COURTROOM
1 MUNICIPAL PLAZA
BEACON, NY 12508

Len Warner
Karen Quiana
Kevin Byrne
James Vermeulen
J. Randall Williams
David Jensen
Chair John Gunn

August 11, 2026
7:00 PM
Planning Board Agenda

The Planning Board will meet on Tuesday, August 11, 2026, at 7:00 PM., in the Municipal Center Courtroom. A work session will take place at 7:00 PM, for a training workshop discussion of agenda items and/or topics of interest to the Planning Board. The regular meeting will begin immediately thereafter, but not later than 7:30 PM.

Approval of July 14, 2026, minutes

Regular Meeting

1. Continue review of application for Site Plan Approval, 1154 North Avenue, Commercial, submitted by Hudson Vox LLC.
2. ***ADJOURNED AT THE REQUEST OF THE APPLICANT*** Continue Public Hearing and continue review of application for Amended Site Plan Approval, 393 Fishkill Avenue, 397 Fishkill Avenue, and 7 Conklin Street, Commercial Mix-Use, submitted by 397 Fishkill Avenue, LLC and 393 Fishkill Avenue, LLC.
3. Continue public hearing and continue review of application for Subdivision Approval, 84 Anderson Street, Residential, submitted by Sadhna Gupta.
4. Continue public hearing and continue review of application for Subdivision Approval, 108 Liberty Street, Residential, submitted by Stephen Spaccarelli and Claire Tipley.
5. Public hearing and continue review of application for Amended Site Plan Approval, Edgewater Place, Residential, submitted by Scenic Beacon Developments, LLC.
6. Public hearing and continue review application for Amended Site Plan Approval, 248 Tioronda Avenue, Residential, submitted by Beacon 248 Holdings, LLC.
7. Review of application for Amended Site Plan Approval, 53 Eliza Street, Residential, submitted by Eliza Street, LLC.
8. Continue review of application for Amended Site Plan Approval, 364 Main Street, Mixed-Use Commercial and Residential, submitted by 364 Main BCN LLC.

Miscellaneous Business

1. Consider request for a one (1) year extension of Site Plan Approval, 300 Main Street, Mixed-Use Commercial and Residential, submitted by Anthony Hardisty (300 Main St LLC).

2. City Council request to review proposed Local Law concerning an amendment to the City zoning code regarding regulations governing hotels and the Fishkill Creek Development (FCD) District.

Architectural Review

1. Certificate of Appropriateness: 425 Main Street - Facade
2. New Single-Family House: Rombout Avenue (Tax Grid #5954-36-949764)

City of Beacon Planning Board Agenda
08/11/2026

Title:

Continue review of application for Site Plan Approval, 1154 North Avenue, Commercial, submitted by Hudson Vox LLC.

ATTACHMENTS

1154 North PB referral response ZR26-136.pdf

KARC Review PB_1154 North Avenue_2026.08.07.pdf

1154 North Avenue - Amended Site Plan Resolution (4900-2169-8234.1).pdf

DUTCHESS COUNTY DEPARTMENT OF PLANNING & DEVELOPMENT	GML 239 REFERRAL RESPONSE
To: City of Beacon, Planning Board **Project Name**: 1154 North Ave - The Howl **Action**: Site Plan **Applicant**: Hudson Vox LLC **Property Address**: 1154 North Ave, Beacon, NY 12508 **Lot Number(s)**: 740983	**Referral #**: ZR26-136 **Date Received**: 7/24/2026 **Date Requested**: 8/10/2026 **Date Issued**: 7/29/2026
Reviewer: Dozier, Emily	**Signed:** Emily S. Dozier

The Dutchess County Department of Planning & Development has reviewed the subject referral within the framework of General Municipal Law (Article 12B, §239-l/m) based on the materials submitted.

The Department has determined this is a **Matter of Local Concern** and has no comments.

KARC
PLANNING CONSULTANTS, INC.

TO: John Gunn, Chair, and the City of Beacon Planning Board

FR: KARC Planning Consultants, Inc.

DATE: August 7, 2026

RE: 1154 North Avenue (The Howl) Site Plan Application, Hudson Vox LLC

I have reviewed the following materials regarding the proposed change of use and façade modifications at 1154 North Avenue:

- Dutchess County Department of Planning & Development §239-l,m Review, determining the application to be a Matter of Local Concern with no comments.

Project Description:

The applicant is seeking site plan approval for a change of use and façade modifications to an existing two-story commercial building, with the proposed use described as a facility for karaoke suites and immersive live-performance experiences. Minor site work is proposed, largely within the existing easement area and proposed sculpture area along North Avenue. The project site (Parcel #5954-26-740983) is 0.10 acres and is located in the Central Main Street (CMS) zoning district.

Comments & Recommendations:
At the July Planning Board meeting, the Board reviewed the applicant's responses regarding noise attenuation and the recommendations of the Board's acoustical consultant. The recommended noise-related conditions will be incorporated into the resolution of approval.

No additional planning or zoning issues have been identified, and all previous planning comments have been satisfactorily addressed. Accordingly, I continue to find the application to be consistent with the applicable Site Plan Approval standards and zoning code requirements and sufficient for final Planning Board action.

Natalie Quinn
Beacon Planning Consultant

Cc: Bryan Murphy, Building Inspector
Jennifer L. Gray, Esq., City Attorney
John Russo, P.E., City Engineer

City of Beacon Planning Board
1154 North Avenue
July 14, 2026

RESOLUTION

PLANNING BOARD
BEACON, NEW YORK

AMENDED SITE PLAN APPROVAL FOR
1154 NORTH AVENUE

Parcel No. 5954-26-740983

WHEREAS, the Beacon Planning Board received an application for Site Plan Approval from Hudson Vox LLC (the "Applicant") on behalf of property owner The Lindley LLC, to convert an existing two-story building from an art gallery to a lounge and entertainment venue including minor exterior improvements (the "Project" or "Proposed Action"), on property located at 1154 North Avenue in the Central Main Street ("CMS") Zoning District in the City of Beacon, Dutchess County, New York and designated on the Tax Map of the City of Beacon as Parcel ID# **5954-26-740983** (the "Property"); and

WHEREAS, on March 12, 2019 the Beacon Planning Board granted Site Plan Approval to allow the two-story building to be used as two art studios with minor exterior improvements and site work; and

WHEREAS, the Planning Board is the approval authority for the Amended Site Plan pursuant to the City of Beacon Zoning Code § 225-25; and

WHEREAS, the application for an Amended Site Plan consists of application forms, correspondence, professional studies and reports, plans and drawings, and the Short Environmental Assessment Form ("SEAF"); and

WHEREAS, the Project is shown on an Amended Site Plan set entitled "The Howl – 1154 North Avenue," including five sheets (1 through 5) prepared by Hudson Land Design Professional Engineering, P.C., last revised June 30, 2026:

Sheet	**Title**
1	*Site Plan;*
2	*Existing Conditions Plan;*
3	*Floor Plans & Elevations;*
4	*Grading & Landscape Plan;*
5	*Details*; and

WHEREAS, the Proposed Action is a Type II action pursuant to Section 617.5(c)(18) of the New York State Environmental Quality Review Act ("SEQRA"), and accordingly, no further environmental review is required; and

WHEREAS, the application was referred to the Dutchess County Department of Planning pursuant to the NYS General Municipal Law and a response was received on July 29, 2026 stating the application was a "matter of local concern"; and

WHEREAS, the Planning Board reviewed the Project at its meetings on March 10, 2026, April 14, 2026, May 12, 2026, June 9, 2026, July 14, 2026 and August 11, 2026; and

WHEREAS, on May 12, 2026, the Planning Board opened a duly noticed public hearing on the Project, at which time all those interested were given an opportunity to be heard and the public hearing was closed on July 14, 2026; and

WHEREAS, the Planning Board has reviewed the application of Amended Site Plan Approval and considered the standards as set forth in § 223-25(E) of the City of Beacon City Code; and

WHEREAS, the Planning Board is fully familiar with the Project and has reviewed the Amended Site Plan relative to all applicable provisions of the City Code.

NOW THEREFORE, BE IT RESOLVED, that the Planning Board hereby grants Amended Site Plan Approval, as shown on the application materials referenced above, subject to the following conditions set forth below and any other requirements which must be met by law:

A. The following conditions shall be fulfilled prior to the signing of the Site Plan by the Chairman of the Planning Board.

1. All application review fees shall be paid in full.

2. The Applicant shall seek and obtain all required permits and/or approvals from the appropriate agencies for the Project, including NYSDOT, and shall meet all conditions contained in such approvals, as required therein.

3. All existing and proposed easements shall be shown on the Site Plan to the satisfaction of the City Engineer and City Attorney.

4. It shall be verified at the proposed Floor Plans include all recommendations set forth set forth in the Acoustic Report dated May 28, 2026 submitted by WSDG.

When the conditions above have been satisfied, six (6) sets of the above referenced plans revised as per the conditions above shall be submitted for endorsement by the Planning Board Chairman. One set of the endorsed plans will be returned to the

Applicant, one set will be retained by the City Clerk, one set will be provided to the Planning Board, and one set each will be forwarded to the Building Inspector, City Engineer and City Planner.

B. Prior to the issuance of a Building Permit, the following conditions shall be fulfilled:

1. The Applicant shall file a performance guaranty with the City of Beacon to guarantee the satisfactory construction, installation, and completion of all required public improvements in an amount acceptable to the City Engineer based on review of a cost estimate to be prepared by the Applicant's professional engineer.

C. Prior to the Issuance of the Certificate of Occupancy, the following conditions shall be fulfilled to the satisfaction of the Building Inspector:

1. All application review fees shall be paid in full.

2. Upon completion of construction and prior to commencement of operations, post-construction acoustic performance testing and sound system tuning shall be conducted to verify compliance with the City of Beacon Noise Code and the assumptions of the approved acoustic report.

3. Post-construction compliance testing shall verify that average source levels are not measurable at receiver property lines at levels that exceed 6 dBA above average ambient levels under comparable environmental conditions.

4. If post-construction testing demonstrates that sound levels exceed the applicable requirements of the City of Beacon Noise Code, the applicant shall implement any necessary adjustments or additional mitigation measures within a reasonable timeframe to achieve compliance.

5. The maximum permissible sound system (PA) volume shall be established based on the results of the post-construction testing and calibrated accordingly for daytime and nighttime operations.

D. The following are general conditions which shall be fulfilled:

1. All notes set forth on the Site Plans listed above shall be deemed to be a condition of this approval as if fully set forth in this Resolution.

2. The hours of operation shall be as set forth on the Site Plan.

3. Continued operation of the use permitted herein is conditioned on continued compliance with the conditions set forth herein and all other local and State laws and regulations.

4. If post-construction testing demonstrates that sound levels exceed the applicable requirements of the City of Beacon Noise Code, the applicant shall implement any necessary adjustments or additional mitigation measures within a reasonable timeframe to achieve compliance.

5. The maximum permissible sound system (PA) volume shall be established based on the results of the post-construction testing and calibrated accordingly for daytime and nighttime operations.

6. 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.

7. The Applicant shall be responsible for the payment of all application review costs incurred by the City in its review and approval of this project. Such fees shall be paid by the Applicant within thirty (30) days of each notification by the City that such fees are due. If such fees are not paid within said thirty (30) day period, and an extension therefore has not been granted by the City, this resolution shall be rendered null and void.

8. As used herein, the term "Applicant" shall include its successors and assigns, and where applicable its contractors and employees.

9. 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.

10. The approvals granted by this resolution do not supersede the authority of any other entity.

11. Pursuant to the City of Beacon Code § 223-25.J, the Amended 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.

12. Any proposed revision to the approved Amended Site Plan Drawings, except revisions determined by the Building Inspector and City Engineer to be field changes, shall be submitted to the Planning Board. The Planning Board, in its

discretion, shall determine the appropriate procedures for consideration of the proposed revision, and whether such revision is material enough to require further environmental analysis and/or further project review, as the Board may deem appropriate.

13. The Planning Board shall retain continuing jurisdiction, including jurisdiction to amend, supplement or otherwise modify the conditions herein subject to a duly noticed public hearing upon referral from the Building Inspector after a finding by the Building Inspector that material and essential conditions of this Approval have been continually violated resulting in adverse impacts to the immediate neighborhood.

Resolution Adopted: August 11, 2026
Beacon, New York

_____ _____, 2026
John Gunn, Chairman Date
City of Beacon Planning Board

Motion by _____, seconded by _____:

Kevin Byrne	Voting ____	Leonard Warner	Voting ____
David Jensen	Voting ____	J. Randall Williams	Voting ____
Karen Quiana	Voting ____	John Gunn, Chairman	Voting ____
James Vermeulen	Voting ____		

Resolution: Approved
Denied

City of Beacon Planning Board Agenda
08/11/2026

Title:

ADJOURNED AT THE REQUEST OF THE APPLICANT Continue Public Hearing and continue review of application for Amended Site Plan Approval, 393 Fishkill Avenue, 397 Fishkill Avenue, and 7 Conklin Street, Commercial Mix-Use, submitted by 397 Fishkill Avenue, LLC and 393 Fishkill Avenue, LLC.

ATTACHMENTS

393 & 397 Fishkill PB 8.11.26 - Adjournment Request.pdf

CUDDY +FEDER LLP

300 Westage Business Center, Suite 380
Fishkill, New York 12524
T 845 896 2229
F 845 896 3672
cuddyfeder.com

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

July 28, 2026

VIA HAND DELIVERY
AND EMAIL
Hon. John Gunn
and Members of the Planning Board
City of Beacon
1 Municipal Plaza
Beacon, New York 12508

Re: 397 Fishkill Avenue, LLC and 393 Fishkill Avenue, LLC
Application for Amended Site Plan Approval – Mixed-Use Building
Request for Adjournment
Property: 393 & 397 Fishkill Avenue and 7 Conklin Street, Beacon, New York
Tax IDs: 6055-80-392032, 6055-80-399035 & 6055-80-394041

Dear Chairman Gunn and Members of the Planning Board:

On behalf of 397 Fishkill Avenue, LLC and 393 Fishkill Avenue, LLC (the "Applicant"), the owners of the above-referenced Property, and in furtherance of the Applicant's pending Application for Amended Site Plan Approval (the "Application"), we respectfully request that the Planning Board adjourn the Application and the associated public hearing to this Board's September 9, 2026 meeting Agenda for continued review. At this time, the Applicant is still processing its application before the Zoning Board of Appeals.

We look forward to appearing at this Board's regular meeting on September 9, 2026 for the continued public hearing and to continue the Board's review of the Project, at which time the Applicant will present the plan revisions to be detailed in a forthcoming submittal.

In the meantime, should this Board or City Staff have any questions or comments with regard to the foregoing, please do not hesitate to contact me. Thank you in advance for your consideration in this matter.

Very truly yours,

Taylor M. Palmer

cc: Jennifer L. Gray, Esq., City of Beacon Planning Board Attorney

City of Beacon Planning Board Agenda
08/11/2026

Title:

Continue public hearing and continue review of application for Subdivision Approval, 84 Anderson Street, Residential, submitted by Sadhna Gupta.

ATTACHMENTS

84 Anderson PB 8.11.26 Cover Letter_2026-0728.pdf

84 Anderson PB 8.11.26 Tree Report_2026-0728.pdf

84 Anderson PB 8.11.26 Sheets_2026-0728.pdf

84 Anderson PB 8.11.26 PH public comment Fienberg redacted2.pdf

Lanc & Tully 84 Anderson Street 08-07-26_0001.pdf

KARC Review PB_84 Anderson St_2026.08.07.pdf

84 Anderson Street - Subdivision Resolution (4903-4503-6740.2).pdf

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
www.HudsonLandDesign.com

July 28, 2026

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

Re: 84 Anderson Street Subdivision
Sadhna Gupta (Applicant)
84 Anderson Street
Tax Parcel ID: 6054-31-371850 (±0.53 acres) & 6054-31-358838 (±0.34 acres)
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) is pleased to submit copies of the following documents in support of the Project:

- Four (4) copies of the Subdivision Plan Set (Sheets 1 through 7 of 7)
- Four (4) copies of our Tree inspection Report

The documents have been prepared and/or updated in response to comments from the Planning Board and from the City's consultants for the Planning Board's continued review and consideration of the Application. The following are point-by-point responses to each comment contained within the letters prepared by the City's consultants:

Lanc & Tully Review Letter, Dated July 10, 2026:

General Comments:

1. Sheet 3 of 7 is now titled "Subdivision Plat".
2. A variance note has been added to sheets 3 and 4.

KARC Planning Consultants, Inc. Review Letter, Dated July 13, 2026:

1. All comments have been addressed at this time.

Planning Board comments from the July 14, 2026 meeting:

We have provided supplemental information regarding the trees along the easterly property line in the attached letter and photo documentation. To further minimize potential impacts to these trees, we have mirrored the building footprint on proposed Lot B, effectively eliminating the driveway and retaining wall previously located near the easterly boundary. We look forward to presenting this revised layout at the upcoming meeting, where we would also like to discuss the potential removal of these trees regardless of the plan revision (refer to the attached letter report).

We look forward to continuing our discussions regarding this Application at your August 11, 2026 meeting. Should you have any questions, please feel free to contact me on my direct line at 845-765-8955.

Sincerely,

Daniel G. Koehler, P.E.
Principal

cc: Sadhna Gupta, Applicant (via email)
HLD file

HUDSON LAND DESIGN

Civil & Environmental Engineering Consultants
174 Main Street, Beacon, New York 12508 (Main Office and Mailing Address)
13 Chambers Street, Newburgh, NY 12550 (Satellite Office)
Phone: 845-440-6926
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July 28, 2026

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

Re: 84 Anderson Street Subdivision
Sadhna Gupta (Applicant)
84 Anderson Street
Tax Parcel ID: 6054-31-371850 (±0.53 acres) & 6054-31-358838 (±0.34 acres)
City of Beacon, NY

Dear Chairman Gunn and Members of the Planning Board:

On July 15, 2026, Hudson Land Design conducted a Tree Inspection to determine Tree Canopies and the current state of existing trees. Using measurements of the Tree Canopies, we determined approximate Root Zones of existing trees along the eastern property line of Proposed Lot B. The Root Zone Hatches as shown on Sheets XC-1 and SP-1 of the Subdivision Plan Set demonstrate that development of Lot B will have minimal impact to the root zone of these trees as the proposed building footprint is within the limits of the existing driveway and garage. Although we are not arborists, the trees appear to be relatively healthy apart from Trees 35 & 36, which are exposed at the roots from erosion and possibly animal burrowing along the slope at their base. The investigation also brought our attention to Trees 35 & 40 which appeared to have a number of dead limbs. Please refer to Existing Tree and Removal Schedule on Sheet XC-1 for tree numbers and photo exhibits below for evidence of the findings.

Photo Exhibit 1:

View looking Southeast of Trees 35 & 36 showing exposed roots and erosion of slope (Tree 34 in the foreground).



Photo Exhibit 2:

Close up on exposed roots of Tree 35
(Tree 36 in the background)



Photo Exhibit 3:

View looking up the canopy from the base of Tree 35 showing dead limbs.



Photo Exhibit 4:

View looking up the canopy from the base of Tree 40 showing dead limbs
(Note: Tree 40 is located on the adjacent property)



Upon further examination, we would like to discuss the potential removal of Tree 35, and possibly Tree 36, to minimize the risk of damage to the proposed home on Lot B. While these removals are not shown on the submitted plan set, we welcome a discussion with the Planning Board and encourage members to perform a site visit prior to the meeting to better contextualize this proposed change.

Thank you for your attention to this matter. Should you have any questions, please feel free to contact me on my direct line at 845-765-8955.

Sincerely,



Daniel G. Koehler, P.E.
Principal

cc: Sadhna Gupta, Applicant (via email)
HLD file

84 ANDERSON STREET

RESIDENTIAL SUBDIVISION

84 ANDERSON STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK

PARCEL INFORMATION:
TAX ID: 6054-31-371850 & PORTION OF 6054-31-358838
PARCEL 371850 LOT AREA: ±0.526 ACRES
ZONING DISTRICT: R1-10



SITE LOCATION MAP SCALE: 1" = 400'

ADJOINING OWNERS WITHIN 200'
PARCEL: OWNER & ADDRESS
1. SADHNA GUPTA, 17 WESTON ROAD, WESTPORT CT 06880
2. CITY OF BEACON SCHOOL DISTRICT, 10 EDUCATION DRIVE, BEACON NY 12508
3. ANN MCGOWAN, 335 EAST 86TH STREET 5A, NEW YORK NY 10028
4. ANDREY NETBOY, 85 ANDERSON STREET, BEACON NY 12508
5. PHILOMENA KIERNAN, 80 OVERLOOK AVENUE, BEACON NY 12508
6. TRACY DROSS, 72 OVERLOOK AVENUE, BEACON NY 12508
7. CHARLES DEL BENE JR, 54 OVERLOOK AVENUE, BEACON NY 12508
8. GREGORY MARTIN WHITE, 65 ANDERSON STREET, BEACON NY 12508
9. CRAIG HEITCZMAN, 30 TILLOTT STREET, BEACON NY 12508
10. THOMAS CERCHIARA, 10 TILLOT STREET, BEACON NY 12508
11. WILLIAM TOBAR, 48 ANDERSON STREET, CORNWALL ON THE HUDSON NY 12520
12. CHRISTOPHER WOLFE, 52 ANDERSON STREET, BEACON NY 12508
13. ANA JOANES, 60 ANDERSON STREET, BEACON NY 12508

PROJECT ENGINEER:
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN STREET
BEACON, NEW YORK 12508
PH: 845-440-6926

OWNER/APPLICANT:
SADHNA GUPTA
17 WESTON ROAD
WESTPORT CT 06880

PROJECT SURVEYOR:
RAPPA & BURNETT
LAND SURVEYORS, P.C.
6 CIRCLE DRIVE
WALDEN NY 12586
PH: 845-802-3687

DRAWING INDEX:
SHEET 1: COVER SHEET (CV-1)
SHEET 2: EXISTING CONDITIONS & REMOVALS PLAN (XC-1)
SHEET 3: SUBDIVISION PLAT (PL-1)
SHEET 4: SUBDIVISION PLAN (SP-1)
SHEET 5: EROSION & SEDIMENT CONTROL PLAN (ESC-1)
SHEET 6: CONSTRUCTION DETAILS (CD-1)
SHEET 7: CONSTRUCTION DETAILS (CD-2)

OWNER'S CONSENT:
THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
SADHNA GUPTA DATE

I HEREBY DECLARE THIS MAP TO BE PREPARED IN ACCORDANCE WITH THE CODE OF PRACTICE OF THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS, ADOPTED OCTOBER, 1996 AND REVISED THROUGH JULY 18, 1997

BY: _____
JOSEPH RAPPA JR., L.S. N.Y. State Lic. no. 051206

DCDBCH 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

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/26/26	PER PLANNING BOARD COMMENTS	CMB				
2	6/30/26	PER PLANNING BOARD COMMENTS	CMB				
3	7/28/26	PER PLANNING BOARD COMMENTS	CMB				

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

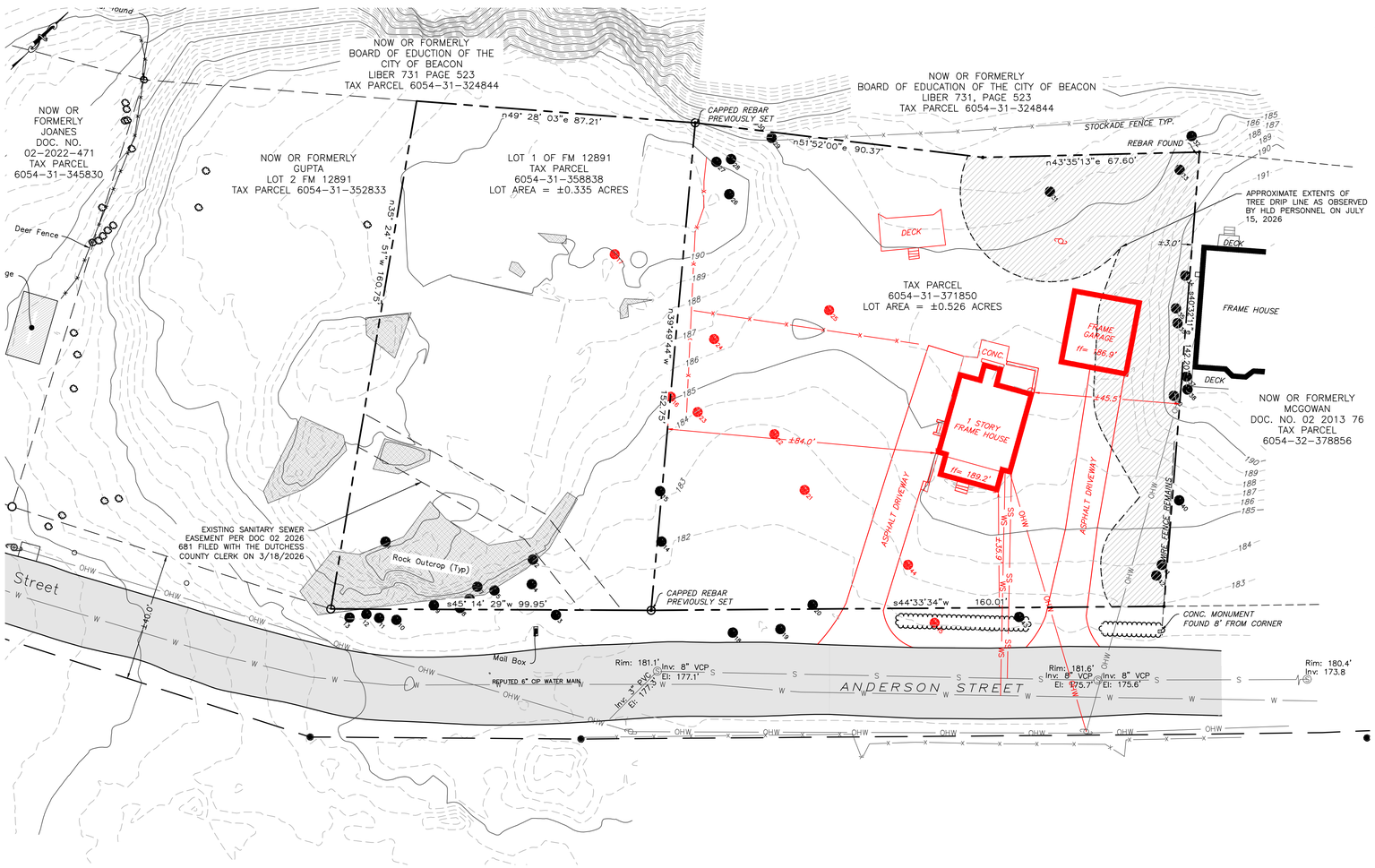
COVER SHEET

84 ANDERSON STREET SUBDIVISION
REVISION TO FILED MAP 12891

84 ANDERSON STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-371850

JOB #:	2026:009
DATE:	4/28/2026
SCALE:	AS SHOWN
TITLE:	CV-1
SHEET:	1 OF 7

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



LEGEND:

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

PROJECT INFORMATION:

PARCEL OWNER:	SADHNA GUPTA, 17 WESTON ROAD, WESTPORT CT 06880
PROJECT ENGINEER:	HUDSON LAND DESIGN P.C., 174 MAIN STREET, BEACON NY 12508
PARCEL LOCATION:	84 & 74 ANDERSON STREET, BEACON NY 12508
TAX PARCEL ID:	6054-31-371850 (±0.526 AC) & 6054-31-358838 (±0.335 AC)
PARCEL AREA:	±0.861-ACRE TOTAL
WATER SUPPLY:	MUNICIPAL
SEWAGE DISPOSAL:	MUNICIPAL

MAP REFERENCES:

1. BOUNDARY AND TOPOGRAPHIC SURVEY PER "BOUNDARY & TOPOGRAPHIC SURVEY PREPARED OF 84 ANDERSON STREET" PREPARED BY RAPPA AND BURNETT LAND SURVEYORS, P.C., DATED MARCH 16, 2026.
2. LOT 1 OF FILED MAP 12891 PER MAP FILED AT DUTCHESS COUNTY CLERK'S OFFICE ON 3/11/2026 "74 ANDERSON STREET SUBDIVISION" PREPARED BY HUDSON LAND DESIGN PROFESSIONAL ENGINEERING P.C.

SURVEY NOTES:

1. COPYRIGHT RAPPA & BURNETT LAND SURVEYORS, P.C. 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 LOCATIONS 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 IF ANY.
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 REAL-TIME KINEMATIC GPS OBSERVATIONS.
11. CONTOUR INTERVAL IS ONE FOOT AND IS REFERENCED TO NAVD88. THE TOPOGRAPHY SHOWN HEREON IS DERIVED FROM UAV PHOTOGRAMMETRY UTILIZING BASE-ROVER GPS WITH AN ON-SITE BASE AND 10 INDEPENDENT CHECK POINTS. CHECK POINTS HAVE THE FOLLOWING ACCURACY: HRMS 0.093' (NORTHING), 0.089' (EASTING), VRMS 0.137' (ELEVATION)
12. PARCEL AREA NOTED HEREON DERIVED FROM BOTH MEASURED AND RECORD EVIDENCE.
13. BEARINGS AND DISTANCES SHOWN HEREON ARE FOR COMPUTATIONAL PURPOSES ONLY.

DEMOLITION NOTES:

1. PRIOR TO DEMOLISHING ANY BUILDINGS/STRUCTURES, THE CONTRACTOR SHALL PERFORM A PRE-DEMOLITION SURVEY IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS GOVERNING THE DISPOSAL OF SOLID WASTE. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS BY THE AUTHORITY HAVING JURISDICTION. ALL DEBRIS RESULTING FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE AT A FACILITY APPROVED TO RECEIVE THE DEBRIS.
2. CONFORM TO APPLICABLE CODE FOR DEMOLITION OF STRUCTURES, SAFETY OF ADJACENT STRUCTURES, DUST CONTROL, RUNOFF CONTROL, AND HAULING, DISPOSAL AND STORAGE OF DEBRIS.
3. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES.
4. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION.
5. NOTIFY ADJACENT OWNERS OF WORK THAT MAY AFFECT THEIR PROPERTY, POTENTIAL NOISE, UTILITY OUTAGE, OR DISRUPTION. COORDINATE WITH OWNER.
6. PREVENT MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES. PROVIDE BRACING AND SHORING.
7. LOCATE AND IDENTIFY ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA. DISCONNECT AND SEAL OR CAP OFF UTILITY SERVICES THAT WILL BE AFFECTED BY THIS PROJECT. NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED.
8. DEMOLISH AND REMOVE COMPONENTS IN AN ORDERLY AND CAREFUL MANNER.
9. PROTECT EXISTING FEATURES THAT ARE NOT TO BE DEMOLISHED.
10. CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESSES.
11. MAINTAIN EGRESS AND ACCESS AT ALL TIMES. DO NOT CLOSE OR OBSTRUCT ROADWAYS, OR SIDEWALKS WITHOUT PERMITS.
12. CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER. NOTIFY AUTHORITY HAVING JURISDICTION.
13. ROUGH GRADE AND COMPACT AREAS AFFECTED BY DEMOLITION TO MAINTAIN SITE GRADES AND CONTOURS.
14. FIELD VERIFY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED ON DEMOLITION PLAN TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
15. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATION.
16. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH SELECTIVE DEMOLITION OPERATIONS.
17. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA.
18. USE WATER MIST, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS TO LIMIT THE SPREAD OF DUST AND DIRT. COMPLY WITH GOVERNING ENVIRONMENTAL PROTECTION REGULATIONS. DO NOT USE WATER WHEN IT MAY DAMAGE EXISTING CONSTRUCTION, SUCH AS ICE, FLOODING, AND POLLUTION.
19. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
20. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF SELECTIVE DEMOLITIONS.
21. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. DO NOT BURN DEMOLISHED MATERIALS ON-SITE.

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.

TREE PROTECTION NOTES:

1. THE CONTRACTOR SHALL PROVIDE TREE PROTECTION ON THE TREES TO BE SAVED DURING CONSTRUCTION, REFER TO DETAIL ON SHEET CD-2.
2. IF THE NOTED TREES CANNOT BE SAVED, A NEW TREE SHALL BE PLANTED ON THE PARCEL.

EXISTING TREE & REMOVAL SCHEDULE:

1.	6" MAPLE	16.	24" BLACK WALNUT	TBR	31.	24" MAPLE	
2.	10" QUAD MAPLE	17.	24" OAK	TBR	32.	18" MAPLE	
3.	21" BLACK WALNUT	18.	21" BLACK WALNUT		33.	21" MAPLE	
4.	10" FIR	19.	18" BLACK WALNUT		34.	13" MAPLE	
5.	9" FIR	20.	24" BLACK WALNUT		35.	17" BLACK WALNUT	
6.	10" DEAD FIR	21.	22" BLACK WALNUT	TBR	36.	22" OAK	
7.	10" MAPLE	22.	15" RED MAPLE	TBR	37.	25" TWIN MAPLE	
8.	8" DEAD FIR	23.	16" BLACK WALNUT	TBR	38.	12" MAPLE	
9.	6" FIR	24.	30" MAPLE	TBR	39.	12" MAPLE	
10.	10" MAPLE	25.	28" BLACK WALNUT	TBR	40.	10" CEDAR	
11.	7" FIR	26.	8" MAPLE		41.	7" MAPLE	
12.	14" OAK	27.	22" MAPLE		42.	6" TWIN MAPLE	
13.	8" FIR	28.	26" MAPLE		43.	8" MAPLE	
14.	24" BLACK WALNUT	29.	10" MAPLE		44.	18" MAPLE	TBR
15.	21" BLACK WALNUT	30.	7" MAPLE		45.	8" MAPLE	TBR

NOTES:
1. TREE LOCATIONS, SIZES AND IDENTIFICATION BY HUDSON LAND DESIGN PERSONNEL. TREES ON LOT 1 WERE LOCATED ON MARCH 18, 2025. TREES ON LOTS A & B WERE LOCATED ON APRIL 27, 2026.
2. **TBR** = TO BE REMOVED

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.

_____ _____
SADHNA GUPTA DATE

I HEREBY DECLARE THIS MAP TO BE PREPARED IN ACCORDANCE WITH THE CODE OF PRACTICE OF THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS, ADOPTED OCTOBER, 1996 AND REVISED THROUGH JULY 18, 1997

BY: _____
JOSEPH RAPPA JR., L.S. *N.Y. State Lic. no. 051206*

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/26/26	PER PLANNING BOARD COMMENTS	CMB				
2	6/30/26	PER PLANNING BOARD COMMENTS	CMB				
3	7/28/26	PER PLANNING BOARD COMMENTS	CMB				

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

Dig Safely. New York. Call 811 before you dig

STATE OF NEW YORK DANIEL G. KOENIG 087715 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

EXISTING CONDITIONS & REMOVALS PLAN

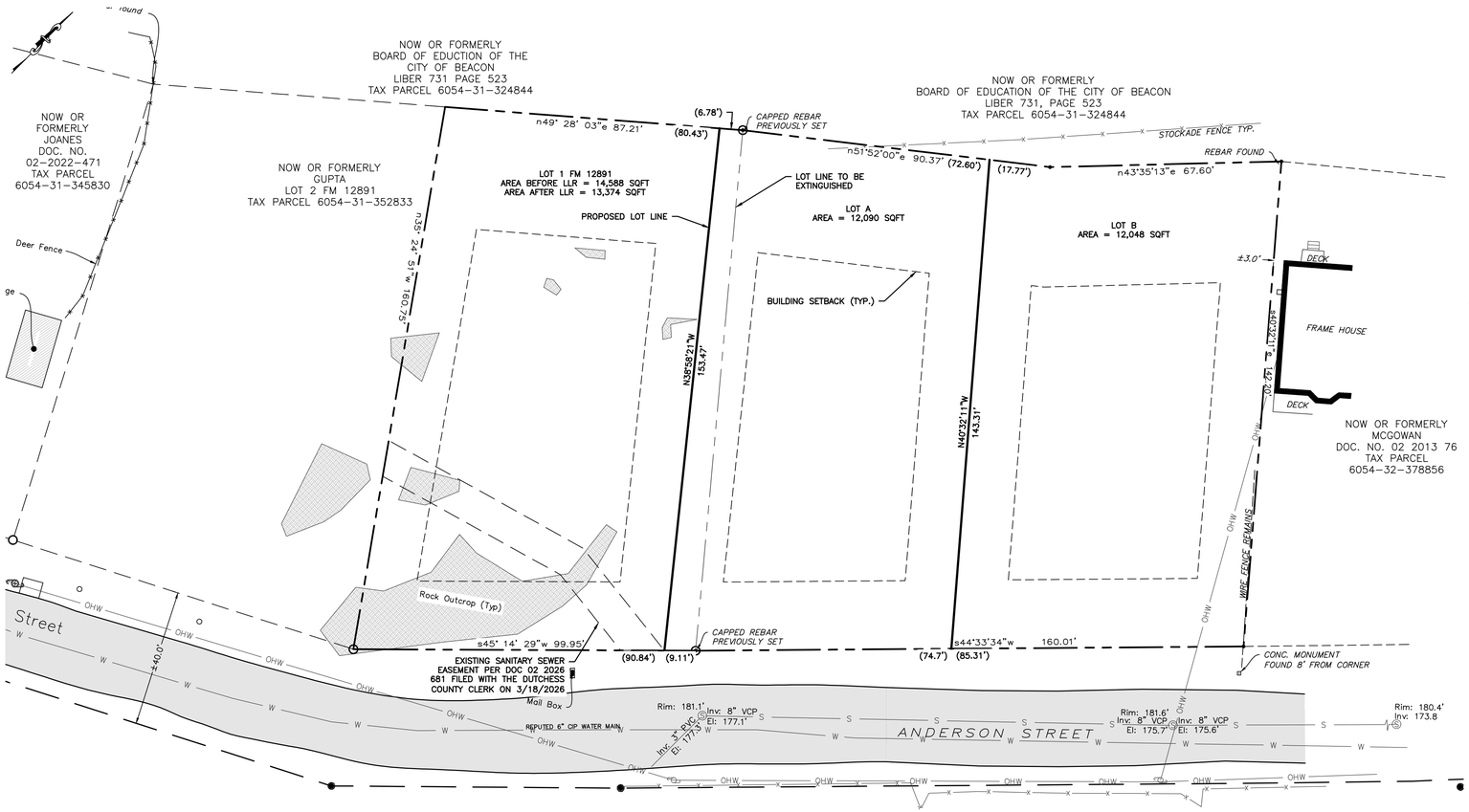
84 ANDERSON STREET SUBDIVISION

REVISION TO FILED MAP 12891

84 ANDERSON STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-371850

JOB #:	2026:009
DATE:	4/28/2026
SCALE:	1" = 20'
TITLE:	XC-1
SHEET:	2 OF 7

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



LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- EXISTING WATER LINE
- EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING ROOF LEADER
- EXISTING CATCH BASIN

- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- PROPOSED MAJOR CONTOUR
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- PROPOSED WATER SHUT OFF VALVE
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SCHEDULE OF REGULATIONS (R1-10 ZONING DISTRICT) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT
LOT AREA:	10,000 SQFT MIN./UNIT
LOT WIDTH:	85 FEET MINIMUM*
LOT DEPTH:	100 FEET MINIMUM
YARD SETBACKS (RESIDENTIAL USE):	
FRONT YARD:	20 FEET
SIDE YARD:	15 FEET
REAR YARD:	35 FEET MINIMUM
MAX. BUILDING HEIGHT:	35 FT, 2.5 STORIES
MAX. BUILDING COVERAGE:	25% MAX.

*SEE VARIANCE NOTE BELOW

MAP REFERENCE:

1. BOUNDARY AND TOPOGRAPHIC SURVEY PER "BOUNDARY & TOPOGRAPHIC SURVEY PREPARED OF 84 ANDERSON STREET" PREPARED BY RAPPA AND BURNETT LAND SURVEYORS, P.C., DATED MARCH 16, 2026.
2. LOT 1 OF FILED MAP 12891 PER MAP FILED AT DUTCHESS COUNTY CLERK'S OFFICE ON 3/11/2026 "74 ANDERSON STREET SUBDIVISION" PREPARED BY HUDSON LAND DESIGN PROFESSIONAL ENGINEERING P.C.

TOTAL PARCEL AREA:

±37,505 S.F. OR ±0.861 ACRE

TAX MAP REFERENCE:

CITY OF BEACON 130200-6054-31-371850
CITY OF BEACON 130200-6054-31-358838

HORIZONTAL DATUM:

NAD 83-NY EAST

VERTICAL DATUM:

NAVD 88

FLOOD BOUNDARY:

SUBJECT PARCEL IS LOCATED IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANGE FLOODPLAIN) PER PANEL 36027C0464E DATED MAY 2, 2012.

WETLAND NOTE:

NO NYSDEC OR FEDERAL WETLANDS WERE FOUND ONSITE.

ENCROACHMENT NOTE:

THE FILING OF THIS PLAT DOES NOT CONSTITUTE ANY ENDORSEMENT, APPROVAL OR AUTHORIZATION OF ANY KIND FOR THE CONTINUATION OR REMOVAL OF ANY EXISTING ENCROACHMENTS ON THE SUBJECT PROPERTY.

VARIANCE NOTE:

AN AREA VARIANCE GRANTING RELIEF OF 3.6 FEET FROM 85 FEET TO 81.4 FEET FOR THE LOT WIDTH OF LOT A WAS GRANTED BY THE CITY OF BEACON ZONING BOARD OF APPEALS AT ITS JUNE 16TH 2026 MEETING.

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.

_____ _____
SADHNA GUPTA DATE

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BY: _____
JOSEPH RAPPA JR., L.S. *N.Y. State Lic. no. 051206*

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/26/26	PER PLANNING BOARD COMMENTS	CMB				
2	6/30/26	PER PLANNING BOARD COMMENTS	CMB				
3	7/28/26	PER PLANNING BOARD COMMENTS	CMB				

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

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SEAL
STATE OF NEW YORK DANIEL G. KOSEN 082716 LICENSED PROFESSIONAL ENGINEER

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

SUBDIVISION PLAT

84 ANDERSON STREET SUBDIVISION

REVISION TO FILED MAP 12891

84 ANDERSON STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-371850

JOB #:	2026:009
DATE:	4/28/2026
SCALE:	1" = 20'
TITLE:	PL-1
SHEET:	3 OF 7

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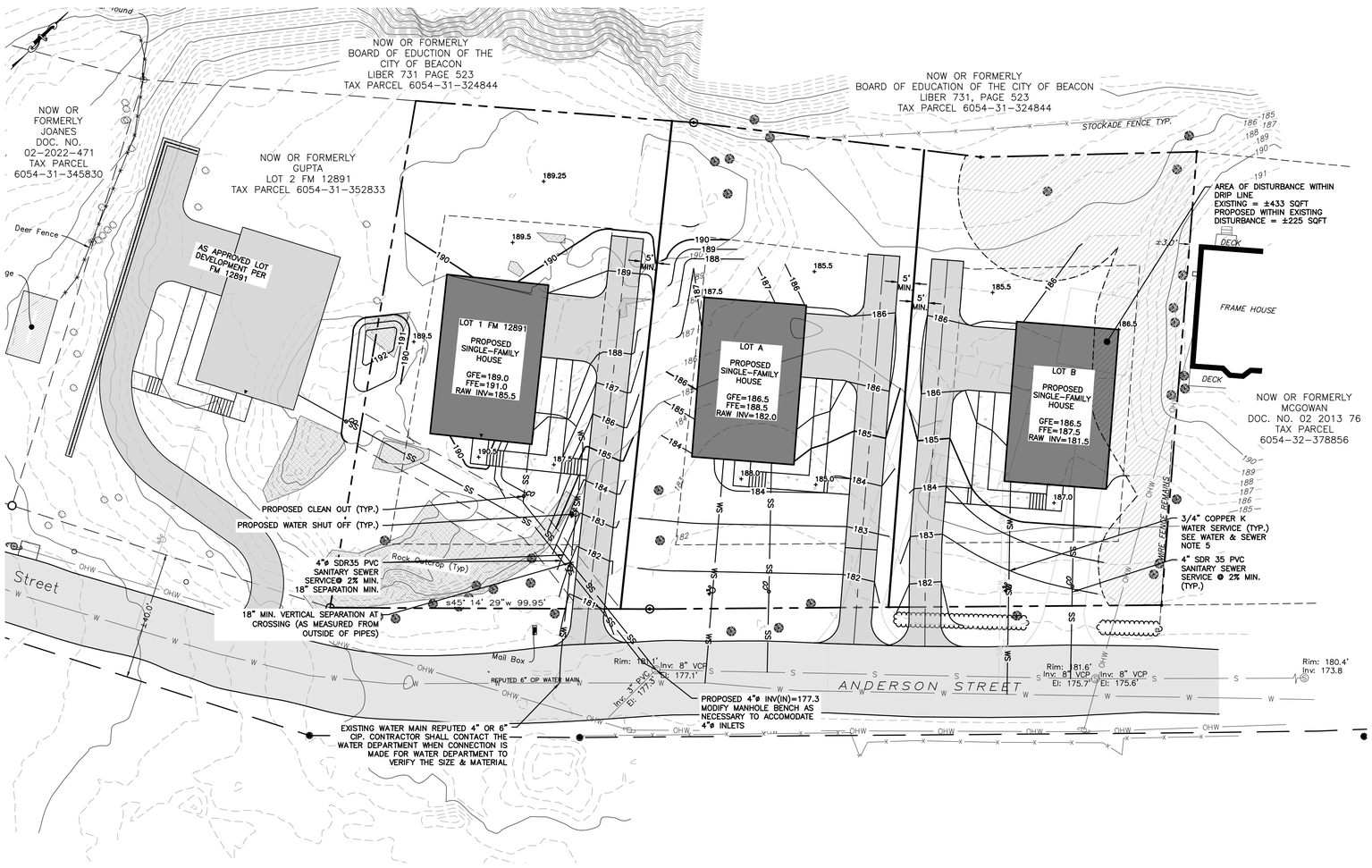

SCHEDULE OF REGULATIONS (R1-10 ZONING DISTRICT) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT	LOT 1	LOT A	LOT B
LOT AREA:	10,000 SQFT MIN./UNIT	±13,374 SQFT	±12,090 SQFT	±12,048 SQFT
LOT WIDTH:	85 FEET MINIMUM	±85.0 FEET	±81.4 FEET*	±85.0 FEET
LOT DEPTH:	100 FEET MINIMUM	±153.5 FEET	±143.3 FEET	±142.2 FEET
YARD SETBACKS (RESIDENTIAL USE):				
FRONT YARD:	20 FEET	51.4 FEET	44.8 FEET	36.4 FEET
SIDE YARD:	15 FEET	18.7 FEET	15.8 FEET	20.0 FEET
REAR YARD:	35 FEET MINIMUM	53.0 FEET	52.5 FEET	51.7 FEET
MAX. BUILDING HEIGHT:	35 FT, 2.5 STORIES	≤35 FEET	≤35 FEET	≤35 FEET
MAX. BUILDING COVERAGE:	25% MAX.	±12.0%	±13.2%	±13.2%

*AN AREA VARIANCE GRANTING RELIEF OF 3.6 FEET FROM 85 FEET TO 81.4 FEET FOR THE LOT WIDTH OF LOT A WAS GRANTED BY THE CITY OF BEACON ZONING BOARD OF APPEALS AT ITS JUNE 16TH 2026 MEETING.

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
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- EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
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- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE

WATER & SEWER NOTES:

1. ALL WATER & SEWER CONNECTIONS SHALL COMPLY WITH CITY WATER AND SEWER DISTRICT REQUIREMENTS.
2. THE PROPOSED BUILDING SHALL BE SET AT SUCH ELEVATION TO ENSURE GRAVITY FLOW FROM THE RAW SEWER LINE TO THE POINT OF CONNECTION WITH THE EXISTING SEWER MAIN, WHILE MAINTAINING PROPER EARTH COVER ABOVE ALL PIPING.
3. NO CELLAR, ROOF, OR FOOTING DRAINS SHALL BE DISCHARGED INTO THE SANITARY SEWER SYSTEM.
4. THE APPLICANT/APPLICANT'S PLUMBER SHALL ACQUIRE WATER METERS AND MXU UNITS (SIGNAL SENDING AND RECEIVING UNIT) FOR THE AMI SYSTEM (ADVANCED METERING INFRASTRUCTURE) FROM THE CITY OF BEACON WATER DEPARTMENT. THE MXU UNIT SHALL BE INSTALLED ON THE EXTERIOR OF THE BUILDING AND SHALL BE LOCATED 2 TO 3 FEET ABOVE THE EXTERIOR GROUND ELEVATION.
5. VERIFY PRESSURE WITH CITY OF BEACON WATER DEPARTMENT PRIOR TO CONSTRUCTION. INCREASE SERVICE LINE SIZE IF NEEDED TO MAINTAIN MINIMUM PRESSURE WITHIN THE STRUCTURE.

GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UFPO @ 1-800-962-7962.
2. WATER, SEWER AND STORM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS. ALL OTHER UTILITIES (TELEPHONE, ELECTRIC, GAS, CABLE, ETC.) SHALL BE INCORPORATED FOLLOWING SITE PLAN APPROVAL. ALL SUCH UTILITY DESIGNS SHALL BE DEVELOPED IN COORDINATION WITH THE RESPECTIVE UTILITY COMPANIES.
3. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE, LOCATION, DEPTH AND CONDITION OF ALL UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT.
4. THE CONTRACTOR SHALL CONSTRUCT ALL IMPROVEMENTS AS SHOWN ON PLANS. ANY FIELD CONDITIONS THAT MAY RESULT IN A VARIATION FROM THE PLAN SET SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IN WRITING. VARIATIONS FROM THE PLAN WITHOUT APPROVAL FROM THE ENGINEER WILL BE CONSIDERED DEFICIENT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ON-SITE OR OFF-SITE DAMAGES TO VEGETATION OR PROPERTY CAUSED BY HIS OPERATIONS. SUCH DAMAGES SHALL BE REPAIRED OR REPLACED AT THE CONTRACTORS COST TO THE SATISFACTION OF THE ENGINEER, PROPERTY OWNER OR AGENCY HAVING JURISDICTION.
6. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL KEEP THE SITE IN A CLEAN AND ORDERLY MANNER.

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.
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 LOTS 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 TO EACH LOT SHALL BE 3/4"ø K-COPPER.
6. THE SEWER SERVICE LINES TO EACH LOT SHALL BE 4"ø SDR 35 PVC PIPE WITH PITCH AS SHOWN ON THE PLAN (MINIMUM OF ¼" PER FOOT SHALL BE MAINTAINED).
7. A ROAD OPENING PERMIT SHALL BE REQUIRED FOR THE INSTALLATION OF THE PROPOSED WATER AND SEWER SERVICES FOR THE NEW BUILDING. STREET CLOSURE FOR WATER AND SEWER SERVICE CONNECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF BEACON REQUIREMENTS.
8. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. THE PROPOSED DRIVEWAY SHALL HAVE A STABILIZED CONSTRUCTION ENTRANCE.
9. SUMP PUMP TO BE PROVIDED FOR FOOTING DRAINS. THE TYPE OF PUMP AND METHODS USED TO ENSURE PROPER DRAINAGE SHALL BE ACCEPTABLE TO THE CITY OF BEACON BUILDING DEPARTMENT. BACKFLOW PREVENTION DEVICES SHALL BE PLACED ON THE FOOTING DRAINS TO PREVENT BACKFLOW INTO THE FOOTING DRAIN. SUMP PUMP DISCHARGE SHALL NOT ENTER THE SANITARY SEWER SYSTEM.
10. THE PROPOSED DRIVEWAY SIGHT DISTANCE SHALL BE IN COMPLIANCE WITH THE CITY OF BEACON'S 192-9(B) CODE AND THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REQUIREMENTS. THE STATE UTILIZES THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) GUIDELINES FOR INTERSECTION SIGHT DISTANCES. FOR ROADS WITH A SPEED LIMIT OF 30 MPH, AASHTO DESIGN TABLES CALL FOR A SIGHT DISTANCE OF 290 FEET TO THE LEFT AND 335 FEET TO THE RIGHT. IN CASES WHERE INTERSECTION SIGHT DISTANCE IS DEFICIENT, A MINIMUM STOPPING SIGHT DISTANCE OF 200 FEET IS REQUIRED. THE MEASURED SIGHT DISTANCE IS AS FOLLOWS:

LOT 1: INTERSECTION SIGHT DISTANCE RIGHT = ±200 FEET
INTERSECTION SIGHT DISTANCE LEFT = ±285 FEET
STOPPING SIGHT DISTANCE (WESTBOUND) = ±480 FEET
STOPPING SIGHT DISTANCE (EASTBOUND) = ±240 FEET

LOT A: INTERSECTION SIGHT DISTANCE RIGHT = ±225 FEET
INTERSECTION SIGHT DISTANCE LEFT = ±425 FEET
STOPPING SIGHT DISTANCE (WESTBOUND) = ±395 FEET
STOPPING SIGHT DISTANCE (EASTBOUND) = ±325 FEET

LOT B: INTERSECTION SIGHT DISTANCE RIGHT = ±246 FEET
INTERSECTION SIGHT DISTANCE LEFT = ±404 FEET
STOPPING SIGHT DISTANCE (WESTBOUND) = ±290 FEET
STOPPING SIGHT DISTANCE (EASTBOUND) = ±424 FEET

11. BEDROCK SHALL REMOVED BY MECHANICAL MEANS. NO BLASTING SHALL BE PERMITTED WITHOUT APPROVAL FROM THE BUILDING DEPARTMENT.

INFILTRATION AND INFLOW MITIGATION NOTES:

1. AT AN INSPECTION PERFORMED ON APRIL 20, 2026, HUDSON LAND DESIGN OBSERVED NO ILLICIT STORMWATER OR SUMP PUMP CONNECTIONS TO THE CITY OF BEACON'S SANITARY SEWER COLLECTION SYSTEM.

RETAINING WALL NOTES:

1. THE DESIGN OF THE RETAINING WALL SHALL BE COMPLETED BY A NYS LICENSED ENGINEER, AND SUBMITTED TO THE CITY OF BEACON FOR REVIEW.
2. TOP WALL AND BOTTOM WALL ELEVATIONS SHOWN. BOTTOM WALL REPRESENTS THE FINAL GRADE AT EXPOSED FACE OF WALL.
3. RETAINING WALL SHALL INCLUDE FALL PROTECTION.

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.

_____ _____
SADHNA GUPTA DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/26/26	PER PLANNING BOARD COMMENTS	CMB				
2	6/30/26	PER PLANNING BOARD COMMENTS	CMB				
3	7/28/26	PER PLANNING BOARD COMMENTS	CMB				

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

Dig Safely. New York. Call 811 before you dig

STATE OF NEW YORK
DANIEL G. ROBERTS
098216
LICENSED PROFESSIONAL ENGINEER
SEAL

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

SUBDIVISION PLAN

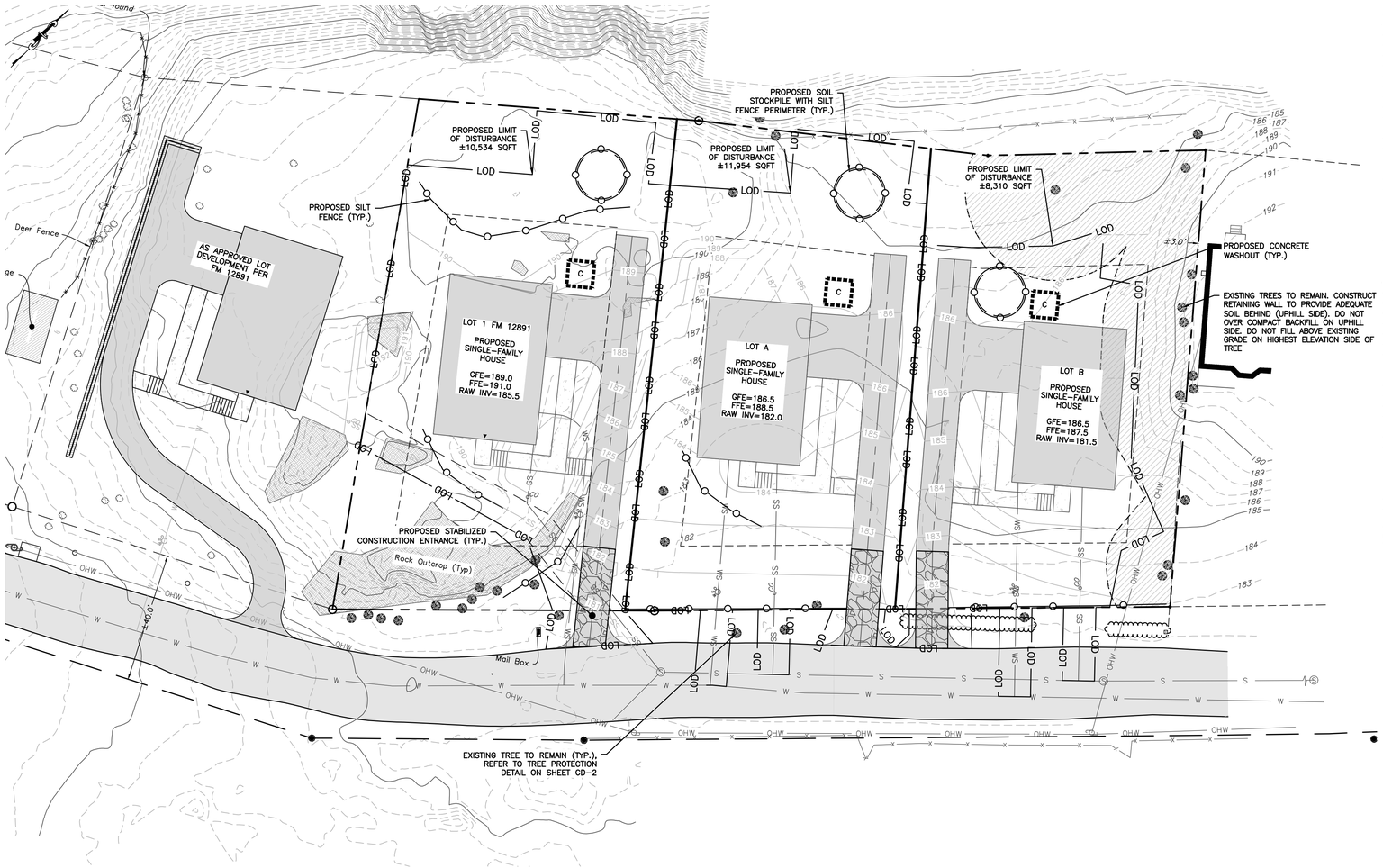
84 ANDERSON STREET SUBDIVISION

REVISION TO FILED MAP 12891

84 ANDERSON STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-371850

JOB #:	2026:009
DATE:	4/28/2026
SCALE:	1" = 20'
TITLE:	SP-1
SHEET:	4 OF 7

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



LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- EXISTING WATER LINE
- EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING ROOF LEADER
- EXISTING CATCH BASIN
- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- PROPOSED SEWER LINE
- PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED SDS LATERAL
- PROPOSED SDS SOLID LINE
- PROPOSED STORM WATER LINE
- PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE
- PROPOSED SILT FENCE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED CATCH BASIN INLET PROTECTION
- PROPOSED CONSTRUCTION ENTRANCE

EROSION AND SEDIMENT CONTROL NOTES:

1. ALL EROSION CONTROL MEASURES EMPLOYED DURING THE CONSTRUCTION PROCESS SHALL BE INSPECTED BY THE CONTRACTOR IN ACCORDANCE WITH THE MAINTENANCE SCHEDULE. ALL EROSION CONTROL STRUCTURES SHALL BE REPAIRED AND MAINTAINED AS NECESSARY BY THE CONTRACTOR.
2. ALL STORMWATER MANAGEMENT STRUCTURES (E.G. CATCH BASINS) SHALL BE REGULARLY INSPECTED FOR SEDIMENT ACCUMULATIONS. CATCH BASINS SHALL BE CLEANED WHEN SEDIMENT DEPTH REACHES A MAXIMUM OF ONE-HALF THE AVAILABLE SUMP DEPTH.
3. ALL EROSION CONTROL INSTALLATION AND MAINTENANCE MEASURES SHALL MEET THE REQUIREMENTS OF THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
4. ANY PILE OF POTENTIALLY EROSIVE MATERIAL TEMPORARILY STOCKPILED ON THE SITE DURING THE CONSTRUCTION PROCESS SHALL BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE AND SHALL BE PROPERLY PROTECTED FROM EROSION BY A SURROUNDING SILT FENCE.
5. PERMANENT SEEDED AREAS FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH DETAIL AND SPECIFICATIONS ON THIS PLAN.
6. AREAS UNDERGOING CLEARING OR GRADING AND WHERE WORK IS DELAYED OR COMPLETED AND WILL NOT BE REDISTURBED FOR A PERIOD OF 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT VEGETATIVE COVER WITHIN 14 DAYS.
7. ON-SITE DUST CONTROL SHALL BE ACCOMPLISHED BY STANDARD METHODS OF LIGHTLY WATERING ALL EXPOSED SOIL AND RAPIDLY STABILIZING THE REGRADED AREAS WITH TOPSOIL, LOAM AND/OR SEEDING.
8. THE CITY ENGINEER AND PROJECT ENGINEER SHALL BE NOTIFIED NO LESS THAN 48 HOURS PRIOR TO THE START OF ANY SITE WORK, AND BY SUCH NOTIFICATION, SHALL BE PROVIDED WITH THE NAME AND TELEPHONE NUMBER OF THE GENERAL CONTRACTOR RESPONSIBLE FOR SUCH WORK.
9. THE CITY AND/OR ITS REPRESENTATIVES MAY INSPECT EROSION AND SEDIMENT CONTROL PRACTICES ON THE SITE DURING CONSTRUCTION AND RECOMMEND THAT THE CONTRACTOR INSTALL ADDITIONAL EROSION CONTROL MEASURES IF DEEMED NECESSARY TO PROTECT ANY UNDISTURBED AREAS OF THE SITE. ANY SUCH REQUESTS SHALL BE MADE DIRECTLY TO THE CONTRACTOR AND QUALIFIED PROFESSIONAL AND FOLLOWED UP WITH A WRITTEN NOTIFICATION TO THE DEVELOPER. IN ADDITION, THE PROJECT ENGINEER SHALL BE CONSULTED ON ANY SPECIAL ADDITIONS OR DELETIONS OF EROSION CONTROL MEASURES WARRANTED BY CHANGING FIELD CONDITIONS.
10. IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONSTRUCT A DEWATERING PIT IN ACCORDANCE WITH NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL TO FILTER WATER FOR PUMPING TO A SUITABLE LOCATION.
11. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED.

INSPECTION SCHEDULE & MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES

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

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

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

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

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

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

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OWNER'S CONSENT:

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SADHNA GUPTA DATE

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
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3	7/28/26	PER PLANNING BOARD COMMENTS	CMB				

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

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SEAL

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

EROSION & SEDIMENT CONTROL PLAN

84 ANDERSON STREET SUBDIVISION

REVISION TO FILED MAP 12891

84 ANDERSON STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-371850

JOB #:	2026:009
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SHEET:	5 OF 7

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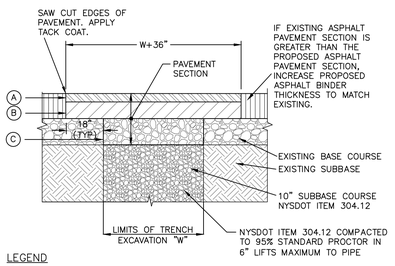


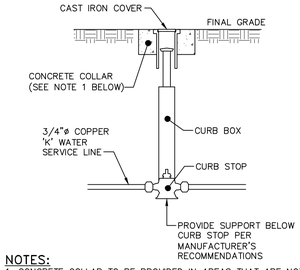
LEGEND

(A) 1.5" ASPHALT CONCRETE TOP COURSE– NYSDOT TYPE F1
(B) 3.0" ASPHALT CONCRETE BINDER COURSE– NYSDOT TYPE F9
(C) 3.0" ASPHALT BASE COURSE– NYSDOT TYPE F9

NOTES:

1. SAW CUT MIN. 18" BEYOND EXCAVATION WITH SMOOTH EDGES. 18" JOINT BETWEEN EXISTING AND NEW TOP COURSE TO BE MILLED. JOINT TO BE SEALED WITH POLYMER MODIFIED SEALER.
2. FURNISH, PLACE, AND COMPACT SUBBASE.
3. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.
4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.

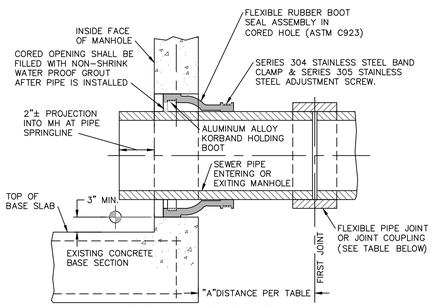
PAVEMENT RESTORATION DETAIL
NOT TO SCALE



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



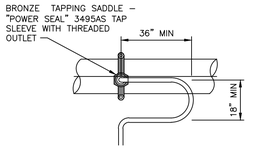
FLEXIBLE JOINT REQUIREMENTS

SEWER PIPE TYPE	FLEXIBLE JOINT TYPE IN & OUT	"A"DISTANCE (FEET)
DUCTILE IRON	STD RUBBER GASKET PIPE JOINT ONLY	10' MAX
PVC	STD RUBBER GASKET PIPE JOINT ONLY	3' MAX

NOTE:

REFERENCE MANHOLE DETAIL(S) FOR REQUIRED INVERT CHANNEL CONFIGURATION.

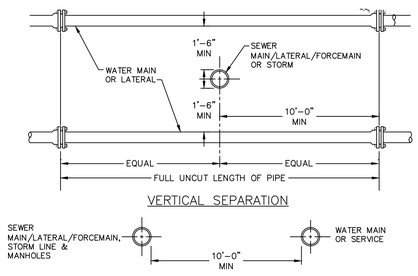
CORED HOLE AND INSERTED BOOT DETAIL
NOT TO SCALE



NOTES:

1. A MINIMUM 5' COVER SHALL BE PROVIDED ON THE WATER SERVICE LINE (CONDITIONED ON ACTUAL 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.

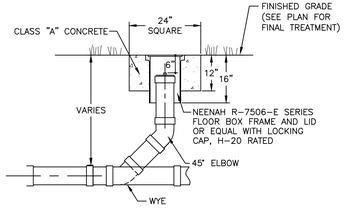
WATER SERVICE CONNECTION DETAIL
NOT TO SCALE



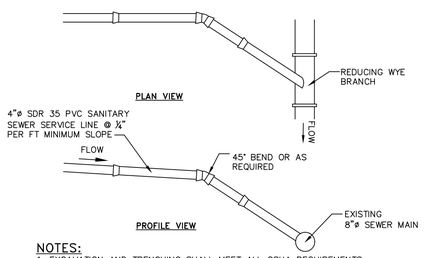
NOTE:

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



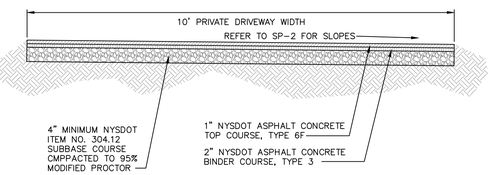
CLEANOUT DETAIL
NOT TO SCALE



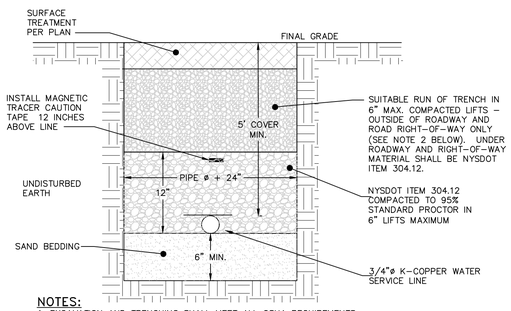
NOTES:

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.
3. TAPPING SADDLE FOR CONNECTION OF THE PROPOSED SERVICE LINE TO THE EXISTING SEWER MAIN TO BE A 4" PREDCO HUB TAP SADDLE – MODEL #HTS4/E.

SANITARY SEWER SERVICE CONNECTION DETAIL
NOT TO SCALE



PAVED DRIVEWAY SECTION DETAIL
NOT TO SCALE



NOTES:

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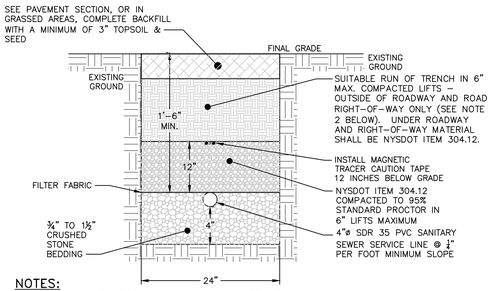
3. IN AREAS WHERE 5' COVER REQUIREMENT CANNOT BE MET, THE CONTRACTOR SHALL PROVIDE PIPE INSULATION TO PREVENT FREEZING.
4. IF WATER SERVICE AND SEWER SERVICE LINE CROSSINGS ARE NEEDED, PROVIDE 18" OF VERTICAL SEPARATION

WATER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



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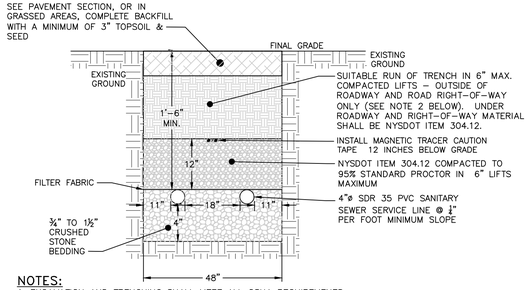
SANITARY SEWER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



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SANITARY SEWER SERVICE LINE TRENCH (TWO LINES) DETAIL
NOT TO SCALE

OWNER'S CONSENT:

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_____ _____
SADHNA GUPTA DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

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Dig Safely. New York Call 811 before you dig



SEAL

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PROFESSIONAL ENGINEERING P.C.
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PH: 845–440–6926

CONSTRUCTION DETAILS

84 ANDERSON STREET SUBDIVISION
REVISION TO FILED MAP 12891

84 ANDERSON STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054–31–371850

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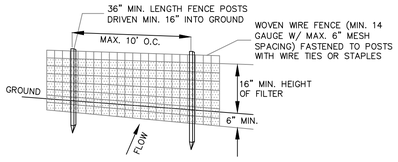
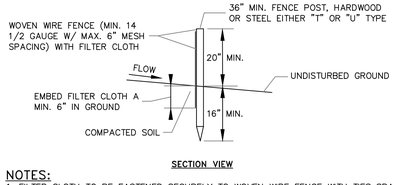
SCALE:	AS SHOWN
TITLE:	CD–1
SHEET:	6 OF 7

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



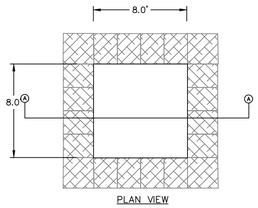
PERSPECTIVE VIEW



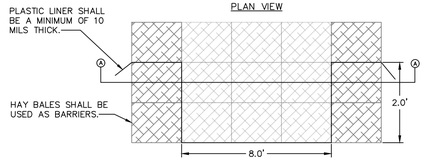
SECTION VIEW

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

SILT FENCE DETAIL
NOT TO SCALE



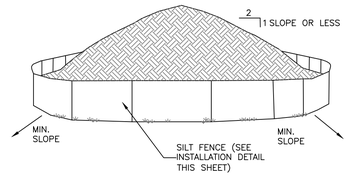
PLAN VIEW



SECTION VIEW

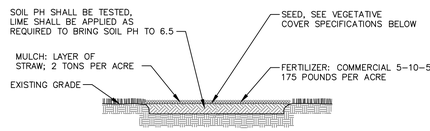
NOTES:
1. WASHOUT STATION SHALL BE LOCATED 100' FROM ANY STORMWATER FEATURE ON SITE OR NATURAL WATERWAYS OR WETLANDS.
2. INSPECT WASHOUT STATION DAILY AND REPLACE PLASTIC LINER WHEN ANY RIPS OR TEARS ARE OBSERVED.
3. REPLACE WASHOUT STATION WHEN IT IS AT 75% OF ITS CAPACITY WITH HARDENED MATERIAL.
4. WATER ACCUMULATION IN WASHOUT AREA FROM RAINWATER SHALL BE PUMPED FROM THE STATION INTO A GRASSED AREA.

CONCRETE WASHOUT STATION DETAIL
NOT TO SCALE

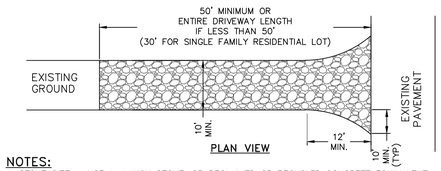


NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.

TEMPORARY SOIL STOCKPILE DETAIL
NOT TO SCALE



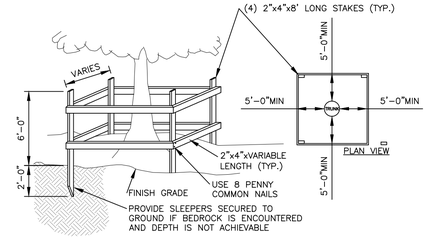
TEMPORARY SEEDING DETAIL
NOT TO SCALE



PLAN VIEW

NOTES:
1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. THICKNESS - NOT LESS THAN SIX (6) INCHES.
3. WIDTH - 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO LARGE COMMERCIAL OF RESIDENTIAL SITE.
4. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
5. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
7. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

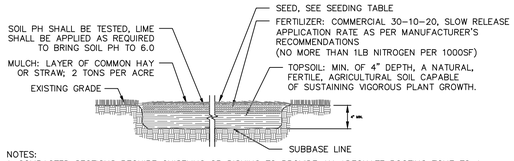
STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



PLAN VIEW

NOTES:
1. TREES TO REMAIN NOTED ON EXISTING CONDITIONS PLAN.
2. NOT ALL TREES TO REMAIN REQUIRE PROTECTION. TREE PROTECTION TO BE UTILIZED ON TREES WHERE CONSTRUCTION TRAFFIC WOULD COMPACT THE ROOT ZONE OF THE TREE.

TEMPORARY TREE PROTECTION DETAIL
NOT TO SCALE



NOTES:
1. COMPACTED SECTIONS REQUIRE CHISELING OR DISKING TO PROVIDE AN ADEQUATE ROOTING ZONE TO A MINIMUM DEPTH OF 12"
2. SOIL AMENDMENTS SHOULD BE INCORPORATED INTO THE UPPER 2" OF SOILS BASED ON SOIL TESTING. IF SOIL MUST BE FERTILIZED BEFORE RESULTS OF A SOIL TEST CAN BE OBTAINED TO DETERMINE FERTILIZER NEEDS, APPLY COMMERCIAL FERTILIZER AT 600 POUNDS PER ACRE 5-5-10 OR EQUIVALENT.
3. PERMANENT SEEDINGS MAY BE MADE ANY TIME OF YEAR IF PROPERLY MULCHED AND ADEQUATE MOISTURE IS PROVIDED. LATE JUNE THROUGH EARLY AUGUST IS NOT OPTIMAL SEEDING PERIOD AS PORTIONS OF THE SEEDING MAY FAIL DUE TO DROUGHT AND HEAT. THESE AREAS MAY NEED RESEEDING IN LATE SUMMER/FALL OR THE FOLLOWING SPRING.
4. WATERING MAY BE ESSENTIAL TO ESTABLISH A NEW SEEDING WHEN A DROUGHT CONDITION OCCURS SHORTLY AFTER A NEW SEEDING EMERGES. DO NOT EXCEED THE APPLICATION RATE FOR THE SEED OR SUBSOIL.

SEEDING TABLE

TYPE	SUNNY SITE:	SUNNY DROUGHTY SITE:	SHADY DRY SITE:	SHADY WET SITE:
OPTION A	65% CREEPING RED FESCUE 20% PERENNIAL RYE GRASS 15% FINE FESCUE 175 LBS PER ACRE	65% FINE FESCUE 15% PERENNIAL RYE GRASS 20% CREEPING FESCUE 220 LBS PER ACRE	65% FINE FESCUE 15% PERENNIAL RYE GRASS 20% CREEPING FESCUE 220 LBS PER ACRE	70% CREEPING RED FESCUE 30% BLEND OF SHADE-TOLERANT HARD FESCUE 130 POUNDS PER ACRE
OPTION B	100% CREEPING RED FESCUE 200 LBS PER ACRE	100% CREEPING RED FESCUE 200 LBS PER ACRE	80% BLEND OF SHADE-TOLERANT CEREAL RYE 20% PERENNIAL RYE 175 LBS PER ACRE	100% CHEWINGS FESCUE 200 LBS PER ACRE
OPTION C			100% CREEPING RED FESCUE 200 LBS PER ACRE	

TOPSOIL SEED, FERTILIZER AND MULCH DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

OWNER'S CONSENT:
THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
SADHNA GUPTA DATE

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	5/26/26	PER PLANNING BOARD COMMENTS	CMB				
2	6/30/26	PER PLANNING BOARD COMMENTS	CMB				
3	7/28/26	PER PLANNING BOARD COMMENTS	CMB				

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SEAL

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

CONSTRUCTION DETAILS

84 ANDERSON STREET SUBDIVISION
REVISION TO FILED MAP 12891

84 ANDERSON STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-371850

JOB #:	2026:009
DATE:	4/28/2026
SCALE:	AS SHOWN
TITLE:	CD-2
SHEET:	7 OF 7

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

From: Rob Fienberg
To: Sergei Krasikov; Mercedes Perez
Cc: [redacted]
Subject: Concerns Regarding Proposed Four Home Development at 74 & 84 Anderson Street
Date: Tuesday, July 28, 2026 1:57:39 PM

Hello Sergei & Mercedes,

I am a resident of **104 Anderson Street** and am writing to express my concerns regarding the proposed development that would construct four new homes on the properties currently located at **74 and 84 Anderson Street**.

If you are not the appropriate person or department to address these concerns, I would appreciate it if you could direct me to the appropriate contact.

I understand that Beacon continues to grow and that responsible development is an important part of our community's future. However, I believe this proposal raises serious concerns about the long-term character and sustainability of our neighborhood.

Anderson Street has always been a quiet residential street with mature trees, open space, and homes that fit the scale of the surrounding neighborhood. Constructing four homes on what are currently two residential lots appears to represent a significant increase in density for this area.

My concerns include:

- The potential removal of mature trees that contribute to the beauty of the neighborhood, provide wildlife habitat, reduce stormwater runoff, and help maintain the character of Anderson Street.

- Increased vehicle traffic, congestion, parking demand, and noise on what has historically been a quiet residential street. Four additional homes would inevitably result in more vehicles using Anderson Street on a daily basis, affecting both the safety and quality of life of residents.

- Increased demand on public infrastructure, including water, sewer, electrical, and stormwater systems. Since the new construction of 85 Anderson Street and the refurbishing of 96 Anderson Street a few years ago, we have noticed a significant decrease in our home's water pressure. While I cannot say with certainty that the construction caused this issue, it has heightened my concern that additional high-density development could place further strain on our neighborhood's infrastructure.

- The cumulative impact of continued high-density development throughout Beacon. Many longtime residents have watched larger homes be built on increasingly smaller

lots (such as the three enormous homes recently built on the hill by Highland Place), and there is growing concern that the City's unique character is gradually being lost.

- The precedent this project could set for additional overdevelopment in established neighborhoods.

I respectfully ask the City Council to carefully review this proposal and ensure that any development is consistent with Beacon's long-term planning goals and preserves the qualities that make our neighborhoods desirable places to live.

To be clear, I am not opposed to thoughtful residential development on these properties. I recognize that the existing lots may be able to accommodate additional housing. However, I am strongly opposed to the construction of **four homes** on what are currently **two residential lots.** In my opinion, that level of density would fundamentally alter the character of Anderson Street, place unnecessary strain on neighborhood infrastructure, require the removal of too many mature trees, and diminish the quiet, residential nature of our community. A more modest development, such as two appropriately sized homes that respect the surrounding neighborhood, would be far more compatible with the area.

If this project proceeds through the Planning Board, I ask that careful consideration be given to preserving existing mature trees wherever possible, minimizing environmental impacts, ensuring adequate stormwater management, and requiring a design and density that are compatible with the surrounding neighborhood.

I appreciate the difficult balance between accommodating growth and preserving neighborhood character. My request is that this proposal receive careful scrutiny and that the City reject any plan that results in excessive density or overdevelopment of these properties. Beacon can continue to grow without sacrificing the qualities that have made our neighborhoods such wonderful places to live.

Thank you for your time, consideration, and service to our city. I would appreciate being kept informed of any future public hearings, as I was unable to attend the one held earlier this month, as well as any other opportunities for residents to provide input on this proposal.

Sincerely,

Rob

Rob Fienberg
104 Anderson Street
Beacon, NY 12508

LANC & TULLY
Engineering and Surveying, D.P.C.

August 7, 2026

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

RE: 84 Anderson Street
Tax Nos. 6054-31-358838 & 371850
City of Beacon, NY

Dear Mr. Gunn:

My office has received the following regarding the proposed subdivision at 84 Anderson Street:

- Response correspondence dated July 28, 2026, from Hudson Land Design.
- Correspondence dated July 28, 2026, from Hudson Land Design regarding tree inspection.
- Plan set titled "84 Anderson Street Subdivision", consisting of 7 sheets, as prepared by Hudson Land Design, with the latest revision date of July 28, 2026.

The proposed project is the subdivision of an existing lot into two lots, as well as the shifting of a lot line on an existing parcel. The project site consists of two single tax parcels that are located in R1-10 Zone. The applicant has revised the layout on proposed Lot B to minimize impacts to the trees located along the easterly boundary of the lot as previously discussed with the Planning Board. Based on our review of the above documents and plans, all previous engineering comments have been addressed.

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

Respectfully,

LANC & TULLY, P.C.

John Russo, P.E.

cc: Natalie Quinn, Planner
Jennifer Gray, Esq.
Bryan Murphy, Building Inspector

P.O. Box 687, Goshen, N.Y. 10924 | (845) 294-3700
www.lanctully.com

KARC
PLANNING CONSULTANTS, INC.

TO: John Gunn, Chair, and the City of Beacon Planning Board

FR: KARC Planning Consultants, Inc.

DATE: August 7, 2026

RE: 84 Anderson Street Subdivision Application, Sadhna Gupta

I have reviewed the following material regarding the proposed subdivision located at 84 Anderson St:

- Cover letter by Hudson Land Design, dated July 28, 2026
- Subdivision Plan Set (7 sheets) by Hudson Land Design, last revised July 28, 2026
- Tree Inspection Report by Hudson Land Design, dated July 28, 2026

Project Description:
The subject property is a developed single-family residential parcel located at 84 Anderson Street in the City of Beacon, Dutchess County (Tax ID No. 130200-6054-31-371850-0000). The property contains approximately 0.526 acres (22,912 square feet) and is located within the R1-10 Zoning District. The applicant is seeking approval to subdivide the parcel at 84 Anderson Street and facilitate a lot line adjustment with the adjoining parcel at 74 Anderson Street, resulting in a total of three residential lots. The existing residence, garage, and deck located on the subject property would be demolished, and each of the three (3) resulting lots would be developed with the construction of a new single-family residence.

Recommendation:

1. **Preservation of Mature Trees and Screening**. At the request of the Planning Board, the applicant revised the layout of Lot B by relocating the proposed driveway away from the shared property line with 92 Anderson Street. This revision further minimizes impacts to the root zones of the mature trees along the eastern property line while continuing to preserve the substantial majority of existing mature trees and natural features on the site.

2. **Neighborhood Character.** Following the area variance granted by the Zoning Board of Appeals for the width of Lot A, the proposed subdivision and lot line adjustment result in three zoning-compliant residential lots. As shown in the table below, the resulting lot sizes are consistent with the established development pattern along Anderson Street and the surrounding neighborhood. The existing parcels at 74 and 84 Anderson Street are among the largest lots in the immediate area, and the proposed subdivision creates lots that are compatible with the surrounding neighborhood.

KARC
PLANNING CONSULTANTS, INC.

Parcel Address	Parcel Size (ac)	Parcel Address	Parcel Size (ac)
44 Anderson	0.32	110 Anderson	0.44
48 Anderson	0.16	89 Anderson	0.54
52 Anderson	0.30	85 Anderson	0.25
60 Anderson	0.33	80 Overlook	0.31
74 Anderson	**Current:** 0.65 **Proposed:** 0.30 & 0.32	72 Overlook	0.33
84 Anderson	**Current:** 0.55 **Proposed:** 0.27 & 0.28	54 Overlook	0.36
92 Anderson	0.16	65 Anderson	0.28
96 Anderson	0.17	10 Tillott	0.68
100 Anderson	0.27	25 Anderson	0.41
104 Anderson	0.25	23 Anderson	0.21

The comments above are intended to summarize revisions to the application and assist the Planning Board in its consideration of the application. All previous planning comments have been satisfactorily addressed. From a planning and zoning compliance perspective, the application is sufficient for approval.

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



Natalie Quinn
Beacon Planning Consultant

Cc: Bryan Murphy, Building Inspector
Jennifer L. Gray, Esq., City Attorney
John Russo, P.E., City Engineer

RESOLUTION

PLANNING BOARD
BEACON, NEW YORK

PRELIMINARY AND FINAL SUBDIVISION PLAT APPROVALS FOR 84 ANDERSON STREET

PARCEL Nos. 6054-31-371850 & 6054-31-358838

WHEREAS, the Beacon Planning Board received applications for Preliminary and Final Subdivision Plat Approvals from Sadhna Gupta (the "Applicant"), for a subdivision (the "Project" or "Proposed Action") of a 22,912 +/- square foot or 0.526 acre parcel, located at 84 Anderson Street, designated on the Tax Map of the City of Beacon as **Parcel ID# 6054-31-371850** into two lots, Proposed Lot A and Proposed Lot B, with a proposed lot line adjustment of adjoining **Parcel ID# 6054-31-358838** (74 Anderson Street – Lot 1 on Filed Map 12891) in the R1-10 Zoning District (the "Property"); and

WHEREAS, the Applicant is proposing to subdivide the Property into two lots, with proposed Lot A being 12,090 +/- square feet or 0.278 acres in size and proposed Lot B being 12,048 +/- square feet or 0.277 acres in size, to allow for the construction of one new single-family detached dwelling each lot after demolition of the existing single family dwelling and detached garage; and

WHEREAS, the Applicant proposed a lot line adjustment with adjoining Parcel 6054-31-358838 to reduce the amount of lot width deficiency of Proposed Lot A; and

WHEREAS, the two lot subdivision of Parcel 6054-31-371850 and lot line adjustment of Parcel 6054-31-358838 will result in an adjustment of Lot 1 on Filed map 12891 from 14,588 square feet to 13,374 square feet; and

WHEREAS, the two lot subdivision of Parcel 6054-31-371850 and lot line adjustment of Parcel 6054-31-358838 will result in an adjustment of Lot 1 on Filed map 12891 from 14,588 square feet to 13,374 square feet; and

WHEREAS, Proposed Lot A's proposed lot width of 81.4 feet requires an area variance of 3.6 feet to conform with § 223-17(C) (Schedule of Dimensional Regulations) lot width requirement of 85 feet; and

WHEREAS, after due consideration, the City of Beacon Zoning Board of Appeals granted an area variance on June 16, 2026; and

WHEREAS, the Planning Board is the approval authority for the Subdivision pursuant to City of Beacon Code § 195-2; and

WHEREAS, the application consists of application forms, correspondence, Short Environmental Assessment Form, Inflow and Investigation Report and other documents submitted to the Planning Board; and

WHEREAS, the subdivision is shown on a plan set entitled "84 Anderson Street Residential Subdivision Plan," Sheets 1-7, April 28, 2026, last revised on July 28, 2026, as prepared by Hudson Land Design Professional Engineering, P.C., Beacon, NY, as follows:

Sheet	Title
1	*Cover Sheet (CV-1)*
2	*Existing Conditions & Removals Plan (XC-1)*
3	*Subdivision Plat (PL-1)*
4	*Subdivision Plan (SP-1)*
5	*Erosion & Sediment Control Plan (ESC-1)*
6	*Construction Details (CD-1)*
	Construction Details (CD-2); and

WHEREAS, on June 9, 2026 the Planning Board determined the Proposed Action is exempt from the New York State Environmental Quality Review Act ("SEQRA") pursuant to recent amendments to the New York Environmental Conservation Law; and

WHEREAS, the Planning Board reviewed the application at its meetings on May 12, 2026, June 9, 2026, July 14, 2026 and August 11, 2026; and

WHEREAS, on July 14, 2026, the Planning Board opened a duly noticed public hearing on the Subdivision with such hearing being continued on August 11, 2026, during which time all those interested were given an opportunity to be heard, and the Planning Board closed the Subdivision public hearing on August 11, 2026; and

WHEREAS, the Planning Board is fully familiar with the Proposed Action and has reviewed the Applicant's materials and Subdivision Plans relative to all applicable provisions of the City Code.

NOW THEREFORE BE IT RESOLVED, that the Planning Board, pursuant to its authority to make individualized off-street parking in City of Beacon Code § 223-26(D)(2) hereby determines, based on application review and the context of the property, that the appropriate number of off-street parking spaces to be provided for Lot A is 2 and for Lot B is 2 spaces, which shall each be the required number of off-street parking spaces for the proposed uses on Lot A and Lot B.

BE IT FURTHER RESOLVED, that the Planning Board hereby grants Preliminary Subdivision Plat Approval for the Proposed Action, as shown on the application materials referenced above.

BE IT FURTHER RESOLVED, that the Planning Board hereby finds the Final Subdivision Plat will not be substantively changed from the Preliminary Subdivision Plat and hereby determines that a public hearing on the Final Plat is not required.

BE IT FURTHER RESOLVED, that the Planning Board hereby grants Final Subdivision Plat Approval, as shown on the application materials referenced above, subject to the following conditions and modifications set forth below and any other requirements which must be met by law:

A. Prior to the signing of the Final Subdivision Plat by the Chairman of the Planning Board, 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 Proposed Action, 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 August 7, 2026, 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 August 7, 2026, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Planner.

When the conditions above have been satisfied, six (6) sets of the above referenced plans, revised per the conditions above, shall be submitted for enforcement by the Planning Board Chairman. One set of the endorsed plans will be returned to the Applicant, one set will be retained by the City Clerk, one set will be provided to the Planning Board, and one set each will be forwarded to the Building Inspector, City Engineer and City Planner.

B. Prior to the issuance of the Building Permit, the following conditions shall be fulfilled:

1. Pursuant to City Code § 195-16E, the Applicant shall establish an escrow with the City of Beacon for the inspection of the improvements in an amount acceptable to the City Engineer based on review of a cost estimate to be

prepared by the Applicant's professional engineer, which amount shall be equivalent to 6% of the amount of the estimated construction cost.

2. The Applicant shall establish an escrow with the City of Beacon for stormwater inspections by the City Engineer on behalf of the City of Beacon.

3. Pursuant to City Code § 195-15, the Applicant shall post a performance guaranty with the City of Beacon, in an amount acceptable to the City Engineer based on review of a cost estimate to be prepared by the Applicant, to guarantee the satisfactory construction, installation, and completion of all public improvements.

C. Prior to the Issuance of the Certificate of Occupancy, the following conditions shall be fulfilled to the satisfaction of the Building Inspector:

1. All application review fees shall be paid in full.

2. 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 future population of the Project, the Planning Board hereby finds that additional recreation/parkland should be created as a condition of approval. However, the Planning Board hereby determines that recreation/parkland of adequate size and location cannot be provided on the Project site. Therefore, the Applicant shall pay a Recreation Fee for the one (1) new lot, as prescribed under Section 195-25.A(4) of the City Code. The Planning Board hereby requires that, prior to the issuance of the Certificate of Occupancy for each lot, the Applicant shall pay a Recreation Fee as per the City's Fee Schedule in effect at the time of payment.

D. The following are general conditions which shall be fulfilled:

1. A copy of this Resolution shall be attached to the Certificate of Occupancy.

2. The Applicant shall be responsible for the payment of all application review costs incurred by the City in it is 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 therefore has not been granted by the City, this Resolution shall be rendered null and void.

3. 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.

4. Vegetation shown on the Subdivision Plan shall be maintained in a vigorous growing condition and shall be replaced in kind if it fails to survive or is otherwise removed for any reason.

5. Rock removal, if encountered, shall be done by mechanical means on weekdays (excluding State holiday) between the hours of 8 a.m. and 4 p.m. No rock processing is permitted on-site. No blasting shall be permitted without the prior written approval from the City of Beacon Building Department after preparation of a blasting plan. Any blasting required shall be performed in accordance with all applicable local, state, and federal laws, regulations, and standards.

6. 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.

7. 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.

8. 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.

9. Failure to adhere to the conditions set forth in this Resolution and/or the approved plans and materials shall, upon prior notice to the Applicant, constitute grounds for revocation of this Resolution by the Planning Board, as well as the suspension, revocation, or withholding of any Building Permits, Demolition Permits, Certificates of Occupancy, or other applicable permits

issued by the City of Beacon until the Applicant complies with the approvals, conditions, or plans approved herein.

10. As used herein, the term "Applicant" shall include Sadhna Gupta and her successors and assigns, and where applicable, its agents, contractors and employees.

11. 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.

12. The approvals granted by this Resolution do not supersede the authority of any other entity.

Resolution Adopted: August 11, 2026
Beacon, New York

_____ _____, 2026
John Gunn, Chairman Date
City of Beacon Planning Board

Motion by _____, seconded by _____:

Kevin Byrne	Voting ____	Leonard Warner	Voting ____
David Jensen	Voting____	J. Randall Williams	Voting ____
Karen Quiana	Voting____	John Gunn, Chairman	Voting ____
James Vermeulen	Voting ____		

Resolution: Approved
Denied

City of Beacon Planning Board Agenda
08/11/2026

Title:

Continue public hearing and continue review of application for Subdivision Approval, 108 Liberty Street, Residential, submitted by Stephen Spaccarelli and Claire Tipley.

ATTACHMENTS

108 Liberty PB 8.11.26_Response Letter_2026-0728.pdf

108 Liberty PB 8.11.26 Subdivision-App_2026_0617-Executed redacted2.pdf

108 Liberty PB 8.11.26 Subdivision Set_2026-0728 (1).pdf

Pages from 108 Liberty PB 8.11.26 PH public comment Tauss redacted2.pdf

Lanc & Tully 108 Liberty Street 08-07-26_0001.pdf

KARC Review PB_108 Liberty Street_2026.08.07.pdf

HUDSON LAND DESIGN

Civil & Environmental Engineering Consultants
174 Main Street, Beacon, New York 12508 (Main Office and Mailing Address)
13 Chambers Street, Newburgh, NY 12550 (Satellite Office)
Phone: 845-440-6926
www.HudsonLandDesign.com

July 28, 2026

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

Re: 108 Liberty Street Subdivision
Stephen Spaccarelli and Claire Tipley (Applicants)
108 Liberty Street
Tax Parcel ID: 6054-31-266830 (±0.55 acres)
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) is pleased to submit copies of the following documents in support of the Project:

- Four (4) copies of the Subdivision Plan Set (Sheets 1 through 7 of 7)
- Four (4) copies of a complete Subdivision Application.

The documents have been prepared and/or updated in response to comments from the Planning Board and from the City's consultants for the Planning Board's continued review and consideration of the Application. The following are point-by-point responses to each comment contained within the letters prepared by the City's consultants:

Lanc & Tully Review Letter, Dated July 10, 2026:

General Comments:

1. Comment acknowledged.

Subdivision Plan (Sheet 4 of 7):

1. The information requested for Sheet 2 of 7 has been added to this sheet.
2. An area variance granting relief of 2.5 feet from 5 feet to 2.5 feet for the driveway location in proximity to the proposed lot line was granted by the City of Beacon Zoning Board of Appeals at its July 21st, 2026 meeting. A note has been added to this sheet referencing the granted variance.

3. The extension of the sidewalk has been reduced to the Driveway of Lot 2 as discussed with the Planning Board at the last meeting.
4. On-site water and sewer service installation shall be conducted in the winter months to further minimize impact to trees and root zones while water and sewer service installation in the City Right-Of-Way and on Liberty Street will be conducted outside of winter months to allow for proper repair of the trenches and road surface. General construction note 8 has been added to this sheet describing the timing of the utility installation.
5. The proposed invert "in" elevation of the sewer force main into the sewer manhole has been raised to 132.3.

Construction Details (Sheet 7 of 7):

1. The "Sewer Force Main Trench Detail" has been revised accordingly.

KARC Planning Consultants, Inc. Review Letter, Dated July 13, 2026:

1. The complete application is provided with this submission.
2. See response to Lanc & Tully Subdivision Plan (Sheet 4 of7): Comment No. 2.
3. Comment Acknowledged.
4. Comment Acknowledged.

Public Comments

1. In response to the comment received at the public hearing regarding access to adjacent lots located at 98, 102 and 104 Liberty Street, a records and deed search did not reveal any access easements over the subject parcel, or rights of access on the 98, 102 and 104 Liberty Street deeds.
2. There were some residents of the Angela Court townhome community that were concerned about stormwater impacts to the on-site ditch and to their property. The proposed house and gravel driveway will add minimal runoff to the on-site ditch and downstream pipe network, which will result in no measurable impact to the drainage system. It should be noted that the Angela Court townhome community sites considerably higher in grade from the subject lot. Therefore, no site surface runoff from the proposed lot can impact the adjacent property.

Correspondence with the Dutchess County Department of Health regarding the sewer pump design will be provided prior to the Chairman's signature on the plans. We look forward to continuing our discussions regarding this Application at your August 11, 2026 meeting. Should you have any questions, please feel free to contact me at 845-795-8956.

Sincerely,

Michael A. Bodendorf, P.E.
Principal

cc: Stephen Spaccarelli and Claire Tipley, Applicants (via email)
HLD file

APPLICATION FOR SUBDIVISION APPROVAL

Submit to Planning Board Secretary, One Municipal Plaza, Suite One, Beacon, New York 12508

IDENTIFICATION OF APPLICANT

Name: Stephen Spaccarelli and Claire Tipley

Address: [redacted]

[redacted]

Signature: [signature]

Date: May 26, 2026

Phone: [redacted]

(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: Hudson Land Design - Michael Bodendorf, P.E.

Address: 174 Main Street
Beacon, NY 12508

Phone: 845-440-6926

Fax:

Email address: mbodendorf@hudsonlanddesign.com

IDENTIFICATION OF SUBJECT PROPERTY:

Subdivision name or identifying title:
108 Liberty Street Subdivision

Street which property abuts: Liberty Street

Current Tax Map Designation: Section 6054 Block 31 Lot(s) 266830

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 +/- 24,000 square feet / +/-0.55 acres

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

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)	$ 3,000	$ 1,000	Current bills + $1,200
6-15	$ 9,000	$ 2,500	Current bills + $1,200
Over 15	$ 18,000	$ 5,000	Current bills + $6,000

NON-RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

	Initial Deposit	Depleted to	Replenishment
Existing Buildings/Change of Use with no site development	$ 1,800	$ 1,000	Current bills + $600
Up to 3,000 s.f. gross floor area	$ 3,125	$ 1,000	Current bills + $1,200
3,000 to 10,000 s.f. gross floor area	$ 3,000 + $0.50 per sq.ft. over 3,000	$ 2,500	Current bills + $3,000
Over 10,000 s.f. gross floor area	$ 9,000 + $0.50 per sq.ft. over 10,000	$ 2,500	Current bills + $3,000

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: Stephen Spaccarelli & Claire Tipley

If owned by a corporation, partnership or organization, please list names of persons holding over 5% interest.

List all properties in the City of Beacon that you hold a 5% interest in:
108 Liberty Street (6054-31-266830); 5 Larch Street (6054-22-149895)

Applicant Address: [redacted]

Project Address: 108 Liberty St Beacon, NY 12508

Project Tax Grid # 6054-31-266830

Type of Application Subdivision to create one new building lot

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, Stephen Spaccarelli and Claire Tipley, 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

Signature of Owner

Title if owner is corporation

Office Use Only:	NO	YES	Initial
Applicant has violations pending for ANY parcel owned within the City of Beacon (Building Dept.)	X		MP
ALL taxes are current for properties in the City of Beacon are current (Tax Dept.)		✓	KLM
ALL Special Assessments, i.e. water, sewer, fines, etc. are current (Water Billing)		✓	KLM

CITY OF BEACON
PRELIMINARY SUBDIVISION PLAT
AND CONSTRUCTION PLANS SPECIFICATION FORM

Name of Application: 108 Liberty Street Subdivision

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:	X	
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.	X	
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.	X	
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.	X	
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.	X	
The names of existing streets or private roads and proposed names for new streets or private roads.	X	
The proposed arrangement of lots, including identifying numbers and approximate area and dimensions of each.	X	
Location, size and nature of any area proposed to be reserved for park purposes.	N/A	
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.	X	
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.	X	
Such additional information as may be required by Chapter 195 – Subdivision of Land; Chapter 223 – Zoning; or the Planning Board.	X	

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.	X	
The proposed system for the provision of water supply and fire protection facilities, sewage disposal, stormwater drainage, and other utility services.	X	
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.	X	
Such additional information as may be required by this chapter, the Zoning chapter, or the Planning Board.	X	

CITY OF BEACON
FINAL SUBDIVISION PLAT
AND CONSTRUCTION PLANS SPECIFICATION FORM

Name of Application: 108 Liberty Street Subdivision

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.	X	
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.	X	
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.	X	
The names of all existing and proposed streets and private roads.	X	
The locations of all water bodies and watercourses.	X	
The location of all existing buildings, including identification of all buildings to be removed as a condition of plat approval.	X	
The total acreage included in the entire subdivision, and the identification number and acreage of all lots and land reservations within the proposed subdivision.	X	
Location of all existing and proposed monuments.	X	
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.	X	
Notations explaining any drainage, sight slope, street widening, park area or other reservations or easements, including any self-imposed restrictions or covenants.	X	
Endorsement of approval by the Dutchess County Health Department.	TBP	
Plan for the provisional delivery of mail, as approved by the local postmaster.	TBP	
Endorsement of the owner as follows: "Approved for filing: _____ _____" Owner Date	X	

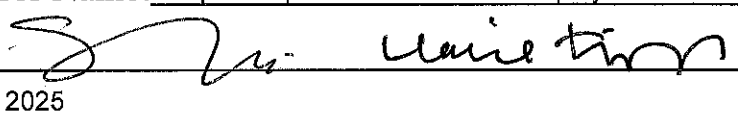
FINAL SUBDIVISION PLAT *(continued)*	**YES**	**NO**
Form for endorsement by Planning Board Chairman as follows: "Approved by Resolution of the Planning Board of the City of Beacon, New York, on the _____ day of _____, 20_____, subject to All requirements and conditions of said Resolution. Any change, 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.	X	
Such additional information as may be required by Chapter 195 – Subdivision of Land; Chapter 223 – Zoning; or the Planning Board.	X	
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.		
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:

Applicant/Sponsor Name: Stephen Spaccarelli and Claire Tipley

Signature: 

Date: May 26, 2025

FOR OFFICE USE ONLY
Application #

CITY OF BEACON
1 Municipal Plaza, Beacon, NY
Telephone (845) 838-5000 • http://beaconny.gov/

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: Stephen Spaccarelli and Claire Tipley

Address of Applicant: [redacted]

Telephone Contact Information: [redacted]

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.
Stephen Spaccarelli Claire Tipley	[redacted]	[redacted]	4/30/2026 - sale of property	Deed recorded in Wappingers Falls, NY on 4/30/2026

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, Stephen Spaccarelli and Claire Tipley being first duly sworn, according to law, deposes and says that the statements made herein are true, accurate, and complete.

(Print) Stephen Spaccarelli and Claire Tipley

(Signature) _____

108 LIBERTY STREET

RESIDENTIAL SUBDIVISION

108 LIBERTY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK

PARCEL INFORMATION:
TAX ID: 6054-31-266830
TOTAL LOT AREA: ±0.55 ACRES
ZONING DISTRICT: R1-5



SITE LOCATION MAP SCALE: 1" = 400'

OWNER/APPLICANT:
STEPHEN SPACCARELLI
& CLAIRE TIPLEY
98 LIBERTY STREET
BEACON, NY 12508

PROJECT ENGINEER:
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN STREET
BEACON, NEW YORK 12508
PH: 845-440-6926

PROJECT SURVEYOR:
ROBERT V. OSWALD
LAND SURVEYING
175 WALSH ROAD
LAGRANGEVILLE, NEW YORK 12540
PH: 845-226-6436

DRAWING INDEX:
SHEET 1: COVER SHEET (CV-1)
SHEET 2: EXISTING CONDITIONS & REMOVALS PLAN (XC-1)
SHEET 3: PRELIMINARY PLAT (PL-1)
SHEET 4: SUBDIVISION PLAN (SP-1)
SHEET 5: EROSION & SEDIMENT CONTROL PLAN (ESC-1)
SHEET 6: CONSTRUCTION DETAILS (CD-1)
SHEET 7: CONSTRUCTION DETAILS (CD-2)

OWNER'S CONSENT:
THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
STEPHEN SPACCARELLI & CLAIRE TIPLEY DATE

I HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED ON JANUARY 7, 2026.

BY: _____
ROBERT V. OSWALD, L.S. N.Y. State Lic. no. 50031

DCDBCH 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

STANDARD NOTES FOR PROJECTS W/CENTRAL WATER & SEWER

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."

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.

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.

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.

NO CELLAR, FOOTING, FLOOR, GARAGE, COOLER OR ROOF DRAINS SHALL BE DISCHARGED INTO THE SEWAGE COLLECTION SYSTEM.

ALL BUILDINGS SHALL BE CONSTRUCTED AT AN ELEVATION HIGH ENOUGH TO ENSURE GRAVITY FLOW TO THE SEWAGE COLLECTION SYSTEM.

ALL REQUIRED EROSION & SEDIMENT CONTROL AND STORMWATER POLLUTION PREVENTION WATER QUALITY & QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.

THE DC EHSD SHALL BE NOTIFIED SIXTY DAYS PRIOR TO ANY CHANGE IN USE; USE CHANGES MAY REQUIRE RE-APPROVAL BY THE DC EHSD.

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).

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.

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.

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.

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	6/30/26	PER PLANNING BOARD COMMENTS	CMB				
2	7/28/26	PER PLANNING BOARD COMMENTS	CMB				

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SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
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13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926

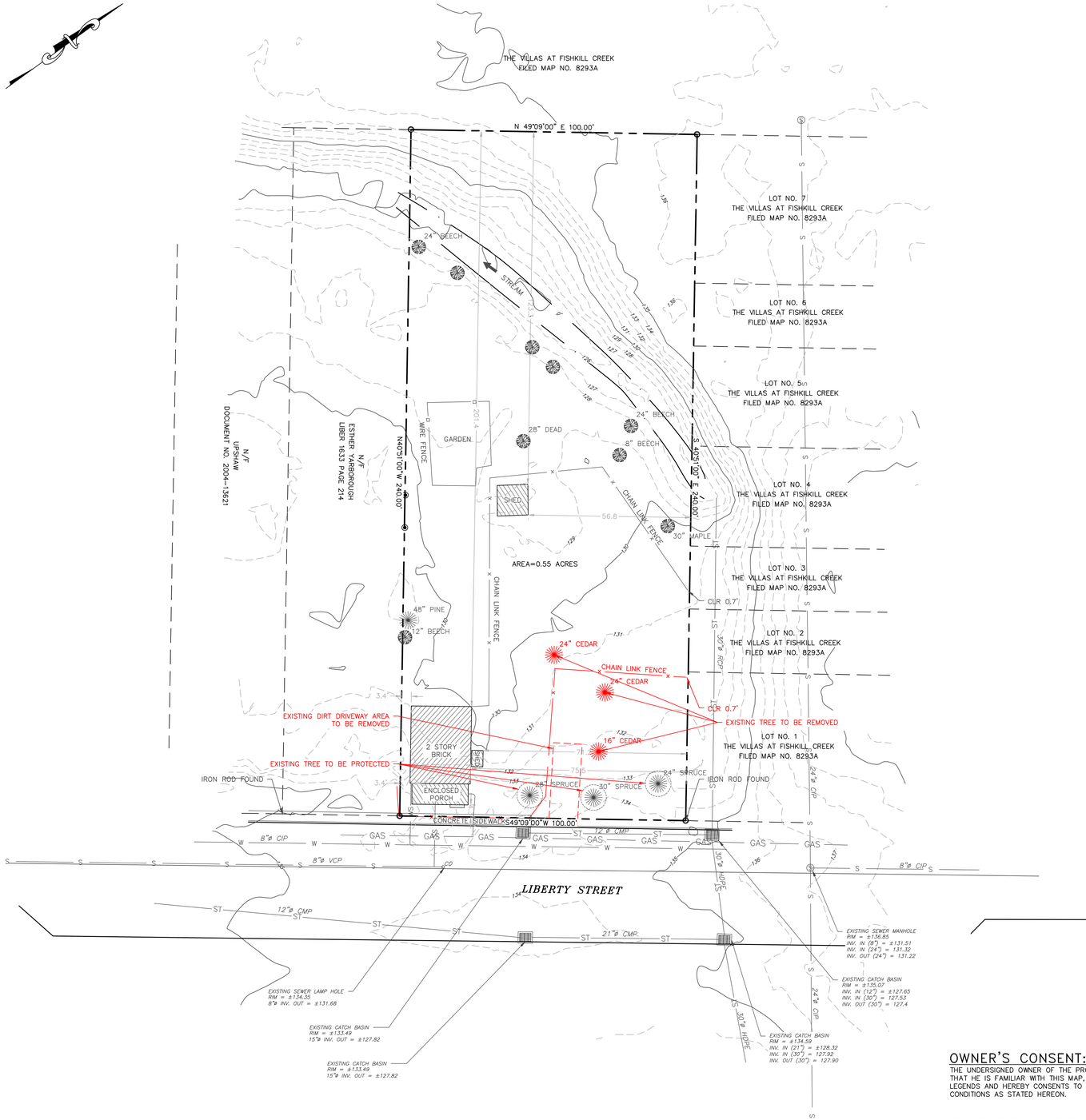
COVER SHEET

108 LIBERTY STREET

108 LIBERTY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-266830

JOB #:	2026:013
DATE:	5/26/26
SCALE:	AS SHOWN
TITLE:	CV-1
SHEET:	1 OF 7

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



LEGEND:

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

PROJECT INFORMATION:

PARCEL OWNER:	STEPHEN SPACCARELLI & CLAIRE TIPLEY, 98 LIBERTY ST, BEACON NY 12508
PROJECT ENGINEER:	HUDSON LAND DESIGN P.C., 174 MAIN STREET, BEACON NY 12508
PARCEL LOCATION:	108 LIBERTY STREET, BEACON NY 12508
TAX PARCEL ID:	6054-31-266830
PARCEL AREA:	±0.55-ACRE
WATER SUPPLY:	MUNICIPAL
SEWAGE DISPOSAL:	MUNICIPAL

MAP REFERENCES:

1. PARCEL BOUNDARY AND SITE FEATURES PER MAP ENTITLED "MAP OF SURVEY FOR THE LANDS OF SPACCARELLI & TIPLEY" PREPARED BY ROBERT V. OSWALD LAND SURVEYING, P.C., DATED JANUARY 7, 2026.

SURVEY NOTES:

1. SUBJECT TO ANY EASEMENTS AND/OR RIGHTS OF WAY THAT AN ACCURATE UP TO DATE ABSTRACT OF TITLE MAY SHOW.
2. SURVEY AS PER RECORD DEED, EXISTING MONUMENTATION, RECORDED AND UNRECORDED MAPS.
3. MAP REFERENCE: FILED MAP #8275, DUTCHESS COUNTY, NY "SUBDIVISION OF PROPERTY OF ALEXANDER A. AND RALPH J. MARTIGNETTI"
4. MAP REFERENCE: FILED MAP #343, DUTCHESS COUNTY, NY "MAP OF LOTS AT MATTANWAN N.Y. BELONGING TO L.J. SHAW AND JOHN P SCHENCE"

DEMOLITION NOTES:

1. PRIOR TO DEMOLISHING ANY BUILDINGS/STRUCTURES, THE CONTRACTOR SHALL PERFORM A PRE-DEMOLITION SURVEY IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS GOVERNING THE DISPOSAL OF SOLID WASTE. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS BY THE AUTHORITY HAVING JURISDICTION. ALL DEBRIS RESULTING FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE AT A FACILITY APPROVED TO RECEIVE THE DEBRIS.
2. CONFORM TO APPLICABLE CODE FOR DEMOLITION OF STRUCTURES, SAFETY OF ADJACENT STRUCTURES, DUST CONTROL, RUNOFF CONTROL, AND HAULING, DISPOSAL AND STORAGE OF DEBRIS.
3. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES.
4. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION.
5. NOTIFY ADJACENT OWNERS OF WORK THAT MAY AFFECT THEIR PROPERTY, POTENTIAL NOISE, UTILITY OUTAGE, OR DISRUPTION. COORDINATE WITH OWNER.
6. PREVENT MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES. PROVIDE BRACING AND SHORING.
7. LOCATE AND IDENTIFY ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA. DISCONNECT AND SEAL OR CAP OFF UTILITY SERVICES THAT WILL BE AFFECTED BY THIS PROJECT. NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED.
8. DEMOLISH AND REMOVE COMPONENTS IN AN ORDERLY AND CAREFUL MANNER.
9. PROTECT EXISTING FEATURES THAT ARE NOT TO BE DEMOLISHED.
10. CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESSES.
11. MAINTAIN EGRESS AND ACCESS AT ALL TIMES. DO NOT CLOSE OR OBSTRUCT ROADWAYS, OR SIDEWALKS WITHOUT PERMITS.
12. CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER. NOTIFY AUTHORITY HAVING JURISDICTION.
13. ROUGH GRADE AND COMPACT AREAS AFFECTED BY DEMOLITION TO MAINTAIN SITE GRADES AND CONTOURS.
14. FIELD VERIFY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED ON DEMOLITION PLAN TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
15. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATION.
16. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH SELECTIVE DEMOLITION OPERATIONS.
17. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA.
18. USE WATER MIST, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS TO LIMIT THE SPREAD OF DUST AND DIRT. COMPLY WITH GOVERNING ENVIRONMENTAL PROTECTION REGULATIONS. DO NOT USE WATER WHEN IT MAY DAMAGE EXISTING CONSTRUCTION, SUCH AS ICE, FLOODING, AND POLLUTION.
19. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
20. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF SELECTIVE DEMOLITIONS.
21. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. DO NOT BURN DEMOLISHED MATERIALS ON-SITE.

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.

ARBORIST RECOMMENDED TREE PROTECTION NOTES:

1. INSTALL TREE PROTECTION FENCING AND ORANGE SAFETY FENCING AROUND THE ROOT ZONES TO MINIMIZE SOIL COMPACTION AND ACCIDENTAL DISTURBANCE DURING CONSTRUCTION. FENCING SHOULD BE PLACED AT A 6' RADIUS FROM THE TRUNK WHERE FEASIBLE
2. SCHEDULE WATER SERVICE LINE AND SANITARY SEWER SERVICE LINE EXCAVATIONS DURING THE WINTER MONTHS WHEN THE TREES ARE DORMANT.
3. PROVIDE SUPPLEMENTAL WATERING FOLLOWING EXCAVATION ACTIVITIES TO REDUCE STRESS AND SUPPORT RECOVERY.
4. ROUTE THE SANITARY SEWER SERVICE LINE CLOSER TO THE NORTHERNMOST 24-INCH DIAMETER SPRUCE RATHER THAN THE ADJACENT 30-INCH DIAMETER SPRUCE. THE SMALLER TREE IS FARTHER REMOVED FROM OTHER ANTICIPATED DISTURBANCES AND IS THEREFORE BETTER POSITIONED TO INSTALL A GRAVEL DRIVEWAY TO MINIMIZE SOIL DISTURBANCE AND MAINTAIN WATER INFILTRATION TO THE ROOT ZONES.
5. INSTALL A PERMEABLE DRIVEWAY USING A MINIMAL-DIG DESIGN TO PROTECT THE ROOT ZONES. CONSTRUCTION SHOULD BE LIMITED TO THE LOW-IMPACT REMOVAL OF SURFACE ORGANIC MATERIAL, FOLLOWED BY THE INSTALLATION OF A PERMEABLE GEOTEXTILE OVERLAIN BY A CELLULAR CONFINEMENT (GEOCELL) SYSTEM FILLED WITH CLEAN, OPEN-GRADED AGGREGATE. SUBGRADE COMPACTION SHOULD BE AVOIDED ENTIRELY, AS THE GEOCELL SYSTEM PROVIDES THE NECESSARY STRUCTURAL SUPPORT WHILE PRESERVING SOIL POROSITY, GAS EXCHANGE, AND WATER INFILTRATION. EDGE RESTRAINTS SHOULD BE INSTALLED USING ABOVE-GRADE OR ANOTHER MINIMALLY INVASIVE METHOD TO AVOID ROOT DISTURBANCE.
6. CUT BACK THE PRIVET GROWING BENEATH THE SPRUCES, BUT AVOID EXCAVATION OF THE SHRUB ROOTS, AS THIS WOULD UNNECESSARILY DISTURB THE TREES' ROOT SYSTEMS.
7. CONSTRUCTION OF A NEW SIDEWALK IS NOT RECOMMENDED, AS IT WOULD INCREASE THE AREA OF ROOT-ZONE DISTURBANCE.

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

OWNER'S CONSENT:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
STEPHEN SPACCARELLI & CLAIRE TIPLEY DATE

I HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED ON JANUARY 7, 2026.

BY: _____
ROBERT V. OSWALD, L.S. *N.Y. State Lic. no. 50031*

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	6/30/26	PER PLANNING BOARD COMMENTS	CMB				
2	7/28/26	PER PLANNING BOARD COMMENTS	CMB				

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

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13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926

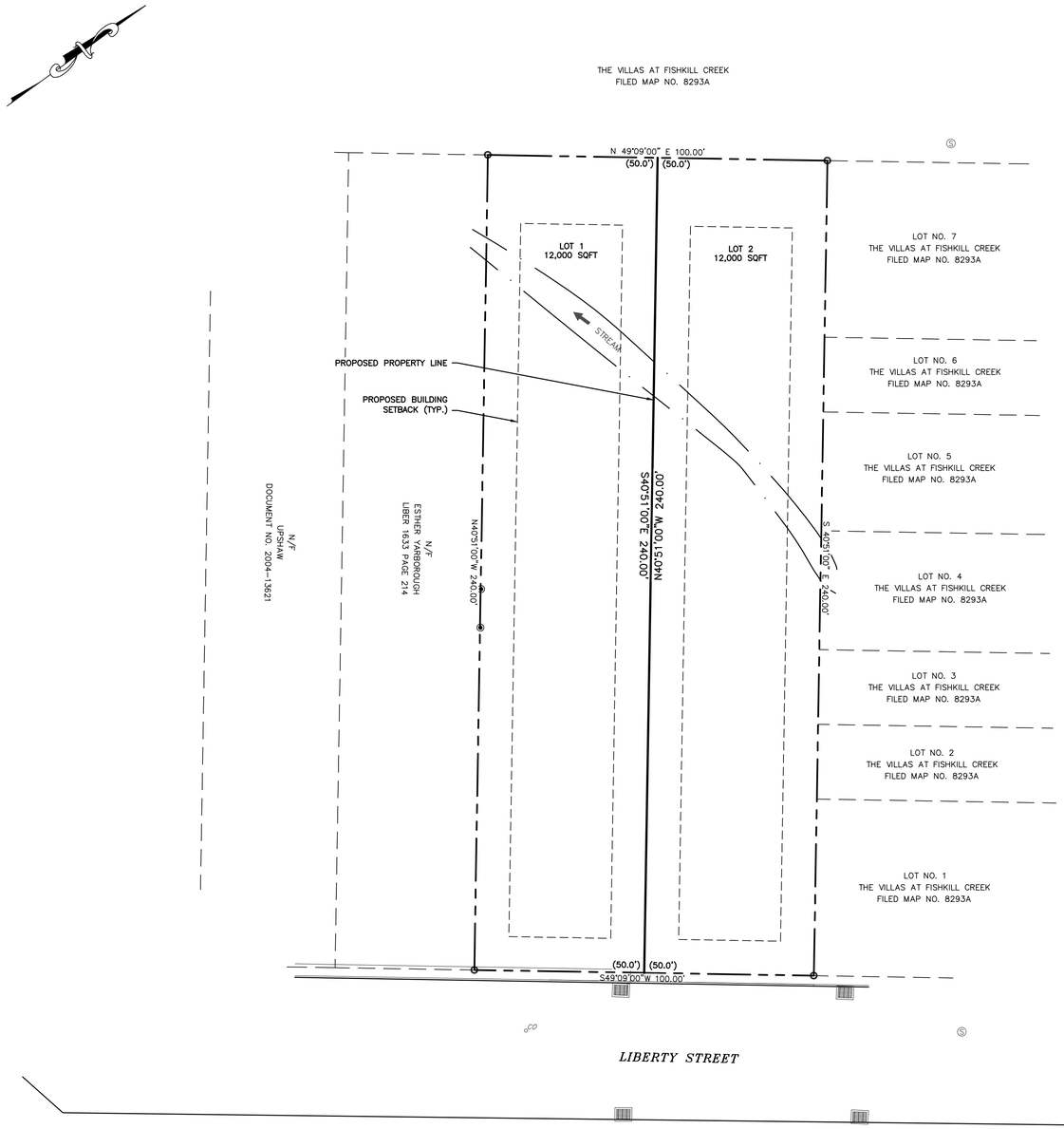
EXISTING CONDITIONS & REMOVALS PLAN

108 LIBERTY STREET

108 LIBERTY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-266830

JOB #:	2026:013
DATE:	5/26/26
SCALE:	1" = 20'
TITLE:	XC-1
SHEET:	2 OF 7

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



LEGEND:

- EXISTING PROPERTY LINE
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- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
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- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- 250 PROPOSED MAJOR CONTOUR
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SCHEDULE OF REGULATIONS (R1-5 ZONING DISTRICT) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT
LOT AREA:	5,000 SQFT MIN.
LOT AREA PER UNIT:	2,500 SQFT MIN.
LOT WIDTH:	50 FEET MINIMUM
LOT DEPTH:	100 FEET MINIMUM
YARD SETBACKS (RESIDENTIAL USE):	
FRONT YARD:	10 FEET
SIDE YARD:	10 FEET
REAR YARD:	20 FEET MINIMUM
MAX. BUILDING HEIGHT:	35 FT, 2.5 STORIES
MAX. BUILDING COVERAGE:	40%
MAX. UNITS/BUILDING:	2 MAX

MAP REFERENCE:

PARCEL BOUNDARY AND SITE FEATURES PER MAP ENTITLED "MAP OF SURVEY FOR THE LANDS OF SPACCARELLI & TIPLEY" PREPARED BY ROBERT V. OSWALD LAND SURVEYING, P.C., DATED JANUARY 7, 2026.

TOTAL PARCEL AREA:

±24,000 S.F. OR ±0.55 ACRE

TAX MAP REFERENCE:

CITY OF BEACON 130200-6054-31-266830

FLOOD BOUNDARY:

SUBJECT PARCEL IS LOCATED IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANGE FLOODPLAIN) PER PANEL 36027C0464E DATED MAY 2, 2012.

WETLAND NOTE:

NO NYSDEC OR FEDERAL WETLANDS WERE FOUND ONSITE.

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.

_____ _____
STEPHEN SPACCARELLI & CLAIRE TIPLEY DATE

I HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED ON JANUARY 7, 2026.

BY: _____
ROBERT V. OSWALD, L.S. *N.Y. State Lic. no. 50031*

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PRELIMINARY PLAT

108 LIBERTY STREET

108 LIBERTY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-266830

JOB #:	2026:013
DATE:	5/26/26
SCALE:	1" = 20'
TITLE:	PL-1
SHEET:	3 OF 7

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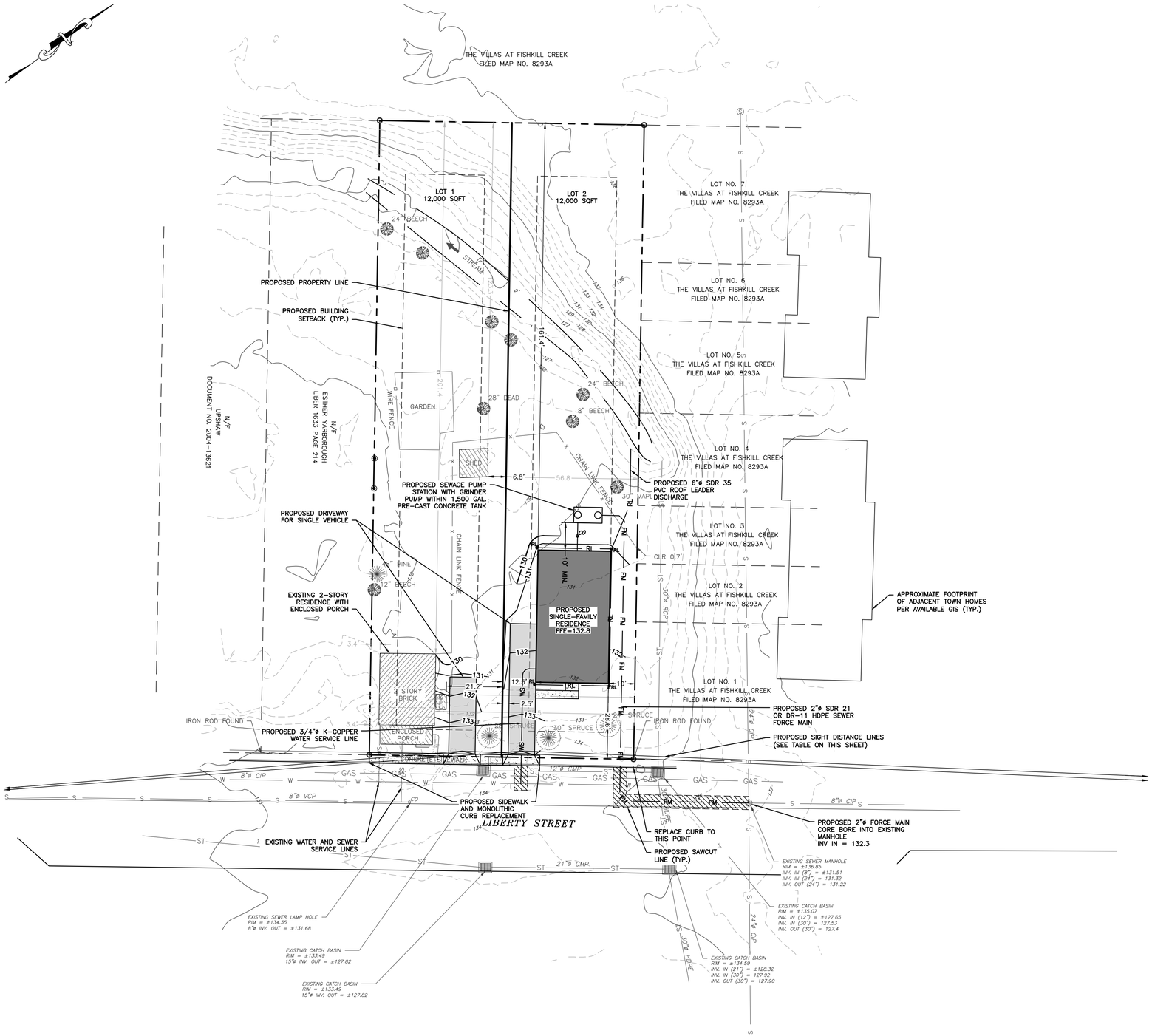

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- PROPOSED WATER VALVE

SCHEDULE OF REGULATIONS (R1-5 ZONING DISTRICT) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT	LOT 1	LOT 2
LOT AREA:	5,000 SQFT MIN.	±12,000 SQFT	±12,000 SQFT
LOT AREA PER UNIT:	2,500 SQFT MIN.	±12,000 SQFT	±12,000 SQFT
LOT WIDTH:	50 FEET MINIMUM	±50 FEET	±50 FEET
LOT DEPTH:	100 FEET MINIMUM	±240 FEET	±240 FEET
YARD SETBACKS (RESIDENTIAL USE):			
FRONT YARD:	10 FEET	±4.3 FEET*	±28.6 FEET
SIDE YARD:	10 FEET	±3.4 FEET*	±10.0 FEET
REAR YARD:	20 FEET MINIMUM	±201.4 FEET	±161.4 FEET
MAX. BUILDING HEIGHT:	35 FT, 2.5 STORIES	2 STORIES	2 STORIES
MAX. BUILDING COVERAGE:	40%	6.92%	11.46%
MAX. UNITS/BUILDING:	2 MAX	1 UNIT	1 UNIT

* EXISTING NON-CONFORMING.

WATER & SEWER NOTES:

1. ALL WATER & SEWER CONNECTIONS SHALL COMPLY WITH CITY WATER AND SEWER DISTRICT REQUIREMENTS.
2. THE PROPOSED BUILDING SHALL BE SET AT SUCH ELEVATION TO ENSURE GRAVITY FLOW FROM THE RAW SEWER LINE TO THE POINT OF CONNECTION WITH THE EXISTING SEWER MAIN, WHILE MAINTAINING PROPER EARTH COVER ABOVE ALL PIPING.
3. NO CELLAR, ROOF, OR FOOTING DRAINS SHALL BE DISCHARGED INTO THE SANITARY SEWER SYSTEM.
4. THE APPLICANT/APPLICANT'S PLUMBER SHALL ACQUIRE WATER METERS AND MXU UNITS (SIGNAL SENDING AND RECEIVING UNIT) FOR THE AMI SYSTEM (ADVANCED METERING INFRASTRUCTURE) FROM THE CITY OF BEACON WATER DEPARTMENT. THE MXU UNIT SHALL BE INSTALLED ON THE EXTERIOR OF THE BUILDING AND SHALL BE LOCATED 2 TO 3 FEET ABOVE THE EXTERIOR GROUND ELEVATION.

GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UFPO @ 1-800-962-7962.
2. WATER, SEWER AND STORM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS. ALL OTHER UTILITIES (TELEPHONE, ELECTRIC, GAS, CABLE, ETC.) SHALL BE INCORPORATED FOLLOWING SITE PLAN APPROVAL. ALL SUCH UTILITY DESIGNS SHALL BE DEVELOPED IN COORDINATION WITH THE RESPECTIVE UTILITY COMPANIES.
3. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE, LOCATION, DEPTH AND CONDITION OF ALL UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT.
4. THE CONTRACTOR SHALL CONSTRUCT ALL IMPROVEMENTS AS SHOWN ON PLANS. ANY FIELD CONDITIONS THAT MAY RESULT IN A VARIATION FROM THE PLAN SET SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IN WRITING. VARIATIONS FROM THE PLAN WITHOUT APPROVAL FROM THE ENGINEER WILL BE CONSIDERED DEFICIENT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ON-SITE OR OFF-SITE DAMAGES TO VEGETATION OR PROPERTY CAUSED BY HIS OPERATIONS. SUCH DAMAGES SHALL BE REPAIRED OR REPLACED AT THE CONTRACTORS COST TO THE SATISFACTION OF THE ENGINEER, PROPERTY OWNER OR AGENCY HAVING JURISDICTION.
6. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL KEEP THE SITE IN A CLEAN AND ORDERLY MANNER.
8. ON-SITE WATER AND SEWER SERVICE INSTALLATION SHALL BE CONDUCTED IN THE WINTER MONTHS TO FURTHER MINIMIZE IMPACT TO TREES AND ROOT ZONES WHILE WATER AND SEWER SERVICE INSTALLATION IN THE CITY RIGHT-OF-WAY AND ON LIBERTY STREET MUST BE CONDUCTED OUTSIDE OF WINTER MONTHS TO ALLOW FOR PROPER REPAIR OF THE TRENCHES AND ROAD SURFACE.

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.
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 LOTS 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 TO EACH LOT SHALL BE 3/4"ø K-COPPER.
6. THE SEWER SERVICE LINES TO EACH LOT SHALL BE 4"ø SDR 35 PVC PIPE WITH PITCH AS SHOWN ON THE PLAN (MINIMUM OF ¼" PER FOOT SHALL BE MAINTAINED).
7. A ROAD OPENING PERMIT SHALL BE REQUIRED FOR THE INSTALLATION OF THE PROPOSED WATER AND SEWER SERVICES FOR THE NEW BUILDING. STREET CLOSURE FOR WATER AND SEWER SERVICE CONNECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF BEACON REQUIREMENTS.
8. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. THE PROPOSED DRIVEWAY SHALL HAVE A STABILIZED CONSTRUCTION ENTRANCE.
9. FOUNDATION DRAINAGE TO BE DESIGNED BY BUILDING ARCHITECT AND/OR STRUCTURAL ENGINEER, ASSUMED TO REQUIRE A SUMP PUMP. THE TYPE OF PUMP AND METHODS USED TO ENSURE PROPER DRAINAGE SHALL BE ACCEPTABLE TO THE CITY OF BEACON BUILDING DEPARTMENT. BACKFLOW PREVENTION DEVICES SHALL BE PLACED ON THE FOOTING DRAINS TO PREVENT BACKFLOW INTO THE FOOTING DRAIN. SUMP PUMP DISCHARGE SHALL NOT ENTER THE SANITARY SEWER SYSTEM.
10. THE PROPOSED DRIVEWAY SIGHT DISTANCE SHALL BE IN COMPLIANCE WITH THE CITY OF BEACON'S 192-9(B) CODE AND THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REQUIREMENTS. THE STATE UTILIZES THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) GUIDELINES FOR INTERSECTION SIGHT DISTANCES. FOR ROADS WITH A SPEED LIMIT OF 30 MPH, AASHTO DESIGN TABLES CALL FOR A SIGHT DISTANCE OF 290 FEET TO THE LEFT AND 335 FEET TO THE RIGHT. IN CASES WHERE INTERSECTION SIGHT DISTANCE IS DEFICIENT, A MINIMUM STOPPING SIGHT DISTANCE OF 200 FEET IS REQUIRED. THE MEASURED SIGHT DISTANCE IS AS FOLLOWS:

    LOT 1: ISD RIGHT ±283' TO THE 4-WAY INTERSECTION WITH LEONARD ST & GROVE ST;
    ISD LEFT ±607'; SSD RIGHT = ±283 FROM THE 4-WAY INTERSECTION WITH LEONARD ST & GROVE ST.; SSD LEFT = ±585

    LOT 2: ISD RIGHT ±306' TO THE 4-WAY INTERSECTION WITH LEONARD ST & GROVE ST;
    ISD LEFT ±607'; SSD RIGHT = ±306 FROM THE 4-WAY ITERSECTION WITH LEONARD ST & GROVE ST.; SSD LEFT = ±580

11. BEDROCK SHALL REMOVED BY MECHANICAL MEANS. NO BLASTING SHALL BE PERMITTED WITHOUT APPROVAL FROM THE BUILDING DEPARTMENT.

INFILTRATION AND INFLOW MITIGATION NOTES:

1. AT AN INSPECTION PERFORMED ON MAY 27, 2026, HUDSON LAND DESIGN OBSERVED NO ILLICIT STORMWATER OR SUMP PUMP CONNECTIONS TO THE CITY OF BEACON'S SANITARY SEWER COLLECTION SYSTEM.

ENCROACHMENT NOTE:

1. THE FILING OF THIS PLAT DOES NOT CONSTITUTE ANY ENDORSEMENT, APPROVAL OR AUTHORIZATION OF ANY KIND FOR THE CONTINUATION OR REMOVAL OF ANY EXISTING ENCROACHMENTS ON THE SUBJECT PROPERTY.

PERFORMANCE GUARANTY NOTE:

1. PRIOR TO THE ISSUANCE OF A BUILDING PERMIT FOR LOT 2, A PERFORMANCE GUARANTY FOR WORK WITHIN THE CITY RIGHT-OF-WAY SHALL BE POSTED WITH THE CITY IN AN AMOUNT AND FORM APPROVED BY THE CITY ENGINEER AND CITY ATTORNEY.

DRIVEWAY VARIANCE NOTE:

1. THE PROPOSED DRIVEWAY ON LOT 2 IS POSITIONED SUCH THAT THE THREE EXISTING SPRUCE TREES CAN REMAIN. AS A RESULT, THE LOCATION OF THE DRIVEWAY IS 2.5' FROM THE PROPOSED PROPERTY LINE. THEREFORE AN AREA VARIANCE OF 2.5 FEET IS SOUGHT FOR THE LOCATION OF THE DRIVEWAY WHERE 5 FEET IS REQUIRED.
2. AN AREA VARIANCE GRANTING RELIEF OF 2.5 FEET FROM 5 FEET TO 2.5 FEET FOR THE DRIVEWAY LOCATION IN PROXIMITY TO THE PROPOSED LOT LINE WAS GRANTED BY THE CITY OF BEACON ZONING BOARD OF APPEALS AT ITS JULY 21ST, 2026 MEETING.

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.

_____ _____
STEPHEN SPACCARELLI & CLAIRE TIPLEY DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	6/30/26	PER PLANNING BOARD COMMENTS	CMB				
2	7/28/26	PER PLANNING BOARD COMMENTS	CMB				

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

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SEAL

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

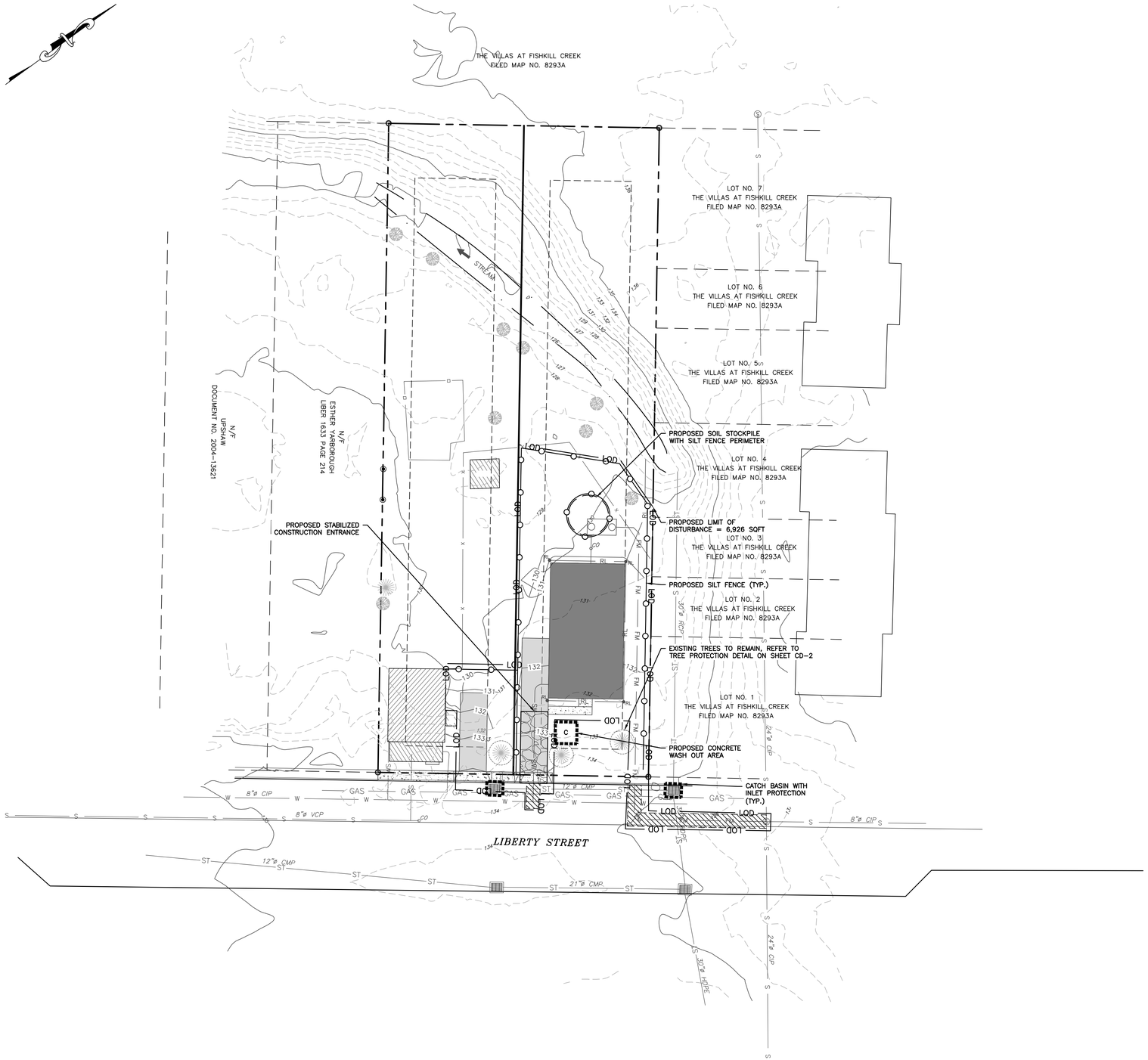
SUBDIVISION PLAN

108 LIBERTY STREET

108 LIBERTY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-266830

JOB #: 2026:013
DATE: 5/26/26
SCALE: 1" = 20'
TITLE: SP-1
SHEET: 4 OF 7

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



LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- EXISTING WATER LINE
- EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING ROOF LEADER
- EXISTING CATCH BASIN

- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- PROPOSED SEWER LINE
- PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED SDS LATERAL
- PROPOSED SDS SOLID LINE
- PROPOSED STORM WATER LINE
- PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE
- PROPOSED SILT FENCE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED CATCH BASIN INLET PROTECTION
- PROPOSED CONSTRUCTION ENTRANCE

EROSION AND SEDIMENT CONTROL NOTES:

1. ALL EROSION CONTROL MEASURES EMPLOYED DURING THE CONSTRUCTION PROCESS SHALL BE INSPECTED BY THE CONTRACTOR IN ACCORDANCE WITH THE MAINTENANCE SCHEDULE. ALL EROSION CONTROL STRUCTURES SHALL BE REPAIRED AND MAINTAINED AS NECESSARY BY THE CONTRACTOR.
2. ALL STORMWATER MANAGEMENT STRUCTURES (E.G. CATCH BASINS) SHALL BE REGULARLY INSPECTED FOR SEDIMENT ACCUMULATIONS. CATCH BASINS SHALL BE CLEANED WHEN SEDIMENT DEPTH REACHES A MAXIMUM OF ONE-HALF THE AVAILABLE SUMP DEPTH.
3. ALL EROSION CONTROL INSTALLATION AND MAINTENANCE MEASURES SHALL MEET THE REQUIREMENTS OF THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
4. ANY PILE OF POTENTIALLY EROSIVE MATERIAL TEMPORARILY STOCKPILED ON THE SITE DURING THE CONSTRUCTION PROCESS SHALL BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE AND SHALL BE PROPERLY PROTECTED FROM EROSION BY A SURROUNDING SILT FENCE.
5. PERMANENT SEEDED AREAS FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH DETAIL AND SPECIFICATIONS ON THIS PLAN.
6. AREAS UNDERGOING CLEARING OR GRADING AND WHERE WORK IS DELAYED OR COMPLETED AND WILL NOT BE REDISTURBED FOR A PERIOD OF 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT VEGETATIVE COVER WITHIN 14 DAYS.
7. ON-SITE DUST CONTROL SHALL BE ACCOMPLISHED BY STANDARD METHODS OF LIGHTLY WATERING ALL EXPOSED SOIL AND RAPIDLY STABILIZING THE REGRADED AREAS WITH TOPSOIL, LOAM AND/OR SEEDING.
8. THE CITY ENGINEER AND PROJECT ENGINEER SHALL BE NOTIFIED NO LESS THAN 48 HOURS PRIOR TO THE START OF ANY SITE WORK, AND BY SUCH NOTIFICATION, SHALL BE PROVIDED WITH THE NAME AND TELEPHONE NUMBER OF THE GENERAL CONTRACTOR RESPONSIBLE FOR SUCH WORK.
9. THE CITY AND/OR ITS REPRESENTATIVES MAY INSPECT EROSION AND SEDIMENT CONTROL PRACTICES ON THE SITE DURING CONSTRUCTION AND RECOMMEND THAT THE CONTRACTOR INSTALL ADDITIONAL EROSION CONTROL MEASURES IF DEEMED NECESSARY TO PROTECT ANY UNDISTURBED AREAS OF THE SITE. ANY SUCH REQUESTS SHALL BE MADE DIRECTLY TO THE CONTRACTOR AND QUALIFIED PROFESSIONAL AND FOLLOWED UP WITH A WRITTEN NOTIFICATION TO THE DEVELOPER. IN ADDITION, THE PROJECT ENGINEER SHALL BE CONSULTED ON ANY SPECIAL ADDITIONS OR DELETIONS OF EROSION CONTROL MEASURES WARRANTED BY CHANGING FIELD CONDITIONS.
10. IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONSTRUCT A DEWATERING PIT IN ACCORDANCE WITH NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL TO FILTER WATER FOR PUMPING TO A SUITABLE LOCATION.
11. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED.

INSPECTION SCHEDULE & MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES

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

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

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

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

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

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.

_____ _____
STEPHEN SPACCARELLI & CLAIRE TIPLEY DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	6/30/26	PER PLANNING BOARD COMMENTS	CMB				
2	7/28/26	PER PLANNING BOARD COMMENTS	CMB				

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

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STATE OF NEW YORK MICHAEL A. BEDNOSKY 084466 LICENSED PROFESSIONAL ENGINEER
SEAL

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

EROSION & SEDIMENT CONTROL PLAN

108 LIBERTY STREET

108 LIBERTY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-266830

JOB #:	2026:013
DATE:	5/26/26
SCALE:	1" = 20'
TITLE:	ESC-1
SHEET:	5 OF 7

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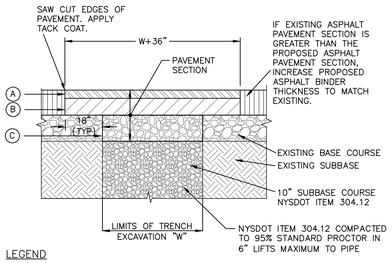


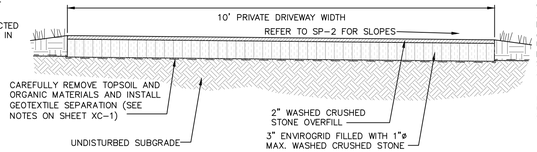
LEGEND

(A) 1.5" ASPHALT CONCRETE TOP COURSE– NYSDOT TYPE F1
(B) 3.0" ASPHALT CONCRETE BINDER COURSE– NYSDOT TYPE F9
(C) 3.0" ASPHALT BASE COURSE– NYSDOT TYPE F9

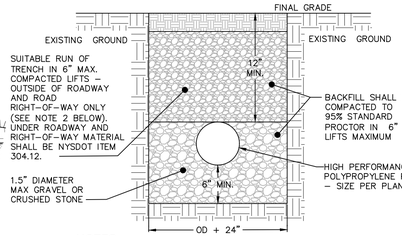
NOTES:

1. SAW CUT MIN. 18" BEYOND EXCAVATION WITH SMOOTH EDGES. 18" JOINT BETWEEN EXISTING AND NEW TOP COURSE TO BE MILLED. JOINT TO BE SEALED WITH POLYMER MODIFIED SEALER.
2. FURNISH, PLACE, AND COMPACT SUBBASE.
3. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.
4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.

PAVEMENT RESTORATION DETAIL
NOT TO SCALE



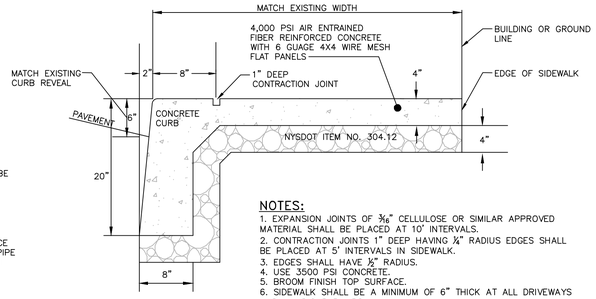
PAVED DRIVEWAY SECTION DETAIL
NOT TO SCALE



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

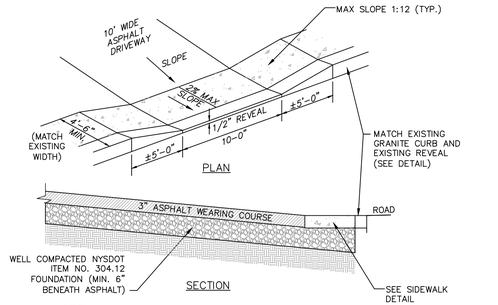
STORM LINE TRENCH DETAIL
NOT TO SCALE



NOTES:

1. EXPANSION JOINTS OF ⅜" CELLULOSE OR SIMILAR APPROVED MATERIAL SHALL BE PLACED AT 10' INTERVALS.
2. CONTRACTION JOINTS 1" DEEP HAVING ¼" RADIUS EDGES SHALL BE PLACED AT 5' INTERVALS IN SIDEWALK.
3. EDGES SHALL HAVE ½" RADIUS.
4. USE 3500 PSI CONCRETE.
5. BROOM FINISH TOP SURFACE.
6. SIDEWALK SHALL BE A MINIMUM OF 6" THICK AT ALL DRIVEWAYS AND HANDICAP RAMPS.
7. MAXIMUM SLOPE OF 1 ON 12 TO BE USED WHERE SIDEWALK TERMINATES AT HANDICAP RAMPS.
8. THE SIDEWALK AND CURBING SHALL BE SEALED WITH A SEALER THAT PROTECTS AGAINST DE–ICING AGENTS.

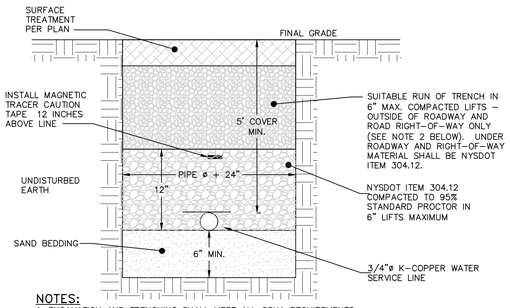
MONOLITHIC CURB AND SIDEWALK DETAIL
NOT TO SCALE



NOTE:

1. RESEED AND STABILIZE GRASS AREAS AFTER ASPHALT AND CONCRETE INSTALLATION.

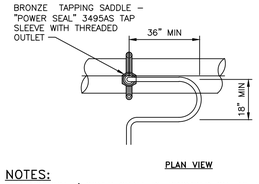
DRIVEWAY ENTRANCE DETAIL
NOT TO SCALE



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.
4. IF WATER SERVICE AND SEWER SERVICE LINE CROSSINGS ARE NEEDED, PROVIDE 18" OF VERTICAL SEPARATION

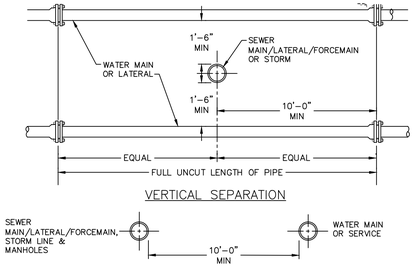
WATER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



NOTES:

1. A MINIMUM 5' COVER SHALL BE PROVIDED ON THE WATER SERVICE LINE (CONDITIONED ON ACTUAL 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.

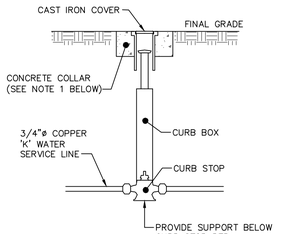
WATER SERVICE CONNECTION DETAIL
NOT TO SCALE



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.

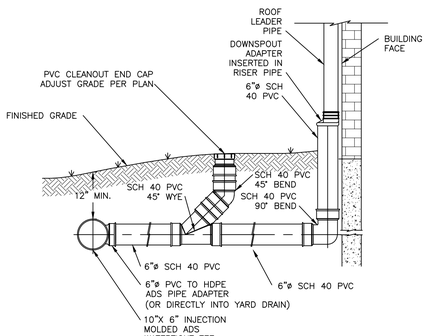
WATER LINE SEPARATION DETAIL
NOT TO SCALE



NOTES:

1. CONCRETE COLLAR TO BE PROVIDED IN AREAS THAT ARE NOT PAVED. THE COLLAR SHALL BE 6" FROM THE COVER AND SHALL EXTEND 6" BELOW FINAL GRADE.
2. CURB STOP TO BE COMPRESSION TYPE BY MUELLER.
3. AREA AROUND CURB BOX TO BE BACKFILLED WITH GRAVELLY MATERIAL.

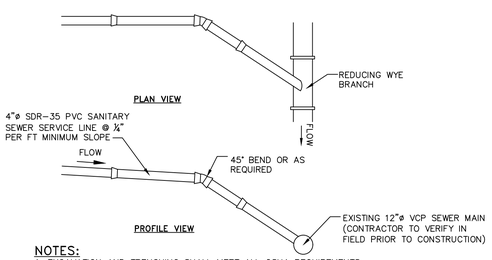
WATER SHUT–OFF VALVE DETAIL
NOT TO SCALE



NOTES:

1. ALL ROOF LEADER PIPES SHALL BE 6"ø SCH 40 PVC @ 2.0% SLOPE MIN. UNLESS SPECIFIED OTHERWISE.
2. PVC JOINT CONNECTIONS SHALL BE MADE WITH PVC CEMENT.
3. ROOF LEADER HEADER PIPES SHALL BE 10"ø HDPE PIPE.
4. SUBSTITUTIONS OF PIPE MATERIAL SHALL BE BROUGHT TO THE DESIGN ENGINEER'S ATTENTION FOR REVIEW.

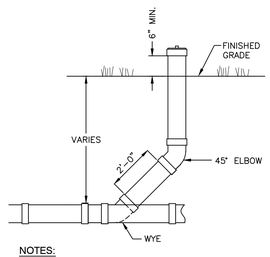
ROOF LEADER CONNECTION DETAIL
NOT TO SCALE



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.
3. TAPPING SADDLE FOR CONNECTION OF THE PROPOSED SERVICE LINE TO THE EXISTING SEWER MAIN TO BE A 4" PREDCO HUB TAP SADDLE – MODEL #HTS4/E.

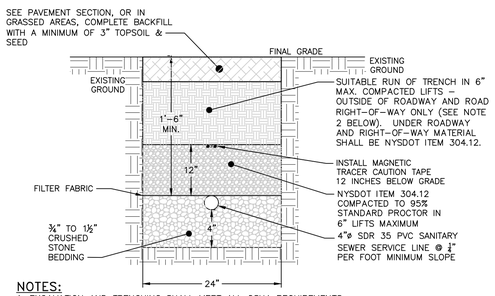
SANITARY SEWER SERVICE CONNECTION DETAIL
NOT TO SCALE



NOTES:

1. SEWER PIPE AND FITTINGS SHALL BE SDR–35.

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 LINE TRENCH DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

OWNER'S CONSENT:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
STEPHEN SPACCARELLI & CLAIRE TIPLEY DATE

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	6/30/26	PER PLANNING BOARD COMMENTS	CMB				
2	7/28/26	PER PLANNING BOARD COMMENTS	CMB				

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SEAL

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

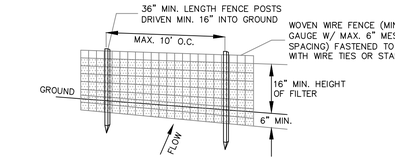
CONSTRUCTION DETAILS

108 LIBERTY STREET

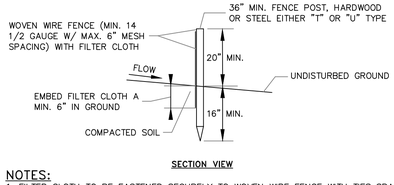
108 LIBERTY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054–31–266830

JOB #: 2026:013
DATE: 5/26/26
SCALE: AS SHOWN
TITLE: CD–1
SHEET: 6 OF 7

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



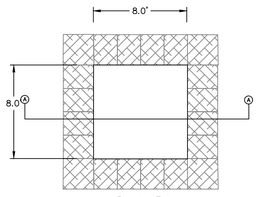
PERSPECTIVE VIEW



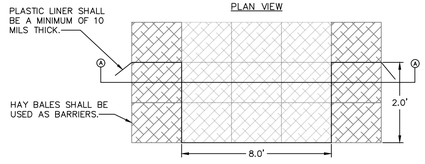
SECTION VIEW

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

SILT FENCE DETAIL
NOT TO SCALE



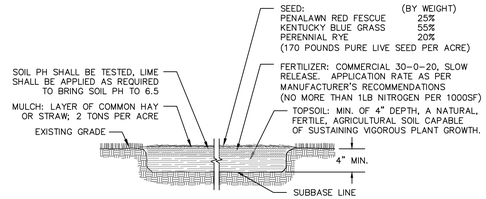
PLAN VIEW



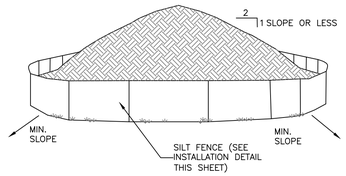
SECTION VIEW

NOTES:
1. WASHOUT STATION SHALL BE LOCATED 100' FROM ANY STORMWATER FEATURE ON SITE OR NATURAL WATERWAYS OR WETLANDS.
2. INSPECT WASHOUT STATION DAILY AND REPLACE PLASTIC LINER WHEN ANY RIPS OR TEARS ARE OBSERVED.
3. REPLACE WASHOUT STATION WHEN IT IS AT 75% OF ITS CAPACITY WITH HARDENED MATERIAL.
4. WATER ACCUMULATION IN WASHOUT AREA FROM RAINWATER SHALL BE PUMPED FROM THE STATION INTO A GRASSED AREA.

CONCRETE WASHOUT STATION DETAIL
NOT TO SCALE

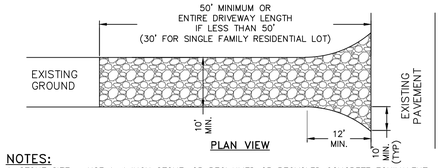


TOPSOIL SEED, FERTILIZER AND MULCH DETAIL
NOT TO SCALE



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

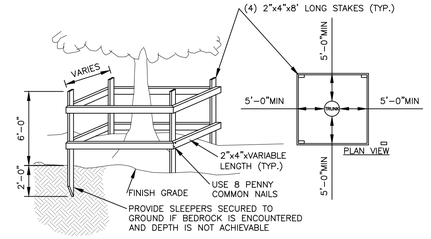
TEMPORARY SOIL STOCKPILE DETAIL
NOT TO SCALE



PLAN VIEW

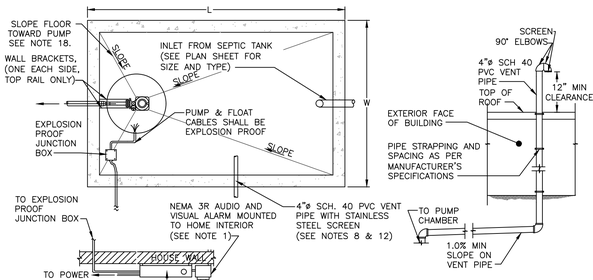
NOTES:
1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. THICKNESS - NOT LESS THAN SIX (6) INCHES.
3. WIDTH - 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO LARGE COMMERCIAL OF RESIDENTIAL SITE.
4. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
5. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
7. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



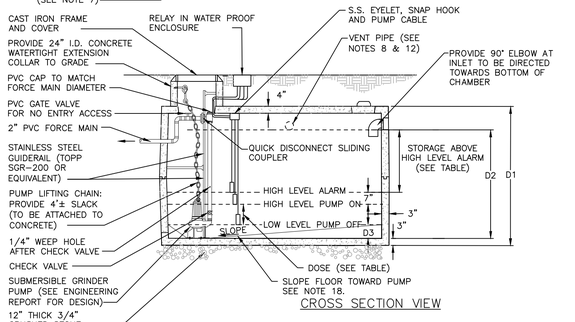
NOTES:
1. TREES TO REMAIN NOTED ON EXISTING CONDITIONS PLAN.
2. NOT ALL TREES TO REMAIN REQUIRE PROTECTION. TREE PROTECTION TO BE UTILIZED ON TREES WHERE CONSTRUCTION TRAFFIC WOULD COMPACT THE ROOT ZONE OF THE TREE.

TEMPORARY TREE PROTECTION DETAIL
NOT TO SCALE



PLAN VIEW

VENT DETAIL



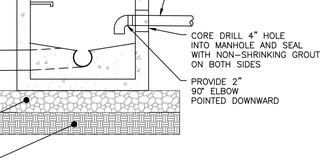
CROSS SECTION VIEW

PUMP CHAMBER DIMENSIONS							*DOSE		STORAGE (2 DAYS)					
RIM ELEVATION	LENGTH OF FORCE MAIN PIPE (FT.)	PIPE VOLUME (GAL)	REQ'D DOSE (GAL)	W	L	D1	D2	D3	DEPTH (IN)	VOLUME (GAL)	REQ'D (GAL)	DEPTH PROVIDED (IN)	VOLUME PROVIDED (GAL)	PUMP MAKE AND MODEL	FORCE MAIN SIZE (IN)	NO. OF PUMPS
129.2	162	29.7	209.3	5'-8"	10'-6"	65"	52"	8"	7"	225.6	880	30	964	PRG101 SERIES 101 GRINDER PUMP	2.0	1

PUMP CHAMBER DETAIL
NOT TO SCALE

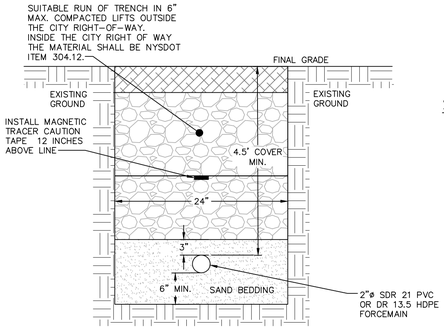
PUMP CHAMBER NOTES

1. THREE FLOAT SWITCHES SHALL BE INSTALLED: PUMP ON, PUMP OFF, AND HIGH ALARM. VISIBLE AND AUDIBLE ALARMS SHALL BE PROVIDED. THE ALARMS SHALL BE LOCATED INSIDE THE HOME, CLEARLY VISIBLE AND AUDIBLE.
2. ALL ELECTRICAL WORK AND MATERIAL FOR PUMP INSTALLATION SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE.
3. AN ELECTRICAL UNDERWRITER'S CERTIFICATE FOR THE PUMP CHAMBER MUST BE PROVIDED TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH PRIOR TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH CONDUCTING A FINAL INSPECTION ON THE PUMP CHAMBER.
4. THERE SHALL BE A MINIMUM OF 2.5' COVER OVER THE CONDUIT CONVEYING THE FLOAT PUMP CABLES AND CONTROL WIRING. CONDUITS FROM ALARM BOX AND CONTROL PANEL TO RELAY PANEL AT PUMP CHAMBER SHALL SHARE THE SAME TRENCH.
5. PROVIDE ADDITIONAL CONDUIT FOR CONTROL WIRING AS PER THE MANUFACTURERS RECOMMENDATIONS. MINIMUM COVER SHALL BE 2.5'.
6. AN ALUMINUM WARNING PLATE SHALL BE RIVETED OR OTHERWISE PERMANENTLY ATTACHED TO THE CHAMBER COVER. THE PLATE SHALL BE A MINIMUM OF 12"x12" AND SHALL BE ENGRAVED WITH THE FOLLOWING LANGUAGE: "WARNING - CONFINED SPACE - ENTRY PROHIBITED WITHOUT AUTHORIZATION - CALL OWNER FOR APPROVAL TO ACCESS".
7. CONTROL PANELS SHALL BE LOCATED WITHIN THE HOME.
8. 4" ø SDR PVC SCREENED VENT SHALL EXTEND TO HOME ROOF LINE (REFER TO NOTE 12).
9. A WATER TIGHTNESS TEST SHALL BE COMPLETED BY THE CONTRACTOR, WITNESSED BY THE ENGINEER, AND SHALL INCLUDE FILLING THE TANK AND MEASURING WATER LEVEL.
10. CONTRACTOR SHALL CAULK INLET AND OUTLET JOINTS AND OTHER CONDUIT PENETRATIONS.
11. INSTALL STAINLESS STEEL GUIDE RAIL FOR PUMP REMOVAL AND MAINTENANCE.
12. LOCATION OF 4" DIA. SDR PVC VENTILATION PIPE SHALL BE APPROVED BY THE OWNER AND SHALL PROVIDE POSITIVE SLOPE TO SURFACE (IE: NO DIPS OR SAGS ALLOWED). THE INVERT OF THE VENT PIPE SHALL MATCH INLET INVERT. THE VENT PIPE SHALL BE SECURELY MOUNTED TO THE EXTERIOR OF THE HOME AND SHALL VENT A MINIMUM OF 12" ABOVE ROOF LINE. VENT PIPE AND BRACKETS TO MATCH EXTERIOR HOUSE COLOR. HOMEOWNER HAS THE OPTION TO TIE VENT TO INTERIOR VENTING PIPING.
13. ALL ELECTRIC SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION.
14. A PROFESSIONAL ENGINEER SHALL CERTIFY INSTALLATION AND TESTING OF PUMP CHAMBER TO DUTCHESS COUNTY DEPARTMENT OF HEALTH.
15. PRE-CAST PUMP CHAMBER SHOWN IS A 1,500 GALLON PUMP CHAMBER MODEL HD-1500, BY WOODARDS CONCRETE PRODUCTS, INC. 629 LYBOLT RD, BULLVILLE, NY (845) 361-3471.
16. PROVIDE AN ALL WEATHER JUNCTION BOX WITH AN OUTLET AND SCREWED COVER AT OR ABOVE GRADE AT THE PUMP CHAMBER TO ALLOW FOR A PLUG IN CONNECTION FOR THE PUMP.
17. SLOPE FLOOR TOWARD PUMP ON ALL SIDES USING NON-SHRINK GROUT.



NOTES:
1. CONFLICTS SHALL BE BROUGHT TO THE DESIGN ENGINEER'S ATTENTION IMMEDIATELY.
2. CONTRACTOR SHALL CONTACT THE CITY OF BEACON SEWER DEPARTMENT WITH TWO DAYS MINIMUM NOTICE PRIOR TO MAKING CONNECTION TO EXISTING SEWER MANHOLE.

SEWER FORCE MAIN INTO EXISTING SANITARY MANHOLE DETAIL
NOT TO SCALE



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

SEWER FORCEMAIN TRENCH DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

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OWNER'S CONSENT:
THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
STEPHEN SPACCARELLI & CLAIRE TIPLEY DATE

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	6/30/26	PER PLANNING BOARD COMMENTS	CMB				
2	7/28/26	PER PLANNING BOARD COMMENTS	CMB				

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13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926

CONSTRUCTION DETAILS

108 LIBERTY STREET

108 LIBERTY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-31-266830

JOB #:	2026:013
DATE:	5/26/26
SCALE:	AS SHOWN
TITLE:	CD-2
SHEET:	7 OF 7

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

Municipal Secretary

Building Department

P: 845-838-5002

City of Beacon

One Municipal Plaza, Suite 4

Beacon, NY 12508

Building Department: *https://beaconny.gov/index.php/departments/building-department/*

Planning Board: *https://beaconny.gov/index.php/government/boards-committees/planning-board/*

Zoning Board: *https://beaconny.gov/index.php/government/boards-committees/zoning-board/*

From: Robyn Tauss <>
Sent: Monday, July 20, 2026 6:37 PM
To: Mercedes Perez <mperez@beaconny.gov>
Subject: Variance application at 108 Liberty St

Dear Beacon Planning Board and Zoning Board,

I'm writing to you in reference to the property at 108 Liberty St, and with my concerns on the sub-division property, with a potential new, one family home being proposed.

Just as a reference, my property is directly behind the proposed building. I am lot number 3 in the Villa Townhouse community.

My concerns are as below:

- The runoff into the drainage ditch will impact the drainage pipes in the Villa's community. Right now we know they are old and will need to be replaced as soon as possible. This is a large expense for the Villa's, and the added drainage water will impact us almost immediately, with the added runoff into the drainage ditch from the 108 proposed dwelling.

-The proposed building will be right at my site line from my living room and back deck. In the fall and Winter, there will be no leaf cover and my privacy will be compromised.

- There is a very large Pine tree right at their property line which I, the Villa's and neighbor

are responsible for, and with the more frequent micro-bursts, this is a hazard for the proposed building.

- The proposed dwelling will affect my property value because of the building placement and I will have to have my property assessment lowered because of this.There will not be an unobstructed view from the back of my home.

I do realize there is a housing shortage in Beacon, and elsewhere, but I feel there should be more guard rails on where the building should be permitted.

Thank you very much for your time and consideration.

Sincerely,

Robyn Tauss

5 Angela Court

Beacon, NY 12508

LANC & TULLY
Engineering and Surveying, D.P.C.

August 7, 2026

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

RE: 108 Liberty Street
Tax No. 6054-31-266830
City of Beacon, NY

Dear Mr. Gunn:

My office has received the following regarding the proposed subdivision at 108 Liberty Street:

- Correspondence dated July 28, 2026, from Hudson Land Design.
- Subdivision Application and associated documents.
- Plan set titled "108 Liberty Street Residential Subdivision", consisting of 7 sheets, as prepared by Hudson Land Design, dated July 28, 2026.

The proposed project is the subdivision of the existing parcel with a dwelling located at 108 Liberty Street into two lots, and retaining the existing dwelling on one of the lots to be created. The project site is located in the R1-5 Zoning District. Based on our review of the above documents and plans, all previous engineering comments have been addressed at this time.

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

Respectfully,

LANC & TULLY, P.C.

John Russo, P.E.

cc: Natalie Quinn, Planner
Jennifer Gray, Esq.
Bryan Murphy, Building Inspector

P.O. Box 687, Goshen, N.Y. 10924 | (845) 294-3700
www.lanctully.com

KARC
PLANNING CONSULTANTS, INC.

TO: John Gunn, Chair, and the City of Beacon Planning Board

FR: KARC Planning Consultants, Inc.

DATE: August 7, 2026

RE: 108 Liberty Street Subdivision Application, Stephen Spaccarelli and Claire Tipley

---

I have reviewed the following materials regarding the proposed subdivision at 108 Liberty Street:

- Response letter by Hudson Land Design, dated July 28, 2026
- Complete Subdivision Application by Hudson Land Design, dated May 26, 2026
- Subdivision Plan Set (7 sheets) by Hudson Land Design, last revised July 28, 2026

Project Description:

The subject property is a developed residential parcel located at 108 Liberty Street in the City of Beacon, (Tax ID #6054-31-266830). The property owner is seeking to develop the property through the subdivision of the property into two (2) individual residential lots, including retention of the existing dwelling on one of the newly created lots and development of a new single-family dwelling on second lot. The property is located in the R1-5 zoning district, where single-family dwellings are permitted.

An area variance was granted by the ZBA on July 21, 2026 to allow the proposed driveway for Lot 2 to be located 2.5 feet from the side lot line, where a minimum setback of 5 feet is required.

Comments & Recommendations:

All previous comments have been addressed. The subdivision application is sufficient for approval from a planning and zoning compliance perspective.

If you have any questions or require additional information, please do not hesitate to contact me.

Natalie Quinn
Beacon Planning Consultant

Cc: Bryan Murphy, Building Inspector
Jennifer L. Gray, Esq., City Attorney
John Russo, P.E., City Engineer

City of Beacon Planning Board Agenda
08/11/2026

Title:

Public hearing and continue review of application for Amended Site Plan Approval, Edgewater Place, Residential, submitted by Scenic Beacon Developments, LLC.

ATTACHMENTS

Edgewater PB 8.11.26 Supplemental Submission Cvr Ltr.pdf

Edgewater PB 8.11.26 Exhibit A - Response Memo by HLD 7-28-26.pdf

Edgewater PB 8.11.26 Updated Site Plan Sheets 1 and 11.pdf

Edgewater PB 239 response ZR26-138.pdf

Lanc & Tully Edgewater 08-07-26.pdf

KARC Review PB_18-30 Edgewater_08.10.2026.pdf

Creighton Manning 20260810_Edgewater_Rev 1_R245579.pdf

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CUDDY +FEDER LLP

300 Westage Business Center, Suite 380
Fishkill, New York 12524
T 845 896 2229
F 845 896 3672
cuddyfeder.com

Taylor M. Palmer
tpalmer@cuddyfeder.com

July 28, 2026

VIA E-MAIL AND HAND DELIVERY
Hon. John Gunn
and Members of the Planning Board
City of Beacon
1 Municipal Plaza
Beacon, New York 12508

Re: Scenic Beacon Developments, LLC – Application for Amended Site Plan Approval
Supplemental Submission
Property: Edgewater Place, Beacon, New York 12508
Tax Parcel IDs: 5955-19-590022, 5955-19-604016 & 5955-19-588001

Dear Chairman Gunn and Members of the Planning Board:

On behalf of Scenic Beacon Developments, LLC (the "Applicant"), the owner of the above-referenced Property, we respectfully submit this letter and the referenced enclosures in furtherance of an Application for Amended Site Plan Approval (the "Application") relating to the Applicant's previously approved Edgewater project. The Application involves the proposed addition of two (2) dwelling units and nine (9) bedrooms, along with certain revisions to the off-street parking facilities (the "Amended Project").

PROCEDURAL STATUS OF THE AMENDED PROJECT:

As this Board is aware, the Applicant introduced the Amended Project at the July 14, 2026 Planning Board meeting, at which time the Board set the public hearing for August 11, 2026, determined that the Amended Project is a Qualified Action exempt from the State Environmental Quality Review Act ("SEQRA"), and authorized issuance of a referral and positive recommendation to the City Council in accordance with Zoning Code Section 223-18.B(1). This recommendation was subsequently sent to the City Council on July 17, 2026.[1] The Applicant is currently awaiting placement on the City Council's next available meeting agenda for consideration of the amended Special Use Permit Application.[2]

Since the last Board meeting, City staff also coordinated referral of the Amended Project to the Dutchess County Department of Planning and Development on July 20, 2026. The County

[1] A copy of this recommendation is on file with the City.

[2] Note: The City Zoning Code requires the City Council to hold a public hearing on the amended special use permit application within 62 days of receipt of the Planning Board's referral (i.e., July 17, 2026).

responded on July 23, 2026 with a decision that the Project is a matter of local concern.[3]

Additionally, in advance of the August 11, 2026 Planning Board public hearing, the Applicant revised the enclosed plan set to respond to comments provided by this Board and those contained in the City Planning and Engineering Consultants' recent comment memoranda. Point-by-point responses to these memoranda as prepared by Hudson Land Design is enclosed as **Exhibit A**.

ENCLOSURES:

In support of this Application, please find four (4) copies of the following document:

Exhibit A: Response to Comments Memorandum prepared by Hudson Land Design, dated July 28, 2026 providing responses to City Engineering Consultant Lanc & Tully's memorandum dated July 10, 2026 and City Planning Consultant KARC Planning Consultant memorandum dated July 14, 2026.

As noted above, please also find four (4) copies of the updated Site Plan Sheets 1 and 11 titled "Amended Site Plan – Edgewater" and "Amended Grading & Utility Plan – Edgewater" prepared by Hudson Land Design Professional Engineering, P.C. last revised July 28, 2026.

CONCLUSION:

The Applicant looks forward to appearing before the Board on August 11, 2026, at which time the Applicant respectfully requests that the Board open and close the public hearing and consider authorizing the drafting of approval documentation for the Amended Project. In the meantime, should the Planning Board or City Staff have any questions, please do not hesitate to contact me.

Thank you in advance for your consideration.

Very truly yours,

Taylor M. Palmer

Enclosures

[3] A copy of this referral response is on file with the City.

cc: Bryan Murphy, City Building Inspector
Jennifer L. Gray, Esq., Planning Board Attorney
John Russo, P.E., Planning Board Engineer
Natalie Quinn, Planning Board Planner
City of Beacon City Council
Michael A. Bodendorf, P.E., Hudson Land Design Professional Engineering, P.C.
Richard D'Andrea, PE, PTEO, Colliers
Allison Fausner, Esq.

HUDSON LAND DESIGN

Civil & Environmental Engineering Consultants
174 Main Street, Beacon, New York 12508
13 Chambers Street, Newburgh, New York 12550
Phone: 845-440-6926
www.HudsonLandDesign.com

July 28, 2026

Mr. John Gunn, Chairman
City of Beacon Planning Board
1 Municipal Center
Beacon, NY 12508

Re: Edgewater Amended Site Plan
Tax ID 5954-25-566983, 574979, 582985, & 5955-19-590022
City of Beacon, New York

Dear Chairman Gunn:

On behalf of the Applicant for the above referenced project, the site plans have been revised in response to Lanc & Tully's July 10, 2026, comment letter and KARC's July 14, 2026, comment memorandum. Below are point-by-point responses to the comments received.

Lanc & Tully July 10, 2026 Comment Letter

General Comments

1. *As the applicant is proposing to amend the approved site plan to allow for additional units and bedrooms, Sheet 6 of 16 of the original approved plan set should also be included as part of the amendment application, as this sheet included the total count of apartments and bedrooms for the project.*

   Response: Sheet 6 of the original approved set is enclosed for reference. The table and floor plans depicted therein were for illustrative purposes only. An "Amended Site Plan Note" block has been added to Sheet 1 of the enclosed plans.

2. *Sheet 11 of 16 of the original plan set included the proposed grading of the site. This plan shall be revised to reflect the proposed grading in the areas of the proposed alternate parking areas to be constructed as part of this amendment.*

   Response: A revised Sheet 11 of 16 is included with this submission.

3. *As the applicant is proposing extending the parking lot in the north-east corner to allow for the construction of additional parking stalls, we would recommend that additional landscaping be provided in this area to further screen the parking lot from the intersection of Tompkins Avenue and Bank Street.*

   Response: Four additional native evergreens are proposed at the northeast corner parking area extension.

4. *The sizing of Infiltration Basin 3 should be reviewed, as the extension of the parking lot in the north-east corner, and that of the additional 5 parking stalls along the access road, will create additional impervious areas that will flow to this basin that was not originally accounted for in the original design.*

   Response: Calculations are provided for Infiltration basin 3 for the additional 5 parking spaces at the access drive. The 5 grass parking spaces have been calculated as impervious surface. The northeast parking area extension does not drain towards Infiltration Basin 3. This area would normally drain towards Bioretention Area 1 located behind Buildings 1-4 as part of the original design. The original 33 land banked spaces behind Building 1 were proposed to drain to Bioretention Area 2 located behind Buildings 5-7 as part of the original plan. Therefore, it is now proposed to direct drainage from the 12-space parking extension to Bioretention Area 2. Catch basin 102 will be connected to a new catch basin 209 located at the north entrance which will connect to previously proposed catch basin 208. Calculations in support of the impervious surface comparison is provided with this submission. The calculations show that Infiltration Basin 3 is not negatively impacted by the small increase in impervious and the basin will still infiltrate the water quality volume. There more total area contributing to Bioretention Area 3; however, there is less impervious surface area. The resultant curve number decreased by 2. The calculations show that the water quality volume decreased and therefore, the biorention basin is compliant.

KARC July 14, 2026 Comment Memorandum

1. ***Short EAF.*** *The project description in the Short EAF should be revised to fully describe the proposed action, including the addition of nine (9) bedrooms, relocation of a trash enclosure, and construction of twenty-nine (29) land-banked parking spaces, seventeen (17) of which are proposed to be relocated due to bedrock.*

   Response: The full description of the proposed project was contained in the original cover letter from Cuddy & Feder. The Planning Board determined that the project constitutes a qualified action exempt from SEQR at the July 2026 Planning Board meeting. As such, a Short EAF is not required for the project.

a. *The 2018 approvals contemplated a total of forty-five (45) land-banked parking spaces to minimize initial land disturbance and impervious coverage. The current application should clarify how many land-banked spaces will remain following this amendment and explain how the proposed revisions continue to minimize land disturbance and impervious coverage.*

Response: As discussed at the July 2026 Planning Board meeting, the project includes the removal or build out of the previously approved land banked parking spaces such that no land banked spaces will remain should the Planning Board approve the application. Instead, 37 spaces will be built out in surface and subsurface lots, where the 45 land banked spaces were previously approved. The 37 spaces amount to less impervious surface than the previously approved 45 land banked spaces. And, as discovered during construction, a significant portion of the approved land banked spaces would require the removal of nearly 16 feet of bedrock to construct the spaces. Re-configuring the parking spaces to new areas results in less disturbance than the land banked spaces would if built out because the existing grades within the new areas require minimal adjustments for the new spaces.

2. ***Maximum Density.*** *Based upon the previously approved net buildable area calculations, the proposed increase from 246 to 248 dwelling units remains below the maximum permitted density of 252 dwelling units.*

   Response: Comment acknowledged.

3. ***Parking Compliance.*** *The applicant's parking analysis indicates that the proposed amendment will result in 321 parking spaces, whereas 329 spaces were previously approved. The application materials state that thirty-three (33) approved land-banked parking spaces are being eliminated, while only seventeen (17) are proposed to be relocated. The applicant should clarify the parking calculations and reconcile the apparent discrepancy between the narrative and the stated reduction in total parking.*

   Response: The description of the proposed project's parking was contained in the original cover letter from Cuddy & Feder and the analysis in the Traffic and Parking letter prepared by Colliers. There is no discrepancy between these two documents. As noted in the Cuddy & Feder letter:

   > The Original Project comprised a total 329 off-street parking spaces, where 328 spaces were required under the then-existing Zoning Code parking regulations. Of those 329 approved spaces, 238 were surface spaces, 46 subsurface, and 45 land banked.
   >
   > … the Applicant is proposing to construct the Original Project's 238 surface and 46 subsurface spaces, in addition to 29 new surface parking spaces and eight (8) new subsurface spaces. The eight (8) new subsurface spaces are proposed below Buildings 2 and 3, while the new surface spaces are located in three (3) areas: (1) 12 spaces in roughly the same location as "Land Banked Parking Area A"; (2) 12 spaces to the north of the parking area approved to the northeast of Building 1 and east of the Tompkins Avenue entrance; and (3) five (5) spaces on the southern portion of the Property, to the south of Buildings 3 and 4.

   a. *Although the proposed parking supply complies with the City's current parking regulations, the Planning Board retains discretion to determine whether the proposed parking supply is appropriate for this development.*

Because 106 dwelling units are currently occupied, the applicant could provide more detailed parking utilization data or other information regarding actual parking demand for this particular development, location, and unit style (luxury) to assist the Board in evaluating the proposed reduction in approved parking.

Response: Comment acknowledged.

4. ***Relocated trash enclosure.*** *A note on the site plan indicates that a trash enclosure within the parking area is to be relocated. Details regarding enclosure design, screening, and landscaping should also be provided.*

   Response: Additional landscaping is shown screening the northeast parking area and trash enclosure. The trash enclosure detail was included on Sheet 14 of the original site plan set and has not changed.

5. ***Plan Coordination.*** *Any sheets from the previously approved plan set affected by the proposed parking modifications, including landscaping and lighting, should be updated to reflect the proposed amendments.*

   Response: Additional landscaping is shown on the amended site plan sheet with a note referring to the original approved site plan for additional landscape design and details. An originally approved Washington Hawthorne tree is proposed to be relocated at the north site entrance to avoid conflicts with a new stormwater line. Nine Inkberry shrubs are proposed in its original location. The plant list for the pollinator park in place of the prior land banked area is also included. The original lighting is adequate at the northeast expanded parking area. The original lighting plan shows a proposed "Type L' light pole in the vicinity of the expanded parking area which provides adequate illumination of the area. An additional "Type L' light pole is proposed at the additional five parking spaces along the access drive. An "Amended Landscaping and Lighting Notes" block has been added to Sheet 1 of the enclosed plans. Consistent with prior site plan amendments, these minor changes are included on a single site plan sheet.

We look forward to discussing this proposal with you at your August Planning Board meeting. Should you have any questions, please feel free to call me at 845-440-6926.

Sincerely,



Michael A. Bodendorf, P.E.
Principal

cc: Weber Projects, LLC
Cuddy & Feder, LLP
Daniel G. Koehler, P.E. (HLD File)

Stormwater Pollution Prevention Plan:
for
Edgewater

Prepared for:
Scenic Beacon Developments, LLC
Beacon, NY 12508
January 31, 2017
(Revised March 28, 2017, May 27, 2017, August 29, 2017, & July 31, 2018;
Amended 7/28/26



HUDSON
LAND DESIGN

Prepared by:
Hudson Land Design Professional Engineering, P.C.
174 Main Street
Beacon, NY 12508

Post-Development Watershed Conditions					
Subcatchment	**Area (ac)**	**Cover**	**Average Curve #**	**Hydrologic Soil Group(s)**	**Time of Concentration**
1	2.27	Mostly impervious with some grassed areas and small amount of gravel path	86	B	6.0 minutes
2	3.75 ~~3.60~~	Mostly impervious with some grassed areas and small amount of gravel path	82 ~~84~~	B	6.0 minutes
3	1.61 ~~1~~ 3	Mostly grass with impervious area	79	B	6.0 minutes
4	2.10	Grass and wooded area	68	B/D	6.0 minutes
5	2.~~42~~32	Mostly woods and grassed areas with some impervious area	~~60~~ 59	B	6.0 minutes

6.4 Hydrologic Review

The stormwater runoff volumes at each discharge point under pre-development and post-development conditions are summarized below.

SDP	1 - Year		10 - Year		100 - Year	
	Pre	**Post**	**Pre**	**Post**	**Pre**	**Post**
1	1.28	~~0.80~~ 0.80	10.61	~~4.51~~ 4.30	33.75	~~23.61~~ 25.53
2	0.69	~~0.21~~ 0.16	4.61	~~2.96~~ 2.75	14.11	~~13.84~~ 13.47

As shown above, post-development peak flow rates are less than pre-development rates for the storm events modeled for SDP 1 and SDP 2; therefore, the post-developed storm water management controls provide the required storage to attenuate the 1, 10 and 100-year storm events. It should be noted that Bioretention Area 2 has been sized to handle the future land banked parking area.

Supporting hydrologic analyses for pre-development and post-development conditions are included in Appendices D and E.

6.5 Stormwater Management System

The final stormwater management system will consist of minimal conveyance systems which will include culverts, and grass-lined swales/dikes where required. It is anticipated that most, if not all perimeter diversion swales/dikes will be unnecessary and removed after installation; however, there may be a need for some as site conditions warrant.

The remainder of the drainage area will remain undisturbed with natural vegetation remaining. Minimum 20 feet wide undisturbed vegetated buffers will remain intact between developed areas and water bodies, streams, and wetlands.

A = Site area in acres (contributing area)

The following table has been developed summarizing the pre-treatment volume, water quality volume and treatment practices for the main project area.

Watershed	Total Required WQv (cf)	Required Pre-Treatment Volume (cf)	Pre-Treatment Practice	Treatment Practice	WQv Provided (cf)
1	2,678	670	Hydrodynamic	Bioretention	5,790
1A	4,360	1,090	Cistern	Cistern	5,040
2	~~11,252~~ 10,649	~~2,813~~ 2,662	Hydrodynamic	Bioretention	13,274
3	~~3,995~~ 4,101	~~3,995~~ 4,101	Hydrodynamic	Infiltration	4,878
4	2,140	2,140	Overland	Overland	2,140
5	2,467	2,467	Overland	Overland	2,467

*Areas 4 and 5 are mostly undisturbed and do not have any new impervious; therefore, are not subject to water quality requirements. The watersheds will achieve water quality volume goals by sheet flow through non-disturbed wooded areas.

All water quality volumes are calculated using the total contributing area. Offsite contributing areas that do not require treatment are diverted as much as possible. Infiltration rates are greater than 5 inches per hour, thus requiring 100% pre-treatment at Infiltration Basin 3. The above volumes are total for the entire watershed.

A major concern with runoff into waterbodies is phosphorus loading. Phosphorus, like nitrogen, is an essential nutrient for aquatic life in waterbodies. However, increased amounts of phosphorus entering surface waters promotes excessive algae growth, which decreases water clarity, causes variations in dissolved oxygen, disagreeable odors, habitat loss and fish kills. The protection of waterbodies from the harmful effects of phosphorus can be accomplished from reducing the runoff volume entering surface waters. Reduction of runoff volume reduces the concentrations of pollutants entering the surface water and thus decreases harmful effects. The removal of enhanced phosphorus can be accomplished using stormwater management practices. Whether in particulate or dissolved speciation, phosphorus can be removed using unit operations. Particulate phosphorus in particular can be removed using infiltration basins and through sedimentation of runoff before entering surface water. Primarily, reducing the WQv entering a surface water body will lower phosphorus pollutant loading. All of the onsite bioretention areas and the infiltration basin have been sized to infiltrate the entire WQv and 1-year storm.

6.8.2 Pre-Treatment Practices

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

Project:	Edgewater				
Description:	Stormwater Quality Design				
By/Date:	LGP	7/24/2026	Reviewed/Date: 7/27/26	MAB	

Hudson Land Design, P.C.
174 Main Street
Beacon, NY 12508
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Bioretention Area 2

1) Determine Water Quality Volume

Water quality volume to be treated will be calculated using the 90% rule from Section 4.2 of the New York State Storm Water Design Manual (January 2015), hereinafter referred to as NYSSDM.

$WQ_V = 43{,}560 \times [P \times Rv \times A] / 12$

Where:
WQ_V = Water quality volume (cf)
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv = 0.05 + 0.009 x I , where I is % impervious area
A = Watershed (ac)
* A minimum Rv of of 0.2 will be applied to regulated sites.

Watershed	P (in)	Impervious Area (ac)	Impervious (Coverage %)	Rv	Total Area (ac)	WQv (cf)	Pre-Treatment Practice	Treatment Practice
2	1.40	2.12	57	0.56	3.75	10,649	Hydrodynamic	Bioretention

2) Determine Required Pre-Treatment Volume

Determine Pre-Treatment Volume

Watershed	Required WQv (cf)	Required Pre-Treatment Volume (cf)	Pre-Treatment Practice	Treatment Practice
2	10,649	2,662	Hydrodynamic	Bioretention

1) Size Pre-Treatment Practice #2: Hydrodynamic Device
A hydrodynamic device will be provided for pre-treatment

3) Determine Runoff Reduction Volume (RR_V)

Goal: Provide 100% RR_V by implementing Green Infrastructure techniques and Stormwater Management Practices

$RR_V = 43{,}560 \times [P \times Rv \times A] / 12$

Where:
RR_V = Runoff Reduction Volume (cf)
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv = 0.05 + 0.009 x I , where I is % impervious area — R_V: 0.56
A = Watershed (ac)
100% RR_V: 10,649 cf
* Minimum Rv of of 0.2 not applicable to RR_V calculations (use actual calculated Rv).

For projects that cannot meet 100% RR_V: Implement Specific Reduction Factor (S), which provides an absoulte minimum acceptable RR_V.

Drainage Area with Hydrologic Soil Group A:	0.000 acres	Corresponding S: 0.55
Drainage Area with Hydrologic Soil Group B:	3.750 acres	Corresponding S: 0.40
Drainage Area with Hydrologic Soil Group C:	0.000 acres	Corresponding S: 0.30
Drainage Area with Hydrologic Soil Group D:	0.000 acres	Corresponding S: 0.20
Total Area:	3.750 acres	
Total Area Matches		Calculated S: 0.4

Minimum RR_V (acre-feet) = [(P)(Rv*)(Ai)]/12
Calculated Ai: 0.8480
Calculated Rv*: 0.95
Where: Calculated Minimum RR_V: 4094 cf
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv* = 0.05 + 0.009 x I , where I is % impervious area (100%)
Ai = (S)(Aic)
Aic = Total area of new impervious cover

Project: Edgewater
Description: Stormwater Quality Design
By/Date: LGP 7/24/2026 Reviewed/Date: 7/27/26 MAB

Hudson Land Design, P.C.
174 Main Street
Beacon, NY 12508
845-440-6926

Bioretention Area 2

4) Stormwater Management Practice Design

1) Design Bioretention Area Filter Bed

$A_{FR} = WQ_V \times D_F / [K \times (H_F + D_F) \times (T_F)]$

Where:

WQ_V = Remaining Water Quality Volume (cf) =	7,987 cf	(equals 75% WQ_V, which only accounts for the min. WQ_V required in the plunge pool and does not take into account the other pre-treatment)	
D_F = Filter Bed Depth (ft) =	4.0	ft	
K = Coefficient Permeability (0.5 ft/day per § 6.4.4 of NYSSDM) =	0.5	ft/day	
H_F = Average Height Water Above Filter Bed (ft) =	0.25	ft (maximum ponding depth of 6")	
T_F = Filter Bed Drain Time (2 days per § 6.4.4 of NYSSDM) =	2	days	
A_{FR} = Required Surface Area of Filter Bed (sf) =	7,517	sf	
A_F = Surface Area of Filter Bed Provided (sf) =	8,755	sf	acceptable

2) Confirm Storage Capability of Practice

- Confirm system can hold 75% of water quality volume

75% Water Quality Volume (cf) = 7,987 cf (excludes pre-treatment volume)

- Volume Within Filter Bed:

$V_F = A_F \times D_F \times N$

N = Porosity (0.20 per Table 10.5.5 of the NYSSDM)= 0.2

V_F = Storage volume within filter bed (cf) = 7,004 cf

- Volume Above Filter Bed:

$V_{F\text{-}TEMP} = 2 \times A_F \times H_F$

$V_{F\text{-}TEMP}$ = Storage volume above filter bed (cf) = 4,378 cf

- Volume Within Drainage Layer:

$V_{DL} = A_{DL} \times D_{DL} \times N$

N = Porosity (0.40 standard porosity for stone reservoirs, see also NYSSDM § 6.3.4)= 0.4

A_{DL} = Underdrain Length * Underdain Stone Jacket Width — Underdrain Stone Jacket Width: 3 ft — Underdrain Length: (see Required Underdrain Length section)

D_{DL} = Drainage Layer Depth (stone jacket depth): 10 inches

V_{DL} = Storage volume within drainage layer (cf) = 950 cf

- Total storage within practice only, not inlcuding pre-treatment (cf) = 12,332 cf > 7,987 cf (75% WQv Storage Volume) — acceptable

- Total storage within practice and pre-treatment (cf) = 12,332 cf > 10,649 cf (100% WQv Storage Volume) — acceptable

3) Required Underdrain Length

- Length of underdrain should be based on 10% of the provided filter bed area per § 8.5 of NYSSDM.

Length of underdrain required = 875.5 lf
Length of underdrain provided = 950 lf

4) Verify Ponding Depth Over Filter Bed

- No more than 6" of ponding is required per section 6.4.4 of NYSSDM.

Top of filter bed elevation = 64 ft
Outlet control structure orifice elevation = 64.5 ft
Ponding depth.= 6 in — acceptable

5) Tabulate Provided Runoff Reduction Volume (RR_V)

2) Bioretention Area A

Storage provided within practice: 12,332 cf (excluding pre-treatment)
For Bioretention in Hydrologic Soil Group A & B: 100% reduction (without underdrains, although underdrains with closed valve may be provided for future maintenance purposes)
For Bioretention in Hydrologic Soil Group C & D: 40% reduction (with underdrains)
HSG at the Bioretention Area: D — RR_V Reduction Factor: 40%
RR_V Provided by implementing bioretention: 4,933 cf

Note: The 100% RR_V may be used in HSG C or D where infiltration testing meeting the requirements of the NYSSDM prove that the underlying soils are capable of infiltrating 0.5 inches per hour.

TOTAL RR_V PROVIDED: 4,933 cf
Calculated 100% RR_V: 10,649 cf
Minimum RR_V: 4,094 cf
Is 100% RR_V met: No — Provide justification in SWPPP
If 100% RR_V is not met, is Minimum RR_V met: Yes

Project: Edgewater
Description: Stormwater Management Design
By/Date: LGP 7/24/2026 Reviewed/Date: MAB 7/27/2026

STORMWATER MANAGEMENT PRACTICE:
Subcatchment 3

1) Determine Required Water Quality Volume & Stormwater Management Practice

Water quality volume to be treated will be calculated using the 90% rule from Section 4.2 of the New York State Storm Water Design Manual (January 2015), hereinafter referred to as NYSSDM.

WQv = 43,560 x [P x Rv x A] / 12

Where:
WQv = Water quality volume (cf)
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv = 0.05 + 0.009 x I , where I is % impervious area*
A = Watershed (ac)
* A minimum Rv of 0.2 will be applied to regulated sites.

Watershed	P (in)	Impervious Area (ac)	Impervious (Coverage %)	Rv	Total Area (ac)	WQv (cf)	Pre-Treatment Practice	Treatment Practice
Subcatchment 3	1.40	0.806	49.4	0.50	1.630	4,101	Hydrodynamic	Infiltration

Note: Pretreatment will be handeled via a hydrodynamic device.

2) Subsurface soil conditions To be field verified with soil tests

Design Infiltration Rate (f_c): 5.00 inches per hour

3) Determine Required Pre-Treatment Volume

Determine Pre-Treatment Volume

Design Infiltration Rate: 5.00 inches per hour
Required Minimum Pretreatment Volume: 100%

Watershed	Required WQv (cf)	Required Pre-Treatment Volume (cf)	Pre-Treatment Practice	Treatment Practice
Subcatchment 3	4,101	4,101	Hydrodynamic	Infiltration

Notes:
1) Pretreatment volumes per § 6.3.3 of the NYSSDM (January 2015).

4) Determine Runoff Reduction Volume (RR_V)

Goal: Provide 100% RR_V by implementing Green Infrastructure techniques and Stormwater Management Practices

RR_V = 43,560 x [P x Rv x A] / 12

Where:
RR_V = Runoff Reduction Volume (cf)
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv = 0.05 + 0.009 x I , where I is % impervious area — R_V: 0.50
A = Watershed (ac)
100% RR_V: 4,101 cf
* Minimum Rv of of 0.2 not applicable to RR_V calculations (use actual calculated Rv).

For projects that cannot meet 100% RR_V: Implement Specific Reduction Factor (S), which provides an absoulte minimum acceptable RR_V.

Drainage Area with Hydrologic Soil Group A:	0.000 acres	Corresponding S: 0.55
Drainage Area with Hydrologic Soil Group B:	1.630 acres	Corresponding S: 0.40
Drainage Area with Hydrologic Soil Group C:	0.000 acres	Corresponding S: 0.30
Drainage Area with Hydrologic Soil Group D:	0.000 acres	Corresponding S: 0.20
Total Area:	1.630 acres	
Total Area Matches		Calculated S: 0.40

Minimum RR_V (acre-feet) = [(P)(Rv*)(Ai)]/12 — Calculated Ai: 0.322
Calculated Rv*: 0.95
Where: Calculated Minimum RR_V: 1557 cf
P = 90 % Rainfall Event Number (in), per Figure 4.1
Rv* = 0.05 + 0.009 x I , where I is % impervious area (100%)
Ai = (S)(Aic)
Aic = Total area of new impervious cover

5) Stormwater Management Practice Design

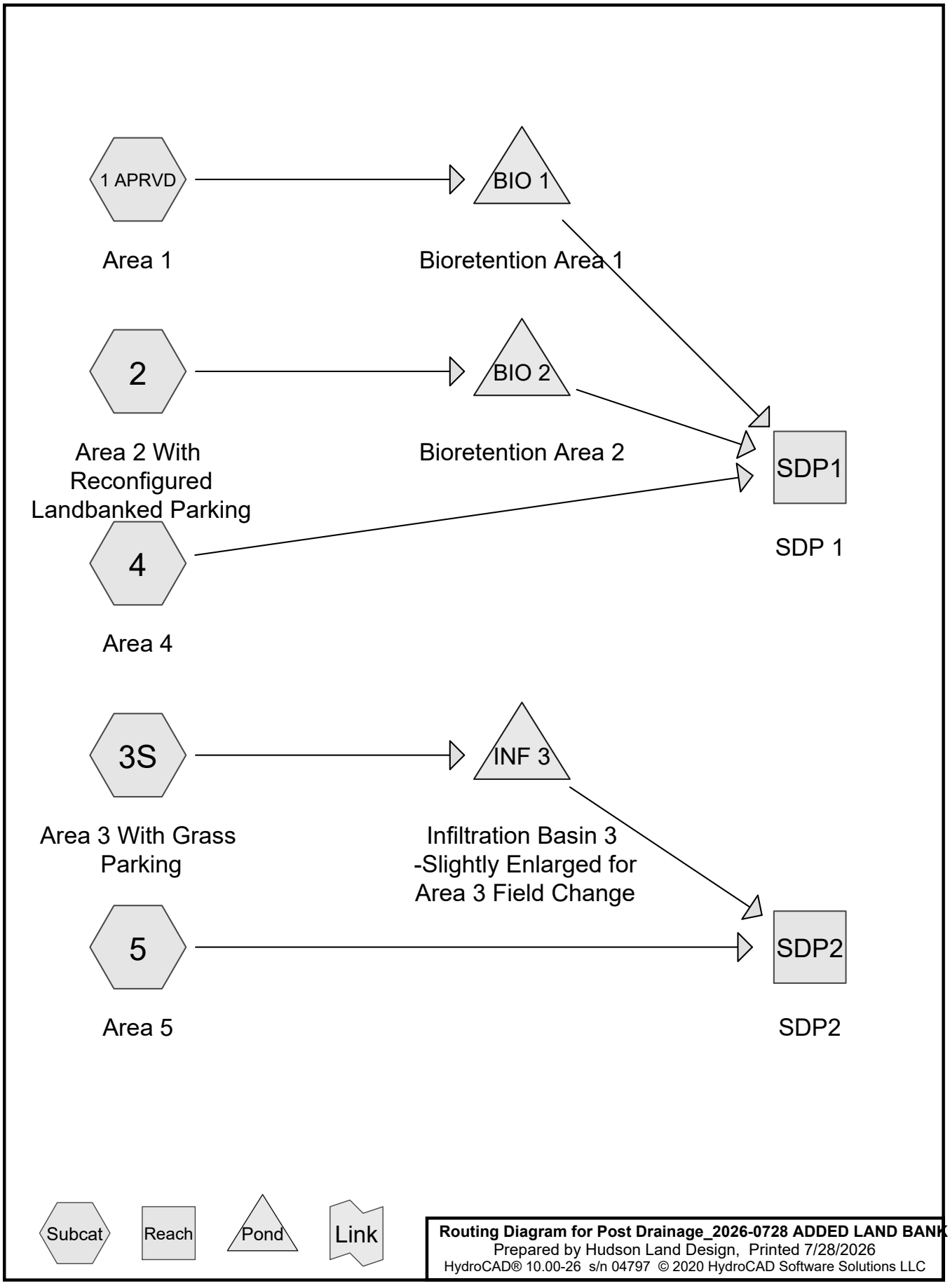
Consider infiltating RRv

100% RRv = 4,101 cf
RRv Infiltrated in Basin = 4,878 cf From HydroCAD Model
Is RRV 100% infiltrated? yes - acceptable

Consider infiltrating CPv:
Determine Stream Channel Protection Volume (Cpv)

- 1-Year Storm Runoff Volume 0.112 acre-feet From HydroCAD model
Cpv Infiltrated in Basin = 0.112 acre-feet From HydroCAD Model
Is Cpv 100% infiltrated? yes - acceptable

3) See HydroCAD model for Overbank Flood Control (Qp) and Extreme Flood Control (Qf) computations



Routing Diagram for Post Drainage_2026-0728 ADDED LAND BANK
Prepared by Hudson Land Design, Printed 7/28/2026
HydroCAD® 10.00-26 s/n 04797 © 2020 HydroCAD Software Solutions LLC

Summary for Subcatchment 1 APRVD: Area 1

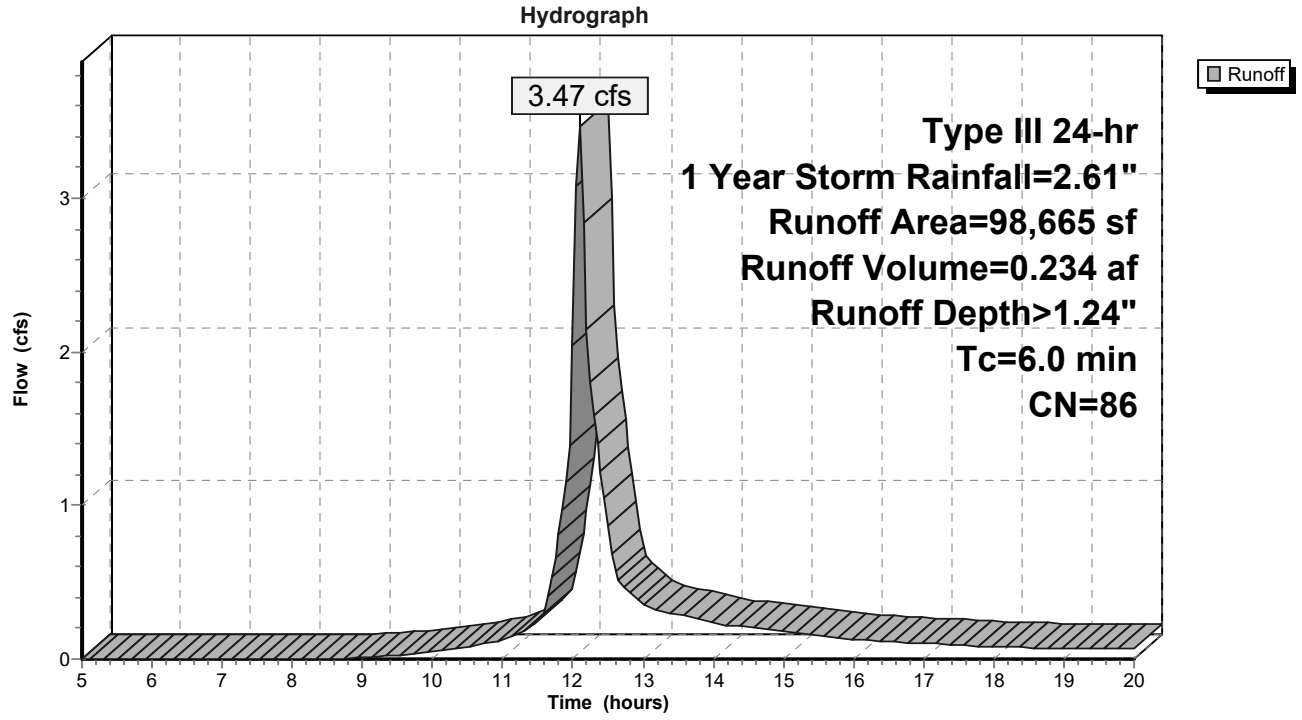
Runoff = 3.47 cfs @ 12.09 hrs, Volume= 0.234 af, Depth> 1.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 Year Storm Rainfall=2.61"

Area (sf)	CN	Description
61,604	98	Paved parking & roofs
29,882	61	>75% Grass cover, Good, HSG B
7,179	85	Gravel roads, HSG B
98,665	86	Weighted Average
37,061		37.56% Pervious Area
61,604		62.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1 APRVD: Area 1



Summary for Subcatchment 2: Area 2 With Reconfigured Landbanked Parking

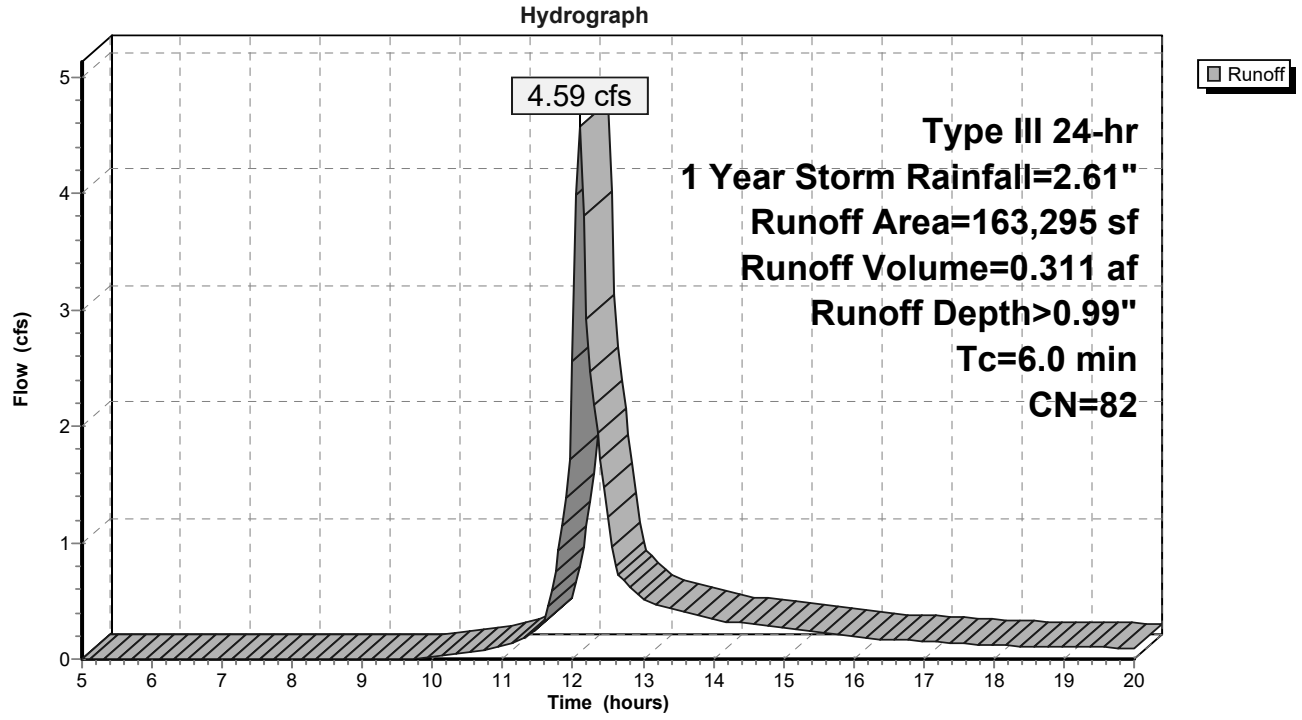
Runoff = 4.59 cfs @ 12.10 hrs, Volume= 0.311 af, Depth> 0.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 Year Storm Rainfall=2.61"

Area (sf)	CN	Description
67,343	61	>75% Grass cover, Good, HSG B
92,165	98	Paved parking & roofs
3,787	85	Gravel roads, HSG B
163,295	82	Weighted Average
71,130		43.56% Pervious Area
92,165		56.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 2: Area 2 With Reconfigured Landbanked Parking



Summary for Subcatchment 3S: Area 3 With Grass Parking

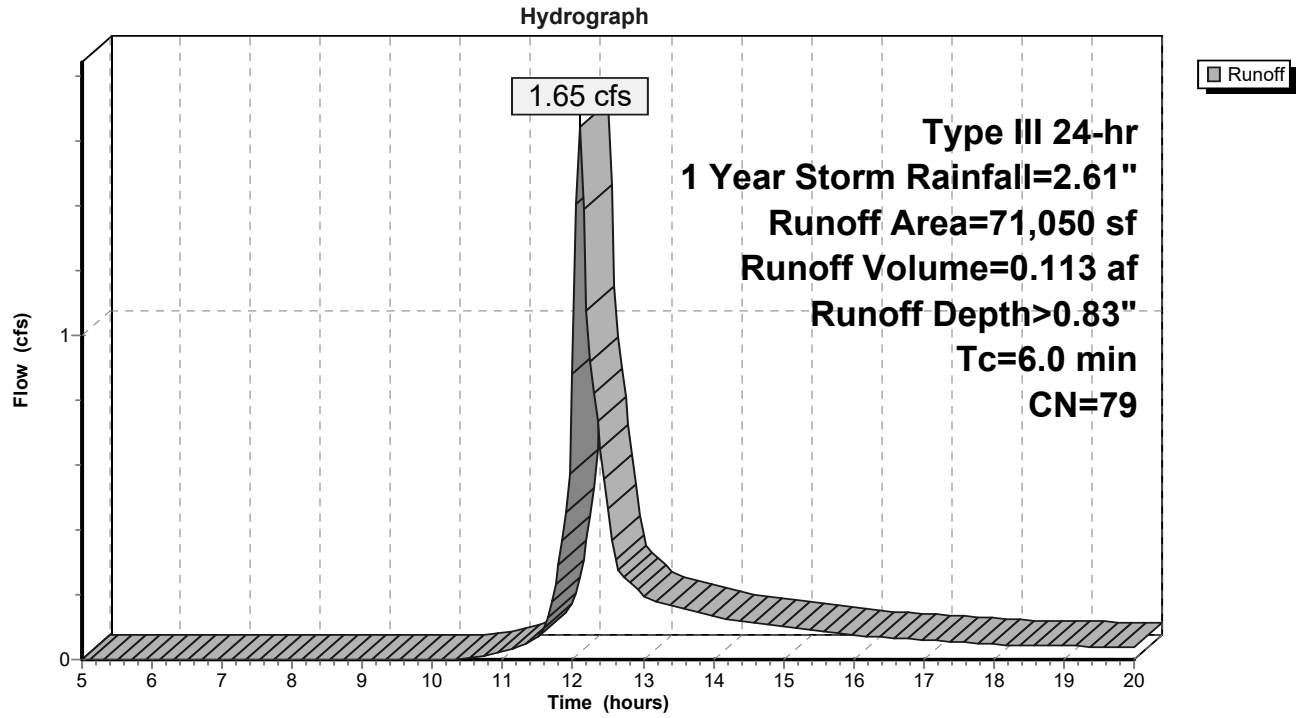
Runoff = 1.65 cfs @ 12.10 hrs, Volume= 0.113 af, Depth> 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 Year Storm Rainfall=2.61"

Area (sf)	CN	Description
35,942	61	>75% Grass cover, Good, HSG B
35,108	98	Paved parking & roofs
71,050	79	Weighted Average
35,942		50.59% Pervious Area
35,108		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 3S: Area 3 With Grass Parking



Summary for Subcatchment 4: Area 4

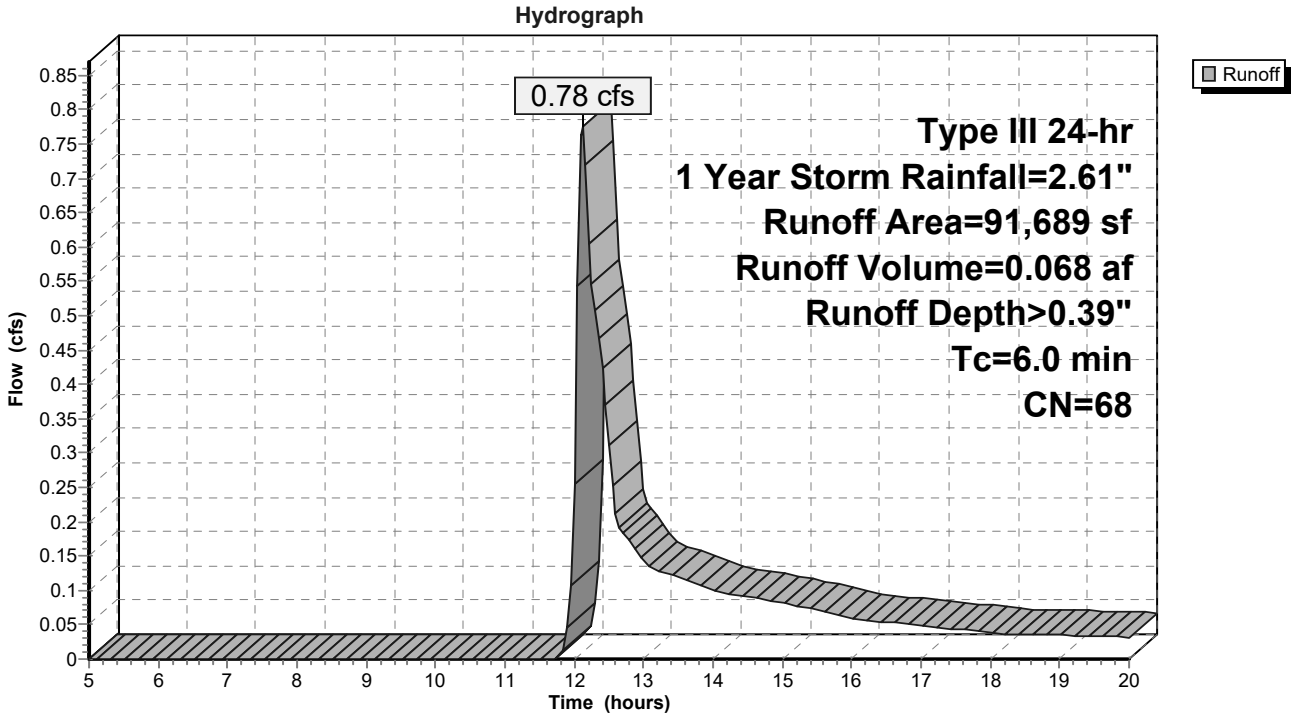
Runoff = 0.78 cfs @ 12.12 hrs, Volume= 0.068 af, Depth> 0.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 Year Storm Rainfall=2.61"

Area (sf)	CN	Description
48,025	77	Woods, Good, HSG D
15,017	61	>75% Grass cover, Good, HSG B
25,470	55	Woods, Good, HSG B
3,177	80	>75% Grass cover, Good, HSG D
91,689	68	Weighted Average
91,689		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4: Area 4



Summary for Subcatchment 5: Area 5

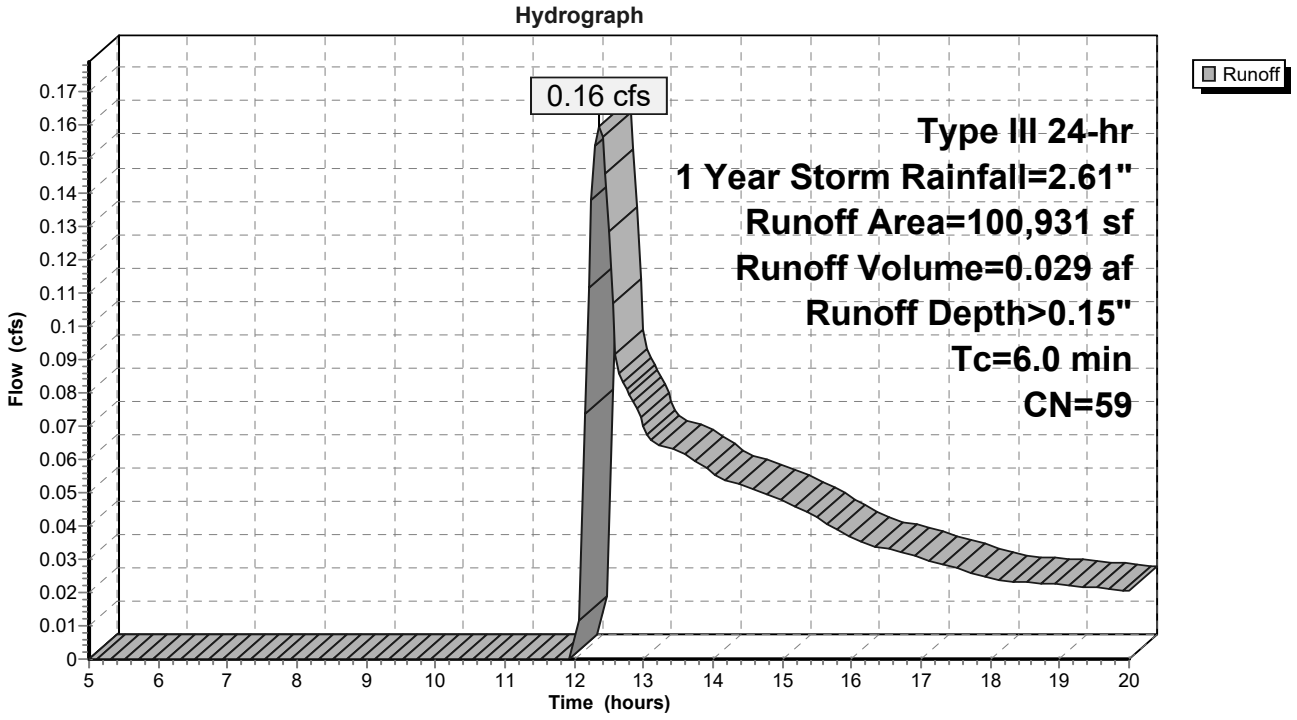
Runoff = 0.16 cfs @ 12.36 hrs, Volume= 0.029 af, Depth> 0.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 Year Storm Rainfall=2.61"

Area (sf)	CN	Description
6,941	98	Paved parking & roofs
25,659	61	>75% Grass cover, Good, HSG B
68,331	55	Woods, Good, HSG B
100,931	59	Weighted Average
93,990		93.12% Pervious Area
6,941		6.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, S1**

Subcatchment 5: Area 5

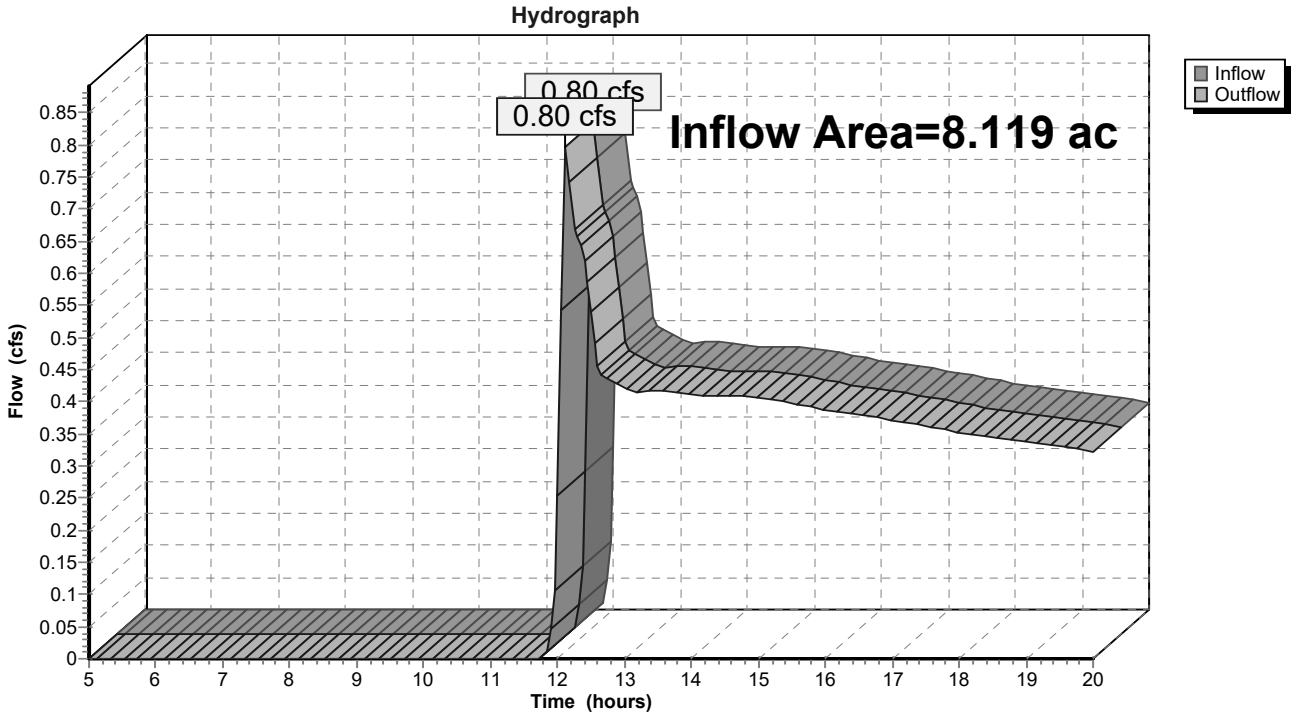


Summary for Reach SDP1: SDP 1

Inflow Area = 8.119 ac, 43.48% Impervious, Inflow Depth > 0.39" for 1 Year Storm event
Inflow = 0.80 cfs @ 12.13 hrs, Volume= 0.265 af
Outflow = 0.80 cfs @ 12.13 hrs, Volume= 0.265 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SDP1: SDP 1

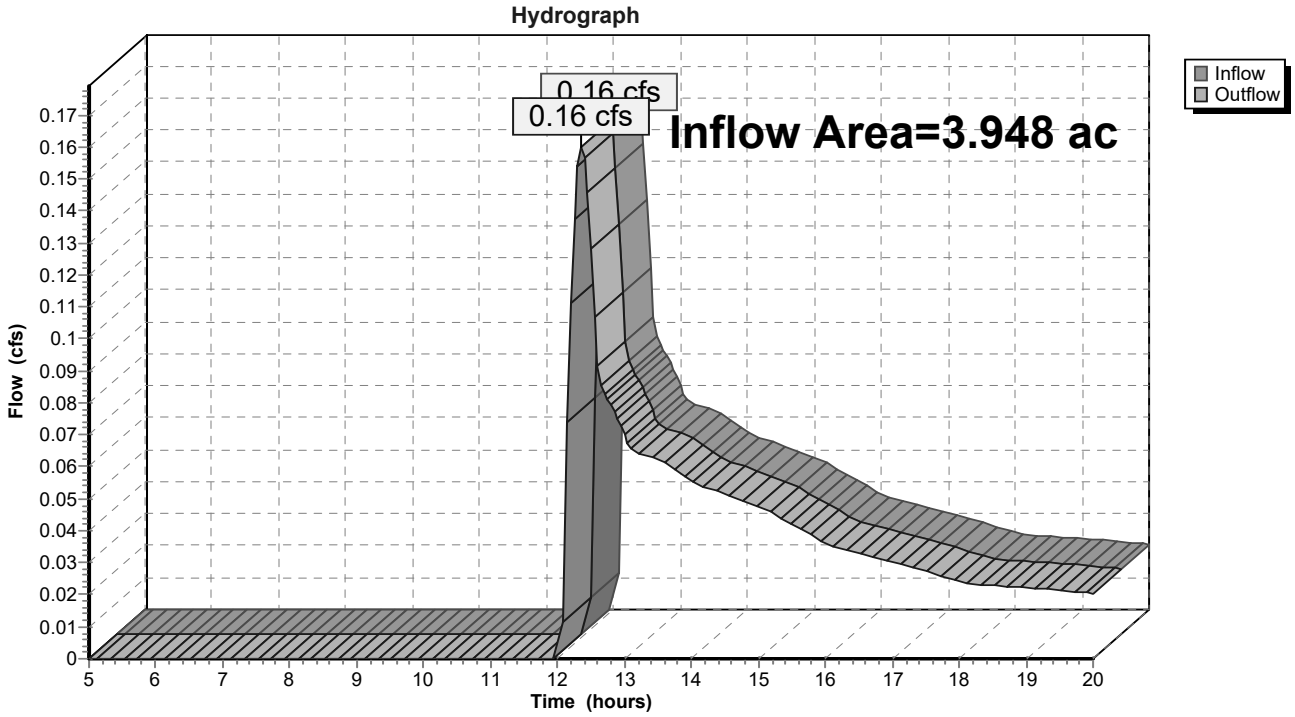


Summary for Reach SDP2: SDP2

Inflow Area = 3.948 ac, 24.45% Impervious, Inflow Depth > 0.09" for 1 Year Storm event
Inflow = 0.16 cfs @ 12.36 hrs, Volume= 0.029 af
Outflow = 0.16 cfs @ 12.36 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SDP2: SDP2



Summary for Pond BIO 1: Bioretention Area 1

Inflow Area = 2.265 ac, 62.44% Impervious, Inflow Depth > 1.24" for 1 Year Storm event
Inflow = 3.47 cfs @ 12.09 hrs, Volume= 0.234 af
Outflow = 0.18 cfs @ 15.03 hrs, Volume= 0.108 af, Atten= 95%, Lag= 176.4 min
Primary = 0.18 cfs @ 15.03 hrs, Volume= 0.108 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 97.20' @ 15.03 hrs Surf.Area= 6,340 sf Storage= 6,671 cf

Plug-Flow detention time= 253.3 min calculated for 0.108 af (46% of inflow)
Center-of-Mass det. time= 168.2 min (963.2 - 795.0)

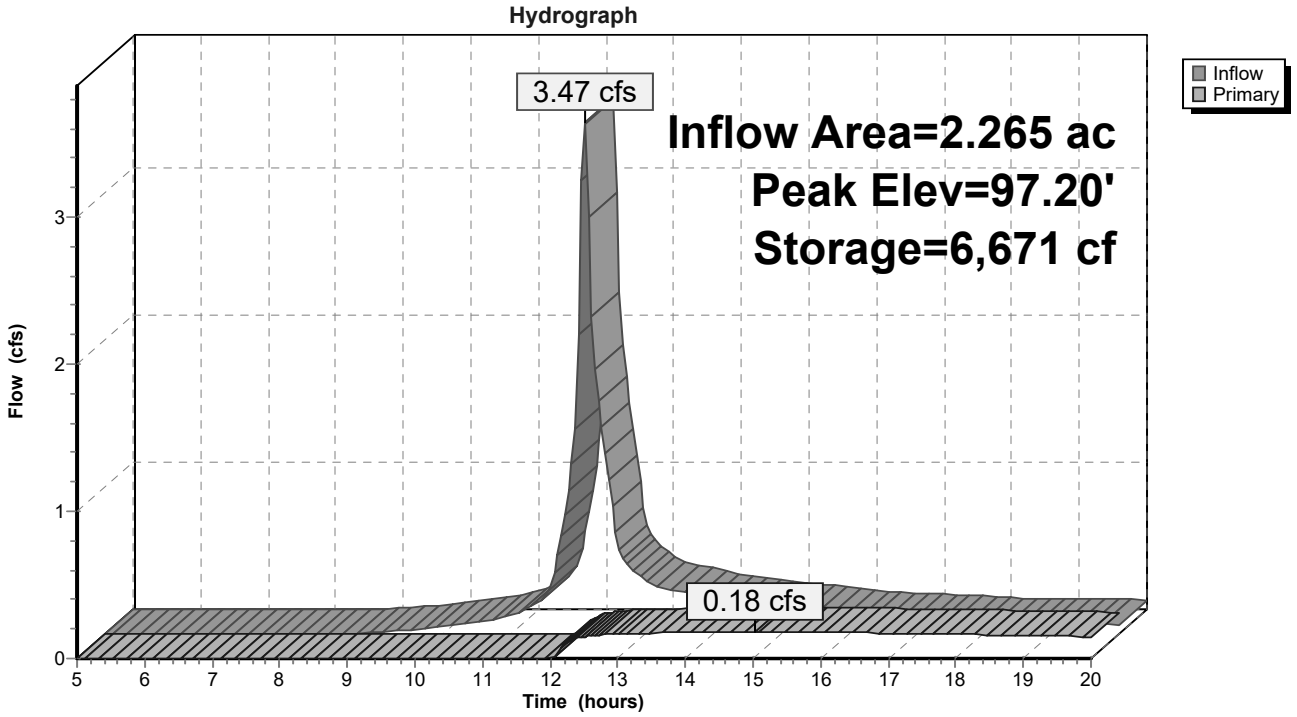
Volume	Invert	Avail.Storage	Storage Description
#1	96.00'	30,007 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
96.00	4,790	0	0
98.00	7,376	12,166	12,166
100.00	10,465	17,841	30,007

Device	Routing	Invert	Outlet Devices
#1	Primary	94.00'	**18.0" Round Culvert** L= 200.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 94.00' / 88.70' S= 0.0265 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	96.50'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	97.90'	**33.0" W x 7.2" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	98.80'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Primary	99.50'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.18 cfs @ 15.03 hrs HW=97.20' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.18 cfs of 13.31 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.18 cfs @ 3.65 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
  - **4=Orifice/Grate** (Controls 0.00 cfs)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond BIO 1: Bioretention Area 1



Summary for Pond BIO 2: Bioretention Area 2

Inflow Area = 3.749 ac, 56.44% Impervious, Inflow Depth > 0.99" for 1 Year Storm event
Inflow = 4.59 cfs @ 12.10 hrs, Volume= 0.311 af
Outflow = 0.15 cfs @ 17.01 hrs, Volume= 0.089 af, Atten= 97%, Lag= 295.0 min
Primary = 0.15 cfs @ 17.01 hrs, Volume= 0.089 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 65.03' @ 17.01 hrs Surf.Area= 10,704 sf Storage= 10,029 cf

Plug-Flow detention time= 272.6 min calculated for 0.089 af (29% of inflow)
Center-of-Mass det. time= 175.7 min (982.4 - 806.7)

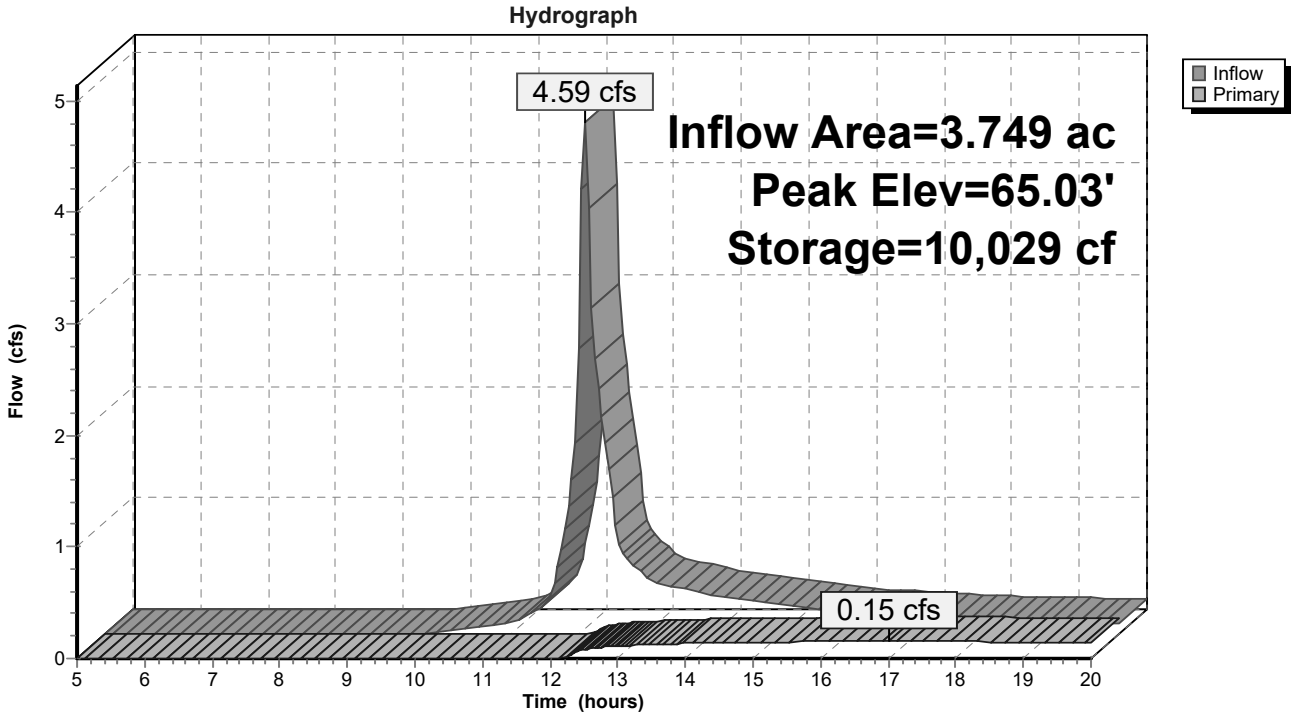
Volume	Invert	Avail.Storage	Storage Description
#1	64.00'	88,655 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	8,676	0	0
66.00	12,595	21,271	21,271
68.00	16,791	29,386	50,657
70.00	21,207	37,998	88,655

Device	Routing	Invert	Outlet Devices
#1	Primary	62.00'	**24.0" Round Culvert** L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.00' / 61.50' S= 0.0111 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	64.50'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	65.60'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	68.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Primary	68.80'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.15 cfs @ 17.01 hrs HW=65.03' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.15 cfs of 21.58 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.15 cfs @ 3.08 fps)
  - **3=Orifice/Grate** (Controls 0.00 cfs)
  - **4=Orifice/Grate** (Controls 0.00 cfs)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond BIO 2: Bioretention Area 2



Summary for Pond INF 3: Infiltration Basin 3 -Slightly Enlarged for Area 3 Field Change

Inflow Area = 1.631 ac, 49.41% Impervious, Inflow Depth > 0.83" for 1 Year Storm event
Inflow = 1.65 cfs @ 12.10 hrs, Volume= 0.113 af
Outflow = 0.17 cfs @ 13.26 hrs, Volume= 0.089 af, Atten= 90%, Lag= 69.5 min
Discarded = 0.17 cfs @ 13.26 hrs, Volume= 0.089 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.06' @ 13.26 hrs Surf.Area= 2,063 sf Storage= 2,346 cf

Plug-Flow detention time= 174.4 min calculated for 0.089 af (79% of inflow)
Center-of-Mass det. time= 117.6 min (932.5 - 814.9)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	26,465 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

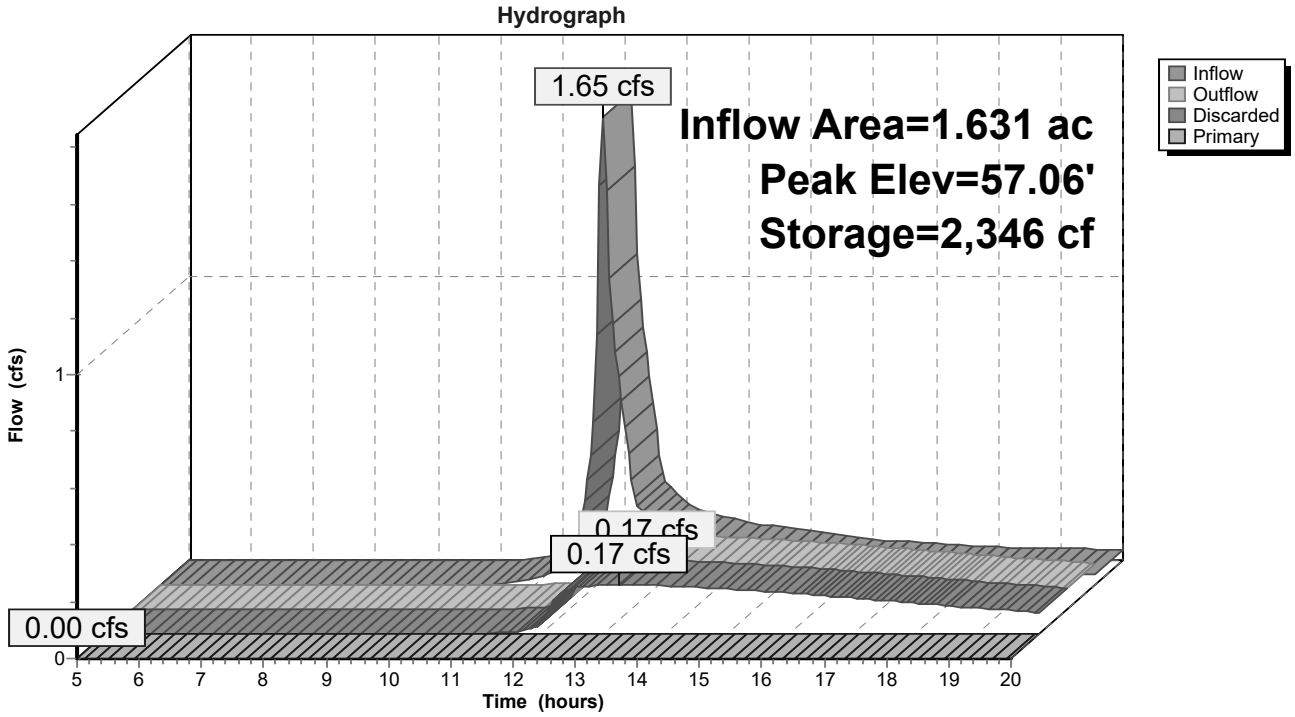
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.00	571	0	0
56.00	934	753	753
58.00	3,059	3,993	4,746
60.00	4,569	7,628	12,374
62.00	6,338	10,907	23,281
62.50	6,400	3,185	26,465

Device	Routing	Invert	Outlet Devices
#1	Primary	55.00'	**15.0" Round Culvert** L= 62.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 55.00' / 54.00' S= 0.0161 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	59.40'	**12.0" W x 9.0" H Vert. Orifice/Grate** C= 0.600
#3	Device 1	61.65'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	61.75'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#5	Discarded	55.00'	**5.000 in/hr Exfiltration over Surface area above 55.00'** Excluded Surface area = 571 sf

Discarded OutFlow Max=0.17 cfs @ 13.26 hrs HW=57.06' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 0.17 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=55.00' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Controls 0.00 cfs)
└**2=Orifice/Grate** (Controls 0.00 cfs)
└**3=Orifice/Grate** (Controls 0.00 cfs)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond INF 3: Infiltration Basin 3 -Slightly Enlarged for Area 3 Field Change



Summary for Subcatchment 1 APRVD: Area 1

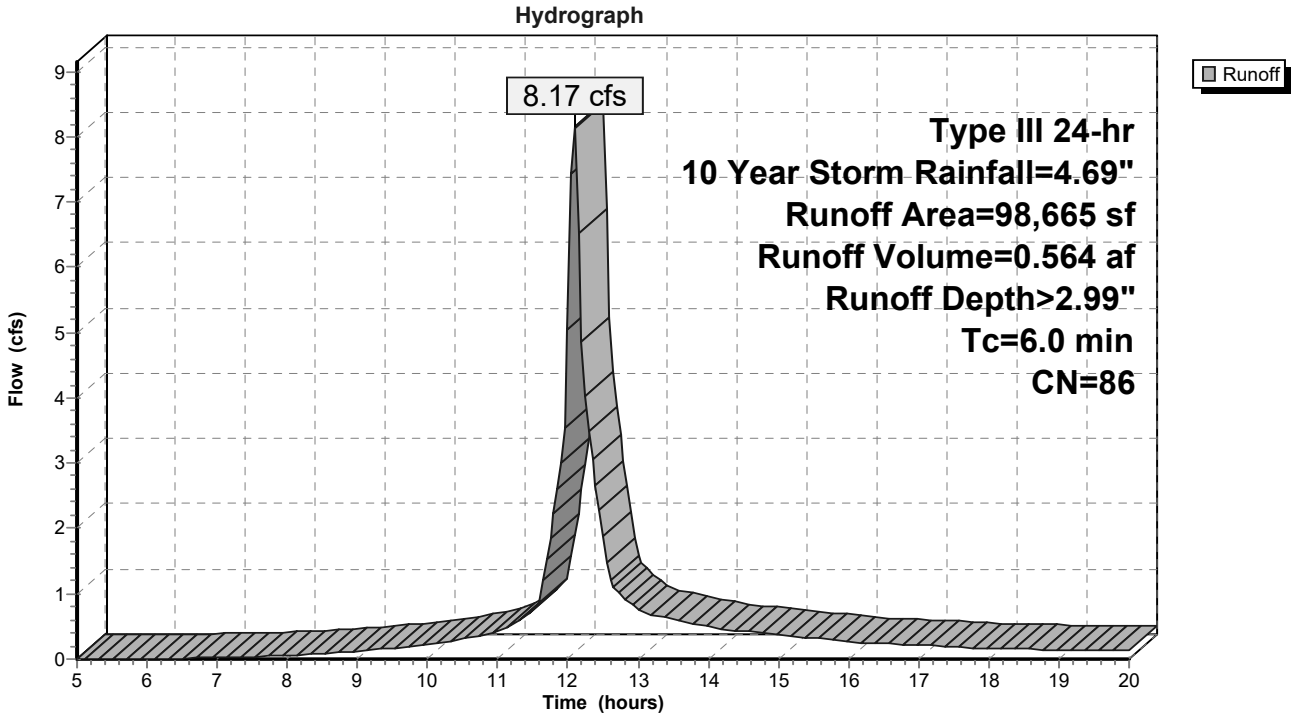
Runoff = 8.17 cfs @ 12.09 hrs, Volume= 0.564 af, Depth> 2.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Storm Rainfall=4.69"

Area (sf)	CN	Description
61,604	98	Paved parking & roofs
29,882	61	>75% Grass cover, Good, HSG B
7,179	85	Gravel roads, HSG B
98,665	86	Weighted Average
37,061		37.56% Pervious Area
61,604		62.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1 APRVD: Area 1



Summary for Subcatchment 2: Area 2 With Reconfigured Landbanked Parking

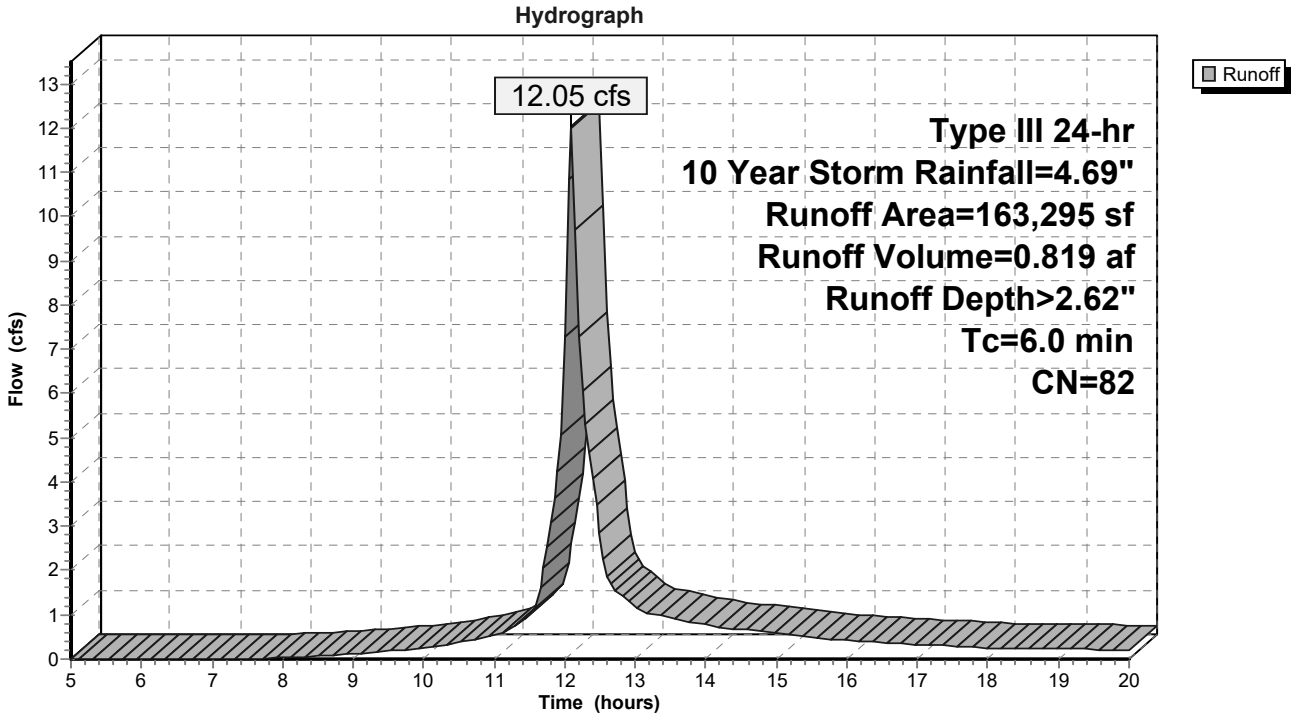
Runoff = 12.05 cfs @ 12.09 hrs, Volume= 0.819 af, Depth> 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Storm Rainfall=4.69"

Area (sf)	CN	Description
67,343	61	>75% Grass cover, Good, HSG B
92,165	98	Paved parking & roofs
3,787	85	Gravel roads, HSG B
163,295	82	Weighted Average
71,130		43.56% Pervious Area
92,165		56.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 2: Area 2 With Reconfigured Landbanked Parking



Summary for Subcatchment 3S: Area 3 With Grass Parking

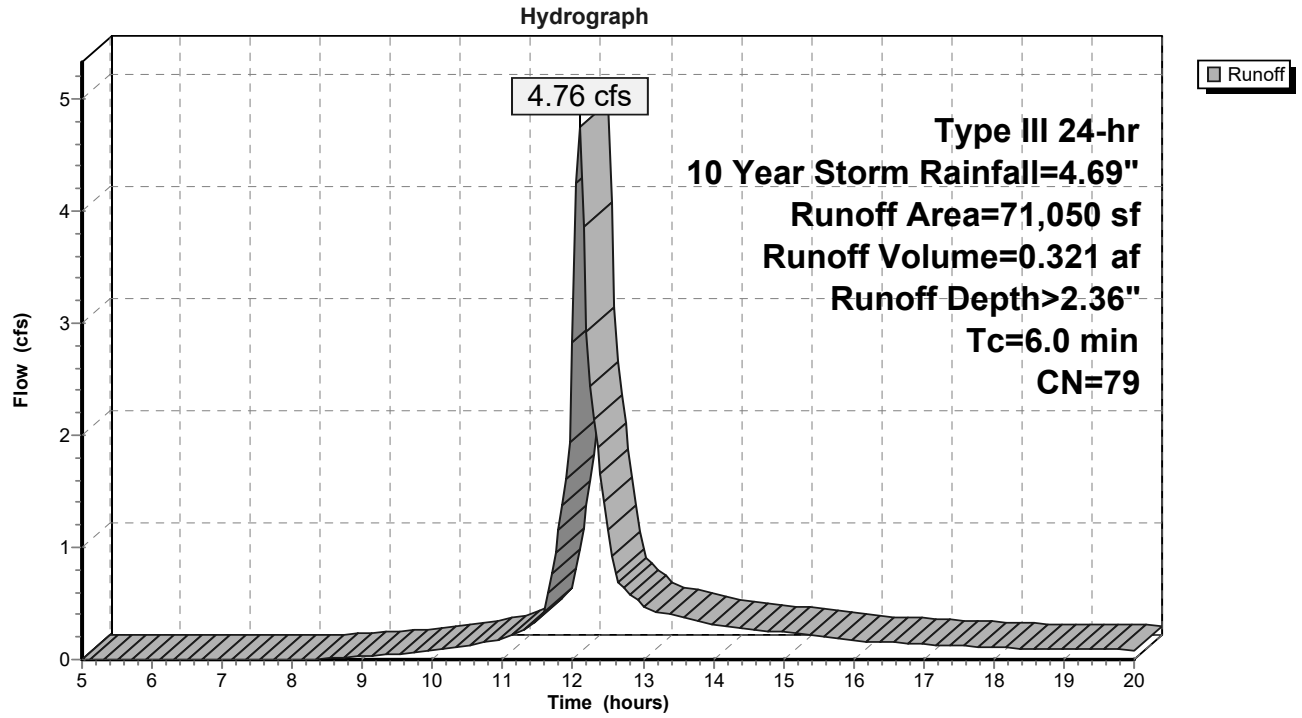
Runoff = 4.76 cfs @ 12.09 hrs, Volume= 0.321 af, Depth> 2.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Storm Rainfall=4.69"

Area (sf)	CN	Description
35,942	61	>75% Grass cover, Good, HSG B
35,108	98	Paved parking & roofs
71,050	79	Weighted Average
35,942		50.59% Pervious Area
35,108		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 3S: Area 3 With Grass Parking



Summary for Subcatchment 4: Area 4

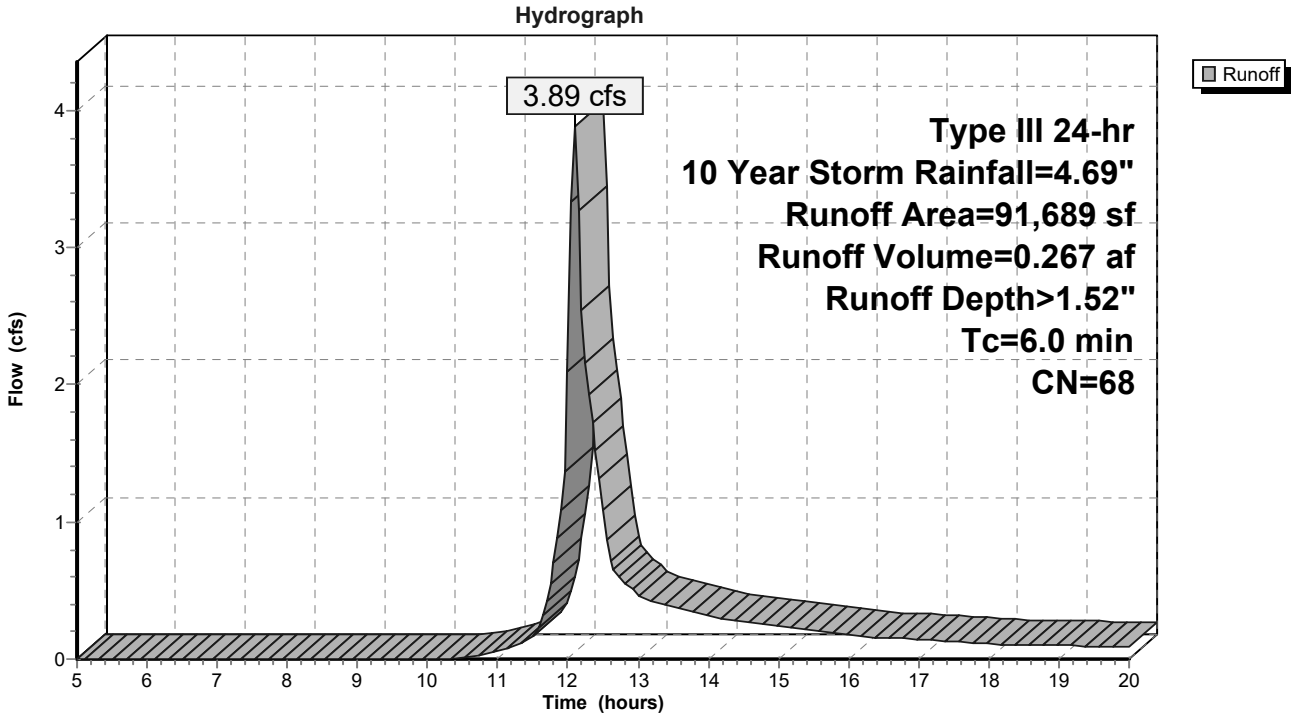
Runoff = 3.89 cfs @ 12.10 hrs, Volume= 0.267 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Storm Rainfall=4.69"

Area (sf)	CN	Description
48,025	77	Woods, Good, HSG D
15,017	61	>75% Grass cover, Good, HSG B
25,470	55	Woods, Good, HSG B
3,177	80	>75% Grass cover, Good, HSG D
91,689	68	Weighted Average
91,689		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4: Area 4



Summary for Subcatchment 5: Area 5

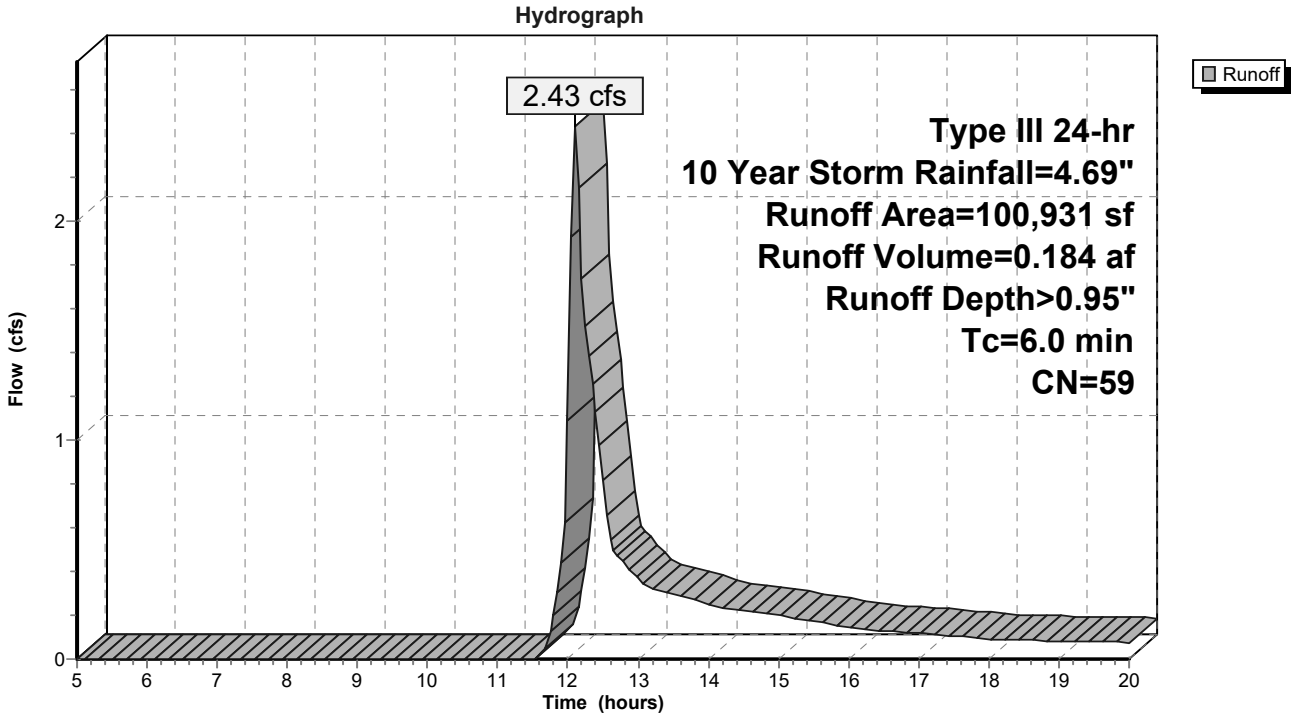
Runoff = 2.43 cfs @ 12.11 hrs, Volume= 0.184 af, Depth> 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Storm Rainfall=4.69"

Area (sf)	CN	Description
6,941	98	Paved parking & roofs
25,659	61	>75% Grass cover, Good, HSG B
68,331	55	Woods, Good, HSG B
100,931	59	Weighted Average
93,990		93.12% Pervious Area
6,941		6.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, S1**

Subcatchment 5: Area 5

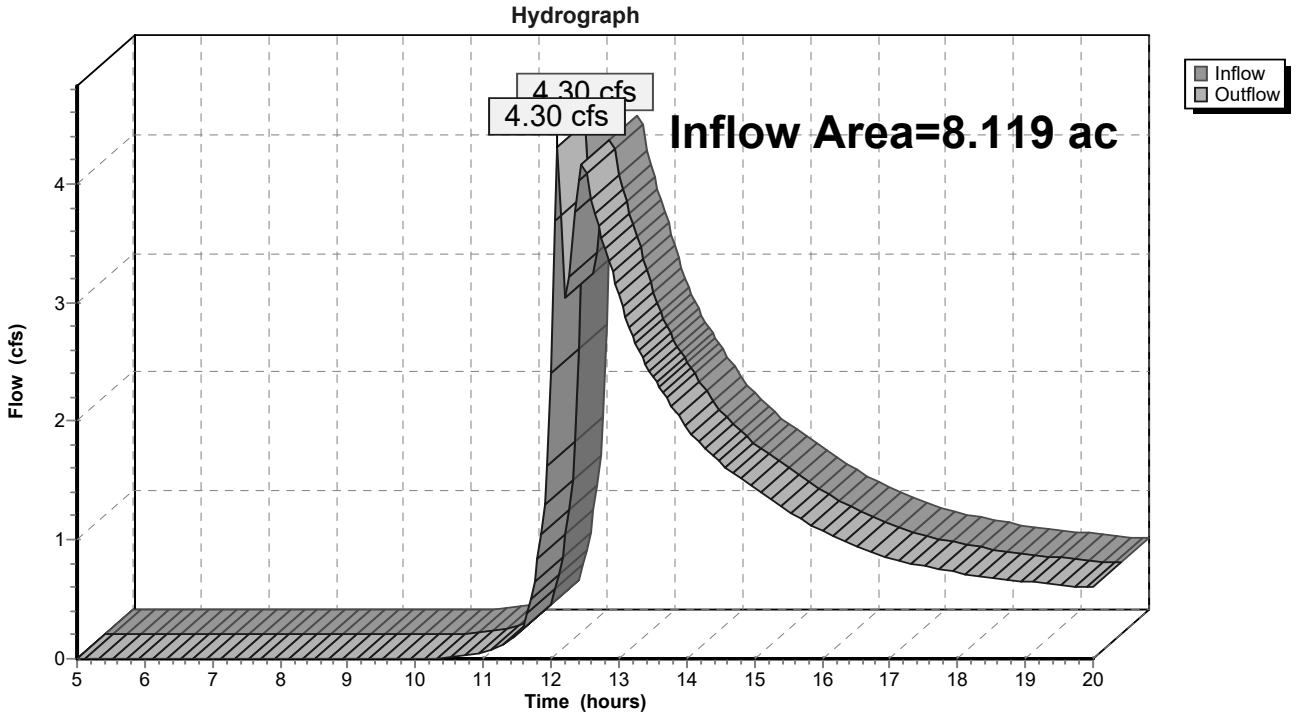


Summary for Reach SDP1: SDP 1

Inflow Area = 8.119 ac, 43.48% Impervious, Inflow Depth > 1.52" for 10 Year Storm event
Inflow = 4.30 cfs @ 12.10 hrs, Volume= 1.030 af
Outflow = 4.30 cfs @ 12.10 hrs, Volume= 1.030 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SDP1: SDP 1

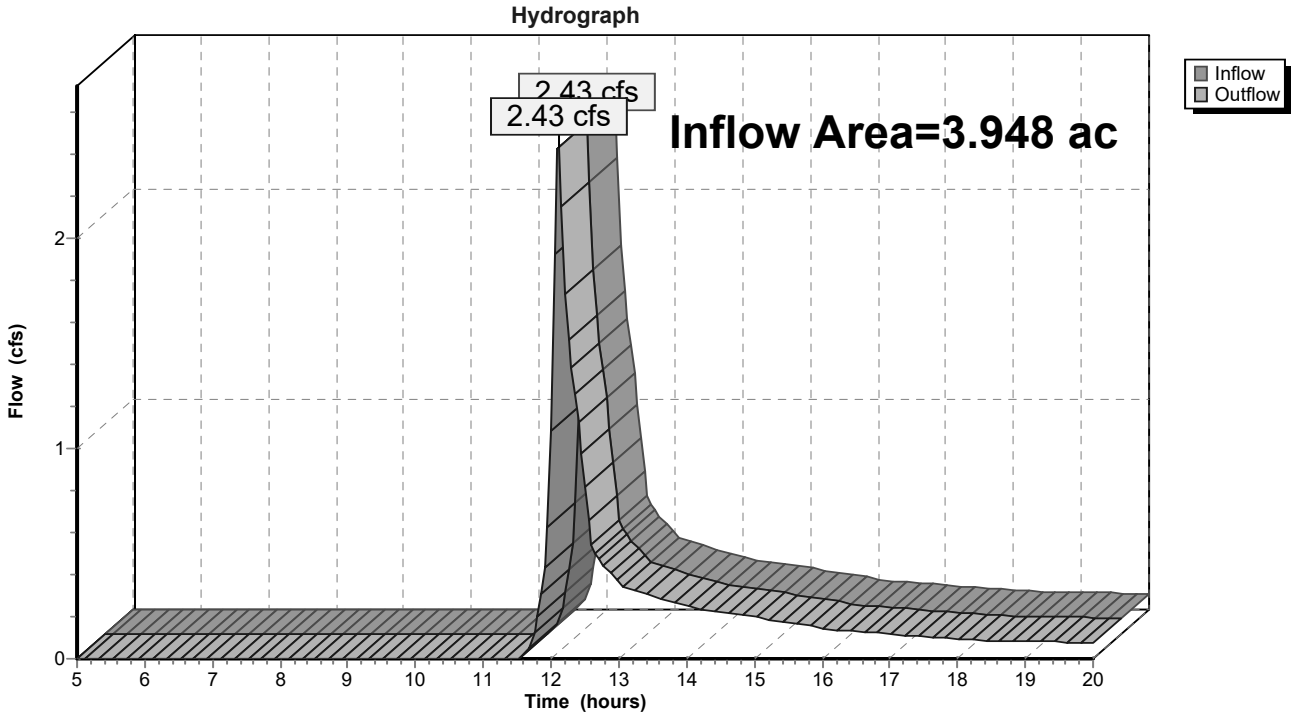


Summary for Reach SDP2: SDP2

Inflow Area = 3.948 ac, 24.45% Impervious, Inflow Depth > 0.56" for 10 Year Storm event
Inflow = 2.43 cfs @ 12.11 hrs, Volume= 0.184 af
Outflow = 2.43 cfs @ 12.11 hrs, Volume= 0.184 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SDP2: SDP2



Summary for Pond BIO 1: Bioretention Area 1

Inflow Area = 2.265 ac, 62.44% Impervious, Inflow Depth > 2.99" for 10 Year Storm event
Inflow = 8.17 cfs @ 12.09 hrs, Volume= 0.564 af
Outflow = 1.71 cfs @ 12.52 hrs, Volume= 0.326 af, Atten= 79%, Lag= 25.9 min
Primary = 1.71 cfs @ 12.52 hrs, Volume= 0.326 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 98.20' @ 12.52 hrs Surf.Area= 7,677 sf Storage= 13,634 cf

Plug-Flow detention time= 187.1 min calculated for 0.326 af (58% of inflow)
Center-of-Mass det. time= 110.8 min (885.4 - 774.6)

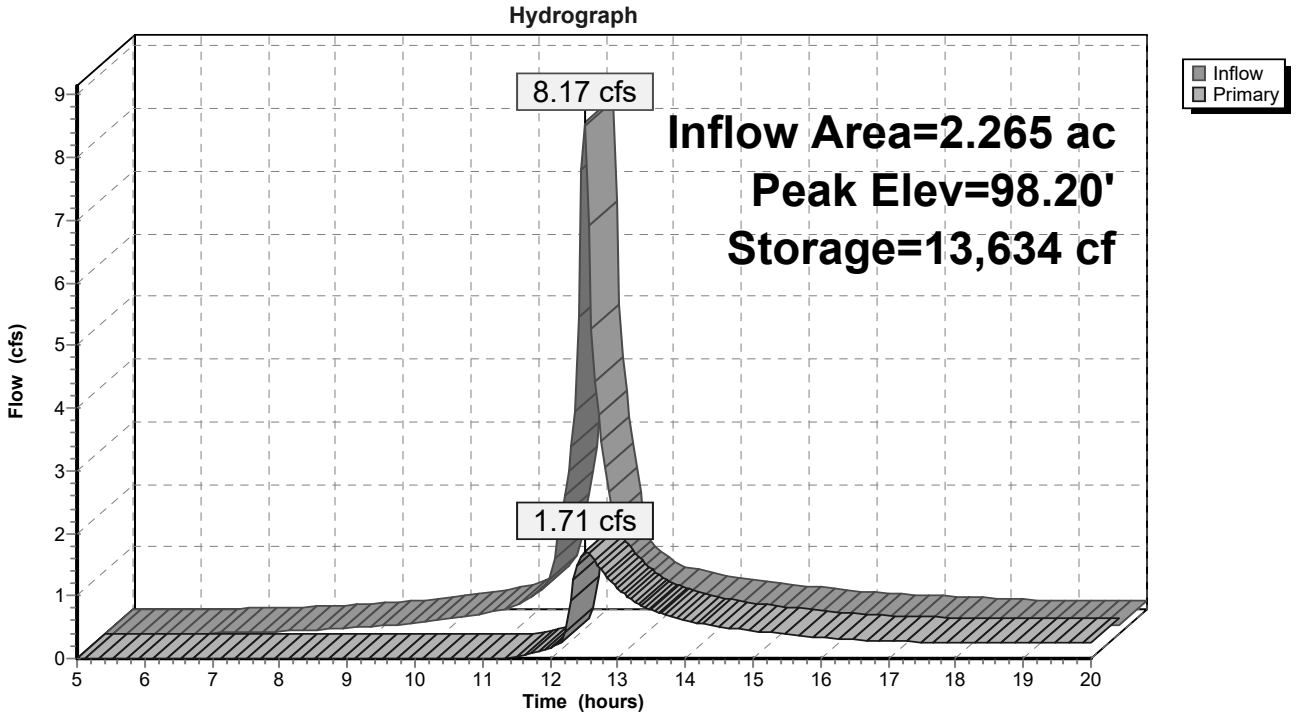
Volume	Invert	Avail.Storage	Storage Description
#1	96.00'	30,007 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
96.00	4,790	0	0
98.00	7,376	12,166	12,166
100.00	10,465	17,841	30,007

Device	Routing	Invert	Outlet Devices
#1	Primary	94.00'	**18.0" Round Culvert** L= 200.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 94.00' / 88.70' S= 0.0265 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	96.50'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	97.90'	**33.0" W x 7.2" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	98.80'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Primary	99.50'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.70 cfs @ 12.52 hrs HW=98.19' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 1.70 cfs of 15.79 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.30 cfs @ 6.03 fps)
  - **3=Orifice/Grate** (Orifice Controls 1.41 cfs @ 1.74 fps)
  - **4=Orifice/Grate** (Controls 0.00 cfs)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond BIO 1: Bioretention Area 1



Summary for Pond BIO 2: Bioretention Area 2

Inflow Area = 3.749 ac, 56.44% Impervious, Inflow Depth > 2.62" for 10 Year Storm event
Inflow = 12.05 cfs @ 12.09 hrs, Volume= 0.819 af
Outflow = 1.53 cfs @ 12.74 hrs, Volume= 0.437 af, Atten= 87%, Lag= 39.0 min
Primary = 1.53 cfs @ 12.74 hrs, Volume= 0.437 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 65.94' @ 12.74 hrs Surf.Area= 12,473 sf Storage= 20,491 cf

Plug-Flow detention time= 190.7 min calculated for 0.437 af (53% of inflow)
Center-of-Mass det. time= 110.9 min (895.6 - 784.7)

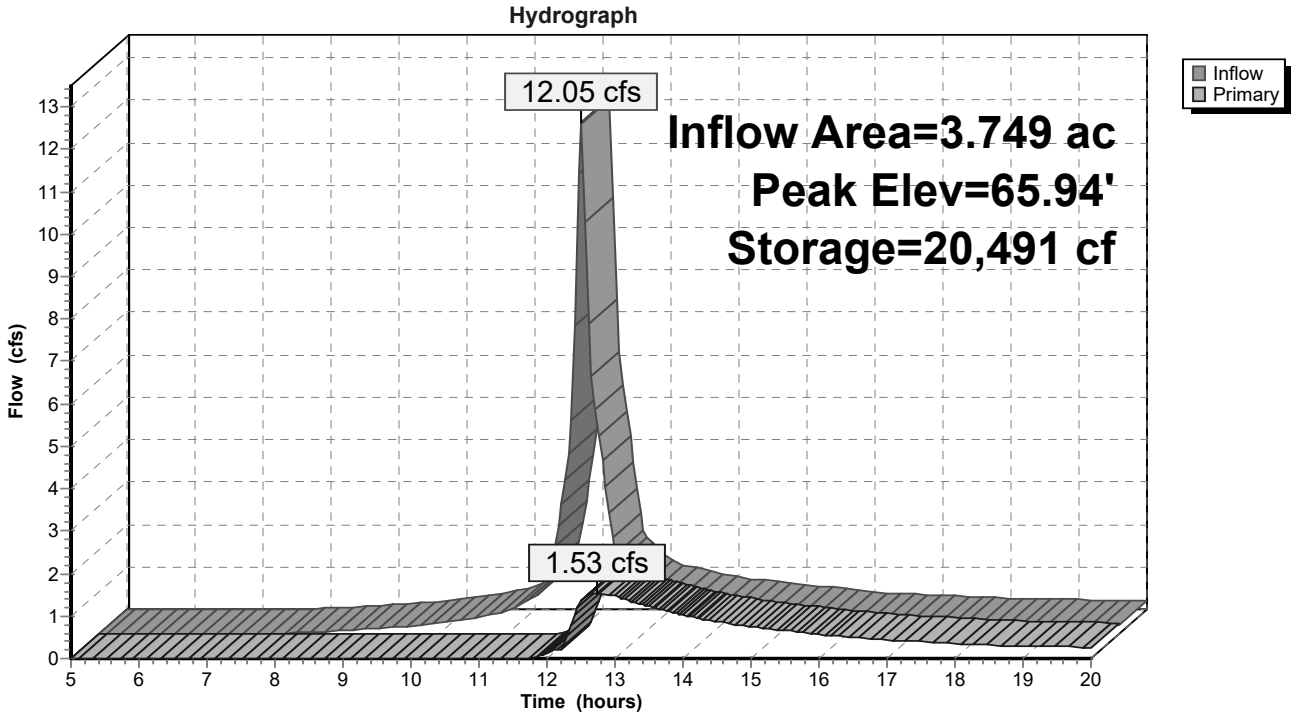
Volume	Invert	Avail.Storage	Storage Description
#1	64.00'	88,655 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	8,676	0	0
66.00	12,595	21,271	21,271
68.00	16,791	29,386	50,657
70.00	21,207	37,998	88,655

Device	Routing	Invert	Outlet Devices
#1	Primary	62.00'	**24.0" Round Culvert** L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.00' / 61.50' S= 0.0111 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	64.50'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	65.60'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	68.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Primary	68.80'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.53 cfs @ 12.74 hrs HW=65.94' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 1.53 cfs of 25.93 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.27 cfs @ 5.52 fps)
  - **3=Orifice/Grate** (Orifice Controls 1.26 cfs @ 1.87 fps)
  - **4=Orifice/Grate** (Controls 0.00 cfs)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond BIO 2: Bioretention Area 2



Summary for Pond INF 3: Infiltration Basin 3 -Slightly Enlarged for Area 3 Field Change

Inflow Area = 1.631 ac, 49.41% Impervious, Inflow Depth > 2.36" for 10 Year Storm event
Inflow = 4.76 cfs @ 12.09 hrs, Volume= 0.321 af
Outflow = 0.36 cfs @ 13.64 hrs, Volume= 0.227 af, Atten= 92%, Lag= 93.0 min
Discarded = 0.36 cfs @ 13.64 hrs, Volume= 0.227 af
Primary = 0.00 cfs @ 5.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.88' @ 13.64 hrs Surf.Area= 3,723 sf Storage= 7,729 cf

Plug-Flow detention time= 214.6 min calculated for 0.226 af (70% of inflow)
Center-of-Mass det. time= 148.7 min (940.2 - 791.5)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	26,465 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

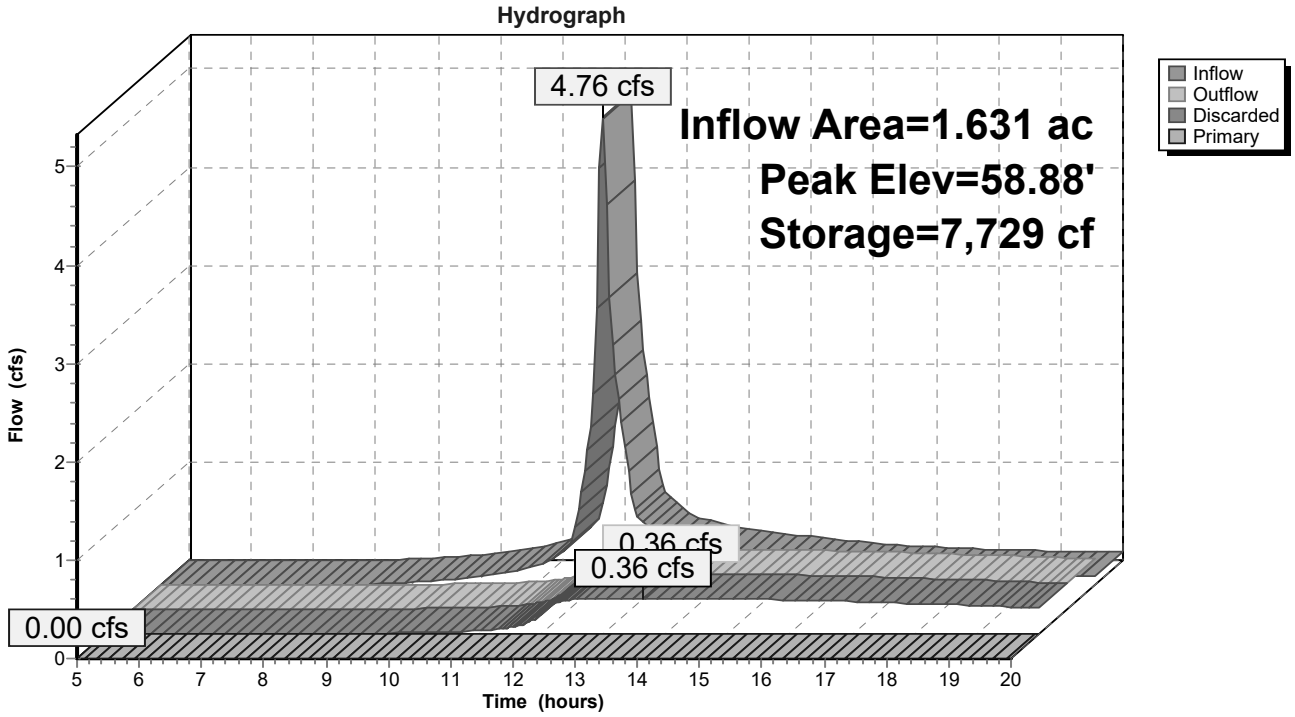
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.00	571	0	0
56.00	934	753	753
58.00	3,059	3,993	4,746
60.00	4,569	7,628	12,374
62.00	6,338	10,907	23,281
62.50	6,400	3,185	26,465

Device	Routing	Invert	Outlet Devices
#1	Primary	55.00'	**15.0" Round Culvert** L= 62.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 55.00' / 54.00' S= 0.0161 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	59.40'	**12.0" W x 9.0" H Vert. Orifice/Grate** C= 0.600
#3	Device 1	61.65'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	61.75'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#5	Discarded	55.00'	**5.000 in/hr Exfiltration over Surface area above 55.00'** Excluded Surface area = 571 sf

Discarded OutFlow Max=0.36 cfs @ 13.64 hrs HW=58.88' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 0.36 cfs)

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=55.00' TW=0.00' (Dynamic Tailwater)
├**1=Culvert** (Controls 0.00 cfs)
│ ├**2=Orifice/Grate** (Controls 0.00 cfs)
│ └**3=Orifice/Grate** (Controls 0.00 cfs)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond INF 3: Infiltration Basin 3 -Slightly Enlarged for Area 3 Field Change



Summary for Subcatchment 1 APRVD: Area 1

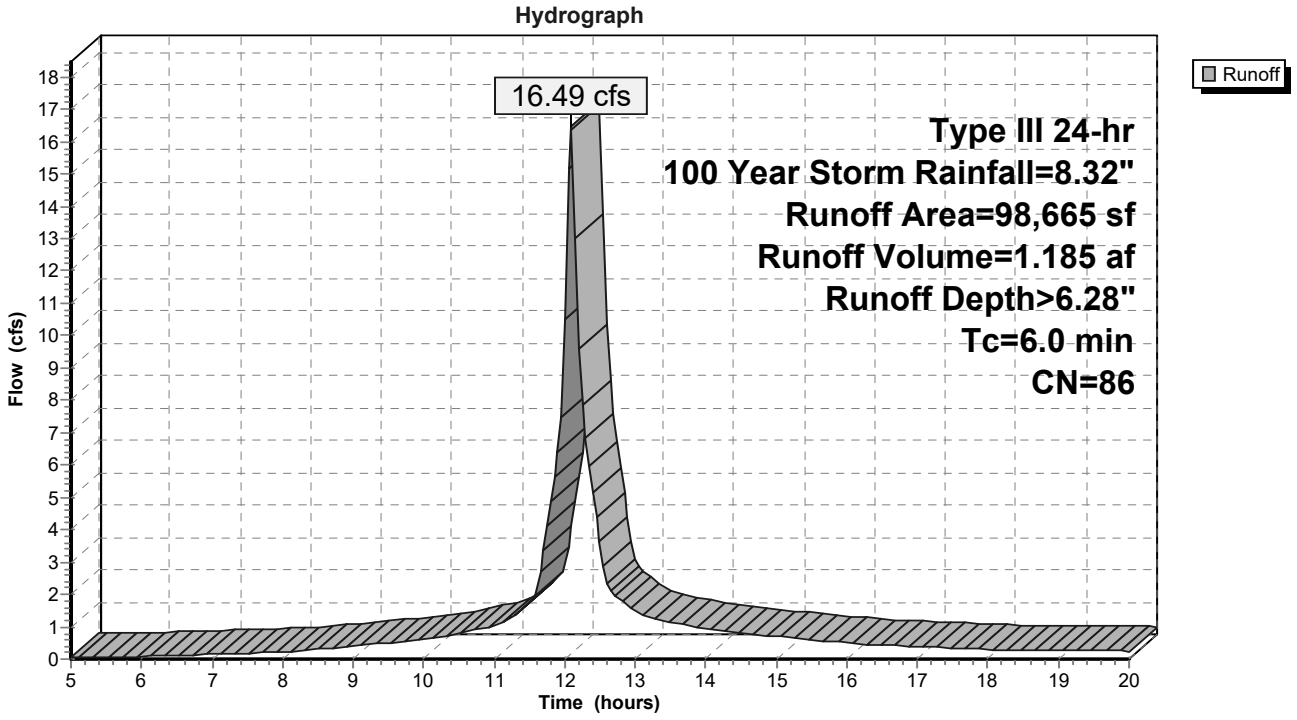
Runoff = 16.49 cfs @ 12.09 hrs, Volume= 1.185 af, Depth> 6.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 Year Storm Rainfall=8.32"

Area (sf)	CN	Description
61,604	98	Paved parking & roofs
29,882	61	>75% Grass cover, Good, HSG B
7,179	85	Gravel roads, HSG B
98,665	86	Weighted Average
37,061		37.56% Pervious Area
61,604		62.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1 APRVD: Area 1



Summary for Subcatchment 2: Area 2 With Reconfigured Landbanked Parking

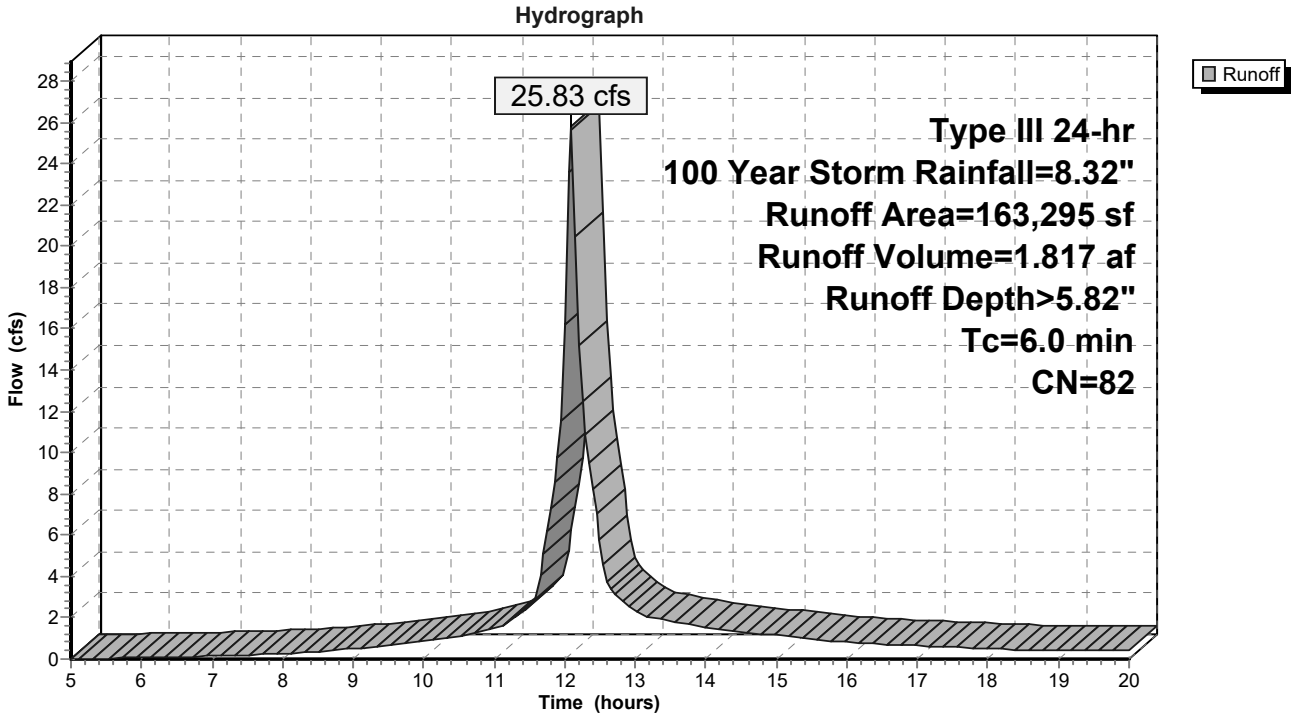
Runoff = 25.83 cfs @ 12.09 hrs, Volume= 1.817 af, Depth> 5.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 Year Storm Rainfall=8.32"

Area (sf)	CN	Description
67,343	61	>75% Grass cover, Good, HSG B
92,165	98	Paved parking & roofs
3,787	85	Gravel roads, HSG B
163,295	82	Weighted Average
71,130		43.56% Pervious Area
92,165		56.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 2: Area 2 With Reconfigured Landbanked Parking



Summary for Subcatchment 3S: Area 3 With Grass Parking

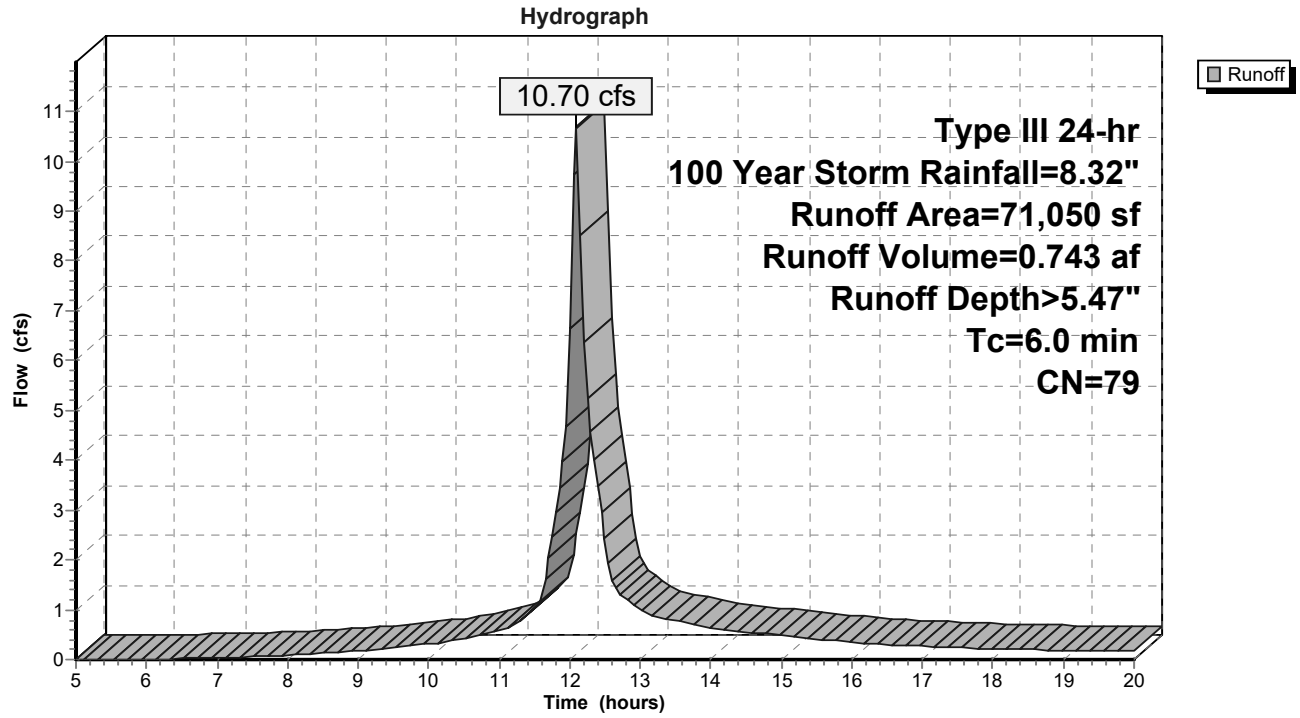
Runoff = 10.70 cfs @ 12.09 hrs, Volume= 0.743 af, Depth> 5.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 Year Storm Rainfall=8.32"

Area (sf)	CN	Description
35,942	61	>75% Grass cover, Good, HSG B
35,108	98	Paved parking & roofs
71,050	79	Weighted Average
35,942		50.59% Pervious Area
35,108		49.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 3S: Area 3 With Grass Parking



Summary for Subcatchment 4: Area 4

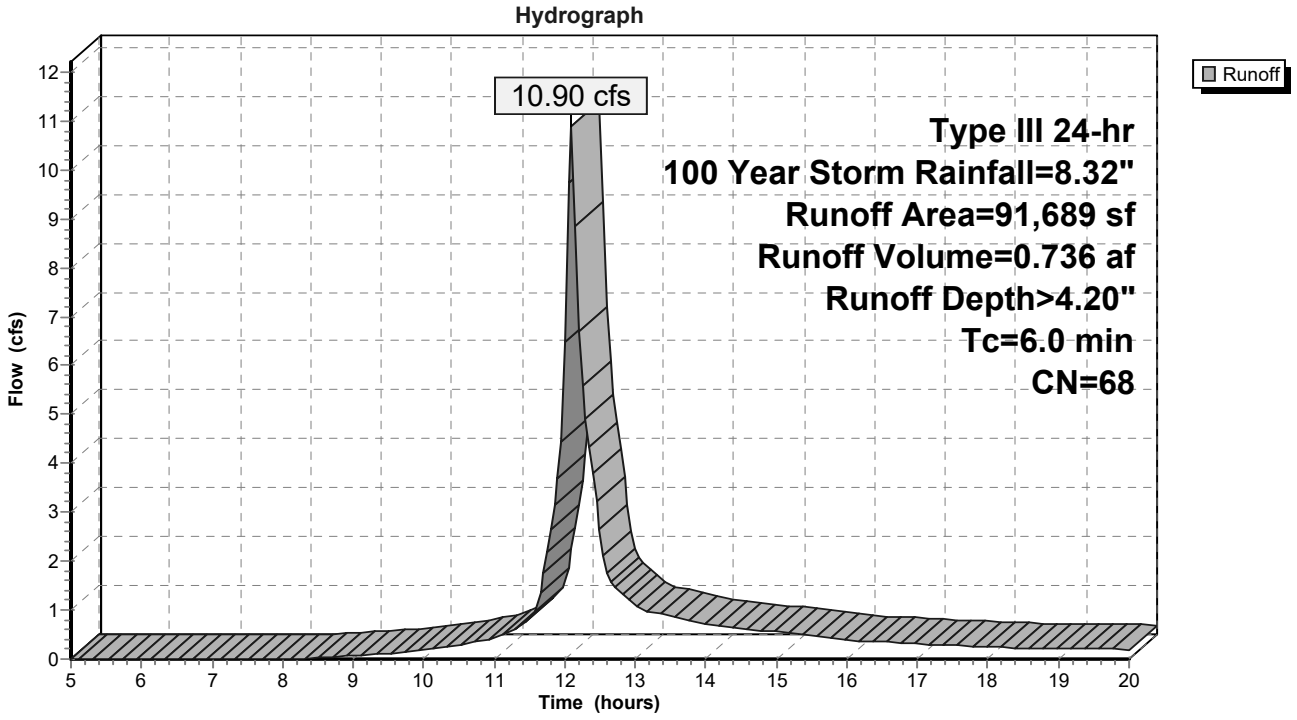
Runoff = 10.90 cfs @ 12.09 hrs, Volume= 0.736 af, Depth> 4.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 Year Storm Rainfall=8.32"

Area (sf)	CN	Description
48,025	77	Woods, Good, HSG D
15,017	61	>75% Grass cover, Good, HSG B
25,470	55	Woods, Good, HSG B
3,177	80	>75% Grass cover, Good, HSG D
91,689	68	Weighted Average
91,689		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 4: Area 4



Summary for Subcatchment 5: Area 5

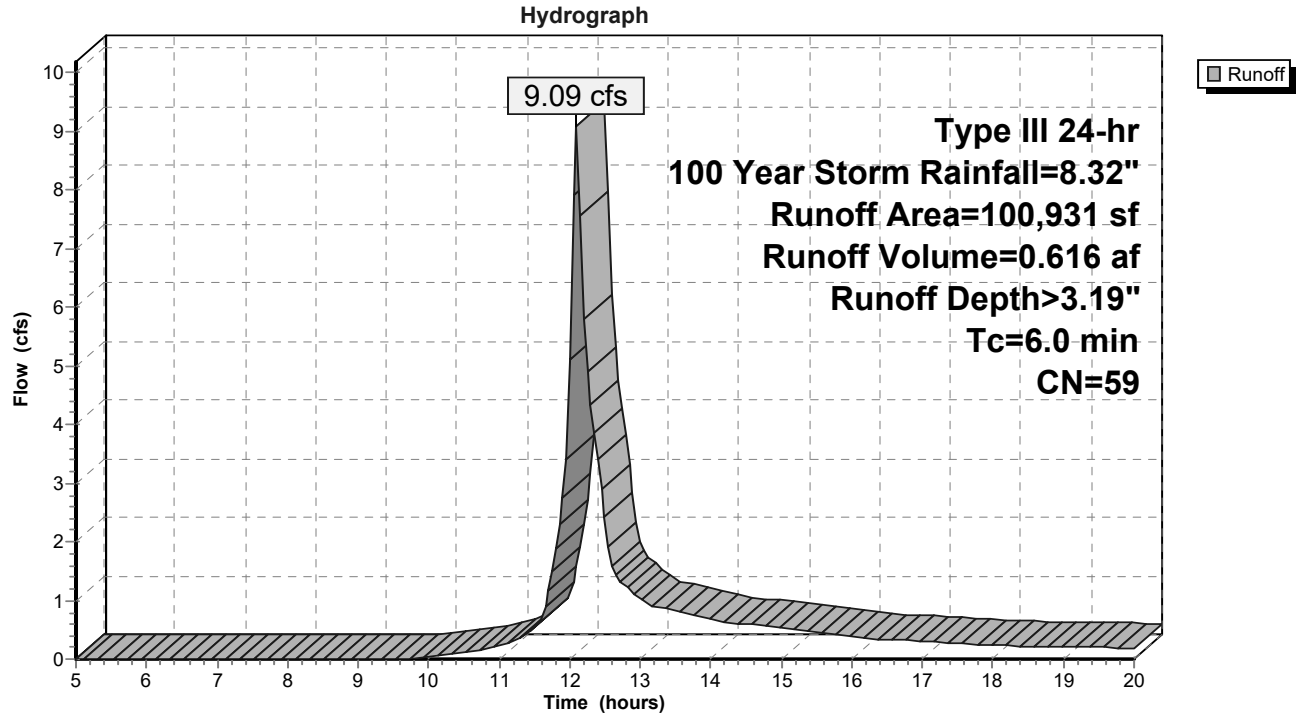
Runoff = 9.09 cfs @ 12.10 hrs, Volume= 0.616 af, Depth> 3.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 Year Storm Rainfall=8.32"

Area (sf)	CN	Description
6,941	98	Paved parking & roofs
25,659	61	>75% Grass cover, Good, HSG B
68,331	55	Woods, Good, HSG B
100,931	59	Weighted Average
93,990		93.12% Pervious Area
6,941		6.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, S1**

Subcatchment 5: Area 5

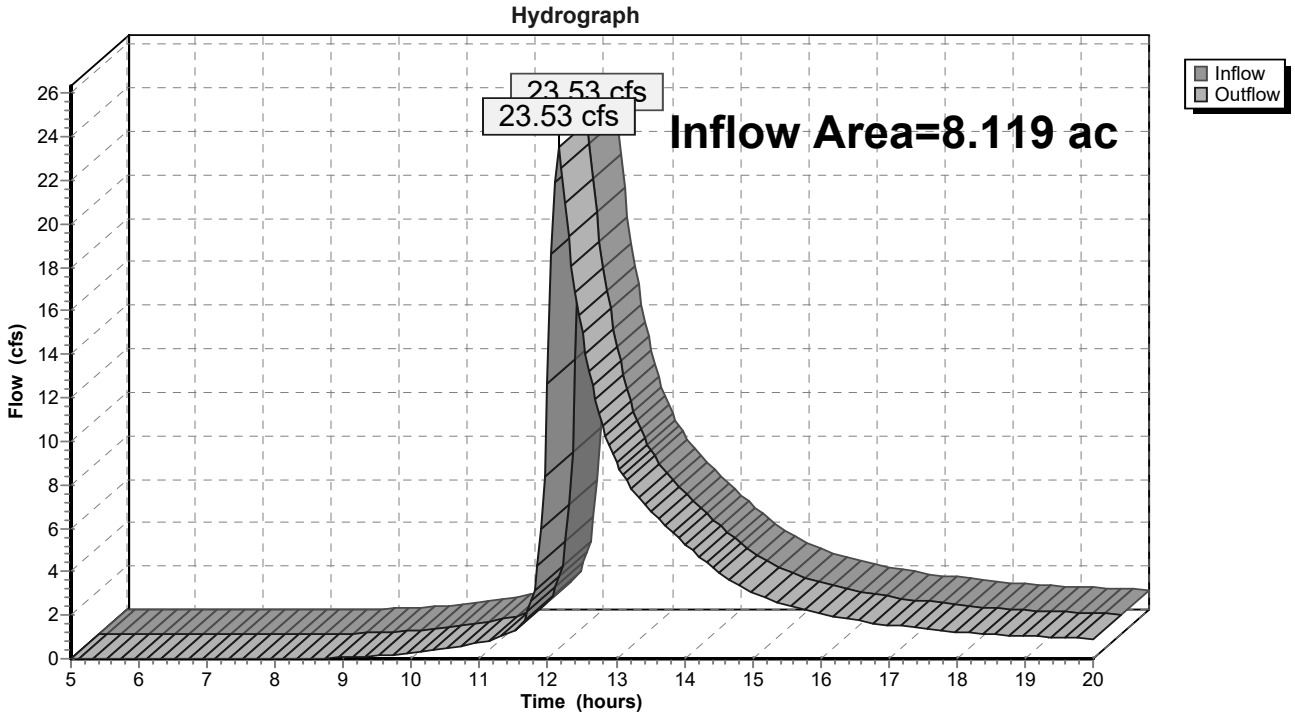


Summary for Reach SDP1: SDP 1

Inflow Area = 8.119 ac, 43.48% Impervious, Inflow Depth > 4.54" for 100 Year Storm event
Inflow = 23.53 cfs @ 12.16 hrs, Volume= 3.071 af
Outflow = 23.53 cfs @ 12.16 hrs, Volume= 3.071 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SDP1: SDP 1

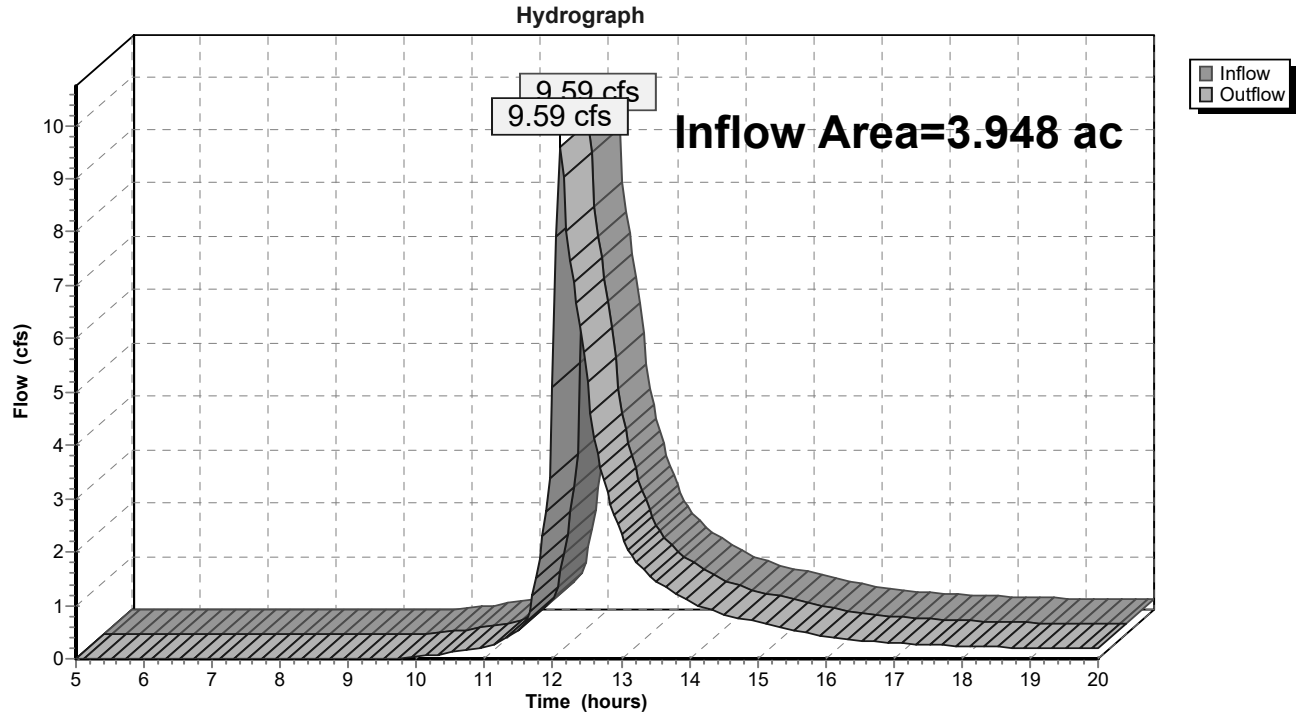


Summary for Reach SDP2: SDP2

Inflow Area = 3.948 ac, 24.45% Impervious, Inflow Depth > 2.64" for 100 Year Storm event
Inflow = 9.59 cfs @ 12.11 hrs, Volume= 0.870 af
Outflow = 9.59 cfs @ 12.11 hrs, Volume= 0.870 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach SDP2: SDP2



Summary for Pond BIO 1: Bioretention Area 1

Inflow Area = 2.265 ac, 62.44% Impervious, Inflow Depth > 6.28" for 100 Year Storm event
Inflow = 16.49 cfs @ 12.09 hrs, Volume= 1.185 af
Outflow = 10.34 cfs @ 12.20 hrs, Volume= 0.921 af, Atten= 37%, Lag= 6.8 min
Primary = 10.34 cfs @ 12.20 hrs, Volume= 0.921 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 98.97' @ 12.20 hrs Surf.Area= 8,867 sf Storage= 20,006 cf

Plug-Flow detention time= 115.2 min calculated for 0.921 af (78% of inflow)
Center-of-Mass det. time= 58.3 min (815.7 - 757.5)

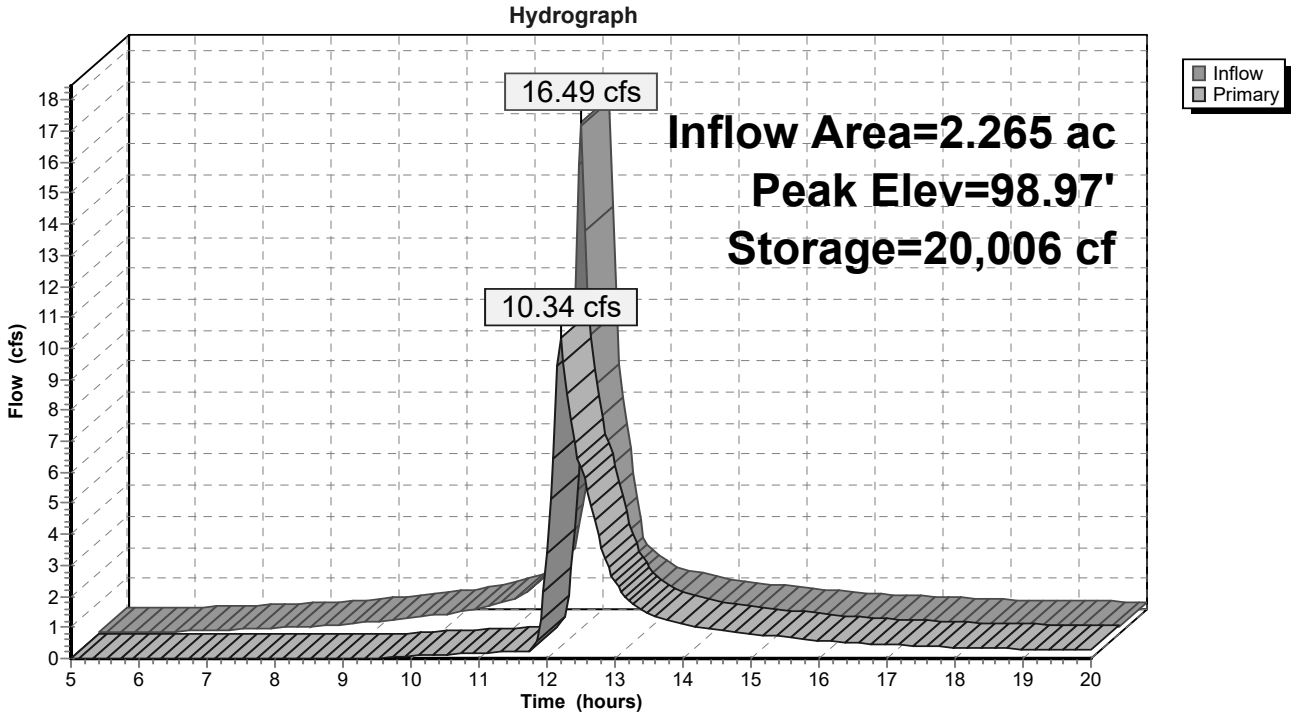
Volume	Invert	Avail.Storage	Storage Description
#1	96.00'	30,007 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
96.00	4,790	0	0
98.00	7,376	12,166	12,166
100.00	10,465	17,841	30,007

Device	Routing	Invert	Outlet Devices
#1	Primary	94.00'	**18.0" Round Culvert** L= 200.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 94.00' / 88.70' S= 0.0265 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf
#2	Device 1	96.50'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	97.90'	**33.0" W x 7.2" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	98.80'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Primary	99.50'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=10.31 cfs @ 12.20 hrs HW=98.96' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 10.31 cfs of 17.47 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.36 cfs @ 7.36 fps)
  - **3=Orifice/Grate** (Orifice Controls 6.90 cfs @ 4.18 fps)
  - **4=Orifice/Grate** (Weir Controls 3.05 cfs @ 1.33 fps)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond BIO 1: Bioretention Area 1



Summary for Pond BIO 2: Bioretention Area 2

Inflow Area = 3.749 ac, 56.44% Impervious, Inflow Depth > 5.82" for 100 Year Storm event
Inflow = 25.83 cfs @ 12.09 hrs, Volume= 1.817 af
Outflow = 6.17 cfs @ 12.48 hrs, Volume= 1.414 af, Atten= 76%, Lag= 23.7 min
Primary = 6.17 cfs @ 12.48 hrs, Volume= 1.414 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 67.30' @ 12.48 hrs Surf.Area= 15,313 sf Storage= 39,351 cf

Plug-Flow detention time= 135.2 min calculated for 1.414 af (78% of inflow)
Center-of-Mass det. time= 78.5 min (844.3 - 765.8)

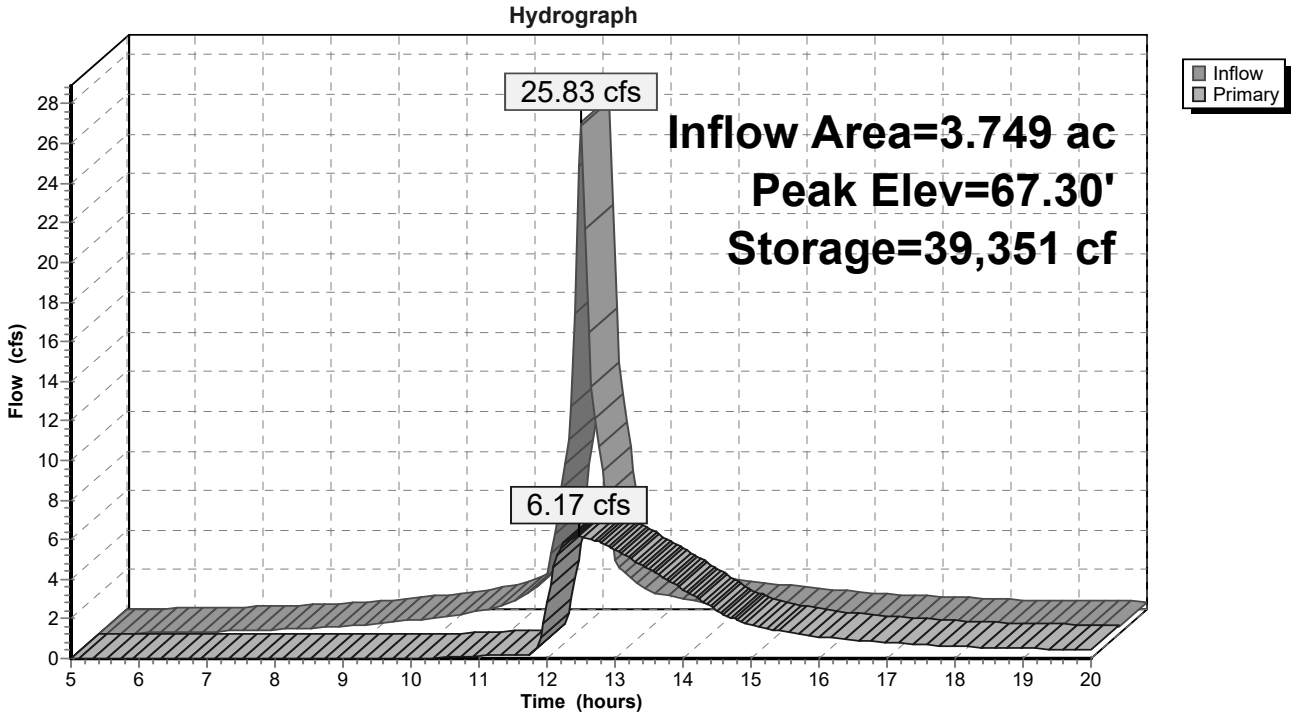
Volume	Invert	Avail.Storage	Storage Description
#1	64.00'	88,655 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.00	8,676	0	0
66.00	12,595	21,271	21,271
68.00	16,791	29,386	50,657
70.00	21,207	37,998	88,655

Device	Routing	Invert	Outlet Devices
#1	Primary	62.00'	**24.0" Round Culvert** L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.00' / 61.50' S= 0.0111 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	64.50'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	65.60'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600
#4	Device 1	68.50'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Primary	68.80'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=6.17 cfs @ 12.48 hrs HW=67.29' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 6.17 cfs of 31.35 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.39 cfs @ 7.87 fps)
  - **3=Orifice/Grate** (Orifice Controls 5.78 cfs @ 5.78 fps)
  - **4=Orifice/Grate** (Controls 0.00 cfs)
- **5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond BIO 2: Bioretention Area 2



Summary for Pond INF 3: Infiltration Basin 3 -Slightly Enlarged for Area 3 Field Change

Inflow Area = 1.631 ac, 49.41% Impervious, Inflow Depth > 5.47" for 100 Year Storm event
Inflow = 10.70 cfs @ 12.09 hrs, Volume= 0.743 af
Outflow = 3.36 cfs @ 12.41 hrs, Volume= 0.569 af, Atten= 69%, Lag= 19.3 min
Discarded = 0.51 cfs @ 12.41 hrs, Volume= 0.315 af
Primary = 2.85 cfs @ 12.41 hrs, Volume= 0.254 af

Routing by Dyn-Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.42' @ 12.41 hrs Surf.Area= 4,939 sf Storage= 14,359 cf

Plug-Flow detention time= 138.7 min calculated for 0.567 af (76% of inflow)
Center-of-Mass det. time= 81.3 min (853.1 - 771.9)

Volume	Invert	Avail.Storage	Storage Description
#1	55.00'	26,465 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

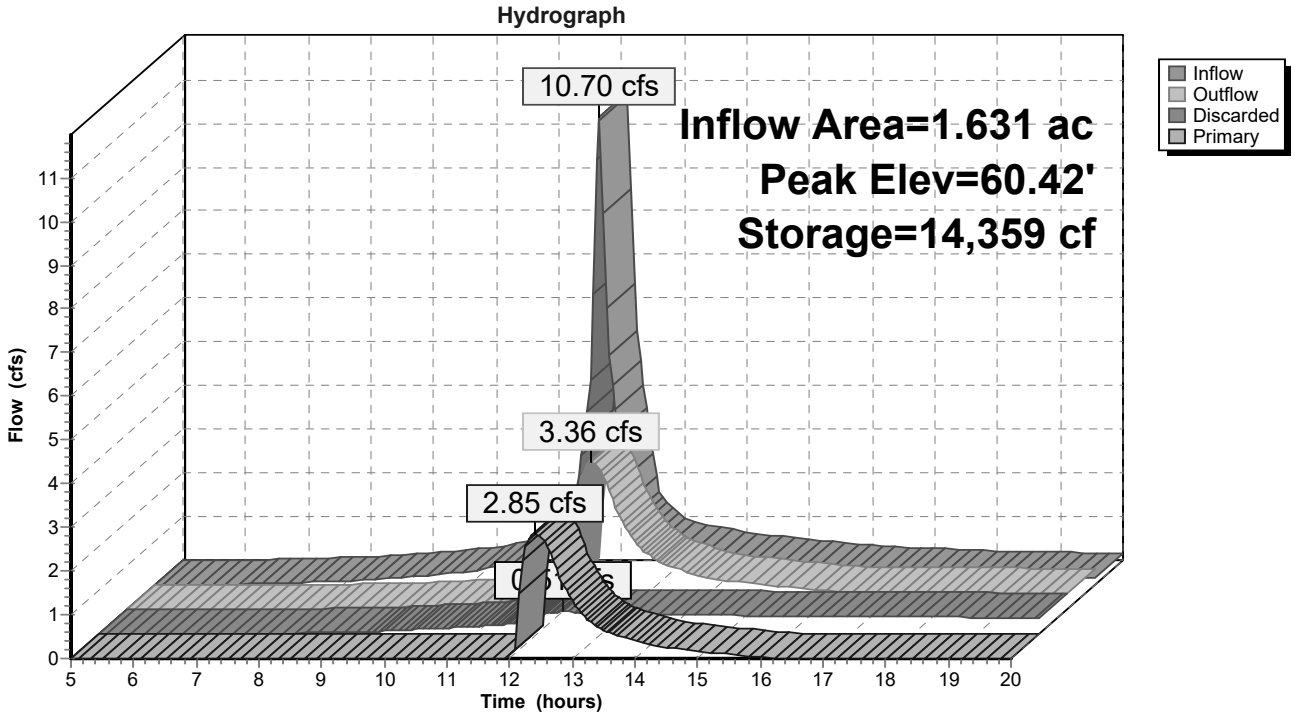
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
55.00	571	0	0
56.00	934	753	753
58.00	3,059	3,993	4,746
60.00	4,569	7,628	12,374
62.00	6,338	10,907	23,281
62.50	6,400	3,185	26,465

Device	Routing	Invert	Outlet Devices
#1	Primary	55.00'	**15.0" Round Culvert** L= 62.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 55.00' / 54.00' S= 0.0161 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf
#2	Device 1	59.40'	**12.0" W x 9.0" H Vert. Orifice/Grate** C= 0.600
#3	Device 1	61.65'	**36.0" x 48.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Primary	61.75'	**15.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64
#5	Discarded	55.00'	**5.000 in/hr Exfiltration over Surface area above 55.00'** Excluded Surface area = 571 sf

Discarded OutFlow Max=0.51 cfs @ 12.41 hrs HW=60.42' (Free Discharge)
└**5=Exfiltration** (Exfiltration Controls 0.51 cfs)

Primary OutFlow Max=2.85 cfs @ 12.41 hrs HW=60.42' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 2.85 cfs of 12.93 cfs potential flow)
  └**2=Orifice/Grate** (Orifice Controls 2.85 cfs @ 3.80 fps)
  └**3=Orifice/Grate** (Controls 0.00 cfs)
└**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond INF 3: Infiltration Basin 3 -Slightly Enlarged for Area 3 Field Change



REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	02/28/17	REVISED PER PLANNING BOARD COMMENTS	AJS
2	03/28/17	REVISE PER PLANNING BOARD COMMENTS	AJS
3	04/25/17	REVISE PER PLANNING BOARD COMMENTS	AJS
4	05/30/17	NO CHANGE	AJS
5	07/25/17	NO CHANGE	AJS
6	08/29/17	REVISE PER PLANNING BOARD COMMENTS	AJS
7	09/26/17	REVISE PER PLANNING BOARD COMMENTS	AJS
8	10/31/17	REVISE PER PLANNING BOARD COMMENTS	AJS
9	11/28/17	NO CHANGE	AJS
10	01/30/18	NO CHANGE	AJS
11	06/11/18	NO CHANGE	AJS
12	06/18/18	NO CHANGE	AJS
13	06/26/18	NO CHANGE	AJS
14	07/31/18	NO CHANGE	AJS
15	08/28/18	REVISE PER PLANNING BOARD COMMENTS	AJS
16	11/01/18	REVISE PER PLANNING BOARD COMMENTS	AJS

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

14th DAY OF Sept. 20 18 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 6th DAY OF August 20 20 BY

CHAIRMAN

SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.



32 APARTMENTS

(4) 1 BEDROOM
(2) 3 BEDROOM
(2) STUDIO

8 apartments
x 4 floors
= 32 apartments

51 APARTMENTS

(5) 1 BEDROOM
(2) 2 BEDROOM
(4) STUDIO

(2) 2 BEDROOM
(4) 1 BEDROOM
(1) STUDIO

11 apartments
x 4 floors
= 44 apartments + 7 apartments (5th floor) = 51 apartments total

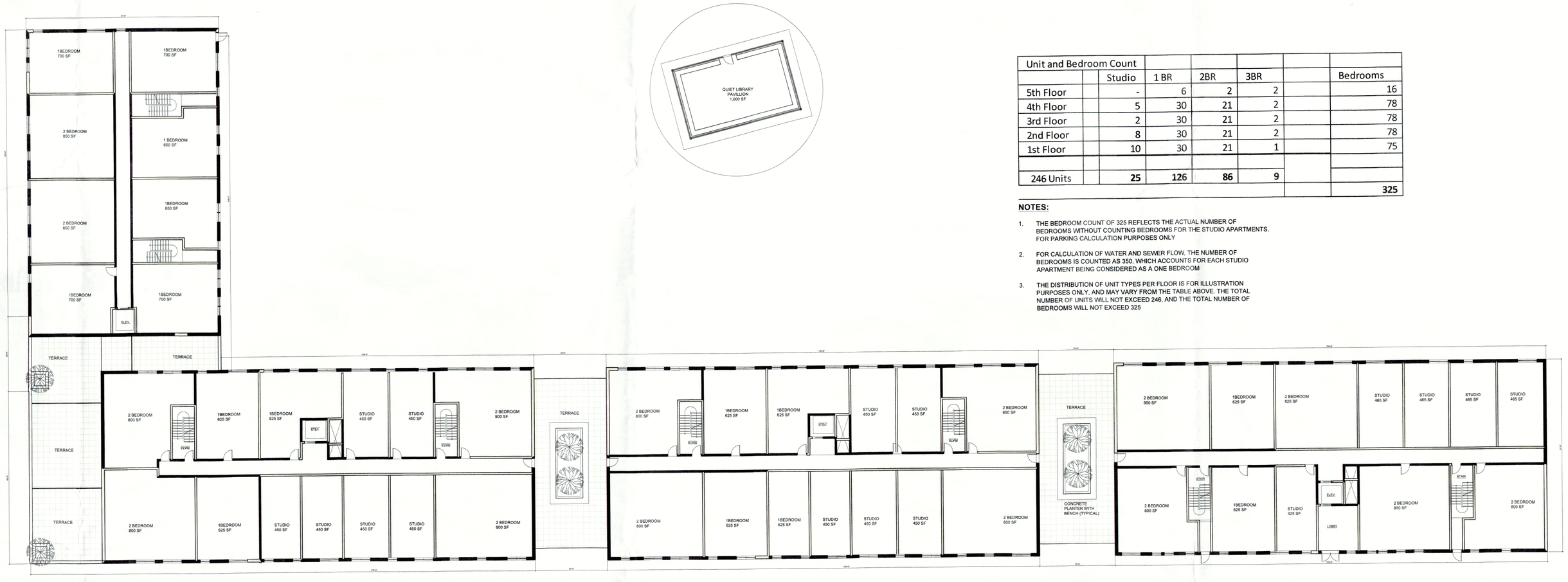
32 APARTMENTS

(2) 1 BEDROOM
(4) 2 BEDROOM
(2) STUDIO

32 APARTMENTS

(6) 1 BEDROOM
(2) 2 BEDROOM

8 apartments
x 4 floors
= 32 apartments



Unit and Bedroom Count							
		Studio	1 BR	2BR	3BR		Bedrooms
5th Floor		-	6	2	2		16
4th Floor		5	30	21	2		78
3rd Floor		2	30	21	2		78
2nd Floor		8	30	21	2		78
1st Floor		10	30	21	1		75
246 Units		**25**	**126**	**86**	**9**		
							325

NOTES:

1. THE BEDROOM COUNT OF 325 REFLECTS THE ACTUAL NUMBER OF BEDROOMS WITHOUT COUNTING BEDROOMS FOR THE STUDIO APARTMENTS, FOR PARKING CALCULATION PURPOSES ONLY
2. FOR CALCULATION OF WATER AND SEWER FLOW, THE NUMBER OF BEDROOMS IS COUNTED AS 350, WHICH ACCOUNTS FOR EACH STUDIO APARTMENT BEING CONSIDERED AS A ONE BEDROOM
3. THE DISTRIBUTION OF UNIT TYPES PER FLOOR IS FOR ILLUSTRATION PURPOSES ONLY, AND MAY VARY FROM THE TABLE ABOVE. THE TOTAL NUMBER OF UNITS WILL NOT EXCEED 246, AND THE TOTAL NUMBER OF BEDROOMS WILL NOT EXCEED 325

Typical Floor Plan Diagram

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

59 APARTMENTS

(4) 1 BEDROOM
(4) 2 BEDROOM
(5) STUDIOS

5TH FLOOR
(3) 2 BEDROOM
(1) 1 BEDROOM
(3) STUDIOS

12 apartments
x 4 floors
= 52 apartments + 7 apartments (5th Floor) = 59 apartments total

NOTE: INTERIOR FLOOR PLANS ARE NOT PART OF THIS APPLICATION, AND ARE INCLUDED FOR ILLUSTRATION PURPOSES AND TO DEMONSTRATE THE TOTAL NUMBER OF UNITS AND BEDROOMS PROPOSED. THE FLOOR PLANS ARE SUBJECT TO CHANGE, HOWEVER THE FINAL COUNT WILL NOT EXCEED THE APPROVED NUMBER OF UNITS AND BEDROOMS. WINDOW LOCATIONS MAY CHANGE TO CORRESPOND TO FINAL APARTMENT PLAN LAYOUTS

52 APARTMENTS

(4) 1 BEDROOM X 4 FLOORS = 16 1BR
(4) 2 BEDROOM X 4 FLOORS = 24 2BR
(5) STUDIOS

13 apartments
x 4 floors
= 52 apartments

48 APARTMENTS

(2) 1 BEDROOM
(5) 2 BEDROOM
(5) STUDIO

12 apartments
x 4 floors
= 48 apartments

REGISTERED ARCHITECT ARYEH JOSEPH SIEGEL 024885 STATE OF NEW YORK

Typical Floor Plan
Sheet 6 of 16

Owner:
Scenic Beacon Developments, LLC
25 East Main Street

Architect:
Aryeh Siegel, Architect
514 Main Street

Site / Civil Engineer:
Hudson Land Design
174 Main Street

Surveyor:
TEC Land Surveying, P.C.
15C Tioronda Avenue
Beacon, New York 12508

Landscape Designer:
Landscape Restorations
P.O. Box 286
Beacon, New York 12508

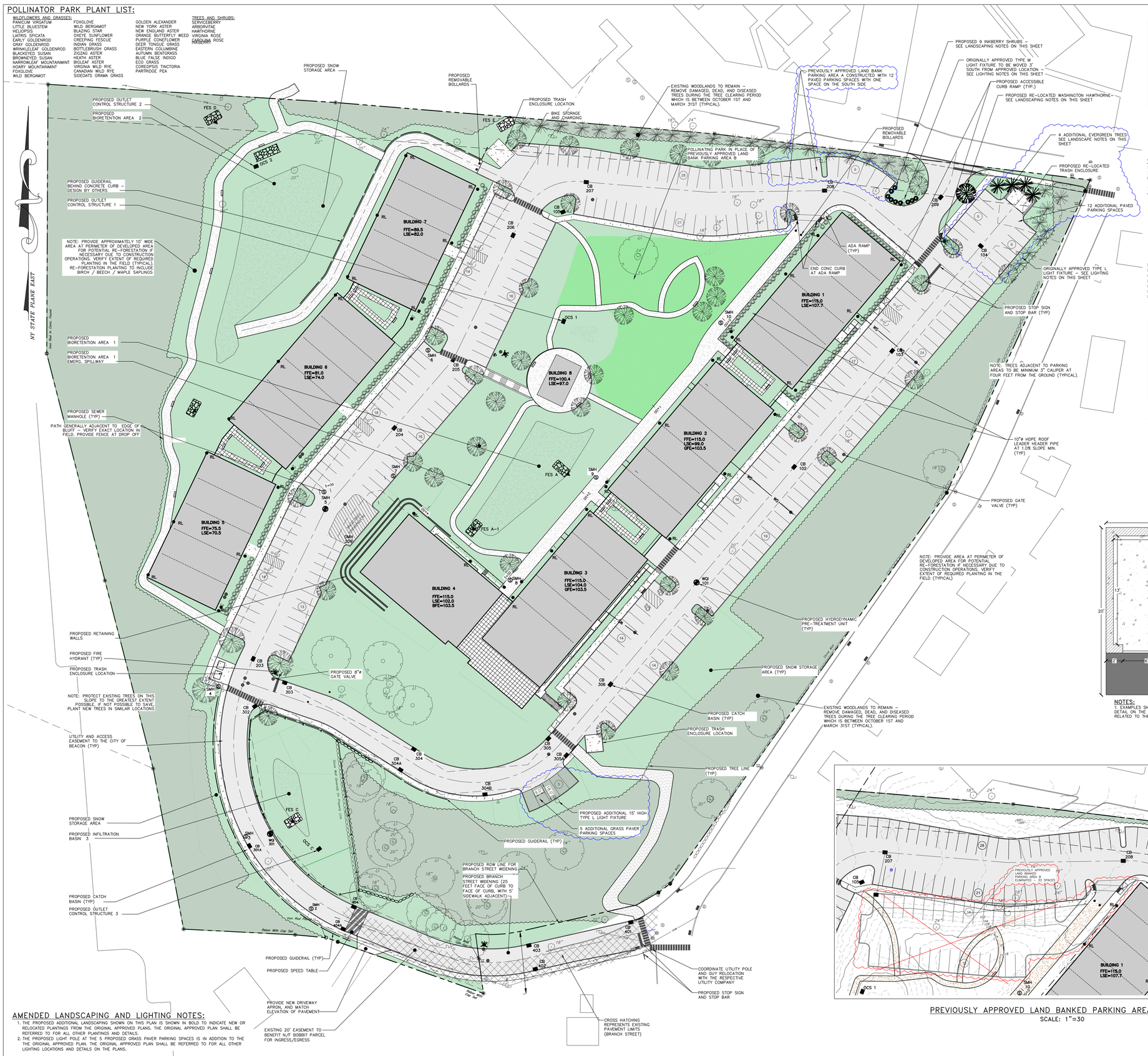
Edgewater
Beacon, New York
Scale: $\frac{1}{16}$" = 1'-0"
January 31, 2017

118

POLLINATOR PARK PLANT LIST:

WILDFLOWERS AND GRASSES:
PANICUM VIRGATUM
LITTLE BLUESTEM
HELIOPSIS
LIATRIS SPICATA
EARLY GOLDENROD
GRAY GOLDENROD
WRINKLELEAF GOLDENROD
BLACKEYED SUSAN
BROWNEYED SUSAN
NARROWLEAF MOUNTAINMINT
HOARY MOUNTAINMINT
SOLIDAGO
WILD BERGAMOT
FOXGLOVE
WILD BERGAMOT
BLAZING STAR
OXEYE SUNFLOWER
CREEPING FESCUE
INDIAN GRASS
BOTTLEBRUSH GRASS
ZIGZAG ASTER
HEATH ASTER
BIGLEAF ASTER
VIRGINIA WILD RYE
CANADIAN WILD RYE
SIDEOATS GRAMA GRASS
GOLDEN ALEXANDER
NEW YORK ASTER
NEW ENGLAND ASTER
ORANGE BUTTERFLY WEED
PURPLE CONEFLOWER
BEEN TONGUE GRASS
EASTERN COLUMBINE
AUTUMN BENTGRASS
BLUE FALSE INDIGO
ECO GRASS
COREOPSIS TINCTORIA
PARTRIDGE PEA

TREES AND SHRUBS:
SERVICEBERRY
ARBORVITAE
HAWTHORNE
VIRGINIA ROSE
VIRGINIA ROSE



SCHEDULE OF REGULATIONS (RD–1.7 ZONING DISTRICT) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT	PROVIDED
LOT AREA:	5,000 SQFT MIN.	±523,155 SQFT
LOT WIDTH:	50 FEET MINIMUM	±920 FEET
LOT DEPTH:	100 FEET MINIMUM	±869 FEET
YARD SETBACKS (RESIDENTIAL USE):		
FRONT YARD:	30 FEET MINIMUM	±252 FEET
SIDE YARD:	20 FEET MINIMUM	±39 FEET
REAR YARD:	25 FEET MINIMUM	±55 FEET
MIN. DIST. B/T BUILDINGS	30 FEET MINIMUM	±25 FT AVG., 12 FT MIN.
MAX. BUILDING HEIGHT:	55 FT. 4.5 STORIES	VARIES, 5 STORIES MAX.
MAX. BUILDING COVERAGE:	25% MAX.	±12%
MAX. UNITS/BUILDING:	36 MAX.	VARIES
LOT AREA/DU	1,700 SF/DU = 242 + 10 BONUS UNITS[1]	248 INCLUDING 25 BMR UNITS

NOTES:
[1]252 TOTAL UNITS (INCLUDING 10 BONUS UNITS PER § 223.41.10.M) AFTER DEDUCTING ENVIRONMENTAL CONSTRAINTS AS DEFINED IN § 223–63 – "ANY LOT AREA COVERED BY SURFACE WATER, WITHIN A FEDERAL REGULATORY FLOODWAY, WITHIN A STATE OR FEDERALLY REGULATED WETLAND, OR WITH EXISTING PREDEVELOPMENT VERY STEEP SLOPES OF 25% OR MORE AS DEFINED IN § 223–63"
[2]SEE PREVIOUSLY APPROVED VARIANCE NOTES.

OWNER/APPLICANT INFORMATION:

SCENIC BEACON DEVELOPMENTS, LLC
28 CREEK DRIVE
BEACON, NY 12508

ZONING SUMMARY:

ZONING DISTRICT: RD 1.7
TAX MAP NO.:
5955–19–590022 = 10.40 ACRES (HOA PARCEL)
5955–19–615029 = 0.23 ACRES (BUILDING 1)
5955–19–604016 = 0.23 ACRES (BUILDING 2)
5955–19–588001 = 0.46 ACRES (BUILDING 3 & 4)
5955–19–579035 = 0.19 ACRES (BUILDING 5)
5955–19–570022 = 0.23 ACRES (BUILDING 6)
5955–19–561009 = 0.19 ACRES (BUILDING 7)
TOTAL LAND AREA = 12.009 ACRES OR 523,155 SQFT
LANDS UNDERWATER = 10.035 ACRES OR 437,113 SQFT
(UNDERWATER LANDS ARE NOT INCLUDED IN THIS APPLICATION)

LOT AREA: 12,009 ACRES (523,155 SQFT)
BUILDING FOOTPRINT: 69,960 SQUARE FEET
BUILDING AREA: 286,840 SQUARE FEET
HISTORICAL OVERLAY: NO
PARKING OVERLAY DISTRICT: NO
EXISTING USE: RESIDENTIAL
PROPOSED USE: RESIDENTIAL

LEGEND:

EXISTING ROOF LEADER LOCATION
SEWER MANHOLE
UNKNOWN MANHOLE
GUY WIRE ANCHOR
UTILITY POLE
ELECTRIC BOX
HYDRANT
WATER VALVE
ROUND DROP INLET
ELECTRIC METER
UTILITY POLE WITH LIGHT
COMMUNICATION BOX
OVERHEAD WIRES
FENCE
DROP INLET
GAS METER
LAMP
UNKNOWN VALVE
EXISTING CATCH BASIN
EXISTING UTILITY POLE
EXISTING WATER EDGE
PROPOSED EASEMENT LINE
PROPOSED CATCH BASIN WITH INLET PROTECTION
PROPOSED CLEANOUT
PROPOSED HYDRANT
PROPOSED WATER VALVE
PROPOSED SANITARY MANHOLE
PROPOSED CLEANOUT
PROPOSED RETAINING WALL
PROPOSED FENCE
IMPERVIOUS SURFACE
PROPOSED RIP RAP
UTILITY CROSSING LOCATION
PROPOSED ROOF LEADER LOCATION
PROPOSED WATER SHUT–OFF VALVE
PREVIOUSLY APPROVED LAND BANKED PARKING SPACE ELIMINATED
PROPOSED ADDITIONAL CONSTRUCTED PARKING SPACES

PARKING COMPLIANCE TABLE

USE & PARKING REQUIREMENTS	AREA/COUNT	PROPOSED PARKING REQUIREMENT
RESIDENTIAL: 1MIN. TO 3 MAX. PER DWELLING UNIT	248 DWELLING UNITS	248 MIN. TO 744 MAX. PARKING SPACES
TOTAL REQUIRED PARKING SPACES		248 MIN. TO 744 MAX.
TOTAL PROPOSED PARKING SPACES		321 TOTAL PARKING SPACES (267) SURFACE SPACES (54) PODIUM SPACES

AMENDED SITE PLAN NOTES:

THE ORIGINAL APPROVED SITE PLAN INCLUDED 246 UNITS AND 350 BEDROOMS. ANY REFERENCES TO THESE AMOUNTS IN THE ORIGINAL APPROVED SITE PLAN SET IS HEREBY SUPERSEDED BY THIS AMENDED SITE PLAN SET.

ORIGINAL SITE PLAN APPROVAL REFERENCE:

1. REFERENCE IS HEREBY MADE TO APPROVED SITE PLAN SET ENTITLED "EDGEWATER", CONSISTING OF 16 SHEETS, DATED JANUARY 31, 2017, LAST REVISED APRIL 20, 2019, APPROVED BY THE CITY OF BEACON PLANNING BOARD ON SEPTEMBER 11, 2018 AND SIGNED BY THE PLANNING BOARD CHAIRMAN ON AUGUST 8, 2020;
2. REFER TO ORIGINAL APPROVED SITE PLAN FOR ADDITIONAL INFORMATION.

PREVIOUSLY APPROVED VARIANCE NOTES:

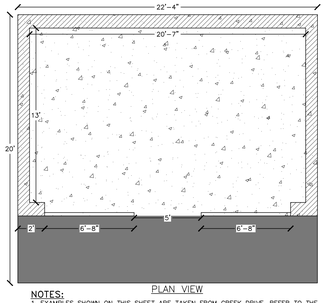
1. A VARIANCE TO EXCEED THE MAXIMUM NUMBER OF STORIES FROM 4½ STORIES TO 5 STORIES HAS BEEN GRANTED BY THE ZONING BOARD OF APPEALS FOR BUILDINGS 3, 4, AND 6. VARIANCE #2018–01, DATED JANUARY 17, 2018.
2. A VARIANCE TO EXCEED THE MAXIMUM NUMBER OF UNITS IN A BUILDING WAS GRANTED BY THE ZONING BOARD OF APPEALS FOR BUILDINGS 1, 2, 3, AND 6. VARIANCE #2018–01, DATED JANUARY 17, 2018.
3. A VARIANCE TO ALLOW LESS THAN 30 FEET BETWEEN BUILDINGS HAS BEEN GRANTED BY THE ZONING BOARD OF APPEALS. VARIANCE #2018–01, DATED JANUARY 17, 2018.

AMENDED PARKING NOTES:

1. THE SITE PLAN WAS ORIGINALLY APPROVED WITH 238 SURFACES SPACES, 33 LAND BANKED PARKING SPACES LOCATED TO THE WEST OF BUILDING 1, 46 PODIUM SPACE BENEATH BUILDINGS 2 AND 3 AND 12 LAND BANKED SPACES ON THE NORTH SIDE OF THE NORTHERLY PARKING LOT FOR A TOTAL OF 329 SPACES.
2. THE AREA WHERE THE 33 APPROVED LAND BANKED SPACES IS SOLID BEDROCK AT AN ELEVATION APPROXIMATELY 17 FEET HIGHER THAN PROPOSED GRADE. THEREFORE, OTHER AREAS ON THE SITE HAVE BEEN IDENTIFIED FOR ADDITIONAL PARKING SPACES TO BE LOCATED.
3. TWENTY NINE ADDITIONAL (29) CONSTRUCTED SURFACE PARKING SPACES ARE PROPOSED, AND EIGHT (8) ADDITIONAL PODIUM PARKING SPACES ARE PROPOSED. THIS INCLUDES TWELVE (12) SURFACE SPACES IN THE GENERAL VICINITY OF THE LAND BANKED PARKING SPACES ON THE NORTH SIDE OF THE NORTHERLY PARKING LOT, TWELVE (12) SURFACE SPACES IN THE NORTHEAST CORNER OF THE EASTERLY PARKING LOT, AND FIVE (5) GRASS PAVER SPACES IN THE SOUTHEAST CORNER OF THE EASTERLY PARKING LOT, IN ADDITION TO EIGHT (8) NEW SUBSURFACE SPACES IN BUILDING 2 AND 3. THESE SPACES WILL BE CONSTRUCTED AND NOT LAND BANKED.
4. THE TOTAL PARKING SPACES PROVIDED ARE:

267 CONSTRUCTED SURFACE SPACES
+ 54 CONSTRUCTED PODIUM SPACES

321 TOTAL CONSTRUCTED PARKING SPACES



PLAN VIEW

NOTES:
1. EXAMPLES SHOWN ON THIS SHEET ARE TAKEN FROM CREEK DRIVE. REFER TO THE DETAIL ON THE ORIGINAL APPROVED PLAN SET FOR ADDITIONAL DETAIL AND NOTES RELATED TO THE TRASH ENCLOSURE.

TRASH ENCLOSURE DETAIL
NOT TO SCALE



TRASH ENCLOSURE EXAMPLE 1



TRASH ENCLOSURE EXAMPLE 2

TRASH ENCLOSURE DETAIL
NOT TO SCALE

PREVIOUSLY APPROVED LAND BANKED PARKING AREA B DETAIL
SCALE: 1"=30

AMENDED LANDSCAPING AND LIGHTING NOTES:

1. THE PROPOSED ADDITIONAL LANDSCAPING SHOWN ON THIS PLAN IS SHOWN IN BOLD TO INDICATE NEW OR RELOCATED PLANTINGS FROM THE ORIGINAL APPROVED PLANS. THE ORIGINAL APPROVED PLAN SHALL BE REFERRED TO FOR ALL OTHER PLANTINGS AND DETAILS.
2. THE PROPOSED LIGHT POLE AT THE 5 PROPOSED GRASS PAVER PARKING SPACES IS IN ADDITION TO THE THE ORIGINAL APPROVED PLAN. THE ORIGINAL APPROVED PLAN SHALL BE REFERRED TO FOR ALL OTHER LIGHTING LOCATIONS AND DETAILS ON THE PLANS.

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	7/28/26	AMENDED SITE PLAN APPLICATION	MAB				

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

Dig Safely. New York Call 811 before you dig

HUDSON LAND DESIGN

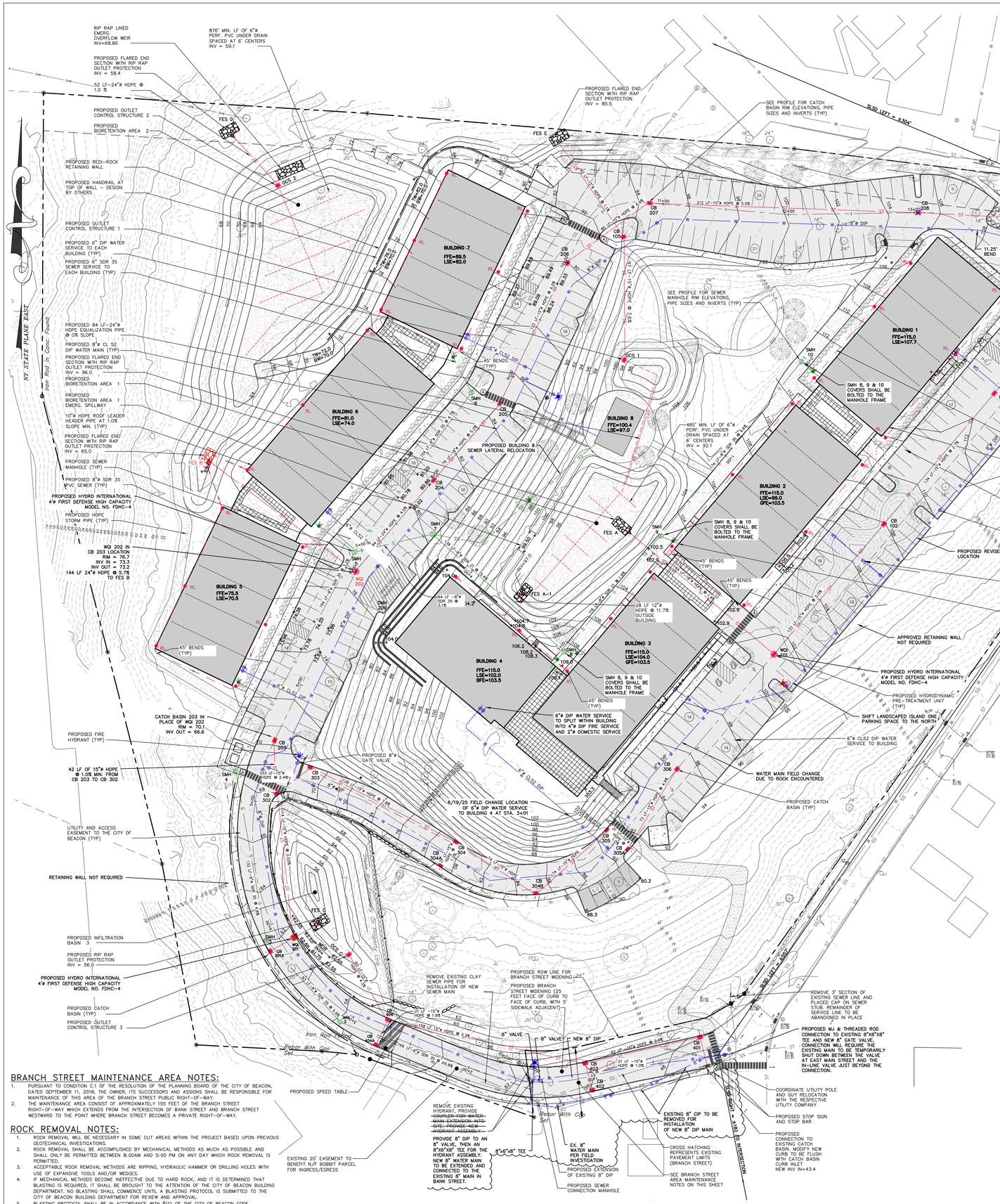
SEAL

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

AMENDED SITE PLAN
EDGEWATER
15–30 EDGEWATER PLACE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5955–19–590022

JOB #:	2016:015
DATE:	JANUARY 31, 2017
SCALE:	1" = 30'
TITLE:	SP–1
SHEET:	6 OF 16

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



LEGEND:

- EXISTING ROOF LEADER LOCATION
- SEWER MANHOLE
- UNKNOWN MANHOLE
- GUY WIRE ANCHOR
- UTILITY POLE
- ELECTRIC BOX
- HYDRANT
- WATER VALVE
- ROUND DROP INLET
- ELECTRIC METER
- UTILITY POLE WITH LIGHT
- COMMUNICATION BOX
- OVERHEAD WIRES
- FENCE
- DROP INLET
- GAS METER
- LAMP
- UNKNOWN VALVE
- EXISTING WATER EDGE
- PROPOSED EASEMENT LINE
- PROPOSED CATCH BASIN WITH INLET PROTECTION
- PROPOSED CLEANOUT
- PROPOSED HYDRANT
- PROPOSED WATER VALVE
- PROPOSED SANITARY MANHOLE
- PROPOSED RETAINING WALL
- PROPOSED CULVERT
- PROPOSED UNDERDRAIN
- PROPOSED ROOF LEADER PIPE
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED SPOT ELEVATION
- EXISTING CATCH BASIN
- EXISTING UTILITY POLE
- PROPOSED CLEANOUT
- PROPOSED SEWER SERVICE LINE
- PROPOSED WATER SUPPLY LINE
- PROPOSED FENCE
- IMPERVIOUS SURFACE
- PROPOSED RIP RAP
- UTILITY CROSSING LOCATION
- PROPOSED ROOF LEADER LOCATION
- PROPOSED WATER SERVICE LINE
- PROPOSED WATER SHUT-OFF VALVE

DUTCHESS COUNTY DEPARTMENT OF BEHAVIORAL & COMMUNITY HEALTH STANDARD NOTES FOR PROJECTS W/CENTRAL WATER & SEWER

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."

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.

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.

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.

NO CELLAR, FOOTING, FLOOR, GARAGE, COOLER OR ROOF DRAINS SHALL BE DISCHARGED INTO THE SEWAGE COLLECTION SYSTEM.

ALL BUILDINGS SHALL BE CONSTRUCTED AT AN ELEVATION HIGH ENOUGH TO ENSURE GRAVITY FLOW TO THE SEWAGE COLLECTION SYSTEM.

ALL REQUIRED EROSION & SEDIMENT CONTROL AND STORMWATER POLLUTION PREVENTION WATER QUALITY & QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.

THE DC EHSD SHALL BE NOTIFIED SIXTY DAYS PRIOR TO ANY CHANGE IN USE; USE CHANGES MAY REQUIRE RE-APPROVAL BY THE DC EHSD.

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).

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.

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.

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.

THE RETAINING WALL/SLOPE STABILIZATION ON THIS SITE IS AN INTEGRAL PART OF THE WATER AND WASTEWATER COLLECTION SYSTEM APPROVAL AND MUST BE CONSTRUCTED PRIOR TO USE OF THE PROPOSED WATER MAINS AND SEWER COLLECTION SYSTEMS.

THE RETAINING WALLS/SLOPE STABILIZATION DETAILS SHOWN ON THESE PLANS ARE NOT CERTIFIED FOR STRUCTURAL INTEGRITY BY THE DCDHCH.

INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES

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

HYDRODYNAMIC DEVICES:
THE VORTEX UNITS SHALL BE INSPECTED QUARTERLY DURING THE FIRST YEAR OF OPERATION. THE MANUFACTURER RECOMMENDS THAT THE CDS UNITS BE INSPECTED BI-ANNUALLY (ONCE IN THE SPRING AND ONCE IN THE FALL). THE STRUCTURE SHALL BE VISUALLY INSPECTED FOR BLOCKAGES OR OBSTRUCTIONS IN THE INLET OR SEPARATION SCREEN. THE INSPECTION SHOULD ALSO QUANTIFY ACCUMULATION OF HYDROCARBONS, SEDIMENT AND TRASH WITHIN THE SYSTEM. INSPECTIONS AND MAINTENANCE SHALL BE PERFORMED BY QUALIFIED PERSONNEL WITH ADEQUATE TRAINING IN THESE TYPES OF UNITS. THE UNITS SHALL BE CLEANED BY VACUUM TRUCK ONCE A YEAR (EXCEPT FOR THE FIRST YEAR WHERE MORE FREQUENT CLEANINGS MAY BE REQUIRED).

INFILTRATION BASIN:
THE INFILTRATION BASIN SHALL BE INSPECTED MONTHLY FOR SEDIMENT AND DEBRIS ACCUMULATION. INFLOW PIPES, OUTLET STRUCTURES AND SPILLWAYS SHOULD ALSO BE INSPECTED FOR SEDIMENT AND DEBRIS MONTHLY. ANY ACCUMULATED SEDIMENT OR DEBRIS SHOULD BE REMOVED AS NECESSARY. PLANTINGS SHALL BE INSPECTED MONTHLY FOR HEIGHT, FERTILIZER, QUANTITY AND UNAUTHORIZED INVASIVE OR INAPPROPRIATE SPECIES. AFTER STORM EVENTS, THE INFILTRATION BASIN DEWATERING DURATION SHOULD ALSO BE MONITORED. THE BASIN FLOOR SHALL BE MOWED AS REQUIRED; HOWEVER, THE GRASS HEIGHT SHALL NOT EXCEED 18". SEDIMENT SHALL BE CLEANED OUT OF THE INFILTRATION BASIN ANNUALLY.

BIORETENTION AREAS:
BIORETENTION AREAS SHALL BE INSPECTED MONTHLY FOR SEDIMENT AND DEBRIS ACCUMULATION. INFLOW PIPES, OUTLET STRUCTURES AND SPILLWAYS SHOULD ALSO BE INSPECTED FOR SEDIMENT AND DEBRIS MONTHLY. ANY ACCUMULATED SEDIMENT OR DEBRIS SHOULD BE REMOVED AS NECESSARY. PLANTINGS SHALL BE INSPECTED MONTHLY FOR HEIGHT, FERTILIZER, QUANTITY AND UNAUTHORIZED INVASIVE OR INAPPROPRIATE SPECIES. GRASS SHALL MOWED ONCE A YEAR. AFTER STORM EVENTS, THE BIORETENTION'S DEWATERING DURATION SHOULD ALSO BE MONITORED. IF IT TAKES LONGER THAN 24 HOURS TO DEWATER THE BIORETENTION AREA, THE VALVE ON THE UNDERDRAIN SHALL BE OPENED SLIGHTLY TO PROVIDE FULL DETATERING IN 24 HOURS. SEDIMENT SHALL BE CLEANED OUT OF THE BIORETENTION AREA ANNUALLY. REFER TO THE OPERATION AND MAINTENANCE PLAN FOR ADDITIONAL LONG TERM MAINTENANCE NOTES.

LONG TERM MAINTENANCE OF BIORETENTION PLANTING NOTES:

INSTALLED PLANTS WITHIN THE STORMWATER FACILITIES SHALL BE EVALUATED FOR THEIR PHYSICAL CONDITION, PLACEMENT, SPECIES AND QUANTITY OF PLANTS. A REPORT LOG DESCRIBING THE INSTALLATION OF THE PLANTINGS AS DESCRIBED ABOVE SHALL BE ISSUED TO THE CITY BY THE SITE LANDSCAPE ARCHITECT SUPERVISING CONSTRUCTION. FOLLOWING SITE STABILIZATION, THE OWNER OR OWNER'S LANDSCAPE ARCHITECT (LA) SHALL PERIODICALLY INSPECT THE INSTALLED LANDSCAPING WITHIN THE STORMWATER PRACTICES. EACH NEWLY INSTALLED PLANT SHALL BE INSPECTED QUARTERLY DURING THE FIRST YEAR, AND ANNUALLY THEREAFTER FOR A PERIOD OF FIVE (5) YEARS, FOR INVASIVE SPECIES, OVERALL PLANT HEALTH, QUANTITY OF PLANTS, EVIDENCE OF EROSION AROUND ROOTS AND PLANT DAMAGE. ANY DAMAGED, DISEASED OR DEAD PLANTS SHALL BE REPLACED IN KIND. EVERY YEAR DATING FROM THE START OF CONSTRUCTION FOR EACH PHASE, THE OWNER'S LA SHALL SUBMIT AN ANNUAL REPORT TO THE CITY OF BEACON. THE REPORTS SHALL INCLUDE PHOTOGRAPHS, FIELD LOGS AND PERCENTAGE OF PLANT SURVIVAL IN ALL STORMWATER FACILITIES.
THE POST MONITORING PLANS SHALL BE AS FOLLOWS:
(a) THE FIRST INSPECTION OF NEWLY PLANTED AREAS SHALL BECOME THE BASELINE STANDARD FOR THE QUANTITY, DIVERSITY, SIZE AND AERIAL/GROUND COVERAGE OF NEW PLANTINGS. ALL SUBSEQUENT MONITORING SHALL SEE APPRECIABLE IMPROVEMENTS IN PLANT SIZES ACCORDING TO SPECIFIC GROWTH HABITS OF EACH SPECIES, NO APPRECIABLE CHANGES IN PLANT QUANTITY AND DIVERSITY, AND APPRECIABLE IMPROVEMENTS IN AERIAL AND GROUND COVERAGE.
(b) THE MONITORING PLAN SHALL INCLUDE A DESCRIPTION OF TYPICAL MAINTENANCE PRACTICES AND SPECIFY REPLACEMENT FOR PLANTS LOST OR THOSE IN POOR HEALTH TO MAINTAIN STANDARDS OF SIZE, DIVERSITY, QUANTITY, AND COVERAGE. MINIMUM AERIAL/GROUND COVERAGE SHALL BE 80% AT MINIMUM, SPECIES DIVERSITY SHALL REMAIN AS DESIGNED. PLANT VIABILITY SHALL BE A MINIMUM OF SIZE OF THE POST CONSTRUCTION BASELINE. INVASIVE PLANTS SHALL MAKE UP LESS THAN 15% OF THE TOTAL NUMBER OF PLANTS. NATURAL PLANT COLONIZERS SHALL BE COUNTED PROVIDED THEY DO NOT DECREASE THE PLANNED DIVERSITY AND THEY ARE NOT CONSIDERED INVASIVE PLANTS.
(c) INSPECTIONS, MAINTENANCE AND REPORTING SHALL CONTINUE IN PERPETUITY AFTER THE END OF THE SEASON IN WHICH THE PLANT INSTALLATIONS ARE COMPLETED.
(d) INSPECTION AND MAINTENANCE SHALL BE PERFORMED BY A QUALIFIED PROFESSIONAL ACCEPTABLE TO THE CITY.
(e) THE PLAN SHALL INCLUDE A DESCRIPTION OF THE METHODOLOGY USED TO ASSESS CONDITIONS IN THE FIELD AND A SAMPLE FIELD-INSPECTION CHECK LIST TO BE USED DURING INSPECTIONS. FIELD CHECK LISTS AND PHOTOGRAPHS OF AREAS SUBJECT TO MONITORING SHALL BE SUBMITTED WITH EACH ANNUAL REPORT. REMEDIATION, SUCH AS REMOVAL OF INVASIVE SPECIES OR REPLACEMENT OF PLANTS SHALL BE REQUIRED IF THE POST-CONSTRUCTION STANDARDS ARE NOT MET.
(f) MAINTENANCE SHALL INCLUDE MANUAL WATERING OF NEWLY INSTALLED PLANTS DURING THE GROWING-IN PERIOD IF AN AGREED-UPON STANDARD FOR NATURAL RAINFALL IS NOT MET DURING THE FIRST GROWING SEASON. REMOVAL OF INVASIVE SPECIES SHALL ALSO BE PART OF MANDATORY MAINTENANCE DURING THE GROWING-IN PERIOD.

SANITARY SEWER TESTING NOTES:

1. THE CONSTRUCTED SEWER MAIN FROM THE EXISTING SEWER MANHOLE ON BRANCH STREET UP TO SEWER MANHOLE 7 SHALL BE TELEVISED TO VERIFY THAT THERE IS NO SETTLEMENT WITHIN THE LINES (BELLIES) OR OTHER DEFECTS (CRACKED LINE, LEAKING JOINTS, ETC.) AND THE MANHOLES INSPECTED TO VERIFY THAT THERE ARE NO ISSUES WITHIN THE STRUCTURES.
2. THE REMAINDER OF THE SEWER SYSTEM (SEWER MANHOLE 7 TO SEWER MANHOLE 10) SHALL BE TESTED IN ACCORDANCE WITH DEPARTMENT OF HEALTH REQUIREMENTS WHICH INCLUDES PRESSURE TESTING OF THE SEWER MAIN LINES, MANDREL TESTING OF THE SEWER LINES AND VACUUM TESTING OF THE MANHOLES.

WATER SERVICE LINE NOTES:

1. ALL DOMESTIC WATER SERVICE LINES SHOWN ON THIS PLAN SHALL BE 4"ø CL52 DIP BRANCHED OFF THE 6"ø CL52 DIP FIRE SERVICE PRIOR TO ENTERING THE BUILDING. SEE WATER SERVICE DETAIL ON THIS SHEET. SIZE OF WATER SERVICE LINES SHALL BE VERIFIED WITH MEP ENGINEER.

SEWER SERVICE LATERAL NOTES:

1. ALL SEWER SERVICE LATERALS SHALL BE 6"ø SDR-35 PVC.

RETAINING WALL NOTES:

1. ALL RETAINING WALLS SHOWN ON THIS PLAN SHALL BE DESIGNED BY A NEW YORK STATE LICENSED ENGINEER AND PLANS SHALL BE SUBMITTED TO THE BEACON BUILDING DEPARTMENT PRIOR TO CONSTRUCTION.

POST CONSTRUCTION NOTES:

1. UPON COMPLETION OF CONSTRUCTION OF THE STORMWATER FACILITIES, AS-BUILT DRAWINGS OF ALL STORMWATER PRACTICES AND AN OPERATION AND MAINTENANCE PLAN MANUAL SHALL BE PROVIDED TO THE CITY OF BEACON.

SNOW STORAGE NOTES:

1. THE SITE OWNER WILL UTILIZE A LOADER TO MOVE SNOW TO THE AREAS DESIGNATED FOR SNOW STORAGE.

SITE CLEARING NOTES:

1. SITE SHALL OCCUR BETWEEN OCTOBER 1ST THROUGH MARCH 31ST IN ACCORDANCE WITH NYSDEC REGULATIONS.

BRANCH STREET MAINTENANCE AREA NOTES:

1. PURSUANT TO CONDITION C.1 OF THE RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, DATED SEPTEMBER 11, 2018, THE OWNER, ITS SUCCESSORS AND ASSIGNS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THIS AREA OF THE BRANCH STREET PUBLIC RIGHT-OF-WAY.
2. THE MAINTENANCE AREA CONSIST OF APPROXIMATELY 155 FEET OF THE BRANCH STREET RIGHT-OF-WAY WHICH EXTENDS FROM THE INTERSECTION OF BANK STREET AND BRANCH STREET WESTWARD TO THE POINT WHERE BRANCH STREET BECOMES A PRIVATE RIGHT-OF-WAY.

ROCK REMOVAL NOTES:

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

PRESSURE REDUCING VALVE AND BACKFLOW PREVENTION NOTES:

1. HYDRANT FLOW TESTS IN THE VICINITY OF THE PROJECT REVEALED STATIC PRESSURES RANGING FROM 98 PSI TO 115 PSI. THEREFORE PRESSURE REDUCING VALVES WILL BE REQUIRED AT ALL PROPOSED DOMESTIC WATER CONNECTIONS TO BUILDINGS.
2. PRESSURE REDUCING VALVES (PRV) SHALL BE FURNISHED BY MUELLER OR WAATS AND COORDINATED WITH THE MECHANICAL ENGINEERING CONSULTANT AS TO TYPE AND SIZE.
3. SPECIFICATIONS FOR THE PROPOSED PRV SHALL BE PROVIDED TO THE CITY OF BEACON BUILDING DEPARTMENT PRIOR TO INSTALLATION.
4. DOUBLE CHECK VALVES SHALL BE PROVIDED ON ALL SERVICE CONNECTIONS TO THE ON-SITE BUILDINGS.
5. DOUBLE CHECK VALVES SHALL BE WAATS SERIES 909 OR APPROVED EQUAL ON DOMESTIC CONNECTIONS AND COORDINATED WITH THE MECHANICAL ENGINEERING CONSULTANT AS TO TYPE AND SIZE.
6. SPECIFICATIONS FOR THE PROPOSED DOUBLE CHECK VALVES SHALL BE PROVIDED TO THE CITY OF BEACON PRIOR TO INSTALLATION.

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 UPPO @ 1-800-962-7962.
3. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL CATCH BASINS & STORM SEWER LINES, SANITARY MANHOLES & SEWER LINES, WATERLINES AND OTHER UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT. INVESTIGATIVE TEST PITS MAY BE REQUIRED TO VERIFY LOCATIONS.
4. PIPE CONNECTIONS TO ALL CATCH BASINS SHALL BE MADE WATERTIGHT, WITH PARTICULAR ATTENTION BEING PAID TO CONNECTIONS LOCATED WITHIN 10 FEET OF SEWER MAINS (AND SERVICE LATERALS).

EXISTING UNDERGROUND UTILITY NOTES:

1. CONTRACTOR SHALL DIG TEST PITS TO VERIFY LOCATION, SIZE AND PIPE MATERIAL OF EXISTING UNDERGROUND UTILITIES. IF ANY EXISTING UTILITIES ARE NOT IN THE LOCATION WHERE THEY ARE SHOWN ON THE PLAN, IT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.

ROOF DRAINAGE NOTES:

1. FINAL DOWNSPOUT LOCATIONS TO BE DETERMINED BASED ON FINAL ARCHITECTURAL PLANS.
2. DOWNSPOUTS SHALL BE DIRECTED TO THE INLINE DRAIN, YARD DRAIN OR CATCH BASIN AND ASSOCIATED PIPING SYSTEMS SURROUNDING THE BUILDINGS.

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	7/28/26	AMENDED SITE PLAN APPLICATION	MAB				

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

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HUDSON LAND DESIGN

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

AMENDED GRADING & UTILITY PLAN

EDGEWATER

15-30 EDGEWATER PLACE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5955-19-590022

JOB #:	2016:015
DATE:	JUNE 30, 2026
SCALE:	1" = 30'
TITLE:	GU-1
SHEET:	11 OF 16

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

DUTCHESS COUNTY DEPARTMENT OF PLANNING & DEVELOPMENT	GML 239 REFERRAL RESPONSE
To: City of Beacon, Planning Board **Project Name**: Edgewater Amended Site Plan **Action**: Site Plan **Applicant**: Scenic Beacon Developments, LLC **Property Address**: 15-30 Edgewater Pl, Beacon, NY 12508 **Lot Number(s)**: 590022, 588001, 604016	**Referral #**: ZR26-138 **Date Received**: 7/20/2026 **Date Requested**: 8/10/2026 **Date Issued**: 7/23/2026
Reviewer: Dozier, Emily	**Signed:** Emily S. Dozier

The Dutchess County Department of Planning & Development has reviewed the subject referral within the framework of General Municipal Law (Article 12B, §239-l/m) based on the materials submitted.

The Department has determined this is a **Matter of Local Concern** and has no comments.

LANC & TULLY
Engineering and Surveying, D.P.C.

August 7, 2026

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

RE: Edgewater
Site Plan Amendment
City of Beacon, NY

Dear Mr. Gunn:

My office has received the following regarding the proposed site plan amendments to the Edgewater project:

- Correspondence dated July 28, 2026, from Cuddy & Feder.
- Correspondence dated July 28, 2026, from Hudson Land Design.
- Stormwater Pollution Prevention Plan Amendment (SWPPP), titled "Stormwater Pollution Prevention Plan for Edgewater", dated January 31, 2017, with an amendment date of July 28, 2026.
- Sheet 6 of 16 titled "Amended Site Plan – Edgewater", with the latest revision date of July 28, 2026, as prepared by Hudson Land Design.
- Sheet 11 of 16 titled "Amended Grading & Utility Plan", with the latest revision date of July 28, 2026, as prepared by Hudson Land Design.
- Sheet 6 of 16 titled "Typical Floor Plan – Edgewater", with the latest revision date of November 1, 2018, as prepared by Aryeh Siegel, Architect.

The applicant is requesting to amend the previously approved site plan to allow for the construction of two (2) additional dwelling units and nine (9) bedrooms in the 4 buildings in Phase 2 (Buildings 1, 2, 3, and 4). The applicant is also proposing to build out the land banked parking with some modifications as to the location of the proposed parking to be constructed.

Based on our review of the above documents and plans, we would like to offer the following comments:

General Comments:

1. The "Site Plan" sheet in numbered as Sheet 6 of 16, whereas the original sheet from the plan set regarding the floor plans is also numbered as Sheet 6 of 16. We believe that the "Site Plan" sheet should be renumbered as Sheet 1 of 16 to correspond with the original plan set for the project.

2. Although the Typical Floor Plan sheet (Sheet 6 of 16) was submitted, this plan should be revised to reflect the total number of units and bedrooms in each building as currently exists I the building constructed, and as proposed for Buildings 1, 2, 3, and 4.

3. It is recommended that additional shrubbery be installed along the east side of the parking lot expansion near Bank Street to reduce lighting from vehicles shining into the house located on the easterly side of Bank Street at the intersection.

4. The full details for the trash enclosure shall be provided on the plan to reflect the actual structure to be constructed as the proposed enclosures shown on the plan are different than as shown on the original approved plans for the project.

SWPPP Comments:

1. The changes in design properly address both Water Quality volume and Runoff Reduction volumes. Additionally, stormwater attenuation requirements remain addressed for the site. Therefore, this office takes no exceptions to the proposed amendments to the Stormwater Pollution Prevention Plan (SWPPP).

This completes our review at this time. Further comments may be provided based on future submissions. **A written response letter addressing each of the above comments should be provided with the next submission.** If you have any questions, or require any additional information, please do not hesitate to contact our office.

Respectfully,

LANC & TULLY, D.P.C.

John Russo, P.E.

cc: Natalie Quinn, Planner
Jennifer Gray, Esq.
Bryan Murphy, Building Inspector

KARC
PLANNING CONSULTANTS, INC.

TO: John Gunn, Chair, and the City of Beacon Planning Board

FR: KARC Planning Consultants, Inc.

DATE: August 10, 2026

RE: 15-30 Edgewater Place (Phase 2) Site Plan Amendment, Scenic Beacon Developments, LLC

I have reviewed the following materials regarding the proposed site plan amendments to Phase 2 of the Edgewater development:

- Cover letter by Taylor M. Palmer, Cuddy + Feder LLP, dated July 28, 2026
- Exhibit A: Responses to Comments Memo, by HLD, dated July 28, 2026
- Site Plan (Sheets 1 and 11), by HLD, last revised July 28, 2026
- GML 239 Referral Response by Dutchess County Planning, issued July 23, 2026

Project Description:
The Applicant is proposing to amend the previously approved site plan to allow for the construction of two (2) additional dwelling units and nine (9) additional bedrooms throughout the four Phase 2 residential buildings (Buildings 1, 2, 3, and 4). This increases the total unit count from 246 to 248 units and the bedroom count from 350 to 359 bedrooms. The applicant is also proposing to construct previously approved land banked parking, with modifications to their approved location due to the presence of bedrock.

Comments & Recommendations:

1. **Parking Requirement.** The proposed amendment reduces the total parking supply from 329 to 321 spaces while increasing the development from 246 to 248 dwelling units and from 350 to 359 bedrooms. Although the proposed parking supply complies with the City's current parking regulations, the Planning Board retains discretion to determine whether the proposed parking supply is appropriate for this development. With 106 dwelling units currently occupied, the applicant should provide available parking utilization data or other information regarding actual parking demand within the development to assist the Board in evaluating the proposed reduction in approved parking with an increase in unit and bedroom count. **The applicant provided verbal information regarding parking utilization at the July Planning Board meeting, however, no supporting information was included in the current submission.**

2. **Landscape Screening of Relocated Trash Enclosure.** The revised plan adds four (4) evergreen trees to screen the trash enclosure, which has been relocated immediately adjacent to the proposed sidewalk along Tompkins Avenue. The applicant should provide the proposed species, size, and spacing of the evergreen plantings to demonstrate that adequate year-round screening will be provided. The Planning Board may also wish to consider whether an alternative location further internal to the site would reduce the enclosure's visibility from the public right-of-way.

KARC
PLANNING CONSULTANTS, INC.

The comments above identify the remaining planning items requiring clarification or additional information. All previous planning comments not otherwise noted above have been satisfactorily addressed.

Natalie Quinn
Beacon Planning Consultant

Cc: Bryan Murphy, Building Inspector
Jennifer L. Gray, Esq., City Attorney
John Russo, P.E., City Engineer

August 10, 2026

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

RE: Site Plan, Traffic and Parking Review for Edgewater Place, City of Beacon, Dutchess County, New York; CM Project No. R245579.04

Chairperson Gunn:

Creighton Manning Engineering & Surveying, PLLC (CM) has performed a review of the following documents:

- July 28, 2026, Supplemental Submission by Cuddy+Feder
- July 28, 2026, Amended Site Plan and comment response letter by Hudson Land Design
- June 30, 2026, Parking & Traffic Letter from Colliers Engineering

Upon review of the aforementioned documents, CM offers the following comments:

1. The project proposes an increase of two (2) studio apartments over what was previously approved - 246 units - for a total of 248 units. ITE suggests a parking demand of 290 to 315 spaces depending on weekday and weekend period, and assuming the units are 2+-bedroom. Studio/1-bedroom units typically demand about 25-30% fewer spaces than 2+ bedroom units. Surface and underbuilding spaces total 321 proposed spaces. This suggests that the provided parking will meet or exceed ITE projected parking demand.
2. As it relates to local parking demand, the parking study notes that the "applicant's recent experience at the Edgewater site as well as their experience at other locations in the city, the Applicant has identified a need for a parking ratio of 1.25 spaces per unit at the site…" The applicant should elaborate on that statement. What is the existing parking demand of the occupied units at Edgewater, and/or elsewhere in the city?
3. Under the new parking regulations, the proposed parking falls between the minimum (1 space per unit) and the maximum (3 spaces per unit) with a proposed 1.29 spaces provided per unit.

If you have any questions about the above comments, please do not hesitate to contact me at (518) 689-1834.

Respectfully,
Creighton Manning Engineering & Surveying, PLLC

Kenneth Wersted, PE, PTOE
Associate

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City of Beacon Planning Board Agenda
08/11/2026

Title:

Public hearing and continue review application for Amended Site Plan Approval, 248 Tioronda Avenue, Residential, submitted by Beacon 248 Holdings, LLC.

ATTACHMENTS

248 Tioronda PB 8.11.26 Submission Cvr Ltr.pdf

248 Tioronda PB 8.11.26 LaBella Response to Comments.pdf

248 Tioronda PB 8.11.26 Updated Floor Plans & Elevations.pdf

248 Tioronda PB 8.11.26 Updated Renderings.pdf

248 Tioronda PB 8.11.26 Updated Site Plan.pdf

248 Tioronda PB 8.11.26 Updated SWPPP.pdf

248 Tioronda PB 8.11.26 Lighting Fixture Specs.pdf

248 Tioronda PB 239 response ZR26-139.pdf

248 Tioronda PB 8.11.26 PH public comment Kacur redacted2.pdf

Lanc & Tully 248 Tioronda Ave 08-07-26.pdf

Chai Developers LLC
35 Main Street, Suite 311
Poughkeepsie, NY 12601

July 26, 2026

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

RE: Updated Submission for 248 Tioronda Ave Amended Site Plan Approval

Dear Mr. Gunn,

On behalf of Beacon 248 Holdings LLC, I am submitting updated materials for the amended site plan approval application for 248 Tioronda Avenue, which is scheduled for continued Planning Board review at the August meeting. Enclosed are the updated Floor Plans & Elevations as well as updated Renderings.

The renderings have been revised to align with the materials and details shown in the architectural drawings. We have also added a new perspective showing the proposed terraces and façade details on the east side of the new buildings, as discussed at the July meeting.

I am also submitting the following responses to Lanc & Tully's general engineering comments in their July 10, 2026 letter:

1. To avoid confusion regarding the unit count, the architectural floor plans have been updated to clearly identify the bi-level units, with staircases added for additional clarity. The total unit count for Buildings 50–100 remains 136 apartments.

2. The updated architectural drawings have been updated to reflect the correct date.

3. The elevation views in the architectural drawings have been updated to label the materials and show the relevant dimensions, details, and colors.

4. The architectural floor plan for Building 50 has been updated to show the locations of the pump station and generator.

5. An updated Engineer's Report related to the site's sewer and water will be shared with the Planning Board when it is sent to DCDOH.

6. We will be seeking an amended approval from DCDOH for the site's sewer pump station based on the amended site plan, and we will share all submissions and correspondence with the Planning Board.

I am also enclosing a memo from LaBella Associates, together with the updated Site Plan & SWPPP, addressing the remaining comments in Lanc & Tully's July 10 letter.

We look forward to discussing the updated material with the Board as we continue to refine the project.

Thank you very much.

Respectfully,



Jay Blumenfeld
Chai Developers LLC
Beacon 248 Holdings LLC

July 28, 2026

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

Re: 248 Tioronda Avenue – Amended Site Plan
Tax ID: 6054-45-012574
City of Beacon, Dutchess County, New York
LaBella Job # CZ81750.00/2260816

Dear Mr. Gunn:

The Applicant of the above-listed project, Beacon 248 Holdings LLC, has received review comments from the Planning Board's engineering consultant, Lanc and Tully, in a letter dated July 10, 2026. Please find a point-by-point response to each of the comments received below.

Lanc and Tully Engineering Comments, dated July 10, 2026:

1. The Full Environmental Assessment Form Part 1, with the latest revision date of April 27, 2026, as last submitted to the Planning Board stated:

   "The Applicant is now seeking approval for the requested revised concept plan to modify Building 100 as follows:

   - *Building 100A – 71,833 SF residential building with 78 dwelling units;*
   - *Building 100B – 66,853 SF residential building with 58 dwelling units;*
   - *27 BMR units are included in the total of 136 dwelling units"*

   The City Council issued a waiver waving the requirements for commercial space and allowing for 136 residential units in the current buildings proposed, 27 of the units being BMR units. The architectural floor plans submitted as part of this application show a total of 94 residential units in Building 50 and 61 residential units in Building 100, for a total of 155 residential units. Since the applicant was approved by City Council for 136 units in the proposed buildings, why are 155 units provided in the buildings?

   Response: There are only 136 units proposed. There are duplex units proposed which may be leading to the appearance of additional units. The architectural floor plans have been revised to clarify these units are connected and are not separate additional units.

2. The submitted architectural plans submitted are dated July 8, 2020. Is this date in error? If so, the correct date shall be provided on the plans.

   Response: The date on the architectural plans has been revised accordingly.

3. Elevations views provided in the architectural drawings shall be labeled out as to materials, colors and dimensioned.

   Response: Additional materials, colors and dimensions have been added to the elevations.

4. The architectural floor plans for building 50 shall be revised to reflect the location of the sewage pump station located within the building. It should also reflect the location of the generator for the pump station if located within the building.

   Response: The requested information has been added to the revised architectural floor plans for building 50.

5. An updated Engineer's Report shall be provided for the sewer and water on the site. The report shall also detail the required modifications, if any, to the existing sewage pump station on the site.

   Response: An updated Engineer's Report will be provided as part of the DCDOH application and a copy will be provided to the city.

6. The application was previously reviewed and approved by DCDOH for the sewer pump station that serves the site. Applicant shall seek amended approval from the DCDOH for any revisions that may be required for the previously issued approval. The Planning Board shall be provided a copy of all submissions made to the DCDOH, along with a copy of all correspondences received from the DCDOH.

   Response: Comment noted.

Sheet C130:

1. In the area of the "Public Greenway Dog Run", it notes the fencing to be 4-foot high on the south side, and only 3-foot high along the east and north site of the park area. We would recommend that the fencing for the dog park area remain at a minimum of 4-feet to prevent dogs from jumping and escaping the fenced area since they may be loose while in the park area.

   Response: The dog run fencing height has been increased to minimum 4-feet.

Sheet C140:

1. Plan shall reflect fall protection above the proposed retaining walls. Details of the proposed fall protection shall be provided on the plans.

   Response: The callout for the fall protection fence has been revised to specify style and color.

2. The Plan shall be revised to remove those utility runs that are being removed as delineated and called out on the Demolition Plan (Sheet C120)

   Response: The plans have been revised accordingly. Note, there are proposed utilities that will be installed in the same trench as an existing utility being demolished, so there are some pipes that are displayed on both sheet C120 and sheet C140.

Sheet C150:

1. It is recommended that a double row silt fence be provided along the creeks side of the project until the construction has been completed and all disturbed areas stabilized.

   Response: Additional silt fencing has been added to sheet C150.

Sheet C200:

1. The applicant's engineer shall verify sizing and turning capabilities of the current and proposed fire vehicles either currently in service or ordered. Sheet shall be revised accordingly.

   Response: The fire chief has confirmed that the proposed maneuvering plan accommodates currently in service and on order equipment.

SWPPP Comments:

1. Pages 1 and 2 of the SWPPP report contain a message that states "ERROR! REFERENCE NOT FOUND." Applicant's engineer shall revise the report as needed for clarity.

   Response: The referenced error text has been removed from the SWPPP.

2. Given that this revision of the SWPPP involves the addition of 2 buildings, the applicant's engineer shall revise the eNOI to indicate a new proposed end date.

   Response: The eNOI has been revised accordingly.

3. The eNOI shall be revised to reflect the proposed green roofs for the two additional buildings to the list of proposed treatment practices.

   Response: The eNOI has been revised accordingly.

4. Section 6.6.2 (Page 26) of the SWPPP report indicates that the 2015 NYSDEC Stormwater Desing Manual requires "that hydrologic and hydraulic analysis of the Pre- and Post-development conditions be performed using NRCS TR-20 and TR-55 methodologies". Per page 3-4 of the TR-55, the minimum Tc must be 0.10 hours (6 minutes). Applicant's engineer shall revise the models to ensure that this requirement is met.

   Response: The minimum Tc has been set to 0.10 hours (6 minutes).

5. The individual areas noted in the table B titled, "Determine individual practice Water Quality volume (WQv)" in appendix K of the SWPPP report do not add up to the totals at the bottom of the table. Applicant's engineer shall revise the table for clarity.

   Response: Table B has been revised accordingly.

6. The impervious area (Ai) used to calculate the minimum RRv in Table C in appendix K of the SWPPP report does not equal to the total summation of the impervious areas within the sub-catchment areas designated as new development in table table B. 100% of the WQv resulting from new development must be treated, and the minimum RRv required must be calculated

based on the total new impervious areas. Applicant's engineer shall revise the calculation to account for all new impervious area, or revise the tables for clarity.

Response: As shown at the top of Table B ("Determine Pre- and Post-Development Impervious Cover Areas"), the new development impervious area is 0.34 acres, which matches the impervious area used for the minimum RRv calculation. The bottom of Table B ("Determine Individual Practice Water Quality Volume (WQv)") shows that the green roofs and bioretention basin, which meet new development treatment standards, treat 0.7 acres of impervious area, which exceeds the requirement to treat 0.34 acres to new development standards. No revisions are required to Appendix K.

7. The Tc paths depicted on the post-development plan extend past the sub-catchment boundaries. Applicant's engineer shall revise the Tc paths in the post-development plans to be contained entirely within their respective sub-catchments as stipulated in chapter 5 of the TR-55.

   Response: The time of concentration for the subcatchments have been revised accordingly.

8. Applicant's engineer shall provide Tc tables for the proposed sub-catchments on the post-development plan in the same manner done on the pre-development plan.

   Response: The pre-development Tc table has been removed for consistency.

Please find the revised site plans attached. If you have any questions or comments during your review of the submitted documents, feel free to reach out to me directly at (845) 454-3980.

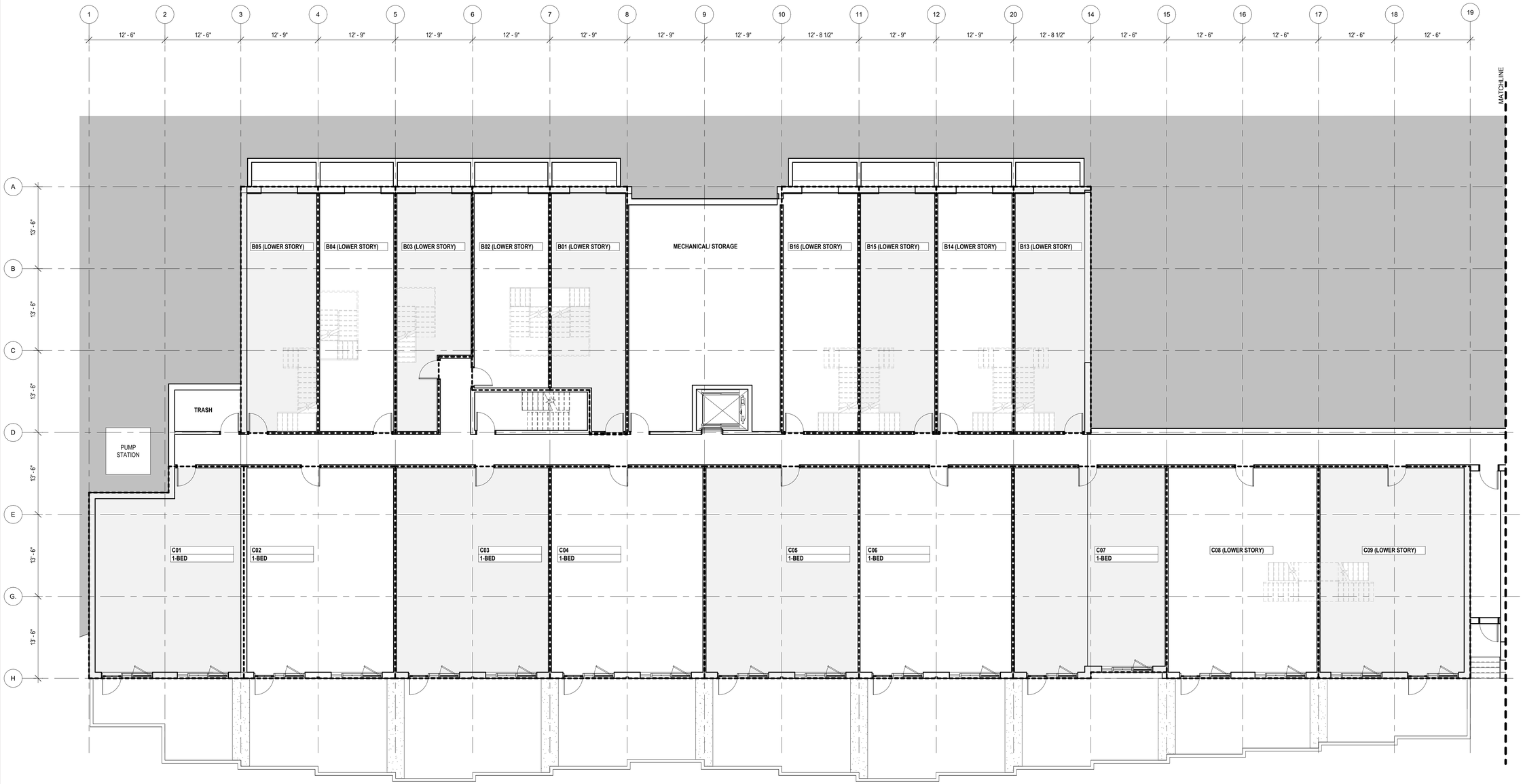
Respectfully submitted,



Kyle Ahearn, PE, Senior Civil Engineer

cc: Applicant

Encl: Amended Site Plans, revised 7/28/26 (4 copies)
Amended SWPPP, revised July 2026 (2 copies)
Lighting Cut Sheets (4 copies)



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BUILDING KEY

134

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2	07/24/26	PLANNING BOARD REVIEW
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ISSUED FOR 2026/08/11 PLANNING BOARD MEETING

248 TIORONDA AVE

CELLAR PLAN

BLDG 50

DRAWING TITLE

AB

CHECKED BY

PROJECT #

1/8" = 1'-0"

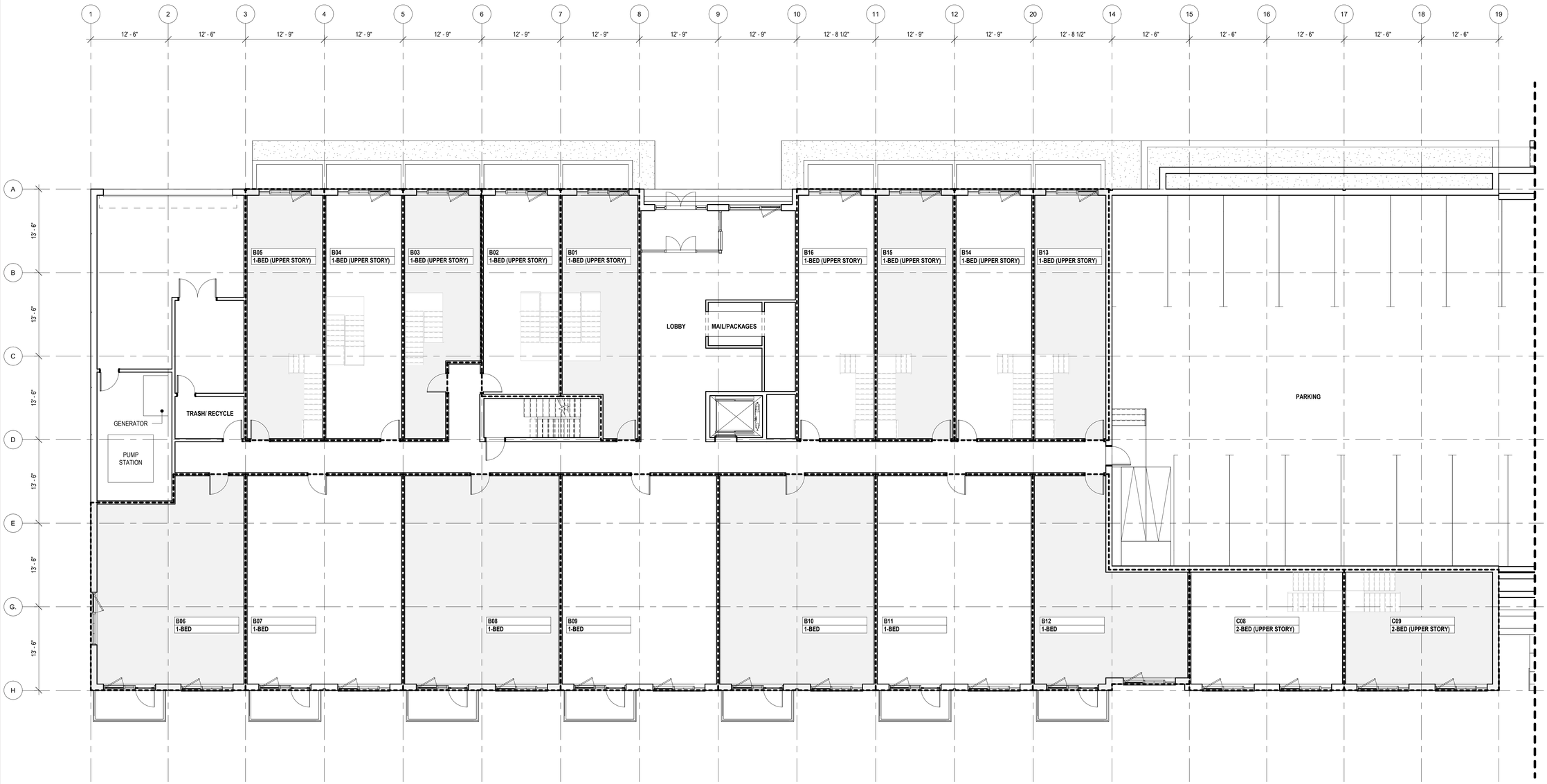
SCALE

07/13/26

DATE

A-A200.

DRAWING #



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BUILDING KEY

50(A) 100(D) 200(B) 300(C)

135

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248 TIORONDA AVE

BASEMENT PLAN

BLDG 50

DRAWING TITLE

AB
CHECKED BY

PROJECT #

1/8" = 1'-0"
SCALE

07/13/26
DATE

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DRAWING #



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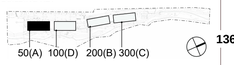
BUILDING KEY



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248 TIORONDA AVE

1ST FLOOR PLAN

BLDG 50

DRAWING TITLE

AB
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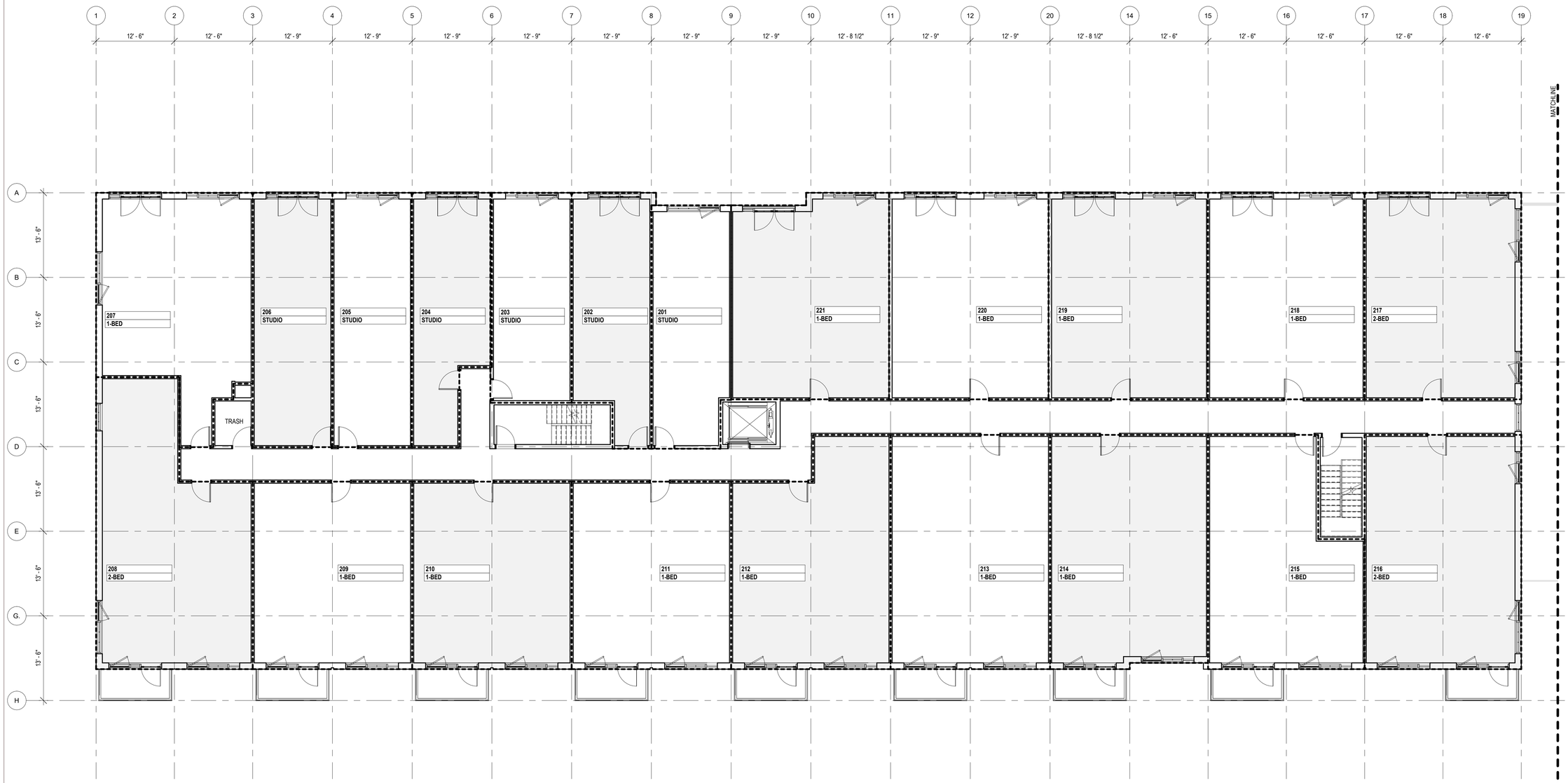
PROJECT #

1/8" = 1'-0"
SCALE

07/13/26
DATE

A-A202.
DRAWING #

3 OF 20



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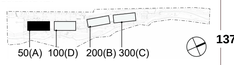

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#	DATE	DESCRIPTION
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248 TIORONDA AVE

2ND FLOOR PLAN

BLDG 50

DRAWING TITLE

AB
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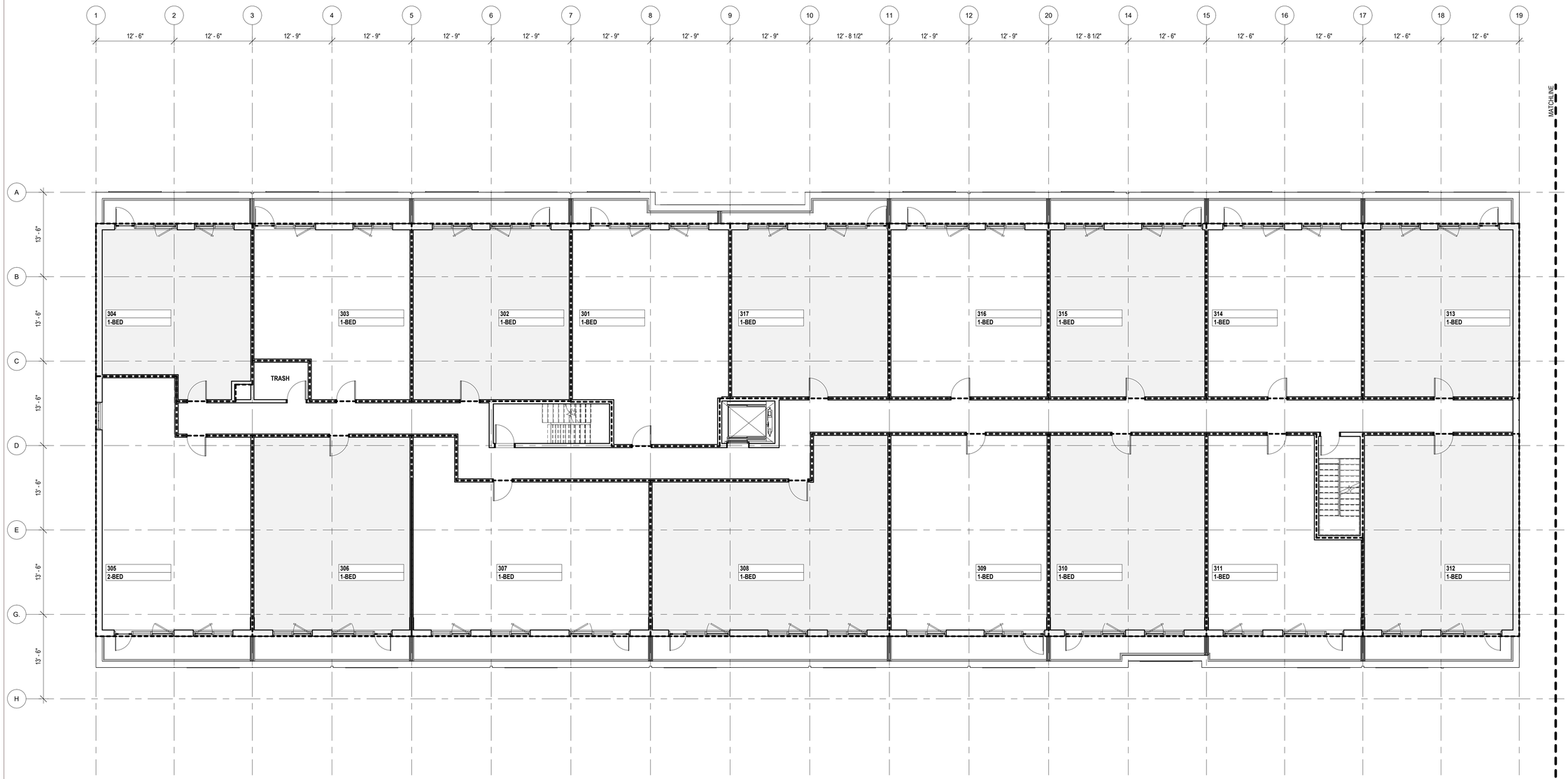
PROJECT #

1/8" = 1'-0"
SCALE

07/13/26
DATE

A-A203.
DRAWING #



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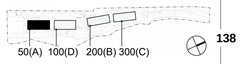

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248 TIORONDA AVE

3RD FLOOR PLAN

BLDG 50

DRAWING TITLE

AB
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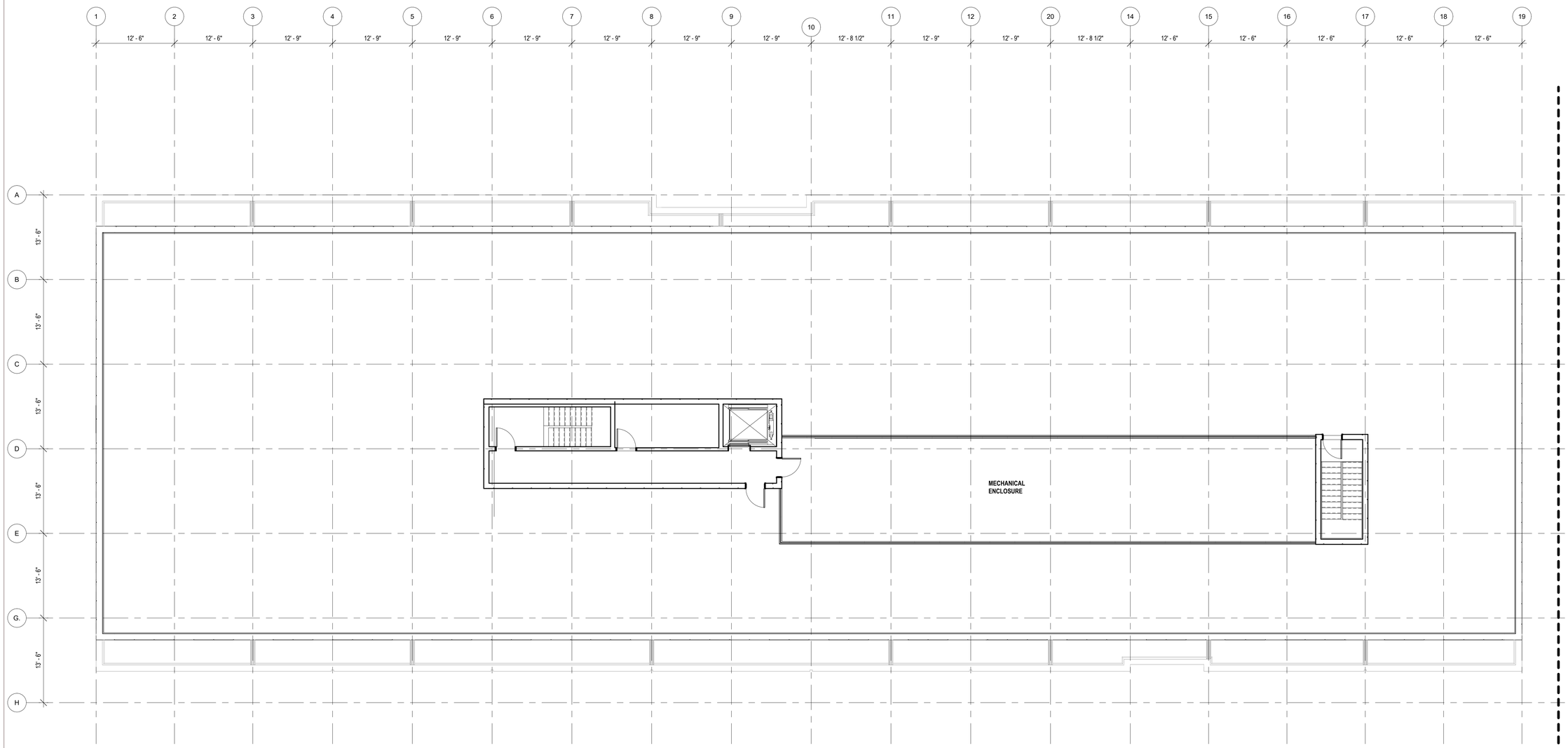
PROJECT #

1/8" = 1'-0"
SCALE

07/13/26
DATE

A-A204.
DRAWING #



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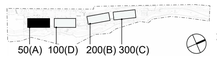

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248 TIORONDA AVE

ROOF PLAN

BLDG 50

DRAWING TITLE

AB

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PROJECT #

1/8" = 1'-0"

SCALE

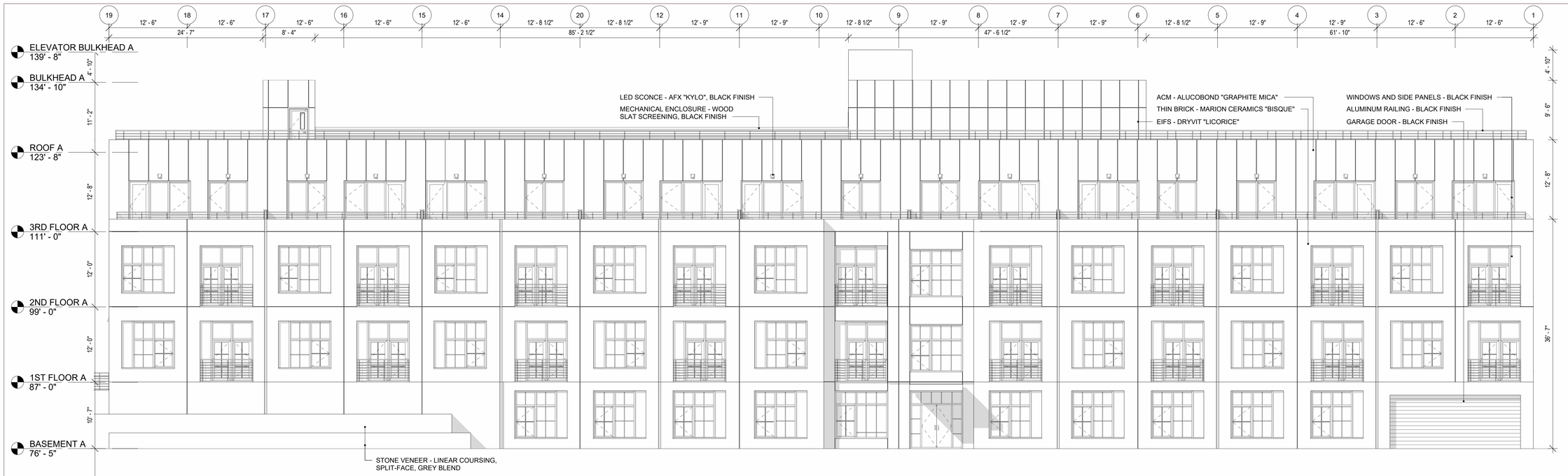
07/13/26

DATE

A-A205.

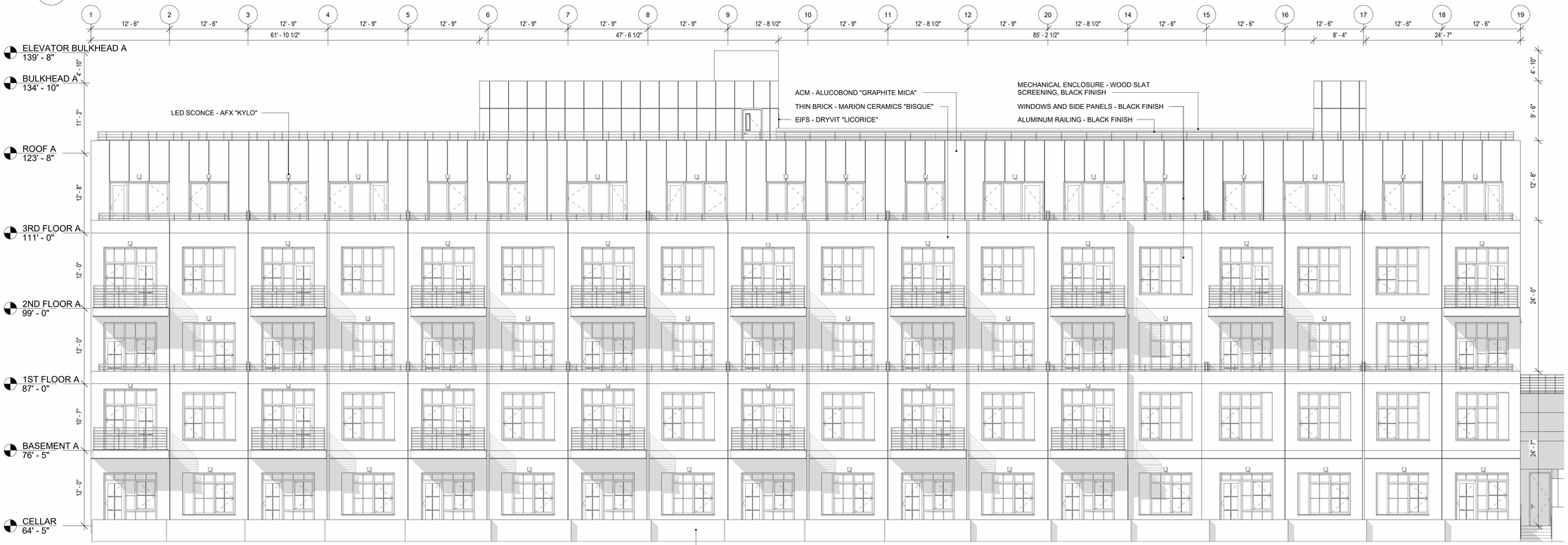
DRAWING #

6 OF 20



1 ELEVATION - WEST

1/8" = 1'-0"



2 ELEVATION - EAST

1/8" = 1'-0"

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248 TIORONDA AVE

ELEVATIONS

BLDG 50

DRAWING TITLE

AB

CHECKED BY

PROJECT #

1/8" = 1'-0"

SCALE

07/13/26

DATE

A-A401.

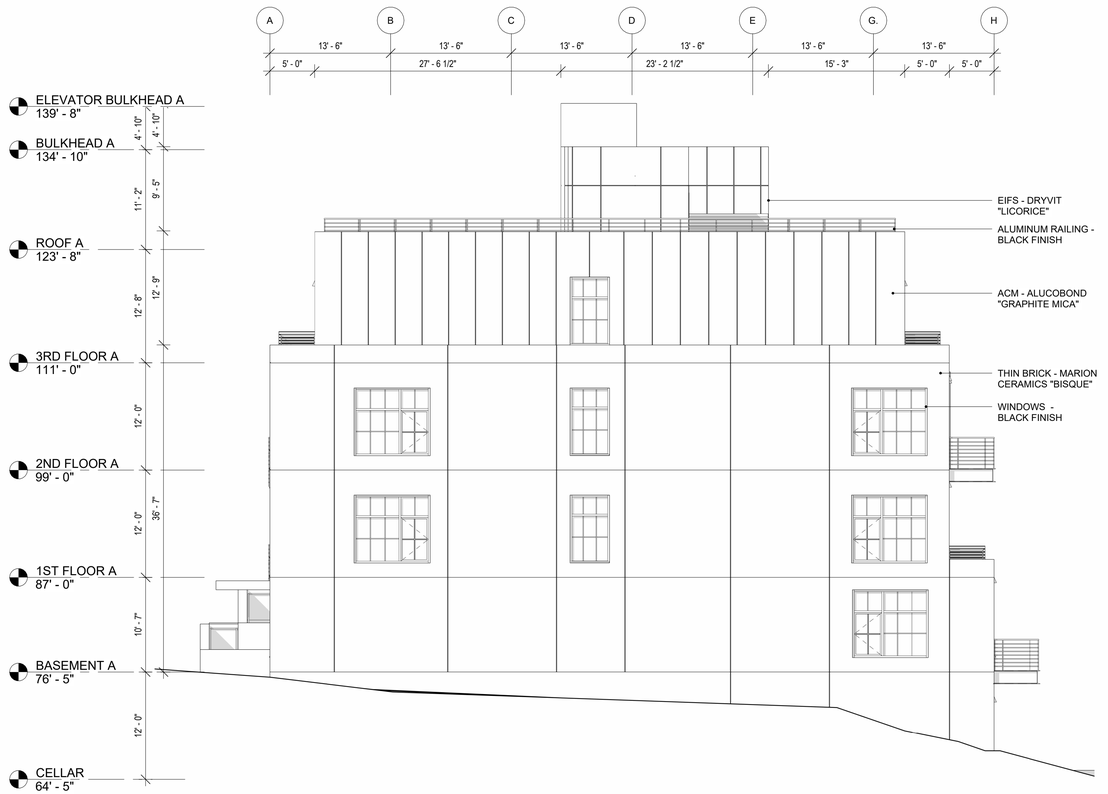
DRAWING #

7 OF 20



1 ELEVATION - NORTH

1/8" = 1'-0"



2 ELEVATION - SOUTH

1/8" = 1'-0"

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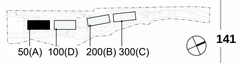

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248 TIORONDA AVE

ELEVATIONS

BLDG 50

DRAWING TITLE

AB

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PROJECT #

1/8" = 1'-0"

SCALE

07/13/26

DATE

A-A402.

DRAWING #

8 OF 20



1 ELEVATION - WEST

1/8" = 1'-0"



2 ELEVATION - EAST

1/8" = 1'-0"

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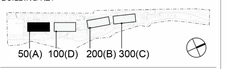

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ISSUED FOR 2026/08/11 PLANNING BOARD MEETING

248 TIORONDA AVE

COLORIZED ELEVATIONS

BLDG 50

DRAWING TITLE

AB
CHECKED BY

PROJECT #

1/8" = 1'-0"
SCALE

07/13/26
DATE

A-A403.

DRAWING #

9 OF 20



1 ELEVATION - NORTH

1/8" = 1'-0"



2 ELEVATION - SOUTH

1/8" = 1'-0"

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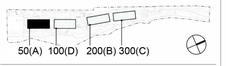
BUILDING KEY



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248 TIORONDA AVE

COLORIZED ELEVATIONS

BLDG 50

DRAWING TITLE

AB
CHECKED BY

PROJECT #

1/8" = 1'-0"
SCALE

07/13/26
DATE

A-A404.
DRAWING #

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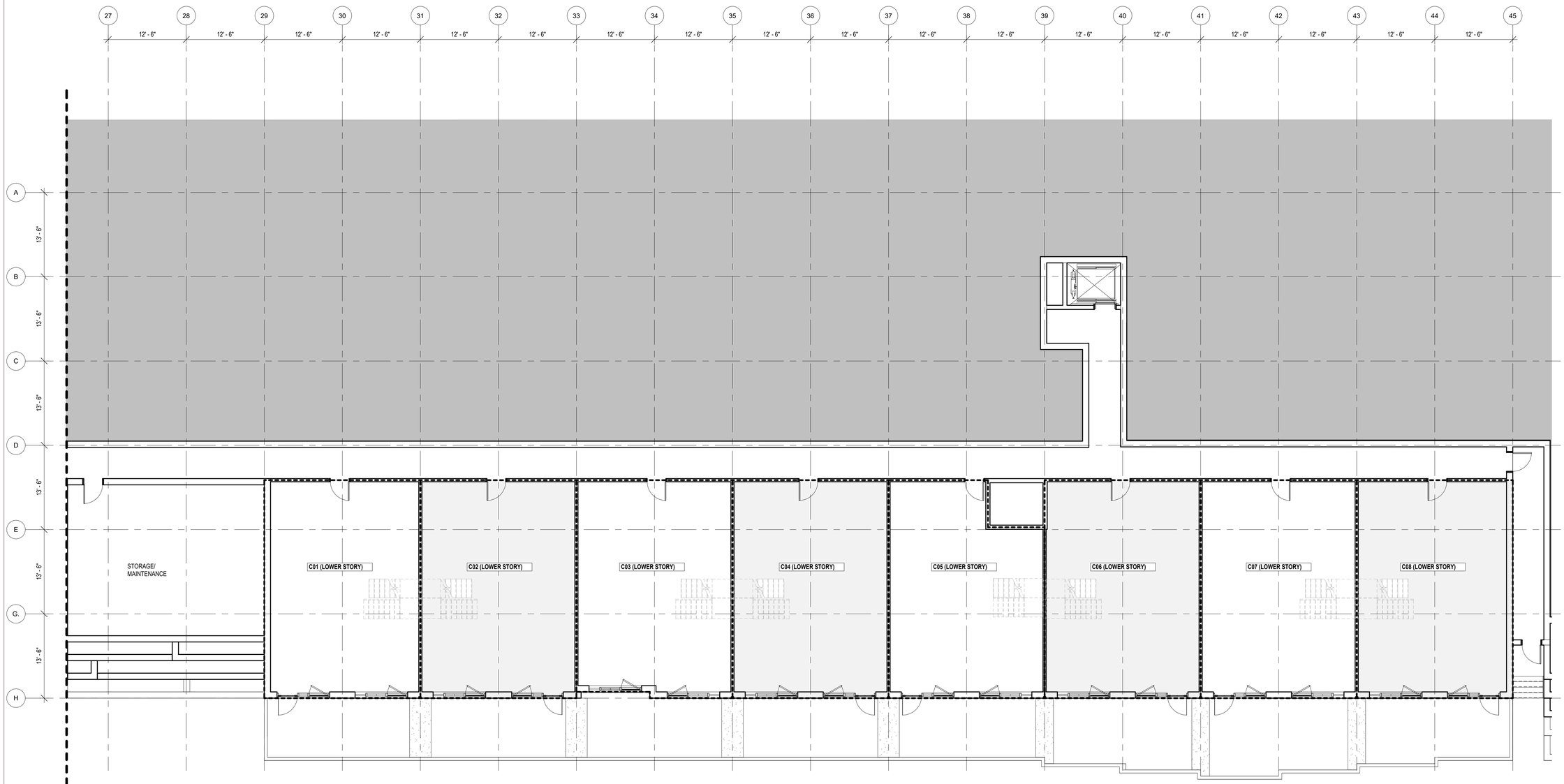

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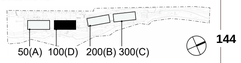
BUILDING KEY



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248 TIORONDA AVE

CELLAR PLAN

BLDG 100

DRAWING TITLE

AB

CHECKED BY

PROJECT #

1/8" = 1'-0"

SCALE

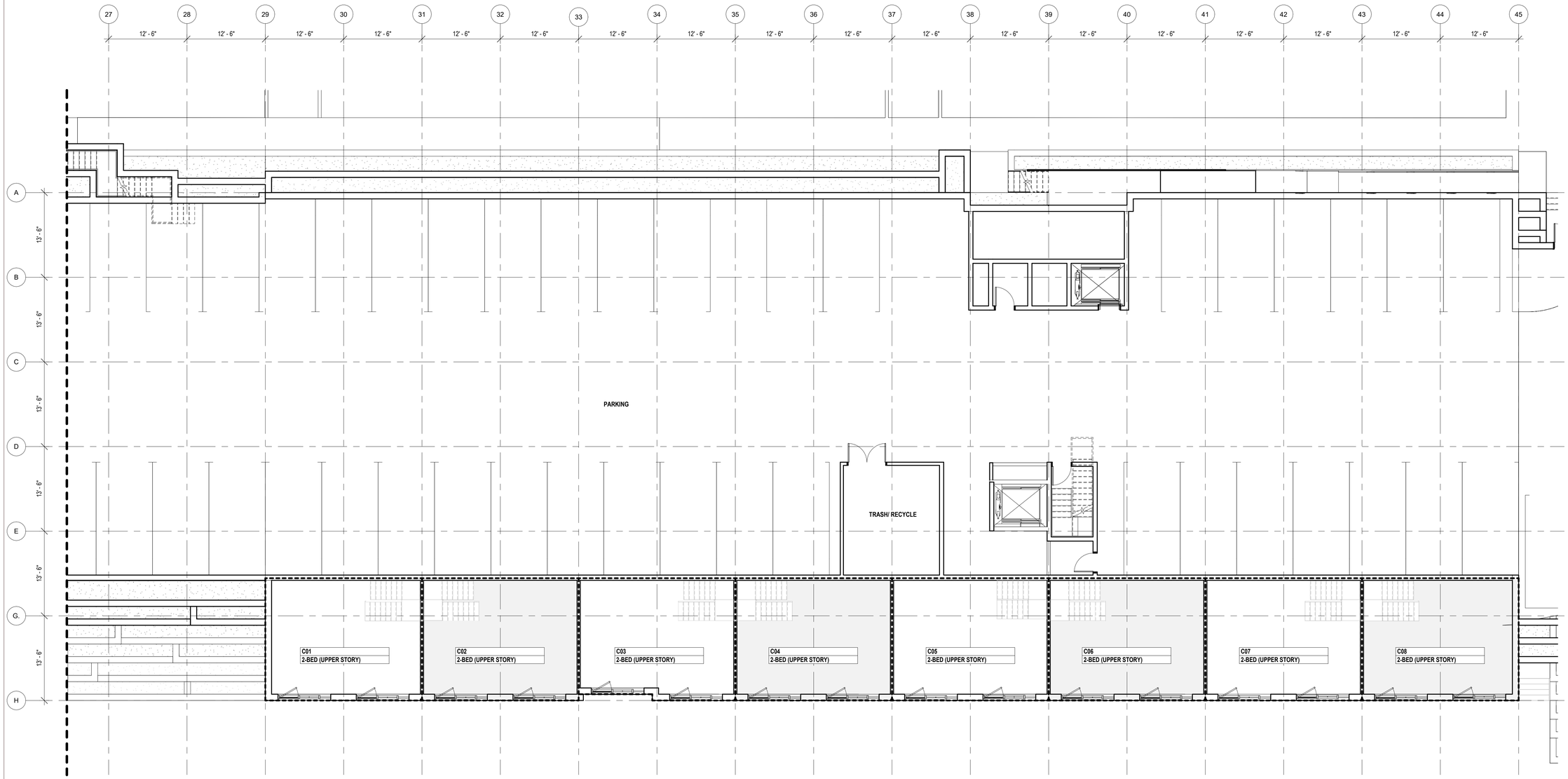
07/13/26

DATE

A-D200.

DRAWING #

11 OF 20



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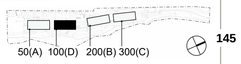
BUILDING KEY



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248 TIORONDA AVE

BASEMENT PLAN

BLDG 100

DRAWING TITLE

AB
CHECKED BY

PROJECT #

1/8" = 1'-0"
SCALE

07/13/26
DATE

A-D201.
DRAWING #

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BUILDING KEY



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ISSUED FOR 2026/08/11 PLANNING BOARD MEETING

248 TIORONDA AVE

1ST FLOOR PLAN

BLDG 100

DRAWING TITLE

AB

CHECKED BY

PROJECT #

1/8" = 1'-0"

SCALE

07/13/26

DATE

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DRAWING #



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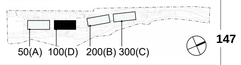
BUILDING KEY



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ISSUED FOR 2026/08/11 PLANNING BOARD MEETING

248 TIORONDA AVE

2ND FLOOR PLAN

BLDG 100

DRAWING TITLE

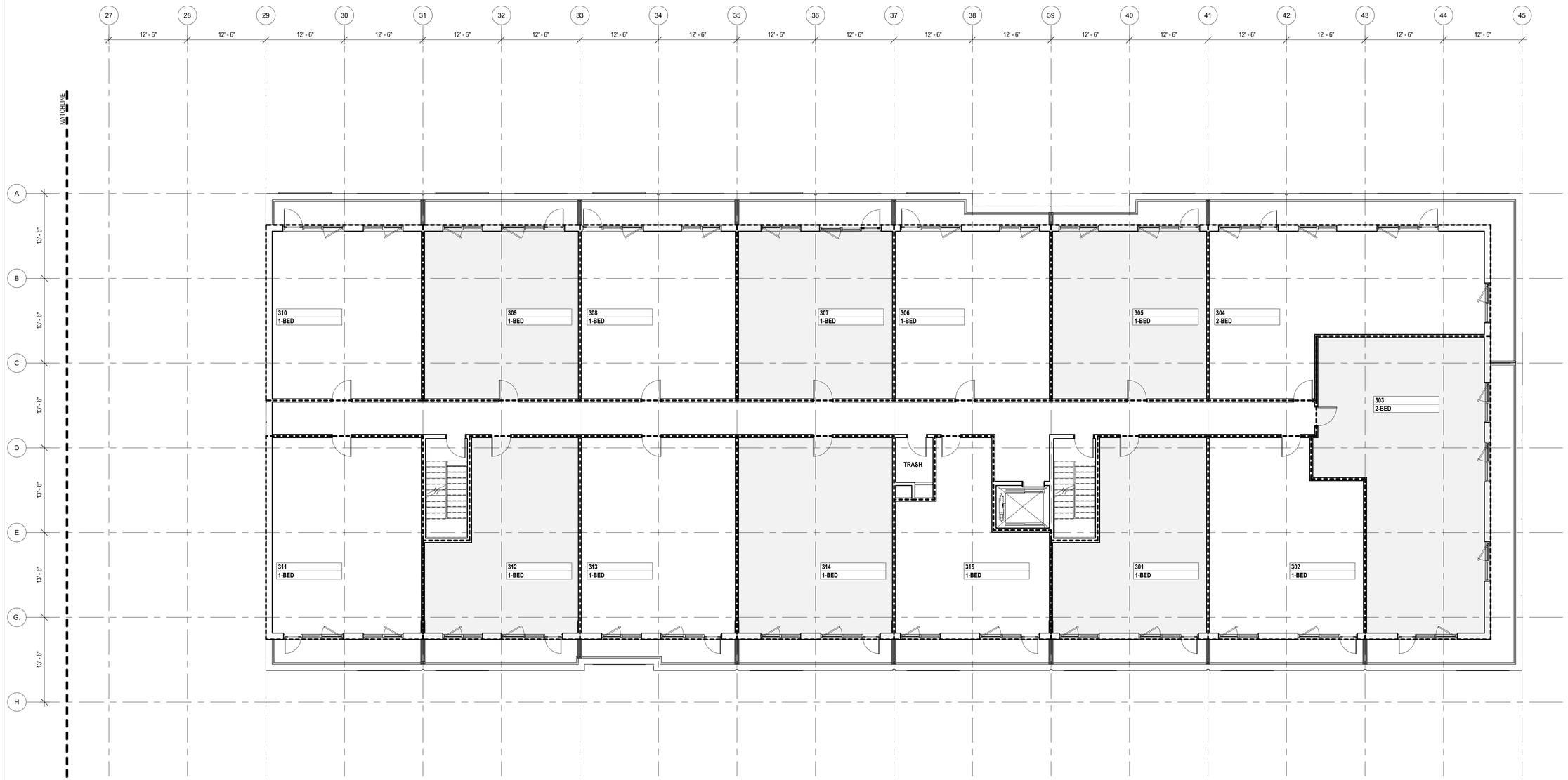
AB
CHECKED BY

PROJECT #

1/8" = 1'-0"
SCALE

07/13/26
DATE

A-D203.
DRAWING #



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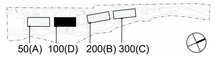

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248 TIORONDA AVE

3RD FLOOR PLAN

BLDG 100

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07/13/26
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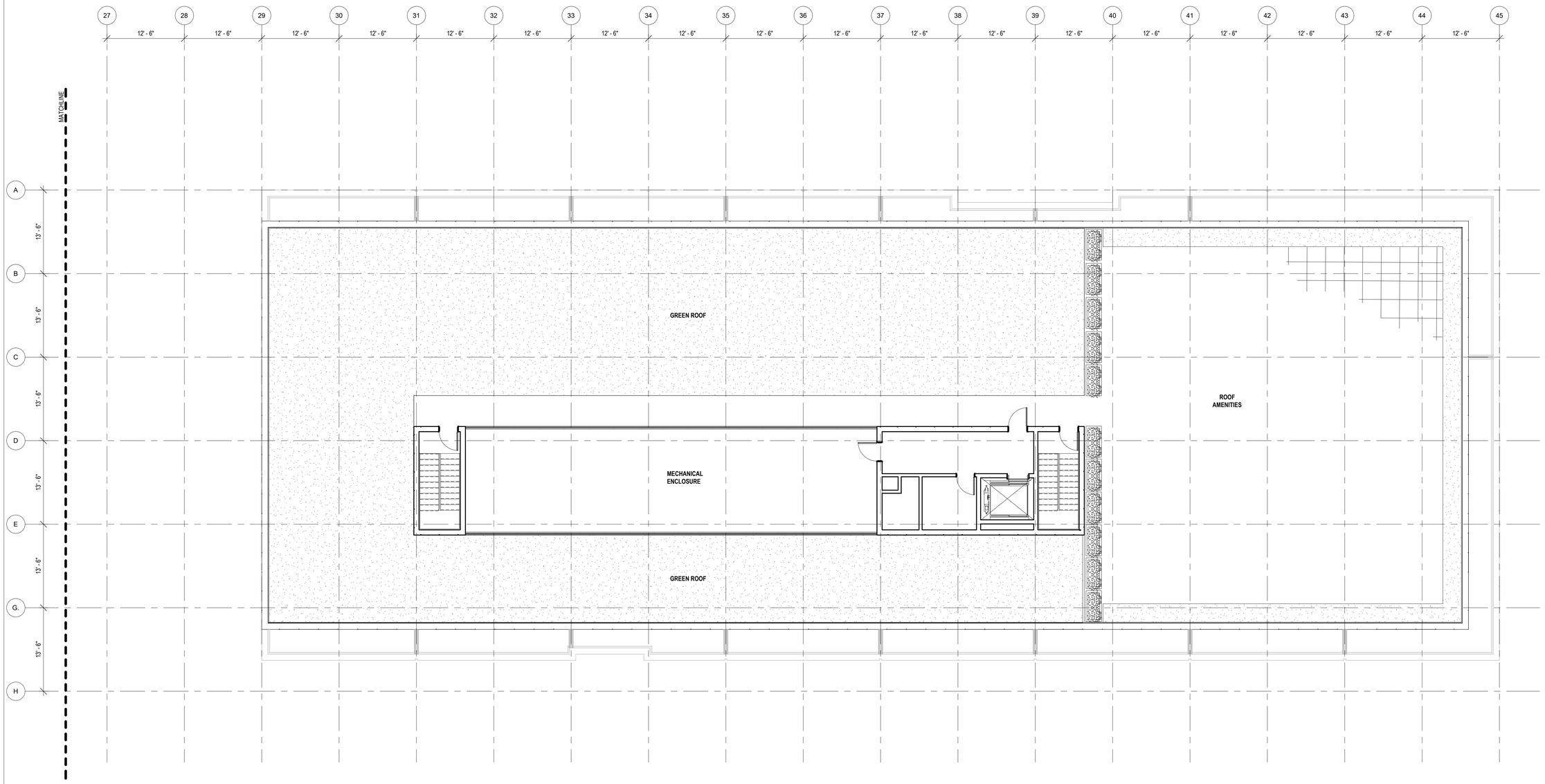
DRAWING #



NOTE: THE COMBINED GREEN ROOF AREA TO BE PROVIDED BETWEEN THE EXISTING AND PROPOSED BUILDINGS TOTALS 10,000 SF. THE SCHEMATIC LAYOUT SHOWN HERE DOES NOT REPRESENT THE FINAL GREEN ROOF DESIGN. FINAL LAYOUT AND DISTRIBUTION OF GREEN ROOFS WILL BE COORDINATED WITH THE AMENITY DESIGNER AND INCLUDED IN CONSTRUCTION DOCUMENTS.

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BEACON 248 HOLDINGS LLC
147 UNION ST., SUITE 101
POUGHKEEPSIE, NY 12601
OWNER

BUILDING KEY

149

#	DATE	DESCRIPTION
10		
9		
8		
7		
6		
5		
4		
3		
2	07/24/26	PLANNING BOARD REVIEW
1	06/30/26	PLANNING BOARD REVIEW

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F 212.334.4520
www.abarchitekten.com

ISSUED FOR 2026/08/11 PLANNING BOARD MEETING

248 TIORONDA AVE

ROOF PLAN

BLDG 100
DRAWING TITLE

AB
CHECKED BY
PROJECT #

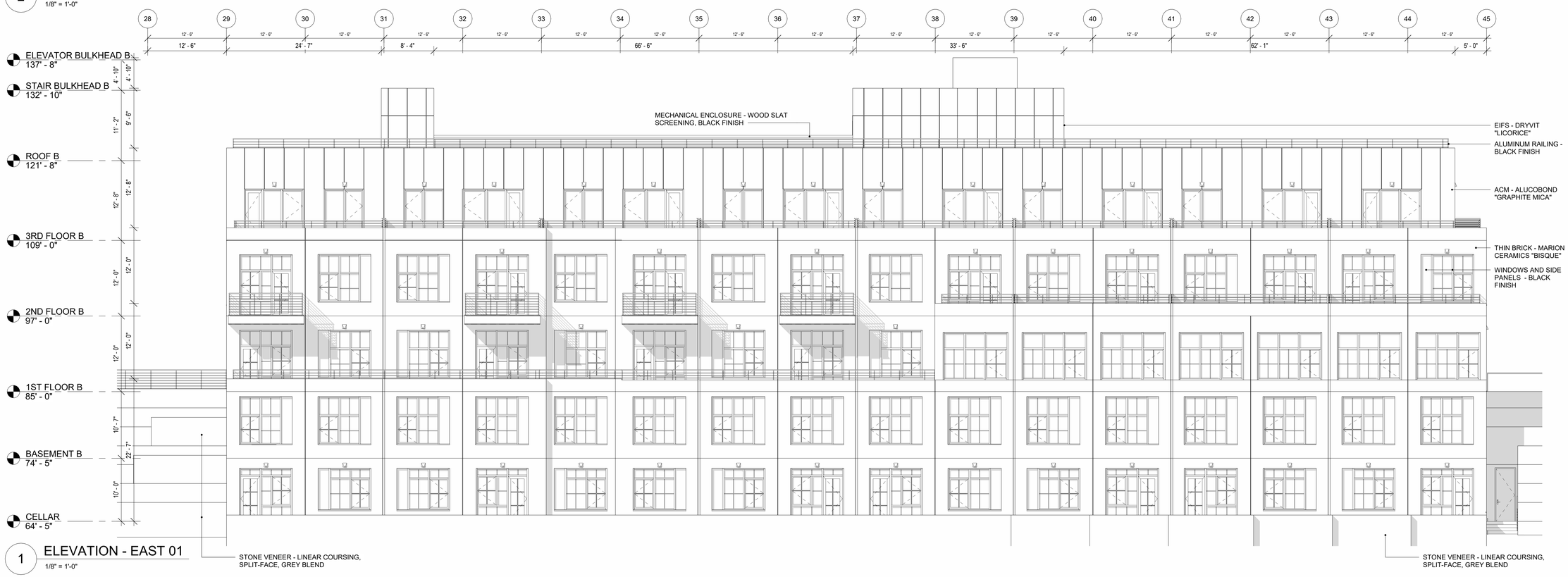
1/8" = 1'-0"
SCALE
07/13/26
DATE

A-D205.
DRAWING #



2 ELEVATION - WEST 01

1/8" = 1'-0"



1 ELEVATION - EAST 01

1/8" = 1'-0"

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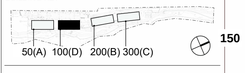
POUGHKEEPSIE, NY 12601
OWNER

BUILDING KEY



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248 TIORONDA AVE

ELEVATIONS

BLDG 100

DRAWING TITLE

AB — CHECKED BY

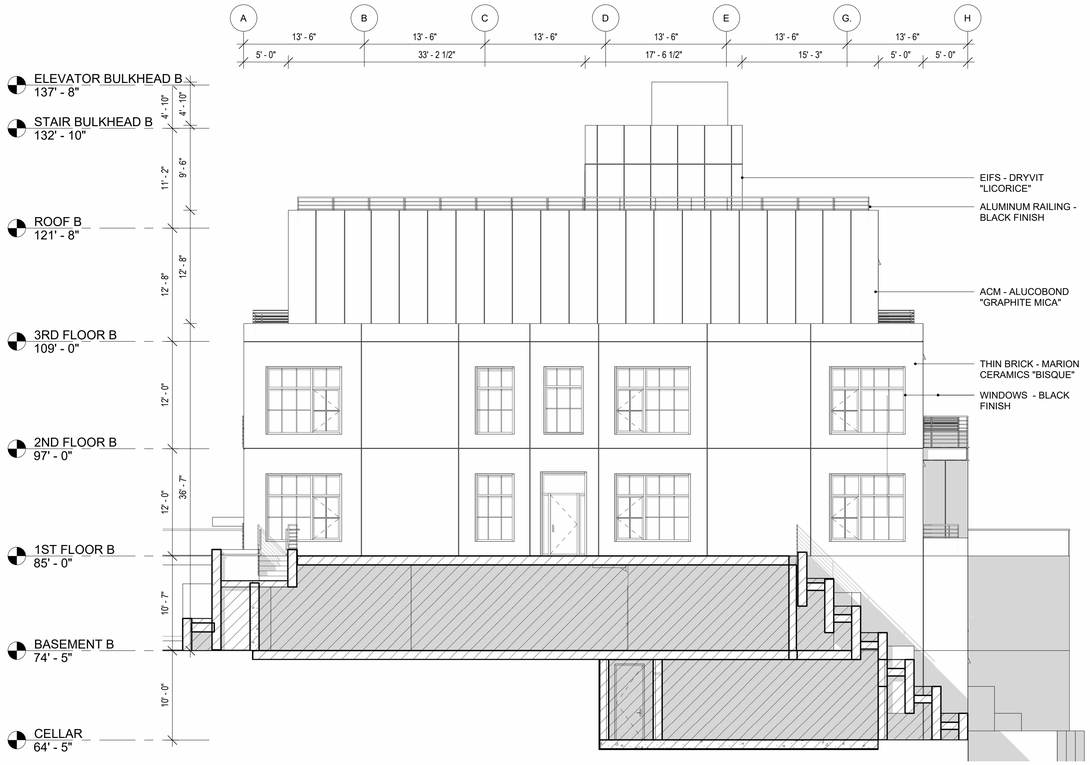
PROJECT #

1/8" = 1'-0" — SCALE

07/13/26 — DATE

A-D401.

DRAWING #



2 ELEVATION - SOUTH

1/8" = 1'-0"



1 ELEVATION - NORTH 01

1/8" = 1'-0"

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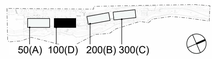
OWNER

BUILDING KEY



151

#	DATE	DESCRIPTION
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2	07/24/26	PLANNING BOARD REVIEW
1	06/30/26	PLANNING BOARD REVIEW

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248 TIORONDA AVE

ELEVATIONS

BLDG 100

DRAWING TITLE

AB — CHECKED BY

PROJECT #

1/8" = 1'-0" — SCALE

07/13/26 — DATE

A-D402.

DRAWING #

18 OF 20



1 ELEVATION - WEST

1/8" = 1'-0"



2 ELEVATION - EAST

1/8" = 1'-0"

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POUGHKEEPSIE, NY 12601

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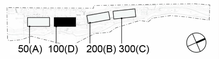
BUILDING KEY



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248 TIORONDA AVE

COLORIZED ELEVATIONS

BLDG 100

DRAWING TITLE

AB
CHECKED BY

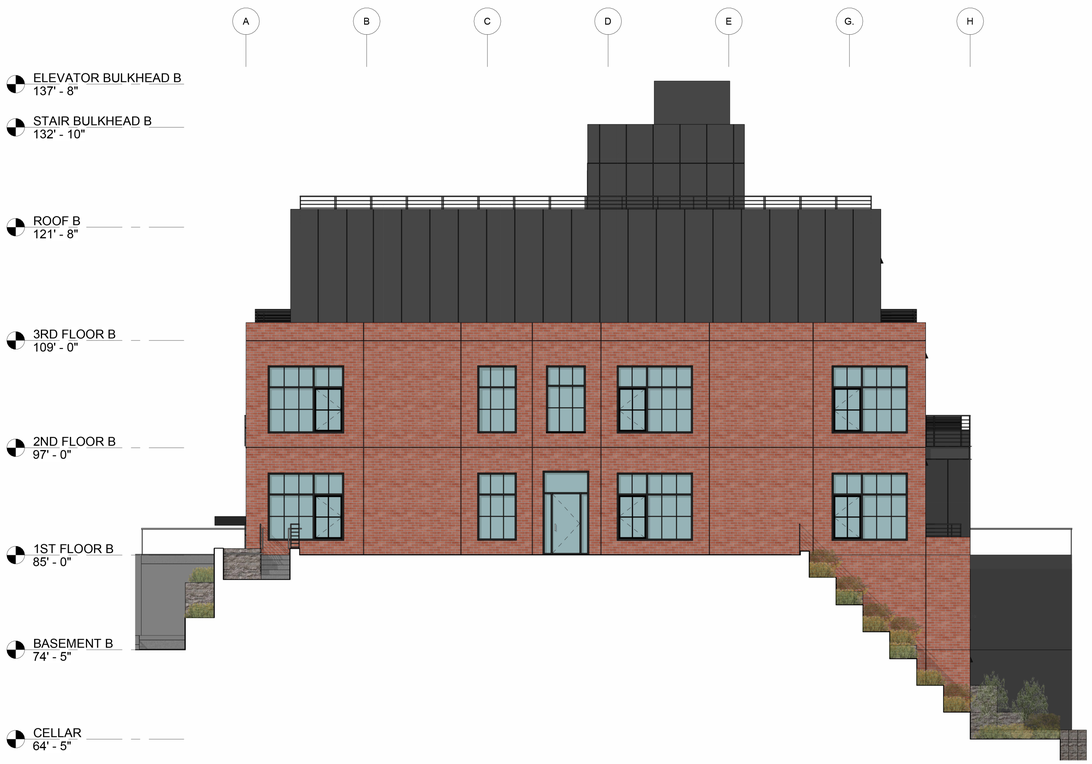
PROJECT #

1/8" = 1'-0"
SCALE

07/13/26
DATE

A-D403.
DRAWING #

19 OF 20



1 ELEVATION - SOUTH

1/8" = 1'-0"



2 ELEVATION - NORTH

1/8" = 1'-0"

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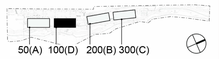
BEACON 248 HOLDINGS LLC
147 UNION ST., SUITE 101
POUGHKEEPSIE, NY 12601

OWNER

BUILDING KEY



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ISSUED FOR 2026/08/11 PLANNING BOARD MEETING

248 TIORONDA AVE

COLORIZED ELEVATIONS

BLDG 100

DRAWING TITLE

AB

CHECKED BY

PROJECT #

1/8" = 1'-0"

SCALE

07/13/26

DATE

A-D404.

DRAWING #

20 OF 20

PERSPECTIVE - WEST

248 TIORONDA AVE
BUILDINGS 50 - 100

PLANNING BOARD REVIEW
JULY 24. 2026



PERSPECTIVE - EAST

248 TIORONDA AVE
BUILDINGS 50 - 100

PLANNING BOARD REVIEW
JULY 24. 2026

PERSPECTIVE - NW



PERSPECTIVE - FROM WOLCOTT AVE

248 TIORONDA AVE
BUILDINGS 50 - 100

PLANNING BOARD REVIEW
JULY 24. 2026



PERSPECTIVE - FROM KRISTY DR

248 TIORONDA AVE
BUILDINGS 50 - 100

PLANNING BOARD REVIEW
JULY 24. 2026



PERSPECTIVE - GREENWAY TRAIL

248 TIORONDA AVE
BUILDINGS 50 - 100

PLANNING BOARD REVIEW
JULY 24. 2026

PERSPECTIVE - FROM KNEVELS AVE

248 TIORONDA AVE
BUILDINGS 50 - 100

PLANNING BOARD REVIEW
JULY 24. 2026


161

AMENDED SITE PLAN

248 TIORONDA AVE, BEACON NY

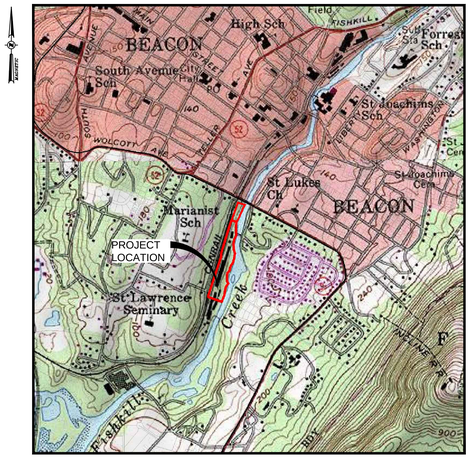
PREPARED FOR

CHAI DEVELOPERS

CITY OF BEACON
DUTCHESS COUNTY, NEW YORK

JUNE 30, 2026

LAST REVISED: JULY 28, 2026



LOCATION MAP
SCALE: 1"=1000'
SOURCE: USGS CATSKILL, NY QUADRANGLE
(USGS REF. CODE: WEST POINT-41073-D8-TF-024)

BEST MANAGEMENT PRACTICES FOR INDIANA BATS

1. THE PROJECT WILL AVOID CUTTING TREES TO THE MAXIMUM EXTENT PRACTICABLE.
2. LARGER TREES WILL BE RETAINED.
3. TREE CLEARING LIMITS WILL BE MARKED IN THE FIELD PRIOR TO ANY CLEARING, AND CONTRACTORS WILL BE INFORMED ABOUT CLEARING LIMITS PRIOR TO THE INITIATION OF WORK.
4. TREES WILL BE REMOVED BETWEEN OCTOBER 1 AND MARCH 31 IN ORDER TO AVOID ANY INCIDENTAL TAKE TO INDIANA BATS, OR OTHER BATS THAT MAY USE TREES FOR ROOSTING.
5. ALL SITE LIGHTING ON THE SITE WILL BE FULL CUT-OFF.
6. THERE WILL BE NO USE OF HERBICIDES OR PESTICIDES IN ANY STORMWATER MANAGEMENT BASINS.

CITY OF BEACON
PLANNING BOARD APPROVAL
CITY OF BEACON, NEW YORK

APPROVED BY RESOLUTION NUMBER _____
OF THE PLANNING BOARD OF BEACON, NEW YORK ON THE
_____ DAY OF _____, 2015, 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 _____ 2015.

_____
CHAIRMAN

CITY OF BEACON PLANNING BOARD APPROVAL
OWNER / APPLICANT SIGNATURE

THE UNDERSIGNED APPLICANT FOR THE PROPERTY AND THE UNDERSIGNED OWNER OF THE PROPERTY SHOWN HEREON, STATE THAT THEY ARE FAMILIAR WITH THIS MAP, ITS NOTES AND ITS CONTENTS, AND HEREBY CONSENT TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

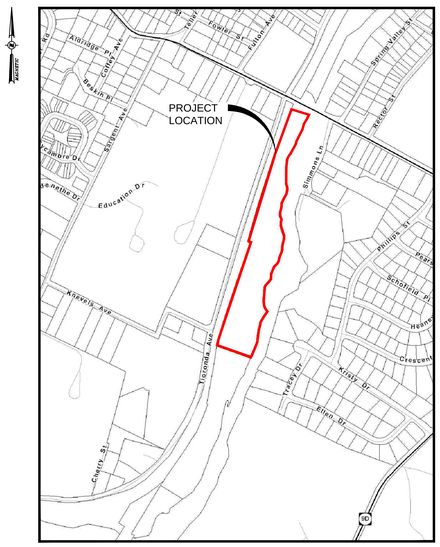
THE APPLICANT AND OWNER UNDERSTAND THEIR OBLIGATION TO THE CITY TO KEEP THIS SITE AS PER SITE PLAN APPROVAL BY THE CITY PLANNING BOARD UNTIL A NEW OR REVISED SITE PLAN IS APPROVED FOR THE SITE. THE APPLICANT AND OWNER UNDERSTAND THEIR OBLIGATION TO THE TOWN NOT TO OCCUPY THE PREMISES BEFORE A CO IS ISSUED BY THE TOWN CODE ENFORCEMENT OFFICER.

_____ APPLICANT _____ DATE

_____ OWNER _____ DATE

INDEX OF DRAWINGS

PAGE NO.	SHEET NO.	DATE	DESCRIPTION
1	G001	07/28/26	TITLE SHEET
2	SV1	03/12/26	MAP OF EXISTING CONDITIONS: LANDS OF BEACON 248 HOLDINGS, LLC
3	C120	07/28/26	DEMOLITION PLAN
4	C130	07/28/26	SITE PLAN
5	C140	07/28/26	GRADING PLAN
6	C150	07/28/26	EROSION & SEDIMENT CONTROL PLAN
7	C160	07/28/26	UTILITY PLAN
8	C161	07/28/26	UTILITY PROFILES
9	C162	07/28/26	UTILITY PROFILES
10	C180	07/28/26	LANDSCAPE PLAN
11	C190	07/28/26	PHOTOMETRIC LIGHTING PLAN
12	C200	07/28/26	VEHICLE MANEUVERING PLAN
13	C530	07/28/26	SITE DETAILS
14	C540	07/28/26	STORM SEWER DETAILS
15	C550	07/28/26	EROSION & SEDIMENT CONTROL DETAILS & NOTES
16	C570	07/28/26	SANITARY SEWER AND WATER DETAILS & NOTES
17	C580	07/28/26	LANDSCAPE DETAILS & NOTES



AREA PARCEL MAP
SCALE: 1"=400'

BULK TABLE

FISHKILL CREEK DEVELOPMENT DISTRICT: FCD

ZONING REQUIREMENTS:	REQUIRED	PROPOSED
MINIMUM LOT AREA	2 ACRES	9.18 ACRES
MAXIMUM # OF DWELLINGS	200 UNITS[1]	200 UNITS[1]
MAXIMUM BUILDING COVERAGE	35%	17%
MINIMUM OPEN SPACE	30%	64%
MINIMUM FRONTAGE OF OVERALL FCD SITE ON PUBLIC STREET ROW	50 FT	135'
MINIMUM BUILDING SETBACK FROM EDGE OF PAVEMENT OF PUBLIC AND PRIVATE STREETS	12 FT	160'
MINIMUM SETBACK AND BUFFER WIDTH ALONG FISHKILL CREEK	AVG 50 FT MIN 25 FT	AVG = 62 FT MIN. = 37 FT
MAXIMUM BUILDING HEIGHT	3 STORIES / 40 FEET	SEE NOTE 2
MINIMUM NUMBER OF PARKING SPACES		
RESIDENTIAL:	1 SPACE PER DWELLING UNIT =200 SPACES	227 SPACES TOTAL (WHICH INCLUDES 89 SURFACE SPACES AND 138 GARAGE SPACES)
GREENWAY/RAIL TRAIL:	0 SPACES	4 SPACES
TOTAL:	204 SPACES 7 ACCESSIBLE SPACES REQUIRED	231 SPACES 13 ACCESSIBLE SPACES PROVIDED

BULK TABLE NOTES:

1. EXISTING BUILDINGS 200 + 300 CONTAIN 64 UNITS (SEE DEVELOPMENT SCHEDULE). PER CITY COUNCIL RESOLUTION RESOLUTION NO. 117 OF 2025, "THE APPLICANT IS DIRECTED TO SUBMIT A CONCEPT PLAN FOR 2 BUILDINGS CONTAINING 136 RESIDENTIAL UNITS (WHICH INCLUDES 27 BMR UNITS)," WHICH SUMS TO 200 UNITS SITEWIDE.
2. PER CITY COUNCIL RESOLUTION NO. 117 OF 2025, BUILDINGS 50 & 100 SHALL BE "IN SUBSTANTIALLY THE SAME DESIGN AS BUILDINGS 200 AND 300."

DEVELOPMENT SCHEDULE

BUILDING	UNITS	STUDIO & 1-BR	2-BR	3-BR
200 & 300	64[1]	27	30	7
50 & 100	136[2]	107	29	-
TOTAL	200[3]	134	59	7

DEVELOPMENT SCHEDULE NOTES:

1. BUILDINGS 200 & 300 CONTAIN 8 EXISTING BMR UNITS.
2. 27 OF THE UNITS WITHIN BUILDINGS 50 & 100 SHALL BE BMR UNITS MEETING THE REQUIREMENTS OF ARTICLE 16B, AFFORDABLE– WORKFORCE HOUSING, OF THE ZONING LAW.
3. FULL BUILDOUT OF 200 UNITS SHALL CONTAIN 35 BMR UNITS.

SITE ENGINEER:
LABELLA ASSOCIATES D.P.C.
21 FOX STREET, POUGHKEEPSIE, NY 12601
PHONE: (845) 454-3980

PROJECT ARCHITECT:
AB ARCHITEKTEN
62 ALLEN STREET, 2ND FLOOR
NEW YORK, NY 10002
PHONE: (212) 334-1232

SITE SURVEYOR:
LABELLA ASSOCIATES D.P.C.
21 FOX STREET, POUGHKEEPSIE, NY 12601
PHONE: (845) 454-3980

APPLICANT:
BEACON 248 HOLDINGS, LLC.
35 MAIN ST, SUITE 311
POUGHKEEPSIE, NY 12601
(201) 753-1445

OWNER INFORMATION:
BEACON 248 HOLDINGS, LLC.
35 MAIN ST, SUITE 311
POUGHKEEPSIE, NY 12601

TAX MAP INFORMATION:
CITY OF BEACON, NEW YORK
SECTION 6054, BLOCK 45, LOT 012574 (9.18 ACRE)

AREA:
TOTAL PROJECT AREA: 9.18± ACRES

ZONING DISTRICT:
FISHKILL CREEK DEVELOPMENT (FCD) ZONING DISTRICT

WATER & SEWER DISTRICT:
CITY OF BEACON

LaBella
Powered by partnership.
21 Fox Street
Poughkeepsie, NY 12601
(845) 454-3980
labellapc.com

NOT FOR CONSTRUCTION
EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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Chai Developers
147 Union Street
Poughkeepsie, New York 12601

248 Tioronda Avenue
248 Tioronda Avenue
Beacon, New York 12508

NO:	DATE:	DESCRIPTION:
1	07/28/26	REVISED PER CITY COMMENTS
Revisions		

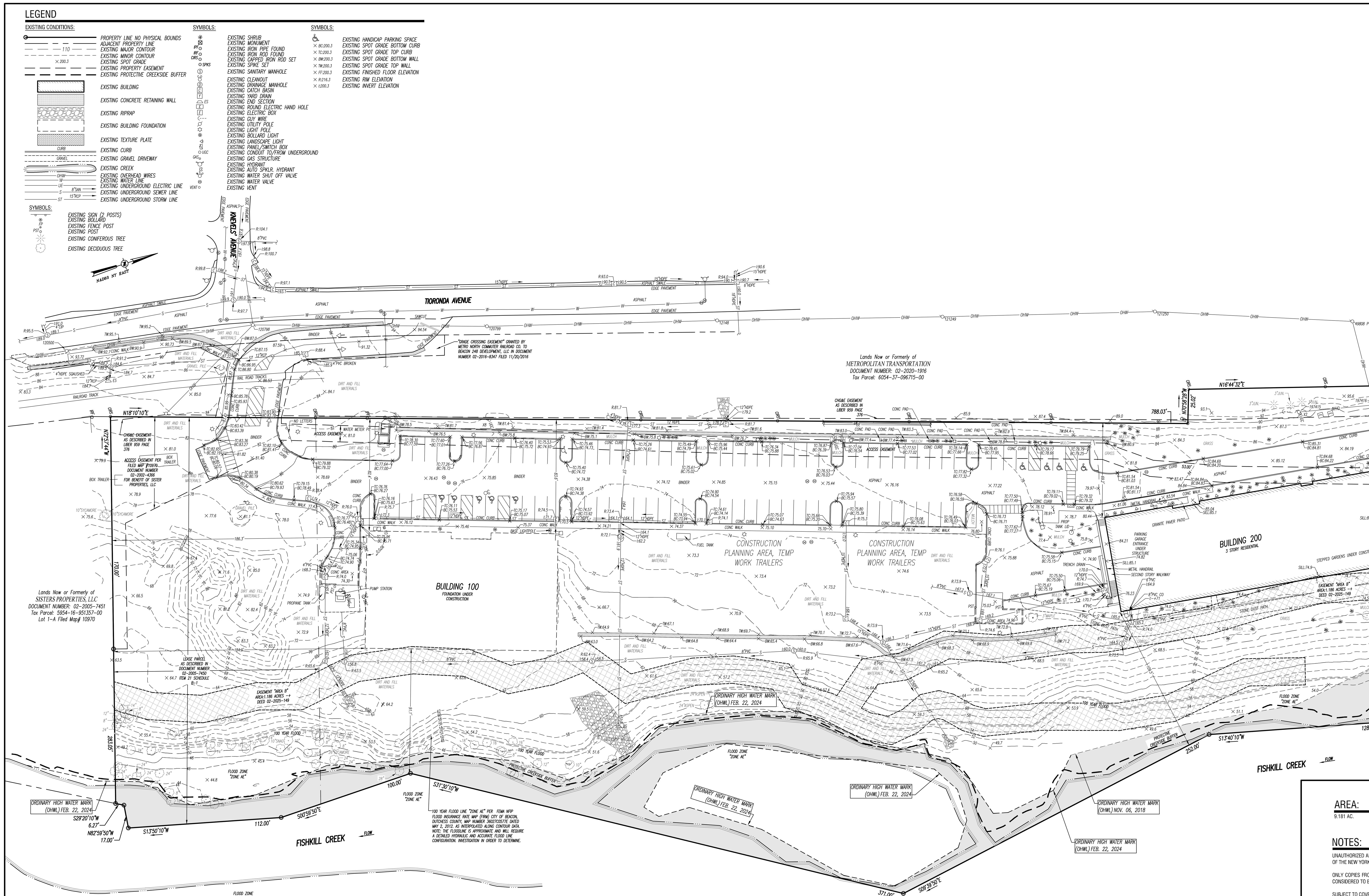
PROJECT NUMBER: 2260816
DRAWN BY: GMZ
REVIEWED BY: KGA
ISSUED FOR: ISSUED FOR PLANNING BOARD REVIEW
DATE: 06/30/26
DRAWING NAME:

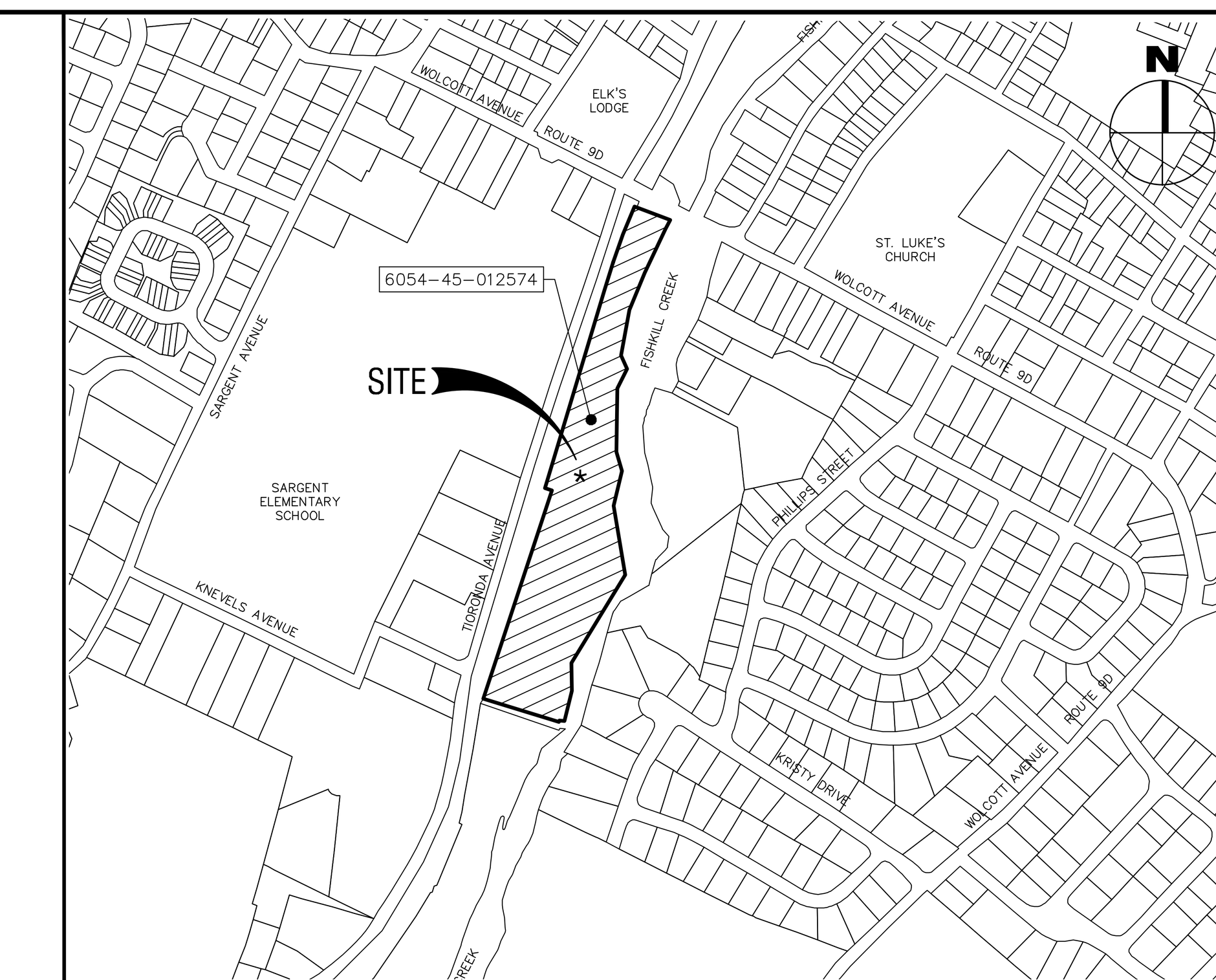
TITLE SHEET

DRAWING NUMBER:

G001

7/28/2026 10:00:25 AM
\\cats-labs1\Legacy Folders\Projects\81700\81799\81750.00 Chai Builders B-248JWD\05_CAD\1_81750-50_TITLE.dwg





VICINITY MAP 1"=500'

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Poughkeepsie, NY 12601
845-454-3980
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CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 018281
LAND SURVEYING: 017976
GEOLOGICAL: 018750

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CLIENT:

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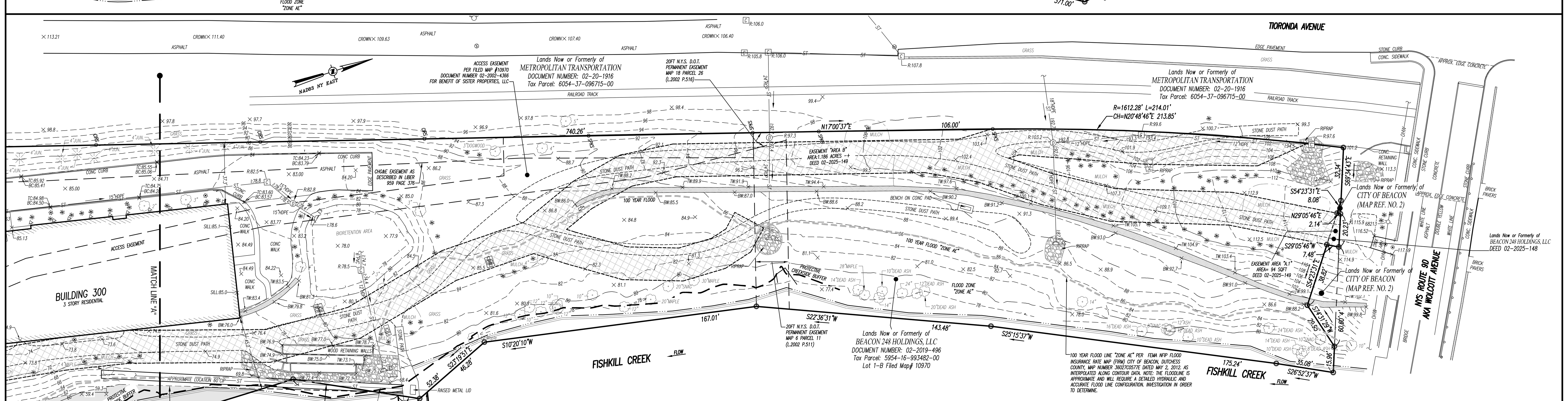
147 UNION STREET,
POUGHKEEPSIE, NEW YORK 12601



AREA:

9.181 AC.

NOTES:

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

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SURVEYED FROM RECORD DESCRIPTION AND AS IN POSSESSION.

BUILDING SHOWN HEREON SERVED BY UNDERGROUND UTILITIES.

THE SUBJECT PARCEL HAS ACCESS TO TIORONDA AVENUE (A PUBLIC ROAD) BY WAY OF EASEMENT DOCUMENT #02-2016-8347 OVER LANDS NOW OR FORMERLY METRO-NORTH COMMUTER RAILROAD CO. (SEE PREVIOUS EASEMENT DOCUMENTS; L.257 P.32, NO. 02-2009-1123 & NO. 02-2016-795).

THE SUBJECT PARCEL SHOWN HEREON IS THE SAME AS THAT DESCRIBED TITLE REPORTS BY LAND TRACK TITLE AGENCY, LLC AS AGENT FOR OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY REPORT NUMBER LTTA-NY-5688 AND LTTA-NY-5688A BOTH DATED 03/30/2018.

TOPOGRAPHY SHOWN HEREON WAS COMPILED FROM A FIELD SURVEY COMPLETED DECEMBER 16, 2024 UPDATED MARCH 10, 2026 BY LABELLA ASSOCIATES PC, VERTICAL DATUM NGVD 1929, 1 FOOT CONTOUR INTERVAL. 2 FOOT CONTOUR INTERVAL SHOWN FOR CLARITY.

HORIZONTAL DATUM AND NORTH ORIENTATION ARE BASED ON THE STATE PLANE COORDINATE SYSTEM NAD83 NY EAST UTILIZING GNSS OBSERVATIONS WITH REFERENCE TO THE NYSDOT RTN NETWORK, NAVD88, GEOID 18 AT THE TIME OF FIELD SURVEY DATED APRIL 04, 2024 .

VERTICAL CONTROL IS BASED UPON NVGD 1929 AS DERIVED FROM REFERENCE MARK (RM 4, ELEVATION 3.92'), AS SHOWN ON FLOOD INSURANCE RATE MAP, CITY OF BEACON COMMUNITY PANEL #360217-0003-B, DATED MARCH 1, 1984.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN COMPILED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

THE CONTRACTOR SHALL COMPLY WITH NEW YORK STATE INDUSTRIAL CODE RULE 753 - 48 HOURS PRIOR TO DIGGING CALL UDIG-NY 1-800-962-7962 TO HAVE PUBLIC UTILITY LOCATIONS PAINTED.

AS BUILT LOCATION SHOWN HEREON PER LAST FIELD SURVEY BY LABELLA ASSOCIATES ON 03/10/2026. THE SITE IS AN ACTIVE CONSTRUCTION SITE. ANY IMPROVEMENTS OR ADDITIONAL GRADING INSTALLED AFTER THE LAST FIELD SURVEY DATE ARE NOT REFLECTED ON THIS PLAT.

THE PROTECTIVE CREEKSIDE BUFFER, MEASURED FROM THE TOP OF THE CREEK BANK, IS ESTABLISHED UNDER FISHKILL CREEK DEVELOPMENT ZONING STANDARDS (223-41.13()(15) TO PRESERVE VEGETATION WITHIN THE BUFFER AREA. IS SHOWN PER PREVIOUS LOCATION ON MAP REFERENCE 3.

DEED REFERENCES:

CITY OF BEACON, DUTCHESS COUNTY, STATE OF NEW YORK:6054-45-012574

1. BEACON 248 DEVELOPMENT, LLC TO BEACON 248 HOLDINGS, LLC
   BY DEED DATED DECEMBER 10, 2018 AND RECORDED IN THE OFFICE OF THE DUTCHESS COUNTY CLERK ON JANUARY 18, 2019 AS DEED DOCUMENT NO. 02-2019-496
2. CITY OF BEACON TO BEACON 248 HOLDINGS, LLC
   BY DEED DATED NOVEMEBER 17, 2024 AND RECORDED IN THE OFFICE OF THE DUTCHESS COUNTY CLERK ON JANUARY 15, 2025 AS DEED DOCUMENT NO. 02-2025-148

MAP REFERENCES:

1. SUBJECT PROPERTY IS DESIGNATED AS PARCEL 18 AS SHOWN ON A CERTAIN MAP ENTITLED "SUBDIVISION PLAT PREPARED FOR ADVANTAGE MORTGAGE" PREPARED BY BADEY & WATSON SURVEYING AND ENGINEERING P.PC., DATED APRIL 16, 1991 AND FILED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON FEBRUARY 22, 2000 AS FILED MAP NO. 10970.
2. REFERENCE IS HEREBY MADE TO A CERTAIN MAP ENTITLE "BEACON 248 DEVELOPMENT, LLC, MAP OF BOUNDARY & TOPOGRAPHIC SURVEY OF LANDS OF CENTRAL HUDSON GAS & ELECTRIC CORP." DATED FEBRUARY 25, 2013, PREPARED BY CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., P.C.
3. REFERENCE IS HEREBY MADE TO A CERTAIN MAP ENTITLED "BEACON 248 HOLDINGS, LLC, FINAL LOT CONSOLIDATION PLAT", DATED FEBRUARY 22, 2020, PREPARED BY CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE, CO., D.P.C, AND FILED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON MARCH 23, 2021 AS FILED MAP NUMBER 10970A.
4. REFERENCE IS HEREBY MADE TO A CERTAIN MAP ENTITLED "MAP OF CITY OF BEACON EASEMENT" DATED 01/05/2023 AND LAST REVISED 12/18/2024, PREPARED BY LABELLA ASSOCIATES.

MAP OF EXISTING CONDITIONS LANDS OF BEACON 248 HOLDINGS LLC
1 / SV1 — SCALE: 1" = 30'

1"=30' 0 1"=30'
SCALE IN FEET 1"=30'

FLOOD ZONE NOTE:

PARCELS ARE SHOWN TO LIE PARTIALLY WITHIN "SPECIAL FLOOD HAZARD AREA, ZONE AE" AND "OTHER FLOOD AREAS, ZONE X" AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM) FOR THE CITY OF BEACON, IDENTIFIED AS MAP NUMBER 36027C0577E BEARING AN EFFECTIVE DATE OF MAY 2, 2012.

DEED REFERENCES:

1. STORMWATER EASEMENT OVER ENTIRE SITE FROM BEACON 248 HOLDINGS LLC TO CITY OF BEACON, DATED MARCH 4, 2021 AND RECORDED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON MARCH 23, 2021 AS DEED DOCUMENT NO. 02-2021-1430.
2. AMENDED GREENWAY EASEMENT FROM BEACON 248 HOLDINGS LLC TO CITY OF BEACON, DATED NOVEMBER 17, 2024 AND RECORDED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON JANUARY 15, 2025 AS DEED DOCUMENT NO. 02-2025-149.



David H. Dippel, L.S. NYS #050677
EXP: 01/31/2025

SURVEYOR'S CERTIFICATE:

I HEREBY CERTIFY THAT THIS SURVEY MAP IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED ON 03/10/2026 AND THAT THIS SURVEY MAP WAS MADE BY ME OR UNDER MY DIRECTION, AND CONFORMS WITH THE MINIMUM STANDARD OF PRACTICE ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS.

PROJECT/SITE:

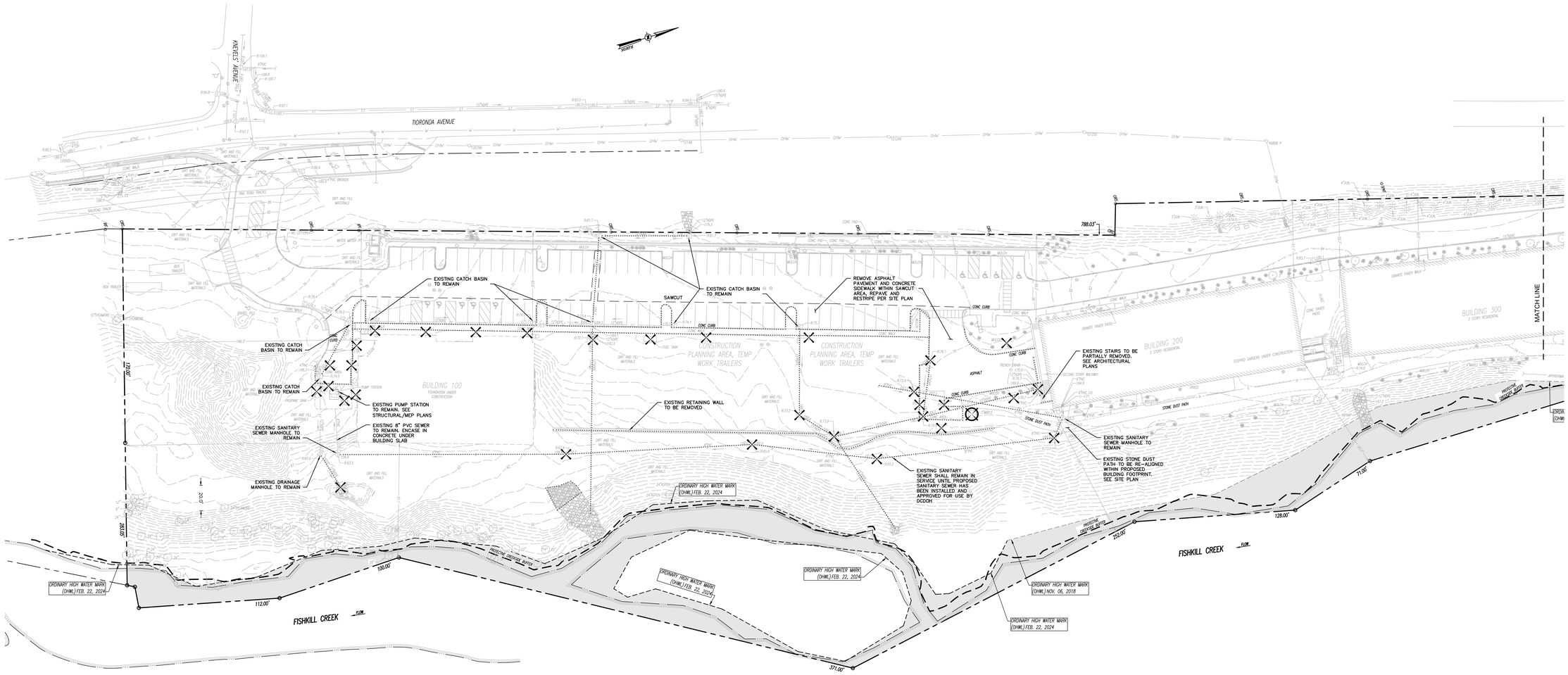
TIORONDA AVENUE 248
248 TIORONDA AVENUE,
CITY OF BEACON, DUTCHESS COUNTY,
NEW YORK 12508

NO:	DATE:	DESCRIPTION:
Revisions		

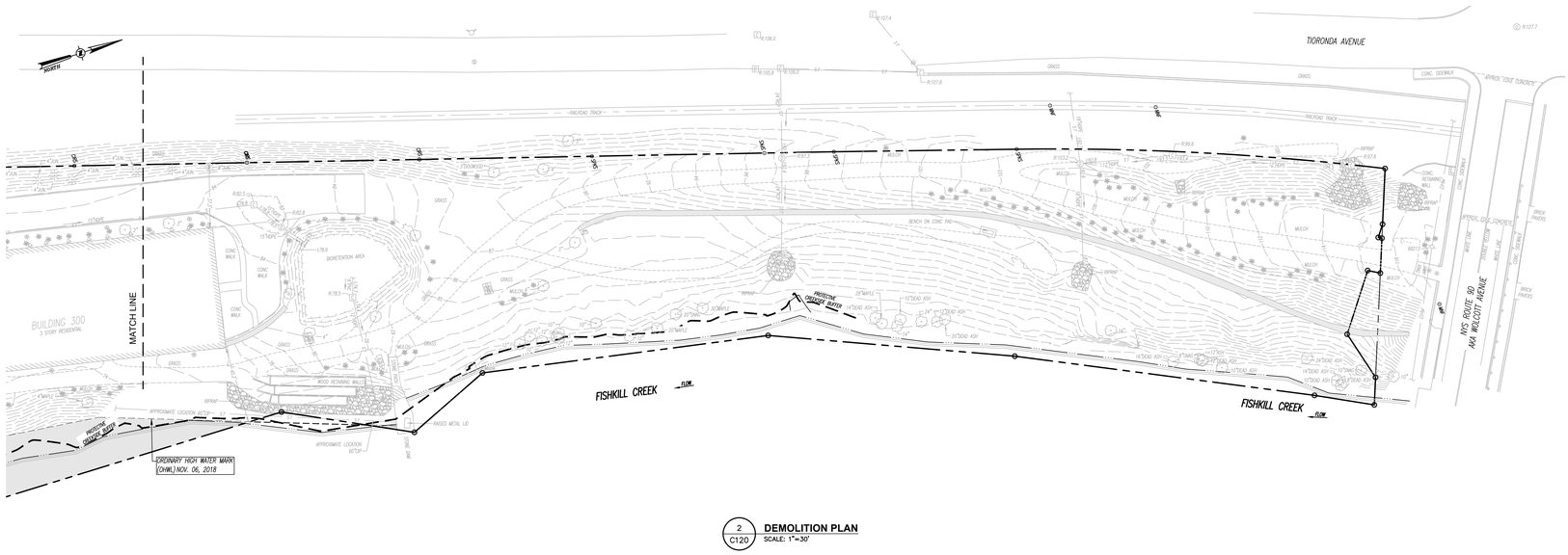
PROJECT NUMBER: 81750.00
DRAWN BY: AP
REVIEWED BY: DD
ISSUED FOR: PLANNING BOARD REVIEW
DATE: 03/12/2026
DRAWING NAME: **MAP OF EXISTING CONDITIONS LANDS OF BEACON 248 HOLDINGS LLC**
DRAWING NUMBER: **SV1**
SHEET 1 OF 1

MAP NO. 6080

Drawing Name: B:\GLOBAL\Legacy\Chazen\Projects\81700-81799\81750.00 CHAI Builders B-248\SVY\dwg\05-SVY_81750.00-EX-CON.dwg
Xref's Attached: X-ASBUILT_81750.00; XBASE-SVY_81056-00
Date Printed: Mar 16, 2026, 10:40am



1 C120 **DEMOLITION PLAN**
SCALE: 1"=30'



2 C120 **DEMOLITION PLAN**
SCALE: 1"=30'

LEGEND:

- EXISTING FEATURE TO BE REMOVED
- EXISTING TREE TO BE REMOVED
- EXISTING SITE FEATURE TO BE REMOVED
- EXISTING PAVEMENT & SIDEWALK TO BE REMOVED
- EXISTING BUILDING TO BE REMOVED
- DEMO ASPHALT
- DEMO BUILDING
- DEMO CONCRETE
- DEMO GRAVEL SECTION
- DEMO RIP RAP SECTION
- DEMO ATHLETIC TRACK
- DEMO TREES AND SHRUBS
- WORKLIMITS
- TREE PROTECTION FENCING
- N.I.C. NOT IN CONTRACT
- EXISTING STRUCTURE TO BE REMOVED, N.I.C
- PAVEMENT SAWCUT LINE

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NOT FOR CONSTRUCTION
EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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Poughkeepsie, New York 12601

248 Tioronda Avenue
248 Tioronda Avenue
Beacon, New York 12508

NO:	DATE:	DESCRIPTION:
1	07/28/26	REVISED PER CITY COMMENTS
Revisions		

PROJECT NUMBER: 2260816
DRAWN BY: GMZ
REVIEWED BY: KGA
ISSUED FOR: ISSUED FOR PLANNING BOARD REVIEW
DATE: 06/30/26
DRAWING NAME:

DEMOLITION PLAN

DRAWING NUMBER:

C120

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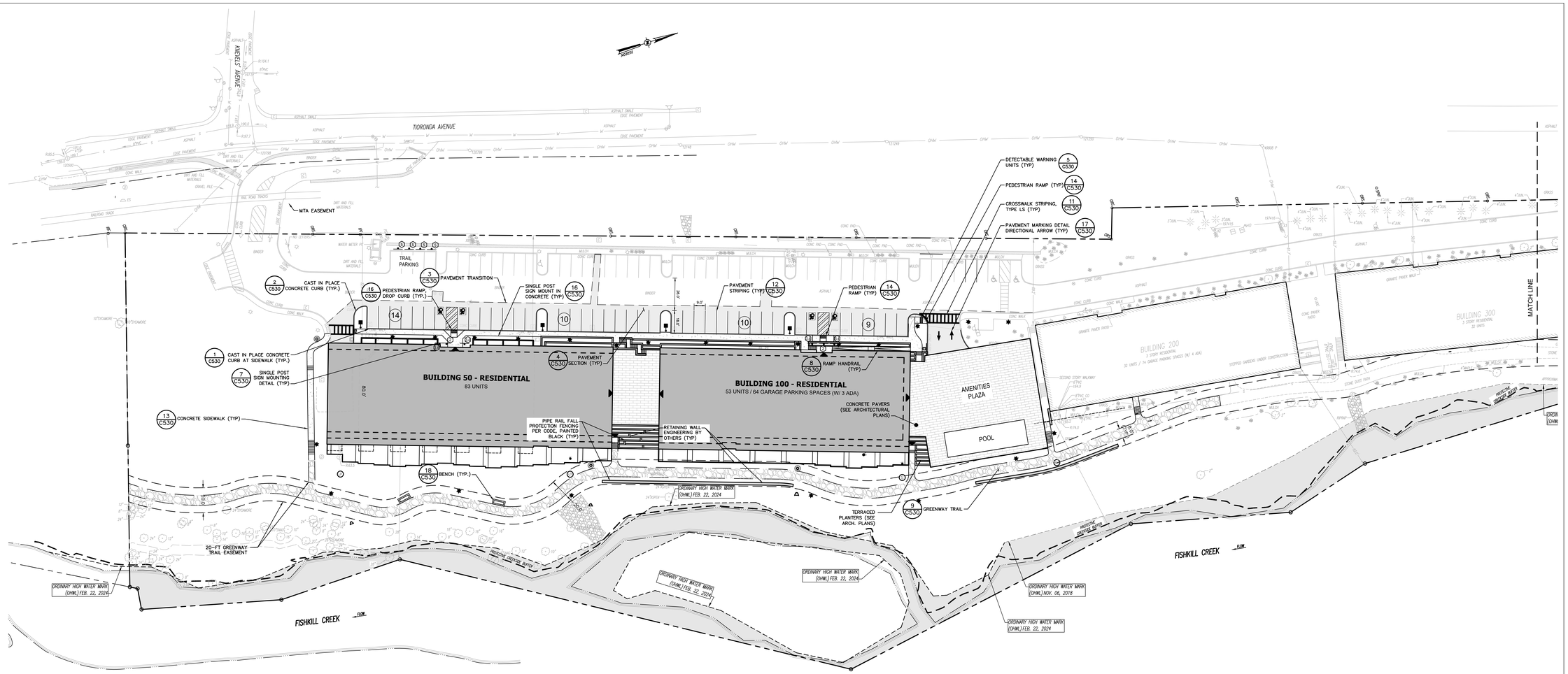
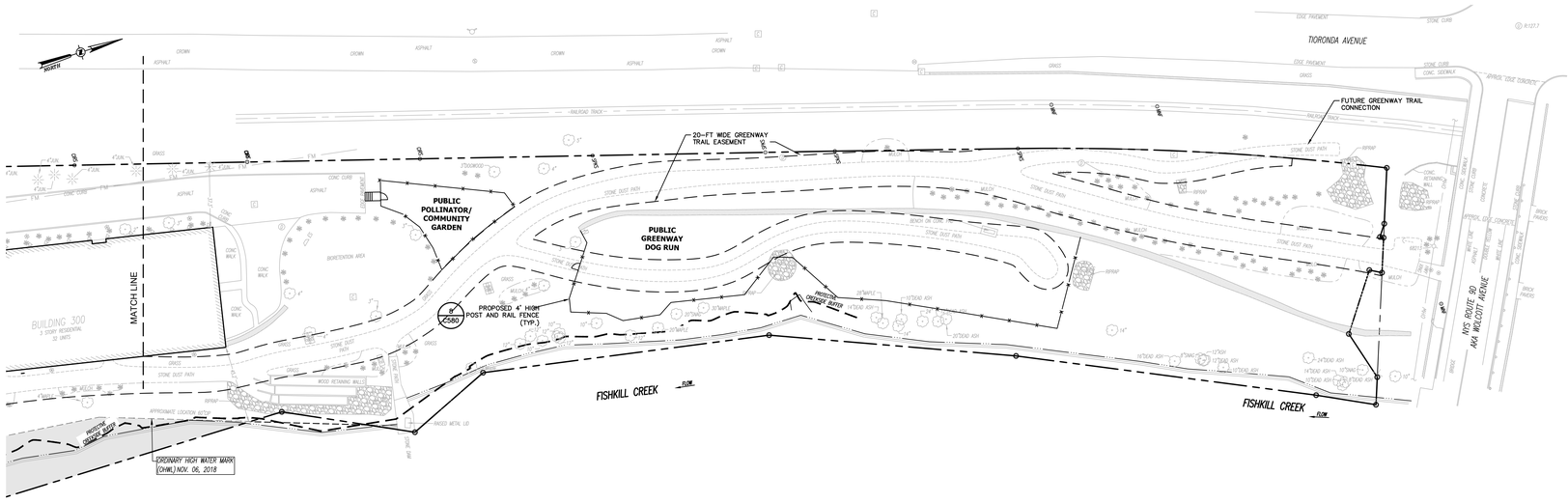


1 C130 **SITE PLAN**
SCALE: 1"=30'



2 C130 **SITE PLAN**
SCALE: 1"=30'

LEGEND:

- EXISTING 100-YEAR FLOOD PLAIN
- EXISTING PROPERTY LINE
- EASEMENT LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- 25 PROPOSED PARKING COUNT
- PROPOSED SIDE WALK
- EXISTING METRO-NORTH RAILROAD TRACKS (INACTIVE)
- PROPOSED CURB
- PROPOSED LIGHT POLE
- PROPOSED RETAINING WALL
- GREENWAY TRAIL

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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248 Tioronda Avenue
Beacon, New York 12508

NO:	DATE:	DESCRIPTION:
1	07/28/26	REVISED PER CITY COMMENTS
Revisions		

PROJECT NUMBER: 2260816
DRAWN BY: GMZ
REVIEWED BY: KGA
ISSUED FOR: ISSUED FOR PLANNING BOARD REVIEW
DATE: 06/30/26
DRAWING NAME:

SITE PLAN

DRAWING NUMBER:

C130

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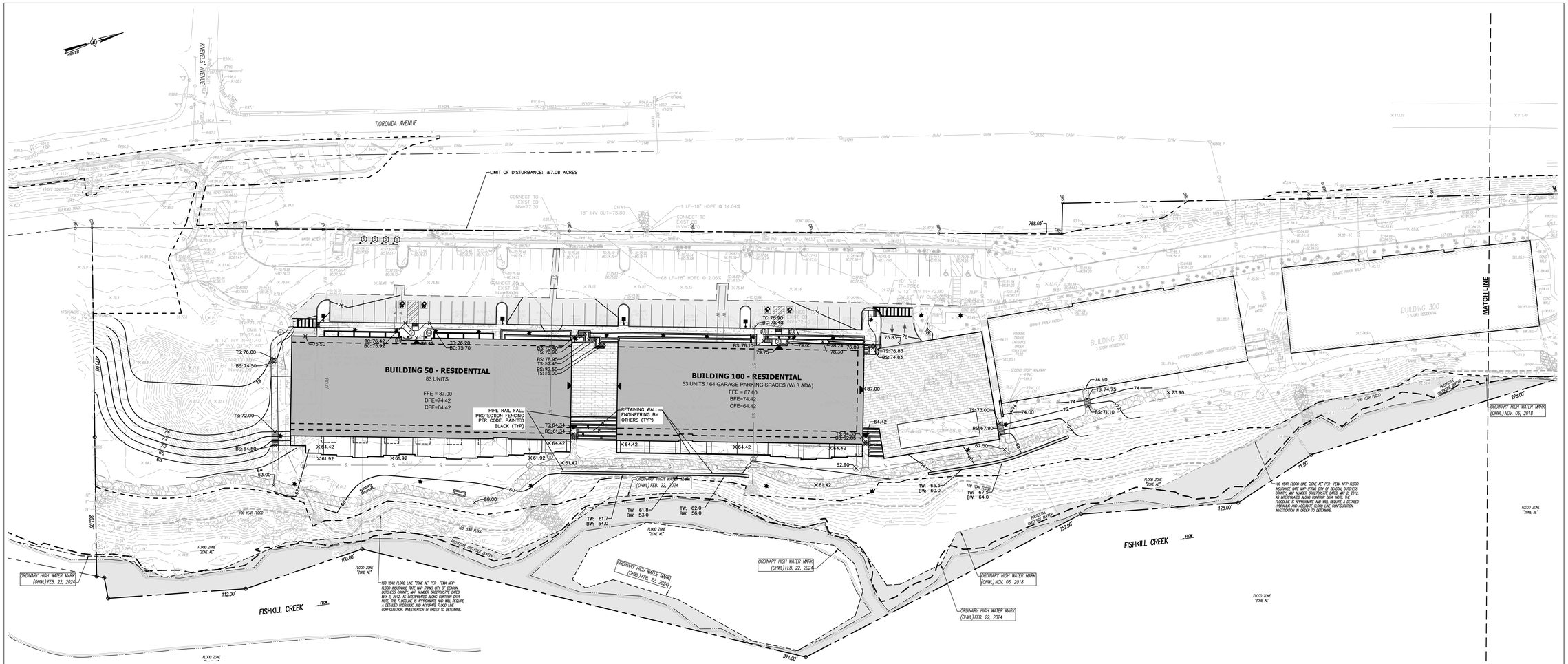
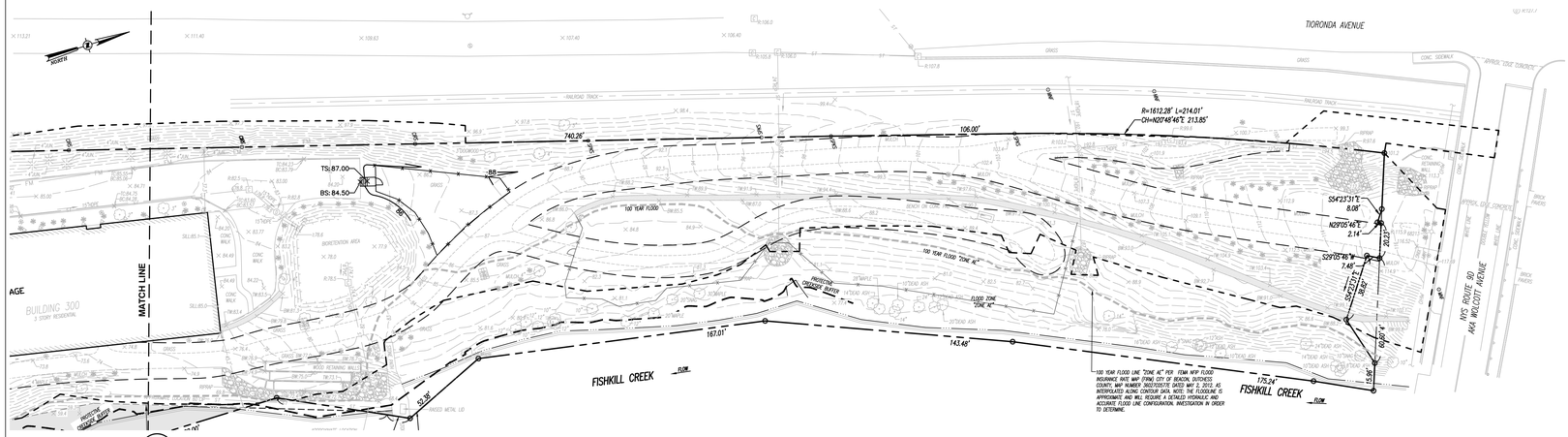


1 C140 **GRADING PLAN**
SCALE: 1"=30'



2 C140 **GRADING PLAN**
SCALE: 1"=30'

GRADING & DRAINAGE LEGEND:

- PROPOSED PROPERTY LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- XXX — PROPOSED 10 FT CONTOUR
- XXX — PROPOSED 2 FT CONTOUR
- XXX.X — PROPOSED SPOT GRADE
- PROPOSED TREE LINE
- PROPOSED SHRUB LINE
- PROPOSED DRAINAGE SWALE
- PROPOSED WORK LIMIT LINE
- S — PROPOSED SANITARY SEWER LINE
- FM — PROPOSED FORCE MAIN
- W — PROPOSED WATER LINE
- ST — PROPOSED STORM DRAIN LINE
- PROPOSED HYDRANT
- PROPOSED SANITARY MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED DRAINAGE MANHOLE

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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248 Tioronda Avenue
Beacon, New York 12508

NO:	DATE:	DESCRIPTION:
1	07/28/26	REVISED PER CITY COMMENTS
Revisions		

PROJECT NUMBER: 2260816
DRAWN BY: GMZ
REVIEWED BY: KGA
ISSUED FOR: ISSUED FOR PLANNING BOARD REVIEW
DATE: 06/30/26
DRAWING NAME: GRADING PLAN
DRAWING NUMBER: C140

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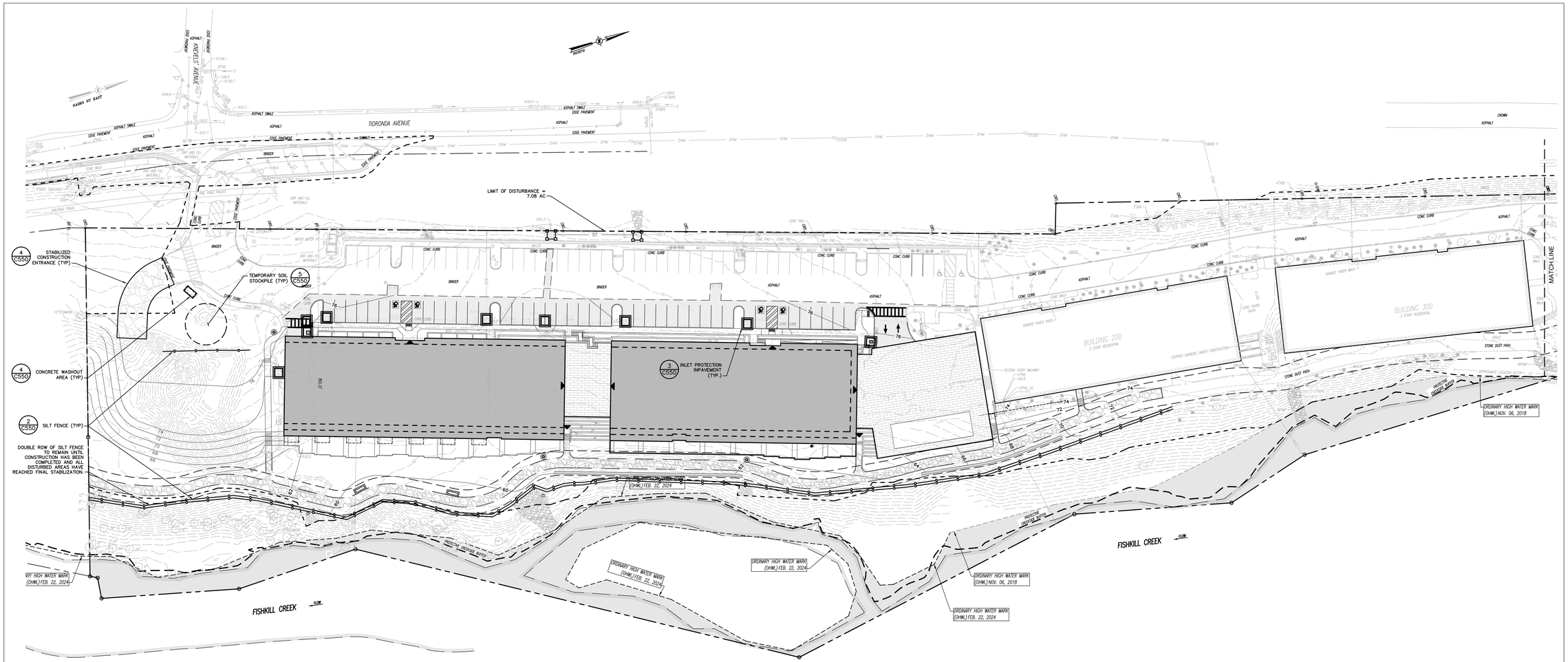
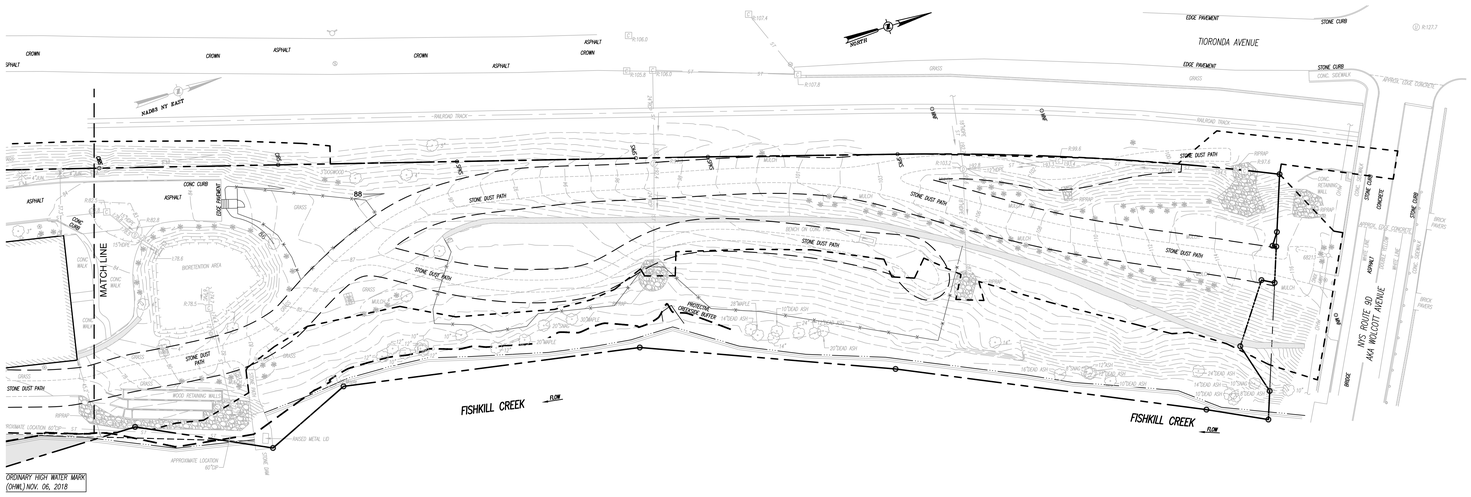


1 C150 **EROSION AND SEDIMENT CONTROL PLAN**
SCALE: 1"=30'



2 C150 **EROSION AND SEDIMENT CONTROL PLAN**
SCALE: 1"=30'

LEGEND:

- EXISTING 100-YEAR FLOOD PLAIN
- EXISTING PROPERTY LINE
- EASEMENT LINE
- PROPOSED BUILDING
- PROPOSED PAVEMENT
- 25 PROPOSED PARKING COUNT
- PROPOSED SIDE WALK
- EXISTING METRO-NORTH RAILROAD TRACKS (INACTIVE)
- PROPOSED CURB
- PROPOSED RETAINING WALL
- PROPOSED EROSION BLANKET
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED OUT-OF PAVEMENT INLET PROTECTION
- PROPOSED IN-PAVEMENT INLET PROTECTION
- PROPOSED SILT FENCE
- LIMIT OF DISTURBANCE
- PROPOSED STRAW BALE DIKE
- PROPOSED TEMPORARY SOIL STOCKPILE

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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Beacon, New York 12508

NO:	DATE:	DESCRIPTION:
1	07/28/26	REVISED PER CITY COMMENTS

Revisions

PROJECT NUMBER: 2260816
DRAWN BY: GMZ
REVIEWED BY: KGA
ISSUED FOR: ISSUED FOR PLANNING BOARD REVIEW
DATE: 06/30/26
DRAWING NAME:

EROSION AND SEDIMENT CONTROL PLAN

DRAWING NUMBER:

C150

7/27/2026 5:51:06 PM
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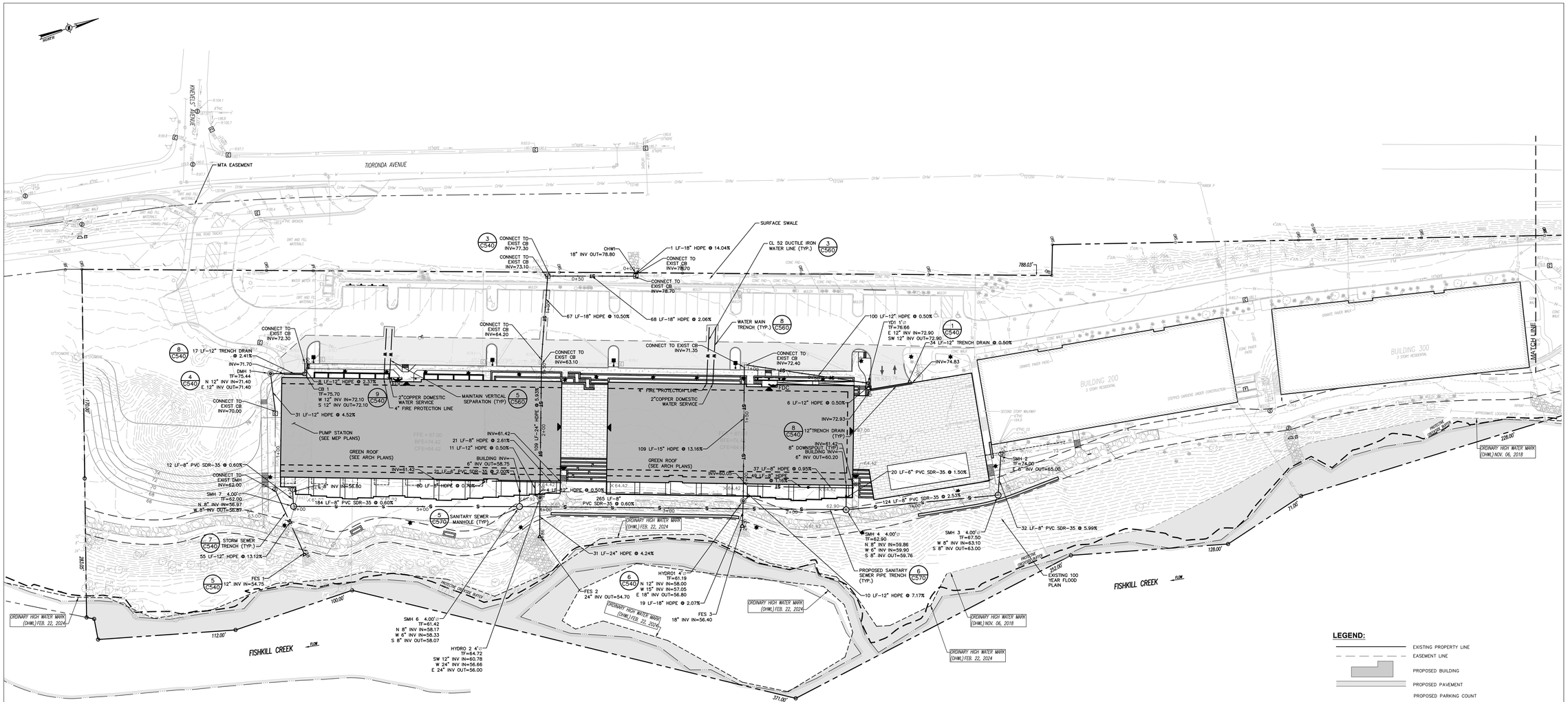
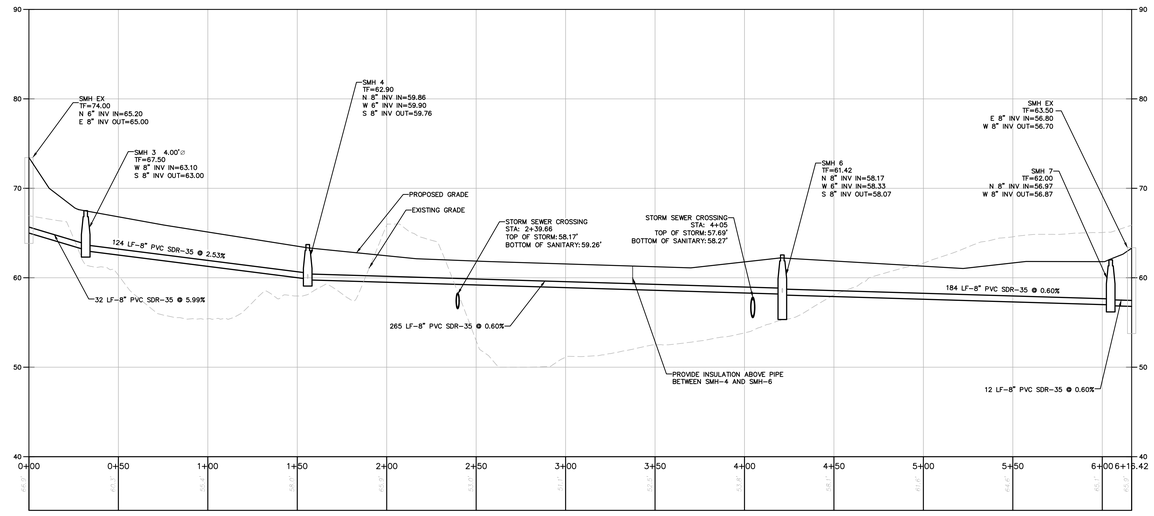

MTA EASEMENT
TIORONDA AVENUE
MACEY'S AVENUE
SURFACE SWALE
CONNECT TO EXIST CB INV=77.30
CHW1 18" INV OUT=78.80
1 LF-18" HDPE @ 14.04%
CONNECT TO EXIST CB INV=78.20
CONNECT TO EXIST CB INV=78.70
CL 52 DUCTILE IRON WATER LINE (TYP.)
67 LF-18" HDPE @ 10.50%
68 LF-18" HDPE @ 2.06%
CONNECT TO EXIST CB INV=73.10
CONNECT TO EXIST CB INV=64.20
CONNECT TO EXIST CB INV=63.10
CONNECT TO EXIST CB INV=71.35
CONNECT TO EXIST CB INV=72.40
WATER MAIN TRENCH (TYP.)
CONNECT TO EXIST CB INV=72.30
17 LF-12" TRENCH DRAIN @ 2.41%
INV=71.70
DMH 1 TF=75.44
N 12" INV IN=71.40
E 12" INV OUT=71.40
CB 1 TF=75.70
W 12" INV IN=72.10
S 12" INV OUT=72.10
8 LF-12" HDPE @ 2.37%
2"COPPER DOMESTIC WATER SERVICE
4" FIRE PROTECTION LINE
MAINTAIN VERTICAL SEPARATION (TYP)
CONNECT TO EXIST CB INV=70.00
31 LF-12" HDPE @ 4.52%
PUMP STATION (SEE MEP PLANS)
GREEN ROOF (SEE ARCH PLANS)
FFE = 87.00
RFE=74.42
CFE=64.42
109 LF-24" HDPE @ 5.50%
21 LF-8" HDPE @ 2.61%
11 LF-12" HDPE @ 0.50%
INV=61.42
BUILDING INV= 6" INV OUT=58.75
12 LF-8" PVC SDR-35 @ 0.60%
CONNECT TO EXIST DMH INV=62.00
SMH 7 4.00'Ø TF=62.00
N 8" INV IN=56.97
W 8" INV OUT=56.87
5.6" INV=56.60
184 LF-8" PVC SDR-35 @ 0.60%
80 LF-8" HDPE @ 0.74%
4" FIRE PROTECTION LINE
2"COPPER DOMESTIC WATER SERVICE
6 LF-12" HDPE @ 0.50%
INV=72.93
12"TRENCH DRAIN (TYP)
INV=61.42
8" DOWNSPOUT BUILDING INV= 6" INV OUT=60.20
109 LF-15" HDPE @ 13.16%
37 LF-8" HDPE @ 0.95%
49 LF-8" HDPE @ 1.14%
INV=60.05
20 LF-6" PVC SDR-35 @ 1.50%
124 LF-8" PVC SDR-35 @ 2.53%
SMH 2 TF=74.00
E 8" INV OUT=65.00
SANITARY SEWER MANHOLE (TYP)
ORDINARY HIGH WATER MARK (OHWM) FEB. 22, 2024
265 LF-8" PVC SDR-35 @ 0.60%
31 LF-24" HDPE @ 4.24%
SMH 4 4.00'Ø TF=62.90
N 8" INV IN=59.86
W 6" INV IN=59.90
S 8" INV OUT=59.76
SMH 3 4.00'Ø TF=67.50
W 8" INV IN=63.10
S 8" INV OUT=63.00
32 LF-8" PVC SDR-35 @ 5.99%
STORM SEWER TRENCH (TYP.)
55 LF-12" HDPE @ 13.12%
FES 1 12" INV IN=54.75
HYDRO1 4'Ø TF=61.19
N 12" INV IN=58.00
W 15" INV IN=57.05
E 18" INV OUT=56.80
19 LF-18" HDPE @ 2.07%
FES 2 24" INV OUT=54.70
FES 3 18" INV IN=56.40
PROPOSED SANITARY SEWER PIPE TRENCH (TYP.)
10 LF-12" HDPE @ 7.17%
EXISTING 100 YEAR FLOOD PLAIN
SMH 6 4.00'Ø TF=61.42
N 8" INV IN=58.17
W 6" INV IN=58.33
S 8" INV OUT=58.07
HYDRO 2 4'Ø TF=64.72
SW 12" INV IN=60.78
W 24" INV IN=56.66
E 24" INV OUT=56.00
FISHKILL CREEK
FLOW
BUILDING 200
3 STORY RESIDENTIAL
BUILDING 300
3 STORY RESIDENTIAL
MATCH LINE
PROPOSED GRAVEL ALLEY
788.03'
788.03'
788.03'



1 **SANITARY PROFILE**
SCALE: SCALE-H=1"=30'
SCALE-V=1"=6'

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NOT FOR CONSTRUCTION

EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered, the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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Beacon, New York 12508

NO:	DATE:	DESCRIPTION:
1	07/28/26	REVISED PER CITY COMMENTS

Revisions

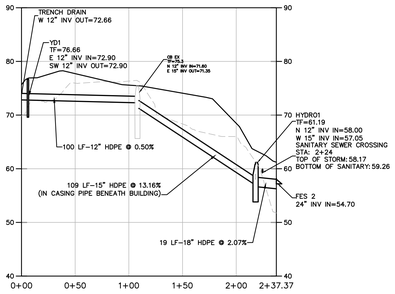
PROJECT NUMBER: 2260816
DRAWN BY: GMZ
REVIEWED BY: KGA
ISSUED FOR: ISSUED FOR PLANNING BOARD REVIEW
DATE: 06/30/26
DRAWING NAME:

UTILITY PROFILES

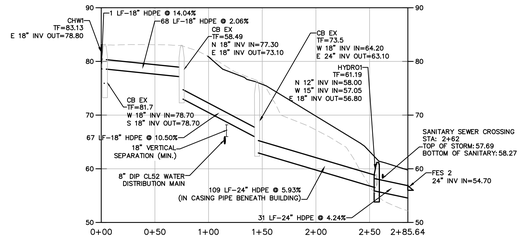
DRAWING NUMBER:

C161

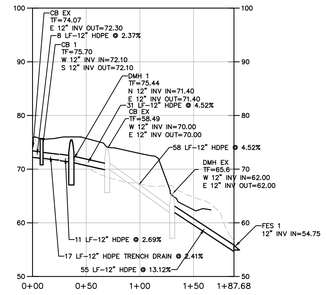
7/27/2026 5:52:04 PM
\\cash.labs\pl.expdy\Chazen\Projects\81700-81799\81750.00 CHAI Builders B-248\DWG\01_C161_81750-00_UTIL_PROFILES.dwg



1 **STORM PROFILE 1**
SCALE: SCALE-H=1"=50'
SCALE-V=1"=10'



2 **STORM PROFILE 2**
SCALE: SCALE-H=1"=50'
SCALE-V=1"=10'



3 **STORM PROFILE 3**
SCALE: SCALE-H=1"=50'
SCALE-V=1"=10'

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
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LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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Beacon, New York 12508

NO:	DATE:	DESCRIPTION:
1	07/28/26	REVISED PER CITY COMMENTS

Revisions

PROJECT NUMBER: 2260816
DRAWN BY: GMZ
REVIEWED BY: KGA
ISSUED FOR: ISSUED FOR PLANNING BOARD REVIEW
DATE: 06/30/26
DRAWING NAME:

UTILITY PROFILES

DRAWING NUMBER:

C162

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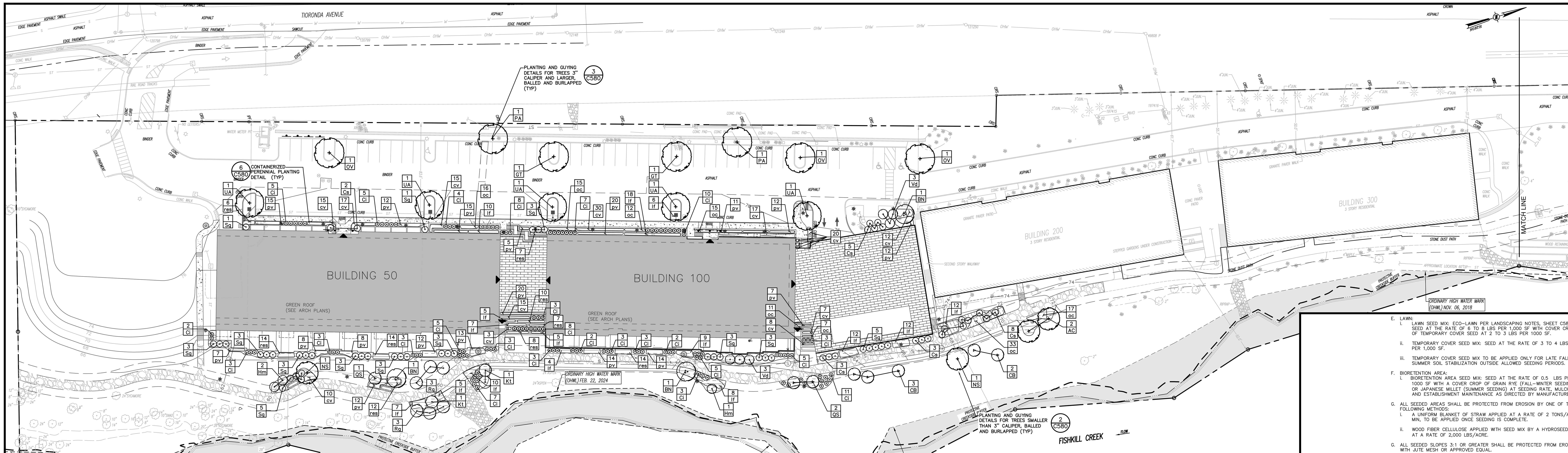
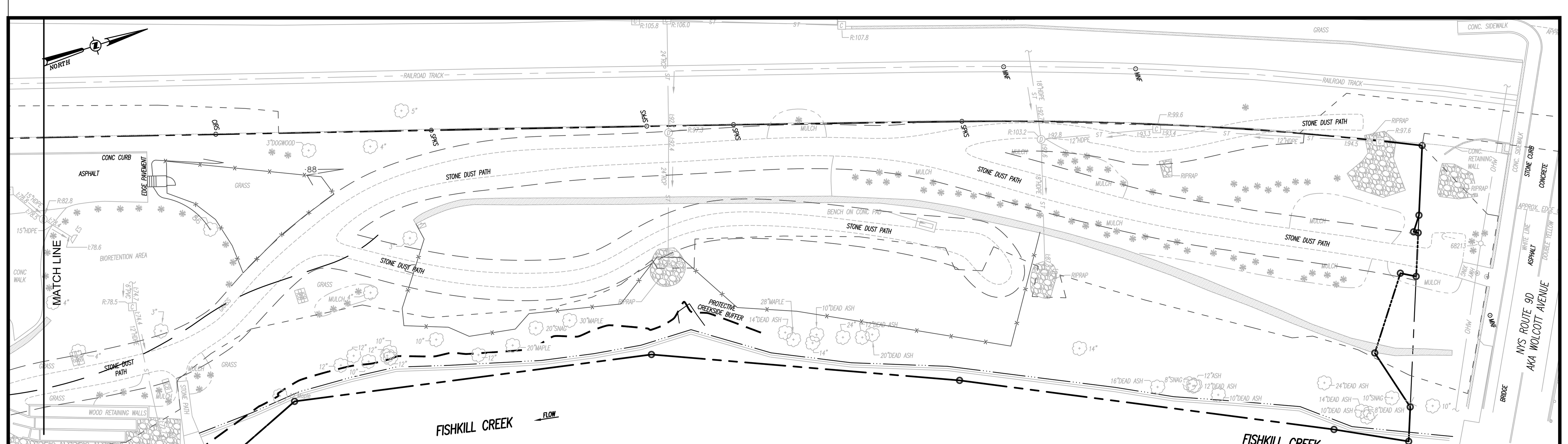


1 **LANDSCAPE PLAN**
SCALE: 1"=30'



2 **LANDSCAPE PLAN-EMERGENCY ACCESS DRIVE**
SCALE: 1"=30'

PLANT LIST

	QTY	ABRV	BOTANICAL NAME	COMMON NAME	SIZE	COND	SPACING	REMARKS
TREES								
	0	AR	ACER RUBRUM	RED MAPLE	3" Cal.	B&B	As Shown	
	0	AA	AMELANCHIER ARBOREA	DOWNY SERVICEBERRY	4'-5' HT	B&B	As Shown	MULTISTEM CLUMP
	3	AC	AMELANCHIER CANADENSIS	SERVICEBERRY	6'-8' HT	B&B	As Shown	MULTISTEM CLUMP
	3	BN	Betula nigra	River Birch	8'-10' Clump	B&B	As Shown	Multi-Stemp Clump
	0	CC	Crataegus crusgalli 'Inermis'	Thornless Hawthorn	10-12' Clump	B&B	As Shown	Multi-Stemp Clump
	0	LT	Liriodendron tulipifera	Tuliptree	3" Cal.	B&B	As Shown	
	0	JV	Juniperus virginiana	Eastern Red Cedar	8'-10'	B&B	As Shown	
	1	GT	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2" CAL.	B&B	As Shown	
	3	OV	OSTRYA VIRGINIANA	EASTERN HOPHORNBEAM	2" CAL.	B&B	As Shown	
	2	NS	Nyssa sylvatica	Sour Gum	3" Cal.	B&B	As Shown	Fall Digging Hazard
	2	PA	CHIONANTHUS VIRGINICUS	FRINGETREE	8' HT	B&B	As Shown	MULTISTEM TREE; 5 BOLES MAX.
	0	PO	Plantanus occidentalis	American Sycamore	2.5" Cal.	B&B	As Shown	
	0	PT	Populus tremuloides	Quaking Aspen	10-12'	B&B	As Shown	Multi-Stem
	0	PY	Prunus yeodensis	Yoshino Cherry	2" Cal.	B&B	As Shown	
	0	QR	Quercus rubra	Northern Red Oak	3" Cal.	B&B	As Shown	Fall Digging Hazard
	0	QB	Quercus bicolor	Swamp White Oak	3" Cal.	B&B	As Shown	Fall Digging Hazard
	3	QS	QUERCUS ILICIFOLIA	SCRUB OAK	4'-5' HT	CONT	AS SHOWN	
	0	ST	STAPHYLEA TRIFOLIA	AMERICAN BLADDERNUT	2" CAL.	B&B	AS SHOWN	SINGLE STEM TREE FORM
	5	UA	Ulmus americana 'Princeton'	Princeton Elm	3" Cal.	B&B	As Shown	
SHRUBS								
	120	Ci	Comptonia peregrina	Sweet Fern	#3 Cont.		As Shown	
	0	Cm	Cornus amomum	Silky Dogwood	24"-30"	Cont	As Shown	
	0	Co	Cornus sericea	Red-Osier Dogwood	30"-36"	Cont.	As Shown	
	21	Cs	CORNUS SERICEA 'FLAVAMIRA'	YELLOW-TWIGGED DOGWOOD	18"-24"	Cont	As Shown	
	5	CB	CORYLUS CORNUTA	BEAKED HAZELNUT	30"-36" HT	CONT	AS SHOWN	
	0	CA	CORYLUS AMERICANA	AMERICAN HAZELNUT	30"-36" HT	CONT	AS SHOWN	
	3	Hm	Hamamelis virginiana	Witchhazel	3' - 4'	Cont.	As Shown	
	3	Kt	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	30"-36"	Cont.	As Shown	
	0	Lb	Lindera benzoin	Spicebush	36"	Cont.	As Shown	
	0	Mp	Myrica pennsylvanica	NORTHERN BAYBERRY	#5	Cont.	As Shown	
	6	Rg	Rhus typhina 'Laciniata'	Cutleaf Staghorn Sumac	36"	Cont.	As Shown	
	0	RC	ROSA CAROLINIANA	CAROLINA ROSE	18"-24"	CONT.	As Shown	
	40	Sg	SYMPHOROCARPUS ALBUS	SNOWBERRY	24"-30"	CONT.	As Shown	
	0	Va	Viburnum acerifolium	Mapleleaf Viburnum	24"-30"	Cont.	As Shown	
	7	Vd	Viburnum dentatum	Doublefile Viburnum	30"-36"	Cont.	As Shown	
	0	VL	VIBURNUM LENTAGO	NANNYBERRY VIBURNUM	5'-6' HT	CONT	As Shown	
	0	VP	VIBURNUM PRUNIFOLIUM	BLACKHAW VIBURNUM	30"-36" HT	CONT	As Shown	
	0	Xv	Ilex verticillata 'Winter Red'	Winter Red Winterberry	18"-24"	Cont	As Shown	
PERENNIALS/ GRASSES								
	174	cv	Carex Vulpinoidea	Fox Sedge		#1 Cont.	8" O.C.	
	129	lf	PANICUM CLANDESTINUM	DEERTONGUE		#1 CONT	16-18" O.C.	
	139	oc	Osmunda cinnamomea	Cinnamon Fern		#2 Cont.	2-3' O.C.	
	217	pv	Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass		#2 Cont.	2-3' O.C.	
	95	res	Rudbeckia laciniata	Cutleaf Coneflower		#1 Cont	18" O.C.	
	0	ss	Schizachyrium scoparium	Little Bluestem		#1 Cont	18" O.C.	

3 **OVERALL PLANT LIST**
SCALE: NTS

E. LAWN:
i. LAWN SEED MIX: ECO-LAWN PER LANDSCAPING NOTES, SHEET C580. SEED AT THE RATE OF 6 TO 8 LBS PER 1,000 SF WITH COVER CROP OF TEMPORARY COVER SEED AT 2 TO 3 LBS PER 1000 SF.
ii. TEMPORARY COVER SEED MIX: SEED AT THE RATE OF 3 TO 4 LBS PER 1,000 SF.
iii. TEMPORARY COVER SEED MIX TO BE APPLIED ONLY FOR LATE FALL OR SUMMER SOIL STABILIZATION OUTSIDE ALLOWED SEEDING PERIODS.

F. BIORETENTION AREA:
i. BIORETENTION AREA SEED MIX: SEED AT THE RATE OF 0.5 LBS PER 1000 SF WITH A COVER CROP OF GRAIN RYE (FALL-WINTER SEEDING) OR JAPANESE MILLET (SUMMER SEEDING) AT SEEDING RATE, MULCHING AND ESTABLISHMENT MAINTENANCE AS DIRECTED BY MANUFACTURER.

G. ALL SEEDED AREAS SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS:
i. A UNIFORM BLANKET OF STRAW APPLIED AT A RATE OF 2 TONS/ACRE MIN, TO BE APPLIED ONCE SEEDING IS COMPLETE.
ii. WOOD FIBER CELLULOSE APPLIED WITH SEED MIX BY A HYDROSEEDER AT A RATE OF 2,000 LBS/ACRE.

G. ALL SEEDED SLOPES 3:1 OR GREATER SHALL BE PROTECTED FROM EROSION WITH JUTE MESH OR APPROVED EQUAL.

H. ALL NEWLY PLANTED AREAS SHALL BE KEPT MOIST BY WATERING UNTIL GRASSES AND GROUND COVERS ARE WELL ESTABLISHED. THE LANDSCAPE CONTRACTOR MUST WATER PLANT MATERIAL WHEN NECESSARY FOR 60 DAYS AFTER INSTALLATION.

I. LAWNS ARE TO BE WARRANTED UNTIL THEY BECOME ESTABLISHED, UNTIL FINAL ACCEPTANCE, AND NOT LESS THAN 60 DAYS AFTER COMPLETION OF ALL WORK. TREES, SHRUBS, GROUND COVERS, AND PERENNIALS SHALL BE WARRANTED AGAINST DEFECTS INCLUDING POOR GROWTH AND DEATH, EXCEPT WHEN RESULTING FROM OWNER NEGLECT, INCIDENTS THAT ARE BEYOND THE CONTROL OF THE LANDSCAPE INSTALLER AND DAMAGE OR ABUSE BY OTHERS, FOR AT LEAST ONE FULL YEAR AFTER PROJECT COMPLETION.

. ALL LANDSCAPING SHOWN ON THESE PLANS SHALL BE MAINTAINED IN A HEALTHY AND VIGOROUS GROWING CONDITION THROUGHOUT THE DURATION OF THE PROPOSED USE OF THE SITE. ALL VEGETATION NOT SO MAINTAINED SHALL BE REPLACED WITH NEW COMPARABLE VEGETATION AT THE BEGINNING OF THE NEXT GROWING SEASON.

SITE LEGEND:

- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED SIDEWALK
- PROPOSED CURB
- 80 PROPOSED 10 FT CONTOUR
- 79 PROPOSED 2 FT CONTOUR
- x 79.2 PROPOSED SPOT GRADE
- PROPOSED PERMEABLE ASPHALT PAVEMENT
- (25) PROPOSED PARKING COUNT
- PROPOSED TREES
- PROPOSED SHRUBS
- PROPOSED HERBACEOUS PLANTS
- MULCH BED
- RIVERSTONE BED
- 43 PLANT QUANTITY
- CO PLANT NAME

SOIL RESTORATION NOTES:

SOIL SHALL BE RESTORED IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN AND THE LATEST EDITION OF THE NYSDEC DEEP-RIPPING AND COMPACTION GUIDELINES.

IN AREAS WHERE SOIL DISTURBANCE HAS OCCURRED OUTSIDE OF BUILDINGS AND PAVEMENT AREAS, THE DISTURBED SUB-SOILS SHALL BE RETURNED TO ROUGH GRADE AND THE FOLLOWING SOILS RESTORATION STEPS APPLIED:

1) APPLY THREE INCHES OF COMPOST OVER SOIL. 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.
2) TILL COMPOST INTO THE 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 SUB-SOILS.
3) ROCK-PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF FOUR INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE.
4) APPLY TOPSOIL TO A DEPTH OF SIX INCHES.

NOTES:
1. BROADCAST DENSITY, MULCHING, AND FIRST & SECOND SEASON MAINTENANCE TO MATCH MANUFACTURER'S RECOMMENDATIONS TO ENSURE PROPER ESTABLISHMENT.
2. OWNER TO FOLLOW GROWING SEASON MAINTENANCE RECOMMENDATIONS AFTER 1 YEAR TO ACHIEVE PROPER ESTABLISHMENT. CONTRACTOR TO INSTALL A 3"-4" SPADE CUT EDGE AT ALL LAWN/MULCH INTERFACES (TYP); CONTRACTOR TO ROUGHLY STAKE OUT AREA FOR OWNER APPROVAL PRIOR TO EDGING AND MULCHING.
3. ALL AREAS DISTURBED AS A RESULT OF CONSTRUCTION ACTIVITIES AND WHICH ARE NOT OTHERWISE CALLED OUT AS HARDSCAPE OR LANDSCAPE PLANTING AREAS SHALL BE SEEDED TO ESTABLISH LAWN PER LANDSCAPING NOTES.

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CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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Chai Developers
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248 Tioronda Avenue
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Beacon, New York 12508

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REVIEWED BY: KGA
ISSUED FOR: ISSUED FOR PLANNING BOARD REVIEW
DATE: 06/30/26
DRAWING NAME: **LANDSCAPE PLAN**
DRAWING NUMBER: **C180**

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LIGHTING STATISTICS:

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Stat Zone # 1 Entire Site to PL	+	0.6 fc	5.0 fc	0.0 fc	0	0
Stat Zone # 2 Driveway and Parking areas	+	0.5 fc	5.0 fc	0.1 fc	50:1	5:1

LIGHTING LEGEND:

PROPOSED BUILDING

EXISTING PARKING AREA LIGHT
PROPOSED PARKING AREA LIGHT

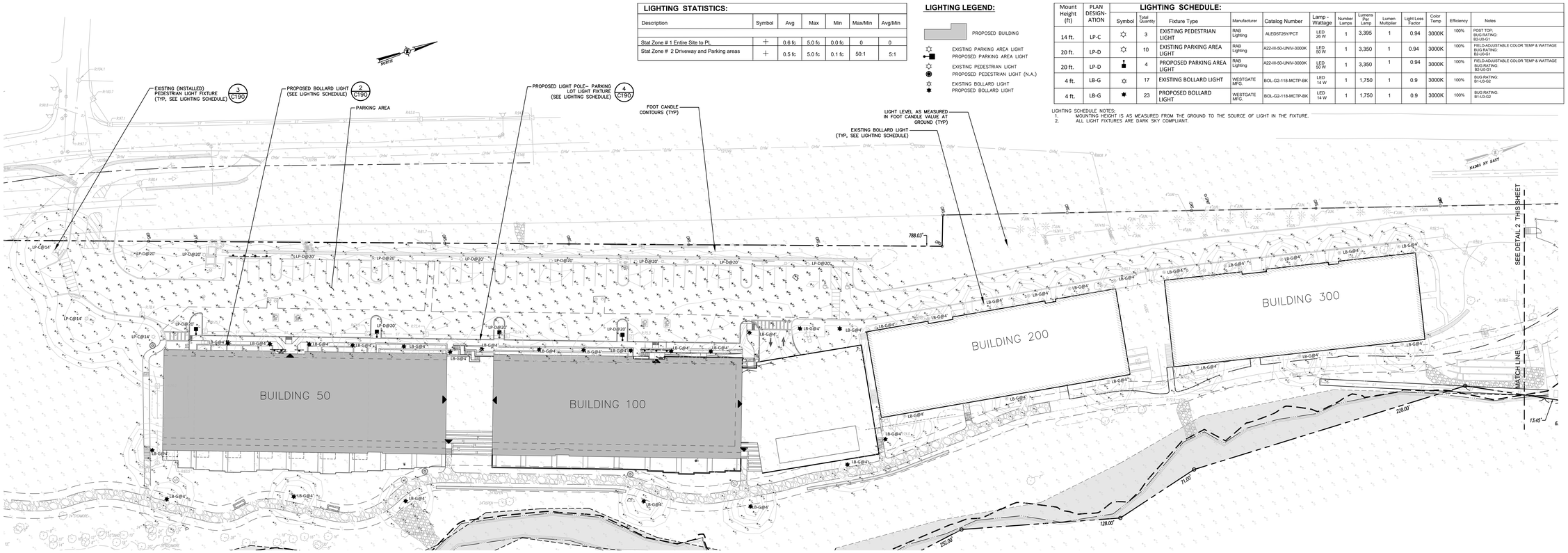
EXISTING PEDESTRIAN LIGHT
PROPOSED PEDESTRIAN LIGHT (N.A.)

EXISTING BOLLARD LIGHT
PROPOSED BOLLARD LIGHT

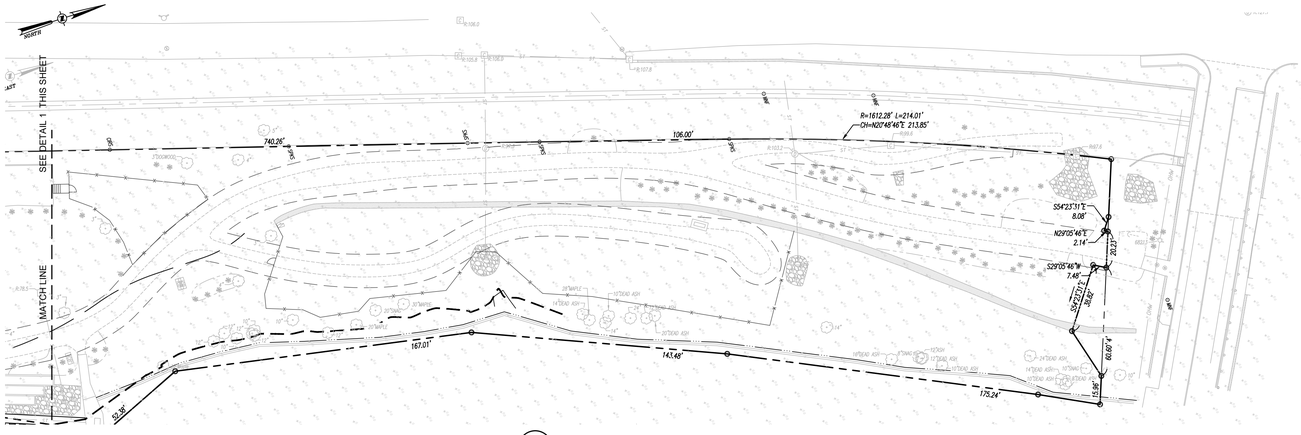
LIGHTING SCHEDULE:

Mount Height (ft)	PLAN DESIGN-ATION	Symbol	Total Quantity	Fixture Type	Manufacturer	Catalog Number	Lamp - Wattage	Number Lamps	Lumens Per Lamp	Lumen Multiplier	Light Loss Factor	Color Temp	Efficiency	Notes
14 ft.	LP-C	☼	3	EXISTING PEDESTRIAN LIGHT	RAB Lighting	ALEDST26Y/PCT	LED 26 W	1	3,395	1	0.94	3000K	100%	POST TOP: BUG RATING: B2-U0-G1
20 ft.	LP-D	☼	10	EXISTING PARKING AREA LIGHT	RAB Lighting	A22-III-50-UNIV-3000K	LED 50 W	1	3,350	1	0.94	3000K	100%	FIELD-ADJUSTABLE COLOR TEMP & WATTAGE BUG RATING: B2-U0-G1
20 ft.	LP-D	▮	4	PROPOSED PARKING AREA LIGHT	RAB Lighting	A22-III-50-UNIV-3000K	LED 50 W	1	3,350	1	0.94	3000K	100%	FIELD-ADJUSTABLE COLOR TEMP & WATTAGE BUG RATING: B2-U0-G1
4 ft.	LB-G	☼	17	EXISTING BOLLARD LIGHT	WESTGATE MFG.	BOL-G2-118-MCTP-BK	LED 14 W	1	1,750	1	0.9	3000K	100%	BUG RATING: B1-U3-G2
4 ft.	LB-G	✱	23	PROPOSED BOLLARD LIGHT	WESTGATE MFG.	BOL-G2-118-MCTP-BK	LED 14 W	1	1,750	1	0.9	3000K	100%	BUG RATING: B1-U3-G2

LIGHTING SCHEDULE NOTES:
1. MOUNTING HEIGHT IS AS MEASURED FROM THE GROUND TO THE SOURCE OF LIGHT IN THE FIXTURE.
2. ALL LIGHT FIXTURES ARE DARK SKY COMPLIANT.



1 C190 **PHOTOMETRIC LIGHTING PLAN**
SCALE: 1"=30'



2 C190 **PHOTOMETRIC LIGHTING PLAN**
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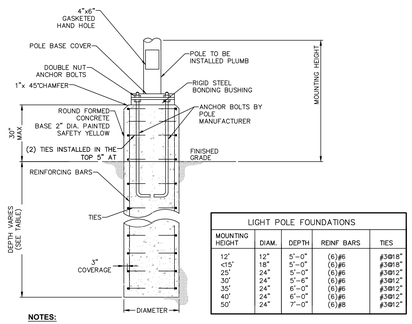
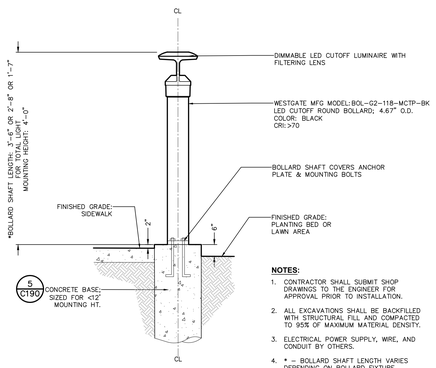


LIGHT POLE FOUNDATIONS				
MOUNTING HEIGHT	DIAM.	DEPTH	REINF BARS	TIES
12'	12"	5'-0"	(6)#6	#3@18"
<15'	18"	5'-0"	(6)#6	#3@18"
25'	24"	5'-0"	(6)#6	#3@12"
30'	24"	5'-6"	(6)#6	#3@12"
35'	24"	6'-0"	(6)#6	#3@12"
40'	24"	6'-0"	(6)#6	#3@12"
50'	24"	7'-0"	(6)#8	#3@12"

NOTES:
1. CONDUITS AND GROUNDING SHALL BE AS REQUIRED BY THE ELECTRICAL DESIGN.
2. ALL CONCRETE SHALL BE **4,500 PSI** @ **28** DAYS.
3. ALL REINFORCING STEEL SHALL BE GRADE 60.
4. DESIGNED FOR **90 MPH** WIND WITH FIXTURE AREA OF **13 SF.**
5. FOUNDATION DIAMETER AND REINFORING CIRCLE SHALL BE COORDINATED WITH ANCHOR BOLT LIMITS.
6. FOUNDATIONS SHALL BE AUGERED INTO UNDISTURBED NATURAL SOIL OR COMPACTED FILL PER SITE GRADING PLANS.

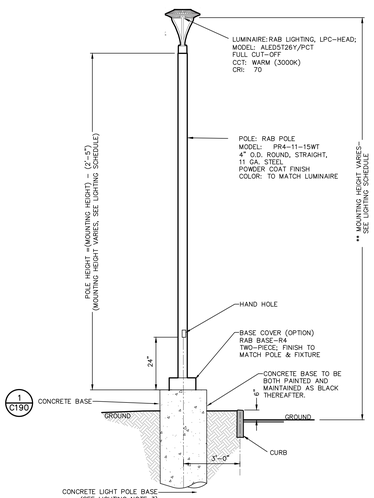
1 C190 **LOT LIGHTING CONCRETE BASE**
SCALE: N.T.S.

LIGHTING NOTES:
1. PROPOSED LIGHTING TO MATCH EXISTING INSTALLED LIGHTING, BY VARIOUS MANUFACTURERS. PROPOSED POLE OR SHAFT LENGTHS, AND MOUNTING HEIGHTS VARY, SEE LIGHTING CHART AND DETAILS.
2. GRID NUMBERS SHOWN REPRESENT FOOT CANDLE VALUES AT GROUND PLANE.
3. THE LIGHTING FIXTURES, SURFACE LOCATIONS AND ASSOCIATED PHOTOMETRIC VALUES ARE IDENTIFIED BY THE CHAZEN COMPANIES. DETAILED DESIGN OF THE LIGHTING SPECIFICATIONS, FOUNDATION DESIGN, LIGHTING CONDUIT, WIRING, AND CONTROL CIRCUITRY SHALL BE BY OTHERS.
4. IF DISCREPANCIES EXIST BETWEEN THE LIGHTING SCHEDULE AND LIGHTING PLAN, THE PLAN SHALL DICTATE.
5. THE EXISTING STREET LIGHTS IN THE RIGHT-OF-WAYS HAVE NOT BEEN INCLUDED IN THIS PHOTOMETRIC ANALYSIS. THE LIGHT LEVELS SHOWN HEREON REFLECT THE PROPOSED LIGHTING ON SITE.
6. LIGHTING AND ELECTRICAL SERVICE WIRING SHALL ONLY BE INSTALLED IN THE EVENT OF BUILDOUT OF LANDBANKED PARKING. INSTALL ELECTRIC CONDUIT STUBS-UPS, COVER AND MARK LOCATIONS IN CURRENT WORK PHASE.



NOTES:
1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
2. ALL EXCAVATIONS SHALL BE BACKFILLED WITH STRUCTURAL FILL AND COMPACTED TO 95% OF MAXIMUM MATERIAL DENSITY.
3. ELECTRICAL POWER SUPPLY, WIRE, AND CONDUIT BY OTHERS.
4. * — BOLLARD SHAFT LENGTH VARIES DEPENDING ON BOLLARD FIXTURE LOCATION ALONG SIDEWALK, IN LAWN OR PLANTING BED, OR IN RAISED PLANTER, TO PROVIDE A MAXIMUM TOTAL MOUNTING HEIGHT OF 4 FT.

2 C190 **BOLLARD LIGHT FIXTURE DETAIL**
SCALE: N.T.S.



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3. ELECTRICAL POWER SUPPLY, WIRE, AND CONDUIT BY OTHERS.
4. ALL PEDESTRIAN LIGHT FIXTURES INDICATED ON LIGHTING PLAN ARE EXISTING (INSTALLED).

3 C190 **PEDESTRIAN LIGHT FIXTURE DETAIL**
SCALE: N.T.S.

NOTES:
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2. ALL EXCAVATIONS SHALL BE BACKFILLED WITH STRUCTURAL FILL AND COMPACTED TO 95% OF MAXIMUM MATERIAL DENSITY.
3. ELECTRICAL POWER SUPPLY, WIRE, AND CONDUIT BY OTHERS.
4. WHEN LIGHT FIXTURE IS ADJACENT TO PARKING, BASE HEIGHT TO BE 30" HIGH.

4 C190 **PARKING AREA LIGHT FIXTURE DETAIL**
SCALE: N.T.S.

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CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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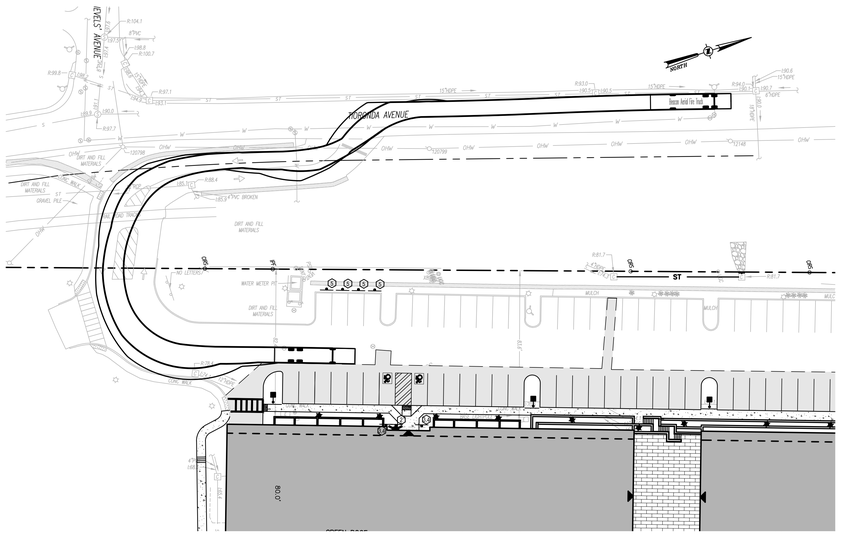
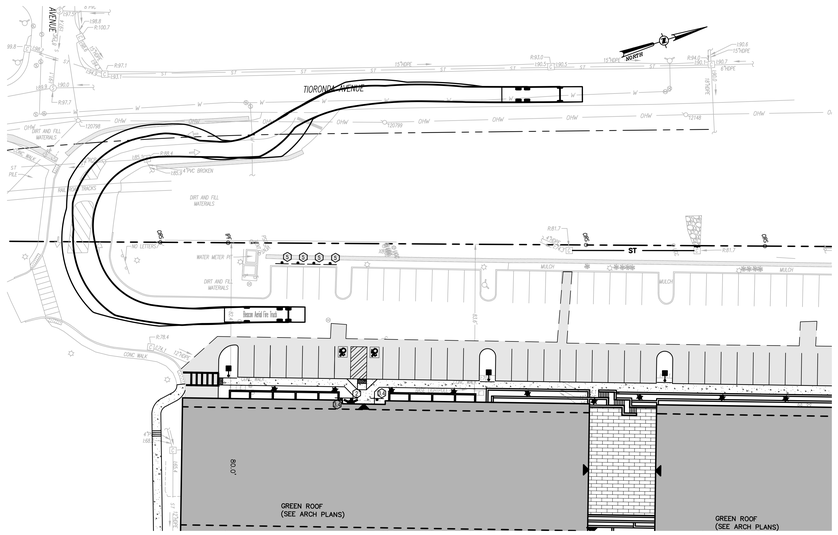


1 C200 **SITE ACCESS MANEUVERING PLAN - INGRESS**
SCALE: 1"=50'



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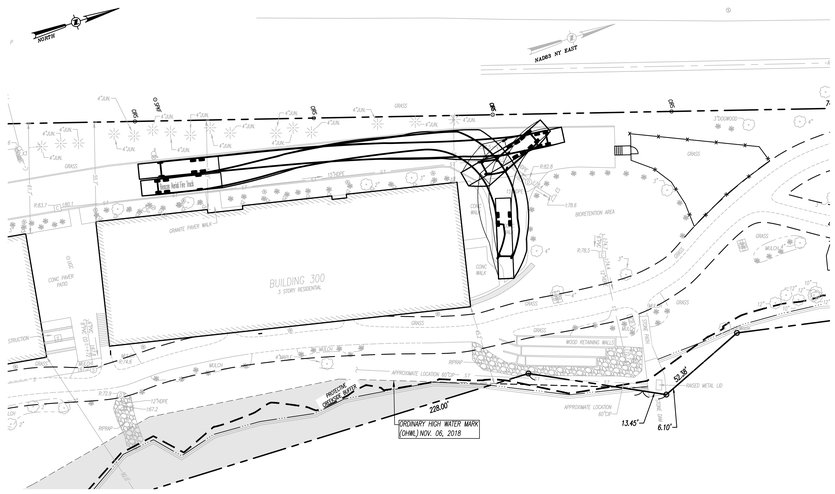
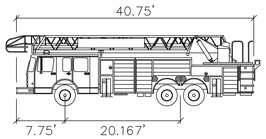


3 C200 **FIRETRUCK TURNAROUND AREA MANEUVERING PLAN**
SCALE: 1"=50'



BEACON FIRE TRUCK

	feet
Width	: 8.33
Track	: 8.41
Lock to Lock Time	: 6.0
Steering Angle	: 45.0

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(845) 454-3980

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LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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Chai Developers
147 Union Street
Poughkeepsie, New York 12601

248 Tioronda Avenue
248 Tioronda Avenue
Beacon, New York 12508

NO:	DATE:	DESCRIPTION:
1	07/28/26	REVISED PER CITY COMMENTS

Revisions

PROJECT NUMBER: 2260816
DRAWN BY: GMZ
REVIEWED BY: KGA
ISSUED FOR: ISSUED FOR PLANNING BOARD REVIEW
DATE: 06/30/26
DRAWING NAME:

VEHICLE MANEUVERING PLAN

DRAWING NUMBER:

C200

7/27/2026 5:55:43 PM
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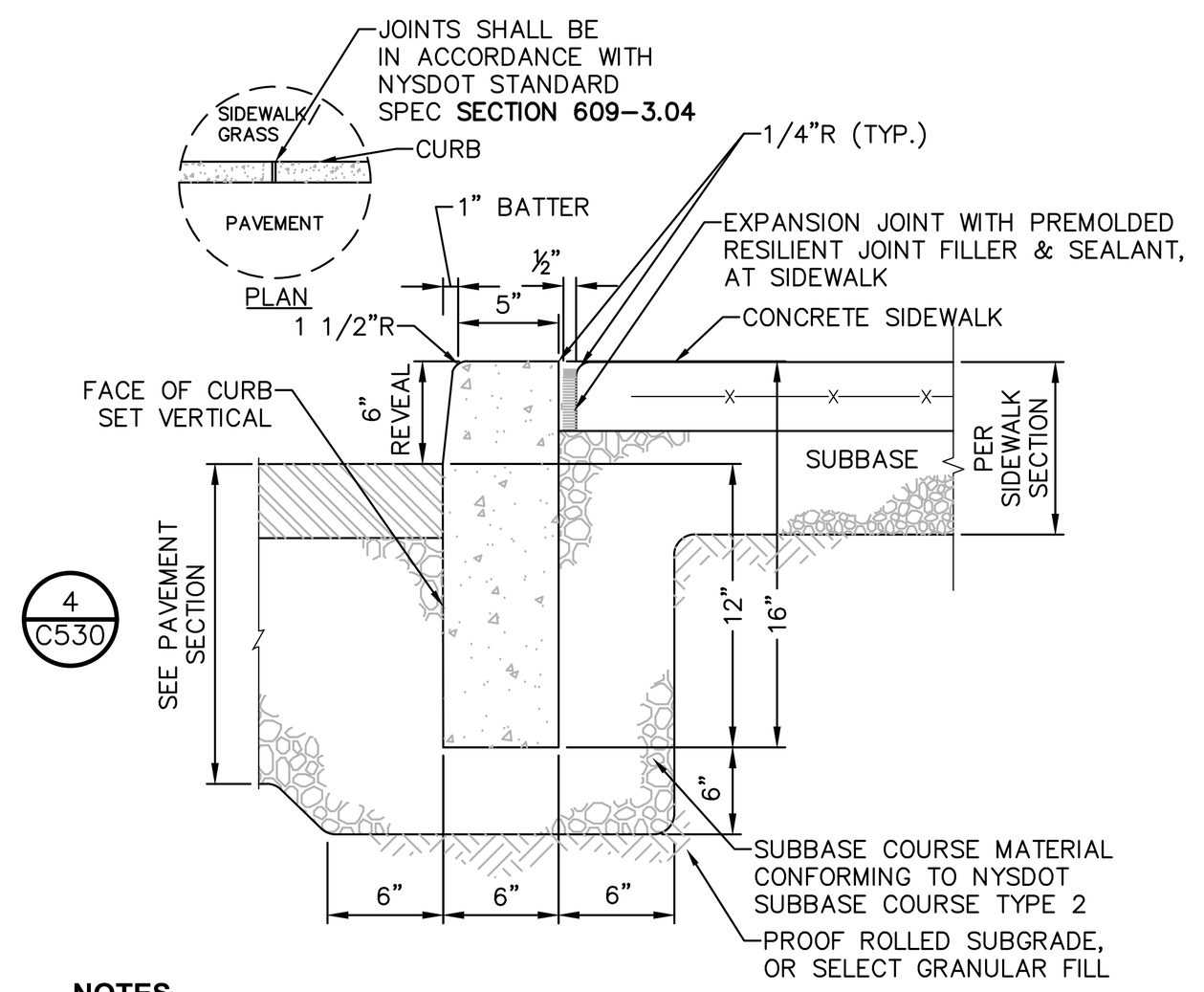
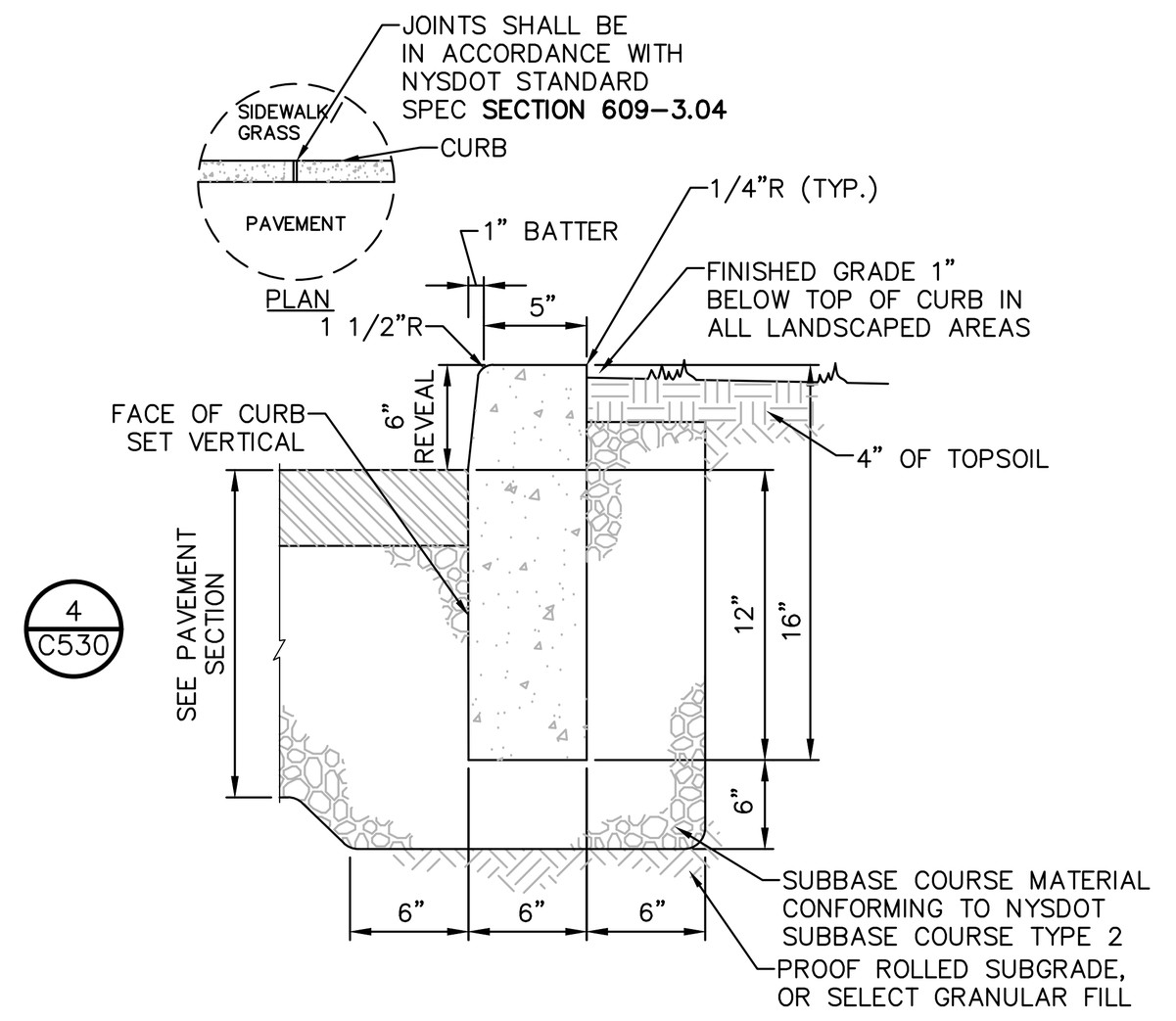


NOTES:
1. CONCRETE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION **SECTION 609.**
2. PRECAST CONCRETE CURB MAY BE SUBSTITUTED, WHEN ALTERNATE CONSTRUCTION DETAILS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. ALTERNATE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT SPEC **SECTION 609.**

1 CAST IN PLACE CONCRETE CURB AT SIDEWALK
SCALE: NOT TO SCALE



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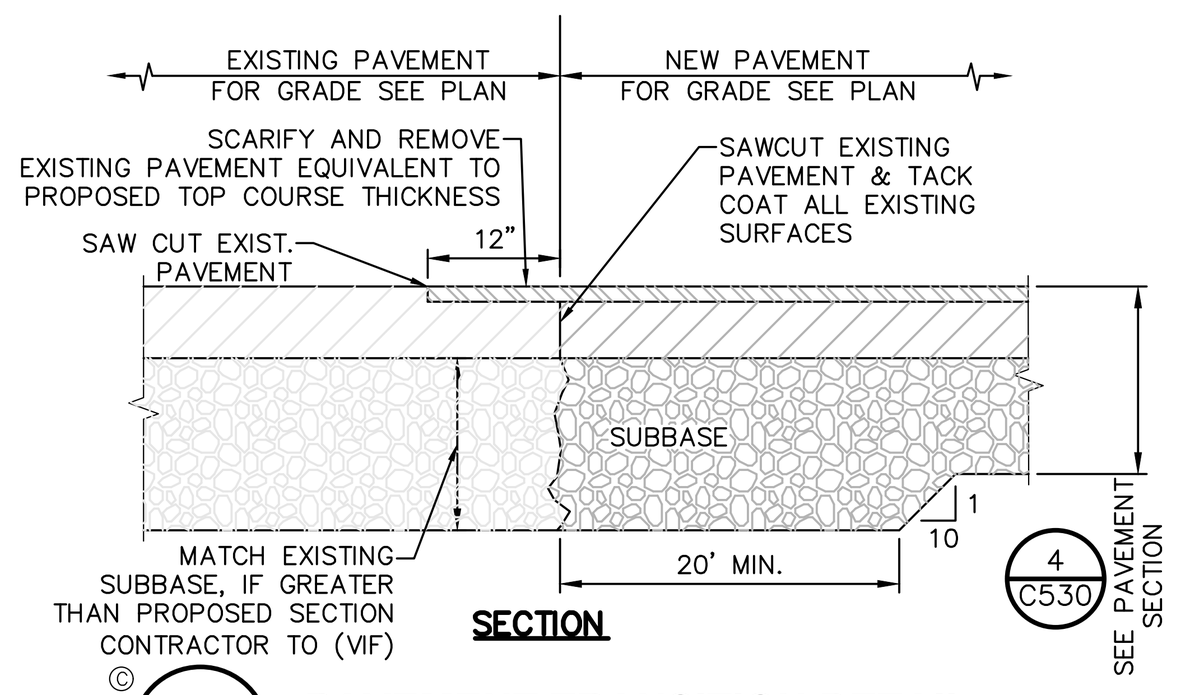
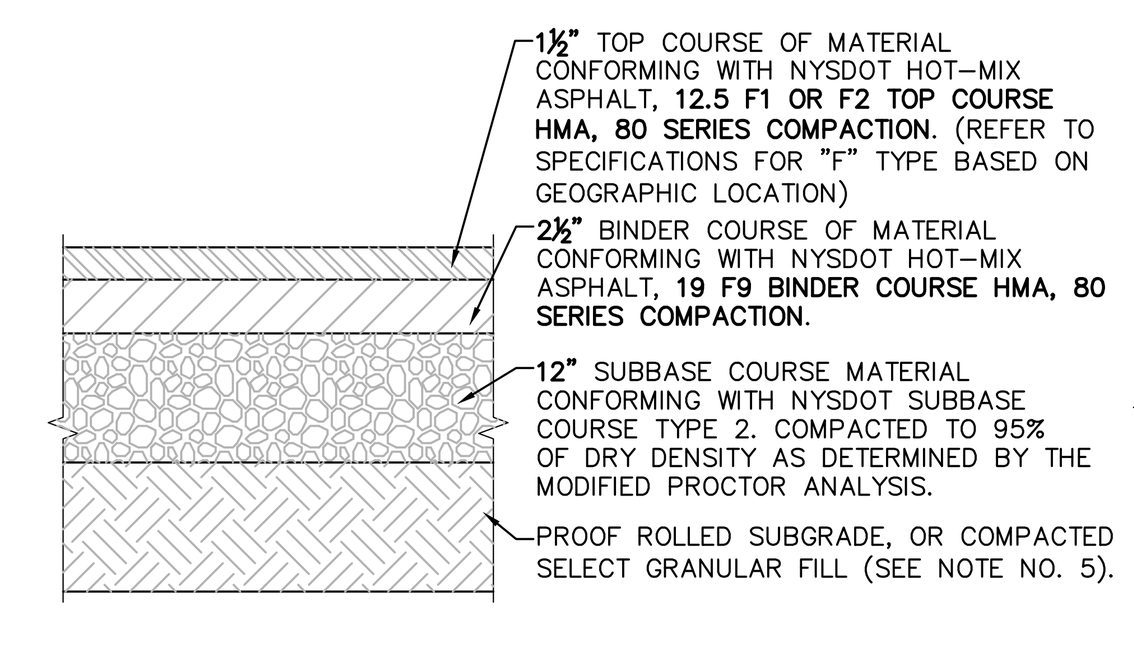
2 CAST IN PLACE CONCRETE CURB
SCALE: NOT TO SCALE



3 PAVEMENT TRANSITION DETAIL
SCALE: NOT TO SCALE

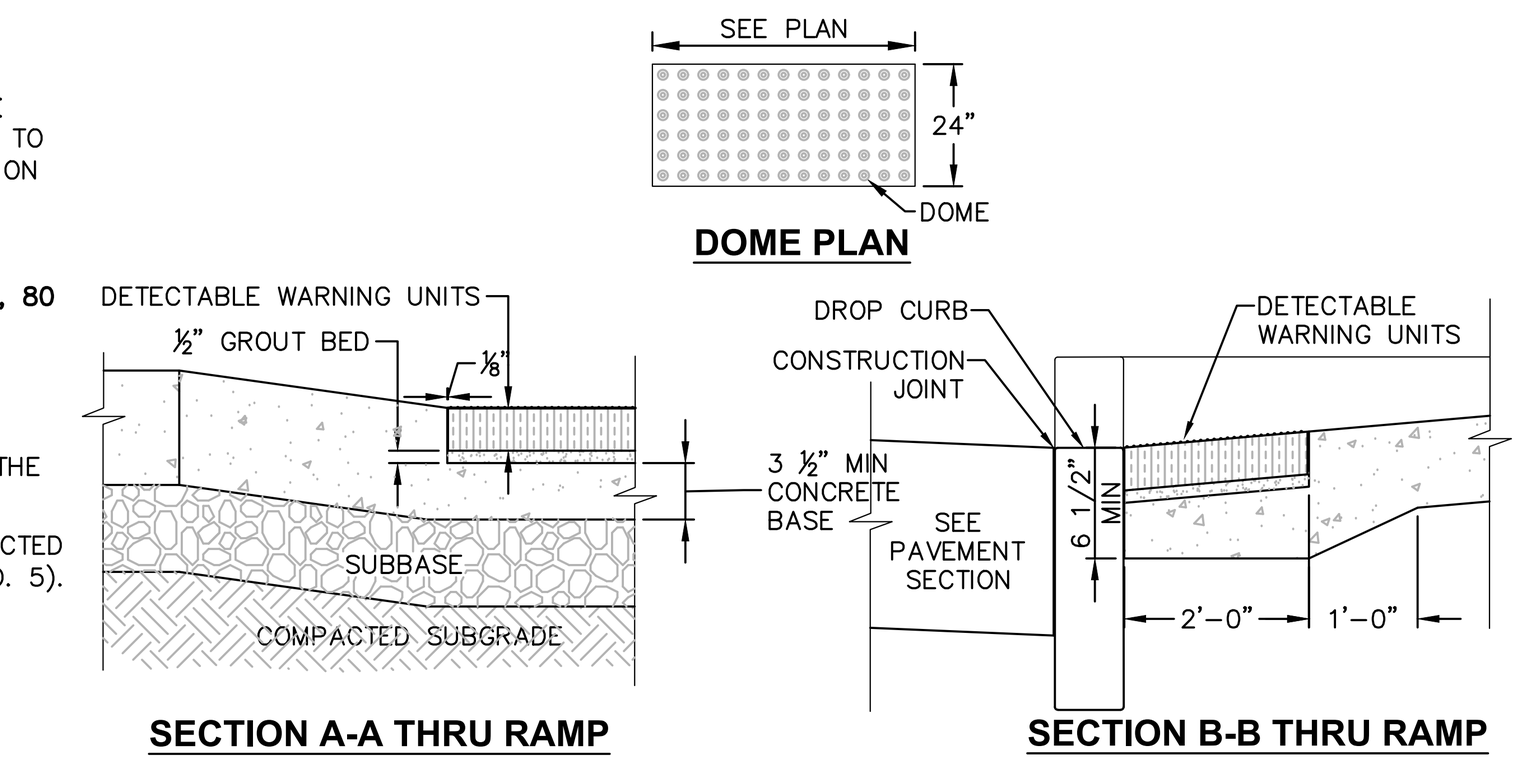


NOTES:
1. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED **"CURRENT VERSION"**, AND ALL ADDENDA THERE TO.
2. SUBBASE MATERIAL SHALL CONFORM WITH **SECTION 304** – SUBBASE COURSE OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND THE TYPE CALLED OUT IN THESE DRAWINGS.
3. HOT MIX ASPHALT (HMA) PAVEMENT SHALL CONFORM WITH **SECTION 400**–HOT MIX ASPHALT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND THE TYPE CALLED OUT IN THESE DRAWINGS. ALTHOUGH **SECTION 400** IN ITS ENTIRETY IS REFERENCED, THE HOT MIX ASPHALT (HMA) PAVEMENT(S) SPECIFIED FOR THIS CONTRACT SHALL BE AS SPECIFIED UNDER **SECTION 402**–HOT MIX ASPHALT (HMA) PAVEMENTS.
4. TACK COAT WHEN SPECIFIED OR CALLED OUT IN THESE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATIONS SHALL CONFORM WITH **SECTION 407**–TACK COAT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
5. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSES OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMANCE WITH **SECTION 203**–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
6. PAVEMENT SECTION SHOWN IS PRELIMINARY. PRIOR TO BIDDING AND COMMENCEMENT OF CONSTRUCTION, THE FINAL DESIGN OF THE PAVEMENT SECTION MUST BE PREPARED BY A NYS LICENSED PROFESSIONAL ENGINEER AND MUST BE BASED ON A CURRENT GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT.

ALT. NOTE 6:

6. PAVEMENT SECTION SHOWN IS PRELIMINARY. PRIOR TO CONSTRUCTION, SHOP DRAWINGS SHOWING THE FINAL DESIGN OF THE PAVEMENT SECTION MUST BE PREPARED BY A NYS LICENSED PROFESSIONAL ENGINEER AND SUBMITTED FOR REVIEW.

4 PAVEMENT SECTION DETAIL
SCALE: NOT TO SCALE

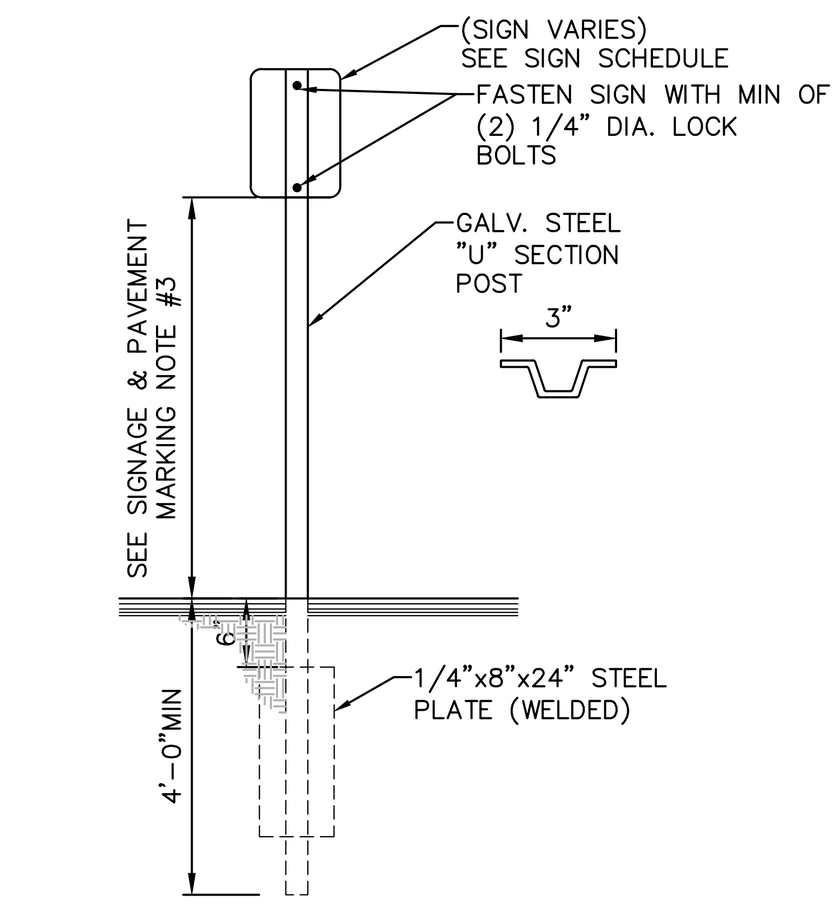


NOTES:
1. DETECTABLE WARNING UNIT SHALL BE ADA COMPLIANT, AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
2. CAST IRON 2" TERRA PAVING TYPE THREE ADA COMPLIANT WARNING PAVER.
3. COORDINATE W/ OWNER FOR COLOR.

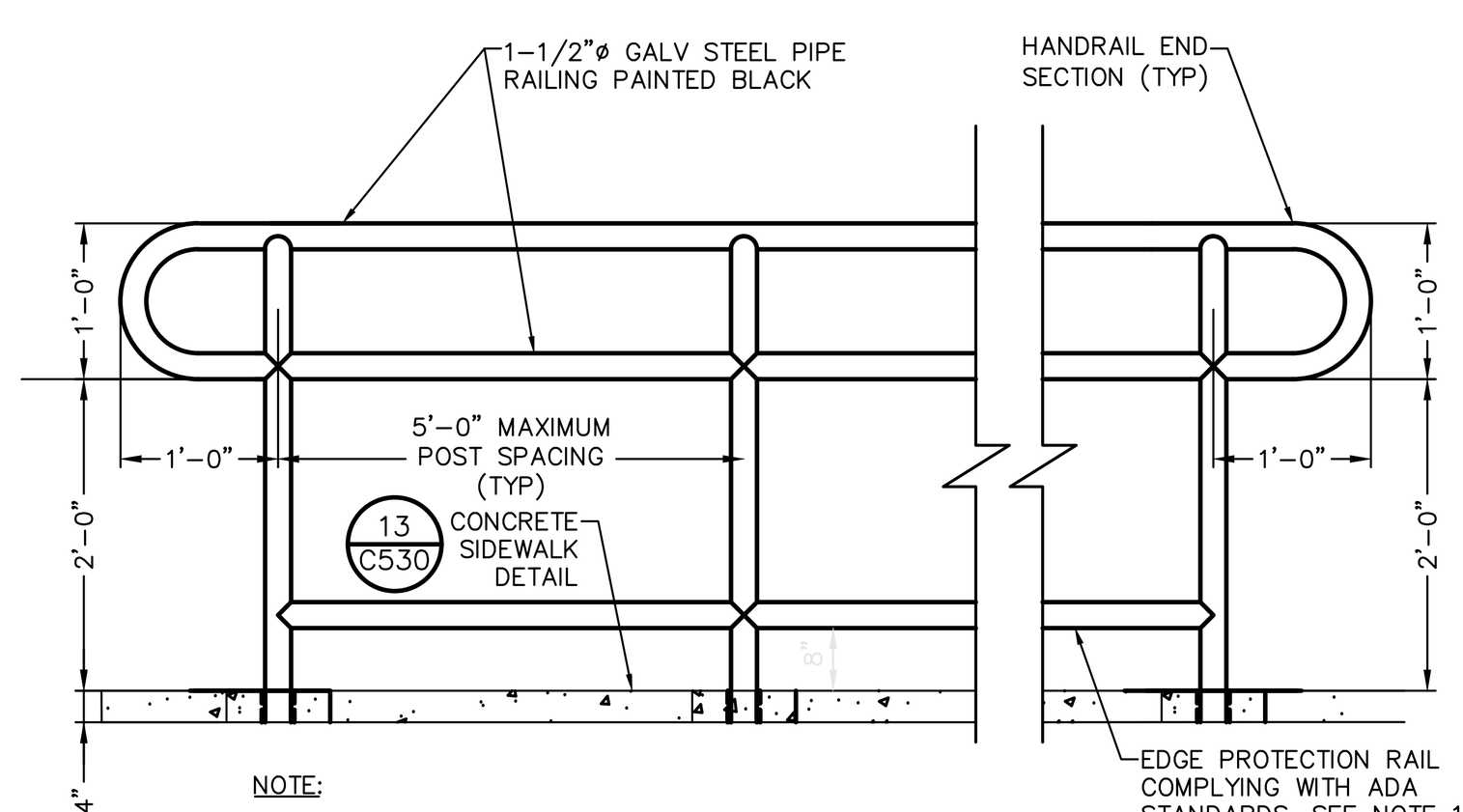
5 DETECTABLE WARNING UNITS FOR RAMPS
SCALE: NOT TO SCALE

SIGN NO.	SIGN FACE	MUTCD NUMBER	MIN SIZE	COLORS BCK GRND	COLORS LEGEND	MOUNTING
1	(pedestrian crossing)	W11–2	24"x24"	YELLOW/ FYG	BLACK	7/C530
2	NO PARKING ANY TIME	R7–1	12"x18"	WHITE	RED	7/C530
3	RESERVED PARKING	NY R7–8D	12"x18"	WHITE/ BLUE	GREEN/ WHITE	7/C530
4	VAN ACCESSIBLE	R7–8P	12"x6"	WHITE	BLUE	7/C530
5	TRAIL PARKING ONLY	CUSTOM DESIGN TO BE COORD. WITH OWNER PRIOR TO CONSTRUCTION				7/C530

6 SIGN SCHEDULE
SCALE: NOT TO SCALE

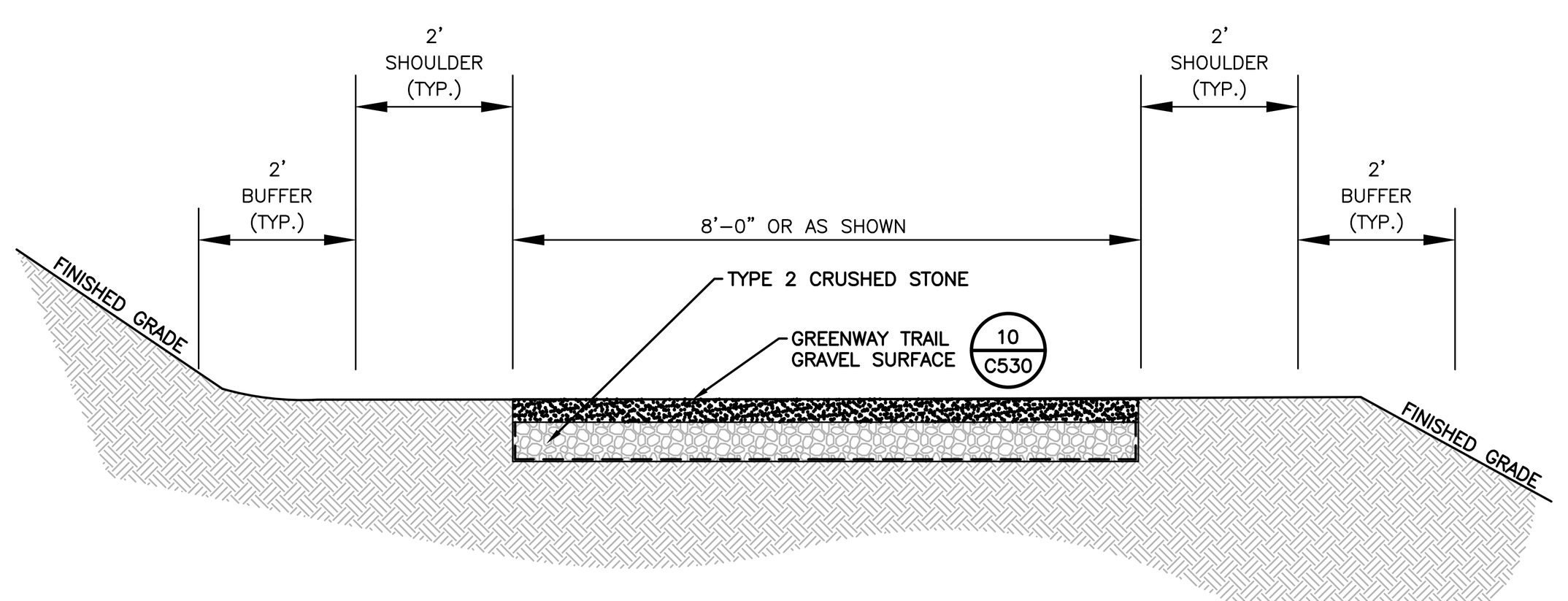


7 SINGLE POST SIGN MOUNTING DETAIL
SCALE: NOT TO SCALE

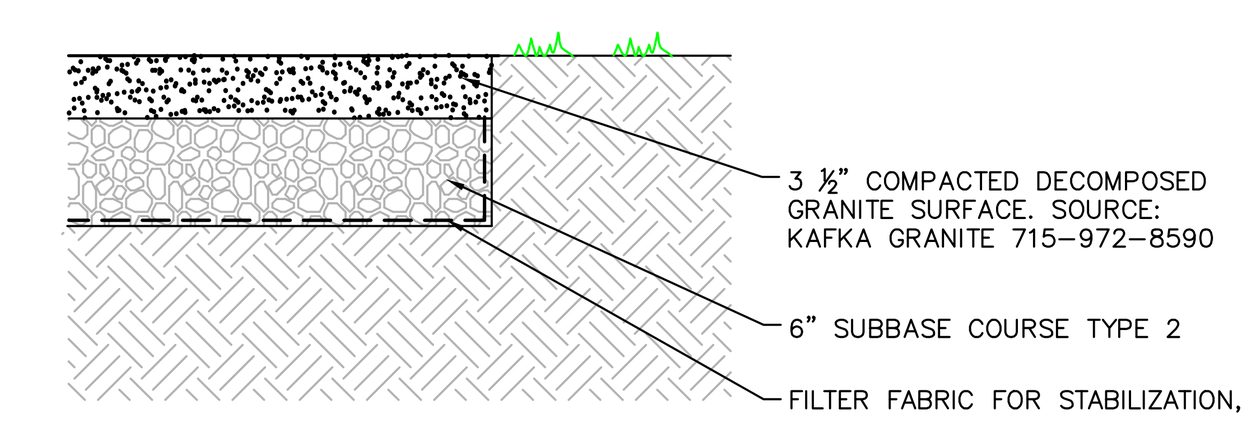


NOTE:
1. INSIDE FACE OF HANDRAIL RAIL SHALL BE 12" MIN. IF BOTTOM EDGE PROTECTION RAIL IS NOT PROVIDED.
2. HANDRAILS SHALL BE PROVIDED ON BOTH SIDES OF RAMP.
3. RAMP CLEARANCE WIDTH BETWEEN LEADING EDGE OF HANDRAILS SHALL BE 36" MIN.

8 STEEL PIPE HANDRAIL DETAIL
SCALE: NOT TO SCALE



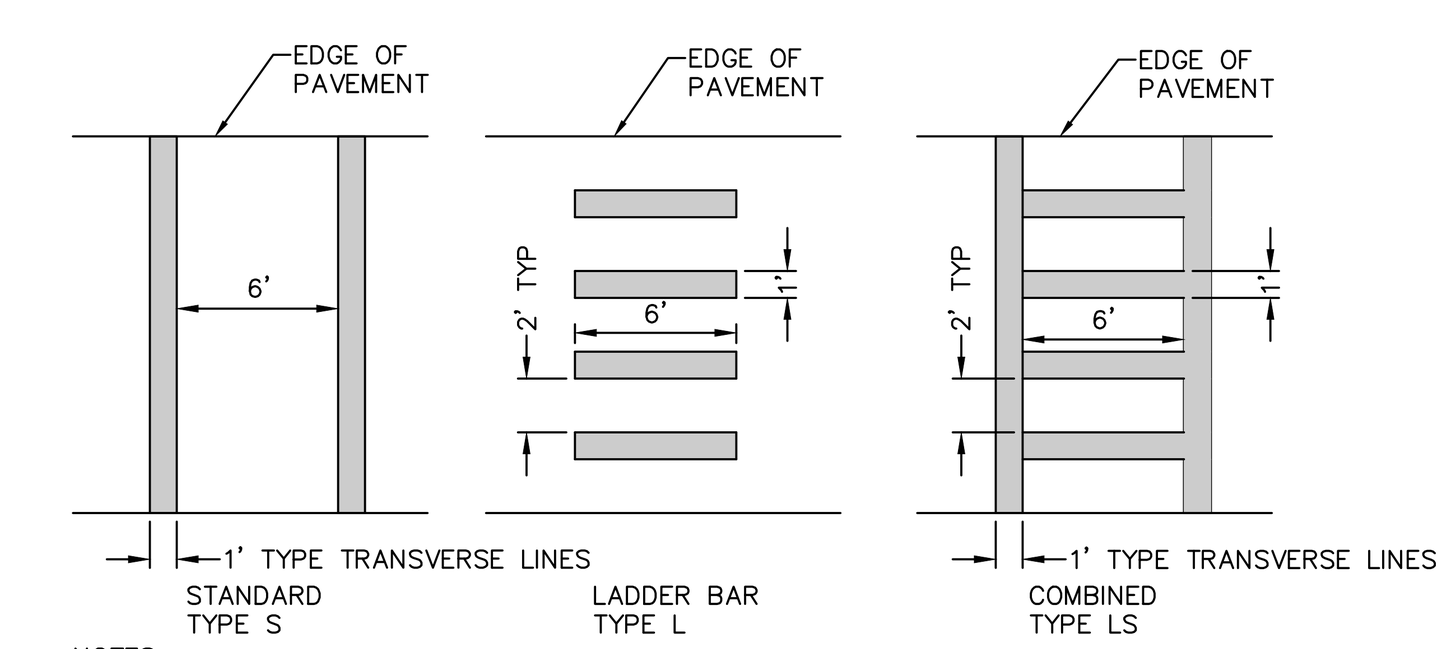
9 GREENWAY TRAIL SECTION
SCALE: NOT TO SCALE



ADA TRAIL SECTION

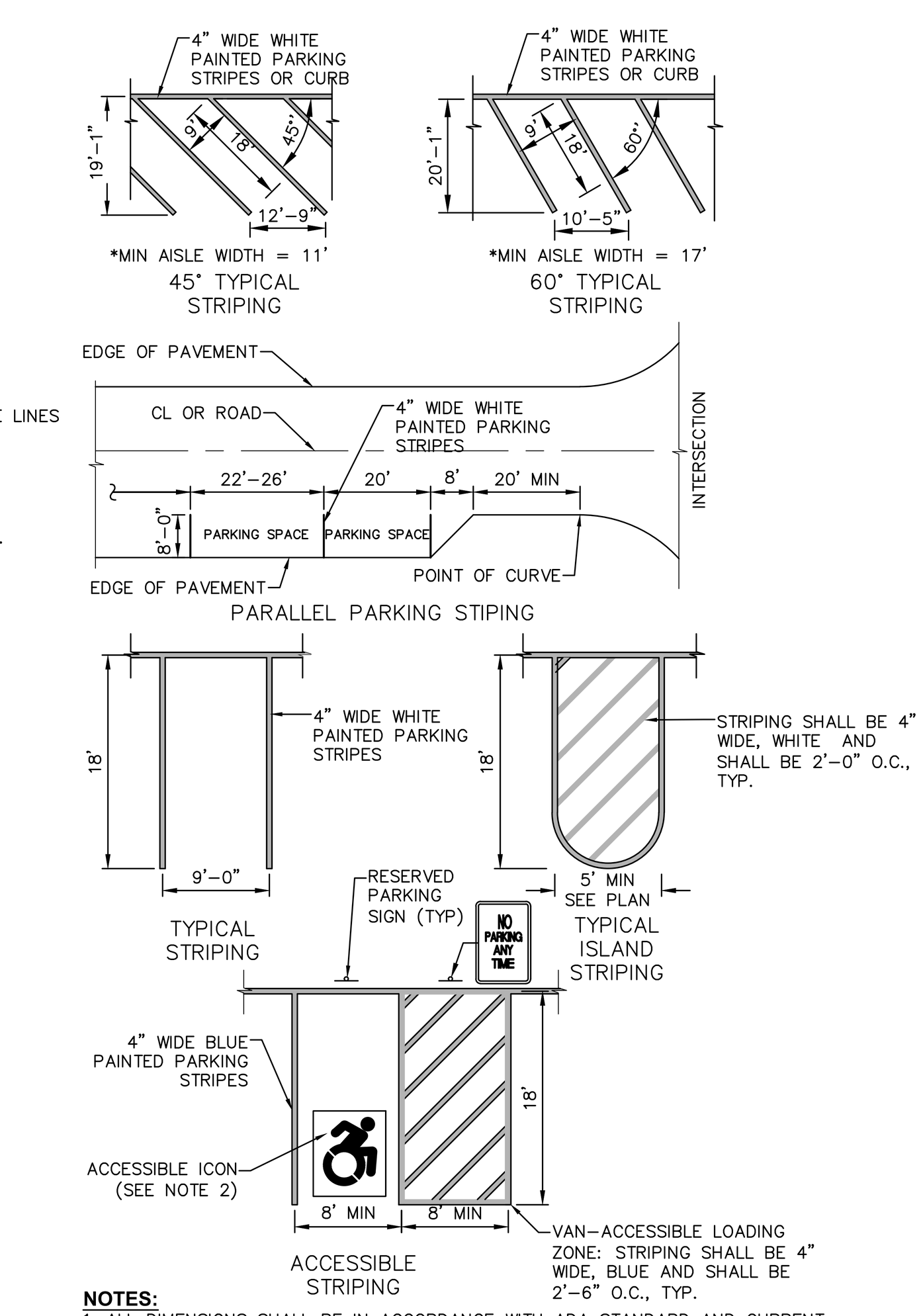
NOTES:
1. COMPACT GRADES ADJACENT TO TRAIL TO MINIMIZE SETTLING AND EROSION.
2. DECOMPOSED GRANITE TO BE INSTALLED PER SUPPLIERS DIRECTIONS.
3. DECOMPOSED GRANITE COLOR TO BE SELECTED BY LANDSCAPE ARCHITECT.
4. REFER TO DETAIL 23/C530 FOR HAND RAIL.
5. TRAIL SURFACE SHOULD BE ADA–COMPLAINT.

10 ADA TRAIL SURFACE
SCALE: NOT TO SCALE



NOTES:
1. ALL CROSS WALK STRIPING SHALL BE WHITE.
2. TYPE S CROSS WALK SHALL BE USED IN LOW TRAFFIC VOLUME STREET CROSSINGS.
3. TYPE L CROSS WALK SHALL BE USED IN MEDIUM TRAFFIC VOLUME STREET CROSSINGS.
4. TYPE LS CROSS WALK SHALL BE USED IN HIGH TRAFFIC VOLUME STREET CROSSINGS.

11 PAVEMENT MARKING DETAIL CROSS WALK STRIPING
SCALE: NOT TO SCALE

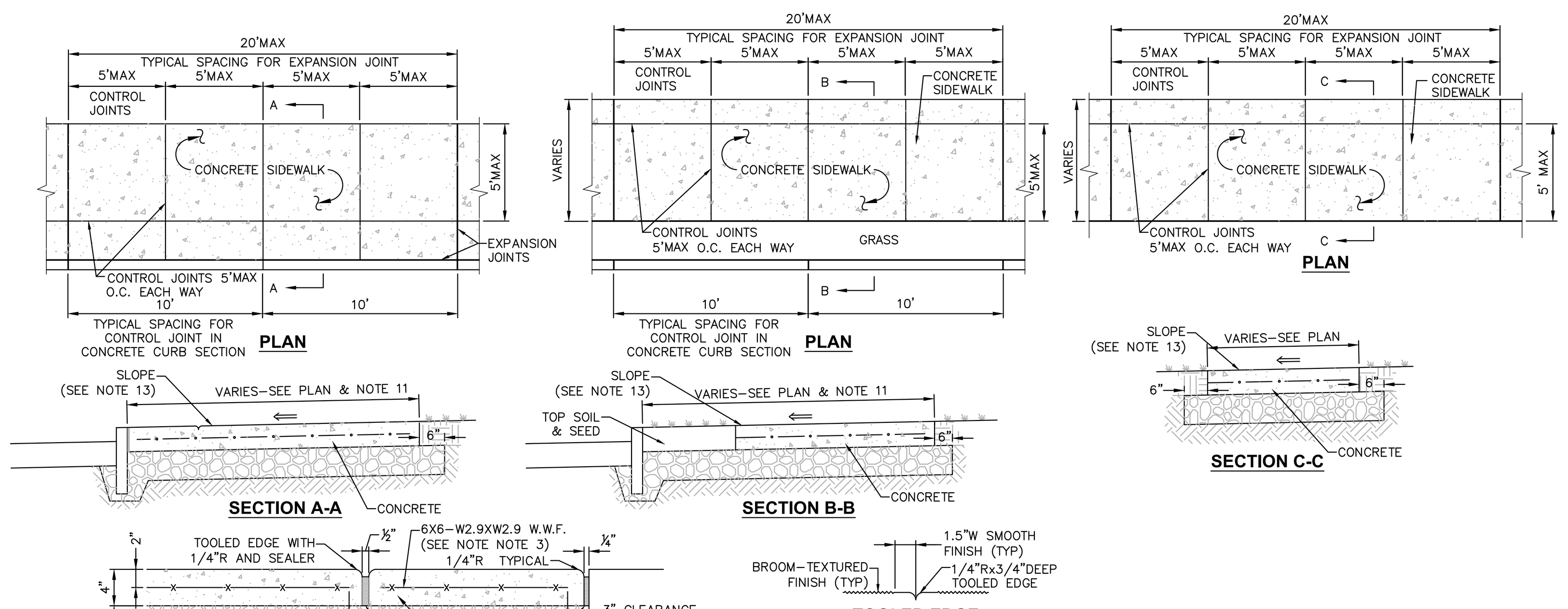


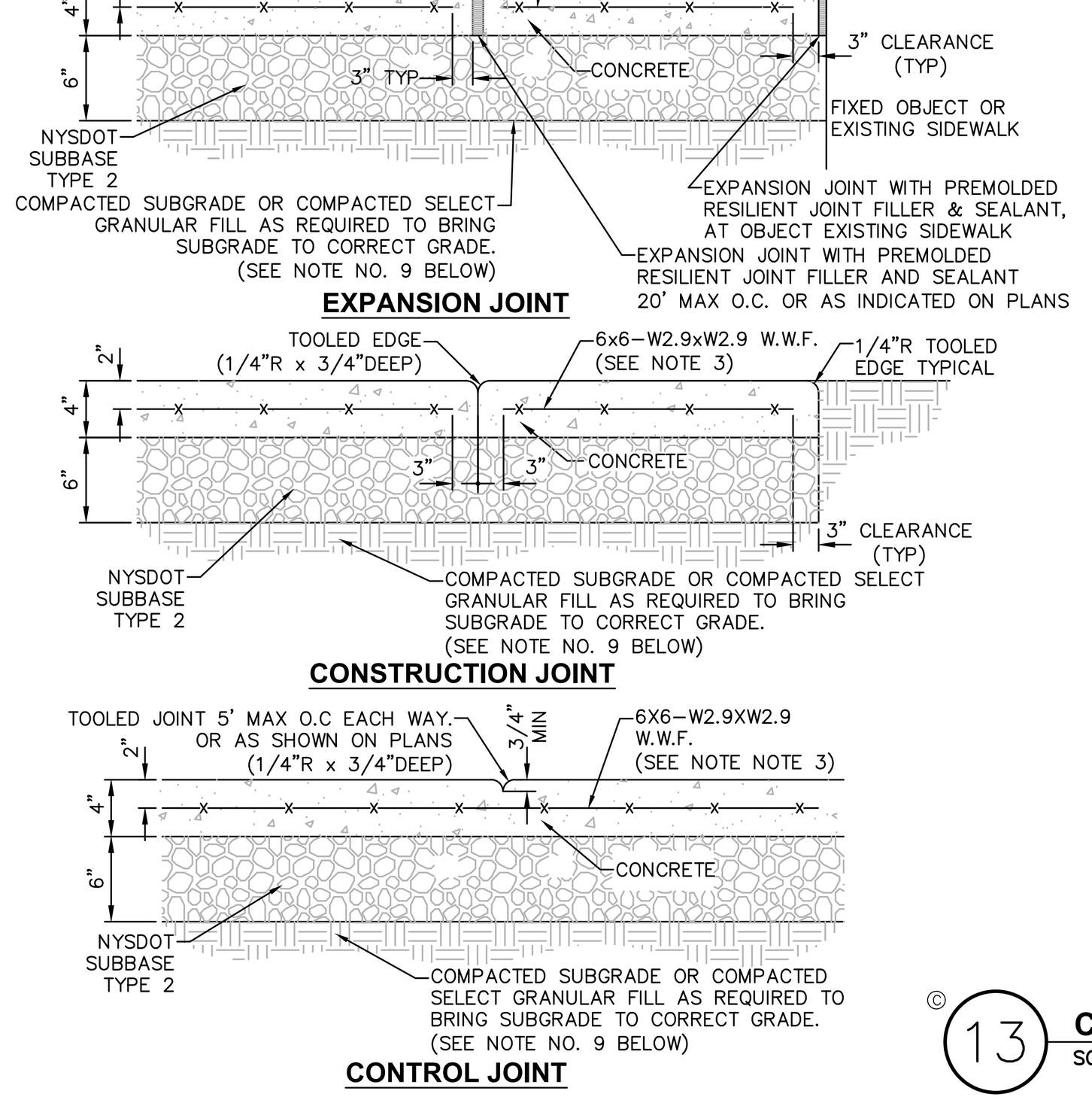
NOTES:
1. ALL DIMENSIONS SHALL BE IN ACCORDANCE WITH ADA STANDARD AND CURRENT ZONING AND SITE REGULATIONS.
2. PAINTED ACCESSIBLE LOGO TO BE IN ACCORDANCE W/ NEW YORK STATE LAW.
3. SLOPE OF PAVEMENT SURFACE IN ACCESSIBLE PARKING AREA SHALL NOT EXCEED 1.5% IN ANY DIRECTION.
4. SEE PLAN FOR ACTUAL LOCATION OF SIGNAGE

12 PAVEMENT MARKING DETAIL PARKING STRIPING
SCALE: NOT TO SCALE

STRIPING NOTES:
1. ALL STRIPING SHALL CONFORM TO THE LATEST EDITION OF THE NYSDOT STANDARD SPECIFICATIONS, **SECTION 640** AND THE "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" – **2009 EDITION** AND THE "NYS SUPPLEMENT."
2. STRIPE PAVEMENT AS INDICATED ON THE PLANS AND/OR IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS.
3. STRIPING WORK WILL BE REVIEWED AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION.
4. COLOR: DRIVE LANE DIVIDERS – WHITE OR AOBE
   NO PARKING ZONE WARNINGS – WHITE OR AOBE
   PARKING DIVIDERS – WHITE OR AOBE
   WALKING LINES – WHITE OR AOBE
   ACCESSIBLE PARKING LINES & SYMBOL – BLUE

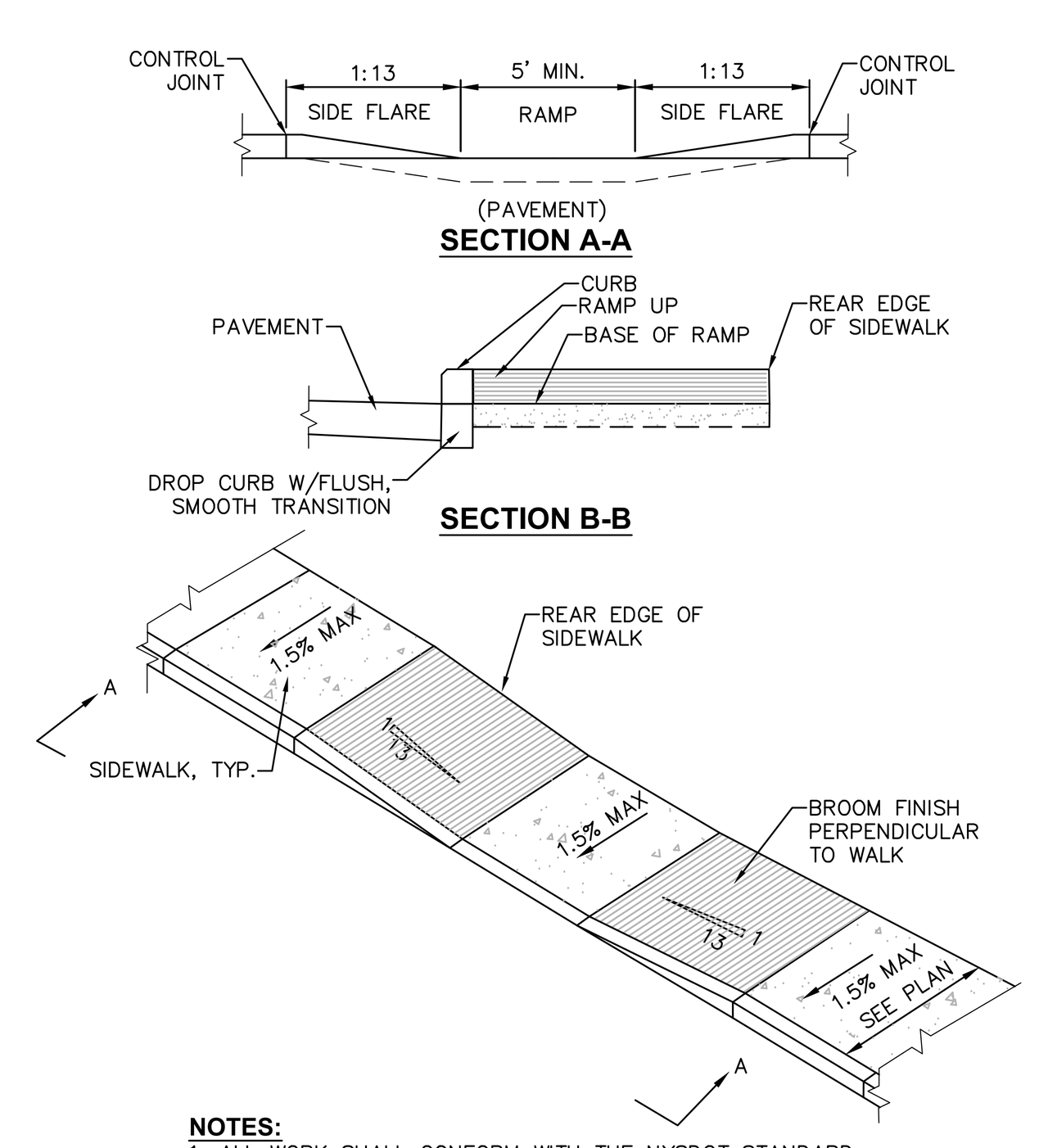
SIGNAGE NOTES:
1. ALL SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE NYSDOT STANDARD SPECIFICATIONS, **SECTION 645** AND THE "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" – **2009 EDITION** AND THE "NYS SUPPLEMENT."
2. SIGN MOUNTING HEIGHT SHALL BE A MINIMUM OF 7'. MINIMUM MOUNTING HEIGHT MAY BE ADJUSTED ONLY IN ACCORDANCE WITH PROVISIONS OUTLINED IN THE "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" – **2009 EDITION** AND THE "NYS SUPPLEMENT."
3. SIGN POST SHALL BE IN ACCORDANCE W/ NYSDOT STANDARD SPECS **SECTION 730.**





NOTES:
1. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED "CURRENT VERSION", AND ALL ADDENDA THERE TO.
2. ALL CONCRETE SHALL BE **4,500** CONCRETE. CONCRETE MATERIALS, PLACEMENT, AND CONSTRUCTION SHALL CONFORM WITH **SECTION 500** OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
3. REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH SECTION 556 – REINFORCING STEEL FOR CONCRETE STRUCTURES OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND AS SPECIFICALLY CALLED OUT IN THE DRAWINGS.
4. ALL EXPOSED SURFACES SHALL HAVE A BROOM TEXTURED FINISH & TOOLED EDGES. TOOL SHALL PROVIDE MAX 1–1/2" WIDE SMOOTH TROWEL FINISH AT JOINT.
5. EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20' ON CENTER, OR AS INDICATED ON PLANS.
6. JOINTS SHALL NOT BE SAW CUT.
7. EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH **"SUREBOND"/"SAFEBOND" SB–7000** INTENSIFIER BRIGHT PROTECTOR AND SIDEWALK SEALER, OR EQUAL. RATE AND METHOD OF APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
8. SUBBASE MATERIAL SHALL CONFORM WITH **SECTION 304** OF THE ABOVE REFERENCED NYSDOT STANDARD.
9. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN ACCORDANCE WITH SECTION 203–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
10. ALL WORK SHALL CONFORM WITH **SECTION 608**–SIDEWALK, DRIVEWAYS, AND BICYCLE PATHS OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
11. ALL WORK SHALL CONFORM WITH AASHTO GEOMETRIC DESIGN OF HIGHWAYS AND STREET 2011, ICC A117.1 2009. OR LATEST EDITION.
12. SIDEWALK WIDTH SHOWN ON THE PLANS IS TO BE MEASURED FROM THE BACK OF THE CURB.
13. SIDEWALKS SHALL HAVE A CROSS SLOPE OF **1.5%** PER FT. UNLESS OTHERWISE NOTED ON PLAN.

13 CONCRETE SIDEWALK DETAIL
SCALE: NOT TO SCALE



NOTES:
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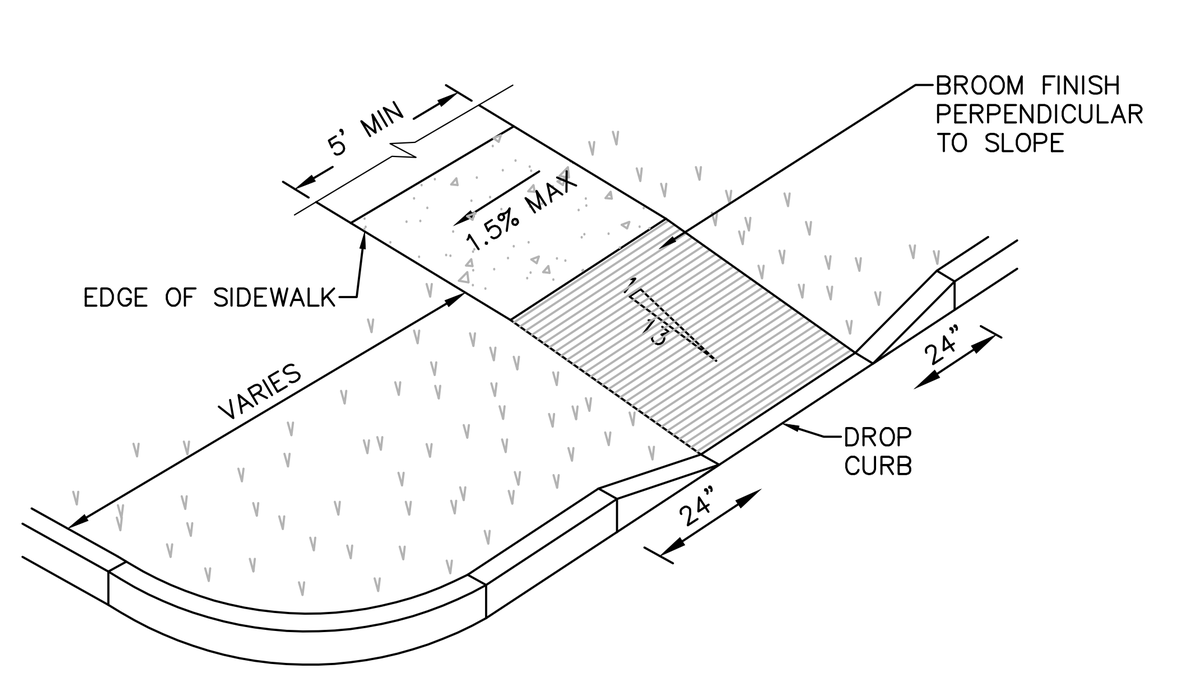
2. SLOPE RAMP AND SIDE FLARES AS INDICATED IN THE PLANS OR AS ORDERED BY THE ENGINEER.
3. DETECTABLE WARNING UNITS SHALL BE PROVIDED ON ALL RAMPS IN ACCORDANCE W/ ADA REQUIREMENTS.

14 PEDESTRIAN RAMP SECTION - DROP CURB
SCALE: NOT TO SCALE



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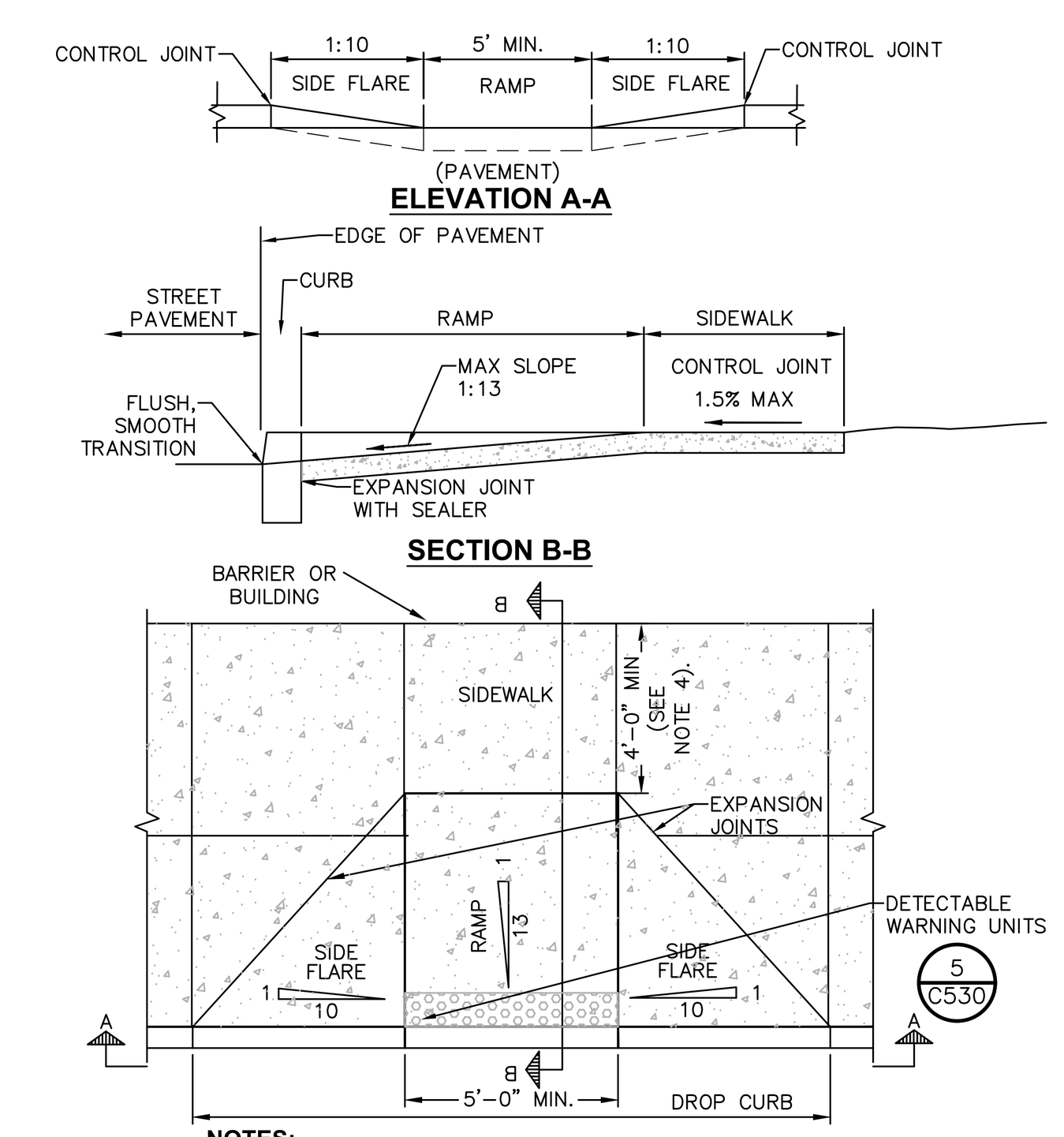
15 PEDESTRIAN RAMP SECTION - DROP CURB
SCALE: NOT TO SCALE



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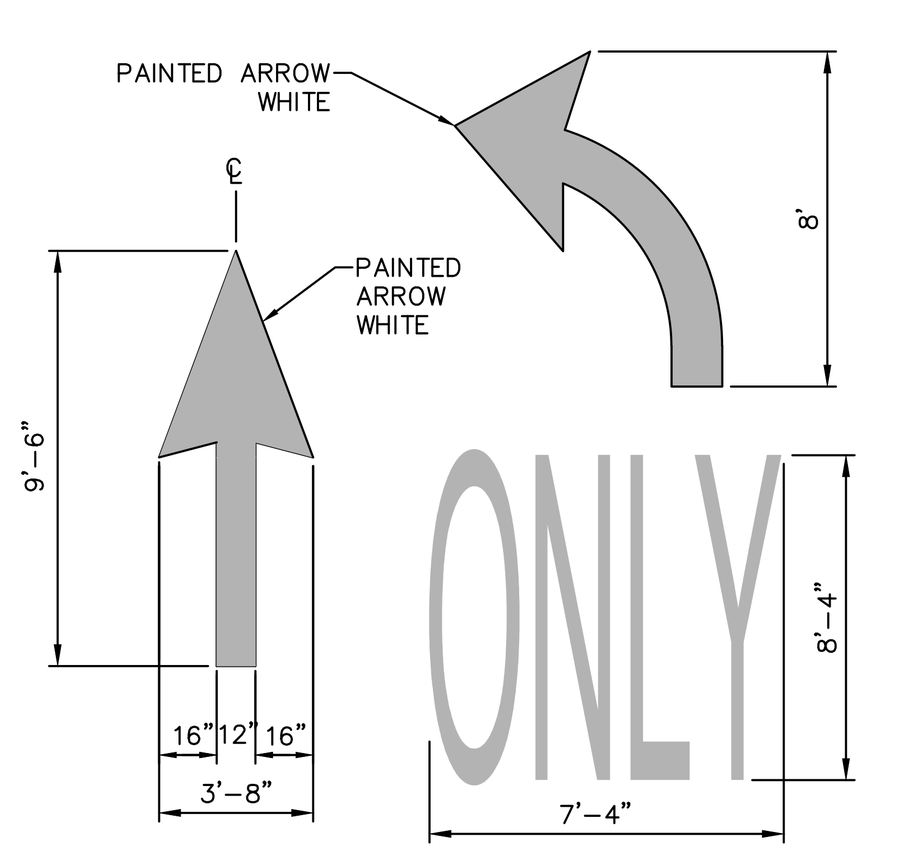
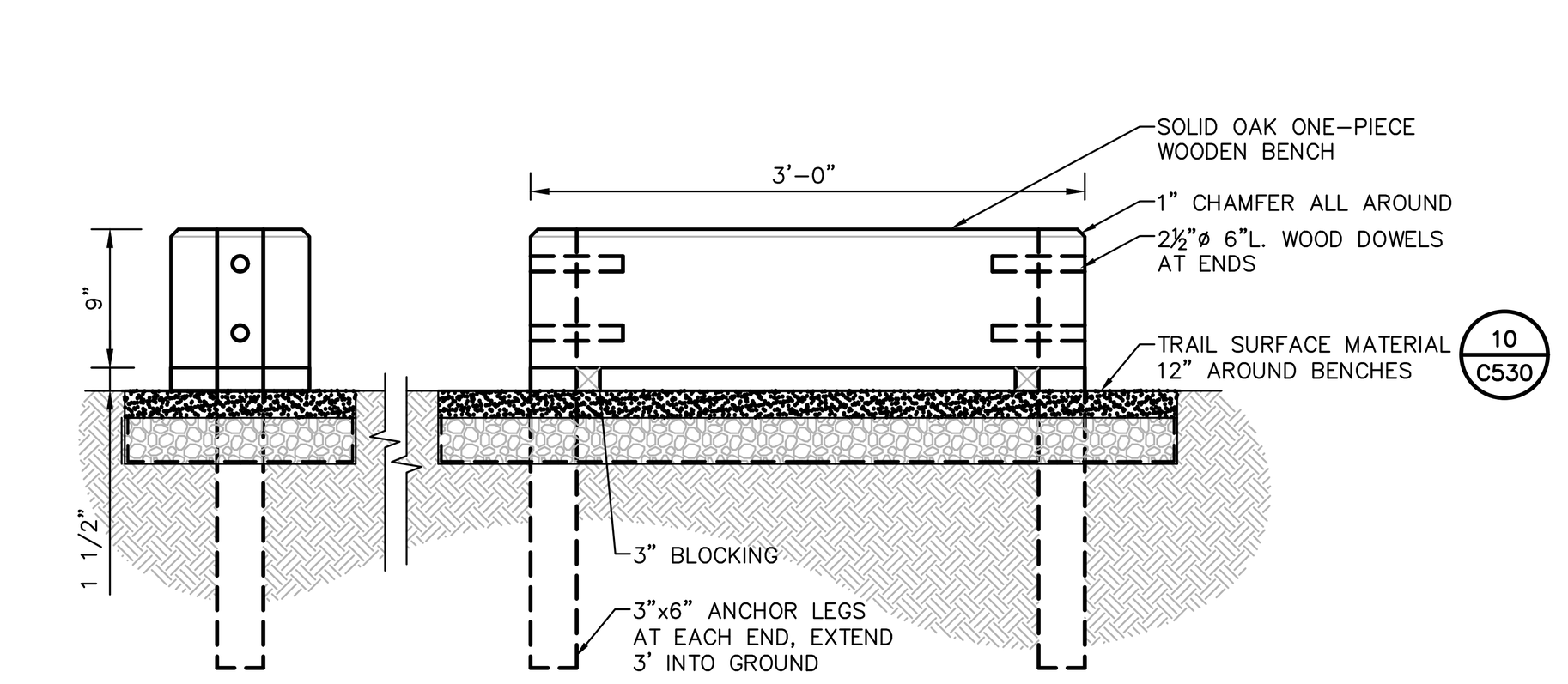
2. SLOPE RAMP AND SIDE FLARES AS INDICATED IN THE PLANS OR AS ORDERED BY THE ENGINEER.
3. DETECTABLE WARNING UNITS SHALL BE PROVIDED ON ALL RAMPS IN ACCORDANCE W/ ADA REQUIREMENTS.
4. WHERE THIS DIMENSION IS LESS THAN 4'–0", THE SIDE FLARES SHALL HAVE A SLOPE OF 1:13 OR FLATTER.

16 PEDESTRIAN RAMP WITH FLARED SLOPES
SCALE: NOT TO SCALE



17 PAVEMENT MARKING DETAIL DIRECTIONAL ARROW
SCALE: NOT TO SCALE



18 GREENWAY TRAIL BENCH DESIGN
SCALE: NOT TO SCALE

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EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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NO:	DATE:	DESCRIPTION:
1	07/28/26	REVISED PER CITY COMMENTS

Revisions

PROJECT NUMBER: 2260816
DRAWN BY: GMZ
REVIEWED BY: KGA
ISSUED FOR: ISSUED FOR PLANNING BOARD REVIEW
DATE: 06/30/26
DRAWING NAME: **SITE DETAILS**
DRAWING NUMBER: **C530**

7/27/2026 5:56:00 PM
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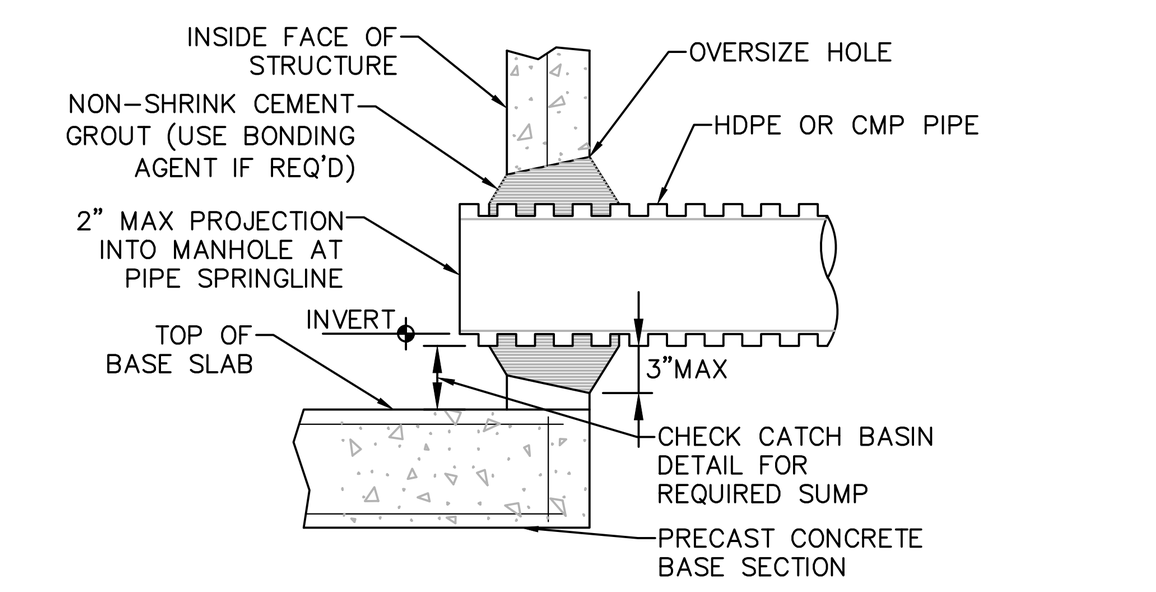
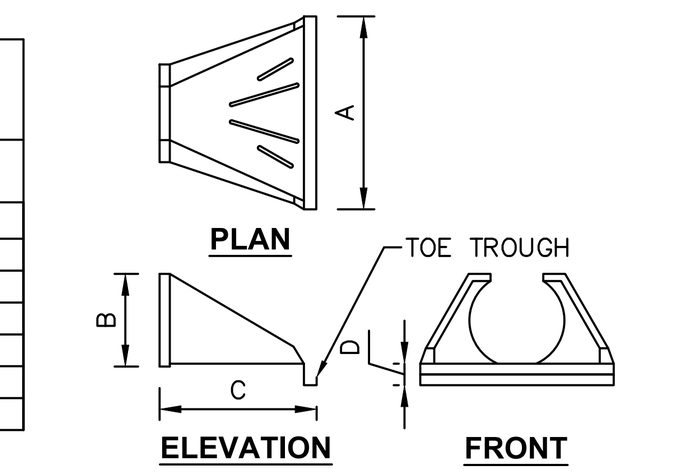


3 PIPE CONNECTION TO DRAINAGE STRUCTURE-CMP OR HDPE CEMENT GROUT SEAL JOINT
SCALE: NOT TO SCALE

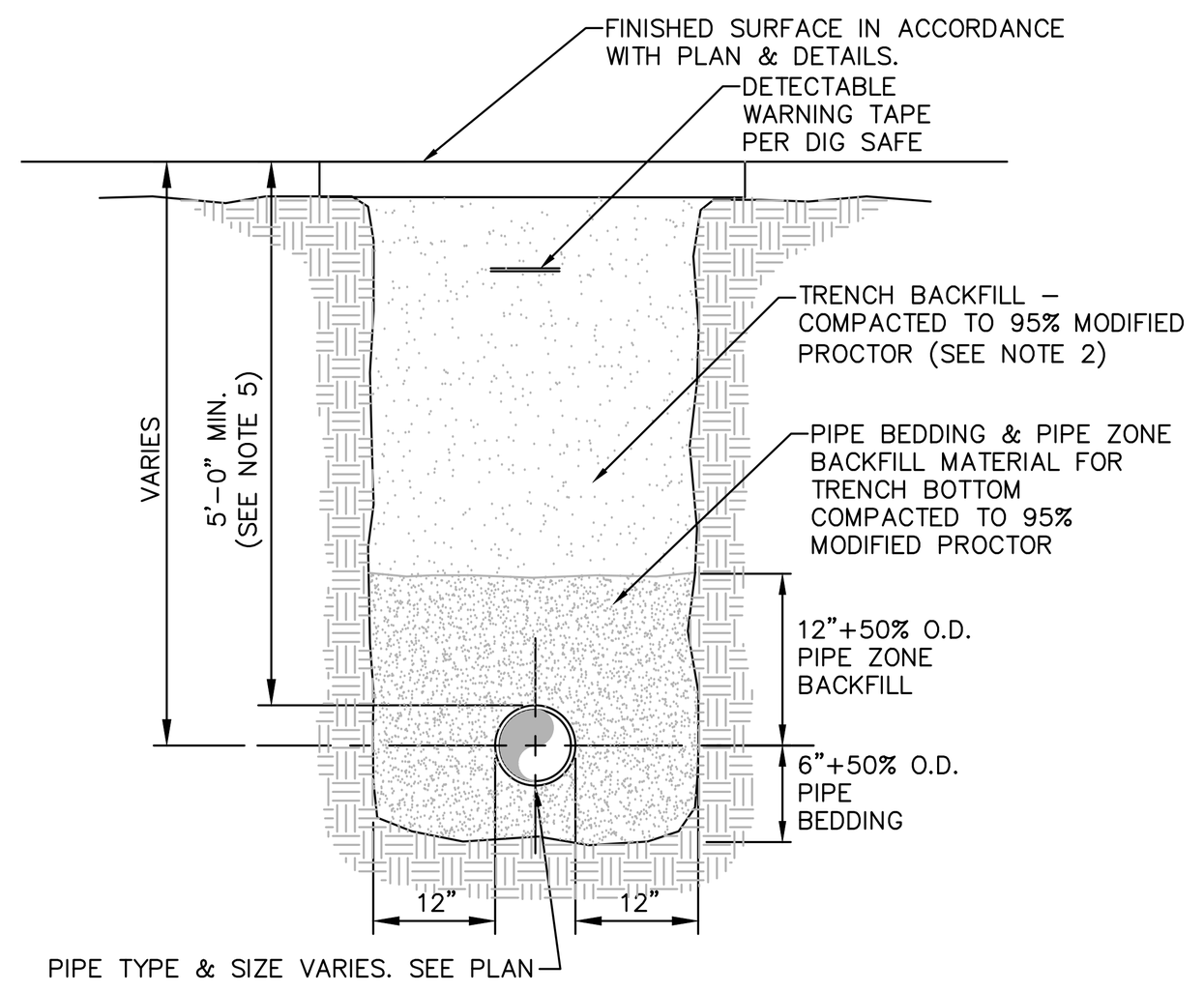
TYPICAL HDPE END SECTION

PIPE DIA.	END SECTION DIMENSIONS			
	A	B	C	D
12"	42"	14"	34"	6"
15"	42"	17"	34"	6"
18"	59"	21"	48"	6"
24"	59"	27"	48"	6"
30"	82"	34"	58"	6"
36"	82"	41"	58"	6"



NOTES:
1. SCOPE: THIS SPECIFICATION DESCRIBES 12- THROUGH 36-INCH ADS FLARED END SECTIONS FOR USE IN CULVERT AND DRAINAGE OUTLET APPLICATIONS. FES LARGER THAN 36" SHALL USE CIRCULAR CORRUGATED METAL FLARED END SECTIONS.
2. REQUIREMENTS: THE INVERT OF THE PIPE AND THE END SECTION SHALL BE AT THE SAME ELEVATION. THE ADS FLARED END SECTION SHALL BE HIGH DENSITY POLYETHYLENE MEETING ASTM D3350 MINIMUM CELL CLASSIFICATION 213320C; CONTACT MANUFACTURER FOR ADDITIONAL CELL CLASSIFICATION INFORMATION. WHEN PROVIDED, THE METAL THREADED FASTENING ROD SHALL BE STAINLESS STEEL.
3. INSTALLATION: INSTALLATION SHALL BE IN ACCORDANCE WITH ADS INSTALLATION INSTRUCTIONS AND WITH THOSE ISSUED BY STATE OR LOCAL AUTHORITIES. CONTACT YOUR LOCAL ADS REPRESENTATIVE OR VISIT WWW.ADS-PIPE.COM FOR THE LATEST INSTALLATION INSTRUCTIONS.
4. PROVIDE TRASH RACK ONLY WHERE SPECIFIED ON SITE PLANS.

5 TYPICAL END SECTION - HDPE
SCALE: NOT TO SCALE



NOTES:
1. PIPE BEDDING & PIPE ZONE BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
3/4"	100%
NO. 40	0-70%
NO. 200	0-10%

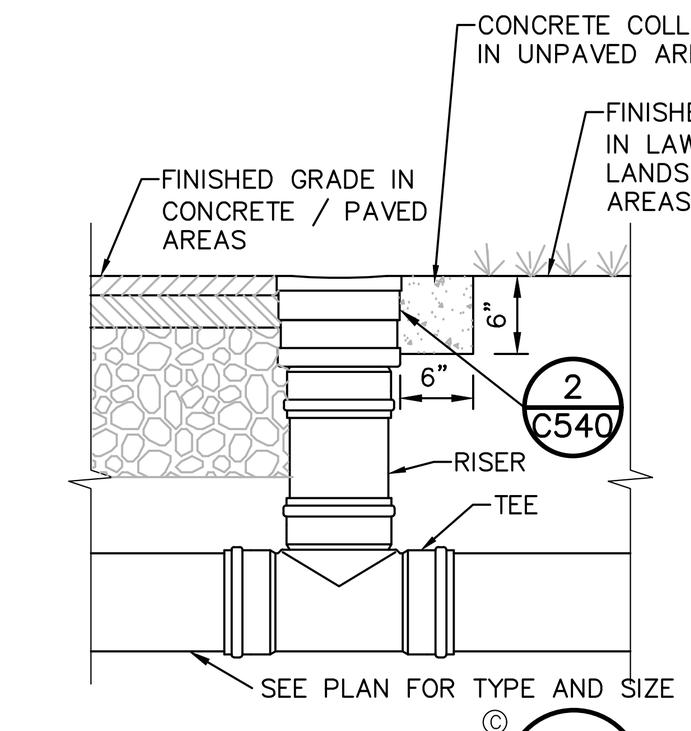
2. TRENCH BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) OR PROCESSED GRAVEL, OR EXCAVATED MATERIAL FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. TRENCH BACKFILL GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
4"	100%
NO. 40	0-70%
NO. 200	0-10%

IN NON-TRAFFIC UNPAVED AREAS TRENCH BACKFILL CAN BE MATERIALS EXCAVATED FROM THE TRENCH AS APPROVED BY THE ENGINEER AND COMPACTED TO 90% MODIFIED PROCTOR.

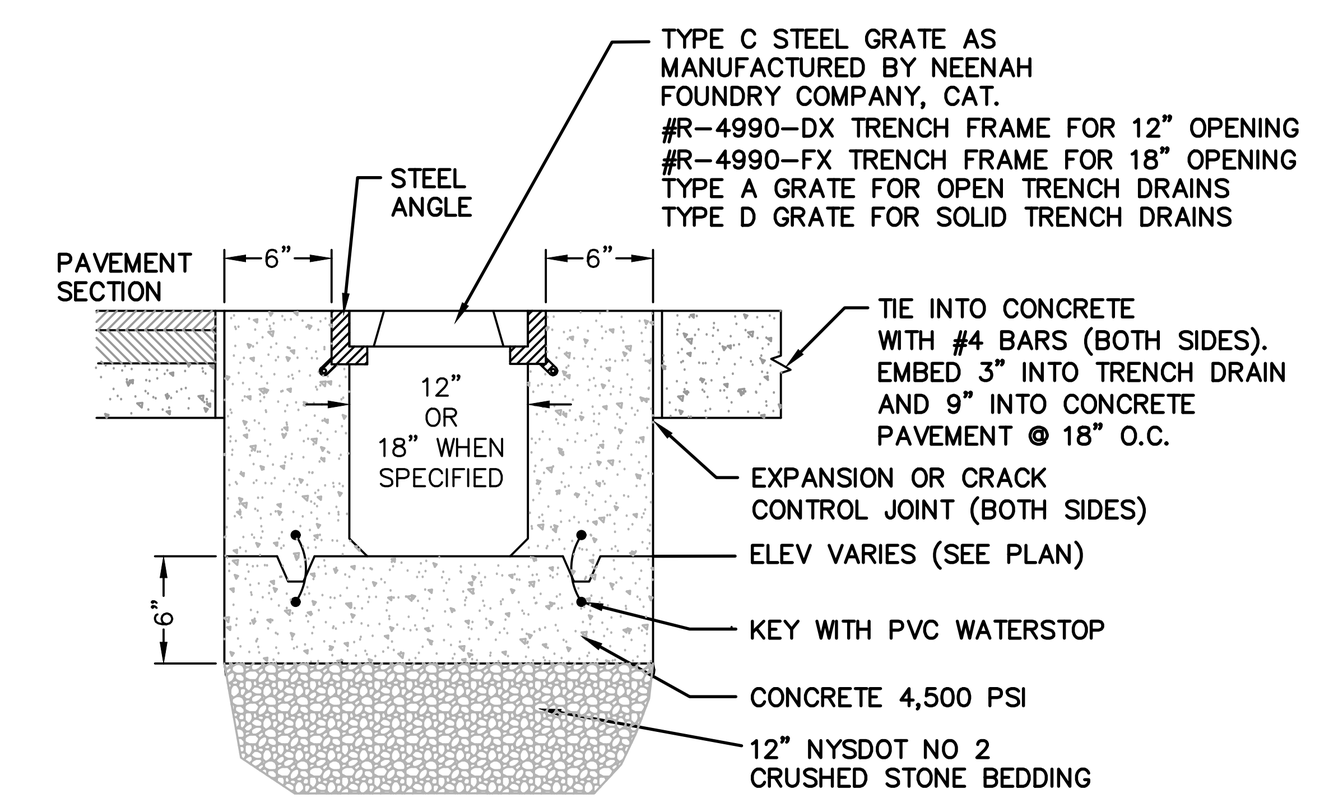
3. INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.
5. 5'-0" MIN COVER SHALL BE APPLIED TO WATER MAIN OR SANITARY SEWER FORCE MAINS ONLY.

7 PIPE TRENCH DETAIL (TYPICAL)
SCALE: NOT TO SCALE



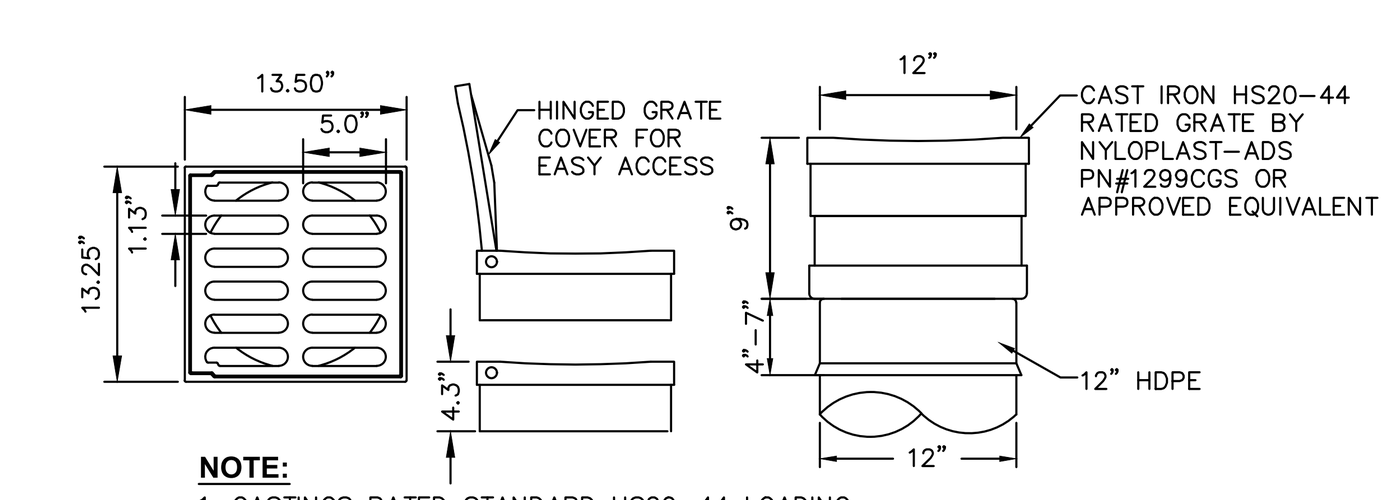
IN-LINE DRAIN DIMENSIONS					
BODY	ADAPTOR	B	C	E	MIN INV DEPTH
8"	6"	5.25"	4.21"	12.75"	2'-0"
8"	8"	7.25"	5.25"	13.25"	2'-2"
10"	6"	8.75"	4.21"	12.75"	2'-2"
10"	8"	6.50"	5.25"	13.25"	2'-2"
10"	10"	7.75"	6.08"	21.75"	3'-0"
12"	6"	11.50"	4.21"	12.75"	2'-6"
12"	8"	11.50"	5.25"	13.25"	3'-0"
12"	10"	11.25"	6.08"	21.75"	3'-4"
12"	12"	6.00"	6.45"	23.50"	3'-6"

1 IN-LINE DRAIN
SCALE: NOT TO SCALE



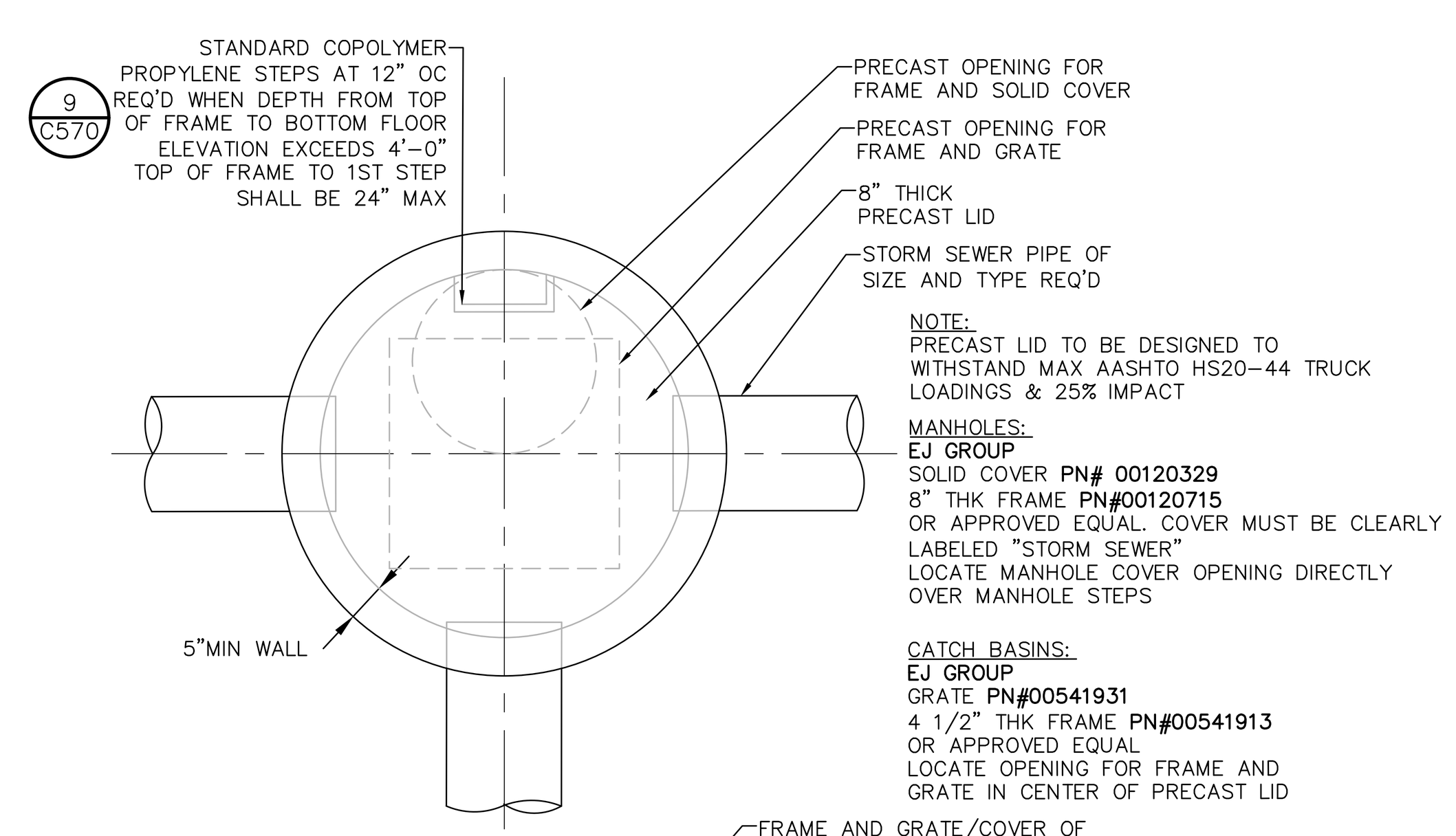
NOTES:
1. DEPTH OF TRENCH DRAINS VARY. SEE GRADING AND DRAINAGE PLAN FOR DIMENSIONS OF EACH INDIVIDUAL TRENCH DRAIN.
2. ALL GRATES SHALL BE "BICYCLE SAFETY" APPROVED.
3. PROVIDE HORIZONTAL OUTLET END PLATES AT DOWNSTREAM END OF EACH TRENCH DRAIN.

8 TRENCH DRAIN DETAIL
SCALE: NOT TO SCALE



NOTE:
1. CASTINGS RATED STANDARD HS20-44 LOADING
2. MATERIAL SHALL CONFORM TO ASTM A48-CLASS 30B
3. PAINT: CASTINGS TO BE FURNISHED WITH A BLACK PAINT
4. IN-LINE DRAIN BY NYLOPLAST OR APPROVED EQUIVALENT
5. DRAIN AREA = 62.7 SQ. INCH

2 12" IN-LINE DRAIN & GRATE
SCALE: NOT TO SCALE

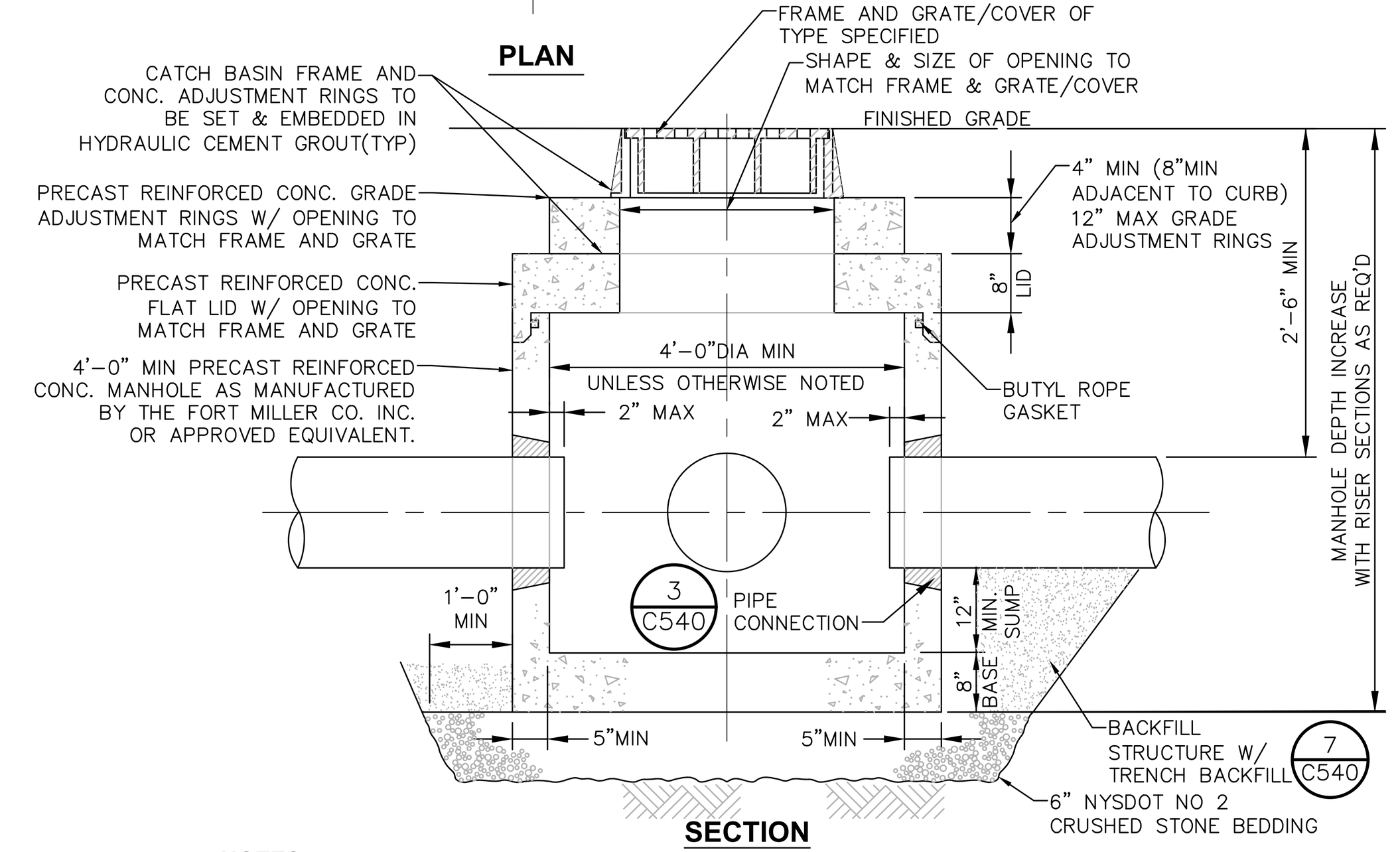


NOTE:
PRECAST LID TO BE DESIGNED TO WITHSTAND MAX AASHTO HS20-44 TRUCK LOADINGS & 25% IMPACT

MANHOLES:
EJ GROUP
SOLID COVER PN# 00120329
8" THK FRAME PN#00120715
OR APPROVED EQUAL. COVER MUST BE CLEARLY LABELED "STORM SEWER"
LOCATE MANHOLE COVER OPENING DIRECTLY OVER MANHOLE STEPS

CATCH BASINS:
EJ GROUP
GRATE PN#00541931
4 1/2" THK FRAME PN#00541913
OR APPROVED EQUAL
LOCATE OPENING FOR FRAME AND GRATE IN CENTER OF PRECAST LID

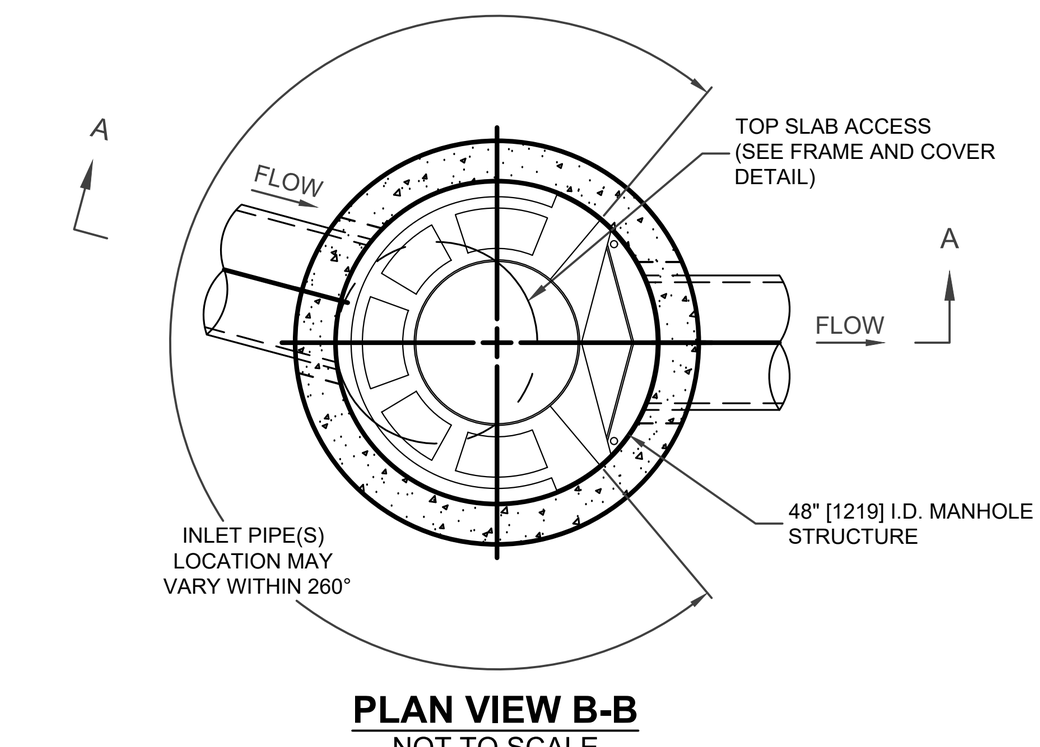
PLAN



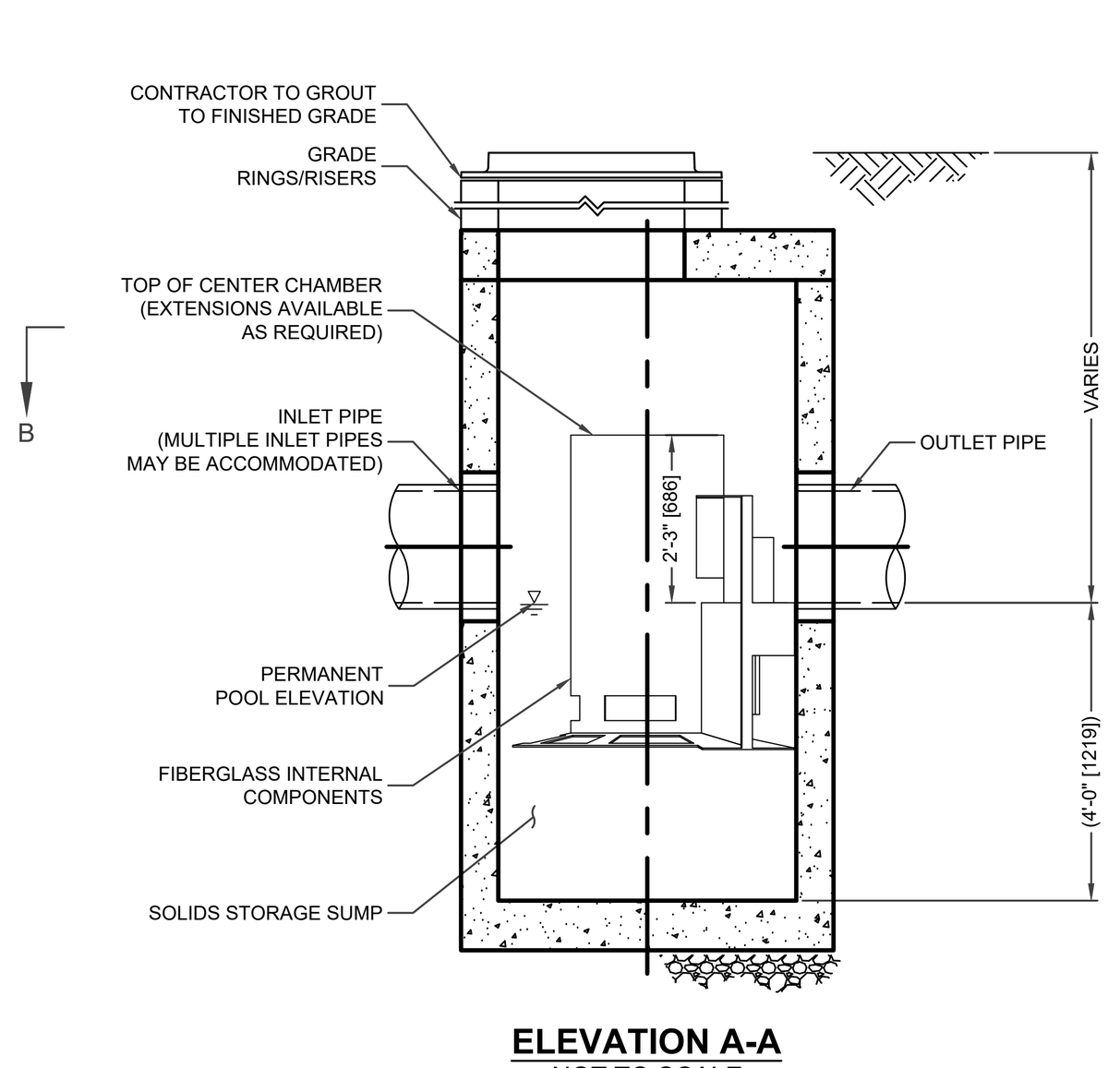
SECTION

NOTES:
1. CATCH BASIN SHALL BE PRECAST CONCRETE. DESIGNED FOR HS20-44 VEHICULAR LOADING AND 25% IMPACT.
2. FRAME AND COVER SHALL BE DESIGNED FOR HS20-44 VEHICULAR LOADING & 25% IMPACT.
3. CONCRETE CATCH BASIN LID CLEAR OPENING DIMENSION MUST MATCH FRAME AND GRATE CLEAR OPENING DIMENSION.
4. CATCH BASINS HAVING A DEPTH GREATER THAN 48" FROM FINISHED SURFACE TO THE FLOOR OF THE CONCRETE BASE SHALL BE PROVIDED WITH STEPS.
5. BACKFILL USING TRENCH BACKFILL, COMPACTED IN 6" LIFTS.
6. SUMPS FOR CATCH BASINS SHALL BE 12".
7. ECCENTRIC CONE TOP CAN BE USED FOR MANHOLES DEPTH GREATER THAN 7 FEET.
8. SEE CHART FOR REQUIRED MANHOLES / CATCH BASINS DIAMETERS.
9. ALL PRECAST CONSTRUCTION IN ACCORDANCE W/ASTM C478

4 PRECAST CONCRETE CATCH BASIN/MANHOLE DETAIL
SCALE: NOT TO SCALE

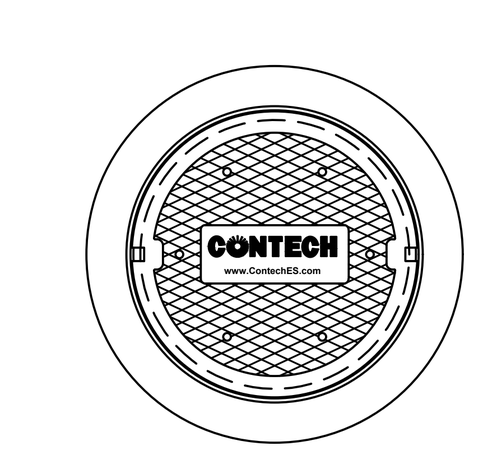


PLAN VIEW B-B
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE

CASCADE separator™



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

CASCADE SEPARATOR DESIGN NOTES

THE STANDARD CS-4 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION
GRATED INLET ONLY (NO INLET PIPE)
GRATED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY (NO INLET PIPE)
CURB INLET WITH INLET PIPE OR PIPES

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			HYDRO 1	HYDRO 2
WATER QUALITY FLOW RATE (cfs [L/s])			0.91	0.65
UNIT TREATMENT FLOW RATE (cfs [L/s])			1.80	1.80
PEAK FLOW RATE (cfs [L/s])				
RETURN PERIOD OF PEAK FLOW (yrs)				
RIM ELEVATION				
PIPE DATA:	INVERT	MATERIAL	DIAMETER	DIAMETER
INLET PIPE 1				
INLET PIPE 2				
OUTLET PIPE				
NOTES / SPECIAL REQUIREMENTS:				

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH ENGINEERED SOLUTIONS LLC
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

6 CONTECH HYDRODYNAMIC SEPARATOR CS-4
SCALE: NOT TO SCALE

LaBella
Powered by partnership.
21 Fox Street
Poughkeepsie, NY 12601
(845) 454-3980
labellapc.com

NOT FOR CONSTRUCTION
EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

It is a violation of New York Education Law Art. 145 Sec. 7209 & Art. 147 Sec. 7307, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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Chai Developers
147 Union Street
Poughkeepsie, New York 12601

248 Tioronda Avenue
248 Tioronda Avenue
Beacon, New York 12508

NO:	DATE:	DESCRIPTION:
1	07/28/26	REVISED PER CITY COMMENTS

Revisions

PROJECT NUMBER: 2260816
DRAWN BY: GMZ
REVIEWED BY: KGA
ISSUED FOR: ISSUED FOR PLANNING BOARD REVIEW
DATE: 06/30/26
DRAWING NAME:

STORM SEWER DETAILS

DRAWING NUMBER:

C540

7/27/2026 5:56:11 PM
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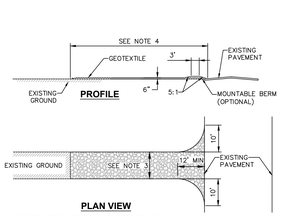
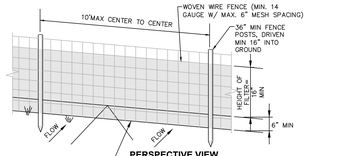


PLAN VIEW

CONSTRUCTION ENTRANCE SPECIFICATIONS:

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. THICKNESS – NOT LESS THAN SIX (6) INCHES.
3. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY FOUR (24) FEET IF SINGLE ENTRANCE TO SITE.
4. LENGTH – NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH WOULD APPLY).
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 ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. 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 RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

① 1 **STABILIZED CONSTRUCTION ENTRANCE DETAIL**
SCALE: NOT TO SCALE

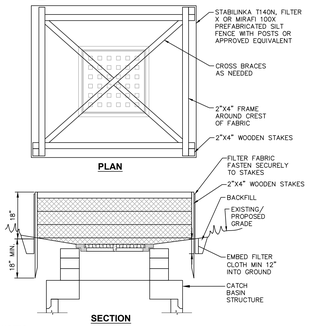


NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL "T" OR "L" TYPE OR HARDWOOD.
2. FILTER FABRIC TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAX MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIALS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
5. MAXIMUM DRAINAGE AREA FOR OVERLAND FLOW TO A SILT FENCE SHALL NOT EXCEED 1/4 ACRE PER 100 FEET OF FENCE.
6. SILT FENCE SHALL BE USED WHERE EROSION COULD OCCUR IN THE FORM OF SHEET EROSION.
7. SILT FENCE SHALL NOT BE USED WHEN A CONCENTRATION OF WATER IS FLOWING TO THE BARRIER.
8. MAXIMUM ALLOWABLE SLOPE LENGTHS CONTRIBUTING RUN-OFF TO A SILT FENCE ARE:

SLOPE STEEPNESS	MAXIMUM SLOPE LENGTH(FT)
2:1	25
3:1	50
4:1	75
5:1 OR FLATTER	100

② 2 **SILT FENCE INSTALLATION DETAIL**
SCALE: NOT TO SCALE



NOTES:

1. FILTER FABRIC SHALL HAVE AN EOS OF 40–85.
2. CUT FABRIC FROM CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED, OVERLAP TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2"x4" WOOD OR EQUIVALENT, WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE MINIMUM 18" DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2"x4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVERFLOW STABILITY.
7. MAXIMUM DRAINAGE AREA IS 1 ACRE.
8. INLET PROTECTION SHALL REMAIN IN–PLACE UNTIL SITE HAS BEEN STABILIZED.
9. ONCE BINDER COURSE IS PLACED INLET PROTECTION SHALL BE PROVIDED IN ACCORDANCE WITH DETAIL 6, SHEET SD3, "CATCH BASIN STONE AND BLOCK INLET PROTECTION."

OUT-OF PAVEMENT

CONSTRUCTION SPECIFICATIONS:

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.
5. MAXIMUM DRAINAGE AREA IS 1 ACRE.

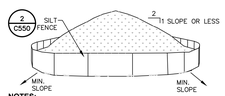
IN PAVEMENT

NOTES:

1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL. THIS INCLUDES REPLACEMENT OF THE 10 MIL POLYETHYLENE SHEETING.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY, REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

③ 3 **INLET PROTECTION DETAIL**
SCALE: NOT TO SCALE

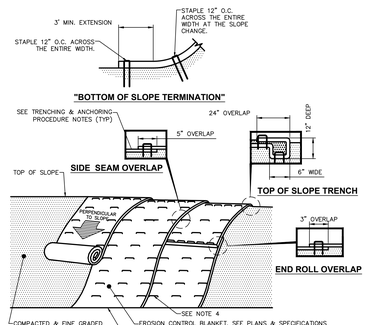
④ 4 **CONCRETE WASHOUT AREA DETAIL**
SCALE: NOT TO SCALE



NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.

⑤ 5 **TEMPORARY SOIL STOCKPILE DETAIL**
SCALE: NOT TO SCALE



NOTES:

1. PREPARE THE TOPSOIL (SEEDBED) FIRST BY RAKING, SHAPING, FINE GRADING, COMPACTING, SEEDING & FERTILIZING THE SLOPES.
2. USE THE TRENCHING & ANCHORING PROCEDURES DETAILED HEREIN TO SECURE ANY EXPOSED MATERIAL ENDS. SECURE ALL PRODUCT OVERLAPS: OVERLAP IN THE DIRECTION OF WATER FLOW, PERPENDICULAR TO THE SLOPE.
3. KEEP EROSION CONTROL BLANKET IN SOLID CONTACT WITH THE TOPSOIL.
4. USE THE REQUIRED NUMBER OF STAPLES/STAKES TO SECURELY FASTEN THE EROSION CONTROL BLANKET TO THE SLOPE. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLES/STAKES LENGTHS GREATER THAN 6" MAYBE NECESSARY FOR PROPER SECURING. STAPLE PATTERNS & OVERLAPS ARE DEPENDENT ON SITE CONDITIONS & MANUFACTURER'S REQUIREMENTS. CONTRACTOR SHALL CONSULT WITH MANUFACTURER FOR ACTUAL SITE SPECIFIC REQUIREMENTS.

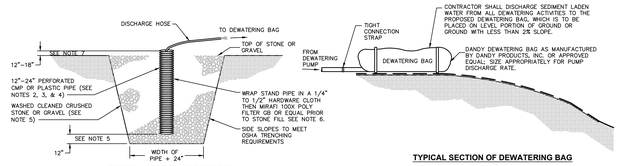
TRENCHING & ANCHORING PROCEDURE NOTES:

SIDE SEAM OVERLAP– THE EDGES OF PARALLEL BLANKETS SHALL BE STAPLED WITH A 5" OVERLAP.

TOP OF SLOPE TRENCH: BEGIN AT THE TOP OF SLOPE BY ANCHORING THE EROSION CONTROL BLANKET IN A 6"D x 6"W TRENCH WITH A 12" OVERLAP EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR WITH A ROW OF STAPLES/STAKES 12" O.C. IN THE BOTTOM OF THE TRENCH. BACKFILL & COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL & FOLD THE REMAINING 12" PORTION OF THE EROSION CONTROL BLANKET BACK OVER THE SEED & COMPACTED SOIL. SECURE THE EROSION CONTROL BLANKET OVER THE COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED 12" O.C. ACROSS THE ENTIRE WIDTH.

END ROLL OVERLAP– CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE SHALL BE PLACED END OVER END (SHINGLE–STYLE) WITH A 3" OVERLAP. STAPLE THRU OVERLAPPED AREAS, 12" APART ACROSS THE ENTIRE WIDTH.

⑥ 6 **EROSION CONTROL BLANKET INSTALLATION DETAIL**
SCALE: NTS



NOTES:

1. SUMP PIT QUANTITY SHALL BE DETERMINED BY CONTRACTOR.
2. OVERALL SUMP PIT DIMENSIONS SHALL BE COMPATIBLE WITH ANTICIPATED SEEPAGE RATES AND PUMP SIZE TO BE USED.
3. THE STANDPIPE DIAMETER AND NUMBER OF PERFORATIONS SHALL BE COMPATIBLE WITH THE PUMP SIZE BEING USED.
4. PERFORATIONS IN THE STANDPIPE SHALL BE EITHER CIRCULAR OR SLOTS. PERFORATION SIZE SHALL NOT EXCEED 1/2" INCH DIAMETER.
5. CRUSHED STONE OF GRAVEL SHALL BE NYSDOT #2 SIZE OR EQUAL. CRUSHED STONE SHALL EXTEND A MINIMUM OF 12" BELOW THE BOTTOM OF THE STANDPIPE AND SHALL BE WASHED PRIOR TO PLACEMENT WITHIN SUMP.
6. WRAP STAND PIPE WITH HARDWARE WIRE CLOTH AND FILTER FABRIC.
7. THE STANDPIPE SHALL EXTEND A MINIMUM OF 12" ABOVE THE SURROUNDING GROUND.
8. DISCHARGE SHALL BE THROUGH A DEWATERING BAG.
9. DEWATERING TO BE EMPTIED ON–SITE AT A LOCATION APPROVED BY ENGINEER OR OFF–SITE AT NYSDEC ACCEPTABLE LOCATION.
10. SHOULD DEWATERING BE REQUIRED DURING SOIL REMEDIATION, SUCH DISCHARGE SHALL BE DIRECTED TO A PORTABLE TANK AND REMOVED FROM THE SITE IN ACCORDANCE WITH STARS 1.

⑦ 7 **DEWATERING DETAIL**
SCALE: NOT TO SCALE

SPDES GENERAL PERMIT GP-0-20-001 COMPLIANCE NOTES:

HAVE BEEN SUBMITTED AS A SET. THESE ENGINEERING DRAWINGS ARE CONSIDERED AN INTEGRAL PART OF THE SWPPP. THEREFORE THE PLAN SET IS NOT CONSIDERED COMPLETE WITHOUT THE SWPPP.

THIS PROJECT HAS NOT RECEIVED WRITTEN APPROVAL FROM CITY OF BEACON MS4 ALLOWING THE DISTURBANCE OF MORE THAN FIVE (5) ACRES OF LAND AT ANY ONE TIME. CONTRACTOR SHALL NOT DISTURB MORE THAN FIVE (5) ACRES AT ANY ONE TIME.

CONSTRUCTION SEQUENCING NOTES:

1. PRIOR TO COMMENCING ANY CLEARING, GRUBBING, EARTHWORK ACTIVITIES, ETC.AT THE SITE, THE CONTRACTOR SHALL FLAG THE WORK LIMITS AND SHALL INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (I.E. SILT FENCES, TREE PROTECTION/BARRIER FENCES, STABILIZED CONSTRUCTION ENTRANCES, STORM DRAIN SEDIMENT FILTERS, DRAINAGE DITCH SEDIMENT FILTERS, ETC.) INDICATED ON THE PROJECT DRAWINGS. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THEIR TRIBUTARY AREAS.
2. THE CONTRACTOR SHALL CLEAR AND GRUB THE AREA OF THE STORMWATER MANAGEMENT FACILITIES. THIS AREA SHALL NOT EXCEED FIVE (5) ACRES IN EXTENT AT ANY TIME WITHOUT TEMPORARY STABILIZATION.
3. PRIOR TO COMMENCING CLEARING, GRUBBING AND/OR EARTHWORK ACTIVITIES IN ANY OTHER AREA OF THE SITE, THE CONTRACTOR SHALL INSTALL INLET AND OUTLET PROTECTION MEASURES (RIPRAP OVERFLOW WEIR(S), CULVERT INLET/OUTLET PROTECTION, ETC.) AND SHALL STABILIZE THE AREAS DISTURBED DURING THE CONSTRUCTION OF THE SEDIMENT BASIN.
4. THE CONTRACTOR SHALL INSTALL TEMPORARY DIVERSION MEASURES WITH ASSOCIATED STABILIZATION MEASURES (I.E., VEGETATIVE COVER, DRAINAGE DITCH SEDIMENT FILTERS, STORM DRAIN SEDIMENT FILTERS, ETC.)TO ASSURE THAT STORMWATER RUNOFF IS CONVEYED TO THE TEMPORARY SEDIMENT BASIN.
5. TEMPORARY DIVERSION MEASURES SHALL BE LOCATED IN A MANNER THAT WILL ASSURE THAT NO AREA TRIBUTARY TO EACH DIVERSION DOES NOT EXCEED FIVE (5) ACRES. THESE TEMPORARY DIVERSION MEASURES SHALL BE INSPECTED DAILY AND REPAIRED/STABILIZED AS NECESSARY TO MINIMIZE EROSION.
6. THE CONTRACTOR SHALL COMMENCE SITE CONSTRUCTION ACTIVITIES INCLUDING CLEARING & GRADING OF THE PROPOSED AREA OF DISTURBANCE AS REQUIRED.
7. INSTALL PROTECTIVE MEASURES AT THE LOCATIONS OF ALL GRATE INLETS, CURB INLETS, AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES.
8. CONSTRUCT ALL UTILITIES, CURB AND GUTTER, GUTTER INLETS, AREA INLETS, AND STORM SEWER MANHOLES, AS SHOWN ON THE PLANS. INLET PROTECTION MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION. PLACE REQUIRED RIP–RAP AT LOCATIONS SHOWN ON THE PLANS.
9. FINALIZE PAVEMENT SUB–GRADE PREPARATION.
10. REMOVE PROTECTIVE MEASURES AROUND INLETS AND MANHOLES NO MORE THAN 24 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.
11. INSTALL SUB–BASE MATERIAL AS REQUIRED FOR PAVEMENT.
12. PRIOR TO FINALIZING CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY, ALL CATCH BASINS AND DRAINAGE LINES SHALL BE CLEANED OF ALL SILT AND SEDIMENT.
13. UPON COMPLETION OF SITE CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL FINALIZE CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY. CONTRACTOR SHALL FINISH GRADE THE FORBAY(S), AQUATIC BENCHES, AND WET POOL(S) AND STABILIZE AS INDICATED IN THE PROJECT DRAWINGS.
14. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND IMMEDIATELY ESTABLISH PERMANENT VEGETATION ON THE AREAS DISTURBED DURING THEIR REMOVAL.

EROSION AND SEDIMENT CONTROL MEASURES:

1. DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION SHALL BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
2. AS MUCH AS IS PRACTICAL, EXISTING VEGETATION SHALL BE PRESERVED, FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES IN ANY PORTION OF THE SITE, PERMANENT VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SOILS
3. SITE PREPARATION ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISRUPTION.
4. PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL POINTS OF ENTRY ONTO THE PROJECT SITE.

MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES:

PERMANENT AND TEMPORARY VEGETATION:
INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. 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 & AFTER EVERY RAIN EVENT. CHECK FOR MUD, SEDIMENT BUILD–UP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING WET WEATHER. RESHAPE PAD AS NEEDED FOR DRAINAGE AND 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.

SILT FENCE:
INSPECT FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP–SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 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 OR HAY BALE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP–SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANYWAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCK PILE. 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 PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.

EROSION CONTROL BLANKET:
INSPECT THE BLANKET EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. REPLACE WIRE STAPLES AS REQUIRED. REPAIR AND RESEED WHERE DAMAGED AND DAMAGED VEGETATION IS EVIDENT. WHEN DAMAGED BEYOND REPAIR OR NO LONGER FUNCTIONING, THE BLANKET SHALL BE REPLACED.

TEMPORARY SWALE:
INSPECT ALL EARTH DIKES EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. ALL AREAS DAMAGED BY EROSION SHALL BE REPAIRED IMMEDIATELY.

STORM DRAIN INLET PROTECTION:
INSPECT ALL STORM DRAIN INLET PROTECTION DEVICES EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE REPAIRS AS NEEDED, REMOVE SEDIMENT FROM THE POOL AREA AS NECESSARY.

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 CONSTRUCT NEW PITS AS NEEDED.

SNOW AND ICE CONTROL:
PARKING LOTS, ROADWAYS, AND DRIVEWAYS ADJACENT TO WATER QUALITY FILTERS SHALL NOT BE SANDED DURING SNOW EVENTS DUE TO HIGH POTENTIAL FOR CLOGGING FROM SAND IN SURFACE WATER RUNOFF. USE SALT ONLY FOR SNOW AND ICE CONTROL.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IN STRICT COMPLIANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", NOVEMBER 2016.
2. EXCESS SOIL TO BE STOCKPILED WITHIN THE LIMITS OF SITE DISTURBANCE IF NOT USED IMMEDIATELY FOR GRADING PURPOSES. INSTALL SILT FENCE AROUND SOIL STOCKPILES.
3. APPLY SURFACE STABILIZATION AND RESTORATION MEASURES. AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS DELAYED, SUSPENDED, OR INCOMPLETE AND WILL NOT BE REDISTURBED FOR 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED. (SEE SPECIFICATIONS FOR TEMPORARY VEGETATIVE COVER). AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS COMPLETE AND WILL NOT BE REDISTURBED SHALL BE STABILIZED AND RESTORED WITH PERMANENT VEGETATIVE COVER AS SOON AS SITE AREAS ARE AVAILABLE AND WITHIN 14 DAYS AFTER WORK IS COMPLETE. (SEE SPECIFICATIONS FOR PERMANENT VEGETATIVE COVER). SEEDING FOR PERMANENT VEGETATIVE COVER SHALL BE WITHIN THE SEASONAL LIMITATIONS. PROVIDE STABILIZATION WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER WORK IS COMPLETE, FOR SEEDING OUTSIDE PERMITTED SEEDING PERIODS.
4. SEEDED AREAS TO BE MULCHED WITH STRAW OR HAY MULCH IN ACCORDANCE WITH VEGETATIVE COVER SPECIFICATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE COURSE OF CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED. THE CONTRACTOR IS TO SUPPLY ALL EQUIPMENT AND WATER.
7. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED.

TOPSOIL SPECIFICATIONS:

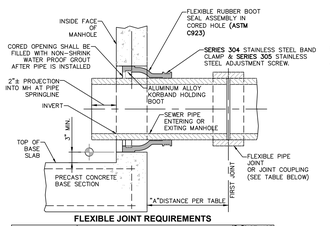
1. EXISTING EXCESS TOPSOIL SHALL BE REMOVED AND STORED IN TOPSOIL STOCKPILES SUFFICIENTLY REMOVED FROM OTHER EXCAVATION OR DISTURBANCE TO AVOID MIXING. SILT FENCE SHALL BE INSTALLED AROUND TOPSOIL STOCKPILE AREAS.

SITE PREPARATION:
1. COMPLETE ROUGH GRADING AND FINAL GRADE, ALLOWING FOR DEPTH OF TOPSOIL TO BE ADDED.
2. SCARIFY ALL COMPACT, SLOWLY PERMEABLE, MEDIUM AND FINE TEXTURED SUBSOIL AREAS. SCARIFY AT APPROXIMATELY RIGHT ANGLES TO THE SLOPE DIRECTION IN SOIL AREAS THAT ARE STEEPER THAN 5%.
3. REMOVE REFUSE, WOODY PLANT PARTS, STONES OVER 3 INCHES IN DIAMETER, AND OTHER LITTER.

TOPSOIL MATERIALS:
1. NEW TOPSOIL SHALL BE BETTER THAN OR EQUAL TO THE QUALITY OF THE EXISTING ADJACENT TOPSOIL. IT SHALL MEET THE FOLLOWING CRITERIA:
   A. ORIGINAL LOAM TOPSOIL, MILL DRAINED HOMOGENEOUS FREE AND OF UNIFORM GRADE, WITHOUT THE ADMIXTURE OF SUBSOIL MATERIAL AND FREE OF DENSE MATERIAL, HARDPAN, CLAY, STONES, SOD OR OTHER OBJECTIONABLE MATERIAL.
   B. CONTAINING NOT LESS THAN 5% NOR MORE THAN 20% ORGANIC MATTER IN THAT PORTION OF A SAMPLING PASSING A 1/4" SIEVE, WHEN DETERMINED BY THE WET COMBUSTION METHOD ON A SAMPLE DRIED AT 105°C.
   C. CONTAINING A PH VALUE WITHIN THE RANGE OF 6.5 TO 7.5 ON THAT PORTION OF THE SAMPLE WHICH PASSES A 1/4" SIEVE.
   D. CONTAINING THE FOLLOWING WASHED GRADATIONS:

SIEVE DESIGNATION	% PASSING
1"	100
1/4"	97–100
NO 200	20–60

APPLICATION AND GRADING:
1. TOPSOIL SHALL BE DISTRIBUTED TO A UNIFORM DEPTH OF 4" OVER THE AREA. IT SHALL NOT BE PLACED WHEN IT IS PARTLY FROZEN, MUDDY, OR ON FROZEN SLOPES OR OVER ICE, SNOW, OR STANDING WATER.
2. TOPSOIL PLACED AND GRADED ON SLOPES STEEPER THAN 5% SHALL BE PROMPTLY FERTILIZED, SEE

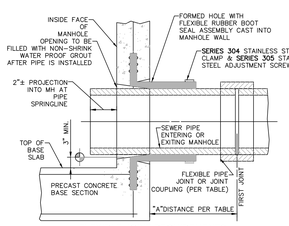


FLEXIBLE JOINT REQUIREMENTS

SEWER PIPE TYPE	FLEXIBLE JOINT TYPE IN & OUT	"A"DISTANCE (FEET)
DUCTILE IRON	STD RUBBER GASKET PIPE JOINT ONLY	10" MAX
PVC	STD RUBBER GASKET PIPE JOINT ONLY	3" MAX

NOTE:
REFERENCE MANHOLE DETAIL(S) FOR REQUIRED INVERT CHANNEL CONFIGURATION.

① **PIPE CONNECTION TO MANHOLE-PRECAST OR CORED HOLE W/ INSERTED FLEXIBLE BOOT**
SCALE: NOT TO SCALE



FLEXIBLE JOINT REQUIREMENTS

SEWER PIPE TYPE	FLEXIBLE JOINT TYPE IN & OUT	"A"DISTANCE (FEET)
DUCTILE IRON	STD RUBBER GASKET PIPE JOINT ONLY	5" MAX
PVC	STD RUBBER GASKET PIPE JOINT ONLY	3" MAX

NOTE:
REFERENCE MANHOLE DETAIL(S) FOR REQUIRED INVERT CHANNEL CONFIGURATION.

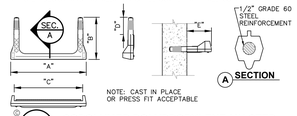
② **PIPE CONNECTION TO MANHOLE-FLEXIBLE RUBBER BOOT CAST INTO MANHOLE WALL**
SCALE: NOT TO SCALE

ACCEPTABLE MANHOLE STEPS

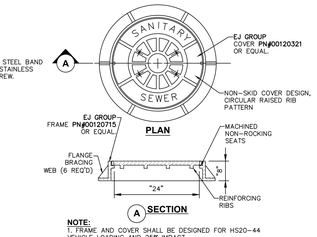
MANUFACTURER	PATTERN NUMBER	"A" STEP WIDTH	"B" LEG LENGTH	"C" RUNG CLEAR	"D" EMBED-MENT	"E" RUNG CLEAR
M.A. INDUSTRIES INC*	**PS2-PF**	14 3/4	9 1/4	13 3/4	3 3/8	5 7/8
M.A. INDUSTRIES INC*	**PS2-PFS**	14 3/4	8 1/4	13 3/4	3 3/8	4 7/8

* OR EQUIVALENT

MH STEP DESIGN AND INSTALLATION SHALL COMPLY WITH ALL OSHA REGULATIONS

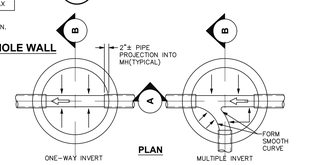


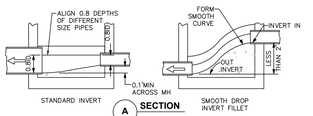
⑨ **COPOLYMER POLYPROPYLENE MH STEP**
SCALE: NOT TO SCALE

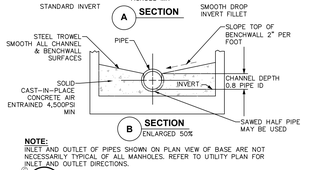


NOTE:
1. FRAME AND COVER SHALL BE DESIGNED FOR HS20-44 VEHICLE LOADING AND 25% IMPACT.

③ **HEAVY DUTY STANDARD CAST IRON MH COVER**
SCALE: NOT TO SCALE

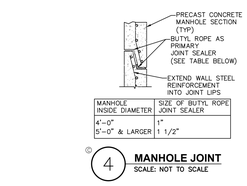






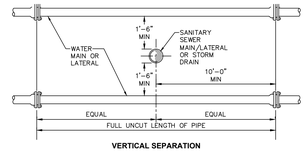
NOTE:
INLET AND OUTLET OF PIPES SHOWN ON PLAN VIEW OF BASE ARE NOT NECESSARILY TYPICAL OF ALL MANHOLES. REFER TO UTILITY PLAN FOR INLET AND OUTLET DIRECTIONS.

⑦ **INVERT, CHANNEL AND BENCHWALLS**
SCALE: NOT TO SCALE



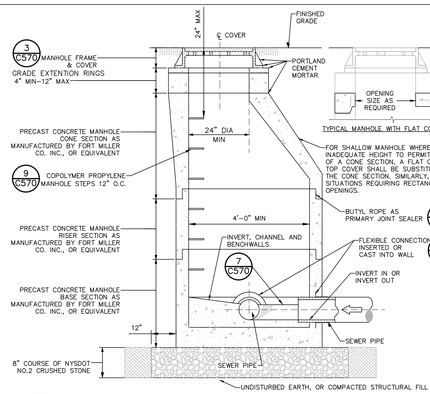
MANHOLE INSIDE DIAMETER	SIZE OF BUTYL ROPE JOINT SEALER
4'-0"	1"
5'-0" & LARGER	1 1/2"

④ **MANHOLE JOINT**
SCALE: NOT TO SCALE



NOTES:
1. NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE EXPRESS APPROVAL OF THE NYS HEALTH DEPARTMENT, OFFSETTING OF WATERLINE SHALL BE REQUIRED WHERE SEPARATION DISTANCES CANNOT BE MAINTAINED.
2. WHEN IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS INDICATED ABOVE, BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE CONSTRUCTED OF MECHANICAL JOINT, DUCTILE IRON PIPE OR PVC WATER WORKS GRADE PRESSURE PIPE FOR 10' EACH SIDE OF CROSSING AND SHALL BE PRESSURE TESTED TO **150psi** TO ASSURE WATER TIGHTNESS.

⑧ **SANITARY/STORM SEWER AND WATERMAIN SEPARATION DETAIL**
SCALE: NOT TO SCALE



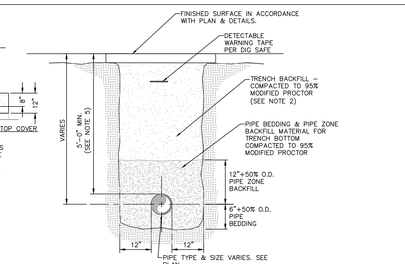
NOTES: USE ONLY WET-CAST UNITS. DRY-CAST NOT ACCEPTABLE

1.

CONE DIMENSIONS	
DIAM. OPENING	HEIGHT
24"	24" OR 42"
30"	34"

2. INVERT SHALL BE FILLETED.
3. REINFORCEMENT FOR MANHOLE COMPONENTS SHALL BE DESIGNED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW. STRUCTURE SHALL BE DESIGNED FOR HS20-44 VEHICULAR LOADING PLUS 25% IMPACT.
4. CONCRETE TO TEST **4,500 PSI** AT 28 DAYS IN CONFORMANCE WITH **A.S.T.M. C-478.**
5. BENCH SHALL BE BUILT FOR FLOW BETWEEN INLET AND OUTLET.
6. EACH MANHOLE EXTERIOR SHALL RECEIVE TWO BITUMINOUS COATS.

⑤ **PRECAST CONCRETE MANHOLE**
SCALE: NOT TO SCALE



NOTES:
1. PIPE BEDDING & PIPE ZONE BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
3/4"	100%
NO. 40	0-70%
NO. 200	0-10%

2. TRENCH BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) OR PROCESSED GRAVEL, OR EXCAVATED MATERIAL FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. TRENCH BACKFILL GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
4"	100%
NO. 40	0-70%
NO. 200	0-10%

IN NON-TRAFFIC UNPAVED AREAS TRENCH BACKFILL CAN BE MATERIALS EXCAVATED FROM THE TRENCH AS APPROVED BY THE ENGINEER AND COMPACTED TO 90% MODIFIED PROCTOR.

3. INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.
5. 5'-0" MIN COVER SHALL BE APPLIED TO WATER MAIN OR SANITARY SEWER FORCE MAINS ONLY.

⑥ **PIPE TRENCH DETAIL (TYPICAL)**
SCALE: NOT TO SCALE

POTABLE WATER NOTES

1. THE CONTRACTOR SHALL CONTACT THE CITY OF BEACON WATER DEPARTMENT 48 HOURS BEFORE STARTING WORK AS WELL AS 48 HOURS PRIOR TO CONNECTIONS TO THE CITY WATER SYSTEM.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY EXISTING WATER CONNECTION AND ALL PROPOSED UTILITY CROSSINGS AND IF NECESSARY EXCAVATE TEST PITS TO DETERMINE DEPTH AND CONDITION OF EXISTING UTILITIES.
3. THE CONTRACTOR SHALL EXPOSE THE EXISTING WATER MAIN AT THE CONNECTION POINT FOR WATER DEPARTMENT INSPECTION. THE CONTRACTOR SHALL UTILIZE A RESTRAINED JOINT METHOD AS APPROVED BY THE WATER DEPARTMENT.
4. ALL WATER LINES SHALL BE DUCTILE IRON PIPE, CLASS 52 TYTON PUSH ON GASKETED JOINT BY U.S. PIPE OR EQUAL UNLESS OTHERWISE SPECIFIED BY OR APPROVED BY THE WATER DEPARTMENT. RESTRAINED JOINTING SHALL EMPLOY "MEGALUG" CONNECTIONS, LOCK-JOINT PIPE, OR AS ALTERNATIVELY SPECIFIED BY THE WATER DEPARTMENT AND ACCORDING TO THE RESTRAINT SCHEDULE HEREIN. ALL WATER PIPING CONSTRUCTION SHALL BE TO THE SPECIFICATIONS OF THE WATER DEPARTMENT.
5. THE WATER LINE MAY BE FLEXED WITHIN PIPE SPECIFICATIONS OR LAID DEEPER IN AREAS WHERE CROSSINGS WITH THE SANITARY LINE OCCUR, TO ACHIEVE THE REQUIRED 1.5' VERTICAL SEPARATION DISTANCE. IF THIS DISTANCE CANNOT BE REASONABLY ACHIEVED, THE CONTRACTOR SHALL CUT AND JOINT THE PIPE LINES 10' IN EACH DIRECTION. (SEE WATERLINE OFFSET DETAIL FOR FURTHER INFORMATION).
6. ALL NEW WATER MAIN INSTALLATIONS SHALL BE HYDROSTATICALLY TESTED PER AWWA STANDARD C 600(LATEST REVISION) AT A PRESSURE OF 150 PSI, OR 1.25 TIMES THE WORKING PRESSURE OF THE SYSTEM AS A MINIMUM. ALLOWABLE LEAKAGE OF THIS TEST SHALL BE AS DEFINED IN SECTION 5.2 OF SAID AWWA SPECIFICATION.
7. APPROVED AND TESTED WATER MAIN SHALL BE DISINFECTED PER AWWA SECTION C651, AS DIRECTED BY THE WATER DEPARTMENT AND ENGINEER. THE TABLET METHOD FOR DISINFECTION SHALL NOT BE ACCEPTED.
8. THE FACILITY WILL BE CONSTRUCTED WITH WATER CONSERVING PLUMBING FIXTURES.
9. THE WATERMAIN IS TO BE INSTALLED AT A CONTINUOUS GRADE WITH NO ABRUPT HIGH OR LOW POINTS.
10. RELOCATE HYDRANT, WATER VALVES, AND PIPING AS REQUIRED BY FINAL FIELD CONDITIONS AND AS APPROVED BY THE WATER DEPARTMENT. POTENTIAL CONFLICTS WITH PROPOSED DRAINAGE IMPROVEMENTS OR OTHER UTILITIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
11. ALL POTABLE WATERMAIN PIPES SHALL BE 8" DIAMETER-CLASS 52 DUCTILE IRON PIPE. ALL 4" DIAMETER WATER SERVICE LINES SHALL BE – CLASS 52 DUCTILE IRON AND ALL 2" DIAMETER WATER SERVICE LINES SHALL BE TYPE K COPPER, UNLESS OTHERWISE NOTED. SERVICE MAIN CONNECTION SIZE SHALL BE AS INDICATED ON THE PLANS.
12. REGULATORY AGENCY SHALL BE DEFINED, UNLESS OTHERWISE INDICATED, AS THE CITY OF BEACON WATER DEPARTMENT, THE DUTCHESS COUNTY DEPARTMENT OF HEALTH (DCDOH), AND CITY ENGINEER.
13. POTABLE WATER LINES IN BUILDING SHALL BE PROTECTED FROM FIRE SERVICE LINES WITH APPROPRIATE BACKFLOW PREVENTION PER DOH, NFPA, OR OTHER APPLICABLE CODE AND SHALL BE APPROVED SEPARATELY FROM THESE PLANS.

DUTCHESS COUNTY STANDARD NOTES FOR WATER SYSTEMS:

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 HEATH 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."

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.

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.

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.

NO CELLAR, FOOTING, FLOOR, GARAGE, COOLER OR ROOF DRAINS SHALL BE DISCHARGED INTO THE SEWAGE COLLECTION SYSTEM.

ALL BUILDINGS SHALL BE CONSTRUCTED AT AN ELEVATION HIGH ENOUGH TO ENSURE GRAVITY FLOW TO THE SEWAGE COLLECTION SYSTEM.

ALL REQUIRED EROSION & SEDIMENT CONTROL AND STORMWATER POLLUTION PREVENTION WATER QUALITY & QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.

THE DC EHSD SHALL BE NOTIFIED SIXTY DAYS PRIOR TO ANY CHANGE IN USE; USE CHANGES MAY REQUIRE RE-APPROVAL BY THE DC EHSD.

NO BUILDINGS ARE TO BE OCCUPIED AND THE NEW WATER SYSTEM SHALL NOT BE PLACED INTO SERVICE, UNTIL A "COMPLETED WORKS APPROVAL" IS USED UNDER SECTION 5-1.22(D) OF PART 5 OF THE NEW YORK STATE SANITARY CODE (10NYCRR5)

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

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.

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 STATES HEREON.

ADDITIONAL NOTES FOR RESIDENTIAL

WITH CENTRAL UTILITIES

1. THAT, 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 SANITARY CODE (10NYCRR5)
2. THAT, 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.

MANHOLES AND OTHER BELOW GRADE STRUCTURES:

1. STRUCTURAL DESIGN FOR MANHOLES AND OTHER BELOW-GRADE PRECAST CONCRETE STRUCTURES:
   A. NON-TRAFFIC LOADS:
      BELOW GRADE PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO WITHSTAND LOADS IMPOSED BY STRUCTURE WEIGHT, EARTH COVER, LATERAL PRESSURE FROM EARTH AND GROUND WATER, AND LIVE LOADS SUCH AS PEDESTRIAN TRAFFIC OR MACHINERY ON OR ABOVE THE STRUCTURE; AND
   B. TRAFFIC LOADS:
      BELOW GRADE PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO ALSO WITHSTAND TRAFFIC LOADS CREATED BY AN HS20-44 TRUCK PLUS 25% IMPACT AS DEFINED IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) DESIGN STANDARDS.
2. MATERIAL WHICH SHALL BE UTILIZED IN THE CONSTRUCTION OF PRECAST CONCRETE STRUCTURES:
   CEMENT: ASTM C-150, TYPES I,II,III,V
   SAND: NYSDOT STD. SPEC. **SECTION NO. 703-0** CONCRETE SAND
   STONE: NYSDOT STD. SPEC. **SECTION NO. 703-02** COARSE AGGREGATE
   STEEL BAR REINFORCEMENT: **ASTM A615,** GRADE 60
   WIRE MESH REINFORCEMENT: **ASTM A185** PLAIN
   CONCRETE STRENGTH (28 DAY): **4,500** PSI (F'C)
   ENTRAINED AIR: 5% MIN.
3. ALL CASTINGS (FRAMES AND COVERS, FRAMES AND GRATES, ETC.) FOR USE IN CONJUNCTION WITH MANHOLES AND OTHER BELOW GRADE STRUCTURES SHALL BE MANUFACTURED FROM GRAY IRON OR DUCTILE IRON. GRAY IRON SHALL CONFORM WITH ASTM A 48, CLASS 30B AND DUCTILE IRON SHALL CONFORM WITH **ASTM A 536** AND BE OF A GRADE APPROPRIATE TO ITS INTENDED USE.
4. ALL CASTINGS (FRAMES AND COVERS, FRAMES AND GRATES, ETC.) FOR USE IN CONJUNCTION WITH MANHOLES AND OTHER BELOW GRADE STRUCTURES SHALL BE DESIGNED TO WITHSTAND AASHTO HS 20-44 HIGHWAY LOADING PLUS 25% IMPACT.
5. ALL ASTM REFERENCES SHALL BE FOR THE LATEST ACTIVE STANDARD.

DUTCHESS COUNTY STANDARD NOTES FOR WATER SYSTEMS:

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 HEATH 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."

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.

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.

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.

NO CELLAR, FOOTING, FLOOR, GARAGE, COOLER OR ROOF DRAINS SHALL BE DISCHARGED INTO THE SEWAGE COLLECTION SYSTEM.

ALL BUILDINGS SHALL BE CONSTRUCTED AT AN ELEVATION HIGH ENOUGH TO ENSURE GRAVITY FLOW TO THE SEWAGE COLLECTION SYSTEM.

ALL REQUIRED EROSION & SEDIMENT CONTROL AND STORMWATER POLLUTION PREVENTION WATER QUALITY & QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.

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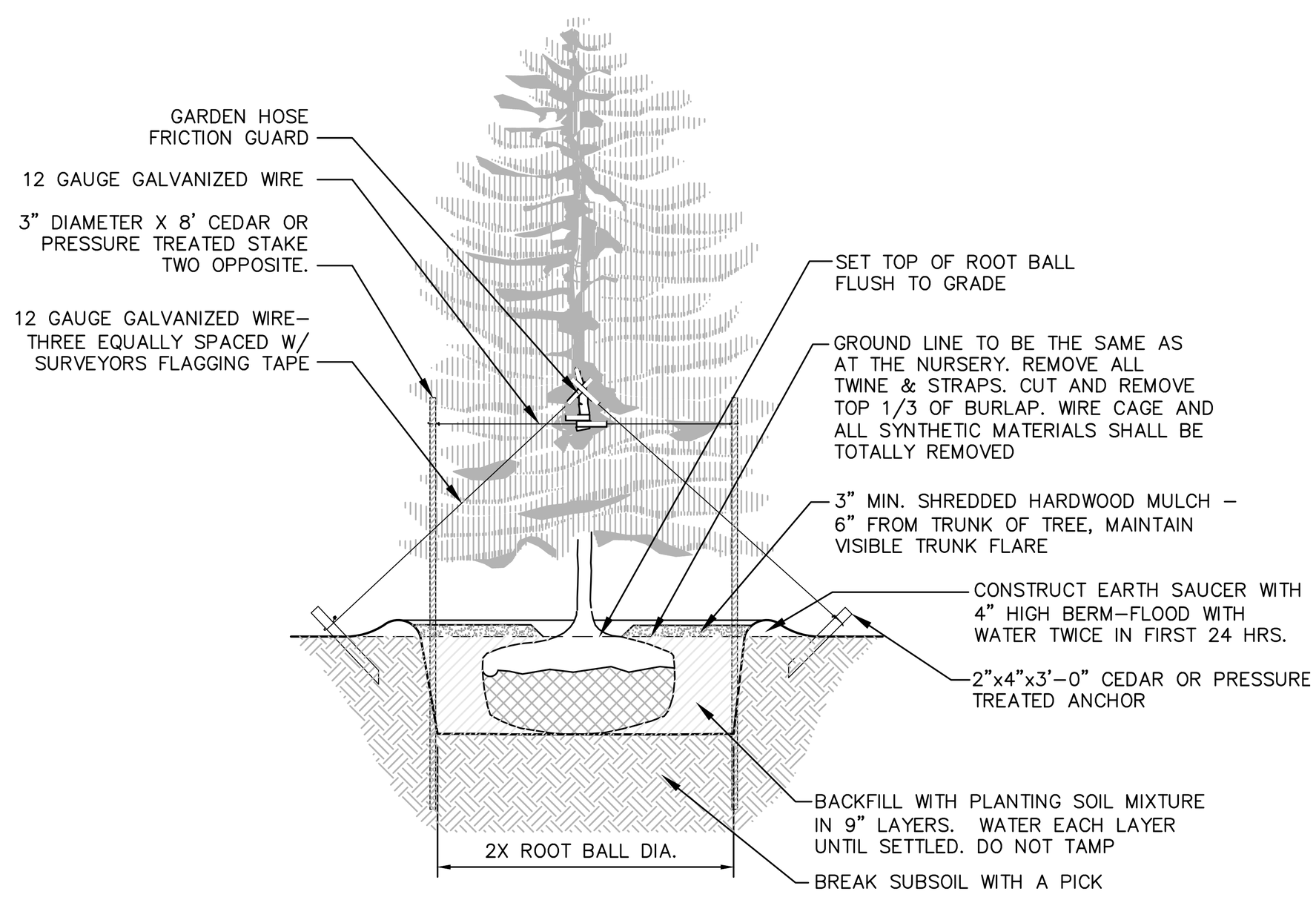
SANITARY SEWER NOTES

1. FINAL SEWER COLLECTION SYSTEM IS SUBJECT TO REVIEW, REVISION AND APPROVAL BY THE CITY OF BEACON SEWER DEPARTMENT, THE DCDOH, AND THE TOWN ENGINEER.
2. ALL PROPOSED SANITARY SEWER FORCE MAINS SHALL BE PRESSURE TESTED TO 100 PSIG OR 1.5x THE WORKING PRESSURE OF THE SYSTEM.
3. ALL SANITARY SEWER FORCE MAINS SHALL BE PVC SDR-21 PUSH-ON GASKETED PIPE WITH A PRESSURE RATING OF 200 PSI CONFORMING TO ASTM D2241. THE PVC PIPE SHALL HAVE AN INTEGRAL BELL END WITH A RUBBER GASKETED JOINT CONFORMING TO ASTM D1869 AND F477 FOR A FLEXIBLE WATER TIGHT SEAL. ALL PIPE JOINTS AND FITTINGS SHALL BE PROPERLY RESTRAINED AGAINST THRUST FORCES AS FOLLOWS:
   A. PIPE JOINT: EBAA IRON SERIES 6500 BELL RESTRAINT HARNESS FOR PVC PIPE BELL JOINT
   B. MOLDED PVC FITTINGS: EBAA IRON SERIES 7500 RESTRAINT FOR PVC PIPE AT PVC FITTING
   C. MJ DI FITTINGS: EBAA IRON SERIES 2000PV MECHANICAL JOINT RESTRAINT FOR PVC PIPE
4. ALL SANITARY SEWER LINES SHALL PASS A LOW PRESSURE AIR TEST IN ACCORDANCE WITH ASTM F1417 (LATEST REVISION) AT A PRESSURE OF 3.5 PSI, AND A DEFLECTION TEST IN ACCORDANCE WITH THE "RECOMMENDED STANDARDS FOR WASTE WATER FACILITIES". ALL NEW SANITARY SEWER MANHOLES SHALL PASS VACUUM TESTING IN ACCORDANCE WITH ASTM C1244 OR HYDROSTATIC TESTS IN ACCORDANCE WITH ASTM C1091.
5. ALL SANITARY SEWER TESTING SHALL BE PERFORMED UNDER THE SUPERVISION OF THE PROJECT ENGINEER, AND CERTIFICATES OF COMPLIANCE WITH TEST STANDARDS SHALL BE PROVIDED TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH WITH ENGINEERS CERTIFICATION OF COMPLETION AND TO THE APPROPRIATE SEWER AUTHORITY AS A CONDITION OF APPROVAL FOR OPERATION.
6. ALL SANITARY SEWER SYSTEM COMPONENTS INSIDE OF BUILDINGS SHALL BE INSTALLED BY, OR UNDER THE SUPERVISION OF, A LICENSED PLUMBER IN ACCORDANCE WITH THE CITY PLUMBING CODE.
7. ALL NEW SANITARY SEWER MANHOLE COVERS SHALL BE 30" DIAMETER HEAVY DUTY, WATERTIGHT DIAMETER CAST IRON AND SHALL READ "SANITARY SEWER".
8. RIM ELEVATION ADJUSTMENTS LESS THAN 12-INCHES SHALL BE MADE USING A CONCRETE COLLAR AND/OR PORTLAND CEMENT. RIM ELEVATION ADJUSTMENTS GREATER THAN 12" SHALL REQUIRE THE INSTALLATION OF AN ADDITIONAL RISER SECTION TO THE CONCRETE STRUCTURE WITH ADDITIONAL STEPS TO BE ADDED AS REQUIRED.
9. ALL SANITARY SEWER LATERALS OUTSIDE OF BUILDING SHALL MEET NYS AND LOCAL PLUMBING CODES.
10. ALL SANITARY SEWER FORCE MAIN JOINTS AND FITTINGS SHALL BE FUSED PER MANF. INSTRUCTIONS UNLESS OTHERWISE SHOWN HEREIN.
11. THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS IN THE FORCEMAIN.
12. BACKFLOW PREVENTION DEVICES WILL BE INTERNAL TO BUILDINGS AND SUBMITTED SEPARATELY TO THE DUTCHESS COUNTY DEPERTMANT OF ENVIRONMENTAL AND BEHAVIORAL HEALTH.

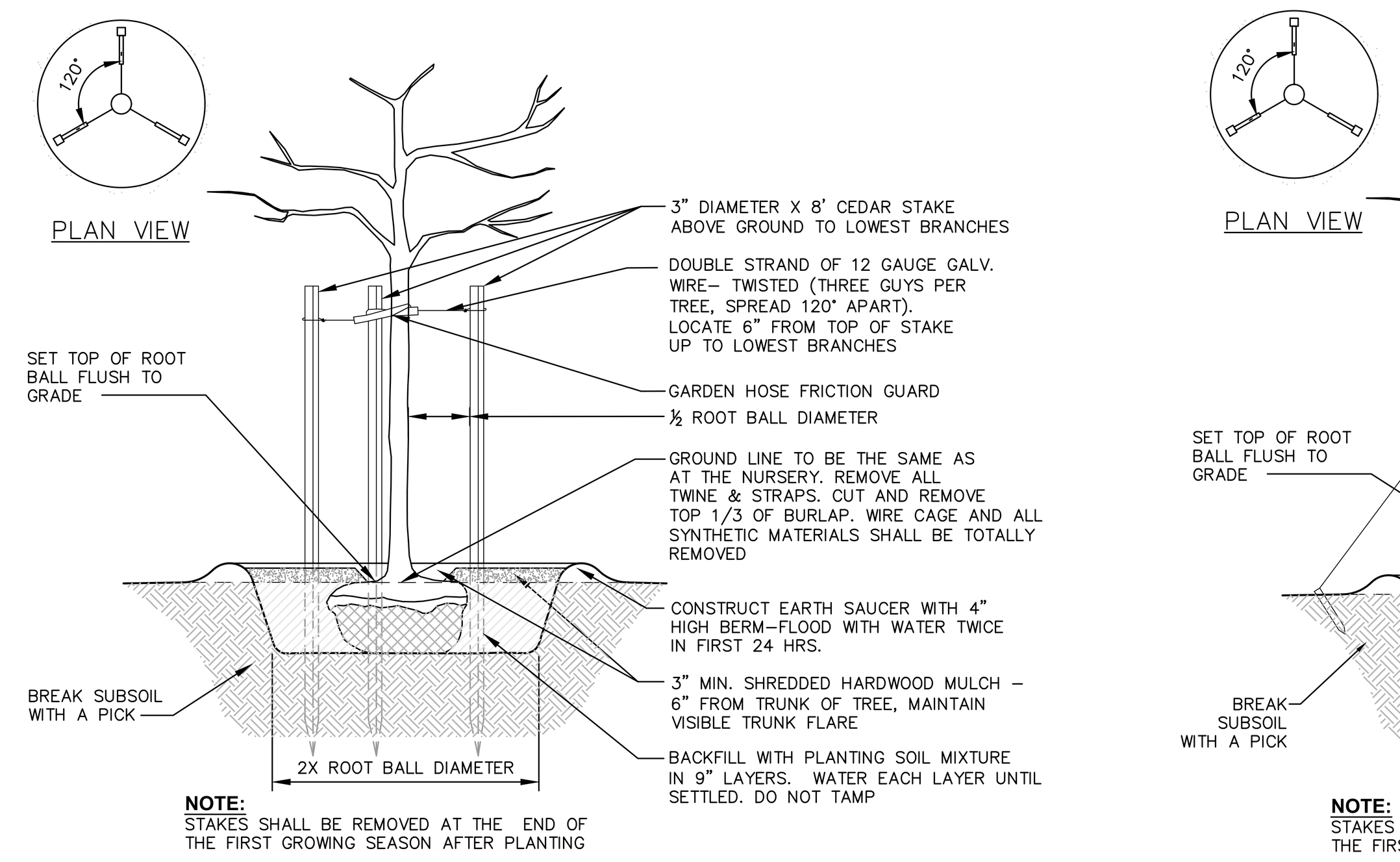
ADDITIONAL NOTES FOR COMMERCIAL PROJECTS

SEWAGE DISPOSAL SYSTEM IS DESIGNED FOR SANITARY SEWAGE ONLY. NO WASTES FROM RESTAURANTS, TAVERNS, DINERS, PIZZERIAS, FOOD SERVICE ESTABLISHMENTS, BAKERIES, DOCTOR'S OFFICES, DENTISTS, HAIR DRESSERS, SALONS, BEAUTY PARLORS, DRY CLEANERS, LAUNDROMATS, LAUNDRIES, PHOTO FINISHERS, METAL



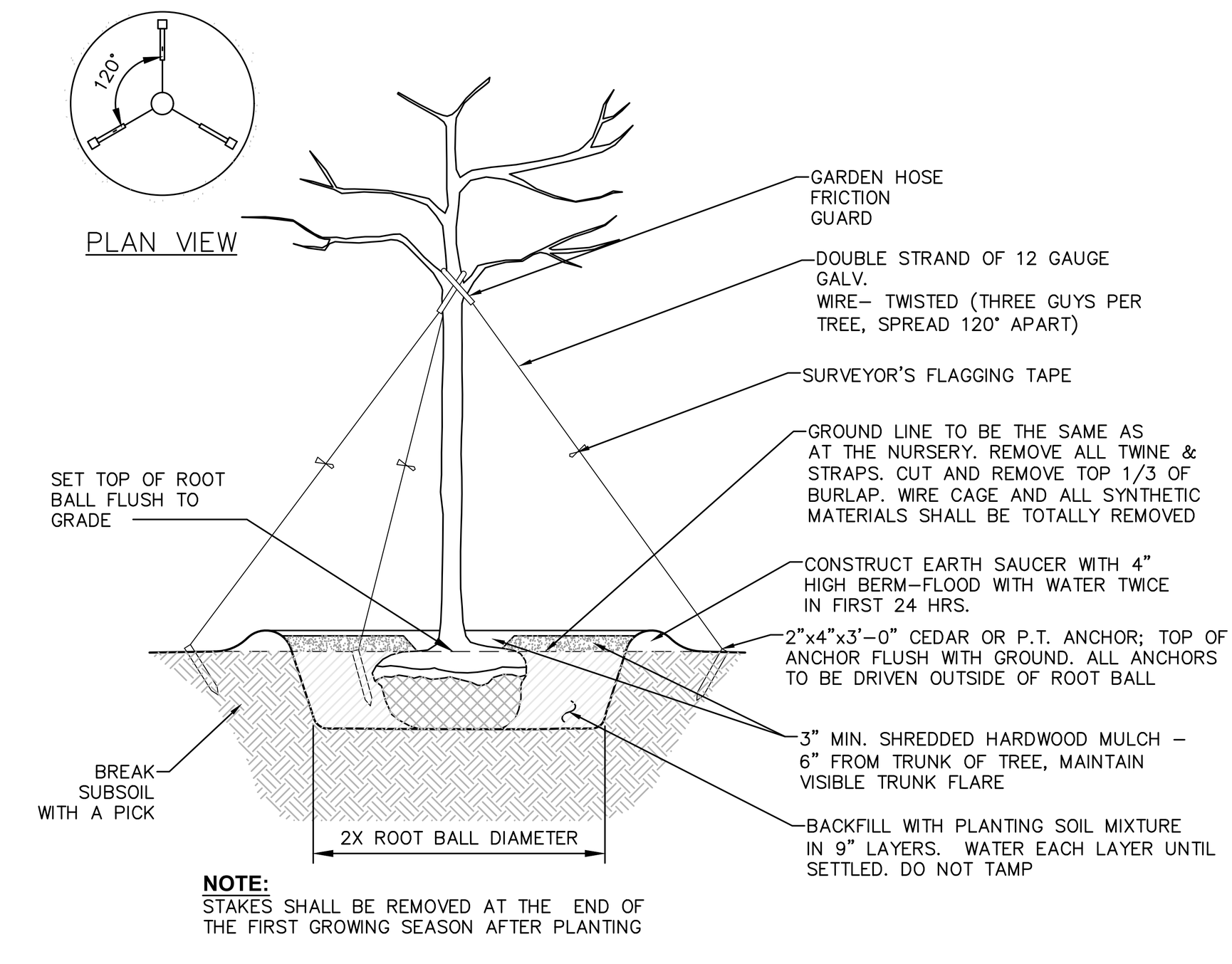
NOTES:
1. SPRAY WITH ANTIDESICCANT IN ACCORDANCE WITH MFG.'S RECOMMENDATIONS.
2. TREES LESS THAN 3" CALIPER SHALL BE STAKED.
3. TREES GREATER THAN 3" CALIPER AND UP SHALL BE GUYED AND ANCHORED.
4. STAKES SHALL BE REMOVED AT THE END OF THE FIRST GROWING SEASON AFTER PLANTING.

© 1 **EVERGREEN PLANTING DETAIL**
SCALE: NOT TO SCALE



NOTE:
STAKES SHALL BE REMOVED AT THE END OF THE FIRST GROWING SEASON AFTER PLANTING

© 2 **PLANTING AND GUYING DETAILS-FOR TREES SMALLER THAN 3" CALIPER, BALLED AND BURLAPPED**
SCALE: NOT TO SCALE



NOTE:
STAKES SHALL BE REMOVED AT THE END OF THE FIRST GROWING SEASON AFTER PLANTING

© 3 **PLANTING AND GUYING DETAILS-FOR TREES 3" CALIPER AND LARGER, BALLED AND BURLAPPED**
SCALE: NOT TO SCALE

LANDSCAPING NOTES:

1. THE LANDSCAPE CONTRACTOR SHALL CAREFULLY COORDINATE CONSTRUCTION ACTIV WITH THAT OF THE EARTHWORK CONTRACTOR AND OTHER SITE DEVELOPMENT.
2. THE CONTRACTOR SHALL VERIFY DRAWING DIMENSIONS WITH ACTUAL FIELD CONDITIO AND INSPECT RELATED WORK AND ADJACENT SURFACES. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF ALL FINISH GRADES WITHIN THE WORK AREA. THE CONTRACTOR SHALL REPORT TO THE LANDSCAPE ARCHITECT/ENGINEER AND OWNER CONDITIONS WHICH PREVENT PROPER EXECUTION OF THIS WORK.
3. THE EXACT LOCATION OF ALL EXISTING UTILITIES, STRUCTURES AND UNDERGROUND UTILITIES, WHICH MAY NOT BE INDICATED ON THE DRAWINGS, SHALL BE DETERMINED THE CONTRACTOR. THE CONTRACTOR SHALL PROTECT EXISTING STRUCTURES AND UTILITY SERVICES AND IS RESPONSIBLE FOR THEIR REPLACEMENT IF DAMAGED.
4. THE CONTRACTOR SHALL KEEP THE PREMISES FREE FROM RUBBISH AND ALL DEBRI ALL TIMES AND SHALL ARRANGE MATERIAL STORAGE SO AS NOT TO INTERFERE WIT THE OPERATION OF THE PROJECT. ALL UNUSED MATERIALS, RUBBISH AND DEBRIS S BE REMOVED FROM THE SITE.
5. NO TREES OR SHRUBS SHALL BE PLANTED ON EXISTING OR PROPOSED UTILITY LINE
6. QUALITY ASSURANCE:
   A. NOMENCLATURE: PLANT NAMES SHALL CONFORM TO THE LATEST EDITION OF "STANDARDIZED PLANT NAMES" AS ADOPTED BY THE AMERICAN JOINT COMMITT ON HORTICULTURAL NOMENCLATURE.
   B. SIZE AND GRADING: PLANT SIZES AND GRADING SHALL CONFORM TO THE LATES EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK" AS SPONSORED BY TH AMERICAN ASSOCIATION OF NURSERYMEN, INC (AAN), UNLESS OTHERWISE SPECI
   C. NURSERY SOURCE: OBTAIN FRESHLY DUG, HEALTHY, VIGOROUS PLANTS NURSER GROWN UNDER CLIMACTIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF PROJECT FOR A MINIMUM OF 2 YEARS. PLANTS SHALL HAVE BEEN LINED OUT ROWS, ANNUALLY CULTIVATED, SPRAYED, PRUNED AND FERTILIZED IN ACCORDAN WITH GOOD HORTICULTURAL PRACTICE. ALL PLANTS SHALL HAVE BEEN TRANSPLANTED OR ROOT PRUNED AT LEAST ONCE IN THE PAST 3 YEARS. BALL AND BURLAPPED PLANTS MUST COME FROM SOIL WHICH WILL HOLD A FIRM ROO BALL. HEELED IN PLANTS AND PLANTS FROM COLD STORAGE ARE NOT ACCEPTABLE.
   D. SUBSTITUTIONS: DO NOT MAKE SUBSTITUTIONS OF TREES AND/OR SHRUB MATERIALS. IF REQUIRED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON–AVAILABILITY AND PROPOSAL FOR USE OF EQUIVALENT MATERIA WHEN AUTHORIZED, ADJUSTMENTS OF CONTRACT AMOUNT (IF ANY) WILL BE MA BY CHANGE ORDER.
7. SEEDING & PLANTING SEASONS AND TIMING CONDITIONS:
   A. UNLESS OTHERWISE DIRECTED IN WRITING, SEED LAWNS FROM MARCH 15 TO JU 15, AND FROM AUGUST 15 TO OCTOBER 15.
   B. UNLESS OTHERWISE DIRECTED IN WRITING PLANT TREES AND SHRUBS FROM MAR 15 TO JUNE 1, AND FROM AUGUST 15 TO OCTOBER 30.
   C. AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE LAWNS OR PLANTINGS ARE TO BE ESTABLISHE AND WORK IS COMPLETE, SHALL BE RESTORED WITH PERMANENT VEGETATIVE C AS SOON AS SITE AREAS ARE AVAILABLE AND WITHIN 14 DAYS AFTER WORK IS COMPLETE; WORK SHALL BE WITHIN THE SEASONAL LIMITATIONS FOR EACH KIN LANDSCAPE WORK REQUIRED. PROVIDE STABILIZATION WITH TEMPORARY VEGETA COVER (TOPSOIL AND TEMPORARY COVER SEED MIX) WITHIN 14 DAYS AFTER WO IS COMPLETE, FOR SEEDING OUTSIDE PERMITTED SEEDING PERIODS.
8. PRODUCTS:
   A. TOPSOIL
      i. EXISTING EXCESS TOPSOIL SHALL BE REMOVED AND STORED IN TOPSOIL STOCKPILES SUFFICIENTLY REMOVED FROM OTHER EXCAVATION OR DISTURB TO AVOID MIXING. SILT FENCE SHALL BE INSTALLED AROUND TOPSOIL STOCKPILE AREAS.
      ii. IMPORTED TOPSOIL: PROVIDE TOPSOIL CONFORMING TO THE FOLLOWING:
      a. LOAM TOPSOIL, WELL DRAINED HOMOGENEOUS TEXTURE AND OF UNIFORM GRADE, WITHOUT THE ADMIXTURE OF SUBSOIL MATERIAL AND FREE OF DE MATERIAL, HARDPAN, CLAY, STONES, SOD OR OTHER OBJECTIONABLE MATE
      b. CONTAINING NOT LESS THAN 5% NOR MORE THAN 20% ORGANIC MATTER I THAT PORTION OF A SAMPLING PASSING A 1/4" SIEVE WHEN DETERMINED THE WET COMBUSTION METHOD ON A SAMPLE DRIED AT 105°C.
      c. CONTAINING A PH VALUE WITHIN THE RANGE OF 6.5 TO 7.5 ON THAT POR OF THE SAMPLE WHICH PASSES A 1/4" SIEVE.
      d. CONTAINING THE FOLLOWING WASHED GRADATIONS:

SIEVE DESIGNATION	% PASSING
1"	100
1/4"	97–100
NO 200	20–60

      iii. SITE PREPARATION:
      a. COMPLETE ROUGH GRADING AND FINAL GRADE, ALLOWING FOR DEPTH OF TOPSOIL TO BE ADDED.
      b. SCARIFY ALL COMPACT, SLOWLY PERMEABLE, MEDIUM AND FINE TEXTURED SUBSOIL AREAS. SCARIFY AT APPROXIMATELY RIGHT ANGLES TO THE SLOP DIRECTION IN SOIL AREAS THAT ARE STEEPER THAN 5%.
      c. REMOVE REFUSE, WOODY PLANT PARTS, STONES OVER 3 INCHES IN DIAME AND OTHER LITTER.
      iv. TOPSOIL MATERIALS:
      a. NEW TOPSOIL SHALL BE BETTER THAN OR EQUAL TO THE QUALITY OF THE EXISTING ADJACENT TOPSOIL. IT SHALL MEET THE FOLLOWING CRITERIA:
1. ORIGINAL LOAM TOPSOIL, WELL DRAINED HOMOGENEOUS TEXTURE AND OF UNIFORM GRADE, WITHOUT THE ADMIXTURE OF SUBSOIL MATERIAL AND FREE OF DENSE MATE HARDPAN, CLAY, STONES, SOD OR OTHER OBJECTIONABLE MATERIAL.
2. CONTAINING NOT LESS THAN 5% NOR MORE THAN 20% ORGANIC MATTER IN THAT PORTION OF A SAMPLING PASSING A 1/4" SIEVE WHEN DETERMINED BY THE WET COMBUSTION METHOD ON A SAMPLE DRIED AT 105°C.
3. CONTAINING A PH VALUE WITHIN THE RANGE OF 6.5 TO 7.5 ON THAT PORTION OF SAMPLE WHICH PASSES A 1/4" SIEVE.
4. CONTAINING THE FOLLOWING WASHED GRADATIONS:

SIEVE DESIGNATION	% PASSING
1"	100
1/4"	97–100
NO 200	20–60

      v. APPLICATION AND GRADING:
      a. TOPSOIL SHALL BE DISTRIBUTED TO A UNIFORM DEPTH OF 4" OVER THE AREA. IT SHALL NOT BE PLACED WHEN IT IS PARTLY FROZEN, MUDDY, OR ON FROZEN SLOPES OR OVER ICE, SNOW, OR STANDING WATER.
      b. TOPSOIL PLACED AND GRADED ON SLOPES STEEPER THAN 5% SHALL BE PROMPTLY FERTILIZED, SEEDED, MULCHED AND STABILIZED BY "TRACKING" WITH SUITABLE EQUIPMENT.
   B. SEED MIXTURE:
   PROVIDE FRESH, CLEAN, NEW–CROP SEED MIXED IN THE PROPORTIONS SPECIFIED FOR SPECIES AND VARIETY, AND CONFORMING TO FEDERAL AND STATE STANDARDS. PROVIDE THE FOLLOWING MIXTURES:
      i. LAWN SEED MIX

ECO–LAWN*:

AMOUNT BY: WEIGHT	SPECIES OR VARIETY	MINIMUM PURITY	% GERMINATION
20%	SR5250 CREEPING RED FESCUE	95%	80%
20%	SR5150 CHEWINGS FESCUE	95%	80%
20%	SHORELINE SLENDER CREEPING RED FESCUE	95%	85%
20%	QUATRO SHEEP FESCUE	95%	85%
20%	SR3210 BLUE FESCUE	95%	80%
100%			

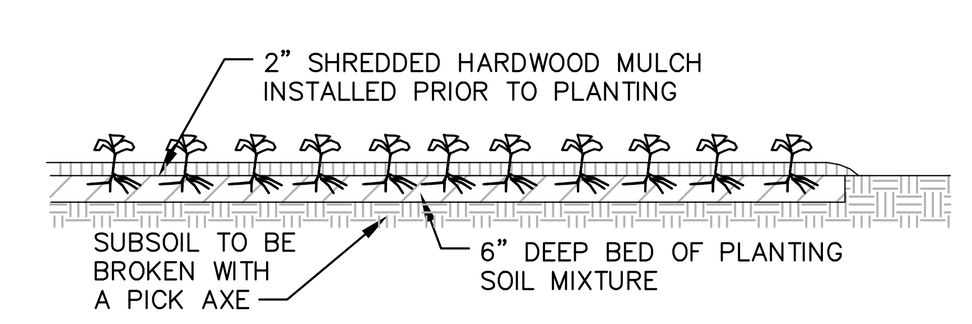
*STANDARD OF QUALITY: ECO–LAWN SEED MIX MANUFACTURED BY WILDFLOWER FARM COLDWATER, ON, CA OR APPROVED EQUAL

      ii TEMPORARY COVER SEED MIX

AMOUNT BY: WEIGHT	SPECIES OR VARIETY	MINIMUM PURITY	% GERMINATION
100%	ANNUAL RYEGRASS	98%	90%

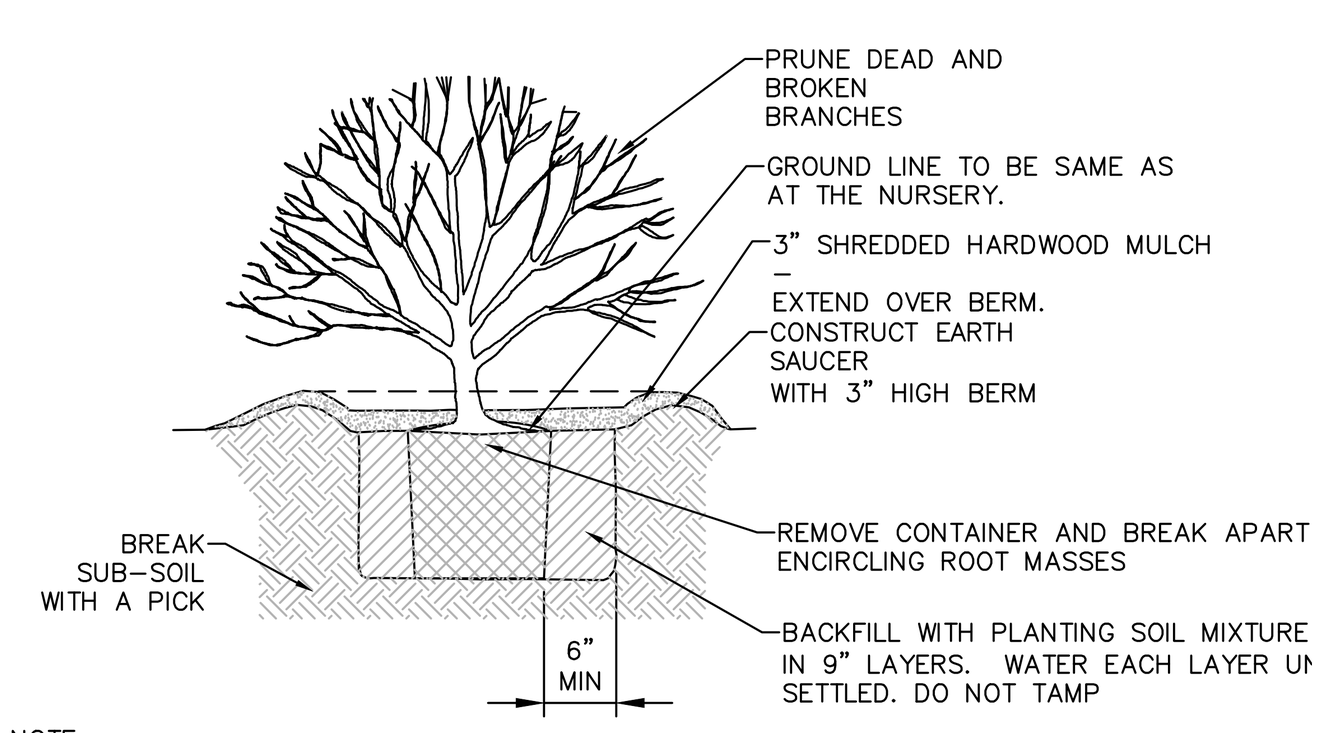
      III. BIORETENTION AREA SEED MIX: NATIVE DETENTION AREA MIX, ERN–MX–183 AS MANUFACTURED BY ERNST SEEDS, MEADVILLE, PA OR APPROVED EQUAL.
   C. LIME: NATURAL LIMESTONE CONTAINING AT LEAST 85% OF TOTAL CARBONATES, GROUND TO SUCH FINENESS THAT AT LEAST 90% PASSES A 10–MESH SIEVE AND AT LEAST 50% PASSES A 100–MESH SIEVE.
   D. FERTILIZER:
      i. FOR STARTER FERTILIZING: COMMERCIAL STARTER FERTILIZER, GRANULAR, NONBURNING PRODUCT CONTAINING 5% NITROGEN, 10% AVAILABLE PHOSPHOROUS, AND 5% WATER SOLUABLE POTASH (5–10–5).
      ii. FOR FINAL FERTILIZING: IF APPLIED IN SPRING SEASON, SHALL BE A SLOW RELEASE COMMERCIAL FERTILIZER, GRANULAR, WITH 3–1–2 NPK. IF APPLIED IN FALL SEASON, SHALL BE AS SPECIFIED IN (8.D.i) ABOVE.
   E. TREES, SHRUBS, GROUND COVERS, PERENNIALS, ANNUALS:
      i. PLANTING SOIL MIXTURE: SHALL BE PREMIXED IN BULK, AND CONTAIN THE FOLLOWING BY VOLUME:
      30 PARTS TOPSOIL
      10 PARTS PEAT
      1 PART BONE MEAL
      ii. PEAT: BROWN TO BLACK IN COLOR, WEED AND SEED FREE. DRIED SPHAGNUM PEAT, CONTAINING NOT MORE THAN 9% MINERAL ON A DRY BASIS AND CONFORMING TO NYSDOT 713–15.
      iii. BONE MEAL: FINELY GROUND, RAW, MINIMUM 4% NITROGEN AND 20% PHOSPHORIC ACID. IT SHALL BE DELIVERED IN SEALED BAGS SHOWING THE MANUFACTURER'S GUARANTEED ANALYSIS.
   F. STAKES: 8 FEET LONG, 3 INCH DIA. CEDAR OR P.T. WOOD STAKES.
   G. HOSE: NEW, 2–PLY GARDEN HOSE NOT LESS THAN 1/2 INCH IN DIAMETER.
   H. WEED CONTROL FABRIC: SOIL CHECK AS MANUFACTURED BY BRIGHTON BYPRODUCTS CO. INC, NEW BRIGHTON, PA; MIRASCAPE OR MIRAFI GEOSYNTHETIC PRODUCTS, NORCROSS, PA, OR APPROVED EQUIVALENT.
   I. MULCH:
      i. LAWN AREAS
      OAT OR WHEAT STRAW, FREE OF WEEDS. AN ALTERNATIVE IS WOOD FIBER CELLULOSE IF HYDROSEEDING IS USED.
      ii. PLANT BED AREAS
      GROUND OR SHREDDED HARDWOOD BARK, UNCOLORED. NO PIECES OVER 2 INCHES GREATEST DIMENSION. FREE FROM SAWDUST.

EXECUTION:
   A. LANDSCAPE WORK SHALL BE UNDERTAKEN AS SOON AS SITE AREAS ARE AVAILABLE.
   B. TOPSOIL SHALL BE SPREAD NO LESS THAN 4" OVER SUB–GRADE MATERIAL. SOIL AMENDMENTS SHALL BE THOROUGHLY MIXED INTO THE TOP 4" OF TOPSOIL, FOLLOWING THE SPECIFICATIONS STATED BELOW.
   C. PERFORM FINE GRADING TO FINISHED ELEVATION ONLY IMMEDIATELY PRIOR TO PLANTING. PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN SURFACE, FREE OF DEPRESSIONS OR RIDGES WITH A UNIFORM LOOSE, FINE TEXTURE.
   D. FERTILIZING:
      i. THE SOIL SHALL BE TESTED FOR PH AND LIME ADDED AS NECESSARY. ALL AMENDMENTS SHALL BE CHECKED AND APPROVED BY LANDSCAPE ARCHITECT BEFORE AMENDMENTS ARE MADE.
      ii. APPLY FERTILIZER AT RATE OF 4 LBS/1000 SF FOR LAWN AREAS.
   E. LAWN:
      i. LAWN SEED MIX: SEED AT THE RATE OF 6 TO 8 LBS PER 1,000 SF.
      ii. TEMPORARY COVER SEED MIX: SEED AT THE RATE OF 3 TO 4 LBS PER 1,000 SF.
      iii. TEMPORARY COVER SEED MIX TO BE APPLIED ONLY FOR LATE FALL OR SUMMER SOIL STABILIZATION OUTSIDE ALLOWED SEEDING PERIODS.



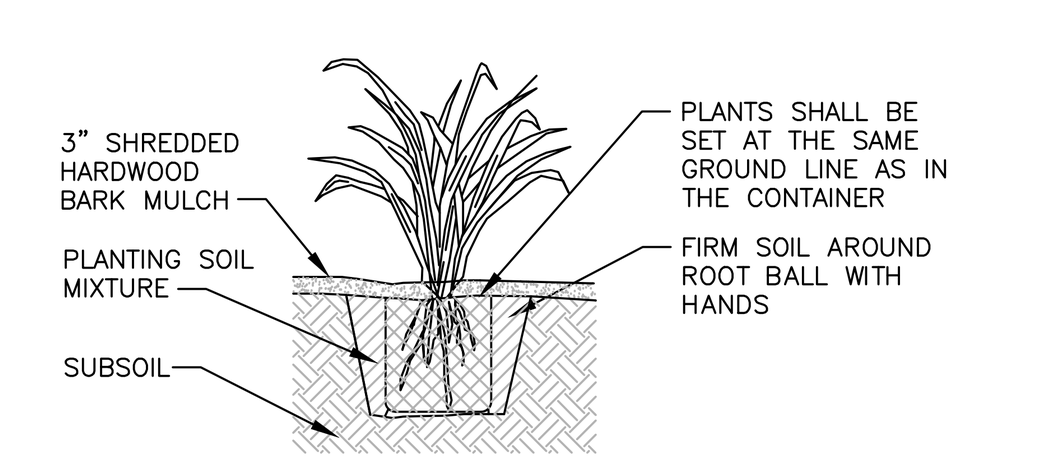
NOTE:
GROUND COVERS SHOULD BE POT OR CONTAINER GROWN.

© 4 **GROUND COVER/ ANNUAL PLUG PLANTING**
SCALE: NOT TO SCALE



NOTE:
SPRAY WITH ANTI DESICCANT IN ACCORDANCE WITH MFG.'S RECOMMENDATIONS IF FOLIAGE IS PRESENT.

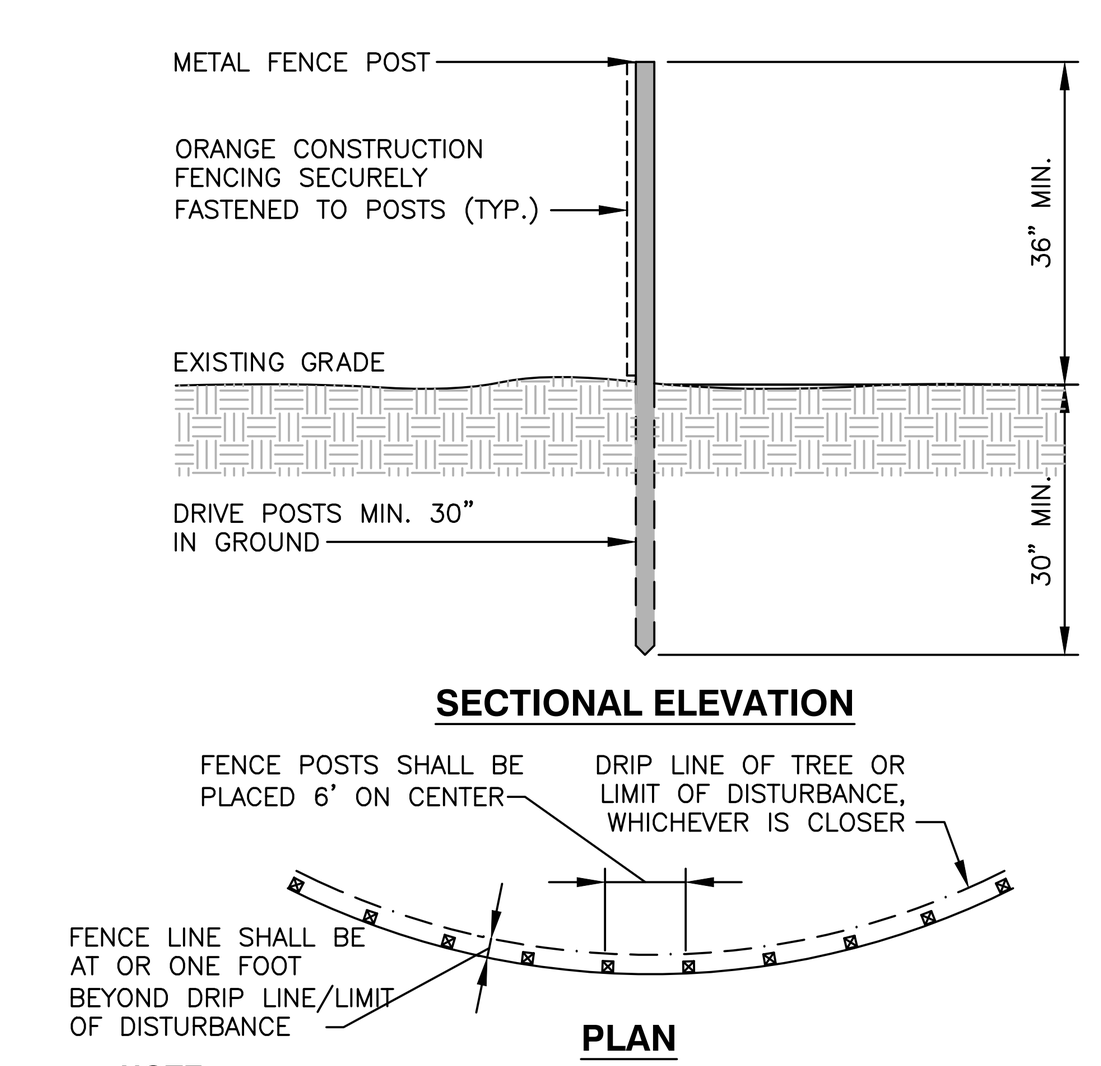
© 5 **SHRUB PLANTING DETAIL FOR CONTAINERIZED SHRUBS**
SCALE: NOT TO SCALE



SECTIONAL ELEVATION

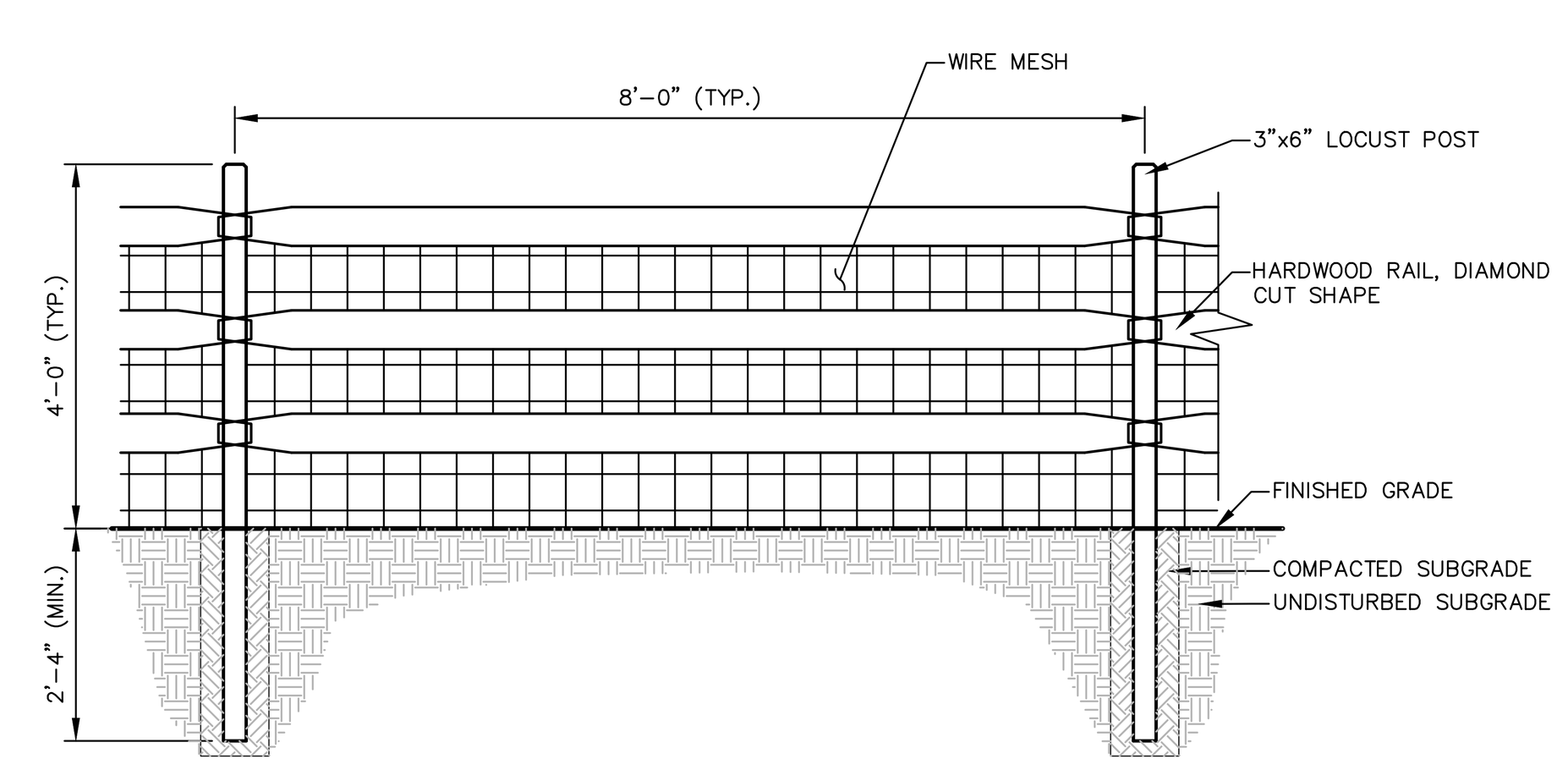
NOTES:
1. SPADED PLANTING SOIL MIX (4"–6" DEPTH), ADD FERTILIZER WHEN MIXING. DO NOT COMPACT AFTER PLANTING.
2. WATER THOROUGHLY AFTER PLANTING.
3. PROVIDE WELL DRAINING SUBSOIL WHEN SOIL IS HEAVY OR COMPACTED.
4. PLANTS SHALL BE REMOVED FROM ALL CONTAINERS WHEN PLANTED, UNLESS OTHERWISE STATED IN THE PLANT SCHEDULE.

© 6 **CONTAINERIZED PERENNIAL PLANTING DETAIL**
SCALE: NOT TO SCALE



NOTE:
SEE LANDSCAPING PLAN FOR ADDITIONAL TREE PROTECTION NOTES.

© 7 **TREE PROTECTION FENCING DETAIL**
SCALE: NOT TO SCALE



© 8 **SPLIT RAIL FENCE DETAIL**
SCALE: NOT TO SCALE

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LaBella
Powered by partnership.
21 Fox Street
Poughkeepsie, NY 12601
(845) 454-3980
labellapc.com

NOT FOR CONSTRUCTION
EXP: EXP:

CERTIFICATE OF AUTHORIZATION NUMBER:
PROFESSIONAL ENGINEERING: 0021272
LAND SURVEYING: 0021271
GEOLOGICAL: 0021659

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Chai Developers
147 Union Street
Poughkeepsie, New York 12601

248 Tioronda Avenue
248 Tioronda Avenue
Beacon, New York 12508

1	07/28/26	REVISED PER CITY COMMENTS
NO:	DATE:	DESCRIPTION:

Revisions

PROJECT NUMBER: 2260816
DRAWN BY: GMZ
REVIEWED BY: KGA
ISSUED FOR: ISSUED FOR PLANNING BOARD REVIEW
DATE: 06/30/26
DRAWING NAME:

LANDSCAPING DETAILS AND NOTES

DRAWING NUMBER:

C580

Amended Stormwater Pollution Prevention Plan
for
248 Tioronda Ave

248 Tioronda Ave
City of Beacon
Dutchess County, New York

Issued: December 2019
Last Revised: July 2026

Prepared for:
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120 Route 59, Suite 201
Suffern, NY 10901

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LaBella Project No. CZ81750.00

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PREPARER OF THE SWPPP

"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."

Name and Title[1]: Kyle Ahearn, PE – Senior Civil Engineer

Date: Issued: December 2019
Amended: July 2026

[1] This is a signature of a New York State licensed Professional Engineer employed by LaBella Associates that is duly authorized to sign and seal Stormwater Pollution Prevention Plans (SWPPPs), NOIs, and NOTs prepared under their direct supervision. Refer to Appendix H for the LaBella Certifying Professionals Letter.

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Appendix B: NYSDEC Forms

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- MS4 SWPPP Acceptance Form if applicable, form to be filled out
- Notice of Termination (NOT)

Appendix C: Contractor and Subcontractor Certification Forms

Appendix D: SWPPP Inspection Report (Sample Form)

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Appendix H: LaBella Certifying Professionals Letter

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Appendix J: Post-Development Stormwater Modeling

Appendix K: Soil Testing Results

Appendix L: Flood Insurance Study, Volume 1 of 4

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1.0 EXECUTIVE SUMMARY

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared for major activities associated with construction of 248 Tioronda Ave in the City of Beacon. This SWPPP includes the elements necessary to comply with the national baseline general permit for construction activities enacted by the U.S. Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System (NPDES) program and all local governing agency requirements. This SWPPP must be implemented at the start of construction.

This SWPPP has been developed in accordance with the "New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity" General Permit Number GP-0-20-001, effective January 29, 2015 through January 28, 2020. The SWPPP and accompanying plans identify and detail stormwater management, pollution prevention, and erosion and sediment control measures necessary during and following completion of construction.

This SWPPP and the accompanying plans entitled "248 Tioronda Ave" have been submitted as a set. These engineering drawings are considered an integral part of this SWPPP. Therefore, this SWPPP is not considered complete without them. References made herein to "the plans" or to a specific "sheet" refer to these drawings.

This report considers the impacts associated with the intended development with the purpose of:

1. Maintaining existing drainage patterns as much as possible while continuing the conveyance of upland watershed runoff;
2. Controlling increases in the rate of stormwater runoff resulting from the proposed development so as not to adversely alter downstream conditions; and
3. Mitigating potential stormwater quality impacts and preventing soil erosion and sedimentation resulting from stormwater runoff generated both during and after construction.

The analysis and design completed and documented in this report is intended to be part of the application made for a multifamily residential redevelopment project completed on behalf of the Owner/Operator.

1.1 Project Description

CHAI Builders is proposing a redevelopment with increase in impervious surface. A location map of the site has been provided in Appendix G, as Figure 1.

This type of project is included in Table 2 of Appendix B of GP-0-20-001; and the project site is not located in one of the watersheds listed in Appendix C of GP-0-20-001. Therefore, this SWPPP includes post-construction stormwater management practices, as well as erosion and sediment controls.

This project is located within the City of Beacon regulated, traditional land use control Municipal Separate Stormwater Sewer System (MS4). Therefore, an MS4 SWPPP Acceptance Form is required to accompany NOIs submitted to the NYSDEC.

Runoff from the project site will discharge to the Fishkill Creek, which is not included in the list of Section 303(d) water bodies included in Appendix E of GP-0-20-001.

Project construction activities will consist primarily of site grading, paving, building construction, and the installation of storm drainage necessary to support the proposed redevelopment. Construction phase pollutant sources anticipated at the site are disturbed (exposed) soil, vehicle fuels and lubricants, chemicals associated with building construction, and building materials. Without adequate control there is the potential for each type of pollutant to be transported by stormwater.

1.2 Stormwater Pollution Controls

The stormwater pollution controls outlined herein have been designed and evaluated in accordance with the following standards and guidelines:

- New York State Stormwater Management Design Manual, dated January 2015 (Design Manual).
- New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016 (SSESC).

Stormwater quality will be enhanced through the implementation of temporary and permanent erosion and sediment control measures, the proposed stormwater management facilities, and other construction-phase pollution controls outlined herein.

The proposed stormwater collection system consisting of pipes, open drainage ways, and on-site stormwater management facilities will adequately collect, treat, and convey the stormwater runoff.

An existing bioretention pond & hydrodynamic separator and proposed green roof & hydrodynamic separators will be used to manage and treat stormwater runoff generated by the proposed redevelopment.

Pre- and post-development surface runoff rates have been evaluated for the 1-, 10-, and 100-year 24-hour storm events. Comparison of pre- and post-development watershed conditions demonstrates that the peak rate of runoff from the project site will not be increased.

The post-construction stormwater management practice(s) will be privately owned by the Applicant Deed restrictions will be in place, which require operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

1.3 Conclusion

This project is subject to the requirements of the City of Beacon regulated MS4, and this SWPPP has been prepared in conformance with the current Design Manual and SSESC. As such, GP-0-20-001 coverage will be effective five (5) business days from the date the NYSDEC receives the electronically submitted eNOI and signed “MS4 SWPPP Acceptance” form, or ten (10) business days from the date the NYSDEC receives the complete paper NOI and signed “MS4 SWPPP Acceptance” form.

2.0 SWPPP IMPLEMENTATION RESPONSIBILITIES

A summary of the responsibilities and obligations of all parties involved with compliance with the NYSDEC SPDES General Permit GP-0-20-001 conditions is outlined in the subsequent sections. For a complete listing of the definitions, responsibilities, and obligations, refer to the SPDES General Permit GP-0-20-001 presented in Appendix A.

2.1 Definitions

1. "General SPDES Permit" means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 authorizing a category of discharges.

2. "Owner" or "Operator" means the person, persons, or legal entity which owns or leases the property on which the *construction activity* is occurring; and/or an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications. There may be occasions during the course of a project in which there are multiple Owners/Operators, all of which will need to file and maintain the appropriate SWPPP documents and plans, including without limitation, the Notice of Intent (NOI) and Notice of Termination (NOT).

3. "Owner's/Operator's Engineer" means the person or entity retained by an Owner/Operator to design and oversee the implementation of the SWPPP.

4. "Contractor" means the person or entity identified as such in the construction contract with the Owner/Operator. The term "Contractor" shall also include the Contractor's authorized representative, as well as any and all subcontractors retained by the Contractor.

5. "Qualified Inspector" means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual(s).

   It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that an individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

   It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

   Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

6. "Qualified Professional" means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect, or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

7. "Trained Contractor" means an employee from a contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *Trained Contractor* shall receive four (4) hours of training every three (3) years.

   It can also mean an employee from a contracting (construction) company, identified in Part III.A.6.,that meets the *Qualified Inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity.

   The "Trained Contractor(s)" will be responsible for the day to day implementation of the SWPPP.

2.2 Owner's/Operator's Responsibilities

1. Ensure that control measures are selected, designed, installed, implemented and maintained to minimize the discharge of pollutants and prevent a violation of the water quality standards, meeting the non-numeric effluent limitations in Part I.B.1.(a)-(f) of the SPDES General Permit and in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

2. Ensure that practices are selected, designed, installed, and maintained to meet the performance criteria in the Design Manual. Practices must be designed to meet the applicable sizing criteria in Part I.C.2.a., b., c. or d. of GP-0-20-001.

3. Retain the services of a "Qualified Inspector" or "Qualified Professional" as defined under Section 2.1, to provide the services outlined in Section 2.5 "Qualified Inspector's/Qualified Professional's Responsibilities."

4. Retain the services of a "Qualified Professional," as defined under Section 2.1, to provide the services outlined in Section 2.3 "Owner's/Operator's Engineers Responsibilities."

5. Have an authorized corporate officer sign the completed NOI. A copy of the completed NOI is included in Appendix B.

6. Submit the electronic version of the NOI (eNOI) along with the MS4 SWPPP acceptance form using the NYSDEC's website (http://www.dec.ny.gov/chemical/43133.html) or submit the signed NOI along with the MS4 SWPPP acceptance form to the following:

   NOTICE OF INTENT
   NYS DEC, Bureau of Water Permits
   625 Broadway, 4th Floor
   Albany, New York 12233-3505

   City of Beacon
   1 Municipal Plaza
   Beacon, NY 12508

7. Pay the required initial and annual fees upon receipt of invoices from NYSDEC. These invoices are generally issued in the fall of each year. The initial fee is calculated as $110.00 per acre disturbed plus $675.00 per acre of net increase in impervious cover, and the annual fee is $110.00.

8. Prior to the commencement of construction activity, identify the contractor(s) and subcontractor(s) that will be responsible for implementing the erosion and sediment control measures and stormwater management practices described in this SWPPP. Have each of these contractors and subcontractors identify at least one "Trained Contractor", as defined under Section 2.1 that will be responsible for the implementation of the SWPPP. Ensure that the Contractor has at least one "Trained Contractor" on site on a daily basis when soil disturbance activities are being performed.

9. Schedule a pre-construction meeting which shall include the City of Beacon representative, Owner's/Operator's Engineer, Contractor, and their sub-contractors to discuss responsibilities as they relate to the implementation of this SWPPP.

10. Retain the services of an independent certified materials testing and inspection firm operating under the direction of a licensed Professional Engineer to perform regular tests, inspections, and certifications of the construction materials used in the construction of all post-construction stormwater management practices.

11. Retain the services of a NYS licensed land surveyor to perform an as-built topographic survey of the completed post-construction stormwater management facilities.

12. Require the Contractor to fully implement the SWPPP prepared for the site by the Owner/Operator's Engineer to ensure that the provisions of the SWPPP are implemented from the commencement of construction activity until all areas of disturbance have achieved final stabilization and the Notice of Termination (NOT) has been submitted to the NYSDEC.

13. Forward a copy of the NOI Acknowledgement Letter received from the regulatory agency to the Owner's/Operator's Engineer for project records, and to the Contractor for display at the construction site.

14. Maintain a copy of the General Permit (GP-0-20-001), NOI, NOI Acknowledgement Letter, SWPPP, MS4 SWPPP Acceptance Form, inspection reports, Spill Prevention, Countermeasures, Cleanup ("SPCC") Plan, and all documentation in accordance with Part I.F.8.a.-d of GP-0-20-001 necessary to demonstrate eligibility with the permit at the construction site, until all disturbed areas have achieved final stabilization and the NOT has been submitted to the NYSDEC. Place documents in a secure location that must be accessible during normal business hours to an individual performing a compliance inspection.

15. Prior to submitting a Notice of Termination, ensure for post-construction stormwater management practice(s) that are privately owned, the Owner/Operator has a deed restriction in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

16. Submit a Notice of Termination (NOT) form (see Appendix B) within 48 hours of receipt of the Owner's/Operator's Engineer's certification of final site stabilization to the following:

    NOTICE OF TERMINATION
    NYS DEC, Bureau of Water Permits

625 Broadway, 4th Floor
Albany, New York 12233-3505

City of Beacon
1 Municipal Plaza
Beacon, NY 12508

17. Request and receive all SWPPP records from the Owner's/Operator's Engineer and archive those records for a minimum of five (5) years after the NOT is filed.

18. Implement the Post-Construction Inspections and Maintenance procedures outlined in Appendix F.

19. The NOI, SWPPP, and inspection reports required by GP-0-20-001 are public documents that the Owner/Operator must make available for review and copying by any person within five (5) business days of the Owner/Operator receiving a written request by any such person to review the NOI, SWPPP, or inspection reports. Copying of documents will be done at the requester's expense.

20. The Owner/Operator must keep the SWPPP current at all times. At a minimum, the Owner/Operator shall amend the SWPPP:
    a) Whenever the current provisions prove to be ineffective in minimizing pollutants in stormwater discharges from the project site;
    b) Whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and
    c) To address issues or deficiencies identified during an inspection by the "Qualified Inspector," the Department, or other Regulatory Authority.

2.3 Owner's/Operator's Engineer's Responsibilities

1. Prepare the SWPPP using good engineering practices, best management practices, and in compliance with all federal, state, and local regulatory requirements.

2. Prepare the Notice of Intent (NOI) form (see Appendix B), sign the "SWPPP Preparer Certification" section of the NOI, and forward to Owner/Operator for signature.

3. Provide copies of the SWPPP to the City of Beacon once all signatures and attachments are complete.

4. Enter Contractor's information in Section 2.5 "SWPPP Participants" once a Contractor is selected by the Owner/Operator.

5. Update the SWPPP each time there is a significant modification to the pollution prevention measures or a change of the principal Contractor working on the project who may disturb site soil.

2.4 Contractor's Responsibilities

1. Sign the SWPPP Contractor's Certification Form contained within Appendix C and forward to the Owner's/Operator's Engineer for inclusion in the Site Log Book.

2. Identify at least one Trained Contractor that will be responsible for implementation of this SWPPP. Ensure that at least one Trained Contractor is on site on a daily basis when soil disturbance activities are being performed. The Trained Contractor shall inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating conditions at all times. If deficiencies are identified, the contractor shall begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

3. Provide the names and addresses of all subcontractors working on the project site. Require all subcontractors who will be involved with construction activities that will result in soil disturbance to identify at least one Trained Contractor that will be on site on a daily basis when soil disturbance activities are being performed; and to sign a copy of the Subcontractor's Certification Form contained within Appendix C, then forward to the Owner's/Operator's Engineer for inclusion into the Site Log Book. This information must be retained as part of the Site Log Book.

4. Maintain a Spill Prevention and Response Plan in accordance with requirements outlined in Section 5.4 of this SWPPP. This plan shall be provided to the Owner's/Operator's Engineer for inclusion in the Site Log Book, prior to mobilization on-site.

5. Participate in a pre-construction meeting which shall include the City of Beacon representative, Owner/Operator, Owner's/Operator's Engineer, and all subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.

6. If Contractor plans on utilizing adjacent properties for material, waste, borrow, or equipment storage areas, or if Contractor plans to engage in industrial activity other than construction (such as operating asphalt and/or concrete plants) at the site, Contractor shall submit appropriate documentation to the Owner's/Operator's Engineer so that the SWPPP can be modified accordingly.

7. Implement site stabilization, erosion and sediment control measures, and other requirements of the SWPPP.

8. In accordance with the requirements in the most current version of the NYS Standards and Specifications for Erosion and Sediment Control, conduct inspections of erosion and sediment control measures installed at the site to ensure that they remain in effective operating condition at all times. Prepare and retain written documentation of inspections as well as of all repairs/maintenance activities performed. This information must be retained as part of the Site Log Book.

9. Begin implementing corrective actions within one (1) business day of receipt of notification by the Qualified Inspector/Qualified Professional that deficiencies exist with the erosion and sediment control measures employed at the site. Corrective actions shall be completed within a reasonable time frame.

10. Maintain a record of the date(s) and location(s) that soil restoration is performed in accordance with the accompanying plans and NYSDEC Division of Water's publication "Deep-Ripping and Decompaction," dated April 2008. A copy of this is publication is provided in Appendix E. The record that is to be maintained shall be a copy of the overall site grading plan delineating the area(s) and date(s) that the soil was restored.

11. Upon completion of all construction at the site, the contractor responsible for overall SWPPP Compliance shall sign the certification on their Contractor Certification Form indicating that: a.) all temporary erosion and sediment control measures have been removed from the site, b.) the on-site soils disturbed by construction activity have been restored in accordance with the SWPPP and the NYSDEC Division of Water's publication "Deep-Ripping and Decompaction," and c.) all permanent stormwater management practices required by the SWPPP have been installed in accordance with the contract documents.

2.5 Qualified Inspector's/Qualified Professional's Responsibilities

1. Participate in a pre-construction meeting with the City of Beacon representative, Owner/Operator, Contractor, and their subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.

2. Conduct an initial assessment of the site prior to the commencement of construction and certify in an inspection report that the appropriate erosion and sediment control measures described within this SWPPP have been adequately installed and implemented to ensure overall preparedness of the site.

3. Provide on-site inspections to determine compliance with the SWPPP. Site inspections shall occur at an interval of at least once every seven calendar days or, if at times, this project involves the disturbance of greater than five acres of soil at any one time, site inspections shall occur at an interval of at least twice every seven calendar days, with the inspections separated by a minimum of at least two full calendar days. A written inspection report shall be provided to the Owner/Operator and general contractor within one business day of the completion of the inspection, with any deficiencies identified. A sample inspection form is provided in Appendix D.

4. Prepare an inspection report subsequent to each and every inspection that shall include/address the items listed in Part IV.C.4.a-k of GP-0-20-001. Sign all inspection reports and maintain on site with the SWPPP.

5. Notify the owner/operator and appropriate contractor or subcontractor of any corrective actions that need to be taken.

6. Prepare a construction Site Log Book to be used as a record of all inspection reports generated throughout the duration of construction. Ensure that the construction Site Log Book is maintained and kept up-to-date throughout the duration of construction.

7. Review the Contractor's SWPPP records on a periodic basis to ensure compliance with the requirements for daily reports, soil restoration, inspections, and maintenance logs.

8. Based on the as-built survey and material testing certifications performed by others, perform evaluations of the completed stormwater management practices to determine whether they were constructed in accordance with this SWPPP.

9. Conduct a final site assessment and prepare a certification letter to the Owner/Operator indicating that, upon review of the material testing and inspection reports prepared by the firm retained by the Owner/Operator, review of the completed topographic survey, and evaluation of the completed stormwater management facilities, the stormwater management facilities have been constructed substantially in accordance with the contract documents and should function as designed.

10. Prepare the Notice of Termination (NOT). Sign the NOT Certifications VI (Final Stabilization) and VII (Post-construction Stormwater Management Practices), and forward the NOT to the Owner/Operator for signature on Certification VIII (Owner/Operator Certification).

11. Transfer the SWPPP documents, along with all NOI's, permit certificates, NOT's, construction Site Log Book, and written records required by the General Permit to the Owner/Operator for archiving.

2.6 SWPPP Participants

1. Owner's/Operator's Engineer:

Kyle Ahearn, PE – Senior Civil Engineer
LaBella Associates
21 Fox Street
Poughkeepsie, NY 12601
Phone: (845) 454-3980

2. Owner/Operator:

CHAI Builders
120 Route 59, Suite 201
Suffern, NY 10901
Phone: 917-6964402

3. Contractor:

Name and Title: Pete Coon

Company Name: AW Coon and Sons, Inc

Mailing Address: 412 NY-199

Red Hook, NY 12571

Phone: (845) 758-8727

3.0 SITE CHARACTERISTICS

3.1 Land Use and Topography

The project parcel is in the Fishkill Creek Development (FCD) zone. It was previously the site of a Tuck Tape manufacturing facility. The facility was shuttered in the 1990's and has remained vacant since that time. In the late 2000's, the crumbling warehouse buildings were razed. There has also been an environmental cleanup at the site, which was monitored and approved by the NYSDEC.

Site elevations range from approximately 40 feet above mean sea level (MSL) to 120 feet MSL. The project site is quite narrow, approximately 1900 feet in length from north to south and 100-300 feet in width from west to east. The western portion of the site runs along an MTA railroad easement along Tioronda Avenue and is moderately sloped, with typical slopes of approximately 20-30%. The eastern portion of the site runs along the Fishkill Creek and is extremely sloped, with slopes in the range of 20-80%. The central portion of the site is relatively flat, with average slopes of 10-15%.

3.2 Soils and Groundwater

The United States Department of Agriculture (USDA) Soil Conservation Service (SCS) Soil Survey for Dutchess County was reviewed and provided surficial soil conditions for the study area.

The soils within the overall watershed are of the Udorthents classification. They fall into hydrologic soil groups A and D. According to the Soil Survey of Dutchess County, Udorthents typically range from being very deep to shallow, somewhat excessively drained to moderately well drained. They are found in disturbed areas and typically associated with areas that were subject to previous earthwork operations.

In an effort to ascertain a better understanding of the hydrologic nature of the on-site soils, LaBella (formerly Chazen) observed deep tests at 11 locations at the site. We brought an excavator on site to investigate soil conditions and determine limiting factors such as groundwater, bedrock, and existing utilities. See Appendix K for the soil testing results. Our findings were consistent with the Soil Survey of Dutchess County. Layers consisted of fill material from the previous use on site, and a variety of clayey material.

Soil data as provided by the SCS is presented in Table 1.

Table 1: USDA Soil Data

Map Symbol & Description	Hydrologic Soil Group	Permeability (inches/hour)	Erosion Factor K	Depth to Water Table (feet)	Depth to Bedrock (inches)
Ud - Udorthents	A/D	0.06-20	0.37	>3.0	>60

Upon review of the soil data presented in Table 1, the project site does not contain soils with a soil slope phase of E or F.

The Soil Conservation Service defines the hydrologic soil groups as follows:

- Type A Soils: Soils having a high infiltration rate and low runoff potential when thoroughly wet. These soils consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a moderate rate of water transmission.

The soils map for the study area is presented in Appendix G, as Figure 2.

3.3 Watershed Designation

The project site is not located in a restricted watershed identified in Appendix C of GP-0-20-001.

3.4 Receiving Water Bodies

The nearest natural classified water body into which runoff from the project site will discharge is the Fishkill Creek.

The Fishkill Creek is classified by NYSDEC as a Class C water course, and is not included in the Section 303(d) list of impaired waters found in Appendix E of GP-0-20-001.

3.5 Aquifer Designation

The project site is not located over a US EPA designated Sole Source aquifer; nor is it located over a Primary or Principal aquifer listed in the NYSDEC Technical and Operational Guidance Series (TOGS) 2.1.3 (1980).

3.6 Wetlands

A search on the NYSDEC Environmental Resource Mapper on June 5, 2019, and a review of GIS data, determined that no state-regulated wetlands are located on or in the vicinity of the project site.

The Fishkill Creek is a federally-regulated stream. The Ordinary High Water Line shown on the project plans was marked on July 10, 2019 by LaBella (formerly Chazen) and was located on July 25, 2019 by LaBella (formerly Chazen).

3.7 Flood Plains

According to the National Flood Insurance Program Flood Insurance Rate Map (FIRM), City of Beacon, New York, Community Panel Number 36027C0576E, the project site lies within Flood Zone X, areas determined to be outside 500-year floodplain.

3.8 Listed, Endangered, or Threatened Species

A search was performed on the NYSDEC Environmental Resource Mapper on June 5, 2019, and determined that the project site does contain threatened or endangered species, or critical habitat. An endangered, threatened, and rare species assessment, as prepared by LaBella (formerly Chazen), indicates that the hardwood/floodplain forest habitat on site could potentially support two threatened or endangered species, the Indiana Bat and the Bald Eagle. The proposed

project will impact 0.6 acre of the upland hardwood forest habitat. The remaining 2.9 acres of upland riparian forest/floodplain wetlands on the site will be left undisturbed.

The NYSDEC New York Natural Heritage Program Letter dated July 24, 2013 indicated the presence of non-breeding bald eagle. By email dated August 8, 2013 from the NYSDEC, the Department indicated that the non-breeding occurrence is associated with wintering eagles and known roosting location, and that this roosting location is at the mouth of Fishkill Creek at the Hudson River at Denning's Point. This location is approximately 0.77 miles from the project site. According to the NYSDEC, there is no record of a breeding nest site within one mile of the project, but this should be reassessed annually until the project is constructed. The National Bald Eagle Management Guidelines would also recommend that the project minimize disruptive activities and development in the flight paths between nests, roost sites and important foraging areas; locate water dependent facilities away from foraging areas, avoid boating near foraging areas, and protect and preserve potential roost and nest sites by retaining, to the extent practicable, mature trees and old growth stands within 0.5 miles of the water. In this case, the project does not propose any marina or boating activities. The project will retain much of the wooded vegetation along Fishkill Creek. The activities proposed on the site are less disruptive than previous on-site activities associated with the Metro-North railroad. The project site will be reviewed annually for any nests until construction is completed. The US Fish and Wildlife Service did not have any concerns regarding possible use of the site by Bald Eagle. While the NYSDEC indicated that the closest occurrence of Indiana bat is more than 2.5 miles away, the USFWS requested that the project limit tree clearing to October 1 to March 31, minimize removal of large trees, use cut-off lighting, and not use pesticides or herbicides in any stormwater basins.

The stormwater discharges from the project site will not adversely impact listed, endangered or threatened species so long as the stormwater management practices have been constructed in accordance with this SWPPP.

An Environmental Resource Map has been provided in Appendix G, as Figure 4.

3.9 Historic Places

A search on the New York State Cultural Resource Information System (CRIS) database, performed on June 5, 2019, revealed that the property is not located within an archeologically sensitive area, and is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places. Additionally, the construction activity does not include the construction of a new building within 50 feet 20-feet for 1-5 acres disturbance; 50-feet for 5-20 acres disturbance; 100-feet for 20+ acres of disturbance of any structure more than 50 years old. A printout of the historic places screening map is presented in Appendix G, as Figure 3.

3.10 Rainfall Data

Rainfall data utilized in the modeling and analysis was obtained from the Cornell University online Extreme Precipitation in New York & New England website (http://precip.eas.cornell.edu/). Rainfall data specific to the portion of Dutchess County under consideration, for various 24-hour storm events, is presented in the following Table:

Table 2: Rainfall Data

Storm Event Return Period	24-Hour Rainfall (inches)
1-year	2.80
10-year	5.20
100-year	7.81

These values were used to evaluate the pre- and post-development stormwater runoff characteristics.

4.0 CONSTRUCTION SEQUENCE

This project has not received written approval from City of Beacon allowing the disturbance of more than five acres of land at any one time. Therefore, if the Contractor's construction sequence requires the disturbance of more than five acres at any one time, written approval must be obtained from NYSDEC prior to disturbing more than five acres at once.

Should the waiver request be denied, the contractor shall limit the area of disturbance to less than five acres of disturbance at any given time. The Contractor shall prepare and submit to the Owner's/Operator's Engineer a sequencing plan that identifies the progression of construction through the site. This sequencing plan must be retained as part of the Site Log Book.

The "Erosion and Sediment Control Plan" and the "Erosion and Sediment Control Plan Prior to Construction" in the accompanying drawings and waiver request identifies the major construction activities that are the subject of this SWPPP. The order (or sequence) in which the major activities are expected to begin is presented on the accompanying drawings, though each activity will not necessarily be completed before the next begins. In addition, these activities could occur in a different order if necessary to maintain adequate erosion and sediment control. If this is the case, the contractor shall notify the Owner's/Operator's Engineer overseeing the implementation of the SWPPP.

The Contractor will be responsible for implementing the erosion and sediment control measures identified on the plans. The Contractor may designate these tasks to certain subcontractors as they see fit, but the ultimate responsibility for implementing these controls and ensuring their proper function remains with the Contractor.

Refer to the accompanying plans for details and specifications regarding the construction sequencing schedule.

5.0 CONSTRUCTION-PHASE POLLUTION CONTROL

The SWPPP and accompanying plans identify the temporary and permanent erosion and sediment control measures that have been incorporated into the design of this project. These measures will be implemented during construction, to minimize soil erosion and control sediment transport off-site, and after construction, to control the quality and quantity of stormwater runoff from the developed site.

Erosion control measures, designed to minimize soil loss, and sediment control measures, intended to retain eroded soil and prevent it from reaching water bodies or adjoining properties, have been developed in accordance with the following documents:

- NYSDEC SPDES General Permit for Stormwater Discharges From Construction Activity, Permit No. GP-0-20-001 (effective January 29, 2015 through January 28, 2020)
- New York State Standards and Specifications for Erosion and Sediment Control, NYSDEC (November 2016)

The SWPPP and accompanying plans outline the construction scheduling for implementing the erosion and sediment control measures. These documents include limitations on the duration of soil exposure, criteria and specifications for placement and installation of the erosion and sediment control measures, a maintenance schedule, and specifications for the implementation of erosion and sediment control practices and procedures.

Temporary and permanent erosion and sediment control measures that shall be applied during construction generally include:

1. Minimizing soil erosion and sedimentation by stabilization of disturbed areas and by removing sediment from construction site discharges.
2. Preservation of existing vegetation to the greatest extent practical. Following the completion of construction activities in any portion of the site, permanent vegetation shall be established on all exposed soils.
3. Site preparation activities to minimize the area and duration of soil disruption.
4. Establishment of permanent traffic corridors to ensure that “routes of convenience” are avoided.

5.1 Temporary Erosion and Sediment Control Measures

The temporary erosion and sediment control measures described in the following sections are included as part of the construction documents.

5.1.1 Stabilized Construction Access

Prior to construction, stabilized construction access(es) will be installed, per accompanying plans, to reduce the tracking of sediment onto public roadways.

Construction traffic must enter and exit the site at the stabilized construction access(es). The intent is to trap dust and mud that would otherwise be carried off-site by construction traffic.

The access(es) shall be maintained in a condition, which will control tracking of sediment onto public rights-of-way or streets. When necessary, additional aggregate will be placed atop the filter fabric to assure the minimum thickness is maintained. All sediment and/or soil spilled, dropped, or washed onto public rights-of-way must be removed immediately. Periodic inspection and needed maintenance shall be provided after each substantial rainfall event.

5.1.2 Dust Control

Water trucks shall be used as needed during construction to reduce dust generated on-site. Dust control must be provided by the Contractor(s) to a degree that is acceptable to the Owner, and in compliance with the applicable local and state dust control requirements.

5.1.3 Temporary Soil Stockpile

Materials, such as topsoil, will be temporarily stockpiled (if necessary) on the site during the construction process. Stockpiles shall be located in an area away from storm drainage, water bodies and/or courses, and will be properly protected from erosion by a surrounding silt fence barrier.

5.1.4 Silt Fencing

Prior to the initiation of and during construction activities, a geotextile filter fabric (or silt fence) will be established downgradient of all disturbed areas. These barriers may extend into non-impact areas to provide adequate protection of adjacent lands.

Clearing and grubbing will be performed only as necessary for the installation of the sediment control barrier. To facilitate effectiveness of the silt fencing, daily inspections and inspections immediately after significant storm events will be performed by the Contractor(s). Maintenance of the fence will be performed as needed.

5.1.5 Temporary Seeding

For areas undergoing clearing, grading, and disturbance as part of construction activities, where work has temporarily ceased, temporary soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the soil disturbance activity has temporarily ceased.

5.1.6 Stone and Block Drop Inlet Protection

Concrete blocks surrounded by wire mesh and crushed stone will be placed around both existing catch basins, and proposed catch basins once they have been installed, to prevent sediment from entering the catch basins and storm sewer system. During construction, crushed stone shall be replaced as necessary to ensure proper function.

5.1.7 Erosion Control Blanket

Erosion control blankets shall be installed in accordance with manufacturer's requirements on all slopes exceeding 3:1. Erosion control blankets provide temporary erosion protection, rapid vegetative establishment, and long-term erosion resistance to shear stresses generated by high runoff flow velocities associated with steep slopes.

5.1.8 Stone Check Dams

Stone check dams will be installed within drainage ditches to reduce the velocity of stormwater runoff, promote settling of sediment, and reduce sediment transport off-site.

Sediment accumulated behind the stone check dam will be removed as needed to maintain flow through the stone check dam and prevent large flows from carrying sediment over or around the dam. Stones shall be replaced as needed to maintain the design cross section of the structures.

5.1.9 Temporary Diversion Swales

Temporary diversion swales shall be used to divert off-site runoff around the construction site and divert runoff from stabilized areas around disturbed areas.

5.1.10 Dewatering Operations

Dewatering will be used to intercept sediment-laden stormwater or pumped groundwater and allow it to settle out of the pumped discharge prior to being discharged from the site. Water from dewatering operations shall be treated to eliminate the discharge of sediment and other pollutants. Water resulting from dewatering operations shall be directed to temporary sediment traps or dewatering devices. Temporary sediment traps and dewatering bags will be provided, installed, and maintained at downgradient locations to control sediment deposits to downstream surfaces.

5.2 Permanent Erosion and Sediment Control Measures

The permanent erosion and sediment control measures described in the following sections are included as part of the construction documents.

5.2.1 Establishment of Permanent Vegetation

Disturbed areas that will be vegetated must be seeded in accordance with the contract documents. The type of seed, mulch, and maintenance measures as described in the contract documents shall also be followed.

Permanent soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the soil disturbance activity has permanently ceased.

Final site stabilization is achieved when all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of 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.

5.2.2 Rock Outlet Protection

Rock outlet protection shall be installed at the locations as indicated and detailed on the accompanying plans. The installation of rock outlet protection will reduce the velocity and energy of water, such that the flow will not erode downstream surfaces.

5.2.3 Permanent Turf Reinforcement

Permanent turf reinforcement mats (TRMs) provide long-term erosion protection and vegetation establishment assistance while permanently reinforcing vegetation. TRMs shall be installed on slopes/channels where specified. TRM's provide two key advantages. First, their unique fiber shape and 3-D pattern create a thick matrix of voids that trap seed, soil, and water in place for quicker, thicker vegetation growth. Secondly, they provide additional reinforcement that doubles the vegetation's natural erosion protection abilities by remaining a permanent part of the application and anchoring mature plants to the soil for superior, long-term erosion resistance.

5.3 Other Pollutant Controls

Other necessary pollutant controls are listed below:

5.3.1 Solid and Liquid Waste Disposal

No solid or liquid waste materials, including building materials, shall be discharged from the site with stormwater. All solid waste, including disposable materials incidental to any construction activities, must be collected and placed in containers. The containers shall be emptied periodically by a licensed trash disposal service and hauled away from the site.

Substances that have the potential for polluting surface and/or groundwater must be controlled by whatever means necessary in order to ensure that they do not discharge from the site. As an example, special care must be exercised during equipment fueling and servicing operations. If a spill occurs, it must be contained and disposed of so that it will not flow from the site or enter groundwater, even if this requires removal, treatment, and disposal of soil. In this regard, potentially polluting substances should be handled in a manner consistent with the impact they represent.

5.3.2 Sanitary Facilities

Temporary sanitary facilities will be provided by the Contractor throughout the construction phase. They must be utilized by all construction personnel and will be serviced by a licensed commercial Contractor. These facilities must comply with state and local sanitary or septic system regulations.

5.3.3 Water Source

Non-stormwater components of site discharge must be clean water. Water used for construction, which discharges from the site, must originate from a public water supply or private well approved by the Health Department. Water used for construction that does not originate from an approved public supply must not discharge from the site; such water can be retained in temporary ponds/sediment traps until it infiltrates and/or evaporates.

5.4 Construction Housekeeping Practices

During the construction phase, the Contractor(s) will implement the following measures:

5.4.1 Material Stockpiles

Material resulting from clearing and grubbing operations that will be stockpiled on-site, must be adequately protected with downgradient erosion and sediment controls.

5.4.2 Equipment Cleaning and Maintenance

The Contractor(s) will designate areas for equipment cleaning, maintenance, and repair. The Contractor(s) and subcontractor(s) will utilize those areas. The areas will be protected by a temporary perimeter berm.

5.4.3 Detergents

The use of detergents for large-scale washing is prohibited (i.e., vehicles, buildings, pavement surfaces, etc.)

5.4.4 Spill Prevention and Response

A Spill Prevention and Response Plan shall be developed for the site by the Contractor(s). The plan shall detail the steps required in the event of an accidental spill and shall identify contact names and phone numbers of people and agencies that must be notified.

The plan shall include Safety Data Sheets (SDS) for all materials to be stored on-site. All workers on-site will be required to be trained on safe handling and spill prevention procedures for all materials used during construction. Regular tailgate safety meetings shall be held and all workers that are expected on the site during the week shall be required to attend.

5.4.5 Concrete Wash Areas

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in specifically designated diked and impervious washout areas, which have been prepared to prevent contact between the concrete wash and stormwater. Waste generated from concrete wash water shall not be allowed to flow into drainage ways, inlets, receiving waters, or highway right of ways, or any location other than the designated concrete wash areas. Proper signage designating the "Concrete Wash Areas" shall be placed near the facility. Concrete wash areas shall be located at minimum 100 linear feet from drainage ways, inlets, and surface waters.

The hardened residue from the concrete wash areas will be disposed of in the same manner as other non-hazardous construction waste materials. Maintenance of the wash area is to include removal of hardened concrete. Facility shall have sufficient volume to contain all the concrete waste resulting from washout and a minimum freeboard of 12 inches. Facility shall not be filled beyond 95% capacity and shall be cleaned out once 75% full unless a new facility is constructed. The Contractor will be responsible for seeing that these procedures are followed.

Sawcut Portland Cement Concrete (PCC) slurry shall not be allowed to enter drainage ways, inlets, and/or surface waters. Sawcut residue should not be left on the surface of pavement or be allowed to flow over and off pavement.

The Project may require the use of multiple concrete wash areas. All concrete wash areas will be located in an area where the likelihood of the area contributing to stormwater discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to stormwater discharges.

5.4.6 Material Storage

Construction materials shall be stored in a dedicated staging area. The staging area shall be located in an area that prevents negative impacts of construction materials on stormwater quality.

Chemicals, paints, solvents, fertilizers, and other toxic material must be stored in waterproof containers. Except during application, the contents must be kept in trucks or within storage facilities. Runoff containing such material must be collected, removed from the site, treated, and disposed of at an approved solid waste or chemical disposal facility.

6.0 STORMWATER MANAGEMENT PLANNING

Chapter 3 of the Design Manual outlines a six-step planning process for site planning and selection of stormwater management practices that must be implemented for both new development and redevelopment projects. This process is intended to develop a design that maintains pre-construction hydrologic conditions through the application of environmentally sound development principles, as well as treatment and control of runoff discharges from the site. The following sections outline the step-by-step process and how it has been applied to this project.

The goals of this Stormwater Management Plan are to analyze the peak rate of runoff under pre- and post-development conditions, to maintain the pre-development rate of runoff in order to minimize impacts to adjacent or downstream properties, and to minimize the impact to the quality of runoff exiting the site.

The Design Manual provides both water quality and water quantity objectives to be met by projects requiring a "Full SWPPP". These objectives will be met by applying stormwater control practices to limit peak runoff rates and improve the quality of runoff leaving the developed site.

6.1 STEP 1 – Site Planning

During the Site Planning process, the project site is evaluated for implementation of the green infrastructure planning measures identified in Table 3.1 of the Design Manual, in order to preserve natural resources and reduce impervious cover. Table A of Appendix K provides a description of each green infrastructure planning measure, along with a project specific evaluation.

6.2 STEP 2 - Determine Water Quality Treatment Volume (WQv)

Stormwater runoff from impervious surfaces is recognized as a significant contributor of pollution that can adversely affect the quality of receiving water bodies. Therefore, treatment of stormwater runoff is important since most runoff related water quality contaminants are transported from land, particularly the impervious surfaces, during the initial stages of storm events.

6.2.1 NYSDEC Requirements for New Development

The Design Manual requires that water quality treatment be provided for the initial flush of runoff from every storm. The NYSDEC refers to the amount of runoff to be treated as the "Water Quality Volume" (WQv). Section 4.2 of the Design Manual defines the Water Quality Volume as follows:

$$WQv = \frac{[(P)(R_v)(A)]}{12}$$

Where: P = 90% Rainfall Event Number
R_v = 0.05 + 0.009 (I), minimum R_v = 0.2
I = Impervious Cover (Percent)
A = Contributing Area in Acres

This definition ensures that, all other things being equal, the Water Quality Volume will increase along with the impervious cover percentage. This project will implement existing bioretention areas and hydrodynamic separator and proposed green roof and hydrodynamic separators to meet the water quality volume associated with new development.

6.2.2 NYSDEC Requirements for Redevelopment Projects

Chapter 9 of the Design Manual outlines alternative WQv treatment objectives for redevelopment projects.

According to Section 9.2.1.B.II., redevelopment activities can achieve the water quality treatment objective if 75% of the water quality volume associated with the disturbed, impervious area is captured and treated by alternate stormwater management practices. In this case, 100% of any new impervious area must be treated. This project will implement hydrodynamic separators to meet the water quality objective associated with redevelopment.

The Water Quality Volume equation has been applied to the drainage area tributary to each of the stormwater quality practices proposed for this project. The practices have been sized to accommodate the Water Quality Volume, as per the performance criteria presented in Chapter 6 and/or Chapter 9 of the Design Manual. Water quality volume calculations for each of the proposed practices are presented in Table B of Appendix K.

6.3 STEP 3 – Apply Runoff Reduction Techniques and Standard SMPs with RRv Capacity to Reduce Total WQv

Land use change and development in the watershed increases the volume of runoff. As such, reductions in the amount of runoff from new development, accomplished through the implementation of a stormwater management plan for the site, will play an important role in the success or failure of the watershed-wide stormwater management plan. Runoff reduction techniques can be applied to manage, reduce, and treat stormwater, while maintaining and restoring natural hydrology through infiltration, evapo-transpiration, and the capture and reuse of stormwater. Volume reduction techniques by themselves typically are not sufficient to provide adequate attenuation of stormwater runoff, but they can decrease the size of the peak runoff rate reduction facilities.

6.3.1 NYSDEC Requirements for New Development

The Design Manual states that runoff reduction shall be achieved through infiltration, groundwater recharge, reuse, recycle, and/or evaporation/evapotranspiration of 100-percent of the post-development water quality volume to replicate pre-development hydrology. Runoff control techniques provide treatment in a distributed manner before runoff reaches the collection system, by maintaining pre-construction infiltration, peak runoff flow, discharge volume, as well as minimizing concentrated flow. This can be accomplished by applying a combination of Runoff Reduction Techniques, standard Stormwater Management Practices (SMPs) with RRv capacity, and good operation and maintenance.

6.3.2 NYSDEC Requirements for Redevelopment Projects

Section 3.2 of the Design Manual indicates, "Although encouraged, meeting the RRv criteria is not required for redevelopment activities that meet the criteria in Chapter 9 of this manual." This project involves the reconstruction of existing impervious area on a site that has adequate space for controlling stormwater runoff from the reconstructed area.

Although not required, bioretention ponds are proposed for this project and will provide both WQv and RRv at the site.

6.3.3 Methodology

In order to reduce the required WQv, a site-specific evaluation must be performed to determine the most practical means of reducing runoff volume. The Design Manual strongly encourages implementation of a combination of RR techniques and standard SMPs with RRv capacity. The following Table demonstrates a summary of the RRv practices being applied, and both the water quality and runoff reduction volumes they provide. The RR Technique(s) have been designed in accordance with Chapter 5 of the Design Manual. The standard SMP(s) with RRv capacity have been designed in accordance with Chapter 6 of the Design Manual. Refer to the contract drawings for practice dimensions, material specifications, and installation details. Practice specific calculations are presented in Table E of Appendix K.

Table 3: Summary of RR Techniques and Standard SMPs with RRv Capacity

RR Technique or Standard SMP with RRv Capacity	NYSDEC Design Variant	Pretreatment Volume Required (% of WQv)	Pretreatment Volume Provided (% of WQV)	WQv Required (CF)	WQv Provided (CF)	RRv Capacity	RRv Provided (CF)
Existing Bioretention (with underdrain) New Development	F-5	25	100	2,522	2,591	40%	1,036
Green Roof (Ext.)	RR-10	N/A	N/A	1,108	1,108	100%	1,108
						Total WQv Provided (CF)	**3,699**
						Total RRv Provided (CF)	**2,144**

6.3.4 Application of Standard Stormwater Management Practices (SMPs) with RRv Capacity

The standard SMPs with RRv capacity, described in the following section, have been incorporated into the stormwater management plan for this project. Design calculations for each measure have been included in Table E of Appendix K.

6.3.4.1 Bioretention (F-5)

Bioretention filters are shallow landscaped depressions commonly located in parking lot islands or within small pockets in residential areas that receive stormwater runoff. Stormwater flows into the bioretention area, ponds on the surface, and is gradually infiltrated into the soil bed. Pollutants are removed by a number of processes, such as adsorption, filtration, volatilization, ion exchange, and decomposition. Filtered runoff can either be allowed to infiltrate into the surrounding soil, functioning as an infiltration basin or rainwater garden or collected by an under drain system and discharged to the storm sewer system or directly to receiving waters, functioning like a surface sand filter. Runoff from larger storms is generally diverted past the bioretention area to the stormwater collection and conveyance system.

The Bioretention filters (F-5) were designed according to the criteria set forth in Section 6.4 “Stormwater Filtering Systems” of the Design Manual.

6.3.5 RRv Performance Summary

According to Section 3.6 of the Design Manual, "If the RRv calculated in this step is greater than or equal to the WQv calculated in Step 2, the designer has met the RRv requirement and may proceed to Step 6." A summary of the RRv provided is presented in the following table:

Table 4: Summary of RRv Provided

100% RRv = New Development WQv Required (CF)	RRv Provided (CF)	% RRv Provided
3,363	2,144	63%

As indicated in the above table, the RRv provided is not greater than or equal to the full RRv required for the project site. A good faith effort has been made to reduce runoff to the greatest extent practical. However, the project site has been developed previously and has urban fill throughout, limiting the ability to provide infiltration practices that meet the requirements of the Design Manual, which prevents reduction of the total WQv. As such, Table D of Appendix K provides a project specific evaluation for each RR technique and standard SMP with RRv capacity, demonstrating why these practices are infeasible.

6.4 STEP 4 – Determine the Minimum RRv Required

Projects that cannot achieve 100% of the runoff reduction requirement due to site limitations, shall provide a minimum runoff reduction volume as calculated by the following equation:

$$RRv_{min} = \frac{[(P)(R_V*)(Aic)(S)]}{12}$$

Where:

RRv_{min} = Runoff Reduction Volume (in acre-feet)
P = 90% Rainfall Event Number
Aic = Total area of new impervious cover (acres)
Rv* = 0.05+0.009(I), where I is 100% impervious
S = Hydrologic Soil Group (HSG) Specific Reduction Factor where:
HSG A = 0.55 HSG C = 0.30
HSG B = 0.40 HSG D = 0.20

Based upon the soil survey data, the majority of the site consists of soils having a hydrologic soil type A. As such, a specific reduction factor of 0.55 has been applied. Calculation of the required minimum RRv is presented in Table C of Appendix K.

Table 5: Minimum RRv Summary

Minimum RRv Required (CF)	RRv Provided (CF)	% of Minimum RRv Provided
908	2,144	>100%

Note: %Min RRv Provided=RRv Provided ÷ Min RRv Required

As indicated in the above table, the RRv provided is greater than the minimum RRv required for the project site. Therefore, the runoff reduction volume criteria has been met for the project and the design can proceed to Step 5.

6.5 STEP 5 – Apply Standard Stormwater Management Practices to Address Remaining Water Quality Volume

If the entire Water Quality Volume is not reduced through implementation of RR techniques and standard SMPs with RRv capacity, then the design must achieve the remaining WQv through the standard SMPs listed in Table 3.3 of the Design Manual.

Table 6: Summary of WQv Provided

Step 2 WQv Required (CF)	Step 3 WQv Reduction by RR Techniques & Standard SMPs w/ RRv Capacity (CF)	Step 5 Reduced WQv to be Treated by Standard SMPs (CF) on Alternative SMP's for Redevelopment
11,821	3,699	8,122

WQv associated with redevelopment based upon the results listed in Tables 5, 100% of the required RRv and WQv have not been met through implementation of RR techniques and standard SMPs with RRv capacity. As such, the stormwater quality control systems (without RRv capacity) described in the following sections, have been incorporated into the stormwater management plan for this project, to meet the WQv objective.

6.5.1 Hydrodynamic Separators

Hydrodynamic separators accelerate the separation of floating and settling pollutants from stormwater through the use of a vortex. These pre-fabricated devices come in the form of an underground manhole or vault. The devices have no moving parts and are typically fabricated from concrete and marine grade aluminum.

During operation, stormwater runoff enters the unit tangentially to promote a gentle swirling motion in a treatment chamber. As stormwater circles within the chamber, settable solids fall into a sump and are retained. Buoyant debris, oil, and grease rise to the surface and are separated from the water as it flows under a baffle wall. Finally, treated water exits the treatment chamber through a flow control orifice located behind the baffle wall.

During low-flow conditions all runoff is diverted into the treatment chamber by a flow partition. At higher flow rates, a portion of the runoff spills over the flow partition and is diverted around the treatment chamber to prevent re-suspension and washout of previously trapped pollutants. Water that spills over the partition flows into a head equalization chamber above the treatment chamber outlet. As the head equalization chamber fills, the head differential driving flow through the treatment chamber collapses. The result is that flow rates in the treatment chamber remain relatively constant even as total flow rates increase substantially. This configuration further reduces the potential for re-suspension or washout.

According to Chapter 9 of the Design Manual, hydrodynamic separators of the type proposed for this project have been approved for use as a pretreatment system in new and redevelopment projects or as a primary treatment system on redevelopment projects.

STEP 6 - Table 7: Summary of WQ Practices

SWM Practice ID	NYSDEC Design Variant	Required WQv (CF)	WQv Provided (CF)
Hydrodynamic Separator 1	ALT	5,244	5,244
Hydrodynamic Separator 2	ALT	3,984	3,984
Existing Hydrodynamic Separator 5	ALT	3,159	3,159
Total Treatment from Hydrodynamic Separators			**12,387**

6.6 Apply Volume and Peak Rate Control

This report presents the pre-development and post-development features and conditions associated with the rate of surface water runoff within the study area. For both cases, the drainage patterns, drainage structures, soil types, and ground cover types are considered in this study.

6.6.1 NYSDEC Requirements for New Development

Chapter 4 of the Design Manual requires that projects meet three separate stormwater quantity criteria:

1. The Channel Protection (CPv) requirement is designed to protect stream channels from erosion. This is accomplished by providing 24 hours of extended detention for the 1-year, 24-hour storm event. The Manual defines the CPv detention time as the center of mass detention time through each stormwater management practice.

2. The Overbank Flood Control (Qp) requirement is designed to prevent an increase in the frequency and magnitude of flow events that exceed the bank-full capacity of a channel, and therefore must spill over into the floodplain. This is accomplished by providing detention storage to ensure that, at each design point, the post-development 10-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.

3. The Extreme Flood Control (Qf) requirement is designed to prevent the increased risk of flood damage from large storm events, to maintain the boundaries of the pre-development 100-year floodplain, and to protect the physical integrity of stormwater management practices. This is accomplished by providing detention storage to ensure that, at each design point, the post-development 100-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.

Downstream analysis has been prepared for the project. Therefore, as described in Chapter 4 of the Design Manual, the stormwater quantity criteria described above do not apply to this project. However, a hydrologic and hydraulic analysis of the post-development project site has been performed in order to evaluate the performance of the proposed stormwater collection system.

6.6.2 Methodology

In order to demonstrate that the NYSDEC detention requirements are being met, the Design Manual requires that a hydrologic and hydraulic analysis of the pre- and post-development conditions be performed using the Natural Resources Conservation Service Technical Release 20 (TR-20) and Technical Release 55 (TR-55) methodologies. HydroCAD, developed by HydroCAD Software Solutions

LLC of Tamworth, New Hampshire, is a Computer-Aided-Design (CAD) program for analyzing the hydrologic and hydraulic characteristics of a given watershed and associated stormwater management facilities. HydroCAD uses the TR-20 algorithms and TR-55 methods to create and route runoff hydrographs.

HydroCAD has the capability of computing hydrographs (which represent discharge rates characteristic of specified watershed conditions, precipitation, and geologic factors) combining hydrographs and routing flows though pipes, streams and ponds. HydroCAD can also calculate the center of mass detention time for various hydraulic features. Documentation for HydroCAD can be found on their website: http://www.hydrocad.net/.

For this analysis, the watershed and drainage system was broken down into a network consisting of two types of components as described below:

1. Subcatchment: A relatively homogeneous area of land, which produces a volume and rate of runoff unique to that area.
2. Pond: Natural or man-made impoundment, which temporarily stores stormwater runoff and empties in a manner determined by its geometry and the hydraulic structure located at its outlets.

Subcatchments and ponds are represented by hexagons and squares, respectively, on the watershed routing diagrams provided with the computations included in Appendix I and Appendix J.

The analysis of hydrologic and hydraulic conditions and proposed stormwater management facilities, servicing the study area, was performed by dividing the tributary watershed into relatively homogeneous subcatchments. The separation of the watershed into subcatchments was dictated by watershed conditions, methods of collection, conveyance, and points of discharge. Watershed characteristics for each subcatchment were then assessed from United States Geological Service (USGS) 7.5-minute topographic maps, aerial photographs, a topographical survey, soil surveys, site investigations, and land use maps.

Proposed stormwater management facilities were designed and evaluated in accordance with the Design Manual and local regulatory requirements. The hydrologic and hydraulic analysis considered the SCS, Type III 24-hour storm events identified in Table 8.

Table 8: Design Events

Facility	24-hour Storm Event
Storm Sewer	10-year
Detention Basin (pond)	1-year
	10-year
	100-year
Flood Conditions	100-year

6.6.3 Description of Design Points

The study area consists of an overall watershed that encompasses approximately 11.9 acres and contains the 5.93 acre project site. The overall watershed was broken down into smaller watersheds, or subcatchments, to allow for analysis of runoff conditions at several locations throughout the study area. Each of these locations was defined as a Design Point (DP) in order to compare the effects resulting

from stormwater management facilities proposed as part of the project. Descriptions of each of the selected design points are provided below.

- Design Point 1: Off-site discharge to the Fishkill Creek downstream. Runoff enters the Fishkill Creek on the West side of the Creek and flows down to the Design Point.

6.6.4 Pre-development Watershed Conditions

The pre-development project site is covered predominantly by a combination of grass/woods and impervious surfaces. Analysis of pre-development conditions considered existing drainage patterns, soil types, ground cover, and topography. The Pre-Development Watershed Delineation Map has been provided in Appendix G, as Figure 4.

The results of the computer modeling used to analyze the overall watershed under pre-development conditions are presented in Appendix I. A summary of the pre-development watershed runoff rates at each design point is presented in Table 9.

6.6.5 Post-development Watershed Conditions

The post-development project site is covered predominantly by grass and impervious surfaces. The analysis of post-development conditions considered existing drainage patterns, soil types, ground cover to remain, planned site development, site grading and, stormwater management facilities proposed as part of site improvements. The Post-Development Watershed Delineation Map has been provided in Appendix G, as Figure 5.

The results of the computer modeling used to analyze the overall watershed under post-development conditions are presented in Appendix J. A summary of the post-development watershed runoff rates at each design point is presented in Table 9.

There are numerous locations and methods for providing controls of off-site discharge of stormwater from the project site. Each has been designed to provide the above quantity controls by attenuating stormwater runoff and releasing runoff to off-site locations at a rate equal to or less than that which existed prior to development of the site. Each device is detailed on the accompanying plans.

6.6.6 Performance Summary

A comparison of the pre- and post-development watershed conditions was performed for the design point and storm events evaluated herein. For the design point and design storms, this comparison demonstrates that the peak rate of runoff will not be increased. Therefore, the project will not have a significant adverse impact on the adjacent or downstream properties or receiving water courses.

The results of the computer modeling used to analyze the pre- and post-development watersheds are presented in Appendix I and Appendix J, respectively. The following Table summarizes the results of this analysis.

6.6.7 Downstream Analysis

The hydrologic evaluation and subsequent stormwater management design for this project evaluates the impact of site runoff on the peak flows of the Fishkill Creek. The design intent is to manage the peak rate of run-off during post-development conditions from the site in a manner that does not increase the peak flow rate or flood elevations of the Fishkill Creek. The point of interest for this project is where the Fishkill Creek crosses the eastern property line.

Information from the Flood Insurance Study (FIS) prepared for the Fishkill Creek was used to generate runoff hydrographs for the off-site, upstream watershed and the site watershed. The hydrographs were then reviewed to compare the timing of the off-site peak rate of runoff with the timing of the site watershed. A study location in the FIS was within or adjacent to the project site. Please see the FIS attached in Appendix L.

The FIS used various hydrologic analyses to establish the peak discharge frequency relationships for floods at locations along the creek. These methods included statistical analysis of stream gaging stations using several methods based on the available data, methods to regional frequency studies prepared by ACOE and methodologies developed by the Soil Conservation Service.

Subcatchment ES1 is made up of approximately 122,300-acres (+/-) of off-site and on-site drainage area, which encompasses the Fishkill Creek watershed northeast of the proposed site. This watershed drainage area generally consists of woods with light underbrush, meadows, residential, and impervious surfaces. Runoff from this subcatchment travels overland and is ultimately conveyed to the Fishkill Creek.

The computer model used to evaluate this project uses SCS methods TR-55 and TR-20 and generates hydrographs to compare the timing and flow rates from watersheds. Information from the FIS was incorporated into the model to provide a reasonable analysis of the site and upstream watershed runoff characteristics.

The results of the computer modeling used to analyze the pre- and post-development watersheds are presented in Appendix I and Appendix J, respectively. Table 5 summarizes the results of this analysis:

Table 9: Summary of Pre- and Post-Development Peak Discharge Rates

	Pre- vs. Post-Development Discharge Rate (cfs)					
Design Point (DP)	1-year 24-hour storm event		10-year 24-hour storm event		100-year 24-hour storm event	
	Pre	Post	Pre	Post	Pre	Post
1	1,349.72	1,349.72	6,047.51	6,047.51	12,834.86	12,834.86

As the table above shows, the proposed redevelopment project will not increase the post development peak discharge rates within the Fishkill Creek, during the 10-year or 100-year storm event by 5% or more (the threshold required to be demonstrated for a Downstream Analysis in accordance with NYSDEC Stormwater Manual Design Manual requirements for projects seeking exemption from quantity control). In fact, the table indicates that the proposed redevelopment project will not increase the post development peak discharge rates at all. The hydraulic modeling indicates this is a result of the peak discharge from upstream areas being at a delay as compared to onsite conditions. Additionally, based on the hydrologic study, it is not anticipated that downstream structures will be adversely impacted by the redevelopment.

7.0 INSPECTIONS, MAINTENANCE, AND REPORTING

7.1 Inspection and Maintenance Requirements

7.1.1 Pre-Construction Inspection and Certification

Prior to the commencement of construction, the Qualified Inspector/Qualified Professional shall conduct an assessment of the site and certify that the appropriate erosion and sediment control measures have been adequately installed and implemented. The Contractor shall contact the Qualified Inspector/Qualified Professional once the erosion and sediment control measures have been installed.

7.1.2 Construction Phase Inspections and Maintenance

A Qualified Inspector/Qualified Professional, as defined in Appendix A of the General Permit GP-0-20-001, shall conduct regular site inspections between the time this SWPPP is implemented and final site stabilization. Site inspections shall occur at an interval of at least once every seven (7) calendar days.

The purpose of site inspections is to assess performance of pollutant controls. Based on these inspections, the Qualified Inspector/Qualified Professional will decide whether it is necessary to modify this SWPPP, add or relocate sediment barriers, or whatever else may be needed in order to prevent pollutants from leaving the site via stormwater runoff. The general contractor has the duty to cause pollutant control measures to be repaired, modified, maintained, supplemented, or whatever else is necessary in order to achieve effective pollutant control.

Examples of particular items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. During each inspection the inspector must evaluate overall pollutant control system performance as well as particular details of individual system components. Additional factors should be considered as appropriate to the circumstances.

1. Locations where vehicles enter and exit the site must be inspected for evidence of off-site sediment tracking. A stabilized construction entrance will be constructed where vehicles enter and exit. This entrance will be maintained or supplemented as necessary to prevent sediment from leaving the site on vehicles.
2. Sediment barriers must be inspected and, if necessary, they must be enlarged or cleaned in order to provide additional capacity. All material from behind sediment barriers will be stockpiled on the up slope side. Additional sediment barriers must be constructed as needed.
3. Inspections will evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system. If necessary, the materials must be covered or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas.
4. Grassed areas will be inspected to confirm that a healthy stand of grass is maintained. The site has achieved final stabilization once all areas are covered with building foundation or pavement, or have a stand of grass with at least 80 percent density. The density of 80 percent or greater must be maintained to be considered as stabilized. Areas must be watered, fertilized, and reseeded as needed to achieve this goal.
5. All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

The inspection reports must be completed entirely and additional remarks should be included if needed to fully describe a situation. An important aspect of the inspection report is the description of additional measures that need to be taken to enhance plan effectiveness. The inspection report must identify whether the site was in compliance with the SWPPP at the time of inspection and specifically identify all incidents of non-compliance.

Within one (1) business day of the completion of an inspection, the *Qualified Inspector/Qualified Professional* shall notify the Owner/Operator and appropriate contractor or subcontractor of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one (1) business day of the notification and shall complete the corrective actions in a reasonable time frame.

In addition to the inspections performed by the *Qualified Inspector/Qualified Professional*, the Contractor shall perform routine inspections that include a visual check of all erosion and sediment control measures. All inspections and maintenance shall be performed in accordance with the inspection and maintenance schedule provided on the accompanying plans. Sediment removed from erosion and sediment control measures will be exported from the site, stockpiled for later use, or used immediately for general non-structural fill.

It is the responsibility of the general contractor to assure the adequacy of site pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more structural controls than are shown on the accompanying plans. (For example, localized concentrations of runoff could make it necessary to install additional sediment barriers, sediment traps, etc.) Assessing the need for additional controls and implementing them or adjusting existing controls will be a continuing aspect of this SWPPP until the site achieves final stabilization.

7.1.3 Temporary Suspension of Construction Activities

For construction sites where soil disturbance activities have been temporarily suspended (e.g. Winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the frequency of Qualified Inspector/Qualified Professional inspections can be reduced to once every 30 calendar days. Prior to reducing the frequency of inspections, the Owner/Operator shall notify the NYSDEC Region 3 stormwater contact person and the City of Beacon in writing.

7.1.4 Partial Project Completion

For construction sites where soil disturbance activities have been shut down with partial project completion, all areas disturbed as of the project shutdown date have achieved final stabilization, and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational, the inspections by the Qualified Inspector/Qualified Professional can stop. Prior to the shutdown, the Owner/Operator shall notify the NYSDEC Region 3 stormwater contact person and the City of Beacon in writing.

If soil disturbance activities have not resumed within two years from the date of shutdown, a Notice of Termination (NOT) shall be properly completed and submitted to the NYSDEC.

7.1.5 Post-Construction Inspections and Maintenance

Inspections and maintenance of final stabilization measures and post-construction stormwater management practices shall be performed in accordance with Appendix F, once all disturbed areas are stabilized and all stormwater management systems are in place and operable.

7.2 Reporting Requirements

7.2.1 Inspection and Maintenance Reports

Inspection/maintenance reports shall be prepared prior to and during construction in accordance with the schedule outlined herein and in the SPDES General Permit GP-0-20-001 Part IV.C. The reports shall be prepared to identify and document the maintenance of the erosion and sediment control measures. A sample inspection form is provided in Appendix D.

Specifically, each inspection shall record the following information:

1. Date and time of inspection.

2. Name and title of person(s) performing inspection.

3. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection.

4. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow.

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

6. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance.

7. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced.

8. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection.

9. Indication of the current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards.

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

11. Identification and status of all corrective actions that were required by previous inspection.

12. Color photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *Qualified Inspector/Qualified Professional* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *Qualified Inspector/Qualified Professional* shall also take digital photographs, with date stamp, that

clearly show the condition of the practice(s) after the corrective action has been completed. The *Qualified Inspector/Qualified Professional* shall attach the paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

All inspection reports shall be signed by the *Qualified Inspector/Qualified Professional*. Pursuant to Part II.C.2 of GP-0-20-001, the inspection reports shall be maintained on site with the SWPPP.

7.2.2 Site Log Book

The Owner/Operator shall retain a copy of the SWPPP required by GP-0-20-001 at the construction site from the date of initiation of construction activities to the date of final stabilization.

During construction, the Owner's/Operator's Engineer shall maintain a record of all SWPPP inspection reports at the site in the Site Log Book. The Site Log Book shall be maintained on-site and made available to the permitting authority, if necessary.

7.2.3 Post Construction Records and Archiving

Following construction, the Owner/Operator shall retain copies of the SWPPP, the complete construction Site Log Book, and records of all data used to complete the NOI to be covered by this permit, for a period of at least five years from the date that the site is finally stabilized. This period may be extended by the NYSDEC, at its sole discretion, at any time upon written notification.

Records shall be maintained of all post construction inspections and maintenance work performed in accordance with the requirements outlined in Appendix F.

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Appendix A:
NYSDEC SPDES General Permit GP-0-20-001

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NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2020 Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

1-23-20

Authorized Signature Date

Address: NYS DEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System ("NPDES")* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of "*construction activity*", as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;

2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State.*

3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the

deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:

   (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s;

   (ii) Control stormwater *discharge*s, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;

   (iii) *Minimize* the amount of soil exposed during *construction activity*;

   (iv) *Minimize* the disturbance of *steep slopes*;

   (v) *Minimize* sediment *discharge*s from the site;

   (vi) Provide and maintain *natural buffer*s around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharge*s, unless *infeasible*;

   (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;

   (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

   (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:

(i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;

(ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and

(iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Prohibited *Discharge*s.** The following *discharge*s are prohibited:

(i) Wastewater from washout of concrete;

(ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

(iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;

(iv) Soaps or solvents used in vehicle and equipment washing; and

(v) Toxic or hazardous substances from a spill or other release.

f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices ("SMPs") are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

(i) Runoff Reduction Volume ("RRv"): Reduce the total Water Quality Volume ("WQv") by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site discharges directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria ("Qp"): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria ("Qf"): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watershed

(i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

calculated in accordance with the criteria in Section 10.3 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site *discharge*s directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

c. Sizing Criteria for Redevelopment Activity

(i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.

(1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or

(2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or

(3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or

(4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

(ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

d. Sizing Criteria for Combination of Redevelopment Activity and New Development

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

The Department expects that compliance with the conditions of this permit will control *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;

2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharge*s authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.

2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharge*s; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.

3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharge*s from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.

4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharge*s after *construction activities* have been completed and the site has undergone *final stabilization*;

2. *Discharge*s that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;

3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;

4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

operator has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;

6. *Construction activities* for residential, commercial and institutional projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

7. *Construction activities* for linear transportation projects and linear utility projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:

   a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.

      - 1-5 acres of disturbance - 20 feet
      - 5-20 acres of disturbance - 50 feet
      - 20+ acres of disturbance - 100 feet, or

   b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
      (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
      (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
      (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
      (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or

   c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

      (i) No Affect
      (ii) No Adverse Affect
      (iii) Executed Memorandum of Agreement, or

   d. Documentation that:

      (i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharges* from *construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the "MS4 SWPPP Acceptance" form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.

3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of *Owner or Operator*) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (http://www.dec.ny.gov/). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

   NOTICE OF INTENT
   NYS DEC, Bureau of Water Permits
   625 Broadway, 4th Floor
   Albany, New York 12233-3505

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.

3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.

4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.

2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:

   a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (http://www.dec.ny.gov/) for more information,

   b. where required, all necessary Department permits subject to the *Uniform Procedures Act ("UPA")* (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators* of *construction activities* that are required to obtain *UPA* permits

must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

   c. the final SWPPP has been prepared, and

   d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.

3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

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

      (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or

      (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;

      (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

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

(i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed "*MS4* SWPPP Acceptance" form, or

(ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed "MS4 SWPPP Acceptance" form.

4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.

2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor's or subcontractor's certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

use control MS4, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

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

b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

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

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

e. The *owner or operator* shall include the requirements above in their SWPPP.

4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..

5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of *a construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

   An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4,* the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.

2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.

3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.

4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:

   a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;

c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* the Department or other regulatory authority; and

d. to document the final construction conditions.

5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.

6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor.* The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

   The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

   "I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharge*s from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

   In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:

   a. Background information about the scope of the project, including the location, type and size of project

b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge*(s);

c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);

d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;

e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;

f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;

g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;

h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;

k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and

l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

   Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

   The post-construction stormwater management practice component of the SWPPP shall include the following:

   a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;

c. A Stormwater Modeling and Analysis Report that includes:
   (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;

   (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;

   (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;

   (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;

   (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and

   (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;

d. Soil testing results and locations (test pits, borings);

e. Infiltration test results, when required; and

f. 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.

3. Enhanced Phosphorus Removal Standards - 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 applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria,* Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

C. Required SWPPP Components by Project Type

Unless otherwise notified by the Department, *owners or operators* of *construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators* of the *construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- New York State Erosion and Sediment Control Certificate Program holder
- Registered Landscape Architect, or
- someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:

   a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

   b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

   c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

   d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

   a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

   b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

   c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization,* and all temporary, structural erosion and sediment control measures have been removed*;* and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.

e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization,* all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.

4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

a. Date and time of inspection;

b. Name and title of person(s) performing inspection;

c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

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

f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;

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

h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;

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

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

k. Identification and status of all corrective actions that were required by previous inspection; and

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

5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the *qualified inspector.* Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.

2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

   a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

   b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;

   c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.

   d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.

3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.

4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the "MS4 Acceptance" statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) required in Part V.A.3. of this permit.

5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

   a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),

c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,

d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator,* its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to $37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

E. Duty to Mitigate

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit , or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:

    a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(i) the chief executive officer of the agency, or

(ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

    a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;

    b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.

3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.

4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4,* or by a duly authorized representative of that person.

   It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge*(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner's or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.

4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.

2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
Cpv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - Environmental Conservation Law
EPA – U. S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property –means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both "sewage" and "stormwater".

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for "*Construction Activity(ies)*" also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Construction Site – means the land area where *construction activity(ies)* will occur. See definition for "*Commence (Commencement of) Construction Activities"* and "*Larger Common Plan of Development or Sale" also.*

Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

Embankment –means an earthen or rock slope that supports a road/highway.

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department's rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term "plan" in "larger common plan of development or sale" is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State*;*
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a *combined sewer*; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Natural Buffer –means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity.*

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Performance Criteria – means the design criteria listed under the "Required Elements" sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Steep Slope – means land area designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standard*s, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint source*s, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres: • Single family home <u>not</u> located in one of the watersheds listed in Appendix C or <u>not</u> *directly discharging* to one of the 303(d) segments listed in Appendix E • Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E • Construction of a barn or other *agricultural building*, silo, stock yard or pen.
The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land: All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
The following construction activities that involve soil disturbances of one (1) or more acres of land: • Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains • Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects • Pond construction • Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover • Cross-country ski trails and walking/hiking trails • Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development; • Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path. • Slope stabilization projects • Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover,* and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

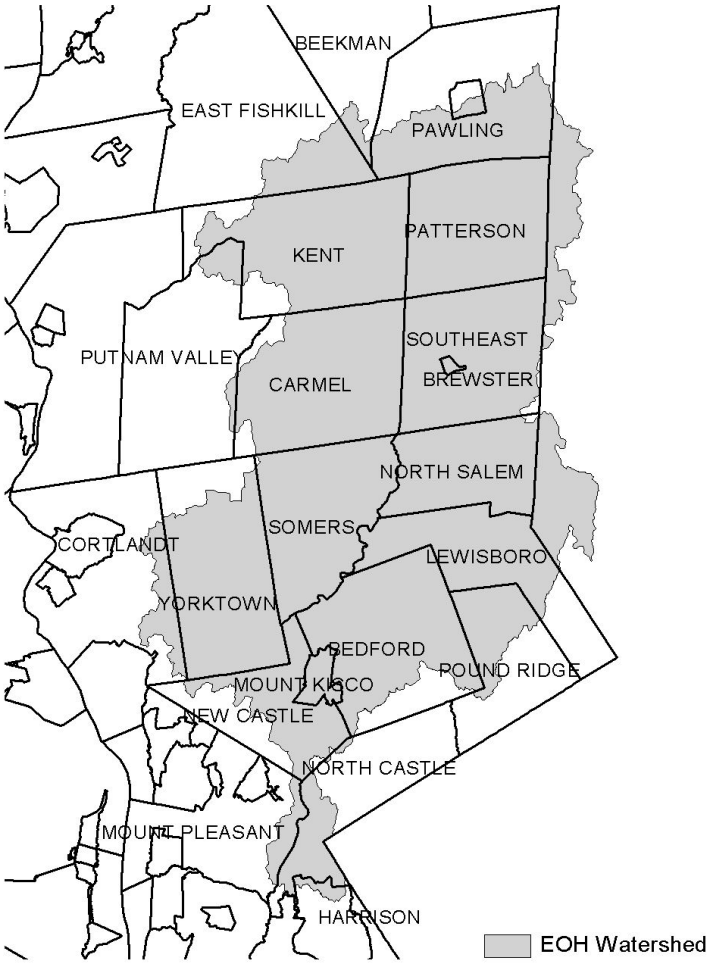


Figure 2 - Onondaga Lake Watershed



Figure 3 - Greenwood Lake Watershed

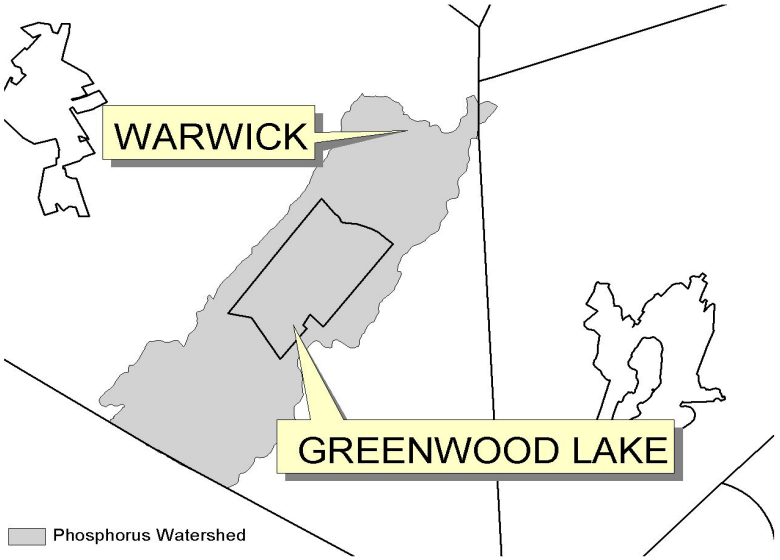


Figure 4 - Oscawana Lake Watershed

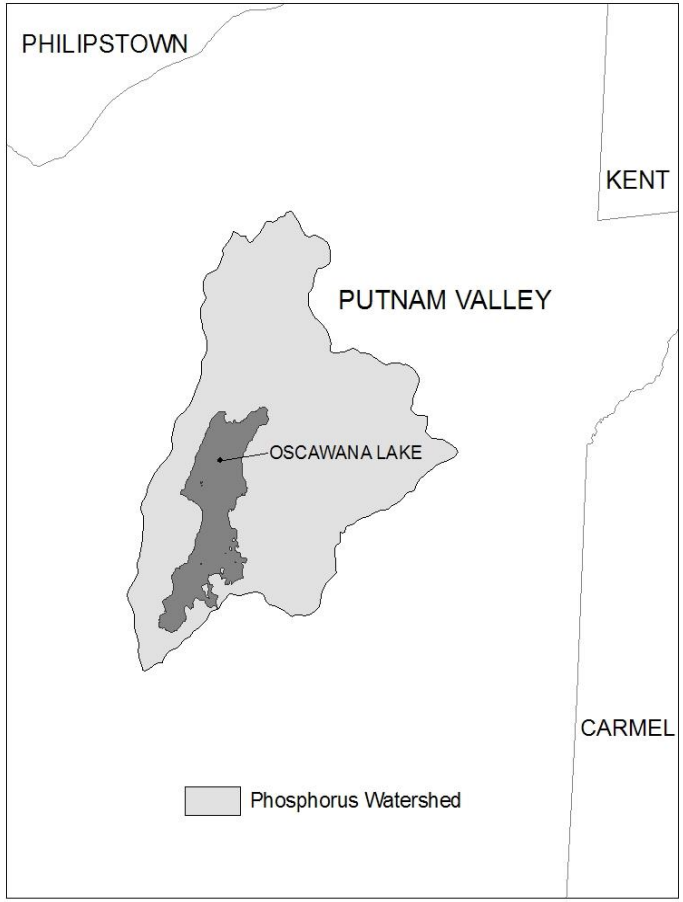
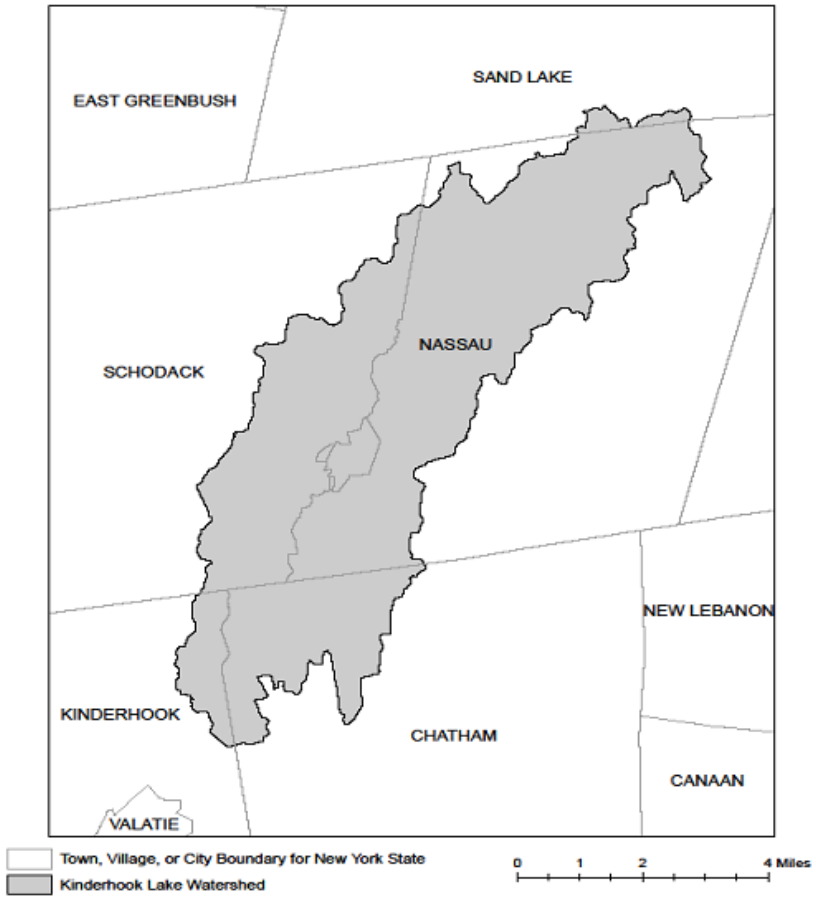


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

APPENDIX F – List of NYS DEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	100 Hillside Avenue, Suite 1w White Plains, NY 10603 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

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Appendix B:
NYSDEC Forms

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Construction General Permit (CGP) Electronic Notice of Intent (eNOI) GP-0-25-001

version 1.18

(Submission #: HQQ-C265-0YAX9, version 1)

Details

Originally Started By	LaBella Poughkeepsie
Alternate Identifier	248 Tioronda Ave—Region 3
Submission ID	HQQ-C265-0YAX9
Status	Draft

Form Input

Eligibility

Disturbance Threshold

1. Will the construction activity involve soil disturbances listed in Part I.A.1 of GP-0-25-001?
Yes

1.a. Will any runoff from the site enter a sewer system classified as a combined sewer?
No

1.b. Is this a remediation project being done under a Department approved work plan (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) with a SWPPP which meets the substantive requirements of GP-0-25-001?
No

1.c. Is the construction activity related to a stormwater discharge that does not require a permit as described in 40 CFR 122.3(e), e.g. non-point source agriculture or silviculture activities?
No

Other SPDES Permits

2. Will the discharge from the construction activity meet all conditions listed in Part I.A.2 of GP-0-25-001?
Yes

Threatened and Endangered Species

3. Will the construction activity potentially adversely affect a species that is endangered or threatened per Part I.A.3.?
Yes

3.a. The owner/operator has obtained one of the following documents:
Letter issued by NYSDEC of non-jurisdiction pursuant to 6 NYCRR Part 182

State Historic Preservation Act (SHPA)

4. Is the construction activity designated by the Commissioner of the Office of Parks, Recreation and Historic Preservation (OPRHP), pursuant to 9 NYCRR §§428.12 or 428.13 as exempt from the SHPA review (see Attachment 2 of the Letter of Resolution between NYSDEC and OPRHP, dated January 9, 2015)?
No

4.a. Will the construction activity:

a) occur within an archeologically sensitive area indicated on the sensitivity map, or

b) have the potential to affect a property that is listed or determined to be eligible for listing on the National or State Registers of Historic Places, or

c) include a new permanent building on the construction site within the following distances from a building, structure, or object that is more than 50 years old and OPRHP, a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined is a historically/archeologically significant building, structure, or object:

- 1-5 acres of disturbance—20 feet
- 5-20 acres of disturbance—50 feet
- 20+ acres of disturbance—100 feet?

Yes

4.a.i. Have the impacts to historic properties been resolved?
Yes

4.a.i.1. Which of the following documentation will be maintained at the construction site?
a) DEC consultation form sent to OPRHP and copied to the NYSDEC Agency Historic Preservation Officer (APO)

and,
documentation from OPRHP providing a determination of No Adverse Impact

State Environmental Quality Review (SEQR)

5. Is the construction activity subject to SEQR (Part I.A.5.), or the equivalent environmental review from another NYS or federal agency (Part I.A.6.)?
Yes

5.a. Has the owner/operator obtained documentation that the project review pursuant to SEQR, or the equivalent, has been satisfied per Part I.A.5. or I.A.6. of GP-0-25-001?
Yes

Uniform Procedures Act (UPA) Permits

6. Has the owner/operator obtained all necessary UPA permits from NYSDEC, or the equivalent from another NYS or federal agency per Part I.A.7.a. of GP-0-25-001? Select "Yes" if no UPA permits, or the equivalent, are required for this construction activity.
Yes

Steep Slope

7. Is the construction activity within the watershed of surface waters of the State classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website?
No

Owner/Operator Information

8. Owner/Operator Name
Beacon 248 Holdings LLC

9. Owner/Operator Contact Person Information

First and Last Name	Phone	E-mail
Berry Kohn	917-696-4402	berry@chaibuilders.com

10. Owner/Operator Mailing Address

35 Main Street
Suite 311
Poughkeepsie, NY 12601
USA

11. Is the billing contact different from the Owner/Operator Contact?
No

12. What type of organization is the owner/operator?
Corporation

12.b. Is the owner/operator registered with the Department of State to do business in New York State?
Yes

12.b.i. Department of State ID #
5111186

The Department of State ID can be found using the following link:
Department of State | Division of Corporations

Site Information

13. Project/Site Name
248 Tioronda Ave

14. Site Address

248 TIORONDA AVE
BEACON, NY 12508-4022
Dutchess

DEC Region
3

15. Site Latitude & Longitude
41.4937093,-73.96923939999999

Project Details

16. This eNOI submission is for:
A construction activity not part of a common plan of development or sale in accordance with Part I.D.1.a.

17. Does the project type fall under Table 1 or Table 2 of Appendix B of GP-0-25-001? If any portion of the construction activity falls under Table 2, regardless of the size of the disturbance, select "Table 2".
Table 2

18. Consistent with Part III.B.1.c.i. of GP-0-25-001, provide a concise overview of the project. Describe existing and proposed conditions, and include any other relevant information.
Redevelopment with an increase in impervious. Apartments and associated amenities.

Enter the total project site acreage, the acreage to be disturbed, and the future impervious area (acreage) within the disturbed area, rounded to the nearest tenth of an acre.

19. Total Site Area (acres)
9.2

20. Total Area to be Disturbed (acres)
5.0

21. Existing Impervious Area to be Disturbed (acres)
2.5

22. Future Impervious Area Within Disturbed Area (acres)
4.7

Nature of the project:
Redevelopment with increase in impervious area

23. Do you plan to disturb more than 5 acres of soil at any one time?
No

---

24. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

A (%)
100

B (%)
0

C (%)
0

D (%)
0

25. Enter the planned start and end dates of the disturbance activities.

Start Date
07/28/2026

End Date
07/28/2028

26. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.
Fishkill Creek, Lower, and tribs - 1304-0003

27. Type of waterbody identified in question 26?
Stream/Creek On Site

28. Has the surface waterbody in question 26 been identified as a 303(d) segment in Appendix D of GP-0-25-001?
No

29. Is this project located in one of the Watersheds identified in Appendix C of GP-0-25-001?
No

30. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?
No

31. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?
No

32. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?
No

33. Is this property owned by a state authority, state agency, federal government or local government?
No

Required SWPPP Components

General SWPPP Requirements

34. Has a SWPPP been developed in conformance with the requirements in Part III. of GP-0-25-001?
Yes

35. Does the SWPPP demonstrate consideration of the future physical risks due to climate change pursuant to the CRRA, 6 NYCRR Part 490, and associated guidance per Part III.A.2. of GP-0-25-001?
Yes

36. 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

37. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the NYS Stormwater Management Design Manual?
Yes

37.a. Which version of the NYS Stormwater Management Design Manual was used to develop the SWPPP?
2015

SWPPP Preparer

39. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:
Professional Engineer (P.E.)

40. Name of the person who prepared the SWPPP
Kyle Ahearn, P.E.

41. SWPPP Preparer Organization Name
LaBella Associates

42. SWPPP Preparer Contact Information

First and Last Name	Phone	E-mail
Kyle Ahearn	845-454-3980	kahearn@labellapc.com

43. SWPPP Preparer Address

21 Fox St
Poughkeepsie, NY 12601

Download SWPPP Preparer Certification Form

Please take the following steps to prepare and upload your preparer certification form:

1) Click on the link below to download a blank certification form
2) The certified SWPPP preparer should sign this form
3) Upload the completed form
Download SWPPP Preparer Certification Form

44. Please upload the SWPPP Preparer Certification

NONE PROVIDED

Comment

NONE PROVIDED

44.a. Has the SWPPP Preparer Certification Form been signed by the SWPPP preparer in accordance with Part VII.J of GP-0-25-001?

Yes

Erosion & Sediment Control Criteria

45. Has a construction sequence schedule for the planned management practices been prepared?

Yes

Post-Construction Criteria

Site Planning and Soil Restoration

46. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

Reduction of Clearing and Grading
Sidewalk Reduction
Parking Reduction

47. 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.

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).

Water Quality Criteria

49. Water Quality Sizing Criteria

Total WQv required (acre-feet)	Total RRv provided (acre-feet)	Minimum RRv (acre-feet)	Total WQv provided (acre-feet)	Sum of RRv and WQv provided
0.27	0.08	0.02	0.28	0.36

Water Quantity Criteria

50. Per Section 9.2.1.C.VI and VII of the 2024 Design Manual, is there 0% change to hydrology that increases the discharge rate and volume from the project site?

No

51. Does one of the waiver conditions apply to the channel protection for this construction activity?
Yes

51.a. The need to provide channel protection has been waived because:
The site directly discharges into a fifth order or larger water body, or tidal waters, where the increase in smaller flows will not impact the stream bank or channel integrity.

52. Does one of the waiver conditions apply to the Qp and Qf for this construction activity?
Yes

52.a. The need to meet the Qp and Qf criteria has been waived because:
A downstream analysis reveals that overbank control is not required.

Operation and Maintenance

53. Has a long-term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?
Yes

53.a. Identify the entity responsible for the long-term Operation and Maintenance.
Berry Kohn, Beacon 248 Holdings, LLC

Post-Construction SMP Identification

54. Post-Construction RR Techniques and Standard SMPs

RR Techniques and SMPs	Contributing Impervious Area (acres)	Total Contributing Area (acres)
Green Roof (RR-10)	0.23	
Filtration Bioretention (F-5)	0.467	

55. Alternative SMPs

Type of Alternative SMP	Manufacturer of the Alternative SMP	Name of the Alternative SMP	Contributing Impervious Area (acres)
Hydrodynamic	Contech	CDS	1.16
Hydrodynamic	Contech	CDS	0.9
Hydrodynamic	Contech	CDS	0.73

Other Permits

56. Identify other permits, existing and new, that are required for this project/facility.
None

57. Is this NOI for a change in owner/operator per Part I.G.?
No

MS4 SWPPP Acceptance

59. Will the construction activities be within the municipal boundary(ies) of Traditional Land Use Control MS4 Operator(s) and discharge to the MS4(s)?
Yes

59.a. Which form is required per Part I.D.2.b.ii.?
MS4 SWPPP Acceptance Form

MS4 SWPPP Acceptance Form Download

Download the MS4 SWPPP Acceptance Form from the link below.
MS4 SWPPP Acceptance Form

60. MS4 Acceptance or No Jurisdiction Form Upload

> *NONE PROVIDED*
> **Comment**
> *NONE PROVIDED*

60.a. Has the form been signed by the principal executive officer or ranking elected official—or duly authorized representative of that person—in accordance with Part VII.J. and submitted along with this NOI?
Yes

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the Owner/Operator Certification Form by clicking the link below.
Owner/Operator Certification Form

61. Upload Owner/Operator Certification Form

> *NONE PROVIDED*
> **Comment**
> *NONE PROVIDED*

61.a. Has the Owner/Operator Certification Form from Appendix J been signed by the owner/operator, or a representative of the owner/operator in accordance with Part VII.J of GP-0-25-001 and uploaded to the eNOI?
Yes

Additional Project Information

62. Enter any additional pertinent project information in the text box below.
This project is ongoing. The permit # is NYR11H777 from the NOI received by the New York State Department of Environmental Conservation on 3/3/2021.

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Water, Bureau of Water Permits
625 Broadway, Albany, New York 12233-3505
P: (518) 402-8111 F: (518) 402-9029
www.dec.ny.gov

3/11/2021

Beacon 248 Holdings LLC
Berry Kohn
147 Union Street, Suite 101
Poughkeepsie, NY 12601

RE: ACKNOWLEDGMENT of NOTICE OF INTENT for Coverage Under SPDES General Permit for Storm Water Discharges from CONSTRUCTION ACTIVITY – General Permit No. GP-0-20-001

Dear Prospective Permittee:

This is to acknowledge that the New York State Department of Environmental Conservation (Department) has received a complete Notice of Intent (NOI) for coverage under General Permit No. GP-0-20-001 for the construction activities located at:

248 Tioronda
248 Tioronda Ave
Beeacon, NY 12508-4022 County: **DUTCHESS**

Pursuant to Environmental Conservation Law (ECL) Article 17, Titles 7 and 8, and ECL Article 70, discharges in accordance with GP-0-20-001 from the above construction site will be authorized **5** business days from **3/3/2021,** which is the date we received your final NOI, unless notified differently by the Department.

The permit identification number for this site is: **NYR11H777**. Be sure to include this permit identification number on any forms or correspondence you send us. When coverage under the permit is no longer needed, you must submit a Notice of Termination to the Department.

This authorization is conditioned upon the following:

1. The information submitted in the NOI received by the Department on **3/3/2021** is accurate and complete.

2. You have developed a Stormwater Pollution Prevention Plan (SWPPP) that complies with GP-0-20 -001 which must be implemented as the first element of construction at the above-noted construction site.

3. Activities related to the above construction site comply with all other requirements of GP-0-20-001.

4. Payment of the annual $110 regulatory fee, which is billed separately by the Department in the late fall. The regulatory fee covers a period of one calendar year. In addition, since September 1, 2004, construction stormwater permittees have been assessed an initial authorization fee which is now $110 per acre of land disturbed and $675 per acre of future impervious area. The initial authorization fee covers the duration of the authorized disturbance.

5. Your SWPPP has been reviewed by the regulated, traditional land use control MS4 where your project is located and has been determined to be in substantive conformance with the requirements in the SPDES General Permit for Stormwater Discharges from MS4s.

6. When applicable, project review pursuant to the State Environmental Quality Review Act (SEQRA) has been satisfied.

7. You have obtained all necessary Department permits subject to the Uniform Procedures Act (UPA). You should check with your Regional Permit Administrator for further information.

***Note: Construction activities cannot commence until project review pursuant to SEQRA has been satisfied, when SEQRA is applicable; and, where required, all necessary Department permits subject to the UPA have been obtained.**

Please be advised that the Department may request a copy of your SWPPP for review.

Should you have any questions regarding any aspect of the requirements specified in GP-0-20-001, please contact Dave Gasper at (518) 402-8114.

Sincerely,

David Gasper

David Gasper
Environmental Engineer

cc: RWE - **3**
SWPPP Preparer
Christopher P. Lapine
Lapine, Christopher
21 Fox Street
Poughkeepsie, NY 12601-4724

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR ___ ___ ___ ___ ___ ___

I. Owner or Operator Information

1. Owner/Operator Name: Chai Builders

2. Street Address: 120 Route 59, Suite 201

3. City/State/Zip: Suffern, NY, 10901-4908

4. Contact Person: Berry Kohn | 4a.Telephone: 917-696-4402

4b. Contact Person E-Mail: berry@chaibuilders.com

II. Project Site Information

5. Project/Site Name: Chai Builders

6. Street Address: 248 Tioronda Ave

7. City/Zip: Beacon, 12508-4022

8. County: Dutchess

III. Reason for Termination

9a. □ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. ***Date final stabilization completed** (month/year): _____

9b. □ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ___ ___ ___ ___ ___ ___
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. □ Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? □ yes □ no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? □ yes □ no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

_____

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? □ yes □ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

□ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

□ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

□ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.

□ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? □ yes □ no

(If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation:

(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:	Date:

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

(NYS DEC Notice of Termination - January 2015)

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Appendix C:
Contractor's Certification Form
Subcontractor's Certification Form

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Stormwater Pollution Prevention Plan
Contractor Certification Statement
(Responsible for overall SWPPP Compliance)

248 Tioronda Ave.,
248 Tioronda Ave., City of Beacon, Dutchess County, New York

This is to certify that the following contracting firm will be responsible for installing, constructing, repairing, inspecting and/or maintaining the erosion and sediment control practices and post-construction stormwater management control practices required by the SWPPP.

Contracting Firm Information

Name: _____

Address: _____

Telephone & Fax: _____

Trained Contractor(s) [1] Responsible for SWPPP Implementation (Provide name, title, and date of last training)

_____

_____

Prior to commencement of construction activity, the following certification shall be issued:

I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges* from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations.

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

Upon completion of construction activities, the following certification shall be issued, prior to issuance of the NOT:

I hereby certify that that all permanent stormwater management practices required by the SWPPP have been installed in accordance with the contract documents. I further certify that all temporary erosion and sediment control measures have been removed from the site, and that the on-site soils disturbed by construction activity have been restored in accordance with the SWPPP and the NYSDEC Division of Water's publication "Deep-Ripping and Decompaction".

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

[1] "Trained Contractor" means an employee from a contracting (construction) company that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the "trained contractor" shall receive four (4) hours of training every three (3) years. It can also mean an employee from the contracting (construction) company that meets the "qualified inspector" qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity). The "Trained Contractor" will be responsible for the day to day implementation of the SWPPP.

[2] Signatory Requirements:

a. For a corporation, this form shall be signed by (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function, or any other person who performs similar policy or decision-making functions for the corporation; or (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b. For a partnership or sole proprietorship, this form shall be signed by a general partner or the proprietor, respectively.

c. For a municipality, State, Federal, or other public agency, this form shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA).

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Stormwater Pollution Prevention Plan
Subcontractor Certification Statement
(whose work involves soil disturbance)

248 Tioronda Ave.,

248 Tioronda Ave., City of Beacon, Dutchess County, New York

Each Subcontractor whose work will involve soil disturbance of any kind is required to complete and sign this Certification Statement before commencing any construction activity at the site. This completed Certification Statement(s) shall be maintained at the construction site in the Site Log Book.

Subcontracting Firm Information

Name: _____

Address: _____

_____

Telephone & Fax: _____

Trained Contractor(s)[2] Responsible for SWPPP Implementation (Provide name, title, and date of last training)

_____

_____

Prior to commencement of construction activities, the following certification shall be issued:

I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges* from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations.

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

[2] "Trained Contractor" means an employee from a contracting (construction) company that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the "trained contractor" shall receive four (4) hours of training every three (3) years. It can also mean an employee from the contracting (construction) company that meets the "qualified inspector" qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity). The "Trained Contractor" will be responsible for the day to day implementation of the SWPPP.

[2] Signatory Requirements:

a. For a corporation, this form shall be signed by (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function, or any other person who performs similar policy or decision-making functions for the corporation; or (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
b. For a partnership or sole proprietorship, this form shall be signed by a general partner or the proprietor, respectively.
c. For a municipality, State, Federal, or other public agency, this form shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g. Regional Administrators of EPA).

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Appendix D:
SWPPP Inspection Report
(Sample Form)

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Stormwater Pollution Prevention Plan
Inspection Report

248 Tioronda Ave.

248 Tioronda Ave.

Beacon, Dutchess, NY

A Qualified Inspector[1] shall prepare an inspection report subsequent to each and every inspection, as required in Part IV.C of the SPDES General Permit GP-0-15-002. All sections of this report are to be completed.

1. Inspection Information

Inspection number: _____

Date and Time of Inspection: _____

Weather Conditions: Snowing

Soil Conditions (e.g. dry, wet, saturated): Snow Covered

2. Inspector Information

Qualified Inspector[1]

Printed Name: _____ Date: _____

Signature: _____

Qualified Professional[1]

Printed Name _____ Date: _____

Signature: _____

3. On the included site plan, provide a sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection. Provide additional descriptions below if necessary.

[1] A Qualified Inspector means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual(s). It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years. It can also mean a person that meets the Qualified Professional qualifications in addition to the Qualified Inspector qualifications. Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

4. In the following table, provide a description of the condition of the runoff at all points of discharge from the construction site, including conveyance systems (pipes, culverts, ditches, etc.) and overland flow. Identify any discharges of sediment from the construction site. Use additional sheets if necessary.

Description of Discharge Point	Condition of Runoff	Sediment Discharge Noted
		☐ yes / no ☐ Estimated Quantity:
		☐ yes / no ☐ Estimated Quantity:
		☐ yes / no ☐ Estimated Quantity:
		☐ yes / no ☐ Estimated Quantity:

5. For all discharge points where sediment discharge has been noted in the above table, provide detailed corrective actions that are required. Use additional sheets if necessary.

6. **In the following table, provide checkmarks in the appropriate columns to indicate the condition of all erosion and sediment control practices at the site.**

Erosion & Sediment Control Practice	Not Applicable	Functioning as Designed	Needs Repair or Maintenance	Not Installed Properly	Date Deficiency First Reported (If Applicable)	Deficiency Corrected? Y/N (If Applicable)
Stabilized construction entrance						
Temporary parking areas						
Construction vehicle wash areas						
Silt fence						
Temporary swales and berms						
Stone check dams						
Slope protection measures						
Dewatering operations						
Sediment traps						
Inlet protection measures						
Soil stockpiles						
Dust control measures						
Pavement sweeping						
Other:						
Other:						

7. **For all erosion and sediment control practices identified in the above table as "needs repair or maintenance" or "not installed properly", provide detailed corrective actions that are required. Use additional sheets if necessary.**

8. In the following table, indicate the current phase of construction of all post-construction stormwater management practices and identify all construction that is not in conformance with the SWPPP and technical standards.

SWM Practice	Current Phase of Construction	Items not in conformance with the SWPPP

9. For all post-construction stormwater management practices which are identified in the above table as including "items not in conformance with the SWPPP", provide detailed corrective action(s) that are required to correct the deficiencies. Use additional sheets if necessary.

Photo Log

Date – Item in need of repair or maintenance:	*Date – Corrected Action:*
Date – Item in need of repair or maintenance:	*Date – Corrected Action:*

Photo Log

Date – Item in need of repair or maintenance:	*Date – Corrected Action:*
Date – Item in need of repair or maintenance:	*Date – Corrected Action:*

Appendix E:
NYSDEC “Deep-Ripping and Decompaction,” April 2008

New York State
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water

Deep-Ripping and Decompaction

April 2008

Document Prepared by:

John E. Lacey,
Land Resource Consultant and Environmental Compliance Monitor
(Formerly with the Division of Agricultural Protection and Development Services,
NYS Dept. of Agriculture & Markets)

New York State
Department of Environmental Conservation

Alternative Stormwater Management
Deep-Ripping and Decompaction

Description

The two-phase practice of 1) “Deep Ripping;” and 2) “Decompaction” (deep subsoiling), of the soil material as a step in the cleanup and restoration/landscaping of a construction site, helps mitigate the physically induced impacts of soil compression; i.e.: soil compaction or the substantial increase in the bulk density of the soil material.

Deep Ripping and Decompaction are key factors which help in restoring soil pore space and permeability for water infiltration. Conversely, the physical actions of cut-and-fill work, land grading, the ongoing movement of construction equipment and the transport of building materials throughout a site alter the architecture and structure of the soil, resulting in: the mixing of layers (horizons) of soil materials, compression of those materials and diminished soil porosity which, if left unchecked, severely impairs the soil’s water holding capacity and vertical drainage (rainfall infiltration), from the surface downward.

In a humid climate region, compaction damage on a site is virtually guaranteed over the duration of a project. Soil in very moist to wet condition when compacted, will have severely reduced permeability. Figure 1 displays the early stage of the deep-ripping phase (Note that all topsoil was stripped prior to construction access, and it remains stockpiled until the next phase – decompaction – is complete). A heavy-duty tractor is pulling a three-shank ripper on the first of several series of incrementally deepening passes through the construction access corridor's densely compressed subsoil material. Figure 2 illustrates the approximate volumetric composition of a loam surface soil when conditions are good for plant growth, with adequate natural pore space for fluctuating moisture conditions.



Fig. 1. A typical deep ripping phase of this practice, during the first in a series of progressively deeper “rips” through severely compressed subsoil.

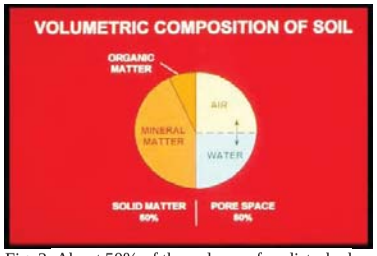

Fig. 2. About 50% of the volume of undisturbed loam surface soil is pore space, when soil is in good condition for plant growth. Brady, 2002.

Recommended Application of Practice

The objective of Deep Ripping and Decompaction is to effectively fracture (vertically and laterallly) through the thickness of the physically compressed subsoil material (see Figure 3), restoring soil porosity and permeability and aiding infiltration to help reduce runoff. Together with topsoil stripping, the “two-phase” practice of Deep Ripping and Decompaction first became established as a “best management practice” through ongoing success on commercial farmlands affected by heavy utility construction right-of-way projects (transmission pipelines and large power lines).



Fig. 3. Construction site with significant compaction of the deep basal till subsoil extends 24 inches below this exposed cut-and-fill work surface.

Soil permeability, soil drainage and cropland productivity were restored. For broader construction application, the two-phase practice of Deep Ripping and Decompaction is best adapted to areas impacted with significant soil compaction, on contiguous open portions of large construction sites and inside long, open construction corridors used as temporary access over the duration of construction. Each mitigation area should have minimal above-and-below-ground obstructions for the easy avoidance and maneuvering of a large tractor and ripping/decompacting implements. Conversely, the complete two-phase practice is not recommended in congested or obstructed areas due to the limitations on tractor and implement movement.

Benefits

Aggressive “deep ripping” through the compressed thickness of exposed subsoil before the replacement/respreading of the topsoil layer, followed by “decompaction,” i.e.: “sub-soiling,” through the restored topsoil layer down into the subsoil, offers the following benefits:

- Increases the project (larger size) area’s direct surface infiltration of rainfall by providing the open site’s mitigated soil condition and lowers the demand on concentrated runoff control structures
- Enhances direct groundwater recharge through greater dispersion across and through a broader surface than afforded by some runoff-control structural measures
- Decreases runoff volume generated and provides hydrologic source control
- May be planned for application in feasible open locations either alone or in

conjunction with plans for structural practices (e.g., subsurface drain line or infiltration basin) serving the same or contiguous areas

- Promotes successful long-term revegetation by restoring soil permeability, drainage and water holding capacity for healthy (rather than restricted) root-system development of trees, shrubs and deep rooted ground cover, minimizing plant drowning during wet periods and burnout during dry periods.

Feasibility/Limitations

The effectiveness of Deep Ripping and Decompaction is governed mostly by site factors such as: the original (undisturbed) soil's hydrologic characteristics; the general slope; local weather/timing (soil moisture) for implementation; the space-related freedom of equipment/implement maneuverability (noted above in **Recommended Application of Practice**), and by the proper selection and operation of tractor and implements (explained below in **Design Guidance**). The more notable site-related factors include:

Soil
In the undisturbed condition, each identified soil type comprising a site is grouped into one of four categories of soil hydrology, Hydrologic Soil Group A, B, C or D, determined primarily by a range of characteristics including soil texture, drainage capability when thoroughly wet, and depth to water table. The natural rates of infiltration and transmission of soil-water through the undisturbed soil layers for Group A is "high" with a low runoff potential while soils in Group B are moderate in infiltration and the transmission of soil-water with a moderate runoff potential, depending somewhat on slope. Soils in Group C have slow rates of infiltration and transmission of soil-water and a moderately high runoff potential influenced by soil texture and slope; while soils in Group D have exceptionally slow rates of infiltration and transmission of soil-water, and high runoff potential.

In Figure 4, the profile displays the undisturbed horizons of a soil in Hydrologic Soil Group C and the naturally slow rate of infiltration through the subsoil. The slow rate of infiltration begins immediately below the topsoil horizon (30 cm), due to the limited amount of macro pores, e.g.: natural subsoil fractures, worm holes and root channels. Infiltration after the construction-induced mixing and compression of such subsoil material is virtually absent; but can be restored back to this natural level with the two-phase practice of deep ripping and decompaction, followed by the permanent establishment of an appropriate, deep taproot

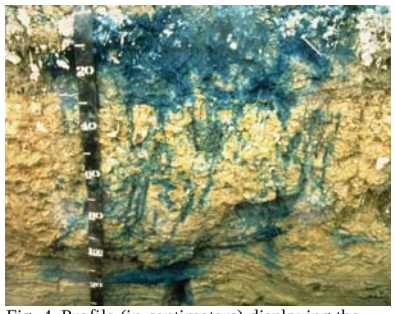

Fig. 4. Profile (in centimeters) displaying the infiltration test result of the natural undisturbed horizons of a soil in Hydrologic Soil Group C.

lawn/ground cover to help maintain the restored subsoil structure. Infiltration after construction-induced mixing and compression of such subsoil material can be notably rehabilitated with the Deep Ripping and Decompaction practice, which prepares the site for the appropriate long-term lawn/ground cover mix including deep taproot plants such as clover, fescue or trefoil, etc. needed for all rehabilitated soils.

Generally, soils in Hydrologic Soil Groups A and B, which respectively may include deep, well-drained, sandy-gravelly materials or deep, moderately well-drained basal till materials, are among the easier ones to restore permeability and infiltration, by deep ripping and decompaction. Among the many different soils in Hydrologic Soil Group C are those unique glacial tills having a natural fragipan zone, beginning about 12 to 18 inches (30 – 45cm), below surface. Although soils in Hydrologic Soil Group C do require a somewhat more carefully applied level of the Deep Ripping and Decompaction practice, it can greatly benefit such affected areas by reducing the runoff and fostering infiltration to a level equal to that of pre-disturbance.

Soils in Hydrologic Soil Group D typically have a permanent high water table close to the surface, influenced by a clay or other highly impervious layer of material. In many locations with clay subsoil material, the bulk density is so naturally high that heavy trafficking has little or no added impact on infiltration; and structural runoff control practices rather than Deep Ripping and Decompaction should be considered.

The information about Hydrologic Soil Groups is merely a general guideline. Site-specific data such as limited depths of cut-and-fill grading with minimal removal or translocation of the inherent subsoil materials (as analyzed in the county soil survey) or, conversely, the excavation and translocation of deeper, unconsolidated substratum or consolidated bedrock materials (unlike the analyzed subsoil horizons' materials referred to in the county soil survey) should always be taken into account.

Sites made up with significant quantities of large rocks, or having a very shallow depth to bedrock, are not conducive to deep ripping and decompation (subsoiling); and other measures may be more practical.

Slope
The two-phase application of 1) deep ripping and 2) decompaction (deep subsoiling), is most practical on flat, gentle and moderate slopes. In some situations, such as but not limited to temporary construction access corridors, inclusion areas that are moderately steep along a project's otherwise gentle or moderate slope may also be deep ripped and decompacted. For limited instances of moderate steepness on other projects, however, the post-construction land use and the relative alignment of the potential ripping and decompaction work in relation to the lay of the slope should be reviewed for safety and practicality. In broad construction areas predominated by moderately steep or steep slopes, the practice is generally not used.

Local Weather/Timing/Soil Moisture
Effective fracturing of compressed subsoil material from the exposed work surface, laterally and vertically down through the affected zone is achieved only when the soil material is moderately dry to moderately moist. Neither one of the two-phases, deep ripping nor decompaction (deep

subsoiling), can be effectively conducted when the soil material (subsoil or replaced topsoil) is in either a “plastic” or “liquid” state of soil consistency. Pulling the respective implements legs through the soil when it is overly moist only results in the “slicing and smearing” of the material or added “squeezing and compression” instead of the necessary fracturing. Ample drying time is needed for a “rippable” soil condition not merely in the material close to the surface, but throughout the material located down to the bottom of the physically compressed zone of the subsoil.

The “poor man’s Atterberg field test” for soil plasticity is a simple “hand-roll” method used for quick, on-site determination of whether or not the moisture level of the affected soil material is low enough for: effective deep ripping of subsoil; respreading of topsoil in a friable state; and final decompaction (deep subsoiling). Using a sample of soil material obtained from the planned bottom depth of ripping, e.g.: 20 - 24 inches below exposed subsoil surface, the sample is hand rolled between the palms down to a 1/8-inch diameter thread. (Use the same test for stored topsoil material before respreading on the site.) If the respective soil sample crumbles apart in segments no greater than 3/8 of an inch long, by the time it is rolled down to 1/8 inch diameter, it is low enough in moisture for deep ripping (or topsoil replacement), and decompaction. Conversely, as shown in Figure 5, if the rolled sample stretches out in increments greater than 3/8 of an inch long before crumbling, it is in a “plastic” state of soil consistency and is too wet for subsoil ripping (as well as topsoil replacement) and final decompaction.



Fig. 5. Augered from a depth of 19 inches below the surface of the replaced topsoil, this subsoil sample was hand rolled to a 1/8-inch diameter. The test shows the soil at this site stretches out too far without crumbling; it indicates the material is in a plastic state of consistence, too wet for final decompaction (deep subsoiling) at this time.

Design Guidance

Beyond the above-noted site factors, a vital requirement for the effective Deep Ripping and Decompaction (deep subsoiling), is implementing the practice in its distinct, two-phase process:

1) Deep rip the affected thickness of exposed subsoil material (see Figure 10 and 11), aggressively fracturing it before the protected topsoil is reapplied on the site (see Figure 12); and

2) Decompact (deep subsoil), simultaneously through the restored topsoil layer and the upper half of the affected subsoil (Figure 13). The second phase, “decompaction,” mitigates the partial recompaction which occurs during the heavy process of topsoil spreading/grading. Prior to deep ripping and decompacting the site, all construction activity, including construction equipment and material storage, site cleanup and trafficking (Figure 14), should be finished; and the site closed off to further disturbance. Likewise, once the practice is underway and the area’s soil permeability and

rainfall infiltration are being restored, a policy limiting all further traffic to permanent travel lanes is maintained.

The other critical elements, outlined below, are: using the proper implements (deep, heavy-duty rippers and subsoilers), and ample pulling-power equipment (tractors); and conducting the practice at the appropriate speed, depth and pattern(s) of movement.

Note that an appropriate plan for the separate practice of establishing a healthy perennial ground cover, with deep rooting to help maintain the restored soil structure, should be developed in advance. This may require the assistance of an agronomist or landscape horticulturist.

Implements

Avoid the use of all undersize implements. The small-to-medium, light-duty tool will, at best, only “scarify” the uppermost surface portion of the mass of compacted subsoil material. The term “chisel plow” is commonly but incorrectly applied to a broad range of implements. While a few may be adapted for the moderate subsoiling of non-impacted soils, the majority are less durable and used for only lighter land-fitting (see Figure 6).



Fig. 6. A light duty chisel implement, not adequate for either the deep ripping or decompaction (deep subsoiling) phase.



Fig. 7. One of several variations of an agricultural ripper. This unit has long, rugged shanks mounted on a steel V-frame for deep, aggressive fracturing through Phase 1.

Use a “heavy duty” agricultural-grade, deep ripper (see Figures 7,9,10 and 11) for the first phase: the lateral and vertical fracturing of the mass of exposed and compressed subsoil, down and through, to the bottom of impact, prior to the replacement of the topsoil layer. (Any oversize rocks which are uplifted to the subsoil surface during the deep ripping phase are picked and removed.) Like the heavy-duty class of implement for the first phase, the decompaction (deep subsoiling) of Phase 2 is conducted with the heavy-duty version of the deep subsoiler. More preferable is the angled-leg variety of deep subsoiler (shown in Figures 8 and 13). It minimizes the inversion of the subsoil and topsoil layers while laterally and vertically fracturing the upper half of the previously ripped subsoil layer and all of the topsoil layer by delivering a momentary, wave-like “lifting and shattering” action up through the soil layers as it is pulled.

Pulling-Power of Equipment
Use the following rule of thumb for tractor horsepower (hp) whenever deep ripping and decompacting a significantly impacted site: For both types of implement, have at least 40 hp of tractor pull available for each mounted shank/ leg.

Using the examples of a 3-shank and a 5-shank implement, the respective tractors should have 120 and 200 hp available for fracturing down to the final depth of 20-to-24 inches per phase. Final depth for the deep ripping in Phase 1 is achieved incrementally by a progressive series of passes (see Depth and Patterns of Movement, below); while for Phase 2, the full operating depth of the deep subsoiler is applied from the beginning.

The operating speed for pulling both types of implement should not exceed 2 to 3 mph. At this slow and managed rate of operating speed, maximum functional performance is sustained by the tractor and the implement performing the soil fracturing. Referring to Figure 8, the implement is the 6-leg version of the deep angled-leg subsoiler. Its two outside legs are "chained up" so that only four legs will be engaged (at the maximum depth), requiring no less than 160 hp, (rather than 240 hp) of pull. The 4-wheel drive, articulated-frame tractor in Figure 8 is 174 hp. It will be decompacting this unobstructed, former construction access area simultaneously through 11 inches of replaced topsoil and the upper 12 inches of the previously deep-ripped subsoil. In constricted areas of Phase 1) Deep Ripping, a medium-size tractor with adequate hp, such as the one in Figure 9 pulling a 3-shank deep ripper, may be more maneuverable.


Fig. 8. A deep, angled-leg subsoiler, ideal for Phase 2 decompaction of after the topsoil layer is graded on top of the ripped subsoil.


Fig. 9. This medium tractor is pulling a 3-shank deep ripper. The severely compacted construction access corridor is narrow, and the 120 hp tractor is more maneuverable for Phase 1 deep ripping (subsoil fracturing), here.

Some industrial-grade variations of ripping implements are attached to power graders and bulldozers. Although highly durable, they are generally not recommended. Typically, the shanks or "teeth" of these rippers are too short and stout; and they are mounted too far apart to achieve the well-distributed type of lateral and vertical fracturing of the soil materials necessary to restore soil permeability and infiltration. In addition, the power graders and bulldozers, as pullers, are far less maneuverable for turns and patterns than the tractor.

Depth and Patterns of Movement
As previously noted both Phase 1 Deep Ripping through significantly compressed, exposed subsoil and Phase 2 Decompaction (deep subsoiling) through the replaced topsoil and upper subsoil need to be performed at maximum capable depth of each implement. With an implement's guide wheels attached, some have a "normal" maximum operating depth of 18 inches, while others may go deeper. In many situations, however, the tractor/implement operator must first remove the guide wheels and other non essential elements from the implement. This adapts the ripper or the deep subsoiler for skillful pulling with its frame only a few inches above surface, while the shanks or legs, fracture the soil material 20-to-24 inches deep.

There may be construction sites where the depth of the exposed subsoil's compression is moderate, e.g.: 12 inches, rather than deep. This can be verified by using a ¾ inch cone penetrometer and a shovel to test the subsoil for its level of compaction, incrementally, every three inches of increasing depth. Once the full thickness of the subsoil's compacted zone is finally "pieced" and there is a significant drop in the psi measurements of the soil penetrometer, the depth/thickness of compaction is determined. This is repeated at several representative locations of the construction site. If the thickness of the site's subsoil compaction is verified as, for example, ten inches, then the Phase 1 Deep Ripping can be correspondingly reduced to the implement's minimum operable depth of 12 inches. However, the Phase 2 simultaneous Decompation (subsoiling) of an 11 inch thick layer of replaced topsoil and the upper subsoil should run at the subsoiling implements full operating depth.


Fig. 10. An early pass with a 3-shank deep ripper penetrating only 8 inches into this worksite's severely compressed subsoil.


Fig. 11. A repeat run of the 3-shank ripper along the same patterned pass area as Fig. 9; here, incrementally reaching 18 of the needed 22 inches of subsoil fracture.

Typically, three separate series (patterns) are used for both the Phase 1 Deep Ripping and the Phase 2 Decompaction on significantly compacted sites. For Phase 1, each series begins with a moderate depth of rip and, by repeat-pass, continues until full depth is reached. Phase 2 applies the full depth of Decompation (subsoiling), from the beginning.

Every separate series (pattern) consists of parallel, forward-and-return runs, with each progressive

pass of the implement's legs or shanks evenly staggered between those from the previous pass. This compensates for the shank or leg-spacing on the implement, e.g., with 24-to-30 inches between each shank or leg. The staggered return pass ensures lateral and vertical fracturing actuated every 12 to 15 inches across the densely compressed soil mass.

Large, Unobstructed Areas
For larger easy areas, use the standard patterns of movement:

- The first series (pattern) of passes is applied lengthwise, parallel with the longest spread of the site; gradually progressing across the site's width, with each successive pass.

- The second series runs obliquely, crossing the first series at an angle of about 45 degrees.

- The third series runs at right angle (or 90 degrees), to the first series to complete the fracturing and shattering on severely compacted sites, and avoid leaving large unbroken blocks of compressed soil material. (In certain instances, the third series may be optional, depending on how thoroughly the first two series loosen the material and eliminate large chunks/blocks of material as verified by tests with a ¾-inch cone penetrometer.)



Fig. 12. Moderately dry topsoil is being replaced on the affected site now that Phase 1 deep ripping of the compressed subsoil is complete.



Fig. 13. The same deep, angled-leg subsoiler shown in Fig. 7 is engaged at maximum depth for Phase 2, decompaction (deep soiling), of the replaced topsoil and the upper subsoil materials.

Corridors
In long corridors of limited width and less maneuverability than larger sites, e.g.: along compacted areas used as temporary construction access, a modified series of pattern passes are used.

- First, apply the same initial lengthwise, parallel series of passes described above.

- A second series of passes makes a broad "S" shaped pattern of rips, continually and gradually alternating the "S" curves between opposite edges inside the compacted corridor.

- The third and final series again uses the broad, alternating S pattern, but it is "flip-flopped" to continually cross the previous S pattern along the corridor's centerline. This final series of the S pattern curves back along the edge areas skipped by the second series.

Maintenance and Cost

Once the two-phase practice of Deep Ripping and Decompation is completed, two items are essential for maintaining a site's soil porosity and permeability for infiltration. They are: planting and maintaining the appropriate ground cover with deep roots to maintain the soil structure (see Figure 15); and keeping the site free of traffic or other weight loads.

Note that site-specific choice of an appropriate vegetative ground-cover seed mix, including the proper seeding ratio of one or more perennial species with a deep taproot system and the proper amount of lime and soil nutrients (fertilizer mix) adapted to the soil-needs, are basic to the final practice of landscaping, i.e: surface tillage, seeding/planting/fertilizing and culti-packing or mulching is applied. The "maintenance" of an effectively deep-ripped and decompacted area is generally limited to the successful perennial (long-term) landscape ground cover; as long as no weight-bearing force of soil compaction is applied.



Fig. 14. The severely compacted soil of a temporary construction yard used daily by heavy equipment for four months; shown before deep ripping, topsoil replacement, and decompaction.



Fig. 15. The same site as Fig. 14 after deep ripping of the exposed subsoil, topsoil replacement, decompaction through the topsoil and upper subsoil and final surface tillage and revegetation to maintain soil permeability and infiltration.

The Deep Ripping and Decompaction practice is, by necessity, more extensive than periodic subsoiling of farmland.The cost of deep ripping and decompacting (deep subsoiling), will vary according to the depth and severity of soil-material compression and the relative amount of tractor and implement time that is required. In some instances, depending on open maneuverability, two-to-three acres of compacted project area may be deep-ripped in one day. In other situations of more severe compaction and - or less maneuverability, as little as one acre may be fully ripped in a day. Generally, if the Phase 1) Deep Ripping is fully effective, the Phase 2) Decompaction should be completed in 2/3 to 3/4 of the time required for Phase 1.

Using the example of two acres of Phase 1) Deep Ripping in one day, at $1800 per day, the net cost is $900 per acre. If the Phase 2) Decompacting or deep subsoiling takes 3/4 the time as Phase 1, it costs $675 per acre for a combined total of $1575 per acre to complete the practice (these figures do not include the cost of the separate practice of topsoil stripping and replacement). Due to the many variables, it must be recognized that cost will be determined by the specific conditions or constraints of the site and the availability of proper equipment.

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Appendix F:
Post-Construction Inspections and Maintenance

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POST CONSTRUCTION INSPECTIONS AND MAINTENANCE

1. SITE COVER

a. Inspections

Site cover and associated structures and embankments should be inspected periodically for the first few months following construction and then on a biannual basis. Site inspections should also be performed following all major (i.e., intense storms, thunder storms, cloud burst, etc.) storm events. Items to check for include (but are not limited to):

i. Differential settlement of embankments, cracking or erosion.

ii. Lack of vigor and density of grass turf.

iii. Accumulation of sediments or litter on lawn areas, paved areas, or within catch basin sumps.

iv. Accumulation of pollutants, including oils or grease, in catch basin sumps.

v. Damage or fatigue of storm sewer structures or associated components.

b. Mowing and Sweeping

Vegetated areas and landscaping should be maintained to promote vigorous and dense growth. Lawn areas should be mowed at least three times a year (more frequent mowing may be desired for aesthetic reasons). Resultant yard waste shall be collected and disposed of off-site.

Paved areas should be swept at least twice a year. Additional sweeping may be appropriate in the early spring for removal of deicing materials

c. Debris and Litter Removal

Accumulation of litter and debris should be removed during each mowing or sweep operation.

d. Structural Repair or Replacement

Components of the system which require repair or replacement should be addressed immediately following identification.

e. Catch Basins

The frequency for cleanout of catch basin sumps will depend on the efficiency of mowing, sweeping, and debris and litter removal. Sumps should be cleaned when accumulation of sediments are within six inches of the catch basin outlet pipe.

Disposal of material from catch basins sumps, drainage manholes, and trench drains shall be in accordance with local, state, and federal guidelines.

f. Rip-rap Dissipation structures

Rip-rap used to dissipate energy from pipe outfalls shall be cleaned or replaced when it becomes overburdened with silt or sediment.

g. Winter Maintenance

To prevent impacts to storm water management facilities, the following winter maintenance limitations, restrictions, or requirements are recommended:

i. Remove snow and ice from inlet structures, basin inlet and outlet structures and away from culvert end sections.

ii. Snow removed from paved areas should not be piled at inlets/outlets of the storm water management basin.

iii. Use of deicing materials should be limited to sand and "environmentally friendly" chemical products. Use of salt mixtures should be kept to a minimum.

iv. Sand used for deicing should be clean, course material free of fines, silt, and clay.

v. Materials used for deicing should be removed during the early spring by sweeping and/ or vacuuming.

2. BIORETENTION FILTERS

a. Inspection Schedule

Bioretention filters should be inspected periodically for the first few months after construction and then on a monthly basis. Bioretention filters should be inspected after all major storm events.

b. Inspection of Uphill Drainage Area

Inspect areas that are uphill from the Bioretention filter.

i. Bare soil and/or erosion of the ground should be seeded and mulches to establish vegetation. Areas of erosion should be filled with soil, compacted, and seeded and strawed to establish vegetation.

ii. If a small channel(s) is forming, try to redirect water flowing to this area by creating a small berm or adding topsoil to areas that are heavily compacted.

iii. Piles of grass clippings, mulch, dirt, salt or other materials should be removed.

iv. Open containers of oil, grease, paint, or other substances should be covered and properly disposed of.

c. Inspection of Inlets

Stand in the Bioretention filter itself and inspect each location where water flows in.

i. Inlets should have a clear pathway for water to flow into the filter. Grit and debris or grass/weeds should be removed at curb inlets or openings.

ii. Clumps of growing grass or weeds and the associated soil or grit should be removed.

iii. Grass clippings, leaves, sticks, and other debris collecting at inlets should be removed.

iv. For pipes and ditches, sediment and debris partially blocking the pipe or ditch opening into the Bioretention filter should be removed.

v. All materials removed should be properly disposed in such a way that it may not re-enter the Bioretention filter.

vi. Small areas of erosion should be smoothed out and rock or stone applied to prevent further erosion. Reseeding and applying erosion-control matting can be used to prevent further erosion.

d. Inspection of Ponding Area

Examine the entire Bioretention surface and side slopes:

i. In areas where the mulch layer has decomposed or is less than 1-inch thick, new mulch should be added to a total depth of 2 to 3 inches. The mulch should be a shredded hardwood mulch that is less likely to float away during rainstorms. Avoid adding too much mulch so that inlets are obstructed, or certain areas become higher than the rest of the Bioretention surface.

ii. Excess sediment, grit, trash, or other debris that has accumulated on the bottom should be removed and disposed of in such a way that it cannot re-enter the Bioretention filter. If removing the material creates a hole or low area, fill in with a soil mix that matches the original mix and cover with mulch to create a flat surface.

iii. Eroded areas in the bottom or on the side slopes should be filled with clean topsoil or sand and covered with mulch. If the problem reoccurs, stone can be used to fill in the areas. If the erosion is on a side slope, fill in with clay that can be compacted and seed and mulch the area.

iv. The bottom of the Bioretention filter should be flat. The surface should be raked or mulch added to low spots to create a more level surface.

e. Inspection of Vegetation

Examine all Bioretention filter vegetation:

i. Weeds and dead and/or diseased plants should be removed and the mulch surrounding these replaced. Plants should be added to fill in areas that are not well vegetated.

ii. If bioretention filter utilized a vegetated seed mix, then grass areas shall be mowed to ensure that grass height does not exceed 6-inches.

iii. Undesirable trees and shrubs should be removed. Resultant yard wastes shall be collected and disposed of off-site

f. Inspection of Outlets

Examine the outlets that release water out of the Bioretention filter:

i. Stone should be added in areas of erosion at the outlet to reduce the impact from the water flowing out of the outlet pipe or weir during storms.

ii. Outlet obstructions should be removed and disposed of where it cannot re-enter the Bioretention filter.

g. Debris, Trash and Litter Control

Removal of debris and litter shall be accomplished during mowing operations. Inlet structures should be cleared of all debris and litter.

h. Structural Repairs and Replacement

Components of the bioretention filter, which require repair or replacement, should be addressed immediately following identification. This includes treating and or replacing diseased trees and shrub, fertilizing as necessary, replacing tree stakes and wires, replacing mulch where bare spots appear, replacing clogged underdrains, filter beds, and pea gravel diaphragm.

i. Erosion and Sediment Control

Sources of sedimentation, specifically eroded areas in upland drainage areas, should be stabilized immediately upon identification. Stabilization should be with vegetative practices or other erosion control practices when vegetative measures do not prove effective.

Soil slumpage, erosion of the embankments or around inlets/outlets, and cracking should be stabilized and repaired immediately upon identification.

j. Sediment Removal

Sediments that accumulate in the bioretention filter should be removed annually to prevent clogging of inlet or outlet structures. Disposal of material removed from bioretention filter shall be in accordance with local, state, and federal guidelines.

3. HYDRODYNAMIC DEVICE

The hydrodynamic device is a confined space environment and only properly trained personnel possessing the necessary safety equipment should enter the unit to perform maintenance or inspection.

a. Inspection Schedule

The hydrodynamic device shall be inspected every four months.

b. Inspection Items

The unit's internal components should be inspected for any signs of damage or any loosening of the bolts used to fasten the various components to the manhole structure and to each other.

Refer to attached Operations and Maintenance Guidelines, for the Hydrodynamic Device, for the manufacturer's detailed inspection and maintenance requirements.

c. Debris, Trash and Litter Control

The screen shall be power washed for the inspection. The floatables shall be removed and the sump cleaned when it has reached 50% capacity. The unit may require cleaning in the event of a spill of a toxic or foreign substance. At a minimum, the hydrodynamic device shall be pumped out at least once a year if the sump does not reach its 50% capacity.

d. Sediment removal

Disposal of material from the hydrodynamic device shall be in accordance with local, state, and federal guidelines.

CONTECH®
ENGINEERED SOLUTIONS

CDS Guide
Operation, Design, Performance and Maintenance



CDS®

Using patented continuous deflective separation technology, the CDS system screens, separates and traps debris, sediment, and oil and grease from stormwater runoff. The indirect screening capability of the system allows for 100% removal of floatables and neutrally buoyant material without blinding. Flow and screening controls physically separate captured solids, and minimize the re-suspension and release of previously trapped pollutants. Inline units can treat up to 6 cfs, and internally bypass flows in excess of 50 cfs (1416 L/s). Available precast or cast-in-place, offline units can treat flows from 1 to 300 cfs (28.3 to 8495 L/s). The pollutant removal capacity of the CDS system has been proven in lab and field testing.

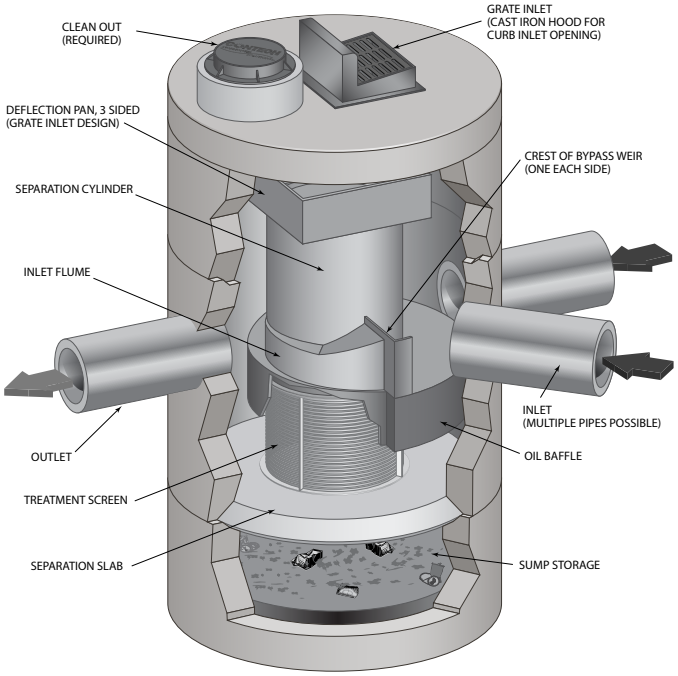
Operation Overview

Stormwater enters the diversion chamber where the diversion weir guides the flow into the unit's separation chamber and pollutants are removed from the flow. All flows up to the system's treatment design capacity enter the separation chamber and are treated.

Swirl concentration and screen deflection force floatables and solids to the center of the separation chamber where 100% of floatables and neutrally buoyant debris larger than the screen apertures are trapped.

Stormwater then moves through the separation screen, under the oil baffle and exits the system. The separation screen remains clog free due to continuous deflection.

During the flow events exceeding the treatment design capacity, the diversion weir bypasses excessive flows around the separation chamber, so captured pollutants are retained in the separation cylinder.



Design Basics

There are three primary methods of sizing a CDS system. The Water Quality Flow Rate Method determines which model size provides the desired removal efficiency at a given flow rate for a defined particle size. The Rational Rainfall Method™ or the and Probabilistic Method is used when a specific removal efficiency of the net annual sediment load is required.

Typically in the Unites States, CDS systems are designed to achieve an 80% annual solids load reduction based on lab generated performance curves for a gradation with an average particle size (d50) of 125 microns (μm). For some regulatory environments, CDS systems can also be designed to achieve an 80% annual solids load reduction based on an average particle size (d50) of 75 microns (μm) or 50 microns (μm).

Water Quality Flow Rate Method

In some cases, regulations require that a specific treatment rate, often referred to as the water quality design flow (WQQ), be treated. This WQQ represents the peak flow rate from either an event with a specific recurrence interval, e.g. the six-month storm, or a water quality depth, e.g. 1/2-inch (13 mm) of rainfall.

The CDS is designed to treat all flows up to the WQQ. At influent rates higher than the WQQ, the diversion weir will direct most flow exceeding the WQQ around the separation chamber. This allows removal efficiency to remain relatively constant in the separation chamber and eliminates the risk of washout during bypass flows regardless of influent flow rates.

Treatment flow rates are defined as the rate at which the CDS will remove a specific gradation of sediment at a specific removal efficiency. Therefore the treatment flow rate is variable, based on the gradation and removal efficiency specified by the design engineer.

Rational Rainfall Method™

Differences in local climate, topography and scale make every site hydraulically unique. It is important to take these factors into consideration when estimating the long-term performance of any stormwater treatment system. The Rational Rainfall Method combines site-specific information with laboratory generated performance data, and local historical precipitation records to estimate removal efficiencies as accurately as possible.

Short duration rain gauge records from across the United States and Canada were analyzed to determine the percent of the total annual rainfall that fell at a range of intensities. US stations' depths were totaled every 15 minutes, or hourly, and recorded in 0.01-inch increments. Depths were recorded hourly with 1-mm resolution at Canadian stations. One trend was consistent at all sites; the vast majority of precipitation fell at low intensities and high intensity storms contributed relatively little to the total annual depth.

These intensities, along with the total drainage area and runoff coefficient for each specific site, are translated into flow rates using the Rational Rainfall Method. Since most sites are relatively small and highly impervious, the Rational Rainfall Method is appropriate. Based on the runoff flow rates calculated for each intensity, operating rates within a proposed CDS system are

determined. Performance efficiency curve determined from full scale laboratory tests on defined sediment PSDs is applied to calculate solids removal efficiency. The relative removal efficiency at each operating rate is added to produce a net annual pollutant removal efficiency estimate.

Probabilistic Rational Method

The Probabilistic Rational Method is a sizing program Contech developed to estimate a net annual sediment load reduction for a particular CDS model based on site size, site runoff coefficient, regional rainfall intensity distribution, and anticipated pollutant characteristics.

The Probabilistic Method is an extension of the Rational Method used to estimate peak discharge rates generated by storm events of varying statistical return frequencies (e.g. 2-year storm event). Under the Rational Method, an adjustment factor is used to adjust the runoff coefficient estimated for the 10-year event, correlating a known hydrologic parameter with the target storm event. The rainfall intensities vary depending on the return frequency of the storm event under consideration. In general, these two frequency dependent parameters (rainfall intensity and runoff coefficient) increase as the return frequency increases while the drainage area remains constant.

These intensities, along with the total drainage area and runoff coefficient for each specific site, are translated into flow rates using the Rational Method. Since most sites are relatively small and highly impervious, the Rational Method is appropriate. Based on the runoff flow rates calculated for each intensity, operating rates within a proposed CDS are determined. Performance efficiency curve on defined sediment PSDs is applied to calculate solids removal efficiency. The relative removal efficiency at each operating rate is added to produce a net annual pollutant removal efficiency estimate.

Treatment Flow Rate

The inlet throat area is sized to ensure that the WQQ passes through the separation chamber at a water surface elevation equal to the crest of the diversion weir. The diversion weir bypasses excessive flows around the separation chamber, thus preventing re-suspension or re-entrainment of previously captured particles.

Hydraulic Capacity

The hydraulic capacity of a CDS system is determined by the length and height of the diversion weir and by the maximum allowable head in the system. Typical configurations allow hydraulic capacities of up to ten times the treatment flow rate. The crest of the diversion weir may be lowered and the inlet throat may be widened to increase the capacity of the system at a given water surface elevation. The unit is designed to meet project specific hydraulic requirements.

Performance

Full-Scale Laboratory Test Results

A full-scale CDS system (Model CDS2020-5B) was tested at the facility of University of Florida, Gainesville, FL. This CDS unit was evaluated under controlled laboratory conditions of influent flow rate and addition of sediment.

Two different gradations of silica sand material (UF Sediment & OK-110) were used in the CDS performance evaluation. The particle size distributions (PSDs) of the test materials were analyzed using standard method "Gradation ASTM D-422 "Standard Test Method for Particle-Size Analysis of Soils" by a certified laboratory.

UF Sediment is a mixture of three different products produced by the U.S. Silica Company: "Sil-Co-Sil 106", "#1 DRY" and "20/40 Oil Frac". Particle size distribution analysis shows that the UF Sediment has a very fine gradation (d50 = 20 to 30 μm) covering a wide size range (Coefficient of Uniformity, C averaged at 10.6). In comparison with the hypothetical TSS gradation specified in the NJDEP (New Jersey Department of Environmental Protection) and NJCAT (New Jersey Corporation for Advanced Technology) protocol for lab testing, the UF Sediment covers a similar range of particle size but with a finer d50 (d50 for NJDEP is approximately 50 μm) (NJDEP, 2003).

The OK-110 silica sand is a commercial product of U.S. Silica Sand. The particle size distribution analysis of this material, also included in Figure 1, shows that 99.9% of the OK-110 sand is finer than 250 microns, with a mean particle size (d50) of 106 microns. The PSDs for the test material are shown in Figure 1.

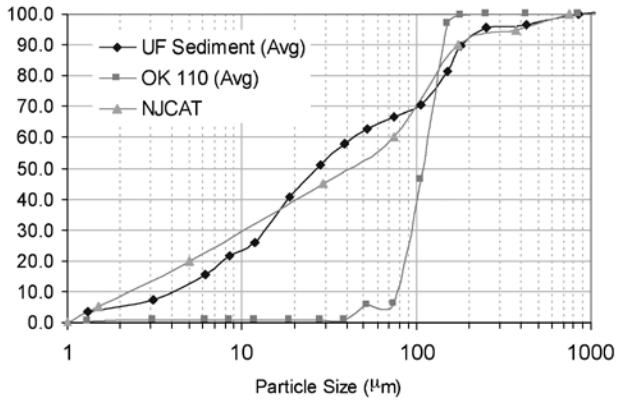


Figure 1. Particle size distributions

Tests were conducted to quantify the performance of a specific CDS unit (1.1 cfs (31.3-L/s) design capacity) at various flow rates, ranging from 1% up to 125% of the treatment design capacity of the unit, using the 2400 micron screen. All tests were conducted with controlled influent concentrations of approximately 200 mg/L. Effluent samples were taken at equal time intervals across the entire duration of each test run. These samples were then processed with a Dekaport Cone sample splitter to obtain representative sub-samples for Suspended Sediment Concentration (SSC) testing using ASTM D3977-97 "Standard Test Methods for Determining Sediment Concentration in Water Samples", and particle size distribution analysis.

Results and Modeling

Based on the data from the University of Florida, a performance model was developed for the CDS system. A regression analysis was used to develop a fitting curve representative of the scattered data points at various design flow rates. This model, which demonstrated good agreement with the laboratory data, can then be used to predict CDS system performance with respect

to SSC removal for any particle size gradation, assuming the particles are inorganic sandy-silt. Figure 2 shows CDS predictive performance for two typical particle size gradations (NJCAT gradation and OK-110 sand) as a function of operating rate.

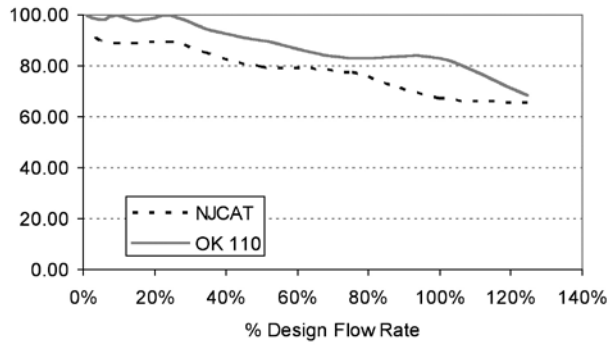


Figure 2. CDS stormwater treatment predictive performance for various particle gradations as a function of operating rate.

Many regulatory jurisdictions set a performance standard for hydrodynamic devices by stating that the devices shall be capable of achieving an 80% removal efficiency for particles having a mean particle size (d50) of 125 microns (e.g. Washington State Department of Ecology — WASDOE - 2008). The model can be used to calculate the expected performance of such a PSD (shown in Figure 3). The model indicates (Figure 4) that the CDS system with 2400 micron screen achieves approximately 80% removal at the design (100%) flow rate, for this particle size distribution (d50 = 125 μm).

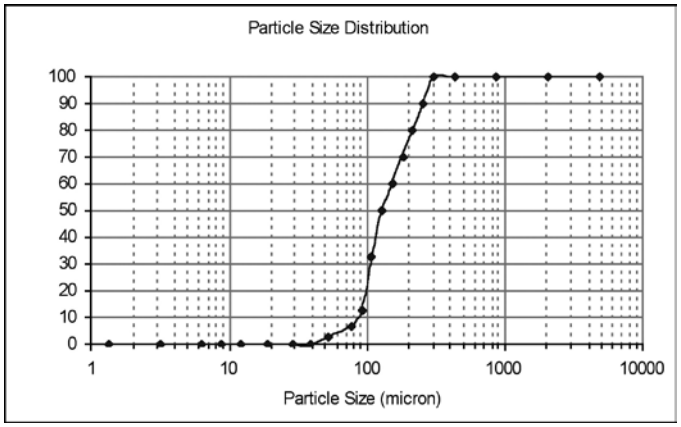


Figure 3. WASDOE PSD

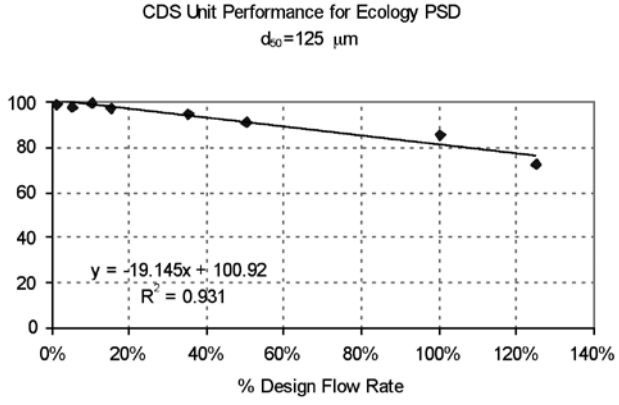


Figure 4. Modeled performance for WASDOE PSD.

Maintenance

The CDS system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit. For example, unstable soils or heavy winter sanding will cause the grit chamber to fill more quickly but regular sweeping of paved surfaces will slow accumulation.

Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant transport and deposition may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. At a minimum, inspections should be performed twice per year (e.g. spring and fall) however more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid accumulations, or in equipment washdown areas. Installations should also be inspected more frequently where excessive amounts of trash are expected.

The visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet and separation screen. The inspection should also quantify the accumulation of hydrocarbons, trash, and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument. If absorbent material is used for enhanced removal of hydrocarbons, the level of discoloration of the sorbent material should also be identified



during inspection. It is useful and often required as part of an operating permit to keep a record of each inspection. A simple form for doing so is provided.

Access to the CDS unit is typically achieved through two manhole access covers. One opening allows for inspection and cleanout of the separation chamber (cylinder and screen) and isolated sump. The other allows for inspection and cleanout of sediment captured and retained outside the screen. For deep units, a single manhole access point would allows both sump cleanout and access outside the screen.

The CDS system should be cleaned when the level of sediment has reached 75% of capacity in the isolated sump or when an appreciable level of hydrocarbons and trash has accumulated. If absorbent material is used, it should be replaced when significant discoloration has occurred. Performance will not be impacted until 100% of the sump capacity is exceeded however it is recommended that the system be cleaned prior to that for easier removal of sediment. The level of sediment is easily determined by measuring from finished grade down to the top of the sediment pile. To avoid underestimating the level of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Particles at the top of the pile typically offer less resistance to the end of the rod than consolidated particles toward the bottom of the pile. Once this measurement is recorded, it should be compared to the as-built drawing for the unit to determine weather the height of the sediment pile off the bottom of the sump floor exceeds 75% of the total height of isolated sump.

Cleaning

Cleaning of a CDS systems should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method of removing pollutants from the system. Simply remove the manhole covers and insert the vacuum hose into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The area outside the screen should also be cleaned out if pollutant build-up exists in this area.

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, the system should be cleaned out immediately in the event of an oil or gasoline spill. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use absorbent pads since they are usually less expensive to dispose than the oil/water emulsion that may be created by vacuuming the oily layer. Trash and debris can be netted out to separate it from the other pollutants. The screen should be cleaned to ensure it is free of trash and debris.

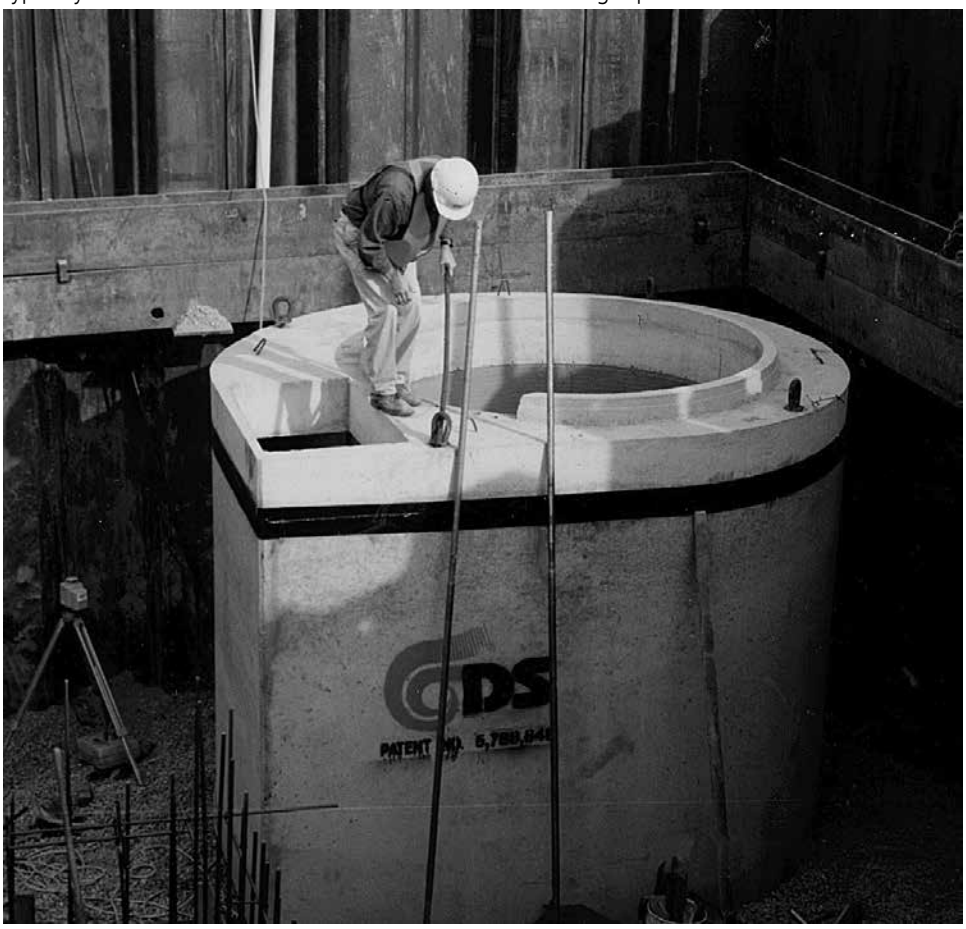
Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and also to ensure that proper safety precautions have been followed. Confined space entry procedures need to be followed if physical access is required. Disposal of all material removed from the CDS system should be done in accordance with local regulations. In many jurisdictions, disposal of the sediments may be handled in the same manner as the disposal of sediments removed from catch basins or deep sump manholes. Check your local regulations for specific requirements on disposal.



CDS Model	Diameter		Distance from Water Surface to Top of Sediment Pile		Sediment Storage Capacity	
	ft	m	ft	m	y^3	m^3
CDS1515	3	0.9	3.0	0.9	0.5	0.4
CDS2015	4	1.2	3.0	0.9	0.9	0.7
CDS2015	5	1.5	3.0	0.9	1.3	1.0
CDS2020	5	1.5	3.5	1.1	1.3	1.0
CDS2025	5	1.5	4.0	1.2	1.3	1.0
CDS3020	6	1.8	4.0	1.2	2.1	1.6
CDS3025	6	1.8	4.0	1.2	2.1	1.6
CDS3030	6	1.8	4.6	1.4	2.1	1.6
CDS3035	6	1.8	5.0	1.5	2.1	1.6
CDS4030	8	2.4	4.6	1.4	5.6	4.3
CDS4040	8	2.4	5.7	1.7	5.6	4.3
CDS4045	8	2.4	6.2	1.9	5.6	4.3
CDS5640	10	3.0	6.3	1.9	8.7	6.7
CDS5653	10	3.0	7.7	2.3	8.7	6.7
CDS5668	10	3.0	9.3	2.8	8.7	6.7
CDS5678	10	3.0	10.3	3.1	8.7	6.7

Table 1: CDS Maintenance Indicators and Sediment Storage Capacities

Note: To avoid underestimating the volume of sediment in the chamber, carefully lower the measuring device to the top of the sediment pile. Finer silty particles at the top of the pile may be more difficult to feel with a measuring stick. These finer particles typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile.



CDS Inspection & Maintenance Log

CDS Model: _____ Location: _____

Date	Water depth to sediment[1]	Floatable Layer Thickness[2]	Describe Maintenance Performed	Maintenance Personnel	Comments

1. The water depth to sediment is determined by taking two measurements with a stadia rod: one measurement from the manhole opening to the top of the sediment pile and the other from the manhole opening to the water surface. If the difference between these measurements is less than the values listed in table 1 the system should be cleaned out. **Note: to avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the top of the sediment pile**.

2. For optimum performance, the system should be cleaned out when the floating hydrocarbon layer accumulates to an appreciable thickness. In the event of an oil spill, the system should be cleaned immediately.

SUPPORT

- Drawings and specifications are available at www.ContechES.com.
- Site-specific design support is available from our engineers.

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cds_manual 3/17 PDF

RECYCLED PAPER

CDS® Models and Capacities

	CDS MODEL	Treatment Flow Rates[1]			Estimated Maximum Peak Conveyance Flow[3] (cfs)/(L/s)	Minimum Sump Storage Capacity[4] (yd^3)/(m^3)	Minimum Oil Storage Capacity[4] (gal)/(L)
		75 microns (cfs)/(L/s)	125 microns[2] (cfs)/(L/s)	Trash & Debris (cfs)/(L/s)			
PRECAST	CDS2015-4	0.5 (14.2)	0.7 (19.8)	1.0 (28.3)	10 (283)	0.9 (0.7)	61 (232)
	CDS2015-5	0.5 (14.2)	0.7(19.8)	1.0 (28.3)	10 (283)	1.5 (1.1)	83 (313)
	CDS2020-5	0.7 (19.8)	1.1 (31.2)	1.5 (42.5)	14 (396)	1.5 (1.1)	99 (376)
	CDS2025-5	1.1 (31.2)	1.6 (45.3)	2.2 (62.3)	14 (396)	1.5 (1.1)	116 (439)
	CDS3020-6	1.4 (39.6)	2.0 (56.6)	2.8 (79.3)	20 (566)	2.1 (1.6)	184 (696)
	CDS3025-6	1.7 (48.1)	2.5 (70.8)	3.5 (99.2)	20 (566)	2.1 (1.6)	210 (795)
	CDS3030-6	2.0 (56.6)	3.0 (85.0)	4.2 (118.9)	20 (566)	2.1 (1.6)	236 (895)
	CDS3035-6	2.6 (73.6)	3.8 (106.2)	5.3 (150.0)	20 (566)	2.1 (1.6)	263 (994)
	CDS4030-8	3.1 (87.7)	4.5 (127.4)	6.3 (178.3)	30 (850)	5.6 (4.3)	426 (1612)
	CDS4040-8	4.1 (116.1)	6.0 (169.9)	8.4 (237.8)	30 (850)	5.6 (4.3)	520 (1970)
	CDS4045-8	5.1 (144.4)	7.5 (212.4)	10.5 (297.2)	30 (850)	5.6 (4.3)	568 (2149)
	CDS5640-10	6.1 (172.7)	9.0 (254.9)	12.6 (356.7)	50 (1416)	8.7 (6.7)	758 (2869)
	CDS5653-10	9.5 (268.9)	14.0 (396.5)	19.6 (554.8)	50 (1416)	8.7 (6.7)	965 (3652)
	CDS5668-10	12.9 (365.1)	19.0 (538.1)	26.6 (752.9)	50 (1416)	8.7 (6.7)	1172 (4435)
	CDS5678-10	17.0 (481.2)	25.0 (708.0)	35.0 (990.7)	50 (1416)	8.7 (6.7)	1309 (4956)
	CDS9280-12	27.2 (770.2)	40.0 (1132.7)	56.0 (1585.7)	Offline	16.8 (12.8)	N/A
	CDS9290-12	35.4 (1002.4)	52.0 (1472.5)	72 (2038.8)		16.8 (12.8)	
	CDS92100-12	42.8 (1212.0)	63.0 (1783.9)	88 (2491.9)		16.8 (12.8)	
CAST-IN-PLACE	CDS150134-22	100.7 (2851.5)	148.0 (4190.9)	270 (7645.6)		56.3 (43.0)	
	CDS200164-26	183.6 (5199.0)	270.0 (7645.6)	378.0 (10703.8)		78.7 (60.2)	
	CDS240160-32	204 (5776.6)	300.0 (8495.1)	420.0 (11893.0)		119.1 (91.1)	
	Additional Cast-in-Place models available upon request.						

1. Alternative PSD/D_{50} sizing is available upon request.
2. 125 micron flows are based on the CDS Washington State Department of Ecology approval for 80% removal of a particle size distribution (PSD) having a mean particle size (D_{50}) of 125 microns.
3. Estimated maximum peak conveyance flow is calculated using conservative values and may be exceeded on sites with lower inflow velocities and sufficient head over the weir.
4. Sump and oil capacities can be customized to meet site needs.

Appendix G:
Figures

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FIG 1



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Phone: (518) 812-0513

Beacon 248 Development LLC
Proposed Residential Development

Orthophoto Map

104 Rochelle Avenue
City of Beacon
Dutchess County, New York

Drawn:	CLC
Date:	01/23/2011
Scale:	1:3,600
Project:	81056.00
Figure:	X

Map Document: (R:\8\81000-81999\81056_00_Beacon\GIS\maps\81056_00_Orthophoto_8x11.mxd)
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FIG 2



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Phone: (518) 812-0513

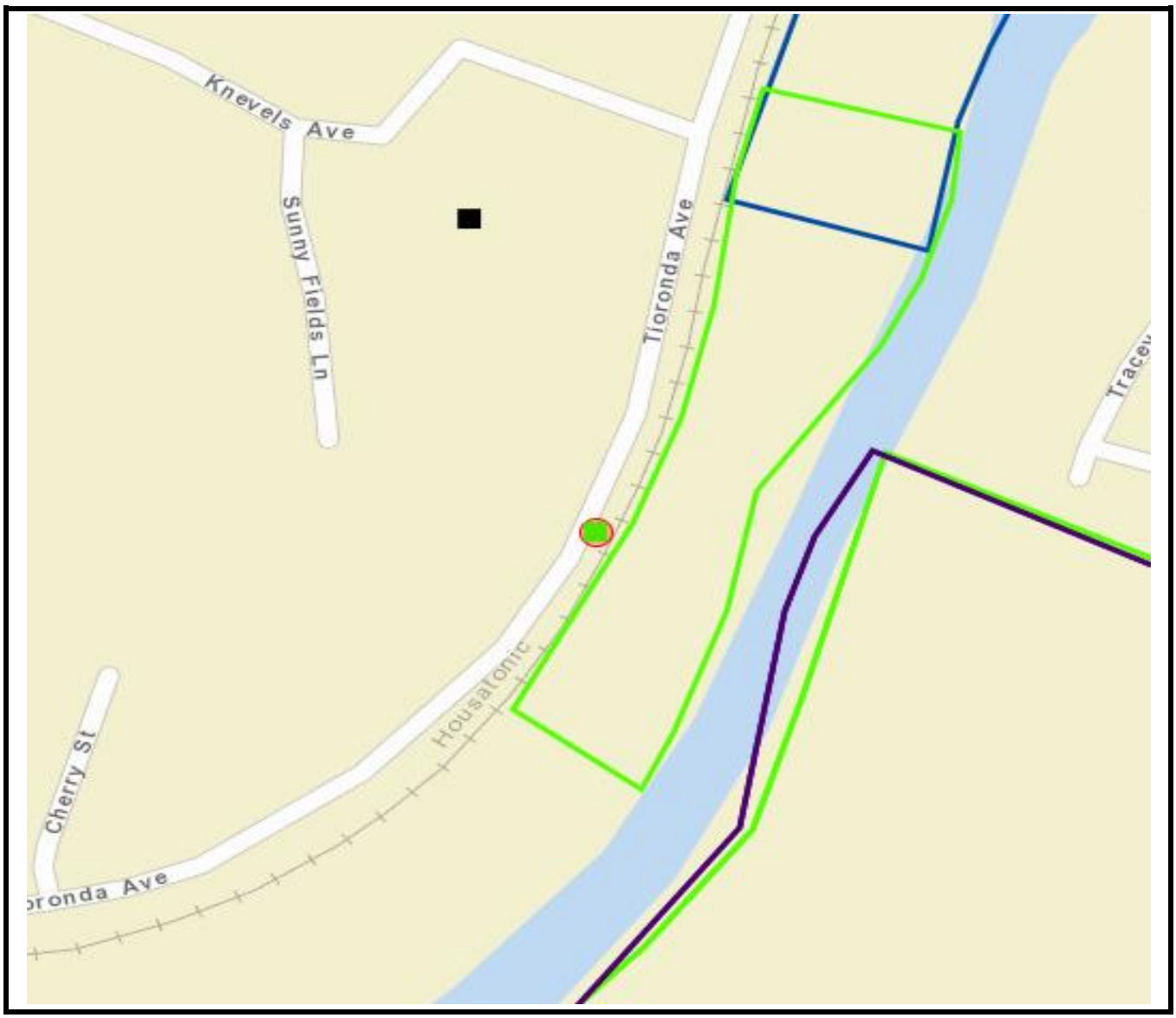
Proposed Fishkill Creek Development (FCD) Site Plan

Soils Map

Tioronda Avenue, City of Beacon - Dutchess County, NY

Drawn:	RLB
Date:	09/06/2018
Scale:	1 in = 300 feet
Project:	81750.00
Figure:	4

FIG 3



LEGEND

Consultation Projects (View)

Survey Archaeology Areas (View)

Survey Building Areas (View)

LPC Historic Districts

Archeologically Sensitive Areas

National Register Building Sites (View)

USN Building Districts (View)

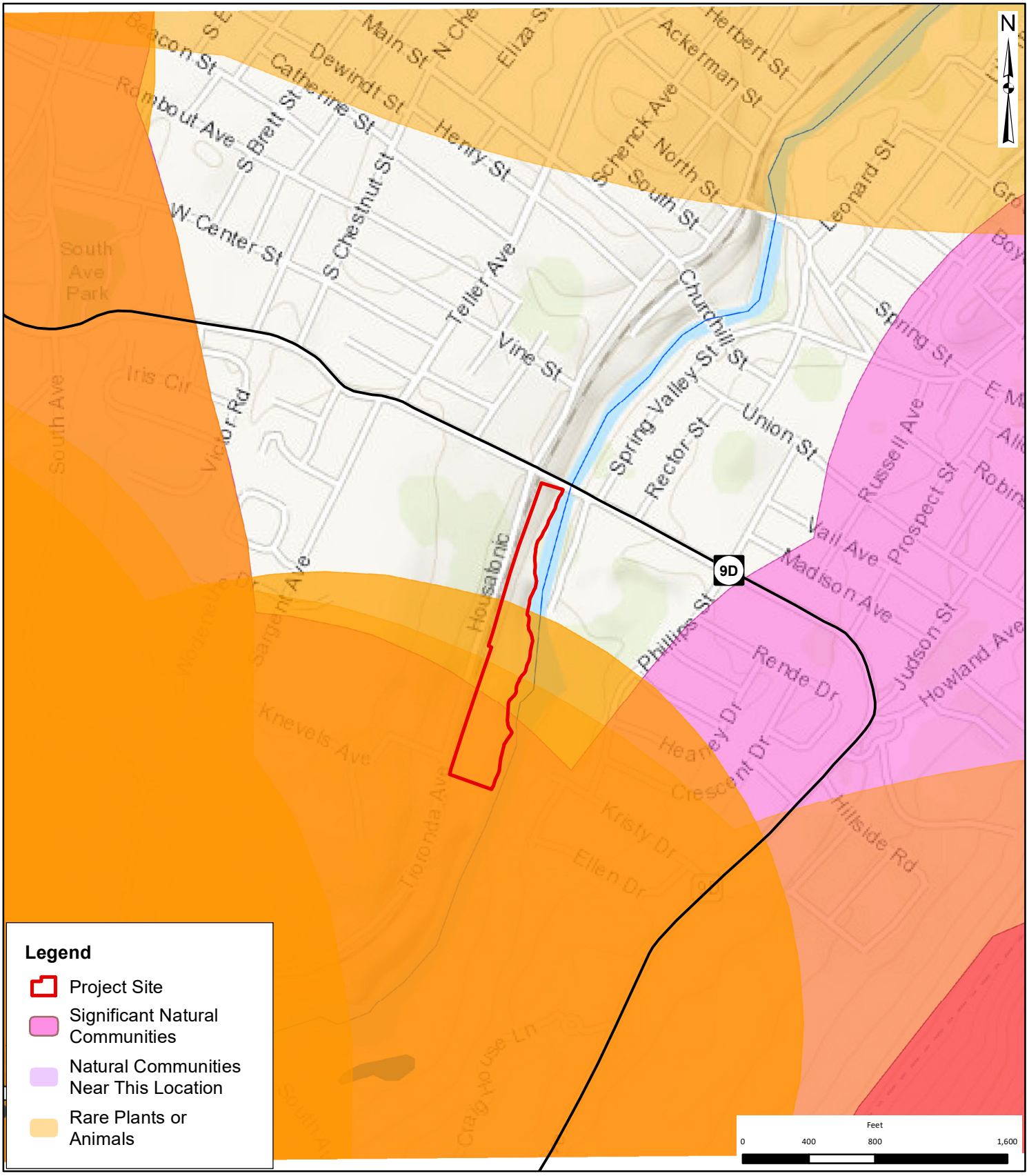
LPC Landmarks

USN Building Points (View)

- Eligible
- Listed
- Not Eligible
- Not Eligible - Demolished
- Undetermined

Cemeteries

FIG 4



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Proposed Fishkill Creek Development (FCD) Site Plan

NYSDEC Environmental Resource Map

Tioronda Avenue, City of Beacon - Dutchess County, NY

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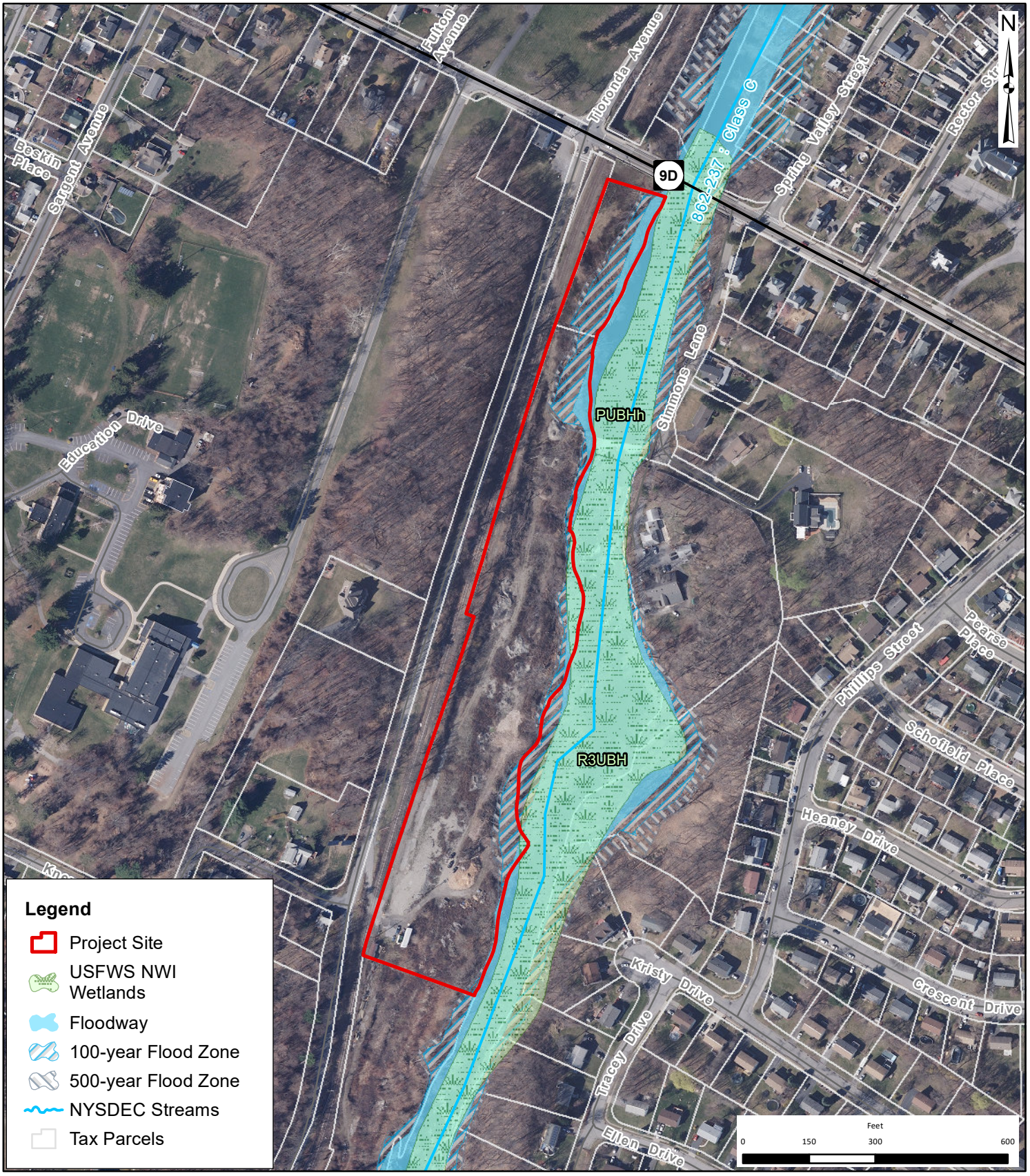
Scale:	1 in = 800 feet
Project:	81750.00
Figure:	7

FIG 5



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Proposed Fishkill Creek Development (FCD) Site Plan

Wetland, Streams and Floodplain Map

Tioronda Avenue, City of Beacon - Dutchess County, NY

Drawn:	RLB
Date:	09/06/2018
Scale:	1 in = 300 feet
Project:	81750.00
Figure:	6

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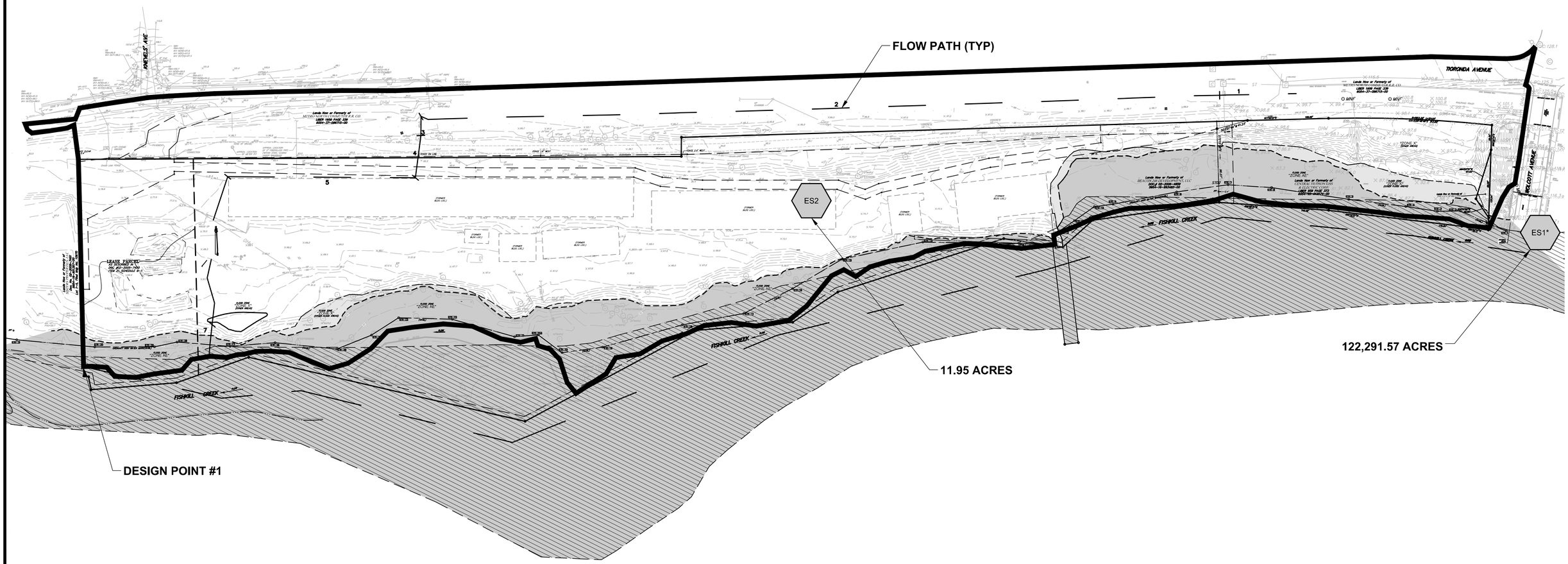
STORM WATER LEGEND

- WATERSHED BOUNDARY
- TIME OF CONCENTRATION / FLOW PATH
- # – SUBCATCHMENT #



1 / FIG 6 **PRE-DEVELOPMENT DRAINAGE MAP**
SCALE: 1"=60'

0 1 2 3
ORIGINAL SCALE IN INCHES

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rev.	date	description
3	2/26/24	NO REVISIONS THIS SHEET PER AMENDED SWPPP
2	08/31/21	REVISED PER CITY SUBMISSION
1	12/20/19	REVISED PER TOWN COMMENTS

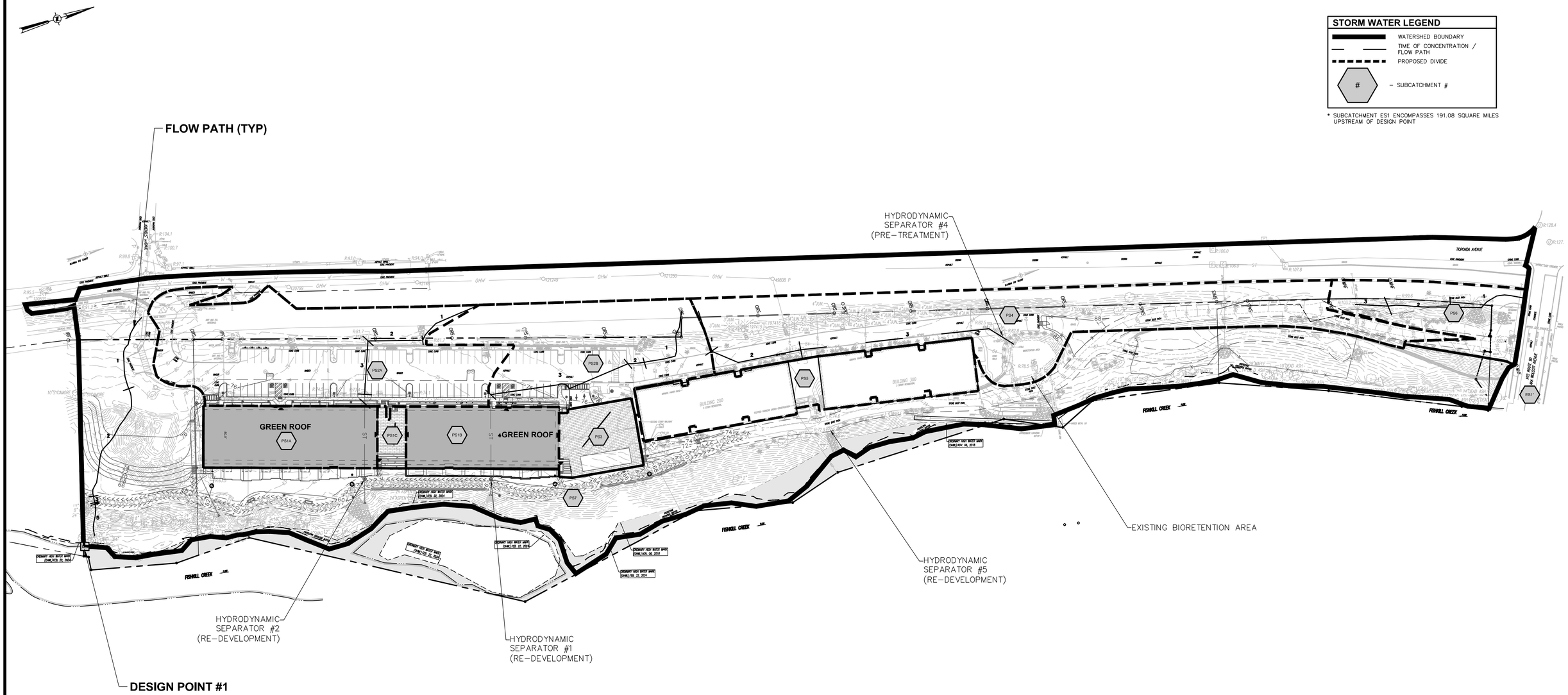
TIORONDA AVENUE & 465 WOLCOTT AVENUE
CHAI BUILDERS

PRE-DEVELOPMENT DRAINAGE MAP

CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

designed	checked
CJL	LAB
date	scale
01/16/19	AS NOTED
project no.	
81750.00	
sheet no.	
FIG 6	

Drawing Name: \\cosh.lob\u\Legacy\Chazen\Projects\81700-81799\81750.00 CHAI Builders B-248\DWG\11_STMF-FIG4-FIG5_81750_PRE-POST-WATERSHED-MAPS.dwg
Xrefs Attached: XBASE-ENG_81750-00; XSTORM_81750-00; XTB_81750-00_24x36; XLAYOUT_81750-00; XGRADING_81750-00; XUTIL_81750-00
Date Printed: Feb 26, 2024, 10:39pm



1 FIG 7 **POST-DEVELOPMENT DRAINAGE MAP**
SCALE: 1"=60'

0 1 2 3
ORIGINAL SCALE IN INCHES

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North Country Office:
375 Bay Road
Queensbury, New York 12804
Phone: (518) 812-0513

rev.	date	description
5	07/28/26	REVISED PER TOWN COMMENTS
4	06/30/26	REVISED PER AMENDED SWPPP
3	2/24/24	REVISED PER AMENDED SWPPP
2	08/31/21	REVISED PER CITY SUBMISSION
1	12/20/19	REVISED PER TOWN COMMENTS

TIORONDA AVENUE & 465 WOLCOTT AVENUE
CHAI BUILDERS

POST-DEVELOPMENT DRAINAGE MAP

CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

designed	checked
CJL	LAB
date	scale
01/16/19	AS NOTED
project no.	
81750.00	
sheet no.	
FIG 7	

Drawing Name: \\cash.lab\u\Legacy\Chazen\Projects\81700-81799\81750.00 CHAI Builders B-248\DWG\11_STMF-FIG4-FIG5_81750_PRE-POST-WATERSHED-MAPS.dwg
Xref's Attached: XBASE-ENG_81750-00; XSTORM_81750-00; XTB_81750-00_24x36; XLAYOUT_81750-00; XGRADING_81750-00; XUTIL_81750-00
Date Printed: Jul 27, 2026, 3:10pm

Appendix H:
Chazen Certifying Professionals Letter

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THE Chazen COMPANIES®
Proud to be Employee Owned

Engineers
Land Surveyors
Planners
Environmental & Safety Professionals
Landscape Architects

Hudson Valley Office
21 Fox St., Poughkeepsie, NY 12601
P: (845) 454-3980 F: (845) 454-4026
www.chazencompanies.com

Capital District Office (518) 273-0055
North Country Office (518) 812-0513

April 7, 2016

To Whom it May Concern:

In accordance with the NYSDEC SPDES General Permit GP-0-15-002, part VII.H.2, the New York State licensed Professional Engineers employed by The Chazen Companies and listed on the attachment to this letter are duly authorized to sign and seal Stormwater Pollution Prevention Plans (SWPPPs), NOIs, and NOTs prepared under their direct supervision.

Sincerely,

Mark Kastner, P.E.
President

LaBella
Powered by partnership.

January 26, 2024

RE: LaBella Certifying Professionals for NYSDEC SPDES GP-0-20-001

To Whom it May Concern:

In accordance with the NYSDEC SPDES General Permit GP-0-20-001, Part VII.H.2, Kyle Ahearn, PE, a New York State Qualified Professional employed by LaBella Associates, is duly authorized to sign and seal Stormwater Pollution Prevention Plans (SWPPPs), Notice of Intents (NOIs) and Notice of Terminations (NOTs).

Respectfully submitted,

LaBella Associates

Timothy Webber
Vice President, Civil Division Director

Kyle Ahearn, PE
Senior Civil Engineer

300 State Street, Suite 201 | Rochester, NY 14614 | p (585) 454-6110 | f (585) 454-3066
www.labellapc.com

Appendix I:
Pre-Development Stormwater Modeling

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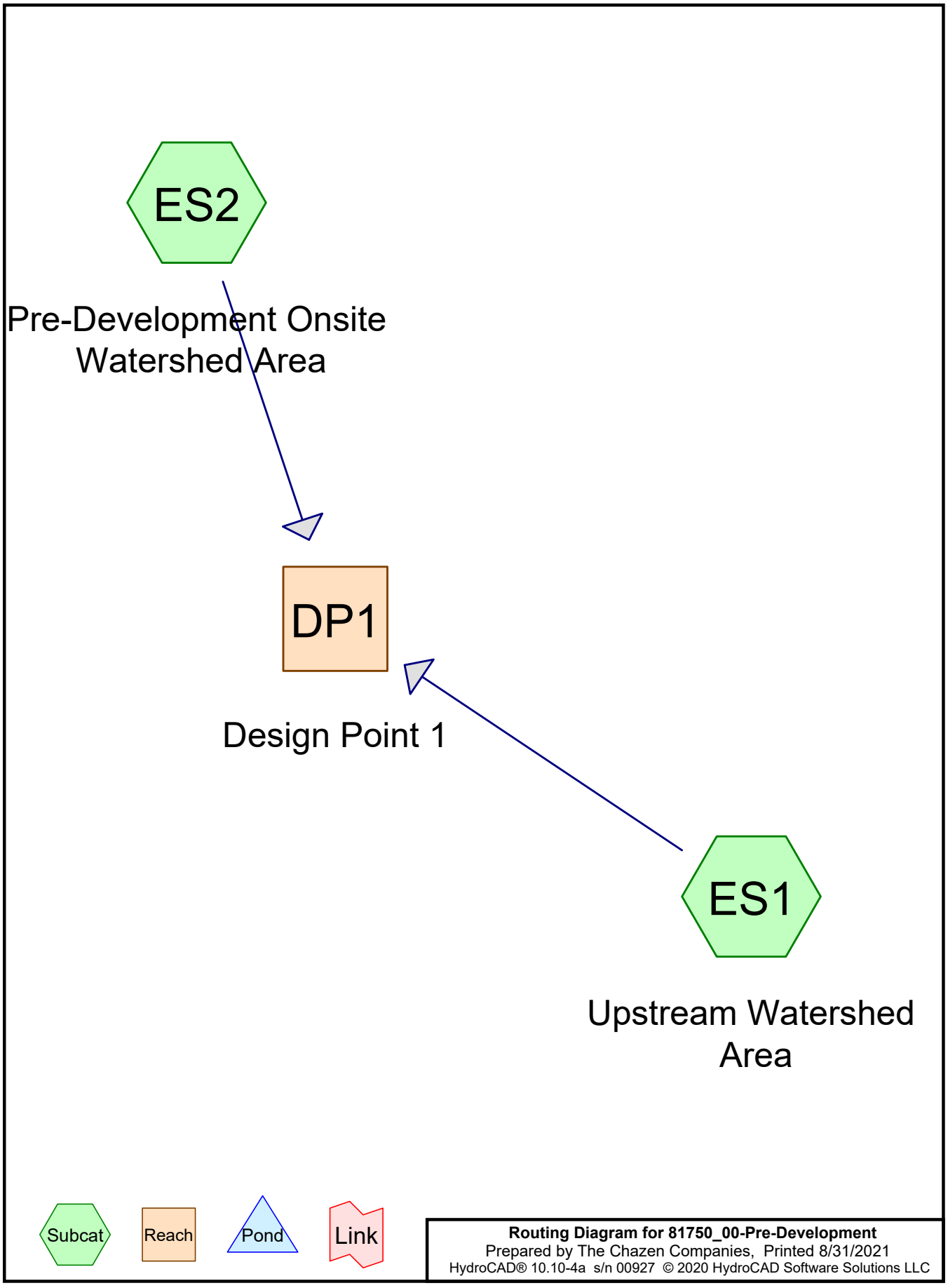

ES2
Pre-Development Onsite Watershed Area
DP1
Design Point 1
ES1
Upstream Watershed Area
Subcat
Reach
Pond
Link
Routing Diagram for 81750_00-Pre-Development
Prepared by The Chazen Companies, Printed 8/31/2021
HydroCAD® 10.10-4a s/n 00927 © 2020 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-Year	Type III 24-hr		Default	24.00	1	2.80	2
2	10-Year	Type III 24-hr		Default	24.00	1	5.20	2
3	100-Year	Type III 24-hr		Default	24.00	1	7.81	2

Summary for Subcatchment ES1: Upstream Watershed Area

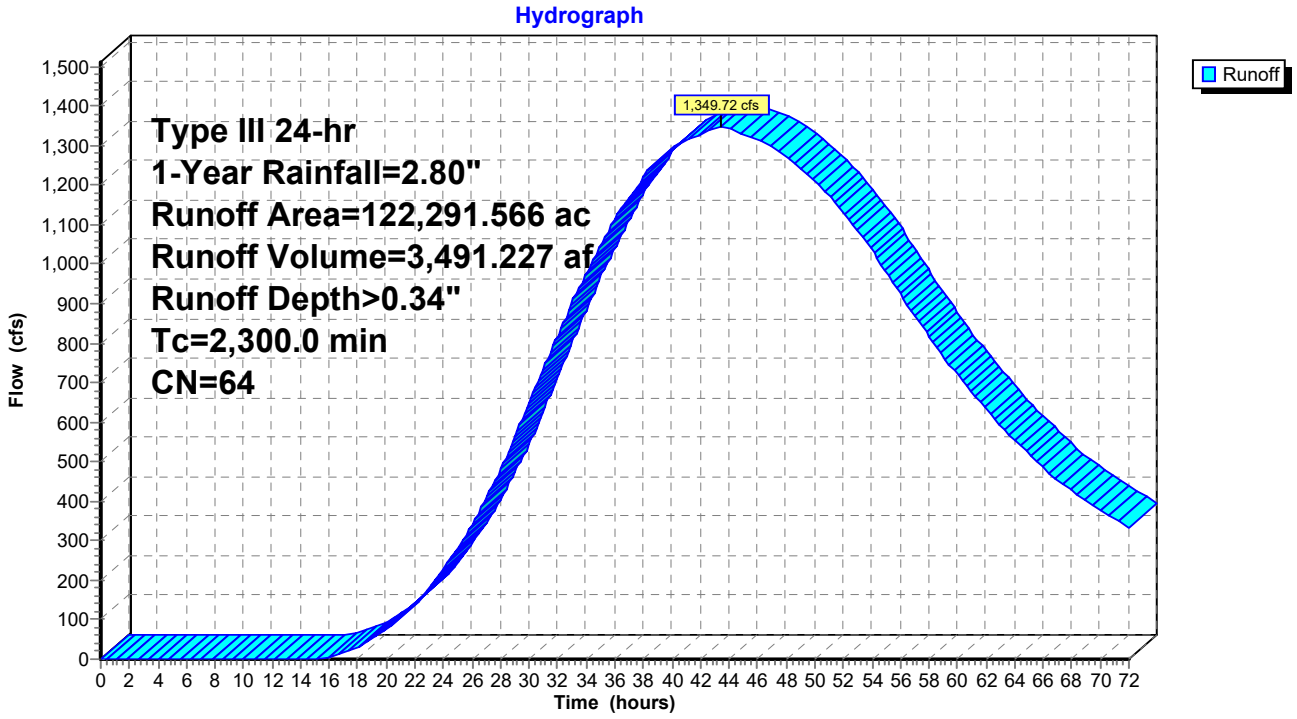
Runoff = 1,349.72 cfs @ 43.44 hrs, Volume= 3,491.227 af, Depth> 0.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (ac)	CN	Description
*122,291.566	64	
122,291.566		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2,300.0					**Direct Entry, Time of Concentration**

Subcatchment ES1: Upstream Watershed Area



Summary for Subcatchment ES2: Pre-Development Onsite Watershed Area

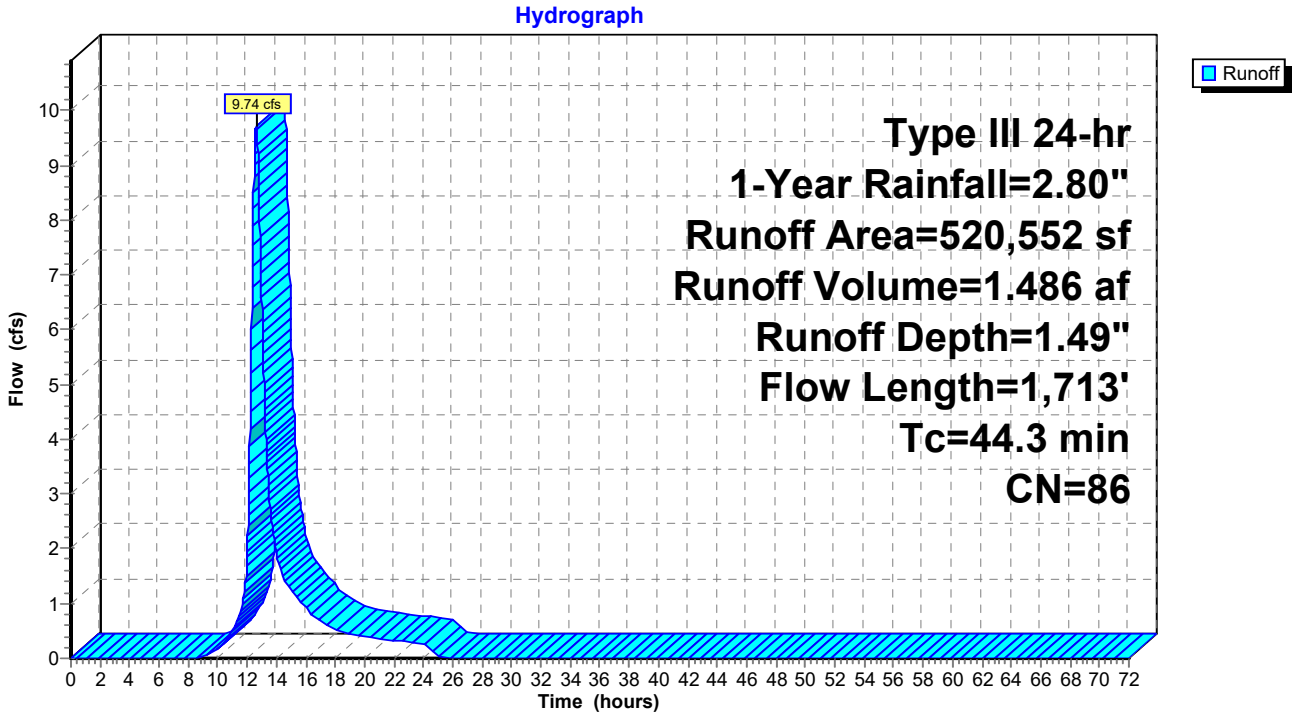
Runoff = 9.74 cfs @ 12.62 hrs, Volume= 1.486 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
172,059	98	Unconnected pavement, HSG D
234,058	80	>75% Grass cover, Good, HSG D
114,435	79	Woods/grass comb., Good, HSG D
520,552	86	Weighted Average
348,493		66.95% Pervious Area
172,059		33.05% Impervious Area
172,059		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.0	100	0.0100	0.09		**Sheet Flow, 100' Sheet Grass @ .01** Grass: Dense n= 0.240 P2= 3.50"
24.9	1,045	0.0100	0.70		**Shallow Concentrated Flow, 1,045' Shallow Grass @ .01** Short Grass Pasture Kv= 7.0 fps
0.0	25	0.0560	10.73	8.43	**Pipe Channel, 25' 12" CIP @ .056** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Cast iron, coated
0.2	56	0.0790	5.71		**Shallow Concentrated Flow, 56' Shallow Paved @ .079** Paved Kv= 20.3 fps
0.5	245	0.0100	8.74	43.71	**Channel Flow, 245' Channel Gutter Flow @ .01** Area= 5.0 sf Perim= 5.0' r= 1.00' n= 0.017 Concrete, unfinished
0.5	200	0.0940	6.22		**Shallow Concentrated Flow, 200' Shallow Paved @ .094** Paved Kv= 20.3 fps
0.2	42	0.4380	3.31		**Shallow Concentrated Flow, 42' Shallow Woods @ .438** Woodland Kv= 5.0 fps
44.3	1,713	Total			

Subcatchment ES2: Pre-Development Onsite Watershed Area

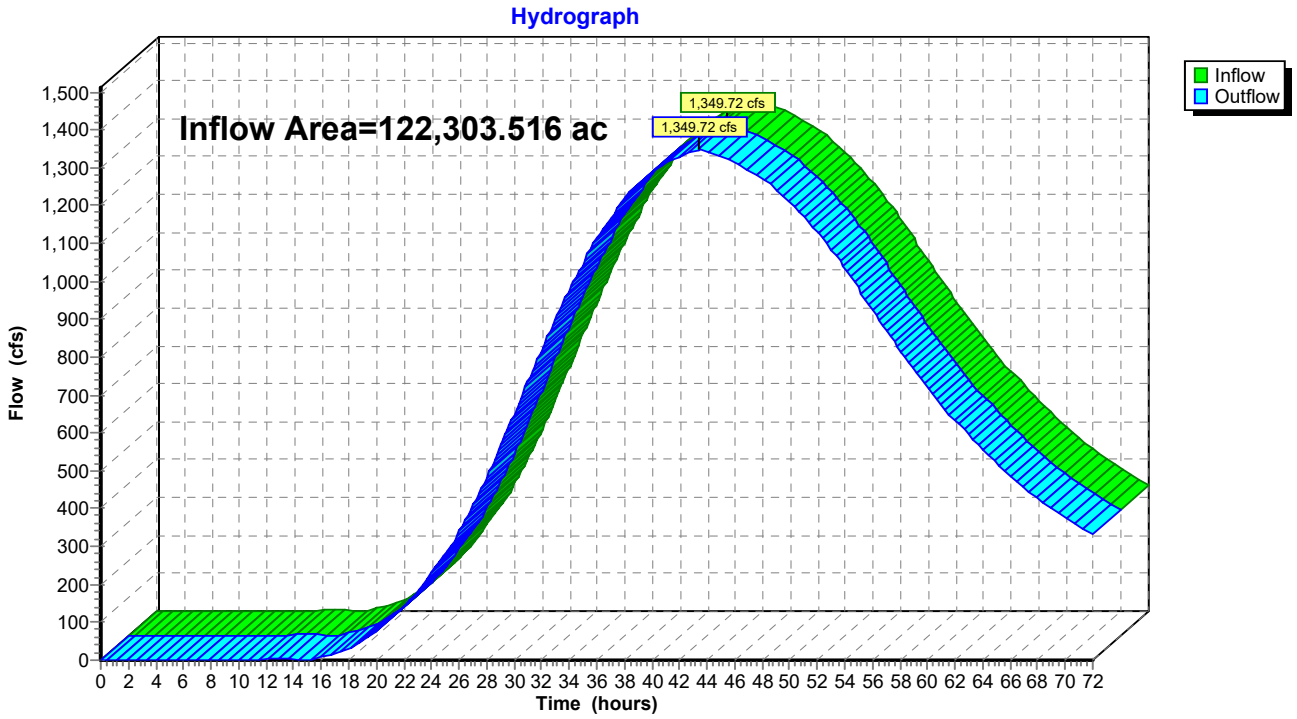


Summary for Reach DP1: Design Point 1

Inflow Area =122,303.516 ac, 0.00% Impervious, Inflow Depth > 0.34" for 1-Year event
Inflow = 1,349.72 cfs @ 43.44 hrs, Volume= 3,492.714 af
Outflow = 1,349.72 cfs @ 43.44 hrs, Volume= 3,492.714 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs

Reach DP1: Design Point 1



Summary for Subcatchment ES1: Upstream Watershed Area

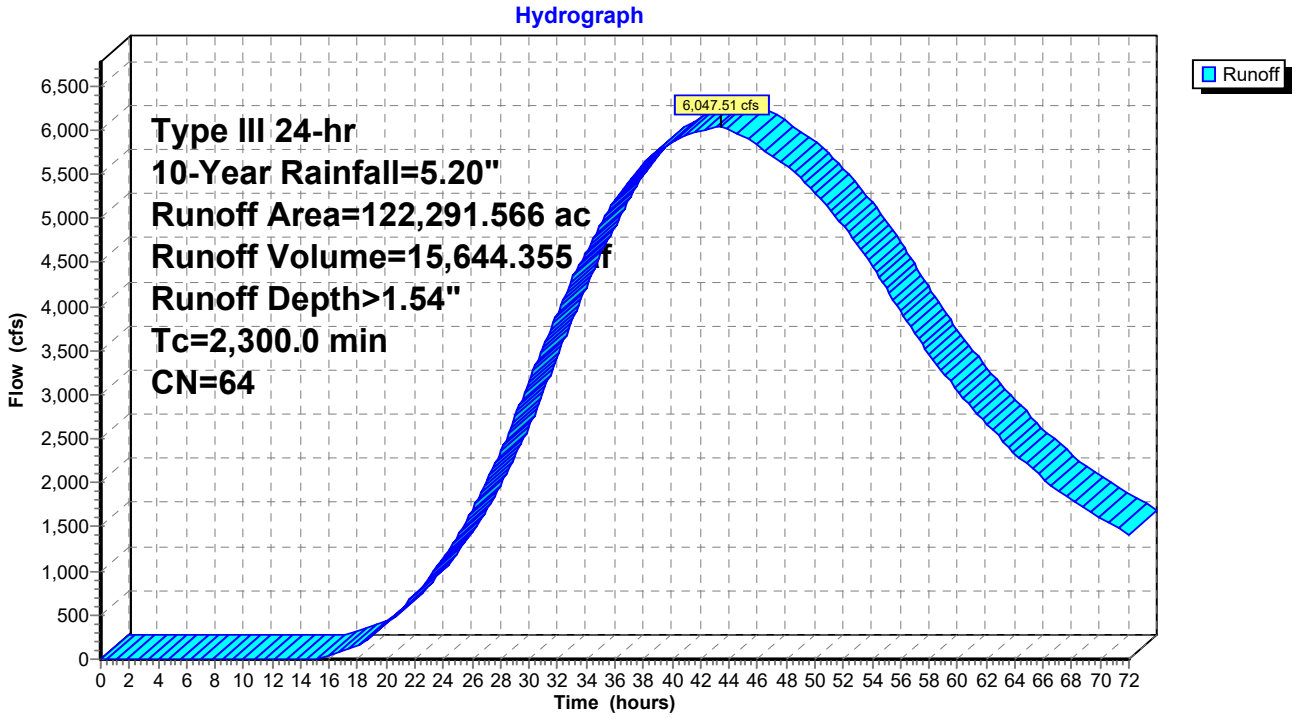
Runoff = 6,047.51 cfs @ 43.44 hrs, Volume= 15,644.355 af, Depth> 1.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (ac)	CN	Description
*122,291.566	64	
122,291.566		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2,300.0					**Direct Entry, Time of Concentration**

Subcatchment ES1: Upstream Watershed Area



Summary for Subcatchment ES2: Pre-Development Onsite Watershed Area

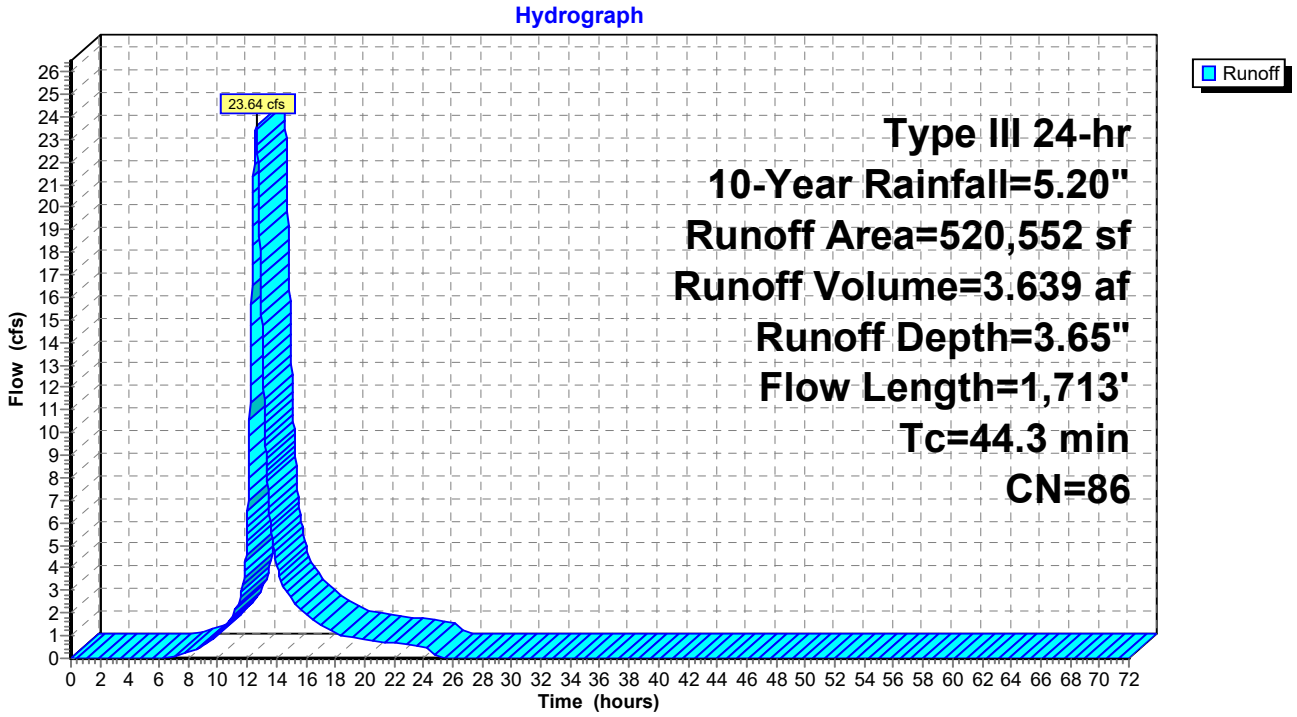
Runoff = 23.64 cfs @ 12.59 hrs, Volume= 3.639 af, Depth= 3.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
172,059	98	Unconnected pavement, HSG D
234,058	80	>75% Grass cover, Good, HSG D
114,435	79	Woods/grass comb., Good, HSG D
520,552	86	Weighted Average
348,493		66.95% Pervious Area
172,059		33.05% Impervious Area
172,059		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.0	100	0.0100	0.09		**Sheet Flow, 100' Sheet Grass @ .01** Grass: Dense n= 0.240 P2= 3.50"
24.9	1,045	0.0100	0.70		**Shallow Concentrated Flow, 1,045' Shallow Grass @ .01** Short Grass Pasture Kv= 7.0 fps
0.0	25	0.0560	10.73	8.43	**Pipe Channel, 25' 12" CIP @ .056** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Cast iron, coated
0.2	56	0.0790	5.71		**Shallow Concentrated Flow, 56' Shallow Paved @ .079** Paved Kv= 20.3 fps
0.5	245	0.0100	8.74	43.71	**Channel Flow, 245' Channel Gutter Flow @ .01** Area= 5.0 sf Perim= 5.0' r= 1.00' n= 0.017 Concrete, unfinished
0.5	200	0.0940	6.22		**Shallow Concentrated Flow, 200' Shallow Paved @ .094** Paved Kv= 20.3 fps
0.2	42	0.4380	3.31		**Shallow Concentrated Flow, 42' Shallow Woods @ .438** Woodland Kv= 5.0 fps
44.3	1,713	Total			

Subcatchment ES2: Pre-Development Onsite Watershed Area

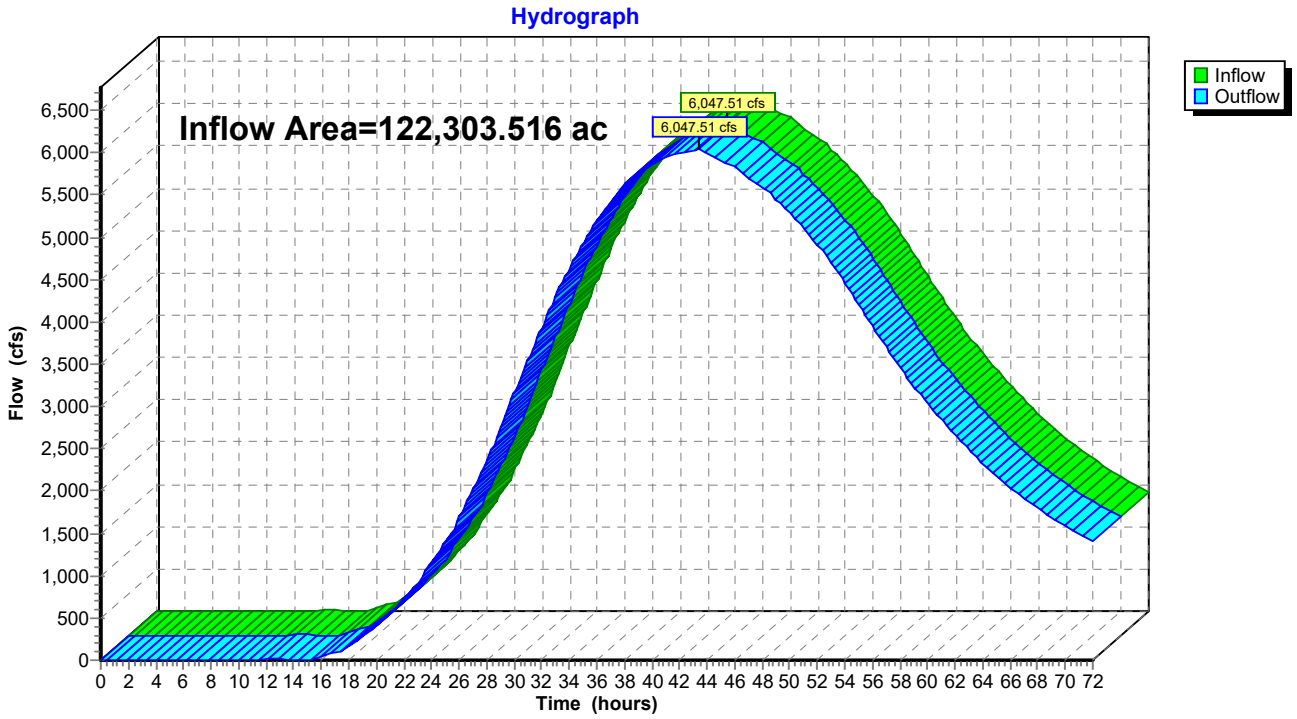


Summary for Reach DP1: Design Point 1

Inflow Area =122,303.516 ac, 0.00% Impervious, Inflow Depth > 1.54" for 10-Year event
Inflow = 6,047.51 cfs @ 43.44 hrs, Volume= 15,647.994 af
Outflow = 6,047.51 cfs @ 43.44 hrs, Volume= 15,647.994 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs

Reach DP1: Design Point 1



Summary for Subcatchment ES1: Upstream Watershed Area

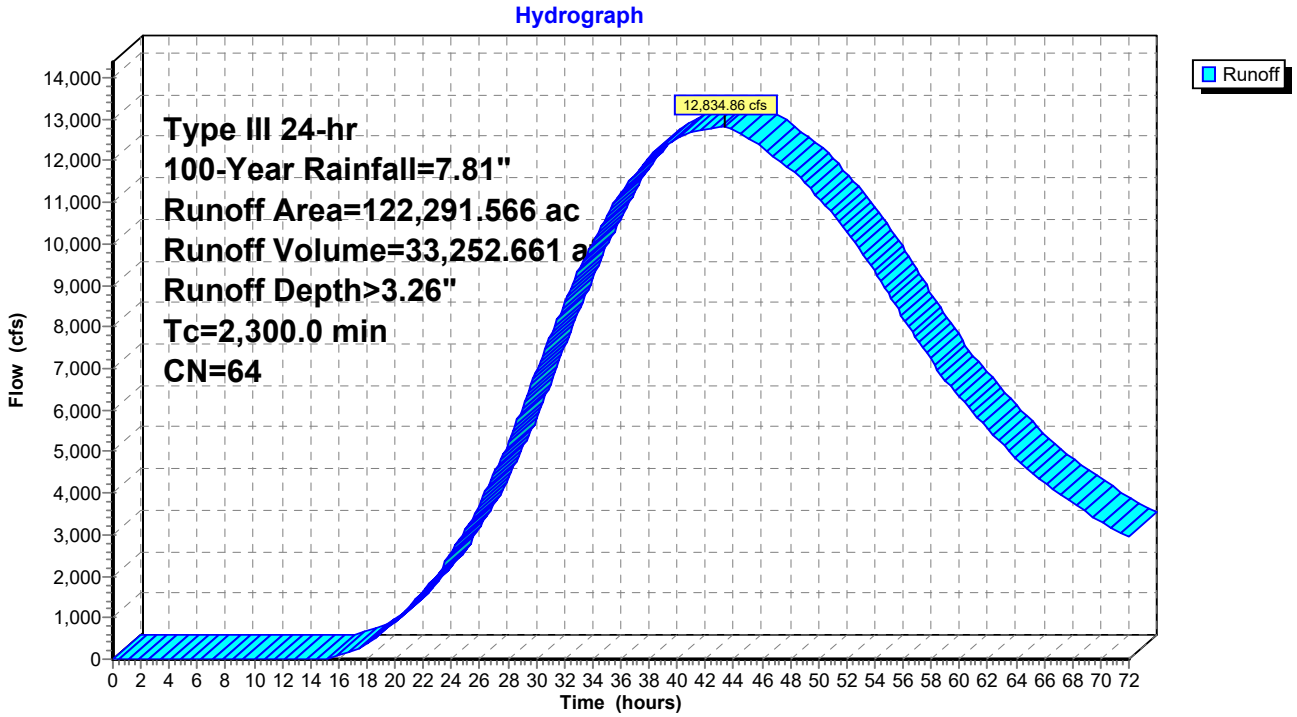
Runoff = 12,834.86 cfs @ 43.44 hrs, Volume= 33,252.661 af, Depth> 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 100-Year Rainfall=7.81"

Area (ac)	CN	Description
*122,291.566	64	
122,291.566		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2,300.0					**Direct Entry, Time of Concentration**

Subcatchment ES1: Upstream Watershed Area



Summary for Subcatchment ES2: Pre-Development Onsite Watershed Area

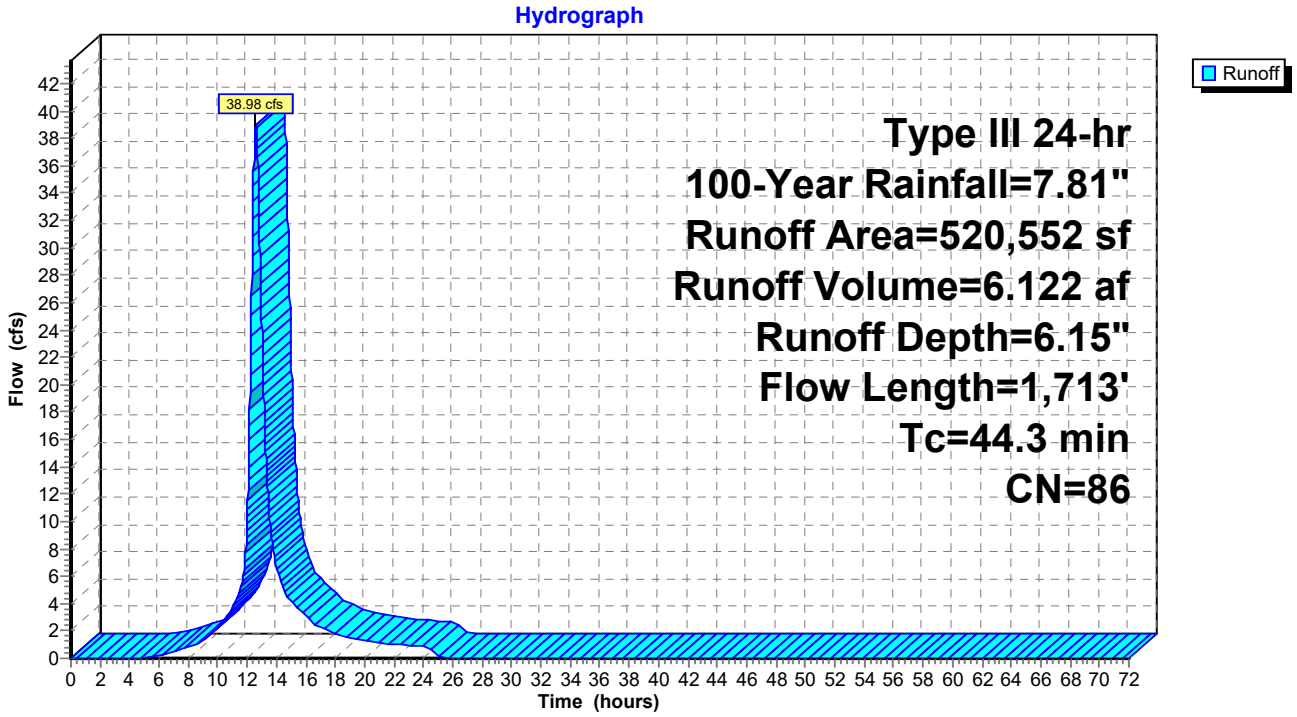
Runoff = 38.98 cfs @ 12.57 hrs, Volume= 6.122 af, Depth= 6.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 100-Year Rainfall=7.81"

Area (sf)	CN	Description
172,059	98	Unconnected pavement, HSG D
234,058	80	>75% Grass cover, Good, HSG D
114,435	79	Woods/grass comb., Good, HSG D
520,552	86	Weighted Average
348,493		66.95% Pervious Area
172,059		33.05% Impervious Area
172,059		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.0	100	0.0100	0.09		**Sheet Flow, 100' Sheet Grass @ .01** Grass: Dense n= 0.240 P2= 3.50"
24.9	1,045	0.0100	0.70		**Shallow Concentrated Flow, 1,045' Shallow Grass @ .01** Short Grass Pasture Kv= 7.0 fps
0.0	25	0.0560	10.73	8.43	**Pipe Channel, 25' 12" CIP @ .056** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Cast iron, coated
0.2	56	0.0790	5.71		**Shallow Concentrated Flow, 56' Shallow Paved @ .079** Paved Kv= 20.3 fps
0.5	245	0.0100	8.74	43.71	**Channel Flow, 245' Channel Gutter Flow @ .01** Area= 5.0 sf Perim= 5.0' r= 1.00' n= 0.017 Concrete, unfinished
0.5	200	0.0940	6.22		**Shallow Concentrated Flow, 200' Shallow Paved @ .094** Paved Kv= 20.3 fps
0.2	42	0.4380	3.31		**Shallow Concentrated Flow, 42' Shallow Woods @ .438** Woodland Kv= 5.0 fps
44.3	1,713	Total			

Subcatchment ES2: Pre-Development Onsite Watershed Area

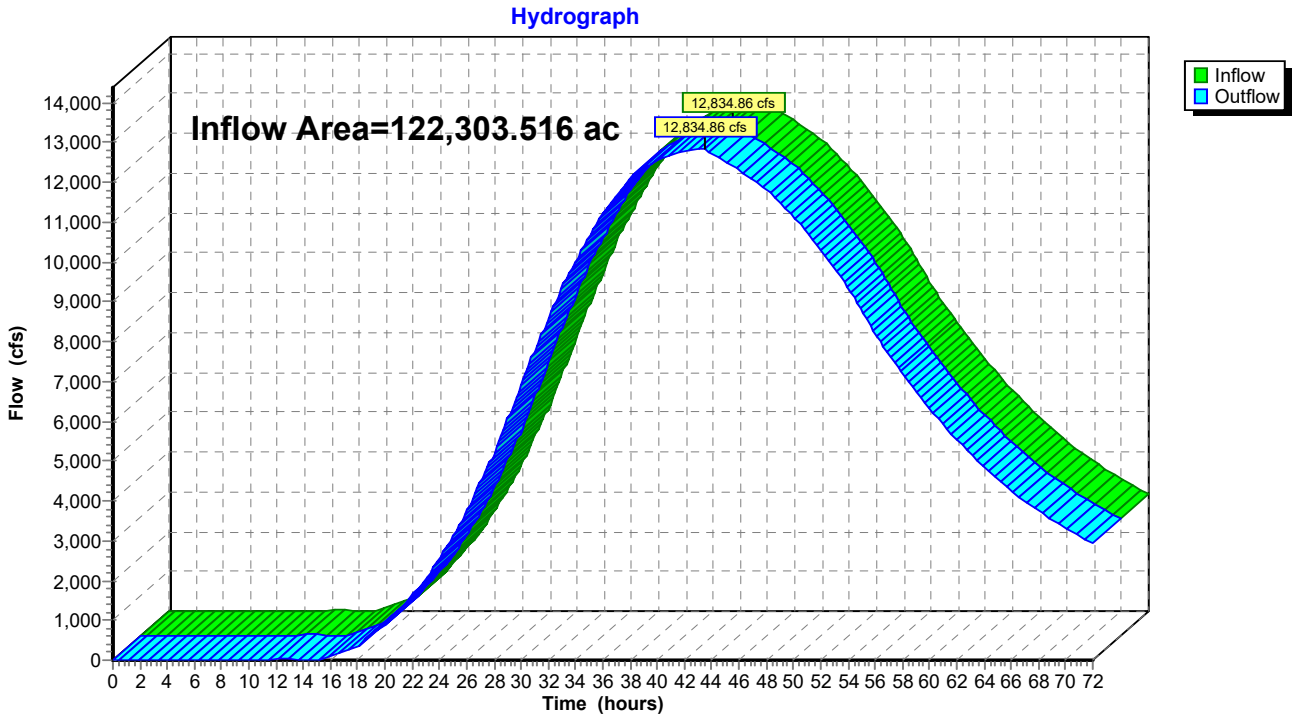


Summary for Reach DP1: Design Point 1

Inflow Area =122,303.516 ac, 0.00% Impervious, Inflow Depth > 3.26" for 100-Year event
Inflow = 12,834.86 cfs @ 43.44 hrs, Volume= 33,258.783 af
Outflow = 12,834.86 cfs @ 43.44 hrs, Volume= 33,258.783 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs

Reach DP1: Design Point 1



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2 Rainfall Events Listing

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4 Subcat ES2: Pre-Development Onsite Watershed Area
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10-Year Event
7 Subcat ES1: Upstream Watershed Area
8 Subcat ES2: Pre-Development Onsite Watershed Area
10 Reach DP1: Design Point 1

100-Year Event
11 Subcat ES1: Upstream Watershed Area
12 Subcat ES2: Pre-Development Onsite Watershed Area
14 Reach DP1: Design Point 1

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Appendix J:
Post-Development Stormwater Modeling

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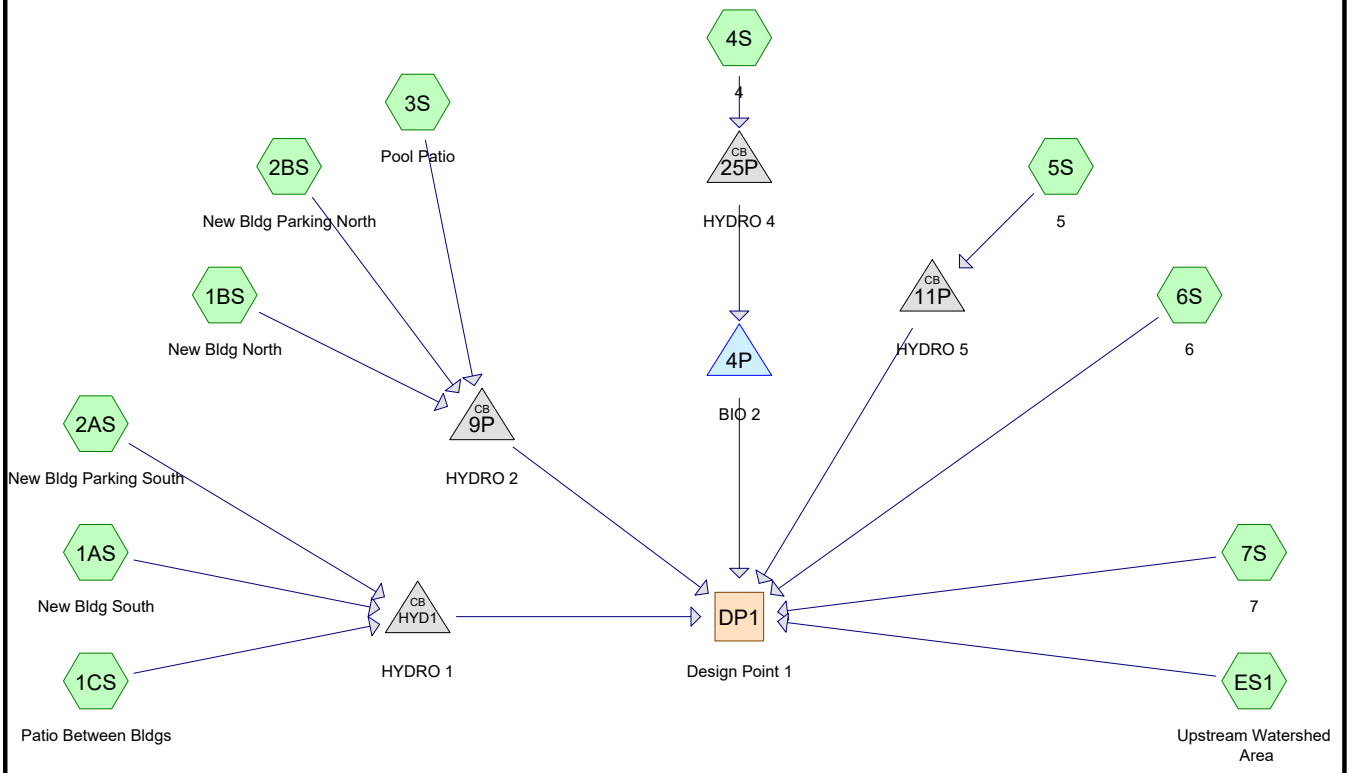


Subcat Reach Pond Link

Routing Diagram for 81750_00-Post-Development
Prepared by Labella Associates, Printed 7/27/2026
HydroCAD® 10.20-6a s/n 09581 © 2024 HydroCAD Software Solutions LLC

Summary for Subcatchment 1AS: New Bldg South

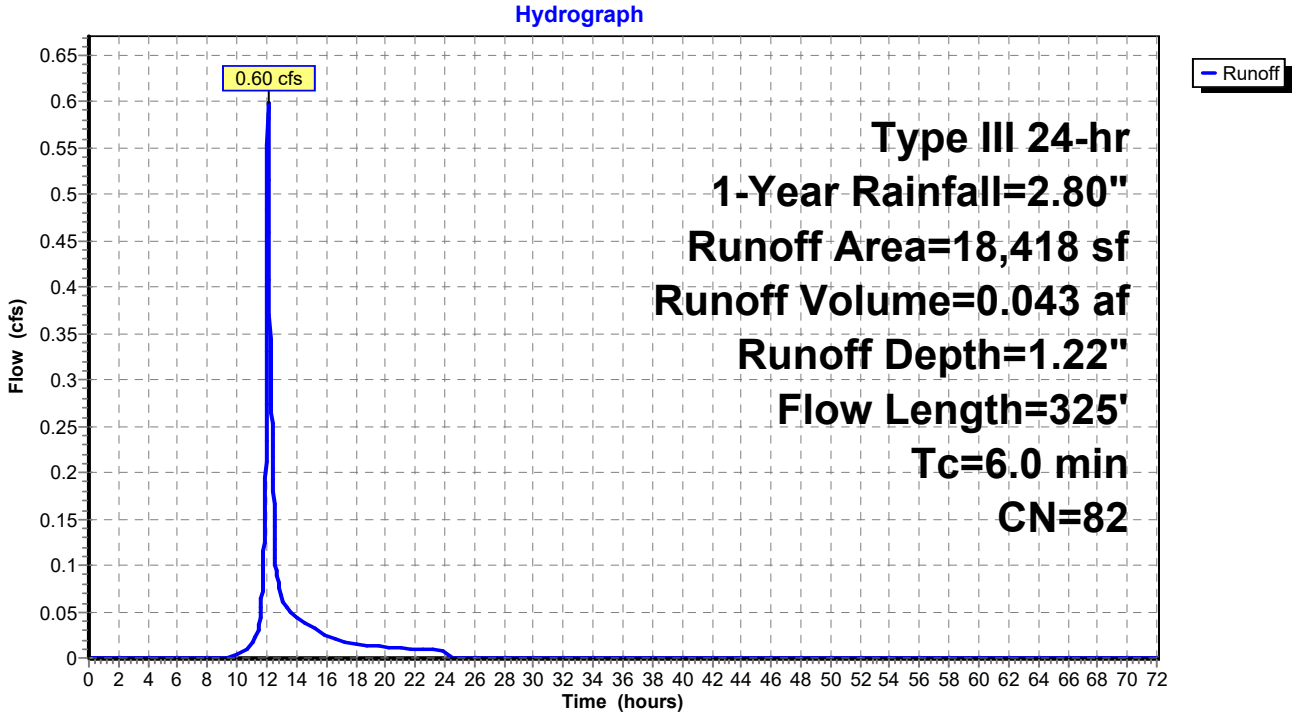
Runoff = 0.60 cfs @ 12.09 hrs, Volume= 0.043 af, Depth= 1.22"
Routed to Pond HYD1 : HYDRO 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

	Area (sf)	CN	Description
	13,418	98	Paved parking, HSG D
*	5,000	39	Green Roof
	18,418	82	Weighted Average
	5,000		27.15% Pervious Area
	13,418		72.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	262	0.0734	5.50		**Shallow Concentrated Flow, 262 LF SCF @ 7.34% PAVED** Paved Kv= 20.3 fps
0.1	63	0.1500	17.57	13.80	**Pipe Channel, 63 LF @ 15%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.9	325	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1AS: New Bldg South



Summary for Subcatchment 1BS: New Bldg North

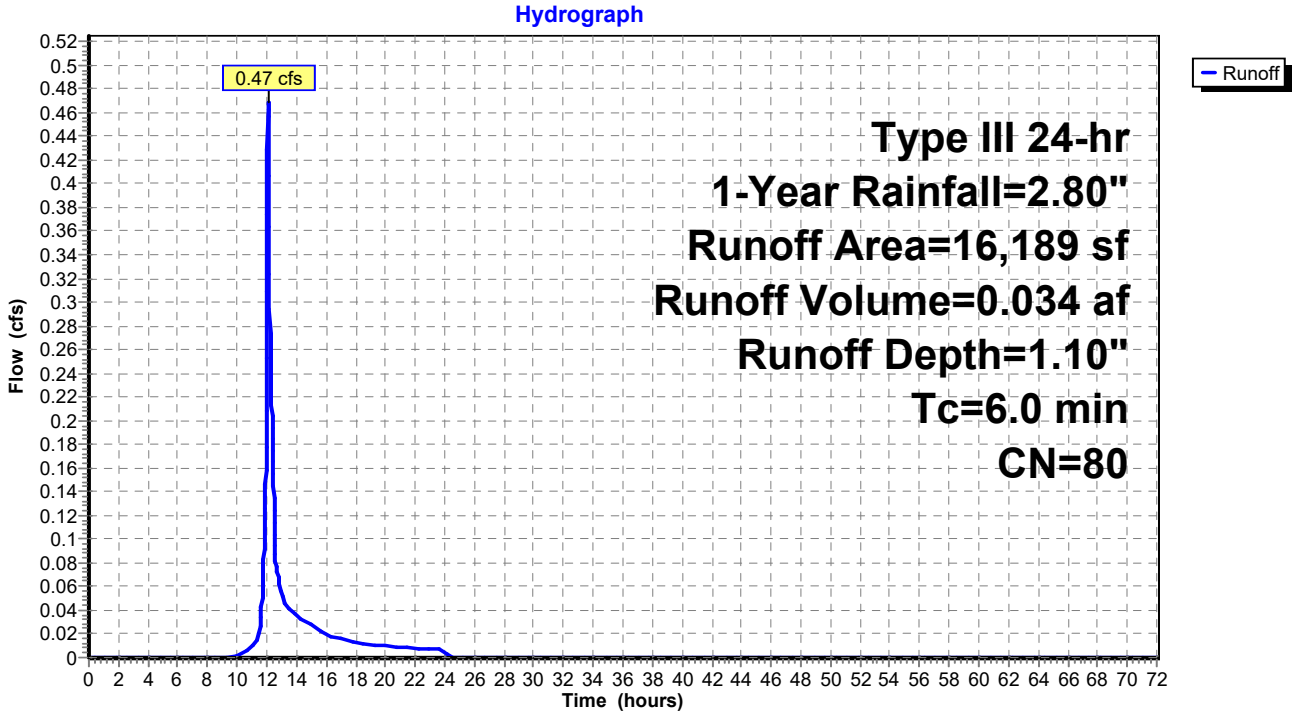
Runoff = 0.47 cfs @ 12.09 hrs, Volume= 0.034 af, Depth= 1.10"
Routed to Pond 9P : HYDRO 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

	Area (sf)	CN	Description
	11,189	98	Paved parking, HSG D
*	5,000	39	Green Roof
	16,189	80	Weighted Average
	5,000		30.89% Pervious Area
	11,189		69.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1BS: New Bldg North



Summary for Subcatchment 1CS: Patio Between Bldgs

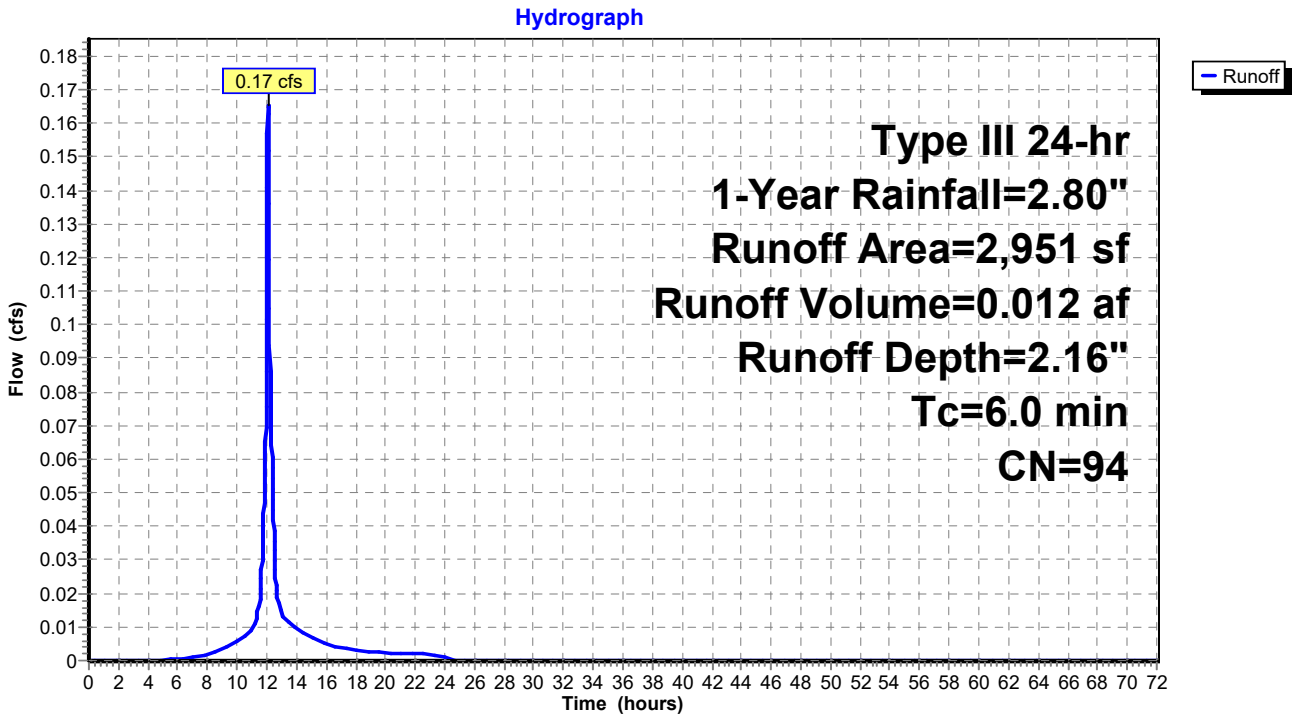
Runoff = 0.17 cfs @ 12.09 hrs, Volume= 0.012 af, Depth= 2.16"
Routed to Pond HYD1 : HYDRO 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
2,347	98	Roofs, HSG C
604	79	50-75% Grass cover, Fair, HSG C
2,951	94	Weighted Average
604		20.47% Pervious Area
2,347		79.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1CS: Patio Between Bldgs



Summary for Subcatchment 2AS: New Bldg Parking South

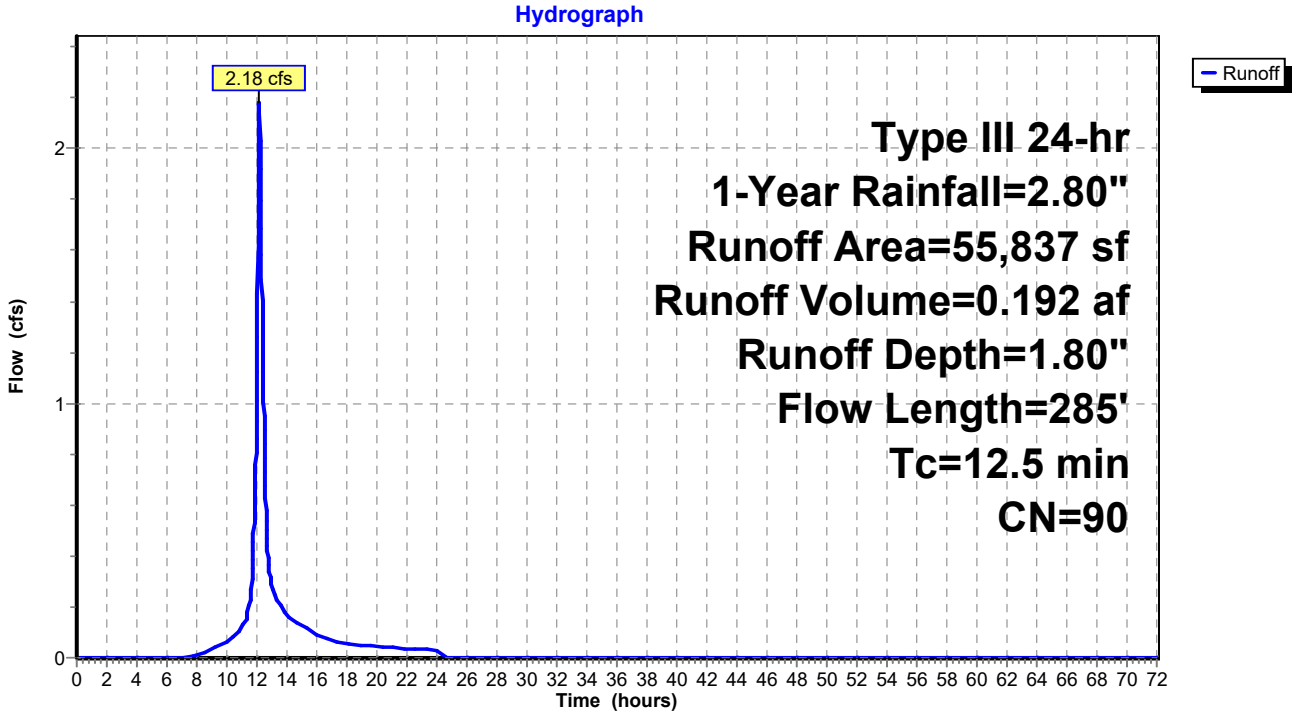
Runoff = 2.18 cfs @ 12.17 hrs, Volume= 0.192 af, Depth= 1.80"
Routed to Pond HYD1 : HYDRO 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
24,754	80	>75% Grass cover, Good, HSG D
29,905	98	Paved parking, HSG D
1,178	79	Woods/grass comb., Good, HSG D
55,837	90	Weighted Average
25,932		46.44% Pervious Area
29,905		53.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.3	90	0.0650	0.12		**Sheet Flow, 90 LF SF @ 6.5% GRASS** Woods: Light underbrush n= 0.400 P2= 3.19"
0.1	68	0.0206	8.53	15.08	**Pipe Channel, 68 LF @ 2.06%** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
0.1	127	0.1050	19.26	34.04	**Pipe Channel, 67 LF @ 10.5%** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
12.5	285	Total			

Subcatchment 2AS: New Bldg Parking South



Summary for Subcatchment 2BS: New Bldg Parking North

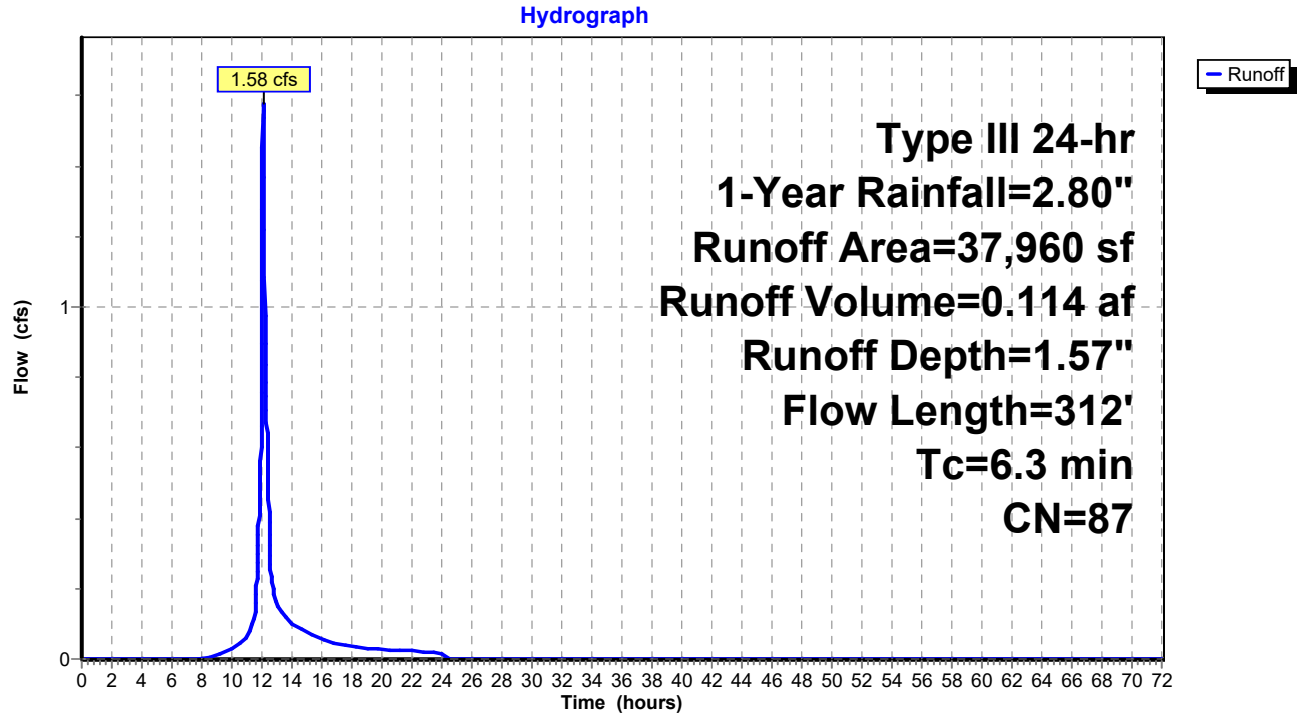
Runoff = 1.58 cfs @ 12.09 hrs, Volume= 0.114 af, Depth= 1.57"
Routed to Pond 9P : HYDRO 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
16,991	80	>75% Grass cover, Good, HSG D
14,298	98	Paved parking, HSG D
6,671	79	Woods, Fair, HSG D
37,960	87	Weighted Average
23,662		62.33% Pervious Area
14,298		37.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	100	0.1100	0.34		**Sheet Flow, 100 LF @ 11 %** Grass: Short n= 0.150 P2= 3.19"
0.2	22	0.0700	1.85		**Shallow Concentrated Flow, 22 LF @ 7%** Short Grass Pasture Kv= 7.0 fps
1.1	190	0.0220	3.01		**Shallow Concentrated Flow, 190 LF @ 2.2%** Paved Kv= 20.3 fps
6.3	312	Total			

Subcatchment 2BS: New Bldg Parking North



Summary for Subcatchment 3S: Pool Patio

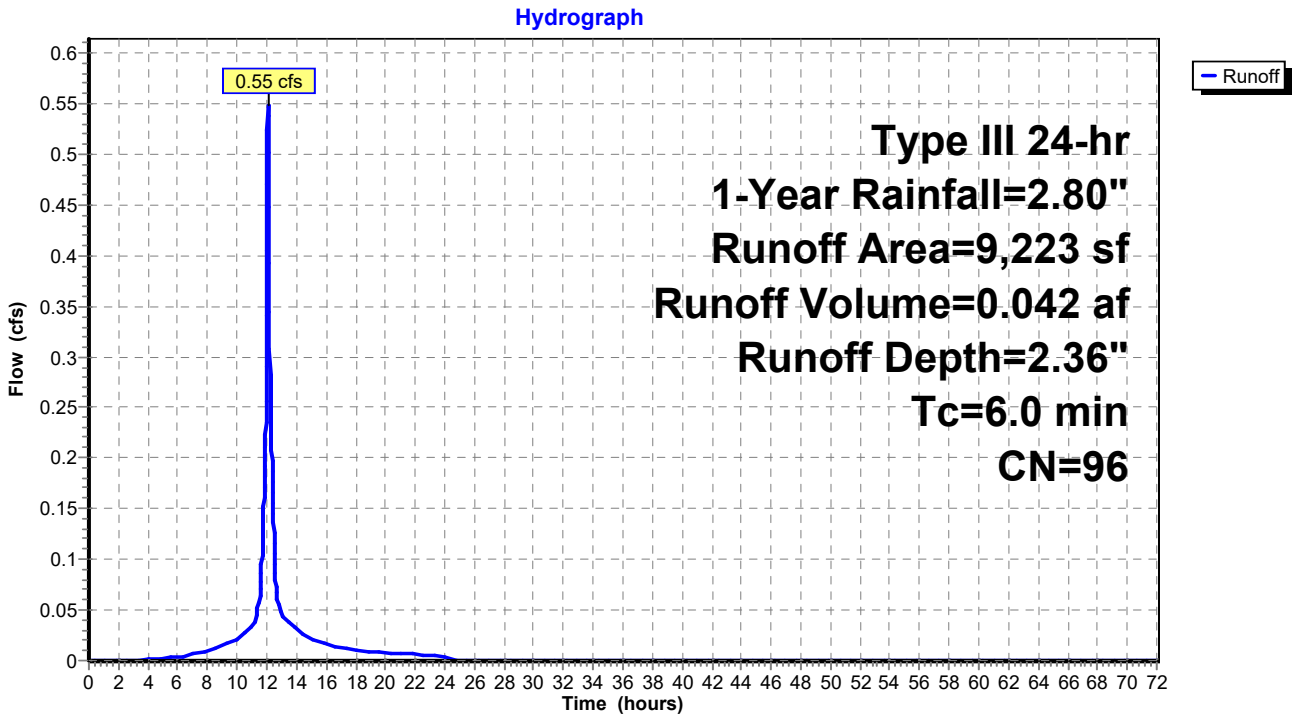
Runoff = 0.55 cfs @ 12.08 hrs, Volume= 0.042 af, Depth= 2.36"
Routed to Pond 9P : HYDRO 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
8,932	98	Paved parking, HSG A
291	39	>75% Grass cover, Good, HSG A
9,223	96	Weighted Average
291		3.16% Pervious Area
8,932		96.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 3S: Pool Patio



Summary for Subcatchment 4S: 4

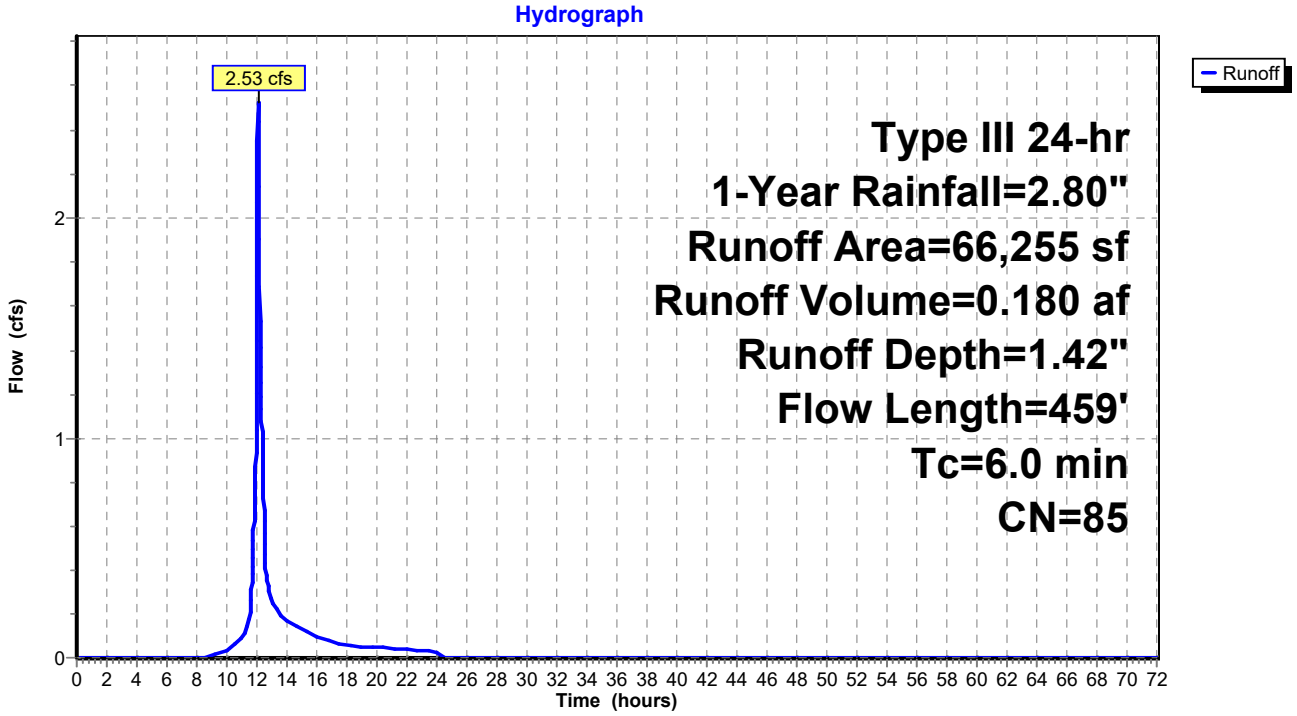
Runoff = 2.53 cfs @ 12.09 hrs, Volume= 0.180 af, Depth= 1.42"
Routed to Pond 25P : HYDRO 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
20,343	98	Paved parking, HSG D
37,592	80	>75% Grass cover, Good, HSG D
8,320	79	Woods/grass comb., Good, HSG D
66,255	85	Weighted Average
45,912		69.30% Pervious Area
20,343		30.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	55	0.2800	0.43		**Sheet Flow, 55 LF SF @ 28% GRASS** Grass: Short n= 0.150 P2= 3.19"
0.7	121	0.0190	2.80		**Shallow Concentrated Flow, 121 LF SCF @ 2% PAVED** Paved Kv= 20.3 fps
0.6	283	0.0270	7.45	5.85	**Pipe Channel, 283 LF @ 2.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
3.4	459	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 4S: 4



Summary for Subcatchment 5S: 5

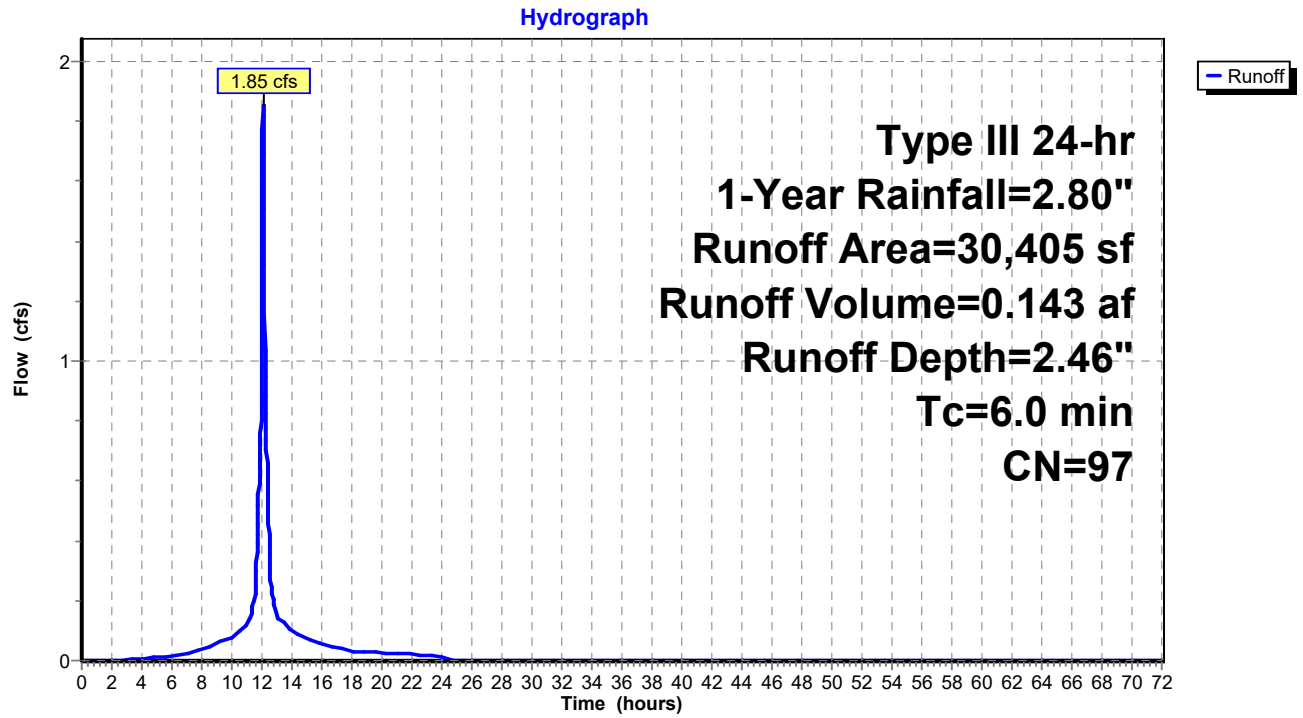
Runoff = 1.85 cfs @ 12.08 hrs, Volume= 0.143 af, Depth= 2.46"
Routed to Pond 11P : HYDRO 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
28,401	98	Roofs, HSG D
2,004	80	>75% Grass cover, Good, HSG D
30,405	97	Weighted Average
2,004		6.59% Pervious Area
28,401		93.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 5S: 5



Summary for Subcatchment 6S: 6

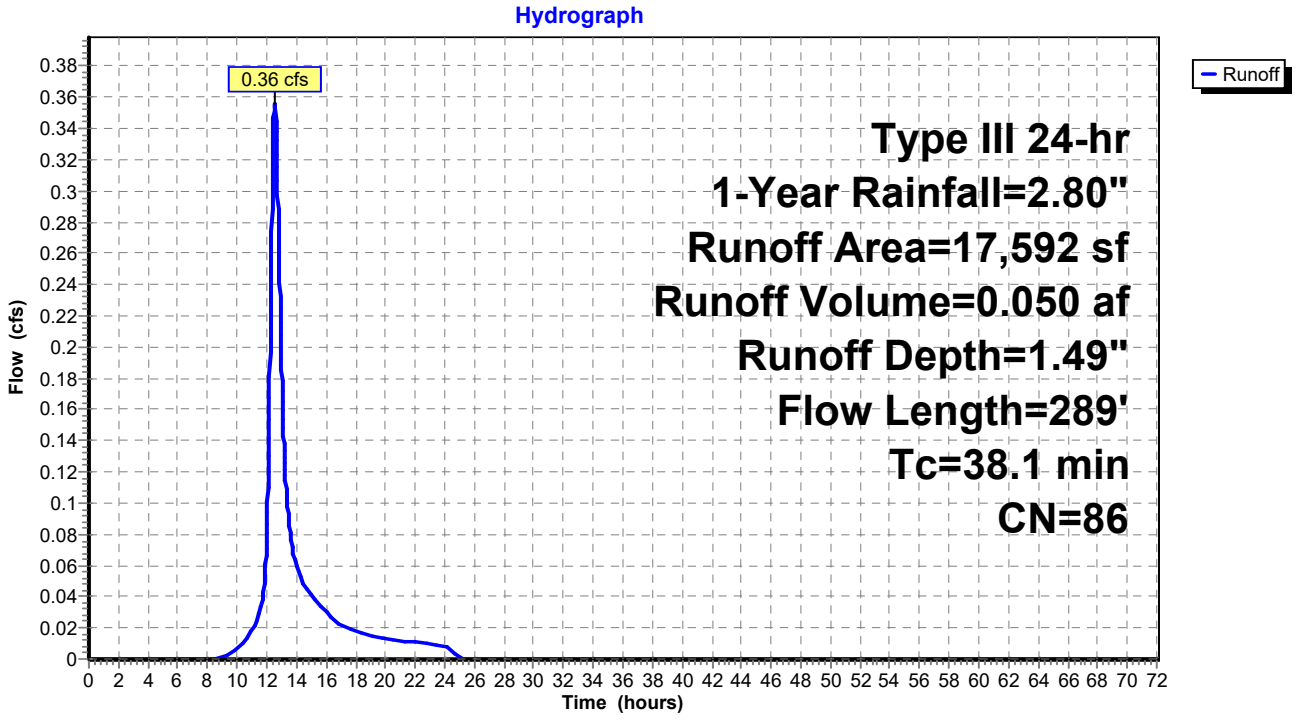
Runoff = 0.36 cfs @ 12.53 hrs, Volume= 0.050 af, Depth= 1.49"
Routed to Reach DP1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
11,755	80	>75% Grass cover, Good, HSG D
5,837	98	Paved parking, HSG D
17,592	86	Weighted Average
11,755		66.82% Pervious Area
5,837		33.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
37.4	100	0.0050	0.04		**Sheet Flow, 100 LF SF @ 0.5%** Woods: Light underbrush n= 0.400 P2= 3.19"
0.6	82	0.0221	2.23		**Shallow Concentrated Flow, 82 LF SCF @ 2.2% GRASS** Grassed Waterway Kv= 15.0 fps
0.1	107	0.0977	14.18	11.14	**Pipe Channel, 107 LF @ 9.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
38.1	289	Total			

Subcatchment 6S: 6



Summary for Subcatchment 7S: 7

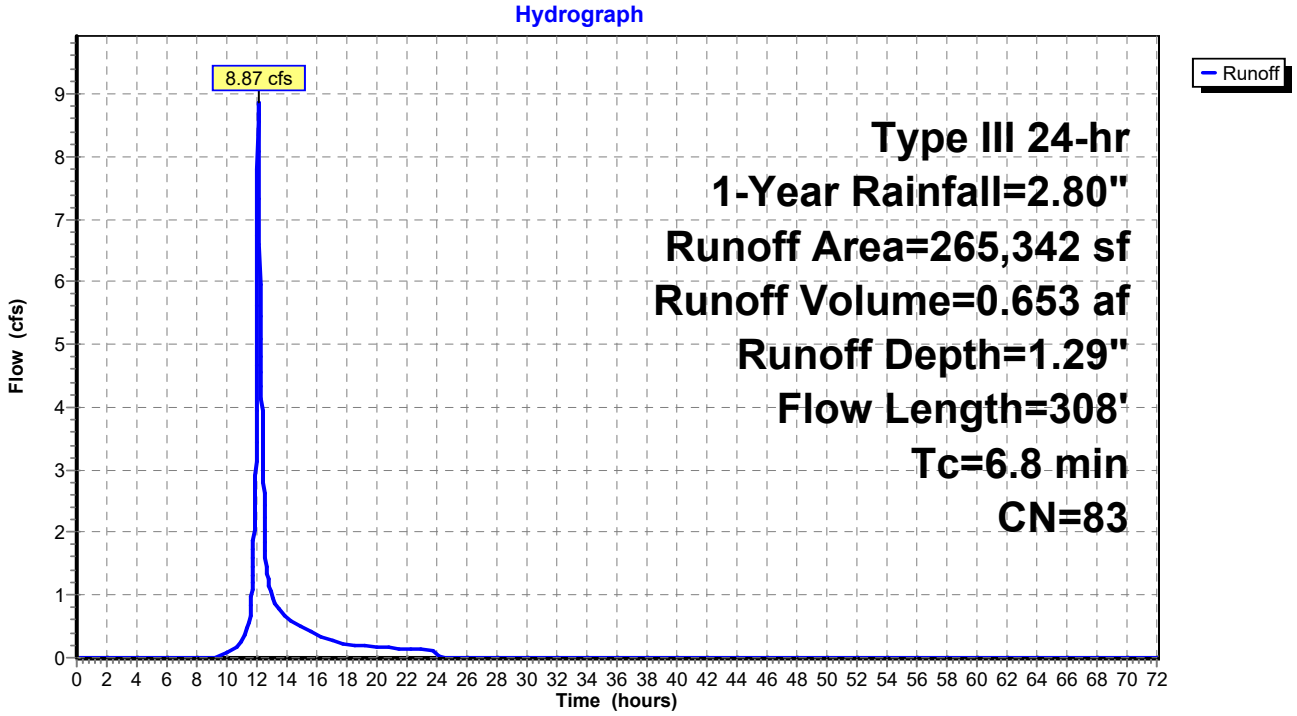
Runoff = 8.87 cfs @ 12.10 hrs, Volume= 0.653 af, Depth= 1.29"
Routed to Reach DP1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
63,131	79	Woods, Fair, HSG D
42,621	98	Paved parking, HSG D
145,907	80	>75% Grass cover, Good, HSG D
13,683	96	Gravel surface, HSG D
265,342	83	Weighted Average
222,721		83.94% Pervious Area
42,621		16.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	100	0.0875	0.31		**Sheet Flow, 100 LF SF @ 8.75% GRASS** Grass: Short n= 0.150 P2= 3.19"
1.1	155	0.1032	2.25		**Shallow Concentrated Flow, 155 LF SCF @ 10% GRASS** Short Grass Pasture Kv= 7.0 fps
0.2	9	0.0278	0.97		**Sheet Flow, 9 LF SF @ 2.8% PAVEMENT** Smooth surfaces n= 0.011 P2= 3.19"
0.0	2	0.0278	1.17		**Shallow Concentrated Flow, 2 LF SCF @ 2.8% GRASS** Short Grass Pasture Kv= 7.0 fps
0.1	42	0.3869	9.33		**Shallow Concentrated Flow, 42 LF SCF @ 39% GRASS** Grassed Waterway Kv= 15.0 fps
6.8	308	Total			

Subcatchment 7S: 7



Summary for Subcatchment ES1: Upstream Watershed Area

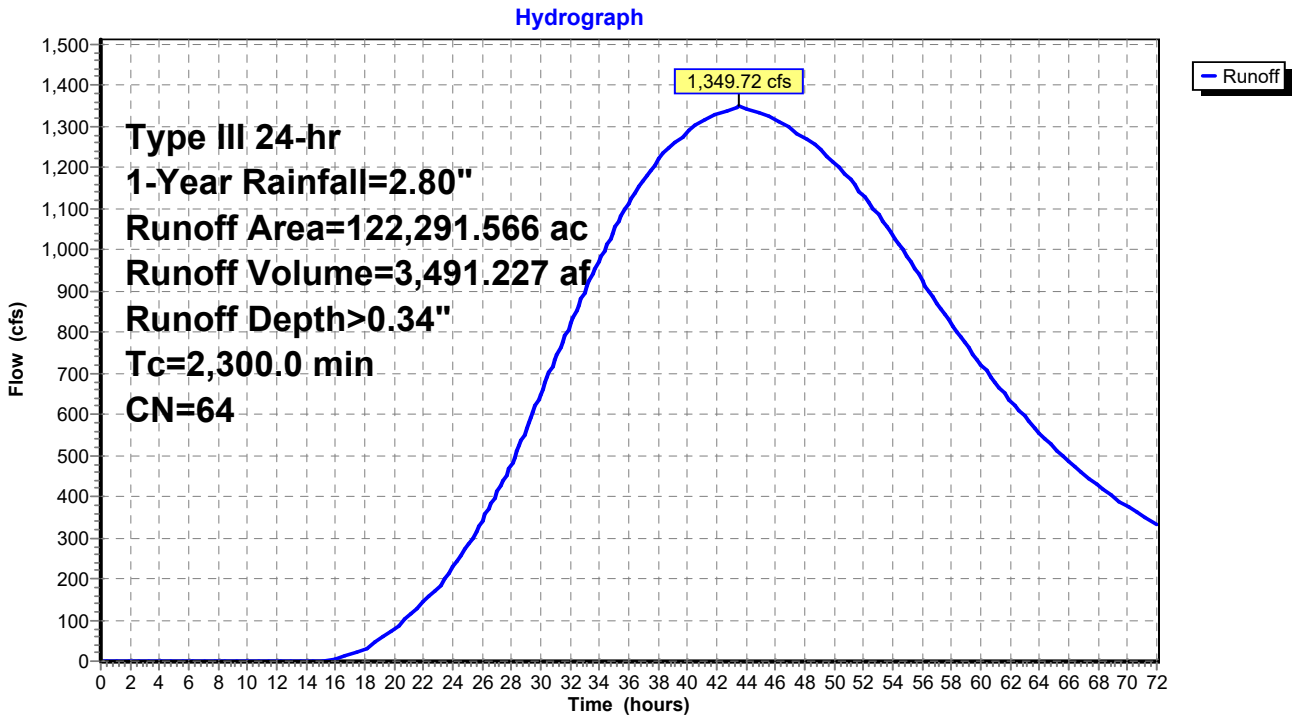
Runoff = 1,349.72 cfs @ 43.44 hrs, Volume= 3,491.227 af, Depth> 0.34"
Routed to Reach DP1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (ac)	CN	Description
*122,291.566	64	
122,291.566		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2,300.0					**Direct Entry, Time of Concentration**

Subcatchment ES1: Upstream Watershed Area

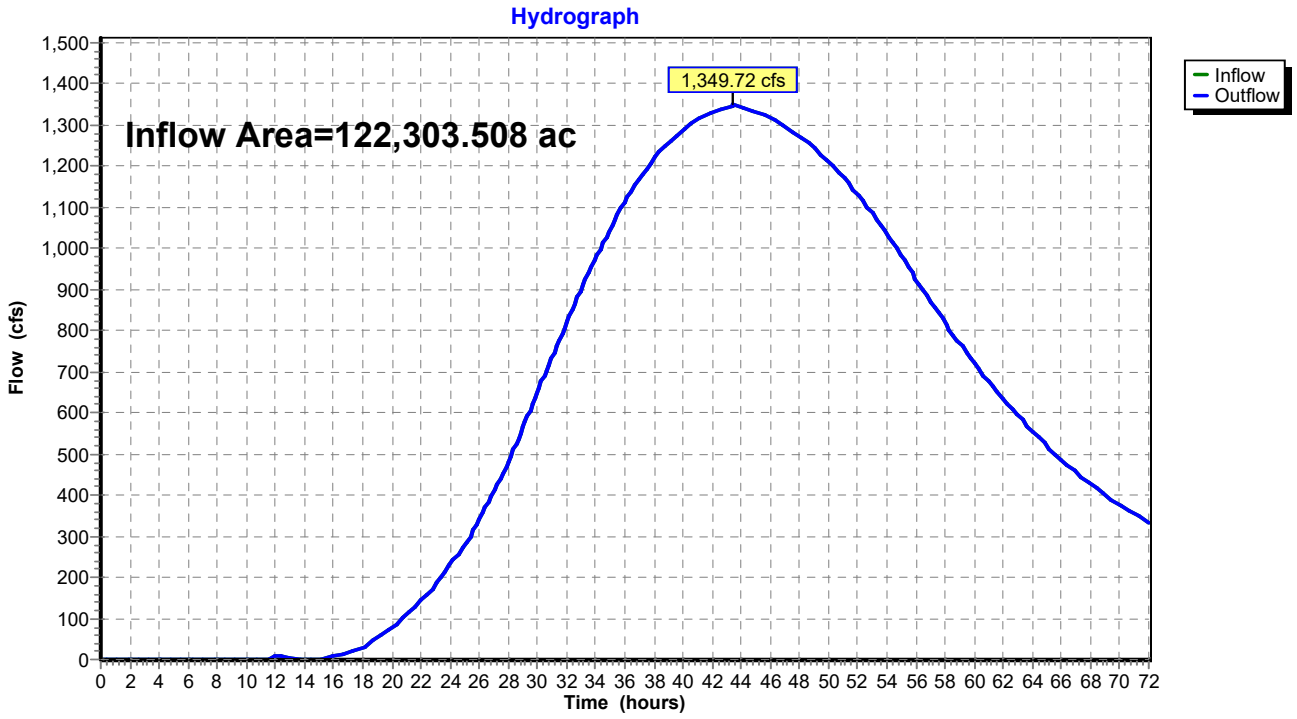


Summary for Reach DP1: Design Point 1

Inflow Area =122,303.508 ac, 0.00% Impervious, Inflow Depth > 0.34" for 1-Year event
Inflow = 1,349.72 cfs @ 43.44 hrs, Volume= 3,492.645 af
Outflow = 1,349.72 cfs @ 43.44 hrs, Volume= 3,492.645 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs

Reach DP1: Design Point 1



Summary for Pond 4P: BIO 2

Inflow Area = 1.521 ac, 30.70% Impervious, Inflow Depth = 1.42" for 1-Year event
Inflow = 2.53 cfs @ 12.09 hrs, Volume= 0.180 af
Outflow = 2.21 cfs @ 12.14 hrs, Volume= 0.180 af, Atten= 13%, Lag= 2.8 min
Discarded = 0.02 cfs @ 12.14 hrs, Volume= 0.047 af
Primary = 2.20 cfs @ 12.14 hrs, Volume= 0.133 af
Routed to Reach DP1 : Design Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 78.69' @ 12.14 hrs Surf.Area= 2,617 sf Storage= 1,699 cf

Plug-Flow detention time= 229.5 min calculated for 0.180 af (100% of inflow)
Center-of-Mass det. time= 229.9 min (1,062.1 - 832.2)

Volume	Invert	Avail.Storage	Storage Description
#1	78.00'	5,521 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

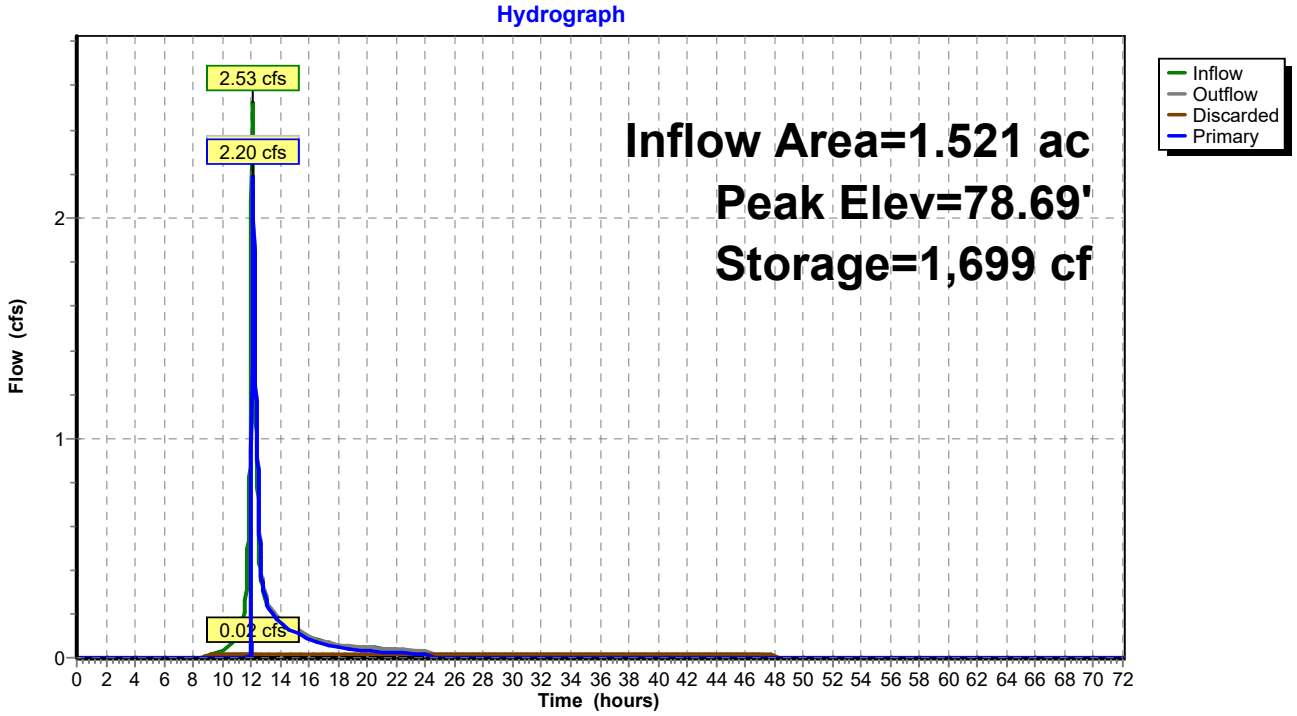
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
78.00	2,296	0	0
80.00	3,225	5,521	5,521

Device	Routing	Invert	Outlet Devices
#1	Discarded	78.00'	**0.250 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 66.00'
#2	Primary	74.40'	**12.0" Round Culvert** L= 41.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 74.40' / 74.00' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	78.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.02 cfs @ 12.14 hrs HW=78.69' (Free Discharge)
↑**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=2.19 cfs @ 12.14 hrs HW=78.69' TW=0.00' (Dynamic Tailwater)
↑**2=Culvert** (Passes 2.19 cfs of 5.81 cfs potential flow)
↑**3=Orifice/Grate** (Weir Controls 2.19 cfs @ 1.43 fps)

Pond 4P: BIO 2


Hydrograph
Inflow Area=1.521 ac
Peak Elev=78.69'
Storage=1,699 cf
2.53 cfs
2.20 cfs
0.02 cfs
Inflow
Outflow
Discarded
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

Summary for Pond 9P: HYDRO 2

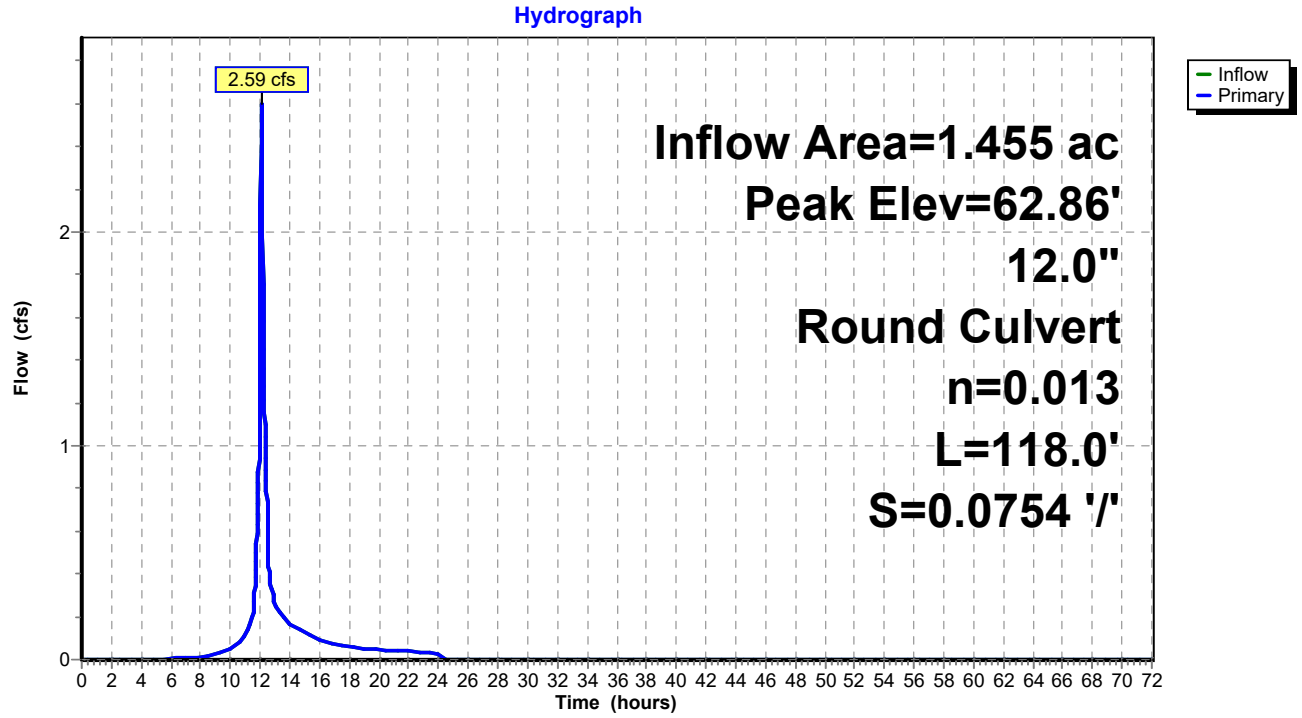
Inflow Area = 1.455 ac, 54.31% Impervious, Inflow Depth = 1.56" for 1-Year event
Inflow = 2.59 cfs @ 12.09 hrs, Volume= 0.189 af
Outflow = 2.59 cfs @ 12.09 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min
Primary = 2.59 cfs @ 12.09 hrs, Volume= 0.189 af
Routed to Reach DP1 : Design Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 62.86' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.90'	**12.0" Round Culvert** L= 118.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.90' / 53.00' S= 0.0754 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.58 cfs @ 12.09 hrs HW=62.86' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 2.58 cfs @ 3.33 fps)

Pond 9P: HYDRO 2



Summary for Pond 11P: HYDRO 5

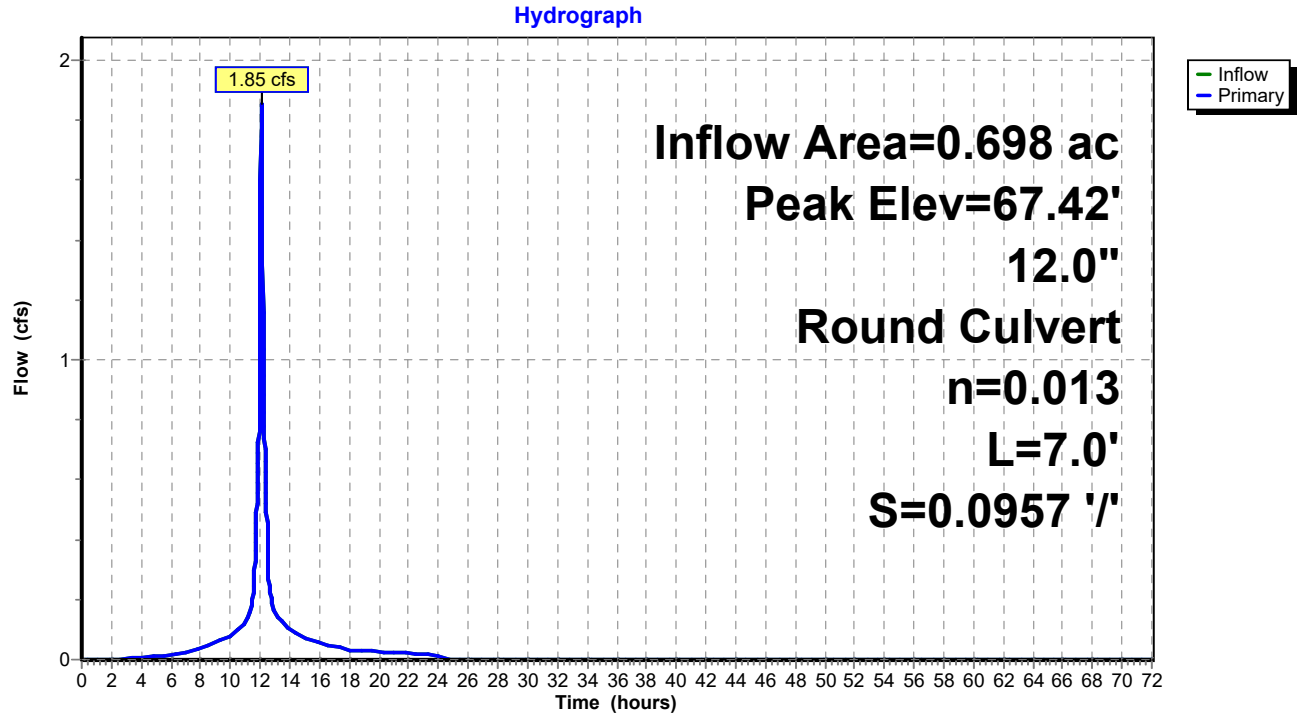
Inflow Area = 0.698 ac, 93.41% Impervious, Inflow Depth = 2.46" for 1-Year event
Inflow = 1.85 cfs @ 12.08 hrs, Volume= 0.143 af
Outflow = 1.85 cfs @ 12.08 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min
Primary = 1.85 cfs @ 12.08 hrs, Volume= 0.143 af
Routed to Reach DP1 : Design Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 67.42' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.67'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.67' / 66.00' S= 0.0957 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.84 cfs @ 12.08 hrs HW=67.41' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.84 cfs @ 2.94 fps)

Pond 11P: HYDRO 5



Summary for Pond 25P: HYDRO 4

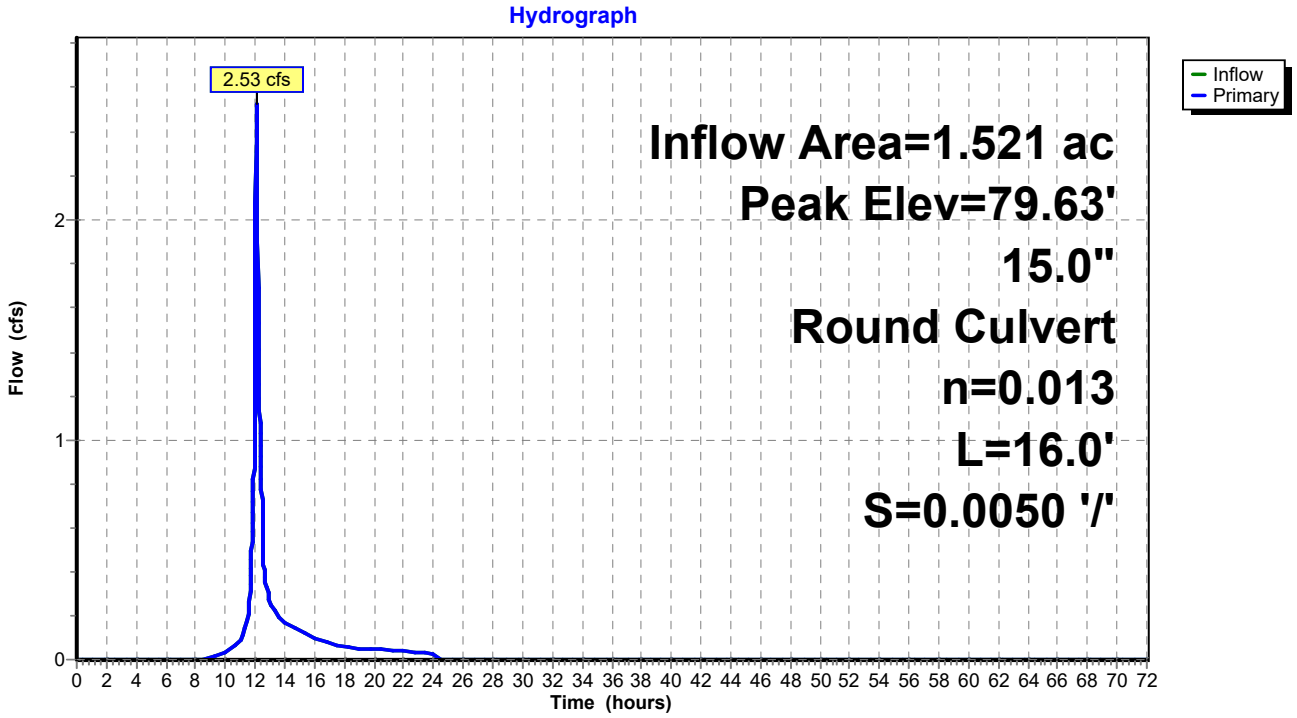
Inflow Area = 1.521 ac, 30.70% Impervious, Inflow Depth = 1.42" for 1-Year event
Inflow = 2.53 cfs @ 12.09 hrs, Volume= 0.180 af
Outflow = 2.53 cfs @ 12.09 hrs, Volume= 0.180 af, Atten= 0%, Lag= 0.0 min
Primary = 2.53 cfs @ 12.09 hrs, Volume= 0.180 af
Routed to Pond 4P : BIO 2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 79.63' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	78.65'	**15.0" Round Culvert** L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 78.65' / 78.57' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=2.51 cfs @ 12.09 hrs HW=79.62' TW=78.67' (Dynamic Tailwater)
1=Culvert (Barrel Controls 2.51 cfs @ 3.37 fps)

Pond 25P: HYDRO 4



Summary for Pond HYD1: HYDRO 1

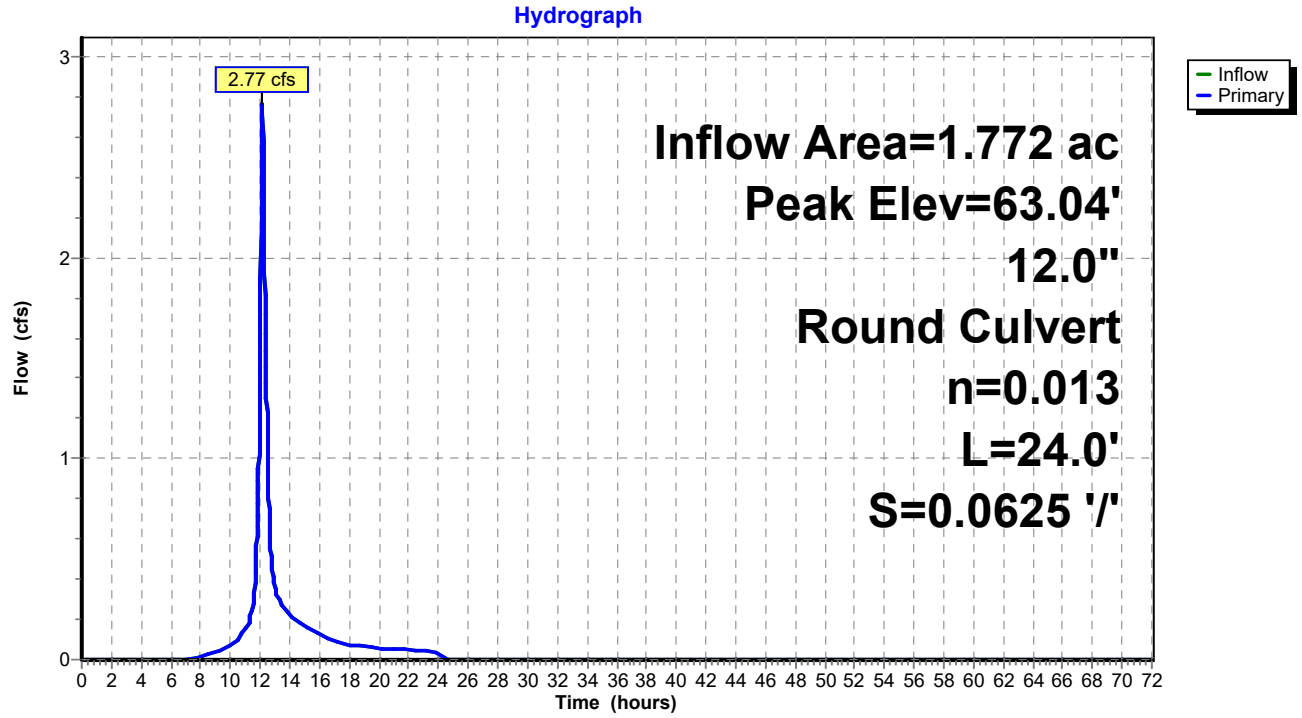
Inflow Area = 1.772 ac, 59.15% Impervious, Inflow Depth = 1.68" for 1-Year event
Inflow = 2.77 cfs @ 12.15 hrs, Volume= 0.248 af
Outflow = 2.77 cfs @ 12.15 hrs, Volume= 0.248 af, Atten= 0%, Lag= 0.0 min
Primary = 2.77 cfs @ 12.15 hrs, Volume= 0.248 af
Routed to Reach DP1 : Design Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 63.04' @ 12.15 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	62.00'	**12.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.00' / 60.50' S= 0.0625 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.76 cfs @ 12.15 hrs HW=63.03' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 2.76 cfs @ 3.51 fps)

Pond HYD1: HYDRO 1



Summary for Subcatchment 1AS: New Bldg South

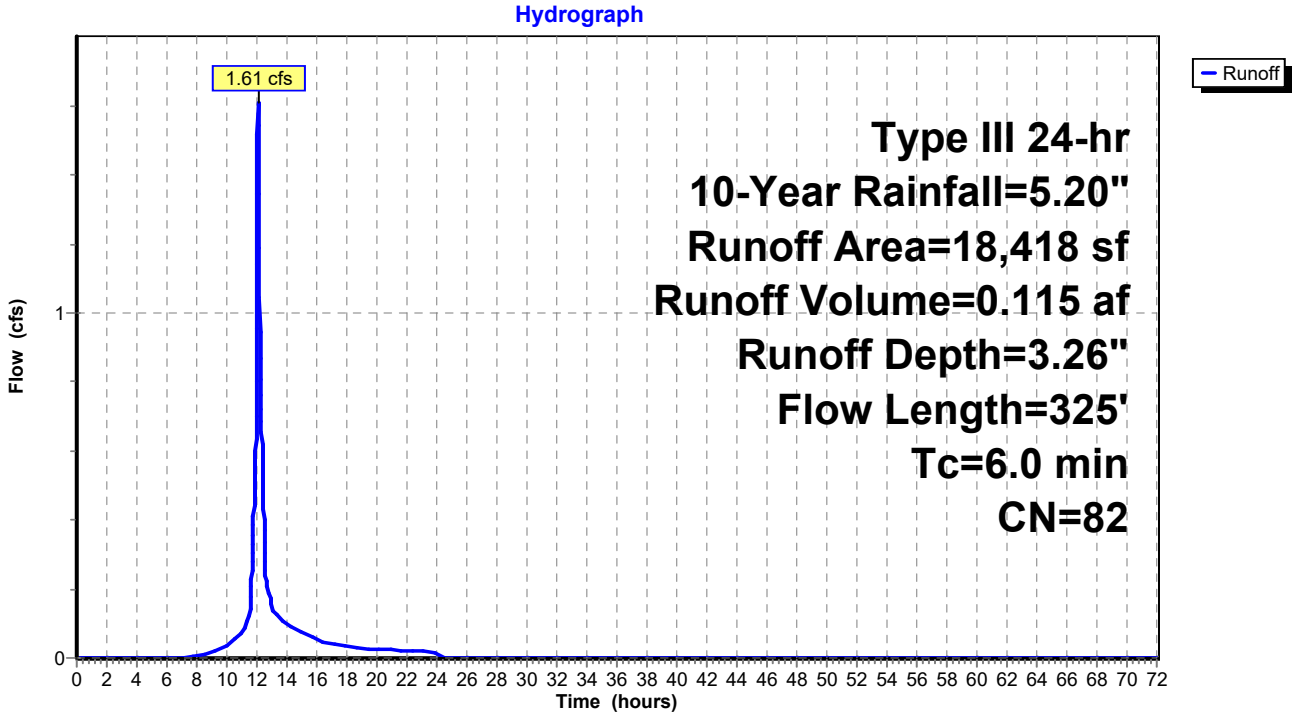
Runoff = 1.61 cfs @ 12.09 hrs, Volume= 0.115 af, Depth= 3.26"
Routed to Pond HYD1 : HYDRO 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-Year Rainfall=5.20"

	Area (sf)	CN	Description
	13,418	98	Paved parking, HSG D
*	5,000	39	Green Roof
	18,418	82	Weighted Average
	5,000		27.15% Pervious Area
	13,418		72.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	262	0.0734	5.50		**Shallow Concentrated Flow, 262 LF SCF @ 7.34% PAVED** Paved Kv= 20.3 fps
0.1	63	0.1500	17.57	13.80	**Pipe Channel, 63 LF @ 15%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.9	325	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1AS: New Bldg South



Summary for Subcatchment 1BS: New Bldg North

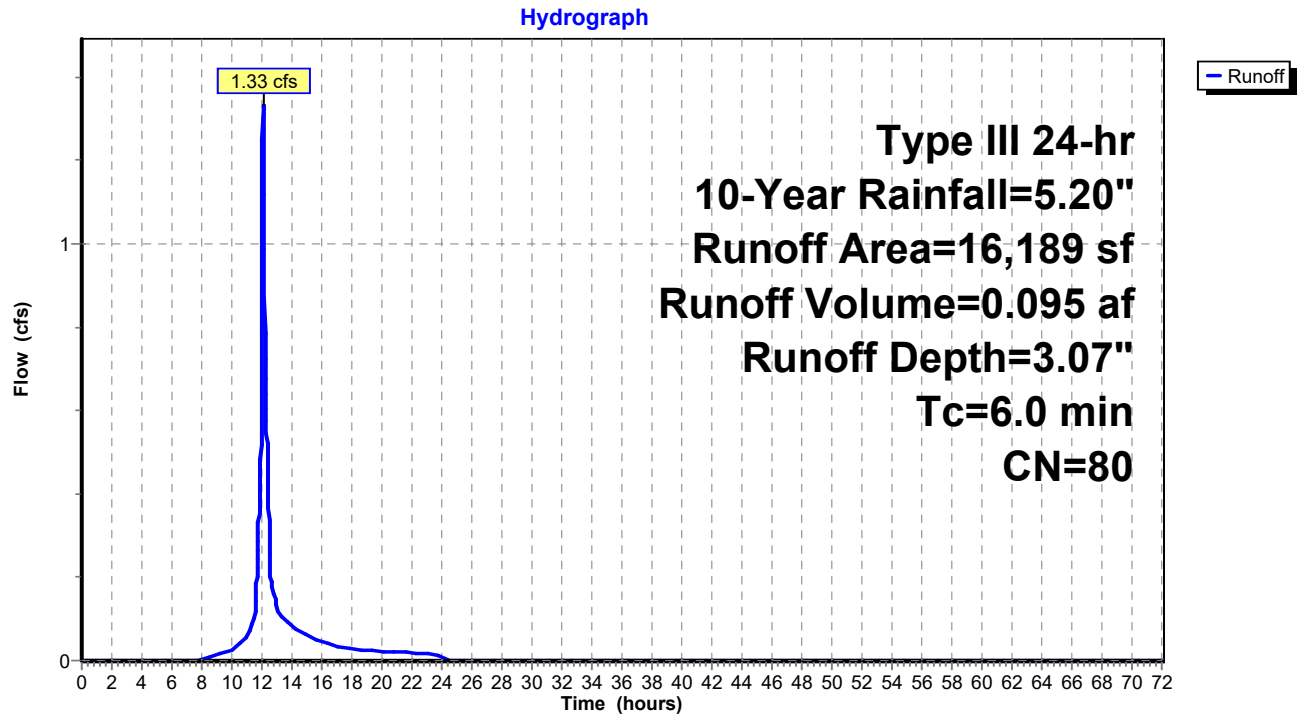
Runoff = 1.33 cfs @ 12.09 hrs, Volume= 0.095 af, Depth= 3.07"
Routed to Pond 9P : HYDRO 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-Year Rainfall=5.20"

	Area (sf)	CN	Description
	11,189	98	Paved parking, HSG D
*	5,000	39	Green Roof
	16,189	80	Weighted Average
	5,000		30.89% Pervious Area
	11,189		69.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1BS: New Bldg North



Summary for Subcatchment 1CS: Patio Between Bldgs

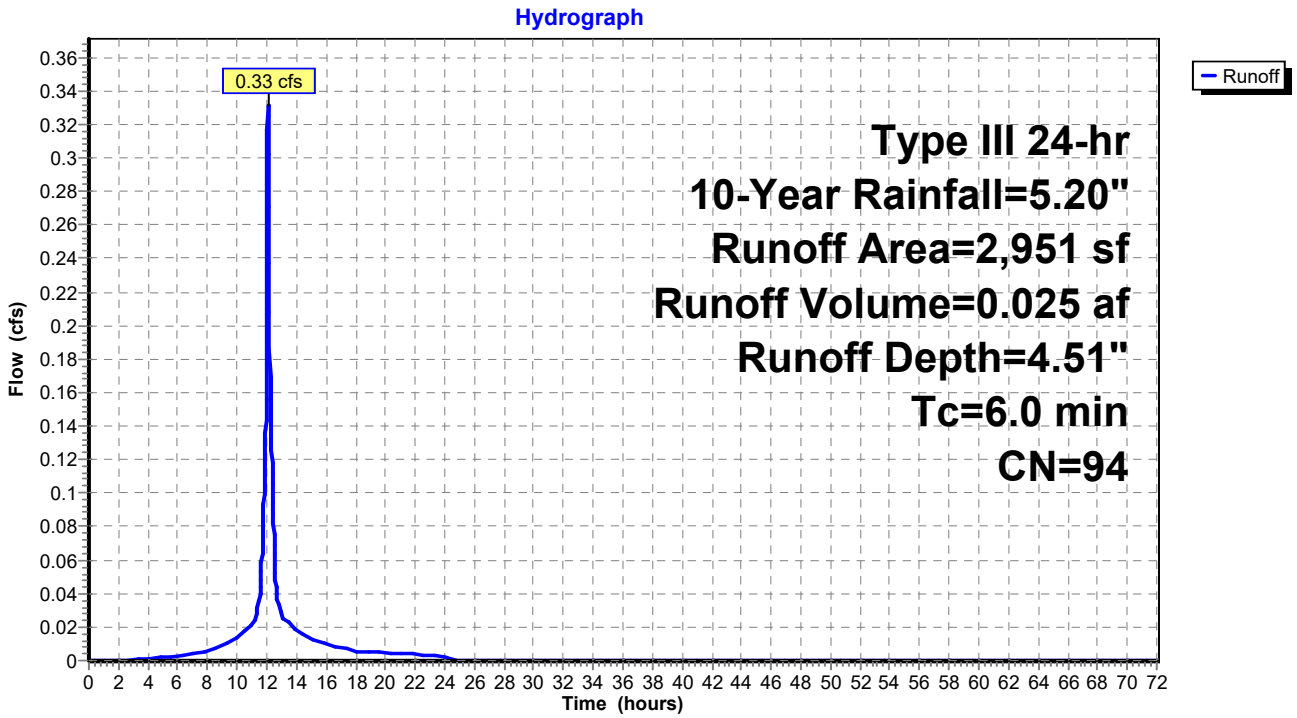
Runoff = 0.33 cfs @ 12.08 hrs, Volume= 0.025 af, Depth= 4.51"
Routed to Pond HYD1 : HYDRO 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
2,347	98	Roofs, HSG C
604	79	50-75% Grass cover, Fair, HSG C
2,951	94	Weighted Average
604		20.47% Pervious Area
2,347		79.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1CS: Patio Between Bldgs



Summary for Subcatchment 2AS: New Bldg Parking South

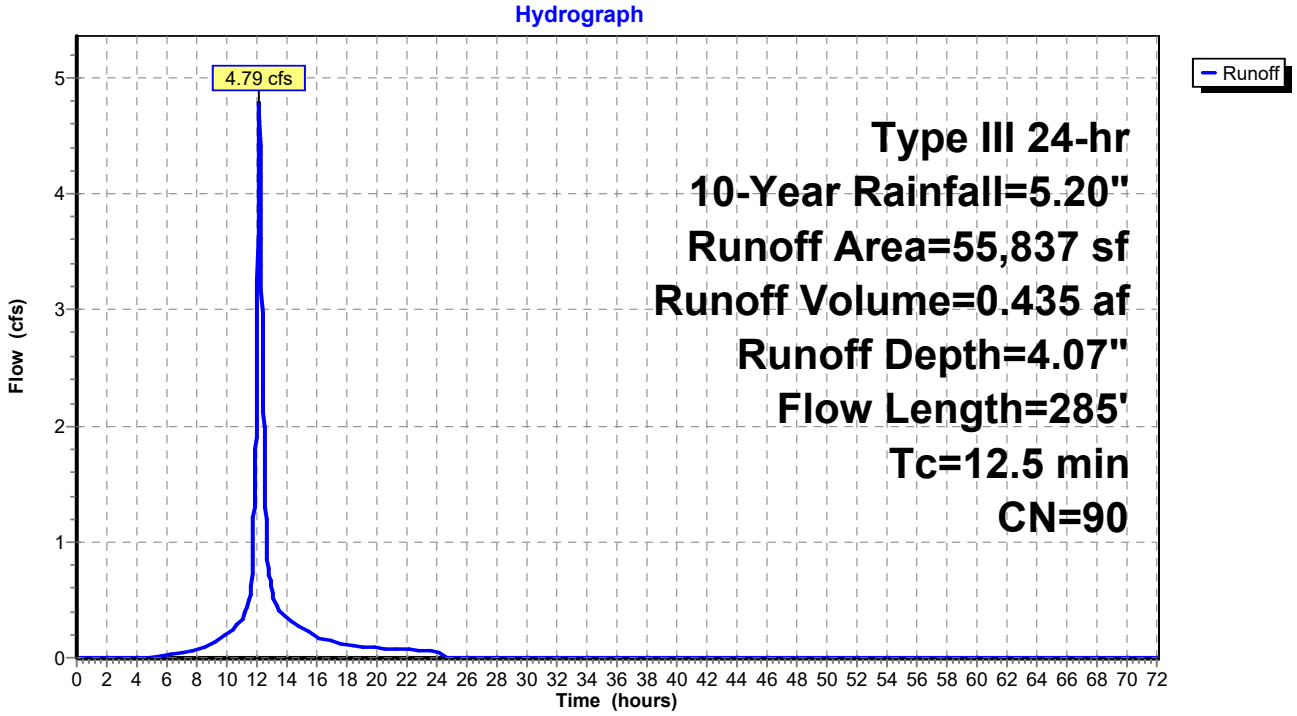
Runoff = 4.79 cfs @ 12.17 hrs, Volume= 0.435 af, Depth= 4.07"
Routed to Pond HYD1 : HYDRO 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
24,754	80	>75% Grass cover, Good, HSG D
29,905	98	Paved parking, HSG D
1,178	79	Woods/grass comb., Good, HSG D
55,837	90	Weighted Average
25,932		46.44% Pervious Area
29,905		53.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.3	90	0.0650	0.12		**Sheet Flow, 90 LF SF @ 6.5% GRASS** Woods: Light underbrush n= 0.400 P2= 3.19"
0.1	68	0.0206	8.53	15.08	**Pipe Channel, 68 LF @ 2.06%** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
0.1	127	0.1050	19.26	34.04	**Pipe Channel, 67 LF @ 10.5%** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
12.5	285	Total			

Subcatchment 2AS: New Bldg Parking South



Summary for Subcatchment 2BS: New Bldg Parking North

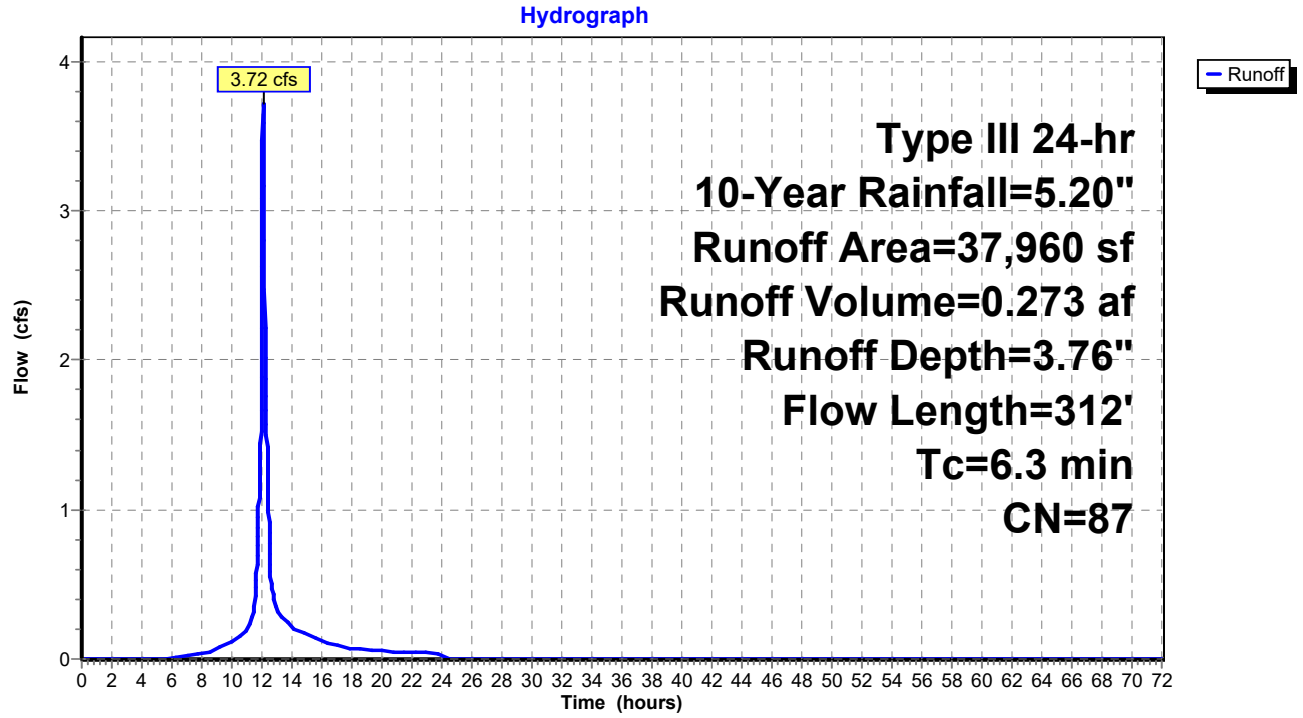
Runoff = 3.72 cfs @ 12.09 hrs, Volume= 0.273 af, Depth= 3.76"
Routed to Pond 9P : HYDRO 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
16,991	80	>75% Grass cover, Good, HSG D
14,298	98	Paved parking, HSG D
6,671	79	Woods, Fair, HSG D
37,960	87	Weighted Average
23,662		62.33% Pervious Area
14,298		37.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	100	0.1100	0.34		**Sheet Flow, 100 LF @ 11 %** Grass: Short n= 0.150 P2= 3.19"
0.2	22	0.0700	1.85		**Shallow Concentrated Flow, 22 LF @ 7%** Short Grass Pasture Kv= 7.0 fps
1.1	190	0.0220	3.01		**Shallow Concentrated Flow, 190 LF @ 2.2%** Paved Kv= 20.3 fps
6.3	312	Total			

Subcatchment 2BS: New Bldg Parking North



Summary for Subcatchment 3S: Pool Patio

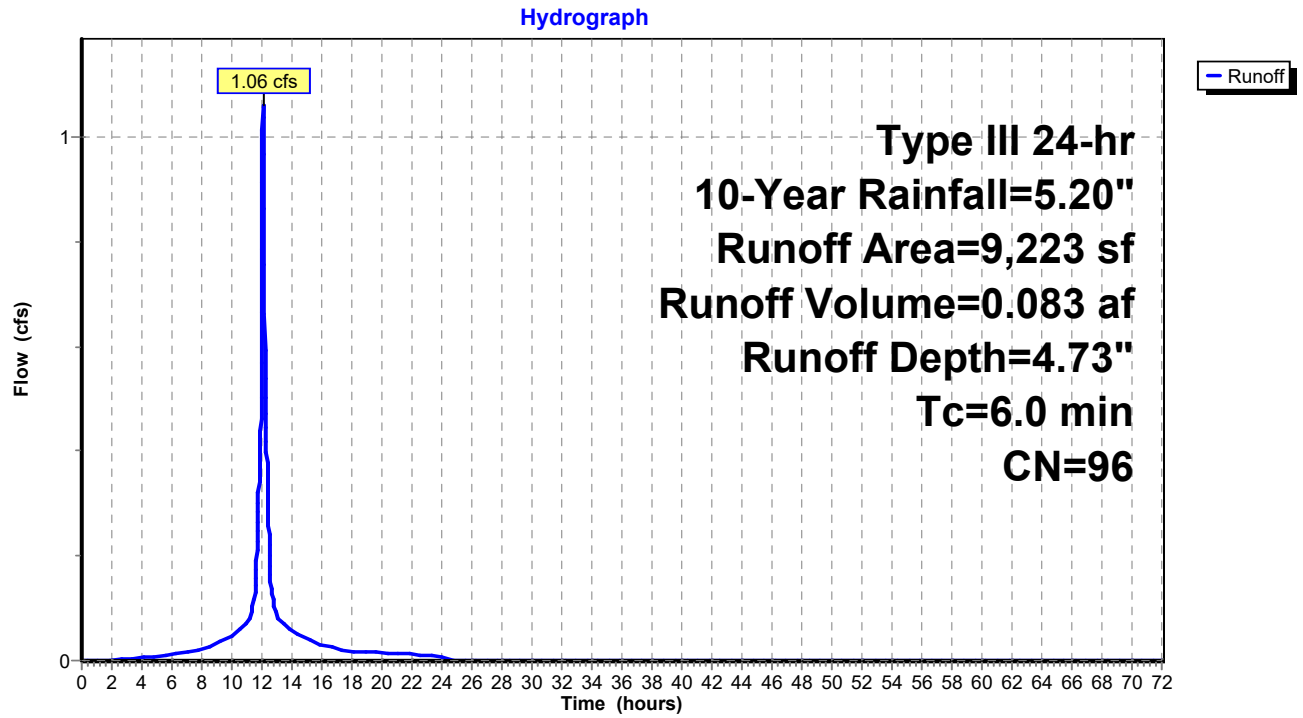
Runoff = 1.06 cfs @ 12.08 hrs, Volume= 0.083 af, Depth= 4.73"
Routed to Pond 9P : HYDRO 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
8,932	98	Paved parking, HSG A
291	39	>75% Grass cover, Good, HSG A
9,223	96	Weighted Average
291		3.16% Pervious Area
8,932		96.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 3S: Pool Patio



Summary for Subcatchment 4S: 4

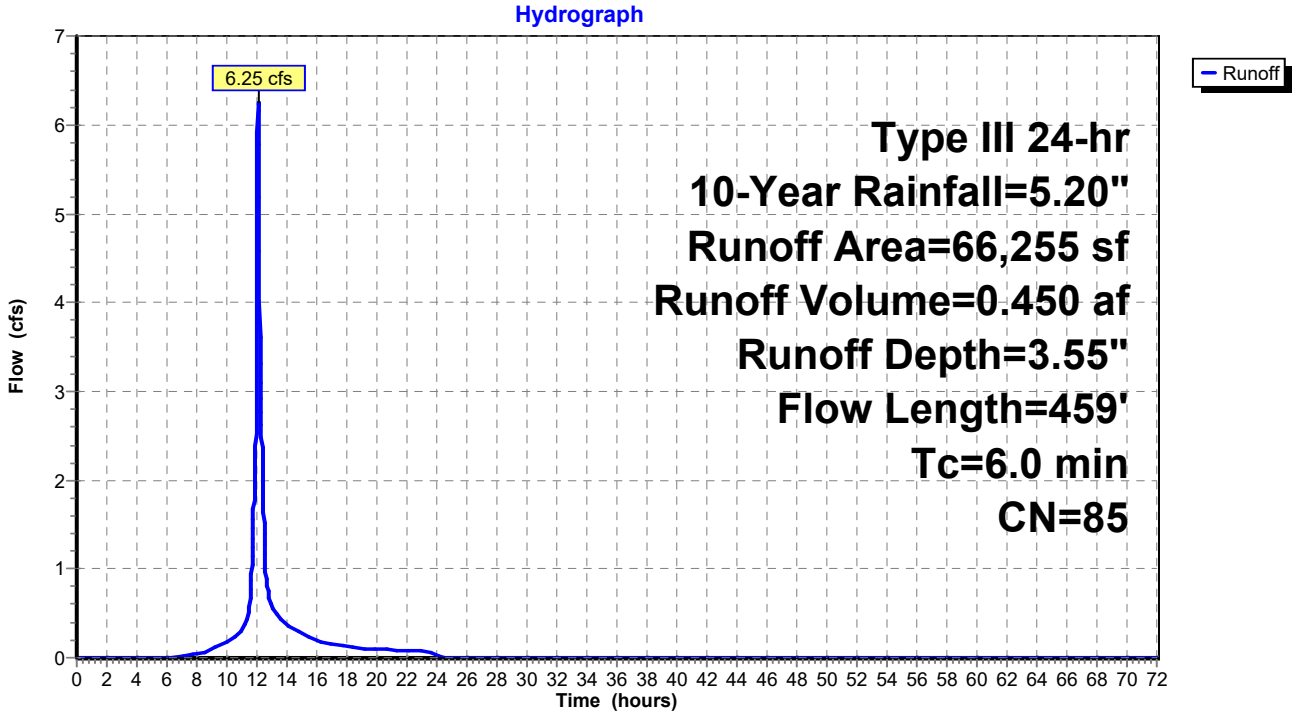
Runoff = 6.25 cfs @ 12.09 hrs, Volume= 0.450 af, Depth= 3.55"
Routed to Pond 25P : HYDRO 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
20,343	98	Paved parking, HSG D
37,592	80	>75% Grass cover, Good, HSG D
8,320	79	Woods/grass comb., Good, HSG D
66,255	85	Weighted Average
45,912		69.30% Pervious Area
20,343		30.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	55	0.2800	0.43		**Sheet Flow, 55 LF SF @ 28% GRASS** Grass: Short n= 0.150 P2= 3.19"
0.7	121	0.0190	2.80		**Shallow Concentrated Flow, 121 LF SCF @ 2% PAVED** Paved Kv= 20.3 fps
0.6	283	0.0270	7.45	5.85	**Pipe Channel, 283 LF @ 2.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
3.4	459	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 4S: 4



Summary for Subcatchment 5S: 5

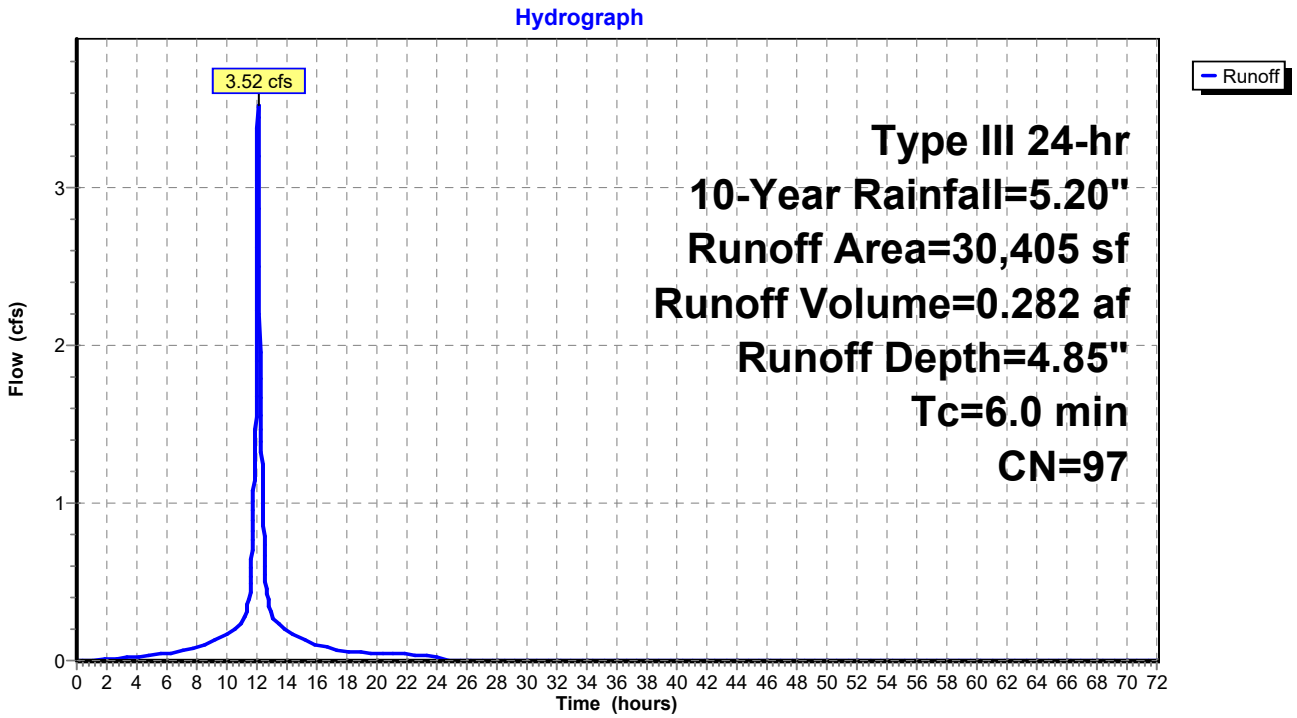
Runoff = 3.52 cfs @ 12.08 hrs, Volume= 0.282 af, Depth= 4.85"
Routed to Pond 11P : HYDRO 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
28,401	98	Roofs, HSG D
2,004	80	>75% Grass cover, Good, HSG D
30,405	97	Weighted Average
2,004		6.59% Pervious Area
28,401		93.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 5S: 5



Summary for Subcatchment 6S: 6

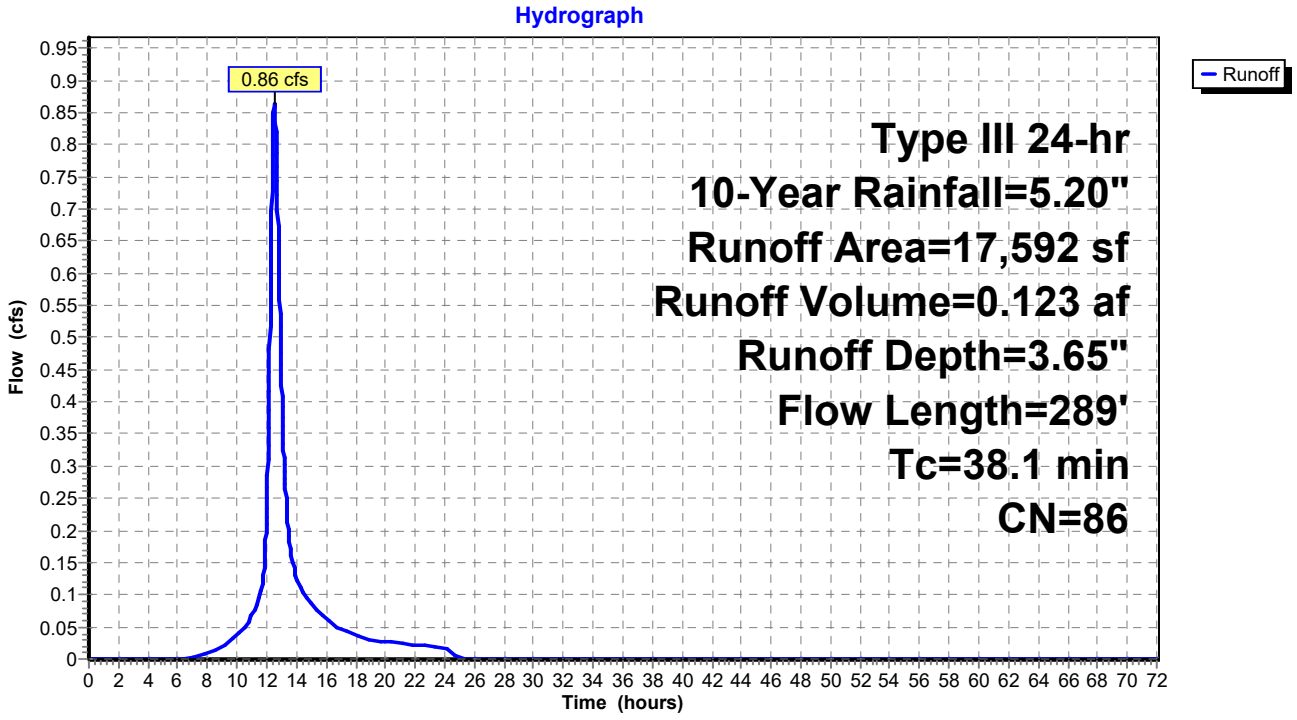
Runoff = 0.86 cfs @ 12.51 hrs, Volume= 0.123 af, Depth= 3.65"
Routed to Reach DP1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
11,755	80	>75% Grass cover, Good, HSG D
5,837	98	Paved parking, HSG D
17,592	86	Weighted Average
11,755		66.82% Pervious Area
5,837		33.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
37.4	100	0.0050	0.04		**Sheet Flow, 100 LF SF @ 0.5%** Woods: Light underbrush n= 0.400 P2= 3.19"
0.6	82	0.0221	2.23		**Shallow Concentrated Flow, 82 LF SCF @ 2.2% GRASS** Grassed Waterway Kv= 15.0 fps
0.1	107	0.0977	14.18	11.14	**Pipe Channel, 107 LF @ 9.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
38.1	289	Total			

Subcatchment 6S: 6



Summary for Subcatchment 7S: 7

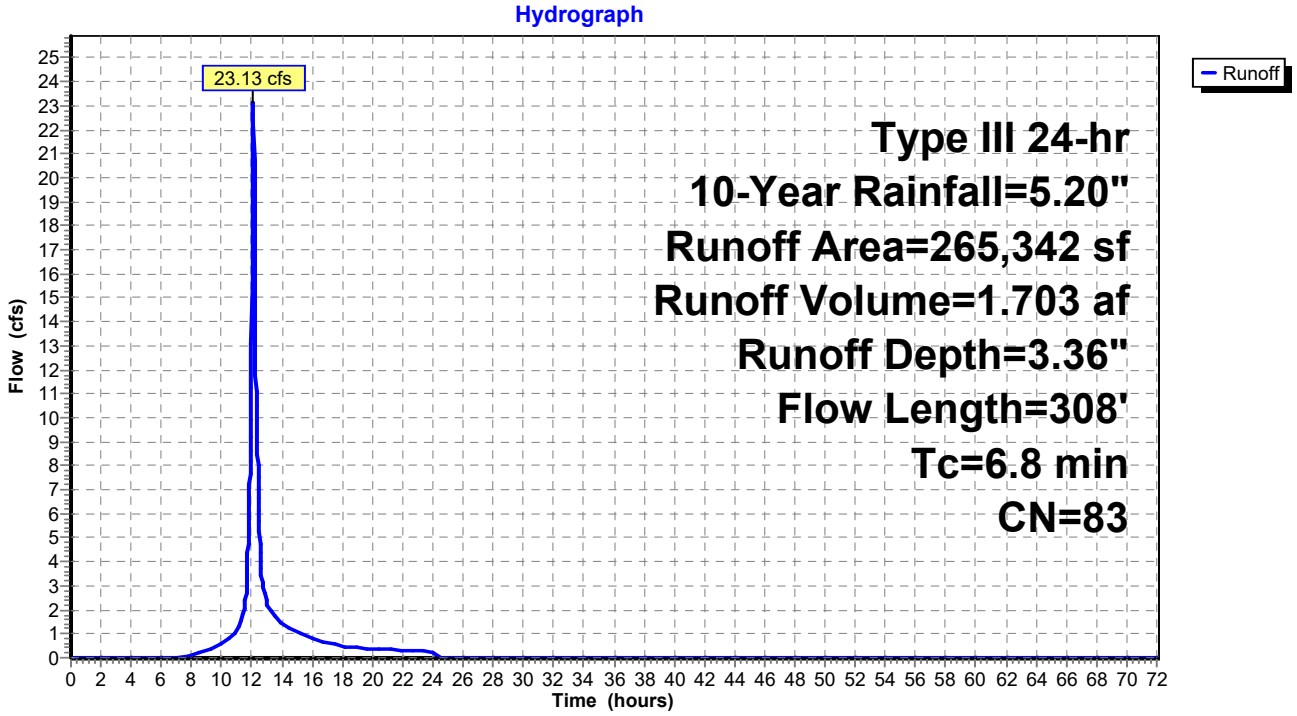
Runoff = 23.13 cfs @ 12.10 hrs, Volume= 1.703 af, Depth= 3.36"
Routed to Reach DP1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (sf)	CN	Description
63,131	79	Woods, Fair, HSG D
42,621	98	Paved parking, HSG D
145,907	80	>75% Grass cover, Good, HSG D
13,683	96	Gravel surface, HSG D
265,342	83	Weighted Average
222,721		83.94% Pervious Area
42,621		16.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	100	0.0875	0.31		**Sheet Flow, 100 LF SF @ 8.75% GRASS** Grass: Short n= 0.150 P2= 3.19"
1.1	155	0.1032	2.25		**Shallow Concentrated Flow, 155 LF SCF @ 10% GRASS** Short Grass Pasture Kv= 7.0 fps
0.2	9	0.0278	0.97		**Sheet Flow, 9 LF SF @ 2.8% PAVEMENT** Smooth surfaces n= 0.011 P2= 3.19"
0.0	2	0.0278	1.17		**Shallow Concentrated Flow, 2 LF SCF @ 2.8% GRASS** Short Grass Pasture Kv= 7.0 fps
0.1	42	0.3869	9.33		**Shallow Concentrated Flow, 42 LF SCF @ 39% GRASS** Grassed Waterway Kv= 15.0 fps
6.8	308	Total			

Subcatchment 7S: 7



Summary for Subcatchment ES1: Upstream Watershed Area

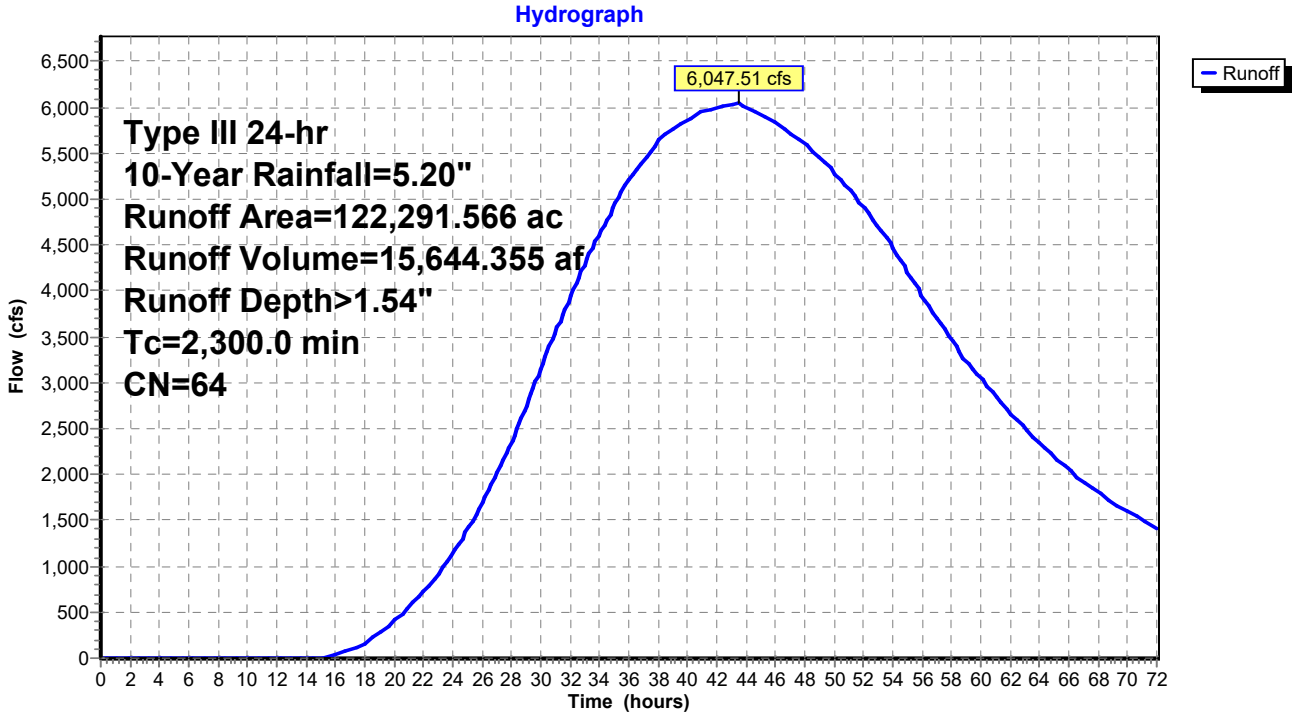
Runoff = 6,047.51 cfs @ 43.44 hrs, Volume= 15,644.355 af, Depth> 1.54"
Routed to Reach DP1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-Year Rainfall=5.20"

Area (ac)	CN	Description
*122,291.566	64	
122,291.566		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2,300.0					**Direct Entry, Time of Concentration**

Subcatchment ES1: Upstream Watershed Area

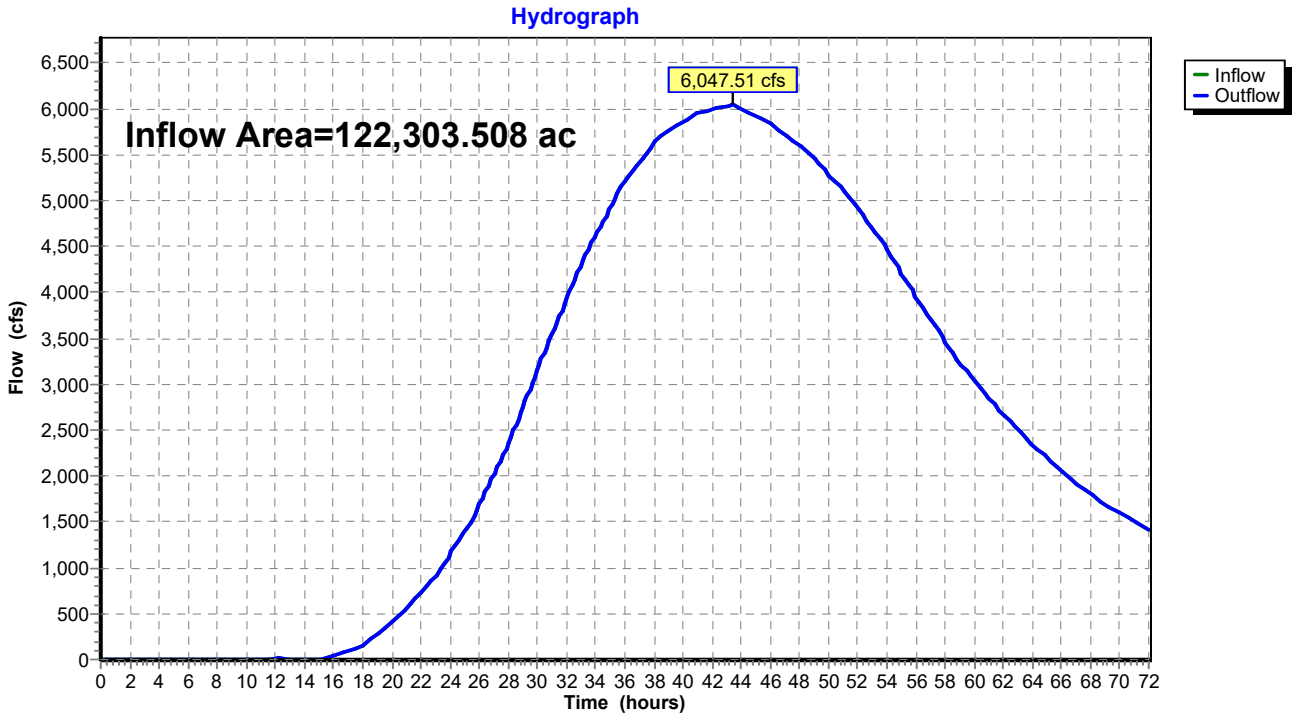


Summary for Reach DP1: Design Point 1

Inflow Area =122,303.508 ac, 0.00% Impervious, Inflow Depth > 1.54" for 10-Year event
Inflow = 6,047.51 cfs @ 43.44 hrs, Volume= 15,647.889 af
Outflow = 6,047.51 cfs @ 43.44 hrs, Volume= 15,647.889 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs

Reach DP1: Design Point 1



Summary for Pond 4P: BIO 2

Inflow Area = 1.521 ac, 30.70% Impervious, Inflow Depth = 3.55" for 10-Year event
Inflow = 6.25 cfs @ 12.09 hrs, Volume= 0.450 af
Outflow = 5.87 cfs @ 12.12 hrs, Volume= 0.450 af, Atten= 6%, Lag= 1.8 min
Discarded = 0.02 cfs @ 12.12 hrs, Volume= 0.050 af
Primary = 5.85 cfs @ 12.12 hrs, Volume= 0.400 af
Routed to Reach DP1 : Design Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 78.87' @ 12.12 hrs Surf.Area= 2,699 sf Storage= 2,169 cf

Plug-Flow detention time= 101.6 min calculated for 0.450 af (100% of inflow)
Center-of-Mass det. time= 102.0 min (908.0 - 806.0)

Volume	Invert	Avail.Storage	Storage Description
#1	78.00'	5,521 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

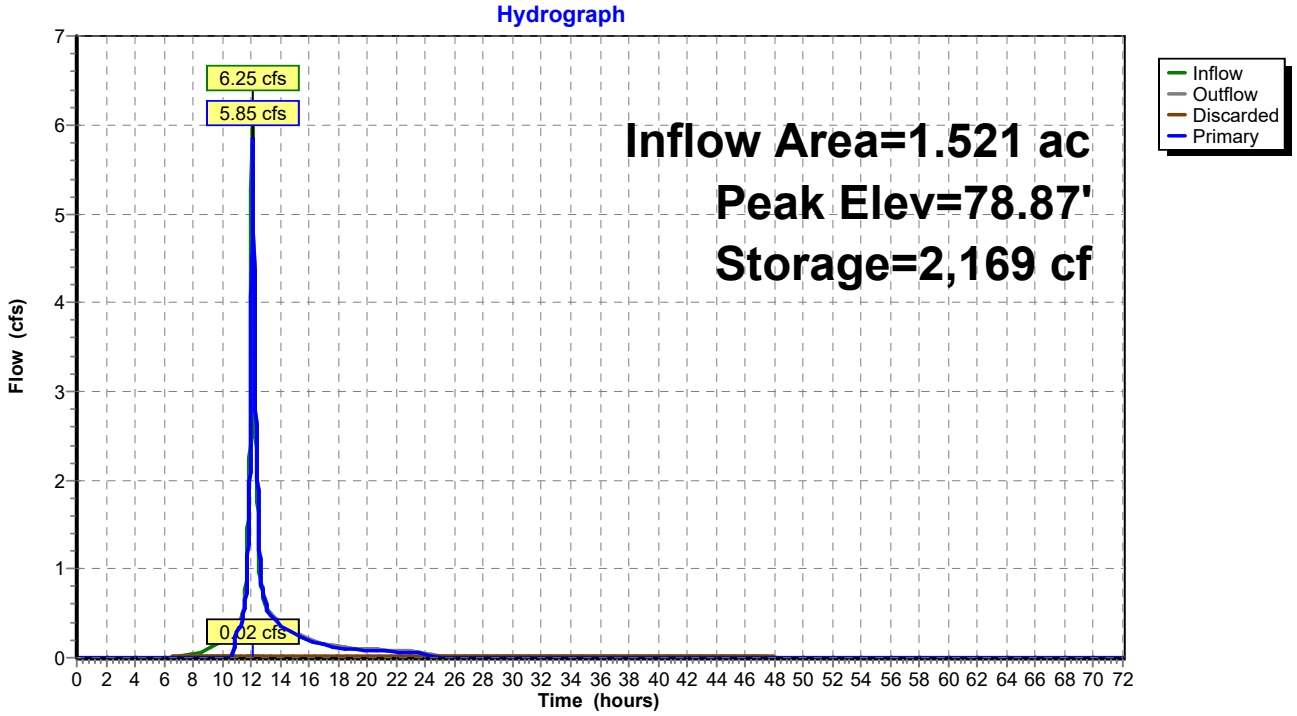
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
78.00	2,296	0	0
80.00	3,225	5,521	5,521

Device	Routing	Invert	Outlet Devices
#1	Discarded	78.00'	**0.250 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 66.00'
#2	Primary	74.40'	**12.0" Round Culvert** L= 41.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 74.40' / 74.00' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	78.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.02 cfs @ 12.12 hrs HW=78.87' (Free Discharge)
└**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=5.83 cfs @ 12.12 hrs HW=78.87' TW=0.00' (Dynamic Tailwater)
└**2=Culvert** (Passes 5.83 cfs of 5.95 cfs potential flow)
└**3=Orifice/Grate** (Weir Controls 5.83 cfs @ 1.98 fps)

Pond 4P: BIO 2


Hydrograph
Inflow Area=1.521 ac
Peak Elev=78.87'
Storage=2,169 cf
6.25 cfs
5.85 cfs
0.02 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0 1 2 3 4 5 6 7
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

Summary for Pond 9P: HYDRO 2

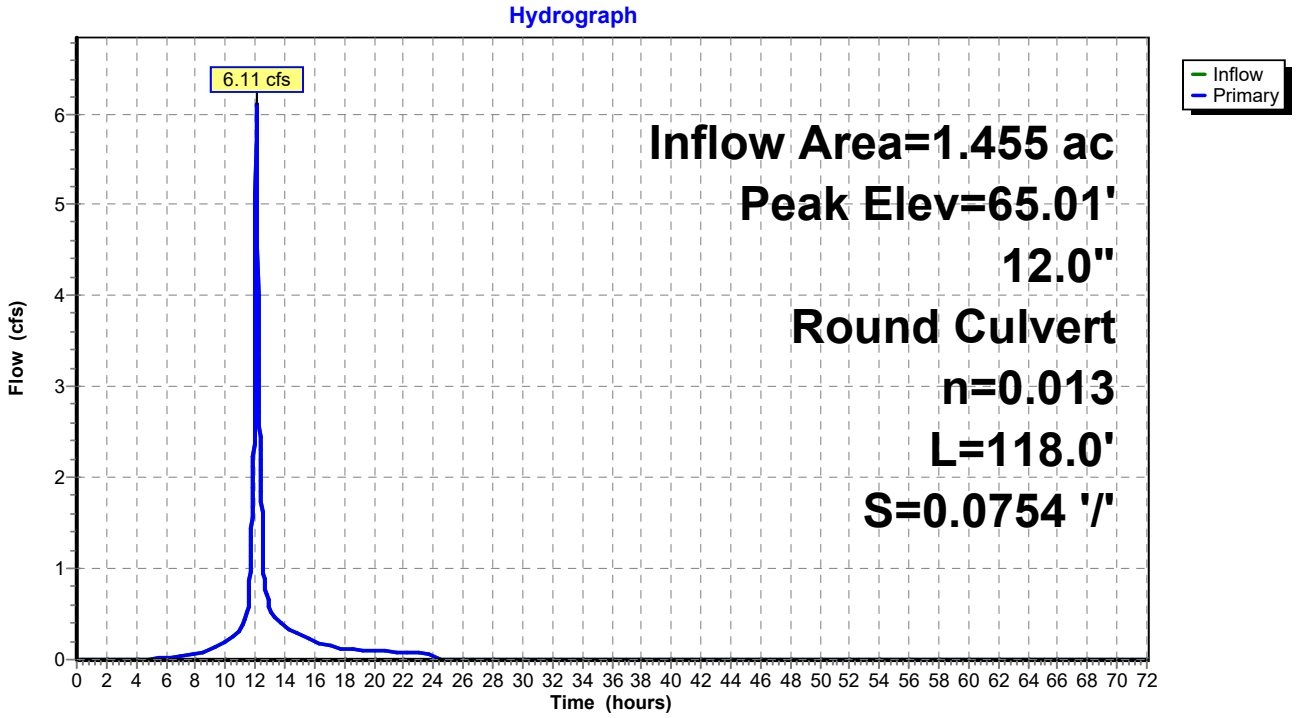
Inflow Area = 1.455 ac, 54.31% Impervious, Inflow Depth = 3.72" for 10-Year event
Inflow = 6.11 cfs @ 12.09 hrs, Volume= 0.451 af
Outflow = 6.11 cfs @ 12.09 hrs, Volume= 0.451 af, Atten= 0%, Lag= 0.0 min
Primary = 6.11 cfs @ 12.09 hrs, Volume= 0.451 af
Routed to Reach DP1 : Design Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 65.01' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.90'	**12.0" Round Culvert** L= 118.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.90' / 53.00' S= 0.0754 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=6.06 cfs @ 12.09 hrs HW=64.97' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 6.06 cfs @ 7.72 fps)

Pond 9P: HYDRO 2



Summary for Pond 11P: HYDRO 5

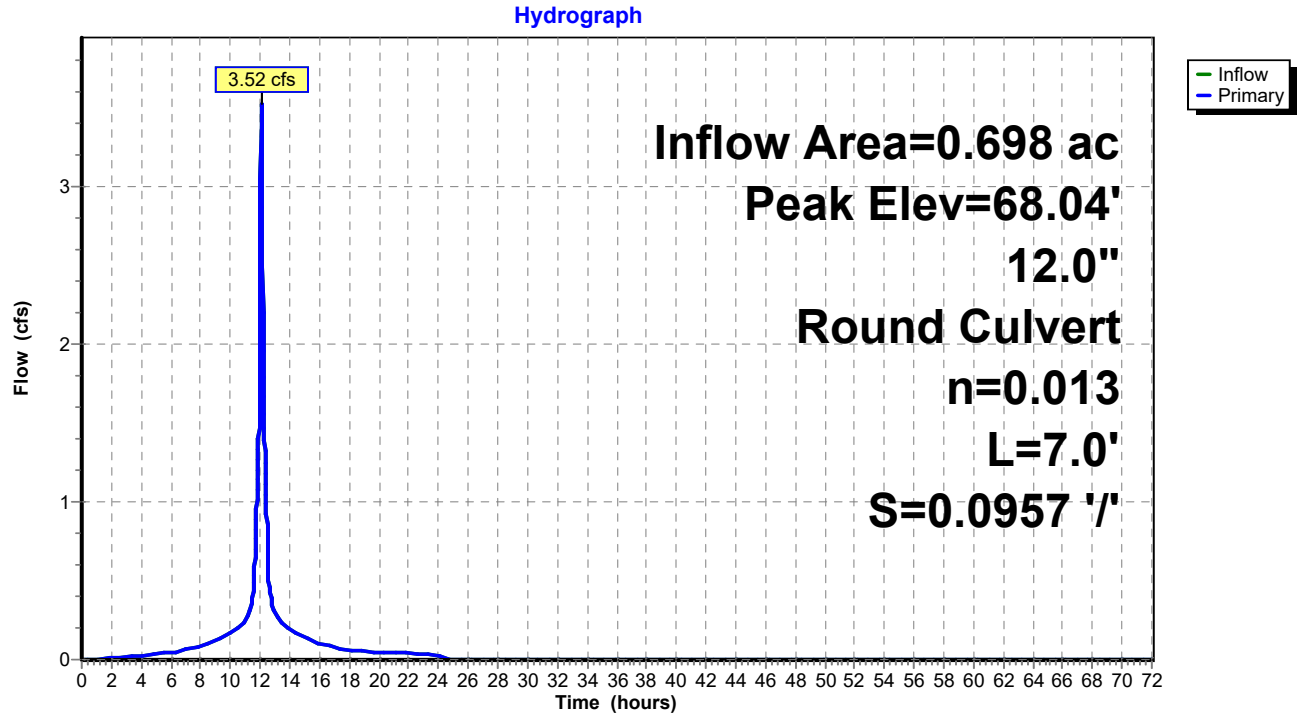
Inflow Area = 0.698 ac, 93.41% Impervious, Inflow Depth = 4.85" for 10-Year event
Inflow = 3.52 cfs @ 12.08 hrs, Volume= 0.282 af
Outflow = 3.52 cfs @ 12.08 hrs, Volume= 0.282 af, Atten= 0%, Lag= 0.0 min
Primary = 3.52 cfs @ 12.08 hrs, Volume= 0.282 af
Routed to Reach DP1 : Design Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 68.04' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.67'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.67' / 66.00' S= 0.0957 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.51 cfs @ 12.08 hrs HW=68.03' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 3.51 cfs @ 4.47 fps)

Pond 11P: HYDRO 5



Summary for Pond 25P: HYDRO 4

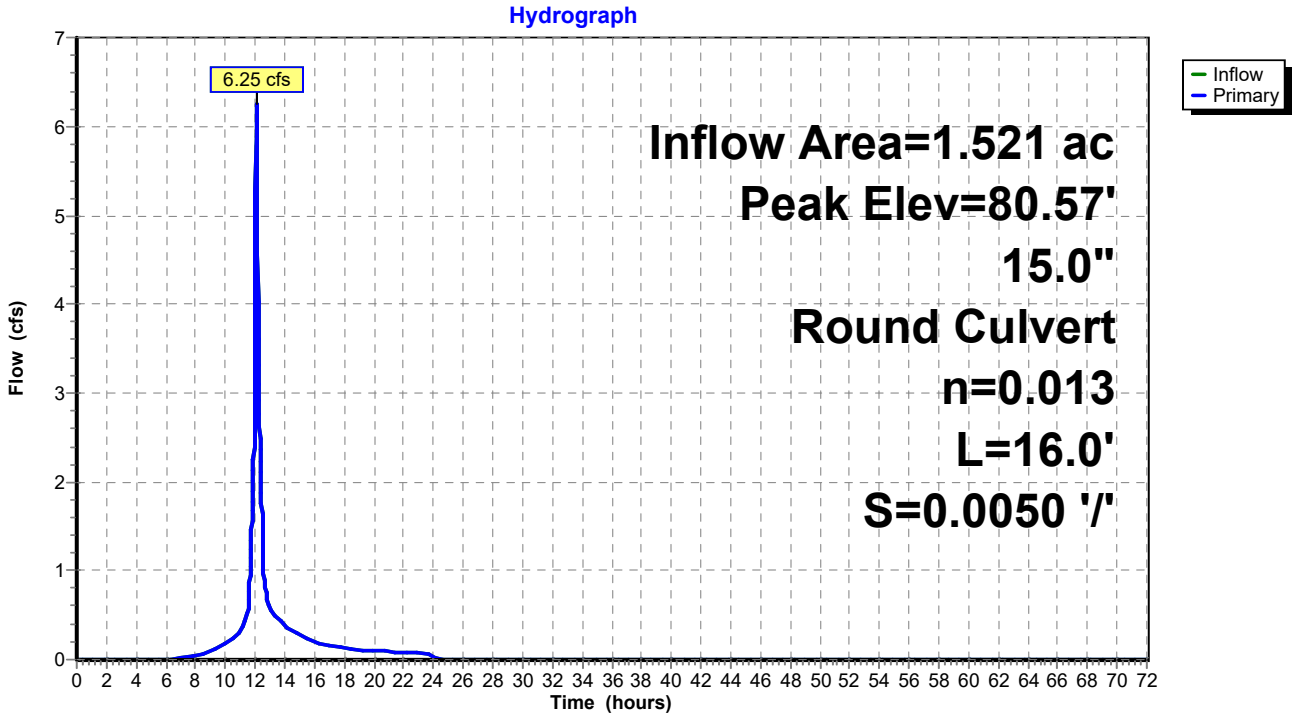
Inflow Area = 1.521 ac, 30.70% Impervious, Inflow Depth = 3.55" for 10-Year event
Inflow = 6.25 cfs @ 12.09 hrs, Volume= 0.450 af
Outflow = 6.25 cfs @ 12.09 hrs, Volume= 0.450 af, Atten= 0%, Lag= 0.0 min
Primary = 6.25 cfs @ 12.09 hrs, Volume= 0.450 af
Routed to Pond 4P : BIO 2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 80.57' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	78.65'	**15.0" Round Culvert** L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 78.65' / 78.57' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=6.21 cfs @ 12.09 hrs HW=80.56' TW=78.85' (Dynamic Tailwater)
1=Culvert (Barrel Controls 6.21 cfs @ 5.06 fps)

Pond 25P: HYDRO 4



Summary for Pond HYD1: HYDRO 1

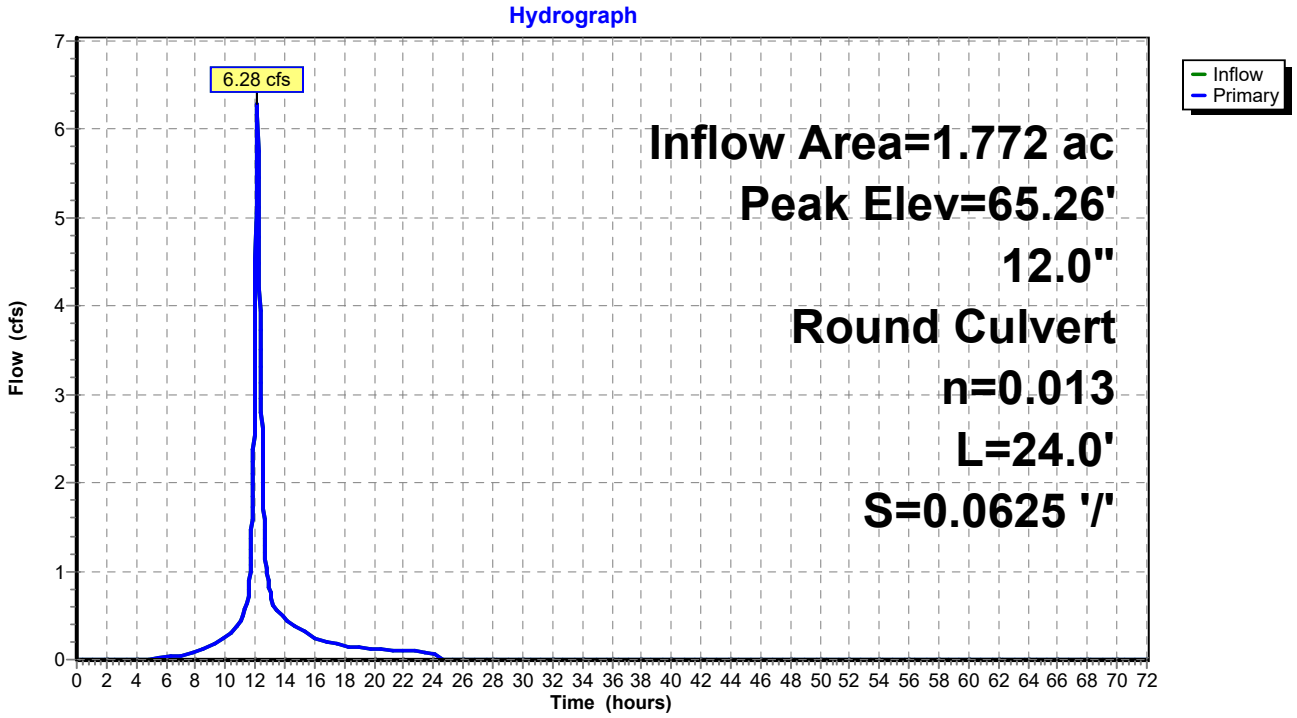
Inflow Area = 1.772 ac, 59.15% Impervious, Inflow Depth = 3.89" for 10-Year event
Inflow = 6.28 cfs @ 12.14 hrs, Volume= 0.575 af
Outflow = 6.28 cfs @ 12.14 hrs, Volume= 0.575 af, Atten= 0%, Lag= 0.0 min
Primary = 6.28 cfs @ 12.14 hrs, Volume= 0.575 af
Routed to Reach DP1 : Design Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 65.26' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	62.00'	**12.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.00' / 60.50' S= 0.0625 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=6.27 cfs @ 12.14 hrs HW=65.25' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 6.27 cfs @ 7.99 fps)

Pond HYD1: HYDRO 1



Summary for Subcatchment 1AS: New Bldg South

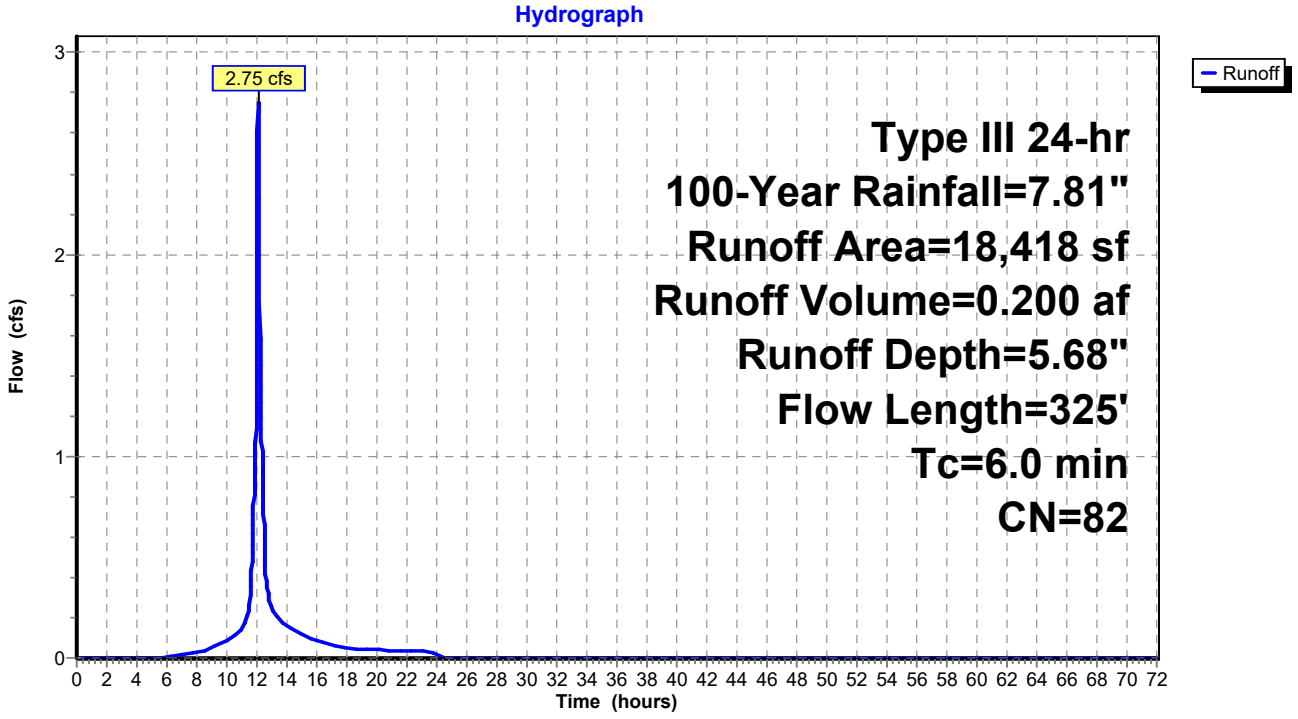
Runoff = 2.75 cfs @ 12.09 hrs, Volume= 0.200 af, Depth= 5.68"
Routed to Pond HYD1 : HYDRO 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 100-Year Rainfall=7.81"

	Area (sf)	CN	Description
	13,418	98	Paved parking, HSG D
*	5,000	39	Green Roof
	18,418	82	Weighted Average
	5,000		27.15% Pervious Area
	13,418		72.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	262	0.0734	5.50		**Shallow Concentrated Flow, 262 LF SCF @ 7.34% PAVED** Paved Kv= 20.3 fps
0.1	63	0.1500	17.57	13.80	**Pipe Channel, 63 LF @ 15%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
0.9	325	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 1AS: New Bldg South



Summary for Subcatchment 1BS: New Bldg North

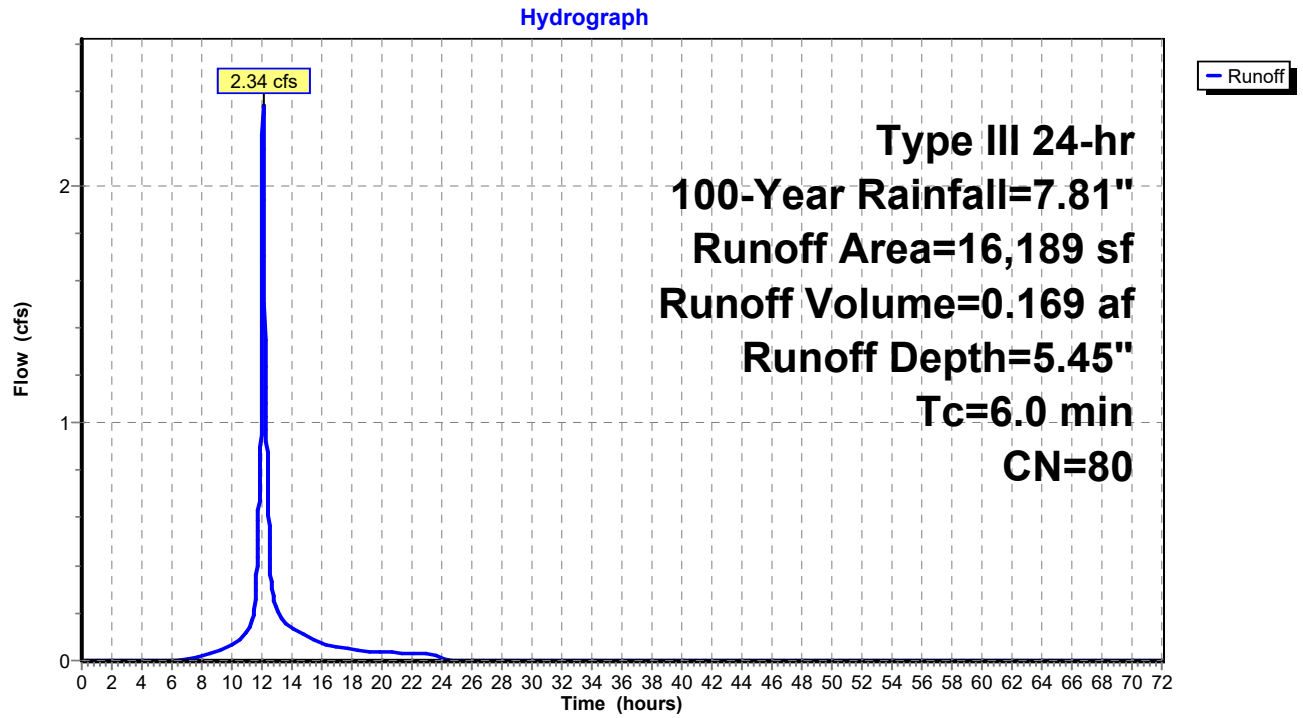
Runoff = 2.34 cfs @ 12.09 hrs, Volume= 0.169 af, Depth= 5.45"
Routed to Pond 9P : HYDRO 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 100-Year Rainfall=7.81"

	Area (sf)	CN	Description
	11,189	98	Paved parking, HSG D
*	5,000	39	Green Roof
	16,189	80	Weighted Average
	5,000		30.89% Pervious Area
	11,189		69.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1BS: New Bldg North



Summary for Subcatchment 1CS: Patio Between Bldgs

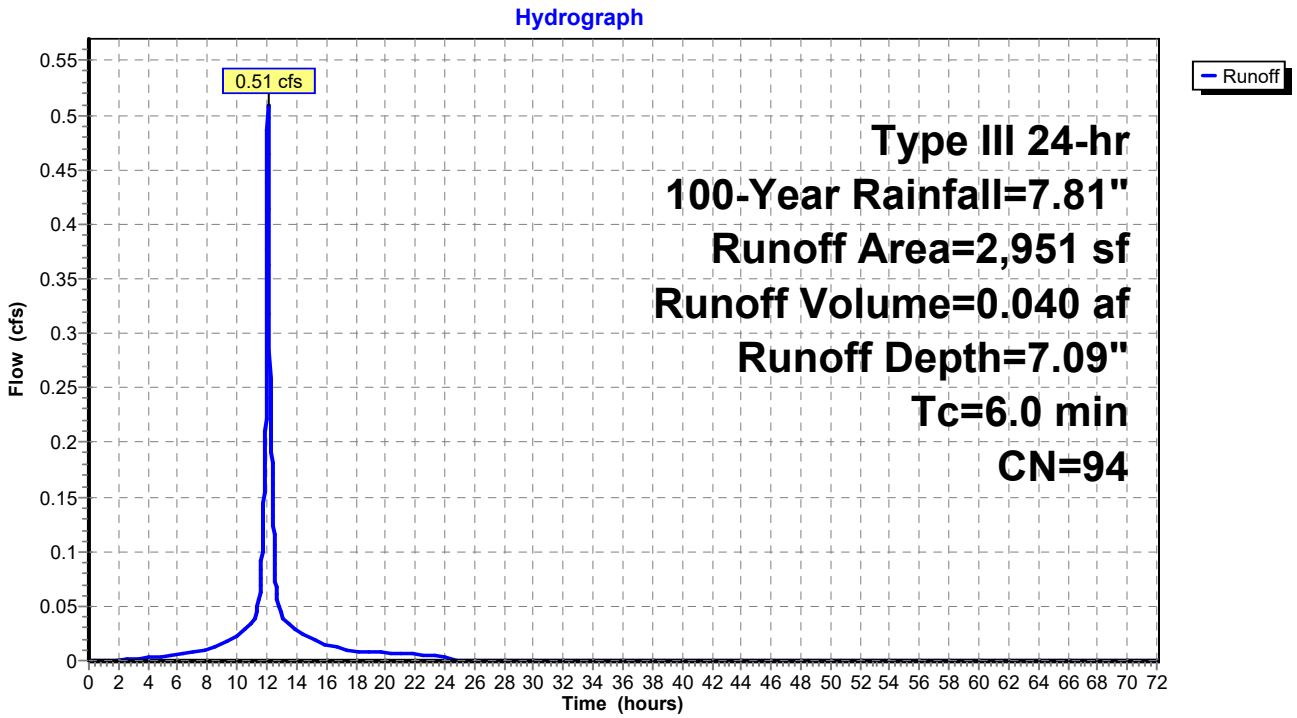
Runoff = 0.51 cfs @ 12.08 hrs, Volume= 0.040 af, Depth= 7.09"
Routed to Pond HYD1 : HYDRO 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 100-Year Rainfall=7.81"

Area (sf)	CN	Description
2,347	98	Roofs, HSG C
604	79	50-75% Grass cover, Fair, HSG C
2,951	94	Weighted Average
604		20.47% Pervious Area
2,347		79.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 1CS: Patio Between Bldgs



Summary for Subcatchment 2AS: New Bldg Parking South

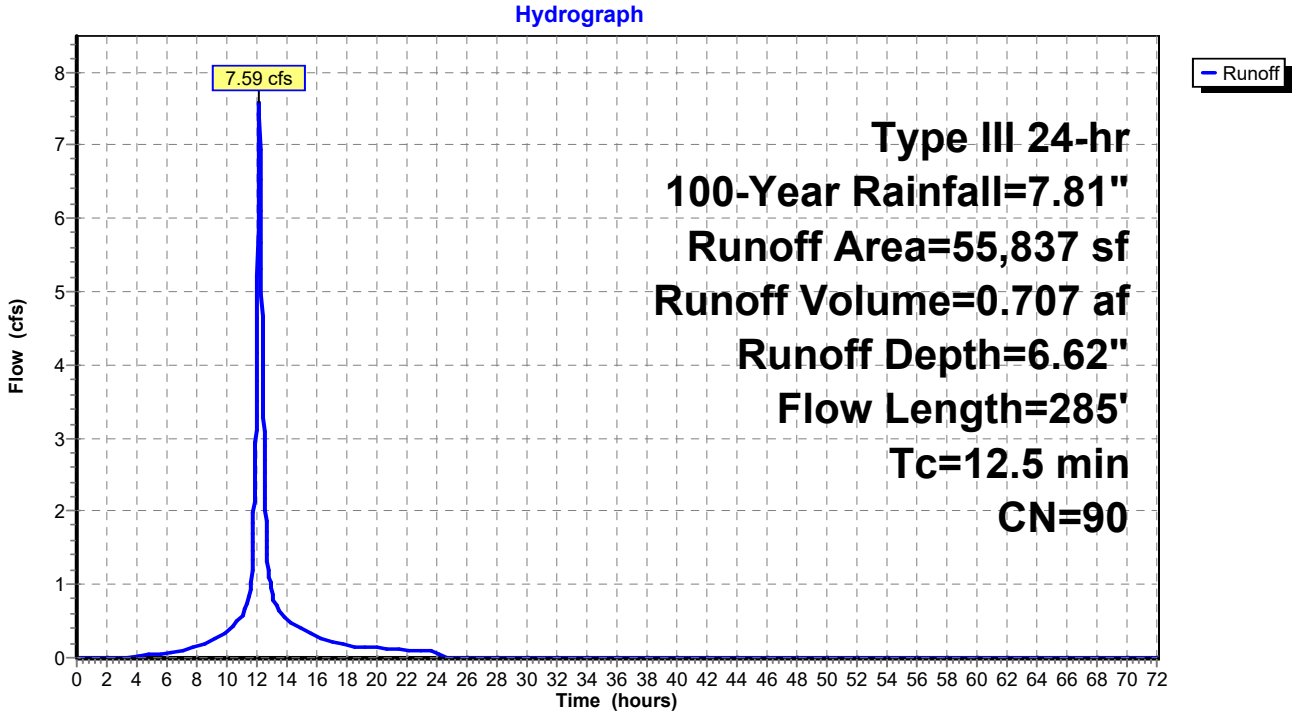
Runoff = 7.59 cfs @ 12.17 hrs, Volume= 0.707 af, Depth= 6.62"
Routed to Pond HYD1 : HYDRO 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 100-Year Rainfall=7.81"

Area (sf)	CN	Description
24,754	80	>75% Grass cover, Good, HSG D
29,905	98	Paved parking, HSG D
1,178	79	Woods/grass comb., Good, HSG D
55,837	90	Weighted Average
25,932		46.44% Pervious Area
29,905		53.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.3	90	0.0650	0.12		**Sheet Flow, 90 LF SF @ 6.5% GRASS** Woods: Light underbrush n= 0.400 P2= 3.19"
0.1	68	0.0206	8.53	15.08	**Pipe Channel, 68 LF @ 2.06%** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
0.1	127	0.1050	19.26	34.04	**Pipe Channel, 67 LF @ 10.5%** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
12.5	285	Total			

Subcatchment 2AS: New Bldg Parking South



Summary for Subcatchment 2BS: New Bldg Parking North

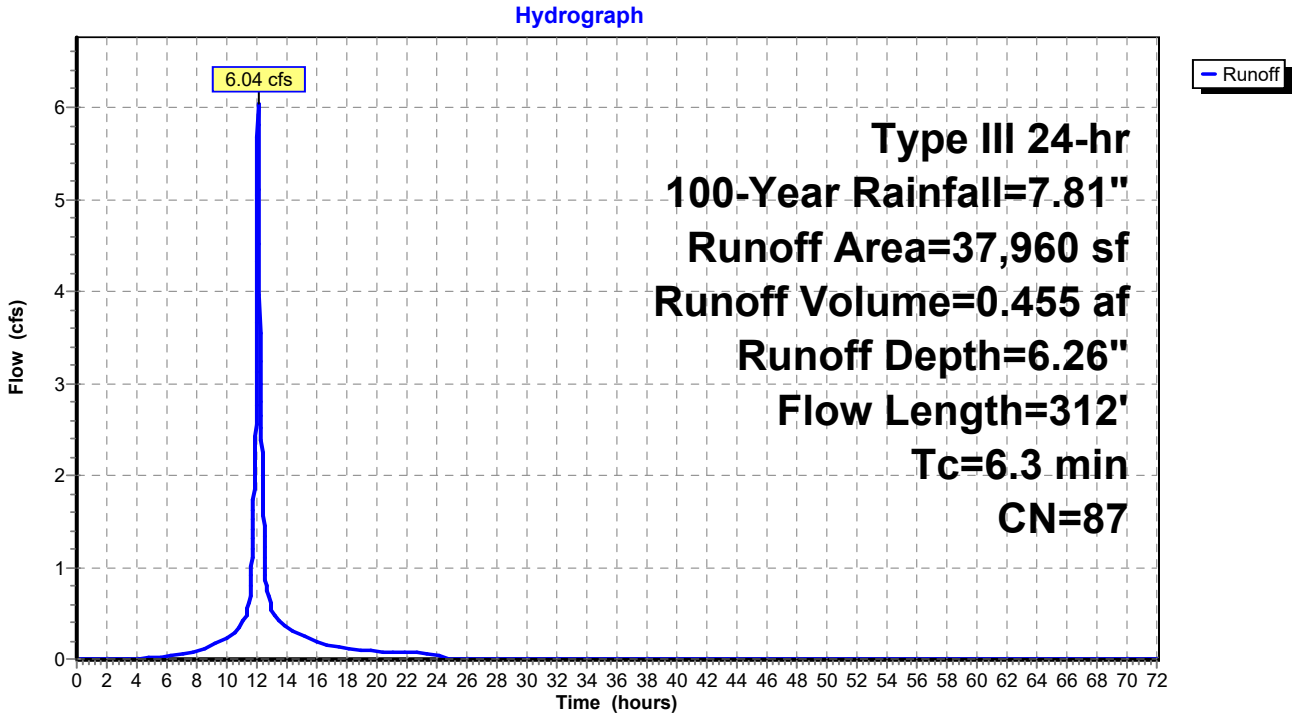
Runoff = 6.04 cfs @ 12.09 hrs, Volume= 0.455 af, Depth= 6.26"
Routed to Pond 9P : HYDRO 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 100-Year Rainfall=7.81"

Area (sf)	CN	Description
16,991	80	>75% Grass cover, Good, HSG D
14,298	98	Paved parking, HSG D
6,671	79	Woods, Fair, HSG D
37,960	87	Weighted Average
23,662		62.33% Pervious Area
14,298		37.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	100	0.1100	0.34		**Sheet Flow, 100 LF @ 11 %** Grass: Short n= 0.150 P2= 3.19"
0.2	22	0.0700	1.85		**Shallow Concentrated Flow, 22 LF @ 7%** Short Grass Pasture Kv= 7.0 fps
1.1	190	0.0220	3.01		**Shallow Concentrated Flow, 190 LF @ 2.2%** Paved Kv= 20.3 fps
6.3	312	Total			

Subcatchment 2BS: New Bldg Parking North



Summary for Subcatchment 3S: Pool Patio

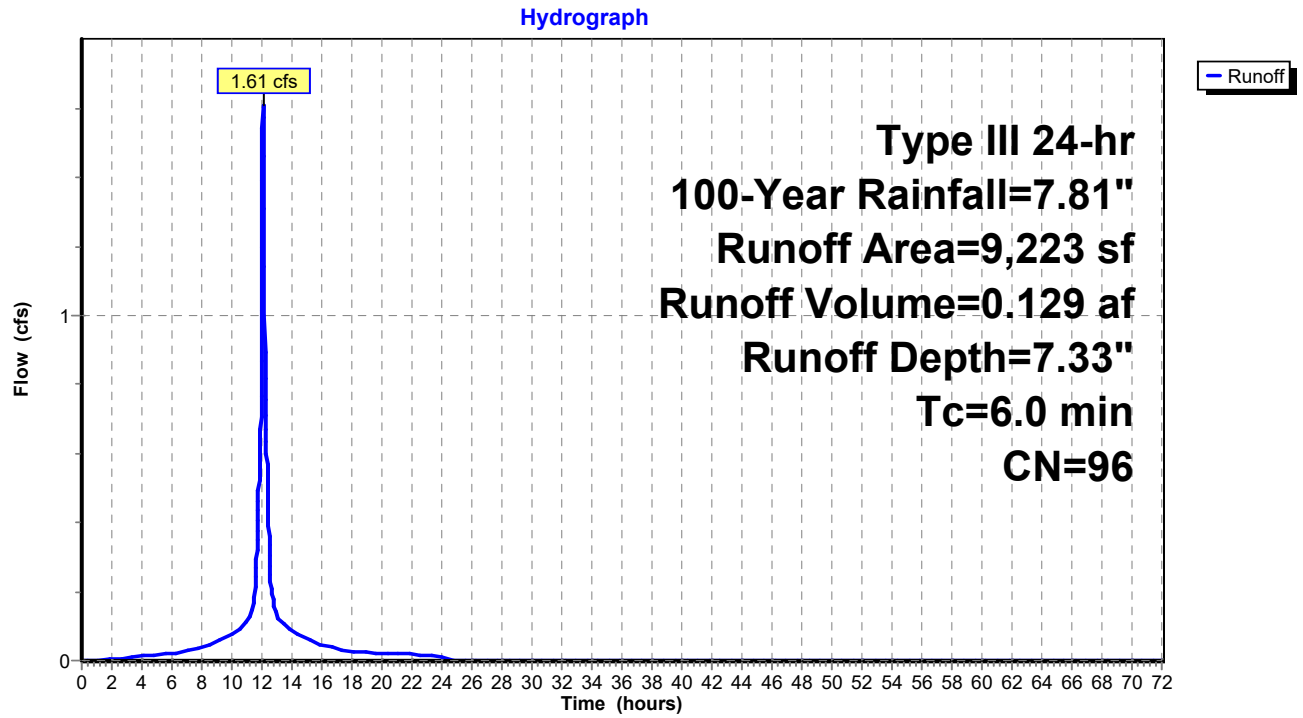
Runoff = 1.61 cfs @ 12.08 hrs, Volume= 0.129 af, Depth= 7.33"
Routed to Pond 9P : HYDRO 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 100-Year Rainfall=7.81"

Area (sf)	CN	Description
8,932	98	Paved parking, HSG A
291	39	>75% Grass cover, Good, HSG A
9,223	96	Weighted Average
291		3.16% Pervious Area
8,932		96.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 3S: Pool Patio



Summary for Subcatchment 4S: 4

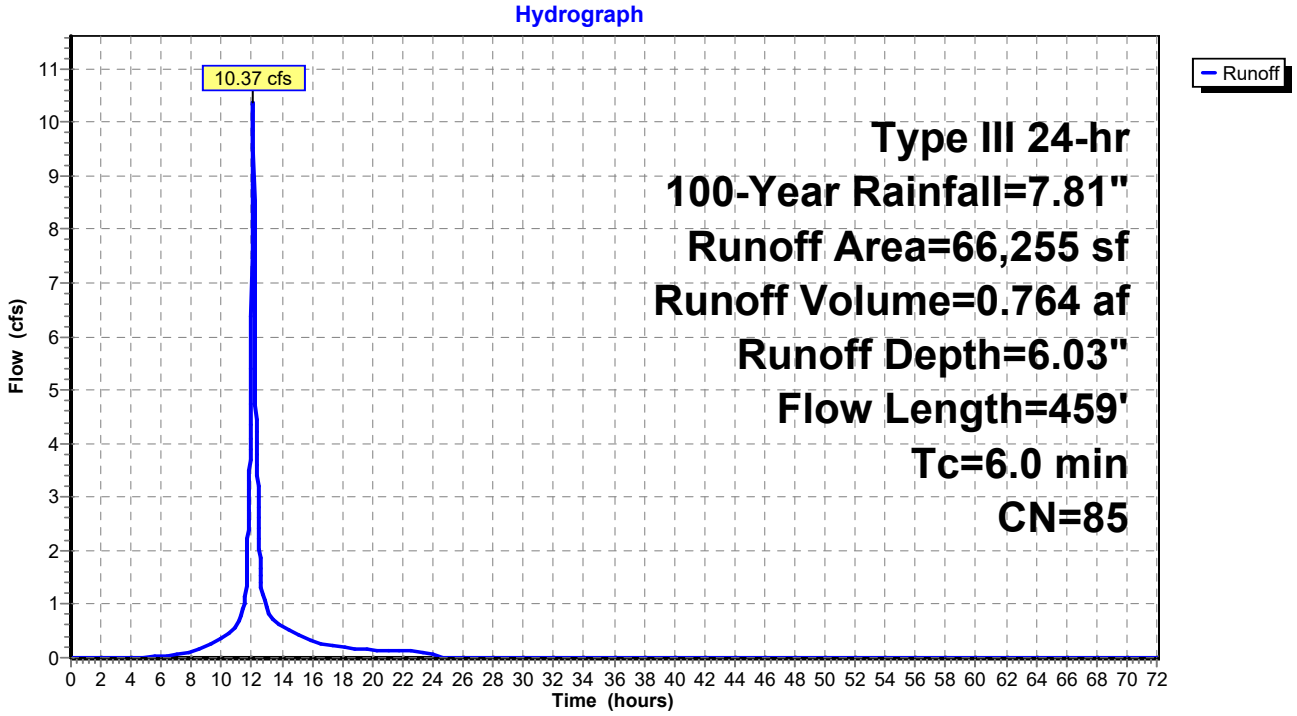
Runoff = 10.37 cfs @ 12.09 hrs, Volume= 0.764 af, Depth= 6.03"
Routed to Pond 25P : HYDRO 4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 100-Year Rainfall=7.81"

Area (sf)	CN	Description
20,343	98	Paved parking, HSG D
37,592	80	>75% Grass cover, Good, HSG D
8,320	79	Woods/grass comb., Good, HSG D
66,255	85	Weighted Average
45,912		69.30% Pervious Area
20,343		30.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	55	0.2800	0.43		**Sheet Flow, 55 LF SF @ 28% GRASS** Grass: Short n= 0.150 P2= 3.19"
0.7	121	0.0190	2.80		**Shallow Concentrated Flow, 121 LF SCF @ 2% PAVED** Paved Kv= 20.3 fps
0.6	283	0.0270	7.45	5.85	**Pipe Channel, 283 LF @ 2.7%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
3.4	459	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 4S: 4



Summary for Subcatchment 5S: 5

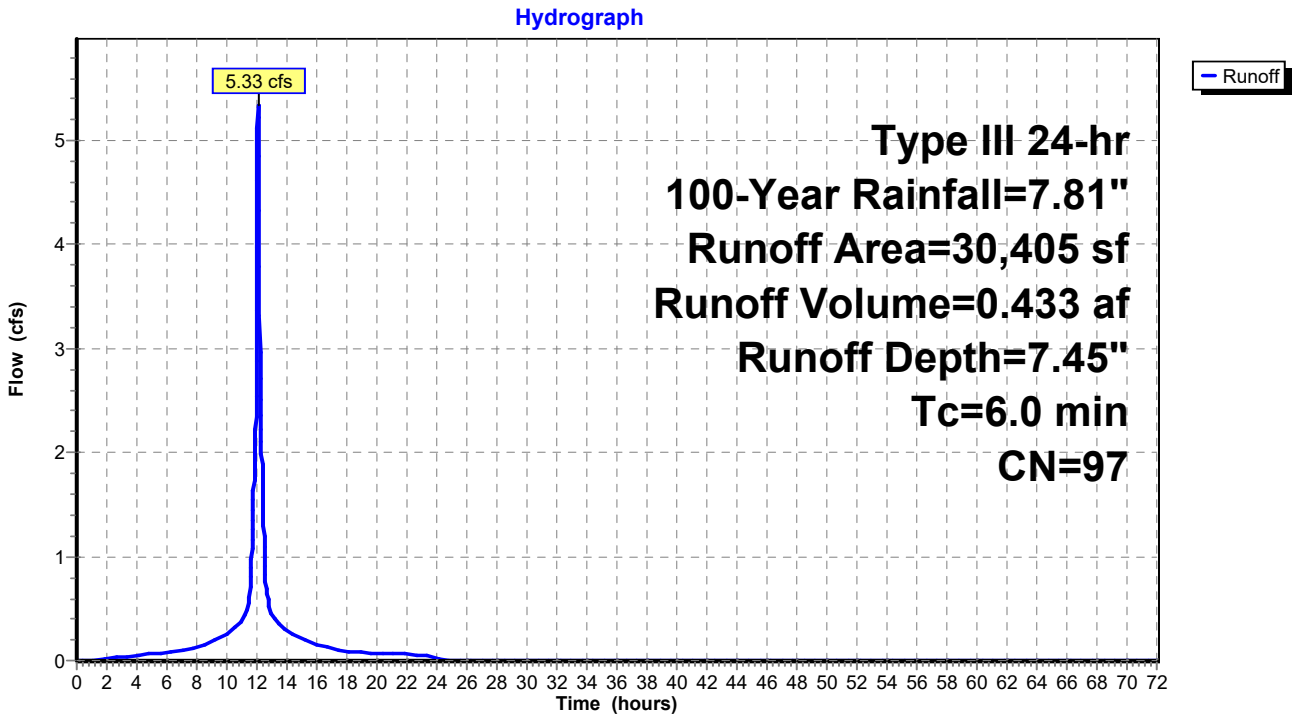
Runoff = 5.33 cfs @ 12.08 hrs, Volume= 0.433 af, Depth= 7.45"
Routed to Pond 11P : HYDRO 5

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 100-Year Rainfall=7.81"

Area (sf)	CN	Description
28,401	98	Roofs, HSG D
2,004	80	>75% Grass cover, Good, HSG D
30,405	97	Weighted Average
2,004		6.59% Pervious Area
28,401		93.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment 5S: 5



Summary for Subcatchment 6S: 6

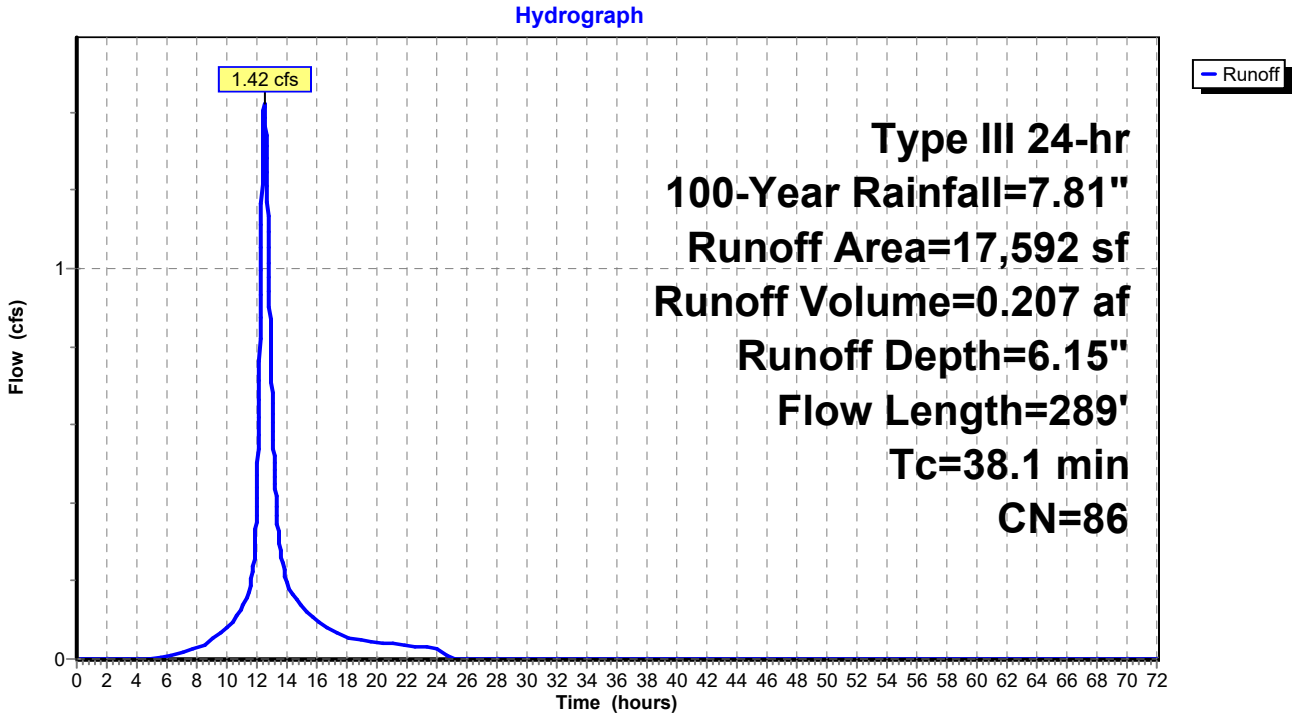
Runoff = 1.42 cfs @ 12.50 hrs, Volume= 0.207 af, Depth= 6.15"
Routed to Reach DP1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 100-Year Rainfall=7.81"

Area (sf)	CN	Description
11,755	80	>75% Grass cover, Good, HSG D
5,837	98	Paved parking, HSG D
17,592	86	Weighted Average
11,755		66.82% Pervious Area
5,837		33.18% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
37.4	100	0.0050	0.04		**Sheet Flow, 100 LF SF @ 0.5%** Woods: Light underbrush n= 0.400 P2= 3.19"
0.6	82	0.0221	2.23		**Shallow Concentrated Flow, 82 LF SCF @ 2.2% GRASS** Grassed Waterway Kv= 15.0 fps
0.1	107	0.0977	14.18	11.14	**Pipe Channel, 107 LF @ 9.8%** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
38.1	289	Total			

Subcatchment 6S: 6



Summary for Subcatchment 7S: 7

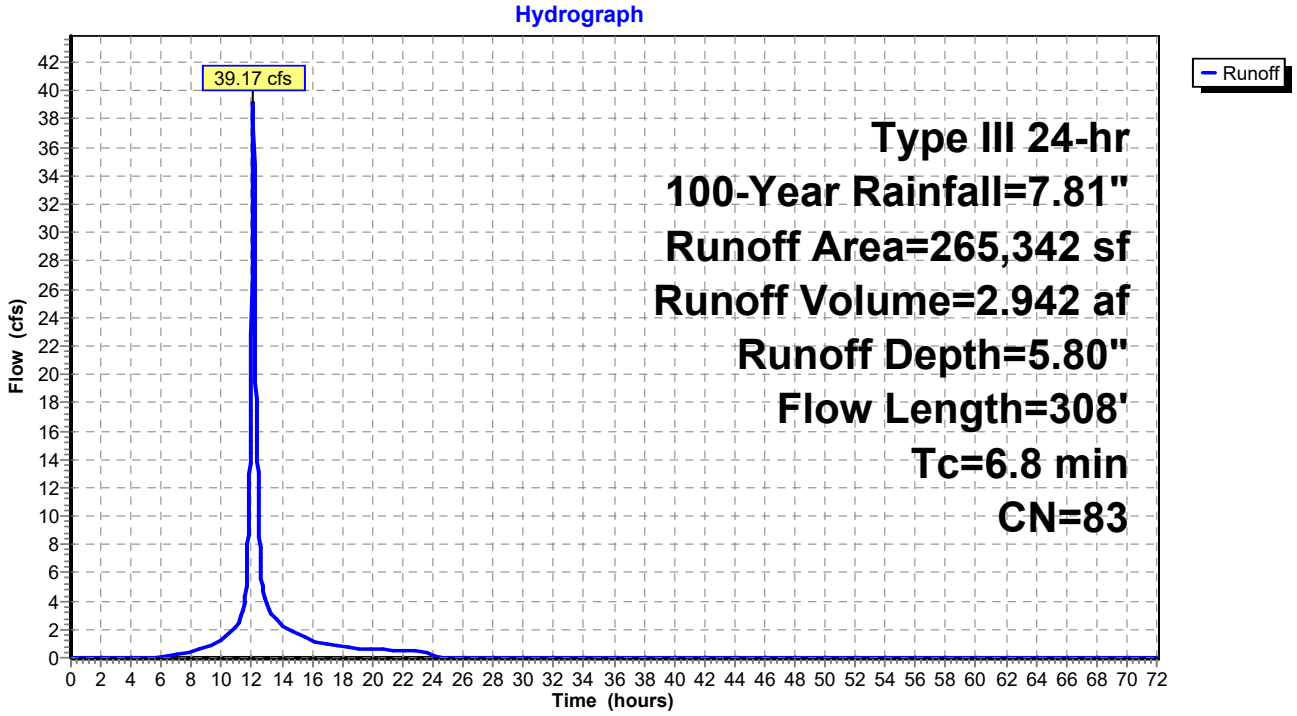
Runoff = 39.17 cfs @ 12.10 hrs, Volume= 2.942 af, Depth= 5.80"
Routed to Reach DP1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 100-Year Rainfall=7.81"

Area (sf)	CN	Description
63,131	79	Woods, Fair, HSG D
42,621	98	Paved parking, HSG D
145,907	80	>75% Grass cover, Good, HSG D
13,683	96	Gravel surface, HSG D
265,342	83	Weighted Average
222,721		83.94% Pervious Area
42,621		16.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	100	0.0875	0.31		**Sheet Flow, 100 LF SF @ 8.75% GRASS** Grass: Short n= 0.150 P2= 3.19"
1.1	155	0.1032	2.25		**Shallow Concentrated Flow, 155 LF SCF @ 10% GRASS** Short Grass Pasture Kv= 7.0 fps
0.2	9	0.0278	0.97		**Sheet Flow, 9 LF SF @ 2.8% PAVEMENT** Smooth surfaces n= 0.011 P2= 3.19"
0.0	2	0.0278	1.17		**Shallow Concentrated Flow, 2 LF SCF @ 2.8% GRASS** Short Grass Pasture Kv= 7.0 fps
0.1	42	0.3869	9.33		**Shallow Concentrated Flow, 42 LF SCF @ 39% GRASS** Grassed Waterway Kv= 15.0 fps
6.8	308	Total			

Subcatchment 7S: 7



Summary for Subcatchment ES1: Upstream Watershed Area

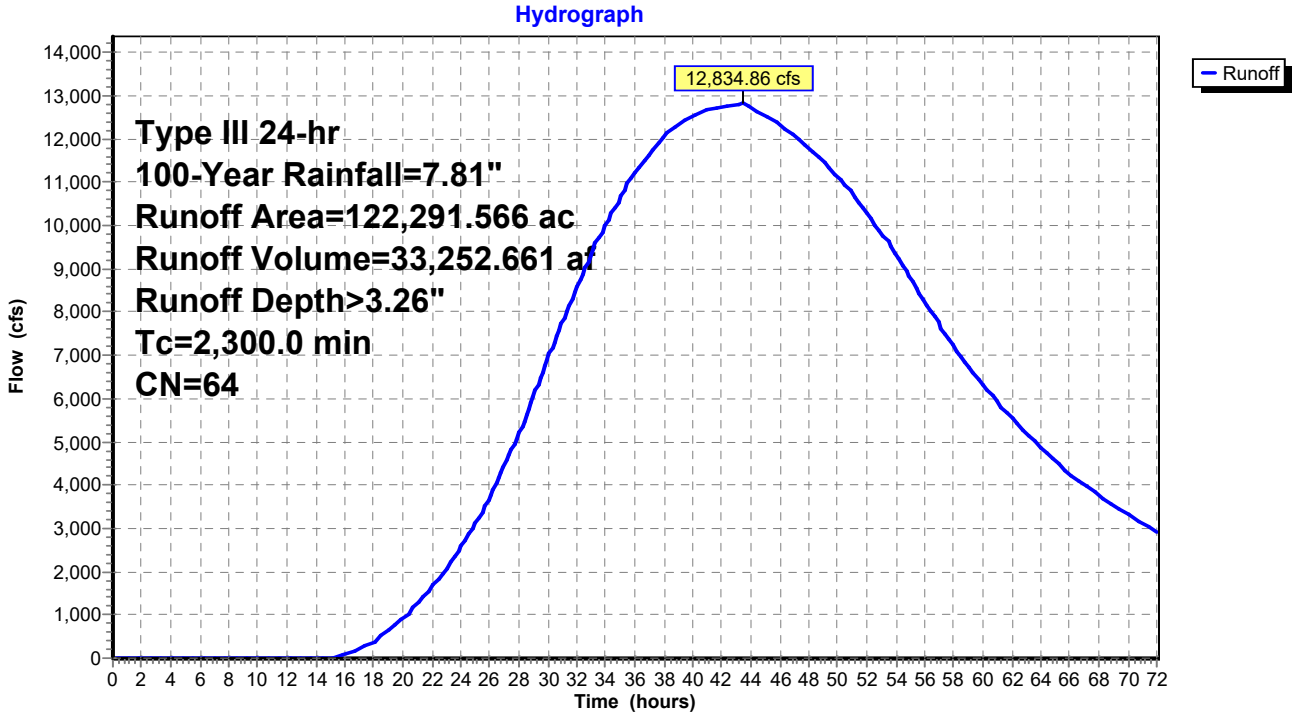
Runoff = 12,834.86 cfs @ 43.44 hrs, Volume= 33,252.661 af, Depth> 3.26"
Routed to Reach DP1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Type III 24-hr 100-Year Rainfall=7.81"

Area (ac)	CN	Description
*122,291.566	64	
122,291.566		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2,300.0					**Direct Entry, Time of Concentration**

Subcatchment ES1: Upstream Watershed Area

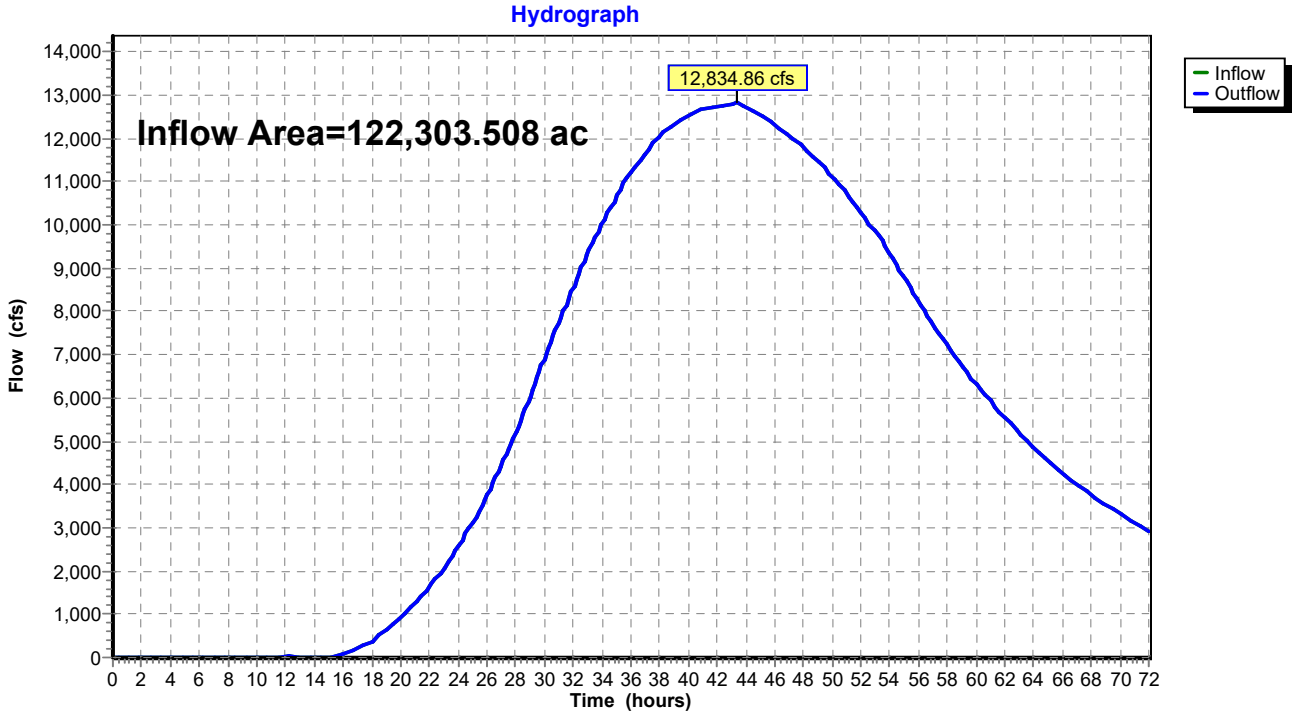


Summary for Reach DP1: Design Point 1

Inflow Area =122,303.508 ac, 0.00% Impervious, Inflow Depth > 3.26" for 100-Year event
Inflow = 12,834.86 cfs @ 43.44 hrs, Volume= 33,258.656 af
Outflow = 12,834.86 cfs @ 43.44 hrs, Volume= 33,258.656 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs

Reach DP1: Design Point 1



Summary for Pond 4P: BIO 2

Inflow Area = 1.521 ac, 30.70% Impervious, Inflow Depth = 6.03" for 100-Year event
Inflow = 10.37 cfs @ 12.09 hrs, Volume= 0.764 af
Outflow = 6.38 cfs @ 12.19 hrs, Volume= 0.764 af, Atten= 38%, Lag= 6.1 min
Discarded = 0.02 cfs @ 12.19 hrs, Volume= 0.053 af
Primary = 6.36 cfs @ 12.19 hrs, Volume= 0.712 af
Routed to Reach DP1 : Design Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 79.44' @ 12.19 hrs Surf.Area= 2,966 sf Storage= 3,792 cf

Plug-Flow detention time= 65.7 min calculated for 0.764 af (100% of inflow)
Center-of-Mass det. time= 66.1 min (857.3 - 791.3)

Volume	Invert	Avail.Storage	Storage Description
#1	78.00'	5,521 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

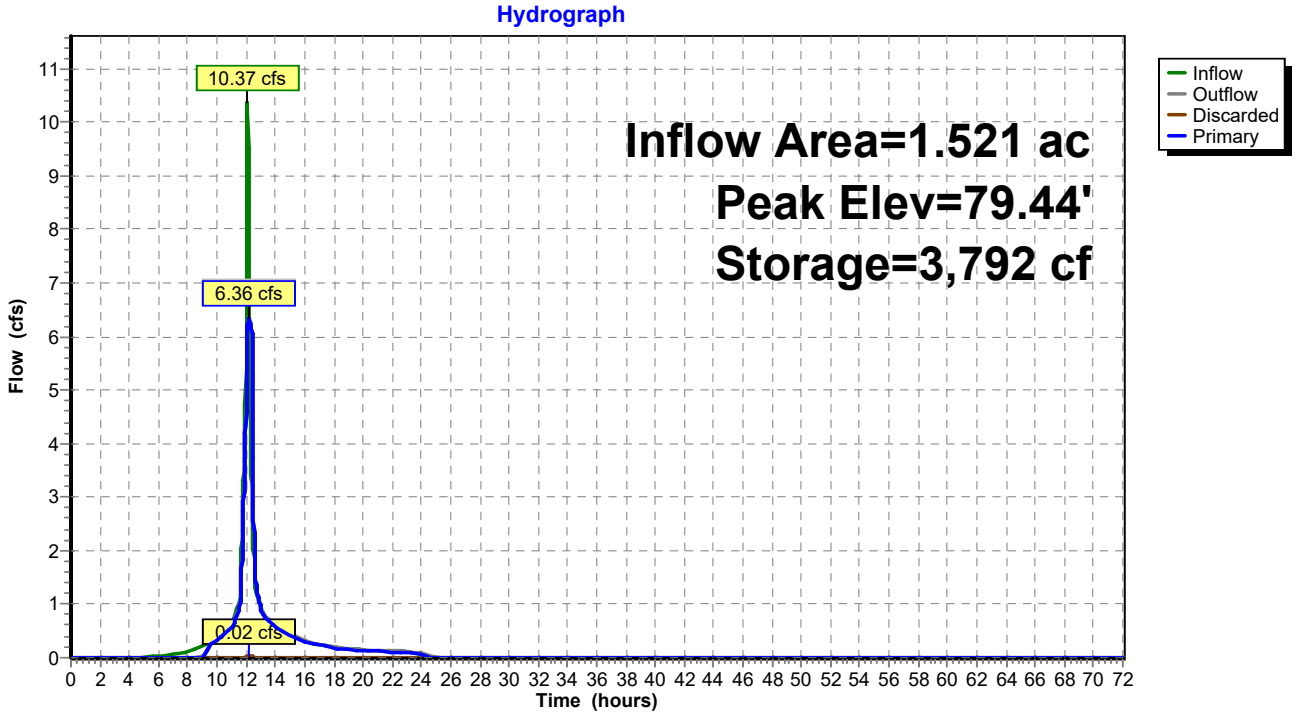
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
78.00	2,296	0	0
80.00	3,225	5,521	5,521

Device	Routing	Invert	Outlet Devices
#1	Discarded	78.00'	**0.250 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 66.00'
#2	Primary	74.40'	**12.0" Round Culvert** L= 41.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 74.40' / 74.00' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	78.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.02 cfs @ 12.19 hrs HW=79.44' (Free Discharge)
↑**1=Exfiltration** (Controls 0.02 cfs)

Primary OutFlow Max=6.36 cfs @ 12.19 hrs HW=79.44' TW=0.00' (Dynamic Tailwater)
↑**2=Culvert** (Inlet Controls 6.36 cfs @ 8.10 fps)
↑**3=Orifice/Grate** (Passes 6.36 cfs of 18.67 cfs potential flow)

Pond 4P: BIO 2


Hydrograph
Inflow Area=1.521 ac
Peak Elev=79.44'
Storage=3,792 cf
10.37 cfs
6.36 cfs
0.02 cfs
Inflow
Outflow
Discarded
Primary
Flow (cfs)
Time (hours)
0 1 2 3 4 5 6 7 8 9 10 11
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

Summary for Pond 9P: HYDRO 2

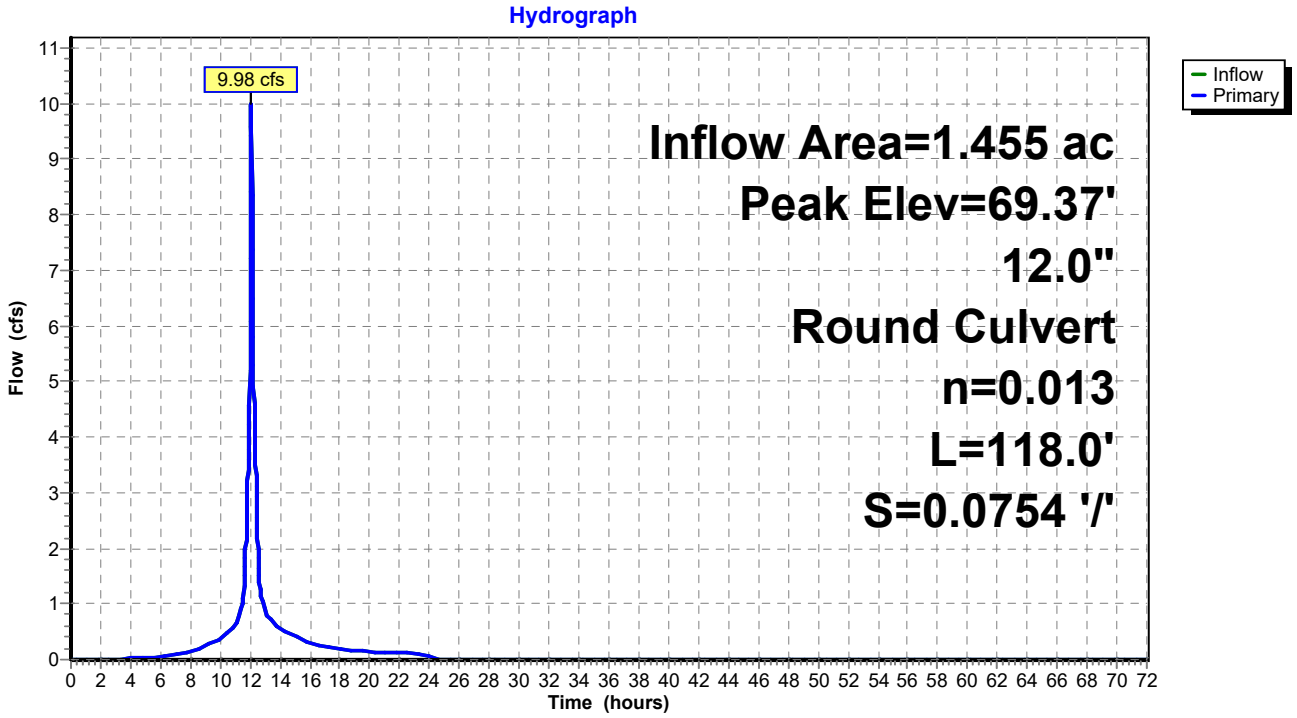
Inflow Area = 1.455 ac, 54.31% Impervious, Inflow Depth = 6.21" for 100-Year event
Inflow = 9.98 cfs @ 12.09 hrs, Volume= 0.753 af
Outflow = 9.98 cfs @ 12.09 hrs, Volume= 0.753 af, Atten= 0%, Lag= 0.0 min
Primary = 9.98 cfs @ 12.09 hrs, Volume= 0.753 af
Routed to Reach DP1 : Design Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 69.37' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.90'	**12.0" Round Culvert** L= 118.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.90' / 53.00' S= 0.0754 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=9.91 cfs @ 12.09 hrs HW=69.27' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 9.91 cfs @ 12.62 fps)

Pond 9P: HYDRO 2



Summary for Pond 11P: HYDRO 5

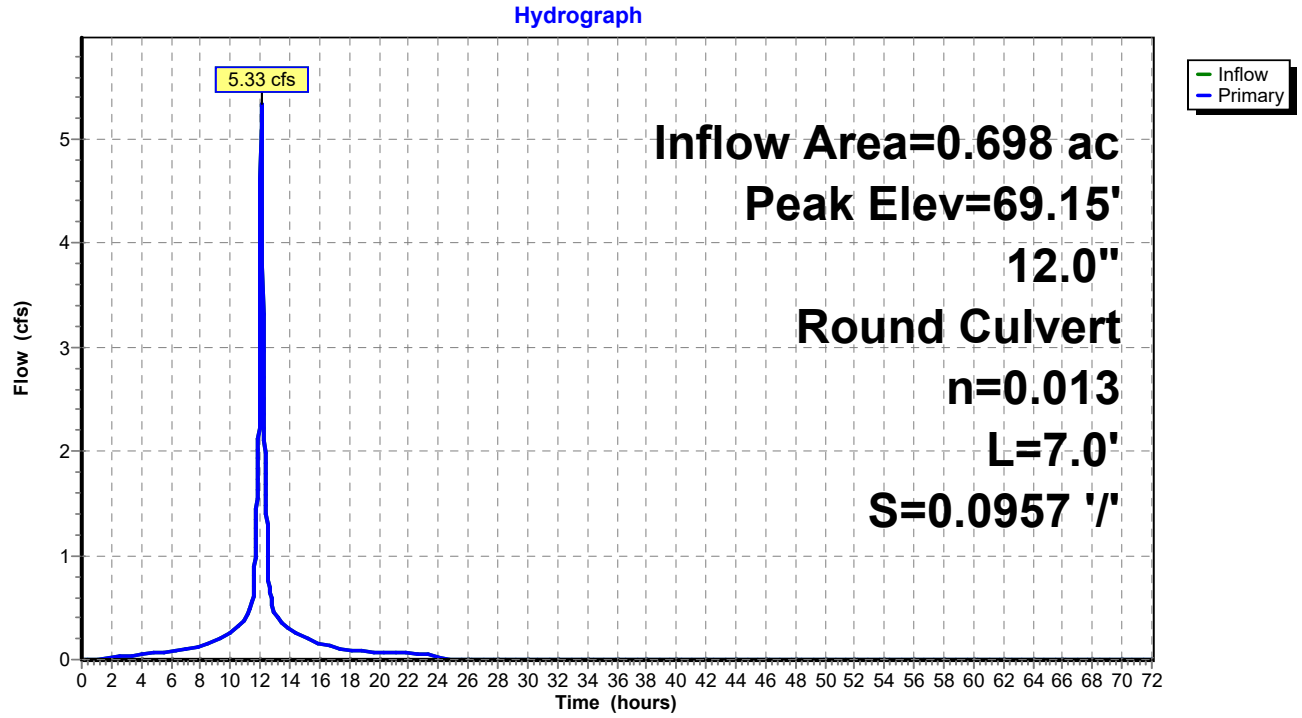
Inflow Area = 0.698 ac, 93.41% Impervious, Inflow Depth = 7.45" for 100-Year event
Inflow = 5.33 cfs @ 12.08 hrs, Volume= 0.433 af
Outflow = 5.33 cfs @ 12.08 hrs, Volume= 0.433 af, Atten= 0%, Lag= 0.0 min
Primary = 5.33 cfs @ 12.08 hrs, Volume= 0.433 af
Routed to Reach DP1 : Design Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 69.15' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	66.67'	**12.0" Round Culvert** L= 7.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 66.67' / 66.00' S= 0.0957 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=5.30 cfs @ 12.08 hrs HW=69.14' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 5.30 cfs @ 6.75 fps)

Pond 11P: HYDRO 5



Summary for Pond 25P: HYDRO 4

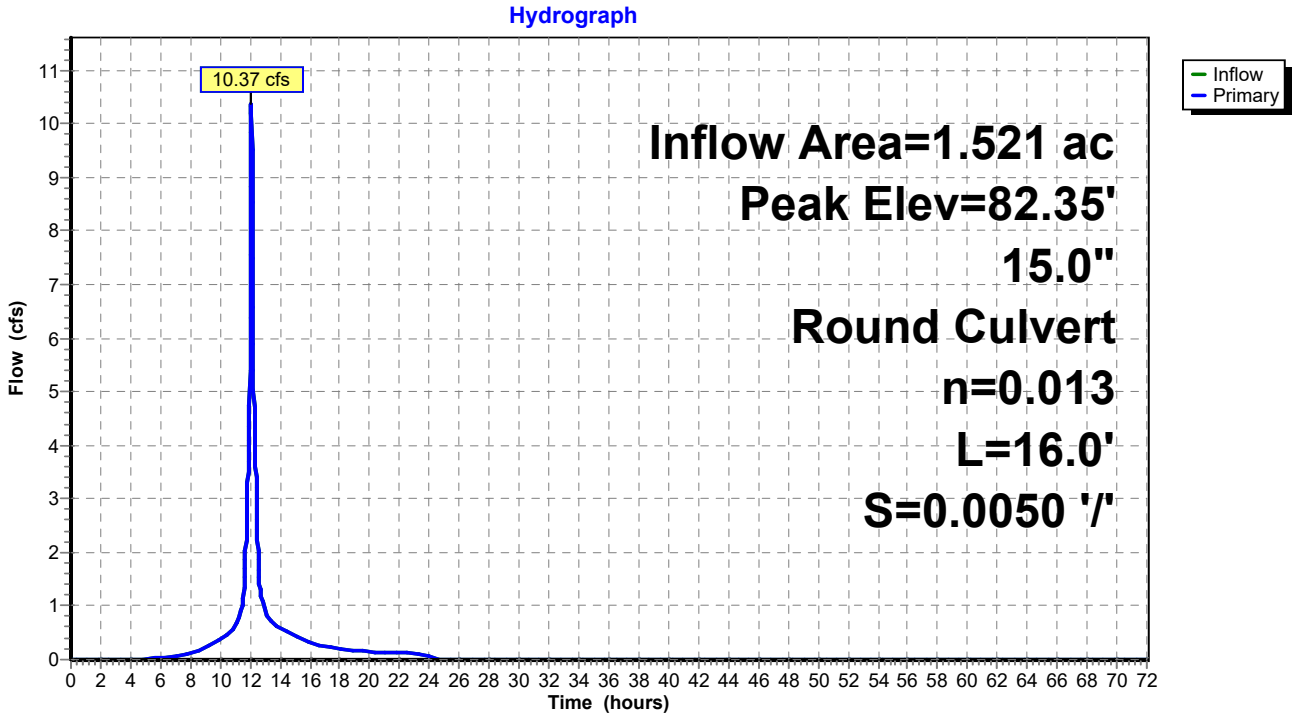
Inflow Area = 1.521 ac, 30.70% Impervious, Inflow Depth = 6.03" for 100-Year event
Inflow = 10.37 cfs @ 12.09 hrs, Volume= 0.764 af
Outflow = 10.37 cfs @ 12.09 hrs, Volume= 0.764 af, Atten= 0%, Lag= 0.0 min
Primary = 10.37 cfs @ 12.09 hrs, Volume= 0.764 af
Routed to Pond 4P : BIO 2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 82.35' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	78.65'	**15.0" Round Culvert** L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 78.65' / 78.57' S= 0.0050 '/' Cc= 0.900 n= 0.013, Flow Area= 1.23 sf

Primary OutFlow Max=10.31 cfs @ 12.09 hrs HW=82.32' TW=79.15' (Dynamic Tailwater)
1=Culvert (Inlet Controls 10.31 cfs @ 8.40 fps)

Pond 25P: HYDRO 4



Summary for Pond HYD1: HYDRO 1

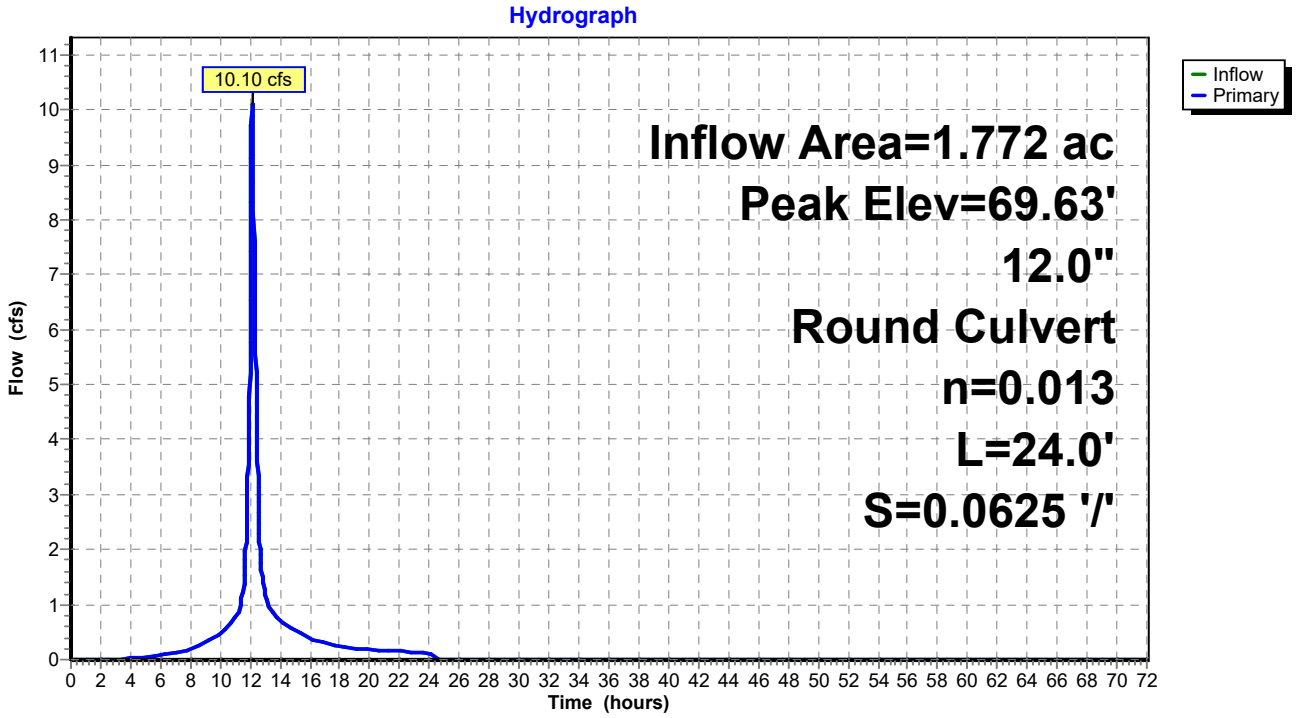
Inflow Area = 1.772 ac, 59.15% Impervious, Inflow Depth = 6.41" for 100-Year event
Inflow = 10.10 cfs @ 12.14 hrs, Volume= 0.947 af
Outflow = 10.10 cfs @ 12.14 hrs, Volume= 0.947 af, Atten= 0%, Lag= 0.0 min
Primary = 10.10 cfs @ 12.14 hrs, Volume= 0.947 af
Routed to Reach DP1 : Design Point 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.02 hrs
Peak Elev= 69.63' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	62.00'	**12.0" Round Culvert** L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 62.00' / 60.50' S= 0.0625 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=10.08 cfs @ 12.14 hrs HW=69.61' TW=0.00' (Dynamic Tailwater)
1=Culvert (Inlet Controls 10.08 cfs @ 12.84 fps)

Pond HYD1: HYDRO 1



Appendix K:
Project Evaluation and Design Calculations

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Appendix K - Table A
Step 1 - Evaluation of Green Infrastructure Planning Measures

Group	Practice	Description	Applicable	Project Specific Evaluation
Preservation of Natural Resources	**Preservation of Undisturbed Areas**	Delineate and place into permanent conservation undisturbed forests, native vegetated areas, riparian corridors, wetlands, and natural terrain.	**No**	The proposed site layout has been designed to limit land disturbance to the greatest extent practical. Approximately 102 +/- acres of the 155.9 acre project site will remain undisturbed, in its natural state. The project does not propose permanent conservation of this area at this time.
	Preservation of Buffers	Define, delineate and preserve naturally vegetated buffers along perennial streams, rivers, shorelines and wetlands.	**N/A**	There are no perennial streams, rivers, shorelines, or wetlands on or adjacent to the project site. As such, this green planning measure does not apply.
	Reduction of Clearing and Grading	Limit clearing and grading to the minimum amount needed for roads, driveways, foundations, utilities and stormwater management facilities.	**Yes**	Clearing and grading will be limited to the area of disturbance and will be minimized to the greatest extent practical. As a Redevelopment Project, the majority of the land in question had been previously cleared or graded for construction of the existing buildings, roadways, etc. Site clearing and grading required for redevelopment will be minor in nature. Approximately 102 +/- acres of the 155.9 acre project site will remain undisturbed, in its natural state.
	Locating Development in Less Sensitive Areas	Avoid sensitive resource areas such as floodplains, steep slopes, erodible soils, wetlands, mature forests and critical habitats by locating development to fit the terrain in areas that will create the least impact.	**Yes**	The site layout has been designed to avoid sensitive resource areas to the greatest extent practical. Furthermore, there are no floodplains, highly erodible soils, wetlands, mature forests and critical habitats located on the project site.
	Open Space Design	Use clustering, conservation design or open space design to reduce impervious cover, preserve more open space and protect water resources.	**Yes**	The site layout has been designed to maximize open space. Impervious surfaces have been minimized to the greatest extent practical and approximately 65% of the project sitewill be maintained as vegetated open space.
	Soil Restoration	Restore the original properties and porosity of the soil by deep till and amendment with compost to reduce the generation of runoff and enhance the runoff reduction performance of practices such as downspout disconnections, grass channels, filter strips, and tree clusters.	**Yes**	Full soil restoration is proposed for all areas of disturbance that will not become hardscape. All areas will be stabilized with seed & mulch, and landscaped areas will be provided.
Reduction of Impervious Cover	**Roadway Reduction**	Minimize roadway widths and lengths to reduce site impervious area	**N/A**	No new roadways are proposed as part of this project.
	Sidewalk Reduction	Minimize sidewalk lengths and widths to reduce site impervious area	**Yes**	Sidewalk widths and lengths have been minimized to the greatest extent practical while alsoensuring comfortable and safe pedestrian access throughout the site.
	Driveway Reduction	Minimize driveway lengths and widths to reduce site impervious area	**Yes**	Driveway widths and lengths have been minimized to the greatest extent practical while maintaining access for emergency vehicles throughout the site.
	Cul-de-sac Reduction	Minimize the number of cul-de-sacs and incorporate landscaped areas to reduce their impervious cover.	**N/A**	No cul-de-sacs are proposed as part of this project.
	Building Footprint Reduction	Reduce the impervious footprint of residences and commercial buildings by using alternate or taller buildings while maintaining the same floor to area ratio.	**No**	All new building area has been allocated to efficiently implement the intended use, be architecturally appropriate for the surrounding neighborhood, and meet proposed zoning requirements consistent with other areas in the Town.
	Parking Reduction	Reduce imperviousness on parking lots by eliminating unneeded spaces, providing compact car spaces and efficient parking lanes, minimizing stall dimensions, using porous pavement surfaces in overflow parking areas, and using multi-storied parking decks where appropriate.	**Yes**	Porous pavement has been proposed at the project site.

Appendix K - Table B
Step 2 - Determine Water Quality Treatment Volume (WQv)

Determine Pre- and Post-Development Impervious Cover Areas				
Watershed Pre-Development Impervious Area:	172,059	sf =	3.95	ac
Watershed Post-Development Impervious Area:	186,956	sf =	4.29	ac
Total Area Within Work Limits:	308,405	sf =	7.08	ac
Existing Disturbed Impervious Area:	107,395	sf =	2.47	ac
New Development Impervious Area:	14,897	sf =	**0.34**	**ac**
Redevelopment Impervious % (based on proposed treatment practice)	75	%		
Redevelopment Impervious Area:	80,546	sf =	**1.85**	**ac**

Determine the Initial Water Quality Volume (WQv)				
WQv(acre-feet) = [(P)(Rv)(A)] /12				
Rv = 0.05+0.009(I)				
I = Impervious Cover (%)				
P=	1.40	*inch*		
I=	31%			
Rv=	0.329			
Initial WQv=	**11,821**	cf =	**0.271**	**ac-ft**

Determine Individual Practice Water Quality Volume (WQv)							
Subcatchment Area	**Development Type**	**Total Area** *(Acres)*	**Impervious Area*** *(Acres)*	**Percent Impervious** *%*	**Rv**	**WQv** *(ft^3)*	**Description**
50	New Development	0.115	0.115	100%	0.95	554	Green Roof (Ext)
100	New Development	0.115	0.115	100%	0.95	554	Green Roof (Ext)
1A,1C,2A	Redevelopment	1.772	1.048	59%	0.58	5,244	Hydrodynamic Separator
1B,2B,3	Redevelopment	1.455	0.790	54%	0.54	3,984	Hydrodynamic Separator
4	New Development	1.521	0.467	31%	0.33	2,522	Bioretention
5	Redevelopment	0.698	0.652	93%	0.89	3,159	Hydrodynamic Separator
Total		5.68	3.19	56%	0.56	**16,018**	

** As per Section 9.3.2 of Chapter 9: Redevelopment of the NYSDEC Stormwater Design Manual, the plan proposes use of either standard practices to treat 25% or alternative practices to treat 75% of the WQv from existing disturbed, impervious area as well as any additional runoff from tributary areas that are not within the disturbed, impervious area.*

Appendix K - Table C

Step 3 - Determine Minimum Required Runoff Reduction Volume (RRv)

Section 4.3 of the NYSDEC Stormwater Management Design Manual describes the Runoff Reduction Volume equation as:

RRv = (P x Rv* x Ai) / 12

where: RRv = Runoff Reduction Volume (acre-feet)
P = 90% Rainfall Event Number (inches) (interpolated from Design Manual Fig 4.1)
Rv = 0.05 + 0.009 (I), where I is 100% impervious = 0.95 constant
Ai = (S x Aic) = Impervious cover targeted for runoff reduction
Aic = Total area of new impervious cover (acres)
S = Hydrologic Soil Group (HSG) Specific Reduction Factor
where:

HSG A=	0.55	HSG C=	0.30
HSG B=	0.40	HSG D=	0.20

The following table presents the RRv calculations for each of the proposed stormwater management practices (SMPs).

Enter the Soils Data for the site

Soil Group	Acres	S
A	5.93	0.55
B	0.00	0.40
C	0.00	0.30
D	0.00	0.20
Total Area	5.93	acres

Calculate the Minimum RRv

S =	**0.55**	
Impervious =	0.34	acre
Precipitation =	1.40	in
Rv	0.95	
Minimum RRv	**908**	**ft^3**
	0.021	ac-ft

Appendix K - Table D
Step 3 - Evaluation of Green Infrastructure Techniques

Design Variant	Practice	Description	Applicable	Project Specific Evaluation/Justification
RR-1	**Conservation of Natural Areas**	Retain the pre-development hydrologic and water quality characteristics of undisturbed natural areas, stream and wetland buffers by restoring and/or permanently conserving these areas on a site.	**No**	The project site does not contain any significant natural resources. The majority of the site has been previously disturbed. Approximately 102 +/- Acres will remain undisturbed, in its natural state. The project does not propose permanent conservation of these areas at this time.
RR-2	**Sheet flow to Riparian Buffers or Filter Strips**	Undisturbed natural areas such as forested conservation areas and stream buffers or vegetated filter strips and riparian buffers can be used to treat and control stormwater runoff from some areas of a development project.	**No**	No impervious areas flow to Design Point 1. Due to Design Point 2 being located within Raymond Avenue and an existing piped stormwater conyenace system, this technique is not feasible.
RR-3	**Tree Planting / Tree Box**	Plant or conserve trees to reduce stormwater runoff, increase nutrient uptake, and provide bank stabilization. Trees can be used for applications such as landscaping, stormwater management practice areas, and conservation areas.	**No**	The project proposes the preservation of existing mature trees, as well as the planting of numerous trees throughout the site, in order to reduce stormwater runoff, increase nutrient uptake, and provide bank stabilization. However, credit for these trees will not be taken toward an area reduction in the RRv calculations.
RR-4	**Disconnection of Rooftop Runoff**	Direct runoff from residential rooftop areas and upland overland runoff flow to designated pervious areas to reduce runoff volumes and rates.	**No**	Disconnected rooftop downspouts are proposed at a number of locations. However, no areas contain a long enough flow path before reconnecting with impervious areas to qualify for the rooftop disconnection credit.
RR-5	**Vegetated Swale**	The natural drainage paths, or properly designed vegetated channels, can be used instead of constructing underground storm sewers or concrete open channels to increase time of concentration, reduce the peak discharge, and provide infiltration.	**No**	The site has been designed to place greater emphasis on sheet flow instead of channeled flow. Stormwater practices have been designed to provide management and treatment at the source. A vegetated swale is proposed along the western edge of the project site to divert clean runoff from impervious area. However, credit for this practice will not be taken in the RRv calculations.
RR-6	**Rain Garden**	Manage and treat small volumes of stormwater runoff using a conditioned planting soil bed and planting materials to filter runoff stored within a shallow depression.	**No**	Due to the limited tributary area to rain gardens (less than or equal to 1,000SF), a rain garden is not practical at this site.
RR-7	**Stormwater Planter**	Small landscaped stormwater treatment devices that can be designed as infiltration or filtering practices. Stormwater planters use soil infiltration and biogeochemical processes to decrease stormwater quantity and improve water quality.	**No**	Stormwater planters are proposed on the site but credit for them has not been applied.
RR-8	**Rain Barrels/ Cisterns**	Capture and store stormwater runoff to be used for irrigation systems or filtered and reused for non-contact activities.	**No**	Rain Barrels/Cisterns are not proposed on-site due to the need for active management/maintenance and initial capital cost. In addition, the cold climate of the project area would require additional protection measures from freezing.
RR-9	**Porous Pavement**	Pervious types of pavements that provide an alternative to conventional paved surfaces, designed to infiltrate rainfall through the surface, thereby reducing stormwater runoff from a site and providing some pollutant uptake in the underlying soils.	**No**	Porous pavement is not proposed at this site.
RR-10	**Green Roof**	Capture runoff by a layer of vegetation and soil installed on top of a conventional flat or sloped roof. The rooftop vegetation allows evaporation and evapotranspiration processes to reduce volume and discharge rate of runoff entering conveyance system.	**Yes**	Green roofs are proposed on Buildings 50 and 100 as impervious redution practices.
	Stream Daylighting	Stream Daylight previously-culverted/piped streams to restore natural habitats, better attenuate runoff by increasing the storage size, promoting infiltration, and help reduce pollutant loads.	**No**	No stream daylighting opportunities are present on this site.

Appendix K - Table E							
Summary Table: Runoff Reduction Volume and Treated volumes							
	Runoff Reduction Techiques/Standard SMPs		**Total Contributing Area**	**Total Contributing Impervious Area**	**WQv Reduced (RRv)**	**WQv Treated**	
			(acres)	**(acres)**	**cf**	**cf**	
Area/Volume Reduction	Conservation of Natural Areas	RR-1	0.00	0.00			
	Sheetflow to Riparian Buffers/Filter Strips	RR-2	0.00	0.00			
	Tree Planting/Tree Pit	RR-3	0.00	0.00			
	Disconnection of Rooftop Runoff	RR-4		0.00			
	Vegetated Swale	RR-5	0.00	0.00	0		
	Rain Garden	RR-6	0.00	0.00	0		
	Stormwater Planter	RR-7	0.00	0.00	0	0	
	Rain Barrel/Cistern	RR-8	0.00	0.00	0		
	Porous Pavement	RR-9	0.00	0.00	0		
	Green Roof (Intensive & Extensive)	RR-10	1.77	1.05	1,108		
Standard SMPs w/RRv Capacity	Infiltration Trench	I-1	0.00	0.00	0	0	
	Infiltration Basin	I-2	0.00	0.00	0	0	
	Dry Well	I-3	0.00	0.00	0	0	
	Underground Infiltration System	I-4	0.00	0.00	0	0	
	Bioretention	F-5	1.52	0.47	1,036	1,555	
	Dry Swale	O-1			0	0	
Standard SMPs	Micropool Extended Detention (P-1)	P-1	0.00	0.00		0	
	Wet Pond (P-2)	P-2	0.00	0.00		0	
	Wet Extended Detention (P-3)	P-3	0.00	0.00		0	
	Multiple Pond System (P-4)	P-4	0.00	0.00		0	
	Pocket Pond (P-5)	P-5	0.00	0.00		0	
	Surface Sand Filter (F-1)	F-1	0.00	0.00		0	
	Underground Sand Filter (F-2)	F-2	0.00	0.00		0	
	Perimeter Sand Filter (F-3)	F-3	0.00	0.00		0	
	Organic Filter (F-4)	F-4	0.00	0.00		0	
	Shallow Wetland (W-1)	W-1	0.00	0.00		0	
	Extended Detention Wetland (W-2)	W-2	0.00	0.00		0	
	Pond/Wetland System (W-3)	W-3	0.00	0.00		0	
	Pocket Wetland (W-4)	W-4	0.00	0.00		0	
	Wet Swale (O-2)	O-2	0.00	0.00		0	
Alternative Practices	Hydrodynamic Separator		3.92	2.49		12,387	
	Filterra Bioretention System		0.00	0.00		0	
	Wet Vault		0.00	0.00		0	
	Media Filter		0.00	0.00		0	
	Underground Infiltration System		0.00	0.00		0	
Totals by Area Reduction		→	1.77	0.51	0		
Totals by Volume Reduction		→	1.77	1.05	1,108		
Totals by Standard SMP w/RRV		→	1.52	0.47	1,036	1,555	
Totals by Standard SMP		→	0.00	0.00		0	
Totals by Alternative Practices		→	3.92	2.49		12,387	
Totals (Area + Volume + all SMPs)		→	8.99	4.52	**2,145**	**13,941**	16,086

Appendix A - Table F
Practice Specific Sizing Calculation Worksheet

BIORETENTION NO. 2 (BIO-2)

Practice Proposed?	Yes

Enter Site Data For Drainage Area to be Treated by Practice

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Precipitation *(in)*	Description
4	1.52	0.47	31%	0.33	2,522	1.40	Bioretention
Enter Impervious Area Reduced by Disconnection of Rooftops Within this Catchment:		0.00	31%	0.33	2,522	<<WQv after adjusting for Disconnected Rooftops	
Reduced by Tree Planting:	0.00	0.00	31%	0.33	2,522	<<WQv after adjusting for Tree Planting	
Enter the portion of the WQv that is not reduced for all practices routed to this practic					0	ft^3	

Determine Required Water Quality Volume

WQv = (P/12) * Rv * A

where: WQv = Water Quality Volume (acre-feet)
P = 1-year 24-hour design storm (inches)
Rv = 0.05 + 0.009 (I); min Rv = 0.2
I = Impervious Cover (%) within the drainage area contributing to the SWM practice
A = Drainage area (square feet) contributing to the SWM practice

WQv = 2,522 CF **Value taken from Appendix K - Table B*

Calculate Required Filter Bed Area

Af=(WQv)*(df)/[(k)*(hf+df)*(tf)]

where: Af = Surface area of filter bed (SF)
WQv = Required Water Quality Volume (CF)
df = Filter bed depth (ft)
k = Coefficient of permeability of filter media (ft/day)
hf = Average height of water above filter bed (ft)
tf = Design filter bed drain time (days)

SMP ID	WQv (cubic feet)	df (feet)	k (ft/day)	hf (feet)	tf (days)	Minimum Af (sq-ft)	Provided Af (sq-ft)
BIO-1	2,522	2.5	0.5	0.25	2.0	2,293	2,296

Calculate Provided Water Quality Volume

ed Within Practice = Total volumes of soil media, mulch, and ponding

WQv = $V_{SM} + V_M + V_{POND}$

V_{SM} = Af * df * P_{SM} = 1,148 cf.
V_M = Af * dm * P_M = 230 cf.
V_{POND} = (Af * hf * 2) + (2 * S * hf^2 * Pf) = 1,213 cf.

where:

P_{SM} = Porosity of soil media - 0.20	0.20	
P_M = Porosity of mulch - 0.40	0.40	
S = Bioretention Side Slopes	3.00	:1
Pf = Bioretention Perimeter	174	LF

WQv = 2,591 CF

Calculate Provided Runoff Reduction Volume

Using Underdrains? Yes

RRv = **1,036** CF
RRv Applied = 1,036 CF *This is 40% of the storage provided or WQv, whichever is less.*

Appendix K - Table G
Practice Specific Sizing Calculation Worksheet

GREEN ROOF NO. 1 (GR1)

Practice Proposed?	Yes

Enter Site Data For Drainage Area to be Treated by Practice

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Precipitation *(in)*	Description
1A	0.11	0.11	100%	0.95	554	1.40	Green Roof (Ext)
1B	0.11	0.11	100%	0.95	554	1.40	Green Roof (Ext)

Enter Parameters for Proposed Green Roof

Green Roof Surface Area	AGR	**10000**	ft^2	
Depth of Soil Media	DSM	**0.30**	ft	0.25-0.5
Depth of Drainage Layer	DDL	**0.08**	ft	
Depth of Ponding Above Surface	DP	**0.02**	ft	
Porosity of Soil Media	nSM	**40%**		
Porosity of Drainage Layer	nDL	**25%**		

Calculate Storage Volume and Runoff Reduction Volume

Volume Provided in Soil Media	VSM	**1,200**	ft^3
Volume Provided in Drainage Layer	VDL	**200**	ft^3
Volume in Ponding Layer		**200**	ft^3
Storage Volume Provided in Green Roof		**1,600**	ft^3
Runoff Reduction Volume	RRv	**1,108**	ft^3

Appendix K:
Soil Testing Results

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1 FIG 6 **SOIL TESTING RESULTS**
SCALE: 1"=60'

Deep Test Results 07/11/2013		
Test Number	Depth	Soil Type
DT-1	0-4.5'	Fill, Gravelly Loam w/ Brick, Concrete, Boulders
	4.5'-7'	Sandy Clay Loam
DT-2	0-2.5"	Fill: Gravelly Loam w/ Construction Debris
	2.5'	2" Metal Pipe Found, Ended DT
DT-3	0-1.5'	Gravelly Loam
	1.5-2.5'	Clay Fill w/ Construction Debris
	2.5-3'	Old Asphalt
	3-3.5'	Construction Debris
	3.5-7'	Clay
DT-4	0-1'	Gravelly Loam Fill
	1-7'	Sandy Loam, Water @ 7'
DT-5	0-5'	Gravelly Silty Loam Fill, Rock @ 5'
DT-6	0-5'-3"	Gravelly Loam Fill w/ Bricks & Construction Debris
	5'-3"	Rock
DT-7	0-5'	Gravely Loam Fill
	5-7'	Clay, Shale @ 7'
DT-8	0-3.5'	Intermittent Clay Loam and Gravelly Loam w/ Bricks & Construction Debris
	3.5-6.5'	Same w/o Bricks, No Rock, No Water
DT-9	0-4.5'	Gravelly Loam Fill - No Debris
	4.5-6.5'	Virgin Clay
	6.5'	Shale
DT-10	-	Search for forcemain, 2" fiberglass elbow found
	-	Remaining forcemain not found
DT-11	-	Search for water main
	-	4" DIP @ 3, no 8" DIP found

LEGEND:

DEEP TEST

0 1 2 3
ORIGINAL SCALE IN INCHES

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Queensbury, New York 12804
Phone: (518) 812-0513

rev.	date	description

TIORONDA AVENUE & 465 WOLCOTT AVENUE
BEACON 248 DEVELOPMENT, LLC

SOIL TESTING RESULTS

CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

designed	checked
date 8/21/13	scale AS NOTED
project no. 81056.00	
sheet no. **FIG 6** 1 OF 1	

Drawing Name: \\Acad100\x\8\81000-81099\81056 – Tioronda Ave – 100 Units\ENG\DWG\SOIL_TEST_RESULTS_81056.dwg
Xrefs Attached: XBASE-ENG_81056-00; XTB_81056-00_24x36 – Soil
Date Printed: Aug 27, 2013, 11:26am

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Appendix L:
Flood Insurance Study, Volume 1 of 4

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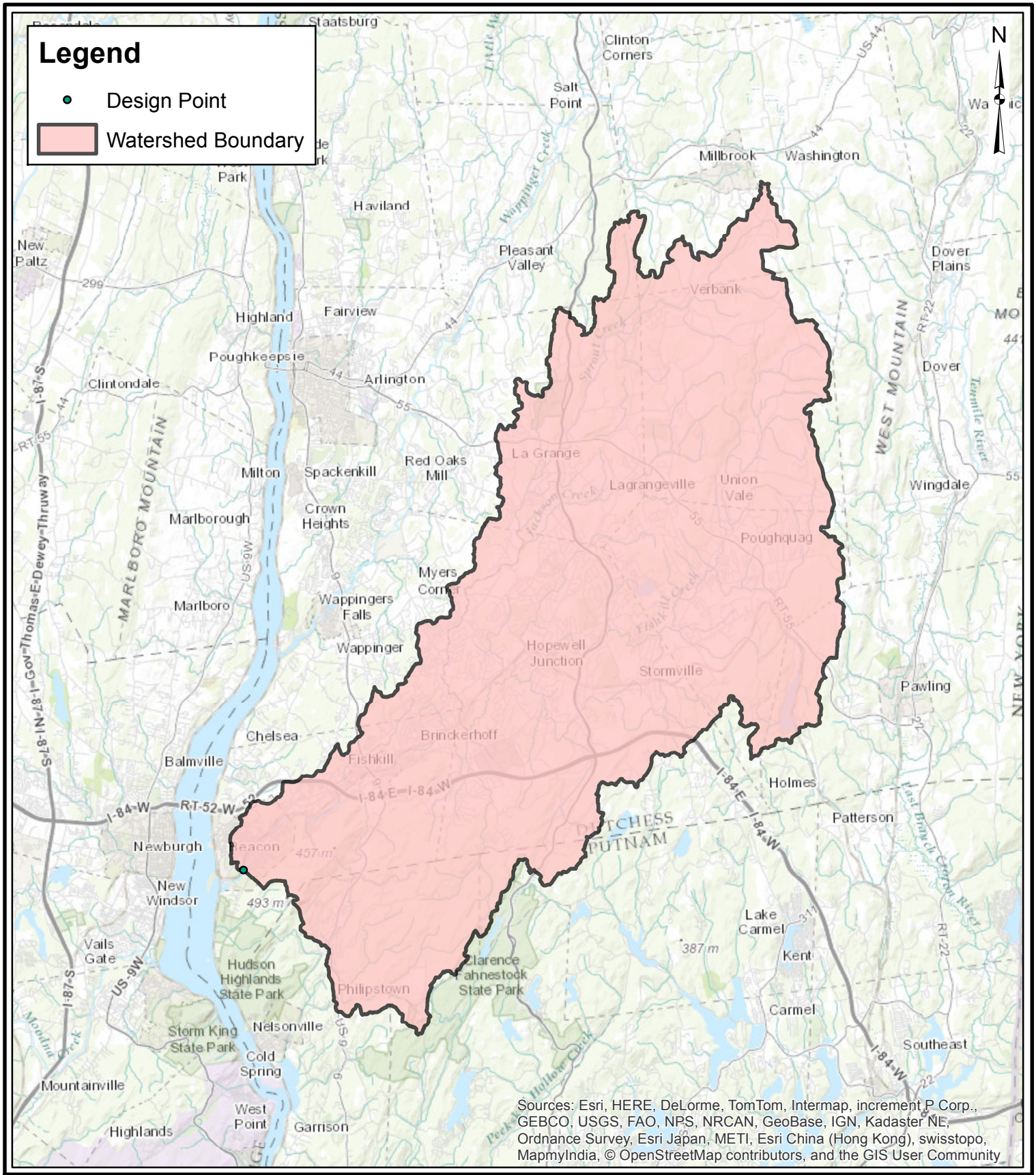

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Phone: (518) 273-0055

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375 Bay Road, Queensbury, NY 12804
Phone: (518) 812-0513

Beacon 248 Development

Fishkill Creek at Beacon 248 Development Watershed Map

City of Beacon, Dutchess County, New York

Drawn:	KGA
Date:	10/14/14
Scale:	1 " = 20,000 '
Project:	81056.00
Figure:	FIG 7

Map Document: (R:\0\standards\Gis\ChazenGIS\8X11P_MinimalChazenAddress.mxt)
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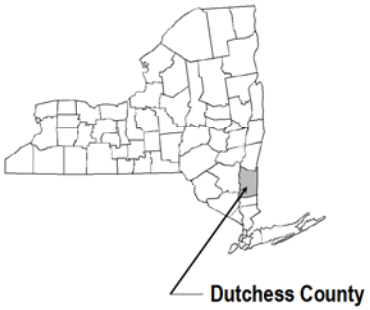
FLOOD INSURANCE STUDY



VOLUME 1 OF 4

DUTCHESS COUNTY, NEW YORK
(ALL JURISDICTIONS)



COMMUNITY NAME	COMMUNITY NUMBER	COMMUNITY NAME	COMMUNITY NUMBER
AMENIA, TOWN OF	361332	PAWLING, VILLAGE OF	361517
BEACON, CITY OF	360217	PINE PLAINS, TOWN OF	361141
BEEKMAN, TOWN OF	361333	PLEASANT VALLEY, TOWN OF	360221
CLINTON, TOWN OF	361334	POUGHKEEPSIE, CITY OF	360222
DOVER, TOWN OF	361335	POUGHKEEPSIE, TOWN OF	361142
EAST FISHKILL, TOWN OF	361336	RED HOOK, TOWN OF	361143
FISHKILL, TOWN OF	361337	RED HOOK, VILLAGE OF	361614
FISHKILL, VILLAGE OF	360218	RHINEBECK, TOWN OF	361144
HYDE PARK, TOWN OF	361338	RHINEBECK, VILLAGE OF	361999
LAGRANGE, TOWN OF	361011	STANFORD, TOWN OF	361145
MILAN, TOWN OF	361339	TIVOLI, VILLAGE OF	361507
MILLBROOK, VILLAGE OF	360219	UNION VALE, TOWN OF	361146
MILLERTON, VILLAGE OF	360220	WAPPINGER, TOWN OF	361387
NORTHEAST, TOWN OF	361340	WAPPINGERS FALLS, VILLAGE OF	360223
PAWLING, TOWN OF	361341	WASHINGTON, TOWN OF	361147

EFFECTIVE:
May 2, 2012

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
36027CV001A

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

Part or all of this FIS may be revised and republished at any time. In addition, part of this FIS may be revised by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS. It is, therefore, the responsibility of the user to consult with community officials and to check the community repository to obtain the most current FIS components.

Selected Flood Insurance Rate Map panels for this community contain information that was previously shown separately on the corresponding Flood Boundary and Floodway Map panels (e.g., floodways and cross sections). In addition, former flood hazard zone designations have been changed as follows.

Old Zone(s)	New Zone
A1 through A30	AE
V1 through V30	VE
B	X
C	X

Initial Countywide FIS Effective Date: May 2, 2012

Revised Countywide FIS Date:

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Flood Insurance Rate Map

FLOOD INSURANCE STUDY
DUTCHESS COUNTY, NEW YORK (ALL JURISDICTIONS)

1.0 INTRODUCTION

1.1 Purpose of Study

This countywide Flood Insurance Study (FIS) investigates the existence and severity of flood hazards in, or revises and updates previous FISs/Flood Insurance Rate Maps (FIRMs) for the geographic area of Dutchess County, New York, including: the Cities of Beacon and Poughkeepsie; the Towns of Amenia, Beekman, Clinton, Dover, East Fishkill, Fishkill, Hyde Park, LaGrange, Milan, Northeast, Pawling, Pine Plains, Pleasant Valley, Poughkeepsie, Red Hook, Rhinebeck, Stanford, Union Vale, Wappinger, and Washington; and the Villages of Fishkill, Millbrook, Millerton, Pawling, Red Hook, Rhinebeck, Tivoli, and Wappingers Falls (hereinafter referred to collectively as Dutchess County).

This FIS aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This FIS has developed flood risk data for various areas of the county that will be used to establish actuarial flood insurance rates. This information will also be used by Dutchess County to update existing floodplain regulations as part of the Regular Phase of the National Flood Insurance Program (NFIP), and will also be used by local and regional planners to further promote sound land use and floodplain development. Minimum floodplain management requirements for participation in the NFIP are set forth in the Code of Federal Regulations at 44 CFR§ 60.3.

In some States or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the State (or other jurisdictional agency) will be able to explain them.

1.2 Authority and Acknowledgments

The sources of authority for this FIS are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

This FIS was prepared to include all jurisdictions within Dutchess County into a countywide format. Information on the authority and acknowledgments for each jurisdiction included in this countywide FIS, as compiled from their previously printed FIS reports, is shown below.

Amenia, Town of: the hydrologic and hydraulic analyses from the FIS report dated November 15, 1989, were performed by Edwards and Kelcey Engineers, Inc., for the Federal Emergency Management Agency (FEMA), under Contract No. EMW-85-

C-1887. That work was completed in November 1987.

Beacon, City of: the hydrologic and hydraulic analyses from the FIS report dated September 1, 1983, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0777. That work was completed in August 1982.

Beekman, Town of: the hydrologic and hydraulic analyses from the FIS report dated March 5, 1984, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in February 1983.

Clinton, Town of: the hydrologic and hydraulic analyses from the FIS report dated January 5, 1984, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in December 1982.

Dover, Town of: the hydrologic and hydraulic analyses from the FIS report dated July 4, 1988, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in December 1982.

East Fishkill, Town of: the hydrologic and hydraulic analyses from the FIS report dated December 15, 1983, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in December 1982.

Fishkill, Town of: the hydrologic and hydraulic analyses from the FIS report dated December 1, 1983, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in October 1982.

Fishkill, Village of: the hydrologic and hydraulic analyses from the FIS report dated September 15, 1983, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in October 1982.

Hyde Park, Town of: the hydrologic and hydraulic analyses from the FIS report dated December 15, 1983, were prepared by Kozma Associates for FEMA, under

Contract No. EMW-C-0733. That work was completed in November 1982.

LaGrange, Town of: the hydrologic and hydraulic analyses for the original FIS, dated September 28, 1979, were performed by Harris-Toups Associates for the Federal Insurance Administration (FIA) under Contract No. H-3962. That work, which was completed in September 1977, covered all significant flooding sources in the Town of LaGrange. The hydrologic and hydraulic analyses for the November 5, 1986, FIS for Branch 3 Wappinger Creek were performed by Dewberry and Davis. The topographic data were obtained from Barger, Campbell, Gray and Rarling, Engineers and Surveyors.

For the FIS report dated September 8, 1999, updated hydrologic and hydraulic analyses for Wappinger Creek were prepared by Leonard Jackson Associates for FEMA, under Contract No. 93-C-4145. That work was completed in March 1997. Planimetric base map files for this revision were derived by digitizing U.S. Geological Survey 7.5-Minute Series Topographic Maps. These files were compiled at a scale of 1:24,000.

Millerton, Village of: the hydrologic and hydraulic analyses from the FIS report dated July 3, 1984, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in February 1983.

Northeast, Town of: the hydrologic and hydraulic analyses from the FIS report dated March 5, 1984, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in February 1983.

Pawling, Town of: the hydrologic and hydraulic analyses from the FIS report dated July 3, 1984, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in March 1983.

Pawling, Village of: the hydrologic and hydraulic analyses from the FIS report dated February 1, 1984, were prepared

by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in March 1983.

Pleasant Valley, Town of: the hydrologic and hydraulic analyses from the FIS report dated July 1979 were performed by Harris-Toups Associates for the FIA under Contract No. H-3962. That work, which was completed in October 1977, covered all significant flooding sources in the Town of Pleasant Valley.

Poughkeepsie, City of: the hydrologic and hydraulic analyses from the FIS report dated July 5, 1983, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in July 1982.

Poughkeepsie, Town of: the hydrologic and hydraulic analyses from the original FIS report dated May 1978 and FIRM dated November 15, 1978 (hereinafter referred to as the 1978 FIS) were prepared for the FIA by Harris-Toups Associates, under Contract No. H-3962. That work was completed in August 1977.

For the August 2, 1990, revision, the hydrologic and hydraulic analyses were prepared by Edwards and Kelcey Engineers, Inc., for FEMA, under Contract No. EMW-85-C-1887. That work was completed in January 1988.

For the FIS report dated September 8, 1999, revised hydrologic and hydraulic analyses were prepared by Leonard Jackson Associates for FEMA, under Contract No. 93-C-4145. That work was completed in March 1997.

Red Hook, Town of: the hydrologic and hydraulic analyses from the FIS report dated April 16, 1984, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in March 1983.

Rhinebeck, Town of: the hydrologic and hydraulic analyses from the FIS report dated March 5, 1984, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in December 1982.

Rhinebeck, Village of:	the hydrologic and hydraulic analyses from the FIS report dated August 1, 1984, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in December 1982.
Stanford, Town of:	the hydrologic and hydraulic analyses from the FIS report dated December 17, 1991, were prepared by Kozma Associates Consulting Engineers, P.C. (the study contractor), for FEMA, under Contract No. EMW-86-C-2244. That work was completed in December 1989.
Tivoli, Village of:	the hydrologic and hydraulic analyses from the FIS report dated February 1, 1984, were prepared by Kozma Associates for FEMA, under Contract No. EMW-C-0733. That work was completed in February 1983.
Union Vale, Town of:	the hydrologic and hydraulic analyses from the FIS report dated September 2, 1988, were prepared by McCoy-Jackson Associates for FEMA, under Contract No. EMW-84-C-1603. That work was completed in February 1987.
Wappinger, Town of:	the hydrologic and hydraulic analyses from the original FIS report dated December 1978 and FIRM dated June 15, 1979 (hereinafter referred to as the 1979 FIS), were performed by Harris-Toups Associates for the FIA, under Contract No. H-3962. That work was completed in July 1977. The hydrologic and hydraulic analyses from the FIS report dated September 22, 1999, were prepared by Leonard Jackson Associates for FEMA, under Contract No. 93-C-4145. That work was completed in March 1997.
Wappingers Falls, Village of:	the hydrologic and hydraulic analyses from the original FIS report dated March 1978 and FIRM dated September 1, 1978 (hereinafter referred to as the 1978 FIS), were performed by Harris-Toups Associates for the FIA, under Contract No. H-3962. That work was completed in June 1977.

Wappingers Falls, Vill. (cont.)	The hydrologic and hydraulic analyses from the FIS report dated September 22, 1999, were prepared by Leonard Jackson Associates for FEMA, under Contract No. 93-C-4145. That work was completed in March 1997.

There are no previous FISs or FIRMs for the Village of Red Hook, and no previous FISs for the Towns of Milan, Pine Plains, and Washington, and for the Village of Millbrook; therefore, the previous authority and acknowledgment information for these communities is not included in this FIS.

For this countywide FIS, dated September 29, 2011 revised hydrologic and hydraulic analyses for Fishkill Creek, Maritje Kill and the Tenmile River were prepared by Dewberry for the New York State Department of Environmental Conservation (NYS DEC) under its Cooperating Technical Partner agreement with FEMA. This work was completed in June 2008. Additionally, floodplain boundaries for all unrevised flooding sources previously studied using detailed methodology were updated using topographic data provided to NYS DEC by Dutchess County. This work for also completed by Dewberry in June 2008. Flood hazard areas previously assessed using approximate methods were re-analyzed throughout the county and results were then mapped using the Dutchess County topographic data. This work was completed in May 2008.

Base map information for this FIRM was developed from digital orthoimagery provided by the New York State Office of Cyber Security & Critical infrastructure Coordination. This imagery was derived for 1- and 2- foot resolution natural color orthoimagery from photography dated April 2006.

The coordinate system used for the production of this FIRM is Universal Transverse Mercator (UTM), North American Datum of 1983 (NAD 83), GRS80 spheroid. Corner coordinates shown on the FIRM are in latitude and longitude referenced to the UTM projection, NAD 83. Differences in the datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent counties may result in slight positional differences in map features at the county boundaries. These differences do not affect the accuracy of information shown on the FIRM.

1.3 Coordination

Consultation Coordination Officer's (CCO) meetings may be held for each jurisdiction in this countywide FIS. An initial CCO meeting is held typically with representatives of FEMA, the community, and the study contractor to explain the nature and purpose of a FIS, and to identify the streams to be studied by detailed methods. A final CCO meeting is held typically with representatives of FEMA, the community, and the study contractor to review the results of the study.

The dates of the initial and final CCO meetings held for jurisdictions within Dutchess County are shown in Table 1, "Initial and Final CCO Meetings."

TABLE 1 – INITIAL AND FINAL CCO MEETINGS

Community	Initial CCO Date	Final CCO Date
Town of Amenia	September 18, 1984	October 20, 1988
City of Beacon	March 1978	April 4, 1983
Town of Beekman	March 1978	October 11, 1983
Town of Clinton	*	August 8, 1983
Town of Dover	March 1978	October 6, 1983
Town of East Fishkill	March 1978	August 11, 1983
Town of Fishkill	March 1978	June 6, 1983
Village of Fishkill	March 1978	May 9, 1983
Town of Hyde Park	March 1978	June 27, 1983
Town of Lagrange	November 1976	November 16, 1977
Town of Milan	*	*
Village of Millbrook	*	*
Village of Millerton	March 1978	October 12, 1983
Town of Northeast	March 1978	October 13, 1983
Town of Pawling	March 1978	November 16, 1983
Village of Pawling	March 1978	October 3, 1983
Town of Pine Plains	*	*
Town of Pleasant Valley	November 1976	December 8, 1977
City of Poughkeepsie	March 1978	January 20, 1983
Town of Poughkeepsie	September 19, 1984	March 1, 1989
Town of Red Hook	March 1978	December 13, 1983
Village of Red Hook	*	*
Town of Rhinebeck	March 1978	September 16, 1983
Village of Rhinebeck	March 1978	March 13, 1984
Town of Stanford	October 11, 1990	February 1, 1991
Village of Tivoli	March 1978	September 12, 1983
Town of Union Vale	March 1984	October 15, 1987
Town of Wappinger	October 1976	March 31, 1998[1]
Village of Wappingers Falls	October 1976	March 31, 1998[1]
Town of Washington	*	*

[1]Notified by letter
*Data not available

Three initial CCO meetings for this revision were held. The first was held for communities within the Fishkill Creek watershed in February 2002, which was attended by representatives of communities within the watershed as well as NYS DEC and FEMA staff. The second was held for communities within the Wappinger Creek watershed in March 2003, which was attended by representatives

of communities within the watershed as well as NYS DEC and FEMA staff. At the third meeting, in August 2006, the remaining communities in the county were invited to discuss flood hazards within their jurisdiction in the context of the planned flood map update. The final CCO meeting was held October 6 and 7, 2008.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS covers the geographic area of Dutchess County, New York.

The areas studied by detailed methods were selected with priority given to all known flood hazard areas and areas of projected development and proposed construction. All or portions of the flooding sources listed in Table 2, "Flooding Sources Studied by Detailed Methods," were studied by detailed methods. Limits of detailed study are indicated on the Flood Profiles (Exhibit 1) and on the FIRM (Exhibit 2). The areas studied were selected with priority given to all known flood hazard areas and areas of projected development and proposed construction.

TABLE 2 - FLOODING SOURCES STUDIED BY DETAILED METHODS

Amenia Stream
Branch 1 Great Spring Creek
Branch 1 Sprout Creek #1
Branch 1 Wappinger Creek Reach 1
Branch 10 Wappinger Creek Reach 1
Branch 11 Wappinger Creek Reach 1
Branch 1A Hudson River
Branch 2 Sprout Creek #1
Branch 2 Wappinger Creek Reach 1
Branch 2A Wappinger Creek Reach 1
Branch 2B Wappinger Creek Reach 1
Branch 3 Wappinger Creek Reach 1
Branch 4 Wappinger Creek Reach 1
Branch 5 Wappinger Creek Reach 1
Branch 6 Wappinger Creek Reach 1
Branch 7 Wappinger Creek Reach 1
Branch 8 Wappinger Creek Reach 1
Branch 9 Wappinger Creek Reach 1
Casper Kill Creek
Clove Brook
Clove Creek
Clove Mountain Creek
Crum Elbow Creek
East Branch Croton River
East Branch Wappinger Creek Reach 1
Eighmy Ville Creek
Fall Kill
Fall Kill Creek
Fishkill Creek
Frog Hollow Brook
Great Spring Creek
Hudson River
Indian Lake
Jackson Creek Reach 1
Jackson Creek Reach 2
Kelsey Brook
Landsman Kill
Little Wappinger Creek Reach 1
Long Pond
Maritje Kill
Rhinebeck Kill
Saw Kill
Seeley Creek
Silver Lake
Sprout Creek #1
Sprout Creek #2
Stony Creek
Swamp River Reach 1
Swamp River Reach 2
Sweezy Creek
Sylvan Lake
Sylvan Lake Outlet
Tenmile River
Tributary 1 to Fishkill Creek
Tributary 2 to Fishkill Creek
Tributary to Amenia Stream
Tributary to East Branch Croton River
Walsh Creek

TABLE 2 - FLOODING SOURCES STUDIED BY DETAILED METHODS - continued

Wappinger Creek Reach 1	Webatuck Creek Reach 2	Whortlekill Creek Reach 1
Wappinger Creek Reach 2	Webatuck Creek Reach 3	Whortlekill Creek Reach 2
Wassaic Creek	Wells Brook	Willow Brook
Webatuck Creek Reach 1	Whaley Lake Stream	

Riverine flooding sources throughout the county have been studied by detailed methods at different times and prior to this countywide FIS, dated September 29, 2011 often on a community-by-community basis. Table 3, "Model Dates for Riverine Flooding Sources," below represents the hydraulic modeling dates for the detailed study flooding sources in the county.

TABLE 3 – MODEL DATES FOR RIVERINE FLOODING

STREAM NAME	COMMUNITY	MOST RECENT MODEL DATE
Amenia Stream	Town of Amenia	November 1987
Branch 1 Great Spring	Town of Pleasant Valley	October 1977
Branch 1 Sprout Creek #1	Town of LaGrange	September 1977
Branch 1 Wappinger Creek Reach 1	Town of Wappinger	March 1997
	Village of Wappingers Falls	March 1997
Branch 10 Wappinger Creek Reach 1	Town of Pleasant Valley	October 1977
Branch 11 Wappinger Creek Reach 1	Town of Pleasant Valley	October 1977
Branch 1A Hudson River	Town of Wappinger	July 1977
Branch 2 Sprout Creek #2	Town of LaGrange	September 1977
Branch 2 Wappinger Creek Reach 1	Town of Wappinger	July 1977
Branch 2A Wappinger Creek Reach 1	Town of Wappinger	July 1977
Branch 2B Wappinger Creek Reach 1	Town of Wappinger	July 1977
Branch 3 Wappinger Creek Reach 1	Town of Poughkeepsie	August 1977
Branch 4 Wappinger Creek Reach 1	Town of Poughkeepsie	January 1988
Branch 5 Wappinger Creek Reach 1	Town of LaGrange	September 1977
Branch 6 Wappinger Creek Reach 1	Town of Poughkeepsie	August 1977
Branch 7 Wappinger Creek Reach 1	Town of LaGrange	September 1977

TABLE 3 – MODEL DATES FOR RIVERINE FLOODING-continued

STREAM NAME	COMMUNITY	MOST RECENT MODEL DATE
Branch 8 Wappinger Creek Reach 1	Town of Poughkeepsie	August 1977
Branch 9 Wappinger Creek Reach 1	Town of Pleasant Valley	October 1977
Casper Kill Creek	Town of Poughkeepsie	January 1988
	City of Poughkeepsie	July 1982
Clove Creek	Town of Fishkill	October 1982
Clove Mountain Creek	Town of Union Vale	February 1987
Crum Elbow Creek	Town of Hyde Park	November 1982
	Town of Rhinebeck	December 1982
	Town of Clinton	December 1982
East Branch Croton River	Town of Pawling	March 1983
	Village of Pawling	March 1983
East Branch Wappinger Creek Reach 1	Town of Clinton	December 1982
	Town of Pleasant Valley	October 1977
Eighmy Ville Creek	Town of Rhinebeck	December 1982
Fall Kill	Town of Hyde Park	November 1982
Fall Kill Creek	Town of Poughkeepsie	January 1988
	City of Poughkeepsie	July 1982
Fishkill Creek	City of Beacon	July 2008
	Town of Beekman	July 2008
	Town of Fishkill	July 2008
	Village of Fishkill	July 2008
	Town of East Fishkill	July 2008
	Town of Union Vale	July 2008
Frog Hollow Creek	Town of Beekman	February 1983
Great Spring Creek	Town of Pleasant Valley	October 1977
Jackson Creek Reach 1	Town of LaGrange	September 1977
Jackson Creek Reach 2	Town of LaGrange	February 1987
Kelsey Brook	Village of Millerton	February 1983
	Town of Northeast	February 1983
Landsman Kill	Town of Rhinebeck	December 1982
	Village of Rhinebeck	December 1982
Little Wappinger Creek Reach 1	Town of Clinton	December 1982
	Town of Pleasant Valley	October 1977
Maritje Kill	Town of Hyde Park	July 2008
Rhinebeck Kill	Town of Red Hook	March 1983
	Town of Rhinebeck	December 1982
	Village of Rhinebeck	December 1982
Saw Kill	Town of Red Hook	March 1983
	Village of Red Hook	March 1983

TABLE 3 – MODEL DATES FOR RIVERINE FLOODING-continued

STREAM NAME	COMMUNITY	MOST RECENT MODEL DATE
Seeley Creek	Town of Union Vale	February 1987
Sprout Creek #1	Town of East Fishkill	December 1982
	Town of Fishkill	October 1982
	Town of LaGrange	September 1977
	Town of Wappinger	July 1977
Sprout Creek #2	Town of Union Vale	February 1987
	Town of Washington	February 1987
Stony Creek	Town of Red Hook	March 1983
	Village of Tivoli	February 1983
Swamp River Reach 1	Town of Dover	December 1982
Swamp River Reach 2	Town of Pawling	March 1983
	Village of Pawling	March 1983
Sweezy Creek	Town of Union Vale	February 1987
Sylvan Lake Outlet	Town of Beekman	February 1983
	Town of East Fishkill	December 1982
Tenmile River	Town of Amenia	July 2008
	Town of Beekman	July 2008
Tributary 1 to Fishkill Creek	Town of Fishkill	October 1982
	Village of Fishkill	October 1982
Tributary 2 to Fishkill Creek	Town of Beekman	February 1983
Tributary to Amenia Stream	Town of Amenia	November 1987
Tributary to East Branch Croton River	Town of Pawling	March 1983
Walsh Creek	Town of Union Vale	February 1983
Wappinger Creek Reach 1	Town of Clinton	December 1982
	Town of LaGrange	March 1997
	Town of Pleasant Valley	October 1997
	Town of Poughkeepsie	March 1997
	Town of Wappinger	March 1997
	Village of Wappinger Falls	March 1997
Wappinger Creek Reach 2	Town of Stanford	December 1989
	Town of Pine Plains	December 1989
Wassaic Creek	Town of Northeast	February 1983
Webatuck Creek Reach 1	Town of Amenia	November 1987
Webatuck Creek Reach 2	Town of Amenia	November 1987
	Village of Millerton	February 1983
	Town of Northeast	February 1983
Webatuck Creek Reach 2	Village of Millerton	February 1983
	Town of Northeast	February 1983
Wells Brook	Town of Dover	December 1982
Whortlekill Creek Reach 1	Town of East Fishkill	December 1982
Whortlekill Creek Reach 2	Town of LaGrange	September 1977
Willow Brook	Town of Stanford	December 1989

As part of the countywide FIS dated September 29, 2011, updated analysis were included for the flooding sources in Table 4, "Scope of Revision."

TABLE 4 - SCOPE OF REVISION

Stream	Limits of Revised or New Detailed Study
Fishkill Creek	From confluence with Hudson River to approximately 2,945 feet upstream of Clubhouse Lane
Maritje Kill	From confluence with Hudson River to approximately 4,255 feet upstream of Crum Elbow Road
Tenmile River	From county boundary to approximately 5,453 feet upstream of Mill Street

Table 5, "Stream Name Changes," lists streams that have names in this countywide FIS dated September 29, 2011 other than those used in previously printed FISs for the communities in which they are located.

TABLE 5 – STREAM NAME CHANGES

Community	Old Name	New Name
Town of Wappinger Village of Wappinger	Branch 1 Wappinger Creek	Branch 1 Wappinger Creek Reach 1
Town of Wappinger	Branch 2 Wappinger Creek	Branch 2 Wappinger Creek Reach 1
Town of Wappinger	Branch 2A Wappinger Creek	Branch 2A Wappinger Creek Reach 1
Town of Wappinger	Branch 2B Wappinger Creek	Branch 2B Wappinger Creek Reach 1
Town of LaGrange	Branch 3 Sprout Creek	Branch 1 Sprout Creek #1
Town of LaGrange	Branch 4 Sprout Creek	Branch 2 Sprout Creek #1
Town of Poughkeepsie	Branch 3 Wappinger Creek	Branch 3 Wappinger Creek Reach 1
Town of Poughkeepsie	Branch 4 Wappinger Creek	Branch 4 Wappinger Creek Reach 1
Town of LaGrange	Branch 3 Wappinger Creek	Branch 5 Wappinger Creek Reach 1

TABLE 5 – STREAM NAME CHANGES-continued

Community	Old Name	New Name
Town of LaGrange	Branch 3 Wappinger Creek	Branch 5 Wappinger Creek Reach 1
Town of Poughkeepsie	Branch 5 Wappinger Creek	Branch 6 Wappinger Creek Reach 1
Town of LaGrange	Branch 4 Wappinger Creek	Branch 7 Wappinger Creek Reach 1
Town of Poughkeepsie	Branch 6 Wappinger Creek	Branch 8 Wappinger Creek Reach 1
Town of Pleasant Valley	Branch 2 Wappinger Creek	Branch 9 Wappinger Creek Reach 1
Town of Pleasant Valley	Branch 3 Wappinger Creek	Branch 10 Wappinger Creek Reach 1
Town of Pleasant Valley	Branch 4 Wappinger Creek	Branch 11 Wappinger Creek Reach 1
Town of Clinton	East Branch Wappinger Creek	East Branch Wappinger Creek Reach 1
Town of LaGrange	Jackson Creek	Jackson Creek Reach 1
Town of Union Vale	Jackson Creek	Jackson Creek Reach 2
Town of Clinton Town of Pleasant Valley	Little Wappinger Creek	Little Wappinger Creek Reach 1
Town of East Fishkill Town of LaGrange	Sprout Creek	Sprout Creek #1
Town of Union Vale	Sprout Creek	Sprout Creek #2
Town of Dover	Swamp River	Swamp River Reach 1
Town of Dover Town of Pawling	Swamp River	Swamp River Reach 2
Town of Fishkill	Tributary to Fishkill Creek	Tributary 1 to Fishkill Creek
Town of Beekman	Tributary to Fishkill Creek	Tributary 2 to Fishkill Creek

TABLE 5 – STREAM NAME CHANGES-continued

Community	Old Name	New Name
Town of Clinton Town of LaGrange Town of Pleasant Valley Town of Poughkeepsie Town of Wappinger Village of Wappinger	Wappinger Creek	Wappinger Creek Reach 1
Town of Stanford	Wappinger Creek	Wappinger Creek Reach 2
Town of Amenia	Webatuck Creek	Webatuck Creek Reach 1
Town of Amenia Town of Northeast Village of Millerton	Webatuck Creek	Webatuck Creek Reach 2
Town of Northeast	Webatuck Creek	Webatuck Creek Reach 3
Town of East Fishkill	Whortle Kill Creek	Whortle Kill Creek Reach 1
Town of LaGrange	Whortle Kill Creek	Whortle Kill Creek Reach 2

All or portions of numerous flooding sources in the county were studied by approximate methods. Approximate analyses were used to study those areas having a low development potential or minimal flood hazards, or where resources were unavailable to conduct more refined and detailed analyses. For this revision, dated September 29, 2011 all areas of approximate flood hazard analyses were updated using the topography provided by Dutchess County and the flood frequency estimation techniques developed by the U.S. Geological Survey (USGS).

This FIS incorporates the determinations of the following LOMRs issued by FEMA. Case 03-02-029P on January 1, 2004, for Swamp River-River Valley Estates, and Case 07-02-0707P on October 15, 2007 for Furnia Site-NYS Route 22 both in the Town of Dover.

2.2 Community Description

Dutchess County is located in the southeastern portion of the State of New York. It is bordered on the north by Columbia County; on the east by Litchfield County, Connecticut; on the south by Putnam County; and to the west by Ulster and Orange Counties.

The climate of the area is characterized as humid continental. Summer and winter temperatures range from 74.7 degrees Fahrenheit (°F) to 26.2°F, respectively. The average annual precipitation is 38 inches, with a recorded annual snowfall of 42.2 inches. The precipitation is fairly evenly distributed throughout the year (U.S. Department of Commerce, 1972)

According to the 2000 U.S. Census Bureau, the population for Dutchess County was 280,150 and the land area was 801.6 square miles.

For ease of use, information on various flooding sources in Dutchess County was organized based on its 11-digit Hydrologic Unit Code (HUC). The USGS has developed the 8-digit HUC system as a hierarchial classification system of hydrologic drainage basins in the United States. NYS DEC, in conjunction with the USGS, and the Natural Resources Conservation Service (NRCS) of the United States Department of Agriculture, developed 11- digit HUCs for classification at the subwatershed level.
The HUC hierarchy corresponds to codes with 2, 4, 6, 8 and 11 digits. In decreasing area (increasing number of digits in the HUC) order each is made up by several of the contiguous watersheds of lower hierarchy. The first two digits of the HUC are the code for the Regional Boundary (e.g. 02, for the Mid-Atlantic Region). The next two digits of the HUC are the code for the Subregional boundary (e.g. 0202, Upper Hudson). The next two digits are the code for the Accounting Unit (e.g. 020200, the Upper Hudson basin). The next two digits of the HUC are the Cataloging Unit (e.g. 02020004, Mohawk). The last three digits of the HUC are the code for the NRCS Watershed Boundary (e.g. 02020004390, Stony Clove).

HUC 2020008060 Wappingers Creek to Castle Point is located in the center of Dutchess County. In the town of Clinton, Wappinger Creek meanders through a flat, wide floodplain for approximately 2 miles as it flows through the southeastern portion of the community. Wappinger Creek and its tributaries drain approximately one quarter of Dutchess County, forming the Wappinger Creek drainage basin with a watershed area of approximately 210 square miles.

East Branch Wappinger Creek enters Pleasant Valley from the Town of Washington, crossing the eastern town line north of the hamlet of Washington Hollow, flowing northward. East Branch Wappinger Creek then flows north through the Town of Clinton to its confluence with Wappinger Creek near Hibernia. The drainage area of East Branch Wappinger Creek is approximately 33 square miles, with a length of 11 miles and an average width of 3 miles. The floodplain of East Branch Wappinger Creek is undeveloped, but has encroaching residential developments.

Little Wappinger Creek originates in the Town of Milan. It flows south through Clinton and continues southeasterly into Pleasant Valley, crossing Salt Point Turnpike before joining the main channel of Wappinger Creek Reach 1. The creek has a drainage area of 32 square miles at its confluence with Wappinger Creek at

Salt Point. The stream has an average gradient of 16 feet per mile and meanders through relatively flat terrain with wide floodplains (Dutchess County Department of Planning, 1978; Hazen and Sawyer, 1980).

Great Spring Creek is a tributary to Wappinger Creek Reach 1 originating in Clinton and crossing into the Town of Pleasant Valley in the area northeast of Ward and Marshall Roads.

Branch 1 Great Spring Creek originates in the area west of Smith Road in Pleasant Valley and flows southward into a lake.

HUC 1100005480 Ten Mile River is situated in the western portion of Dutchess County. The Tenmile River flows through the Town of Dover and is a tributary of the Housatonic River in Connecticut. Its drainage basin ranges from 5 to 8 miles wide over a length of approximately 32 miles. It drains approximately 210 square miles, from Columbia County in the north to the Town of Pawling in the south.

Wells Brook originates in the southern portion of the Town of Washington and flows east to its confluence with the Tenmile River near Dover Plains. Wells Brook has a drainage area of approximately 6 square miles at its confluence.

In the Village of Millerton, Webatuck Creek, which is a tributary of the Tenmile River, flows south through the village. Its watershed drains approximately 81 square miles, with a length of 20 miles and an average width of 4 miles.

Kelsey Brook originates in Connecticut and flows west to its confluence with Webatuck Creek in Millerton. The watershed of Kelsey Brook is approximately 4 square miles at its confluence.

HUC 2020008070 Castle Point to Fishkill is located in the southwestern portion of the county. In the Town of East Fishkill, Fishkill Creek, a tributary of the Hudson River, flows southwest through the town. It has a drainage area of approximately 194 square miles and a total length of 28 miles.

Sprout Creek flows south to its confluence with Fishkill Creek near Lomala. It has a drainage area of 56 square miles at its confluence, with a length of 18 miles.

Whortlekill Creek also flows south to its confluence with Fishkill Creek. It has a drainage area of approximately 8 square miles.

In the Town of Union Vale, Clove Brook flows in a southern direction for a distance approximately 4.0 miles to its confluence with Pray Pond. Clove Brook has an average slope of 140 feet per mile and a drainage area of approximately 6.7 square miles.

Clove Mountain Creek flows in a western direction for a distance of approximately 1.8 miles to its confluence with Pray Pond. Clove Mountain Creek

has an average slope of 190 feet per mile and a drainage area of approximately 2.1 square miles.

HUC 2030101080 Upper Croton River includes the East Branch Croton River, which flows south through the southern portion of the Town of Pawling. Its watershed drains approximately 1.5 square miles at the corporate limits with the Village of Pawling and increases to 16.5 square miles where it crosses the Dutchess Creek/Putnam County boundary. Tributary to East Branch Croton River originates in the Pawling Mountains in the western portion of the Town of Pawling. It flows southeast to its confluence in the Town of Patterson, Putnam County, NY. The watershed of the tributary drains approximately 35 squares miles at the Dutchess County/Putnam County boundary.

HUC 2020006200 Jansen Kill to Rhinecliff contains the Town of Red Hook, the Village of Red Hook, and the Village of Tivoli.

Landsman Kill flows southwest through the Town of Rhinebeck from its origin in the Town of Milan to its confluence with the Hudson River at Vanderburgh Cove. Its drainage area encompasses approximately 23 square miles with a length of 9 miles and average width of 2.5 miles.

Stony Creek, which flows south through the Village of Tivoli, and has a drainage area of approximately 22 square miles. The eastern half of Tivoli is in the Stony Creek drainage basin, while the western half drains directly into the Hudson River (Hazen and Sawyer, 1980).

HUC 2020008010 Rhinecliff to Wappingers Creek includes the Towns of Rhinebeck, Hyde Park and Poughkeepsie, the Village of Rhinebeck, and the City of Poughkeepsie.

In the Town of Hyde Park, Fall Kill is a tributary of the Hudson River which flows south through the town. Fall Kill has a drainage area of 13.2 square miles at Creek Street and a length of approximately 6.5 miles.

Rhinebeck Kill, a tributary of Landsman Kill, flows south from its origin in the Town of Red Hook to its confluence in the vicinity of Mill Road in the Town of Rhinebeck. Its watershed covers approximately 9 square miles, with a length of 6 miles and average width of 1.5 miles.

Crum Elbow Creek, which flows along the western border of the Town of Clinton, has a drainage area of approximately 19 square miles with a watershed which is approximately 1.5 miles wide and 12 miles long.

Maritje Kill is a tributary of the Hudson River which originates in central Hyde Park and flows southwest through the town to its confluence with the Hudson River.

2.3 Principal Flood Problems

In the Fishkill Creek basin, the flood of record occurred in April 2007. A storm that developed in Texas moved eastward, off the coast of Virginia, before turning northward. The storm reached the New York City area on April 15th and produced discharges on Fishkill Creek that surpassed the previous peak of October 2005. USGS New York estimated the peak discharge at gage 01372800, Fishkill Creek at Hopewell Junction, NY to be 3,910 cubic feet per second (cfs). The previous peak from the October 2005 event was 2,830 cfs. Other major events in the basin include September 1938, August 1955, and October 1955. In addition to coastal storms, rain events on melting snow, can also contribute to heavy runoff volumes.

In the Tenmile River basin, the three greatest floods occurred in September 1938, August 1955, and October 1955. The highest discharge recorded on the Tenmile River at USGS gage 01200000 (Gaylordsville, Connecticut) was 17,400 cfs. This peak discharge was a result of Hurricane Diane (FEMA, 1988). Other major floods include the ones that occurred in 1984 and April 2007, with discharges recorded at 10,400 cfs and 9,650 cfs, respectively.

In the City of Beacon, there have been a number of major storms resulting in high river stages along the Hudson River, including those of February 1875, October 1903, March 1913, November 1950, October 1955, and September 1960 (W. G. Hoyt, 1955; USACE, 1975).

In the Town of Beekman, seasonal residential homes have been subject to flooding from Sylvan Lake Outlet. The most highly flood-prone areas along Frog Hollow Brook extend from the Hamlet of Greenhaven to the confluence with Fishkill Creek. Along Whaley Lake Stream, the downstream areas between its confluence and the Hamlet of Poughquag are subject to inundation (Hazen and Sawyer, 1980).

In the Town of Clinton, the Wappinger Creek basin has been subject to significant flooding in the past. In much of New York State, major floods are usually caused by spring rain in combination with snowmelt. In Dutchess County, floods are usually the result of severe coastal storms and hurricanes. During the past 50 years, the three most severe floods occurred in September 1938, August 1955, and April 2007.

After a 3-day deluge which dropped nearly eight inches of rain in May 1984 Dutchess County was declared a disaster area by Governor Mario Cuomo (Poughkeepsie Journal, 1984). More recently, a Federal Disaster declaration was made in April 2007 after a severe flooding event.

In the Town of East Fishkill, areas adjacent to Sprout Creek, Whortlekill Creek, and Sylvan Lake Outlet are also subject to inundation. This includes residential areas near Sprout Creek in Lomala. Industrial and residential developments near the low-lying floodplain of Whortlekill Creek in the vicinity of Hopewell Junction can be inundated. Areas which are currently being developed along Sylvan Lake Outlet are also subject to flooding.

In the Village of Millerton, highly flood-prone areas exist along Webatuck Creek throughout its entire length. The steep overbanks of Webatuck Creek produce very rapid runoff and place a heavy burden on low-lying channel areas.

In the Town of Pawling, near the corporate limits with the Town of Dover, a number of industrial and commercial establishments have suffered flood damage from rising waters of the Swamp River.
In the Village of Pawling, both the East Branch Croton River and the Swamp River have wide and relatively poorly drained floodplains. These flat areas, which are subject to frequent inundation, contain primarily residential developments that have suffered flood damage in the past after heavy rainfalls.

In the Town of Pleasant Valley, peak flows have been recorded for Wappinger Creek since 1934, with the highest volume of flow occurring in August 1955. There have been complaints that local silt deposits in Wappinger Creek have created additional flooding hazards for adjoining properties. This condition is alleged to exist north of the U.S. Route 44 bridge crossing.

At Wappinger Creek, near Wappinger Falls gage (01372500), the record extends from 1929 to 2007. The 3 highest recorded flows at the gage were August 1955, September 1938 and April 2007. The 1955 flood had a return period of 80 years and a discharge of 18,600 cfs; the 1938 flood had a discharge of approximately 7,810 cfs; and the 2007 flood had a discharge of 7,640 cfs (U.S. Department of the Interior, 2008). These discharge-frequency estimates for Wappinger Creek and Little Wappinger Creek were based on records kept by the USGS at the gaging stations shown in Table 6, "Stream Gages."

TABLE 6 – STREAM GAGES

STREAM GAGE AND LOCATION	DRAINAGE AREA (sq. miles)	PERIOD OF RECORD
WAPPINGER CREEK		
Near Wappinger Falls, in Town of LaGrange, approximately 700 feet downstream of Red Oak Mill Dam and approximately 4.5 miles northeast of the Village of Wappingers Falls	181.0	1929-2008
Near Clinton Corners, in Town of Clinton, approximately 1,900 feet downstream of confluence of East Wappinger Creek and approximately 1 mile south of Clinton	92.4	1956-1990
LITTLE WAPPINGER CREEK		
In Town of Pleasant Valley, on the right bank at Salt Point, and approximately 0.6 mile upstream of confluence with Wappinger Creek	32.9	1956-1990

At the southeastern corner of the Town of Rhinebeck, Crum Elbow Creek flows through a low-lying area that has been flooded in the past. Residential development in this area along State Route 9G is most susceptible to flooding.

The principal flooding areas along Landsman Kill are located in low-lying areas adjacent to the Village of Rhinebeck. To the west of the village is a low swampy area that is frequently inundated and remains undeveloped. East of the village along State Route 308, development is subject to inundation from Landsman Kill.

Flooding from Rhinebeck Kill occurs along U.S. Route 9 in the northern portion of the Town of Rhinebeck near Weys Corners. Residential development along Old Post Road is also subject to inundation.

Stony Creek was identified by community representatives of the Village of Tivoli as having caused flood damage. Stony Creek creates a highly flood-prone area as it passes through the village.

Flooding can occur in the Town of Union Vale during all seasons, but generally the most notable floods have occurred between the months of February and April when snowmelt adds to heavy spring rains to produce increased runoff. Summer and fall floods also occur due to hurricane activity.

2.4 Flood Protection Measures

Sylvan Lake is located along the western corporate limits of the Town of Beekman. The dam at the lake does not afford any flood protection to the town.

In the Town of East Fishkill, Fishkill Creek, Sprout Creek, and Whortlekill Creek each have two dams located in East Fishkill.

There are two dams on Fishkill Creek within the Town of Fishkill and numerous dams located along the creek within the City of Beacon; however, these dams are not used as flood control structures.

Wappinger Creek is dammed at 3 locations between its confluence with the Hudson River and the upstream corporate limits of the Town of Poughkeepsie. Wappinger Falls Dam is the extreme downstream dam. Little Falls Dam is approximately 0.7 mile upstream of U.S. Route 9, and Red Oaks Mill Dam is just upstream of State Route 376.

The US Army Corps of Engineers, New York District, in 1961 and again in 1968 (USACE, 1961; USACE, 1968) studied the feasibility of constructing a large impounding structure across Wappinger Creek at a point north of the hamlet of Pleasant Valley which would have provided sufficient storage to achieve lower river stages in Wappinger Creek below the proposed dam site during times of severe floods. This scheme met with strong local opposition from officials and residents in Pleasant Valley since it would require inundation of a substantial part of Pleasant Valley. As a consequence, this proposal was shelved.

The Town of LaGrange, during this same 60s period,asked the USACE for local protection works along Wappinger Creek consisting of channel clearing, dredging, and straightening. Specifically, two local protection works within the town were considered by the USACE:

Overlook Road: The USACE considered that a local protection project consisting of levees would only substantially benefit the drive-in theatre at this location and felt that it would not be in the public interest to expend public funds for this purpose.
A protective dike in the general area was approved in 1974 by Dutchess County as a result of more frequently reported flooding at Milano Drive, allegedly caused by the building of the County bridge at DeGarmo Road.
Red Oaks Mill-Romca Road: The USACE considered a 1,500-foot wall and dike at this location but found that the costs of this project could not be justified by benefits accrued from the prevention of flood damages of a magnitude such as those that occurred in 1955.

In the Village of Wappingers Falls, the lake created by Wappinger Dam has no substantial impounding capacity, and is not effective in reducing large flood volume inflows. In 1976, the village passed a resolution which adopted the FIS requirements for floodplain management and designated as flood zones the special flood hazard areas delineated under the emergency program.

In the City of Poughkeepsie, the bank of the Hudson River has a non-continuous line of bulkheads that do not provide significant protection against flooding.

The Town of Wappinger initiated a drainage study designed to identify culvert locations which have inadequate drainage capacity. Streams included in this study include parts of Branches 1, 2, 2A, and 2B Wappinger Creek Reach 1. The report makes recommendations for either enlarging inadequate structures or alternately providing sufficient upstream detention pond storage to upgrade the conveyance capacity of the structure to the 4-percent annual chance (25-year) storm level (Rudolph Laper, 1975).

The National Oceanic and Atmospheric Administration (NOAA) maintains year-round surveillance of weather conditions at the Poughkeepsie Airport. Constant surveillance of stream flow gages at Red Oaks Mill and Clinton Corners has provided additional flood warning information. Flood warnings are transmitted by the National Warning System to civil defense facilities located in the sheriff's office and the emergency operating center. This information is then relayed from Civil Defense headquarters to responsible agencies as outlined in the County Natural Disaster Plan. Additional warning is provided by the Mid-Hudson Area Flood Group.

In the Town of Dover, along Tenmile River (right descending bank) there is a floodwall in the Powell Mobile Home Park area constructed by C.T. Male Associates that does not provide protection against flooding.

Non-structural measures of flood protection are being utilized to aid in the prevention of future flood damage. These measures are in the form of land-use regulations which control building within areas that have a high risk of flooding.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the county, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this FIS. Flood events of a magnitude which are expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood which equals or exceeds the 100-year flood (1-percent chance of annual exceedence) in any 50-year period is approximately 40 percent (4 in 10), and, for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the county at the time of completion of this FIS. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish peak discharge-frequency relationships for each riverine flooding source studied by detailed methods affecting the county.

For each community within Dutchess County that had a previously printed FIS report, the unrevised hydrologic analyses described in those reports have been compiled and are summarized below.

Precountywide Analyses

On ungaged streams having tributary drainage areas between 20 and 1,750 square miles, an analysis was made using the methodology outlined in "Regional Frequency Study, Upper Delaware and Hudson River Basins, New York District" published by the Hydrologic Engineering Center, USACE (USACE, 1974). Log-Pearson Type III frequency analyses were made on the basis of regional data developed for mean annual flows, standard deviations and skews, all of which have been mapped for the study region. According to FIA practice, adjustment for expected probability was not made.
The equations derived from this study are:

$$\log Q_m = C_m - 0.05 \log A$$

$$S = C_s - 0.05 \log A$$

$$\log [Q(p)] = \log Q_m + K(p,g)S$$

Where Q_m = geometric mean of annual flood peaks

C_m = a map coefficient for mean log of annual peaks

A = area in square miles

S = standard deviation of the logs of annual flood peaks

C_s = a map coefficient for standard deviation of logs of annual peaks (S)

log [Q (p)] = log of the discharges for a given exceedence frequency (p)

K (p,g) = log of standard deviation for a given exceedence frequency (p) and skew coefficient (g)

g = skew coefficient for annual flood peaks

When the drainage area tributary to a point of interest is relatively small, between one and three square miles, a detailed investigation of stream flows from the drainage area was made according to the methodology given by SCS-TP-149, U.S. Soil Conservation Service (SCS) in their publication, "A Method for Estimation Volume and Rate Runoff in Small Watersheds" (Soil Conservation Service, 1973).

Input parameters included the following:

a. Soil type distribution within the drainage area obtained from county soil maps (Soil Conservation Service, 1955).

b. Existing land use patterns obtained from Dutchess County land use and generalized zoning maps.

c. County and local road and street maps.

d. Twenty-four hour rainfall obtained from U.S. Weather Bureau Technical Paper 40 (U.S. Weather Bureau, Rainfall Frequency Areas of the United States).

e. Average watershed land slope obtained from analysis of USGS topographic quadrangle sheets.

For ungaged streams with drainage areas falling in the range of 3 to 20 square miles, the flood discharges for varying return periods were obtained on a regional

basis for the drainage area covering Wappinger, Wappingers Falls, Poughkeepsie, LaGrange, and Pleasant Valley, New York. This became a regional analysis for the southwestern portion of Dutchess County. First, a regression analysis was made to determine the appropriate discharge-area relationship using input data from all small drainage areas studied within the five communities by the method outlined above. Next, the discharge-frequency relationships for large drainage areas (up to 1,000 square miles) were established on a regional basis by selecting a single representative value for the parameters of mean annual flow, standard deviation, and skew for Dutchess County. The values used were mean log coefficient, C_m = 1.45; standard deviation coefficient, C_s = 0.34; skew coefficient, g = 0.6. Finally, the interpolated discharge-frequency curves for the drainage areas between 3 and 20 square miles were smoothly fitted between the previously determined curves for large and small drainage areas.

Neither of these statistical computational methods are applicable to basins smaller than one square mile because of the lack of gage data available to incorporate into the regression analyses. The Rational Method of analysis was therefore used to compute peak discharges for upstream portions of streams with drainage basins smaller than one square mile.

HUC 2020006200 Jansen Kill to Rhinecliff

The calculated peak discharge as calculated by the regression equation for the USGS gaging station (No. 01372200) at Clinton Corners was used to adjust the peak discharge calculated by the regression equation at the ungaged site in accordance with the equation:

$$Qw = Qs[(Kg-1)(2As-Ag)/Ag + 1]$$

where Qw is the weighted discharge at the ungaged site, Qs is the discharge calculated by the regression equation for the ungaged site, As and Ag are the drainage areas at the site and the gage respectively, whereas Kg is the ratio of the weighted peak discharge to the peak discharge calculated by the regression equation at the gage.

For Stony Creek, the values of K were calculated to be 266, 458, 569, and 793, and the values of x were 0.61, 0.62, 0.63, and 0.69 for the 10-, 2-, 1-, and 0.2-percent annual chance flood discharges, respectively.

For Saw Kill, the values of K were determined to be 293, 464, 598, and 864, whereas values for x were found to be 0.58, 0.61, 0.61, and 0.66 for the 10-, 2-, 1-, and 0.2-percent annual chance flood discharges, respectively.

HUC 1100005480 TenMile River:
In the Town of Amenia, the hydrologic analyses for Wassaic Creek, Amenia Stream, and Tributary to Amenia Stream followed a procedure presented in Water Resources Investigations 79-93, Techniques for Estimating the Magnitude and Frequency of Floods on Rural Unregulated Streams in New York State Excluding

Long Island (U.S. Department of the Interior, 1979). This procedure relates drainage area and storage percent to a series of regression equations for the southeastern region. Discharges were computed for specific recurrence intervals by substituting the applicable values into the corresponding regression equations.

Discharges for Webatuck Creek Reach 1 were determined from the two separate log-Pearson Type III distributions for gaged streams published in the FISs for the Towns of Dover and Northeast (FEMA, August 1984; FEMA, September 1984). The discharges were transferred from the Amenia-Dover corporate limits to USGS stream gage No. 1199400, located on Webatuck Creek, applying the data from the Dover study to the transfer equation. Peak discharges at locations upstream of the gage were determined by using the transfer coefficients from the FIS for the Town of Northeast (FEMA, September 1984).

The above analyses conform with the techniques described in the USGS Bulletin 17B and Water Resources Investigations 79-83 (U.S. Department of the Interior, 1979; U.S. Department of the Interior, 1981).

The peak discharges were determined by the following transfer equation:

$$Q_2/Q_1 = (DA_2/DA_1)^x$$

where Q_1 is the peak discharge at a known location, DA_1 is the drainage area at a known location, Q_2 is the peak discharge at desired location, DA_2 is the drainage area at desired location, and x is the transfer coefficient.

The recurrence intervals and corresponding transfer coefficients used in the transfer equation are presented in the following tabulation:

Information Source	Recurrence Interval (years)	Transfer Coefficient
Flood Insurance Study for the Town of Dover	10	1.03
	50	1.25
	100	1.29
	500	1.48

Information Source	Recurrence Interval (years)	Transfer Coefficient
Flood Insurance Study for the Town of Northeast	10	0.67
	50	0.67
	100	0.67
	500	0.67

For Webatuck Creek Reach 2, the gage (No. 01199400, 14 years of record, at the time of the analysis) is located near South Amenia, New York, and has a drainage area of 81 square miles, and the transfer coefficient, "x" was calculated to be 0.67 for the 10-, 2-, 1-, and 0.2-percent annual chance floods.

HUC 2030101080 Upper Croton River:

For the East Branch Croton River, the values of K were determined to be 305, 534, 665, and 982, and the values for x were found to be 0.40, 0.39, 0.39, and 0.43 for the 10-, 2-, 1-, and 0.2-percent annual chance floods, respectively. For Tributary to East Branch Croton River, the values of K were determined to be 304, 529, 656, and 969, and the values of x were found to be 0.37, 0.35, 0.35, and 0.38. The values of K for the Swamp River were 290, 513, 624, and 911, and 0.41, 0.40, 0.41, and 0.44 for x. For Whaley Lake Stream, the values of K were 275, 462, 567, and 811, and the values of x were 0.44, 0.45, 0.46, and 0.50.

HUC 202000810 Rhinecliff to Wappingers Creek:

Discharges for Crum Elbow Creek were determined using a log-Pearson Type III analysis of data from a discontinued USGS gage (Water Resources Council, 1977). This gage (No. 01372040) is located at Hyde Park, New York. The transfer coefficients were determined to be 0.73, 0.74, 0.74, 0.77, and 0.76 for the 10-, 2-, 1-, and 0.2-percent annual chance recurrence interval floods.

Peak discharges at other locations were determined by the following transfer equation:

$$Q_2/Q_1 = (DA_2/DA_1)^x$$

where Q_1 and DA_1 are the discharge and drainage area at a gaged location; Q_2 and DA_2 are the discharge and drainage area at an ungaged location; and "x" is the transfer coefficient which was calculated to be 0.82, 0.89, 0.91, and 0.96 for the 10-, 2-, 1-, and 0.2-percent annual chance floods.

For Fall Kill, the values of K were determined to be 179, 283, 372, and 534, whereas for x they were found to be 0.060, 0.63, 0.61, and 0.65 for the 10-, 2-, 1-, and 0.2-percent annual chance flood discharges, respectively.

Casper Kill Creek, log-Pearson Type III analyses of two discontinued USGS gaging stations were used to determine peak discharges for the selected recurrence intervals. One of the USGS gages (No. 01372800) is located near Hopewell Junction, New York, and has a drainage area of 57.3 square miles; the other (No. 01373500) is located at Beacon, with a drainage area of 190 square miles.

For Landsman Kill, the values of K were determined to be 259, 415, 491, and 682, and the values for x were found to be 0.47, 0.49, 0.51, and 0.57 for the 10-, 2-, 1-, and 0.2-percent annual chance floods, respectively. For Rhinebeck Kill, the values of K were determined to be 319, 552, 687, and 1,013, and the values of x were

found to be 0.36, 0.34, 0.35, and 0.37 for the 10-, 2-, 1-, and 0.2-percent annual chance floods, respectively.

HUC 2020008060 Wappingers Creek to Castle Point:

For the Town of LaGrange, on gaged streams that were studied for the 1979 FIS, the flood flow frequency at that particular gaging station was determined by a log-Pearson Type III analysis without correcting for expected probability. Adjustments for inadequate number of years of record, regional skew, historical records, high and low outliers, as applicable, were made according to procedures outlined in the Water Resources Council Bulletin No. 17 (Water Resources Council, 1976).

East Branch Wappinger Creek - data from a discontinued USGS gage (No. 01372100, drainage area 33.6 square miles) located at Clinton Corners, New York was used (Water Resources Council, 1977). For Little Wappinger Creek, information was used from discontinued USGS gage No. 01372300 located at Salt Point, New York. The transfer coefficient used for Little Wappinger Creek was 0.79 for floods of each of the recurrence intervals. For Wappinger Creek, data from USGS gage No. 01372200 at Clinton Corners, with a drainage area of 92.4 square miles was used. Peak discharges determined at this gaging station were used for the portion of Wappinger Creek within Clinton due to the close proximity of the gaging station. The values of K for Wells Brook were determined to be 294, 539, 650, and 935, and the values for x were found to be 0.40, 0.35, 0.37, and 0.41 for the 10-, 2-, 1-, and 0.2-percent annual chance floods, respectively. The values of K for Kelsey Brook were determined to be 317, 564, 692, and 1,009, and the values for x were found to be 0.31, 0.29, 0.29, and 0.32 for the 10-, 2-, 1-, and 0.2-percent annual chance floods, respectively. The analyses followed procedures outlined by the Water Resources Council and were published by the USGS (Water Resources Council, 1977; U.S. Department of the Interior, 1979).

Wappinger Creek Reach 1 – Discharge-frequency estimates developed for the Town of Pleasant Valley FIS were based on gage records recorded by the USGS at the following gaging stations:

Stream Gage	Location	Drainage Area (Square Miles)	Period of Record
Wappinger Creek Reach 1 near Wappingers Falls, NY	In Town of LaGrange, on left bank, 700 feet downstream of the Red Oak Mill dam and 4.5 miles northeast of The Village of Wappingers Falls, NY	181	1929-1979

Stream Gage	Location	Drainage Area (Square Miles)	Period of Record
Wappinger Creek Reach 1 near Clinton Corners, NY	In Town of Clinton, on left bank, 1,900 feet downstream of confluence of East Wappinger Creek and 1 mile south of Clinton, NY	92.4	1956-1979
Little Wappinger Creek Reach 1 at Salt Point, NY	In Town of Pleasant Valley on right bank at Salt Point, NY, and 0.6 mile from confluence with Wappinger Creek	32.9	1956-1979

While additional gage record is available at all these gages, the discharges compiled from the effective FIS and used for the hydraulic analyses reflect the period presented above.

Branch 1 Wappinger Creek Reach 1 - discharge-frequency estimates for this stream were made at its confluence with Wappinger Creek, based on the method developed for intermediate sized stream drainage areas in Dutchess County. Discharge-frequency estimates were also made at the confluence with a subbranch located adjacent to Old Hopewell Road according to the method described for small drainage areas.

Branch 2 Wappinger Creek Reach 1 - discharge-frequency estimates for were made at its confluence with Wappinger Creek and at a point upstream of the confluence of Branch 2B Wappinger Creek Reach 1 based on the method developed for intermediate sized stream drainage areas in Dutchess County. Discharge-frequency estimates were also made at a point upstream of the confluence of Branch 2A Wappinger Creek Reach 1 according to the method developed for small drainage areas.

Branch 2A Wappinger Creek Reach 1 - discharge-frequency estimates were made at its confluence with Branch 2 using the method developed for small drainage areas.

Branch 2B Wappinger Creek Reach 1 - discharge-frequency estimates for were made at its confluence with Branch 2 Wappinger Creek Reach 1 according to the analysis developed for intermediate-sized stream drainage areas in Dutchess County.

Branch 3 Wappinger Creek Reach 1 - flood frequency-discharge values were determined at its confluence with Wappinger Creek according to the method developed for small drainage areas.

Branch 4 Wappinger Creek Reach 1 - flood frequency-discharge values were determined for the August 2, 1990, FIS using a procedure developed by the Federal Highway Administration (U.S. Department of Transportation, 1977). This procedure relates basin characteristics such as drainage area, storage area, and precipitation to a series of regression equations for a given region. Discharges were computed for specific recurrence intervals by substituting the appropriate values into the corresponding regression equations.

Branch 5 Wappinger Creek Reach 1 – discharge-frequency estimates were made at the downstream limit of the detailed study adjacent to the CONRAIL tracks (drainage area = 1.62 sq. mi.) according to the method described for small drainage areas.

Branch 6 Wappinger Creek Reach 1 - flood frequency-discharge values for were made at its confluence with Wappinger Creek according to the method developed for small drainage areas.

Branch 7 Wappinger Creek Reach 1 – discharge-frequency estimates were made at the confluence with Wappinger Creek (drainage area = 3.20 sq. mi.) and also at the confluence with a subranch upstream of Overlook Road (drainage area = 2.08 sq. mi.). At the downstream location, the discharge-frequency estimate was made according to the method described above for intermediate-sized drainage areas. At the second location, the estimates were made according to the method described above for small drainage areas.

Branch 8 Reach 1 Wappinger Creek - flood frequency-discharge values for were determined at its confluence with Wappinger Creek according to the analysis developed for intermediate-sized drainage areas. Because of large swampy areas upstream of the study limit, the original discharge-frequency estimate used in the computer model was not consistent with data obtained from a flooding event that occurred in July 1975. The discharge-frequency estimates were revised by application of data from a regional publication which uses a surface storage index using lake and swamp areas as one of the parameters (U.S. Department of the Interior, 1974).

Branch 9 Wappinger Creek Reach 1 – the discharge-frequency estimates for this branch was made at the confluence with the main channel (Drainage Area = 11.1 sq. mi.) based on the regression analysis developed for intermediate sized ungaged drainage areas in Dutchess County.

Branch 10 Wappinger Creek Reach 1 – the discharge-frequency estimates for this branch were made at its confluence with the main channel (Drainage Area = 1.7 sq. mi.) according to the method described for small ungaged drainage areas.

Branch 11 Wappinger Creek Reach 1 – the discharge-frequency estimates for this branch were made at its confluence with the main channel (Drainage Area = 1.6 sq. mi.) according to the method described for small ungaged drainage areas.

Great Spring Creek – discharge-frequency estimates for this stream were made at the confluence with Wappinger Creek and at the mouth of Branch 1 Great Spring Creek. Great Spring had a USGS gage located on it from 1960 to 1965 at a point near its confluence with Wappinger Creek. The gage was discontinued in December 1965. The maximum discharge readings, however, were always affected by high water in Wappinger Creek and are not considered reliable. No statistical analysis of concurrent gage records between this gage and the nearby gage on Little Wappinger Creek at Salt Point is therefore possible. However, since the two basins are adjacent and have similar characteristics, a comparison was made with the Salt Point gaging station's frequency-discharge estimates using an area relationship to the 0.75 power. The discharge-frequency estimates for this creek were made on this basis for both locations. The maximum recorded discharge of 260 cfs in the 5-year gaging period would have a return period of less than 10 years according to the adopted discharge-frequency relationships.

Branch 1 Great Spring Creek – discharge-frequency estimates were made at the confluence of this stream with the main channel (Drainage Area = 1.8 sq. mi.) according to the method described for small ungaged drainage areas.

Wappinger Creek Reach 1 – the hydrologic analysis for Wappinger Creek Reach 1 was prepared using a drainage area transposition equation. This equation relates gaged site data and drainage areas to compute discharges at other locations.

Little Wappinger Creek Reach 1 – the discharge-frequency estimates were based on the gaging records for the creek at Salt Point (Drainage Area = 32.4 sq. mi.). A log-Pearson Type III analysis was performed using the regional skew obtained from the Regional Frequency Study, Upper Delaware and Hudson River Basins instead of the station skew in conformance with Bulletin No. 17. The flow at the gaging station was transferred to the confluence with Wappinger Creek using an area relationship to the 0.75 power.

East Branch Wappinger Creek Reach 1 – the discharge-frequency estimates were made at the town line with Clinton (Discharge Area = 34 sq. mi.) based on the "Regional Frequency Study" (USACE, 1974). A log-Pearson Type III analysis of the USGS gaging records could not be made due to the limited years of record. The USGS gage on this stream was in operation from 1956 to 1963. The maximum flood of record, 1,340 cfs recorded in 1961, would have a return period of somewhat less than 10 years according to the adopted discharge-frequency relationships.

Wappinger Creek Reach 2 - the peak discharge of the selected recurrence interval was determined using the procedures and regression equations outlined in USGS Water Resources Investigations 79-83 for ungaged sites on gaged streams (U.S. Department of the Interior, 1979; Water Resources Council, 1977). For the southern region of New York, the following equation was used:

$$Q = K(DA)^{x}(S)^{y}(P-20)^{z}$$

where Q is the stream discharge; DA is the drainage area; S is the main-channel slope; P is the mean annual precipitation; and K, x, y, and z are functions of the frequency. A value of 0.138 was used for K, 1.06 for x, 0.447 for y, and 1.57 for z, for the 1-percent annual chance discharge.

Sprout Creek No. 1 - discharge-frequency estimates for the ungaged Sprout Creek No. 1 were made at the downstream corporate limits and upstream of the confluence with Jackson Creek Reach 1 using the "Regional Frequency Study" (USACE, 1974). The following parameters were used: mean log coefficient, Cm equal to 1.35; a standard deviation coefficient, Cs equal to 0.33; and a skew coefficient, g equal to 0.65.

HUC 202000870 Castle Point to Fishkill:

The resulting values were connected by smooth curves, represented by the following equation:

$$Q = K(DA)^z$$

The values of K for Whortlekill Creek were determined to be 521, 734, 871, and 1,296, and the values of x were found to be 0.25, 0.27, 0.29, and 0.31 for the 10-, 2-, 1-, and 0.2-percent annual chance floods, respectively. For Sylvan Lake Outlet, the values of K were calculated to be 310, 540, 670, and 990, and the values of x were 0.36, 0.34, 0.34, and 0.36.

For Clove Brook, extrapolation resulted in the values of 132, 215, 246, and 359 for K and 0.84, 0.86, 0.87, and 0.88 for x.

For Tributary 1 to Fishkill Creek, the values of K were determined to be 309, 532, 668, and 974, and the values for x were found to be 0.36, 0.35, 0.35, and 0.38 for the 10-, 2-, 1-, and 0.2-percent annual chance floods, respectively.

Tributary 2 to Fishkill Creek, log-Pearson Type III analyses of two discontinued USGS gaging stations were used to determine peak discharges for the selected recurrence intervals. One of the USGS gages (No. 01372800) is located near Hopewell Junction, New York, and has a drainage area of 57.3 square miles; the other (No. 01373500) is located at Beacon, with a drainage area of 186 square miles.

For the Town of LaGrange, on gaged streams that were studied for the 1979 FIS, the flood flow frequency at that particular gaging station was determined by a log-Pearson Type III analysis without correcting for expected probability. Adjustments for inadequate number of years of record, regional skew, historical records, high and low outliers, as applicable, were made according to procedures outlined in the Water Resources Council Bulletin No. 17 (Water Resources Council, 1976). Sprout Creek # 1 – Discharge-frequency estimates for this ungaged stream were based on the "Regional Frequency Study" (USACE, 1974) for ungaged areas

described above. The following parameters were used: mean log coefficient, C_m = 1.35, a standard deviation coefficient, C_s = 0.33, and a skew coefficient, g = 0.65.

Jackson Creek Reach 1 – discharge-frequency estimates for this stream were determined according to the method described above for the intermediate-sized stream drainage areas.

Branch 1 Sprout Creek #1 – discharge-frequency estimates along this stream were made according to the methods described above for intermediate and small-sized drainage areas depending on the drainage area at the point in question.

Branch 2 Sprout Creek #1 – discharge-frequency estimates were made at the confluence with Sprout Creek (drainage area = 3.69 sq. mi.) according to the method described above for intermediate-sized drainage areas.

Whortle Kill Creek Reach 2 – discharge-frequency estimates for this creek were made at the town line with East Fishkill (drainage area = 2.38 sq. mi.) according to the method described above for small drainage areas.

Branch 1A Hudson River - discharge-frequency estimates were made at its confluence with the Hudson River according to the method described above for small drainage areas.

The streams within the Town of Union Vale are small, rural, ungaged basins: Clove Brook, Clove Mountain Creek, Fishkill Creek, Jackson Creek Reach 2, Selly Creek, Sprout Creek, Walsh Creek, and Willow Brook. For the streams studied by detailed methods, two regional analysis methods were used to compute peak discharges. a USGS analysis, Techniques for Estimating Magnitude and Frequency of Floods on Rural Unregulated Streams in New York State, utilized gage data throughout New York State to formulate regression equations for use on ungaged streams (U.S. Department of the Interior, 1979). A USACE analysis, Regional Frequency Study, Upper Delaware and Hudson River Basins, New York District, utilized gage data throughout the upper Delaware and Hudson River basins to formulate regression equations for use on ungaged streams (USACE, 1974). The two methods produced similar peak discharges, and the results were averaged together.

The Hudson River is tidal in nature in the study area; therefore, discharge-frequency relationships are not meaningful for determining flood stages. Instead, a stage-frequency relationship was established based on information available from the USACE (USACE, 1975). An analysis of stage-frequency relationships at Albany, Catskill, and Spuyten Duyvil indicated that the simplest method of straight-lining would not represent true conditions at intermediate locations. The rising and falling of mean tides have been found to correlate with the width of the river. Hence, the expectation of a similar effect on high river stages led to the establishment of maximum and minimum slopes of water-surface profiles between Spuyten Duyvil and Catskill (U.S. Department of Housing and Urban

Development, 1978). Stage-frequency relationships for the Hudson River at Beacon were then extracted from these water-surface profiles.

Countywide Analyses

Techniques provided in *Magnitude and Frequency of Floods in New York,* USGS SIR 2006-5112 (USGS 2006) formed the basis of the revised hydrologic analyses conducted for this countywide study. Details on techniques used for each of the 3 revised streams are presented below.

HUC 1100005480 Tenmile River:

The 10%, 2%, 1%, and 0.2% annual chance peak discharges were developed for the Tenmile River at twelve locations along the studied reach. Log-Pearson Type III statistical analysis was conducted for the lone gage location and the resulting discharges were weighted with the ones that were computed using New York State regression equations as presented in SIR 2006-5112 (USGS 2006).

At ungaged locations, discharges were computed based on the regression equations and if the gage had drainage area within the 50% to 150% of that of a gage, the regression discharges were weighted with log-Pearson Type III discharges. The log-Pearson Type III method consists of fitting the logarithms of annual peak flows to a log-Pearson Type III distribution. The equation provided below forms the basis for the log-Pearson Type III analysis.

Log Q = X + KS

Where, X is the mean of logarithms of annual peak flows, S is standard deviation of logarithms of annual peak flows and K is a factor that is a function of the skew coefficient.

Following are the equations used for computing the regression estimate:

$Q\ 10 = 3.4\ (A)^{0.810}\ (ST+0.5)^{-0.218}\ (RUNF)^{0.600}\ (EL12+1)^{0.133}\ (SR)^{0.268}$

$Q\ 50 = 39.0\ (A)^{0.819}\ (ST+0.5)^{-0.188}\ (RUNF)^{0.528}\ (EL12+1)^{0.157}\ (SR)^{0.305}$

$Q\ 100 = 46.0\ (A)^{0.823}\ (ST+0.5)^{-0.177}\ (RUNF)^{0.505}\ (EL12+1)^{0.166}\ (SR)^{0.318}$

$Q\ 500 = 62.7\ (A)^{0.834}\ (ST+0.5)^{-0.155}\ (RUNF)^{0.466}\ (EL12+1)^{0.183}\ (SR)^{0.345}$

Where,

A is drainage area, in square miles.

SR is slope ratio, which is defined as the ratio of main-channel slope to basin slope within the drainage basin.

EL12 is percentage of drainage basin at or greater than 1,200 feet above sea level.

ST is basin storage, which is the percentage of total drainage area shown as lakes, ponds, and swamps (wetlands).

RUNF is Mean annual runoff, in inches.

The equation used for computing the weighted-average discharges at the gage is:

$$Q_{T(w)} = \frac{Q_{T(g)}\,(N) + Q_{T(r)}\,(E)}{N+E}$$

Where,

QT(w) is weighted peak discharge at the gaged site, in cfs, for T-year recurrence interval

QT(g) is the peak discharge at the gage, in cfs, calculated by Log-Pearson Type III frequency analysis of the station's peak discharge record, for the T-year recurrence interval

N is the number of years of annual peak-discharge record used to calculate QT(g) at the gaging station

QT(r) is the regional regression estimate of the peak discharge at the gaged site, in cfs, for the T-year recurrence interval

E is the average equivalent years of record associated with the regression equation (Table 2 in SIR 2006-5112) that was used to calculate QT(r)

Following are the equations used for computing discharges at the locations influenced by the gage.

$$Q_{T(U)w} = \frac{2\Delta A}{A_g}\,Q_{T(U)r} + (1 - \frac{2\Delta A}{A_g})Q_{T(U)g}$$

$$Q_{T(U)g} = \left(\frac{Au}{A_g}\right) b\ Q_{T(w)}$$

Where,

$Q_{T(U)w}$ is the weighted estimate of discharge QT for recurrence interval T at the ungaged site

ΔA is the absolute value of difference between the drainage areas of the streamflow-gaging station, (Ag) and the ungaged site, (Au)

$Q_{T(U)r}$ is the peak flow estimate for recurrence interval T at the ungaged site, derived from applicable regional equations

$Q_{T(U)g}$ is the peak flow estimate for recurrence interval T at the ungaged site, derived from the weighted estimate of peak discharge at the streamflow-gaging station QT(U)w

b is the exponent from the appropriate drainage area-only equation for Hydrologic Region, Region 2 in the case of Tenmile River.

HUC 2020008010 Maritje Kill:

The 10%, 2%, 1%, and 0.2% annual chance peak discharges were developed for the Maritje Kill River at 8 locations along the studied reach. Since there are no flows gages located on the stream, the discharges were computed based on flood frequency regression equations presented in SIR 2006-5112. The drainage-area only equations were used rather than the full parameter equation based on the observation that in this hydrologic region, for basins with smaller amounts of storage, the full parameter regression equations may underestimate discharges. The equations used for calculating the discharges follow:

$Q\ 10 = 197\ (A)^{0.695}$

$Q\ 50 = 378\ (A)^{0.666}$

$Q\ 100 = 480\ (A)^{0.656}$

$Q\ 500 = 782\ (A)^{0.638}$

Where,

A is drainage area, in square miles.

HUC 2020008070 Fishkill Creek:

The 10%, 2%, 1%, and 0.2% annual chance peak discharges were developed for Fishkill Creek at thirty locations along the studied reach. Log-Pearson Type III statistical analysis was conducted for the two gage locations and the resulting discharges were weighted with the ones that were computed using the regression equations. Before conducting the Log-Pearson Type III analysis, in order to optimize the available gage data and leverage the presence of 2 gages with substantial historical records, MOVE 2, a record extension technique was used to fill gaps in the historical gage data record.

At ungaged locations, discharges were computed based on the full parameter regression equations as presented in USGS SIR 2006-5112. For ungaged locations along Fishkill Creek where the drainage area is between 50% and 150% of the drainage area at the gaged location, the regression equation results were weighted with the Log-Pearson Type III calculated discharge transferred to the ungaged location.

The log-Pearson Type III method consists of fitting the logarithms of annual peak flows to a log-Pearson Type III distribution. The equation provided below forms the basis for the log-Pearson Type III analysis.

$Log\ Q = X + KS$

Where, X is the mean of logarithms of annual peak flows, S is standard deviation of logarithms of annual peak flows and K is a factor that is a function of the skew coefficient.

The full parameter equations used for computing the regression estimate (USGS 2006):

$Q\ 10 = 3.4\ (A)^{0.810}\ (ST+0.5)^{-0.218}\ (RUNF)^{0.600}\ (EL12+1)^{0.133}\ (SR)^{0.268}$

$Q\ 50 = 39.0\ (A)^{0.819}\ (ST+0.5)^{-0.188}\ (RUNF)^{0.528}\ (EL12+1)^{0.157}\ (SR)^{0.305}$

$Q\ 100 = 46.0\ (A)^{0.823}\ (ST+0.5)^{-0.177}\ (RUNF)^{0.505}\ (EL12+1)^{0.166}\ (SR)^{0.318}$

$Q\ 500 = 62.7\ (A)^{0.834}\ (ST+0.5)^{-0.155}\ (RUNF)^{0.466}\ (EL12+1)^{0.183}\ (SR)^{0.345}$

Where,

A is drainage area, in square miles.

SR is slope ratio, which is defined as the ratio of main-channel slope to basin slope within the drainage basin.

EL12 is percentage of drainage basin at or greater than 1,200 feet above sea level.

ST is basin storage, which is the percentage of total drainage area shown as lakes, ponds, and swamps (wetlands).

RUNF is Mean annual runoff, in inches.

The equation used for computing the weighted-average discharges at the gage is:

$$Q_{T(w)} = \frac{Q_{T(g)}\ (N) + Q_{T(r)}\ (E)}{N + E}$$

Where,
QT(w) is weighted peak discharge at the gaged site, in cfs, for T-year recurrence interval

QT(g) is the peak discharge at the gage, in cfs, calculated by Log-Pearson Type III frequency analysis of the station's peak discharge record, for the T-year recurrence interval

N is the number of years of annual peak-discharge record used to calculate QT(g) at the gaging station

QT(r) is the regional regression estimate of the peak discharge at the gaged site, in cfs, for the T-year recurrence interval

E is the average equivalent years of record associated with the regression equation (Table 2 in SIR 2006-5112) that was used to calculate QT(r)

Following are the equations used for computing discharges at the locations influenced by the gage.

$$Q_{T(U)w} = \frac{2\Delta A}{A_g} Q_{T(U)r} + (1 - \frac{2\Delta A}{A_g}) Q_{T(U)g}$$

$$Q_{T(U)g} = \left(\frac{Au}{A_g}\right) b Q_{T(w)}$$

Where,

$Q_{T(U)w}$ is the weighted estimate of discharge QT for recurrence interval T at the ungaged site

ΔA is the absolute value of difference between the drainage areas of the streamflow-gaging station, (Ag) and the ungaged site, (Au)

$Q_{T(U)r}$ is the peak flow estimate for recurrence interval T at the ungaged site, derived from applicable regional equations

$Q_{T(U)g}$ is the peak flow estimate for recurrence interval T at the ungaged site, derived from the weighted estimate of peak discharge at the streamflow-gaging station QT(U)w

b is the exponent from the appropriate drainage area-only equation for Hydrologic Region.

A summary of the drainage area-peak discharge relationships for all the streams studied by detailed methods is shown in Table 7, "Summary of Discharges."

TABLE 7 – SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
AMENIA STREAM					
Immediately upstream of confluence with Wassaic Creek	11.2	601	975	1,166	*
Immediately downstream of Lake Road	7.7	525	866	1,041	*
Immediately upstream of confluence of Tributary to Amenia Stream	3.3	206	333	396	*
BRANCH 1 GREAT SPRING CREEK					
Mouth of Great Spring Creek	1.8	360	520	660	960
BRANCH 1A HUDSON RIVER					
At confluence with Hudson River	1.7	393	565	700	975
BRANCH 1 SPROUT CREEK #1					
Mouth at Sprout Creek	4.07	650	940	1,180	1,800
BRANCH 2 SPROUT CREEK #1					
Mouth at Sprout Creek	3.69	610	900	1,120	1,720
BRANCH 1 WAPPINGER CREEK REACH 1					
At confluence with Wappinger Creek Reach 1	8.2	850	1,280	1,650	2,520
At Cross Section H	3.2	580	800	1,000	1,500
BRANCH 2 WAPPINGER CREEK REACH 1					
At confluence with Wappinger Creek Reach 1	11.8	990	1,520	1,930	3,000
At confluence of Branch 2B Wappinger Creek Reach 1	3.8	620	910	1,140	1,740
At confluence of Branch 2A Wappinger Creek Reach 1	1.5	440	610	780	1,200

*Data not available

TABLE 7 – SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
BRANCH 2A WAPPINGER CREEK REACH 1					
At confluence with Branch 2 Wappinger Creek Reach 1	1.1	300	420	550	900
BRANCH 2B WAPPINGER CREEK REACH 1					
At confluence with Branch 2 Wappinger Creek Reach 1	7.9	840	1,260	1,600	2,490
BRANCH 3 WAPPINGER CREEK REACH 1					
At confluence with Wappinger Creek Reach 1	1.23	600	800	900	1,350
BRANCH 4 WAPPINGER CREEK REACH 1					
At confluence with Wappinger Creek Reach 1	0.80	85	138	159	*
BRANCH 5 WAPPINGER CREEK REACH 1					
Cross section A	1.62	450	650	875	1,300
BRANCH 6 WAPPINGER CREEK REACH 1					
At confluence with Wappinger Creek Reach 1	0.83	460	600	710	970
BRANCH 7 WAPPINGER CREEK REACH 1					
Mouth at Wappinger Creek	3.20	580	840	1,060	1,600
Cross section L	2.08	510	800	1,000	1,550
BRANCH 8 WAPPINGER CREEK REACH 1					
At confluence with Wappinger Creek Reach 1	5.30	391	646	788	1,140

*Data not available

TABLE 7 – SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
BRANCH 9 WAPPINGER CREEK REACH 1					
Mouth of Wappinger Creek Reach 1	11.1	980	1,420	1,820	3,000
BRANCH 10 WAPPINGER CREEK REACH 1					
Mouth of Wappinger Creek Reach 1	1.7	300	430	545	810
BRANCH 11 WAPPINGER CREEK REACH 1					
Mouth of Wappinger Creek Reach 1	1.6	357	514	657	950
CASPER KILL CREEK					
At confluence with the Hudson River	12.22	1,000	1,530	1,950	3,070
Approximately 1,600 feet downstream of Hagen Drive	7.88	840	1,260	1,600	2,450
At downstream face of State Route 55	2.70	549	784	990	*
CLOVE BROOK					
At confluence with Pray Pond	6.7	430	800	1,010	1,690
Upstream of confluence of Sweezy Creek	4.9	340	630	790	1,320
Upstream of Tributary 1	3.8	280	530	660	1,110
Upstream of Tributary 2	3.2	240	450	570	960
CLOVE CREEK					
At its confluence with Fishkill Creek	20.0	1,630	2,830	3,330	5,010
At the upstream corporate limits	15.7	1,300	2,240	2,640	3,940
CLOVE MOUNTAIN CREEK					
At confluence with Jackson Creek Reach 2	2.1	240	340	430	690
Upstream of confluence of Walsh Creek	1.1	190	280	320	390

*Data not available

TABLE 7 – SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
CLOVE MOUNTAIN CREEK (continued)					
Approximately 100 feet downstream of lower West Clove Mountain Road culvert	0.98	180	260	300	390
Approximately 2,100 feet downstream of upper West Clove Mountain Road culvert	0.83	160	230	260	340
Upstream of confluence of Tributary	0.53	130	170	200	260
Approximately 1,000 feet upstream of upper West Clove Mountain Road culvert	0.40	110	140	160	210
Approximately 2,000 feet upstream of upper West Clove Mountain Road culvert	0.27	80	100	120	160
CRUM ELBOW CREEK					
At confluence with Hudson River	18.9	500	840	1,020	1,440
At South Cross Road	15.4	460	780	950	1,340
At Mills Cross Road	10.7	300	500	620	870
At Browns Pond Road	6.0	230	390	480	680
At Sipe Barracks Road	1.4	80	130	150	220
EAST BRANCH CROTON RIVER					
At the downstream Town of Pawling corporate limits	16.5	940	1,600	2,010	3,240
At the CONRAIL crossing	11.8	820	1,400	1,760	2,810
At the upstream corporate limits of Town of Pawling	1.5	350	620	770	1,150
At State Route 22	0.9	320	550	690	1,020

TABLE 7 – SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
EAST BRANCH WAPPINGER CREEK REACH 1					
Downstream Town of Pleasant Valley corporate limit	34	1,514	2,914	3,741	6,400
EIGHMY VILLE CREEK					
At White Schoolhouse Road	6.9	640	1,060	1,320	2,050
FALL KILL					
At Creek Road	13.2	790	1,330	1,660	2,660
Just upstream of Roosevelt Road	10.0	680	1,140	1,440	2,250
FALL KILL CREEK					
At downstream Town of Poughkeepsie corporate limits	17.40	1,150	1,820	2,300	*
FISHKILL CREEK					
Downstream of Pray Pond	6.9	544	937	1,140	1,730
Upstream of Tributary 1	7.0	548	943	1,150	1,740
Downstream of Tributary 1	8.6	709	1,210	1,480	2,230
Upstream of Tributary 3	11.1	740	1,260	1,540	2,310
At downstream corporate limits of Town of Union Vale	12.9	808	1,380	1,680	2,550
Downstream of Furnace Pond	12.9	818	1,400	1,710	2,590
Upstream of confluence of Whaley Lake Stream	17.8	1,190	2,030	2,460	3,710
Downstream of confluence of Whaley Lake Stream	35.6	1,976	3,375	4,109	6,218
Upstream of confluence of Frog Hollow Brook	38.5	2,013	3,430	4,172	6,291
Downstream of confluence of Frog Hollow Brook	43.4	2,181	3,713	4,520	6,805
At downstream corporate limits of Town of Beekman	47.9	2,212	3,768	4,586	6,905

*Data not available

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TABLE 7 – SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
FISHKILL CREEK (continued)					
Upstream of confluence of Sylvan Lake Outlet	50.1	2,212	3,768	4,586	6,905
Downstream of confluence of Sylvan Lake Outlet	53.6	2,214	3,768	4,580	6,880
Downstream of Dam 1	55.2	2,223	3,786	4,601	6,912
USGS gage No. 01372800	57.2	2,258	3,849	4,679	7,029
Downstream of Fishkill CreekCreek_t12	74.4	2,812	4,708	5,698	8,509
Upstream of confluence of Whortle Kill Creek	75.4	2,812	4,708	5,698	8,509
Downstream of confluence of Whortle Kill Creek	81.9	3,098	5,140	6,213	9,245
Downstream of confluence of unnamed tributary	86.3	3,220	5,330	6,430	9,580
Downstream of confluence of Sprout Creek	144.4	5,109	8,645	10,493	15,880
At downstream corporate limits of Town of East Fishkill Creek	156.2	5,419	9,220	11,216	17,041
Downstream of confluence of Clove Creek	180.9	5,859	10,101	12,359	18,939
At a point approximately 1,090 feet upstream of unnamed tributary at Glenham	184.7	5,915	10,223	12,519	19,219
At upstream corporate limits of City of Beacon	187.1	5,956	10,310	12,633	19,416
USGS gage No. 01373500	188.2	5,976	10,353	12,688	19,512
At the confluence with Hudson River	192.8	6,116	10,545	12,907	19,786
LITTLE WAPPINGER CREEK REACH 1					
Mouth of Wappinger Creek	35	1,120	1,980	2,465	3,960
At corporate limits of Town of Pleasant Valley	32.3	1,510	1,860	2,320	3,720
At Hollow Road	27.4	910	1,620	2,020	3,230
At Nine Partners Road	22.6	840	1,490	1,860	2,980

TABLE 7 – SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
MARITJE KILL					
Upstream of Crum Elbow Drive	1.24	229	436	553	897
Upstream of Hidden Brook Drive	2.05	323	605	766	1,232
Downstream of State Route 9G (Violet Avenue)	2.17	336	628	796	1,278
Downstream of Unnamed Dam 1	2.52	282	371	421	860
Downstream of New Bold	2.86	316	431	497	978
Downstream of St. Andrews Road	3.40	369	523	612	1,157
Downstream of U. S. Route 9	3.78	403	583	687	1,273
Downstream of bridge at confluence with Hudson	4.08	431	631	748	1,367
SAW KILL					
At confluence with Hudson River	26.4	1,970	3,460	4,460	7,460
At Linden Avenue	21.1	1,730	3,020	3,890	6,440
At County Route 199	16.1	1,480	2,560	3,300	5,400
SEELEY CREEK					
At confluence with Clove Brook	0.69	210	280	330	420
SPROUT CREEK #1					
At its confluence with Fishkill Creek	55.3	1,550	2,790	3,480	5,720
At the upstream corporate limits	54.8	1,550	2,790	3,480	5,720
At the confluence of Jackson Creek Reach 1	35.8	1,070	1,980	2,500	4,200
Downstream Town of LaGrange corporate limits	35.56	1,072	1,982	2,498	4,198
Cross section J	28.72	912	1,698	2,148	3,639
At State Route 55	23.93	790	1,486	1,888	3,221

TABLE 7 – SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
SPROUT CREEK #2					
At downstream Town of Union Vale corporate limits	11.6	580	1,060	1,340	2,210
Upstream of confluence of Tributary 1	10.3	530	970	1,230	2,020
Upstream of confluence of Willow Brook	6.8	380	700	890	1,490
Upstream of confluence of Tributary 2	6.0	340	640	810	1,350
Downstream of Verbank Village Road culvert	5.6	330	600	770	1,290
STONY CREEK					
At the downstream Village of Tivoli corporate limits	22.0	1,750	3,060	3,970	6,580
At the upstream Village of Tivoli corporate limits	17.8	1,540	2,690	3,480	5,700
SWAMP RIVER REACH 1					
At a point approximately 0.2 mile upstream of its confluence with Tenmile River	48.0	*	*	5,077	*
SWAMP RIVER REACH 2					
At the downstream Town of Pawling corporate limits	13.5	850	1,440	1,810	2,870
At Swamp Road	7.5	670	1,140	1,420	2,220
At the upstream corporate limits of Town of Pawling	2.5	430	740	910	1,370
SYLVAN LAKE OUTLET					
At confluence with Fishkill Creek	3.4	480	820	1,020	1,540
At Sylvan Drive	1.0	310	540	670	990
SWEEZY CREEK					
At confluence with Clove Brook	1.1	250	340	390	500
Approximately 1,000 feet upstream of confluence with Clove Brook	0.91	220	300	340	440

*Data not available

TABLE 7 – SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
SWEEZY CREEK (continued)					
Approximately 100 feet downstream of County Route 9 culvert	0.73	180	250	290	370
TENMILE RIVER					
At the upstream Town of Dover corporate limit	133.25	4,532	7,038	8,328	11,978
Upstream of an Unknown Tributary	133.32	4,537	7,048	8,340	11,997
Upstream of an Unknown Tributary	143.02	4569	7106	8413	12109
Upstream from the confluence of Swamp River	143.49	4797	7503	8897	12835
Downstream from the confluence of Swamp River	190.01	6878	12443	15558	15040
At South Dover Bridge	194.82	6999	12652	15815	25443
Downstream of removed weir	195.43	7014	12679	15847	25493
At USGS Gage Number 1200000	203.62	7217	13030	16280	26170
At the county boundary	209.77	7368	13291	16601	26672
TRIBUTARY TO AMENIA STREAM					
Immediately upstream of confluence with Amenia Stream	2.5	179	292	349	*
TRIBUTARY TO EAST BRANCH CROTON RIVER					
At county boundary	3.5	480	820	1020	1550
At the conrail crossing	1.3	340	580	720	1070
TRIBUTARY 1 TO FISHKILL CREEK					
At confluence with Fishkill Creek	3.4	480	820	1020	1550
At a point approximately 2.75 miles upstream of confluence with Fishkill Creek	1.1	320	550	690	1010

*Data not available

TABLE 7 – SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
TRIBUTARY 2 TO FISHKILL CREEK					
At the Town of Beekman upstream corporate limits	15.9	750	1200	14400	2550
WAPPINGER CREEK REACH 1					
At confluence with the Hudson River	210	7,825	14,980	19,228	32,866
Approximately 1,600 feet downstream of U.S. Route 9	197	7,459	14,279	18,328	31,328
At USGS gaging station	181	7,000	13,400	17,200	29,400
Approximately 2,900 feet downstream of Titus Road	169	6,650	12,728	16,337	27,925
Downstream Town of Pleasant Valley corporate limit	167	6,770	13,450	17,530	31,100
At mouth of Branch 9 Wappinger Creek Reach 1	161	6,430	12,640	16,420	28,860
Mouth of Great Spring Creek	146	5,590	10,630	13,630	23,310
Hurley Road bridge	134	4,950	9,000	11,360	18,700
Mouth of Little Wappinger Creek	99	3,790	7,020	8,890	14,830
USGS gaging station near Clinton Corners, New York	92.4	3,970	7,100	8,790	13,400
WAPPINGER CREEK REACH 2					
At Salt Point Turnpike	50.2	*	*	3,490	*
Approximately 1,500 feet upstream from Salt Point Turnpike	40.3	*	*	2,780	*
Approximately 500 feet upstream from Depot Lane	35.1	*	*	2,220	*

*Data not available

TABLE 7 – SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
WALSH CREEK					
At confluence with Clove Mountain Creek	1.00	240	330	380	480
Approximately 2,280 feet upstream of confluence with Clove Mountain Creek	0.85	210	290	340	420
Approximately 1,700 feet downstream of Bloomer Road culvert	0.68	180	250	290	360
Upstream of confluence of Tributary	0.47	140	190	220	280
Approximately 400 feet upstream of Bloomer Road	0.42	130	170	200	260
WASSAIC CREEK					
At Wassaic State School boundary	37.3	2,018	3,340	4,040	*
WEBATUCK CREEK REACH 1					
At a point approximately 670 feet upstream of confluence with the Tenmile River	80.0	2,808	4,139	4,912	*
Immediately upstream of County Route 3	74.8	2,667	3,931	4,666	*
WEBATUCK CREEK REACH 2					
At a point approximately 2.0 miles downstream of County Route 2	57.6	2,238	3,298	3,915	*
WEBATUCK CREEK REACH 3					
At the downstream Town of Northeast corporate limits	31.9	1,460	2,340	2,840	4,050
At Indian Lake Road	25.0	1,240	1,990	2,410	3,440
Downstream of the confluence of Kelsey Brook	16.2	920	1,480	1,790	2,560
Upstream of the confluence of Kelsey Brook	12.4	770	1,240	1,500	2,140
At a point approximately 8 miles upstream of the downstream Town of Northeast corporate limits	8.1	580	930	1,120	1,610

*Data not available

TABLE 7 – SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
WELLS BROOK					
At confluence with the Tenmile River	6.1	610	1,010	1,270	1,960
At a point approximately 0.8 mile upstream of its confluence with the Tenmile River	2.6	430	750	930	1,380
WHALEY LAKE STREAM					
At confluence with Fishkill Creek	17.8	990	1,670	2,120	3,430
At the confluence of Gardner Hollow Stream at State Route 55	14.1	870	1,470	1,850	2,950
At State Route 55	8.1	680	1,140	1,420	2,210
At Whaley Lake	4.1	520	870	1,090	1,650
WHORTLEKILL CREEK REACH 1					
At confluence with Fishkill Creek	7.6	870	1,270	1,560	2,430
At Creamery Road	5.0	760	1,090	1,330	2,030
At Taconic State Parkway	2.4	650	930	1,120	1,700
WHORTLEKILL CREEK REACH 2					
Downstream Town of LaGrange corporate limits	2.38	298	420	471	583
Upstream of confluence with tributary	1.35	194	274	307	380
WILLOW BROOK					
At confluence with Sprout Creek	3.2	200	380	490	850
Approximately 500 feet downstream of Tompkins Road culvert	2.6	170	320	410	720
Upstream of confluence of Tributary	2.3	150	290	380	660
Approximately 1,200 feet downstream of Waterbury Hill Road	1.9	140	260	340	580
Upstream of Waterbury Hill Road	1.4	100	200	260	470

The stillwater elevations have been determined for the 10-, 2-, 1-, and 0.2-percent annual chance floods for the flooding sources studied by detailed methods and are summarized in Table 8, "Summary of Stillwater Elevations."

TABLE 8 - SUMMARY OF STILLWATER ELEVATIONS

FLOODING SOURCE AND LOCATION	ELEVATION (feet NAVD*) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
HUDSON RIVER				
Entire shoreline within the Village of Tivoli	6.1	7.7	8.5	10.5
Entire shoreline affecting Rhinebeck	6.1	7.5	8.3	10.5
At Red Hook, New York	6.1	7.7	8.5	10.5
HUDSON RIVER (continued)				
Entire shoreline within City of Poughkeepsie	5.9	7.1	8.0	9.7
At Hyde Park, New York	5.8	7.2	7.9	9.7
At the Town of Wappinger	5.7	7.0	7.6	9.3
Entire shoreline within the City of Beacon	5.5	6.6	7.2	8.7
Entire shoreline affecting Town of Fishkill	5.5	6.6	7.2	8.7
INDIAN LAKE				
Entire shoreline affecting Northeast	628.3	628.3	628.3	628.37
LONG POND				
Entire shoreline within the county	344.5	344.7	344.8	345.17
SILVER LAKE				
Entire shoreline within the county	375.4	375.5	375.5	375.66
SYLVAN LAKE				
Entire shoreline within Beekman	323.8	324.2	324.4	324.8

*North American Vertical Datum of 1988

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the source studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Users should be aware that flood elevations shown on the FIRM represent rounded whole-foot elevations and may not exactly reflect the elevations shown on the Flood Profiles or in the Floodway Data tables in the FIS report. For construction

and/or floodplain management purposes, users are encouraged to use the flood elevation data presented in this FIS in conjunction with the data shown on the FIRM.

Cross sections for the flooding sources studied by detailed methods were obtained from field surveys. All bridges, dams, and culverts were field surveyed to obtain elevation data and structural geometry.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway was computed (Section 4.2), selected cross section locations are also shown on the FIRM (Exhibit 2). Flood profiles were drawn showing computed water-surface elevations for floods of the selected recurrence intervals.

Each incorporated community within Dutchess County, has a previously printed FIS report. The hydraulic analyses described in those reports have been compiled and are summarized below.

Pre-Countywide Analyses

Cross sections for the backwater analyses of Amenia Stream, Tributary to Amenia Stream, Wassaic Creek, Webatuck Creek Reach 1 were obtained from aerial photographs at a scale of 1:7,200 (Quinn and Associates, Inc.).

Water-surface elevations of floods of the selected recurrence intervals for Amenia Stream, Branch 1 Great Spring Creek, Branch 1 Wappinger Creek Reach 1, Branch 3 Wappinger Creek Reach 1, Branch 4 Wappinger Creek Reach 1, Branch 5 Wappinger Creek Reach 1, Branch 6 Wappinger Creek Reach 1, Branch 7 Wappinger Creek Reach 1, Branch 8 Wappinger Creek Reach 1, Branch 9 Wappinger Creek Reach 1, Branch 10 Wappinger Creek Reach 1, Branch 11 Wappinger Creek Reach 1, Casper Kill Creek, Clove Brook, Clove Mountain Creek, Crum Elbow Creek, East Branch Croton River, East Branch Wappinger Creek Reach 1, Eighmy Ville Creek, Fall Kill Creek, Fall Kill, Frog Hollow Brook, Great Spring Creek, Jackson Creek Reach 1, Jackson Creek Reach 2, Kelsey Brook, Landsman Kill, Little Wappinger Creek Reach 1, Rhinebeck Kill, Seeley Creek, Sprout Creek No. 1, Sprout Creek No. 2, Stony Creek, Swamp River, Sweeney Creek, Sylvan Lake Outlet, Tributary 1 to Fishkill Creek, Tributary 2 to Fishkill Creek, Tributary to Amenia Stream, Tributary to East Branch Croton River, Walsh Creek, Wappinger Creek Reach 1, Wappinger Creek Reach 2, Wassaic Creek, Webatuck Creek Reach 1, Wells Brook, Whaley Lake Stream, Whortle Kill Creek Reach 1, and Willow Brook were computed using the USACE HEC-2 step-backwater computer program (USACE, 1984). Flood profiles were drawn showing computed water-surface elevations for floods of the selected recurrence intervals.

Starting water-surface elevations for Amenia Stream, Branch 1 Great Spring Creek, Branch 3 Wappinger Creek Reach 1, Branch 4 Wappinger Creek Reach 1, Branch 6 Wappinger Creek Reach 1, Branch 8 Wappinger Creek Reach 1, Branch 9 Wappinger Creek Reach 1, Branch 10 Wappinger Creek Reach 1, Branch 11 Wappinger Creek Reach 1, Casper Kill Creek, East Branch Croton River, East

Branch Wappinger Creek Reach 1, Fall Kill Creek, Fall Kill, Frog Hollow Brook, Great Spring Creek, Jackson Creek Reach 1, Kelsey Brook, Little Wappinger Creek Reach 1, Sprout Creek No. 1, Swamp River, Sylvan Lake Outlet, Tenmile River, Tributary to Amenia Stream, Wassaic Creek, Webatuck Creek Reach 1, Wells Brook, Whaley Lake Stream, and Whortle Kill Creek Reach 1 were calculated using the slope/area method.

Countywide Analyses

In Dutchess County, revised analyses were performed for the Tenmile River, Fishkill Creek and Maritje Kill.

For all revised detailed streams, field survey was obtained for both natural stream cross sections as well as hydraulic obstructions such as bridges, culverts, dams, and weirs. This information was combined with topographic data provided by Dutchess County in the form of bare earth mass points and break lines to create a bare earth surface for the stream corridor. This information was preprocessed using the HEC GeoRAS interface for ArcGIS 9.2. The interface prepared the geometry file for HEC-RAS and was eventually used to visualize results from the simulations.

Water-surface elevations of flood profiles of the selected recurrence intervals for all revised detailed streams were computed using the USACE HEC-RAS computer program, Version 3.1.3 (USACE, 2005).

Where data was available, for Fishkill Creek and the Tenmile River, flood stage for the April 2007 event was used to calibrate the revised hydraulic analyses. Flood profiles were drawn showing computed water-surface elevations for floods of the selected recurrence intervals.

Starting water-surface elevations for all 4 frequencies studied for Fishkill Creek and Maritje Kill were based on Mean Higher High Water (MHHW) elevation for the Hudson River. MHHW was determined from tidal gages on the Hudson River. For the Tenmile River, starting water-surface elevations were determined using slope-area method.

The hydraulic analyses for this FIS were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if channel conveyance areas and hydraulic structures remain unobstructed, operate properly, and do not fail.

Roughness factors (Manning's "n") used in the hydraulic computations were chosen by engineering judgment and were based on field observations of the streams and floodplain areas. Roughness factors for all streams studied by detailed methods are shown in Table 9, "Manning's "n" Values."

TABLE 9 - MANNING'S "n" VALUES

Stream	Channel "n"	Overbank "n"
Amenia Stream	0.029-0.050	0.030-0.100
Branch 1 Great Spring Creek	0.03-0.04	0.08-0.20
Branch 1 Sprout Creek #1	0.015-0.035	0.015-0.100
Branch 1 Wappinger Creek Reach 1	0.025-0.04	0.04-0.100
Branch 10 Wappinger Creek Reach 1	0.03-0.04	0.08-0.20
Branch 11 Wappinger Creek Reach 1	0.03-0.04	0.08-0.20
Branch 1A Hudson River	0.025-0.04	0.04-0.100
Branch 2 Sprout Creek #1	0.015-0.035	0.015-0.100
Branch 2 Wappinger Creek Reach 1	0.025-0.04	0.04-0.100
Branch 2A Wappinger Creek Reach 1	0.025-0.04	0.04-0.100
Branch 2B Wappinger Creek Reach 1	0.025-0.04	0.04-0.100
Branch 3 Wappinger Creek Reach 1	0.030-0.040	0.080-0.120
Branch 4 Wappinger Creek Reach 1	0.015-0.050	0.060-0.080
Branch 5 Wappinger Creek Reach 1	0.015-0.035	0.015-0.100
Branch 6 Wappinger Creek Reach 1	0.030-0.040	0.080-0.120
Branch 7 Wappinger Creek Reach 1	0.015-0.035	0.015-0.100
Branch 8 Wappinger Creek Reach 1	0.030-0.040	0.080-0.120
Branch 9 Wappinger Creek Reach 1	0.03-0.04	0.08-0.20
Casper Kill Creek	0.024-0.060	0.030-0.120
Clove Brook	0.025-0.050	0.070-0.500
Clove Creek	0.030-0.045	0.050-0.200
Clove Mountain Creek	0.015-0.040	0.060-0.120
Crum Elbow Creek	0.030-0.045	0.045-0.200
East Branch Croton River	0.025-0.030	0.030-0.060
East Branch Wappinger Creek Reach 1	0.03-0.04	0.055-0.20
Eighmy Ville Creek	0.035-0.040	0.055-0.075
Fall Kill	0.030-0.045	0.045-0.090
Fall Kill Creek	0.024-0.040	0.040-0.120
Fishkill Creek	0.025-0.12	0.035-0.12
Frog Hollow Brook	0.030-0.050	0.040-0.065
Great Spring Creek	0.03-0.04	0.08-0.20
Jackson Creek Reach 1	0.015-0.035	0.015-0.100
Jackson Creek Reach 2	0.020-0.045	0.050-0.500
Kelsey Brook	0.035-0.040	0.060-0.080
Landsman Kill	0.030-0.040	0.055-0.070
Little Wappinger Creek Reach 1	0.03-0.04	0.050-0.100
Maritje Kill	0.035-0.12	0.035-1.00
Rhinebeck Kill	0.030-0.045	0.055-0.080
Saw Kill	0.030-0.040	0.045-0.090

TABLE 9 - MANNING'S "n" VALUES - continued

Stream	Channel "n"	Overbank "n"
Seeley Creek	0.030-0.050	0.050-0.080
Sprout Creek #1	0.015-0.060	0.015-0.100
Sprout Creek #2	0.024-0.045	0.045-0.120
Stony Creek	0.030-0.040	0.055-0.090
Swamp River Reach 2	0.030-0.035	0.060-0.100
Sweezy Creek	0.025-0.050	0.060-0.120
Sylvan Lake Outlet	0.03	0.055-0.200
Tenmile River	0.03-0.11	0.02-0.2
Tributary 1 to Fishkill Creek	0.030-0.040	0.050-0.065
Tributary 2 to Fishkill Creek	0.030-0.035	0.050-0.065
Tributary to Amenia Stream	0.029-0.050	0.050-0.100
Tributary to East Branch Croton River	0.030-0.055	0.055-0.065
Walsh Creek	0.04	0.080-0.120
Wappinger Creek Reach 1	0.015-0.040	0.015-0.100
Wappinger Creek Reach 2	0.040-0.050	0.050-0.100
Wassaic Creek	0.04	0.060-0.090
Webatuck Creek Reach 1	0.015-0.060	0.015-0.090
Webatuck Creek Reach 2	0.015-0.060	0.015-0.090
Webatuck Creek Reach 3	0.030-0.040	0.050-0.200
Wells Brook	0.030-0.040	0.060-0.070
Whaley Lake Stream	0.030-0.040	0.050-0.100
Whortlekill Creek Reach 1	0.015-0.035	0.015-0.100
Whortlekill Creek Reach 2	0.030-0.040	0.050-0.200
Willow Brook	0.015-0.045	0.050-1.000

Qualifying bench marks within a given jurisdiction that are cataloged by the National Geodetic Survey (NGS) and entered into the National Spatial Reference System (NSRS) as First or Second Order Vertical and have a vertical stability classification of A, B, or C are shown and labeled on the FIRM with their 6-character NSRS Permanent Identifier.

Bench marks cataloged by the NGS and entered into the NSRS vary widely in vertical stability classification. NSRS vertical stability classifications are as follows:

- Stability A: Monuments of the most reliable nature, expected to hold position/elevation well (e.g., mounted in bedrock)
- Stability B: Monuments which generally hold their position/elevation well (e.g., concrete bridge abutment)

- Stability C: Monuments which may be affected by surface ground movements (e.g., concrete monument below frost line)

- Stability D: Mark of questionable or unknown vertical stability (e.g., concrete monument above frost line, or steel witness post)

In addition to NSRS bench marks, the FIRM may also show vertical control monuments established by a local jurisdiction; these monuments will be shown on the FIRM with the appropriate designations. Local monuments will only be placed on the FIRM if the community has requested that they be included, and if the monuments meet the aforementioned NSRS inclusion criteria.

To obtain current elevation, description, and/or location information for bench marks shown on the FIRM for this jurisdiction, please contact the Information Services Branch of the NGS at (301) 713-3242, or visit their Web site at www.ngs.noaa.gov.

It is important to note that temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, they may be found in the Technical Support Data Notebook associated with this FIS and FIRM. Interested individuals may contact FEMA to access this data.

3.3 Vertical Datum

All FISs and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum in use for newly created or revised FISs and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD 29). With the finalization of the North American Vertical Datum of 1988 (NAVD 88), many FIS reports and FIRMs are being prepared using NAVD 88 as the referenced vertical datum.

All flood elevations shown in this FIS report and on the FIRM are referenced to NAVD 88. Structure and ground elevations in the community must, therefore, be referenced to NAVD 88. It is important to note that adjacent communities may be referenced to NGVD 29. This may result in differences in base flood elevations across the corporate limits between the communities.

Prior versions of the FIS report and FIRM were referenced to NGVD 29. When a datum conversion is effected for an FIS report and FIRM, the Flood Profiles, base flood elevations (BFEs) and ERMs reflect the new datum values. To compare structure and ground elevations to 1-percent annual chance flood elevations shown in the FIS and on the FIRM, the subject structure and ground elevations must be referenced to the new datum values.

As noted above, the elevations shown in the FIS report and on the FIRM for Dutchess County are referenced to NAVD 88. Ground, structure, and flood

elevations may be compared and/or referenced to NGVD 29 by applying a standard conversion factor. The conversion factor to NGVD 29 is +0.8. The conversion between the datums may be expressed as an equation:

NGVD 29 = NAVD 88 + 0.8 foot

The BFEs shown on the FIRM represent whole-foot rounded values. For example, a BFE of 102.4 will appear as 102 on the FIRM and 102.6 will appear as 103. Therefore, users that wish to convert the elevations in this FIS to NGVD 29 should apply the stated conversion factor(s) to elevations shown on the Flood Profiles and supporting data tables in the FIS report, which are shown at a minimum to the nearest 0.1 foot.

For more information on NAVD 88, see Converting the National Flood Insurance Program to the North American Vertical Datum of 1988, FEMA Publication FIA-20/June 1992, or contact the Spatial Reference System Division, National Geodetic Survey, NOAA, Silver Spring Metro Center, 1315 East-West Highway, Silver Spring, Maryland 20910 (Internet address http://www.ngs.noaa.gov).

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. To assist in this endeavor, each FIS provides 1-percent annual chance floodplain data, which may include a combination of the following: 10-, 2-, 1-, and 0.2-percent annual chance flood elevations; delineations of the 1- and 0.2-percent annual chance floodplains; and 1-percent annual chance floodway. This information is presented on the FIRM and in many components of the FIS, including Flood Profiles, Floodway Data tables, and Summary of Stillwater Elevation tables. Users should reference the data presented in the FIS as well as additional information that may be available at the local community map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent annual chance flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent annual chance flood is employed to indicate additional areas of flood risk in the county. For the streams studied in detail, the 1- and 0.2-percent annual chance floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using bare earth digital elevation data provided by Dutchess County. The topographic data was composed of bare earth mass points and 3-D breaklines. The point elevation data is comprised mostly of LiDAR with some spot heights generated from aerial photography flown within the same year in support of digital orthophotography acquisition. The 3-D breaklines were produced from 1"=1000' high precision color aerial photography collected in 2001 using photogrammetric methods. Water surface elevation triangular irregular networks (TINs) were created from the model cross sections and

intersected with the bare earth ground TIN to produce the floodplain corridor. The resulting floodplains were smoothed and incorporated in the DFIRM.

Similarly, using datum-converted effective flood profiles for non-revised, detailed streams, all flood boundaries were made current with the topography supplied by the county to FEMA.

The 1- and 0.2-percent annual chance floodplain boundaries are shown on the FIRM (Exhibit 2). On this map, the 1-percent annual chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A and AE and AO), and the 0.2-percent annual chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1- and 0.2-percent annual chance floodplain boundaries are close together, only the 1-percent annual chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 1-percent annual chance floodplain boundary is shown on the FIRM (Exhibit 2). These boundaries were also delineated using the topographic data provided by Dutchess County.

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the NFIP, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 1-percent annual chance floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the 1-percent annual chance flood can be carried without substantial increases in flood heights. Minimum federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. The floodways in this FIS are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodways presented in this FIS were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross sections (Table 10). The computed floodways are shown on the FIRM (Exhibit 2). In cases where the floodway and 1-percent annual chance floodplain boundaries are either close together or collinear, only the floodway boundary is shown.

There is no floodway data table information available for Eighmy Ville Creek and the Hudson River.

Encroachment into areas subject to inundation by floodwaters having hazardous velocities aggravates the risk of flood damage, and heightens potential flood hazards by further increasing velocities. A listing of stream velocities at selected cross sections is provided in Table 10, "Floodway Data." In order to reduce the risk of property damage in areas where the stream velocities are high, the community may wish to restrict development in areas outside the floodway.

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FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Amenia Stream								
A	792[1]	100	384	3.0	455.5	455.5	456.1	0.6
B	11,121[1]	214	643	1.8	472.3	472.3	472.8	0.5
C	16,351[1]	180	455	2.6	494.8	494.8	495.0	0.2
D	23,430[1]	100	429	2.4	541.3	541.3	541.6	0.3
E	28,682[1]	630	815	0.5	548.4	548.4	548.7	0.3
Branch 1 Great Spring Creek								
A	600[2]	64	241	2.7	212.8	211.1[3]	212.0	0.9
B	1,050[2]	176	632	1.0	212.8	211.8[3]	212.8	1.0
C	1,142[2]	77	314	2.1	212.8	212.6[3]	213.4	0.8
D	2,020[2]	207	571	1.2	213.2	213.2	214.1	0.9
E	2,081[2]	531	2,830	0.2	217.2	217.2	218.0	0.8
F	2,960[2]	137	484	1.4	217.3	217.3	218.1	0.8
G	4,070[2]	29	96	6.9	230.0	230.0	230.5	0.5
H	4,207[2]	84	551	1.2	235.8	235.8	236.7	0.9
I	4,615[2]	257	1,066	0.6	236.0	236.0	236.9	0.9
J	4,765[2]	110	481	1.4	238.5	238.5	239.3	0.8
K	5,300[2]	88	177	3.7	249.3	249.3	249.3	0.0
L	5,875[2]	217	254	2.6	279.0	279.0	279.0	0.0

[1]Feet above confluence with Wassaic Creek
[2]Feet above Great Spring Creek
[3]Elevation computed without consideration of backwater effects from Great Spring Creek

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

AMENIA STREAM – BRANCH 1 GREAT SPRING CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Branch 1 Sprout Creek #1								
A	100[1]	110	369	3.2	303.0	301.6[2]	302.5	0.9
B	2,140[1]	155	534	2.2	305.1	305.1	305.8	0.7
C	4,700[1]	203	995	1.2	308.8	308.8	309.7	0.9
D	6,200[1]	520	2,527	0.5	309.2	309.2	310.1	0.9
E	7,080[1]	362	1,552	0.8	309.3	309.3	310.2	0.9
F	7,218[1]	262	1,343	0.9	314.3	314.3	315.2	0.9
G	7,368[1]	158	1,035	1.1	314.4	314.4	315.3	0.9
H	7,420[1]	158	2,378	0.5	314.4	314.4	315.3	0.9

[1]Feet above confluence with Sprout Creek #1
[2]Elevation computed without consideration of backwater effects from Sprout Creek #1

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

BRANCH 1 SPROUT CREEK #1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Branch 1 Wappinger Creek Reach 1								
A	126	30	208	7.8	8.1	5.7[2]	6.3	0.6
B	500	42	220	7.4	8.1	7.2[2]	7.5	0.3
C	1,800	48	203	8.0	60.5	60.5	60.9	0.4
D	3,645	40	147	11.0	111.5	111.5	111.5	0.0
E	3,878	21	119	13.6	121.3	121.3	121.6	0.3
F	4,067	267	1,535	1.1	125.7	125.7	126.6	0.9
G	5,300	70	580	2.8	125.9	125.9	126.7	0.8
H	6,453	92	433	2.3	126.3	126.3	127.1	0.8
I	9,000	149	405	2.5	133.7	133.7	134.7	1.0
J	9,710	310	722	1.4	136.3	136.3	137.1	0.8
K	9,895	510	2,155	0.5	136.4	136.4	137.3	0.9
L	10,215	66	205	4.9	140.9	140.9	140.9	0.0
M	10,709	35	240	4.2	145.3	145.3	145.5	0.2
N	11,015	103	355	2.8	148.7	148.7	148.9	0.2
O	11,198	269	1,314	0.8	149.1	149.1	149.4	0.3
P	11,445	627	2,564	0.4	149.3	149.3	149.6	0.3
Q	11,920	554	2,603	0.4	149.3	149.3	149.6	0.3

[1]Feet above confluence with Wappinger Creek Reach 1
[2]Elevation computed without consideration of backwater effects from Wappinger Creek Reach 1

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

BRANCH 1 WAPPINGER CREEK REACH 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Branch 10 Wappinger Creek Reach 1								
A	50	19	67	8.1	214.0	203.4[2]	203.9	0.5
B	1,160	31	75	7.3	218.0	218.0	218.0	0.0
C	1,323	47	89	6.1	221.5	221.5	221.5	0.0
D	1,925	25	97	5.6	227.3	227.3	227.4	0.1
E	2,112	27	312	1.7	235.3	235.3	236.3	1.0
F	2,535	364	3,013	0.2	235.4	235.4	236.4	1.0
G	2,716	343	2,919	0.2	235.4	235.4	236.4	1.0
Branch 11 Wappinger Creek Reach 1								
A	187	100	799	0.8	238.1	238.1	239.1	1.0
B	640	88	192	3.4	238.5	238.5	239.0	0.5
C	875	19	63	10.4	239.4	239.4	239.4	0.0
D	1,430	26	102	6.5	241.6	241.6	242.3	0.7
E	1,650	21	73	9.0	243.0	243.0	243.0	0.0
F	2,525	19	75	8.8	248.6	248.6	249.2	0.6
G	2,700	27	128	5.1	249.6	249.6	250.1	0.5
H	3,280	23	87	7.5	253.4	253.4	253.9	0.5

[1]Feet above confluence with Wappinger Creek Reach 1
[2]Elevation computed without consideration of backwater effects from Wappinger Creek Reach 1

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

BRANCH 10 WAPPINGER CREEK REACH 1 - BRANCH 11 WAPPINGER CREEK REACH 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Branch 1A Hudson River								
A	125[1]	75	283	2.5	11.6	11.6	11.6	0.0
B	451[1]	106	312	2.2	11.6	11.6	11.8	0.2
C	612[1]	50	206	3.4	17.2	17.2	17.9	0.7
D	865[1]	70	130	5.4	20.2	20.2	21.0	0.8
E	2,010[1]	65	224	3.1	35.8	35.8	36.7	0.9
F	2,600[1]	74	154	4.5	41.5	41.5	41.5	0.0
G	3,677[1]	225	414	1.7	45.1	45.1	47.7	0.6
Branch 2 Sprout Creek #1								
A	200[2]	170	340	3.3	325.0	325.0	325.0	0.0
B	555[2]	127	634	1.8	327.8	327.8	328.8	1.0
C	690[2]	249	471	2.4	328.3	328.3	329.1	0.8
D	2,230[2]	36	165	6.8	337.5	337.5	337.5	0.0
E	3,168[2]	43	270	4.2	348.2	348.2	348.2	0.0
F	3,950[2]	153	292	3.8	353.7	353.7	353.7	0.0
G	4,600[2]	23	102	11.0	361.9	361.9	362.0	0.1
H	6,125[2]	126	364	3.1	369.2	369.2	369.8	0.6
I	6,302[2]	435	2,171	0.5	378.0	378.0	378.0	0.0
J	7,150[2]	253	947	1.2	378.1	378.1	378.0	0.0
K	7,400[2]	544	440	2.5	379.0	379.0	379.0	0.0
L	7,670[2]	321	404	2.8	383.8	383.8	383.8	0.0

[1]Feet above confluence with Hudson River
[2]Feet above Sprout Creek #1

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

BRANCH 1A HUDSON RIVER – BRANCH 2 SPROUT CREEK #1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Branch 2 Wappinger Creek Reach 1								
A	236	35	269	7.2	107.9	104.3[2]	104.5	0.2
B	1,800	84	335	5.8	111.7	108.2[2]	109.1	0.9
C	2,136	67	516	3.7	112.8	112.8	112.8	0.0
D	2,300	76	394	4.9	112.8	112.8	112.8	0.0
E	2,526	477	5,004	0.2	129.5	129.5	129.5	0.0
F	2,840	37	273	4.2	129.5	129.5	129.5	0.0
G	4,100	31	107	10.7	146.6	146.6	146.8	0.2
H	6,058	300	1,113	1.0	149.5	149.5	150.5	1.0
I	6,845	109	435	2.6	150.1	150.1	150.8	0.7
J	8,000	145	609	1.9	152.6	152.6	153.3	0.7
K	9,500	357	1,299	0.9	153.1	153.1	154.0	0.9
L	11,500	70	285	4.0	155.0	155.0	155.0	0.0
M	13,000	78	329	3.5	156.7	156.7	157.7	1.0
N	13,610	201	304	2.6	159.3	159.3	159.5	0.2
O	14,048	203	613	1.3	160.3	160.3	160.7	0.4
P	15,250	22	74	10.5	171.7	171.7	172.0	0.3
Q	15,635	150	1,053	0.7	181.0	181.0	181.2	0.2
R	15,787	120	952	0.8	183.1	183.1	183.1	0.0
S	16,942	20	72	10.8	192.8	192.8	193.1	0.3
T	17,875	43	141	5.5	212.1	212.1	212.1	0.0
U	18,880	19	71	11.0	218.1	218.1	218.2	0.1
V	19,090	245	301	2.6	223.6	223.6	223.6	0.0
W	19,470	340	1,262	0.6	224.2	224.2	224.2	0.0

[1]Feet above confluence with Wappinger Creek Reach 1
[2]Elevation computed without consideration of backwater effects from Wappinger Creek Reach 1

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

BRANCH 2 WAPPINGER CREEK REACH 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Branch 2A Wappinger Creek Reach 1								
A	583	75	188	2.9	161.3	161.3	161.9	0.6
B	1,520	64	127	4.3	164.5	164.5	164.5	0.0
C	1,675	211	295	1.9	165.2	165.2	165.2	0.0
D	2,030	55	155	3.5	165.8	165.8	165.8	0.0
E	2,341	107	521	1.1	170.2	170.2	170.5	0.3
F	3,340	65	128	4.3	176.5	176.5	176.5	0.0
Branch 2B Wappinger Creek Reach 1								
A	175	100	521	3.1	130.6	130.6	131.4	0.8
B	775	74	304	5.3	131.5	131.5	132.5	1.0
C	1,090	139	703	2.3	132.8	132.8	133.8	1.0
D	2,600	147	517	3.1	135.4	135.4	135.8	0.4
E	3,129	75	361	4.4	137.6	137.6	138.0	0.4
F	4,190	41	147	10.9	142.0	142.0	142.0	0.0
G	5,046	37	167	9.6	164.9	164.9	165.2	0.3
H	5,250	75	653	2.5	169.5	169.5	169.6	0.1
I	5,418	70	555	2.9	176.2	176.2	176.3	0.1
J	6,600	68	230	7.0	179.2	179.2	179.2	0.0
K	7,998	96	513	3.1	183.9	183.9	184.3	0.4

[1]Feet above confluence with Branch 2 Wappinger Creek

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

BRANCH 2A WAPPINGER CREEK REACH 1 - BRANCH 2B WAPPINGER CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Branch 3 Wappinger Creek Reach 1								
A	300	18	76	11.8	123.0	123.0	123.4	0.4
B	597	67	293	3.1	142.6	142.6	143.4	0.8
C	1,499	100	228	3.9	157.0	157.0	157.0	0.0
D	1,501	208	409	2.2	158.0	158.0	158.1	0.1
E	1,730	75	252	3.6	159.2	159.2	159.5	0.3
F	2,030	157	593	1.5	161.8	161.8	162.5	0.7
G	3,700	78	247	3.6	165.7	165.7	166.7	1.0
Branch 4 Wappinger Creek Reach 1								
A	930	43	112	1.4	122.5	122.5	122.5	0.0
B	3,846	30	147	1.1	158.3	158.3	159.0	0.7
Branch 5 Wappinger Creek Reach 1								
A	10,708	40	116	7.5	215.2	215.2	215.6	0.4
B	11,097	45	166	5.6	218.8	218.8	219.3	0.5
C	11,667	31	91	9.6	224.2	224.2	224.3	0.1
D	12,375	93	183	4.8	240.7	240.7	241.3	0.6
E	12,736	26	178	4.9	264.3	264.3	264.3	0.0
F	13,300	41	109	8.0	290.0	290.0	290.0	0.0
G	13,900	109	183	4.8	301.8	301.8	301.8	0.0
H	14,610	70	256	3.4	304.8	304.8	304.9	0.1
I	15,220	40	115	7.6	318.6	318.6	318.9	0.3
J	15,400	236	6,381	0.1	327.3	327.3	327.8	0.5
K	16,660	69	169	6.6	332.0	332.0	332.2	0.2
L	17,490	24	83	10.5	343.9	343.9	344.7u	0.0

[1]Feet above confluence with Wappinger Creek Reach 1

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

BRANCH 3 WAPPINGER CREEK REACH 1 – BRANCH 4 WAPPINGER CREEK REACH 1 – BRANCH 5 WAPPINGER CREEK REACH 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Branch 6 Wappinger Creek Reach 1								
A	300	120	300	2.4	166.7	160.1[2]	160.7	0.6
B	905	120	293	2.4	166.9	161.2[2]	161.4	0.2
C	1,036	84	330	2.2	167.0	162.2[2]	162.4	0.2
D	1,450	180	220	3.2	167.0	163.8[2]	163.8	0.0
E	3,400	89	360	2.0	167.0	167.0	167.7	0.7
Branch 7 Wappinger Creek Reach 1								
A	100	94	198	5.3	168.0	164.7[2]	164.8	0.1
B	950	141	238	4.5	174.4	174.4	174.4	0.0
C	2,000	45	147	7.2	186.2	186.2	186.6	0.4
D	2,300	64	240	4.4	189.1	189.1	190.0	0.9
E	2,700	120	338	3.1	194.9	194.9	195.0	0.1
F	3,220	34	109	9.8	204.2	204.2	204.2	0.0
G	4,475	37	130	8.2	245.5	245.5	245.5	0.0
H	4,655	135	1,301	0.8	257.4	257.4	258.4	1.0
I	4,900	79	350	3.0	257.4	257.4	258.4	1.0
J	5,800	21	90	11.8	284.2	284.2	284.2	0.0
K	6,730	56	138	7.7	314.9	314.9	314.9	0.0
L	7,020	150	984	1.1	325.5	325.5	326.5	1.0
M	7,890	85	165	6.1	349.8	349.8	349.8	0.0
N	8,090	168	1,221	0.8	360.9	360.9	360.9	0.0
O	8,395	100	667	1.5	361.0	361.0	361.0	0.0

[1]Feet above confluence with Wappinger Creek Reach 1
[2]Elevation computed without consideration of backwater effects from Wappinger Creek Reach 1

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

BRANCH 6 WAPPINGER CREEK REACH 1 -
BRANCH 7 WAPPINGER CREEK REACH 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Branch 8 Wappinger Creek Reach 1								
A	192	28	175	4.5	190.1	190.1	191.1	1.0
B	705	62	332	2.4	192.0	192.0	192.8	0.8
C	1,273	99	442	18.0	196.7	196.7	192.7	1.0
D	1,400	410	4,821	0.2	196.9	196.9	197.9	1.0
E	1,700	610	7,704	0.1	196.9	196.9	197.9	1.0
F	1,815	556	4,450	0.2	196.9	196.9	197.9	1.0
Branch 9 Wappinger Creek Reach 1								
A	100	37	222	8.2	207.2	199.4[2]	200.0	0.6
B	370	32	176	10.3	207.2	202.8[2]	203.1	0.3
C	1,240	37	209	8.7	207.2	206.3[2]	206.9	0.6
D	1,365	126	1,137	1.6	223.0	223.0	224.0	1.0
E	1,940	84	823	2.2	223.1	223.1	224.1	1.0
F	2,378	50	330	5.5	223.3	223.3	224.2	0.9
G	2,850	33	237	7.7	229.3	229.3	230.3	1.0
H	2,985	130	1,346	1.4	245.9	245.9	246.8	0.9
I	3,510	135	1,155	1.6	245.9	245.9	246.8	0.9
J	4,096	40	1,001	1.8	246.1	246.1	246.9	0.8
K	4,695	122	978	1.9	252.1	252.1	253.1	1.0

[1]Feet above confluence with Wappinger Creek Reach 1
[2]Elevation computed without consideration of backwater effects from Wappinger Creek Reach 1

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

BRANCH 8 WAPPINGER CREEK REACH 1 -
BRANCH 9 WAPPINGER CREEK REACH 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Casper Kill Creek								
A	184	44	349	5.6	7.9	7.1[2]	8.0	0.9
B	655	38	167	11.7	11.6	11.6	11.8	0.2
C	748	130	1,185	1.6	19.2	19.2	19.4	0.2
D	970	21	168	11.6	20.0	20.0	20.6	0.6
E	1,416	43	390	5.0	21.1	21.1	22.0	0.9
F	1,800	26	228	8.5	22.3	22.3	23.1	0.8
G	2,780	909	22,931	0.1	36.2	36.2	37.1	0.9
H	4,350	1,070	25,184	0.1	36.2	36.2	37.1	0.9
I	5,280	138	1,441	1.4	36.2	36.2	37.1	0.9
J	6,120	411	4,740	0.4	36.4	36.4	37.3	0.9
K	6,250	911	9,300	0.2	36.4	36.4	37.3	0.9
L	7,900	344	2,438	0.8	36.5	36.5	37.4	0.9
M	9,230	37	185	10.5	37.7	37.7	38.3	0.6
N	10,354	329	1,749	1.1	41.4	41.4	41.4	0.0
O	11,960	112	773	2.5	54.1	54.1	54.9	0.8
P	13,520	45	173	11.3	70.9	70.9	70.9	0.0
Q	13,990	297	1,578	1.2	83.3	83.3	83.5	0.2
R	14,925	159	1,150	1.7	88.4	88.4	89.3	0.8
S	17,620	223	1,486	1.3	89.2	89.2	90.0	0.8
T	18,668	84	605	3.2	89.6	89.6	90.3	0.7
U	19,660	40	294	6.6	90.3	90.3	91.2	0.9
V	20,370	102	806	2.4	93.3	93.3	94.0	0.7
W	21,425	60	355	4.5	93.8	93.8	94.4	0.6
X	22,420	252	600	2.7	96.9	96.9	97.3	0.4
Y	23,171	172	851	1.9	101.4	101.4	101.6	0.2
Z	24,654	481	3,107	0.5	105.5	105.5	106.1	0.6

[1]Feet above confluence with the Hudson River
[2]Elevation computed without consideration of backwater effects from the Hudson River

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

CASPER KILL CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Casper Kill Creek (continued)								
AA	25,900	376	1,891	0.8	105.8	105.8	106.4	0.6
AB	26,450	81	239	6.7	106.2	106.2	106.7	0.5
AC	28,375	308	1,080	1.5	111.7	111.7	111.8	0.1
AD	30,000	101	375	4.3	112.9	112.9	113.5	0.6
AE	32,390	230	1,794	0.9	115.0	115.0	115.7	0.7
AF	33,044	445	3,735	0.4	121.9	121.9	121.9	0.0
AG	34,100	358	1,950	0.8	122.0	122.0	122.0	0.0
AH	35,850	231	924	1.7	122.5	122.5	122.6	0.1
AI	37,580	41	167	9.6	125.3	125.3	125.4	0.1
AJ	39,200	39	270	5.9	129.3	129.3	129.6	0.3
AK	39,550	184	960	1.2	130.7	130.7	131.2	0.5
AL	39,870	47	267	4.3	130.8	130.8	131.3	0.5
AM	40,320	23	156	7.4	133.1	133.1	133.6	0.5
AN	40,870	43	329	3.5	134.4	134.4	134.9	0.5
AO	41,830	62	327	3.5	135.1	135.1	135.6	0.5
AP	42,250	128	802	1.4	136.8	136.8	136.8	0.0
AQ	43,360	29	105	11.0	137.7	137.7	137.7	0.0
AR	45,780	520	2,681	0.4	152.2	152.2	153.0	0.8
AS	47,450	280	2,679	0.4	156.3	156.3	156.5	0.2

[1]Feet above confluence with the Hudson River

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

CASPER KILL CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Clove Brook								
A	500[1]	459	779	1.3	496.5	496.5	497.2	0.7
B	1,148[1]	300	761	1.3	498.1	498.1	498.9	0.8
C	2,600[1]	385	388	2.6	499.8	499.8	500.6	0.8
D	3,500[1]	152	370	2.1	504.6	504.6	505.3	0.7
E	4,400[1]	180	467	1.7	507.5	507.5	508.4	0.9
F	5,400[1]	226	381	2.1	511.0	511.0	511.8	0.8
G	6,400[1]	186	517	1.5	514.9	514.9	515.8	0.9
H	7,600[1]	129	312	2.1	520.2	520.2	521.2	1.0
I	8,800[1]	180	237	2.8	525.7	525.7	526.5	0.8
J	9,600[1]	160	208	2.7	532.4	532.4	533.4	1.0
K	10,300[1]	106	198	2.9	538.7	538.7	539.7	1.0
Clove Creek								
A	1,700[2]	90	520	5.8	211.2	208.7[3]	209.7	1.0
B	3,140[2]	90	743	4.0	214.5	214.5	215.2	0.7
C	5,730[2]	90	709	4.2	217.3	217.3	218.2	0.9
D	8,440[2]	90	617	4.8	225.1	225.1	225.9	0.8
E	11,700[2]	75	378	7.9	232.6	232.6	233.2	0.6
F	13,490[2]	100	699	4.3	238.1	238.1	238.9	0.8
G	15,240[2]	75	527	5.7	244.9	244.9	245.3	0.4
H	17,180[2]	325	1,197	2.5	247.5	247.5	248.1	0.6

[1]Feet above confluence with Pray Pond
[2]Feet above confluence with Fishkill Creek
[3]Elevation computed without consideration of backwater effects from Fishkill Creek

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

CLOVE BROOK – CLOVE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Clove Mountain Creek								
A	170[1]	23	59	7.3	502.2	502.2	502.2	0.0
B	1,230[1]	19	62	5.2	519.2	519.2	519.9	0.7
C	2,250[1]	13	37	8.1	554.7	554.7	554.7	0.0
D	5,400[1]	46	205	1.3	665.1	665.1	665.7	0.6
E	6,015[1]	52	157	1.3	667.8	667.8	668.6	0.8
F	7,000[1]	31	67	2.4	678.2	678.2	679.2	1.0
G	7,900[1]	21	46	3.5	689.6	689.6	690.5	0.9
H	8,800[1]	11	24	5.0	702.9	702.9	703.6	0.7
Crum Elbow Creek								
A	800[2]	35	104	9.8	10.4	10.4	10.4	0.0
B	3,235[2]	55	370	2.8	108.7	108.7	108.7	0.0
C	3,745[2]	115	770	1.3	112.6	112.6	112.6	0.0
D	5,310[2]	195	324	3.1	133.1	133.1	133.1	0.0
E	7,380[2]	45	115	8.9	154.3	154.3	154.3	0.0
F	9,140[2]	50	167	6.1	177.0	177.0	177.0	0.0
G	11,430[2]	44	177	5.8	201.9	201.9	202.4	0.5
H	12,650[2]	60	246	4.1	213.8	213.8	213.9	0.1
I	15,150[2]	131	231	4.4	221.5	221.5	221.8	0.3
J	17,890[2]	264	755	1.3	230.7	230.7	230.7	0.0
K	21,180[2]	55	288	3.5	235.1	235.1	235.1	0.0
L	24,420[2]	40	286	3.6	238.0	238.0	238.2	0.2
M	25,850[2]	55	336	3.0	238.3	238.3	238.9	0.6
N	27,790[2]	70	350	2.9	239.8	239.8	240.4	0.6

[1]Feet above confluence with Jackson Creek Reach 2
[2]Feet above confluence with Hudson River

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

CLOVE MOUNTAIN CREEK – CRUM ELBOW CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Crum Elbow Creek (continued)								
O	30,780	50	146	7.0	244.4	244.4	244.6	0.2
P	31,650	57	349	2.9	246.3	246.3	247.0	0.7
Q	33,730	70	215	4.0	248.8	248.8	249.3	0.5
R	37,330	90	376	2.3	253.7	253.7	254.6	0.9
S	39,720	100	449	1.9	256.2	256.2	256.9	0.7
T	41,990	100	399	2.1	258.1	258.1	259.1	1.0
U	45,640	80	250	3.4	268.3	268.3	268.4	0.1
V	47,170	40	225	2.8	272.6	272.6	273.0	0.4
W	49,450	30	137	4.5	275.0	275.0	275.6	0.6
X	51,470	40	179	3.5	278.6	278.6	279.1	0.5
Y	53,720	40	153	4.1	280.2	280.2	280.8	0.6
Z	54,560	35	150	4.1	281.8	281.8	282.5	0.7
AA	56,510	45	180	3.5	288.4	288.4	288.7	0.3
AB	58,220	97	286	2.2	289.7	289.7	290.5	0.8
AC	60,080	64	195	3.2	292.3	292.3	293.0	0.7
AD	63,040	27	110	2.9	297.8	297.8	298.5	0.7
AE	64,960	40	137	2.3	300.1	300.1	300.8	0.7
AF	67,060	20	71	4.5	312.0	312.0	312.7	0.7
AG	69,840	19	42	7.7	321.7	321.7	322.5	0.8
AH	71,550	17	48	6.7	344.7	344.7	345.3	0.6
AI	73,740	21	57	5.6	386.5	386.5	387.1	0.6
AJ	75,640	25	50	6.4	411.5	411.5	411.6	0.1

[1]Feet above confluence with Hudson River

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

CRUM ELBOW CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
East Branch Croton River								
A	400[1]	318	1,369	1.4	433.7	433.7	434.7	1.0
B	1,420[1]	255	1,278	1.5	434.9	434.9	435.4	0.5
C	3,730[1]	225	1,003	1.1	436.5	436.5	436.7	0.2
D	6,250[1]	230	1,156	1.0	436.7	436.7	437.0	0.3
E	9,220[1]	210	804	1.1	437.1	437.1	437.6	0.5
F	12,000[1]	120	550	1.7	440.4	440.4	440.6	0.2
G	13,640[1]	150	796	0.9	442.7	442.7	442.9	0.2
H	15,040[1]	160	813	0.9	442.8	442.8	443.0	0.2
I	17,060[1]	90	253	2.9	449.0	449.0	449.1	0.1
East Branch Wappinger Creek Reach 1								
A	310[2]	75	612	6.1	252.8	251.1[3]	252.1	1.0
B	620[2]	55	295	12.7	253.4	253.4	254.2	0.8
C	1,600[2]	70	900	4.2	262.7	262.7	263.7	1.0
D	3,390[2]	358	2,727	1.4	263.4	263.4	264.4	1.0
E	4,400[2]	186	1,075	3.5	263.7	263.7	264.7	1.0
F	5,994[2]	156	1,228	3.0	266.2	266.2	267.0	0.8
G	6,220[2]	76	739	5.1	282.0	282.0	283.0	1.0
H	7,300[2]	167	1,064	3.5	283.1	283.1	284.0	0.9

[1]Feet above limit of detailed study (limit of detailed study is approximately 580 feet downstream of railroad)
[2]Feet above confluence with Wappinger Creek Reach 1
[3]Elevation computed without consideration of backwater effects from Wappinger Creek Reach 1

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

EAST BRANCH CROTON RIVER -
EAST BRANCH WAPPINGER CREEK REACH 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Fall Kill								
A	5,770[1]	80	361	4.6	216.9	216.9	217.1	0.2
B	8,830[1]	180	876	1.9	220.2	220.2	220.4	0.2
C	11,860[1]	120	702	2.4	222.9	222.9	223.4	0.5
D	13,970[1]	100	660	2.5	223.8	223.8	224.5	0.7
E	15,670[1]	140	1,020	1.6	224.6	224.6	225.4	0.8
F	19,570[1]	100	653	2.2	227.5	227.5	227.8	0.3
G	21,110[1]	130	598	2.4	228.3	228.3	228.8	0.5
H	23,350[1]	120	319	4.5	232.2	232.2	232.5	0.3
Fall Kill Creek								
A	14,250[2]	90	1,012	2.3	181.2	181.2	182.2	1.0
B	14,945[2]	237	2,346	1.0	181.4	181.4	182.4	1.0
C	16,200[2]	613	6,205	0.4	181.5	181.5	182.5	1.0
D	16,974[2]	390	3,712	0.6	181.7	181.7	182.6	0.9
E	17,800[2]	138	1,466	1.6	182.7	182.7	183.4	0.7
F	19,230[2]	116	1,024	2.2	182.8	182.8	183.6	0.8

[1]Feet above limit of detailed study (Limit of Detailed Study is approximately 4,477 feet downstream of East Dorsey Lane)
[2]Feet above confluence with Hudson River

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

FALL KILL – FALL KILL CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Fishkill Creek								
A	90	308	5,004	6.7	7.2	4.1[2]	4.1	0.0
B	1,991	137	809	14.5	7.2	5.4[2]	5.4	0.0
C	2,239	118	1,431	9.0	8.3	8.3	8.6	0.3
D	2,693	141	1,902	6.8	16.5	16.5	16.5	0.0
E	3,330	194	2,319	5.6	34.3	34.3	34.3	0.0
F	4,967	117	1,017	12.7	41.5	41.5	41.9	0.4
G	5,298	97	1,177	11.0	50.6	50.6	50.9	0.3
H	6,286	150	1,029	12.6	54.3	54.3	54.3	0.0
I	6,745	177	2,153	6.0	85.0	85.0	85.7	0.7
J	7,897	111	1,422	9.1	86.4	86.4	87.1	0.7
K	9,011	150	2,114	6.1	95.1	95.1	95.1	0.0
L	11,741	135	1,397	9.2	129.0	129.0	129.2	0.2
M	12,272	92	829	15.6	132.2	132.2	132.4	0.2
N	12,895	87	954	13.5	137.1	137.1	137.6	0.5
O	13,641	185	2,616	4.9	143.2	143.2	143.6	0.4
P	15,345	178	1,896	6.7	146.1	146.1	146.1	0.0
Q	16,827	91	2,509	5.1	180.6	180.6	181.3	0.7
R	18,193	117	1,753	7.2	182.7	182.7	183.3	0.6
S	19,548	325	2,549	5.0	203.9	203.9	203.9	0.0
T	20,366	185	2,108	6.0	205.6	205.6	205.6	0.0
U	21,438	155	1,800	7.0	206.9	206.9	207.2	0.3
V	24,410	1,089	11,553	1.1	209.4	209.4	209.9	0.5
W	31,280	327	3,568	3.5	210.2	210.2	210.7	0.5
X	34,591	994	9,500	1.3	211.0	211.0	211.7	0.7
Y	37,852	363	3,269	3.8	214.5	214.5	214.6	0.1
Z	40,867	570	4,396	2.8	216.3	216.3	216.5	0.2
AA	44,662	364	3,260	3.4	218.9	218.9	219.4	0.6
AB	46,887	266	2,319	4.8	220.1	220.1	221.1	1.0

[1]Feet above confluence with Hudson River
[2]Elevation computed without consideration of backwater effects from Hudson River

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

FISHKILL CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Fishkill Creek (continued)								
AC	48,578	329	3,598	3.1	222.1	222.1	222.9	0.8
AD	52,858	1,047	10,449	1.1	223.6	223.6	224.4	0.8
AE	60,038	1,800	12,464	0.5	224.0	224.0	225.0	1.0
AF	61,914	758	4,401	1.5	225.0	225.0	225.6	0.6
AG	65,432	1,108	6,948	0.9	225.5	225.5	226.2	0.7
AH	71,375	1,314	4,856	1.3	229.5	229.5	230.1	0.6
AI	73,334	397	2,735	2.4	233.7	233.7	233.7	0.0
AJ	78,830	129	866	6.6	236.3	236.3	236.5	0.2
AK	79,650	169	1,170	4.0	239.1	239.1	239.8	0.7
AL	81,649	460	2,602	1.8	242.2	242.2	242.5	0.3
AM	83,196	401	2,347	2.0	244.0	244.0	244.1	0.1
AN	85,284	187	1,145	4.1	247.2	247.2	247.5	0.3
AO	88,987	380	2,169	2.2	251.4	251.4	251.9	0.5
AP	90,818	282	1,631	2.9	253.5	253.5	253.9	0.4
AQ	91,906	138	1,067	4.4	254.9	254.9	255.2	0.3
AR	94,711	347	2,453	1.9	258.4	258.4	258.5	0.1
AS	96,194	59	341	13.5	269.4	269.4	269.4	0.0
AT	96,386	158	1,068	4.3	285.8	285.8	285.9	0.1
AU	99,404	810	3,996	1.2	287.2	287.2	287.5	0.3
AV	102,199	369	2,116	2.2	292.4	292.4	292.4	0.0
AW	103,380	619	2,507	1.8	292.9	292.9	293.2	0.4
AX	107,496	614	2,816	1.6	298.3	298.3	298.4	0.1
AY	110,224	385	1,815	2.5	302.4	302.4	302.4	0.0
AZ	113,199	358	2,131	2.2	306.0	306.0	306.3	0.3
BA	113,853	282	1,800	2.6	307.4	307.4	308.2	0.8
BB	116,445	776	5,495	0.8	309.6	309.6	310.1	0.5
BC	118,977	336	736	6.2	311.1	311.1	311.2	0.1
BD	119,792	558	3,118	1.5	313.7	313.7	314.5	0.8

[1]Feet above confluence with Hudson River

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

FISHKILL CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Fishkill Creek (continued)								
BE	123,962	1,481	5,824	1.2	316.4	316.4	317.2	0.8
BF	125,972	1,342	26,059	3.5	320.9	320.9	320.9	0.0
BG	127,552	1,608	21,670	3.2	325.8	325.8	325.8	0.0
BH	129,346	178	794	5.3	331.5	331.5	331.5	0.0
BI	131,227	230	1,154	3.6	336.3	336.3	337.1	0.8
BJ	134,564	400	1,827	2.3	347.5	347.5	347.8	0.3
BK	136,939	346	1,211	2.0	351.9	351.9	352.0	0.1
BL	140,196	417	848	3.8	361.3	361.3	361.3	0.0
BM	141,008	225	866	2.8	364.8	364.8	364.9	0.1
BN	144,168	301	1,104	2.2	374.8	374.8	374.8	0.0
BO	144,945	321	718	3.4	377.3	377.3	377.4	0.1
BP	146,099	457	919	2.1	380.9	380.9	380.9	0.0
BQ	147,377	180	586	3.3	386.4	386.4	386.5	0.1
BR	148,895	42	251	7.8	395.7	395.7	395.7	0.0
BS	149,724	90	392	4.4	404.5	404.5	404.7	0.2
BT	149,876	106	1,501	1.1	424.7	424.7	424.7	0.0
BU	152,670	61	175	9.6	445.7	445.7	445.7	0.0
BV	153,301	124	460	3.7	450.0	450.0	450.2	0.2
BW	153,925	198	763	2.2	454.0	454.0	454.0	0.0
BX	154,598	80	250	6.7	455.6	455.6	455.7	0.1
BY	155,352	203	1,274	1.3	467.0	467.0	467.0	0.0
BZ	160,302	542	1,751	0.8	468.2	468.2	468.4	0.2
CA	163,849	548	1,291	1.2	471.5	471.5	471.9	0.4
CB	165,540	335	871	1.8	472.9	472.9	473.6	0.7
CC	167,435	304	857	1.8	476.1	476.1	476.6	0.5
CD	168,614	266	950	1.6	478.4	478.4	478.5	0.1
CE	171,843	131	639	2.9	486.6	486.6	486.7	0.1
CF	173,181	345	1,255	1.2	487.3	487.3	487.6	0.3

[1]Feet above confluence with Hudson River

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

FISHKILL CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Fishkill Creek (continued)								
CG	175,637[1]	289	894	1.3	491.3	491.3	491.8	0.5
CH	177,389[1]	384	971	1.2	496.1	496.1	496.2	0.1
Frog Hollow Brook								
A	830[2]	35	138	7.0	314.3	314.3	315.3	1.0
B	2,250[2]	35	145	6.6	321.3	321.3	321.8	0.5
C	6,310[2]	28	101	9.5	370.7	370.7	371.3	0.6
D	7,960[2]	42	121	7.9	394.9	394.9	395.8	0.9
E	12,070[2]	55	188	5.1	428.2	428.2	429.2	1.0

[1]Feet above confluence with Hudson River
[2]Feet above confluence with Fishkill Creek

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

FISHKILL CREEK - FROG HOLLOW BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Great Spring Creek								
A	500	74	212	6.6	210.8	202.4[2]	202.5	0.1
B	650	292	2,134	0.7	210.8	209.1[2]	209.2	0.1
C	2,058	48	204	6.9	210.8	209.2[2]	209.2	0.0
D	2,650	154	714	2.0	211.7	211.7	212.0	0.3
E	3,240	217	1,168	1.2	212.0	212.0	212.5	0.5
F	4,285	68	406	3.5	212.3	212.3	212.8	0.5
G	4,360	183	865	1.6	212.5	212.5	213.1	0.6
H	4,740	299	1,354	1.0	212.7	212.7	213.4	0.7
I	5,480	431	1,843	0.5	212.8	212.8	213.6	0.8
J	6,740	44	129	7.1	214.0	214.0	214.5	0.5
K	7,350	87	480	1.9	217.4	217.4	218.2	0.8
L	7,454	108	569	1.6	217.5	217.5	218.3	0.8
M	7,790	419	1,898	0.5	217.8	217.8	218.6	0.8
N	7,895	325	1,509	0.6	217.8	217.8	218.6	0.8
O	8,800	76	237	3.9	219.7	219.7	219.7	0.0
P	11,095	120	210	4.4	230.8	230.8	231.1	0.3
Q	11,265	50	242	3.8	231.8	231.8	232.4	0.6
R	13,040	200	1,468	0.6	244.3	244.3	244.8	0.5
S	13,160	103	609	1.5	244.3	244.3	244.8	0.5

[1]Feet above confluence with Wappinger Creek Reach 1
[2]Elevation computed without consideration of backwater effects from Wappinger Creek

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

GREAT SPRING CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Jackson Creek Reach 1								
A	4,530	420	1,126	1.7	295.3	295.3	296.2	0.9
B	6,470	396	1,473	1.3	298.2	298.2	298.2	0.0
C	8,875	269	794	2.5	306.1	306.1	307.1	1.0
D	9,867	301	1,874	1.0	314.0	314.0	315.0	1.0
E	11,155	241	1,135	1.7	314.8	314.8	315.7	0.9
F	11,920	179	713	2.8	318.3	318.3	318.5	0.2
G	12,780	280	1,053	1.9	320.5	320.5	320.7	0.2
H	13,720	340	676	2.9	324.5	324.5	324.5	0.0
I	15,670	575	1,424	1.4	331.2	331.2	331.2	0.0
J	19,060	514	3,221	0.6	344.2	344.2	344.3	0.1
K	21,300	128	458	3.8	355.3	355.3	356.0	0.7
L	22,370	66	298	5.8	364.0	364.0	364.9	0.9
M	24,090	36	187	9.0	380.8	380.8	381.3	0.5
N	25,475	262	514	3.3	405.6	405.6	405.8	0.2
O	25,785	36	193	8.7	413.4	413.4	413.5	0.1
P	26,360	63	447	3.8	429.9	429.9	430.8	0.9

[1]Feet above mouth

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

JACKSON CREEK REACH 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Jackson Creek Reach 2								
A	200	24	92	9.9	423.1	423.1	423.6	0.5
B	1,250	70	196	4.6	435.7	435.7	436.1	0.4
C	2,230	40	159	5.7	443.7	443.7	444.1	0.4
D	3,180	140	350	2.6	455.2	455.2	456.2	1.0
E	3,900	245	329	2.8	461.0	461.0	461.8	0.8
F	4,600	90	255	3.3	466.4	466.4	467.3	0.9
G	5,350	37	142	5.4	471.9	471.9	472.4	0.5
H	6,400	31	96	8.0	481.0	481.0	481.0	0.0
I	7,600	36	83	9.2	496.1	496.1	496.1	0.0
J	8,824	135	131	3.4	510.3	510.3	510.5	0.2
K	9,800	25	63	7.0	522.1	522.1	522.9	0.8
L	11,100	64	87	5.1	538.2	538.2	539.2	1.0
M	11,900	24	75	5.9	546.5	546.5	546.5	0.0
N	12,950	37	92	4.0	558.2	558.2	559.2	1.0
O	14,200	21	52	7.2	573.2	573.2	573.6	0.4
P	15,150	19	41	7.5	588.2	588.2	588.5	0.3
Q	16,075	28	45	6.9	604.0	604.0	604.0	0.0
R	16,950	29	39	6.6	617.6	617.6	617.7	0.1
S	17,530	23	43	6.0	632.8	632.8	632.8	0.0
T	17,740	17	36	7.3	637.1	637.1	637.3	0.2

[1]Feet above Limit of Detailed Study (Limit of Detailed Study is approximately 3,264 feet downstream of State Route 55)

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

JACKSON CREEK REACH 2

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Kelsey Brook								
A	150[1]	140	731	1.3	681.5	681.5	682.3	0.8
B	900[1]	34	177	5.4	695.0	695.0	695.6	0.6
C	1,220[1]	80	350	2.7	704.7	704.7	704.7	0.0
D	1,990[1]	96	345	2.8	705.7	705.7	706.0	0.3
E	2,780[1]	84	379	2.5	706.9	706.9	707.8	0.9
F	5,420[1]	18	129	7.4	724.3	724.3	725.2	0.9
Landsman Kill								
A	1,910[2]	160	686	2.2	127.1	127.1	128.1	1.0
B	2,890[2]	110	598	2.6	129.0	129.0	129.4	0.4
C	3,900[2]	90	268	5.7	131.2	131.2	131.5	0.3
D	4,290[2]	20	115	13.3	141.1	141.1	141.7	0.6
E	5,040[2]	25	125	12.2	165.1	165.1	165.4	0.3
F	6,050[2]	100	643	2.4	184.3	184.3	184.3	0.0
G	8,960[2]	70	279	5.5	189.4	189.4	189.6	0.2
H	10,660[2]	130	578	2.6	193.0	193.0	193.4	0.4
I	11,840[2]	120	656	2.3	198.8	198.8	198.8	0.0
J	14,040[2]	50	285	5.4	202.4	202.4	203.2	0.8
K	15,890[2]	26	130	11.8	218.6	218.6	219.6	1.0
L	17,060[2]	50	233	6.6	238.8	238.8	239.8	1.0
M	19,530[2]	50	349	4.4	256.9	256.9	256.9	0.0
N	22,330[2]	100	250	6.1	292.4	292.4	292.5	0.1
O	24,550[2]	100	657	2.3	301.0	301.0	301.4	0.4
P	26,170[2]	70	351	4.4	303.3	303.3	303.6	0.3

[1]Feet above confluence with Webatuck Creek Reach 3
[2]Feet above confluence of Rhinebeck Kill

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

KELSEY BROOK – LANDSMAN KILL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Little Wappinger Creek Reach 1								
A	175	101	800	3.1	230.5	230.5	230.8	0.3
B	1,680	93	434	5.7	231.3	231.3	231.8	0.5
C	2,690	87	418	5.9	233.8	233.8	234.0	0.2
D	4,040	73	260	9.5	238.1	238.1	238.1	0.0
E	4,335	65	1,519	1.6	242.9	242.9	243.0	0.1
F	5,200	126	861	2.9	250.7	250.7	250.8	0.1
G	6,600	133	820	3.0	251.2	251.2	251.4	0.2
H	7,830	74	348	6.7	251.6	251.6	252.0	0.4
I	9,910	145	861	2.7	256.3	256.3	257.0	0.7
J	12,670	70	515	4.5	260.0	260.0	260.5	0.5
K	15,850	110	528	4.9	265.1	265.1	265.9	0.8
L	18,670	100	514	4.5	273.6	273.6	274.2	0.6
M	19,790	90	454	5.1	276.9	276.9	277.7	0.8
N	23,910	90	279	6.1	289.7	289.7	290.2	0.5
O	26,450	120	510	4.0	304.0	304.0	304.0	0.0
P	28,360	90	409	4.9	308.2	308.2	308.3	0.1
Q	32,210	90	476	4.2	320.7	320.7	321.1	0.4
R	35,130	100	458	4.4	327.8	327.8	328.1	0.3
S	37,390	100	615	3.3	330.7	330.7	331.4	0.7
T	39,850	130	373	5.4	336.7	336.7	336.7	0.0

[1]Feet above confluence with Wappinger Creek Reach 1

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

LITTLE WAPPINGER CREEK REACH 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Maritje Kill								
A	670	78	798	0.9	10.0	10.0	10.0	0.0
B	1,582	47	121	6.2	53.7	53.7	53.7	0.0
C	2,273	32	144	4.8	72.4	72.4	72.4	0.0
D	3,156	110	219	3.1	93.0	93.0	93.1	0.1
E	4,344	36	110	6.2	112.9	112.9	113.2	0.3
F	5,649	45	139	4.4	150.5	150.5	150.5	0.0
G	6,433	63	104	6.0	177.0	177.0	177.0	0.0
H	6,872	61	228	2.7	187.9	187.9	188.0	0.1
I	7,705	37	157	3.9	189.7	189.7	189.8	0.1
J	9,309	107	442	1.1	193.3	193.3	193.7	0.4
K	10,952	53	161	3.1	199.2	199.2	199.4	0.2
L	12,865	155	596	0.7	220.5	220.5	220.5	0.0
M	14,951	157	184	2.3	221.2	221.2	221.2	0.0
N	16,450	205	1,539	0.5	231.4	231.4	231.4	0.0
O	16,876	144	1,324	0.6	231.4	231.4	231.4	0.0
P	19,906	296	2,524	0.3	231.4	231.4	231.5	0.1
Q	21,812	64	103	5.4	236.2	236.2	236.4	0.2
R	23,613	80	304	1.8	250.0	250.0	250.7	0.7

[1]Feet above confluence with Hudson River

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

MARITJE KILL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Rhinebeck Kill								
A	1,430	163	1,095	1.3	126.1	126.1	127.1	1.0
B	2,500	191	637	2.2	126.7	126.7	127.5	0.8
C	4,510	76	365	3.9	128.5	128.5	129.2	0.7
D	7,570	94	818	1.7	136.6	136.6	137.0	0.4
E	10,320	117	929	1.5	139.0	139.0	139.1	0.1
F	11,330	88	515	2.8	139.3	139.3	139.5	0.2
G	12,880	111	694	2.0	140.3	140.3	140.8	0.5
H	13,615	30	199	7.1	140.6	140.6	141.0	0.4
I	14,900	106	886	1.3	145.0	145.0	145.1	0.1
J	17,060	98	723	1.6	145.6	145.6	145.9	0.3
K	18,850	85	559	2.1	146.3	146.3	146.6	0.3
L	21,010	53	336	3.5	147.9	147.9	148.3	0.4
M	22,830	28	176	6.6	149.2	149.2	149.7	0.5
N	25,180	120	731	1.1	156.1	156.1	156.1	0.0
O	26,340	65	349	2.4	156.4	156.4	156.4	0.0
P	28,480	50	151	5.6	159.8	159.8	160.6	0.8
Q	29,250	40	178	4.7	163.9	163.9	164.5	0.6

[1]Feet above confluence with Landsman Kill

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

RHINEBECK KILL

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Saw Kill								
A	130[1]	55	366	11.4	9.1	9.1	10.1	1.0
B	3,240[1]	50	319	13.1	113.6	113.6	114.6	1.0
C	4,230[1]	45	354	11.8	145.7	145.7	146.7	1.0
D	9,670[1]	90	612	6.8	167.0	167.0	168.0	1.0
E	12,940[1]	85	765	5.5	171.6	171.6	172.0	0.4
F	14,670[1]	350	2,803	1.5	173.0	173.0	173.6	0.6
G	19,150[1]	180	979	4.3	177.0	177.0	177.7	0.7
H	21,540[1]	410	3,607	1.0	182.8	182.8	183.1	0.3
I	24,050[1]	85	569	6.3	183.6	183.6	184.1	0.5
J	26,630[1]	155	1,161	3.1	202.9	202.9	202.9	0.0
K	28,820[1]	90	562	6.4	205.1	205.1	205.2	0.1
L	31,800[1]	100	809	4.5	213.0	213.0	213.5	0.5
M	33,360[1]	110	829	4.3	214.5	214.5	215.2	0.7
N	37,160[1]	140	754	4.8	220.3	220.3	220.9	0.6
O	38,140[1]	240	1,520	2.4	221.3	221.3	222.1	0.8
Seeley Creek								
A	250[2]	17	42	7.8	548.6	548.6	548.9	0.3
B	750[2]	17	41	8.0	562.8	562.8	562.8	0.0
C	1,360[2]	14	37	9.0	584.4	584.4	584.4	0.0

[1]Feet above confluence with Hudson River
[2]Feet above confluence with Clove Brook

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

SAW KILL – SEELEY CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Sprout Creek #1								
A	1,230	175	1,240	2.8	224.3	223.7[2]	224.5	0.9
B	2,530	350	2,076	1.7	225.4	225.4	226.4	1.0
C	4,100	386	2,044	1.7	226.6	226.6	227.4	0.8
D	6,100	758	3,599	1.0	227.4	227.4	228.3	0.9
E	10,050	590	2,269	1.5	232.1	232.1	233.1	1.0
F	12,330	295	1,743	2.0	234.6	234.6	235.2	0.6
G	14,940	335	1,538	2.3	236.1	236.1	236.7	0.6
H	16,600	360	1,591	2.2	239.1	239.1	239.6	0.5
I	18,840	220	965	3.6	242.0	242.0	242.5	0.5
J	19,640	250	1,240	2.8	243.2	243.2	244.1	0.9
K	22,750	220	1,178	3.0	247.2	247.2	248.0	0.8
L	24,000	200	763	4.6	249.8	249.8	250.5	0.7
M	25,400	77	662	5.3	253.1	253.1	253.3	0.2
N	27,460	100	789	4.4	255.6	255.6	256.3	0.7
O	28,400	474	3,421	1.0	257.9	257.9	258.8	0.9
P	29,780	685	2,589	1.3	258.3	258.3	259.1	0.8
Q	31,830	546	1,129	3.1	262.8	262.8	262.8	0.0
R	33,077	96	611	5.7	265.7	265.7	266.3	0.6
S	34,480	102	841	4.1	267.2	267.2	268.0	0.8
T	34,565	300	1,526	2.3	267.5	267.5	269.2	0.9
U	36,000	720	4,191	0.8	268.2	268.2	269.2	1.0
V	37,080	182	672	5.2	270.6	270.6	270.6	0.0
W	38,390	370	1,645	2.1	272.1	272.1	272.8	0.7
X	39,000	292	1,079	3.2	273.1	273.1	273.9	0.8
Y	40,020	540	2,277	1.5	276.7	276.7	276.7	0.0
Z	41,384	168	803	4.3	278.3	278.3	278.3	0.0
AA	42,600	162	688	6.9	279.6	279.6	279.8	0.2
AB	43,900	317	1,579	2.2	282.4	282.4	282.7	0.3

[1]Feet above confluence with Fishkill Creek
[2]Elevation computed without consideration of backwater effects from Fishkill Creek

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

SPROUT CREEK #1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Sprout Creek #1 (continued)								
AC	45,000	552	2,470	1.4	283.3	283.3	284.1	0.8
AD	46,270	530	2,480	1.4	285.6	285.6	286.3	0.7
AE	47,400	428	1,688	2.1	286.1	286.1	286.7	0.6
AF	48,400	263	1,070	2.3	287.3	287.3	288.1	0.8
AG	49,660	287	1,420	1.8	288.8	288.8	289.7	0.9
AH	50,042	583	2,675	1.0	289.0	289.0	290.0	1.0
AI	51,200	232	1,059	2.4	289.9	289.9	290.6	0.7
AJ	51,710	414	2,135	1.2	290.6	290.6	291.6	1.0
AK	52,330	662	2,853	0.9	290.9	290.9	291.9	1.0
AL	53,100	165	474	5.3	292.0	292.0	292.0	0.0
AM	56,210	531	2,184	1.1	296.8	296.8	297.3	0.5
AN	56,341	61	369	6.8	296.9	296.9	297.3	0.4
AO	56,790	105	1,432	1.7	298.1	298.1	298.6	0.5
AP	59,030	345	3,577	0.7	299.7	299.7	300.6	0.9
AQ	63,280	180	1,722	1.5	304.2	304.2	305.0	0.8
AR	64,100	28	944	2.6	305.9	305.9	306.7	0.8
AS	65,140	220	1,887	1.1	309.6	309.6	310.3	0.7
AT	65,266	124	713	3.0	312.2	312.2	313.0	0.8
AU	68,165	251	702	3.1	315.9	315.9	316.6	0.7
AV	68,527	58	373	5.8	318.1	318.1	318.1	0.0
AW	71,000	244	1,591	1.4	322.1	322.1	322.9	0.8
AX	71,890	87	278	7.7	324.0	324.0	324.0	0.0
AY	72,030	334	1,587	1.2	327.2	327.2	327.2	0.0
AX	73,780	436	1,405	1.3	327.5	327.5	327.9	0.4
BA	73,889	731	3,527	0.5	329.0	329.0	330.0	1.0
BB	74,020	471	2,079	0.9	329.1	329.1	330.1	1.0
BC	74,970	200	692	2.7	329.7	329.7	330.6	0.9
BD	78,390	387	1,393	1.4	336.0	336.0	336.6	0.6

[1]Feet above confluence with Fishkill Creek

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

SPROUT CREEK #1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Sprout Creek #2								
A	250'	*	142	9.4	433.3	433.3	433.6	0.3
B	1,250'	*	106	11.6	461.0	461.0	461.0	0.0
C	2,200'	46	286	4.3	508.6	508.6	509.4	0.8
D	2,800'	87	403	3.1	509.8	509.8	510.8	1.0
E	3,700'	28	150	8.2	515.6	515.6	516.3	0.7
F	4,800'	28	155	8.0	530.5	530.5	530.9	0.4
G	5,685'	125	305	4.0	541.0	541.0	541.7	0.7
H	6,750'	56	160	5.6	546.4	546.4	547.4	1.0
I	7,750'	85	321	2.8	552.2	552.2	553.2	1.0
J	8,750'	71	235	3.4	557.4	557.4	558.3	0.9
K	9,617'	150	256	3.2	563.4	563.4	564.3	0.9
L	9,800'	89	193	4.0	564.7	564.7	565.7	1.0
Stony Creek								
A	1,580'	110	642	5.8	83.8	83.8	84.7	0.9
B	3,200'	40	262	14.2	101.9	101.9	102.5	0.6
C	4,270'	65	356	10.5	112.4	112.4	112.5	0.1
D	6,180'	60	660	5.7	131.3	131.3	131.3	0.0

[1]Feet above Limit of Detailed Study (Limit of Detailed Study is approximately 1,820 feet downstream of Verbank Village Road)
[2]Feet above Limit of Detailed Study (Limit of Detailed Study is approximately 3,108 feet downstream of Mill Street)
*Floodway coincident with channel banks

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

SPROUT CREEK #2 – STONY CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Swamp River Reach 1								
A	979[1]	250	2,350	3.1	366.8	366.8	367.6	0.8
B	3,445[1]	254	1,380	8.0	367.7	367.7	368.7	1.0
C	4,325[1]	275	1,267	9.1	369.5	369.5	370.5	1.0
D	5,603[1]	244	1,262	5.9	372.4	372.4	372.9	0.5
Swamp River Reach 2								
A	1,860[2]	167	1,188	1.5	423.9	423.9	424.4	0.5
B	3,630[2]	298	2,153	0.8	424.1	424.1	424.6	0.5
C	5,400[2]	178	1,282	1.3	424.5	424.5	425.1	0.6
D	7,200[2]	250	1,802	1.0	425.1	425.1	425.8	0.7
E	9,120[2]	257	1,777	1.0	425.5	425.5	426.2	0.7
F	11,120[2]	212	1,194	1.4	425.9	425.9	426.6	0.7
G	13,030[2]	202	950	1.5	426.7	426.7	427.5	0.8
H	15,870[2]	176	921	1.6	427.9	427.9	428.7	0.8
I	17,690[2]	177	967	1.1	429.9	429.9	430.1	0.2
J	19,330[2]	216	956	1.1	430.3	430.3	430.6	0.3
K	21,030[2]	64	331	3.3	431.6	431.6	432.4	0.8
L	22,090[2]	140	733	1.5	434.4	434.4	434.7	0.3
M	24,280[2]	158	1,065	1.0	436.8	436.8	437.3	0.5
N	26,150[2]	139	576	1.9	437.9	437.9	438.7	0.8
O	29,780[2]	70	300	3.6	453.3	453.3	454.2	0.9

[1]Feet above confluence with Tenmile River
[2]Feet above Limit of Detailed Dtudy (Limit of Detailed Study is approximately 910 feet downstream of Kitchen Road)

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

SWAMP RIVER REACH 1 – SWAMP RIVER REACH 2

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Sweezy Creek								
A	230[1]	78	195	2.0	499.4	499.4	500.2	0.8
B	930[1]	58	94	3.6	507.8	507.7	508.4	0.7
C	1,680[1]	56	76	4.5	520.5	520.5	521.0	0.5
D	2,430[1]	36	60	5.6	536.3	536.3	537.1	0.8
E	3,030[1]	13	37	7.9	556.5	556.5	557.2	0.7
F	3,330[1]	15	36	8.1	572.0	572.0	572.0	0.0
G	3,630[1]	14	36	8.1	582.6	582.6	582.6	0.0
Sylvan Lake Outlet								
A	730[2]	54	168	5.1	292.8	290.9[3]	291.8	0.9
B	2,260[2]	100	273	3.1	295.5	295.5	296.0	0.5
C	3,890[2]	100	230	3.7	302.9	302.9	303.3	0.4
D	6,130[2]	40	145	5.9	309.2	309.2	310.0	0.8
E	7,580[2]	129	355	2.4	313.1	313.1	313.6	0.5
F	9,126[2]	76	322	2.6	319.8	319.8	320.7	0.9
G	10,546[2]	78	285	3.0	321.5	321.5	322.0	0.5
H	11,366[2]	20	84	10.1	323.8	323.8	324.6	0.8

[1]Feet above confluence with Clove Brook
[2]Feet above confluence with Fishkill Creek
[3]Elevation computed without consideration of backwater effects from Fish Kill Creek

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

SWEEZY CREEK – SYLVAN LAKE OUTLET

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
TenMile River								
A	847	132	1,044	15.8	292.6	292.6	292.6	0.0
B	2,622	187	1,615	10.3	305.3	305.3	305.3	0.0
C	4,810	224	2,074	7.9	310.8	310.8	310.9	0.1
D	6,750	264	2,341	7.0	317.8	317.8	317.8	0.0
E	8,807	275	2,475	6.4	321.1	321.1	321.6	0.5
F	10,984	128	1,796	8.8	328.8	328.8	328.9	0.1
G	12,607	126	1,696	9.3	330.4	330.4	330.8	0.4
H	14,497	306	2,482	6.4	333.3	333.3	334.0	0.7
I	16,388	205	1,965	8.1	336.5	336.5	336.8	0.3
J	17,562	211	2,113	7.5	338.1	338.1	338.8	0.7
K	18,938	112	1,759	9.0	342.9	342.9	342.9	0.0
L	21,865	259	2,213	7.1	345.4	345.4	346.3	0.9
M	24,776	432	5,735	2.7	350.6	350.6	351.5	0.9
N	26,980	520	5,410	2.9	351.2	351.2	352.1	0.9
O	29,085	541	3,501	4.4	351.9	351.9	352.9	1.0
P	31,727	508	3,801	4.1	353.4	353.4	354.3	0.9
Q	34,396	1,023	8,613	1.8	355.6	355.6	356.6	1.0
R	37,350	988	8,416	1.8	356.8	356.8	357.8	1.0
S	39,308	818	4,599	3.4	357.7	357.7	358.6	0.9
T	40,983	216	1,710	9.1	358.9	358.9	359.9	1.0
U	42,913	610	4,251	2.1	364.3	364.3	364.9	0.6
V	46,173	481	2,492	3.4	366.1	366.1	366.9	0.8
W	48,129	370	2,489	3.4	368.5	368.5	369.2	0.7
X	50,248	358	1,833	4.5	371.9	371.9	372.6	0.7
Y	54,121	171	1,121	7.4	277.0	277.0	277.1	0.1
Z	55,285	214	970	8.6	378.9	378.9	378.9	0.0
AA	57,269	310	1,742	4.8	386.3	386.3	386.3	0.0
AB	59,603	239	1,327	6.3	387.2	387.2	388.1	0.9

[1]Feet above county boundary

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

TENMILE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Tributary to Amenia Stream								
A	1,836[1]	286	186	1.9	548.8	548.8	549.1	0.3
Tributary 1 to Fishkill Creek								
A	1,470[2]	16	93	9.2	209.8	205.6[4]	206.4	0.8
B	3,820[2]	85	551	1.6	213.9	213.9	213.9	0.0
C	7,180[2]	60	302	2.8	217.2	217.2	217.4	0.2
D	10,560[2]	80	690	1.2	223.5	223.5	223.6	0.1
E	14,460[2]	60	384	2.2	224.1	224.1	224.4	0.3
Tributary 2 to Fishkill Creek								
A	1,170[2]	200	297	5.1	388.4	388.4	388.4	0.0
B	3,990[2]	85	237	6.4	433.6	433.6	433.6	0.0
Tributary to East Branch Croton River								
A	395[3]	35	132	6.6	615.3	615.3	615.8	0.5
B	1,765[3]	55	134	6.5	655.2	655.2	655.6	0.4
C	3,825[3]	45	112	7.7	687.7	687.7	688.6	0.9
D	5,175[3]	35	200	4.3	703.3	703.3	704.3	1.0
E	7,725[3]	85	406	2.1	717.8	717.8	718.0	0.2

[1]Feet above confluence with Amenia Stream
[2]Feet above confluence with Fishkill Creek
[3]Feet above county boundary
[4]Elevation computed without consideration of backwater effects from Fishkill Creek

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

TRIBUTARY TO AMENIA STREAM – TRIBUTARY 1 TO FISHKILL CREEK - TRIBUTARY 2 TO FISHKILL CREEK – TRIBUTARY TO EAST BRANCH CROTON RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Walsh Creek								
A	300[1]	20	35	10.7	523.7	523.7	523.7	0.0
B	1,200[1]	62	98	3.9	541.7	541.7	542.7	1.0
C	2,292[1]	30	136	2.5	568.5	568.5	569.4	0.9
D	2,700[1]	18	37	9.1	576.6	576.6	576.8	0.2
E	3,200[1]	12	39	8.7	591.5	591.5	592.1	0.6
F	4,100[1]	12	40	8.5	615.2	615.2	615.6	0.4
G	5,100[1]	12	27	10.7	639.1	639.1	639.4	0.3
H	6,000[1]	12	29	7.5	664.9	664.9	664.9	0.0
I	6,540[1]	12	24	8.4	684.1	684.1	684.4	0.3
Wappinger Creek Reach 1								
A	61[2]	250	1,293	14.9	7.9	6.2[3]	6.2	0.0
B	2,591[2]	402	4,633	4.2	7.9	6.3[3]	6.3	0.0
C	5,256[2]	587	7,294	2.6	7.9	7.3[3]	7.7	0.4
D	7,061[2]	350	4,092	4.7	8.1	8.1	8.4	0.3
E	8,941[2]	204	2,365	8.1	9.1	9.1	9.3	0.2
F	9,561[2]	236	1,631	7.7	9.4	9.4	9.6	0.2
G	11,442[2]	94	1,167	16.5	70.6	70.6	70.9	0.3
H	13,602[2]	634	7,094	2.6	90.1	90.1	90.9	0.8
I	14,902[2]	1,090	10,419	1.8	90.3	90.3	91.0	0.7
J	16,991[2]	369	2,641	6.9	90.4	90.4	91.1	0.7
K	20,208[2]	607	5,506	3.3	103.1	103.1	103.6	0.5
L	21,328[2]	688	6,524	2.8	104.4	104.4	105.1	0.7
M	22,968[2]	641	7,061	2.6	107.6	107.6	107.8	0.2

[1]Feet above confluence with Clove Mountain Creek
[2]Feet above confluence with the Hudson River

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

WALSH CREEK – WAPPINGER CREEK REACH 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Wappinger Creek Reach 1 (continued)								
N	25,068	489	3,364	5.4	108.8	108.8	109.7	0.9
O	27,098	197	2,180	8.4	111.6	111.6	112.4	0.8
P	28,474	388	4,049	4.5	117.4	117.4	117.8	0.4
Q	30,474	575	7,818	2.3	118.9	118.9	119.5	0.6
R	32,774	390	6,740	2.7	119.4	119.4	120.0	0.6
S	35,037	146	2,354	7.8	120.5	120.5	121.4	0.9
T	36,632	135	1,801	9.5	121.8	121.8	122.7	0.9
U	38,912	186	2,567	6.7	128.7	128.7	129.0	0.3
V	40,618	172	2,539	6.8	139.2	139.2	139.2	0.0
W	42,358	705	9,819	1.8	143.7	143.7	143.7	0.0
X	44,848	526	6,184	2.8	144.5	144.5	144.5	0.0
Y	47,488	304	2,861	6.0	145.7	145.7	146.3	0.6
Z	49,768	311	3,957	4.3	147.2	147.2	148.0	0.8
AA	51,548	204	2,478	6.9	147.7	147.7	148.5	0.8
AB	54,008	327	3,277	5.2	149.2	149.2	149.9	0.7
AC	56,028	111	1,000	17.2	152.1	152.1	152.1	0.0
AD	58,439	560	7,267	2.4	161.2	161.2	161.4	0.2
AE	60,569	700	7,501	2.3	162.0	162.0	162.1	0.1
AF	63,149	614	3,475	4.9	165.4	165.4	165.9	0.5
AG	65,161	712	4,891	3.5	167.0	167.0	167.7	0.7
AH	66,901	685	3,849	4.5	168.6	168.6	169.5	0.9
AI	69,681	392	3,439	5.0	172.3	172.3	173.0	0.7
AJ	72,501	122	1,537	11.2	175.2	175.2	175.8	0.6
AK	74,391	191	1,371	12.5	183.2	183.2	183.3	0.1
AL	76,181	193	3,535	4.6	190.5	190.5	190.9	0.4

[1]Feet above confluence with Hudson River

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

WAPPINGER CREEK REACH 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Wappinger Creek Reach 1 (continued)								
AM	78,892	355	5,697	3.1	195.0	195.0	195.3	0.3
AN	80,846	144	2,213	7.9	195.3	195.3	195.6	0.3
AO	82,641	152	2,488	7.0	197.0	197.0	197.8	0.8
AP	84,647	552	8,281	2.1	198.9	198.9	199.8	0.9
AQ	85,492	940	13,400	1.3	199.1	199.1	200.0	0.9
AR	86,442	249	3,051	5.7	200.0	200.0	200.7	0.7
AS	88,132	135	1,803	9.7	201.7	201.7	202.1	0.4
AT	88,554	150	2,085	8.4	204.5	204.5	204.6	0.1
AU	89,610	104	1,385	12.7	205.9	205.9	205.9	0.0
AV	91,775	440	5,289	3.1	209.8	209.8	210.5	0.7
AW	94,574	180	2,013	6.8	211.3	211.3	212.1	0.8
AX	96,210	279	3,948	3.5	213.2	213.2	214.1	0.9
AY	97,425	792	9,015	1.5	213.7	213.7	214.6	0.9
AZ	99,959	338	3,023	4.5	213.7	213.7	215.4	0.9
BA	101,332	264	2,567	5.3	214.5	214.5	217.2	0.9
BB	103,444	303	3,370	4.0	219.0	219.0	219.8	0.8
BC	105,345	485	5,847	2.3	221.2	221.2	222.1	0.9
BD	106,454	500	10,939	1.2	221.5	221.5	222.4	0.9
BE	109,094	184	2,145	6.4	224.6	224.6	224.6	0.0
BF	111,417	675	5,319	2.1	228.8	228.8	228.9	0.1
BG	113,265	978	8,348	1.4	230.4	230.4	230.7	0.3
BH	113,740	203	1,713	5.2	231.2	231.2	232.1	0.9

[1]Feet above confluence with Hudson River

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

WAPPINGER CREEK REACH 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Wappinger Creek Reach 1 (continued)								
BI	115,377[1]	120	1,290	6.9	232.8	232.8	233.5	0.7
BJ	117,330[1]	165	1,081	8.2	235.1	235.1	235.7	0.6
BK	118,967[1]	216	1,472	6.0	239.4	239.4	239.6	0.2
BL	120,921[1]	381	2,645	3.4	242.0	242.0	242.4	0.4
BM	121,322[1]	400	2,885	3.0	242.4	242.4	242.8	0.4
BN	122,032[1]	450	2,612	3.4	243.0	243.0	243.4	0.4
BO	123,982[1]	220	1,270	6.9	245.1	245.1	245.6	0.5
BP	125,082[1]	250	2,074	4.2	248.2	248.2	248.9	0.7
BQ	126,082[1]	190	1,838	4.8	250.4	250.4	251.0	0.6
BR	127,732[1]	240	2,405	3.7	252.8	252.8	253.4	0.6
Wappinger Creek Reach 2								
A	0[2]	380	2,418	1.4	282.4	282.4	283.4	1.0
B	1,150[2]	190	1,060	3.3	283.9	283.9	284.8	0.9
C	3,150[2]	124	471	5.9	288.3	288.3	289.2	0.9
D	4,830[2]	69	368	7.6	294.1	294.1	294.7	0.6
E	6,980[2]	83	326	8.5	312.0	312.0	312.6	0.6
F	8,160[2]	50	352	7.9	321.9	321.9	322.5	0.6
G	10,310[2]	81	479	4.6	331.5	331.5	332.3	0.8

[1]Feet above confluence with Hudson River
[2]Feet above County Route 17 (Salt Point Turnpike)

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)

FLOODWAY DATA

WAPPINGER CREEK REACH 1 – WAPPINGER CREEK REACH 2

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Wassaic Creek								
A	3,590	617	2,131	1.9	420.6	420.6	421.5	0.9
B	7,990	97	643	6.3	432.4	432.4	433.1	0.7
Webatuck Creek Reach 1								
A	2,432	211	1,638	3.0	423.9	423.9	424.6	0.7
B	5,708	729	4,797	1.0	425.5	425.5	426.3	0.8
C	8,675	360	2,199	2.2	431.9	431.9	432.0	0.1
D	12,380	460	3,583	1.4	439.5	439.5	439.9	0.4
E	19,180	148	1,230	3.8	442.0	442.0	442.2	0.2
F	25,850	778	3,872	1.2	443.6	443.6	444.2	0.6
G	32,257	233	1,019	4.6	446.4	446.4	446.9	0.5
Webatuck Creek Reach 2								
A	45,035	64	518	7.6	460.7	460.7	461.7	1.0
B	48,749	170	965	4.1	469.2	469.2	469.6	0.4
C	53,768	340	1,278	3.1	480.5	480.5	481.3	0.8

[1]Feet above confluence with Tenmile River

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

WASSAIC CREEK – WEBATUCK CREEK REACH 1 – WEBATUCK CREEK REACH 2

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Webatuck Creek Reach 3								
A	950	75	450	5.9	548.4	548.4	549.4	1.0
B	3,230	50	379	6.9	558.7	558.7	559.5	0.8
C	5,510	70	474	5.5	563.9	563.9	564.7	0.8
D	7,720	120	790	3.3	567.8	567.8	568.5	0.7
E	9,830	130	667	3.9	570.1	570.1	570.7	0.6
F	11,140	130	526	5.0	572.8	572.8	573.3	0.5
G	12,380	130	507	4.1	574.8	574.8	575.4	0.6
H	14,020	240	863	2.4	578.7	578.7	579.4	0.7
I	17,030	220	874	2.4	583.1	583.1	583.4	0.3
J	19,760	140	716	2.9	589.6	589.6	589.9	0.3
K	22,620	65	287	7.3	601.6	601.6	602.2	0.6
L	25,530	30	179	11.7	632.8	632.8	633.1	0.3
M	27,740	18	148	14.2	665.0	665.0	665.0	0.0
N	28,355	150	1,014	2.1	670.4	670.4	671.3	0.9
O	28,695	90	444	4.7	670.6	670.6	671.5	0.9
P	29,595	130	491	4.3	676.1	676.1	676.1	0.0
Q	30,975	50	156	8.4	683.7	683.7	683.7	0.0
R	33,395	110	425	3.1	699.8	699.8	699.8	0.0
S	35,110	265	1,942	0.7	710.9	710.9	710.9	0.0
T	36,250	60	198	6.6	711.4	711.4	711.8	0.4
U	38,340	21	107	12.3	725.2	725.2	725.7	0.5
V	41,020	65	251	5.2	743.8	743.8	744.4	0.6
W	42,500	50	358	3.7	754.0	754.0	754.9	0.9

[1]Feet above Limit of Detailed Study (Limit of Detailed Study is approximately 6,720 feet downstream of Reagen Road)

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

WEBATUCK CREEK REACH 3

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Wells Brook								
A	725[1]	115	270	4.1	373.4	373.4	374.3	0.9
B	1,980[1]	28	168	6.6	379.4	379.4	379.6	0.2
C	4,280[1]	69	270	4.1	390.5	390.5	390.6	0.1
Whaley Lake Stream								
A	920[2]	35	169	11.7	352.6	352.6	352.8	0.2
B	1,685[2]	41	266	7.5	356.3	356.3	357.2	0.9
C	3,730[2]	100	282	7.1	375.4	375.4	375.4	0.0
D	5,160[2]	80	426	4.7	381.2	381.2	381.6	0.4
E	9,000[2]	80	363	5.5	404.8	404.8	405.8	1.0
F	12,480[2]	58	212	9.4	433.2	433.2	433.2	0.0
G	14,700[2]	50	209	9.5	448.1	448.1	448.4	0.3
H	17,120[2]	50	193	8.5	491.5	491.5	492.0	0.5
I	18,990[2]	31	176	7.2	517.1	517.1	518.0	0.9
J	22,500[2]	115	174	7.2	600.6	600.6	600.6	0.0
K	24,820[2]	75	186	6.8	676.7	676.7	676.7	0.0
L	27,620[2]	140	704	1.8	691.4	691.4	691.4	0.0
M	29,530[2]	70	420	3.0	692.4	692.4	693.2	0.8
N	31,220[2]	24	141	9.0	696.0	696.0	696.6	0.6

[1]Feet above confluence with Tenmile River
[2]Feet above confluence with Fishkill Creek

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

WELLS BROOK-WHALEY LAKE STREAM

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Whortlekill Creek Reach 1								
A	1,070[1]	86	440	3.3	232.6	231.6[3]	232.5	0.9
B	2,480[1]	270	2,120	0.7	238.1	238.1	238.1	0.0
C	4,790[1]	108	685	2.1	241.3	241.3	241.4	0.1
D	5,760[1]	126	414	3.5	242.4	242.4	243.0	0.6
E	8,060[1]	139	1,367	1.1	253.7	253.7	253.7	0.0
F	9,870[1]	144	1,273	1.1	253.8	253.8	253.8	0.0
G	12,580[1]	132	613	2.4	254.1	254.1	254.4	0.3
H	14,270[1]	183	955	1.5	259.3	259.3	259.4	0.1
I	15,570[1]	55	181	8.0	264.8	264.8	265.2	0.4
J	17,390[1]	89	333	3.7	279.5	279.5	279.6	0.1
K	19,280[1]	108	511	2.4	285.7	285.7	286.6	0.9
L	21,180[1]	103	574	2.1	291.3	291.3	292.2	0.9
M	24,320[1]	76	200	6.2	298.1	298.1	298.7	0.6
N	26,820[1]	58	203	6.1	312.7	312.7	313.5	0.8
O	28,260[1]	83	250	4.9	323.6	323.6	324.0	0.4
Whortlekill Creek Reach 2								
A	0[2]	30	141	3.3	334.9	334.9	335.9	1.0
B	500[2]	31	72	4.2	338.6	338.6	338.9	0.3
C	1,000[2]	40	86	3.6	344.2	344.2	344.9	0.7
D	1,500[2]	31	77	4.0	350.1	350.1	350.4	0.3
E	2,050[2]	20	38	8.0	359.5	359.5	359.5	0.0
F	2,600[2]	20	38	8.0	368.1	368.1	368.2	0.1
G	3,000[2]	20	38	8.0	377.6	377.6	377.6	0.0
H	3,850[2]	46	93	3.3	395.3	395.3	396.3	1.0
I	4,290[2]	17	37	8.4	409.9	409.9	410.0	0.1

[1]Feet above confluence with Fishkill Creek
[2]Feet above limit of detailed study (limit of detailed study is approximately 328 feet downstream of Arthursburg Road)
[3]Elevatiuon computed without consideration of backwater effects from Fishkill Creek

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

WHORTLEKILL CREEK REACH 1 - WHORTLEKILL CREEK REACH 2

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Willow Brook								
A	500	39	149	3.3	545.6	545.6	546.5	0.9
B	1,500	22	87	5.7	552.1	552.1	552.9	0.8
C	2,470	19	76	6.5	560.9	560.9	561.7	0.8
D	3,480	50	168	2.4	572.8	572.8	573.4	0.6
E	3,937	120	251	1.6	579.1	579.1	579.8	0.7
F	4,800	52	112	3.4	586.4	586.4	587.4	1.0
G	5,750	43	96	4.0	599.6	599.6	600.5	0.9
H	6,360	114	873	0.4	610.9	610.9	611.8	0.9
I	6,730	20	73	5.2	612.8	612.8	612.8	0.0
J	7,077	110	151	2.2	618.3	618.3	619.2	0.9
K	7,390	31	55	6.2	622.4	622.4	622.5	0.1
L	7,990	39	71	4.8	632.0	632.0	632.5	0.5
M	8,740	11	43	6.0	645.1	645.1	646.0	0.9
N	9,590	19	51	5.1	660.7	660.7	661.5	0.8
O	9,820	12	38	6.8	668.9	668.9	669.5	0.6
P	10,185	150	993	0.3	681.6	681.6	681.7	0.1
Q	10,540	23	39	6.7	684.2	684.2	684.2	0.0
R	10,890	33	177	1.1	689.0	689.0	689.8	0.8

[1]Feet above confluence with Sprout Creek #2

TABLE 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

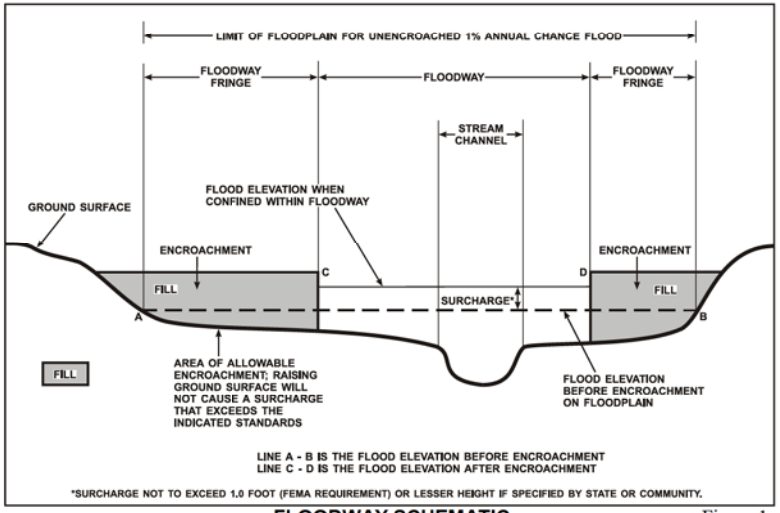
DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

FLOODWAY DATA

WILLOW BROOK

Near the mouths of streams studied in detail, floodway computations are made without regard to flood elevations on the receiving water body. Therefore, "Without Floodway" elevations presented in Table 10 for certain downstream cross sections of Branch 1 Great Spring Creek, Branch 1 Sprout Creek # 1, Branch 1 Wappinger Creek Reach 1, Branch 2 Wappinger Creek Reach 1, Branch 6 Wappinger Creek Reach 1, Branch 7 Wappinger Creek Reach 1, Branch 9 Wappinger Creek Reach 1, Branch 10 Wappinger Creek Reach 1, Casper Kill Creek, Clove Creek, East Branch Wappinger Creek Reach 1, Fishkill Creek, Great Spring Creek, Sprout Creek # 1, Sylvan Lake Outlet, Tributary 1 to Fishkill Creek, Wappinger Creek Reach 1, Wells Brook, and Whortle Kill Reach 1 are lower than the regulatory flood elevations in that area, which must take into account the 1-percent annual chance flooding due to backwater from other sources.

The area between the floodway and 1-percent annual chance floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 1-percent annual chance flood by more than 1.0 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 1.



FLOODWAY SCHEMATIC Figure 1

5.0 INSURANCE APPLICATIONS

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. The zones are as follows:

Zone A

Zone A is the flood insurance rate zone that corresponds to the 1-percent annual chance floodplains that are determined in the FIS by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base flood elevations or depths are shown within this zone.

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 1-percent annual chance floodplains that are determined in the FIS by detailed methods. In most instances, whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AH

Zone AH is the flood insurance rate zone that corresponds to the areas of 1-percent annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AO

Zone AO is the flood insurance rate zone that corresponds to the areas of 1-percent annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the detailed hydraulic analyses are shown within this zone.

Zone AR

Area of special flood hazard formerly protected from the 1-percent annual chance flood event by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1-percent annual chance or greater flood event.

Zone A99

Zone A99 is the flood insurance rate zone that corresponds to areas of the 1-percent annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No base flood elevations or depths are shown within this zone.

Zone V

Zone V is the flood insurance rate zone that corresponds to the 1-percent annual chance coastal floodplains that have additional hazards associated with storm waves. Because approximate hydraulic analyses are performed for such areas, no base flood elevations are shown within this zone.

Zone VE

Zone VE is the flood insurance rate zone that corresponds to the 1-percent annual chance coastal floodplains that have additional hazards associated with storm waves. Whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 0.2-percent annual chance floodplain, areas within the 0.2-percent annual chance floodplain, and to areas of 1-percent annual chance flooding where average depths are less than 1 foot, areas of 1-percent annual chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1-percent annual chance flood by levees. No base flood elevations or depths are shown within this zone.

Zone D

Zone D is the flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.

6.0 FLOOD INSURANCE RATE MAP

The FIRM is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 1-percent annual chance floodplains that were studied by detailed methods, shows selected whole-foot base flood elevations or average depths. Insurance agents use the zones and base flood elevations in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols, the 1- and 0.2-percent annual chance floodplains. Floodways and the locations of selected cross sections used in the hydraulic analyses and floodway computations are shown where applicable.

The current FIRM presents flooding information for the entire geographic area of Dutchess County. Previously, separate Flood Hazard Boundary Maps and/or FIRMs were prepared for each incorporated community with identified flood hazard areas within the county. Historical map dates relating to the pre-countywide FIRMs for each community are presented in Table 11, "Community Map History."

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Amenia, Town of	October 18, 1974	May 21, 1976 January 21, 1977	September 24, 1984	November 15, 1989
Beacon, City of	July 26, 1974	January 30, 1976	March 1, 1984	
Beekman, Town of	October 18, 1974	August 13, 1976 April 15, 1977	September 5, 1984	
Clinton, Town of	December 20, 1974	August 20, 1976 July 1, 1977	July 5, 1984	
Dover, Town of	December 6, 1974	None	August 15, 1984	July 4, 1988
East Fishkill, Town of	November 1, 1974	July 9, 1976	June 15, 1984	
Fishkill, Town of	December 20, 1974	None	June 1, 1984	
Fishkill, Village of	June 21, 1974	June 18, 1976	March 15, 1984	
Hyde Park, Town of	December 20, 1974	October 22, 1976	June 15, 1984	
Lagrange, Town of	November 1, 1974	April 16, 1976	September 28, 1979	November 5, 1986 September 8, 1999
Milan, Town of	October 18, 1974	May 28, 1976	August 10, 1979	
Millbrook, Village of	May 31, 1974	April 30, 1976	February 27, 1984	

TABLE 11

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

COMMUNITY MAP HISTORY

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Millerton, Village of	June 21, 1974	June 25, 1976	January 3, 1985	
Northeast, Town of	October 18, 1974	January 9, 1976	September 5, 1984	
Pawling, Town of	October 25, 1974	August 6, 1976	January 3, 1985	
Pawling, Village of	February 7, 1975	None	August 1, 1984	
Pine Plains, Town of	December 20, 1974	December 19, 1975	October 5, 1984	
Pleasant Valley, Town of	July 26, 1974	November 21, 1975	January 16, 1980	
Poughkeepsie, City of	June 28, 1974	July 9, 1976	January 5, 1984	
Poughkeepsie, Town of	November 29, 1974	None	November 15, 1978	August 2, 1990 September 8, 1999
Red Hook, Town of	October 18, 1974	August 6, 1976	October 16, 1984	
Rhinebeck, Town of	October 18, 1974	February 13, 1976	September 5, 1984	
Rhinebeck, Village of	January 5, 1984	None	February 1, 1985	
Stanford, Town of	October 18, 1974	July 9, 1976	January 21, 1983	December 17, 1991
Tivoli, Village of	December 20, 1974	None	August 1, 1984	

TABLE 11

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

COMMUNITY MAP HISTORY

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Union Vale, Town of	November 15, 1974	None	September 2, 1988	
Wappinger, Town of	November 29, 1974	None	June 15, 1979	September 22, 1999
Wappinger Falls, Village of	November 21, 1975	None	September 1, 1978	September 22, 1999
Washington, Town of	November 1, 1974	July 9, 1976 April 22, 1977	August 17, 1979	

TABLE 11

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY (ALL JURISDICTIONS)

COMMUNITY MAP HISTORY

7.0 OTHER STUDIES

Information pertaining to revised and unrevised flood hazards for each jurisdiction within Dutchess County has been compiled into this FIS. Therefore, this FIS supersedes all previously printed FIS Reports, FHBMs, FBFMs, and FIRMs for all of the incorporated areas within Dutchess County.

This is a multi-volume FIS. Each volume may be revised separately, in which case it supersedes the previously printed volume. Users should refer to the Table of Contents in Volume 1 for the current effective date of each volume; volumes bearing these dates contain the most up-to-date flood hazard data.

8.0 LOCATION OF DATA

Information concerning the pertinent data used in preparation of this FIS can be obtained by contacting FEMA, Federal Insurance and Mitigation Division, 26 Federal Plaza, Room 1337, New York, New York 10278.

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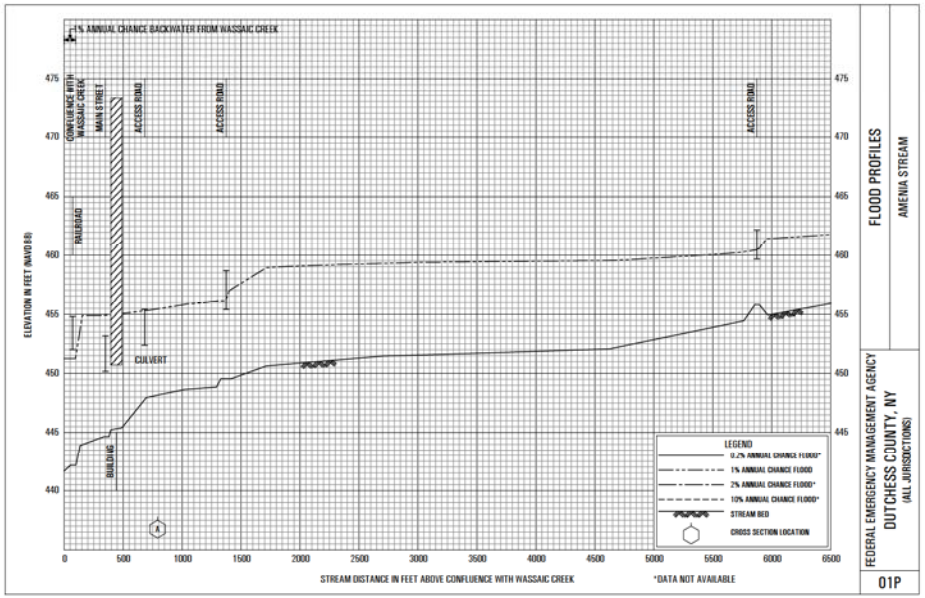
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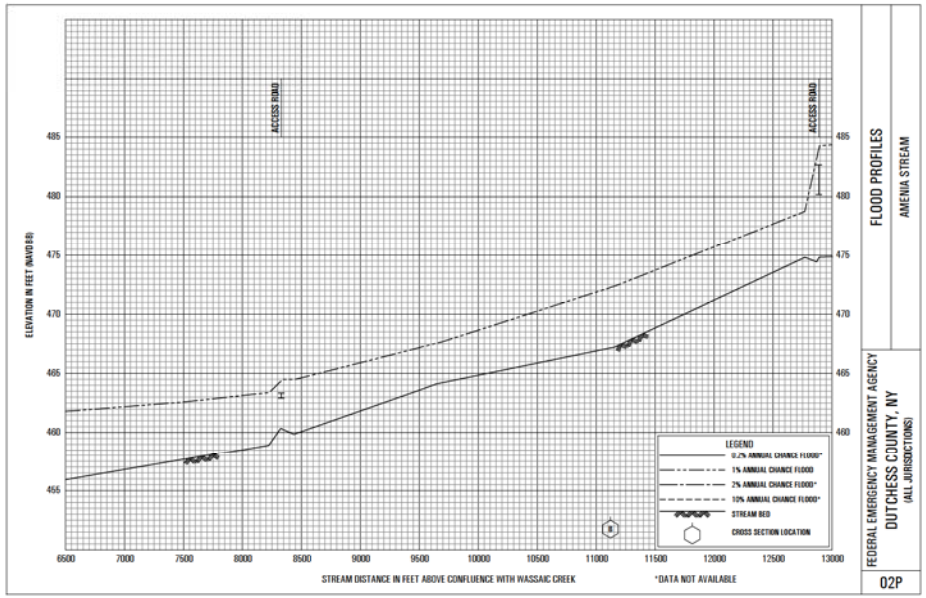
CONFLUENCE WITH WASSAIC CREEK
RAILROAD
MAIN STREET
ACCESS ROAD
ACCESS ROAD
ACCESS ROAD
CULVERT
BUILDING
ELEVATION IN FEET (NAVD88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WASSAIC CREEK
*DATA NOT AVAILABLE
LEGEND
0.2% ANNUAL CHANCE FLOOD*
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD*
10% ANNUAL CHANCE FLOOD*
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
AMENIA STREAM
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
01P


ACCESS ROAD
ACCESS ROAD
ELEVATION IN FEET (NAVD88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WASSAIC CREEK
*DATA NOT AVAILABLE
LEGEND
0.2% ANNUAL CHANCE FLOOD*
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD*
10% ANNUAL CHANCE FLOOD*
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
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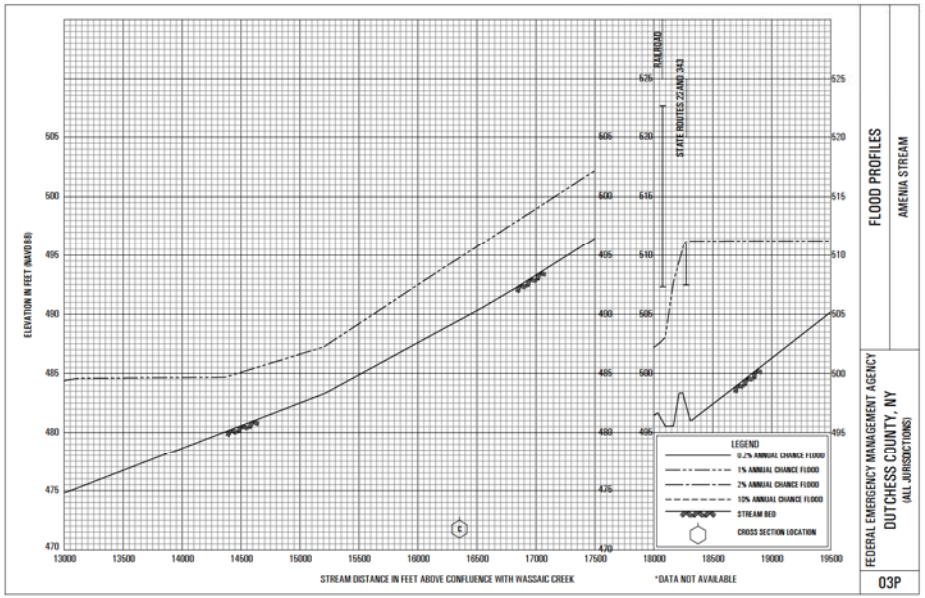
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
02P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STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WASSAIC CREEK
RAILROAD
STATE ROUTES 22 AND 343
LEGEND
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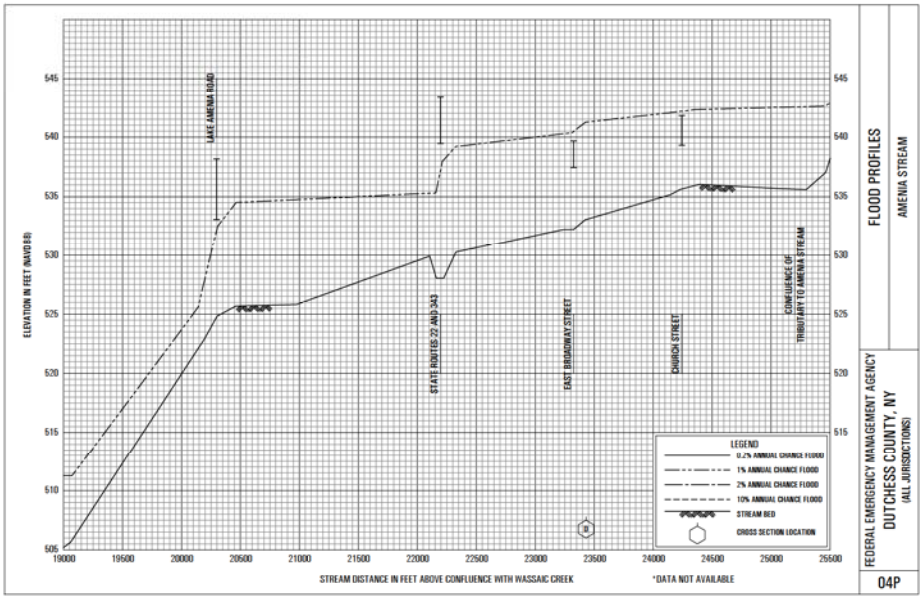
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
*DATA NOT AVAILABLE
FLOOD PROFILES
AMENIA STREAM
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
03P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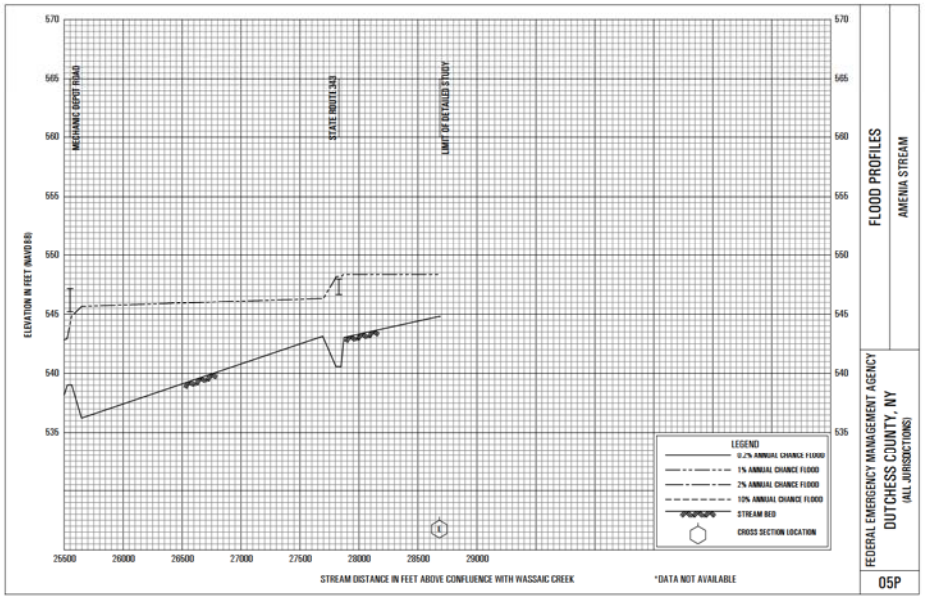
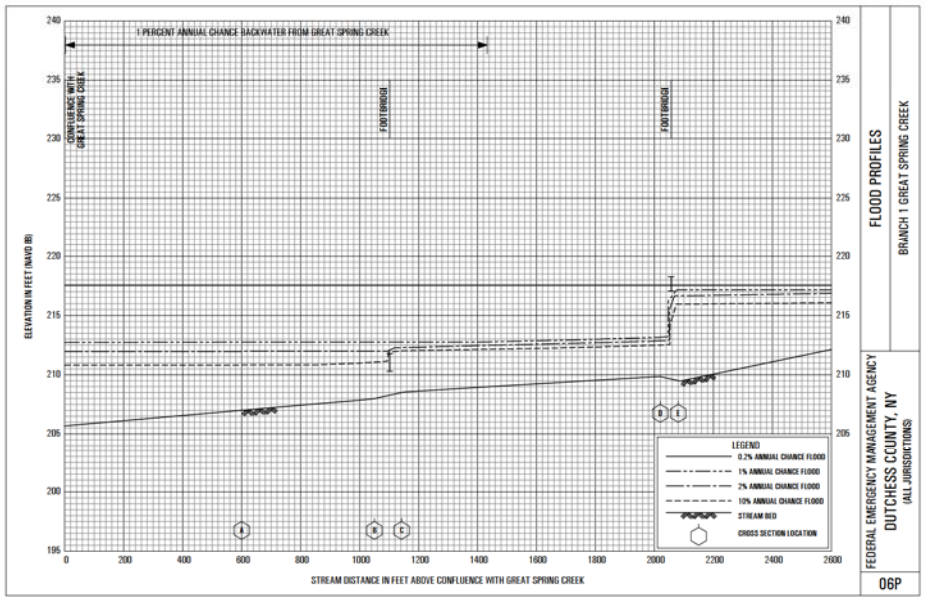
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WASSAIC CREEK
LAKE AMENIA ROAD
STATE ROUTES 22 AND 343
EAST BROADWAY STREET
CHURCH STREET
CONFLUENCE OF TRIBUTARY TO AMENIA STREAM
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
*DATA NOT AVAILABLE
FLOOD PROFILES
AMENIA STREAM
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
04P


MECHANIC DEPOT ROAD
STATE ROUTE 343
LIMIT OF DETAILED STUDY
ELEVATION IN FEET (NAVD88)
570
565
560
555
550
545
540
535
25500
26000
26500
27000
27500
28000
28500
29000
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WASSAIC CREEK
*DATA NOT AVAILABLE
FLOOD PROFILES
AMENIA STREAM
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
05P


1 PERCENT ANNUAL CHANCE BACKWATER FROM GREAT SPRING CREEK
CONFLUENCE WITH GREAT SPRING CREEK
FOOTBRIDGE
FOOTBRIDGE
ELEVATION IN FEET (NAVD 88)
240
235
230
225
220
215
210
205
200
195
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
2400
2600
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH GREAT SPRING CREEK
FLOOD PROFILES
BRANCH 1 GREAT SPRING CREEK
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
06P

FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
08P
FLOOD PROFILES
BRANCH 1 GREAT SPRING CREEK
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
LIMIT OF DETAILED STUDY
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH GREAT SPRING CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
07P
FLOOD PROFILES
BRANCH 1 GREAT SPRING CREEK
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
WISTERN ROAD
STATE HIGHWAY 115
SALT POINT TURNPIKE
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH GREAT SPRING CREEK

10P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 1 SPROUT CREEK # 1
LEGEND
0.2% ANNUAL CHANCE (500)
1% ANNUAL CHANCE (100)
2% ANNUAL CHANCE (50)
10% ANNUAL CHANCE (10)
STREAM BED
CROSS SECTION LOCATION
CULVERT
STATE ROUTE 55
FREEDOM PLAINS ROAD
OR. FINK ROAD
LIMIT OF DETAILED STUDY
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SPROUT CREEK #1
ELEVATION IN FEET (NAVD 88)

09P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 1 SPROUT CREEK # 1
LEGEND
0.2% ANNUAL CHANCE (500)
1% ANNUAL CHANCE (100)
2% ANNUAL CHANCE (50)
10% ANNUAL CHANCE (10)
STREAM BED
CROSS SECTION LOCATION
TODD HILL ROAD
CONFLUENCE WITH SPROUT CREEK #1
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SPROUT CREEK #1
ELEVATION IN FEET (NAVD 88)

12P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 1 WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
PRIVATE DRIVE
STATE ROUTE 9D
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1

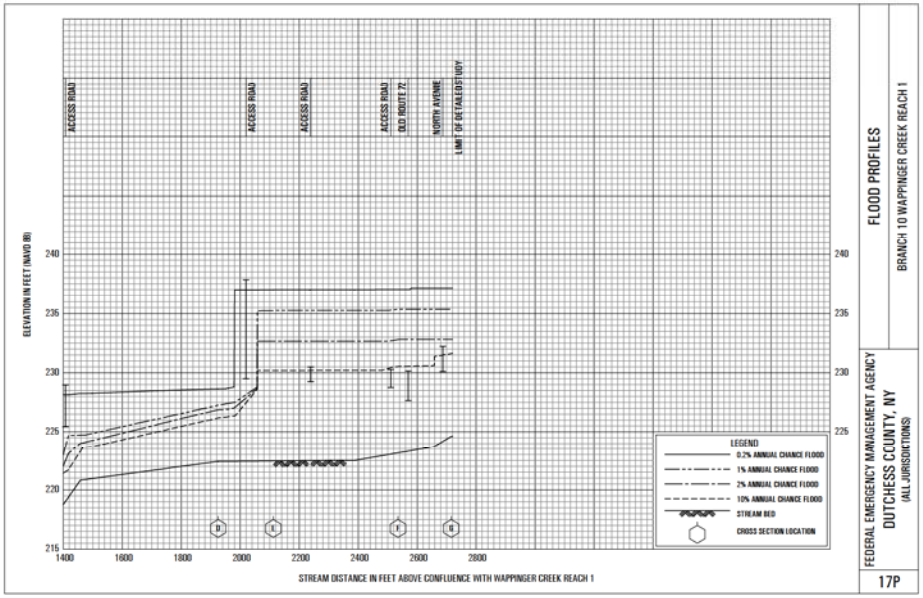
11P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 1 WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FOOTBRIDGE
CONFLUENCE WITH WAPPINGER CREEK REACH 1
CREEK ROAD
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1

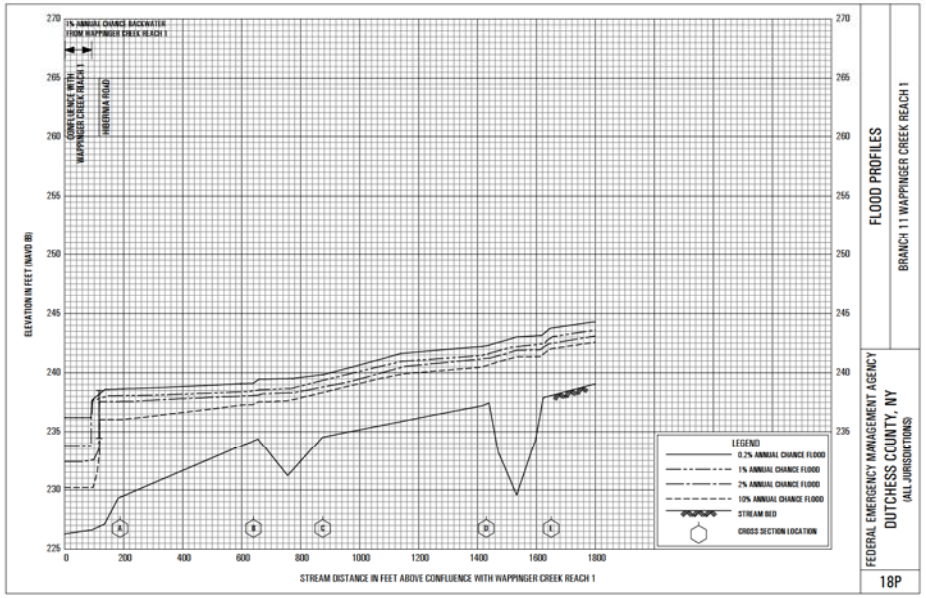
14P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 1 WAPPINGER CREEK REACH 1
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FOOTBRIDGE

13P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 1 WAPPINGER CREEK REACH 1
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
CONFLUENCE OF TRIBUTARY 1 BRANCH 1 WAPPINGER CREEK
CONFLUENCE OF TRIBUTARY 2 BRANCH 1 WAPPINGER CREEK

16P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 10 WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
BRIDGE
CONFLUENCE WITH WAPPINGER CREEK REACH 1
1% ANNUAL CHANCE BACKWATER FROM WAPPINGER CREEK REACH 1
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1

15P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 1 WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
LIMIT OF DETAILED STUDY
U.S. ROUTE 9
OLD ROUTE 9
OLD STATE ROAD
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1


ACCESS ROAD
ACCESS ROAD
ACCESS ROAD
ACCESS ROAD
OLD ROUTE 7C
NORTH AVENUE
LIMIT OF DETAILED STUDY
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
BRANCH 10 WAPPINGER CREEK REACH 1
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
17P


1% ANNUAL CHANCE BACKWATER FROM WAPPINGER CREEK REACH 1
CONFLUENCE WITH WAPPINGER CREEK REACH 1
VIRGINIA ROAD
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
BRANCH 11 WAPPINGER CREEK REACH 1
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
18P

FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
20P
FLOOD PROFILES
BRANCH 1A HUDSON RIVER
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH HUDSON RIVER
CONFLUENCE WITH HUDSON RIVER
RIVER ROAD NORTH
DAM
EASTER ROAD
CHELSEA ROAD
LIMIT OF DETAILED STUDY
CONRAIL
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION

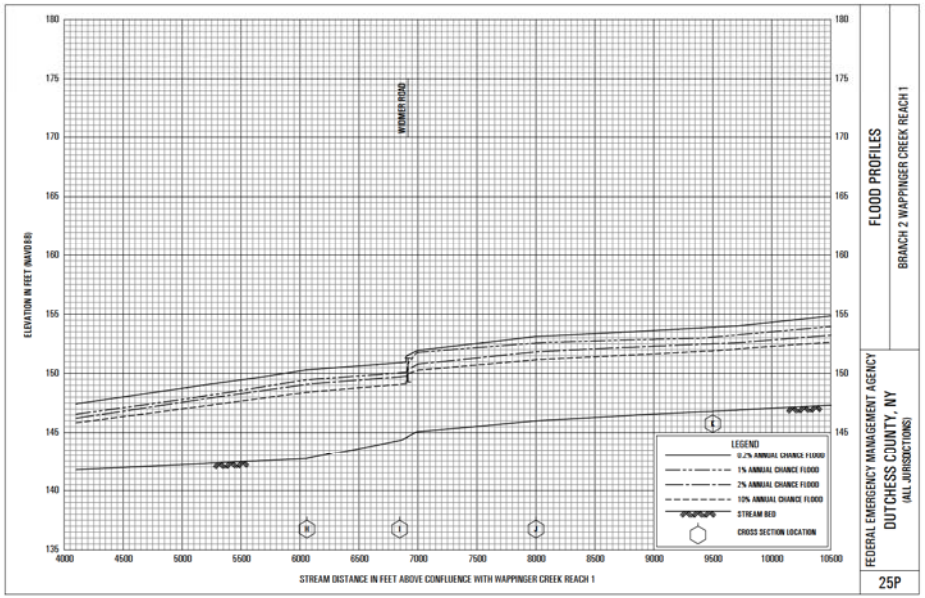
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
19P
FLOOD PROFILES
BRANCH 11 WAPPINGER CREEK REACH 1
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1
LIMIT OF DETAILED STUDY
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION

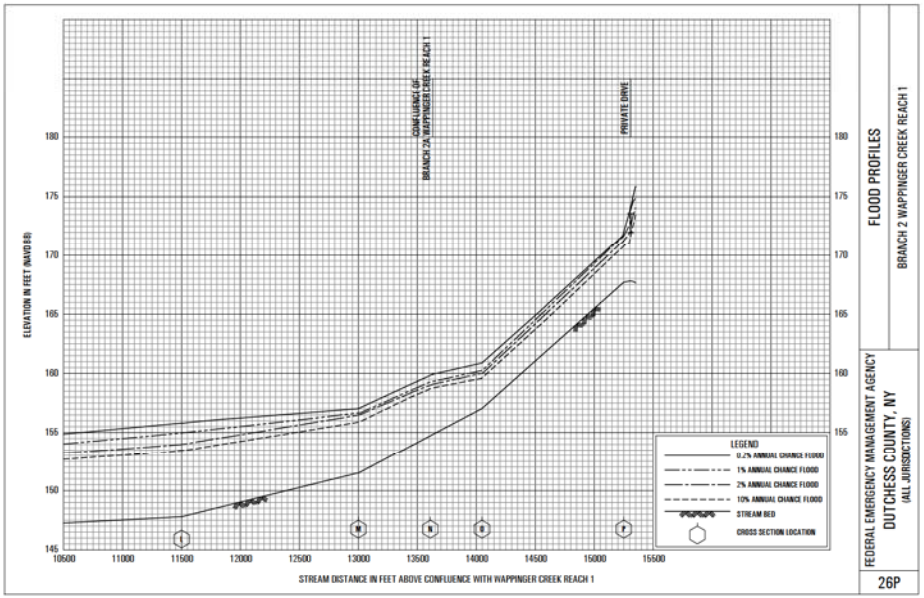
22P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 2 SPROUT CREEK #1
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SPROUT CREEK #1
STATE ROUTE 55
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION

21P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 2 SPROUT CREEK #1
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SPROUT CREEK #1
CONFLUENCE WITH SPROUT CREEK #1
VIELE ROAD
DRIVEWAY
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION

24P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 2 WAPPINGER CREEK REACH 1
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1
ELEVATION IN FEET (NAVD 88)
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
CONFLUENCE WITH WAPPINGER CREEK REACH 1
JACKSON ROAD
NEW HACKENSACK ROAD
DAM
FOOTBRIDGE
CONFLUENCE OF BRANCH 2B
WAPPINGER CREEK REACH 1
DRIVEWAY

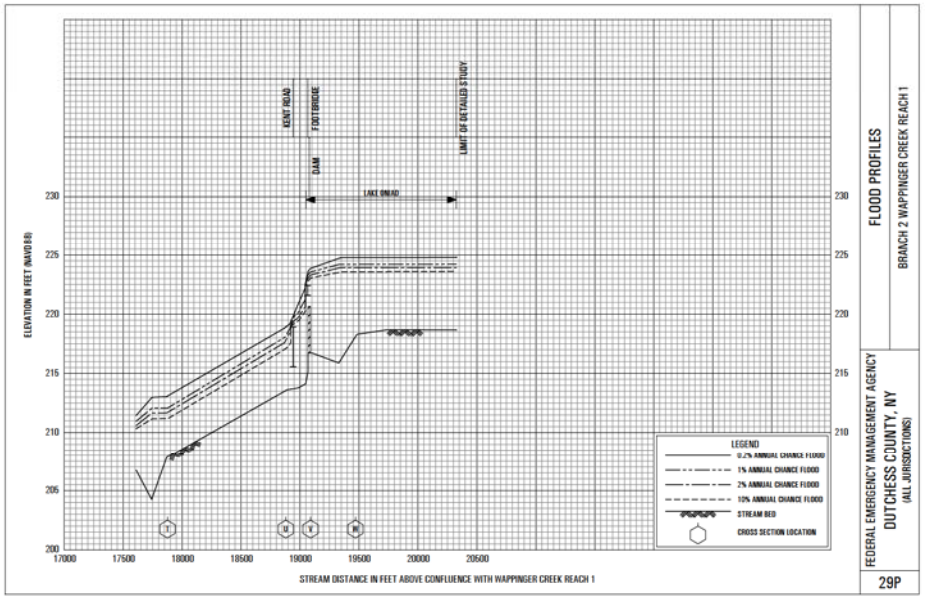
23P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 2 SPROUT CREEK #1
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SPROUT CREEK #1
ELEVATION IN FEET (NAVD 88)
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
LIMIT OF DETAILED STUDY
STATE ROUTE 82
ABANDONED RAILROAD BRIDGE


WYOMER ROAD
ELEVATION IN FEET (NAVD88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
BRANCH 2 WAPPINGER CREEK REACH 1
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
25P


CONFLUENCE OF BRANCH 2A WAPPINGER CREEK REACH 1
PRIVATE DRIVE
ELEVATION IN FEET (NAVD88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
BRANCH 2 WAPPINGER CREEK REACH 1
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
26P

28P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 2 WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1

27P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 2 WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
MYERS CORNERS ROAD
DAM
DAM
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1



FLOOD PROFILES

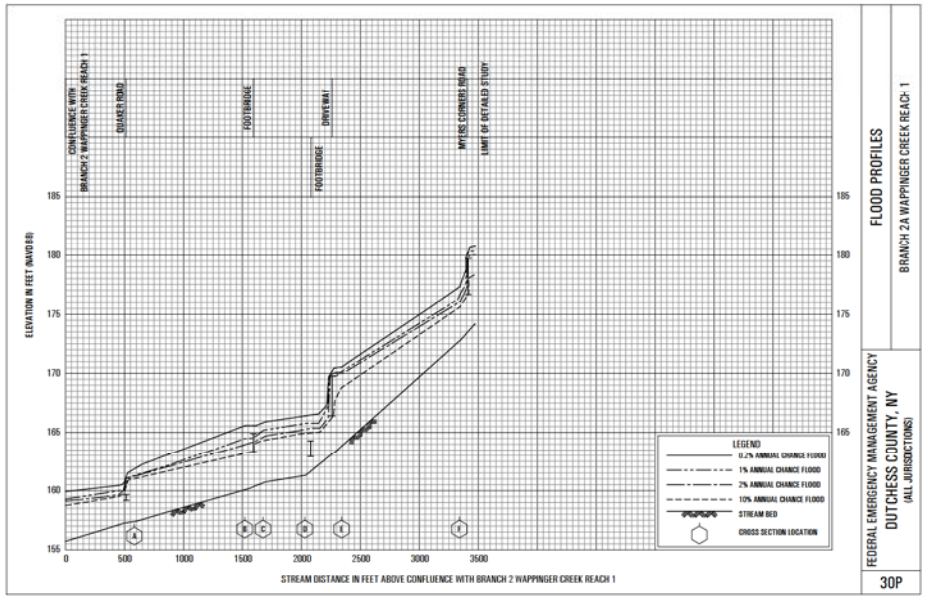
BRANCH 2 WAPPINGER CREEK REACH 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY

(ALL JURISDICTIONS)

29P



FLOOD PROFILES

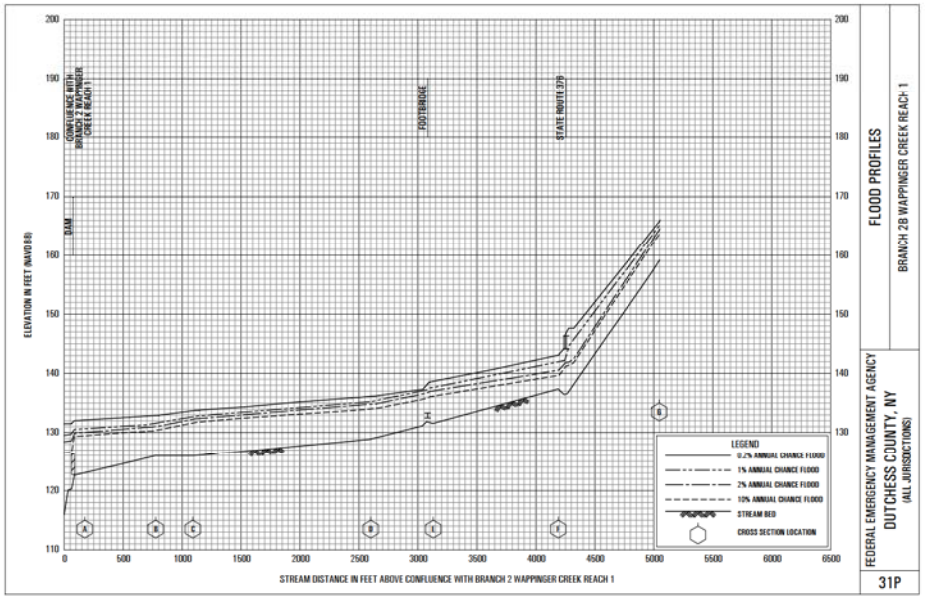
BRANCH 2A WAPPINGER CREEK REACH- 1

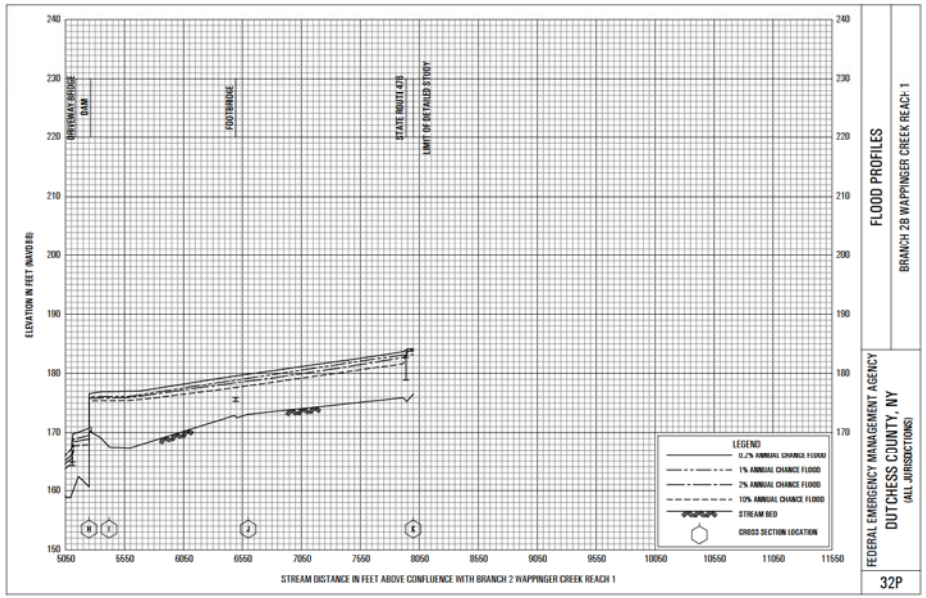
FEDERAL EMERGENCY MANAGEMENT AGENCY

DUTCHESS COUNTY, NY

(ALL JURISDICTIONS)

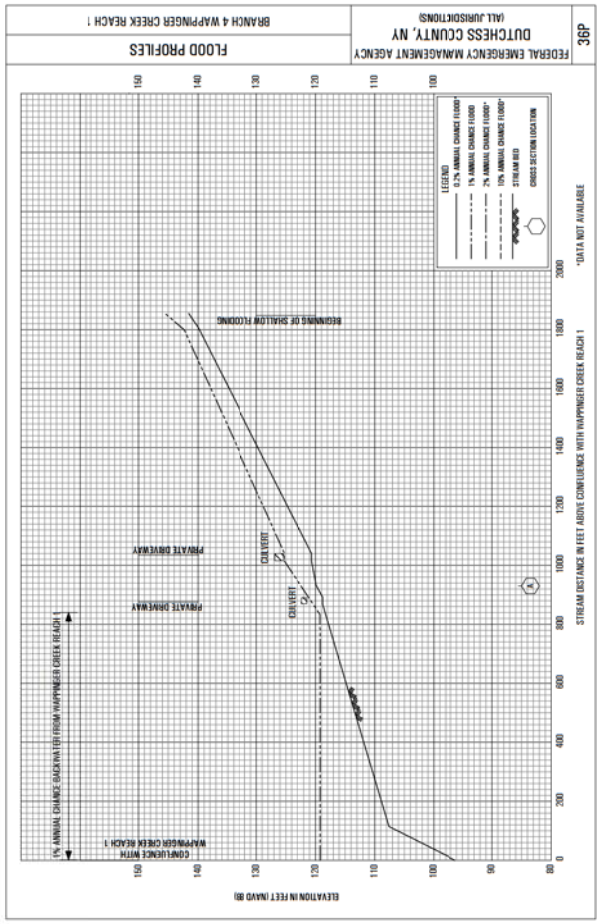
30P

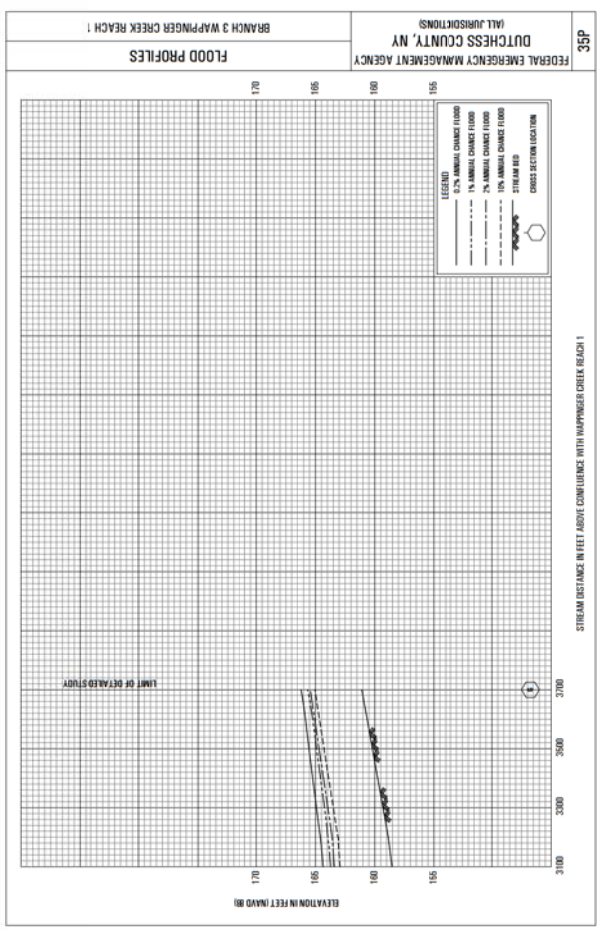

CONFLUENCE WITH BRANCH 2 WAPPINGER CREEK REACH 1
DAM
FOOTBRIDGE
STATE ROUTE 376
ELEVATION IN FEET (NAVD88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH BRANCH 2 WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
BRANCH 2B WAPPINGER CREEK REACH 1
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
31P


DRIVEWAY BRIDGE
DAM
FOOTBRIDGE
STATE ROUTE 376
LIMIT OF DETAILED STUDY
ELEVATION IN FEET (NAVD88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH BRANCH 2 WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
FLOOD PROFILES
BRANCH 2B WAPPINGER CREEK REACH 1
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
32P

34P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 3 WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
YASSAR ROAD
HILLS TERRACE
DAM
FOOT BRIDGE
CULVERT
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1
ELEVATION IN FEET (NAVD 88)

33P
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
FLOOD PROFILES
BRANCH 3 WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
CONFLUENCE WITH WAPPINGER CREEK REACH 1
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1
ELEVATION IN FEET (NAVD 88)


FLOOD PROFILES
BRANCH 4 WAPPINGER CREEK REACH 1
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
36P
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1
*DATA NOT AVAILABLE
LEGEND
0.2% ANNUAL CHANCE FLOOD*
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD*
10% ANNUAL CHANCE FLOOD*
STREAM BED
CROSS SECTION LOCATION
BEGINNING OF SHALLOW FLOODING
PRIVATE DRIVEWAY
PRIVATE DRIVEWAY
CULVERT
CULVERT
1% ANNUAL CHANCE BACKWATER FROM WAPPINGER CREEK REACH 1
CONFLUENCE WITH WAPPINGER CREEK REACH 1


FLOOD PROFILES
BRANCH 3 WAPPINGER CREEK REACH 1
FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
35P
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1
LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
CROSS SECTION LOCATION
LIMIT OF DETAILED STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY
DUTCHESS COUNTY, NY
(ALL JURISDICTIONS)
37P
FLOOD PROFILES
BRANCH 4 WAPPINGER CREEK REACH 1
ELEVATION IN FEET (NAVD 88)
STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WAPPINGER CREEK REACH 1
*DATA NOT AVAILABLE
LEGEND
0.2% ANNUAL CHANCE FLOOD*
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD*
10% ANNUAL CHANCE FLOOD*
STREAM BED
CROSS SECTION LOCATION
BEGINNING OF SHALLOW FLOODING
LIMIT OF DETAILED STUDY

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Submitted by Paramount Lighting & Electrical Corp.			
PARAMOUNT LIGHTING	**Job Name:** 248 TIORONDA AVE	**Catalog Number:** BOL-G2-118-MCTP-BK/BOL-G2-SHAFT-31-BK/BOL-G2-ABK-R Notes:	**Type:** **BOLLARD**

BOL-G2 SERIES Outdoor Lighting

WESTGATE
THE FUTURE IS HERE...AND IT'S QUITE BRIGHT!

~~BOL-G2-118-MCTP-BR~~
BOL-G2-118-MCTP-BK
~~MODULAR BOLLARD SYSTEM G2~~
MCTP Multi Color Temperature & Multi Power/Wattage (Selectable)

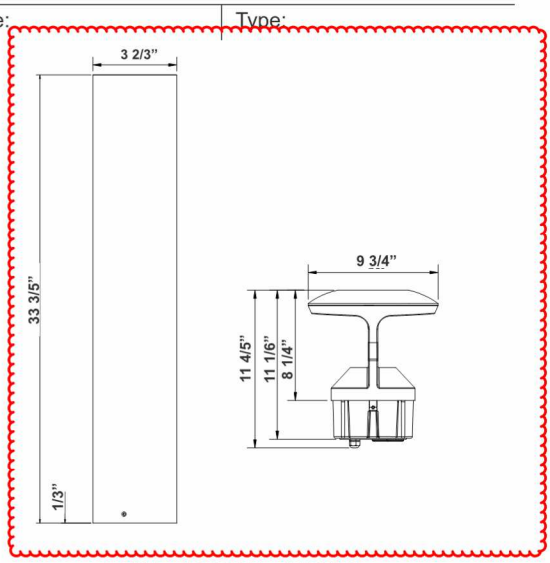
Customer Name:
Project Name:
Note: Type:



Avail Finish:



Bollards are designed for walkways, entrance ways, drives and other small-area lighting applications where low mounting heights are desirable



45 "(H) x 9 3/4"(W) x 3 2/3"(D)

Features

- Corrosion Resistant Aluminum for Exterior
- Samsung 2835 LED Chips
- Wattage & CCT Selectable Switches inside fixture
- 7-Year Warranty

Technical Specifications

Electrical:

- Voltage: 120-277VAC
- Wattage: 14W/19W/24W
- Power Factor: >0.9
- Efficacy: 125 LPW

Lighting:

- Wattage & CCT Selectable Switches inside fixture
- Lumens: 3000LM Max.
- Color Temperatures: 3000K/4000K/5000K
- Color Rendering Index: CRI ≥ 70
- Beam Angle : 360
- Lifespan: 70000 Hours

Mechanical:

- Flat Top with Cone Reflector & Frosted Lens
- Corrosion Resistant Aluminum for Exterior
- Mounting Accessories & Anchor Bolts Included (7-1/2" long)
- Operating Temperature: -40°F to 113°F
- 7 Years Warranty
- IP Rating: IP65, Wet Locations

Applications:

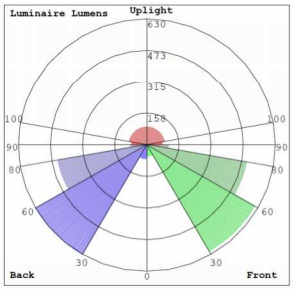
- Bollards are designed for walkways, entrance ways, drives and other small-area lighting applications where low mounting heights are desirable

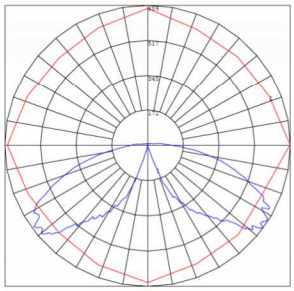
Other Models:

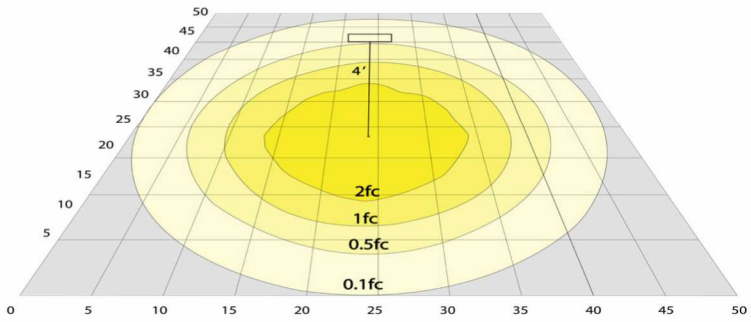
- 24W | 3000LM | BOL-G2-103F-MCTP-BK
- 24W | 3000LM | BOL-G2-103F-MCTP-BR
- 24W | 3000LM | BOL-G2-103D-MCTP-BK
- 24W | 3000LM | BOL-G2-103D-MCTP-BR
- 24W | 3000LM | BOL-G2-107F-MCTP-BK
- 24W | 3000LM | BOL-G2-107F-MCTP-BR

Phone: (877) 805-2252 | Fax: (877) 805-2252
www.westgatemfg.com |

Photometrics: BOL-G2-118-MCTP







BUD Rating: B1-U3-G2

Area 75'x 65' Mounting Height: 4'

Other Views:



Head

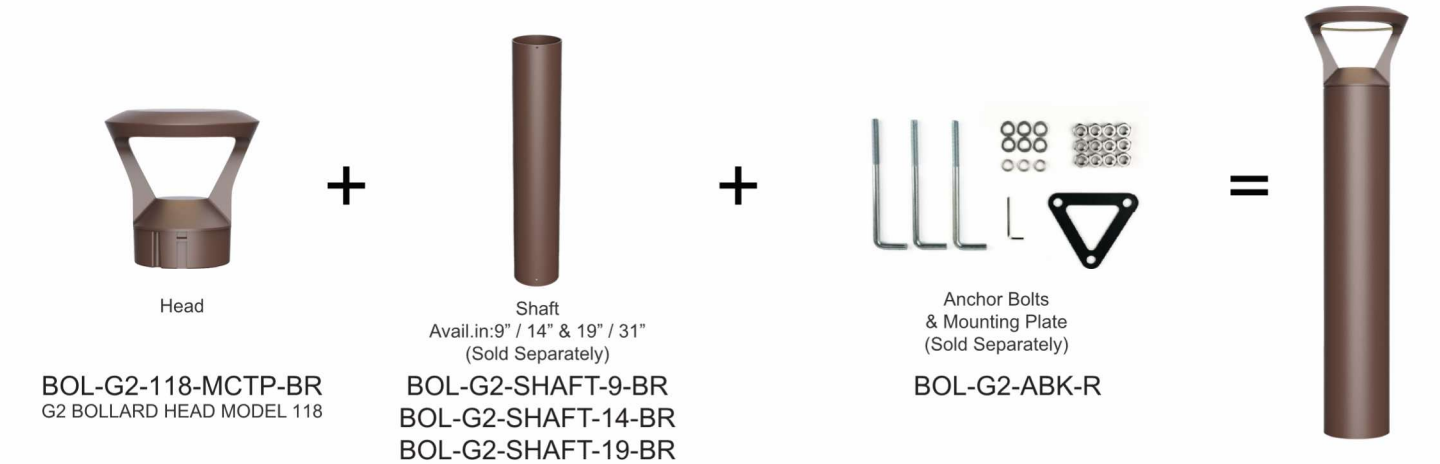
BOL-G2-118-MCTP-BK
G2 BOLLARD HEAD MODEL 118

Shaft
Avail.in:9" / 14" & 19" / 31"
(Sold Separately)

BOL-G2-SHAFT-9-BK
BOL-G2-SHAFT-14-BK
BOL-G2-SHAFT-19-BK
BOL-G2-SHAFT-31-BK

Anchor Bolts
& Mounting Plate
(Sold Separately)

BOL-G2-ABK-R



Head

BOL-G2-118-MCTP-BR
G2 BOLLARD HEAD MODEL 118

Shaft
Avail.in:9" / 14" & 19" / 31"
(Sold Separately)

BOL-G2-SHAFT-9-BR
BOL-G2-SHAFT-14-BR
BOL-G2-SHAFT-19-BR
BOL-G2-SHAFT-31-BR

Anchor Bolts
& Mounting Plate
(Sold Separately)

BOL-G2-ABK-R

Performance Table: BOL-G2-118-MCTP

MODEL NO.	Wattage	Voltage	Lumens	Color Temp.	BUG Rating	LPW
BOL-G2-118-MCTP	14W	120~277V	1750LM	3000K	B1-U3-G2	125
	19W		2375LM	4000K		
	24W		3000LM	5000K		

Accessories:

Blank = No Option For Accessories
BOL-G2-SHAFT-31-BK = G2 Bollard Shaft 31 Inch, Black
BOL-G2-SHAFT-31-BR = G2 Bollard Shaft 31 Inch, Bronze
BOL-G2-SHAFT-19-BK = G2 Bollard Shaft 19 Inch, Black
BOL-G2-SHAFT-19-BR = G2 Bollard Shaft 19 Inch, Bronze
BOL-G2-SHAFT-14-BK = G2 Bollard Shaft 14 Inch, Black
BOL-G2-SHAFT-14-BR = G2 Bollard Shaft 14 Inch, Bronze
BOL-G2-SHAFT-9-BK = G2 Bollard Shaft 9 Inch, Black
BOL-G2-SHAFT-9-BR = G2 Bollard Shaft 9 Inch, Bronze
BOL-G2-ABK-R = G2 Bollard Round Replacement Anchor
BOL-G2-ABK-R = G2 Bollard Round Replacement Anchor Bolts & Mounting Plate
BOL-R-ACC-FLOPT-PC-B = Button Photocell

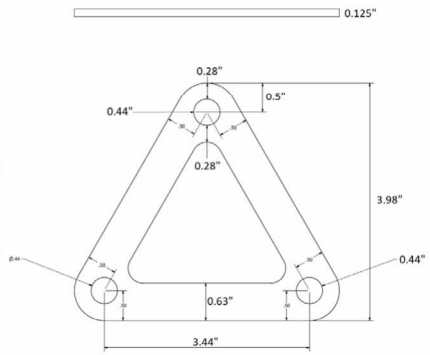
Factory-Installed Options:

Blank = No Option For Accessories
OPT-EM-OD1INT = Emergency Backup Internal Battery, Back Box
OPT-CRL-95(BK/GR/SR/WH) = Paint
OPT-SEN-WMC = Microwave Bi-Level Sensor

ACCESSORIES:



BOL-G2-ABK-R



3.98" H x 3.44" W x 0.125" D

FACTORY-INSTALLED OPTION:



OPT-EM-OD1INT
INTERNAL BATTERY



OPT-SEN-WMC
MICROWAVE BI-LEVEL SENSOR



OPT-PC-B
FOR 120V-277V PHOTOCELL

ALED5T26Y/PCT

LP-C: PEDESTRIAN LIGHT



High output LED pole top area light with IES type V circular distribution. Wide and uniform 360 degree pattern ideal for large outdoor areas such as parking lots, corporate parks, and retail settings.

Color: Bronze

Weight: 21.8 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	0.22A
208V	0.13A
240V	0.11A
277V	0.10A
Input Watts	26.4W

LED Info

Watts	26W
Color Temp	3000K (Warm)
Color Accuracy	70 CRI
L70 Lifespan	100,000 Hours
Lumens	3,395 lm
Efficacy	128.6 lm/W

Technical Specifications

Compliance

UL Listed:
Suitable for wet locations

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:
This product family is listed with the DesignLights Consortium (DLC). Individual SKUs within this family may carry either a DLC Standard or DLC Premium qualification. Please refer to the individual product specification sheet or the DLC Qualified Products List (QPL) at designlights.org to confirm the qualification status of a specific SKU prior to specification or purchase.

LED Characteristics

LEDs:
High-output, long-life LEDs

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:
LED color temperature is warrantied to Shift no more than 200K in color temperature over a 5-year period

Color Uniformity:
RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Performance

Lifespan:
100,000-Hour LED lifespan based on IESlm-80 results and TM-21 calculations

Wattage Equivalency:
Equivalent to 100W Metal Halide

Construction

Cold Weather Starting:
The minimum starting temperature is -40°F (-40°C)

Maximum Ambient Temperature:
Suitable for use in up to 104°F (40°C)

Effective Projected Area (EPA):
EPA = 1.2

Thermal Management:
Superior thermal management with external air-flow fins

Housing:
Precision die-cast aluminum, Type V distribution

Support Arms:
Extruded aluminum

Lens:
Clear tempered glass lens

Reflector:
Specular vacuum-metallized polycarbonate, Type V distribution

Gaskets:
High-temperature silicone

Finish:
Formulated for high durability and long-lasting color

Green Technology:
Mercury and UV free. RoHS-compliant components.

Optical

BUG Rating:
B2 U0 G1

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Technical Specifications (continued)

Other

Patents:
The designs of the ALED5T52 are protected by patents pending in US, Canada, China, Taiwan and Mexico

5-Year, No-Compromise Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Electrical

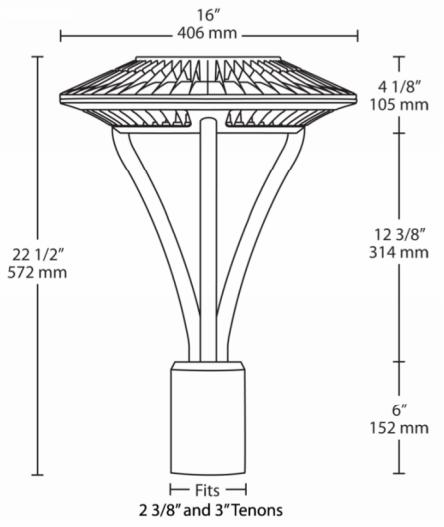
Drivers:
Constant Current, Class 2 with 6kV surge protection, 120-277VAC, 50/60 Hz, 120V: 0.22A, 208V: 0.13A, 240V: 0.11A, 277V: 0.10A

THD:
5.67% at 120V, 6.72% at 277V

Power Factor:
99.6% at 120V, 96.4% at 277V

Photocell:
120-277V Twistlock photocell included. Photocell is compatible with 120V - 277V.

Dimensions



Features

- IES type V (circular) distribution
- 100,000-hour LED lifespan
- Compatible with standard 2 3/8" and 3" tenons
- "Air-Flow" fins for maximum heat dissipation
- 5-Year, No-Compromise Warranty

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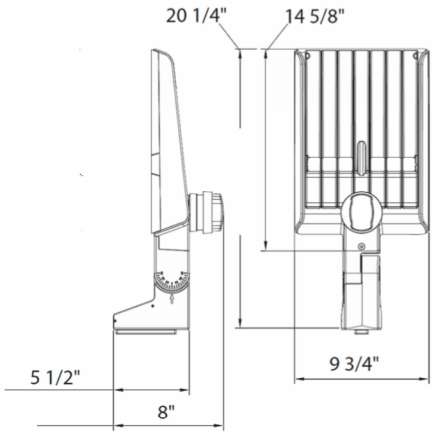
Submitted by Paramount Lighting & Electrical Corp.			
PARAMOUNT LIGHTING	**Job Name:** 248 TIORONDA AVE	**Catalog Number:** A22-70 Notes:	**Type:** LPD,LPE,~~LPF-HEAD~~

Technical Specifications (continued)

Dimensions



Features

- DLC Premium listed
- Adjustable Universal Pole Mount
- 7-Pin Receptacle with Shorting Cap
- IP66 Rated
- 100,000-Hour LED lifespan
- 5-Year, limited warranty

Ordering Matrix

Family		Optics	Wattage	Mounting	Color Temp	Finish	Driver	Options
A22	–		70					
		2T = Type II **4T** = Type IV **5T** = Type V **Blank** = Type III	**70** = 70/60/50W **100** = 100/80/60W **150** = 150/120/100W **200** = 200/180/160W **320** = 320/280/250W	**Blank** = Universal Adjustable Pole Mount **Blank** = Universal Non-Adjustable Pole Mount	**Blank** = 3000/4000/5000K CCT Adjustable **Y** = 3000K	**Blank** = Bronze **W** = White **B** = Black	**Blank** = 120-277V, 0-10V Dimming **/480** = 480V, 0-10V Dimming	**Blank** = 7-Pin Receptacle with Shorting Cap **/MVS** = 7-Pin Receptacle with Shorting Cap and Microwave Motion Sensor **/LCBS** = Lightcloud Blue w/PIR Sensor **/LCBS/MVS** = Lightcloud Blue w/MVS Sensor

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DUTCHESS COUNTY DEPARTMENT OF PLANNING & DEVELOPMENT	GML 239 REFERRAL RESPONSE
To: City of Beacon, Planning Board **Project Name**: 248 Tioronda Ave Amended Site Plan **Action**: Site Plan **Applicant**: Beacon 248 Holdings LLC **Property Address**: 200-300 Arno Dr, Beacon, NY 12508 **Lot Number(s)**: 012574	**Referral #**: ZR26-139 **Date Received**: 7/20/2026 **Date Requested**: 8/10/2026 **Date Issued**: 7/29/2026
Reviewer: Dozier, Emily	**Signed:** Emily S. Dozier

The Dutchess County Department of Planning & Development has reviewed the subject referral within the framework of General Municipal Law (Article 12B, §239-l/m) based on the materials submitted.

ACTION

The applicant is seeking amended site plan approval to construct two residential buildings with a total of 136 units, along with parking, landscaping and lighting. An amended concept plan was approved for these buildings earlier this year, and they are consistent with the two existing residential buildings recently constructed on the site.

COMMENTS
Overall, we find the proposed site plan and buildings thoughtfully designed, and we fully support this addition of housing in the city.

Lighting:
- The lighting spec sheets did not include BUG (Backlight, Uplight, Glare) ratings. We recommend BUG ratings as close to 0/0/0 as possible to reduce unnecessary glare and light pollution. In particular, the bollard fixtures may result in some backlight or glare.
- The proposed fixtures have a color temperature of 3,000K and CRIs of 70. We suggest a color temperature of 2,700K to provide a less harsh light, and CRIs of 80-100 to provide a more natural light.

Parking:
- We did not see a detail for the bicycle parking. We recommend 'Inverted U' racks as easy to use and most functional. The Dutchess County Transportation Council has bicycle parking recommendations and placement guidelines on its website (https://www.dutchessny.gov/Departments/Transportation-Council/Walking-Bicycling-Resources.htm).
- We encourage EV charging stations to be provided, if not already.

Signage: We understand that signage is typically reviewed separately. We encourage any sign illumination to be external and downlit.

RECOMMENDATION

The Department recommends that the Board rely upon its own study of the facts in the case with due consideration of the above comments.

From:
To: Mercedes Perez
Subject: 248 Tioronda New Concept Plan
Date: Tuesday, July 21, 2026 10:46:01 AM

Chairman John Gunn, Karen Quiana, Len Warner, Kevin Byrne, James Vermeulen, David Jensen and Randall Williams. I would like to thank you all for your time, dedication and committment to improving aesthetic and build quality of the plans that come before you. It is an uphill battle that you tackle and you do it all for Free. Much appreciated.

Kyriacou and Willis are responsible for the Mess at 248 Tioronda. I realize that it is too late to undue the damage that has been done. Kyriacou and his comrades made sure of that.

A short rant....The day that site work and construction on buildings 200 and 300 began and building 100 wasn't, Barry Kohn and crew should have received a Stop Work order for violating the terms of their agreement with the City of Beacon. A lawful, binding document. Kyriacou and Willis should have sued for breach of contract. Instead, they reward this shady developer with what is now being proposed. Unbelievable! I have lived and owned homes in this city for 55 years and this mayor and council have an unacceptable agenda.

Now, How can this concept plan be altered to benefit the taxpaying people of Beacon? Number 1...Eliminate the dog run!! What casual walker wants to hear and see a pack of dogs running up and down a cage while on a peaceful walk. Do dogs pay taxes? How is this a perk for Us? Dogs are everywhere in Beacon, barking , urinating and crapping all over. No Way. Instead, we should promote pedestrian amenities. How about a covered peaceful and relaxing pavilion along the creek? Not some cheap shed but maybe a 15 x 30 ft classy open structure with permanent benches and tables and concrete floor. Also trash bins that would be maintained by Arno.

Number 2.....rooftop HVAC should be eliminated on all new construction. I know, that would be a problem that Kyriacou and crew would be responsible for, so that's a slim possibility of becoming law. We know how Arno attempted to address this eyesore on buildings 200 and 300. They painted some wood pallets dark grey and propped

them up in front of the mini-splits. Better than the units themselves , but not a precedent for future designs. Remember, those units were not shown in the original elevation drawings. Also the wooden pallets give the impression of additional building height and view obstructiion.

It is maddening that the 248 Tiioronda project has evolved into This! It should not have happened and I place the blame on Kyriacou, Willis and the city Council.

Do your best PB members. Fighting City Hall is tough. Thanks for all you do. Good Luck. Regards, Bob Kacur

LANC & TULLY
Engineering and Surveying, D.P.C.

August 7, 2026

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

RE: 248 Tioronda Ave.
Tax No. 6054-45-012574
City of Beacon

Dear Mr. Gunn:

My office has received the following regarding the proposed revised concept plans for the 248 Tioronda Avenue project:

- Correspondence dated July 26, 2026, from CHAI Developers.
- Correspondence dated July 28, 2026, from LaBella Associates.
- Several project renderings from different vantage points, dated July 24, 2026, as prepared by ab architekten.
- Cut sheets for bollard lights, pedestrian lights, and pole mounted light heads.
- Stormwater Pollution Prevention Plan (SWPPP), titled "Amended Pollution Prevention Plan for 248 Tioronda Ave", previously issued on December 2019, and last revised July 2026, as prepared by LaBella Associates.
- Architectural Floor Plans and Elevations titled "248 Tioronda Ave" for Buildings 50 and 100, dated July 13, 2026, with a latest revision date of July 24, 2026, as prepared by ab architekten.
- Site plan set titled "Amended Site Plan – 248 Tioronda Ave", consisting of 17 sheets, with a latest revision date of July 28, 2026, as prepared by LaBella Associates.

The applicant has sought and received a waiver from the Beacon City Council waving the requirement to provide for the required commercial space as previously approved. The applicant is now proposing to construct Building 50 containing 83 residential units and Building 100 containing 53 residential units and 64 in substantially the same design as Building 200 and 300 already constructed on the site.

Based upon our review of the submitted documents, we offer the following comments:

General Comments:

1. An updated Engineer's Report shall be provided for the sewer and water on the site. The report shall also detail the required modifications, if any, to the existing sewage pump station on the site. ***Applicant's consultant stated that an updated Engineer's Report will be provided as part of the DCDOH application and a copy will be provided to the City.***

2. The application was previously reviewed and approved by DCDOH for the sewer pump station that serves the site. Applicant shall seek amended approval from the DCDOH for any revisions that may be required for the previously issued approval. The Planning Board shall be provided with a copy of all submissions made to the DCDOH, along with a copy of all correspondences received from the DCDOH.

SWPPP Comments:

1. This office finds that Stormwater Pollution Prevention Plan (SWPPP) amendment sufficiently addresses the NYSDEC stormwater treatment and attenuation requirements. The amended/revised SWPPP shall be on site for the duration of the project construction.

This completes our review at this time. Further comments may be provided based on future submissions prepared for the project. **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.

Respectfully,

LANC & TULLY, D.P.C.

John Russo, P.E.

cc: Jennifer Gray, Esq.
Bryan Murphy, Building Inspector

City of Beacon Planning Board Agenda
08/11/2026

Title:

Review of application for Amended Site Plan Approval, 53 Eliza Street, Residential, submitted by Eliza Street, LLC.

ATTACHMENTS

53 Eliza PB 8.11.26 Letter_07_28_26.pdf

53 Eliza PB 8.11.26 Site Plan App-SIGNED redacted2.pdf

53 Eliza PB 8.11.26 PB Resolution(4674918.1) 7.9.19.pdf

53 Eliza PB 8.11.26 ZBA Resolution of Approval(4014980.1)-1 2019-02.pdf

53 Eliza PB 8.11.26_siteplan_073019.pdf

KARC Review PB_53 Eliza Street_2026.08.07.pdf

F/FTH

5thStreet Architecture

July 28, 2026

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

Re: 53 Eliza Street
Parcel No. 6054-29-031870

Dear Chairman Gunn and Planning Board Members,

On behalf of the Owners of 53 Eliza Street, Eliza Street LLC (Owner), Fifth Street Architecture is petitioning the Board for assistance in resolving issues that are outlined below.

Fifth Street Architecture has been retained by Eliza Street LLC to assist in seeing the project at 53 Eliza Street to completion. As a local firm, as well as residents of Beacon, we wish to see this project stabilized, completed, and occupied by residents. We look forward to working with all parties to assuage their concerns, answer their questions, and resolve any concerns they might have. We would also like to mention that Fifth Street Architecture (FSA) was not or is not involved in the initial Planning or Permitting of any portion of the project at 53 Eliza Street – we are simply assisting in getting this project back on track to completion.

While the history of this project may be long and disputed, the simple reason why we are here tonight is for the Owners to renew their Work Permit to complete the project. Recently, when going to renew their Work Permit, Building Inspector Bryan Murphy, doing his due diligence, discovered that the original site plan drawing set was never submitted by the original development team and endorsed by the Board in 2019 upon its approval and therefore should never have been issued a Work Permit, let alone subsequent renewals. While the project was clearly approved by the Board (see the attached Planning and Zoning Resolutions) and permits were issued by two successive Building Inspectors, to his credit, Mr. Murphy discovered that there were no endorsed drawings in the City's possession.

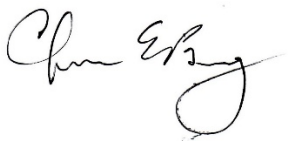
It should be noted that the original applicant (PIE Development) is not the current Owner (Eliza Street LLC) and, as noted, the Building Inspector at the time of the Planning Board Resolution is no longer on staff and has had two changes in personnel since the Resolution. The current Owner acknowledges their obligation to complete the project to meet the requirements of the approved Site Plan Application and is simply asking the Board to endorse the original application of 2019 so that they may renew their Work Permit.

Being that the project is not complete and acknowledging that there may be concerns with particular aspects of the project that may not currently be consistent with the Planning Resolution of 7/9/2019. The Owners are requesting that the Planning Board endorse the original Site Plan Application Drawing Set (13 sheets, dated 6/25/2019 and revised per PB comments (7/30/2019) as it was originally filed and approved so that the Owner may complete the work and have the opportunity to correct any deviations that have been noted from the original approval of 2019. It is noted and acknowledged that the Owner will notify and seek approval with the Board through the Building Inspector of any changes that may be required.

In summary, Eliza Street LLC is eager to return to complete the project at 53 Eliza Street and asks for your cooperation in allowing them to restart work. While there have been difficulties along the way, the issue of not having endorsed drawings and the continual mistake in renewing permits is certainly not the fault of the current owner.

We appreciate your willingness to cooperate in resolving this matter.

Sincerely,



Christopher E. Berg, RA LEED
Fifth Street Architecture PLLC

CC: - Owner

APPLICATION FOR SITE PLAN APPROVAL

Submit to Planning Board Secretary, One Municipal Plaza, Suite One, Beacon, New York 12508

IDENTIFICATION OF APPLICANT

Name: Eliza Street, LLC - Charlie Qelaj

Address: Beacon, NY 12508

Signature: [signature]

Date: 07/28/2026

Phone:

(For Official Use Only)

	Date	Initials
Application & Fee Rec'd		
Initial Review		
Public Hearing		
Conditional Approval		
Final Approval		

IDENTIFICATION OF REPRESENTATIVE / DESIGN PRFESSIONAL

Name: Christopher E. Berg - Owner's Representative - Fifth Street Architecture

Address: 109 South William Street, 1st floor, Newburgh, NY 12550

Phone: 845-736-0838

Fax:

Email address: chris@5thstreetarch.com

IDENTIFICATION OF SUBJECT PROPERTY:

Property Address: 53 Eliza Street

Tax Map Designation: Section 6054 Block 29 Lot(s) 031870

Land Area: 0.696 ac (30,307 sf)

Zoning District(s) R1-5

DESCRIPTION OF PROPOSED DEVELOPMENT:

Proposed Use: Multi-family Residential

Gross Non-Residential Floor Space: Existing +/- 6,800 sf Proposed 0 (zero)

TOTAL: 0 (zero)

Dwelling Units (by type): Existing 0 (zero) Proposed (3) 3-BR (6) 2-BR

TOTAL: 9 (nine)

ITEMS TO ACCOMPANY THIS APPLICATION

a. One electronic and five (5) **folded** paper copies of a site location sketch showing the location of the subject property and the proposed development with respect to neighboring properties and developments.

b. One electronic and five (5) **folded** paper copies of the proposed site development plan, consisting of sheets, showing the required information as set forth on the back of this form and other such information as deemed necessary by the City Council or the Planning Board to determine and provide for the property enforcement of the Zoning Ordinance.

c. One electronic and five (5) **folded** paper copies of additional sketches, renderings or other information.

d. An application fee, payable to the City of Beacon, computed per the attached fee schedule.

e. An initial escrow amount, payable to the City of Beacon, as set forth in the attached fee schedule.

INFORMATION TO BE SHOWN ON SITE LOCATION SKETCH

a. Property lines, zoning district boundaries and special district boundaries affecting all adjoining streets and properties, including properties located on the opposite sides of adjoining streets.
b. Any reservations, easements or other areas of public or special use which affect the subject property.
c. Section, block and lot numbers written on the subject property and all adjoining properties, including the names of the record owners of such adjoining properties.

INFORMATION TO BE SHOWN ON THE SITE DEVELOPMENT PLAN

a. Title of development, date and revision dates if any, north point, scale, name and address of record owner of property, and of the licensed engineer, architect, landscape architect, or surveyor preparing the site plan.
b. Existing and proposed contours at a maximum vertical interval of two (2) feet.
c. Location and identification of natural features including rock outcrops, wooded areas, single trees with a caliper of six (6) or more inches measured four (4) feet above existing grade, water bodies, water courses, wetlands, soil types, etc.
d. Location and dimensions of all existing and proposed buildings, retaining walls, fences, septic fields, etc.
e. Finished floor level elevations and heights of all existing and proposed buildings.
f. Location, design, elevations, and pavement and curbing specifications, including pavement markings, of all existing and proposed sidewalks, and parking and truck loading areas, including access and egress drives thereto.
g. Existing pavement and elevations of abutting streets, and proposed modifications.
h. Location, type and design of all existing and proposed storm drainage facilities, including computation of present and estimated future runoff of the entire tributary watershed, at a maximum density permitted under existing zoning, based on a 100 year storm.
i. Location and design of all existing and proposed water supply and sewage disposal facilities.
j. Location of all existing and proposed power and telephone lines and equipment, including that located within the adjoining street right-of-way. All such lines and equipment must be installed underground.
k. Estimate of earth work, including type and quantities of material to be imported to or removed from the site.
l. Detailed landscape plan, including the type, size, and location of materials to be used.
m. Location, size, type, power, direction, shielding, and hours of operation of all existing and proposed lighting facilities.
n. Location, size, type, and design of all existing and proposed business and directional signs.
o. Written dimensions shall be used wherever possible.
p. Signature and seal of licensed professional preparing the plan shall appear on each sheet.
q. Statement of approval, in blank, as follows:

Approved by Resolution of the Beacon Planning Board
on the _____ day of _____, 20_____
subject to all conditions as stated therein

_____ _____
Chairman, City Planning Board **Date**

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: Eliza Street, LLC - Charlie Qelaj

If owned by a corporation, partnership or organization, please list names of persons holding over 5% interest.

Anthony Vaccaro 60% Qele Qelaj 40%

List all properties in the City of Beacon that you hold a 5% interest in:

906 Wolcott Ave 50%

87 Spring Valley Street 50%

Applicant Address: PO Box 720 Beacon, NY 12508

Project Address: 53 Eliza Street

Project Tax Grid # 6054 29 031870

Type of Application Site Plan

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, Charlie Qelaj, 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

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.)		X	MP
ALL taxes are current for properties in the City of Beacon are current (Tax Dept.)		✓	EC
ALL Special Assessments, i.e. water, sewer, fines, etc. are current (Water Billing)		✓	EC

CITY OF BEACON
SITE PLAN SPECIFICATION FORM

Name of Application: 53 Eliza Street - Site Plan Application

PLEASE INDICATE WHETHER THE SITE PLAN DRAWINGS SHOW THE SUBJECT INFORMATION BY PLACING A CHECK MARK IN THE APPROPRIATE BOXES BELOW.		
	YES	**NO**
The site plan shall be clearly marked "Site Plan", it shall be prepared by a legally certified individual of firm, such as a Registered Architect or Professional Engineer, and it shall contain the following information:	X	
LEGAL DATA		
Name and address of the owner of record.	X	
Name and address of the applicant (if other than the owner).	X	
Name and address of person, firm or organization preparing the plan.	X	
Date, north arrow, and written and graphic scale.	X	
NATURAL FEATURES		
Existing contours with intervals of two (2) feet, referred to a datum satisfactory to the Planning Board.	X	
Approximate boundaries of any areas subject to flooding or stormwater overflows.	X	
Location of existing watercourses, wetlands, wooded areas, rock outcrops, isolated trees with a diameter of eight (8) inches or more measured three (3) feet above the base of the trunk, and any other significant existing natural features.	X	
EXISTING STRUCTURES, UTILITIES, ETC.		
Outlines of all structures and the location of all uses not requiring structures. Paved areas, sidewalks, and vehicular access between the site and public streets.	X	
Locations, dimensions, grades, and flow direction of any existing sewers, culverts, water lines, as well as other underground and above ground utilities within and adjacent to the property.	X	
Other existing development, including fences, retaining walls, landscaping, and screening.	X	
Sufficient description or information to define precisely the boundaries of the property.	X	
The owners of all adjoining lands as shown on the latest tax records.	X	
The locations, names, and existing widths of adjacent streets and curb lines.	X	
Location, width, and purpose of all existing and proposed easements, setbacks, reservations, and areas dedicated to private or public use within or adjacent to the properties.	X	

PROPOSED DEVELOPMENT	YES	NO
The location, use and design of proposed buildings or structural improvements.	X	
The location and design of all uses not requiring structures, such as outdoor storage (if permitted), and off-street parking and unloading areas.	X	
Any proposed division of buildings into units of separate occupancy.	X	
The location, direction, power, and time of use for any proposed outdoor lighting.	X	
The location and plans for any outdoor signs.	X	
The location, arrangement, size(s) and materials of proposed means of ingress and egress, including sidewalks, driveways, or other paved areas.	X	
Proposed screening and other landscaping including a planting plan and schedule prepared by a qualified individual or firm.	X	
The location, sizes and connection of all proposed water lines, valves, and hydrants and all storm drainage and sewer lines, culverts, drains, etc.	X	
Proposed easements, deed restrictions, or covenants and a notation of any areas to be dedicated to the City.	X	
Any contemplated public improvements on or adjoining the property.	X	
Any proposed new grades, indicating clearly how such grades will meet existing grades of adjacent properties or the street.	X	
Elevations of all proposed principal or accessory structures.	X	
Any proposed fences or retaining walls.	X	
MISCELLANEOUS		
A location map showing the applicant's entire property and adjacent properties and streets, at a convenient scale.	X	
Erosion and sedimentation control measures.	X	
A schedule indicating how the proposal complies with all pertinent zoning standards, including parking and loading requirements.	X	
An indication of proposed hours of operation.	X	
If the site plan only indicates a first stage, a supplementary plan shall indicate ultimate development.	X	

For all items marked "NO" above, please explain below why the required information has not been provided:

n/a

Applicant/Sponsor Name: Eliza Street, LLC - Charlie Qelaj

Signature:

Date: 07/28/2026

FOR OFFICE USE ONLY
Application #

CITY OF BEACON
1 Municipal Plaza, Beacon, NY
Telephone (845) 838-5000 • http://cityofbeacon.org/

INDIVIDUAL DISCLOSURE FORM

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any person(s))

Disclosure of the names and addresses of all persons) filing a land-use application with the City is required pursuant to Section 223-62 of the City Code of the City of Beacon. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

SECTION A

Name of Applicant: _____

Address of Applicant: _____

Telephone Contact Information: _____

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.

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, Qele Qelaj being first duly sworn, according to law, deposes and says that the statements made herein are true, accurate, and complete.

(Print) Qele Qelaj

(Signature) _____

FOR OFFICE USE ONLY
Application #

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 223-61.4 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, JOINT VENTURE OR OTHER BUSINESS ENTITY, EXCEPT A CORPORATION:

Name of Entity 53 Eliza Street, LLC	Address of Entity . Beacon NY 12508
Place where such business entity was created Beacon NY	Official Registrar's or Clerk's office where the documents and papers creating entity were filed Dutchess County Clercks Office
Date such business entity or partnership was created 02/10/21	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, mortgage, encumbrance or other interest (recorded or unrecorded) 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
Anthony Vaccaro			60% managing member
Qele Qelaj			40% Member

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.
Qele Qelaj			Purchase with Financing	6/21/21
Anthony Vaccaro			Partnership	03/01/26

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?

[x] **YES** [ ] **NO**

Current Name	Other Names
Qele Qelaj	Charlie Qelaj

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
Qele Qelaj	
Anthony Vaccaro	

SECTION H. If the applicant is not a record owner of the subject property, describe the applicant's interest in the subject property and the relationship the applicant has to the record owner(s) of the subject property.

_____

_____

_____

_____

SECTION I. 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. Any sensitive or confidential information may be redacted from the contract prior to production.

SECTION J.

1. Where the record owner or contract vendee is a corporation, the following additional information shall be submitted**:**

Name of the Corporation	Telephone Contact Information
Principal Business Address	Place and Date of Incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

2. Please provide the following information for every incorporator, officer, director and shareholder of the corporation.

Name	**Residence or business address**	**Telephone number**

3. Have any shares of the stock of the corporation or of any stockholder been pledged, mortgaged or encumbered?

☐ **YES** ☒ **NO**

If so, please list the name and address of each person having, holding, owning or claiming any such interest.

Name	**Address**

SECTION K. 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, Qele Qelaj being first duly sworn, according to law, deposes and says that I am (Title) member, an active and qualified member of the 53 Eliza Street, 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) Qele Qelaj

(Signature) _____

RESOLUTION

PLANNING BOARD
BEACON, NEW YORK

SITE PLAN APPROVAL FOR
53 ELIZA STREET

WHEREAS, the Beacon Planning Board received an application for Site Plan Approval from PIE Development Company, Inc. (the "Applicant") for the construction of a multifamily development consisting of nine (9) dwelling units which will be distributed among three (3) buildings (the "Project" or "Proposed Action"); and

WHEREAS, the subject property is located at 53 Eliza Street in the R1-5 Zoning District and designated on the City tax maps as Parcel No. 6054-29-031870 (the "Site"); and

WHEREAS, the Site Plan is shown on the drawings entitled, "Site Plan Application," Sheets 1-13, dated August 28, 2018, last revised June 25, 2019, prepared by Aryeh Siegal, Architect and Hudson Land Design; and

WHEREAS, the application also consists of application forms, correspondence, the Environmental Assessment Form (EAF) and professional studies and reports submitted to the Planning Board; and

WHEREAS, the Project is an Unlisted Action pursuant to the State Environmental Quality Review Act (SEQRA) and has undergone an uncoordinated review; and

WHEREAS, on February 20, 2019 the City of Beacon Zoning Board of Appeals granted a use variance from City Code § 223-17.C/223 Attachment 1:2 to permit a multi-family residence in the R1-5 Zoning District where such development is not a permitted use, and an area variance to construct up to nine dwelling units, where the maximum number of dwelling units permitted on the Property is six pursuant to the City Code § 223-17.C/223 Attachment 1:2; and

WHEREAS, the Planning Board forwarded the Application to the Architectural Review Subcommittee for review of the architecture of the proposed buildings; and

WHEREAS, the Applicant met with the Architectural Review Subcommittee on several dates to review the architectural plans for the Project and the Planning Board reviewed the Architectural Review Subcommittee's recommendations; and

WHEREAS, on April 9, 2019, the Planning Board opened a public hearing on the Site Plan application, and the public hearing was closed on June 11, 2019; and

WHEREAS, on June 11, 2019 after taking a "hard look" at each of the relevant areas of environmental concern through review of the Environmental Assessment Form and all associated materials prepared in connection with the Proposed Action the Planning Board adopted the a Negative Declaration for this Unlisted Action pursuant to the State Environmental Quality Review Act (SEQRA); and

WHEREAS, the Planning Board is fully familiar with the Project and has reviewed the Project relative to all applicable provisions of the City Code.

NOW THEREFORE BE IT RESOLVED, that the Planning Board hereby grants Site Plan Approval for the Project, as shown on the application materials described above, subject to the conditions and modifications set forth herein.

A. The following conditions shall be fulfilled prior to the signing of the Site Plan by the Chairman of the Planning Board:

1. All application review fees shall be paid in full.

2. The Applicant shall seek and obtain all required permits and/or approvals from the appropriate agencies for the Project 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 July 1, 2019, 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 July 5, 2019, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Planner, including implementation of a front yard setback that matches the adjacent house to the north.

5. The Applicant shall prepare a construction cost estimate for the proposed work within the road right-of-way and submit the estimate for approval by the City Engineer.

6. The Applicant shall submit a performance guarantee for the proposed work in the road right-of-way in an amount to be approved by the City Engineer and in a form acceptable to the City Attorney.

8. 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.

9. The appropriate sheets within the plan set including but not limited to renderings and elevations, shall be revised to eliminate the brick above the first floor on the front elevation of the building fronting Eliza Street and replace with the same Hardie Board siding shown for such front elevation.

When the conditions above have been satisfied, six (6) sets of the above referenced plans revised as per the conditions above shall be submitted for endorsement by the Planning Board Chairman. One set of the endorsed plans will be returned to the Applicant, one set will be retained by the City Clerk, one set will be provided to the Planning Board, and one set each will be forwarded to the Building Inspector, City Engineer and City Planner.

B. Prior to the issuance of a Building Permit, the following conditions shall be fulfilled to the satisfaction of the Building Inspector:

1. Information regarding the size of the individual water service shall be provided to the Building Department.

C. Prior to the issuance of the Certificate of Occupancy, the following conditions 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. However, the Planning Board hereby determines that recreation/parkland of adequate size and location cannot be provided on the Project Site. Therefore, that Applicant shall pay a Recreation Fee as prescribed under Sections 223-25.H(4) and 223-61.A(7) of the Zoning Law.

   The Planning Board hereby requires that, prior to the issuance of the Certificate of Occupancy, the Applicant shall pay a Recreation Fee for each of the nine (9) dwelling units in accordance with Sections 223-25.H(4) and 223-61.A(7) of the Zoning Law, as per the City's Fee Schedule in effect at the time of payment.

D. The following are general conditions which shall be fulfilled:

1. 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.
2. This approval is conditioned upon compliance with all of the mitigation measures specified in the Applicant's Environmental Assessment Form and related

application documents. The Applicant shall be responsible for the funding and/or implementation of all such identified mitigation measures. Where the terms of this resolution may be inconsistent with the EAF, the terms of this resolution shall be controlling.

3. 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.

4. As used herein, the term "Applicant" shall include PIE Development Company Inc., and its heirs, successors and assigns, and where applicable its contractors and employees.

5. 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.

6. The approval granted by this resolution does not supersede the authority of any other entity.

7. 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.

Resolution Adopted: July 9, 2019
Beacon, New York

John Gunn, Chairman
City of Beacon Planning Board

July 12th, 2019
Dated

Motion by G.Barrack, seconded by R.Muscat:

Gary Barrack	Voting: AYE	Jill Reynolds	Voting: AYE
David Burke	Voting: EXCUSED	Randall Williams	Voting: AYE
Patrick Lambert	Voting: AYE	John Gunn, Chairman	Voting: AYE
Rick Muscat	Voting: AYE		

Approved 6-0

Received in the Office of the
City Clerk
July 12, 2019

CITY OF BEACON
ZONING BOARD OF APPEALS

RESOLUTION

WHEREAS, an application has been made to the City of Beacon Zoning Board of Appeals by **PIE Development Company, Inc.** (the "Applicant") to allow a multifamily development consisting of nine dwelling units, which will be distributed into three buildings, on property located at 53 Eliza Street in the R1-5 Zoning District, said premises being known and designated on the tax map of the City of Beacon as **Parcel ID# 6054-29-031870** (the "Property"); and

WHEREAS, the Property is comprised of approximately 0.69 acres (30,307 square feet) of land; and

WHEREAS, the Applicant seeks a use variance from City Code § 223-17.C/223 Attachment 1:2 to permit multifamily dwelling units in the R1-5 Zoning District where multifamily dwelling units are not a permitted use; and

WHEREAS, the Applicant also seeks an area variance to construct up to nine dwelling units, where the maximum number of dwelling units permitted on the Property is six pursuant to the City Code § 223-17.C/223 Attachment 1:2; and

WHEREAS, a duly advertised public hearing on the use variance application was held on September 18, 2018, and continued to October 16, 2018, November 20, 2018, December 18, 2018, and January 15, 2019, at which time all those wishing to be heard on the application were given such opportunity; and

WHEREAS, a duly advertised public hearing on the area variance application was held on December 18, 2018, and continued to January 15, 2019, at which time all those wishing to be heard on the application were given such opportunity; and

WHEREAS, the Board closed the public hearings on the use and area variance applications on January 15, 2019; and

WHEREAS, the proposed action is an Unlisted action pursuant to the New York State Environmental Quality Review Act; and

WHEREAS, pursuant to the City Code Section 223.55.C(1)(b), when deciding a request for a use variance:

> No such use variance shall be granted by a Board of Appeals without a showing by the applicant that applicable zoning regulations and restrictions have caused unnecessary hardship. In order to prove such unnecessary hardship the applicant shall demonstrate to the board of appeals that for each and every permitted use under the zoning regulations for the particular district where the property is located:

[1] The applicant cannot realize a reasonable return, provided that lack of return is substantial as demonstrated by competent financial evidence;
[2] The alleged hardship relating to the property in question is unique, and does not apply to a substantial portion of the district or neighborhood;
[3] The requested use variance, if granted, will not alter the essential character of the neighborhood; and
[4] The alleged hardship has not been self-created; and

WHEREAS, pursuant to New York State General City Law § 81-b(4) and City Code Section 223.55.C(2)(b), when deciding the request for an area variance:

The Zoning Board of Appeals shall take 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 or community by such grant. In making such a determination, the board shall also consider:
[1] Whether an undesirable change will be produced in the character of the neighborhood or a detriment to nearby properties will be created by the granting of the area variance;
[2] Whether the benefit sought by the applicant can be achieved by some method, feasible for the applicant to pursue, other than an area variance;
[3] Whether the requested area variance is substantial;
[4] Whether the proposed variance will have an adverse effect or impact on the physical or environmental conditions in the neighborhood or district; and
[5] Whether the alleged difficulty was self-created, which consideration shall be relevant to the decision of the Board of Appeals, but shall not necessarily preclude the granting of the area variance; and

WHEREAS, the Board of Appeals, in granting variances, shall grant the minimum variance that it shall deem necessary and adequate to address the unnecessary hardship proven by the Applicant, and at the same time preserve and protect the character of the neighborhood and the health, safety and welfare of the community; and

WHEREAS, based upon the Record before it and after viewing the premises and neighborhood concerned and upon considering each of the factors set forth in Section 223.55.C(1)(b)[1]-[4] of the City Code, the Zoning Board finds with respect to the requested use variance to permit a multifamily use in a single family residential zoning district:

1. **The Applicant cannot realize a reasonable return as demonstrated by competent financial evidence.**

The Applicant must show with "dollars and cents" proof that land cannot yield a reasonable return if used only for a purpose allowed in that zone. For example, the courts have determined that evidence should be provided to show: (1) the amount of purchase price paid by the applicant for the entire parcel of property; (2) the present value of the entire parcel of property or any part thereof; (3) the expenses and carrying charges in connection with the maintenance of the entire parcel of property or any part thereof; (4) the amount of taxes on the entire parcel of property or any part thereof; (5) the amount of any mortgages, liens or other encumbrances, if any, on the entire parcel of property or any part thereof; (6) the amount of annual income realized by the current use of the property; (7) the amount of potential annual income realized by the permitted

uses; and (8) an estimate as to what a reasonable return on the entire parcel of property or any part thereof should be based on the initial investment of the applicant or the present value of the property. This list is not exhaustive, but is a recommendation as to what type of evidence should be in the record when the Board makes its determination. *Crossroads Recreation, Inc. v. Broz*, 4 N.Y.2d 39,44 (1959).

The Applicant provided the Zoning Board with a breakdown of the costs associated with the Applicant's purchase and renovation of the property. The application provides "dollars and cents" proof that the Applicant cannot realize a reasonable return if the property is used for any use currently permitted under the zoning.

The existing zoning permits residential uses, detached single-family dwellings not to include house trailer; buildings, structures and uses owned by the City of Beacon; churches or other places of worship; public schools; and parks and farms. The Applicant's Financial Analysis confirms that subdividing the lot into two or three lots, as permitted by right, and improving each with a single-family home for rental and/or for sale, will result in a significant financial loss to the Applicant, given its initial investment in the property and subsequent improvements.

The Applicant submitted a Supplemental Financial Analysis, which includes correspondence from the Applicant's financial consultant, McAlpine Construction Co., Inc., dated January 7, 2019, which references opinions from CR Properties Group, LLC, dated January 3, 2019 and from McGrath Realty Inc., dated January 7, 2019. Each expert assessed the Property, the location of the Property, access to the Property, and the highest and best use of the Property given its existence as non-conforming commercial use and its marketability as a commercial use given the site conditions and constraints. The Supplemental Financial Analysis considered the fair market value representative of these factors that are not otherwise reflected in a sale comparison approach. The Supplemental Financial Analysis confirms that the fair market value of the Property is between $400,000 and $450,000. Pursuant to a letter submitted by the Applicant's account, Kevin David, dated January 29, 2019, the Property was purchased in March of 1999 for $161,039 ($145,000 for the buildings, $10,000 for the land and $6,039 for closing costs). As of December 31, 2017, the building depreciated $69, 867 and had a cost basis of $75,133. In his letter, Mr. Davis stated that the current cost basis remains $75,133 plus the cost of improvements to the property ($545,000) for a total of $620,133. Sale of the property at $450,000 would not provide the Applicant with a reasonable return on his investment.

The Applicant's supplemental submission dated October 30, 2018, includes a schedule of costs for a hypothetical three lot residential subdivision. A three lot subdivision is the maximum theoretical as-of-right subdivision buildout/layout for the premise based on the City's dimensional requirements and the shape of the lot. Such a subdivision would result in a total loss of $540,000, factoring in land cost, building cost, potential sale price of the homes, site development costs and other soft costs. This submission also includes a schedule of costs associated with a six unit multifamily development complex. According to the cost breakdown, such a development would result in a total loss of $151,440. Comparatively, a nine unit multifamily development complex is the only option that would provide a reasonable return, with a $174,700 profit, as set forth in the Applicant's January 7, 2019 submission.

The Applicant submitted a letter from Robert McAlpine, dated December 7, 2018 providing a breakdown of soft costs and several estimates providing a breakdown of site costs as part of the Applicant's December 14, 2018 submission. The Applicant also submitted a Proposal for Architectural Services from Aryeh Sigel, dated December 3, 2018 to design the proposed multifamily development complex with nine condominium apartments distributed to three buildings.

Other permitted uses, such public schools or a church would require extensive off-street parking which is not available on the site. The Applicant's Supplemental Financial Analysis, dated January 7, 2019, provides that none of the permitted uses, including the existing non-conforming use, would result in any return on the Property. The Applicant's financial analyses demonstrate that a use variance to permit multifamily housing and an area variance to permit up to nine dwelling units on the Property are the minimum variances necessary to provide a reasonable return.

The Applicant's Financial Analysis, dated January 7, 2019, considers the amount paid for the property, the present value of the parcel; expenses and carrying charges for the Property, renovation costs, an accountant statement regarding cost basis, property appraisal information, taxes on the Property; mortgages on the Property; the income realized by the business (including prospective tenants) and the economic viability of each permitted use under existing zoning, including the pre-existing non-conforming use. After reviewing the Applicant's submission, the Board finds that the Applicant has demonstrated by competent financial evidence that it cannot realize a reasonable return by using the property for uses currently permitted by the City of Beacon Zoning Code in the R1-5 Zoning District.

2. **The alleged hardship relating to the property in question is unique, and does not apply to a substantial portion of the district or neighborhood.**

The Applicant's hardship is unique to the Applicant's property and is not applicable to a substantial portion of the zoning district or neighborhood. The Property is approximately 30,307 square feet. It is a very large lot in the R1-5 Zoning District. This Property presents a unique situation because of its large lot size, existing buildings on the premise, and its pre-existing non-conforming commercial use. The proposed project also allows the Applicant to reuse one of the existing buildings on the site for two multifamily dwelling units. The proposed project is more conforming than the existing non-conforming commercial use. The site location and use constraints of the Property make it not commercially viable because there is limited access to main roads and highways for commercial transportation. Furthermore, it is located adjacent to other multifamily housing developments. Thus, the alleged hardship is unique to 53 Eliza Street.

3. **The requested use variance, if granted, will not alter the essential character of the neighborhood.**

Granting the use variance will not alter the essential character of the neighborhood. Nor will the variance stimulate a pattern for future development that would eventually alter the neighborhood's character. The Property is zoned in the R1-5 Zoning District and is surrounded by residential uses, including multifamily residential uses located at 31 Eliza Street and 195 Fishkill Avenue. The Property has been occupied by nonconforming commercial and office building uses for several decades, and is presently used as a storage yard.

The Applicant is seeking to reuse the Property in a manner more consistent with the area's existing residential zoning. The Applicant seeks to use the Property for a residential purpose that is less

intense and onerous than the existing non-conforming use. Several properties in the R1-5 Zoning District that surround 53 Eliza Street contain multifamily uses, such as townhouse developments, two-family-developments, multi-family apartment uses and other commercial uses.
The Applicant's multifamily proposal will bring the Property further into conformity with surrounding uses, development patterns and the intent of residential zoning. As a result, the Board finds that the granting of the variance will not alter the essential character of the neighborhood.

4. The alleged hardship has not been self-created.
The hardship exists because the neighborhood has changed since the original commercial zoning classification on the Property. The Property is presently zoned in the R1-5 (1-Family Residence District) and is surrounded by residential uses. Prior to 1998 the Property was zoned as commercial in the OB (Office Business) district. For decades the property has been occupied by commercial uses and office buildings. The Applicant has owned the Property since March 1999 and has maintained the property as a legal non-conforming office, storage and contractor's yard. Over twenty years, the residential uses in the community have intensified. Multifamily developments have been constructed on adjacent land. Since 1998 the City has become popular among residents moving away from New York City. Retail, commercial and hospitality businesses have also increased on Main Street. The current use of the Property as a non-conforming storage yard is now out of place for the surrounding neighborhood. As a result, the Property is no longer suitable for such commercial use.

The Applicant did not purchase the Property intending to develop multifamily housing. The Applicant has owned the Property for more than two decades and originally purchased the property to conduct his commercial business. The Applicant tried to sell the property for several years, beginning in 2014, but was unsuccessful. [1]

As a result, the hardship is not self-created.

AND WHEREAS, based upon the Record before it and after viewing the premises and neighborhood concerned and upon considering each of the factors set forth in Section 223.55(C)(2)(b)[1]-[5] of the City Code, the Zoning Board finds with respect to the requested area variance to permit nine multifamily units where six are permitted:

1. The area variance for nine multifamily units will not produce an undesirable change in the character of the neighborhood and there will not be a detriment to nearby properties created by the granting of the area variance.

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[1] *54 Marion Avenue, LLC v. City of Saratoga Springs*, 162 A.D.3d 1341 (2d Dep't 2018)("Property owner's allegation, that financial hardship arising from residential property's unique location on corner of intersection between side street and busy commercial thoroughfare arose decades after the property was acquired due to a gradual shift in the character of the area that rendered the permitted residential use onerous and obsolete, alleged that the hardship was not self-created.")

Kontogiannis v. Fritts, 131 A.D.2d 944 (3d Dep't 1987)("Zoning board's conclusion that use variance petitioner's hardship was self-created was unsupported; record showed that applicant did not construct recreation building with the goal of converting it into multifamily dwelling several years later, but that original purpose of building became obsolete.")

The proposed residential use will replace the existing legal non-conforming commercial use on the property to bring the Property further into conformity with surrounding uses, development patterns and the intent of the residential zoning designation for the lot. The Applicant also plans to adaptively reuse one of the existing structures on the Property for two multifamily dwelling units. The Property is also adjacent to existing multifamily residential developments, including a seventy unit multi-story apartment building at 31 Eliza Street, and an eight unit multi-story apartment building at 195 Fishkill Avenue.

For these reasons, in addition to the reasons discussed above, the area variance for nine multifamily units will not produce an undesirable change in the character of the neighborhood.

2. **The benefit sought by the Applicant cannot be achieved by some method feasible for the Applicant to pursue, other than the requested area variance.**

The benefit sought by the Applicant is to obtain a reasonable return on its original investment. As outlined in the Applicant's Financial Analysis and supplemental documentation, nine multifamily units, is the minimum necessary that would provide a reasonable return. The Applicant's Financial Analysis demonstrates that the use of the Property for a residential use with nine residential dwelling units is the minimum density necessary to provide a reasonable return. None of the permitted uses under zoning, including the pre-existing legal non-conforming use would provide a reasonable return for the Applicant. The Applicant also evaluated whether it could achieve a reasonable return by constructing up to six multifamily dwelling units. Such a development would also yield a financial loss to the applicant of up to $151,440. The Applicant considered building costs, land costs, estimated sales prices, soft costs and site costs in its evaluation. The Zoning Board believes that the Applicant has demonstrated through its financial analyses, other supplemental information and accompanying dollar and cents proof, that the benefit sought cannot be achieved by any other feasible methods. There is no other feasible design for the lot that would yield a reasonable return.

3. **The requested variance is mathematically substantial; however, this does not outweigh the other factors meriting the granting of the variance.**

The requested variance is mathematically substantial. The variance request represents a fifty percent increase from what is permitted. However, in considering whether a variance is substantial, the Board must examine the totality of the circumstances within the application and the overall effect of granting the requested relief. The proposed Project complies with all other bulk requirements in the City Code. The design of the proposed dwelling units is reflective of other properties within the immediate vicinity of the premises and is therefore not a departure from the overall design of the neighborhood. In addition, as previously discussed, the project will not adversely impact neighboring properties. Therefore, while the project is mathematically substantial, this factor does not outweigh the other factors involved in the area variance balancing test.

4. **The proposed variance will not have an adverse effect or impact on the physical or environmental conditions in the neighborhood or district.**

The Property currently contains a more intense, legal non-conforming use that is less compatible with the neighborhood and the R1-5 Zoning District, as compared to the proposed multifamily use. The proposed area variance will not have an adverse effect or impact on the physical or environmental conditions in the neighborhood or district. There will be no adverse effects of noise, vibrations, odor, traffic, or impact on public services caused by the requested variance.

The Applicant retained the services of Maser Consultant, P.A. to review any potential traffic impacts. The Traffic Evaluation, dated September 27, 2018, concludes that the Proposed Development is not anticipated to have a significant impact on traffic operating conditions in the vicinity of the Property. Furthermore, the proposed nine unit multifamily development and the as-of-right three-unit single family homes would have similar traffic generation during each of the Peak Hours analyzed. As part of the Uncoordinated SEQRA review, the Zoning Board has determined that the entire action, including the required variances, will have no potential significant adverse environmental impacts.

5. **The alleged difficulty is not self-created for the reasons discussed above.**

NOW THEREFORE, BE IT RESOLVED, after taking a "hard look" at the EAF and all of the associated materials prepared in connection with the use and area variance request, undergoing an uncoordinated review, the Board herein adopts the attached Negative Declaration for the Proposed Action.

BE IT FURTHER RESOLVED, that the Board of Appeals, finds that for the reasons set forth above, the requested use and area variances are the minimum variances necessary and adequate to address the unnecessary hardship proven by the Applicant, and at the same time preserve and protect the character of the neighborhood and the health, safety and welfare of the community.

BE IT FURTHER RESOLVED, that the Board finds that for the reasons set forth above, the Applicant has demonstrated that the applicable zoning regulations and restrictions have caused an unnecessary hardship for the Applicant.

BE IT FURTHER RESOLVED, that for the reasons set forth above, said application by PIE Development Company, Inc. for a use variance from City Code § 223-17.C/223 Attachment 1:2 to permit multifamily dwelling units on property located at 53 Eliza Street in the R1-5 Zoning District, is hereby GRANTED.

BE IT FURTHER RESOLVED, that for the reasons set forth above, the application by PIE Development Company Inc. for an area variance to construct up to nine dwelling units, where density requirements allow a maximum of six units pursuant to City Code § 223-17.C/223 Attachment 1:6, is hereby GRANTED.

BE IT FURTHER RESOLVED, that all the variances granted herein are subject to the following conditions:

1. No permit or Certificate of Occupancy shall be issued until the Applicants have paid in full all application and consultant fees incurred by the City of Beacon in connection with the review of this application.
2. The Applicant has six months to commence construction following the date of issuance of a building permit and 24 months after the date of issuance of said building permit to complete construction. The Applicant has one year to obtain a building permit from the Applicant's last appearance before the Planning Board.
3. The use and area variances granted by this resolution are subject to approval of the site plan from the Planning Board for no more than nine multifamily dwelling units.

BE IT FURTHER RESOLVED, that the Zoning Board of Appeals may grant a six month extension of this variance approval provided that a written request for an extension is submitted before the variance expires. Such extension shall only be granted upon a showing by the Applicant that the circumstances and conditions upon which the variance was originally granted have not substantially changed.

Dated: February 20, 2019

Robert K Lanier

Mr. Robert Lanier, Chairman

Use Variance to Permit Multifamily Housing

Chairman Lanier called the roll:

Motion	Second	Zoning Board Member	Aye	Nay	Abstain	Excused	Absent
		Robert Lanier	X				
		John Dunne	X				
X		Jordan Haug	X				
	X	Judy Smith	X				
		David Jensen		X			
		Motion Carried	**4**	**1**			

Area Variance to Permit Up to Nine Residential Units

Chairman Lanier called the roll:

Motion	Second	Zoning Board Member	Aye	Nay	Abstain	Excused	Absent
		Robert Lanier	X				
	X	John Dunne	X				
X		Jordan Haug	X				
		Judy Smith	X				
		David Jensen		X			
		Motion Carried	**4**	**1**			

Vote to Approve Resolution with Conditions, As Amended on the Record

Chairman Lanier called the roll:

Motion	Second	Zoning Board Member	Aye	Nay	Abstain	Excused	Absent
		Robert Lanier	X				
		John Dunne	X				
		Jordan Haug	X				
X		Judy Smith	X				
	X	David Jensen	X				
		Motion Carried	**5**	**0**			

Full Environmental Assessment Form
Part 1 - Project and Setting

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 project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: 53 Eliza Street		
Project Location (describe, and attach a general location map): 53 Eliza Street Beacon, NY 12508		
Brief Description of Proposed Action (include purpose or need): Proposed multi-family development to replace the existing non-conforming commercial buildings and commercial uses with nine (9) apartments in 3 separate buildings with parking areas, internal travel-ways and landscaped areas on the residentially zoned property		
Name of Applicant/Sponsor: PIE Development Company, Inc.	Telephone: (845) 838-1775 E-Mail: EPPDHV@optonline.net	
Address: 53 Eliza Street		
City/PO: Beacon	State: NY	Zip Code: 12508
Project Contact (if not same as sponsor; give name and title/role): Aryeh Siegel Architect	Telephone: 845-838-2490 E-Mail: ajs@ajsarch.com	
Address: 84 Mason Circle		
City/PO: Beacon	State: NY	Zip Code: 12508
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

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 Council, Town Board, or Village Board of Trustees	☐Yes☑No		
b. City, Town or Village Planning Board or Commission	☑Yes☐No	SITE PLAN AND ARCHITECTURAL REVIEW BOARD APPROVAL	8/28/18
c. City Council, Town or Village Zoning Board of Appeals	☑Yes☐No	VARIANCE RELIEF	8/28/18
d. Other local agencies	☐Yes☑No		
e. County agencies	☑Yes☐No	DCDOH GML 239 Advisory Referral Review	12/1/18
f. Regional agencies	☐Yes☑No		
g. State agencies	☐Yes☑No		
h. Federal agencies	☐Yes☑No		
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? • 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	☐Yes☑No
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?) If Yes, identify the plan(s):	☐Yes☑No
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? If Yes, identify the plan(s):	☐Yes☑No

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?
The project is located in the R1-5 Single Family Residential district adjacent to properties zoned RD-5 Designed Residence.

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 School District

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?
Memorial Park, South Ave Park, Scenic Hudson's Long Dock 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? 0.696 acres
b. Total acreage to be physically disturbed? 0.590 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.696 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)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 12 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				9 units
At completion of all phases				

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: _____
ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify: _____
iii. If other than water, identify the type of impounded/contained liquids and their source. _____
iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ 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): _____

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): _____

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:

iii. Will proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No
If Yes, describe:

iv. Will 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:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

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: 1,980 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), 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: 1,980 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: Beacon Sewage Treatment Plant
- 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 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 _____ acres (impervious surface)

_____ Square feet or _____ acres (parcel size)

ii. Describe types of new point sources. _____

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)?

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

iv. Does 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)

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

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

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 semi-trailer truck trips/day: _____

iii. Parking spaces: Existing _____ 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

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: 7am-5pm
- Saturday: 8am-5pm
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: N/A Residential
- 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:

Construction Vehicles at work between the hours of 7am and 5pm

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

Describe: _____

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:

Building mounted lights and pole mounted lights for parking lot all shielded and pointed downward. Proposed building mounted lights and parking lot light poles are within 50 feet to nearest occupied structures.

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

Describe: _____

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 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

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

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 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): Mixed Uses & Former Beacon High School

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	0.640	*0.468	-0.172
• Forested			
• 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)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: Grass/Landscaped Areas	.056	0.228	+0.172

*0.222 acres of the total 0.468 ac. will be Permeable Pavers.

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:

City of Beacon High School athletic fields

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): B00130 , C314118

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

B00130 remedial actions completed in August 2004. C314118 remedial actions completed on 4/10/2017

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? > 6.7 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:

Knickerbocker-Urban land complex	66.4 %
Dutchess-Cardigan-Urban land com-	33.6 %
	%

d. What is the average depth to the water table on the project site? Average: > 6.7 feet

e. Drainage status of project site soils:

☑ Well Drained:	66.4 % of site
☑ Moderately Well Drained:	33.6 % of site
☐ Poorly Drained	% of site

f. Approximate proportion of proposed action site with slopes:

☑ 0-10%:	97 % of site
☐ 10-15%:	% of site
☑ 15% or greater:	03 % 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 _____ Approximate Size _____
- 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:
Raccoon Grey Squirrel White Tail Deer

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

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

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, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? ☐ Yes ☑ No

If Yes:

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

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

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

*The CRIS system confirms the property is not adjacent to a sensitive archaeological site(s).

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: Scenic Hudson's Long Dock Park; Mount Beacon

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): State or Local Park

iii. Distance between project and resource: 1.5 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.

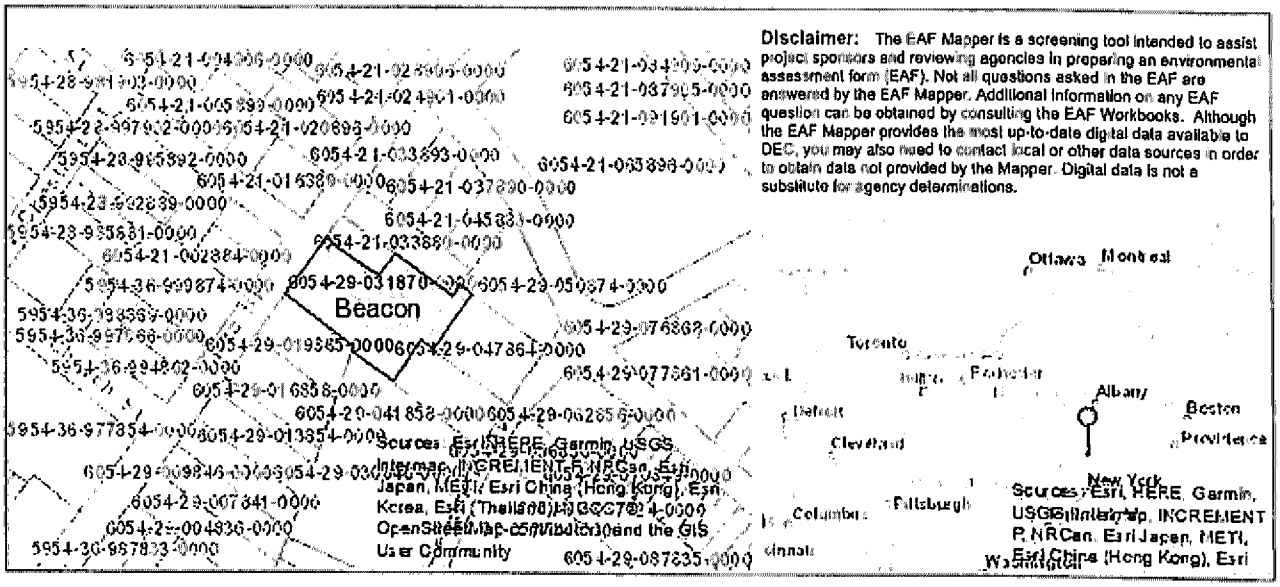
Applicant/Sponsor Name PIE Development Company, Inc. Date 8/28/2018

Signature _____ Title president

PRINT FORM

EAF Mapper Summary Report

Thursday, August 23, 2018 10:22 AM



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]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	B00130 , C314118
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	No
E.2.h.iii [Surface Water Features]	No
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 Register of Historic Places]	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

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Agency Use Only [If applicable]
Project: 53 Eliza Street
Date: February 20, 2019

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes**" to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No**" to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)
☐ NO ☑ YES
If "Yes", answer questions a - j. If "No", move on to Section 2.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☑	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☑	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☑	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☑	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☑	☐
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☑	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☑	☐
h. Other impacts: _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	☐	☐
c. Other impacts: _____		☐	☐

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) ☑ NO ☐ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☐	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☐	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☐	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☐	☐
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☐	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☐	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☐	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☐	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☐	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☐	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☐	☐

l. Other impacts: _____		☐	☐

4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) ☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☐	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☐	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☐	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☐	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☐	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☐	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☐	☐
h. Other impacts: _____		☐	☐

5. Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1. E.2) ☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☐	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☐	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☐	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☐	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☐	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☐	☐

g. Other impacts: _____		☐	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) ☑NO ☐YES

If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: _____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☑NO ☐YES

If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☐	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☐	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☐	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☐	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☐	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☐	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ _____	E1b	☐	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☐	☐
j. Other impacts: _____ _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☑NO ☐YES

If "Yes", answer questions a - h. If "No", move on to Section 9

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☐	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☐	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1a, E1b	☐	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☐	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☐	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources
The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.)
☑ NO ☐ YES
If "Yes", answer questions a - g. If "No", go to Section 10.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☐	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☐	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	 ☐ ☐	 ☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	 ☐ ☐	 ☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☐	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☐	☐
g. Other impacts: _____		☐	☐

10. Impact on Historic and Archeological Resources
The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.)
☑ NO ☐ YES
If "Yes", answer questions a - e. If "No", go to Section 11.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.	E3e	☐	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☐	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☐	☐

d. Other impacts: _____		☐	☐
e. If any of the above (a-d) are answered "Moderate to large impact may occur", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☐	☐
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☐	☐

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.
(See Part 1. C.2.c, E.1.c., E.2.q.)
If "Yes", answer questions a - e. If "No", go to Section 12.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	☐	☐
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	☐	☐
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	☐	☐
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	☐	☐
e. Other impacts: _____		☐	☐

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)
If "Yes", answer questions a - c. If "No", go to Section 13.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
c. Other impacts: _____		☐	☐

13. Impact on Transportation
The proposed action may result in a change to existing transportation systems. ☑ NO ☐ YES
(See Part 1. D.2.j)
If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☐	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☐	☐
c. The proposed action will degrade existing transit access.	D2j	☐	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☐	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☐	☐
f. Other impacts: _____		☐	☐

14. Impact on Energy
The proposed action may cause an increase in the use of any form of energy. ☑ NO ☐ YES
(See Part 1. D.2.k)
If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☐	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☐	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☐	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☐	☐
e. Other Impacts: _____			

15. Impact on Noise, Odor, and Light
The proposed action may result in an increase in noise, odors, or outdoor lighting. ☐ NO ☑ YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☑	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☑	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☑	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☑	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☑	☐
f. Other impacts: _____		☐	☐

16. Impact on Human Health
The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☑ NO ☐ YES
If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may occur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☐	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☐	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☐	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☐	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☐	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☐	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☐	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☐	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☐	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☐	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☐	☐
m. Other impacts: _____			

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. (See Part 1. C.1, C.2. and C.3.) ☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _____ _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3) ☑ NO ☐ YES

If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☐
g. Other impacts: _____ _____		☐	☐

PRINT FULL FORM

Agency Use Only (If Applicable)

Project: 53 Eliza Street

Date: February 20, 2019

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts and Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

See attached.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☐ Type 1 ☑ Unlisted

Identify portions of EAF completed for this Project: ☑ Part 1 ☑ Part 2 ☑ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information

Site Plan, Existing Conditions, Survey, Building Plan, letter from the Applicant dated January 7, 2019, letter from the Applicant dated December 14, 2018, letter from the Applicant dated November 28, 2018, letter from the Applicant dated October 30, 2018, letter from the Applicant dated September 28, 2018, Traffic Evaluation by Maser Consulting P.A. dated September 27, 2018, letter from the Applicant dated August 28, 2018, and photographs.

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the City of Beacon Zoning Board of Appeals as lead agency that:

☑ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Use and area variance application to permit a nine-unit multi-family development on 53 Eliza Street.

Name of Lead Agency: City of Beacon Zoning Board of Appeals.

Name of Responsible Officer in Lead Agency: Robert K. Lanier

Title of Responsible Officer: Chairman

Signature of Responsible Officer in Lead Agency: Robert K Lanier Date: 2/25/19

Signature of Preparer (if different from Responsible Officer) Stella Hermelbracht on behalf of the city Date: February 26, 2019

For Further Information:

Contact Person: Etha Grogan, Secretary to the Zoning Board of Appeals

Address: 1 Municipal Plaza, Beacon, NY 12508

Telephone Number: 845-838-5002

E-mail: Egrogan@cityofbeacon.org

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

ATTACHMENT TO
NEGATIVE DECLARATION
REASONS SUPPORTING DETERMINATION

APPLICATION FOR USE AND AREA VARIANCE APPROVAL
FOR 53 ELIZA STREET

Parcel No. 6054-29-031870

CONCLUSIONS

Based upon a review of Parts 1 and 2 of the Full Environmental Assessment Form (EAF) and all other application materials that were submitted in support of the Proposed Action (Unlisted), along with reports from City staff and consultants, information from involved and interested agencies, and information from the public, the City of Beacon Zoning Board of Appeals, undergoing an uncoordinated review, makes the conclusions set forth below.

Project Description:

The Proposed Action is to allow a multi-family development on 0.69 acres consisting of nine multifamily dwelling units, which will be distributed into three buildings, on property located at 53 Eliza Street in the R1-5 Zoning District (the "Property"). The Proposed Action includes a request for a use variance from City Code § 223-17.C/223 Attachment 1:2 to permit a multi-family residence in the R1-5 Zoning District where such development is not a permitted use, and an area variance to construct up to nine dwelling units, where the maximum number of dwelling units permitted on the Property is six pursuant to the City Code § 223-17.C/223 Attachment 1:2.

The Proposed Action is an Unlisted action. The Zoning Board of Appeals opened a public hearing to consider comments on the application on September 18, 2018. The public hearing was closed on January 15, 2019.

Summary of Rationale for Negative Declaration

The Proposed Action will not result in any significant adverse impacts on the environment. In summary:

- **Impact on Land: The Proposed Action will not have a significant adverse environmental impact as a result of any physical change to the project site.**

  The Property is located in the R1-5 Zoning District and is currently improved with non-conforming commercial buildings. The Property is already fully developed. The Proposed Action will involve the demolition of certain existing commercial buildings and construction of up to nine multifamily residential dwelling units with typical

grading and site work associated with such construction. There are no wetlands, water bodies, steep slopes or other environmentally sensitive areas on the Property. The Proposed Action will not have a significant adverse environmental impact as a result of physical changes to the Property.

- **Impact on Geological Features: The Proposed Action will not have a significant adverse environmental impact on any unique or unusual land forms on the site.**

  There are no unique geological features on the Property.

- **Impacts on Surface Water and Groundwater: The Proposed Action will not have a significant adverse environmental impact on surface or groundwater quality or quantity.**

  Residential land uses are generally not associated with the discharge of contaminants into aquifers or other groundwater sources. There will be no bulk storage of petroleum or chemicals on-site. The Project does not include or require wastewater discharged to groundwater. The Project will be connected to the existing public water distribution and sanitary sewer systems. Water usage and liquid waste generation is anticipated to be an additional 1,980 gallons per day above the existing condition. Adequate water supply and sewer capacity exist for these additional flows.

  The Proposed Action will not result in any significant adverse impact to surface or groundwater quality or quantity.

- **Impact on Flooding: The Proposed Action will not have a significant adverse environmental impact on or alter drainage flows or patterns, or surface water runoff.**

  The Proposed Action will disturb less than one acre and will not create any net additional stormwater runoff. Therefore, the Project will not have a significant adverse impact on or alter drainage flows or patterns, or on surface water runoff.

- **Impact on Air: The Proposed Action will not have a significant adverse environmental impact on air quality.**

  Construction activities associated with grading and excavation could result in temporary air quality impacts. Air quality in the area, however, is not expected to be significantly impacted by project construction because the construction activities will be temporary and confined to the Property. Construction vehicles will emit certain air pollutants through engine exhaust. There is also the potential for fugitive dust to be created during the construction period from site preparation activities, including removal of existing impervious surfaces and vegetation, and site grading. These unavoidable short term

impacts to air quality will cease upon project completion. Construction will be conducted in accordance with all applicable federal, state and local codes.

- **Impact on Plants and Animals: The Proposed Action will not have a significant adverse environmental impact on flora or fauna.**

  0.056 acres of the Property is currently grass/landscaped areas. After the project is completed 0.228 acres will be grass/landscaped areas. This is an increase of 0.172 acres. The predominate wildlife species that occupy or use the project site include raccoons, grey squirrels and white tail deer. The project site does not contain a designated significant natural community. Although the Full EAF indicates that the Property may contain or serve as habitat for the endangered Indiana Bat, there are no trees on the Property that would serve as suitable habitat for the Indiana Bat.

- **Impact on Agricultural Resources: The Proposed Action will not have a significant adverse environmental impact on agricultural resources.**

  There are no agricultural resources in the vicinity of the Property.

- **Impact on Aesthetic Resources: The Proposed Action will not have a significant adverse environmental impact on aesthetic resources.**

  The Proposed Action will not result in the obstruction, elimination or significant screening of one or more officially designated scenic views, or visible from any publicly accessible vantage points either seasonally nor year around.

- **Impact on Historic and Archeological Resources: The Proposed Action will not have a significant adverse environmental impact on historic or archeological resources.**

  Developing the property into a multifamily development with up to nine dwelling units in an existing residential neighborhood will not have a significant adverse impact on historic or archeological resources because there are no historic resources in the immediate vicinity of the Site.

- **Impact on Open Space and Recreation: The Proposed Action will not have a significant adverse environmental impact on open space and recreation.**

  The area of the Proposed Action is not designated as open space by the City of Beacon. The Proposed Action will not result in the loss of a current or future recreational resource, eliminate significant open space, or result in loss of an area now used informally by the community as an open space resource.

- **Impact on Critical Environmental Areas: The Proposed Action will not have a significant adverse environmental impact on Critical Environmental Areas.**

  The Proposed Action is not located in a Critical Environmental Area.

- **Impact on Transportation: The Proposed Action will not have a significant adverse environmental impact on transportation.**

  The construction of nine multifamily dwelling units will not result in a significant adverse traffic impact. The Applicant submitted a traffic evaluation study prepared by Maser Consulting P.A., dated September 27, 2018 to review the traffic impacts associated with the proposed multifamily development. It is anticipated that the multifamily development will generate similar traffic during peak hours as the existing commercial use. The Site will be accessed via a driveway connection to Eliza Street offset approximately 30 feet to the south of Oak Street. The Proposed Action will eliminate the two (2) existing driveways located on each side of the existing building fronting on Eliza Street and consolidate the driveways into one (1) central two-way access driveway for better circulation into and out of the Site.

  Maser Consulting conducted turning movement traffic counts at the intersection of Eliza Street and Oak Street on Tuesday September 25, 2018 during the AM and PM Peak Periods. In order to assess the potential traffic impacts of the Proposed Development, estimates of the anticipated Site Generated Traffic Volumes were made based on information provided by the Institute of Transportation Engineers (ITE) as contained in their publication Trip Generation, 10th Edition dated 2017 based on ITE Land Use Code 220 – Multi-Family Low Rise Residential. In addition, for comparison purposes, estimates of the potential traffic generation of the as of-right use for the property, i.e. three (3) single family residential dwellings, were also computed based on ITE Land Use Code – 210 – Single Family Housing. According to the Maser Consulting traffic report, the proposed nine (9) unit multi-family development and the as-of-right three-unit single family homes would have similar traffic generation during each of the Peak Hours. Maser Consulting concluded that "the Proposed Development is not anticipated to have a significant impact on traffic operating conditions in the vicinity of the Site. Furthermore, as previously indicated, the proposed nine (9) unit multi-family development and the as-of-right three-unit single family homes would have similar traffic generation during each of the Peak Hours analyzed."

- **Impact on Energy: The Proposed Action will not have a significant adverse environmental impact on energy.**

  The existing energy infrastructure will adequately serve the additional demand. The Proposed Action does not require a new substation, or an upgrade to any existing substation.

- **Impact on Noise, Odor and Light: The Proposed Action will not have a significant adverse environmental impact as a result of objectionable odors, noise or light.**

  The Proposed Action is not anticipated to generate any noxious odors. Outdoor lighting will be consistent with typical residential lighting and will include building mounted lights and pole mounted lights for the parking lot. All lighting shall be shielded and pointed downward. Noise impacts associated with the proposed Project will be limited to temporary impacts generated during construction. Temporary noise impacts associated with construction will be mitigated by limiting construction activities to the hours between 7:00 a.m. and 5:00 p.m Monday-Friday, and 8 a.m. – 5 p.m on Saturday. It is not anticipated that blasting will be necessary during the proposed construction. If blasting does become necessary, it will be performed in accordance with all applicable state and local requirements. In addition, there will be no significant noise impacts post-construction.

- **Impact on Human Health: The Proposed Action will not have a significant adverse environmental impact on human health from exposure to new or existing sources of contaminants.**

  Residential land uses are generally not associated with significant adverse impacts on human health from exposure to new or existing sources of contaminants. The site is currently used for office/warehouse space, however there has never been any hazardous waste generated, treated and/or disposed of at the site and no spills have been reported at the site. There is no existing contamination on the site.

- **Consistency with Community Plans and Community Character: The Proposed Action is not inconsistent with adopted community plans and community character.**

  The Proposed Action is generally consistent with the Comprehensive Plan and City Zoning Code.

Based upon this information and the information in the Full Environmental Assessment Form, the Zoning Board of Appeals finds that the Proposed Action will not have any significant adverse impacts upon the environment. .

Adopted: February 20, 2019
Beacon, New York

Received
Office of the City Clerk
2/26/2019

Bulk Zoning Regulations Table

	Required Lot Area	Lot Area per Dwelling Unit	Actual Lot Area	Required Setbacks			Proposed Setbacks			Minimum Lot Width	Proposed Lot Width	Minimum Lot Depth	Proposed Lot Depth	Minimum Distance between building on the same lot	Allowable Building Height	Proposed Building Height
				Front	Side	Rear	Front	Side	Rear							
Zoning District																
R1-5	5,000	5,000	30,307	30'	10'	30'	12.80' * at house, 7.80' at porch	10.0' minimum at new construction	30.5' minimum at new construcion	50'	108' min.	100'	208.32' min.	None	2 1/2 stories 35'	2 1/2 stories above garage 35'

* Proposed setback to conform to neighboring properties



POLE MOUNTED LIGHT (L1A)

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 = 10 FEET



WALL MOUNTED LIGHT (L2)

SELUX LIGHTING "BETA PENDANT" WALL MOUNTED FIXTURE. MODEL #BPC-L-R2-1-H50-BK-120-HS-PC WITH LOW GLARE CUTOFF SHIELD, COLOR: BLACK. PHOTOCELL CONTROL. OR APPROVED EQUAL. MOUNTING HEIGHT = 12 FEET

EXTERIOR PORTE COCHERE LIGHT FIXTURES (L1B)

LUMENS "4" AIR TIGHT SURFACE MOUNT " 11 WATT (620 LUMENS) 2700K LED FIXTURE. COLOR: WHITE. OR APPROVED EQUAL



WALL MOUNTED HOUSE LIGHT (L1)

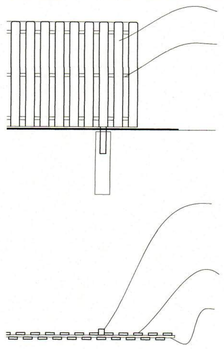
BARNLIGHT ELECTRIC WALL MOUNTED FIXTURE. MODEL "WESCO GOOSENECK", 100W, COLOR: DARK GREEN METAL SHADE, OR APPROVED EQUAL. MOUNTING HEIGHT = 7 FEET.

NOTE THAT THE MANUFACTURER DOES NOT PROVIDE FOOTCANDLE DIAGRAMS FOR THIS FIXTURE. THE FIXTURE IS SHADED AND DOES NOT EMIT GLARE

Lighting

Not to Scale

NOTE: ALL EXTERIOR LIGHTING ON THE SITE SHALL BE DIRECTED AND/OR SHIELDED SO AS NOT TO CAUSE ANY OBJECTIONABLE GLARE OBSERVABLE FROM NEIGHBORING STREETS AND PROPERTIES. THE SOURCE (BULBS) OF SUCH LIGHTING SHALL NOT BE VISIBLE FROM SAID NEIGHBORING STREETS AND PROPERTIES. PHOTOMETRIC DIAGRAMS ARE SHOWN WITH SHIELDED CONDITIONS.



Shadow Box Fence Detail

Not to Scale

PLANT SCHEDULE

KEY	BOTANICAL NAME	QTY.	SIZE	ROOT	SPACING	COMMENTS
	TREES					
BN	BETULA NIGRA 'HERITAGE' (RIVER BIRCH)	3	10' - 12'	CONT	SEE DRAWING	
CC	CERCIS CANADENSIS (EASTERN REDBUD)	3	2.5" - 3"	B&B	SEE DRAWING	
LS	LIQUIDAMBAR STRYACIFLUA 'ROTUNDILOBA' (SWEETGUM)	1	3.5" - 4"	B&B	SEE DRAWING	
FS	FAGUS SYLVATICA F. PURPUREA (COPPER BEECH)	1	3.5" - 4"	B&B	SEE DRAWING	
PS	PRUNUS SARGENTII (SARGENT CHERRY)	3	3" - 3.5"	B&B	SEE DRAWING	
SP	STEWARTIA PSEUDOCAMELLIA (JAPANESE STEWARTIA) - MULTISTEM	3	6' - 7'	B&B	SEE DRAWING	
	SHRUBS					
PLO	PRUNUS LAUROCERASUS 'OTTO LUYKEN' (CHERRY LAUREL)	24	5 GAL	CONT	42" O.C.	
VR	VIBURNUM X RHYTIDOPHYLLOIDES (ALLEGHENY VIBURNUM)	11	7 GAL	CONT	4' O.C.	
	HERBACEOUS					
CA	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER' (K.F. REED GRASS)	60	1 GAL	CONT	20" O.C.	
CV	CLEMATIS VIRGINIANA (VIRGIN'S BOWER)	61	1 GAL	CONT	15' O.C. EXCEPT WHERE NOTED ON DWG.	
HC	HYPERICUM CALYCINUM (ST JOHNS WORT)	2448	PLUGS	TRAY	8" O.C. - STAGGERED. NORTH CREEK NURSERY	
LSJ	LONICERA SEMPERVIRENS 'JOHN CLAYTON'	6	1 GAL	CONT		
	LAWN					
	SEEDED WITH NO-MOW LAWN SEED MIX (OR APPROVED EQUAL). APPLIED AT 5LBS PER 1000SF SOURCE: PRAIRIE NURSERY					

HATCHING LEGEND

- CONCRETE SIDEWALK
- PERVIOUS PAVERS
- GRASS

BUILDING HATCH LEGEND

- RENOVATE EXISTING BUILDING TO REMAIN
- NEW CONSTRUCTION



Site Plan

Scale: 1" = 20'

Survey Date: July 23, 2018
TEC Land Surveying
15c Tioronda Avenue
Beacon, New York 12508

NOTE: THE AVERAGE SETBACK FROM THE BUILDING TO THE SIDEWALK ON THIS SIDE OF THE STREET WITHIN 250' OF THE SUBJECT PROPERTY IS APPROXIMATELY 12.3'

THE PROPOSED DISTANCE FROM THE SUBJECT BUILDING TO THE SIDEWALK IS APPROXIMATELY 12.8' TO ALIGN WITH THE EXISTING SETBACK AT THE PROPERTY TO THE NORTH

THEREFORE, THE PROPOSED FRONT YARD SETBACK COMPLIES WITH THEREQUIREMENTS OF SECTION 223-13K OF THE CITY OF BEACON ZONING CODE

PROVIDE (6) RECESSED LED LIGHT FIXTURES AT COVERED ENTRY TO PROVIDE 1 FOOTCANDLE



Location Map

Not to Scale

Zoning Summary

Zoning District:	R1-5 (Residential)
Tax Map No.:	6054-29-031870
Lot Area:	0.696 Acres (30,307 sf)
Building Footprint:	9,981 square feet
Historical Overlay District:	No
Parking Overlay District:	No
Existing Use:	Commercial office, Storage, and Contractor's Yard
Proposed Use:	Multi-Family Residential

Parking & Loading

Use & Parking Requirements	Proposed Area	Current Parking Requirement
Residential		
1 space per dwelling unit plus 1/4 space per bedroom	9 Units (3) 3 BR (6) 2 BR 21 Bedrooms	15 parking spaces
Total Required Parking Spaces		***15 Parking Spaces***
Total Proposed Parking Spaces		**18 Parking Spaces (Note 1)**

Notes:

1. There are 6 units with garages. Each unit with a garage has 2 interior parking spaces for a total of 12 garage parking spaces. There are 6 surface parking spaces dedicated to the units without garages, for a total of 18 parking spaces on the property.
2. No signage is proposed as part of this application.
3. The Zoning Board of Appeals granted a Use Variance at their February 2019 meeting to allow multi-family residential use in the Single-Family Zone. The Zoning Board of Appeals also granted an Area Variance to allow 9 apartments.
4. Trash will be stored in an exterior trash enclosure.
5. The height below the drive-through entrance is 12'-8" minimum to accommodate a fire truck.
6. The Condominium Association shall be responsible for snow removal along the sidewalk in front of the subject property.

Index of Drawings

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Sheet 2 of 13	Existing Conditions / Demolition Plan
Sheet 3 of 13	Renderings
Sheet 4 of 13	Floor Plans
Sheet 5 of 13	Elevations
Sheet 6 of 13	Grading, Utility Plan
Sheet 7 of 10	Erosion & Sediment Control Plan
Sheet 8 of 13	Fire Apparatus Maneuvering Plan
Sheet 9 of 13	Profiles
Sheet 10 of 13	Site & Landscaping Details
Sheet 11 of 13	Stormwater and Erosion and Sediment Control Details
Sheet 12 of 13	Water Details
Sheet 13 of 13	Sewer Details

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	02/26/19	REVISED PER PLANNING BOARD COMMENTS	AJS
2	03/26/19	REVISED PER PLANNING BOARD COMMENTS	AJS
3	04/30/19	REVISED PER PLANNING BOARD COMMENTS	AJS
4	05/28/19	REVISED PER PLANNING BOARD COMMENTS	AJS
5	06/25/19	REVISED PER PLANNING BOARD COMMENTS	AJS
6	07/30/19	REVISED PER PLANNING BOARD COMMENTS	AJS

Site Plan Application

Sheet 1 of 13 - Site Plan

Owner
PIE Development Company, Inc.
53 Eliza Street
Beacon, NY 12508

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

Surveyor:
TEC Surveying
15C Tioronda Avenue
Beacon, New York 12508

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

53 Eliza Street
Beacon, New York
Scale: 1" = 20'
August 28, 2018

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 two feet. Elevations shown hereon are referenced to NAVD 88 using NYSNET RTN GPS.

12. Underground utilities shown as per actual field location and maps provided.

13. Deed of Record has two disagreeing boundary descriptions. It is the opinion of the survey that the description hereon is correct and the first listed description is in error.

DEED REFERENCE

DOC# 02-1999-3089
GUIDO R. CAPOLINO
To
PIE DEVELOPMENT CO. INC.
APRIL 13, 1999

TAX PARCEL NUMBER

City of Beacon, Dutchess County, New York
130200-6054-29-031870-0000

AREA

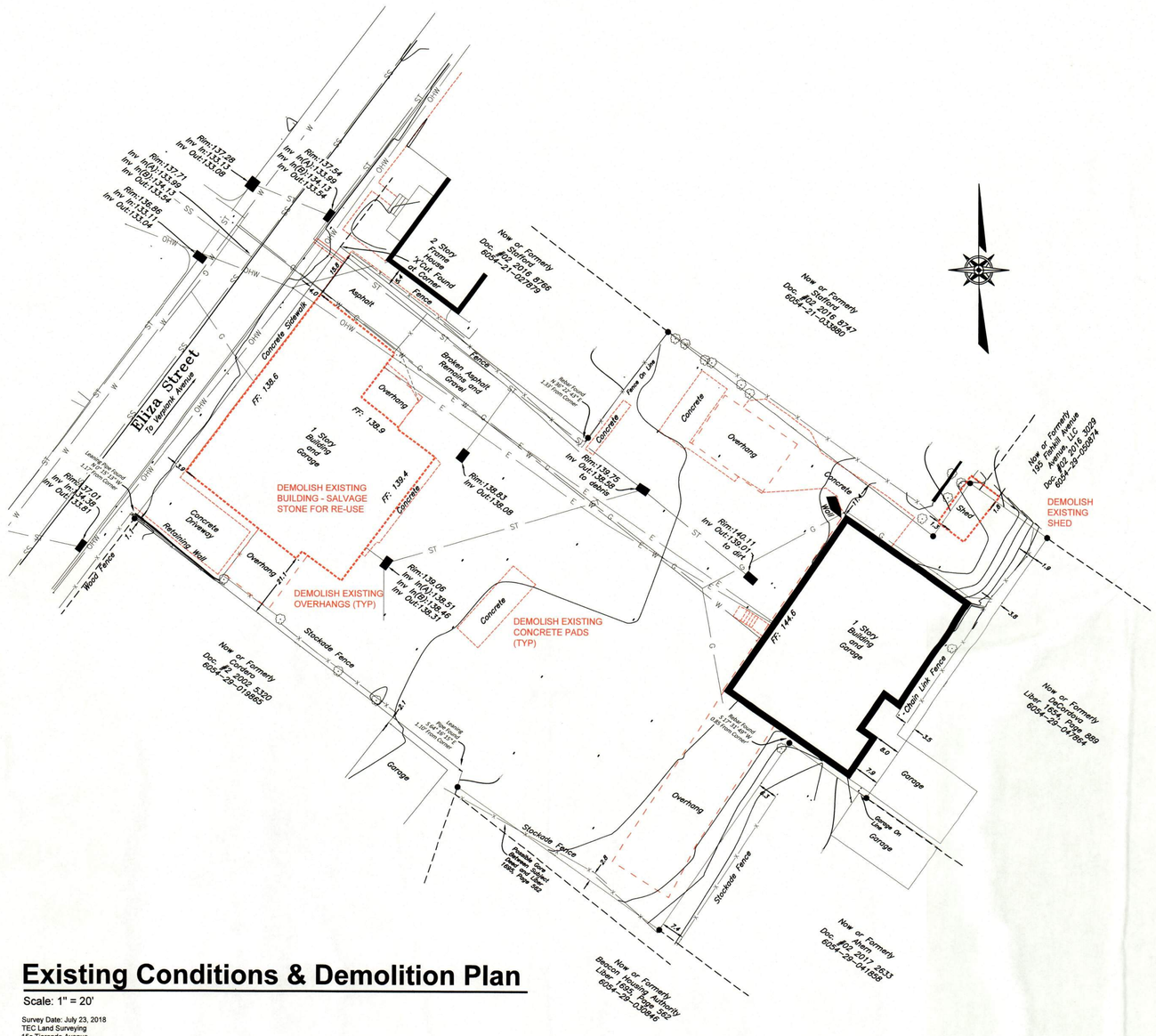
30,307 Square Feet
0.696 Acres

DATE OF SURVEY

Field Completion: 7/23/18

LEGEND

- PROPERTY LINE
- SS — SANITARY SEWER LINE
- ST — STORM SEWER LINE
- X — X — FENCE
- OHW — OVERHEAD WIRES
- HYDRANT
- GAS VALVE
- WATER VALVE
- ELECTRIC BOX
- UNKNOWN MANHOLE
- TELEPHONE MANHOLE
- SANITARY SEWER MANHOLE
- DRAINAGE MANHOLE
- DROP INLET
- LIGHT POLE
- UTILITY POLE
- MAIL BOX
- GUY WIRE
- SIGN
- BOLLARD
- IRON ROD FOUND
- MONUMENT FOUND



Existing Conditions & Demolition Plan

Scale: 1" = 20'

Survey Date: July 23, 2018
TEC Land Surveying
15c Tioronda Avenue
Beacon, New York 12508



Photo of Existing Stone Building



Photo of Existing Building at Eliza Street

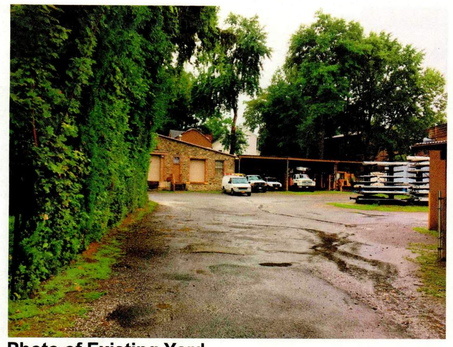


Photo of Existing Yard

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	02/26/19	NO CHANGE	AJS
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3	04/30/19	REVISED PER PLANNING BOARD COMMENTS	AJS
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5	06/25/19	NO CHANGE	AJS
6	07/30/19	NO CHANGE	AJS

Site Plan Application

Sheet 2 of 13 - Existing Conditions / Demolition Plan

Owner
PIE Development Company, Inc.
53 Eliza Street
Beacon, NY 12508

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

Surveyor:
TEC Surveying
15C Tioronda Avenue
Beacon, New York 12508

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

53 Eliza Street
Beacon, New York
Scale: 1" = 20'
August 28, 2018



View at Eliza Street Elevation
Note: This view shows approved colors



View along Eliza Street

Note: Renderings are artistic interpretations of the proposed design. They are not intended to be exact representations. There may be minor variations between the renderings and the final design and constructed project.



View at Courtyard Building
Note: This view shows approved colors



View at Existing Building



View along Oak Street

Site Plan Application
Sheet 3 of 13 - Renderings

Owner
PIE Development Company, Inc.
53 Eliza Street
Beacon, NY 12508

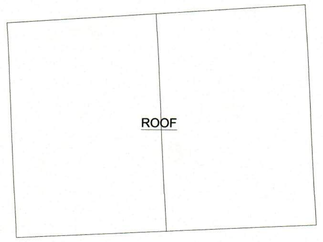
Architect:
Aryeh Siegel Architect
84 Mason Circle
Beacon, New York 12508

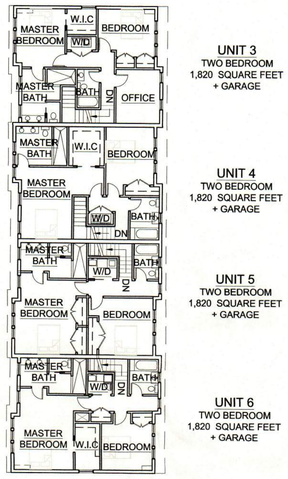
Surveyor:
TEC Surveying
15C Tioronda Avenue
Beacon, New York 12508

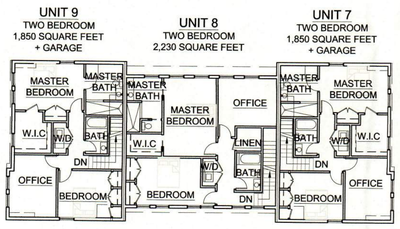
Civil Engineer:
Hudson Land Design
174 Main Street
Beacon, New York 12508

53 Eliza Street
Beacon, New York
Scale: 1" = 20'
August 28, 2018

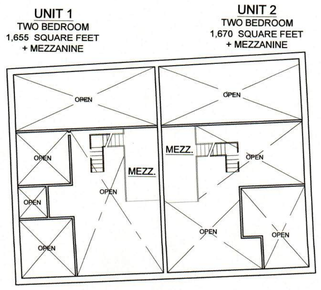
REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	02/26/19	NO CHANGE	AJS
2	03/26/19	REVISED PER PLANNING BOARD COMMENTS	AJS
3	04/30/19	DRAWING ADDED THIS SUBMISSION	AJS
4	05/28/19	REVISED PER PLANNING BOARD COMMENTS	AJS
5	06/25/19	REVISED PER PLANNING BOARD COMMENTS	AJS
6	07/30/19	REVISED PER PLANNING BOARD COMMENTS	AJS

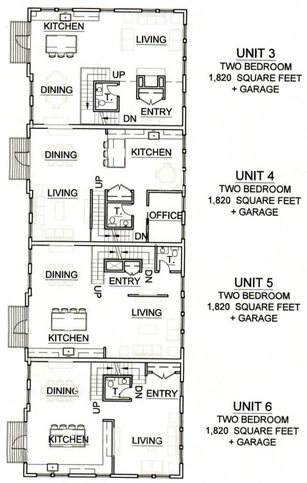


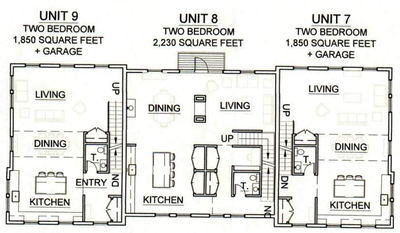




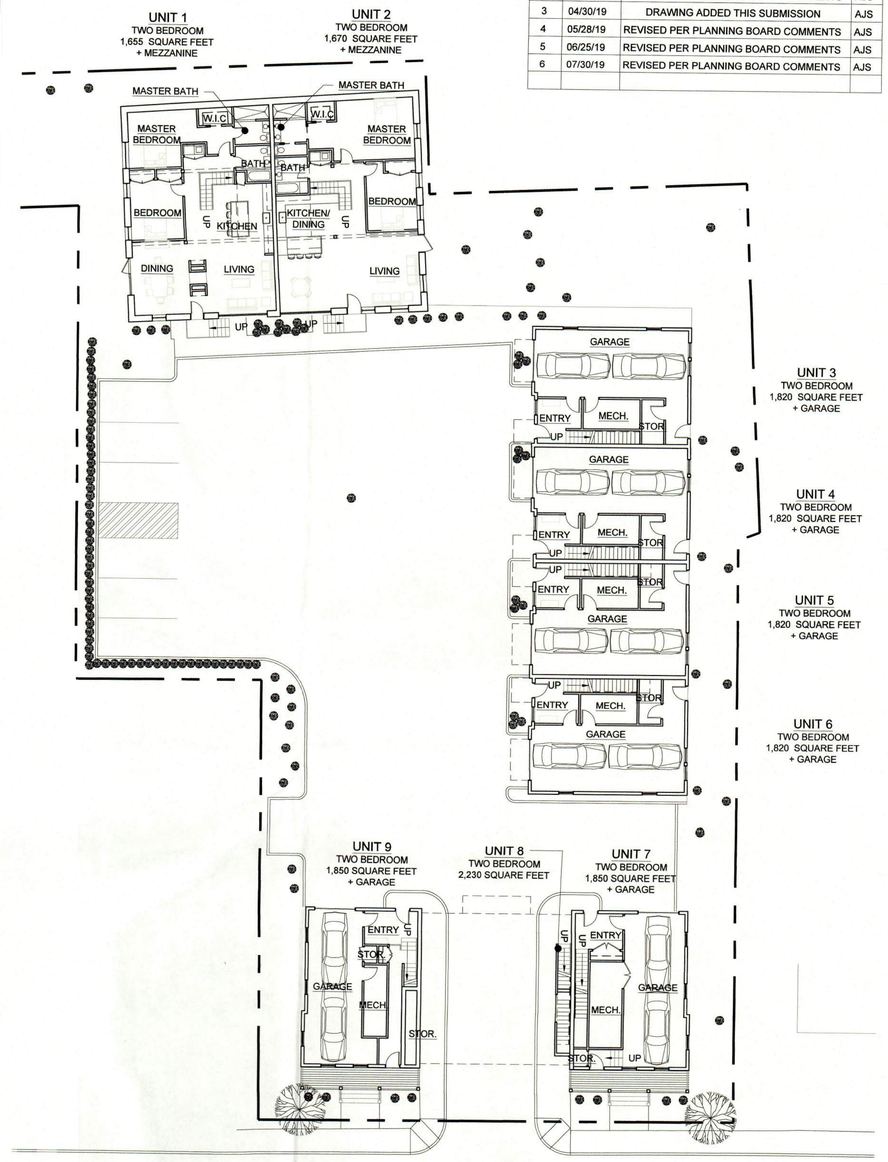
2nd Floor Plan







1st Floor Plan



Ground Floor Plan

Site Plan Application

Sheet 4 of 13 - Floor Plans

Owner
PIE Development Company, Inc.
53 Eliza Street
Beacon, NY 12508

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

Surveyor:
TEC Surveying
15C Tioronda Avenue
Beacon, New York 12508

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

53 Eliza Street
Beacon, New York
Scale: 1/16" = 1'-0"
April 9, 2019

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	02/26/19	NO CHANGE	AJS
2	03/26/19	REVISED PER PLANNING BOARD COMMENTS	AJS
3	04/30/19	DRAWING ADDED THIS SUBMISSION	AJS
4	05/28/19	REVISED PER PLANNING BOARD COMMENTS	AJS
5	06/25/19	REVISED PER PLANNING BOARD COMMENTS	AJS
6	07/30/19	REVISED PER PLANNING BOARD COMMENTS	AJS

Eliza Street Building



ROOF:
CERTAINTEED "GRAND MANOR" ARCHITECTURAL ASPHALT SHINGLE ROOF.
COLOR: BLACK PEARL

HARDIE BOARD SIDING. COLOR: LIGHT MIST

EAVES AND TRIM:
BENJAMIN MOORE COLOR WICKHAM GRAY HC-171

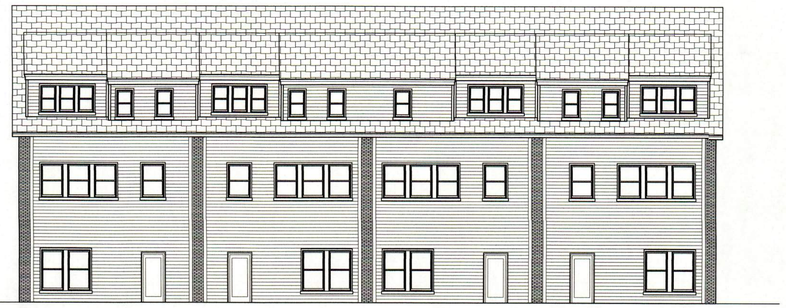
WINDOWS:
ANDERSEN 400 SERIES DOUBLE HUNG WINDOW OR APPROVED EQUAL

PORCH TRIM:
BENJAMIN MOORE WICKHAM GRAY HC-171

BRICK:
GLEN GARY COLOR 56DD OR APPROVED EQUAL

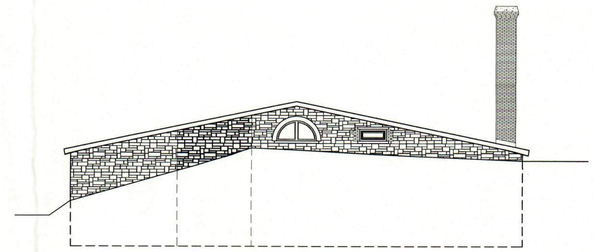
Courtyard Elevation

Courtyard Building

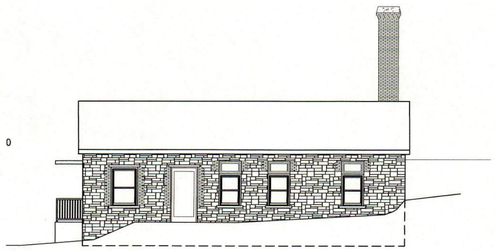


Rear Elevation

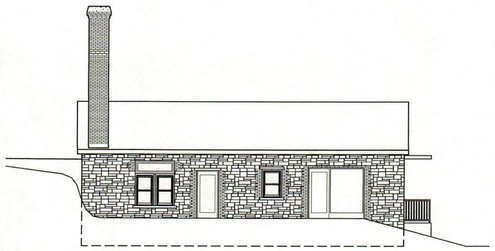
Existing Stone Building



Rear Elevation



Side Elevation



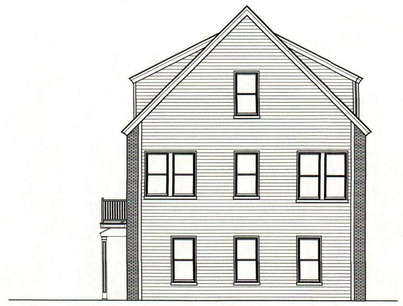
Side Elevation



Side Elevation



Side Elevation



Side Elevation



Side Elevation



Eliza Street Elevation



ROOF:
CERTAINTEED "GRAND MANOR" ARCHITECTURAL ASPHALT SHINGLE ROOF.
COLOR: BLACK PEARL

HARDIE BOARD SIDING. COLOR: NIGHT GRAY

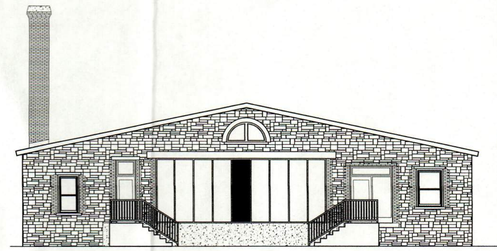
EAVES AND ROOF TRIM:
BENJAMIN MOORE COLOR GEORGIAN BRICK HC-50

WINDOWS:
ANDERSEN 400 SERIES DOUBLE HUNG WINDOW OR APPROVED EQUAL

TRIM & GARAGE DOORS:
BENJAMIN MOORE WICKHAM GRAY HC-171

BRICK:
GLEN GARY COLOR 56DD OR APPROVED EQUAL

Courtyard Elevation



ROOF:
CERTAINTEED "GRAND MANOR" ARCHITECTURAL ASPHALT SHINGLE ROOF.
COLOR: BLACK PEARL

STONE & BRICK SURROUND:
EXISTING TO REMAIN

EAVES AND TRIM:
BENJAMIN MOORE COLOR KNOXVILLE GRAY HC-160

METAL WINDOWS:
COLOR: CHARCOAL GRAY

WINDOWS:
ANDERSEN 400 SERIES DOUBLE HUNG WINDOW OR APPROVED EQUAL: COLOR: BLACK

Courtyard Elevation

Site Plan Application

Sheet 5 of 13 - Elevations

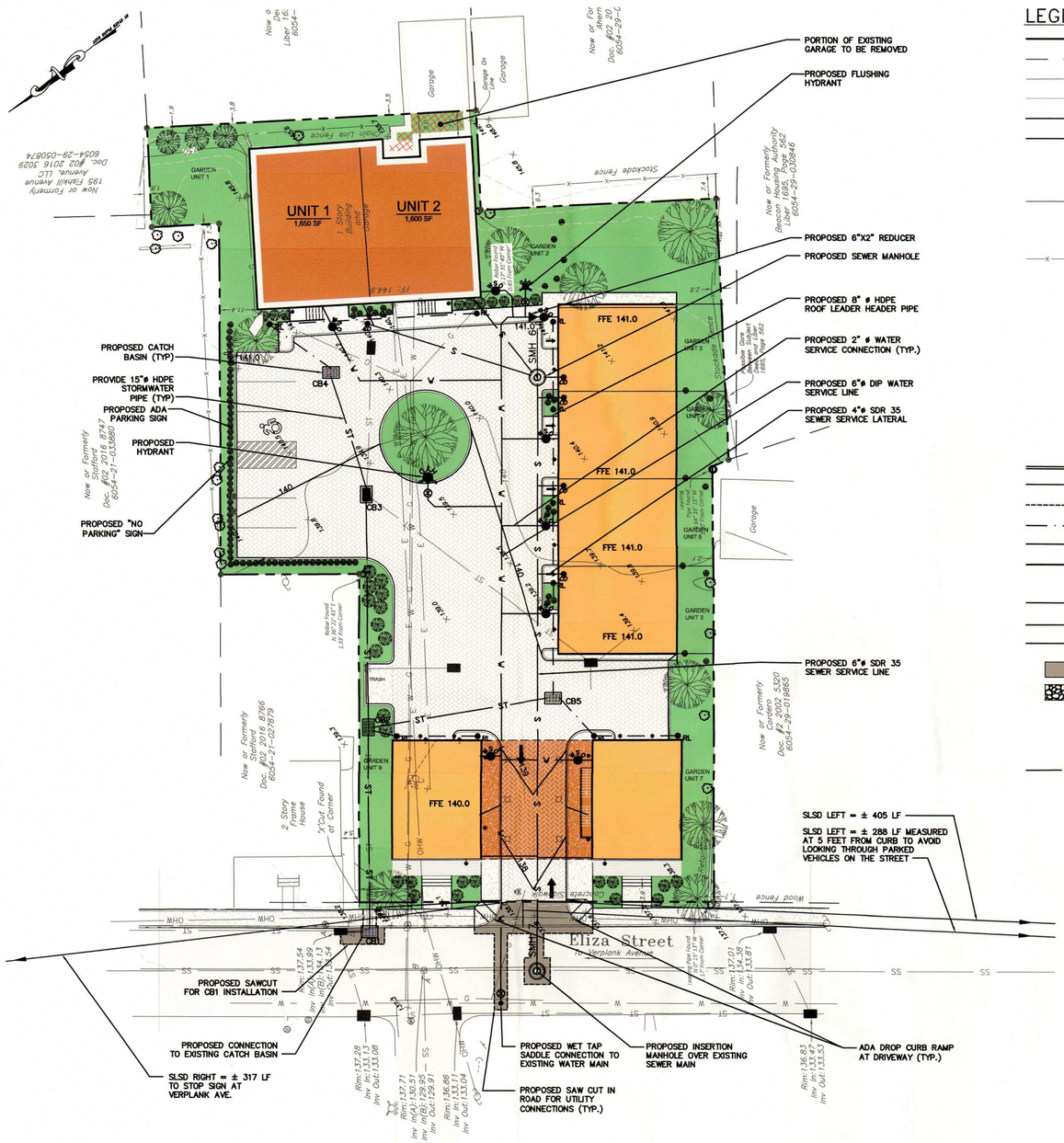
Owner
PIE Development Company, Inc.
53 Eliza Street
Beacon, NY 12508

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

Surveyor:
TEC Surveying
15C Tioronda Avenue
Beacon, New York 12508

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

53 Eliza Street
Beacon, New York
Scale: 3/32" = 1'-0"
April 23, 2019



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
- EXISTING ADJOINER LINE
- EXISTING SEWER MAIN
- EXISTING WATER MAIN
- PROPOSED SEWER SERVICE LINE
- PROPOSED WATER SERVICE LINE
- EXISTING SEWER MANHOLE
- EXISTING WATER VALVE
- EXISTING OVERHEAD WIRES
- EXISTING UTILITY POLE
- EXISTING CATCH BASIN
- EXISTING FENCE
- PROPOSED CATCH BASIN WITH INLET PROTECTION
- PROPOSED HYDRANT
- PROPOSED WATER VALVE
- PROPOSED SANITARY MANHOLE
- PROPOSED WATER SHUT-OFF VALVE
- PROPOSED CLEAN OUT
- PROPOSED SILT FENCE
- PROPOSED ROOF LEADER
- PROPOSED WET TAP
- PROPOSED RETAINING WALL
- PROPOSED CULVERT
- PROPOSED UNDERDRAIN
- PROPOSED ROOF LEADER PIPE
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED CLEANOUT
- PROPOSED SEWER SERVICE LINE
- PROPOSED WATER SUPPLY LINE
- RE-PAVED SURFACE
- PROPOSED RIP RAP
- UTILITY CROSSING LOCATION
- PROPOSED ROOF LEADER LOCATION
- PROPOSED WATER SERVICE LINE
- PROPOSED WATER SHUT-OFF VALVE

INFILTRATION AND INFLOW MITIGATION NOTES:

1. THE FLOOR DRAIN IN THE REAR BUILDING WILL BE REMOVED AND PLUGGED.
2. THE TWO ROOF LEADERS AT THE REAR BUILDING WILL BE DISCONNECTED FROM THE SANITARY SEWER LINE.
3. THE FRONT BUILDING WILL BE DEMOLISHED TO ALLOW FOR CONSTRUCTION OF THE PROPOSED BUILDINGS. THE EXISTING SEWER LATERAL CONNECTION WILL BE CUT AND PLUGGED.

CONDOMINIUM ASSOCIATION NOTES

1. A CONDOMINIUM ASSOCIATION SHALL BE FORMED FOR MAINTENANCE OF THE COMMON AREAS WITHIN THE PARCEL.
2. THE 6"ø WATER SERVICE SERVING THE PROJECT IS THE RESPONSIBILITY OF THE CONDO ASSOCIATION STARTING AT THE EXISTING WATER MAIN WITHIN ELIZA STREET AND THROUGHOUT THE ENTIRE PROJECT ITSELF.
3. THE 6"ø SEWER LINE SERVICING THE PROJECT IS THE RESPONSIBILITY OF THE CONDO ASSOCIATION STARTING AT ITS CONNECTION TO THE EXISTING MUNICIPAL GRAVITY SEWER SYSTEM WITHIN ELIZA STREET,ALONG WITH THE SEWER LINE, SEWER STRUCTURES AN SEWER LATERALS LOCATED ON THE PROJECT SITE.
4. THE CONDOMINIUM ASSOCIATION SHALL BE RESPONSIBLE FOR SNOW REMOVAL FROM THE SIDEWALKS ALONG ELIZA STREET AND THE PARCEL FRONTAGE.

STORM SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
CB 1	RIM = 137.63 SUMP = 132.70 PIPE 3 INV IN = 133.80 PIPE 4 INV OUT = 133.70
CB 2	RIM = 139.05 SUMP = 134.94 PIPE 2 INV IN = 136.04 Pipe 5 INV IN = 136.04 PIPE 3 INV OUT = 135.94
CB 3	RIM = 140.15 SUMP = 135.80 PIPE 1 INV IN = 136.90 PIPE 2 INV OUT = 136.80
CB 4	RIM = 140.52 SUMP = 136.50 PIPE 1 INV OUT = 137.50
CB 5	RIM = 139.43 SUMP = 135.60 Pipe 5 INV OUT = 136.60
EX. CB	RIM = 137.58 SUMP = 132.60 PIPE 4 INV IN = 133.60

STORM SEWER PIPE TABLE			
PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
Pipe 5	57 LF	15" ø CORR HDPE	0.98%
PIPE 1	37 LF	15" ø CORR HDPE	1.62%
PIPE 2	71 LF	15" ø CORR HDPE	1.06%
PIPE 3	62 LF	15" ø CORR HDPE	3.47%
PIPE 4	9 LF	15" ø CORR HDPE	1.13%

SANITARY SEWER STRUCTURE TABLE	
STRUCTURE	STRUCTURE DETAILS
SMH 6	RIM = 140.71 PIPE 6 INV OUT = 135.95
SMH 7	RIM = 137.52 PIPE 6 INV IN = 129.70

SANITARY SEWER PIPE TABLE			
PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
PIPE 6	179 LF	8 inch PVC	3.50%

PROJECT INFORMATION:

PARCEL OWNER:	PIE DEVELOPMENT COMPANY, INC.
PROJECT ENGINEER:	HUDSON LAND DESIGN P.C., 174 MAIN STREET, BEACON NY 12508
PARCEL LOCATION:	53 ELIZA STREET BEACON, NEW YORK 12508
TAX PARCEL ID:	6054-29-031870
PARCEL AREA:	±0.696-ACRE
WATER SUPPLY:	MUNICIPAL
SEWAGE DISPOSAL:	MUNICIPAL
ZONING DISTRICT:	R-5

MAP REFERENCES:

1. EXISTING FEATURES AS SHOWN ON THIS SKETCH PLAN PROVIDED BY A SURVEY BY TEC LAND SURVEYING.

SITE SPECIFIC NOTES:

1. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UFPO @ 1-800-962-7962. SPECIFIC ATTENTION SHALL BE PAID TO THE LOCATIONS OF THE GAS, WATER AND SEWER MAINS WITH RESPECT TO THE PROPOSED LOCATIONS FOR THE SERVICE LINES.
2. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL DRAINAGE, SANITARY SEWER, WATER AND GAS LINES AND STRUCTURES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT.
3. THE PROPOSED LOT SHALL BE SERVED BY THE CITY OF BEACON MUNICIPAL WATER AND SEWER SERVICES. AS SUCH, THE CONTRACTOR SHALL CONTACT THE CITY OF BEACON WATER AND SEWER DEPARTMENTS TO SCHEDULE A PRE-CONSTRUCTION MEETING TO ENSURE THAT THE ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL ARE COMMENCED IN ACCORDANCE WITH THE APPROVED PLANS AND AMENDMENTS THERETO AND GENERALLY ACCEPTED STANDARDS.
4. THE WATER SERVICE LINE AND METER FOR EACH UNIT SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BEACON WATER DEPARTMENT REQUIREMENTS.
5. THE WATER SERVICE MAIN SHALL BE 6"ø DIP.
6. THE SEWER SERVICE MAIN SHALL BE 6"ø SDR-35 PVC PIPE WITH PITCH AS SHOWN ON THE PLAN (MINIMUM OF ¼" PER FOOT SHALL BE MAINTAINED).
7. STREET CLOSURE FOR WATER, SEWER AND GAS SERVICE CONNECTIONS AND DRIVEWAY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF BEACON REQUIREMENTS. A PLAN SHALL BE IN PLACE FOR MAINTENANCE AND PROTECTION OF TRAFFIC.
8. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. MAIN STREET AND NORTH ELM STREET SHALL BE KEPT CLEAN AND SWEPT DURING CONSTRUCTION.
9. SUMP PUMPS TO BE PROVIDED FOR FOOTING DRAINS, AS REQUIRED. THE TYPES OF PUMPS AND METHODS USED TO ENSURE PROPER DRAINAGE SHALL BE ACCEPTABLE TO THE CITY OF BEACON BUILDING DEPARTMENT.
10. THE TOTAL DISTURBANCE ASSOCIATED WITH THE PROJECT HAS BEEN ESTIMATED TO BE 25,716 SQUARE FEET (±0.59 ACRE).
11. THE BUILDING DEPARTMENT SHALL HAVE THE RIGHT TO INSPECT THE EXISTING BUILDING TO CONFIRM THAT THERE ARE NOT EXISTING STORMWATER CONNECTIONS TO THE CITY'S SANITARY SEWER SYSTEM PRIOR TO THE MAP BEING SIGNED.
12. THE EXISTING WATER SERVICE LINE SHALL BE CUT, CAPPED AND ABANDONED IN-PLACE.
13. THE EXISTING SEWER SERVICE LATERAL SHALL BE REMOVED AND PLUGGED TO PREVENT ANY GROUNDWATER INFLOW INTO THE CITY SEWER SYSTEM.
14. THE REQUIRED SIGHT DISTANCE SHALL MEET OR EXCEED 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 (SLSD) OF 290 FEET TO THE LEFT AND 335 FEET TO THE RIGHT, AND 200 FEET IN BOTH DIRECTIONS FOR STOPPING SIGHT DISTANCE (SSD). THE MEASURED SLSD AND SSD AT THE PROPOSED ENTRANCE IS AS FOLLOWS:

SLSD LEFT = ±405 FEET (MEASURED AT FRONT OF BUILDING ± 11 FEET FROM ROAD EDGE TO AVOID ADJACENT WOOD FENCE)
SLSD LEFT = ±288 FEET (MEASURED AT ± 5 FEET FROM ROAD EDGE TO AVOID PARKED CARS ON EAST SIDE OF ELIZA STREET)
SLSD RIGHT = ±317 FEET (MEASURED AT FRONT OF BUILDING ± 11 FEET FORM ROAD EDGE TO INTERSECTION WITH VERPLANCK AVENUE)
SSD LEFT = ±615 FEET (TO INTERSECTION WITH MAIN STREET)
SSD RIGHT = ±296 FEET (TO INTERSECTION WITH VERPLANCK AVENUE)

INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES

CATCH BASINS AND PIPING:

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

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	2/26/19	PER PLANNING BOARD COMMENTS	CMB				
2	3/26/19	PER PLANNING BOARD COMMENTS	CMB				
3	4/30/19	PER PLANNING BOARD COMMENTS	CMB				
4	5/28/19	PER PLANNING BOARD COMMENTS	ESR				
5	6/25/19	PER PLANNING BOARD COMMENTS	AG				
6	7/30/19	PER PB COMMENTS AND APRROVAL	CMB				

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STATE OF NEW YORK MICHAEL A. BOGDANSKI 084465 LICENSED PROFESSIONAL ENGINEER

SEAL

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

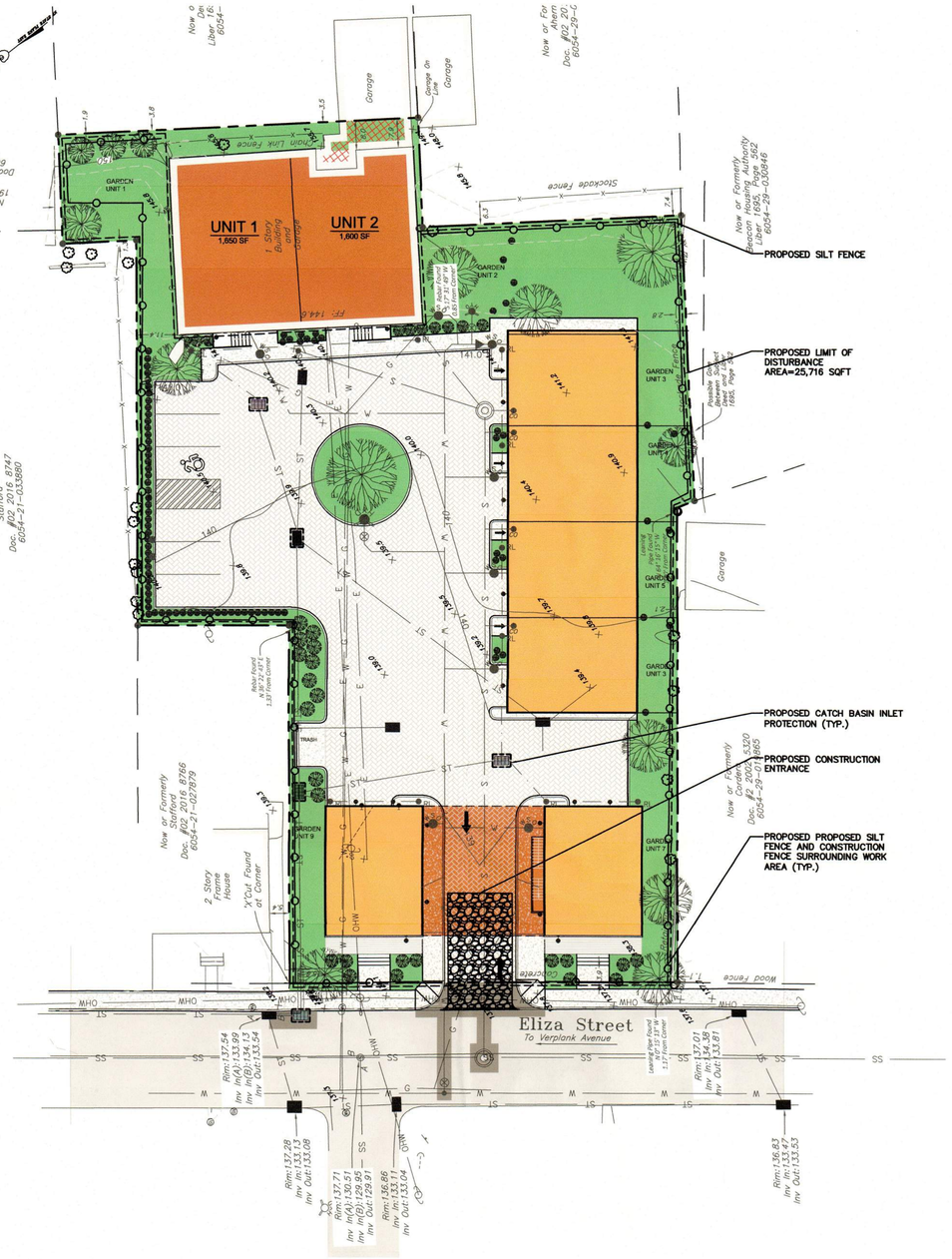
GRADING & UTILITY PLAN

53 ELIZA STREET

53 ELIZA STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-031870

JOB #:	2018:032
DATE:	8/28/18
SCALE:	1"=20'
TITLE:	GU-1
SHEET:	6 OF 13

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


UNIT 1
1,650 SF
1 Story Building Garage
UNIT 2
1,600 SF
GARDEN UNIT 1
GARDEN UNIT 2
GARDEN UNIT 3
GARDEN UNIT 4
GARDEN UNIT 5
GARDEN UNIT 6
GARDEN UNIT 7
GARDEN UNIT 8
GARDEN UNIT 9
Garage
Garage
Garage
Stockade Fence
Chain Link Fence
Wood Fence
Concrete
Now or Formerly Stafford Doc. #02 2016 8747 6054-21-043890
Now or Formerly Stafford Doc. #02 2016 8766 6054-21-027879
Now or Formerly Stafford Doc. #02 2016 3029 6054-29-050874
Now or Formerly Cordero Doc. #02 2016 5320 6054-29-011965
Now or Formerly Beacon Housing Authority Liber 1695, Page 562 6054-29-030848
Now or Formerly Doc. #02 2016 3031 6054-29-031870
2 Story Frame House
X Cut Found at Corner
Rebar Found 0.37' North of Corner
Rebar Found 0.37' North of Corner
Rebar Found 0.37' East of Corner
Rebar Found 0.37' West of Corner
Rebar Found 0.15' West of Corner
Rebar Found 0.15' East of Corner
Rebar Found 0.15' East of Corner
Rebar Found 0.15



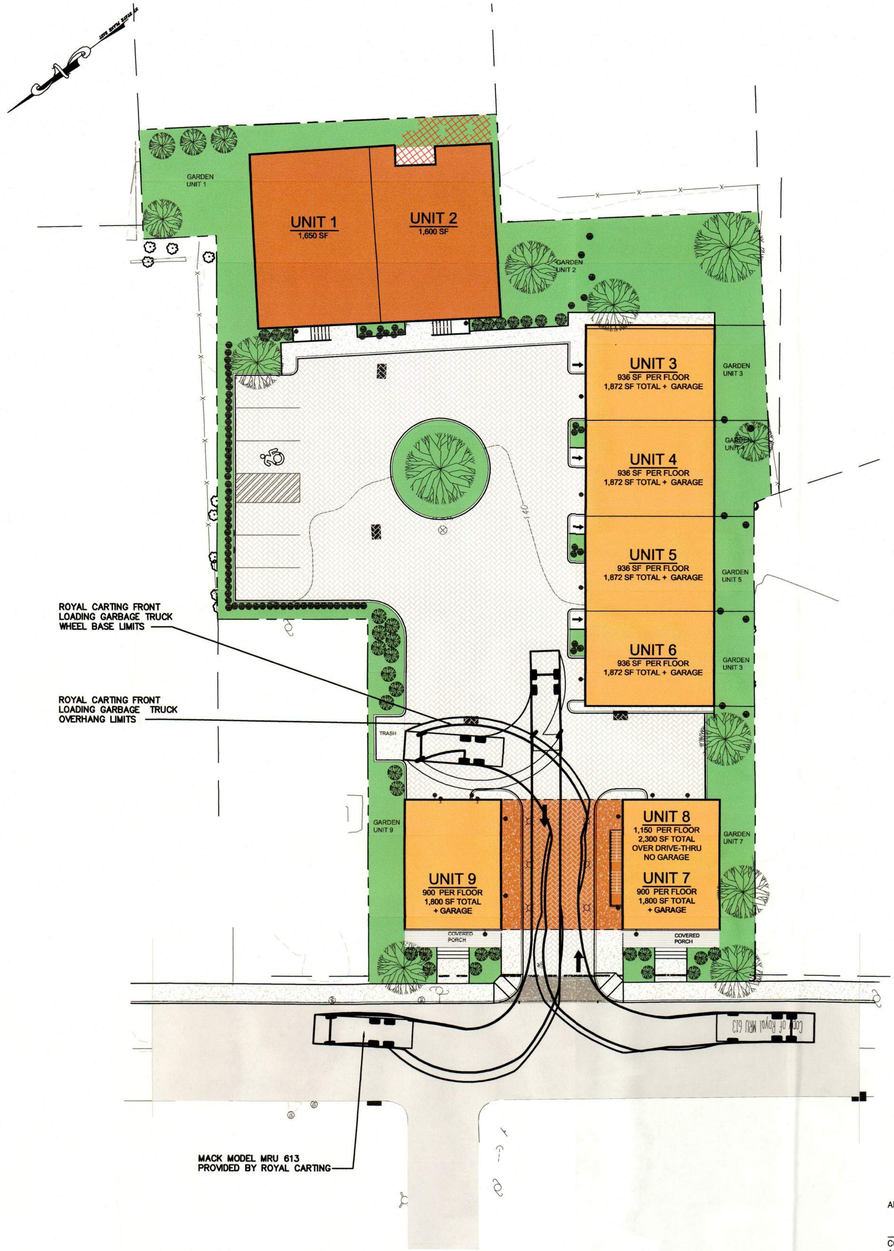
FIRE APPARATUS MANEUVERING PLAN

SCALE: 1" = 20'

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.



GARBAGE TRUCK MANEUVERING PLAN

SCALE: 1" = 20'

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING ADJOINER LINE
- 120 EXISTING MAJOR CONTOUR
- 121 EXISTING MINOR CONTOUR
- +121.17 EXISTING SPOT ELEVATION
- S EXISTING SEWER MAIN
- W EXISTING WATER MAIN
- S PROPOSED SEWER SERVICE LINE
- W PROPOSED WATER SERVICE LINE
- EXISTING SEWER MANHOLE
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING CATCH BASIN
- EXISTING FENCE

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	4/30/19	SHEET ADDED	AG				
2	5/28/19	PER PLANNING BOARD COMMENTS	ESR				
3	6/25/19	NO CHANGES THIS SHEET	AG				
4	7/30/19	PER PB COMMENTS AND APRROVAL	CMB				

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STATE OF NEW YORK
MICHAEL A. BOURNE
084466
LICENSED PROFESSIONAL ENGINEER
SEAL

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

FIRE APPARATUS AND GARBAGE TRUCK MANEUVERING PLAN

53 ELIZA STREET

53 ELIZA STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-031870

JOB #:	2018:032
DATE:	8/28/18
SCALE:	1"= 20'
TITLE:	FAM-1
SHEET:	8 OF 13

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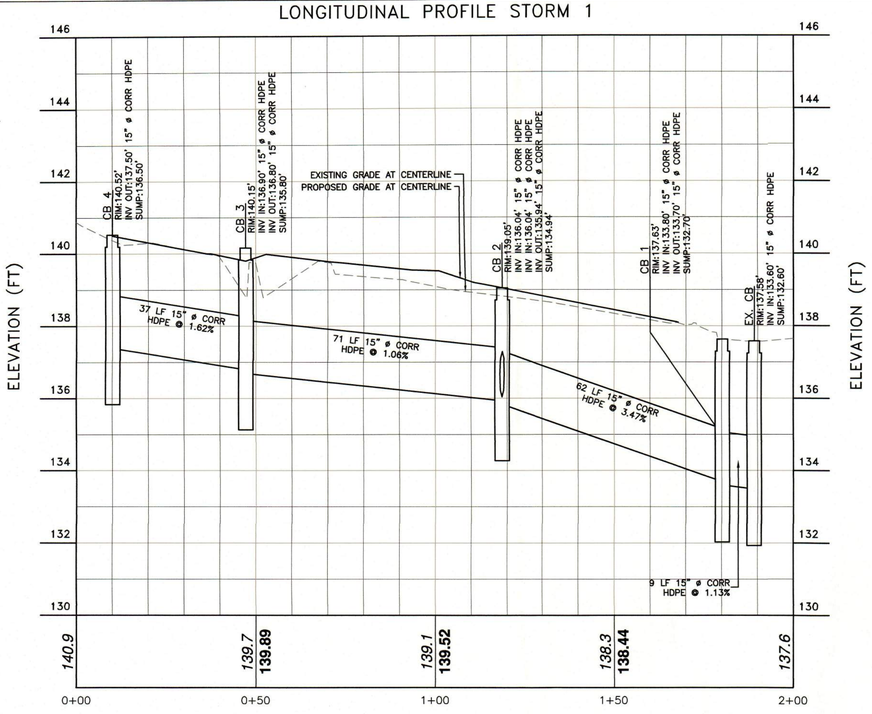
LONGITUDINAL PROFILE STORM 1



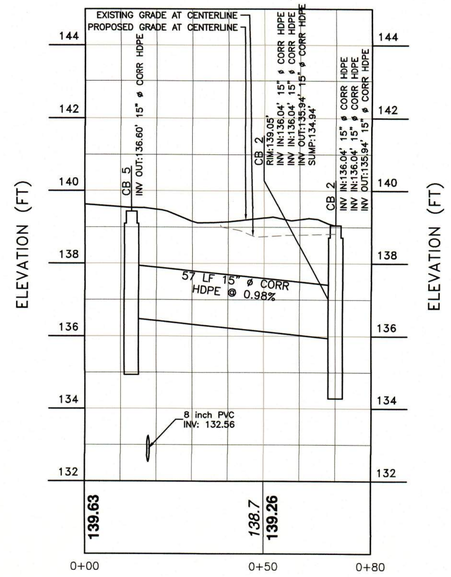
DISTANCE ALONG BASELINE (FT)

STORM PROFILE 1

SCALE: 1" = 20'H

1"=2'V

LONGITUDINAL PROFILE STORM 2



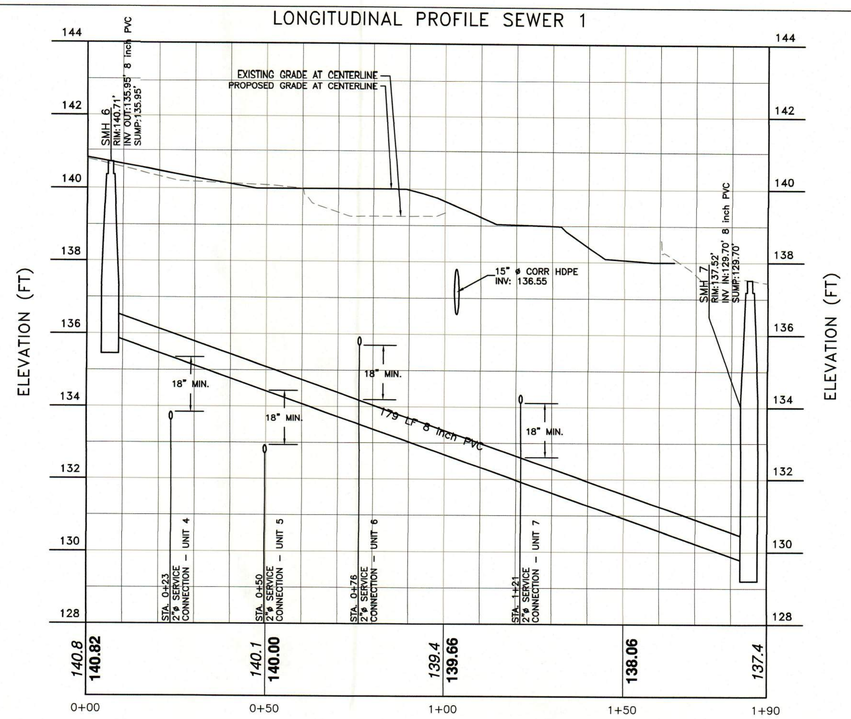
DISTANCE ALONG BASELINE (FT)

STORM PROFILE 2

SCALE: 1" = 20'H

1"=2'V

LONGITUDINAL PROFILE SEWER 1



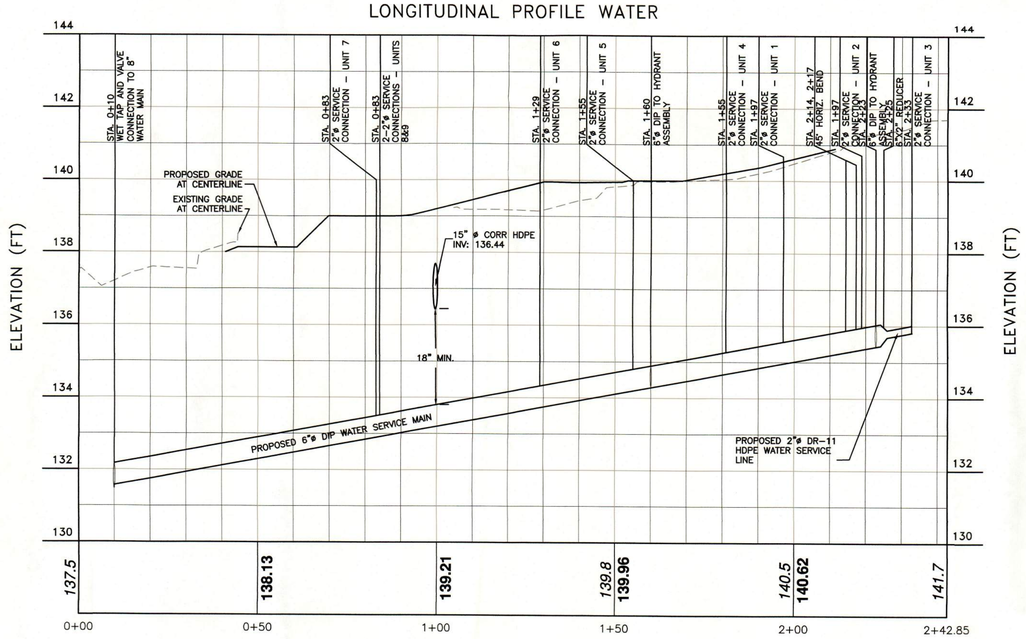
DISTANCE ALONG BASELINE (FT)

SEWER PROFILE

SCALE: 1" = 20'H

1"=2'V

LONGITUDINAL PROFILE WATER



WATER PROFILE

SCALE: 1" = 20'H

1"=2'V

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

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DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
2	3/26/19	ADDED SHEET	CMB				
3	4/30/19	PER PLANNING BOARD COMMENTS	CMB				
4	5/28/19	PER PLANNING BOARD COMMENTS	ESR				
5	6/25/19	NO CHANGES THIS SHEET	AG				
6	7/30/19	PER PB COMMENTS AND APRROVAL	CMB				

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OWNER'S CONSENT:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ PIE DEVELOPMENT

_____ DATE

STATE OF NEW YORK LICENSED PROFESSIONAL ENGINEER DANIEL A. BOSSONEY 084468

SEAL

HUDSON LAND DESIGN

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

PROFILES

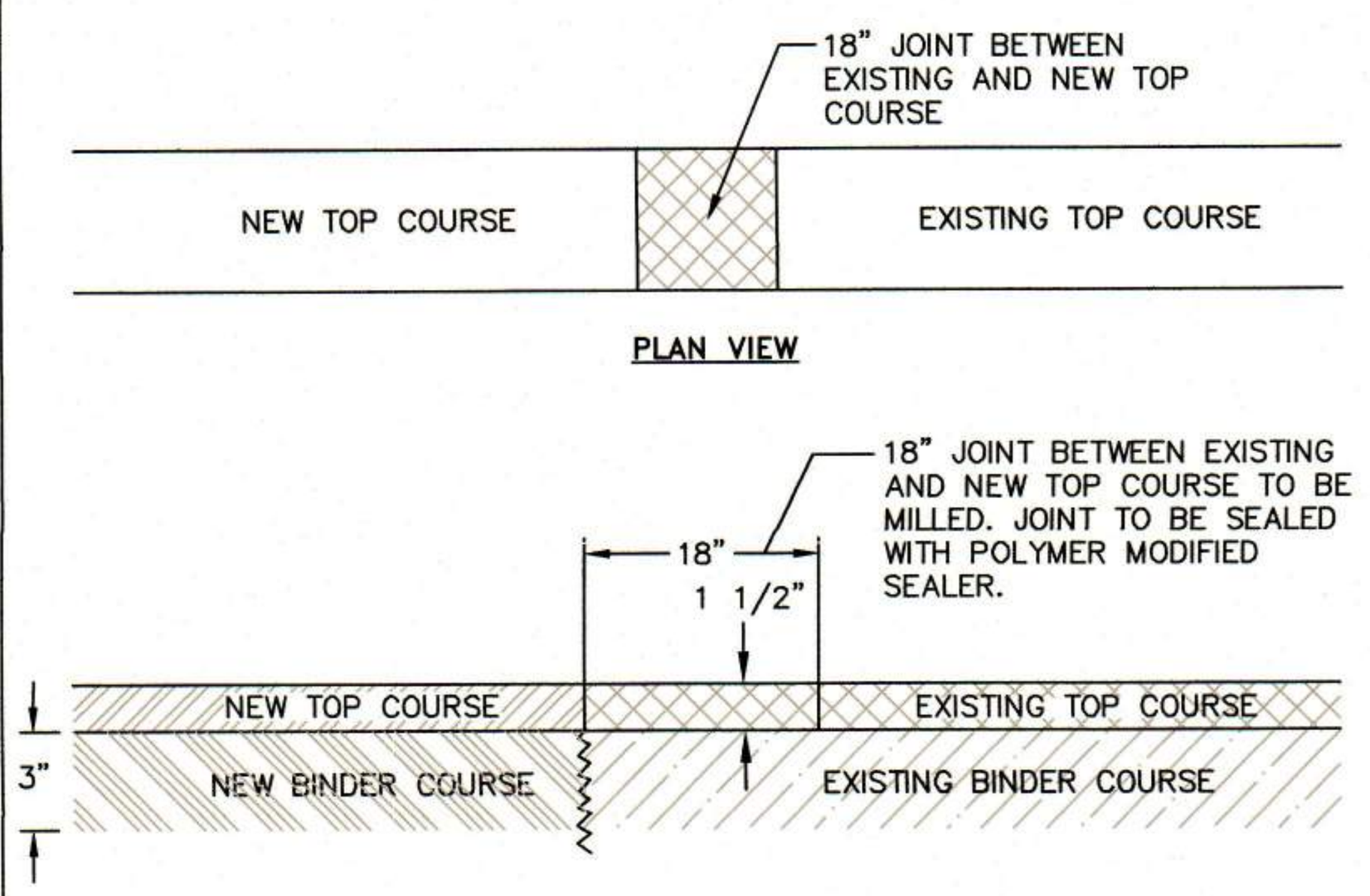
53 ELIZA STREET

53 ELIZA STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-031870

JOB #:	2018:032
DATE:	8/28/18
SCALE:	AS NOTED
TITLE:	P-1
SHEET:	9 OF 13

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

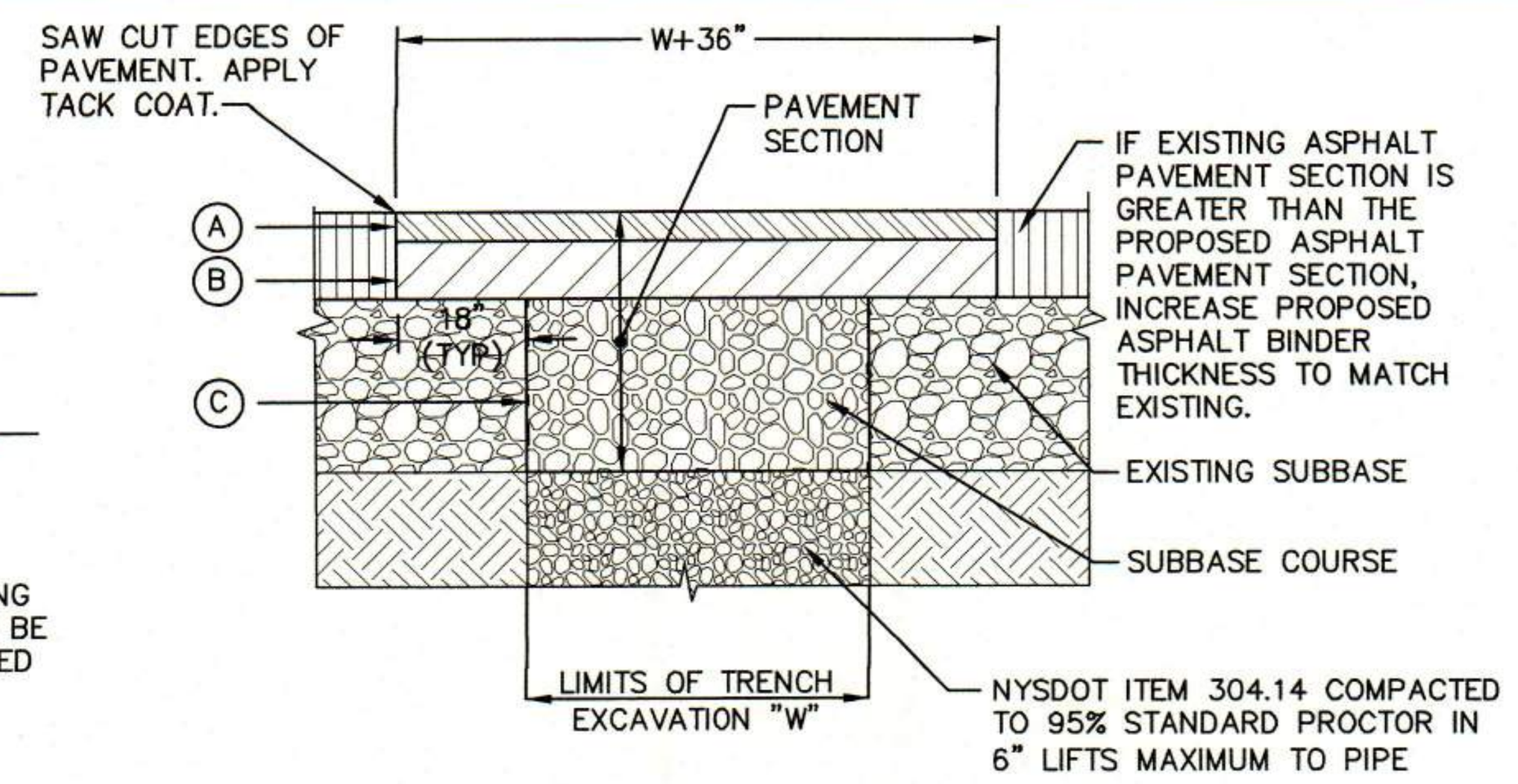
SITE DETAILS



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



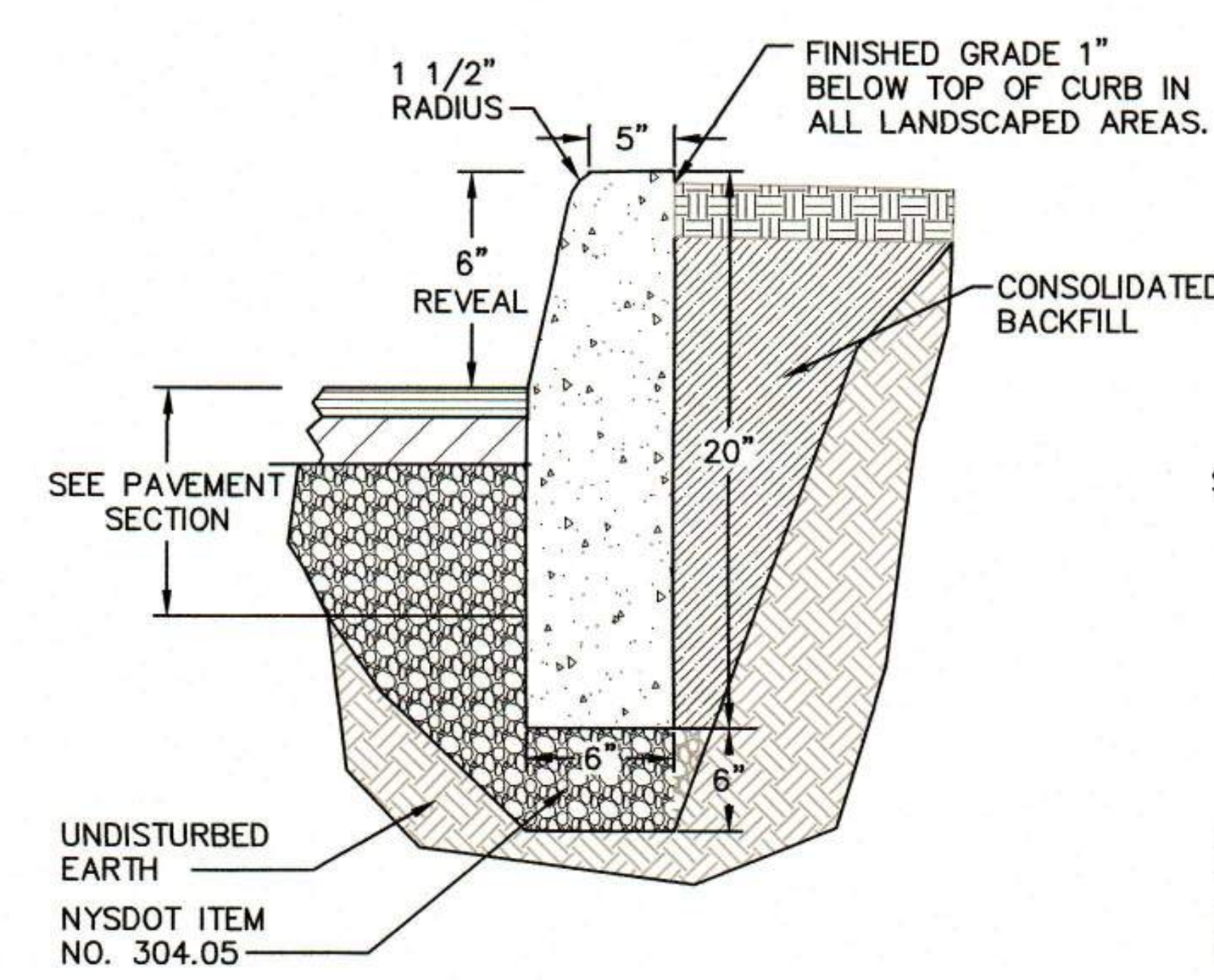
LEGEND

- (A) 1-1/2" ASPHALT CONCRETE TOP COURSE- NYSDOT TYPE 6F
- (B) 2 1/2" ASPHALT CONCRETE BINDER COURSE- NYSDOT TYPE 3
- (C) 6" GRANULAR SUBBASE COURSE- NYSDOT ITEM 304.14

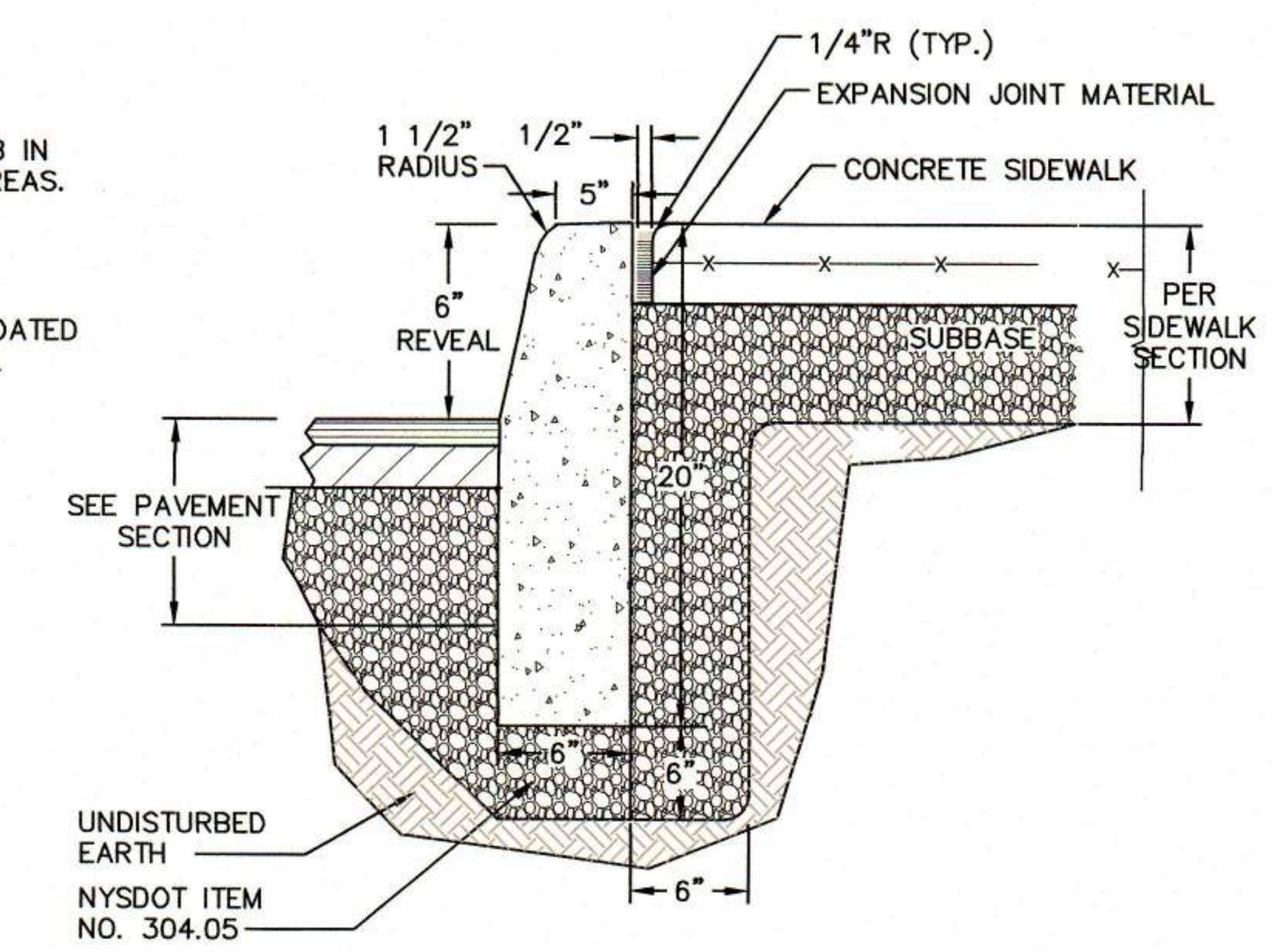
NOTES:

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.

PAVEMENT RESTORATION DETAIL
NOT TO SCALE



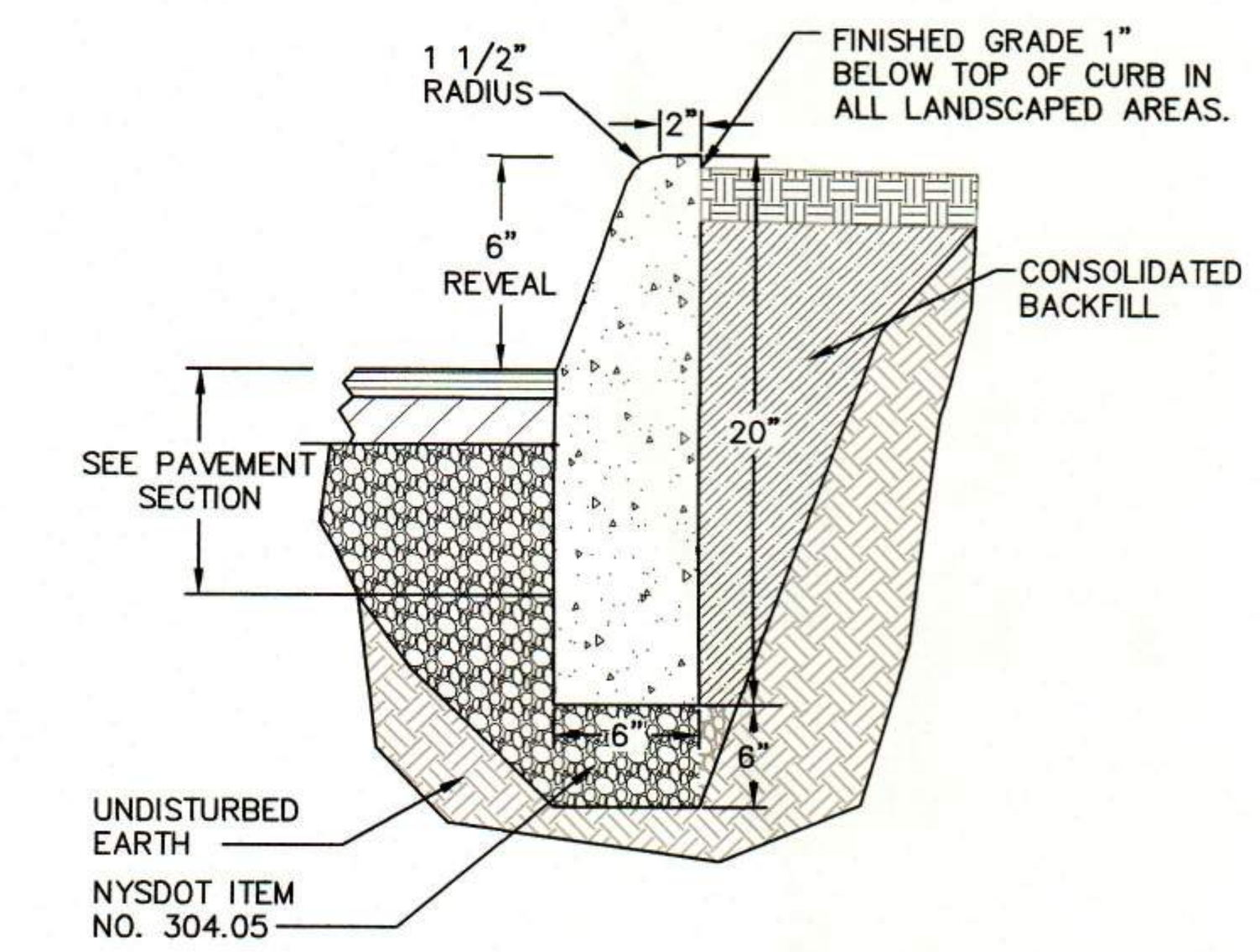
ABUTTING GRASS OR LANDSCAPE



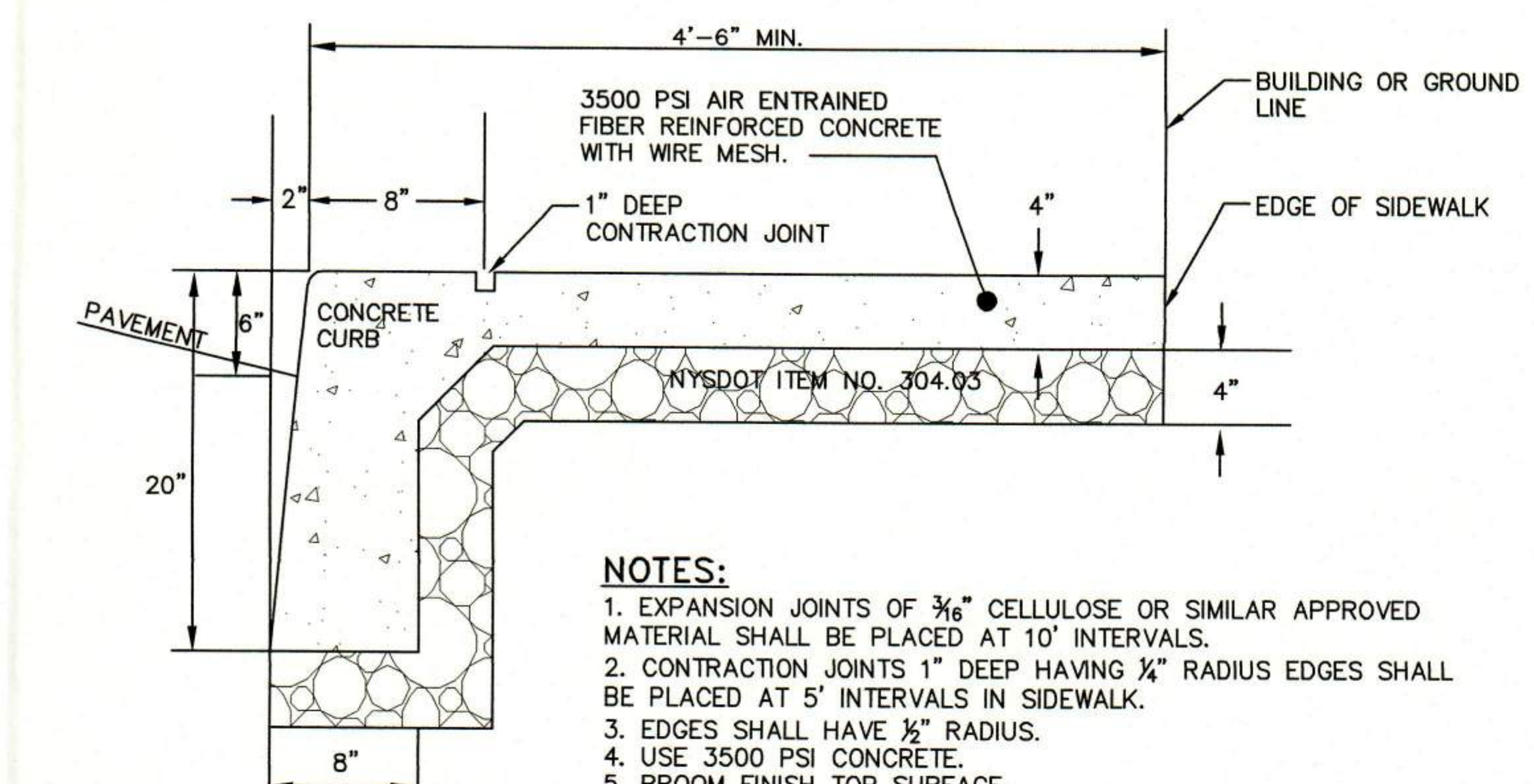
ABUTTING SIDEWALK

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

CAST-IN-PLACE CONCRETE CURB DETAIL
NOT TO SCALE

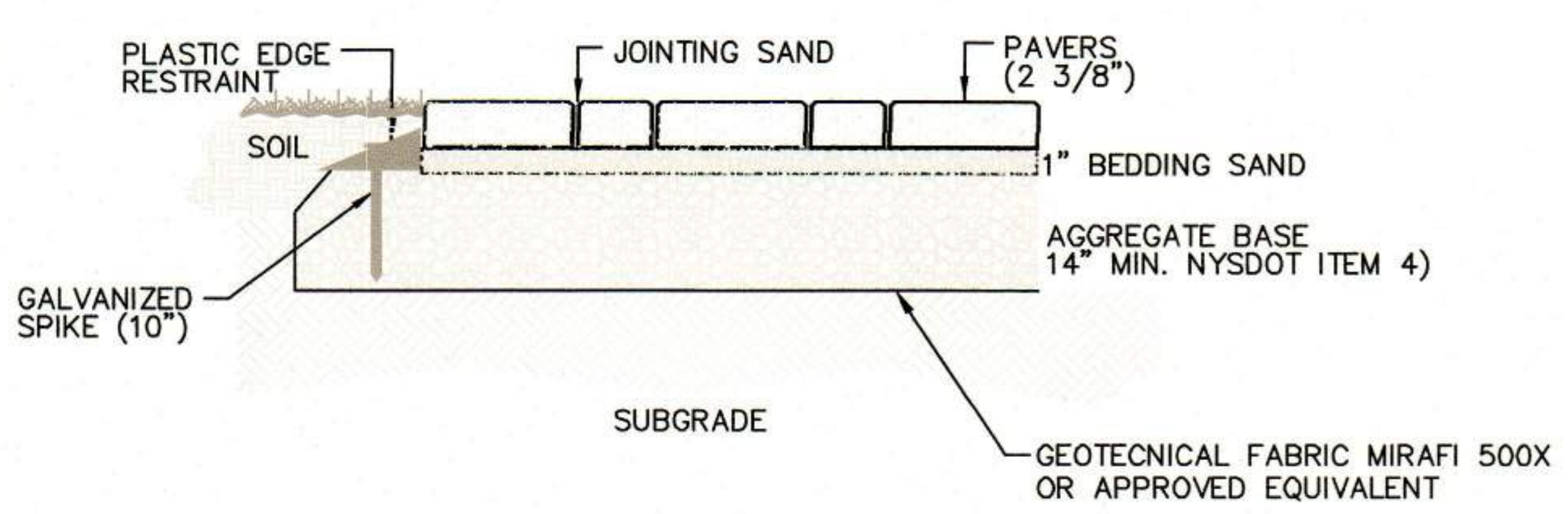


MOUNTABLE CURB
ABUTTING GRASS OR LANDSCAPE



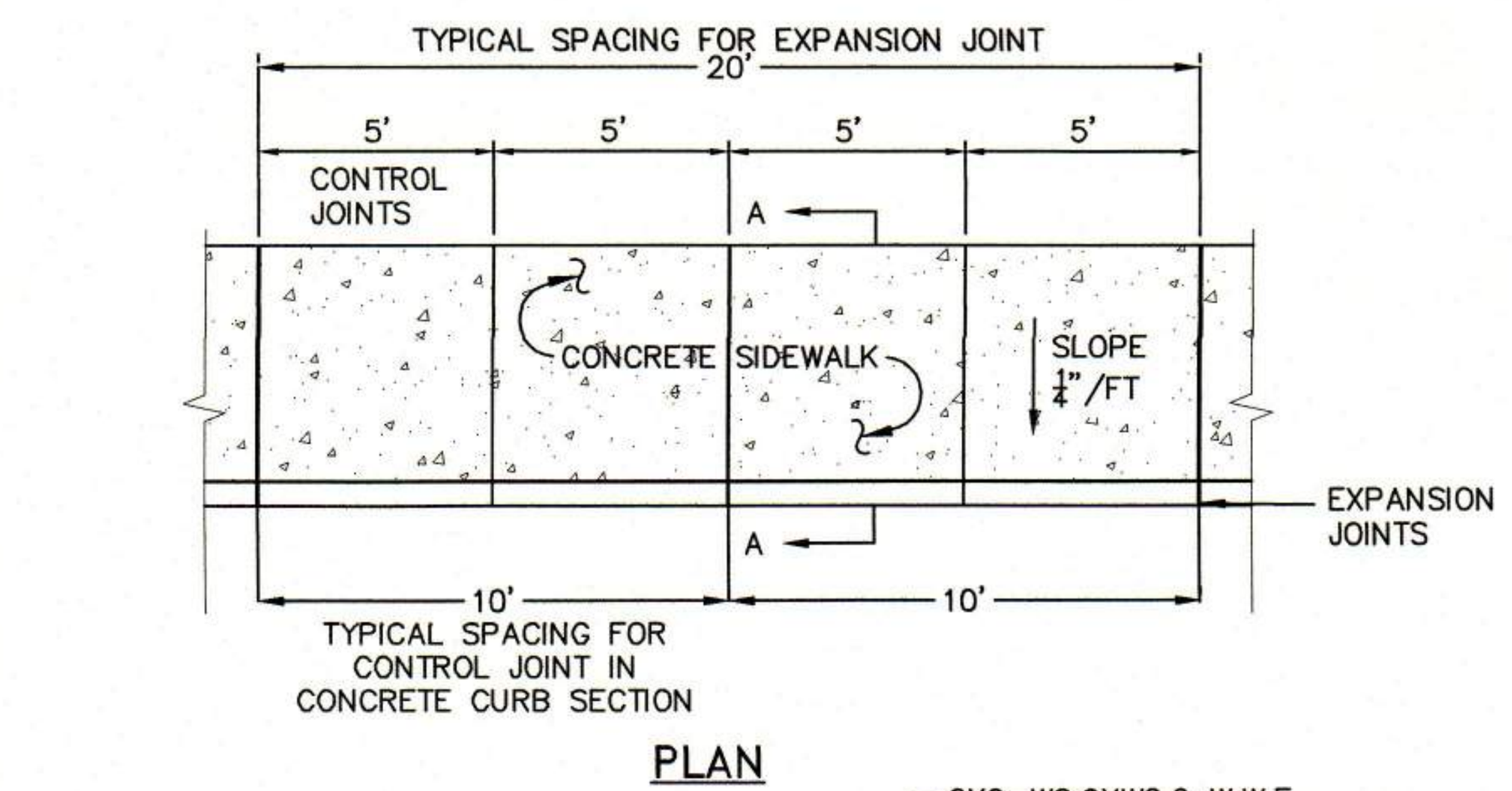
NOTES:
1. EXPANSION JOINTS OF 3⁄16" CELLULOSE OR SIMILAR APPROVED MATERIAL SHALL BE PLACED AT 10' INTERVALS.
2. CONTRACTION JOINTS 1" DEEP HAVING ¼" RADIUS EDGES SHALL BE PLACED AT 5' INTERVALS IN SIDEWALK.
3. EDGES SHALL HAVE ½" RADIUS.
4. USE 3500 PSI CONCRETE.
5. BROOM FINISH TOP SURFACE.
6. SIDEWALK SHALL BE A MINIMUM OF 6" THICK AT ALL DRIVEWAYS AND HANDICAP RAMPS.
7. MAXIMUM SLOPE OF 1 ON 12 TO BE USED WHERE SIDEWALK TERMINATES AT HANDICAP RAMPS.

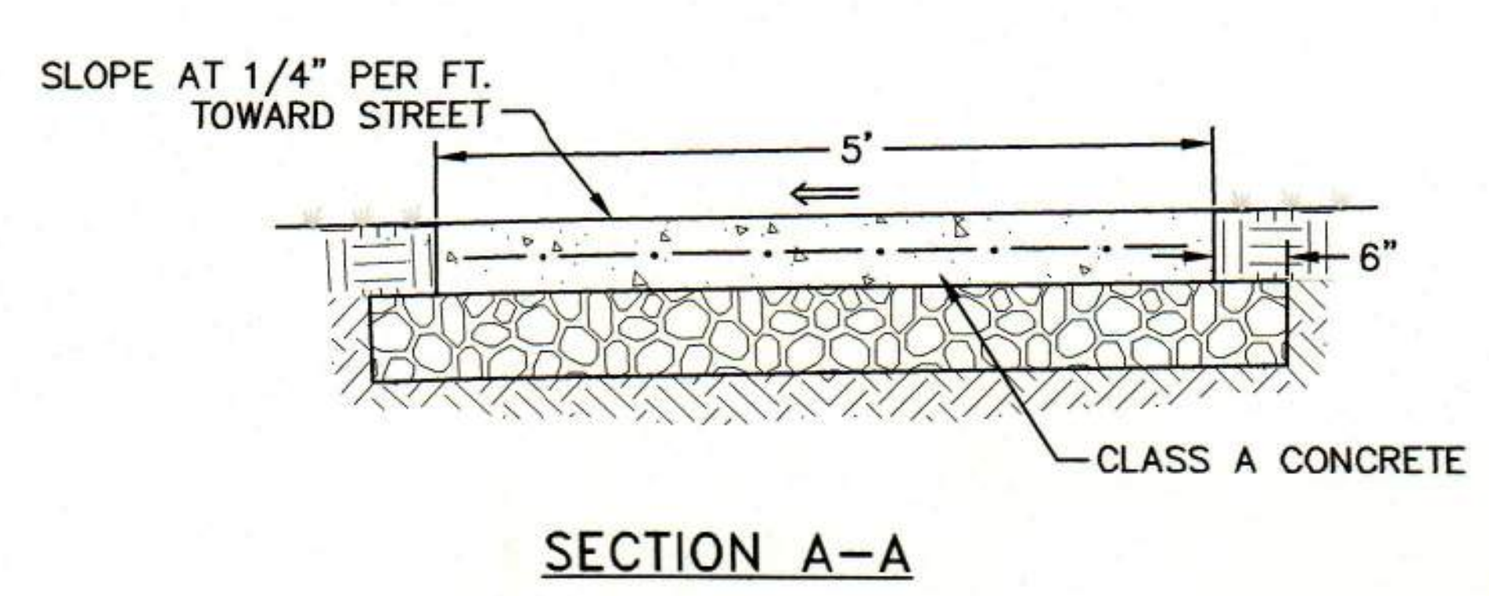
MONOLITHIC CURB AND SIDEWALK DETAIL FOR ELIZA STREET
NOT TO SCALE

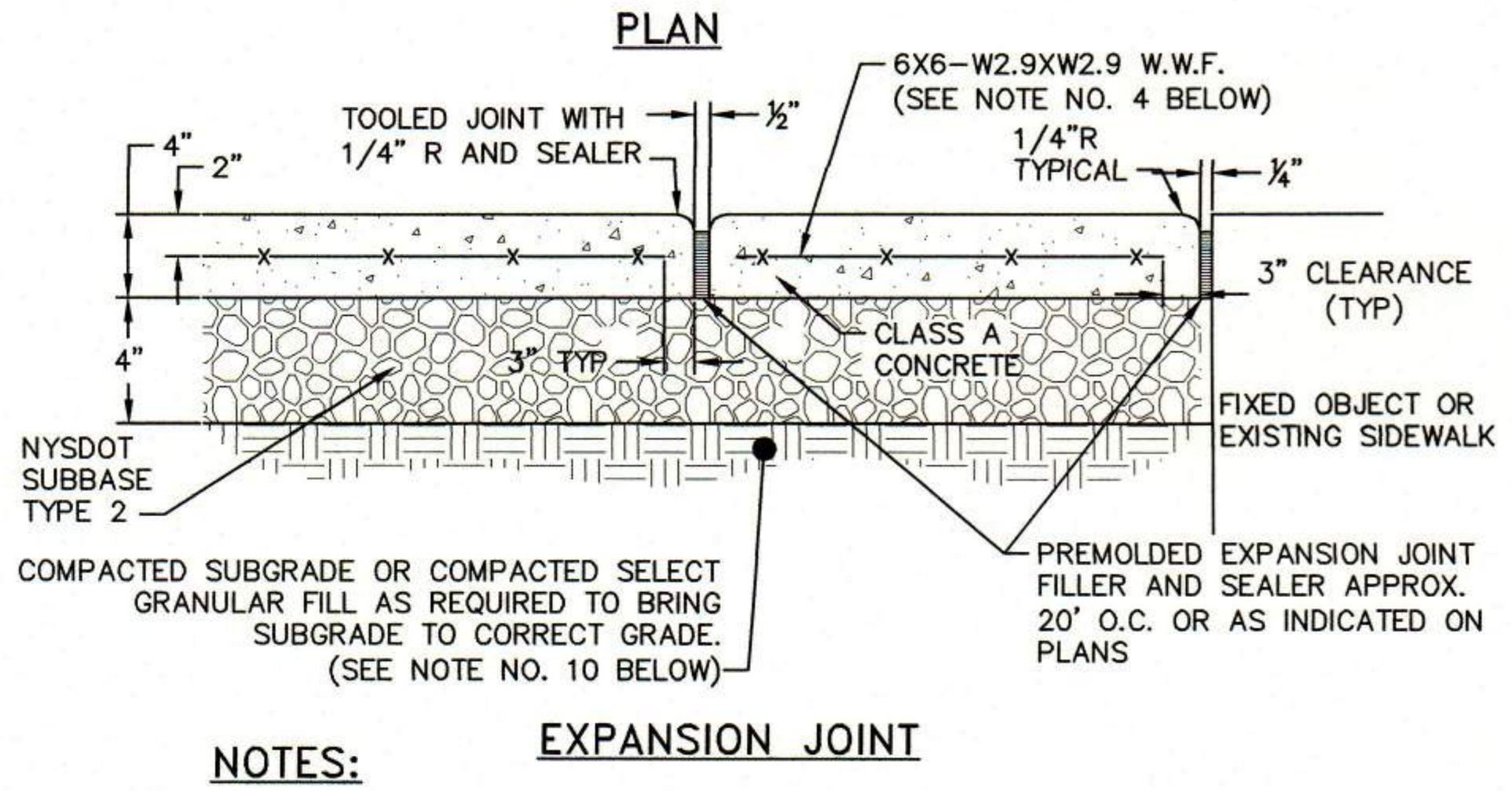


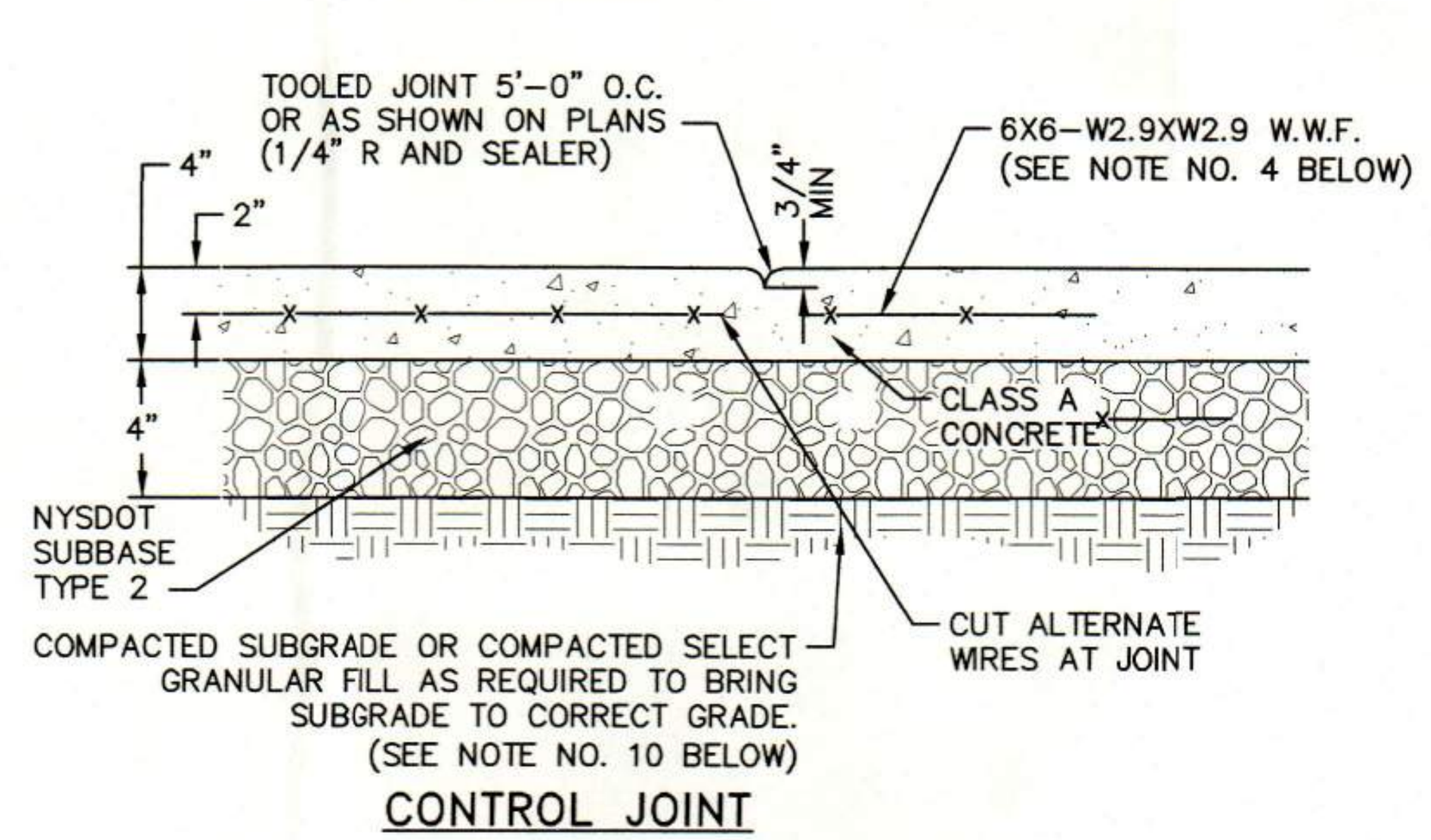
NOTE:
THE CONCRETE PAVER DRIVE SHALL SUPPORT A MINIMUM OF 75,000 POUNDS PER APPENDIX "D" OF THE 2015 INTERNATIONAL BUILDING CODE

CONCRETE PAVER DETAIL
NOT TO SCALE





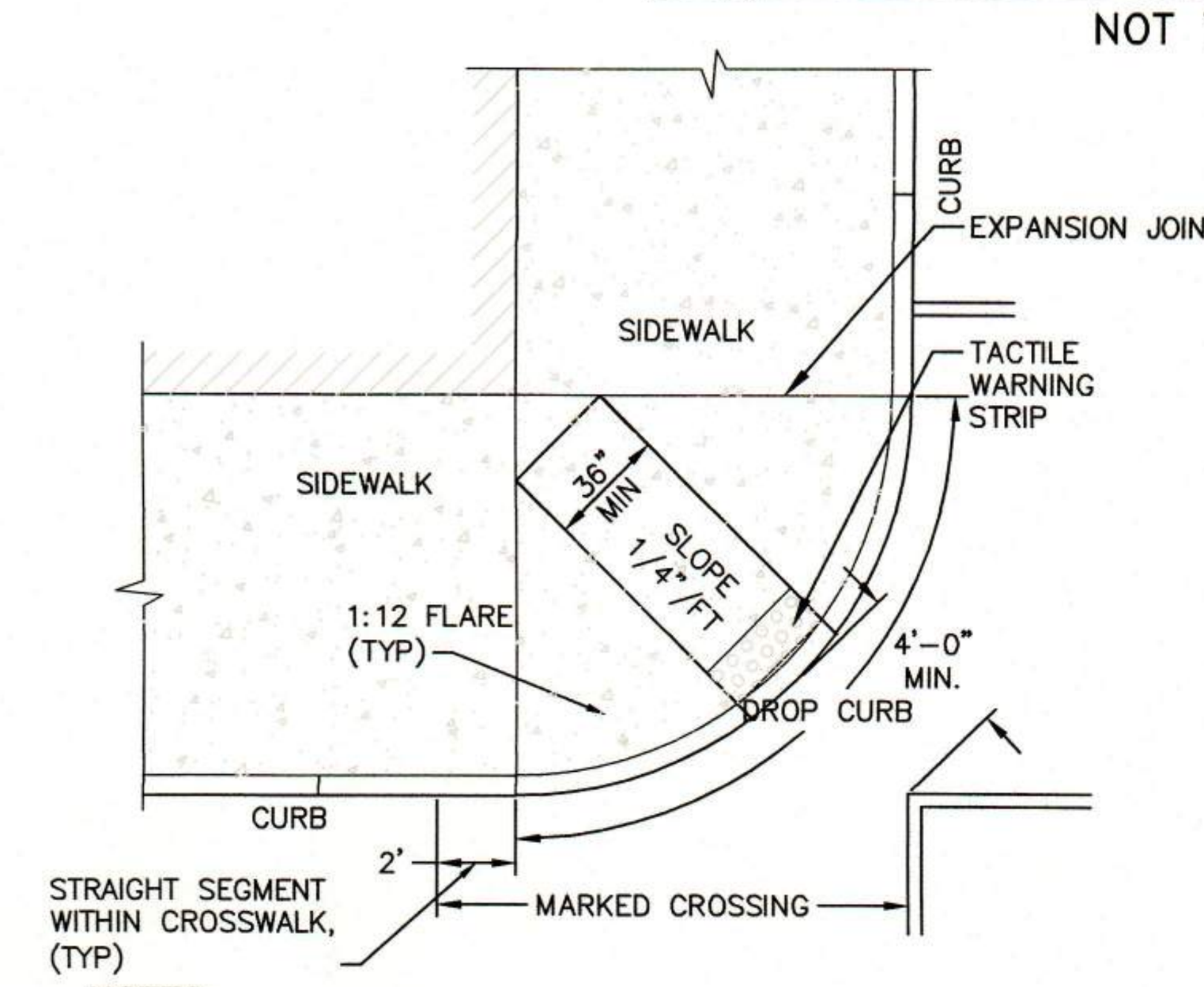




NOTES:

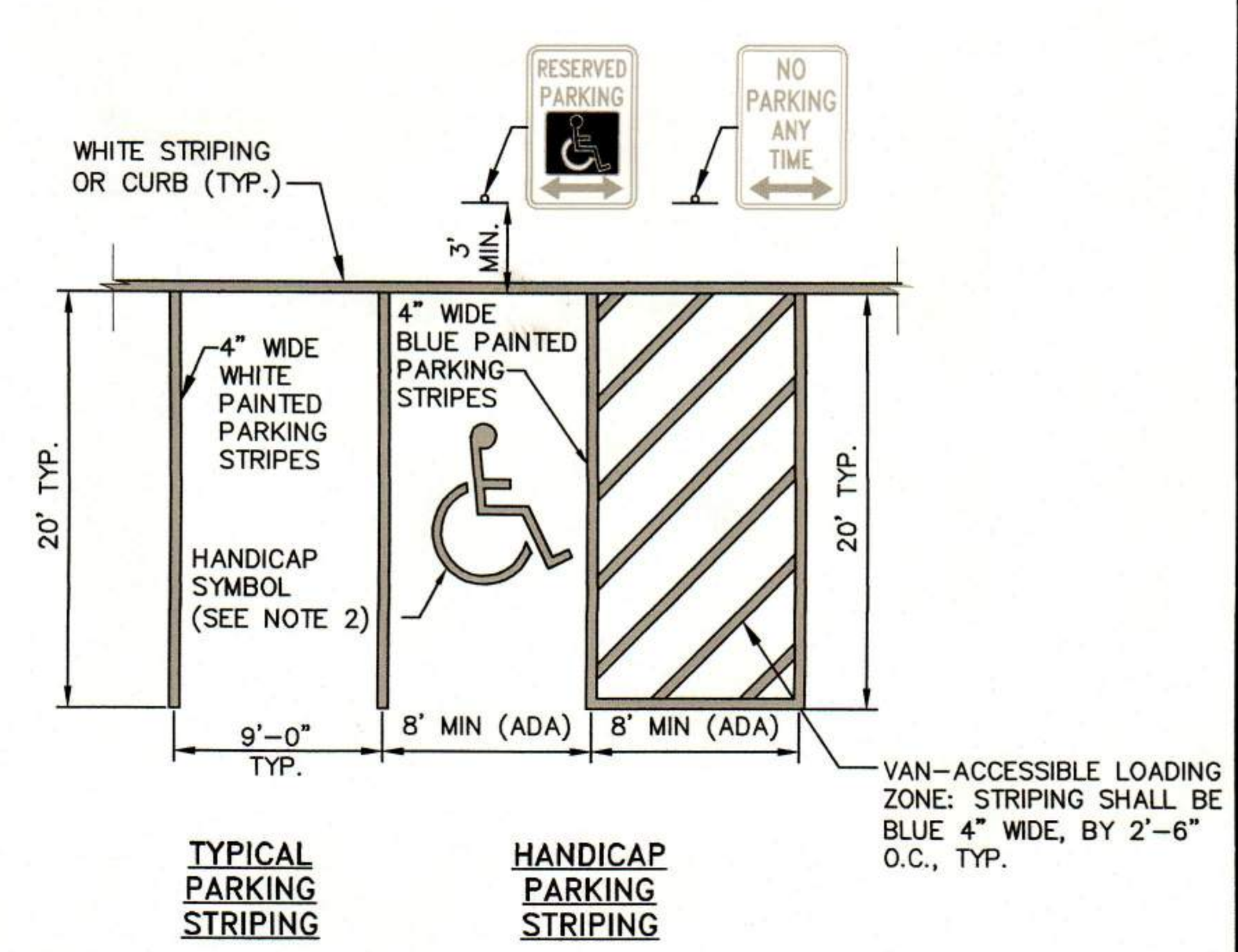
1. 10' SPACING OF CONTROL JOINTS SHALL BE USED FOR CAST IN PLACE CONCRETE CURBS.
2. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED JANUARY 2, 2002, AND ALL ADDENDA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

CONCRETE SIDEWALK DETAIL
NOT TO SCALE



NOTES:
1. ALL WORK SHALL CONFORM WITH THE NYSDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS DATED, JANUARY 2, 2002 AND ALL ADDENDA THERETO; SPECIFICALLY SECTION 608- SIDEWALKS, DRIVEWAYS, AND BICYCLE PATHS.
2. SLOPE RAMP AND SIDE FLARES AS INDICATED IN THE PLANS OR AS ORDERED BY THE ENGINEER.
3. TACTILE WARNING STRIPS SHALL BE PROVIDED ON ALL RAMPS IN ACCORDANCE W/ ADA REQUIREMENTS.

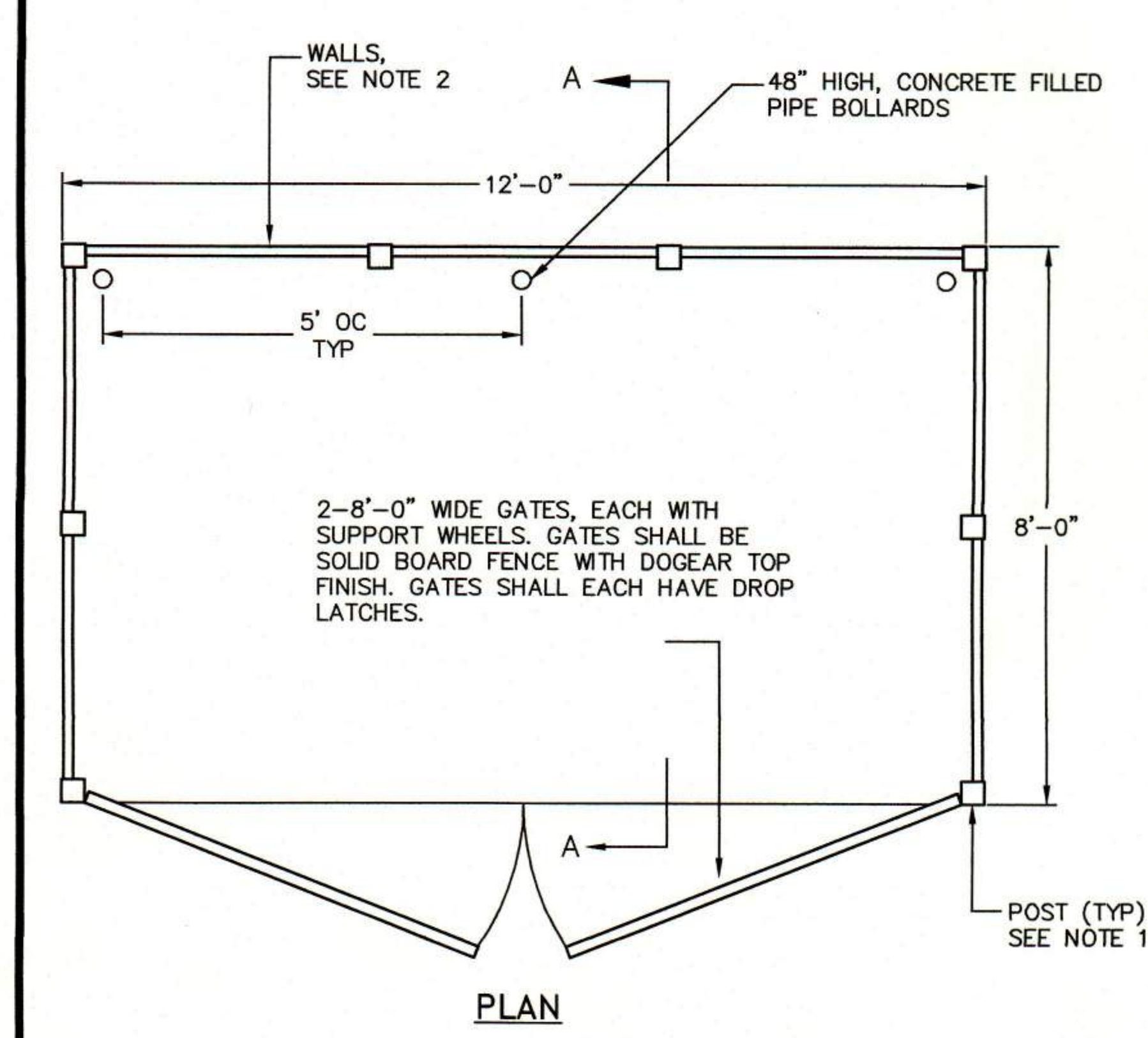
PEDESTRIAN RAMP WITH FLARED SLOPES DETAIL
NOT TO SCALE

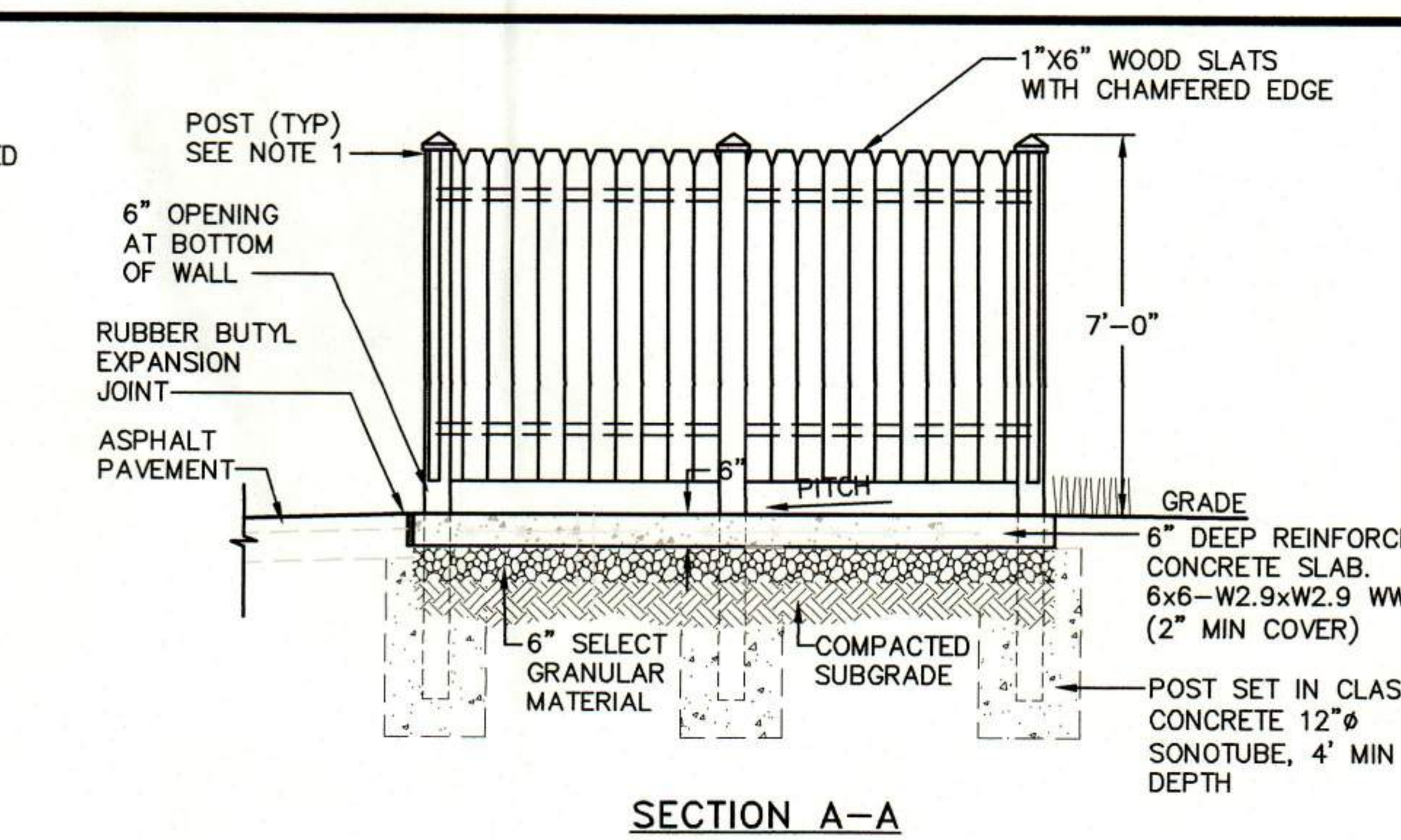


NOTES:
1. ALL DIMENSIONS SUBJECT TO CURRENT MUNICIPALITY ZONING AND SITE REGULATIONS.
2. PAINTED HANDICAP SYMBOL TO BE IN ACCORDANCE WITH NYSDOT AND ADA STANDARDS.
3. IF PARKING ABUTS A SIDEWALK, THEN THE REGULATORY SIGNS SHALL BE PLACED BEHIND THE SIDEWALK.

PARKING AND STRIPING DETAIL
NOT TO SCALE

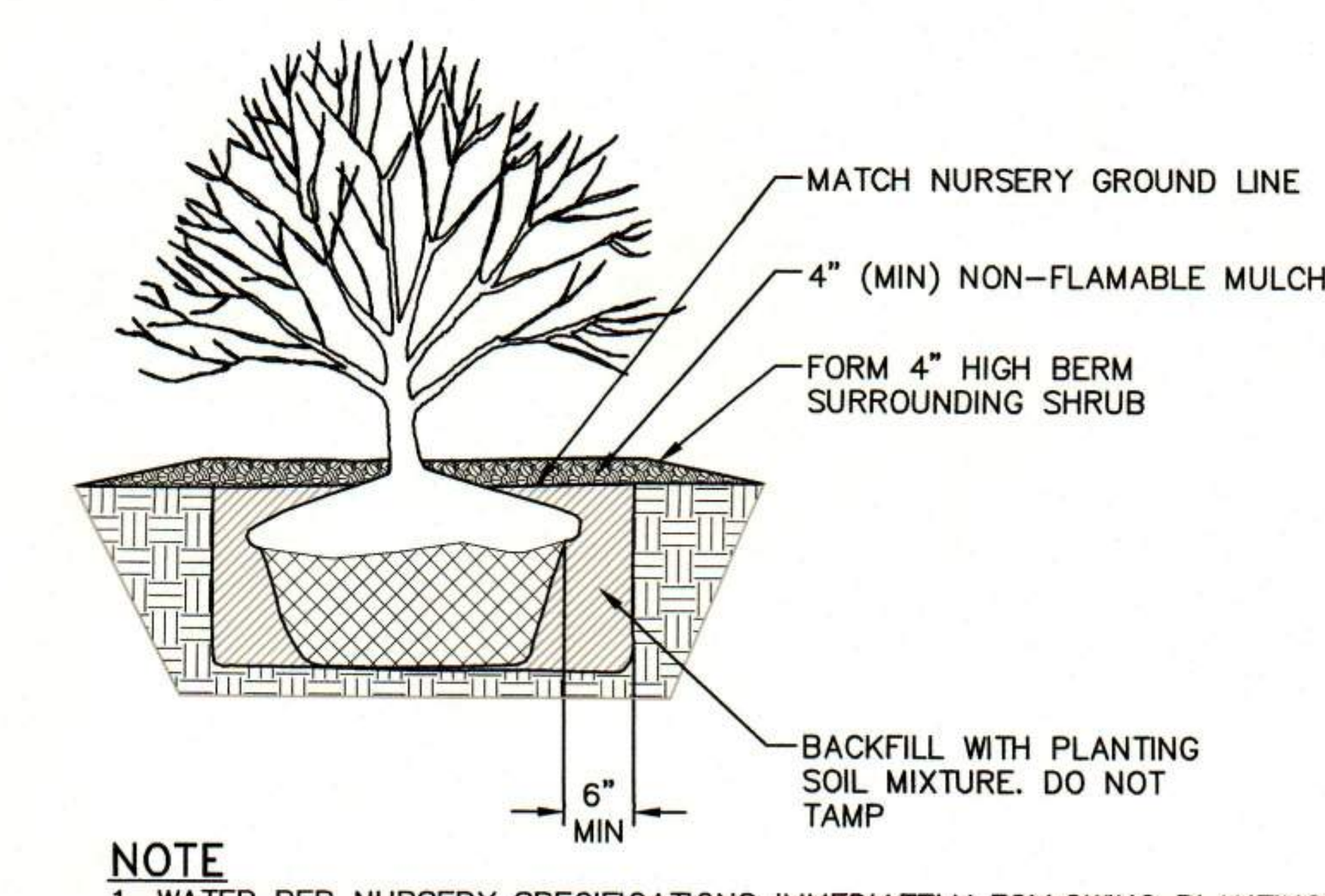
LANDSCAPING DETAILS





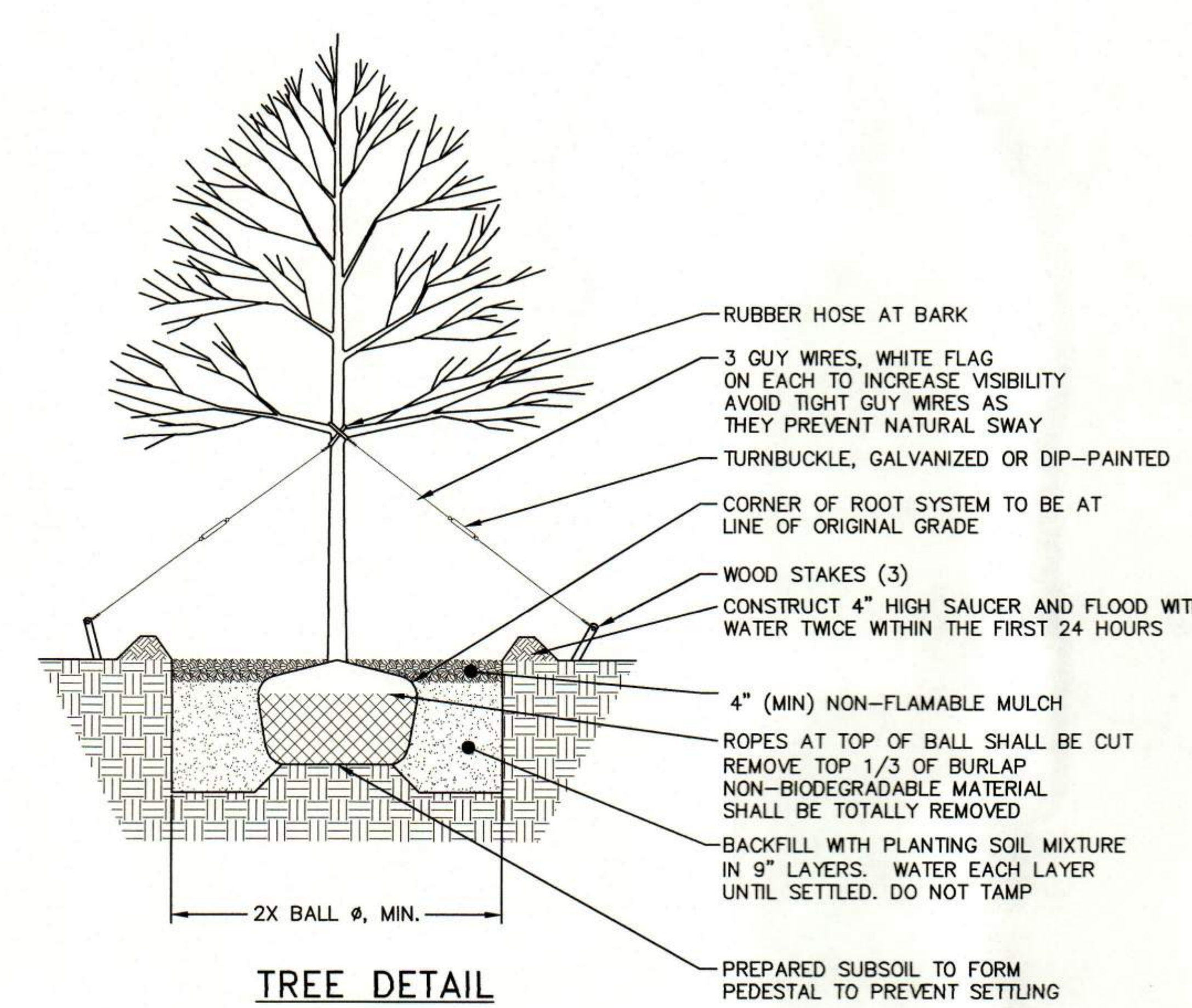
NOTES
1. POSTS SHALL HAVE A DECORATIVE CAP, CONSISTENT WITH THE ARTS & CRAFTS STYLE, AS APPROVED BY OWNER. POST SPACING SHALL BE AS REQUIRED BY WALL CONSTRUCTION.
2. WALLS OF DUMPSTER ENCLOSURE SHALL BE A SOLID WOOD PRIVACY FENCING NATURAL STAIL OR PAINT TO COMPLEMENT BUILDING.

TRASH ENCLOSURE DETAILS
NOT TO SCALE



NOTE
1. WATER PER NURSERY SPECIFICATIONS IMMEDIATELY FOLLOWING PLANTING.
2. DETAIL IS FOR BOTH BALL & BURLAPPED OR CONTAINERED SHRUBS.

SHRUB PLANTING DETAIL
NOT TO SCALE



TREE DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_______________ DAY OF _______________, 20_______, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

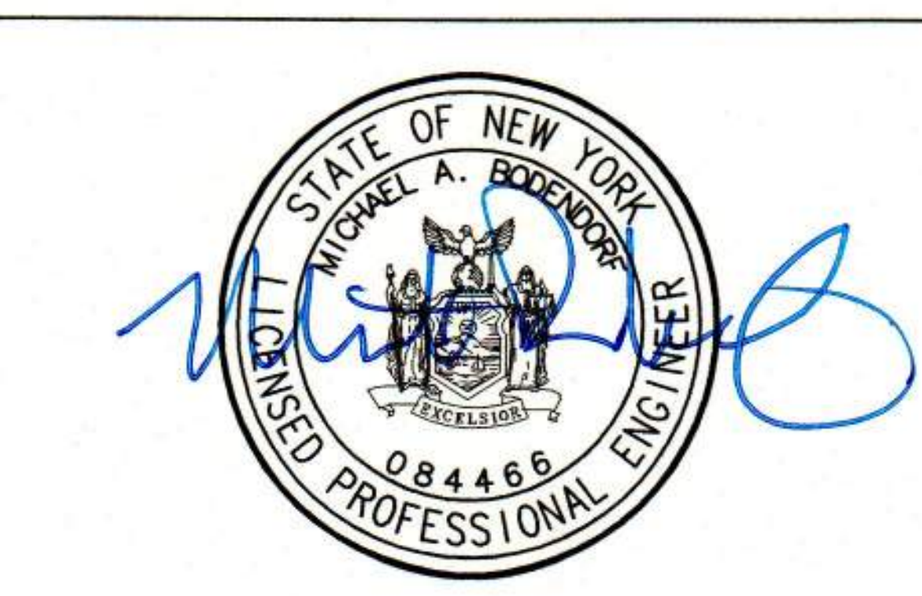
SIGNED THIS _______________ DAY OF _______________, 20_____, BY

_______________________ CHAIRMAN

_______________________ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
2	3/26/19	ADDED SHEET	CMB				
3	4/30/19	PER PLANNING BOARD COMMENTS	CMB				
4	5/28/19	PER PLANNING BOARD COMMENTS	ESR				
5	6/25/19	NO CHANGES THIS SHEET	AG				
6	7/30/19	PER PB COMMENTS AND APRROVAL	CMB				



SEAL

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

SITE & LANDSCAPE DETAILS

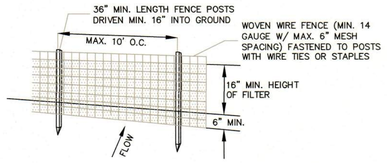
53 ELIZA STREET

53 ELIZA STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-031870

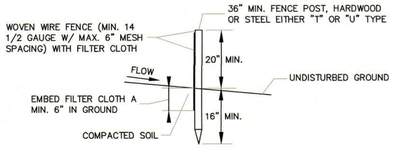
JOB #:	2018:032
DATE:	8/28/18
SCALE:	AS NOTED
TITLE:	CD-1
SHEET:	10 OF 13

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

EROSION AND SEDIMENT CONTROL DETAILS



PERSPECTIVE VIEW

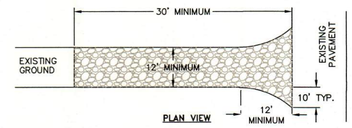


SECTION VIEW

NOTES:

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

SILT FENCE DETAIL
NOT TO SCALE



NOTES:

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

2) LENGTH – NOT LESS THAN 30 FEET FOR A SINGLE RESIDENCE LOT.

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

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

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

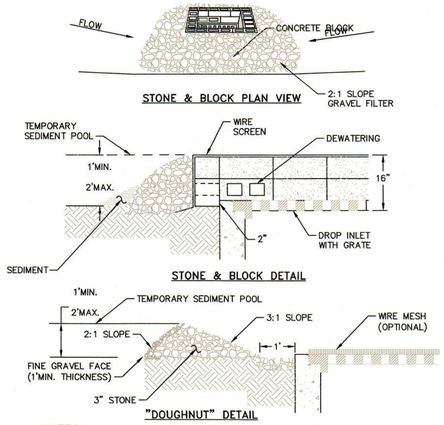
6) SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE, IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

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

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

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

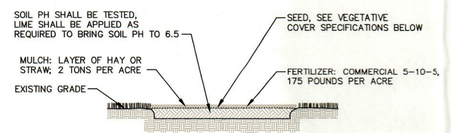
STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



NOTES:

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

CATCH BASIN INLET PROTECTION DETAIL
NOT TO SCALE



NOTES:

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

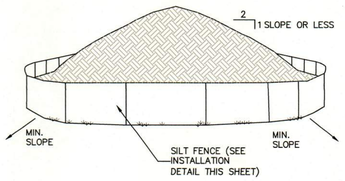
65% KENTUCKY BLUE GRASS BLEND	114 POUNDS PER ACRE
20% PERENNIAL RYEGRASS	35 POUNDS PER ACRE
15% FINE FESCUE	26 POUNDS PER ACRE
	175 POUNDS PER ACRE

3. SEED MIXTURE FOR USE IN SHADY AREAS:

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

4. SEED BETWEEN APRIL 1ST AND MAY 15TH OR AUGUST 15TH AND OCTOBER 15TH. SEEDING MAY OCCUR BETWEEN MAY 15TH AND AUGUST 15TH IF ADEQUATE IRRIGATION IS PROVIDED.
5. TOPSOIL SHALL HAVE AT LEAST 6% BY WEIGHT OF FINE TEXTURED STABLE ORGANIC MATERIAL, AND NO GREATER THAN 20% TOPSOIL SHALL HAVE NOT LESS THAN 20% FINE TEXTURED MATERIAL (PASSING THE NO. 200 SIEVE) AND NOT MORE THAN 15% CLAY.

TOPSOIL, SEED AND MULCH DETAIL
NOT TO SCALE

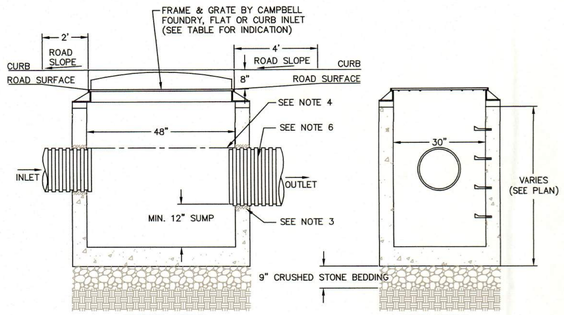


NOTES:

1. 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

STORMWATER DETAILS

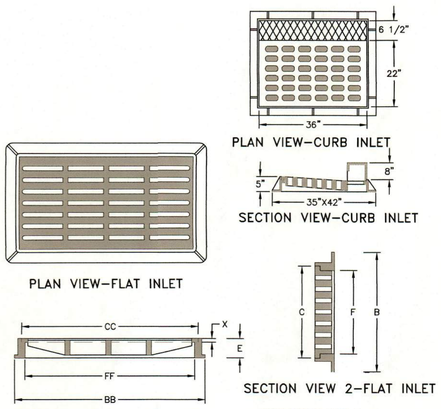


FRONT VIEW SIDE VIEW

NOTES:

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

CATCH BASIN DETAIL
NOT TO SCALE



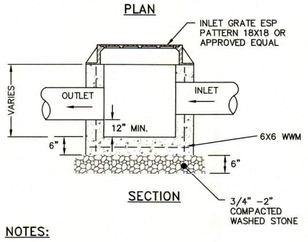
DIMENSION TABLE:

B	C	E	F	X	BB	CC	FF
30"	24"	4"	22"	18"	41"	36"	34"

NOTES:

1. HEAVY DUTY RECTANGULAR STORMWATER FLAT INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 3433, OR APPROVED EQUAL.
2. HEAVY DUTY RECTANGULAR STORMWATER CURB INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 2541, OR APPROVED EQUAL.

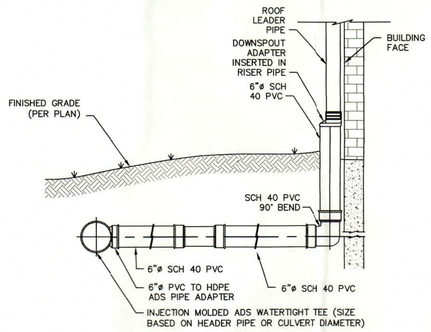
CAST IRON STORMWATER FLAT AND CURB INLET GRATE DETAIL
NOT TO SCALE



NOTES:

1. YARD INLET BASINS SHALL BE PRE CAST REINFORCED CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND SHALL BE IN CONFORMANCE WITH ASTM 478-68. WALLS AND BASE SHALL BE ONE PIECE CONSTRUCTION. YARD INLET BASIN SHOWN BY EXPANDED SUPPLY PRODUCTS (ESP), 3330 ROUTE 9, COLD SPRING, NY (845) 265-3771.
2. BACKFILL USING SELECT MATERIAL, COMPACTED IN 6" LIFTS.
3. SUMP SHALL BE 12".
4. FRAMES AND GRATES SHALL BE SET IN A FULL BED OF MORTAR.

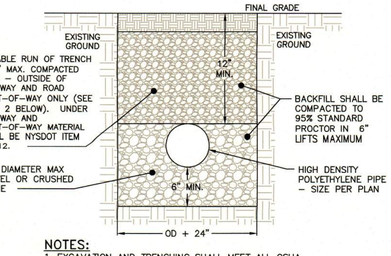
PRE-CAST CONCRETE YARD INLET DETAIL
NOT TO SCALE



NOTES:

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

ROOF LEADER CONNECTION DETAIL
NOT TO SCALE



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

STORM LINE TRENCH DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB — CHECKED BY: MAB

REVISIONS:

NO.	DATE	DESCRIPTION	BY
2	3/26/19	ADDED SHEET	CMB
3	4/30/19	PER PLANNING BOARD COMMENTS	CMB
4	5/28/19	PER PLANNING BOARD COMMENTS	ESR
5	6/25/19	NO CHANGES THIS SHEET	AG
6	7/30/19	PER PB COMMENTS AND APRROVAL	CMB

REVISIONS:

NO.	DATE	DESCRIPTION	BY

SEAL

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

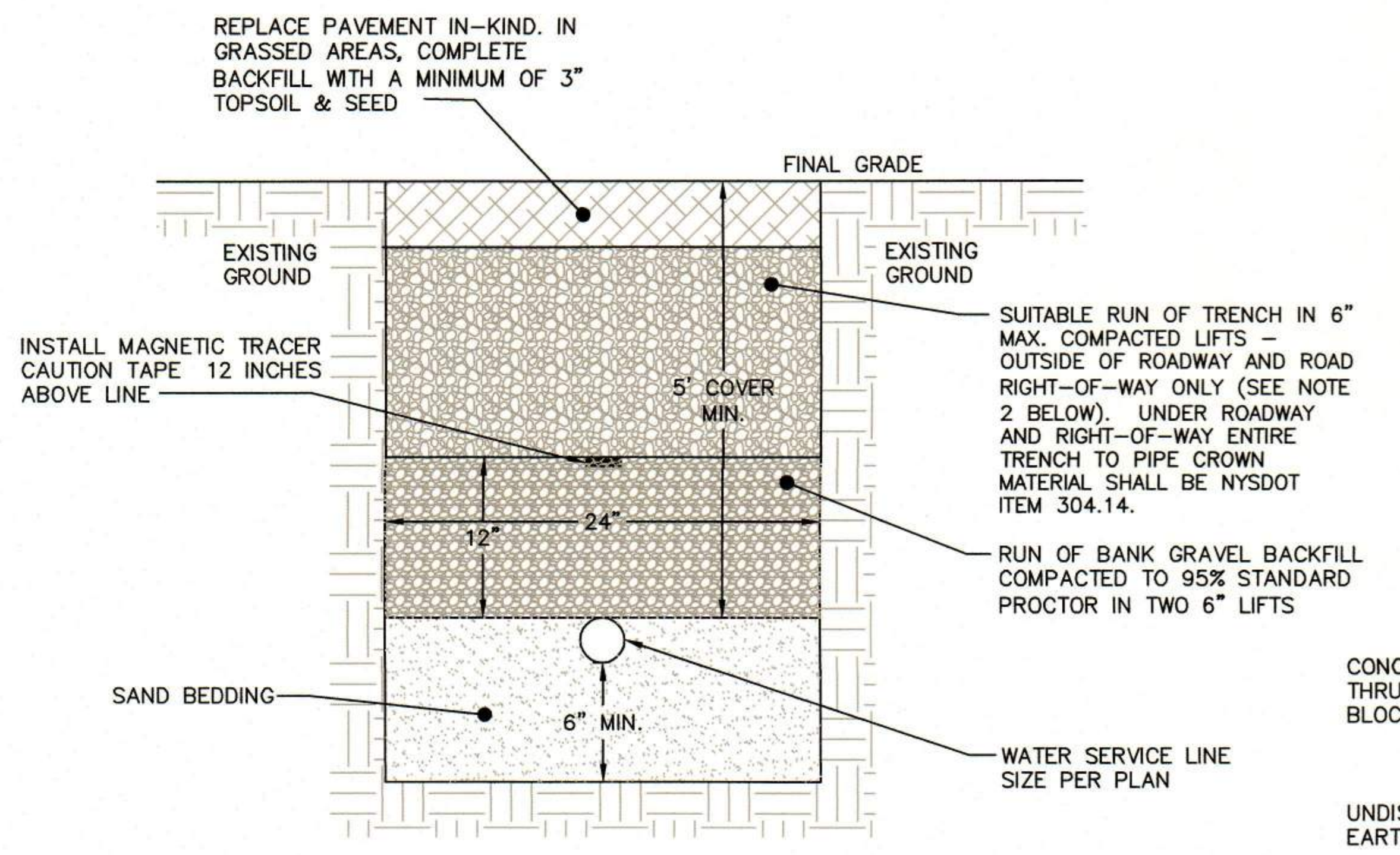
STORMWATER & EROSION AND SEDIMENT CONTROL DETAILS

53 ELIZA STREET

53 ELIZA STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-031870

JOB #:	2018:032
DATE:	8/28/18
SCALE:	1"=20'
TITLE:	CD-2
SHEET:	11 OF 13

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



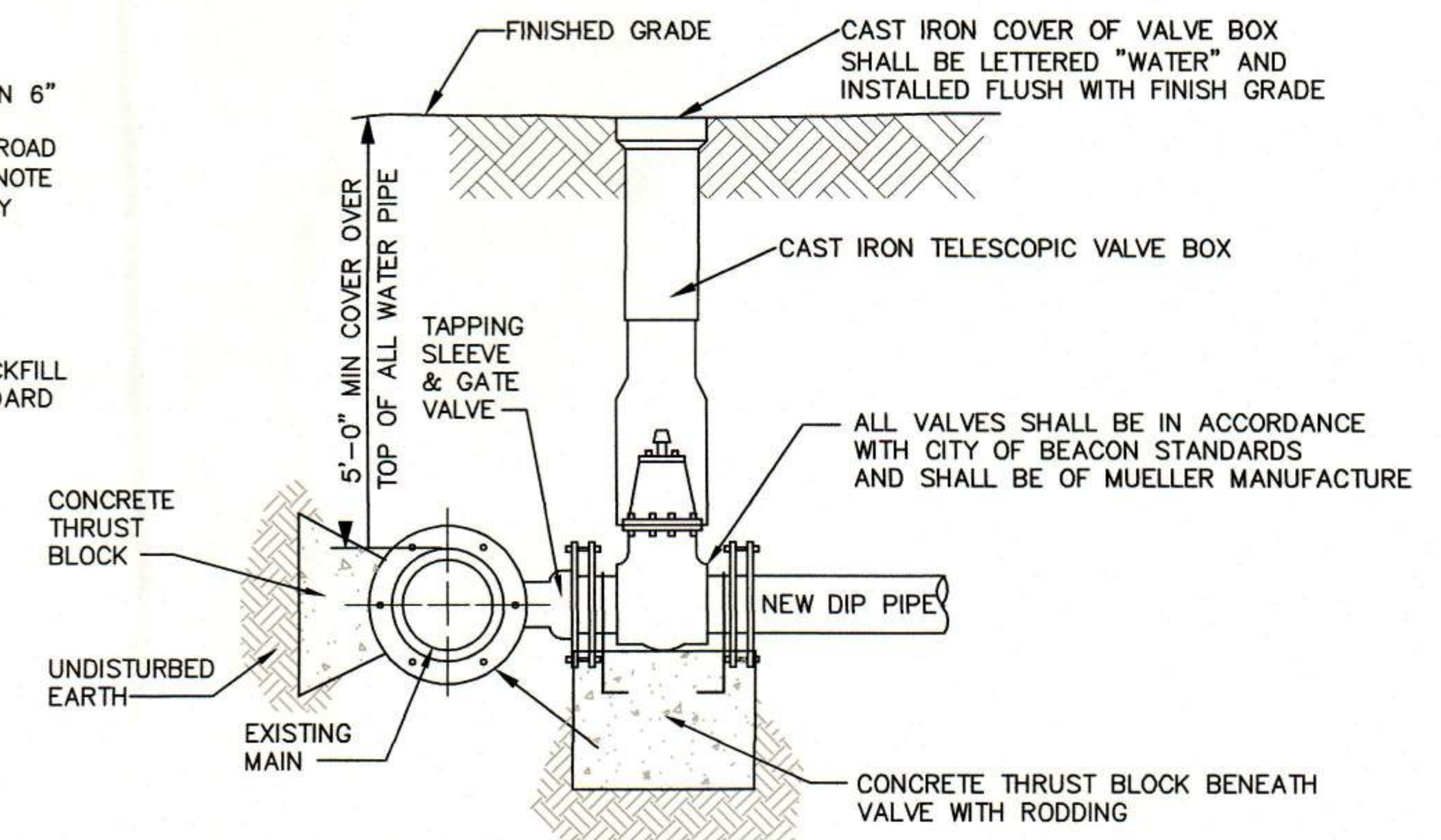
NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

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

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

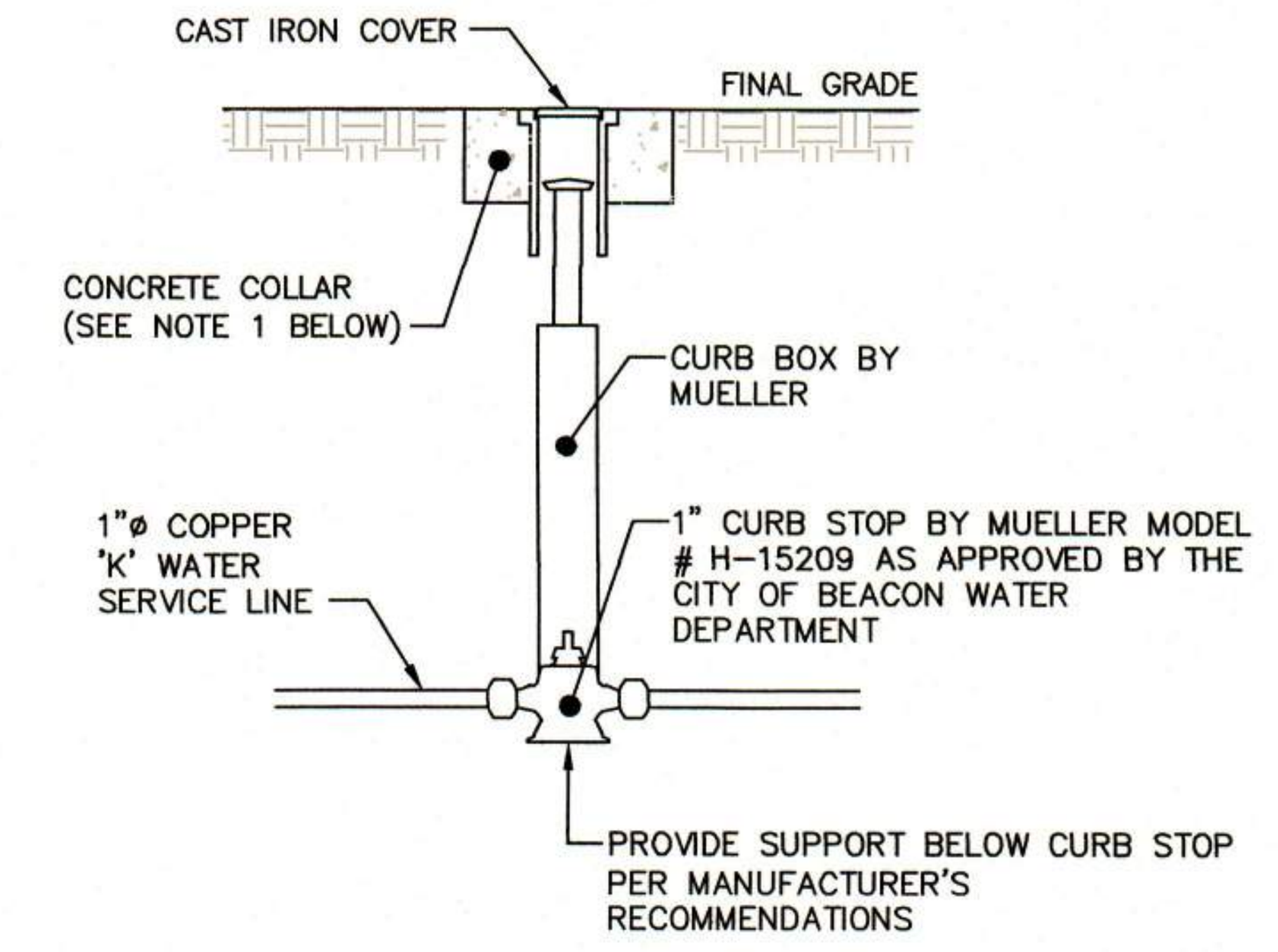
WATER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



NOTES:

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

TAPPING SLEEVE DETAIL
NOT TO SCALE



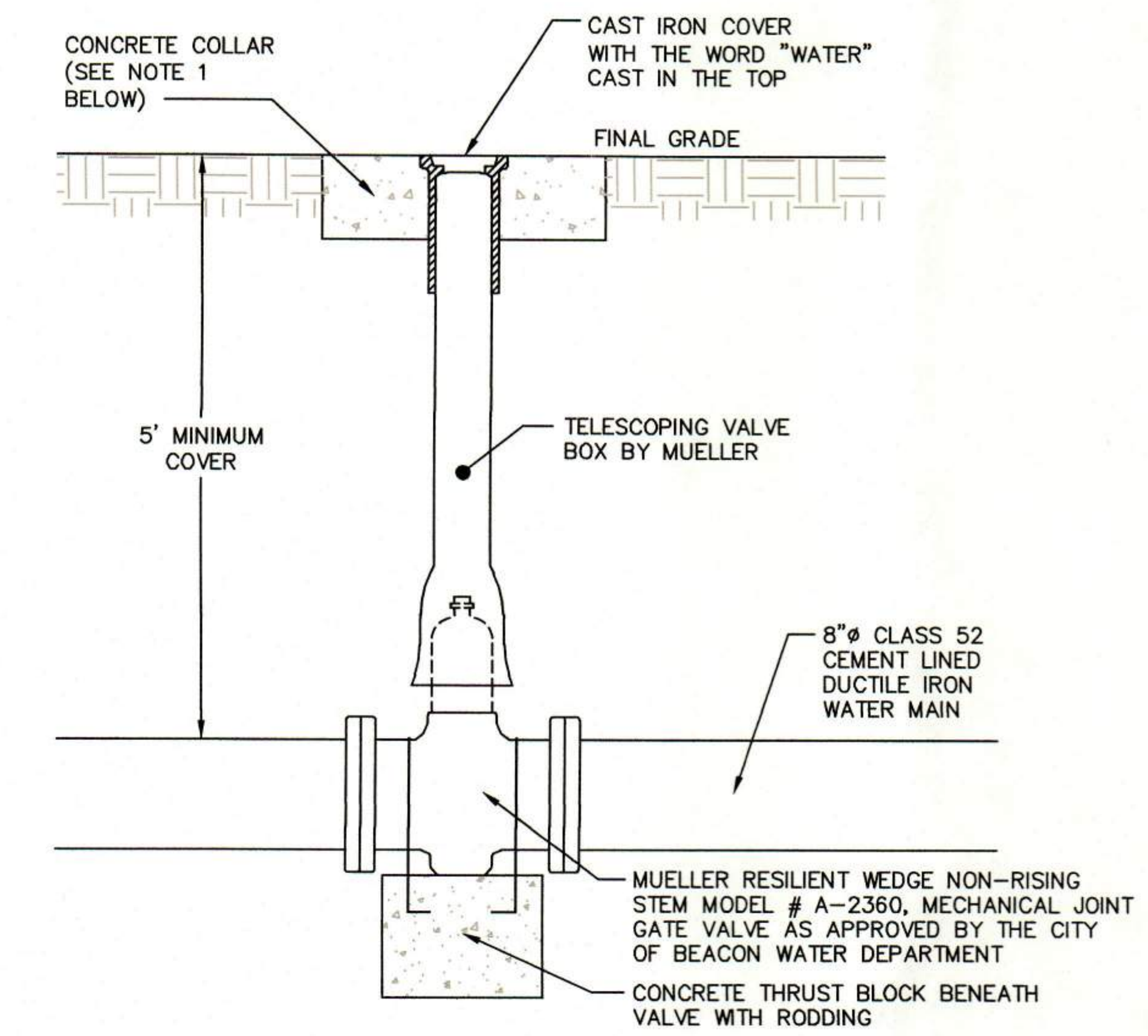
NOTES:

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

2. CURB STOP TO BE COMPRESSION TYPE BY MUELLER.

3. AREA AROUND CURB BOX TO BE BACKFILLED WITH GRAVELLY MATERIAL.

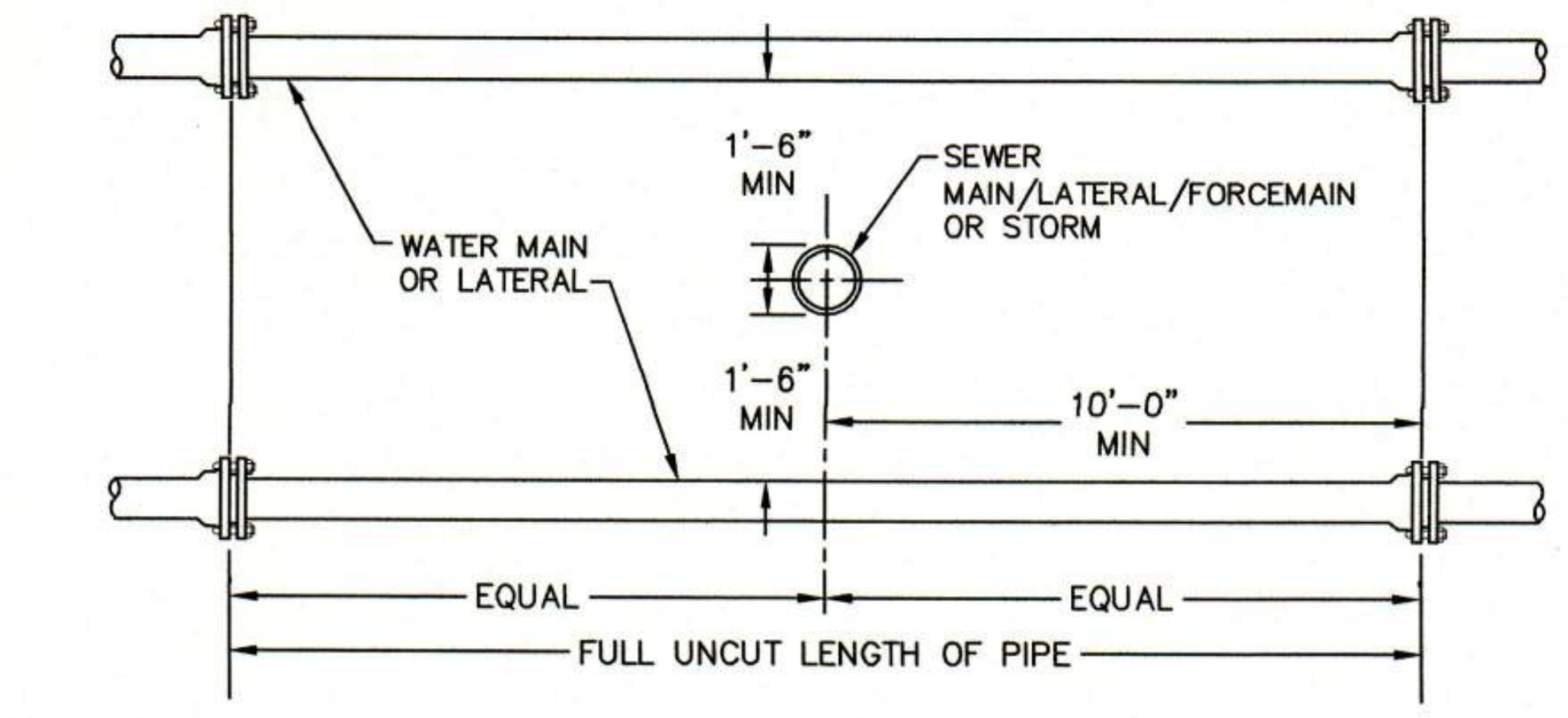
WATER SHUT-OFF VALVE DETAIL
NOT TO SCALE



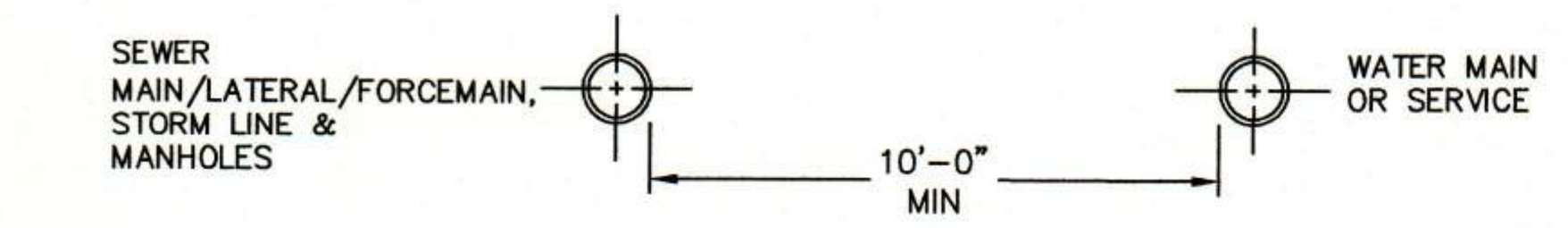
NOTES:

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

GATE VALVE DETAIL
NOT TO SCALE



VERTICAL SEPARATION

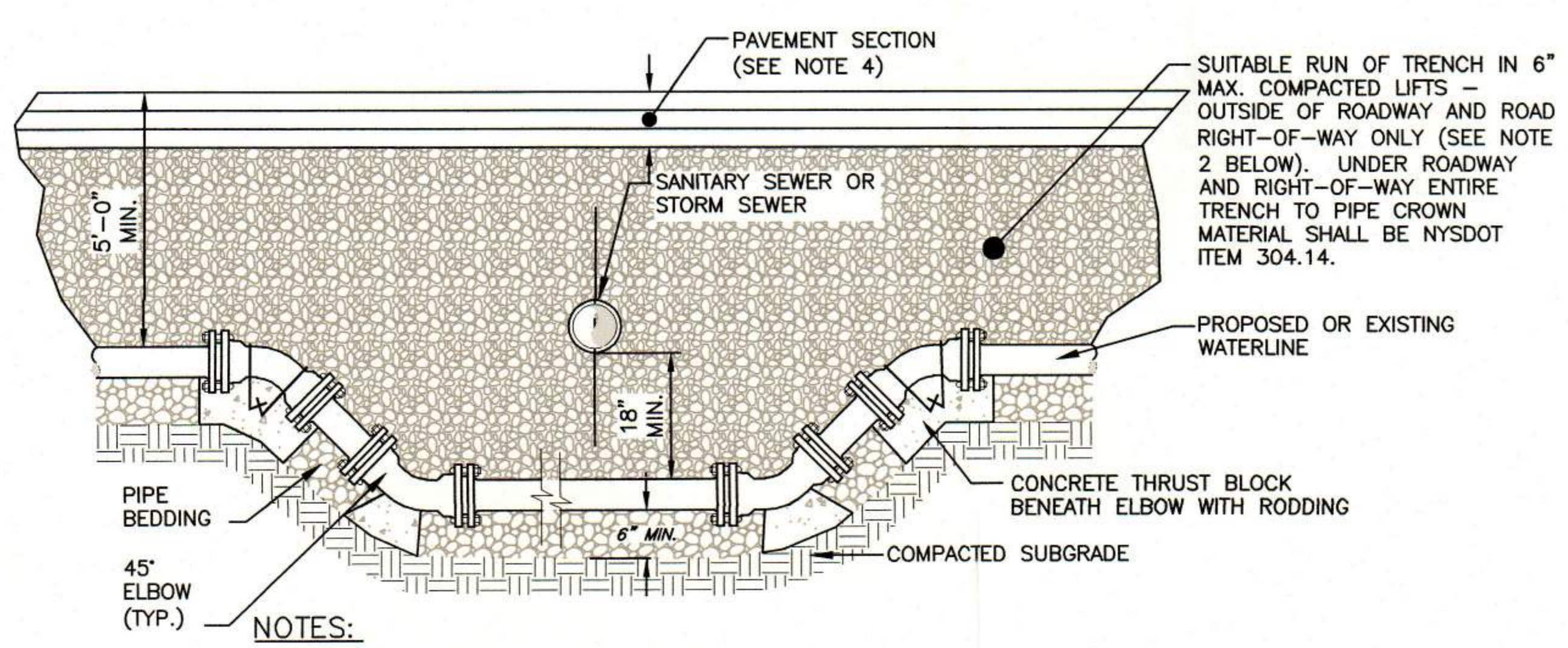


HORIZONTAL SEPARATION

NOTE:

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

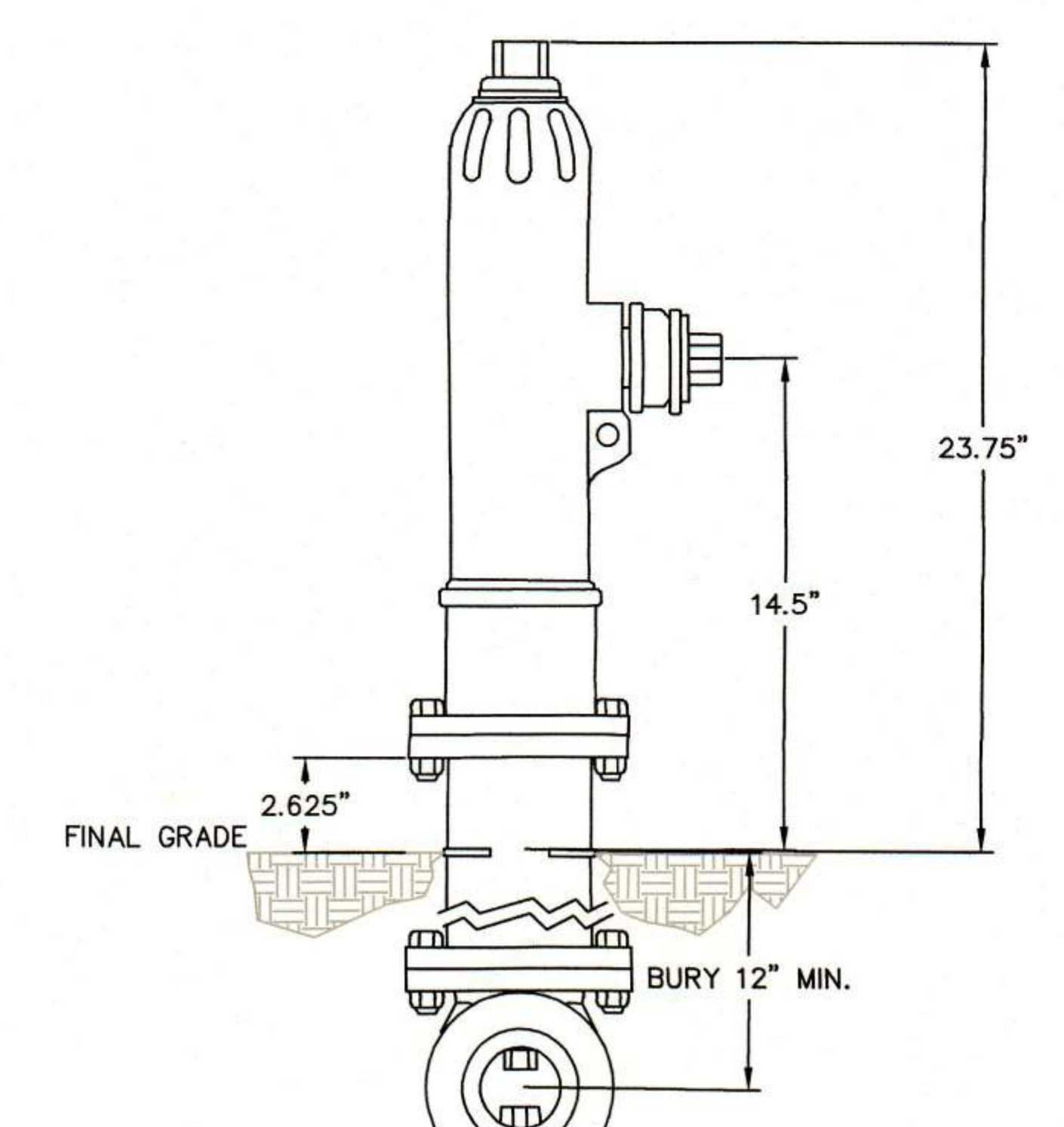
WATER LINE SEPARATION DETAIL
NOT TO SCALE



NOTES:

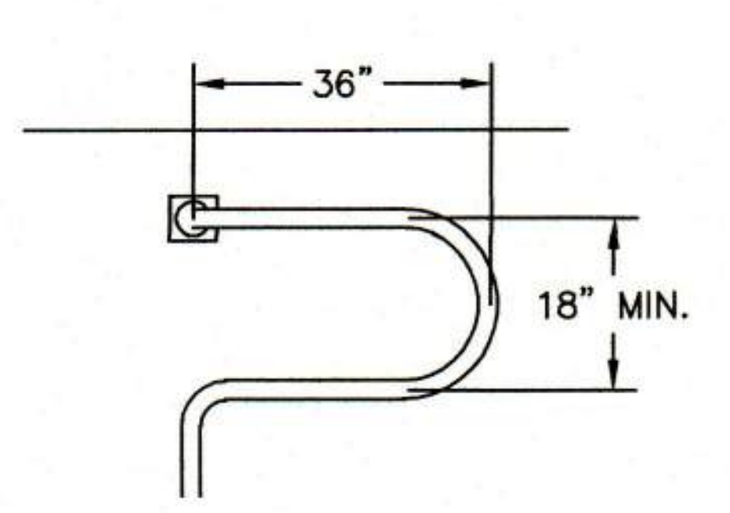
1. WHEN THE ELEVATION OF THE SANITARY OR STORM SEWER CAN NOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER SERVICE LINE OR MAIN SHALL BE RELOCATED TO PROVIDE THIS REQUIRED SEPARATION OR RECONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF TEN (10) FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATERMAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR AWAY FROM THE SEWER AS POSSIBLE.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, ENLOGATED PARTICLES, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.
3. THE RELOCATED WATER MAIN/SERVICE LINE SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA, NYSDOH AND DCDOH STANDARDS.
4. PAVEMENT RESTORATION SHALL BE IN ACCORDANCE WITH THE PAVEMENT RESTORATION DETAIL.
5. ALL REPLACED WATERMAIN SHALL BE 12"ø CLASS 52 DUCTILE IRON.

WATER LINE OFFSET DETAIL
NOT TO SCALE

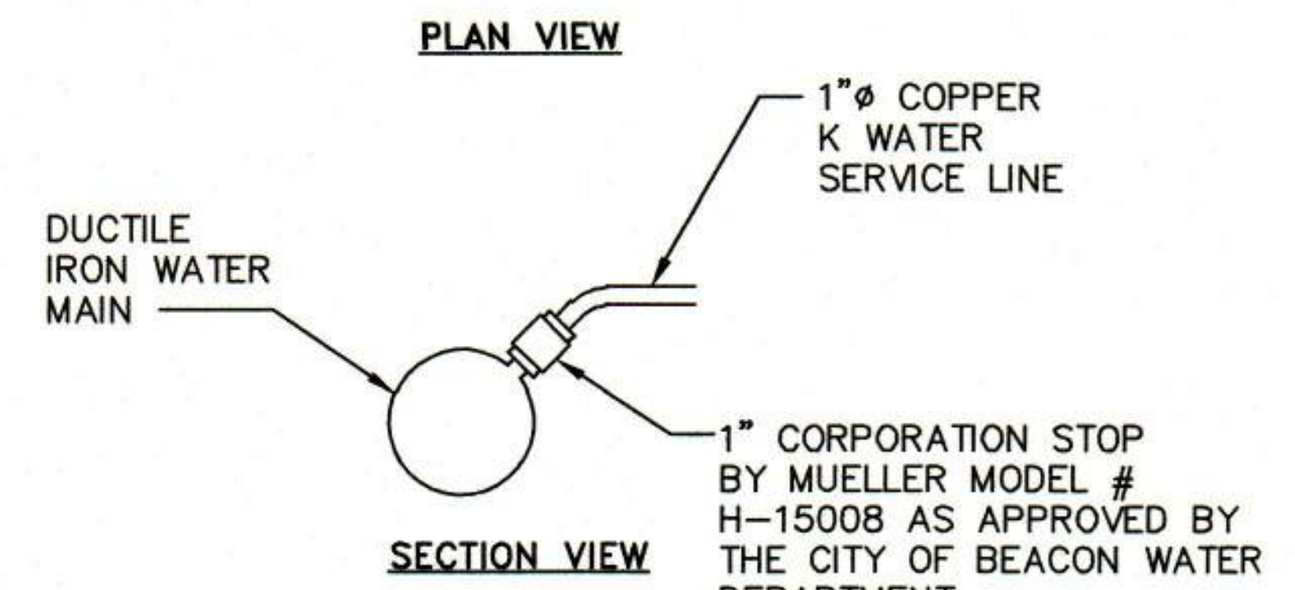


NOTES:
1. FLUSH HYDRANT SHALL BE MUELLER CENTURION 2 ⅛" POST TYPE FLUSH HYDRANT OR APPROVED EQUAL.

FLUSH HYDRANT
NOT TO SCALE



PLAN VIEW



SECTION VIEW

NOTES:

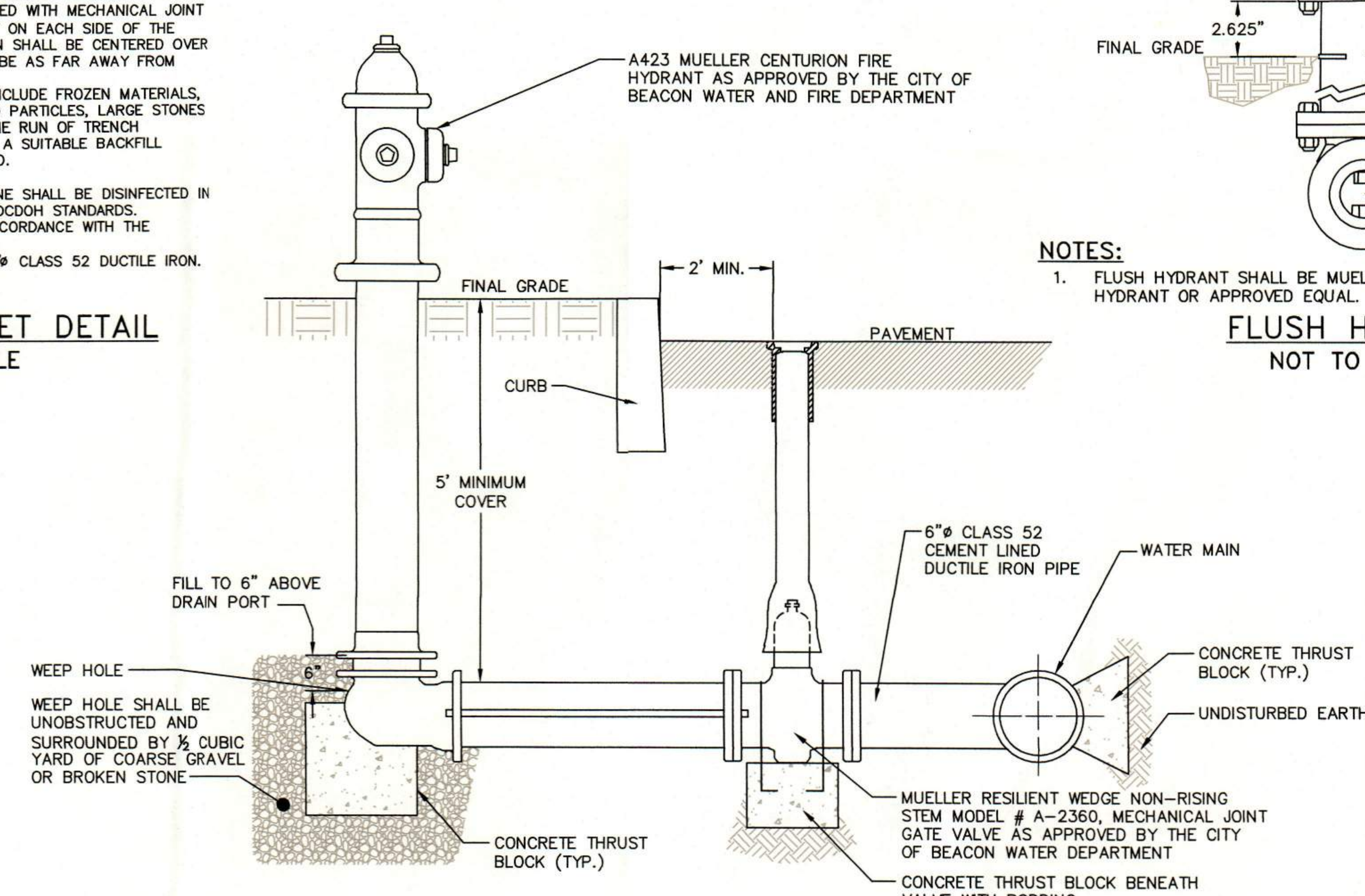
1. A MINIMUM 5' COVER SHALL BE PROVIDED ON THE WATER SERVICE LINE (CONDITIONED ON ACTUAL WATER MAIN DEPTH).

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.

WATER SERVICE CONNECTION DETAIL
NOT TO SCALE



NOTES:

1. THE GATE VALVE SHALL BE LOCATED THIRTY SIX (36) INCHES FROM THE HYDRANT CENTER LINE.

2. ½" STEEL TIE RODS TO BE PROVIDED BETWEEN THE GATE VALVE AND THE HYDRANT.

HYDRANT DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

________ DAY OF ________, 20____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS ________ DAY OF ________, 20____, BY

________ CHAIRMAN

________ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

WATER NOTES:
1. THE PROPOSED APARTMENT BUILDINGS ARE TO BE SERVED BY THE CITY OF BEACON MUNICIPAL WATER SYSTEM. INSTALLATION OF ALL COMPONENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY CODE, CHAPTER 219.
2. REFER TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH STANDARD NOTES FOR ADDITIONAL PERTINENT INFORMATION.
3. THE WATER MAIN SHALL BE INSTALLED, PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C600 (SEE NOTES BELOW).
4. THE DUTCHESS COUNTY DEPARTMENT OF HEALTH, CITY OF BEACON WATER OPERATOR, AND THE CERTIFYING PROFESSIONAL ENGINEER SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF THE WATER MAIN INSTALLATION.
5. THE WATER MAIN SHALL BE DISINFECTED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C651 (SEE NOTES BELOW).
6. WATER MAIN MATERIAL SHALL BE CLASS 52 CEMENT LINED DUCTILE IRON PIPE WITH MECHANICAL JOINTS AND SHALL MEET THE REQUIREMENTS OF AWWA C150 AND ANSI A21.51.
7. MEGALUG RESTRAINING SYSTEMS SHALL BE USED AT ALL FITTINGS, VALVES AND HYDRANTS (SEE SCHEDULE ON SHEET 14).
8. GATE VALVES SHALL BE MUELLER RESILIENT WEDGE, NON-RISING STEM, MECHANICAL JOINT.
9. HYDRANTS SHALL BE A-423 MUELLER CENTURION, WITH A MUELLER GATE VALVE BEFORE THE HYDRANT.
10. SERVICE LINES SHALL BE 2" COPPER K, UNLESS OTHERWISE NOTED ON THE PLAN.
11. THE CONTRACTOR SHALL VERIFY THE EXISTING WATER MAIN MATERIAL AND BE PREPARED TO PROVIDE A SPECIAL COUPLING FOR CONNECTION OF THE PROPOSED DUCTILE IRON WATER MAIN.
12. A PRESSURE REDUCING VALVE SHALL BE INSTALLED FOR EACH NEW CONDO, WATTS MODEL 25AUB-Z3 OR EQUAL AS APPROVED BY THE CITY OF BEACON WATER DEPARTMENT, IF NECESSARY.
13. THE CONDO ASSOCIATION SHALL OWN, OPERATE, AND MAINTAIN THE WATER MAIN THROUGHOUT THE SITE, INCLUDING ALL APPURTENANCES.
14. THE OWNER SHALL ANNUALLY EXERCISE ALL WATER VALVES.

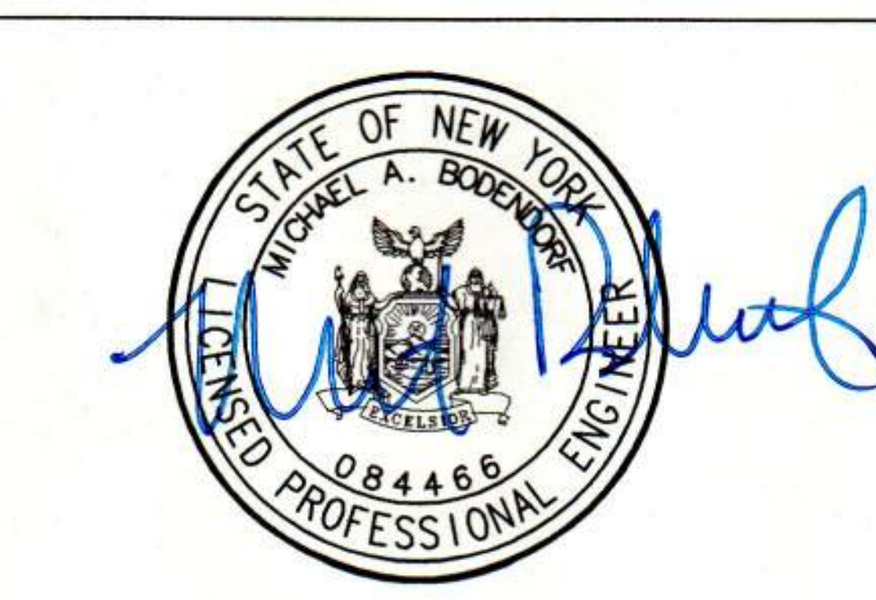
WATER MAIN PRESSURE & LEAKAGE TESTING
GENERAL: ALL PIPING SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF AWWA C600, EXCEPT AS ADDED OR AMENDED BELOW:
1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR ANY AND ALL REQUIRED PIPE TAPS FOR TESTING, AND AS NECESSARY FOR TESTING AS SPECIFIED. EQUIPMENT WILL BE SUCH THAT THE ENGINEER MAY INSTALL HIS OWN PRESSURE GAUGE.
2. A PRESSURE TEST AND LEAKAGE TEST ARE REQUIRED FOR ALL PIPE.
3. TESTING TO BE PERFORMED ONLY AFTER PARTIAL OR COMPLETE BACKFILL AND RESTRAINT BLOCKING (USING HIGH EARLY CEMENT) HAS HAD 36 HOURS TO CURE OR BLOCKING USING STANDARD CEMENT HAS HAD 7 DAYS TO CURE.
4. THE MAIN SHALL BE PARTIALLY BACKFILLED OR BRACED AGAINST MOVEMENT DURING THE TEST. ALL AIR MUST BE BLED OUT OF THE SECTION TO BE TESTED. IF NECESSARY, CONTRACTOR SHALL INSTALL CORPORATION STOPS AT THE HIGH POINTS, FOR BLOW-OFFS. AFTER ALL AIR HAS BEEN EXPELLED, THE CORPORATION COCKS SHALL BE CLOSED AND THE PRESSURE TEST APPLIED. AFTER EXAMINATION OF EXPOSED PARTS OF THE SYSTEM, THE TEST PRESSURE SHALL BE INCREASED TO 1 1/2 TIMES THE NORMAL PRESSURE, BASED UPON THE ELEVATION OF THE LOWEST POINT IN THE LINE OR SECTION UNDER THE TEST, BUT SUCH PRESSURE SHALL NOT BE LESS THAN 150 PSI NOR MORE THAN 200 PSI, AND EXPOSED PARTS AGAIN EXAMINED. THE MINIMUM DURATION OF THE LEAKAGE TEST SHALL BE TWO (2) HOURS.
5. ALLOWABLE SYSTEM LEAKAGE AS SPECIFIED IN THE REFERENCED STANDARDS. IF LEAKAGE IN SYSTEM IS GREATER THAN ALLOWABLE, CONTRACTOR WILL LOCATE AND REPAIR SYSTEM AT HIS EXPENSE AND RETEST, CONTINUE TO TEST AND REPAIR THE SYSTEM UNTIL LEAKAGE IS WITHIN ACCEPTABLE LIMITS.
6. NO DUCTILE IRON PIPE INSTALLATION WILL BE ACCEPTED IF THE LEAKAGE IS GREATER THAN THAT DETERMINED BY THE FOLLOWING FORMULA:

$$L = \frac{SD\sqrt{P}}{148{,}000}$$

WHERE
L = LEAKAGE IN GALLONS PER HOUR
S = LENGTH OF PIPE TESTED, IN FEET
D = NOMINAL DIAMETER OF PIPE IN INCHES
P = AVERAGE TEST PRESSURE DURING LEAKAGE TEST, IN PSI (GAUGE)

WATER MAIN DISINFECTION & TESTING
1. THE CONTRACTOR SHALL NOTIFY THE CITY OF BEACON WATER DEPARTMENT PRIOR TO TESTING AND SHALL ALSO COORDINATE HIS ACTIONS WITH THE CITY ENGINEER SO AS TO AVOID UNDUE DISTURBANCE OF THE WATER SUPPLY TO ANY EXISTING USERS.
2. THE CONTRACTOR SHALL INFORM THE DESIGN ENGINEER'S AND CITY ENGINEER'S OFFICE A MINIMUM OF 24 HOURS PRIOR TO TESTING SUCH THAT WITNESSING CAN TAKE PLACE AND PROPER CERTIFICATIONS CAN BE ISSUED.
3. ALL NEWLY INSTALLED WATER MAINS SHALL BE FLUSHED AT A MINIMUM VELOCITY OF 2.5 FT/SECOND BEFORE AND AFTER DISINFECTION.
4. ALL WATER LINES SHALL BE DISINFECTED USING THE PROCEDURES DESCRIBED IN THE LATEST EDITION OF AWWA C651 SPECIFICATIONS FOR DISINFECTION OF WATER LINES (WITH THE EXCEPTION OF THE TABLET METHOD). WATER ENTERING THE NEW MAIN SHALL RECEIVE A DOSE OF CHLORINE FED AT A CONSTANT RATE SUCH THAT THE WATER WILL HAVE NOT LESS THAN 25 MG/L FREE CHLORINE. CHLORINE APPLICATION SHALL NOT CEASE UNTIL THE ENTIRE MAIN IS FILLED WITH HEAVILY CHLORINATED WATER.
5. DISINFECTED WATER SHALL REMAIN IN THE NEWLY INSTALLED WATER LINE FOR A MINIMUM OF 24 HOURS. AFTER THIS RETENTION PERIOD, THE HEAVILY CHLORINATED WATER SHALL BE FLUSHED FROM THE MAIN UNTIL CHLORINE MEASUREMENTS SHOW A CONCENTRATION IN THE WATER LEAVING THE MAIN HAS NO HIGHER THAN THAT GENERALLY PREVAILING IN THE SYSTEM. AT SUCH TIME, BACTERIOLOGICAL SAMPLING FOR SUBMITTAL TO STATE HEALTH LABORATORIES SHALL BE PERFORMED BY THE CONTRACTOR.
6. WATER SAMPLES SHALL BE TESTED FOR TOTAL COLIFORM, TPC (HETEROTROPHIC PLATE COUNT), TURBIDITY & COLOR.
7. CONTRACTOR WILL CONTINUE FLUSHING AND DISINFECTION OPERATION UNTIL ACCEPTABLE BACTERIOLOGICAL RESULTS ARE OBTAINED. TWO (2) SUCCESSIVE SAMPLES ARE TO BE TAKEN AT TWENTY-FOUR (24) HOUR INTERVALS.
8. THE ENVIRONMENT INTO WHICH THE HEAVILY CHLORINATED WATER IS TO BE DISCHARGED SHALL BE INSPECTED, AND IF THERE IS ANY LIKELIHOOD THAT THE CHLORINATED DISCHARGE WILL CAUSE DAMAGE, THEN A REDUCING AGENT SHALL BE APPLIED TO THE WATER TO BE WASTED TO THOROUGHLY NEUTRALIZE THE CHLORINE RESIDUAL IN THE WATER. PERMITS MAY BE REQUIRED. THE CITY ENGINEER SHALL BE NOTIFIED PRIOR TO DISPOSAL OF HIGHLY CHLORINATED WATER.

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
2	3/26/19	ADDED SHEET	CMB				
3	4/30/19	PER PLANNING BOARD COMMENTS	CMB				
4	5/28/19	PER PLANNING BOARD COMMENTS	ESR				
5	6/25/19	NO CHANGES THIS SHEET	AG				
6	7/30/19	PER PB COMMENTS AND APRROVAL	CMB				



SEAL

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

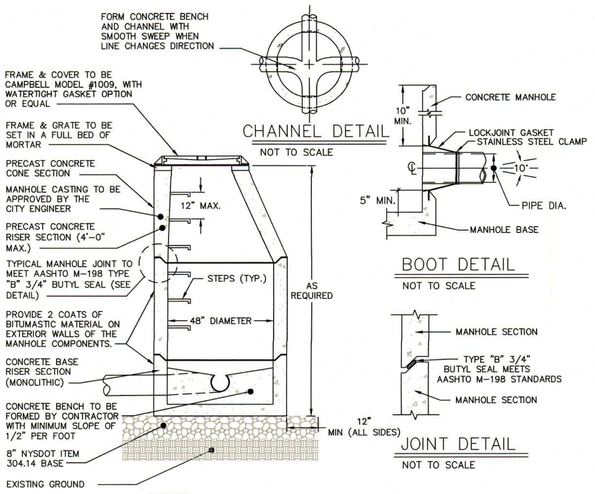
WATER DETAILS

53 ELIZA STREET

53 ELIZA STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-031870

JOB #:	2018:032
DATE:	8/28/18
SCALE:	AS NOTED
TITLE:	CD-3
SHEET:	12 OF 13

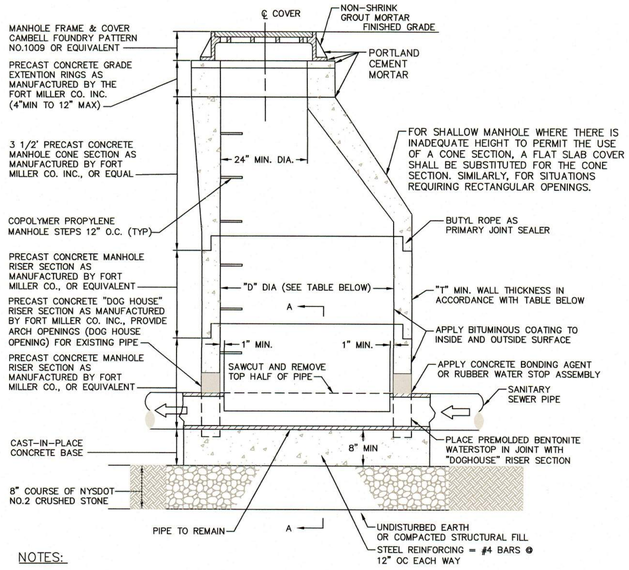
UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



NOTES:

1. PIPE CONNECTION TO BE STANDARD "LOCKJOINT" BOOT 5" OFF BASE OF MANHOLE (SEE DETAIL).
2. CONCRETE STRENGTH OF MANHOLE COMPONENTS TO BE 4000 PSI @ 28 DAYS IN ACCORDANCE WITH ASTM C-478-86.
3. STEEL REINFORCMENT OF MANHOLE COMPONENTS TO MEET ASTM A615-A497 REQUIREMENTS.
4. LOADING OF MANHOLE COMPONENTS TO MEET H-20 REQUIREMENTS.
5. CONCRETE USED IN MANHOLE COMPONENTS TO CONTAIN 6% AIR ENTRAINMENT.
6. 4' MAXIMUM FROM MANHOLE TO PIPE JOINT.

PRE-CAST CONCRETE SANITARY MANHOLE DETAIL
NOT TO SCALE



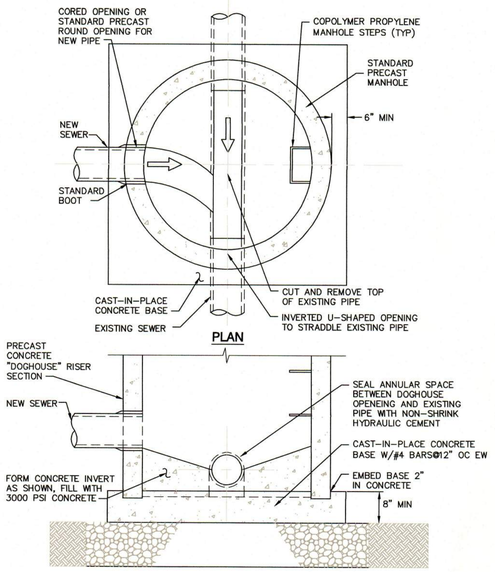
NOTES:

1. USE ONLY WET-CAST UNITS. DRY-CAST NOT ACCEPTABLE.
2. MANUFACTURER TO VERIFY REQUIRED "T" DIMENSION ASSOCIATED WITH DEPTH OF INDIVIDUAL MANHOLES.

TABLE

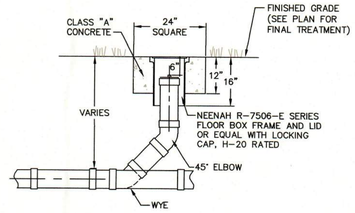
OUTLET SEWER PIPE SIZE	"D" DIA MIN	"T" WALL THICKNESS MIN
8" THRU 24"	4'-0"	5"
30"	5'-0"	6"

PRECAST CONCRETE INSERTION "DOGHOUSE" MANHOLE DETAIL
NOT TO SCALE

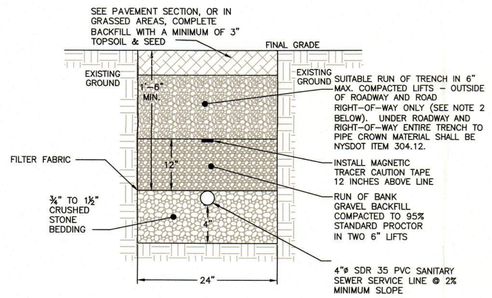


SANITARY SEWER NOTES:

1. THE PROPOSED APARTMENTS ARE TO BE SERVED BY THE CITY OF BEACON MUNICIPAL SEWER SYSTEM. INSTALLATION OF ALL COMPONENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY CODE, CHAPTER 179.
2. REFER TO THE DUTCHESS COUNTY DEPARTMENT OF HEALTH STANDARD NOTES FOR ADDITIONAL PERTINENT INFORMATION.
3. THE DUTCHESS COUNTY DEPARTMENT OF HEALTH, CITY OF BEACON CHIEF SEWER OPERATOR, AND THE CERTIFYING PROFESSIONAL ENGINEER SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF THE SEWER MAIN INSTALLATION.
4. SEWER MAIN MATERIAL SHALL BE 8" DIAMETER SDR-35 OR SDR-26 PVC BELL AND SPIGOT GRAVITY SEWER PIPE, WITH GASTIGHT AND WATERTIGHT JOINTS.
5. SEWER MAIN SHALL BE LAID IN STRAIGHT ALIGNMENT. MANHOLES SHALL BE CONSTRUCTED AT ALL CHANGES IN SLOPE, ALIGNMENT OR AT INTERVALS NOT EXCEEDING 400 LINEAR FEET. STRAIGHT ALIGNMENT SHALL BE VERIFIED BY DEFLECTION TESTING.
6. THE SEWER MAIN SHALL BE INSTALLED AND TESTED FOR EXFILTRATION PRIOR TO BEING PERMITTED TO OPERATE. ALL NEW SANITARY SEWER GRAVITY LINES SHALL PASS A LOW PRESSURE AIR TEST IN ACCORDANCE WITH ASTM C-828 AT A PRESSURE OF 3.5 PSI.
7. MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH ASTM C-1244. IF PRESSURE DROP EXCEEDS THE SPECIFIED AMOUNT, THE NECESSARY REPAIRS OR REPLACEMENTS REQUIRED SHALL BE MADE TO REDUCE THE PRESSURE DROP TO WITHIN THE SPECIFIED LIMIT, AND THE TESTS SHALL BE REPEATED UNTIL THE REQUIREMENT IS MET.
8. SERVICE LATERALS SHALL BE 4" DIAMETER SDR-35 PVC WITH A MINIMUM SLOPE OF 2%, UNLESS OTHERWISE NOTED ON THE PLAN.
9. ALL SANITARY SEWER MAINS AND MANHOLES UP TO, BUT NOT INCLUDING, THE EXISTING MANHOLE SHALL BE OWNED, OPERATED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.



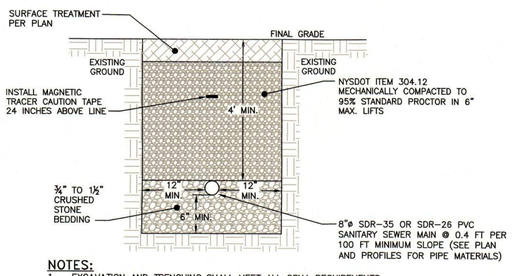
CLEANOUT DETAIL
NOT TO SCALE



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.

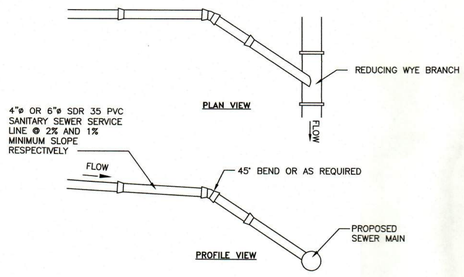
SANITARY SEWER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. SEWER MAIN MATERIAL SHALL BE 8" DIAMETER SDR-26 PVC BELL AND SPIGOT GRAVITY SEWER PIPE, WITH GASTIGHT AND WATERTIGHT JOINTS.

SANITARY SEWER MAIN TRENCH DETAIL
NOT TO SCALE



NOTES:

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

SANITARY SEWER SERVICE CONNECTION DETAIL
NOT TO SCALE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____ BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB			CHECKED BY: MAB			
REVISIONS:			REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
2	3/26/19	ADDED SHEET	CMB				
3	4/30/19	PER PLANNING BOARD COMMENTS	CMB				
4	5/28/19	PER PLANNING BOARD COMMENTS	ESR				
5	6/25/19	NO CHANGES THIS SHEET	AG				
6	7/30/19	PER PB COMMENTS AND APRROVAL	CMB				

STATE OF NEW YORK — MICHAEL A. BRODSKY — 084456 — LICENSED PROFESSIONAL ENGINEER

SEAL

HUDSON LAND DESIGN
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
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PH: 845-440-6926
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SEWER DETAILS

53 ELIZA STREET

53 ELIZA STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-031870

JOB #:	2018:032
DATE:	8/28/18
SCALE:	AS NOTED
TITLE:	CD-4
SHEET:	13 OF 13

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KARC
PLANNING CONSULTANTS, INC.

TO: John Gunn, Chair, and the City of Beacon Planning Board

FR: KARC Planning Consultants, Inc.

DATE: August 7, 2026

RE: 53 Eliza Street Endorsement of Previously Approved Plan, Eliza Street, LLC (Charlie Qelaj)

I have reviewed the following material regarding the proposed site plan amendment for the project located at 53 Eliza Street:

- Cover letter by Fifth Street Architecture, dated July 28, 2026
- Site Plan Application by Eliza Street, LLC, dated July 28, 2026
- ZBA Approval Resolution, dated February 20, 2019
- Planning Board Site Plan Approval Resolution, dated July 12, 2019
- Site Plan Set (13 sheets) by Aryeh Siegel & Hudson Land Design, last revised July 30, 2019
- City Planner's letter to the Planning Board dated July 5, 2019
- City Planner's letter dated August 30, 2019

Project Description:

The previous property owner received Site Plan Approval on July 12, 2019 for the construction of a multifamily development consisting of nine (9) dwelling units distributed among three buildings at 53 Eliza Street (Parcel 6054-29-031870). The project also received a use variance and area variance from the Zoning Board of Appeals on February 20, 2019. The property contains approximately 0.696 acres and is located within the R1-5 Zoning District.

The applicant is requesting endorsement of the previously approved site plan. Upon application to renew the project's work permit, it was discovered that the City did not have an endorsed set of the approved site plans in its records. No modifications to the previously approved site plan are proposed.

Comments & Recommendations:

1. **Previous Condition of Approval #4**. The approval resolution dated July 12, 2019 notes as a condition of approval that shall be fulfilled prior to the signature of site plan is "The comments contained in the City Planner' s letter to the Planning Board dated July 5, 2019, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Planner, including implementation of a front yard setback that matches the adjacent house to the north." I have attached the City Planner's July 5, 2019 letter, as well as the subsequent August 30, 2019 letter noting that both remaining comments were addressed. Both comments continue to be addressed by the submitted site plan.

2. **Previous Condition of Approval #9**. The approval resolution dated July 12, 2019 notes as a condition of approval that shall be fulfilled prior to the signature of site plan is "The appropriate sheets within the plan set including but not limited to renderings and elevations, shall be revised to eliminate the brick above the first floor on the front elevation of the building fronting Eliza Street and replace with the same Hardie Board siding shown for such front elevation." This condition is also addressed by the submitted site plan.

This review was limited to the outstanding conditions of approval related to planning and zoning. Based on my review, those conditions have been satisfactorily addressed by the submitted site plan. Verification that the project has otherwise been constructed in accordance with the approved plans and that all remaining conditions of approval have been satisfied should be made by the Building Department. Subject to that verification, the previously approved site plan is ready for endorsement and signature.

Natalie Quinn
Beacon Planning Consultant

Cc: Bryan Murphy, Building Inspector
Jennifer L. Gray, Esq., City Attorney
John Russo, P.E., City Engineer

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 5, 2019
Re: **53 Eliza Street Site Plan**

I have reviewed the June 25, 2019 response letters from Aryeh Siegel and Hudson Land Design and a 13-sheet Site Plan set, with Sheet 3 dated August 28, 2018 and all other sheets dated June 25, 2019.

Proposal

The applicant is proposing to replace a non-conforming commercial use on a 0.696-acre parcel in the R1-5 zoning district with three multifamily buildings. On February 20, 2019 the Zoning Board of Appeals granted use and area variances for nine multifamily units on this parcel.

Comments and Recommendations

1. Under Section 223-13 K, the front setback shall conform as near as practicable to existing structures on the same side of the street within 250 feet of the subject parcel. Since the applicant has provided an average measurement for these buildings, the Board should determine if the requested front setbacks are appropriate. I suggest that the building and porch setbacks match the adjacent house to the north.

2. At the Architectural Review Subcommittee meeting the applicant agreed to several changes, but two of the modifications have not been incorporated into the submitted plans:
   - Walkway connections from the front sidewalk to the porches were to be added. Although front steps are included on the Sheet 5 elevations, the Site Plan, renderings, and other sheets do not show the walkway connections.
   - The front building colors were to be more muted choices, but the Sheet 3 renderings have not been revised.

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

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: August 30, 2019
Re: **53 Eliza Street Site Plan**

I have reviewed the July 30, 2019 response letters from Aryeh Siegel and Hudson Land Design and a 13-sheet Site Plan set with the last revision date of July 30, 2019.

Proposal

The applicant is proposing to replace a non-conforming commercial use on a 0.696-acre parcel in the R1-5 zoning district with three multifamily buildings. On February 20, 2019 the Zoning Board of Appeals granted use and area variances for nine multifamily units on this parcel.

Comments and Recommendations

All the comments from my previous memos to the Planning Board have been addressed. The overall plans are acceptable from a planning perspective, and I have no objection to a final sign-off. The applicant should also satisfy any remaining comments from the City Engineer and Planning Board Attorney.

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

City of Beacon Planning Board Agenda
08/11/2026

Title:

Continue review of application for Amended Site Plan Approval, 364 Main Street, Mixed-Use Commercial and Residential, submitted by 364 Main BCN LLC.

ATTACHMENTS

364 Main PB 8.11.26 26107 Bingo Cover Letter REVISED.pdf

364 Main PB 8.11.26 26109 Baxter 364 Main St Summary of Changes REVISED.pdf

364 Main PB 8.11.26 26109 Baxter 364 Main St ARCH REVISED.pdf

364 Main PB 8.11.26 Supplemental Submission Cve Ltr.pdf

364 Main PB 8.11.26 Exhibit A - ADG Architects Response Memo 7.28.26.pdf

364 Main PB 8.11.26 Exhibit B - ADG Architects Updated Spreadsheet -Summary of Changes rev 7.28.26.pdf

364 Main PB 8.11.26 Updated Site Plan Set by ADG Architects rev 7.28.26.pdf

Lanc & Tully 364 Main Street 08-07-26.pdf

ADG ARCHITECTS

ARCHITECTURE
PLANNING
INTERIORS

25 WALLKILL AVE ▪ MONTGOMERY ▪ NY 12549 | P. 845.294.2724 | CONTACT@ADGARCHITECT.COM
WWW.ADGARCHITECT.COM

August 11, 2026

BY HAND DELIVERY AND E-MAIL
Hon. John Gunn, Chairman
and Members of the Planning Board
City of Beacon
One Municipal Plaza
Beacon, New York 12508

Re: 364 Main BCN LLC – Supplemental Submission Revisions from ARB Subcommittee Review
364 Main Street, Beacon, New York 12508 (ID: 6054-29-006819)

Dear Chairman Gunn and Planning Board Members:

Enclosed please find the revised Planning Board submission materials for the above-referenced property. This resubmission has been prepared in response to the June 31, 2026 ARB meeting discussion.

These materials are submitted for the Planning Board's continued review and consideration. An electronic copy of the submission will also be provided via email. Please let us know if any additional information is required.

Sincerely,

Jason T. Anderson, R.A., A.I.A.
Jason T. Anderson Architect, P.C.
dba ADG Architects and Anderson Design Group – Architecture, Planning, Interiors

cc: Bryan Murphy, City Building Inspector
Jennifer L. Gray, Esq., Planning Board Attorney
John Russo, P.E., Planning Board Engineer
Neil J. Alexander, Esq.

Enclosures: Architectural Planning Board Documents (dated Revision 3 08-05-26) (30" x 42") (4)
Summary of Changes Spreadsheet (dated 08-11-26) (8.5" x 11) (4)

ADG ARCHITECTS
25 WALLKILL AVE ▪ MONTGOMERY ▪ NY 12549 | 845.294.2724 | CONTACT@ADGARCHITECT.COM
ARCHITECTURE
PLANNING
INTERIORS
WWW.ADGARCHITECT.COM

26109 Baxter 364 Main St
Summary of Changes (August 11, 2026)

Comments in red: 07/28/26
Comments in blue: 08/11/26 (post ARB)

Source of Change	No.	Item / Architectural Feature	Original PB Approved Design	What it was Changed To (As-Built / Current State)	Reason for Change	Mitigation Strategy / Proposed Solution
On Approved Architectural CDs (Building Permit Set)	1	Brick Façade Articulation (Corbelling) and Cornice	Renderings showed corbelling to create the appearance of large, recessed brick panels. Actual elevations drawings approved by the PB did not show the same detailing as the renderings	The 'field' of brick between the pilasters was installed in a flat plane.	Corbelling was not shown or detailed on the Construction Documents (CDs) prepared by the previous architect. The contractor built the flat plane as detailed in the city-approved CDs.	Since the masonry shell is built, structural corbelling is no longer feasible without removing the brick. To eliminate the perceived flatness and try to more closely align with the original renderings, we propose to remove the cornice, extend it past the existing pilasters, and add a thin-brick 'corbel' at the inside corner of the pilasters and under the extended cornice. (Post ARB) The cornice was redesigned with smaller dentils as opposed to the original large brackets to improve spacing and symmetery with the as-built window locations below. Additionally, the color of the cornice and trim was lightened to an olive grey from the previous dark charcoal to allow for shadows to be more visible, adding depth to the facade.
	2	Side-Wall Vents (East Elevation)	Vents were not explicitly highlighted or detailed on PB renderings.	6" x 6" vents were installed in the side of the building.	Vents are required for individual apartment dryers, range hoods, and bathroom fans. There is no viable structural or mechanical alternative to venting these units. Mechanical construction documents showed these penetrating the sidewalls	Maintain as constructed. The vents were installed per the approved city-approved CDs. The newly proposed projected window headers are intended to draw the eye and distract from the visibility of these necessary vents. (Post ARB) The vents will be painted to match the existing brick color to reduce their visibility.
	3	Exposed Covered Parking Structure (Rear)	CDs called for the steel beam to be painted and columns to be wrapped with Azek trim.	Steel beam is fully covered by the brick facade; columns are left exposed and painted black.	The CDs lacked proper waterproofing, insulation and flashing details for the beam. Continuing the brick past the beam permanently resolved the flashing issues. This was updated in the revised structural drawings dated 11.07.24.	Maintain as constructed. The black exposed columns do not appear to detract from the building's character, and the brick wrap on the beam was a necessary fix to address potential future issues.
	4	Window Sill Detailing	CDs called out a 6" cast stone sill in text, but the architectural details showed a 2-3/8" cast stone sill.	A standard 4" cast stone sill was installed.	To balance the conflicting details within the previous architect's CDs and maintain the design intent while working within standard full-brick construction parameters.	Maintain as constructed. The 4" sill is more appropriate than what was detailed in the CDs, and is a highly functional middle-ground that properly sheds water, meets the intent of the design, and aligns with the full-brick facade upgrade.

Approved Field Change with Building Official	5	Fire-Rated Windows (Stairwells & Rooftop Lobby)	Fire-rated windows were included in these locations.	Windows were removed and replaced with solid walls/brick.	Unforeseen technical difficulties related to the specialized fire-rated windows and the necessary interior detailing.	Maintain field change as constructed. This was reviewed and accepted as a field change by City building officials during construction. Additionally, we propose to add thin-brick shadow-box detailing to simulate the outline shown on the drawings. (Post ARB) Proportions and locations of these elements were adjusted to improve facade balance.
	6	Juliet Balconies & Associated Doors	Juliet balconies with double doors on East and West elevations.	Balconies removed; replaced with standard operable double windows.	Balconies provided no usable outdoor space and introduced long-term safety and maintenance concerns (door leaks/drafts) without resident benefit. Contractor/developer noted that these create continued maintenace issues on other building that they own.	Maintain field change as constructed. Operable windows were installed at the same width and head height as the double doors, ensuring the building's scale and fenestration rhythm remained consistent. Additionally, we propose to add juliet balony railings at the four windows along the east side of the building, which are the most visible to Main Street. (Post ARB) All ARB members agreed that juliet balconies were not ideal and suggested window planter boxes as a more appropriate decorative element.
	8	Site Grading, Front Patio, & ADA Ramps	Front patio layout with specific ramp and stair configuration.	Significant modifications made to the front entry patio, ramp, and stairs.	Severe grade discrepancies between the building's existing finished floor height and the Main Street sidewalk that were not accurately represented on the approved PB drawings or the city-approved CDs.	Create two code-compliant ADA accessible ramps and monument stairs. Installation of ADA wheelchair handrails at the curb location on the east side ADA ramp. We also propose to continue to install and expand the approved planters that were shown on the original planning board drawings. (Post ARB) The height of the planter boxes was reduced to 6" above retail finish floor for the main areas and 1'-6" for tree boxes, creating an opportunitiy for bench seating along the sidewalk.
	10	"Shadow Boxes" (East Side, First Floor)	Assumed to be brick infill detailing by the PB.	Detail not found on PB drawings or CDs..	Clarified this ambiguity onsite with the Building Inspector that the rectangles on the approved drawings were never detailed, described, or noted in any way.	No physical mitigation required. This is listed simply to clarify for the record that no detail was skipped. However, we propose to add thin-brick shadow-box detailing to replicate the perceived drawing intent. (Post ARB) The rectangular shadow boxes will now be implemented as wall-mounted plant trellises with at-grade planter boxes. This revision improves the facade's geometric articulation and introduces attractive, beneficial plantings.
	12	Landscaping	Plantings with grass beds	Planting areas in river rockbeds with grass areas	Per site visit, Buuilding Official request.	Adjusted based on further discussions with City officials- Maintain as constructed. • Removed rocks from area adjacent to the mosque fence on Eliza Street. • Removed pavers and associated improvements at the front bike rack area and replace with seeded lawn (Post ARB) A landscape consultant has been retained and is currently producing revised drawings.

Applicant/Contractor Change	16	Storefront Articulation (Base Panel)	Stick-built custom wood windows with pressure-treated decorative wood trim along the base.	Aluminum storefront windows with an 18-inch high flat insulated metal panel along the bottom.	Aluminum storefront was selected to ensure durability in a high-traffic retail environment and to eliminate the long-term maintenance/rot concerns of wood at street grade.	Install painted PVC trim over the lower insulated aluminum storefront panels to match the design shown in the CDs. This will match the design intent of the wood panels shown on the city-approved CDs, while maintaining commercial-grade durability.
	17	Trim Profile at Commercial 'Eyebrow' Roof	A 'Crown' profile trim was shown at the commercial storefront 'eyebrow' roof.	Standard flat trim was installed.	The specific trim profile shown on the approved drawings does not exist as a manufactured product, or even a built-up trim profile. Flat trim was substituted in the field.	We propose removing the flat trim and installing a Crown profile trim to restore the original architectural expression and shadow lines.
	18	Window Head Detailing	PB renderings showed straight brick head; PB elevations showed arched heads. City-approved CDs called out an arched Azek profile.	A straight full-brick soldier course window head detail was installed.	The contractor opted for a straight soldier course brick head, feeling that it was compatible with the building's overall character and the full-brick masonry upgrade.	We propose to install painted PVC Fypon window headers toto align with the approved drawings. (Post ARB) The arched window head from the original design was determined to be working against the overall aesthetics of the façade. A straight thin brick soldier course header is proposed to add shadow and depth.
	19	Residential Entrance (Main Street)	A projected entrance canopy was specified.	The canopy was removed, and a recessed entryway was provided.	It was felt that the projected canopy was going to be a maintenance issue, and the recessed entryway would achieve the same technical solution, creating a permanent, integrated arrival point that protects residents from the weather	To address architectural detailing associated with a primary entrance point, we are now proposing to add the canopy and construct flanking pilasters to more closely align with the design and proportions of the original design. (Post ARB) Proportions and detailing of the canopy were revised per ARB comments.
	20	Roof Top Patio Layout & HVAC	A specific rooftop deck layout for tenant outdoor space.	Layout adjusted, with portions of the patio closest to Main Street relocated towards the rear.	To accommodate the necessary placement of two rows of HVAC condensers and centralized rooftop utility enclosures (doghouses).	A proposed adjusted layout has been provided. The new design includes screening of the HVAC units, while creating two independent usable rooftop areas connected by both means of egress.
	21	Building Mounted 911 Signage	Undefined	The existing '911' signage was installed as simple block numbers	The contractor installed the 911 signage for code compliance	Remove the existing signage and install new, 911 signage as detailed on proposed drawing A-007. (Post ARB) Building signage size was reduced and moved below the awning per ARB comments.

Completed Items	7	~~Stair & Elevator Bulkhead Cladding~~	~~Thin brick cladding.~~	~~Fiber cement board siding (Hardie Plank) was installed.~~	~~Substituted as a material adjustment and coordinated directly with the building department during the construction phase.~~	~~Despite field approval, with the exception of the rear stair tower, we propose removing the fiber cement siding and installing thin brick cladding to restore material continuity with the primary façade.~~
	9	~~French Drain (Rear Parking Lot)~~	~~Paved parking surface.~~	~~A French drain was installed on the west side of the parking lot. (no outlet)~~	~~Added as a method to convey surface water runoff in a small area to ground below; agreed upon onsite with the City Building Inspector and Project Engineer.~~	~~Remove the French drain and revert to a paved area as originally designed~~
	11	~~Dumpster Enclosure~~	~~Masonry with 20 ga metal gates~~	~~Wood Fence enclosure to match Wood fence at property line~~	~~Field Change with Building Inspector~~	~~Keep as installed~~
	13	~~Eliza St Entrance~~	~~Adjustments to Eliza Street Entrance were not shown on the approved planning board documents~~	~~• Moved existing curb cut on South side of entrance to align with entrance curb • South side curb cut remained • Saw cut new asphalt to Concrete sidewalk line from end of curb to end curb at parking lot entrance • Removed existing concrete at existing drop curb at parking lot entrance~~		~~Performed as requested by engineer. Completed.~~
	14	~~Full Brick Masonry Upgrade~~	~~Thin brick veneer was specified and approved.~~	~~A full depth brick masonry system was installed.~~	~~To address concerns with thin brick maintenance and durability, and ensure material authenticity, structural integrity, and long-term durability of the façade, full brick was installed~~	~~Maintain as constructed. This represents a substantial, higher quality material upgrade from the originally approved PB plans.~~
	15	~~Site Plan Revisions~~	~~Steps and gates shown~~	~~• Removed the rear concrete steps and gates adjacent to the mosque that were shown on the original site plan drawings~~	~~Per site visit, City engineer request.~~	~~• Remove the rear concrete steps adjacent to the mosque. • Reflect the extension of the planting bed to the curb at the Main Street driveway entrance.~~

Bulk Zoning Regulations Table - Parking Lot

	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'	NA	NA	NA	100'	242.6'	2.5 | 35'	NA	0.85	NA

Bulk Zoning Regulations Table

	Required Setbacks			Proposed Setbacks			Main Street Frontage Required	Main Street Frontage Required	Minimum Lot Depth	Proposed Lot Depth	Allowable Building Height	Proposed Building Height	Minimum Landscaped Area	Proposed Landscaped Area	Lot Area	Proposed Floor Area
	Front	Side	Rear	Front	Side	Rear										
Zoning District																
CMS*	0'-10'	0'	20'	14.78'	18' exist 5'	44'	80%	89%	75'	264.37'	3 | 38' & 4th Story w/ Special Permit	3 Stories 38'	10% 5% if open to public	11%	0.85 acres	35,000 SF

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
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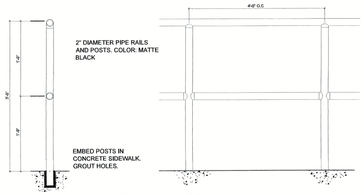
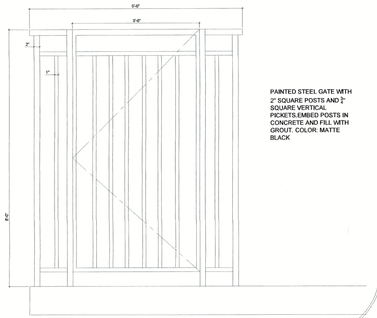
10	09/01/22	PLANNING BOARD CHAIRMAN SIGNATURE	AJS



Fence Detail

Scale: NTS



Gate Detail

Scale: NTS

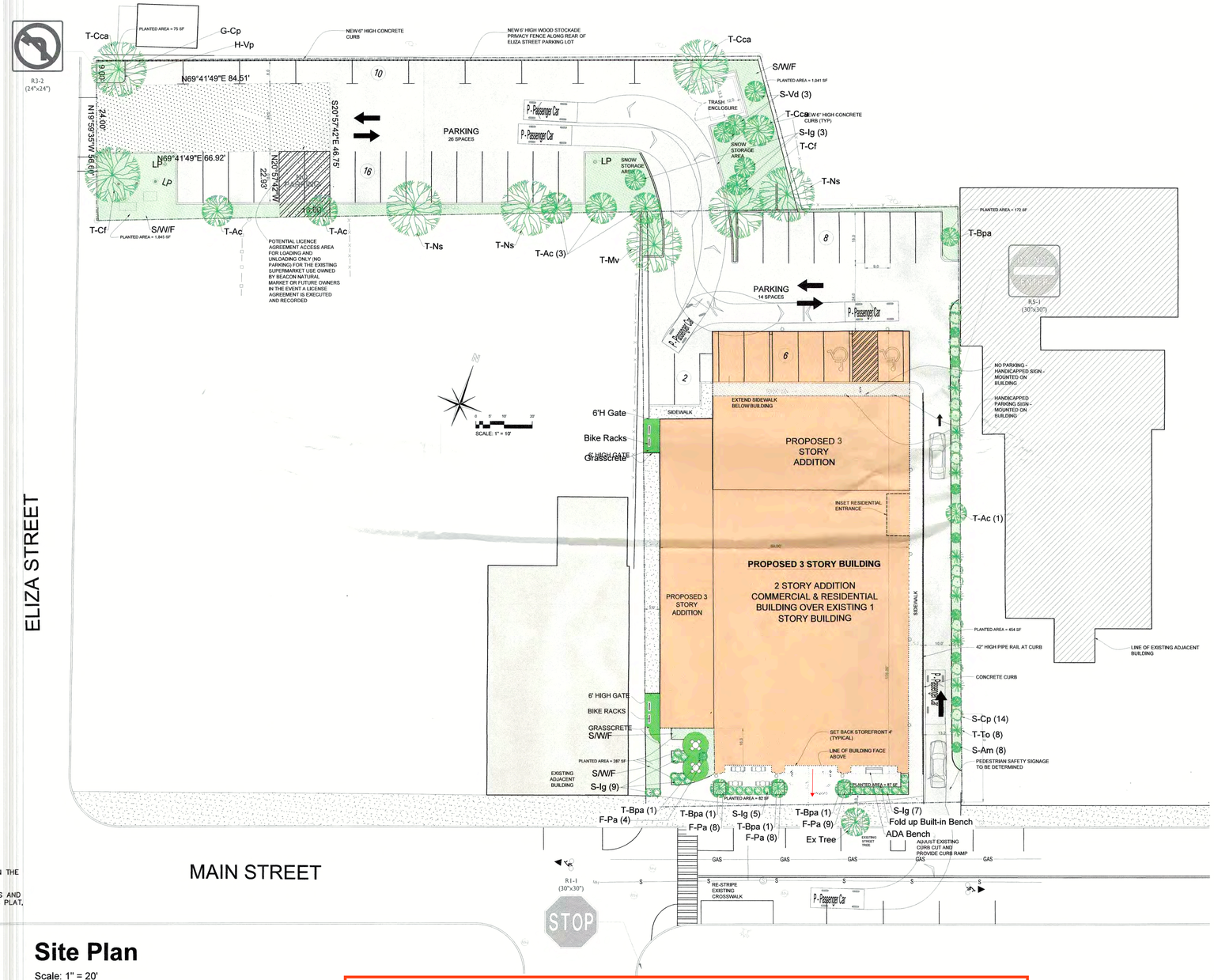
APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE 12th DAY OF April, 2022, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS 15th DAY OF September, 20____, BY

CHAIRMAN

SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.



Site Plan

Scale: 1" = 20'



Location Plan

Not to Scale

Zoning Summary

Zoning District:	CMS (Central Main Street) & T (Transition Zone)
Tax Map No.:	6054-29-006819 (364 Main Street) & 6054-29-0004836 (Eliza Street)
Lot Area:	0.54 Acres & 0.31 Acres
Building Footprint:	12,632 SF
Historical Overlay District:	No
Parking Overlay District:	Partial, not the portion of the lot in the T District.
Existing Use:	Vacant (364 Main Street) & Parking Lot
Proposed Use:	Mixed-Use: Retail / Residential

Parking & Loading

Use & Parking Requirements	Proposed Area	Current Parking Requirement
Residential		
(1) space per unit (CMS)	(20) Apartments	20 parking spaces
Commercial		
(2) spaces per 1,000 SF for Retail	8,892 sf	18 parking spaces
Total Required		**38 parking spaces**
Total Provided		**42 parking spaces**

Notes:

1. Commercial hours are 7am – 12am, Monday through Sunday, inclusive.
2. No signage is proposed as part of this application. Retail tenants will apply separately to the Planning Board for their own signage
3. The landscaped area is approximately 11%. The overall measured landscaped area is 4,043 square feet. The overall site area is 36,954 square feet. 4,043/36,954 = 0.1094. The measured landscaped area includes all planted areas on the site shaded in green. Note that the requirement for landscaping can be reduced to 5% if the landscaped area is accessible to the public. Since a large portion of the landscaped area is accessible to the public, the Applicant contends that the landscaping requirement is met by both the 11% total landscape coverage, and the reduced 5% requirement.
4. The project will comply with the 10% below-market-rate requirements in Article IVB, Affordable-Workforce Housing.
5. Refuse pick-up will be limited to off-peak hours.
6. Delivery vehicles shall be limited to a maximum size of a Single Unit 30' box truck. To the maximum extend practicable, trucks for deliveries and moving purposes shall be coordinated to avoid conflicts with on-site parking operations.
7. All landscaping shown on the Site Plan shall be maintained in a vigorous growing condition for the duration of the use and shall be trimmed so as to not interfere with pedestrian use of the sidewalk. All plant not so maintained shall be replaced with new plants of comparable size and quality at the beginning of the next immediately following growing season in compliance with the Site Plan, at the sole cost and expense of the property owner.

Index of Drawings

Subdivision Plat

Sheet 1 of 14	Site Plan
Sheet 2 of 14	Existing Conditions & Demolition Plan
Sheet 3 of 14	Landscape Plan
Sheet 4 of 14	Building Plans
Sheet 5 of 14	Building Elevations & Renderings
Sheet 6 of 14 - UP.1	Utility Plan
Sheet 7 of 14 - LP.1	Lighting Plan
Sheet 8 of 14 - VM.1	Refuse Truck Movement Plan
Sheet 9 of 14 - VM.2	30' Truck Movement Plan
Sheet 10 of 14 - CD.1	Construction Details
Sheet 11 of 14 - CD.2	Construction Details
Sheet 12 of 14 - CD.3	Construction Details
Sheet 13 of 14 - ESC.1	Erosion & Sediment Control Plan
Sheet 14 of 14 - ESC.2	Erosion & Sediment Control Details

A-001 APPROVED SITE PLAN - FOR REFERENCE

DRAWING NAME AND NUMBER FOR 04-28-26 SUBMISSION ONLY

Site Plan Application

Sheet 1 of 14 - Site Plan

Owner:
O'Donnell & Son
P.O. Box 526
Fishkill, NY 12524

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

Site / Civil Engineer:
Day & Stokosa Engineering P.C
3 Van Wyck Lane
Wappingers Falls, New York 12590

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

REGISTERED ARCHITECT ARYEH JOSEPH SIEGEL 024882 STATE OF NEW YORK

364 Main Street
Beacon, New York
Scale: 1" = 20'
October 4, 2021

NOTE THAT THE RENDERINGS ARE ARTISTIC INTERPRETATIONS OF THE PROPOSED BUILDING DESIGN TO AID IN REVIEWING THE PROPOSED DESIGN OF THE BUILDINGS ONLY, AND ARE NOT INTENDED AS DETAILED REPRESENTATIONS OF THE FINAL DESIGN OR OF SITE CONDITIONS. CHANGES TO WINDOW & DOOR PLACEMENT MAY OCCUR IN THE FINAL CONSTRUCTION DOCUMENTS TO SUIT TENANT LAYOUTS AND BUILDING CODE REQUIREMENTS. THE ELEVATION DRAWINGS SHOWN ON THIS SHEET INDICATE THE APPROVED DESIGN, AND IN THE CASE OF ANY DISCREPANCY BETWEEN DESIGN ELEMENTS DEPICTED ON THE ELEVATIONS AND RENDERINGS, THE ELEVATIONS SHALL GOVERN.

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE 19th DAY OF April 2022, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS 13th DAY OF September, 2022 BY

CHAIRMAN

SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

REVISIONS:

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9	06/30/22	FOR FINAL CONSULTANT REVIEW	AJS
10	09/01/22	PLANNING BOARD CHAIRMAN SIGNATURE	AJS



Elevation: South

Scale: 1/8" = 1'-0"



View: From Main Street

Not to Scale



View: From Main Street

Not to Scale



View: From Main Street

Not to Scale



Elevation: East

Scale: 1/8" = 1'-0"



View: Main Street

Not to Scale



Elevation: North

Scale: 1/8" = 1'-0"



Elevation: West

Scale: 1/8" = 1'-0"

A-002 APPROVED ELEVATIONS - FOR REFERENCE

DRAWING NAME AND NUMBER FOR 04-28-26 SUBMISSION ONLY

Site Plan Application

Sheet 5 of 14 - Building Elevations

Owner:
O'Donnell Construction Corp.
P.O. Box 526
Fishkill, NY 12524

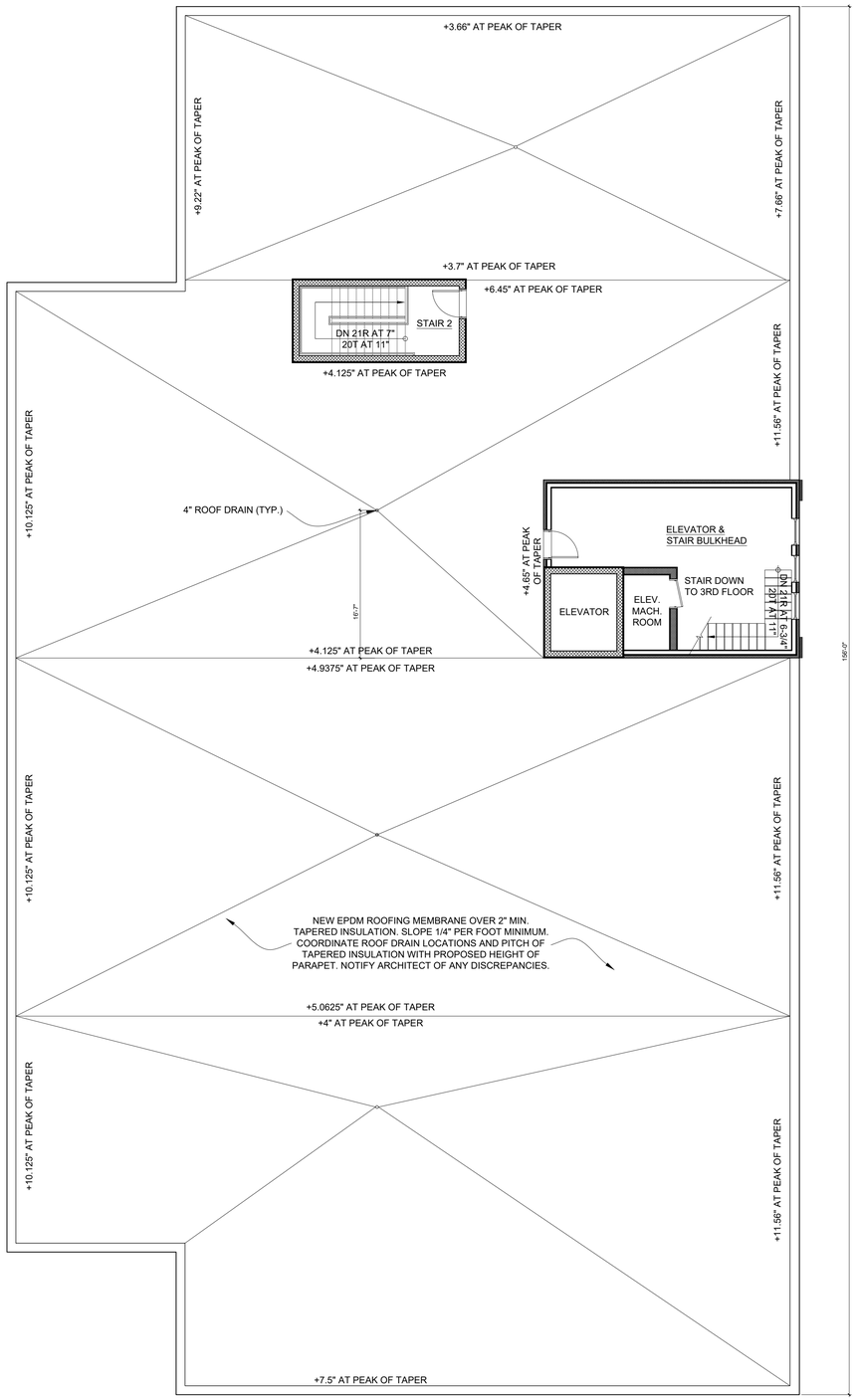
Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

Site / Civil Engineer:
Day & Stokosa Engineering P.C
3 Van Wyck Lane
Wappingers Falls, New York 12590

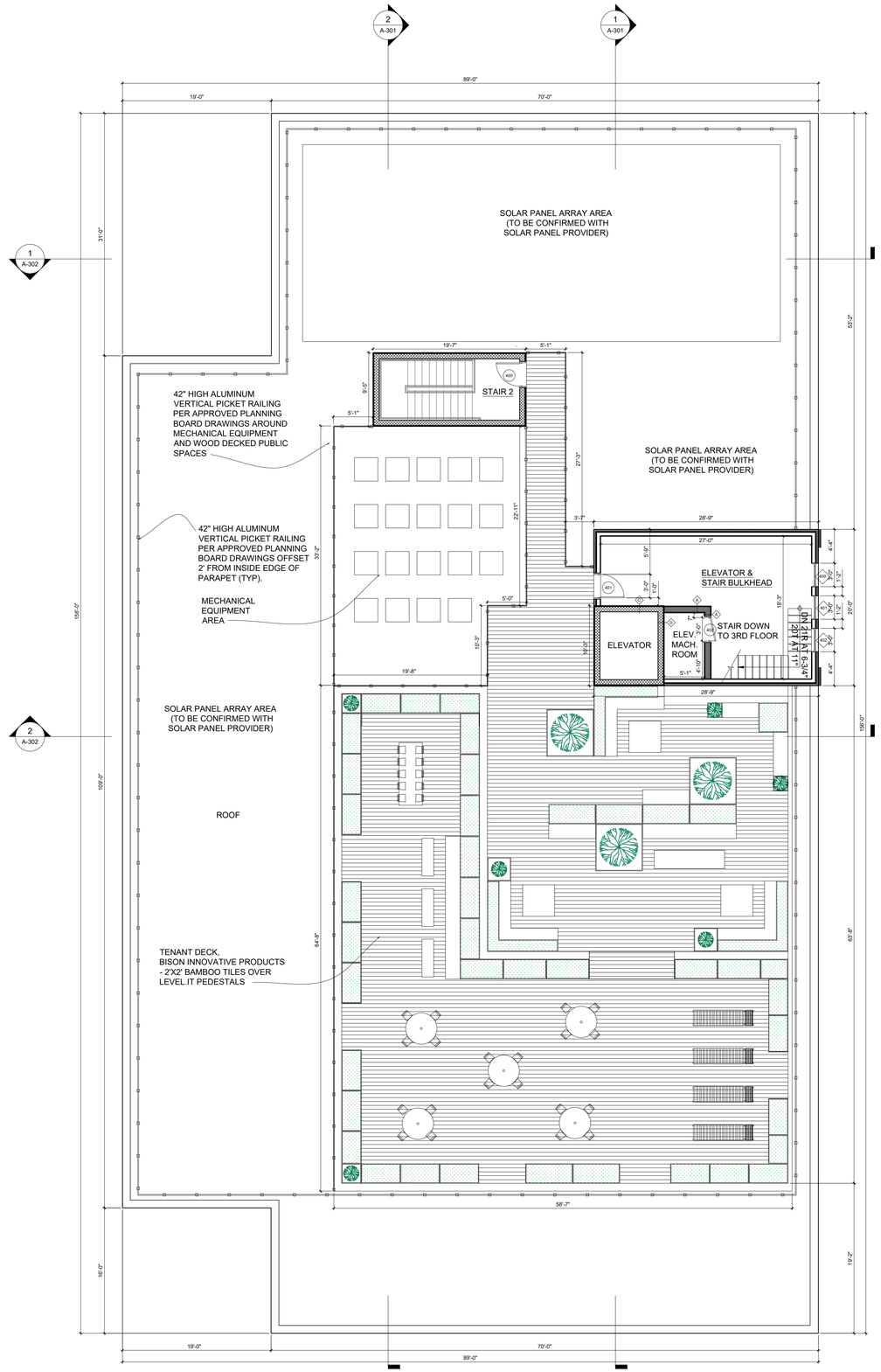
Landscape Designer:
Landscape Restorations
7 Creek Drive
Beacon, New York 12508

REGISTERED ARCHITECT JOSEPH 024882 STATE OF NEW YORK

364 Main Street
Beacon, New York
Scale: 1/8" = 1'-0"
May 25, 2021



1 Roof Drainage Plan
1/8" = 1'-0"



1 Roof Plan
1/8" = 1'-0"

A-003 APPROVED ROOF PLAN - FOR REFERENCE

DRAWING NAME AND NUMBER FOR 04-28-26 SUBMISSION ONLY

364 Main St

New Construction & Renovation

364 Main Street
Beacon, NY 12508

Number	Date	Revision
3	September 20, 2022	Building Permit Review Set
2	June 10, 2022	Building Permit Review Set
1	May 9, 2022	Progress Print

ARYEH SIEGEL
ARCHITECT

84 Mason Circle
Beacon, New York 12508
Phone: (845) 838-2490
Website: www.ajsarch.com

Roof and Roof Drainage Plan

Date: May 18, 2022

Scale: 1/8" = 1'-0"

Drawing Number: A-104

Bulk Zoning Regulations Table - Parking Lot

	Required Setbacks			Proposed Setbacks			Lot Depth Required	Lot Depth Existing	Allowable Building Height	Proposed Building Height	Lot Area	Proposed Floor Area
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Bulk Zoning Regulations Table

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5. Refuse pick-up will be limited to off-peak hours.
6. Delivery vehicles shall be limited to a maximum size of a Single Unit 30' box truck. To the maximum extend practicable, trucks for deliveries and moving purposes shall be coordinated to avoid conflicts with on-site parking operations.
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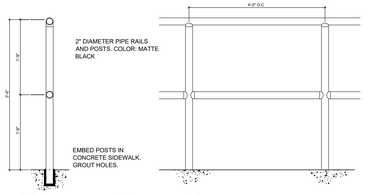
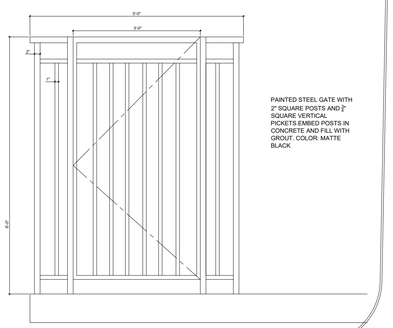


Fence Detail

Scale: NTS



Gate Detail

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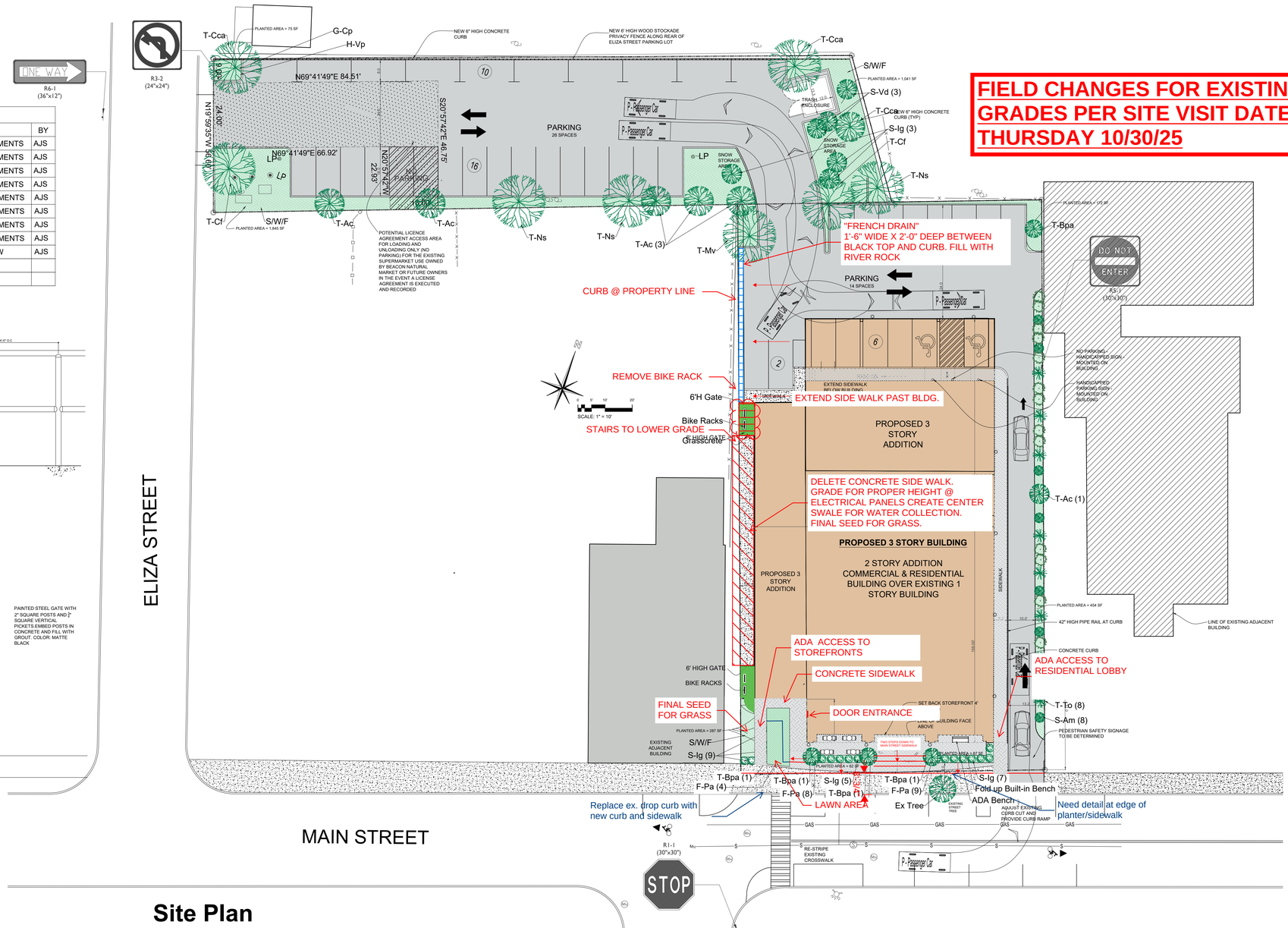

Site Plan

Scale: 1" = 20'

FIELD CHANGES FOR EXISTING GRADES PER SITE VISIT DATED THURSDAY 10/30/25

Index of Drawings

Subdivision Plat

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Sheet 3 of 14	Landscape Plan
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Sheet 5 of 14	Building Elevations & Renderings
Sheet 6 of 14 - UP.1	Utility Plan
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Sheet 10 of 14 - CD.1	Construction Details
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Sheet 12 of 14 - CD.3	Construction Details
Sheet 13 of 14 - ESC.1	Erosion & Sediment Control Plan
Sheet 14 of 14 - ESC.2	Erosion & Sediment Control Details

A004- APPROVED SITE PLAN FIELD SKETCH REVISION - FOR REFERENCE

Site Plan Application

Sheet 1 of 14 - Site Plan

DRAWINGS NAME AND NUMBER FOR 04-28-26 SUBMISSION ONLY

Owner:
O'Donnell & Son
P.O. Box 526
Fishkill, NY 12524

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

Site / Civil Engineer:
Day & Stokosa Engineering P.C
3 Van Wyck Lane
Wappingers Falls, New York 12590

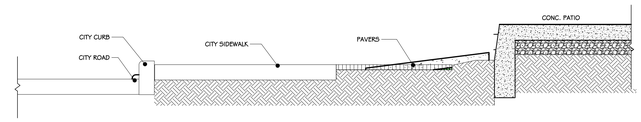
Landscape Designer:
Landscape Restorations
7 Creek Drive
Beacon, New York 12508

364 Main Street
Beacon, New York
Scale: 1" = 20'
October 4, 2021



1 AS-BUILT SITE PLAN
1/16" = 1'-0"

2 3D AS-BUILT SITE



3 SECTION 'AA'
1/2" = 1'-0"

CONSTRUCTION NOTES

REVISIONS:

NUM.	DATE	DESCRIPTION
1	06-30-26	UPDATED FOR JULY PLANNING BOARD MEETING

PLANNING BOARD SUBMISSION

PROJECT NORTH

KEY PLAN — WORK AREA

ADG ARCHITECTS
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WWW.ADGARCHITECT.COM
CONTACT@ADGARCHITECT.COM
ARCHITECTURE • PLANNING • INTERIORS

Project: 364 MAIN ST.
364 MAIN STREET BEACON, NY 12508

Drawing: AS-BUILT SITE PLAN

REGISTERED ARCHITECT JASON T. ANDERSON 033127 STATE OF NEW YORK
09/11/2026
Exp. 02/28/2029

Project:	26109	Date:	04/28/26
Drawn:	IDEA	Scale:	AS NOTED

Drawing Number: A-005.1

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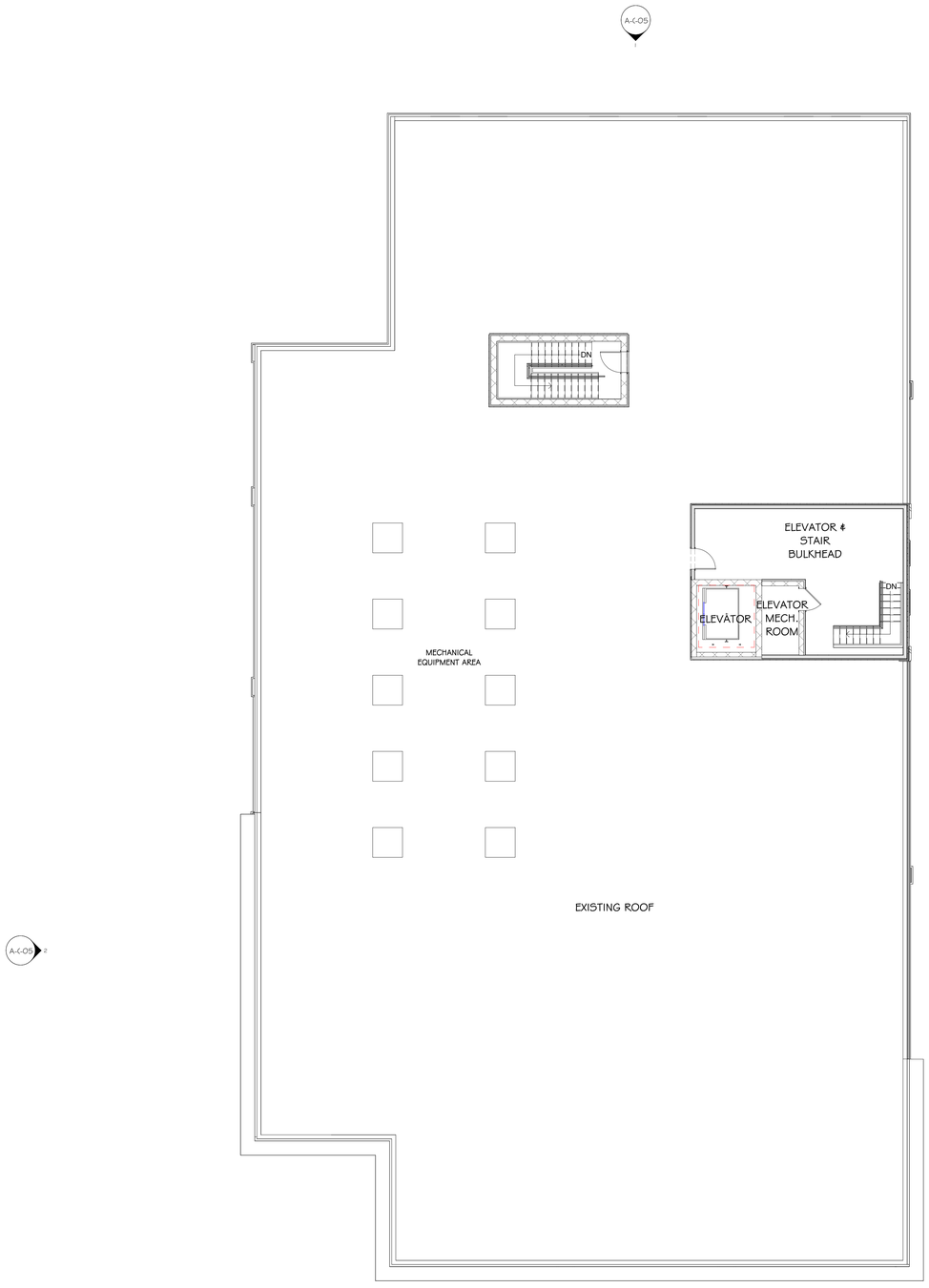

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0' 4' 8' 16' 32'

CONSTRUCTION NOTES

WALL LEGEND:

- NEW WALL
- EXISTING WALL
- DEMOLISH WALL
- FIRE RATED WALL

DOOR LEGEND:

- (B1DS) PERSONNEL DOOR TAG @ BASEMENT FL LEVEL
- (1DS) PERSONNEL DOOR TAG @ FIRST FL LEVEL
- (2DS) PERSONNEL DOOR TAG @ SECOND FL LEVEL
- (SDS) STOREFRONT TAG @ FIRST FL LEVEL
- (RDS) DEMOUNTABLE GLASS TAG @ FIRST FL LEVEL

REVISIONS:

NUM.	DATE	DESCRIPTION
1	06-30-26	UPDATED FOR JULY PLANNING BOARD MEETING

PLANNING BOARD SUBMISSION

PROJECT

PROJECT

N O R T H

KEY PLAN

WORK AREA

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Project: 364 MAIN ST.
364 MAIN STREET BEACON, NY 12508

Drawing: AS-BUILT ROOF PLAN

REGISTERED ARCHITECT JASON T. ANDERSON 033127 STATE OF NEW YORK
09/11/2026
Exp. 02/28/2029

Project: 26109	Date: 04/28/26
Drawn: IDEA	Scale: AS NOTED

Drawing Number: A-005.2

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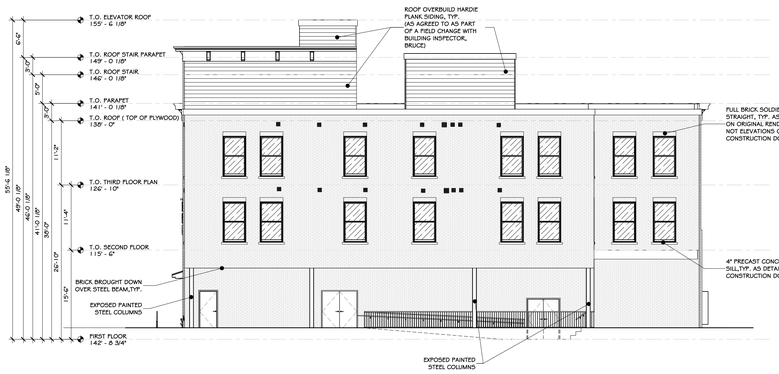
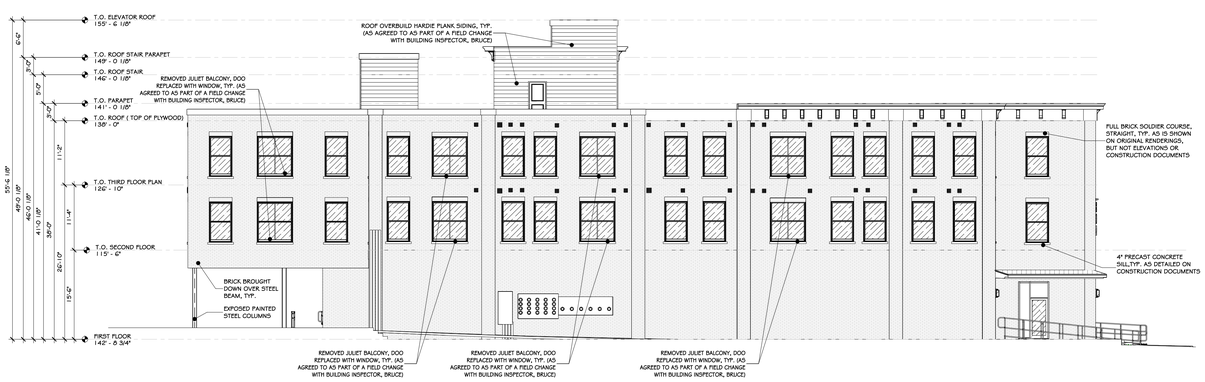
AS-BUILT PHOTOS- 04-20-26



AS-BUILT RENDERING SHOWING PROPOSED PATIO/ENTRY NOT YET CONSTRUCTED



1 AS-BUILT NORTH ELEVATION.
3/32" = 1'-0"



2 AS-BUILT WEST ELEVATION.
3/32" = 1'-0"



3 AS-BUILT SOUTH ELEVATION.
3/32" = 1'-0"



4 AS-BUILT EAST ELEVATION.
3/32" = 1'-0"

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CONSTRUCTION NOTES

1. NO CONSTRUCTION NOTES YET

REVISIONS:

NUM.	DATE	DESCRIPTION
1	06-30-26	UPDATED FOR JULY PLANNING BOARD MEETING

PLANNING BOARD SUBMISSION

PROJECT

NORTH

KEY PLAN

1 A-005 | 2 A-005 | 3 A-005 | 4 A-005

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Project: 364 MAIN ST.
364 MAIN STREET BEACON, NY 12508

Drawing: AS-BUILT ELEVATIONS AND IMAGES

REGISTERED ARCHITECT
JASON T. ANDERSON
033127
STATE OF NEW YORK
09/11/2026
Exp. 02/28/2029

Project:	26109	Date:	04/28/26
Drawn:	IDEA	Scale:	AS NOTED

Drawing Number: A-005

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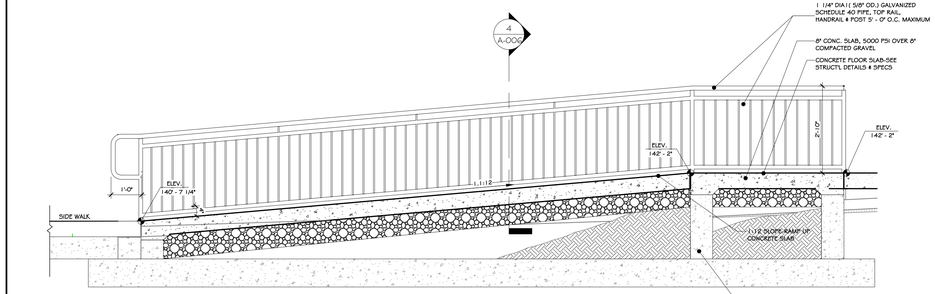
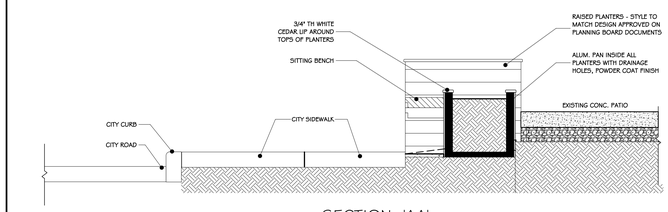
1 PROPOSED MAIN ST. PATIO/ACCESS PLAN
1/16" = 1'-0"

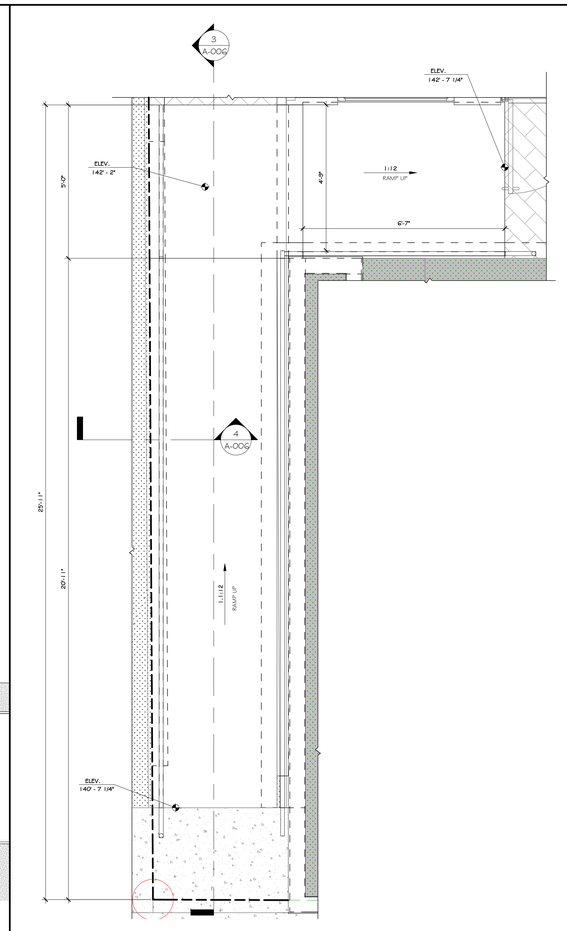
2 3D PROPOSED SITE



3 RAMP SECTION
1/2" = 1'-0"

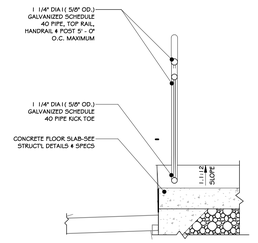


5 SECTION 'AA'
1/2" = 1'-0"



6 ENLARGED RAMP PLAN
1/2" = 1'-0"

CONSTRUCTION NOTES



4 HANDRAIL DETAILS
3/4" = 1'-0"

REVISIONS:

NUM.	DATE	DESCRIPTION
1.	06-30-26	UPDATED FOR JULY PLANNING BOARD MEETING
2.	07-28-26	ADJUSTMENTS BASED ON PLANNING BOARD COMMENTS
3.	08-05-26	ADJUSTMENTS BASED ON ARB COMMENTS

PLANNING BOARD SUBMISSION

PROJECT

N O R T H

KEY PLAN

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Project: 364 MAIN ST.
364 MAIN STREET BEACON, NY 12508

Drawing: PROPOSED PATIO/ACCESS PLAN

REGISTERED ARCHITECT JASON T. ANDERSON 033127 STATE OF NEW YORK
09/11/2026
Exp. 02/28/2029

Project:	26109	Date:	04/28/26
Drawn:	IDEA	Scale:	AS NOTED

Drawing Number: A-006

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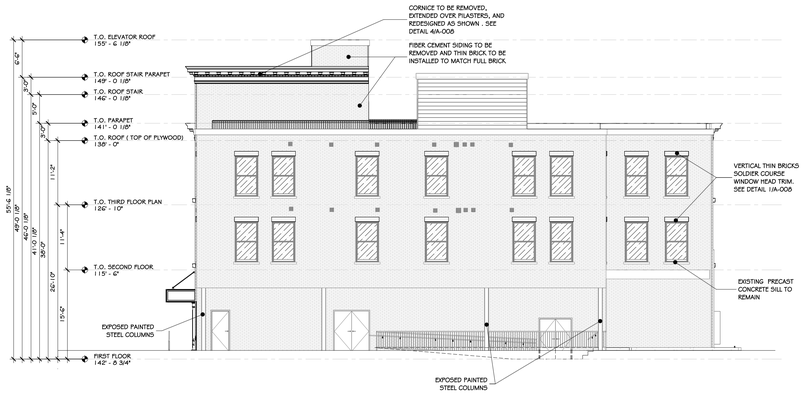
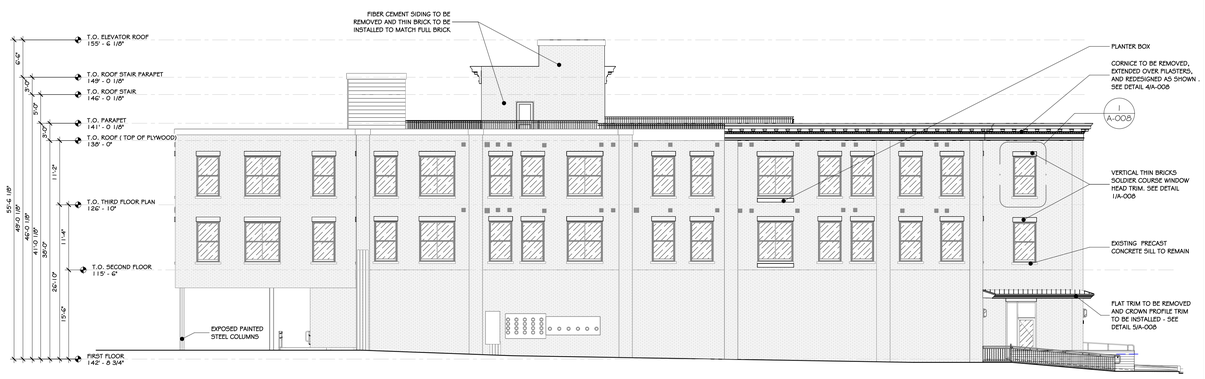
PROPOSED RENDERING

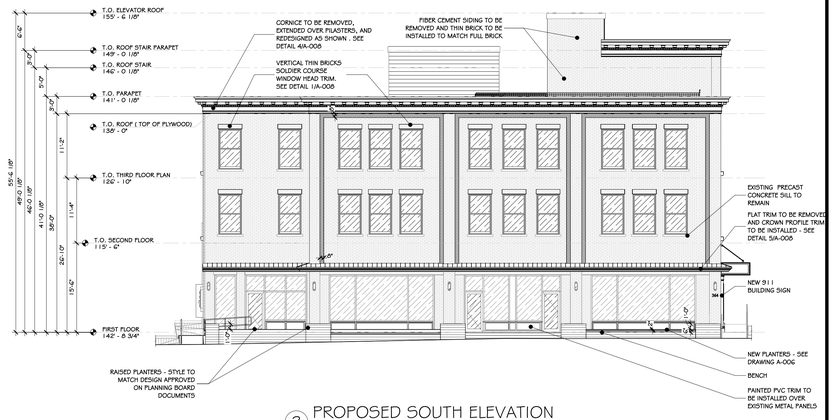




1 PROPOSED NORTH ELEVATION
3/32" = 1'-0"



2 PROPOSED WEST ELEVATION
3/32" = 1'-0"



3 PROPOSED SOUTH ELEVATION
3/32" = 1'-0"



4 PROPOSED EAST ELEVATION
3/32" = 1'-0"

REVISIONS:

NUM.	DATE	DESCRIPTION
1.	06-30-26	UPDATED FOR JULY PLANNING BOARD MEETING
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3.	08-05-26	ADJUSTMENTS BASED ON ARB COMMENTS

PLANNING BOARD SUBMISSION

PROJECT NORTH

KEY PLAN — 1 A-007, 2 A-007, 3 A-007, 4 A-007 — WORK AREA

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CONTACT@ADGARCHITECT.COM
ARCHITECTURE • PLANNING • INTERIORS

Project: 364 MAIN ST.
364 MAIN STREET BEACON, NY 12508

Drawing: PROPOSED ELEVATIONS AND RENDERING

REGISTERED ARCHITECT JASON T. ANDERSON 033127 STATE OF NEW YORK
08/11/2026
Exp. 02/28/2029

Project: 26109	Date: 04/28/26
Drawn: IDEA	Scale: AS NOTED

Drawing Number: A-007

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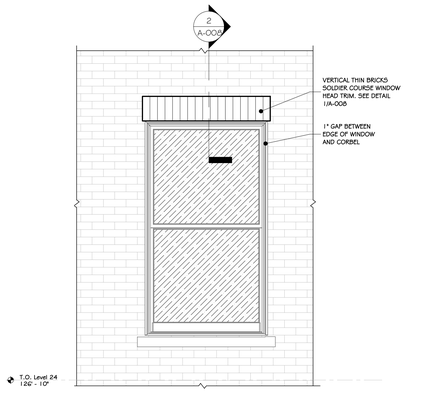
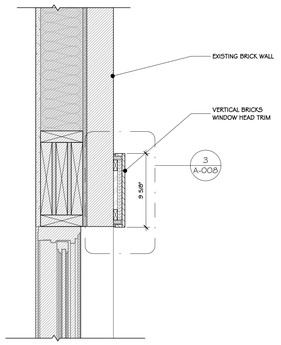
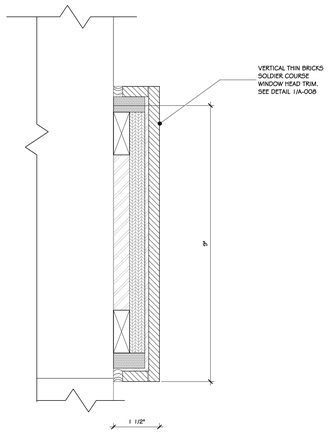


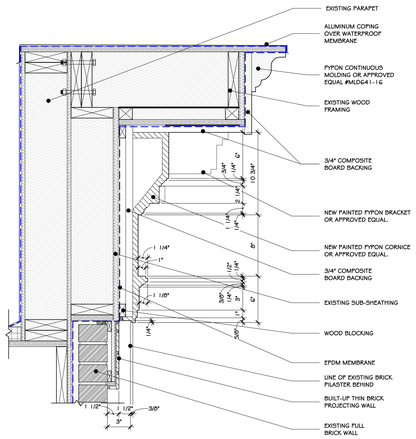
1 TYP. WINDOW HEAD ELEVATION DETAIL
1/2" = 1'-0"



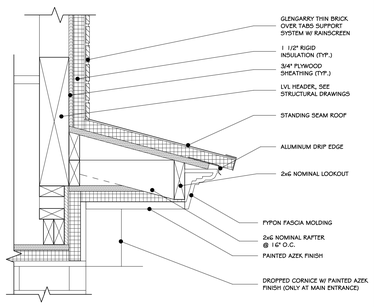
2 WINDOW HEAD TRIM SECTION DETAIL- 1
1 1/2" = 1'-0"



3 WINDOW HEAD TRIM DETAIL- 1
6" = 1'-0"



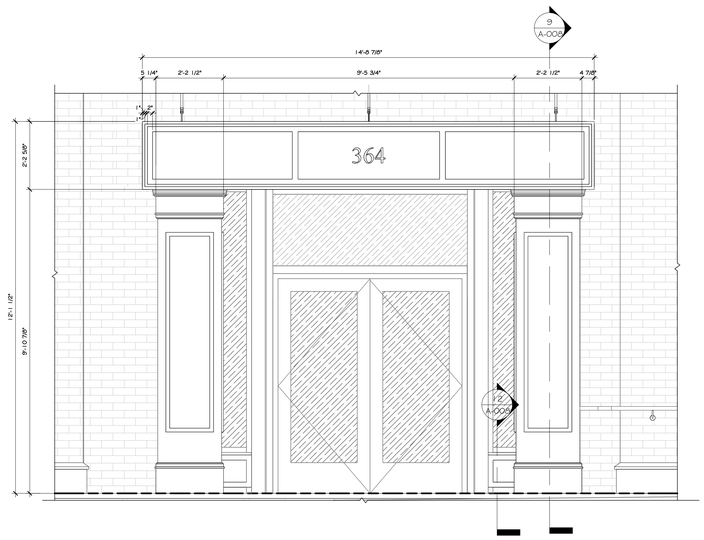
4 PARAPET CORNICE
1 1/2" = 1'-0"



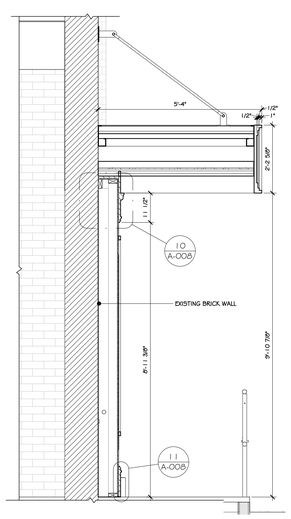
5 TYPICAL 1ST FLOOR OVERHANG DETAIL
1 1/2" = 1'-0"



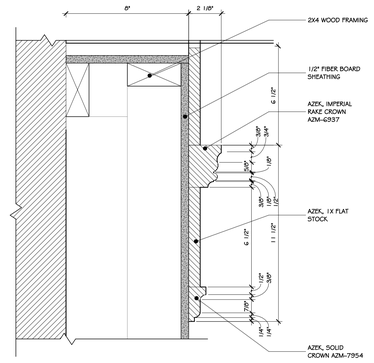




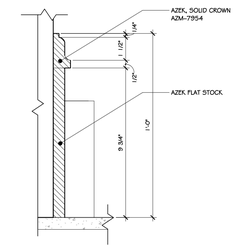
8 ENTRY ELEVATION
1/2" = 1'-0"



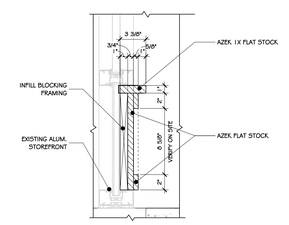
9 ENTRY SECTION
1/2" = 1'-0"



10 COLUMN CROWN DETAIL
3" = 1'-0"



11 COLUMN BASE DETAIL
3" = 1'-0"



12 STOREFRONT BASE DETAIL
1 1/2" = 1'-0"

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REVISIONS:

NUM.	DATE	DESCRIPTION
1.	06-30-26	UPDATED FOR JULY PLANNING BOARD MEETING
2.	07-28-26	ADJUSTMENTS BASED ON PLANNING BOARD COMMENTS
3.	08-05-26	ADJUSTMENTS BASED ON ARB COMMENTS

PLANNING BOARD SUBMISSION

PROJECT NORTH

KEY PLAN

WORK AREA

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O. 845.294.2724 | F. 888.305.6442
WWW.ADGARCHITECT.COM
CONTACT@ADGARCHITECT.COM
ARCHITECTURE • PLANNING • INTERIORS

Project: 364 MAIN ST.
364 MAIN STREET BEACON, NY 12508

Drawing: HEAD TRIM, CORNICE , OVERHANG DETAILS AND RENDERING

REGISTERED ARCHITECT
JASON T. ANDERSON
033127
STATE OF NEW YORK
Exp. 02/28/2029

09/11/2026

Project:	26109	Date:	05/26/26
Drawn:	IDEA	Scale:	AS NOTED

Drawing Number: A-008

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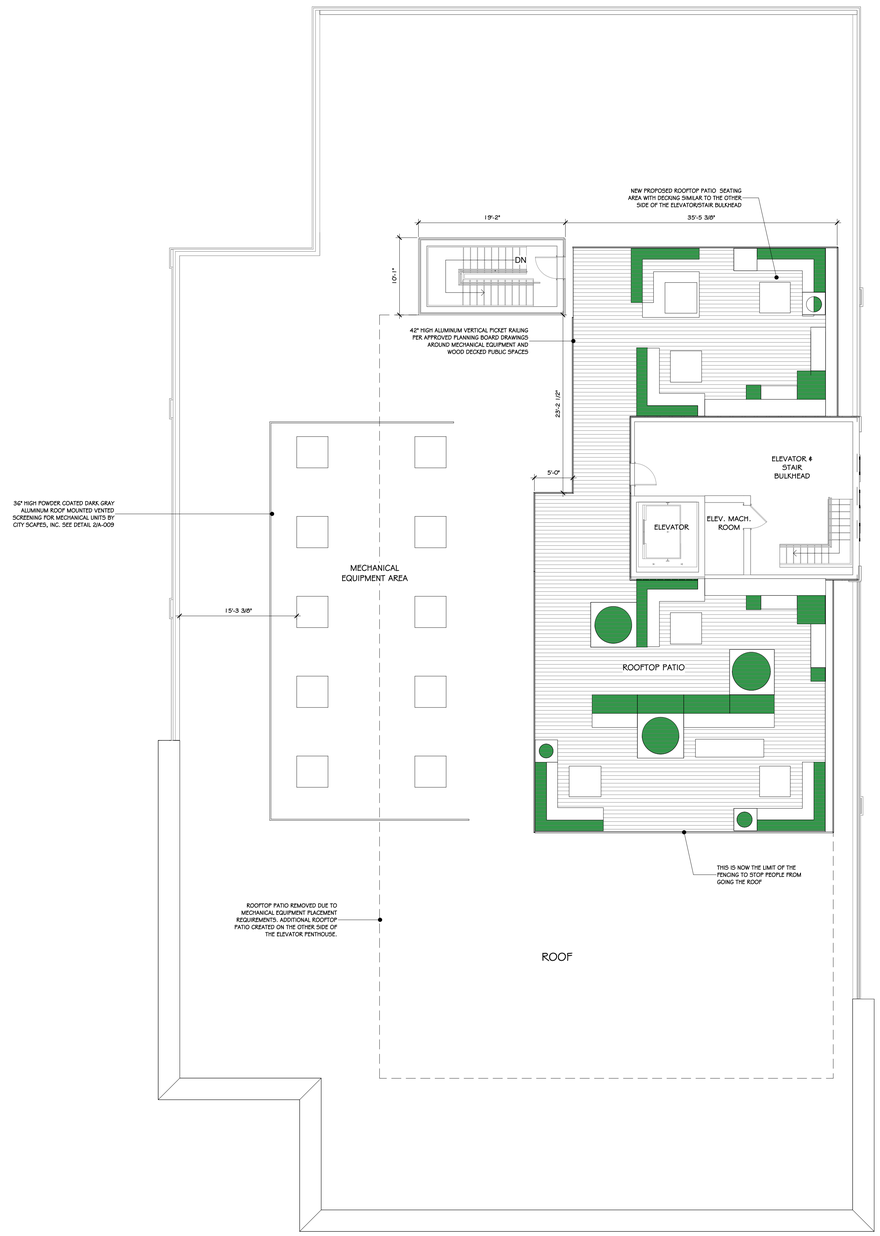
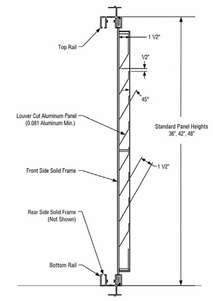


1 PROPOSED ROOF PLAN
1/8" = 1'-0"





4 A-C-07

2 ROOF MOUNTED SCREEN
1 1/2" = 1'-0"

CONSTRUCTION NOTES

REVISIONS:

NUM.	DATE	DESCRIPTION
1	06-30-26	UPDATED FOR JULY PLANNING BOARD MEETING
2	07-28-26	ADJUSTMENTS BASED ON PLANNING BOARD COMMENTS
3	08-05-26	ADJUSTMENTS BASED ON ARB COMMENTS

PLANNING BOARD SUBMISSION

PROJECT

NORTH

KEY PLAN

WORK AREA

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Project: 364 MAIN ST.
364 MAIN STREET BEACON, NY 12508

Drawing: PROPOSED ROOF PLAN



Project: 26109	Date: 04/28/26
Drawn: IDEA	Scale: AS NOTED
Drawing Number: A-009	

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Taylor M. Palmer
tpalmer@cuddyfeder.com

July 28, 2026

BY HAND DELIVERY AND E-MAIL
Hon. John Gunn, Chairman
and Members of the Planning Board
City of Beacon
One Municipal Plaza
Beacon, New York 12508

Re: 364 Main BCN LLC – Supplemental Submission in Advance of ARB Subcommittee Review
Application for Site Plan Amendments Involving Field Changes
Property: 364 Main Street, Beacon, New York 12508 (ID: 6054-29-006819)

Dear Chairman Gunn and Planning Board Members:

On behalf of 364 Main BCN LLC (the "Applicant"), the owner of the above-referenced Property, we respectfully submit this letter and the referenced enclosures in furtherance of the Applicant's pending Application for Amended Site Plan Approval (the "Application") related to certain amendments to the 2022 Site Plan Approval that was previously granted by this Board.

As this Board is aware, at the July 14, 2026 meeting, the Planning Board referred the Application to the Architectural Review Board Subcommittee (the "ARB Subcommittee") in order to review certain exterior architectural components of the project, including building materials and features on the building's façade. The ARB Subcommittee is scheduled to meet with the Applicant this Friday, July 31, 2026, at which time the Applicant's architect will review the proposed changes that are more fully shown on the enclosed amended Site Plan Set prepared by ADG Architects, dated April 28, 2026, last revised July 28, 2026 (the "Amended Site Plan"). The changes include removal and replacement of the existing cornices, adding shadow box detailing, among others.

RESPONSE TO COMMENTS AND UPDATES TO PROPOSED BUILDING PROGRAM FOR ARB SUBCOMMITTEE REVIEW:

The Applicant's architect has also prepared point-by-point responses to the comments contained in the City Engineer's Comment Memo dated July 10, 2026. *See* **Exhibit A** – ADG Architects Response to Comments Memo dated July 28, 2026, providing responses to the City Engineer's Comment Memo dated July 10, 2026.

Also enclosed, please find copies of the Applicant's updated spreadsheet, which the Planning Board initially requested in advance of the July 14, 2026 meeting. The enclosed spreadsheet now reflects the approved field changes, together with the changes/updates to the site plan that the Planning Board had a consensus on. This spreadsheet was updated directly in response to the Board's request regarding same.

INDEX OF ENCLOSURES:

In support of this Application, please find four (4) copies of the following documents:

Exhibit A: ADG Architects Response to Comments Memo dated July 28, 2026, providing responses to the City Engineer's Comment Memo dated July 10, 2026; and

Exhibit B: ADG Architects Updated Spreadsheet on Summary of Changes discussed with the Planning Board on July 14, 2026, dated July 28, 2026.

In further support of this Application, we respectfully submit four (4) copies of the updated Site Plans Set prepared by ADG Architects, dated April 28, 2026, last revised July 28, 2026. The Applicant looks forward to reviewing these proposed changes at the ARB Subcommittee meeting on July 31st.[1] We intend on supplementing this submission with revised plans and additional documentation following that date.

CONCLUSION:

We look forward to appearing before the Planning Board at its August 11th meeting, at which time we respectfully request that this Board consider setting the Public Hearing on the Application. Should the Planning Board or City Staff have any questions in the meantime, please do not hesitate to contact us.

Thank you in advance for your consideration in this matter.

Very truly yours,

Taylor M. Palmer

Enclosures

cc: Bryan Murphy, City Building Inspector
Jennifer L. Gray, Esq., Planning Board Attorney
John Russo, P.E., Planning Board Engineer
Neil J. Alexander, Esq.

[1] Note: In consideration of the ARB Subcommittee meeting being scheduled after the July 28, 2026 submission deadline for the August 11, 2026 Planning Board meeting, the Applicant respectfully reserves the right to make a further supplemental submission to this Board, inclusive of feedback from the ARB Subcommittee regarding the enclosed amended Site Plans.

ADG ARCHITECTS

ARCHITECTURE
PLANNING
INTERIORS

25 WALLKILL AVE ▪ MONTGOMERY ▪ NY 12549 | 845.294.2724 | CONTACT@ADGARCHITECT.COM

WWW.ADGARCHITECT.COM

RESPONSE LETTER

Project:	26109 Baxter 364 Main	**References:**	1. Lanc & Tully Review Letter (dated 07-10-26)
Date:	July 28, 2026	**Respondent:**	As noted below

Comment No.	Topic	Page No. / Section No.	Reviewer Comment	Respondent	Response
Lanc & Tully Review Letter (dated 07-10-26)					
1	General	Summary of Changes Spreadsheet	As requested by the Planning Board, the applicant's consultant has provided a table summarizing the changes that have occurred, why the change occurred, and the mitigation/proposed solution to rectify the unapproved changes. The Board will need to review these changes and determine if the proposed mitigation is acceptable, or if not, what the Board would like to see.	ADG	Please see the attached revised Summary of Changes spreadsheet. Items acknowledged by the Planning Board are shown in gray, and additional information is shown in red text.
2	General		During construction, it was found that the first-floor elevation was approximately 2 feet higher than originally anticipated. Based upon this elevation change the applicant has modified the plaza area to allow for ADA access, while also providing a raised plaza/patio area at the front of the building. As the CMS District has requirements for landscaping, the applicant should provide a comparison of the original landscaping area proposed on site in comparison to what is currently proposed/constructed. **Applicant's consultant has stated that a landscape architect has been retained and a new landscape plan will be provided with a future submission, comparing the originally approved layout with the current configuration.**	ADG	A Landscape Designer, Landscape Restorations, has been retained. A layout is being developed and will be provided for future submission.

ADG ARCHITECTS
25 WALLKILL AVE ▪ MONTGOMERY ▪ NY 12549 | 845.294.2724 | CONTACT@ADGARCHITECT.COM
ARCHITECTURE
PLANNING
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WWW.ADGARCHITECT.COM

26109 Baxter 364 Main St
Summary of Changes (July 28, 2026)

Source of Change	No.	Item / Architectural Feature	Original PB Approved Design	What it was Changed To (As-Built / Current State)	Reason for Change	Mitigation Strategy / Proposed Solution
On Approved Architectural CDs (Building Permit Set)	1	Brick Façade Articulation (Corbelling) and Cornice	Renderings showed corbelling to create the appearance of large, recessed brick panels. Actual elevations drawings approved by the PB did not show the same detailing as the renderings	The 'field' of brick between the pilasters was installed in a flat plane.	Corbelling was not shown or detailed on the Construction Documents (CDs) prepared by the previous architect. The contractor built the flat plane as detailed in the city-approved CDs.	Since the masonry shell is built, structural corbelling is no longer feasible without removing the brick. To eliminate the perceived flatness and try to more closely align with the original renderings, we propose to remove the cornice, extend it past the existing pilasters, and add a thin-brick 'corbel' at the inside corner of the pilasters and under the extended cornice.
	2	Side-Wall Vents (East Elevation)	Vents were not explicitly highlighted or detailed on PB renderings.	6" x 6" vents were installed in the side of the building.	Vents are required for individual apartment dryers, range hoods, and bathroom fans. There is no viable structural or mechanical alternative to venting these units. Mechanical construction documents showed these penetrating the sidewalls	Maintain as constructed. The vents were installed per the approved city-approved CDs. The newly proposed projected window headers are intended to draw the eye and distract from the visibility of these necessary vents.
	3	Exposed Covered Parking Structure (Rear)	CDs called for the steel beam to be painted and columns to be wrapped with Azek trim.	Steel beam is fully covered by the brick facade; columns are left exposed and painted black.	The CDs lacked proper waterproofing, insulation and flashing details for the beam. Continuing the brick past the beam permanently resolved the flashing issues. This was updated in the revised structural drawings dated 11.07.24.	Maintain as constructed. The black exposed columns do not appear to detract from the building's character, and the brick wrap on the beam was a necessary fix to address potential future issues.
	4	Window Sill Detailing	CDs called out a 6" cast stone sill in text, but the architectural details showed a 2-3/8" cast stone sill.	A standard 4" cast stone sill was installed.	To balance the conflicting details within the previous architect's CDs and maintain the design intent while working within standard full-brick construction parameters.	Maintain as constructed. The 4" sill is more appropriate than what was detailed in the CDs, and is a highly functional middle-ground that properly sheds water, meets the intent of the design, and aligns with the full-brick facade upgrade.

Approved Field Change with Building Official	**5**	Fire-Rated Windows (Stairwells & Rooftop Lobby)	Fire-rated windows were included in these locations.	Windows were removed and replaced with solid walls/brick.	Unforeseen technical difficulties related to the specialized fire-rated windows and the necessary interior detailing.	Maintain field change as constructed. This was reviewed and accepted as a field change by City building officials during construction. Additionally, we propose to add thin-brick shadow-box detailing to simulate the outline shown on the drawings.
	6	Juliet Balconies & Associated Doors	Juliet balconies with double doors on East and West elevations.	Balconies removed; replaced with standard operable double windows.	Balconies provided no usable outdoor space and introduced long-term safety and maintenance concerns (door leaks/drafts) without resident benefit. Contractor/developer noted that these create continued maintenace issues on other building that they own.	Maintain field change as constructed. Operable windows were installed at the same width and head height as the double doors, ensuring the building's scale and fenestration rhythm remained consistent. Additionally, we propose to add juliet balony railings at the four windows along the east side of the building, which are the most visible to Main Street.
	8	Site Grading, Front Patio, & ADA Ramps	Front patio layout with specific ramp and stair configuration.	Significant modifications made to the front entry patio, ramp, and stairs.	Severe grade discrepancies between the building's existing finished floor height and the Main Street sidewalk that were not accurately represented on the approved PB drawings or the city-approved CDs.	Create two code-compliant ADA accessible ramps and monument stairs. Installation of ADA wheelchair handrails at the curb location on the east side ADA ramp. We also propose to continue to install and expand the approved planters that were shown on the original planning board drawings.
	10	"Shadow Boxes" (East Side, First Floor)	Assumed to be brick infill detailing by the PB.	Detail not found on PB drawings or CDs..	Clarified this ambiguity onsite with the Building Inspector that the rectangles on the approved drawings were never detailed, described, or noted in any way.	No physical mitigation required. This is listed simply to clarify for the record that no detail was skipped. However, we propose to add thin-brick shadow-box detailing to replicate the perceived drawing intent.
	12	Landscaping	Plantings with grass beds	Planting areas in river rockbeds with grass areas	Per site visit, Buuilding Official request.	Adjusted based on further discussions with City officials- Maintain as constructed. • Removed rocks from area adjacent to the mosque fence on Eliza Street. • Removed pavers and associated improvements at the front bike rack area and replace with seeded lawn

Applicant/Contractor Change	**16**	Storefront Articulation (Base Panel)	Stick-built custom wood windows with pressure-treated decorative wood trim along the base.	Aluminum storefront windows with an 18-inch high flat insulated metal panel along the bottom.	Aluminum storefront was selected to ensure durability in a high-traffic retail environment and to eliminate the long-term maintenance/rot concerns of wood at street grade.	Install painted PVC trim over the lower insulated aluminum storefront panels to match the design shown in the CDs. This will match the design intent of the wood panels shown on the city-approved CDs, while maintaining commercial-grade durability.
	17	Trim Profile at Commercial 'Eyebrow' Roof	A 'Crown' profile trim was shown at the commercial storefront 'eyebrow' roof.	Standard flat trim was installed.	The specific trim profile shown on the approved drawings does not exist as a manufactured product, or even a built-up trim profile. Flat trim was substituted in the field.	We propose removing the flat trim and installing a Crown profile trim to restore the original architectural expression and shadow lines.
	18	Window Head Detailing	PB renderings showed straight brick head; PB elevations showed arched heads. City-approved CDs called out an arched Azek profile.	A straight full-brick soldier course window head detail was installed.	The contractor opted for a straight soldier course brick head, feeling that it was compatible with the building's overall character and the full-brick masonry upgrade.	We propose to install painted PVC Fypon window headers toto align with the approved drawings.
	19	Residential Entrance (Main Street)	A projected entrance canopy was specified.	The canopy was removed, and a recessed entryway was provided.	It was felt that the projected canopy was going to be a maintenance issue, and the recessed entryway would achieve the same technical solution, creating a permanent, integrated arrival point that protects residents from the weather	To address architectural detailing associated with a primary entrance point, we are now proposing to add the canopy and construct flanking pilasters to more closely align with the design and proportions of the original design.
	20	Roof Top Patio Layout & HVAC	A specific rooftop deck layout for tenant outdoor space.	Layout adjusted, with portions of the patio closest to Main Street relocated towards the rear.	To accommodate the necessary placement of two rows of HVAC condensers and centralized rooftop utility enclosures (doghouses).	A proposed adjusted layout has been provided. The new design includes screening of the HVAC units, while creating two independent usable rooftop areas connected by both means of egress.
	21	Building Mounted 911 Signage	Undefined	The existing '911' signage was installed as simple block numbers	The contractor installed the 911 signage for code compliance	Remove the existing signage and install new, 911 signage as detailed on proposed drawing A-007.

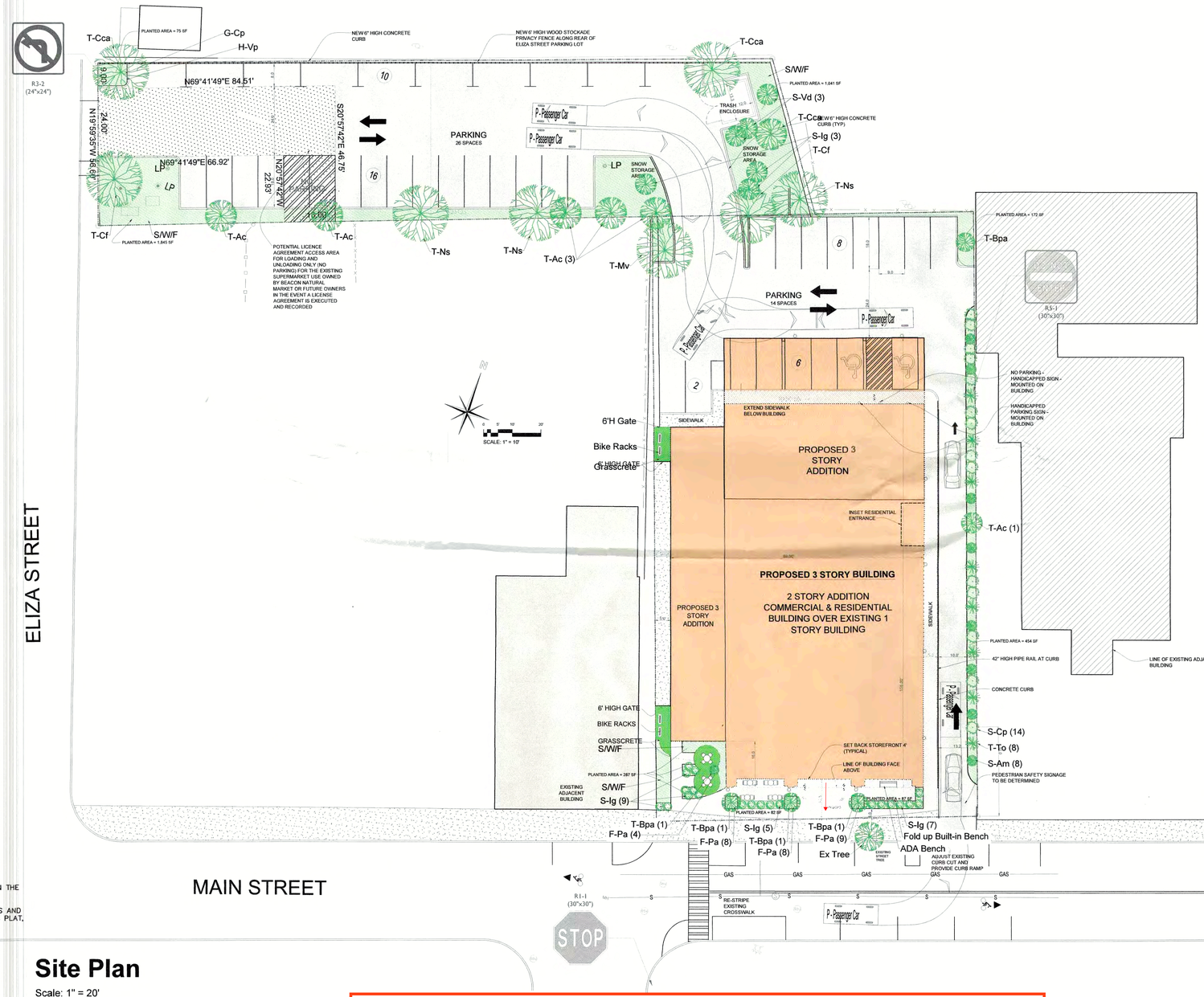
Completed Items	7	~~Stair & Elevator Bulkhead Cladding~~	~~Thin brick cladding.~~	~~Fiber cement board siding (Hardie Plank) was installed.~~	~~Substituted as a material adjustment and coordinated directly with the building department during the construction phase.~~	~~Despite field approval, with the exception of the rear stair tower, we propose removing the fiber cement siding and installing thin brick cladding to restore material continuity with the primary façade.~~
	9	~~French Drain (Rear Parking Lot)~~	~~Paved parking surface.~~	~~A French drain was installed on the west side of the parking lot. (no outlet)~~	~~Added as a method to convey surface water runoff in a small area to ground below; agreed upon onsite with the City Building Inspector and Project Engineer.~~	~~Remove the French drain and revert to a paved area as originally designed~~
	11	~~Dumpster Enclosure~~	~~Masonry with 20 ga metal gates~~	~~Wood Fence enclosure to match Wood fence at property line~~	~~Field Change with Building Inspector~~	~~Keep as installed~~
	13	~~Eliza St Entrance~~	~~Adjustments to Eliza Street Entrance were not shown on the approved planning board documents~~	~~• Moved existing curb cut on South side of entrance to align with entrance curb • South side curb cut remained • Saw cut new asphalt to Concrete sidewalk line from end of curb to end curb at parking lot entrance • Removed existing concrete at existing drop curb at parking lot entrance~~		~~Performed as requested by engineer. Completed.~~
	14	~~Full Brick Masonry Upgrade~~	~~Thin brick veneer was specified and approved.~~	~~A full-depth brick masonry system was installed.~~	~~To address concerns with thin brick maintenance and durability, and ensure material authenticity, structural integrity, and long-term durability of the façade, full brick was installed~~	~~Maintain as constructed. This represents a substantial, higher-quality material upgrade from the originally approved PB plans.~~
	15	~~Site Plan Revisions~~	~~Steps and gates shown~~	~~• Removed the rear concrete steps and gates adjacent to the mosque that were shown on the original site plan drawings~~	~~Per site visit, City engineer request.~~	~~• Remove the rear concrete steps adjacent to the mosque. • Reflect the extension of the planting bed to the curb at the Main Street driveway entrance.~~

Bulk Zoning Regulations Table - Parking Lot

	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'	NA	NA	NA	100'	242.6'	2.5 | 35'	NA	0.85	NA

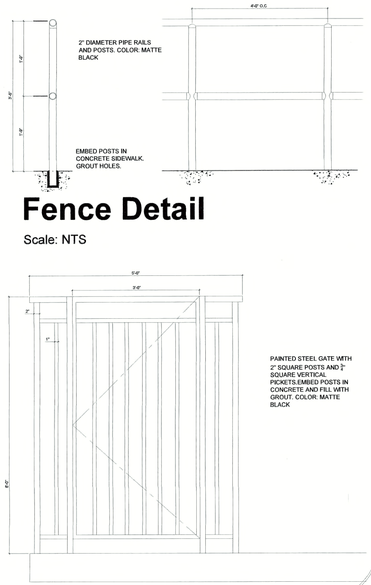
Bulk Zoning Regulations Table

	Required Setbacks			Proposed Setbacks			Main Street Frontage Required	Main Street Frontage Required	Minimum Lot Depth	Proposed Lot Depth	Allowable Building Height	Proposed Building Height	Minimum Landscaped Area	Proposed Landscaped Area	Lot Area	Proposed Floor Area
	Front	Side	Rear	Front	Side	Rear										
Zoning District																
CMS*	0'-10'	0'	20'	14.78'	18' exist 5'	44'	80%	89%	75'	264.37'	3 | 38' & 4th Story w/ Special Permit	3 Stories 38'	10% 5% if open to public	11%	0.85 acres	35,000 SF



Site Plan

Scale: 1" = 20'



Fence Detail

Scale: NTS

Gate Detail

Scale: NTS

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE 12th DAY OF April, 2022, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS 15th DAY OF September, 20____, BY

CHAIRMAN

SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	07/27/21	REVISED PER PLANNING BOARD COMMENTS	AJS
2	08/27/21	REVISED PER PLANNING BOARD COMMENTS	AJS
3	10/26/21	REVISED PER PLANNING BOARD COMMENTS	AJS
4	11/30/21	REVISED PER PLANNING BOARD COMMENTS	AJS
5	12/28/21	REVISED PER PLANNING BOARD COMMENTS	AJS
6	01/25/22	REVISED PER PLANNING BOARD COMMENTS	AJS
7	02/22/22	REVISED PER PLANNING BOARD COMMENTS	AJS
8	03/29/22	REVISED PER PLANNING BOARD COMMENTS	AJS
9	06/30/22	FOR FINAL CONSULTANT REVIEW	AJS
10	09/01/22	PLANNING BOARD CHAIRMAN SIGNATURE	AJS



Location Plan

Not to Scale

Zoning Summary

Zoning District:	CMS (Central Main Street) & T (Transition Zone)
Tax Map No.:	6054-29-006819 (364 Main Street) & 6054-29-000836 (Eliza Street)
Lot Area:	0.54 Acres & 0.31 Acres
Building Footprint:	12,632 SF
Historical Overlay District:	No
Parking Overlay District:	Partial, not the portion of the lot in the T District.
Existing Use:	Vacant (364 Main Street) & Parking Lot
Proposed Use:	Mixed-Use: Retail / Residential

Parking & Loading

Use & Parking Requirements	Proposed Area	Current Parking Requirement
Residential		
(1) space per unit (CMS)	(20) Apartments	20 parking spaces
Commercial		
(2) spaces per 1,000 SF for Retail	8,892 sf	18 parking spaces
Total Required		**38 parking spaces**
Total Provided		**42 parking spaces**

Notes:

1. Commercial hours are 7am – 12am, Monday through Sunday, inclusive.
2. No signage is proposed as part of this application. Retail tenants will apply separately to the Planning Board for their own signage
3. The landscaped area is approximately 11%. The overall measured landscaped area is 4,043 square feet. The overall site area is 36,954 square feet. 4,043/36,954 = 0.1094. The measured landscaped area includes all planted areas on the site shaded in green. Note that the requirement for landscaping can be reduced to 5% if the landscaped area is accessible to the public. Since a large portion of the landscaped area is accessible to the public, the Applicant contends that the landscaping requirement is met by both the 11% total landscape coverage, and the reduced 5% requirement.
4. The project will comply with the 10% below-market-rate requirements in Article IVB, Affordable-Workforce Housing.
5. Refuse pick-up will be limited to off-peak hours.
6. Delivery vehicles shall be limited to a maximum size of a Single Unit 30' box truck. To the maximum extend practicable, trucks for deliveries and moving purposes shall be coordinated to avoid conflicts with on-site parking operations.
7. All landscaping shown on the Site Plan shall be maintained in a vigorous growing condition for the duration of the use and shall be trimmed so as to not interfere with pedestrian use of the sidewalk. All plant not so maintained shall be replaced with new plants of comparable size and quality at the beginning of the next immediately following growing season in compliance with the Site Plan, at the sole cost and expense of the property owner.

Index of Drawings

Subdivision Plat

Sheet 1 of 14	Site Plan
Sheet 2 of 14	Existing Conditions & Demolition Plan
Sheet 3 of 14	Landscape Plan
Sheet 4 of 14	Building Plans
Sheet 5 of 14	Building Elevations & Renderings
Sheet 6 of 14 - UP.1	Utility Plan
Sheet 7 of 14 - LP.1	Lighting Plan
Sheet 8 of 14 - VM.1	Refuse Truck Movement Plan
Sheet 9 of 14 - VM.2	30' Truck Movement Plan
Sheet 10 of 14 - CD.1	Construction Details
Sheet 11 of 14 - CD.2	Construction Details
Sheet 12 of 14 - CD.3	Construction Details
Sheet 13 of 14 - ESC.1	Erosion & Sediment Control Plan
Sheet 14 of 14 - ESC.2	Erosion & Sediment Control Details

A-001 APPROVED SITE PLAN - FOR REFERENCE

DRAWING NAME AND NUMBER FOR 04-28-26 SUBMISSION ONLY

Site Plan Application

Sheet 1 of 14 - Site Plan

Owner:
O'Donnell & Son
P.O. Box 526
Fishkill, NY 12524

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

Site / Civil Engineer:
Day & Stokosa Engineering P.C
3 Van Wyck Lane
Wappingers Falls, New York 12590

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

REGISTERED ARCHITECT ARYEH JOSEPH SIEGEL 024882 STATE OF NEW YORK

364 Main Street
Beacon, New York
Scale: 1" = 20'
October 4, 2021

Include this page



Elevation: South

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



Elevation: East

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



Elevation: North

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



Elevation: West

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

NOTE THAT THE RENDERINGS ARE ARTISTIC INTERPRETATIONS OF THE PROPOSED BUILDING DESIGN TO AID IN REVIEWING THE PROPOSED DESIGN OF THE BUILDINGS ONLY, AND ARE NOT INTENDED AS DETAILED REPRESENTATIONS OF THE FINAL DESIGN OR OF SITE CONDITIONS. CHANGES TO WINDOW & DOOR PLACEMENT MAY OCCUR IN THE FINAL CONSTRUCTION DOCUMENTS TO SUIT TENANT LAYOUTS AND BUILDING CODE REQUIREMENTS. THE ELEVATION DRAWINGS SHOWN ON THIS SHEET INDICATE THE APPROVED DESIGN, AND IN THE CASE OF ANY DISCREPANCY BETWEEN DESIGN ELEMENTS DEPICTED ON THE ELEVATIONS AND RENDERINGS, THE ELEVATIONS SHALL GOVERN.



View: From Main Street

Not to Scale



View: From Main Street

Not to Scale



View: From Main Street

Not to Scale



View: Main Street

Not to Scale

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE 19th DAY OF April 2022, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS 13th DAY OF September, 2022, BY

CHAIRMAN

SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

REVISIONS:

NO.	DATE	DESCRIPTION	BY
1	07/27/21	REVISED PER PLANNING BOARD COMMENTS	AJS
2	10/26/21	REVISED PER PLANNING BOARD COMMENTS	AJS
3	10/26/21	REVISED PER PLANNING BOARD COMMENTS	AJS
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7	02/22/22	REVISED PER PLANNING BOARD COMMENTS	AJS
8	03/29/22	REVISED PER PLANNING BOARD COMMENTS	AJS
9	06/30/22	FOR FINAL CONSULTANT REVIEW	AJS
10	09/01/22	PLANNING BOARD CHAIRMAN SIGNATURE	AJS

A-002 APPROVED ELEVATIONS - FOR REFERENCE

DRAWING NAME AND NUMBER FOR 04-28-26 SUBMISSION ONLY

Site Plan Application

Sheet 5 of 14 - Building Elevations

Owner:
O'Donnell Construction Corp.
P.O. Box 526
Fishkill, NY 12524

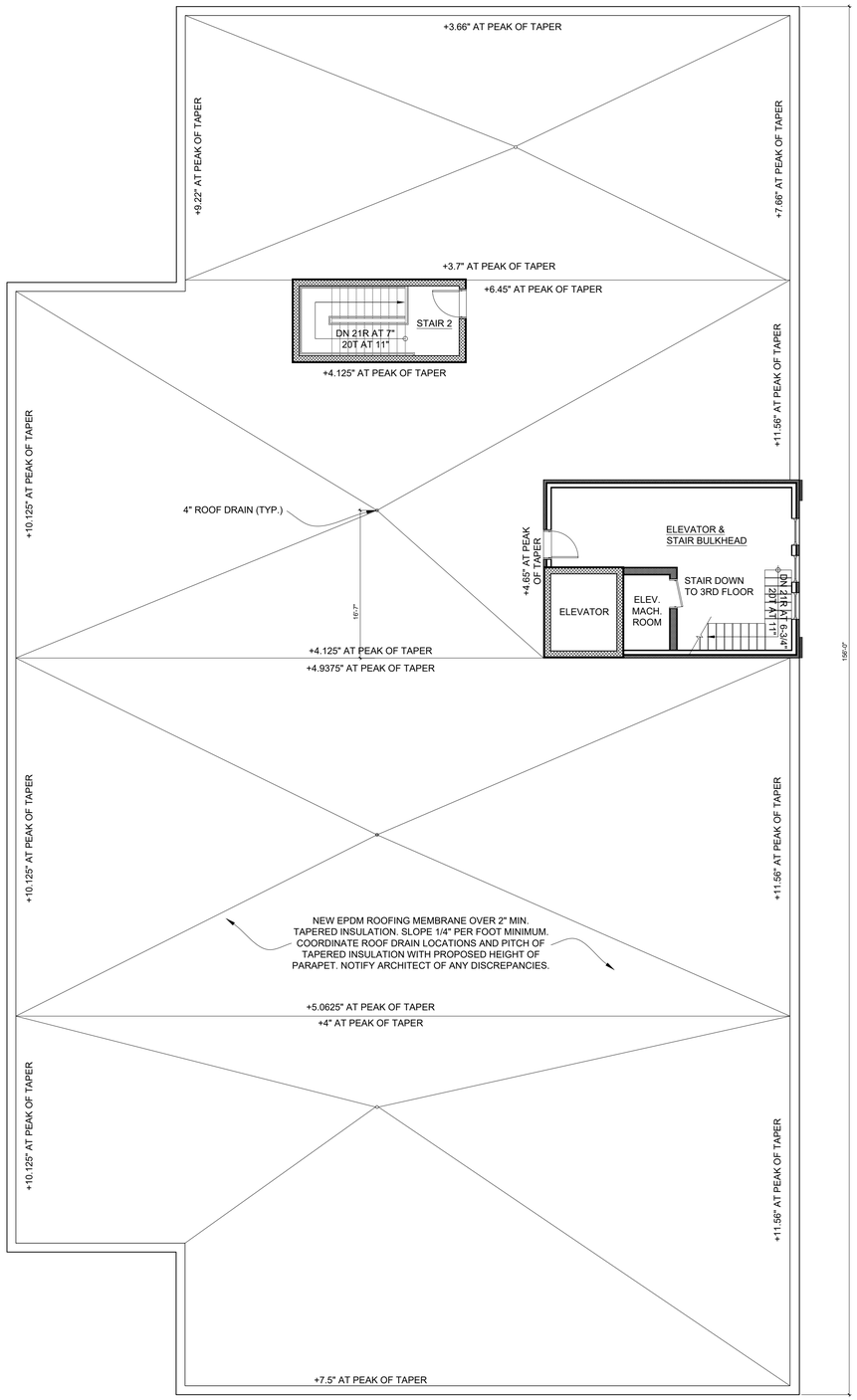
Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

Site / Civil Engineer:
Day & Stokosa Engineering P.C
3 Van Wyck Lane
Wappingers Falls, New York 12590

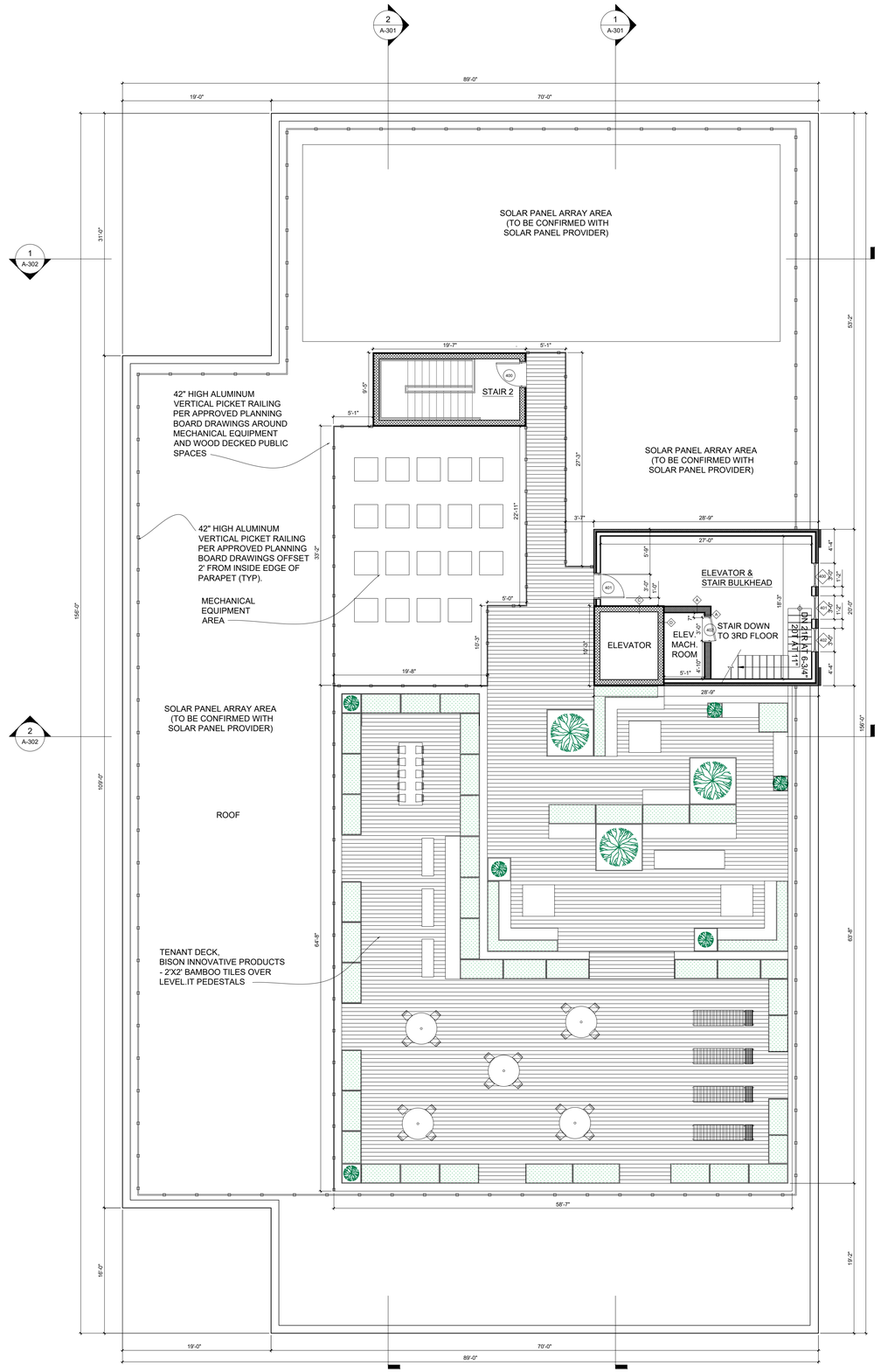
Landscape Designer:
Landscape Restorations
7 Creek Drive
Beacon, New York 12508

REGISTERED ARCHITECT STEVEN JOSEPH SIEGEL 024892 STATE OF NEW YORK

364 Main Street
Beacon, New York
Scale: $\frac{1}{8}$" = 1'-0"
May 25, 2021



1 Roof Drainage Plan
1/8" = 1'-0"



1 Roof Plan
1/8" = 1'-0"

A-003 APPROVED ROOF PLAN - FOR REFERENCE

DRAWING NAME AND NUMBER FOR 04-28-26 SUBMISSION ONLY

364 Main St

New Construction & Renovation

364 Main Street
Beacon, NY 12508

Number	Date	Revision
3	September 20, 2022	Building Permit Review Set
2	June 10, 2022	Building Permit Review Set
1	May 9, 2022	Progress Print

ARYEH SIEGEL
ARCHITECT

84 Mason Circle
Beacon, New York 12508
Phone: (845) 838-2490
Website: www.ajsarch.com

Roof and Roof Drainage Plan

Date: May 18, 2022

Scale: 1/8" = 1'-0"

Drawing Number: A-104

Bulk Zoning Regulations Table - Parking Lot

	Required Setbacks			Proposed Setbacks			Lot Depth Required	Lot Depth Existing	Allowable Building Height	Proposed Building Height	Lot Area	Proposed Floor Area
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Bulk Zoning Regulations Table

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Not to Scale

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Parking & Loading

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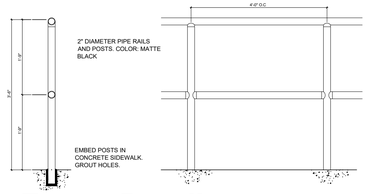
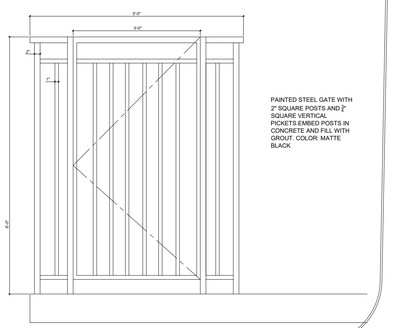
REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	07/27/21	REVISED PER PLANNING BOARD COMMENTS	AJS
2	08/27/21	REVISED PER PLANNING BOARD COMMENTS	AJS
3	10/26/21	REVISED PER PLANNING BOARD COMMENTS	AJS
4	11/30/21	REVISED PER PLANNING BOARD COMMENTS	AJS
5	12/28/21	REVISED PER PLANNING BOARD COMMENTS	AJS
6	01/25/22	REVISED PER PLANNING BOARD COMMENTS	AJS
7	02/22/22	REVISED PER PLANNING BOARD COMMENTS	AJS
8	03/29/22	REVISED PER PLANNING BOARD COMMENTS	AJS
9	06/30/22	FOR FINAL CONSULTANT REVIEW	AJS



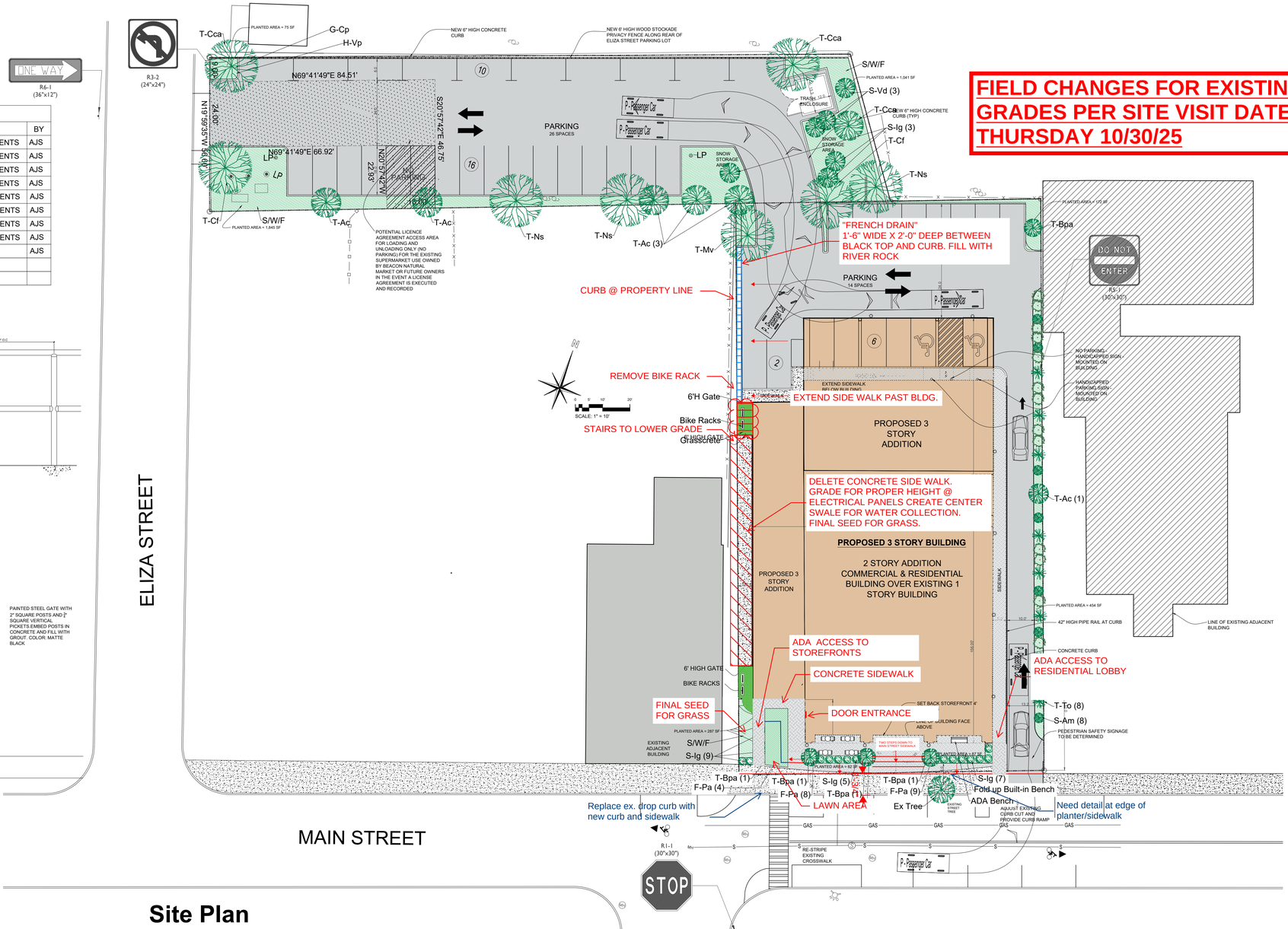
Fence Detail

Scale: NTS



Gate Detail

Scale: NTS



Site Plan

Scale: 1" = 20'

FIELD CHANGES FOR EXISTING GRADES PER SITE VISIT DATED THURSDAY 10/30/25

Index of Drawings

Subdivision Plat

Sheet 1 of 14	Site Plan
Sheet 2 of 14	Existing Conditions & Demolition Plan
Sheet 3 of 14	Landscape Plan
Sheet 4 of 14	Building Plans
Sheet 5 of 14	Building Elevations & Renderings
Sheet 6 of 14 - UP.1	Utility Plan
Sheet 7 of 14 - LP.1	Lighting Plan
Sheet 8 of 14 - VM.1	Refuse Truck Movement Plan
~~Sheet~~ 9 of 14 - VM.2	30' Truck Movement Plan
Sheet 10 of 14 - CD.1	Construction Details
Sheet 11 of 14 - CD.2	Construction Details
Sheet 12 of 14 - CD.3	Construction Details
Sheet 13 of 14 - ESC.1	Erosion & Sediment Control Plan
Sheet 14 of 14 - ESC.2	Erosion & Sediment Control Details

A004- APPROVED SITE PLAN FIELD SKETCH REVISION - FOR REFERENCE

Site Plan Application

Sheet 1 of 14 - Site Plan

DRAWINGS NAME AND NUMBER FOR 04-28-26 SUBMISSION ONLY

Owner:
O'Donnell & Son
P.O. Box 526
Fishkill, NY 12524

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

Site / Civil Engineer:
Day & Stokosa Engineering P.C
3 Van Wyck Lane
Wappingers Falls, New York 12590

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

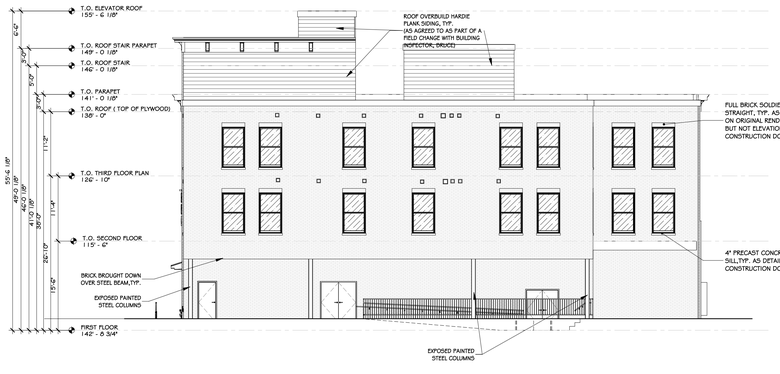
364 Main Street
Beacon, New York
Scale: 1" = 20'
October 4, 2021



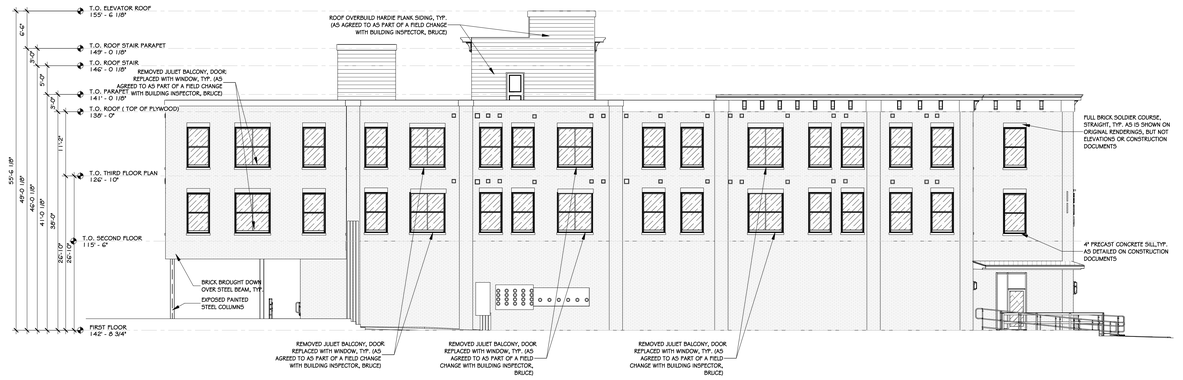
AS-BUILT PHOTOS- 04-20-26



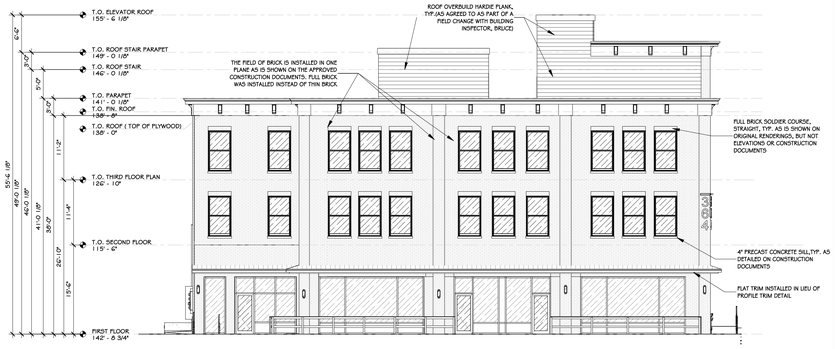
AS-BUILT RENDERING SHOWING PROPOSED PATIO/ENTRY NOT YET CONSTRUCTED



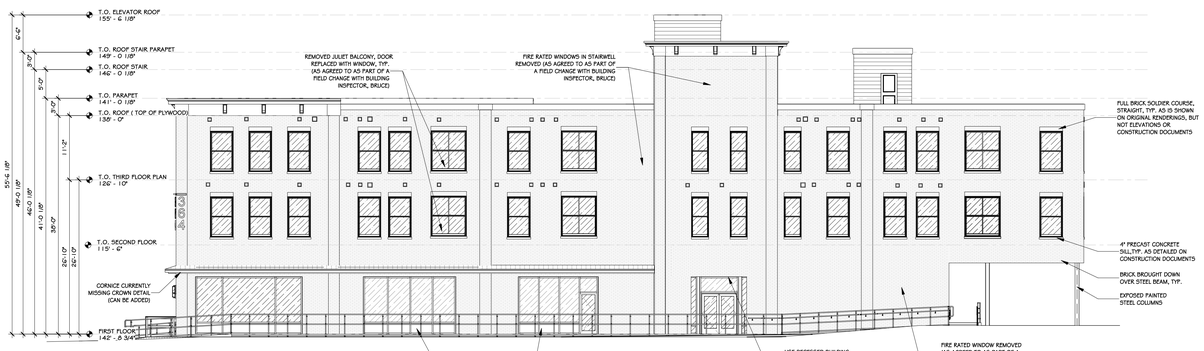
1 AS-BUILT NORTH ELEVATION.
3/32" = 1'-0"



2 AS-BUILT WEST ELEVATION.
3/32" = 1'-0"



3 AS-BUILT SOUTH ELEVATION.
3/32" = 1'-0"



4 AS-BUILT EAST ELEVATION.
3/32" = 1'-0"

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CONSTRUCTION NOTES

1. NO CONSTRUCTION NOTES YET

REVISIONS:

NUM.	DATE	DESCRIPTION
1	06-30-26	UPDATED FOR JULY PLANNING BOARD MEETING

PLANNING BOARD SUBMISSION

PROJECT NORTH

KEY PLAN — WORK AREA

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CONTACT@ADGARCHITECT.COM
ARCHITECTURE • PLANNING • INTERIORS

Project: 364 MAIN ST.
364 MAIN STREET BEACON, NY 12508

Drawing: AS-BUILT ELEVATIONS AND IMAGES

REGISTERED ARCHITECT — JASON T. ANDERSON — 033127 — STATE OF NEW YORK — 02/28/2026
Exp. 02/28/2029

Project:	26109	Date:	04/28/26
Drawn:	IDEA	Scale:	AS NOTED

Drawing Number: A-005

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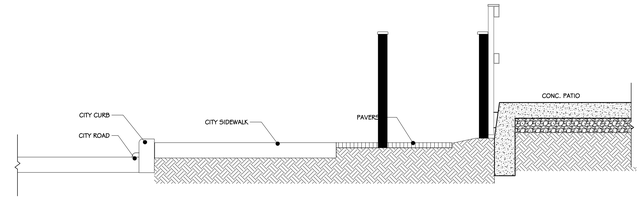
1 AS-BUILT SITE PLAN
1/16" = 1'-0"

2 3D AS-BUILT SITE



3 SECTION 'AA'
1/2" = 1'-0"

CONSTRUCTION NOTES

REVISIONS:

NUM.	DATE	DESCRIPTION
1	06-30-26	UPDATED FOR JULY PLANNING BOARD MEETING

PLANNING BOARD SUBMISSION

PROJECT NORTH

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Project: 364 MAIN ST.
364 MAIN STREET BEACON, NY 12508

Drawing: AS-BUILT SITE PLAN

REGISTERED ARCHITECT JASON T. ANDERSON 033127 STATE OF NEW YORK
02/28/2026
Exp. 02/28/2029

Project: 26109	Date: 04/28/26
Drawn: IDEA	Scale: AS NOTED

Drawing Number: A-005.1

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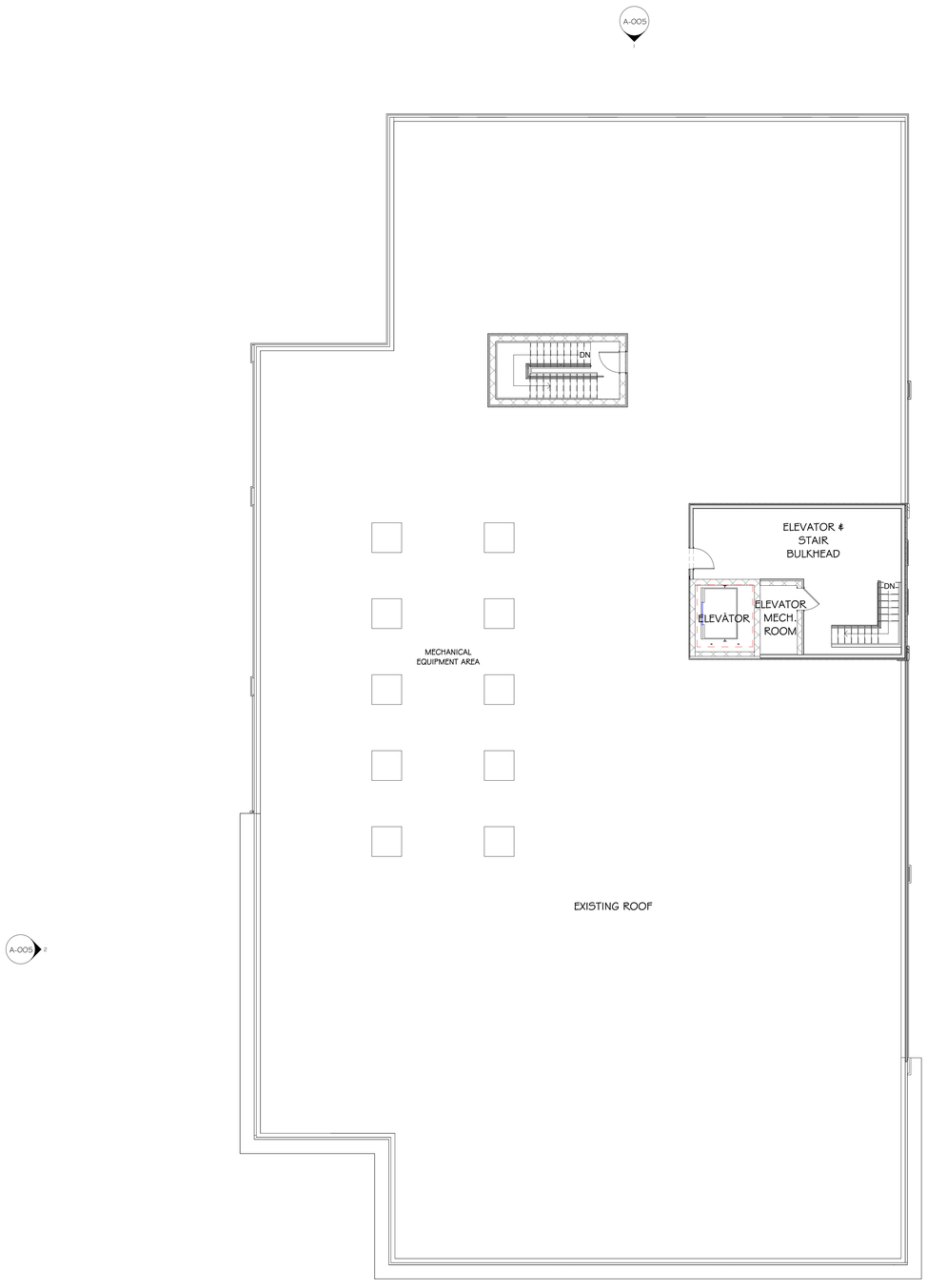

1 AS-BUILT ROOF PLAN
1/8" = 1'-0"

0' 4' 8' 16' 32'

CONSTRUCTION NOTES

WALL LEGEND:

- NEW WALL
- EXISTING WALL
- DEMOLISH WALL
- FIRE RATED WALL

DOOR LEGEND:

- (B100) PERSONNEL DOOR TAG @ BASEMENT FL LEVEL
- (100) PERSONNEL DOOR TAG @ FIRST FL LEVEL
- (200) PERSONNEL DOOR TAG @ SECOND FL LEVEL
- (500) STOREFRONT TAG @ FIRST FL LEVEL
- (600) DEMOUNTABLE GLASS TAG @ FIRST FL LEVEL

REVISIONS:

NUM.	DATE	DESCRIPTION
1	06-30-26	UPDATED FOR JULY PLANNING BOARD MEETING

PLANNING BOARD SUBMISSION

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N O R T H

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Project: 364 MAIN ST.
364 MAIN STREET BEACON, NY 12508

Drawing: AS-BUILT ROOF PLAN

REGISTERED ARCHITECT JASON T. ANDERSON 033127 STATE OF NEW YORK
04/28/2026
Exp. 02/28/2029

Project: 26109 | Date: 04/28/26
Drawn: IDEA | Scale: AS NOTED
Drawing Number: A-005.2

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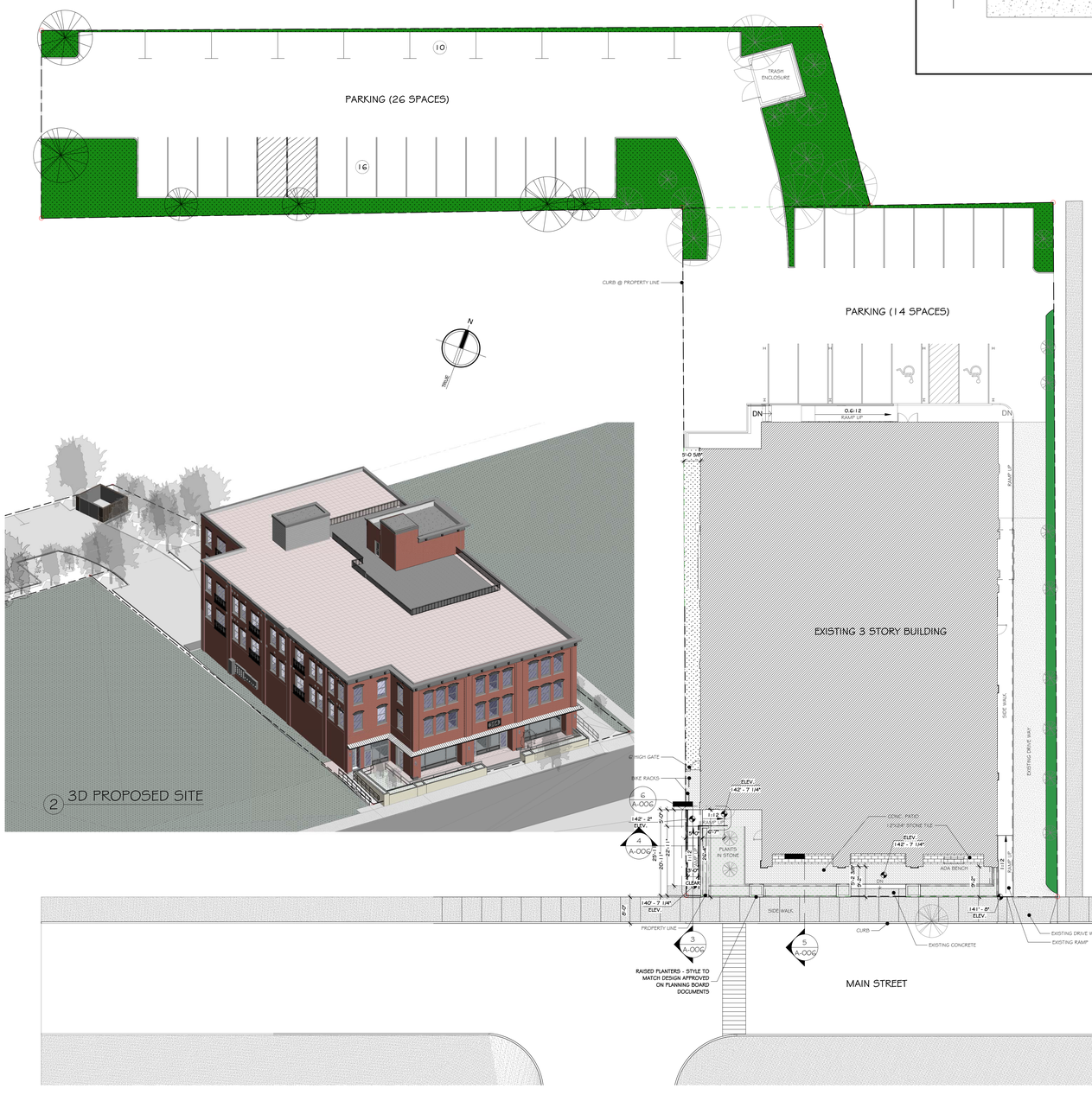
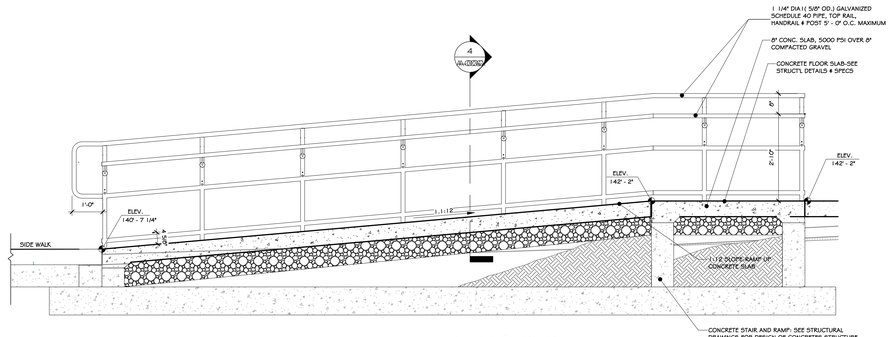
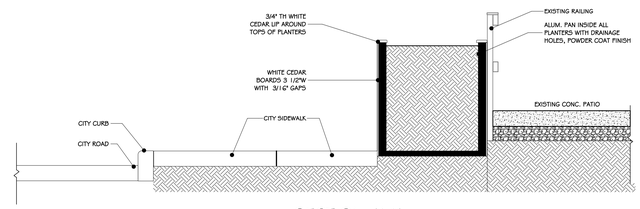


1 PROPOSED MAIN ST. PATIO/ACCESS PLAN
1/16" = 1'-0"

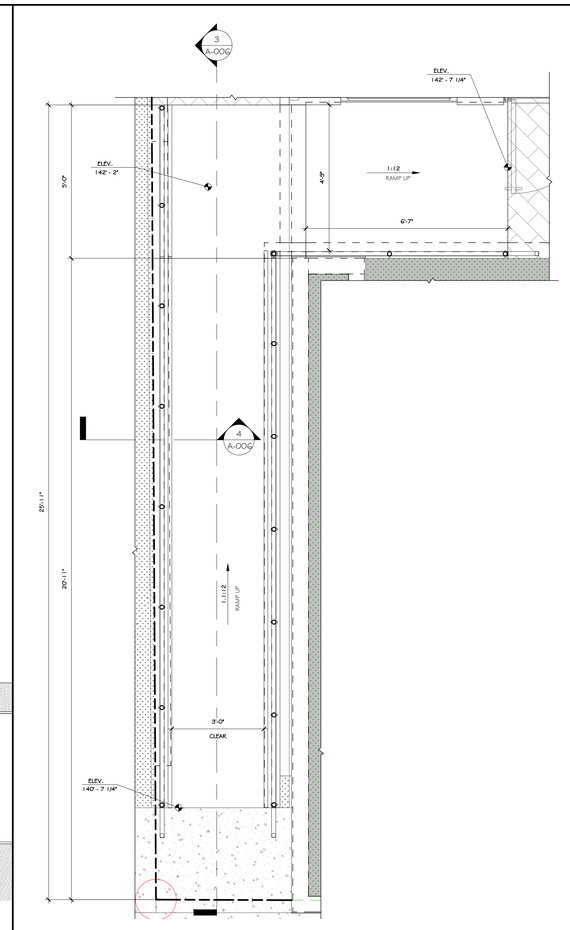
2 3D PROPOSED SITE



3 RAMP SECTION
1/2" = 1'-0"

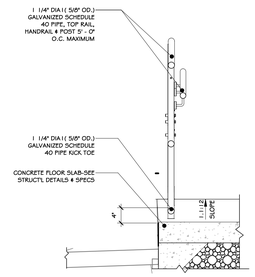


5 SECTION 'AA'
1/2" = 1'-0"



6 ENLARGED RAMP PLAN
1/2" = 1'-0"

CONSTRUCTION NOTES



4 HANDRAIL DETAILS
3/4" = 1'-0"

REVISIONS:

NUM.	DATE	DESCRIPTION
1	06-30-26	UPDATED FOR JULY PLANNING BOARD MEETING
2	07-28-26	ADJUSTMENTS BASED ON PLANNING BOARD COMMENTS

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Project: 364 MAIN ST.
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Drawing: PROPOSED PATIO/ACCESS PLAN



Project:	26109	Date:	04/28/26
Drawn:	IDEA	Scale:	AS NOTED

Drawing Number: A-006

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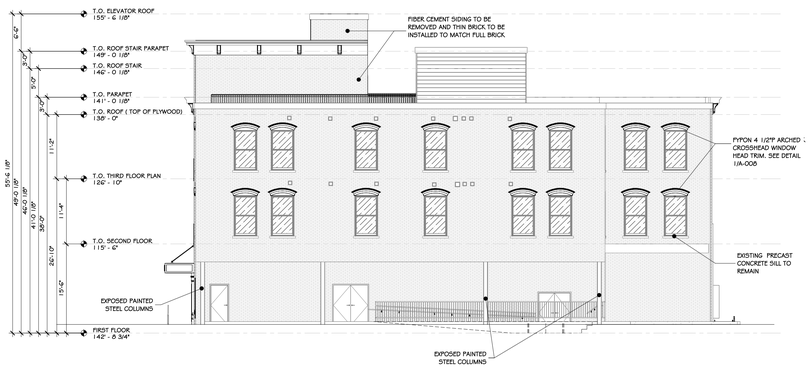
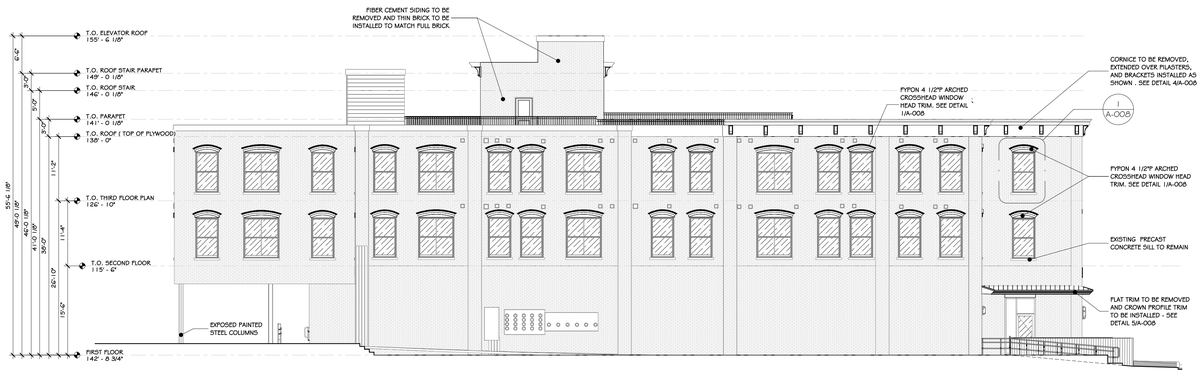
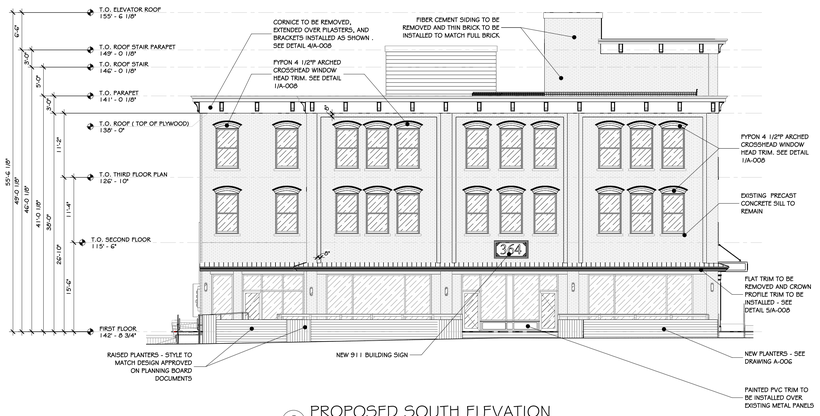
PROPOSED RENDERING



1 PROPOSED NORTH ELEVATION
3/32" = 1'-0"



2 PROPOSED WEST ELEVATION
3/32" = 1'-0"



3 PROPOSED SOUTH ELEVATION
3/32" = 1'-0"



4 PROPOSED EAST ELEVATION
3/32" = 1'-0"

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REVISIONS:

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2	07-28-26	ADJUSTMENTS BASED ON PLANNING BOARD COMMENTS

PLANNING BOARD SUBMISSION

PROJECT

NORTH

KEY PLAN

1 A-007 | 2 A-007 | 3 A-007 | 4 A-007

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Project: 364 MAIN ST.
364 MAIN STREET BEACON, NY 12508

Drawing: PROPOSED ELEVATIONS AND RENDERING

REGISTERED ARCHITECT JASON T. ANDERSON 033127 STATE OF NEW YORK
07/28/2026
Exp. 02/28/2029

Project:	26109	Date:	04/28/26
Drawn:	IDEA	Scale:	AS NOTED

Drawing Number: A-007

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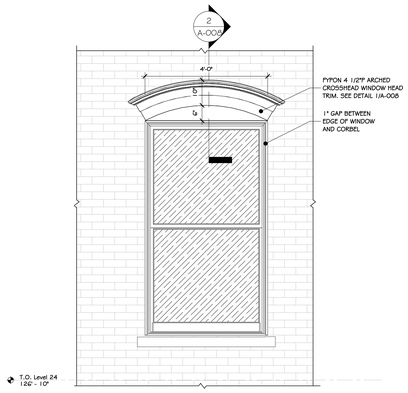
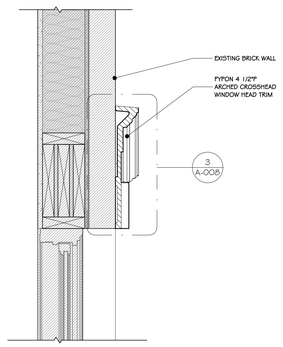
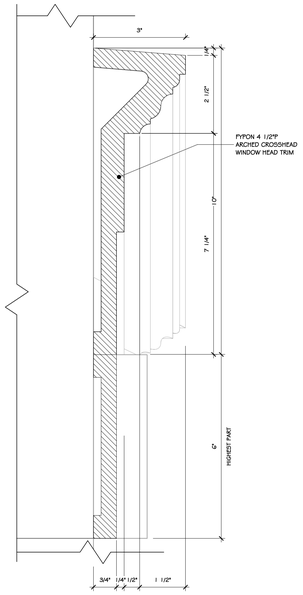


1 WINDOW ELEVATION CALLOUT- 1
1/2" = 1'-0"



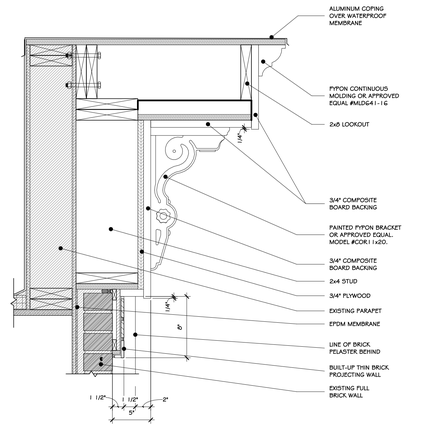
2 WINDOW HEAD TRIM SECTION DETAIL- 1
1 1/2" = 1'-0"



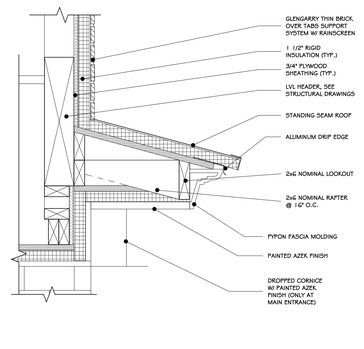
3 WINDOW HEAD TRIM DETAIL- 1
6" = 1'-0"



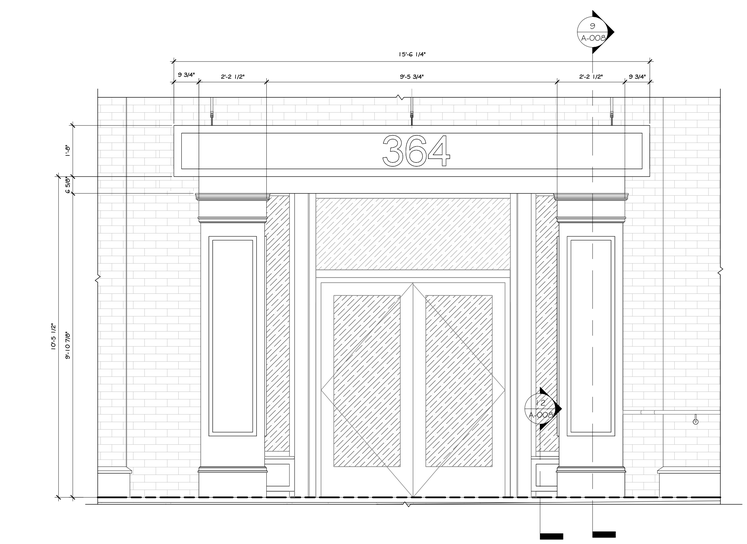




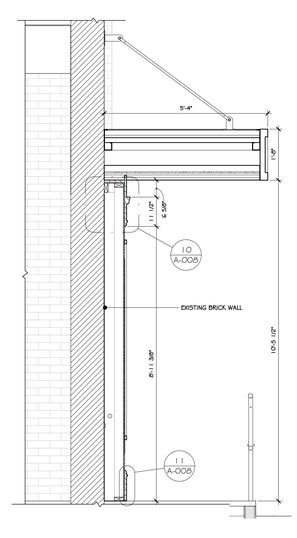
4 PARAPET CORNICE
1 1/2" = 1'-0"



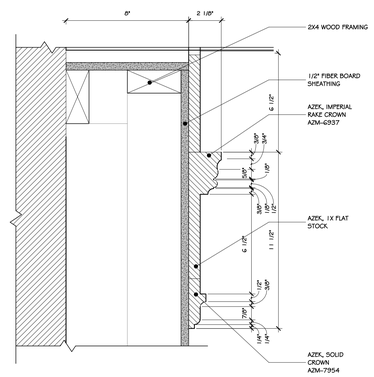
5 TYPICAL 1ST FLOOR OVERHANG DETAIL
1 1/2" = 1'-0"



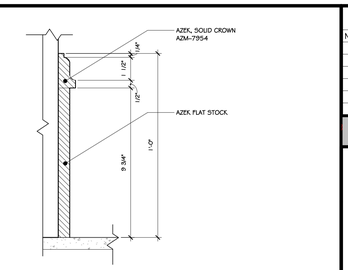
8 ENTRY ELEVATION
1/2" = 1'-0"



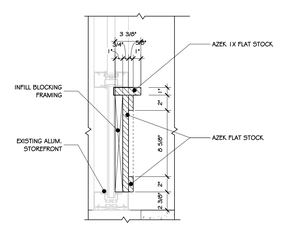
9 ENTRY SECTION
1/2" = 1'-0"



10 COLUMN CROWN DETAIL
3" = 1'-0"



11 COLUMN BASE DETAIL
3" = 1'-0"



12 STOREFRONT BASE DETAIL
1 1/2" = 1'-0"

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REVISIONS:

NUM.	DATE	DESCRIPTION
1	06-30-26	UPDATED FOR JULY PLANNING BOARD MEETING
2	07-28-26	ADJUSTMENTS BASED ON PLANNING BOARD COMMENTS

PLANNING BOARD SUBMISSION

PROJECT





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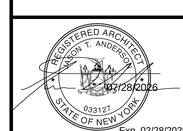
WWW.ADGARCHITECT.COM
CONTACT@ADGARCHITECT.COM
ARCHITECTURE • PLANNING • INTERIORS

Project: 364 MAIN ST.
364 MAIN STREET BEACON, NY 12508

Drawing: HEAD TRIM, CORNICE , OVERHANG DETAILS AND RENDERING



Project: 26109 | Date: 05/26/26
Drawn: IDEA | Scale: AS NOTED
Drawing Number:
A-008

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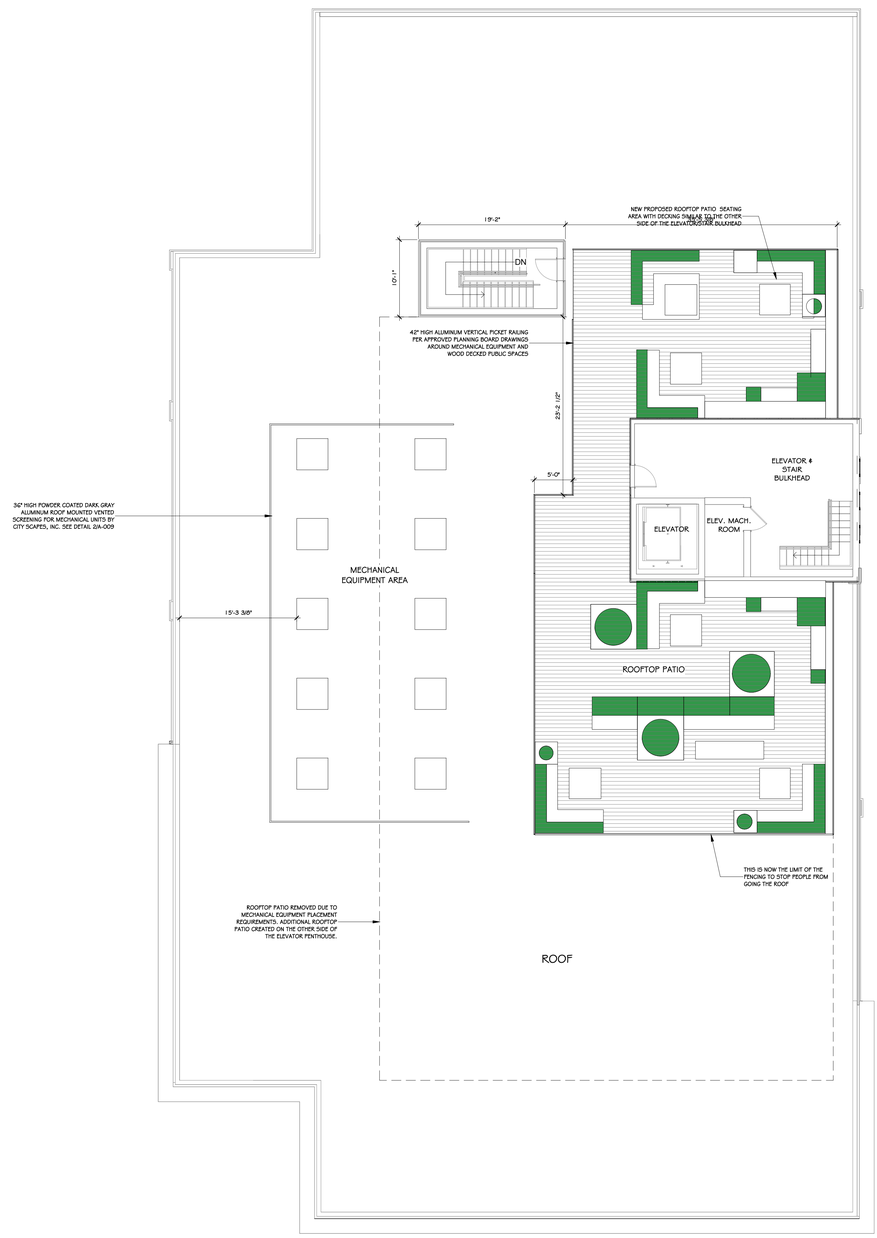
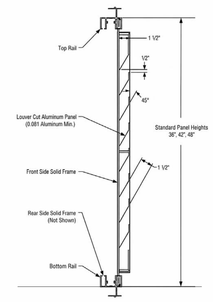


1 PROPOSED ROOF PLAN
1/8" = 1'-0"





2 ROOF MOUNTED SCREEN
1 1/2" = 1'-0"

4 A-007.1

CONSTRUCTION NOTES

REVISIONS:

NUM.	DATE	DESCRIPTION
1	06-30-26	UPDATED FOR JULY PLANNING BOARD MEETING
2	07-28-26	ADJUSTMENTS BASED ON PLANNING BOARD COMMENTS

PLANNING BOARD SUBMISSION

PROJECT



N O R T H

KEY PLAN

WORK AREA

ADG ARCHITECTS
25 WALLKILL AVE • MONTGOMERY • NY 12549
O. 845.294.2724 | F. 888.305.6442
WWW.ADGARCHITECT.COM
CONTACT@ADGARCHITECT.COM
ARCHITECTURE • PLANNING • INTERIORS

Project: 364 MAIN ST.
364 MAIN STREET BEACON, NY 12508

Drawing: PROPOSED ROOF PLAN



Exp. 02/28/2029

Project: 26109	Date: 04/28/26
Drawn: IDEA	Scale: AS NOTED

Drawing Number: A-009

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It is a violation of the law for any person, unless acting under the direction of a licensed architect, to alter an item in any way. If an item bearing the seal of an architect is altered, the altering architect shall affix to his item the seal and the notation "altered by" followed by his signature and the date of such alteration, and a specific description of the alteration.

642

LANC & TULLY
Engineering and Surveying, D.P.C.

August 7, 2026

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

RE: 364 Main Street
Tax No. 6054-29-006819
Subdivision & Site Plan
City of Beacon

Dear Mr. Gunn:

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

- Correspondence dated July 28, 2026, from Taylor Palmer, Esq. of Cuddy & Feder, LLP.
- Response correspondence from ADG Architects, dated July 28, 2026.
- Matrix table summarizing all changes that have occurred on the project, dated July 28, 2026, as prepared by ADG Architects.
- 11 sheet plan set titled "364 Main Street", consisting of plans that reflect the previously approved site plan and building elevations, as well as plans and elevations reflecting the proposed changes from that of the approved.

The parcel on Main Street is located in the "CMS" (Central Main Street) zoning district, whereas the parcel on Eliza Street is located within the "T" (Transitional) zoning district. The original project consisted of the merging of 2 parcels into a single parcel, and the development of a mixed-use commercial and multi-family residential development, with commercial space (8,892 sf) and a residential common area (1,607 sf) on the 1st floor, and 20 residential apartments to be located on the 2nd and 3rd, floors totaling 25,120 square feet, with a total bedroom count of 31.

The applicant is now appearing before the Planning Board due to architectural changes that occurred during the construction of the building without approval, as well as changes that have occurred to the project site in the plaza/patio area along Main Street. Based on our review of the above documents and plans, we would like to offer the following comments:

General Comments:

1. The applicant's architect has further refined the matrix table to discuss additional mitigations proposed for the building to further replicate the building as originally approved. The Board will need to review these changes and determine if the proposed mitigation is acceptable, or if not, what the Board would like to see.

2. During construction, it was found that the first-floor elevation was approximately 2 feet higher than originally anticipated. Based upon this elevation change the applicant has modified the plaza area to allow for ADA access, while also providing a raised plaza/patio area at the front of the building. As the CMS District has requirements for landscaping, the applicant should provide a comparison of the original landscaping area proposed on site in comparison to what is currently proposed/constructed. ***Applicant's consultant states that Landscape Restorations has been retained, and stated that a layout is being developed and will be provided for future submission.***

This completes our review at this time. Further comments may be provided based on future submissions. **A written response letter addressing each of the above comments should be provided with the next submission.** If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.

John Russo, P.E.

cc: Jennifer Gray, Esq.
Bryan Murphy, Building Inspector

City of Beacon Planning Board Agenda
08/11/2026

Title:

Consider request for a one (1) year extension of Site Plan Approval, 300 Main Street, Mixed-Use Commercial and Residential, submitted by Anthony Hardisty (300 Main St LLC).

ATTACHMENTS

300 Main PB 8.11.26 Site Plan Extension request.pdf

July 13, 2026

Re: 300 Main St LLC – Demolition and Construction of Three (3) Story Retail/ Commercial and Residential Project

Request for Extension – Site Plan Approval
Premises: 300 Main Street, Beacon, New York – Tax ID: (5954-36-939865)

Dear Chairman Gunn and Members of the Planning Board:

I am writing on behalf of 300 Main St LLC (the "Applicant") to request an additional one (1) year extension of the Site Plan Approval which was approved on September 9, 2025. A copy of the Approval is enclosed.

We are dedicated to the project, to obtaining a building permit and beginning work. At this time we are awaiting plans required for submission of a building permit, bids from subcontractors, and sourcing additional financing for the project.

I respectfully submit that these circumstances constitute good cause for an extension and request that the Planning Board grant a one-year extension of the existing Site Plan Approval.

Thank you for your consideration of this request.

Sincerely,

Anthony Hardisty

Received by office of the City Clerk 9/16/2025

RESOLUTION

PLANNING BOARD
BEACON, NEW YORK

SITE PLAN APPROVAL
FOR 300 MAIN STREET

Parcel No. 5954-36-939865

WHEREAS, the City of Beacon Planning Board received an application for Site Plan Approval from 300 Main St LLC (the "Applicant") for the demolition of the existing structures and construction of a new 3-story building that will consist of 3,720 square feet of retail/commercial space on the first floor and eight (8) residential apartments on the second and third floors (4 1-bedroom, 4 2-bedroom) a parcel having a total lot area of 0.18 acres, (the "Project" or "Proposed Action"), located at 300 Main Street (Parcel ID 5954-36-939865) within the Central Main Street ("CMS") Zoning District (the "Property"); and

WHEREAS, the City of Beacon Planning Board ("Planning Board") is the approval authority for the Site Plan pursuant to the City of Beacon Code § 223-25; and

WHEREAS, the application for Site Plan approval consists of application forms, correspondence, Short Environmental Assessment Form ("SEAF"), Traffic and Parking Assessment and professional studies, and other reports submitted to the Planning Board; and

WHEREAS, the Project is shown on a Site Plan set entitled "300 Main Street," dated April 29, 2025, last revised July 29, 2025, as prepared by Hudson Land Design Professional Engineering, P.C., Beacon, NY and Aryeh Siegel, Architect, dated April 29, 2025, last revised August 26, 2025, consisting of numbered Sheets 1-8 as follows:

Sheet	Title
1	*Site Plan*
2	*Existing Conditions and Demolition Plan*
3	*Building Plans*
4	*Building Elevations & Renderings*

5	*Landscape & Lighting Plan*
6	*Details*
7	*Grading & Utility Plan*
8	*Construction Details;* and

WHEREAS, the Proposed Action is an Unlisted Action pursuant to the New York State Environmental Quality Review Act ("SEQRA") and the Planning Board conducted an uncoordinated review; and

WHEREAS, the Planning Board reviewed the Applicant's application and materials at its meetings on May 13, 2025, June 10, 2025, July 8, 2025, August 12, 2025 and September 9, 2025; and

WHEREAS, the Applicant submitted a Traffic and Parking Assessment, prepared by Colliers Engineering & Design, dated April 28, 2025, which provided justification for the number of off-street parking spaces proposed for the Project which is zero; and

WHEREAS, on July 8, 2025, after taking a "hard look" at each of the relevant areas of environmental concern through review of the SEAF and all associated materials prepared in connection with the Proposed Action, the Planning Board adopted a Negative Declaration pursuant to SEQRA, finding that the Proposed Action will not result in any significant adverse environmental impacts; and

WHEREAS, on July 8, 2025, the Planning Board opened a duly noticed public hearing on the Site Plan application, at which time all those in attendance were given the opportunity to be heard on the Project and the public hearing was continued to August 12, 2025; and

WHEREAS, the Planning Board closed the public hearing on August 12, 2025; and

WHEREAS, the Planning Board has reviewed the application pursuant to the design standards set forth in § 223-41.18.J; and

WHEREAS, the Planning Board is fully familiar with the Project and reviewed all materials relative to the Project and all applicable provisions of the City Code.

NOW THEREFORE BE IT RESOLVED, that pursuant to Section 223-26 of the Zoning Code a minimum of zero off-street parking spaces and a maximum of 20 off-street parking spaces are permitted, and the Planning Board hereby determines that, based on its review of the Traffic and Parking Assessment, prepared by Colliers Engineering & Design, dated April 28, 2025, no off-street parking spaces are necessary for this development based on manual counts of all available and occupied public parking spaces within a 300 ft and 500 ft radius of the Property demonstrating that sufficient spaces remain

available to accommodate the Project, particularly within the 500 ft radius. Therefore, pursuant to Section 223-26.D(2) of the Zoning Code, no off-street parking spaces are required for the proposed use of the Property.

BE IT FURTHER RESOLVED, that pursuant to Section 223-41.18.E(5) of the Zoning Code requires a minimum frontage occupancy on Main Street of 80% for detached buildings to maintain a sense of enclosure of the street, but authorizes the Planning Board to reduce this requirement a) to the extent necessary to allow light and air into an adjacent building that has side windows, b) to allow future development of an abutting parcel to the permitted building height, or c) if the applicant provides a suitably surfaced and lighted pedestrian passageway between the street and parking areas, public open spaces, or other streets, located behind the building. The Applicant proposes a frontage occupancy of 71% along Main Street and the proposed design incorporates a surfaced, lighted passageway that has windowed storefronts and leads to public space at the rear of the building which serves to maintain a sense of enclosure with Main Street; therefore, the Planning Board hereby approves a reduction of the minimum frontage occupancy requirement from 80% to 71%.

BE IT FURTHER RESOLVED, the Planning Board of the City of Beacon hereby grants Site Plan approval, as shown on the applications materials referenced above, subject to the following conditions and modifications set forth below and any other requirements which must be met by law:

A. The following conditions shall be fulfilled prior to the signing of the Final Site Plan by the Chairman of the Planning Board:

1. All application review fees shall be paid in full.
2. The Applicant shall seek and obtain all required permits and/or approvals from the appropriate agencies for the Project, and shall meet all conditions contained in such approvals, as required therein.

When the conditions above have been satisfied, six (6) sets of the above referenced plans revised as per the conditions above shall be submitted for endorsement by the Planning Board Chairman. One set of the endorsed plans will be returned to the Applicant, one set will be retained by the City Clerk, one set will be provided to the Planning Board, and one set each will be forwarded to the Building Inspector, City Engineer and City Planner.

B. Conditions to be satisfied prior to the issuance of a Building Permit:

1. The Applicant shall establish an escrow with the City of Beacon for the inspection of the improvements in an amount acceptable to the City Engineer based on review of a cost estimate to be prepared by the Applicant's professional engineer.

2. The Applicant shall post a performance guaranty with the City of Beacon for the

proposed public improvements set forth in the Right-of-Way Cost Estimate prepared by Hudson Land Design Professional Engineering, P.C. and accepted by the City Engineer, dated July 29, 2025, last revised August 18, 2025, and any other proposed public improvement as identified by the City Engineer.

3. The Applicant shall establish an escrow for stormwater inspections by the City Engineer on behalf of the City of Beacon.

C. Prior to the issuance of the Certificate of Occupancy, the following conditions 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. However, the Planning Board hereby determines that recreation/parkland of adequate size and location cannot be provided on the Project Site. Therefore, that Applicant shall pay a Recreation Fee as prescribed under Sections 223-25.H(4) and 223-61.A(7) of the Zoning Law.

   The existing site contains one (1) dwelling unit and the Applicant proposes to construct eight (8) dwelling units resulting in a net increase of seven (7) dwelling units. The Planning Board hereby requires that, prior to the issuance of the Certificate of Occupancy, the Applicant shall pay a Recreation Fee for the seven (7) new dwelling units in accordance with Sections 223-25.H(4) and 223-61.A(7) of the Zoning Law, as per the City's Fee Schedule in effect at the time of payment.

2. All application review fees shall be paid in full.

D. The following are general conditions which shall be fulfilled:

1. 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.

2. A copy of this Resolution shall be attached to the Certificate of Occupancy.

3. Vegetation shown on the Landscape Plan shall be maintained in a vigorous growing condition and shall be replaced in kind if it fails to survive or is otherwise removed for any reason.

4. Rock removal, if encountered, shall be done by mechanical means on weekdays (excluding State holiday) between the hours of 8 a.m. and 4 p.m. No rock processing is permitted on-site. No blasting shall be permitted without the prior

written approval from the City of Beacon Building Department after preparation of a blasting plan. Any blasting required shall be performed in accordance with all applicable local, state, and federal laws, regulations, and standards.

5. Pursuant to the City of Beacon Code § 223-25.J, the Site Plan Approval granted herein shall expire in the event the Applicant does not submit a bona fide building permit application to the Building Department within one year of the adoption date of this Resolution, provided however, that the Planning Board may extend such time period from time to time for good cause shown upon written request from the Applicant.

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 Applicant 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. This approval is conditioned upon compliance with all mitigation measures specified in the Applicant's SEAF 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 SEAF, the terms of this resolution shall be controlling.

8. Failure to adhere to the conditions set forth in this Resolution and/or the approved Site Plan drawings and materials shall, upon prior notice to the Applicant, constitute grounds for revocation of this Resolution by the Planning Board, as well as the suspension, revocation, or withholding of any Building Permits, Demolition Permits, Certificates of Occupancy, or other applicable permits issued by the City of Beacon until the Applicant complies with the approvals, conditions, or Site Plan drawings approved herein.

9. As used herein, the term "Applicant" shall include the Applicant and the Applicant's heirs, successors and assigns, and where applicable its contractors and employees.

10. If any of the conditions enumerated in this resolution upon which this approval is granted are found to be invalid or unenforceable, then the integrity of this resolution and the remaining conditions shall remain valid and intact.

11. The approval granted by this resolution does not supersede the authority of any other entity.

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. The Planning Board, in its discretion, shall determine the appropriate procedures for consideration of the proposed revision, and whether such revision is material enough to require further environmental analysis, further project review and/or a public hearing, as it may deem appropriate.

Resolution Adopted: September 9, 2025
Beacon, New York

John Gunn, Chairman
City of Beacon Planning Board

SEPTEMBER 15, 2025
Dated

Motion by Mr. Jensen, seconded by Mr. Byrne:

Kevin Byrne	Voting AYE	Leonard Warner	Voting AYE
David Jensen	Voting AYE	J. Randall Williams	Voting EXCUSED
Karen Quiana	Voting AYE	John Gunn, Chairman	Voting AYE
James Vermeulen	Voting AYE		

Resolution: Approved 6-0

City of Beacon Planning Board Agenda
08/11/2026

Title:

City Council request to review proposed Local Law concerning an amendment to the City zoning code regarding regulations governing hotels and the Fishkill Creek Development (FCD) District.

ATTACHMENTS

CC Resolution 7.20.26 Referring FCD to PB.pdf

Beacon - Full EAF Part 1 re FCD District Local Law (4897-1683-0402.1).pdf

Beacon - FEAF Part 1 Narrative re FCD and Hotel Local Law (07.30.2026) (4935-8059-1042.2).pdf

Beacon - FCD Local Law - Schedule of Dimensional Regulations - 2026.07.15 (redlined - DRAFT).pdf

Beacon - FCD Local Law - Schedule of Use Regulations - 2026.07.15 (redlined - DRAFT).pdf

Beacon - Proposed Local Law re Fishkill Creek Development District & Hotels (07.17.2026).pdf

Beacon FCD District_Attachment A_Map.pdf

KARC Memorandum re FCD District Text Amendment Memo (07.16.2026) (4909-8273-5549.1).pdf

CITY OF BEACON
CITY COUNCIL

RESOLUTION NO. 62 OF 2026

REFERRING A PROPOSED LOCAL LAW CONCERNING THE FISHKILL DEVELOPMENT DISTRICT AND HOTELS

WHEREAS, the City of Beacon is considering a local law which would amend the City's zoning code concerning regulations governing hotels and the Fishkill Development District; and

WHEREAS, the City Council wishes for both the City of Beacon and Dutchess County Planning Boards to provide a report and recommendation on the proposed local law.

NOW THEREFORE, BE IT RESOLVED THAT, the City Council hereby refers a Proposed Local Law amending City Code Chapter 223 concerning regulations governing hotels and the Fishkill Development District to the City of Beacon Planning Board and the Dutchess County Planning Board for a report and recommendation to the City Council; and

BE IT FURTHER RESOLVED THAT the City Council hereby schedules a public hearing for August 17, 2025 at 7:00 pm for a Proposed Local Law concerning regulations governing hotels and the Fishkill Development District.

Resolution No. 62 of 2026		**Date: July 20, 2026**					
□ **Amendments**						□ **2/3 Required**	
□ **On roll call**						□ **3/4 Required**	
Motion	Second	Council Member	Yes	No	Abstain	Reason	Absent
		Paloma Wake					**x**
		Amber Grant	**x**				
		Lastar Gorton		**x**			
		Zack Smith	**x**				
	x	**Sergei Krasikov**	**x**				
x		**Carolyn Bennett Glauda**	**x**				
		Mayor Lee Kyriacou					**x**
		Motion Carried	**x**				

Full Environmental Assessment Form
Part 1 - Project and Setting

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 that 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 following sub-questions. If the answer to the initial question is "No," proceed to the next question. Section F allows the project sponsor to identify and attach additional information. Section G requires the name and signature of the applicant or project sponsor to verify the information in Part 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: A Local Law Amending Chapter 223 of the Beacon City Code Concerning the Fishkill Creek Development District and Hotels		
Project Location (describe and attach a general location map): The Fishkill Creek Development Zoning District		
Brief Description of Proposed Action (include purpose or need): The Beacon City Council is considering a Local Law which will amend the City of Beacon's Fishkill Creek Development (FCD) Zoning District's regulations to allow hotel uses. The Local Law further eliminates the traditional numerical residential density limitation in the FCD. Instead, density within the FCD will be limited through the Beacon Zoning Code's existing form-based standards (e.g., lot size, building coverage, frontage, height, setbacks, open space, etc.). Minimum setbacks for buildings in the FCD will only be measured from the public right-of-way instead of also considering distances to private streets. Finally, the Local Law will provide an update to the Zoning Code's regulations for hotel uses.		
Name of Applicant/Sponsor: City Council of the City of Beacon	Telephone: (845) 838-5000 E-Mail: cityofbeacon@beaconny.gov	
Address: 1 Municipal Plaza		
City/PO: Beacon	State: NY	Zip Code: 12508
Project Contact (if not same as sponsor; give name and title/role): Ben Swanson, City Administrator	Telephone: (845) 838-5000 E-Mail: cityofbeacon@beaconny.gov	
Address: 1 Municipal Plaza		
City/PO: Beacon	State: NY	Zip Code: 12508
Property Owner (if not same as sponsor): N/A	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

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 Council, Town Board, or Village Board of Trustees ☑ Yes ☐ No	Beacon City Council	July 20, 2026
b. City, Town or Village Planning Board or Commission ☐ Yes ☐ No		
c. City, Town or Village Zoning Board of Appeals ☐ Yes ☐ No		
d. Other local agencies ☐ Yes ☐ No		
e. County agencies ☐ Yes ☐ No		
f. Regional agencies ☐ Yes ☐ No		
g. State agencies ☐ Yes ☐ No		
h. Federal agencies ☐ Yes ☐ No		

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) that 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):

Remediation Sites:C314117, Remediation Sites:546031, Remediation Sites:C314118, Remediation Sites:314044

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):

d. Is the proposed action in a municipality with an adopted comprehensive or individual plan that addresses climate change? ☐ Yes ☑ No

If Yes , identify the elements of the plan that are relevant to the action:

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?

Residential, commercial, and mixed-use.

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, 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 School District

b. What police or other public protection forces serve the project site?

Beacon Police Department & Metropolitan Transportation Authority Police Department

c. Which fire protection and emergency medical services serve the project site?

Beacon City Fire Department, Beacon Volunteer Ambulance Corps, and Empress Emergency Response Service.

d. What parks serve the project site?

Beacon City Parks & NY State Parks

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)?

_____

b. a. Total acreage of the site of the proposed action? _____ acres
b. Total acreage to be physically disturbed? _____ acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☐ No
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)

_____

ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum_____Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☐ No

i. If No, anticipated period of construction: _____ 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				
At completion of all phases				

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: _____

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

_____

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

_____

iv. Approximate size of the proposed impoundment. Volume:_____million gallons; surface area:_____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):

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):

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:

_____

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No

If Yes, describe: _____

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: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

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: _____ 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: _____
- 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:_____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): _____

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

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- 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_____acres (impervious surface)

_____ Square feet or_____acres (parcel size)

ii. Describe types of new point sources.

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)?

- If to surface waters, identify receiving water bodies or wetlands: _____
- 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)

_____

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

_____

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

_____

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

If Yes:

i. Is the proposed action subject to the Nonattainment New Source Review or Prevention of Significant Deterioration requirements discussed in 6 NYCRR Part 231? ☐ Yes ☐ No

ii. As calculated in the air permit application, the proposed action has the potential to emit:

- _____Tons/year (short tons) of carbon monoxide (CO)
- _____Tons/year (short tons) of oxides of nitrogen (NOx)
- _____Tons/year (short tons) of particulate matter (PM-10, PM-2.5)
- _____Tons/year (short tons) of volatile organic compounds (VOC)
- _____Tons/year (short tons) of sulfur dioxide (SO_2)

iii. Will emissions of air contaminants from the proposed action described above exceed the corresponding major source thresholds? ☐ Yes ☐ No

iv. Does the proposed action have the potential to emit 10 tons/year or more of any one designated hazardous air pollutant or 25 tons/year or more of any combination of such hazardous air pollutants (6NYCRR 200.1(ag))? ☐ Yes ☐ No

If Yes, provide the total potential to emit hazardous air pollutants in short tons/year: _____

h. Will the proposed action generate or emit annual direct and indirect greenhouse gas emissions, such as carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, or perfluorocarbons in excess of 10,000 metric tons of total carbon dioxide equivalents per year at any point in the lifetime of the proposed action (estimated using the carbon dioxide equivalent definition and global warming potentials provided in 6 NYCRR Part 496)? ☐ Yes ☐ No

If Yes:

i. Estimate the proposed action's metric tons of carbon dioxide equivalents in tons/year (metric): _____

ii. Describe any greenhouse gas capture, control, or elimination measures included in project design: _____

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_____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 energy demand? ☐Yes ☐No
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:_____
- 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:

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

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:

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

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, insecticide) during construction or operation? ☐ Yes ☐No
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

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 cover types on the project site.

Land use or Cover type	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces (total)			
• Industrial or manufacturing			
• Commercial			
• Residential			
• Forested			
• 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)			
• Non-vegetated (bare rock, earth, or fill)			
• Other, Describe: _____			

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:

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 that 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? _____ 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: _____ _____%
_____ _____%
_____ _____%

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

e. Drainage status of project site soils:
☐ Well Drained: _____% of site
☐ Moderately Well Drained: _____% of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes:
☐ 0-10%: _____% of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% 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 _____ Approximate Size _____
- 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: _____

_____ _____ _____

_____ _____ _____

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): _____

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 listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYSOffice 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: _____

iii. Brief description of attributes on which listing is based:

_____

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 New York 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 five miles of any officially designated and publicly accessible federal, state, or local scenic, or aesthetic resource? ☐Yes ☐No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail, or scenic byway, etc.): _____

iii. Distance between project and resource: _____ 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

E.4. Disadvantaged Communities Designated Pursuant to ECL Article 75

a. Is the project located within, or within ½ mile of, a disadvantaged community? ☐Yes ☐No

If No, could impacts(see examples below in E.4.b) from the project affect a disadvantaged community? ☐Yes ☐No

If Yes to either question in E.4.a, answer the remaining questions in this section.

b. Will there be direct or indirect impacts that may affect a disadvantaged community, such as those listed below? ☐Yes ☐No

i. new noise sources or expansions/modification of existing noise sources;
- noise from operational sources
- noise from construction activities

ii. emissions of air pollutants including, mobile emissions;

iii. wastewater discharges;

iv. generation of odors;

v. light pollution;

vi. new or modified radiation sources;

vii. new or modified sources of solid waste generation, management, or disposal.

If Yes, describe the impacts:

c. Do any of the State agency approvals identified in question B.g include any of the following DEC permits?

State Pollutant Discharge Elimination System (SPDES)	☐Yes ☐No
Solid Waste Management Facility	☐Yes ☐No
Hazardous Waste Management Facility	☐Yes ☐No
Air Pollution Control (Title V or Air State Facility)	☐Yes ☐No
Water Withdrawal over 20 MGD for Cooling Water	☐Yes ☐No
Waste Transporter	☐Yes ☐No

E.5 Future Physical Climate Risks

Will the proposed action be vulnerable to the following future physical climate risks under current or projected future conditions:

a. Is the proposed action vulnerable to damage from a projected 100-year flood? ☐ Yes ☐ No

b. Is the proposed action vulnerable to damage from a projected 500-year flood? ☐ Yes ☐ No

c. Is the proposed action in an area potentially affected by sea level rise? ☐ Yes ☐ No

d. Will the proposed action increase the vulnerability of human or ecological communities to the following:

i. drought? ☐ Yes ☐ No

ii. temperature extremes (hot or cold)? ☐ Yes ☐ No

iii. extreme storms, including high winds? ☐ Yes ☐ No

iv. landslides? ☐ Yes ☐ No

v. coastal erosion? ☐ Yes ☐ No

vi. stormwater flooding? ☐ Yes ☐ No

vii. other climate or weather hazards? ☐ Yes ☐ No If Yes, describe: _____

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 Beacon City Council Date July 30, 2026

Signature  Title City Attorney

July 30, 2026

Beacon – FEAF Part 1 Narrative
Proposed Local Law Concerning the Fishkill Creek Development District & Hotels

On July 20, 2026, the Beacon City Council introduced a Local Law to amend Chapter 223 of the Beacon City Code (the "Zoning Code") to amend certain regulations pertaining to the Fishkill Creek Development ("FCD") Zoning District. The FCD District is a relatively small geographic zoning district along the Fishkill Creek consisting of nine (9) tax map parcels generally ranging from 0.03 acres to 11.07 acres. The legislative intent of the FCD District is to encourage the redevelopment of underutilized or former industrial properties through a mix of residential and nonresidential uses while preserving the environmental and recreational uses of the Fishkill Creek. All future development within the FCD will be subject to independent review in accordance with the State Environmental Quality Review Act ("SEQRA").

Amendments to the Fishkill Creek Development District

1. Hotel Uses within the FCD District.

The proposed Local Law will permit Hotel uses in the FCD District. A Hotel is defined as under Zoning Code Section 223-63 as:

> "A building, or portion thereof, containing rooms occupied primarily by transient guests, who are lodged with or without meals, and in which there may be provided such services as are accessory and incidental to the use thereof as a temporary residence, such as dining, recreational facilities, public rooms and meeting rooms, and gift shops. The term "hotel" shall not include bed-and-breakfast establishment, boardinghouse, rooming house, short-term rental or single-room-occupancy building for the purposes of this chapter."

Hotel uses are similar to bed-and-breakfast and inn uses, which are currently permitted uses within the FCD District. Specifically, an "inn" is defined under Zoning Code Section 223-63 as "[a] hotel containing no more than 10 guest rooms." The City's Zoning Code does not otherwise establish substantially different regulations and requirements for hotels and inns except for the number of guest rooms. Moreover, inns and hotels both provide transient lodging accommodations and typically include similar accessory amenities. As such, permitting hotel uses with the FCD District will be generally consistent with the stated legislative purpose of the FCD District which is to "[e]ncourage the development and/or redevelopment of undeveloped or underutilized industrial properties along the Fishkill Creek in a manner that provides a mix of residential and nonresidential uses." Zoning Code § 223-41.12(A).

2. Density Limitation within the FCD District.

Density within the FCD is presently limited to no more than 11 dwelling units per acre. The Local Law will eliminate this traditional numerical based density limitation and instead regulate density through the Zoning Code's existing form-based standards (e.g., lot size, building coverage, frontage, building height, setbacks, open space requirements, etc.). A form-based approach to density regulation is currently utilized in the City's Central Main Street (CMS), Linkage (L), and Transit Station (TS) zoning districts. The City's General Business (GB) and Light Industrial (LI) zoning districts both allow approximately 29 dwelling units per acre.

The use of a form-based zoning limitation for residential density is further consistent the City Council's continued efforts to encourage additional residential dwelling units thereby increasing the City's housing stock as well as the number of below-market rental units. Accordingly, the elimination of FCD District's numerical limitation for density is consistent with the City's other mixed-use zoning districts and furthers the City Council's housing goals.

3. Minimum Setback Requirements in the FCD District.

The Local Law revises the minimum setback requirements within the FCD District to measure the setback requirement for buildings to be measured from a public right-of-way. Eliminating the reference to private streets is consistent with the City's other zoning regulations. The Planning Board will still have an opportunity to address the distances of buildings from private streets during the site plan review process.

Updates to the Zoning Code's Supplemental Regulations for Hotels

The Local Law amends Zoning Code § 223-14.1 concerning supplemental regulations for hotel uses. This revision provides that any uses on the same site of a hotel "may include" usual hotel activities and incidental accessory uses, whereas the Zoning Code currently provides that all buildings or structures on the same site of a hotel "shall be limited to" usual hotel activities and incidental accessory uses. This update to permissive language better reflects contemporary hotel uses which more frequently function as part of a mixed-use project rather than a stand-alone use.

The Local Law also removes the prohibition on kitchen facilities in guest rooms. The prohibition on kitchen facilities in hotel guest rooms has traditionally distinguished hotels from multifamily dwellings and single-room occupancy uses. However, many modern hotels now feature kitchenettes in guest rooms, and such distinctions between these different uses are adequately addressed via modern building code requirements and Zoning Code definitions.

223 Attachment 1

City of Beacon

§ 223-17. Schedule of Dimensional Regulations
[Added 6-15-2020 by L.L. No. 7-2020;[1] amended 9-19-2022 by L.L. No. 8-2022; 9-3-2024 by L.L. No. 8-2024; 11-17-2025 by L.L. No. 12-2025; 12-1-2025 by L.L. No. 13-2025]

Zoning District	Minimum Lot Size Area[h] (see also § 223-121)				Minimum Yards[a]			Minimum Distance Between Buildings Same Lot	Maximum Height Main Building (see § 223-13) (stories/feet)	Maximum percent Building Coverage		Maximum Number of Units per Building	Minimum Open Space	Zoning District	Also Refer to Pertinent Sections
	Area (square feet)	Per Unit (square feet)	Width (feet)	Depth (feet)	Front (feet)	Side (feet)	Rear[d,e] (feet)			Multifamily	All Other				
R1-120	120,000	120,000	250	350	70	50	75	—	2.5/35	N.A.	7%	1	—	R1-120	
R1-80	80,000	80,000	150	200	45	30	50	—	2.5/35	N.A.	10%	1	—	R1-80	
R1-40	40,000	40,000	150	150	35	25	50	—	2.5/35	N.A.	15%	1	—	R1-40	
R1-20	20,000	20,000	125	125	25	20	40	—	2.5/35	N.A.	20%	1	—	R1-20	
R1-10	10,000	10,000	85	100	20	15	35	—	2.5/35	N.A.	25%	1	—	R1-10	
R1-7.5	7,500	7,500	75	100	15	10	25	—	2.5/35	N.A.	30%	1	—	R1-7.5	
R1-5	5,000	2,500	50	100	10	10	20	—	2.5/35	N.A.	40%	2	—	R1-5	
RD-7.5[d,e]	2 acres	7,500	200	200	20 to 35	25	50	30	3/35	15%	20%	12	—	RD-7.5[d,e]	
RD-6[d,e]	2 acres	6,000	200	200	50	25	50	30	2.5/35	15%	20%	16	—	RD-6[d,e]	
RD-5[d,e]	5,000	5,000	50	100	30	10	25	30	3/35	20%	30%	16	—	RD-5[d,e]	
RD-4[d,e]	5,000	4,000	200	200	40	20	40	30	2.5/35	20%	25%	20	—	RD-4[d,e]	
RD-3[d,e]	5,000	3,000	50	100	30	20	25	30	3.5/45	20%	40%	24	—	RD-3[d,e]	
RD-1.8[d,e]	5,000	1,800	50	100	30	20	25	30	10[b]/100	25%	40%	—[c]	—	RD-1.8[d,e]	
RD-1.7[d,e]	5,000	1,700	50	100	30	20	25	30	4.5[f]/55[f]	25%	40%	36[g]	—	RD-1.7[d,e]	
T[e]	5,000	i	50	100	10	10	20	—	2.5/35	—	40%	—	—	T[e]	
GB	—	1,500	—	100	15	20	25	—	—/35	—	—	—	—	GB	
CMS	—	—	—	75	0 to 10	0	20	—	3/38	—	—	—	10%	CMS	Art. IVD
L	—	—	—	75	0 to 20	0 to 30	25	—	4/48	—	—	—	15%	L	Art. IVE
FCD	2 acres	~~3,960~~	—	—	—	—	—	—	3/40	35%		—	30%	FCD	Art. IVC
WP	1 acre	—	—	—	10	—	—	—	2.5/35	20%		—	—	WP	Art. IVA
TS	3 acres	—	—	—	—	—	—	—	See Art. IVA	—		—	15%	TS	Art. IVA
LI	—	1,500	60	100	20	20	25	—	—/35	70%		—	20%	LI	
HI	—	—	60	100	30	20	25	—	—/40	70%		—	20%	HI	

NOTES:

[a] A private garage may be built across a common lot line in multifamily developments by mutual agreement between adjoining property owners, a copy of such agreement to be filed with the building permit application for such garage.

[b] But not more than 65% of the dwelling units in a multifamily development may be contained in buildings more than 3 1/2 stories in height.

[c] But not more than 24 dwelling units in any building 3 1/2 stories or less in height.

[d] For multifamily developments, a well-designed and landscaped recreation or usable open space area, approved by the Planning Board, of 2,000 square feet for the first 20 dwelling units or part thereof, plus 100 square feet for each additional dwelling unit will be required.

[e] In any RD or T District, the Planning Board may approve a subdivision of land into individual building lots containing a minimum of 1,800 square feet of area each and designed for attached or semi-attached single-family dwellings (townhouses), provided that the design is such that the gross dwelling unit density for the entire tract does not exceed that which can normally be permitted for multiple dwellings in the district in which the property is located and further provided that the Planning Board attaches such conditions and safeguards to its approval as, in its opinion, are necessary to assure that the entire property, including any designated common areas for open space, recreation or other purposes, will be properly maintained for the intended purpose(s) and not further subdivided in the future. In its sole discretion, the Planning Board may also reduce the required side yard setbacks to zero feet for subdivisions of land designed for attached or semi-attached single-family dwellings (townhouses) where appropriate, except that the minimum side yard setbacks for end unit dwellings shall not be reduced further than 1/2 the minimum side yard setback of the least restrictive adjoining residential district.

[1] Editor's Note: This local law also repealed former 223 Attachment 1, § 223-17C, Schedule of Regulations for Residential Districts, as amended.

[f] A maximum of one story of parking under a building shall not count toward the maximum building height limitation in feet and stories.

[g] And each building shall not exceed 150 feet in length.

[h] For all development proposals involving a total lot area of more than three acres within an R1, RD, or Fishkill Creek Development zoning district, the lot area per dwelling unit calculation shall first deduct any lot area covered by surface water, within a federal regulatory floodway, within a state or federally regulated wetland, or with existing, predevelopment very steep slopes of 25% or more as defined in § 223-63.

[i] One-half the minimum lot size area per dwelling unit as the least restrictive adjoining residential district.

223 Attachment 2

City of Beacon

§ 223-17. City of Beacon Schedule of Use Regulations
[Added 6-15-2020 by L.L. No. 7-2020;[1] amended 2-16-2021 by L.L. No. 2-2021; 9-19-2022 by L.L. No. 8-2022; 9-19-2022 by L.L. No. 9-2022; 5-5-2025 by L.L. No. 4-2025; 6-2-2025 by L.L. No. 5-2025; 7-7-2025 by L.L. No. 8-2025; 11-17-2025 by L.L. No. 12-2025; 12-1-2025 by L.L. No. 13-2025]

Permitted Uses by District	Reference Notes	All R1	All RD	T	GB	CMS	L	TS	WP	FCD	LI	HI
Residential												
One-family detached dwelling		P	P	P	X	X	X	X	X	X	X	X
One-family attached/semidetached	Including townhouses	P[2]	P	P	X	X	P	X	X	P	X	X
Two-family dwelling		P[2]	P	P	X	X	X	X	X	X	X	X
Multifamily dwelling		X	SP*	P	P	P	P	P	X	P	X	X
Artist live/work space	Subject to § 223-14.2	P[2]	X	P	P	P	P	P	X	P	P	X
Retail/Office/Service												
Retail, personal service, or bank		X	X	X	P	P	P	P	X	X	P	X
Office		X	X	P	P	P	P	P	X	P	P	X
Artist studio, art gallery/exhibit space		X	X	P	P	P	P	P	X	P	P	X
Funeral home		X	X	X	P	X	X	X	X	X	P	X
Commercial recreation, indoor		X	X	X	P	P	X	X	X	X	P	P
Auction gallery		X	X	X	P	X	X	X	X	X	P	P
Adult use	Subject to § 223-20.1	X	X	X	X	X	X	X	X	X	SP	X
Food/Lodging												
Restaurant or coffee house		X	X	X	P	P	P	P	SP*	P	X	X
Bar/brew pub/microbrewery/microdistillery		X	X	X	P	P	P	P	X	P	P	P
Food preparation business		X	X	X	P	SP	SP	X	X	X	P	P
Short-term rental	Subject to § 223-26.5	P	P	P	P	P	P	P	P	P	P	P
Bed-and-breakfast	Subject to § 223-24.4	SP	SP	SP	P	X	P	X	SP*	P	P	X
Inn		X	X	X	P	P	P	P	SP*	P	P	X
Hotel	Subject to § 223-14.1	X	X	X	P	P	P	P	X	P~~X~~	P	X
Social/Community												
Spa/fitness center/exercise studio		X	X	SP	P	P	P	P	X	P	P	X
Day-care center		X	X	P	P	X	P	P	X	P	SP	X
Park, preserve, community garden		P	P	P	P	P	P	P	P	P	P	X
Theater, concert or conference space		X	X	X	P	P	P	P	X	P	P	X
Museum		SP*	SP*	SP*	P	P	P	P	X	P	P	SP
Place of worship/religious facility		P	P	P	P	X	X	X	X	X	P	X
Social club	Subject to § 223-24.2	SP	SP	SP	SP	P	X	X	X	X	SP	X
Government facility		P	P	P	P	P	P	P	P	P	P	P
Golf course		SP*	SP*	X	X	X	X	X	X	X	X	X
Health Care												
Hospital or nursing home	Subject to 223-21.1/22	SP*	SP*	X	X	X	X	X	X	P	P	P
Animal care facility		SP	SP	X	SP	X	X	X	X	X	SP	X

[1] Editor's Note: This local law also repealed former 223 Attachment 2, § 223-17D, Schedule of Regulations for Nonresidential Districts, as amended.

Permitted Uses by District	Reference Notes	All R1	All RD	T	GB	CMS	L	TS	WP	FCD	LI	HI
Educational												
College or university		SP*	SP*	X	P	P	P	X	X	P	P	P
Trade school or training program		X	X	X	P	P	P	X	X	P	P	P
Private school or nursery school		SP	SP	SP	P	X	P	X	X	P	SP	X
Parking/Auto-Oriented												
Off-street parking or parking structure	Subject to § 223-26	X	X	SP	SP	SP	X	X	X	X	X	X
Vehicle sales or rental lot		X	X	X	SP	X	X	X	X	X	SP	X
Gas filling station and/or car wash	Subject to Ch. 210/§ 223-21	X	X	X	SP	X	X	X	X	X	SP	X
Auto body or repair shop	Subject to Chapter 210	X	X	X	SP	X	X	X	X	X	SP	X
Ambulance service		SP	SP	SP	P	X	X	X	X	X	P	X
Industrial or Assembly												
Wholesale business		X	X	X	P	X	X	X	X	X	P	P
Self-storage facility and warehouse storage	Subject to § 223-24.5	X	X	X	P/SP	X	X	X	X	X	P/SP	P/SP
Workshop		X	X	SP	P	P	P	X	X	P	P	P
Industrial or manufacturing use		X	X	X	X	X	SP	X	X	P	P	P
Other												
Wireless communication facility	Subject to § 223-26.4	P	P	P	P	P	P	P	P	P	P	P
Small cell wireless facility	Subject to § 223-26.4	P	P	P	P	P	P	P	P	P	P	P
Farm		P	X	X	X	X	X	X	X	X	X	X
Horticultural nursery		P	P	X	P	X	X	X	X	X	P	X
Historic District Overlay Use	Subject to § 223-24.7	SP*	SP*	SP*	SP*	SP*	SP*	SP*	SP*	SP*	SP*	SP*
Permitted Accessory Uses (includes uses/structures customarily incidental to a permitted principal use, but not an activity for commercial gain in a residential district)												
Accessory apartment	Subject to § 223-24.1	P	P	P	P	P	P	P	P	P	P	P
Private tennis court or pool	Subject to § 223-13	P	P	P	X	X	X	X	X	X	X	X
Home occupation or artist studio	Subject to § 223-17.1	P	P	P	X	X	X	P	X	X	X	X
Parking structure		X	X	SP	X	P	P	P	X	P	X	X
Drive-through facilities, standalone or accessory		X	X	X	X	X	X	X	X	X	X	X
Garden, roof garden, or greenhouse		P	P	P	P	P	P	P	P	P	P	P
Solar collectors	Subject to Article X	P	P	P	P	P	P	P	P	P	P	P
X = Use Not Permitted P = Permitted Use SP = Special Permit Use by Planning Board SP* = Special Permit Use by City Council	For specific standards see →					Article IVD	Article IVE	Article IVA	Article IVA	Article IVC		

[2] These uses, excluding townhouses, are only permitted on a parcel within the R1-5 Zoning District and not any other R1 Zoning District. Additionally, these uses are only permitted on a parcel in the R1-5 Zoning District if such parcel is located north of either side of Rombout Avenue, south of Verplank Avenue, east of South Avenue (a/k/a Route 9D) and west of Fishkill/Teller Avenue. For a parcel on the southern side of Rombout Avenue, such use is not permitted on a corner lot unless the driveway and the front of the house is located on Rombout Avenue.

LOCAL LAW NO. ___ OF 2026

CITY COUNCIL
CITY OF BEACON

A LOCAL LAW AMENDING CHAPTER 223 OF THE BEACON CITY CODE CONCERNING THE FISHKILL DEVELOPMENT DISTRICT AND HOTELS

A LOCAL LAW to amend Chapter 223, Zoning, concerning regulations governing hotels and the Fishkill Development District.

BE IT ENACTED by the City Council of the City of Beacon as follows:

Section 1. Chapter 223 of the Beacon City Code, Article II – General Legislation, Section 223-14.1 entitled "Hotels" is hereby amended as follows:

§ 223-14.1 **Hotels.**

A. Permitted uses. If a site is to be used for a hotel, use of the site and any buildings or structures on the site shall ~~be limited to~~may include usual hotel activities and accessory uses incidental to the operation of a hotel and of the same general character, provided that all such accessory uses shall be planned as an integral part and located on the same site with the hotel.

(1) Such accessory uses may include the following:

(a) Dining facilities providing food and drink.

(b) Newsstands, gift shops and other shops.

(c) Recreation facilities which shall be for the exclusive use of guests or members.

(d) Employees' quarters and facilities.

(e) Spa facilities.

(f) Conference center facilities

(2) All hotels shall include the following:

(a) A lobby, registry desk, manager's office and public rest room facilities.

(b) Off-street parking facilities.

(c) Access to all guest rooms from an interior hallway

B. Screening. Outdoor parking areas and recreational facilities shall be screened with fencing, landscaping and/or buildings on all sides toward adjoining residential lots. Where hotel buildings are set back less than 100 feet from one-family residential lots, such buildings shall be suitably screened with planting.

C. Off-street parking shall be in accordance with § **223-26**.

~~**D.** No kitchen facilities. There shall be no kitchen facilities in the hotel rooms except for a coffeemaker, a microwave oven and a small refrigerator.~~

Section 2. Chapter 223 of the Beacon City Code, Article IVC – Fishkill Creek Development District, Section 223-41.13 entitled "Uses; plan review; design standards," Subsection B(3) is hereby amended as follows:

§ 223-41.13 **Uses; plan review; review; design standards.**

…

B. Principal uses permitted. A Fishkill Creek development may be a single use, or a mixed use which incorporates various permitted land use elements as part of a comprehensive development plan. These elements may include:

(1) Apartment, attached or multifamily dwelling.

(2) Artist live/work space, artist studio and workshop of artisan.

(3) Bed-and-breakfast establishment, ~~or~~ inn, or hotel.

(4) Spa, fitness centers/noncommercial swimming pool, exercise studio, day-care center or similar use as determined by resolution of the City Council. Such uses shall be permitted in buildings that face a street.

(5) Restaurant, bar, brew pub or other eating and drinking establishment. Such restaurants and other eating and drinking establishments shall be permitted in buildings that face a street. No such individual use shall contain more than 5,000 square feet of gross floor area.

(6) Professional and business office in buildings that face a street.

(7) Gallery, exhibit space or museum.

(8) Community facility that complements residential and commercial use, such as a public or semipublic performance and cultural center, live theater, concert hall, meeting room suitable for social, civic, cultural or education activities, bandshell, kiosk or gazebo.

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(9) Assembly, manufacturing, workshop or other light industrial use, as determined by the City Council, in fully enclosed buildings and not including any form of outdoor storage.

(10) Day-care center.

(11) Trade school or training program, college, private school, or nursery school.

(12) Other nonresidential use similar to the above uses as determined by resolution of the City Council.

...

Section 3. Chapter 223 of the Beacon City Code, Article IVC – Fishkill Creek Development District, Section 223-41.14 entitled "Bulk regulations," Subsections B and G are hereby amended as follows:

§ 223-41.14 **Bulk regulations.**

A. Minimum size of FCD site: two acres. Notwithstanding the above, the owner of less than two acres of land may apply for approval of a FCD project, where such land is adjacent to a proposed, approved or constructed FCD project.

B. Development potential. ~~Maximum number of dwelling units per acre of lot area, after deducting on all development proposals involving a total lot area of more than three acres any lot area with existing, predevelopment very steep slopes of 25% or more as defined in § **223-63**, covered by surface water, within a federal regulatory floodway, or within a state or federally regulated wetland: 11. Additionally, a~~A minimum of 25% of the total development's floor area shall be permitted nonresidential uses other than dwelling units or artist live/work spaces, which must be built out before or concurrently with the residential development of the site. For good cause shown, the City Council may, upon imposition of such conditions as it deems appropriate, allow certificates of occupancy to be issued for dwelling units or artist live/work spaces prior to the nonresidential component being completed. Less nonresidential square footage may be granted by the City Council for the voluntary and guaranteed inclusion in the project of desirable environmental, transportation, or other substantial public benefits which would not otherwise be required of the project, as determined at the sole discretion of the City Council as part of the concept plan approval.

C. Maximum dwelling unit size: 2,000 square feet of gross floor area.

D. Maximum building coverage, including parking structures: 35%.

E. Minimum open space: 30%.

F. Maximum building height: three stories and 40 feet, as determined from the average grade level of the side of the building facing the primary street view. A corner or

centrally located elevator or stair tower projecting one story above the permitted building height may be approved by the City Council to add architectural interest and to encourage access to rooftop gardens.

G. Minimum building setback from edge of pavement of a public ~~and private~~ street~~s~~ right-of-way: 12 feet.

H. Minimum frontage of overall FCD site on public street right-of-way: 50 feet.

I. Minimum setback from and buffer width along Fishkill Creek: an average of 50 feet, but not less than 25 feet at any point, except with respect to the existing building located at 555 South Avenue located in the Historic District and Landmark Overlay Zone, in which case the minimum setback and buffer requirement shall not apply.

Section 4. Ratification, Readoption and Confirmation.

Except as specifically modified by the amendments contained herein, Chapter 211 of the Beacon City Code is otherwise to remain in full force and effect and is otherwise ratified, readopted and confirmed.

Section 5. Numbering for Codification.

It is the intention of the City of Beacon and it is hereby enacted that the provisions of this Local Law shall be included in the Code of the City of Beacon; that the sections and subsections of this Local Law may be re-numbered or re-lettered by the Codifier to accomplish such intention; that the Codifier shall make no substantive changes to this Local Law; that the word "Local Law" shall be changed to "Chapter," "Section" or other appropriate word as required for codification; and that any such rearranging of the numbering and editing shall not affect the validity of this Local Law or the provisions of the Code affected thereby.

Section 6. Severability.

If any clause, sentence, paragraph, subdivision, section or part of this chapter or the application thereof to any person, individual, corporation, firm, partnership, entity or circumstance shall be adjudged by any court of competent jurisdiction to be invalid or unconstitutional, such order or judgment shall not affect, impair or invalidate the remainder thereof, but shall be confined in its operation to the clause, sentence, paragraph, subdivision, section or part of this chapter, or in its application to the person, individual, corporation, firm, partnership, entity or circumstance directly involved in the controversy in which such order or judgment shall be rendered.

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Section 7. Effective date.

This local law shall take effect immediately upon filing with the Office of the Secretary of State of the State of New York.

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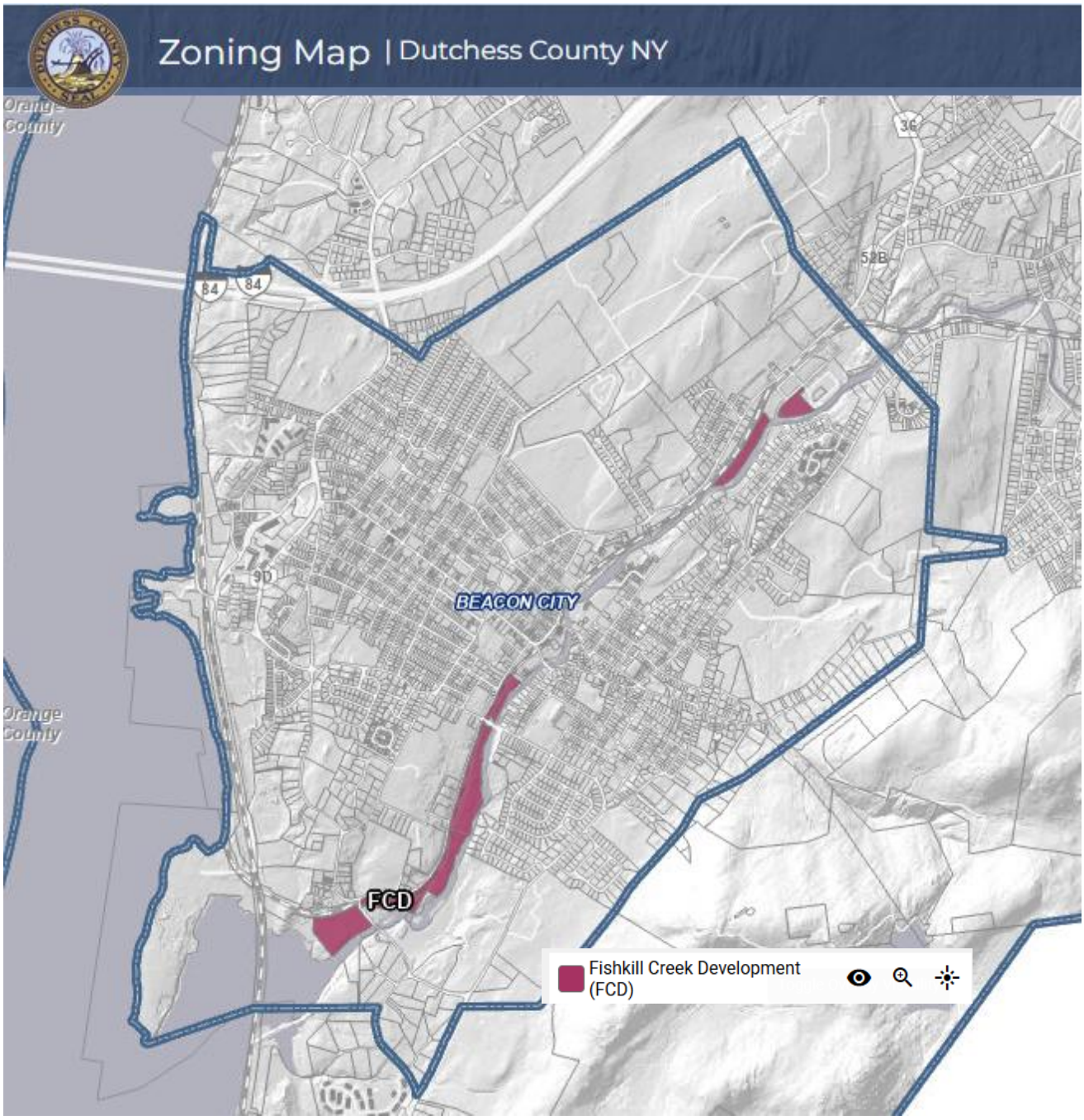
Attachment A - Location of FCD Parcels in Beacon



KARC
PLANNING CONSULTANTS, INC.

MEMORANDUM

TO: Mayor Lee Kyriacou and Beacon City Council

FR: Natalie Quinn, KARC Planning Consultants

DATE: July 15, 2026

RE: Fishkill Creek Development District (FCD) – Policy Considerations and Proposed Text Amendments

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During the July 6, 2026 City Council Workshop, the Council discussed potential amendments to the Fishkill Creek Development (FCD) District regulations in response to preliminary discussions regarding the potential redevelopment of property located at 555 South Avenue. While no formal application has been submitted, the discussion identified several policy questions regarding the FCD District that warrant consideration independent of any specific project.

This memorandum summarizes the existing FCD regulations, consistency with the City's Comprehensive Plan, and the proposed zoning text amendments prepared in response to the Council's discussion.

Inventory of FCD Parcels

The Fishkill Creek Development (FCD) District encompasses a relatively small geographic area consisting of only nine (9) tax parcels ranging in size from approximately 0.03 acres to 11.07 acres. An outlier parcel of 49.9 acres represents a linear strip of right-of-way land along the abandoned rail line that is being considered for the Hopewell- Beacon rail Trail. Several parcels within the district have been recently developed, while others remain vacant or underutilized and represent future redevelopment opportunities. The district includes former industrial properties, vacant land, and portions of the rail line. A summary of the parcels is provided below, with Attachment A depicting the location of FCD parcels within the city.

Parcel	Lot #	Address	Size	Notes
1	751258	555 South Ave	11.07 Ac	Former Tioronda Hat Works Factory
2	96715	N/A	49.9 Ac	Rail Line
3	894286	Tioronda Ave	1.3 Ac	Vacant parcel
4	951357	Tioronda Ave	4.9 Ac	Vacant parcel
5	12574	200-300 Arno Dr	9.17 Ac	Project also referred to as 248 Tioronda
6	37625	25-28 Creek Dr	3.14 Ac	Developed site
7	459057	Fishkill Ave	4.9 Ac	Vacant parcel
8	535128	Front Street	3.5 Ac	Vacant parcel; Concept plan previously reviewed by Council
9	516113	Front Street	0.03 Ac	Private sewage pump station

Comprehensive Plan Consistency

The 2017 City of Beacon Comprehensive Plan generally supports the continued redevelopment of the Fishkill Creek corridor through a mix of residential, commercial, cultural, and recreational uses. The Plan specifically encourages the redevelopment of underutilized industrial properties, the adaptive reuse of former industrial buildings, environmental remediation of brownfield sites, expanded tourism opportunities, and amenities such as inns, spas, restaurants, and other destination-oriented uses that support the City's economic development objectives.

More specifically, the Comprehensive Plan recommends encouraging the redevelopment of vacant and underutilized industrial sites along Fishkill Creek for new residential, commercial, or light industrial uses, as appropriate, while also promoting tourism, business development, and employment opportunities throughout the City.

While the Comprehensive Plan references hospitality uses and tourism, it does not specifically distinguish between an "inn" and a "hotel," nor does it expressly address whether hotels should be permitted within the Fishkill Creek Development District. Likewise, the Comprehensive Plan does not identify a recommended residential density or establish a target number of dwelling units per acre for the FCD District.

Overall, the Comprehensive Plan appears generally supportive of mixed-use redevelopment, adaptive reuse, tourism, and economic development within the Fishkill Creek corridor. However, it leaves the specific questions of hotel accommodations and residential density to future legislative policy decisions by the City Council.

Purpose of FCD District

In addition to the Comprehensive Plan, the stated purpose of the Fishkill Creek Development (FCD) District provides further guidance regarding the City's intent for this area. The FCD District is specifically intended to encourage the redevelopment of underutilized industrial properties through a mix of residential and nonresidential uses on larger, flexible development sites while preserving the environmental and recreational resources associated with Fishkill Creek. The district also emphasizes the protection of open space corridors, expansion of public access and greenway connections, and enhancement of recreational opportunities along the creek. Consistent with the Comprehensive Plan, the purpose statement establishes the desired character and land use mix for the district but does not prescribe a specific residential density.

FCD Form-Based Development Standards

The Fishkill Creek Development (FCD) District is a form-based mixed-use district that regulates development through detailed bulk, design, and site planning standards. In addition to residential density, the district establishes controls for building height, building coverage, open space, setbacks, creek buffers, architecture, landscaping, parking, pedestrian connections, and

viewsheds, all of which are subject to City Council concept plan approval and Planning Board site plan review. As a result, eliminating or increasing the maximum residential density would not, by itself, permit larger or taller buildings. The overall scale and massing of development would continue to be regulated through the district's existing form-based standards.

Existing Zoning Density Comparison

The current FCD regulations permit one dwelling unit for every 3,960 square feet of lot area, equivalent to approximately 11 dwelling units per acre. The draft Local Law proposes eliminating this maximum residential density limitation while retaining the district's existing form-based bulk and design standards.

The FCD District is somewhat unique in that it combines form-based development standards with a traditional residential density limitation. The General Business (GB) and Light Industry (LI) Districts permit one dwelling unit per 1,500 square feet of lot area (approximately 29 dwelling units per acre), while the City's principal form-based mixed-use districts (CMS, L and WD) do not regulate residential density through a minimum lot area per dwelling unit. Instead, development intensity in those districts is controlled through building height, setbacks, lot coverage, frontage requirements, and other form-based standards.

Accordingly, the Council may wish to consider whether the current FCD density standard continues to reflect the intended character of the district and the city's housing development goals, or whether additional flexibility could be provided while continuing to rely on the district's existing form-based dimensional and design standards to regulate building scale and massing.

District	Min. Area Per Unit (sq. ft per unit)	Units Per Acre
FCD	3,960	11
CMS, L, WD	--	--
GB, LI	1,500	29
RD-1.7	1,700	25
RD-1.8	1,800	24
RD-3	3,000	14
RD-4	4,000	10
RD-5	5,000	8
RD-6	6,000	7
RD-7.5	7,500	5

Definitions: Hotel Versus Inn

The Council requested additional information regarding the distinction between a hotel and an inn under the City's zoning regulations. While hotels are listed as a prohibited use within the Fishkill Creek Development (FCD) District, inns are expressly permitted. However, Section 223-41.13(B)(12) also permits "[o]ther nonresidential use[s] similar to the above uses as determined by resolution of the City Council." As a result, the Code creates some ambiguity regarding whether certain hospitality uses could be considered sufficiently similar to an inn to warrant approval by the Council.

Section 223-63 of the Zoning Code defines these uses as follows:

> **HOTEL:** *A building, or portion thereof, containing rooms occupied primarily by transient guests, who are lodged with or without meals, and in which there may be provided such services as are accessory and incidental to the use thereof as a temporary residence, such as dining, recreational facilities, public rooms and meeting rooms, and gift shops. The term "hotel" shall not include bed-and-breakfast establishment, boardinghouse, rooming house, short-term rental or single-room-occupancy building for the purposes of this chapter.*
>
> **INN:** *A hotel containing no more than 10 guest rooms.*

Based on these definitions, an inn is simply a hotel with ten (10) or fewer guest rooms. The zoning code does not establish substantially different operational or land use characteristics between the two uses beyond the number of guest rooms. From a land use planning perspective, both provide transient lodging accommodations and may include similar accessory amenities.

Accordingly, if the Council wishes to permit larger hospitality accommodations within the FCD District, a legislative amendment provides the clearest means of resolving this ambiguity rather than relying on the "similar use" provision.

Section 223-14.1 Hotel Regulations

The accompanying draft Local Law includes revisions to §223-14.1 intended to modernize the City's hotel regulations and better accommodate mixed-use development within the FCD District. Specifically, the amendments would permit hotels to function as part of a mixed-use development and remove the existing prohibition on guest room kitchen facilities, while maintaining the existing operational standards applicable to hotel uses.

KARC
PLANNING CONSULTANTS, INC.

Summary of Proposed Local Law

Based on the Council's discussion at the July 6, 2026 Workshop, a draft Local Law has been prepared for the Council's consideration. The proposed amendments are intended to provide greater flexibility for mixed-use redevelopment within the Fishkill Creek Development (FCD) District while continuing to rely on the district's existing form-based standards to regulate the scale, massing, and character of development. The proposed amendments include the following:

- **Permit hotels within the FCD District** by adding "hotel" as a permitted principal use alongside bed-and-breakfast establishments and inns within § 223-41.13(B)(3).

- **Remove the maximum dwelling unit density limitation** of 11 dwelling units per acre from § 223-41.14(B), while retaining all existing bulk, design, open space, and form-based development standards applicable to the district.

- **Update the hotel supplemental regulations (§ 223-14.1)** to better reflect contemporary mixed-use development by permitting hotels to function as part of a mixed-use project rather than solely as a stand-alone use, and by removing the prohibition on guest room kitchen facilities. The existing prohibition was historically intended to distinguish hotels from multifamily dwellings and single-room occupancy uses; however, those distinctions are already addressed through the zoning code definitions and applicable building code requirements.

- **Revise the minimum building setback requirement** within § 223-41.14 to measure the setback only from a public street right-of-way, eliminating the reference to private streets for consistency with the City's other zoning regulations.

Next Steps

If the City Council concurs with the proposed amendments, the next step would be to authorize the preparation and circulation of the draft Local Law for referral to the Dutchess County Department of Planning and Development pursuant to General Municipal Law §239-m and to the City of Beacon Planning Board for review and recommendation. The City Council would also be in a position to schedule a public hearing on the proposed Local Law to provide residents, property owners, and other interested stakeholders an opportunity to provide additional input. Following receipt of the referral comments and completion of the public hearing, the City Council may consider adoption of the Local Law.

Cc: Benjamin Swanson, City Administrator
Nick Ward-Willis, Keane & Beane, P.C.

City of Beacon Planning Board Agenda
08/11/2026

Title:

Certificate of Appropriateness: 425 Main Street - Facade

ATTACHMENTS

425 Main PB 8.11.26 Sheet 1_ARB Submittal 2_260728.pdf





EXISTING CONDITIONS PHOTOS



NEW RESIDENTIAL ENTRANCE

WOOD DOOR WITH INSULATED GLASS 1/2 LITE & (2) LOWER PANELS. MOLDING PROFILE TO MATCH EXISTING DOORS. PROVIDE (1) COAT OF PRIMER AND (2) FINISH COATS. BENJAMIN MOORE - AURA. CUSTOM COLOR TO MATCH EXISTING.

STONE LINTEL TO MATCH EXISTING.

ALUMINUM STANDING SEAM SHED AWNING OVER ENTRY DOOR. ATAS - 1" FIELD LOCK. COLOR: BLACK

NEW DOME LIGHTS W/ GOOSENECK MOUNT.
BARN LIGHT ELECTRIC CO. COLOR: MATTE BLACK



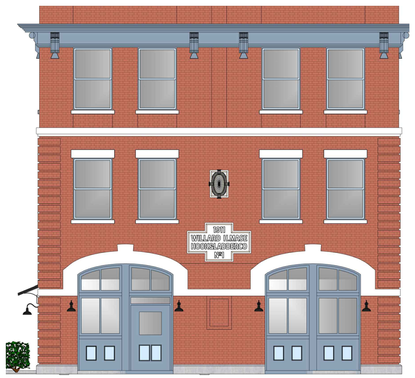
ALUMINUM BALUSTER RAILINGS W/ VERTICAL PICKETS.
COLOR: BLACK



12" DOME SCONCE WITH 16" GOOSENECK MOUNT.
BARN LIGHT ELECTRIC CO.
COLOR: MATTE BLACK



ALUMINUM STANDING SEAM SHED AWNING.
ATAS - '1" FIELD-LOK' CLASSIC W/ SMITH SCROLLS COLOR: BLACK



REPAIR ALL AREAS OF DETERIORATED WOOD TRIM & DOOR PANELS BY PATCHING, SPLICING AND REINFORCING AS REQUIRED TO MATCH THE MATERIAL, DESIGN AND DETAILING OF THE EXISTING WOODWORK

REMOVE ALL DAMAGED OR DETERIORATED PAINT TO THE NEXT SOUND LAYER. PROVIDE (1) COAT OF PRIMER AND (2) FINISH COATS. BENJAMIN MOORE - CUSTOM COLOR TO MATCH EXISTING



STEEL BALCONIES:
6X6 TUBE STEEL COLUMNS.
(2) 2X6 C-CHANNEL STEEL BEAM & 2X6 GALVANIZED STEEL JOISTS AT 16" ON CENTER. THROUGH BOLT EXTERIOR FACING CHANNEL W/ 1/2" DIAMETER GALVANIZED BOLTS.

PROVIDE (1) COAT OF PRIMER AND (2) FINISH COATS FOR ALL STEEL. BENJAMIN MOORE - AURA. COLOR: BLACK (HC-190).

5/4" X 6" WOOD DECKING WITH SEMI-TRANSPARENT MINWAX STAIN. COLOR: PHANTOM GRAY (MW1089)

42" ALUMINUM RAILINGS W/ VERTICAL PICKETS. COLOR: BLACK

FULL LITE, INSULATED GLASS DOORS. COLOR: BLACK

2 Originally Approved
1/8" = 1'-0"







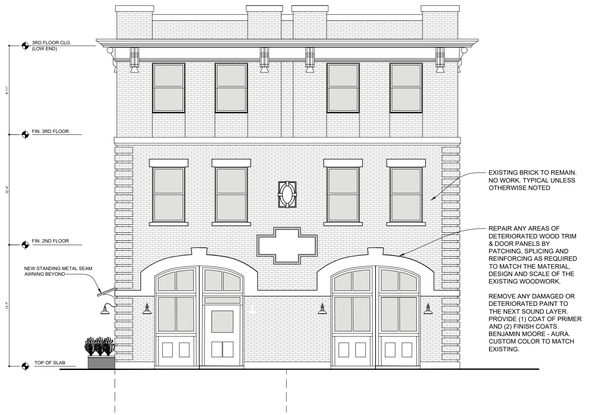




Images of Proposed Revisions

THESE IMAGES ARE INTENDED TO HELP ILLUSTRATE THE GENERAL BUILDING DESIGN CONCEPT BUT ARE NOT ACCURATE REPRESENTATIONS OF THE SITE CONTEXT. THE ELEVATION LINE DRAWINGS ON THIS SHEET SHOW THE PROPOSED DESIGN TO BE APPROVED







1 Proposed Revisions
1/8" = 1'-0"

425 Main Street
Amended Architectural Review Board Application

Owner:
Simon Fox Properties
245 Westchester Avenue
Port Chester, NY 10573

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

425 Main Street
Beacon, NY
Scale: As Noted
June 30, 2026

City of Beacon Planning Board Agenda
08/11/2026

Title:

New Single-Family House: Rombout Avenue (Tax Grid #5954-36-949764)

ATTACHMENTS

Rombout 949764 Lot 2 PB 8.11.26 ARB app redacted2.pdf

Rombout 949764 Lot 2 PB 8.11.26 ARB Plot Plan.pdf

Rombout 949764 Lot 2 PB 8.11.26 ARB Elevations.pdf

Robmout 949764 Lot 2 PB 8.11.26 ARB Prelims.pdf

ARCHITECTURAL REVIEW BOARD APPLICATION

SUBDIVISION
105-107 CATHERINE
5954-36-949764

Date: 7/27/26

Project Address: Lot 2 Rombout Ave.

Project Architect/Engineer: Day & Stokosa

Owner/Builder: Lori Joseph Builders

Contact Phone No.: [redacted] Email: Gary Joseph 625@gmail

Approval Requested: ____ Certificate of Appropriateness (sign or façade change) ___X___ New Single-Family House

Color/Materials:

Siding: Hardi Plank. - Perl Grey. Gable Shakes - Artic White

Roofing: GAF Sierra Sand

Windows: Color: Double Hung [redacted] White Type: Anderson

Trim: White

Garage Door: N/A.

Stone/Brick: Natual Grey

Received:
JUL 28 2026 MP
City of Beacon
Building/Planning/Zoning

J Joseph
Signature of Owner

Applications for sign approval must also submit a sign permit application & supporting documents

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)

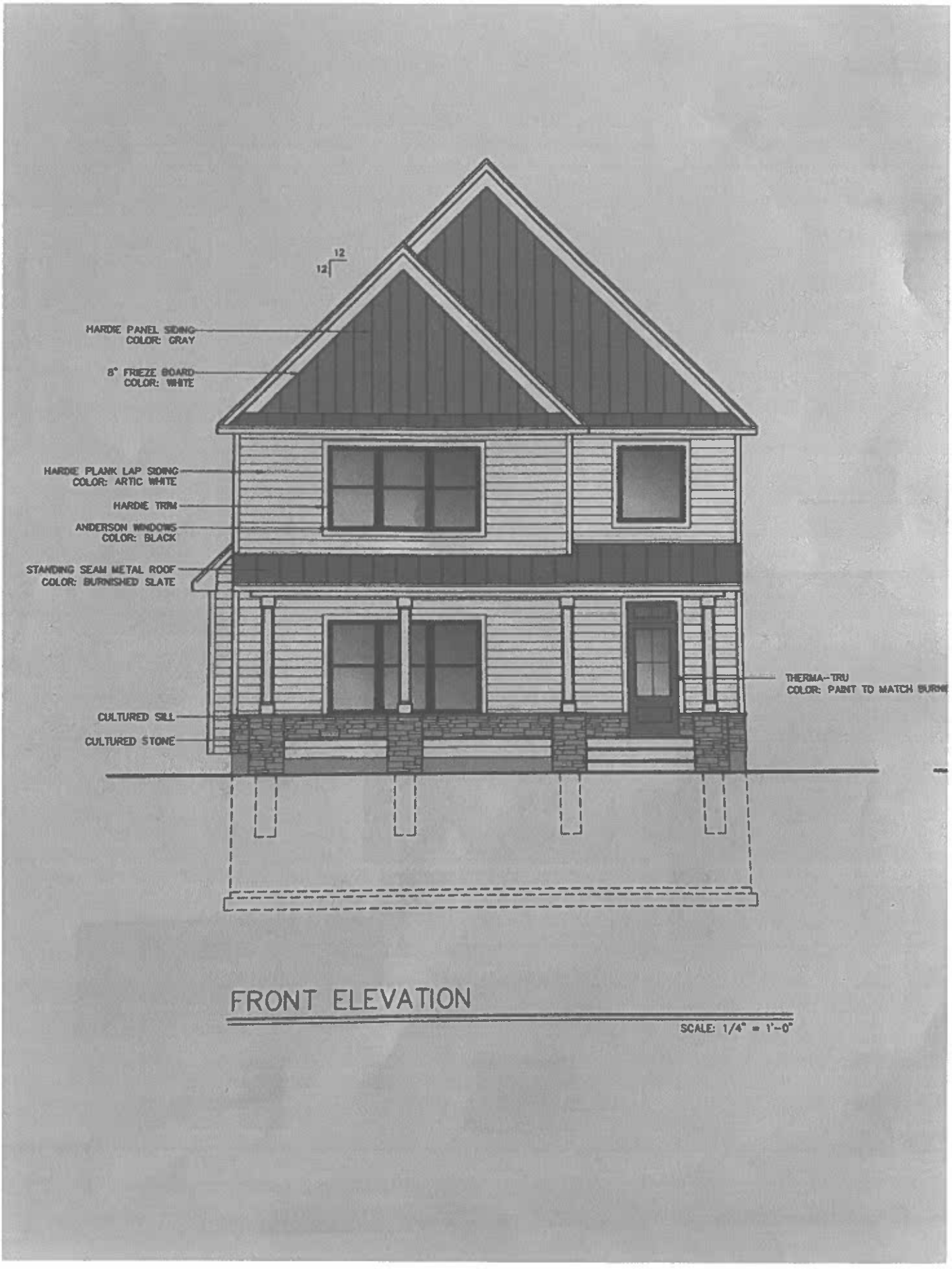
Plan Approved _____ (Date)

Subject to the following:

_____

_____

FEE: $100.00



FRONT ELEVATION

SCALE: 1/4" = 1'-0"

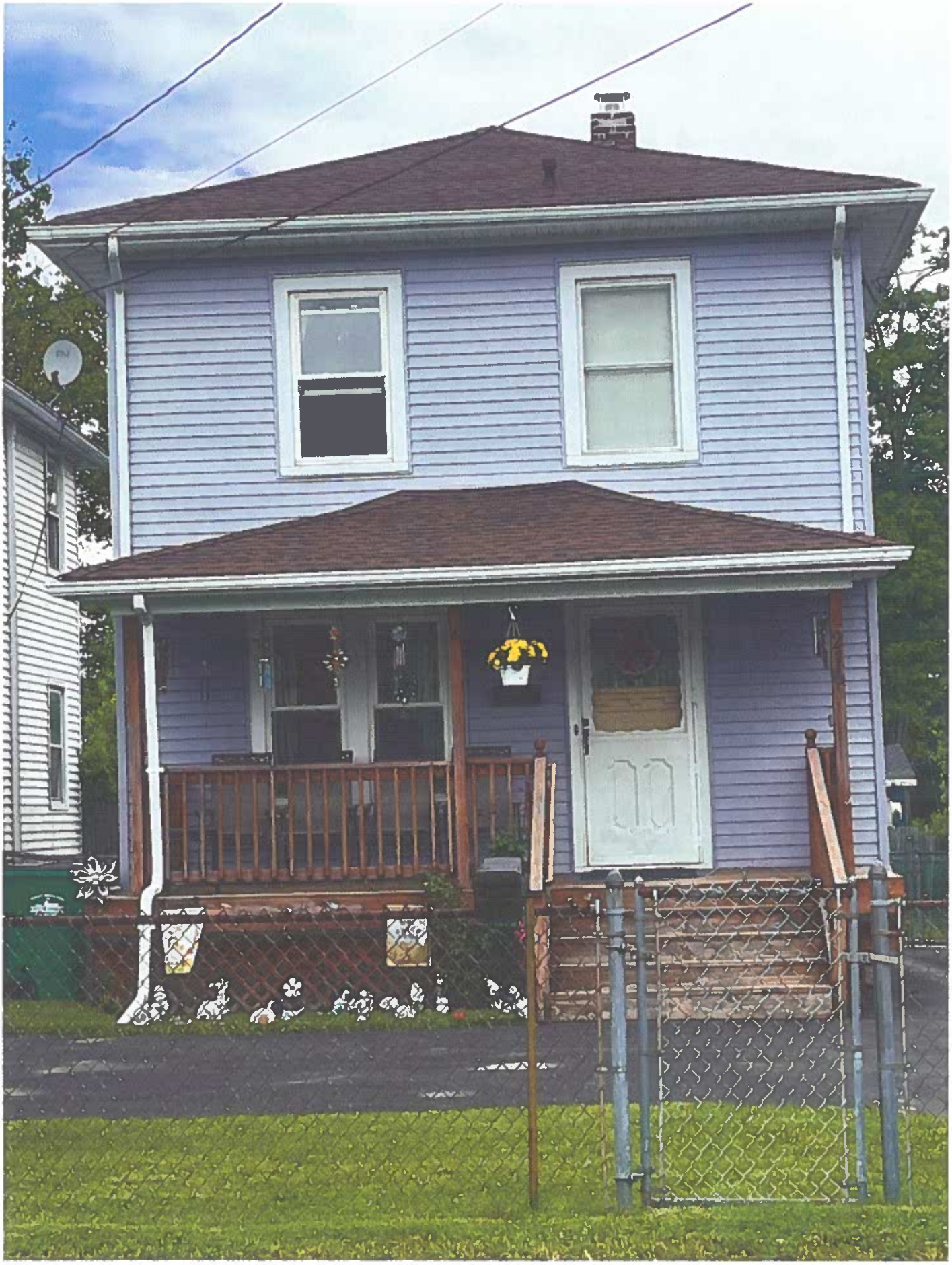
LOT 1 APPROVAL - WEST Side



ADJACENT HOME ON EAST SIDE



WEST SIDE SAME SIDE of Street



WEST Side SAME SIDE of Street







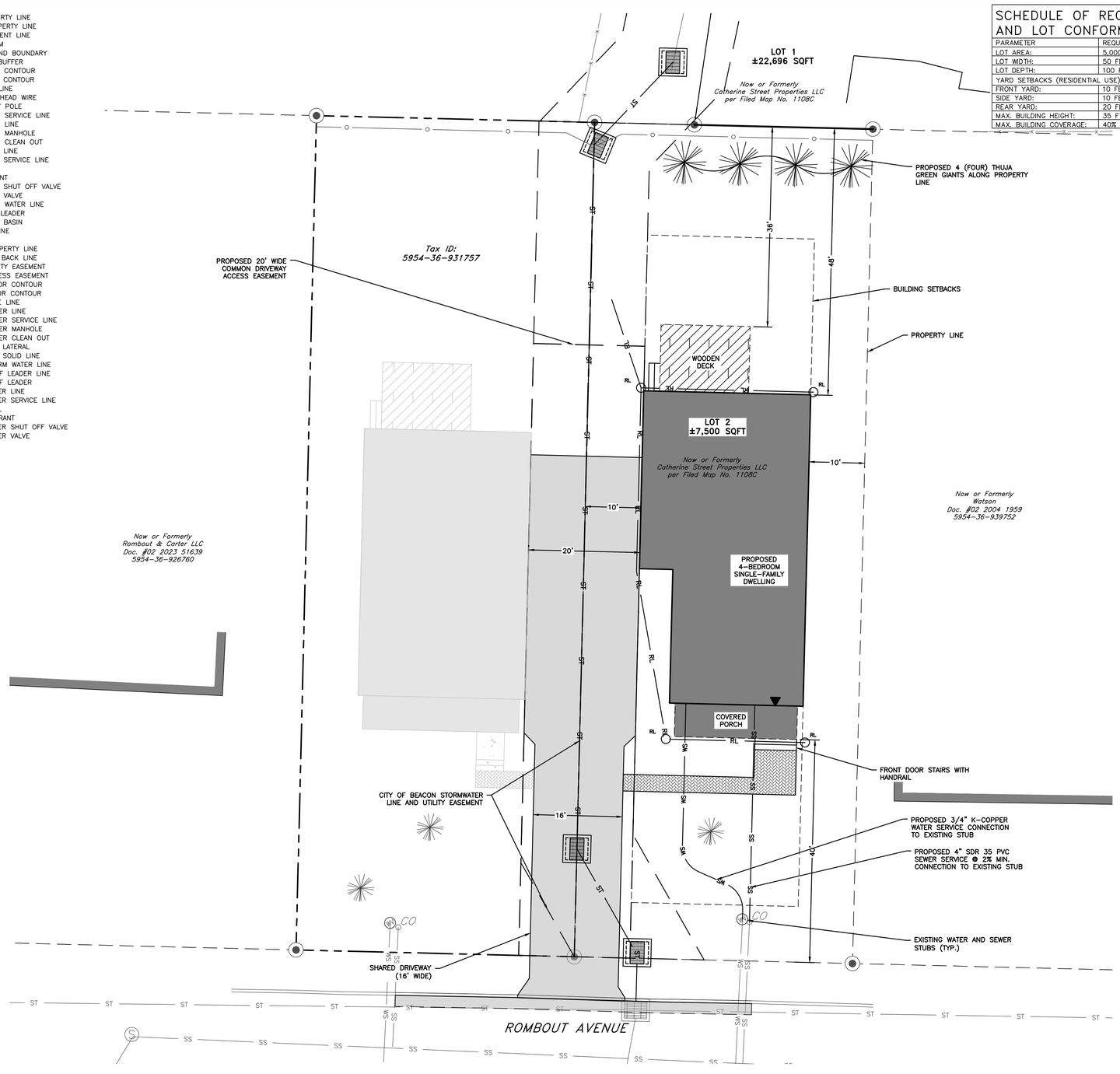






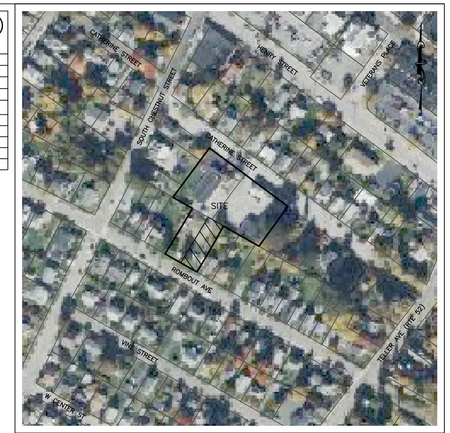
LEGEND:

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



SCHEDULE OF REGULATIONS (R1-5 ZONING DISTRICT) AND LOT CONFORMANCE TABLE 5954-36-949764:

PARAMETER	REQUIREMENT	PROPOSED
LOT AREA:	5,000 SQFT MIN./UNIT	±7,500 SQFT
LOT WIDTH:	50 FEET MINIMUM	±50 FEET
LOT DEPTH:	100 FEET MINIMUM	±150 FEET
YARD SETBACKS (RESIDENTIAL USE):		
FRONT YARD:	10 FEET MINIMUM	±40 FEET
SIDE YARD:	10 FEET MINIMUM	±10 FEET
REAR YARD:	20 FEET MINIMUM	±36 FEET
MAX. BUILDING HEIGHT:	35 FT, 2.5 STORIES	≤35 FEET
MAX. BUILDING COVERAGE:	40% MAX.	±22.2%



SITE LOCATION MAP SCALE: 1" = 200'

MAP REFERENCE:
BOUNDARY AND TOPOGRAPHIC SURVEY PER "BOUNDARY & TOPOGRAPHIC SURVEY PREPARED FOR CATHERINE STREET PROPERTIES LLC" PREPARED BY BRENDAN JOHNSON, PLS, DATED JUNE 30, 2025.

TOTAL PARCEL AREA:
±7,500 SQFT OR 0.17 ACRE

TAX MAP REFERENCE:
CITY OF BEACON 5954-36-949764 (PARCEL ID PRIOR TO SUBDIVISION), PARCEL IDENTIFIED AS LOT 2 ON MAP 1108C FILED 4/2/2026.

HORIZONTAL DATUM:
NAD 83-NY EAST

VERTICAL DATUM:
NAVD 88

FLOOD BOUNDARY:
SUBJECT PARCEL IS LOCATED IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANGE FLOODPLAIN) PER PANEL 36027C0464E DATED MAY 2, 2012.

WETLAND NOTE:
NO NYSDEC OR FEDERAL WETLANDS WERE FOUND ONSITE.

ENCROACHMENT NOTE:
THE FILING OF THIS PLAN DOES NOT CONSTITUTE ANY ENDORSEMENT, APPROVAL OR AUTHORIZATION OF ANY KIND FOR THE CONTINUATION OR REMOVAL OF ANY EXISTING ENCROACHMENTS ON THE SUBJECT PROPERTY.

UTILITY EASEMENT TO CITY OF BEACON NOTE:
1. UTILITY EASEMENT OVER TAX ID: 5954-36-931757 TO BENEFIT CITY OF BEACON FOR OPERATION AND MAINTENANCE OF THE STORMWATER CONVEYANCE SYSTEM FROM ROMBOUT AVENUE TO CATHERINE STREET.
2. NO STRUCTURES, POOLS, FENCING, TREES, BAY WINDOWS, ETC. SHALL BE CONSTRUCTED OR PLANTED WITHIN THE PROPOSED DRAINAGE EASEMENT.

APPROVED SUBDIVISION SET NOTES:
REFER TO SUBDIVISION SET ENTITLED "105 CATHERINE STREET SUBDIVISION" DATED 7/29/2025, LAST REVISED 2/10/2026, PREPARED BY HUDSON LAND DESIGN PROFESSIONAL ENGINEERING, P.C., AND APPROVED BY THE CITY OF BEACON PLANNING BOARD ON 11/12/2025 FOR ADDITIONAL DESIGN INFORMATION. THE PLANS ARE ON FILE WITH THE CITY OF BEACON AND THE SUBDIVISION PLAT IS ON FILE WITH DUTCHESS COUNTY UNDER FILED MAP #1108C.

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

Dig Safely. New York. Call 811 before you dig

SEAL

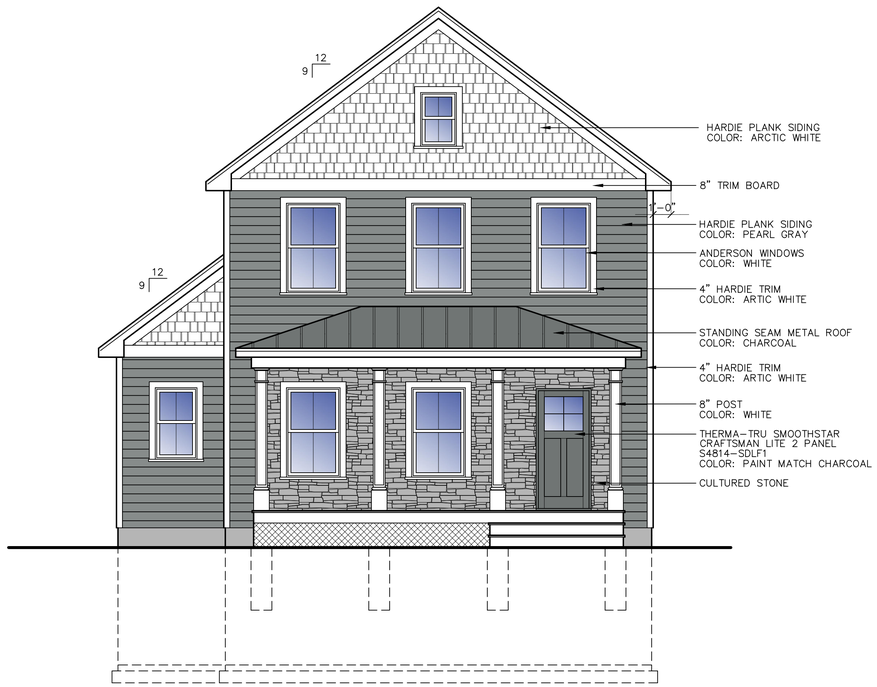
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926

PLOT PLAN LOT 2

105 CATHERINE STREET SUBDIVISION
(FILED MAP 1108C)
ROMBOUT AVENUE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-36-949764

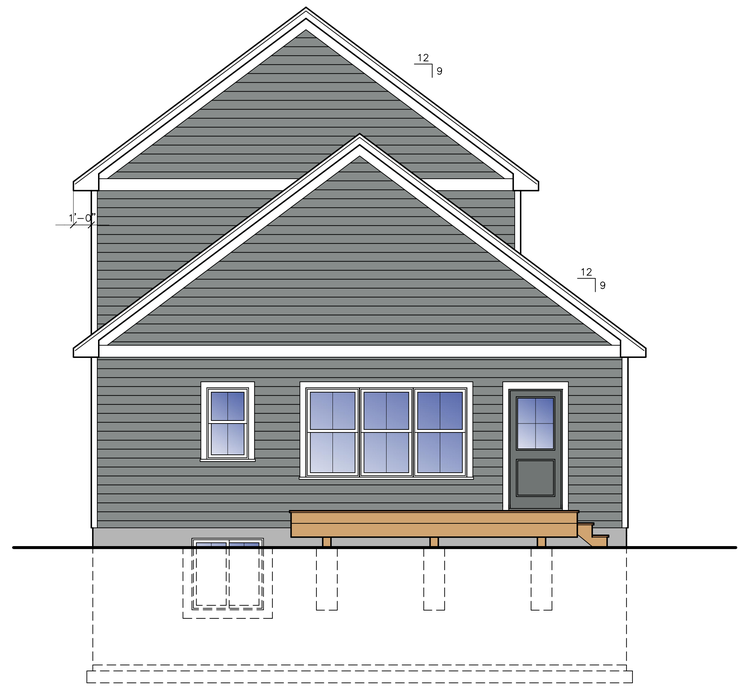
JOB #:	2025:027
DATE:	7/28/2026
SCALE:	1" = 10'
TITLE:	PP-2
SHEET:	1 OF 1

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



FRONT ELEVATION

SCALE: 1/4" = 1'-0"



REAR ELEVATION

SCALE: 1/4" = 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
07-27-26	
07-22-26	
Revisions 12-08-25	
Project No. 2025:474	License No. 083970

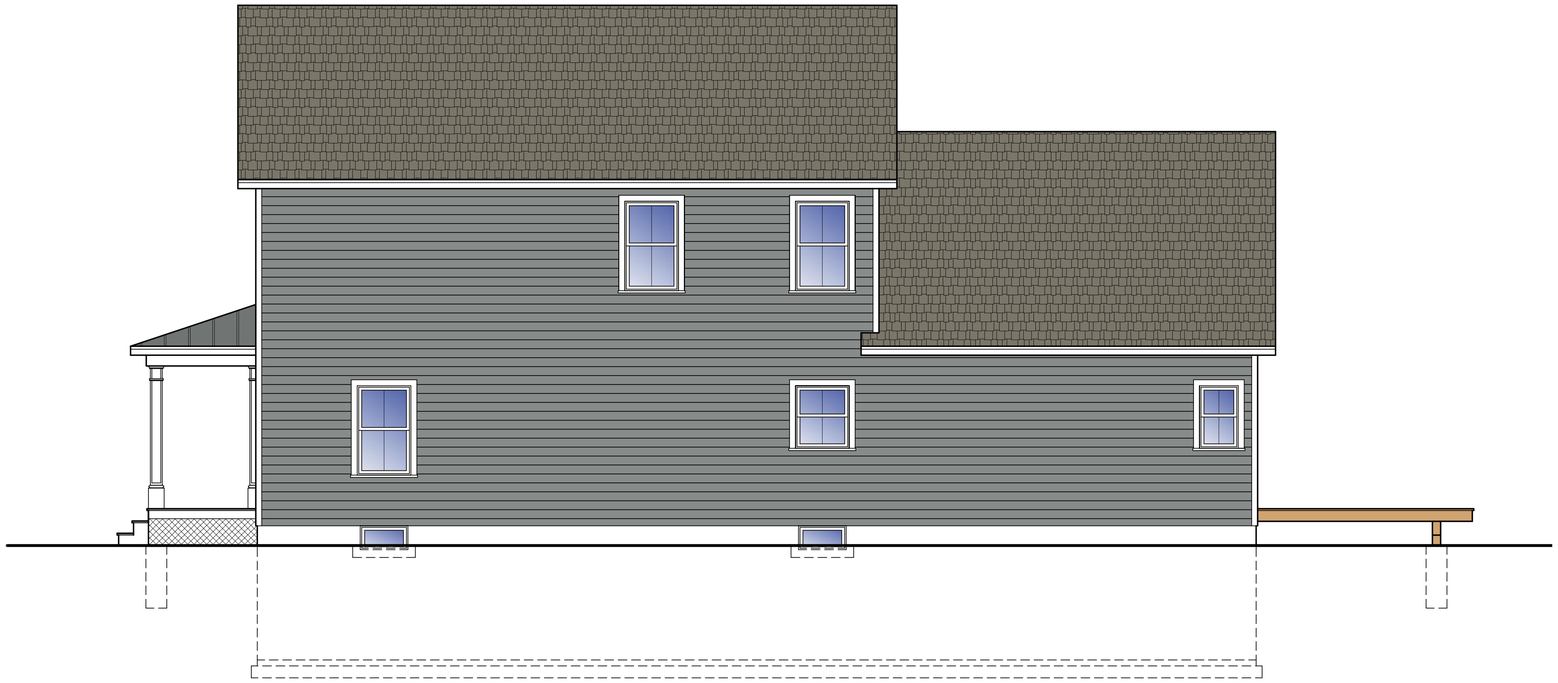
DAY | STOKOSA
ENGINEERING P.C.
3 Van Wyck Lane
Wappingers Falls, New York
(845)-223-3202

PROJECT

Lot #2
Rombout Avenue, City of Beacon
Dutchess County, New York

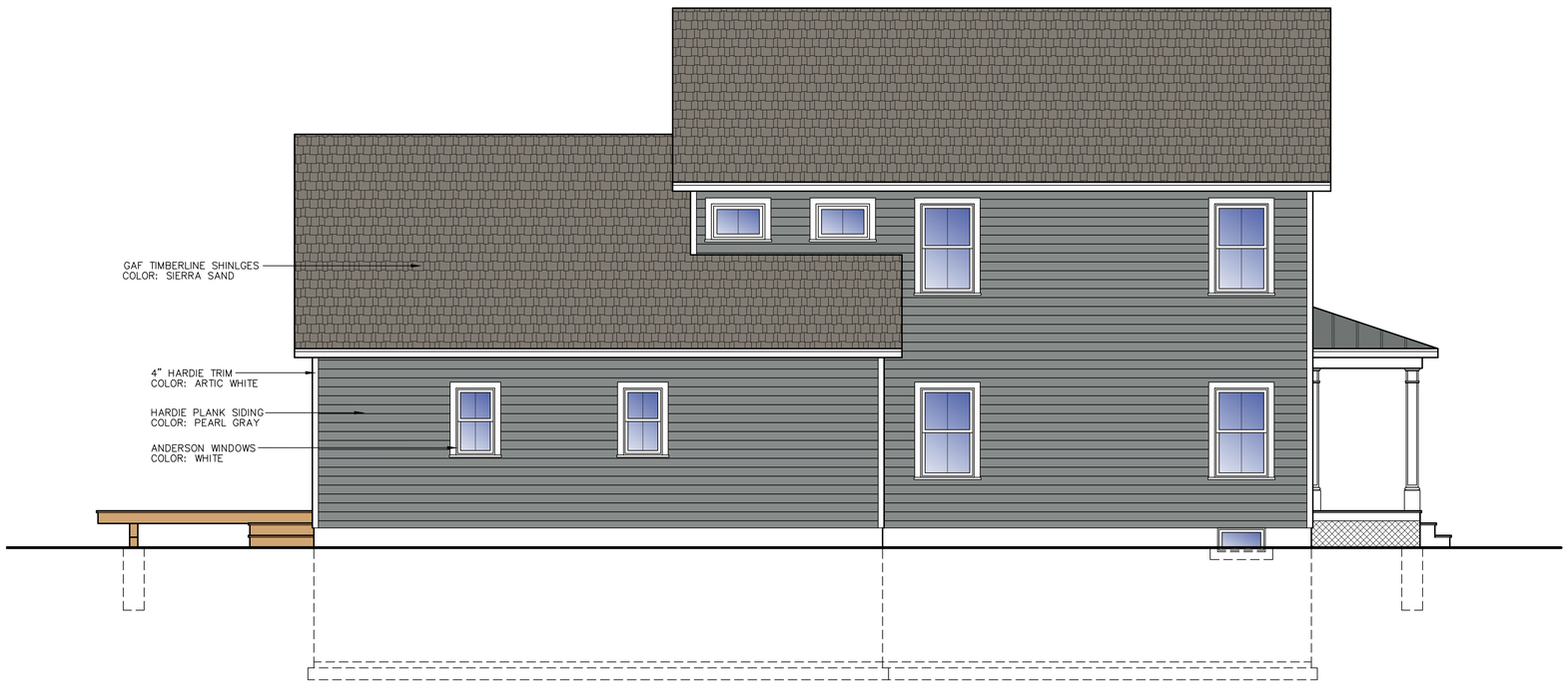
New Residence For:
Joseph Construction

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	E1
DATE 12-04-25	CHECKED BY B.J.S.	



RIGHT SIDE ELEVATION

SCALE: 1/4" = 1'-0"



LEFT SIDE ELEVATION

SCALE: 1/4" = 1'-0"

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1/4" = 1'-0"	S.M.M.	E2
DATE 12-04-25	CHECKED BY B.J.S.	

Z:\2025 AutCad Dwgs\Joseph Construction\Lot #2 - 2025.474\dwg\2025.474.dwg

WINDOW 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, DUAL-PANE" GLASS WITH A U-FACTOR OF U-0.27, OR LESS
4) ALL GLAZING WITHIN 18" OF FINISHED FLOOR TO BE TEMPERED

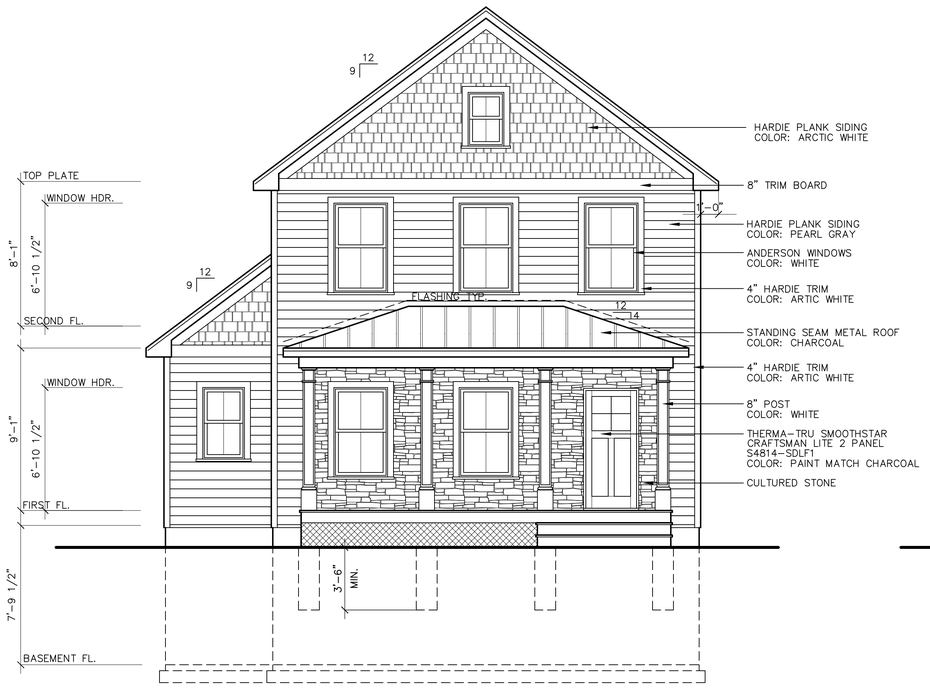
ALL OPERABLE WINDOWS THAT HAVE A SILL HEIGHT OF LESS THAN 24" ABOVE THE FINISHED FLOOR AND MORE THAN 72" ABOVE FINISHED GRADE MUST BE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F 2090

SQUARE FOOTAGE:	
1st FLOOR:	1536
2nd FLOOR:	774
TOTAL:	2310

EGRESS REQUIREMENTS

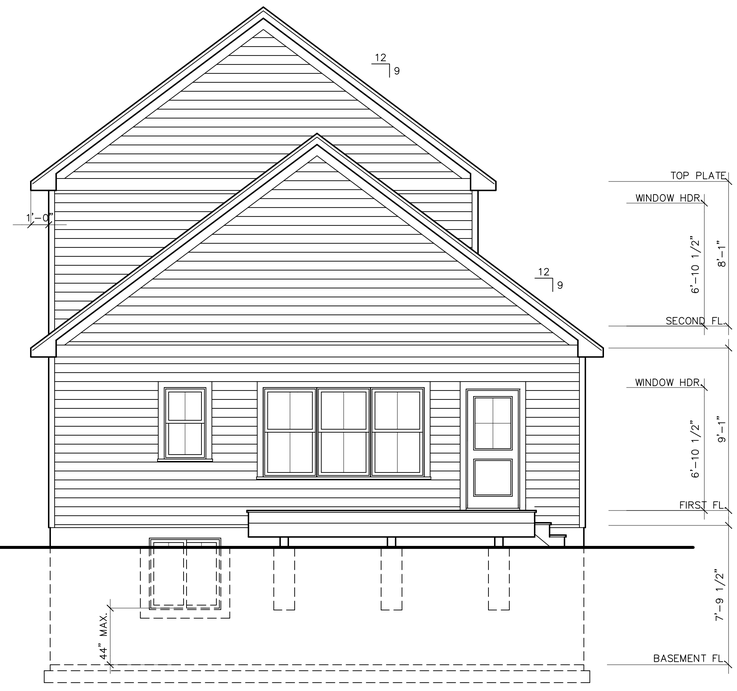
WINDOW	SQ.FT. CLEAR	WIDTH CLEAR	HEIGHT CLEAR
TW210410	5.81	31 7/8"	26 1/4"

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



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

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	Brian J. Stokosa, PE
07-27-26	
07-22-26	
Revisions 12-08-25	
Project No. 2025:474	License No. 083970

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New Residence For:
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SCALE	DRAWN BY	DRAWING No.
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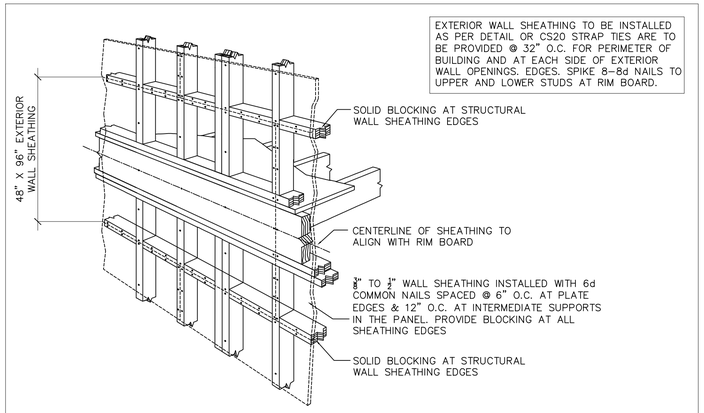
DATE 12-04-25	CHECKED BY B.J.S.	



WALL TO WALL ASSEMBLY W/ EXT. SHEATHING

SCALE: N.T.S.



LEFT SIDE ELEVATION

SCALE: 1/4" = 1'-0"

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07-22-26	
Revisions 12-08-25	
Project No. 2025:474	License No. 083970

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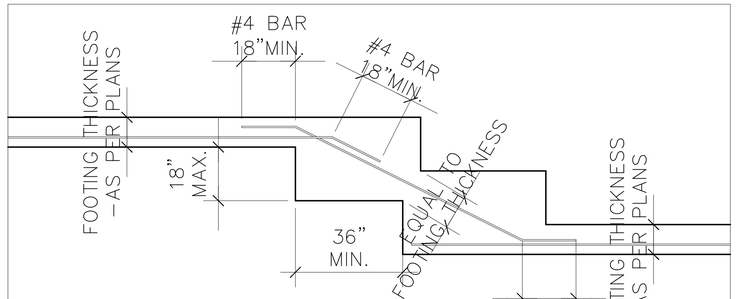
RIGHT SIDE ELEVATION

SCALE: 1/4" = 1'-0"



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"

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	Brian J. Stokosa, PE
07-27-26	
07-22-26	
Revisions 12-08-25	
Project No. 2025:474	License No. 083970

DAY STOKOSA ENGINEERING P.C.
3 Van Wyck Lane
Wappingers Falls, New York
(845)-223-3202

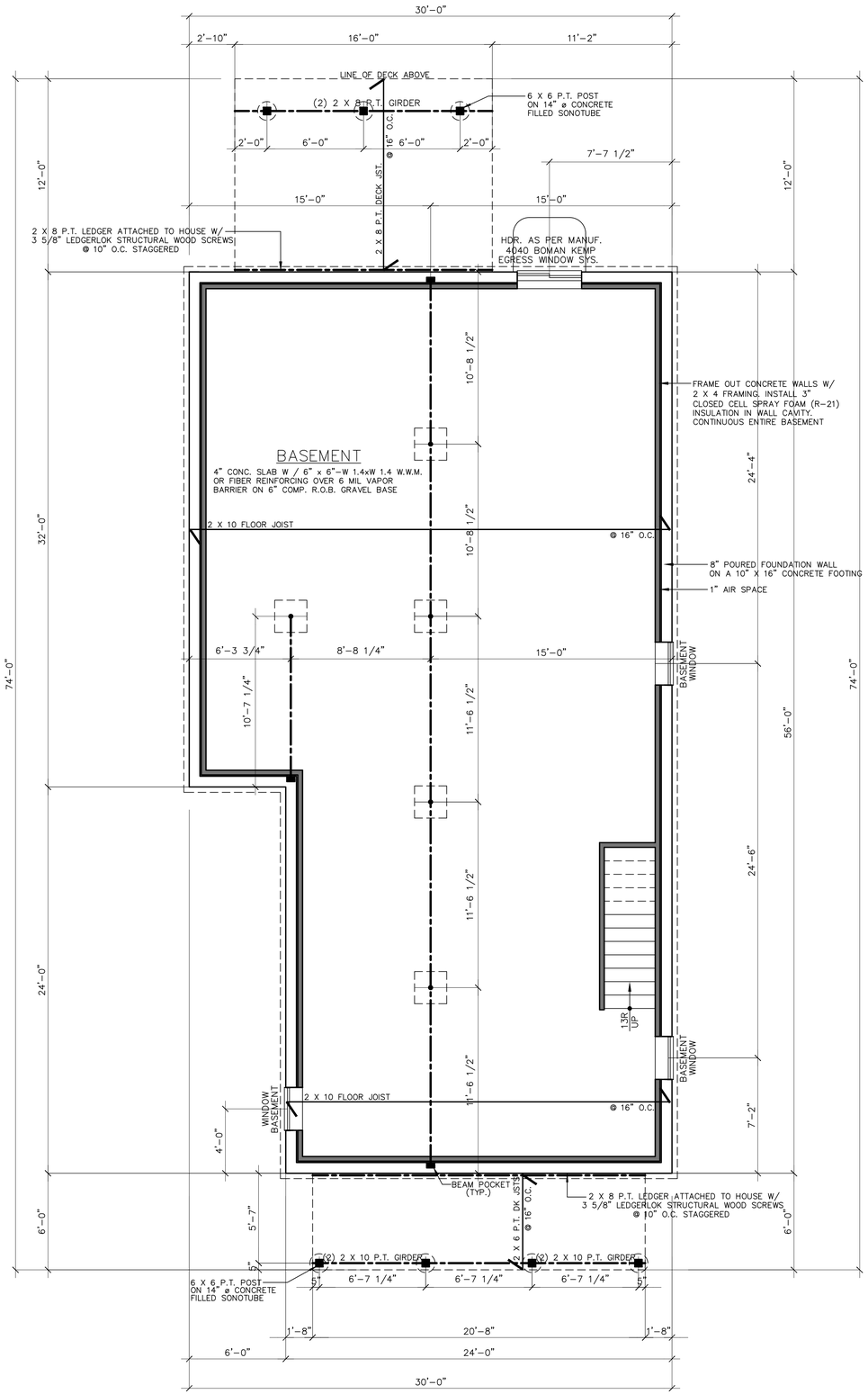
PROJECT

Lot #2
Rombout Avenue, City of Beacon
Dutchess County, New York

New Residence For:
Joseph Construction

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	E3
DATE 12-04-25	CHECKED BY B.J.S.	

Z:\2025 AutCad Dwgs\Joseph Construction\Lot #2 - 2025.474\dwg\2025.474.dwg

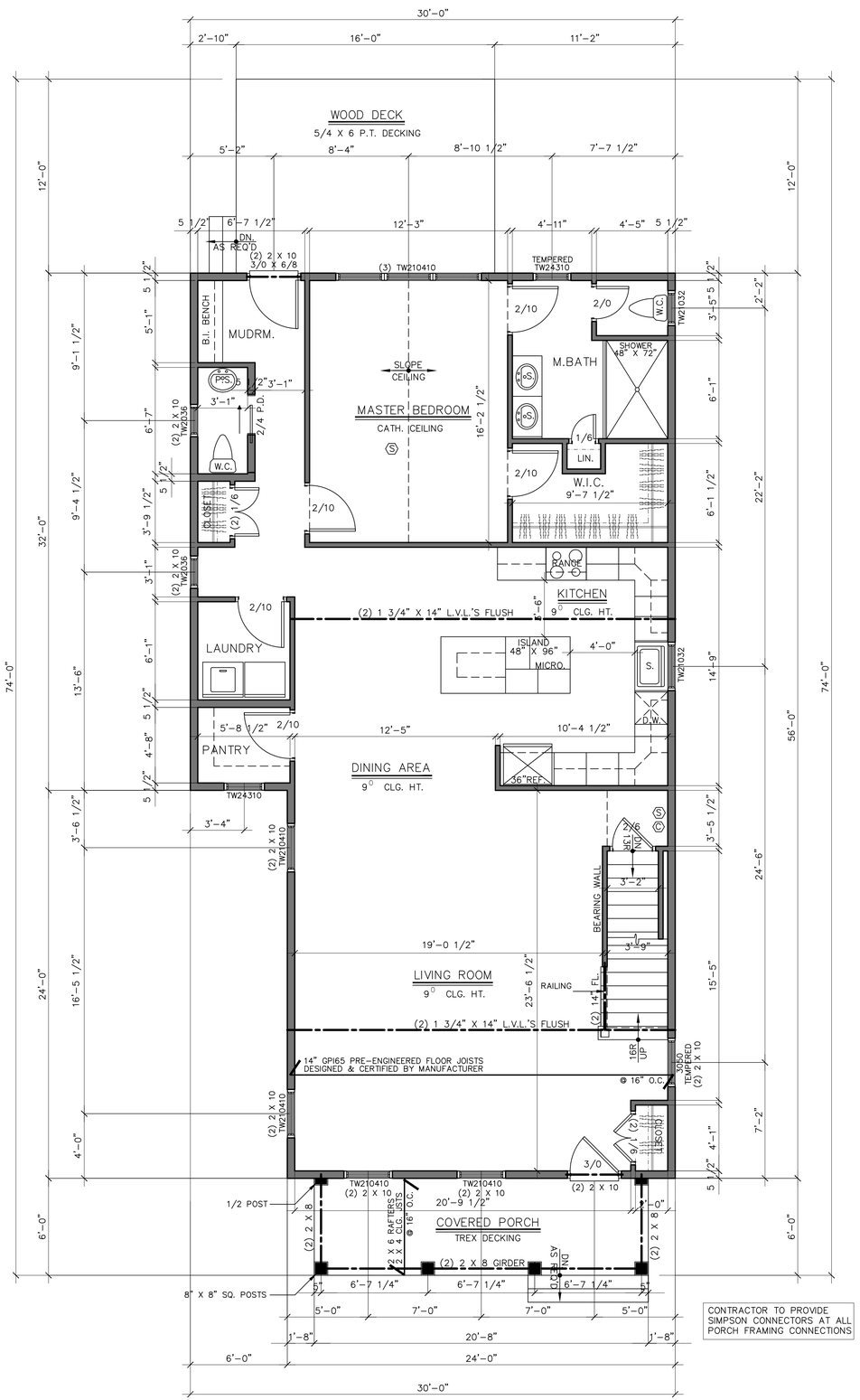


BASEMENT PLAN

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



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

CONTRACTOR TO PROVIDE SIMPSON CONNECTORS AT ALL PORCH FRAMING CONNECTIONS

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".

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.

INSTALL 2 X 6 COLLAR TIES AT 32" O.C. COLLAR TIES TO BE LOCATED DOWN FROM THE MAIN RIDGE A MINIMUM OF 1/3RD OF THE TOTAL HEIGHT BETWEEN THE CEILING JOISTS AND THE TOP OF THE MAIN RIDGE.

EXHAUST AIR FROM BATHROOM FANS SHALL BE EXHAUSTED DIRECTLY TO THE EXTERIOR AND SHALL NOT DISCHARGE INTO AN ATTIC, CRAWL SPACE OR OTHER AREA INSIDE THE BUILDING.

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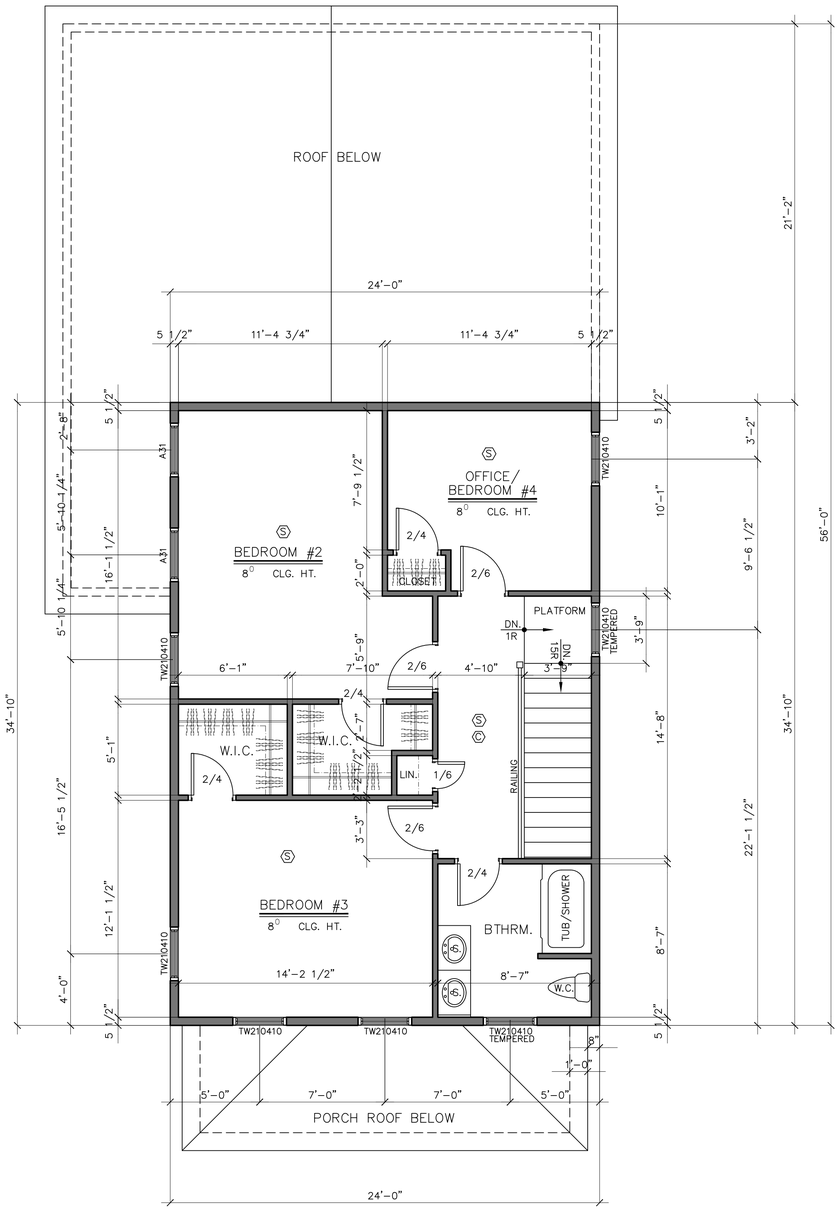

SECOND FLOOR PLAN

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

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.

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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.

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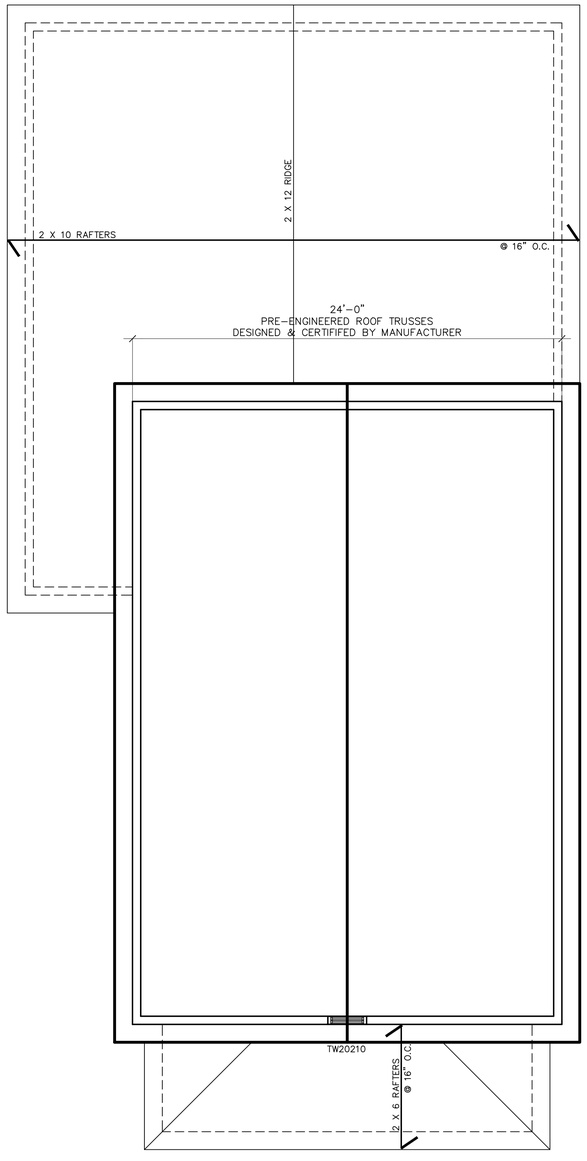
ALL DIMENSIONS MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE START OF CONSTRUCTION. ANY DISCREPANCIES ON THE PLANS, OR SPECIFICATIONS, MUST BE REPORTED TO THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.

INSTALL 2 X 6 COLLAR TIES AT 32" O.C. COLLAR TIES TO BE LOCATED DOWN FROM THE MAIN RIDGE A MINIMUM OF 1/3RD OF THE TOTAL HEIGHT BETWEEN THE CEILING JOISTS AND THE TOP OF THE MAIN RIDGE.

CONTRACTOR TO PROVIDE ATTIC SCUTTLE WITH MINIMUM DIMENSIONS OF 30" X 22". CONTRACTOR TO PROVIDE A LARGER SCUTTLE OPENING IF AIR HANDLER UNIT IS LOCATED IN ATTIC SPACE. SCUTTLE OPENING TO BE OF ADEQUATE DIMENSION TO ALLOW FOR PASSAGE OF UNIT THROUGH SCUTTLE OPENING.

CONTRACTOR TO VENT DRYER TO EXTERIOR SUCH THAT IT SHALL NOT TERMINATE LESS THAN 3 FEET FROM ANY OPENING INTO THE BUILDING. DRYER DUCT IS NOT TO EXCEED 25 FEET IN LENGTH AND IS TO BE CONSTRUCTED OF A MIN. OF 0.016 INCH THICK RIGID METAL DUCTS, HAVING A SMOOTH SURFACE & JOINTS RUNNING IN THE DIRECTION OF AIR FLOW. PROVIDE REDUCTION FOR EACH 90 DEGREE BEND.



ROOF PLAN

SCALE: 1/4" = 1'-0"

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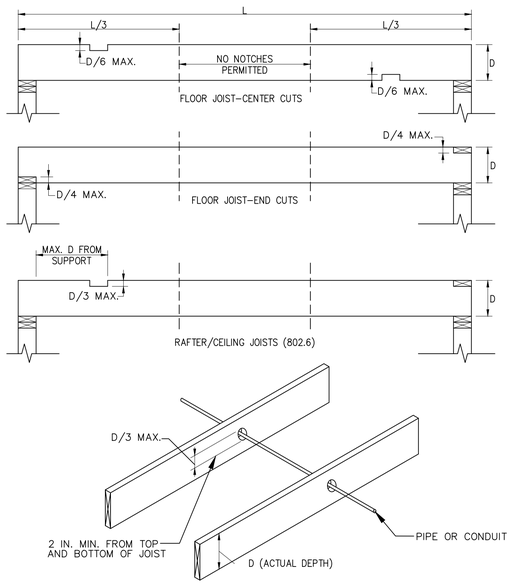
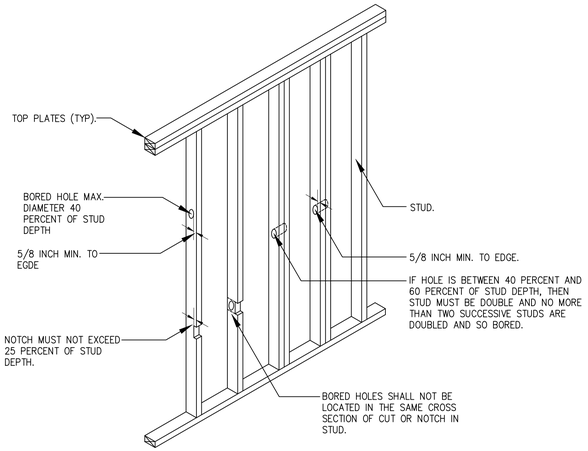
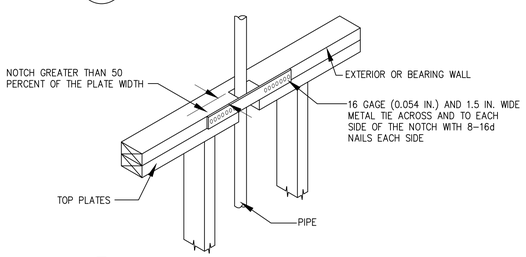


1 / D2 JOIST BORED HOLE LIMITATIONS
SCALE: 1/2" = 1'–0"



2 / D2 NOTCHING & BORED HOLE DETAIL
SCALE: N.T.S.



3 / D3 NOTCHING TOP PLATE DETAIL
SCALE: N.T.S.

PLUMBING NOTES

PLUMBING:

THE PERMIT HOLDER SHALL BE RESPONSIBLE FOR SCHEDULING THE FOLLOWING INSPECTIONS:

1. UNDERGROUND INSPECTION & TESTING SHALL BE MADE AFTER TRENCHES OR DITCHES ARE EXCAVATED AND BEDDED, PIPING INSTALLED AND BEFORE ANY BACK FILL IS PUT IN PLACE.
2. ROUGH–IN INSPECTION AND TESTING SHALL BE MADE OF COMPLETED PORTIONS OF ALL SANITARY, STORM AND WATER DISTRIBUTION PIPING, AFTER THE FRAMING, FIRE BLOCKING, FIRE STOPPING, DRAFT STOPPING AND BRACING FOR THAT PORTION IS IN PLACE AND PRIOR TO THE INSTALLATION OF ANY WALL OR CEILING MEMBRANES.
3. FINAL INSPECTIONS AND TESTING SHALL BE MADE AFTER THE BUILDING IS COMPLETE, ALL PLUMBING FIXTURES ARE IN PLACE AND PROPERLY CONNECTED, AND THE STRUCTURE IS READY FOR OCCUPANCY. WATER TESTING IS REQUIRED ON ALL PLASTIC WASTE / VENT / DRAIN PIPES P2503.5.1

TYPE L COPPER, PEX, OR CPVC PERMITTED FOR DOMESTIC WATER SYSTEMS. PVC (SCHEDULE 40) PERMITTED ABOVE AND BELOW GRADE FOR SANITARY SYSTEMS. ALL MATERIALS TO BE INSTALLED AS PER MANUFACTURER SPECIFICATIONS AND IN ACCORDANCE WITH THE PLUMBING CODE OF NYS 2025.

PROVIDE WATER–HAMMER ARRESTORS WHERE QUICK–CLOSING VALVES ARE UTILIZED INCLUDING DISHWASHERS, CLOTHES WASHERS AND SIMILAR FIXTURES. WATER–HAMMER ARRESTORS TO BE INSTALLLED AS PER MANUFACTURER SPECIFICATIONS AND IN ACCORDANCE WITH P2903.5

TRAPS

TRAPS SHALL BE OF STANDARD DESIGN, SHALL HAVE SMOOTH UNIFORM INTERNAL WATERWAYS, SHALL BE SELF CLEANING AND SHALL NOT HAVE INTERIOR PETITIONS.

TRAPS SHALL BE CONSTRUCTED OF LEAD, CAST IRON, CAST OR DRAWN BRASS OR APPROVED PLASTIC.

TRAPS SHALL BE SET LEVEL WITH RESPECT TO THEIR WATER SEALS_ANS SHALL BE PROTECTED FROM FREEZING. TRAP SEALS SHALL BE PROTECTED FROM SIPHONAGE, ASPIRATION OR BACK PRESSURE BY AN APPROVED SYSTEM OF VENTING.

EACH PLUMBING FIXTURE SHALL BE SEPARATELY TRAPPED BY A WATER SEAL TRAP PLACED AS CLOSE AS POSSIBLE TO THE FIXTURE OUTLET, NOT TO EXCEED 24".

FIXTURE TRAP SIZE SHALL BE SUFFICIENT TO DRAIN THE FIXTURE RAPIDLY.

FOAM PLASTIC INSULATION

–SHALL HAVE A FLAME SPREAD RATING OF LESS THAN 75 AND A SMOKE DEVELOPING RATING OF LESS THAN 450.
–SHALL BE SEPARATED FROM INTERIOR BY 1/2" OF GYP. WALL BOARD.

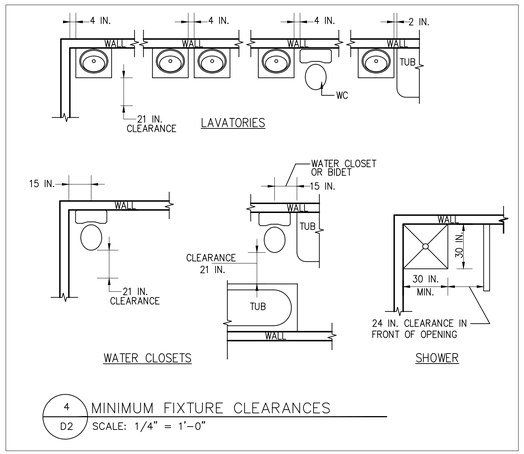
DRILLING/NOTCHING

NOTCHES AND HOLES ARE NOT PERMITTED IN L.V.L.'S UNLESS OTHERWISE SPECIFIED.

– NOTCHES ARE NOT TO EXCEED MORE THAN 1/6TH THE DEPTH.
– NOTCHES ARE NOT TO BE LONGER THAN 1/3RD THE DEPTH.
– NOTCHES ARE NOT TO BE IN THE MIDDLE THIRD OF THE MEMBER.

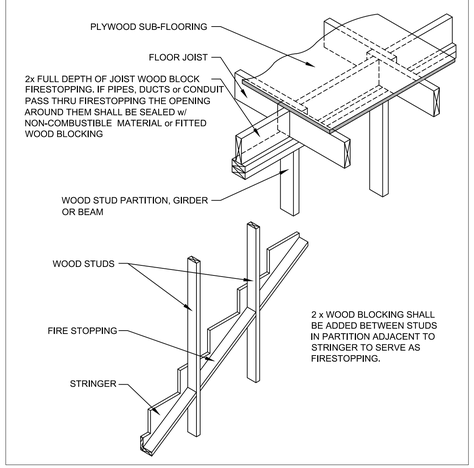
– THE DIAMETER OF ANY HOLE IS NOT TO EXCEED MORE THAN 1/3 THE DEPTH.
– HOLES ARE NOT TO BE CLOSER THAN 2" TO THE TOP OR BOTTOM OF ANY MEMBER.

– FASTENER SIZING AND SPACING TO BE INSTALLED AS PER TABLES.



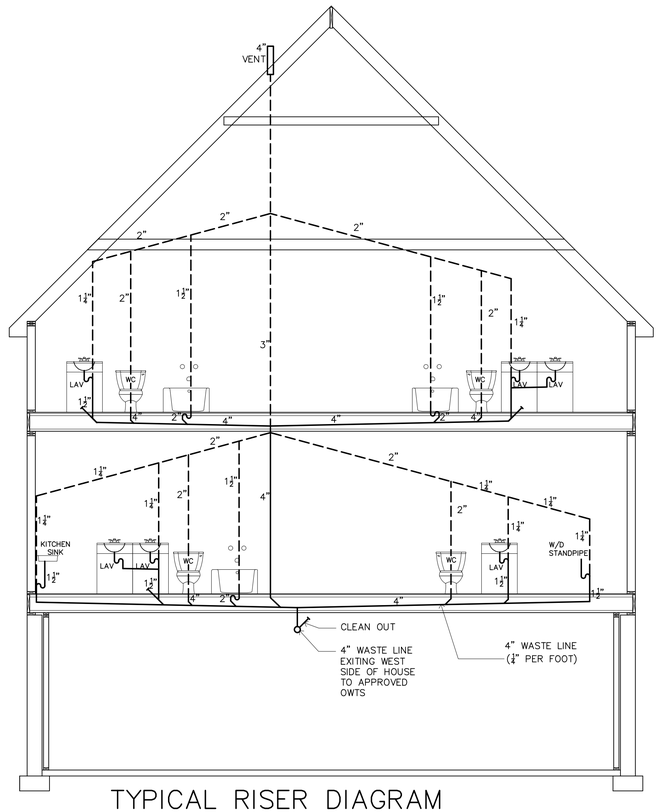
4 / D2 MINIMUM FIXTURE CLEARANCES
SCALE: 1/4" = 1'–0"

SPACE BETWEEN JOIST W/ CEILINGS ATTACHED TO FLOOR JOIST SHALL BE FIRESTOPPED AS SHOWN AT ALL POINTS OF SUPPORT.



DRAFT/FIREBLOCKING DETAILS

SCALE: N.T.S.



TYPICAL RISER DIAGRAM

SCALE: 1/4" = 1'–0"

VENT STACKS THAT EXTEND THROUGH A ROOF SHALL BE TERMINATED AT LEAST 18" ABOVE THE ROOF OR 6" ABOVE THE ANTICIPATED SNOW ACCUMULATION

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.

HEATING AND COOLING SYSTEM NOTES:

MANUAL J, S & D INFORMATION TO BE PROVIDED AT THE BUILDING INSPECTORS REQUEST.

100% OF DUCT SYSTEMS TO BE LOCATED IN CONDITIONED SPACE (R408.2.4(2))

ERV OR HRV SYSTEM TO BE INSTALLED (R408.2.5(1))

ALL THERMOSTATS ARE TO BE PROGRAMMABLE.

DUCTS IN UNCONDITIONED SPACES TO BE INSULATED:
≥ 3" DIAMETER INSULATED TO ≥ R–8 IN ATTICS AND ≥ R–6 ELSEWHERE
< 3" DIAMETER INSULATED TO ≥ R–6 IN ATTICS AND ≥ R–4.2 ELSEWHERE

DUCTS TO BE SEALED TO 4.0CFM/100 FT² OF CONDITIONED FLOOR AREA WITH UL 181 PRODUCTS APPROPRIATE FOR THE DUCT MATERIAL TYPE.

AIR HANDLER SPEC'S TO INDICATE UNIT HAS ≤ 2% AIR LEAKAGE WHEN TESTED PER ASHRAE 193.

HVAC PIPING TO BE PROVIDED WITH MINIMUM R–3 INSULATION. INSULATION PROTECTION TO BE PROVIDED FOR ALL PIPES LOCATED OUTDOORS.

SERVICE HOT WATER PIPE INSULATION TO BE PROVIDED AS REQUIRED.

LIGHTING NOTES:

ALL PERMANENTLY INSTALLED LUMINARIES SHALL BE CAPABLE OF OPERATION WITH AN EFFICACY OF NOT LESS THAN 45 LUMENS PER WATT, OR SHALL HAVE LAMPS WITH AN EFFICACY OF NOT LESS THAN 65 LUMENS PER WATT.

ALL PERMANENTLY INSTALLED LUMINARIES IN HABITABLE SPACES SHALL BE CONTROLLED WITH A MANUAL DIMMER OR AUTOMATIC SHUTOFF CONTROLS, AFTER 20 MINUTES. CONTROLS ALSO TO HAVE A MANUAL CONTROL.

ALL PERMANENTLY INSTALLED LUMINARIES IN IN GARAGES, BASEMENTS, LAUNDRY OR UTILITY ROOMS SHALL BE CONTROLLED WITH AUTOMATIC SHUTOFF CONTROLS, AFTER 20 MINUTES. CONTROLS ALSO TO HAVE A MANUAL CONTROL.

WHERE THE TOTAL PERMANENTLY INSTALLED EXTERIOR LIGHTING POWER IS OVER 30 WATTS, LIGHTING SHALL BE CONTROLLED BY A MANUAL ON/OFF SWITCH THAT PERMITS AUTOMATIC SHUT OFF ACTIONS. LIGHTING SHALL BE AUTOMATICALLY SHUT OFF AT DAYLIGHT. OVERRIDE OF AUTOMATIC CONTROLS ARE TO RETURN TO NORMAL OPERATION WITH IN 24 HOURS.

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¼" = 1'-0"	S.M.M.	D1
DATE 12-04-25	CHECKED BY B.J.S.	

2020 NYSTRETCH CODE & 2025 RESIDENTIAL CODE OF NYS

BUILDING TYPE: SINGLE FAMILY RESIDENCE
CODE DESIGN METHOD: TABLE 402.1.2 – SEE WALL SECTIONS FOR MIN. R-VALUES
CLIMATE ZONE: 5

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 2020 NYSTRETCH CODE & 2025 RESIDENTIAL CODE OF NYS

THE BUILDING ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE. 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.

A WHOLE HOUSE VENTILATION SYSTEM IS TO BE INSTALLED FOR THE NEW DWELLING. THE SYSTEM IS TO BE DESIGNED IN ACCORDANCE WITH M1505.4, 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.

TO THE BEST OF THE KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT OF THE UNDERSIGNED [BRIAN J. STOKOSA, P.E.], THE PLANS AND SPECIFICATIONS DEPICTED ON THESE DRAWINGS ARE IN COMPLIANCE WITH THE APPLICABLE PROVISIONS OF THE NEW YORK STATE UNIFORM FIRE PREVENTION CODE AND BUILDING CODE AND THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE, AS CURRENTLY IN EFFECT.

WOOD HEADER SIZES

SPANS UP TO AND INCLUDING:	MINIMUM HEADER SIZE
0'-0" – 3'-11"	(2) 2x8's
4'-0" – 5'-11"	(2) 2x10's
6'-0" – 7'-11"	(2) 2x12's

UNLESS OTHERWISE NOTED

NYSTRETCH ENERGY CODE COMPLIANCE–2020 NOTES:

R402.2.2 CEILING W/O ATTIC R–38 INSULATION MINIMUM

R403.3 ALL DUCTS TO BE INSTALLED WITHIN CONDITIONED SPACES; DUCT AIR LEAKAGE TESTING EXEMPT.

R403.3.8 DUCT SIZING IN ACCORDANCE W/ ACCA MANUAL D

R403.5.4 DRAIN WATER HEAT RECOVERY UNITS REQUIRES MIN. EFFICIENCIES AND DETAILS FOR VERTICAL VS. SLOPPED DRAIN UNITS

R403.5.5 SUPPLY OF HEATED WATER REQUIRES ONE OF THE FOLLOWING:
- MAX. ALLOWABLE PIPE LENGTH BETWEEN WATER HEATER & FIXTURE.
- MAX. ALLOWABLE PIPE VOLUME BETWEEN WATER HEATER & FIXTURE.
- DRAIN–WATER HEAT RECOVERY OR RECIRCULATION SYSTEM.

R403.6.2 REQUIRED HRV/ERV SYSTEMS

R403.6.3 VERIFICATION OF VENTILATION BY APPROVED AGENCY

R404.1 LIGHTING: ≥90% PERMANENTYL INSTALLED FIXTURES USE LAMPS W/ EFFICACY OF ≥65 LUMENS/WATT OR HAVE A TOTAL LUMINAIRE EFFICACY OF ≥45 LUMENS/WATT

R404.2 (1) SOLAR READY ZONE REQUIRED FOR DWELLINGS >1,400 SQ. FT. APPLIES ONLY TO ROOFS ≥600 SQ. FT. OF AREA ORIENTED BETWEEN 110°–270° OF TRUE NORTH. EXCEPTIONS FOR ON–SITE RENEWABLES AND ROOFS SHADED MORE THAN 70% OF DAYLIGHT HOURS.

R404.2(2) EV CHARING CAPABILITY – REQUIRES CONDUIT AND PANEL CAPACITY OR 208/240V 40A OUTLETS W/ ONSITE PARKING.

GENERAL NOTES

DIVISION 1 – GENERAL CONDITIONS:

CODES: ALL WORK & MATERIALS MUST CONFORM TO 2025 RESIDENTIAL CODE OF NYS, 2025 ECCC OF NYS, LOCAL BUILDING CODES, TO THE REQUIREMENTS OF THE BOARD OF HEALTH & THE 2024 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 ENGINEERING, P.C. IS PROHIBITED. ANY PERSON, OR CORPORATION, USING PLANS WITHOUT CONSENT WILL BE RESPONSIBLE TO COMPENSATE DAY & STOKOSA ENGINEERING, P.C.

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 HOUSE.

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 2025 ECCC OF NYS.

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 2025 ECCC OF NYS.

INTERIOR DOORS: ALL INTERIOR DOORS SHALL COME COMPLETE WITH HARDWARE. A CLASS "C" SELF–CLOSING FIRE RATED DOOR SHALL BE FURNISHED AND INSTALLED BETWEEN GARAGE & HOUSE. ALL DOORS SHALL MEET THE MINIMUM REQUIREMENTS OF THE 2025 ECCC OF NYS, 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 2025 ECCC OF NYS.

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.

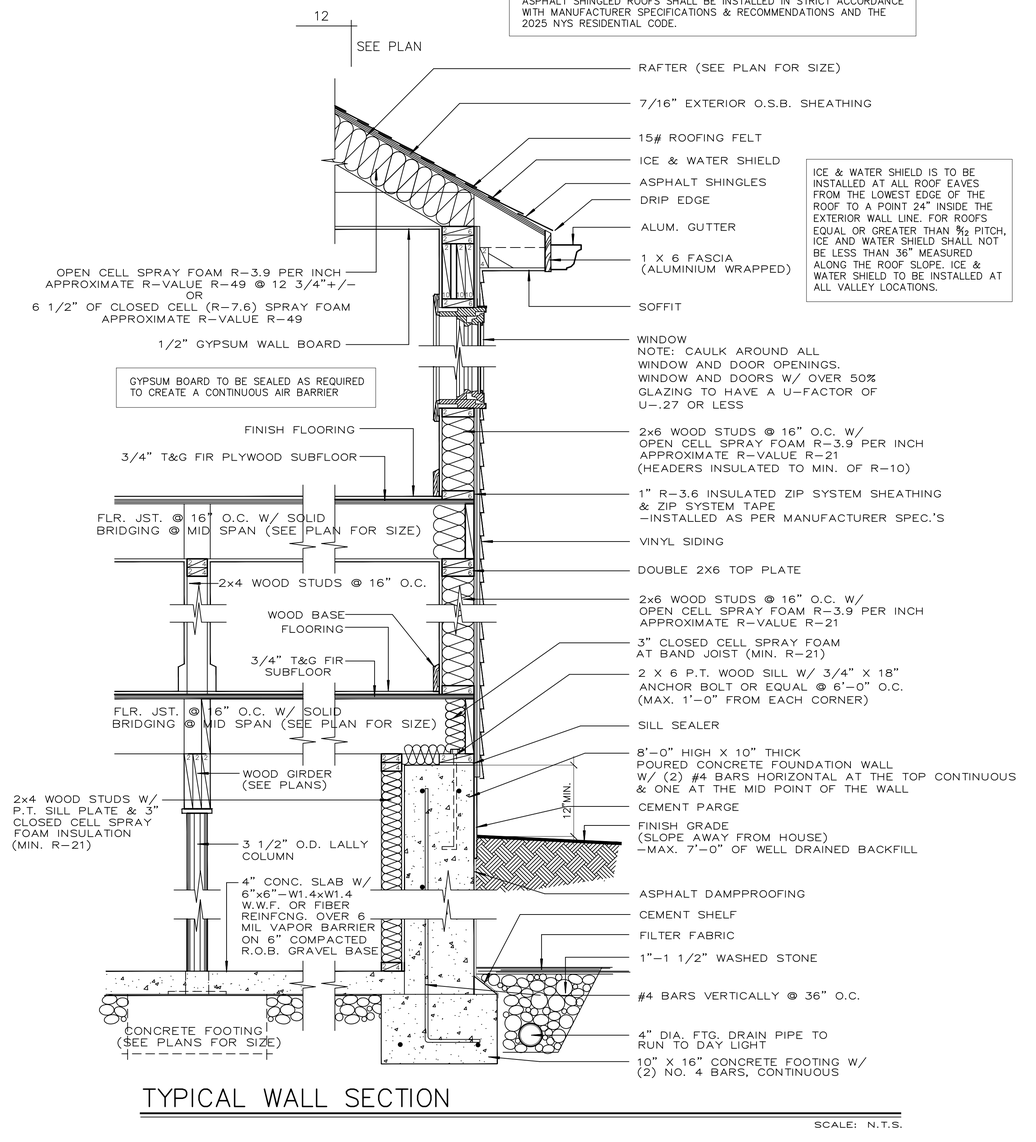
TESTING: THE CONTRACTOR SHALL TEST ALL WATER SUPPLY AND DRAIN, WASTE AND VENT PIPING IN ACCORDANCE WITH ALL CODES.

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.

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.

ASPHALT SHINGLED ROOFS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER SPECIFICATIONS & RECOMMENDATIONS AND THE 2025 NYS RESIDENTIAL CODE.



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. FOR ROOFS EQUAL OR GREATER THAN 8/12 PITCH, ICE AND WATER SHIELD SHALL NOT BE LESS THAN 36" MEASURED ALONG THE ROOF SLOPE. ICE & WATER SHIELD TO BE INSTALLED AT ALL VALLEY LOCATIONS.

TYPICAL WALL SECTION

SCALE: N.T.S.

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
07-27-26	
07-22-26	
Revisions 12-08-25	
Project No. 2025:474	License No. 083970

DAY | STOKOSA ENGINEERING P.C.
3 Van Wyck Lane
Wappingers Falls, New York
(845)-223-3202

PROJECT
Lot #2
Rombout Avenue, City of Beacon
Dutchess County, New York

New Residence For:
Joseph Construction

SCALE	DRAWN BY	DRAWING No.
1/4" = 1'-0"	S.M.M.	W1
DATE 12-04-25	CHECKED BY B.J.S.	