

BEACON PLANNING BOARD
Via Video-Conference
BEACON, NEW YORK 12508
Phone (845) 838-5002 Fax (845) 838-5026

The Planning Board will meet on **Tuesday, August 11, 2020** in the Municipal Center Courtroom. The Planning Board will meet on Tuesday, August 11, 2020 at 7:00 PM. The Planning Board will meet on Tuesday, August 11, 2020 at 7:00 PM. 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. Due to public health and safety concerns related to COVID-19, the Planning Board will not be meeting in-person. In accordance with the Governor's Executive Order 202.1, the August 11, 2020 meeting will be held via videoconferencing, and a transcript will be provided at a later date. The public can watch the live meeting online at YouTube at <https://www.youtube.com/channel/UCvPpGwZDeR7WYmw-SuDxg>. If any interested members of the public would like to provide comments on the application, comments can be called in during the meeting at (929) 205-6099; Webinar ID: 837 3256 4372; Password: 201333. Comments can also be provided via email no later than 5PM on August 11, 2020 to Etha Grogan, Planning Board Secretary, at egrogan@cityofbeacon.org. Please check the meeting materials posted on the City website (www.cityofbeacon.org) and for further instructions to access the virtual meeting and for updated information. This agenda and the meeting format are subject to change.

- **Regular Meeting**

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

- **Miscellaneous Business**

1. Zoning Board of Appeals
Zoning Board of Appeals – August agenda
2. River Ridge
River Ridge Pocket Park

- **Architectural Review**

1. 25 East Main Street
Certificate of Appropriateness – 25 East Main Street
2. 424 Main Street
Certificate of Appropriateness – 424 Main Street; new façade color
3. 1183 North Avenue
Certificate of Appropriateness – 1183 North Avenue (amendment)
4. Willow Street
Single Family House – Willow Street (corner of Verplanck)
5. 16 Coyne Hill Road
Single Family House – 16 Coyne Hill Road

City of Beacon Planning Board
8/11/2020

Title:

Beacon Views - Conklin Street

Subject:

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

Background:

ATTACHMENTS:

Description	Type
Beacon Views Cover Letter	Cover Memo/Letter
Beacon Views Environmental Resource Mapper Information	Backup Material
Beacon Views Green Plan Response	Backup Material
Beacon Views Sheet 1 Cover Sheet	Plans
Beacon Views Sheet 2 Existing Conditions	Plans
Beacon Views Sheet 3 Layout & Landscape	Plans
Beacon Views Sheet 4 Grading & Drainage	Plans
Beacon Views Sheet 5 Utilities	Plans
Beacon Views Sheet 6 Erosion & Sediment Control	Plans
Beacon Views Sheet 7 Enlarged Plans	Plans
Beacon Views Sheet 8 Off Site Improvements	Plans
Beacon Views Sheet 9 Vehicle Maneuvering	Plans
Beacon Views Sheet 10 Lighting	Plans
Beacon Views Sheet 11 Drainage Profiles	Plans
Beacon Views Sheet 12 Water & Sewer Profiles	Plans
Beacon Views Sheet 13 Details 1	Plans
Beacon Views Sheet 14 Details 2	Plans
Beacon Views Sheet 15 Details 3	Plans
Beacon Views Sheet 16 Details 4	Plans
Beacon Views Sheet 17 Details 5	Plans
Beacon Views Sheet 18 Building Plans Front Garage	Plans
Beacon Views Sheet 19 Building Plans Rear Garage	Plans
Beacon Views Sheet 20 Building Elevations	Plans
Beacon Views Sustainability Report	Backup Material
Beacon Views SWPPP - SS	Backup Material
Beacon Views WWER - SS	Backup Material
Engineer Review Letter	Consultant Comment



July 28, 2020

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

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

Dear Chairman Gunn and Members of the Board:

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

- Revised Site Plan Set and Architectural Plans (consisting of 20 sheets).
- Stormwater Pollution Prevention Plan, revised July 28, 2020.
- Preliminary Water and Wastewater Engineering Report, dated July 28, 2020.
- Letter in response to the June 26, 2020 letter from Greenplan, Inc.
- NYSDEC Mapper.
- Sustainability Report, provided by Aryeh Seigel, Architect, dated July 28, 2020.

In response to the comments provided in a letter from John Clarke Planning and Design, dated July 9, 2020, we offer the following responses:

1. The Drawing List on Sheet CS-1 has been revised to include the architectural plans, which have been combined into a single set.
2. The lot area square footage on EX-1 and SP-1 have been reconciled. The note under Unit Density Calculations has been revised to cite the new code.
3. The central landscape island behind Units 7 to 13, has been revised to a useable green.
4. The elevation drawings have been revised as requested.
5. The potential additional wetland disturbance that could be created by the alternate grading plan at Conklin Street in the event it must be used as the emergency access point has been called out in the plan and the additional wetland mitigation area has been preemptively included in the plans.
6. The following updates are provided for the items requested:
 - a. The project attorney is discussing the applicant's rights within the easement with the City attorney.
 - b. The plans have been forwarded to the Fire Department Chief, and we are awaiting comments.

July 28, 2020

- c. The wetland consultant is making progress in assembling materials for coverage under the nationwide USACE permit. Permit documents will be provided with a future submission when available.

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

General Comments

1. The Site Access Notes have been revised to describe the contingency for the alternative emergency access point at Conklin Street in the event that the 25 Townsend Street access was unavailable, and the proposed road through Highland Meadows property were to function as the primary access to the site.
2. An Off-Site Improvements Plan has been added on Drawing SP-5.
3. The wetland mitigation area is shown both on the subject property and the neighboring parcel within the easement area. The project attorney is discussing the applicant's rights within the easement with the City attorney.
4. The plans have been submitted to the Fire Department Chief, and we are awaiting comment.
5. The architecture plan set has been incorporated to the site plan set and the sheet list on Sheet CS-1 has been revised as requested.
6. The wetland consultant is making progress in seeking coverage under the nationwide USACE permit. Permit documents will be provided with a future submission when available.
7. It is acknowledged that water and sewer system improvements will require review by the DCDOH, and the Planning Board and City Engineer will be copied on all correspondence relating to same.

Water & Sewer Report Comments:

1. The subject report has been updated to indicate watermain sizes.
2. The average population per household in the City of Beacon is reported at 2.6. The average population per unit has been increased to 3.5 in the subject report.
3. The subject report has been updated to indicate watermain sizes.
4. It is understood that the report will need to be updated once the flow testing is completed and system dynamics are determined.
5. The ongoing discussions with the Town of Fishkill are specific to the calculation of the Connection Fee as establish in the Beacon / Fishkill agreement attached in Appendix A.
6. It is understood that the report will need to be updated once the flow testing is completed and system dynamics are determined.
7. It is understood that the report will need to be updated once the flow testing is completed and system dynamics are determined.
8. The City's Consultant (HDR Engineers) has completed their analysis and concluded the project will not significantly impact the City sewer system (See Appendix B).

Threatened & Endangered Species Report Comments:

1. The NYSDEC Mapper has been included with this submission.

July 28, 2020

Preliminary Subdivision Plat:

1. The final plat will include bearings and distances for the proposed property lines.
2. Written descriptions will be provided with the final plat submission.

Layout & Landscape Plan:

1. The Red Maple has been removed from this area.

Grading and Drainage Plan:

1. The project attorney is corresponding with the City attorney to finalize the legal mechanism by which these rights can be guaranteed to the City.
2. Additional top and bottom of wall elevations have been provided along all retaining walls.

Utilities Plan:

1. The lowest sewerable elevation for each proposed dwelling unit has been indicated on Drawing SP-2.2.
2. Proposed sewer manhole SMH 5B has been relocated as requested to reduce the lengths and bends for the proposed sewer laterals.
3. Cleanouts have been added to all proposed sewer laterals. A construction detail for the proposed cleanout has been added to Drawing D-4.
4. The proposed watermain has been indicated as 8" diameter Class 52 ductile iron pipe on the project plans.

Enlarged Plans

1. The road alignment, sidewalk layout, proposed grades, utilities, and proposed drainage modifications have been shown entering and running the extent of the pending City right of way on the 25 Townsend Street property. It is the applicant's understanding that the realignment of the 25 Townsend Street road, and how that road would connect to the right of way, including the potential elimination of the cul-de-sac, is the obligation of the owners of 25 Townsend Street.

Vehicle Maneuvering Plans

1. The details for the vehicles have been enlarged for legibility.
2. The road alignment, sidewalk layout, proposed grades, utilities, and proposed drainage modifications have been shown entering and running the extent of the pending City right of way on the 25 Townsend Street property. It is the applicant's understanding that the realignment of the 25 Townsend Street road, and how that road would connect to the right of way, including the potential elimination of the cul-de-sac, is the obligation of the owners of 25 Townsend Street.

Water & Sewer Profiles

1. Vertical and horizontal watermain bends have been labeled on the plans and profiles.
2. The water profile has been revised as requested to minimize high points.
3. The watermain profiles have been updated to show the sewer service crossings.

Detail Sheets (Now Sheets 16 & 17 of 20)

1. The requested note regarding manhole and catch basin castings has been added to all applicable details.

July 28, 2020

SWPPP Comments


1. The permanent pool for the proposed pocket pond is designed to be between elevation 175.0 (bottom of pond) and 180.0 (elevation of the orifice). There are no outlet conditions for the proposed pond below the elevation of the proposed orifice and based on soil conditions the stormwater runoff within the pond, it is not anticipated to infiltrate through the bottom of the practice. As shown in Appendix C of the project SWPPP, the pocket pond provides 10,715 cf of storage below elevation 180.0, therefore greater than 50% of the contributing water quality volume as required in the Design Manual.
2. The permanent pool elevation for the proposed P-5 Pocket Pond is designed at elevation 180.0. The aquatic bench is between elevation 179.0 and 180.0 in the Pocket Pond.
3. The proposed aquatic bench for the P-5 Pocket Pond rises 12 inches. Grading for the pocket pond has been clarified on the project plans.
4. Landscaping for the proposed pocket pond has been provided on sheet SP-4.
5. The channel protection volume calculation and allowable discharge rate have been indicated in the project SWPPP.
6. The pipe between DI 14 and ES 13 has been sized to convey the contributing area from the 25 Townsend project site in the pre-development condition. It is assumed that the 25 Townsend project will mitigate the peak flows at their discharge point onto the subject site based on the Design Manual requirements. Therefore, by sizing for the pre-development conditions, the pipe between DI 14 and ES 13 has been conservatively sized.
7. The maximum flow rate anticipated for the grass swale behind the townhouse units 35-40 is 0.8 cfs during the 100-year storm event. The flow rate was conservatively calculated using the contributing area from the 25 Townsend project site in the pre-development condition. Based on the proposed 25 Townsend project plans, the offsite contributing area to the swale will substantially decrease after construction of the 25 Townsend project. Based on the grading of the swale, a maximum flow rate of 2.8 cfs can be conveyed in the swale prior to the stormwater runoff overtopping out of the side of the swale.

We request appearance before the Board at their August 11, 2020 meeting to further discuss the revised materials we have provided and closing of the SEQRA Public Hearing.

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

Very truly yours,

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

By: 
Jeffrey J. Contelmo, PE
Senior Principal Engineer

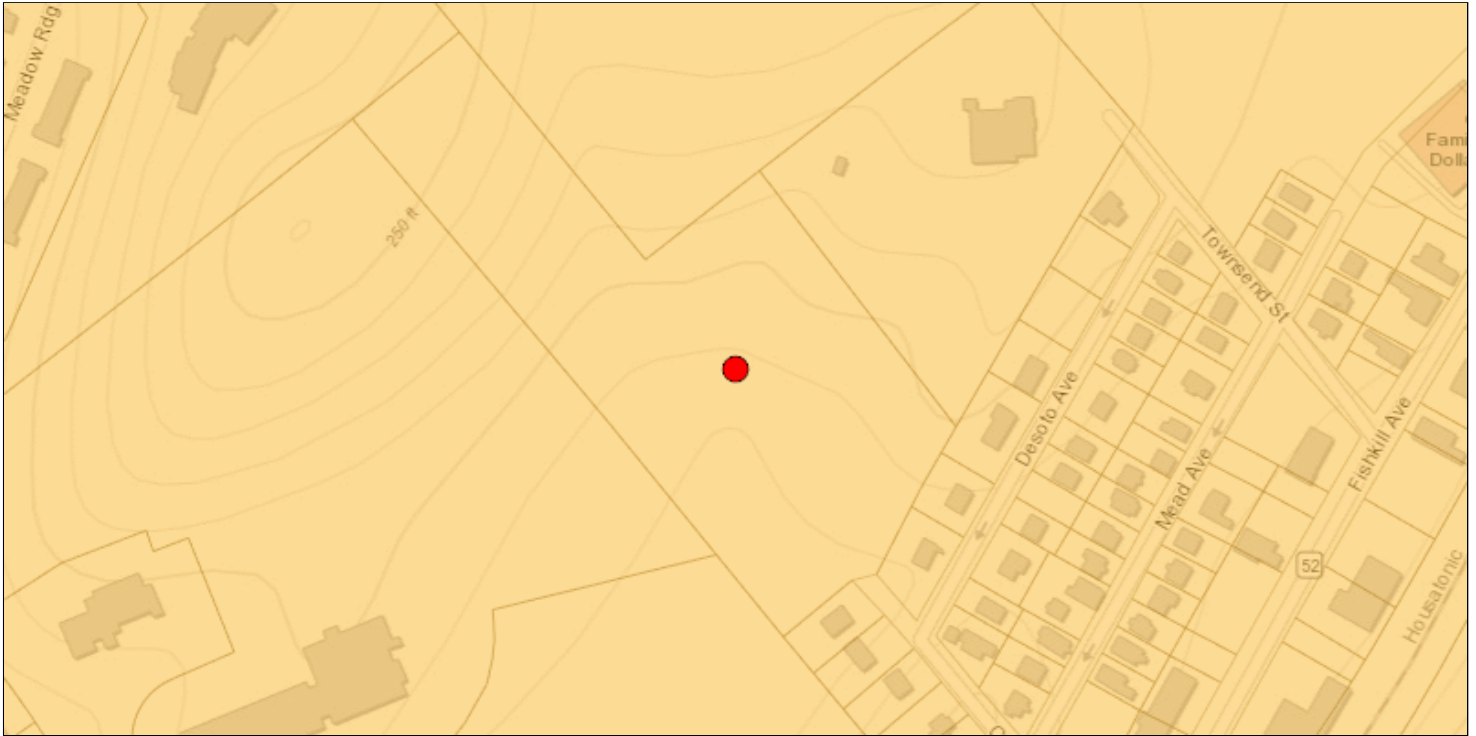
JJC/adt

Enclosures

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

Insite File No. 19131.100

Environmental Resource Mapper



The coordinates of the point you clicked on are:

UTM 18

Easting: 587184.2601892019

Northing: 4596163.144303416

Longitude/Latitude

Longitude: -73.95522135529778

Latitude: 41.5123670635135

The approximate address of the point you clicked on is:

Beacon, New York

County: Dutchess

City: Beacon

USGS Quad: WAPPINGERS FALLS

DEC Region

Region 3:

(Lower Hudson Valley) Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester counties. For more information visit <http://www.dec.ny.gov/about/607.html>.

Rare Plants and Rare Animals

This location is in the vicinity of Bats Listed as Endangered or Threatened -- Contact NYSDEC Regional Office

If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

The presence of a unique geological feature or landform near a project, unto itself, does not trigger a requirement for a NYS DEC permit. Readers are advised, however, that there is the chance that a unique feature may also show in another data layer (ie. a wetland) and thus be subject to permit jurisdiction.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

Disclaimer: If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.



July 28, 2020

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

RE: Beacon Views
Green Plan Comments

Dear Chairman Gunn and Members of the Board:

On June 26, 2020, J. Theodore Fink of Greenplan Inc submitted a letter to the Planning Board on behalf of the owner of the Highland Meadows Senior Housing property. It should be noted that many of the answers to Green Plan's questions are available in the reports that have been provided to the Planning Board to supplement the Full Environmental Assessment Form (EAF). The applicant has provided the Board the following reports:

- An updated Full Environmental Assessment Form, dated June 30, 2020.
- Wetlands Evaluation and Impact Report, provided by Ecological Solutions, LLC, dated May 18, 2020.
- Threatened & Endangered Species Habitat Suitability Assessment Report, provided by Ecological Solutions, LLC, dated June 12, 2020.
- Preliminary Water & Wastewater Engineering Report, dated July 28, 2020
- Stormwater Pollution Prevention Plan, dated July 28, 2020.
- Traffic Impact Study, provided by Maser Consulting, revised March 2020, and subsequent response documents.
- Phase 1A and Phase 1B Archaeological Reports, Hudson Valley Cultural Resource Consultants, LTD, dated August 2019 & Letter of No Impact, from the New York State Department of Historic Preservation, dated October 21, 2019.
- School Impact Analysis, provided by AKRF, Inc, dated August 21, 2019.
- Sustainability Report, provided by Aryeh Seigel, Architect, dated July 28, 2020.

In response to the comments made in the Greenplan letter, we offer the following:

- Comments on Beacon Views Traffic Study

In regard to all comments related to the Traffic Study, please refer to the response letter provided by Phil Grealy, of Maser Consulting, PA, dated June 30, 2020.

- Comments on Beacon Views Part 1 Environmental Assessment Form

As the Board is aware, we submitted an updated Full Environmental Assessment Form dated June 30, 2020, which addresses many of the Green Plan comments. For specific responses to each point we offer the following:

3 Garrett Place, Carmel, New York 10512 (845) 225-9690 Fax (845) 225-9717
www.insite-eng.com

- A. The total number of units has been updated from the initially proposed 42 units to the currently proposed 40 units. Also, the Owner's contact information has been added.
- B. As noted in the EAF, coverage is being sought under the Nationwide Wetlands Permit as provided by the Army Corp of Engineers (USACE). Additional information has been provided in the Wetlands Reports and attachments submitted to the Board.
- C. Item C.2.a. of the EAF asks whether the municipality has an adopted Comprehensive Plan, which the City of Beacon does. It further asks whether the plan includes specific recommendations for the site of the proposed action. Having reviewed the Comprehensive Plan, there does not appear to be specific recommendations for the subject property.
- D. Item D1.d.iii. The current plans propose 40 units and 42 lots. Two of the lots are to be common lots controlled by the homeowner's association. This has been updated in the EAF.

Item D.1.h.ii. More detailed information regarding the size of the stormwater basins has been provided in the EAF.

Item D.1.h.vi. The anticipated source material of "Earth Fill" for the construction of the stormwater basins is regraded site soil.

Items D.2.b.i-v. For questions presented by Greenplan related to this section, but not asked in any specific item on the EAF, we offer the following:

- Though there is no requirement within this section of the EAF to identify the source of fill, the fill will be regraded site soil.
- Though the required permit and conditions thereto are not required in this section of the EAF, the required Nationwide Permit is NWP #29 Residential. A description and conditions of this Nationwide Permit is available on the USACE website.
- Several alternatives have been explored in the preceding months of coordination with the Planning Board. Several Concept Plans have been provided to the Board, and after extensive correspondence the project has evolved to its current state, which meets the general requirements of the Board & applicant while minimizing wetland impacts to the degree practicable.
- For more information on the effects of filling on the quantity and quality of wetland resources, refer to the Wetlands Report.
- It is the applicant's understanding that there is not a watershed plan to assess impacts, but the subject SWPPP address stormwater conditions.

Item D.2.b.v. For more information on the 1:1 creation of wetland mitigation, refer to the Wetlands Report and project plans.

Item D.2.f.iii. For questions regarding energy usage and emissions please refer to the Sustainability Report provided by Aryeh Siegel, Architect, dated July 28, 2020.

Item D.2.j. The NYSDEC Full EAF Workbook identifies a "substantial" increase in traffic as the potential for the project to add 100 or more peak hour trips, which in the

case of townhouses would be generated by 190 or more units based on the table in the workbook. This project proposes 40 units. As stated previously, for any other questions or comments related to the Traffic Study, please refer to the response letter provided by Phil Grealy, of Maser Consulting, PA, dated June 30, 2020.

Item D.2.k. This item is required for industrial and commercial uses, and not applicable to the subject action.

Item D.2.m. During construction additional noise from the site will be abated by existing vegetation. Tree clearing can be limited to an as needed basis, based upon the stage of construction and within the constraints of tree clearing limits for habitat protection.

Item D.2.k. This item is required for industrial, commercial, and recreational uses, and is not applicable to the subject action.

- E. Item D.2.b.ii. The acreage of proposed wetland disturbance has been updated to reflect the evolution of the project since the initial submission. Though we have worked to minimize the wetland disturbance to extent practicable, the changes to the site plan that precipitated the gradual shifts in wetland disturbance since the initial submission of the EAF, have been in the interest of improving the overall design and function of the proposed site. It should be noted that regardless of the percentage of change, the wetland disturbance remains small enough to qualify for coverage under a Nationwide permit under the USACE.

Item E.1.d. This response has been revised to include the Highland Meadows Senior Housing facility.

Item E.2.a. This response has been revised to show the average depth to bedrock over the site.

Item E.2.d. This response has been revised to show the average depth to ground water over the site.

Item E.2.o. Indiana Bat has been and remains listed in the response to this item. For items related to threatened and endangered species and mitigation measures, refer to the Threatened and Endangered Species Habitat Suitability Assessment Report, provided by Ecological Solutions, LLC, dated June 12, 2020.

Item E.3.e&f. Please refer to the Phase 1A and Phase 1B Archaeological Report prepared by Hudson Valley Cultural Resource Consultants, LTD, dated August 2019. Also refer to the findings letter from the New York State Historic Preservation Office, from October 21, 2019, which states the determination that "no historic properties, including archaeological and/or historic resources, will be affected by this undertaking."

We believe the revised EAF, dated June 30, 2020, and supplemental reports submitted to date provide a complete assessment of environmental conditions.

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

Very truly yours,

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

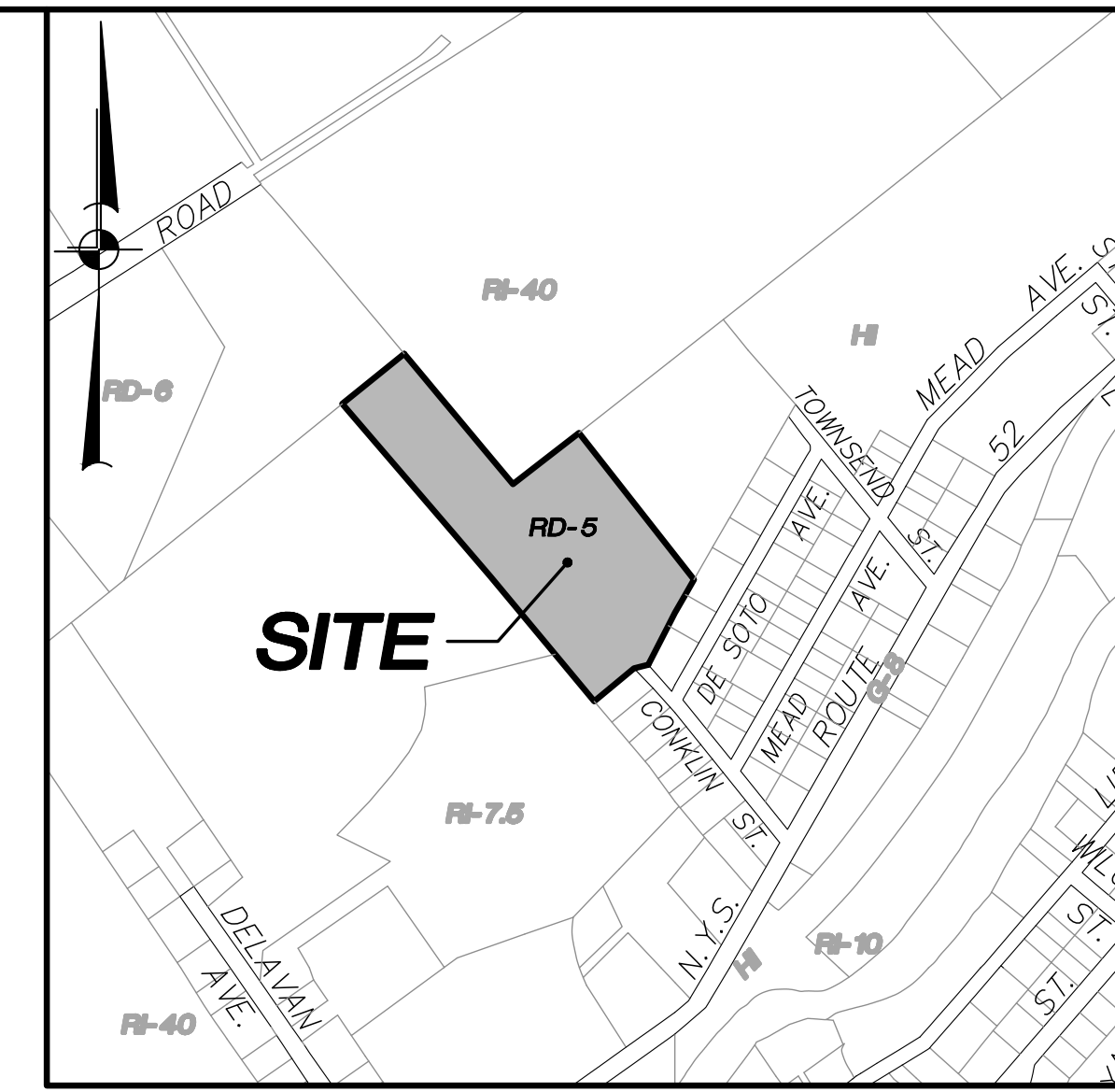
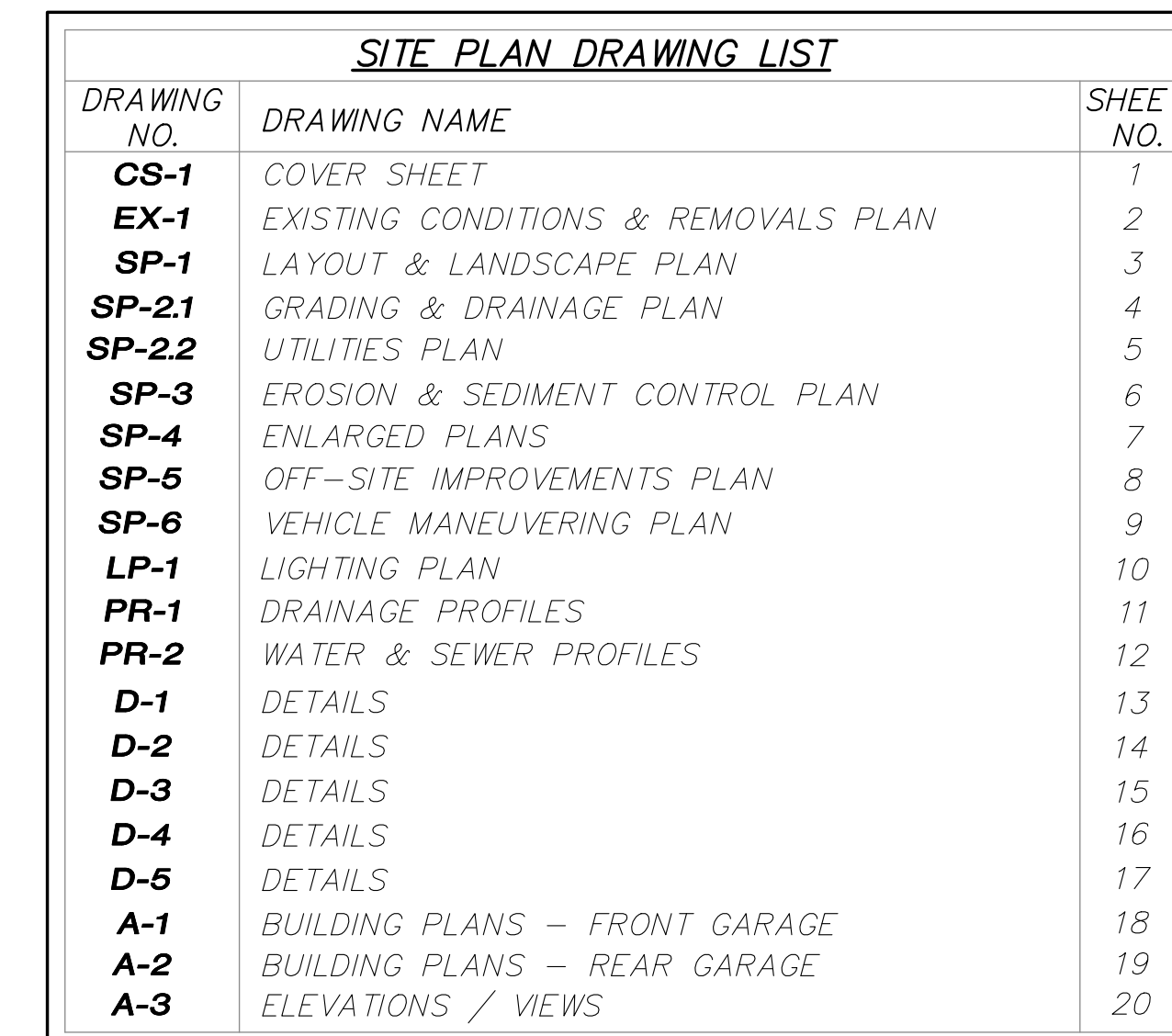
By: 
Jeffrey J. Contelmo, PE
Senior Principal Engineer

JJC/adt

Enclosures

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

Insite File No. 19131.100



LOCATION MAP SCALE: 1" = 500'±

<u>Applicant:</u> Beacon Views, LLC 500 River Avenue, Suite 145 Wakfield, NJ 08701	<u>Record Owner:</u> Highlands at Beacon, LLC 2847 Church Street Pine Plains, NY 12567
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Site Data:
Tax Map No.: 6055-03-331123
Total Lot Area: 8.6 AC.
Zone: RD-5

General Notes:

1. Property line shown on these plans is based upon a map entitled "Boundary and Topographic Survey of Property prepared for Beacon Community Foundation, Inc." dated 11/25/2005 or property by Insite Engineering, Surveying & Landscape Architecture, P.C.
2. Topography shown on these plans is based upon aerial photography dated April 14, 1988 and a topographic photograph dated 1988 (North American Vertical Datum of 1988 (N.AVD83, 1988) as derived by GPS observation. The source is:
"The Wetlands"
3. The wetlands and topography at the boundary of the access and stormwater easement where it meets Hastings Drive were field located on August 8, 2019 by Insite Engineering, Surveying & Landscape Architecture, P.C.
4. The existing wetland limit line as shown on these plans is based on a field delineation of the Ecological Services Department dated 2019 and survey located by Insite Engineering, Surveying & Landscape Architecture, P.C. The area of the wetland on the property is approximately 1.0 acre.

Site Access Notes:

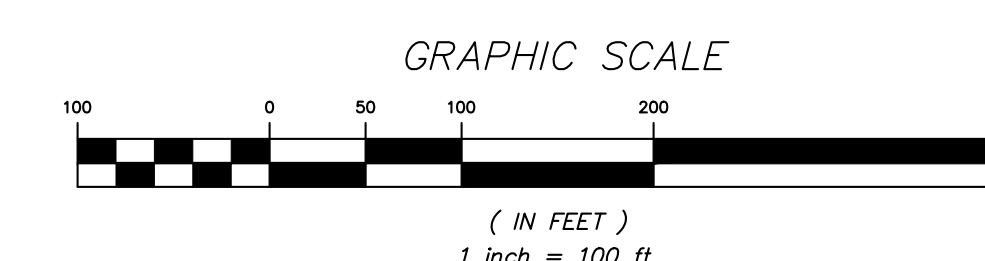
1. The applicant seeks to utilize the proposed connection to the right of way through the approved subdivision on 25 Townsend Street as its primary means of access for the Beacon Views Properties.
2. The road shown in the existing easement on the Highland Meadows Senior Housing Project would be utilized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

Affordable-Workforce-Housing Notes:

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

Habitat Protection Notes:

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



4	7-28-20	REVISED PER PLANNING BOARD COMMENTS	JFR
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR
NO.	DATE	REVISION	BY



PROJECT:	
<u>BEACON VIEWS</u>	
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK	

DRAWING: COVER SHEET

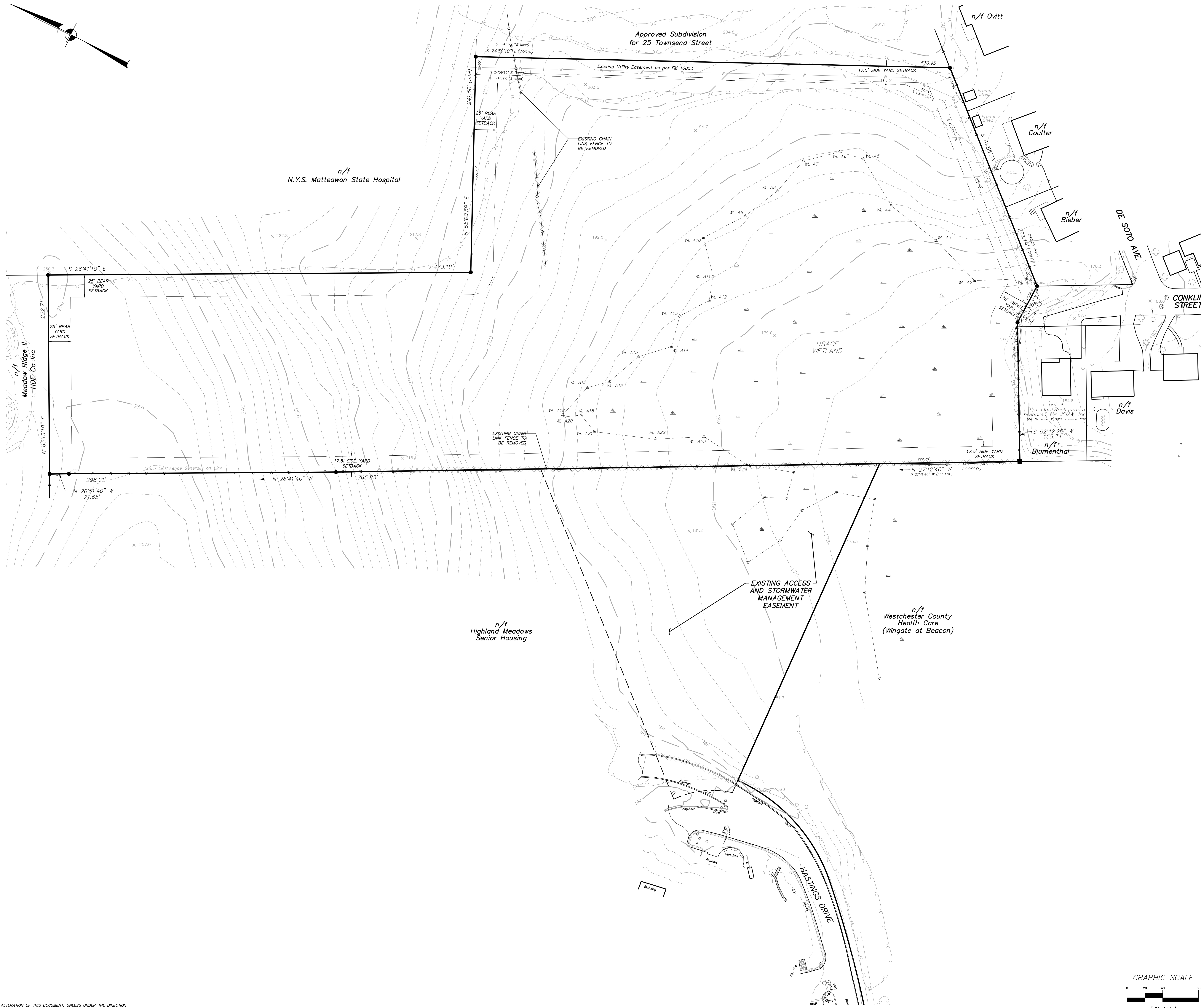
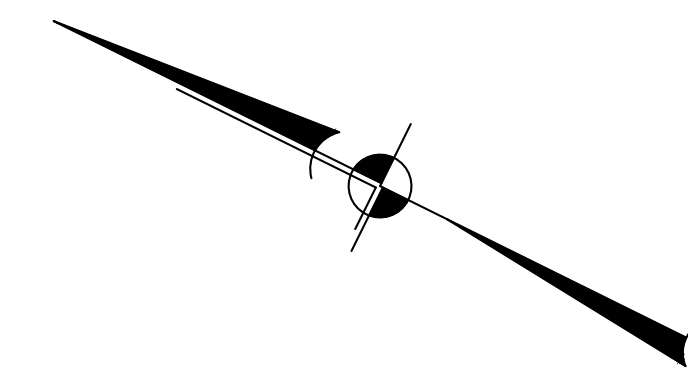
PROJECT NUMBER 19131.100		PROJECT MANAGER J. J. C.		DRAWING NO.	SHEET 1 / 20
DATE 8-27-19		DRAWN BY J. F. R.			
SCALE 1" = 100'		CHECKED A. D. T.			

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

Site Plan

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

<hr style="width: 100%;"/> <i>Chairman, City Planning Board</i>	<hr style="width: 100%;"/> <i>Date</i>
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LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING CHAIN LINK FENCE
- EXISTING EDGE OF PAVEMENT
- EXISTING WETLAND
- EXISTING WETLAND FLAG
- EXISTING TREE LINE
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- EXISTING ITEMS TO BE REMOVED

General Notes:

- Property line shown on these plans is based upon a map entitled "Boundary and Topographic Survey of Property prepared for Beacon Community Foundation, Inc.", dated March 22, 2005 as prepared by Insite Engineering, Surveying & Landscape Architecture, P.C.
- Topography shown on these plans are based upon aerial photography dated April 14, 2003 and is photogrammetrically compiled. Elevations shown herein conform to the North American Vertical Datum of 1988 (N.A.V.D., 1988) as derived by GPS observation. The contour interval is 2'.
- Site features and topography at the boundary of the access and stormwater easement where it meets Hastings Drive were field located on August 8, 2019 by Insite Engineering, Surveying & Landscape Architecture, P.C.
- The existing wetland limit line as shown on these plans is based on a field delineation performed by Ecological Solutions, LLC on April 15, 2019 and survey located by Insite Engineering, Surveying & Landscape Architecture, P.C. The area of the wetland on the subject property is 2.05 acres.

UNIT DENSITY CALCULATIONS (RD-5)

Based on note "h" of Chapter 223-170 Schedule of Regulations for Residential Districts

Total Parcel (8.6 acres)	= 374,518 SF±
Wetland	= 111,078 SF±
Slopes 25% or Greater	= 8,500 SF±
Buildable Area	= 254,940 SF
Permitted Units @ 5,000 SF per Unit	= 50 Units
Proposed Units	= 40 Units

* Pursuant to article 11B of the city code, four (4) units of the proposed forty (40) are to be below-market-rate.

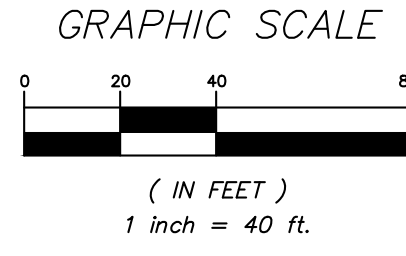
4	7-28-20	REVISED PER PLANNING BOARD COMMENTS	J.F.R.
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	J.F.R.
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	J.F.R.
1	4-28-20	RESUBMISSION TO PLANNING BOARD	J.F.R.
NO.	DATE	REVISION	BY

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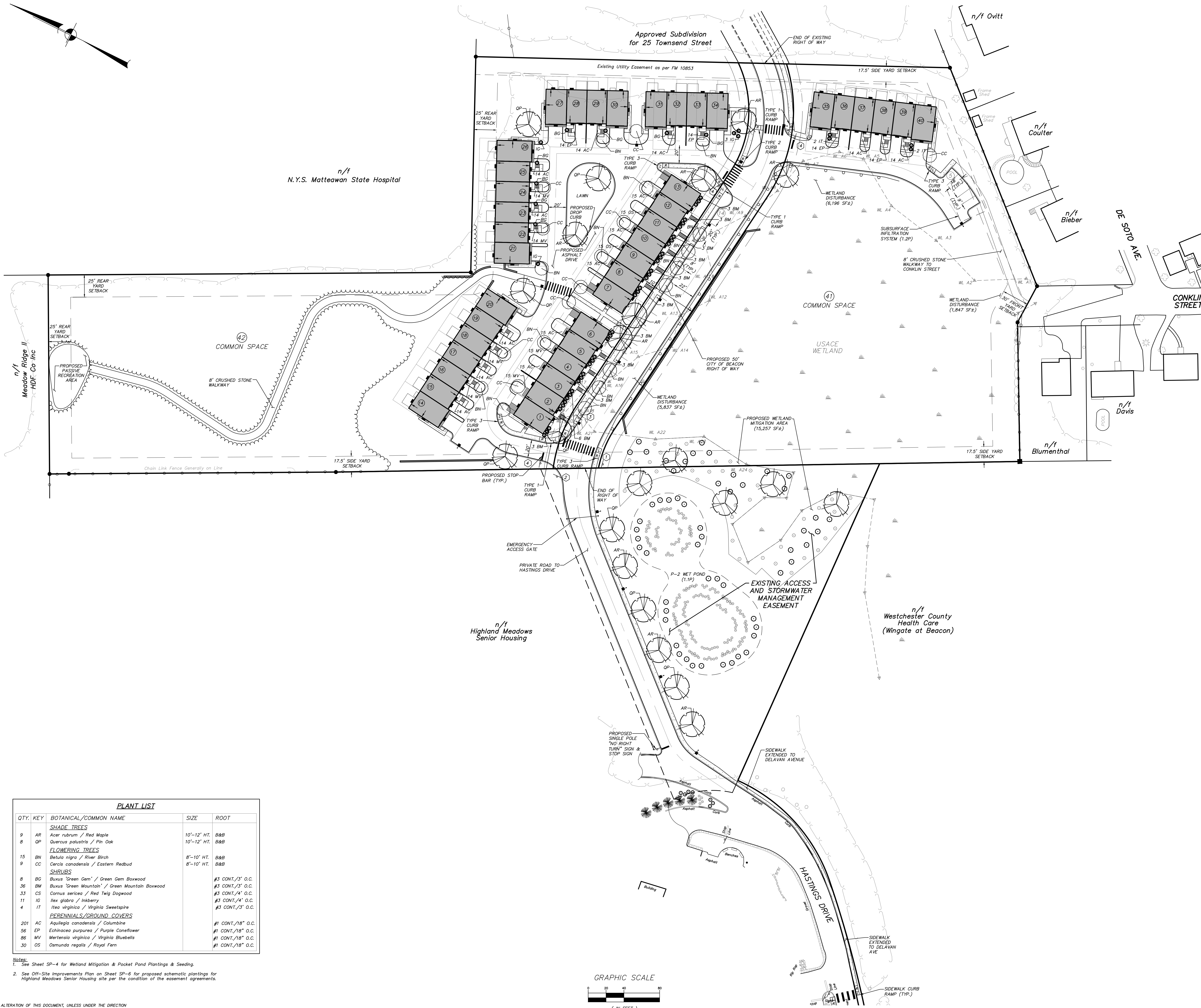
PROJECT: **BEACON VIEWS**
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING: **EXISTING CONDITIONS & REMOVALS PLAN**

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.	DRAWING NO.	2
DATE	8-27-19	DRAWN BY	J.F.R.	EX-1	20
SCALE	1" = 40'	CHECKED BY	A.D.T.		



ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.



GENERAL NOTES:

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

RD-5 ZONE REQUIREMENTS:

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

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

PARKING REQUIREMENTS:

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

RECREATION AREAS SUMMARY

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

WETLANDS SUMMARY

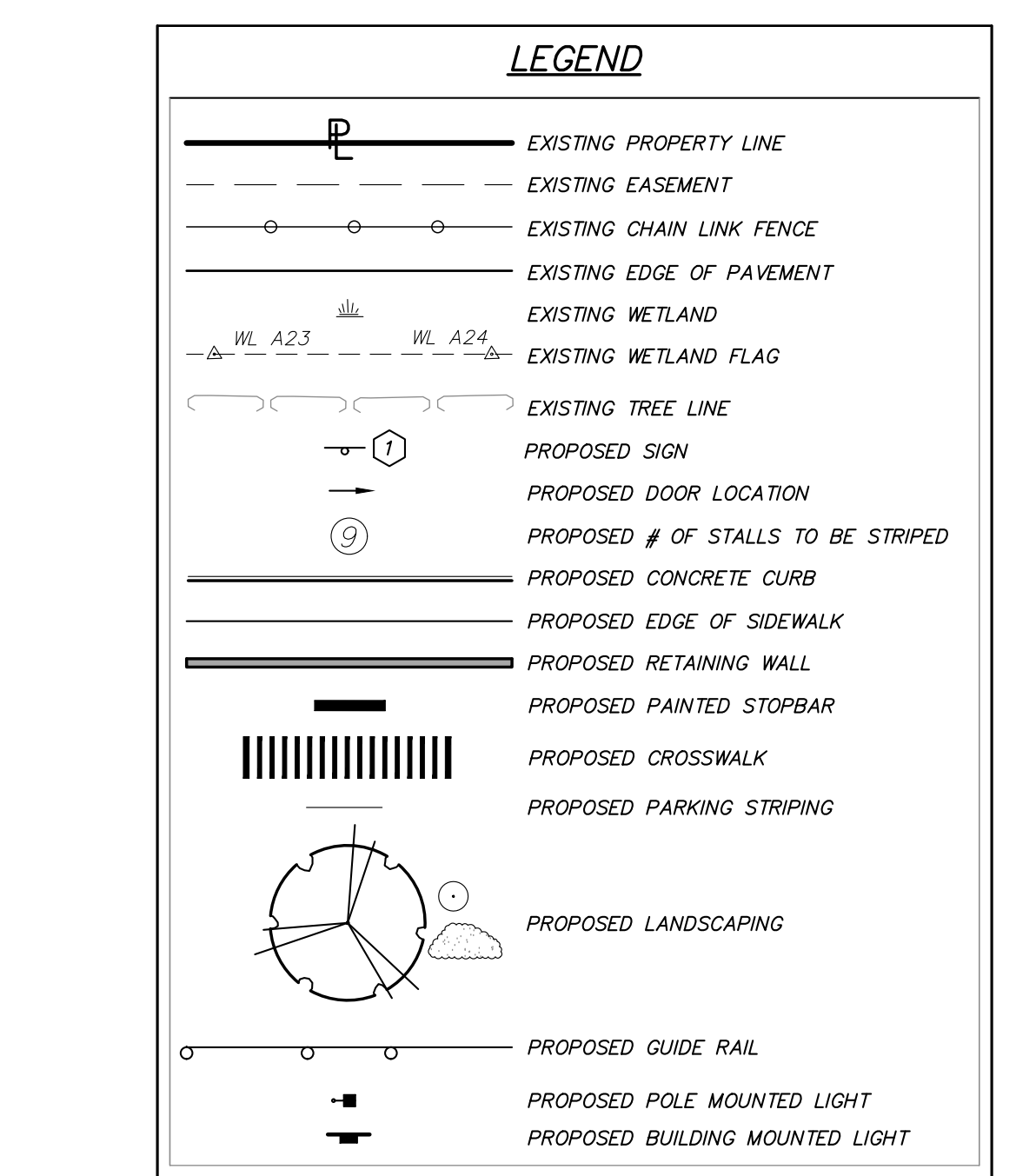
U.S.A.C.E. WETLAND PFOIE

TOTAL PROPOSED DISTURBANCE = 13,880 SF

POTENTIAL WETLAND DISTURBANCE PER ALTERNATE GRADING PLAN FOR ACCESS TO CONKLIN STREET ON SHEET SP-4 = 1,377 SF±

PROPOSED MITIGATION AREA DISTURBANCE = 15,257 SF

*SEE WETLAND MITIGATION NOTES ON SP-4



SIGN DATA TABLE

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

PLANT LIST

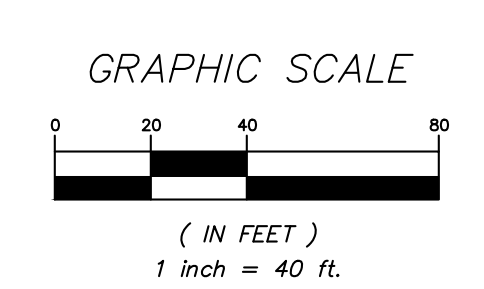
QTY.	KEY	BOTANICAL/COMMON NAME	SIZE	ROOT
SHADE TREES				
9	AR	Acer rubrum / Red Maple	10"-12" HT.	B&B
8	QP	Quercus palustris / Pin Oak	10"-12" HT.	B&B
FLOWERING TREES				
15	BN	Betula nigra / River Birch	8"-10" HT.	B&B
9	CC	Cercis canadensis / Eastern Redbud	8"-10" HT.	B&B
SHRUBS				
8	BO	Buxus 'Green Gem' / Green Gem Boxwood	#3 CONT./3' O.C.	
36	BM	Buxus 'Green Mountain' / Green Mountain Boxwood	#3 CONT./3' O.C.	
33	CS	Cornus sericea / Red Twig Dogwood	#3 CONT./4' O.C.	
11	IG	Ilex glabra / Inkberry	#3 CONT./4' O.C.	
4	IT	Itea virginica / Virginia Sweetgum	#3 CONT./3' O.C.	
PERENNIALS/GROUND COVERS				
201	AC	Aquilegia canadensis / Columbine	#1 CONT./18" O.C.	
56	EP	Echinacea purpurea / Purple Coneflower	#1 CONT./18" O.C.	
86	MV	Mertensia virginica / Virginia Bluebells	#1 CONT./18" O.C.	
30	OS	Osmunda regalis / Royal Fern	#1 CONT./18" O.C.	

Notes:

1. See Sheet SP-4 for Wetland Mitigation & Pocket Pond Plantings & Seeding.

2. See Off-Site Improvements Plan on Sheet SP-6 for proposed schematic plantings for Highland Meadows Senior Housing site per the condition of the easement agreements.

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4	7-28-20	REVISED PER PLANNING BOARD COMMENTS	JFR
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR
NO.	DATE	REVISION	BY

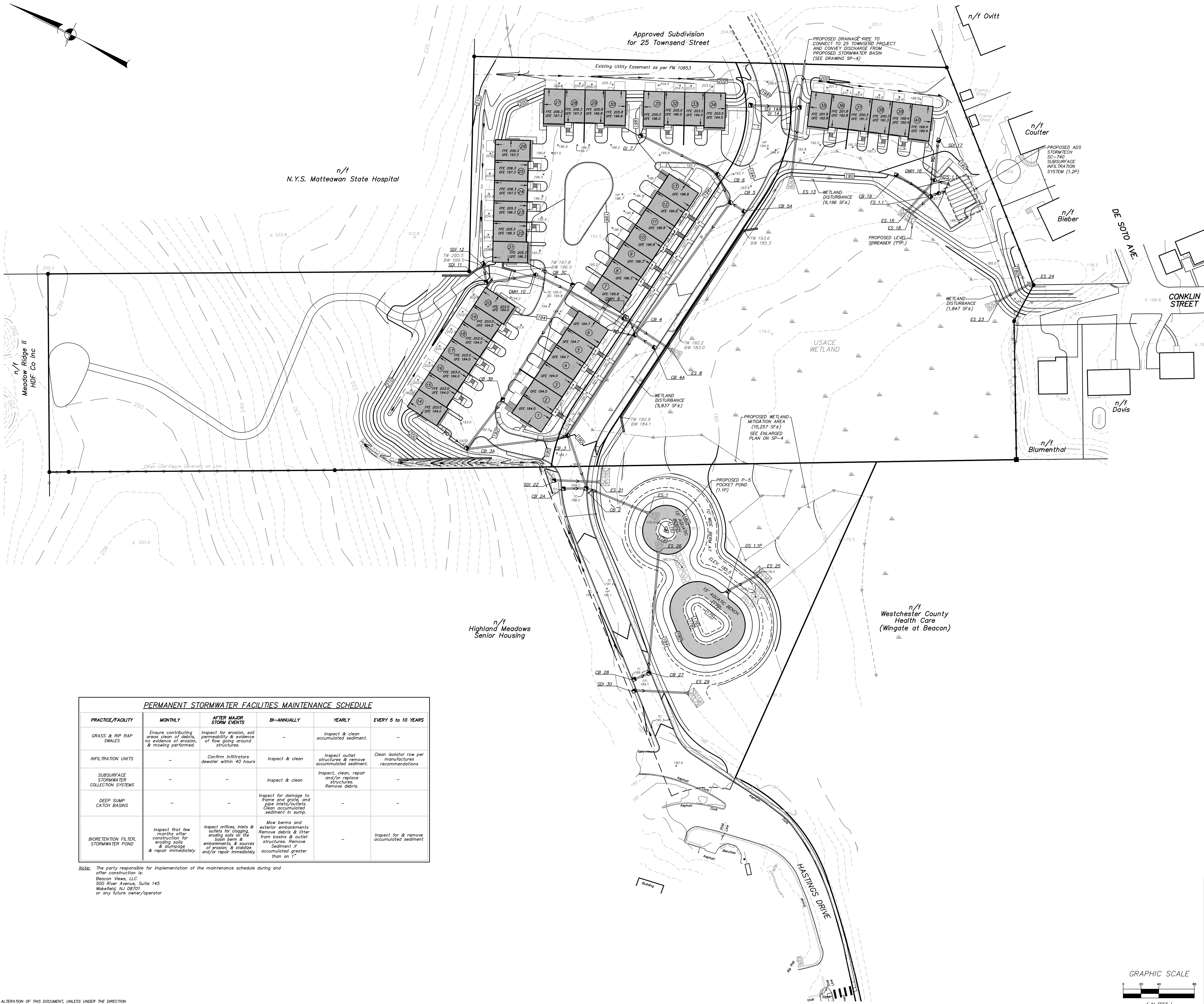
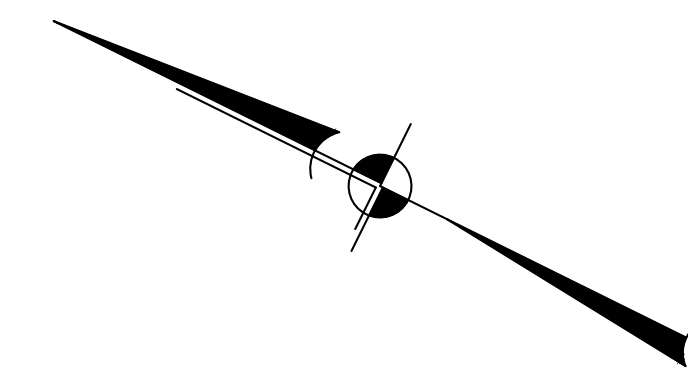
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PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
LAYOUT & LANDSCAPE PLAN

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.	DRAWING NO.	SHEET
DATE	8-27-19	DRAWN BY	J.F.R.	SP-1	3
SCALE	AS SHOWN	CHECKED BY	A.D.T.		20



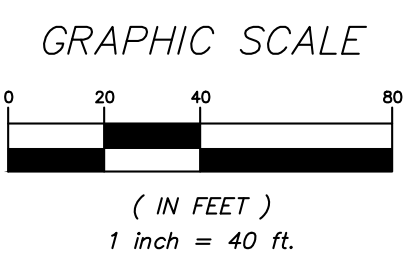
LEGEND	
	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	EXISTING CHAIN LINK FENCE
	EXISTING EDGE OF PAVEMENT
	EXISTING WETLAND
	EXISTING WETLAND FLAG
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	EXISTING SPOT GRADE
	PROPOSED 10' CONTOUR
	PROPOSED 2' CONTOUR
	PROPOSED SPOT ELEVATION
	PROPOSED TOP OF WALL & BOTTOM OF WALL ELEVATIONS
	PROPOSED DRAINAGE MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED OUTLET STRUCTURE
	PROPOSED END SECTION
	PROPOSED HDPE DRAINAGE PIPE (SIZE AS NOTED)
	PROPOSED GRASS SWALE

- General Notes:**
- Stormwater management facilities located within the access and utility easement on the Highland Meadows property are to be maintained by the applicant and subsequent owners of the proposed project. Maintenance of these facilities will not fall on the City, or the Highland Meadows ownership.
 - In an emergency event the City of Beacon will have the right to maintain the drainage between CB3 and ES1, if the applicant or subsequent owners fail to fulfill their maintenance obligations.
 - All drainage improvements within the proposed City right of way are to be dedicated to the City of Beacon.

PROPOSED DRAINAGE TABLE				
STRUCTURE	RIM	INV.	PIPE	LENGTH
DI 7	195.8	192.6	12" HDPE	97 L.F.
CB 6	193.6	190.4	12" HDPE	35 L.F.
CB 5	193.5	190.0	12" HDPE	183 L.F.
CB 4	191.2	187.1	12" HDPE	136 L.F.
CB 3	190.2	185.6	12" HDPE	63 L.F.
CB 2	189.0	182.7	24" HDPE	76 L.F.
ES 1	-	180.0	24" HDPE	76 L.F.
CB 5A	193.5	190.3	12" HDPE	18 L.F.
CB 5	193.5	190.0	12" HDPE	18 L.F.
CB 4A	191.2	188.0	12" HDPE	26 L.F.
CB 4	191.2	187.5	12" HDPE	26 L.F.
CB 2A	189.0	185.8	12" HDPE	25 L.F.
CB 2	189.0	185.3	12" HDPE	25 L.F.
CB 3C	195.2	189.5	15" HDPE	151 L.F.
CB 3B	192.7	187.9	15" HDPE	68 L.F.
CB 3A	193.2	187.2	15" HDPE	115 L.F.
CB 3	190.2	185.6	15" HDPE	115 L.F.
SDI 22	190.0	186.6	15" HDPE	52 L.F.
ES 21	-	186.0	15" HDPE	52 L.F.
SDI 12	202.9	198.8	12" HDPE	22 L.F.
SDI 11	195.9	190.8	15" HDPE	57 L.F.
DMH 10	185.9	182.5	15" HDPE	110 L.F.
DMH 9	192.9	189.3	15" HDPE	60 L.F.
ES 8	-	182.5	15" HDPE	60 L.F.
SDI 14A	196.0	192.6	15" HDPE	55 L.F.
DI 14	193.6	190.1	24" HDPE	80 L.F.
ES 13	-	186.0	24" HDPE	80 L.F.
SDI 17	190.5	187.1	12" HDPE	45 L.F.
DMH 16	188.1	183.8	12" HDPE	47 L.F.
ES 15	-	183.0	12" HDPE	47 L.F.
CB 19	189.3	186.1	12" HDPE	46 L.F.
FS 1.1	187.7	184.7	12" HDPE	30 L.F.
ES 1B	-	183.0	12" HDPE	30 L.F.
FS 1.1	187.7	184.7	8" HDPE	10 L.F.
HDS 1.1	187.8	184.5	8" HDPE	9 L.F.
1.2P	-	184.3	8" HDPE	9 L.F.
1.2P	-	184.5	6" HDPE	17 L.F.
DMH 16	188.1	184.3	6" HDPE	17 L.F.
ES 24	-	176.0	15" HDPE	44 L.F.
ES 23	-	175.5	15" HDPE	44 L.F.
OS 1.1P	184.5	179.0	18" HDPE	37 L.F.
ES 25	-	178.5	18" HDPE	37 L.F.
CB 28	188.9	185.7	12" HDPE	18 L.F.
CB 27	188.9	185.2	12" HDPE	136 L.F.
ES 26	-	180.0	12" HDPE	136 L.F.
SDI 30	189.5	186.3	12" HDPE	61 L.F.
ES 29	-	185.5	12" HDPE	61 L.F.

PERMANENT STORMWATER FACILITIES MAINTENANCE SCHEDULE					
PRACTICE/FACILITY	MONTHLY	AFTER MAJOR STORM EVENTS	BI-ANNUALLY	YEARLY	EVERY 5 to 10 YEARS
GRASS & RIP RAP SWALES	Ensure contributing areas clean of debris, no evidence of erosion, & mowing performed.	Inspect for erosion, soil permeability & evidence of flow going around structures.	-	Inspect & clean accumulated sediment.	-
INFILTRATION UNITS	-	Confirm infiltrators de-water within 40 hours	Inspect & clean	Inspect outlet structures & remove accumulated sediment.	Clean isolator row per manufacturers recommendations
SUBSURFACE STORMWATER COLLECTION SYSTEMS	-	-	Inspect & clean	Inspect, clean, repair and/or replace structures. Remove debris.	-
DEEP SUMP CATCH BASINS	-	-	Inspect for damage to frame and grate, and pipe inlets/outlets. Clean accumulated sediment in sump.	-	-
BIORETENTION FILTER, STORMWATER POND	Inspect first few months after construction for eroding soils & slumping & repair immediately	Inspect orifices, inlets & outlets for clogging eroding soils on the basin berm & embankments, & sources of erosion, & stabilize and/or repair immediately	Mow berms and exterior embankments. Remove debris & litter from basins & outlet structures. Remove sediment if accumulated greater than 1"	-	Inspect for & remove accumulated sediment

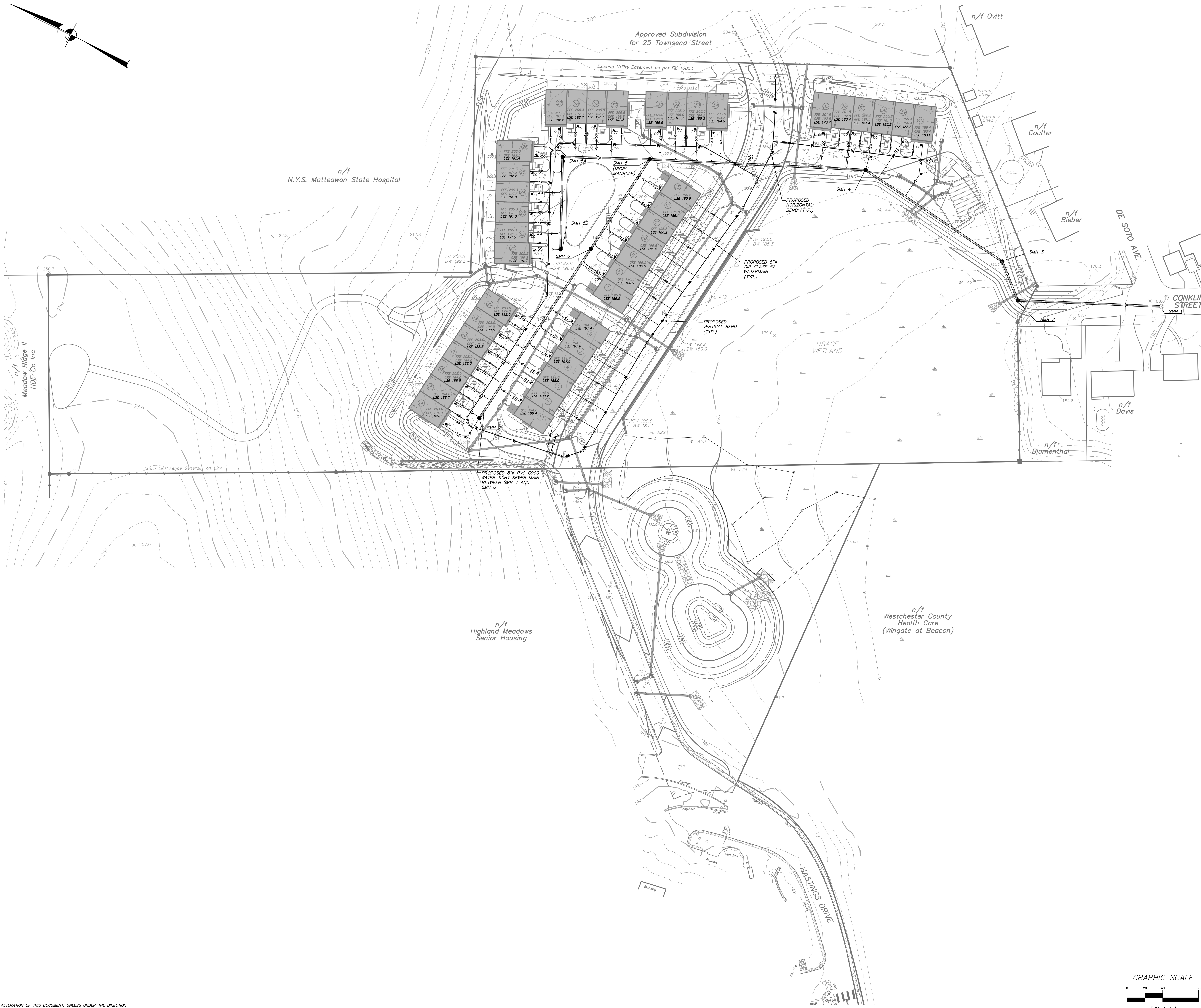
Note: The party responsible for implementation of the maintenance schedule during and after construction is Beacon Views, LLC
500 River Avenue, Suite 145
Waterford, NJ 08701
or any future owner/operator



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PROJECT:	BEACON VIEWS		
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK			
DRAWING:	GRADING & DRAINAGE PLAN		
PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8-27-19	DRAWN BY	J.F.R.
SCALE	1" = 40'	CHECKED BY	A.D.T.
NO.	DATE	REVISION	BY
4	7-28-20	REVISED PER PLANNING BOARD COMMENTS	JFR
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR
DRAWING NO. SP-2.1			
SHEET			4
			20



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING CHAIN LINK FENCE
- EXISTING EDGE OF PAVEMENT
- EXISTING WETLAND
- EXISTING WETLAND FLAG
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- EXISTING 12" WATER MAIN
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED TOP OF WALL & BOTTOM OF WALL ELEVATIONS
- PROPOSED SEWER MANHOLE
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED OUTLET STRUCTURE
- PROPOSED END SECTION
- PROPOSED WATER GATE VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED HOPE DRAINAGE PIPE (SIZE AS NOTED)
- PROPOSED 8" PVC SDR 35 SEWER MAIN (UNLESS OTHERWISE NOTED)
- PROPOSED 4" PVC SDR 35 SEWER SERVICE WITH CLEANOUT
- PROPOSED 6" DIP CLASS 52 WATER MAIN
- PROPOSED 1" DIP WATER SERVICE LINE
- PROPOSED GRASS SWALE

PROPOSED SEWER TABLE

STRUCTURE	R/W	INV.	PIPE	LENGTH	SLOPE
SMH 7	192.5	188.0	8" PVC	227 L.F.	0.8%
SMH 6	194.7	IN 186.2 OUT 186.1	8" PVC	120 L.F.	0.8%
SMH 5	196.0	IN 185.1 OUT 185.0	8" PVC	242 L.F.	1.1%
SMH 4	190.4	IN 182.4 OUT 182.3	8" PVC	184 L.F.	0.8%
SMH 3	185.0	IN 180.8 OUT 180.7	8" PVC	47 L.F.	0.9%
SMH 2	184.5	IN 180.3 OUT 180.2	8" PVC	161 L.F.	0.8%
SMH 1	188.8	178.9	8" PVC	97 L.F.	0.9%
SMH 5B	195.2	191.0	8" PVC	104 L.F.	0.9%
SMH 5A	196.6	IN 190.1 OUT 190.0	8" PVC	97 L.F.	0.9%
SMH 5	196.1	IN 189.1 OUT 189.0	8" PVC	97 L.F.	0.9%

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

4	7-28-20	REVISED PER PLANNING BOARD COMMENTS	JFR
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NO.	DATE	REVISION	BY

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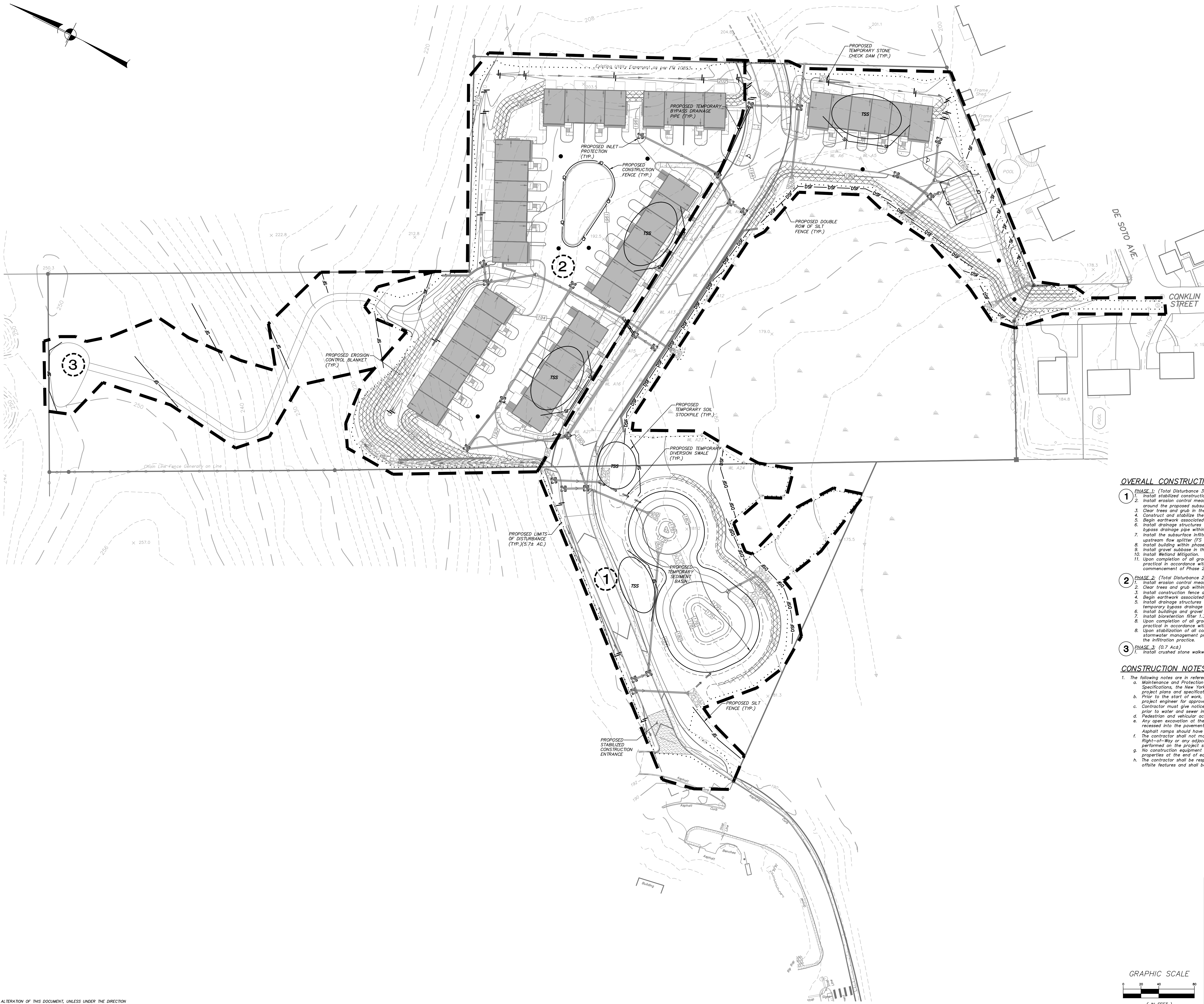
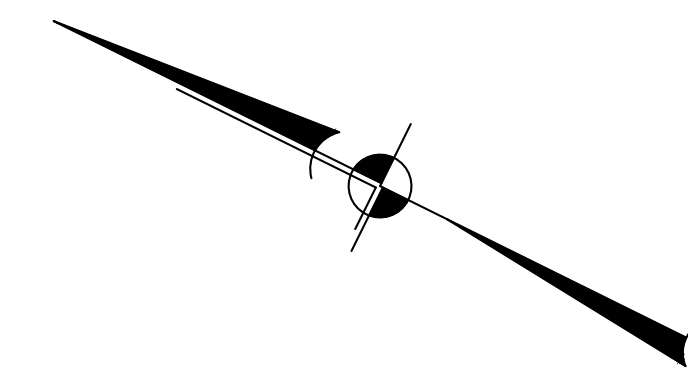
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PROJECT: **BEACON VIEWS**
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING: **UTILITIES PLAN**

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.	DRAWING NO.	SP-2.2	SHEET	5
DATE	8-27-19	DRAWN BY	J.F.R.				20
SCALE	1" = 40'	CHECKED BY	A.D.T.				

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.



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

OVERALL CONSTRUCTION SEQUENCE:

- 1** PHASE 1: (Total Disturbance 3.6 Ac. ±)
1. Install stabilized construction entrances in accordance with the notes and details at location shown on drawing.
 2. Install erosion control measures shown on the plan in accordance with the details. Install construction fence around the proposed subsurface infiltration system (1.2P).
 3. Clear trees and grub in the area of stormwater basin (1.1P).
 4. Construct and stabilize the temporary sediment basin in accordance with the notes and details.
 5. Begin earthwork associated with the road, parking area and building within limits of the phase.
 6. Install drainage structures with inlet protection as shown and pipes within limits of phase. Install temporary bypass drainage pipe within the phase to direct stormwater runoff to the temporary sediment basin.
 7. Install the subsurface infiltration system (1.2P) and plug the outlet pipe to the infiltration practice in the upstream flow splitter (FS 1.2).
 8. Install building within phase.
 9. Install gravel subbase in the proposed paved areas.
 10. Install Wetland Mitigation.
 11. Upon completion of all grading operations topsoil, seed, and mulch any and all disturbed areas as soon as practical in accordance with the sedimentation and erosion control notes. Phase 1 must be stabilized prior to the commencement of Phase 2.
- 2** PHASE 2: (Total Disturbance 2.7 Ac. ±)
1. Install erosion control measures shown on the plan in accordance with the details.
 2. Clear trees and grub within the limits of the phase.
 3. Install construction fence around the proposed bio-retention filter (1.3P).
 4. Begin earthwork associated with the parking area and buildings.
 5. Install drainage structures with inlet protection as shown and pipes within the limits of the phase. Install temporary bypass drainage pipe within the phase to direct stormwater runoff to the temporary sediment basin.
 6. Install buildings and gravel subbase in the proposed paved areas.
 7. Install bio-retention filter (1.3P).
 8. Upon completion of all grading operations topsoil, seed, and mulch any and all disturbed areas as soon as practical in accordance with the sedimentation and erosion control notes.
 9. Upon stabilization of all contributing area complete, convert the temporary sediment basin to the proposed stormwater management practice per the notes and details and remove plug from primary outlet in FS 1.2 to the infiltration practice.
- 3** PHASE 3: (0.7 Ac.)
1. Install crushed stone walkway and passive recreation area.

CONSTRUCTION NOTES:

1. The following notes are in reference to the proposed water and sewer main improvements on Conklin Street:
 - a. Maintenance and Protection of Traffic shall be provide in accordance with Section 619 of the Standard Specifications, the New York State Manual of Uniform Control Devices, and any provisions contained in the project plans and specifications.
 - b. Prior to the start of work, the contractor shall submit a Maintenance and Protection of Traffic Plan to the project engineer for approval.
 - c. Contractor must give notice to all affected residential dwellings on Conklin Street forty-eight (48) hours prior to water and sewer improvement connections on Conklin Street.
 - d. Pedestrian and vehicular access to all residence must be maintained at all times during construction. Any open excavation at the end of the work day must be covered with steel plates. Plates must be recessed into the pavement and pinned or pinned with asphalt ramps placed along all sides of the plate. Asphalt ramps should have a maximum slope of 1/4 inch per foot.
 - e. The contractor shall not maintain construction equipment or stored overnight within the City of Beacon Right-of-Way or any adjacent properties. Construction equipment maintenance and storage must be performed on the project site.
 - f. No construction equipment or material is to be left within the City of Beacon Right-of-Way or adjacent properties at the end of each work day.
 - h. The contractor shall be responsible for the restoration of any offsite disturbance and/or damage to existing offsite features and shall be repaired or replaced in kind at the expense of the contractor.

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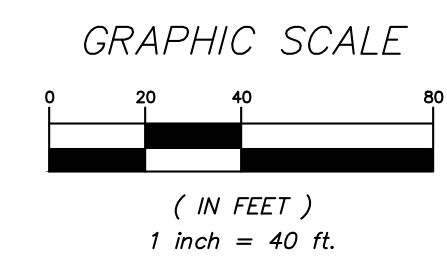
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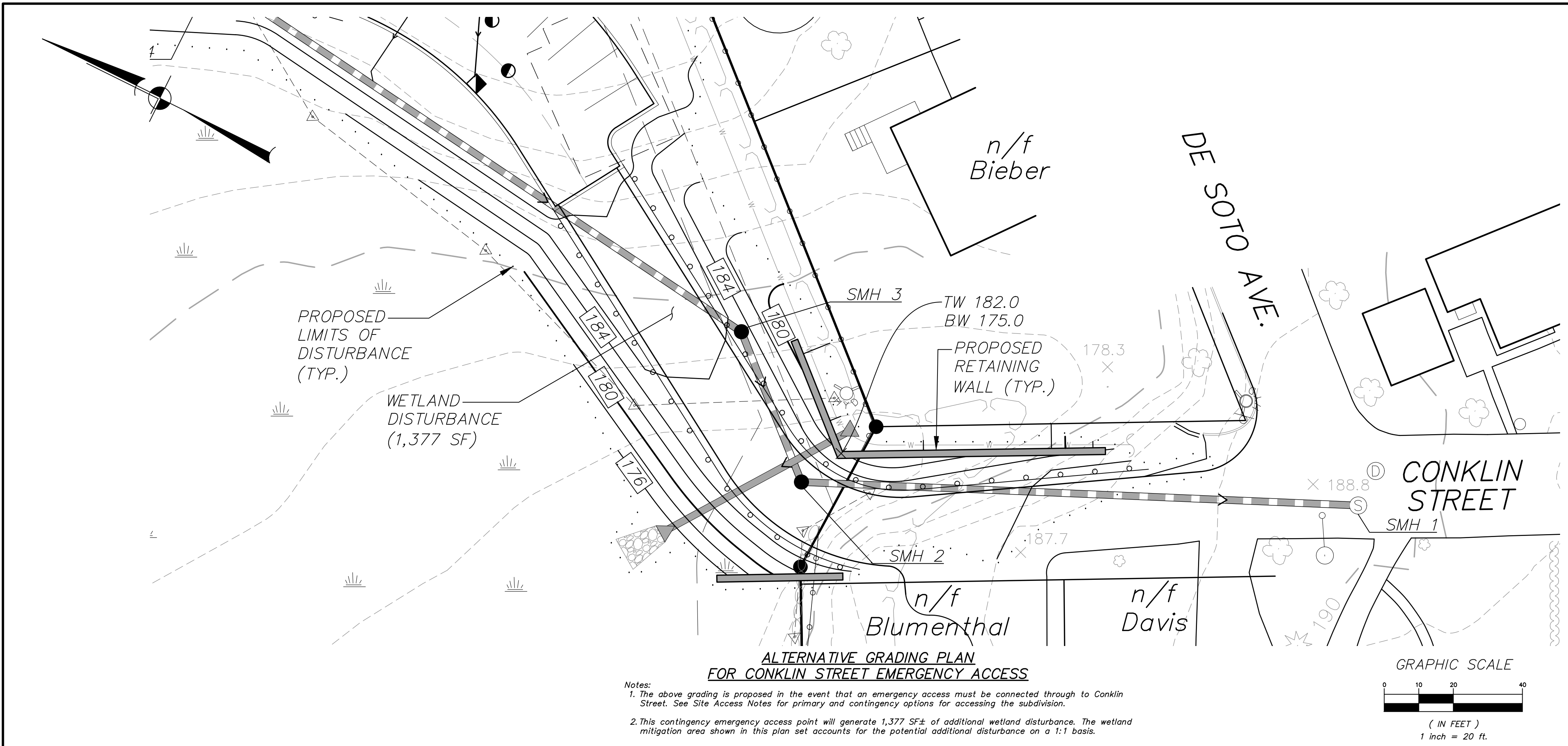
PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
**EROSION & SEDIMENT
CONTROL PLAN**

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.	DRAWING NO.	SHEET
DATE	8-27-19	DRAWN BY	J.F.R.	BY	SP-3
SCALE	1" = 40'	CHECKED BY	A.D.T.		20

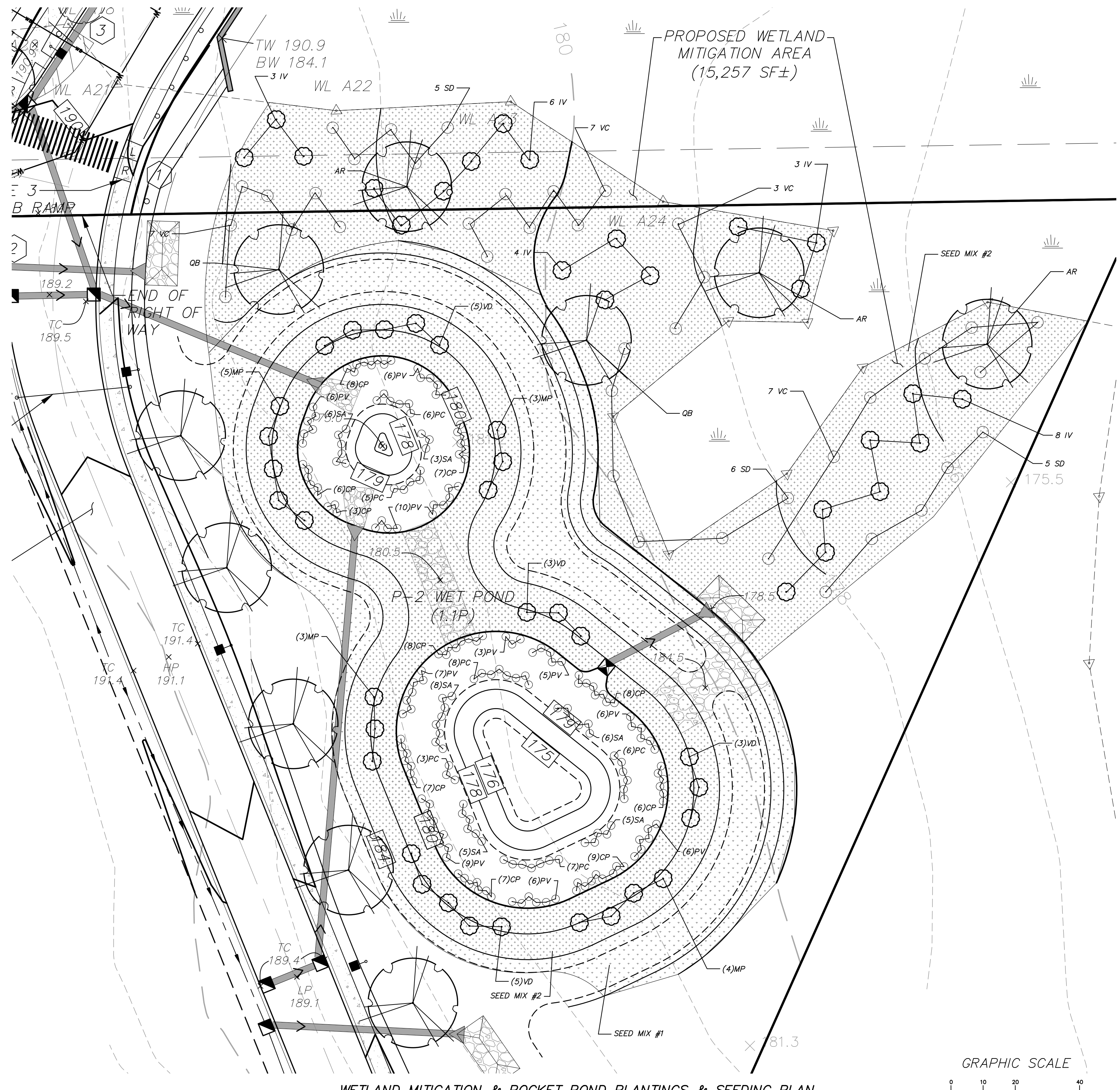
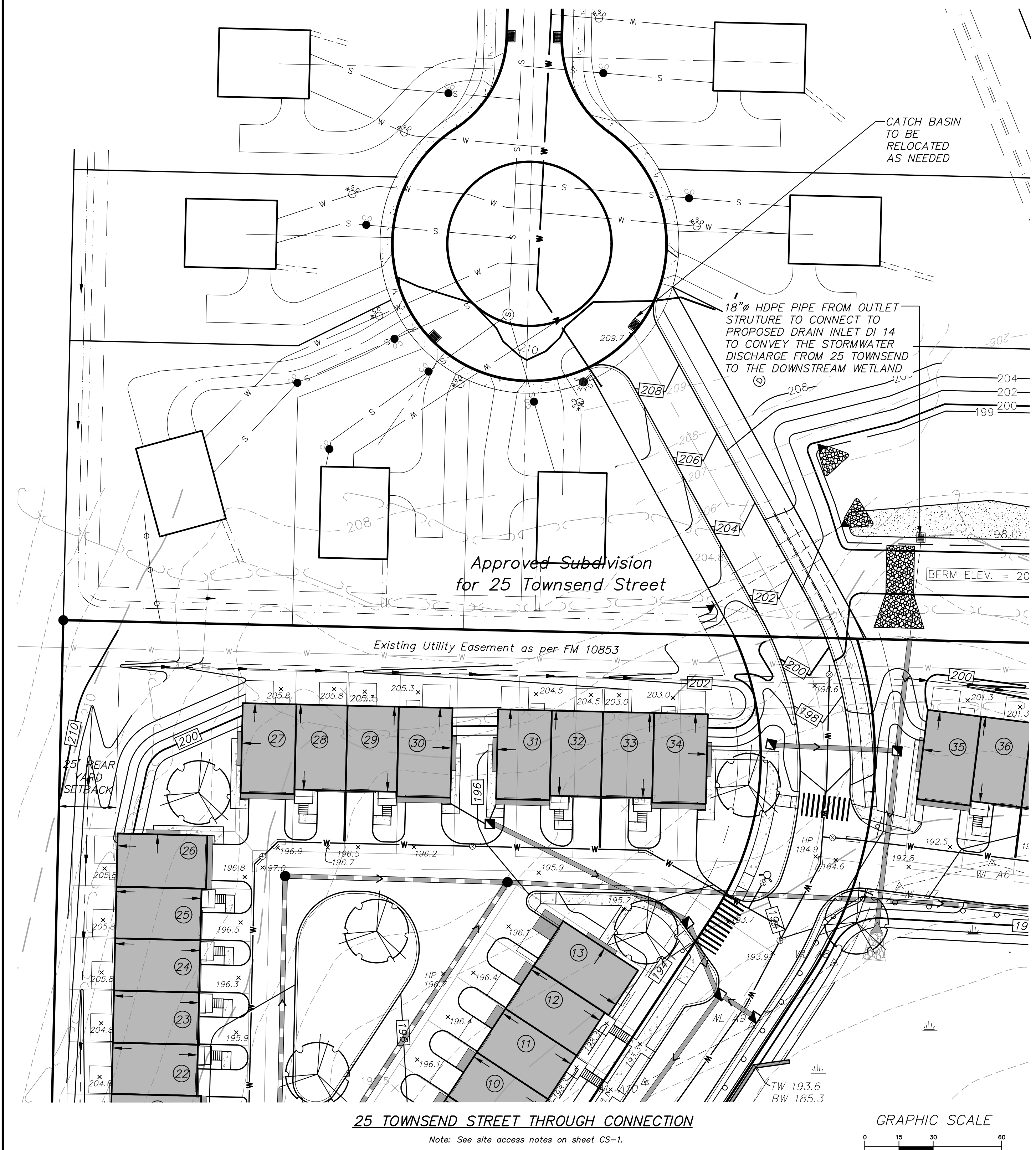


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LEGEND	
	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	EXISTING CHAIN LINK FENCE
	EXISTING EDGE OF PAVEMENT
	EXISTING WETLAND FLAG
	EXISTING TREE LINE
	PROPOSED SIGN
	PROPOSED DOOR LOCATION
	PROPOSED # OF STALLS TO BE STRIPED
	PROPOSED CONCRETE CURB
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

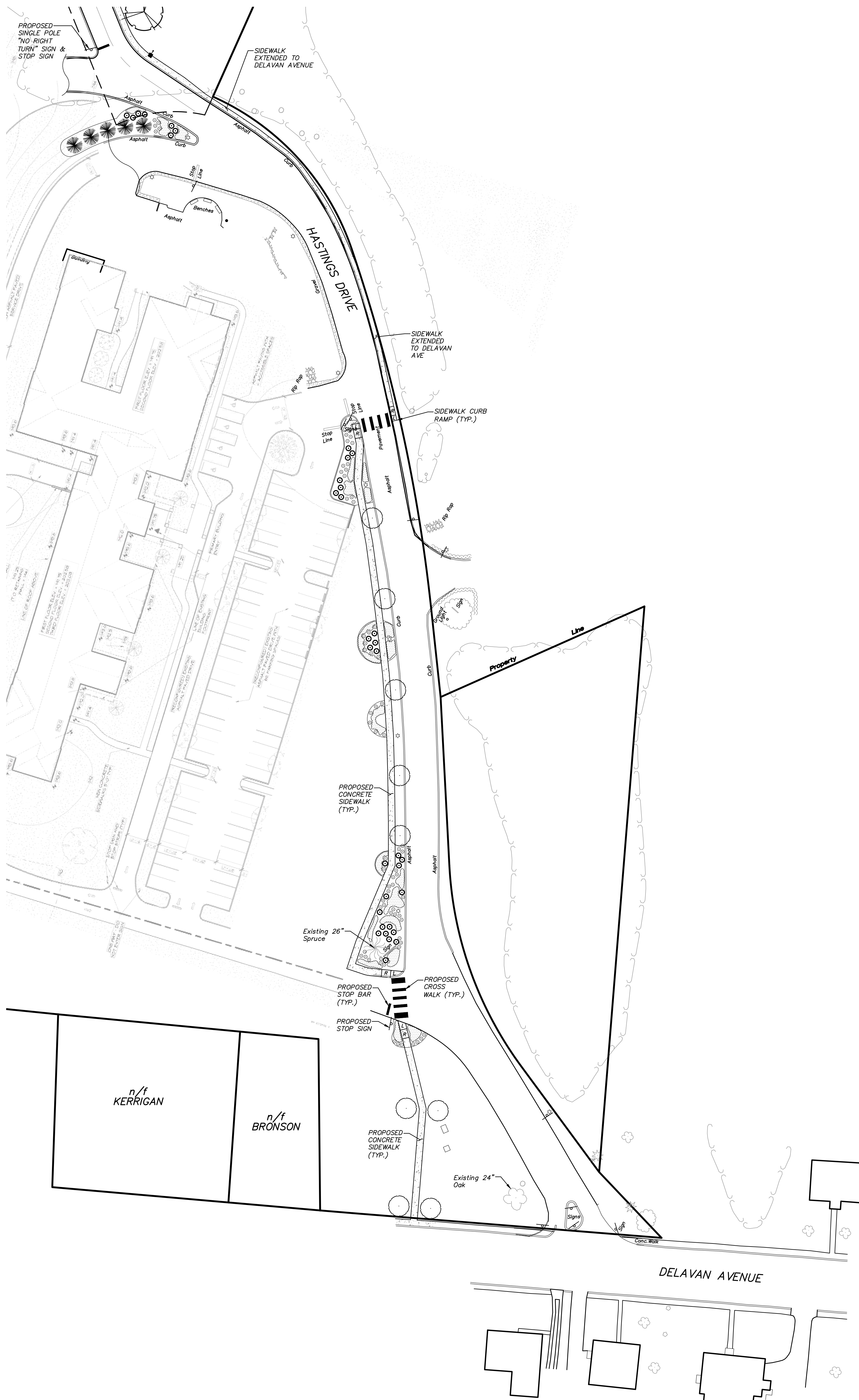
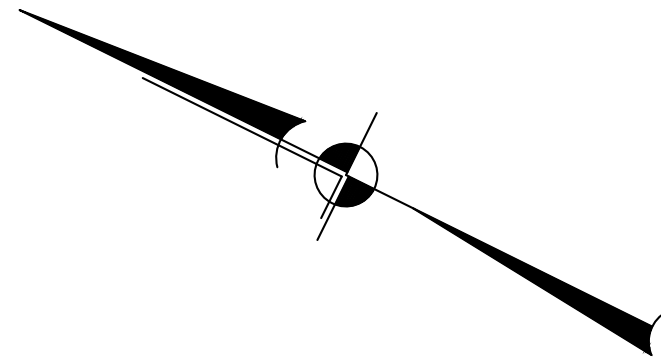
- WETLAND MITIGATION NOTES:**
- Limits of the wetland mitigation area will be staked prior to the commencement of mitigation.
 - In addition to the plantings shown hereon the mitigation area is to be seeded at a rate of 25 lbs. per acre: New England Erosion Control/Restoration Mix For Detention Basins and Moist Sites from New England Wetland Plants, Inc. of Amherst, MA. See seeding notes for additional information.
 - All plant material to be nursery grown.
 - Plants shall conform with ANSI 200.1 American Standard for Nursery Stock in all ways including dimensions.
 - Plants shall be taken from healthy nursery stock.
 - Plants shall be grown under climate conditions similar to those in the locality of the project.
 - The location and layout of landscape plants shown on the site plan shall take precedence in any discrepancies between the quantities of plants shown on the plans and the quantity of plants in the Plant List.
 - Provide a 3" layer of shredded mulch (or as specified) over entire watering saucer at all tree pits or over entire planting bed. Do not place mulch within 3" of tree or shrub trunks.
 - All landscape plantings shall be maintained in a healthy condition at all times. Any dead or diseased plants shall immediately be replaced "in kind" by the contractor (during warranty period) or project owner.
 - All landscape and mitigation plantings shall be installed by hand. No mechanical equipment shall be permitted.



WETLAND MITIGATION & POCKET POND PLANT LIST			
QTY.	KEY	BOTANICAL/COMMON NAME	SIZE
SHADE TREES			
3	AR	Acer rubrum / Red Maple	10'-12' HT. B&B
2	QB	Quercus bicolor / Swamp White Oak	10'-12' HT. B&B
SHRUBS			
24	IV	Ilex verticillata / Winterberry	#5 CONT./15' O.C.
15	MP	Myrica pensylvanica / Bayberry	#2 CONT./10' O.C.
16	SD	Salix discolor / Pussy Willow	#5 CONT./15' O.C.
24	VC	Vaccinium corymbosum / Highbush Blueberry	#5 CONT./15' O.C.
16	VD	Viburnum dentatum / Arrowwood Viburnum	#2 CONT./10' O.C.
PERENNIALS/GRASSES/GROUND COVERS			
35	PC	Pantederia cordata / Pickerswee	#1 CONT./36" O.C.
33	SA	Schoenoplectus acutus / Hard Stem Bulrush	#1 CONT./36" O.C.
64	PV	Panicum virgatum / Switchgrass	#1 CONT./36" O.C.
69	GP	Carex pensylvanica / Pennsylvania Sedge	#1 CONT./24" O.C.

2	7-28-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
NO.	DATE	REVISION	BY
INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.			
3 Garrett Place Carmel, NY 10512 (845) 225-9690 (845) 225-9717 fax www.insite-eng.com			
PROJECT: BEACON VIEWS			
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK			
DRAWING: ENLARGED PLANS			
PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	5-26-20	DRAWN BY	J.F.R.
SCALE	AS SHOWN	CHECKED BY	A.D.T.
DRAWING NO.	SP-4		
SHEET	7		
	20		

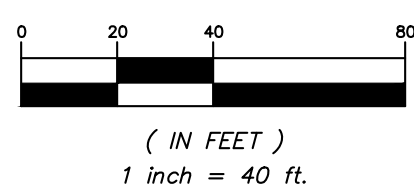
ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.



OFF-SITE IMPROVEMENTS PLAN

Notes:
1. See Site Access Notes on Sheet CS-1.

GRAPHIC SCALE

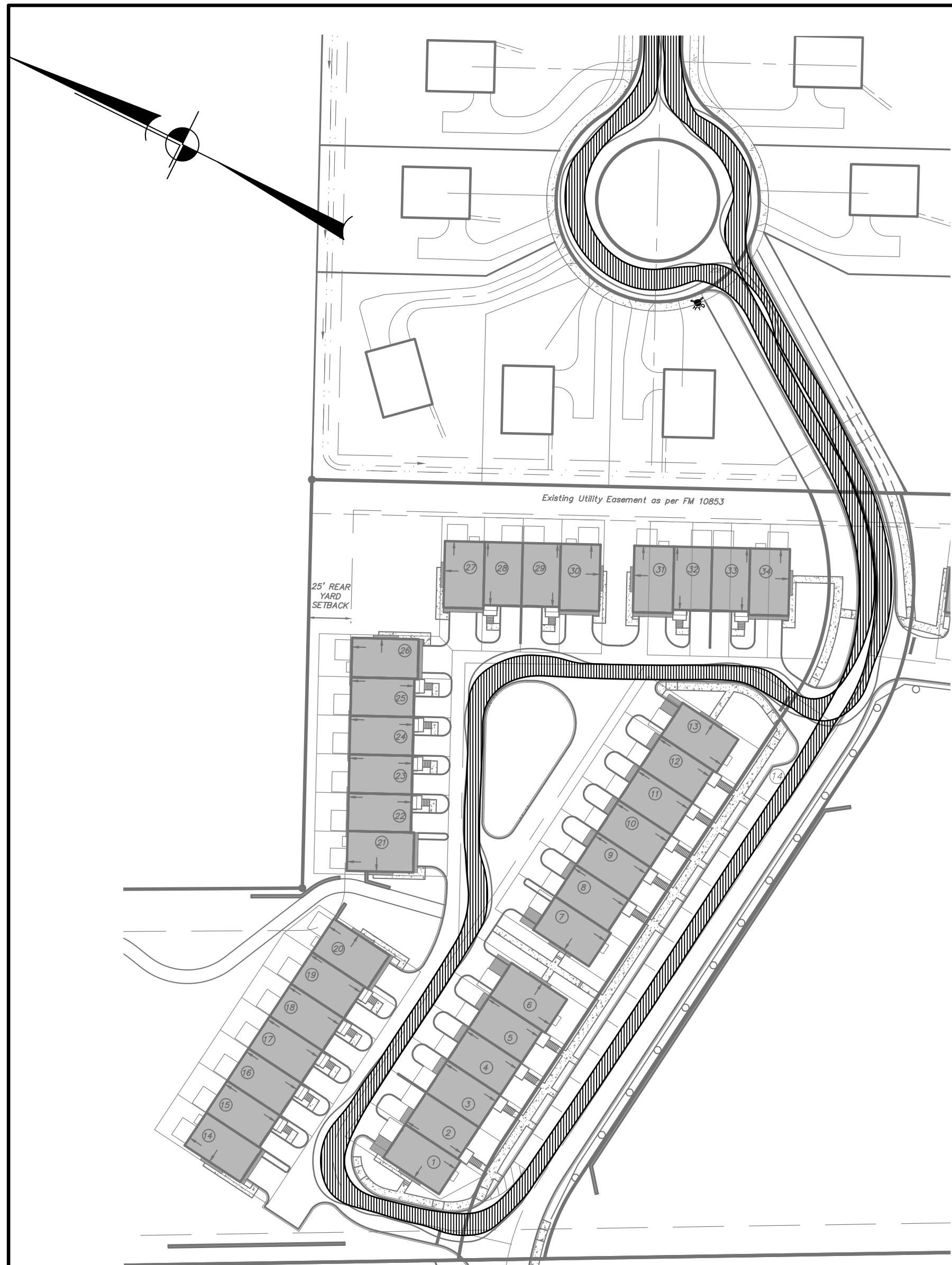


LEGEND	
	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	EXISTING CHAIN LINK FENCE
	EXISTING EDGE OF PAVEMENT
	EXISTING WETLAND
	EXISTING WETLAND FLAG
	EXISTING TREE LINE
	PROPOSED SIGN
	PROPOSED DOOR LOCATION
	PROPOSED # OF STALLS TO BE STRIPED
	PROPOSED CONCRETE CURB
	PROPOSED EDGE OF SIDEWALK
	PROPOSED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

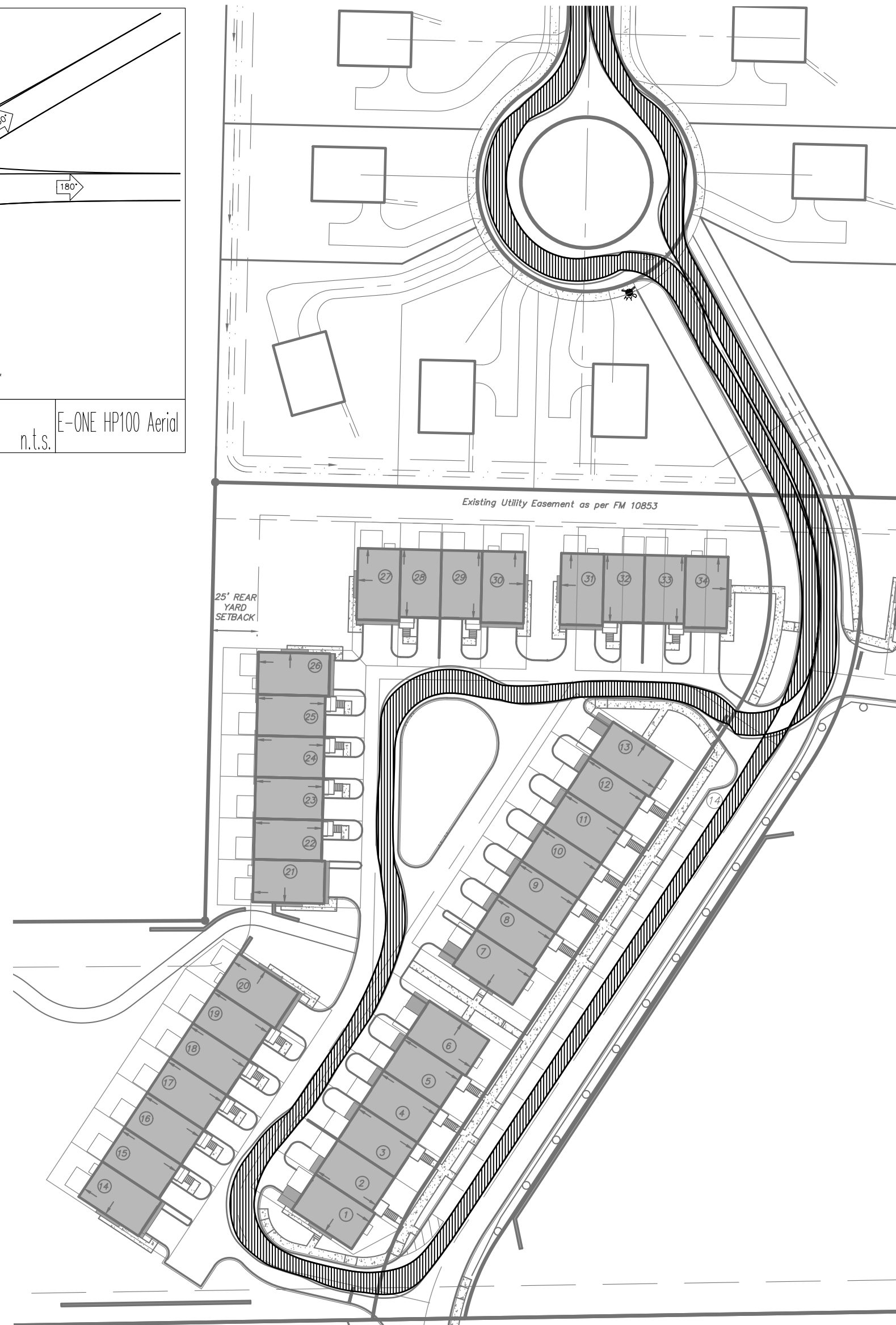
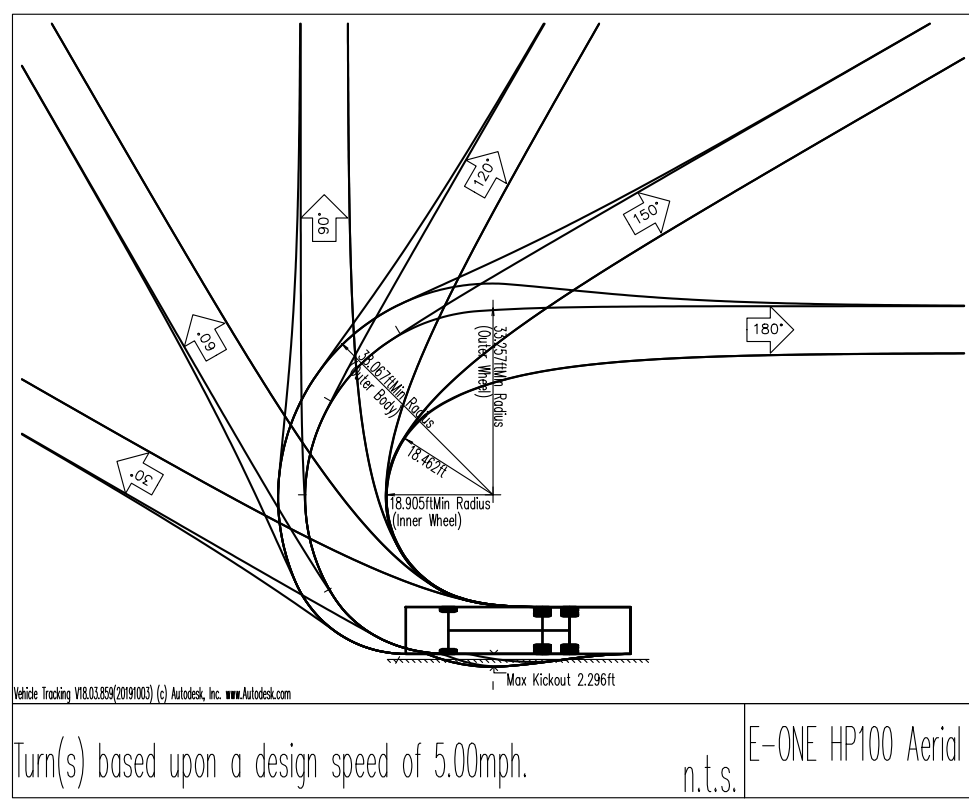
General Note:

- Property line information for the Kerrigan and Bronson lots were taken from the Dutchess County Tax Map.
- Layout information for the Highland Meadows Senior Housing property was taken from design plans by The Schwartz Architectural Group, P.C., dated November 3, 2011.

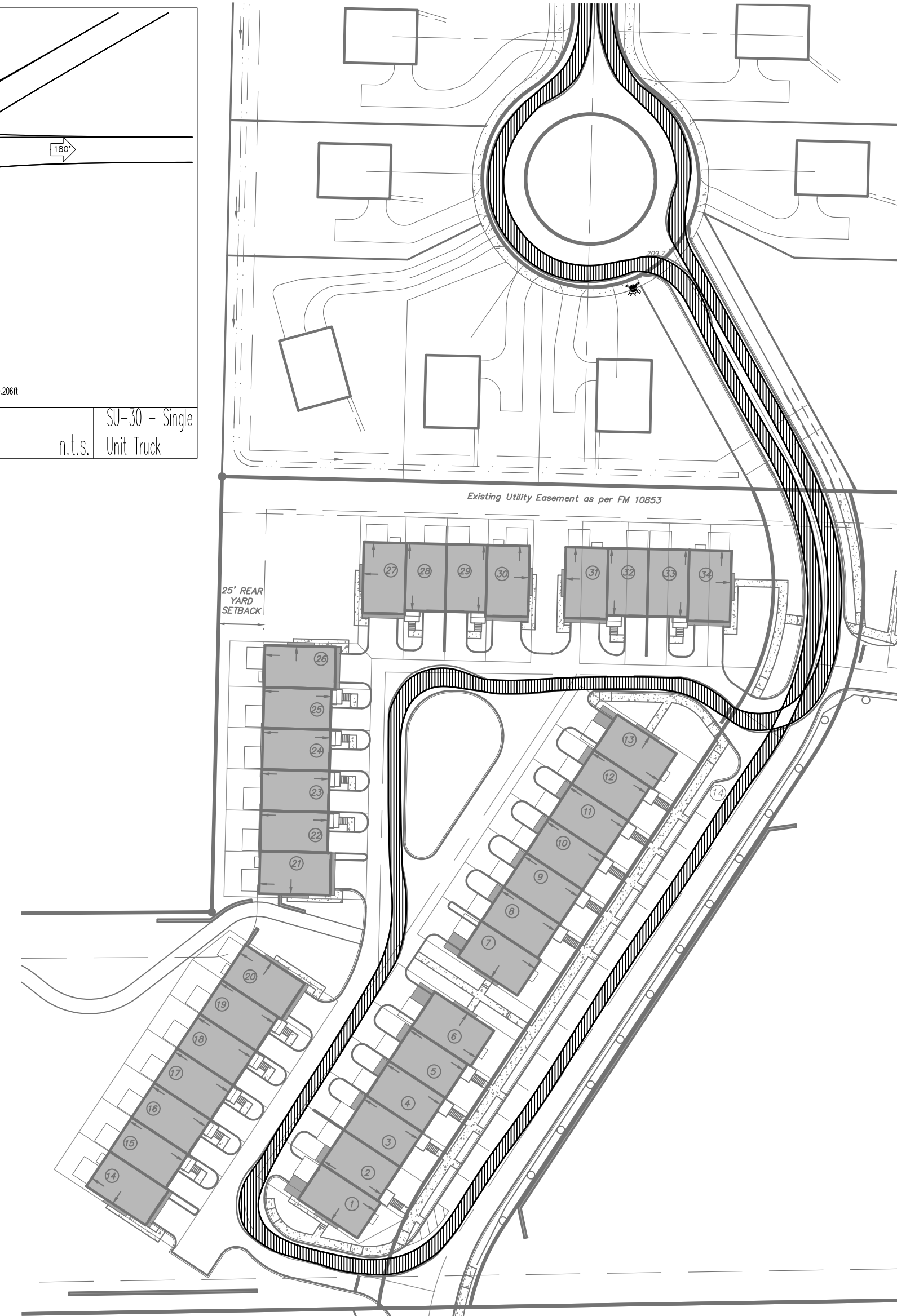
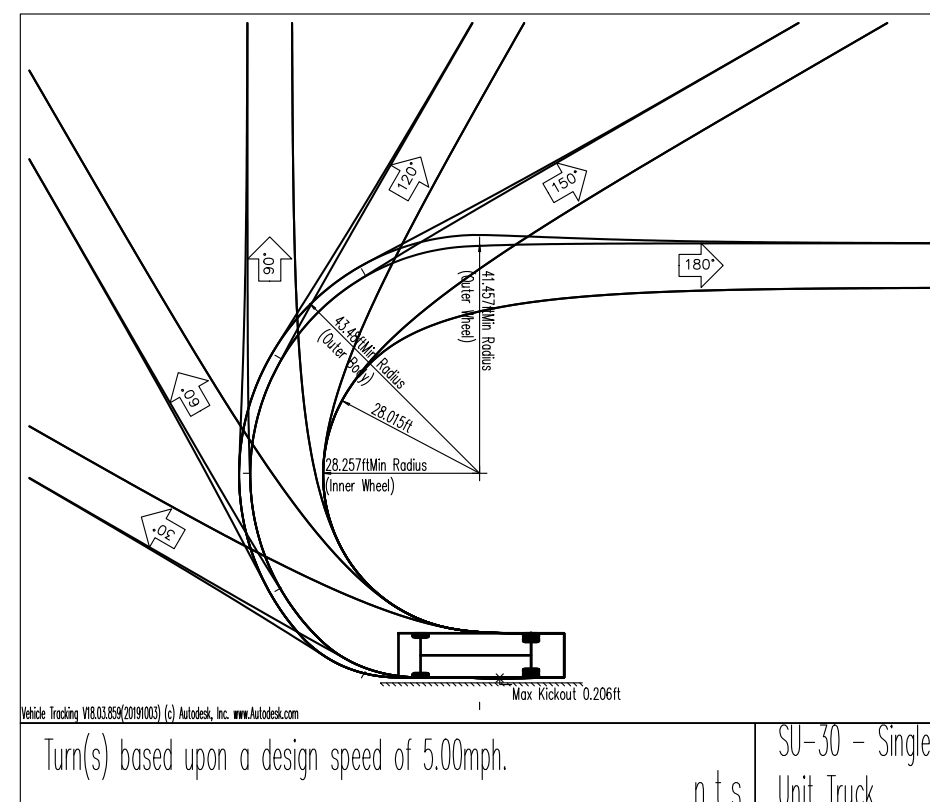
NO.	DATE	REVISION	BY
 ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C. 3 Garrett Place Carmel, NY 10512 (845) 225-9690 (845) 225-9717 fax www.insite-eng.com			
PROJECT: BEACON VIEWS CITY OF BEACON, DUTCHESS COUNTY, NEW YORK			
DRAWING: OFF SITE IMPROVEMENTS PLAN			
PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	7-28-20	DRAWN BY	J.F.R.
SCALE	AS SHOWN	CHECKED BY	A.D.T.
DRAWING NO.			SHEET
SP-5			8
			20



FIRE TRUCK MANEUVER 1
SCALE : 1" = 60'



DELIVERY TRUCK MANEUVER 1
SCALE : 1" = 60'



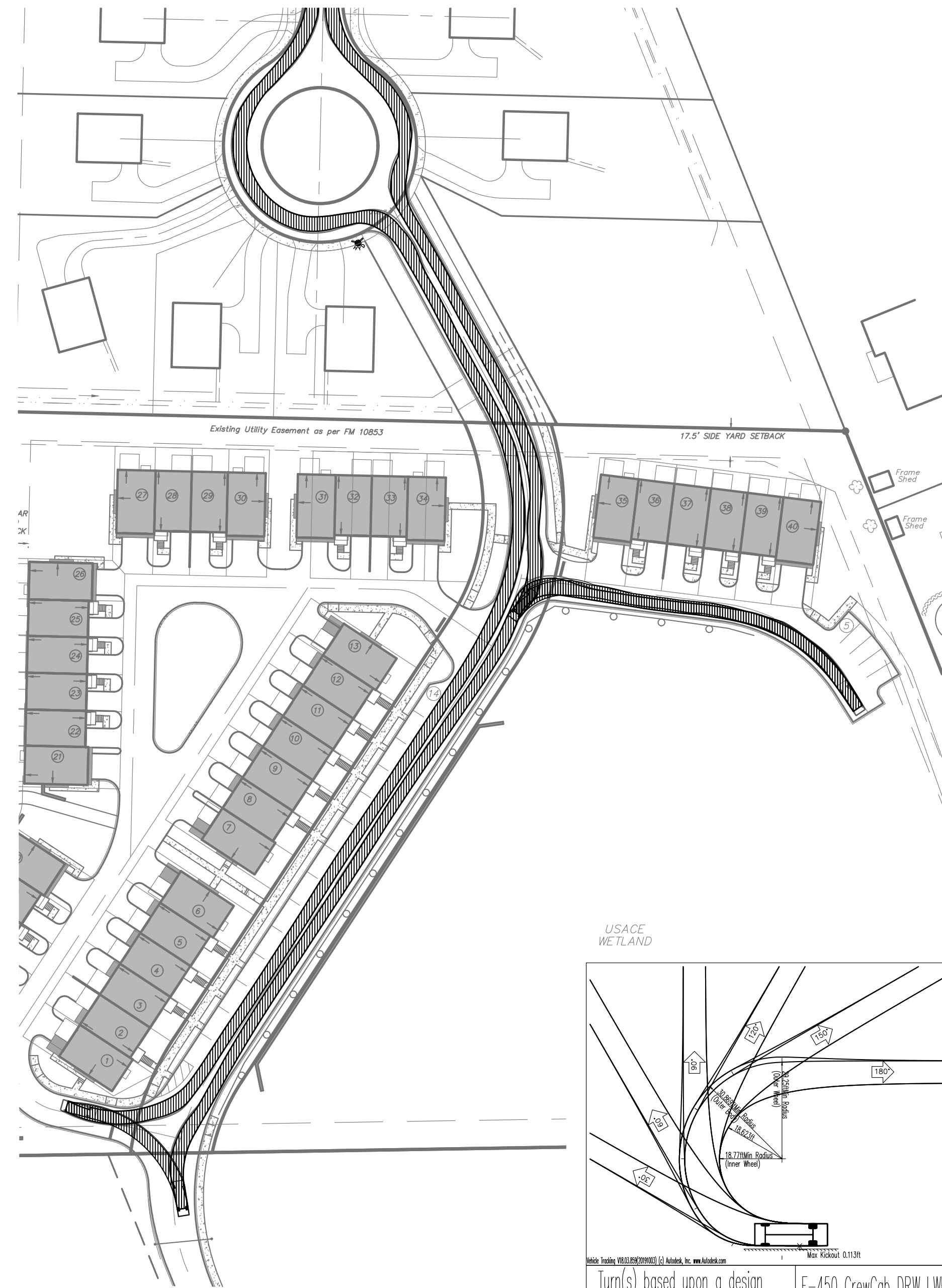
PLOW TRUCK MANEUVER 1
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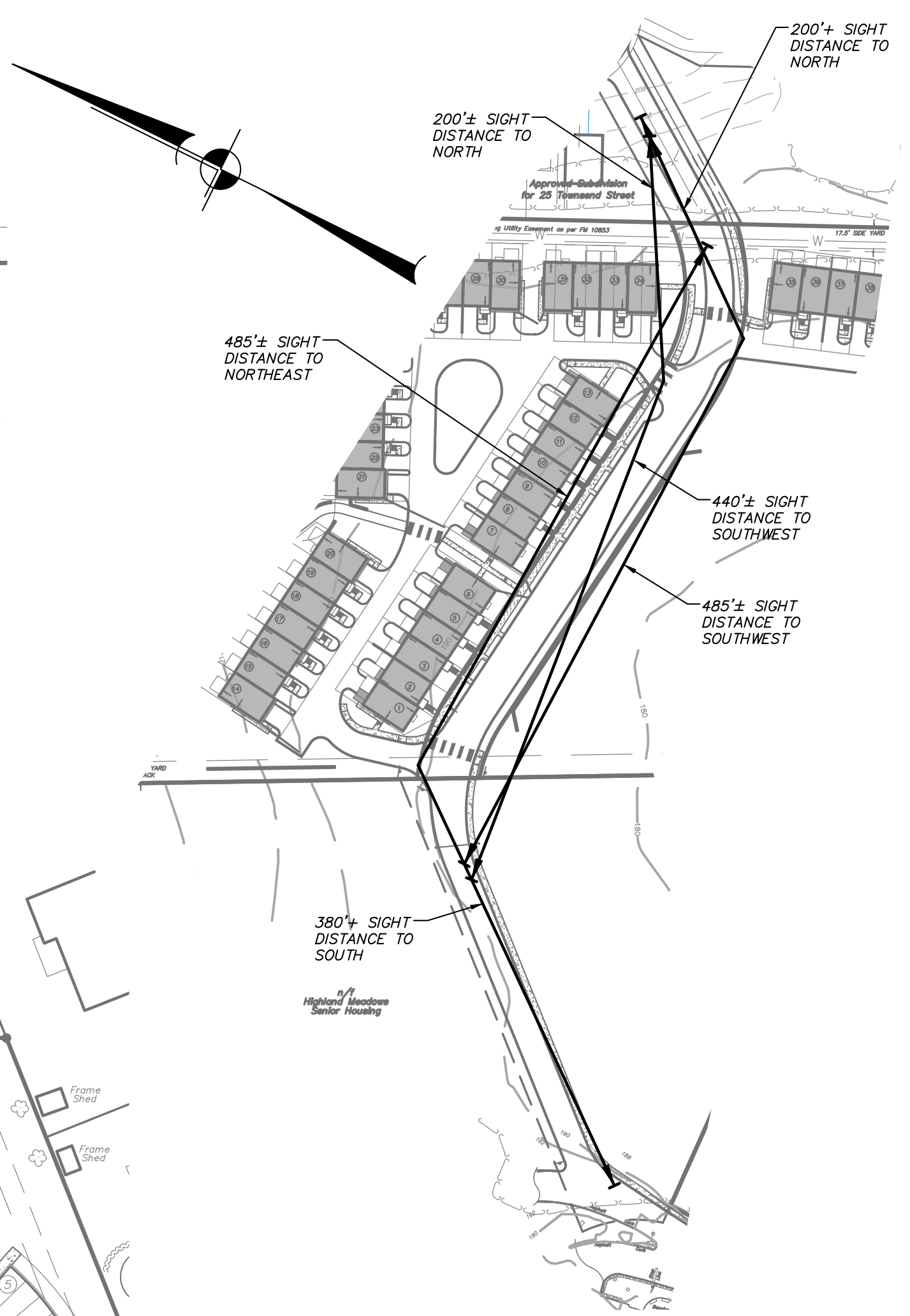
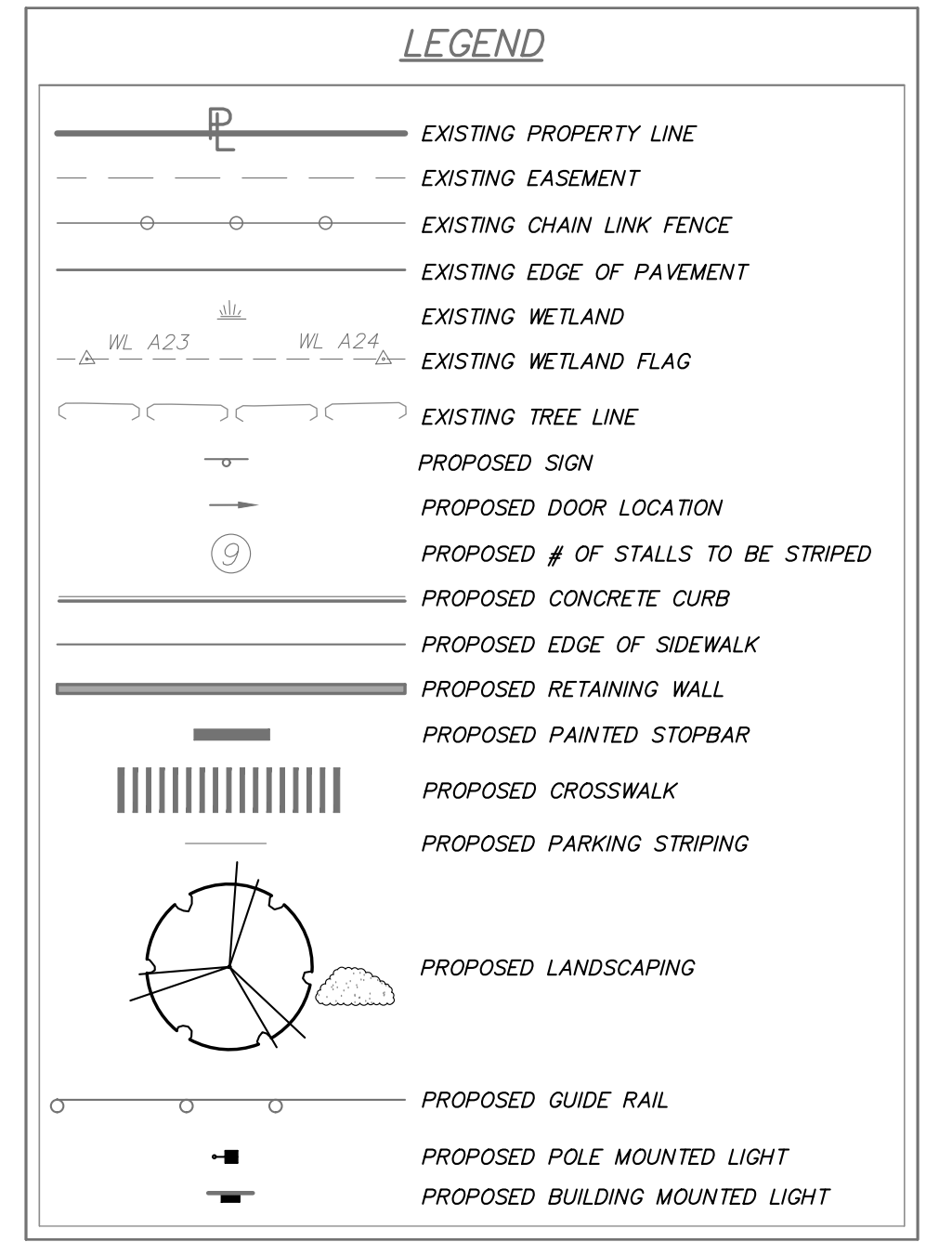
FIRE TRUCK MANEUVER 2
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DELIVERY TRUCK MANEUVER 2
SCALE : 1" = 60'



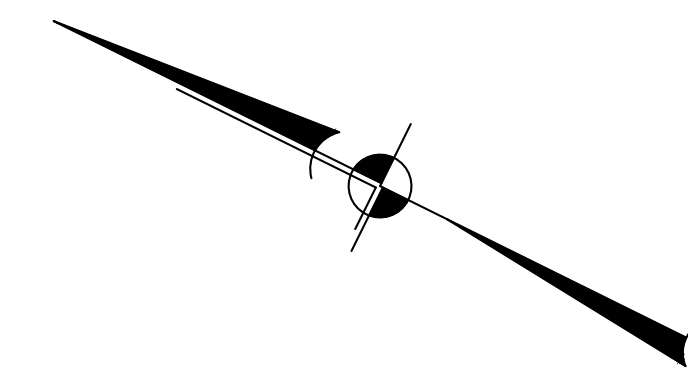
PLOW TRUCK MANEUVER 2
SCALE : 1" = 60'



SIGHT DISTANCE ANALYSIS
SCALE : 1" = 100'

REFER TO CS-1 FOR SITE ACCESS NOTES

2	7-28-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
NO.	DATE	REVISION	BY
INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C. 3 Garrett Place Carmel, NY 10512 (845) 225-9690 (845) 225-9717 fax www.insite-eng.com			
PROJECT: BEACON VIEWS CITY OF BEACON, DUTCHESS COUNTY, NEW YORK			
DRAWING: VEHICLE MANEUVERING PLAN			
PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	6-30-20	DRAWN BY	J.F.R.
SCALE	AS SHOWN	CHECKED BY	A.D.T.
DRAWING NO.	SP-6		
SHEET	9		
	20		



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

DESCRIPTION

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

GAN
GALLEON LED

1-10 Light Squares
Solid State LED

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

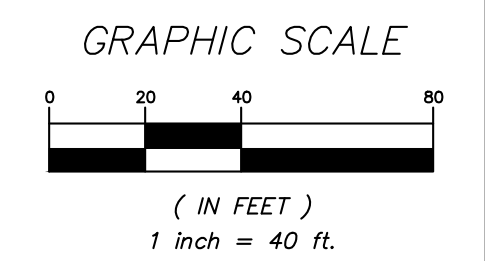
1-Light Zinc Outdoor Wall Barn Light Sconce Lantern by Hampton Bay			
Details			
Compatible Bulb Type	CFL, Incandescent, LED	Exterior Lighting Product Type	Outdoor Lanterns
Fixture Color/Finish	Zinc	Fixture Material	Stainless Steel
Glass/Lens Type	No Glass/Lens	Included	Hardware Included
Light Bulb Base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

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

LIGHT CONTOUR LEGEND			
	0.1	0.10 Foot Candles	
	0.5	0.50 Foot Candles	
	1	1.00 Foot Candles	

* Photometric calculations shown on plan are in foot candles.

LUMINAIRE SCHEDULE					
Symbol	Qty	Catalog Number	Description	Lamp	Mounting Height
	14	GAN-AF-01-LED-U-T4W-8030	Galleon Area and Roadway Luminaire, 80 CRI, 10000K, Type 4 Distribution	LED	12' - 0"
	120	-	1-Light Zinc Outdoor Wall Barn Sconce Lantern Outfitted with 2700K 9W LED Bulbs CRI 80	LED	7' - 0"



4	7-28-20	REVISED PER PLANNING BOARD COMMENTS	JFR
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR
NO.	DATE	REVISION	BY

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

3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

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

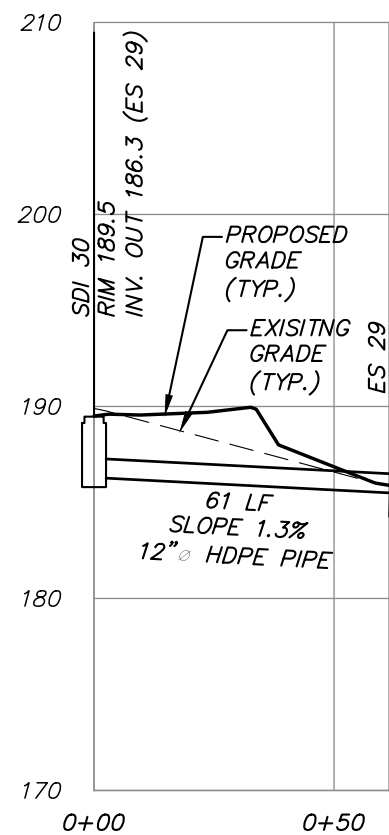
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DATE	8-27-19	DRAWN BY	J.F.R.		
SCALE	1" = 40'	CHECKED BY	A.D.T.		

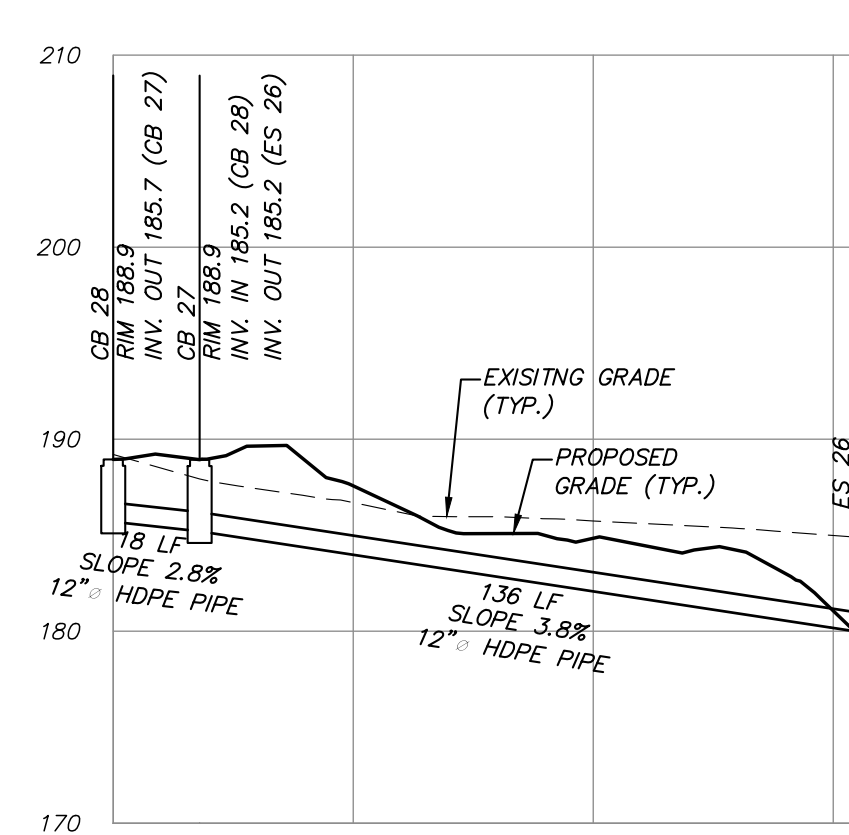
LP-1

10
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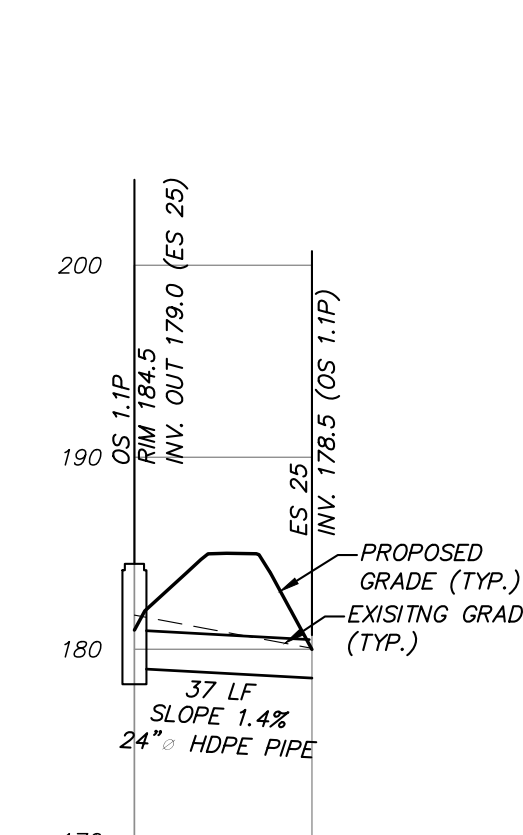
ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.



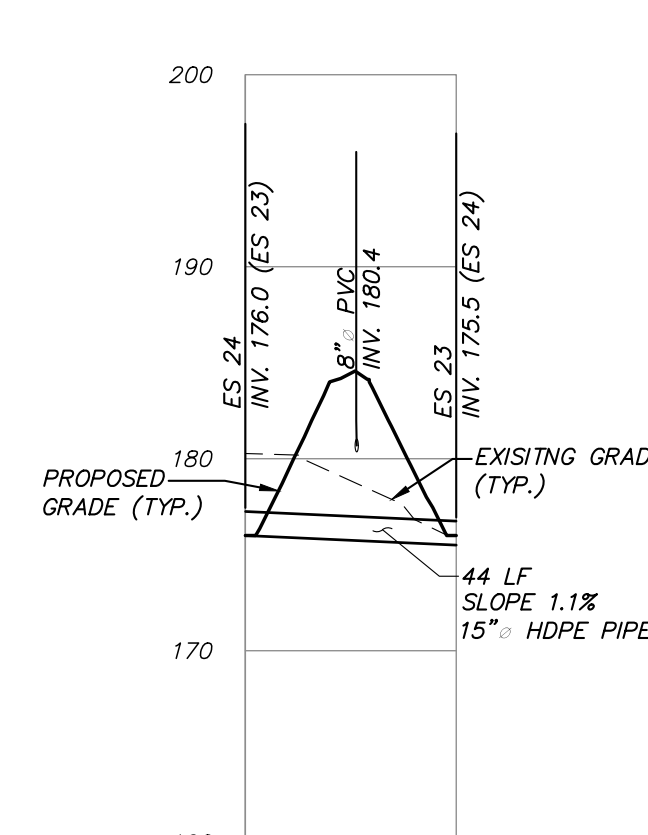
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VER. 1" = 10'



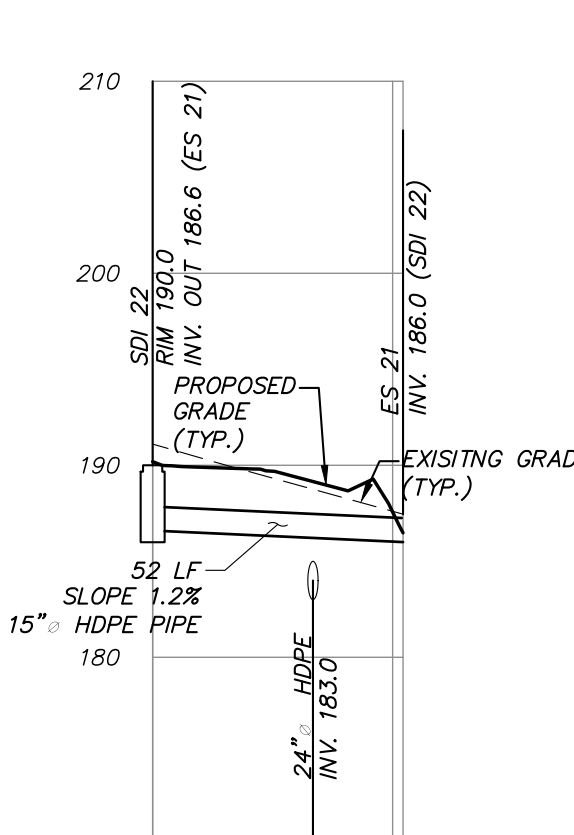
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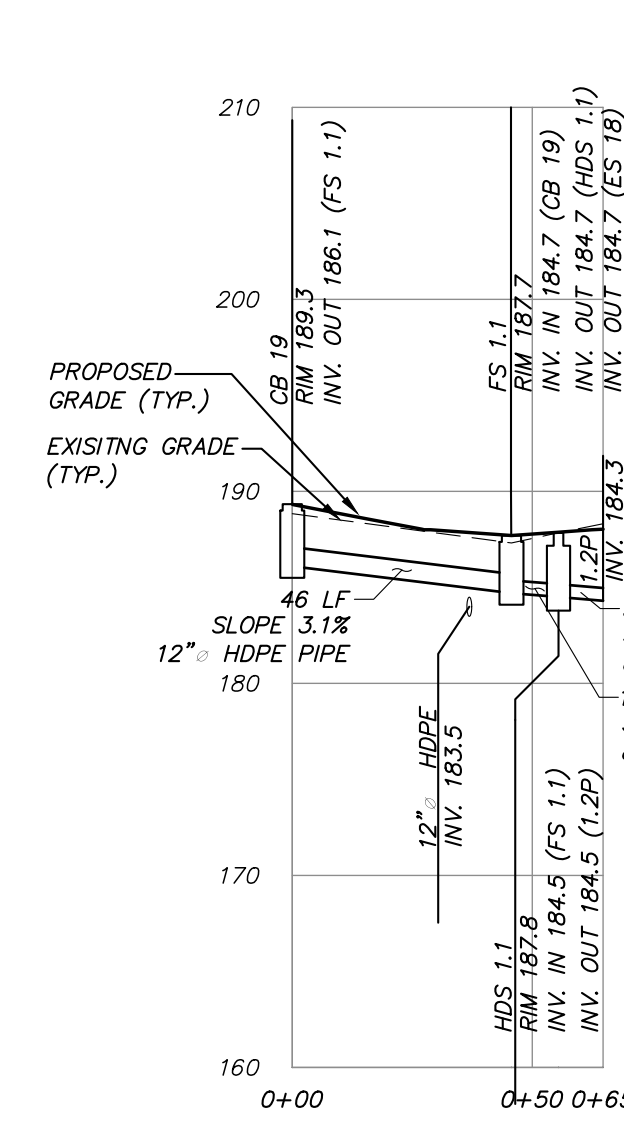
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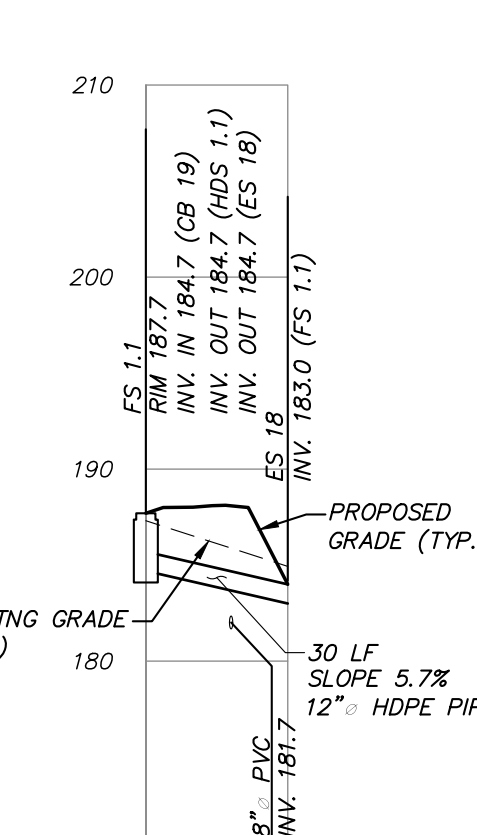
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VER. 1" = 10'



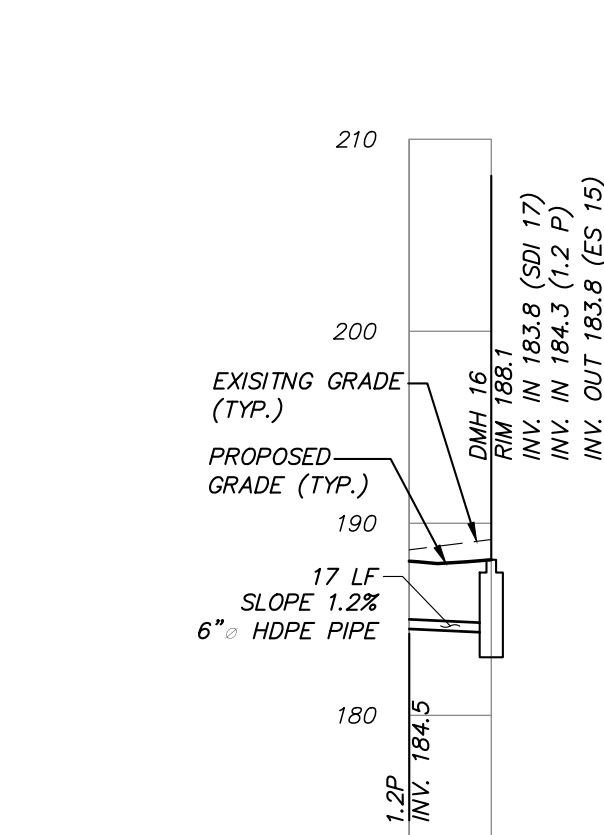
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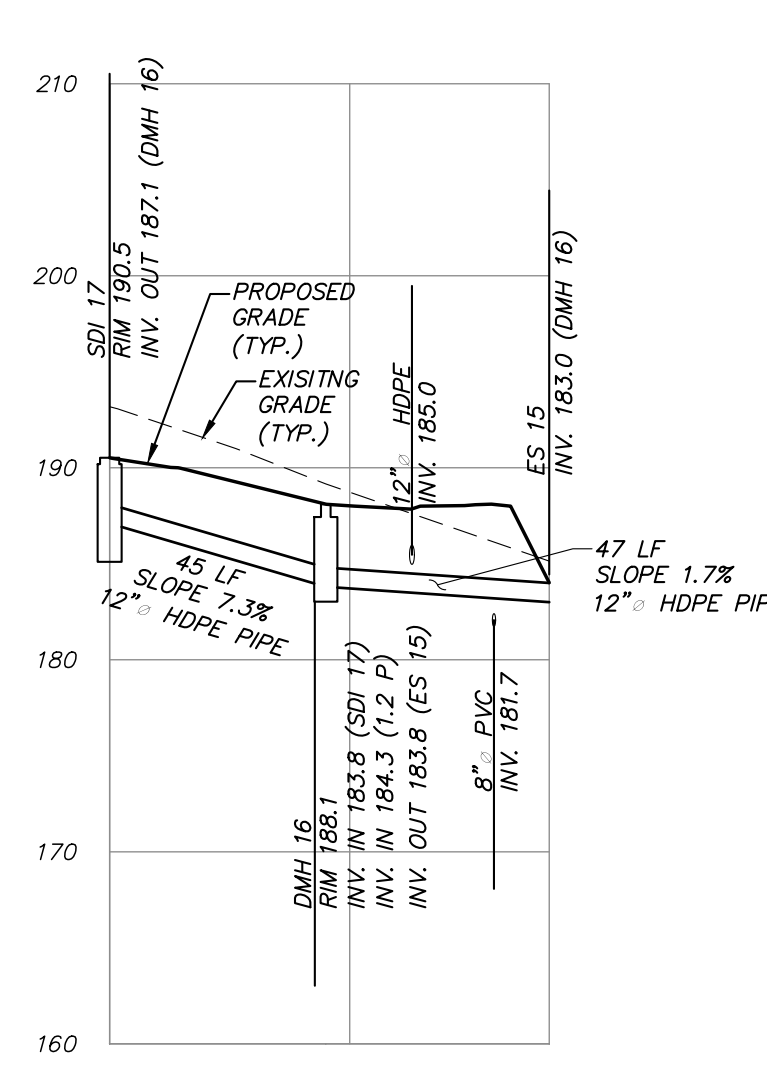
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VER. 1" = 10'



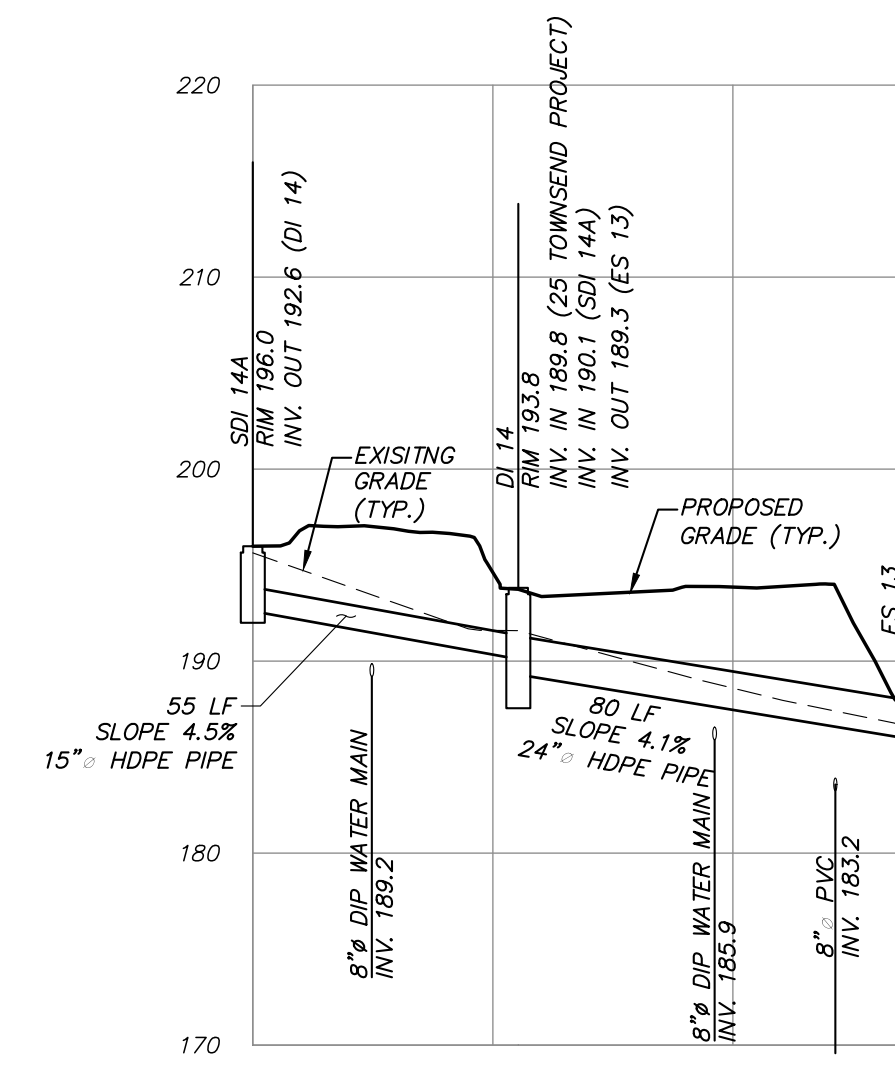
FS 1.1 TO ES 18
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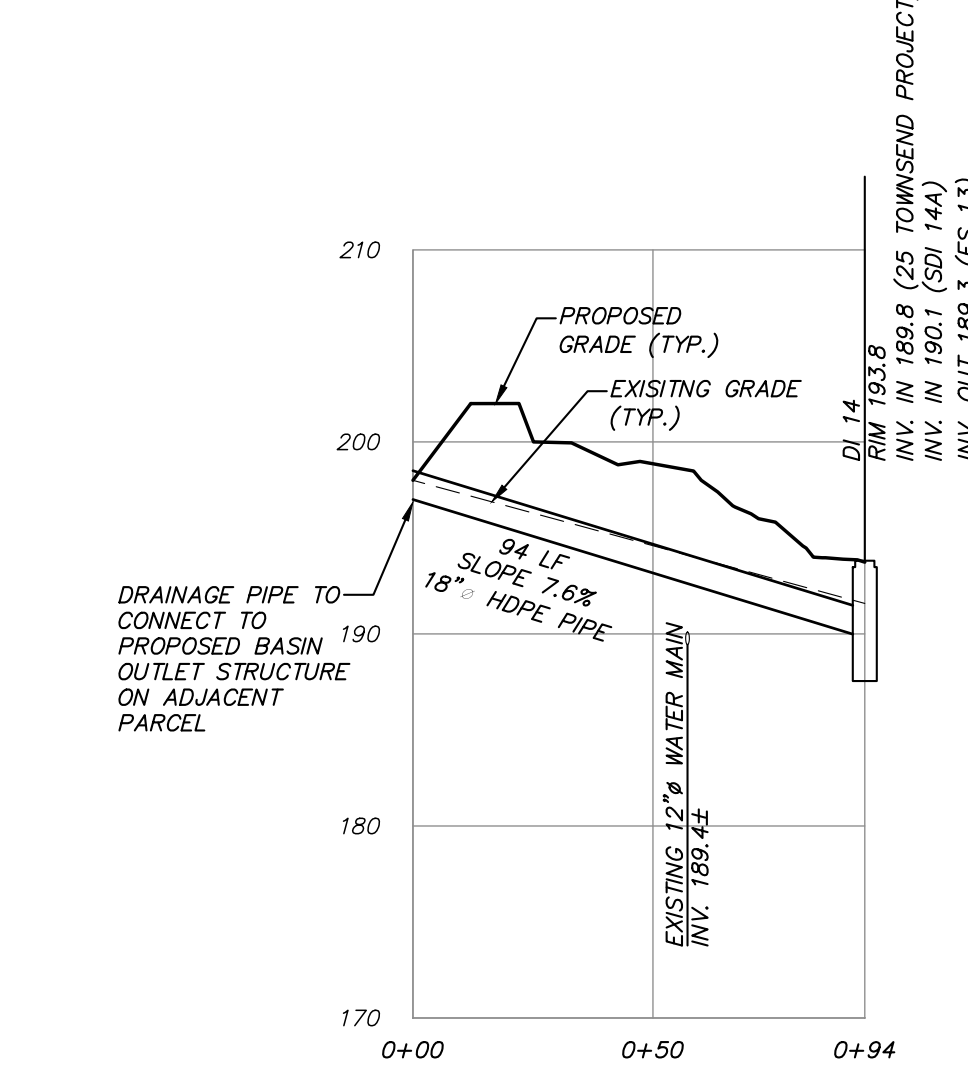
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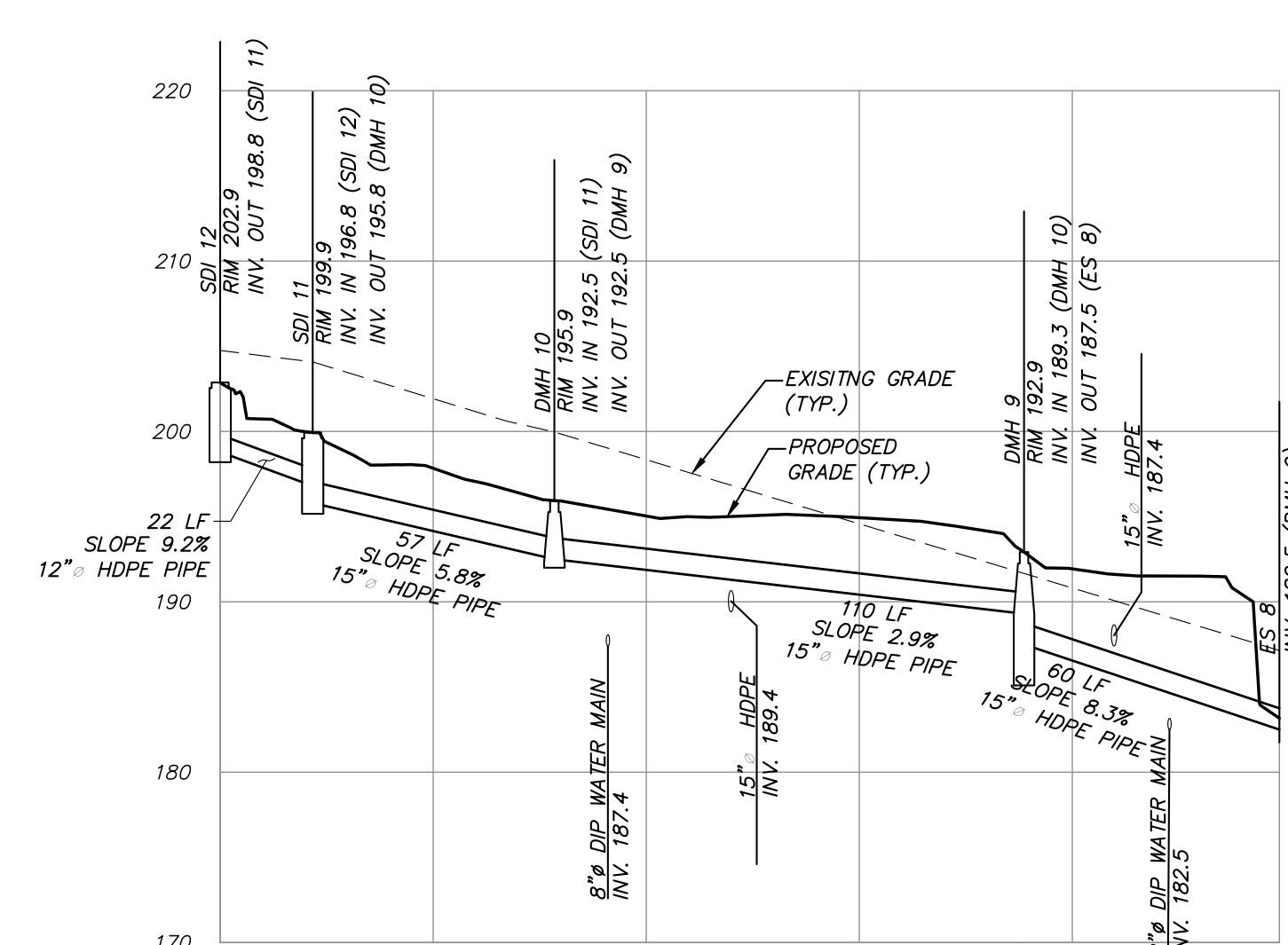
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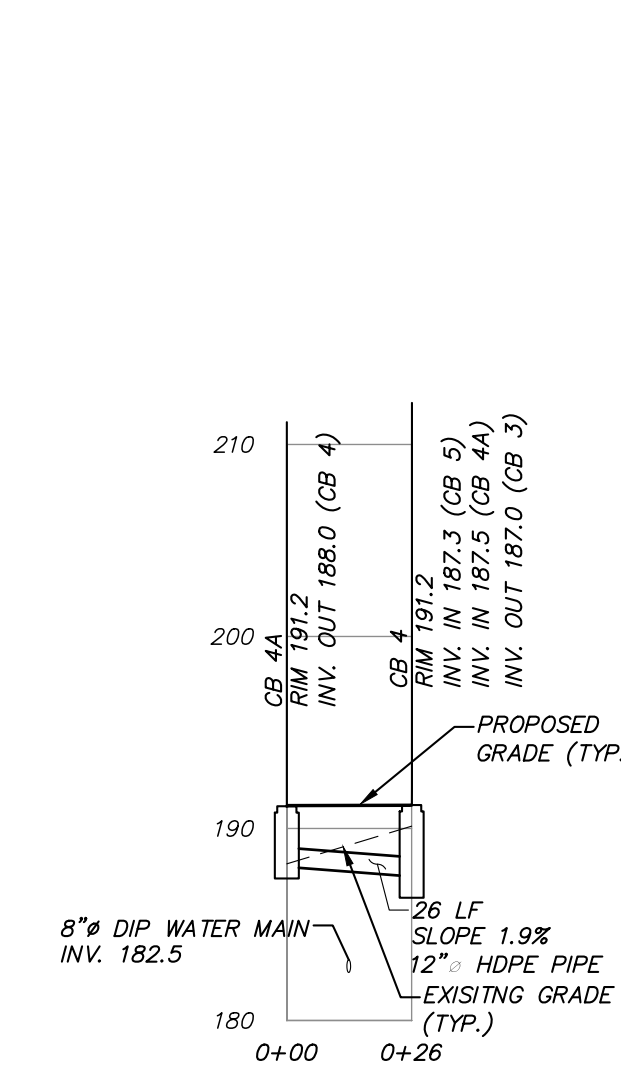
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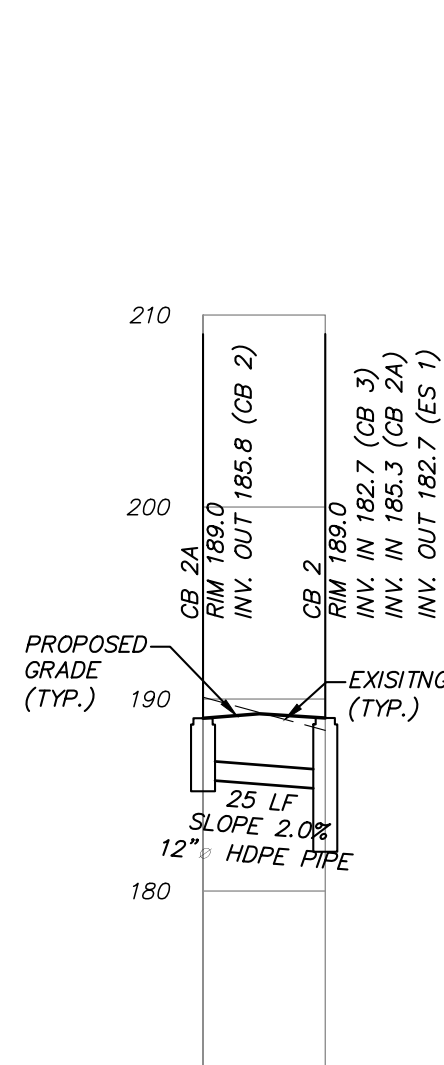
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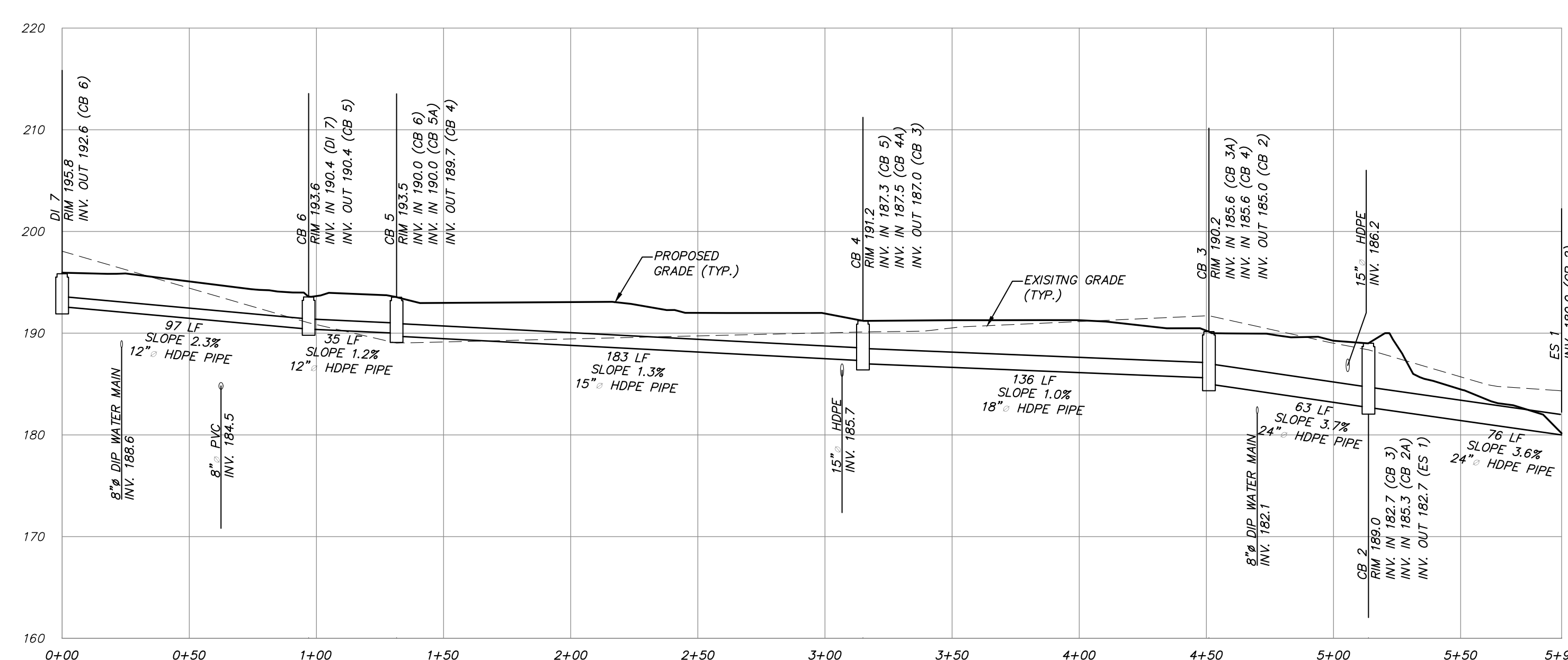
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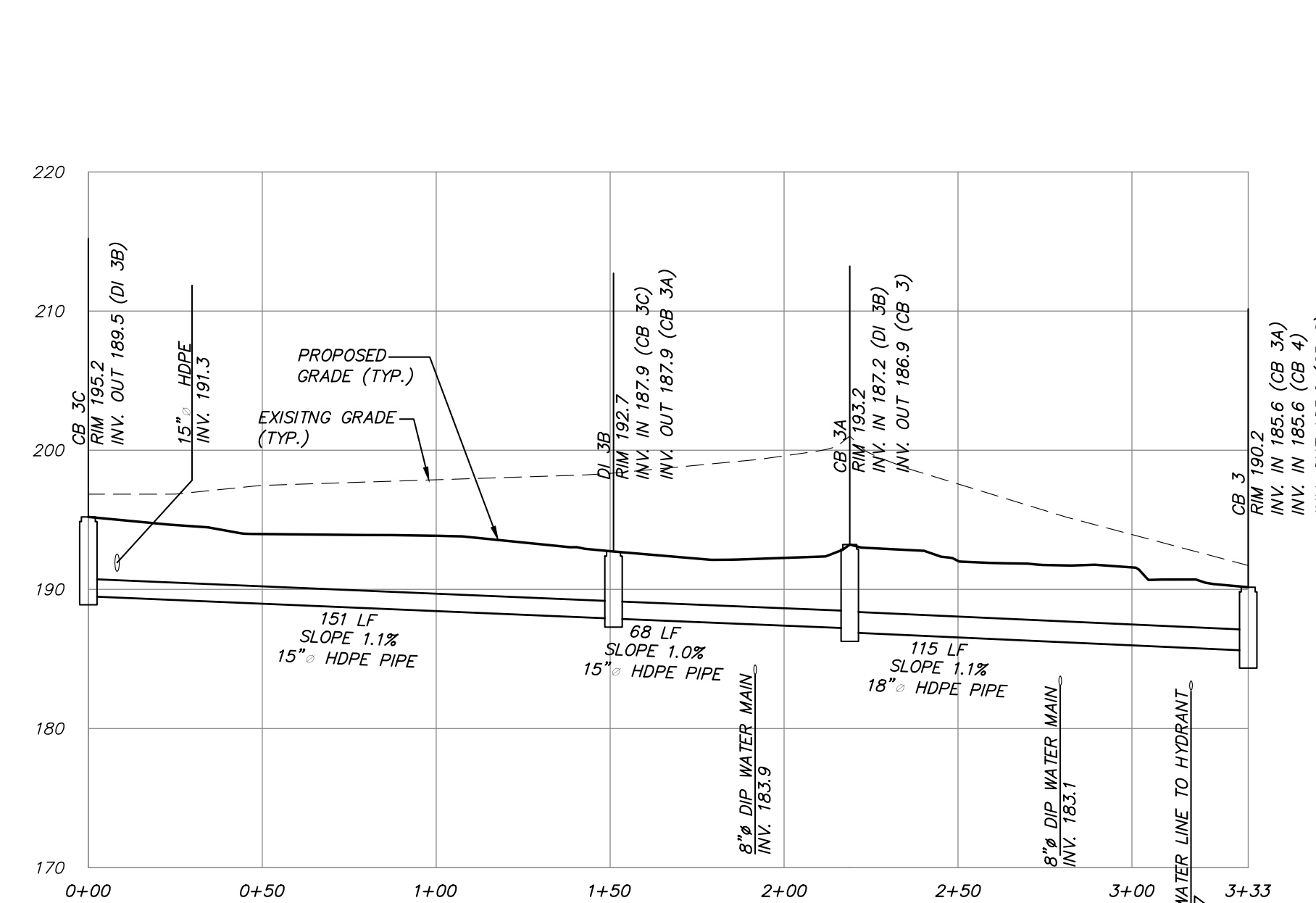
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VER. 1" = 10'



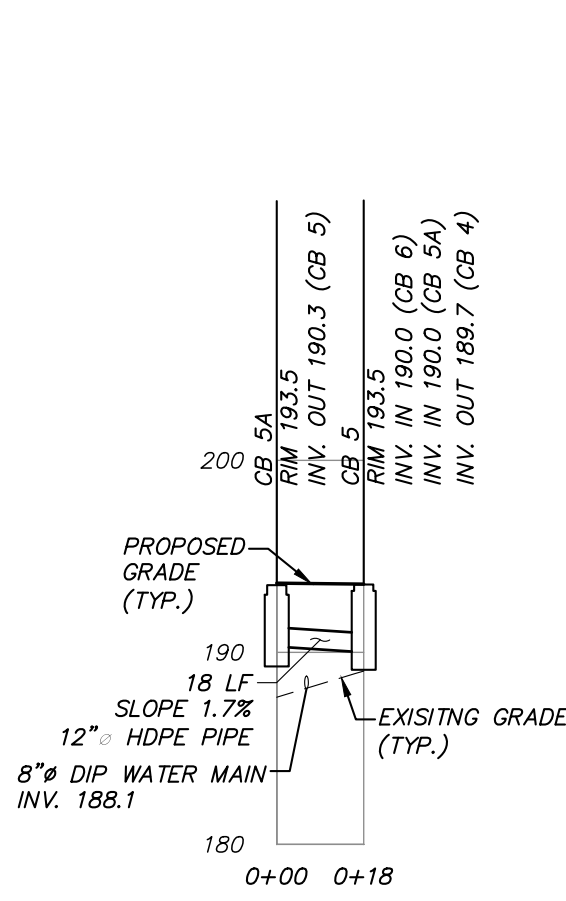
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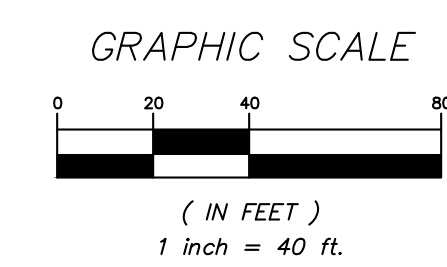
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CB 3C TO CB 3
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VER. 1" = 10'

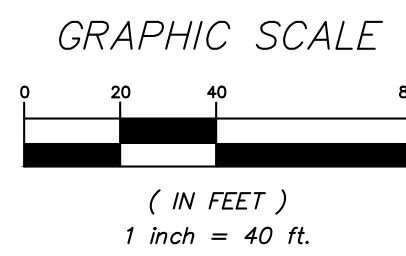
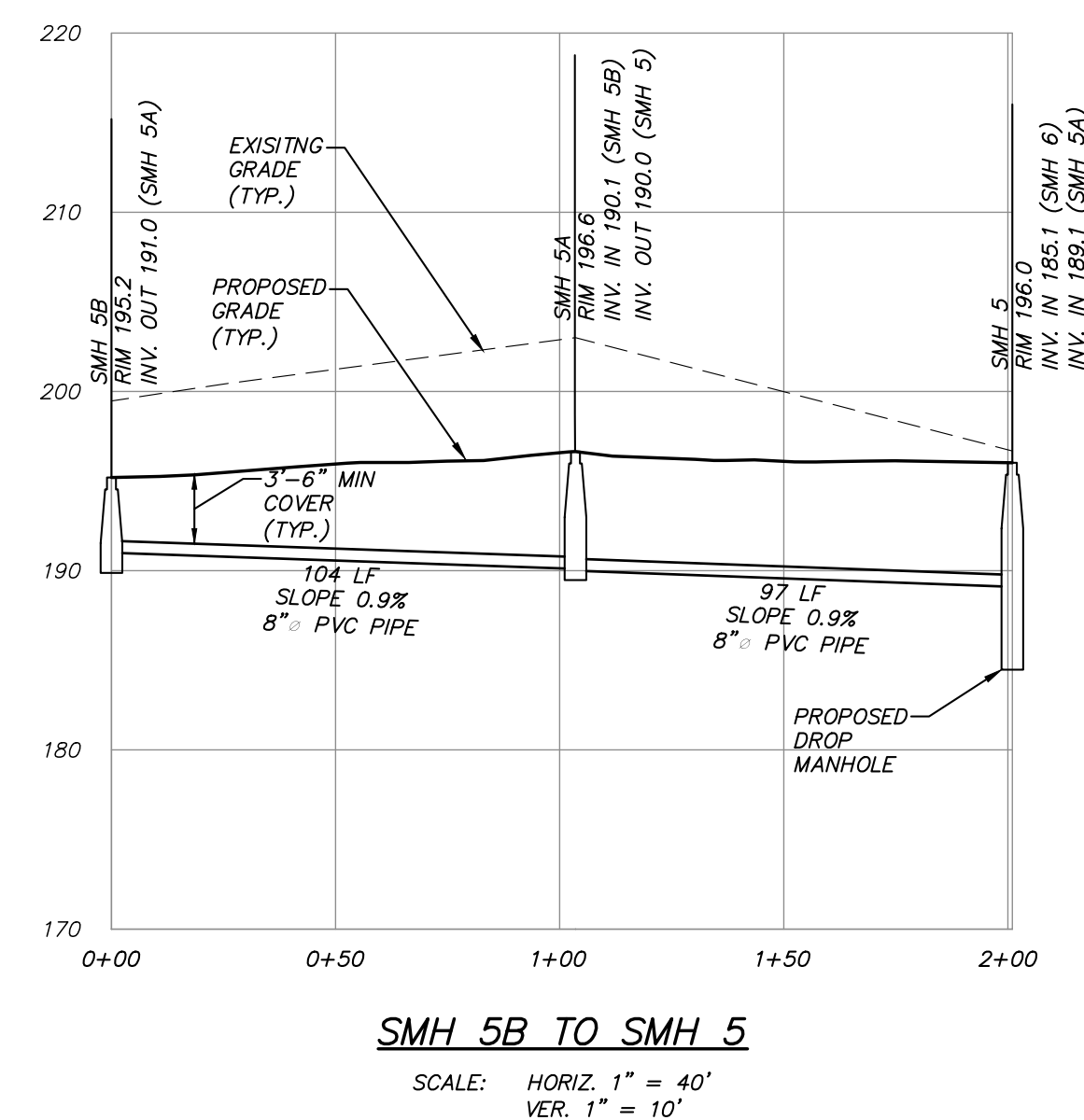
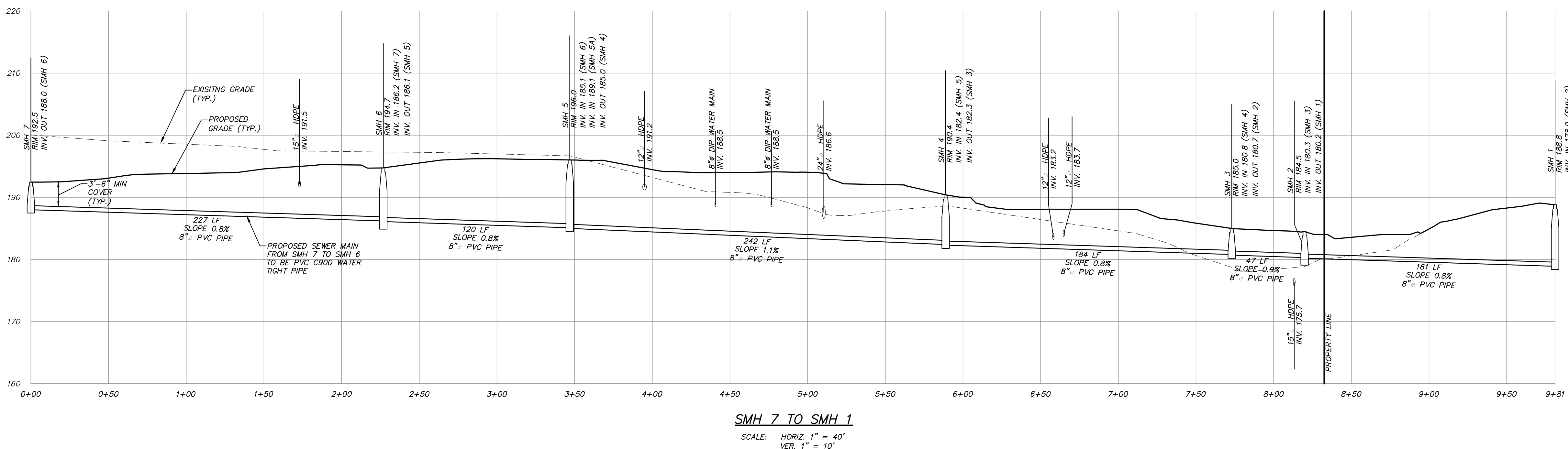
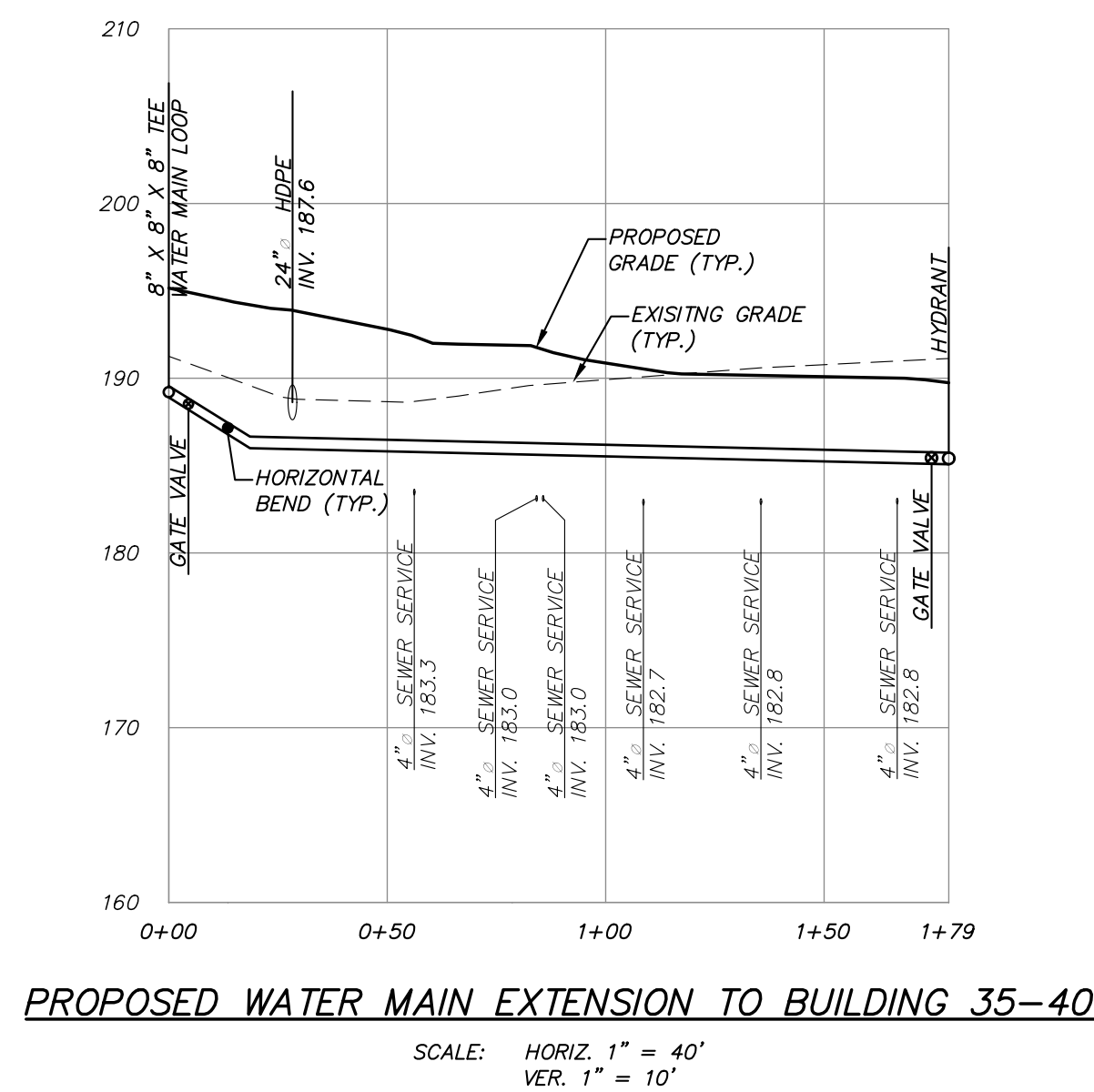
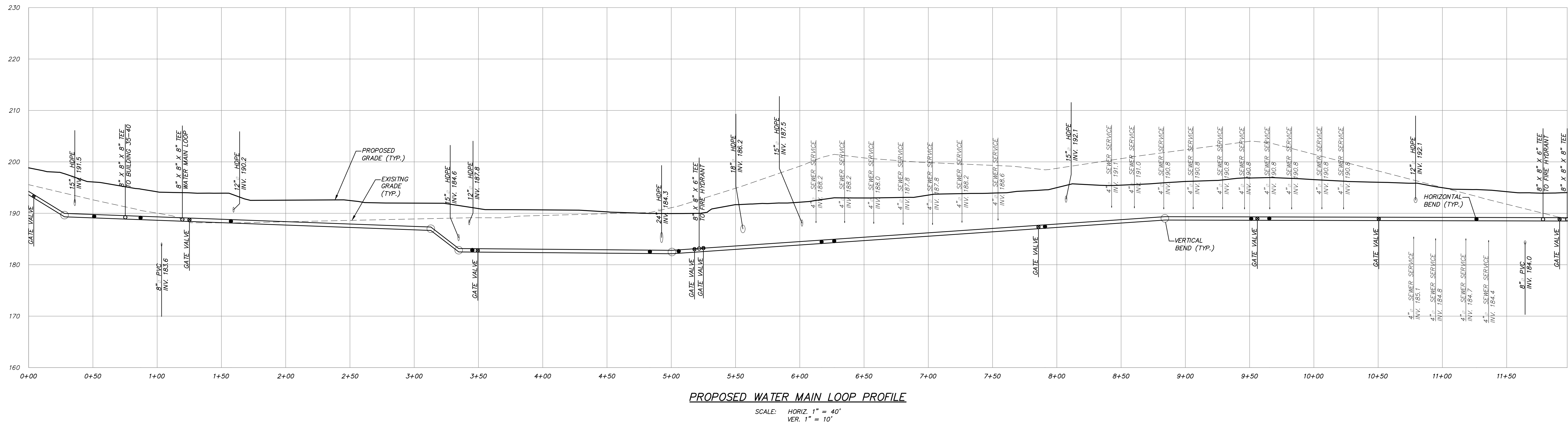


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VER. 1" = 10'

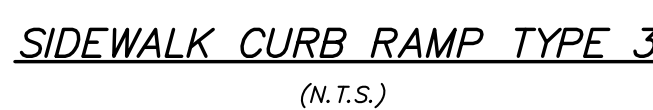


ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.


2	7-28-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
NO.	DATE	REVISION	BY
INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C. 3 Garrett Place Carmel, NY 12012 (845) 225-9690 (845) 225-9717 fax www.insite-eng.com			
PROJECT: BEACON VIEWS CITY OF BEACON, DUTCHESS COUNTY, NEW YORK			
DRAWING: DRAINAGE PROFILES			
PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8-27-19	DRAWN BY	E.J.P.
SCALE	AS SHOWN	CHECKED BY	Z.M.P.
DRAWING NO.	PR-1		
SHEET	11		
	20		



2	7-28-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
NO.	DATE	REVISION	BY
INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C. 3 Garrett Place Carmel, NY 12052 (845) 225-9690 (845) 225-9717 fax www.insite-eng.com			
PROJECT: BEACON VIEWS			
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK			
DRAWING: WATER & SEWER PROFILES			
PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8-27-19	DRAWN BY	E.J.P.
SCALE	AS SHOWN	CHECKED BY	Z.M.P.
DRAWING NO.	PR-2		SHEET 12
			20



4	7-28-20	REVISED PER PLANNING BOARD COMMENTS	JFR
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR
NO.	DATE	REVISION	BY



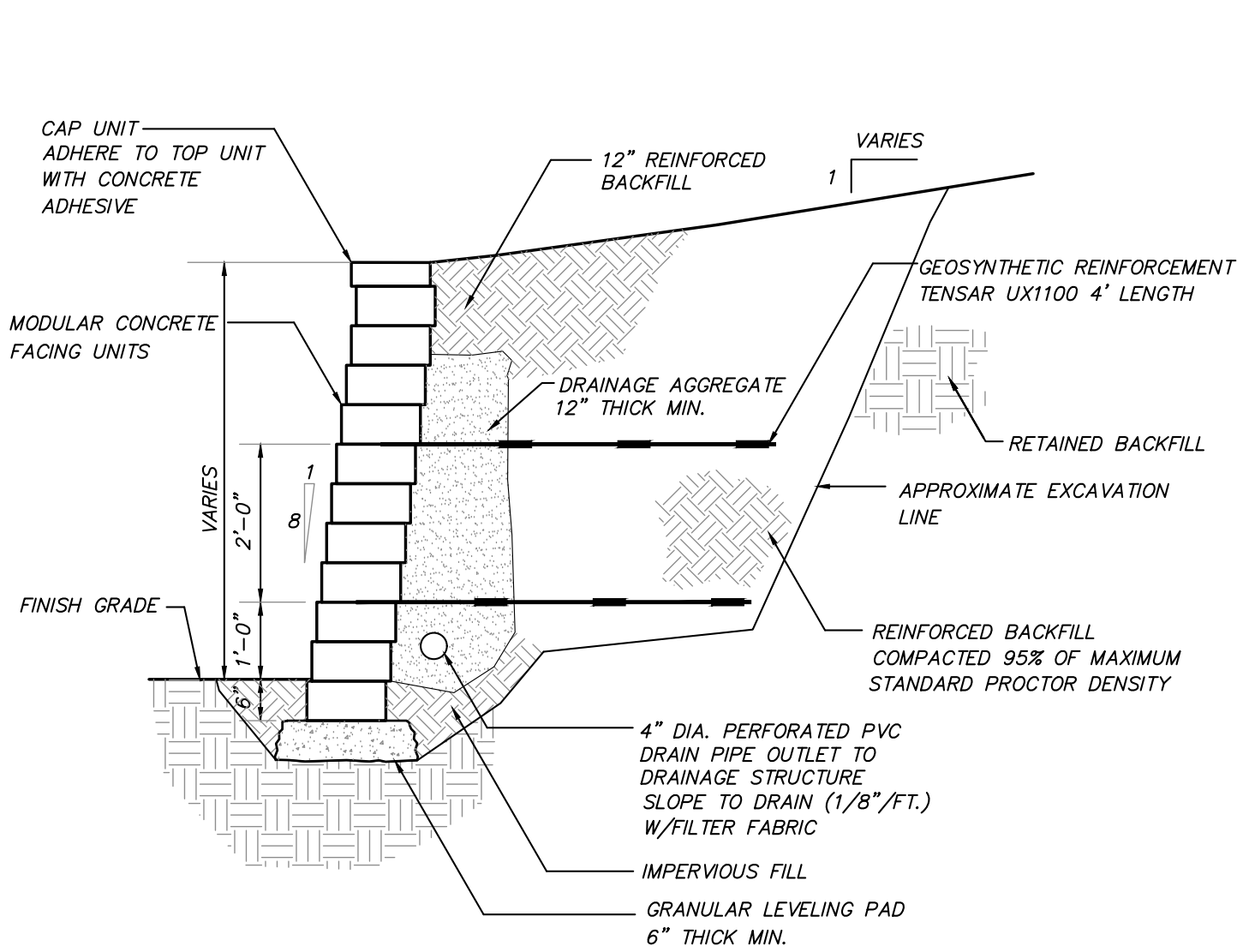
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3 Correll Place
Corrville, NY 13052
(845) 225-9690
(845) 225-9717 fax
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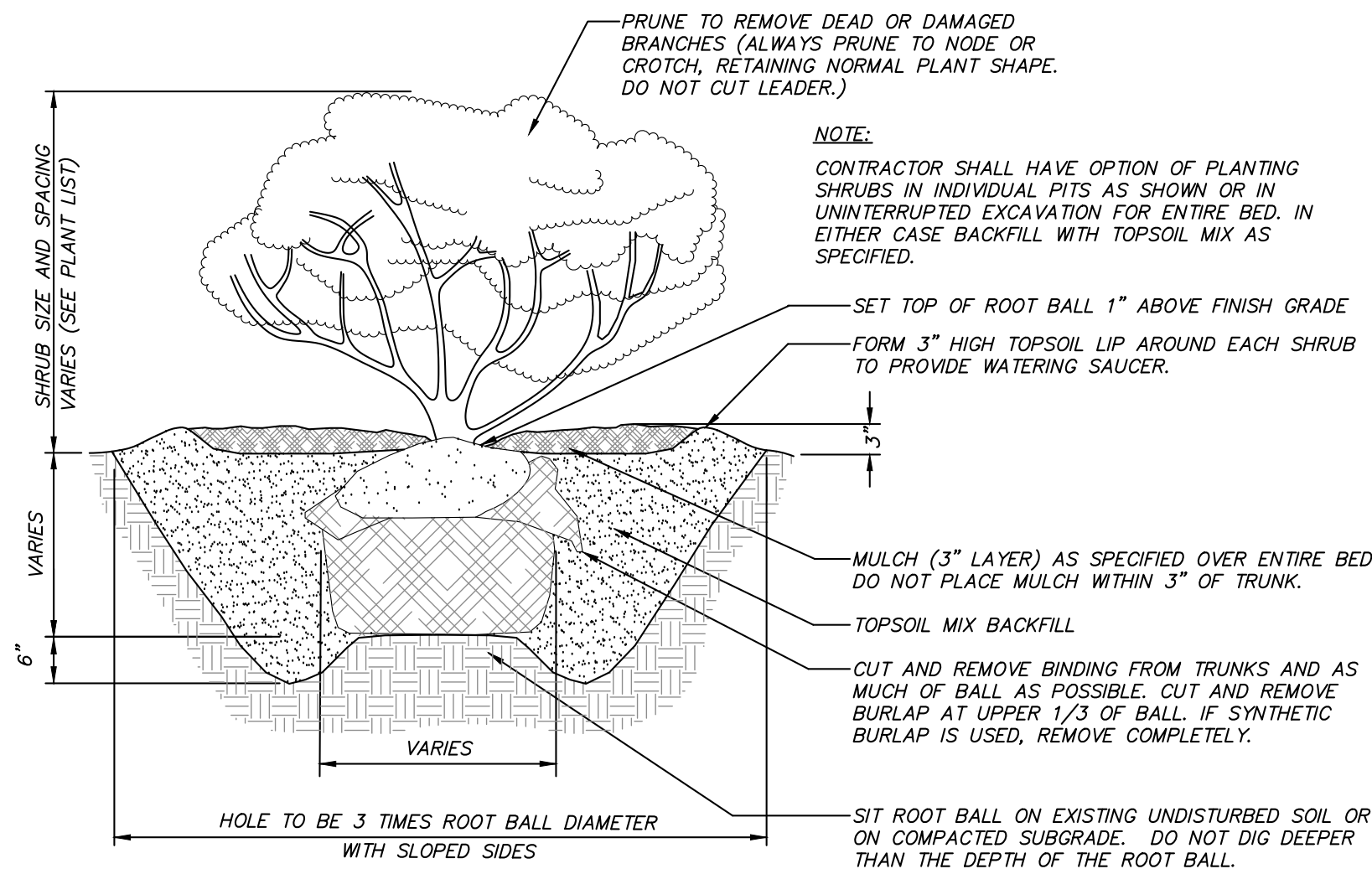
PROJECT:		
<u>BEACON VIEWS</u>		
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK		
DRAWING:		
<u>DETAILS</u>		
A.D.T.		
PROJECT NUMBER	19131.100	PROJECT MANAGER
DATE	8-27-19	DRAWN BY
SCALE	AS NOTED	CHECKED BY
		A.D.T.

DRAWING NO.	SHEET
D-1	13
	20

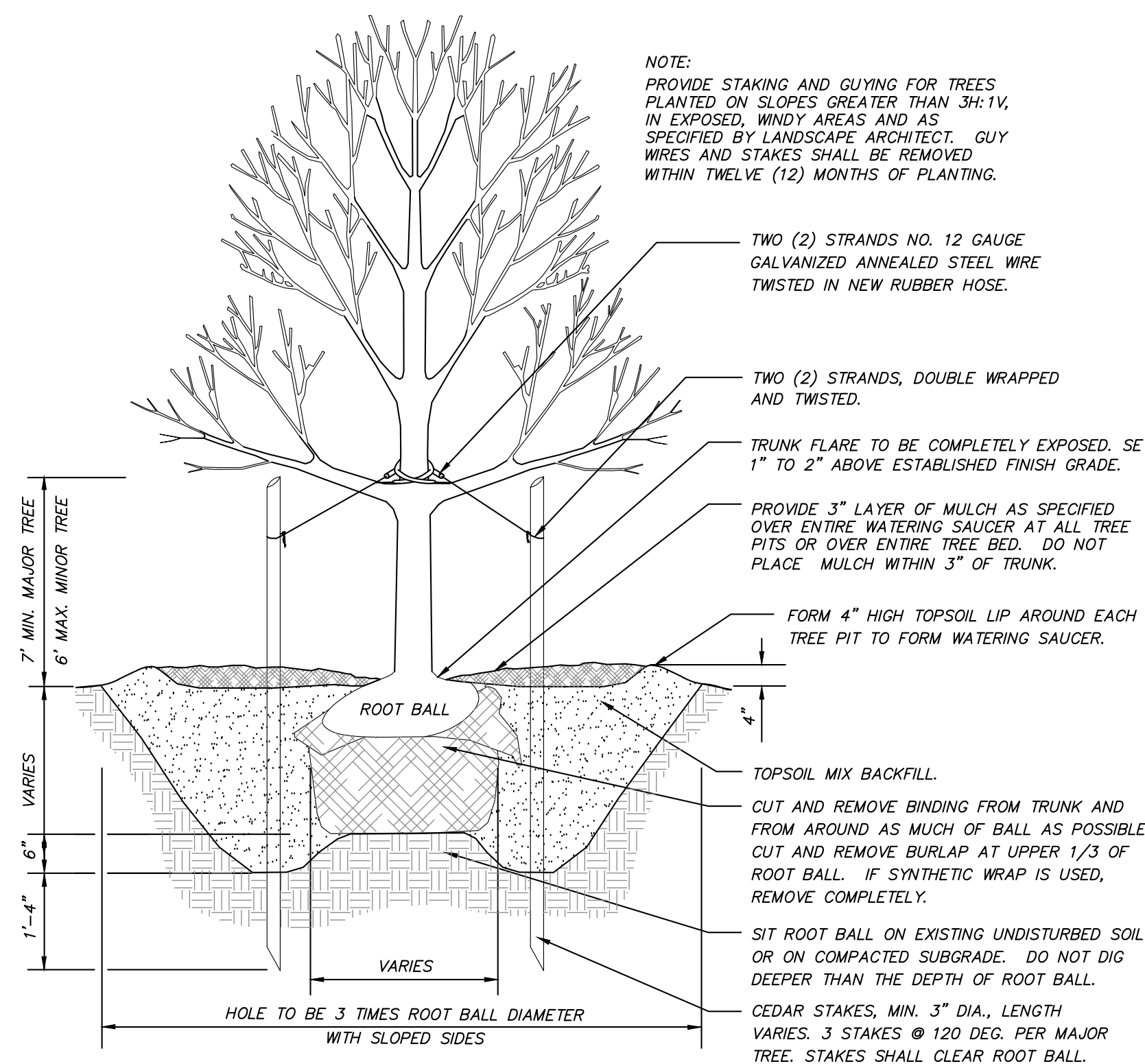


MODULAR BLOCK RETAINING WALL DETAIL
(N.T.S.)

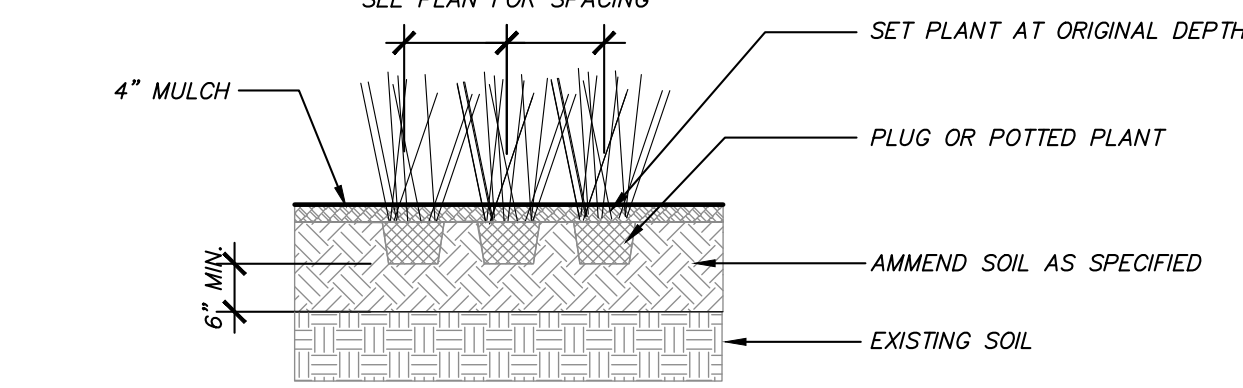
- NOTES:**
- STRIP VEGETATION AND ORGANIC SOIL FROM WALL AND GEOSYNTHETIC ALIGNMENT. BENCH CUT ALL EXCAVATED SLOPES.
 - DO NOT OVER EXCAVATE UNLESS DIRECTED BY SITE ENGINEER TO REMOVE UNSUITABLE SOIL.
 - SITE ENGINEER SHALL VERIFY FOUNDATION SOILS AS BEING COMPETENT PER THE DESIGN STANDARDS AND PARAMETERS.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



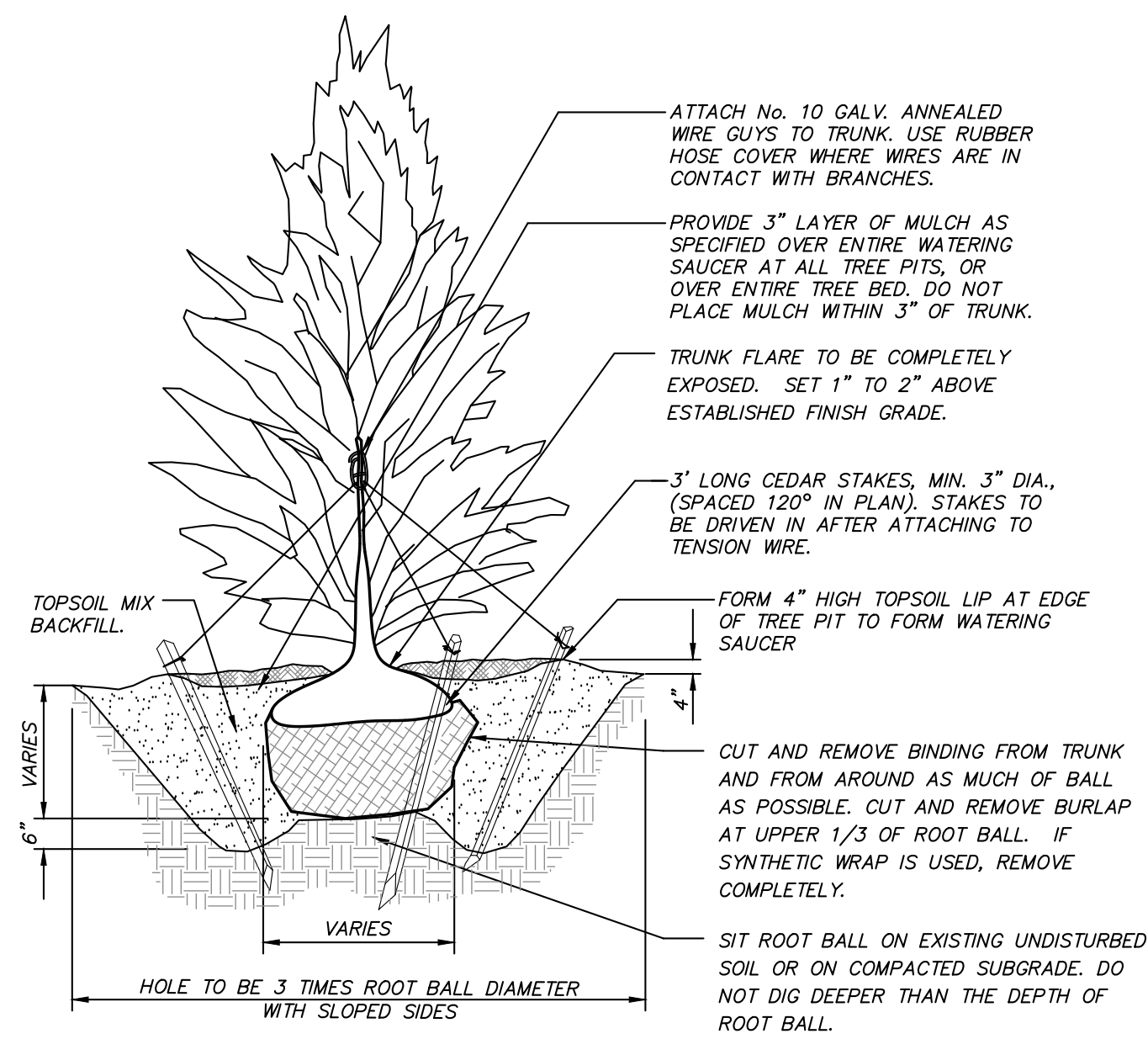
SHRUB PLANTING DETAIL
(N.T.S.)



TREE PLANTING DETAIL
(N.T.S.)



PERENNIAL / ORNAMENTAL GRASS PLANTING DETAIL
(N.T.S.)



EVERGREEN TREE PLANTING DETAIL
(N.T.S.)

GENERAL SITE SEEDING NOTES:

- All proposed seeded areas to receive 4" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
- Upon final grading and placement of topsoil and any required soil amendments, areas to receive permanent vegetation cover in combination with suitable mulch as follows:
 - select seed mixture per drawings and seeding notes.
 - fertilizer applied at the manufacturer's recommended rate using Lesco
 - 10-0-18 (no phosphorous) fertilizer or equivalent.
 - mulch: salt hay or small grain straw applied at a rate of 90 lbs./1000 s.f. or 2 tons/acre, to be applied and anchored according to New York State Standards and Specifications for Erosion and Sediment Control, August 2005
 - if the season prevents the establishment of a permanent vegetation cover, the disturbed areas will be mulched with straw or equivalent.
- The seed mixes as specified on these drawings are as follows:
 - Seed Mix #1 for low areas and mow strip along roads at a rate of 100 lbs. per acre: Kentucky Bluegrass 20%, Creeping Red Fescue 40%, Perennial Ryegrass 20%, Annual Ryegrass 20%
 - Seed Mix #2 for areas as shown on the drawings, including tops of berms and back-slopes of embankments of stormwater basins at a rate of 25 lbs. per acre: New England Conservation/Wildlife Mix from New England Wetland Plants, Inc. of Amherst, MA
 - Seed Mix #3 for areas as shown on the drawings in the biofiltration filter at a rate of 18 lbs. per acre: Erosion Control/Restoration Mix for Detention Basins and Moist Sites from New England Wetland Plants, Inc. of Amherst MA.

GENERAL PLANTING NOTES:

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

GENERAL SITE SEEDING NOTES:

- All proposed seeded areas to receive 4" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
- Upon final grading and placement of topsoil and any required soil amendments, areas to receive permanent vegetation cover in combination with suitable mulch as follows:
 - select seed mixture per drawings and seeding notes.
 - fertilizer applied at the manufacturer's recommended rate using Lesco
 - 10-0-18 (no phosphorous) fertilizer or equivalent.
 - mulch: salt hay or small grain straw applied at a rate of 90 lbs./1000s.f. or 2 tons/acre, to be applied and anchored according to New York State Standards and Specifications for Erosion and Sediment Control, August 2005
 - if the season prevents the establishment of a permanent vegetation cover, the disturbed areas will be mulched with straw or equivalent.
- Seed Mix #1 for areas as shown on the drawings, including tops of berms and back-slopes of embankments of stormwater basins at a rate of 25 lbs. per acre: New England Conservation/Wildlife Mix from New England Wetland Plants, Inc. of Amherst, MA
- Seed Mix #2 for areas as shown on the drawings in stormwater basins with no standing water at a rate of 18 lbs per acre: Erosion Control/Restoration Mix for Detention Basins and Moist Sites from New England Wetland Plants, Inc. of Amherst MA.
- Seed Mix #3 for all other disturbed areas not specified as seed mix #1 or #2. Primarily for low areas and mow strip along roads at a rate of 100 lbs. per acre: Kentucky Bluegrass 20%, Creeping Red Fescue 40%, Perennial Ryegrass 20%, Annual Ryegrass 20%
- Seed mixes to be planted between March 21 and May 20, or between August 15 and October 15 or as directed by project representative.
- Mulch: Salt hay or small grain straw applied at a rate of 90 lbs./1000 S.F. or 2 tons/acre, to be applied and anchored according to "New York Standards and Specification For Erosion and Sediment Control," latest edition.
- Grass seed mix may be applied by either mechanical or hydroseding methods. Seeding shall be performed in accordance with the current edition of the "NYSDOT Standard Specification, Construction and Materials, Section 610-3.02, Method No. 1". Hydroseding shall be performed using materials and methods as approved by the site engineer.

4	7-28-20	REVISED PER PLANNING BOARD COMMENTS	JFR
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR
NO.	DATE	REVISION	BY

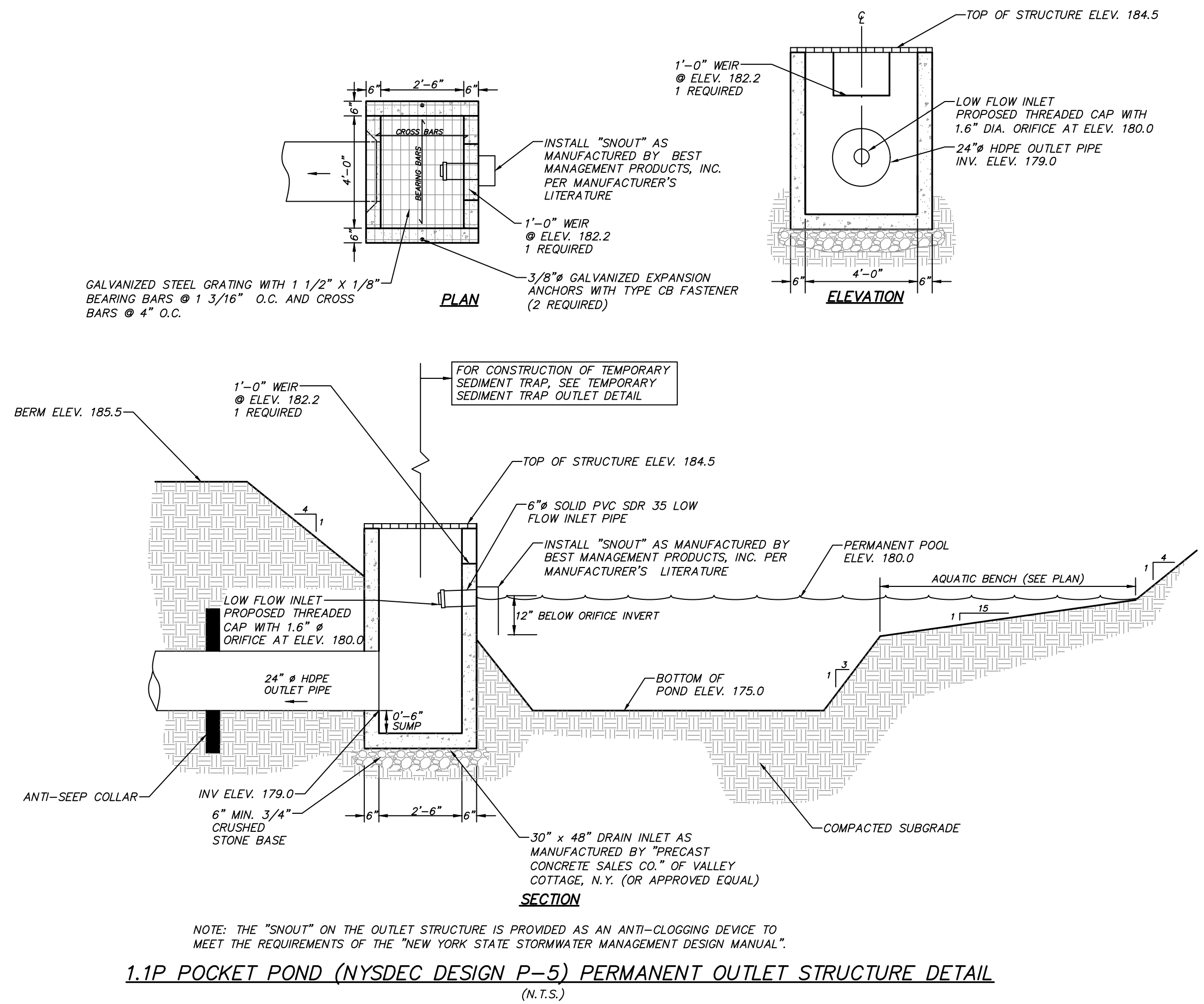
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(845) 225-9717 fax
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PROJECT: **BEACON VIEWS**
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING: **DETAILS**

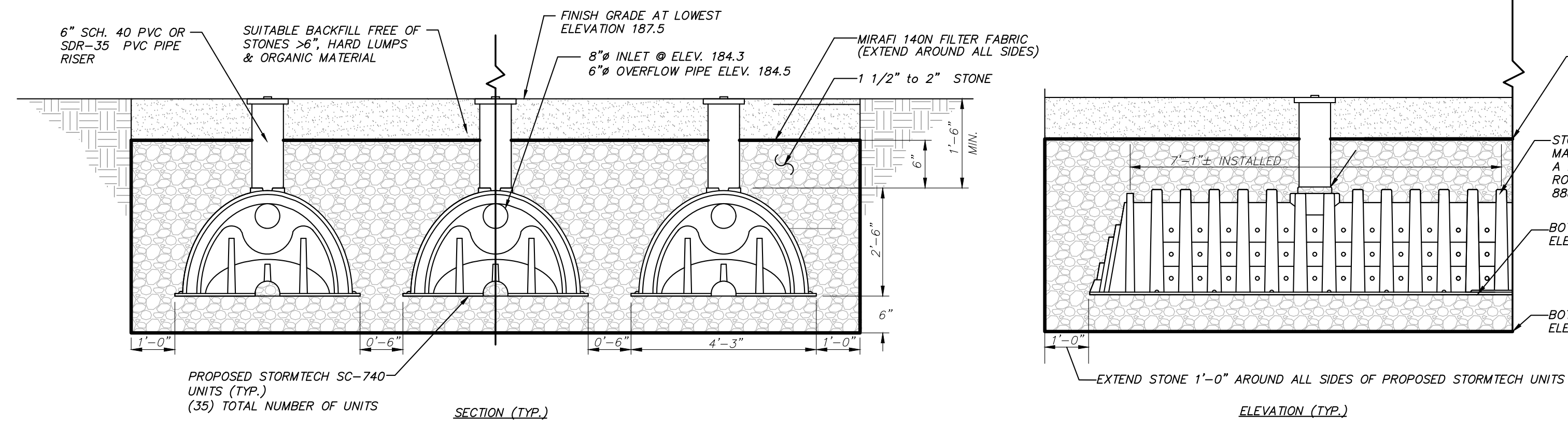
PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.	DRAWING NO.	SHEET
DATE	8-27-19	DRAWN BY	J.F.R.	D-2	14
SCALE	AS NOTED	CHECKED BY	A.D.T.		20



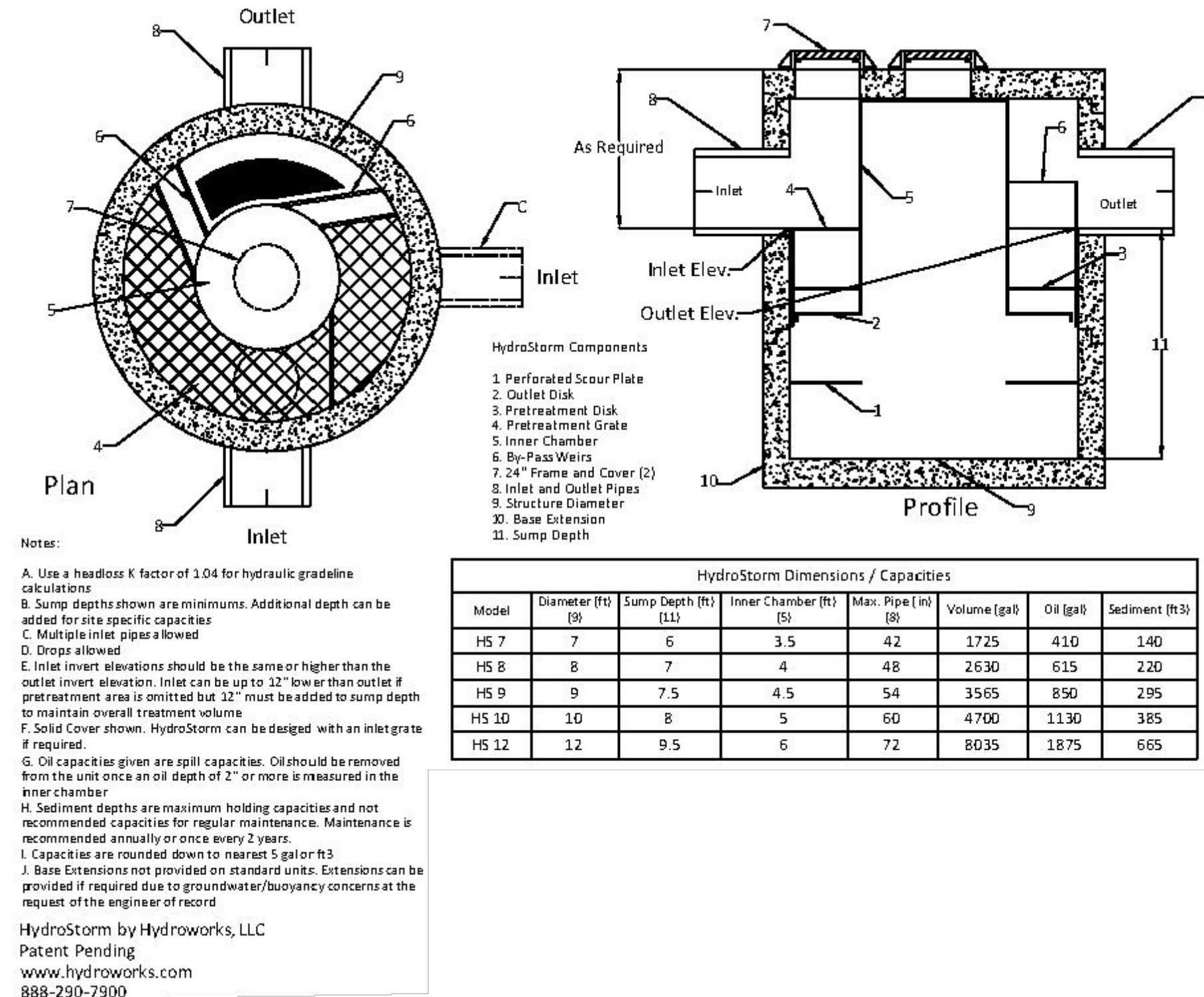
1.1P POCKET POND (NYSDEC DESIGN P-5) PERMANENT OUTLET STRUCTURE DETAIL
(N.T.S.)

POCKET POND OUTLET NOTES

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



STORMWATER INFILTRATION SYSTEM 1.2P (NYSDEC DESIGN I-4) DETAIL
(N.T.S.)

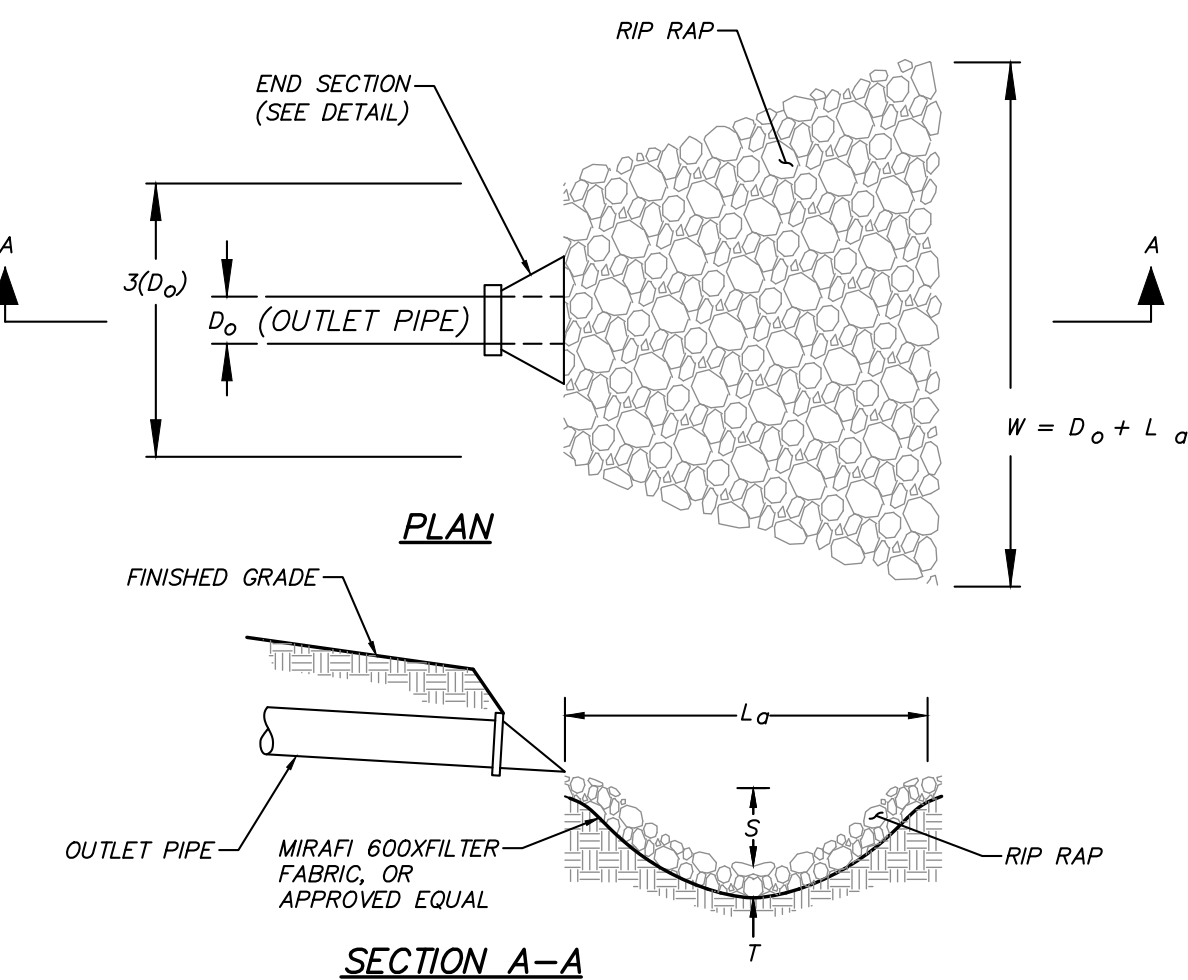


HDS 1.2 HYDROWORKS HYDROSTORM HS 6 HYDRODYNAMIC SEPARATOR DETAIL
(N.T.S.)

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

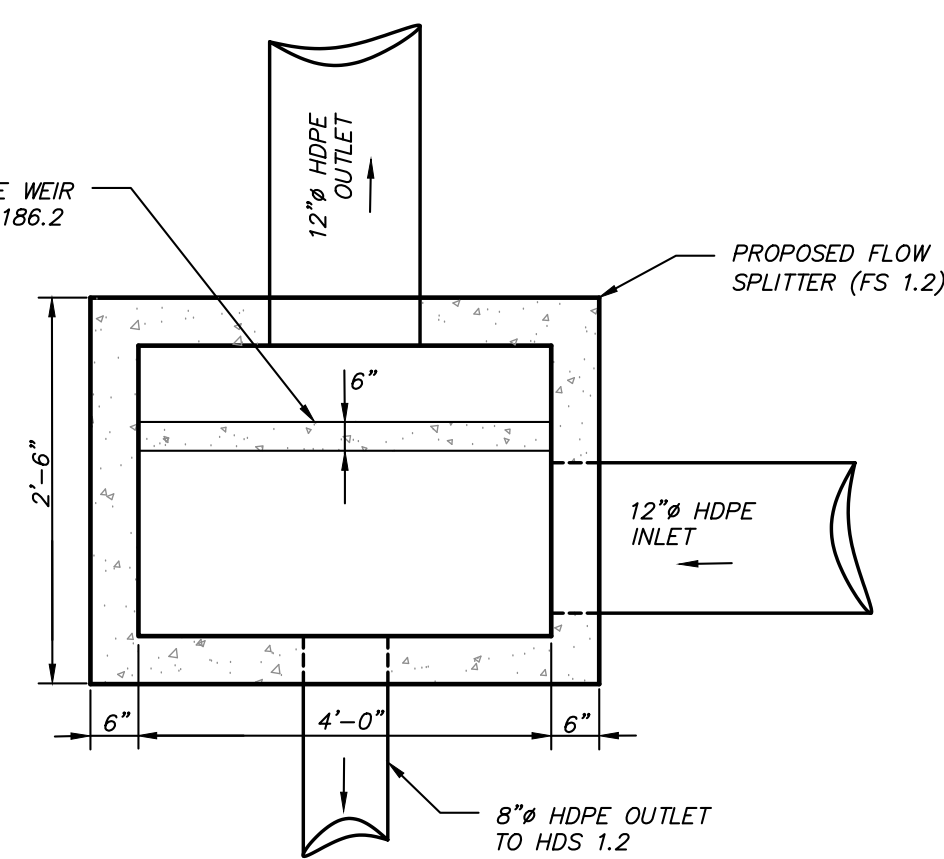
FOR ADDITIONAL BASIN CONSTRUCTION DETAILS, SEE THE 1.1P WET POND PERMANENT OUTLET STRUCTURE DETAIL.

TEMPORARY SEDIMENT TRAP OUTLET STRUCTURE DETAIL
(N.T.S.)



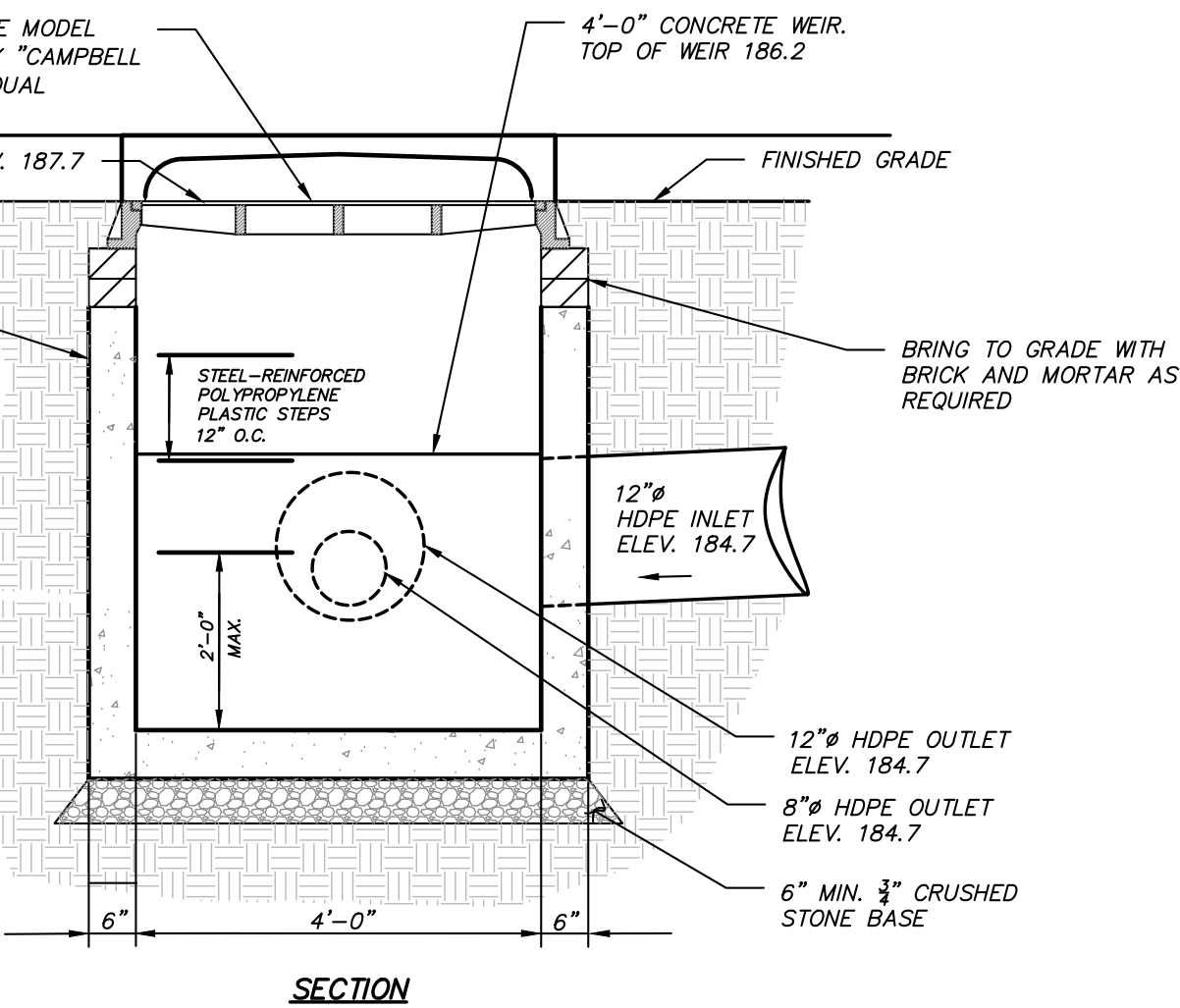
END SECTION ID	OUTLET PIPE DIAMETER (D _o)	CONTRIBUTING DRAINAGE AREA (AC.)	DISCHARGE (100-YEAR)	D50 RIP RAP SIZE	MAX. RIP RAP SIZE	THICKNESS (T)	LENGTH (L _o) MIN.	SUMP DEPTH (S)
ES 1	18"	3.4	8.1 CFS	6"	9"	14"	11 FT	2 FT.
ES 8	15"	4.3	8.3 CFS	6"	9"	14"	8 FT	2 FT.
ES 13	24"	4.4	8.4 CFS	6"	9"	14"	12 FT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

ROCK OUTLET PROTECTION DETAIL
(N.T.S.)



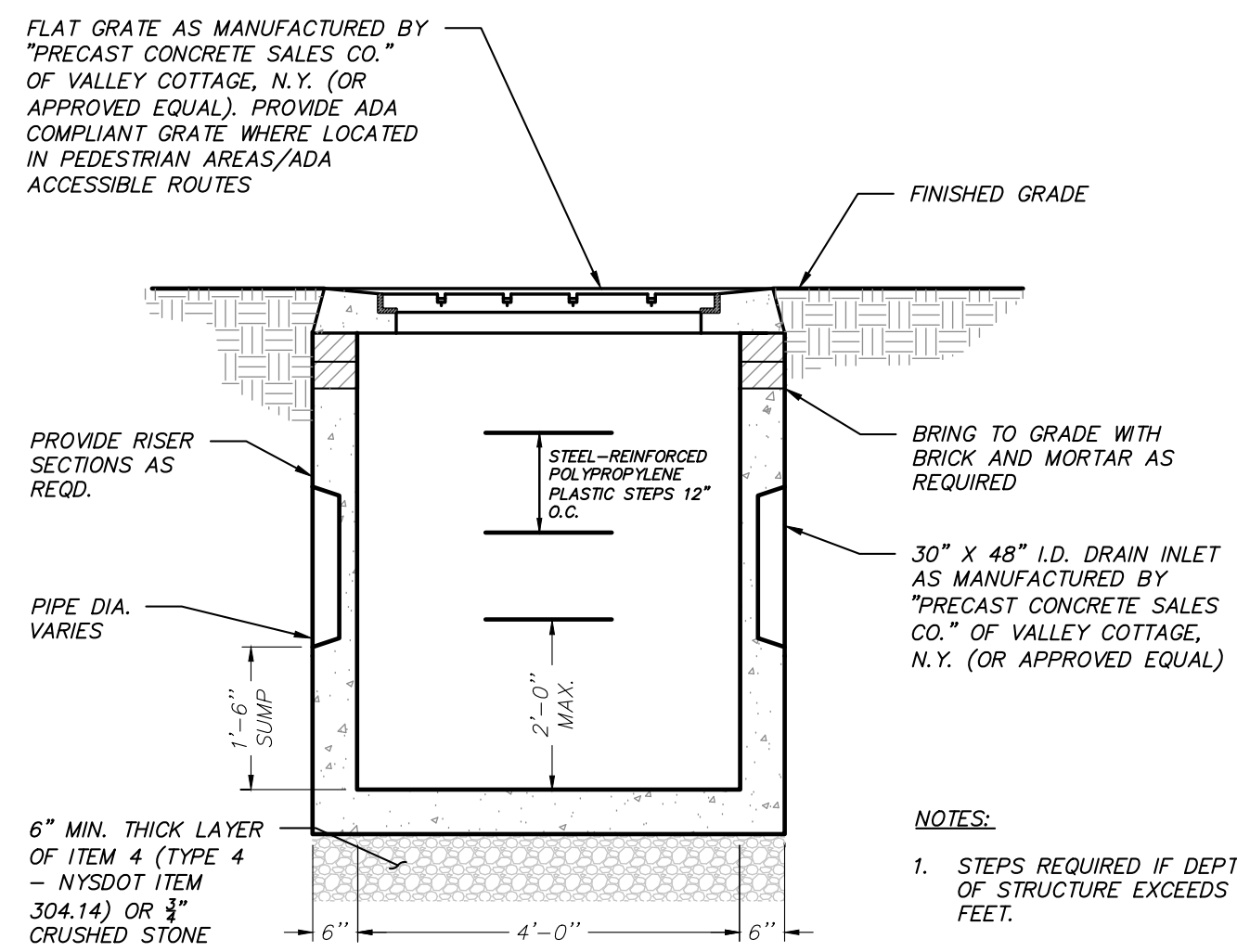
PLAN

CAST IRON FRAME AND GRATE MODEL #2617 AS MANUFACTURED BY "CAMPBELL FOUNDRY", OR APPROVED EQUAL.



FLOW SPLITTER FS 1.2 DETAIL
(N.T.S.)

NOTE: ALL MANHOLE CASTINGS AND CATCH BASIN CASTINGS ARE TO BE DOMESTICALLY MADE FOR ANY STRUCTURE LOCATED WITHIN THE CITY RIGHT-OF-WAY, OR TO BE DEDICATED TO THE CITY.

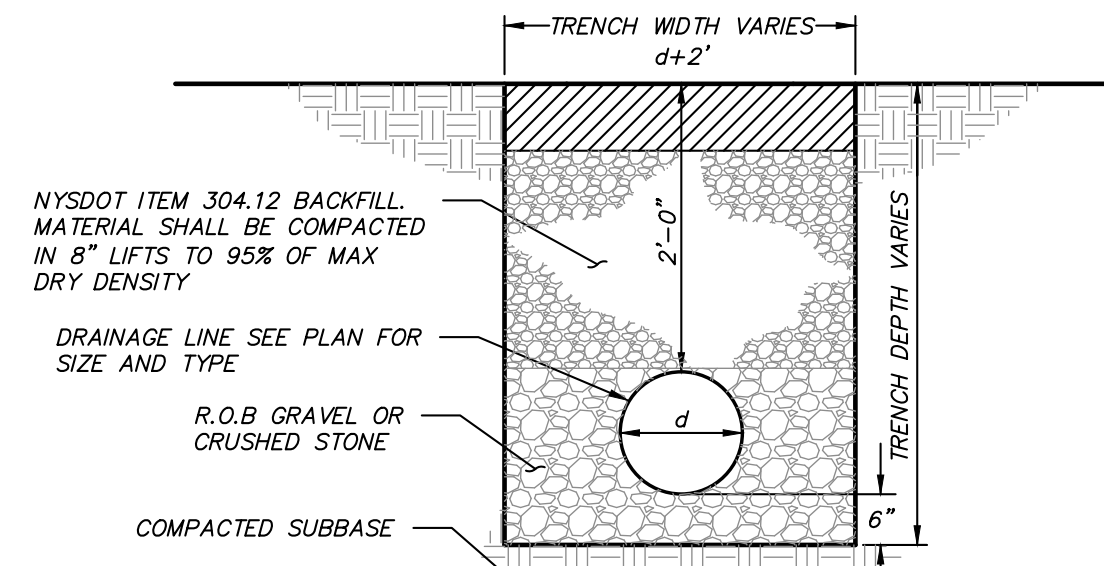


30" X 48" DRAIN INLET DETAIL
(N.T.S.)

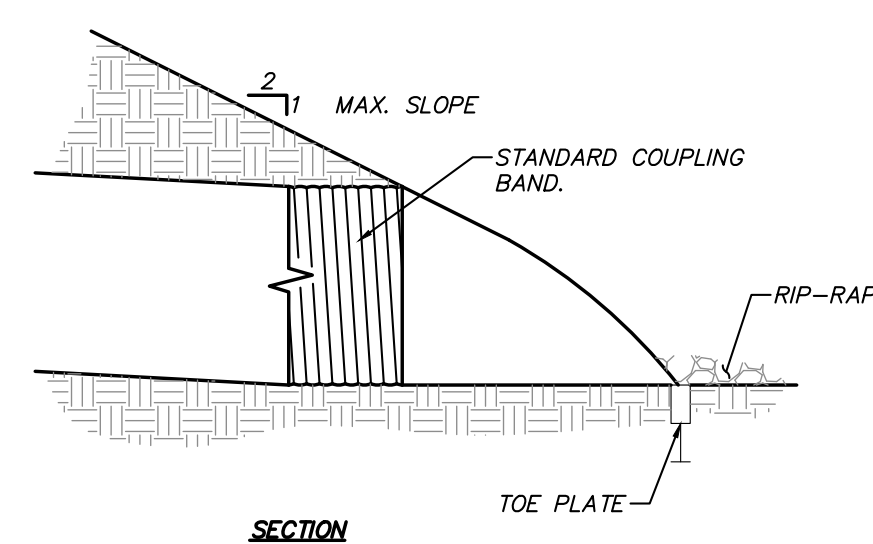
NOTE: ALL MANHOLE CASTINGS AND CATCH BASIN CASTINGS ARE TO BE DOMESTICALLY MADE FOR ANY STRUCTURE LOCATED WITHIN THE CITY RIGHT-OF-WAY, OR TO BE DEDICATED TO THE CITY.

END SECTION ID	DRAINAGE AREA (ac)	100-YEAR PEAK FLOW (cfs)	LENGTH (ft.)	ELEVATION (A)	ELEVATION (B)
ES 19 & ES 18	1.0	3.5	9	181.0	181.5
ES 21	2.2	4.2	9	186.0	184.5
ES 25	3.5	8.9	18	178.5	177.0
ES 29	1.5	2.9	6	185.5	184.0

LEVEL SPREADER DETAIL
(N.T.S.)

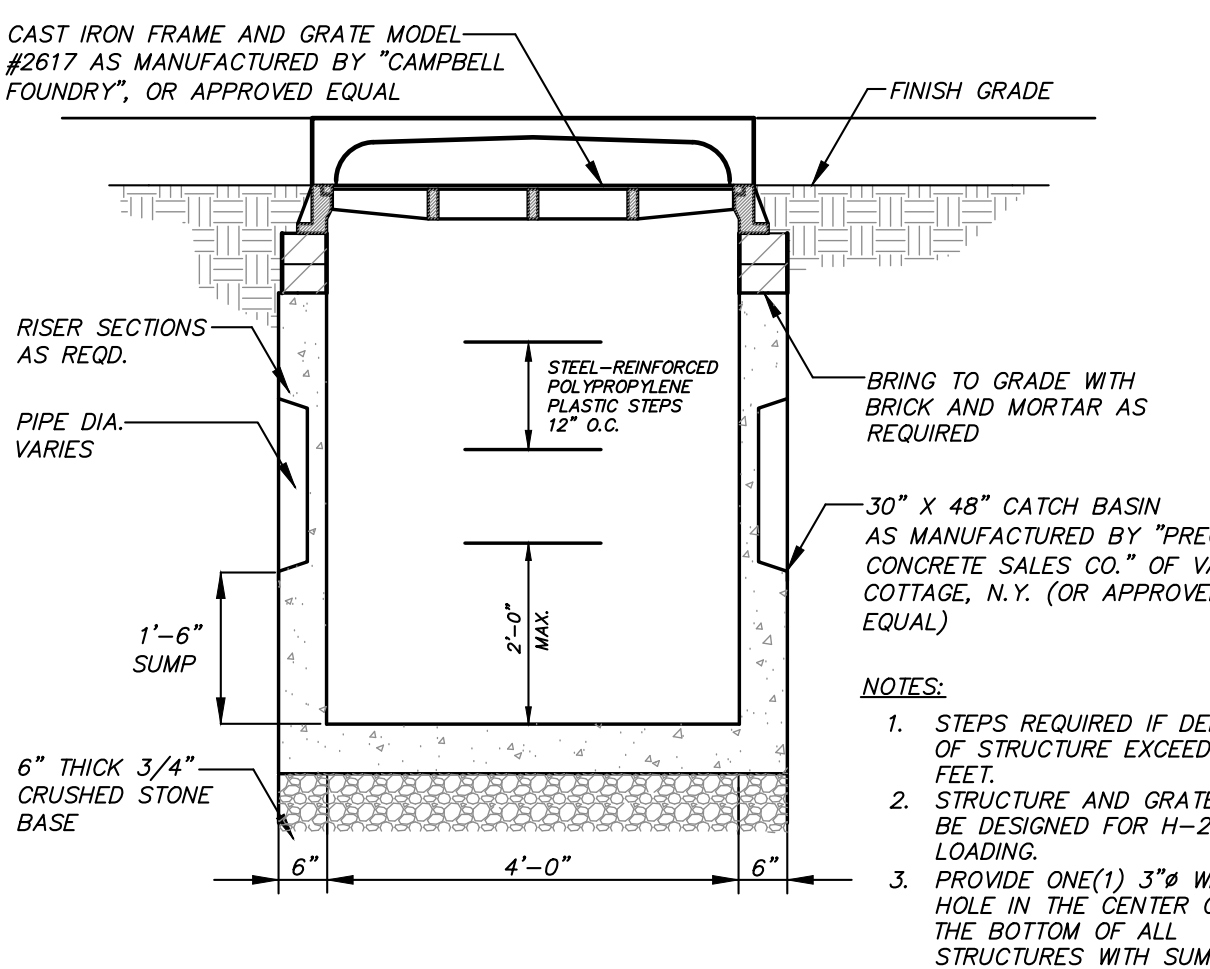


DRAINAGE LINE TRENCH DETAIL
(N.T.S.)



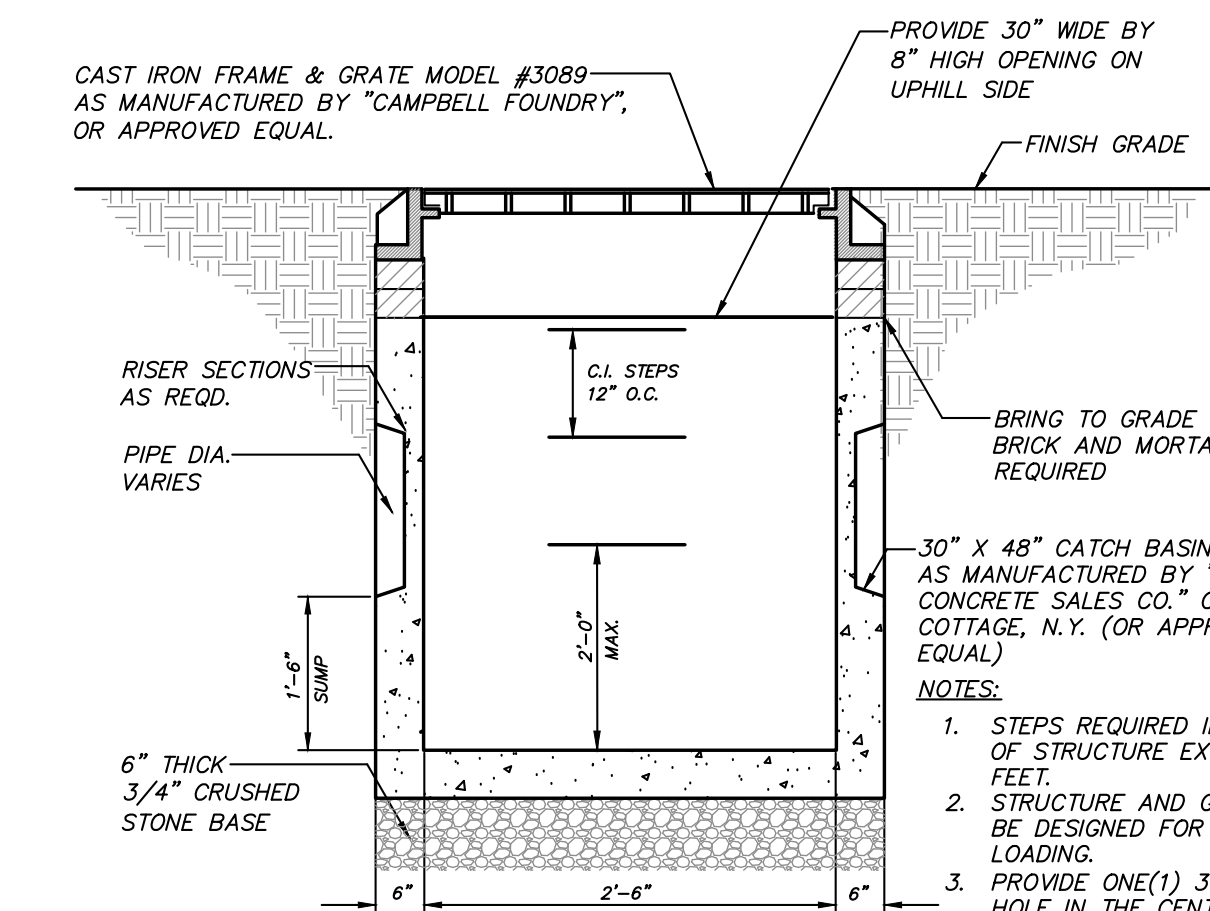
DRAINAGE MANHOLE DETAIL
(N.T.S.)

NOTE: ALL MANHOLE CASTINGS AND CATCH BASIN CASTINGS ARE TO BE DOMESTICALLY MADE FOR ANY STRUCTURE LOCATED WITHIN THE CITY RIGHT-OF-WAY, OR TO BE DEDICATED TO THE CITY.



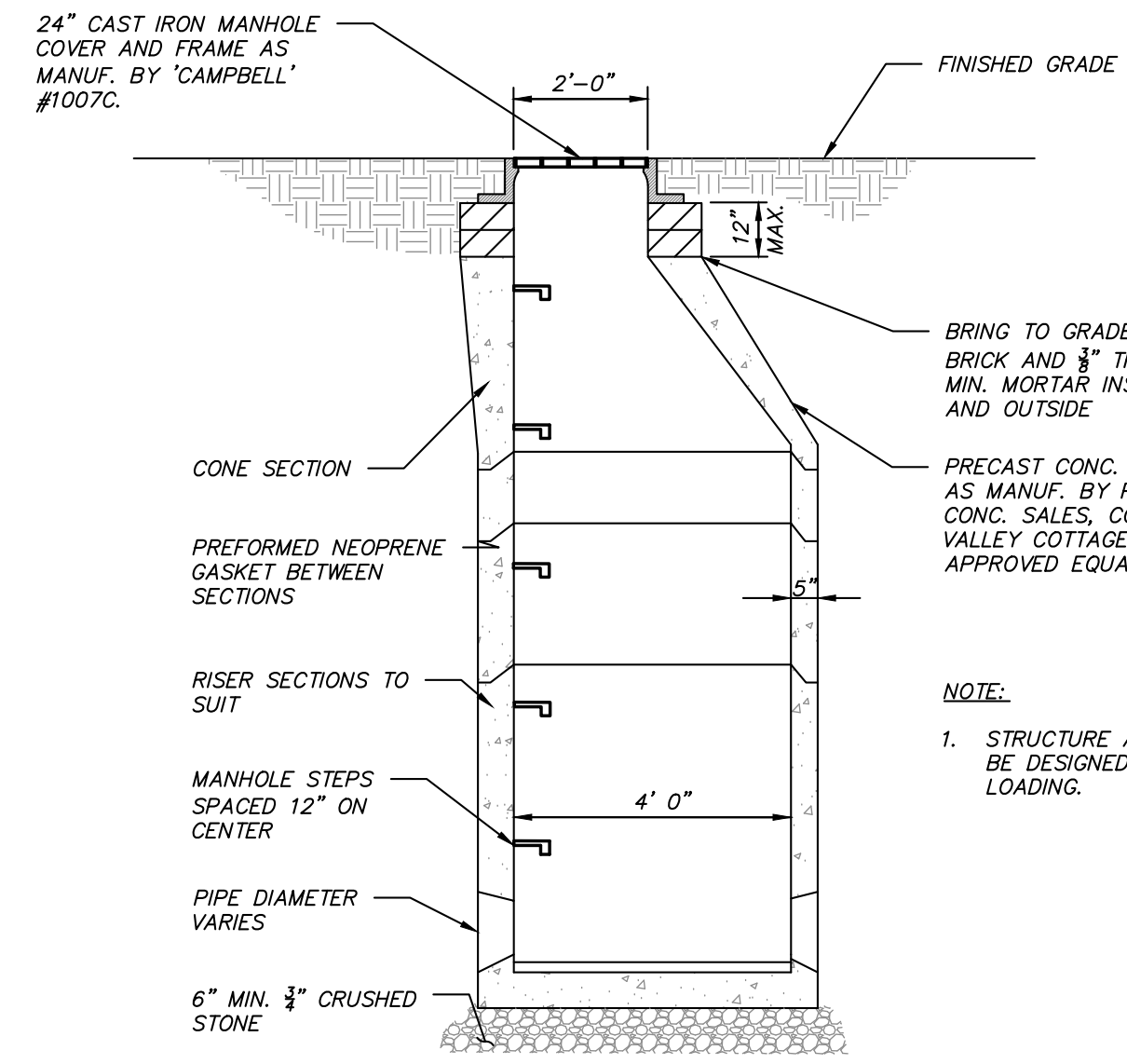
CATCH BASIN DETAIL
(N.T.S.)

NOTE: ALL MANHOLE CASTINGS AND CATCH BASIN CASTINGS ARE TO BE DOMESTICALLY MADE FOR ANY STRUCTURE LOCATED WITHIN THE CITY RIGHT-OF-WAY, OR TO BE DEDICATED TO THE CITY.



SIDE DRAIN INLET DETAIL
(N.T.S.)

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DRAINAGE MANHOLE DETAIL
(N.T.S.)

NOTE: ALL MANHOLE CASTINGS AND CATCH BASIN CASTINGS ARE TO BE DOMESTICALLY MADE FOR ANY STRUCTURE LOCATED WITHIN THE CITY RIGHT-OF-WAY, OR TO BE DEDICATED TO THE CITY.

NO.	DATE	REVISION	BY
4	7-28-20	REVISED PER PLANNING BOARD COMMENTS	JFR
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	JFR
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	JFR
1	4-28-20	RESUBMISSION TO PLANNING BOARD	JFR
PROJECT: BEACON VIEWS			
DRAWING: DETAILS			
PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8-27-19	DRAWN BY	J.F.R.
SCALE	AS NOTED	CHECKED BY	A.D.T.
PROJECT: BEACON VIEWS			D-5
DRAWING: DETAILS			17
PROJECT: BEACON VIEWS			20

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CITY OF BEACON, DUTCHES COUNTY, NEW YORK

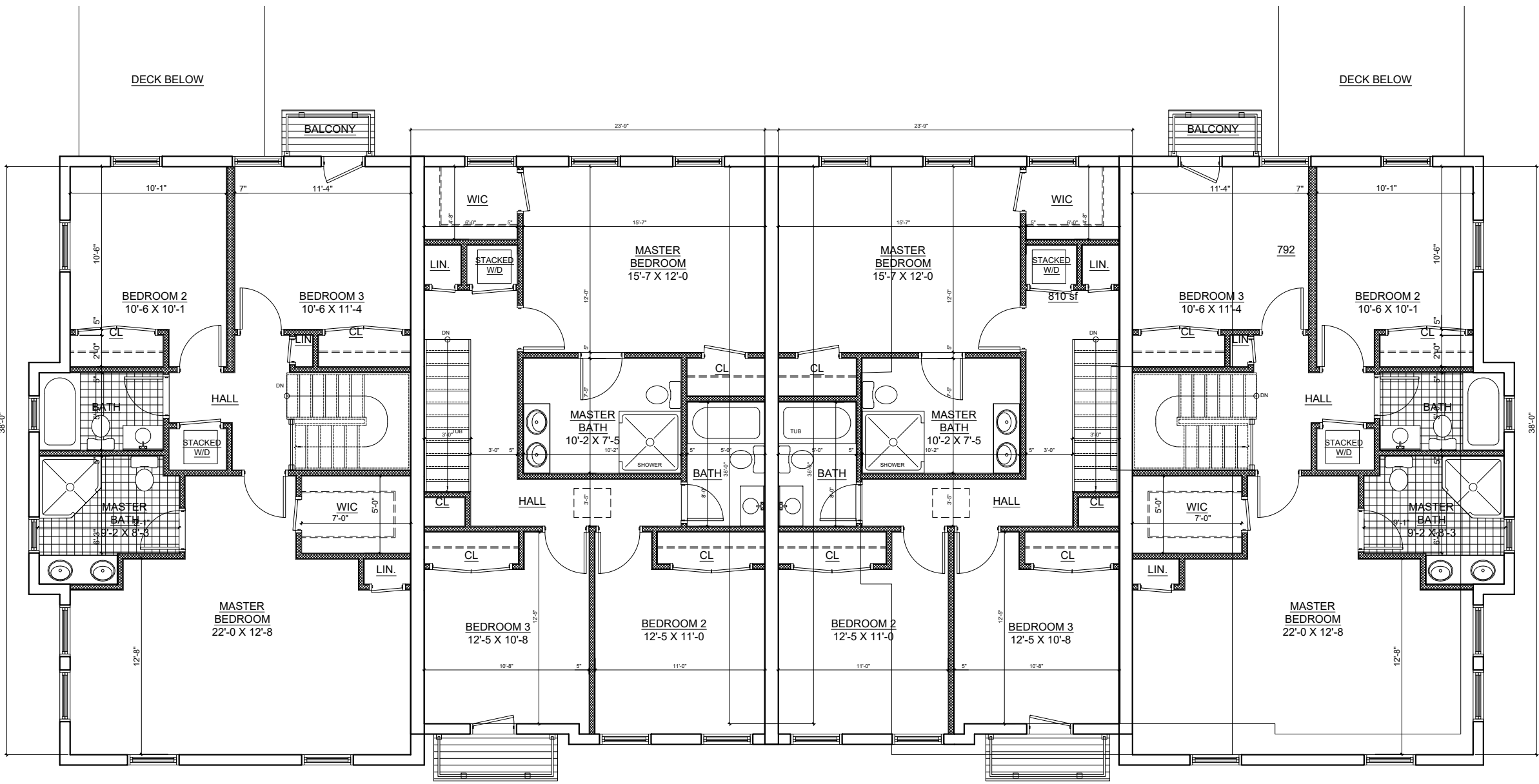
PROJECT: BEACON VIEWS

DRAWING: DETAILS

PROJECT NUMBER 19131.100 PROJECT MANAGER J.J.C.

DATE 8-27-19 DRAWN BY J.F.R.

SCALE AS NOTED CHECKED BY A.D.T.



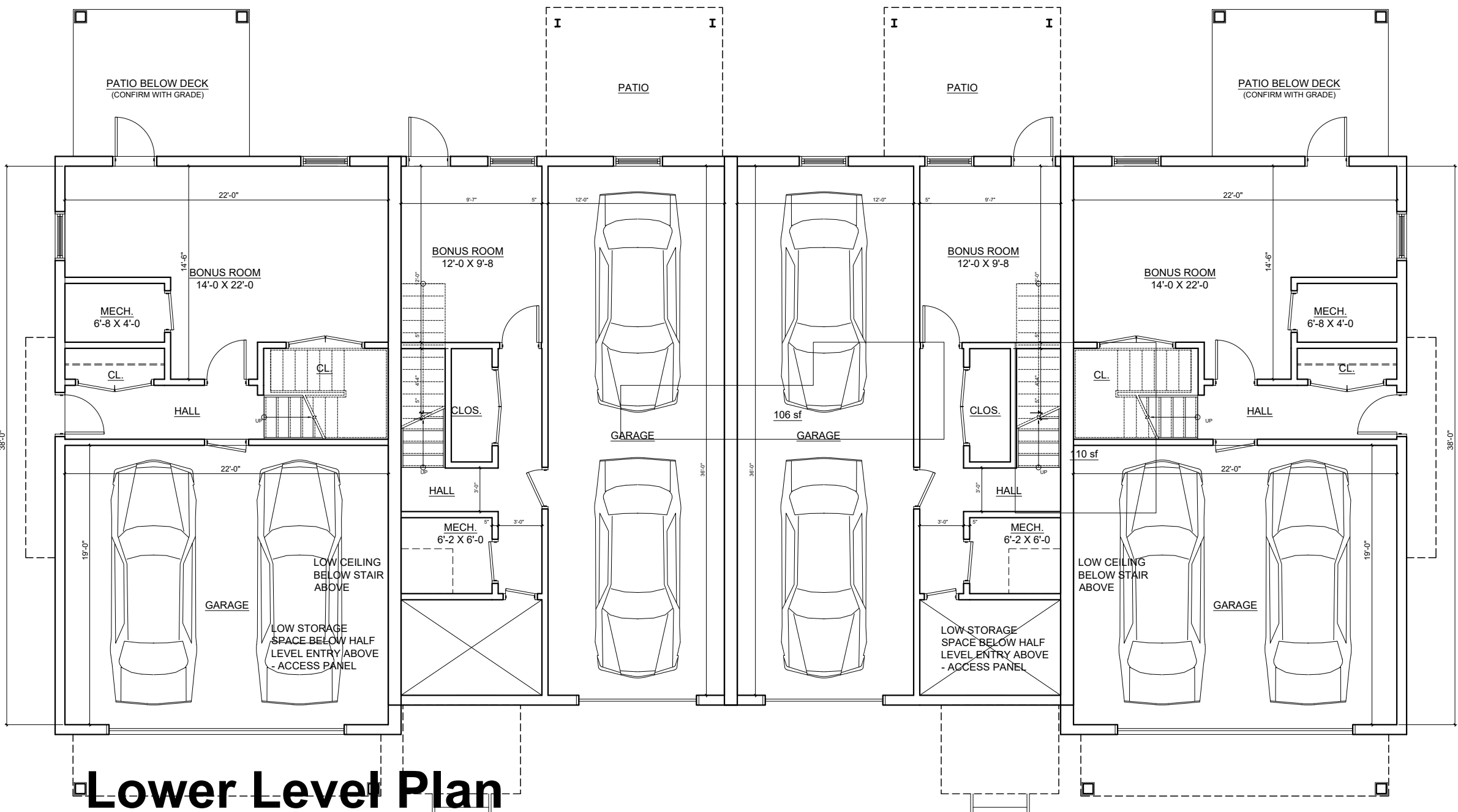
2nd Floor Plan

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



1st Floor Plan

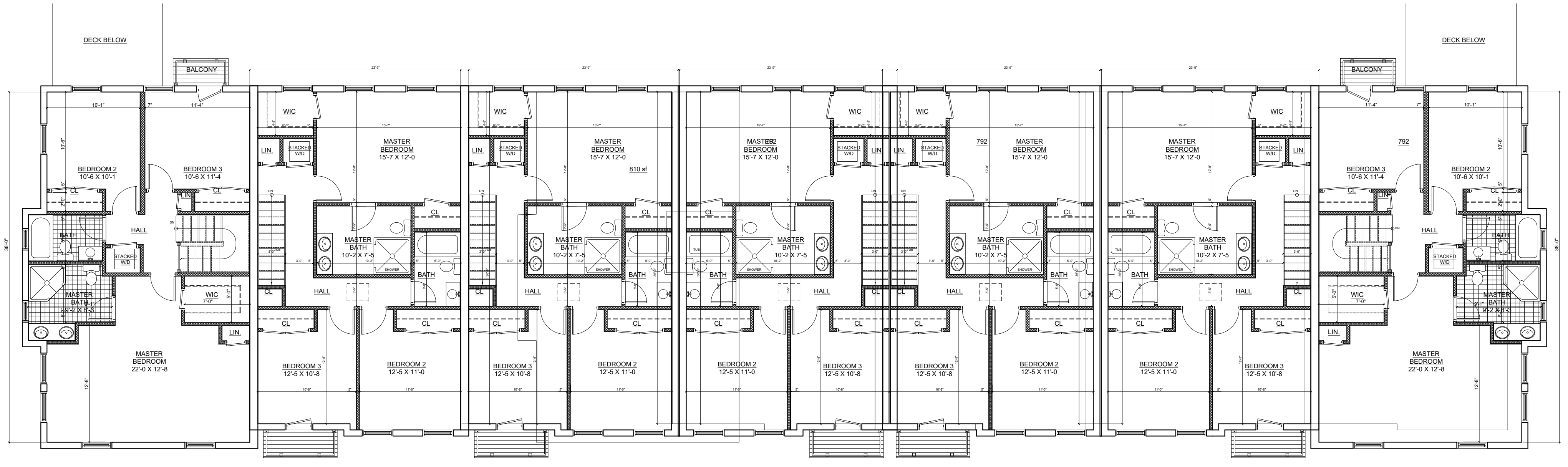
Scale: $\frac{1}{8}'' = 1'-0''$



Lower Level Plan

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

4 Unit Townhouse Plans - Front Garage



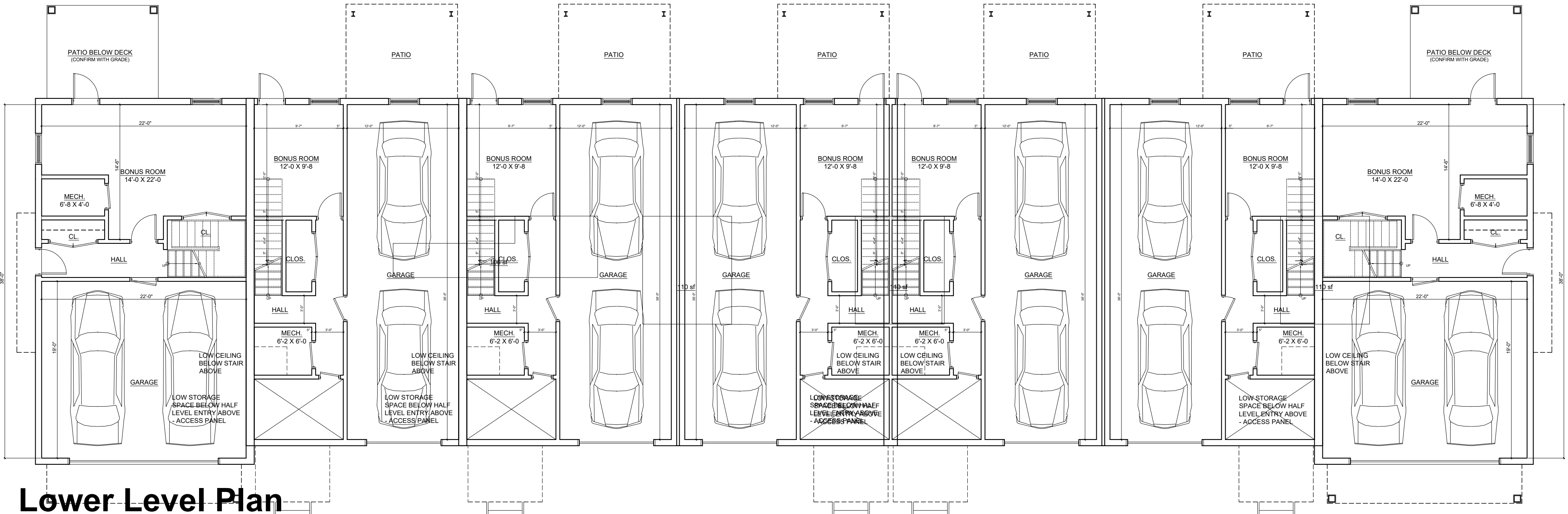
2nd Floor Plan

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



1st Floor Plan

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



Lower Level Plan

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

7 Unit Townhouse Plans - Front Garage

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

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

SIGNED THIS _____ DAY OF _____, 20____, BY

_____, CHAIRMAN

_____, SECRETARY

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

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.

Architect:
Aryeh Siegel, Architect

84 Mason Circle
Beacon, New York 12508

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LANDSCAPE ARCHITECTURE, P.C.

3 Garrett Place
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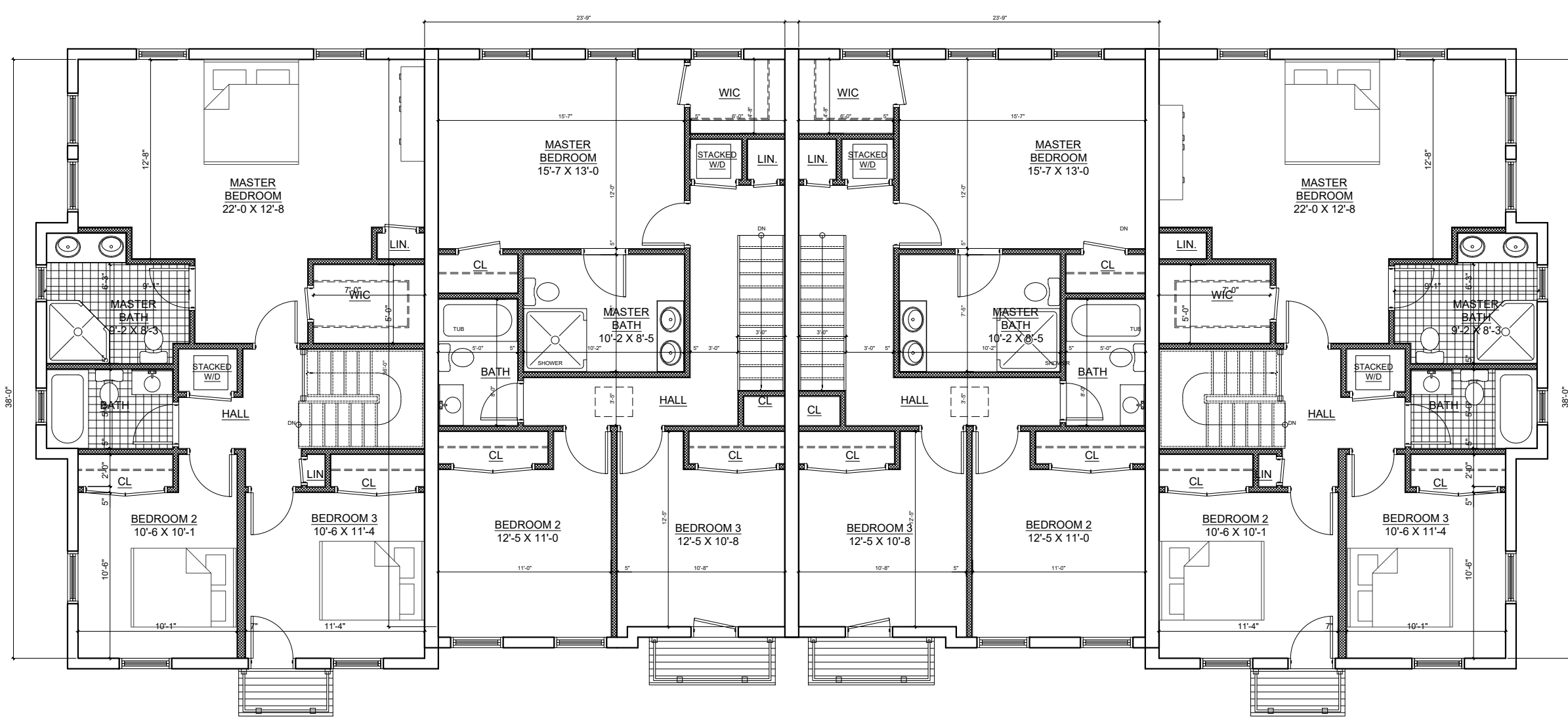
PROJECT:
BEACON VIEWS

CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
Building Plans - Front Garage

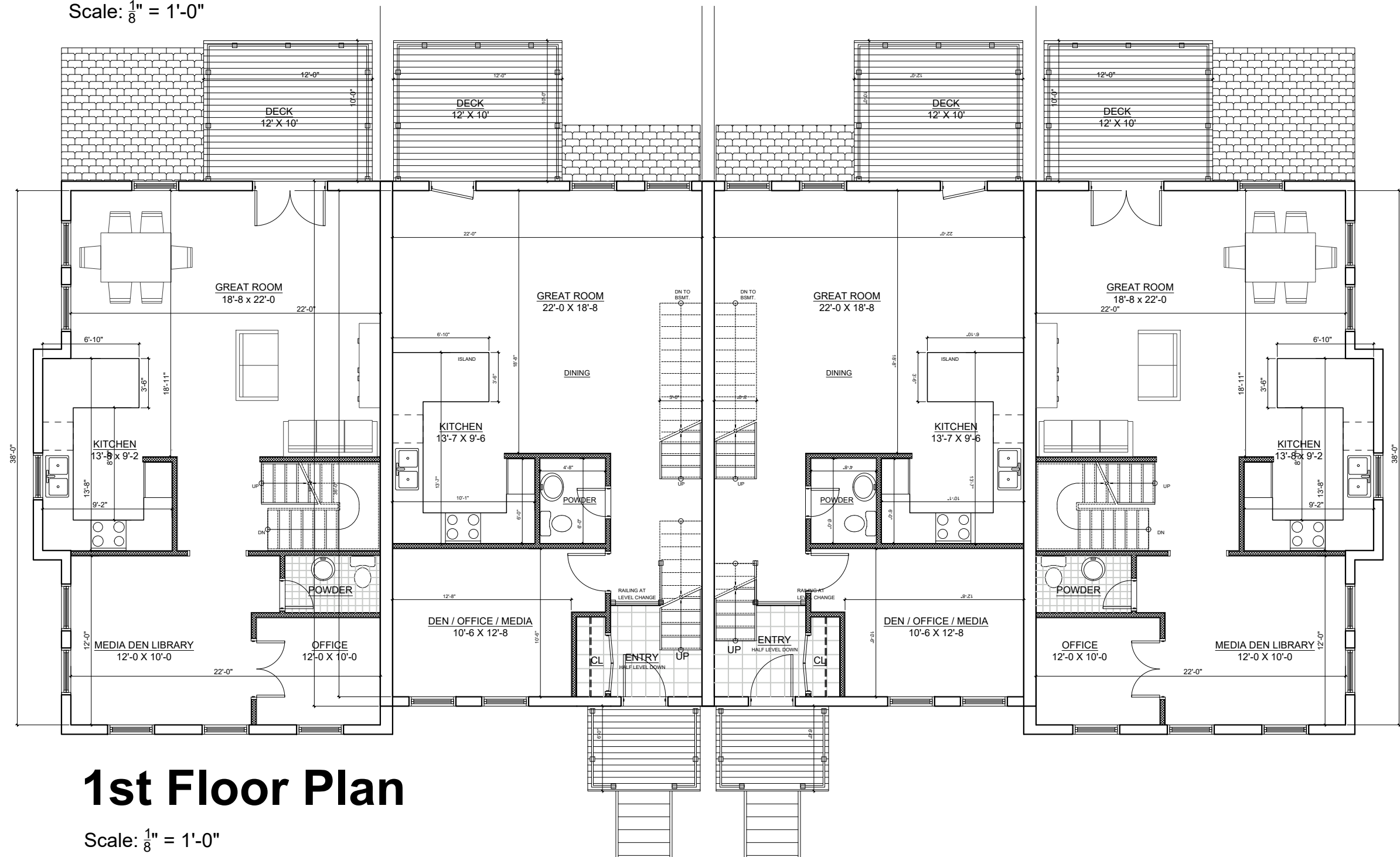
5	7/28/20	NO CHANGE	AJS
4	6/30/20	NO CHANGE	AJS
3	5/26/20	NO CHANGE	AJS
2	4/28/20	REVISED PER PLANNING BOARD COMMENTS	AJS
1	2/25/20	REVISED PER PLANNING BOARD COMMENTS	AJS
NO.	DATE	REVISION	BY

PROJECT NUMBER	19131.100	PROJECT MANAGER		DRAWING NO.	SHEET
DATE	10-29-19	DRAWN BY	AJS		18
SCALE	Not to Scale	CHECKED BY			20



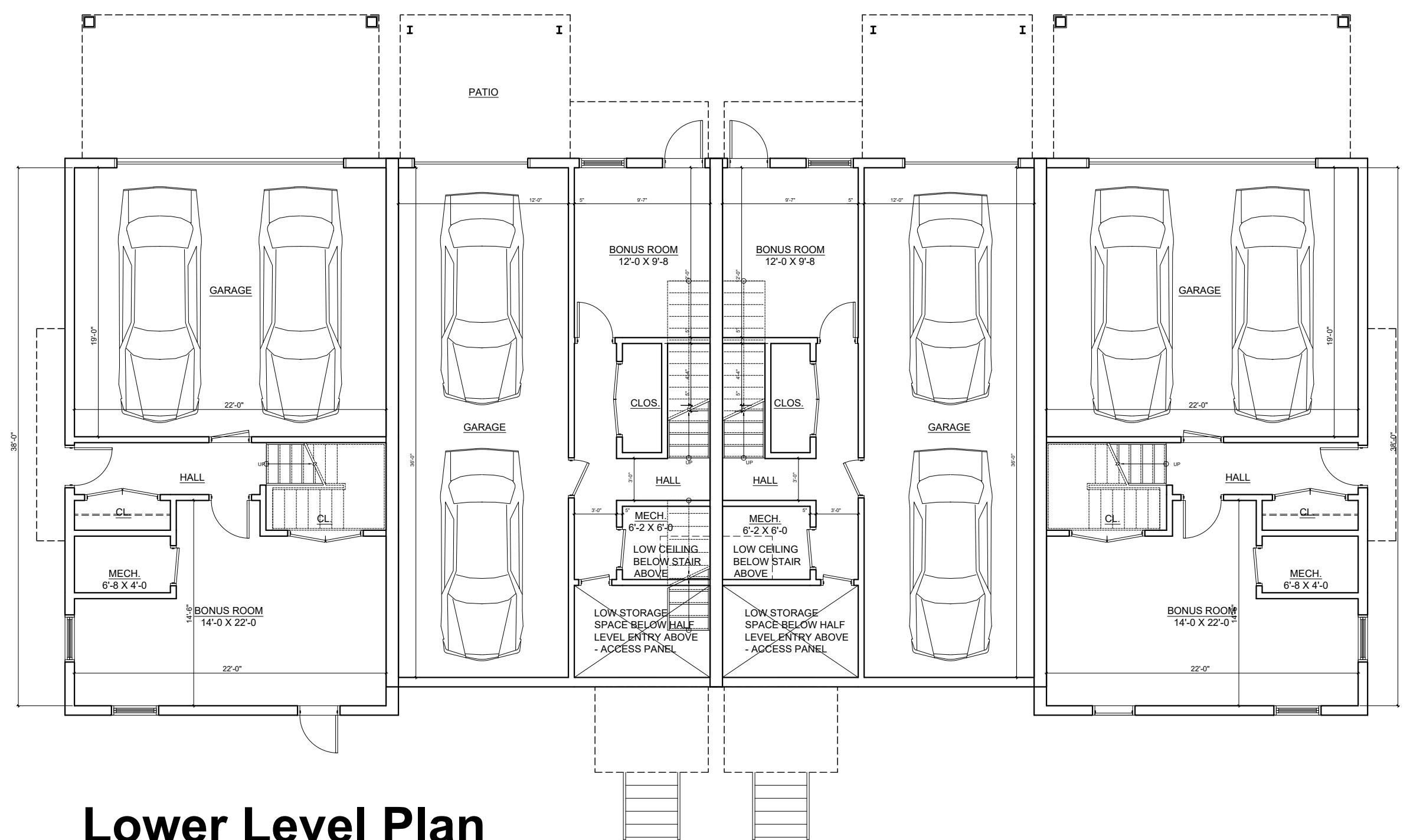
2nd Floor Plan

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



1st Floor Plan

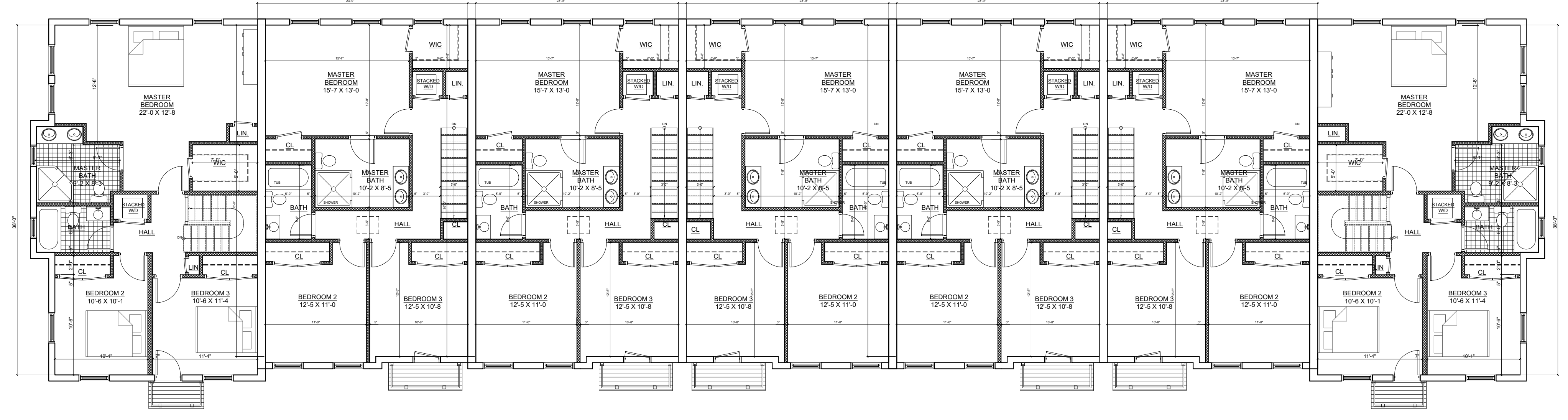
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Lower Level Plan

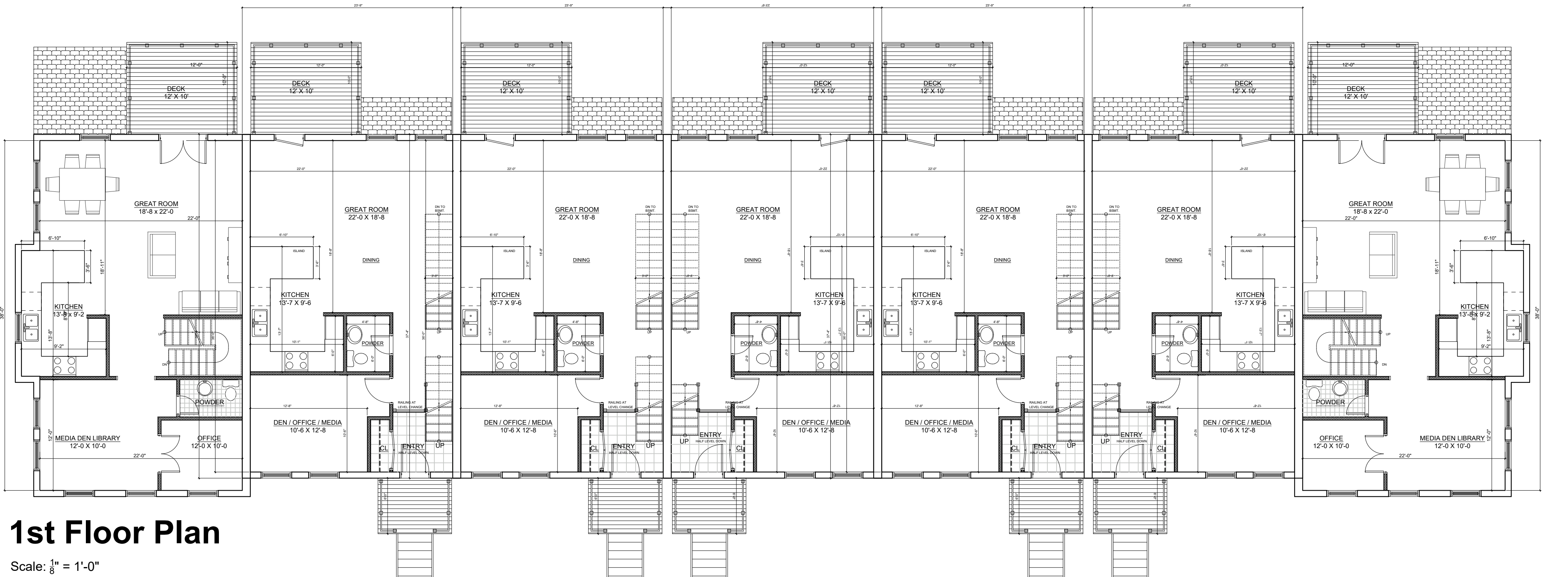
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4 Unit Townhouse Plans - Rear Garage



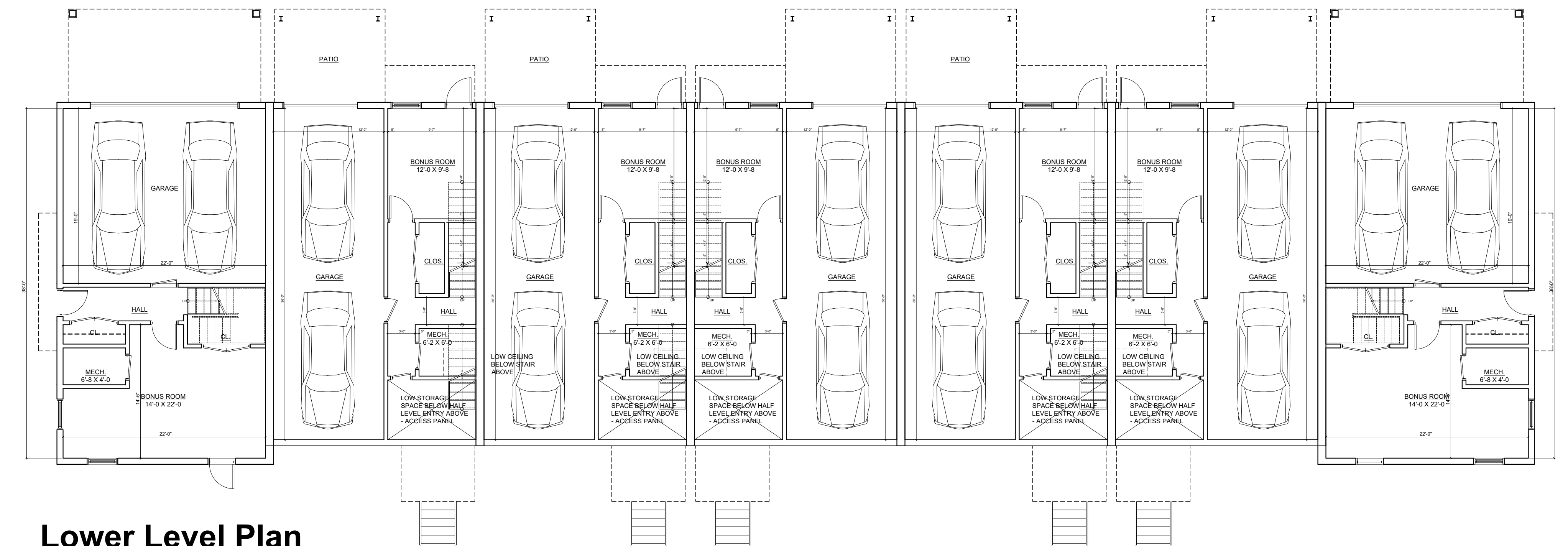
2nd Floor Plan

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



1st Floor Plan

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



Lower Level Plan

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

7 Unit Townhouse Plans - Rear Garage

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

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

SIGNED THIS _____ DAY OF _____, 20____, BY

_____, CHAIRMAN

_____, SECRETARY

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Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12608

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LANDSCAPE ARCHITECTURE, P.C.

3 Garrett Place
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(845) 225-9690
(845) 225-9717 fax
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PROJECT:
BEACON VIEWS

CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
Building Plans - Rear Garage

5	7/28/20	NO CHANGE	AJS
4	6/30/20	NO CHANGE	AJS
3	5/26/20	NO CHANGE	AJS
2	4/28/20	REVISED PER PLANNING BOARD COMMENTS	AJS
1	2/25/20	REVISED PER PLANNING BOARD COMMENTS	AJS
NO.	DATE	REVISION	BY

PROJECT NUMBER	19131.100	PROJECT MANAGER	AJS	DRAWING NO.	19
DATE	10-29-19	DRAWN BY	AJS	CHECKED BY	19
SCALE	Not to Scale	CHECKED BY			20

ROOF:
ARCHITECTURAL ASPHALT
SHINGLES. COLOR: GRAY

PARAPETS:
SHEET METAL FLASHING.
COLOR: LEAD GRAY

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

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

WINDOW TRIM:
AZEK. COLOR: WHITE

PORCH & BALCONY TRIM:
AZEK. COLOR: LIGHT GRAY



Elevation: Front

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



Elevation: Right Side



Elevation: Left Side

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

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



Elevation: Rear

Elevations: Rear Garage Entrance

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

ROOF:
ARCHITECTURAL ASPHALT
SHINGLES. COLOR: GRAY

PARAPETS:
SHEET METAL FLASHING.
COLOR: LEAD GRAY

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

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WINDOW TRIM:
AZEK. COLOR: WHITE

PORCH & BALCONY TRIM:
AZEK. COLOR: LIGHT GRAY



Elevation: Front

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



Elevation: Right Side



Elevation: Left Side

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

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



Elevation: Rear

Elevations: Front Garage Entrance

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



View at Garage Side

Not to Scale



View at Entry Side

Not to Scale

NOTE THAT THE RENDERINGS ARE ARTISTIC INTERPRETATIONS OF THE PROPOSED BUILDING DESIGN TO AID IN REVIEWING THE PROPOSED DESIGN OF THE BUILDINGS ONLY; AND ARE NOT INTENDED AS DETAILED REPRESENTATIONS OF SITE CONDITIONS. CHANGES TO DESIGN ELEMENTS MAY OCCUR IN THE FINAL CONSTRUCTION DOCUMENTS TO SUIT TENANT LAYOUTS AND BUILDING CODE REQUIREMENTS

NO.	DATE	REVISION	BY
5	7/28/20	UPDATE ELEVATIONS	AJS
4	6/30/20	UPDATE RENDERING	AJS
3	5/26/20	NO CHANGE	AJS
2	4/28/20	REVISED PER PLANNING BOARD COMMENTS	AJS
1	2/25/20	REVISED PER PLANNING BOARD COMMENTS	AJS

Architect:
Aryeh Siegel, Architect
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PROJECT:
BEACON VIEWS

CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
Elevations / Views

PROJECT NUMBER	19131.100	PROJECT MANAGER	DRAWN BY	CHECKED BY	DRAWING NO.	SHEET
DATE	10-29-19	AJS			A-3	20
SCALE	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.

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

Sustainability Report

Beacon Views
Beacon, New York
July 28, 2020

Summary

The Proposed Project will conserve energy resources by utilizing sustainability measures and energy saving measures such as energy saving appliances, smart HVAC controls, energy efficient window specifications, and increased insulation values. Additionally, when this attached residential project is compared to a similarly scaled detached single-family residential development, the attached townhouse proposal provides inherent energy efficiencies because of shared demising walls, shared utility resources, and a more compact overall footprint.

BUILDING ENVELOPE:

The building thermal envelope for all buildings will meet or exceed the requirements of the International Energy Conservation Code for residential buildings. Target values for building envelope components are as follows, and will be further modified by mandatory provisions of the New York Stretch Code overlay to the Energy Conservation Code as adopted by the City of Beacon:

- Windows/fenestration U-Factor: 0.32 or less.
- Glazed fenestration SHGC: 0.25 or less
- Attic/Roof R-Value: 49 or greater
- Wood frame wall R-Value: R-21 (cavity insulation) plus R-5 continuous insulation
- Floor R-Value: R-30
- Basement wall R-Value: R-10
- Crawl space wall R-Value R-10

The Applicant has also researched low embodied carbon concrete. It appears that the material is not yet available for general use in the New York market, but if it becomes available by the time the project is constructed, the Applicant will consider using this material if it's feasible in terms of structure and cost. Embodied carbon refers to the carbon emissions generated as a result of the manufacturing and transportation of material and the construction of building and infrastructure projects. Low embodied concrete is defined as concrete that has been verified, as measured by Global Warming

Potential metric, to embody lower carbon emissions as compared to the baseline embodied carbon emissions of conventional concrete.

MECHANICAL / ELECTRICAL / PLUMBING SYSTEMS:

The building mechanical systems will meet or exceed the requirements of the International Energy Conservation Code for residential buildings. A further goal will be to meet targets for Energy Star.

Although detailed specifications of each of these systems have not been determined at this time, systems will meet the requirements of the International Energy Conservation Code. Examples of requirements are as follows:

- Controls: One thermostat shall be provided for each separate heating and cooling system (each home to have 2 zones). Programmable thermostats will be utilized.
- Hot water boilers: When supplying heat to each home through one or two-pipe heating systems, they shall have an outdoor setback control that lowers the boiler water temperature based on the outdoor temperature.
- Ducts and air handlers: Supply & return ducts with a size of 3" dia. or greater shall be insulated to a minimum of R-8, and those with a size of less than 3" dia. shall be insulated to a minimum of R-6. Ducts, air handlers and filter boxes shall be sealed.
- Mechanical system piping insulation: Mechanical system piping capable of carrying fluids above 105 degrees F or below 55 degrees F shall be insulated to a min. of R- 3.
- Heated water circulation & temperature maintenance systems: Heated water circulation systems shall be provided with a circulation pump. Controls shall start the pump based on demand, and shall automatically turn off the pump when the water reaches the desired temperature and when there is no longer demand for hot water.
- Demand recirculation systems: A water distribution system having one or more recirculation pumps that pump water from a heated water supply pipe back to the heated water source through a cold-water supply pipe. Pumps shall have controls that start on-demand from a user/fixture or sense the flow of hot or tempered water to a fixture fitting or appliance.

- Hot water pipe insulation: Insulation for hot water pipe with a minimum thermal resistance of R-3 shall apply to ¾" dia. or larger piping, piping serving more than (1) dwelling unit, piping located outside the conditioned space, piping from the water heater to a distribution manifold, piping located under a floor slab, or buried piping.
- Mechanical ventilation: The building shall be provided with ventilation that meets the requirements of the International Residential Code or the International Mechanical Code. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.
- HVAC equipment sizing & efficiency rating: Shall be sized in accordance with ACCA Manual S based on building loads. New or replaced HVAC equipment shall have an efficiency rating equal to or greater than the minimum required by federal law for the geographic location where the equipment is installed. Systems serving multiple dwelling units shall comply with Sections C403 and C404 of the IECC - Commercial Provisions in lieu of Section R403.
- Lighting equipment: Lamps in permanently installed lighting fixtures shall be high efficacy lamps (LED), with the exception of low-voltage lighting in certain locations.

INTERIOR FINISHES, EQUIPMENT:

Finishes: Although the specific interior finishes have not been selected at this time, they will be designed to meet sustainability standards such as Greengard Indoor Air Quality. Products with a high natural material content, as well as a high recycled content and a non-VOC content will be selected. Also, every effort will be made to select products manufactured within the United States, and if possible, within a 500-mile radius of the project site.

Appliances: All selected appliances will be Energy Star rated.

GREENHOUSE GAS EMISSIONS

Greenhouse gas emissions for the 40-unit townhouse project are projected to be less than a similarly situated single family home project. On a per-unit basis, single family homes generally have a 45-50 percent higher carbon utilization than for attached residential units.



STORMWATER POLLUTION PREVENTION PLAN

Prepared For

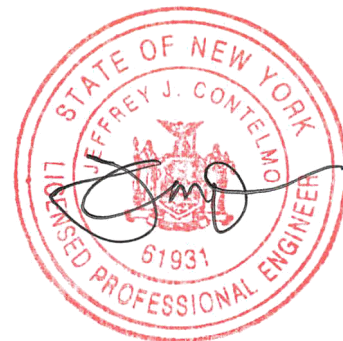
BEACON VIEWS

City of Beacon, New York

July 28, 2020

Applicant Information:

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



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

Prepared by:

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

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APPENDICES

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

FIGURES

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

1.0 INTRODUCTION

1.1 Project Description

The proposed project is located off of Conklin Street in the City of Beacon. The site is approximately 8.6 acres and is identified as Tax Map No. 6055-03-331 123. The parcel is located in the RD-5 zoning district. The subject parcel and surroundings are shown on Figure 1. The project proposes seven (7) multi-family townhouse buildings (40 total townhouse units) and associated appurtenances. The primary access to the site will be off Hastings Drive, through the adjoining the former St. Francis Hospital property. An emergency access drive will be provided to the north, through the adjacent parcel. It is proposed to capture and treat the stormwater runoff associated with the proposed improvements.

1.2 Existing Stormwater Runoff Conditions

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

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

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

1.3 Proposed Stormwater Runoff Conditions

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

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

The stormwater runoff from the proposed development will be captured in a collection system and conveyed to the stormwater management practices. The stormwater runoff will be treated by two (2) stormwater management practices, including a I-4 Subsurface Infiltration System (1.2P) and a P-5 Pocket Pond (1.1P). Pretreatment of the stormwater runoff will be provided with a hydrodynamic separator upstream of the proposed subsurface infiltration system, and a forebay in the pocket pond. A flow splitter is proposed upstream of the subsurface infiltration system to discharge the water quality volume to the practice for treatment and bypass the larger storm events.

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

Table 1.3.1 – Post Development Subcatchment Summary

Subcatchment	Stormwater Management Practice	Total Area ¹ (ac)	Impervious Area ¹ (ac)
1.0S	Not Treated	18.4	0.5 ²
1.1S	1.1P	3.55	2.35
1.2S	1.2P	0.55	0.45

¹ Refer to subcatchment areas in Appendix C.

² The impervious area within subcatchment 1.0S is existing from the properties adjacent to the project site that are also tributary to Design Line 1.

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

2.0 STORMWATER MANAGEMENT

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

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

To address stormwater quantity requirements of the NYSDEC, the “HydroCAD” Stormwater Modeling System,” by HydroCAD Software Solutions LLC in Tamworth, New Hampshire, was used to model and

assess the peak stormwater flows for the subject project. HydroCAD is a computer aided design program for modeling the hydrology and hydraulics of stormwater runoff. It is based primarily on hydrology techniques developed by the United States Department of Agriculture, Soil Conservation Service (USDA, SCS) TR-20 method combined with standard hydraulic calculations. For details on the input data for the subcatchments and design storms, please refer to Appendices B and C.

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

Subcatchments (contributing watershed/sub-watersheds)

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

Stormwater Basins

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

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

Table 2.0.1 – Precipitation Values for Corresponding Design Storms

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

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

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

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

2.1 NYSDEC Runoff Reduction Volume, RR_v

The Runoff Reduction Volume (RR_v) criterion is intended to replicate pre-development hydrology by maintaining preconstruction infiltration, peak flow runoff, discharge volume, as well as minimizing concentrated stormwater flow. As stated in Chapter 4 of the Design Manual, RR_v may be treated with standard SMP's with RR_v capacity sized in accordance with the Chapter 4/6 requirements, or with green infrastructure practices (GIP's) sized in accordance with the requirements set forth in Chapter 5. Runoff reduction is achieved when runoff from a site is captured, directed to a

SMP or a GIP, infiltrated to the ground, reused, or removed by evapotranspiration, so it does not contribute to the stormwater discharge from the site. The goal for each site is to reduce the entire WQ_v (100%) through the implementation of GIP's and standard SMP's with RR_v capacity. However, if 100% of the WQ_v cannot be reduced by applying a combination of green infrastructure techniques and standard SMP's with RR_v capacity, "they must, at a minimum, reduce runoff from a percentage of the impervious area constructed as part of the project using the green infrastructure techniques and standard SMP's with RR_v capacity. In addition, the designer must provide justification in the SWPPP that evaluates each of the green infrastructure techniques listed in Table 3.2 and identify the specific site limitations that make application of the technique(s) infeasible."

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

The project proposes an I-4 Subsurface Infiltration System in an area of the project site where the soil conditions meet the Design Manual requirements. These stormwater practice, sized in accordance with the Design Manual, will be applied as a GIP/SMP with volume reduction towards meeting the RR_v minimum. Sizing calculations for the subsurface infiltration practice are provided in Section 2.2 below.

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

Table 2.1.1 Runoff Reduction Volume Summary

Design Line	Initial WQ_v / RR_v (c.f.)¹	RR_v Minimum (c.f.)	WQ_v RR_v Required (Initial WQ_v / RR_v minus RR_v provided through GIP with Area Reduction) (c.f.)	RR_v Provided (c.f.)	WQ_v Required for Downstream SMP (c.f.)
Design Line 1	13,300	2,704	13,300	3,572	9,728

¹ Refer to Appendix A for Initial WQ_v Calculations

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

2.2.1, is greater than the remaining WQv required, the Pocket Pond has been sized to treat the greater WQv. The proposed Pocket Pond is being provided to meet stormwater quality/quantity requirements of the NYSDEC.

2.2 NYSDEC Water Quality Volume, WQ_v

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

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

Where,

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

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

Table 2.2.1 - Water Quality Volume Calculation Summary

Subcatchment	WQ _v ¹ (cf)
1.1S	11,163
1.2S	2,136

¹ For detailed calculations see Appendix A

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

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

Pretreatment has been provided for the proposed subsurface infiltration system in the form of a hydrodynamic separator. The hydrodynamic separator is proposed for pretreatment only and is not designed as a proprietary stormwater management practice to treat the stormwater runoff. The peak

flow for the 1-year storm was used to size the hydrodynamic separator used as pretreatment for the infiltration system. Per the Design Manual requirements a minimum pretreatment volume of 100% of the WQ_v must be provided for an infiltration facility where the infiltration rate for the underlying soils is greater than 5.0 inches per hour. By sizing the hydrodynamic separator for the peak flow from the 1-year storm event, pretreatment for greater than 100% of the WQ_v is provided. The data (including capacities) for the hydrodynamic separator is included in Appendix H. Although the Hydroworks HydroStorm HS 6 does not meet the NYSDEC requirements of TSS and phosphorous removal to be used as a proprietary practice to treat new impervious development, it is a verified proprietary practice to be used for pretreatment. The table below summarizes the WQ_v -year peak flows and hydrodynamic separate flow rates.

Table 2.2.2 – Pretreatment Hydrodynamic Separator Summary

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

¹ For detailed calculations see Appendix A

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

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

Table 2.1.3 P-5 Pocket Pond Summary

Design Elements	Required	Provided	Remarks
Pond Location	Not within Jurisdictional Waters	Outside of Jurisdictional Waters	See Project Plans
Forebay Volume	10% of WQ_v (1,116 cubic feet)	18% of WQ_v (2,050 cubic feet)	See Appendix C
Forebay Depth	4' Min. – 6' Max.	5' Provided	See Project Plans
WQ_v Storage	50% Min. within Permanent Pool (5,582 cubic feet)	50%+ within Permanent Pool (10,715 cubic feet)	See Appendix C
Minimum Length to Width Ratio	1.5 : 1	Greater than 2 : 1	See Project Plans
Minimum Surface Area to Drainage Area Ratio	1 : 100	1 : 39	See Project Plans
Benches at Water Level	Aquatic Bench	Aquatic Bench	See Project Plans
Landscaping	Pond and Buffer Plantings Required	Pond and Buffer Plantings Provided	See Project Plans
Center-of-Mass Detention Time (1-Year, 24-Hour Storm Event)	1,440 minutes	1,512 minutes	See Appendix C

2.3 NYSDEC Stream Channel Protection Volume, CP_v

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

Table 2.2.1 – Stream Channel Protection Volume Summary

Subcatchment	Stormwater Management Practice	1-Year, 24-Hour Runoff Volume (af)	Maximum Allowable Discharge Rate (cfs)	Provided Discharge Rate (cfs)
1.1S	1.1P	0.531	0.27	0.11
1.2S	1.2P	0.095	0.05	0.0

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

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

The Overbank Flood Control (Q_p) requirement is intended to prevent an increase in the frequency and magnitude of out-of-bank flooding events generated by urban development. Overbank control requires storage to attenuate the post-development 10-year, 24-hour peak discharge to pre-development rates. The Extreme Flood Control (Q_f) requirement is intended to prevent the increased risk of flood damage from large storm events, maintain the boundaries of the pre-development 100-year flood plain, and protect the physical integrity of stormwater management practices. Extreme flood control requires storage to attenuate the post-development 100-year, 24-hour peak discharge to pre-development rates. As shown in Table 2.4.1 attenuation for both the 10-year and 100-year 24-hour storms has been provided thus satisfying the Q_p and Q_f requirements. As requested by the City of Beacon, in addition to the requirements of the Design Manual, attenuation of the peak flows for the 1-year, 24-hour design storm has been provided as shown in Table 2.4.1. The following table summarizes the pre and post development peak flows expected for the proposed project.

Table 2.4.1– Pre and Post-Development Peak Flows

24-HOUR DESIGN STORM PEAK FLOWS (c.f.s.)						
	1-YEAR		10-YEAR (Overbank Flood Control)		100-YEAR (Extreme Flood Control)	
	Pre	Post	Pre	Post	Pre	Post
Design Line 1	14.1	12.6	39.7	35.2	84.5	78.7

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

3.0 STORMWATER CONVEYANCE SYSTEM

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

4.0 EROSION AND SEDIMENT CONTROL

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

4.1 Temporary Erosion and Sediment Control Facilities

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

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

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

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

4.2 Permanent Erosion and Sediment Control Facilities

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

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

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

5.0 IMPLEMENTATION, MAINTENANCE & GENERAL HOUSEKEEPING

5.1 Construction Phase

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

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

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

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

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

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

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

All recyclables, including wood pallets, cardboard boxes, and all other recyclable construction scraps shall be disposed of in a designated recycling barrel provided by the contractor and removed from the site

regularly. All personnel working on the site shall be instructed of the proper procedures for construction waste recycling.

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

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

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

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

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

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

5.2 Soil Restoration

Soil Restoration is required to be applied across areas of the development site where soils have been disturbed and will be vegetated. The purpose is to recover the original properties and porosity of the soil compacted during construction activity. Soil Restoration is applied in the cleanup, restoration, and landscaping phase of construction followed by the permanent establishment of an appropriate, deep-rooted groundcover to help maintain the restored soil structure. Soil restoration includes mechanical decompaction and compost amendment. The table below describes various soil

disturbance activities related to land development, soil types and the requirements for soil restoration for each activity as identified in the Design Manual. Restoration is applied across areas of a development site where soils have been compacted and will be vegetated according to the criteria defined in the table below:

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

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

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

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

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

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

5.3 Long Term Maintenance Plan

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

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

The stormwater collection and conveyance system is composed of HDPE, drainage pipe and precast concrete drainage structures. The owner will assume the maintenance responsibilities for the drainage system. Minimal maintenance is typically required for these facilities. All pipes should be checked for debris and blockages and cleaned as required. All drain inlet sumps, including the sumps within the hydrodynamic separators, shall be inspected bi-annually and cleaned to removed deposited sediment. During the cleaning process, the pipes should be inspected for structural integrity and overall condition; repairs and/or replacement should be made as required. Additionally, the detention systems shall be checked for deposited sediment as well. Visual inspection of system through the inspection ports shall take place yearly, and the system shall be cleaned / jetted as necessary to remove deposited sediment.

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

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

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

APPENDIX A
NYSDEC Water Quality Volume and Runoff Reduction Calculations

WQv Calculation Worksheet

Project: Beacon Views, LLC

Project #: 19131.100

Date: 7/28/2020



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

Subcatchment ID: 1.1

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

P = WQv 24-hour Rainfall Amount

= 1.4 in.

A = Subcatchment Area

= 151880 SF

Ai = Impervious Area within Subcatchment Area

= 98640

I = Ai/A

= 64.9 %

Rv = 0.05 + 0.009 (I%)

= 0.63

WQv = Water Quality Volume

= 11,163 CF

Subcatchment ID: 1.2

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

P = WQv 24-hour Rainfall Amount

= 1.4 in.

A = Subcatchment Area

= 21800 SF

Ai = Impervious Area within Subcatchment Area

= 19100

I = Ai/A

= 87.6 %

Rv = 0.05 + 0.009 (I%)

= 0.84

WQv = Water Quality Volume

= 2,136 CF

RRv Calculation Worksheet - Design Line 1

Project: Beacon Views, LLC

Project #: 19131.100

Date: 7/28/2020



1. *RRv Initial* = Water Quality Volume (WQv) 0.305 ac-ft = 13,300 c.f.
(refer to Water Quality Volume Calculation Sheet)

2. *RRv Minimum* = $[(P)(Rv)(S)(Aic)] / 12$ where...
 P = Rainfall (in.) = 1.40 in.
 Rv = 0.05 + 0.009 (100%) = 0.95
 S = Hydrologic Soil Group Specific Reduction Factor = 0.20
 [HSG A = 0.55] [HSG B = 0.40] [HSG C = 0.30] [HSG D = 0.20]
 Aic = Total area of new impervious cover = 2.8 Acres
RRv Minimum = 2,704 c.f.

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

GIP with Area Reduction Applied in Project

5.3.1 Conservation of Natural Area N/A
 5.3.2 Sheet Flow to Riparian Buffers or Filter Strips N/A
 5.3.4 Tree Planting / Tree Box (37 trees at 100 s.f. per tree) c.f.
 5.3.5 Disconnection of Rooftop Runoff -
 5.3.6 Stream Daylighting N/A

RRv Required (=WQv-RRv by area) = 13,300 c.f.

4. *RRv Provided*

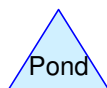
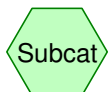
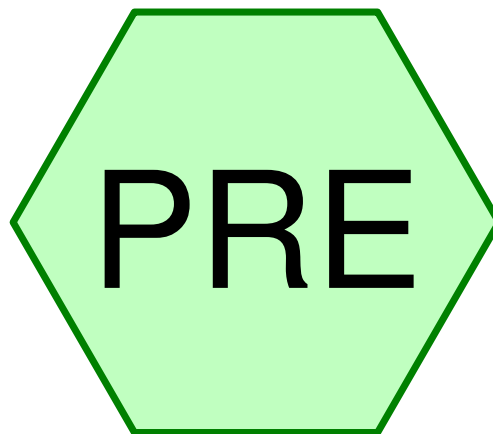
GIP with Volume Reduction Applied in Project	WQv Treated (c.f.)	% of WQv Applied to <i>RRv Provided</i>	<i>RRv Provided</i> (c.f.)
5.3.3 Vegetated Open Swales [HSG A / B = 20%] [HSG C / D = 10%] {Modified HSG C - D = 15% - 12%}		20% 10%	0 0
5.3.7 Rain Garden [No underdrains / Good Soils = 100%] [With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

5. Summary

RRv Initial = 13,300 c.f.
RRv Required = 13,300 c.f.
RRv Minimum = 2,704 c.f.
RRv Provided = 3,572 c.f.
 WQv Required for Downstream SMP = 9,728 c.f. (= *RRv Required* - *RRv Provided*)

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

APPENDIX B
Pre-Development Computer Data



Routing Diagram for Pre Development

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Pre Development

NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

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Page 2

Summary for Subcatchment PRE:

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

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

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

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

Pre Development

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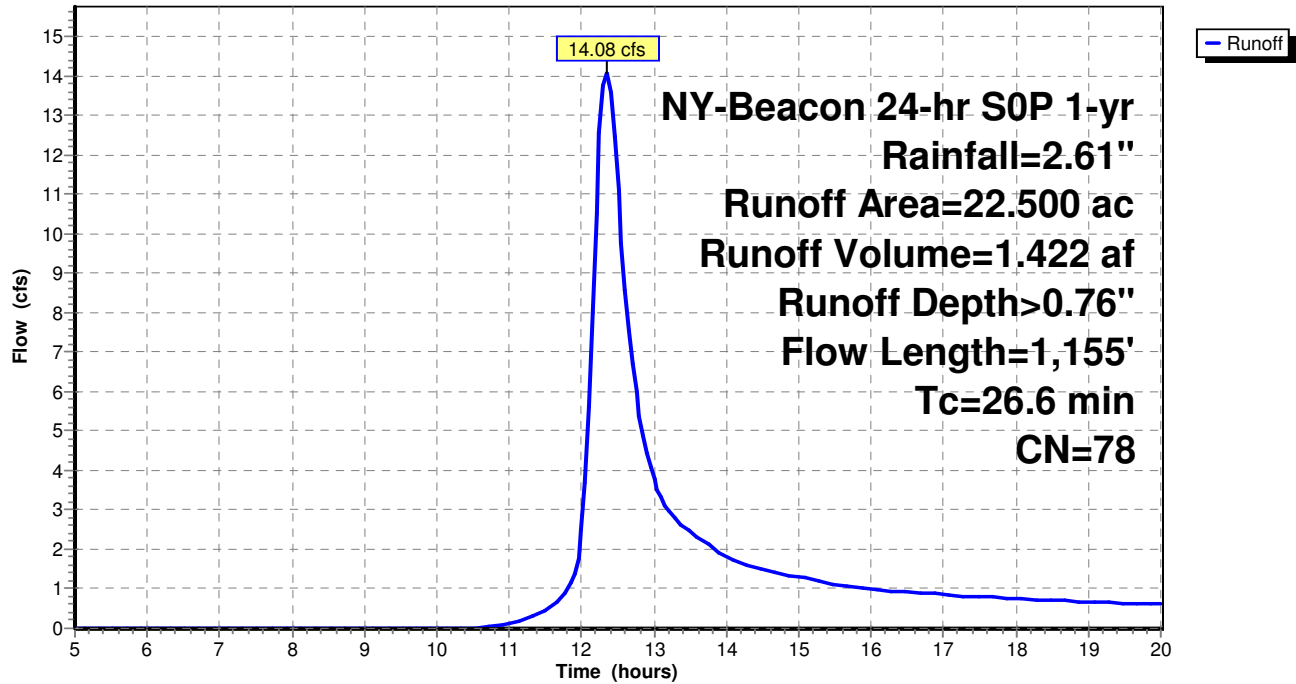
NY-Beacon 24-hr SOP 1-yr Rainfall=2.61"

Printed 7/27/2020

Page 3

Subcatchment PRE:

Hydrograph



Pre Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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Page 4

Summary for Subcatchment PRE:

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

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

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

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

Pre Development

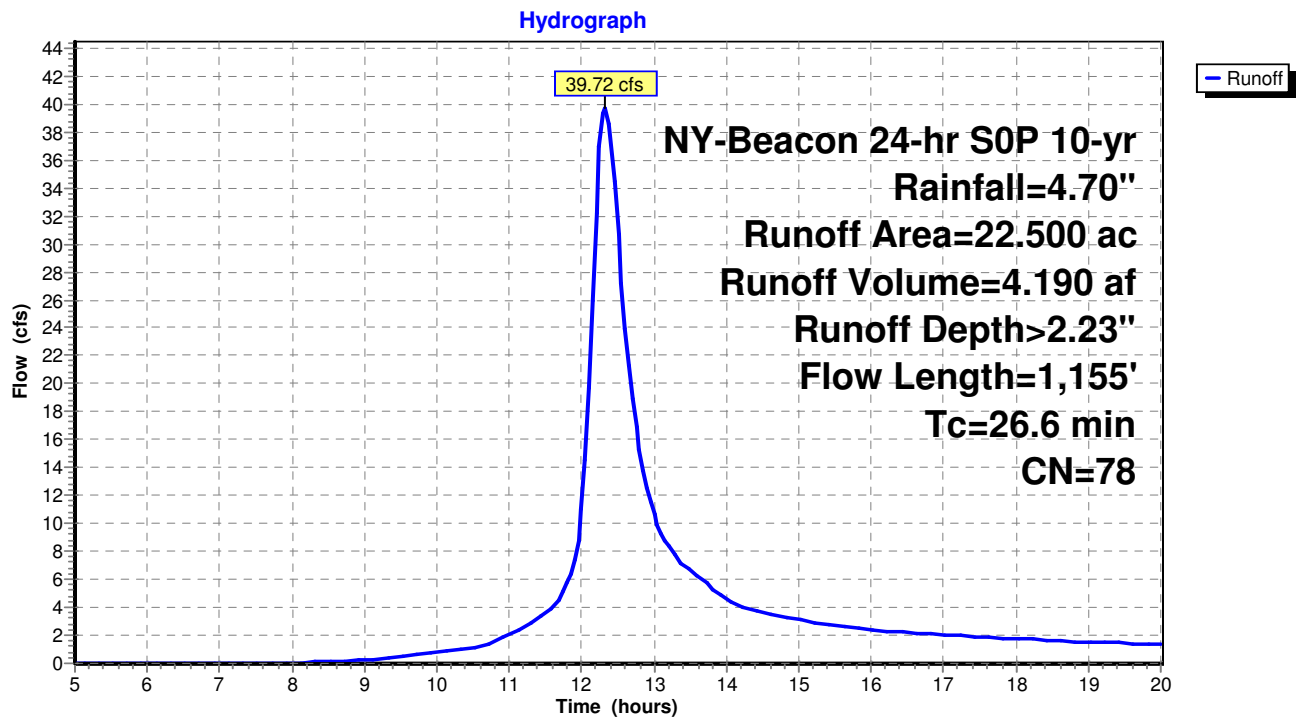
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NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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Page 5

Subcatchment PRE:



Pre Development

NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

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Page 6

Summary for Subcatchment PRE:

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

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

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

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

Pre Development

NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

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

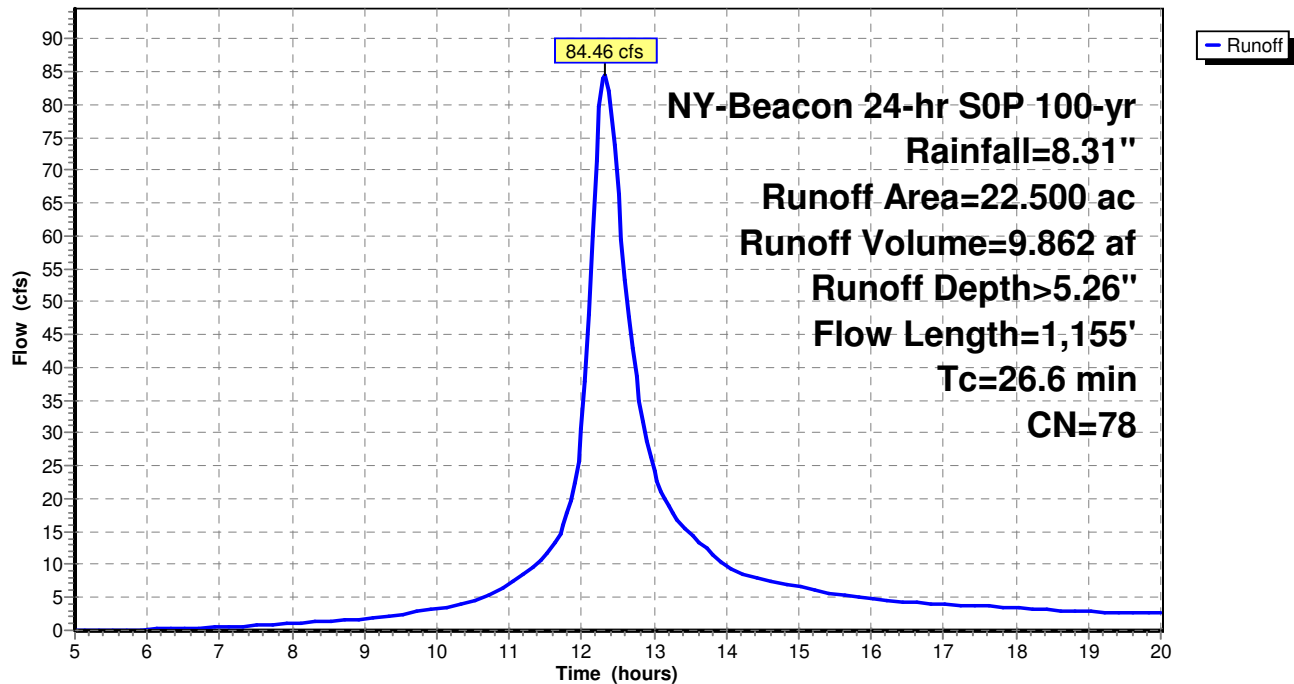
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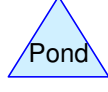
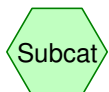
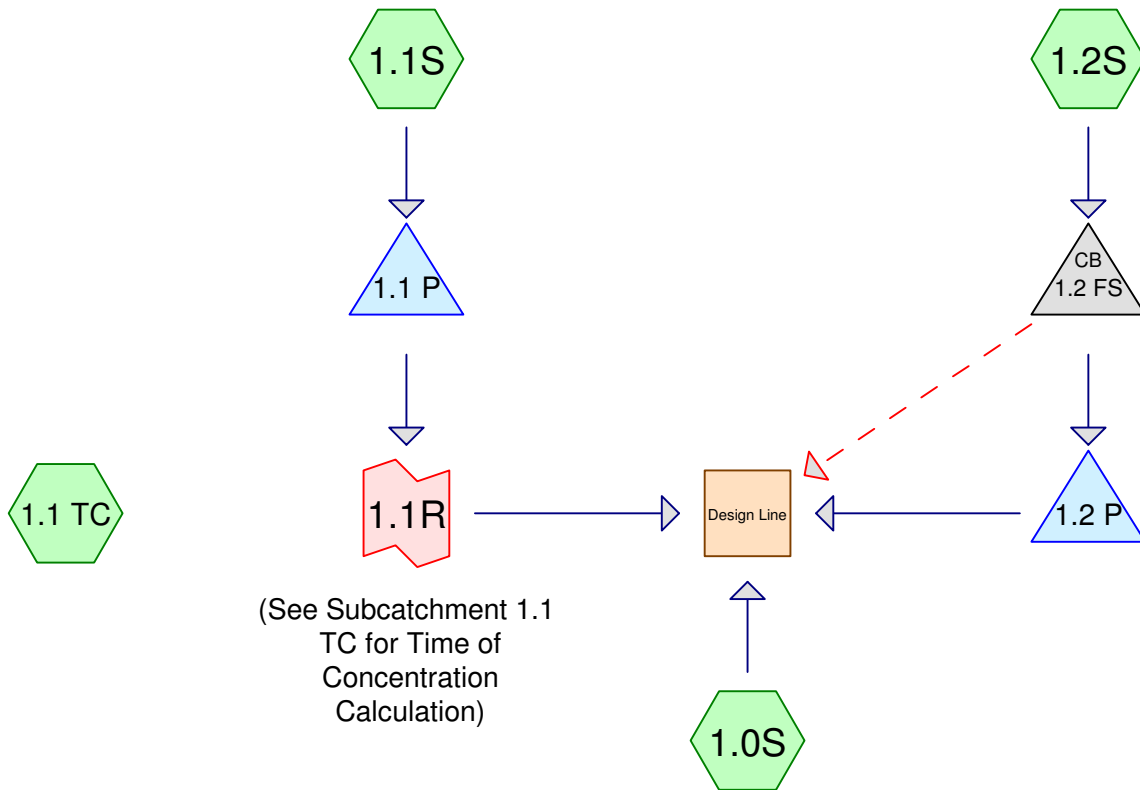
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Subcatchment PRE:

Hydrograph



APPENDIX C
Post-Development Computer Data



Post Development

NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

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Summary for Subcatchment 1.0S:

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

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

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

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

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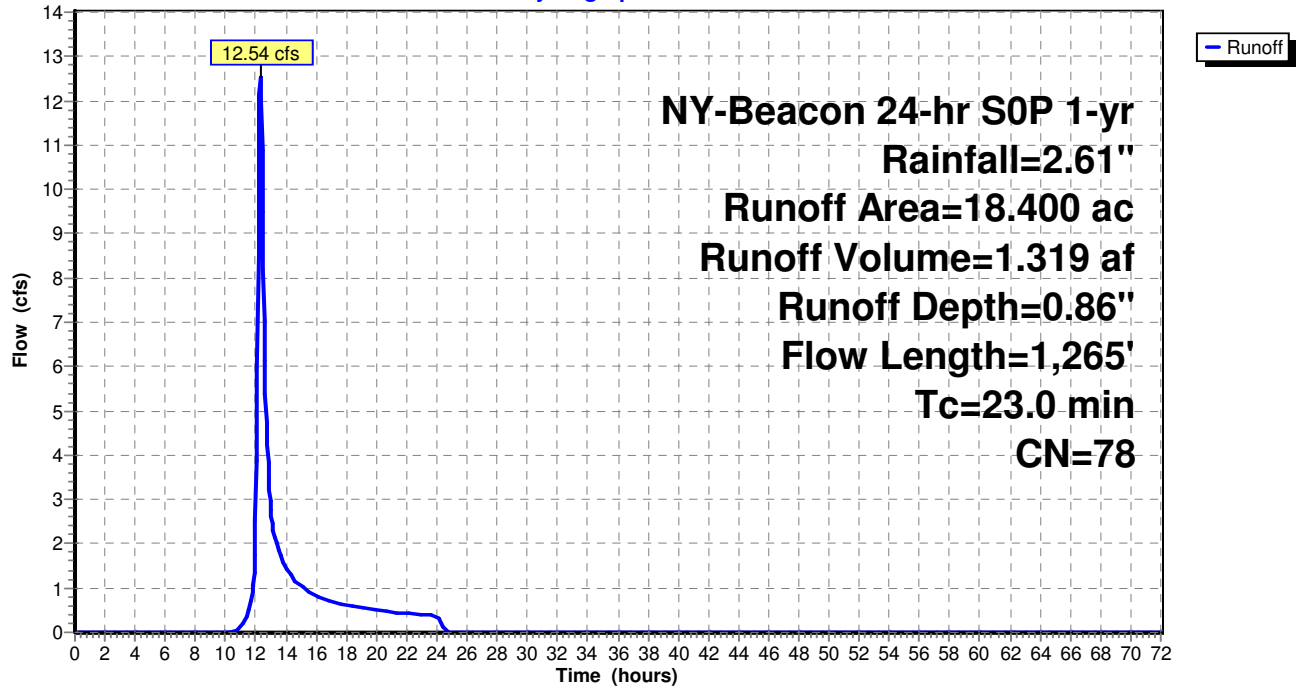
NY-Beacon 24-hr SOP 1-yr Rainfall=2.61"

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Subcatchment 1.0S:

Hydrograph



Post Development

NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

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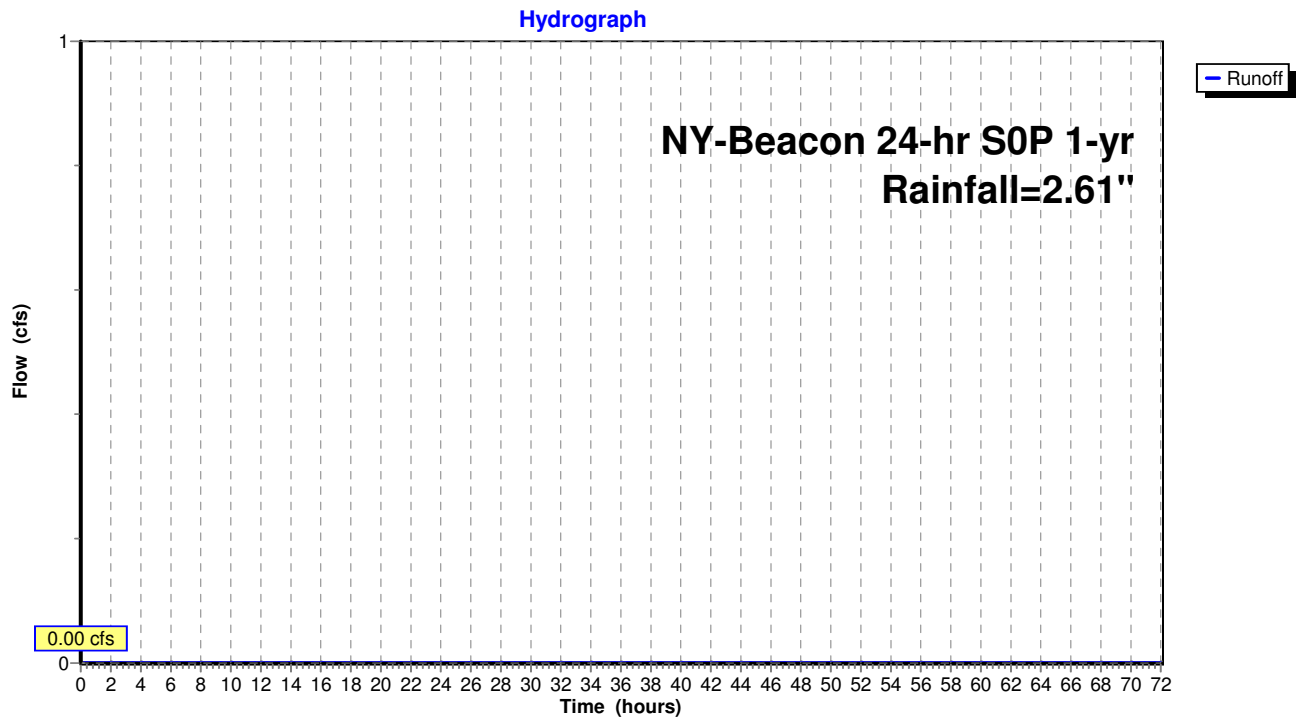
Summary for Subcatchment 1.1 TC:

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

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

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

Subcatchment 1.1 TC:



Post Development

NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

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Summary for Subcatchment 1.1S:

Runoff = 10.31 cfs @ 12.00 hrs, Volume= 0.531 af, Depth= 1.80"

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

Area (ac)	CN	Description
2.350	98	Paved parking, HSG D
1.200	80	>75% Grass cover, Good, HSG D
3.550	92	Weighted Average
1.200		33.80% Pervious Area
2.350		66.20% Impervious Area

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

Post Development

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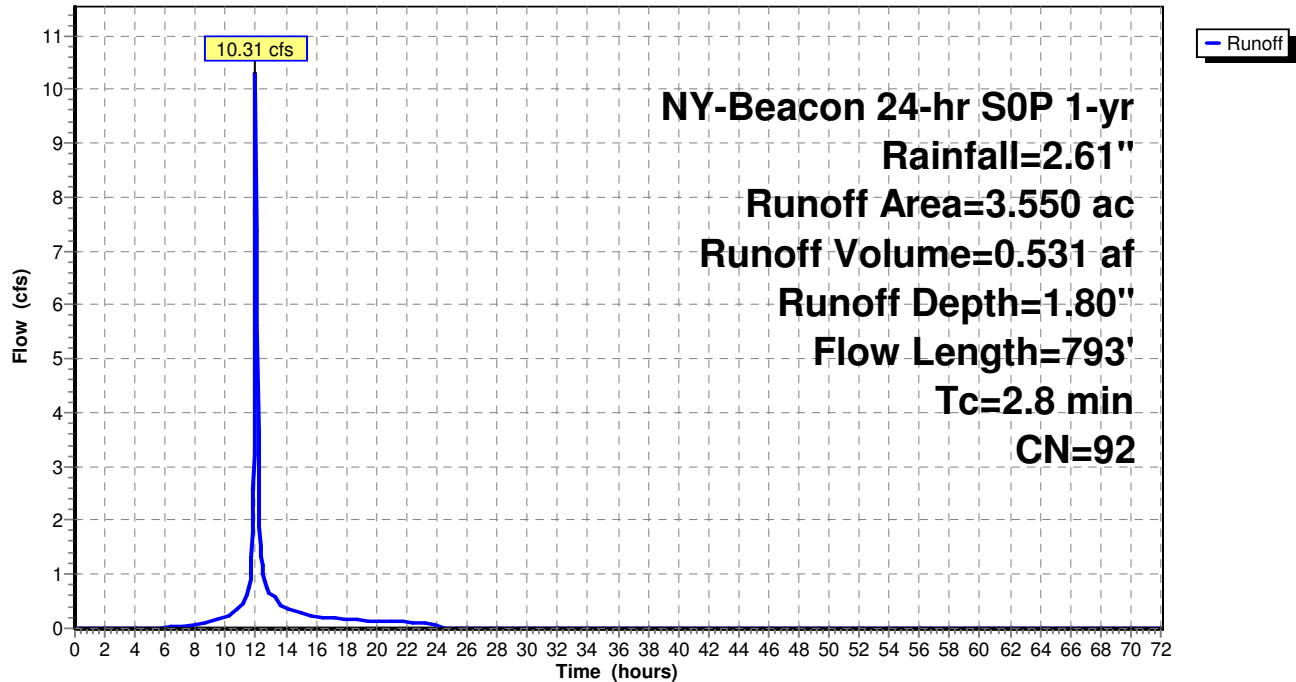
NY-Beacon 24-hr SOP 1-yr Rainfall=2.61"

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Subcatchment 1.1S:

Hydrograph



Post Development

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NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

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Summary for Subcatchment 1.2S:

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

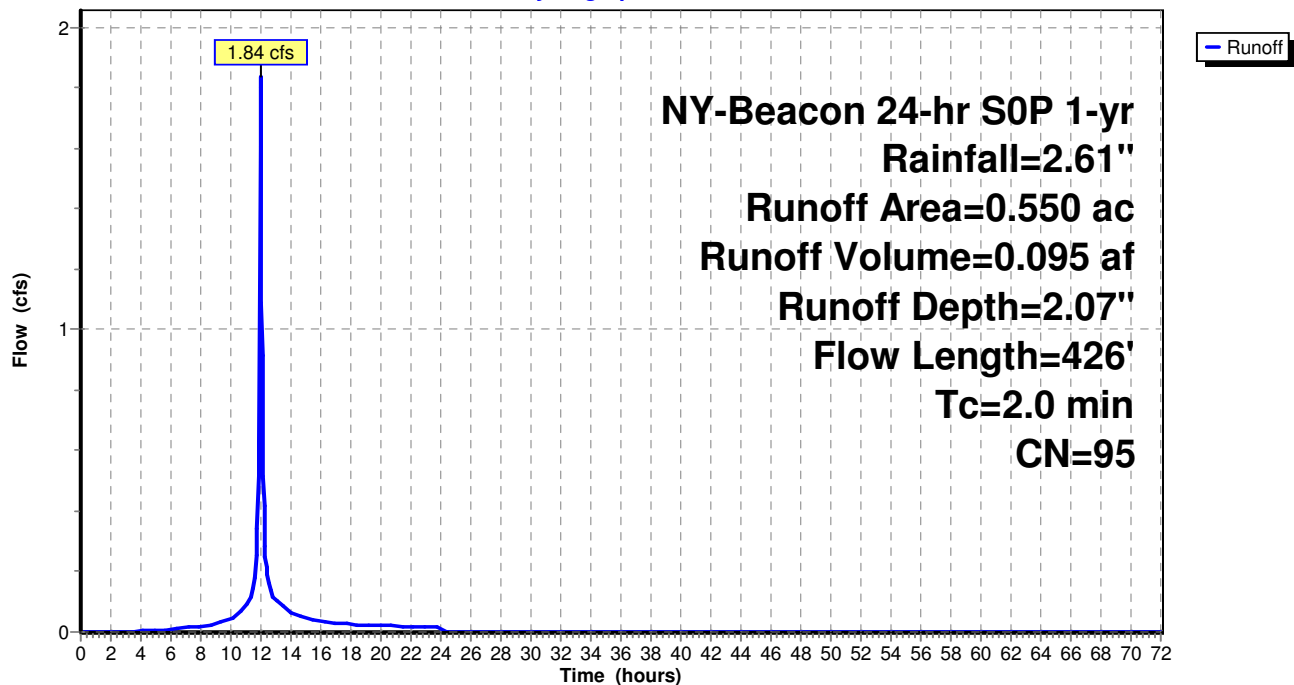
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

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

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

Subcatchment 1.2S:

Hydrograph



Post Development

NY-Beacon 24-hr SOP 1-yr Rainfall=2.61"

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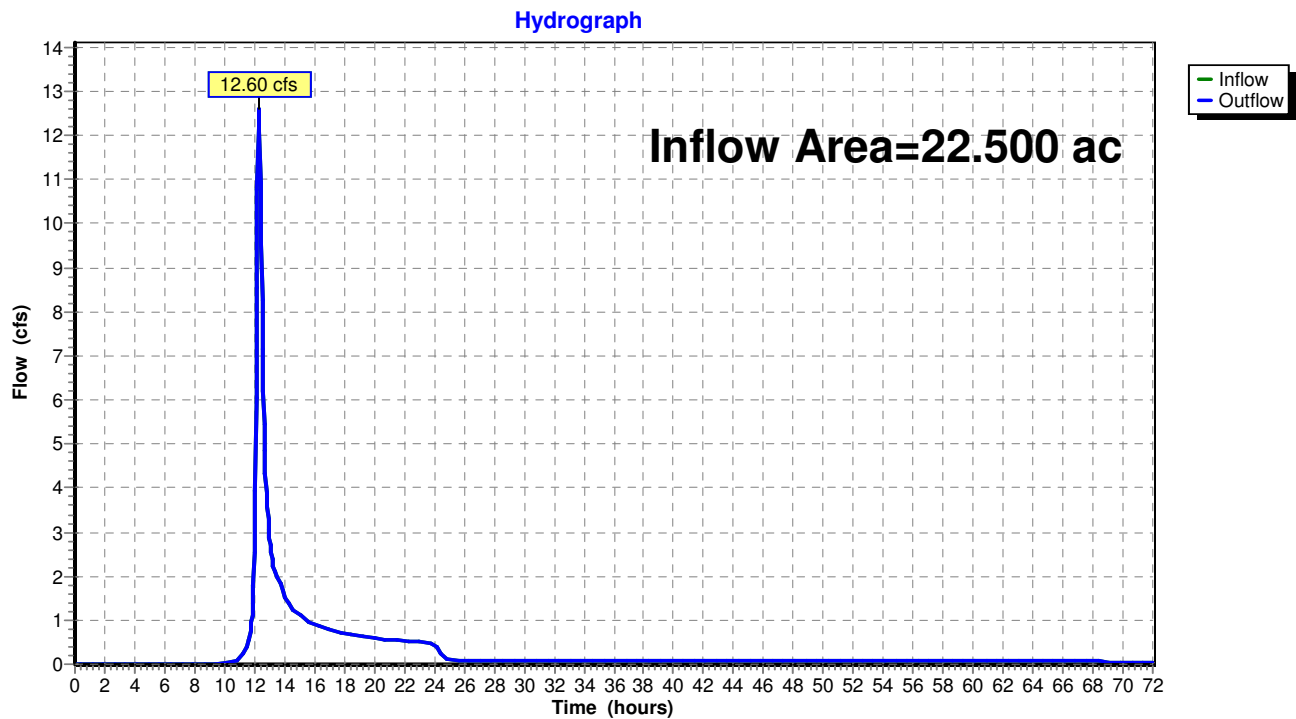
Page 8

Summary for Reach Design Line:

Inflow Area = 22.500 ac, 14.67% Impervious, Inflow Depth > 0.93" for 1-yr event
Inflow = 12.60 cfs @ 12.30 hrs, Volume= 1.737 af
Outflow = 12.60 cfs @ 12.30 hrs, Volume= 1.737 af, Atten= 0%, Lag= 0.0 min

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

Reach Design Line:



Post Development

NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

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Summary for Pond 1.1 P:

Inflow Area = 3.550 ac, 66.20% Impervious, Inflow Depth = 1.80" for 1-yr event
Inflow = 10.31 cfs @ 12.00 hrs, Volume= 0.531 af
Outflow = 0.11 cfs @ 23.08 hrs, Volume= 0.420 af, Atten= 99%, Lag= 665.1 min
Primary = 0.11 cfs @ 23.08 hrs, Volume= 0.420 af

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

Starting Elev= 180.00' Surf.Area= 7,640 sf Storage= 10,715 cf

Peak Elev= 182.22' @ 23.08 hrs Surf.Area= 13,499 sf Storage= 29,210 cf (18,495 cf above start)

Flood Elev= 184.50' Surf.Area= 19,225 sf Storage= 60,459 cf (49,744 cf above start)

Plug-Flow detention time= 2,709.8 min calculated for 0.174 af (33% of inflow)

Center-of-Mass det. time= 1,511.7 min (2,320.7 - 809.1)

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

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

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

Device	Routing	Invert	Outlet Devices
#1	Primary	179.00'	24.0" Round Culvert L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 179.00' / 178.50' S= 0.0135 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	180.00'	1.6" Vert. Orifice/Grate C= 0.600
#3	Device 1	182.20'	1.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.11 cfs @ 23.08 hrs HW=182.22' TW=0.00' (Dynamic Tailwater)

1=Culvert (Passes 0.11 cfs of 22.54 cfs potential flow)

2=Orifice/Grate (Orifice Controls 0.10 cfs @ 7.07 fps)

3=Broad-Crested Rectangular Weir (Weir Controls 0.01 cfs @ 0.41 fps)

Post Development

NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

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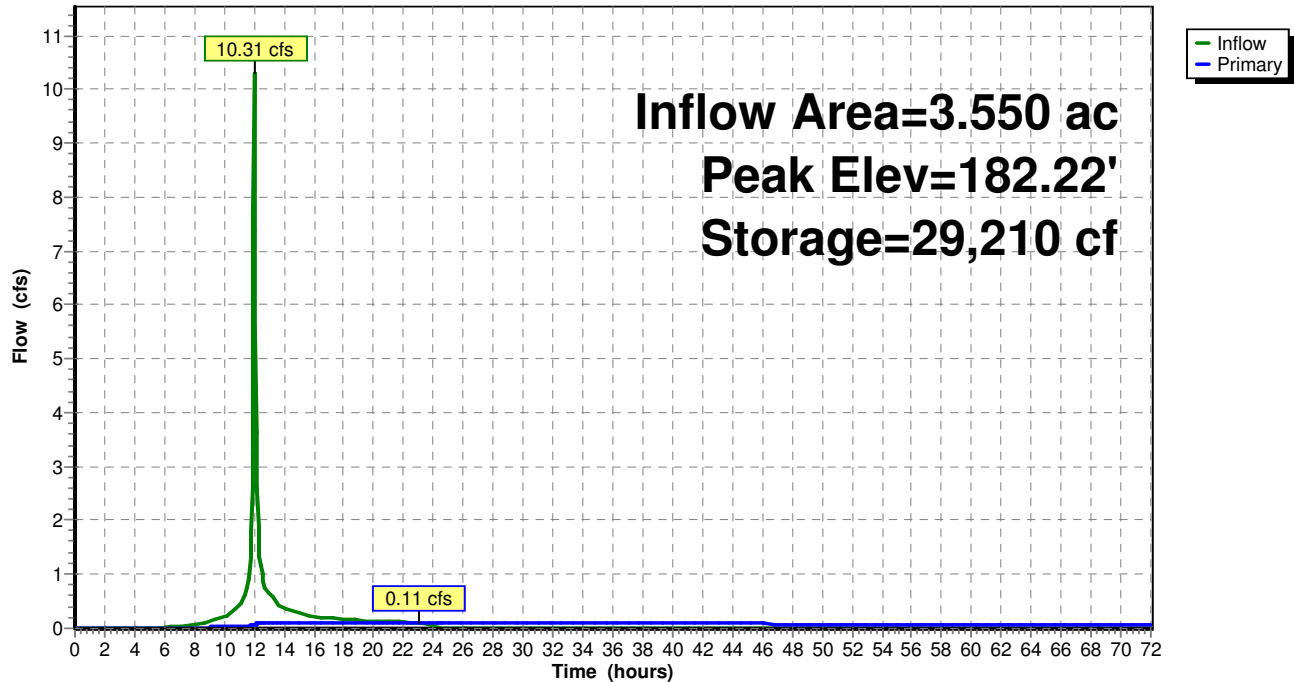
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Pond 1.1 P:

Hydrograph



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NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

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Stage-Area-Storage for Pond 1.1 P:

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

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NY-Beacon 24-hr SOP 1-yr Rainfall=2.61"

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Summary for Pond 1.2 FS:

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

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

Peak Elev= 186.21' @ 11.99 hrs

Flood Elev= 187.70'

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

Primary OutFlow Max=1.75 cfs @ 11.99 hrs HW=186.11' TW=182.48' (Dynamic Tailwater)

↑**1=Culvert** (Inlet Controls 1.75 cfs @ 5.00 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=184.70' TW=0.00' (Dynamic Tailwater)

↑**2=Culvert** (Controls 0.00 cfs)

↑**3=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Post Development

NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

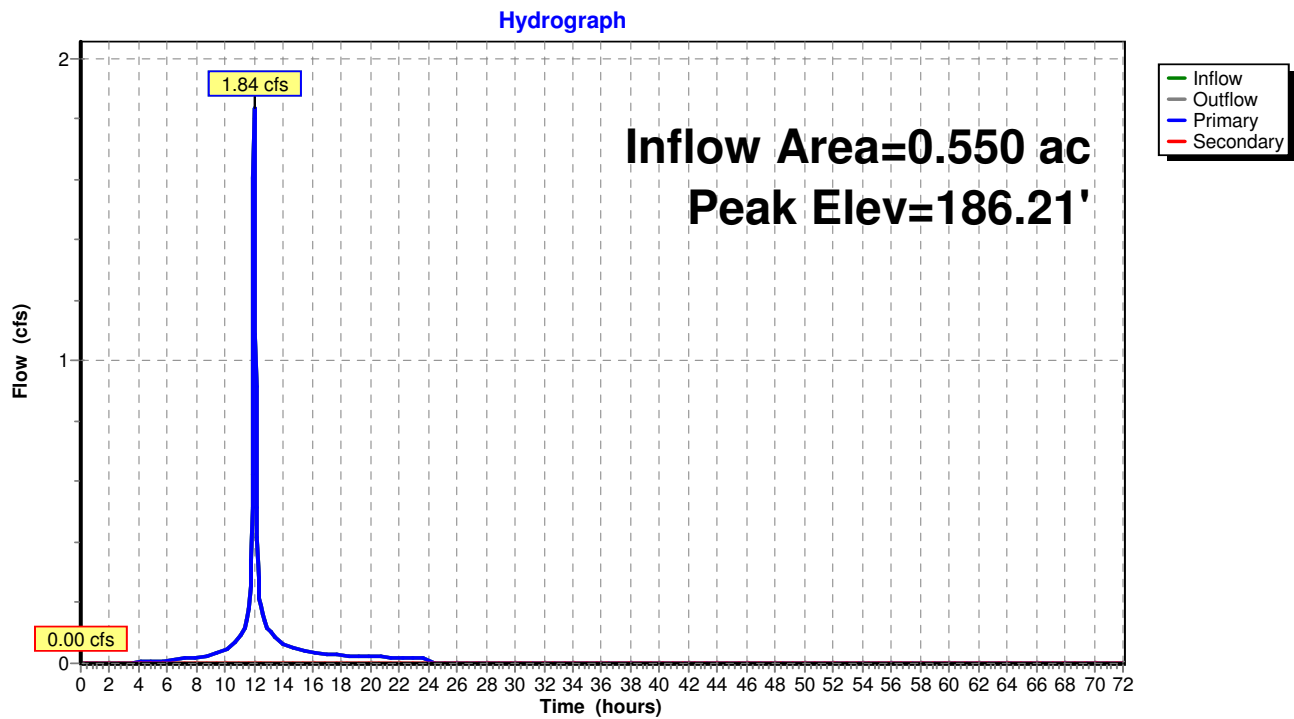
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Pond 1.2 FS:



Post Development

NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

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Stage-Area-Storage for Pond 1.2 FS:

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

Post Development

NY-Beacon 24-hr SOP 1-yr Rainfall=2.61"

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Summary for Pond 1.2 P:

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

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

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

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

Storage Group A created with Chamber Wizard

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

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

↑ **1=Exfiltration** (Exfiltration Controls 0.64 cfs)

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

↑ **2=Culvert** (Controls 0.00 cfs)

Post Development

NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"

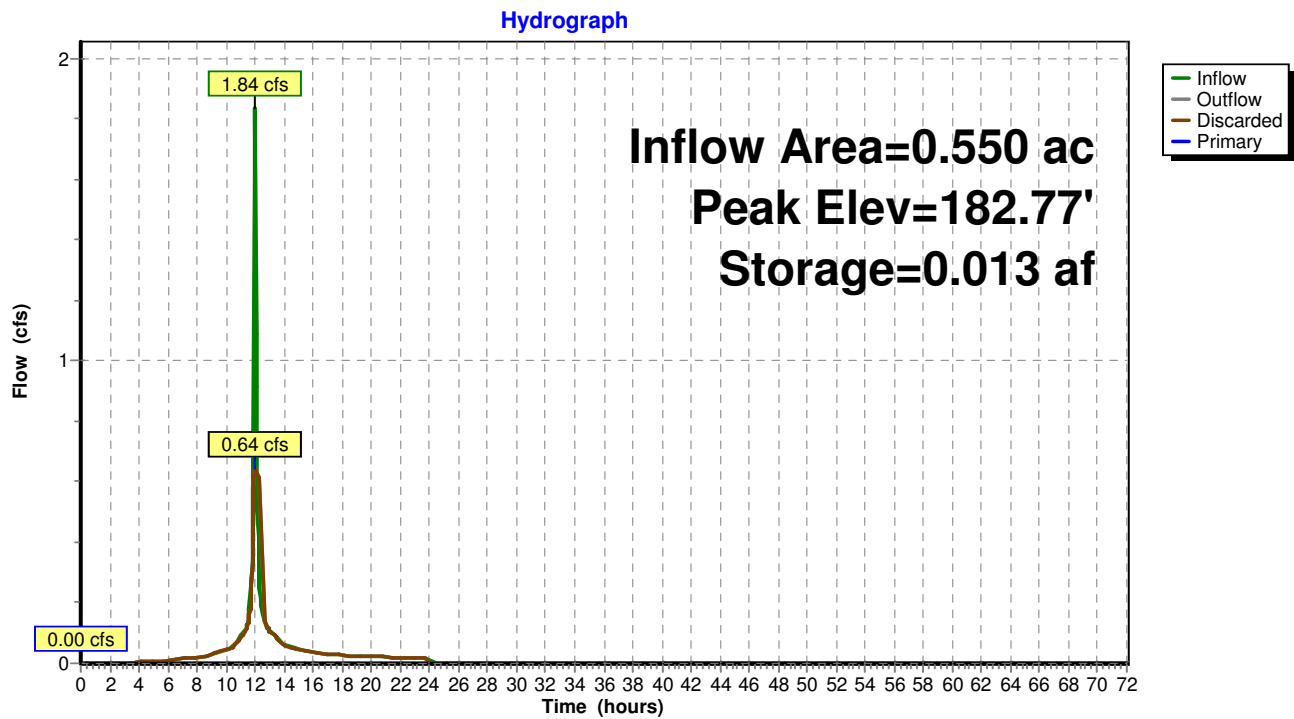
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Pond 1.2 P:



Post Development*NY-Beacon 24-hr S0P 1-yr Rainfall=2.61"*

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Stage-Area-Storage for Pond 1.2 P:

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

Post Development

NY-Beacon 24-hr SOP 1-yr Rainfall=2.61"

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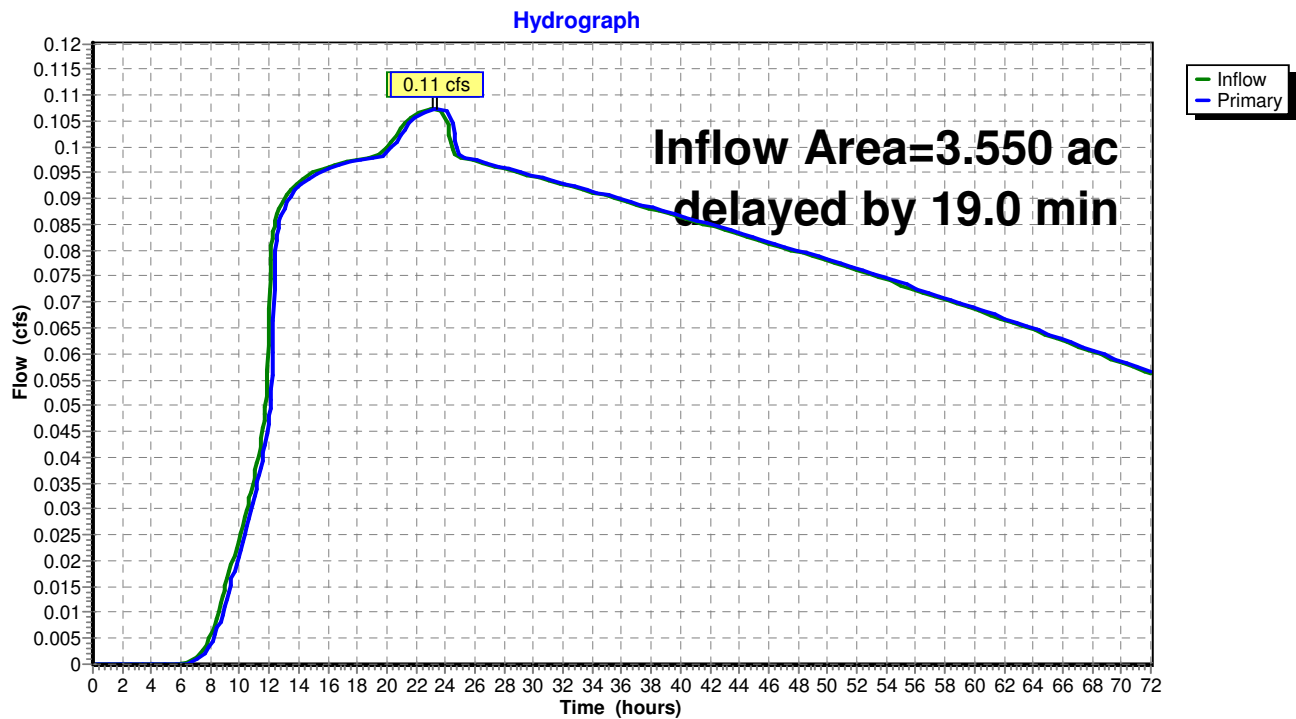
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Summary for Link 1.1R: (See Subcatchment 1.1 TC for Time of Concentration Calculation)

Inflow Area = 3.550 ac, 66.20% Impervious, Inflow Depth > 1.42" for 1-yr event
Inflow = 0.11 cfs @ 23.08 hrs, Volume= 0.420 af
Primary = 0.11 cfs @ 23.40 hrs, Volume= 0.418 af, Atten= 0%, Lag= 19.0 min

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

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



Post Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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Summary for Subcatchment 1.0S:

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

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

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

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

Post Development

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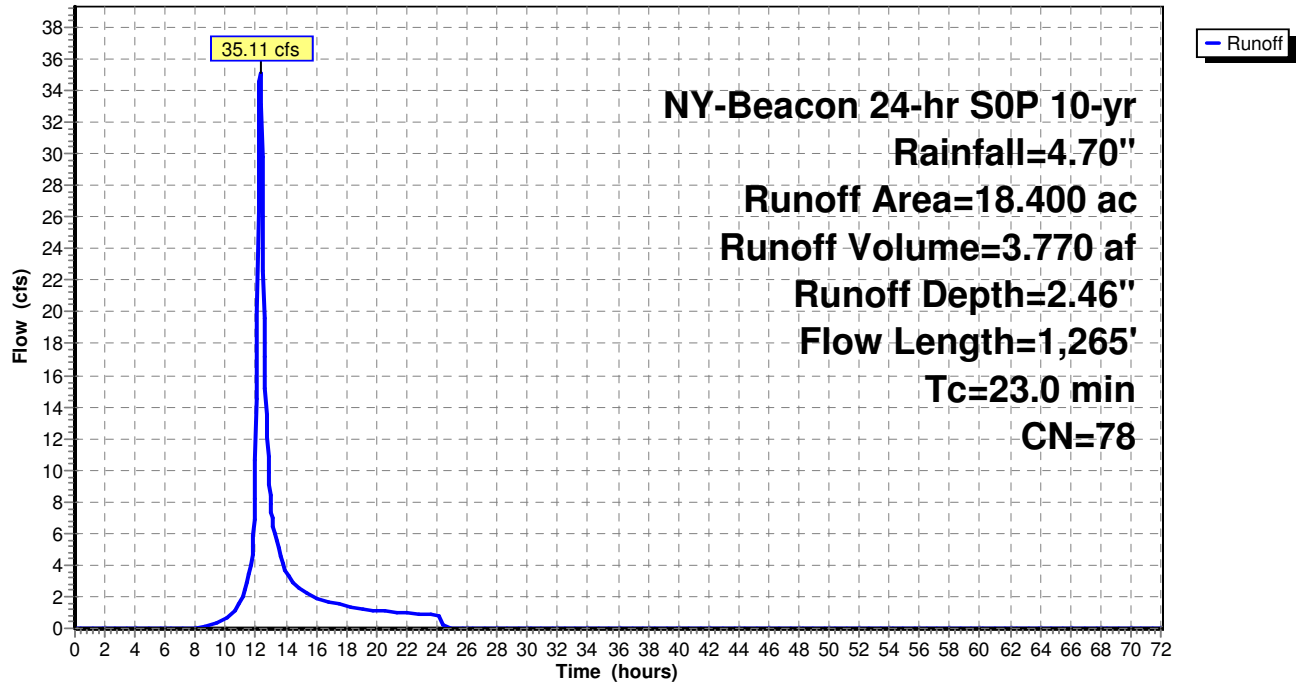
NY-Beacon 24-hr SOP 10-yr Rainfall=4.70"

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Subcatchment 1.0S:

Hydrograph



Post Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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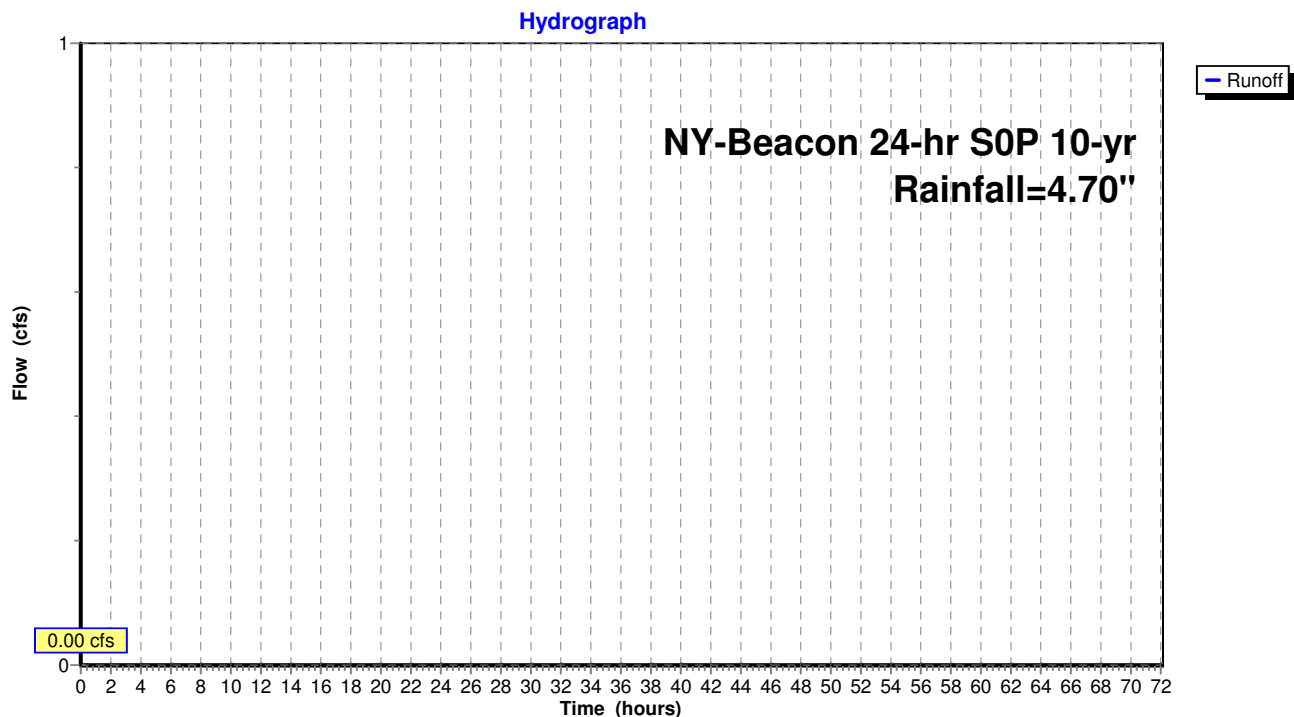
Summary for Subcatchment 1.1 TC:

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

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

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

Subcatchment 1.1 TC:



Post Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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Summary for Subcatchment 1.1S:

Runoff = 18.32 cfs @ 12.00 hrs, Volume= 1.123 af, Depth= 3.80"

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

Area (ac)	CN	Description
2.350	98	Paved parking, HSG D
1.200	80	>75% Grass cover, Good, HSG D
3.550	92	Weighted Average
1.200		33.80% Pervious Area
2.350		66.20% Impervious Area

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

Post Development

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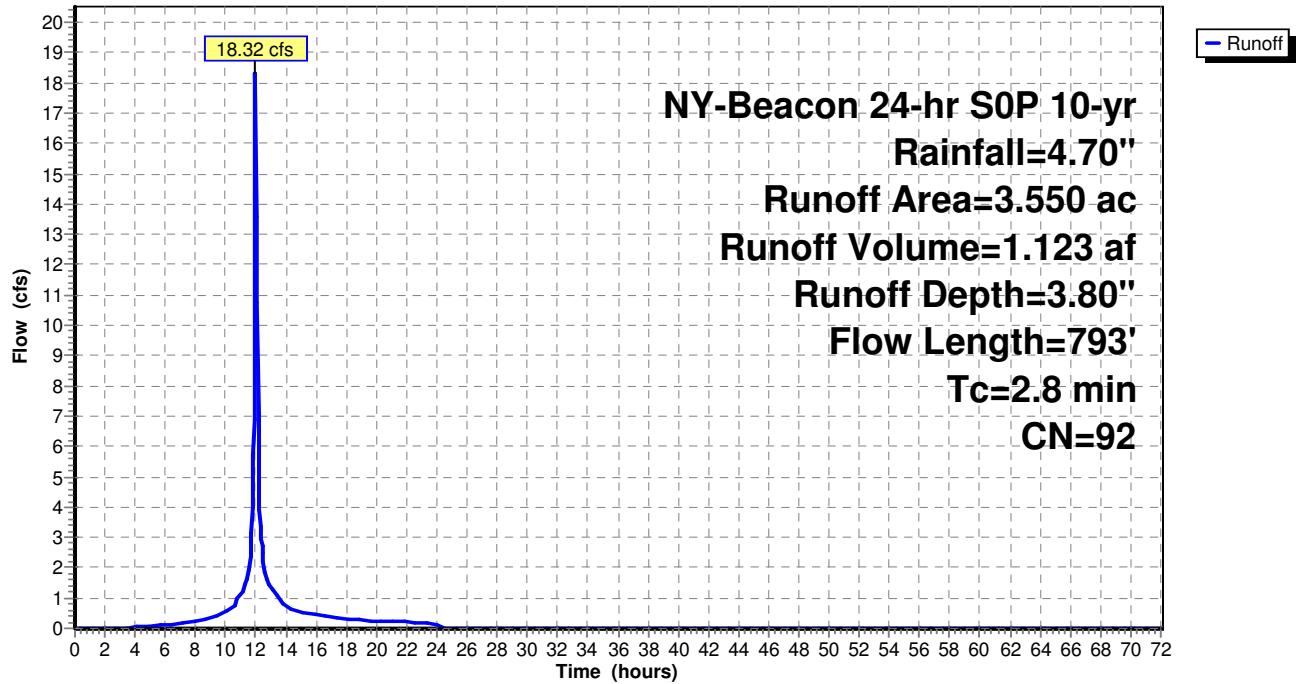
NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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Subcatchment 1.1S:

Hydrograph



Post Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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Summary for Subcatchment 1.2S:

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

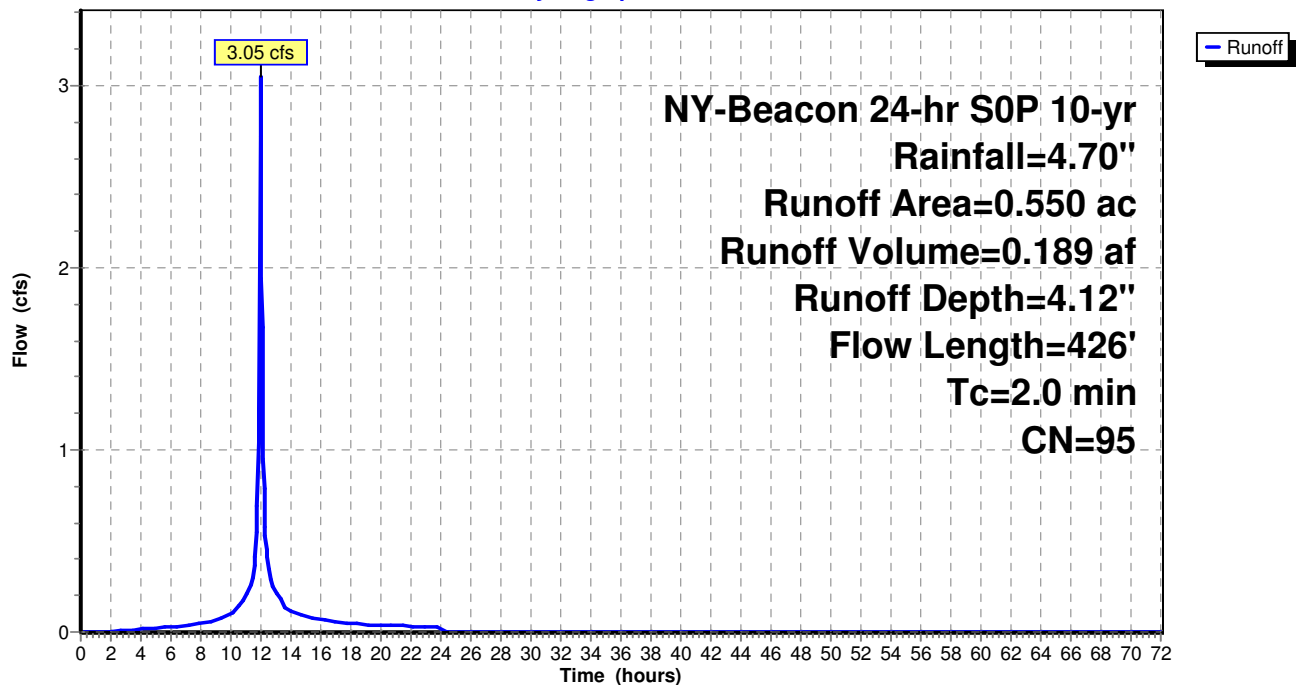
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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

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

Subcatchment 1.2S:

Hydrograph



Post Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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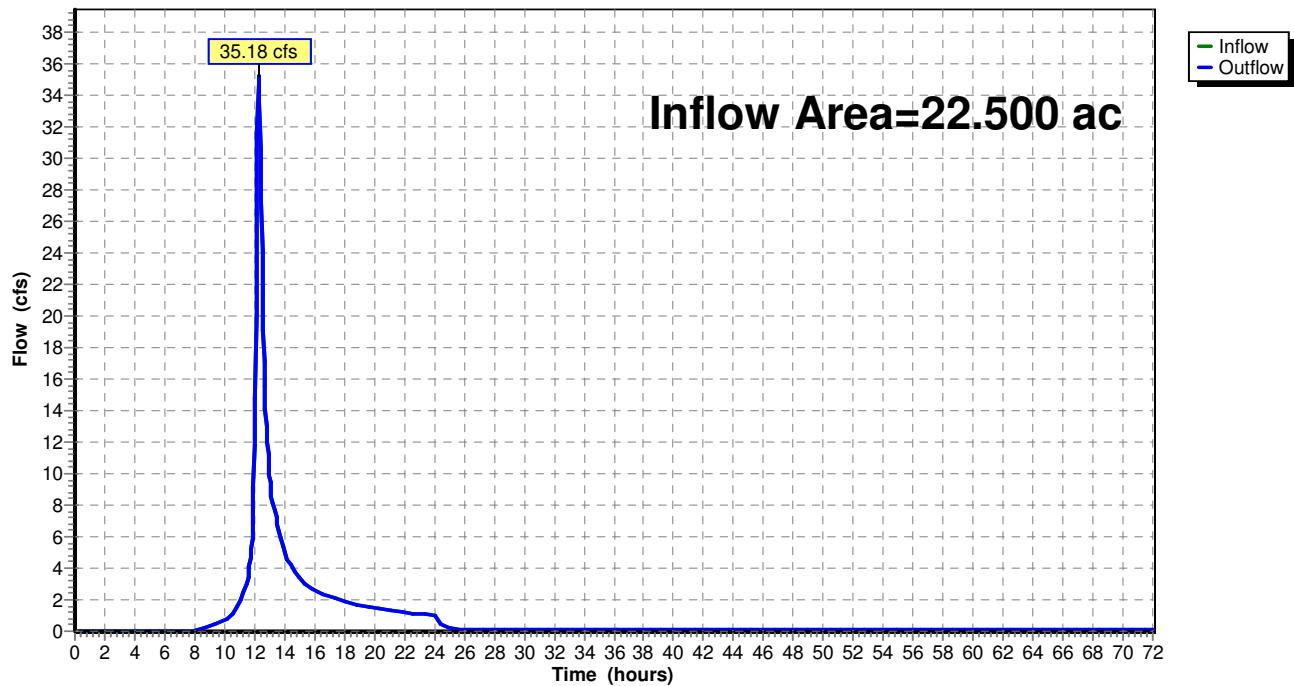
Summary for Reach Design Line:

Inflow Area = 22.500 ac, 14.67% Impervious, Inflow Depth > 2.55" for 10-yr event
Inflow = 35.18 cfs @ 12.29 hrs, Volume= 4.779 af
Outflow = 35.18 cfs @ 12.29 hrs, Volume= 4.779 af, Atten= 0%, Lag= 0.0 min

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

Reach Design Line:

Hydrograph



Post Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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Summary for Pond 1.1 P:

Inflow Area = 3.550 ac, 66.20% Impervious, Inflow Depth = 3.80" for 10-yr event
Inflow = 18.32 cfs @ 12.00 hrs, Volume= 1.123 af
Outflow = 2.11 cfs @ 12.55 hrs, Volume= 1.002 af, Atten= 88%, Lag= 33.1 min
Primary = 2.11 cfs @ 12.55 hrs, Volume= 1.002 af

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

Starting Elev= 180.00' Surf.Area= 7,640 sf Storage= 10,715 cf

Peak Elev= 182.93' @ 12.55 hrs Surf.Area= 14,995 sf Storage= 37,641 cf (26,926 cf above start)

Flood Elev= 184.50' Surf.Area= 19,225 sf Storage= 60,459 cf (49,744 cf above start)

Plug-Flow detention time= 1,085.8 min calculated for 0.756 af (67% of inflow)

Center-of-Mass det. time= 731.9 min (1,516.9 - 785.0)

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

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

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

Device	Routing	Invert	Outlet Devices
#1	Primary	179.00'	24.0" Round Culvert L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 179.00' / 178.50' S= 0.0135 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	180.00'	1.6" Vert. Orifice/Grate C= 0.600
#3	Device 1	182.20'	1.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=2.11 cfs @ 12.55 hrs HW=182.93' TW=0.00' (Dynamic Tailwater)

1=Culvert (Passes 2.11 cfs of 25.88 cfs potential flow)

2=Orifice/Grate (Orifice Controls 0.11 cfs @ 8.14 fps)

3=Broad-Crested Rectangular Weir (Weir Controls 2.00 cfs @ 2.74 fps)

Post Development

NY-Beacon 24-hr SOP 10-yr Rainfall=4.70"

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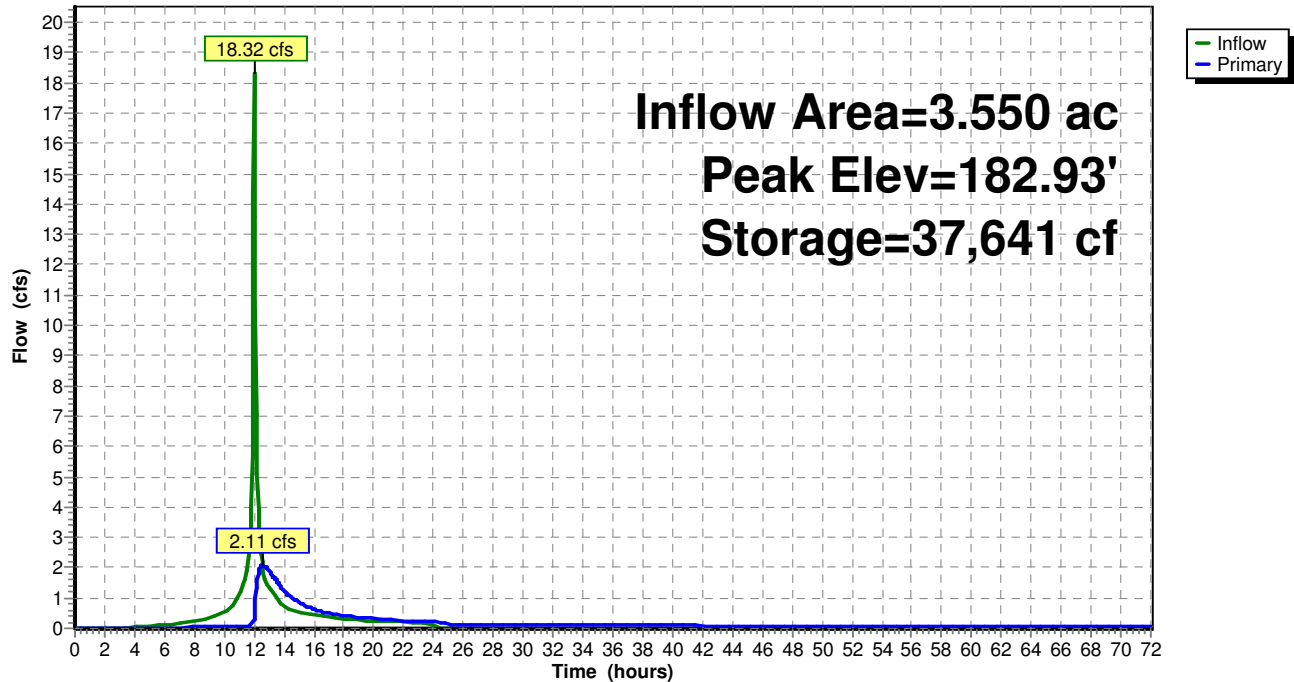
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Pond 1.1 P:

Hydrograph



Post Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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Stage-Area-Storage for Pond 1.1 P:

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

Post Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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Summary for Pond 1.2 FS:

Inflow Area = 0.550 ac, 81.82% Impervious, Inflow Depth = 4.12" for 10-yr event
Inflow = 3.05 cfs @ 11.99 hrs, Volume= 0.189 af
Outflow = 3.05 cfs @ 11.99 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min
Primary = 1.97 cfs @ 11.98 hrs, Volume= 0.181 af
Secondary = 1.07 cfs @ 11.99 hrs, Volume= 0.008 af

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

Peak Elev= 186.41' @ 11.98 hrs

Flood Elev= 187.70'

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

Primary OutFlow Max=1.96 cfs @ 11.98 hrs HW=186.39' TW=182.73' (Dynamic Tailwater)

↑ **1=Culvert** (Inlet Controls 1.96 cfs @ 5.61 fps)

Secondary OutFlow Max=0.95 cfs @ 11.99 hrs HW=186.39' TW=0.00' (Dynamic Tailwater)

↑ **2=Culvert** (Passes 0.95 cfs of 4.13 cfs potential flow)

↑ **3=Broad-Crested Rectangular Weir** (Weir Controls 0.95 cfs @ 1.23 fps)

Post Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

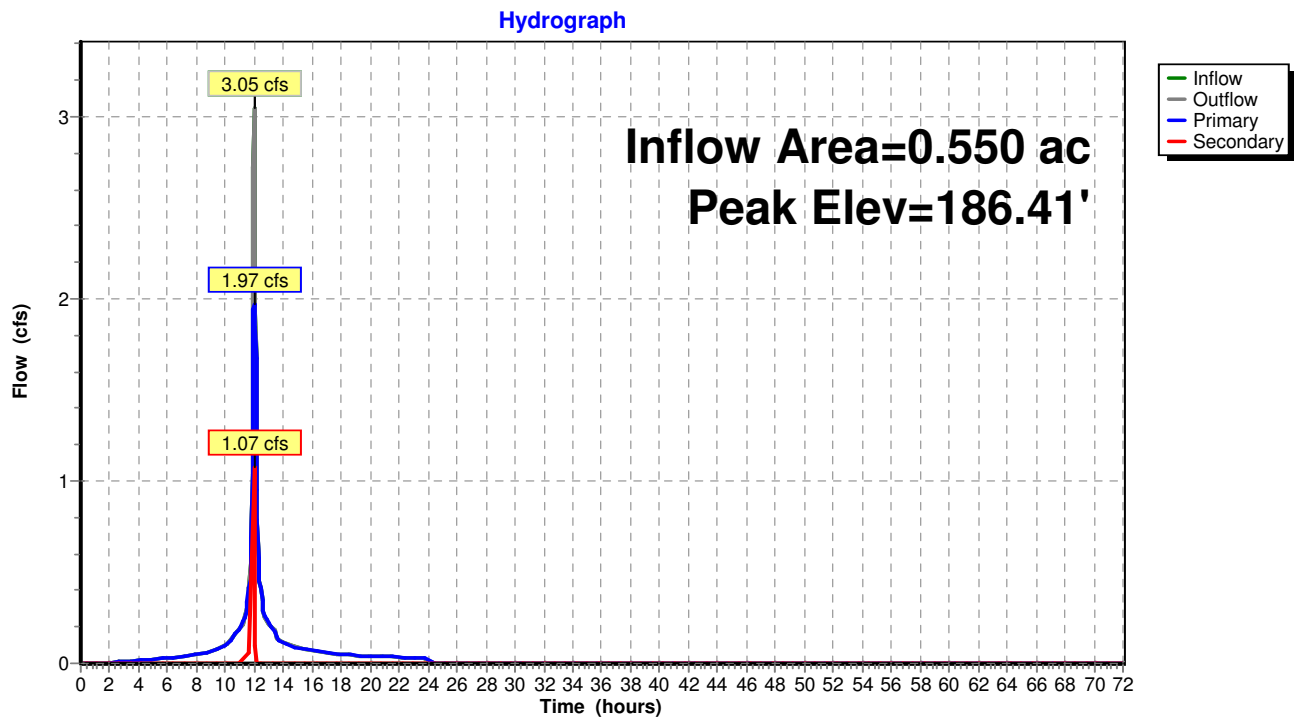
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Pond 1.2 FS:



Post Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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Stage-Area-Storage for Pond 1.2 FS:

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

Post Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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Summary for Pond 1.2 P:

Inflow Area = 0.550 ac, 81.82% Impervious, Inflow Depth = 3.95" for 10-yr event
Inflow = 1.97 cfs @ 11.98 hrs, Volume= 0.181 af
Outflow = 0.64 cfs @ 11.80 hrs, Volume= 0.181 af, Atten= 67%, Lag= 0.0 min
Discarded = 0.64 cfs @ 11.80 hrs, Volume= 0.181 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 183.37' @ 12.24 hrs Surf.Area= 0.030 ac Storage= 0.027 af

Plug-Flow detention time= 8.1 min calculated for 0.181 af (100% of inflow)
Center-of-Mass det. time= 8.1 min (778.3 - 770.1)

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

Storage Group A created with Chamber Wizard

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

Discarded OutFlow Max=0.64 cfs @ 11.80 hrs HW=182.11' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.64 cfs)

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

↑**2=Culvert** (Controls 0.00 cfs)

Post Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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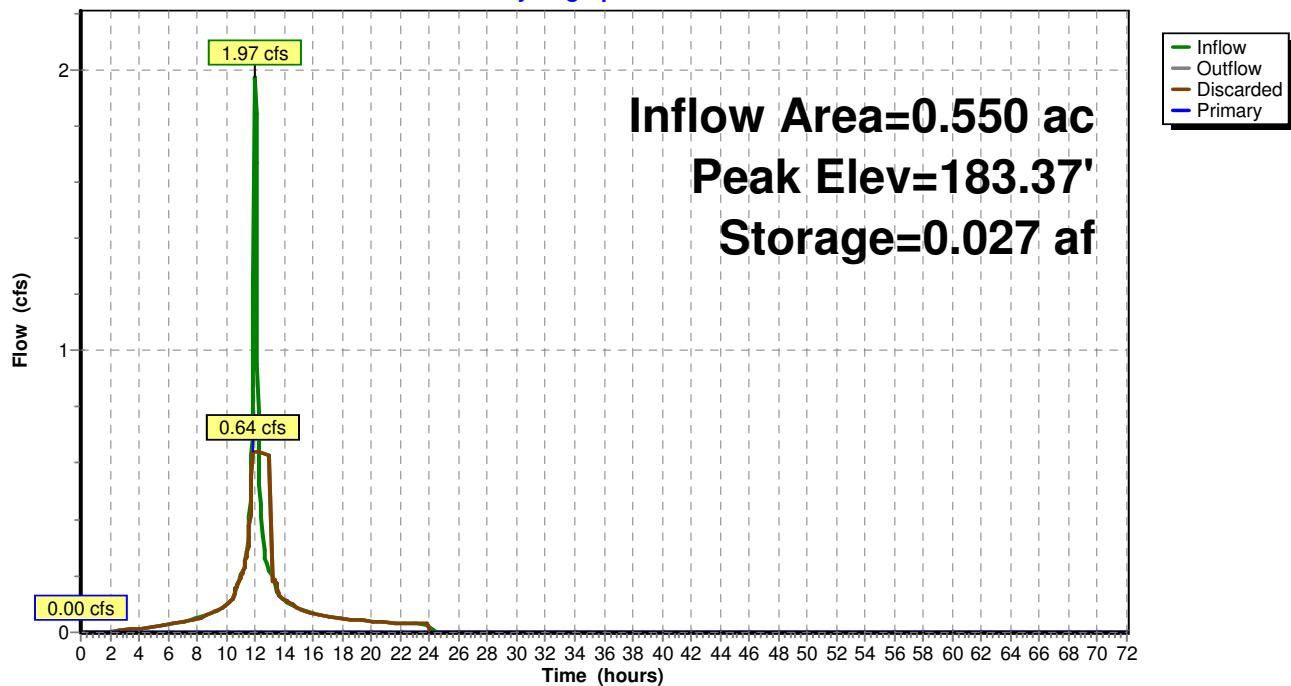
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Pond 1.2 P:

Hydrograph



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NY-Beacon 24-hr SOP 10-yr Rainfall=4.70"

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Stage-Area-Storage for Pond 1.2 P:

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

Post Development

NY-Beacon 24-hr S0P 10-yr Rainfall=4.70"

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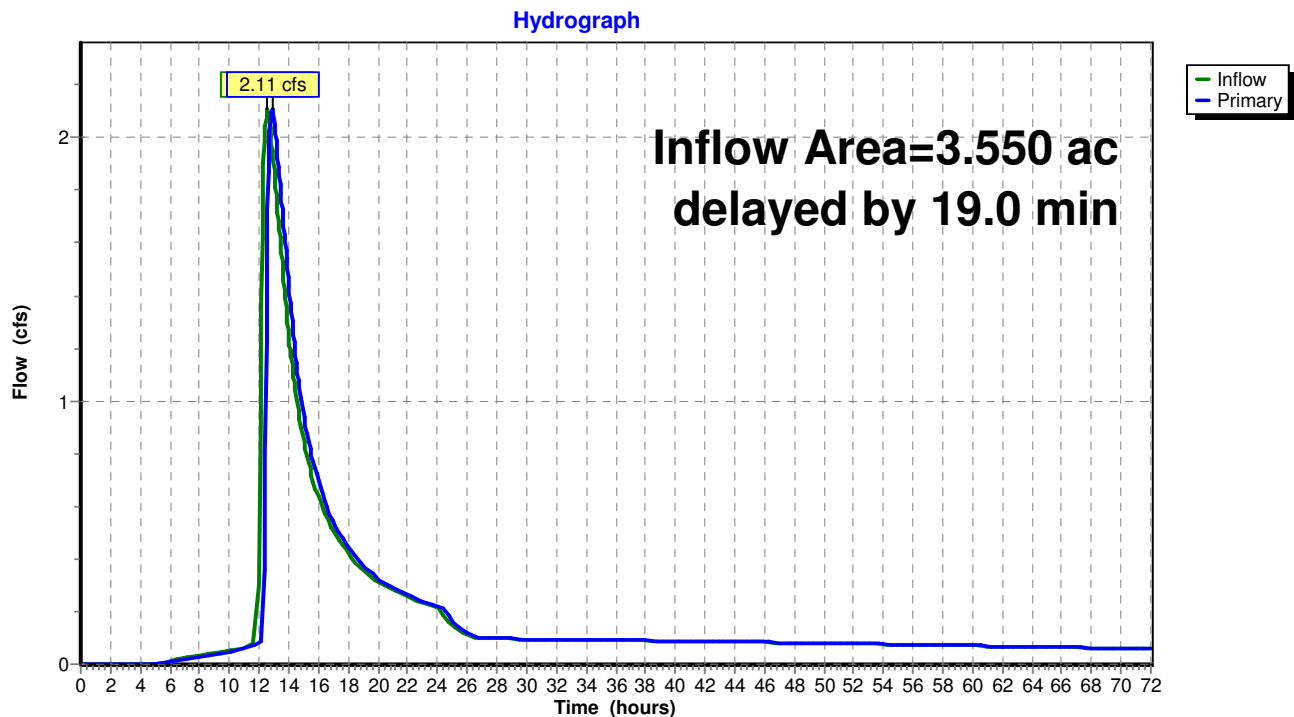
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Summary for Link 1.1R: (See Subcatchment 1.1 TC for Time of Concentration Calculation)

Inflow Area = 3.550 ac, 66.20% Impervious, Inflow Depth > 3.39" for 10-yr event
Inflow = 2.11 cfs @ 12.55 hrs, Volume= 1.002 af
Primary = 2.11 cfs @ 12.87 hrs, Volume= 1.000 af, Atten= 0%, Lag= 19.0 min

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

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



Post Development

NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

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Summary for Subcatchment 1.0S:

Runoff = 73.97 cfs @ 12.28 hrs, Volume= 8.707 af, Depth= 5.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

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

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

Post Development

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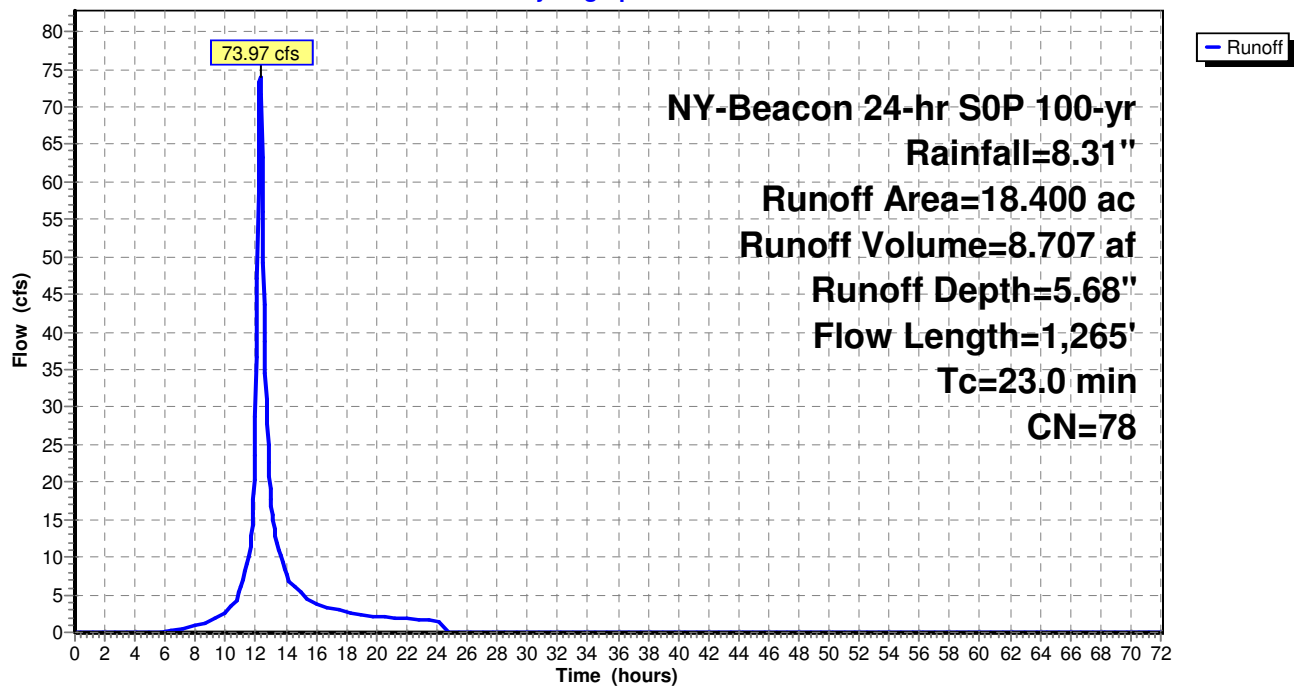
NY-Beacon 24-hr SOP 100-yr Rainfall=8.31"

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Subcatchment 1.0S:

Hydrograph



Post Development

NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

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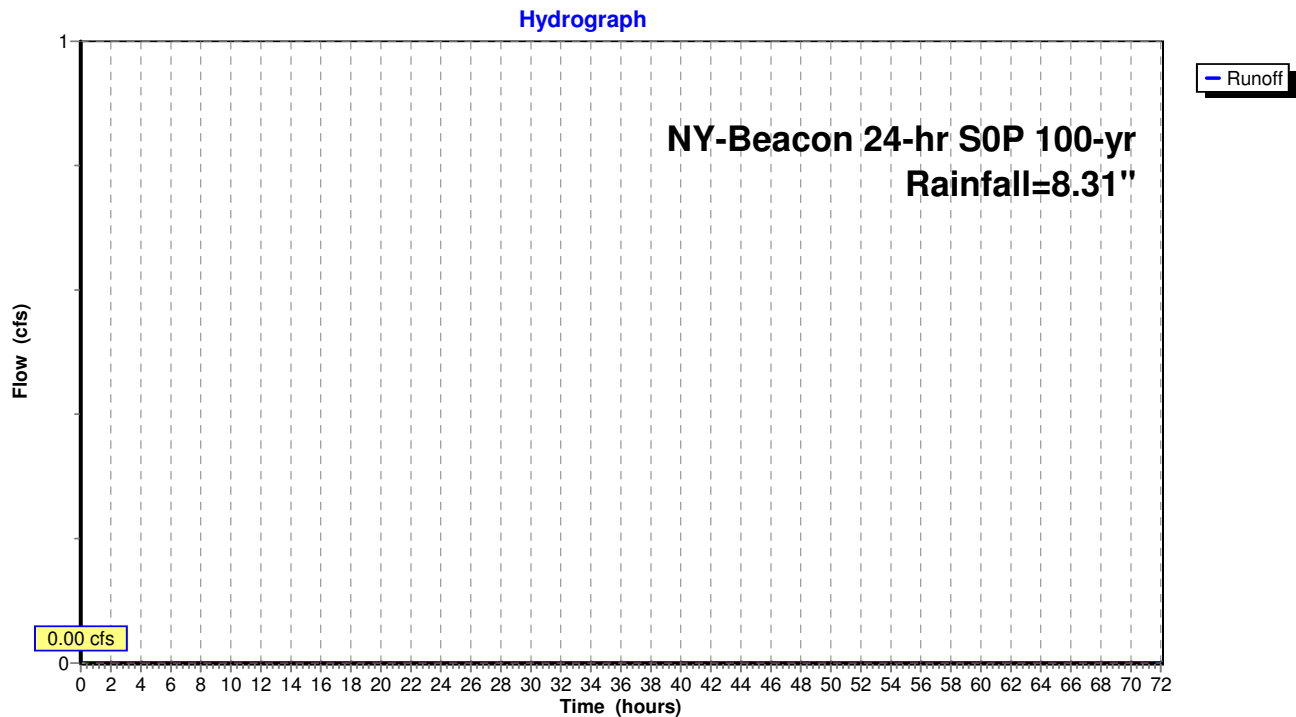
Summary for Subcatchment 1.1 TC:

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

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

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

Subcatchment 1.1 TC:



Post Development

NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

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Summary for Subcatchment 1.1S:

Runoff = 29.54 cfs @ 12.00 hrs, Volume= 2.175 af, Depth= 7.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

Area (ac)	CN	Description
2.350	98	Paved parking, HSG D
1.200	80	>75% Grass cover, Good, HSG D
3.550	92	Weighted Average
1.200		33.80% Pervious Area
2.350		66.20% Impervious Area

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

Post Development

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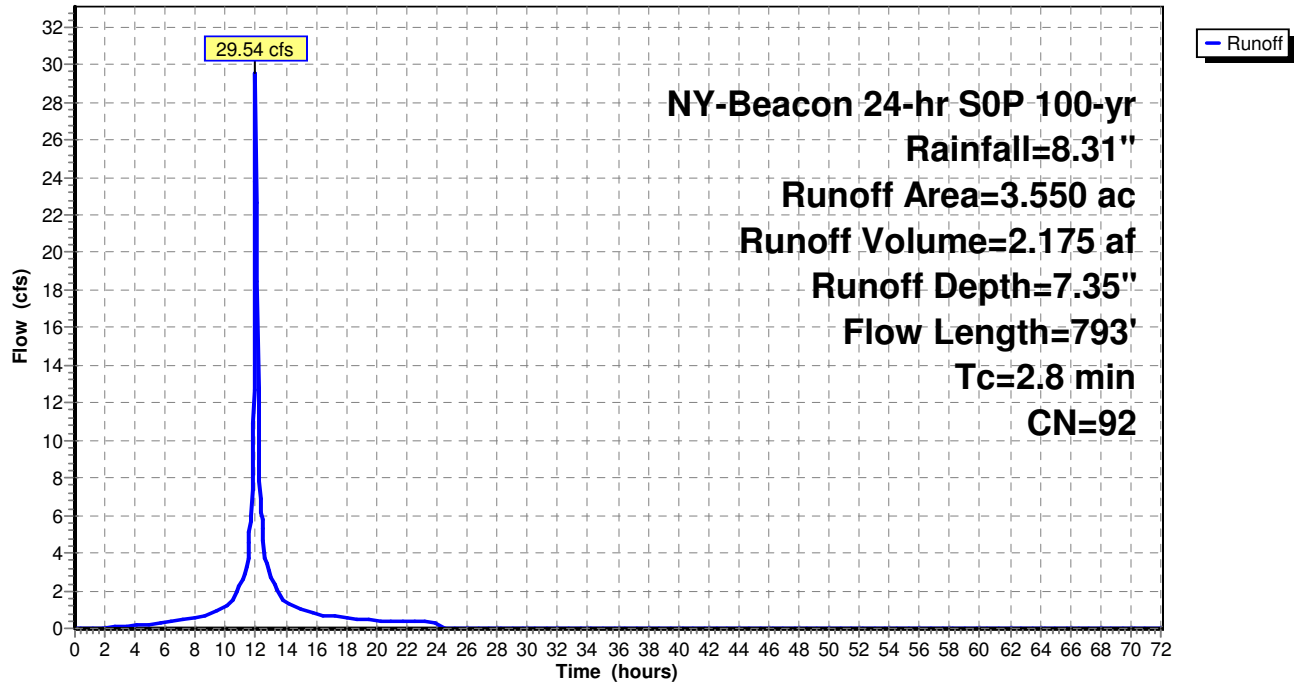
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Subcatchment 1.1S:

Hydrograph



Post Development

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Summary for Subcatchment 1.2S:

Runoff = 4.76 cfs @ 11.99 hrs, Volume= 0.353 af, Depth= 7.71"

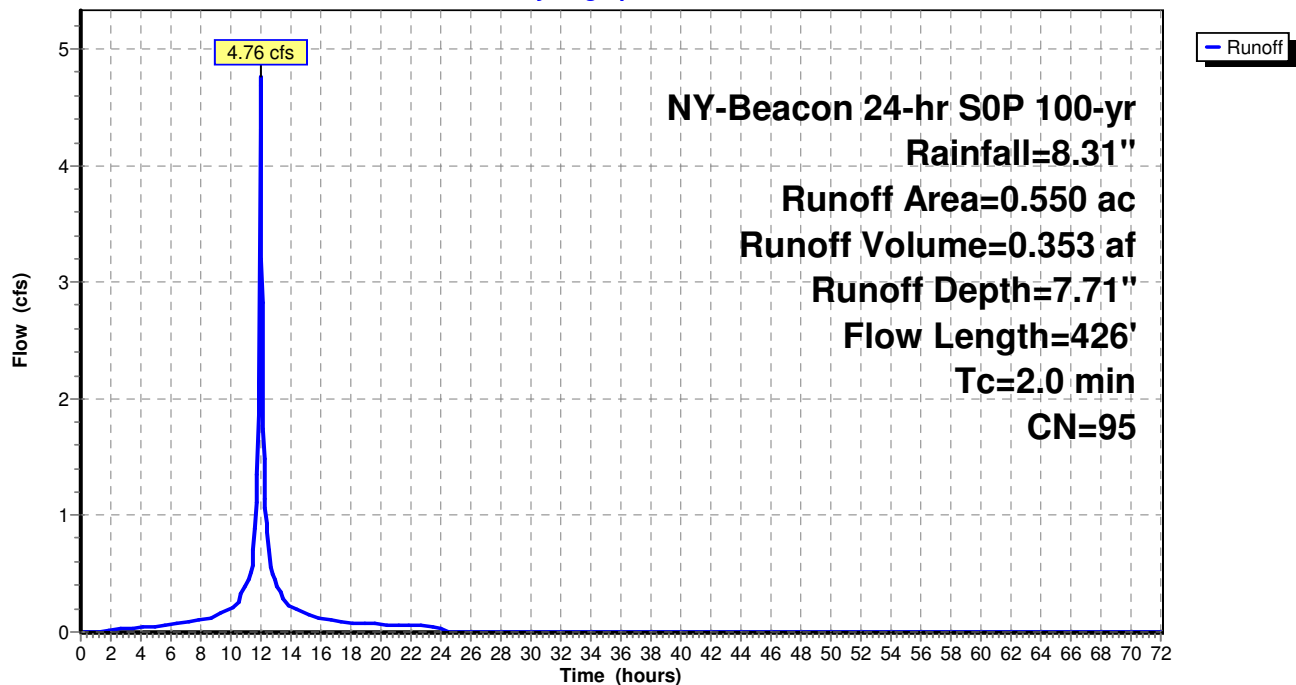
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NY-Beacon 24-hr SOP 100-yr Rainfall=8.31"

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

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

Subcatchment 1.2S:

Hydrograph



Post Development

NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

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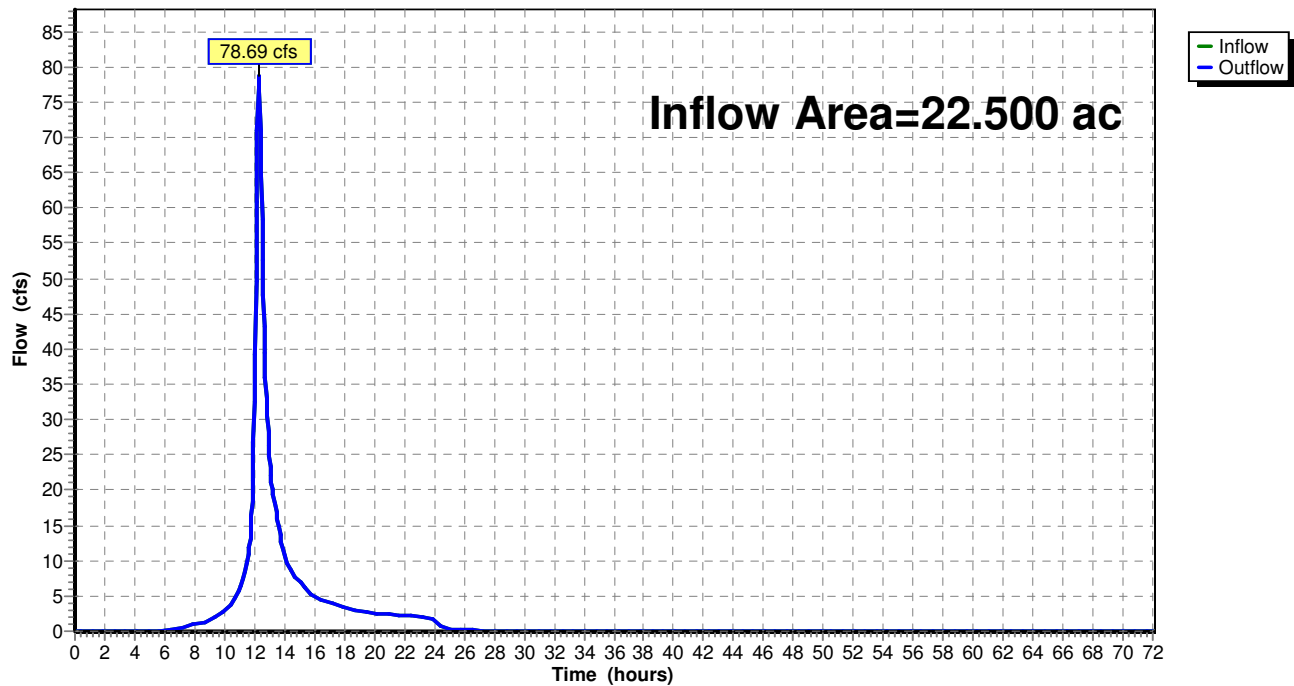
Summary for Reach Design Line:

Inflow Area = 22.500 ac, 14.67% Impervious, Inflow Depth > 5.75" for 100-yr event
Inflow = 78.69 cfs @ 12.30 hrs, Volume= 10.788 af
Outflow = 78.69 cfs @ 12.30 hrs, Volume= 10.788 af, Atten= 0%, Lag= 0.0 min

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

Reach Design Line:

Hydrograph



Post Development

NY-Beacon 24-hr SOP 100-yr Rainfall=8.31"

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Summary for Pond 1.1 P:

Inflow Area = 3.550 ac, 66.20% Impervious, Inflow Depth = 7.35" for 100-yr event
Inflow = 29.54 cfs @ 12.00 hrs, Volume= 2.175 af
Outflow = 8.92 cfs @ 12.22 hrs, Volume= 2.049 af, Atten= 70%, Lag= 13.5 min
Primary = 8.92 cfs @ 12.22 hrs, Volume= 2.049 af

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

Starting Elev= 180.00' Surf.Area= 7,640 sf Storage= 10,715 cf

Peak Elev= 184.11' @ 12.22 hrs Surf.Area= 17,710 sf Storage= 54,193 cf (43,478 cf above start)

Flood Elev= 184.50' Surf.Area= 19,225 sf Storage= 60,459 cf (49,744 cf above start)

Plug-Flow detention time= 545.5 min calculated for 1.803 af (83% of inflow)

Center-of-Mass det. time= 406.2 min (1,172.2 - 766.0)

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

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

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

Device	Routing	Invert	Outlet Devices
#1	Primary	179.00'	24.0" Round Culvert L= 37.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 179.00' / 178.50' S= 0.0135 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#2	Device 1	180.00'	1.6" Vert. Orifice/Grate C= 0.600
#3	Device 1	182.20'	1.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=8.89 cfs @ 12.22 hrs HW=184.11' TW=0.00' (Dynamic Tailwater)

1=Culvert (Passes 8.89 cfs of 30.66 cfs potential flow)

2=Orifice/Grate (Orifice Controls 0.14 cfs @ 9.68 fps)

3=Broad-Crested Rectangular Weir (Weir Controls 8.75 cfs @ 4.59 fps)

Post Development

NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

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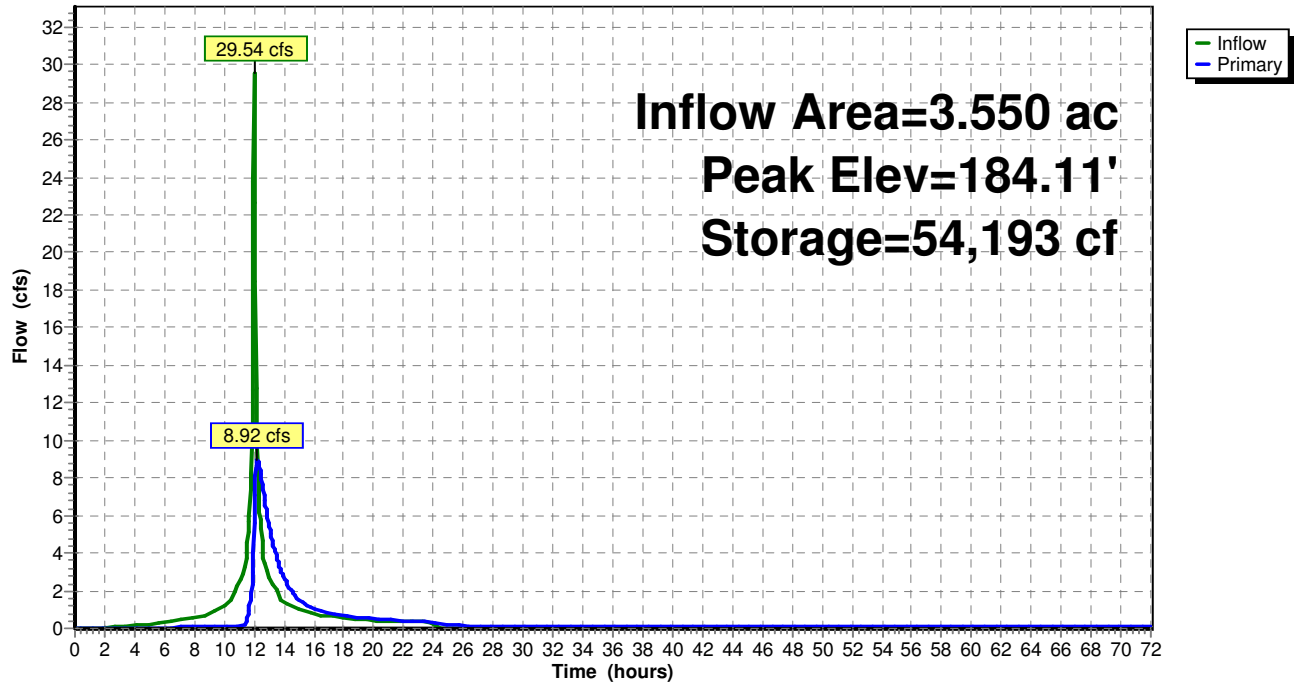
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Pond 1.1 P:

Hydrograph



Post Development

NY-Beacon 24-hr SOP 100-yr Rainfall=8.31"

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Stage-Area-Storage for Pond 1.1 P:

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

Post Development

NY-Beacon 24-hr SOP 100-yr Rainfall=8.31"

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Summary for Pond 1.2 FS:

Inflow Area = 0.550 ac, 81.82% Impervious, Inflow Depth = 7.71" for 100-yr event
Inflow = 4.76 cfs @ 11.99 hrs, Volume= 0.353 af
Outflow = 4.76 cfs @ 11.99 hrs, Volume= 0.353 af, Atten= 0%, Lag= 0.0 min
Primary = 2.09 cfs @ 11.98 hrs, Volume= 0.324 af
Secondary = 2.67 cfs @ 11.99 hrs, Volume= 0.030 af

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

Peak Elev= 186.58' @ 11.98 hrs

Flood Elev= 187.70'

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

Primary OutFlow Max=2.08 cfs @ 11.98 hrs HW=186.56' TW=183.38' (Dynamic Tailwater)

↑ **1=Culvert** (Inlet Controls 2.08 cfs @ 5.95 fps)

Secondary OutFlow Max=2.49 cfs @ 11.99 hrs HW=186.56' TW=0.00' (Dynamic Tailwater)

↑ **2=Culvert** (Passes 2.49 cfs of 4.41 cfs potential flow)

↑ **3=Broad-Crested Rectangular Weir** (Weir Controls 2.49 cfs @ 1.73 fps)

Post Development

NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

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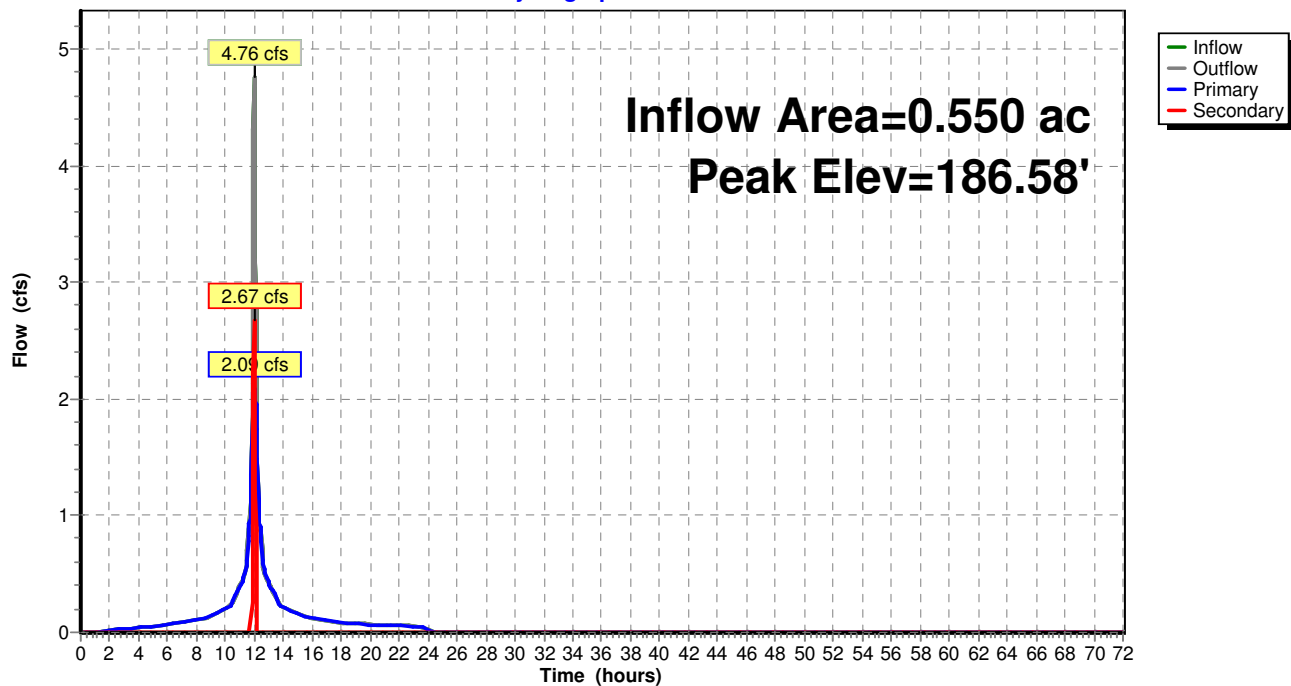
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Pond 1.2 FS:

Hydrograph



Post Development

NY-Beacon 24-hr SOP 100-yr Rainfall=8.31"

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Stage-Area-Storage for Pond 1.2 FS:

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

Post Development

NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

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Summary for Pond 1.2 P:

Inflow Area = 0.550 ac, 81.82% Impervious, Inflow Depth = 7.06" for 100-yr event
Inflow = 2.09 cfs @ 11.98 hrs, Volume= 0.324 af
Outflow = 0.82 cfs @ 12.46 hrs, Volume= 0.324 af, Atten= 61%, Lag= 28.5 min
Discarded = 0.64 cfs @ 11.55 hrs, Volume= 0.319 af
Primary = 0.17 cfs @ 12.46 hrs, Volume= 0.004 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 184.77' @ 12.46 hrs Surf.Area= 0.030 ac Storage= 0.056 af

Plug-Flow detention time= 18.7 min calculated for 0.323 af (100% of inflow)
Center-of-Mass det. time= 18.7 min (774.4 - 755.7)

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

Storage Group A created with Chamber Wizard

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

Discarded OutFlow Max=0.64 cfs @ 11.55 hrs HW=182.12' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.64 cfs)

Primary OutFlow Max=0.17 cfs @ 12.46 hrs HW=184.77' TW=0.00' (Dynamic Tailwater)

↑ **2=Culvert** (Barrel Controls 0.17 cfs @ 2.34 fps)

Post Development

NY-Beacon 24-hr SOP 100-yr Rainfall=8.31"

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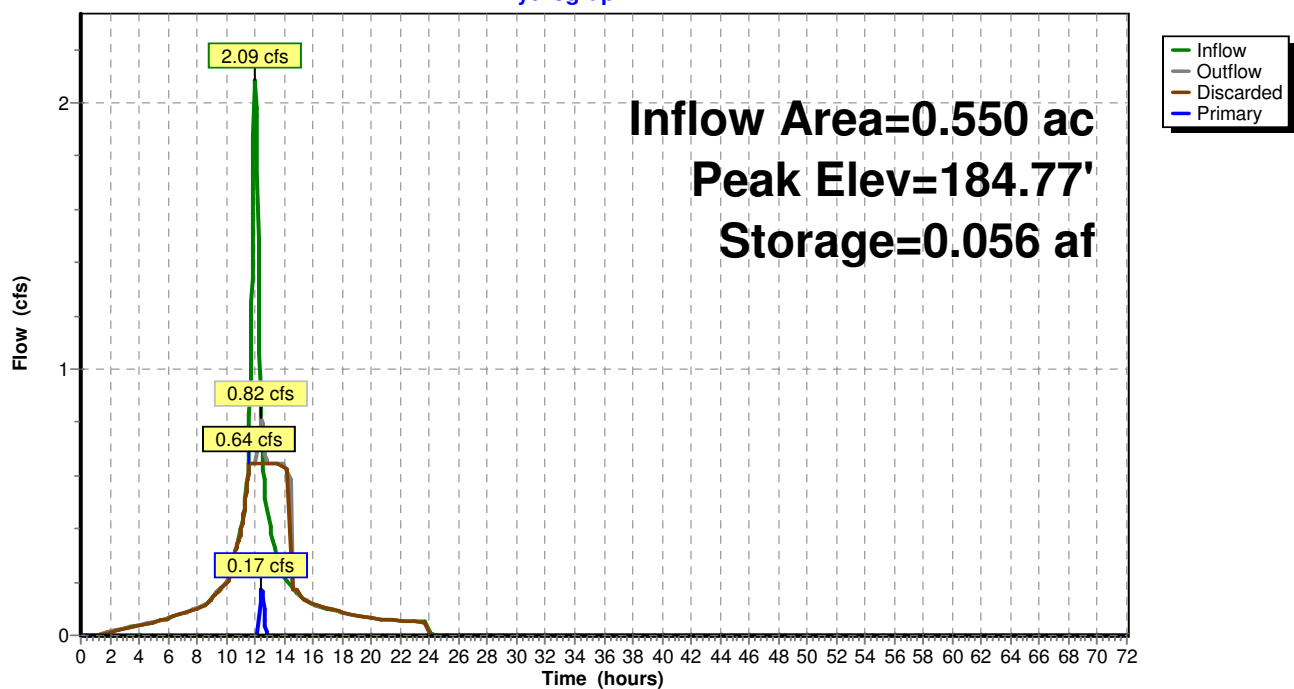
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Pond 1.2 P:

Hydrograph



Post Development*NY-Beacon 24-hr SOP 100-yr Rainfall=8.31"*

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Stage-Area-Storage for Pond 1.2 P:

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

Post Development

NY-Beacon 24-hr S0P 100-yr Rainfall=8.31"

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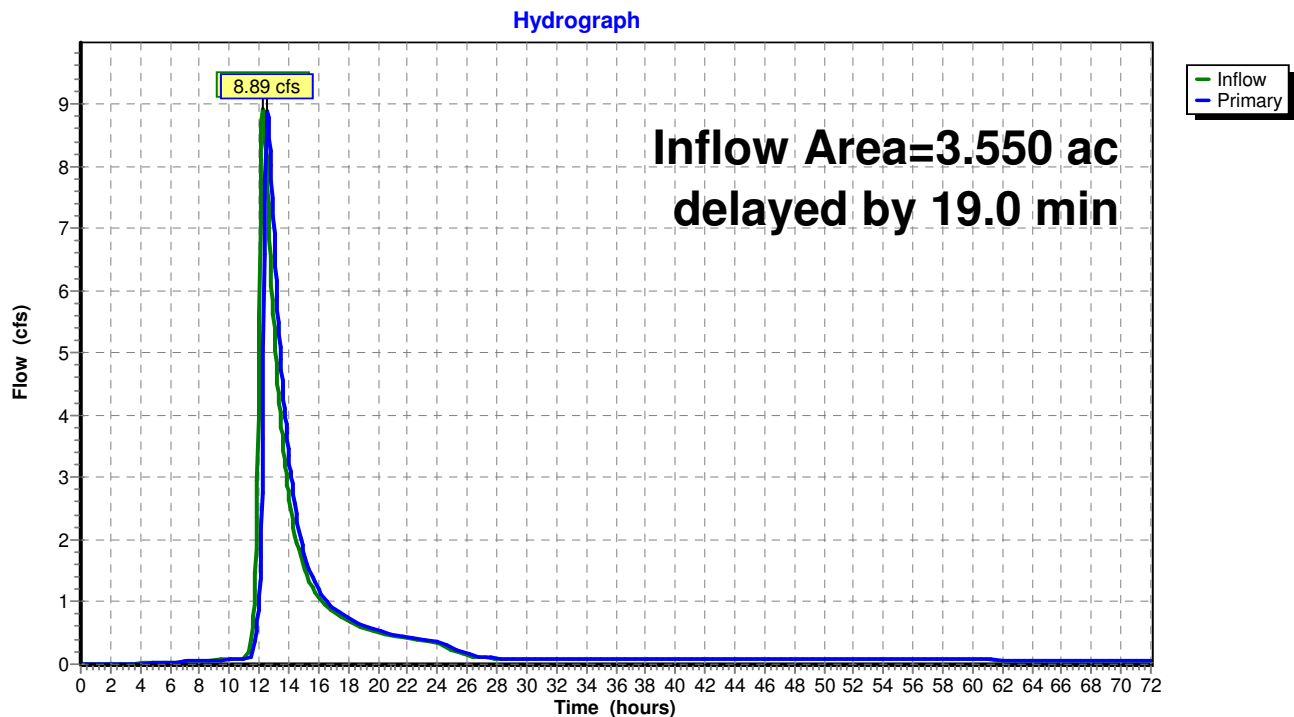
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Summary for Link 1.1R: (See Subcatchment 1.1 TC for Time of Concentration Calculation)

Inflow Area = 3.550 ac, 66.20% Impervious, Inflow Depth > 6.92" for 100-yr event
Inflow = 8.92 cfs @ 12.22 hrs, Volume= 2.049 af
Primary = 8.89 cfs @ 12.55 hrs, Volume= 2.047 af, Atten= 0%, Lag= 19.4 min

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

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



APPENDIX D

Project and Owner information

Site Data:

Beacon Views
City of Beacon
Dutchess County, New York

Owner Information:

Highlands @ Beacon, LLC
2847 Church Street
Pine Plains, New York 12567

Applicant Information:

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

Party Responsible for Implementation of the Stormwater Pollution Prevention Plan (Including Maintenance During and After Construction):

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

Qualified Professional Responsible for Inspection of the Stormwater Pollution Prevention Plan:

Inspector to be determined at time of construction

APPENDIX E

NYSDEC SPDES for Construction Activities Construction Site Log Book

APPENDIX F
CONSTRUCTION SITE INSPECTION
AND MAINTENANCE LOG BOOK

**STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION
ACTIVITIES**

SAMPLE CONSTRUCTION SITE LOG BOOK

Table of Contents

- I. Pre-Construction Meeting Documents
 - a. Preamble to Site Assessment and Inspections
 - b. Pre-Construction Site Assessment Checklist

- II. Construction Duration Inspections
 - a. Directions
 - b. Modification to the SWPPP

I. PRE-CONSTRUCTION MEETING DOCUMENTS

Project Name _____
Permit No. _____ **Date of Authorization** _____
Name of Operator _____
Prime Contractor _____

a. Preamble to Site Assessment and Inspections

The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified inspector¹ conduct an assessment of the site prior to the commencement of construction² and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements. A preconstruction meeting should be held to review all of the SWPPP requirements with construction personnel.

When construction starts, site inspections shall be conducted by the qualified inspector at least every 7 calendar days. The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified inspector perform a final site inspection. The qualified inspector shall certify that the site has undergone final stabilization³ using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 Refer to "Qualified Inspector" inspection requirements in the current SPDES General Permit for Stormwater Discharges from Construction Activity for complete list of inspection requirements.

2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Pre-construction Site Assessment Checklist

(NOTE: Provide comments below as necessary)

1. Notice of Intent, SWPPP, and Contractors Certification:

Yes No NA

- ☐ ☐ ☐ Has a Notice of Intent been filed with the NYS Department of Conservation?
- ☐ ☐ ☐ Is the SWPPP on-site? Where? _____
- ☐ ☐ ☐ Is the Plan current? What is the latest revision date? _____
- ☐ ☐ ☐ Is a copy of the NOI (with brief description) onsite? Where? _____
- ☐ ☐ ☐ Have all contractors involved with stormwater related activities signed a contractor's certification?

2. Resource Protection

Yes No NA

- ☐ ☐ ☐ Are construction limits clearly flagged or fenced?
- ☐ ☐ ☐ Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
- ☐ ☐ ☐ Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

Yes No NA

- ☐ ☐ ☐ Clean stormwater runoff has been diverted from areas to be disturbed.
- ☐ ☐ ☐ Bodies of water located either on site or in the vicinity of the site have been identified and protected.
- ☐ ☐ ☐ Appropriate practices to protect on-site or downstream surface water are installed.
- ☐ ☐ ☐ Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Access

Yes No NA

- ☐ ☐ ☐ A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
- ☐ ☐ ☐ Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
- ☐ ☐ ☐ Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Sediment Controls

Yes No NA

- ☐ ☐ ☐ Silt fence material and installation comply with the standard drawing and specifications.
- ☐ ☐ ☐ Silt fences are installed at appropriate spacing intervals
- ☐ ☐ ☐ Sediment/detention basin was installed as first land disturbing activity.
- ☐ ☐ ☐ Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA

- ☐ ☐ ☐ The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
- ☐ ☐ ☐ The plan is contained in the SWPPP on page _____
- ☐ ☐ ☐ Appropriate materials to control spills are onsite. Where? _____

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:

Inspection Forms will be filled out during the entire construction phase of the project.

Required Elements:

- 1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;
- 2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;
- 3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;
- 4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);
- 5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and
- 6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

SITE PLAN/SKETCH

Inspector (print name)

Date of Inspection

Qualified Inspector (print name)

Qualified Inspector Signature

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

Maintaining Water Quality**Yes No NA**

- ☐ ☐ ☐ Is there an increase in turbidity causing a substantial visible contrast to natural conditions at the outfalls?
- ☐ ☐ ☐ Is there residue from oil and floating substances, visible oil film, or globules or grease at the outfalls?
- ☐ ☐ ☐ All disturbance is within the limits of the approved plans.
- ☐ ☐ ☐ Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions

Yes No NA

- ☐ ☐ ☐ Is construction site litter, debris and spoils appropriately managed?
- ☐ ☐ ☐ Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
- ☐ ☐ ☐ Is construction impacting the adjacent property?
- ☐ ☐ ☐ Is dust adequately controlled?

2. Temporary Stream Crossing

Yes No NA

- ☐ ☐ ☐ Maximum diameter pipes necessary to span creek without dredging are installed.
- ☐ ☐ ☐ Installed non-woven geotextile fabric beneath approaches.
- ☐ ☐ ☐ Is fill composed of aggregate (no earth or soil)?
- ☐ ☐ ☐ Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

3. Stabilized Construction Access

Yes No NA

- ☐ ☐ ☐ Stone is clean enough to effectively remove mud from vehicles.
- ☐ ☐ ☐ Installed per standards and specifications?
- ☐ ☐ ☐ Does all traffic use the stabilized entrance to enter and leave site?
- ☐ ☐ ☐ Is adequate drainage provided to prevent ponding at entrance?

Runoff Control Practices

1. Excavation Dewatering

Yes No NA

- ☐ ☐ ☐ Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
- ☐ ☐ ☐ Clean water from upstream pool is being pumped to the downstream pool.
- ☐ ☐ ☐ Sediment laden water from work area is being discharged to a silt-trapping device.
- ☐ ☐ ☐ Constructed upstream berm with one-foot minimum freeboard.

Runoff Control Practices (continued)

2. Flow Spreader

Yes No NA

- ☐ ☐ ☐ Installed per plan.
- ☐ ☐ ☐ Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.
- ☐ ☐ ☐ Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales

Yes No NA

- ☐ ☐ ☐ Installed per plan with minimum side slopes 2H:1V or flatter.
- ☐ ☐ ☐ Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
- ☐ ☐ ☐ Sediment-laden runoff directed to sediment trapping structure

4. Stone Check Dam

Yes No NA

- ☐ ☐ ☐ Is channel stable? (flow is not eroding soil underneath or around the structure).
- ☐ ☐ ☐ Check is in good condition (rocks in place and no permanent pools behind the structure).
- ☐ ☐ ☐ Has accumulated sediment been removed?.

5. Rock Outlet Protection

Yes No NA

- ☐ ☐ ☐ Installed per plan.
- ☐ ☐ ☐ Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles

Yes No NA

- ☐ ☐ ☐ Stockpiles are stabilized with vegetation and/or mulch.
- ☐ ☐ ☐ Sediment control is installed at the toe of the slope.

2. Revegetation

Yes No NA

- ☐ ☐ ☐ Temporary seedings and mulch have been applied to idle areas.
- ☐ ☐ ☐ 4 inches minimum of topsoil has been applied under permanent seedings

Sediment Control Practices

1. Silt Fence and Linear Barriers

Yes No NA

- ☐ ☐ ☐ Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
- ☐ ☐ ☐ Joints constructed by wrapping the two ends together for continuous support.
- ☐ ☐ ☐ Fabric buried 6 inches minimum.
- ☐ ☐ ☐ Posts are stable, fabric is tight and without rips or frayed areas.

Sediment accumulation is ____% of design capacity.

Sediment Control Practices (continued)

2. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated; Filter Sock or Manufactured practices)

Yes No NA

- ☐ ☐ ☐ Installed concrete blocks lengthwise so open ends face outward, not upward.
- ☐ ☐ ☐ Placed wire screen between No. 3 crushed stone and concrete blocks.
- ☐ ☐ ☐ Drainage area is 1 acre or less.
- ☐ ☐ ☐ Excavated area is 900 cubic feet.
- ☐ ☐ ☐ Excavated side slopes should be 2:1.
- ☐ ☐ ☐ 2" x 4" frame is constructed and structurally sound.
- ☐ ☐ ☐ Posts 3-foot maximum spacing between posts.
- ☐ ☐ ☐ Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
- ☐ ☐ ☐ Posts are stable, fabric is tight and without rips or frayed areas.
- ☐ ☐ ☐ Manufactured insert fabric is free of tears and punctures.
- ☐ ☐ ☐ Filter Sock is not torn or flattened and fill material is contained within the mesh sock.

Sediment accumulation ____% of design capacity.

3. Temporary Sediment Trap

Yes No NA

- ☐ ☐ ☐ Outlet structure is constructed per the approved plan or drawing.
- ☐ ☐ ☐ Geotextile fabric has been placed beneath rock fill.
- ☐ ☐ ☐ Sediment trap slopes and disturbed areas are stabilized.

Sediment accumulation is ____% of design capacity.

4. Temporary Sediment Basin

Yes No NA

- ☐ ☐ ☐ Basin and outlet structure constructed per the approved plan.
- ☐ ☐ ☐ Basin side slopes are stabilized with seed/mulch.
- ☐ ☐ ☐ Drainage structure flushed and basin surface restored upon removal of sediment basin facility.
- ☐ ☐ ☐ Sediment basin dewatering pool is dewatering at appropriate rate.

Sediment accumulation is ____% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design. All practices shall be maintained in accordance with their respective standards.

Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:

1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
 - a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
 - b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal black lines across its entire width, providing a guide for handwriting or typing. The paper itself is a clean, off-white color.

APPENDIX F**NYSDEC Stormwater Design Manual Chapter 5 Analysis**

Table Key: • = Practice Used in Accordance with Chapter 5 Requirements
 o = Practice Not Used
 - = Practice is Not Applicable

NYSDEC Chapter 5 Requirements		Subcatchments		Remarks
		1.1	1.2	
	Chapter 5, Section 5.1: Preservation of Natural Features and Conservation Design			
Practices				
Preservation of Undisturbed Areas		●	●	See Note #2
Preservation of Buffers		-	-	
Reduction of Clearing & Grading		●	●	See Note #4
Locating Development in Less Sensitive Areas		●	●	See Note #4
Open Space Design		-	-	
Soil Restoration		●	●	See Note #5
	Chapter 5, Section 5.2: Reduction of Impervious Cover			
Practices				
Roadway Reduction		●	-	See Note #1
Sidewalk Reduction		●	●	
Driveway Reduction		●	●	See Note #1
Cul-de-sac Reduction		-	-	
Building Footprint Reduction		●	●	See Note #3
Parking Reduction		●	●	See Note #4
Conservation of Natural Areas		●	●	See Note #2
Sheetflow to Riparian Buffers or Filter Strips		-	-	
Vegetated Swale		●	●	
Tree Planting / Tree Pit		-	-	
Disconnection of Rooftop Runoff		-	-	
Stream Daylighting		-	-	
Rain Gardens		-	-	
Green Roofs		-	-	
Stormwater Planters		-	-	
Rain Barrels / Cisterns		-	-	
Porous Pavement		-	-	

Notes:

1. The proposed driveways and road have been designed to provide a minimum width for safe ingress and egress for the development.
2. Although no formal calculations have been provided, the subject project has provided conservation of natural areas to the maximum extent practical.
3. The proposed buildings are multi-story, thus minimize the building footprints.
4. The reduction in clearing and grading, as well as the driveway and parking areas foot print reduction will be enforced with the approval of the project SWPPP. Notes on the project plans, establish that any changes in the project plans would require an amended approval from the necessary regulatory agencies
5. Soil restoration requirements per NYSDEC standards shown on project plans.

APPENDIX G

NYSDEC Stormwater Management Practice Construction and Maintenance Inspection Checklist

Stormwater/Wetland Pond Construction Inspection Checklist

Project:

Location:

Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
Pre-Construction/Materials and Equipment		
Pre-construction meeting		
Pipe and appurtenances on-site prior to construction and dimensions checked		
1. Material (including protective coating, if specified)		
2. Diameter		
3. Dimensions of metal riser or pre-cast concrete outlet structure		
4. Required dimensions between water control structures (orifices, weirs, etc.) are in accordance with approved plans		
5. Barrel stub for prefabricated pipe structures at proper angle for design barrel slope		
6. Number and dimensions of prefabricated anti-seep collars		
7. Watertight connectors and gaskets		
8. Outlet drain valve		
Project benchmark near pond site		
Equipment for temporary de-watering		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
2. Subgrade Preparation		
Area beneath embankment stripped of all vegetation, topsoil, and organic matter		
3. Pipe Spillway Installation		
Method of installation detailed on plans		
A. Bed preparation		
Installation trench excavated with specified side slopes		
Stable, uniform, dry subgrade of relatively impervious material (If subgrade is wet, contractor shall have defined steps before proceeding with installation)		
Invert at proper elevation and grade		
B. Pipe placement		
Metal / plastic pipe		
1. Watertight connectors and gaskets properly installed		
2. Anti-seep collars properly spaced and having watertight connections to pipe		
3. Backfill placed and tamped by hand under “haunches” of pipe		
4. Remaining backfill placed in max. 8 inch lifts using small power tamping equipment until 2 feet cover over pipe is reached		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
3. Pipe Spillway Installation		
Concrete pipe		
1. Pipe set on blocks or concrete slab for pouring of low cradle		
2. Pipe installed with rubber gasket joints with no spalling in gasket interface area		
3. Excavation for lower half of anti-seep collar(s) with reinforcing steel set		
4. Entire area where anti-seep collar(s) will come in contact with pipe coated with mastic or other approved waterproof sealant		
5. Low cradle and bottom half of anti-seep collar installed as monolithic pour and of an approved mix		
6. Upper half of anti-seep collar(s) formed with reinforcing steel set		
7. Concrete for collar of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
8. Forms stripped and collar inspected for honeycomb prior to backfilling. Parge if necessary.		
C. Backfilling		
Fill placed in maximum 8 inch lifts		
Backfill taken minimum 2 feet above top of anti-seep collar elevation before traversing with heavy equipment		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
4. Riser / Outlet Structure Installation		
Riser located within embankment		
A. Metal riser		
Riser base excavated or formed on stable subgrade to design dimensions		
Set on blocks to design elevations and plumbed		
Reinforcing bars placed at right angles and projecting into sides of riser		
Concrete poured so as to fill inside of riser to invert of barrel		
B. Pre-cast concrete structure		
Dry and stable subgrade		
Riser base set to design elevation		
If more than one section, no spalling in gasket interface area; gasket or approved caulking material placed securely		
Watertight and structurally sound collar or gasket joint where structure connects to pipe spillway		
C. Poured concrete structure		
Footing excavated or formed on stable subgrade, to design dimensions with reinforcing steel set		
Structure formed to design dimensions, with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing while curing, if necessary)		
Forms stripped & inspected for "honeycomb" prior to backfilling; parge if necessary		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
5. Embankment Construction		
Fill material		
Compaction		
Embankment		
1. Fill placed in specified lifts and compacted with appropriate equipment		
2. Constructed to design cross-section, side slopes and top width		
3. Constructed to design elevation plus allowance for settlement		
6. Impounded Area Construction		
Excavated / graded to design contours and side slopes		
Inlet pipes have adequate outfall protection		
Forebay(s)		
Pond benches		
7. Earth Emergency Spillway Construction		
Spillway located in cut or structurally stabilized with riprap, gabions, concrete, etc.		
Excavated to proper cross-section, side slopes and bottom width		
Entrance channel, crest, and exit channel constructed to design grades and elevations		

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
8. Outlet Protection		
A. End section		
Securely in place and properly backfilled		
B. Endwall		
Footing excavated or formed on stable subgrade, to design dimensions and reinforcing steel set, if specified		
Endwall formed to design dimensions with reinforcing steel set as per plan		
Concrete of an approved mix and vibrated into place (protected from freezing, if necessary)		
Forms stripped and structure inspected for "honeycomb" prior to backfilling; parge if necessary		
C. Riprap apron / channel		
Apron / channel excavated to design cross-section with proper transition to existing ground		
Filter fabric in place		
Stone sized as per plan and uniformly placed at the thickness specified		
9. Vegetative Stabilization		
Approved seed mixture or sod		
Proper surface preparation and required soil amendments		
Excelsior mat or other stabilization, as per plan		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
10. Miscellaneous		
Drain for ponds having a permanent pool		
Trash rack / anti-vortex device secured to outlet structure		
Trash protection for low flow pipes, orifices, etc.		
Fencing (when required)		
Access road		
Set aside for clean-out maintenance		
11. Stormwater Wetlands		
Adequate water balance		
Variety of depth zones present		
Approved pondscaping plan in place Reinforcement budget for additional plantings		
Plants and materials ordered 6 months prior to construction		
Construction planned to allow for adequate planting and establishment of plant community (April-June planting window)		
Wetland buffer area preserved to maximum extent possible		

Comments:

Actions to be Taken:

Infiltration Trench Construction Inspection Checklist

Project:

Location:

Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Pre-Construction		
Pre-construction meeting		
Runoff diverted		
Soil permeability tested		
Groundwater / bedrock sufficient at depth		
2. Excavation		
Size and location		
Side slopes stable		
Excavation does not compact subsoils		
3. Filter Fabric Placement		
Fabric specifications		
Placed on bottom, sides, and top		

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
4. Aggregate Material		
Size as specified		
Clean / washed material		
Placed properly		
5. Observation Well		
Pipe size		
Removable cap / footplate		
Initial depth = _____ feet		
6. Final Inspection		
Pretreatment facility in place		
Contributing watershed stabilized prior to flow diversion		
Outlet		

Comments:This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Actions to be Taken:

Stormwater Pond/Wetland Operation, Maintenance and Management Inspection Checklist

Project _____
 Location: _____
 Site Status: _____

 Date: _____
 Time: _____

 Inspector: _____

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
1. Embankment and emergency spillway (Annual, After Major Storms)		
1. Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of dam		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6. Pond, toe & chimney drains clear and functioning		
7. Seeps/leaks on downstream face		
8. Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam "As-Built"		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)		
Type: Reinforced concrete _____ Corrugated pipe _____ Masonry _____		
1. Low flow orifice obstructed		
2. Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
3. Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
5. Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
8. Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (monthly)		
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1. Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual , After Major Storms)		
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4. Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3. Aesthetics		
a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
1. Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
2. Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
4. Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants “choked” with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		

Comments:

Actions to be Taken:

Infiltration Trench Operation, Maintenance, and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Trench surface clear of debris		
Inflow pipes clear of debris		
Overflow spillway clear of debris		
Inlet area clear of debris		
2. Sediment Traps or Forebays (Annual)		
Obviously trapping sediment		
Greater than 50% of storage volume remaining		
3. Dewatering (Monthly)		
Trench dewaterers between storms		
4. Sediment Cleanout of Trench (Annual)		
No evidence of sedimentation in trench		
Sediment accumulation doesn't yet require cleanout		
5. Inlets (Annual)		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Good condition		
No evidence of erosion		
6. Outlet/Overflow Spillway (Annual)		
Good condition, no need for repair		
No evidence of erosion		
7. Aggregate Repairs (Annual)		
Surface of aggregate clean		
Top layer of stone does not need replacement		
Trench does not need rehabilitation		

Comments:

Actions to be Taken:

APPENDIX H
Hydrodynamic Separator Sizing and Maintenance Manual



State of New Jersey

PHILIP D. MURPHY
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION

CATHERINE R. McCABE
Acting Commissioner

SHEILA Y. OLIVER
Lt. Governor

Mail Code – 401-02B
Division of Water Quality
Bureau of Nonpoint Pollution Control
P.O. Box 420 – 401 E. State St.
Trenton, NJ 08625-0420
Phone: (609) 633-7021 / Fax: (609) 777-0432
http://www.state.nj.us/dep/dwq/bnpc_home.htm

March 27, 2018

Graham Bryant, M.Sc., P.E.
President
Hydroworks, LLC
136 Central Avenue
Clark, NJ 07066

Re: MTD Lab Certification
HydroStorm Hydrodynamic Separator by Hydroworks, LLC
Online Installation

TSS Removal Rate 50%

Dear Mr. Bryant:

The Stormwater Management rules under N.J.A.C. 7:8-5.5(b) and 5.7 (c) allow the use of manufactured treatment devices (MTDs) for compliance with the design and performance standards at N.J.A.C. 7:8-5 if the pollutant removal rates have been verified by the New Jersey Corporation for Advanced Technology (NJCAT) and have been certified by the New Jersey Department of Environmental Protection (NJDEP). Hydroworks, LLC has requested an MTD Laboratory Certification for the Hydroworks HydroStorm Hydrodynamic Separator.

The project falls under the “Procedure for Obtaining Verification of a Stormwater Manufactured Treatment Device from New Jersey Corporation for Advance Technology” dated January 25, 2013. The applicable protocol is the “New Jersey Laboratory Testing Protocol to Assess Total Suspended Solids Removal by a Hydrodynamic Sedimentation Manufactured Treatment Device” dated January 25, 2013.

NJCAT verification documents submitted to the NJDEP indicate that the requirements of the aforementioned protocol have been met or exceeded. The NJCAT letter also included a recommended certification TSS removal rate and the required maintenance plan. The NJCAT Verification Report with the Verification Appendix (dated February 2018) for this device is published online at <http://www.njcat.org/verification-process/technology-verification-database.html>.

The NJDEP certifies the use of the HydroStorm by Hydroworks, LLC at a TSS removal rate of 50% when designed, operated, and maintained in accordance with the information provided in the Verification Appendix and the following conditions:

1. The maximum treatment flow rate (MTFR) for the manufactured treatment device (MTD) is calculated using the New Jersey Water Quality Design Storm (1.25 inches in 2 hrs) in N.J.A.C. 7:8-5.5.
2. The HydroStorm shall be installed using the same configuration reviewed by NJCAT and shall be sized in accordance with the criteria specified in item 6 below.
3. This HydroStorm cannot be used in series with another MTD or a media filter (such as a sand filter) to achieve an enhanced removal rate for total suspended solids (TSS) removal under N.J.A.C. 7:8-5.5.
4. Additional design criteria for MTDs can be found in Chapter 9.6 of the New Jersey Stormwater Best Management Practices (NJ Stormwater BMP) Manual, which can be found online at www.njstormwater.org.
5. The maintenance plan for a site using this device shall incorporate, at a minimum, the maintenance requirements for the Hydrostorm. A copy of the maintenance plan is attached to this certification. However, it is recommended to review the maintenance website at <http://www.hydroworks.com/hydrostormo&m.pdf> for any changes to the maintenance requirements.
6. Sizing Requirement:

The example below demonstrates the sizing procedure for the Hydrostorm:

Example: A 0.25-acre impervious site is to be treated to 50% TSS removal using a HydroStorm. The impervious site runoff (Q) based on the New Jersey Water Quality Design Storm was determined to be 0.79 cfs.

Maximum Treatment Flow Rate (MTFR) Evaluation:

The site runoff (Q) was based on the following:

time of concentration = 10 minutes

i = 3.2 in/hr (page 5-8, Fig. 5-3 of the NJ Stormwater BMP Manual)

c = 0.99 (runoff coefficient for impervious)

$Q = ciA = 0.99 \times 3.2 \times 0.25 = 0.79 \text{ cfs}$

Given the site runoff is 0.79 cfs and based on Table 1 below, the HydroStorm Model HS4 with a MTFR of 0.88 cfs could be used for this site to remove 50% of the TSS from the impervious area without exceeding the MTFR.

The sizing table corresponding to the available system models is noted below. Additional specifications regarding each model can be found in the Verification Appendix under Table A-1.

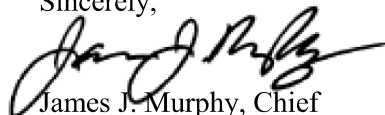
Table 1 HydroStorm Sizing Information

HydroStorm Model	NJDEP 50% TSS Maximum Treatment Flow Rate (cfs)	Treatment Area (ft²)	Hydraulic Loading Rate (gpm/ft²)	50% Maximum Sediment Storage (ft³)
HS3	0.50	7.1	31.4	3.6
HS4	0.88	12.6	31.4	6.3
HS5	1.37	19.6	31.4	9.8
HS6	1.98	28.3	31.4	14.2
HS7	2.69	38.5	31.4	19.3
HS8	3.52	50.3	31.4	25.2
HS9	4.45	63.6	31.4	31.8
HS10	5.49	78.5	31.4	39.3
HS11	6.65	95.0	31.4	47.5
HS12	7.91	113.0	31.4	56.5

A detailed maintenance plan is mandatory for any project with a Stormwater BMP subject to the Stormwater Management Rules, N.J.A.C. 7:8. The plan must include all of the items identified in the Stormwater Management Rules, N.J.A.C. 7:8-5.8. Such items include, but are not limited to, the list of inspection and maintenance equipment and tools, specific corrective and preventative maintenance tasks, indication of problems in the system, and training of maintenance personnel. Additional information can be found in Chapter 8: Maintenance and Retrofit of Stormwater Management Measures.

If you have any questions regarding the above information, please contact Brian Salvo or Nick Grotts of my office at (609) 633-7021.

Sincerely,



James J. Murphy, Chief
Bureau of Nonpoint Pollution Control

Attachment: Maintenance Plan

cc: Chron File
Richard Magee, NJCAT
Vince Mazzei, NJDEP - DLUR
Ravi Patraju, NJDEP - BES
Gabriel Mahon, NJDEP - BNPC
Brian Salvo, NJDEP – BNPC
Nick Grotts, NJDEP – BNPC



Hydroworks® HydroStorm

Operations & Maintenance Manual

Version 1.0

Please call Hydroworks at 888-290-7900 or email us at support@hydroworks.com if you have any questions regarding the Inspection Checklist. Please fax a copy of the completed checklist to Hydroworks at 888-783-7271 for our records.

Introduction

The HydroStorm is a state of the art hydrodynamic separator. Hydrodynamic separators remove solids, debris and lighter than water (oil, trash, floating debris) pollutants from stormwater. Hydrodynamic separators and other water quality measures are mandated by regulatory agencies (Town/City, State, Federal Government) to protect storm water quality from pollution generated by urban development (traffic, people) as part of new development permitting requirements.

As storm water treatment structures fill up with pollutants they become less and less effective in removing new pollution. Therefore, it is important that storm water treatment structures be maintained on a regular basis to ensure that they are operating at optimum performance. The HydroStorm is no different in this regard and this manual has been assembled to provide the owner/operator with the necessary information to inspect and coordinate maintenance of their HydroStorm.

Hydroworks® HydroStorm Operation

The Hydroworks HydroStorm (HS) separator is a unique hydrodynamic by-pass separator. It incorporates a protected submerged pretreatment zone to collect larger solids, a treatment tank to remove finer solids, and a dual set of weirs to create a high flow bypass. High flows are conveyed directly to the outlet and do not enter the treatment area, however, the submerged pretreatment area still allows removal of coarse solids during high flows.

Under normal or low flows, water enters an inlet area with a horizontal grate. The area underneath the grate is submerged with openings to the main treatment area of the separator. Coarse solids fall through the grate and are either trapped in the pretreatment area or conveyed into the main treatment area depending on the flow rate. Fines are transported into the main treatment area. Openings and weirs in the pretreatment area allow entry of water and solids into the main treatment area and cause water to rotate in the main treatment area creating a vortex motion. Water in the main treatment area is forced to rise along the walls of the separator to discharge from the treatment area to the downstream pipe.

The vortex motion forces solids and floatables to the middle of the inner chamber. Floatables are trapped since the inlet to the treatment area is submerged. The design maximizes the retention of settled solids since solids are forced to the center of the inner chamber by the vortex motion of water while water must flow up the walls of the separator to discharge into the downstream pipe.

A set of high flow weirs near the outlet pipe create a high flow bypass over both the pretreatment area and main treatment chamber. The rate of flow into the treatment area is regulated by the number and size of openings into the treatment chamber and the height of by-pass weirs. High flows flow over the weirs directly to the outlet pipe preventing the scour and resuspension of any fines collected in the treatment chamber.



A central access tube is located in the structure to provide access for cleaning. The arrangement of the inlet area and bypass weirs near the outlet pipe facilitate the use of multiple inlet pipes.

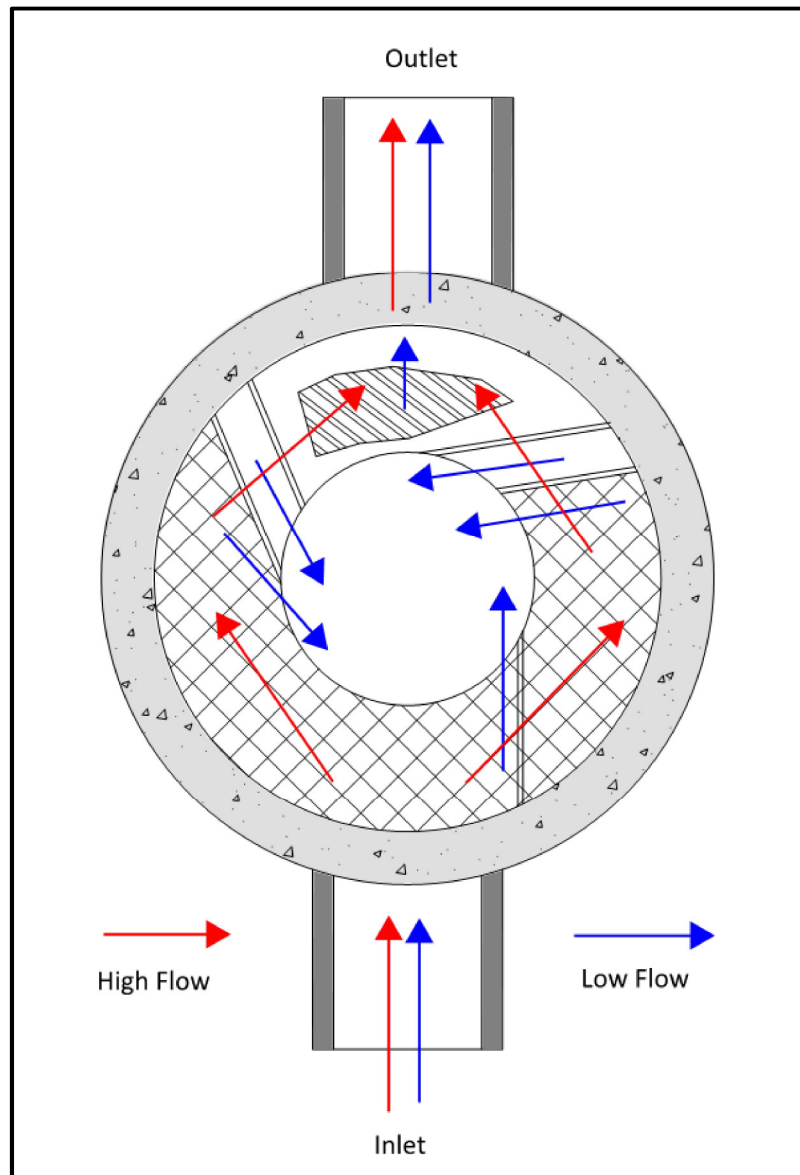


Figure 1. Hydroworks HydroStorm Operation – Plan View

Figure 2 is a profile view of the HydroStorm separator showing the flow patterns for low and high flows.

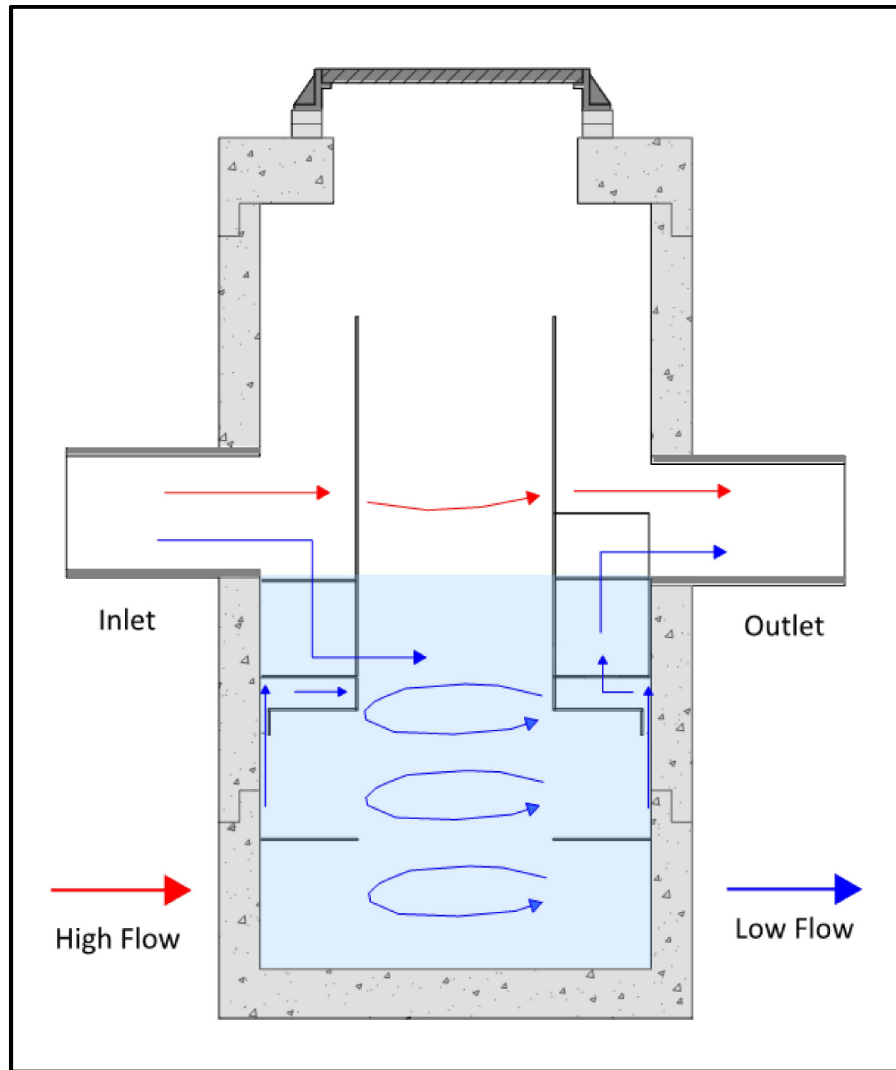


Figure 2. Hydroworks HydroStorm Operation – Profile View

The HS 4i is an inlet version of the HS 4 separator. There is a catch-basin grate on top of the HS 4i. A funnel sits underneath the grate on the frame and directs the water to the inlet side of the separator to ensure all low flows are properly treated. The whole funnel is removed for inspection and cleaning.

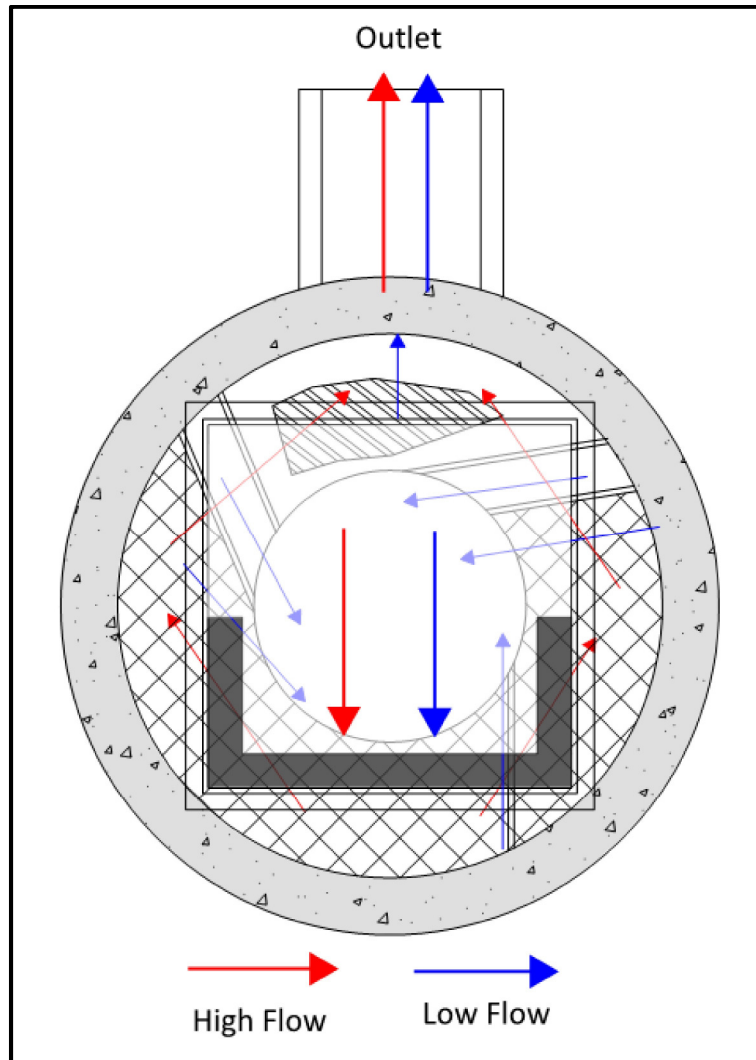


Figure 3. Hydroworks HS 4i Funnel

Inspection

Procedure

Floatables

A visual inspection can be conducted for floatables by removing the covers and looking down into the center access tube of the separator. Separators with an inlet grate (HS 4i or custom separator) will have a plastic funnel located under the grate that must be removed from the frame prior to inspection or maintenance. If you are missing a funnel please contact Hydroworks at the numbers provided at the end of this document.



TSS/Sediment

Inspection for TSS build-up can be conducted using a Sludge Judge®, Core Pro®, AccuSludge® or equivalent sampling device that allows the measurement of the depth of TSS/sediment in the unit. These devices typically have a ball valve at the bottom of the tube that allows water and TSS to flow into the tube when lowering the tube into the unit. Once the unit touches the bottom of the device, it is quickly pulled upward such that the water and TSS in the tube forces the ball valve closed allowing the user to see a full core of water/TSS in the unit. The unit should be inspected for TSS through each of the access covers. Several readings (2 or 3) should be made at each access cover to ensure that an accurate TSS depth measurement is recorded.

Frequency

Construction Period

The HydroStorm separator should be inspected every four weeks and after every large storm (over 0.5" (12.5 mm) of rain) during the construction period.

Post-Construction Period

The Hydroworks HydroStorm separator should be inspected during the first year of operation for normal stabilized sites (grassed or paved areas). If the unit is subject to oil spills or runoff from unstabilized (storage piles, exposed soils) areas the HydroStorm separator should be inspected more frequently (4 times per year). The initial annual inspection will indicate the required future frequency of inspection and maintenance if the unit was maintained after the construction period.

Reporting

Reports should be prepared as part of each inspection and include the following information:

1. Date of inspection
2. GPS coordinates of Hydroworks unit
3. Time since last rainfall
4. Date of last inspection
5. Installation deficiencies (missing parts, incorrect installation of parts)
6. Structural deficiencies (concrete cracks, broken parts)
7. Operational deficiencies (leaks, blockages)
8. Presence of oil sheen or depth of oil layer
9. Estimate of depth/volume of floatables (trash, leaves) captured
10. Sediment depth measured
11. Recommendations for any repairs and/or maintenance for the unit
12. Estimation of time before maintenance is required if not required at time of inspection



A sample inspection checklist is provided at the end of this manual.

Maintenance

Procedure

The Hydroworks HydroStorm unit is typically maintained using a vacuum truck. There are numerous companies that can maintain the HydroStorm separator. Maintenance with a vacuum truck involves removing all of the water and sediment together. The water is then separated from the sediment on the truck or at the disposal facility.

A central access opening (24" or greater) is provided to the gain access to the lower treatment tank of the unit. This is the primary location to maintain by vacuum truck. The pretreatment area can also be vacuumed and/or flushed into the lower treatment tank of the separator for cleaning via the central access once the water level is lowered below the pretreatment floor.

In instances where a vacuum truck is not available other maintenance methods (i.e. clamshell bucket) can be used, but they will be less effective. If a clamshell bucket is used the water must be decanted prior to cleaning since the sediment is under water and typically fine in nature. Disposal of the water will depend on local requirements. Disposal options for the decanted water may include:

1. Discharge into a nearby sanitary sewer manhole
2. Discharge into a nearby LID practice (grassed swale, bioretention)
3. Discharge through a filter bag into a downstream storm drain connection

The local municipality should be consulted for the allowable disposal options for both water and sediments prior to any maintenance operation. Once the water is decanted the sediment can be removed with the clamshell bucket.

Disposal of the contents of the separator depend on local requirements. Maintenance of a Hydroworks HydroStorm unit will typically take 1 to 2 hours based on a vacuum truck and longer for other cleaning methods (i.e. clamshell bucket).



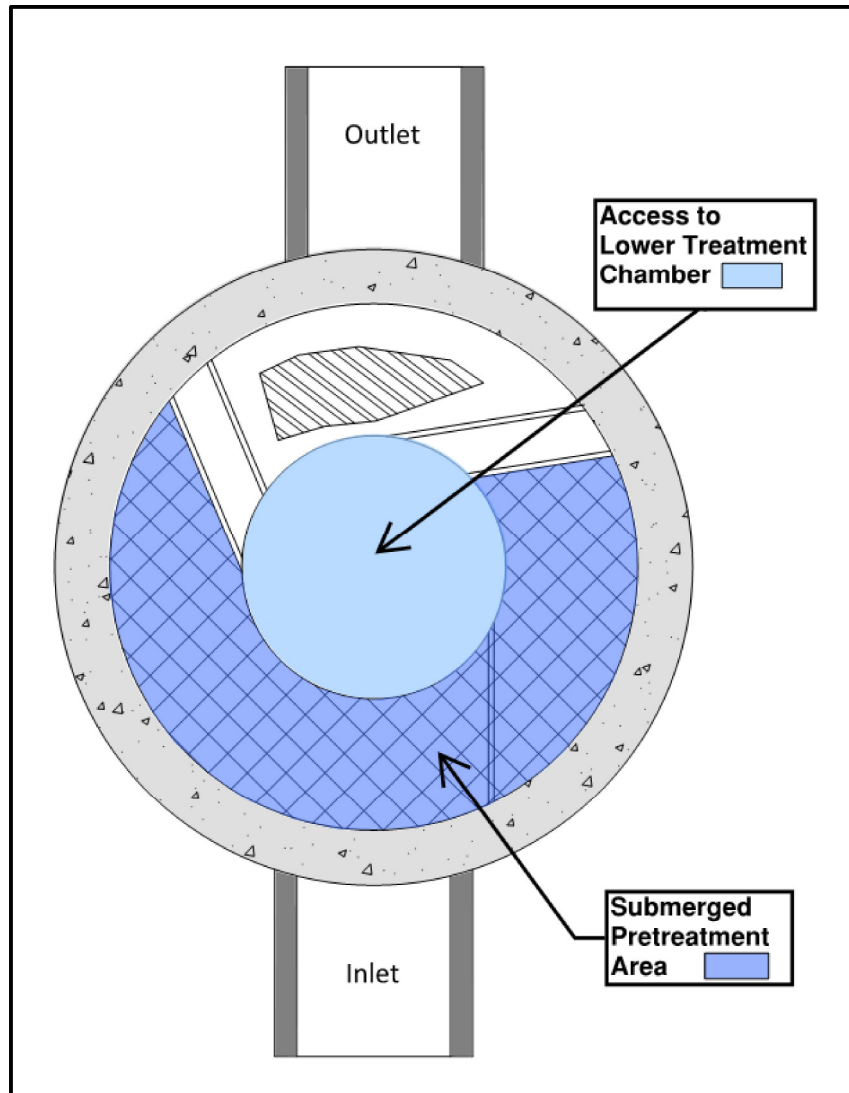


Figure 3. Maintenance Access

Frequency

Construction Period

A HydroStorm separator can fill with construction sediment quickly during the construction period. The HydroStorm must be maintained during the construction period when the depth of TSS/sediment reaches 24" (600 mm). It must also be maintained during the construction period if there is an appreciable depth of oil in the unit (more than a sheen) or if floatables other than oil cover over 50% of the area of the separator

The HydroStorm separator should be maintained at the end of the construction period, prior to operation for the post-construction period.

Post-Construction Period

The HydroStorm was independently tested by Alden Research Laboratory in 2017. A HydroStorm HS 4 was tested for scour with a 50% sediment depth of 0.5 ft. Therefore, maintenance for sediment accumulation is required if the depth of sediment is 1 ft or greater in separators with standard water (sump) depths (Table 1).

There will be designs with increased sediment storage based on specifications or site-specific criteria. A measurement of the total water depth in the separator through the central access tube should be taken and compared to water depth given in Table 1. The standard water depth from Table 1 should be subtracted from the measured water depth and the resulting extra depth should be added to the 1 ft to determine the site-specific sediment maintenance depth for that separator.

For example, if the measured water depth in the HS-7 is 7 feet, then the sediment maintenance depth for that HS-7 is 2 ft ($= 1 + 7 - 6$) and the separator does not need to be cleaned for sediment accumulation until the measure sediment depth is 2 ft.

The HydroStorm separator must also be maintained if there is an appreciable depth of oil in the unit (more than a sheen) or if floatables other than oil cover over 50% of the water surface of the separator.

Table 1 Standard Dimensions for Hydroworks HydroStorm Models

Model	Diameter (ft)	Total Water Depth (ft)	Sediment Maintenance Depth for Table 1 Total Water Depth(ft)
HS-3	3	3	1
HS-4	4	4	1
HS-5	5	4	1
HS-6	6	4	1
HS-7	7	6	1
HS-8	8	7	1
HS-9	9	7.5	1
HS-10	10	8	1
HS-11	11	9	1
HS-12	12	9.5	1



HYDROSTORM INSPECTION SHEET

Date _____
Date of Last Inspection _____

Site _____
City _____
State _____
Owner _____

GPS Coordinates _____

Date of last rainfall _____

Site Characteristics

	Yes	No
Soil erosion evident	<input type="checkbox"/>	<input type="checkbox"/>
Exposed material storage on site	<input type="checkbox"/>	<input type="checkbox"/>
Large exposure to leaf litter (lots of trees)	<input type="checkbox"/>	<input type="checkbox"/>
High traffic (vehicle) area	<input type="checkbox"/>	<input type="checkbox"/>

HydroStorm

	Yes	No
Obstructions in the inlet or outlet	<input type="checkbox"/> *	<input type="checkbox"/>
Missing internal components	<input type="checkbox"/> **	<input type="checkbox"/>
Improperly installed inlet or outlet pipes	<input type="checkbox"/> ***	<input type="checkbox"/>
Internal component damage (cracked, broken, loose pieces)	<input type="checkbox"/> **	<input type="checkbox"/>
Floating debris in the separator (oil, leaves, trash)	<input type="checkbox"/>	<input type="checkbox"/>
Large debris visible in the separator	<input type="checkbox"/> *	<input type="checkbox"/>
Concrete cracks/deficiencies	<input type="checkbox"/> ***	<input type="checkbox"/>
Exposed rebar	<input type="checkbox"/> **	<input type="checkbox"/>
Water seepage (water level not at outlet pipe invert)	<input type="checkbox"/> ***	<input type="checkbox"/>
Water level depth below outlet pipe invert _____"		

Routine Measurements

Floating debris depth	< 0.5" (13mm)	<input type="checkbox"/>	>0.5" 13mm)	<input type="checkbox"/> *
Floating debris coverage	< 50% of surface area	<input type="checkbox"/>	> 50% surface area	<input type="checkbox"/> *
Sludge depth	< 12" (300mm)	<input type="checkbox"/>	> 12" (300mm)	<input type="checkbox"/> *

* Maintenance required
** Repairs required
*** Further investigation is required





Hydroworks® HydroStorm

One Year Limited Warranty

Hydroworks, LLC warrants, to the purchaser and subsequent owner(s) during the warranty period subject to the terms and conditions hereof, the Hydroworks HydroStorm to be free from defects in material and workmanship under normal use and service, when properly installed, used, inspected and maintained in accordance with Hydroworks written instructions, for the period of the warranty. The standard warranty period is 1 year.

The warranty period begins once the separator has been manufactured and is available for delivery. Any components determined to be defective, either by failure or by inspection, in material and workmanship will be repaired, replaced or remanufactured at Hydroworks' option provided, however, that by doing so Hydroworks, LLC will not be obligated to replace an entire insert or concrete section, or the complete unit. This warranty does not cover shipping charges, damages, labor, any costs incurred to obtain access to the unit, any costs to repair/replace any surface treatment/cover after repair/replacement, or other charges that may occur due to product failure, repair or replacement.

This warranty does not apply to any material that has been disassembled or modified without prior approval of Hydroworks, LLC, that has been subjected to misuse, misapplication, neglect, alteration, accident or act of God, or that has not been installed, inspected, operated or maintained in accordance with Hydroworks, LLC instructions and is in lieu of all other warranties expressed or implied. Hydroworks, LLC does not authorize any representative or other person to expand or otherwise modify this limited warranty.

The owner shall provide Hydroworks, LLC with written notice of any alleged defect in material or workmanship including a detailed description of the alleged defect upon discovery of the defect. Hydroworks, LLC should be contacted at 136 Central Ave., Clark, NJ 07066 or any other address as supplied by Hydroworks, LLC. (888-290-7900).

This limited warranty is exclusive. There are no other warranties, express or implied, or merchantability or fitness for a particular purpose and none shall be created whether under the uniform commercial code, custom or usage in the industry or the course of dealings between the parties. Hydroworks, LLC will replace any goods that are defective under this warranty as the sole and exclusive remedy for breach of this warranty.

Subject to the foregoing, all conditions, warranties, terms, undertakings or liabilities (including liability as to negligence), expressed or implied, and howsoever arising, as to the condition, suitability, fitness, safety, or title to the Hydroworks HydroStorm are hereby negated and excluded and Hydroworks, LLC gives and makes no such representation, warranty or undertaking except as expressly set forth herein. Under no circumstances shall Hydroworks, LLC be liable to the Purchaser or to any third party for product liability claims; claims arising from the design, shipment, or installation of the HydroStorm, or the cost of other goods or services related to the purchase and installation of the HydroStorm. For this Limited Warranty to apply, the HydroStorm must be installed in accordance with all site conditions required by state and local codes; all other applicable laws; and Hydroworks' written installation instructions.

Hydroworks, LLC expressly disclaims liability for special, consequential or incidental damages (even if it has been advised of the possibility of the same) or breach of expressed or implied warranty. Hydroworks, LLC shall not be liable for penalties or liquidated damages, including loss of production and profits; labor and materials; overhead costs; or other loss or expense incurred by the purchaser or any third party. Specifically excluded from limited warranty coverage are damages to the HydroStorm arising from ordinary wear and tear; alteration, accident, misuse, abuse or neglect; improper maintenance, failure of the product due to improper installation of the concrete sections or improper sizing; or any other event not caused by Hydroworks, LLC. This limited warranty represents Hydroworks' sole liability to the purchaser for claims related to the HydroStorm, whether the claim is based upon contract, tort, or other legal basis.

APPENDIX I

NYSDEC Full Environmental Assessment Form

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 applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Applicant/Sponsor Information.

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

B. Government Approvals

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

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No or Village Board of Trustees		
b. City, Town or Village Planning Board or Commission <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	City of Beacon Planning Board - Site Plan Approval & Subdivision Approval	8/27/19
c. City, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
d. Other local agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Dutchess County Planning Dutchess County Department of Health	10/1/19
f. Regional agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	NYSDEC GP-0-20-001 Stormwater General Permit	10/1/19
h. Federal agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ACOE Wetland General Permit	10/1/19
i. Coastal Resources.		
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
iii. Is the project site within a Coastal Erosion Hazard Area?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

C. Planning and Zoning

C.1. Planning and zoning actions.

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

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

C.2. Adopted land use plans.

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

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

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

If Yes, identify the plan(s):

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

If Yes, identify the plan(s):

C.3. Zoning

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

RD-5 - Designed Residence District

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

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☒ No

If Yes,

i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

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

b. What police or other public protection forces serve the project site?

City of Beacon Police

c. Which fire protection and emergency medical services serve the project site?

City of Beacon Fire Department

d. What parks serve the project site?

City of Beacon Parks and Recreation, Memorial Park

D. Project Details

D.1. Proposed and Potential Development

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

b. a. Total acreage of the site of the proposed action? 8.6 acres

b. Total acreage to be physically disturbed?

4.26 onsite, 1.44 addl for acres
offsite access and utility
improvements

c. Total acreage (project site and any contiguous properties) owned
or controlled by the applicant or project sponsor? 8.6 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☒ No

i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☒ Yes ☐ No

If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

Residential, Creation of townhouse lots.

ii. Is a cluster/conservation layout proposed? ☐ Yes ☒ No

iii. Number of lots proposed? 42 (40 Townhouses/2 Common)

iv. Minimum and maximum proposed lot sizes? Minimum 1,800 Maximum 3.2 ac

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☒ No

i. If No, anticipated period of construction: 24 months

ii. If Yes:

- Total number of phases anticipated _____

- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year

- Anticipated completion date of final phase _____ month _____ year

- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, show numbers of units proposed.				
	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	40			
At completion of all phases	40			

g. Does the proposed action include new non-residential construction (including expansions)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes,	
i. Purpose of the impoundment: <u>Stormwater Management</u> ii. If a water impoundment, the principal source of the water: <input type="checkbox"/> Ground water <input type="checkbox"/> Surface water streams <input checked="" type="checkbox"/> Other specify: <u>Stormwater runoff</u> iii. If other than water, identify the type of impounded/contained liquids and their source. _____ iv. Approximate size of the proposed impoundment. Volume: _____ 0.5 million gallons; surface area: _____ 0.4 acres v. Dimensions of the proposed dam or impounding structure: _____ 5'-6" height; _____ 390' length vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): <u>Earth Fill</u>	

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) 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? <input type="checkbox"/> Yes <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input type="checkbox"/> 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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes:	
i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): <u>Federal flagged wetland PF01E</u> _____ _____	

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<ul style="list-style-type: none"> • Do existing sewer lines serve the project site? _____ • Will a line extension within an existing district be necessary to serve the project? _____ <p>If Yes:</p> <ul style="list-style-type: none"> • Describe extensions or capacity expansions proposed to serve this project: _____ _____ _____ 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<p>iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? _____</p> <p>If Yes:</p> <ul style="list-style-type: none"> • Applicant/sponsor for new district: _____ • Date application submitted or anticipated: _____ • What is the receiving water for the wastewater discharge? _____ 	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<p>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): _____ _____ _____</p>		
<p>vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____ _____ _____</p>		
<p>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? _____</p> <p>If Yes:</p> <p>i. How much impervious surface will the project create in relation to total size of project parcel?</p> <p>_____ Square feet or _____ 2.26 acres (impervious surface)</p> <p>_____ Square feet or _____ 8.6 acres (parcel size)</p> <p>ii. Describe types of new point sources. _____ Roadway catch basins, roof drain connections, cut off swales</p> <p>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)? _____</p> <p>_____ Onsite stormwater management facilities</p> <p>_____</p> <ul style="list-style-type: none"> • If to surface waters, identify receiving water bodies or wetlands: _____ _____ Onsite wetland • Will stormwater runoff flow to adjacent properties? _____ 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<p>iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? _____</p>		
<p>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? _____</p> <p>If Yes, identify:</p> <p>i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles) _____ _____ Heavy equipment during construction.</p> <p>ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers) _____ _____ None.</p> <p>iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation) _____ _____ Natural gas boilers for each residential unit.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<p>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? _____</p> <p>If Yes:</p> <p>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) _____</p> <p>ii. In addition to emissions as calculated in the application, the project will generate:</p> <ul style="list-style-type: none"> • _____ Tons/year (short tons) of Carbon Dioxide (CO₂) • _____ Tons/year (short tons) of Nitrous Oxide (N₂O) • _____ Tons/year (short tons) of Perfluorocarbons (PFCs) • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆) • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydrofluorocarbons (HFCs) • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs) 		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No

<p>h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Estimate methane generation in tons/year (metric): _____</p> <p>ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____</p>			
<p>i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____</p>			
<p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. When is the peak traffic expected (Check all that apply): <input type="checkbox"/> Morning <input type="checkbox"/> Evening <input type="checkbox"/> Weekend <input type="checkbox"/> Randomly between hours of _____ to _____.</p> <p>ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____</p> <p>iii. Parking spaces: Existing <u>0</u> Proposed _____ Net increase/decrease _____</p> <p>iv. Does the proposed action include any shared use parking? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____</p> <p>vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p style="text-align: right;">N/A</p> <p>If Yes:</p> <p>i. Estimate annual electricity demand during operation of the proposed action: _____</p> <p>ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____</p> <p>iii. Will the proposed action require a new, or an upgrade, to an existing substation? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
<p>l. Hours of operation. Answer all items which apply.</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: <u>7 am - 5 pm</u> • Saturday: _____ • Sunday: _____ • Holidays: _____ </td> <td style="width: 50%; vertical-align: top;"> <p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ • Saturday: _____ • Sunday: _____ • Holidays: _____ </td> </tr> </table>		<p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: <u>7 am - 5 pm</u> • Saturday: _____ • Sunday: _____ • Holidays: _____ 	<p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ • Saturday: _____ • Sunday: _____ • Holidays: _____
<p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: <u>7 am - 5 pm</u> • Saturday: _____ • Sunday: _____ • Holidays: _____ 	<p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ • Saturday: _____ • Sunday: _____ • Holidays: _____ 		

<p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:</p> <p style="margin-left: 20px;"><u>Typical noise associated with excavation and general construction during business hours.</u></p>	
<p>ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p style="margin-left: 20px;">Describe: <u>Limited tree clearing for improvements. New landscape screening will be installed.</u></p>	
<p>n. Will the proposed action have outdoor lighting? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:</p> <p style="margin-left: 20px;"><u>Roadway pole mounted lights at 18' high with house side shields.</u></p>	
<p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p style="margin-left: 20px;">Describe: <u>Limited tree clearing for improvements. New landscape screening will be installed.</u></p>	
<p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p style="margin-left: 20px;">If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:</p> <p style="margin-left: 20px;"><u> </u></p> <p style="margin-left: 20px;"><u> </u></p> <p style="margin-left: 20px;"><u> </u></p>	
<p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Product(s) to be stored <u> </u></p> <p>ii. Volume(s) <u> </u> per unit time <u> </u> (e.g., month, year)</p> <p>iii. Generally, describe the proposed storage facilities: <u> </u></p> <p style="margin-left: 20px;"><u> </u></p>	
<p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p style="text-align: right; margin-right: 50px;">N/A</p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):</p> <p style="margin-left: 20px;"><u> </u></p> <p style="margin-left: 20px;"><u> </u></p> <p style="margin-left: 20px;"><u> </u></p>	
<p>ii. Will the proposed action use Integrated Pest Management Practices? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p style="text-align: right; margin-right: 50px;">N/A</p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> • Construction: <u> </u> tons per <u> </u> (unit of time) • Operation : <u> </u> tons per <u> </u> (unit of time) <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> • Construction: <u> </u> • Operation: <u> </u> <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> • Construction: <u> </u> • Operation: <u> </u> 	

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.			
<input type="checkbox"/> Urban	<input checked="" type="checkbox"/> Industrial	<input checked="" type="checkbox"/> Commercial	<input checked="" type="checkbox"/> Residential (suburban)
<input type="checkbox"/> Forest	<input type="checkbox"/> Agriculture	<input type="checkbox"/> Aquatic	<input type="checkbox"/> Rural (non-farm)
ii. If mix of uses, generally describe: _____			
b. Land uses and covertypes on the project site.			
Land use or Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces		2.1 ac±	
• Forested	6.0 ac±	2.6 ac±	
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)	2.6 ac±	2.3 ac±	
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: <u>Slope, Lawn and Landscape Areas</u>		1.6 ac±	

Page 10 of 13

v. Is the project site subject to an institutional control limiting property uses? <input type="checkbox"/> Yes <input type="checkbox"/> No <ul style="list-style-type: none"> 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? <input type="checkbox"/> Yes <input type="checkbox"/> No Explain: _____ _____ 																							
E.2. Natural Resources On or Near Project Site																							
a. What is the average depth to bedrock on the project site? <u>6.5 feet average</u> feet																							
b. Are there bedrock outcroppings on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %																							
c. Predominant soil type(s) present on project site: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-bottom: 1px solid black; width: 70%;">Bernardston Silt (BeB) (BeC)</td> <td style="width: 30%; text-align: right; border-bottom: 1px solid black;">52 %</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Canandaigua Silt (Ca)</td> <td style="text-align: right; border-bottom: 1px solid black;">29 %</td> </tr> <tr> <td style="border-bottom: 1px solid black;">Nassau Cardigan Complex (NwC)</td> <td style="text-align: right; border-bottom: 1px solid black;">19 %</td> </tr> </table>		Bernardston Silt (BeB) (BeC)	52 %	Canandaigua Silt (Ca)	29 %	Nassau Cardigan Complex (NwC)	19 %																
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d. What is the average depth to the water table on the project site? Average: <u>2 feet average</u> feet																							
e. Drainage status of project site soils: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30px;"><input checked="" type="checkbox"/> Well Drained:</td> <td style="width: 30px; text-align: right;"><u>66</u> % of site</td> </tr> <tr> <td><input type="checkbox"/> Moderately Well Drained:</td> <td style="text-align: right;">_____ % of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> Poorly Drained</td> <td style="text-align: right;"><u>34</u> % of site</td> </tr> </table>		<input checked="" type="checkbox"/> Well Drained:	<u>66</u> % of site	<input type="checkbox"/> Moderately Well Drained:	_____ % of site	<input checked="" type="checkbox"/> Poorly Drained	<u>34</u> % of site																
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<input type="checkbox"/> Moderately Well Drained:	_____ % of site																						
<input checked="" type="checkbox"/> Poorly Drained	<u>34</u> % of site																						
f. Approximate proportion of proposed action site with slopes: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30px;"><input checked="" type="checkbox"/> 0-10%:</td> <td style="width: 30px; text-align: right;"><u>50</u> % of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> 10-15%:</td> <td style="text-align: right;"><u>15</u> % of site</td> </tr> <tr> <td><input checked="" type="checkbox"/> 15% or greater:</td> <td style="text-align: right;"><u>35</u> % of site</td> </tr> </table>		<input checked="" type="checkbox"/> 0-10%:	<u>50</u> % of site	<input checked="" type="checkbox"/> 10-15%:	<u>15</u> % of site	<input checked="" type="checkbox"/> 15% or greater:	<u>35</u> % of site																
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<input checked="" type="checkbox"/> 15% or greater:	<u>35</u> % of site																						
g. Are there any unique geologic features on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, describe: _____ _____																							
h. Surface water features. <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)?</td> <td style="width: 20%; text-align: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</td> </tr> <tr> <td>ii. Do any wetlands or other waterbodies adjoin the project site?</td> <td style="text-align: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</td> </tr> </table> If Yes to either <i>i</i> or <i>ii</i> , continue. If No, skip to E.2.i. <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?</td> <td style="width: 20%; text-align: right;"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</td> </tr> </table> iv. For each identified regulated wetland and waterbody on the project site, provide the following information: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10px;">•</td> <td style="width: 10px;">Streams:</td> <td style="width: 40%;">Name _____</td> <td style="width: 40%;">Classification _____</td> </tr> <tr> <td>•</td> <td>Lakes or Ponds:</td> <td>Name _____</td> <td>Classification _____</td> </tr> <tr> <td>•</td> <td>Wetlands:</td> <td>Name <u>Federal Wetland PF01E</u></td> <td>Approximate Size <u>2.55 ac onsite</u></td> </tr> <tr> <td>•</td> <td>Wetland No. (if regulated by DEC)</td> <td colspan="2">_____</td> </tr> </table>		i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	ii. Do any wetlands or other waterbodies adjoin the project site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	•	Streams:	Name _____	Classification _____	•	Lakes or Ponds:	Name _____	Classification _____	•	Wetlands:	Name <u>Federal Wetland PF01E</u>	Approximate Size <u>2.55 ac onsite</u>	•	Wetland No. (if regulated by DEC)	_____	
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•	Wetlands:	Name <u>Federal Wetland PF01E</u>	Approximate Size <u>2.55 ac onsite</u>																				
•	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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, name of impaired water body/bodies and basis for listing as impaired: _____ _____																							
i. Is the project site in a designated Floodway? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																							
j. Is the project site in the 100-year Floodplain? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																							
k. Is the project site in the 500-year Floodplain? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																							
l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10px;">i.</td> <td>Name of aquifer: _____</td> </tr> </table>		i.	Name of aquifer: _____																				
i.	Name of aquifer: _____																						

<p>m. Identify the predominant wildlife species that occupy or use the project site: _____</p> <div style="display: flex; justify-content: space-between;"> Whitetail Deer _____ Gray Squirrel _____ </div> <div style="display: flex; justify-content: space-between;"> Raccoon _____ _____ </div>	
<p>n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Describe the habitat/community (composition, function, and basis for designation): _____</p> <p style="margin-left: 20px;">ii. Source(s) of description or evaluation: _____</p> <p style="margin-left: 20px;">iii. Extent of community/habitat:</p> <ul style="list-style-type: none"> • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres 	
<p>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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing (endangered or threatened): _____</p> <p>Indiana Bat _____</p>	
<p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Species and listing: _____</p>	
<p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, give a brief description of how the proposed action may affect that use: _____</p>	
<p>E.3. Designated Public Resources On or Near Project Site</p>	
<p>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? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, provide county plus district name/number: _____</p>	
<p>b. Are agricultural lands consisting of highly productive soils present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p style="margin-left: 20px;">i. If Yes: acreage(s) on project site? _____</p> <p style="margin-left: 20px;">ii. Source(s) of soil rating(s): _____</p>	
<p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature</p> <p style="margin-left: 20px;">ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____</p>	
<p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p style="margin-left: 20px;">i. CEA name: _____</p> <p style="margin-left: 20px;">ii. Basis for designation: _____</p> <p style="margin-left: 20px;">iii. Designating agency and date: _____</p>	

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes: <ul style="list-style-type: none"> i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input checked="" type="checkbox"/> Historic Building or District ii. Name: <u>Matteawan State Hospital</u> iii. Brief description of attributes on which listing is based: <div style="border: 1px solid black; padding: 2px; width: fit-content;">Area of social history, health and medicine and institutional architecture</div> 	
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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
g. Have additional archaeological or historic site(s) or resources been identified on the project site? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes: <ul style="list-style-type: none"> 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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If Yes: <ul style="list-style-type: none"> i. Identify resource: <u>Hudson Highlands Scenic Area</u> ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): <u>Hudson River Valley Scenic Area of Statewide Significance</u> iii. Distance between project and resource: _____ <u>2.4</u> miles. 	
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
If Yes: <ul style="list-style-type: none"> i. Identify the name of the river and its designation: _____ ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? <input type="checkbox"/> Yes <input type="checkbox"/> No 	

F. Additional Information

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

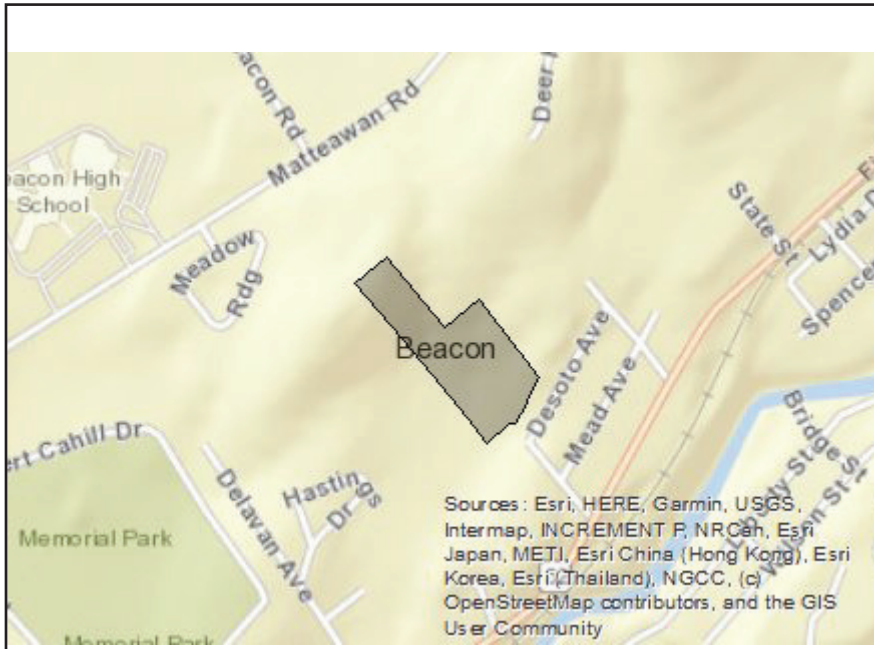
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

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

Applicant/Sponsor Name Jeffrey J. Contelmo, P.E. Date 6/30/20
Insite Engineering, Surveying & Landscape Architecture, P.C.

Signature _____ Title Senior Principal Engineer



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



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

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

APPENDIX J
Pipe Sizing Calculations

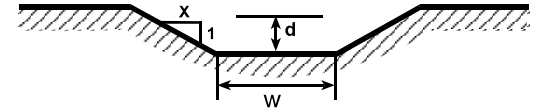


DRAINAGE SYSTEM CALCULATIONS Design Storm: 100-Year

PROJECT: Beacon Views
JOB NUMBER: 19131.100
BY: EJP
CHK: ZMP
DATE: 7-28-2020

STRUCTURE		IMPERVIOUS AREA			PERVIOUS AREA			CA	TIME OF CONC. (min.)			I	Q (cfs)		PIPE DESIGN					
FROM	TO	A (ac.)	C	CA	A (ac.)	C	CA		INLET	PIPE	TOTAL		DESIGN	CAP.	V(ft/s)	n	s (%)	L (ft)	DIA (in)	
DI 7	CB 6	0.20	0.9	0.18	0.02	0.3	0.01	0.19	6	-	6	9.2	1.7	5.9	6.5	0.012	2.3	97	12	
CB 6	CB 5	0.16	0.9	0.14	0.02	0.3	0.01	0.34	6	-	6	9.2	3.1	4.2	5.9	0.012	1.2	35	12	
CB 5	CB 4	0.10	0.9	0.09	0.06	0.3	0.02	0.47	6	-	6	9.2	4.3	8.0	6.6	0.012	1.3	183	15	
CB 4	CB 3	0.40	0.9	0.36	0.10	0.3	0.03	0.92	6	-	6	9.2	8.5	11.4	7.1	0.012	1.0	136	18	
CB 3	CB 2	0.15	0.9	0.14	0.06	0.3	0.02	2.01	6	-	6	9.2	18.5	47.1	14.1	0.012	3.7	63	24	
CB 2	ES 1	0.11	0.9	0.10	0.00	0.3	0.00	2.20	6	-	6	9.2	20.2	46.5	14.3	0.012	3.6	76	24	
CB 5A	CB 5	0.02	0.9	0.02	0.00	0.3	0.00	0.02	6	-	6	9.2	0.2	5.0	3.1	0.012	1.7	18	12	
CB 4A	CB 4	0.07	0.9	0.06	0.00	0.3	0.00	0.06	6	-	6	9.2	0.6	5.3	4.4	0.012	1.9	26	12	
CB 2A	CB 2	0.10	0.9	0.09	0.00	0.3	0.00	0.09	6	-	6	9.2	0.8	5.5	5.0	0.012	2.0	25	12	
CB 3C	CB 3B	0.48	0.9	0.43	0.22	0.3	0.07	0.50	6	-	6	9.2	4.6	7.3	6.3	0.012	1.1	151	15	
CB 3B	CB 3A	0.20	0.9	0.18	0.02	0.3	0.01	0.69	6	-	6	9.2	6.3	7.0	6.5	0.012	1.0	68	15	
CB 3A	CB 3	0.23	0.9	0.21	0.10	0.3	0.03	0.93	6	-	6	9.2	8.6	11.9	7.4	0.012	1.1	115	18	
SDI 22	ES 21	0.00	0.9	0.00	2.20	0.3	0.66	0.66	15	-	15	6.4	4.2	7.7	6.4	0.012	1.2	52	15	
SDI 12	SDI 11	0.00	0.9	0.00	1.60	0.3	0.48	0.48	15	-	15	6.4	3.1	11.7	12.6	0.012	9.2	22	12	
SDI 11	DMH 10	0.00	0.9	0.00	2.70	0.3	0.81	1.29	15	-	15	6.4	8.3	16.9	13.7	0.012	5.8	57	15	
DMH 10	DMH 9	0.00	0.9	0.00	0.00	0.3	0.00	1.29	15	-	15	6.4	8.3	11.9	10.5	0.012	2.9	110	15	
DMH 9	ES 8	0.00	0.9	0.00	0.00	0.3	0.00	1.29	15	-	15	6.4	8.3	20.2	15.6	0.012	8.3	60	15	
SDI 14A	DI 14	0.00	0.9	0.00	4.30	0.3	1.29	1.29	15	-	15	6.4	8.3	14.8	12.4	0.012	4.5	55	15	
DI 14	ES 13	0.00	0.9	0.00	3.30	0.3	0.99	2.28	15	-	15	6.4	14.6	49.6	13.8	0.012	4.1	80	24	
25 TOWNSEND	DI 14	18" DIAMETER HDPE (TAKEN FROM 25 TOWNSEND STREET APPROVED PLANS)																		
SDI 17	DMH 16	0.00	0.9	0.00	0.40	0.3	0.12	0.12	15	-	15	6.4	0.8	10.4	7.8	0.012	7.3	45	12	
DMH 16	ES 15	0.00	0.9	0.00	0.00	0.3	0.00	0.12	15	-	15	6.4	1.1	5.0	5.1	0.012	1.7	47	12	
CB 19	FS 1.1	0.25	0.9	0.23	0.01	0.3	0.00	0.23	6	-	6	9.2	2.1	6.8	7.7	0.012	3.1	46	12	
FS 1.1	ES 18	SIZED IN HYDROCAD																		
FS 1.1	HDS 1.1	SIZED IN HYDROCAD																		
HDS 1.1	1.2P	SIZED IN HYDROCAD																		
1.2P	DMH 16	SIZED IN HYDROCAD (0.29 CFS)																		
ES 24	ES 23	0.50	0.9	0.45	0.30	0.3	0.09	0.54	10	-	10	7.5	4.1	7.3	6.1	0.012	1.1	44	15	
OS 1.1P	ES 25	SIZED IN HYDROCAD																		
CB 28	CB 27	0.07	0.9	0.06	0.00	0.3	0.00	0.06	6	-	6	9.2	0.6	6.5	5.0	0.012	2.8	18	12	
CB 27	ES 26	0.07	0.9	0.06	0.00	0.3	0.00	0.12	6	-	6	9.2	1.1	7.5	6.9	0.012	3.8	136	12	
SDI 30	ES 29	0.00	0.9	0.00	1.50	0.3	0.45	0.45	15	-	15	6.4	2.9	4.4	6.0	0.012	1.3	61	12	

APPENDIX K
Swale Sizing Calculations



Appendix K SWALE SIZING CALCULATIONS

Design Storm: 100-Year
 Project: Beacon Views
 Job #: 19131.100
 Date: 7/28/2020
 By: EJP
 Sheet: 1 of 1

SMP ID	Swale Type	Q (cfs) design flow	w (ft) swale bottom width	d (ft) depth of flow	x swale side slope (x:1)	n Manning's "n"	S (%) swale slope	A (ft ²) swale area	W _p (ft) wetted perimeter	R _h (ft) hydraulic radius	V (ft/s) swale velocity	Q (cfs) swale capacity
A	Grass	0.8	1.00	0.3	2.00	0.035	2.00	0.40	2.16	0.18	1.9	0.8
A	Grass	0.8	1.00	0.1	2.00	0.035	20.00	0.18	1.63	0.11	4.4	0.8
B	Grass	8.3	1.00	0.8	2.00	0.035	2.00	2.27	4.78	0.48	3.7	8.3
B	Grass	8.3	1.00	0.5	2.00	0.035	13.00	1.14	3.43	0.33	7.3	8.3
C	Grass	3.1	1.00	0.5	2.00	0.035	2.00	1.09	3.37	0.32	2.8	3.1
C	Grass	3.1	1.00	0.4	2.00	0.035	10.00	0.61	2.59	0.23	5.1	3.1
D	Grass	5.2	1.00	0.7	2.00	0.035	2.00	1.60	4.04	0.40	3.3	5.2
D	Grass	5.2	1.00	0.5	2.00	0.035	5.00	1.14	3.44	0.33	4.6	5.2
E	Rip Rap	1.3	1.00	0.3	2.00	0.050	5.00	0.55	2.48	0.22	2.4	1.3
E	Rip Rap	1.3	1.00	0.2	2.00	0.050	20.00	0.34	2.03	0.17	4.0	1.3
F	Grass	3.0	1.00	0.6	2.00	0.035	1.00	1.39	3.77	0.37	2.2	3.0
F	Grass	3.0	1.00	0.5	2.00	0.035	2.00	1.06	3.33	0.32	2.8	3.0
G	Grass	1.5	1.00	0.4	2.00	0.035	1.00	0.83	2.97	0.28	1.8	1.5
G	Grass	1.5	1.00	0.4	2.00	0.035	2.00	0.64	2.65	0.24	2.3	1.5

Swale A is located behind Units 35-40 and is tributary to SDI 17
 Swale B is located behind Units 27-34 and is tributary to SDI 14A
 Swale C is located behind Units 21-26 and is tributary to SDI 12
 Swale D is located behind Units 14-20 and is tributary to SDI 11
 Swale E is located along between the western property line and proposed retaining wall and is tributary to SDI 22
 Swale F is located along the entrance drive off Hastings Drive and is tributary to SDI 22
 Swale G is located along the entrance drive off Hastings Drive and is tributary to SDI 30

APPENDIX L
Draft NYSDEC Notice of Intent



Department of
Environmental
Conservation

NYS Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

Construction Activities Seeking Authorization Under SPDES General Permit

*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

I. Project Owner/Operator Information

- | | |
|-------------------------|-----------------------------|
| 1. Owner/Operator Name: | BEACON VIEWS, LLC |
| 2. Contact Person: | GREGORY KAMEDULSKI |
| 3. Street Address: | 500 RIVER AVENUE, SUITE 145 |
| 4. City/State/Zip: | LAKEWOOD, NEW JERSEY 08701 |

II. Project Site Information

- | | |
|-----------------------|------------------------|
| 5. Project/Site Name: | BEACON VIEWS |
| 6. Street Address: | 100 CONKLIN STREET |
| 7. City/State/Zip: | BEACON, NEW YORK 12508 |

III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information

- | |
|---|
| 8. SWPPP Reviewed by: |
| 9. Title/Position: |
| 10. Date Final SWPPP Reviewed and Accepted: |

IV. Regulated MS4 Information

- | |
|--|
| 11. Name of MS4: |
| 12. MS4 SPDES Permit Identification Number: NYR20A |
| 13. Contact Person: |
| 14. Street Address: |
| 15. City/State/Zip: |
| 16. Telephone Number: |

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s).
Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

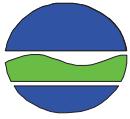
Title/Position:

Signature:

Date:

VI. Additional Information

NOTICE OF INTENT



New York State Department of Environmental Conservation

Division of Water

625 Broadway, 4th Floor

Albany, New York 12233-3505

NYR
(for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-

RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)

B E A C O N V I E W S , L L C

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

K A M E D U L S K I

Owner/Operator Contact Person First Name

G R E G O R Y

Owner/Operator Mailing Address

5 0 0 R I V E R A V E N U E , S U I T E 1 4 5

City

L A K E W O O D

State

N J

Zip

0 8 7 0 1 -

Phone (Owner/Operator)

2 0 3 - 3 1 3 - 9 4 1 2

Fax (Owner/Operator)

- - -

Email (Owner/Operator)

G K A M E D U L S K I @ G M A I L . C O M

FED TAX ID

- (not required for individuals)

Project Site Information

Project/Site Name

B E A C O N V I E W S

Street Address (NOT P.O. BOX)

1 0 0 C O N K L I N S T R E E T

Side of Street

☒ North ☐ South ☐ East ☐ West

City/Town/Village (THAT ISSUES BUILDING PERMIT)

B E A C O N

State

N Y

Zip

1 2 5 0 8 -

County

D U T C H E S S

DEC Region

3

Name of Nearest Cross Street

D E S O T O A V E N U E

Distance to Nearest Cross Street (Feet)

1 0 0

Project In Relation to Cross Street

☐ North ☐ South ☐ East ☒ West

Tax Map Numbers

Section-Block-Parcel

6 0 5 5 - 0 3 - 3 3 1 1 2 3

Tax Map Numbers

1. Provide the Geographic Coordinates for the project site. To do this, go to the NYSDEC Stormwater Interactive Map on the DEC website at:

<https://gisservices.dec.ny.gov/gis/stormwater/>

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located the centroid of your project site, go to the bottom right hand corner of the map for the X, Y coordinates. Enter the coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting)

-7 3 . 9 5 5

Ex. -73.749

Y Coordinates (Northing)

4 1 . 5 1 2

Ex. 42.652

2. What is the nature of this construction project?

☒ New Construction☐ Redevelopment with increase in impervious area☐ Redevelopment with no increase in impervious area

3. Select the predominant land use for both pre and post development conditions.

SELECT ONLY ONE CHOICE FOR EACH

**Pre-Development
Existing Land Use**

- ☒ FOREST
☐ PASTURE/OPEN LAND
☐ CULTIVATED LAND
☐ SINGLE FAMILY HOME
☐ SINGLE FAMILY SUBDIVISION
☐ TOWN HOME RESIDENTIAL
☐ MULTIFAMILY RESIDENTIAL
☐ INSTITUTIONAL/SCHOOL
☐ INDUSTRIAL
☐ COMMERCIAL
☐ ROAD/HIGHWAY
☐ RECREATIONAL/SPORTS FIELD
☐ BIKE PATH/TRAIL
☐ LINEAR UTILITY
☐ PARKING LOT
☐ OTHER

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Post-Development
Future Land Use**

- ☐ SINGLE FAMILY HOME
☒ SINGLE FAMILY SUBDIVISION
☐ TOWN HOME RESIDENTIAL
☐ MULTIFAMILY RESIDENTIAL
☐ INSTITUTIONAL/SCHOOL
☐ INDUSTRIAL
☐ COMMERCIAL
☐ MUNICIPAL
☐ ROAD/HIGHWAY
☐ RECREATIONAL/SPORTS FIELD
☐ BIKE PATH/TRAIL
☐ LINEAR UTILITY (water, sewer, gas, etc.)
☐ PARKING LOT
☐ CLEARING/GRADING ONLY
☐ DEMOLITION, NO REDEVELOPMENT
☐ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
☐ OTHER

Number of Lots

	4	2
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***Note:** for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area																								
<table border="1"><tr><td></td><td></td><td></td><td>8</td><td>.</td><td>6</td></tr></table>				8	.	6	<table border="1"><tr><td></td><td></td><td></td><td>5</td><td>.</td><td>7</td></tr></table>				5	.	7	<table border="1"><tr><td></td><td></td><td></td><td>0</td><td>.</td><td>0</td></tr></table>				0	.	0	<table border="1"><tr><td></td><td></td><td></td><td>2</td><td>.</td><td>8</td></tr></table>				2	.	8
			8	.	6																						
			5	.	7																						
			0	.	0																						
			2	.	8																						

5. Do you plan to disturb more than 5 acres of soil at any one time? ☐ Yes ☒ No

6. Indicate the percentage of each Hydrologic Soil Group (HSG) at the site.

A	B	C	D												
<table border="1"><tr><td></td><td></td><td>0</td></tr></table> %			0	<table border="1"><tr><td></td><td></td><td>0</td></tr></table> %			0	<table border="1"><tr><td></td><td></td><td>0</td></tr></table> %			0	<table border="1"><tr><td>1</td><td>0</td><td>0</td></tr></table> %	1	0	0
		0													
		0													
		0													
1	0	0													

7. Is this a phased project? ☒ Yes ☐ No

8. Enter the planned start and end dates of the disturbance activities.

Start Date	End Date																
<table border="1"><tr><td>0</td><td>8</td></tr></table> / <table border="1"><tr><td>0</td><td>1</td></tr></table> / <table border="1"><tr><td>2</td><td>0</td><td>2</td><td>0</td></tr></table>	0	8	0	1	2	0	2	0	- <table border="1"><tr><td>1</td><td>2</td></tr></table> / <table border="1"><tr><td>0</td><td>1</td></tr></table> / <table border="1"><tr><td>2</td><td>0</td><td>2</td><td>2</td></tr></table>	1	2	0	1	2	0	2	2
0	8																
0	1																
2	0	2	0														
1	2																
0	1																
2	0	2	2														

[illegible][illegible]

9a. Type of waterbody identified in Question 9?

- ☐ Wetland / State Jurisdiction On Site (Answer 9b)

☐ Wetland / State Jurisdiction Off Site

☒ Wetland / Federal Jurisdiction On Site (Answer 9b)

☐ Wetland / Federal Jurisdiction Off Site

☐ Stream / Creek On Site

☐ Stream / Creek Off Site

☐ River On Site

☐ River Off Site

☐ Lake On Site

☐ Lake Off Site

☐ Other Type On Site

☐ Other Type Off Site

9b. How was the wetland identified?

☐ Regulatory Map

☒ Delineated by Consultant

☐ Delineated by Army Corps of Engineers

☐ Other (identify)

☐ Regulatory Map

☒ Delineated by Consultant

☐ Delineated by Army Corps of Engineers

☐ Other (identify)

☐ Yes ☒ No

☐ Yes ☒ No

☐ Yes ☒ No

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ☐ Yes ☐ No

If Yes, what is the acreage to be disturbed?

.

☐ Yes ☐ No

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☐ Yes ☒ No

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ☐ Yes ☒ No ☐ Unknown

- [illegible]

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ☐ Yes ☒ No ☐ Unknown

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? ☐ Yes ☒ No

19. Is this property owned by a state authority, state agency, federal government or local government? ☐ Yes ☒ No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ☐ Yes ☒ No

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ☒ Yes ☐ No

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ☒ Yes ☐ No
- If No, skip questions 23 and 27-39.**

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ☒ Yes ☐ No

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ☒ Professional Engineer (P.E.)
☐ Soil and Water Conservation District (SWCD)
☐ Registered Landscape Architect (R.L.A.)
☐ Certified Professional in Erosion and Sediment Control (CPESC)
☐ Owner/Operator
☐ Other

[illegible]

SWPPP Preparer

[illegible]

Contact Name (Last, Space, First)

[illegible]

Mailing Address

[illegible]

City

[illegible]

State Zip

N	Y	1	0	5	1	2	-				
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Phone

8	4	5	-	2	2	5	-	9	6	9	0
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Fax

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Email

J	C	O	N	T	E	L	M	O	@	I	N	S	I	T	E	-	E	N	G	.	C	O	M
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[illegible]

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name

[illegible]

MI

J

Last Name

C	O	N	T	E	L	M	O	,	P	E							
---	---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--

Signature

Date _____

	/		/	
--	---	--	---	--

25. Has a construction sequence schedule for the planned management practices been prepared? ☒ Yes ☐ No

☒ Yes ☐ No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural

- ☒ Check Dams
- ☐ Construction Road Stabilization
- ☒ Dust Control
- ☐ Earth Dike
- ☒ Level Spreader
- ☐ Perimeter Dike/Swale
- ☐ Pipe Slope Drain
- ☐ Portable Sediment Tank
- ☐ Rock Dam
- ☒ Sediment Basin
- ☐ Sediment Traps
- ☒ Silt Fence
- ☒ Stabilized Construction Entrance
- ☒ Storm Drain Inlet Protection
- ☐ Straw/Hay Bale Dike
- ☐ Temporary Access Waterway Crossing
- ☒ Temporary Stormdrain Diversion
- ☒ Temporary Swale
- ☐ Turbidity Curtain
- ☐ Water bars

Biotechnical

- Brush Matting
- Wattling

Other

[illegible]

Vegetative Measures

- ☐ Brush Matting
- ☐ Dune Stabilization
- ☒ Grassed Waterway
- ☒ Mulching
- ☐ Protecting Vegetation
- ☐ Recreation Area Improvement
- ☒ Seeding
- ☐ Sodding
- ☐ Straw/Hay Bale Dike
- ☐ Streambank Protection
- ☐ Temporary Swale
- ☒ Topsoiling
- ☐ Vegetating Waterways

Permanent Structural

- ☐ Debris Basin
- ☐ Diversion
- ☐ Grade Stabilization Structure
- ☐ Land Grading
- ☐ Lined Waterway (Rock)
- ☐ Paved Channel (Concrete)
- ☐ Paved Flume
- ☒ Retaining Wall
- ☐ Riprap Slope Protection
- ☒ Rock Outlet Protection
- ☐ Streambank Protection

Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ☐ Preservation of Undisturbed Areas
- ☐ Preservation of Buffers
- ☒ Reduction of Clearing and Grading
- ☐ Locating Development in Less Sensitive Areas
- ☒ Roadway Reduction
- ☐ Sidewalk Reduction
- ☐ Driveway Reduction
- ☐ Cul-de-sac Reduction
- ☒ Building Footprint Reduction
- ☒ Parking Reduction

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ☒ All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ☐ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required

0 . acre-feet

29. Identify the RR techniques (Area Reduction), RR techniques (Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

Table 1 - Runoff Reduction (RR) Techniques
and Standard Stormwater Management
Practices (SMPs)

RR Techniques (Area Reduction)	Total Contributing Area (acres)	Total Contributing Impervious Area (acres)
<input type="radio"/> Conservation of Natural Areas (RR-1) ...	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Sheetflow to Riparian Buffers/Filters Strips (RR-2)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Tree Planting/Tree Pit (RR-3)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Disconnection of Rooftop Runoff (RR-4) ..	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>	and/or <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/> <input type="text"/>
RR Techniques (Volume Reduction)		
<input type="radio"/> Vegetated Swale (RR-5)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Rain Garden (RR-6)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Stormwater Planter (RR-7)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Rain Barrel/Cistern (RR-8)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Porous Pavement (RR-9)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Green Roof (RR-10)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
Standard SMPs with RRv Capacity		
<input type="radio"/> Infiltration Trench (I-1)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Infiltration Basin (I-2)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Dry Well (I-3)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input checked="" type="radio"/> Underground Infiltration System (I-4)	<input type="text"/> 0	<input type="text"/> 4 <input type="text"/> 5
<input type="radio"/> Bioretention (F-5)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Dry Swale (O-1)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
Standard SMPs		
<input type="radio"/> Micropool Extended Detention (P-1)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Wet Pond (P-2)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Wet Extended Detention (P-3)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Multiple Pond System (P-4)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input checked="" type="radio"/> Pocket Pond (P-5)	<input type="text"/> 2	<input type="text"/> 3 <input type="text"/> 5
<input type="radio"/> Surface Sand Filter (F-1)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Underground Sand Filter (F-2)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Perimeter Sand Filter (F-3)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Organic Filter (F-4)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Shallow Wetland (W-1)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Extended Detention Wetland (W-2)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Pond/Wetland System (W-3)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Pocket Wetland (W-4)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>
<input type="radio"/> Wet Swale (O-2)	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>

[illegible][illegible][illegible]

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

		0
--	--	---

 .

0	8	2
---	---	---

acre-feet

- If Yes, go to question 36.
If No, go to question 32.

- | | | |
|--|--|---|
| | | 0 |
|--|--|---|
- .
- | | | |
|---|---|---|
| 0 | 6 | 2 |
|---|---|---|
- acre-feet

- If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv (=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

- 33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

0 . 2 4 5 **acre-feet**

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a).

0 . 3 3 4

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ☒ **Yes** ☐ **No**

If Yes, go to question 36.

If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

0 . 6 2 6 **acre-feet**

CPv Provided

0 . 6 2 6 **acre-feet**

- 36a. The need to provide channel protection has been waived because:

- ☐ Site discharges directly to tidal waters or a fifth order or larger stream.
- ☐ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

3 9 . 7 **CFS**

Post-development

3 5 . 2 **CFS**

Total Extreme Flood Control Criteria (Qf)

Pre-Development

8 4 . 5 **CFS**

Post-development

7 8 . 7 **CFS**

37a. The need to meet the Qp and Qf criteria has been waived because:

- ☐ Site discharges directly to tidal waters or a fifth order or larger stream.
- ☐ Downstream analysis reveals that the Qp and Qf controls are not required

- Site discharges directly to tidal waters or a fifth order or larger stream.
- Downstream analysis reveals that the Qp and Qf controls are not required

☒ Yes ☐ No

If Yes, Identify the entity responsible for the long term
Operation and Maintenance

[illegible]

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a)
This space can also be used for other pertinent project information.

40. Identify other DEC permits, existing and new, that are required for this project/facility.

- ☐ Air Pollution Control

☐ Coastal Erosion

☐ Hazardous Waste

☐ Long Island Wells

☐ Mined Land Reclamation

☐ Solid Waste

☐ Navigable Waters Protection / Article 15

☐ Water Quality Certificate

☐ Dam Safety

☐ Water Supply

☐ Freshwater Wetlands/Article 24

☐ Tidal Wetlands

☐ Wild, Scenic and Recreational Rivers

☐ Stream Bed or Bank Protection / Article 15

☐ Endangered or Threatened Species(Incidental Take Permit)

☐ Individual SPDES

☐ SPDES Multi-Sector GP

N	Y	R					
---	---	---	--	--	--	--	--

☐ Other

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

☒ None

41. Does this project require a US Army Corps of Engineers
Wetland Permit? ☐ ☐ ☐ ☐ ☐ ☐

☒ Yes ☐ No

If Yes, Indicate Size of Impact.	0	3
----------------------------------	---	---

42. Is this project subject to the requirements of a regulated, traditional land use control MS4?
(If No, skip question 43)

☒ Yes ☐ No

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI?

☒ Yes ☐ No

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned.

N	Y	D				
---	---	---	--	--	--	--

N	Y	R					
---	---	---	--	--	--	--	--

Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name

G	R	E	G	O	R	Y													
---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--	--	--

MI

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Print Last Name

K	A	M	E	D	U	L	S	K	I										
---	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--

Owner/Operator Signature

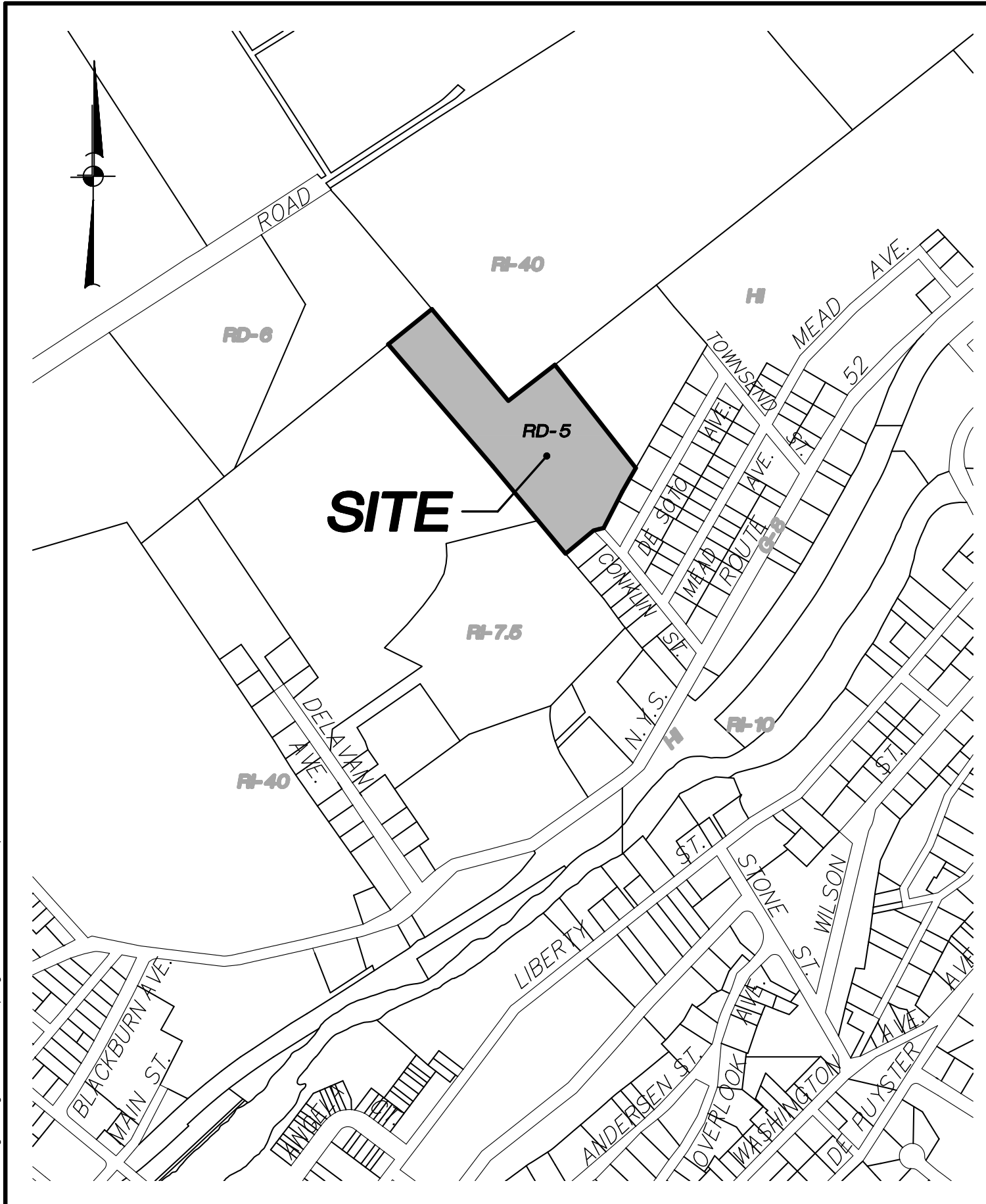
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Date

				/				/				
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FIGURES

Z:\E\19131100\Stormwater\Figures\Figure 1 - Location Map.dwg, 8/26/2019 7:56:56 AM, ependleton, 1:1



PROJECT:

BEACON VIEWS

CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:

LOCATION MAP

PREPARED BY:



INSITE

ENGINEERING, SURVEYING &
LANDSCAPE ARCHITECTURE, P.C.

3 Garrett Place • Carmel, New York 10512
Phone (845) 225-9690 • Fax (845) 225-9717
www.insite-eng.com

DATE:

8-26-19

SCALE:

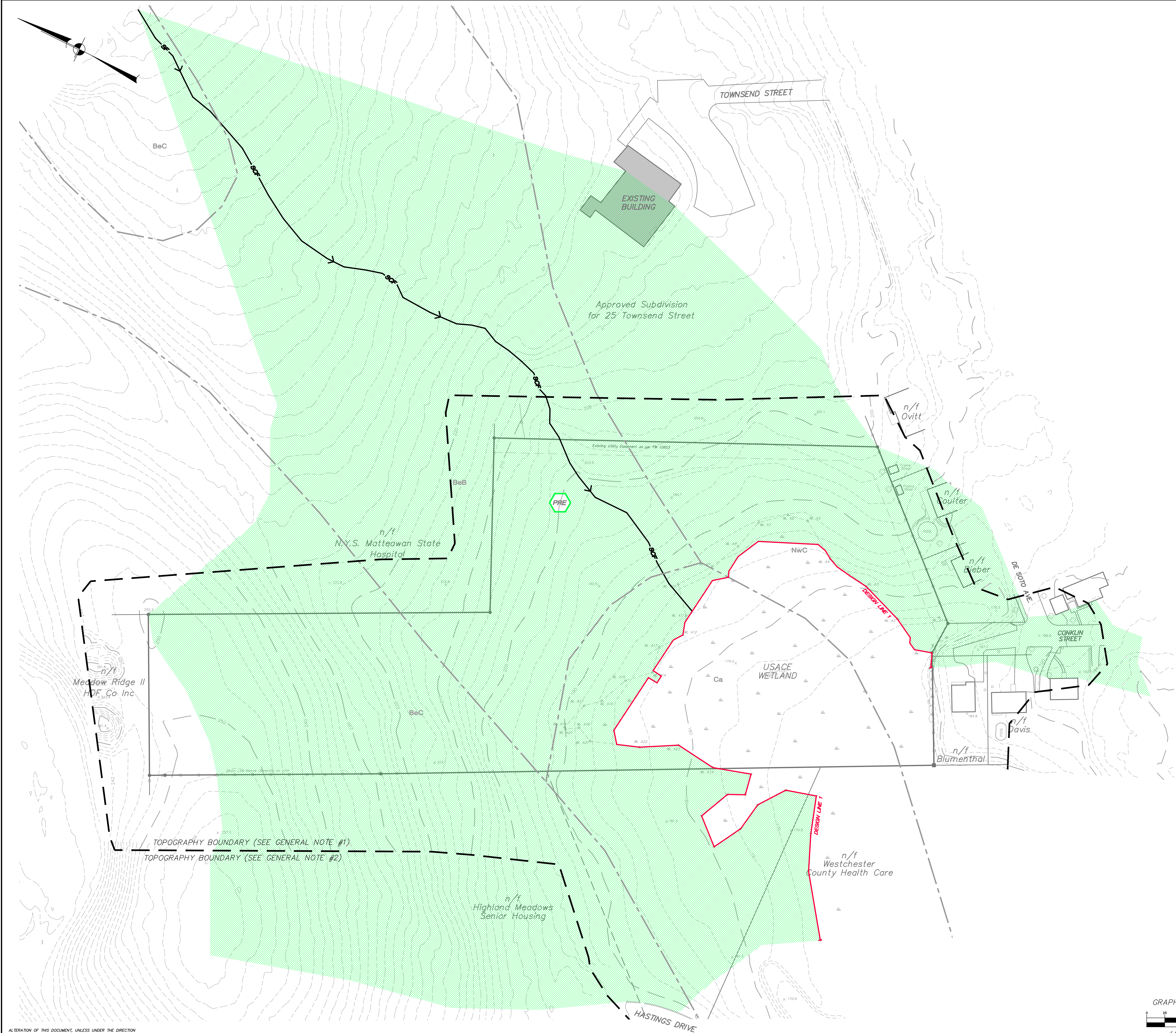
1" = 500'

PROJECT NO.:

19131.100

FIGURE:

1

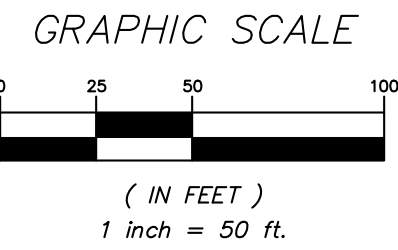


SOILS LEGEND		
SOILS	DESCRIPTION	HYDROLOGICAL GROUP
BeB	Bernardston Silt Loam, 3% to 8% slope	C/D
BeC	Bernardston Silt Loam, 8% to 15% slope	C/D
Ca	Canandaigua Silt Loam, Neutral Substratum	C/D
NwC	Nassau-Cardigan Complex, Rolling, Very Rocky	D
----- NRCS Soil Boundary Line		

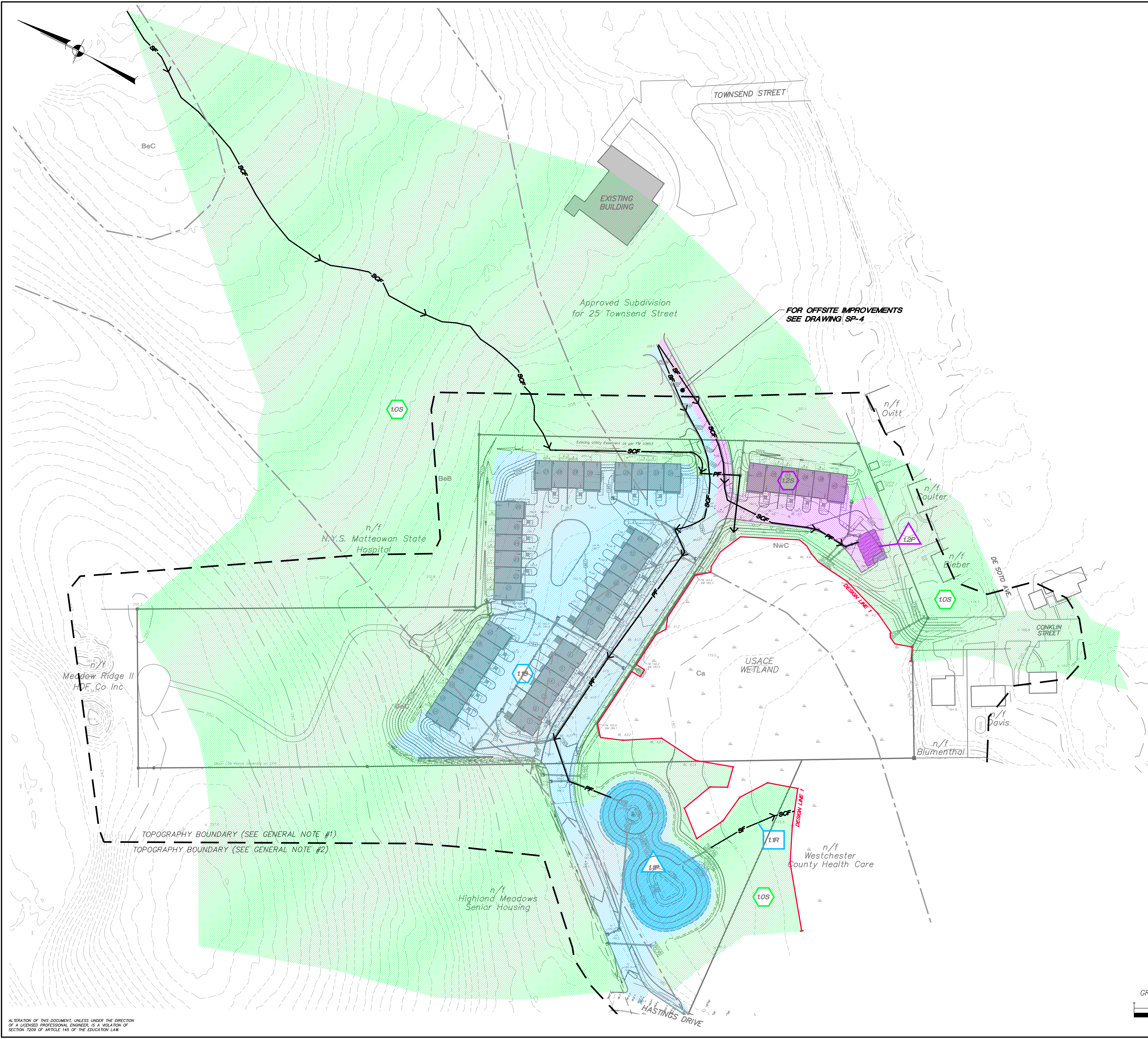
LEGEND	
	SUBCATCHMENT
	TIME OF CONCENTRATION SHEET FLOW
	TIME OF CONCENTRATION SHALLOW CONCENTRATED FLOW
	DESIGN LINE
	SUBCATCHMENT CONTRIBUTING AREA

- General Notes:**
- Topography shown hereon within the project site and topography boundary are based upon aerial photography dated April 14, 2003 and is photogrammetrically compiled. Elevations shown hereon conform to the North American Vertical Datum of 1988 (N.A.V.D. 1988) as derived by GPS observation. The contour interval is 2'.
 - Topography shown hereon outside of the topography boundary are based upon Dutchess County 2' contour, GIS data.
 - Design Line 1 generally follows the wetland boundary on the project site. Portions of the Design Line were adjusted within the wetland to include all drainage areas in the post-development condition in the stormwater analysis.

2	6-30-20	REVISED PER PLANNING BOARD COMMENTS	EJP
1	5-26-20	REVISED PER PLANNING BOARD COMMENTS	EJP
NO.	DATE	REVISION	BY
INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C. 3 Garrett Place Carmel, NY 10512 (845) 225-9690 (845) 225-9717 fax www.insite-eng.com			
PROJECT: BEACON VIEWS CITY OF BEACON, DUTCHESS COUNTY, NEW YORK			
DRAWING: PRE-DEVELOPMENT DRAINAGE MAP			
PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.
DATE	8-26-19	DRAWN BY	E.J.P.
SCALE	1" = 50'	CHECKED BY	Z.M.P.
FIGURE NO.			2



ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.



SOILS LEGEND		
SOILS	DESCRIPTION	HYDROLOGICAL GROUP
BeB	Bernardston Silt Loam, 3% to 8% slope	C/D
BeC	Bernardston Silt Loam, 8% to 15% slope	C/D
Ca	Canandaigua Silt Loam, Neutral Substratum	C/D
NwC	Nassau-Cardigan Complex, Rolling, Very Rocky	D
----- NRCS Soil Boundary Line		

LEGEND	
	SUBCATCHMENT
	STORMWATER MANAGEMENT PRACTICE
	TIME OF CONCENTRATION SHEET FLOW
	TIME OF CONCENTRATION SHALLOW CONCENTRATED FLOW
	TIME OF CONCENTRATION PIPE FLOW
	TIME OF CONCENTRATION CHANNEL FLOW
	DESIGN LINE
	SUBCATCHMENT CONTRIBUTING AREA
	STORMWATER MANAGEMENT PRACTICE AREA

- General Notes:**
- Topography shown herein within the project site and topography boundary are based upon aerial photography dated April 14, 2003 and is photogrammetrically compiled. Elevations shown herein conform to the North American Vertical Datum of 1988 (N.A.V.D., 1988) as derived by GPS observation. The contour interval is 2'.
 - Topography shown herein outside of the topography boundary are based upon Dutchess County 2' contour, GIS data.
 - Design Line 1 generally follows the wetland boundary on the project site. Portions of the Design Line were adjusted within the wetland to include all drainage areas in the post-development condition in the stormwater analysis.

4	7-28-20	REVISED PER PLANNING BOARD COMMENTS	E.J.P.
3	6-30-20	REVISED PER PLANNING BOARD COMMENTS	E.J.P.
2	5-26-20	REVISED PER PLANNING BOARD COMMENTS	E.J.P.
1	4-28-20	RESUBMISSION TO PLANNING BOARD	E.J.P.
NO.	DATE	REVISION	BY

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

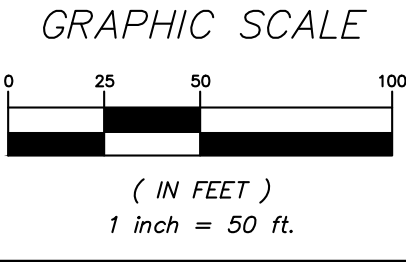
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

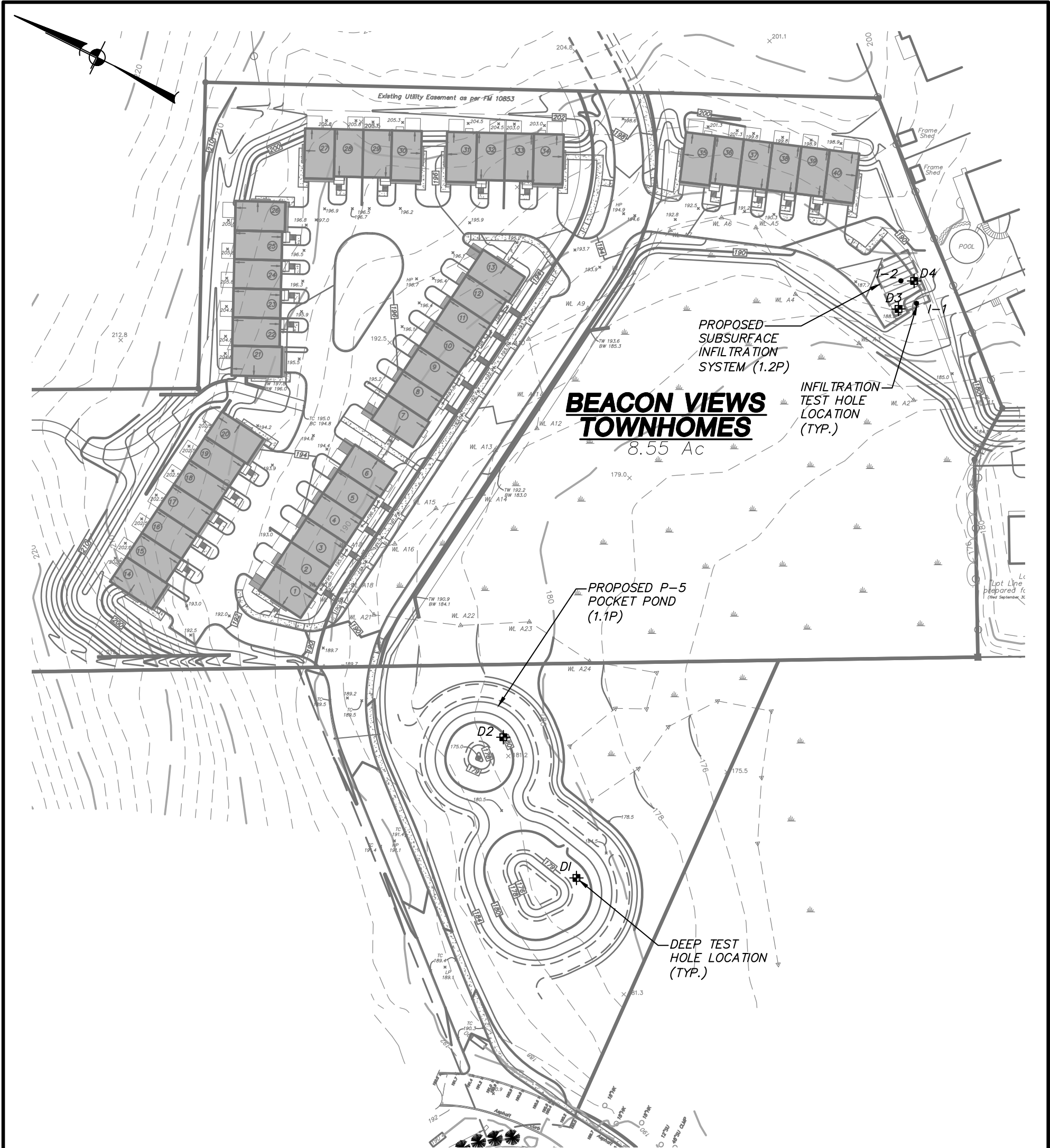
PROJECT:
BEACON VIEWS
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK

DRAWING:
**POST-DEVELOPMENT
DRAINAGE MAP**

PROJECT NUMBER	19131.100	PROJECT MANAGER	J.J.C.	FIGURE NO.
DATE	8-26-19	DRAWN BY	E.J.P.	
SCALE	1" = 50'	CHECKED BY	Z.M.P.	

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 2209 OF ARTICLE 145 OF THE EDUCATION LAW.





DEEP HOLE TEST RESULTS:

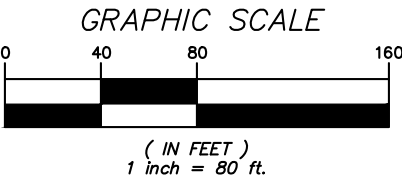
DEEP TESTS PERFORMED: 12-16-2019 (D-1, D-2, D-3) & 6-24-2020 (D-4)
DEEP TESTS WITNESSED BY:
EVAN PENDLETON (INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.) & CASSANDRA BIBBO AND SCOTT SICINA (LANC AND TULLY ENGINEERING AND SURVEYING, P.C.)

D-1:	0"-2" 2"-64"+	TOPSOIL BROWN SILTY LOAM GROUNDWATER @ 36". NO ROCK.
D-2:	0"-2" 2"-48"+	TOPSOIL BROWN SILTY LOAM GROUNDWATER @ 18". NO ROCK.
D-3:	0"-2" 2"-84"+	TOPSOIL BROWN LOAM GROUNDWATER @ 84". NO ROCK.
D-4:	0"-6" 6"-48" 48"-102"+	TOPSOIL COMPACT BROWN LOAM BROWN LOAM

INFILTRATION TEST RESULTS:

INFILTRATION TEST PERFORMED: 6-25-20
INFILTRATION TESTS PERFORMED BY: EVAN PENDLETON
(INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.)
WITNESSED BY: STEVEN PADIN (LANC AND TULLY ENGINEERING AND SURVEYING, P.C.)

I-3:	60" IN./HR.
I-4:	21" IN./HR.



PROJECT:	BEACON VIEWS CITY OF BEACON, DUTCHESS COUNTY, NEW YORK
DRAWING:	TESTING PLAN

PREPARED BY:

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

DATE:	7-28-20
SCALE:	1" = 80'
PROJECT NO.:	19131.100
FIGURE:	FIG - 4



PRELIMINARY WATER & WASTEWATER ENGINEERING REPORT

For

**Beacon Views
City of Beacon, New York**

July 28, 2020



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

	PAGE
1.0 INTRODUCTION	1
2.0 WATER AND WASTEWATER DESIGN FLOWS	1
3.0 PROPOSED WATER CONNECTION TO CITY OF BEACON SYSTEM.....	2
3.1 System Characteristics	2
3.2 Service Connection	2
4.0 PROPOSED WASTEWATER CONNECTIONS TO CITY OF BEACON SYSTEM	2

APPENDICES

Appendix A	City of Beacon – Town of Fishkill Water Agreement
Appendix B	HDR Memo Addressing Sewer Impacts
Appendix C	Email correspondence from the Town of Fishkill

1.0 INTRODUCTION

The Beacon Views project is located on a parcel adjacent to Conklin Street and Hastings Drive. The subject property is in the City's RD-5 District and is identified as Tax Map No. 6055-03-331123. The applicant, Beacon Views, LLC wishes to construct nine buildings containing 40 townhomes.

The project is in the City of Beacon Water and Sewer area. Water for the development will be provided by an 8" diameter watermain connection to the existing watermain running through the site. The existing 12" diameter onsite watermain is the subject of a water agreement between the City of Beacon and Town of Fishkill (see Appendix A). It is proposed to install an 8" City of Beacon watermain extension to provide water service to the development.

Sewer will be provided with an 8" diameter gravity main through the site that will collect service connections from each unit. The 8" diameter gravity main will discharge to the existing city sewer system in Conklin Street. The City's Consultant HDR has performed an analysis of the existing sewer system and concluded the system can handle the project sewer flows (see Appendix B).

2.0 PROJECT DESIGN FLOWS AND ANTICIPATED FLOWS

Design maximum daily wastewater flows for the proposed project, Beacon Views, are based on the hydraulic loading rates given in the New York State Department of Environmental Conservation (NYSDEC) publication *Design Standards for Intermediate Sized Wastewater Treatment Works – 2014* (DEC 14). The design maximum daily water use is a conservative design flow on which the water infrastructure will be designed. This value does not represent the average daily flow which is expected to be substantially less.

The following table calculates the hydraulic loading rates and the design flow rates (gallons per day or gpd) for the proposed project.

Table 1: Beacon Views Project Design Maximum Daily Flow Rate

Proposed Use	Hydraulic Loading Rate	Design Maximum Daily Flow (gpd)
40 –Three Bedroom Townhome	330 gpd/dwelling	13,200
Total		13,200

The anticipated design average daily flows for the project are expected to be significantly less than the design maximum daily design flow. The design maximum daily flows represent conservative flows to ensure that the proposed sewer infrastructure is designed with an ample factor of safety. The anticipated average daily flows are based on occupancy rates and measured data for water use. Statistical data (obtained from *Rutgers University, Center for Urban Policy Research, Residential Demographic Multipliers*, June 2006) for the average number of occupants in rental units (based on number of bedrooms) is 3.0. In order to provide a conservative estimate and average occupancy rate of 3.5 people per unit was used to calculate the expected number of residents anticipated for the project as shown in the table below. Data from the American Water Works Association (AWWA) shows that the average in home water use is 69 gpd per person. This number is reduced to 45 gpd per person when water saving fixtures are used, which is the case for this project.

Table 2: Design Average Daily Flow

Proposed Use	Average Occupancy Rate	Total Anticipated Residents	Water Use Per Resident (gpd)	Water Use (gpd)
40 –Three Bedroom Townhome	3.5 people/unit	140	45	6,300
Total Anticipated Water Use (gpd)				6,300

As demonstrated above, through the use of water saving fixtures as required by current building code, a design maximum flow of 13,200 gpd is proposed for the project, while the design average daily flows are anticipated to be substantially less 6,300 gpd.

The peak hourly flow is calculated using a peaking factor that is based on the population of the subject project. A peaking factor of four will be used for the project based on Figure 1 from *Recommended Standards for Wastewater Facilities* (RRWW).

Peak Hourly Domestic Flow

$13,200 \text{ gpd} \div (24 \text{ hr/day}) \div (60 \text{ min/hr}) = 9.2 \text{ gallons per minute (gpm)}$

Peak Hourly Flow = $9.2 \text{ gpm} \times 4 = 36.8 \text{ gpm}$

Although the anticipated flows (design average daily flow) for the project are lower than the design maximum daily flows, the design maximum daily flows are used for the design of the system. This provides an additional factor of safety in the proposed design.

3.0 PROPOSED WATER CONNECTION TO THE CITY OF BEACON SYSTEM

3.1 System Characteristics

Based on review of existing system in vicinity of the subject project, there is an existing 12" diameter watermain located on the subject property. It is proposed to extend an 8" watermain from the existing 12" diameter watermain on the property to service the proposed development. The dynamics of the system in the project area are not yet known and will be addressed as the project advances.

3.2 Proposed Water Service Connection

The existing watermain which the project proposes to connect to is a City watermain used to transport water to the Town of Fishkill. Discussions with the City of Beacon Water and Sewer Department will be required regarding the potential connection to the existing watermain in this location. The project proposes one (1) 8" diameter DIP watermain extension from the existing watermain. The water service lines to the buildings will be sized for each of the residential building units.

Two (2) centrally located fire hydrants are proposed throughout the proposed development. All hydrants will be manufactured by Mueller as required by the City.

Restrained joint connections will be provided at all pipe bends. Upon completion of the water service installation pressure testing, disinfection, and flushing will be performed in accordance with AWWA standards.

RSWW recommends that the normal working pressure not be below 35 psi, and both the RSWW and the *American Water Works Association (AWWA)* M 31 recommend that a minimum of 20 psi be maintained at all points in the water distribution system during fire flows.

4.0 PROPOSED WASTEWATER CONNECTION TO THE CITY OF BEACON SYSTEM

Sanitary sewer connection for the Beacon Views development will be provided via a gravity sewer main through the development with a connection to the gravity sewer system located east of the project site, on Conklin Street. The proposed onsite gravity sewer main will be 8" PVC SDR 35. The sewer main will convey the wastewater flows from the project site to the existing sewer manhole on the corner of Conklin Street and De Soto Avenue.

Wastewater flow from each building will be conveyed by 4" diameter PVC SDR 35 sewer service lines to the proposed 8" main. The service connections will be installed with a minimum slope of 1/4" per foot slope meeting the requirements of DEC14. All PVC pipe will contain rubber push on gaskets at pipe connections. Cleanouts will be provided on each sewer service connection just outside of each building. Upon installation of the sewer mains will be tested with low pressure air tests in conformance with ASTM F1417-92 and the sewer manholes shall be vacuum tested in conformance with ASTM 1244-02, per the notes on the project plans. As stated above all sewer service lines will be 4" PVC SDR 35 at a minimum of 2% slope.

APPENDIX A

City of Beacon – Town of Fishkill Water Agreement

AGREEMENT

THIS AGREEMENT, made this ^{13th} day of November, 2001, among the CITY OF BEACON, New York, a municipal corporation with offices at One Municipal Plaza, Beacon, New York 12508 (hereinafter called the "City" and sometimes referred to as the "Seller"), the TOWN OF FISHKILL, a municipal corporation with offices at the Town Hall, 807 Route 52, Fishkill, New York 12524 (hereinafter called the "Town"), the Rombout Water District, a special improvement district established by the Town, also with offices at the Town Hall, 401 Route 52, Fishkill, New York 12524 (hereinafter called the "District"), the Town and the District being sometimes referred to herein collectively as "the Purchasers".

WITNESSETH:

WHEREAS, the City has a water supply and distribution system that can accommodate a portion of the water requirements of the Town and the District; and

WHEREAS, the Town and the District desire to purchase part of the existing and future unused capacity of the City water supply under a program that will benefit the parties; and

WHEREAS, the implementation of this Agreement will serve the regional water needs of two growing municipalities through economies of scale; and

WHEREAS, the City agrees to sell water to the Purchasers, and the Purchasers agree to purchase water from the City under the following terms and conditions:

1. **Area To Be Serviced.** The service area, which shall be the subject of this contract, will be the (*current*) franchise area of the Hudson View Water Works Transportation Corporation as currently defined within Water Supply Permit No. 8463, dated November 21, 1991.

2. **Term of the Agreement.**

(a) The duration of this Agreement shall be for a period of forty (40) years

from the effective date as hereafter defined.

(b) The Purchasers shall have a right to terminate this Agreement for any reason after twenty (20) years or more elapse from the effective date, provided that the Purchasers have communicated a written notice of such intention to terminate to the City not less than one (1) year prior to the stated date of termination. Notice of such termination must be served on the City Administrator or on the City Mayor either personally or by registered mail or certified mail. Such termination shall be without penalty to the Purchasers.

(c) In the event of termination notice by the Purchaser, the City shall have the right to continuation of this Agreement in the event the City promptly offers to match the cost of the Purchaser's acquisition of an alternative source of supply from another source.

3. Maximum Quantity. Purchaser shall be limited to a maximum daily usage of 500,000 gallons (6,100,000 cf/quarter/annually).

4. Minimum Percentage Consumption. No later than the fifth (5th) anniversary of the effective date of this agreement, the Purchaser will purchase a quantity of water amounting to no less than fifty (50%) of the Rombout Water District's total customer consumption.

5. Minimum Quantity. Between the effective date of this agreement and the end of the calendar year which includes the third (3rd) anniversary of the effective date, Purchaser shall purchase from the City a minimum of 60,000 gallons per day (which is the equivalent of 731,000 cf/quarter/annually). Effective for the calendar year which follows the third (3rd) anniversary of the effective date, the minimum quantity to be purchased shall be adjusted annually, but shall never fall below 60,000 gallons per day. Each annual adjustment to the minimum quantity required to be purchased shall be based upon the Purchaser's average monthly metered usage, measured at the master meter hereinafter described in paragraph "16", for the twelve (12) month period of August 31 through September 1 (the "measurement period") preceding the calendar year for which the adjustment shall be

made, so as to allow the Purchaser the opportunity to budget for each calendar year in advance. The adjusted minimum quantity required to be purchased, for each succeeding calendar year, shall be sixty-five (65%) of the averaged monthly metered usage during the preceding twelve (12) month measurement period.

6. Engineering Specifications.

(a) All plans, design and specifications for new transmission and connection lines to be installed for the Rombout Water District, or any other new transmission lines and connections shall be subject to review and comment of the City and the City's engineering consultants (but such right of review shall extend only to those lines which are direct connections to City mains).

(b) the Purchasers agree that the design and construction of the improvements related to connection of the Rombout Water District to the City system shall be compatible with the City's existing water transmission lines. All such plans, design and specifications as required herein shall be made available to the City's engineering consultants routinely throughout the design phase of such improvements.

(c) The City and the Purchasers shall at all reasonable times, upon prior notice, have reciprocal rights to inspect the other party's water supply facilities and transmissions lines.

7. Permits. The Purchaser's shall be responsible, at their sole expense, for obtaining all requisite permits or approvals from any county or state agency pertaining to the subject matter of this Agreement. (Except that the Purchasers shall not be responsible for obtaining permits directly related to the City's operation of its water supply system, or improvements/modifications to the City's system mandated by county, state, or federal agencies.) Copies of applications for permits or approvals from such agencies shall be provided to the City simultaneous to filing with the pertinent county or state agency. The City shall on reasonable notice of the Purchaser, promptly make available any information or documents necessary to aid the Purchaser in obtaining regulatory agency approvals.

8. **Quality.** The City covenants that as a condition to the performance of this Agreement by the Purchasers, the City shall produce water that conforms in all respects to the requirements of Chapter I, the New York State Sanitary Code, Sub-part 5-1 as amended; the Dutchess County Sanitary Code and the requirements of the Dutchess County Department of Health. The City covenants that at all times a chlorine residual of not less than 0.2 mg./l will be maintained at the point of connection of the Purchaser's meter and conveyance facilities to be determined by the City Engineer and the Town Engineer.

9. **Purchase Price.** The Town of Fishkill proposes the following price terms for the purchase of water:

2.67 / ccf
\$2.875/ccf), with that rate to apply until Town usage reaches 60,000 gallons per day (the equivalent of 722,000 cf/quarter/annually);

(b) A rate of 1.2 times the non-commercial in-city customer rate for all usage once the Town exceeds 60,000 gallons per day;

(c) A rate of 1.1 times the non-commercial in-city rate for all usage once the Town exceeds 120,000 gallons per day (the equivalent of 1.4 million cf/quarter/annually);

(d) A rate of 1.0 times the non-commercial in-city rate for all usage when usage reaches the threshold of 180,000 gallons per day (the equivalent of 2.1 million cf/quarter/annually);

(e) Upon reaching the 240,000 gallons per day threshold, the rate for all usage shall fall to 0.90 times the non-commercial in-City rate, but in no event shall the rate paid by the purchasers fall below, or be less than, the commercial user rate charged by the City.

The non-commercial in-city rate in effect as of the making of this Agreement shall not be upwardly adjusted by the City, insofar as that rate affects the purchase prices set forth in this Agreement,

to reflect any future debt service or capital expenditures incurred by the City under the following circumstances: (a) for the design and/or making of capital improvements to the City's water supply system to make additional capacity available to proposed future user(s), other than the Purchasers, pursuant to a water use or purchase agreements, and (b) such user(s) default in obligations owed to the City under such water use or purchase agreements which induced the City to undertake such design and capital improvement expenditures.

10. No Additional Charges. All costs sustained by the City under this contract are included in the purchase price stated herein. There shall be no additional costs charged to the Purchasers.

11. Access to Meter. The Purchaser and the City shall have shared access to the meters described in paragraph "13" through the respective duly authorized representatives of each, in order to monitor the flow of water and the accuracy of the meters.

12. Water Conservation.

(a) The Parties acknowledge their obligation to promote water conservation measures each in their own respective jurisdictions. This commitment to conservation coincides with the policy imperatives contained in the Environmental Conservation Law that all agencies must conduct their affairs with an awareness that they are stewards of the air, water and land and that they have an obligation to protect the environment for the use and enjoyment of future generations.

(b) On and after the date of this Agreement, the Purchasers shall require all users who connect to any of the Purchasers' distribution systems to obtain a water line connection permit from the Purchasers prior to connection, such permit to be granted upon such conditions as the Town and the District may from time to time establish. The Purchasers shall not issue such permit if it would cause the total water volume entering the Purchasers' distribution system from the City distribution system to exceed the Purchaser's maximum reserved capacity established in this Agreement.

(c) The specific scope and methods of water conservation are left to each Party to be satisfied as dictated by local authority. This Agreement shall not be interpreted to require any specific conservation measures in order to achieve the goal of water conservation, except where the City has declared a water emergency as set forth below.

(d) In the event that the lawful authority of the City declares a water shortage or emergency and imposes water usage restrictions on City water users, it is expressly prohibited from limiting the supply of public water delivered to the Purchasers during such period except in accordance with the following procedure in paragraph "13".

13. Water Emergency Procedure.

(a) Where the City has declared a water emergency and has imposed mandatory supply and usage reductions on its residents, the City shall serve official notice on the Town Supervisor of the Town of Fishkill of said emergency declaration, citing specifically the reasons for mandatory conservation measures, the nature of restrictions imposed and the official date of commencement of such restrictions. The Purchasers shall then decide whether to impose the same, or similar, water restrictions on Town residents served pursuant to this Agreement, and, in addition, shall specify such conservation measures as are practicable, and shall otherwise regulate water use within the Town in a manner consistent with applicable Town conservation regulations.

(b) In the event that water consumption in the Town and the District falls below the minimum usage established in paragraph "3" of this Agreement, due to a formal declaration of water emergency by the City and Town Board, the minimum consumption requirements in paragraph "3" shall be suspended until such water emergency order is rescinded by the City and Town.

(c) In addition, the Parties acknowledge that water supply shortages may cause decreased pressure in the water supplied to Purchasers, due to pressure reductions system-wide. Such system-wide decreases in water pressure shall not constitute a breach of this Agreement. However,

actual mechanical reductions in the supply by the City are expressly prohibited under the terms of this Agreement.

14. Reserved Capacity.

(a) The Purchasers represent that the estimated total demand upon the Rombout Water District, as of full build out of the properties located therein, is 600,000 gallons per day, and that an entity known as AVR Realty is actively pursuing build-out of nearly all of the remaining unimproved property of the district pursuant to rezoning and site development plan approvals previously granted for the "Waterfront at Fishkill" project.

(b) Under paragraph "4" of this agreement, the Purchasers are required to purchase, as of the fifth (5th) anniversary of the effective date, fifty (50%) percent of the total customer consumption of the Rombout Water District from the City.

(c) Consequently, upon full build-out of the properties of the Rombout Water District, the Purchasers may possess an obligation to purchase an estimated sum of 300,000 gallons per day under this agreement, i.e., 50% of 600,000 gallons per day.

(d) Under paragraph "5" of this agreement, the Purchasers have committed to the eventual phased escalation of an initial 60,000 gallons per day minimum purchase obligation, i.e., to make minimum purchases of 65% of the monthly usage during a 12 month measurement period.

(e) The Purchasers are concerned with assuring the City's maintenance of the ability to provide the water supply which the Purchasers become committed to purchase hereunder, and that concern is amplified by the Purchasers' need to construct, at an estimated cost in excess of \$500,000, a transmission pipeline to connect to the City's water supply system.

(f) The City is concerned with assuming an indefinite obligation to hold in reserve its finite current surplus capacity, represented by the City to currently amount to approximately 500,000 gallons per day, for the Purchasers under this agreement which has a maximum duration of 40

years, given the potential of demands upon that capacity arising from future development or changes of use of properties situated in the City.

(g) To reconcile these concerns, and in lieu of City's committing over the full duration of this agreement to reservation of 500,000 gallons per day for the Purchasers, the parties agree as follows.

(h) The parties shall regularly keep each other advised of significant actual or potential future demands for customer use affecting the remaining capacity of the City's water supply system. No later than September 1 of each year of this agreement's duration, the parties shall meet to disclose, share and review any available information or projections of increased water usage of their respective systems, at which time the City shall report its actual remaining excess capacity.

(i) For the period of three (3) years following the effective date, the Purchasers shall be entitled to an unconditional 500,000 gallons per day of capacity reserved by the City for their use. Thereafter, and for the duration of this agreement, the Purchasers shall have a conditional reserved capacity of 500,000 per day, in that

(i) the City shall retain water supply capacity sufficient to meet 500,000 gallons per day usage by the Purchasers upon demand, until and unless the City experiences demand from new or expanded use, or change of use, of city properties which would result in the need to make use of any of the Purchasers' remaining reserved capacity;

(ii) in that event, the City shall upon written notice of not less than sixty (60) days give the Purchasers the right to commit to make actual use, within one (1) year, of the amount of the Purchasers' reserved capacity which would need to be taken back by the City to satisfy the new demand by in-city properties; the Purchasers shall have the option, exercisable within 60 days of receipt of the City's notice, to commit to make such actual use within one (1) year, or to consent to the City's taking back of that portion of the Town's reserved, but unused capacity;

(iii) in the event that the Purchasers elect to commit to use of the subject amount of reserved capacity, and the City is consequently required to make capital improvements to its system specifically to establish added capacity to meet the new in-city demand of which notice was given, then the Purchasers at their option shall at the close of the (1) year period either "take or pay" for subject amount of water, or defray and reimburse as liquidated damages the actual unit costs of the City in making the capital improvements necessary to service the new in-city demand of which notice was given; upon the exercise of either payment option, the subject amount of capacity shall be deemed unconditionally reserved to the Purchasers by the City for the duration of the agreement;

(iv) in the event, and to the extent, that the City takes back any of the Purchasers' reserved capacity under the above circumstances, the City shall be obligated, within one (1) year of written notice by the Purchasers to make any capital improvements to its water supply system necessary to meet the Purchasers' actual subsequent demand up to 500,000 gallons per day, and the actual costs of such improvements shall be not be surcharged against the Purchasers, but shall instead be recaptured per customary factoring into the City's generally prevailing water rates; in the event that the Purchasers make demand, and to the extent that the City expends to make the capital improvements necessary to meet the demand, the Purchasers shall at the end of one (1) year "take or pay" for the capacity demanded, or at the Purchasers' option, shall defray and reimburse the City as liquidated damages the actual unit costs of the City in making the capital improvements necessary to satisfy the Purchasers' demand; upon the exercise of either payment option, the subject amount of capacity shall be deemed unconditionally reserved to the Purchasers by the City for the duration of the agreement;

15. Third-Party Use of Purchasers' Transmission Line.

(a) Purchasers will be constructing a transmission line, at their expense, to reach the water supply system of the City, and a significant portion of that line shall be located in the City. After completion of the transmission line, Purchasers shall transfer

ownership of the portion of the line between Purchasers' meter pit and its connection point to the City's water supply system (the "Transferred Line") to the City.

(b) The Transferred Line will pass through or adjacent to City properties which may in the future connect to the City's water supply system through the Transferred Line. Purchasers shall be entitled to recover a portion of their capital expenditure on the construction of the Transferred Line from properties connecting to that line. No applicant for connection shall be permitted to connect to the Transferred Line by the City of Beacon unless the applicant has paid a one time capital cost reduction fee (the "Connection Fee") to Purchasers. The Connection Fee for each such property connection shall be calculated as set forth in subparagraph (c).

(c) Each Connection Fee shall be calculated as follows:

(i) each City property to be connected to the Transferred Line shall be assigned the number of benefit units prescribed by the Benefit Unit Formulation Chart annexed hereto as Exhibit "A".

(ii) the Connection Fee per Benefit Unit shall be derived by dividing the total cost of the construction of the Transferred Line (the "Total Cost") by 11,133, the total number of benefit units assigned in the District as of the date of this Agreement. (Total Cost ÷ 11,133 = Connection Fee per Benefit Unit)

(iii) Total Cost is calculated by determining the actual cost of construction of the Transferred Line as of the date of completion of construction and adding to it nine percent (9%) for professional services. (Total Cost = cost of construction plus 9%)

(iv) An applicant's Connection Fee shall be the number of benefits units assigned to the applicant's property multiplied by the Connection Fee per Benefit Unit. (Connection Fee = Benefit Units x Connection Fee per Benefit Unit)

(v) An applicant's Connection Fee shall be increased by eight percent (8%) for each year that has passed at the time of applicant's payment of the Connection Fee since the date of completion of the Transferred Line.

(d) City property owners connected to the Transferred Line shall be and shall remain the exclusive customers of the City of Beacon for the purchase of water.

16. Meters.

(a) All water supplied to the Purchasers by the City shall be metered. Such meters shall be installed at no cost to the City, and shall be of a type and arrangement which are acceptable to the City and the Purchasers. The Purchasers shall cause the meters used for billing purposes under this Agreement to be maintained, calibrated and certified in accordance with the manufacturer's recommended schedule, but not less than one time per year. Copies of the certification shall be filed with the City Administrator.

(b) In the event that any of the meters are found to read incorrectly or are out of service, the City will bill the Town for each day the meter is not functioning at the average daily consumption rate as determined by the records for the previous four (4) quarters of water actually consumed by the Purchasers. If four (4) quarters of data is not available, the calculation will employ all of the data that is available. The charge shall be added to the quarterly billing to the Purchasers.

(c) The point of delivery of water by the City shall be at or about a meter pit generally located in close proximity to the corporate boundary line separating the parties, and to be further determined by the parties.

17. Representations and Warranties by the City. The City hereby represents and warrants as follows:

(a) The City facility, including, without limitation, its pipes, well mechanisms and pumping stations, have the mechanical capacity and shall be maintained adequately so

that they draw and transmit the water purchased under this Agreement and the design capacity is sufficient to service the reserved capacity to the Purchasers as provided herein; the facility is in compliance with all applicable laws, rules and regulations of any state, federal or municipal agency or body having jurisdiction, and all permits, licenses and approvals issued pursuant to same.

(b) The City shall maintain and operate its supply facility and distribution system in full compliance with all applicable laws, rules and regulations of any state, federal or municipal agency or body having jurisdiction and all permits, licenses and approvals issued pursuant to same. The City shall provide the Purchasers with notice of any unusual occurrences, system malfunctions or improvements which may affect normal service.

18. Representations and Warranties by the Purchasers.

(a) Purchasers shall, through the term of this Agreement, maintain a permit system for any users who connect to any distribution system serviced under this Agreement; and no user shall be allowed to connect to the system without first obtaining a water line connection permit from the Town. The Town represents and warrants that it will adequately police the system so as to prevent unlawful connection to the distribution system serviced under this Agreement.

(b) The Purchasers shall maintain and operate their respective distribution systems in full compliance with all applicable laws, rules and regulations of any state, federal or municipal agency or body having jurisdiction and all permits, licenses and approvals issued pursuant to same. The Purchasers shall provide the City with notice of any unusual occurrences, system malfunctions or improvements which may affect demand for water supply under this Agreement.

(c) The Purchasers covenant that all reasonable steps will be taken to keep their distribution systems in good repair, so as to prevent substantial water loss during the term of this Agreement.

19. Indemnification.

(a) The Purchasers shall indemnify, defend and hold harmless the City, its agents and employees, from and against all losses, damages, suits, claims, judgements and decrees, including reasonable attorneys' fees and court costs, resulting from breach by, and any material inaccuracy of the representations of the Purchasers set forth herein.

(b) The City shall indemnify, defend and hold harmless the Purchasers, its agents and employees, from and against all losses, costs, damages, suits, claims, judgements, decrees and reasonable attorney's fees and litigation costs, resulting from breach by the City of any material provision of this Agreement.

20. Compliance with Laws.

(a) The Parties shall comply with all applicable laws, rules, and regulations of any county, state or federal agency with respect to the water pipes and facilities within their municipal boundaries.

(b) Each party shall exercise due diligence to prosecute, or seek prosecution for the violation of such laws, rules and regulations against persons or entities who damage the distribution system or facility within such parties' boundaries or who endanger any portion of the water supply as transmitted through the respective distribution system belonging to the Parties.

(c) In the event that the City becomes aware that a maximum contaminant level is exceeded under the regulations contained in Chapter I of the New York State Sanitary Code Sub-part 5-1, Section 5-1.52 Tables 1 through 7 as amended, the City shall immediately notify the Town Supervisor about the source and nature of the contaminant. The City covenants that it will transmit such notice by telephone in advance of, or concurrently with, the transmission of such notice to the Department of Health in accord with the notification requirements indicated in that same Sub-part, Section 5-1.52 Table 13.

21. **Waiver of Right of Termination.** Except as expressly provided herein to the contrary or by law, if at any time during the term of this Agreement the City or Purchasers materially breach this Agreement, neither party may terminate this Agreement and each party expressly waives any right of termination.

22. **Municipal Approvals.** This Agreement has been agreed to and approved by formal resolutions of the Town Board of the Town of Fishkill, the Board of Commissioners of the Rombout Water District and the Common Council of the City of Beacon, New York.

23. **Assignability.** This Agreement may not be assigned by a party without the express written consent by the other parties hereto.

24. **Severability.** Should any provision of this Agreement be found by a court of competent jurisdiction to be for any reason whatsoever, invalid, void or unenforceable, it shall be deemed severed from the balance of this Agreement and the balance of the Agreement shall remain in full force and effect.

25. **Waiver.** The Waiver by either party of the breach of any one or more of the covenants of this Agreement is not a waiver of any other provision hereof or of a subsequent breach of the same covenant or covenants.

26. **No Oral Modification.** This document contains the entire Agreement among the parties and may not be changed, modified or in any way amended, except by agreement in writing.

27. **No Implication of Joint Venture.** The Parties agree that the execution, delivery and performance of this Agreement does not constitute a joint venture, partnership or other joint association of the Parties, and that except as limited by this Agreement, the City has sole control of the operation of the wells and distribution system in the City.

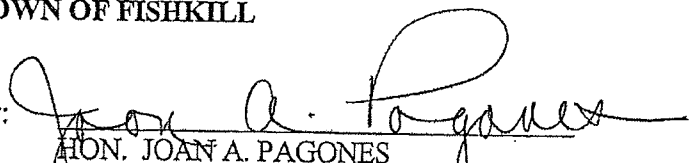
28. **Notices.** All notices hereunder shall be in writing sent by certified mail, return receipt requested, or by personal delivery to the address of the respective parties set forth above and

hereafter designated by such party in the manner required for the giving of notice hereunder.


29. **Effective Date.** The date on which all transmission facilities and related improvements constructed by the purchasers to connect the Rombout Water District to the City's water system are approved for usage by all relevant state or local regulatory agencies.

IN WITNESS WHEREOF, the undersigned have hereunto subscribed their names, the date and year set forth above.

TOWN OF FISHKILL

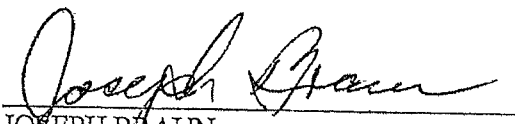
By: 
HON. JOAN A. PAGONES
Supervisor

ROMBOUT WATER DISTRICT

By: 
HON. JOAN A. PAGONES
Chairman of the Board of Commissioners

CITY OF BEACON

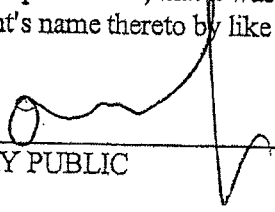
By: 
HON. CLARA LOU GOULD
Mayor

By: 
JOSEPH BRAUN
City Administrator

STATE OF NEW YORK)
County of Dutchess)ss:

On November 7, 2001, before me personally came **JOAN A. PAGONES**, to be known, who, being by me duly sworn, did depose and says that she resides in the Town of Fishkill, County of Dutchess, State of New York and she is the Supervisor of the Town of Fishkill, a municipal corporation and described in and which executed, the foregoing instrument; deponent knows the seal of said corporation; the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of said corporation; deponent signed deponent's name thereto by like order.

RONALD C. BLASS, JR.
Notary Public, State of New York
No. 4954821
Qualified in Dutchess County
Commission Expires August 21, 2005



NOTARY PUBLIC

STATE OF NEW YORK)
County of Dutchess)ss:

On November 13, 2001, before me personally came **CLARA LOU GOULD**, to be known, who, being by me duly sworn, did depose and says that he resides in the City of Beacon, Dutchess County, State of New York and she is the Mayor of the City of Beacon, a municipal corporation and described in and which executed, the foregoing instrument; deponent knows the seal of said corporation; the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of said corporation; deponent signed deponent's name thereto by like order.

GERARD J. PISANELLI
NOTARY PUBLIC, State of New York
Reg. No. 4517013
Qualified in Dutchess County
Commission Expires Sept. 30, 2002

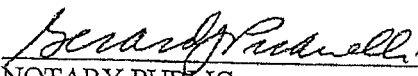


NOTARY PUBLIC

STATE OF NEW YORK)
County of Dutchess)ss:

On November 13, 2001, before me personally came **JOSEPH BRAUN**, to be known, who, being by me duly sworn, did depose and says that he resides in the Town of Marlborough, Dutchess County, State of New York and he is the City Administrator of the City of Beacon, a municipal corporation and described in and which executed, the foregoing instrument; deponent knows the seal of said corporation; the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of said corporation; deponent signed deponent's name thereto by like order.

GERARD J. PISANELLI
NOTARY PUBLIC, State of New York
Reg. No. 4517013
Qualified in Dutchess County
Commission Expires Sept. 30, 2002



NOTARY PUBLIC

RIDER TO AGREEMENT BETWEEN CITY OF BEACON ("CITY")
AND TOWN OF FISHKILL ("TOWN") AND ROMBOUT WATER DISTRICT
("DISTRICT")

WHEREAS, on even date herewith, the parties entered into an agreement (the "main agreement") for sale of water by the City to the Town and the District; and

WHEREAS, the effective date of the main agreement is the completion of construction by the District of certain permanent subsurface transmission facilities connecting the District's facilities to the water supply facilities of the City (see paragraph "20" of the main agreement); and

WHEREAS, during the formulation of the main agreement, the District has experienced a water supply shortage which requires redress immediately, and in advance of the District's undertaking of construction of the transmission facilities contemplated within the main agreement; and

WHEREAS, by this rider to the main agreement, the parties undertake to arrange a source of water supply to the District's facilities by the City in advance of construction of the transmission facilities contemplated in the main agreement, and the parties do so by this rider to avoid triggering the effective date of all terms of the main agreement;

NOW, IT IS HEREBY AGREED, by and between the parties for mutual and valuable consideration that:

1. The City agrees to sell water to the District on an as needed basis, effective the date of this rider, up to the maximum sum of 500,000 gallons per day at the purchase prices set forth in paragraph "9" of the main agreement for transmission by the District by means of temporary facilities over or through the lands and improvements of the New York State Bridge Authority near with the easterly terminus to the Beacon-Newburgh Bridge, and the means of connection of the Beacon water supply system to the District by this means, and the metering of the District's usage by this means, shall be subject to the advance approval of the City, said approval not to be unreasonably withheld.

2. The Town and the District shall exercise good faith and due diligence to construct and to complete the permanent subsurface facilities contemplated within the main agreement, at which time that main agreement shall become effective, and upon that event the District shall discontinue and hold in reserve until necessary due to emergency at some future time, if at all, the transmission of water purchased from the City over and through the property of the Bridge Authority. Said future

transmission over the property of the Bridge Authority shall be subject to the advance consent of the City, said consent not to be unreasonably withheld.

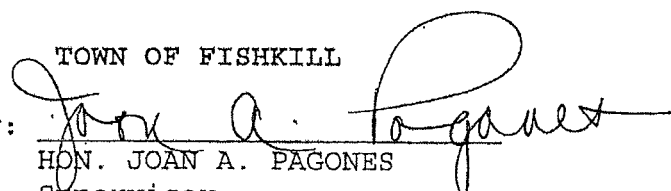
3. In the event of future use of the transmission of water over or through the property of the Bridge Authority after the effective date of the main agreement, all terms of the main agreement shall govern.

4. The terms of this rider shall have a duration commencing with its execution by the parties, and ceasing as of the expiration or earlier termination of the main agreement.

IN WITNESS WHEREOF, the undersigned have hereunto subscribed their names, the date and year set forth above.

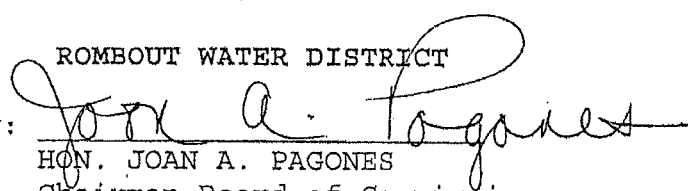
TOWN OF FISHKILL

By:


HON. JOAN A. PAGONES
Supervisor

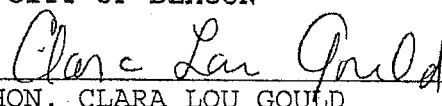
ROMBOUT WATER DISTRICT

By:


HON. JOAN A. PAGONES
Chairman, Board of Commissioners

CITY OF BEACON

By:


HON. CLARA LOU GOULD
Mayor

By: Joseph Braun
JOSEPH BRAUN
City Administrator

STATE OF NEW YORK)
) ss.:
COUNTY OF DUTCHESS)

On November 7, 2001 before me personally came JOAN A. PAGONES, to me known, who, being by me duly sworn, did depose and says that she resides in the Town of Fishkill, County of Dutchess, State of New York and she is the Supervisor of the Town of Fishkill, a municipal corporation and described in and which executed, the foregoing instrument; deponent knows the seal of said corporation; the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of said corporation; deponent signed deponent's name thereto by like order.

RONALD C. BLASS, JR.
Notary Public, State of New York
No. 4954821
Qualified in Dutchess County
Commission Expires August 21, 2005

[Signature]
NOTARY PUBLIC

STATE OF NEW YORK)
) ss.:
COUNTY OF DUTCHESS)

On November 13, 2001, before me personally came CLARA LOU GOULD, to me known, who, being by me duly sworn, did depose and says that she resides in the City of Beacon, Dutchess County, State of New York and she is the Mayor of the City of Beacon, a municipal corporation and described in and which executed, the foregoing instrument; deponent knows the seal of said corporation; the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of said corporation; deponent signed deponent's name thereto by like order.

GERARD J. PISANELLI
NOTARY PUBLIC, State of New York
Reg. No. 4517013
Qualified in Dutchess County
Commission Expires Sept. 30, 2002

[Signature]
NOTARY PUBLIC

STATE OF NEW YORK)
) ss.:
COUNTY OF DUTCHESS)

On November 13, 2001, before me personally came JOSEPH BRAUN, to me known, who, being by me duly sworn, did depose and says that he resides in the *Town of Marlborough*, Dutchess County, State of New York and he is the City Administrator of the City of Beacon, a municipal corporation and described in and which executed, the foregoing instrument; deponent knows the seal of said corporation; the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of said corporation; deponent signed deponent's name thereto by like order.

GERARD J. PISANELLI
NOTARY PUBLIC, State of New York
Reg. No. 4517013
Qualified in Dutchess County
Commission Expires Sept. 30, *2002*

Gerard J. Pisanelli

NOTARY PUBLIC

APPENDIX B

HDR Memo Addressing Sewer Impacts

Memo

Date: Monday, July 13, 2020

To: Anthony Ruggiero, Ed Balicki, Nick Ward Willis, John Russo

From: Nitin Katiyar, PE
Yingying Wu

Subject: Hydraulic Impact Analyses of Proposed Development with
Sewer Connection at Beacon Views (Conklin St at De Soto Ave)

Henningson, Durham & Richardson Architecture and Engineering, PC (HDR) evaluated the impact of the development proposed for connection at Beacon Views development on the hydraulic capacity of the City of Beacon's (City) sanitary sewer system during critical conditions. This memorandum presents a high-level summary of the results and conclusions of that analysis.

Methodology

HDR applied the City's InfoWorks CS sanitary sewer system model to evaluate the impact of the development proposed for connection at Conklin St at De Soto Ave on sewer system hydraulics from the point of connection to the Sewage Treatment Plant (STP). This development represent an additional average daily flow of 13,200 gpd, or additional peak hourly flow of 56,760 gpd using a peaking factor of 4.3 (in accordance with the Ten State Standards.) In order to analyze the impact of this additional flow on the sewer system hydraulics, HDR expanded the existing model, which previously extended only to Townsend St, to extend to the point of connection at Conklin St at De Soto Ave. For purposes of this analysis, and to be consistent with previous similar analyses, HDR applied conditions associated with a large, 5.6-inch rainfall event from September 27, 2011 (a one-in-17-year storm event). These analyses also assume that previously approved developments at 25 Townsend Ave and 511 Fishkill Ave would also be in place.

The results of the analysis indicate that no sanitary sewer overflows (SSOs) are expected to occur anywhere in the sewer system from the proposed connection point through to the STP, with or without the proposed development. Table 1 summarizes the calculated increases in peak water levels at locations from the point of connection to the STP. In segments where the sewer pipe is 8 inches (Hanna Street to Conklin St), the proposed development is expected to increase peak water levels as much as 1.27 ft.

Conclusions

1. The additional flow from development proposed for connection to Beacon's sewer system at Beacon Views development is not expected to cause SSOs, even during extreme conditions associated with a large (5.6-inch, 1-in-17-year) storm.
2. During extreme wet-weather conditions, the proposed developments are expected to increase hydraulic grade lines by as much as 1.27 ft. along Fishkill Ave near Delevan

St. Table 1 provides the differences in hydraulic grade lines expected at several locations from the point of connection to the STP.

Table 1. Model Results for Peak Water Levels, With and Without Proposed Development, During Critical Conditions (5.6-inch Storm)				
Location	Manhole ID	Peak Water Level (ft)		
		Future Baseline	Future With Proposed Development	Difference
Fishkill Ave at Townsend	7380	172.48	172.53	0.05
Fishkill Ave at Delevan	7054	149.87	151.14	1.27
Herbert and Main St	3214	119.18	119.25	0.08
S. Interceptor north of Wolcott	8277	74.35	74.41	0.06
S. Interceptor near Heaney	8125	61.52	61.62	0.10
S. Interceptor near Kristy	8325	51.55	51.61	0.06
S. Interceptor near South Ave	8809	27.88	28.00	0.12
Sewage Treatment Plant	STP_Junction	13.02	13.03	0.01

Please do not hesitate to contact us with any questions that you may have regarding this analysis.

APPENDIX C

Email Correspondence from the Town of Fishkill

Evan Pendleton

From: Sharon Mitchell <smitchell@fishkill-ny.gov>
Sent: Friday, July 24, 2020 2:34 PM
To: Jeff Contelmo
Cc: Gregory Kamedulski
Subject: RE: Town of Fishkill/City of Beacon

Jeff,

I have been able to ascertain that the total cost of construction only for the transferred line is Four Hundred Twenty Thousand Eight Hundred Ninety Three dollars (\$420,893). These expenditures were incurred in 2002.

Please let me know if you need any additional information. My apologies for the delay in obtaining a confirmation of the amount for you.

Sharon A Mitchell

Town of Fishkill

Comptroller

845-831-7800 ext. 3331 | smitchell@fishkill-ny.gov

807 Route 52, Fishkill, NY 12524

www.fishkill-ny.gov



Office hours: Monday - Friday: 8:00am - 4:30pm

From: Jeff Contelmo [<mailto:JContelmo@insite-eng.com>]
Sent: Friday, July 24, 2020 2:10 PM
To: Sharon Mitchell <smitchell@fishkill-ny.gov>
Cc: Gregory Kamedulski <gkamedulski@gmail.com>
Subject: RE: Town of Fishkill/City of Beacon

Sharon,
Is there any updates you can provide?
Thanks,
Jeff

Jeffrey J. Contelmo, PE
Senior Principal Engineer

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

3 Garrett Place
Carmel, New York 10512

(845) 225-9690 x114

(845) 225-9717 Fax

www.insite-eng.com



This email is intended for the sole use of the addressee(s). Any attached file(s) have been issued for convenience only and at the specific request of the client or their agent. It is specifically understood that any attached file(s) are not certified by Insite Engineering, Surveying, and Landscape Architecture, P.C. (Insite). No use or reproduction of the information provided is permitted without the written consent of Insite.

From: Sharon Mitchell <smitchell@fishkill-ny.gov>

Sent: Friday, July 17, 2020 4:18 PM

To: Jeff Contelmo <JContelmo@insite-eng.com>

Subject: Town of Fishkill/City of Beacon

Jeff,

I just wanted to touch base with you, I had promised to reach out by the end of the week. We have been reviewing the Town files and I believe that we have found the cost of construction for the transmission to connect to the City of Beacon's water supply to the Town's Rombout Water District. (Beacon High school was completed before the transmission line was completed).

Before I give you the information, I just want to confirm with the Town's engineer and water/sewer operator.

Thank you for your patience. Have a great weekend!

Sharon A Mitchell

Town of Fishkill

Comptroller

845-831-7800 ext. 3331 | smitchell@fishkill-ny.gov

807 Route 52, Fishkill, NY 12524

www.fishkill-ny.gov



Office hours: Monday - Friday: 8:00am - 4:30pm

LANC & TULLY
ENGINEERING AND SURVEYING, P.C.

John J. O'Rourke, P.E., Principal
David E. Higgins, P.E., Principal
John Queenan, P.E., Principal

Rodney C. Knowlton, L.S., Principal
Jerry A. Woods, L.S., Principal

John D. Russo, P.E., Principal
John Lane, P.E., L.S.
Arthur R. Tully, P.E.

August 7, 2020

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

RE: Beacon Views
City of Beacon
Special Use & Site Plan Application

Dear Mr. Gunn:

Our office has received the following in regard to the Beacon Views project, located adjacent to the 25 Townsend project and The Highland Meadows Senior Housing parcel:

- Response correspondence from INSITE Engineering & Surveying, dated July 28, 2020.
- Greenplan response correspondence from INSITE Engineering & Surveying, dated July 28, 2020.
- Sustainability Report, dated July 28, 2020, as prepared by Aryeh Siegel, Architect.
- Report titled "Preliminary Water & Wastewater Engineering Report", dated July 28, 2020, as prepared by INSITE Engineering and Surveying.
- Report titled "Stormwater Pollution Prevention Plan prepared for Beacon Views", dated July 28, 2020, as prepared by INSITE Engineering and Surveying.
- Plan set titled "Beacon Views", with the latest revision date of July 28, 2020 and consisting of Sheets 1 of 20 through 20, as prepared by INSITE Engineering and Surveying.

Based on our review of the above materials, we would like to offer the following comments:

General Comments:

1. What is to occur with the emergency access out to Conklin Street, if constructed in accordance with Note No. 3 under the "Site Access Notes" on Sheet 1 of 20, once the 25 Townsend Road is constructed and the Highland Meadows access becomes the gated emergency access?
2. The applicant should submit a copy of the "Off Site Improvements Plan" (Sheet 8 of 20) to Highland Meadows for their review and acceptance of the proposed improvements across their parcel. A letter from Highland Meadows should be submitted to the Planning Board noting their comments and/or acceptance of the plan as currently depicted on the plan.

3. The current plans show an area of wetland mitigation to be on the subject parcel as well as on the Highland Meadows parcel. Although it's the applicant's position that the creation of the wetlands mitigation area is permitted in the easement, we again request that documentation be provided to the Planning Board Attorney showing that the applicant has approval to build a portion of the wetland mitigation on the neighboring parcel. ***The applicant's consultant notes that this matter is currently being discussed between applicant's attorney and the Planning Board attorney.***
4. The plans shall be submitted to emergency services for their review as to access and hydrant layout. A letter should be received emergency services regarding any comments they have or noting their acceptance. ***The applicant notes that the plans have been submitted to the Fire Department Chief and are awaiting a response.***
5. The applicant should be able to state the status of submission to the Army Corp. of Engineers for the proposed wetland disturbance and mitigation proposed as part of the project. ***The applicant's consultant notes that permit documents will be provided with a future submission.***
6. The proposed water and sewer system will need to be reviewed and approved by the Dutchess County Department of Health (DCDOH). All correspondences to and from the DCDOH shall be copied to the Planning Board and City Engineer's office.

Water & Sewer Report Comments:

1. Section 3.1 notes "The dynamics of the system in the project area are not yet known and will be addressed as the project advances." The report will need to be updated as the dynamics of the system are determined.
2. The applicant's consultant will need to perform testing on the existing hydrants located along the existing water main that runs through the subject parcel and along Conklin Street to acquire the existing fire flows and pressures (static & residual) available. This information shall be provided in the report, along with a map showing what hydrants were used for flows and pressure reading.
3. The applicant's consultant shall revise the report to include calculations for expected fire flows and pressures at proposed project hydrants.

Preliminary Subdivision Plat Comments:

1. Plat shall show all metes and bounds for all proposed parcel boundary lines and easements. ***The applicant has stated "The final plat will include bearings and distances for the proposed property lines".***
2. Descriptions shall be prepared for easements and the road right-of-way and provided to the Planning Board Attorney and City Engineer for review. ***The applicant has stated "Written descriptions will be provided with a future submission".***

Grading & Drainage Plan (Sheet 4 of 20):

1. Although a note has been added to the plan stating "In an emergency event the City of Beacon will have the right to maintain the drainage between CB-3 and ES-1, if the applicant or subsequent owners fail to fulfill their maintenance obligations", it is not clear how this note allows for the City of Beacon to enter onto the neighboring parcel which is under different ownership. Documentation would need to be provided by the neighboring parcel owner stating that the City of Beacon would have the right to enter onto their property to perform this task in the event of an emergency. ***Applicant notes that the project attorney is discussing this matter with the Planning Board attorney.***
2. Top and bottom spot elevations should be provided along all retaining walls proposed on the site. This would include the proposed retaining wall located between units 20 & 21 and along the drainage swale line on the west side of the parcel adjacent to the Highland Meadows parcel.

Off Site Improvements Plan (Sheet 8 of 20):

1. Plan shall note the width of the proposed sidewalk.
2. A planting schedule should be provided for the plan, along with the proposed landscaping being labeled in accordance with the planting schedule.

Water & Sewer Profiles (Sheet 12 of 20):

1. Although the location of bends has been called out on the profile, the callouts should not the degree of bend proposed at that specific location.

SWPPP Comments:

1. The pipe sizing chart located in Appendix J states that the design storm is a 100-year storm, a few of the pipe calculations seem to use rainfall values that are not consistent (highlighted in red), it is also noted that the value used for I of 9.2" exceeds the 100-year storm event that was used within the SWPPP, which was 8.31".
2. Within the pipe sizing chart, the calculation for DI 14 to ES 13 should include the anticipated post development peak flow from the 25 Townsend site, as you are proposing to directly connect the outlet pipe to this part of your drainage system. Please note that the anticipated post development peak flow for the 100-year storm is 35.64 cfs.
3. The proposed P-5 Pocket Pond shows a 10' wide berm, this should be increased to a minimum of 12' wide to provide maintenance access in accordance with the the NYSDEC Stormwater Design Manual, Page 6-15.
4. Additional grading callouts should be added, or grading adjusted, around ES 21 and ES 29 as these end sections daylight above or at the elevation of the proposed berm (185.50'). Since these end sections are routing offsite drainage around the site it should be noted that they shall not discharge to the proposed P-5 Pocket Pond.

5. Woody vegetation may not be planted or allowed to grow within 15 feet of the toe of the embankment in accordance with the NYSDEC Stormwater Design Manual, Page 6-14. It appears that a couple proposed trees near the P-5 Pocket Pond are within 15 feet of the toe of slope and should be adjusted/relocated accordingly.
6. The overall construction sequence states that installation of the bio-retention filter would be completed prior to stabilization of all disturbed areas, it should be noted that the bio-retention area shall not receive runoff until all contributing areas have been adequately stabilized.

This completes our review at this time. Further comments may be forth coming based upon future submissions. **A written response letter addressing each of the above comments should be provided with the next submission.** If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.



John Russo, P.E.

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

City of Beacon Planning Board
8/11/2020

Title:

416-420 Main Street

Subject:

Public hearing for SEQRA environmental review on applications for Site Plan Approval and Subdivision (lot merger) Approval, retail/residential, 416-420 Main Street, mixed-use commercial, office & residential development, submitted by 416 Main Street Beacon, LLC & 420 Main Street, LLC (D/B/A 420 Main St., LLC)

Background:

ATTACHMENTS:

Description	Type
416-420 Main Street Architect Cover Letter	Cover Memo/Letter
416-420 Main Street Attorney Cover Letter	Cover Memo/Letter
416-420 Main Street Engineer Cover Letter	Cover Memo/Letter
416-420 Main Street Traffic Engineer Cover Letter	Cover Memo/Letter
416-420 Main Street Site Plan	Plans
Engineer Review Letter	Consultant Comment
Planner Review Letter	Consultant Comment

ARYEH SIEGEL

ARCHITECT

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

Re: 416-420 Main Street, Beacon, New York
Site Plan Application – Responses to Comments

July 28, 2020

Dear Chairman Gunn and Members of the Planning Board,

Below please find our responses to the comments included in John Clarke Planning and Design's Memorandum, dated July 9, 2020, and Lanc & Tully's letter dated July, 2020. Please find additional responses in Hudson Land Design's separate letter

John Clarke Planning and Design Comment Responses:

1. For the Plat, the district line will be labeled T Zoning District
2. For Sheet 1 – Site Plan:
 - a The CMS Zoning Table has been corrected
 - b The T Zoning Table has been corrected
 - c The Parking Table has been corrected
 - d The Planning Board indicated a preference at the July meeting that the green space should be maintained to the extent possible in relation to the provision of parking spaces.
 - e The bike racks have been relocated to avoid interference with vehicle traffic
 - f The Applicant proposes to provide a new, updated planter to replace the existing dated and damaged one. A Landscape Designer has been retained and will provide additional information regarding the existing street tree at the corner of Main Street.
 - g The 4th floor setbacks are indicated on the Site Plan
3. For Sheet 3 Landscaping
 - a A Landscape Schedule will be provided in a future submission.
 - b The light fixture information is being researched and will be provided in a future submission.

4. For Sheet 4 and 5 – Building Plans
 - a Comment acknowledged.
 - b The 4th floor plan has been revised to include a 15' step back at the rear. The plan has been revised to accommodate the required 15' front step back.
 - c Plans have been revised to show major dimensions
 - d Elevation labeling has been corrected
 - e Elevations for the Live Work building will be provided in future submissions
 - f The corner has been re-designed to respond to comments received from the Planning Board
 - g Comment acknowledged. Once the Board is in general agreement about the design approach, the project will be referred to the ARB Subcommittee.
5. The plans will address how trash is handled.
6. Comment acknowledged. The Applicant will review the plans for Schenck Avenue with the Board.

Lanc & Tully Comment Responses:

General Comments:

1. Proposed traffic improvements will be included on the site plan when an approach has been discussed and accepted by the Planning Board
2. The Applicant will provide further information to the Board regarding the question of a lot for every building.

Preliminary Subdivision Plat:

Please refer to Hudson Land Design's response letter

Site Plan (Sheet 1 of 10):

1. Note #1 has been revised to refer to the previously approved Zoning Variance for parking.
2. The site plan has been provided at a larger scale for clarity
3. The site plan notes the number of parking spaces below the deck.

Existing Conditions & Demolition Plan (Sheet 2 of 10):

1. The note regarding the concrete planter has been corrected to note that it is a granite plan that will be replaced in-kind.
2. The entire chain link fence is intended to be replaced by a new wood privacy fence

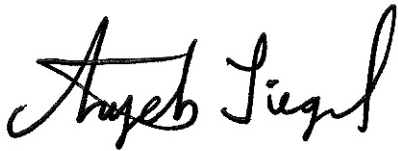
3. A north arrow has been added to the plan

Landscape & Lighting Plan (Sheet 3 of 10):

1. A Landscape Designer has been retained. A planting schedule and landscape plan will be provided in future submissions.
2. Plantings shall be provided outside the City's right of way unless a license agreement is obtained from the City.

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

Sincerely,

A handwritten signature in black ink, reading "Aryeh Siegel". The signature is fluid and cursive, with the first name "Aryeh" and last name "Siegel" clearly distinguishable.

Aryeh Siegel
Aryeh Siegel, Architect



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

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

July 28, 2020

VIA E-MAIL

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

Re: Application for Special Use Permit, Subdivision (Lot Line Change) & Site Plan Approvals
Supplemental Submission
Premises: 416-420 Main Street, Beacon, New York
Tax Parcel IDs: (6054-29-056780 & 6054-29-056774)

Dear Chairman Gunn and Members of the Planning Board:

On behalf of 416 Main Street Beacon, LLC and 420 Main Street, LLC, D/B/A 420 Main St. Beacon, LLC (collectively, the "Applicant"), the owners of the above-referenced Premises, we respectfully submit this letter and referenced enclosures in furtherance of the pending Application.

Since we last appeared before your Board on July 14th, the Applicant further revised the site plan, improved the building program including refinements to the corner of the mixed-use building and updated the parking study in response to comments from the Planning Board and its consultants.

UPDATED SITE PLAN & REFINED BUILDING PROGRAM:

As is more fully detailed in the updated site plans included in the enclosed updated site plan set, the Applicant has made the following changes to the building program in response to the Planning Board's comments:

- 1) The entrance driveway to the proposed two (2) car off-street parking area was reduced from 24.0' to 12.0' wide;
- 2) The corner of the proposed mixed-use building was refined architecturally to provide variation and prominence in the design;
- 3) The design of the northern end of the Schenck Avenue façade was updated to integrate it with the rest of the Schenck Avenue façade approaching Main Street;
- 4) The overhead door openings at the first floor along Schenck Avenue and along the rear of the mixed-use building were modified to include a solid base; and
- 5) The fourth floor apartment layout was revised to meet the required 15.0' setback in the rear of the building, and the step in the fourth floor along Main Street was eliminated to square off the building.



July 28, 2020

Page 2

In support of this supplemental submission, we respectfully submit copies of the revised site plans and renderings entitled "Site Plan Application – 416-420 Main Street", prepared by Aryeh Siegel, Architect, and Hudson Land Design Professional Engineering, P.C., dated April 28, 2020, last revised July 28, 2020 and numbered and titled as follows:

- Sheet 1 of 1 – Preliminary Subdivision Plat;
- Sheet 1 of 10 – Site Plan;
- Sheet 2 of 10 – Existing Conditions & Demolition Plan;
- Sheet 3 of 10 – Landscape Plan & Planting Schedule;
- Sheet 4 of 10 – Building Plans;
- Sheet 5 of 10 – Building Plans & Renderings;
- Sheet 6 of 10 – Grading & Utility Plan;
- Sheet 7 of 10 – Erosion and Sediment Control Details;
- Sheet 8 of 10 – Utility Profiles;
- Sheet 9 of 10 – Construction Details; and
- Sheet 10 of 10 – Construction Details.

Please also see the enclosed Response to Comments Letter Dated July 28, 2020, enclosed as **Exhibit A**, prepared by Aryeh Siegel Architect, in response to the letters prepared by Lanc & Tully and John Clarke Planning and Design both dated July 9, 2020, which includes additional details regarding the refined building program and site plan layout.

UPDATED TRAFFIC IMPACT AND PARKING STUDY:

Additionally, following the Applicant's presentation at the July 14th Planning Board meeting, the Applicant's traffic consultant reviewed additional parking data related to the updated entry drive, as well as regarding on-street parking along Schenck Avenue and the City's recent proposal to add parking on-street parking along Fishkill Avenue.

As is noted above, and as is shown on Sheet 2 of 10 of the enclosed site plan set, the entry drive to the Premises was reduced from 24.0' to 12.0'. Further, as is more fully detailed in the Response to Comments letter enclosed as **Exhibit B**, which was prepared by Maser Consulting in response to the comments in the letter prepared by Creighton Manning dated July 10, 2020, Maser's review of the existing parking along Schenck Avenue confirmed that there are four (4) existing on-street parking spaces along the west side of Schenck. See **Exhibit B**, Sheet 1 of 2, Existing On-Street Parking – 4 Spaces. Based on discussions with this Board and field review, Maser further developed a concept that would allow for six (6) total on-street parking spaces along Schenck Avenue that would increase the available (and legal) on-street parking spaces on Schenck Avenue



July 28, 2020

Page 3

between Main Street and South Street by two (2) spaces. *See Exhibit B*, Sheet 2 of 2, Proposed On-Street Parking – Six Spaces.

Additionally, the Applicant's parking consultant also confirmed that City of Beacon has a project currently under development for improvements to Fishkill Avenue between Wolcott Avenue boundary of the City at Prospect Street. Maser Consulting confirmed that the design plans for this project will involve resurfacing and restriping of Fishkill Avenue for its entire length along with other related pavement, utility and sidewalk improvements. *See Exhibit B*. We have been advised that the Fishkill Avenue roadway project is anticipated to be put out to bid later this summer (2020) with construction expected to commence in February 2021.

As it relates to the instant application, the Applicant's parking consultant confirmed that six (6) additional on-street parking spaces are proposed to be added along the east side of Fishkill Avenue. These six (6) additional parking spaces will fall within the 800 ft. radius from the Premises. Accordingly, the two (2) additional proposed spaces along Schenck Avenue, taken together with the additional six (6) spaces along Fishkill Avenue and the other on-street parking evaluated by Maser Consulting would increase the total additional available on-street parking within 800 ft. of the Premises to sixteen (16) total parking spaces. *See Exhibit B*.

Given the above, the Applicant respectfully reiterates its request for a parking waiver consistent with the findings in its updated Traffic & Parking Study that concludes that the parking needs for the proposed development can be accommodated by the public parking in the vicinity of the Premises during both Weekday and Weekend peak parking periods.

ADDITIONAL RESPONSE TO COMMENTS MEMORANDUM & INDEX OF ENCLOSURES:

Additionally, in further support of this Application, enclosed please find copies of the following Response to Comments letter prepared by the Applicant's Engineering Consultant, Hudson Land Design:

- Hudson Land Design Response to Comments Letter Dated July 28, 2020, in response to the letters prepared by Lanc & Tully and John Clarke Planning and Design both dated July 9, 2020 (**Exhibit C**).



July 28, 2020

Page 4

For ease of reference, in addition to the updated site plan sheets referenced above, the following documents are enclosed herein for consideration in advance of the Planning Board's August 11th meeting Agenda:¹

- Exhibit A:** Aryeh Seigel Architect Response to Comments Letter Dated July 28, 2020, in response to the letters prepared by Lanc & Tully and John Clarke Planning and Design both dated July 9, 2020;
- Exhibit B:** Maser Consulting Response to Comments Letter Prepared in Response to the Comments in the Letter Prepared by Creighton Manning dated July 10, 2020; and
- Exhibit C:** Hudson Land Design Response to Comments Letter Dated July 28, 2020, in response to the letters prepared by Lanc & Tully and John Clarke Planning and Design both dated July 9, 2020.

We look forward to appearing at the Planning Board's August 11th regular meeting for the SEQRA public hearing and for the continued review of the Project.

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

Very truly yours,

A handwritten signature in black ink, appearing to read 'T.M. Palmer', with a stylized flourish at the end.

Taylor M. Palmer

Enclosures

Cc: Jennifer L. Gray, Esq.
John Clarke Planning and Design
Lanc & Tully Engineering and Surveying, P.C.
Aryeh J. Seigel Architect
Michael A. Bodendorf, P.E. – Hudson Land Design Professional Engineering, P.C.
Maser Consulting P.A.

¹ Note: Pursuant to our communications with the City of Beacon Building Department, only electronic submissions are requested at this time.



*Civil & Environmental Engineering Consultants
174 Main Street, Beacon, New York 12508 (Main Office and Mailing Address)
13 Chambers Street, Newburgh, NY 12550 (Satellite Office)
Phone: 845-440-6926 Fax: 845-440-6637
www.HudsonLandDesign.com*

July 28, 2020

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

Re: 416-420 Main Street Subdivision, Site Plan and Special Use Permit
416-420 Main Street
Tax parcels: 6054-29-056780, ± 0.18 ac. (416 Main Street)
6054-29-056774, ± 0.07 ac. (418-420 Main Street)
City of Beacon, NY

Dear Chairman Gunn and Members of the Planning Board:

On behalf of the Applicant for the above referenced project, Hudson Land Design (HLD) has revised the plan set in response to John Clark Planning and Design's July 9, 2020 comment letter and Lanc & Tully's July 9, 2020 comment letter. Below is a point-by-point response to the comments received. Please note that Aryeh Siegel has prepared Sheets 1 through 5 of the plan set and has responded to certain comments that pertain his sheets under separate cover.

John Clarke Planning and Design July 9, 2020 Comment Letter

1. The zoning district label has been changed to the T – Transitional District.
2. Aryeh Siegel has responded to this comment.
3. Aryeh Siegel has responded to this comment.
4. Aryeh Siegel has responded to this comment.
5. Handling of trash is still being thought out and will be provided in a future submission.
6. Comment noted. The Applicant will further discuss parking arrangements with the board. Parking striping is being prepared by the traffic consultant.

Lanc & Tully July 9, 2020 Comment Letter

General Comments

1. Comment noted. Maser will provide the offsite traffic and parking striping on a separate plan.
2. Comment noted. As was discussed at the Planning Board's July 14, 2020 meeting, the Building Inspector determined that the artist live/work building in connection with our application is a nonresidential use, and therefore the proposed buildings can be located on the same lot in compliance with Beacon City Code Section 223-12(A).

Preliminary Plat

1. The zoning district label has been changed to the T – Transitional District.
2. The label has been corrected. The shortest distances were used to be conservative for lot depth and width. The table has been updated to reflect the common lot width and depth.
3. Comment noted. TEC Land Surveying is the surveyor of record and is noted under "Map References" on the plan. A surveyor's certification signature block has been added to the plat bearing TEC's information.
4. TEC will provide this information under separate cover.

Site Plan (Sheet 1 of 10)

1. Aryeh Siegel has responded to this comment.
2. Aryeh Siegel has responded to this comment.
3. Aryeh Siegel has responded to this comment.

Existing Conditions & Demolition Plan (Sheet 2 of 10)

1. Aryeh Siegel has responded to this comment.
2. Aryeh Siegel has responded to this comment.
3. Aryeh Siegel has responded to this comment.

Landscape & Lighting Plan (Sheet 3 of 10)

1. Aryeh Siegel has responded to this comment.
2. Aryeh Siegel has responded to this comment.

Grading Plan (Sheet 6 of 10)

1. The title of the sheet has been changed to "Grading & Utility Plan".
2. The LSE has been labeled on the plan.

Utility Profiles (Sheet 8 of 10)

1. The utility crossing has been checked and corrected on the profile.

Construction Details (Sheet 9 of 10)

1. The ADA parking details have been removed from the parking and striping detail.

Construction Details (Sheet 10 of 10)

1. A core and boot detail has been added to the sheet.

Enclosed electronically for your continued review is the following:

- Preliminary Subdivision Plat Sheet 1 of 1 (1 copy), and
- Site Plan set consisting of 10 sheets (1 copy).

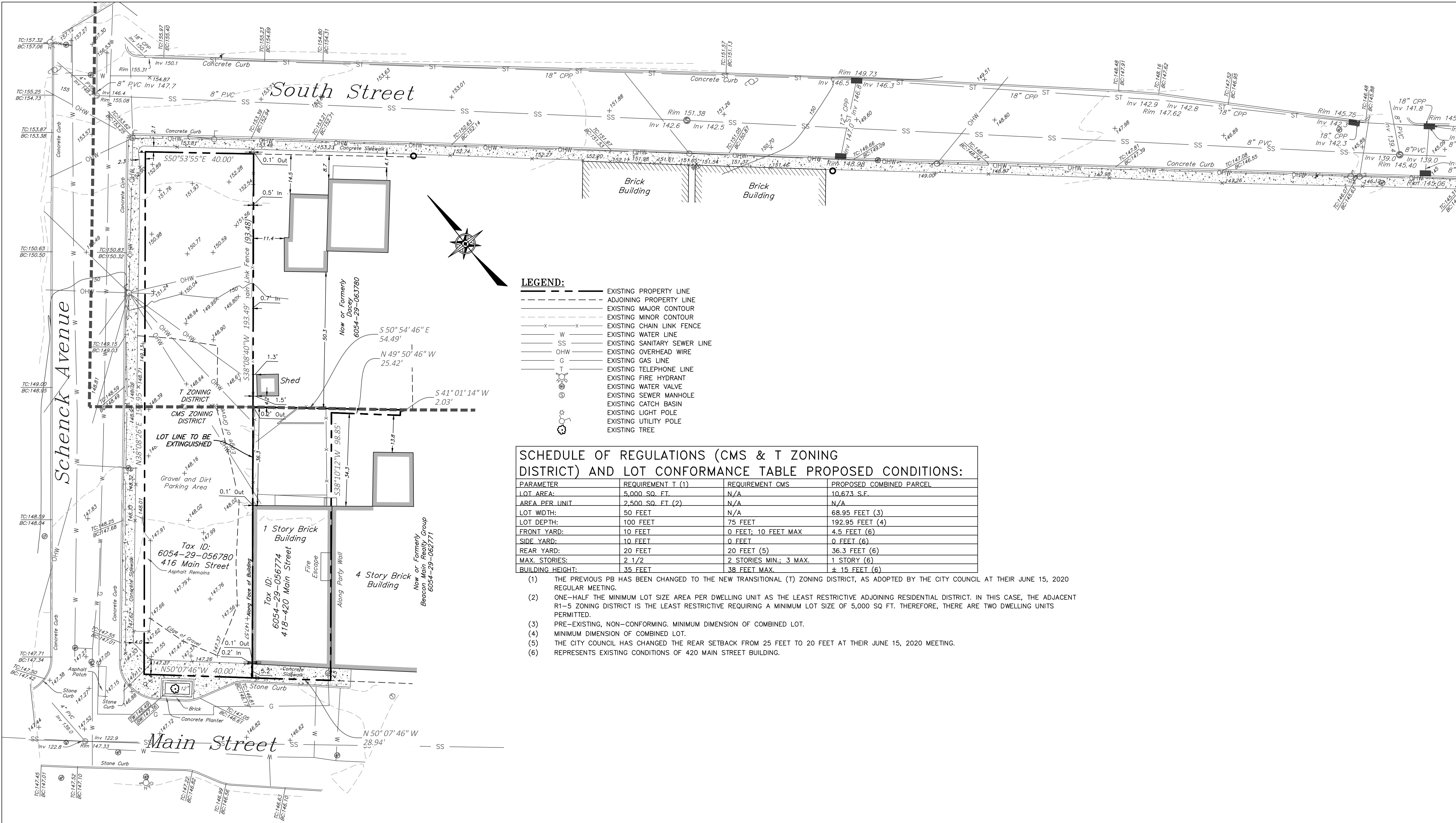
Please note that HLD has prepared Sheets 6 through 10 of the site plan set, and Aryeh Siegel has prepare Sheets 1 through 5. We look forward to discussing this project at your next available planning board agenda. Should you have any questions, please feel free to contact me at 845-440-6926.

Sincerely,

A handwritten signature in black ink, appearing to read "Mr. Bodendorf", with a stylized, flowing script.

Michael A. Bodendorf, P.E.
Principal

cc: 416 Main Street Beacon, LLC & 420 Main Street Beacon, LLC
Taylor Palmer, Esq.
Aryeh Siegel, AIA
Daniel G. Koehler, P.E. (HLD file)



PRELIMINARY SUBDIVISION PLAT

SCALE: 1"=20'

GRAPHIC SCALE



(IN FEET)

1 inch = 20 ft.

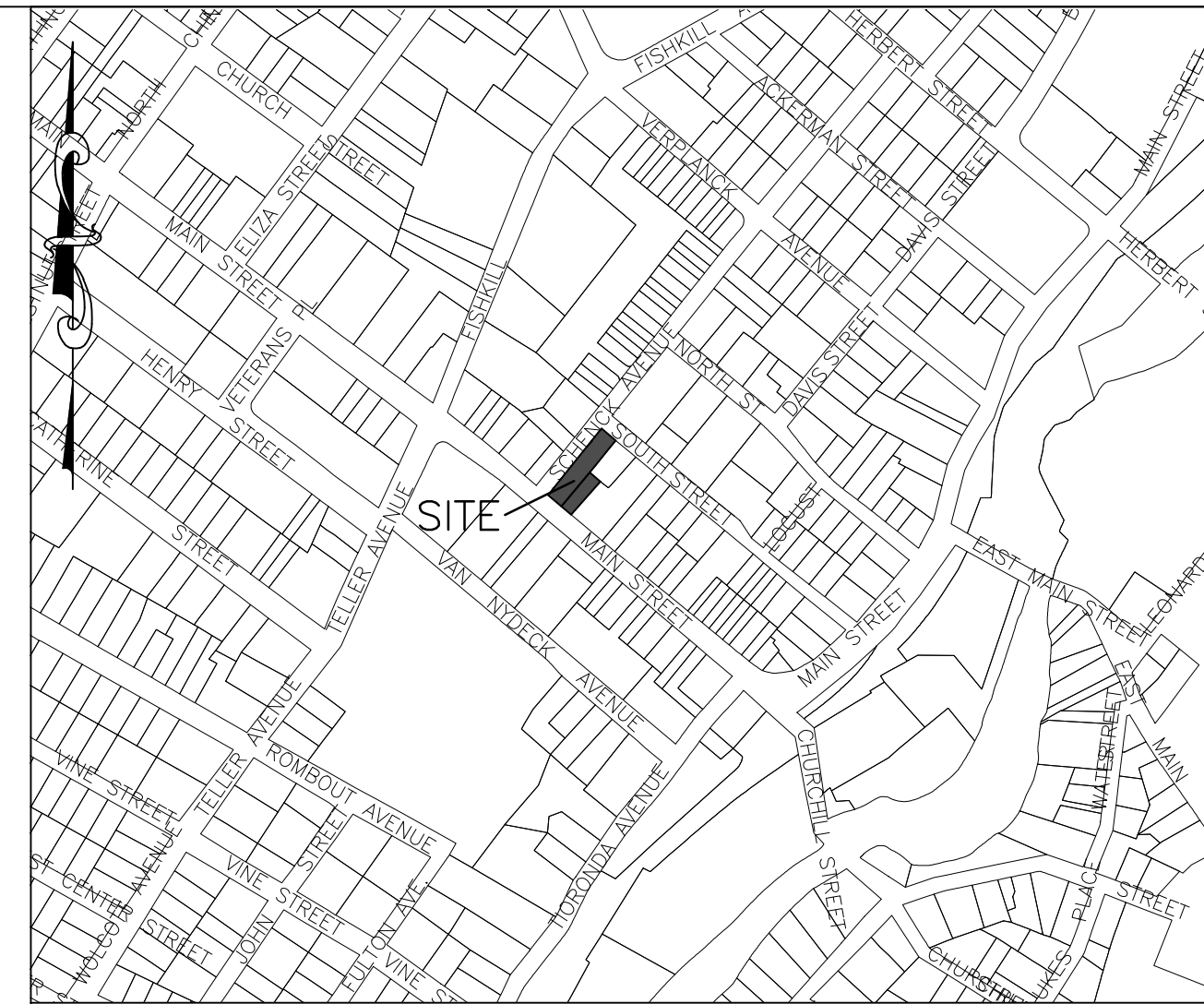
LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING CHAIN LINK FENCE
- W
- SS
- OHW
- G
- T
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING OVERHEAD WIRE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING SEWER MANHOLE
- EXISTING CATCH BASIN
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING TREE

SCHEDULE OF REGULATIONS (CMS & T ZONING DISTRICT) AND LOT CONFORMANCE TABLE PROPOSED CONDITIONS:

PARAMETER	REQUIREMENT T (1)	REQUIREMENT CMS	PROPOSED COMBINED PARCEL
LOT AREA:	5,000 SQ. FT.	N/A	10,673 S.F.
AREA PER UNIT	2,500 SQ. FT. (2)	N/A	N/A
LOT WIDTH:	50 FEET	N/A	68.95 FEET (3)
LOT DEPTH:	100 FEET	75 FEET	192.95 FEET (4)
FRONT YARD:	10 FEET	0 FEET; 10 FEET MAX	4.5 FEET (6)
SIDE YARD:	10 FEET	0 FEET	0 FEET (6)
REAR YARD:	20 FEET	20 FEET (5)	36.3 FEET (6)
MAX. STORIES:	2 1/2	2 STORIES MIN.; 3 MAX.	1 STORY (6)
BUILDING HEIGHT:	35 FEET	38 FEET MAX.	± 15 FEET (6)

- THE PREVIOUS PB HAS BEEN CHANGED TO THE NEW TRANSITIONAL (T) ZONING DISTRICT, AS ADOPTED BY THE CITY COUNCIL AT THEIR JUNE 15, 2020 REGULAR MEETING.
- ONE-HALF THE MINIMUM LOT SIZE AREA PER DWELLING UNIT AS THE LEAST RESTRICTIVE ADJOINING RESIDENTIAL DISTRICT. IN THIS CASE, THE ADJACENT R1-5 ZONING DISTRICT IS THE LEAST RESTRICTIVE REQUIRING A MINIMUM LOT SIZE OF 5,000 SQ FT. THEREFORE, THERE ARE TWO DWELLING UNITS PERMITTED.
- PRE-EXISTING, NON-CONFORMING. MINIMUM DIMENSION OF COMBINED LOT.
- MINIMUM DIMENSION OF COMBINED LOT.
- THE CITY COUNCIL HAS CHANGED THE REAR SETBACK FROM 25 FEET TO 20 FEET AT THEIR JUNE 15, 2020 MEETING.
- REPRESENTS EXISTING CONDITIONS OF 420 MAIN STREET BUILDING.



SITE LOCATION MAP

SCALE: 1" = 400'

MAP REFERENCES:

1. EXISTING FEATURES AS SHOWN ON THIS PLAN PROVIDED BY A SURVEY COMPLETED IN DECEMBER 22, 2019, BY TEC LAND SURVEYING P.C..

SURVEY NOTES:

- 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.
- 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.
- 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.
- 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.
- THE CERTIFICATIONS HEREIN ARE NOT TRANSFERABLE.
- 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.
- SUBJECT TO THE FINDINGS OF A CURRENT TITLE SEARCH.
- SUBJECT TO COVENANTS, EASEMENTS, RESTRICTIONS, CONDITIONS AND AGREEMENTS OF RECORD.
- SUBJECT TO ANY RIGHT, TITLE OR INTEREST THE PUBLIC MAY HAVE FOR HIGHWAY USE.
- BEARINGS AND NORTH SHOWN HEREON ARE REFERENCED TO NAD 83-NY EAST USING NYSNET RTN GPS.
- CONTOUR INTERVAL IS ONE FOOT. ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD 88 USING NYSNET RTN GPS.

DEED REFERENCE

Doc. #02 2016 8895
DTE Diversified LLC
To
McDermott Properties
December 15, 2016

Doc. #02 2014 5391
Fir Properties, Inc.
To
EB 1 LLC
September 10, 2014

AREA

6054-29-056744
2,947 Square Feet
0.068 Acres

6054-29-056780
7,726 Square Feet
0.177 Acre

DATE OF SURVEY

Field Completion: December 22, 2019

OWNERS

416 Main Street Beacon, LLC
420 Main Street, LLC D/B/A 420 Main Street Beacon, LLC

TAX PARCEL NUMBER

City of Beacon, Dutchess County, New York
6054-29-056774
6054-29-056780

SURVEYOR CERTIFICATION:

I HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED ON DECEMBER 22, 2019.

By: Tom E. Cerchiaro N.Y. State Lic. no. 050732

DCDOH STANDARD NOTE:

FOR PERMISSION TO FILE

THIS PLAN DOES NOT CONSTITUTE A REALTY SUBDIVISION AS DEFINED BY ARTICLE XI, TITLE II, SECTION 1115 OF THE PUBLIC HEALTH LAW OF THE STATE OF NEW YORK, AND ARTICLE XI OF THE DUTCHESS COUNTY SANITARY CODE. PERMISSION IS HEREBY GRANTED FOR THE FILING OF THIS MAP WITH THE CLERK OF DUTCHESS COUNTY. APPROVAL FOR ARRANGEMENTS FOR WATER SUPPLY AND/OR SEWAGE DISPOSAL IS NEITHER SOUGHT NOR GRANTED.

AUTHORIZED REPRESENTATIVE OF THE COMMISSIONER OF HEALTH

DATE



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

SEAL

PRELIMINARY SUBDIVISION PLAT

416 MAIN STREET

416-420 MAIN STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-056780 & 056774

JOB #: 2020:005

DATE: 4/28/2020

SCALE: 1" = 20'

TITLE: SUB-1

SHEET: 1 OF 1

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

[illegible][illegible]

Use & Parking Requirements	Proposed Area	Current Parking Requirement
Residential		
(1) space per unit (CMS)	(1) Apartments in Main Building	1 parking space
(2) spaces per dwelling unit	(1) Live/Work Residence	2 parking spaces
Commercial		
(2) spaces per 1,000 SF (CMS) for Retail	3,707 sf	8 parking spaces
(2) spaces per 1,000 SF (CMS) for Office	5,997 sf	12 parking spaces
Total Required		23 parking spaces
Total Provided		4 parking spaces

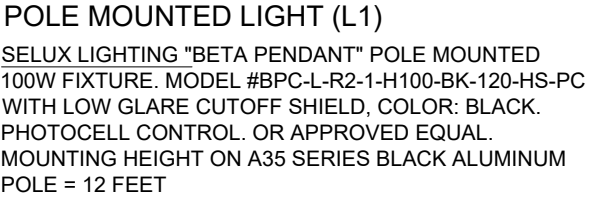
Scale: 1" = 10'

Beacon, New York
Scale: 1" = 10'
April 28, 2019

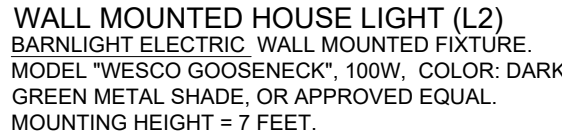
Use & Parking Requirements	Proposed Area	Current Parking Requirement
Residential		
(1) space per unit (CMS)	(1) Apartments in Front Building	1 parking spaces
(1) space for each dwelling unit, plus 1/4 space for each bedroom, plus 1/2 space for each live/work space containing retail area	(1) one-bedroom Artist Live Work with retail	2 parking spaces
Commercial		
(2) spaces per 1,000 SF (CMS) for Retail	4,295 sf	8 parking spaces
(2) spaces per 1,000 SF (CMS) for Office	6,220 sf	12 parking spaces
Total Required		23 parking spaces
Total Provided		4 parking spaces See Note 1

1. The Applicant proposes to provide 4 parking spaces for the residential uses and requests a waiver of the parking for commercial uses. A Zoning Variance to provide 6 parking spaces where 36 were required was granted for a previously approved project in 2013. Zoning Variance #2013-09
2. There are public parking lots within 800' of the property.
3. No signage is proposed as part of this application. Retail tenants will apply separately to the Planning Board for their own signage

Sheet 1 of 10	Site Plan
Sheet 2 of 10	Existing Conditions & Demolition Plan
Sheet 3 of 10	Landscape Plan & Planting Schedule
Sheet 4 of 10	Building Plans
Sheet 5 of 10	Building Elevations & Renderings
Sheet 6 of 10	Grading & Utility Plan
Sheet 7 of 10	Erosion and Sediment Control Plan
Sheet 8 of 10	Utility Profiles
Sheet 9 of 10	Construction Details
Sheet 10 of 10	Construction Details



NOTE: AS AN ALTERNATE, THE OWNER MAY INSTALL EQUIVALENT WATTAGE LED FIXTURES CONFORMING TO THE COLOR TEMPERATURES SPECIFIED IN THE CITY OF BEACON ZONING CODE IN PLACE OF THE INCANDESCENT FIXTURES SHOWN. LED LIGHTING WILL MEET THE SAME SPECIFICATIONS FOR LOW GLARE CUT OFF CONTROLS, EITHER BY SHIELDING OR INTERNAL CONTROLS.



NOTE THAT THE MANUFACTURER DOES NOT PROVIDE
FOOTCANDLE DIAGRAMS FOR THIS FIXTURE. THE
FIXTURE IS SHADED AND DOES NOT EMIT GLARE

LIGHTING NOTES:

ALL EXTERIOR LIGHTING ON THE SITE SHALL CONFORM TO BEACON ZONING CODE SECTION 223-14B:
EXTERIOR LIGHTING. ALL EXTERIOR LIGHTING ACCESSORY TO A RESIDENTIAL, INDUSTRIAL, MULTIFAMILY OR
NONRESIDENTIAL USE, INCLUDING THE LIGHTING OF SIGNS, SHALL BE SUBJECT TO THE FOLLOWING STANDARDS:
[AMENDED 12-9-2019 BY L.L. NO. 11-2019]

- (1) THE TYPE, LOCATION, AND SHADING OF SUCH LIGHTING SHALL PREVENT THE SPOILOVER OF LIGHT ONTO ANY ADJACENT RESIDENTIAL OR MULTIFAMILY PROPERTY OR DIRECT GLARE ONTO ANY PUBLIC SIDEWALK OR STREET.
- (2) SUCH LIGHTING SHALL USE FULL CUTOFF FIXTURES THAT DO NOT EMIT LIGHT ABOVE THE HORIZONTAL PLANE INTO THE NIGHT SKY, EXCEPT FOR LIGHTING FOR SHORT-TERM EVENTS OR HOLIDAYS, FLAGPOLE LIGHTING, DECORATIVE LIGHT SOURCES UNDER 600 LUMENS, PUBLIC PARKS AND OTHER PUBLIC SPECIALTY LIGHTING, AS DETERMINED BY THE BUILDING INSPECTOR.
- (3) HOURS OF LIGHTING AND FIXTURE HEIGHT, TYPE, DESIGN, INTENSITY, AND COLOR TEMPERATURE MAY BE DETERMINED BY THE PLANNING BOARD IN ACTING ON ANY SITE DEVELOPMENT PLAN UPON CONSIDERATION OF THE FOLLOWING CONSIDERATIONS:
 - (a) LIGHTING FIXTURES IN PEDESTRIAN AREAS SHOULD BE A MAXIMUM OF 15 FEET IN HEIGHT AND PARKING LOT LIGHTING FIXTURES SHOULD BE A MAXIMUM OF 20 FEET.
 - (b) PEDESTRIAN AND PARKING LOT AREAS SHOULD AVERAGE APPROXIMATELY ONE FOOTCANDLE. ONLY HIGH SECURITY AREAS MAY REQUIRE LIGHTING IN THE TWO TO FIVE FOOTCANDLE RANGE, WHILE OVER FIVE FOOTCANDLES IS USUALLY A WASTE OF ENERGY AND A SOURCE OF GLARE.
 - (c) COLOR TEMPERATURES SHOULD BE IN THE RANGE OF 2,400 TO 4,000 KELVIN DEGREES.
 - (d) THE COLOR RENDERING INDEX SHOULD BE IN THE RANGE OF 80 TO 100.
 - (e) ADAPTIVE CONTROLS, SUCH AS DIMMERS, TIMERS, AND MOTION SENSOR SHUT-OFF LIGHTING, SHOULD BE USED WHENEVER APPROPRIATE.

HATCHING & LANDSCAPE LEGEND

-
- CONCRETE SIDEWALK
- ASPHALT PAVING
- GRAVEL PATH (STEEL EDGING)
- CONSERVATION BUFFER - WEST
- CONSERVATION BUFFER - EAST
- WETLAND RESTORATION AREA
- NATIVE MEADOW
- INDIAN SWITCHGRASS (G-PI)
- CUSTOM GRASS MIX - (ERNMK-CUS1)
- SEDGE (G-CP)
- EVERGREEN SHRUB (S-IQ)
- BIO-RETENTION AREA MIX

- PROPOSED NEW ORNAMENTAL NATIVE TREE
T-XX
PROPOSED NATIVE EVERGREEN
EXISTING TREE TO REMAIN (WITH CALIPER)

DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

STAKE TREES ONLY UPON THE APPROVAL
OF THE LANDSCAPE DESIGNER.

WRAP TREE TRUNKS ONLY UPON THE
APPROVAL OF THE LANDSCAPE DESIGNER.

MARK THE NORTH SIDE OF THE TREE
IN THE NURSERY, AND ROTATE TREE
TO FACE NORTH AT THE SITE. _____

2 IN. MULCH. DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK. MAINTAIN THE MULCH WEED-FREE FOR A MINIMUM OF THREE YEARS AFTER PLANTING.

1:1 SLOPE ON SIDES OF PLANTING HO

TAMP SOIL AROUND ROOT BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT ROOT BALL DOES NOT SHIFT.

EACH TREE MUST BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. TREES WHERE THE TRUNK FLARE IS NOT VISIBLE SHALL BE REJECTED. DO NOT COVER THE TOP OF THE ROOT BALL.

FORM A SOIL SAUCEUR 4 IN. IN DEPTH AND FILL WITH WATER. SOON AFTER WATER HAS BEEN ABSORBED, COVER WITH M.

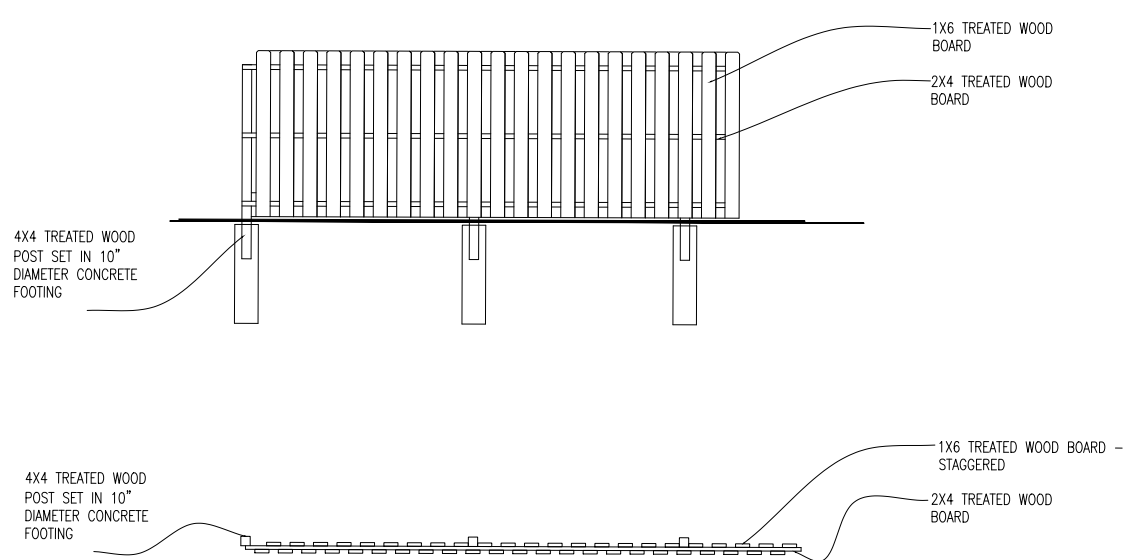
BACK FILL WITH EXISTING SOIL IN SANDY LOAM SOILS.

REMOVE ALL TWINE, ROPE AND WIRE, AND BURLAP FROM TOP HALF OF ROOT BALL. IF PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, CUT THE WIRE BASKET IN FOUR PLACES AND FOLD DOWN 8 IN. INTO PLANTING HOLE

— PLACE ROOTBALL ON UNEXCAVATED OR
COMPACTED MOUND TO PREVENT SETTLEMENT.

Tree Planting Detail

Scale: NTS



Shadowbox Fence Detail

Scale: NTS



Landscaping & Lighting Plan

Scale: 1" = 20'

Owner:
416 Main Street Beacon, LLC and 420 Main St. Beacon, LLC

445 Hamilton Avenue
White Plains, NY 10601

Architect:
Aryeh Siegel, Architect

84 Mason Circle
Beacon, New York 12508

Site / Civil Engineer:
Hudson Land Design

174 Main Street
Beacon, New York 12508

Surveyor:
TEC Surveying

831 Route 52, Suite 2C
Fishkill, New York 12524

Site Plan Application

Sheet 3 of 10 - Landscaping & Lighting Plan

416-420 Main Street

Beacon, New York

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

April 28, 2019

ROOF:
STANDING SEAM METAL.
COLOR: ZINC

CORNICE:
PAINTED AZEK TRIM AND
PAINTED FIBERGLASS
CORBELS.

WINDOWS:
CASEMENT WINDOWS BY
ANDERSEN OR APPROVED
EQUAL. COLOR: BLACK

SIDING:
STANDING SEAM METAL
TO MATCH ROOF AT 4TH
FLOOR.

GLEN GARY 56DD BRICK
AT EXTERIOR WALLS

CANOPY:
SHEET METAL. COLOR:
BRICK RED

STOREFRONTS:
ALUMINUM & GLASS.
COLOR: GRAY



Elevation: Main Street

Scale: 1/16" = 1'-0"



Elevation: Rear

Scale: 1/16" = 1'-0"

CORNICE:
PAINTED AZEK TRIM AND
PAINTED FIBERGLASS
CORBELS.

WINDOWS:
CASEMENT WINDOWS BY
ANDERSEN OR APPROVED
EQUAL. COLOR: BLACK

SIDING:
STANDING SEAM METAL
TO MATCH ROOF AT 4TH
FLOOR.

GLEN GARY 56DD BRICK
AT EXTERIOR WALLS

CANOPY:
SHEET METAL. COLOR:
BRICK RED



Elevation: Schenck Avenue

Scale: 1/16" = 1'-0"

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	06/24/20	CITY COUNCIL PRESENTATION	AJS
2	06/30/20	REVISED PER PLANNING BOARD COMMENTS	AJS
3	07/28/20	REVISED PER PLANNING BOARD COMMENTS	AJS



View from Main Street



View from Main Street



View from Schenck Avenue



View from Corner

Site Plan Application

Sheet 5 of 10 - Building Elevations & Renderings

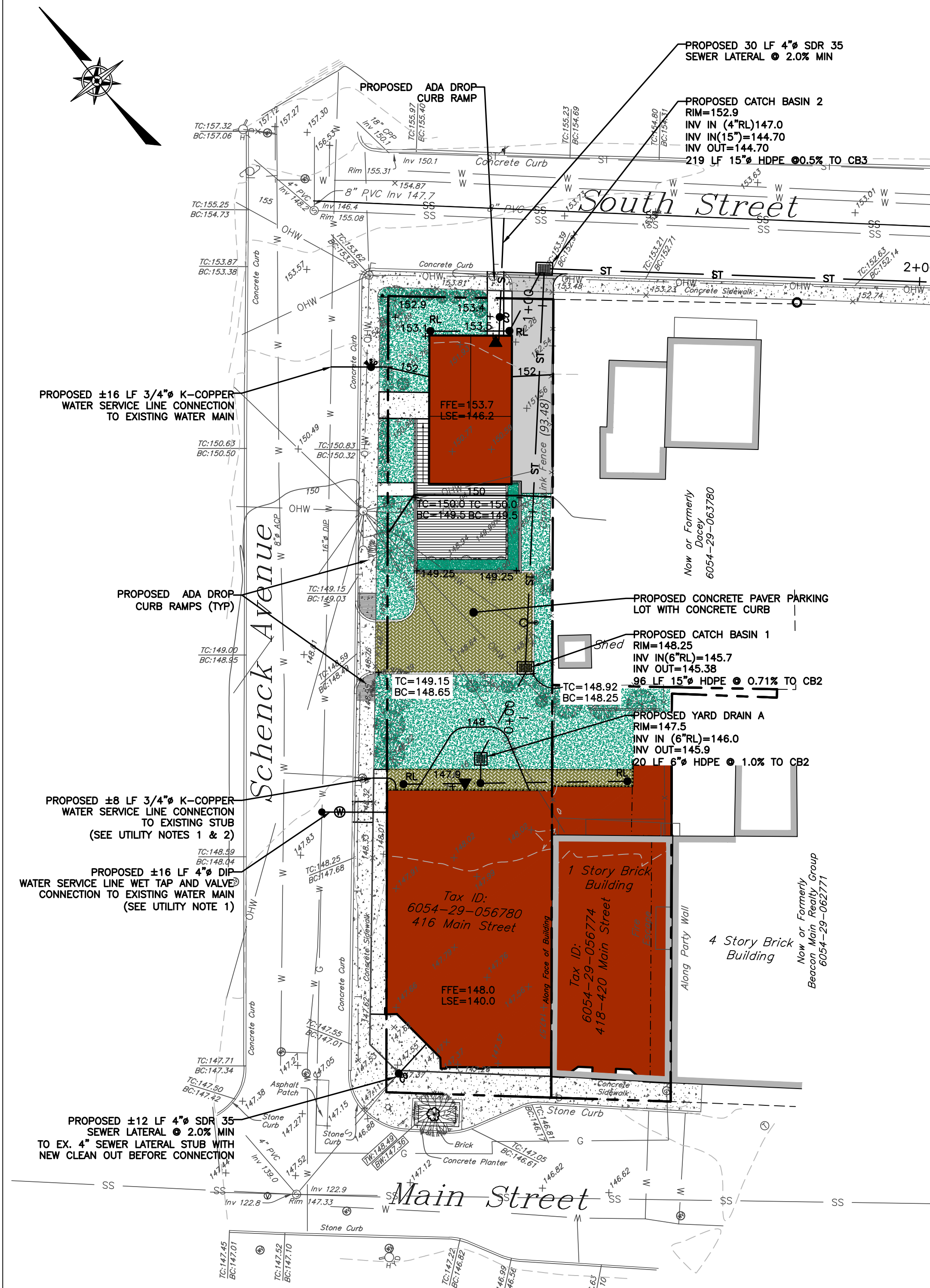
Owner:
416 Main Street Beacon, LLC and 420 Main St. Beacon, LLC
C/O Cuddy & Feder LLP
445 Hamilton Avenue
White Plains, NY 10601

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

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

Surveyor:
TEC Surveying
831 Route 52, Suite 2C
Fishkill, New York 12524

416-420 Main Street
Beacon, New York
Scale: 1/16" = 1'-0"
April 28, 2019



GRADING AND UTILITY PLAN

SCALE: 1"=20'

GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.

LEGEND:

---	EXISTING PROPERTY LINE
---	ADJOINING PROPERTY LINE
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	EXISTING CHAIN LINK FENCE
---	EXISTING WATER LINE
---	EXISTING SANITARY SEWER LINE
---	EXISTING OVERHEAD WIRE
---	EXISTING GAS LINE
---	EXISTING TELEPHONE LINE
---	EXISTING FIRE HYDRANT
---	EXISTING WATER VALVE
---	EXISTING SEWER MANHOLE
---	EXISTING CATCH BASIN
---	EXISTING LIGHT POLE
---	EXISTING UTILITY POLE
---	EXISTING TREE
---	PROPOSED PROPERTY LINE
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	PROPOSED STORM PIPE
---	PROPOSED DIP WATER LINE
---	PROPOSED K-COPPER WATER LINE
---	PROPOSED SEWER LINE
---	PROPOSED SILT FENCE
---	PROPOSED LIMIT OF DISTURBANCE LINE
---	PROPOSED DIP GATE VALVE
---	PROPOSED WATER SERVICE SHUT OFF VALVE
---	PROPOSED SEWER CLEAN OUT

GENERAL CONSTRUCTION NOTES:

- 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.
- THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UFPO @ 1-800-962-7962.
- THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL CATCH BASINS, SANITARY MANHOLES AND WATERLINES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT. INVESTIGATIVE TEST PITS MAY BE REQUIRED TO VERIFY LOCATIONS.
- PIPE CONNECTIONS TO ALL CATCH BASINS SHALL BE MADE WATERTIGHT, WITH PARTICULAR ATTENTION BEING PAID TO CONNECTIONS LOCATED WITHIN 10 FEET OF WATER AND SEWER MAINS (AND SERVICE LATERALS).

INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES

CATCH BASINS AND PIPING:

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

UTILITY NOTES:

- THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL CATCH BASINS, STORM SEWER LINES, SANITARY MANHOLES, SEWER LINES, WATERLINES, AND UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT. INVESTIGATIVE TEST PITS MAY BE REQUIRED TO VERIFY LOCATIONS AND DEPTHS.
- THE CONTRACTOR SHALL VERIFY WITH THE MEP ENGINEER WHETHER THE 3/4" DOMESTIC FEED TO THE FRONT BUILDING IS NECESSARY TO KEEP IN SERVICE. IF IT NOT REQUIRED, THE STUB SHALL BE ABANDONED IN-PLACE.
- THERE IS A REPUTED GAS LINE RUNNING DOWN SOUTH STREET. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE GAS LINE PRIOR TO INSTALLING STORMWATER INFRASTRUCTURE. IF GAS LINE RE-LOCATION IS NECESSARY, THE CONTRACTOR SHALL COORDINATE THIS EFFORT WITH CHGE.
- THE DEPTH OF THE EXISTING STORMWATER, SEWER AND WATER LINES IN SOUTH STREET SHALL BE VERIFIED PRIOR TO CONSTRUCTION OF THE STORMWATER SYSTEM TO VERIFY THAT THERE WILL NOT BE CONFLICTS WITH CROSSINGS OR CONNECTIONS.

EXISTING WATER MAIN CROSSING NOTES:

- IF 18" MINIMUM VERTICAL SEPARATION DISTANCES CANNOT BE MET BETWEEN THE STORMWATER PIPE AND THE EXISTING WATER MAIN, IT SHALL BE BROUGHT TO THE ENGINEER SUPERVISING CONSTRUCTION (PROJECT) ATTENTION IMMEDIATELY. AT THE DIRECTION OF PROJECT ENGINEER, AND CITY ENGINEER, THE WATER MAIN SHALL BE ENCASED IN 6" OF CONCRETE FOR A MINIMUM DISTANCE OF 10' IN BOTH DIRECTIONS ALONG THE WATER MAIN FROM CENTERLINE OF THE STORMWATER PIPE IN ACCORDANCE WITH THE CONCRETE ENCASEMENT DETAIL ON THIS SHEET.
- IF THE STORMWATER PIPE IS IN DIRECT CONFLICT WITH THE WATER MAIN, THE WATER MAIN SHALL BE RE-DIRECTED VERTICALLY AROUND THE PIPE IN ACCORDANCE WITH THE DETAIL ON SHEET 5.

EXISTING SIDEWALK, CURBING AND ASPHALT PAVEMENT REPAIR NOTES:

- THE CONTRACTOR SHALL REPAIR AND REPLACE IN-KIND EXISTING CONCRETE SIDEWALKS AND CURBING, AND ASPHALT PAVEMENT WITHIN THE CITY R.O.W. AS A RESULT OF UTILITY WORK.
- THE SIDEWALKS SHALL BE SAW CUT AT AN EXISTING CONSTRUCTION JOINT OR CONTROL JOINT SO THAT THE FINISHED CONSTRUCTION AND CONTROL JOINT SPACING MATCHES EXISTING.
- CUTS THROUGH EXISTING PAVEMENT SHALL BE MADE VIA SAW CUT AND REPAIRED IN ACCORDANCE WITH THE DETAILS ON SHEET 9.

SITE SPECIFIC NOTES:

- THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UFPO @ 1-800-962-7962. SPECIFIC ATTENTION SHALL BE PAID TO THE LOCATIONS OF THE GAS (IF APPLICABLE), WATER AND SEWER MAINS WITH RESPECT TO THE PROPOSED LOCATIONS FOR THE SERVICE LINES.
- 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.
- THE PROPOSED CONSOLIDATED LOT SHALL BE SERVED BY THE CITY OF BEACON MUNICIPAL WATER AND SEWER SERVICES.
- THE WATER SERVICE LINE AND METER SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BEACON WATER DEPARTMENT REQUIREMENTS.
- THE WATER SERVICE LINE FOR THE SINGLE FAMILY HOUSE SHALL BE 3/4" K-COPPER, AND THE WATER SERVICE LINE TO THE FRONT BUILDING SHALL BE PER MEP ENGINEER TO MEET SPRINKLER REQUIREMENTS.
- THE EXISTING 3/4" WATER SERVICE STUB TO THE FRONT BUILDING MAY BE USED OR ABANDONED IN PLACE.
- THE SEWER SERVICE LINE FOR BOTH BUILDINGS SHALL BE 4" SCH-40 PVC PIPE WITH PITCH AS SHOWN ON THE PLAN (MINIMUM OF 1/4" PER FOOT SHALL BE MAINTAINED).
- A ROAD OPENING PERMIT SHALL BE REQUIRED FOR THE INSTALLATION OF THE PROPOSED WATER AND SEWER SERVICES FOR EACH LOT. STREET CLOSURE FOR WATER AND SEWER SERVICE CONNECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF BEACON REQUIREMENTS.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. THE PROPOSED DRIVEWAY SHALL HAVE A STABILIZED CONSTRUCTION ENTRANCE.
- ROOF LEADER CONNECTIONS TO BE MINIMUM 4" PVC OR HDPE @ 2.0% MIN.
- SUMP PUMP TO BE PROVIDED FOR FOOTING DRAIN, IF NECESSARY. THE TYPE OF PUMP AND METHODS USED TO ENSURE PROPER DRAINAGE SHALL BE ACCEPTABLE TO THE CITY OF BEACON BUILDING DEPARTMENT.
- THE PROPOSED DRIVEWAY SIGHT DISTANCE MEETS OR EXCEEDS COMPLIANCE WITH THE CITY OF BEACON'S 192-9(B) CODE AND THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REQUIREMENTS. THE STATE UTILIZES THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) GUIDELINES FOR INTERSECTION SIGHT DISTANCES. FOR ROADS WITH A SPEED LIMIT OF 30 MPH, AASHTO DESIGN TABLES CALL FOR A SIGHT DISTANCE OF 290 FEET TO THE LEFT AND 335 FEET TO THE RIGHT. THE MEASURED SIGHT DISTANCE AT THE PROPOSED DRIVEWAYS ARE AS FOLLOWS:
PARKING LOT: SLSD LEFT = ±133 FEET (TO INTERSECTION OF MAIN STREET)
SLSD RIGHT = ±324 FEET (TO CREST IN HILL)
SSD LEFT = ±133 FEET (TO INTERSECTION OF MAIN STREET)
SSD RIGHT = ±324 FEET (TO CREST IN HILL)
SINGLE DRIVEWAY: SLSD LEFT = ±56 FEET (TO INTERSECTION OF SCHENCK AVENUE)
SLSD RIGHT = N/A - ONE WAY STREET
SLSD LEFT FOR BOTH DRIVEWAYS ARE DEFICIENT; HOWEVER THESE WERE THE MAXIMUM ACHIEVABLE LENGTHS AS THE SLSD LEFT WAS MEASURED TO A T-TYPE INTERSECTION WITH MAIN ST. AND SCHENCK AVENUE.
STOPPING SIGHT DISTANCE (SSD) WAS OBSERVED TO BE IN EXCESS OF THE REQUIRED 200 FEET WHEN APPROACHING THE PROPOSED PARKING LOT DRIVEWAY FROM THE RIGHT, AND APPROXIMATELY 133 FEET FROM THE LEFT. SSD FOR THE SINGLE DRIVEWAY WAS OBSERVED TO BE ±56 FEET FROM THE LEFT. BOTH SSD FROM THE LEFT ARE MEASURED FROM T-TYPE INTERSECTIONS.

INDIANA BAT PROTECTION NOTES:

- TREE CLEARING SHALL BE RESTRICTED TO THE PERIOD BETWEEN OCTOBER 1 AND MARCH 31.
- 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.
- DUST CONTROL DURING CONSTRUCTION SHALL BE IMPLEMENTED. THIS INCLUDES USE OF CONSTRUCTION ENTRANCES, APPLYING LIGHT WATER, AND ESTABLISHING VEGETATION.
- STREET LIGHTS ARE NOT PERMITTED. RESIDENTIAL LIGHTING SHALL BE DIRECTED DOWNWARD TO REDUCE IMPACTS TO BATS FORAGING FOR FOOD.

OFFSITE PARKING AND TRAFFIC IMPROVEMENT NOTE:

- REFER TO PLANS PREPARED BY MASER CONSULTING DATED 7/16/2020 FOR OFFSITE PARKING AND TRAFFIC IMPROVEMENTS.

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.

GRADING & UTILITY PLAN

416 MAIN STREET

416-420 MAIN STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-056780 & 056774

JOB #: 2020-005

DATE: 4/28/2020

SCALE: 1" = 20'

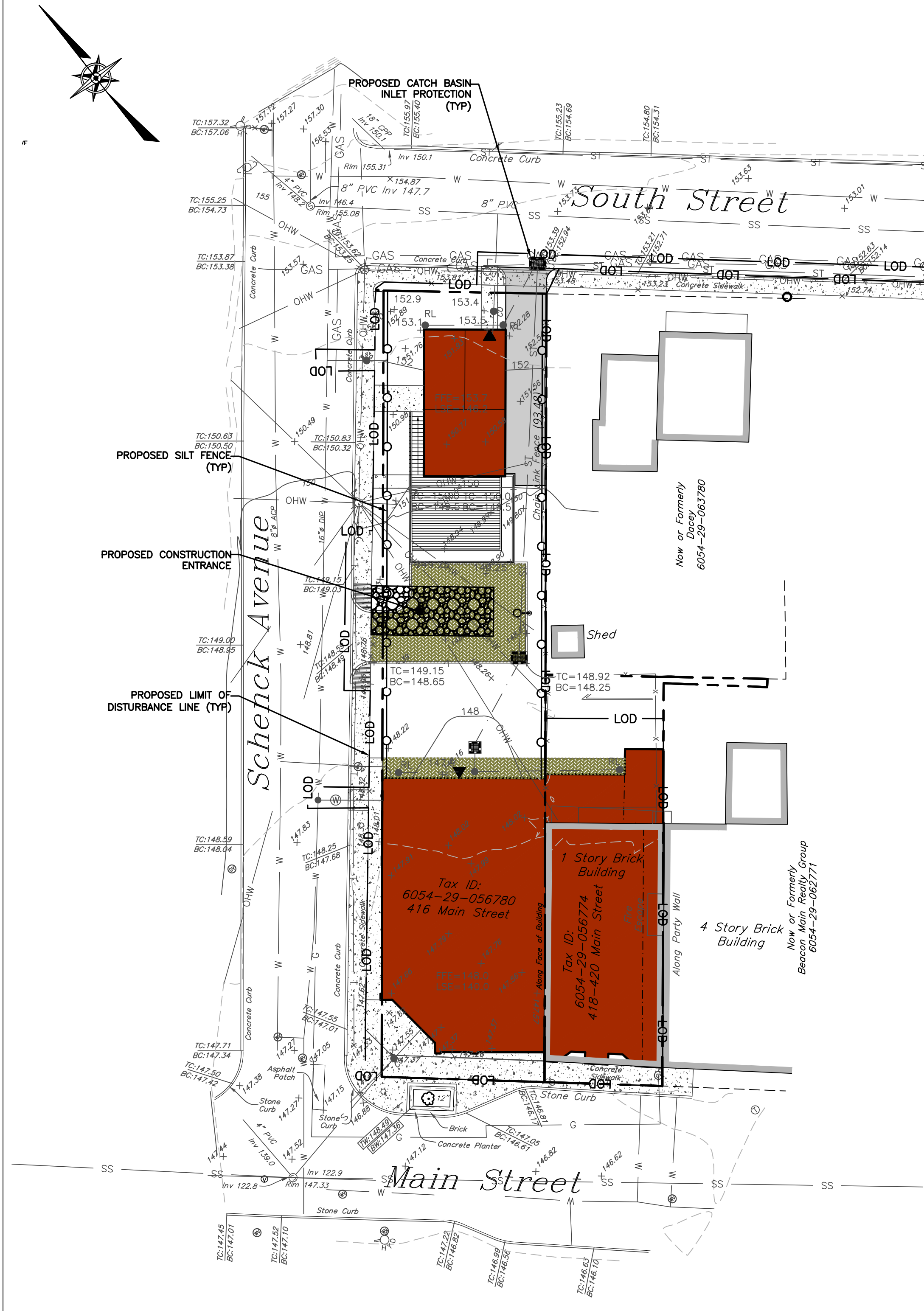
TITLE: GU-1

SHEET: 6 OF 10



HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
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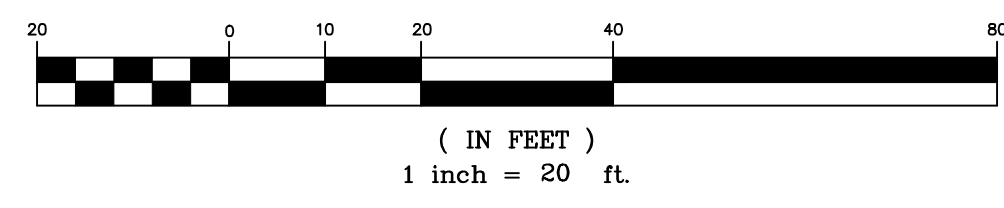
UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1"=20'

GRAPHIC SCALE



LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING CHAIN LINK FENCE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING OVERHEAD WIRE
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING SEWER MANHOLE
- EXISTING CATCH BASIN
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING TREE
- PROPOSED PROPERTY LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM PIPE
- PROPOSED DIP WATER LINE
- PROPOSED K-COPPER WATER LINE
- PROPOSED SEWER LINE
- PROPOSED SILT FENCE
- PROPOSED LIMIT OF DISTURBANCE LINE
- PROPOSED DIP GATE VALVE
- PROPOSED WATER SERVICE SHUT OFF VALVE
- PROPOSED SEWER CLEAN OUT

EROSION AND SEDIMENT CONTROL NOTES

- ALL EROSION CONTROL MEASURES EMPLOYED DURING THE CONSTRUCTION PROCESS SHALL BE INSPECTED BY THE CONTRACTOR IN ACCORDANCE WITH THE MAINTENANCE SCHEDULE PROVIDED ON THIS SHEET. ALL EROSION CONTROL STRUCTURES SHALL BE REPAIRED AND MAINTAINED AS NECESSARY BY THE CONTRACTOR.
- ALL STORMWATER MANAGEMENT STRUCTURES (E.G., SWALES, CULVERTS) SHALL BE REGULARLY INSPECTED FOR SEDIMENT ACCUMULATIONS. SEDIMENT AND TRASH SHALL BE REMOVED, AS NECESSARY.
- ALL EROSION CONTROL INSTALLATION AND MAINTENANCE MEASURES SHALL MEET THE REQUIREMENTS OF THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
- ANY PILE OF POTENTIALLY EROSION 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.
- PERMANENT SEEDED AREAS FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH DETAIL AND SPECIFICATIONS ON THE DETAIL SHEET.
- 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.
- 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.
- THE PROJECT ENGINEER SHALL BE NOTIFIED NO LESS THAN 48 HOURS PRIOR TO THE START OF ANY SITE WORK, AND BY SUCH NOTIFICATION, SHALL BE PROVIDED WITH THE NAME AND TELEPHONE NUMBER OF THE GENERAL CONTRACTOR RESPONSIBLE FOR SUCH WORK.
- THE CITY MAY INSPECT EROSION AND SEDIMENT CONTROL PRACTICES ON THE SITE DURING CONSTRUCTION AND RECOMMEND THAT THE CONTRACTOR INSTALL ADDITIONAL EROSION CONTROL MEASURES IF DEEMED NECESSARY TO PROTECT ANY UNDISTURBED AREAS OF THE SITE. ANY SUCH REQUESTS SHALL BE MADE DIRECTLY TO THE CONTRACTOR AND QUALIFIED PROFESSIONAL AND FOLLOWED UP WITH A WRITTEN NOTIFICATION TO THE DEVELOPER. IN ADDITION, THE CITY SHALL BE CONSULTED ON ANY SPECIAL ADDITIONS OR DELETIONS OF EROSION CONTROL MEASURES WARRANTED BY CHANGING FIELD CONDITIONS.
- IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONSTRUCT A DEWATERING PIT IN ACCORDANCE WITH NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (AKA SUMP PIT) TO FILTER WATER FOR PUMPING TO A SUITABLE LOCATION.
- WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED PER THE APPROVAL OF THE ENGINEER SUPERVISING CONSTRUCTION.

INSPECTION SCHEDULE & MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES

- PERMANENT AND TEMPORARY VEGETATION:**
- INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. ALL AREAS DAMAGED BY EROSION OR WHERE SEED HAS NOT ESTABLISHED SHALL BE REPAIRED AND RESTABILIZED IMMEDIATELY.
- STABILIZED CONSTRUCTION ENTRANCE:**
- INSPECT THE ENTRANCE PAD EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. CHECK FOR MUD, SEDIMENT BUILD-UP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING WET WEATHER. REGRADE PAD AS NEEDED FOR RUNOFF CONTROL. WASH AND REPLACE STONE AS NEEDED. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF SITE BY VEHICLES. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. REMOVE TEMPORARY CONSTRUCTION ENTRANCE AS SOON AS THEY ARE NO LONGER NEEDED TO PROVIDE ACCESS TO THE SITE AS DIRECTED BY PROJECT ENGINEER.
- SILT FENCE:**
- INSPECT FOR DAMAGE EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ONE-QUARTER THE HEIGHT OF THE FENCE. IF FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.
- SOIL STOCKPILE:**
- INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ONE-QUARTER THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCKPILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.
- DUST CONTROL:**
- SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORK. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WATER). STRUCTURAL MEASURES (MULCH, SEEDING) SHALL BE INSTALLED IN DISTURBED AREAS BEFORE SIGNIFICANT BLOWING PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.
- DEWATERING PITS:**
- (IF REQUIRED) - INSPECT DAILY DURING OPERATION FOR CLOGGING OR OVERFLOW. CLEAR INLET AND DISCHARGE PIPES OF OBSTRUCTIONS. IF A FILTER MATERIAL BECOMES CLOGGED WITH SEDIMENT, PIT SHALL BE DISMANTLED AND NEW PITS SHALL BE CONSTRUCTED AS NEEDED.
- CATCH BASINS:**
- ALL CATCH BASINS SHALL BE INSPECTED AFTER EACH STORM EVENT FOR SEDIMENT ACCUMULATION AND DEBRIS, AND REMOVED AS NECESSARY. THE INLET PROTECTION SHALL BE INSPECTED FOR SEDIMENT ACCUMULATION AND REPLACED AS NECESSARY. WHEN SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN SUMP REACHES 1/2 OF THE SUMP DEPTH, IT SHALL BE REMOVED.

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

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

SIGNED THIS _____ DAY OF _____, 20____, BY

_____ CHAIRMAN

_____ SECRETARY

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

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	06/30/2020	NO CHANGE	MAB				
2	07/28/2020	NO CHANGE	MAB				



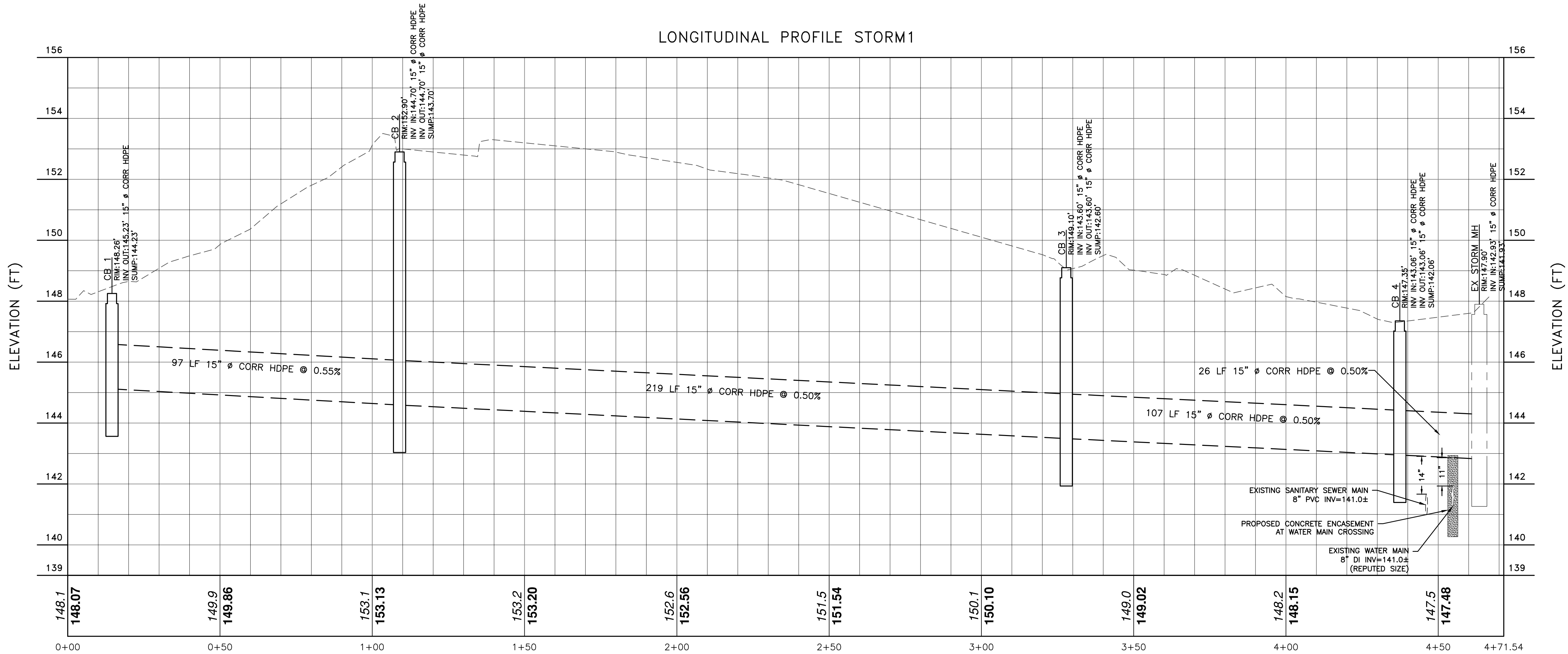
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
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PH: 845-440-6926
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EROSION AND SEDIMENT CONTROL PLAN

416 MAIN STREET

416-420 MAIN STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-056780 & 056774

JOB #:	2020:005
DATE:	4/28/2020
SCALE:	1" = 20'
TITLE:	ESC-1
SHEET:	7 OF 10



PROPOSED STORM PROFILE
SCALE: 1" = 20' H
1" = 2' V

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	06/30/2020	PER PLANNING BOARD COMMENTS	MAB				
2	07/28/2020	PER PLANNING BOARD COMMENTS	MAB				



SEAL

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LAND DESIGN
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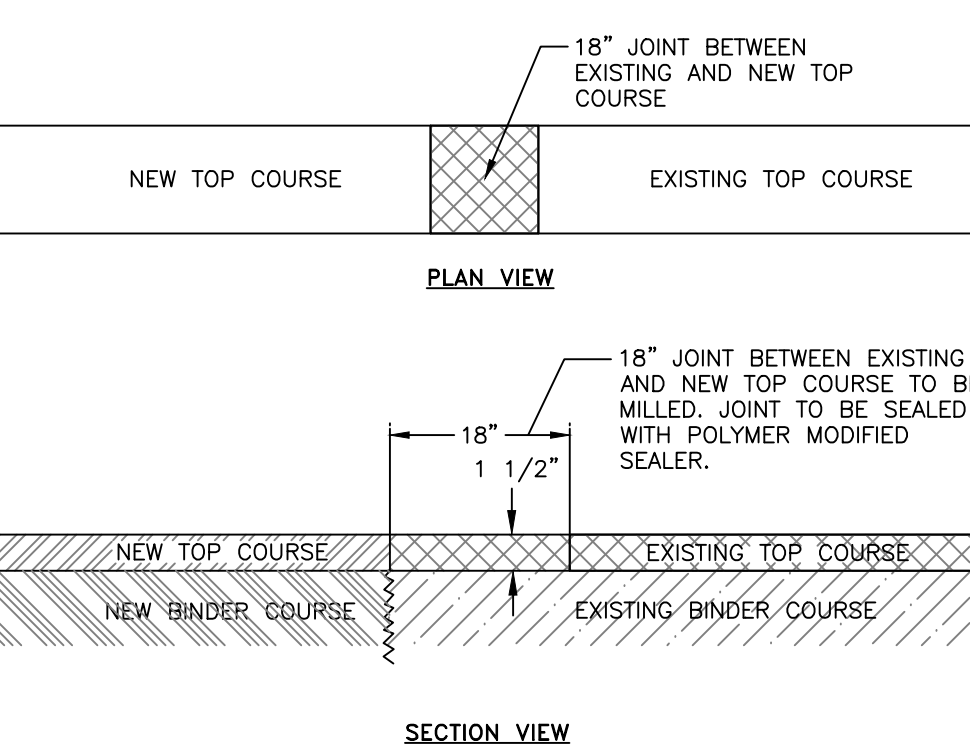
UTILITY PROFILES

416 MAIN STREET

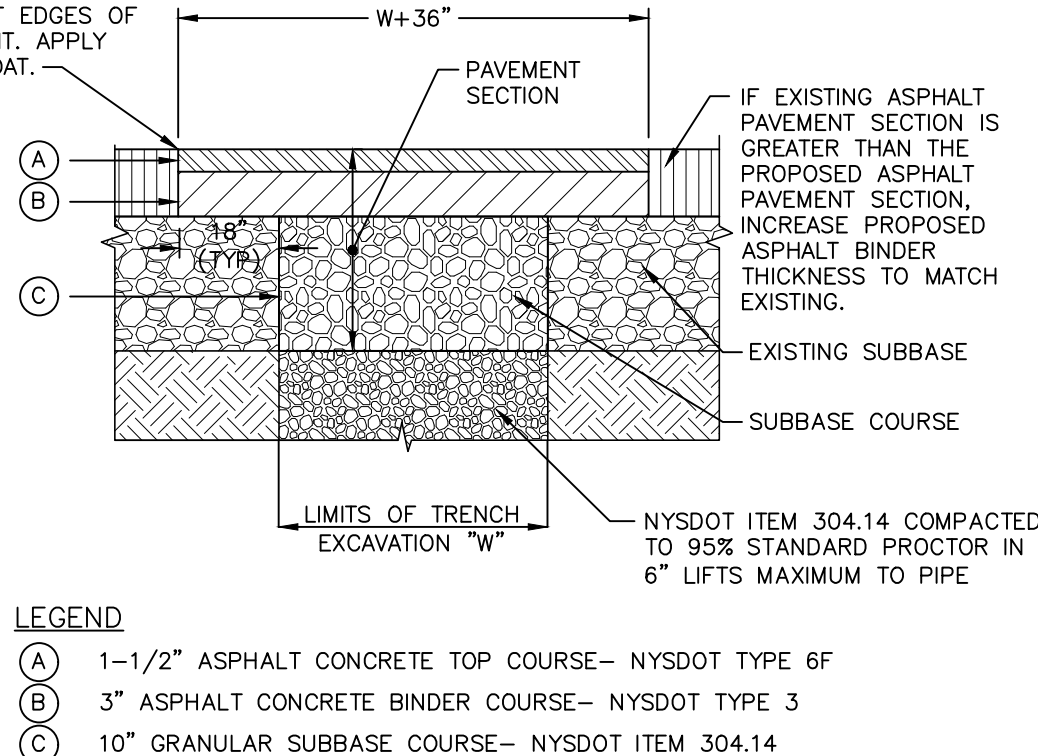
416-420 MAIN STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-20-056780 & 056774

JOB #: 2020:005
DATE: 4/28/2020
SCALE: 1" = 20'
TITLE: PR-1
SHEET: 8 OF 10

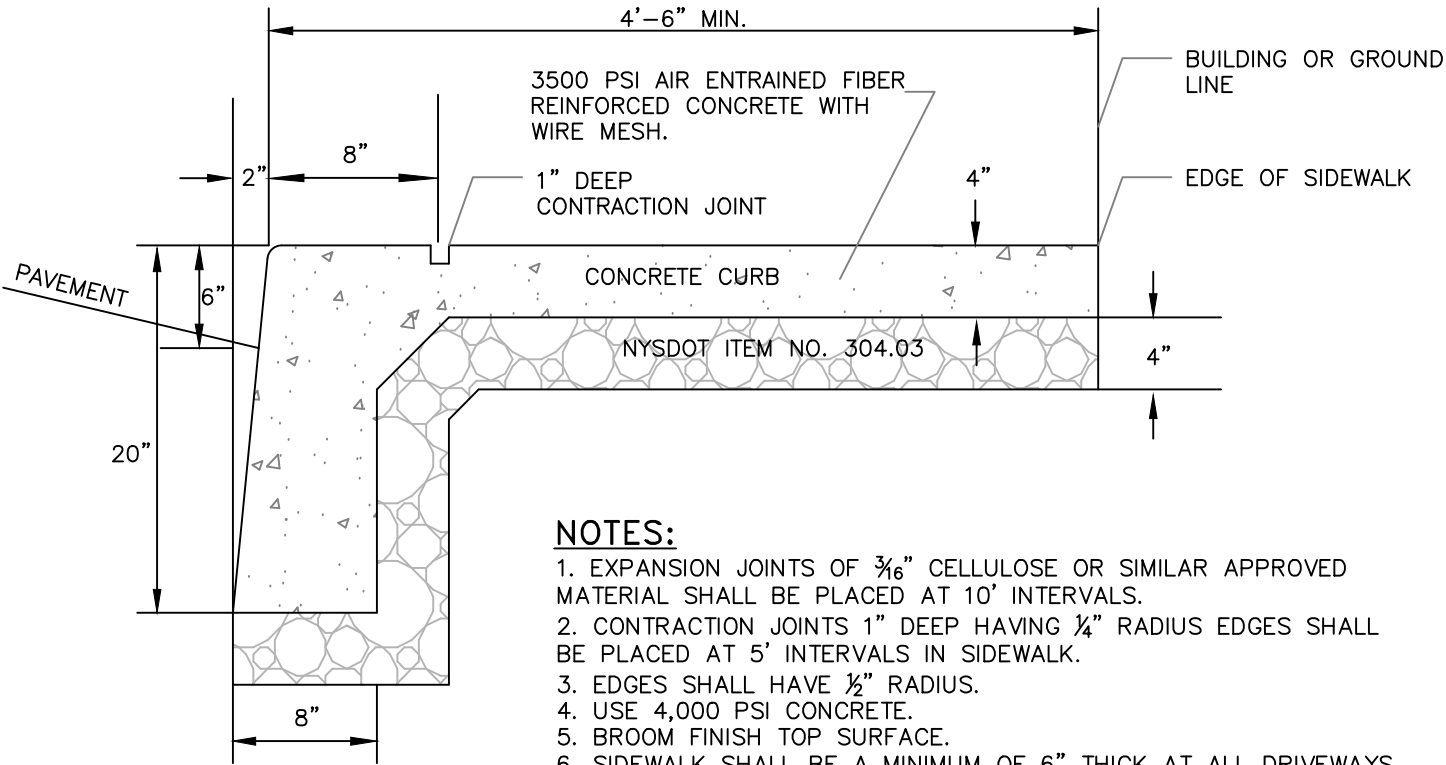
SITE DETAILS



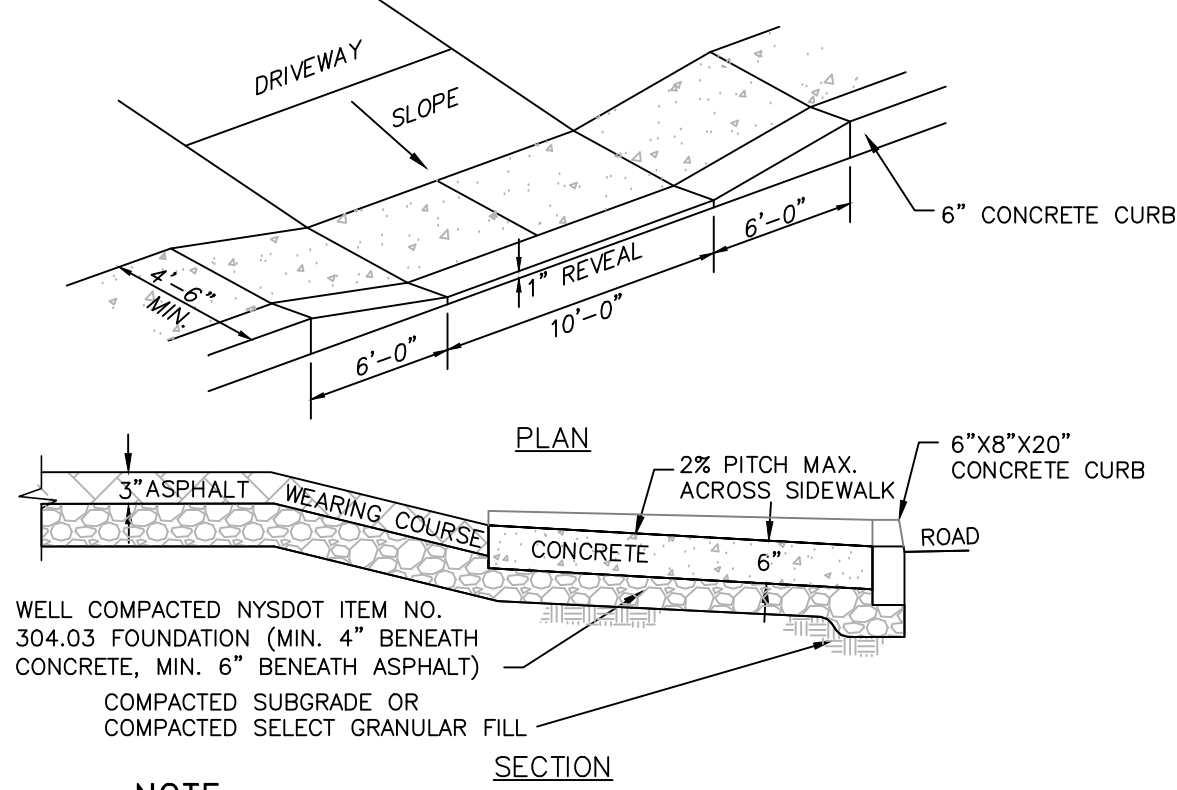
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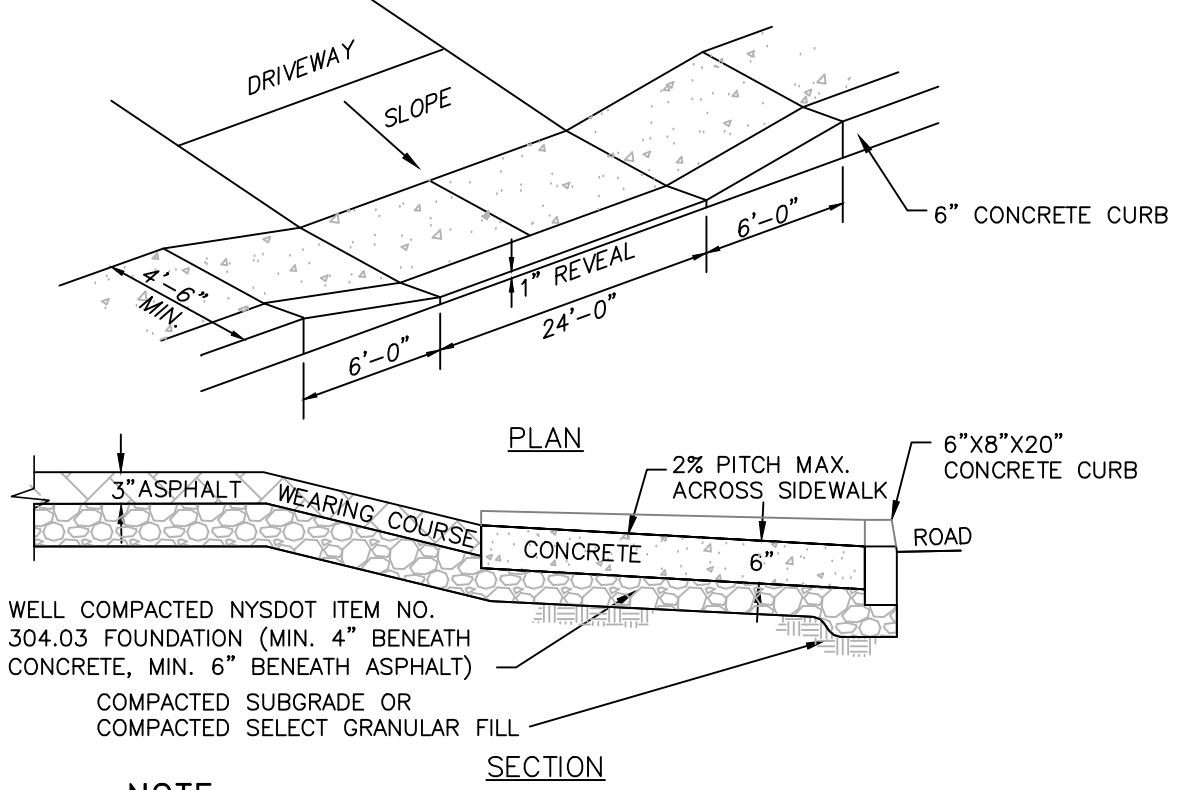
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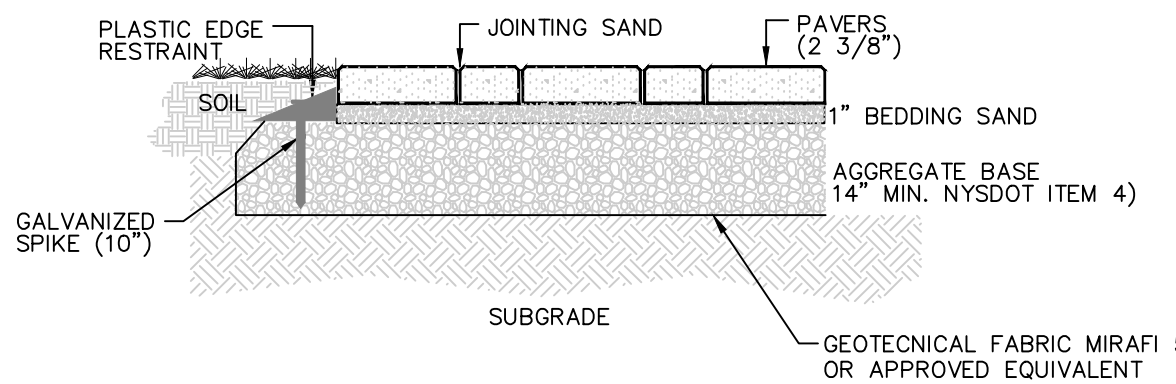
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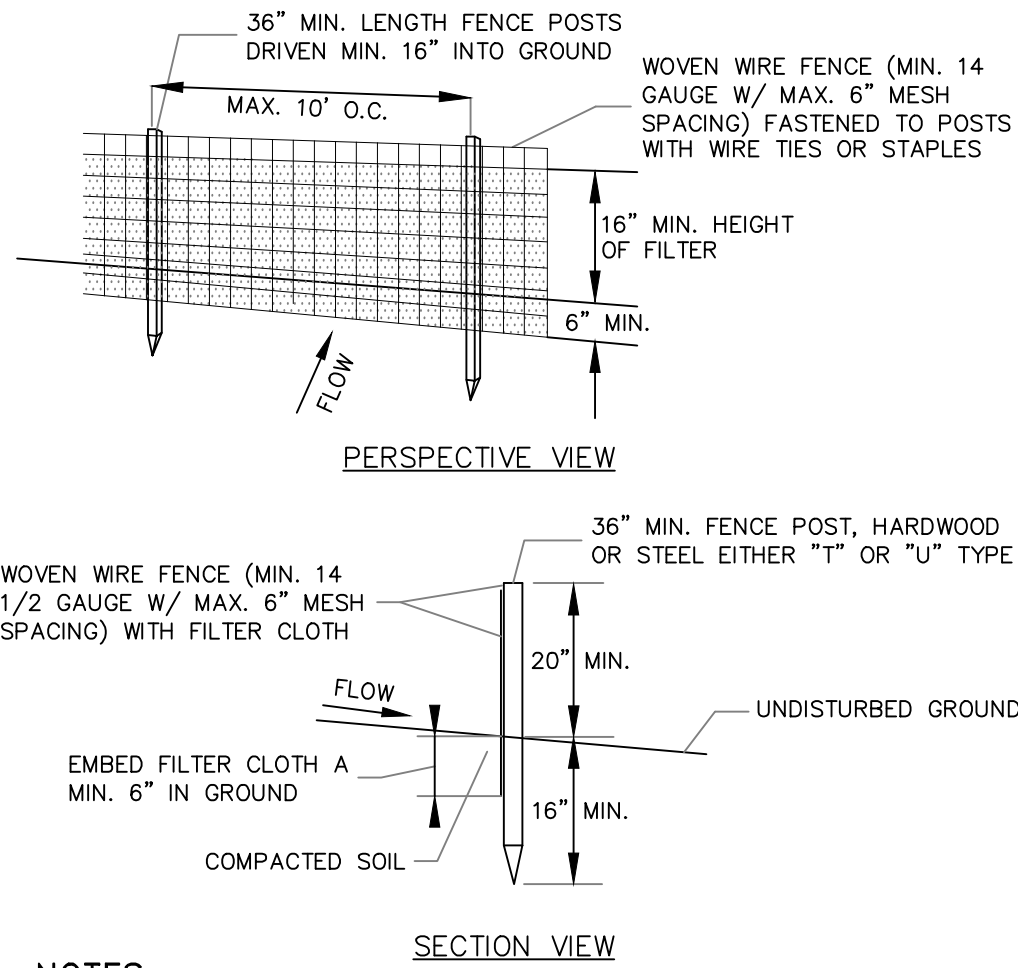
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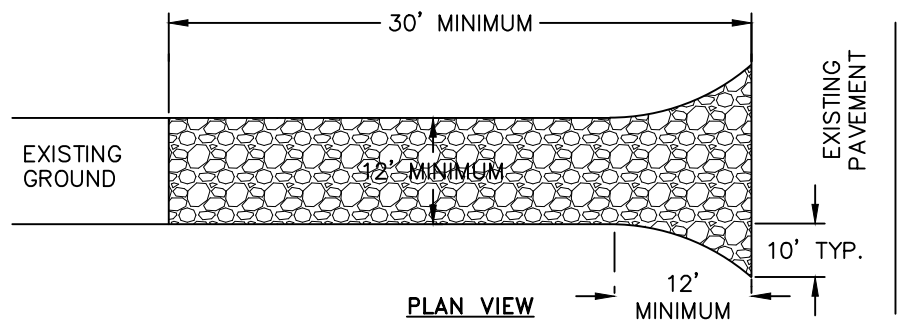
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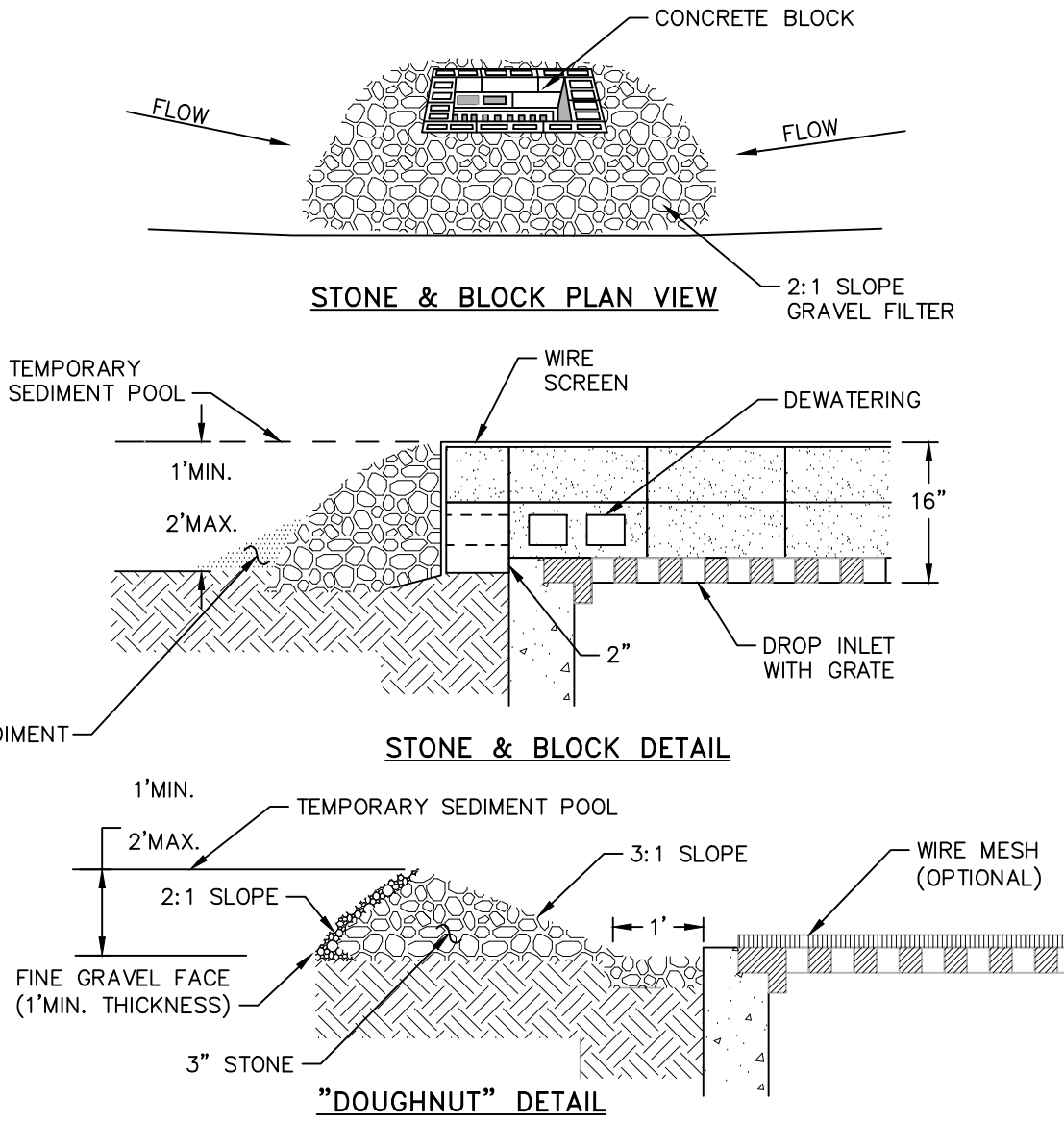
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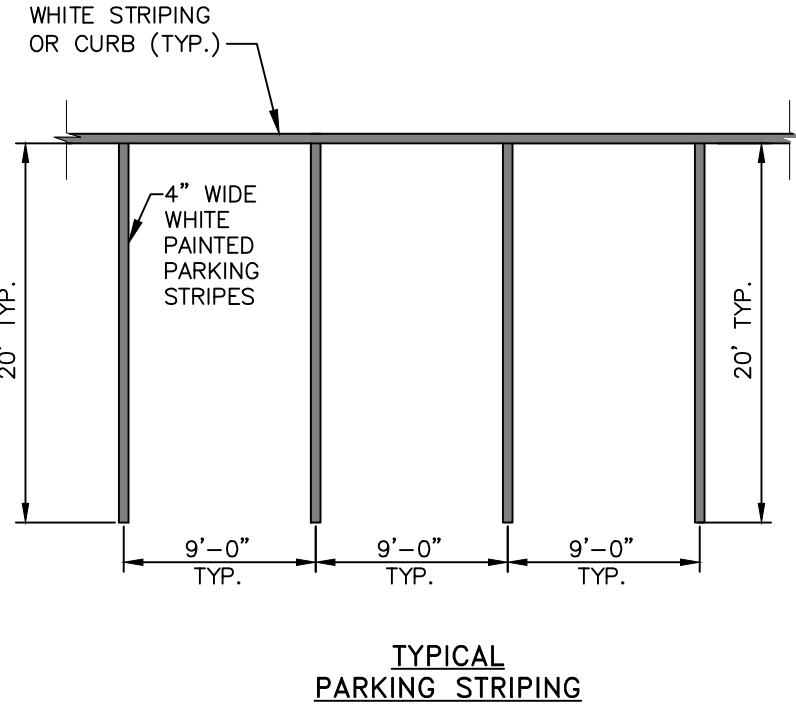
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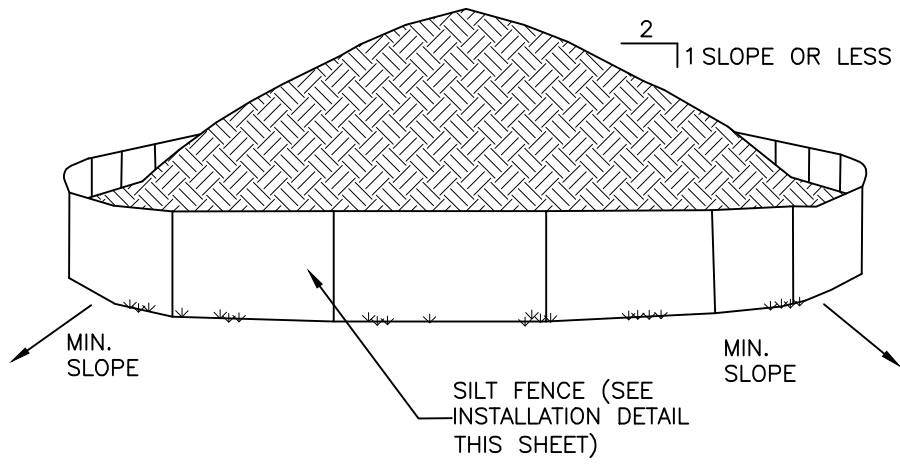
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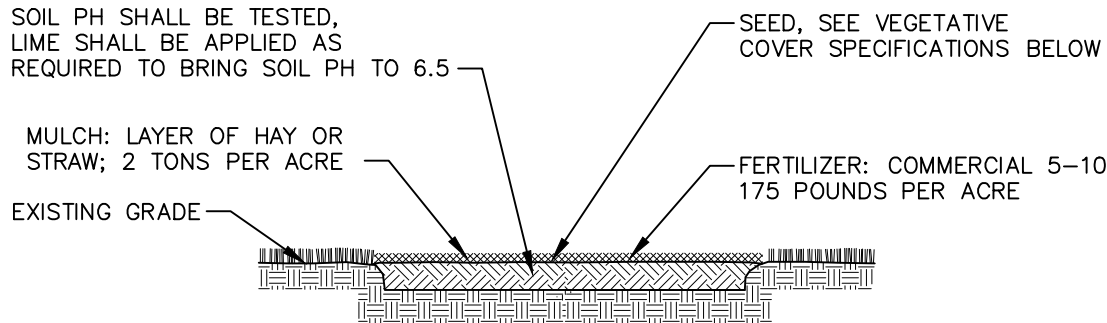
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PARKING AND STRIPING DETAIL
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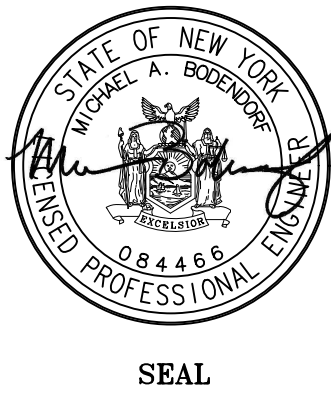


TEMPORARY SOIL STOCKPILE DETAIL
NOT TO SCALE



TOPSOIL, SEED AND MULCH DETAIL
NOT TO SCALE

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	06/30/2020	PER PLANNING BOARD COMMENTS	MAB				
2	07/28/2020	PER PLANNING BOARD COMMENTS	MAB				



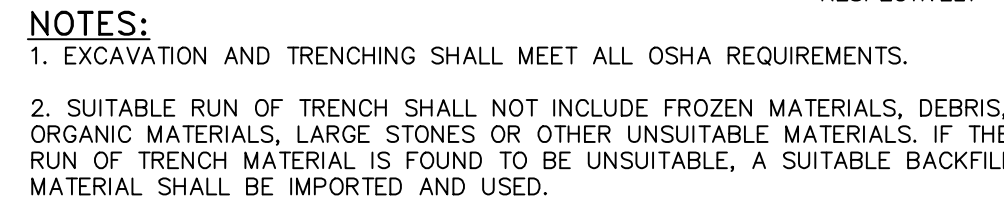
HUDSON LAND DESIGN
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PH: 845-440-6926
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CONSTRUCTION DETAILS

416 MAIN STREET

416-420 MAIN STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6054-29-056780 & 056774

JOB #:	2020:005
DATE:	4/28/2020
SCALE:	NTS
TITLE:	CD-1
SHEET:	9 OF 10



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, ENLARGED 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.

NOTES:

1. TAPPING SLEEVE SHALL BE USED IT THE SECTION OF WATER MAIN IN THE VICINITY OF THE CONNECTION SHALL NOT BE SHUT DOWN AND ISOLATED.
2. VALVES SHALL OPEN BY TURNING LEFT (COUNTERCLOCKWISE) AND HAVE A TWO-INCH SQUARE-OPERATING NUT PAINTED RED.
3. ALL VALVES SHALL BE M.J. RESILIENT GATE TYPE WITH "O" RING PACKING, DESIGNED FOR A WORKING PRESSURE OF 150 PSI AND BE IN FULL CONFORMANCE WITH ANWWA C500.
4. TAPPING SLEEVE AND GATE VALVE SHOWN ARE MUELLER H-615, AND T-2630 RESPECTIVELY.

NOTES:

PLAN VIEW	SECTION VIEW
1. A MINIMUM 5' COVER SHALL BE PROVIDED ON THE WATER SERVICE LINE (CONDITIONED ON ACTUAL 5' MIN. WATER MAIN DEPTH).	
2. CORPORATION STOP TO BE COMPRESSION TYPE BY MUELLER.	
3. WATER SERVICE LINE TO HAVE A "GOOSENECK" NEAR CORPORATION STOP.	
4. CORPORATION STOP TO BE INSTALLED IN THE UPPER HALF OF THE WATER MAIN AT AN ANGLE OF APPROXIMATELY 45° TO BE HORIZONTAL.	
5. THE CONTRACTOR SHALL INSTALL A FULL BODIED STAINLESS STEEL TAPPING SLEEVE AT THE PROPOSED WATER SERVICE LOCATION.	

NOTES:	RECOMMENDATIONS
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.	

SEWER
MAIN/LATERAL/FORCEMAIN,
STORM LINE &
MANHOLES

10'-0"
MIN

WATER MAIN
OR SERVICE

HORIZONTAL SEPARATION

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

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 PAIRED AROUND.
3. PIPES SHALL BE BURIED 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. HOOD AND BASIN SHALL BE PROVIDED WITH WATERTIGHT CONNECTIONS. ADS MODEL N12 WT IB OR APPROVED EQUAL.

SECTION VIEW 1

SECTION VIEW 2

DIMENSION TABLE:

B	C	E	F	X	BB	CC	F
30 ¹⁶	24 ¹⁶	4 ¹⁶	22 ¹⁶	18 ¹⁶	41 ¹⁶	36 ¹⁶	3 ¹⁶

CAST IRON STORMWATER CURB
INLET GRATE DETAIL
NOT TO SCALE

NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. MAXIMUM COVER SHALL BE 18 INCHES WITHIN THE SOUTH STREET RIGHT-OF-WAY.
3. BACKFILL WITHIN THE RIGHT-OF-WAY SHALL BE NYSDOT ITEM 304.14 SUBBASE COURSE TYPE 2 FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE PAVEMENT OR GRASS, PLACED IN 8" MAXIMUM LIFTS AND COMPACTED TO 95% STANDARD PROCTOR.

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.

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

LANC & TULLY
ENGINEERING AND SURVEYING, P.C.

John J. O'Rourke, P.E., Principal
David E. Higgins, P.E., Principal
John Queenan, P.E., Principal

Rodney C. Knowlton, L.S., Principal
Jerry A. Woods, L.S., Principal

John D. Russo, P.E., Principal
John Lane, P.E., L.S.
Arthur R. Tully, P.E.

August 7, 2020

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

RE: 416-420 Main Street
Subdivision & Site Plan
Tax Parcel 6054-29-05678 & 056774
City of Beacon

Dear Mr. Gunn:

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

- Correspondence from Cuddy & Feder dated July 28, 2020.
- Correspondence from Hudson Land Design dated July 28, 2020.
- Correspondence from Aryeh Siegal, Architect, dated July 28, 2020.
- Correspondence from Maser Consulting dated July 28, 2020.
- SEQRA response letter from DCDOH, dated July 29, 2020.
- Plan titled "Preliminary Subdivision Plat – 416 Main Street", with the latest revision date of July 28, 2020.
- Plan set titled "Site Plan Application – 416-420 Main Street", with latest revision date of July 28, 2020 and consisting of Sheets 1 of 10 through 10 as prepared by Aryeh Siegal, Architect and Hudson Land Design.

Based upon our review of the above documents and plans, we offer the following comments:

General Comments:

1. The proposed traffic improvements, as outlined in the Maser Consulting correspondence of June 29, 2020, shall be shown on the plans. *The applicants have noted that Maser will provide a separate offsite traffic and parking striping plan in the future.*

Preliminary Subdivision Plat:

1. A new parcel description should be prepared for the proposed overall parcel and filed with the County Clerks office when the subdivision plat is approved. *Applicant's consultants have noted that the project surveyor will provide new description(s) in the future.*
2. The planter at the front of the parcel is noted as being concrete. This should be revised to note the planter as "Granite".

Existing Conditions & Demolition Plan (Sheet 2 of 10):

1. The note regarding the removal of the concrete planter should be revised to reflect that this is a 'granite' planter. Replacement of this planter should be in-kind.

Landscape & Lighting Plan (Sheet 3 of 10):

1. A planting schedule shall be added to the plan. *The applicant's consultant has stated that a Landscape Designer has been retained and that a landscape plan and planting schedule will be provided in a future submission.*

Grading Plan (Sheet 6 of 10):

1. Plan includes a note referencing an offsite parking and traffic improvement plan prepared by Maser dated July 16, 2020, but this plan has not yet been received by the Planning Board. This plan should be submitted to the Planning Board for review and comment, and the note updated accordingly to reflect the latest revision date of the Maser plan, if revised based upon comments received from the Planning Board and its consultants.

Construction Details (Sheet 9 of 10):

1. Although it was previously requested that the parking and striping detail for ADA compliant parking stall be removed from the plans since it was noted that there would not be any ADA compliant parking, at this time the detail should be added back to the plan since the project architect is not noting that there will be one (1) ADA complaint parking stall below the deck on the building in the rear of the site.

Construction Details (Sheet 10 of 10):

1. The "Cored Hole and Inserted Boot Detail" shall be revised to reflect the proposed storm drainage pipe connection. The connection of the storm drainage line to the manhole does not require the use of a "boot", as the pipe can be sealed around the interior and exterior of the structure with hydraulic cement.

This completes our review at this time. Further comments may be forth coming based upon future submissions. **A written response letter addressing each of the above comments should be provided with the next submission.** If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,
LANC & TULLY, P.C.



John Russo, P.E.

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

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

Date: August 6, 2020

Re: **416-420 Main Street Site Plan, Special Permit, and Subdivision**

I have reviewed the following new documents:

- Cover letter from Cuddy+Feder, dated July 28, 2020;
- Response letters from Aryeh Siegel and Hudson Land Design, dated July 28, 2020;
- Traffic Impacts response letter from Maser Consulting, dated July 28, 2020;
- Preliminary Subdivision Plat by Hudson Land Design, dated July 28, 2020; and
- 10-sheet Site Plan set by Aryeh Siegel and Hudson Land Design, dated July 28, 2020.

Proposal

The applicant is proposing to construct a 4-story, mixed-use building with 11,715 square feet on the front portion of the parcel in the Central Main Street (CMS) district and a 1,440 square foot live/work home on the rear portion of the parcel in the T district. The project also needs subdivision approval to consolidate the two Main Street parcels. The entire 0.245-acre site is also in the Historic District and Landmark Overlay Zone (HDLO).

Comments and Recommendations

1. For the Sheet 1 Site Plan:

- a. The T district table has the proposed front setback at 10 feet, but the Site Plan shows a 9.24-foot setback. A less than 10-foot setback may be approved by the Board if the front aligns with the average building setback within 250 feet on the south side of South Street.
- b. There are two separate Parking Tables with different commercial square foot numbers.
- c. The applicant should explain why the existing street tree must be replaced.
- d. The parking layout under the 2nd floor deck should be shown in dashed lines or in a detail.

2. For the Sheet 3 Landscaping and Lighting Plan:

- a. The proposed landscaping should be identified by species and summarized in a planting schedule.
- b. Regularly spaced street trees should be planted along the Schenck Avenue sidewalk, wherever possible.
- c. The lighting fixtures should include the color temperature and CRI specifications.

3. For the Sheets 4 and 5 Building Plans:

- a. The proposed 4th story will need a special permit from the City Council, including the 15-foot stepback configuration. Recent amendments to the CMS building height section require a specific public benefit(s) for a special permit approval.
- b. Building heights for all major elements should be shown on the elevations and window patterns on the elevations should match the floor plans..
- c. Elevations for the live/work building will need to be provided, including materials, colors, and major measurements.
- d. When appropriate, the elevations and renderings may be referred to the Architectural Review Subcommittee.

4. For the Sheet 9 Construction Details, the parking detail should show 18-foot typical stall lengths.

5. The plans should note how the trash is going to handled.

6. The plans should include a two-way Schenck Avenue restriping plan to maximize street parking spaces. The applicant should explain why the Maser Consulting on-street parking proposal has some spaces on the west side and some on the east, creating off-set travel lanes.

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

John Clarke, Beacon Planning Consultant

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

City of Beacon Planning Board
8/11/2020

Title:

Zoning Board of Appeals

Subject:

Zoning Board of Appeals – August agenda

Background:

ATTACHMENTS:

Description

August ZBA Agenda

Type

Backup Material

CITY OF BEACON
ONE MUNICIPAL PLAZA - SUITE 1
BEACON, NEW YORK 12508
Phone (845) 838-5002 Fax (845) 838-5026

The Zoning Board of Appeals will meet on **Tuesday, August 18, 2020** at 7:00 PM. Due to public health and safety concerns related to COVID-19, the Zoning Board of Appeals will not be meeting in-person. In accordance with the Governor's Executive Order 202.1, the August 18, 2020 meeting will be held via videoconferencing, and a transcript will be provided at a later date. The public can watch the live meeting online at YouTube at <https://www.youtube.com/channel/UCvPpigGwZDeR7WYmw-SuDxg>. If any interested members of the public would like to provide comments on the application, comments can be called in during the meeting at **(929) 205-6099; Webinar ID: 883 3675 8032; Password 983015**. Comments can also be provided via email no later than 5PM on August 18, 2020 to Etha Grogan, Planning Board Secretary, at egrogan@cityofbeacon.org. Please check the meeting materials posted on the City website (www.cityofbeacon.org) and for further instructions to access the virtual meeting and for updated information. **This agenda and the meeting format are subject to change.**

1. Review application submitted by Victoria Vergolina, 15 Vail Avenue, Tax Grid No. 30-6054-46-164567-00, R1-5 Zoning District, for relief from Section 223-17(C) for a second story addition (over existing one-story) with 9.7 ft. and 5.6 ft. side yard setbacks (*10 ft. required*)

City of Beacon Planning Board
8/11/2020

Title:

River Ridge

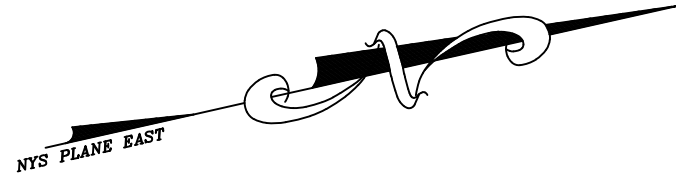
Subject:

River Ridge Pocket Park

Background:

ATTACHMENTS:

Description	Type
River Ridge Pocket Park Plan	Backup Material



PREPARED FOR:
RIVER RIDGE VIEWS, LLC
50 RED SCHOOLHOUSE ROAD
FISHKILL, NY 12524
SHEET 1 OF 1

POCKET PARK PLAN
SCALE: 1" = 100'
DATE: AUGUST 8, 2020



PREPARED BY:
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING
174 MAIN STREET
BEACON, NY 12508
PH: 845-440-6926

City of Beacon Planning Board
8/11/2020

Title:

25 East Main Street

Subject:

Certificate of Appropriateness – 25 East Main Street

Background:

ATTACHMENTS:

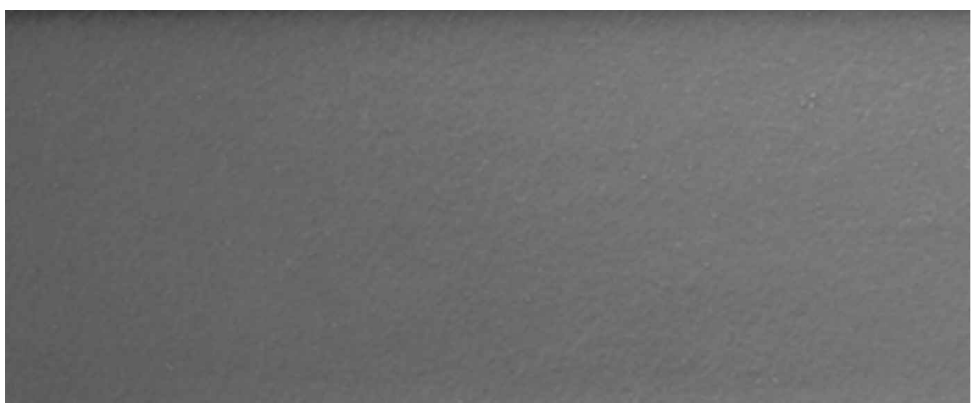
Description	Type
25 East Main Street Revised	Plans



Existing Photo with Outline of Bulkhead Envelope



Existing Photo with Outline of Bulkhead Envelope



HardiePlank - Gray Slate



Sherwin Williams - Gray Matters #7066



Double-Hung Window Color - Hartford Green



Armstrong - Clark -
Driftwood Stain



Black Aluminum

ROOF BULKHEAD:
HARDIEPLANK - SMOOTH LAP SIDING - GRAY SLATE
TRIM - SHERWIN WILLIAMS - GRAY MATTERS #7066
EPDM ROOF
DOUBLE-HUNG BULKHEAD WINDOWS - HARTFORD GREEN TO MATCH
EXISTING BUILDING WINDOWS

ROOF DECK:
WOOD DECKING & FRAMING - ARMSTRONG-CLARK DRIFTWOOD STAIN
36" HIGH BLACK ALUMINUM RAILINGS AND VERTICAL BALUSTERS

BALCONIES:
PRESSURE TREATED DECKING & FRAMING W/ 6x6 PRESSURE TREATED POSTS
- ARMSTRONG-CLARK DRIFTWOOD STAIN
36" HIGH BLACK ALUMINUM RAILINGS AND VERTICAL BALUSTERS
PRIVACY PANEL AT 1ST FLOOR - ARMSTRONG-CLARK DRIFTWOOD STAIN



WEST ELEVATION



NORTH ELEVATION



EAST ELEVATION

ARB Application

25 East Main Street

Beacon, New York
Scale: Not to Scale
July 28, 2020

Owner:
Weber Projects II, LLC
11 Creek Drive
Beacon, NY 12508

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

City of Beacon Planning Board
8/11/2020

Title:

424 Main Street

Subject:

Certificate of Appropriateness – 424 Main Street; new façade color

Background:

ATTACHMENTS:

Description	Type
424 Main Street - Application	Application
424 Main Street Existing	Backup Material
424 Main Street Proposal	Backup Material
424 Main Street Proposed Colors	Backup Material

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: 5/26/20

Project Address: 424 main street Beacon (Restaurant)

Project Architect/Engineer: Lani Lautner

Owner/Builder: Gregory Trautman

Contact Phone No.: (845) 584-2023

Approval Requested: ☐ Certificate of Appropriateness ☐ New Single Family House

Color/Materials:

Siding: Mayo Teal CW-570

Roofing: _____

Windows: Color: _____ Type: _____

Trim: Temptation 1609

Garage Door: _____

Stone/Brick: _____



Signature of Owner

FOR OFFICE USE ONLY:

The Architectural Review Board has reviewed the plans submitted for approval for the project listed above and has determined:

Plan Denied

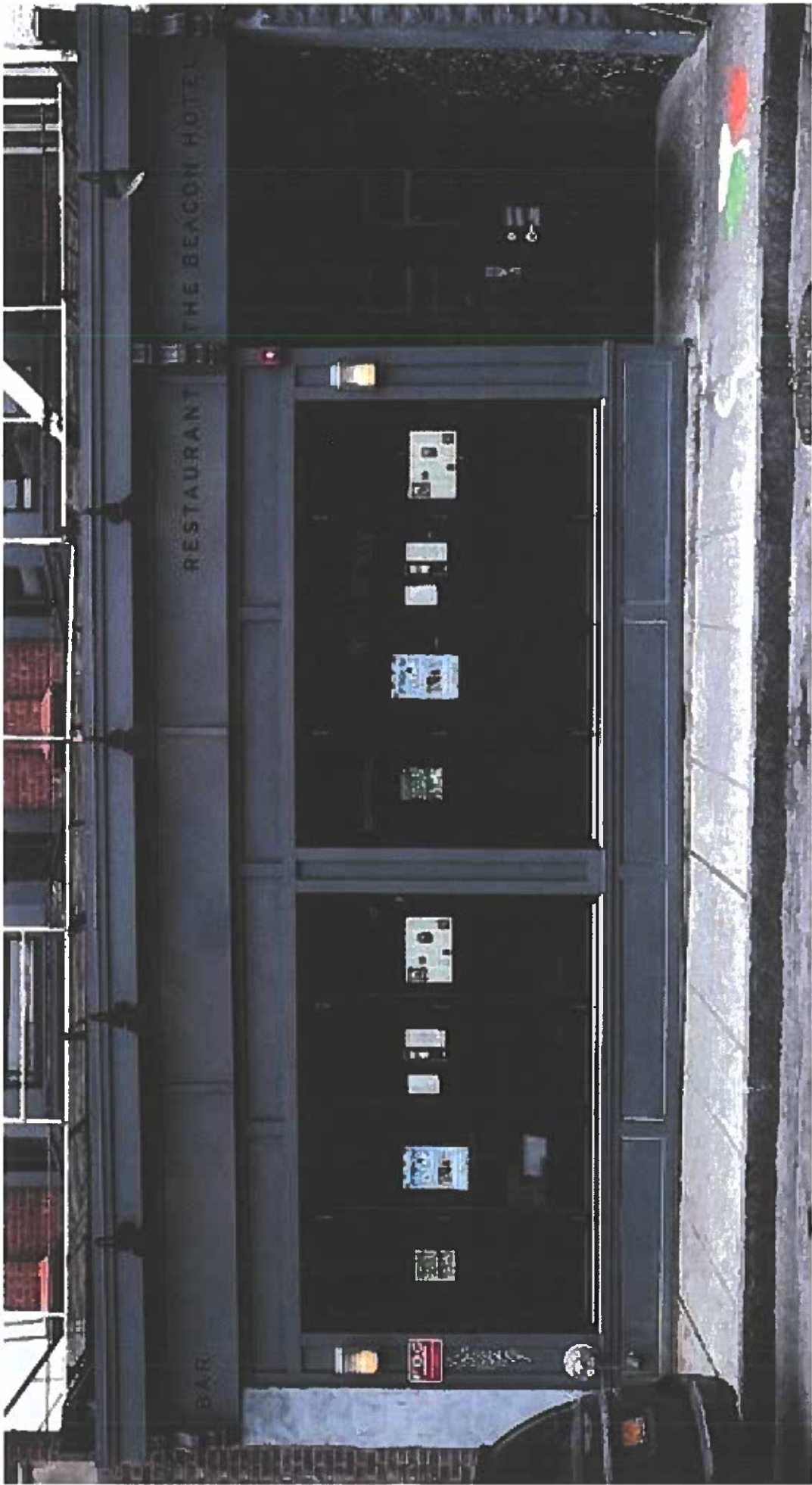
(Date)

Plan Approved

(Date)

Subject to the following:

FEE: \$100.00



EXISTING



EXISTING



PROPOSED

Mayo Teal
CW-570

Temptation

1609

City of Beacon Planning Board
8/11/2020

Title:

1183 North Avenue

Subject:

Certificate of Appropriateness – 1183 North Avenue (amendment)

Background:

ATTACHMENTS:

Description	Type
1183 Cover Letter	Cover Memo/Letter
1183 North Avenue Application	Application
1183 North Avenue Plans	Plans
Alternate Elevations 08-06-20	Backup Material

7/22/20

Etha,

Please add me to the next planning board agenda to make the following changes to my building at 1183 W. Ave:

- ① Siding changed from wood cedar siding to Hardie Board Lap and Shingle Siding. Siding color pattern will remain as unchanged as possible using available Hardie Board siding colors as follows:
 - lower Lap Siding color - Iron Gray
 - upper Shingle Siding color - Gray Slate
 - see www.jameshardie.com for color reference
- ② Exterior Door color will either remain unchanged or may be upgraded to a dark wood oak or mahogany finish. Applicant feels the stained wood finish on the doors would bring a more traditional Victorian appearance to the building. He is investigating durability of proposed finishes.

Sincerely,

Jeffrey M. Mc

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: July 24, 2020

Project Address: 1183 North Avenue

Project Architect/Engineer: Day & Stokosa Engineering

Owner/Builder: North Avenue Properties, LLC

Contact Phone No.: 845-797-3796

Approval Requested: ☒ Certificate of Appropriateness ☐ New Single Family House

Color/Materials: colors can be seen : www.jameshardie.com

Siding: Hardie Board - Lower lap in Iron Gray / Upper lap in Gray Slate

Roofing: Certainteed Grand Manor Asphalt Roof Shingles - Colonial Slate

Windows: Color: White Type: Anderson 200

Trim: _____

~~Garage~~ ^{Exterior} Door: Dark Wood Oak or Mahogany

Stone/Brick: _____

Signature of Owner

FOR OFFICE USE ONLY:

The Architectural Review Board has reviewed the plans submitted for approval for the project listed above and has determined:

Plan Denied _____
(Date)

Plan Approved _____
(Date)

Subject to the following:

FEE: \$100.00

NOTES:

- 1) ALL WINDOW SIZES CALLED OUT ON FLOOR PLANS ARE "ANDERSEN 200 SERIES UNIT NUMBERS", IF "ANDERSEN" WINDOWS ARE NOT USED, A WINDOW OF EQUAL TYPE AND UNIT DIMENSION IS TO BE USED
- 2) ALL GLAZING TO BE DOUBLE INSULATED
- 3) ALL GLAZING TO BE "HIGH PERFORMANCE", "LOW-E" GLASS
- 4) ALL GLAZING WITHIN 18" OF FINISHED FLOOR TO BE TEMPERED

CONTRACTOR TO AFFIX AN APPROVED SIGN/SYMBOL TO THE EXTERIOR ELECTRIC BOX AT THE SERVICE POINT. THE SIGN IS TO INDICATE THE USE OF TRUSSES, PRE-ENGINEERED WOOD GIRDERS, BEAMS OR JOISTS THAT ARE BONDED WITH ADHESIVES (INCLUDING I-JOISTS, STRUCTURAL GLUED LAMINATED TIMBERS, STRUCTURAL LOG MEMBERS, STRUCTURAL COMPOSITE LUMBER & CROSS-LAMINATED TIMBER) AND/OR TIMBER CONSTRUCTION

SQUARE FOOTAGE:

1st FLOOR:	1,416
2nd FLOOR:	1,446
TOTAL:	2,862

DESIGN CRITERIA

1. FLOOR LIVE LOAD ROOF LIVE LOAD	50 PSF 20 PSF
2. GROUND SNOW LOAD	Pg = 30 PSF
3. ULTIMATE DESIGN WIND SPEED NOMINAL DESIGN WIND SPEED WIND EXPOSURE	Vult = 115 MPH Vasd = 89 B
4. SEISMIC DESIGN CATEGORY SITE CLASS	B D
5. FLOOD DESIGN DATA	FIRM 36027C0463E 05/02/12
6. SOIL LOAD-BEARING	DESIGN ASSUMES 2,000 PSF
SPECIAL INSPECTIONS (1704) - NOT REQUIRED FOR BUILDINGS OF CONVENTIONAL LIGHT-FRAMED CONSTRUCTION (1704.2)	

CODE CONFORMANCE

AREA OF BUILDING	2,862 SQ. FT. (GROSS) 2 STORY
OCCUPANCY	BUSINESS GROUP "B" (304.1)
CONSTRUCTION TYPE	TYPE VB CONSTRUCTION (602.5)
FIRE RESISTANCE RATING	0 HR. (TABLE 601)
HEIGHT AND BUILDING AREAS	B 3 STORY MAX. (TABLE 504.4) 36,000 SQ. FT. MAX. (TABLE 506.2)
AUTOMATIC SPRINKLER SYSTEM	N/R
COMMERCIAL GRADE FIRE ALARM/DETECTION SYSTEM TO BE INSTALLED AS REQUIRED	
GROSS AREA FIRST FLOOR/100 SQ. FT./OCCUPANT = 14 OCCUPANTS MAX. GROSS AREA SECOND FLOOR/100 SQ.FT./OCCUPANT = 14 OCCUPANTS MAX. (TABLE 1004.1.2)	
NUMBER OF EXITS REQUIRED FIRST FLOOR:	(1) EXIT REQUIRED, (2) EXISTS PROVIDED
NUMBER OF EXITS REQUIRED SECOND FLOOR:	(1) EXIT REQUIRED, (1) PROVIDED
EXITS SIGNS ARE TO BE PROVIDED FOR BUILDING AS INDICATED	
ALL CEILING AND WALL FINISHES ARE TO BE CLASS C FLAME SPREAD 76-200 SMOKE-DEVELOPED 0-450 (TABLE 803.11)	
DRAFT STOPPING IN ATTIC NOT REQUIRED 1,416 < 3,000 SQ. FT. (1718.4.3).	

IT IS A VIOLATION OF NEW YORK STATE EDUCATION LAW FOR ANY PERSONS TO ALTER THESE PLANS, SPECIFICATIONS, OR REPORTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

	Brian J. Stokosa, PE
06-04-20	
06-03-20	
11-06-19	
06-06-19	
05-30-19	
05-17-19	
04-08-19	
2019.049	License No. 083970

DAY STOKOSA
ENGINEERING P.C.

3 Van Wyck
Lane Suite 2
Wappingers Falls, New York
(845)-223-3202

New Building Design
North Avenue, City of Beacon
Dutchess County, New York

North Avenue Properties,
LLC

SCALE 1/4" = 1'-0"	DRAWN BY S.M.M.	E1
DATE 03-20-19	CHECKED BY B.J.S.	

FRONT ELEVATION

SCALE: 1/4" = 1'-0"

REAR ELEVATION

SCALE: 1/4" = 1'-0"

WINDOW SCHEDULE

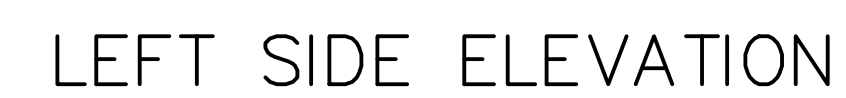
TAG/UNIT#	NO.	TYPE	MANUF.	U-FACTOR	ROUGH OPENING	MEETS EGRESS REQUIREMENTS	TEMPERED GLASS
3040	1	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	36" X 48"	NO	YES
3040	3	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	36" X 48"	NO	NO
3049	1	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	36" X 57"	YES	NO
2040	7	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	24" X 48"	NO	NO
3036	4	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	36" X 42"	NO	NO
2060	3	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	24" X 72"	NO	YES
3060	32	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	36" X 72"	YES	NO
2860	4	DOUBLE HUNG	ANDERSON 200 SERIES	0.30	32" X 72"	NO	NO
BSMT WINDOW	2	BASEMENT	TAFCO		31 3/4" X 15 3/4" UNIT SIZE	NO	

RAILING & STAIR NOTES:

STAIRS SHALL BE PROVIDED WITH HANDRAILS. HANDRAILS SHALL BE A MINIMUM OF 34" IN HEIGHT AND NOT MORE THAN 38" IN HEIGHT. RAILS ARE TO BE MEASURED VERTICALLY FROM THE NOSING OF THE TREADS. CIRCULAR HANDRAILS SHALL HAVE AN OUTSIDE DIAMETER OF AT LEAST 1 1/4", AND NOT GREATER THAT 2". IF THE HANDRAIL IS NOT CIRCULAR IT SHALL HAVE A PERIMETER OF AT LEAST 4" AND NOT MORE THAN 6 1/4".

PORCHES, DECKS, BALCONIES OR RAISED FLOOR SURFACES LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS A MINIMUM OF 42" HIGH.

RISERS ARE TO BE CLOSED SUCH THAT THE OPENING BETWEEN THE TREADS DOES NOT PERMIT THE PASSAGE OF A 4" DIAMETER SPHERE.



RIGHT SIDE ELEVATION

Technical drawing of a stepped footing detail. The drawing shows a cross-section of a footing with multiple steps. Reinforcing bars are shown as #4 bars with a minimum spacing of 18 inches. The footing thickness is indicated as 'FOOTING THICKNESS - AS PER PLANS'. The top of the footing surface is level, and the bottom surface has a maximum slope of 10 percent. A minimum of 3 inches of concrete is required around all reinforcing bars. The drawing includes dimensions for the footing thickness, the spacing of the reinforcing bars, and the minimum concrete cover around the bars.

FOOTING THICKNESS
- AS PER PLANS

#4 BAR
18" MIN.

#4 BAR
18" MIN.

18" MAX.

36" MIN.

FOOTING THICKNESS
- AS PER PLANS

FOOTING THICKNESS
- AS PER PLANS

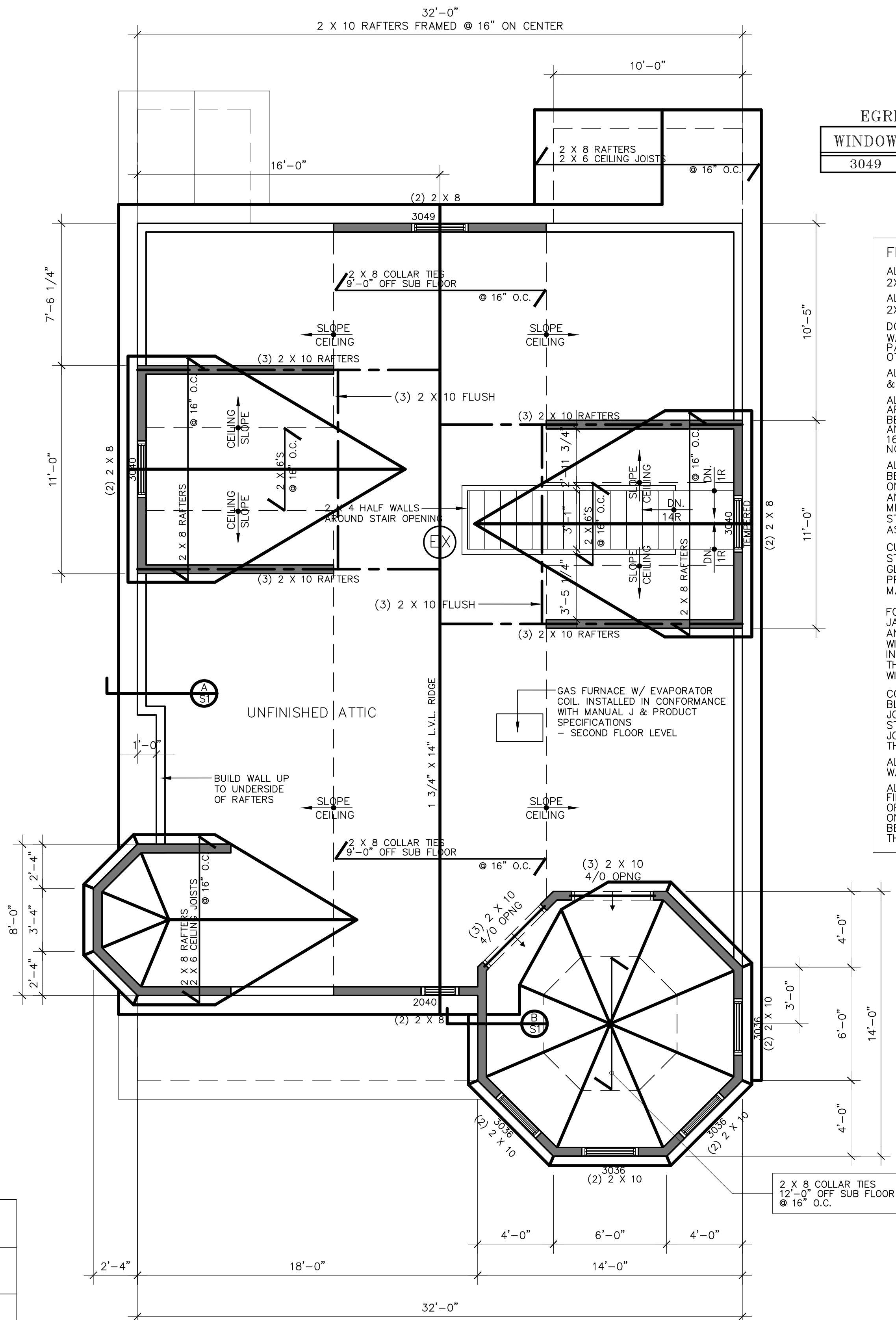
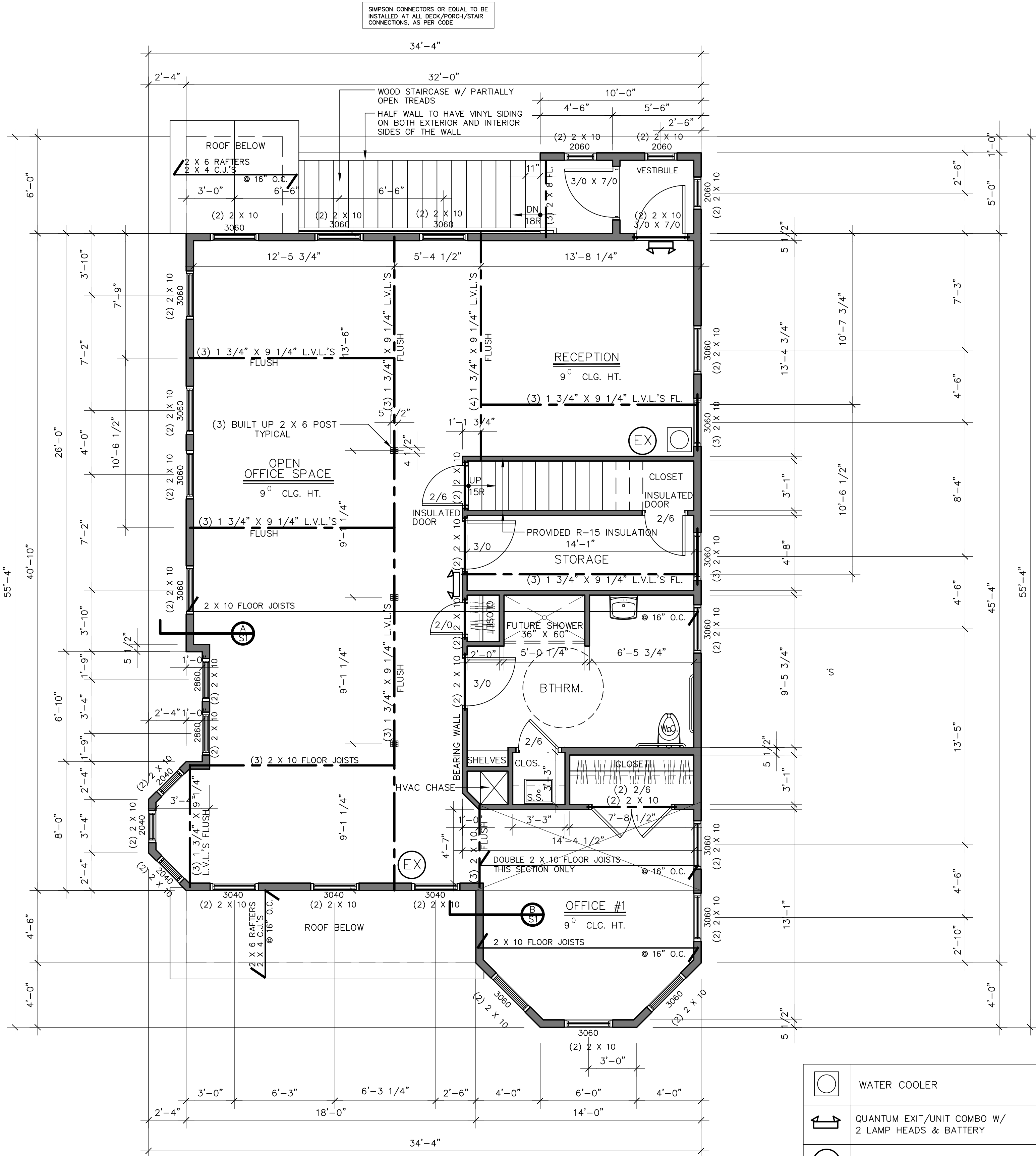
#4 BAR
18" MIN.

FOOTING THICKNESS
- AS PER PLANS

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"

06-04-20 06-03-20 11-06-19 06-06-19 05-30-19 05-17-19 04-08-19		Brian J. Stokosa, PE	
Project No. 2019-049		License No. 083970	
<div style="text-align: center;"> <h1>DAY STOKOSA</h1> <h2>ENGINEERING P.C.</h2> </div> <hr/> <div> 3 Van Wyck Lane Suite 2 Wappingers Falls, New York (845)-223-3202 </div>			
<div style="text-align: center;"> <h3>PROJECT</h3> <h1>New Building Design</h1> <p>North Avenue, City of Beacon Dutchess County, New York</p> </div>			
<div style="text-align: center;"> <h1>North Avenue Properties, LLC</h1> </div>			
SCALE $\frac{1}{4}" = 1'-0"$	DRAWN BY S.M.M.	<div style="text-align: center;"> <h1>E2</h1> </div>	
DATE 03-20-19	CHECKED BY B.J.S.		



EGRESS REQUIREMENTS			
WINDOW	SQ. FT. CLEAR	WIDTH CLEAR	HEIGHT CLEAR
3049	5.7	32.56"	25.20"

FRAMING NOTES:

ALL EXTERIOR WALLS ARE TO BE 2X6 WOOD STUDS

ALL INTERIOR WALLS ARE TO BE 2X4 WOOD STUDS

DOUBLE ALL FLOOR JOISTS UNDER WALLS ABOVE, THAT ARE FRAMED PARALLEL TO FLOOR FRAMING UNLESS OTHERWISE NOTED ON PLAN.

ALL FLOOR JOISTS, CEILING JOISTS & RAFTERS ARE TO BE S.P.F.

ALL BEAMS, GIRDERS AND HEADERS ARE TO BE DOUG FIR LARCH #2 OR BETTER WITH A FB RATING OF 875 AND A MODULUS OF ELASTICITY OF 1600000 MINIMUM UNLESS OTHERWISE NOTED ON PLAN.

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 JAMB 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.

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Brian J. Stokosa, PE	
06-04-20	
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05-30-19	
05-17-19	
04-08-19	
2019.049	License No. 083970

DAY STOKOSA
ENGINEERING P.C.

3 Van Wyck
Lane Suite 2
Wappingers Falls, New York
(845)-223-3202

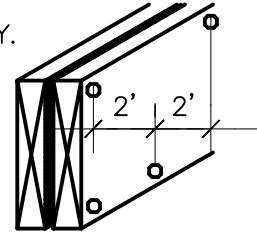
PROJECT
New Building Design
North Avenue, City of Beacon
Dutchess County, New York

North Avenue Properties, LLC

SCALE 1/4" = 1'-0"	DRAWN BY S.M.M.	P2
DATE 03-20-19	CHECKED BY B.J.S.	

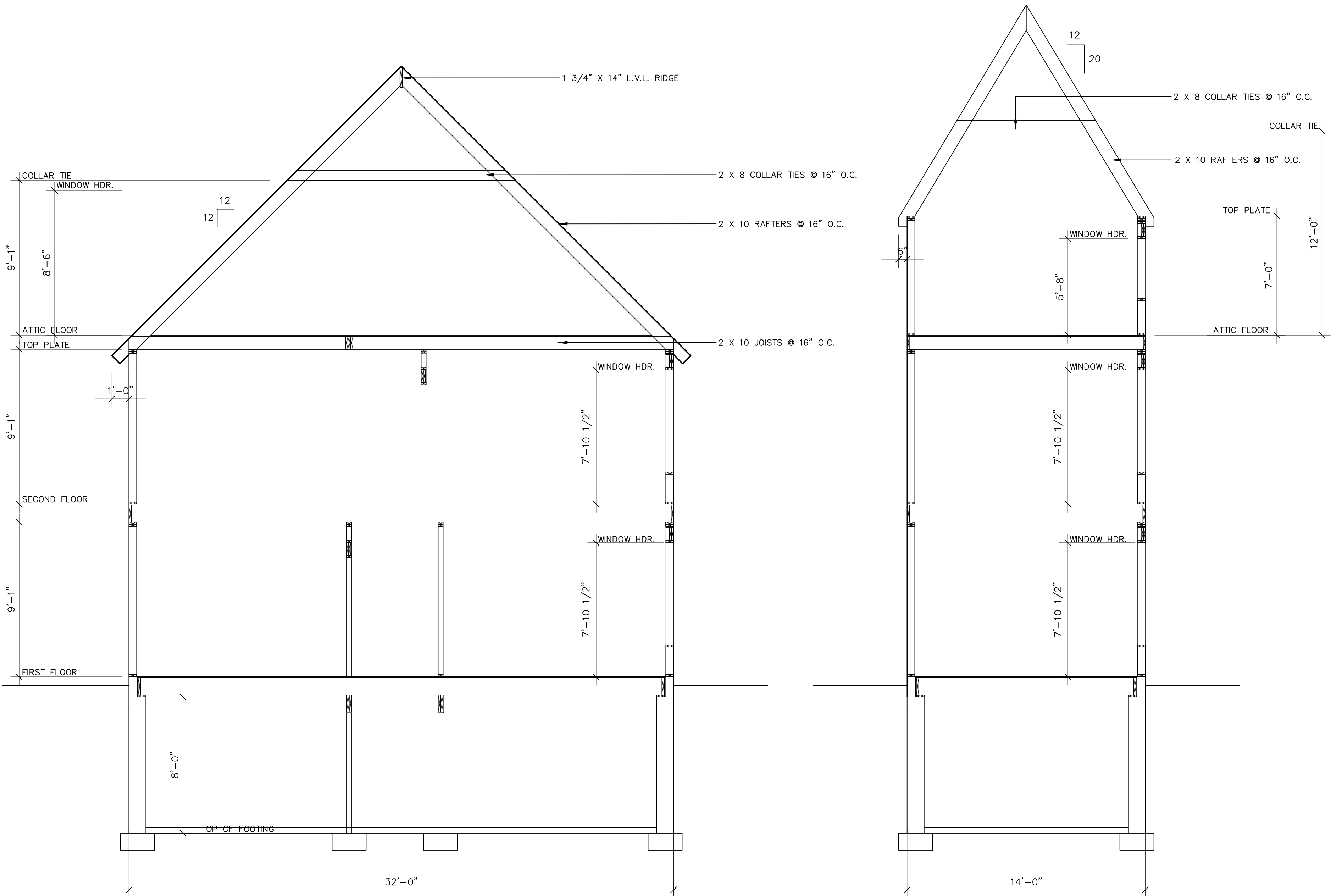
NOTES:

L.V.L.'S AND STEEL PLATE ARE TO BE BOLTED TOGETHER @ EVERY 2'-0". BOLTS ARE TO BE STAGGERED FROM BOTTOM TO TOP, AT A MIN. OF 1" OFF BOTH TOP & BOTTOM EDGE OF ASSEMBLY. A BOLT IS TO BE @ BOTH TOP AND BOTTOM OF OF EACH END OF ASSEMBLY.



TYPICAL FLITCH PLATE DETAIL

SCALE: N.T.S.

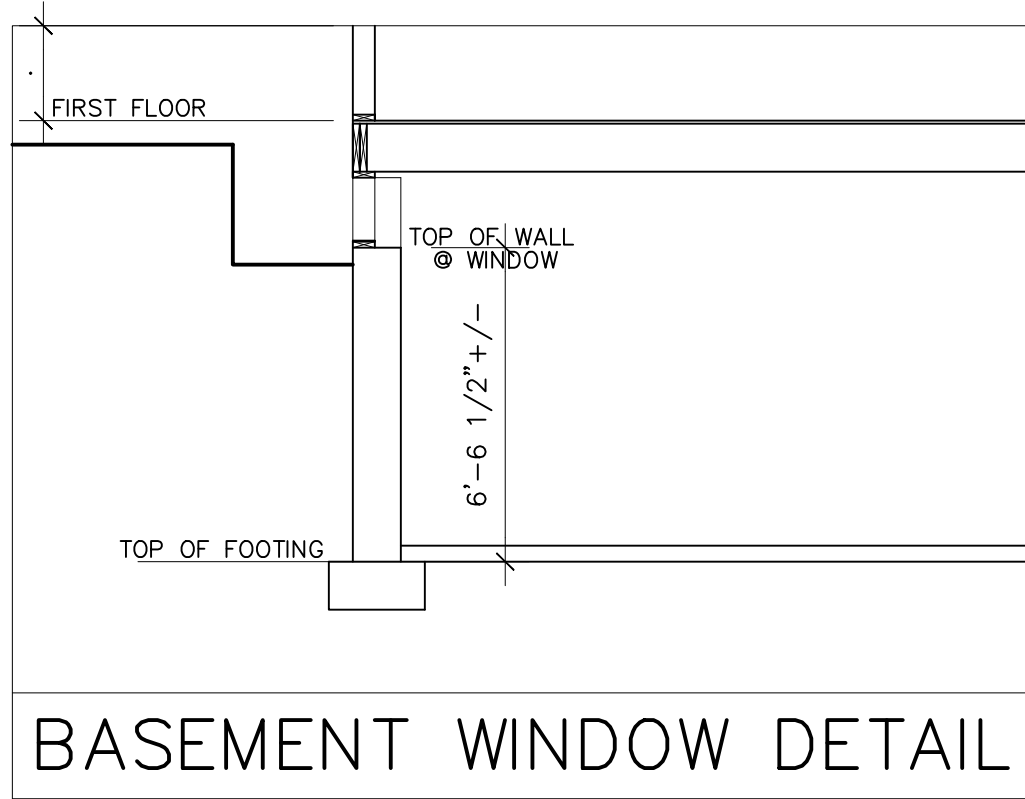


SECTION — A

SCALE: 1/4" = 1'-0"

SECTION — B

SCALE: 1/4" = 1'-0"



BASEMENT WINDOW DETAIL

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PROJECT
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North Avenue, City of Beacon
Dutchess County, New York

**North Avenue Properties,
LLC**

SCALE 1/4" = 1'-0"	DRAWN BY S.M.M.	S1
DATE 03-20-19	CHECKED BY B.J.S.	

ENERGY CODE / HVAC NOTES

2015 INTERNATIONAL ENERGY CONSERVATION CODE

BUILDING TYPE: 2-STORY COMMERCIAL – OFFICE
CODE DESIGN METHOD: COMCHECK
CLIMATE ZONE: 5A

HEATING EQUIPMENT TYPE: SHALL BE DESIGNED BY THE H.V.A.C. CONTRACTOR

I, BRIAN J. STOKOSA CERTIFY THAT THESE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE SECTIONS OF THE INTERNATIONAL ENERGY CONSERVATION CODE.

COMPONENT	PROVIDED
CEILING	R-30
WOOD FRAMED WALL	R-21
FLOOR FRAMING	R-30
U-FACTOR	U-.30

THE BUILDING ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE FOR THE SECOND FLOOR APARTMENT. THE ENVELOPE SHALL BE TESTED AND VERIFIED TO HAVE AN AIR LEAKAGE RATE NOT EXCEEDING 3 AIR CHANGES PER HOUR AND A REPORTED PRESSURE OF 0.2 INCH W.G. (50 PASCALS). ALL DUCTS, AIR HANDLERS AND FILTER BOXES ARE TO BE SEALED. DUCTS ARE TO BE PRESSURE TESTED TO DETERMINE LEAKAGE.

A VENTILATION SYSTEM IS TO BE INSTALLED FOR THE NEW BUILDING. THE SYSTEM IS TO BE DESIGNED IN ACCORDANCE WITH M1507.3, THE SQUARE FOOTAGE OF THE DWELLING AND THE NUMBER OF BEDROOMS. OUTDOOR AIR INTAKES AND EXHAUSTS ARE TO HAVE AUTOMATIC OR GRAVITY DAMPERS THAT CLOSE WHEN SYSTEM IS NOT IN OPERATION.

FIREBLOCKING SHALL BE PROVIDED TO CUT OFF VERTICLE AND HORIZONTAL DRAFT OPENINGS AND TO FORM A FIRE BARRIER BETWEEN STORIES AND THE TOP STORY AND ROOF SPACE.

FIREBLOCKING IS TO BE PROVIDED IN THE FOLLOWING LOCATIONS:
– IN CONCEALED STUD WALLS VERTICALLY AT CEILING & FLOOR LEVELS AND INTERVALS NOT EXCEEDING 10’
– AT INTERCONNECTIONS 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, 2½” PLYWOOD, ¾” PARTIAL BOARD, ½” GYPSUM BOARD, ¼” CEMENT BASED MILLBOARD OR BATTS/BLANKETS OF MINERAL WOOL OR GLASS FIBER SECURELY RETAINED IN PLACE.

AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES, AND WIRES AT THE CEILING AND FLOOR LEVEL AN APPROVED MATERAIL IS TO BE INSTALLED TO RESIST THE FREE PASSAGE OF FLAME & PRODUCTS OF COMBUSTION.

GENERAL NOTES

DIVISION 1 – GENERAL CONDITIONS:

CODES: ALL WORK & MATERIALS MUST CONFORM TO THE 2015 INTERNATIONAL BUILDING CODE, LOCAL BUILDING CODES, NATIONAL BOARD OF FIRE UNDERWRITERS CODE AND TO THE REQUIREMENTS OF THE BOARD OF HEALTH & 2015 INTERNATIONAL ENERGY CONSERVATION CODE.

OMISSION: ANYTHING NOT SPECIFICALLY SHOWN HEREON AND/OR SPECS, BUT WHICH IS REASONABLY IMPLIED, SHALL BE FURNISHED AS THOUGH SET FORTH IN THE PLANS AND/OR SPECIFICATIONS. ALL WRITTEN FIGURES, NOTES & DIMENSIONS ON THE FLOOR PLANS, OR SPECIFICATIONS SHALL TAKE PRECEDENCE OVER ANY DRAWN FIGURES. DO NOT SCALE PRINTS. ALL DIMENSIONS MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE START OF CONSTRUCTION. ANY DISCREPANCIES ON THE PLANS, OR SPECIFICATIONS, MUST BE REPORTED TO THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.

ALL PERMITS ARE NOT THE RESPONSIBILITY OF THE ENGINEER.

MATERIALS: ALL MATERIALS SHALL BE NEW AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

SUBSTITUTIONS: SUBSTITUTIONS MADE FOR STRUCTURAL MATERIALS SPECIFIED BY NAME MAY BE MADE ONLY IF APPROVED BY ENGINEER.

OWNERSHIP OF PLANS: THESE PLANS ARE PROPERTY OF DAY & STOKOSA ENGINEERING, P.C. ANY USE OR REPRODUCTION, IN WHOLE OR PART, WITHOUT THE WRITTEN CONSENT OF DAY & STOKOSA IS PROHIBITED. ANY PERSON, OR CORPORATION, USING PLANS WITHOUT CONSENT WILL BE RESPONSIBLE TO COMPENSATE DAY & STOKOSA.

ENGINEER'S STATUS: THE ENGINEER HAS NOT BEEN RETAINED BY OWNER TO PROVIDE PERIODIC JOB INSPECTIONS OR JOB ADMINISTRATION AND SHALL NOT BE RESPONSIBLE FOR CHANGES MADE IN THE FIELD WITHOUT WRITTEN OR GRAPHIC AUTHORIZATION.

DIVISION 2 – SITE WORK:

FOOTINGS: IF SOIL BEARING CONDITIONS ARE QUESTIONABLE, THE CONTRACTOR SHALL CONSULT A SOILS ENGINEER FOR PROPER FOOTING DESIGN. THE PLANS ARE BASED ON A MINIMUM SOIL BEARING CAPACITY 2,000 PSF.

FINISHED GRADING: FINISHED GRADING SHALL BE PERFORMED SO AS TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING.

DIVISION 3 – CONCRETE:

ALL CONCRETE USED SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 28 DAYS UNLESS OTHERWISE NOTED. ALL CONCRETE WORK SHALL BE DONE IN COMPLETE CONFORMANCE TO APPLICABLE ACI CODES.

DIVISION 5 – METALS:

STRUCTURAL STEEL: ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM SPECIFICATIONS A-36 FOR STRUCTURAL STEEL. ALL STEEL PIPE COLUMNS SHALL BE OF STANDARD WEIGHT PIPE UNLESS OTHERWISE NOTED. STRUCTURAL STEEL HAS BEEN DESIGNED FOR A MAXIMUM BENDING STRESS OF 24,000 PSI, IN ACCORDANCE WITH THE 9TH EDITION OF THE AISC. ALL STEEL BEAMS SHAL BE FACTORY PRIMED WITH A RUST PROHIBITOR AND FIELD PAINTED WHERE EXPOSED TO WEATHER. ALL BEAM CONNECTIONS SHALL BE THROUGH BOLTED UNLESS OTHERWISE NOTED. ALL HOLES SHALL BE DRILLED OR PUNCHED. TORCHED HOLES SHALL NOT BE PERMITTED.

REINFORCING STEEL: ALL REINFORCING STEEL BARS SHALL BE GRADE 60.

DIVISION 6 – WOOD & PLASTICS:

LUMBER: ALL STRUCTURAL LUMBER SHALL HAVE A MINIMUM BENDING STRESS OF 1,200 PSI.

FRAMING: FRAMING SHALL BE ERECTED PLUMB, LEVEL, TRUE AND SECURELY NAILED. JOISTS, STUDS AND RAFTERS ARE TO BE DOUBLED AT ALL OPENINGS. ALL FLUSH JOIST HEADERS TO BE CONNECTED WITH GALVANIZED METAL JOIST HANGERS. ALL FLUSH BEAM CONNECTIONS SHALL HAVE HEAVY DUTY JOIST HANGERS. DOUBLE FRAME UNDER ALL PARTITIONS PARALLEL TO FRAMING. SIZES OF JOISTS AND RAFTERS ARE SHOWN ON THE PLAN. IF A WOOD DECK IS PROVIDED, ALL STRUCTURAL MEMBERS SHALL BE PRESSURE TREATED LUMBER.

SHEATHING & SUBFLOOR: SHEATHING & SUBFLOOR SHALL BE APA ORIENTED STRAND BOARD WITH EXTERIOR GLUE AND NAILED TO EACH FRAMING MEMBER UNLESS OTHERWISE NOTED.

JOIST HANGERS: JOIST HANGERS SHALL BE GALVANIZED STEEL OR IRON, SIZED TO FIT THE SUPPORTED MEMBER AND OF SUFFICIENT STRENGTH TO DEVELOP THE FULL STRENGTH OF THE SUPPORTED MEMBER, AND FURNISHED COMPLETE WITH ANY SPECIAL FASTENERS REQUIRED. MANUFACTURES SHALL BE "SIMPSON" STRONG-TIE, OR EQUAL.

DIVISION 7 – THERMAL & MOISTURE PROTECTION:

ROOFING: ALL CHIMNEYS SHALL BE PROPERLY FLASHED WITH GALVANIZED STEP FLASHING. VALLEY AND VERTICAL ROOF SECTIONS SHALL BE PROPERLY SUPPORTED. ALL ROOFING SHALL BE INSTALLED IN STRICT CONFORMANCE TO THE MANUFACTURER'S SPECIFICATIONS.

ASPHALT SHINGLES: TO BE SELECTED BY OWNER OR CONTRACTOR.

VENTS: VENTILATE ALL ATTIC, RAFTER AND CRAWL SPACE AREAS WITH PROPER SIZED SCREENED VENTS AND/OR LOUVERS.

INSULATION: ALL INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH THE 2015 IECC.

CAULKING: ALL EXTERIOR JOINTS BETWEEN WINDOWS, DOORS AND OTHER SURFACES SHALL BE CAULKED USING A WEATHERPROOF CAULKING.

DIVISION 8 – DOORS & WINDOWS:

WNOWS: ALL WNOWS SHALL MEET THE MINIMUM REQUIREMENTS FOR LIGHT, VENTILATION AND EGRESS. ALL WINDOWS SHALL BE OF SUFFICIENT CONSTRUCTION SO AS TO MEET THE 2015 IECC.

INTERIOR DOORS: ALL INTERIOR DOORS SHALL COME COMPLETE WITH HARDWARE. ALL DOORS SHALL MEET THE MINIMUM REQUIREMENTS OF THE 2015 IECC, IF APPLICABLE.

DIVISION 9 – FINISHES:

DRYWALL: DRYWALL SHALL BE 1/2" GYPSUM BOARD SECURELY SCREWED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. ALL JOINTS ARE TO BE TAPED AND SHALL RECEIVE (3) COATS OF JOINT COMPOUND. FINISHES TO BE SMOOTH, EVEN AND READY FOR PAINTING.

DIVISION 15 – MECHANICAL:

HEATING: THE CONTRACTOR SHALL FURNISH & INSTALL A HEATING SYSTEM WHICH MEETS THE 2015 IECC.

FLASHING: ALL PIPES PASSING THROUGH ROOF SHALL BE MADE WATER-TIGHT.

ALL PIPES CARRYING WATER OVER 105 DEGREES MUST BE INSULATED WITH A MINIMUM OF R-3.

TESTING: THE CONTRACTOR SHALL TEST ALL WATER SUPPLY AND DRAIN, WASTE AND VENT PIPING IN ACCORDANCE WITH ALL CODES.

DIVISION 16 – ELECTRICAL:

ALL ELECTRICAL WORK SHALL BE DONE IN STRICT CONFORMANCE WITH THE NATIONAL BOARD OF FIRE UNDERWRITERS AND LOCAL CODES. THE SERVICE SIZE SHALL BE A MINIMUM OF 100 AMPS.

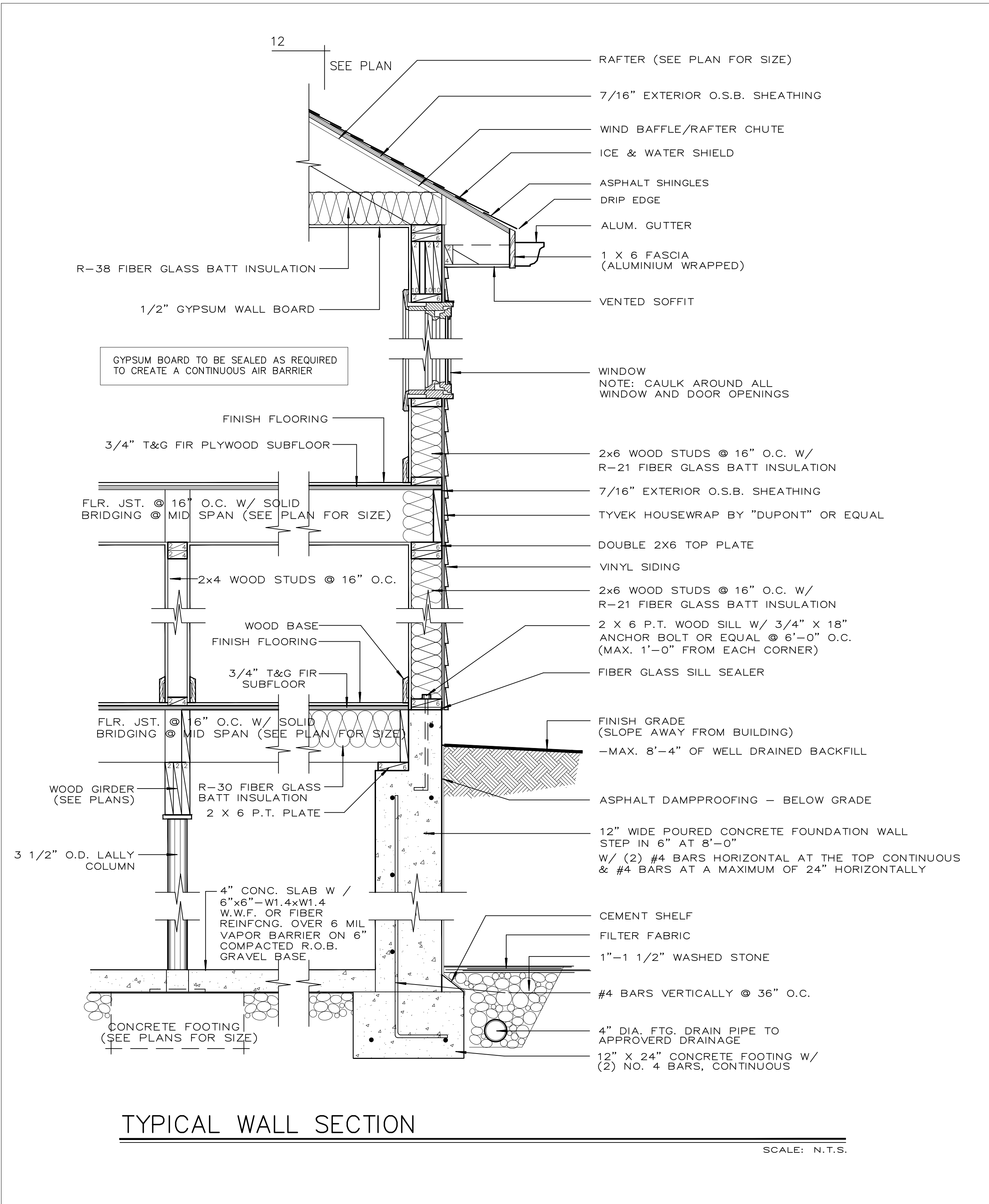
ROOF NOTES:

ICE & WATER SHIELD IS TO BE INSTALLED AT ALL ROOF EAVES FROM THE LOWEST EDGE OF THE ROOF TO A POINT 24" INSIDE THE EXTERIOR WALL LINE. ICE & WATER SHIELD IS ALSO TO BE INSTALLED AT ALL VALLEY LOCATIONS.

CONTRACTOR TO PROVIDE FLASHING AT WALL AND ROOF INTERSECTIONS, AT GUTTERS, WHERE THEIR IS A CHANGE IN ROOF SLOPE OR DIRECTION, AND AROUND ROOF OPENINGS. ALL VALLEYS TO BE FLASHED AND DRIP EDGE TO BE PROVIDED AT EAVES AND GABLES.

FOR ASPHALT SHINGLED ROOFS, IN ADDITION TO MEETING THE REQUIREMENTS OF SECTIONS R905.2 ASPHALT SHINGLES OF THE 2015 IRC, SHINGLES SHALL ALSO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER SPECIFICATIONS & RECOMMENDATIONS.

HURRICANE CLIPS ARE TO BE INSTALLED AT RAFTER TOP PLATE CONNECTIONS FOR ALL AREAS WITH VAULTED, CATHEDRAL CEILINGS OR WHERE A CEILING JOIST IS NOT PRESENT.



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New Building Design
North Avenue, City of Beacon
Dutchess County, New York

**North Avenue Properties,
LLC**

SCALE 1/4" = 1'-0"	DRAWN BY S.M.M.	S2
DATE 03-20-19	CHECKED BY B.J.S.	

FINISH SCHEDULE

- 1) ALL INTERIOR WALL FINISHES TO BE 1/2" GYPSUM WALL BOARD.
- 2) ALL PAINT TO BE BENJAMIN MOORE OR EQUAL. COLOR TO BE SELECTOR BY OWNER.
- 3) ALL FLOORING TO BE LOCATED AS PER OWNER. COLORS AND TYPES TO BE SELECTED BY OWNER.
- 4) ALL CARPET TO BE A HEAVY DUTY COMMERCIAL CARPET. MANUFACTURER TO BE CONTRACTORS CHOICE, COLOR TO BE SELECTED BY OWNER. CONTRACTOR TO SUBMIT SAMPLE TO OWNER PRIOR TO INSTALLATION. CARPET NOT TO BE LESS THAN CLASS II MATERIALS AND TO BE LABELED AS SUCH.
- 5) ALL TRIM AS PER OWNER, COLOR AND STYLE TO BE SELECTED BY OWNER.
- 6) ALL FIRE EXTINGUISHER CABINETS, BRACKETS AND FIRE EXTINGUISHERS AS SUPPLIED BY "LARSEN" OR EQUAL.
- 7) PROVIDE VINYL SIGNS IN BOTH WRITTEN AND BRAILLE AT THE DOORS OF THE REST ROOMS

PLUMBING NOTES

MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (TABLE 2902.1):
BUSINESS:
WATER CLOSETS: 1 PER 25 – REQUIRED: (1) ACTUAL: (1)
LAVATORIES: 1 PER 40 – REQUIRED: (1) ACTUAL: (1)
DRINKING FOUNTAINS: 1 PER 100 – (1) REQUIRED, ACTUAL (1) WATER COOLER (WATER COOLERS PERMITTED TO BE SUBSTITUTED FOR NOT MORE THAN 50% OF THE REQUIRED DRINKING FOUNTAINS)
OTHER: 1 SERVICE SINK REQUIRED, ACTUAL (1)

GENERAL PLUMBING NOTES:

PLUMBING FIXTURES SHALL BE CONSTRUCTED OF APPROVED MATERIALS, WITH SMOOTH, IMPERVIOUS SURFACES, FREE FROM DEFECTS AND CONCEALED FOULING SURFACES.

WALLS WITHIN 24" OF WATER CLOSETS ARE TO HAVE A SMOOTH, HARD, NON–ABSORBANT SURFACE TO A HEIGHT OF 4 FEET ABOVE THE FLOOR.

THE SUPPLY LINES AND FITTINGS FOR EVERY PLUMBING FIXTURE SHALL BE INSTALLED AS TO PREVENT BACKFLOW.

FIXTURES SHALL BE SET LEVEL AND IN ALIGNMENT WITH REFERENCE TO ADJACENT WALLS. JOINTS FORMED WHERE FIXTURES COME IN CONTACT WITH WALLS OR FLOORS SHALL BE SEALED.

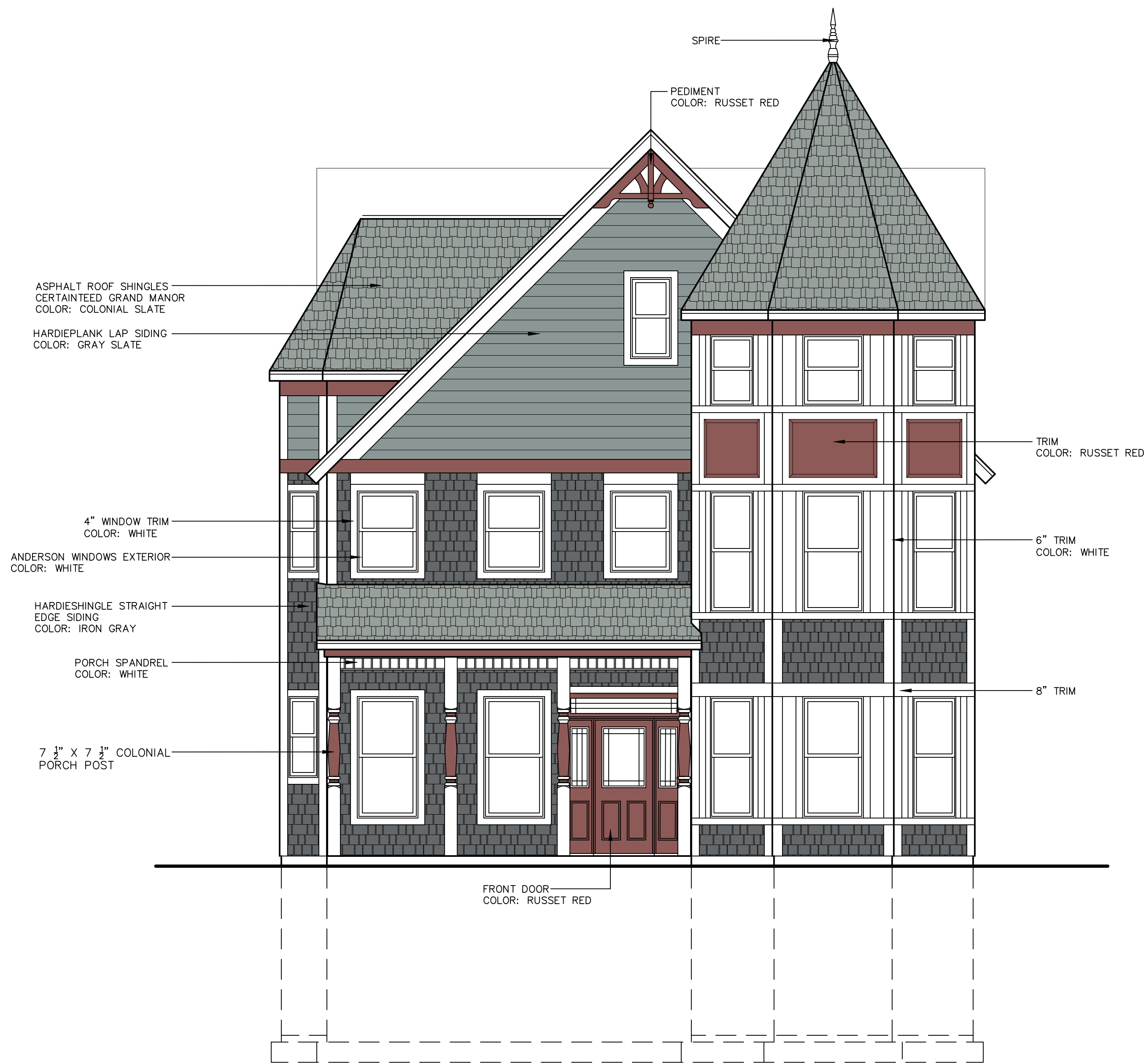
LAVATORIES SHALL HAVE WASTE OUTLETS OF NOT LESS THAN 1.25 INCHES IN DIAMETER, A STRAINER, CROSSBAR OR OTHER DEVICE SHALL BE PROVIDED TO RESTRICT THE CLEAR OPENING OF THE OUTLET.

WATER CLOSET CONNECTIONS. A 4–INCH BY 3–INCH CLOSET BEND SHALL BE ACCEPTABLE. WHERE A 3–INCH BEND IS UTILIZED, A 4–INCH BY 3–INCH FLANGE SHALL BE INSTALLED TO RECEIVE THE FIXTURE. EACH WATER CLOSET SHALL BE PROVIDED WITH A FLUSH TANK DESIGNED AND INSTALLED TO SUPPLY WATER IN QUANTITY AND RATE OF FLOW TO FLUSH THE CONTENTS OF THE FIXTURE, CLEANSE THE FIXTURE, AND REFILL THE FIXTURE TRAP.



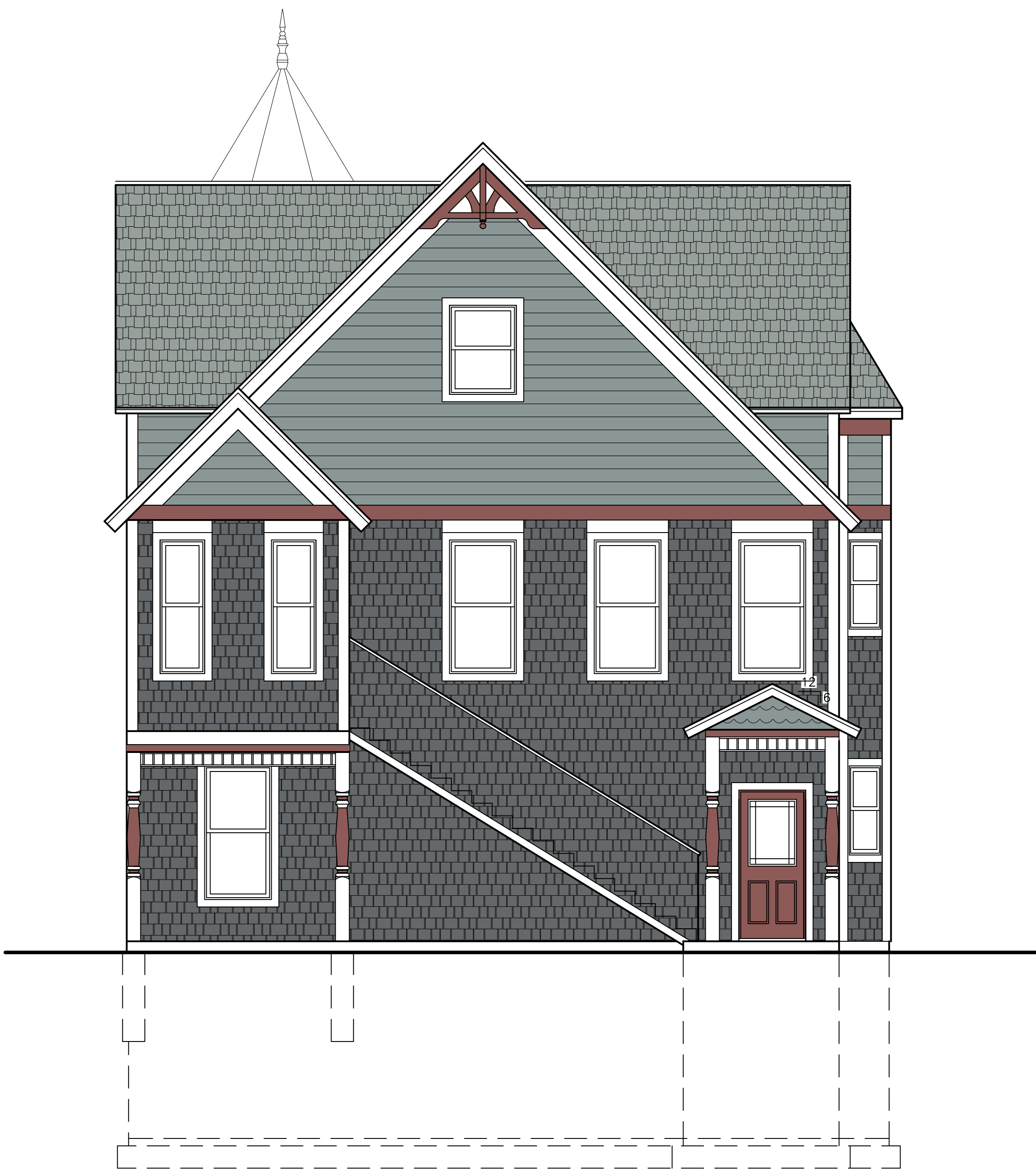
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Revisions	04-08-19	
Project No.	2019-049	License No. 083970

S3



FRONT ELEVATION

SCALE: 1/8" = 1'-0"



REAR ELEVATION

SCALE: 1/8" = 1'-0"

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PROJECT
New Building Design
North Avenue, City of Beacon
Dutchess County, New York

**North Avenue Properties,
LLC**

SCALE	DRAWN BY	E1-C
1/8" = 1'-0"	S.M.M.	
DATE	CHECKED BY	
03-20-19	B.J.S.	



LEFT SIDE ELEVATION

SCALE: 1/8" = 1'-0"



RIGHT SIDE ELEVATION

SCALE: 1/8" = 1'-0"

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DATE 03-20-19	CHECKED BY B.J.S.	

City of Beacon Planning Board
8/11/2020

Title:

Willow Street

Subject:

Single Family House – Willow Street (corner of Verplanck)

Background:

ATTACHMENTS:

Description	Type
Willow Street Application	Application
Willow Street Submission	Backup Material

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: June 10, 2020

Project Address: Corner Willow & Verplanck

Project Architect/Engineer: Bar Down Studio

Owner/Builder: Dana Hochberg

Contact Phone No.: (845) 559-3187

Approval Requested: _____ Certificate of Appropriateness X New Single Family House

Color/Materials:

Siding: Cement plank

Roofing: Metal

Windows: Color: Natural Wood Type: Tilt/Turn & Fixed

Trim: Natural Wood

Garage Door: N/A

Stone/Brick: N/A

Signature of Owner

FOR OFFICE USE ONLY:

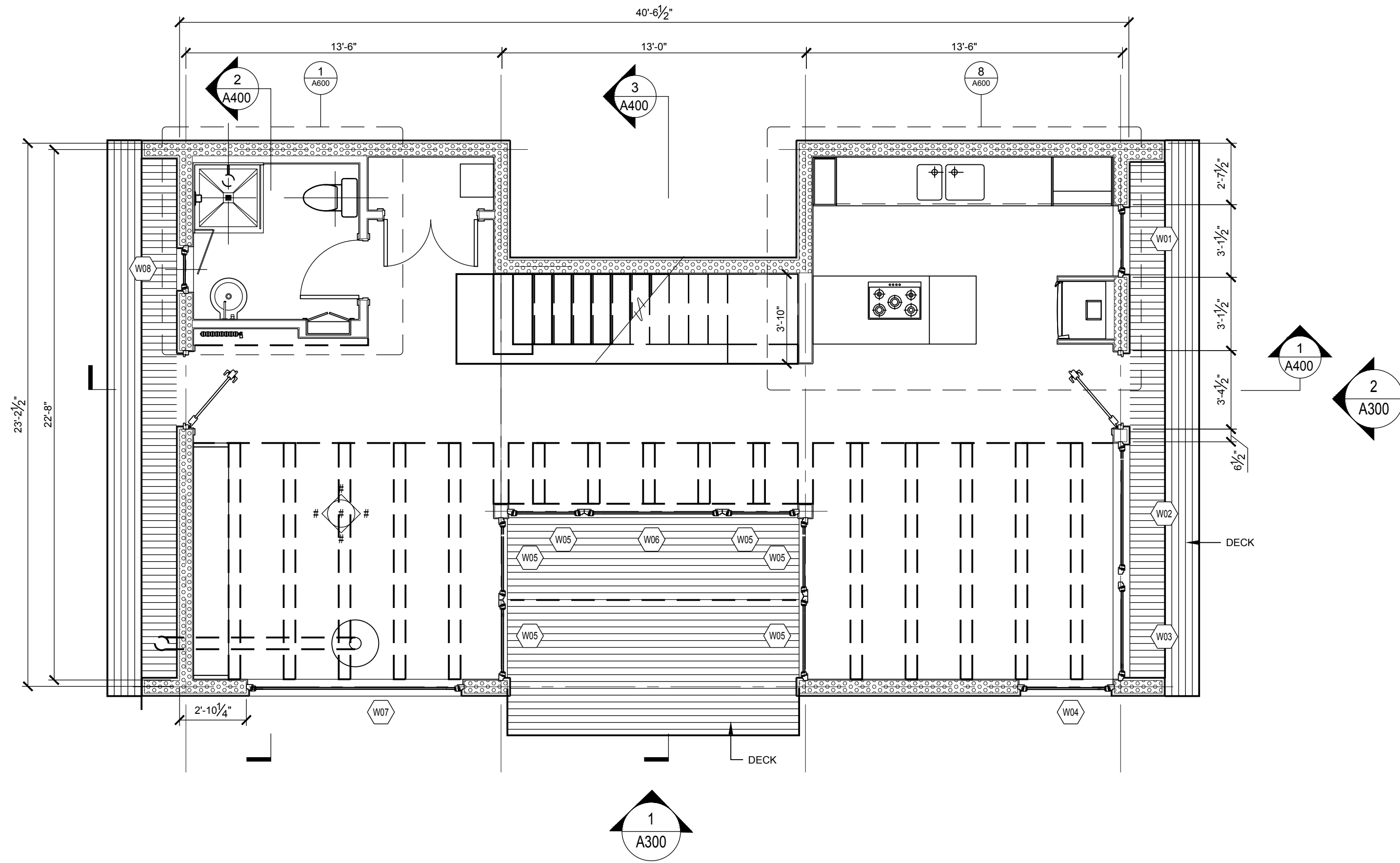
The Architectural Review Board has reviewed the plans submitted for approval for the project listed above and has determined:

Plan Denied _____
(Date)

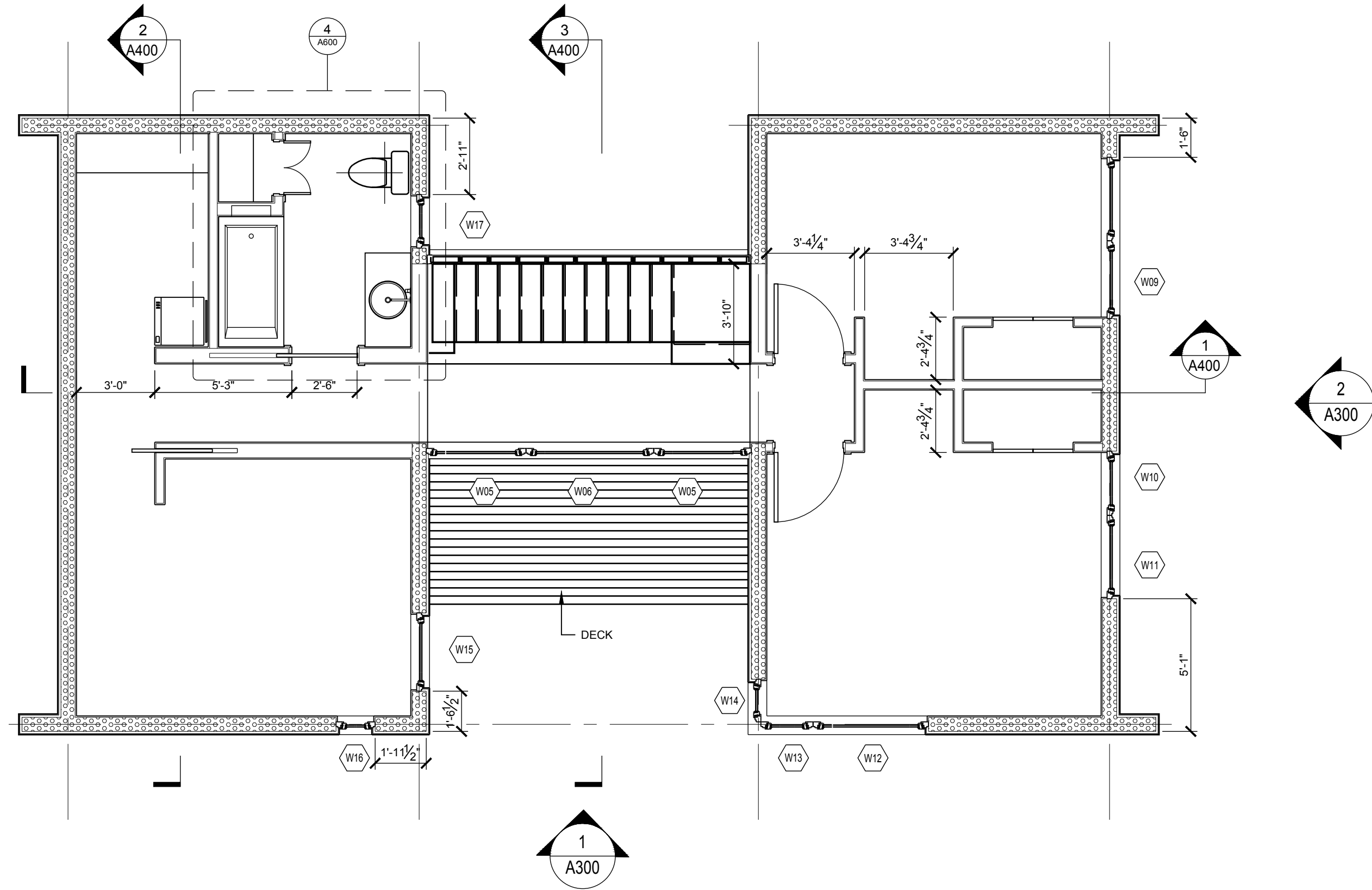
Plan Approved _____
(Date)

Subject to the following:

FEE: \$100.00



1 First Floor Plan
SCALE 1/4" = 1'-0"



2 Second Floor Plan
SCALE 1/4" = 1'-0"

4			
3			
2			
1	7/27/2020	Issue ARS Review	dh

Drawn By: dh
Checked By: -
BDS Proj. #: -
Date: June 5, 2020

Consultant

WILLOW STREET RESIDENCE
BEACON NY 12508

Project Title

4			
3			
2			
1	08/2020	Issue for Permit	dh
No.	Date	Revision	By

Drawn By: dh
Checked By: -
BDS Proj. #: -
Date: June 6, 2020

Sheet Title

EXTERIOR
ELEVATIONS

Sheet No.

A300

CONSTRUCTION DOCUMENTS



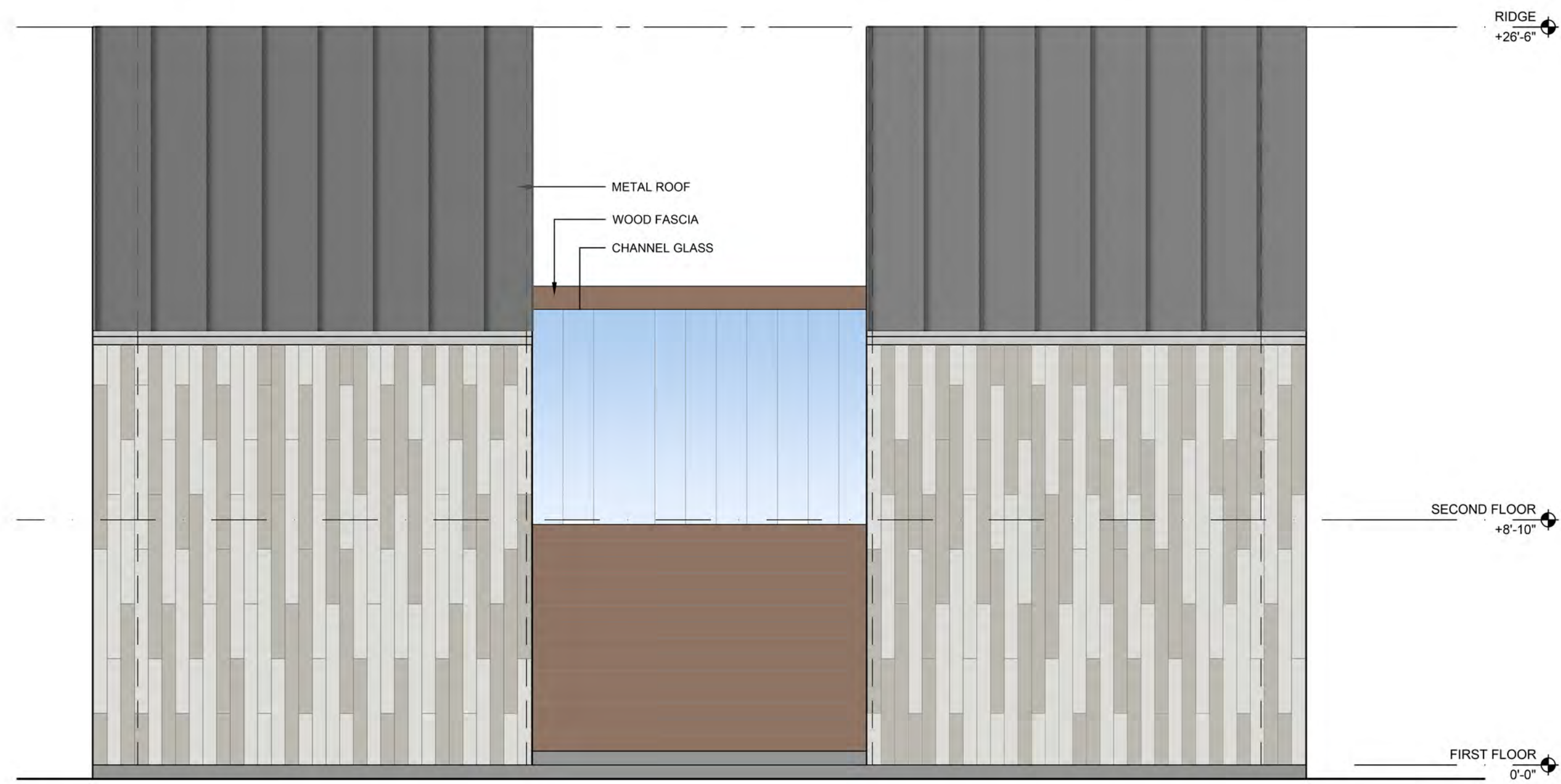
1 East Elevation (Willow Street)
SCALE #####



2 North Elevation
SCALE 1/4" = 1'-0"



3 South Elevation (Verplanck Ave.)
SCALE #####



4 West Elevation
SCALE 1/4" = 1'-0"





VIEW FROM WEST



VIEW FROM EAST

Consultant

WILLOW STREET RESIDENCE
BEACON NY 12508

Project Title

4				
3				
2				
1				

Drawn By: dh
Checked By: -
BDS Proj. #: -
Date: June 6, 2020

Sheet Title

EXTERIOR
RENDERINGS

Sheet No.

A301

City of Beacon Planning Board
8/11/2020

Title:

16 Coyne Hill Road

Subject:

Single Family House – 16 Coyne Hill Road

Background:

ATTACHMENTS:

Description	Type
16 Coyne Hill Road Application	Application
16 Coyne Hill Road Elevations	Plans

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: July 15, 2020

Project Address: 16 Coyne Hill Road

Project Architect/Engineer: Roy Fredricksen

Owner/Builder: Stephen Spaccarelli/ Claire Tipley

Contact Phone No.: (845) 264-4239

Approval Requested: Certificate of Appropriateness X New Single Family House

Color/Materials:

Siding: 8" Fiber Cement Ship-lap Siding, Behr 'Iron Mountain' gray

Roofing: Cedar Shingle Roofing

Windows: Color: "Jet Black" Type: Weathershield Contemporary Collection

Trim: 2.5" Fiber Cement, Behr 'Iron Mountain' gray

Garage Door: N/A

Stone/Brick: N/A



Signature of Owner

FOR OFFICE USE ONLY:

The Architectural Review Board has reviewed the plans submitted for approval for the project listed above and has determined:

Plan Denied

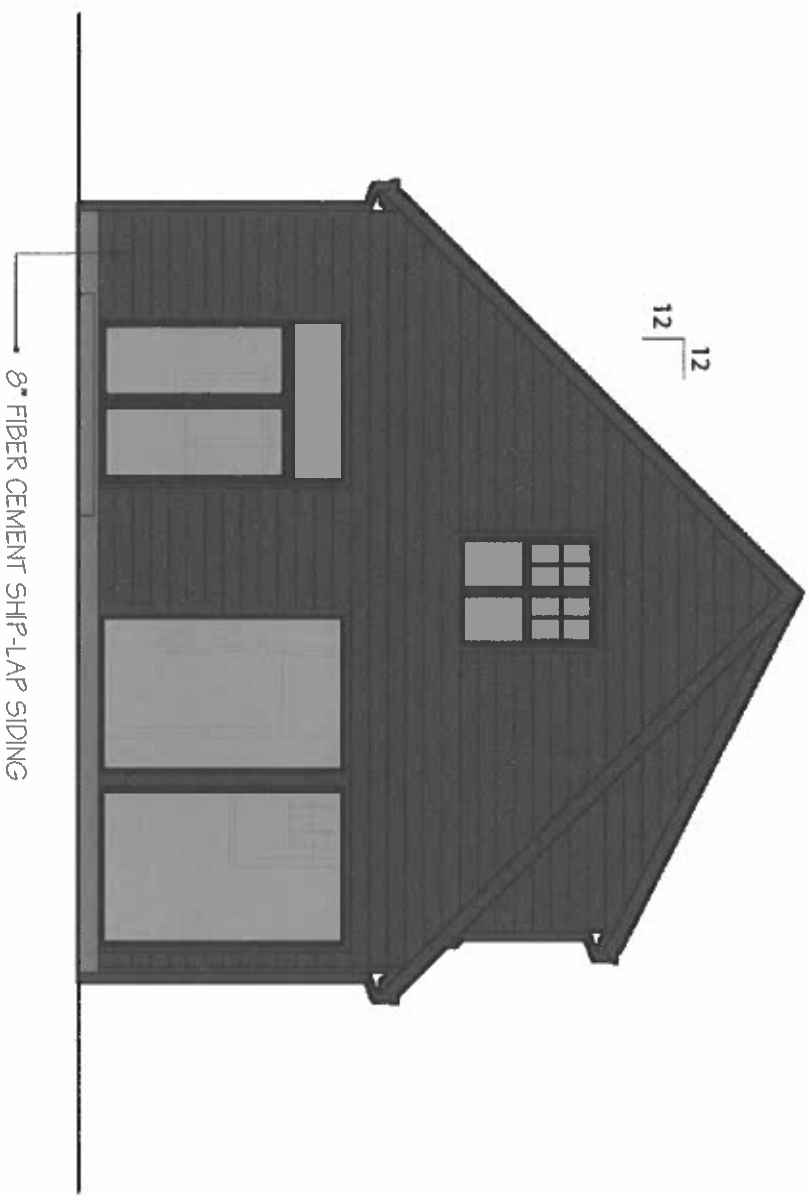
(Date)

Plan Approved

(Date)

Subject to the following:

FEE: \$100.00



RIGHT SIDE ELEVATION

TRILEV/SPACCARELLI

16 COYNE HILL ROAD, BEACON,
DUTCHESS COUNTY, NEW YORK

Project: NEW SINGLE FAMILY HOUSE

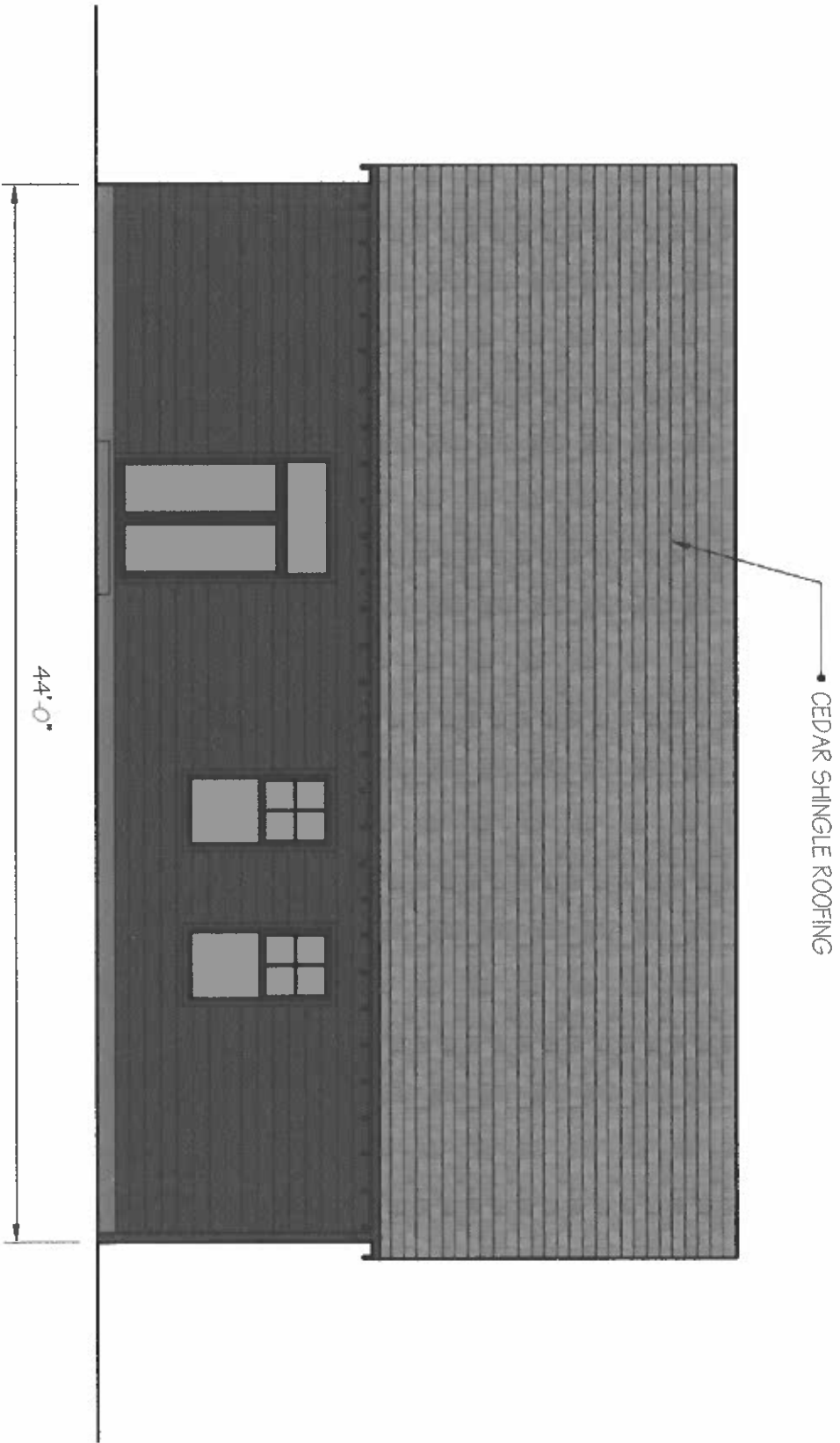
date: JULY 2020

page:

drawing: ELEVATIONS FOR ARCH REVIEW

scale: NTS

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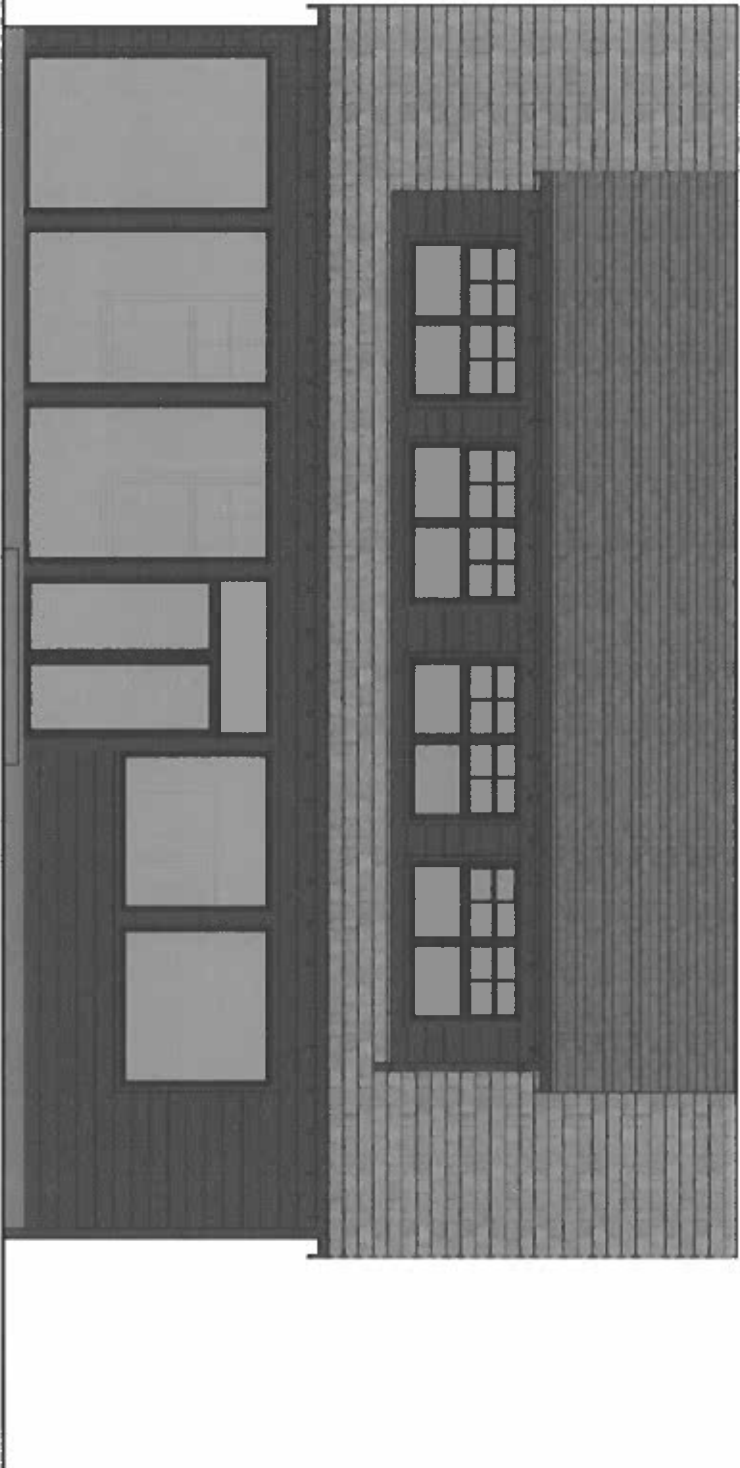
FRONT ELEVATION

TRILEV/ SPACCARELLI
16 COYNE HILL ROAD, BEACON,
DUTCHESS COUNTY, NEW YORK

project NEW SINGLE FAMILY HOUSE
drawing ELEVATIONS FOR ARCH REVIEW

date JULY 2020
scale NTS

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REAR ELEVATION

TRILEVI/ SPACCARELLI

16 COYNE HILL ROAD, BEACON,
DUTCHESS COUNTY, NEW YORK

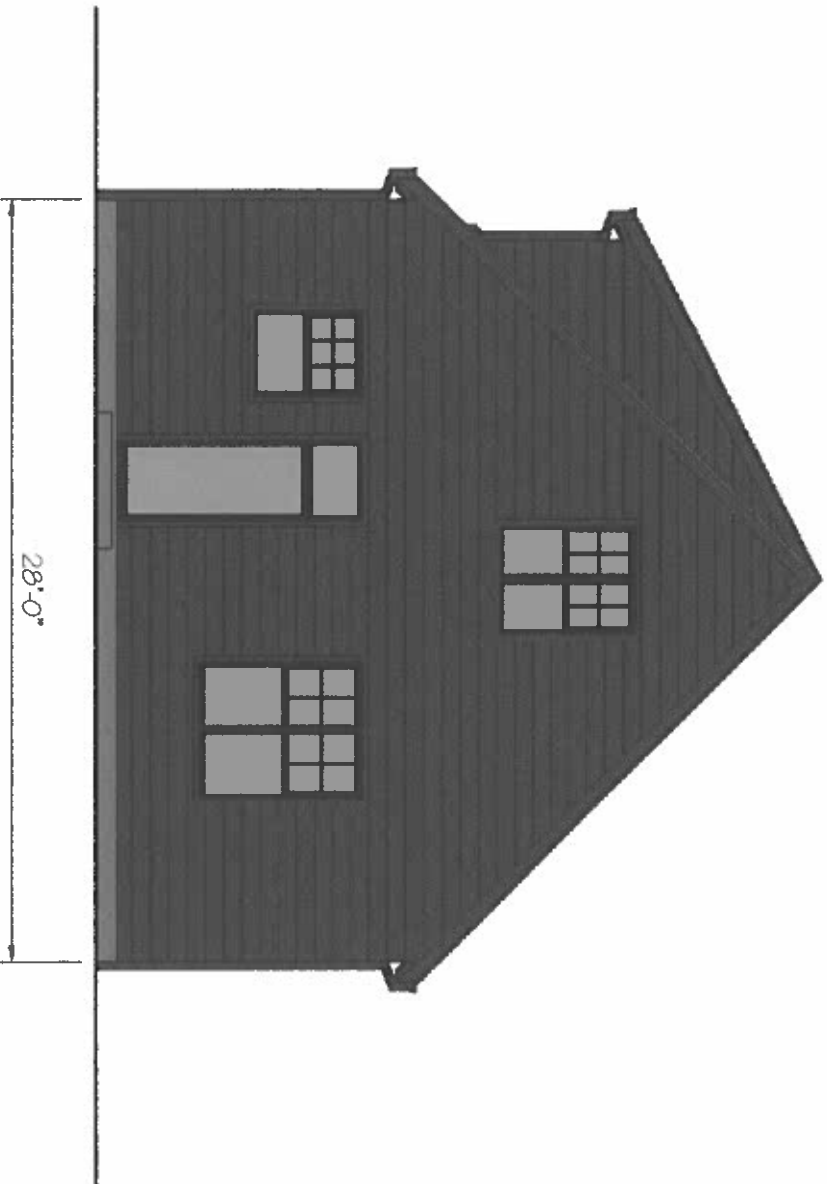
project NEW SINGLE FAMILY HOUSE

date JULY 2020

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drawing ELEVATIONS FOR ARCH REVIEW

scale NTS



LEFT SIDE ELEVATION

TRILEV/SPACCARELLI

16 COYNE HILL ROAD, BEACON,
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project NEW SINGLE FAMILY HOUSE

drawing ELEVATIONS FOR ARCH REVIEW

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