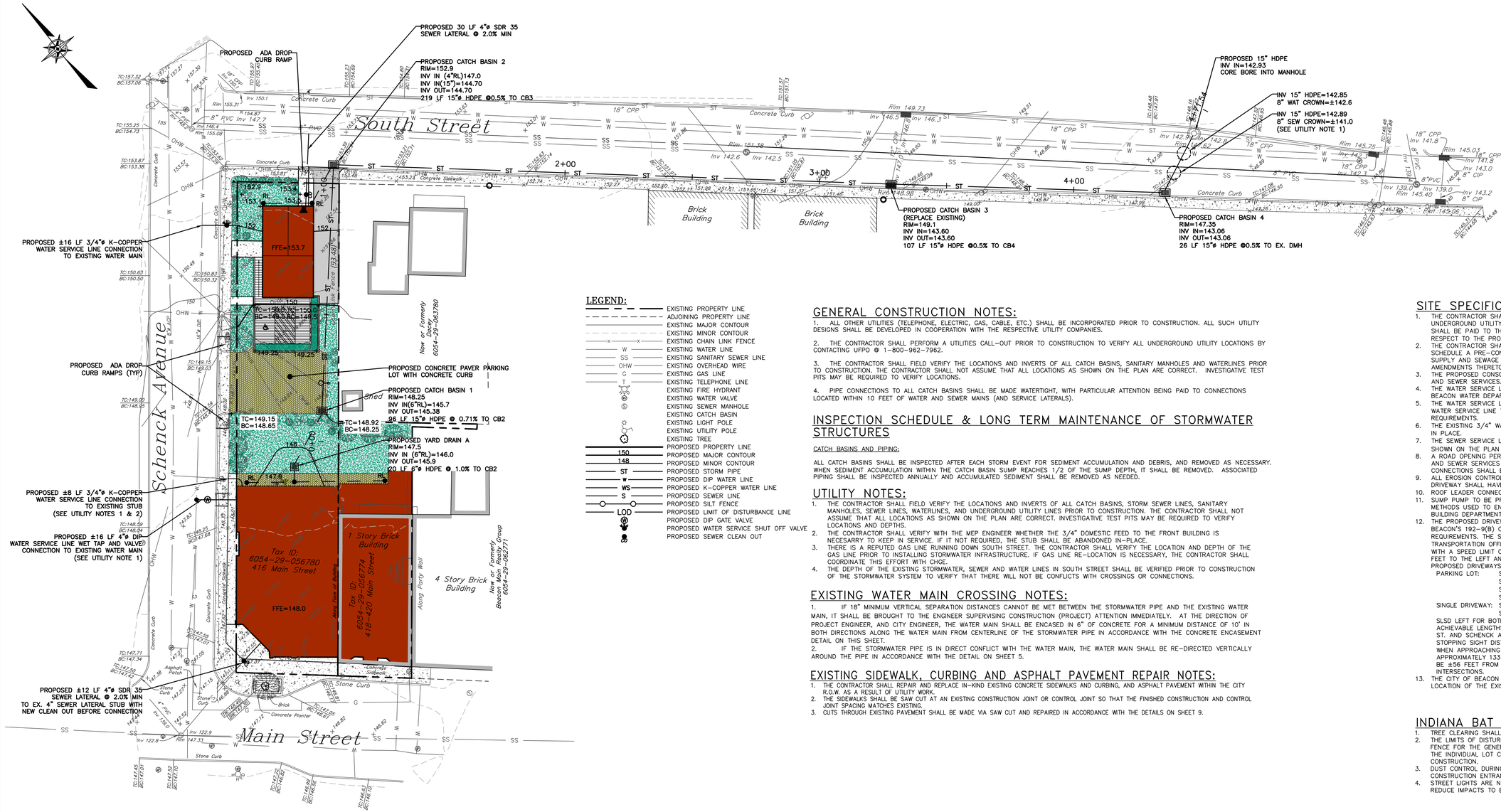


GRADING AND UTILITY PLAN

SCALE: 1"=20'

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING CHAIN LINK FENCE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING OVERHEAD WIRE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING SEWER MANHOLE
- EXISTING CATCH BASIN
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING TREE
- PROPOSED PROPERTY LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM PIPE
- PROPOSED DIP WATER LINE
- PROPOSED K-COPPER WATER LINE
- PROPOSED SEWER LINE
- PROPOSED SILT FENCE
- PROPOSED LIMIT OF DISTURBANCE LINE
- PROPOSED DIP GATE VALVE
- PROPOSED WATER SERVICE SHUT OFF VALVE
- PROPOSED SEWER CLEAN OUT

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, SANITARY MANHOLES AND WATERLINES 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 WATER AND SEWER MAINS (AND SERVICE LATERALS).

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 REMOVED 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.

UTILITY NOTES:

1. 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 AND DEPTHS.
2. THE CONTRACTOR SHALL VERIFY WITH THE MEP ENGINEER WHETHER THE 3/4" DOMESTIC FEED TO THE FRONT BUILDING IS NECESARRY TO KEEP IN SERVICE. IF IT NOT REQUIRED, THE STUB SHALL BE ABANDONED IN-PLACE.
3. THERE IS A REPUTED GAS LINE RUNNING DOWN SOUTH STREET. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE GAS LINE PRIOR TO INSTALLING STORMWATER INFRASTRUCTURE. IF GAS LINE RE-LOCATION IS NECESSARY, THE CONTRACTOR SHALL COORDINATE THIS EFFORT WITH CHGE.
4. THE DEPTH OF THE EXISTING STORMWATER, SEWER AND WATER LINES IN SOUTH STREET SHALL BE VERIFIED PRIOR TO CONSTRUCTION OF THE STORMWATER SYSTEM TO VERIFY THAT THERE WILL NOT BE CONFLICTS WITH CROSSINGS OR CONNECTIONS.

EXISTING WATER MAIN CROSSING NOTES:

1. IF 18" MINIMUM VERTICAL SEPARATION DISTANCES CANNOT BE MET BETWEEN THE STORMWATER PIPE AND THE EXISTING WATER MAIN, IT SHALL BE BROUGHT TO THE ENGINEER SUPERVISING CONSTRUCTION (PROJECT) ATTENTION IMMEDIATELY. AT THE DIRECTION OF PROJECT ENGINEER, AND CITY ENGINEER, THE WATER MAIN SHALL BE ENCASED IN 6" OF CONCRETE FOR A MINIMUM DISTANCE OF 10' IN BOTH DIRECTIONS ALONG THE WATER MAIN FROM CENTERLINE OF THE STORMWATER PIPE IN ACCORDANCE WITH THE CONCRETE ENCASEMENT DETAIL ON THIS SHEET.
2. IF THE STORMWATER PIPE IS IN DIRECT CONFLICT WITH THE WATER MAIN, THE WATER MAIN SHALL BE RE-DIRECTED VERTICALLY AROUND THE PIPE IN ACCORDANCE WITH THE DETAIL ON SHEET 5.

EXISTING SIDEWALK, CURBING AND ASPHALT PAVEMENT REPAIR NOTES:

1. THE CONTRACTOR SHALL REPAIR AND REPLACE IN-KIND EXISTING CONCRETE SIDEWALKS AND CURBING, AND ASPHALT PAVEMENT WITHIN THE CITY R.O.W. AS A RESULT OF UTILITY WORK.
2. THE SIDEWALKS SHALL BE SAW CUT AT AN EXISTING CONSTRUCTION JOINT OR CONTROL JOINT SO THAT THE FINISHED CONSTRUCTION AND CONTROL JOINT SPACING MATCHES EXISTING.
3. CUTS THROUGH EXISTING PAVEMENT SHALL BE MADE VIA SAW CUT AND REPAIRED IN ACCORDANCE WITH THE DETAILS ON SHEET 9.

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 CONSOLIDATED 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 FOR THE SINGLE FAMILY HOUSE SHALL BE 3/4"ø K-COPPER, AND THE WATER SERVICE LINE TO THE FRONT BUILDING SHALL BE PER MEP ENGINEER TO MEET SPRINKLER REQUIREMENTS.
6. THE EXISTING 3/4" WATER SERVICE STUB TO THE FRONT BUILDING MAY BE USED OR ABANDONED IN PLACE.
7. THE SEWER SERVICE LINE FOR BOTH BUILDINGS SHALL BE 4"ø SCH-40 PVC PIPE WITH PITCH AS SHOWN ON THE PLAN (MINIMUM OF ¼" PER FOOT SHALL BE MAINTAINED).
8. A ROAD OPENING PERMIT SHALL BE REQUIRED FOR THE INSTALLATION OF THE PROPOSED WATER AND SEWER SERVICES FOR EACH LOT. STREET CLOSURE FOR WATER AND SEWER SERVICE CONNECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF BEACON REQUIREMENTS.
9. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. THE PROPOSED DRIVEWAY SHALL HAVE A STABILIZED CONSTRUCTION ENTRANCE.
10. ROOF LEADER CONNECTIONS TO BE MINIMUM 4"ø PVC OR HDPE @ 2.0% MIN.
11. SUMP PUMP TO BE PROVIDED FOR FOOTING DRAIN, IF NECESSARY. THE TYPE OF PUMP AND METHODS USED TO ENSURE PROPER DRAINAGE SHALL BE ACCEPTABLE TO THE CITY OF BEACON BUILDING DEPARTMENT.
12. THE PROPOSED DRIVEWAY SIGHT DISTANCE MEETS OR EXCEEDS 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 AT THE PROPOSED DRIVEWAYS ARE AS FOLLOWS:
    - PARKING LOT: SLSD LEFT = ±133 FEET (TO INTERSECTION OF MAIN STREET); SLSD RIGHT = ±324 FEET (TO CREST IN HILL); SSD LEFT = ±133 FEET (TO INTERSECTION OF MAIN STREET); SSD RIGHT = ±324 FEET (TO CREST IN HILL)
    - SINGLE DRIVEWAY: SLSD LEFT = ±56 FEET (TO INTERSECTION OF SCHENCK AVENUE); SLSD RIGHT = N/A – ONE WAY STREET

    SLSD LEFT FOR BOTH DRIVEWAYS ARE DEFICIENT; HOWEVER THESE WERE THE MAXIMUM ACHIEVABLE LENGTHS AS THE SLSD LEFT WAS MEASURED TO A T-TYPE INTERSECTION WITH MAIN ST. AND SCHENCK AVENUE.

    STOPPING SIGHT DISTANCE (SSD) WAS OBSERVED TO BE IN EXCESS OF THE REQUIRED 200 FEET WHEN APPROACHING THE PROPOSED PARKING LOT DRIVEWAY FROM THE RIGHT, AND APPROXIMATELY 133 FEET FROM THE LEFT. SSD FOR THE SINGLE DRIVEWAY WAS OBSERVED TO BE ±56 FEET FROM THE LEFT. BOTH SSD FROM THE LEFT ARE MEASURED FROM T-TYPE INTERSECTIONS.
13. THE CITY OF BEACON BUILDING DEPARTMENT SHALL BE PROVIDED ACCESS TO VERIFY THE LOCATION OF THE EXISTING ROOF LEADERS AND SUMP PUMPS AND THE AREA THEY DRAIN TO.

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.

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	06/30/2020	PER PLANNING BOARD COMMENTS	MAB				

Dig Safely. New York Call 811 before you dig

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

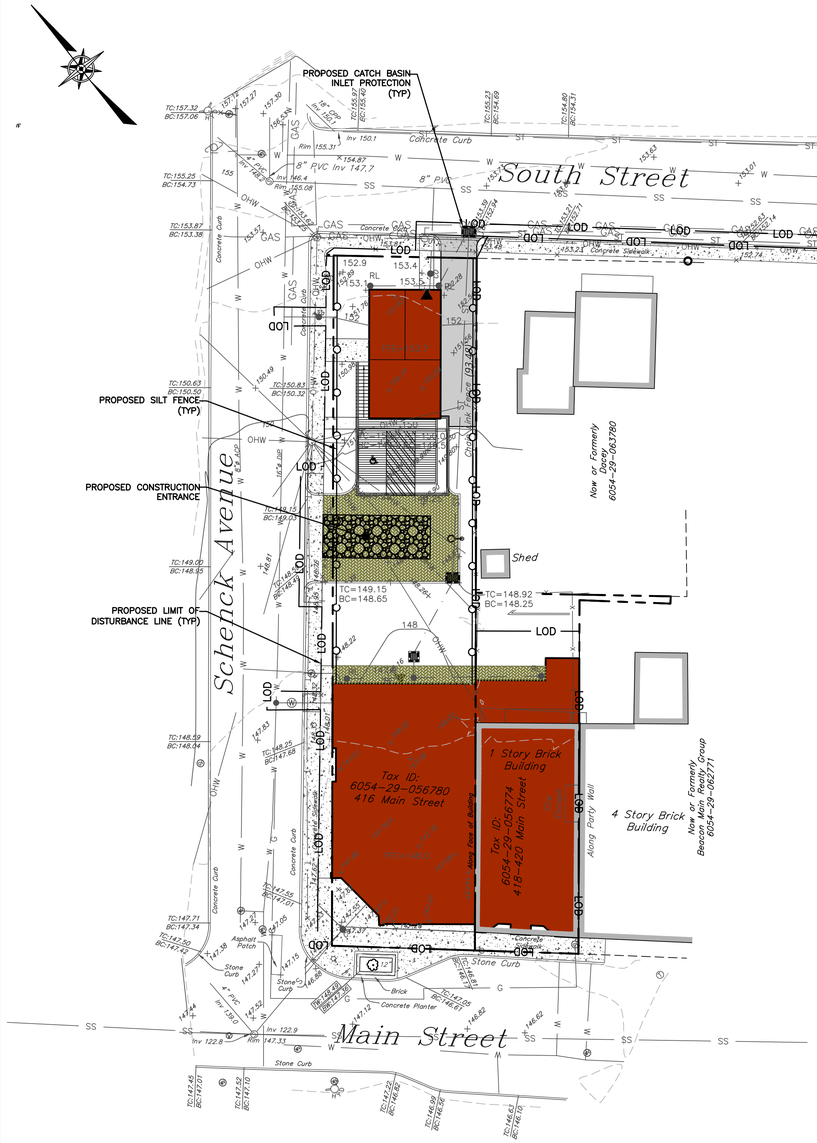
GRADING PLAN

416 MAIN STREET

416-420 MAIN STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-056780 & 056774

JOB #:	2020:005
DATE:	4/28/2020
SCALE:	1" = 20'
TITLE:	GR-1
SHEET:	6 OF 10

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 MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING CHAIN LINK FENCE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING OVERHEAD WIRE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING SEWER MANHOLE
- EXISTING CATCH BASIN
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING TREE
- PROPOSED PROPERTY LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM PIPE
- PROPOSED DIP WATER LINE
- PROPOSED K-COPPER WATER LINE
- PROPOSED SEWER LINE
- PROPOSED SILT FENCE
- PROPOSED LIMIT OF DISTURBANCE LINE
- PROPOSED DIP GATE VALVE
- PROPOSED WATER SERVICE SHUT OFF VALVE
- PROPOSED SEWER CLEAN OUT

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.

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.

9. 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.

10. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED PER THE APPROVAL OF THE ENGINEER SUPERVISING CONSTRUCTION.

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 WORK. 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.

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.

CATCH BASINS:

ALL CATCH BASINS SHALL BE INSPECTED AFTER EACH STORM EVENT FOR SEDIMENT ACCUMULATION AND DEBRIS, AND REMOVED 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.

EROSION AND SEDIMENT CONTROL 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.

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	06/30/2020	NO CHANGE	MAB				

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STATE OF NEW YORK MICHAEL A. BOSENKO 084466 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
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EROSION AND SEDIMENT CONTROL PLAN

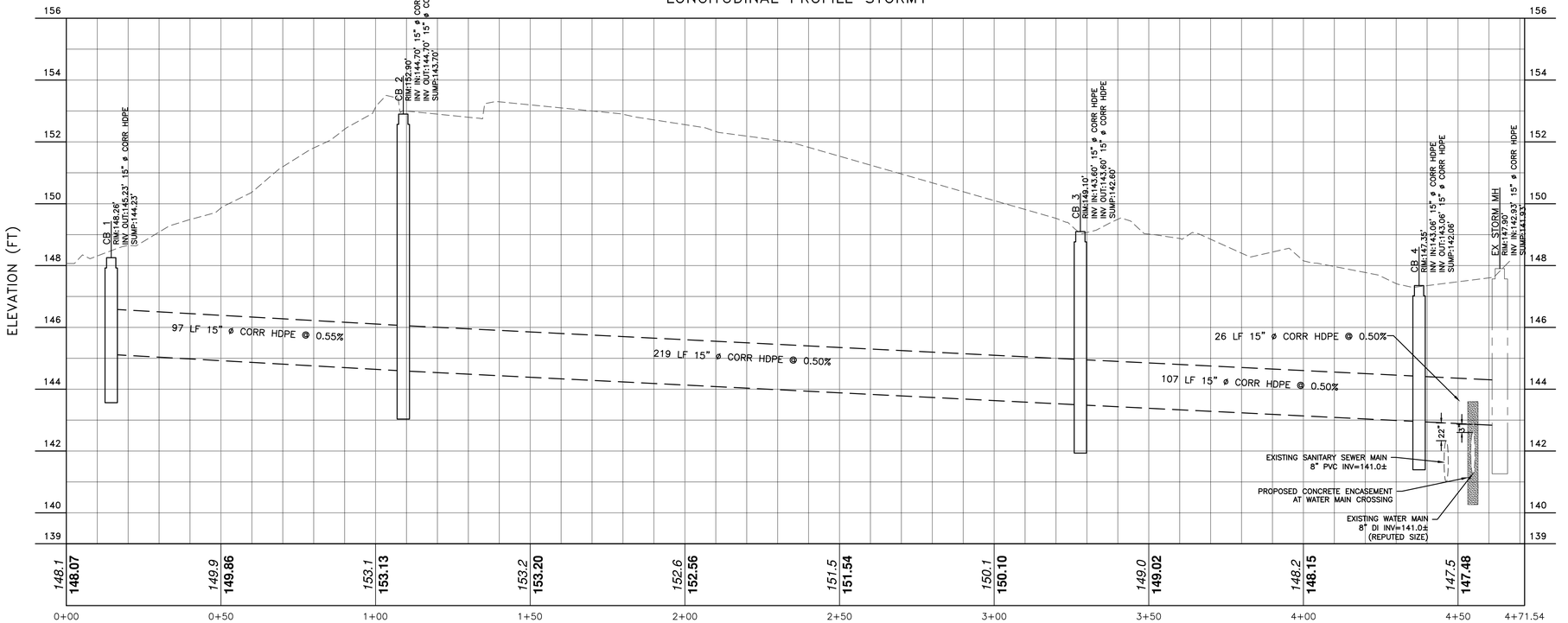
416 MAIN STREET

416-420 MAIN STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-056780 & 056774

JOB #:	2020:005
DATE:	4/28/2020
SCALE:	1" = 20'
TITLE:	ESC-1
SHEET:	7 OF 10

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

LONGITUDINAL PROFILE STORM1



PROPOSED STORM PROFILE
SCALE: 1" = 20'

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	06/30/2020	PER PLANNING BOARD COMMENTS	MAB				

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SEAL

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UTILITY PROFILES

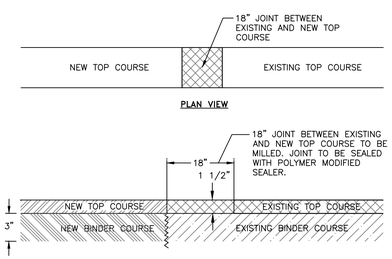
416 MAIN STREET

416-420 MAIN STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-056780 & 056774

JOB #:	2020:005
DATE:	4/28/2020
SCALE:	1" = 20'
TITLE:	PR-1
SHEET:	8 OF 10

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

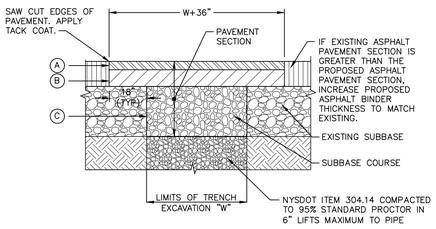
SITE DETAILS



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



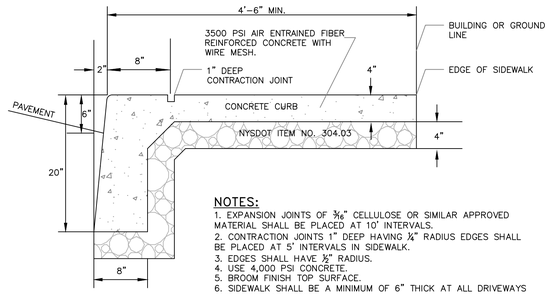
LEGEND

- (A) 1–1/2" ASPHALT CONCRETE TOP COURSE– NYSDOT TYPE 6F
- (B) 3" ASPHALT CONCRETE BINDER COURSE– NYSDOT TYPE 3
- (C) 10" GRANULAR SUBBASE COURSE– NYSDOT ITEM 304.14

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.

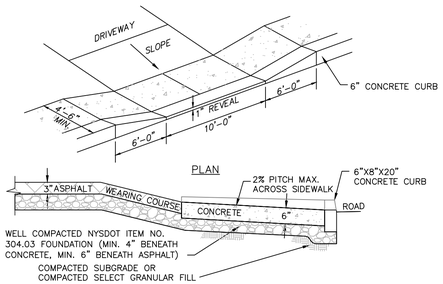
STREET PAVEMENT RESTORATION DETAIL
NOT TO SCALE



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 4,000 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.

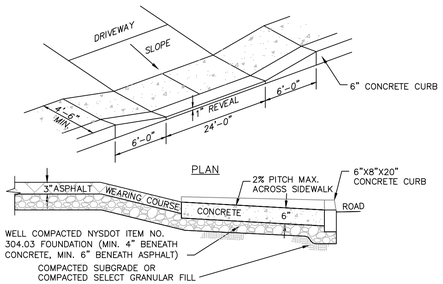
MONOLITHIC CURB AND SIDEWALK DETAIL
NOT TO SCALE



NOTE:

1. PRE–MOLDED EXPANSION JOINTS TO BE USED AT ALL JOINTS.
2. DRIVEWAY SHALL BE PAVED AFTER THE CONCRETE APRON TO THE RIGHT–OF–WAY LINE (MINIMUM).
3. SIDEWALK WIDTH SHALL MATCH EXISTING SIDEWALK, BUT NO LESS THAN 4'–6".

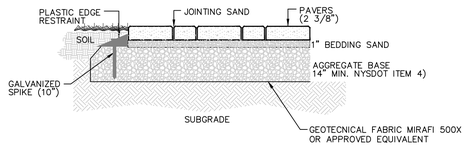
ONE WAY DRIVEWAY ENTRANCE DETAIL
NOT TO SCALE



NOTE:

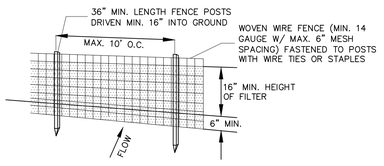
1. PRE–MOLDED EXPANSION JOINTS TO BE USED AT ALL JOINTS.
2. DRIVEWAY SHALL BE PAVED AFTER THE CONCRETE APRON TO THE RIGHT–OF–WAY LINE (MINIMUM).
3. SIDEWALK WIDTH SHALL MATCH EXISTING SIDEWALK, BUT NO LESS THAN 4'–6".

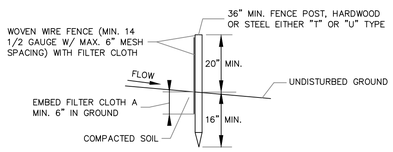
TWO WAY DRIVEWAY ENTRANCE DETAIL
NOT TO SCALE



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

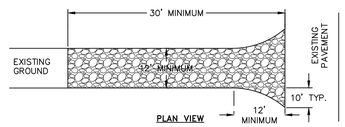




NOTES:

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.

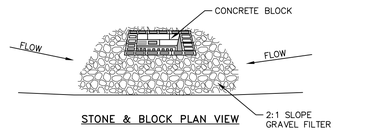
SILT FENCE DETAIL
NOT TO SCALE

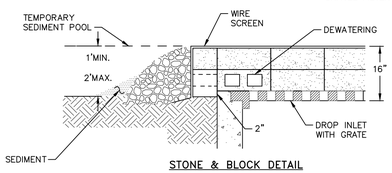


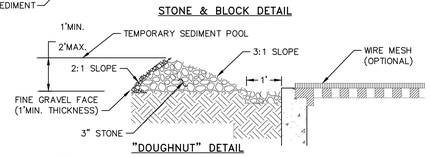
NOTES:

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



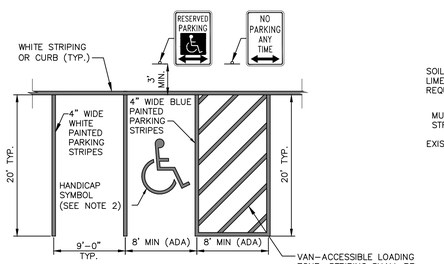




NOTES:

1. 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

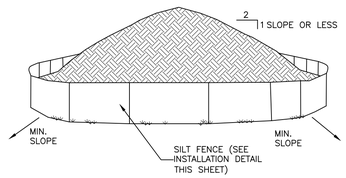
CATCH BASIN INLET PROTECTION DETAIL
NOT TO SCALE



NOTES:

1. 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.

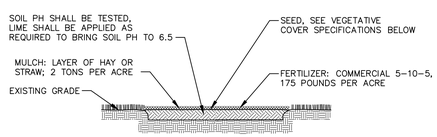
PARKING AND STRIPING DETAIL
NOT TO SCALE



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. 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

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	06/30/2020	PER PLANNING BOARD COMMENTS	MAB				

Dig Safely. New York Call 811 before you dig

STATE OF NEW YORK — MICHAEL A. BODENDORF — LICENSED PROFESSIONAL ENGINEER — 084468

SEAL

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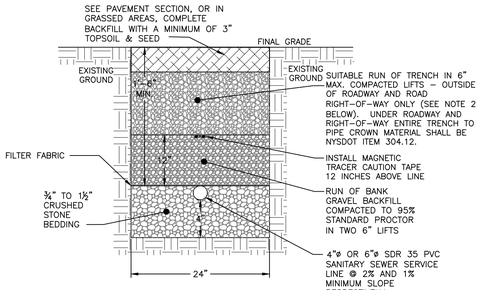
CONSTRUCTION DETAILS

416 MAIN STREET

416–420 MAIN STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054–29–056780 & 056774

JOB #:	2020:005
DATE:	4/28/2020
SCALE:	NTS
TITLE:	CD–1
SHEET:	9 OF 10

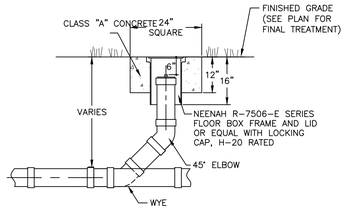
UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



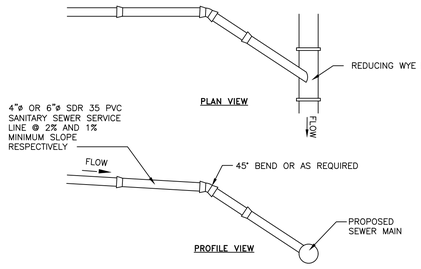
NOTES:
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

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



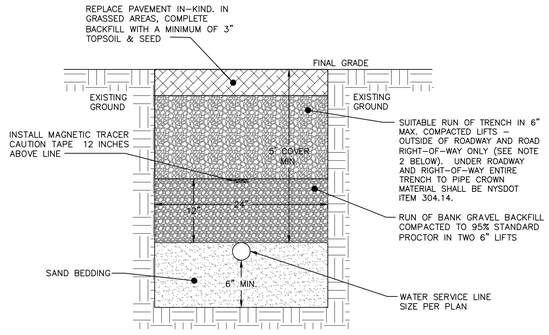
CLEANOUT DETAIL
NOT TO SCALE



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

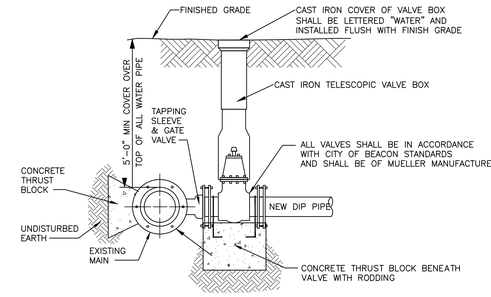


NOTES:
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

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.

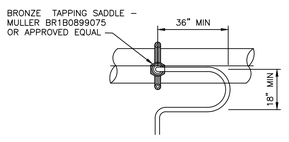
3. IN AREAS WHERE 5' COVER REQUIREMENT CANNOT BE MET, THE CONTRACTOR SHALL PROVIDE PIPE INSULATION TO PREVENT FREEZING.

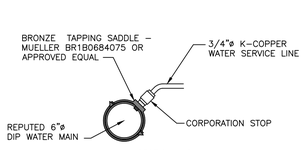
WATER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



NOTES:
1. TAPPING SLEEVE SHALL BE USED IT THE SECTION OF WATER MAIN IN THE VICINITY OF THE CONNECTION CANNOT BE SHUT DOWN AND ISOLATED.
2. ALL VALVES SHALL OPEN BY TURNING LEFT (COUNTERCLOCKWISE) AND HAVE A 2-INCH SQUARE-OPERATING NUT PAINTED RED.
3. 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.
4. TAPPING SLEEVE AND GATE VALVE SHOWN ARE MUELLER H-615, AND T-2630 RESPECTIVELY.

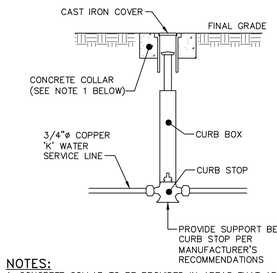
TAPPING SLEEVE DETAIL
NOT TO SCALE





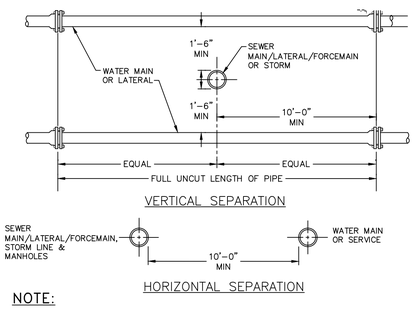
NOTES:
1. A MINIMUM 5' COVER SHALL BE PROVIDED ON THE WATER SERVICE LINE (CONDITIONED ON ACTUAL 5' MIN. WATER MAIN DEPTH).
2. CORPORATION STOP TO BE COMPRESSION TYPE BY MUELLER.
3. WATER SERVICE LINE TO HAVE A 'GOOSENECK' NEAR CORPORATION STOP.
4. CORPORATION STOP TO BE INSTALLED IN THE UPPER HALF OF 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:
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

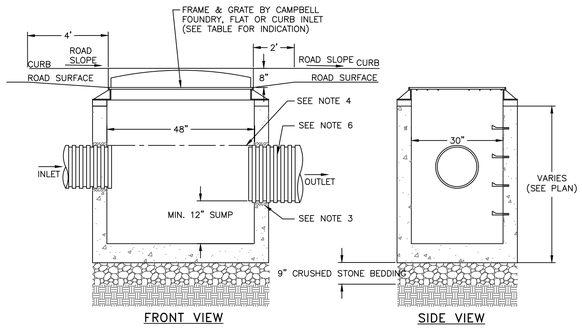


VERTICAL SEPARATION

HORIZONTAL SEPARATION

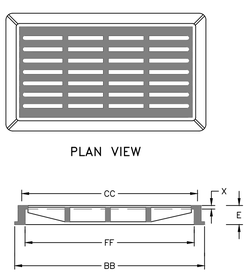
NOTE:
1. NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE EXPRESS APPROVAL OF THE DUTCHESS COUNTY DEPARTMENT OF HEALTH AND THE CITY OF BEACON. CONCRETE ENCASEMENT OF WATERLINE OR OFFSETTING OF WATERLINE SHALL BE REQUIRED WHERE SEPARATION DISTANCES CANNOT BE MAINTAINED.

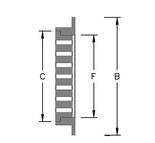
WATER LINE SEPARATION DETAIL
NOT TO SCALE



NOTES:
1. 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



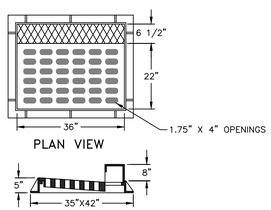


DIMENSION TABLE:

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

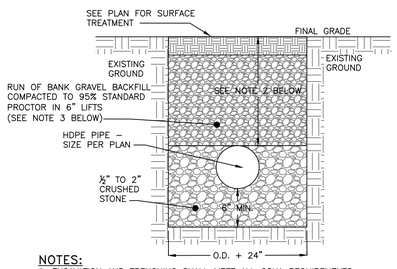
NOTES:
1. HEAVY DUTY RECTANGULAR STORMWATER INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 3433, OR APPROVED EQUAL.
2. CB 1 SHALL RECEIVE A FLAT INLET. CATCH BASINS 2 & 3 RECEIVE CURB INLETS (RE-USE EXISTING CURB INLET ON CB 3)

CAST IRON STORMWATER FLAT INLET GRATE DETAIL
NOT TO SCALE



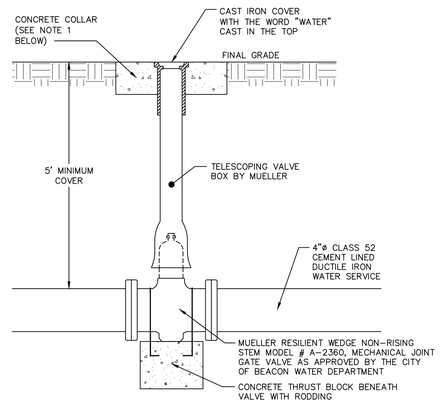
NOTES:
1. HEAVY DUTY RECTANGULAR STORMWATER INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 2541, OR APPROVED EQUAL.
2. CATCH BASINS TO RECEIVE CURB INLETS ARE CB 2 AND CB 3 WITHIN SOUTH STREET.

CAST IRON STORMWATER CURB INLET GRATE DETAIL
NOT TO SCALE



NOTES:
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. MINIMUM COVER SHALL BE 18 INCHES WITHIN THE SOUTH STREET RIGHT-OF-WAY.
3. BACKFILL WITHIN THE RIGHT-OF-WAY SHALL BE NYSDOT ITEM 304.14 SUBBABSE COURSE TYPE 2 FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT OR GRASS, PLACED IN 8" MAXIMUM LIFTS AND COMPACTED TO 95% STANDARD PROCTOR.

STORMWATER PIPE IN 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

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	06/30/2020	NO CHANGE	MAB				

Dig Safely. New York Call 811 before you dig

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

416 MAIN STREET

416-420 MAIN STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-056780 & 056774

JOB #:	2020:005
DATE:	4/28/2020
SCALE:	NTS
TITLE:	CD-2
SHEET:	10 OF 10

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

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

July 8, 2020

VIA E-MAIL (egrogan@cityofbeacon.org)
Hon. John Gunn
And Members of the Planning Board
City of Beacon
1 Municipal Plaza
Beacon, New York 12508
Attn: Etha Grogan

Re: Supplemental Submission – Subdivision (Lot Line Change) Application Form
Premises: 416-420 Main Street, Beacon, New York
Tax Parcel IDs: (6054-29-056780 & 6054-29-056774)

Dear Chairman Gunn and Members of the Planning Board:

On behalf of 416 Main Street Beacon, LLC and 420 Main Street, LLC, D/B/A 420 Main St. Beacon, LLC (collectively, the "Applicant"), the owners of the above-referenced Premises, we respectfully submit the enclosed Application for Subdivision Approval form in furtherance of the Applicant's pending Application to this Board.[1]

Please incorporate the enclosed as part of the official record of proceedings in connection with this matter.

Very truly yours,

Taylor M. Palmer
Enclosures
Cc: Jennifer L. Gray, Esq.

[1] Note: A Special Permit Application Form and Entity Disclosure Form were submitted with the Applicant's April 28, 2020 submission to this Board, together with the Application filing fee.

APPLICATION FOR SUBDIVISION APPROVAL

Submit to Planning Board Secretary, One Municipal Plaza, Suite One, Beacon, New York 12508

IDENTIFICATION OF APPLICANT

Name: 416 Main Street Beacon LLC and 420 Main Street, LLC d/b/a 420 Main Street Beacon, LLC

Address: P.O. Box 819, Beacon, NY 12508

Signature: _____

Date: July 3, 2020

Phone: (347) 559-0880

(For Official Use Only)

	Date	Initials
Preliminary Application Rec'd		
Application Fee:		
Public Hearing		
Preliminary Plat Approved:		
Final Plat Approved:		
Recreation Fee:		
Performance Bond:		

IDENTIFICATION OF REPRESENTATIVE / DESIGN PRFESSIONAL

Name: Cuddy & Feder LLP

Address: 445 Hamilton Avenue, 14th Floor, White Plains, NY 10601

Phone: (914) 761-1300

Fax: (914) 761-5372

Email address: tpalmer@cuddyfeder.com

IDENTIFICATION OF SUBJECT PROPERTY:

Subdivision name or identifying title:

416-420 Main Street, Beacon, NY 12508

Street which property abuts: Main Street, Schenck Avenue, South Street

Current Tax Map Designation: Section 6054 Block 29 Lot(s) 056780 and 056774

Property (~~does~~) (does not) connect directly into a (State) (County) highway.

Land in subdivision (~~is~~) (is not) within 500 feet of a Municipal boundary.

Total area of property is 0.245

ITEMS TO ACCOMPANY THIS APPLICATION

a. One electronic and five (5) **folded** copies of a subdivision plat showing the location of the subject property and the proposed development with respect to neighboring properties and developments.

b. An application fee, payable to the City of Beacon, computed per the attached fee schedule.

c. An initial escrow amount, payable to the City of Beacon, as set forth in the attached fee schedule.

APPLICATION FEES

Site Plan	**Residential $500 + $250 per dwelling unit** **Commercial $500 + $250 per 1,000 s.f.**
Special Use Permit	**Residential $500 + $250 per dwelling unit** **Commercial $500 + $250 per 1,000 s.f.**
Subdivision	**$ 750 for 2-4 lots + $100 per lot** **$1,000 for 5 or more lots + $300 per lot**
Zoning Board of Appeals	**Use Variance $500** **Area Variance $250** **Interpretation $250**

ESCROW FEES

ALL SUBDIVISIONS, AND RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

No. of Lots or Dwelling Units	Initial Deposit	Depleted to	Replenishment
1-5 (including lot-line realignment)	$ 2,500	$ 1,000	Current bills + $1,000
6-15	$ 7,500	$ 2,500	Current bills + $1,000
Over 15	$ 15,000	$ 5,000	Current bills + $5,000

NON-RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

	Initial Deposit	Depleted to	Replenishment
Existing Buildings/Change of Use with no site development	$ 1,500	$ 1,000	Current bills + $500
Up to 3,000 s.f. gross floor area	$ 2,500	$ 1,000	Current bills + $1,000
3,000 to 10,000 s.f. gross floor area	$ 2,500 + $0.50 per sq.ft. over 3,000	$ 2,500	Current bills + $2,500
Over 10,000 s.f. gross floor area	$ 7,500 + $0.50 per sq.ft. over 10,000	$ 2,500	Current bills + $2,500

ZONING

* *if required by Chairman*	Initial Deposit	Depleted to	Replenishment
Use Variance*	$ 1,000	$500	Current bills + $500
Area Variance*	$ 1,000	$500	Current bills + $500
Interpretation*	$ 1,000	$500	Current bills + $500

ARCHITECTURAL REVIEW OR CERTIFICATE OF APPROPRIATENESS ***(if not currently before PB)***

* *if required by Chairman*	Initial Deposit	Depleted to	Replenishment
Single Family House*	$500	$250	Current bills + $250
All others*	$500	$250	Current bills + $250

APPLICATION PROCESSING RESTRICTION LAW

Affidavit of Property Owner

Property Owner: 416 Main Street Beacon, LLC and 420 Main Street, LLC d/b/a 420 Main St. Beacon, LLC

If owned by a corporation, partnership or organization, please list names of persons holding over 5% interest.

Thomas Lee

List all properties in the City of Beacon that you hold a 5% interest in:

Tax Parcel ID: 083689

Applicant Address: P.O. Box 819, Beacon, NY 12508

Project Address: 416-420 Main Street, Beacon, NY 12508

Project Tax Grid # 130200-6054-29-056780-0000 and 130200-6054-29-056774-0000

Type of Application Subdivision (Lot Line Removal)

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, Thomas Lee, 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

416 Main Street Beacon, LLC and 420 Main Street, LLC d/b/a 420 Main St. Beacon, LLC

By: Thomas Lee

Signature of Owner

Principal

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
PRELIMINARY SUBDIVISION PLAT
AND CONSTRUCTION PLANS SPECIFICATION FORM

Name of Application: 416 Main Street Beacon, LLC and 420 Main Street, LLC d/b/a 420 Main St. Beacon, LLC

PRELIMINARY SUBDIVISION PLAT	**YES**	**NO**
The preliminary plat shall be clearly marked "Preliminary Plat", shall be drawn to a convenient scale but not less than 1" = 100', and shall contain the following information:	✓	
Proposed subdivision name or identifying title, name, and address of property owner and subdivider (if other than owner), name and address of the surveyor and/or engineer preparing the plan, scale, approximate true North point, and date.	✓	
The approximate location and dimensions of all property lines, the total acreage of the proposed subdivision, the location of any zoning, special district or municipal boundary lines affecting the subdivision, and the names of owners of record of properties adjoining and directly across the street from proposed subdivision.	✓	
The location of all existing structures and pertinent features, including railroads, water bodies, water courses, wetlands, rock outcroppings, wooded areas, major trees, and stone walls, that may influence the design of the subdivision, plus accurate topography at a vertical contour interval of not more than two (2) feet. The topographic data shall be determined by field survey unless the Planning Board specifically waives this requirement and/or permits the substitution of topographic information obtained from other sources determined satisfactory for the particular case.	✓	
The location and status of existing streets or private roads, easements and rights-of-way (if any), proposals for the layout of new streets or private roads (including widths and approximate curve radii) and any proposed easements, rights-of-way and/or reservations.	✓	
The names of existing streets or private roads and proposed names for new streets or private roads.	✓	
The proposed arrangement of lots, including identifying numbers and approximate area and dimensions of each.	✓	
Location, size and nature of any area proposed to be reserved for park purposes.	X	
A site location sketch, at a scale of one inch equals 400 feet, showing the general situation within 1,000 feet of the applicant's property with respect to surrounding properties, streets and private roads.	✓	
Where the preliminary plat includes only a portion of an applicant's contiguous holding, the applicant shall also indicate, on a sketch at a scale of not less than one inch equals 200 feet, the probable future street or private road system, lot arrangement and location of park and other reservations for the remaining portion of the tract. Such sketch shall be for the purpose of guiding the Planning Board in reviewing the proposed preliminary plat and shall include topographic data with a vertical contour interval of not more than five feet plus any other information determined necessary by the Planning Board.		N/A
Such additional information as may be required by Chapter 195 – Subdivision of Land; Chapter 223 – Zoning; or the Planning Board.		

PRELIMINARY CONSTRUCTION PLANS	YES	NO
The preliminary construction plans shall be drawn at the same scale as the preliminary plat and shall include the following information:	✓	
Location and sizes of any existing water, sewer storm drainage and other utility lines and structures within and nearby the proposed subdivision.	✓	
The proposed system for the provision of water supply and fire protection facilities, sewage disposal, stormwater drainage, and other utility services.	✓	
Proposed street or private road profiles and cross-sections showing the approximate grade of proposed streets or private roads, the relationship of existing to proposed grades, and the proposed grades, and the proposed vertical curvature along the center line of all new streets or private roads.		N/A
Location of all existing and proposed monuments and other subdivision improvements.	✓	
Such additional information as may be required by this chapter, the Zoning chapter, or the Planning Board.		

CITY OF BEACON
FINAL SUBDIVISION PLAT
AND CONSTRUCTION PLANS SPECIFICATION FORM

Name of Application: 416 Main Street Beacon, LLC and 420 Main Street, LLC d/b/a 420 Main St. Beacon, LLC

FINAL SUBDIVISION PLAT	**YES**	**NO**
The final subdivision plat shall be drawn clearly and legibly on transparent tracing cloth with black waterproof ink, at a scale no smaller than one inch equals 100 feet but preferably at a scale of one inch equals 50 feet. The sheet size shall not exceed 36 inches by 48 inches. If the size of proposed subdivision required a drawing larger than this, two or more sheets may be submitted, with match lines clearly indicated, and an index map shall be prepared on the same size sheet.	✓	
The final plat shall contain the following information:		
Proposed subdivision name or identifying title, name, and address of owner of record and of subdivider (if other than owner), certification and seal of the registered engineer or licensed land surveyor who prepared the plat, names of the owners of record of adjoining properties and of properties directly across the street or private road, graphic scale, approximate true North point, and date.	✓	
The location and dimensions of all boundary lines of the proposed subdivision, and all existing and proposed streets, private roads, lot lines, easements and rights-of-way, with sufficient data to readily determine the location, bearing and length of all such lines and to reproduce such lines upon the ground.	✓	
The names of all existing and proposed streets and private roads.	✓	
The locations of all water bodies and watercourses.		N/A
The location of all existing buildings, including identification of all buildings to be removed as a condition of plat approval.	✓	
The total acreage included in the entire subdivision, and the identification number and acreage of all lots and land reservations within the proposed subdivision.	✓	
Location of all existing and proposed monuments.	✓	
A site location map, at a scale of one inch equals 400 feet, showing the location of the subject property with respect to neighboring properties, streets and private roads.	✓	
Notations explaining any drainage, sight slope, street widening, park area or other reservations or easements, including any self-imposed restrictions or covenants.	✓	
Endorsement of approval by the Dutchess County Health Department.	✓	
Plan for the provisional delivery of mail, as approved by the local postmaster.	✓	
Endorsement of the owner as follows: "Approved for filing: _____ _____" Owner Date	✓	

FINAL SUBDIVISION PLAT *(continued)*	**YES**	**NO**
Form for endorsement by Planning Board Chairman as follows: "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.	✓	
Such additional information as may be required by Chapter 195 – Subdivision of Land; Chapter 223 – Zoning; or the Planning Board.		
Stormwater pollution prevention plan. A stormwater pollution prevention plan consistent with the requirements of Chapter 190 and with the terms of preliminary plan approval shall be required for final subdivision plat approval. The SWPPP shall meet the performance and design criteria and standards in Chapter 190, Article II. The approved final subdivision plat shall be consistent with the provisions of Chapter 190.		**N/A**

FINAL CONSTRUCTION PLANS	**YES**	**NO**
Final construction plans and profiles shall be prepared for all proposed streets, private roads and other required improvements. Plans shall be drawn at the same scale as the final plat and on the same size sheets, but not on the same sheets. The following information shall be shown:		
Plans and profiles showing the location and a typical cross-section of street and/or private road pavements including curbs and gutters, sidewalks, manholes and catch basins; the location of street or private road trees, lighting and signs; the location, size and invert elevations of existing and proposed sanitary sewers, stormwater drains and fire hydrants; the location and size of all water, gas or other underground utilities or structures; and the location and design of any other required improvements.	✓	
Profiles showing existing and proposed elevations along the center line of all streets and private roads. Where a proposed street or private road intersects an existing street or private road, the elevation along the center line of the existing street or private road within 100 feet of intersection, shall be shown. All elevations must be referred to established U.S. Government of approved local benchmarks, where they exist within ½ mile of the boundary of the subdivision.	✓	
The Planning Board may require, where steep slopes exist, cross-sections showing existing and proposed elevations of all new streets and private roads every 100 feet at five points on a line at right angles to the center line of the street or private road, said elevation points to be at the center line of the street or private road, each property line, and points 30 feet inside each property line.		N/A
Location, size, elevation and other appropriate description of any existing facilities which will be connected to proposed facilities and utilities within the subdivision.	✓	

FINAL CONSTRUCTION PLANS *(continued)*		
Where the design of the subdivision requires the regarding of land, the regarding of land, the regraded contours shall be shown along with estimates of the quantity of material to be added or removed and the proposed measures to be implemented by the subdivider to rehabilitate the disturbed area or areas.	✓	
Title of all sheets, name, address, signature and seal of licensed engineer preparing the construction plans, the date prepared, including revisions dates if any, approximate true North point, scale, and consecutive numbering as sheet _____ of _____.	✓	
A notation of approval, on all sheets as follows "Approved by: _____ _____ Owner Date and _____ _____ Planning Board Chairman Date"	✓	
Such additional information as may be required by Chapter 195 – Subdivision of Land; Chapter 223 – Zoning; or the Planning Board.		

For all items marked "NO" above, please explain below why the required information has not been provided:

*** Please see project narrative submitted in connection with this Application Form.***

Applicant/Sponsor Name: 416 Main Street Beacon, LLC and 420 Main Street, LLC d/b/a 420 Main St. Beacon, LLC

Signature:

Date: July 3 , 2020

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: July 9, 2020
Re: **416-420 Main Street Site Plan, Special Permit, and Subdivision**

I have reviewed the following new documents:

- Cover letter from Cuddy+Feder, dated June 30, 2020;
- Response letters from Aryeh Siegel and Hudson Land Design, dated June 30, 2020;
- Response letter and revised Traffic Impact Study from Maser Consulting, dated June 29, 2020;
- 2013 parking variance resolution from the Zoning Board of Appeals;
- Preliminary Subdivision Plat by Hudson Land Design, dated June 30, 2020; and
- 10-sheet Site Plan set by Aryeh Siegel and Hudson Land Design, dated June 30, 2020.

Proposal

The applicant is proposing to construct a 4-story, mixed-use building with 11,715 square feet on the front portion of the parcel in the Central Main Street (CMS) district and a 1,440 square foot live/work home on the rear portion of the parcel in the T district. The project also needs subdivision approval to consolidate the two Main Street parcels. The entire 0.245-acre site is also in the Historic District and Landmark Overlay Zone (HDLO).

Comments and Recommendations

1. For the Preliminary Subdivision Plat, the district line should be labeled as the T Zoning District.
2. For the Sheet 1 Site Plan:
    a. In the CMS Zoning Table, the required front setback is 0-10 feet, the rear setback has been changed to 20 feet, the Lot Area should match the number on the Subdivision Plat, the minimum landscaped area should be included, and the note below should state that the lot is located in the CMS and T districts.
    b. In the T Zoning Table, the Lot Area should match the number on the Subdivision Plat and the notes below should show both side yards as 10 feet.
    c. In the Parking Table, the rear building should be calculated as a live/work unit and the commercial analysis should match the numbers in the EAF and the Traffic Impact Study.
    d. The central parking area could be enlarged to include three more spaces or the Board could decide to leave the area as greenspace and/or an outdoor dining area. If only two residential parking spaces are to be provided there, the driveway width could be reduced to 10-14 feet.
    e. The location of the bike racks risks damage from backing out vehicles.
    f. The applicant should explain why the existing street tree must be replaced and the plans should include details for any replacement planter.
    g. The line of the 4th floor stepbacks should be shown on the Site Plan.

3. For the Sheet 3 Landscaping and Lighting Plan:
    a. The proposed landscaping should be identified by species in a planting schedule and regularly spaced street trees should be planted along the Schenck Avenue sidewalk.
    b. The lighting fixtures should include the color temperature and CRI specifications.
4. For the Sheets 4 and 5 Building Plans:
    a. The proposed 4th story with 15-foot stepbacks will need a special permit from the City Council, since the project is in the HDLO zone. Recent amendments to the CMS building height section require a specific public benefit(s) for a special permit approval.
    b. The 4th floor should have a 15-foot stepback for the side of the building within 40 feet of the T district line. It may be possible to adjust the required 15-foot stepback at 420 Main Street as measured from the front wall of the existing façade (see Section 223-41.18 E(7)).
    c. Since we are reviewing digital documents, the plans and elevations should show major measurements to ensure that required stepbacks, building heights, and breaks in the facades and roof lines meet zoning requirements.
    d. The side and rear elevations are mis-labeled and the two references to a painted corner tower should be removed.
    e. Elevations for the live/work home will need to be provided, including materials, colors, and major measurements.
    f. The Board and applicant should consider other options for a corner architectural feature.
    g. When appropriate, the elevations and renderings should be referred to the Architectural Review Subcommittee.
5. The plans should note how the trash is going to handled.
6. The plans should include a two-way Schenck Avenue restriping plan for to maximize street parking spaces and to include Exhibit 1 proposals from the Traffic Impact Study.

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

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.

July 9, 2020

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

RE: 416-420 Main Street
Subdivision & Site Plan
Tax Parcel 6054-29-05678 & 056774
City of Beacon

Dear Mr. Gunn:

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

- Correspondence from Cuddy & Feder dated July 8, 2020 regarding Subdivision Application, along with the subdivision application for the removal of the lot line.
- Correspondence from Cuddy & Feder dated June 30, 2020.
- Correspondence from Hudson Land Design dated June 30, 2020.
- Correspondence from Aryeh Siegal, Architect, dated June 30, 2020.
- City of Beacon ZBA Resolution for relief of parking.
- Correspondence from Maser Consulting dated June 29, 2020.
- Updated Traffic Impact Study for 416-420 Main Street, with the latest revision date of June 29, 2020, as prepared by Maser Consulting.
- Plan titled "Preliminary Subdivision Plat – 416 Main Street", with the latest revision date of June 30, 2020.
- Plan set titled "Site Plan Application – 416-420 Main Street", with latest revision date of June 30, 2020 and consisting of Sheets 1 of 10 through 10 as prepared by Aryeh Siegel, Architect and Hudson Land Design.

Based upon our review of the above documents and plans, we offer the following comments:

General Comments:

1. The proposed traffic improvements, as outlined in the Maser Consulting correspondence of June 29, 2020, shall be shown on the plans.

2. It does not appear that the proposed project is in compliance with Section 223-12, Paragraph "A" of the Zoning Code, which reads "*Lot for every building. Every building hereafter erected shall be located on a lot as herein defined, and, except as herein provided, there shall be not more than one main building and its accessory buildings on one lot, except for multifamily or nonresidential buildings in districts where such uses are permitted.*" The applicant should provide further information to the Planning Board as to how the currently proposed project is in compliance with this paragraph of the zoning or revise the project to conform with zoning requirements.

Preliminary Subdivision Plat:

1. The labeling of the Zoning line shown on the plan should be revised to reflect the "T" Zone on the northly side of the zone line. It is presently labeled as the "PB" Zone.

2. The Schedule of Regulations should be revised to state "Rear Yard", not "Year Yard". The table should also reflect the actual distances achieved for Lot Width and Lot Depth in the "Proposed Combined Parcel" column.

3. Given the number of notes related to the Survey, the plan should note who the surveyor is that will be signing off on the subdivision, as the adjusting/modification of boundary lines is typically handled by a land surveyor.

4. A new parcel description should be prepared for the proposed overall parcel and filed with the County Clerks office when the subdivision plat is approved.

Site Plan (Sheet 1 of 10):

1. Note No. 1 on the sheet should be revised to reflect the ZBA Resolution with regards to the parking relief granted to the project.

2. It is recommended that the site plan be provided at a larger scale so that all notes and labels are legible.

3. A note on the plan states "Parking Below Deck". The note should be revised to reflect how many parking spaces are located below the deck.

Existing Conditions & Demolition Plan (Sheet 2 of 10):

1. The note regarding the removal of the concrete planter should be revised to reflect that this is a 'granite" planter. Replacement of this planter should be in-kind.

2. Will the entire chain link fence on the east side of the parcel be removed? If not, the plan should reflect the limits of removal on that side.

3. A north arrow shall be added to the plan.

Landscape & Lighting Plan (Sheet 3 of 10):

1. A planting schedule shall be added to the plan.

2. All plantings, especially the planting of trees, shall be conducted outside of the City's right-of-way. Any plantings within the City's right-of-way may required a license agreement with the City.

Grading Plan (Sheet 6 of 10):

1. We would recommend that the sheet titled be revised to "Grading & Utility Plan", as this plans also reflects proposed utilities and for consistency with what is noted within the Index of Drawings on Sheet 1 of 10.

2. The lowest sewerable elevation (LSE) for both proposed buildings should be noted on the plans.

Utility Profiles (Sheet 8 of 10):

1. The profile should be revised at Sta. 4+45 to accurately reflect the size of the sewer main and the actual clearance between the proposed storm drainage and sewer main. At present, the sewer main is depicted as a 15" to 16" pipe. Based upon actual pipe size and depth, it is estimated that clearance between the two utilities will be approximately 14 inches but should be verified when profile is corrected.

Construction Details (Sheet 9 of 10):

1. The parking and striping detail should be revised to remove reference to the handicap parking striping and signage, as it was noted that this type of parking was not being provided on the project.

Construction Details (Sheet 10 of 10):

1. A construction detail shall be added to the plan for the coring connection of the proposed storm drainage connection to the existing storm manhole located on South Street.

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

July 10, 2020

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

RE: Site Plan and Traffic Review #2 for **Proposed Mixed-Used Development,** 416-420 Main Street, City of Beacon, Dutchess County, New York; CM Project #120-046(2)

Dear Mr. Gunn:

Creighton Manning Engineering, LLP (CM) has performed a review of the documents listed below in connection with the proposed mixed-used development, which consists of a 13,155-square-foot mixed-use building fronting Main Street, which was initially proposed to be 14,703 square feet, and a 1,440-square-foot residential/live work building fronting South Street, which was initially proposed to be 2,145 square feet. The following documents were reviewed:

- Maser Consulting, PA (Maser) Response to Comments, dated June 29, 2020
- Revised Traffic Impact Study prepared by Maser, dated June 29, 2020

The mixed-use building front Main Street will now consist of 4,295 square feet of first floor retail space (including the existing 1,720-square-foot Kitchen & Coffee that will remain), 6,220 square feet of commercial office space on the second and third floors, and 1,200 square feet of residential space for one apartment unit. Two off-street parking spaces will be provided for use by the residential tenants in the mixed-use building and will be accessed via a driveway on Schenck Avenue. Two off-street parking spaces will be provided for the residential live/work building and will be accessed via a driveway on South Street.

We offer the following comments:

Site Plan

1. CM has no further comment in regard to Site Plan items 1 and 2, but does not consider item 1 resolved until the plans are amended to depict the requested sight lines.

Traffic Impact Study

1. CM has no further comment in regard to Traffic Impact Study items 1-3. With regard to item 4, which dealt with the parking analysis, we have the following comments:
    a. The City of Beacon may want to consider creating a system to track parking variances/waivers in the downtown core. With the potential for multiple mixed-use proposals, such a system would enable the City to determine how surplus public parking is allocated to private development projects that are seeking to utilize it to satisfy individual parking minimums. Hypothetically, a project that received a variance/waiver from a Beacon land-use board but is yet to be constructed and occupied is not being factored in the instant parking analysis. This could create the appearance of a surplus in the near term. CM's recommendation is not made to encumber good projects, such as the 416-420 Main Street application, rather act as a tool the City can utilize when dealing with parking management in general. Mixed-use projects in downtowns tend to generate

less parking demand due to the synergies created both internally and externally, and can result in more foot traffic than vehicular traffic.

b. In response to our initial review, Maser's revised analysis considered a 5% adjustment to account for seasonality. Maser should substantiate this adjustment factor and/or cite other available data to shed light on how parking/traffic fluctuates throughout the year.

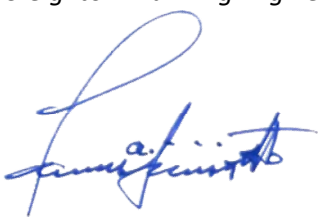
With regard to item 5, which dealt with proposed parking along Schenck Avenue, clarification is needed as to whether the applicant is still seeking to propose on-street parking along the east side of the roadway between Main Street and South Street. The width of Schenck Avenue in this section is too narrow to safely allow two-way traffic and on-street parking on both sides.

General

1. CM has no further comment in regard to General item 1.
2. In regard to Maser's response to comments in General item 2 and 3, we generally agree with the measures being proposed. In addition, CM recommends that the proposed pedestrian safety countermeasures adhere to Detail 3 found in the attached New York State Department of Transportation (NYSDOT) Traffic Safety and Mobility Instruction Official Issuance: 17-07 (see attached excerpt).

If you have any questions about the above comments, please do not hesitate to contact our office at (914) 800-9201.

Respectfully,
Creighton Manning Engineering, LLP



Frank A. Filiciotto, PE

Attachment

N:\Projects\2020\120-046 Beacon - 2020 Traffic Reviews\Working\Correspondence\416-420 Main Street_Review 2.docx

NEW YORK STATE OF OPPORTUNITY. Department of Transportation	TRAFFIC SAFETY & MOBILITY INSTRUCTION	TSMI 17-07 Code: SPMC

SUBJECT: PEDESTRIAN SAFETY ACTION PLAN (PSAP) COUNTERMEASURE DETAILS

Target Audience:

- ☒ Regional Traffic Engineer
- ☒ Operations & Asset Mgt. Div.
- ☒ Regional Dir. of Operations
- ☒ Regional Director
- ☒ Construction
- ☒ Design
- ☒ Maintenance
- ☐ _____

Approved:

_____ 10/24/2017
Robert Limoges, P.E., Director — Date
Office of Traffic Safety & Mobility

ADMINISTRATIVE INFORMATION: This Office of Traffic Safety & Mobility Instruction (TSMI) is effective immediately.

PURPOSE: To issue a series of nine details for proposed pedestrian safety countermeasures as described in the New York State Pedestrian Safety Action Plan.

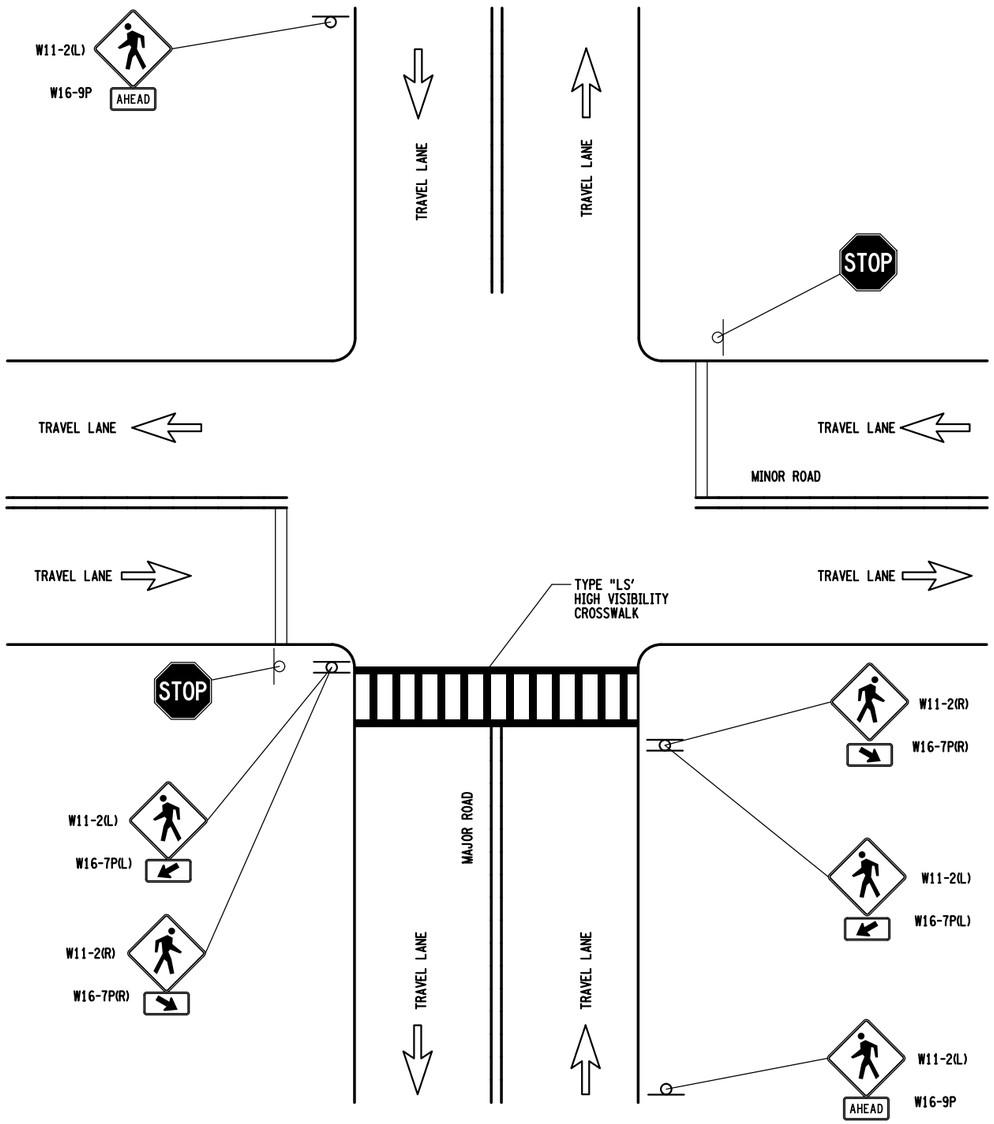
BACKGROUND: A series of nine pedestrian safety Countermeasure details, presented on five contract drawings, were developed for inclusion in requirements type construction contracts progressed by the Office of Traffic Safety & Mobility to address locations on the State highway system. OTSM is now making these details available to others, both inside and outside the Department, for reference and general use on all Department and local projects.

TECHNICAL INFORMATION:

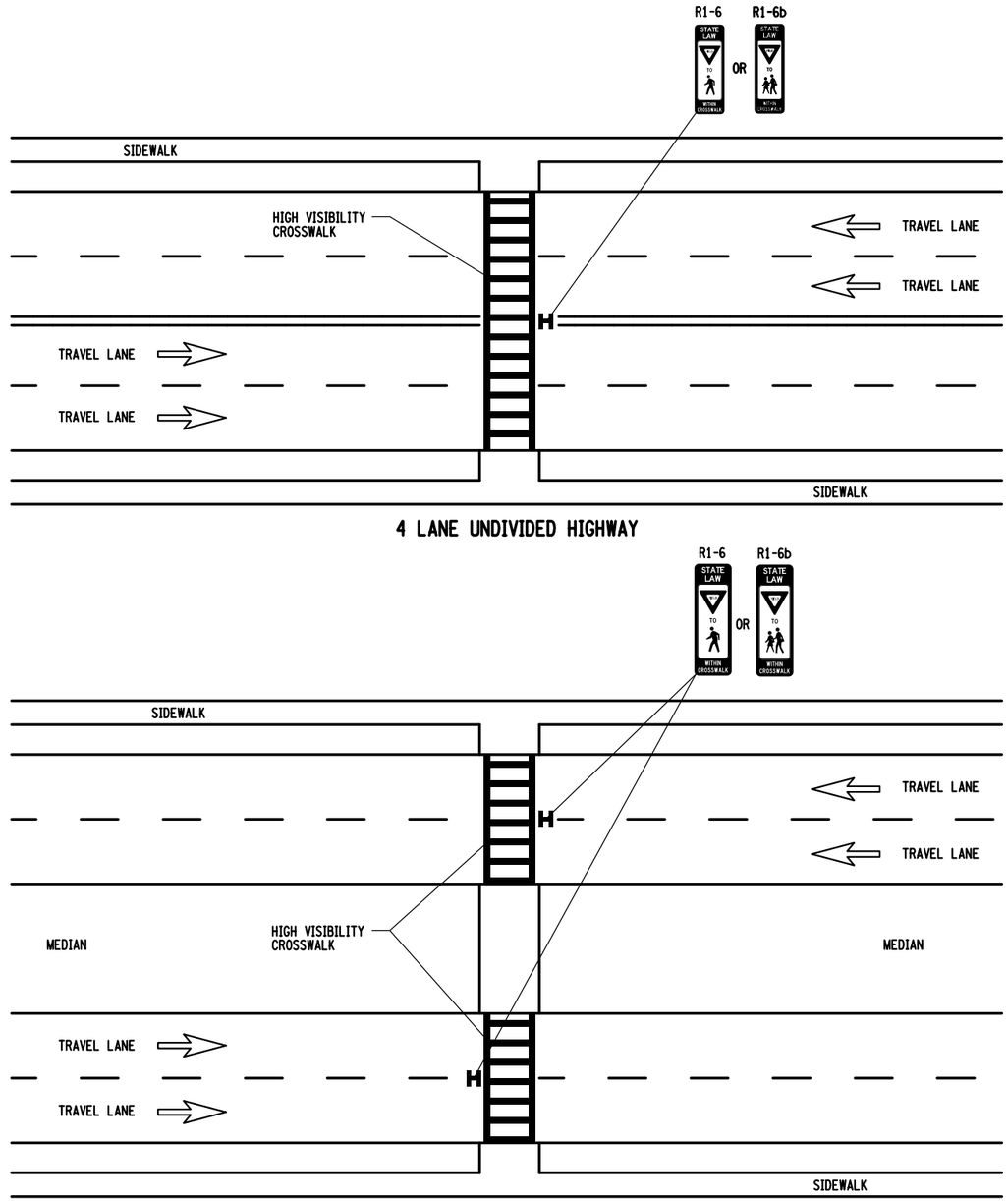
REFERENCES:

1. The June 20, 2016 New York State Pedestrian Safety Action Plan is available here: https://www.ny.gov/pedestrian-safety-action-plan/pedestrian-safety-action-plan
2. This TSMI along with a CADD (Microstation DGN format) file containing all 5 drawings is available here: https://www.dot.ny.gov/divisions/operating/oom/transportation-systems/official-issuances

CONTACT: Direct questions regarding this issuance to the Office of Traffic Safety & Mobility at (518) 457-0271.



3 UNCONTROLLED CROSSWALK AT INTERSECTIONS



4 LANE UNDIVIDED HIGHWAY

4 LANE DIVIDED HIGHWAY

4 TYPICAL PLACEMENT OF IN-STREET PEDESTRIAN CROSSING SIGNS

PROJECT MANAGER
CHECK
DRAFTING
CHECK
DESIGN
JOB MANAGER
DESIGN SUPERVISOR

FILE NAME = Uncontrolled_Crosswalks_2
DATE/TIME = 18-APR-2017 13:58
USER = gtobin

AFFIX SEAL: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	PEDESTRIAN SAFETY ACTION PLAN BASIC SYSTEMIC TREATMENTS COUNTY: REGION:	PIN	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED UNCONTROLLED CROSSWALK TREATMENTS	CONTRACT NUMBER DRAWING NO. UC-2 SHEET NO.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

City of Beacon Planning Board Agenda
07/14/2020

Title:

Zoning Board of Appeals – July agenda

ATTACHMENTS

July Agenda.pdf

CITY OF BEACON
ONE MUNICIPAL PLAZA - SUITE 1
BEACON, NEW YORK 12508

Phone (845) 838-5002 Fax (845) 838-5026

The Zoning Board of Appeals will meet on **Tuesday, July 21, 2020** at 7:00 PM. Due to public health and safety concerns related to COVID-19, the Planning Board will not be meeting in-person. In accordance with the Governor's Executive Order 202.1, the July 21, 2020 meeting will be held via videoconferencing, and a transcript will be provided at a later date. The public can watch the live meeting online at YouTube at https://www.youtube.com/channel/UCvPpigGwZDeR7WYmw-SuDxg. If any interested members of the public would like to provide comments on the application, comments can be called in during the meeting at **(929) 205-6099; Webinar ID: 859 0328 0286; Password 704986**. Comments can also be provided via email no later than 5PM on July 21, 2020 to Etha Grogan, Planning Board Secretary, at egrogan@cityofbeacon.org. Please check the meeting materials posted on the City website (www.cityofbeacon.org) and for further instructions to access the virtual meeting and for updated information. **This agenda and the meeting format are subject to change.**

Regular Meeting

1. Review application submitted by Robin Daley, 49 Prospect Street, Tax Grid No. 30-6054-46-249593-00, R1-5 Zoning District, for relief from Section 223-17(C) to construct a one-car garage with a 6.6 ft. side yard setback *(10 ft. required)*

Miscellaneous Business

1. Consider request for a six (6) month extension of Area Variance, 23-28 Creek Drive, submitted by 23-28 Creek Drive, LLC

2. Consider request for a six (6) month extension of Use Variance and Area Variance, 53 Eliza Street, submitted by PIE Development Company, Inc

City of Beacon Planning Board Agenda
07/14/2020

Title:

Consider request for two 90-day extensions of Subdivision Approval & Site Plan Approval – 23-28 Creek Drive, submitted by 23-28 Creek Drive, LLC

ATTACHMENTS

23-28 Creek Drive Extension Request with Exhibits.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
tpalmer@cuddyfeder.com

VIA EMAIL (egrogan@cityofbeacon.org)

June 30, 2020

Hon. John Gunn, Chairman
& Members of the Planning Board
City of Beacon
One Municipal Plaza
Beacon, NY 12508

Re: 23-28 Creek Drive, LLC (Former DPW Property) – Site Plan & Subdivision Approvals
Request for Six (6) Month Extension

Dear Chairman Gunn and Member of the Planning Board:

On behalf of 23-28 Creek Drive, LLC (the "Applicant"), we are writing to request two (2) 90-day extensions for the Preliminary & Final Subdivision Plat and Site Plans Approval Resolution that was granted by this Board at its January 14, 2020 meeting (the "Planning Board Resolution").[1]

This request is timely, as 180 days have not elapsed since the date of the approval. Since the Applicant last appeared before the Planning Board, the Applicant has been diligent in its efforts to satisfy the conditions of both the Planning Board Resolution and the ZBA approval resolution.

Specifically, the Applicant:

1) Completed the conditions of the Purchase and Sale Agreement with the City;[2]
2) Closed on the property;
3) Obtained County Health Approval for the subdivision plat;
4) Prepared all easements related agreements for review by the City Attorney; and
5) Submitted a bona fide Building Permit Application dated April 24, 2020, a copy of which is enclosed as **Exhibit C**.

Accordingly, at this time the Applicant is preparing to have the Final Subdivision Plat ready for the Chairman's signature so that it may be filed with the County Clerk's Office. Provided the

[1] A copy of the Planning Board Resolution dated January 23, 2020 is attached to this letter as **Exhibit A**.

[2] Note: As this Board is aware, the Applicant also appeared at the Planning Board's May 12, 2020 meeting Agenda in connection with minor amendments to the Planning Board Resolution in alignment with the Purchase and Sale Agreement with the City of Beacon. A copy of this Resolution is enclosed as **Exhibit B**.

CUDDY +FEDER LLP

Applicant's diligent efforts to satisfy the conditions in the Planning Board Resolution and to see that the Final Subdivision Plat is approved so that a Building Permit can be issued, we respectfully submit this formal request for two (2) 90-day extensions (180 days) of the Planning Board Resolution, thus extending the Planning Board Resolution until January 8, 2021, the date by which the Applicant must satisfy the conditions in the Planning Board Resolution.

We respectfully request that you please place this extension request on the next available Planning Board meeting Agenda for consideration of the Applicant's request for two (2) 90-day extensions.

In the event that the Applicant is able to secure the filing of the subdivision map and obtain a building permit prior to the July 12, 2020 expiration of the Planning Board Resolution, the Applicant will withdraw its application for extension.

Thank you in advance for your consideration in this matter.

Very truly yours,

Taylor M. Palmer

Enclosures

cc: Jennifer L. Gray, Esq. – Planning Board Attorney

Exhibit A

RESOLUTION

PLANNING BOARD
BEACON, NEW YORK

GRANTING PRELIMINARY & FINAL SUBDIVISION PLAT APPROVALS AND SITE PLAN APPROVAL FOR 23-28 CREEK DRIVE

Parcel ID#6054-37-037625

WHEREAS, the Beacon Planning Board received applications for Preliminary and Final Subdivision Plat Approvals (lot line realignment) and Site Plan Approval from 23-28 Creek Drive, LLC (the "Applicant"), to construct a mixed-use development on the former City of Beacon ("DPW") site with a total of eight (8) residential units and 20,000 square feet of commercial space, (the "Proposed Action" or "Project"), on a total of 3.144 acres, 2.807 acres of property located at 23-28 Creek Drive and designated on the Tax Map of the City of Beacon as **Parcel ID# 6054-37-037625** and 0.337 acres from the adjacent parcel which consists of land owned by Weber Projects III, LLC located at 7-15 Creek Drive and designated on the Tax Map of the City of Beacon as **Parcel ID# 6054-37-066670** in the Fishkill Creek Development ("FCD") Zoning District (the "Property"); and

WHEREAS, the Planning Board is the approval authority for the Subdivision and Site Plan pursuant to City of Beacon Code §§195-2 and 223-41.13.G; and

WHEREAS, development within the Fishkill Creek Development District is governed by Chapter 223, Article IVC of the Code of the City of Beacon (the "City Code"), which requires all Creek development projects to obtain (a) Concept Plan approval by the City Council and (b) Site Plan approval by the Planning Board; and

WHEREAS, the application consists of application forms, correspondence, the Full Environmental Assessment Form ("Full EAF") and professional studies and reports submitted to the Planning Board; and

WHEREAS, the Subdivision is shown on the drawing, entitled, "Lot Line Alteration Prepared for 23-28 Creek Drive" Sheet 1 of 1 dated October 28, 2019, prepared by TEC Land Surveying; and

WHEREAS, the Site Plan is shown on the drawings, entitled "Site Plan Application 23-28 Creek Drive" Sheets 1-12, last revised December 31, 2019, as prepared by Aryeh Siegel, Architect, Hudson Land Design; TEC Land Surveying, P.C. and Landscape Restorations:

Sheet	Title
1 of 12	*Site Plan*
2 of 12	*Existing Conditions & Demolition Plan*

3 of 12	*Site Section Diagram*
4 of 12	*Landscape Plan & Planting Schedule*
5 of 12	*Building Plans*
6 of 12	*Renderings*
7 of 12	*Grading & Utility Plan*
8 of 12	*Erosion and Sediment Control Plan*
9 of 12	*Profiles*
10 of 12	*Site & Erosion Sediment Control Details*
11of 12	*Stormwater Details*
12 of 12	*Water and Sewer Details*; and

WHEREAS, the Applicant also submitted a Parking and Traffic Impact Study prepared by Maser Consulting P.A., dated March 25, 2019; and

WHEREAS, the Project incorporates public linkages to the Greenway Trail and includes the construction of a half-acre public park along the Fishkill Creek; and

WHEREAS, the Proposed Action is an Unlisted Action pursuant to the New York State Environmental Quality Review Act (SEQRA) and the Planning Board served as Lead Agency in a coordinated environmental review and held a duly noticed SEQRA public hearing on April 9, 2019, continued the public hearing to May 14, 2019 and June 11, 2019, and closed the public hearing on June 11, 2019, at which all times those wishing to provide comment were given the opportunity to do so; and

WHEREAS, **WHEREAS,** on July 9, 2019 after hearing public comment and taking a "hard look" at the Full EAF and all of the associated materials prepared in connection with the Proposed Action, the Planning Board adopted a Negative Declaration, finding the Proposed Action will not result in any significant adverse environmental impacts; and

WHEREAS, the Planning Board issued a report to the City Council dated July 11, 2019 issuing a positive recommendation to the Council on the Concept Plan, subject to the Applicant returning to the Planning Board where the Planning Board will review more specific architectural, landscaping, lighting, parking and engineering details as required to complete Site Plan review; and

WHEREAS, pursuant to a letter dated June 19, 2019, the MTA expressed their acceptance for the Applicant's proposed grading plans to smooth out the transition between the subject parcel and the MTA property including grading and clean-up work and informed the Applicant that an Entry Permit is required to perform the cleanup and grading, which the Applicant should request upon approval and signing of the Site Plans; and

WHEREAS, on May 9, 2019 the Applicant submitted a request to the New York District of the U.S. Army Corps of Engineers for authorization to discharge fill materials into waters of the United States associated with the installation of two (2) new stormwater outfall structures and the removal of three (3) existing stormwater outfall structures located in Fishkill Creek; and

WHEREAS, on September 16, 2019, the Applicant received approval from the New York District of the U.S. Army Corps of Engineers for authorization to discharge fill materials into waters of the United States associated with the installation of two (2) new stormwater outfall structures and the removal of three (3) existing stormwater outfall structures located in Fishkill Creek subject to special conditions to protect the endangered species of the Indiana and Northern Long-Eared bats while clearing trees; and

WHEREAS, on September 17, 2019 the City of Beacon Zoning Board of Appeals granted the Applicant's variance requests including: (i) a variance of 20 parking spaces, where 113 parking spaces are required for a mixed-use building consisting of 20,000 square feet of commercial space and eight residential units pursuant to City Code §223-26.F and 93 parking spaces are proposed; (ii) a 750 square foot variance for two apartment units, where the maximum permitted dwelling unit size is 2,000 square feet pursuant to City Code §223-41.14.O and two apartment units are proposed to be 2,750 square feet; (iii) a one store height variance, where the maximum permitted building height is three stories pursuant to City Code §223-41.14.F and the proposed building height is four (4) stories; and (iv) a 13 foot 4 inch building height variance where the maximum permitted building height is 40 feet pursuant to City Code §41.14.17 and the proposed building height is 53 feet 4 inches; and

WHEREAS, the City Council granted Concept Plan Approval for the Project by resolution dated November 18, 2019; and

WHEREAS, on December 10, 2019, the Planning Board opened a duly noticed public hearing on the application for Subdivision (lot line realignment) and Site Plan approval at which time all those interested were given an opportunity to be heard and the public hearing was closed on January 14, 2019; and

WHEREAS, with respect to the proposed Greenway Trail on the Property the City of Beacon Greenway Trail Committee was consulted and provided input on the design of the trail; and

WHEREAS, the Planning Board is fully familiar with the Project and has reviewed the Project relative to all applicable provisions of the City of Beacon Code including but not limited to City Code Chapter 195 and Sections 223-41.13.G(2) and 223-41.13.I of the City of Beacon Zoning Code.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Board hereby grants Preliminary Subdivision Plat Approval for the Project, submitted by 23-28 Creek Drive, LLC, as shown on the application materials referenced above.

BE IT FURTHER RESOLVED, that the Planning Board hereby finds that 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, as shown on the application materials referenced above, subject to the conditions and modifications set forth herein.

BE IT FURTHER RESOLVED, that the Planning Board hereby finds that the Site Plan meets the standards and criteria set forth at Sections 223-41.13.G(2) and 223-41.13.I of the City of Beacon Zoning Code.

BE IT FURTHER RESOLVED, that the Planning Board hereby grants the Site Plan application submitted by 23-28 Creek Drive, LLC to construct a mixed-use development with a total of eight (8) residential units and 20,000 square feet of commercial space, as shown on the plans referenced herein and submitted to the Planning Board, upon the following conditions:

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 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 for the proposed sewer relocation and the proposed water main extension, 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 January 8, 2020, and all comments in any subsequent letter(s) issued, pertaining to the Subdivision Plat 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 January 10, 2020, and all comments in any subsequent letter(s) issued, pertaining to the Subdivision Plat shall be fulfilled to the satisfaction of the City Planner.

5. All easements shall be shown on the Final Subdivision Plat to the satisfaction of the City Engineer and City Attorney.

6. Easement agreements, declarations of restrictive covenants or other appropriate documents corresponding with the easements shown on the Final Subdivision Plat shall be prepared 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. Such easements, declarations of restrictive covenants or other documents shall include but not

be limited to: (i) Stormwater Easement and Maintenance Agreement; (ii) Greenway Trail Easement.

7. The Applicant shall post a performance bond with the City of Beacon for all public improvements in an amount acceptable to the City Engineer. The Applicant's engineer shall prepare a cost estimate for the work and provide to the City Engineer for review.

When the conditions above have been satisfied, four (4) 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 signing of the Site Plan Drawings by the Planning Board Chairman, the following conditions shall be fulfilled:

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 January 8, 2020, 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 January 10, 2020, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Planner.

5. The Applicant shall return to the Planning Board to complete architectural review of the Project and obtain approval thereof.

6. The comments of the Beacon Greenway Trail Committee set forth in a letter to the Planning Board dated January 14, 2020, including the representations of the Applicant stated therein and confirmed by the Applicant at the January 14, 2020 Planning Board meeting, shall be fulfilled to the satisfaction of the City Planner and City Engineer.

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. The Applicant shall submit documentation from NYSDEC demonstrating that the site remediation has been performed and has been closed out to the satisfaction of NYSDEC pursuant to the remediation work plan prepared for the Site. A copy of the remediation work plan as approved by NYSDEC for the required remediation work based upon review of the Phase II Environmental report, which identified petroleum contamination, shall be provided to the City of Beacon. Any additional contamination discovered during construction which requires remediation shall be remediated in accordance with all State and local laws, rules and regulations.

2. 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 the work and provide to the City Engineer for review.

D. Prior to the issuance of a Certificate of Occupancy, the following condition shall be fulfilled to the satisfaction of the Building Inspector

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. The Planning Board hereby determines that the proposed recreation/parkland, specifically the public park consisting of approximately 1 acre to be maintained by the Applicant and the Greenway Trail segment, are of adequate size and location to meet the anticipated recreational demands of the future population of the Project. Therefore, that Applicant shall not be required to pay a Recreation Fee for the 8 new apartments approved herein.

2. The Applicant shall obtain an MTA Entry Permit for temporary access to perform grading and cleanup work as proposed to smooth the transition between the subject parcel and the MTA property.

E. The following are general conditions which shall be fulfilled:

1. The Greenway Trail shall be completed prior to the issuance of the first Certificate of Occupancy for the residential component of the Project.

2. Pursuant to the Army Corp. of Engineers special conditions of approval for the grading and fill work along Fishkill Creek, removal of trees greater than four (4) inches in diameter at the Project Site will take place between November 1 and March 31 during the bat hibernation period to avoid the removal of trees which may be utilized by Indiana Bats and Northern Long-Eared Bats as roosting trees, orange construction fencing shall be used to separate areas to be graded from areas not to be disturbed and no artificial dyes, coloring, insecticide or algaecide such as copper sulfate shall be used in stormwater control structures.

3. Any increase to the total number of units above eight or bedrooms above 18 on the Property shall require an application to the City Council and the Planning Board to amend the Concept Plan and Site Plan, respectively.

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. This approval is conditioned upon compliance with all of the mitigation measures specified in the Applicant's Full EAF and related application documents, including the SEQRA Negative Declaration. 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 Full EAF, the terms of this resolution shall be controlling.

6. 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 Applicants within thirty (30) days of each notification by the City that such fees are due. If such fees are not paid within the thirty (30) day period, and an extension therefor has not been granted by the City, this resolution shall be rendered null and void.

7. As used herein, the term "Applicant" shall include 23-28 Creek Drive LLC, and its heirs, successors and assigns.

8. 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.

9. The approvals granted by this resolution do not supersede the authority of any other entity.

10. 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.

11. 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.

12. The Applicant must return for approval from the Planning Board if any changes to the endorsed plans and/or this resolution of approval are subsequently desired other than changes determined to be field changes by the Building Inspector or City Engineer.

13. 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.

Resolution Adopted: January 14, 2020
Beacon, New York

John Gunn, Chairman
City of Beacon Planning Board

1/23, 2020
Dated

Motion by Mr. Williams, seconded by Mr. Muscat:

Kevin Byrne	Voting: RECUSED	Leonard Warner	Voting: AYE
Rick Muscat	Voting: AYE	J. Randall Williams	Voting: AYE
Karen Quiana	Voting: ABSTAIN	John Gunn, Chairman	Voting: AYE
Jill Reynolds	Voting: EXCUSED		

Resolution: Approved 4-0

Exhibit B

RESOLUTION

PLANNING BOARD
BEACON, NEW YORK

GRANTING ADMINISTRATIVE REVISIONS TO CONDITIONS OF PRELIMINARY & FINAL SUBDIVISION PLAT APPROVALS AND SITE PLAN APPROVAL FOR 23-28 CREEK DRIVE

Parcel ID#6054-37-037625

WHEREAS, the Beacon Planning Board received applications for Preliminary and Final Subdivision Plat Approvals (lot line realignment) and Site Plan Approval from 23-28 Creek Drive, LLC (the "Applicant"), to construct a mixed-use development on the former City of Beacon ("DPW") site with a total of eight (8) residential units and 20,000 square feet of commercial space, (the "Proposed Action" or "Project"), on a total of 3.144 acres, 2.807 acres of property located at 23-28 Creek Drive and designated on the Tax Map of the City of Beacon as **Parcel ID# 6054-37-037625** and 0.337 acres from the adjacent parcel which consists of land owned by Weber Projects III, LLC located at 7-15 Creek Drive and designated on the Tax Map of the City of Beacon as **Parcel ID# 6054-37-066670** in the Fishkill Creek Development ("FCD") Zoning District (the "Property"); and

WHEREAS, the Planning Board approved the Subdivision and Site Plan applications by Resolution dated January 14, 2020 ("Resolution"); and

WHEREAS, the City previously entered into a Purchase and Sale Agreement ("PSA") with the Applicant for the conveyance of Parcel 6054-37-037625 (which is the location of the former City Highway Garage) from the City to the Applicant; and

WHEREAS, in preparing to close on the conveyance of the City's former Highway Garage parcel to the Applicant it was discovered that Conditions C-1 and D-1 of the Resolution are in conflict with certain terms of the PSA; and

WHEREAS, the City and the Applicant wish to resolve this conflict by an administrative amendment to such conditions as reflected herein, which administrative amendments do not require a public hearing and have no impact on the prior SEQRA determination for the Project.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Board hereby modifies Condition C-1 of the Resolution to relocate it to Section D of the Resolution and revise the language as follows:

> Prior to the pouring of any foundations, t~~T~~he Applicant shall submit documentation from NYSDEC demonstrating that the site remediation has been performed and has been closed out to the satisfaction of NYSDEC pursuant to the remediation work plan prepared for the Site. A copy of the remediation work plan as approved by NYSDEC for the required

remediation work based upon review of the Phase II Environmental report, which identified petroleum contamination, shall be provided to the City of Beacon. Any additional contamination discovered during construction which requires remediation shall be remediated in accordance with all State and local laws, rules and regulations.

BE IT FURTHER RESOLVED, that the Planning Board hereby modifies the language of Condition D-1 of the Resolution as follows:

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. The Planning Board hereby determines that the proposed recreation/parkland, specifically the public park consisting of approximately 1 acre to be maintained by the Applicant and the Greenway Trail segment, are of adequate size and location to meet the anticipated recreational demands of the future population of the Project. ~~Therefore, that Applicant shall not be required to pay a Recreation Fee for the 8 new apartments approved herein.~~ However, this particular Project was the subject of a Purchase and Sale Agreement between the City and the Applicant whereby the City and the Applicant agreed to certain terms and conditions for the sale of this City property to the Applicant. The Planning Board understands that one of those conditions includes the Applicant's agreement to pay recreational fees associated with the Project. Therefore, based on such agreement, the Planning Board finds that, prior to the issuance of the Certificate of Occupancy, the Applicant shall pay a Recreation Fee as per the City's Fee Schedule in effect at the time of payment for the eight (8) residential units to be developed pursuant to the Site Plan Approval granted herein.

BE IT FURTHER RESOLVED, that all other provisions and conditions of the Resolution remain in full force and effect.

BE IT FURTHER RESOLVED, that this resolution shall be affixed to the January 14, 2020 Resolution in the City Building Department records.

Resolution Adopted: May 12, 2020
Beacon, New York

_____ 5/15, 2020
John Gunn, Chairman Dated
City of Beacon Planning Board

Motion by Mr. Williams, seconded by Ms. Reynolds:

Kevin Byrne	Voting: RECUSED	Leonard Warner	Voting: AYE
Rick Muscat	Voting: EXCUSED	J. Randall Williams	Voting: AYE
Karen Quiana	Voting: AYE	John Gunn, Chairman	Voting: AYE
Jill Reynolds	Voting: AYE		

Resolution: Approved 5-0

Exhibit C

23-28 Creek Drive, LLC

25 EAST MAIN STREET Apt 3
BEACON, NEW YORK 12508
Phone/Fax: (845)202-7271

Rodney Weber
CEO/Managing Member
Rodney@Weberprojectsllc.com

Tina Andress- Landolfi
Vice President Of Operations
Tina@Weberprojectsllc.com

April 24, 2020

Dave Buckley
Building Inspector
City Of Beacon
One Municipal Plaza
Beacon NY 12508

Re: 23-28 Creek Drive Building Permit

Dear Mr. Buckley,
Please find enclosed:

- Signed Building Permit Application
- Building Permit Fee Check
- (2) 24x36 Full Sets Signed & Sealed Architectural Building Plans
- (2) Full Sets Signed & Sealed MEP Plans – To Be Delivered by Engineer
- (2) Full Sets Signed & Sealed Structural Engineer Plans- To Be Delivered By Engineer
- Entity Property Ownership List

Digital copy of Building Permit and Plans will be submitted Via Email.

Please let me know if you have any questions.

Sincerely,

Tina Andress
VP Operations
25 East Main Street
Beacon NY 12508

BUILDING DEPARTMENT FEE SCHEDULE

Application Fee for all permits unless otherwise noted	***$50***
Certificates of Occupancy and Certificates of Compliance (in conjunction with a permit unless otherwise noted)	***$50***
Refund (prior to commencement of work)	***1/2 of permit fee***

Occupancy use classification as set forth in the NYSBC.
Fee based on gross sq. ft. including utility, storage and basement area.

Residential

1 & 2 Family Homes (New and Additions) (all finished areas including basement)	**.50/sq. ft.**
Renovation/Alteration	**.25/sq. ft.**
Structural Repair (that does not constitute renovation/alteration	**$5/$1,000 of Est. Cost**
Carport	**$50**
Garage (1 story)	**.35/sq. ft.**
Garage (2 story)	**.45/sq. ft.**
Pool - in ground	**$50**
Pool - above ground	**$30**
Deck/Porch	**.25/sq. ft.**
Covered/Enclosed Deck/Porch	**.35/sq. ft.**
Solar Panels	**$5/$1,000 of Est. Cost**
Miscellaneous work (does not constitute renovation/alteration	**$5/$1,000 of Est. Cost**
Demolition	**$50/1,000 sq. ft. or part there of**
Renewal - max 1 yr extension	**$35**

Commercial

All - 'R' occupancy	**$50 per unit + .60/sq. ft.**
All - B,M,	**.75/sq. ft. up to 5,000 sq. ft. plus .30 sq. ft. over 5,000 sq. ft.**
All = S,U,	**.40/sq. ft. up to 5,000 sq. ft. plus .20/sq. ft. over 5,000 sq. ft.**
All - A,F,E,I	**$1/sq. ft. up to 5,000 sq. ft. plus .50/sq. ft. over 5,000 sq. ft.**
Renovation/a	**one half of "new construction" cost set forth herein.**
Structural Re	**$5/$1,000 of Est. Cost**
Demolition	**$100 plus .01 per sq. ft.**
Renewal - m	**$100 plus 1% of original BP fee**

$50 Permit Fee
$50 Certificate of Occupancy Fee

Residential
$400 (8 units x $50 per unit)
$8,412 (14,020 sf Residential Use x $0.60 per sf)

Commercial
$8,250 (5,000sf @ $0.75 per sf + 15,000sf @ $0.30 per sf)

Decks
$2,637.50 (10,550 sf deck @ $0.25 per sf)

Fire Protection
$1,575 (1.5% x $105,000 estimated fire protection cost)

Total Fee = $21,374.50

Other Building Department Fees

Storage Tanks	Remove and or install
Up to 500 Gallon	**$75**
500-1100 Gallon	**$125**
1100-5000 Gallon	**$250**
5000 Gallon	**$350**
(please note: fee is per removal and per installation - so if you remove and install up to 500 gallon tank fee is $150)	
Plumbing Reciprocal License (Separate Application)	**$350**
Plumbing Permit	**$20 Application plus**
(Separate Application)	**$7.50 per fixture**
HVAC Permit (Heating and Air Conditioning)	**$100 ($50 application fee and $50**
(Separate Application)	**certification compliance)**
Plumbing Reciprocal License (Separate Application)	**$350**
Electrical Work Permit	**Up to $500 = $20**
(Separate Application)	**$500 - $1,500 =$30.00**
	$1,500 - $3,500 = $40.00
	> $3,500 = $50.00
Fire Suppression systems/equipment	
Fire Alarm System/equipment	
(installation or modification)	**1.5% of approved cost**

City of Beacon
Building Department

APPLICATION FOR CERTIFICATE OF OCCUPANCY OR CERTIFICATE OF COMPLIANCE

DATE: April 24, 2020

The undersigned requests that a Certificate of Occupancy be issued pursuant to

BUILDING PERMIT ☑

CHANGE IN USE ☐

OWNER 23-28 Creek Drive, LLC

APPLICANT 23-28 Creek Drive, LLC

LOCATION 23-28 Creek Drive

SECTION 6054 BLOCK 37 LOT 037625

PERMITTED USE: Mixed use commercial and residential

Signature of Owner

Address

25 East Main Street

FEE: $50.00

APPROVED: _____
Building Inspector

DATE APPROVED: _____

City of Beacon
Building Department

APPLICATION PROCESSING RESTRICTION LAW
Affidavit of Property Owner

Property Owner: 23-28 Creek Drive, LLC
(Applicant)

If owned by a corporation, partnership or organization please list names of persons holding over 5% interest in business.

Rodney Weber

List all properties in the City of Beacon that you hold a 5% interest in.

See Attached

Applicant Address: 25 East Main Street
Project Address: 23-28 Creek Drive,
Project Tax Grid #: 6054-37-037625
Type of Application: Building Permit

*** Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent interest in a corporation or partnership or other business.**

I, Rodney Weber, the undersigned owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true.
(Check statements that are **true**)

1. No violations are pending for ANY parcel owned by me situated within the City of Beacon. ☑
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. ☑
4. Tax delinquencies exist on a parcel or parcels owned by me in 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. ☑

Signature of Owner

MEMBER
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
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: 23-28 Creek Drive LLC

Address of Applicant: 25 East Main Street Beacon NY 12508

Telephone Contact Information: 917-622-0657

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.
Rodney Weber	25 East Main St Beacon NY 12508	917-622-0657	-	-

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**

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, Rodney Weber being first duly sworn, according to law, deposes and says that the statements made herein are true, accurate, and complete.

(Print) Rodney Weber

(Signature) _____

CITY OF BEACON
1 Municipal Plaza, Beacon, NY
Telephone (845) 838-5000 • http://cityofbeacon.org/

ENTITY DISCLOSURE FORM

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any entity)

Disclosure of the names and addresses of all persons or entities owning any interest or controlling position of any Limited Liability Company, Partnership, Limited Partnership, Joint Venture, Corporation or other business entity (hereinafter referred to as the "Entity") filing a land-use application with the City is required pursuant to Section 223-62 of the City Code of the City of Beacon. If any Member of the Entity is not a natural person, then the names and addresses as well as all other information sought herein must be supplied about the non-natural person member of that Entity, including names, addresses and Formation filing documents. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

SECTION A.

IF AFFIANT IS A PARTNERSHIP, JOIN VENTURE OR OTHER BUSINESS ENTITY, EXCEPT A CORPORATION:

Name of Entity	Address of Entity
Place where such business entity was created	Official Registrar's or Clerk's office where the documents and papers creating entity were filed
Date such business entity or partnership was created	Telephone Contact Information

IF AFFIANT IS A CORPORATION:

Name of Entity	Telephone Contact Information
Principal Place of Business of Entity	Place and date of incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

SECTION B. List all persons, officers, limited or general partners, directors, members, shareholders, managers, and any others with any interest in or with the above referenced Entity. List all persons to whom corporate stock has been pledged, mortgaged or encumbered and with whom any agreement has been made to pledge, mortgage or encumber said stock. Use a supplemental sheet to list additional persons.

Name	Resident Address	Resident Telephone Number	Nature and Extent of Interest

SECTION C. 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.

SECTION D. Is any owner, of record or otherwise, an officer, director, stockholder, agent or employee of any person listed in Section B-C?

☐ **YES** ☑ **NO**

Name	Employer	Position

SECTION E. Is any party identified in Sections A- C 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**

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 F. Was any person referred to in Sections A-D known by any other name within five (5) years preceding the date of the application?

☐ **YES** ☑ **NO**

Current Name	Other Names

SECTION G. List the names and addresses of each person, business entity, partnership and corporation in the chain of title of the subject premises for the five (5) years next preceding the date of the application.

Name	Address
City Of Beacon	1 Municipal Plaza Beacon NY 12508

SECTION H. 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 I. 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, Rodney Weber being first duly sworn, according to law, deposes and says that I am (Title) Member, an active and qualified member of the 23-28 Creek Drive LLC, a business duly authorized by law to do business in the State of New York, and that the statements made herein are true, accurate, and complete.

(Print) Rodney Weber

(Signature) _____

City of Beacon
Building Department

Application for Building Permit

Approved: _____ **20** _____

Disapproved: _____ **20** _____

APPLICATION IS HEREBY MADE to the Building Department for the issuance of a Building Permit pursuant to the New York State Uniform Fire Prevention and Building Code for the construction of buildings, additions or alterations, the installation of equipment or systems, or for removal or demolition, as herein described. The applicant/owner agrees to comply with all applicable laws, ordinances and regulations. Owner/applicant agrees not to occupy or use in whole or part any building or item covered under this application until a Certificate of Occupancy or Certificate of Compliance has been issued.

_____
(Signature of owner)

Applicant Name 23-28 Creek Drive, LLC Phone 917-622-0657

Address 25 East Main Street

Location of Construction or Use 23-28 Creek Drive

Tax Grid Number 6054-37-037625

Owner Name 23-28 Creek Drive, LLC/ Rodney Weber Phone 917-622-0657

Address 25 East Main Street

NATURE OF PROPOSED WORK:

☑ ***RESIDENTIAL*** ☑ ***COMMERCIAL***

☑ ***Structure is located in a Flood Plain*** ☐ ***Structure is not located in a Flood Plain***

X Construction of New Building	36,740 sq. ft.	____ Addition to Existing Building	____ sq. ft.
____ Repair to Existing Building	____ sq. ft	____ Alteration	____ sq. ft.
____ Conversion – Change in Use	____ sq. ft.	____ Demolition	____ sq. ft
X Garage, Attached	11,730 sq. ft.	____ Garage, Detached	____ sq. ft.
____ Deck/Porch (enclosed, covered)	____ sq. ft.	X Deck/Porch (open)	10,550 sq. ft.
____ Above Ground Pool		____ In-Ground Pool	
____ Electrical Installation		____ Other	

ESTIMATED COST OF CONSTRUCTION: $5,000,000

Description of Work: New construction of 4 story building with underground garage for commercial and residential use. Sprinklers, lighting, mep, partitions, plumbing, windows, exterior stair, roof deck, pool at rooftop, elevator.

Size of Structure (dimensions): 65'x192' varies Square Footage: 34,762 + garage

Height: 53'-4" Number of Stories: 4 Number of Dwelling Units: 8

No. of Bedrooms: 18 No. of Bathrooms: 21

Contractor Information

Contractor Name: Weber Projects LLC/ Rodney Weber Phone: 917-622-0657

Address:

Licensed Plumber: TBD Phone:

Address:

Licensed Electrician: TBD Phone:

Address:

Heating Contractor: TBD Phone:

Address:

Building Department use only:

Application Fee:		=	$50.00
Certificate of Occupancy:	$50.00 if applicable	=	
Fee: Building Permit Schedule		=	
TOTAL FEE		=	

PROPERTIES OWNED BY RODNEY WEBER

ENTITY NAME	PROPERTY LOCATION
WEBER PROJECTS II LLC	25 EAST MAIN ST.
2 South Street LLC	2 SOUTH STREET /494-498 Main
WEBER PROJECTS III LLC	7 CREEK DRIVE
ROSENETH ESTATES	LOT# 730492
SCENIC BEACON DEVELOPMENTS	8 BRANCH STREET
SCENIC BEACON DEVELOPMENTS	22 EDGEWATER PLACE
SCENIC BEACON DEVELOPMENTS	555 SOUTH AVE .
SCENIC BEACON DEVELOPMENTS	PARCEL ID 130200-5954-25-574979-0000
SCENIC BEACON DEVELOPMENTS	PARCEL ID 130200-5954-25-566983-0000

City of Beacon Planning Board Agenda
07/14/2020

Title:

Certificate of Appropriateness – 424 Main Street; new façade color

ATTACHMENTS

424 Main Street - Application.pdf

424 Main Street Existing.pdf

424 Main Street Proposal.pdf

424 Main Street Proposed Colors.pdf

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: 5/26/20

Project Address: 424 main street Beacon (Restaurant)

Project Architect/Engineer: Lani Lautner

Owner/Builder: Gregory Trautman

Contact Phone No.: (845) 584-2023

Approval Requested: _____Certificate of Appropriateness _____New Single Family House

Color/Materials:

Siding: Mayo Teal CW-570

Roofing: _____

Windows: Color: _____ Type: _____

Trim: Temptation 1609

Garage Door: _____

Stone/Brick: _____

_____
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

EXISTING

EXISTING

PROPOSED

Mayo Teal
CW-570

Temptation
1609

City of Beacon Planning Board Agenda
07/14/2020

Title:

Certificate of Appropriateness – 1183 North Avenue (amendment)

ATTACHMENTS

1183 North Avenue Application.pdf

1183 North Avenue Color Elevations.pdf

1183 North Avenue Cover Letter.pdf

1183 North Avenue Plans.pdf

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: June 30, 2020

Project Address: 1183 North Avenue, Beacon NY 12508

Project Architect/Engineer: Day & Stokosa Engineering (Submitted through Hudson Land Design)

Owner/Builder: North Avenue Properties, LLC

Contact Phone No.: (845) 797-3796

Approval Requested: XXX Certificate of Appropriateness _____ New Single Family House

Color/Materials:

Siding: Mastic Cedar Discovery Perfection Shingle Vinyl Siding *Natural Slate*
Mastic Cedar Discovery Half-Round Vinyl Siding *Deep Granite*

Roofing: Certainteed Grand Manor Asphalt Roof Shingles *Colonial Slate*

Windows: Color: White Type: Andersen 200

Trim: *White* or *Russet Red* (refer to plan for locations)

Garage Door: N/A

Stone/Brick: None

(Daniel G. Koehler, Engineer for Applicant)

Signature of Owner

FOR OFFICE USE ONLY:

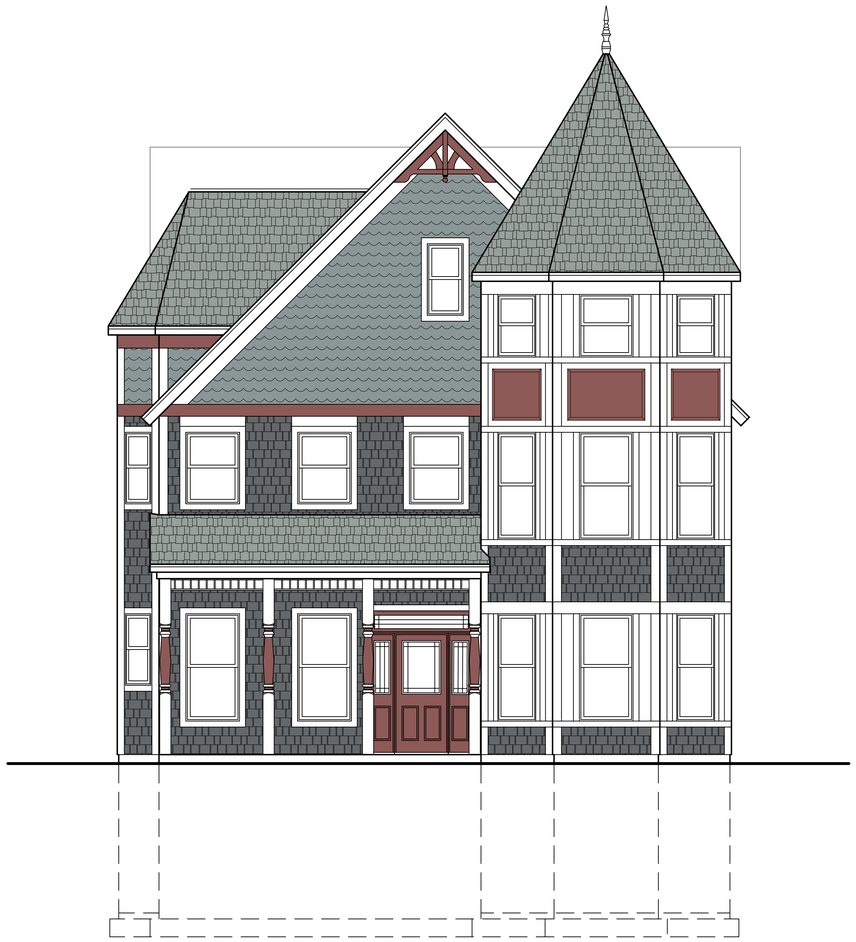
The Architectural Review Board has reviewed the plans submitted for approval for the project listed above and has determined:

Plan Denied _____
(Date)

Plan Approved _____
(Date)

Subject to the following:

FEE: $100.00



FRONT ELEVATION

SCALE: 1/8" = 1'-0"

REAR ELEVATION

SCALE: 1/8" = 1'-0"

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

	Brian J. Stokosa, PE
06-03-20	
11-06-19	
06-06-19	
05-30-19	
05-17-19	
Revisions 04-08-19	
Project No. 2019:049	License No. 083970

DAY | STOKOSA
ENGINEERING P.C.

3 Van Wyck
Lane Suite 2
Wappingers Falls, New York
(845)-223-3202

PROJECT

New Building Design

North Avenue, City of Beacon
Dutchess County, New York

North Avenue Properties, LLC

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	E1-C
DATE 03-20-19	CHECKED BY B.J.S.	

LEFT SIDE ELEVATION

SCALE: 1/8" = 1'-0"

RIGHT SIDE ELEVATION

SCALE: 1/8" = 1'-0"

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PROJECT

New Building Design
North Avenue, City of Beacon
Dutchess County, New York

North Avenue Properties, LLC

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	E2-C
DATE 03-20-19	CHECKED BY B.J.S.	

Civil & Environmental Engineering Consultants
174 Main Street, Beacon, New York 12508 (Main Office and Mailing Address)
13 Chambers Street, Newburgh, New York 12550 (Satellite Office)
Phone: 845-440-6926 Fax: 845-440-6637
www.HudsonLandDesign.com

June 30, 2020

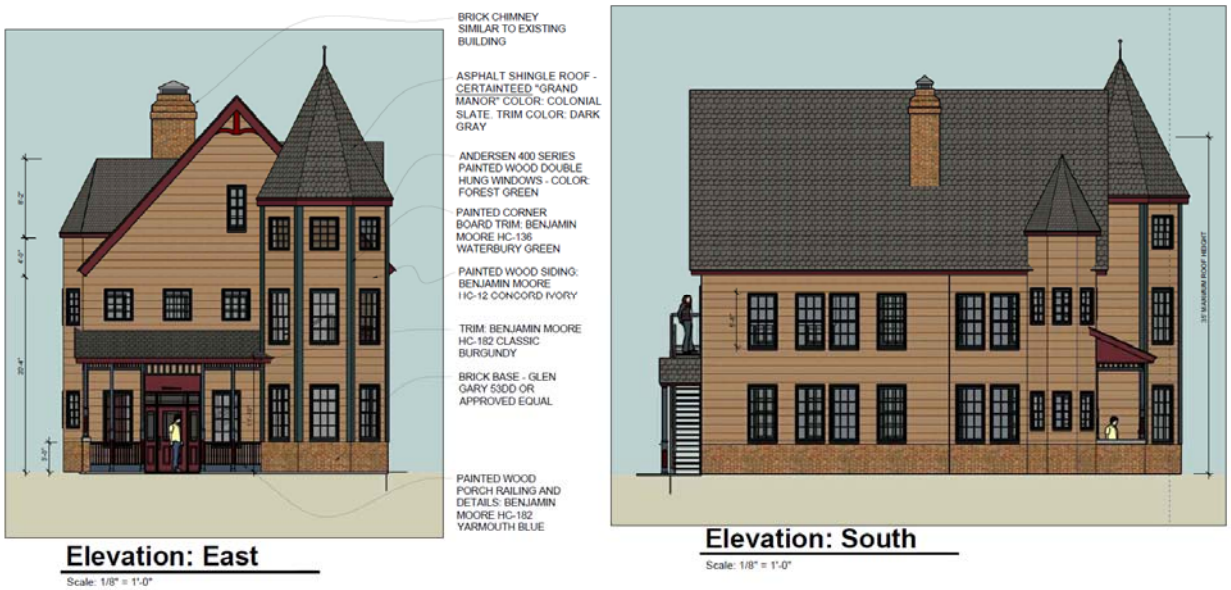
Mr. John Gunn, Chairman
City of Beacon Planning Board / Architectural Review Board
1 Municipal Center
Beacon, NY 12508

Re: 1183 North Avenue – Certificate of Appropriateness
Tax Parcel ID: 5955-19-716048 (±0.70 acres)
City of Beacon, Dutchess County, NY

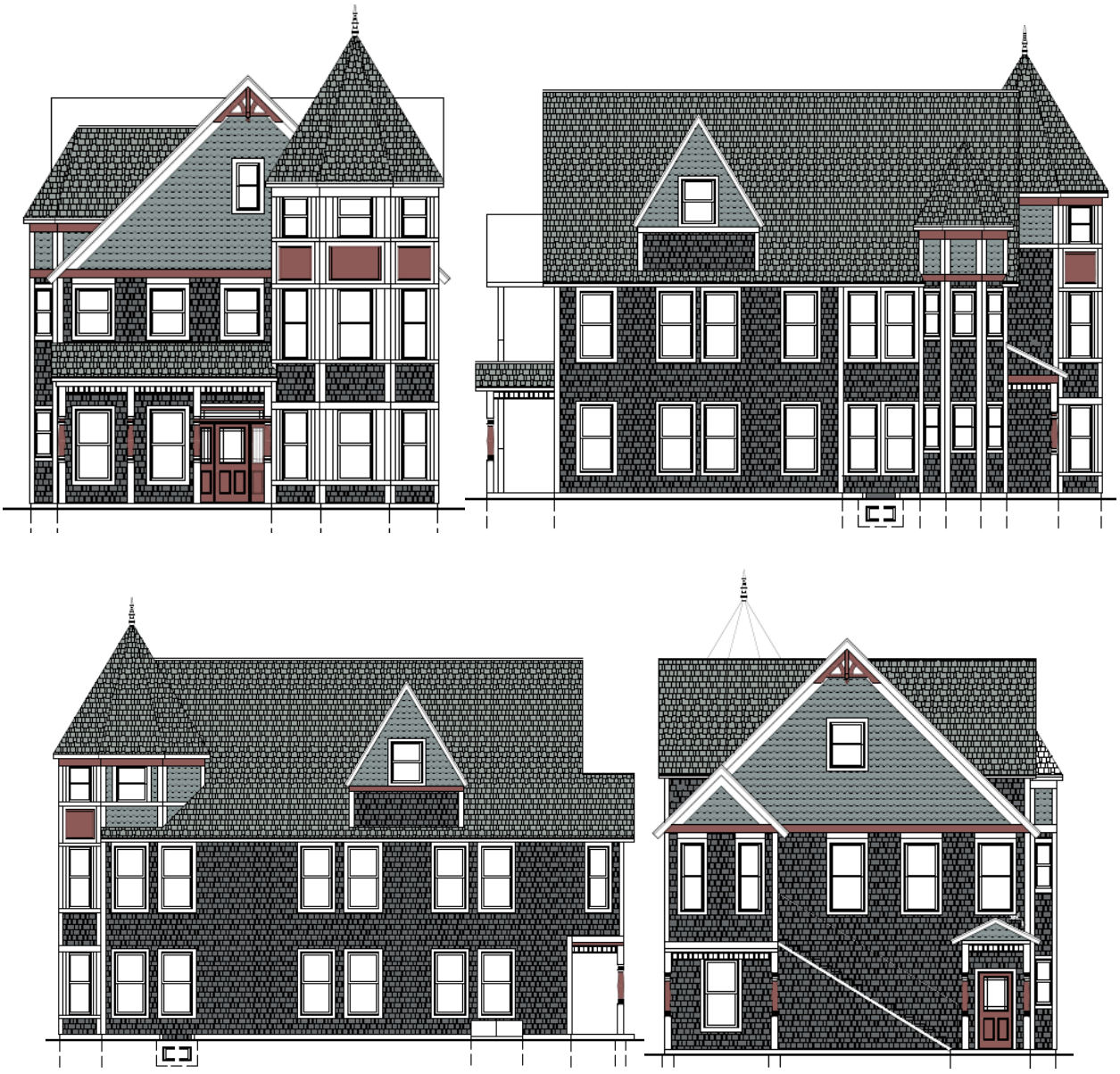
Dear Chairman Gunn:

Please recall that the Planning Board approved the project at 1181 North Avenue on September 11, 2018, including Certificate of Appropriateness for the building design. The project included subdivision that created the parcel at 1183 North Avenue, which is the subject of this submittal. Since that time, the Applicant retained a different building designer for submittal of documents to the Building Department for permits, which have been issued. As more time has passed, the Applicant has made some changes in collaborating with the contractor and the building designer. As such, the Applicant has asked that Hudson Land Design (HLD) provide an update to the Architectural Review Board as the building designer is unavailable for meetings at this time. Admittedly, we are not architects but will do our best to provide whatever information that the Board requests.

First, we would like to provide a list of changes between the plan that was approved during the Planning Board review phase of the project, as prepared by Aryeh Siegel, to the plans that have been prepared by Day & Stokosa, the current building designer. For your edification, snapshots of each are provided in this letter, and full size plans of the updated building design are provided with the submittal.



Elevations taken from Sheet 4 of 6 from the approved site plan and special use permit set that resulted in approval on September 11, 2018 (illustrations not to scale)



Elevations taken from Sheets E1-C and E2-C prepared by Day & Stokosa Engineering, P.C. dated June 3, 2020 (illustrations not to scale, arranged to match Siegel orientation)

The following is the list of changes:

- Eliminated all window grills
- Eliminated false chimney and replaced with a new dormer - South/Left elevation
- Window color change from (Anderson) Forest Green to White
- Trim Color change from (BM) Waterbury Green to White
- Added 4" white window trim surround to all windows and added other various trim boards, details, raised panels, etc. to provide a more Victorian appearance
- Changed from painted wood siding in (BM) Concord Ivory to a mixture of vinyl Mastic Cedar Discovery siding in Half Round style in Deep Granite and Perfection Shingle style in Natural Slate

- Various accent and trim pieces around building and doors painted Russet Red
- Rear second floor entry and staircase enclosed and made to look like the other two porches. Three windows added. Open metal staircase eliminated.

Second, we would like to provide a brief discussion on the thoughts behind the changes, as follows:

- The original intent was to generally match the new building with the existing building at 1181 North Avenue. However, no two consecutive buildings along this corridor match. Further, it is highly unlikely that colors will match based on the varying age of the existing building materials to the new materials for the proposed building. It is likely that these slight variations would contrast too much; therefore, an entirely new color scheme was manufactured. This will avoid the appearance of trying to match while not actually achieving a match. Along this section of North Avenue, the buildings all vary greatly in color, so this will not result in a building that does not match the character of the corridor.
- Serving little purpose, the false chimney was eliminated, and to add architectural feature back to that south elevation, the dormer was added. This also generally matches the north elevation which has a similar dormer.
- A further goal is to enhance Victorian character for the new building. To achieve this, the team added the wider trim, the enclosed staircase, and the new dormer, all at additional costs to the Applicant to meet the goal.

Please find enclosed the following materials for the Architectural Review Board's consideration at your next available regularly scheduled meeting:

- ARB Application Form;
- $100 Application Fee;
- Color Elevations – 2 sheets (1 copy);
- Building Plan Set – 7 sheets (1 copy);
- CD with all the above documents including this cover letter.

Should you have any questions or require additional information, please feel free to call me at 845-440-6926. We look forward to discussing these with the Board at the meeting.

Sincerely,

Daniel G. Koehler, P.E.

cc: Norm Schofield (via email)
Susanne Morgan (via email)
Michael A. Bodendorf, P.E. (HLD File)

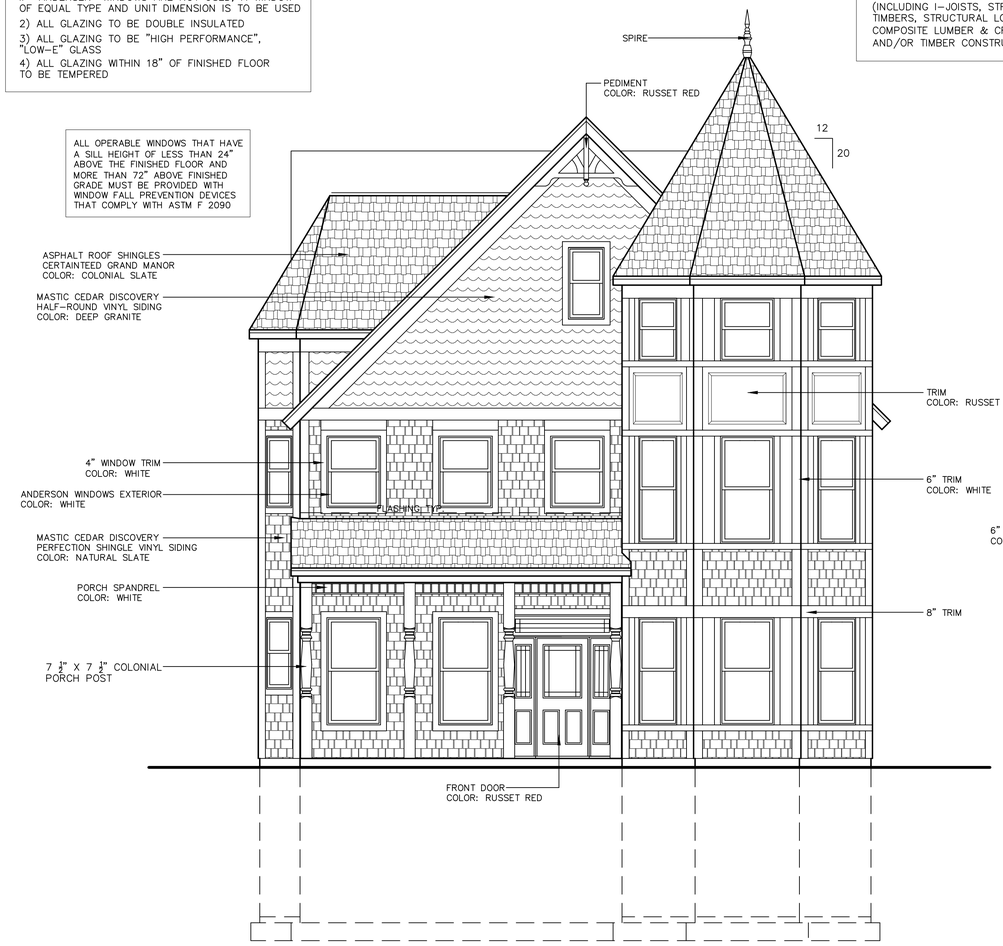
NOTES:

1) ALL WINDOW SIZES CALLED OUT ON FLOOR PLANS ARE "ANDERSEN 200 SERIES UNIT NUMBERS", IF "ANDERSEN" WINDOWS ARE NOT USED, A WINDOW OF EQUAL TYPE AND UNIT DIMENSION IS TO BE USED
2) ALL GLAZING TO BE DOUBLE INSULATED
3) ALL GLAZING TO BE "HIGH PERFORMANCE", "LOW-E" GLASS
4) ALL GLAZING WITHIN 18" OF FINISHED FLOOR TO BE TEMPERED

ALL OPERABLE WINDOWS THAT HAVE A SILL HEIGHT OF LESS THAN 24" ABOVE THE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE MUST BE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F 2090

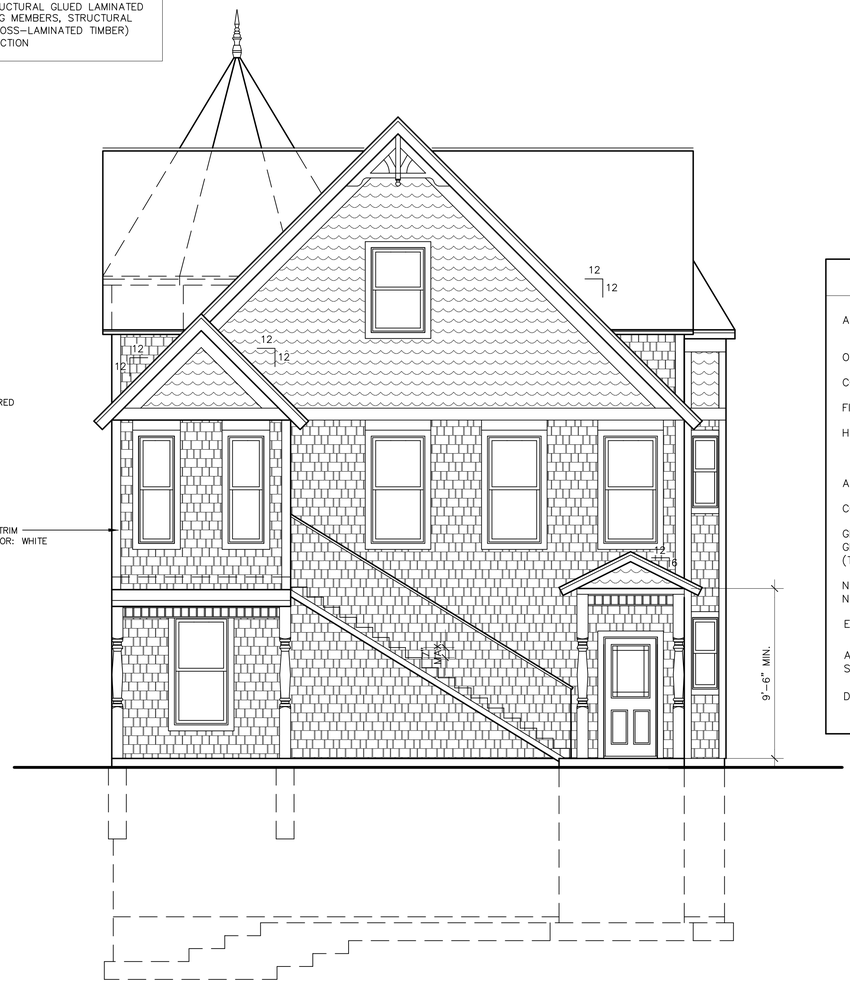
CONTRACTOR TO AFFIX AN APPROVED SIGN/SYMBOL TO THE EXTERIOR ELECTRIC BOX AT THE SERVICE POINT. THE SIGN IS TO INDICATE THE USE OF TRUSSES, PRE-ENGINEERED WOOD GIRDERS, BEAMS OR JOISTS THAT ARE BONDED WITH ADHESIVES (INCLUDING I-JOISTS, STRUCTURAL GLUED LAMINATED TIMBERS, STRUCTURAL LOG MEMBERS, STRUCTURAL COMPOSITE LUMBER & CROSS-LAMINATED TIMBER) AND/OR TIMBER CONSTRUCTION

SQUARE FOOTAGE:	
1st FLOOR:	1,416
2nd FLOOR:	1,446
TOTAL:	2,862



FRONT ELEVATION

SCALE: 1/4" = 1'-0"



REAR ELEVATION

SCALE: 1/4" = 1'-0"

DESIGN CRITERIA

1.	FLOOR LIVE LOAD ROOF LIVE LOAD	50 PSF 20 PSF
2.	GROUND SNOW LOAD	Pg = 30 PSF
3.	ULTIMATE DESIGN WIND SPEED NOMINAL DESIGN WIND SPEED WIND EXPOSURE	Vult = 115 MPH Vasd = 89 B
4.	SEISMIC DESIGN CATEGORY SITE CLASS	B D
5.	FLOOD DESIGN DATA	FIRM 36027C0463E 05/02/12
6.	SOIL LOAD-BEARING	DESIGN ASSUMES 2,000 PSF

SPECIAL INSPECTIONS (1704) – NOT REQUIRED FOR BUILDINGS OF CONVENTIONAL LIGHT-FRAMED CONSTRUCTION (1704.2)

CODE CONFORMANCE

AREA OF BUILDING	2,862 SQ. FT. (GROSS) 2 STORY
OCCUPANCY	BUSINESS GROUP "B" (304.1)
CONSTRUCTION TYPE	TYPE VB CONSTRUCTION (602.5)
FIRE RESISTANCE RATING	0 HR. (TABLE 601)
HEIGHT AND BUILDING AREAS	B 3 STORY MAX. (TABLE 504.4) 36,000 SQ. FT. MAX. (TABLE 506.2)
AUTOMATIC SPRINKLER SYSTEM	N/R

COMMERCIAL GRADE FIRE ALARM/DETECTION SYSTEM TO BE INSTALLED AS REQUIRED

GROSS AREA FIRST FLOOR/100 SQ. FT./OCCUPANT = 14 OCCUPANTS MAX.
GROSS AREA SECOND FLOOR/100 SQ.FT./OCCUPANT = 14 OCCUPANTS MAX.
(TABLE 1004.1.2)

NUMBER OF EXITS REQUIRED FIRST FLOOR: (1) EXIT REQUIRED, (2) EXISTS PROVIDED
NUMBER OF EXITS REQUIRED SECOND FLOOR: (1) EXIT REQUIRED, (1) PROVIDED

EXITS SIGNS ARE TO BE PROVIDED FOR BUILDING AS INDICATED

ALL CEILING AND WALL FINISHES ARE TO BE CLASS C FLAME SPREAD 76-200 SMOKE-DEVELOPED 0-450 (TABLE 803.11)

DRAFT STOPPING IN ATTIC NOT REQUIRED 1,416 < 3,000 SQ. FT. (1718.4.3).

RAILING & STAIR NOTES:

STAIRS SHALL BE PROVIDED WITH HANDRAILS. HANDRAILS SHALL BE A MINIMUM OF 34" IN HEIGHT AND NOT MORE THAN 38" IN HEIGHT. RAILS ARE TO BE MEASURED VERTICALLY FROM THE NOSING OF THE TREADS. CIRCULAR HANDRAILS SHALL HAVE AN OUTSIDE DIAMETER OF AT LEAST 1 1/4" AND NOT GREATER THAT 2". IF THE HANDRAIL IS NOT CIRCULAR IT SHALL HAVE A PERIMETER OF AT LEAST 4" AND NOT MORE THAN 6 1/4".

PORCHES, DECKS, BALCONIES OR RAISED FLOOR SURFACES LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS A MINIMUM OF 42" HIGH.

RISERS ARE TO BE CLOSED SUCH THAT THE OPENING BETWEEN THE TREADS DOES NOT PERMIT THE PASSAGE OF A 4" DIAMETER SPHERE.

WINDOW SCHEDULE

TAG/UNIT#	NO.	TYPE	MANUF.	U-FACTOR	ROUGH OPENING	MEETS EGRESS REQUIREMENTS	TEMPERED GLASS
3040	1	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	36" X 48"	NO	YES
3040	3	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	36" X 48"	NO	NO
3049	1	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	36" X 57"	YES	NO
2040	7	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	24" X 48"	NO	NO
3036	4	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	36" X 42"	NO	NO
2060	3	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	24" X 72"	NO	YES
3060	32	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	36" X 72"	YES	NO
2860	4	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	32" X 72"	NO	NO
BSMT WINDOW	2	BASEMENT	TAFCO		31 3/4" X 15 3/4" UNIT SIZE	NO	

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	Brian J. Stokosa, PE
06-04-20	
06-03-20	
11-06-19	
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05-30-19	
05-17-19	
Revisions 04-08-19	
Project No. 2019:049	License No. 083970

DAY | STOKOSA
ENGINEERING P.C.
3 Van Wyck
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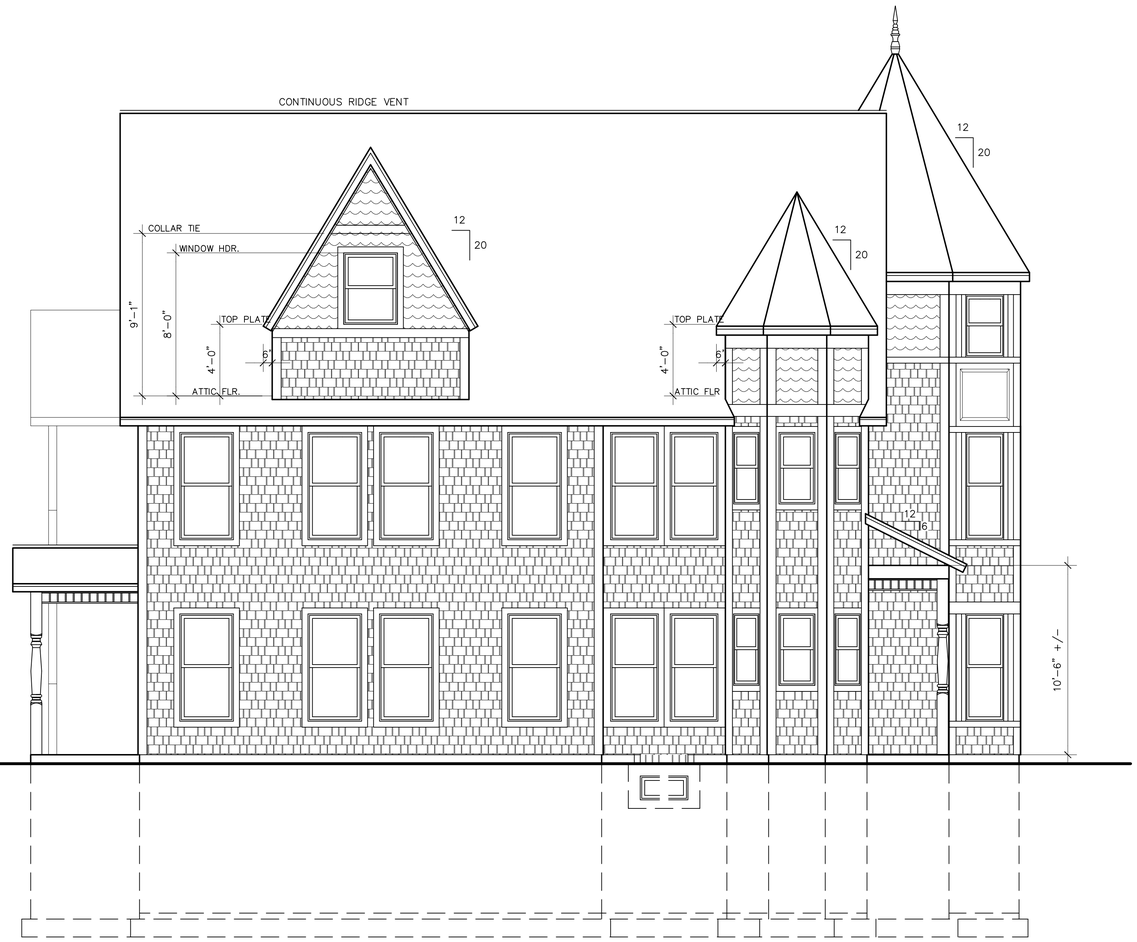
(845)-223-3202

PROJECT
New Building Design
North Avenue, City of Beacon
Dutchess County, New York

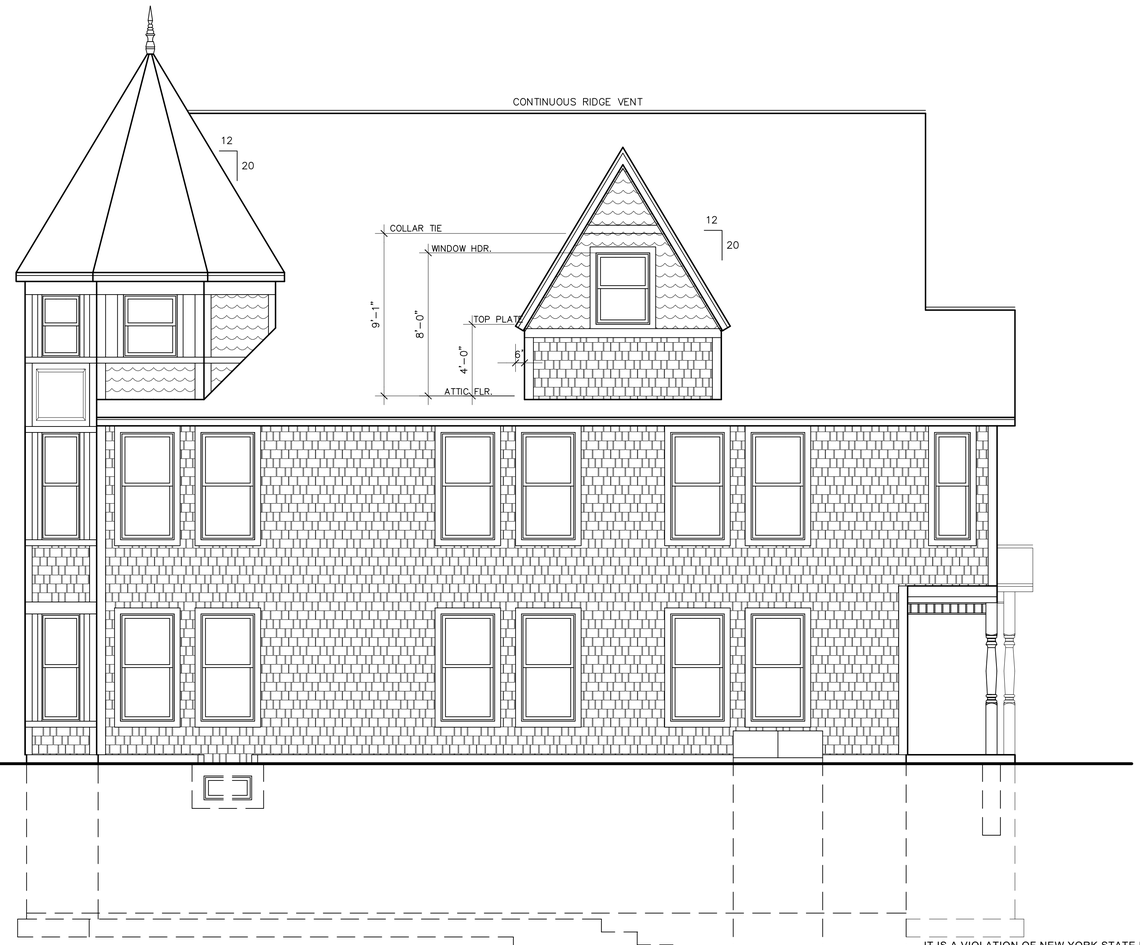
North Avenue Properties, LLC

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	E1
DATE 03-20-19	CHECKED BY B.J.S.	



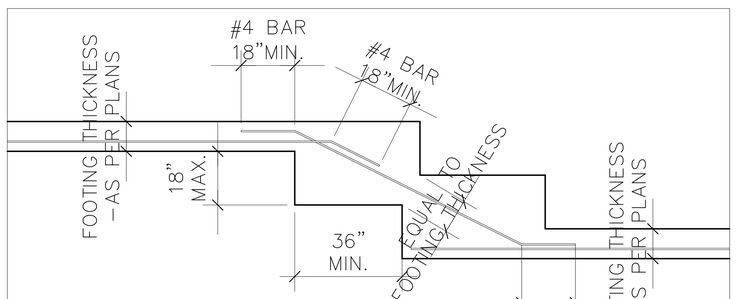
LEFT SIDE ELEVATION

SCALE: 1/4" = 1'-0"



RIGHT SIDE ELEVATION

SCALE: 1/4" = 1'-0"



STEPPED FOOTING DETAIL SCALE: 1/2"= 1'-0"

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Project No. 2019:049	License No. 083970

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ENGINEERING P.C.
3 Van Wyck
Lane Suite 2
Wappingers Falls, New York
(845)-223-3202

PROJECT

New Building Design
North Avenue, City of Beacon
Dutchess County, New York

North Avenue Properties, LLC

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	E2
DATE 03-20-19	CHECKED BY B.J.S.	

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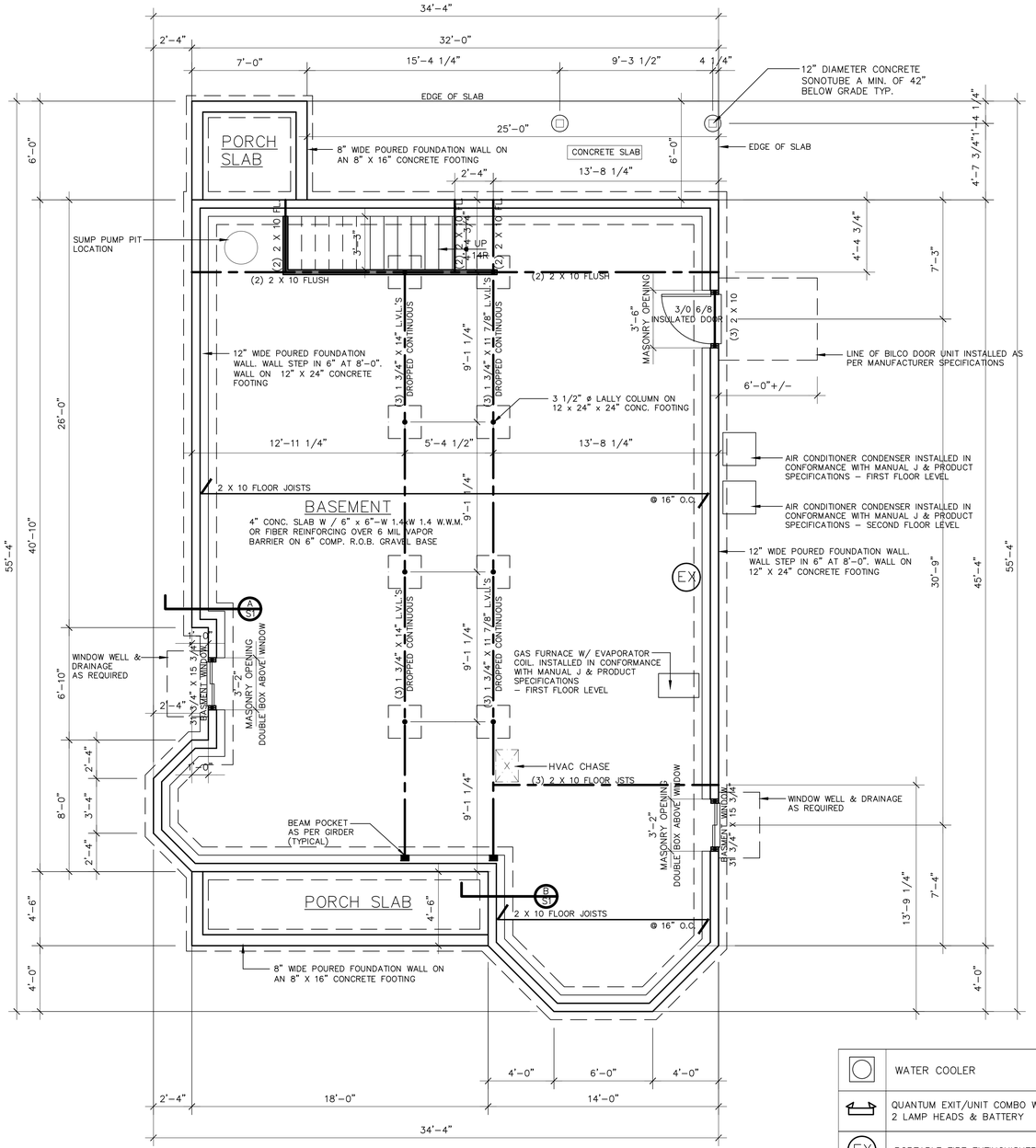
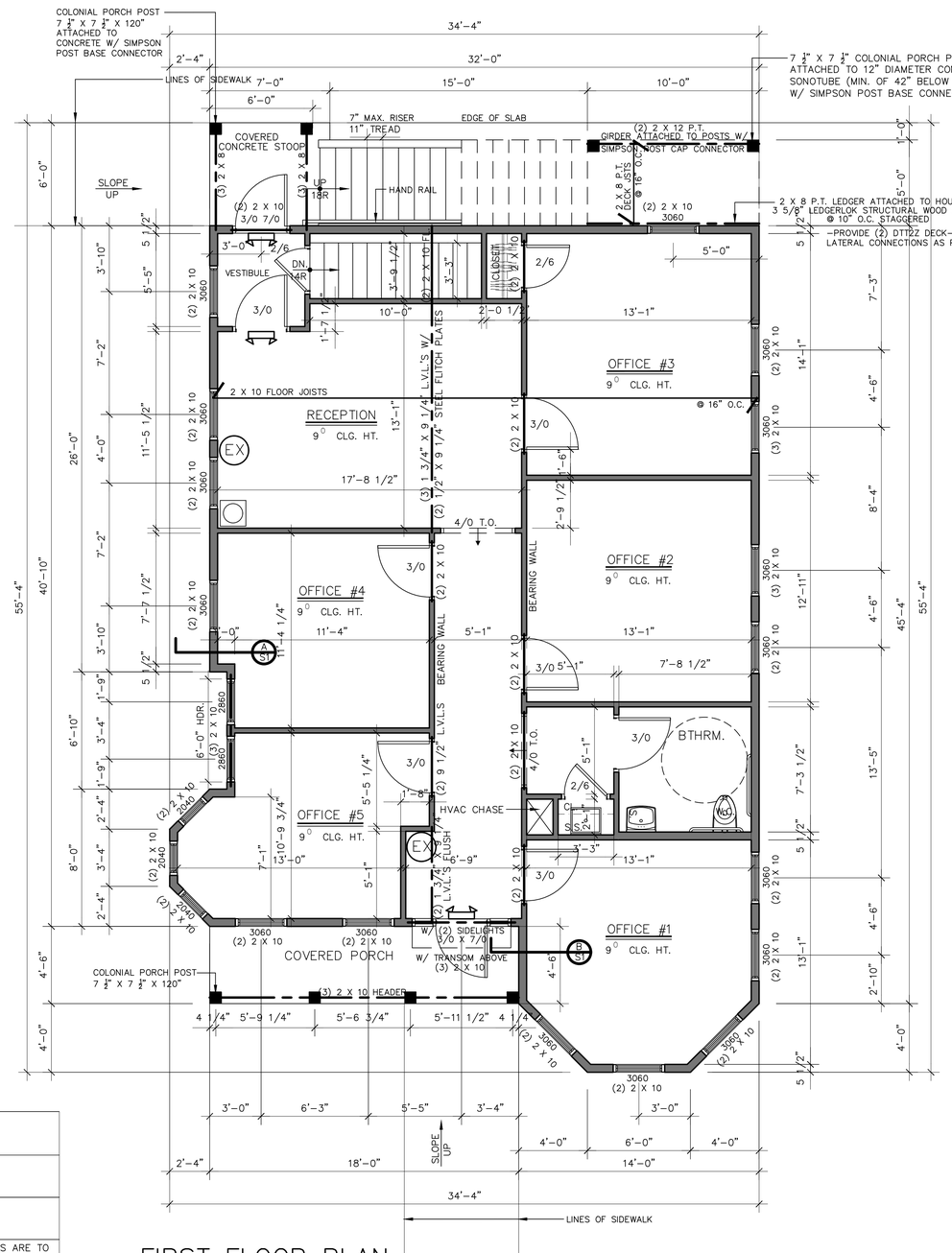


BASEMENT PLAN

SCALE: 1/4" = 1'-0"

◯	WATER COOLER
	QUANTUM EXIT/UNIT COMBO W/ 2 LAMP HEADS & BATTERY
EX	PORTABLE FIRE EXTINGUISHER

THE REQUIRED PORTABLE FIRE EXTINGUISHERS ARE TO BE LOCATED IN PLAIN VIEW. THE EXTINGUISHERS ARE TO BE READILY ACCESSIBLE AND IMMEDIATELY AVAILABLE FOR USE. THE EXTINGUISHERS MAY BE HOUSED IN A CABINET, BUT MAY NOT BE LOCKED. EXTINGUISHER THAT WEIGHTS 40 POUNDS OR LESS CAN BE INSTALLED SO THAT THE TOP IS NOT MORE THAN 5 FEET ABOVE THE FLOOR. EXTINGUISHER THAT WEIGHTS MORE THAN 40 POUNDS SHALL BE INSTALLED SO THAT THE TOP IS NOT MORE THAN 3 1/2 FEET ABOVE THE FLOOR.



FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

FRAMING NOTES:

ALL EXTERIOR WALLS ARE TO BE 2X6 WOOD STUDS

ALL INTERIOR WALLS ARE TO BE 2X4 WOOD STUDS

DOUBLE ALL FLOOR JOISTS UNDER WALLS ABOVE, THAT ARE FRAMED PARALLEL TO FLOOR FRAMING UNLESS OTHERWISE NOTED ON PLAN.

ALL FLOOR JOISTS, CEILING JOISTS & RAFTERS ARE TO BE S.P.F.

ALL BEAMS, GIRDERS AND HEADERS ARE TO BE DOUG FIR LARCH #2 OR BETTER WITH A Fb RATING OF 875 AND A MODULUS OF ELASTICITY OF 1600000 MINIMUM UNLESS OTHERWISE NOTED ON PLAN.

ALL LAMINATED VENEER LUMBER (L.V.L.) BEAMS, GIRDERS AND HEADERS, LABELED ON PLAN, TO HAVE A Fb RATING OF 2950 AND A MODULUS OF ELASTICITY OF 2,000,000 MINIMUM UNLESS OTHERWISE NOTED ON PLAN. STRUCTURAL LAMINATED BEAMS TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS.

CUTS, NOTCHES & HOLES BORED IN TRUSSES, STRUCTURAL COMPOSITE LUMBER, STRUCTURAL GLUE–LAMINATED MEMBERS OR I–JOISTS ARE PROHIBITED EXCEPT WHERE PERMITTED BY THE MANUFACTURER'S RECOMMENDATIONS.

FOR LOAD–BEARING PARTITIONS INSTALL DOUBLE JAMB STUDS UNDER HEADER FOR OPENINGS 6' AND LESS IN WIDTH. TRIPLE JAMB STUDS FOR WIDER OPENINGS. FOR NON–BEARING PARTITIONS INSTALL ONE JAMB STUD FOR OPENINGS LESS THAN 4' IN WIDTH AND DOUBLE JAMS STUDS FOR WIDER OPENINGS.

CONTRACTOR TO PROVIDE SOLID 2 X 10 BLOCKING TO BE LOCATED BETWEEN FLOOR JOISTS WERE POSTS, FROM ABOVE, CARRYING STRUCTURAL HEADERS LAND BETWEEN FLOOR JOISTS BELOW. BLOCKING TO BE BUILT UP TO THE SAME WIDTH AS POST IT IS CARRYING ABOVE.

ALL JOISTS TO OVER LAP GIRDER OR BEARING WALL A MINIMUM OF 3".

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PROJECT

New Building Design

North Avenue, City of Beacon
Dutchess County, New York

North Avenue Properties, LLC

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	P1
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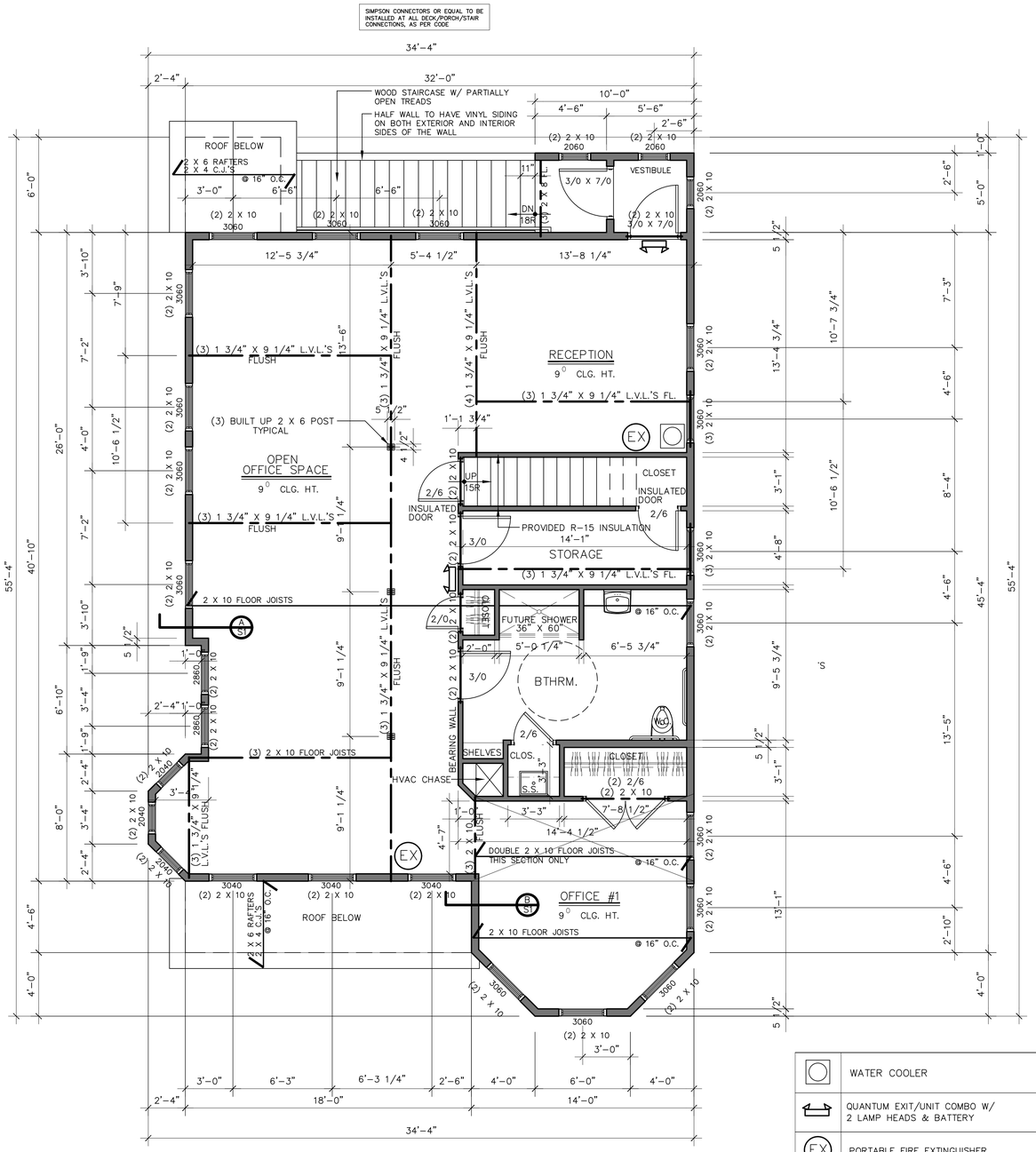
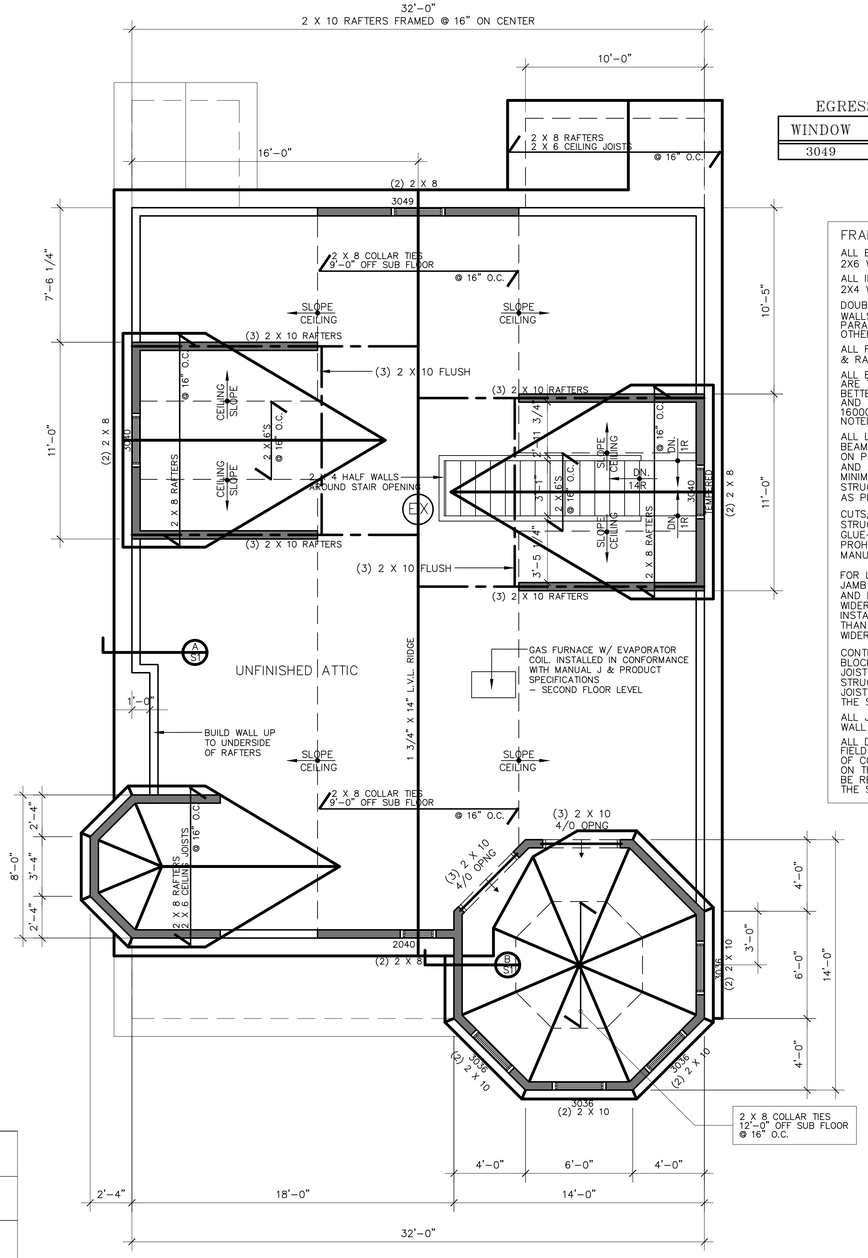


SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

	WATER COOLER
	QUANTUM EXIT/UNIT COMBO W/ 2 LAMP HEADS & BATTERY
EX	PORTABLE FIRE EXTINGUISHER

THE REQUIRED PORTABLE FIRE EXTINGUISHERS ARE TO BE LOCATED IN PLAIN VIEW. THE EXTINGUISHERS ARE TO BE READILY ACCESSIBLE AND IMMEDIATELY AVAILABLE FOR USE. THE EXTINGUISHERS MAY BE HOUSED IN A CABINET, BUT MAY NOT BE LOCKED. EXTINGUISHER THAT WEIGHTS 40 POUNDS OR LESS CAN BE INSTALLED SO THAT THE TOP IS NOT MORE THAN 5 FEET ABOVE THE FLOOR. EXTINGUISHER THAT WEIGHTS MORE THAN 40 POUNDS SHALL BE INSTALLED SO THAT THE TOP IS NOT MORE THAN 3 1/2 FEET ABOVE THE FLOOR.



ROOF/ATTIC PLAN

SCALE: 1/4" = 1'-0"

EGRESS REQUIREMENTS

WINDOW	SQ.FT. CLEAR	WIDTH CLEAR	HEIGHT CLEAR
3049	5.7	32.56"	25.20"

FRAMING NOTES:

ALL EXTERIOR WALLS ARE TO BE 2X6 WOOD STUDS

ALL INTERIOR WALLS ARE TO BE 2X4 WOOD STUDS

DOUBLE ALL FLOOR JOISTS UNDER WALLS ABOVE, THAT ARE FRAMED PARALLEL TO FLOOR FRAMING UNLESS OTHERWISE NOTED ON PLAN.

ALL FLOOR JOISTS, CEILING JOISTS & RAFTERS ARE TO BE S.P.F.

ALL BEAMS, GIRDERS AND HEADERS ARE TO BE DOUG FIR LARCH #2 OR BETTER WITH A Fb RATING OF 875 AND A MODULUS OF ELASTICITY OF 1600000 MINIMUM UNLESS OTHERWISE NOTED ON PLAN.

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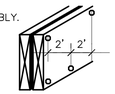
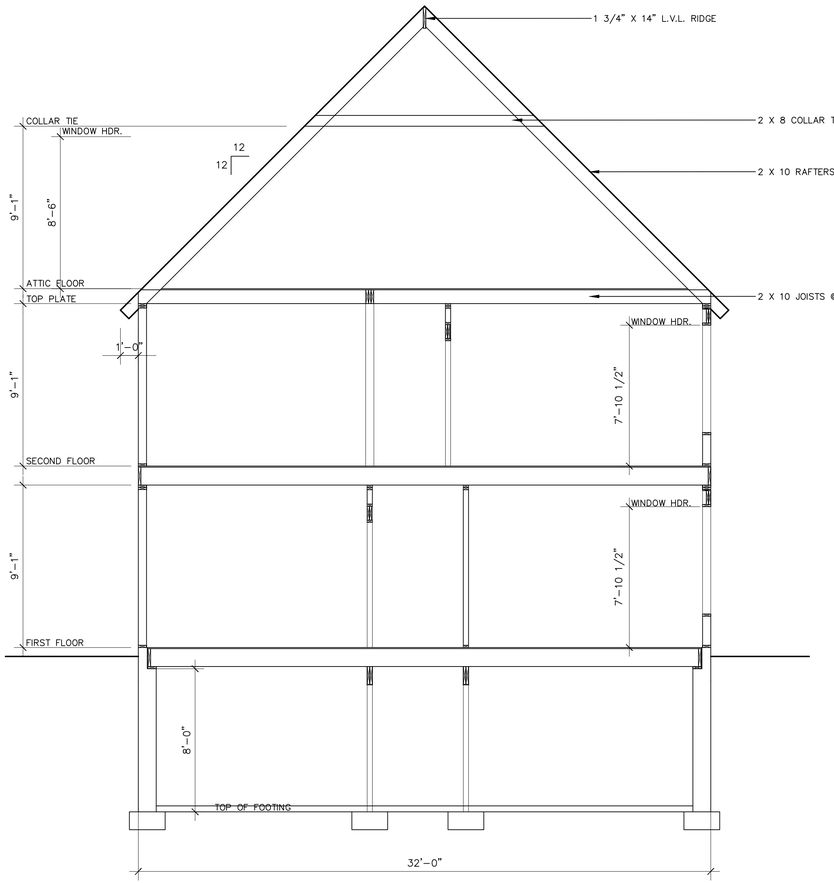
NOTES:

L.V.L.'S AND STEEL PLATE ARE TO BE BOLTED TOGETHER @ EVERY 2'-0". BOLTS ARE TO BE STAGGERED FROM BOTTOM TO TOP. AT A MIN. OF 1" OFF BOTH TOP & BOTTOM EDGE OF ASSEMBLY. A BOLT IS TO BE @ BOTH TOP AND BOTTOM OF OF EACH END OF ASSEMBLY.



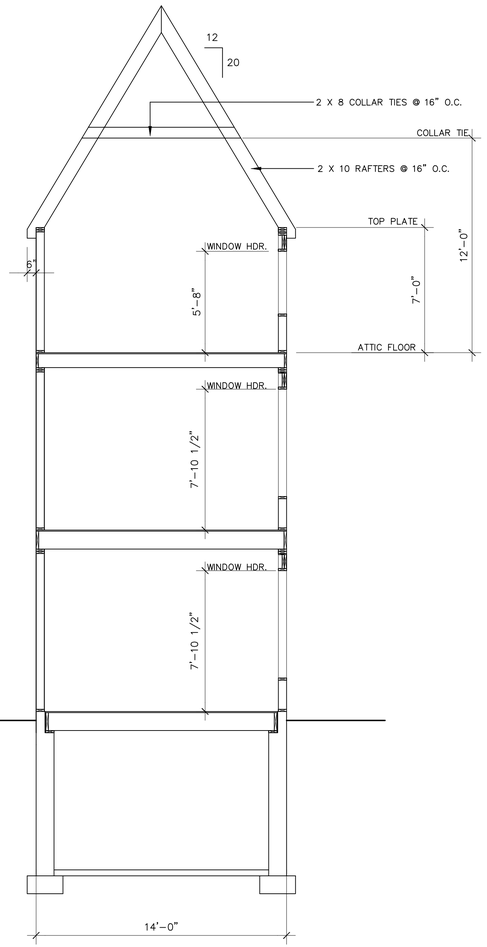
TYPICAL FLITCH PLATE DETAIL

SCALE: N.T.S.



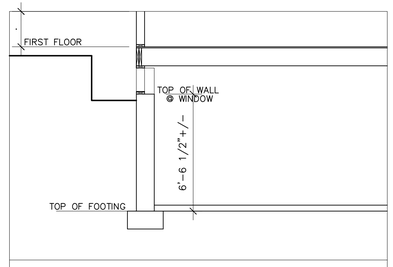
SECTION – A

SCALE: 1/4" = 1'-0"



SECTION – B

SCALE: 1/4" = 1'-0"



BASEMENT WINDOW DETAIL

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ENERGY CODE / HVAC NOTES

2015 INTERNATIONAL ENERGY CONSERVATION CODE

BUILDING TYPE: 2-STORY COMMERCIAL – OFFICE
CODE DESIGN METHOD: COMCHECK
CLIMATE ZONE: 5A

HEATING EQUIPMENT TYPE: SHALL BE DESIGNED BY THE H.V.A.C. CONTRACTOR

I, BRIAN J. STOKOSA CERTIFY THAT THESE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE SECTIONS OF THE INTERNATIONAL ENERGY CONSERVATION CODE.

COMPONENT	PROVIDED
CEILING	R-30
WOOD FRAMED WALL	R-21
FLOOR FRAMING	R-30
U-FACTOR	U-.30

THE BUILDING ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE FOR THE SECOND FLOOR APARTMENT. THE ENVELOPE SHALL BE TESTED AND VERIFIED TO HAVE AN AIR LEAKAGE RATE NOT EXCEEDING 3 AIR CHANGES PER HOUR AND A REPORTED PRESSURE OF 0.2 INCH W.G. (50 PASCALS). ALL DUCTS, AIR HANDLERS AND FILTER BOXES ARE TO BE SEALED. DUCTS ARE TO BE PRESSURE TESTED TO DETERMINE LEAKAGE.

A VENTILATION SYSTEM IS TO BE INSTALLED FOR THE NEW BUILDING. THE SYSTEM IS TO BE DESIGNED IN ACCORDANCE WITH M1507.3, THE SQUARE FOOTAGE OF THE DWELLING AND THE NUMBER OF BEDROOMS. OUTDOOR AIR INTAKES AND EXHAUSTS ARE TO HAVE AUTOMATIC OR GRAVITY DAMPERS THAT CLOSE WHEN SYSTEM IS NOT IN OPERATION.

FIREBLOCKING SHALL BE PROVIDED TO CUT OFF VERTICLE AND HORIZONTAL DRAFT OPENINGS AND TO FORM A FIRE BARRIER BETWEEN STORIES AND THE TOP STORY AND ROOF SPACE.

FIREBLOCKING IS TO BE PROVIDED IN THE FOLLOWING LOCATIONS:
– IN CONCEALED STUD WALLS VERTICALLY AT CEILING & FLOOR LEVELS AND INTERVALS NOT EXCCEDING 10'
– AT INERCONNECTIONS BETWEEN CONCEALED VERTICLE AND HORIZONTAL SPACES, SUCH AS SOFFITS, DROP CEILINGS, COVE CEILINGS
– IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP & BOTTOM OF THE RUN.
FIREBLOCKING SHALL CONSIST OF NOMINAL TWO-INCH LUMBER, $23/32$" PLYWOOD, ¾" PARTICAL BOARD, ½" GYPSUM BOARD, ¼" CEMENT BASED MILLBOARD OR BATTS/BLANKETS OF MINERAL WOOL OR GLASS FIBER SECURELY RETAINED IN PLACE.

AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES, AND WIRES AT THE CEILING AND FLOOR LEVEL AN APPROVED MATERAIL IS TO BE INSTALLED TO RESIST THE FREE PASSAGE OF FLAME & PRODUCTS OF COMBUSTION.

GENERAL NOTES

DIVISION 1 – GENERAL CONDITIONS:

CODES: ALL WORK & MATERIALS MUST CONFORM TO THE 2015 INTERNATIONAL BUILDING CODE, LOCAL BUILDING CODES, NATIONAL BOARD OF FIRE UNDERWRITERS CODE AND TO THE REQUIREMENTS OF THE BOARD OF HEALTH & 2015 INTERNATIONAL ENERGY CONSERVATION CODE.

OMISSION: ANYTHING NOT SPECIFICALLY SHOWN HEREON AND/OR SPECS, BUT WHICH IS REASONABLY IMPLIED, SHALL BE FURNISHED AS THOUGH SET FORTH IN THE PLANS AND/OR SPECIFICATIONS. ALL WRITTEN FIGURES, NOTES & DIMENSIONS ON THE FLOOR PLANS, OR SPECIFICATIONS SHALL TAKE PRECEDENCE OVER ANY DRAWN FIGURES. DO NOT SCALE PRINTS. ALL DIMENSIONS MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE START OF CONSTRUCTION. ANY DISCREPANCIES ON THE PLANS, OR SPECIFICATIONS, MUST BE REPORTED TO THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.

ALL PERMITS ARE NOT THE RESPONSIBILITY OF THE ENGINEER.

MATERIALS: ALL MATERIALS SHALL BE NEW AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

SUBSTITUTIONS: SUBSTITUTIONS MADE FOR STRUCTURAL MATERIALS SPECIFIED BY NAME MAY BE MADE ONLY IF APPROVED BY ENGINEER.

OWNERSHIP OF PLANS: THESE PLANS ARE PROPERTY OF DAY & STOKOSA ENGINEERING, P.C. ANY USE OR REPRODUCTION, IN WHOLE OR PART, WITHOUT THE WRITTEN CONSENT OF DAY & STOKOSA IS PROHIBITED. ANY PERSON, OR CORPORATION, USING PLANS WITHOUT CONSENT WILL BE RESPONSIBLE TO COMPENSATE DAY & STOKOSA.

ENGINEER's STATUS: THE ENGINEER HAS NOT BEEN RETAINED BY OWNER TO PROVIDE PERIODIC JOB INSPECTIONS OR JOB ADMINISTRATION AND SHALL NOT BE RESPONSIBLE FOR CHANGES MADE IN THE FIELD WITHOUT WRITTEN OR GRAPHIC AUTHORIZATION.

DIVISION 2 – SITE WORK:

FOOTINGS: IF SOIL BEARING CONDITIONS ARE QUESTIONABLE, THE CONTRACTOR SHALL CONSULT A SOILS ENGINEER FOR PROPER FOOTING DESIGN. THE PLANS ARE BASED ON A MINIMUM SOIL BEARING CAPACITY 2,000 PSF.

FINISHED GRADING: FINISHED GRADING SHALL BE PERFORMED SO AS TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING.

DIVISION 3 – CONCRETE:

ALL CONCRETE USED SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 28 DAYS UNLESS OTHERWISE NOTED. ALL CONCRETE WORK SHALL BE DONE IN COMPLETE CONFORMANCE TO APPLICABLE ACI CODES.

DIVISION 5 – METALS:

STRUCTURAL STEEL: ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM SPECIFICATIONS A-36 FOR STRUCTURAL STEEL. ALL STEEL PIPE COLUMNS SHALL BE OF STANDARD WEIGHT PIPE UNLESS OTHERWISE NOTED. STRUCTURAL STEEL HAS BEEN DESIGNED FOR A MAXIMUM BENDING STRESS OF 24,000 PSI, IN ACCORDANCE WITH THE 9TH EDITION OF THE AISC. ALL STEEL BEAMS SHAL BE FACTORY PRIMED WITH A RUST PROHIBITOR AND FIELD PAINTED WHERE EXPOSED TO WEATHER. ALL BEAM CONNECTIONS SHALL BE THROUGH BOLTED UNLESS OTHERWISE NOTED. ALL HOLES SHALL BE DRILLED OR PUNCHED. TORCHED HOLES SHALL NOT BE PERMITTED.

REINFORCING STEEL: ALL REINFORCING STEEL BARS SHALL BE GRADE 60.

DIVISION 6 – WOOD & PLASTICS:

LUMBER: ALL STRUCTURAL LUMBER SHALL HAVE A MINIMUM BENDING STRESS OF 1,200 PSI.

FRAMING: FRAMING SHALL BE ERECTED PLUMB, LEVEL, TRUE AND SECURELY NAILED. JOISTS, STUDS AND RAFTERS ARE TO BE DOUBLED AT ALL OPENINGS. ALL FLUSH JOIST HEADERS TO BE CONNECTED WITH GALVANIZED METAL JOIST HANGERS. ALL FLUSH BEAM CONNECTIONS SHALL HAVE HEAVY DUTY JOIST HANGERS. DOUBLE FRAME UNDER ALL PARTITIONS PARALLEL TO FRAMING. SIZES OF JOISTS AND RAFTERS ARE SHOWN ON THE PLAN. IF A WOOD DECK IS PROVIDED, ALL STRUCTURAL MEMBERS SHALL BE PRESSURE TREATED LUMBER.

SHEATHING & SUBFLOOR: SHEATHING & SUBFLOOR SHALL BE APA ORIENTED STRAND BOARD WITH EXTERIOR GLUE AND NAILED TO EACH FRAMING MEMBER UNLESS OTHERWISE NOTED.

JOIST HANGERS: JOIST HANGERS SHALL BE GALVANIZED STEEL OR IRON, SIZED TO FIT THE SUPPORTED MEMBER AND OF SUFFICIENT STRENGTH TO DEVELOP THE FULL STRENGTH OF THE SUPPORTED MEMBER, AND FURNISHED COMPLETE WITH ANY SPECIAL FASTENERS REQUIRED. MANUFACTURES SHALL BE "SIMPSON" STRONG-TIE, OR EQUAL.

DIVISION 7 – THERMAL & MOISTURE PROTECTION:

ROOFING: ALL CHIMNEYS SHALL BE PROPERLY FLASHED WITH GALVANIZED STEP FLASHING. VALLEY AND VERTICAL ROOF SECTIONS SHALL BE PROPERLY SUPPORTED. ALL ROOFING SHALL BE INSTALLED IN STRICT CONFORMANCE TO THE MANUFACTURER'S SPECIFICATIONS.

ASPHALT SHINGLES: TO BE SELECTED BY OWNER OR CONTRACTOR.

VENTS: VENTILATE ALL ATTIC, RAFTER AND CRAWL SPACE AREAS WITH PROPER SIZED SCREENED VENTS AND/OR LOUVERS.

INSULATION: ALL INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH THE 2015 IECC.

CAULKING: ALL EXTERIOR JOINTS BETWEEN WINDOWS, DOORS AND OTHER SURFACES SHALL BE CAULKED USING A WEATHERPROOF CAULKING.

DIVISION 8 – DOORS & WINDOWS:

WINDOWS: ALL WINDOWS SHALL MEET THE MINIMUM REQUIREMENTS FOR LIGHT, VENTILATION AND EGRESS. ALL WINDOWS SHALL BE OF SUFFICIENT CONSTRUCTION SO AS TO MEET THE 2015 IECC.

INTERIOR DOORS: ALL INTERIOR DOORS SHALL COME COMPLETE WITH HARDWARE. ALL DOORS SHALL MEET THE MINIMUM REQUIREMENTS OF THE 2015 IECC, IF APPLICABLE.

DIVISION 9 – FINISHES:

DRYWALL: DRYWALL SHALL BE 1/2" GYPSUM BOARD SECURELY SCREWED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. ALL JOINTS ARE TO BE TAPED AND SHALL RECEIVE (3) COATS OF JOINT COMPOUND. FINISHES TO BE SMOOTH, EVEN AND READY FOR PAINTING.

DIVISION 15 – MECHANICAL:

HEATING: THE CONTRACTOR SHALL FURNISH & INSTALL A HEATING SYSTEM WHICH MEETS THE 2015 IECC.

FLASHING: ALL PIPES PASSING THROUGH ROOF SHALL BE MADE WATER-TIGHT.

ALL PIPES CARRYING WATER OVER 105 DEGREES MUST BE INSULATED WITH A MINIMUM OF R-3.

TESTING: THE CONTRACTOR SHALL TEST ALL WATER SUPPLY AND DRAIN, WASTE AND VENT PIPING IN ACCORDANCE WITH ALL CODES.

DIVISION 16 – ELECTRICAL:

ALL ELECTRICAL WORK SHALL BE DONE IN STRICT CONFORMANCE WITH THE NATIONAL BOARD OF FIRE UNDERWRITERS AND LOCAL CODES. THE SERVICE SIZE SHALL BE A MINIMUM OF 100 AMPS.

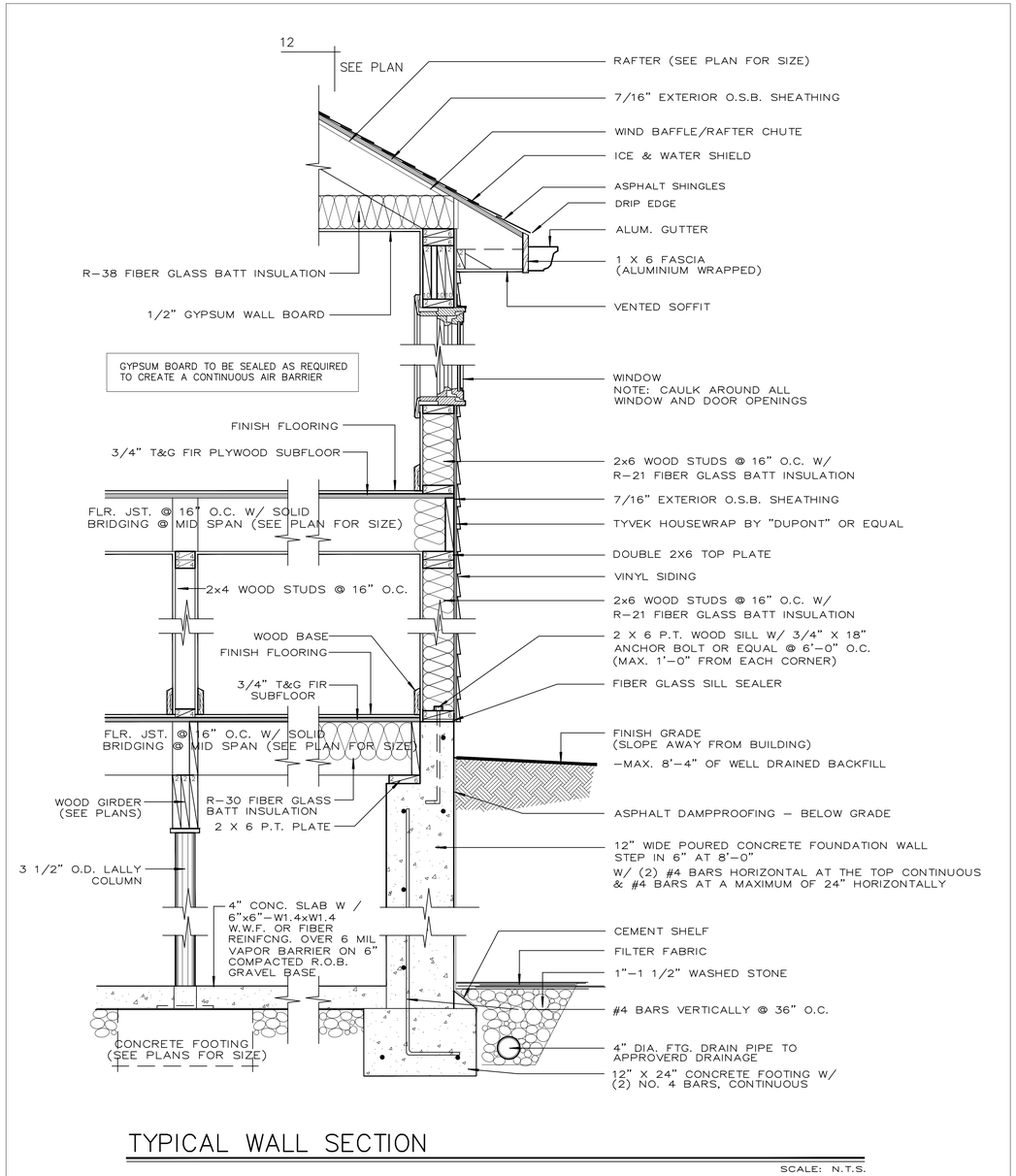
ROOF NOTES:

ICE & WATER SHIELD IS TO BE INSTALLED AT ALL ROOF EAVES FROM THE LOWEST EDGE OF THE ROOF TO A POINT 24" INSIDE THE EXTERIOR WALL LINE. ICE & WATER SHIELD IS ALSO TO BE INSTALLED AT ALL VALLEY LOCATIONS.

CONTRACTOR TO PROVIDE FLASHING AT WALL AND ROOF INTERSECTIONS, AT GUTTERS, WHERE THEIR IS A CHANGE IN ROOF SLOPE OR DIRECTION, AND AROUND ROOF OPENINGS. ALL VALLEYS TO BE FLASHED AND DRIP EDGE TO BE PROVIDED AT EAVES AND GABLES.

FOR ASPHALT SHINGLED ROOFS, IN ADDITION TO MEETING THE REQUIREMENTS OF SECTIONS R905.2 ASPHALT SHINGLES OF THE 2015 IRC, SHINGLES SHALL ALSO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER SPECIFICATIONS & RECOMMENDATIONS.

HURRICANE CLIPS ARE TO BE INSTALLED AT RAFTER TOP PLATE CONNECTIONS FOR ALL AREAS WITH VAULTED, CATHEDRAL CEILINGS OR WHERE A CEILING JOIST IS NOT PRESENT.



TYPICAL WALL SECTION

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FINISH SCHEDULE

1) ALL INTERIOR WALL FINISHES TO BE 1/2" GYPSUM WALL BOARD.
2) ALL PAINT TO BE BENJAMIN MOORE OR EQUAL. COLOR TO BE SELECTOR BY OWNER.
3) ALL FLOORING TO BE LOCATED AS PER OWNER. COLORS AND TYPES TO BE SELECTED BY OWNER.
4) ALL CARPET TO BE A HEAVY DUTY COMMERCIAL CARPET. MANUFACTURER TO BE CONTRACTORS CHOICE, COLOR TO BE SELECTED BY OWNER. CONTRACTOR TO SUBMIT SAMPLE TO OWNER PRIOR TO INSTILLATION. CARPET NOT TO BE LESS THAN CLASS II MATERIALS AND TO BE LABELED AS SUCH.
5) ALL TRIM AS PER OWNER, COLOR AND STYLE TO BE SELECTED BY OWNER.
6) ALL FIRE EXTINGUISHER CABINETS, BRACKETS AND FIRE EXTINGUISHERS AS SUPPLIED BY "LARSEN" OR EQUAL.
7) PROVIDE VINYL SIGNS IN BOTH WRITTEN AND BRAILLE AT THE DOORS OF THE REST ROOMS

PLUMBING NOTES

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (TABLE 2902.1):
BUSINESS:
WATER CLOSETS: 1 PER 25 – REQUIRED: (1) ACTUAL: (1)
LAVATORIES: 1 PER 40 – REQUIRED: (1) ACTUAL: (1)
DRINKING FOUNTAINS: 1 PER 100 – (1) REQUIRED, ACTUAL (1) WATER COOLER (WATER COOLERS PERMITTED TO BE SUBSTITUTED FOR NOT MORE THAN 50% OF THE REQUIRED DRINKING FOUNTAINS)
OTHER: 1 SERVICE SINK REQUIRED, ACTUAL (1)

GENERAL PLUMBING NOTES:

PLUMBING FIXTURES SHALL BE CONSTRUCTED OF APPROVED MATERIALS, WITH SMOOTH, IMPERVIOUS SURFACES, FREE FROM DEFECTS AND CONCEALED FOULING SURFACES.

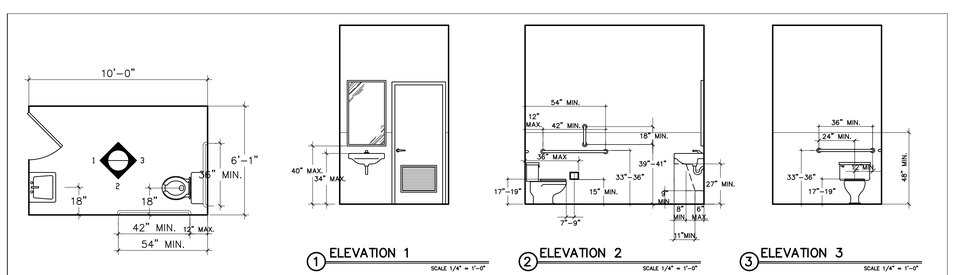
WALLS WITHIN 24" OF WATER CLOSETS ARE TO HAVE A SMOOTH, HARD, NON–ABSORBANT SURFACE TO A HEIGHT OF 4 FEET ABOVE THE FLOOR.

THE SUPPLY LINES AND FITTINGS FOR EVERY PLUMBING FIXTURE SHALL BE INSTALLED AS TO PREVENT BACKFLOW.

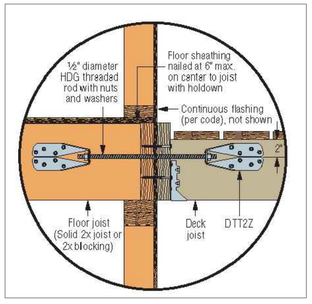
FIXTURES SHALL BE SET LEVEL AND IN ALIGNMENT WITH REFERENCE TO ADJACENT WALLS. JOINTS FORMED WHERE FIXTURES COME IN CONTACT WITH WALLS OR FLOORS SHALL BE SEALED.

LAVATORIES SHALL HAVE WASTE OUTLETS OF NOT LESS THAN 1.25 INCHES IN DIAMETER, A STRAINER, CROSSBAR OR OTHER DEVICE SHALL BE PROVIDED TO RESTRICT THE CLEAR OPENING OF THE OUTLET.

WATER CLOSET CONNECTIONS. A 4–INCH BY 3–INCH CLOSET BEND SHALL BE ACCEPTABLE. WHERE A 3–INCH BEND IS UTILIZED, A 4–INCH BY 3–INCH FLANGE SHALL BE INSTALLED TO RECEIVE THE FIXTURE. EACH WATER CLOSET SHALL BE PROVIDED WITH A FLUSH TANK DESIGNED AND INSTALLED TO SUPPLY WATER IN QUANTITY AND RATE OF FLOW TO FLUSH THE CONTENTS OF THE FIXTURE, CLEANSE THE FIXTURE, AND REFILL THE FIXTURE TRAP.



TYPICAL BATHROOM DIMENSIONS



DECK–TO–STRUCTURE LATERAL CONNECTION

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	Brian J. Stokosa, PE
06-04-20	
06-03-20	
11-06-19	
06-06-19	
05-30-19	
05-17-19	
Revisions 04-08-19	
Project No. 2019:049	License No. 083970

DAY | STOKOSA
ENGINEERING P.C.
3 Van Wyck
Lane Suite 2
Wappingers Falls, New York
(845)-223-3202

PROJECT
New Building Design
North Avenue, City of Beacon
Dutchess County, New York

North Avenue Properties, LLC

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	S3
DATE 03-20-19	CHECKED BY B.J.S.	

Z:\2010 AutoCad Dwgs\Schofiled, Norm\Dwg\2019049.dwg

City of Beacon Planning Board Agenda
07/14/2020

Title:

Certificate of Appropriateness – 25 East Main Street

ATTACHMENTS

25 East Main Street Application.pdf

25 East Main Street Proposed Elevations.pdf

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: June 30, 2020

Project Address: 25 East Main Street

Project Architect/Engineer: Aryeh Siegel Architect

Owner/Builder: Weber Projects II

Approval Requested: ☑ Certificate of Appropriateness ☐ New Single Family House

Color/Materials:

Siding: At roof bulkhead: Hardie Board Siding - Color: Pearl Gray, Smooth Finish

Roofing: N/A

Windows: Color: N/A Type: N/A

Trim: Paint color at bulkhead trim: Benjamin Moore Silver Lake #1598

Garage Door: N/A

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

Existing Photo with Outline of Bulkhead Envelope

Existing Photo with Outline of Bulkhead Envelope

ROOF BULKHEAD:
HARDIPLANK - SMOOTH LAP SIDING - PEARL GRAY
EPDM ROOF

TRIM:
BENJAMIN MOORE - SILVER LAKE #1598

ROOF DECK:
WOOD DECKING
36" HIGH PAINTED WROUGHT IRON RAILINGS AND VERTICAL BALUSTERS

BALCONIES:
CONCRETE ON METAL DECK
PAINTED STEEL FRAMING
36" HIGH PAINTED WROUGHT IRON RAILINGS AND VERTICAL BALUSTERS

WEST ELEVATION

NORTH ELEVATION

EXISTING FACADE TO REMAIN

EAST ELEVATION

ARB Application

Owner:
Weber Projects II, LLC
11 Creek Drive
Beacon, NY 12508

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

25 East Main Street
Beacon, New York
Scale: Not to Scale
June 30, 2020

City of Beacon Planning Board Agenda
07/14/2020

Title:

Single Family House – 18 Maple Street

ATTACHMENTS

18 Maple Street Application.pdf

18 Maple Street Elevations.pdf

18 Maple Street Location Map.pdf

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: 6/23/20

Project Address: 18 maple ST

Project Architect/Engineer:

Owner/Builder: Dilello Homes

Contact Phone No.: 845-629-8117

Approval Requested: ____ Certificate of Appropriateness ___X___ New Single Family House

Color/Materials:

Siding: HARDIE plank / IRON GRAY

Roofing: Timberline / OYSTER GRAY

Windows: Color: BLACK Type: ANDERSON

Trim: BLACK

Garage Door: Black

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

NOTES:

1) ALL WINDOW SIZES CALLED OUT ON FLOOR PLANS ARE "ANDERSEN UNIT NUMBERS", IF "ANDERSEN" WINDOWS ARE NOT USED, A WINDOW OF EQUAL TYPE AND UNIT DIMENSION IS TO BE USED
2) ALL GLAZING TO BE DOUBLE INSULATED
3) ALL GLAZING TO BE "HIGH PERFORMANCE", "LOW-E" GLASS
4) ALL GLAZING WITHIN 18" OF FINISHED FLOOR TO BE TEMPERED

SQUARE FOOTAGE:	
1st FLOOR:	1308
2nd FLOOR:	1258
TOTAL:	2566
GARAGE:	336

ALL OPERABLE WINDOWS THAT HAVE A SILL HEIGHT OF LESS THAN 24" ABOVE THE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE MUST BE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F 2090

FRONT ELEVATION

SCALE: 1/4" = 1'-0"

REAR ELEVATION

SCALE: 1/4" = 1'-0"

RAILING & STAIR NOTES:

STAIRS WITH (4) OR MORE RISERS SHALL BE PROVIDED WITH HANDRAILS ON AT LEAST ONE SIDE. HANDRAILS SHALL BE A MINIMUM OF 34" IN HEIGHT AND NOT MORE THAN 38" IN HEIGHT. RAILS ARE TO BE MEASURED VERTICALLY FROM THE NOSING OF THE TREADS. CIRCULAR HANDRAILS SHALL HAVE AN OUTSIDE DIAMETER OF AT LEAST 1 1/4" AND NOT GREATER THAT 2". IF THE HANDRAIL IS NOT CIRCULAR IT SHALL HAVE A PERIMETER OF AT LEAST 4" AND NOT MORE THAN 6 1/4".

PORCHES, DECKS, BALCONIES OR RAISED FLOOR SURFACES LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS A MINIMUM OF 36" HIGH.

RISERS ARE TO BE CLOSED SUCH THAT THE OPENING BETWEEN THE TREADS DOES NOT PERMIT THE PASSAGE OF A 4" DIAMETER SPHERE.

TABLE R301.2(1)
CLIMATE AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP	ICE BARRIER UNDERLYMT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX	MEAN ANNUAL TEMP
	SPEED (mph)	TOPOGRAPHIC EFFECTS	SPECIAL WIND REGION	WIND-BORNE DEBRIS ZONE		WEATHERING	FROST LINE DEPTH	TERMITE					
40	115 MPH	NO	YES	NO	B	SEVERE	42"	MOD.-HEAVY	-1	YES	MAY 2, 2012	1500	47.4

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

	Brian J. Stokosa, PE
06-29-20	
06-18-20	
06-05-20	
Revisions 05-04-20	
Project No. 2020:043	License No. 083970

DAY | STOKOSA
ENGINEERING P.C.
3 Van Wyck
Lane Suite 2
Wappingers Falls, New York
(845)-223-3202

PROJECT
18 Maple Street, City of Beacon
Dutchess County, New York

New Residence For:
DiLello Homes, Inc.

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	E1
DATE: 02-07-20	CHECKED BY: B.J.S.	

LEFT SIDE ELEVATION

SCALE: 1/4" = 1'-0"

RIGHT SIDE ELEVATION

SCALE: 1/4" = 1'-0"

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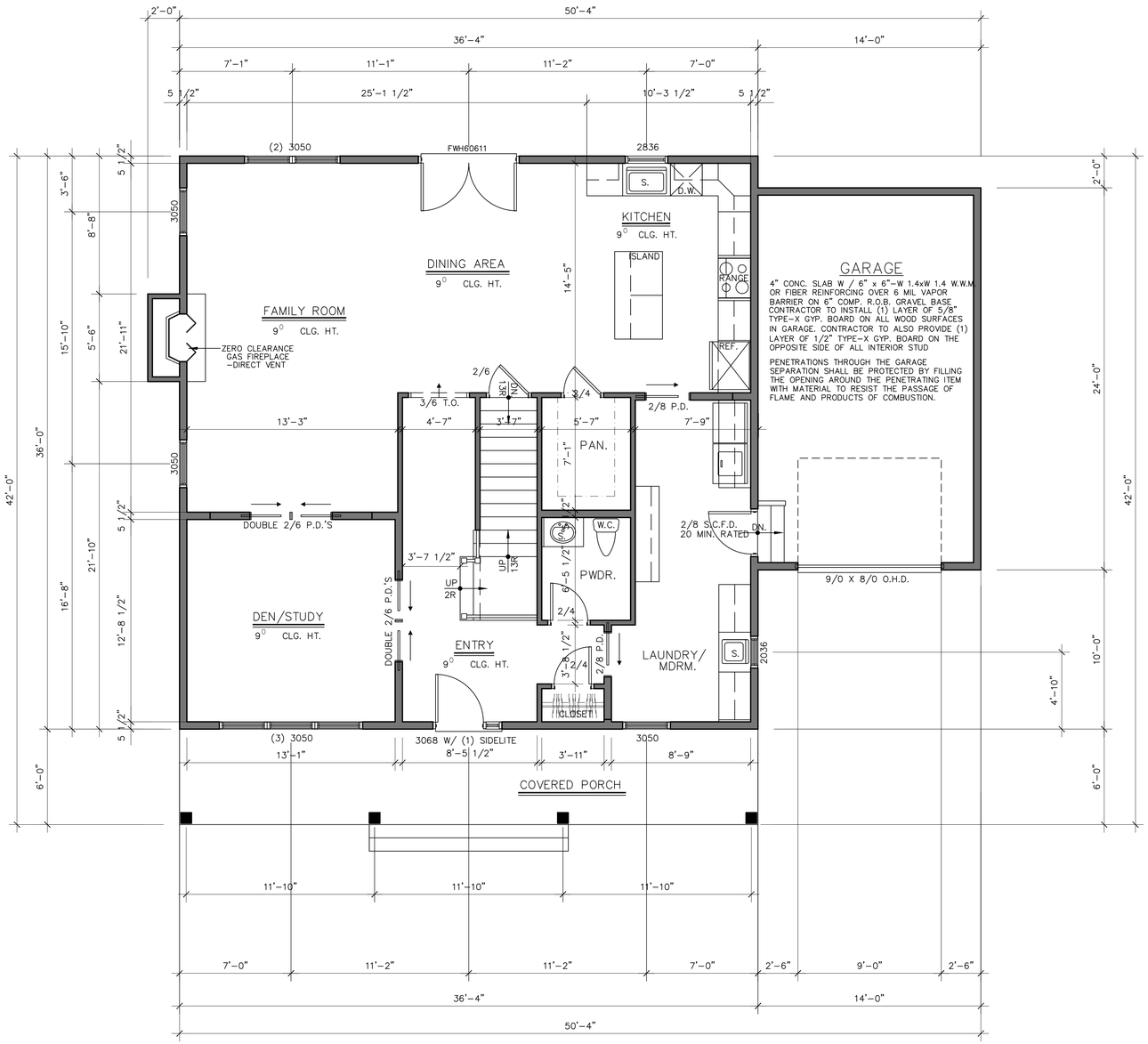
06-29-20	
06-18-20	
06-05-20	
Revisions 05-04-20	
Project No. 2020:043	License No. 083970

DAY | STOKOSA
ENGINEERING P.C.
3 Van Wyck
Lane Suite 2
Wappingers Falls, New York
(845)-223-3202

PROJECT
18 Maple Street, City of Beacon
Dutchess County, New York

New Residence For:
DiLello Homes, Inc.

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	E2
DATE	CHECKED BY	
02-07-20	B.J.S.	



FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

Ⓢ INTERCONNECTED 110 VOLT SMOKE DETECTOR W/ BATTERY BACKUP TESTED IN ACCORDANCE WITH UL217 & NFPA72

Ⓒ INTERCONNECTED CARBON MONOXIDE ALARM W/ BATTERY BACKUP TESTED IN ACCORDANCE WITH UL 2034 & CSA 6.19 -TO BE INSTALLED ON EACH FLOOR CONTAINING A SLEEPING AREA OR CARBON MONOXIDE SOURCE. TO BE INSTALLED WITHIN 15 FEET OF EACH SLEEPING AREA

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

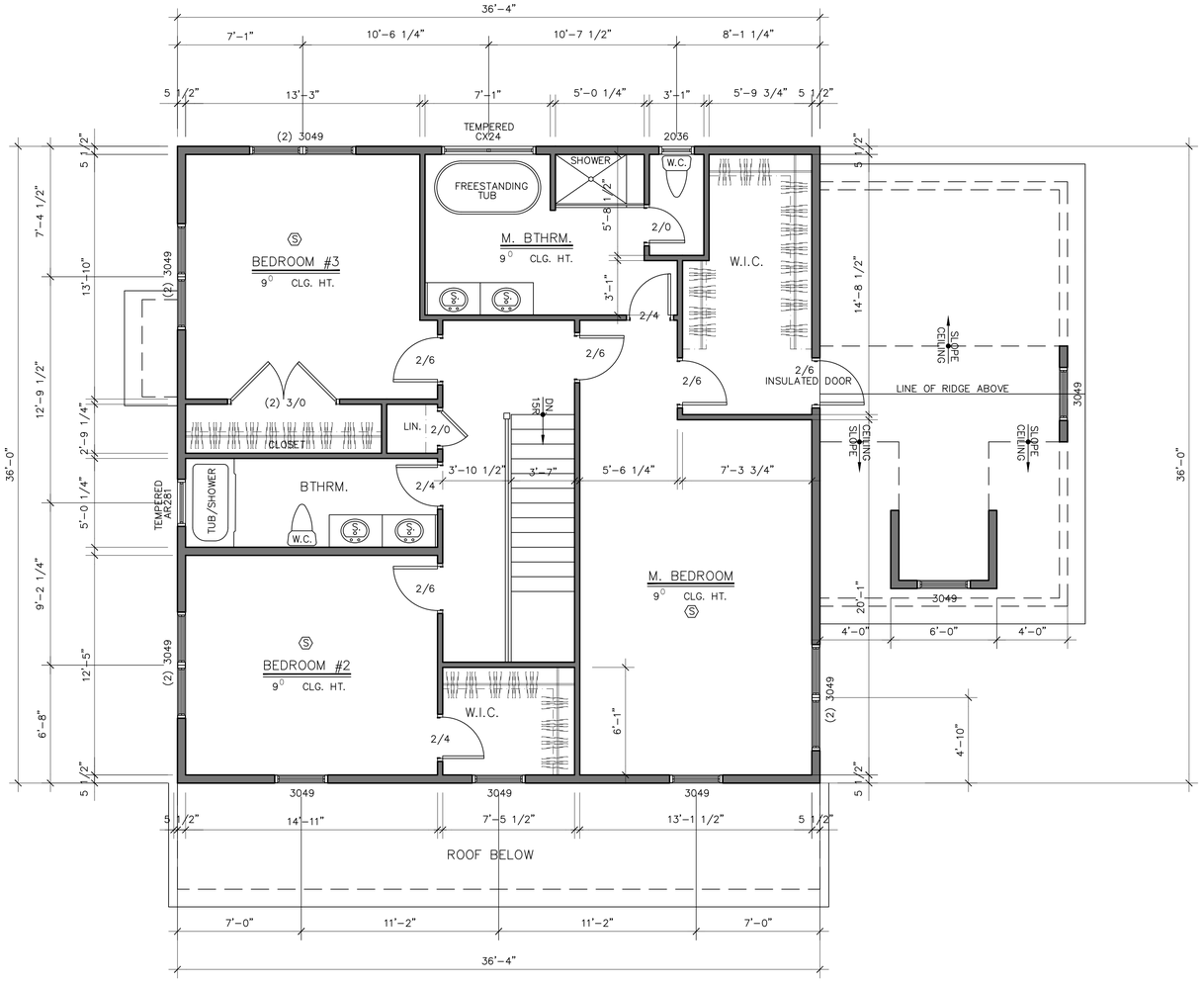
	Brian J. Stokosa, PE
06-29-20	
06-18-20	
06-05-20	
Revisions 05-04-20	
Project No. 2020:043	License No. 083970

DAY | STOKOSA ENGINEERING P.C.
3 Van Wyck
Lane Suite 2
Wappingers Falls, New York
(845)-223-3202

PROJECT
18 Maple Street, City of Beacon
Dutchess County, New York

New Residence For:
DiLello Homes, Inc.

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	P2
DATE 02-07-20	CHECKED BY B.J.S.	



SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

Ⓢ INTERCONNECTED 110 VOLT SMOKE DETECTOR W/ BATTERY BACKUP TESTED IN ACCORDANCE WITH UL217 & NFPA72

Ⓒ INTERCONNECTED CARBON MONOXIDE ALARM W/ BATTERY BACKUP TESTED IN ACCORDANCE WITH UL 2034 & CSA 6.19 –TO BE INSTALLED ON EACH FLOOR CONTAINING A SLEEPING AREA OR CARBON MONOXIDE SOURCE. TO BE INSTALLED WITHIN 15 FEET OF EACH SLEEPING AREA

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	Brian J. Stokosa, PE
06-29-20	
06-18-20	
06-05-20	
Revisions 05-04-20	
Project No. 2020:043	License No. 083970

DAY | STOKOSA ENGINEERING P.C.
3 Van Wyck
Lane Suite 2
Wappingers Falls, New York
(845)-223-3202

PROJECT
18 Maple Street, City of Beacon
Dutchess County, New York

New Residence For:
DiLello Homes, Inc.

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	P3
DATE 02-07-20	CHECKED BY B.J.S.	

MATTEAWAN RD
CANNON ST
MAPLE ST
164006
49.3 Ac.
WILKES ST
BEACON CITY
ELIZA ST
ELIZA ST
LINCOLN AV
KENT ST
LARCH ST
HERBERT ST
FRANKLIN AV
BLACKBURN AV
VERPLANCK AV
SCHENCK AV
ACKERMAN ST
MAIN ST
FISHKILL AV
52B
Dutchess County
New York
Parcel Lines
Dutchess County, NY
Printed by:
ParcelAccess
0
130
260
ft
ParcelAccess
Internet
6/30/2020

City of Beacon Planning Board Agenda
07/14/2020

Title:

Single Family House – Willow Street (corner of Verplanck)

ATTACHMENTS

Willow Street Application.pdf

Willow Street Elevations_small.pdf

Willow Street Location Map.pdf

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: June 10, 2020

Project Address: Corner Willow & Verplanck

Project Architect/Engineer: Bar Down Studio

Owner/Builder: Dana Hochberg

Contact Phone No.: (845) 559-3187

Approval Requested: ____ Certificate of Appropriateness ___X__ New Single Family House

Color/Materials:

Siding: Cement plank

Roofing: Metal

Windows: Color: Natural Wood Type: Tilt/Turn & Fixed

Trim: Natural Wood

Garage Door: N/A

Stone/Brick: N/A

Dan Hochberg

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)

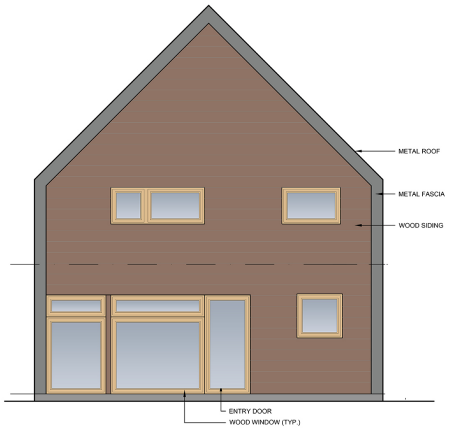
Subject to the following:

_____

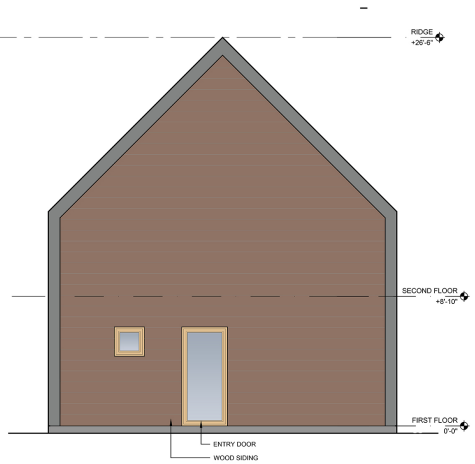
_____

FEE: $100.00

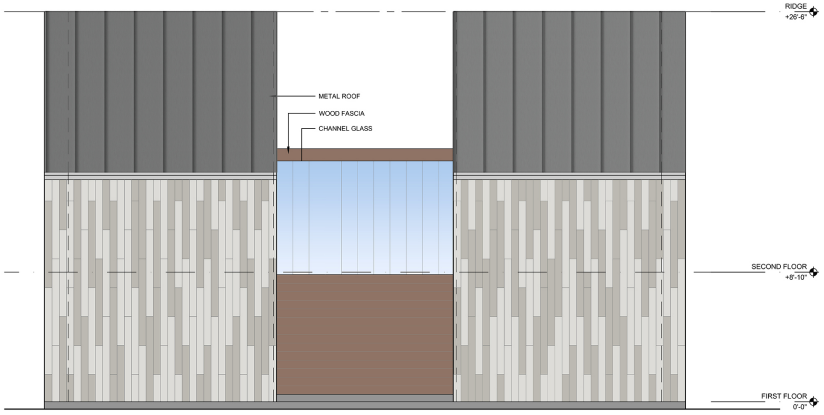
1 East Elevation (Willow Street)
SCALE ############



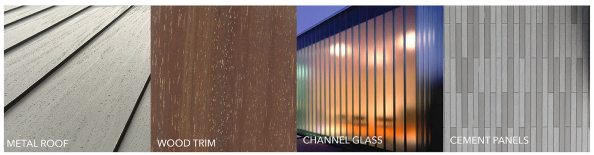
2 North Elevation
SCALE 1/4" = 1'-0"



3 South Elevation (Verplanck Ave.)
SCALE ############



4 West Elevation
SCALE 1/4" = 1'-0"



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BAR DOWN STUDIO
2575 Main Street, Beacon NY 12508
845.559.3187

Consultant

Project Title
WILLOW STREET RESIDENCE
BEACON NY 12508

No.	Date	Revision	By
4			
3			
2			
1	6/8/2020	Issue for Permit	DH

Drawn By: dh
Checked By: -
BDS Proj. #: -
Date: June 8, 2020

Sheet Title
EXTERIOR ELEVATIONS

Sheet No.
A300

CONSTRUCTION DOCUMENTS

SIVERS PL
DEERFIELD PL
BARRETT PL
WILKES ST
E WILLOW ST
TALBOT AV
DUTCHESS TERR
ORCHARD PL
W WILLOW ST
MACKIN AV
BEACON CITY
N ELM ST
VERPLANCK AV
N WALNUT ST
RALPH ST
OAK ST
CROSS ST
WILLOW ST
MATTIE COOPER SQ
MAIN ST
MELIO BETTINA PL
Dutchess County
New York
Parcel Lines
Dutchess County, NY
Printed by:
ParcelAccess
0
125
250
ft
ParcelAccess
Internet
6/30/2020

City of Beacon Planning Board Agenda
07/14/2020

Title:

Single Family House - Howland Avenue

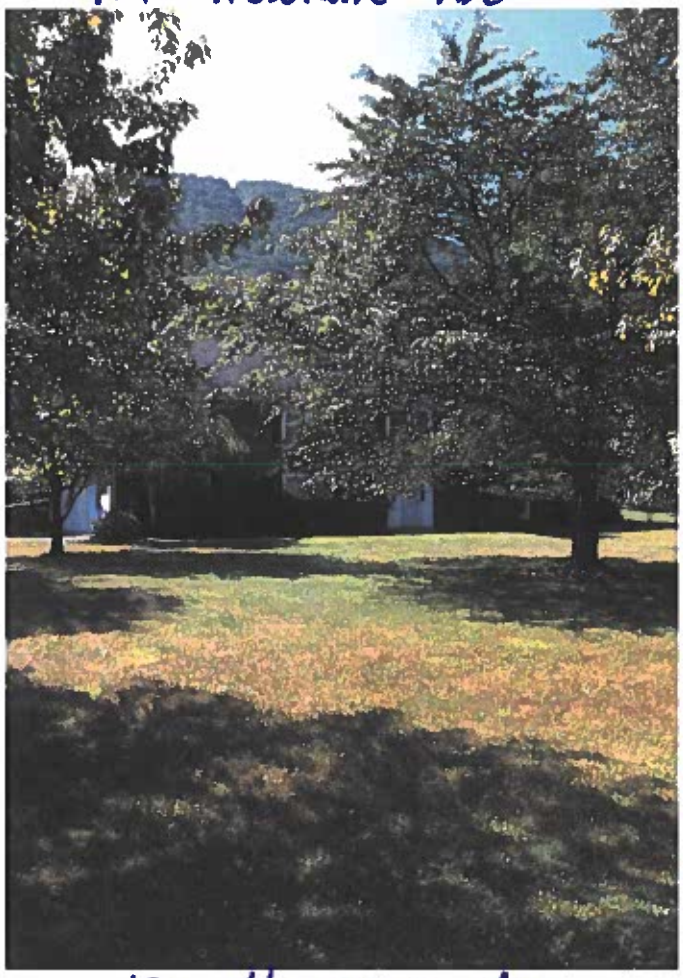
ATTACHMENTS

Howland Avenue - nearby housing.pdf

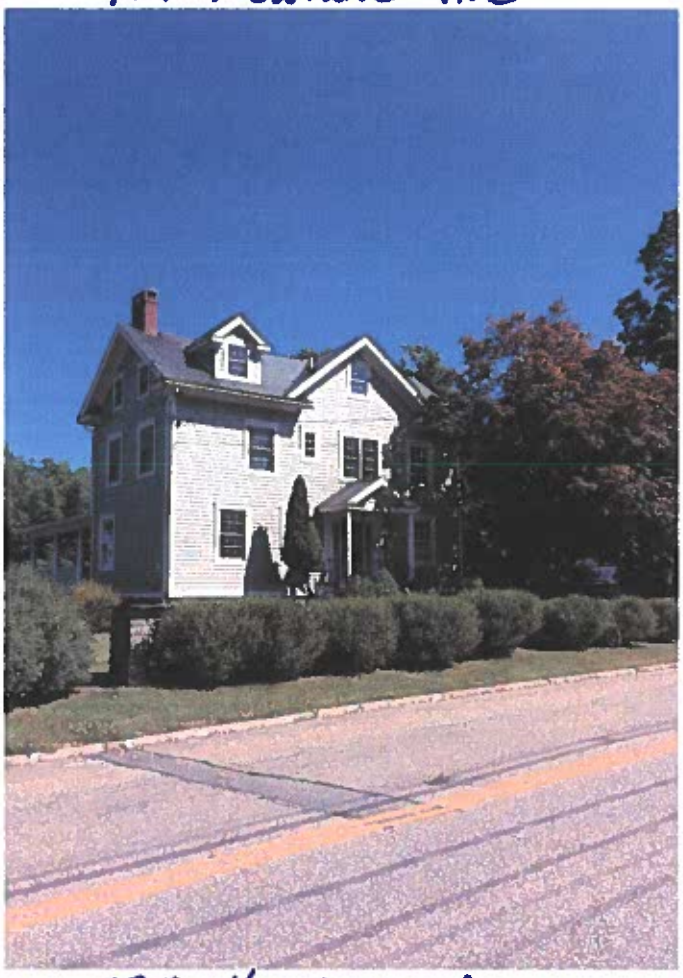
Howland Avenue Applications.pdf

Howland Avenue Elevations.pdf

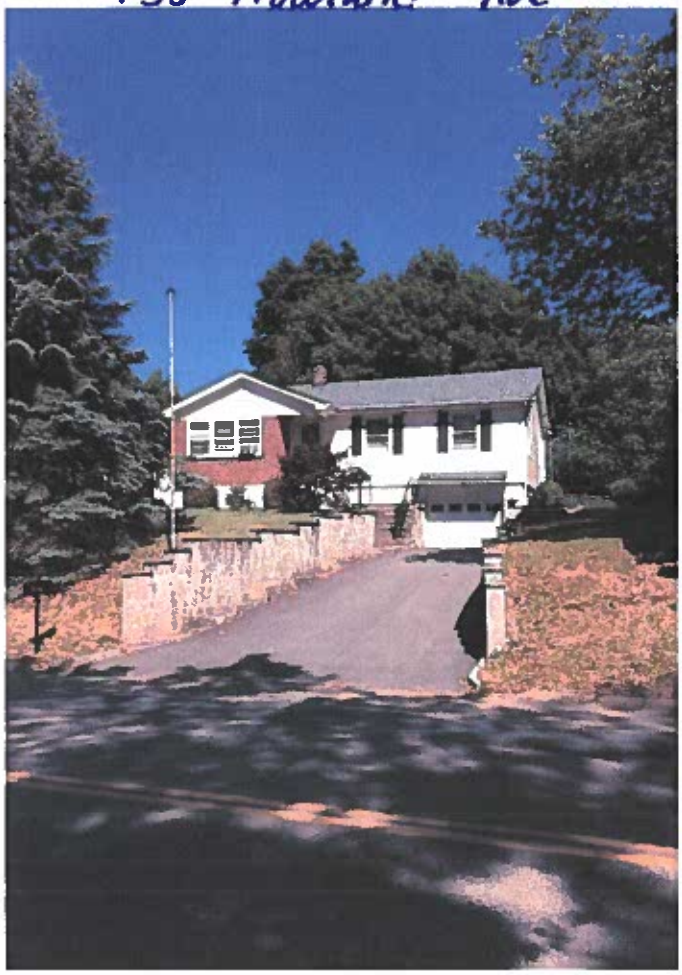
114 Howland Ave



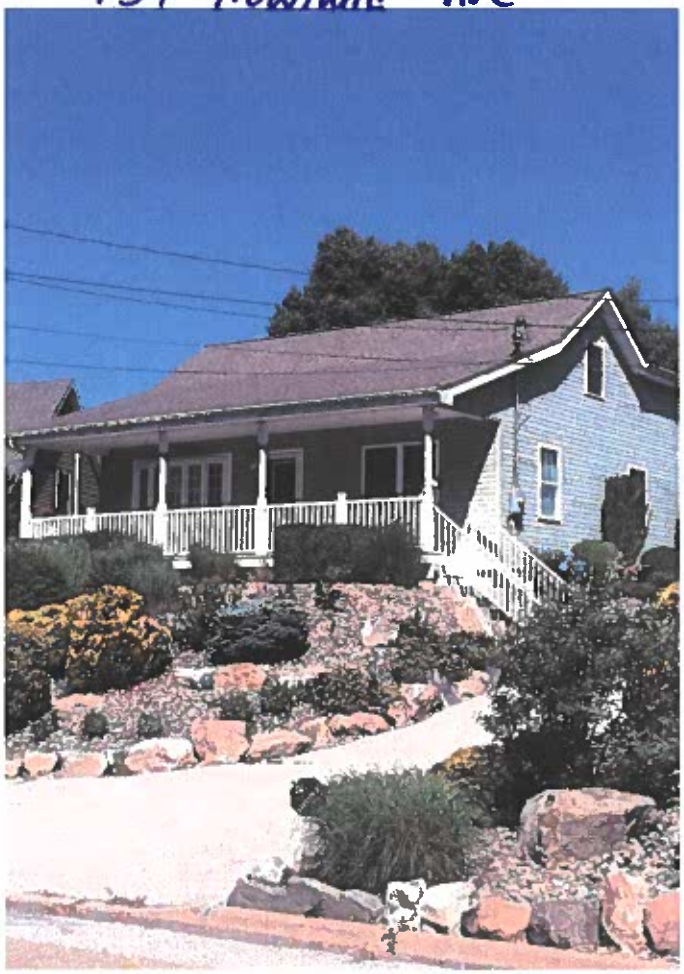
119 Howland Ave



133 Howland Ave



137 Howland Ave



244514
265005
282511
FM1331A-1
288502
MADISON AV
JUDSON ST
275497
270491
HOWLAND AV
260488
250484
FM1236SA - 2
BEACON CITY
259478
253475
244476
294473
1.6 Ac.(s)
FM6870
262463
270459
279455
CHIUSANO DR
287449
268444
EXETER CIR
295443
119
114
137
Parcel Lines
Dutchess County, NY
Dutchess County New York
Printed by:
ParcelAccess
0
45
90
ft
ParcelAccess
Internet
7/13/2020

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: June 29th

Project Address: 127 ~~Howtta~~ Howland Av

Project Architect/Engineer: M. Day

Owner/Builder: Dilello Homes

Contact Phone No.: 845-629-8117

Approval Requested: ____Certificate of Appropriateness ___X___New Single Family House

Color/Materials:

Siding: HARDIE Light mist wood grain

Roofing: Standing Seam metal Pewter Gray

Windows: Color: ~~Am~~ White Type: Andelson

Trim: HARDIE same as siding

Garage Door: White

Stone/Brick: N/A

M. Dilello

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

NOTES:

1) ALL WINDOW SIZES CALLED OUT ON FLOOR PLANS ARE "ANDERSEN UNIT NUMBERS", IF "ANDERSEN" WINDOWS ARE NOT USED, A WINDOW OF EQUAL TYPE AND UNIT DIMENSION IS TO BE USED
2) ALL GLAZING TO BE DOUBLE INSULATED
3) ALL GLAZING TO BE "HIGH PERFORMANCE", "LOW-E" GLASS
4) ALL GLAZING WITHIN 18" OF FINISHED FLOOR TO BE TEMPERED

SQUARE FOOTAGE:	
1st FLOOR:	1482
2nd FLOOR:	1696
TOTAL:	3178
GARAGE:	676

EGRESS REQUIREMENTS

WINDOW	SQ.FT. CLEAR	WIDTH CLEAR	HEIGHT CLEAR
3050	6.09	32.56"	26.95"

ALL OPERABLE WINDOWS THAT HAVE A SILL HEIGHT OF LESS THAN 24" ABOVE THE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE MUST BE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F 2090

FRONT ELEVATION

SCALE: 1/4" = 1'-0"

RAILING & STAIR NOTES:

STAIRS WITH (4) OR MORE RISERS SHALL BE PROVIDED WITH HANDRAILS ON AT LEAST ONE SIDE. HANDRAILS SHALL BE A MINIMUM OF 34" IN HEIGHT AND NOT MORE THAN 38" IN HEIGHT. RAILS ARE TO BE MEASURED VERTICALLY FROM THE NOSING OF THE TREADS. CIRCULAR HANDRAILS SHALL HAVE AN OUTSIDE DIAMETER OF AT LEAST 1 1/4" AND NOT GREATER THAT 2". IF THE HANDRAIL IS NOT CIRCULAR IT SHALL HAVE A PERIMETER OF AT LEAST 4" AND NOT MORE THAN 6 1/4".

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RISERS ARE TO BE CLOSED SUCH THAT THE OPENING BETWEEN THE TREADS DOES NOT PERMIT THE PASSAGE OF A 4" DIAMETER SPHERE.

TABLE R301.2(1)
CLIMATE AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP	ICE BARRIER UNDERLYMT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX	MEAN ANNUAL TEMP
	SPEED (mph)	TOPOGRAPHIC EFFECTS	SPECIAL WIND REGION	WIND-BORNE DEBRIS ZONE		WEATHERING	FROST LINE DEPTH	TERMITE					
40	115 MPH	NO	YES	NO	B	SEVERE	42"	MOD.-HEAVY	-1	YES	MAY 2, 2012	1500	47.4

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	Brian J. Stokosa, PE
Revisions	
Project No. 2020:200	License No. 083970

DAY | STOKOSA
ENGINEERING P.C.
3 Van Wyck
Lane Suite 2
Wappingers Falls, New York
(845)-223-3202

PROJECT
127 Howland Ave., City of Beacon
Dutchess County, New York

New Residence For:
DiLello Homes, Inc.

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	E1
DATE 06-30-20	CHECKED BY B.J.S.	

REAR ELEVATION

SCALE: 1/4" = 1'-0"

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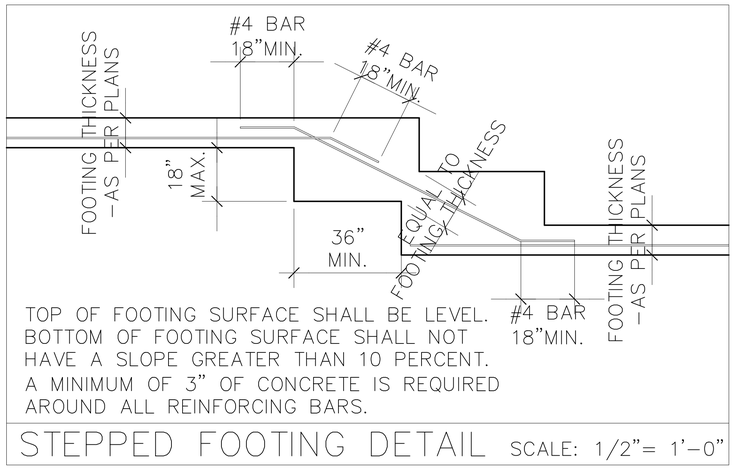
	Brian J. Stokosa, PE
Revisions	
Project No. 2020:200	License No. 083970

DAY | STOKOSA
ENGINEERING P.C.
3 Van Wyck
Lane Suite 2
Wappingers Falls, New York
(845)-223-3202

PROJECT
127 Howland Ave., City of Beacon
Dutchess County, New York

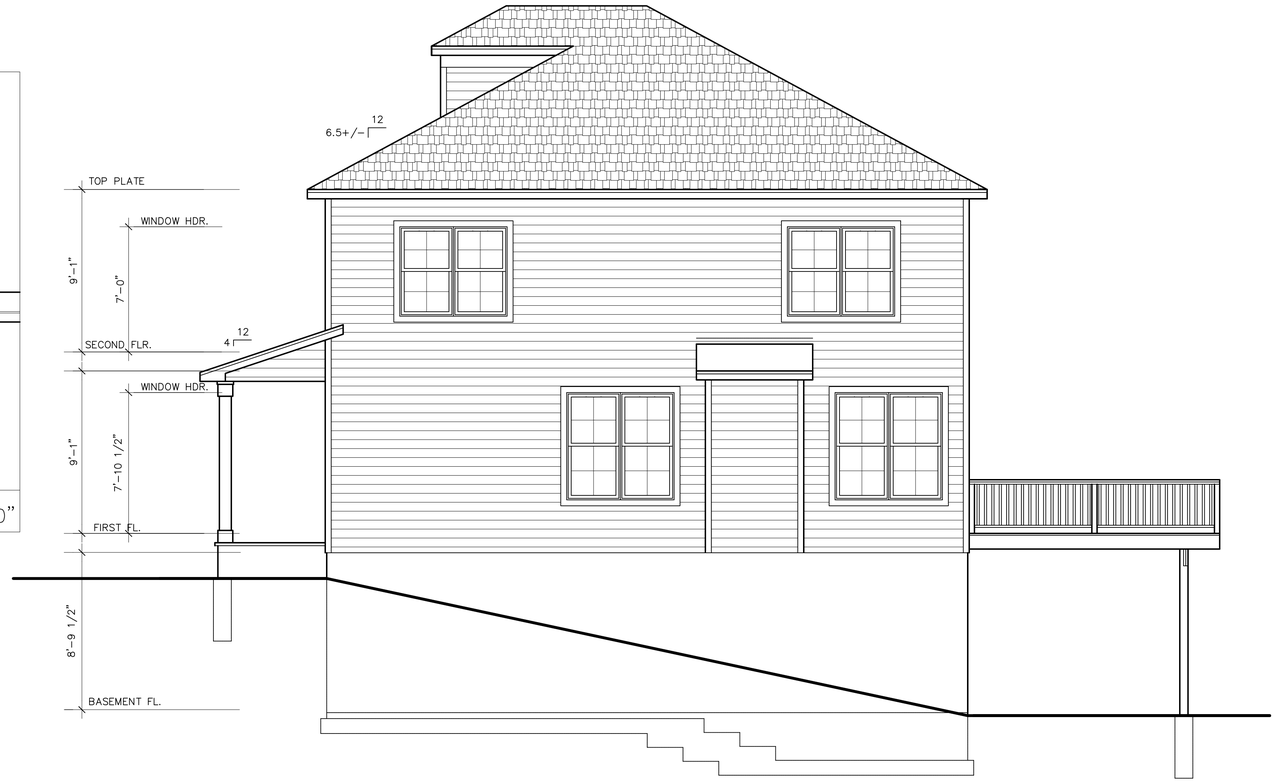
New Residence For:
DiLello Homes, Inc.

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	E2
DATE 06-30-20	CHECKED BY B.J.S.	



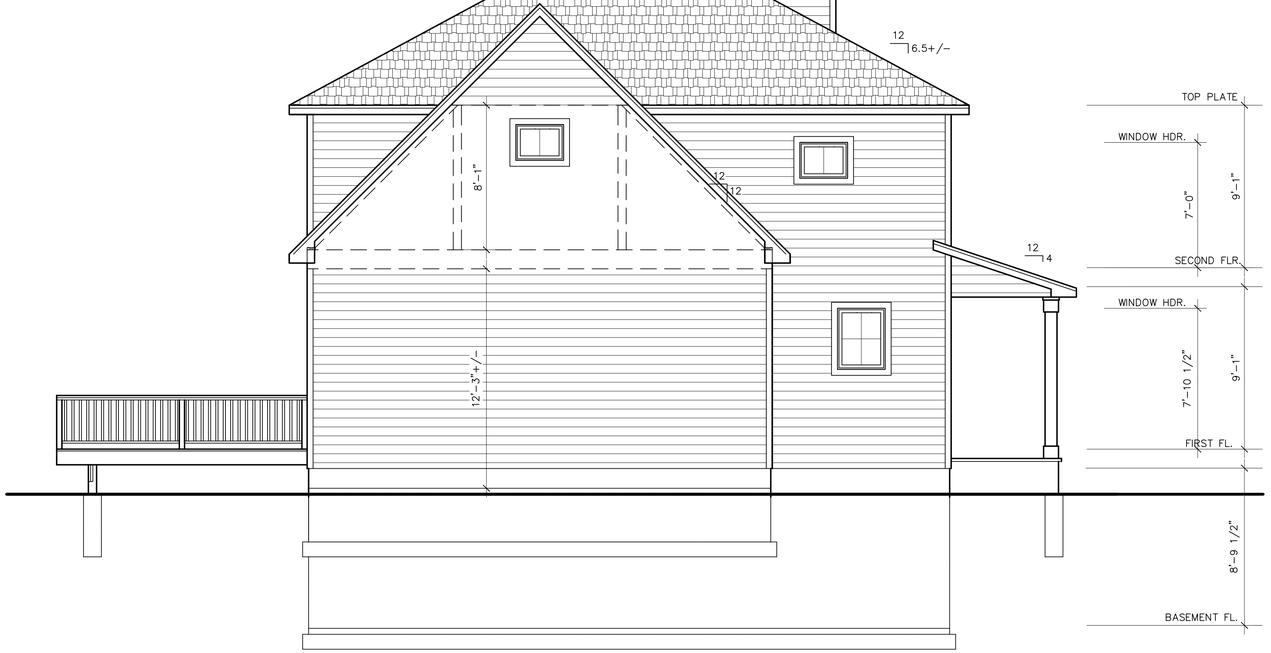
TOP OF FOOTING SURFACE SHALL BE LEVEL. BOTTOM OF FOOTING SURFACE SHALL NOT HAVE A SLOPE GREATER THAN 10 PERCENT. A MINIMUM OF 3" OF CONCRETE IS REQUIRED AROUND ALL REINFORCING BARS.

STEPPED FOOTING DETAIL SCALE: 1/2"= 1'-0"



RIGHT SIDE ELEVATION

SCALE: 1/4" = 1'-0"



LEFT SIDE ELEVATION

SCALE: 1/4" = 1'-0"

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Brian J. Stokosa, PE

License No. 083970

DAY | STOKOSA ENGINEERING P.C.

3 Van Wyck
Lane Suite 2
Wappingers Falls, New York
(845)-223-3202

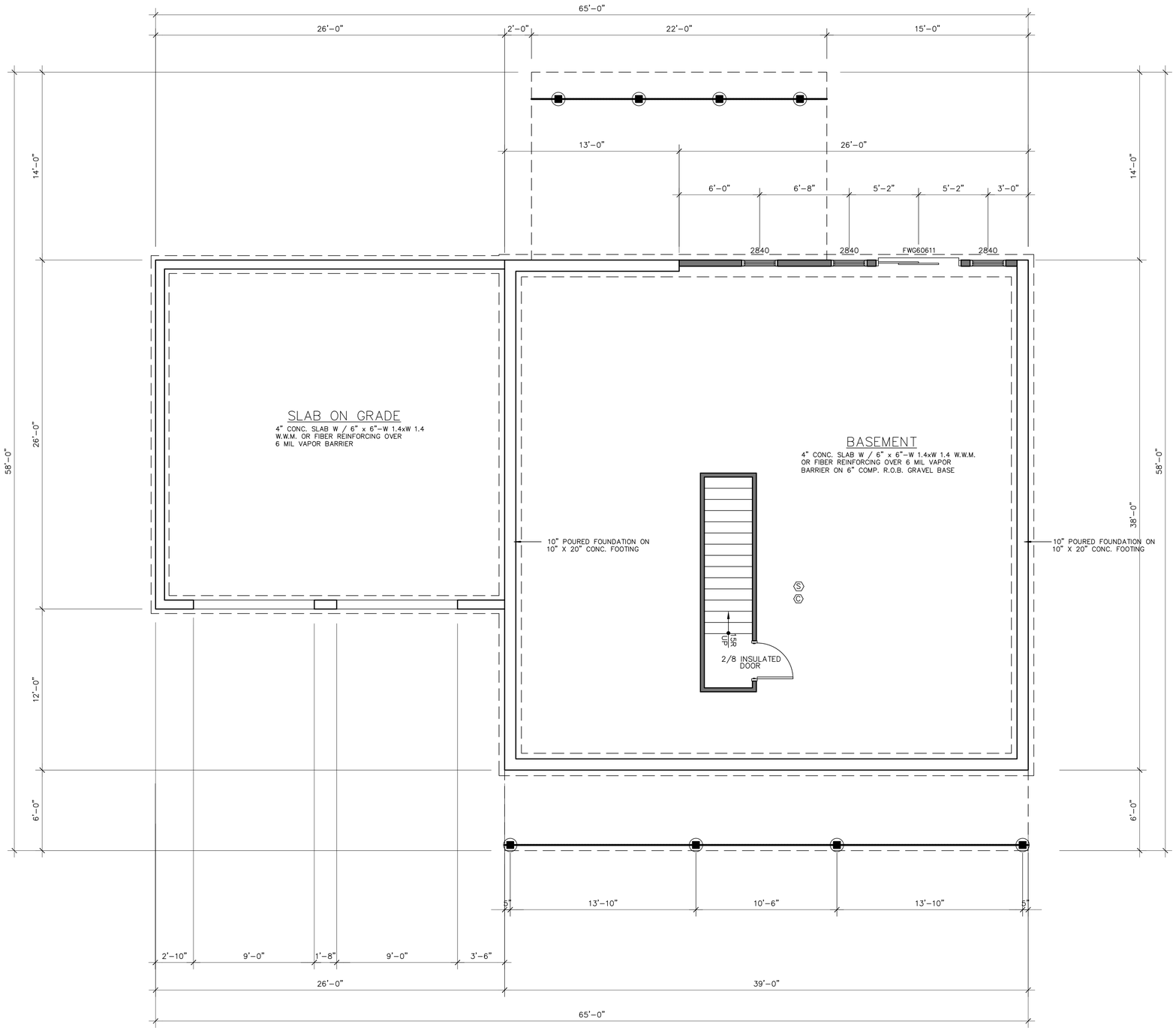
Revisions

Project No. 2020:200

PROJECT
127 Howland Ave., City of Beacon
Dutchess County, New York

New Residence For:
DiLello Homes, Inc.

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	E3
DATE	CHECKED BY	
06-30-20	B.J.S.	



BASEMENT PLAN

SCALE: 1/4" = 1'-0"

(S) INTERCONNECTED 110 VOLT SMOKE DETECTOR W/ BATTERY BACKUP TESTED IN ACCORDANCE WITH UL217 & NFPA72

(C) INTERCONNECTED CARBON MONOXIDE ALARM W/ BATTERY BACKUP TESTED IN ACCORDANCE WITH UL 2034 & CSA 6.19 –TO BE INSTALLED ON EACH FLOOR CONTAINING A SLEEPING AREA OR CARBON MONOXIDE SOURCE. TO BE INSTALLED WITHIN 15 FEET OF EACH SLEEPING AREA

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

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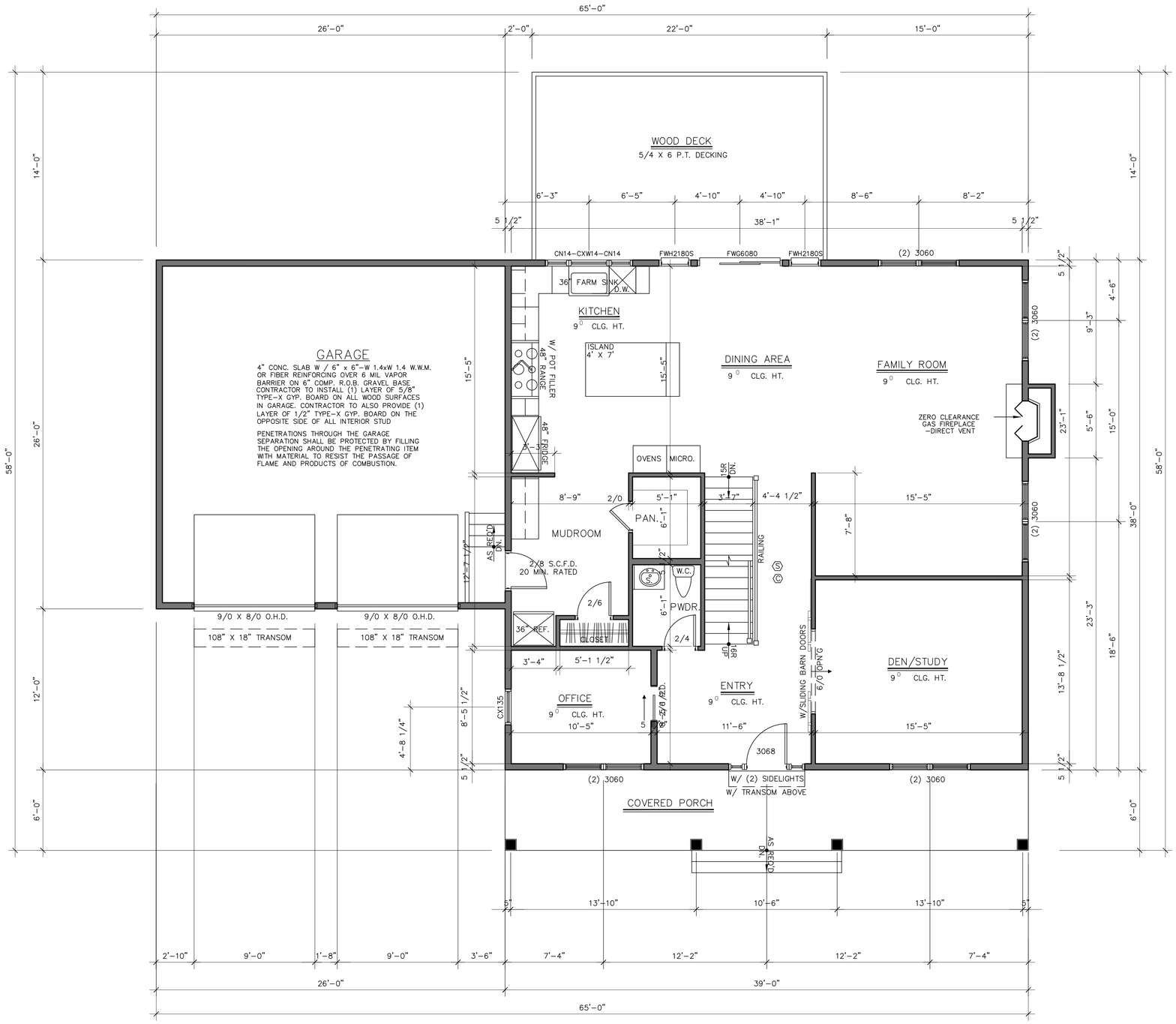

FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

(S) INTERCONNECTED 110 VOLT SMOKE DETECTOR W/ BATTERY BACKUP TESTED IN ACCORDANCE WITH UL217 & NFPA72

(C) INTERCONNECTED CARBON MONOXIDE ALARM W/ BATTERY BACKUP TESTED IN ACCORDANCE WITH UL 2034 & CSA 6.19 -TO BE INSTALLED ON EACH FLOOR CONTAINING A SLEEPING AREA OR CARBON MONOXIDE SOURCE. TO BE INSTALLED WITHIN 15 FEET OF EACH SLEEPING AREA

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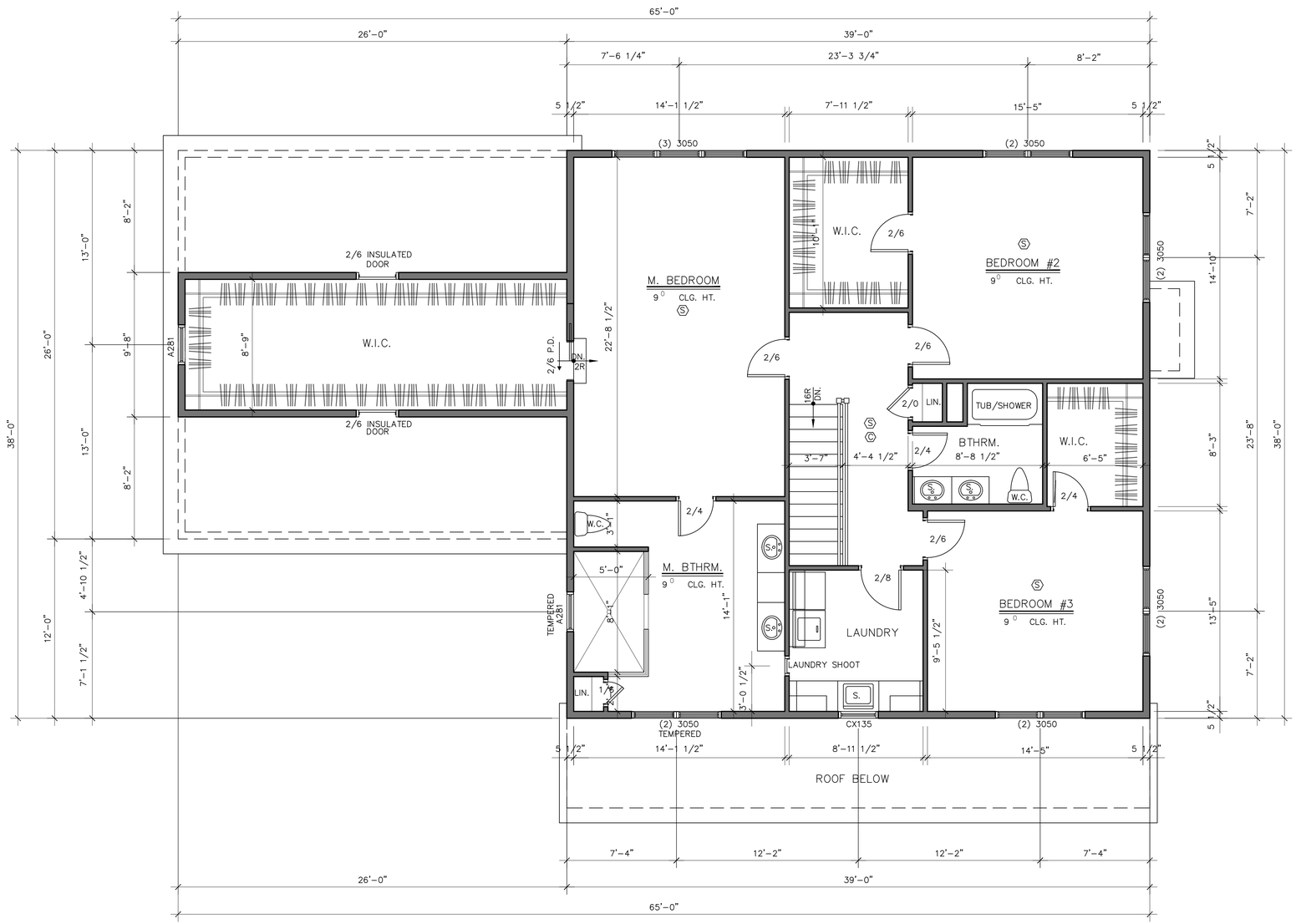

SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

(S) INTERCONNECTED 110 VOLT SMOKE DETECTOR W/ BATTERY BACKUP TESTED IN ACCORDANCE WITH UL217 & NFPA72

(C) INTERCONNECTED CARBON MONOXIDE ALARM W/ BATTERY BACKUP TESTED IN ACCORDANCE WITH UL 2034 & CSA 6.19 –TO BE INSTALLED ON EACH FLOOR CONTAINING A SLEEPING AREA OR CARBON MONOXIDE SOURCE. TO BE INSTALLED WITHIN 15 FEET OF EACH SLEEPING AREA

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