

*BEACON PLANNING BOARD*  
*One Municipal Plaza - Courtroom*  
*BEACON, NEW YORK 12508*  
*Phone (845) 838-5002 Fax (845) 838-5026*

The Planning Board will meet on **Wednesday, February 13, 2019** in the Municipal Center Courtroom. A work session will take place at 7:00 PM for a training workshop, discussion of agenda items and/or topics of interest to the Planning Board. The regular meeting will begin immediately thereafter, but not later than 7:30 p.m.

• **Regular Meeting**

1. Beekman Street - Ferry Landing  
Continue public hearing for SEQRA Environmental Review on applications for Subdivision Approval and Site Plan Approval, 6 Unit Residential "Ferry Landing at Beacon", Beekman Street, submitted by Ferry Landing at Beacon, Ltd. (*adjourned until March 12, 2019*)
2. 554 Main Street  
Continue public hearing on application to amend an existing Site Plan Approval, Residential/Professional Office/Restaurant with outdoor seating and entertainment area, 554 Main Street, submitted by Dana Collins (*adjourned until March 12, 2019 at request of applicant*)
3. 52 Dennings Avenue  
Continue public hearing for SEQRA Environmental Review on application for Subdivision, 2-lot residential, submitted by Delaportas Enterprises I, Inc., 52 Dennings Avenue (*no new submission - adjourned until March 12, 2019*)
4. 511 Fishkill Avenue  
Continue public hearing on application to amend an existing Site Plan Approval, brewery and related uses, submitted by Jeff O'Neil, 511 Fishkill Avenue
5. 21 South Avenue  
Public hearing on application for Site Plan Approval related to Special Use Permit, three-unit residential, 21 South Avenue, submitted by Protestant Episcopal Diocese of New York
6. 296 Main Street  
Continue review of application for Site Plan Approval, convert existing retail and garage to restaurant, 296 Main Street, submitted by River Valley Restaurant Group
7. 3 Beekman Street  
Review application to amend an existing Site Plan Approval, employee parking lot, 3 Beekman Street; submitted by Dia Center for the Arts
8. 1154 North Avenue  
Review application for Site Plan Approval, 2 art galleries, 1154 North Avenue, submitted by Paola Ochoa
9. 248 Tioronda Avenue  
Review Concept Plan, undertake SEQRA and LWRP review as requested by City Council, 248 Tioronda Avenue, submitted by Chai Builders Corp.

• **Miscellaneous Business**

1. Zoning Board of Appeals  
Zoning Board of Appeals – February Agenda
2. 25 Townsend Street  
Consider request for two 90-day extensions of Subdivision Approval – 25 Townsend Street, submitted by AK Property Holding, LLC
3. 22 Edgewater Place  
Consider request for two 90-day extensions of Subdivision Approval – 22 Edgewater Place, submitted by Scenic Beacon Developments, LLC
4. 1181 North Avenue  
Consider request for one 90-day extension of Subdivision Approval – 1181 North Avenue, submitted by Normington Schofield (North Avenue Properties, LLC)
5. Tioronda Bridge  
City Council request to review Tioronda Bridge
6. Review Amended Local Law  
City Council request to review changes made to proposed Local Law to amend Section 223-24.5 of City Code concerning Wireless Telecommunication Services Facilities

• **Architectural Review**

1. 19 Russell Avenue  
Single Family House – 19 Russell Avenue; elevations approved 9/11/18; colors and materials only

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**Beekman Street - Ferry Landing**

**Subject:**

Continue public hearing for SEQRA Environmental Review on applications for Subdivision Approval and Site Plan Approval, 6 Unit Residential "Ferry Landing at Beacon", Beekman Street, submitted by Ferry Landing at Beacon, Ltd.  
***(adjourned until March 12, 2019)***

**Background:**

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**554 Main Street**

**Subject:**

Continue public hearing on application to amend an existing Site Plan Approval, Residential/Professional Office/Restaurant with outdoor seating and entertainment area, 554 Main Street, submitted by Dana Collins *(adjourned until March 12, 2019 at request of applicant)*

**Background:**

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**52 Dennings Avenue**

**Subject:**

Continue public hearing for SEQRA Environmental Review on application for Subdivision, 2-lot residential, submitted by Delaportas Enterprises I, Inc., 52 Dennings Avenue (***no new submission - adjourned until March 12, 2019***)

**Background:**

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**511 Fishkill Avenue**

**Subject:**

Continue public hearing on application to amend an existing Site Plan Approval, brewery and related uses, submitted by Jeff O'Neil, 511 Fishkill Avenue

**Background:**

**ATTACHMENTS:**

Description	Type
511 Fishkill Avenue Architect Cover Letter	Cover Memo/Letter
511 Fishkill Avenue Engineer Cover Letter	Cover Memo/Letter
511 Fishkill Ave Compiled SWPPP 2019-0129	Backup Material
511 Fishkill Avenue Shared Parking Report	Backup Material
511 Fishkill Avenue Sheet 1 Site Plan	Plans
511 Fishkill Avenue Sheet 2 Existing Conditions Plan	Plans
511 Fishkill Avenue Sheet 3 Previously Approved Site Plan	Plans
511 Fishkill Avenue Sheet 4 Previously Approved Landscape Plan	Plans
511 Fishkill Avenue Sheet 5 Elevations	Plans
511 Fishkill Avenue Sheet 6 Plans	Plans
511 Fishkill Avenue Sheet 7 Large 1st Floor Plan	Plans
511 Fishkill Avenue Sheet 8 Large 2nd Floor Plan	Plans
511 Fishkill Avenue Sheet 9 Grading Plan	Plans
511 Fishkill Avenue Sheet 10 ESC Plan	Plans
511 Fishkill Avenue Sheet 11 Utility Plan	Plans
511 Fishkill Avenue Sheet 12 Construction Details	Plans
511 Fishkill Avenue Sheet 13 Construction Details	Plans
Engineer Review Letter	Consultant Comment
Planner Review Letter	Consultant Comment

**ARYEH SIEGEL**  
ARCHITECT

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

**Re: 511 Fishkill Avenue Street, Beacon, New York**  
*Site Plan Application – Responses to Comments*

January 29, 2019

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 January 4, 2019. Please refer to Hudson Land Design's response letter regarding Lanc & Tully's letter dated January 3, 2019.

**John Clarke Planning and Design Comment Responses:**

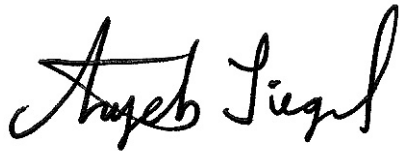
1. Comment acknowledged. The HI Zoning is under consideration for a change that would allow the proposed arcade use.
2. The Planning Board is reviewing the shared parking arrangement. The area and occupancy of the arcade space has been updated.
3. The Parking and Loading table has been corrected to show 205 parking spaces total. The owner does not want to locate parking spaces in the circular driveway area because it changes the character of the building entrance.
4. There are now a total of 7 accessible parking spaces, including 2 van accessible.
5. The new parking lot has been modified to provide 8' planting islands. Breaks in the curb will be incorporated to allow natural drainage into the tree islands.
6. A sidewalk connection from the new parking lot to the building entrance has been extended to the rear of the building

**Lanc & Tully Comment Responses:  
General Comments**

1. The Applicant has retained Maser Consulting to do the traffic study. The consultant will coordinate with NYSDOT requirements.
2. Information regarding shared parking has been submitted.
3. Please refer to Hudson Land Design's response letter for subsequent comments.

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

Sincerely,

A handwritten signature in black ink that reads "Aryeh Siegel". The signature is written in a cursive, flowing style.

Aryeh Siegel  
*Aryeh Siegel, Architect*



*Civil & Environmental Engineering Consultants  
174 Main Street, Beacon, New York 12508  
Phone: 845-440-6926 Fax: 845-440-6637  
www.HudsonLandDesign.com*

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January 29, 2019

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

Re: Site Plan  
511 Fishkill Avenue (NYS Route 52)  
Tax parcel: 6055-04-580285 ( $\pm$ 10.33 acres)  
City of Beacon, NY

Dear Chairman Gunn & Members of the City of Beacon Planning Board:

On behalf of the Applicant for the above referenced project, Hudson Land Design (HLD) has revised portions of the site plan set in response to the City Engineer's and the City Planner's comment letters. The project architect's response letter of January 29, 2019 addresses the majority of the comments. The following is a point-by-point response to each of the comments received that were not addressed by the project architect (or a supplementary response):

**Lanc & Tully's January 3, 2019 Review Letter:**

General Comments:

1. Comment satisfied by Aryeh Siegel, Project Architect.
2. Comment satisfied by Aryeh Siegel, Project Architect.

Sheet 10 of 13:

1. Note 15 was added to the Erosion and Sediment Control Notes on Sheet 10 of 13.

Sheet 12 of 13:

1. The Traffic Sign Detail was removed from Sheet 12 of 13. The Parking and Striping with Handicap Parking Detail and the Crosswalk Detail will remain on the sheet. Refer to the site plan for location of these features.



Sheet 13 of 13:

1. The Underground Detention Detail was revised to reflect 6" of stone beneath the chambers and is consistent with the stormwater model.
2. The Outlet Control Structure Weir detail was revised to reflect the correct dimensions and is coordinated with the HydroCAD stormwater model.

Preliminary Stormwater Pollution Prevention Plan:

1. The drainage boundary was revised to include the addition area in the eastern corner of the proposed parking area, and to reflect additional changes in the parking layout.
2. The WQv Sheet has been revised to reflect the new drainage area and is included in Appendix F of the Preliminary SWPPP Report. CPv is achieved by extended detention (refer to HydroCAD model).

**John Clarke Planning and Design's January 4, 2019 Review Letter:**

Please refer to Aryeh Siegel's January 29, 2019 comment letter.

We look forward to continuing the discussion of the proposal with the Planning Board at its next meeting. Included with the submittal in addition to those items noted in the project architect's cover sheet are three (3) copies of the revised Preliminary SWPPP. Should you have any questions or require additional information, please feel free to call me at 845-440-6926.

Sincerely,



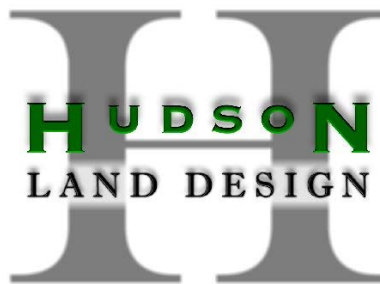
Daniel G. Koehler, P.E.  
Principal

cc: Applicants (via email)  
Aryeh Siegel, project Architect (via email)  
Michael A. Bodendorf, P.E. (HLD File)

***Preliminary Stormwater Pollution Prevention Plan:  
for  
511 Fishkill Avenue***

Prepared for:  
Diamond Properties, LLC  
333 N. Bedford Road, Suite 145  
Mt. Kisco, NY 10549

December 26, 2018  
(Revised January 29, 2019)



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

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## **APPENDICES**

<b>APPENDIX A:</b>	<b>NOTICE OF INTENT AND MS4 ACCEPTANCE</b>
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<b>APPENDIX N:</b>	<b>NOTICE OF TERMINATION</b>
<b>APPENDIX O:</b>	<b>DRAINAGE MAPS</b>

# 1.0 INTRODUCTION

## 1.1 Overview

This Stormwater Pollution Prevention Plan (SWPPP) has been developed in accordance with NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-15-002, dated May 1, 2015 which authorizes stormwater discharges to surface waters of the State from the following construction activities identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

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

This project qualifies for SPDES coverage under provision 3 as stated above.

The objectives of this SWPPP are as follows:

- To develop a sediment and erosion control plan in accordance with the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, latest edition, which implements best management practices to stabilize disturbed areas, protect off site areas and sensitive areas and minimize the transport of sediment.
- To demonstrate that the resulting stormwater runoff from the development exiting the site will not adversely impact offsite properties, stormwater conveyance systems or receiving water bodies, and that temporary and permanent stormwater systems and facilities are designed in accordance with the latest revision to the New York State Stormwater Management Design Manual, January 2015.
- To demonstrate that a minimum of 90% of the average annual stormwater runoff from the development is captured and treated through approved water quality measures.

A copy of the Permit, SWPPP, Notice of Intent (NOI), NOI acknowledgment letter, inspection reports and accompanying plans shall be maintained on-site from the date of initiation of construction activities to the date of final stabilization. This SWPPP shall be kept on-site in accordance with the above requirement upon mobilization and start of construction activities.

## **1.2 Land Disturbance**

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

- a. The owner or operator shall have a qualified inspector conduct at least two (2) site inspections every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
- b. In areas where soil disturbance activity has been temporarily or permanently ceased and is located in one of the watersheds [NYCDEP], the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity has ceased. The soil stabilization measures selected shall be in conformance with the current version most of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control.
- c. The owner or operator shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
- d. The owner or operator shall install any additional site-specific practices needed to protect water quality.

The project calls for clearing of vegetation, installation of utilities and associated grading for the construction of a parking lot area with new sidewalk to serve the project. The limits of soil disturbance have been calculated to be 1.20 acres; therefore, a phasing plan for erosion control purposes will not be developed.

## **2.0 PROJECT DESCRIPTION**

### **2.1 Project Location**

The project site is located at 511 Fishkill Avenue (NYS Route 52), in the City of Beacon, Dutchess County, New York, and is located on the west side of the road. The total parcel area is approximately 10.33 acres, while the development of the additional parking area is approximately 1.06 acres. The project study area, regarding storm water pollution prevention, consists of approximately 1.13 acres (total area contributing to the design point identified in the SWPPP), and consists of grassed area, a gravel drive and a small contributing area of impervious asphalt parking lot.

### **2.2 Project Scope and Description**

The construction project entails the construction of an additional parking area on the northern side of the existing industrial building due to a change in use.

The proposed project will disturb approximately 1.20 acres of on-site area. Development of a phasing plan is not necessary due to less than 5.0-acres of disturbance.

## **2.3 Surface Water Bodies**

### **2.3.1 Wetlands**

The NYSDEC and USACE wetland maps do not indicate that wetlands are present within the project area.

### **2.3.2 Streams**

NYSDEC mapping indicates that there are no regulated streams located on the property.

### **2.3.3 Floodplains**

Based upon a review of the National Flood Insurance Program Flood Insurance Rate Map panel 36027C 0464E for the City of Beacon, New York, the entire site lies within Zone X – areas determined to be outside the 100-year flood plain.

## **3.0 NOTICE OF INTENT**

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

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

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

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

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

The project area is under the control of a regulated MS4, therefore the NOI shall be submitted directly to the NYSDEC along with the MS4 SWPPP Acceptance form. A NOI and blank SWPPP Acceptance Form has been included within Appendix A.

## **4.0 SOILS**

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



Symbol	Description	Hydrologic Soil Group
BeB	Bernardston Silt Loam, 3% to 8% slopes	D

### SOIL PROPERTIES

Symbol	Water Table	Restrictive Layer	Bedrock	Erosion Hazard (k)
BeB	22"	>27"	>27"	0.32

Supporting information has been provided in Appendix B.

## 5.0 RAINFALL

### 5.1 Overview

The rainfall data utilized in the analysis of the watershed was obtained from <http://precip.eas.cornell.edu> as provided in the NYS Stormwater Design Manual dated January 2015. Supporting information has been provided in Appendix C. The storm events are as follows:

Storm Event	24-Hour Rainfall (in)
1 - year	2.61
10 - year	4.69
25 - year	5.88
100 - year	8.29

### 5.2 Rainfall Event Sizing Criteria

The stream channel protection volume (C<sub>pv</sub>) criteria, intended to protect stream banks from erosion, will be demonstrated by providing 12-24 hour extended detention or infiltration of the Type III 1-year, 24-hour storm event. The channel protection volume criterion is not required where the resulting diameter of the extended detention basin orifice is less than three (3) inches with a trash rack.

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

The extreme flood control (Q<sub>f</sub>) criteria, intended to prevent the increased risk of flood damage from large storm events, maintain the boundaries of pre-development conditions, and protect the physical integrity of stormwater management practices, will be demonstrated by attenuating the Type III 100-year, 24-hour peak discharge rate to pre-development conditions. The extreme

flood control criteria can be waived if the project site discharges to a tidal water or fifth order stream.

The pre-and post-development runoff rates were compared utilizing the Type III 1-year (channel protection), 10-year (overbank flood control), and 100-year (extreme flood control) year, 24-hour storm events.

The proposed drainage conveyance system will be designed utilizing the Type III, 25-year storm event.

## **6.0 STORMWATER ANALYSIS AND MANAGEMENT**

### **6.1 Methodology**

#### **6.1.1 Hydrologic Analysis**

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

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

#### **6.1.2 Stormwater Design Points**

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

<b>Stormwater Design Points</b>	
<b>SDP</b>	<b>Description</b>
1	Discharge from on-site area to existing stormwater conveyance system at northeast corner of existing building.

### **6.2 Pre-Development Watershed Conditions**

All existing watershed areas are modeled in HydroCAD as 'subcatchment' areas. The pre-development areas are as follows:

Subcatchment 1 is comprised of approximately 0.94 acres of on-site area. The on-site area is undeveloped grassed area, gravel driveway and landscaped grassed area. The subcatchment area contains soil in hydrologic soil group D. Runoff from the subcatchment travels overland via sheet flow and shallow concentrated flow to SDP 1.

Detailed stormwater calculations and routing have been included in Appendix D.

The following table summarizes the pre-development watershed conditions:

<b>Pre-Development Watershed Conditions</b>					
<b>Subcatchment</b>	<b>Area (ac)</b>	<b>Cover</b>	<b>Average Curve #</b>	<b>Hydrologic Soil Group(s)</b>	<b>Time of Concentration</b>
1	0.94	Grassed area, gravel driveway and some impervious parking area	81	D	6.0 minutes

### 6.3 Post-Development Watershed Conditions

The proposed development will result in a disturbance of approximately 1.20 acres. The land cover will consist of mainly impervious asphalt parking area, with some grassy landscaped areas and site grading.

The post-developed subcatchment numbers listed below correspond to the pre-developed watershed areas with the same number. One underground infiltration area and one water quality unit is proposed for attenuation of the design storms and to provide treatment of the site runoff from the site access, respectively.

Subcatchment 10 is comprised of approximately 1.13 acres of on-site area. The area consists of impervious asphalt parking area, with some grassy landscaped areas and site grading. The entire subcatchment area contains soils in hydrologic soil group D. Runoff from the subcatchment is directed towards the western property line to SDP1.

Detailed stormwater calculations and routing have been included in Appendix E.

The following table summarizes the post-development watershed conditions:

<b>Post-Development Watershed Conditions</b>					
<b>Subcatchment</b>	<b>Area (ac)</b>	<b>Cover</b>	<b>Average Curve #</b>	<b>Hydrologic Soil Group(s)</b>	<b>Time of Concentration</b>
10	1.13	Mostly impervious parking area and some grassed area	91	D	6.0 minutes

### 6.4 Hydrologic Review

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

Volumetric Flow Rate in cfs:

<b>SDP</b>	<b>1 - Year</b>		<b>10 - Year</b>		<b>100 - Year</b>	
	<b>Pre</b>	<b>Post</b>	<b>Pre</b>	<b>Post</b>	<b>Pre</b>	<b>Post</b>
1	1.08	0.19	2.92	2.80	6.33	5.90

As shown above, post-development peak flow rates are less or equal to the pre-development

rates for all the storm events modeled for the stormwater discharge point. Therefore, it can be stated that the post-developed storm water management controls (underground infiltration basin) mitigate the increased runoff from development of the site.

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

## **6.5 Stormwater Management System**

The final stormwater management system will consist of conveyance systems which will include catch basins, yard drains, culverts, grass-lined swales/dikes and underground infiltration areas where required. Operations and maintenance of the stormwater management system is included in Appendix O. The remainder of the drainage area will remain undisturbed with natural vegetation remaining.

## **6.6 Hydraulic Calculations**

Hydraulic sizing of the culverts and swales (not required) are based on the 25-year, Type III, 24-hour rainfall event. Sizing calculations will be provided within Appendix F in the final SWPPP (if required).

## **6.7 Green Infrastructure for Stormwater Management**

The SDM encourages the use of green infrastructure (GI) practices for stormwater management. Green infrastructure approach for stormwater management reduces a site's impact on an aquatic ecosystem through the use of site planning techniques, runoff reduction techniques, and certain standard stormwater management practices. The objective is to replicate the pre-development hydrology by maintaining pre-construction infiltration, peak runoff flow, discharge volume, and minimizing concentrated runoff by use of runoff control techniques. When implemented, green infrastructure can reduce volume, peak flow, and flow duration, promote infiltration and evapotranspiration, improve groundwater recharge, reduce downstream flooding, and protect downstream water and wetlands.

### **6.7.1 Green Infrastructure Practices**

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

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

During the planning process, the above techniques are implemented to the greatest extent possible to reduce runoff developed by the site.

### **6.7.2 Five Step Process for Stormwater Site Planning and Selection Design**

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

#### **Step 1: Site Planning**

The site design will incorporate the preservation of natural resources including protection of wetland areas (where applicable), natural areas, avoidance of sensitive areas, minimizing grading and soil disturbance, minimizing impervious areas on internal access ways, driveways and parking areas. The site layout will avoid wetlands, waterways, buffers, areas of highly erodible soils and critical areas. The site design will also maintain natural drainage design points.

#### **Step 2: Determine Water Quality Volume (WQv)**

Calculate the water quality volume per Chapter 4 of the NYSDEC manual. This is described in detail under Section 6.8.

#### **Step 3: Runoff Reduction by Applying Green Infrastructure Techniques**

Green infrastructure practices will be implemented wherever possible to reduce runoff from the site. GI for this site will consist of reduction of access drive width, preservation of undisturbed buffers, providing infiltration practices and use of open channel vegetated conveyance systems.

#### **Step 4: Apply Standard SMP's to Address Remaining WQv**

Standard SMP's such as ponds, filtering practices or stormwater wetlands to meet additional water quality volume requirements. No additional standard SMP's will be required for this project.

#### **Step 5: Apply Volume and Peak Rate Control Practices (if needed)**

Cpv, Qp and Qf must also be met, either by standard practices, or other accepted techniques such as meeting criteria set forth in the NYS SWDM, where Cpv, Qp and Qf are required. Cpv, Qp and Qf are met by the installation of underground infiltration trenches which reduce the peak flows associated with each criterion.

## **6.8 Qualitative Practices**

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

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

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

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

Where:

WQ<sub>v</sub> = Water Quality Volume (acre-feet)

P = 90% Rainfall Event Number

R<sub>v</sub> = 0.05+0.009 x I, where I is percent impervious (minimum R<sub>v</sub> = 0.2)

A = Site area in acres (contributing area)

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

Watershed	Total WQ <sub>v</sub> (cf)	Required Pre-Treatment Volume (cf)	Pre-Treatment Practice	Treatment Practice	WQ <sub>v</sub> Provided (cf)
10	3,580	1,790	Hydrodynamic	Infiltration	3,580

Infiltration rates are 4 inches per hour, thus requiring 50% pre-treatment at Underground Detention Area A.

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

## 6.8.2 Pre-Treatment Practices

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

### 6.8.2.1 Overland Flow

An underground infiltration chamber system has been incorporated into the design of this project. No overland flow is anticipated to receiving water bodies.

### 6.8.2.2 Grass-Lined Swales

The design does not incorporate permanent grass-lined swale/dike to convey stormwater.

### **6.8.2.3 Stone Check Dams**

No stone check dams will be incorporated in the stormwater design for this project. Stone check dams provide a pooling area where sediment can be captured and allowed to settle out of suspension. Stone check dams provide a good means of capturing floatables.

### **6.8.2.4 Hydrodynamic Devices**

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

One hydrodynamic device has been included in the design of this project conveying flow into Underground Infiltration Area A.

## **6.8.3 Treatment Practices**

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

### **6.8.3.1 Underground Infiltration Area**

Stormwater infiltration practices capture and temporarily store the water quality volume before allowing it to infiltrate through the floor of each practice into the soil over a two-day period. In areas where the subsurface soils exhibit high infiltration rates, the channel protection volume may also be infiltrated. Infiltration facilities are not typically capable of infiltrating the overbank flood or extreme flood volumes. Adequate outflows are required for these larger storm events. Soil testing to obtain infiltration rates are required as part of the design of infiltration facilities. Varying degrees of pre-treatment of the water quality are required based on the field determined infiltration rate of the subsurface soils. 100% of the water quality volume is required where the infiltration rate exceeds 5 inches per hour, 50% for infiltration rates between 2 and 5 inches per hour, and 25% for infiltration rates less than 2 inches per hour. Pre-treatment is typically accomplished through installation of plunge pools and other filtering methods. Infiltration practices must be isolated and protected from stormwater run-off during construction. The contributory drainage area shall be completely constructed and stabilized before connection of the stormwater conveyance system to the infiltration practice. Infiltration basins are typically landscaped by providing a hardy, drought tolerant grass species that is capable of tolerating periodic inundation. The established grass requires mowing twice annually (or as needed). Underground infiltration areas typically consist of stone reservoirs with piping or chambers embedded within the stone. These areas are typically used where surface infiltration areas are limited due to site constraints. Proper maintenance of the contributing conveyance system and pre-treatment practice are important in maintaining infiltration rates.

There is one underground infiltration area proposed for this project. Underground Infiltration Area A consists of 7 rows of 9 chambers each, utilizing Cultec Recharger Model 330 XLHD. A hydrodynamic device has been provided for pre-treatment prior to discharge to the infiltration basin. An outlet control structure is provided after the underground infiltration basin to provide extended detention. Infiltration testing in the area has been performed, and the basin has been designed to infiltrate the entire WQv and provides extended detention of the CPv.

## 6.9 Runoff Reduction Volume (RRv)

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

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

RRv is calculated based upon three methods:

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

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

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

HSG A = 0.55

HSG B = 0.40

HSG C = 0.30

HSG D = 0.20

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

The following equation is used to determine the minimum RRv:

$$\text{RRv (in acre-feet of storage)} = [(P)(Rv^*)(Ai)]/12$$

$$Ai = (S)(Aic)$$

Ai = impervious cover targeted for runoff reduction

(Aic) = total area of new impervious cover

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



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

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

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

<b>Watershed</b>	<b>Required Total RRv (cf)</b>	<b>Required Minimum RRv (cf)</b>	<b>RRv reduced by use of runoff reduction techniques (cf)</b>	<b>RRv provided by standard SMP with RRv (cf)*</b>	<b>RRv (cf) Provided</b>
10	1,790	695	N/A	1,790	1,790

\* Treatment practices can be oversized to provide additional runoff reduction (RRv); however, they can only be oversized to provide up to 100% of the RRv. No additional credit can be taken for RRv for practices that provide greater than 100% RRv. The infiltration basin has been sized to provide extended detention of the 1-year storm.

## 6.10 Soil Restoration

Soils within disturbed areas tend to over compact as a result of heavy construction traffic; thus, limiting their infiltrative capacity. Under the GP 0-15-002 permit, soil restoration is required in disturbed areas that will be vegetated in order to recover the original properties and porosity of the soil, especially in areas that receive high construction traffic, or areas that have soils that are poorly drained.

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

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

### **6.10.1 Soil Restoration Methods**

- Topsoil Application – Applying 6” of topsoil in soils with an HSG of A & B and have only been stripped, cut or filled. Soils with HSG of C or D that have only been stripped require aeration in addition to topsoil.
- Aeration - Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.
- Tilling – Tilling includes the use of a cat-mounted ripper, tractor mounted disc, or tiller in order to expose the compacted soil devoid of oxygen and air to recreate temporary air space which allows for infiltration.
- Full Soil Restoration - Consists of Deep Ripping and De-Compaction, Compost Enhancement, and/or Deep Subsoiling. Deep Ripping includes the use of a cat mounted ripper and is typically done at 12” to 24” depths. Compost Enhancement is done by using a deep subsoiler after topsoil has been applied. The goal is to alleviate the compaction that may have occurred during the placement of topsoil. This method mixes the topsoil and compost with subsoils.

Restoration techniques shall not be done until construction is complete, and traffic will not travel through green areas.

## **7.0 EROSION AND SEDIMENT CONTROL**

### **7.1 Overview**

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

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

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

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

### **7.2 Temporary Erosion and Sediment Control Measures**

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

### **7.2.1 Silt Fence**

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

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

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

### **7.2.2 Stabilized Construction Entrance**

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

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

### **7.2.3 Check Dams**

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

### **7.2.4 Inlet Protection**

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

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

### **7.2.5 Temporary Channels**

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

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

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

### **7.2.6 Sediment Traps & Sediment Basins**

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

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

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

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

### **7.2.7 Water Bars**

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

### **7.2.8 Straw Bale Barriers**

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

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

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

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

### **7.2.9 Temporary Soil Stockpiles**

Stockpiling of soil is a method of preserving soil and topsoil for regrading and vegetating disturbed areas. Stockpiles shall be located away from environmentally sensitive areas (i.e. wetlands and associated buffers, streams, water bodies) and shall be protected with a peripheral silt fence. Slopes of stockpiles shall not exceed 2V:1H. Temporary stabilization measures shall be completed within seven (7) days of stockpile formation.

### **7.2.10 Dust Control**

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

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

### **7.2.11 Temporary Soil Stabilization Practices**

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

The Contractor shall initiate stabilization measures as soon as possible in portions of the site where construction activities have temporarily or permanently ceased. In areas where soil disturbance activity has temporarily or permanently ceased and is located in one of the watersheds [NYCDEP] the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased.

This requirement does not apply where the initiation of stabilization measures by the 7<sup>th</sup> day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions.

Temporary stabilization practices may include:

#### **7.2.11.1 Mulching**

Mulching is a temporary soil stabilization practice. Mulching prevents erosion by protecting soil from raindrop impact and by reducing the velocity of overland flow. Mulching also retains moisture within the soil surface and prevents germination.

Where mulching consists of wood chips or shavings, it shall be applied at a rate of 500-900 lbs per 1000 s.f. Where mulching consists of straw, it shall be applied at a rate of 90-100 lbs. per 1000 s.f.

All temporary grass areas shall receive a standard application of mulch consisting of straw, unless the area is hydro-seeded.

#### **7.2.11.2 Temporary Seeding**

Temporary seeding provides additional benefits over other stabilization practices by creating a vegetation system holding soil particles in place with root systems and maintaining the soils capacity to absorb runoff. Temporary vegetation shall be placed in accordance with project plans.

Irrigation shall be used when the soil is dry or when summer plantings are done.

#### **7.2.11.3 Temporary Erosion Control Blanket**

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

### **7.3 Permanent Erosion and Sediment Control Measures**

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

#### **7.3.1 Outlet Protection**

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

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

#### **7.3.2 Permanent Soil Stabilization Practices**

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

In areas where soil disturbance activity has temporarily or permanently ceased and is located in one of the watersheds [NYCDEP] the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased.

Permanent stabilization practices may include:

##### **7.3.2.1 Sod**

Where exposed soils have the potential to generate off-site sediment loading, sod can provide a immediate form of stabilization and extra protection to a disturbed area. Where applied, sod shall be blue grass or a bluegrass/red fescue mixture or a perennial ryegrass and machine cut

with a uniform soil thickness of  $\frac{3}{4}$  inch, plus or minus  $\frac{1}{4}$  inch. Sod shall be used at the discretion of the Owner, unless specifically required by the plans.

#### **7.3.2.2 Permanent Vegetation**

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

Irrigation shall be used when the soil is dry or when summer plantings are done.

Permanent vegetation shall be placed in accordance with project plans.

#### **7.3.2.3 Hydroseeding**

Hydroseeding is the hydraulic application of seed and fertilizer onto prepared seed beds. When used, this process shall be followed with the application of straw mulch to protect soil from erosion and seed from drying out.

Irrigation shall be used when the soil is dry or when summer plantings are done.

Hydroseeding shall be used at the discretion of the Contractor, unless specifically required by the plans.

#### **7.3.2.4 Permanent Erosion Control Blankets**

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

Permanent erosion control blankets shall be used on slopes steeper than 3:1.

### **7.4 Erosion and Sediment Control Sequencing Schedule**

Implementation schedules for the installation of erosion and sediment control measures prior to and during the course of construction will depend greatly on the actual construction schedule and the varying field conditions that may warrant temporary construction stops and/or work commencing in other locations. The plans include an anticipated construction sequence schedule, of which temporary and permanent erosion and sediment control practices will be required and inspected.

### **7.5 Maintenance Schedules**

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

maintenance procedures for the site-specific erosion and sediment control practices has been provided on the plan set.

## **7.6 Construction Staging Areas**

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

## **7.7 Site Assessments, Inspections and Reporting**

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

### **7.7.1 Prior to Construction**

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

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

### **7.7.2 During Construction**

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

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

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

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

- Date and time of inspection;



- Name and title of person(s) performing inspection;
- A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
- A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
- A description of the condition of all-natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any discharges of sediment to the surface waterbody;
- Identification of all erosion and sediment control practices that need repair or maintenance;
- Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;
- Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
- Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water (where applicable);
- Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of the sediment storage volume;
- Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);

- Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The qualified inspector shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The qualified inspector shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The qualified inspector shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection
- A brief description of any erosion and sediment control practice repairs, maintenance or installations made as a result of previous inspection; and
- All deficiencies that are identified with the implementation of the SWPPP.

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

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

### **7.7.3 Quarterly Report**

The Owner shall prepare a written summary of its status with respect to compliance with the SPDES General Permit at a minimum frequency of every three months during which coverage under the permit exists. The summary should address the status of achieving each component of the SWPPP.

### **7.7.4 End of Term**

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

A NOT is provided in Appendix N.

## **7.8 Construction Log Book**

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

## **8.0 GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES**

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

### **8.1 Waste Materials**

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

### **8.2 Chemical**

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

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

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

### **8.3 Fuels and Oil**

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

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

## **8.4 Fertilizers**

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

## **8.5 Paint**

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

## **8.6 Sanitary Waste Facilities**

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

## **8.7 Container Disposal**

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

## **8.8 Concrete and Asphalt Trucks**

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

## **8.9 Site Supervisor**

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

## **9.0 SWPPP AMENDMENT**

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

- 1) There is a significant change in design, construction, operation or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP.
- 2) The SWPPP proves to be ineffective in:

- Eliminating or significantly minimizing pollutants from sources identified in the SWPPP required by the SPDES Permit; or
  - Achieving the general objective of controlling pollutants in stormwater discharges from permitted construction activity.
- 3) Identify any new contractor or subcontractor that will implement any measure of the SWPPP.
  - 4) NYSDEC notifies the Permittee that the SWPPP does not meet one or more of the minimum requirements of the SPDES Permit. Within seven (7) days of such notification or as provided for by the NYSDEC, the Permittee shall make amendments to the SWPPP and submit to the NYSDEC a written certification that the requested changes have been made.

## **10.0 CONTRACTOR CERTIFICATIONS**

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

## **11.0 OWNER/OPERATOR CERTIFICATION**

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

## **12.0 CONCLUSIONS**

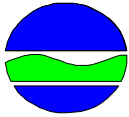
This SWPPP demonstrates that the proposed project generally meets the requirements of SPDES GP-0-15-002, as follows:

- An erosion and sediment control plan in accordance with the latest revision to the New York State Standards and Specifications for Erosion and Sediment Control, July 2016, has been developed for the project and is included in the site plan set.
- Hydraulic calculations for all storm events modeled will demonstrate that the resulting stormwater runoff from the development, exiting the site will not adversely impact offsite properties, stormwater conveyance systems or receiving water bodies. Temporary and permanent stormwater systems and facilities are designed in accordance with the latest revision to the New York State Stormwater Management Design Manual, January 2015.
- The project has been designed to capture and treat 90% of the average annual stormwater runoff from the development through approved water quality measures in all available areas.
- The underground infiltration practice will capture 100% of the required runoff reduction volume (RRv) and provides extended detention of the entire 1-year storm.

**APPENDIX A**

**NOTICE OF INTENT AND MS4 ACCEPTANCE**

# 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-0-15-002**  
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)

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

Owner/Operator Contact Person First Name

Owner/Operator Mailing Address

City

State  Zip  -

Phone (Owner/Operator)  -  -  Fax (Owner/Operator)  -  -

Email (Owner/Operator)

FED TAX ID  -  (not required for individuals)





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

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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																				
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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.

<p>A</p> <table border="1" style="width: 40px; height: 25px;"> <tr> <td></td><td></td><td></td> </tr> </table> <p>%</p>				<p>B</p> <table border="1" style="width: 40px; height: 25px;"> <tr> <td></td><td></td><td></td> </tr> </table> <p>%</p>				<p>C</p> <table border="1" style="width: 40px; height: 25px;"> <tr> <td></td><td></td><td></td> </tr> </table> <p>%</p>				<p>D</p> <table border="1" style="width: 40px; height: 25px;"> <tr> <td></td><td></td><td></td> </tr> </table> <p>%</p>			

7. Is this a phased project?       Yes     No

8. Enter the planned start and end dates of the disturbance activities.

<p>Start Date</p> <table border="1" style="width: 60px; height: 25px;"> <tr> <td></td><td></td><td></td><td></td><td></td> </tr> </table>						/	/	<table border="1" style="width: 60px; height: 25px;"> <tr> <td></td><td></td><td></td><td></td><td></td> </tr> </table>						-	/	/	<table border="1" style="width: 60px; height: 25px;"> <tr> <td></td><td></td><td></td><td></td><td></td> </tr> </table>					

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name [Grid]

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)

[Grid]

[Grid]

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-15-002? Yes No

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-15-002? Yes No

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? Yes No
If no, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? Yes No
If Yes, what is the acreage to be disturbed? [Grid]

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? Yes No

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?  Yes  No  Unknown

16. What is the name of the municipality/entity that owns the separate storm sewer system?

Two rows of empty grid boxes for text entry.

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

Grid for Other category

SWPPP Preparer

Grid for SWPPP Preparer name

Contact Name (Last, Space, First)

Grid for Contact Name

Mailing Address

Grid for Mailing Address

City

Grid for City

State Zip

Grid for State and Zip

Phone

Grid for Phone

Fax

Grid for Fax

Email

Grid for Email

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-0-15-002. 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

Grid for First Name

MI

Grid for MI

Last Name

Grid for Last Name

Signature

Grid for Signature

Date

Grid for Date

25. Has a construction sequence schedule for the planned management practices been prepared?  Yes  No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural

Vegetative Measures

- 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

- 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

Biotechnical

- Brush Matting
- Wattling

Other

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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**

.  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)

<u>RR Techniques (Area Reduction)</u>	<u>Total Contributing Area (acres)</u>		and/or	<u>Total Contributing Impervious Area(acres)</u>	
<input type="radio"/> Conservation of Natural Areas (RR-1) ...	<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="radio"/> Tree Planting/Tree Pit (RR-3) .....	<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"/>
 <u>RR Techniques (Volume Reduction)</u>					
<input type="radio"/> Vegetated Swale (RR-5) .....	<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="radio"/> Stormwater Planter (RR-7) .....	<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="radio"/> Porous Pavement (RR-9) .....	<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"/>
 <u>Standard SMPs with RRv Capacity</u>					
<input type="radio"/> Infiltration Trench (I-1) .....	<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="radio"/> Dry Well (I-3) .....	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>
<input type="radio"/> Underground Infiltration System (I-4) .....	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>
<input type="radio"/> Bioretention (F-5) .....	<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"/>
 <u>Standard SMPs</u>					
<input type="radio"/> Micropool Extended Detention (P-1) .....	<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="radio"/> Wet Extended Detention (P-3) .....	<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="radio"/> Pocket Pond (P-5) .....	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>
<input type="radio"/> Surface Sand Filter (F-1) .....	<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="radio"/> Perimeter Sand Filter (F-3) .....	<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="radio"/> Shallow Wetland (W-1) .....	<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="radio"/> Pond/Wetland System (W-3) .....	<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="radio"/> Wet Swale (O-2) .....	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>

**Table 2 - Alternative SMPs  
(DO NOT INCLUDE PRACTICES BEING  
USED FOR PRETREATMENT ONLY)**

<u>Alternative SMP</u>	<u>Total Contributing Impervious Area(acres)</u>	
<input type="radio"/> Hydrodynamic .....	<input type="text"/>	<input type="text"/>
<input type="radio"/> Wet Vault .....	<input type="text"/>	<input type="text"/>
<input type="radio"/> Media Filter .....	<input type="text"/>	<input type="text"/>
<input type="radio"/> Other <input type="text"/> .....	<input type="text"/>	<input type="text"/>

Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Name

Manufacturer

**Note:** Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

**Total RRv provided**

.    acre-feet

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28).

Yes  No

If Yes, go to question 36.  
If No, go to question 32.

32. Provide the Minimum RRv required based on HSG.  
[Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)]

**Minimum RRv Required**

.    acre-feet

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

Yes  No

If Yes, go to question 33.

**Note:** Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.

If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.



33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

**Note:** Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

**WQv Provided**

				.						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).

				.				
--	--	--	--	---	--	--	--	--

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.

<b>CPv Required</b>	<b>CPv Provided</b>																				
<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="font-size: 20px; vertical-align: middle;">.</td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="padding-left: 10px;">acre-feet</td> </tr> </table>					.					acre-feet	<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="font-size: 20px; vertical-align: middle;">.</td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="padding-left: 10px;">acre-feet</td> </tr> </table>					.					acre-feet
				.					acre-feet												
				.					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)**

<b>Pre-Development</b>	<b>Post-development</b>																				
<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="font-size: 20px; vertical-align: middle;">.</td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="padding-left: 10px;">CFS</td> </tr> </table>					.					CFS	<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="font-size: 20px; vertical-align: middle;">.</td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="padding-left: 10px;">CFS</td> </tr> </table>					.					CFS
				.					CFS												
				.					CFS												

**Total Extreme Flood Control Criteria (Qf)**

<b>Pre-Development</b>	<b>Post-development</b>																				
<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="font-size: 20px; vertical-align: middle;">.</td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="padding-left: 10px;">CFS</td> </tr> </table>					.					CFS	<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="font-size: 20px; vertical-align: middle;">.</td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="border: 1px solid black; width: 20px; height: 20px;"></td> <td style="padding-left: 10px;">CFS</td> </tr> </table>					.					CFS
				.					CFS												
				.					CFS												

37a. The need to meet the Qp and Qf criteria has been waived because:

- Site discharges directly to tidal waters or a fifth order or larger stream.
- Downstream analysis reveals that the Qp and Qf controls are not required

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?

Yes  No

If Yes, Identify the entity responsible for the long term Operation and Maintenance


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.



**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**

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

**MI**

--

**Print Last Name**

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

**Owner/Operator Signature**

--

**Date**

		/			/			
--	--	---	--	--	---	--	--	--



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:

2. Contact Person:

3. Street Address:

4. City/State/Zip:

**II. Project Site Information**

5. Project/Site Name:

6. Street Address:

7. City/State/Zip:

**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:

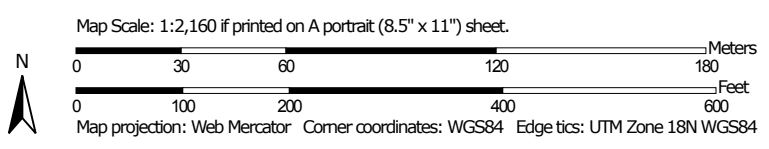
### **VI. Additional Information**

**APPENDIX B**  
**SOILS DATA**

Hydrologic Soil Group—Dutchess County, New York  
(511 FISHKILL AVENUE)




Soil Map may not be valid at this scale.





## MAP LEGEND

### Area of Interest (AOI)









 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons





 A  
 A/D  
 B  
 B/D  
 C  
 C/D  
 D  
 Not rated or not available

#### Soil Rating Lines


 A  
 A/D  
 B  
 B/D  
 C  
 C/D  
 D  
 Not rated or not available

#### Soil Rating Points






 A  
 A/D  
 B  
 B/D

 C  
 C/D  
 D  
 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails  
 Interstate Highways  
 US Routes  
 Major Roads  
 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dutchess County, New York  
 Survey Area Data: Version 15, Sep 2, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BeB	Bernardston silt loam, 3 to 8 percent slopes	C/D	3.6	37.1%
Ud	Udorthents, smoothed	A	0.9	9.3%
Ur	Urban land		5.2	53.6%
<b>Totals for Area of Interest</b>			<b>9.7</b>	<b>100.0%</b>

### Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

## Rating Options

*Aggregation Method:* Dominant Condition

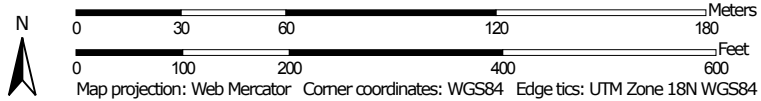
*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

K Factor, Whole Soil—Dutchess County, New York  
(511 FISHKILL AVENUE)




Map Scale: 1:2,160 if printed on A portrait (8.5" x 11") sheet.


















### MAP LEGEND

**Area of Interest (AOI)**




 Area of Interest (AOI)










**Soils**

**Soil Rating Polygons**
















-  .02
-  .05
-  .10
-  .15
-  .17
-  .20
-  .24
-  .28
-  .32
-  .37
-  .43
-  .49
-  .55
-  .64
-  Not rated or not available

**Soil Rating Lines**








-  .02
-  .05
-  .10
-  .15
-  .17
-  .20

-  .24
-  .28
-  .32
-  .37
-  .43
-  .49
-  .55
-  .64
-  Not rated or not available

**Soil Rating Points**

-  .02
-  .05
-  .10
-  .15
-  .17
-  .20
-  .24
-  .28
-  .32
-  .37
-  .43
-  .49
-  .55
-  .64
-  Not rated or not available

**Water Features**

-  Streams and Canals
- Transportation**
-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads
- Background**
-  Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dutchess County, New York  
Survey Area Data: Version 15, Sep 2, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## K Factor, Whole Soil

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BeB	Bernardston silt loam, 3 to 8 percent slopes	.32	3.6	37.1%
Ud	Udorthents, smoothed	.17	0.9	9.3%
Ur	Urban land		5.2	53.6%
<b>Totals for Area of Interest</b>			<b>9.7</b>	<b>100.0%</b>

### Description

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

"Erosion factor Kw (whole soil)" indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

### Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

*Layer Options (Horizon Aggregation Method):* Surface Layer (Not applicable)

**APPENDIX C**

**RAINFALL DATA, NYSDEC ERM, FLOOD MAP AND  
WETLAND MAP**

# Extreme Precipitation Tables

## Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

<b>Smoothing</b>	Yes
<b>State</b>	New York
<b>Location</b>	
<b>Longitude</b>	73.947 degrees West
<b>Latitude</b>	41.517 degrees North
<b>Elevation</b>	0 feet
<b>Date/Time</b>	Tue, 18 Dec 2018 13:29:09 -0500

### Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.33	0.50	0.62	0.81	1.02	1.26	<b>1yr</b>	0.88	1.19	1.44	1.77	2.15	2.61	2.96	<b>1yr</b>	2.31	2.84	3.29	3.96	4.59	<b>1yr</b>
<b>2yr</b>	0.39	0.59	0.74	0.98	1.23	1.53	<b>2yr</b>	1.06	1.43	1.75	2.14	2.61	3.16	3.57	<b>2yr</b>	2.80	3.43	3.93	4.64	5.28	<b>2yr</b>
<b>5yr</b>	0.45	0.71	0.89	1.19	1.52	1.91	<b>5yr</b>	1.31	1.76	2.20	2.70	3.28	3.96	4.52	<b>5yr</b>	3.50	4.34	5.00	5.78	6.53	<b>5yr</b>
<b>10yr</b>	0.51	0.80	1.02	1.38	1.79	2.27	<b>10yr</b>	1.55	2.06	2.62	3.21	3.90	4.69	5.40	<b>10yr</b>	4.15	5.19	6.00	6.83	7.67	<b>10yr</b>
<b>25yr</b>	0.60	0.95	1.21	1.67	2.23	2.85	<b>25yr</b>	1.92	2.55	3.30	4.06	4.91	5.88	6.85	<b>25yr</b>	5.20	6.58	7.64	8.52	9.50	<b>25yr</b>
<b>50yr</b>	0.68	1.09	1.40	1.95	2.63	3.39	<b>50yr</b>	2.27	3.00	3.93	4.83	5.84	6.98	8.20	<b>50yr</b>	6.18	7.88	9.18	10.07	11.17	<b>50yr</b>
<b>100yr</b>	0.77	1.25	1.61	2.28	3.11	4.03	<b>100yr</b>	2.69	3.52	4.68	5.77	6.96	8.29	9.82	<b>100yr</b>	7.34	9.44	11.03	11.92	13.14	<b>100yr</b>
<b>200yr</b>	0.88	1.43	1.86	2.66	3.68	4.80	<b>200yr</b>	3.18	4.14	5.59	6.88	8.29	9.85	11.76	<b>200yr</b>	8.72	11.31	13.26	14.11	15.47	<b>200yr</b>
<b>500yr</b>	1.06	1.74	2.27	3.29	4.61	6.05	<b>500yr</b>	3.98	5.14	7.05	8.68	10.45	12.38	14.95	<b>500yr</b>	10.96	14.37	16.94	17.64	19.21	<b>500yr</b>

### Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.28	0.43	0.53	0.71	0.87	1.08	<b>1yr</b>	0.75	1.06	1.24	1.60	2.00	2.07	2.35	<b>1yr</b>	1.83	2.26	2.48	3.13	4.16	<b>1yr</b>
<b>2yr</b>	0.37	0.58	0.71	0.96	1.18	1.41	<b>2yr</b>	1.02	1.38	1.60	2.05	2.58	3.07	3.44	<b>2yr</b>	2.72	3.31	3.78	4.47	5.13	<b>2yr</b>
<b>5yr</b>	0.42	0.65	0.81	1.11	1.41	1.65	<b>5yr</b>	1.22	1.61	1.87	2.41	3.00	3.64	4.16	<b>5yr</b>	3.22	4.00	4.55	5.26	6.06	<b>5yr</b>
<b>10yr</b>	0.47	0.72	0.89	1.25	1.62	1.85	<b>10yr</b>	1.39	1.81	2.11	2.70	3.37	4.12	4.80	<b>10yr</b>	3.64	4.62	5.23	5.93	6.86	<b>10yr</b>
<b>25yr</b>	0.54	0.83	1.03	1.47	1.93	2.13	<b>25yr</b>	1.67	2.08	2.45	3.04	3.92	4.81	5.82	<b>25yr</b>	4.26	5.60	6.27	6.93	8.10	<b>25yr</b>
<b>50yr</b>	0.61	0.92	1.15	1.65	2.22	2.37	<b>50yr</b>	1.92	2.32	2.76	3.39	4.41	5.45	6.75	<b>50yr</b>	4.82	6.49	7.19	7.78	9.20	<b>50yr</b>
<b>100yr</b>	0.69	1.04	1.30	1.88	2.57	2.66	<b>100yr</b>	2.22	2.61	3.12	3.78	4.98	6.11	7.83	<b>100yr</b>	5.41	7.53	8.25	8.70	10.43	<b>100yr</b>
<b>200yr</b>	0.78	1.17	1.48	2.15	3.00	2.98	<b>200yr</b>	2.59	2.91	3.53	4.24	5.62	6.79	9.11	<b>200yr</b>	6.01	8.76	9.46	9.72	11.86	<b>200yr</b>
<b>500yr</b>	0.93	1.38	1.78	2.59	3.68	3.48	<b>500yr</b>	3.18	3.40	4.17	4.93	6.63	7.83	11.14	<b>500yr</b>	6.93	10.71	11.34	11.19	14.05	<b>500yr</b>

### Upper Confidence Limits

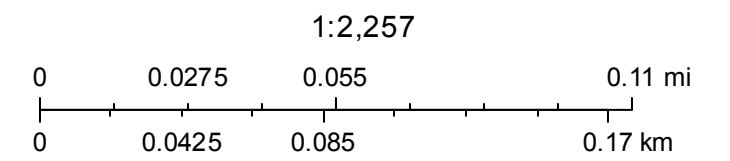
	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
<b>1yr</b>	0.36	0.56	0.68	0.91	1.12	1.36	<b>1yr</b>	0.97	1.33	1.52	1.96	2.42	2.82	3.18	<b>1yr</b>	2.50	3.06	3.55	4.23	4.91	<b>1yr</b>
<b>2yr</b>	0.40	0.62	0.76	1.03	1.28	1.54	<b>2yr</b>	1.10	1.50	1.74	2.24	2.80	3.33	3.70	<b>2yr</b>	2.95	3.55	4.09	4.83	5.48	<b>2yr</b>
<b>5yr</b>	0.49	0.76	0.94	1.29	1.64	1.95	<b>5yr</b>	1.42	1.91	2.25	2.88	3.66	4.25	4.90	<b>5yr</b>	3.77	4.71	5.42	6.30	7.02	<b>5yr</b>
<b>10yr</b>	0.58	0.89	1.11	1.54	2.00	2.36	<b>10yr</b>	1.72	2.31	2.74	3.53	4.49	5.18	6.03	<b>10yr</b>	4.59	5.80	6.73	7.72	8.50	<b>10yr</b>
<b>25yr</b>	0.72	1.10	1.37	1.95	2.57	3.04	<b>25yr</b>	2.22	2.97	3.56	4.74	5.88	6.75	7.97	<b>25yr</b>	5.97	7.66	8.99	10.11	10.96	<b>25yr</b>
<b>50yr</b>	0.85	1.29	1.61	2.32	3.12	3.69	<b>50yr</b>	2.69	3.61	4.35	5.84	7.21	8.25	9.83	<b>50yr</b>	7.30	9.45	11.20	12.42	13.29	<b>50yr</b>
<b>100yr</b>	1.01	1.52	1.91	2.76	3.78	4.49	<b>100yr</b>	3.26	4.39	5.31	7.22	8.84	10.09	12.11	<b>100yr</b>	8.93	11.65	13.98	15.28	16.14	<b>100yr</b>
<b>200yr</b>	1.19	1.79	2.27	3.28	4.58	5.44	<b>200yr</b>	3.95	5.32	6.49	8.89	10.84	12.36	14.95	<b>200yr</b>	10.94	14.38	17.44	18.82	19.60	<b>200yr</b>
<b>500yr</b>	1.49	2.22	2.86	4.15	5.90	7.04	<b>500yr</b>	5.09	6.88	8.44	11.77	14.20	16.19	19.73	<b>500yr</b>	14.33	18.97	23.40	24.84	25.33	<b>500yr</b>



# 511 FISHKILL AVENUE



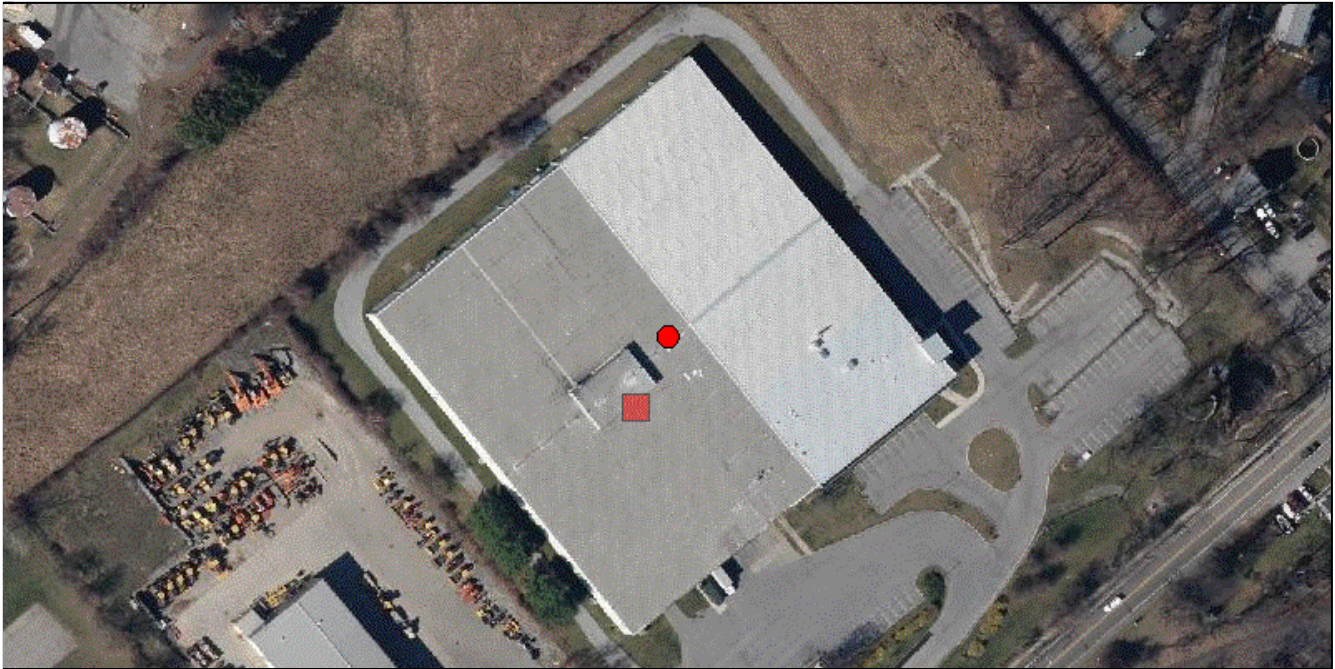
December 18, 2018



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Author: HLD  
Not a legal document

# Environmental Resource Mapper



The coordinates of the point you clicked on are:

**UTM 18**

**Easting:** 587855.575

**Northing:** 4596696.827

**Longitude/Latitude**

**Longitude:** -73.947

**Latitude:** 41.517

The approximate address of the point you clicked on is:

511 Fishkill Ave, Beacon, New York, 12508

**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.

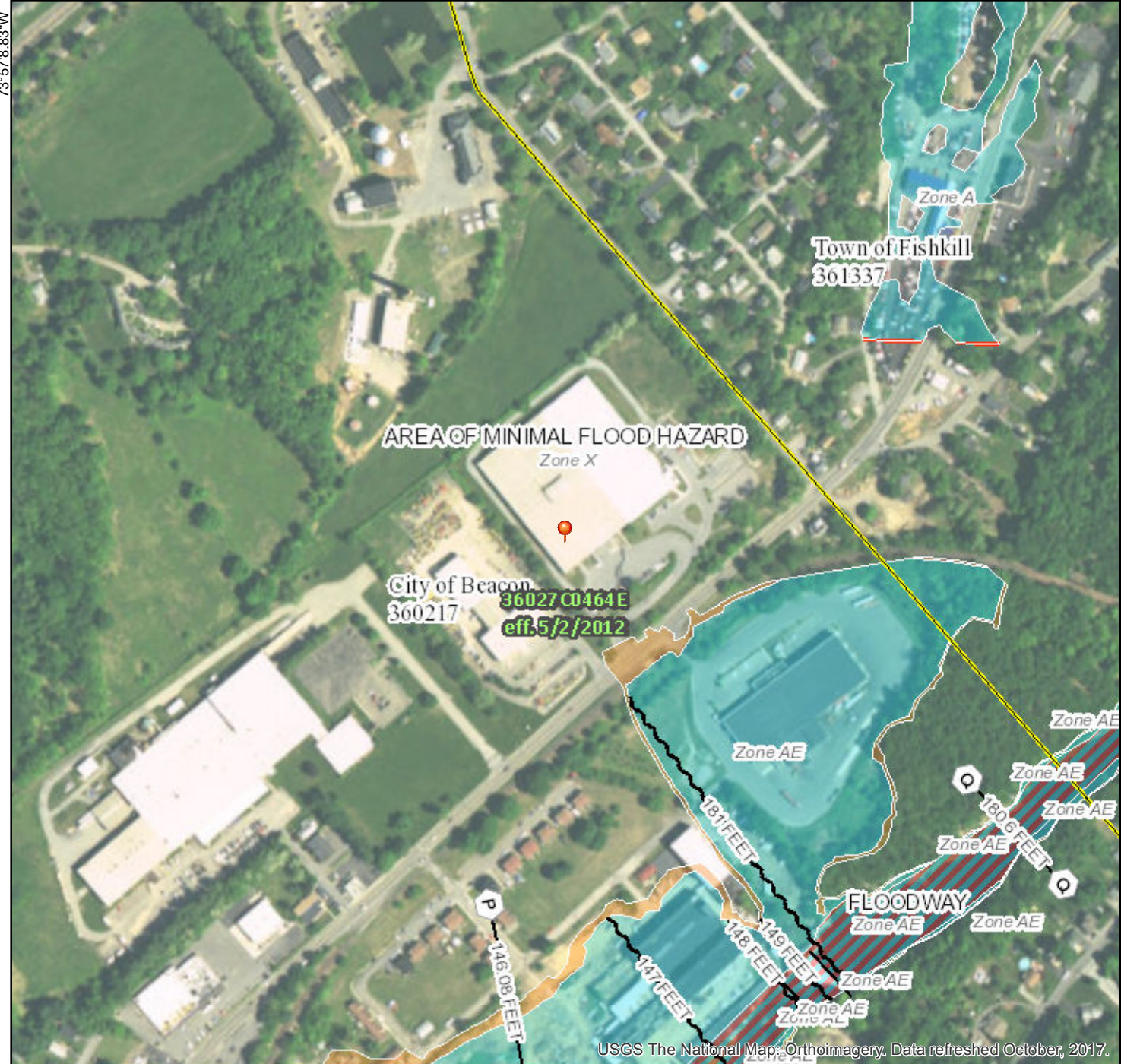
Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

**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.

# National Flood Hazard Layer FIRMette



41°31'13.32"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, A99	With BFE or Depth Zone AE, AO, AH, VE, AR
	Regulatory Floodway	

		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D

OTHER AREAS OF FLOOD HAZARD	NO SCREEN	Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D

OTHER AREAS	GENERAL STRUCTURES	
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

	20.2	Cross Sections with 1% Annual Chance Water Surface Elevation
	17.5	
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

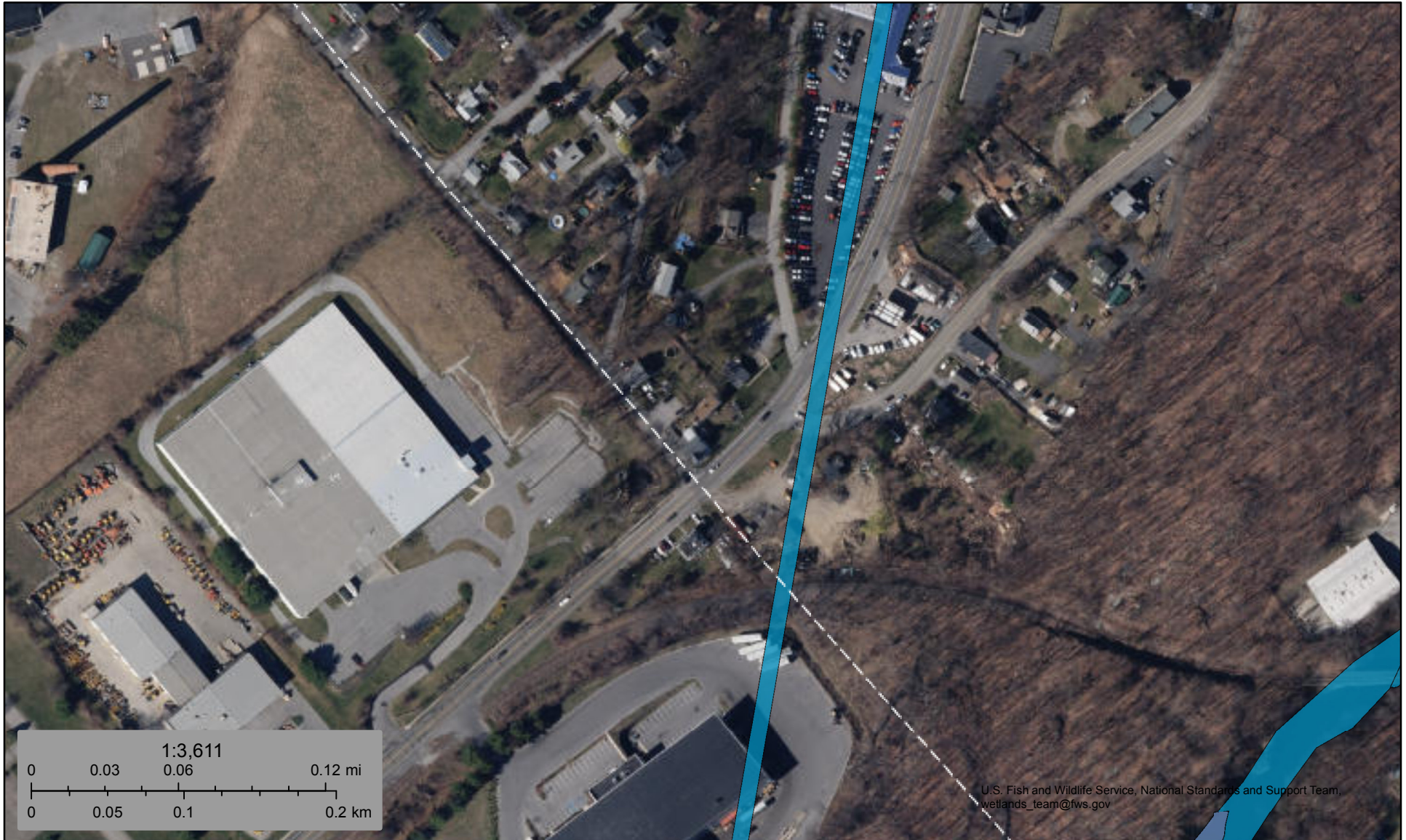
OTHER FEATURES	MAP PANELS
	Digital Data Available
	No Digital Data Available
	Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 12/18/2018 at 1:58:31 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



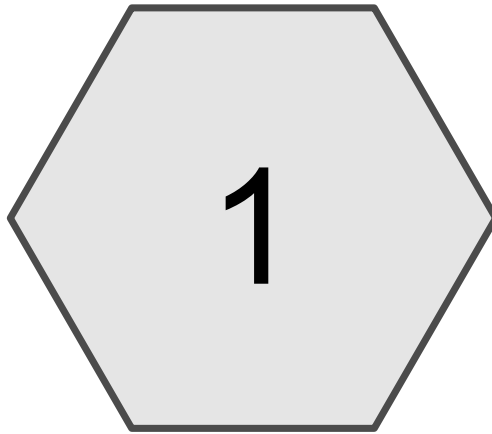
December 24, 2018

**Wetlands**

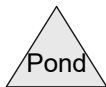
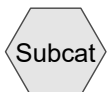
- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Lake
- Freshwater Forested/Shrub Wetland
- Other
- Estuarine and Marine Wetland
- Freshwater Pond
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

**APPENDIX D**  
**PRE-DEVELOPMENT HYDROCAD MODEL**



1



**Routing Diagram for PRE CONDITIONS**

Prepared by Hudson Land Design, P.C. , Printed 12/24/2018  
HydroCAD® 10.00-20 s/n 04797 © 2017 HydroCAD Software Solutions LLC

**PRE CONDITIONS**

Prepared by Hudson Land Design, P.C.

Printed 12/24/2018

HydroCAD® 10.00-20 s/n 04797 © 2017 HydroCAD Software Solutions LLC

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**Area Listing (selected nodes)**

Area (acres)	CN	Description (subcatchment-numbers)
0.780	80	>75% Grass cover, Good, HSG D (1)
0.082	96	Gravel surface, HSG D (1)
0.008	98	Paved parking, HSG D (1)
0.068	77	Woods, Good, HSG D (1)



**PRE CONDITIONS**

Prepared by Hudson Land Design, P.C.

HydroCAD® 10.00-20 s/n 04797 © 2017 HydroCAD Software Solutions LLC

**Summary for Subcatchment 1: 1**

Runoff = 1.08 cfs @ 12.10 hrs, Volume= 0.073 af, Depth> 0.94"

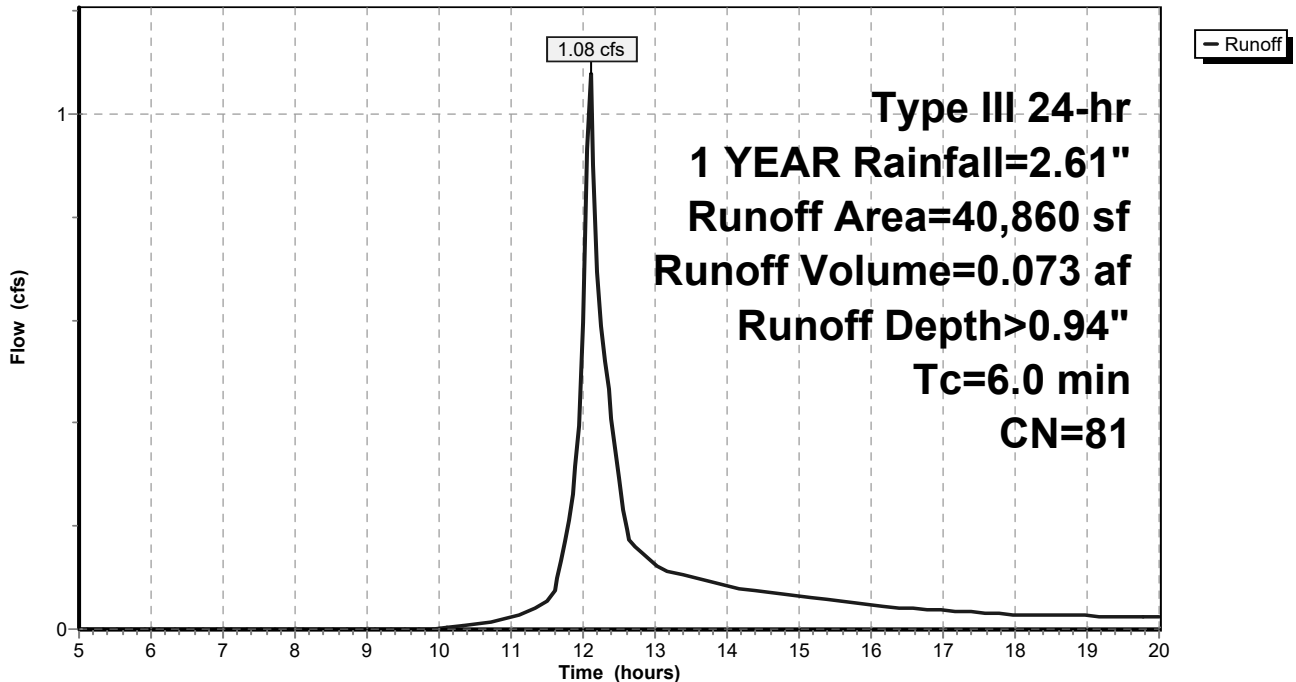
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
33,986	80	>75% Grass cover, Good, HSG D
3,561	96	Gravel surface, HSG D
345	98	Paved parking, HSG D
2,968	77	Woods, Good, HSG D
40,860	81	Weighted Average
40,515		99.16% Pervious Area
345		0.84% Impervious Area

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

**Subcatchment 1: 1**

Hydrograph



**PRE CONDITIONS**

Prepared by Hudson Land Design, P.C.

HydroCAD® 10.00-20 s/n 04797 © 2017 HydroCAD Software Solutions LLC

**Summary for Subcatchment 1: 1**

Runoff = 2.92 cfs @ 12.09 hrs, Volume= 0.198 af, Depth> 2.53"

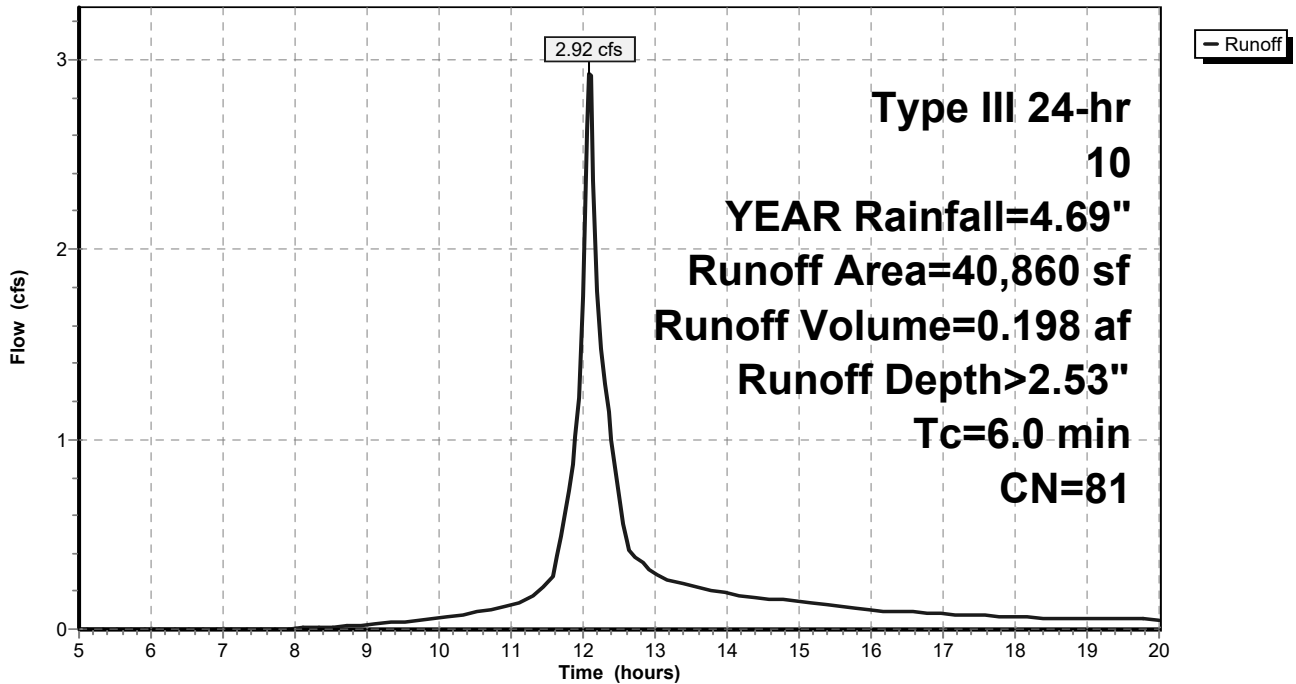
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10 YEAR Rainfall=4.69"

Area (sf)	CN	Description
33,986	80	>75% Grass cover, Good, HSG D
3,561	96	Gravel surface, HSG D
345	98	Paved parking, HSG D
2,968	77	Woods, Good, HSG D
40,860	81	Weighted Average
40,515		99.16% Pervious Area
345		0.84% Impervious Area

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

**Subcatchment 1: 1**

Hydrograph



**PRE CONDITIONS**

Prepared by Hudson Land Design, P.C.  
 HydroCAD® 10.00-20 s/n 04797 © 2017 HydroCAD Software Solutions LLC

**Summary for Subcatchment 1: 1**

Runoff = 6.33 cfs @ 12.09 hrs, Volume= 0.443 af, Depth> 5.67"

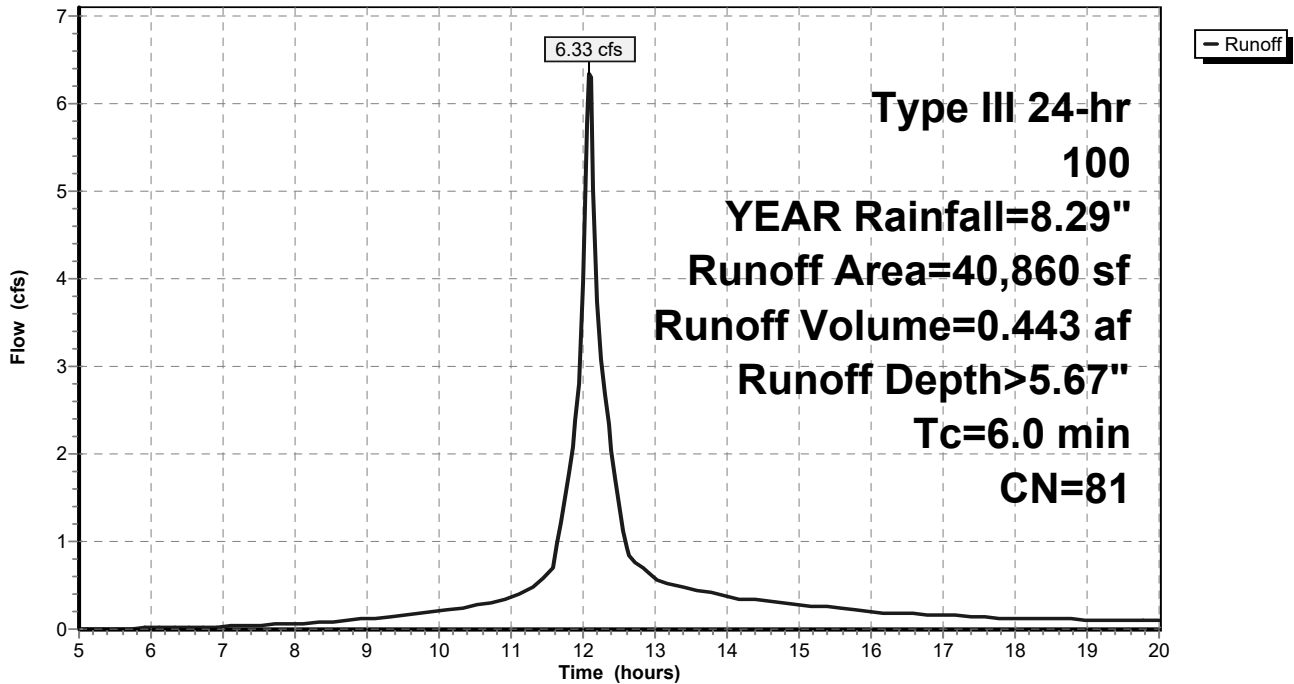
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Type III 24-hr 100 YEAR Rainfall=8.29"

Area (sf)	CN	Description
33,986	80	>75% Grass cover, Good, HSG D
3,561	96	Gravel surface, HSG D
345	98	Paved parking, HSG D
2,968	77	Woods, Good, HSG D
40,860	81	Weighted Average
40,515		99.16% Pervious Area
345		0.84% Impervious Area

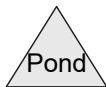
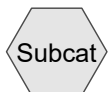
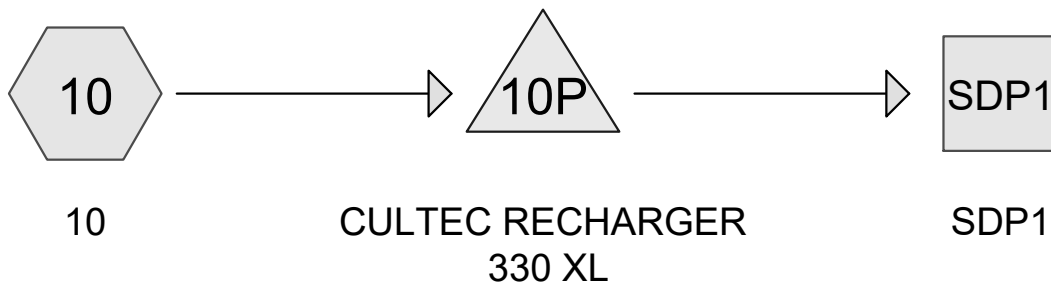
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, S1

**Subcatchment 1: 1**

Hydrograph



**APPENDIX E**  
**POST-DEVELOPMENT HYDROCAD MODEL**



**POST CONDITIONS 2019-0129**

Prepared by Hudson Land Design, P.C.

Printed 1/28/2019

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**Area Listing (all nodes)**

Area (acres)	CN	Description (subcatchment-numbers)
0.342	80	>75% Grass cover, Good, HSG D (10)
0.002	96	Gravel surface, HSG D (10)
0.717	98	Paved parking, HSG D (10)
0.068	77	Woods, Good, HSG D (10)

**POST CONDITIONS 2019-0129**

Prepared by Hudson Land Design, P.C.

HydroCAD® 10.00-20 s/n 04797 © 2017 HydroCAD Software Solutions LLC

511 Fishkill Avenue Post Conditions  
 Type III 24-hr 1 YEAR Rainfall=2.61"

Printed 1/28/2019

**Summary for Subcatchment 10: 10**

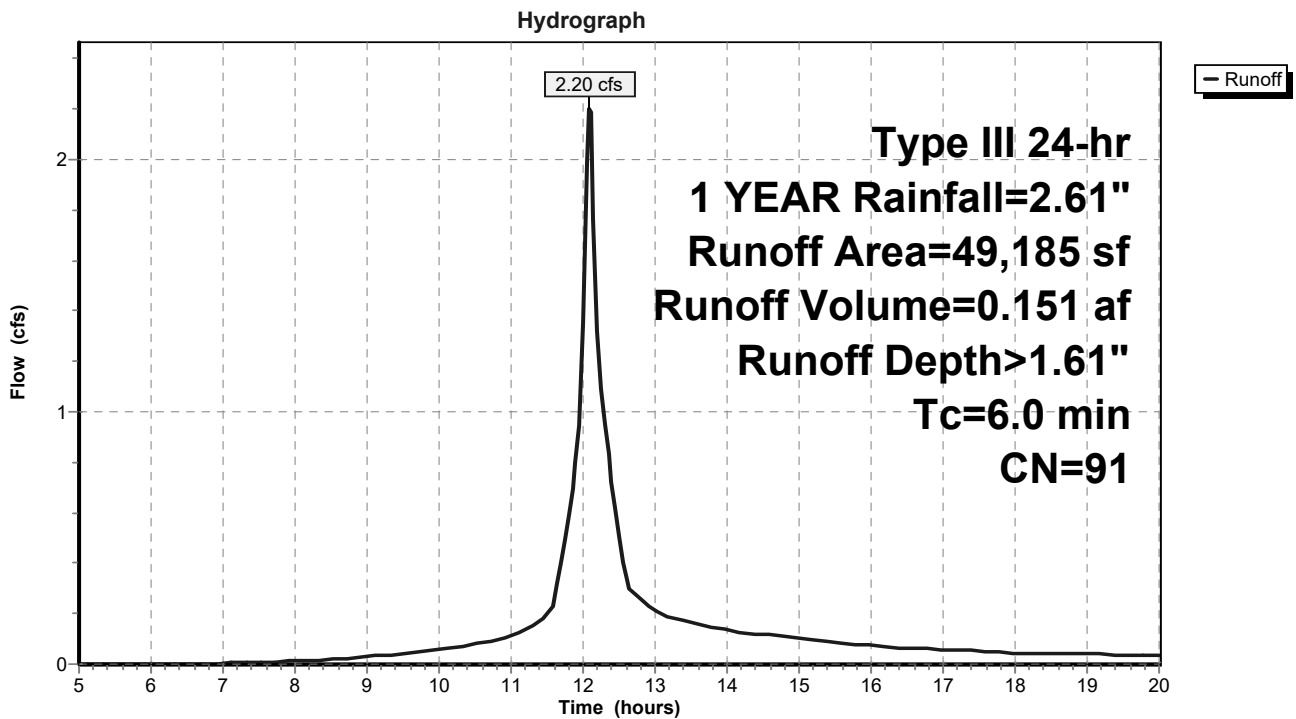
Runoff = 2.20 cfs @ 12.09 hrs, Volume= 0.151 af, Depth> 1.61"

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

Area (sf)	CN	Description
14,881	80	>75% Grass cover, Good, HSG D
31,242	98	Paved parking, HSG D
2,968	77	Woods, Good, HSG D
94	96	Gravel surface, HSG D
49,185	91	Weighted Average
17,943		36.48% Pervious Area
31,242		63.52% Impervious Area

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

**Subcatchment 10: 10**



**POST CONDITIONS 2019-0129**

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511 Fishkill Avenue Post Conditions  
Type III 24-hr 1 YEAR Rainfall=2.61"

Printed 1/28/2019

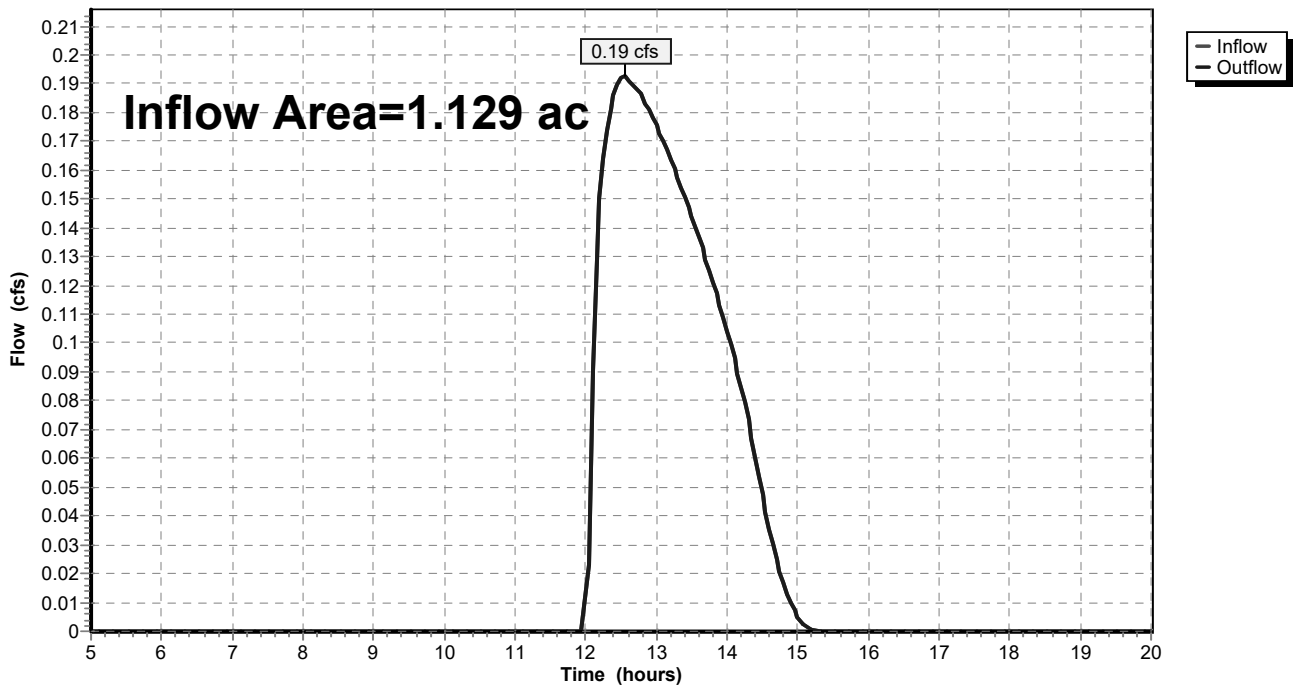
**Summary for Reach SDP1: SDP1**

Inflow Area = 1.129 ac, 63.52% Impervious, Inflow Depth = 0.31" for 1 YEAR event  
Inflow = 0.19 cfs @ 12.55 hrs, Volume= 0.029 af  
Outflow = 0.19 cfs @ 12.55 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min

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

**Reach SDP1: SDP1**

Hydrograph





**POST CONDITIONS 2019-0129**

Prepared by Hudson Land Design, P.C.

HydroCAD® 10.00-20 s/n 04797 © 2017 HydroCAD Software Solutions LLC

511 Fishkill Avenue Post Conditions  
Type III 24-hr 1 YEAR Rainfall=2.61"

Printed 1/28/2019

**Summary for Pond 10P: CULTEC RECHARGER 330 XL**

Inflow Area = 1.129 ac, 63.52% Impervious, Inflow Depth > 1.61" for 1 YEAR event  
 Inflow = 2.20 cfs @ 12.09 hrs, Volume= 0.151 af  
 Outflow = 0.41 cfs @ 12.55 hrs, Volume= 0.151 af, Atten= 81%, Lag= 27.6 min  
 Discarded = 0.22 cfs @ 12.55 hrs, Volume= 0.122 af  
 Primary = 0.19 cfs @ 12.55 hrs, Volume= 0.029 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 214.94' @ 12.55 hrs Surf.Area= 2,346 sf Storage= 2,225 cf

Plug-Flow detention time= 48.9 min calculated for 0.151 af (100% of inflow)  
 Center-of-Mass det. time= 48.5 min ( 826.0 - 777.5 )

Volume	Invert	Avail.Storage	Storage Description
#1	213.55'	1,986 cf	<b>35.33'W x 66.40'L x 3.55'H Prismatic</b> 8,328 cf Overall - 3,364 cf Embedded = 4,964 cf x 40.0% Voids
#2	214.05'	3,364 cf	<b>Cultec R-330XLHD x 63 Inside #1</b> Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 7 rows
		5,350 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	213.50'	<b>12.0" Round Culvert X 4.00</b> L= 31.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 213.50' / 212.80' S= 0.0226 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	214.15'	<b>3.0" Vert. Orifice/Grate</b> C= 0.600
#3	Device 1	214.95'	<b>21.0" W x 6.0" H Vert. Orifice/Grate</b> C= 0.600
#4	Discarded	213.55'	<b>4.000 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 11.00'

**Discarded OutFlow** Max=0.22 cfs @ 12.55 hrs HW=214.94' (Free Discharge)  
 ↳4=Exfiltration ( Controls 0.22 cfs)

**Primary OutFlow** Max=0.19 cfs @ 12.55 hrs HW=214.94' (Free Discharge)  
 ↳1=Culvert (Passes 0.19 cfs of 14.66 cfs potential flow)  
 ↳2=Orifice/Grate (Orifice Controls 0.19 cfs @ 3.93 fps)  
 ↳3=Orifice/Grate ( Controls 0.00 cfs)

**POST CONDITIONS 2019-0129**

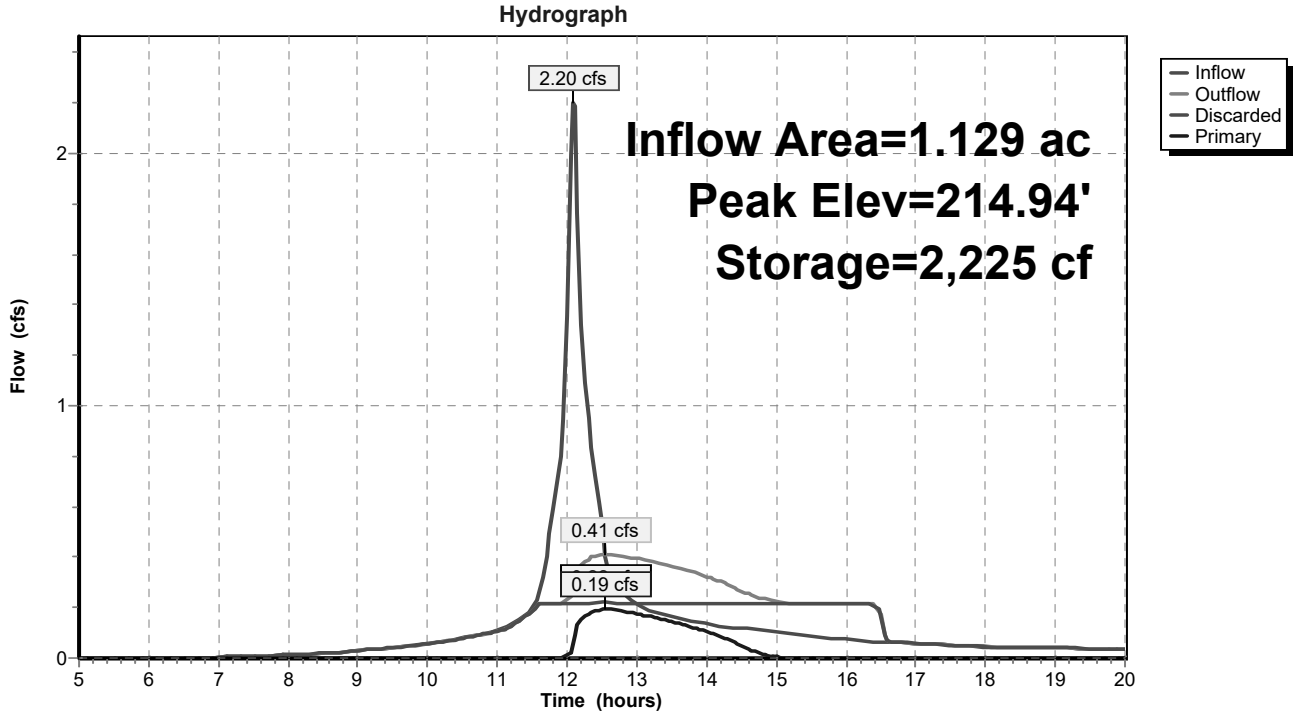
Prepared by Hudson Land Design, P.C.

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511 Fishkill Avenue Post Conditions  
Type III 24-hr 1 YEAR Rainfall=2.61"

Printed 1/28/2019

**Pond 10P: CULTEC RECHARGER 330 XL**



**POST CONDITIONS 2019-0129**

Prepared by Hudson Land Design, P.C.

HydroCAD® 10.00-20 s/n 04797 © 2017 HydroCAD Software Solutions LLC

511 Fishkill Avenue Post Conditions  
 Type III 24-hr 10 YEAR Rainfall=4.69"

Printed 1/28/2019

**Summary for Subcatchment 10: 10**

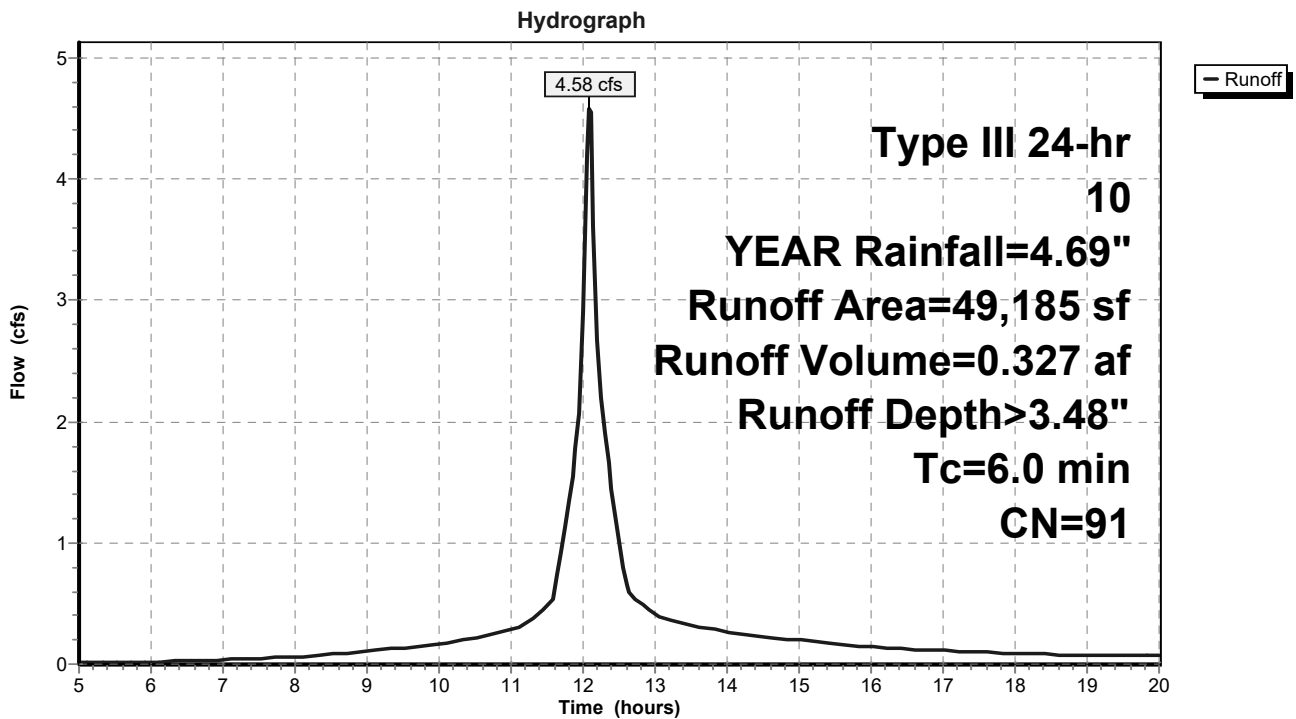
Runoff = 4.58 cfs @ 12.09 hrs, Volume= 0.327 af, Depth> 3.48"

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

Area (sf)	CN	Description
14,881	80	>75% Grass cover, Good, HSG D
31,242	98	Paved parking, HSG D
2,968	77	Woods, Good, HSG D
94	96	Gravel surface, HSG D
49,185	91	Weighted Average
17,943		36.48% Pervious Area
31,242		63.52% Impervious Area

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

**Subcatchment 10: 10**



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511 Fishkill Avenue Post Conditions  
Type III 24-hr 10 YEAR Rainfall=4.69"

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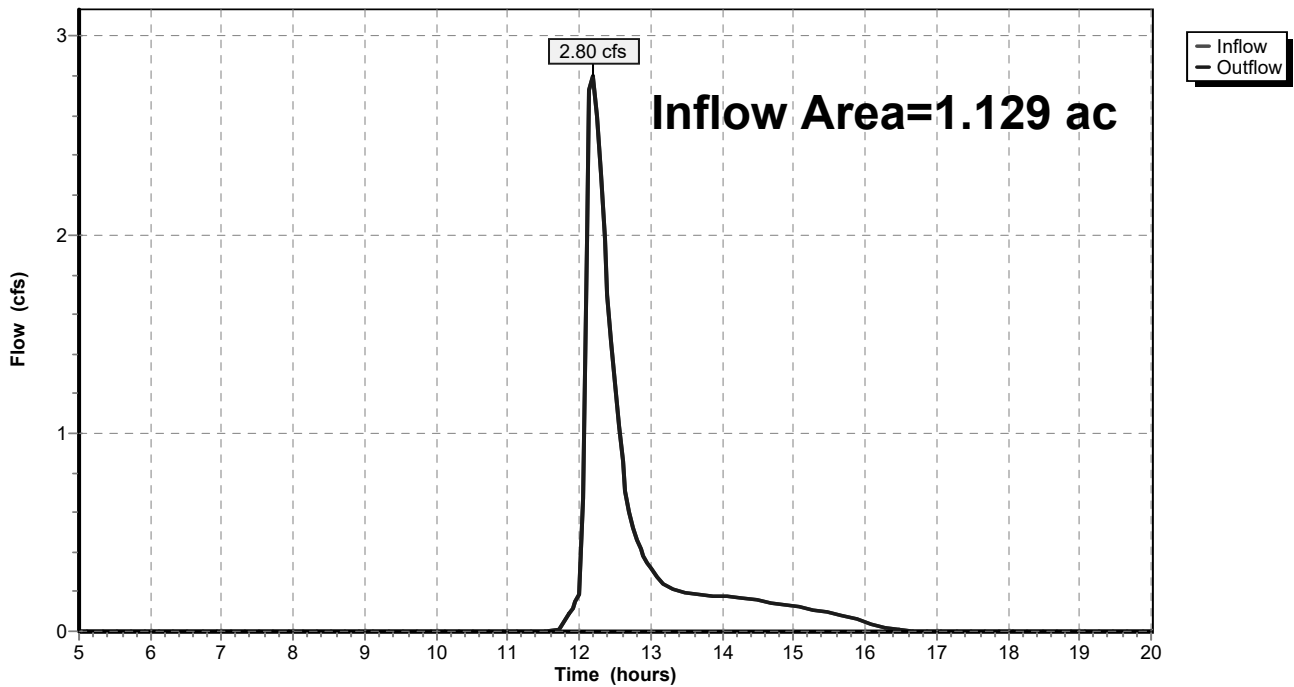
**Summary for Reach SDP1: SDP1**

Inflow Area = 1.129 ac, 63.52% Impervious, Inflow Depth = 1.53" for 10 YEAR event  
Inflow = 2.80 cfs @ 12.19 hrs, Volume= 0.144 af  
Outflow = 2.80 cfs @ 12.19 hrs, Volume= 0.144 af, Atten= 0%, Lag= 0.0 min

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

**Reach SDP1: SDP1**

Hydrograph



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## Summary for Pond 10P: CULTEC RECHARGER 330 XL

Inflow Area = 1.129 ac, 63.52% Impervious, Inflow Depth > 3.48" for 10 YEAR event  
Inflow = 4.58 cfs @ 12.09 hrs, Volume= 0.327 af  
Outflow = 3.02 cfs @ 12.19 hrs, Volume= 0.327 af, Atten= 34%, Lag= 6.0 min  
Discarded = 0.22 cfs @ 12.19 hrs, Volume= 0.183 af  
Primary = 2.80 cfs @ 12.19 hrs, Volume= 0.144 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Peak Elev= 215.58' @ 12.19 hrs Surf.Area= 2,346 sf Storage= 3,413 cf

Plug-Flow detention time= 41.7 min calculated for 0.326 af (100% of inflow)  
Center-of-Mass det. time= 41.2 min ( 800.6 - 759.4 )

Volume	Invert	Avail.Storage	Storage Description
#1	213.55'	1,986 cf	<b>35.33'W x 66.40'L x 3.55'H Prismatic</b> 8,328 cf Overall - 3,364 cf Embedded = 4,964 cf x 40.0% Voids
#2	214.05'	3,364 cf	<b>Cultec R-330XLHD x 63 Inside #1</b> Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 7 rows
		5,350 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	213.50'	<b>12.0" Round Culvert X 4.00</b> L= 31.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 213.50' / 212.80' S= 0.0226 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	214.15'	<b>3.0" Vert. Orifice/Grate</b> C= 0.600
#3	Device 1	214.95'	<b>21.0" W x 6.0" H Vert. Orifice/Grate</b> C= 0.600
#4	Discarded	213.55'	<b>4.000 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 11.00'

**Discarded OutFlow** Max=0.22 cfs @ 12.19 hrs HW=215.57' (Free Discharge)  
↳ **4=Exfiltration** ( Controls 0.22 cfs)

**Primary OutFlow** Max=2.77 cfs @ 12.19 hrs HW=215.57' (Free Discharge)  
↳ **1=Culvert** (Passes 2.77 cfs of 18.95 cfs potential flow)  
↳ **2=Orifice/Grate** (Orifice Controls 0.27 cfs @ 5.48 fps)  
↳ **3=Orifice/Grate** (Orifice Controls 2.51 cfs @ 2.86 fps)

**POST CONDITIONS 2019-0129**

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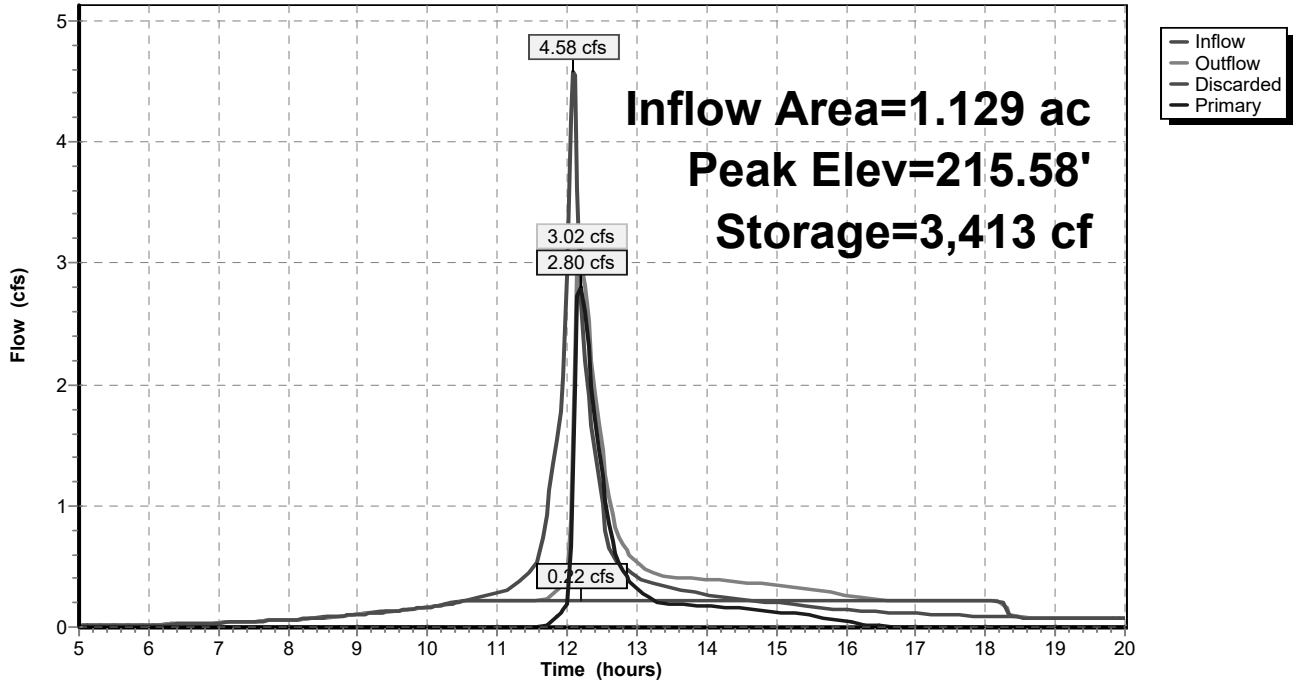
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Type III 24-hr 10 YEAR Rainfall=4.69"

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**Pond 10P: CULTEC RECHARGER 330 XL**

Hydrograph



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Type III 24-hr 100 YEAR Rainfall=8.29"

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**Summary for Subcatchment 10: 10**

Runoff = 8.63 cfs @ 12.09 hrs, Volume= 0.640 af, Depth> 6.80"

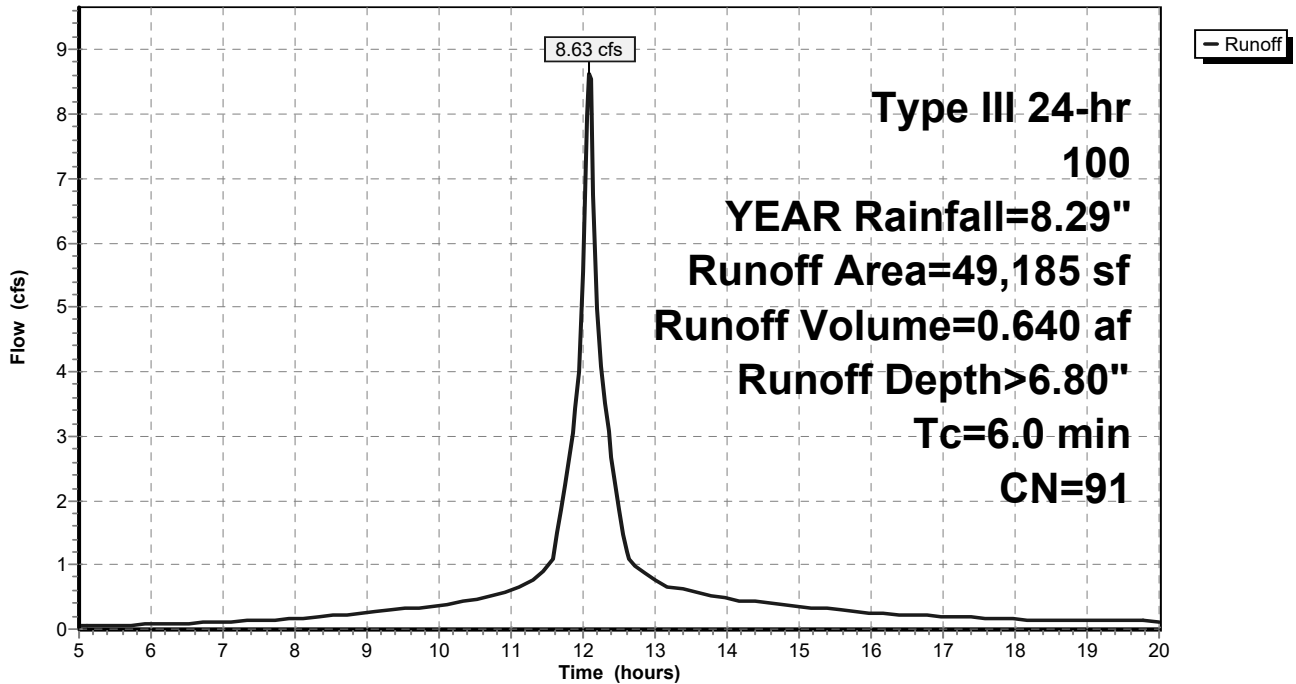
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 YEAR Rainfall=8.29"

Area (sf)	CN	Description
14,881	80	>75% Grass cover, Good, HSG D
31,242	98	Paved parking, HSG D
2,968	77	Woods, Good, HSG D
94	96	Gravel surface, HSG D
49,185	91	Weighted Average
17,943		36.48% Pervious Area
31,242		63.52% Impervious Area

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

**Subcatchment 10: 10**

Hydrograph



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Type III 24-hr 100 YEAR Rainfall=8.29"

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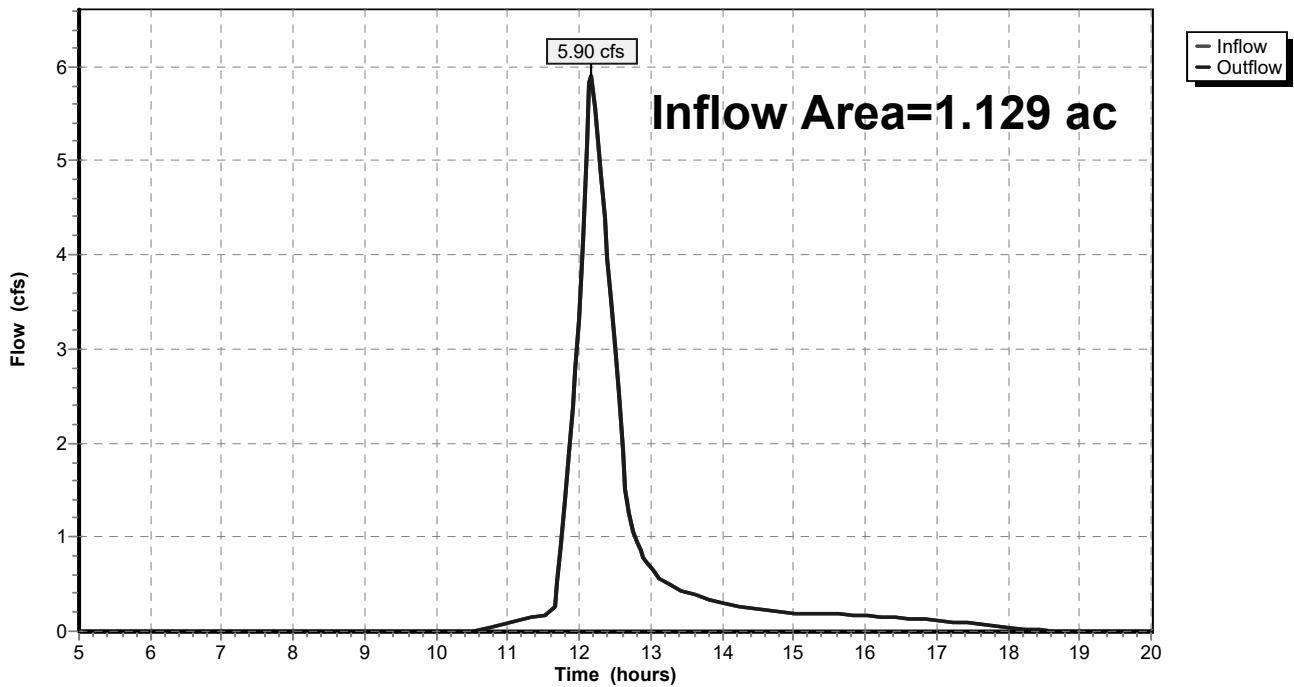
**Summary for Reach SDP1: SDP1**

Inflow Area = 1.129 ac, 63.52% Impervious, Inflow Depth = 4.18" for 100 YEAR event  
Inflow = 5.90 cfs @ 12.17 hrs, Volume= 0.394 af  
Outflow = 5.90 cfs @ 12.17 hrs, Volume= 0.394 af, Atten= 0%, Lag= 0.0 min

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

**Reach SDP1: SDP1**

Hydrograph





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511 Fishkill Avenue Post Conditions  
Type III 24-hr 100 YEAR Rainfall=8.29"

Printed 1/28/2019

**Summary for Pond 10P: CULTEC RECHARGER 330 XL**

Inflow Area = 1.129 ac, 63.52% Impervious, Inflow Depth > 6.80" for 100 YEAR event  
 Inflow = 8.63 cfs @ 12.09 hrs, Volume= 0.640 af  
 Outflow = 6.12 cfs @ 12.17 hrs, Volume= 0.632 af, Atten= 29%, Lag= 5.1 min  
 Discarded = 0.22 cfs @ 12.17 hrs, Volume= 0.239 af  
 Primary = 5.90 cfs @ 12.17 hrs, Volume= 0.394 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
 Peak Elev= 216.91' @ 12.17 hrs Surf.Area= 2,346 sf Storage= 5,175 cf

Plug-Flow detention time= 38.6 min calculated for 0.630 af (99% of inflow)  
 Center-of-Mass det. time= 33.5 min ( 780.5 - 747.0 )

Volume	Invert	Avail.Storage	Storage Description
#1	213.55'	1,986 cf	<b>35.33'W x 66.40'L x 3.55'H Prismatic</b> 8,328 cf Overall - 3,364 cf Embedded = 4,964 cf x 40.0% Voids
#2	214.05'	3,364 cf	<b>Cultec R-330XLHD x 63 Inside #1</b> Effective Size= 47.8"W x 30.0"H => 7.45 sf x 7.00'L = 52.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 7 rows
		5,350 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	213.50'	<b>12.0" Round Culvert X 4.00</b> L= 31.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 213.50' / 212.80' S= 0.0226 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf
#2	Device 1	214.15'	<b>3.0" Vert. Orifice/Grate</b> C= 0.600
#3	Device 1	214.95'	<b>21.0" W x 6.0" H Vert. Orifice/Grate</b> C= 0.600
#4	Discarded	213.55'	<b>4.000 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 11.00'

**Discarded OutFlow** Max=0.22 cfs @ 12.17 hrs HW=216.86' (Free Discharge)  
 ↳4=Exfiltration ( Controls 0.22 cfs)

**Primary OutFlow** Max=5.81 cfs @ 12.17 hrs HW=216.86' (Free Discharge)  
 ↳1=Culvert (Passes 5.81 cfs of 25.60 cfs potential flow)  
 ↳2=Orifice/Grate (Orifice Controls 0.38 cfs @ 7.75 fps)  
 ↳3=Orifice/Grate (Orifice Controls 5.43 cfs @ 6.21 fps)

**POST CONDITIONS 2019-0129**

Prepared by Hudson Land Design, P.C.

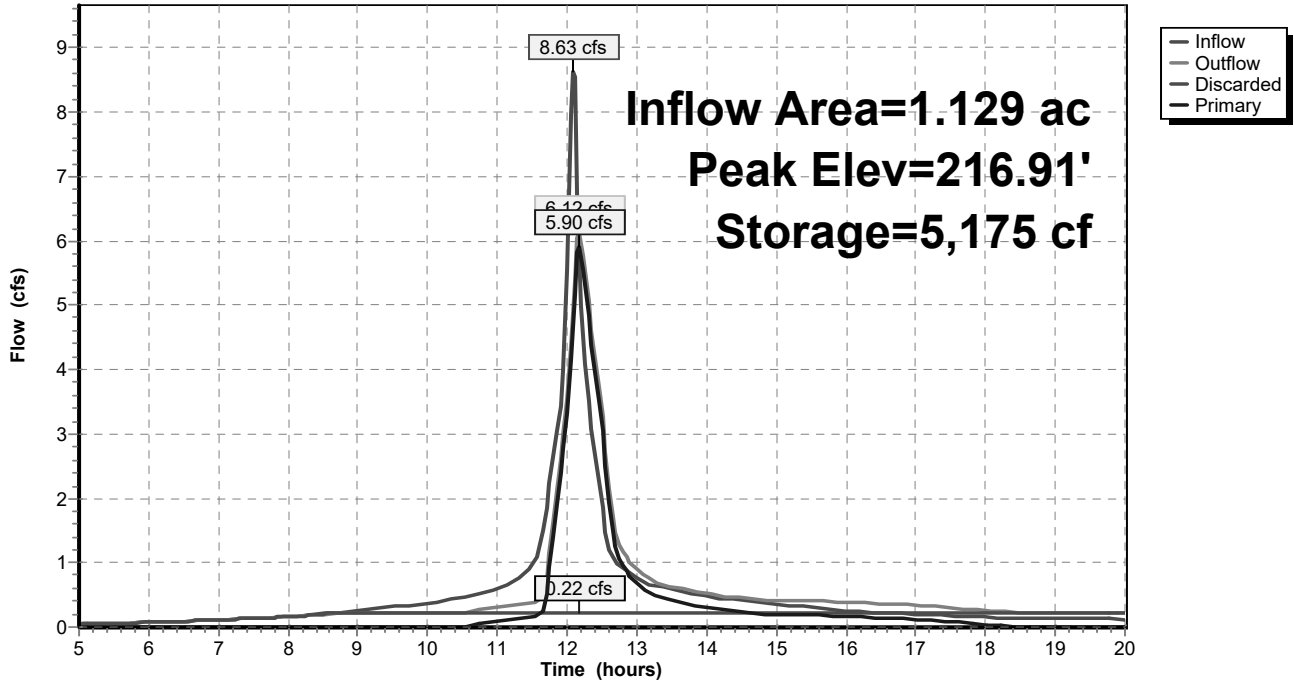
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511 Fishkill Avenue Post Conditions  
Type III 24-hr 100 YEAR Rainfall=8.29"

Printed 1/28/2019

**Pond 10P: CULTEC RECHARGER 330 XL**

Hydrograph



**APPENDIX F**  
**STORMWATER MANAGEMENT PRACTICE DESIGN**

Project: 511 Fishkill Avenue  
 Description: Stormwater Management Design  
 By/Date: DGK 12/21/2018 (revised 1/29/2019) Reviewed/Date: AG 1/29/2019



**STORMWATER MANAGEMENT PRACTICE:**  
**Subcatchment 10**

**1) Determine Required Water Quality Volume & Stormwater Management Practice**

Water quality volume to be treated will be calculated using the 90th percentile rainfall from Chapter 10 of the New York State Storm Water Design Manual (January 2015), hereinafter referred to as NYSSDM.

$WQ_v = 43,560 \times [P \times R_v \times A] / 12$

Where:  
 WQ<sub>v</sub> = Water quality volume (cf)  
 P = 1-Year Rainfall Event  
 R<sub>v</sub> = 0.05 + 0.009 x I, where I is % impervious area\*  
 A = Watershed (ac)  
 \* A minimum R<sub>v</sub> of 0.2 will be applied to regulated sites.

Watershed	P (in)	Impervious Area (ac)	Impervious (Coverage %)	R <sub>v</sub>	Total Area (ac)	WQ <sub>v</sub> (cf)	Pre-Treatment Practice	Treatment Practice
Subcatchment 10	1.40	0.720	63.7	0.62	1.130	3,580	WQ Inlet	Infiltration

Note: Pretreatment will be handled via hydrodynamic device

**2) Subsurface soil conditions** Verified with soil tests - see appendix

Design Infiltration Rate (I<sub>d</sub>): 4.00 inches per hour

**3) Determine Required Pre-Treatment Volume**

Determine Pre-Treatment Volume

Design Infiltration Rate: 4.00 inches per hour  
 Required Minimum Pretreatment Volume: 50%

Watershed	Required WQ <sub>v</sub> (cf)	Required Pre-Treatment Volume (cf)	Pre-Treatment Practice	Treatment Practice
Subcatchment 10	3,580	1,790	WQ Inlet	Infiltration

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

**4) Determine Runoff Reduction Volume (RR<sub>v</sub>)**

Goal: Provide 100% RR<sub>v</sub> by implementing Green Infrastructure techniques and Stormwater Management Practices

$RR_v = 43,560 \times [P \times R_v \times A] / 12$

Where:  
 RR<sub>v</sub> = Runoff Reduction Volume (cf)  
 P = 90 % Rainfall Event Number (in), per Figure 4.1  
 R<sub>v</sub> = 0.05 + 0.009 x I, where I is % impervious area  
 A = Watershed (ac)  
 R<sub>v</sub>: 0.62  
 100% RR<sub>v</sub>: 3,580 cf

\* Minimum R<sub>v</sub> of 0.2 not applicable to RR<sub>v</sub> calculations (use actual calculated R<sub>v</sub>).

For projects that cannot meet 100% RR<sub>v</sub>: Implement Specific Reduction Factor (S), which provides an absolute minimum acceptable RR<sub>v</sub>.

Drainage Area with Hydrologic Soil Group A:	0.000 acres	Corresponding S: 0.55
Drainage Area with Hydrologic Soil Group B:	0.000 acres	Corresponding S: 0.40
Drainage Area with Hydrologic Soil Group C:	0.000 acres	Corresponding S: 0.30
Drainage Area with Hydrologic Soil Group D:	1.130 acres	Corresponding S: 0.20
Total Area:	1.130 acres	Calculated S: 0.20
Total Area Matches		

Minimum RR<sub>v</sub> (acre-feet) = [(P)(R<sub>v</sub>)(A<sub>i</sub>)]/12  
 Calculated A<sub>i</sub>: 0.144  
 Calculated R<sub>v</sub>\*: 0.95  
 Calculated Minimum RR<sub>v</sub>: 695 cf

Where:  
 P = 90 % Rainfall Event Number (in), per Figure 4.1  
 R<sub>v</sub>\* = 0.05 + 0.009 x I, where I is % impervious area (100%)  
 A<sub>i</sub> = (S)(A<sub>ic</sub>)  
 A<sub>ic</sub> = Total area of new impervious cover

# DEEP TEST RESULTS

Date: 12/05/2018

Name of property: 511 Fishkill Avenue

(C) Beacon

TAX GRID #

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

Owner of property: Diamond Properties, LLC

Engineer: Hudson Land Design

Person directing test: Daniel G. Koehler, P.E.

C/o Beacon Rep: Eric Rogge, P.E.

HOLE #	LOT #	TOTAL DEPTH	ROCK DEPTH	WATER DEPTH	MOTTLING DEPTH	SOIL DESCRIPTION
DT-1	1	100"	None Observed	None Observed	None Observed	0"-6" TOPSOIL, 6"-24" SANDY-CLAY LOAM WITH GRAVEL, 24"-48" SANDY-CLAY LOAM WITH COBBLES, 48"-100" BROWN SILTY-CLAY LOAM WITH COBBLES
DT-2	1	101"	None Observed	None Observed	None Observed	0"-6" TOPSOIL, 6"-30" SANDY-CLAY LOAM WITH GRAVEL, 30"-101" SILTY-CLAY LOAM WITH COBBLES

General remarks (terrain; weather; springs, streams, etc.)

---

## INFILTRATION TEST DATA

Project: 511 Fishkill Avenue

City of Beacon

Date: 12/02/2018

By: Daniel G. Koehler, P.E.

Test Hole #	Test Hole Bottom Elevation	Soil Type	Soaked	TEST RUNS					
				*	1	2	3	4	5
IT 1	212.0	Brown Silty-Clay Loam	Yes	Finish	14:15	15:15	16:15		
				Start	13:15	14:15	15:15		
				Depth (in)	8"	6"	4"		

I, Daniel G. Koehler, P.E., the undersigned, certify that these infiltration tests were done by myself or under my direction according to the standard procedure as outlined in the NYS Stormwater Management Design Manual. The data and results presented are true and correct.

Dated: 12/02/2017

Signature: \_\_\_\_\_

License No. (P.E.) \_\_\_\_\_

Prepared by Josh Stackhouse on February 16, 2018

## Stormwater Treatment System Design Summary River Ridge Townhouses

Beacon, NY

Information provided by Daniel Koehler, PE (Hudson Land Design)

### Site information:

Structure ID	WQF- 90% Average Runoff Flow (cfs)	Peak Flow (100-Yr) (cfs)
WQI1	0.30	11.75

### Assumptions:

- NYSDEC has adopted the NJCAT/NJDEP verified flow rates for the CDS system. NYSDEC has effectively created three categories of treatment, new development (standalone), redevelopment and pretreatment. Specific approval and sizing criteria are applied to each category. Per the specifying engineer, this project falls under **Redevelopment**.

### CDS System Sizing:

The CDS Stormwater Treatment System is a high-performance hydrodynamic separator. Using patented continuous deflective separation technology, the CDS system screens, separates and traps debris, sediment, and oil and grease from stormwater runoff. The indirect screening capability of the system allows for 100% removal of floatables and neutrally buoyant material without blinding. Flow and screening controls physically separate captured solids, preventing re-suspension and release of previously trapped pollutants.

Contech typically selects the CDS model that based on the NJCAT/NJDEP verified flow rates meets or exceeds the Water Quality Flow generated by the Water Quality Volume. The NJCAT/NJDEP verification uses the TARP protocol and as such meets the requirement laid out by NYSDEC on page 9-8 of the New York State Stormwater Management Design Manual for redevelopment projects. No such specification exists for pretreatment projects, but in the best interest of the environment Contech holds to those flows for pretreatment projects as well. Based on the flows above, Contech recommends:

Structure ID	Treatment Device	NYSDEC Approved Treatment Flow (cfs)
WQI1	CDS2015-4 (CDS-4)	0.93

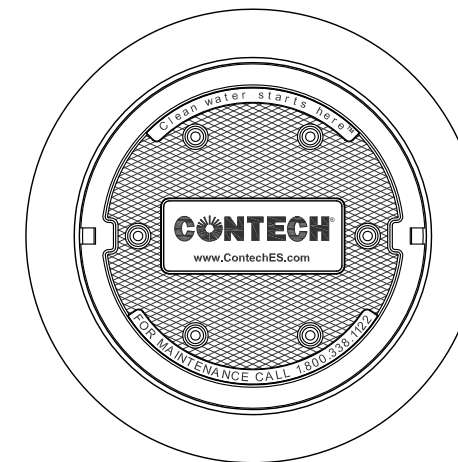
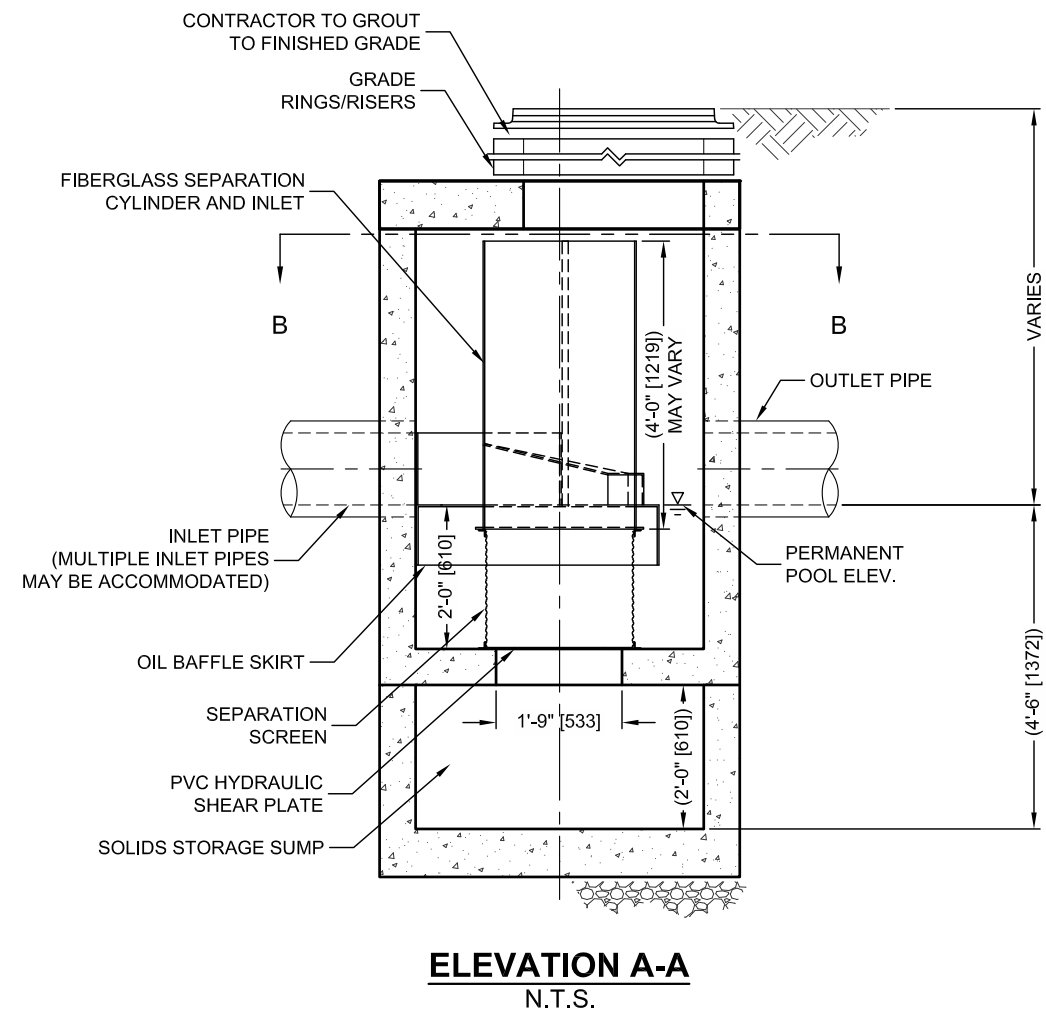
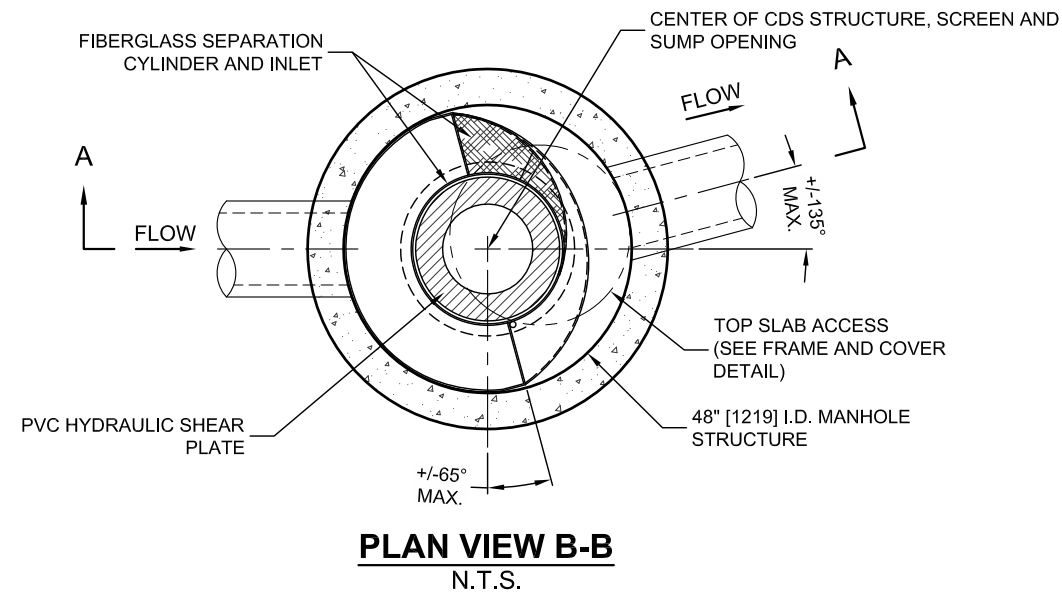
### Maintenance:

Like any stormwater best management practice, the CDS system requires regular inspection and maintenance to ensure optimal performance. Maintenance frequency will be driven by site conditions. Quarterly visual inspections are recommended, at which time the accumulation of pollutants can be determined. On average, the CDS system requires annual removal of accumulated pollutants.

Please contact us if you have any questions or need any additional information. Again, thank you for your interest in the CDS system. We look forward to receiving your feedback and working with you.

## CDS-4-C (CDS2015-4) DESIGN NOTES

CDS-4-C (CDS2015-4) RATED TREATMENT CAPACITY IS 0.93 CFS. IF THE SITE CONDITIONS EXCEED MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.



**FRAME AND COVER**  
(DIAMETER VARIES)  
N.T.S.

### SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID				
WATER QUALITY FLOW RATE (CFS OR L/s)				*
PEAK FLOW RATE (CFS OR L/s)				*
RETURN PERIOD OF PEAK FLOW (YRS)				*
SCREEN APERTURE (2400)				*
PIPE DATA:	I.E.	MATERIAL	DIAMETER	
INLET PIPE 1	*	*	*	
INLET PIPE 2	*	*	*	
OUTLET PIPE	*	*	*	
RIM ELEVATION				*
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT		
	*	*		
NOTES/SPECIAL REQUIREMENTS:				
* PER ENGINEER OF RECORD				

#### GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. [www.ContechES.com](http://www.ContechES.com)
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET HS20 (AASHTO M 306) AND BE CAST WITH THE CONTECH LOGO.
6. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

#### INSTALLATION NOTES

- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 9,786,848; 9,841,720; 9,817,386; 9,801,782; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.



www.ContechES.com  
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069  
800-338-1122 513-645-7000 513-645-7993 FAX

CDS-4-C (CDS2015-4)  
ONLINE CDS  
STANDARD DETAIL



## Daniel G. Koehler, P.E.

---

**From:** Alicia Messina <amessina@cultec.com>  
**Sent:** Monday, February 12, 2018 3:21 PM  
**To:** Daniel G. Koehler, P.E.  
**Cc:** Tony Messina  
**Subject:** Cultec Maintenance

Good afternoon Daniel,

Thank you again for reaching out to us and for specifying Cultec for this project – we greatly appreciate it! As discussed, the inspection port locations on each chamber are there solely for inspection purposes only; not as a means of accessing the system for maintenance. For maintenance, Cultec highly recommends that suspended solids be caught upstream of the system; whether it be with a proprietary maintenance device or simply a sumped inlet structure.

If you have any questions, or would like to discuss this in further depth, please don't hesitate to reach out to me directly.

Thank you!  
Alicia



THE FOUNDER OF PLASTIC CHAMBER TECHNOLOGY

**ALICIA MESSINA** Technical Sales Manager, CULTEC, Inc.

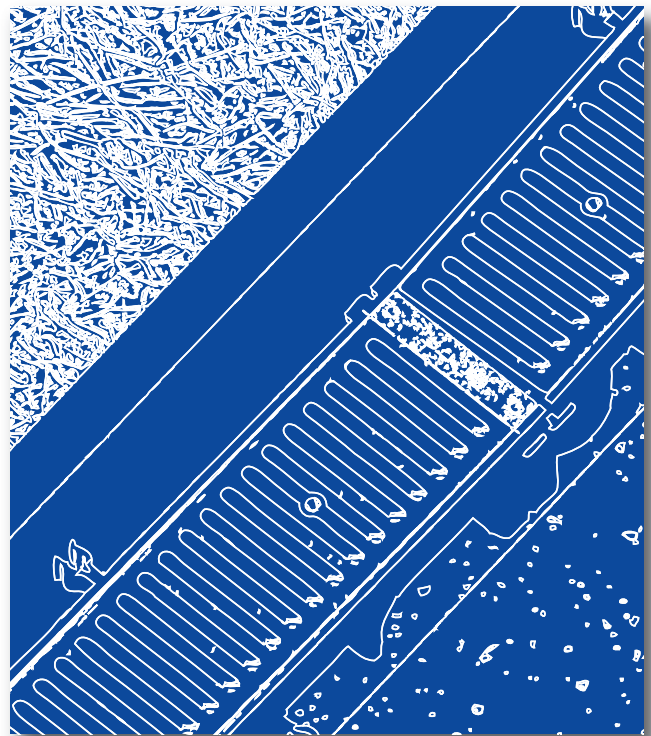
[amessina@cultec.com](mailto:amessina@cultec.com) **Direct:** 475-289-7115 **Office:** 203-775-4416 ext. 115 [www.cultec.com](http://www.cultec.com)  

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# TECHNICAL SPECIFICATION GUIDE

## **EZ-TRACK™** **DURA SLOPE™ TRENCH DRAIN SYSTEM**



### **NDS Customer Service**

851 N. Harvard Ave, Lindsay, CA 93247  
Phone: (800) 726-1994 • (559) 562-9888  
Fax: (800) 726-1998 • (559) 562-4488  
[www.NDSPRO.com](http://www.NDSPRO.com)



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This information is relevant *only* to the product(s) identified within this document and is not intended for use with any other products. Please consult NDS Technical Services at (888) 825-4716 or e-mail TechService@NDSpro.com if you have any questions pertaining to specifications, installations, or recommended applications that are beyond the scope of this document.  
**BEFORE BEGINNING ANY PROJECT, CONSULT A CURRENT EDITION OF THESE SPECS AT: WWW.NDSPRO.COM**

## Overview

NDS, the leading manufacturer of structural foam polyolefin drainage structures and landscape products, is pleased to introduce the EZ-Track™ Dura Slope™ Trench Drain System.

The EZ-Track™ Dura Slope™ Trench Drain System is comprised of dependable, high-quality Dura Slope™ and the new Dura Slope™ Radius Coupling. Designed specifically for track installations, the radius coupling allows 3 degrees of movement between each Dura Slope™ channel section, making an 80 to 120 foot radius easily achievable. With its lightweight channel and interlocking pieces that snap smoothly into place, the EZ-Track™ system saves time and labor while providing a superior drainage system that is simple to maintain.

Each component of the EZ-Track™ Dura Slope™ Trench Drain System has been specifically designed and manufactured to ensure strength, structural integrity, and durability while incorporating excellent hydraulic characteristics and chemical resistance. The new EZ-Track™ system presents an economical and lightweight alternative to traditional polymer concrete trench drain systems, while offering ease of installation.

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## Product Specifications

### Dura Slope™ Trench Drains

<b>Material</b>	Manufactured from molded, structural foam HDPE with UV inhibitors.
<b>Channel Sizes</b>	48" length, 6" width, 3.998" to 12.062" inner depth range.
<b>Strength</b>	Material withstands a compressive strength of 2,900 psi, with a material tensile stress of 4,550 psi and material flexural strength of 5,800 psi.
<b>Weight per Unit</b>	Ranges between 7.452 lbs. for shallow trench drains to 16.06 lbs for deep trench drains
<b>Pre-Sloped Run Lengths</b>	194 feet of continuous slope; 266 feet with neutral sections added.
<b>Pipe Outlet Sizes</b>	3", 4", 6", 8" pipe.

### Dura Slope™ Trench Drain Grates

<b>Materials</b>	Cast iron, ductile iron, plastic (structural foam polyolefin).
<b>Sizes</b>	24" length, 6" width.
<b>Weight per Unit</b>	Ranges between 2.92 lbs. for polyolefin to 16.0 lbs. for ductile iron.
<b>Colors</b>	Black, gray, white, green, sand, red.
<b>Load Class</b>	Loads are based upon encasing the product in concrete, and on grate selection. Plastic (structural foam polyolefin) meets Class B load rating (61-175 psi), while ductile iron and cast iron meet Class D load rating (326-575 psi).

### Dura Slope™ Radius Couplings

<b>Material</b>	Manufactured from molded, structural foam HDPE with UV inhibitors.
<b>Sizes</b>	All couplings are 1.125" long and 6.95" wide, and are available with inner depths of 6.35", 7.36", 8.37", and 9.37".

### Dura Slope™ Radius Coupling Grates

<b>Materials</b>	Plastic (structural foam polyolefin), ductile iron.
<b>Sizes</b>	1.125" length, 6" width.
<b>Colors</b>	Black, gray, white, green, sand, red
<b>Load Class</b>	Loads are based upon encasing the product in concrete, and on grate selection. Plastic (structural foam polyolefin) meets Class B load rating (61-175 psi), while ductile iron meets Class D load rating (326-575 psi)..

## Product Features

### Durable Material:

Polyethylene is tough and hard to break, not brittle like polymer concrete, reducing breakage and eliminating costly delays. UV inhibitors protect against deterioration and discoloration due to exposure to sunlight.

### Lightweight:

Dura Slope<sup>™</sup> is light and easy to carry. At 7.5 to 16 lbs. per trench drain section, there's less time and effort spent to install.

### Ease of Assembly:

Interlocking tongue and groove joints on both Dura Slope<sup>™</sup> trench drains and Dura Slope<sup>™</sup> radius couplings allow parts to slide into place easily, then lock with a snap. No special tools, clamps or screws are needed.



### Curved Radius Forms Quickly and Easily:

The Dura Slope<sup>™</sup> radius coupling has a  $\pm 3^\circ$  range of angular motion. This feature allows Dura Slope<sup>™</sup> trench drains to form a curved radius at the end of the track.

### Flexibility of Design:

The EZ-Track<sup>™</sup> system allows for flexibility of design by allowing various radii to be created. Extended to its maximum range of  $3.18^\circ$ , the tightest radius possible with one radius coupling between each Dura Slope<sup>™</sup> trench drain section would be 72 ft. This would consist of 60 4-foot Dura Slope<sup>™</sup> trench drain sections and 59 radius couplings. To obtain a larger radius, simply add additional trench drains and couplings to the length of the run. With EZ-Track<sup>™</sup>, the most common track radii of 80' - 120' is easily obtained.

### Reduced Clogging of System:

6-inch-wide grates on the Dura Slope<sup>™</sup> trench drains and radius couplings mean less debris build up and clogging than a slot drain, with a higher inflow capacity. To clean out the drain, simply remove the grate.

### Neutral and Sloped Sections Available:

While the EZ-Track<sup>™</sup> radius sections remain neutral to allow for the insertion of the radius coupling, EZ-Track<sup>™</sup> straight runs may be sloped or neutral due to the offerings of the Dura Slope<sup>™</sup> product line. For an example of an application with both neutral and sloped sections, please refer to the "EZ-Track<sup>™</sup> Applications" section of this guide.

### Joints Locked on Straight Runs:

DuraLoc<sup>™</sup> integral joint lock between sections of Dura Slope<sup>™</sup> trench drain prevent joint movement during installation, securing alignment and ensuring straight trench drain runs.

### Various Grate Options:

EZ-Track<sup>™</sup> offers grates that are ADA compliant, as well as a heel-proof option. Grates are available in cast iron, ductile iron, and plastic.

### Blank Grates and Grate Screws Included:

Each section of Dura Slope<sup>™</sup> trench drain comes with a blank grate insert that eliminates the use of plywood. Each Dura Slope<sup>™</sup> radius coupling includes a standard grate, which can be used as a blank or as a functioning grate. Grate screws are included with all Dura Slope<sup>™</sup> trench drains and radius couplings.

### Traffic Rated:

Depending on the grate selection, EZ-Track<sup>™</sup> is rated up to Class D, for heavy vehicular traffic.

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## Dura Slope™ Trench Drain System

### Material Composition

Dura Slope™ is manufactured from molded, structural foam HDPE with UV inhibitors, with a nominal outside top dimension of 6-5/8" (168.3mm). Trench drain has an inside nominal flow path width of 4" (101.6mm), with a bottom radius of 2" (50.8mm) to facilitate sediment removal. The system includes neutral and pre-sloped sections to provide variable trench depth as required by site conditions. Pre-sloped sections have a slope of 0.7%.

Dura Slope™ trench drain and grates are designed to withstand loads up to Load Class D (up to 575psi), when installed per the appropriate installation methods (see NDS installation instructions and grate specifications included in the Dura Slope™ catalog). Grates are installed per manufacturer load rating recommendations, and are attached to the trench drain using stainless steel screws with the manufacturer-supplied Pro Fit™ locking system. The trench drain includes Leveloc™ integral re-bar supports located at 24" (60cm) intervals along each side of the trench drain to provide height adjustment using #4 re-bar (1/2") during installation. The trench drain has tongue and groove Dura Loc™ joints that ensure precise alignment during installation, with snap-lock mechanisms to eliminate joint movement.

### Molding Technique

Dura Slope™ is proudly manufactured in the U.S.A. in Lindsay, California. The trench drains are injection molded to exacting specifications to a temperature range that will not damage the molecular chain of the polymer. The use of high quality resins coupled with computerized manufacturing technologies guarantees the Dura Slope™ trench drain system will preserve in strength over time.

### Testing Methods

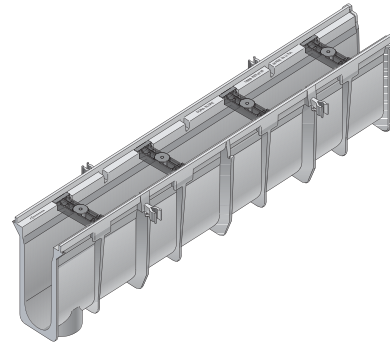
The Dura Slope™ trench drain and grates undergo a battery of tests with each production run, as is the process with all of the products manufactured by NDS. All of the manufacturing tests are conducted within the manufacturing cycle to assure a quality-finished product.

Compression tests are used to determine the load strength of NDS trench drains. Material absorption rate shall not exceed .01%. Material shall withstand a compressive strength of 2900 psi. Material tensile stress shall be 4550 psi and material flexural strength shall be 5800 psi. The Dura Slope™ System has the ability to withstand freeze/thaw cycles and provide chemical resistance, including road salt.

# DURA SLOPE™ TRENCH DRAINS

Dura Slope™ is a 6-5/8" wide, 4-foot-long trench drain system. Each trench drain section is molded of gray structural foam polyethylene with UV inhibitors, and has a 4" inside diameter with a 2" radius bottom. The system consists of 4-foot trench drain sections, including 24 pre-sloped trench drain sections and 9 neutral trench drain sections. The sloped trench drain sections have a built-in slope of 0.7%, and enable the system to extend to a length of 96 feet with a continuous slope.

Offering trench drains in both neutral and pre-sloped sections of various depths allow for flexibility of design, and make the EZ-Track™ Dura Slope™ trench drain system ideal for a wide range of track applications.



Part No.	Description	Flow Rate GPM	Min. Inner Depth	Max. Inner Depth	Min. Outer Depth	Max. Outer Depth	Wt. Ea. (lbs.)
DS-090N	3.99" Deep Neutral Dura Slope™ Trench Drain	75	3.998	3.998	5.354	5.760	7.45
DS-091	3.99" to 4.34" Deep Dura Slope™ Trench Drain	75	3.998	3.998	5.690	5.770	7.52
DS-091N	4.34" Deep Neutral Dura Slope™ Trench Drain	89	4.334	4.334	5.692	6.103	7.81
DS-092	4.34" to 4.67" Deep Dura Slope™ Trench Drain	89	4.334	4.670	6.062	6.106	7.92
DS-093	4.67" to 5.00" Deep Dura Slope™ Trench Drain	103	4.670	5.006	6.362	6.442	8.27
DS-094	5.00" to 5.34" Deep Dura Slope™ Trench Drain	117	5.006	5.342	6.698	6.778	8.64
DS-094N	5.34" Deep Dura Slope™ Trench Drain	131	5.342	5.342	6.700	7.111	8.93
DS-095	5.34" to 5.68" Deep Dura Slope™ Trench Drain	131	5.342	5.678	7.034	7.114	8.99
DS-096	5.68" to 6.01" Deep Dura Slope™ Trench Drain	145	5.678	6.014	7.370	7.450	9.36
DS-097	6.01" to 6.35" Deep Dura Slope™ Trench Drain	159	6.014	6.350	7.706	7.786	9.74
DS-097N	6.35" Deep Neutral Dura Slope™ Trench Drain	173	6.350	6.350	7.708	8.119	10.04
DS-098	6.35" to 6.69" Deep Dura Slope™ Trench Drain	173	6.350	6.686	8.042	8.122	10.11
DS-099	6.69" to 7.02" Deep Dura Slope™ Trench Drain	187	6.686	7.022	8.378	8.458	10.48
DS-100	7.02" to 7.36" Deep Dura Slope™ Trench Drain	201	7.022	7.358	8.714	8.794	10.86
DS-100N	7.36" Deep Neutral Dura Slope™ Trench Drain	215	7.358	7.358	8.716	9.127	11.16
DS-101	7.36" to 7.69" Deep Dura Slope™ Trench Drain	215	7.358	7.694	9.050	9.130	11.23
DS-102	7.69" to 8.03" Deep Dura Slope™ Trench Drain	229	7.694	8.030	9.386	9.466	11.60
DS-103	8.03" to 8.37" Deep Dura Slope™ Trench Drain	243	8.030	8.366	9.722	9.802	11.98
DS-103N	8.37" Deep Neutral Dura Slope™ Trench Drain	257	8.366	8.366	9.724	10.135	12.27
DS-104	8.37" to 8.70" Deep Dura Slope™ Trench Drain	257	8.366	8.702	10.058	10.138	12.34
DS-105	8.70" to 9.04" Deep Dura Slope™ Trench Drain	271	8.702	9.038	10.394	10.474	12.71
DS-106	9.04" to 9.37" Deep Dura Slope™ Trench Drain	285	9.038	9.374	10.730	10.810	13.07
DS-106N	9.37" Deep Neutral Dura Slope™ Trench Drain	299	9.374	9.374	10.732	11.143	13.39
DS-107	9.37" to 9.70" Deep Dura Slope™ Trench Drain	299	9.374	9.710	11.066	11.146	13.4
DS-108	9.70" to 10.05" Deep Dura Slope™ Trench Drain	313	9.710	10.046	11.402	11.482	13.83
DS-109	10.05" to 10.38" Deep Dura Slope™ Trench Drain	327	10.046	10.382	11.738	11.818	14.20
DS-109N	10.38" Deep Neutral Dura Slope™ Trench Drain	341	10.382	10.382	11.740	12.151	14.50
DS-110	10.38" to 10.71" Deep Dura Slope™ Trench Drain	341	10.382	10.718	12.074	12.154	14.57
DS-111	10.71" to 11.05" Deep Dura Slope™ Trench Drain	355	10.718	11.054	12.410	12.490	14.95
DS-112	11.05" to 11.39" Deep Dura Slope™ Trench Drain	368	11.054	11.390	12.746	12.826	15.32
DS-112N	11.39" Deep Neutral Dura Slope™ Trench Drain	382	11.390	11.390	12.785	13.158	15.6
DS-113	11.39" to 11.72" Deep Dura Slope™ Trench Drain	382	11.390	11.726	13.082	13.162	15.69
DS-114	11.72" to 12.06" Deep Dura Slope™ Trench Drain	396	11.726	12.062	13.418	13.498	16.06

Note: All dimensions are nominal. All weights are for shipping purposes only. Availability is subject to change.

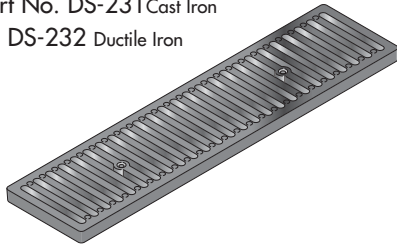
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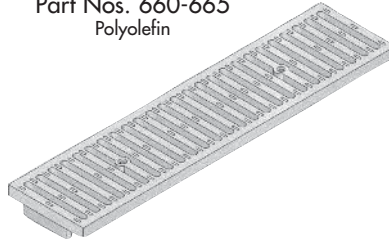


# DURA SLOPE™ TRENCH DRAIN GRATES

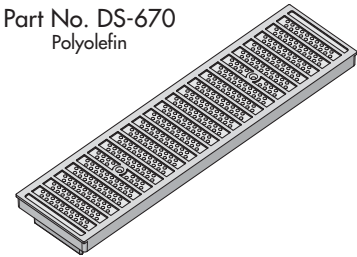
Part No. DS-231 Cast Iron  
DS-232 Ductile Iron



Part Nos. 660-665  
Polyolefin



Part No. DS-670  
Polyolefin



Part No.	Description	Color	Pkg. Qty.	Wt. Ea. (lbs.)	Inflow Capacity (GPM)	Specifications
660	2 ft. Trench Drain Grate	White	12	2.92	27	2 ft. structural foam polyolefin secured trench drain grate with UV inhibitors. ADA compliant. Open surface area 20.61 square inches per foot.
661	2 ft. Trench Drain Grate	Dark Gray	12	2.92	27	
661LG	2 ft. Trench Drain Grate	Gray	12	2.92	27	
662	2 ft. Trench Drain Grate	Green	12	2.92	27	
663	2 ft. Trench Drain Grate	Black	12	2.92	27	
664	2 ft. Trench Drain Grate	Sand	12	2.92	27	
665	2 ft. Trench Drain Grate	Brick Red	12	2.92	27	
DS-670	2 ft. Plastic Perforated Trench Drain Grate	Gray	12	3.0	11.3	2 ft. structural foam polyolefin, secured trench drain grate with UV inhibitors, light traffic rated, heel-proof, ADA compliant. Open surface area 9.36 square inches per foot. .
DS-231	2 ft. Cast Iron Trench Drain Grate	Black	1	15.00	22.6	2 ft. heavy duty cast iron trench drain grate. ADA compliant Open surface area 15.27 square inches per foot. H-20 Load Rating.
DS-232	2 ft. Ductile Iron Trench Drain Grate	Black	1	16.00	22.6	2 ft. heavy duty ductile iron trench drain grate. ADA compliant Open surface area 15.27 square inches per foot. H-20 Load Rating.

All Dura Slope™ Trench Drain Grates are ADA Compliant  
 Part No. DS-670 is Heel-Proof  
 Use with Dura Slope™ Trench Drains and Dura Slope™ Catch Basins

# DURA SLOPE™ RADIUS COUPLINGS

Dura Slope™ radius couplings are made from 100% high density polyethylene, and are injection molded to exacting specifications.

Each radius coupling comes with a plastic (HDPE) standard grate attached with two grate screws. The standard grate can be utilized as a blank grate insert (eliminating the use of plywood during installation), but also functions as a plastic grate with a Class B load rating of 61-175 psi.

### Radius Coupling Depths

Dura Slope™ radius couplings are available in four neutral depths, and were designed to connect neutral Dura Slope™ trench drain sections of the same depth. For a guide to the Dura Slope™ trench drain sections and their corresponding radius coupling, see the table below:



DSRC-103

DSRC-097

Radius Coupling Part Number and Description	Corresponding Dura Slope™ Trench Drain
DSRC-097: 6.35" Deep Dura Slope™ Radius Coupling	DS-097N: 6.35" Deep Neutral Dura Slope™ Trench Drain
DSRC-100: 7.36" Deep Dura Slope™ Radius Coupling	DS-100N: 7.36" Deep Neutral Dura Slope™ Trench Drain
DSRC-103: 8.37" Deep Dura Slope™ Radius Coupling	DS-103N: 8.37" Deep Neutral Dura Slope™ Trench Drain
DSRC-106: 9.37" Deep Dura Slope™ Radius Coupling	DS-106N: 9.37" Deep Neutral Dura Slope™ Trench Drain

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# DURA SLOPE™ RADIUS COUPLING GRATES



Part No. DS-681LGMG  
(included with every radius  
coupling)

Part Nos. DS-660MG - 665MG  
Polyolefin

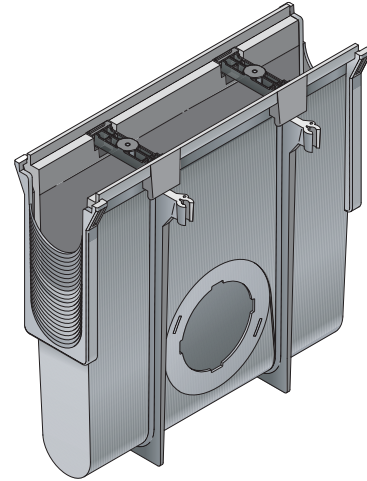
Part No. DS-232MG  
Ductile Iron

Part No.	Description	Color	Pkg. Qty.	Wt. Ea. (lbs.)	Load Class	Specifications
DS-660MG	1.25" Plastic Slotted Radius Coupling Grate	White	6	0.08	Class B (61-175 psi)	Structural Foam Polyolefin Radius Coupling Mini Grate with UV inhibitors
DS-661MG	1.25" Plastic Slotted Radius Coupling Grate	Dark Gray	6	0.08	Class B (61-175 psi)	Structural Foam Polyolefin Radius Coupling Mini Grate with UV inhibitors
DS-661LGMG	1.25" Plastic Slotted Radius Coupling Grate	Light Gray	6	0.08	Class B (61-175 psi)	Structural Foam Polyolefin Radius Coupling Mini Grate with UV inhibitors
DS-662MG	1.25" Plastic Slotted Radius Coupling Grate	Green	6	0.08	Class B (61-175 psi)	Structural Foam Polyolefin Radius Coupling Mini Grate with UV inhibitors
DS-663MG	1.25" Plastic Slotted Radius Coupling Grate	Black	6	0.08	Class B (61-175 psi)	Structural Foam Polyolefin Radius Coupling Mini Grate with UV inhibitors
DS-664MG	1.25" Plastic Slotted Radius Coupling Grate	Sand	6	0.08	Class B (61-175 psi)	Structural Foam Polyolefin Radius Coupling Mini Grate with UV inhibitors
DS-665MG	1.25" Plastic Slotted Radius Coupling Grate	Brick Red	6	0.08	Class B (61-175 psi)	Structural Foam Polyolefin Radius Coupling Mini Grate with UV inhibitors
DS-681LGMG	1.25" Plastic Standard Radius Coupling Grate	Light Gray	6	0.16	Class B (61-175 psi)	Structural Foam Polyolefin Radius Coupling Mini Grate with UV inhibitors
DS-232MG	1.25" Ductile Iron Radius Coupling Grate	Black	6	0.93	Class D (326-575 psi)	Heavy Duty Ductile Iron Radius Coupling Mini Grate

All Dura Slope™ Radius Coupling Grates are ADA Compliant  
Part No. DS-681LGMG is Heel-Proof

# DURA SLOPE™ CATCH BASIN

The Dura Slope™ in-line Catch Basin is designed to fit all depth ranges of the Dura Slope™ trench drain sections. Catch basin inlets are designed to be sized as required to accept the Dura Slope™ trench drain section. The Dura Slope™ catch basin is 2 feet long and 2 feet deep with an outlet on both sides of the basin. One Universal Adapter Plug, one blank grate insert and two grate screws are included with each Dura Slope™ in-line catch basin. NDS universal basin outlets are used to adapt the catch basin to 3", 4", 6" and 8" pipe.

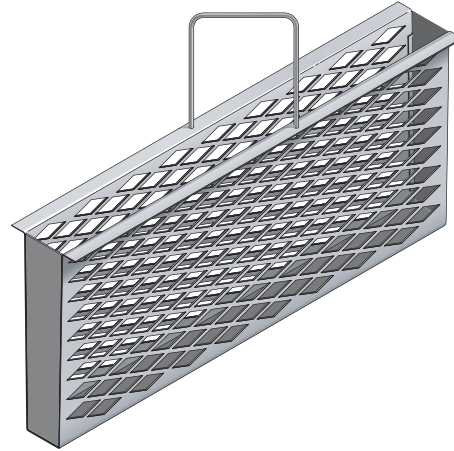


Part No.	Description	Color	Pkg. Qty.	Wt. Ea. (lbs.)	Product Class
DS-340	Dura Slope in-line Catch Basins  DS-340 Available for use of one or two outlets Use #1242, #1243, #1245, #1266, #1206, or #1888 Universal Outlets	Gray	1	12.00	25DS

Note: All dimensions are nominal. All weights are for shipping purposes only. Availability is subject to change.

# DURA SLOPE™ TRASH BUCKET

The Dura Slope™ Trash Bucket is made to fit inside the Dura Slope™ Catch Basin (part number DS-340). It has a handle for easy removal to clean leaves and debris; it requires removal of the grate. Made of zinc plated steel, it is durable to climatic conditions. The Trash Bucket is not intended for use with any of the Dura Slope™ trench drains..



Note – DS-240 Trash Bucket is not for use with the DS-200 Ductile Iron Frame.

Part No.	Description	Color	Pkg. Qty.	Wt. Ea. (lbs.)	Product Class
DS-240	Dura Slope Trash Bucket Trash Bucket fits inside DS340 Catch Basin Note – DS-240 Trash Bucket is not for use with the DS-200 Ductile Iron Frame.	Steel Zinc Plated Steel	1	5.0	25DS

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## EZ-Track™ Applications

The majority of full track applications will require a radius within 80 –130 feet, as recommended by the American Sports Builders Association (ASBA).

Depth of the trench drain, sloped vs. non-sloped runs, and number of catch basins required per system will vary with the volume of water and surface area requiring drainage, and should be assessed on a site-to-site basis.

Following are two potential track applications and the materials list for each.

### Application Example 1:

Track Radius: 103 ft. (complies with standards set for NFHS competition)

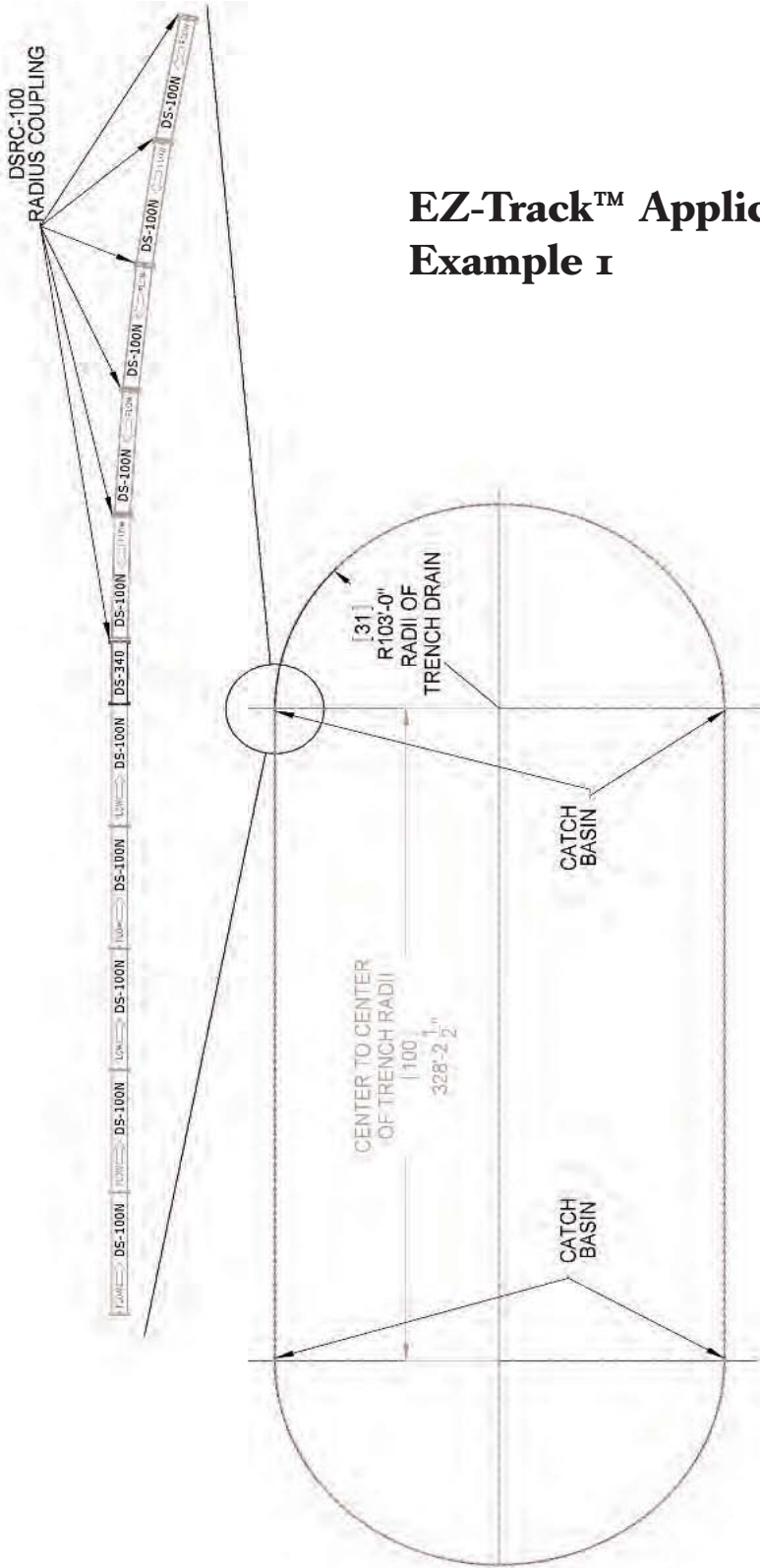
Sloped or Non-Sloped: All non-sloped

Number of Catch Basins: 4

Trench Drain Depth: 7.36"

Grate Selection: Ductile Iron (black).

Qty	Description	Part Number	Package Qty.
320	4' x 7.36" Dura Slope™ Trench Drain	DS-100N	1
644	2' Ductile Iron Trench Drain Grate	DS-232	1
4	2' Dura Slope™ In-Line Catch Basin	DS-340	1
4	6" Universal Locking Outlet	1266	20
160	1.125" x 7.36" Dura Slope™ Radius Coupling	DSRC-100	6
160	1.25" Radius Coupling Ductile Iron Mini Grate	DS-232MG	6



**EZ-Track™ Application Example 1**

**Application Example 2:**

Track Radius: 103 ft. (complies with standards set for NFHS competition)

Sloped or Non-Sloped: Non-sloped on radii, sloped on straight runs

Number of Catch Basins: 4

Trench Drain Depth: 7.36" on the radii, 3.99" to 12.06" on straight runs

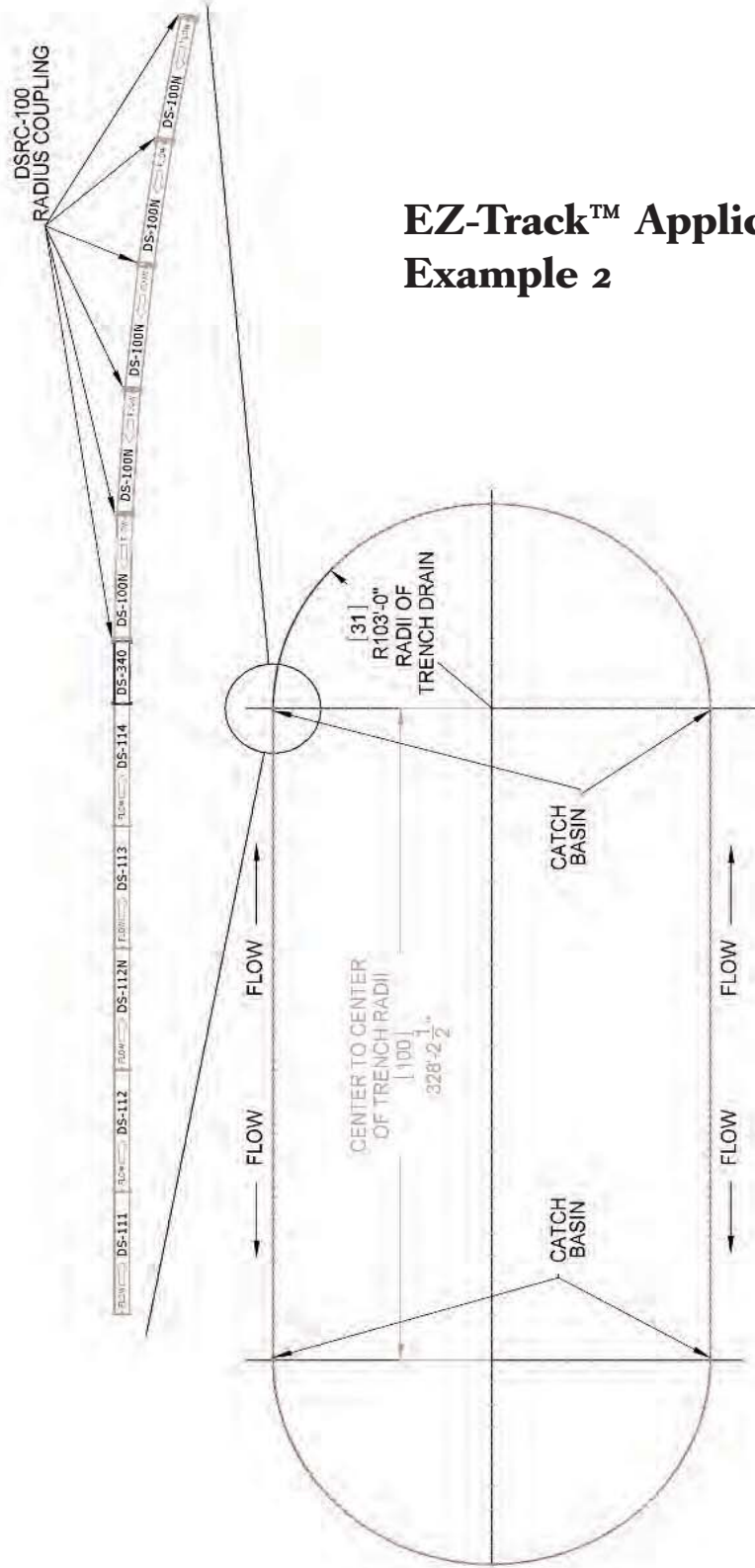
Grate Selection: Plastic slotted (light gray)

**Materials List:**

Qty	Description	Part Number
6	3.99" Deep Neutral Dura Slope™ Trench Drain	DS-090N
4	3.99" to 4.34" Deep Dura Slope™ Trench Drain	DS-091
8	4.34" Deep Neutral Dura Slope™ Trench Drain	DS-091N
4	4.34" to 4.67" Deep Dura Slope™ Trench Drain	DS-092
4	4.67" to 5.00" Deep Dura Slope™ Trench Drain	DS-093
4	5.00" to 5.34" Deep Dura Slope™ Trench Drain	DS-094
8	5.34" Deep Neutral Dura Slope™ Trench Drain	DS-094N
4	5.34" to 5.68" Deep Dura Slope™ Trench Drain	DS-095
4	5.68" to 6.01" Deep Dura Slope™ Trench Drain	DS-096
4	6.01" to 6.35" Deep Dura Slope™ Trench Drain	DS-097
8	6.35" Deep Neutral Dura Slope™ Trench Drain	DS-097N
4	6.35" to 6.69" Deep Dura Slope™ Trench Drain	DS-098
4	6.69" to 7.02" Deep Dura Slope™ Trench Drain	DS-099
4	7.02" to 7.36" Deep Dura Slope™ Trench Drain	DS-100
166	7.36" Deep Neutral Dura Slope™ Trench Drain	DS-100N
4	7.36" to 7.69" Deep Dura Slope™ Trench Drain	DS-101
4	7.69" to 8.03" Deep Dura Slope™ Trench Drain	DS-102
4	8.03" to 8.37" Deep Dura Slope™ Trench Drain	DS-103
8	8.37" Deep Neutral Dura Slope™ Trench Drain	DS-103N
4	8.37" to 8.70" Deep Dura Slope™ Trench Drain	DS-104
4	8.70" to 9.04" Deep Dura Slope™ Trench Drain	DS-105
4	9.04" to 9.37" Deep Dura Slope™ Trench Drain	DS-106
8	9.37" Deep Neutral Dura Slope™ Trench Drain	DS-106N
4	9.37" to 9.70" Deep Dura Slope™ Trench Drain	DS-107
4	9.70" to 10.05" Deep Dura Slope™ Trench Drain	DS-108
4	10.05" to 10.38" Deep Dura Slope™ Trench Drain	DS-109
8	10.38" Deep Neutral Dura Slope™ Trench Drain	DS-109N
4	10.38" to 10.71" Deep Dura Slope™ Trench Drain	DS-110
4	10.71" to 11.05" Deep Dura Slope™ Trench Drain	DS-111
4	11.05" to 11.39" Deep Dura Slope™ Trench Drain	DS-112
4	11.39" Deep Neutral Dura Slope™ Trench Drain	DS-112N
4	11.39" to 11.72" Deep Dura Slope™ Trench Drain	DS-113
4	11.72" to 12.06" Deep Dura Slope™ Trench Drain	DS-114
644	2' Plastic Channel Grate	661
4	2' Dura Slope™ In-Line Catch Basin	DS-340
4	8" Universal Outlet	1888
160	1.125" x 7.36" Dura Slope™ Radius Coupling	DSRC-100
160	1.25" Plastic Slotted Radius Coupling Mini Grate	DS-681LGMG

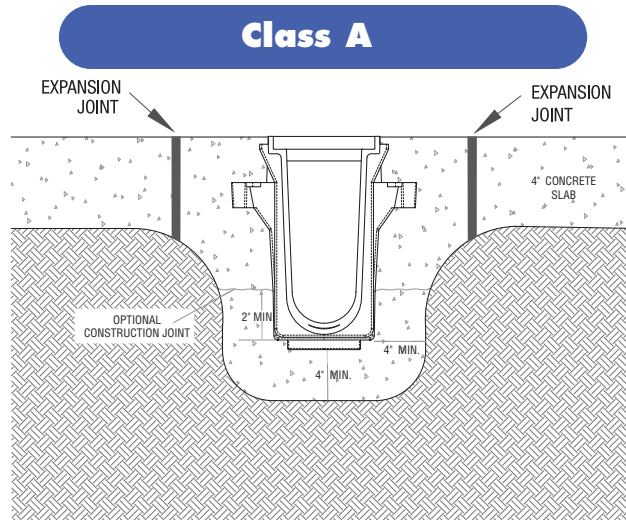


**EZ-Track™ Application Example 2**

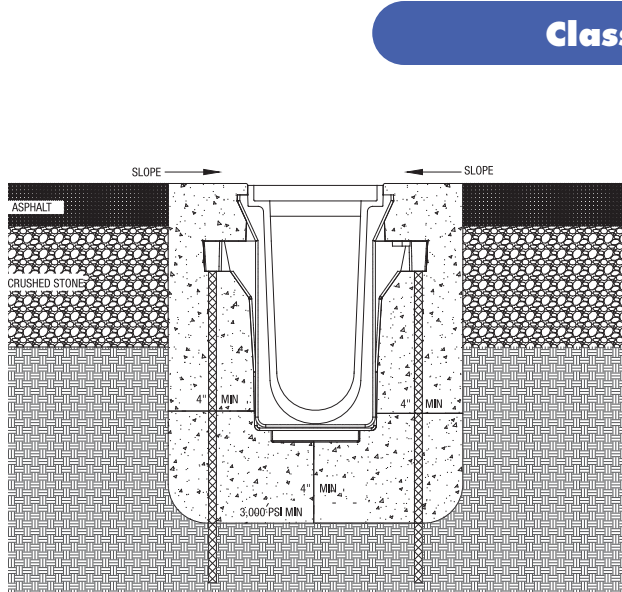


## LOAD CLASS INSTALLATION

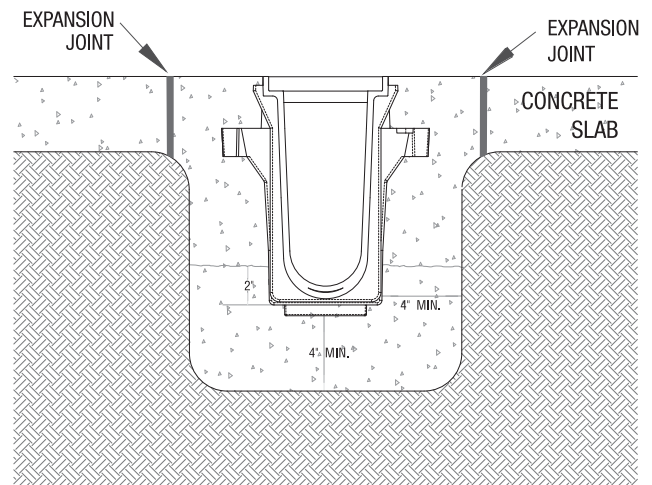
Note: For all load class installations recess Dura Slope below grade: 1/4" for vehicular traffic, 1/8" for pedestrian traffic. When using iron frame DS-200 no additional recess is needed.



Set trench drain in channel surrounded by 4" of concrete or thickness of the concrete slab with a minimum of 2,500 psi.



Set trench drain in channel surrounded by 4" of concrete with a minimum of 3,000 psi. Install #4 re-bar to stabilize drain while concrete is being poured. Make sure re-bar is 1" below finished surface.

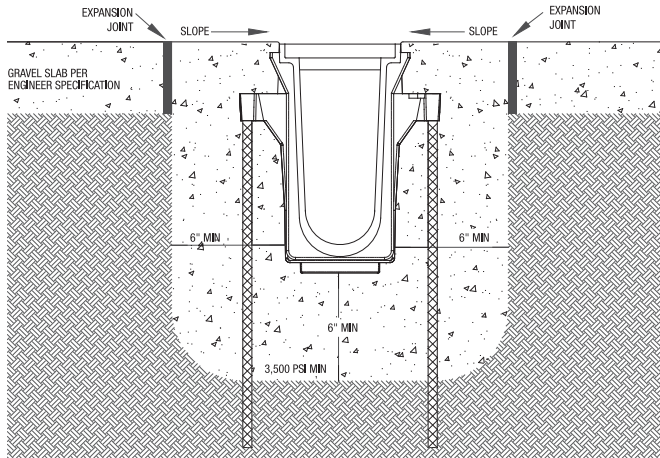


Set trench drain in channel surrounded by 4" of concrete or thickness of the concrete slab with a minimum of 3,000 psi.

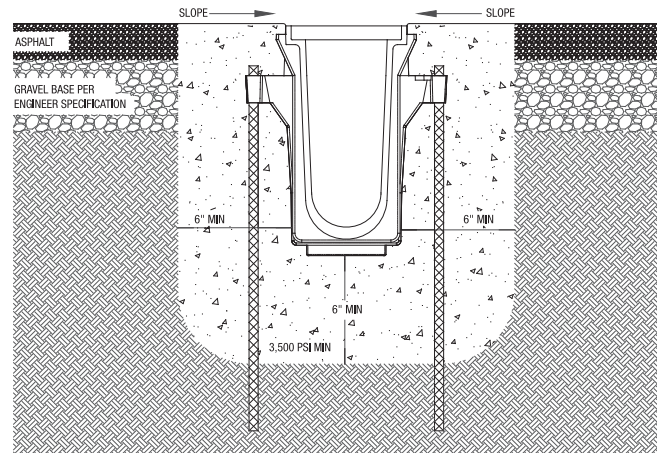
## LOAD CLASS INSTALLATION

Note: For all load class installations recess Dura Slope below grade: 1/4" for vehicular traffic, 1/8" for pedestrian traffic. When using iron frame DS-200 no additional recess is needed.

### Class C

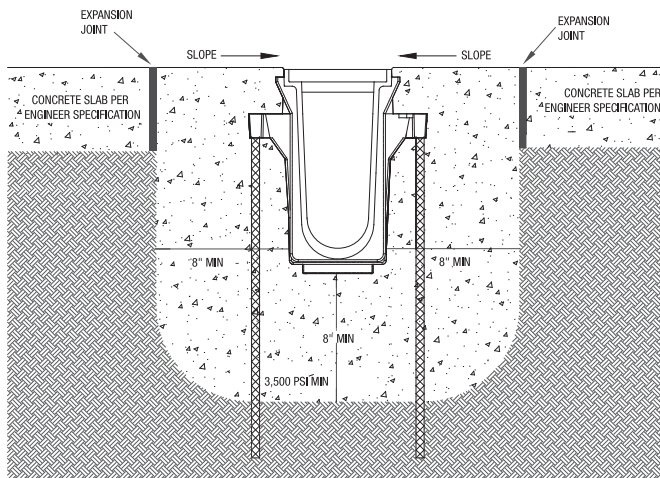


Set trench drain in channel surrounded by 6" of concrete with a minimum of 3,500 psi. Install #4 re-bar to stabilize drain while concrete is being poured. Make sure re-bar is 1" below finished surface.



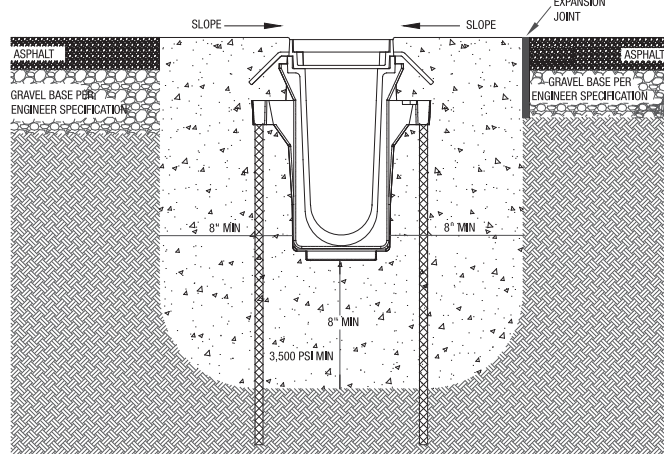
Set trench drain in channel surrounded by 6" of concrete with a minimum of 3,500 psi. Install #4 re-bar to stabilize drain while concrete is being poured. Make sure re-bar is 1" below finished surface.

### Class D



Set trench drain in channel surrounded by 8" of concrete with a minimum of 3,500 psi. Install #4 re-bar to stabilize drain while concrete is being poured. Make sure re-bar is 1" below finished surface.

USE ONLY DS-231 CAST IRON  
OR DS-232 DUCTILE IRON GRATES  
WITH DUCTILE IRON FRAME



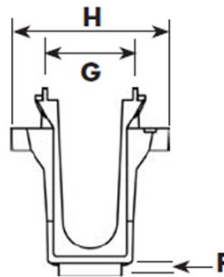
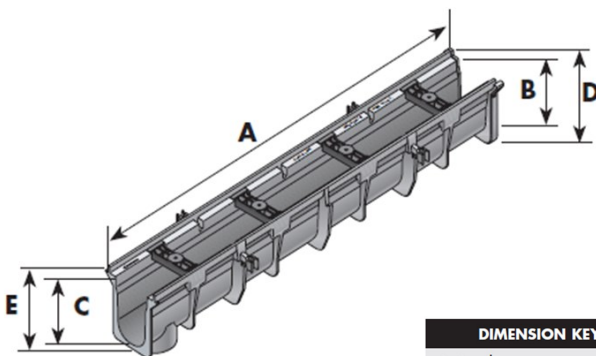
Set trench drain in channel surrounded by 8" of concrete with a minimum of 3,500 psi. Install #4 re-bar to stabilize drain while concrete is being poured. Make sure re-bar is 1" below finished surface.



**NDS Customer Service**  
851 N. Harvard Ave, Lindsay, CA 93247  
Phone: (800) 726-1994 • (559) 562-9888  
Fax: (800) 726-1998 • (559) 562-4488  
[www.NDSPRO.com](http://www.NDSPRO.com)

## DURA SLOPE™ CHANNEL DRAINS

**Specifications:** NDS Dura Slope™ is a 6<sup>5</sup>/<sub>8</sub>" wide, 48" long trench drain system with a built-in slope of 0.7%. Each channel section is molded of gray structural foam polyethylene with UV inhibitors and has a 4" inside diameter with a 2" radius bottom. The system consists of 4-foot channel sections including 24 pre-sloped channel sections and 9 neutral channel sections. The sloped channel sections enable the system to extend to a length of 96 feet with a continuous slope. Add neutral channels to extend the system run to an excess of 132 feet. By incorporating central collection through the use of the catch basin assembly, the Dura Slope™ trench drain system can be extended to lengths up to 266 feet. Dura Slope™ channels are designed with the pre-installed ProFit™ locking system, which maintains structural integrity during installation and locking devices for the grating. LevelLoc™ integral re-bar supports are located at 24" intervals along each side of the channel and contain an internal protruding knob designed to grip #3 or #4 re-bar (3/8" – 1/2") for easier channel height adjustment during installation. DuraLoc™ tongue and groove ends connect allowing for a precise fit and ensure straight channel runs, incorporating an integral snap-lock feature that prevents joint movement during channel installation. Each channel section is molded with a bottom outlet allowing for system versatility and ensuring proper drainage. Expansion joints must be provided parallel to each side of the drain run.



DIMENSION KEY	
A:	Length
B:	Min. Inner Depth
C:	Max. Inner Depth
D:	Min. Outer Depth
E:	Max. Outer Depth
COMMON DIMENSION FOR ALL CHANNEL SECTIONS	
F:	Bottom Outlet Depth 0.65"
G:	Width 6"
H:	Re-bar Lock Width 10.185"

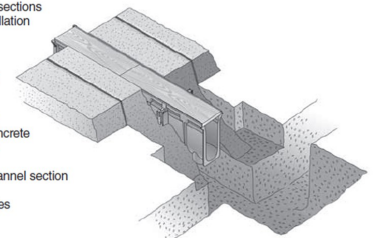
Lightweight 4 ft. modular sections  
Easier handling and installation  
Lower freight costs

2" radius bottom  
Minimizes debris build-up

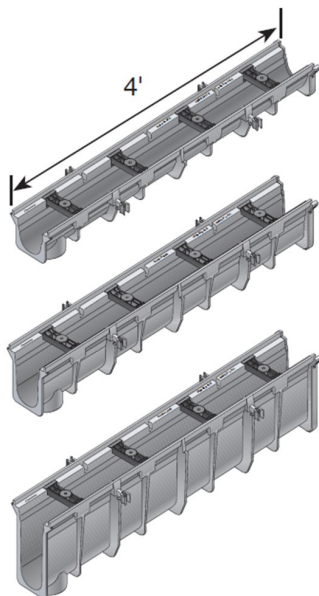
Polyethylene material  
Durable and inexpensive  
Less breakage versus concrete  
High chemical resistance

Bottom outlet on each channel section  
System versatility  
Requires fewer accessories

0.7% built-in slope  
Maintain optimum flow rates throughout system



- LevelLoc™ re-bar supports with integral protruding knob
  - Levels channel and grips re-bar
  - Requires fewer accessories
- ProFit™ locking system
  - Locks grates to integral frame
  - Supports product in shipping and installation (included)
- Interlocking tongue and groove joints
  - Secures alignment
  - Ensures straight channel runs
  - Easy assembly and installation
- DuraLoc™ integral joint lock
  - Prevents joint movement during installation
  - No extra clamps or screws needed



PART NUMBERS	WEIGHT (LBS)	FLOW RATE GPM	LPM	DIMENSIONS (INCHES)					PRODUCT CLASS
				A	B	C	D	E	
DS-090N	7.452	75	284	48"	3.998	3.998	5.354	5.760	25DS
DS-091	7.524	75	284	48"	3.998	4.334	5.690	5.770	25DS
DS-091N	7.812	89	337	48"	4.334	4.334	5.692	6.103	25DS
DS-092	7.929	89	337	48"	4.334	4.670	6.026	6.106	25DS
DS-a093	8.269	103	390	48"	4.670	5.006	6.362	6.442	25DS
DS-094	8.638	117	443	48"	5.006	5.342	6.698	6.778	25DS
DS-094N	8.926	131	496	48"	5.342	5.342	6.700	7.111	25DS
DS-095	8.998	131	496	48"	5.342	5.678	7.034	7.114	25DS
DS-096	9.369	145	549	48"	5.678	6.014	7.370	7.450	25DS
DS-097	9.741	159	602	48"	6.014	6.350	7.706	7.786	25DS
DS-097N	10.040	173	655	48"	6.350	6.350	7.708	8.119	25DS
DS-098	10.112	173	655	48"	6.350	6.686	8.042	8.122	25DS
DS-099	10.484	187	708	48"	6.686	7.022	8.378	8.458	25DS
DS-100	10.856	201	761	48"	7.022	7.358	8.714	8.794	25DS
DS-100N	11.156	215	814	48"	7.358	7.358	8.716	9.127	25DS
DS-101	11.228	215	814	48"	7.358	7.694	9.050	9.130	25DS
DS-102	11.599	229	867	48"	7.694	8.030	9.386	9.466	25DS
DS-103	11.971	243	920	48"	8.030	8.366	9.722	9.802	25DS
DS-103N	12.271	257	973	48"	8.366	8.366	9.724	10.135	25DS
DS-104	12.343	257	973	48"	8.366	8.702	10.058	10.138	25DS
DS-105	12.714	271	1026	48"	8.702	9.038	10.394	10.474	25DS
DS-106	13.086	285	1079	48"	9.038	9.374	10.730	10.810	25DS
DS-106N	13.386	299	1132	48"	9.374	9.374	10.732	11.143	25DS
DS-107	13.458	299	1132	48"	9.374	9.710	11.066	11.146	25DS
DS-108	13.829	313	1185	48"	9.710	10.046	11.402	11.482	25DS
DS-109	14.201	327	1238	48"	10.046	10.382	11.738	11.818	25DS
DS-109N	14.501	341	1291	48"	10.382	10.382	11.740	12.151	25DS
DS-110	14.573	341	1291	48"	10.382	10.718	12.074	12.154	25DS
DS-111	14.945	355	1344	48"	10.718	11.054	12.410	12.490	25DS
DS-112	15.316	368	1393	48"	11.054	11.390	12.746	12.826	25DS
DS-112N	15.616	382	1446	48"	11.390	11.390	12.785	13.158	25DS
DS-113	15.688	382	1446	48"	11.390	11.726	13.082	13.162	25DS
DS-114	16.060	396	1499	48"	11.726	12.062	13.418	13.498	25DS





**Providing Stormwater and  
Septic Solutions Since 1986**

**CULTEC, Inc.**  
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Brookfield, CT 06804 USA

Phone: 203.775.4416  
Fax: 203.775.1462  
Email: [custservice@cultec.com](mailto:custservice@cultec.com)  
Website: [www.cultec.com](http://www.cultec.com)

## MODEL # 330XLHD, RECHARGER® 330XLHD

The Recharger® 330XLHD is a 30.5" (775 mm) tall, high capacity chamber. Typically when using this model, fewer chambers are required resulting in less labor and a smaller installation area. The Recharger® 330XLHD has the side portal internal manifold feature. HVLV™ FC-24 Feed Connectors are

[+ more](#)



[Specifications](#) | [Technical References](#)

### Specifications

<b>Length</b>	8.50 ft 2.59 m
<b>Width</b>	52 in 1321 mm
<b>Height</b>	30.50 in 775 mm
<b>Installed Length</b>	7.00 ft 2.13 m
<b>Length Adjustment per Run</b>	1.50 ft 0.46 m

<b>Chamber Storage</b>	7.459 ft <sup>3</sup> /ft 52.21 ft <sup>3</sup> /unit 391 gal 0.69 m <sup>3</sup> /m 1.48 m <sup>3</sup> /unit 1478.44 L
<b>Min. Installed Storage</b>	11.32 ft <sup>3</sup> /ft 79.26 ft <sup>3</sup> /unit 593 gal 1.05 m <sup>3</sup> /m 2.24 m <sup>3</sup> /unit 2244.25 L
<b>Min. Area Required per Unit</b>	33.83 ft <sup>2</sup> 3.14 m <sup>2</sup>
<b>Min. Center-to-Center Spacing (Design Unit Width)</b>	4.83 ft 1.47 m
<b>Max. Allowable Cover</b>	3.66 m 12 ft
<b>Max. Inlet Opening in End Wall</b>	24 in 600 mm
<b>Max. Allowable O.D. in Side Portal</b>	11.75 in 298 mm
<b>Compatible Feed Connector</b>	<a href="#">HVLV FC-24 Feed Connector</a>

## Technical References

### Downloads

[CAD - Recharger 330XLHD Stormwater Design Aide](#)

[CAD - Recharger 330XLHD Stormwater Details](#)

[PDF - Contactor & Recharger Stormwater Installation Instructions - CULG012](#)

[PDF - Recharger 330XLHD Stormwater Details](#)

[PDF - Recharger 330XLHD Submittal Package - Stormwater](#)

[XLS - CULTEC Recharger 330XLHD Incremental Storage Calculator](#)



**CONTECH**<sup>®</sup>  
ENGINEERED SOLUTIONS

CDS<sup>®</sup>



Solutions  
Guide





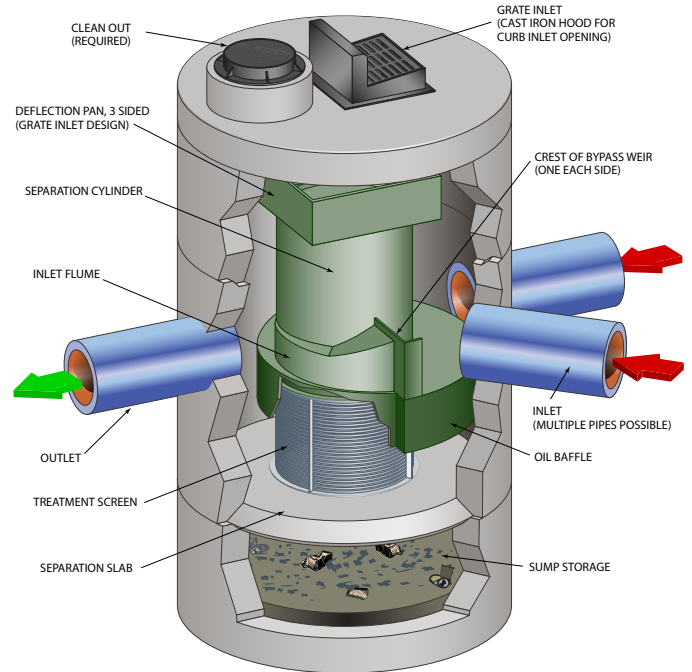
# Continuous Deflective Separation - CDS®



## Superior Stormwater Trash and Sediment Removal

The CDS is a swirl concentrator hybrid technology that uses continuous deflective separation – a combination of swirl concentration and indirect screening to screen, separate and trap debris, sediment, and hydrocarbons from stormwater runoff. The indirect screening capability of the system allows for 100% removal of floatables and neutrally buoyant material debris 2.4 mm or larger, without binding. CDS retains all captured pollutants, even at high flow rates, and provides easy access for maintenance.

CDS is used to meet trash Total Maximum Daily Load (TMDL) requirements, for stormwater quality control, inlet and outlet pollution control, and as pretreatment for filtration, detention/infiltration, bioretention, rainwater harvesting systems, and a variety of green infrastructure practices.



Learn more about the CDS system at [www.ContechES.com/CDS](http://www.ContechES.com/CDS) ❖ ❖ ❖

## CDS® Approvals

CDS has been verified by some of the most stringent stormwater technology evaluation organizations in North America, including:

- Washington State Department of Ecology
- New Jersey Department of Environmental Protection
- Canadian Environmental Technology Verification (ETV)



## CDS® Features & Benefits

Feature	Benefit
1. Captures and retains 100% of floatables and neutrally buoyant debris 2.4 mm or larger	1. Superior pollutant removal
2. Self-cleaning screen	2. Ease of maintenance
3. Isolated storage sump eliminates scour potential	3. Excellent pollutant retention
4. Internal bypass	4. Eliminates the need for additional structures
5. Multiple pipe inlets and 90-180° angles	5. Design flexibility
6. Numerous regulatory approvals	6. Proven performance

# The CDS® Screen

Traditional approaches to trash control typically involve “direct screening” that can easily become clogged, as trash is pinned to the screen as water passes through. Clogged screens can lead to flooding as water backs up.

The design of the CDS screen is fundamentally different. Flow is introduced to the screen face which is louvered so that it is smooth in the downstream direction. The effect created is called “Continuous Deflective Separation.” The power of the incoming flow is harnessed to continually shear debris off the screen and to direct trash and sediment toward the center of the separation cylinder.

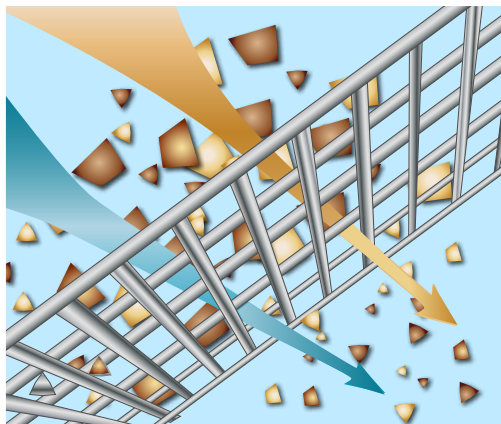
## Key Features:

### Self-Cleaning Screening Technology

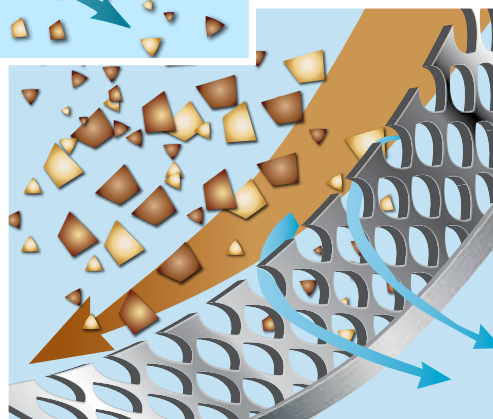
- CDS Screen captures neutrally buoyant materials missed by other separator systems.
- Screen is hydraulically designed to be self-cleaning.
- Runoff entering the separation cylinder must pass through the screen prior to discharge, eliminating potential for scouring previously captured trash at high flow rates.



## The CDS Screen — Self-Cleaning Screening Technology ❖ ❖ ❖



**Direct Screening** – particles that are larger than the aperture size of the screen can cause clogging, resulting in flooding if not maintained frequently.



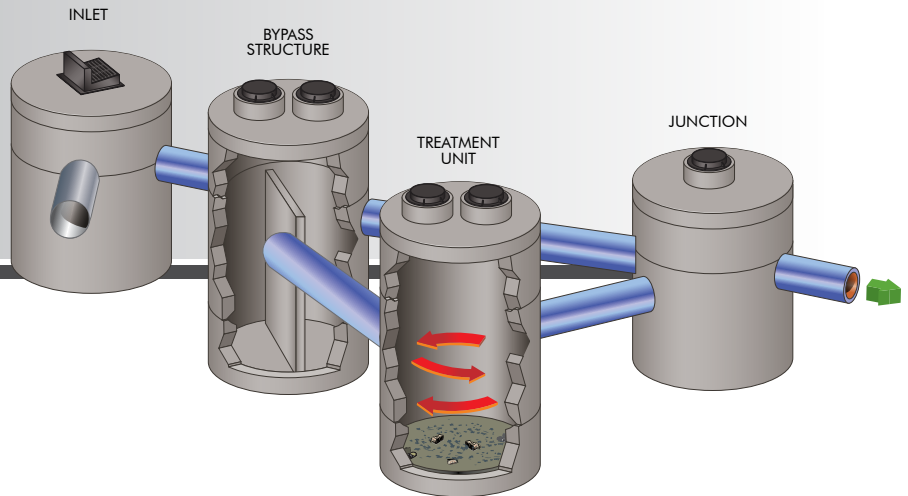
**Continuous Deflective Separation Indirect Screening** – water velocities within the swirl chamber continually shear debris off the screen to keep it clean.

# CDS® Configuration - One System that Can Do It All!

The CDS effectively treats stormwater runoff while reducing the number of structures on your site.

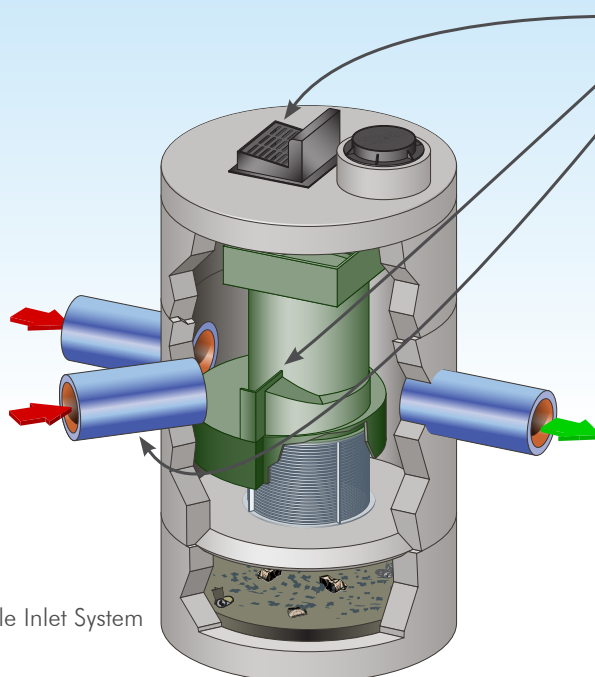
## WHY GO THROUGH ALL THIS?

### TRADITIONAL STORMWATER TREATMENT SITE DESIGN



## ONE SYSTEM CAN DO IT ALL!

- Inline, offline, grate inlet, and drop inlet configurations available
- Internal and external peak bypass options available



CDS® Multiple Inlet System



Save Time, Space, and Money with CDS®

- Grate inlet option available
- Internal bypass weir
- Accepts multiple inlets at a variety of angles
- Advanced hydrodynamic separator
- Captures and retains 100% of floatables and neutrally buoyant debris 2.4 mm or larger
- Indirect screening capability keeps screen from clogging
- Retention of all captured pollutants, even at high flows
- Performance verified by NJCAT, WA Ecology, and ETV Canada

# CDS® Applications

CDS is commonly used in the following stormwater applications:

- Stormwater quality control – trash, debris, sediment, and hydrocarbon removal
- Urban retrofit and redevelopment
- Inlet and outlet protection
- Pretreatment for filtration, detention/infiltration, bioretention, rainwater harvesting systems, and Low Impact Development designs.



CDS provides trash control.



CDS pretreats a bioswale.



CDS pretreats a rainwater harvesting cistern.



CDS standalone system removes trash and sediment.

# CDS® Models and Capacities

CDS MODEL	Treatment Flow Rates <sup>1</sup>			Estimated Maximum Peak Conveyance Flow <sup>3</sup> (cfs)/(L/s)	Minimum Sump Storage Capacity <sup>4</sup> (yd <sup>3</sup> )/(m <sup>3</sup> )	Minimum Oil Storage Capacity <sup>4</sup> (gal)/(L)	
	75 microns (cfs)/(L/s)	125 microns <sup>2</sup> (cfs)/(L/s)	Trash & Debris (cfs)/(L/s)				
PRECAST	CDS2015-4	0.5 (14.2)	0.7 (19.8)	1.0 (28.3)	10 (283)	0.9 (0.7)	61 (232)
	CDS2015-5	0.5 (14.2)	0.7(19.8)	1.0 (28.3)	10 (283)	1.5 (1.1)	83 (313)
	CDS2020-5	0.7 (19.8)	1.1 (31.2)	1.5 (42.5)	14 (396)	1.5 (1.1)	99 (376)
	CDS2025-5	1.1 (31.2)	1.6 (45.3)	2.2 (62.3)	14 (396)	1.5 (1.1)	116 (439)
	CDS3020-6	1.4 (39.6)	2.0 (56.6)	2.8 (79.3)	20 (566)	2.1 (1.6)	184 (696)
	CDS3025-6	1.7 (48.1)	2.5 (70.8)	3.5 (99.2)	20 (566)	2.1 (1.6)	210 (795)
	CDS3030-6	2.0 (56.6)	3.0 (85.0)	4.2 (118.9)	20 (566)	2.1 (1.6)	236 (895)
	CDS3035-6	2.6 (73.6)	3.8 (106.2)	5.3 (150.0)	20 (566)	2.1 (1.6)	263 (994)
	CDS4030-8	3.1 (87.7)	4.5 (127.4)	6.3 (178.3)	30 (850)	5.6 (4.3)	426 (1612)
	CDS4040-8	4.1 (116.1)	6.0 (169.9)	8.4 (237.8)	30 (850)	5.6 (4.3)	520 (1970)
	CDS4045-8	5.1 (144.4)	7.5 (212.4)	10.5 (297.2)	30 (850)	5.6 (4.3)	568 (2149)
	CDS5640-10	6.1 (172.7)	9.0 (254.9)	12.6 (356.7)	50 (1416)	8.7 (6.7)	758 (2869)
	CDS5653-10	9.5 (268.9)	14.0 (396.5)	19.6 (554.8)	50 (1416)	8.7 (6.7)	965 (3652)
	CDS5668-10	12.9 (365.1)	19.0 (538.1)	26.6 (752.9)	50 (1416)	8.7 (6.7)	1172 (4435)
	CDS5678-10	17.0 (481.2)	25.0 (708.0)	35.0 (990.7)	50 (1416)	8.7 (6.7)	1309 (4956)
CAST-IN-PLACE	CDS9280-12	27.2 (770.2)	40.0 (1132.7)	56.0 (1585.7)	Offline	16.8 (12.8)	N/A
	CDS9290-12	35.4 (1002.4)	52.0 (1472.5)	72 (2038.8)		16.8 (12.8)	
	CDS92100-12	42.8 (1212.0)	63.0 (1783.9)	88 (2491.9)		16.8 (12.8)	
	CDS150134-22	100.7 (2851.5)	148.0 (4190.9)	270 (7645.6)		56.3 (43.0)	
	CDS200164-26	183.6 (5199.0)	270.0 (7645.6)	378.0 (10703.8)		78.7 (60.2)	
	CDS240160-32	204 (5776.6)	300.0 (8495.1)	420.0 (8495.1)		119.1 (91.1)	
	Additional Cast-in-Place models available upon request.						

1. Alternative PSD/D<sub>50</sub> sizing is available upon request.
2. 125 micron flows are based on the CDS Washington State Department of Ecology approval for 80% removal of a particle size distribution (PSD) having a mean particle size (D<sub>50</sub>) of 125 microns.
3. Estimated maximum peak conveyance flow is calculated using conservative values and may be exceeded on sites with lower inflow velocities and sufficient head over the weir.
4. Sump and oil capacities can be customized to meet site needs

# CDS<sup>®</sup> Maintenance

Systems vary in their maintenance needs, and the selection of a cost-effective and easy-to-access treatment system can mean a huge difference in maintenance expenses for years to come.

A CDS unit is designed to minimize maintenance and make it as easy and inexpensive as possible to keep our systems working properly.

## Inspection

Inspection is the key to effective maintenance. Pollutant deposition and transport may vary from year to year and site to site. Semi-annual inspections will help ensure that the system is cleaned out at the appropriate time. Inspections should be performed more frequently where site conditions may cause rapid accumulation of pollutants.



Most CDS units can easily be cleaned in 30 minutes.

## Recommendations for CDS Maintenance

The recommended cleanout of solids within the CDS unit's sump should occur at 75% of the sump capacity. Access to the CDS unit is typically achieved through two manhole access covers – one allows inspection and cleanout of the separation chamber and sump, and another allows inspection and cleanout of sediment captured and retained behind the screen. A vacuum truck is recommended for cleanout of the CDS unit and can be easily accomplished in less than 30 minutes for most installations.

## DYOHDS<sup>™</sup> Tool Design Your Own Hydrodynamic Separator

### Features

- Choose from three HDS technologies - CDS<sup>®</sup>, Vortechs<sup>®</sup> and VortSentry<sup>®</sup> HS
- Site specific questions ensure the selected unit will comply with site constraints
- Unit size based on selected mean particle size and targeted removal percentage
- Localized rainfall data allows for region specific designs
- PDF report includes detailed performance calculations, specification and standard drawing for the unit that was sized



Design Your Own (DYO) Hydrodynamic Separator  
online at [www.ContechES.com/dyohds](http://www.ContechES.com/dyohds)



## Next Steps

### Learn more

See our CDS systems in action at [www.ContechES.com/videos](http://www.ContechES.com/videos)

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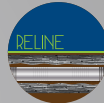
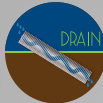
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ENGINEERED SOLUTIONS

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#### Stormwater Solutions

Helping to satisfy stormwater management requirements on land development projects

- Stormwater Treatment
- Detention/Infiltration
- Rainwater Harvesting
- Biofiltration/Bioretenation

#### Pipe Solutions

Meeting project needs for durability, hydraulics, corrosion resistance, and stiffness

- Corrugated Metal Pipe (CMP)
- Steel Reinforced Polyethylene (SRPE)
- High Density Polyethylene (HDPE)
- Polyvinyl Chloride (PVC)

#### Structures Solutions

Providing innovative options and support for crossings, culverts, and bridges

- Plate, Precast & Truss bridges
- Hard Armor
- Retaining Walls
- Tunnel Liner Plate

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**FSC**

## **APPENDIX G**

### **PRE-CONSTRUCTION SITE ASSESSMENT CHECKLIST**



## I. PRE-CONSTRUCTION MEETING DOCUMENTS

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

### a. Preamble to Site Assessment and Inspections

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

The Operator agrees to have a qualified professional<sup>1</sup> conduct an assessment of the site prior to the commencement of construction<sup>2</sup> 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.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Duration Inspections). 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. The Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis (Monthly Summary Report).

The operator shall also prepare a written summary of compliance with this general permit at a minimum frequency of every three months (Operator's Compliance Response Form), while coverage exists. The summary should address the status of achieving each component of the SWPPP.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization<sup>3</sup> 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 "Qualified Professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, licensed engineer or someone working under the direction and supervision of a licensed engineer (person must have experience in the principles and practices of erosion and sediment control).

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. Operators Certification**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law.

**Name (please print):** \_\_\_\_\_

**Title** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**c. Qualified Professional's Credentials & Certification**

"I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the following Pre-construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction."

**Name (please print):** \_\_\_\_\_

**Title** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**d. 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 Entrance

**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. Perimeter Sediment Controls

**Yes No NA**

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

6. Pollution Prevention for Waste and Hazardous Materials

**Yes No NA**

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

**APPENDIX H**  
**INFILTRATION AREA CONSTRUCTION INSPECTION**  
**CHECKLIST**

## Infiltration Basin Construction Inspection Checklist

Project:  
 Location:  
 Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
<b>1. Pre-Construction</b>		
Runoff diverted		
Soil permeability tested		
Groundwater / bedrock depth		
<b>2. Excavation</b>		
Size and location		
Side slopes stable		
Excavation does not compact subsoils		
<b>3. Embankment</b>		
Barrel		
Anti-seep collar or Filter diaphragm		
Fill material		

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
<b>4. Final Excavation</b>		
Drainage area stabilized		
Sediment removed from facility		
Basin floor tilled		
Facility stabilized		
<b>5. Final Inspection</b>		
Pretreatment facility in place		
Inlets / outlets		
Contributing watershed stabilized before flow is routed to the facility		

**Comments:**

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**Actions to be Taken:**

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## Open Channel System Construction Inspection Checklist

Project:  
 Location:  
 Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
<b>1. Pre-Construction</b>		
Pre-construction meeting		
Runoff diverted		
Facility location staked out		
<b>2. Excavation</b>		
Size and location		
Side slope stable		
Soil permeability		
Groundwater / bedrock		
Lateral slopes completely level		
Longitudinal slopes within design range		
Excavation does not compact subsoils		
<b>3. Check dams</b>		
Dimensions		
Spacing		
Materials		

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
<b>4. Structural Components</b>		
Underdrain installed correctly		
Inflow installed correctly		
Pretreatment devices installed		
<b>5. Vegetation</b>		
Complies with planting specifications		
Topsoil adequate in composition and placement		
Adequate erosion control measures in place		
<b>6. Final inspection</b>		
Dimensions		
Check dams		
Proper outlet		
Effective stand of vegetation and stabilization		
Contributing watershed stabilized before flow is routed to the facility		

**Comments:**

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## CDS<sup>®</sup> Inspection and Maintenance Guide

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## Maintenance

The CDS system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size of the unit. For example, unstable soils or heavy winter sanding will cause the grit chamber to fill more quickly but regular sweeping of paved surfaces will slow accumulation.

## Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant transport and deposition may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. At a minimum, inspections should be performed twice per year (e.g. spring and fall) however more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid accumulations, or in equipment washdown areas. Installations should also be inspected more frequently where excessive amounts of trash are expected.

The visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet and separation screen. The inspection should also quantify the accumulation of hydrocarbons, trash, and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument. If absorbent material is used for enhanced removal of hydrocarbons, the level of discoloration of the sorbent material should also be identified during inspection. It is useful and often required as part of an operating permit to keep a record of each inspection. A simple form for doing so is provided.

Access to the CDS unit is typically achieved through two manhole access covers. One opening allows for inspection and cleanout of the separation chamber (cylinder and screen) and isolated sump. The other allows for inspection and cleanout of sediment captured and retained outside the screen. For deep units, a single manhole access point would allow both sump cleanout and access outside the screen.

The CDS system should be cleaned when the level of sediment has reached 75% of capacity in the isolated sump or when an appreciable level of hydrocarbons and trash has accumulated. If absorbent material is used, it should be replaced when significant discoloration has occurred. Performance will not be impacted until 100% of the sump capacity is exceeded however it is recommended that the system be cleaned prior to that for easier removal of sediment. The level of sediment is easily determined by measuring from finished grade down to the top of the sediment pile. To avoid underestimating the level of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Particles at the top of the pile typically offer less resistance to the end of the rod than consolidated particles toward the bottom of the pile. Once this measurement is recorded, it should be compared to the as-built drawing for the unit to determine whether the height of the sediment pile off the bottom of the sump floor exceeds 75% of the total height of isolated sump.

## Cleaning

Cleaning of a CDS system should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method of removing pollutants from the system. Simply remove the manhole covers and insert the vacuum hose into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The area outside the screen should also be cleaned out if pollutant build-up exists in this area.

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, the system should be cleaned out immediately in the event of an oil or gasoline spill should be cleaned out immediately. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use absorbent pads since they are usually less expensive to dispose than the oil/water emulsion that may be created by vacuuming the oily layer. Trash and debris can be netted out to separate it from the other pollutants. The screen should be power washed to ensure it is free of trash and debris.

Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and also to ensure that proper safety precautions have been followed. Confined space entry procedures need to be followed if physical access is required. Disposal of all material removed from the CDS system should be done in accordance with local regulations. In many jurisdictions, disposal of the sediments may be handled in the same manner as the disposal of sediments removed from catch basins or deep sump manholes.



CDS Model	Diameter		Distance from Water Surface to Top of Sediment Pile		Sediment Storage Capacity	
	ft	m	ft	m	yd3	m3
CDS2015-4	4	1.2	3.0	0.9	0.9	0.7
CDS2015	5	1.5	3.0	0.9	1.3	1.0
CDS2020	5	1.5	3.5	1.1	1.3	1.0
CDS2025	5	1.5	4.0	1.2	1.3	1.0
CDS3020	6	1.8	4.0	1.2	2.1	1.6
CDS3030	6	1.8	4.6	1.4	2.1	1.6
CDS3035	6	1.8	5.0	1.5	2.1	1.6
CDS4030	8	2.4	4.6	1.4	5.6	4.3
CDS4040	8	2.4	5.7	1.7	5.6	4.3
CDS4045	8	2.4	6.2	1.9	5.6	4.3
CDS5640	10	3.0	6.3	1.9	8.7	6.7
CDS5653	10	3.0	7.7	2.3	8.7	6.7
CDS5668	10	3.0	9.3	2.8	8.7	6.7
CDS5678	10	3.0	10.3	3.1	8.7	6.7

Table 1: CDS Maintenance Indicators and Sediment Storage Capacities



#### Support

- Drawings and specifications are available at [www.contechstormwater.com](http://www.contechstormwater.com).
- Site-specific design support is available from our engineers.

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## CDS Inspection & Maintenance Log

CDS Model: \_\_\_\_\_ Location: \_\_\_\_\_

Date	Water depth to sediment <sup>1</sup>	Floatable Layer Thickness <sup>2</sup>	Describe Maintenance Performed	Maintenance Personnel	Comments

1. The water depth to sediment is determined by taking two measurements with a stadia rod: one measurement from the manhole opening to the top of the sediment pile and the other from the manhole opening to the water surface. If the difference between these measurements is less than the values listed in table 1 the system should be cleaned out. **Note: to avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the top of the sediment pile.**
  
2. For optimum performance, the system should be cleaned out when the floating hydrocarbon layer accumulates to an appreciable thickness. In the event of an oil spill, the system should be cleaned immediately.

# Contactor® & Recharger® Stormwater Chambers The Chamber With The Stripe®



## Operation and Maintenance Guidelines

# Operation & Maintenance

*This manual contains guidelines recommended by CULTEC, Inc. and may be used in conjunction with, but not to supersede, local regulations or regulatory authorities. OSHA Guidelines must be followed when inspecting or cleaning any structure.*

## Introduction

The CULTEC Subsurface Stormwater Management System is a high-density polyethylene (HDPE) chamber system arranged in parallel rows surrounded by washed stone. The CULTEC chambers create arch-shaped voids within the washed stone to provide stormwater detention, retention, infiltration, and reclamation. Filter fabric is placed between the native soil and stone interface to prevent the intrusion of fines into the system. In order to minimize the amount of sediment which may enter the CULTEC system, a sediment collection device (stormwater pretreatment device) is recommended upstream from the CULTEC chamber system. Examples of pretreatment devices include, but are not limited to, an appropriately sized catch basin with sump, pretreatment catchment device, oil grit separator, or baffled distribution box. Manufactured pretreatment devices may also be used in accordance with CULTEC chambers. Installation, operation, and maintenance of these devices shall be in accordance with manufacturer's recommendations. Almost all of the sediment entering the stormwater management system will be collected within the pretreatment device.

Best Management Practices allow for the maintenance of the preliminary collection systems prior to feeding the CULTEC chambers. The pretreatment structures shall be inspected for any debris that will restrict inlet flow rates. Outfall structures, if any, such as outlet control must also be inspected for any obstructions that would restrict outlet flow rates. OSHA Guidelines must be followed when inspecting or cleaning any structure.

## Operation and Maintenance Requirements

### I. Operation

CULTEC stormwater management systems shall be operated to receive only stormwater run-off in accordance with applicable local regulations. CULTEC subsurface stormwater management chambers operate at peak performance when installed in series with pretreatment. Pretreatment of suspended solids is superior to treatment of solids once they have been introduced into the system. The use of pretreatment is adequate as long as the structure is maintained and the site remains stable with finished impervious surfaces such as parking lots, walkways, and pervious areas are properly maintained. If there is to be an unstable condition, such as improvements to buildings or parking areas, all proper silt control measures shall be implemented according to local regulations.

### II. Inspection and Maintenance Options

- A. The CULTEC system may be equipped with an inspection port located on the inlet row. The inspection port is a circular cast box placed in a rectangular concrete collar. When the lid is removed, a 6-inch (150 mm) pipe with a screw-in plug will be exposed. Remove the plug. This will provide access to the CULTEC Chamber row below. From the surface, through this access, the sediment may be measured at this location. A stadia rod may be used to measure the depth of sediment if any in this row. If the depth of sediment is in excess of 3 inches (76 mm), then this row should be cleaned with high pressure water through a culvert cleaning nozzle. This would be carried out through an upstream manhole or through the CULTEC StormFilter Unit (or other pre-treatment device). CCTV inspection of this row can be deployed through this access port to determine if any sediment has accumulated in the inlet row.
- B. If the CULTEC bed is not equipped with an inspection port, then access to the inlet row will be through an upstream manhole or the CULTEC StormFilter.
  1. **Manhole Access**

This inspection should only be carried out by persons trained in confined space entry and sewer inspection services. After the manhole cover has been removed a gas detector must be lowered into the manhole to ensure that there are not high concentrations of toxic gases present. The inspector should be lowered into the manhole with the proper safety equipment as per OSHA requirements. The inspector may be able to observe sediment from this location. If this is not possible, the inspector will need to deploy a CCTV robot to permit viewing of the sediment.

**2. StormFilter Access**

Remove the manhole cover to allow access to the unit. Typically a 30-inch (750 mm) pipe is used as a riser from the StormFilter to the surface. As in the case with manhole access, this access point requires a technician trained in confined space entry with proper gas detection equipment. This individual must be equipped with the proper safety equipment for entry into the StormFilter. The technician will be lowered onto the StormFilter unit. The hatch on the unit must be removed. Inside the unit are two filters which may be removed according to StormFilter maintenance guidelines. Once these filters are removed the inspector can enter the StormFilter unit to launch the CCTV camera robot.

- C. The inlet row of the CULTEC system is placed on a polyethylene liner to prevent scouring of the washed stone beneath this row. This also facilitates the flushing of this row with high pressure water through a culvert cleaning nozzle. The nozzle is deployed through a manhole or the StormFilter and extended to the end of the row. The water is turned on and the inlet row is back-flushed into the manhole or StormFilter. This water is to be removed from the manhole or StormFilter using a vacuum truck.

### III. Maintenance Guidelines

The following guidelines shall be adhered to for the operation and maintenance of the CULTEC stormwater management system:

- A. The owner shall keep a maintenance log which shall include details of any events which would have an effect on the system’s operational capacity.
- B. The operation and maintenance procedure shall be reviewed periodically and changed to meet site conditions.
- C. Maintenance of the stormwater management system shall be performed by qualified workers and shall follow applicable occupational health and safety requirements.
- D. Debris removed from the stormwater management system shall be disposed of in accordance with applicable laws and regulations.

### IV. Suggested Maintenance Schedules

**A. Minor Maintenance**

The following suggested schedule shall be followed for routine maintenance during the regular operation of the stormwater system:

Frequency	Action
Monthly in first year	Check inlets and outlets for clogging and remove any debris as required.
Spring and Fall	Check inlets and outlets for clogging and remove any debris as required.
One year after commissioning and every third year following	Check inlets and outlets for clogging and remove any debris as required.

**B. Major Maintenance**

The following suggested maintenance schedule shall be followed to maintain the performance of the CULTEC stormwater management chambers. Additional work may be necessary due to insufficient performance and other issues that might be found during the inspection of the stormwater management chambers. (See table on next page)



## Major Maintenance *(continued)*

	Frequency	Action
Inlets and Outlets	Every 3 years	<ul style="list-style-type: none"> <li>Obtain documentation that the inlets, outlets and vents have been cleaned and will function as intended.</li> </ul>
	Spring and Fall	<ul style="list-style-type: none"> <li>Check inlet and outlets for clogging and remove any debris as required.</li> </ul>
CULTEC Stormwater Chambers	2 years after commissioning	<ul style="list-style-type: none"> <li>Inspect the interior of the stormwater management chambers through inspection port for deficiencies using CCTV or comparable technique.</li> <li>Obtain documentation that the stormwater management chambers and feed connectors will function as anticipated.</li> </ul>
	9 years after commissioning every 9 years following	<ul style="list-style-type: none"> <li>Clean stormwater management chambers and feed connectors of any debris.</li> <li>Inspect the interior of the stormwater management structures for deficiencies using CCTV or comparable technique.</li> <li>Obtain documentation that the stormwater management chambers and feed connectors have been cleaned and will function as intended.</li> </ul>
	45 years after commissioning	<ul style="list-style-type: none"> <li>Clean stormwater management chambers and feed connectors of any debris.</li> <li>Determine the remaining life expectancy of the stormwater management chambers and recommended schedule and actions to rehabilitate the stormwater management chambers as required.</li> <li>Inspect the interior of the stormwater management chambers for deficiencies using CCTV or comparable technique.</li> </ul>
	45 to 50 years after commissioning	<ul style="list-style-type: none"> <li>Replace or restore the stormwater management chambers in accordance with the schedule determined at the 45-year inspection.</li> <li>Attain the appropriate approvals as required.</li> <li>Establish a new operation and maintenance schedule.</li> </ul>
Surrounding Site	Monthly in 1 <sup>st</sup> year	<ul style="list-style-type: none"> <li>Check for depressions in areas over and surrounding the stormwater management system.</li> </ul>
	Spring and Fall	<ul style="list-style-type: none"> <li>Check for depressions in areas over and surrounding the stormwater management system.</li> </ul>
	Yearly	<ul style="list-style-type: none"> <li>Confirm that no unauthorized modifications have been performed to the site.</li> </ul>

For additional information concerning the maintenance of CULTEC Subsurface Stormwater Management Chambers, please contact CULTEC, Inc. at 1-800-428-5832.



**CULTEC**

Chamber of Choice™

CULTEC, Inc.

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Web: [www.cultec.com](http://www.cultec.com) • E-mail: [custservice@cultec.com](mailto:custservice@cultec.com)

**APPENDIX I**  
**CONTRACTOR AND SUBCONTRACTOR**  
**CERTIFICATIONS**

**CERTIFICATION STATEMENT**

“I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.”

**Contractor:**

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Company Phone Number: \_\_\_\_\_

Site Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Specific SWPPP Responsibilities:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date of Certification: \_\_\_\_\_

Name and Title of Trained Contractor for SWPPP

Implementation: \_\_\_\_\_

\_\_\_\_\_

**CERTIFICATION STATEMENT**

“I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.”

**Sub-Contractor:**

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Company Phone Number: \_\_\_\_\_

Site Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Specific SWPPP Responsibilities:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Date of Certification: \_\_\_\_\_

Name and Title of Trained Contractor for SWPPP

Implementation: \_\_\_\_\_

\_\_\_\_\_

**APPENDIX J**

**QUALIFIED PROFESSIONAL'S CERTIFICATION**

## QUALIFIED PROFESSIONAL'S CERTIFICATION

“ I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the Pre-Construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction.”

Name (Print): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Company Phone Number: \_\_\_\_\_

Company Email: \_\_\_\_\_

Signature: \_\_\_\_\_

**APPENDIX K**  
**OWNER / OPERATOR CERTIFICATION**

**CERTIFICATION STATEMENT**

“ I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I also certify under penalty of law that that this document and the corresponding documents were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, I am acknowledging that this SWPPP has been developed and will be implemented as the first element of construction and agree to comply with all the terms and conditions of the general permit for which the NOI is being submitted.”

Name (Print): \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Company Phone Number: \_\_\_\_\_

Company Email: \_\_\_\_\_

Signature: \_\_\_\_\_



**APPENDIX L**

**POST DEVELOPMENT MAINTENANCE AND  
INSPECTION CHECKLIST**

## Infiltration Trench Operation, Maintenance, and Management Inspection Checklist

Project:  
 Location:  
 Site Status:

Date:

Time:

Inspector:

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

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

**Comments:**

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**Actions to be Taken:**

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## Open Channel Operation, Maintenance, and Management Inspection Checklist

Project:  
 Location:  
 Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY/ UNSATISFACTORY	COMMENTS
<b>1. Debris Cleanout (Monthly)</b>		
Contributing areas clean of debris		
<b>2. Check Dams or Energy Dissipators (Annual, After Major Storms)</b>		
No evidence of flow going around structures		
No evidence of erosion at downstream toe		
Soil permeability		
Groundwater / bedrock		
<b>3. Vegetation (Monthly)</b>		
Mowing done when needed		
Minimum mowing depth not exceeded		
No evidence of erosion		
Fertilized per specification		
<b>4. Dewatering (Monthly)</b>		
Dewaterers between storms		

MAINTENANCE ITEM	SATISFACTORY/ UNSATISFACTORY	COMMENTS
<b>5. Sediment deposition (Annual)</b>		
Clean of sediment		
<b>6. Outlet/Overflow Spillway (Annual)</b>		
Good condition, no need for repairs		
No evidence of erosion		

**Comments:**

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**Actions to be Taken:**

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**APPENDIX M**  
**CONSTRUCTION INSPECTION REPORT**

## II. CONSTRUCTION DURATION INSPECTIONS

### a. Directions:

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

Required Elements:

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

**SITE PLAN/SKETCH**

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**Inspector (print name)**

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**Date of Inspection**

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**Qualified Professional (print name)**

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**Qualified Professional 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?
- Is there residue from oil and floating substances, visible oil film, or globules or grease?
- 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 and debris 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.

**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.

2. Level 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. Stabilized Construction Entrance

**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?

2. Silt Fence

**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)**

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

**Yes No NA**

- Installed concrete blocks lengthwise so open ends face outward, not upward.
  - Placed wire screen between No. 3 crushed stone and concrete blocks.
  - Drainage area is 1acre or less.
  - Excavated area is 900 cubic feet.
  - Excavated side slopes should be 2:1.
  - 2" x 4" frame is constructed and structurally sound.
  - Posts 3-foot maximum spacing between posts.
  - Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
  - Posts are stable, fabric is tight and without rips or frayed areas.
- Sediment accumulation \_\_\_% of design capacity.

**4. 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 accumulation is \_\_\_% of design capacity.

**5. 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 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.  
 Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.



### III. Monthly Summary of Site Inspection Activities

Name of Permitted Facility:	Today's Date:	Reporting Month:
Location:	Permit Identification #:	
Name and Telephone Number of Site Inspector:		

Date of Inspection	Regular / Rainfall based Inspection	Name of Inspector	Items of Concern

**Owner/Operator Certification:**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

\_\_\_\_\_  
Signature of Permittee or Duly Authorized Representative

\_\_\_\_\_  
Name of Permittee or Duly Authorized Representative      Date

Duly authorized representatives must have written authorization, submitted to DEC, to sign any permit documents.

**APPENDIX N**  
**NOTICE OF TERMINATION**

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

\*(NOTE: Submit completed form to address above)\*

**NOTICE OF TERMINATION for Storm Water Discharges Authorized  
under the SPDES General Permit for Construction Activity**

**Please indicate your permit identification number:** NYR \_\_\_\_\_

**I. Owner or Operator Information**

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person:

4a. Telephone:

4b. Contact Person E-Mail:

**II. Project Site Information**

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

**III. Reason for Termination**

9a.  All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. \*Date final stabilization completed (month/year): \_\_\_\_\_

9b.  Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR \_\_\_\_\_  
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c.  Other (Explain on Page 2)

**IV. Final Site Information:**

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices?  yes  no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed?  yes  no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

\_\_\_\_\_

**NOTICE OF TERMINATION for Storm Water Discharges Authorized under the  
SPDES General Permit for Construction Activity - continued**

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit?     yes     no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

- Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.
- Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).
- For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.
- For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? \_\_\_\_\_  
(acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4?     yes  
 no  
(If Yes, complete section VI - "MS4 Acceptance" statement)

**V. Additional Information/Explanation:**  
(Use this section to answer questions 9c. and 10b., if applicable)

**VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative** (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:

Date:



**NOTICE OF TERMINATION** for Storm Water Discharges Authorized under the  
SPDES General Permit for Construction Activity - continued

**VII. Qualified Inspector Certification - Final Stabilization:**

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

**VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):**

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

**IX. Owner or Operator Certification**

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

(NYS DEC Notice of Termination - January 2015)

**APPENDIX O**

**DRAINAGE MAPS**

## Shared Parking Report 511 Fishkill Avenue

January 29, 2018

### Summary

The Applicant proposes a shared parking alternative to satisfy the off-street parking requirements for the mixed-use project at 511 Fishkill Avenue. There are 4 proposed uses in the building:

1. Brewery Production
2. Brewery Event Space
3. Arcade (Indoor Commercial Recreation)
4. Warehouse

Each proposed use has a different parking requirement per the Beacon Zoning Code. It should be noted that the Zoning Code mandated parking for the Brewery production use is far greater than the Brewery tenant's experience with his similar operation demonstrates it should be. The Brewery tenant expects that the parking requirement for the Brewery use will be 15 spaces, as opposed to the 64 spaces required by the Zoning Code.

The parking requirement listed in the Zoning Code for the proposed Warehouse use is also considered to be higher than necessary by the Applicant, based on his previous experience with this type of use. The Applicant estimates that the parking requirement for the Warehouse use will be a maximum of 25 spaces, as opposed to the 67 spaces required by the Zoning Code.

This narrative demonstrates that the number of parking spaces proposed to be provided on a shared basis is more than sufficient for the actual expected needs of the facility.

The City of Beacon Zoning Code allows the Planning Board to approve a shared parking scenario, per Section 223-26 C.6:

*Two or more uses on same lot. Where two or more different uses occur on a single lot, the total amount of parking facilities to be provided shall be the sum of the requirements of each individual use on the lot, except that the Planning Board may approve the joint use of parking space by two or more establishments on the same lot or on contiguous lots, the total capacity of which is less than the sum of the spaces required for each, provided that said Board finds that the capacity to be provided will substantially meet the intent of this article by reason of variation in the probable time of maximum use*

# ARYEH SIEGEL

## ARCHITECT

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*by patrons or employees at such establishments and provided that such approval of such joint use shall be automatically terminated upon a change of use at any such establishment.*

### **Proposed Parking Spaces**

The total number of parking spaces proposed is **205**, seven of which are handicapped accessible.

### **Shared Parking**

The four proposed uses in the building are not all active at the same time of day. The Brewery Production and the Warehouse uses generally operate between 8am – 4pm, Monday through Friday.

The Brewery Event Space generally operates between 5pm – 12am, Monday through Sunday; and the Arcade use generally operates between 5pm – 10pm Wednesday through Friday, and between 10am and 10pm Saturday and Sunday.

Therefore, it is expected that there will be minimal overlap between the Brewery Production uses during weekdays, and the Event and Arcade uses in the evenings and weekends. The parking requirements for the individual uses are tabulated in the Parking & Loading Table below.

The combined parking requirement for the Brewery and Warehouse is **131** spaces during weekdays between 8am and 4pm.

The combined parking requirement for the Event and Arcade uses is **179** space during evenings and weekends.

The total parking requirement for each of the 2 use combinations that share similar operating times is less than the **205** parking spaces provided.

Brewery and Warehouse – 131 parking spaces < 205 parking spaces provided

Event and Arcade – 179 parking spaces < 205 parking spaces provided

Note that the occupancy for the Arcade use was determined by the City of Beacon Building Inspector based on his review of the proposed use along with Building Code occupancy loads for similar uses. The Bowling Lane component was calculated separately per listed Building Code occupancy loads. Refer to the **Arcade Occupancy Calculation Table** below.

The occupancy load determined by the Building Inspector corresponds with the actual occupancy load of another similar commercial recreation facility operated by the Applicant.

The **Parking Times by Use** table below summarizes the parking times of the four uses and demonstrates graphically that the use combinations that share similar operating times generally will not overlap.

# ARYEH SIEGEL

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## ARCHITECT

Parking Times By Use																		
Weekday Uses																		
	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM	
Brewery																		
Warehouse																		
Event																		
Arcade																		
Weekend Uses																		
	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM	
Brewery																		
Warehouse																		
Event																		
Arcade																		

# ARYEH SIEGEL

## ARCHITECT

### Parking & Loading Table

Use & Parking Requirements	Area / Count	Proposed Parking Requirement
<b>Future Brewery</b> <i>1 space per 2 employees but not less than 1 space per 400 square feet of gross floor space</i>	42,802 sf total area <i>(14,000 sf brewery requires 35 spaces; 28,802 sf warehouse requires 29 spaces)</i>	64 spaces
<i>1 space per employee but not less than 1 space per 1,000 square feet of gross floor space</i>	10 employees estimated	
<b>Warehouse</b> <i>1 space per employee but not less than 1 space per 1,000 square feet of gross floor space</i>	66,696 sf  20 employees estimated	67 spaces
<b>Arcade (commercial recreation)</b> <i>1 space for each 4 persons of maximum occupancy or 1 space for each 200 square feet of gross floor area, whichever is greater</i>	11,381 sf minus 2700 sf for 5 bowling lanes = 8,681 sf  8,681 sf @ 50 sf/occupant = <b>173 arcade game occupants</b>  5 bowling lanes @ 5 per lane = <b>25 bowling lane occupants</b>	68 spaces (43 for game occupancy + 25 for bowling lane occupancy)
<b>Office/Retail</b> <i>1 space for each 200 square feet of gross floor area, excluding utility areas</i>	2,315 sf	0 spaces - Non-simultaneous use
<b>Brewery Event Space / Lounge</b> <i>1 space for each 3 patron seats or 1 space for each 150 square feet of gross floor area, excluding kitchen and storage areas, whichever is greater</i>	4,965 sf 331 occupants @ 15 sf per occupant	111 spaces
<b>Total Required Parking Spaces</b>		<b>310</b>
<b>Total Proposed Parking Spaces</b>		<b>205</b>
<b>Total Required Loading Spaces</b>		1
<b>Total Proposed Loading Spaces</b>		5

**ARYEH SIEGEL**  
ARCHITECT

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**511 Fishkill Avenue - Arcade Parking Calculation**

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		<b>Comments</b>
Gross Area of Arcade Tenant	<b>11,381</b>	
<i>Deductions from gross area</i>		
<hr/>		
Bowling Area	2,700	Occupancy calculated separately
<b>Total Deductions</b>	<b>2,700</b>	
<hr/>		
Net Area for Games (Gross Area minus deductions)	<b>8,681</b>	
Game Occupancy at 50 sf/person (exercise room)	173	
Bowling Lane occupancy at 5 per lane (x 5 lanes)	25	
<hr/>		
Total Arcade Occupancy	<b>198</b>	
<hr/>		
Parking at 1 space per 4 occupants (excludes bowling)	43	
Parking for Bowling Lanes at 5 spaces per lane	25	
Arcade Parking (arcade plus bowling)	68	<i>versus 57 by area at 1 space per 200 sf</i>
Brewery Event Parking	111	
<hr/>		
<b>Total of Arcade and Event</b>	<b>179</b>	<b>OK, total of arcade and event &lt;205</b>
Parking spaces provided	<b>205</b>	

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.

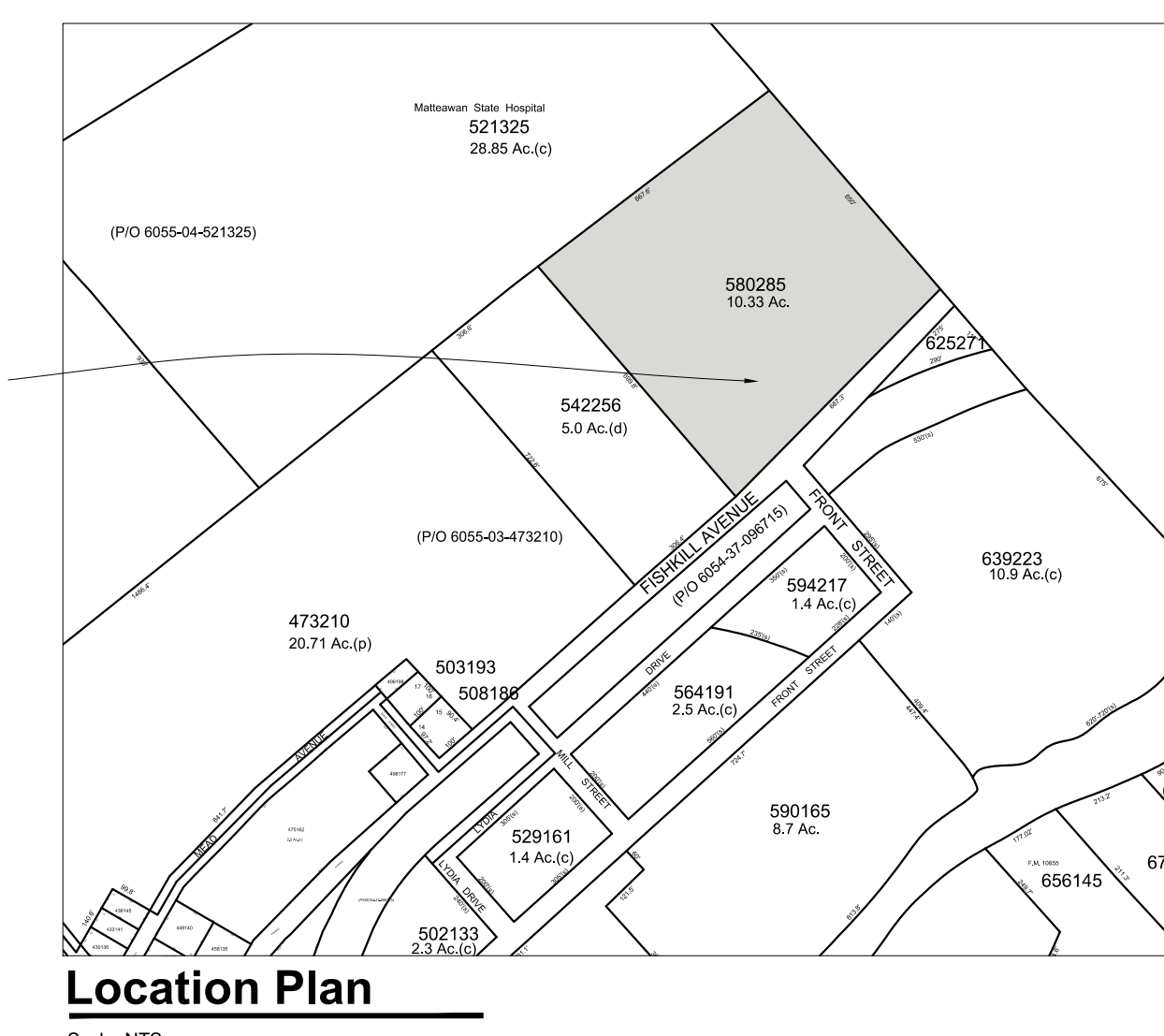
SIGNED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_ BY \_\_\_\_\_

CHAIRMAN

SECRETARY

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

Zoning District	Minimum Lot Width	Minimum Lot Depth	Required Minimum Setbacks			Existing Setbacks			Maximum Building Height	Existing Building Height
			Front	Side <sup>1</sup>	Rear <sup>2</sup>	Front	Side <sup>1</sup>	Rear <sup>2</sup>		
HI	N/A	100'	0	20'	25'	22'	51'	43'	35'	34'

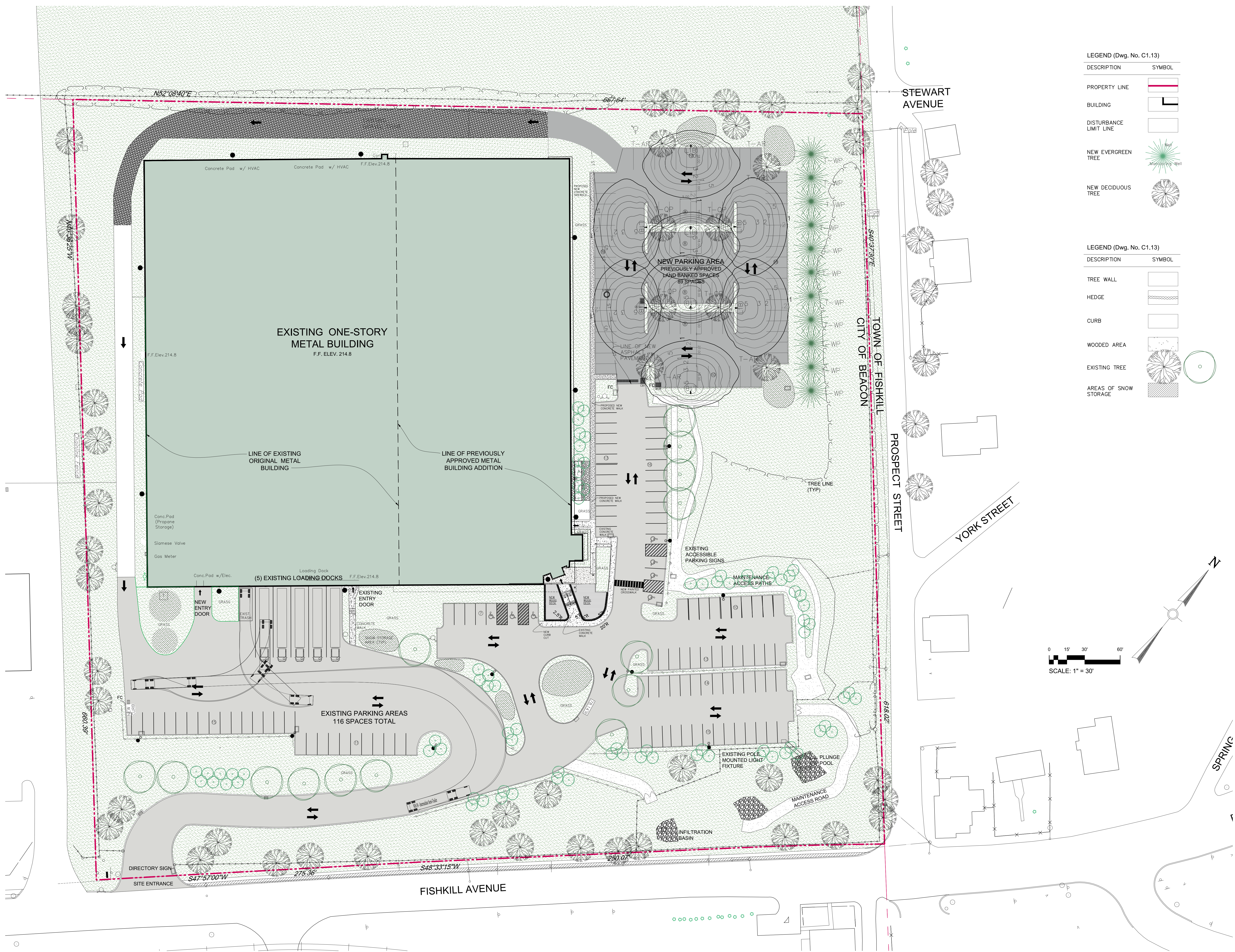


**NEW POLE MOUNTED PARKING LOT LIGHT FIXTURES**

MATCH EXISTING POLE MOUNTED LIGHT DESIGN, USE LED FIXTURE

KIM LIGHTING "ARCHETYPE" SERIES CUT-OFF LUMINAIRE DIE-CAST ALUMINUM REFLECTOR SYSTEM WITH SPECULAR PANELS, DIE-CAST ALUMINUM HOUSING AND LENS FRAME - CLEAR CONVEX GLASS LENS

3,000 K PICO PRISM LED LAMP WITH 17,539 LUMENS, NIGHT SKY COMPLIANT



LEGEND (Dwg. No. C1.13)

DESCRIPTION	SYMBOL
PROPERTY LINE	[Red line symbol]
BUILDING	[Black outline symbol]
DISTURBANCE LIMIT LINE	[Dashed line symbol]
NEW EVERGREEN TREE	[Green starburst symbol]
NEW DECIDUOUS TREE	[Green circle symbol]
TREE WALL	[Hatched area symbol]
HEDGE	[Wavy line symbol]
CURB	[Solid line symbol]
WOODED AREA	[Dotted area symbol]
EXISTING TREE	[Green circle with lines symbol]
AREAS OF SNOW STORAGE	[Hatched area symbol]

**Zoning Summary**

Zoning District: HI (Heavy Industry)  
Tax Map No.: 6055-04-580285  
Lot Area: 9.79 acres (426,327.9 sf)  
Building Footprint: 76,773 square feet (existing)  
Total Lot Coverage: 18%  
Historical Overlay District: No  
Parking Overlay District: No  
Existing Use: Industrial & Office (Vacant)  
Proposed Use: Industrial, Warehouse, Brewery, Office, Retail, Commercial Recreation (Arcade)

**Parking & Loading**

Use & Parking Requirements	Area / Count	Proposed Parking Requirement
<b>Future Brewery</b> 1 space per 2 employees but not less than 1 space per 400 square feet of gross floor space  1 space per employee but not less than 1 space per 1,000 square feet of gross floor space	42,802 sf total area (14,000 sf brewery requires 35 spaces; 28,802 sf warehouse requires 29 spaces)  10 employees estimated	64 spaces
<b>Warehouse</b> 1 space per employee but not less than 1 space per 1,000 square feet of gross floor space	66,696 sf 20 employees estimated	67 spaces
<b>Arcade (commercial recreation)</b> 1 space for each 4 persons of maximum occupancy or 1 space for each 200 square feet of gross floor area, whichever is greater  5 spaces per bowling lane	11,381 sf minus 2700 sf for 5 bowling lanes = 8,681 sf  8,681 sf @ 50 sf/occupant = 173 arcade game occupants  5 bowling lanes @ 5 per lane = 25 bowling lane occupants	68 spaces (43 for game occupancy for bowling lane occupancy)
<b>Office/Retail</b> 1 space for each 200 square feet of gross floor area, excluding utility areas	2,296 sf	0 spaces - Non-simultaneous use
<b>Brewery Event Space / Lounge</b> 1 space for each 3 patron seats or 1 space for each 150 square feet of gross floor area, excluding kitchen and storage areas, whichever is greater	4,965 sf 331 occupants @ 15 sf per occupant	111 spaces
<b>Total Required Parking Spaces</b>		<b>310</b>
<b>Total Proposed Parking Spaces</b>		<b>205</b>
<b>Total Required Loading Spaces</b>		<b>1</b>
<b>Total Proposed Loading Spaces</b>		<b>5</b>

Notes:  
1.

**Index of Drawings**

Sheet 1 of 10	Site Plan
Sheet 2 of 10	Survey/Existing Conditions Plan
Sheet 3 of 10	Landscape Plan & Lighting
Sheet 4 of 10	Building Plans
Sheet 5 of 10	Elevations
Sheet 6 of 10	Grading & Utility Plan
Sheet 7 of 10	Erosion & Sediment Control Plan
Sheet 8 of 10	Site Details
Sheet 9 of 10	Stormwater Details
Sheet 10 of 10	Water & Sewer Details

NOTE THAT SHEETS FROM THE PREVIOUSLY APPROVED SPECIAL USE PERMIT APPLICATION ARE INCLUDED IN THIS SET FOR REFERENCE

REVISIONS:

NO.	DATE	DESCRIPTION	BY
1	12/25/18	REVISED PER PLANNING BOARD COMMENTS	AJS
2	01/29/19	REVISED PER PLANNING BOARD COMMENTS	AJS

**Amendment to Site Plan Application**  
**Site Plan - Sheet 1 of 13**

**511 Fishkill Avenue**  
Beacon, New York  
Scale: As Noted  
October 1, 2018



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.



LEGEND (Dwg. No. C1.3)

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		N/A
BUILDING		
DISTURBANCE LIMIT LINE	N/A	
WELL		
MONITORING WELL		N/A
TRANSFORMER		N/A
TREE		REFER TO DWG. NO. C1.13
TREE WALL/WELL	N/A	
TREE LINE		
CONCRETE CURB		
DROP CURB	N/A	
CONCRETE WALK	N/A	
HANDICAPPED RAMP	N/A	
PARKING STALL	N/A	
HC PARKING SYMBOL	N/A	HC
RIP-RAP SWALE	N/A	
NEW PAVEMENT	N/A	
PAVEMENT OVERLAY	N/A	
PAVEMENT RAISE	N/A	
LIGHT POLE		REFER TO DWG. NO. C1.14
PAVEMENT NOTCHING INTO EXISTING PAVEMENT	N/A	
GUIDE RAIL	N/A	
PAVEMENT EDGE		
SIGN		N/A
FENCE		
BUILDING ENTRANCE		
MAINTENANCE ACCESS ROAD	N/A	

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	12/25/18	REVISED PER PLANNING BOARD COMMENTS	AJS
2	01/29/19	NO CHANGE	AJS

NOTE: REMOVE EXISTING CHAIN LINK FENCE FROM FRONT OF PROPERTY (TYPICAL ALONG ROUTE 52 FISHKILL AVENUE FRONTAGE)

Site Plan  
Scale: 1"=30'

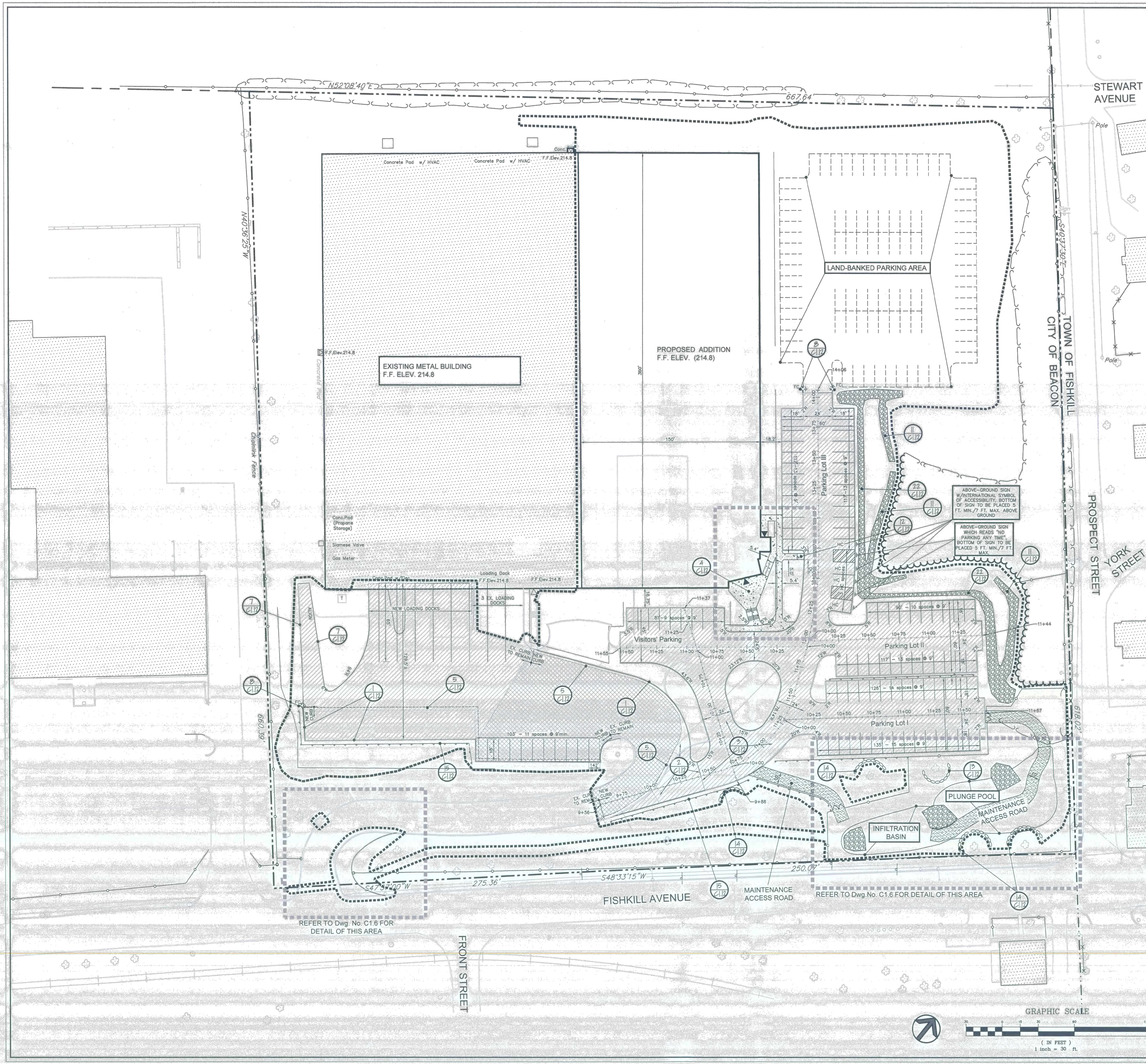
# Amendment to Site Plan Application

## Existing Conditions Survey - Sheet 2 of 13

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 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.



**LEGEND (Dwg. No. C1.3)**

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE	---	N/A
BUILDING	[Pattern]	[Pattern]
DISTURBANCE LIMIT LINE	N/A	-----
WELL	[Symbol]	N/A
MONITORING WELL	[Symbol]	N/A
TRANSFORMER	[Symbol]	N/A
TREE	[Symbol]	REFER TO DWG. NO. C1.13
TREE WALL/WELL	N/A	[Symbol]
TREE LINE	[Symbol]	[Symbol]
CONCRETE CURB	[Symbol]	[Symbol]
DROP CURB	N/A	[Symbol]
CONCRETE WALK	N/A	[Symbol]
HANDICAPPED RAMP	N/A	[Symbol]
PARKING STALL	N/A	[Symbol]
HC PARKING SYMBOL	N/A	HC
RIP-RAP SWALE	N/A	[Symbol]
NEW PAVEMENT	N/A	[Symbol]
PAVEMENT OVERLAY	N/A	[Symbol]
PAVEMENT RAISE	N/A	[Symbol]
LIGHT POLE	[Symbol]	REFER TO DWG. C1.14
PAVEMENT NOTCHING INTO EXISTING PAVEMENT	N/A	[Symbol]
GUIDE RAIL	N/A	[Symbol]
PAVEMENT EDGE	[Symbol]	[Symbol]
SIGN	[Symbol]	N/A
FENCE	[Symbol]	[Symbol]
BUILDING ENTRANCE	[Symbol]	[Symbol]
MAINTENANCE ACCESS ROAD	N/A	[Symbol]

**MECHTRONICS CORPORATION**  
 511 Fishkill Avenue  
 City of Beacon  
 New York, 12508

**KG&D architects**  
 Keyser, Garment & Davidson architects, pc  
 285 main street mount kisco, new york 10549  
 p:914.666.9900 f:914.666.0051 kudararchitects.com

**SITE DEVELOPMENT PLAN APPLICATION**

Owner:  
 RICHARD J. FELLINGER  
 1 NEW KING STREET  
 WHITE PLAINS, NY 10604

Applicant:  
 RICHARD J. FELLINGER  
 1 NEW KING STREET  
 WHITE PLAINS, NY 10604

Tax ID:  
 Section 6055  
 BLOCK 4  
 LOT 580 285

APPROVED  
 DAVID BULLY  
 BUILDING INSPECTOR

**LAYOUT and PAVEMENT PLAN**

**C1.2**

Job No. 2009-1013  
 Date: 10/15/2010  
 Scale: AS NOTED  
 Drawn/Checked: SL/SL

NO.	DATE	DESCRIPTION	BY
1	12/25/18	NO CHANGE	AJS

**Site Plan**  
 Scale: 1" = 30'

Owner:  
**DP108, LLC**  
 333 North Bedford Road  
 Mt. Kisco, NY 10549

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

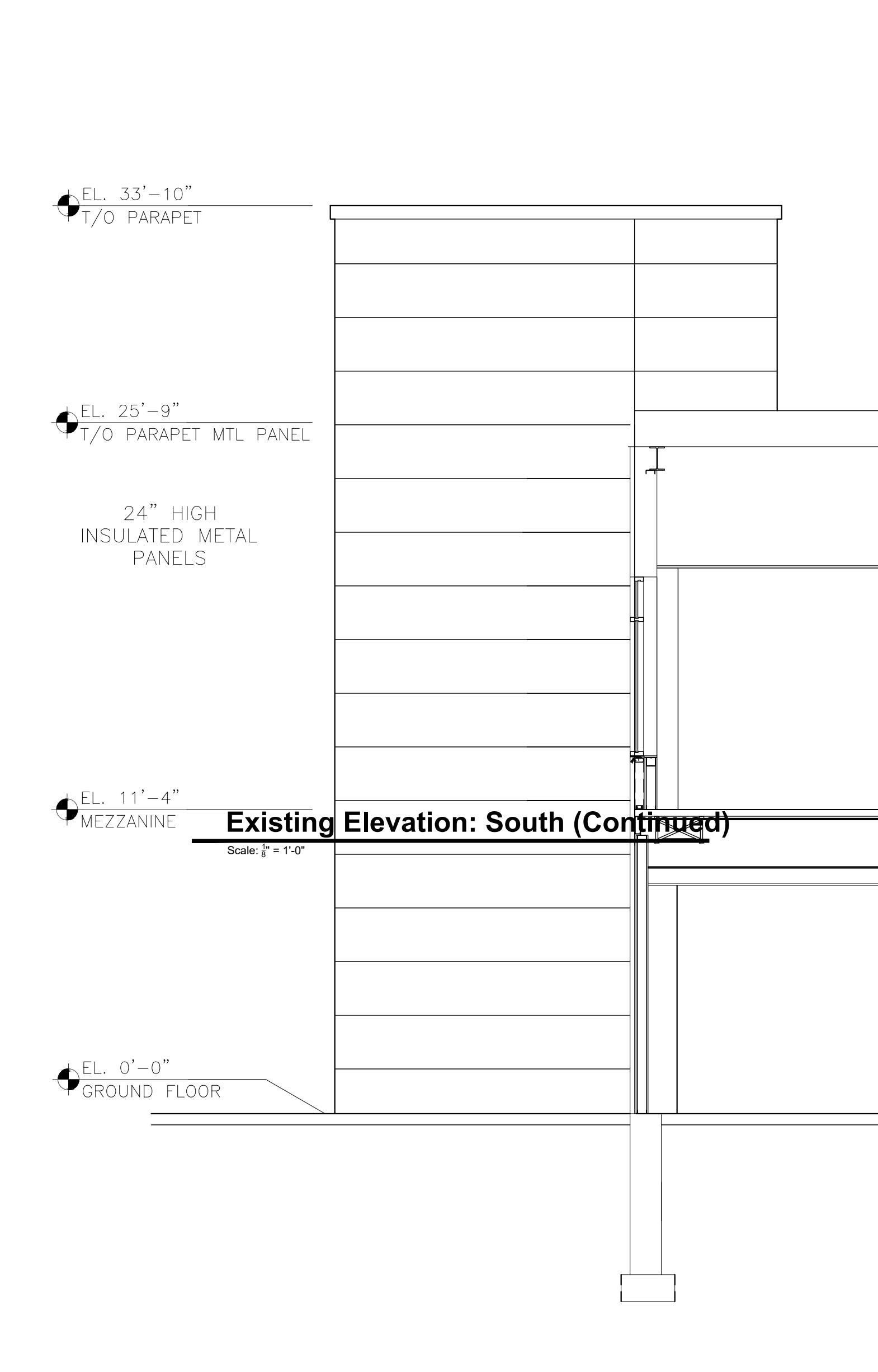
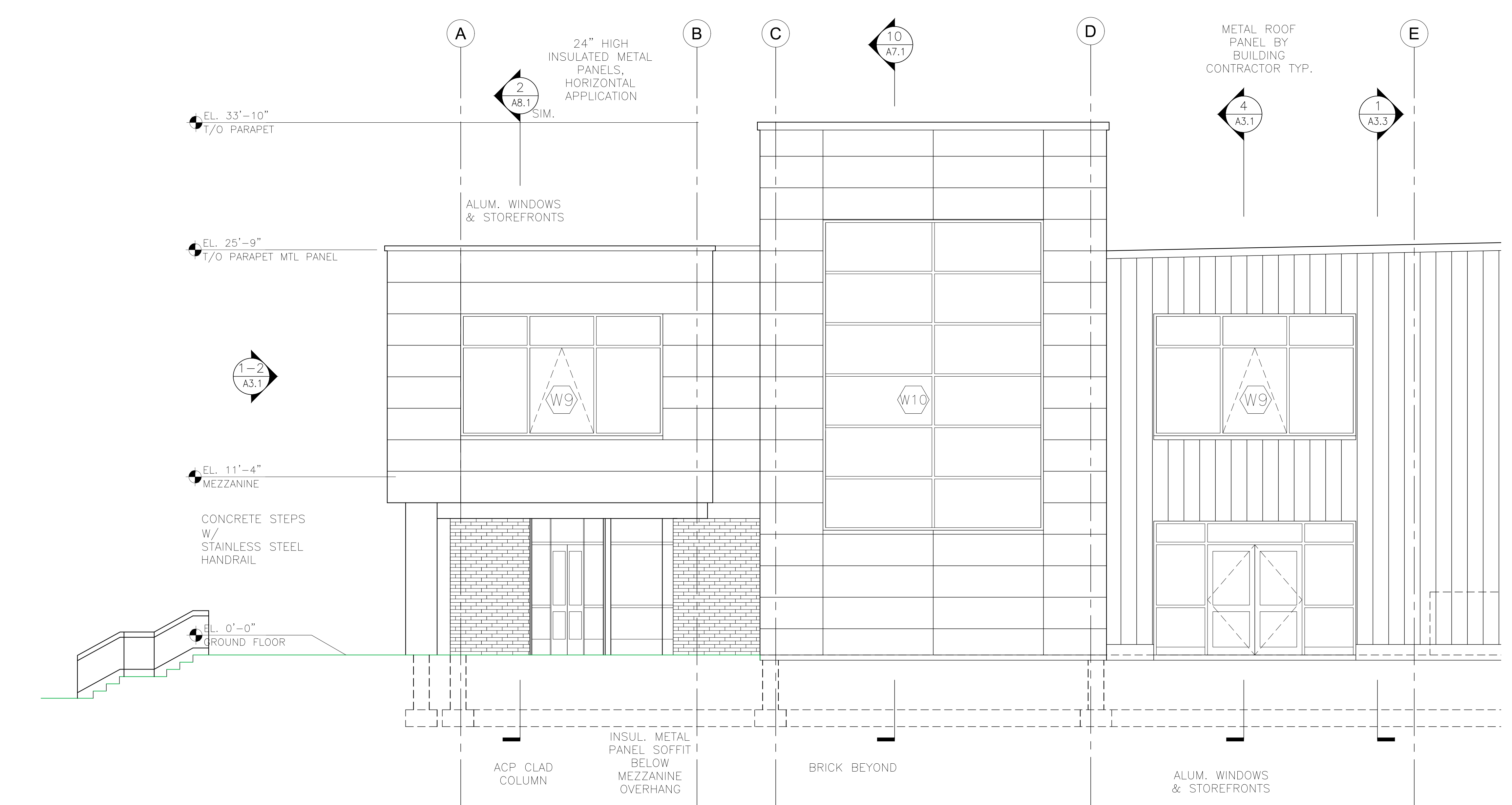
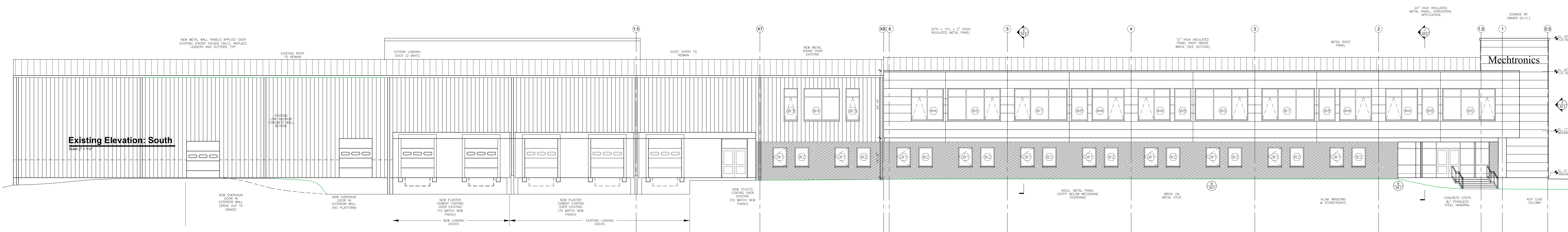
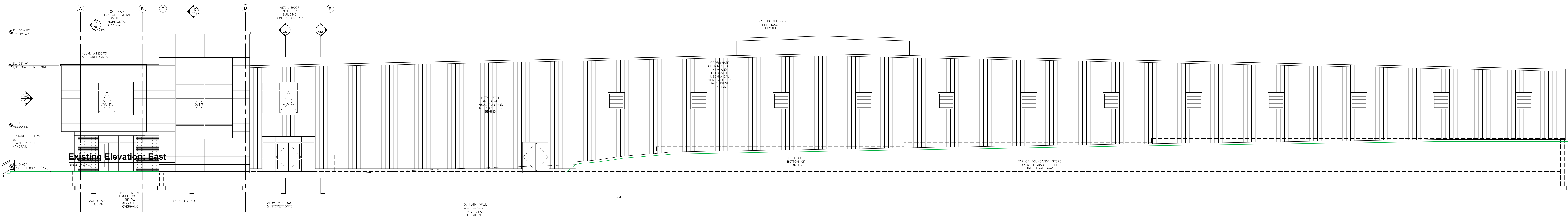
Site/Civil Engineer:  
**Hudson Land Design**  
 174 Main Street  
 Beacon, New York 12508

Surveyor:  
**TEC Land Surveying**  
 Beacon, New York 12508

**Amendment to Site Plan Application**  
 Previously Approved Site Plan For Reference Only - Sheet 3 of 13

**511 Fishkill Avenue**  
 Beacon, New York  
 Scale: As Noted  
 November 27, 2018





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.

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	12/25/18	NO CHANGE	AJS
2	01/28/19	NO CHANGE	AJS

## Amendment to Site Plan Application Elevations (No Work) For Reference Only - Sheet 5 of 13

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	12/25/18	REVISED PER PLANNING BOARD COMMENTS	AJS
2	01/29/19	NO CHANGE	AJS

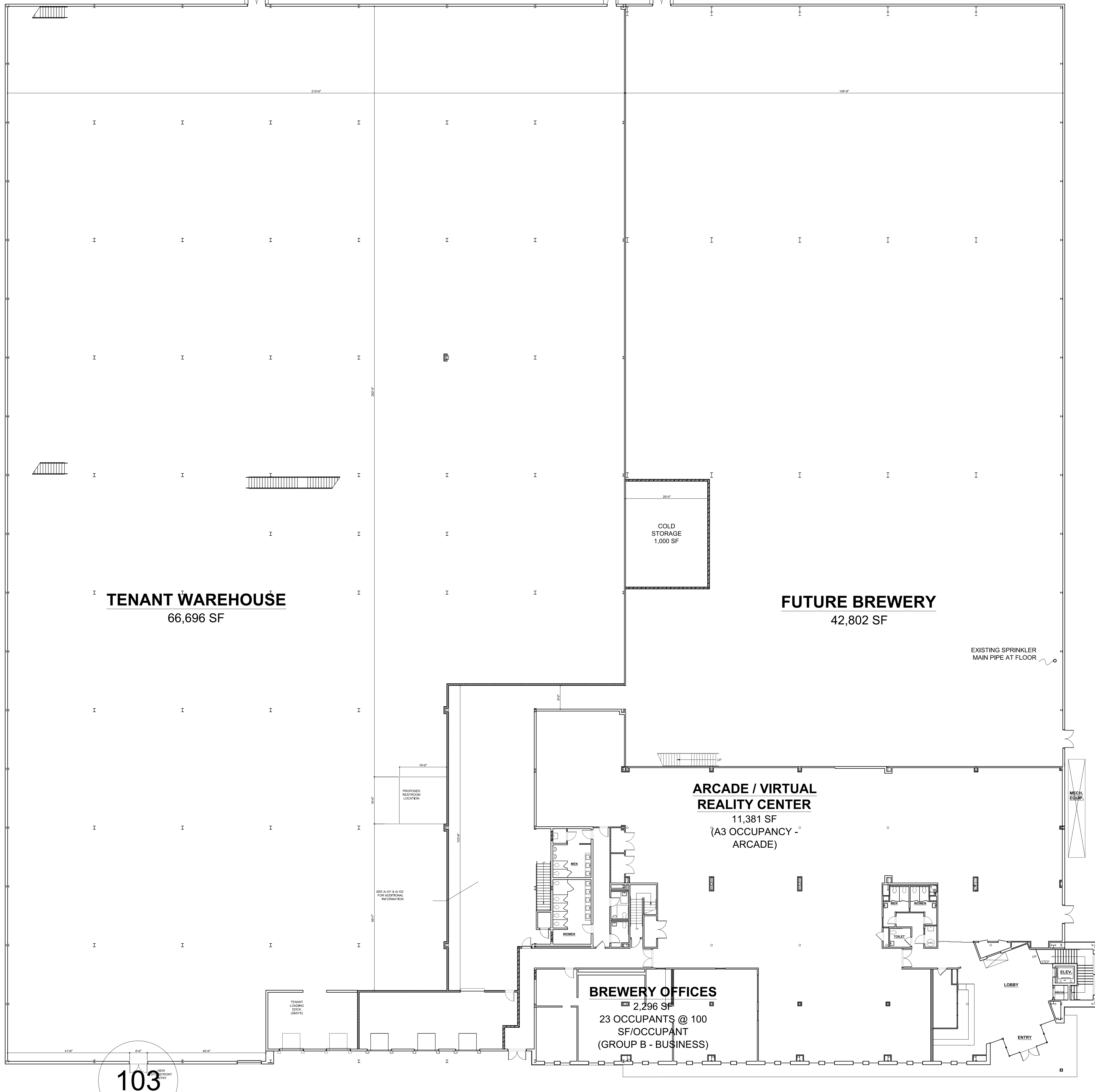
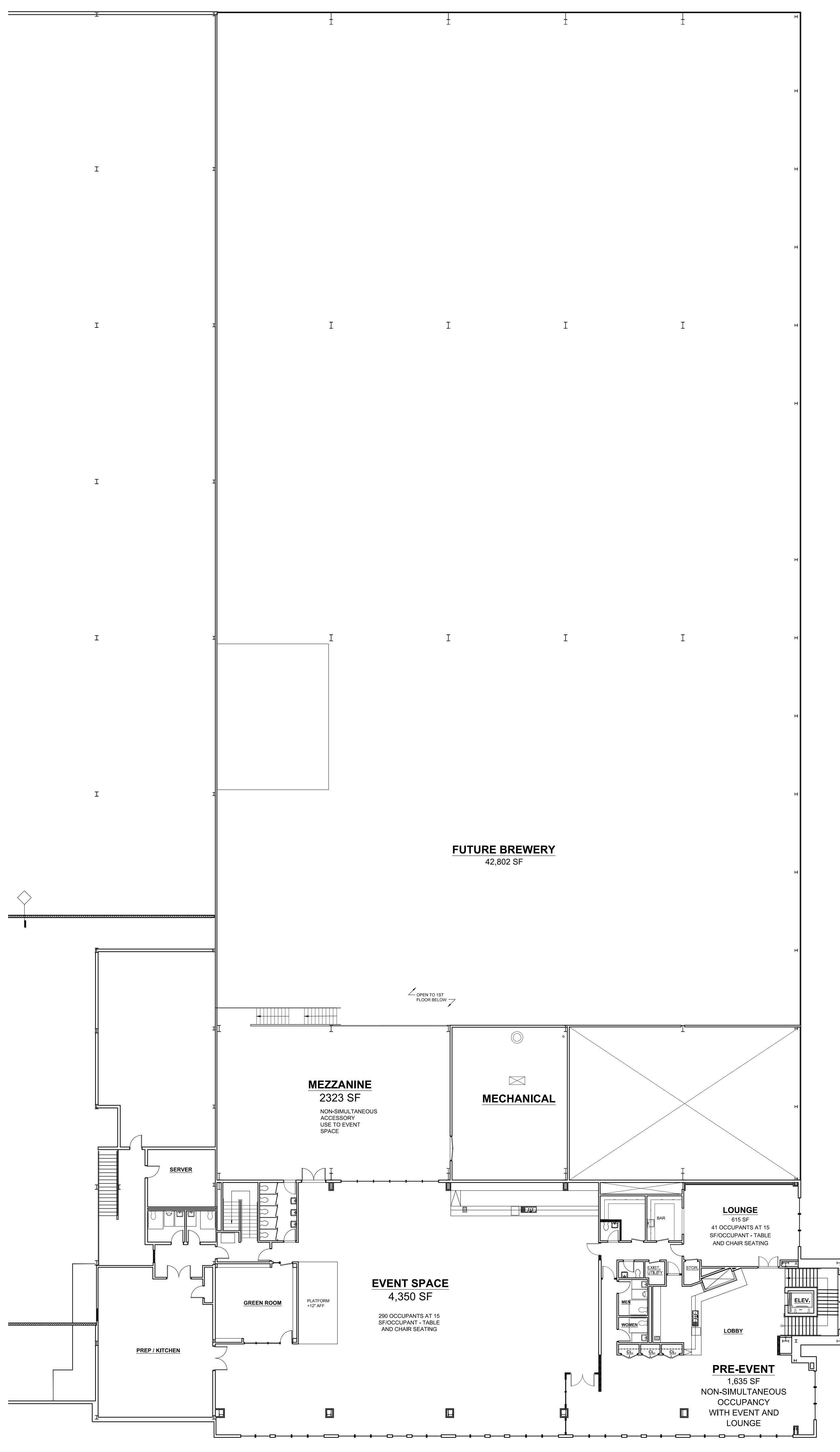
APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERRASURE, MODIFICATION OR REVISION OF THIS PLAN, AS APPROVED, SHALL VOID THIS APPROVAL.

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.



## Amendment to Site Plan Application Floor Plans - Sheet 6 of 13

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

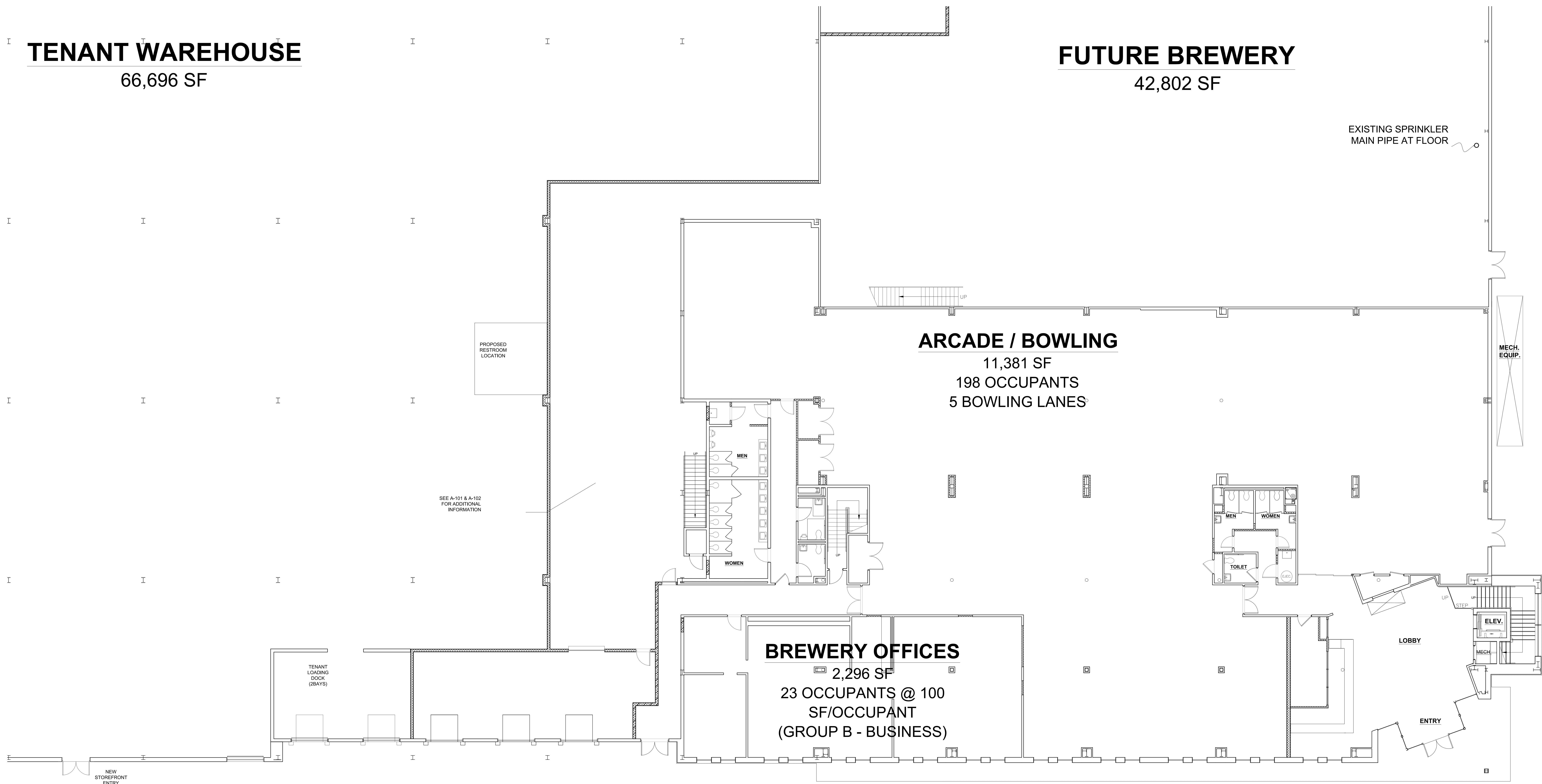
IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

# TENANT WAREHOUSE

66,696 SF

# FUTURE BREWERY

42,802 SF



EXISTING SPRINKLER MAIN PIPE AT FLOOR

MECH. EQUIP.

## ARCADE / BOWLING

11,381 SF  
198 OCCUPANTS  
5 BOWLING LANES

## BREWERY OFFICES

2,296 SF  
23 OCCUPANTS @ 100 SF/OCCUPANT  
(GROUP B - BUSINESS)

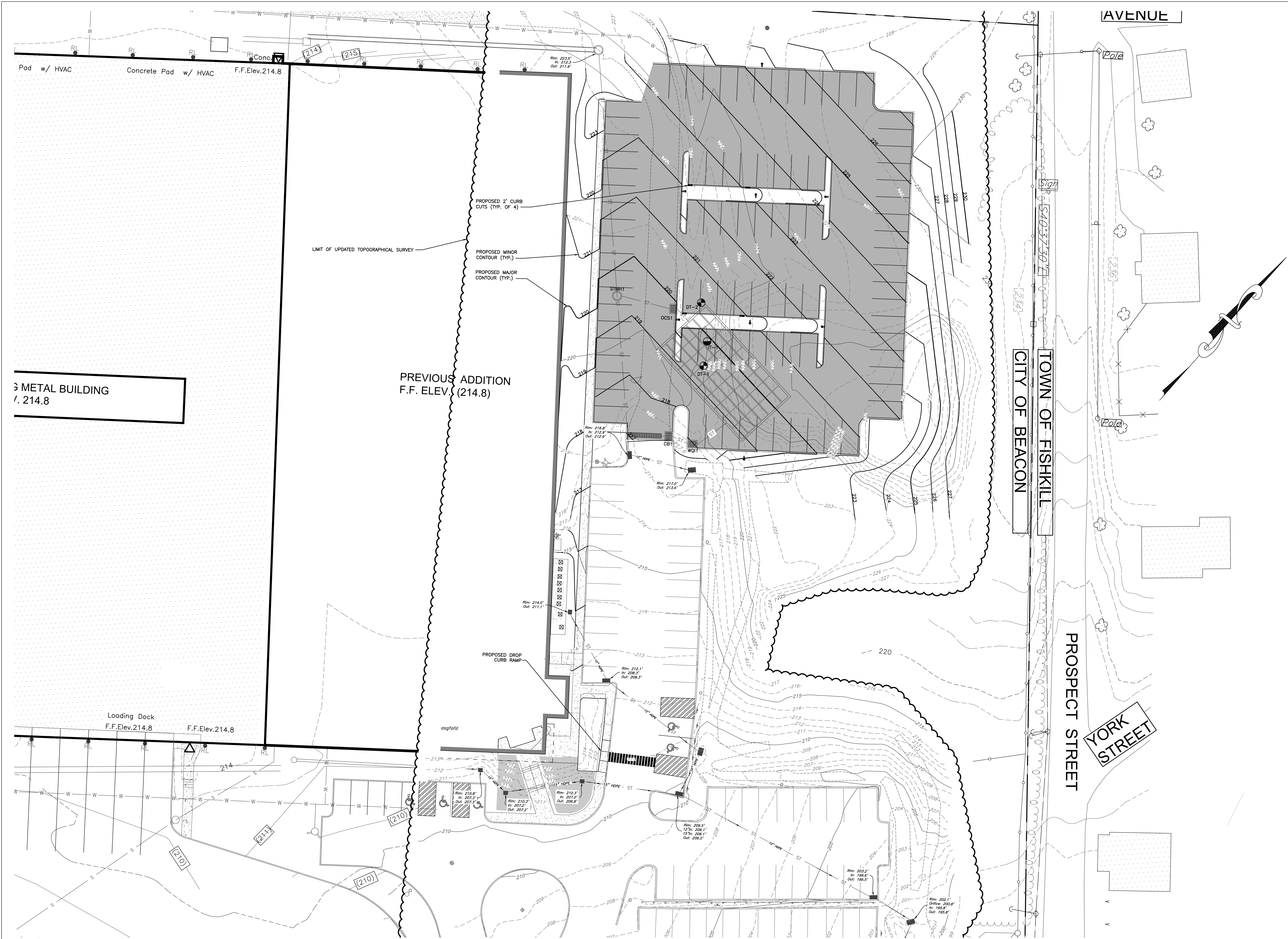
**1st Floor Plan**  
Scale: 1/8" = 1'-0"

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
2	01/29/19	REVISED PER PLANNING BOARD COMMENTS	AJS

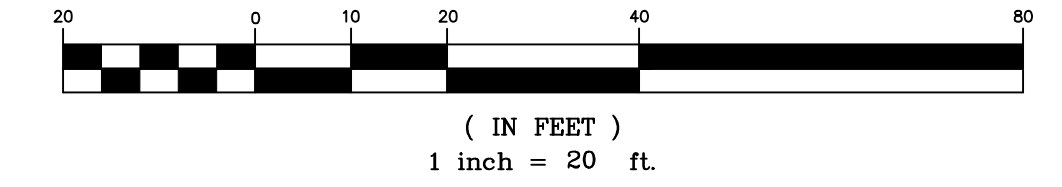
**Amendment to Site Plan Application**  
**Floor Plans - Sheet 7 of 13**

**511 Fishkill Avenue**





GRADING PLAN  
SCALE: 1" = 20'  
GRAPHIC SCALE



**GENERAL CONSTRUCTION SCHEDULE:**  
THE FOLLOWING SCHEDULE IS SUBJECT TO CHANGE BASED ON ENCOUNTERED FIELD CONDITIONS AND/OR THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION.  
1. PREPARE THE SITE FOR CONSTRUCTION BY INSTALLING THE PRELIMINARY EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN.  
2. CLEAR AND GRUB THE PREVIOUS AREAS WITHIN THE LIMITS OF CONSTRUCTION.  
3. MASS EXCAVATION AND DRAINAGE INSTALLATION ON THE SITE GENERALLY WITHIN THE AREA FROM THE RETAINING WALL TO ITS EAST WITHIN THE LIMITS OF DISTURBANCE (INCLUDING THE ACCESS ROAD, PARKING AREAS, FOUNDATION AREAS FOR LINES 8-18). UTILITIES TO INCLUDE METER PIT, THE WATER MAIN, INDIVIDUAL WATER SERVICES UNITS 8-18, SANITARY SEWER TO THE CONNECTION POINT ON THE SOUTH SIDE OF THE SITE, SANITARY SEWER MAIN AND MANHOLES, SANITARY SEWER SERVICE CONNECTIONS UNITS 8-18, STORMWATER CATCH BASIN AND PIPING ON NORTHERN PORTION OF SITE AND STORM MANHOLES 1 & 2 TO THE EXISTING CATCH BASIN ON THE SOUTH SIDE OF THE SITE (STORM SYSTEM ON NORTH TO DISCHARGE TO TEMPORARY SEDIMENT TRAPS ON THE SOUTH PORTION OF THE SITE, WITH TEMPORARY OVERFLOW TO THE STORM MANHOLE 2).  
4. INSTALL CURBING AND BRING PARKING/ROADWAY TO BRACKER COURSE.  
5. FINALIZE SITE LANDSCAPING AND INSTALL TOP ASPHALT COURSE.

**GENERAL CONSTRUCTION NOTES:**  
1. ALL OTHER UTILITIES (TELEPHONE, ELECTRIC, GAS, CABLE, ETC.) SHALL BE INCORPORATED PRIOR TO CONSTRUCTION. ALL SUCH UTILITY DESIGNS SHALL BE DEVELOPED IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANIES.  
2. LIMITS OF UPDATED TOPOGRAPHICAL SURVEY AS PROVIDED BY TIC LAND SURVEYING BY FIELD SURVEY COMPLETED IN OCTOBER 2018. ALL AREAS SHOWN OUTSIDE OF THE LIMITS OF DISTURBANCE ARE SHOWN PER PREVIOUS DESIGN PLANS FOR THE MECHTRONICS SITE.  
3. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UPPO @ 1-800-942-7962.  
4. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL CATCH BASINS & STORM SEWER LINES, SANITARY MANHOLES & SEWER LINES, WATERLINES AND OTHER UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT. INVESTIGATIVE TEST PITS MAY BE REQUIRED TO VERIFY LOCATIONS.  
5. PIPE CONNECTIONS TO ALL CATCH BASINS SHALL BE MADE WATER-TIGHT, WITH PARTICULAR ATTENTION BEING PAID TO CONNECTIONS LOCATED WITHIN 10 FEET OF SEWER MAINS (AND SERVICE LATERALS).

INFILTRATION TEST TABLE  
INFILTRATION TESTS RESULTS ESTABLISHED ON 12/05/2018  
ALL TESTS PRESERVED 24 HOURS PRIOR

TEST ID	TEST HOLE BOTTOM ELEVATION	RESULTS
IT-1	212.5	13" PER HOUR, 6" PER HOUR, 4" PER HOUR

DEEP TEST HOLE TABLE  
DEEP TEST HOLE RESULTS ESTABLISHED ON 12/05/2018

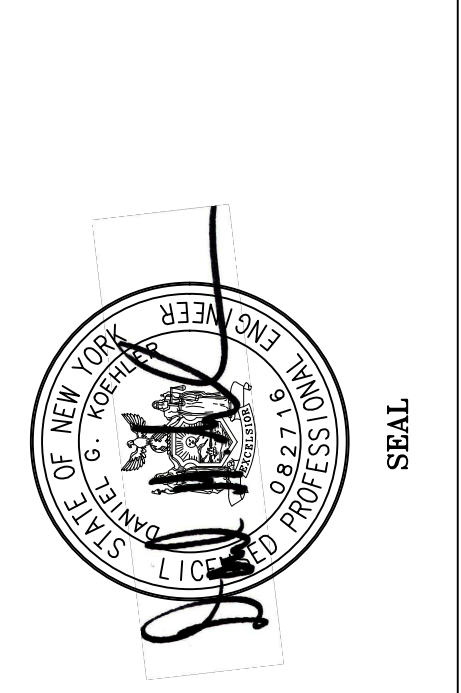
TEST PIT ID	EX. ELEVATION	DESCRIPTION
DT-1	219.7	0'-6" TOPSOIL, 6'-24" SANDY-CLAY LOAM WITH GRAVEL, 24"-48" SANDY-CLAY LOAM WITH COBBLES, 48"-100" BROWN SILTY-CLAY LOAM WITH COBBLES; NO GROUNDWATER, NO MOTTLING, NO BEDROCK
DT-2	221.0	0'-4" TOPSOIL, 4'-30" SANDY-CLAY LOAM WITH GRAVEL, 30"-101" SILTY-CLAY LOAM WITH COBBLES; NO GROUNDWATER, NO MOTTLING, NO BEDROCK

CHECKED BY: DCK

NO.	DATE	DESCRIPTION	BY	DATE
1	12/27/18	PER PLANNING BOARD COMMENTS	CMB	
2	1/29/19	PER PLANNING BOARD COMMENTS	CMB	

**Dig Safely, New York**  
800-962-7962  
Call Before You Dig  
Dig Safely, New York  
100 West Street  
New York, NY 10038

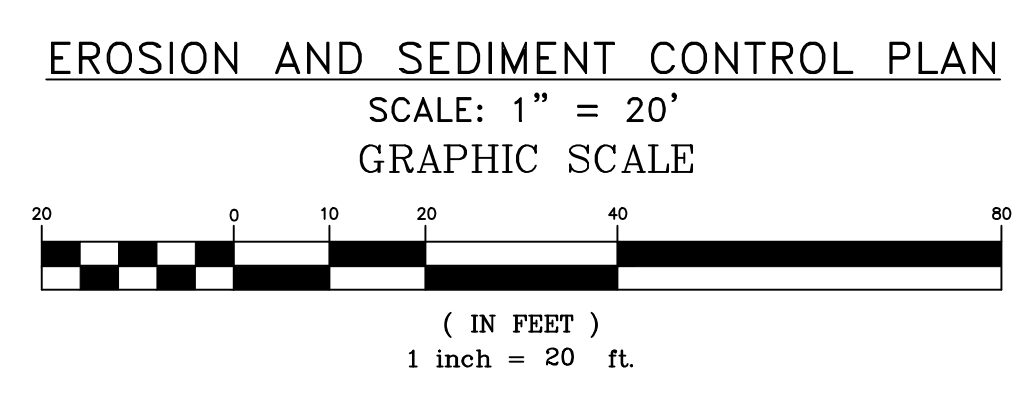
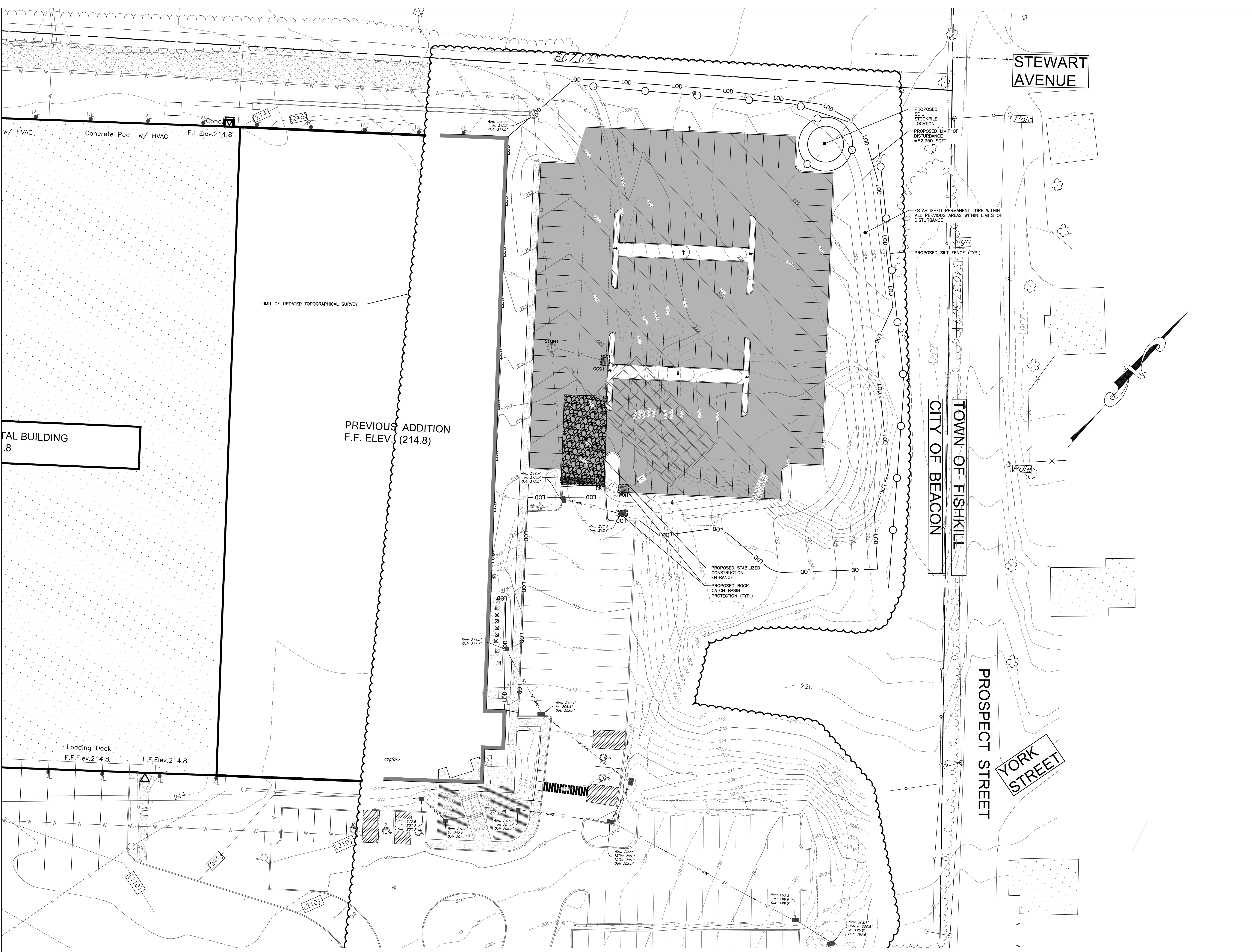
**Hudson Land Design**  
HUDSON LAND DESIGN  
PROFESSIONAL ENGINEERING P.C.  
174 MAIN ST., BEACON, NEW YORK 12508  
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550  
F: 845-440-6837



GRADING PLAN  
511 FISHKILL AVENUE  
511 FISHKILL AVENUE  
CITY OF BEACON  
DUTCHESS COUNTY, NEW YORK  
TAX ID: 6650-04-566260

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





- EROSION AND SEDIMENT CONTROL NOTES**
1. ALL EROSION CONTROL MEASURES INSTALLED DURING THE CONSTRUCTION PROCESS SHALL BE INSPECTED BY THE CONTRACTOR IN ACCORDANCE WITH THE MAINTENANCE SCHEDULE PROVIDED ON THIS SHEET. ALL EROSION CONTROL STRUCTURES SHALL BE REPAIRED AND MAINTAINED AS NECESSARY BY THE CONTRACTOR.
  2. ALL STORMWATER MANAGEMENT STRUCTURES (E.G., SWALES, CULVERTS) SHALL BE REGULARLY INSPECTED FOR SEDIMENT ACCUMULATIONS. SEDIMENT AND TRAFFIC SHALL BE KEPT OFF AS NECESSARY.
  3. ALL EROSION CONTROL INSTALLATION AND MAINTENANCE MEASURES SHALL MEET THE REQUIREMENTS OF THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION CONTROL.
  4. ANY PILE OF POTENTIALLY ERODIBLE MATERIAL TEMPORARILY STOCKPILED ON THE SITE DURING THE CONSTRUCTION PROCESS SHALL BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE AND SHALL BE PROTECTED FROM EROSION BY A SUBSIDIOUS SILT FENCE.
  5. PERMANENT SEEDER AREAS FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH DETAIL AND SPECIFICATIONS ON THE DETAIL SHEET.
  6. AREAS UNDERGOING SOIL CLEARING AND GRADING SHALL BE STABILIZED WITH A PERMANENT VEGETATIVE COVER WITHIN 14 DAYS.
  7. ON-SITE DUST CONTROL SHALL BE ACCOMPLISHED BY METHODS OF LIGHTLY WATERING ALL EXPOSED SOIL AND RAPIDLY STABILIZING THE EXPOSED AREAS WITH TOPSOIL, LOAM AND/OR SEEDING.
  8. THE PROJECT OWNER SHALL BE NOTIFIED NO LESS THAN 48 HOURS PRIOR TO THE START OF ANY SITE WORK AND BY SUCH NOTIFICATION SHALL BE PROVIDED WITH THE NAME AND TELEPHONE NUMBER OF THE GENERAL CONTRACTOR RESPONSIBLE FOR SUCH WORK.
  9. THE CITY MAY INSPECT EROSION AND SEDIMENT CONTROL PRACTICES ON THE SITE DURING CONSTRUCTION AND RECOMMEND THAT THE CONTRACTOR INSTALL ADDITIONAL EROSION CONTROL MEASURES IF DEEMED NECESSARY TO PROTECT ANY UNDISTURBED AREAS OF THE SITE. ANY SUCH REQUESTS SHALL BE MADE IMMEDIATELY TO THE PROJECT ENGINEER AND QUALIFIED PROFESSIONAL ENGINEER AND 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 SITE CONDITIONS.
  10. THE CONTRACTOR/OWNER SHALL MAINTAIN A RECORD OF ALL EROSION AND SEDIMENT CONTROL INSPECTION REPORTS AT THE SITE IN A LOG BOOK. THE SITE LOG BOOK SHALL BE MADE AVAILABLE TO THE PERMITTING AUTHORITY. THE OWNER/CONTRACTOR SHALL ON A MONTHLY BASIS, POST AT THE SITE A SUMMARY OF THE SITE INSPECTION ACTIVITIES IN A PUBLICLY ACCESSIBLE LOCATION.
  11. THE OWNER SHALL FILE A NO WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES AND A NOTICE OF TERMINATION (NOT) WITH THE NYSDEC FOLLOWING CONSTRUCTION ACTIVITIES.
  12. IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONSTRUCT A DEWATERING PIT IN ACCORDANCE WITH NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (USA SUMP PIT) TO FILTER WATER FOR PUMPING TO A SUITABLE LOCATION.
  13. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED PER THE APPROVAL OF THE CITY AND QUALIFIED PROFESSIONAL ENGINEER.
  14. UPON COMPLETION OF CONSTRUCTION, THE PARCEL OWNER(S) AND SUBSEQUENTLY THE HOMEOWNERS ASSOCIATION SHALL BE RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM. THE STORMWATER MANAGEMENT SYSTEM SHALL BE INSPECTED QUARTERLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT. THE OWNERS SHALL MAINTAIN A RECORD OF INSPECTION AND MAINTENANCE REPORTS AT THE SITE. REFER TO THE SWMP FOR INSPECTION REQUIREMENTS AND FUTURE MAINTENANCE.
  15. UNDERGROUND INFILTRATION SYSTEM SHALL BE PROTECTED DURING CONSTRUCTION BY MEANS OF FLAGGING INFILTRATION SYSTEM INLET PIPE AND INSTALLING EROSION AND SEDIMENT CONTROL MEASURES TO PLAN SPECIFICATIONS. PRIOR TO UNDERGROUND INFILTRATION SYSTEM CONNECTION TO STORMWATER CONDUIT, ALL DISTURBED AREAS SHALL BE STABILIZED TO PREVENT SEDIMENT LOADS RUNOFF FROM ENTERING UNDERGROUND INFILTRATION SYSTEM.

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

- PHASING:**
- DISBURSED AREA - 1.20 AC.**
1. SCHEDULE A PRE-CONSTRUCTION MEETING WHICH SHALL INCLUDE THE CITY ENGINEER, OWNER OR OWNER'S REPRESENTATIVE, PROJECT ENGINEER, CONTRACTOR AND SUBCONTRACTORS (IF NECESSARY) WHO ARE TO PERFORM THE CONSTRUCTION.
  2. ESTABLISH THE LIMIT OF DISTURBED CLEARING AND PROPOSED CLEARING AND ASSOCIATED WITH THE PROPOSED PARKING AREAS AND STORMWATER MANAGEMENT AREA.
  3. INSTALL STABILIZED CONSTRUCTION ENTRANCE AS DEPICTED ON THE PLAN.
  4. CLEAR LOCATIONS FOR INSTALLATION OF PROPOSED EROSION AND SEDIMENT CONTROL MEASURES.
  5. INSTALL SILT FENCE AS SHOWN ON THIS PLAN AND IN OTHER SITES THAT RECORD ON THIS PROJECT FOLLOWING CLEARING ACTIVITIES.
  6. PRIOR TO FURTHER CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER TO CONDUCT A PRE-CONSTRUCTION SITE ASSESSMENT TO VERIFY THAT THE APPROPRIATE EROSION AND SEDIMENT CONTROLS SHOWN ON THIS PLAN HAVE BEEN ADEQUATELY INSTALLED ENSURING OVERALL PREPAREDNESS OF THIS SITE FOR THE COMMENCEMENT OF CONSTRUCTION.
  7. COMMENCE MASS GRADING ACTIVITIES ON PROJECT AREA.
  8. INSTALL UNDERGROUND DETENTION SYSTEM. INSTALL SILT FENCE SURROUNDING UNDERGROUND DETENTION FOOTPRINT. USE ORANGE CONSTRUCTION FENCE IN ADDITION TO THE SILT FENCE IF NECESSARY.
  9. CONSTRUCT STORM SUMMER SYSTEM.
  10. CONSTRUCT CURBING AND PARKING AREAS TO BINDER COURSE.
  11. TILL SOIL IN ALL LANDSCAPED AREAS THAT HAVE PREVIOUSLY BEEN DISTURBED.
  12. INSTALL ALL PROPOSED LANDSCAPING.
  13. PAVE TOP COURSE ON PARKING AREAS.
  14. REMOVE EROSION AND SEDIMENT CONTROLS WHEN CONTRIBUTING DRAINAGE AREAS HAVE BECOME STABILIZED.
- GENERAL NOTE: EROSION CONTROL MEASURES SHALL BE INSPECTED AND REPAIRED AS NEEDED DURING CONSTRUCTION ACTIVITIES AND BASED ON THE MAINTENANCE SCHEDULE. ADDITIONAL EROSION CONTROL MEASURES BASED ON SITE CONDITIONS SHALL BE PROVIDED AS NECESSARY IN ORDER TO PROTECT ADJACENT PARCELS AND WATERS.

**INSPECTION SCHEDULE & MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES**

- PERMANENT AND TEMPORARY VEGETATION:**  
 INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. CHECK FOR EXCESS 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 MULM, SEDIMENT BUILD-UP AND PAD INTEGRITY. MAKE ALL REPAIRS IMMEDIATELY. WEATHER RESISTANT PAD AS NEEDED FOR RAINFALL 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 TRACKS 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 DAMAGE EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. MAKE ALL REPAIRS IMMEDIATELY. REMOVE FROM THE UP-SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ONE-QUARTER THE HEIGHT OF THE FENCE. IF FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.
- SOIL STOCKPILE:**  
 INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ONE-QUARTER THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCKPILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.
- DUST CONTROL:**  
 SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORKS. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WHILE). 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. CLEAN INLET AND DISCHARGE PIPES OF OBSTRUCTIONS. IF A FILTER MATERIAL BECOMES CLOGGED WITH SEDIMENT, PIT SHALL BE DISABLED 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 REMOVE AS NECESSARY. THE INLET PROTECTION SHALL BE INSPECTED FOR SEDIMENT ACCUMULATION AND REPLACED AS NECESSARY. WHEN SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN SUMP REACHES 1/2 OF THE SUMP DEPTH, IT SHALL BE REMOVED.

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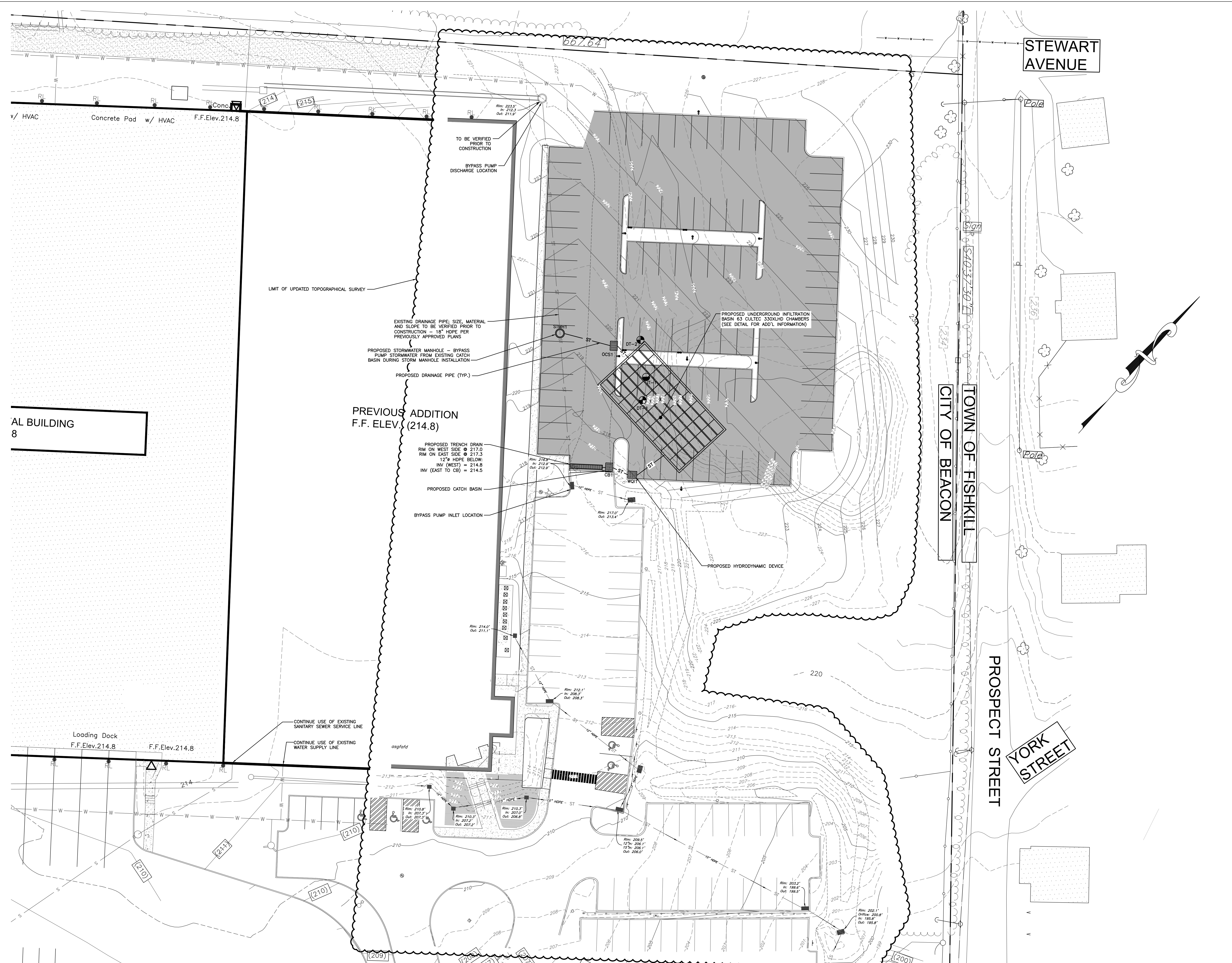
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**EROSION AND SEDIMENT CONTROL PLAN**  
 511 FISHKILL AVENUE  
 CITY OF BEACON  
 DUTCHESS COUNTY, NEW YORK  
 TAX ID: 6660-04-666266

JOB #: 2016041  
 DATE: 11/27/18  
 SCALE: 1" = 20'  
 TITLE: EC-1  
 SHEET 10 OF 13

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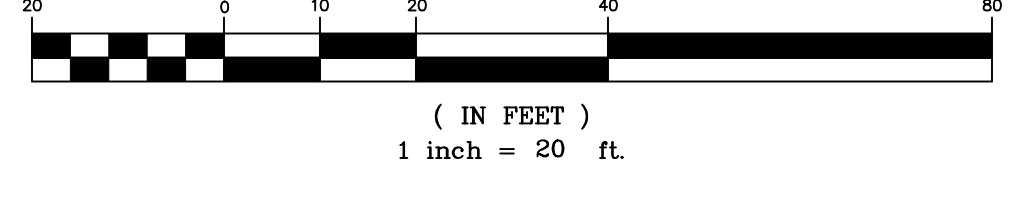
AL BUILDING 8

v/ HVAC Concrete Pad w/ HVAC F.F.Elev.214.8

Loading Dock F.F.Elev.214.8

PREVIOUS ADDITION F.F. ELEV. (214.8)

UTILITY PLAN  
SCALE: 1" = 20'  
GRAPHIC SCALE



**INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES**

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

**HYDRODYNAMIC DEVICE:**  
THE CDS STORMWATER TREATMENT SYSTEM IS A HIGH-PERFORMANCE HYDRODYNAMIC SEPARATOR AND REQUIRES REGULAR INSPECTION AND MAINTENANCE TO ENSURE OPTIMAL PERFORMANCE. MAINTENANCE FREQUENCY WILL BE DETERMINED BY SITE CONDITIONS. THE MANUFACTURER SUGGESTS QUARTERLY VISUAL INSPECTIONS TO DETERMINE THE ACCUMULATION OF POLLUTANTS, AND SUGGESTS ANNUAL REMOVAL OF ACCUMULATED POLLUTANTS. VISUAL INSPECTIONS SHALL BE PERFORMED QUARTERLY, GENERALLY AROUND THE CHANGE OF EACH SEASON. INSPECTIONS AND MAINTENANCE SHALL BE PERFORMED BY QUALIFIED PERSONNEL WITH ADEQUATE TRAINING IN THESE TYPES OF UNITS. THE UNITS SHALL BE CLEANED BY VACUUM TRUCK. ADDITIONAL CLEANINGS SHOULD BE ANTICIPATED DURING THE FIRST YEAR OF OPERATION. THE RECOMMENDED CLEANOUT OF SOLIDS WITHIN THE CDS UNIT'S SUMP SHOULD OCCUR AT 75% OF THE SUMP CAPACITY.

**UNDERGROUND DETENTION/FILTRATION:**  
BEST MANAGEMENT PRACTICE FOR MAINTAINING OPTIMUM PERFORMANCE OF THE UNDERGROUND INFILTRATION SYSTEM IS A COMBINATION OF THE FOLLOWING:  
1. PROPER MAINTENANCE OF THE PRETREATMENT HYDRODYNAMIC DEVICE.  
2. REMOVAL OF ACCUMULATED SEDIMENT FROM THE UPSTREAM CATCH BASIN AND STORMWATER COLLECTION SYSTEM, AND  
3. MAINTAINING THE SITE IMPROVED AND LAWN AREAS IN A STABLE CONDITION. ANY FUTURE LAND DISTURBANCE ASSOCIATED WITH MAINTENANCE OF THE BUILDINGS AND GROUNDS SHALL CAREFULLY PREPARE AN EROSION AND SEDIMENT CONTROL PLAN TO LIMIT TRANSPORT OF SEDIMENT TO THE COLLECTION SYSTEM.  
THE CULTEC SYSTEM SHALL BE EQUIPPED WITH AN INSPECTION PORT LOCATED ON THE INLET ROW. THE INSPECTION PORT IS A CIRCULAR CAST IRON PLUG IN A RECTANGULAR CONCRETE COLLAR. WHEN THE LID IS REMOVED, A 6-INCH PIPE WITH A SCREEN-IN-PLUG WILL BE EXPOSED. REMOVE THE PLUG. THIS WILL PROVIDE ACCESS TO THE CULTEC CHAMBER ROW BELOW FROM THE SURFACE, THROUGH THIS ACCESS, THE SEDIMENT MAY BE MEASURED AT THIS LOCATION. A STAIN ROD MAY BE USED TO MEASURE THE DEPTH OF SEDIMENT IF ANY IN THIS ROW. ADDITIONALLY, CITY INSPECTION OF THIS ROW CAN BE DEPLOYED THROUGH THIS ACCESS PORT TO DETERMINE IF ANY SEDIMENT HAS ACCUMULATED. IF THE DEPTH OF SEDIMENT IS IN EXCESS OF 3 INCHES, THEN THIS ROW SHOULD BE CLEANED WITH HIGH PRESSURE WATER THROUGH A CULVERT CLEANING NOZZLE. THIS WOULD BE CARRIED OUT THROUGH THE UPSTREAM PRETREATMENT DEVICE. THE ACCESS POINT THROUGH THE HYDRODYNAMIC DEVICE REQUIRES A TECHNICIAN TRAINED IN CONFINED SPACE ENTRY WITH PROPER GAS DETECTION EQUIPMENT. THIS INDIVIDUAL MUST BE EQUIPPED WITH THE PROPER SAFETY EQUIPMENT FOR ENTRY INTO THE HYDRODYNAMIC DEVICE. THE INLET ROW IS PLACED ON A POLYETHYLENE LINER TO PREVENT SCOURING OF THE WASHED STONE BENEATH THIS ROW. THIS FACILITATES THE FLUSHING OF THIS ROW WITH HIGH PRESSURE WATER THROUGH A CULVERT CLEANING NOZZLE. THE NOZZLE IS DEPLOYED THROUGH THE HYDRODYNAMIC DEVICE AND EXTENDED TO THE END OF THE ROW. THE WATER IS TURNED ON AND THE INLET ROW IS BACK-FLUSHED INTO THE HYDRODYNAMIC DEVICE WHERE IT IS REMOVED BY USING A VACUUM TRUCK.

**MAINTENANCE GUIDELINES:**  
THE OWNER SHALL KEEP A MAINTENANCE LOG WHICH SHALL INCLUDE DETAILS OF ANY EVENTS WHICH WOULD HAVE AN EFFECT ON THE SYSTEM'S OPERATIONAL CAPACITY.  
1. THE OPERATION AND MAINTENANCE PROCEDURE SHALL BE REVIEWED PERIODICALLY AND CHANGED TO MEET SITE CONDITIONS.  
2. MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE PERFORMED BY QUALIFIED WORKERS AND SHALL FOLLOW APPLICABLE OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS.  
3. DEBRIS REMOVED FROM THE STORMWATER MANAGEMENT SYSTEM SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS.  
**SUGGESTED MAINTENANCE SCHEDULE (TO BE RE-ASSESSED BY THE OPERATOR PERIODICALLY BASED ON SITE CONDITIONS AND EVALUATION OF SYSTEM FUNCTIONALITY):**  
1. YEAR 1: INSPECT INLETS AND OUTLETS MONTHLY FOR ANY CLOGGING, AND REMOVE DEBRIS AS MAY BE NECESSARY. INSPECT THE SURFACE AROUND THE CHAMBERS FOR ANY DEPRESSIONS.  
2. YEAR 2 AND AFTER: INSPECT INLETS AND OUTLETS EVERY SPRING AND FALL FOR ANY CLOGGING, AND REMOVE DEBRIS AS MAY BE NECESSARY. INSPECT THE SURFACE AROUND THE CHAMBERS FOR ANY DEPRESSIONS.  
3. 2 YEARS AFTER COMMISSIONING: INSPECT THE INTERIOR OF THE STORMWATER MANAGEMENT CHAMBERS THROUGH INSPECTION PORT FOR DEFICIENCIES USING CCTV OR COMPARABLE TECHNIQUE.  
4. 9 YEARS AFTER COMMISSIONING, AND EVERY 9 YEARS THEREAFTER (OR AS MAY BE NEEDED): CLEAN STORMWATER MANAGEMENT CHAMBERS AND FEED CONNECTIONS OF ANY DEBRIS. INSPECT THE INTERIOR OF THE STORMWATER MANAGEMENT CHAMBERS THROUGH INSPECTION PORT FOR DEFICIENCIES USING CCTV OR COMPARABLE TECHNIQUE.  
5. 45 YEARS AFTER COMMISSIONING, A PROFESSIONAL ENGINEER SHALL ASSESS THE REMAINING LIFE EXPECTANCY OF THE STORMWATER MANAGEMENT CHAMBERS AND RECOMMEND ACTIONS TO REHABILITATE, RESTORE OR REPLACE THE STORMWATER MANAGEMENT CHAMBERS AS MAY BE REQUIRED.  
6. ANNUALLY: CONFIRM THAT NO UNAUTHORIZED MODIFICATIONS HAVE BEEN PERFORMED TO THE SITE THAT MAY IMPACT THE ADEQUATE FUNCTIONING OF THE SYSTEM.  
7. PERIODICALLY: MONITOR WATER LEVELS IN THE CHAMBER SYSTEM FOLLOWING SIGNIFICANT STORM EVENTS. DETERMINING OF THE SYSTEM SHOULD TAKE NO LONGER THAN 24 HOURS.

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

**POST CONSTRUCTION NOTES:**  
1. RECORD DRAWINGS OF THE PROJECT INCLUDING ALL UTILITIES WILL BE PROVIDED TO THE BUILDING INSPECTOR AFTER CONSTRUCTION IS COMPLETE.  
2. AN OPERATION AND MAINTENANCE PLAN MANUAL SHALL BE PROVIDED TO THE CITY OF BEACON BUILDING INSPECTOR FOLLOWING COMPLETION OF THE STORMWATER FACILITIES.

STRUCTURE	STRUCTURE DETAILS
CB1	RIM = 217.52 SUMP = 213.50 CB1-WQ1 INV OUT = 214.50
OCS1	RIM = 219.85 SUMP = 212.50 INF CH OUTLET INV IN = 213.90 OCS1-STMH1 INV OUT = 213.50
STMH1	RIM = 219.50 SUMP = 211.80 OCS1-STMH1 INV IN = 212.80
WQ1	RIM = 217.85 SUMP = 213.30 CB1-WQ1 INV IN = 214.40 WQ1-INF CH INV OUT = 214.30

PIPE NAME	LENGTH	SIZE AND MATERIAL	SLOPE
CB1-WQ1	10 LF	15" # CORR HDPE	1.00%
INF CH OUTLET	11 LF	15" # CORR HDPE	1.38%
OCS1-STMH1	31 LF	12" # CORR HDPE	2.29%
WQ1-INF CH	23 LF	15" # CORR HDPE	1.09%

NO.	DATE	DESCRIPTION	BY
1	12/27/18	PRE PLANNING BOARD COMMENTS	CMB
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511 FISHKILL AVENUE  
CITY OF BEACON  
DUTCHESS COUNTY, NEW YORK  
TAX ID: 060-04-060680

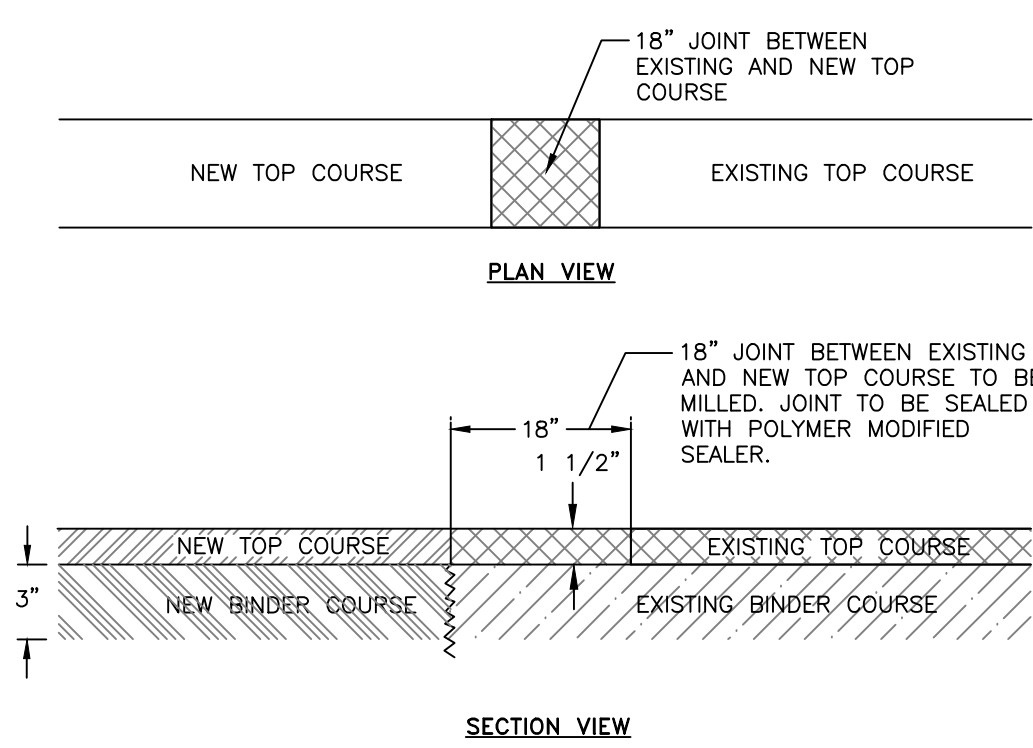
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INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES

STORM SEWER STRUCTURE TABLE  
STORM SEWER PIPE TABLE

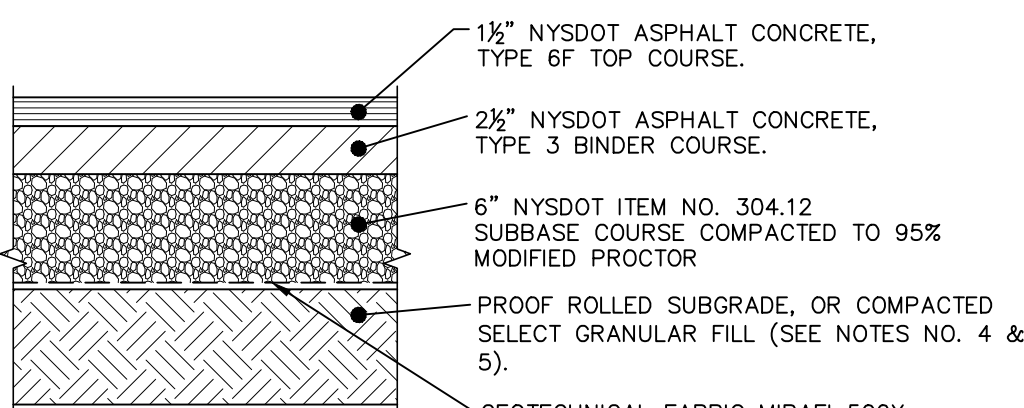
UTILITY PLAN  
511 FISHKILL AVENUE  
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DUTCHESS COUNTY, NEW YORK  
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SHEET 11 OF 13



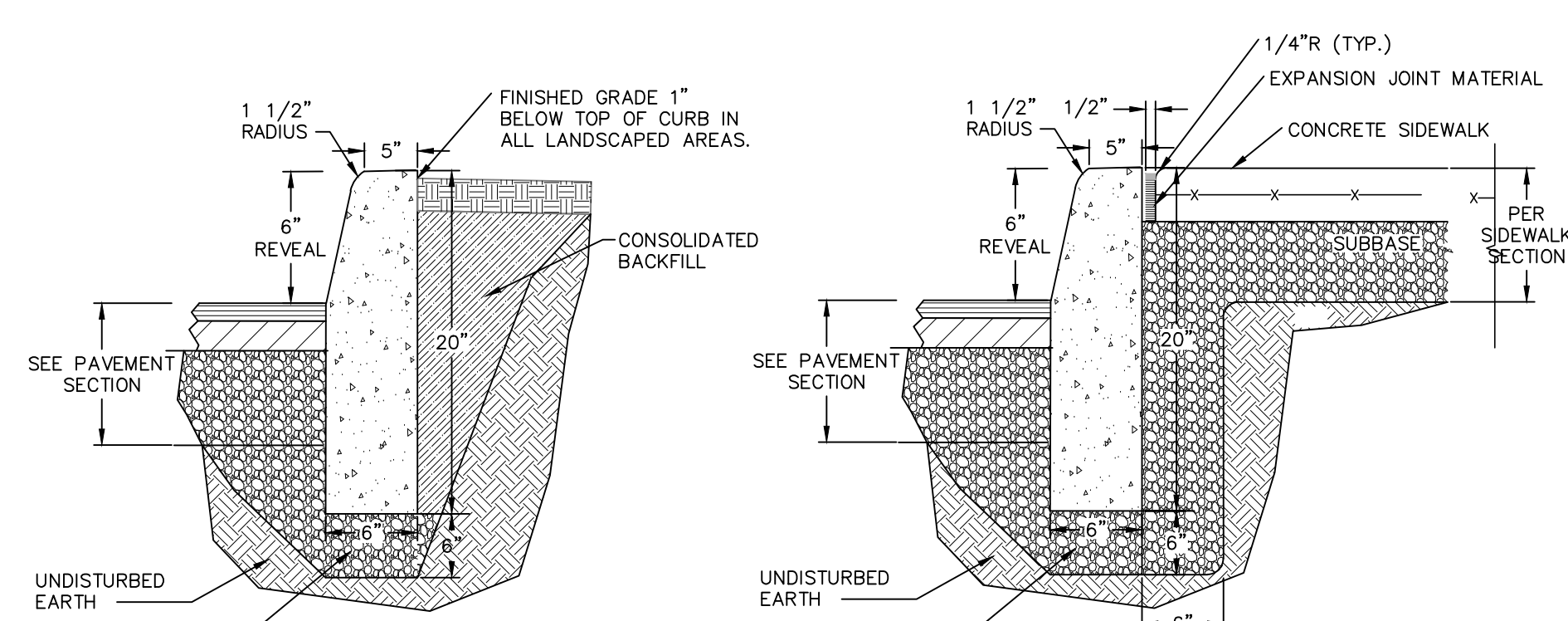
**NOTES:**  
 1. 1/2" BINDER COURSE AND 1 1/2" TOP COURSE TO BE USED FOR RESTORATION OF PAVEMENT WITHIN CITY ROADS.  
 2. EXCAVATIONS ARE TO BE SAW CUT SMOOTH-ALL EDGES TACK COATED, AND ALL SEAMS SEALED WITH A HOT POLYMER MODIFIED CRACK SEALANT.  
 3. IF EXISTING ASPHALT PAVEMENT DEPTH IS GREATER THAN THE PROPOSED ASPHALT PAVEMENT SECTION, INCREASE PROPOSED ASPHALT BINDER THICKNESS TO MATCH EXISTING.

**MILLED KEYWAY DETAIL**  
NOT TO SCALE



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

**PAVEMENT SECTION DETAIL**  
NOT TO SCALE

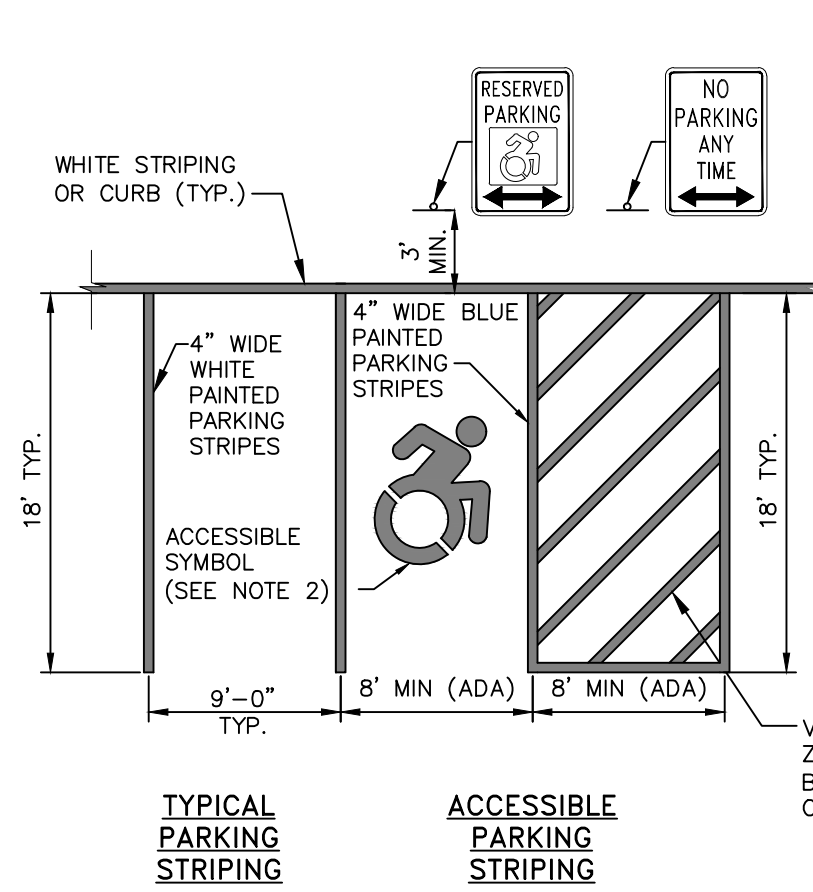


**ABUTTING GRASS OR LANDSCAPE**

**ABUTTING SIDEWALK**

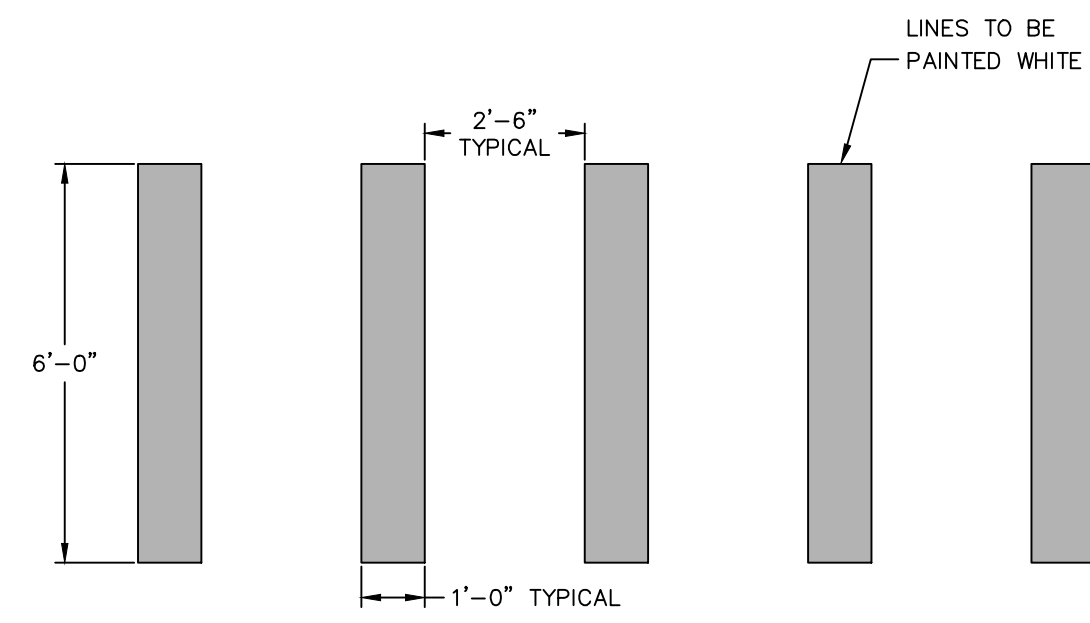
**NOTES:**  
 1. CONCRETE CURB SHALL BE 4,000 PSI CAST-IN-PLACE, AND IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION SECTION 609.  
 2. EXPANSION JOINTS OF 1/2" CELLULOSE OR SIMILAR MATERIAL SHALL BE PLACED AT 10 FOOT INTERVALS.  
 3. FOR MOUNTABLE CURBS ABUTTING SIDEWALK OR OTHER HARDSCAPE, REFER TO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

**CAST-IN-PLACE CONCRETE CURB DETAIL**  
NOT TO SCALE

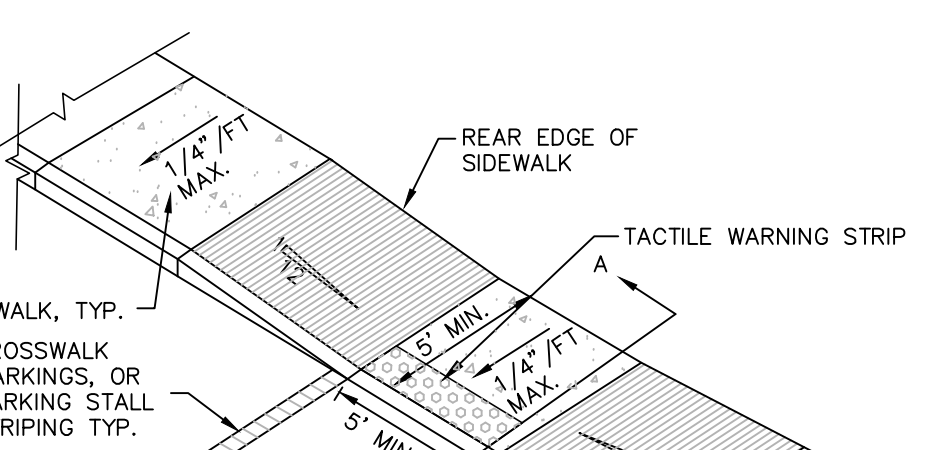
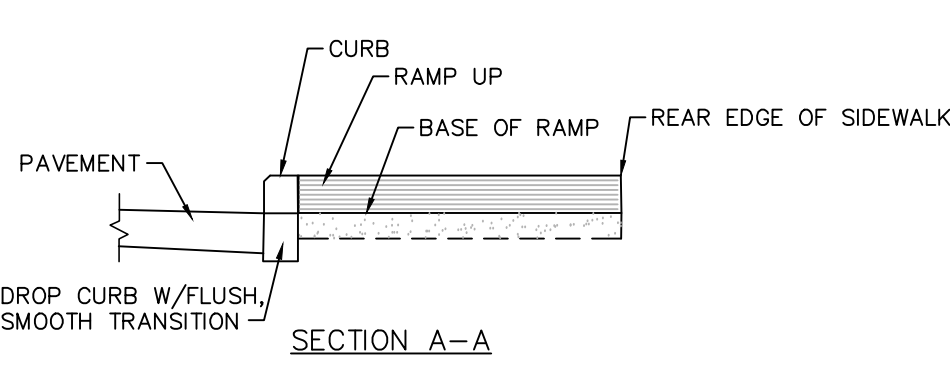
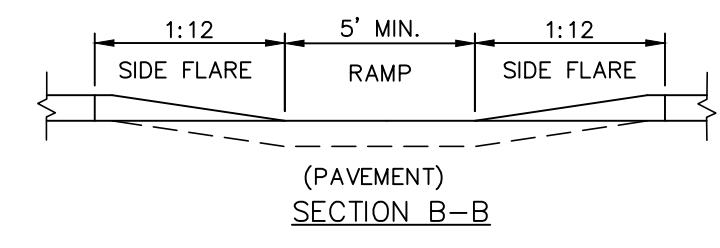


**NOTES:**  
 1. ALL DIMENSIONS SUBJECT TO CURRENT MUNICIPALITY ZONING AND SITE REGULATIONS.  
 2. PAINTED ACCESSIBLE SYMBOL TO BE IN ACCORDANCE WITH NYSDOT AND ADA STANDARDS.  
 3. IF PARKING ABUTS A SIDEWALK, THEN THE REGULATORY SIGNS SHALL BE PLACED BEHIND THE SIDEWALK.

**PARKING AND STRIPING DETAIL**  
NOT TO SCALE

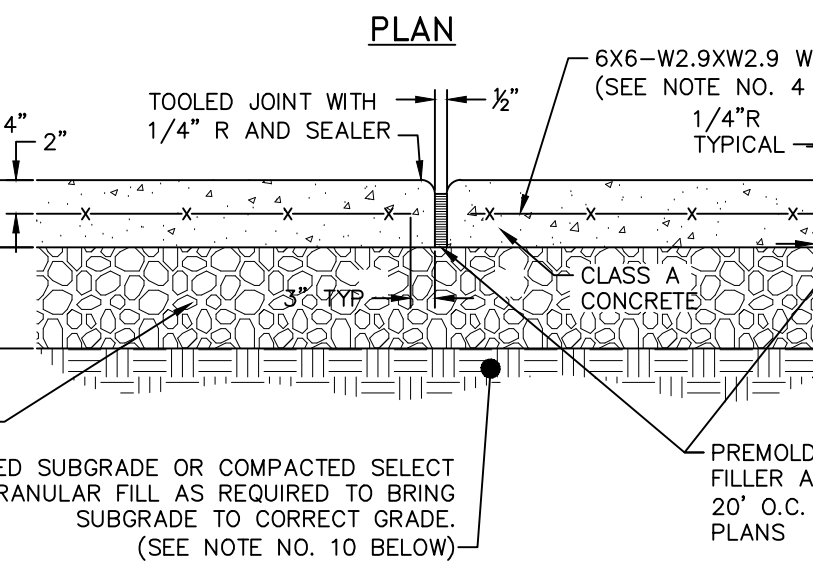
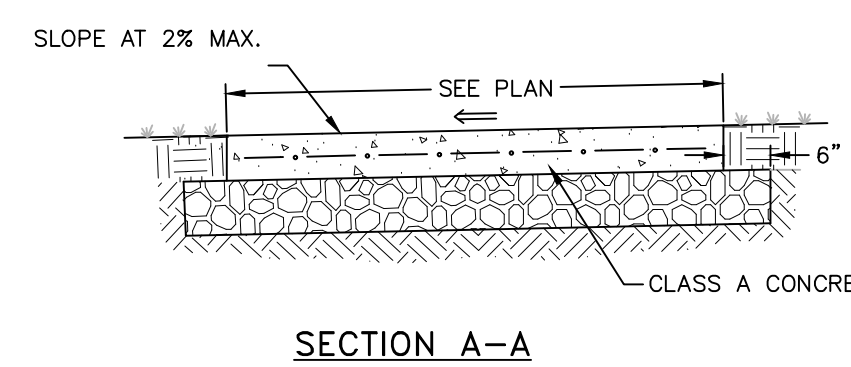
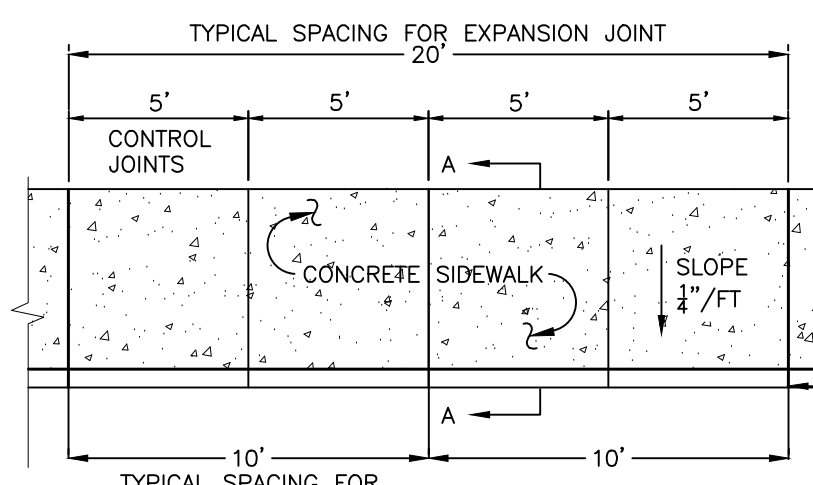


**PAINTED CROSSWALK DETAIL**  
NOT TO SCALE



**NOTES:**  
 1. ALL WORK SHALL CONFORM WITH THE NYSDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS DATED JANUARY 2, 2002 AND ALL ADDENDA THERETO, SPECIFICALLY SECTION 608- SIDEWALKS, DRIVEWAYS, AND BICYCLE PATHS.  
 2. SLOPE RAMP AND SIDE FLARES AS INDICATED IN THE PLANS OR AS ORDERED BY THE ENGINEER.  
 3. TACTILE WARNING STRIPS SHALL BE PROVIDED ON ALL RAMPS IN ACCORDANCE W/ ADA REQUIREMENTS.

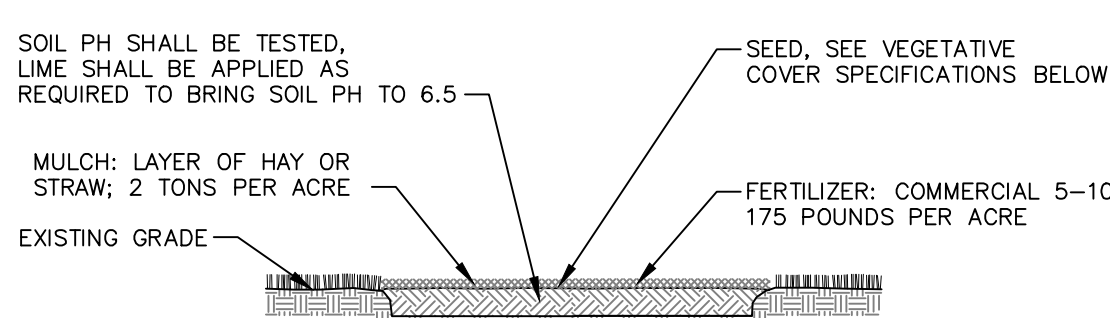
**DROP CURB RAMP DETAIL**  
NOT TO SCALE



**EXPANSION JOINT**

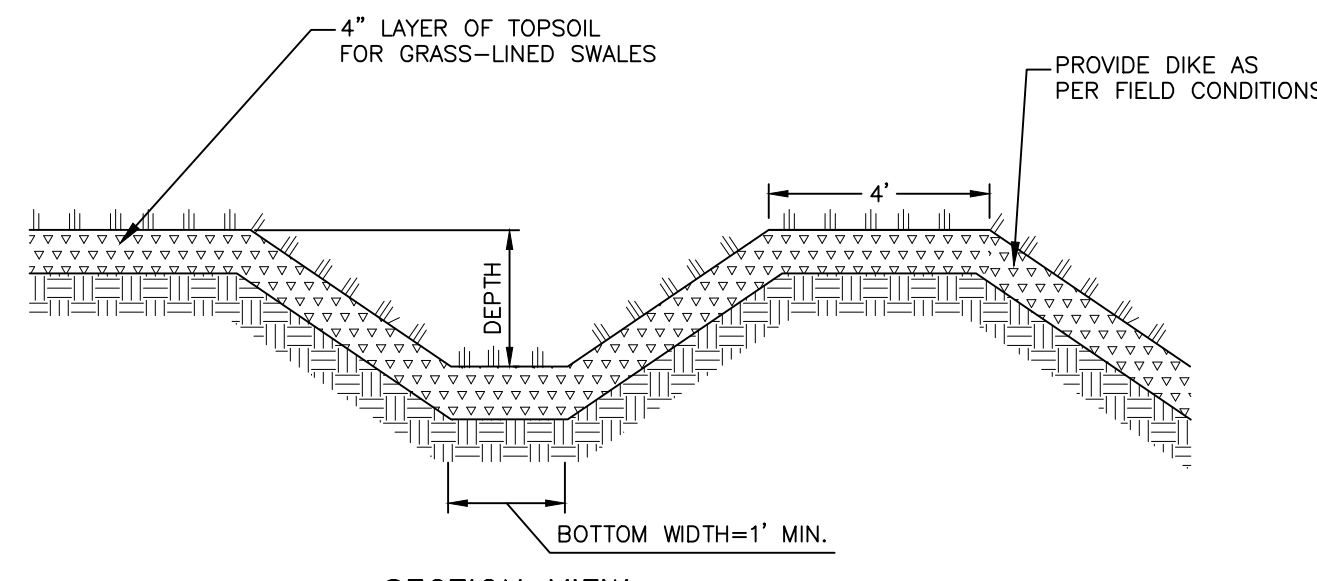
**NOTES:**  
 1. 10' SPACING OF CONTROL JOINTS SHALL BE USED FOR CAST IN PLACE CONCRETE CURBS.  
 2. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, LATEST REVISION.  
 3. ALL CONCRETE SHALL BE 4,000 PSI CLASS A CONCRETE. CONCRETE MATERIALS, PLACEMENT, AND CONSTRUCTION SHALL CONFORM WITH SECTION 500 OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.  
 4. REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH SECTION 556 - REINFORCING STEEL FOR CONCRETE STRUCTURES OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND AS SPECIFICALLY CALLED OUT IN THE DRAWINGS.  
 5. ALL EXPOSED SURFACES SHALL HAVE A BROOM TEXTURED FINISH.  
 6. EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20' ON CENTER, OR AS INDICATED ON PLANS.  
 7. JOINTS SHALL NOT BE SAW CUT.  
 8. EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH "SUREBOND"/"SAFE-BOND" 58-7000 INTENSIFIER BRIGHT PROTECTOR AND SIDEWALK SEALER, OR EQUAL RATE AND METHOD OF APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.  
 9. SUBGRADE MATERIAL SHALL CONFORM WITH SECTION 304 OF THE ABOVE REFERENCED NYSDOT STANDARD.  
 10. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSES OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMANCE WITH SECTION 203-EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.  
 11. ALL WORK SHALL CONFORM WITH SECTION 608-SIDEWALK, DRIVEWAYS, AND BICYCLE PATHS OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.

**CONCRETE SIDEWALK DETAIL**  
NOT TO SCALE



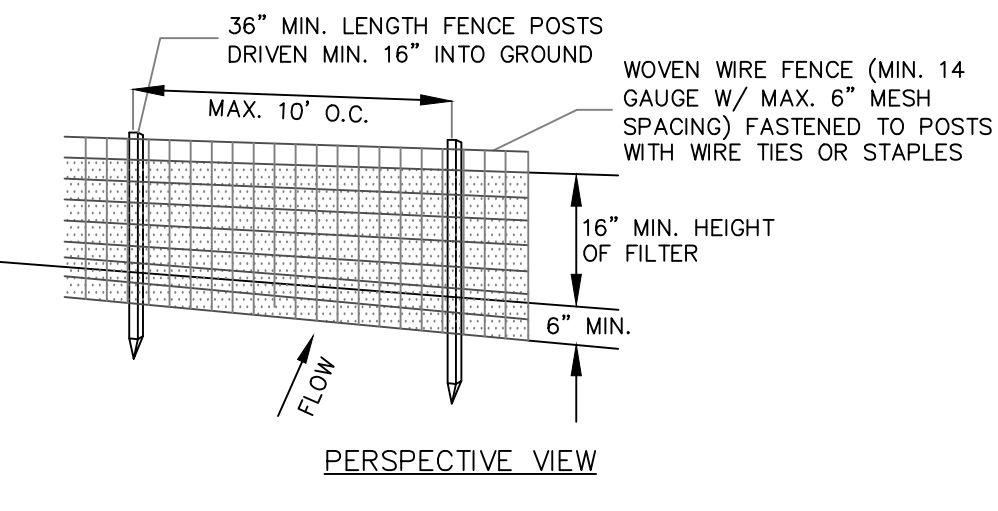
**NOTES:**  
 1. TOPSOIL, SEED, MULCH, AND FERTILIZER DISTURBED SOIL AREAS THAT WILL BE LEFT EXPOSED FOR 14 DAYS OR MORE.  
 2. SEED MIXTURE FOR USE ON LAWNS IN SUNNY AREAS:  
 60% KENTUCKY BLUE GRASS BLEND 114 POUNDS PER ACRE  
 20% PERENNIAL PEGRASS 35 POUNDS PER ACRE  
 15% FINE FESCUE 28 POUNDS PER ACRE  
 3. SEED MIXTURE FOR USE IN SHADY AREAS:  
 80% BLEND OF SHADE TOLERANT PERENNIAL BLUEGRASS 138 POUNDS PER ACRE  
 20% FINE FESCUE 32 POUNDS PER ACRE  
 175 POUNDS PER ACRE  
 4. SEED BETWEEN APRIL 1ST AND MAY 15TH OR AUGUST 15TH AND OCTOBER 15TH, SEEDING MAY OCCUR BETWEEN MAY 15TH AND AUGUST 15TH IF ADEQUATE IRRIGATION IS PROVIDED.  
 5. TOPSOIL SHALL HAVE AT LEAST 6% BY WEIGHT OF FINE TEXTURED STABLE ORGANIC MATERIAL, AND NO GREATER THAN 20% TOPSOIL SHALL HAVE NOT LESS THAN 20% FINE TEXTURED MATERIAL, PASSING THE NO. 200 SIEVE AND NOT MORE THAN 15% CLAY.

**TOPSOIL, SEED AND MULCH DETAIL**  
NOT TO SCALE



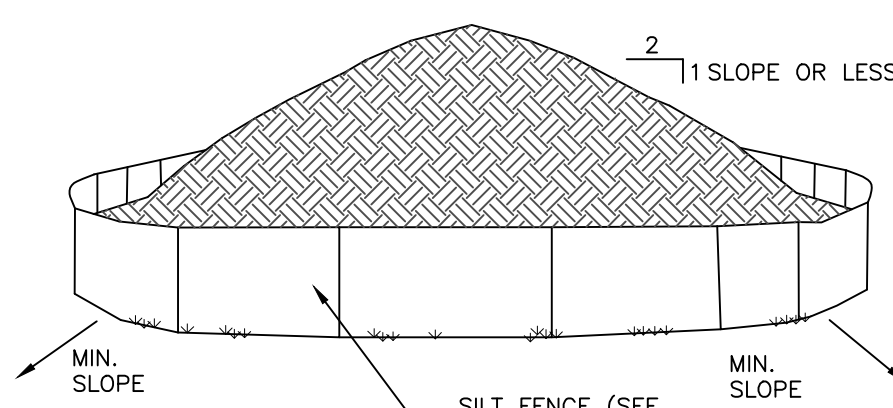
**NOTES:**  
 1. MINIMUM 1" DEPTH AND 1" WIDTH FOR ALL SWALES.  
 2. SWALE SHALL BE SEEDED WITH FAST GERMINATING RYE 15 TO 25 POUNDS PER 1,000 SQUARE FEET AND MULCHED.

**GRASS LINED SWALE/DIKE DETAIL**  
NOT TO SCALE



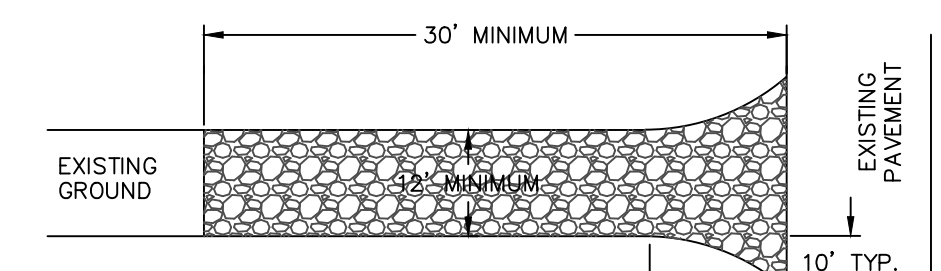
**NOTES:**  
 1. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.  
 2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER 1-6 MESH OR STABILIZED 14-20 MESH.  
 3. PREFABRICATED UNITS SHALL BE GEOTAF, ENVIROFENCE OR APPROVED EQUAL.  
 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

**SILT FENCE DETAIL**  
NOT TO SCALE



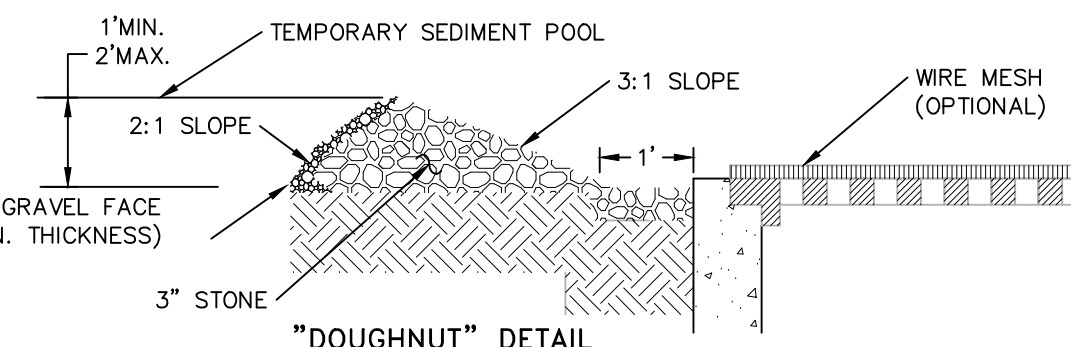
**NOTES:**  
 1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.  
 2. EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.

**TEMPORARY SOIL STOCKPILE DETAIL**  
NOT TO SCALE



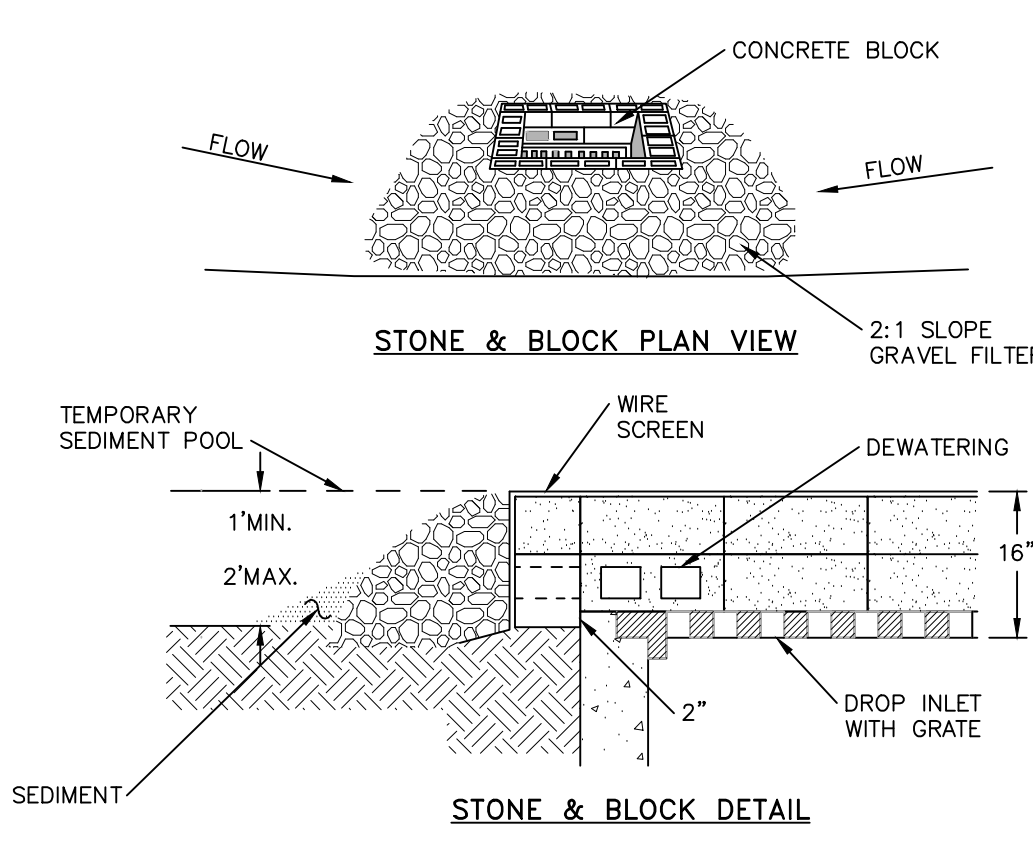
**NOTES:**  
 1) STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.  
 2) LENGTH - NOT LESS THAN 30 FEET FOR A SINGLE RESIDENCE LOT.  
 3) THICKNESS - NOT LESS THAN SIX (6) INCHES.  
 4) WIDTH - 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.  
 5) GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.  
 6) SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE IPIED BEHIND THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.  
 7) MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MESSAGE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.  
 8) WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.  
 9) PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

**STABILIZED CONSTRUCTION ENTRANCE DETAIL**  
NOT TO SCALE



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

**CATCH BASIN INLET PROTECTION DETAIL**  
NOT TO SCALE



**STONE & BLOCK DETAIL**

CHECKED BY: DCK		REVISIONS:	BY:
NO.	DATE	DESCRIPTION	DATE
1	12/27/18	PER PLANNING BOARD COMMENTS	
2	1/29/19	PER PLANNING BOARD COMMENTS	

DRAWN BY: CUB		REVISIONS:	BY:
NO.	DATE	DESCRIPTION	DATE
1	12/27/18	PER PLANNING BOARD COMMENTS	
2	1/29/19	PER PLANNING BOARD COMMENTS	

**Big Safety**  
 New York  
 800-962-7962  
 174 Main St., Beacon, NY 12509  
 Fax: 845-440-8637

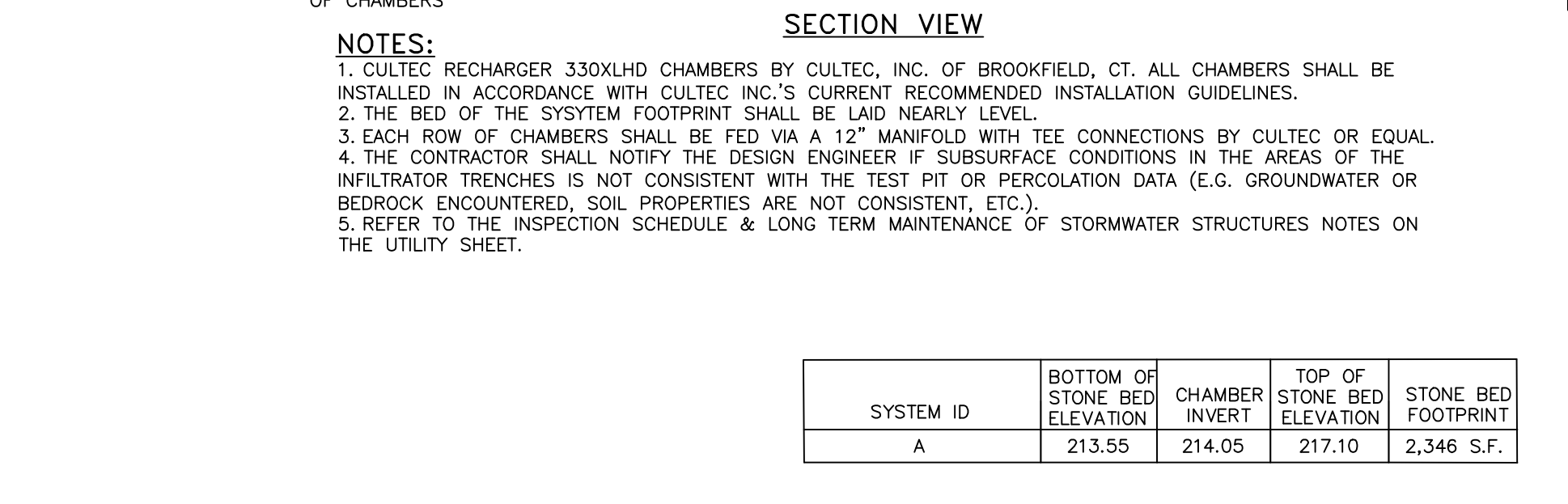
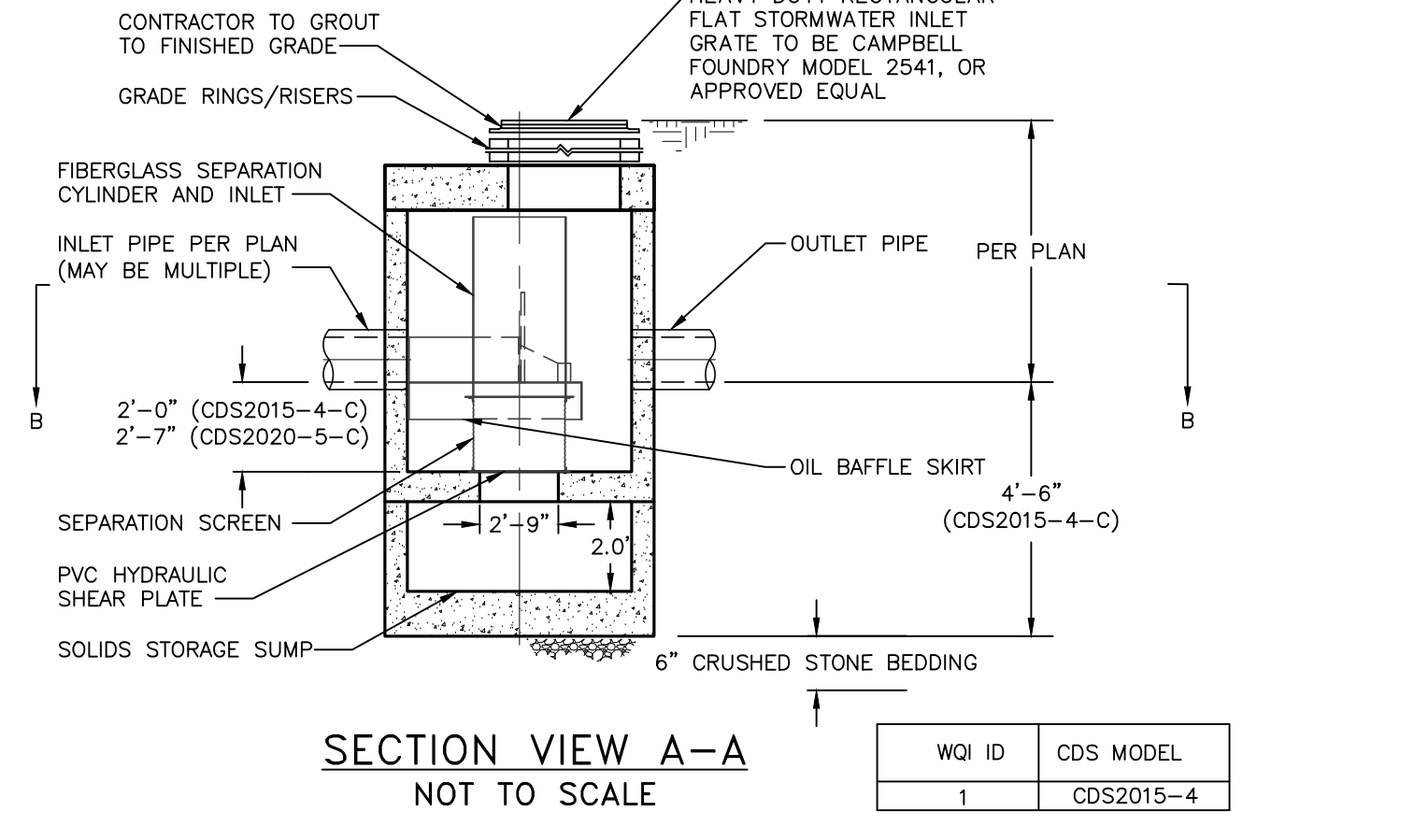
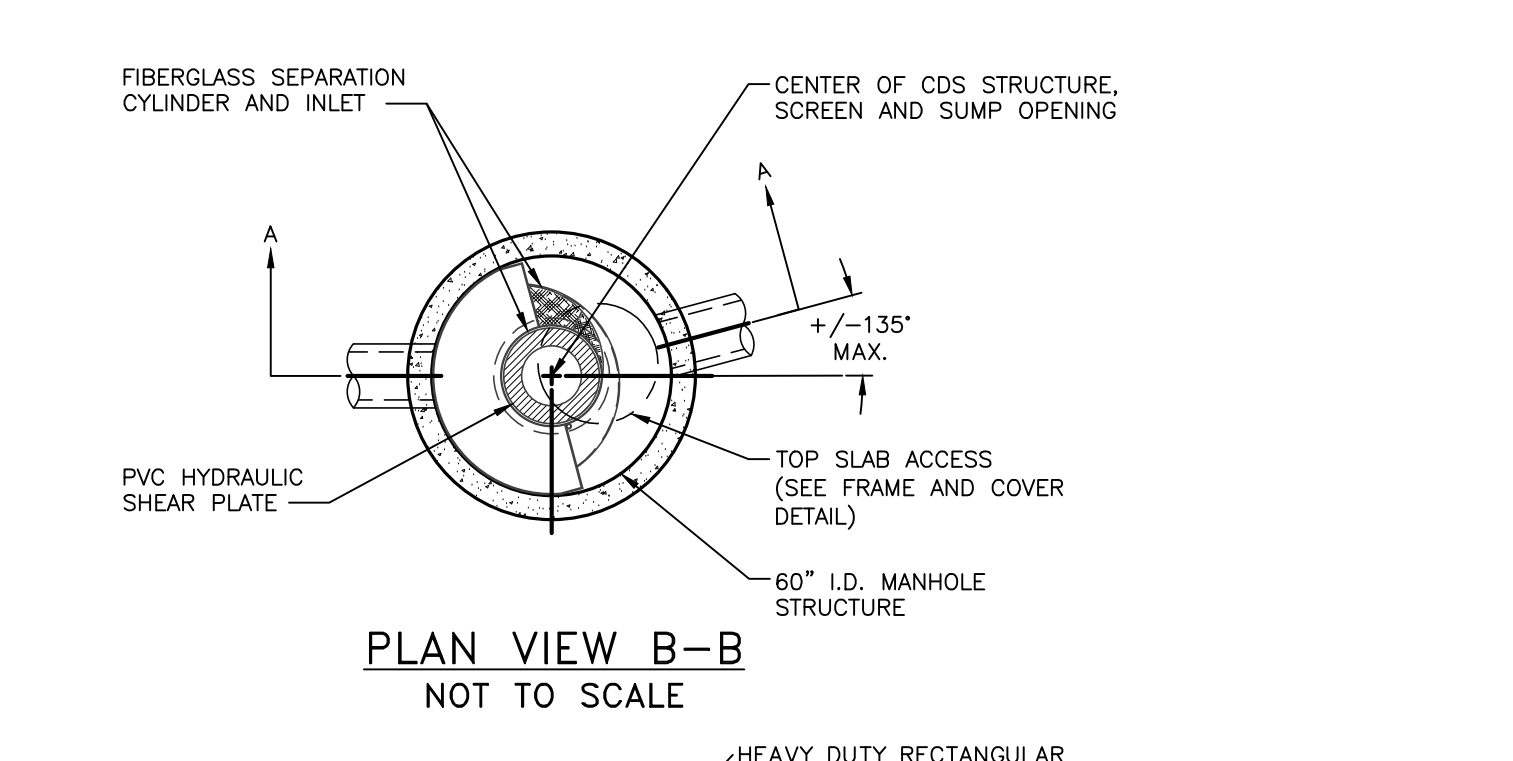
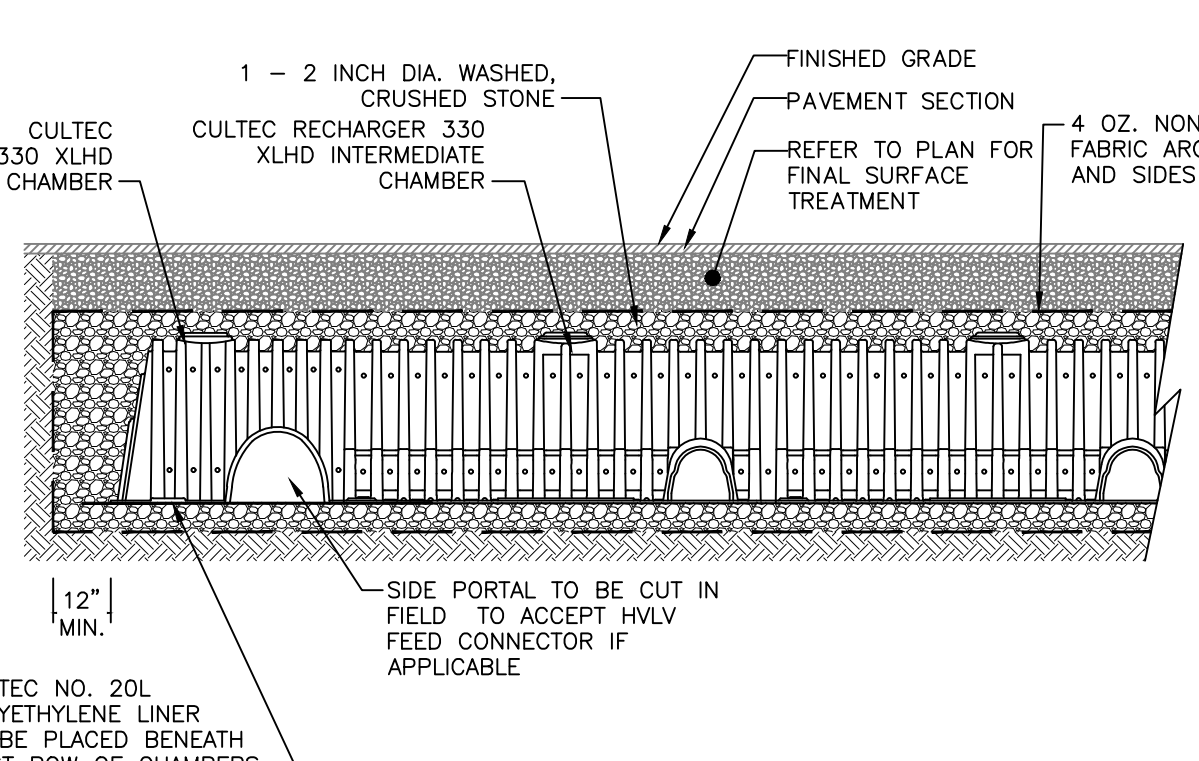
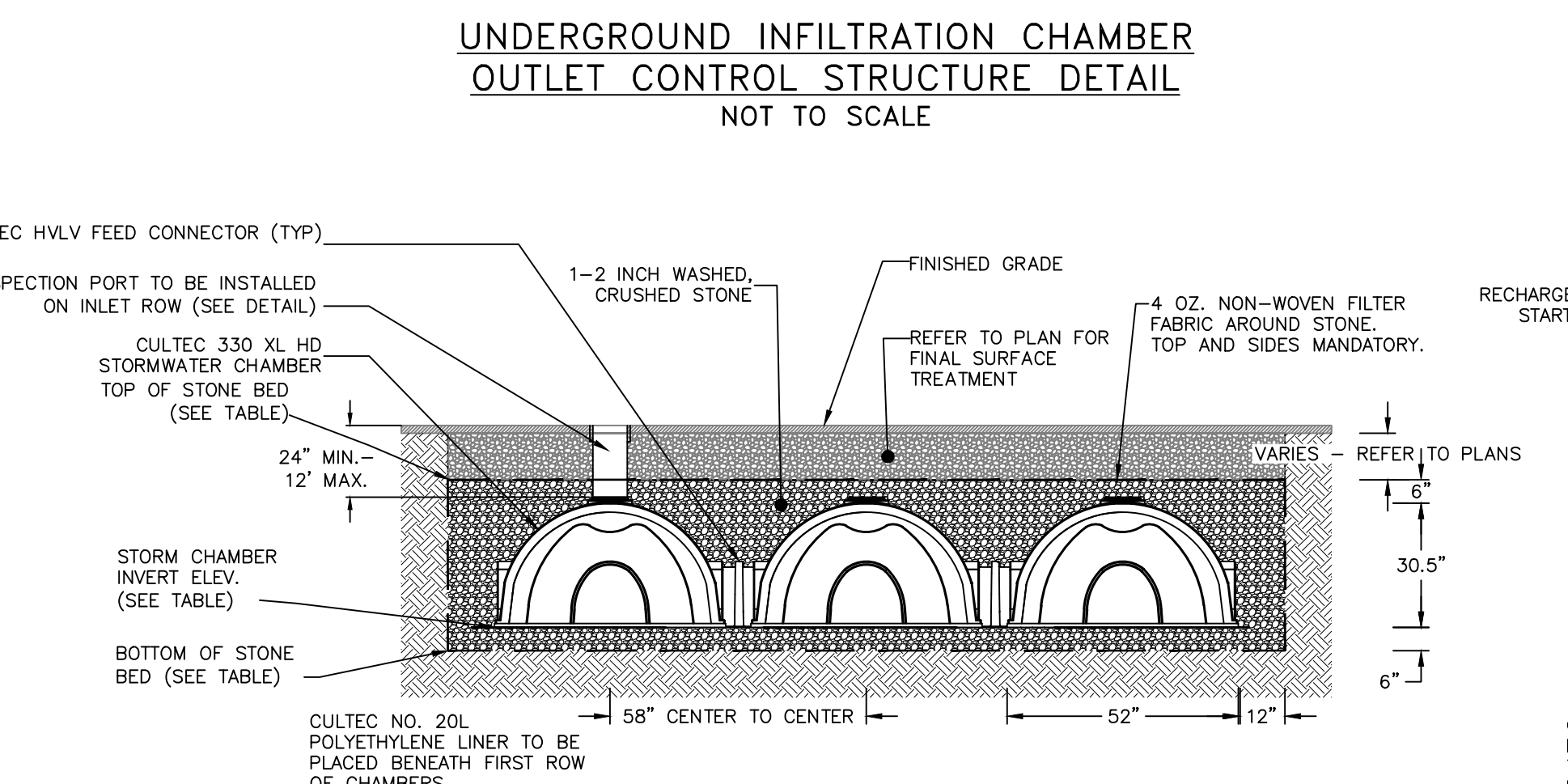
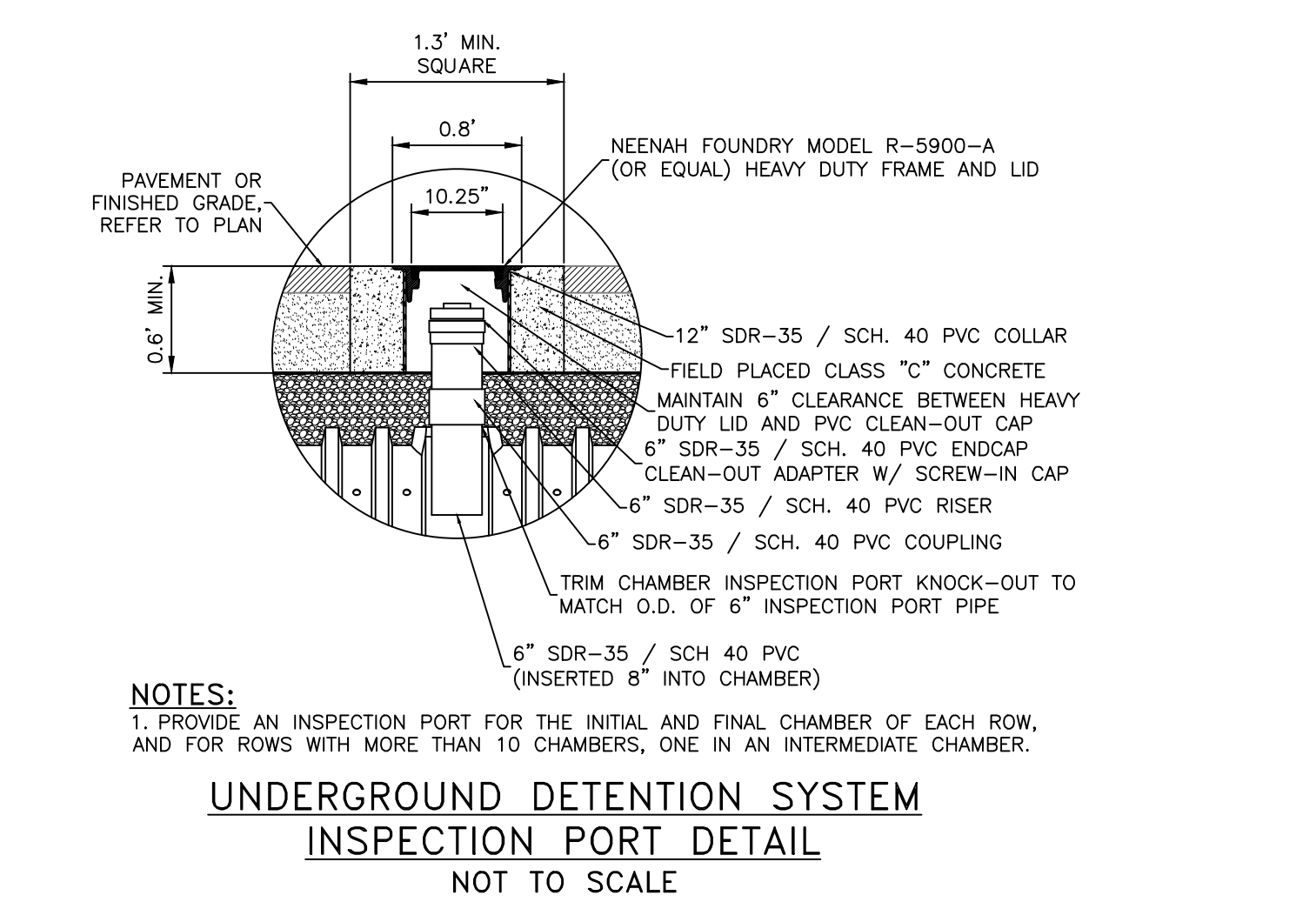
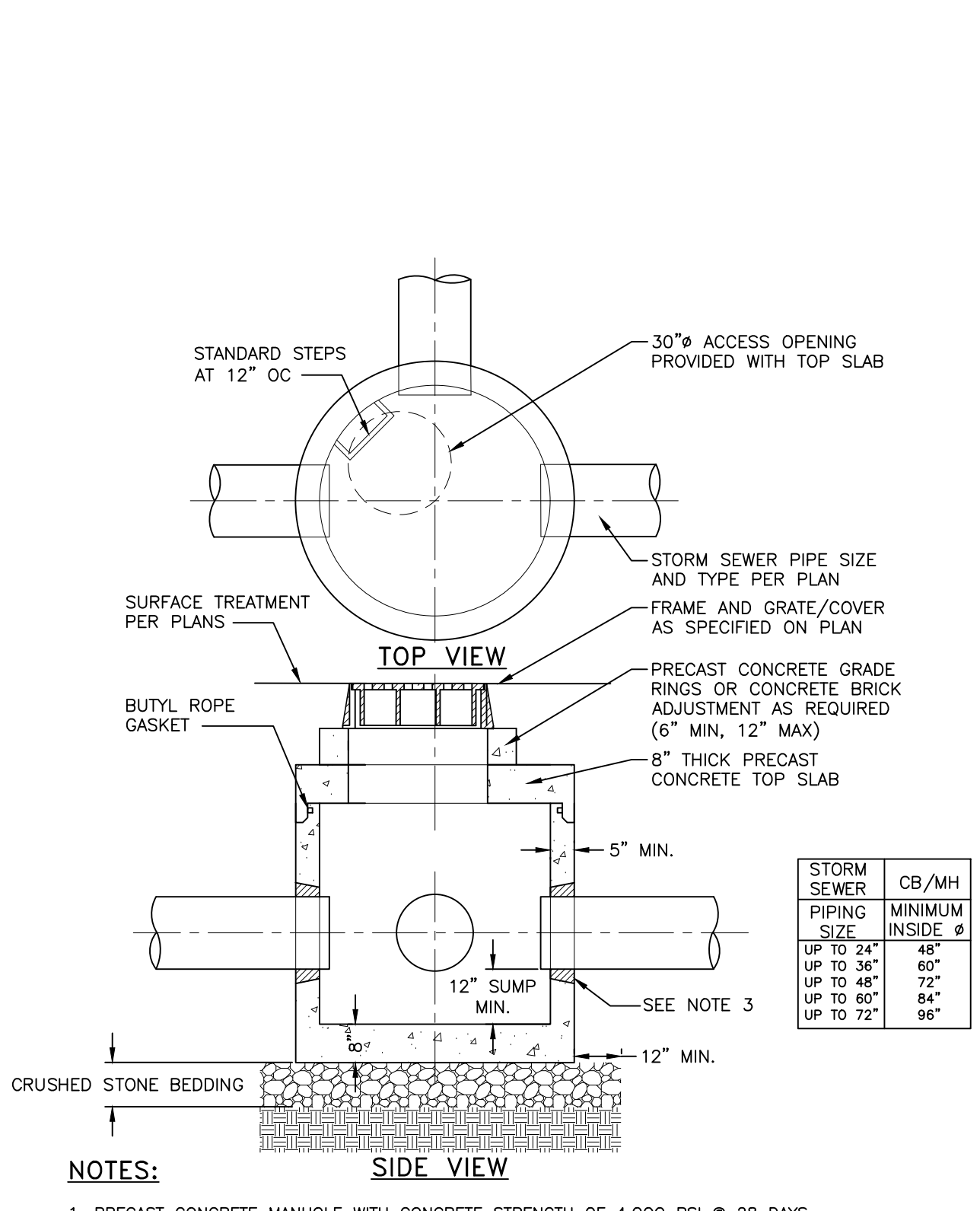
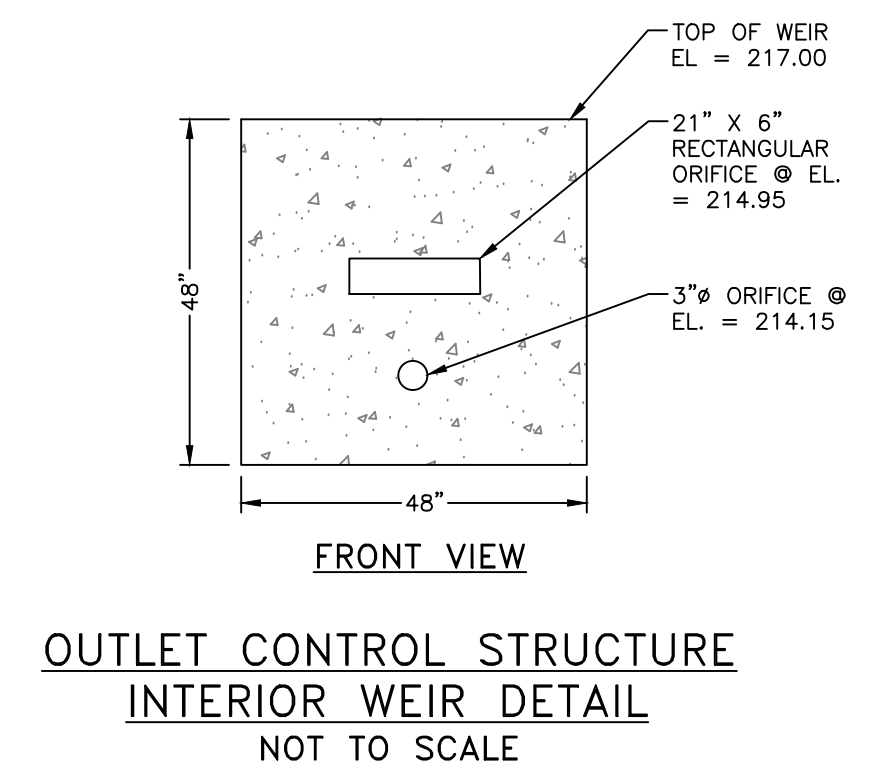
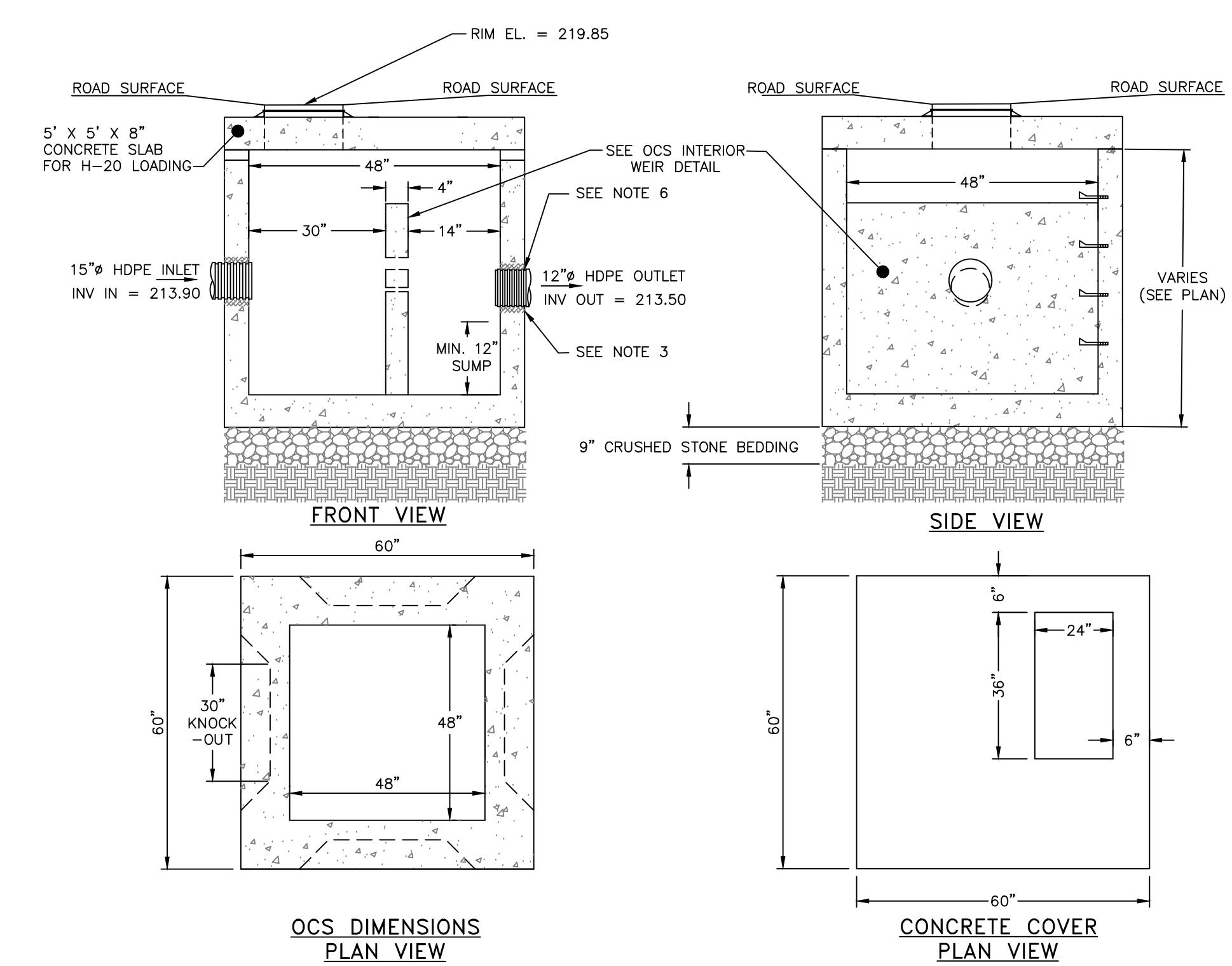
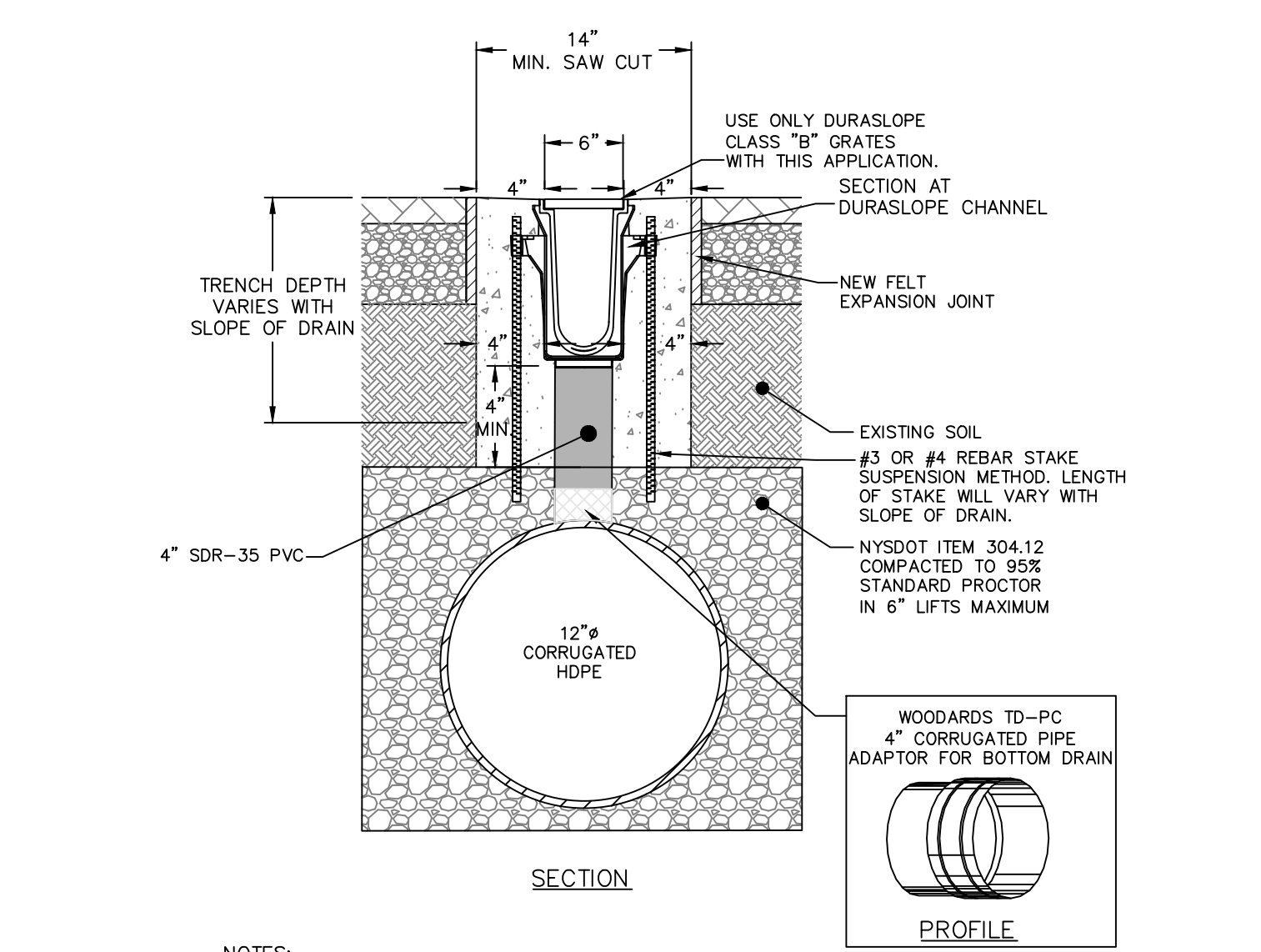
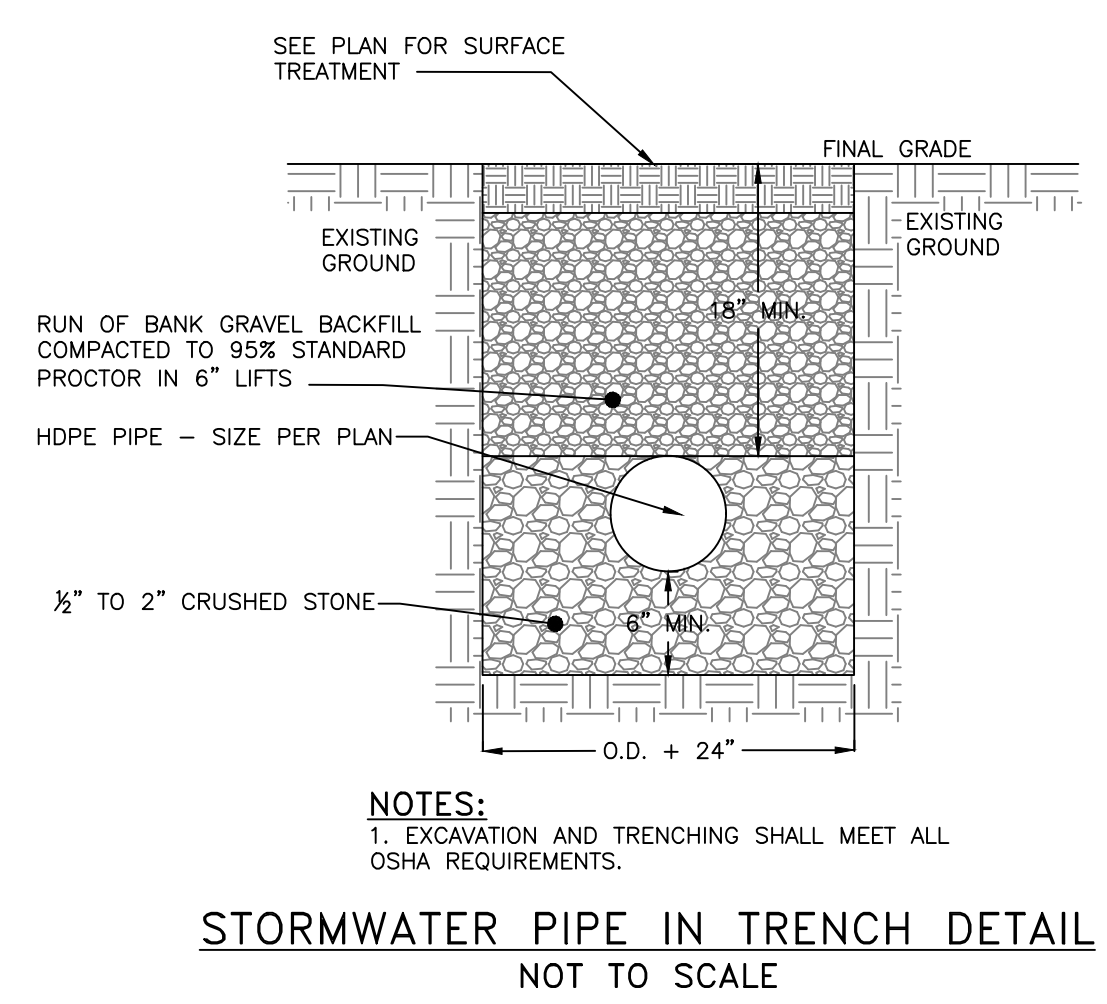
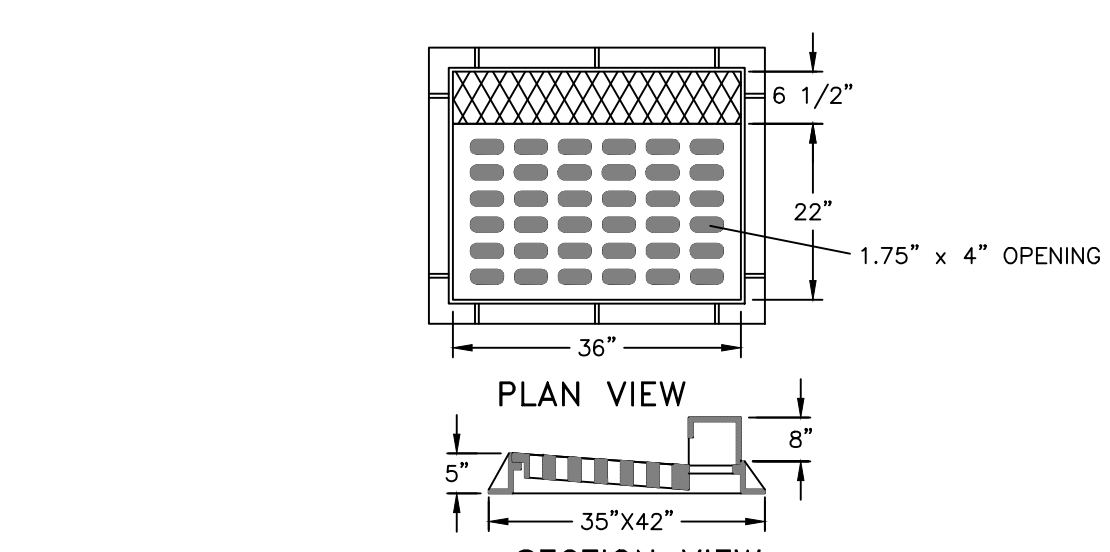
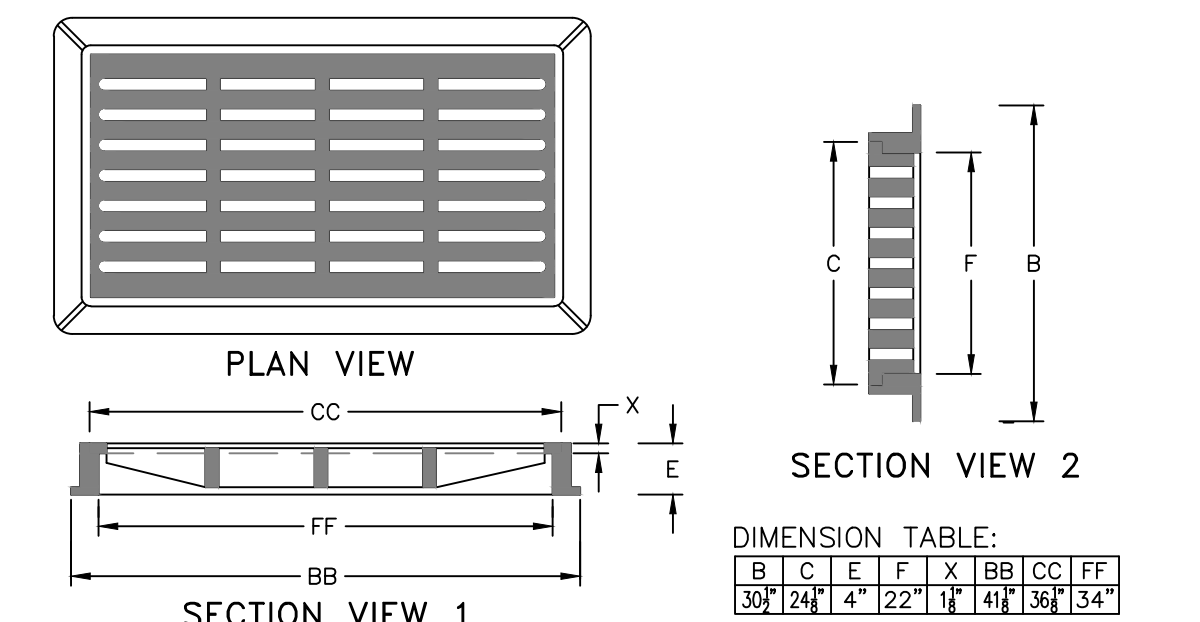
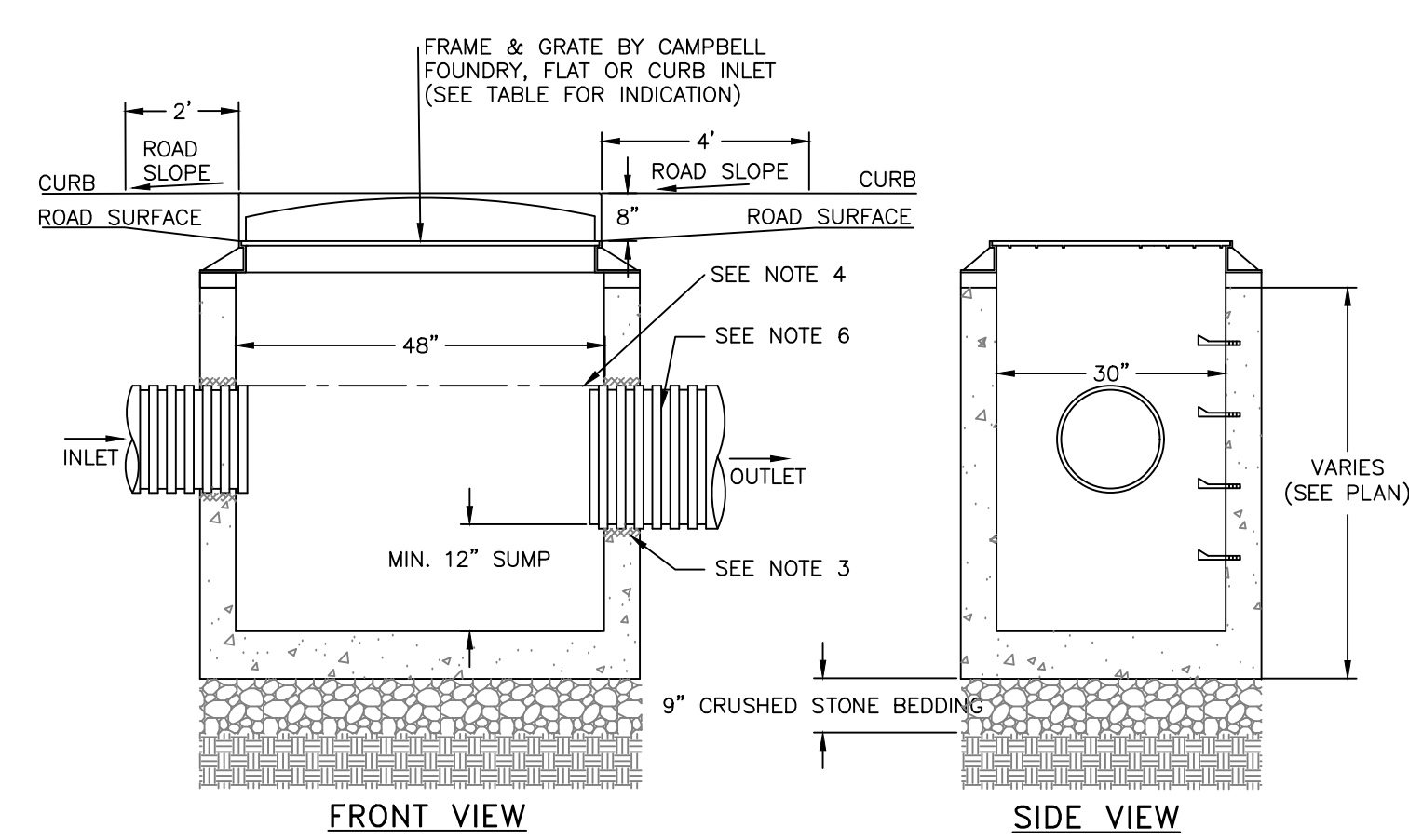
**Hudson Land Design**  
 HUDSON LAND DESIGN  
 PROFESSIONAL ENGINEERING P.C.  
 174 MAIN ST., BEACON, NEW YORK 12509  
 13 CHAMBERS ST., NEWBURGH, NEW YORK 12550  
 F: 845-440-8637



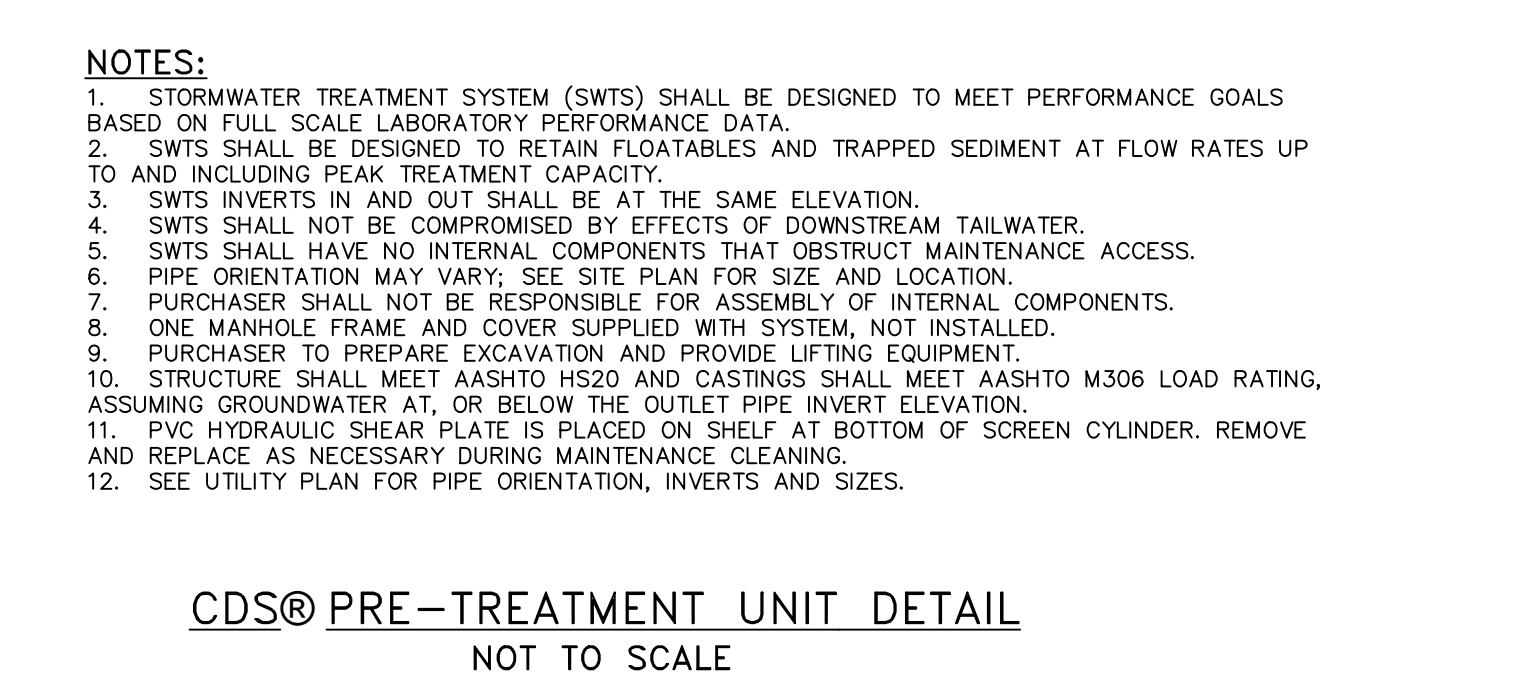
**CONSTRUCTION DETAILS**  
 511 FISHKILL AVENUE  
 511 FISHKILL AVENUE  
 CITY OF BEACON  
 DUTCHESS COUNTY, NEW YORK  
 TAX ID: 6656-04-566265

JOB #:	2016041
DATE:	11/27/18
SCALE:	AS SHOWN
TITLE:	CD-1
SHEET:	12 OF 13

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



SYSTEM ID	BOTTOM OF STONE BED ELEVATION	CHAMBER INVERT ELEVATION	TOP OF STONE BED ELEVATION	STONE BED FOOTPRINT
A	213.55	214.05	217.10	2,346 S.F.

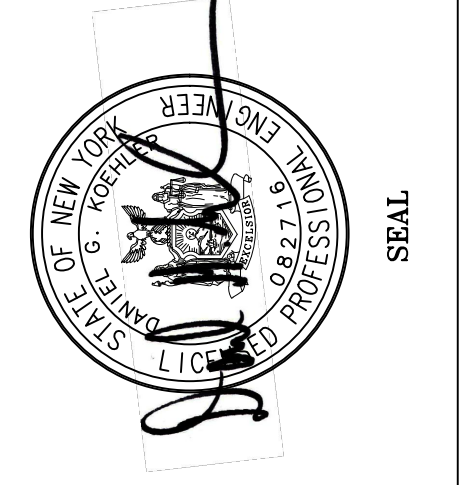


CHECKED BY: DCK		REVISIONS:	
NO.	DATE	BY	DESCRIPTION
1	12/25/18	CB	PER PLANNING BOARD COMMENTS
2	1/25/19	CB	PER PLANNING BOARD COMMENTS

DRAWN BY: CUB		REVISIONS:	
NO.	DATE	BY	DESCRIPTION
1	12/25/18	CB	PER PLANNING BOARD COMMENTS
2	1/25/19	CB	PER PLANNING BOARD COMMENTS

**DigiSafely**  
New York  
800-962-7962  
100 Hudson Street  
New York, NY 10014

**Hudson Land Design**  
HUDSON LAND DESIGN  
PROFESSIONAL ENGINEERING P.C.  
174 MAIN ST., BEACON, NEW YORK 12508  
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550  
F: 845-440-6837



CONSTRUCTION DETAILS  
511 FISHKILL AVENUE  
511 FISHKILL AVENUE  
CITY OF BEACON  
DUTCHESS COUNTY, NEW YORK  
TAX ID: 6650-04-560265

**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 Lenc, P.E., L.S.  
Arthur R. Tully, P.E.

February 7, 2019

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

RE: 511 Fishkill Avenue  
City of Beacon  
Tax Parcel 6055-04-580285

Dear Mr. Gunn:

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

- Response correspondence from Aryeh Siegel, Architect, dated January 29, 2019.
- Response correspondence from Hudson Land Design dated January 29, 2019.
- Report entitled "Shared Parking Report – 511 Fishkill Avenue", dated January 29, 2019, as prepared by Aryeh Siegel, Architect.
- Report entitled "Preliminary Stormwater Pollution Prevention Plan for 511 Fishkill Avenue" with the latest revision date of January 29, 2019, as prepared by Hudson Land Design.
- Set of plans entitled "Amendment to Site Plan Application – 511 Fishkill Avenue", with the latest revision date of January 29, 2019, and consisting of sheets 1 through 13 of 13 as prepared by Aryeh Siegel, Architect and Hudson Land Design.

Based on our review of the above, we would like to offer the following comments:

General Comments:

1. As previously noted, based upon an increase of an additional 79 vehicle trips being generated by the site, we would recommend that a traffic study be conducted to see if there will be any impacts on the intersections adjacent to or near the proposed project. As the entrance for the project is along a state road, we would also recommend that the NYSDOT be contacted prior to the traffic study being conducted to see if they may have any additional requirements. *The applicant has stated that Maser Consulting has been retained to perform the traffic study, and that they will coordinate with NYSDOT requirements.*
2. The parking table should be updated to reflect that the required parking for the arcade use would actually be 69 spaces, as the total number of spaces required based upon the calculation would be 68.25, which would require that it be rounded up to 69. This would also require that the total at the bottom of the table be changed to 311 spaces.

3. Although a "Shared Parking" report has been submitted by the project architect, it was clearly stated at the last planning board meeting that parking information would be provided based upon existing similar uses to show/justify the actual parking required by this project. The submitted report does not provide any of this information, but rather continues to re-hash the numbers provided on the plans. The applicant shall revise the report to provide the Planning Board with actual parking data for similar uses in operation, so that the Planning Board can make an informed decision with regards to the applicants request for relief in the parking requirements.
4. It appears that the last parking stall on the north side of the proposed parking lot next to the access drive that wraps around the building will need to be eliminated to provide clearance for vehicles/trucks to access this emergency access lane in the event of an emergency. This would reduce the total number of spaces being provided on the site and should be accounted for in the parking calculation table.

Preliminary Stormwater Pollution Prevention Plan:

1. Preliminary can be removed from the title of the SWPPP at this time.
2. Tables on pages 12 and 15 appear to have conflicting information about the required and provided water quality treatment and runoff reduction volume. The required water quality treatment and runoff reduction should be identical.
3. The report states that the water quality volume will be infiltrated in the underground infiltration system. Backup information showing this volume will infiltrate should be provided.

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

Very truly,

LANC & TULLY, P.C.

  
John Russo, P.E.

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

To: John Gunn, Chair, and the City of Beacon Planning Board  
Date: February 8, 2019  
Re: **511 Fishkill Avenue, Amended Site Plan**

I have reviewed the January 29, 2019 response letters from Aryeh Siegel and Hudson Land Design, a January 29, 2019 Shared Parking Report by Aryeh Siegel, and a 13-sheet Amendment to Site Plan Application set with the last revision date of January 29, 2019.

### **Proposal**

The project would add a new mix of tenants to a vacant 128,317 square foot building. The 9.79-acre parcel is in the Heavy Industrial (HI) district. The primary site work proposed is to build-out a previously approved land-banked parking lot towards the rear of the site.

### **Comments and Recommendations**

1. The overall parking requirement depends on the Planning Board approving a shared parking arrangement under Section 223-26 C(6), based on different hours of operations for the various uses. The applicant has prepared a Shared Parking Report to describe the different activities and parking calculations, which provide a surplus of spaces at all times for the active uses. However, the office/retail, mezzanine, and pre-event spaces are not included in the report and should be justified to the Board as non-simultaneous uses with no parking requirements.
2. The Parking and Loading Table on Sheet 1 lists 205 proposed spaces, but only 203 are shown on the Site Plan because of the two additional ADA spaces.
3. As previously agreed, a note should be provided on the Site Plan that the existing chain link fence along the Fishkill Avenue frontage will be removed.
4. A note or detail should be included for breaks in the new parking lot curbs to allow natural drainage into the tree islands.
5. The sidewalk to the new parking lot should be 4½ feet wide along its entire length.
6. Is the ramp and landing area in front of the entrance ADA compliant without a handrail?

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

John Clarke, Beacon City Planning Consultant

c: Dave Buckley, Deputy Building Inspector  
Jennifer L. Gray, Esq., City Attorney  
Arthur R. Tully, P.E., City Engineer  
John Russo, P.E., City Engineer  
Aryeh Siegal, Project Architect  
Daniel G. Koehler, P.E., Project Engineer

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**21 South Avenue**

**Subject:**

Public hearing on application for Site Plan Approval related to Special Use Permit, three-unit residential, 21 South Avenue, submitted by Protestant Episcopal Diocese of New York

**Background:**

**ATTACHMENTS:**

Description	Type
21 South Avenue Engineer Response Letter	Cover Memo/Letter
21 South Ave Planning Set	Plans
Engineer Review Letter	Consultant Comment
Planner Review Letter	Consultant Comment



To: Town of Beacon Planning Department  
Date: Dec 11, 2018  
Re: 21 South Ave, Site Plan and Special Permit

**Comments and Responses from John Clarke Planning and Design dated Dec 7th, 2018**

1. *"The City Council approved a Special Permit for the multifamily residential use with several conditions. These conditions included that the parking lot be reconfigured to incorporate a 5-foot setback from the rear and side property lines, consistent with Section 223-26 C(1), and that the parking lot be landscaped with appropriate trees, shrubs, and other plant materials, consistent with Section 223-26 C(3). The Site Plan should be updated to reflect these conditions, including shade trees in the parking lot setback."*

**§ 223-26 Off-Street Parking, loading and vehicular access.**

*(3) Landscaping. Except for parking spaces accessory to a one-family dwelling, all off-street parking areas shall be landscaped with appropriate trees, shrubs and other plant materials and ground cover, as approved by the Planning Board based upon consideration of the adequacy of the proposed landscaping to assure the establishment of a safe, convenient and attractive parking facility with a minimum amount of maintenance, including plant care, snowplowing and the removal of leaves and other debris. At least one tree with a minimum caliper of three inches at a height of four feet above ground level shall be provided within such parking area for each 10 parking spaces.*

*(a) Wherever possible, planting islands, at least eight feet in width, shall be provided to guide vehicle movement and to separate opposing rows of parking spaces so as to provide adequate space for plant growth, pedestrian circulation and vehicle overhang. Such planting islands and the landscaping within them shall be designed and arranged in such a way as to provide vertical definition to major traffic circulation aisles, entrances and exits, to channel internal traffic flow and prevent indiscriminate diagonal movement of vehicles and to provide relief from the visual monotony and shadeless expanse of a large parking area.*

*(b) The Planning Board may require curbing to facilitate surface drainage and prevent vehicles from overlapping sidewalks and damaging landscaping materials.*

*(c) No obstruction to driver vision shall be erected or maintained on any lot within the triangle formed by the street line of such lot, the outer edge of the access driveway to the parking area and a line drawn between points along such street line and access drive 30 feet distant from their point of intersection.*

**RESPONSE**

We have updated the plans to show the removal of asphalt within 5' of the property line. We have also added shrubs to the perimeter of the parking area and also an extra tree has now been placed near the parking in the spirit of § 223-26 (3).

2. *“Since this parcel is in the LWRP area and the HDLO Zone, the application requires a LWRP Consistency Determination and a Certificate of Appropriateness. The plans appear consistent with the LWRP and Historic Preservation Chapter 134 standards.”*

RESPONSE

No response necessary.

3. *“The replacement windows should match the appearance of the original historic windows, if known, with dividing muntins on the exterior of the glass.”*

RESPONSE

The elevations have been updated to show 9x9 muntins on exterior of the glass.

4. *“A detail should be provided for the wood trash enclosure.”*

RESPONSE

Detail A1 on page 04 now shows a detail of the trash enclosure.

**Comments and Responses from Lanc and Tully dated Dec 5th, 2018**

1. *As previously noted, grading (proposed topographic lines) for the newly proposed parking lot entrance should be shown on the plans. This area should be looked at further, as the existing topography represented on the site plan does not match that as shown on the topographic survey.*

RESPONSE

This area has been made clearer with respect to what is an existing topographic line and what is a proposed topographic line.

2. *As previously noted, any grading proposed in vicinity of the existing parking lot on South Ave should be shown on the plans.*

RESPONSE

We are not proposing any new grading in at the South Ave parking lot. A note has been added to provide 1% slope for drainage of the lot.

3. *As is showing a handicap accessible parking stall to be located in the parking lot located off of South Ave. the plan shall show a striped access aisle along with the required signage for the parking stall and access aisle as called out in the construction detail.*

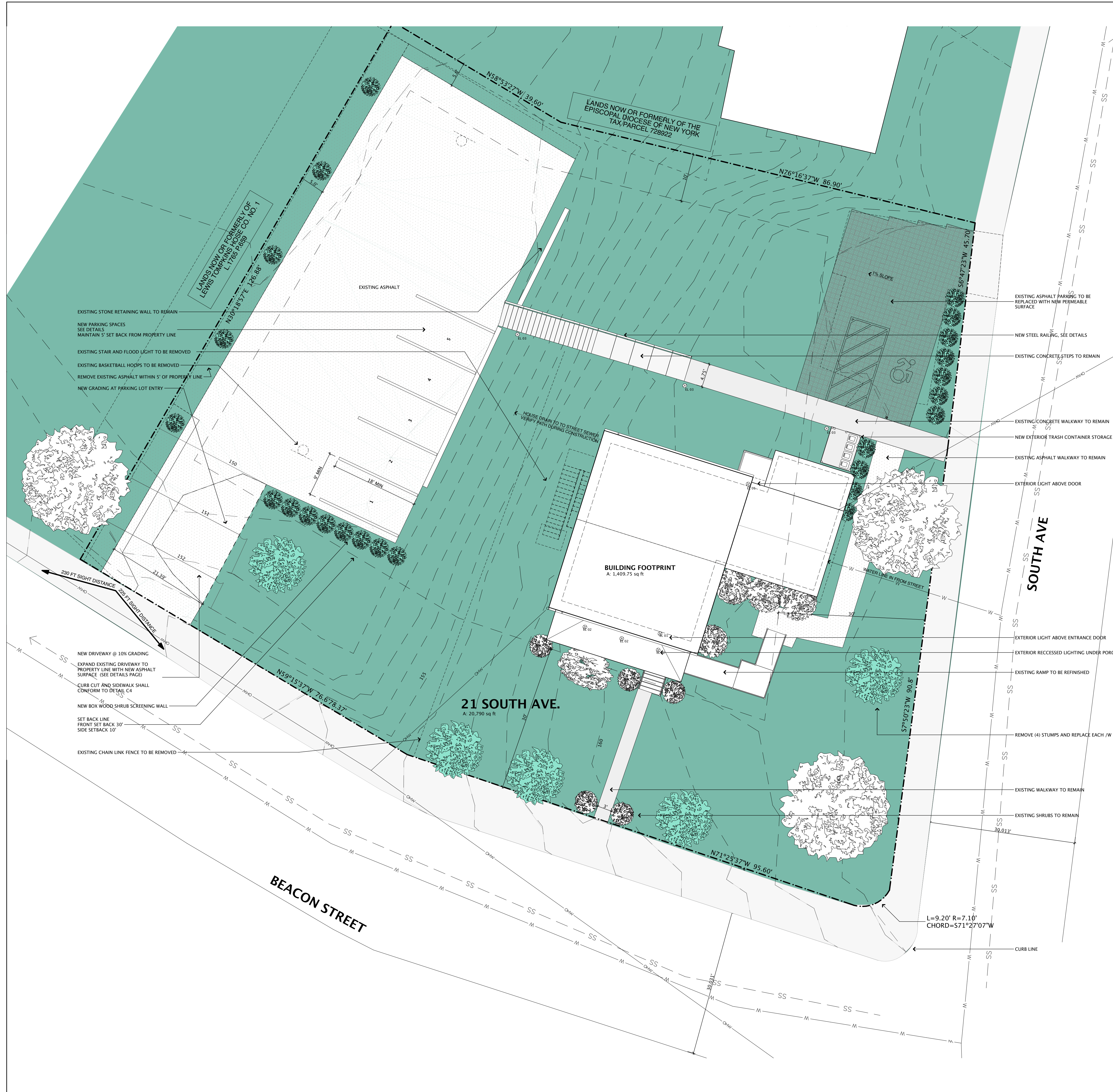
RESPONSE

The handicap accessible parking spot now shows the correct striped access aisle and signage.

4. *As the plan is calling for the installation of 4 trees, it is recommended that the water and sewer services be show on the plan to ensure that these trees are not planted over or adjacent to the water and sewer services in turn creating future maintenance problems for the service lines.*

**RESPONSE**

We will obtain the appropriate map from the water and sewer dept and verify that the new trees will not interfere with any service lines.



- I. Property Profile**
- 1.1. Block No 26
  - 1.2. Lot No 724907
  - 1.3. Zoning District R1-7.5
  - 1.4. Overlay Historic District and Landmark
  - 1.5. Lot Area 20,790 SQ FT
  - 1.6. Building Footprint 1,409 SQ FT
  - 1.7. No. Of Floors 2.5
  - 1.8. Owner of Record
- EPISCOPAL DIOCESE OF NEW YORK  
1047 AMSTERDAM AVE.  
NY, NY 10025
- 1.9. Applicant  
REV JOHN WILLIAMS  
15 SOUTH AVE.  
BEACON, NY 10025
- 1.10. Prepared By  
BARRY DONALDSON ARCHITECTS  
14 KING ST.  
CROTON ON HUDSON, NY 10520
- 2. GENERAL NOTES**
- 2.1. Conversion of existing single family home into 3 unit apartment.
  - 2.2. Existing contours to remain unchanged.
  - 2.3. Existing building footprint to remain unchanged.
  - 2.4. Property is not in a flood zone.
  - 2.5. No new signage.
  - 2.6. No new fences or retaining walls.
- 3. LANDSCAPING NOTES**
- 3.1. No trees to be removed.

**WATERFRONT REVITALIZATION PROGRAM NOTE**  
WE CERTIFY THAT THIS PROJECT CONFORMS TO THE STANDARDS AND SPIRIT OF BEACON'S WATERFRONT REVITALIZATION PROGRAM. THE PROJECT WILL IMPROVE THE SCENIC AND HISTORIC QUALITY OF THE SITE, AS WELL AS IMPROVE DRAINAGE, AND LANDSCAPING.

**INFLOW AND INFILTRATION NOTE**  
WE CERTIFY THAT THE SITE HAS NO ILLEGAL CROSS CONNECTION BETWEEN SEWER AND DRAINAGE. ROOF LEADERS DRAIN TO SURFACE. NO SLUMP PUMP OR SITE DRAINS. MAIN HOUSE DRAIN IS TIED DIRECTLY INTO CITY OF BEACON SEWER SYSTEM.

- GRASS
- NEW TREE OR SHRUB
- ASPHALT
- CONCRETE
- REMOVALS
- OHW OVERHEAD POWER LINES
- W TOWN WATER LINE
- SS TOWN SEWER

03	
02	12/26/18 PLANNING DEPT. SUBMITTAL
01	DESIGN DEVELOPMENT
NO DATE	ISSUE

ISSUE RECORD  
SEAL & SIGNATURE

**BARRY DONALDSON ARCHITECTS**  
14 KING STREET  
CROTON ON HUDSON, NY 10520  
TEL: 914-877-8840  
EMAIL: BDA@BARRYDONALDSONARCHITECTS.COM

PROJECT  
**Renovation of 21 South Ave.**  
21 South Ave.  
Beacon, NY  
12508

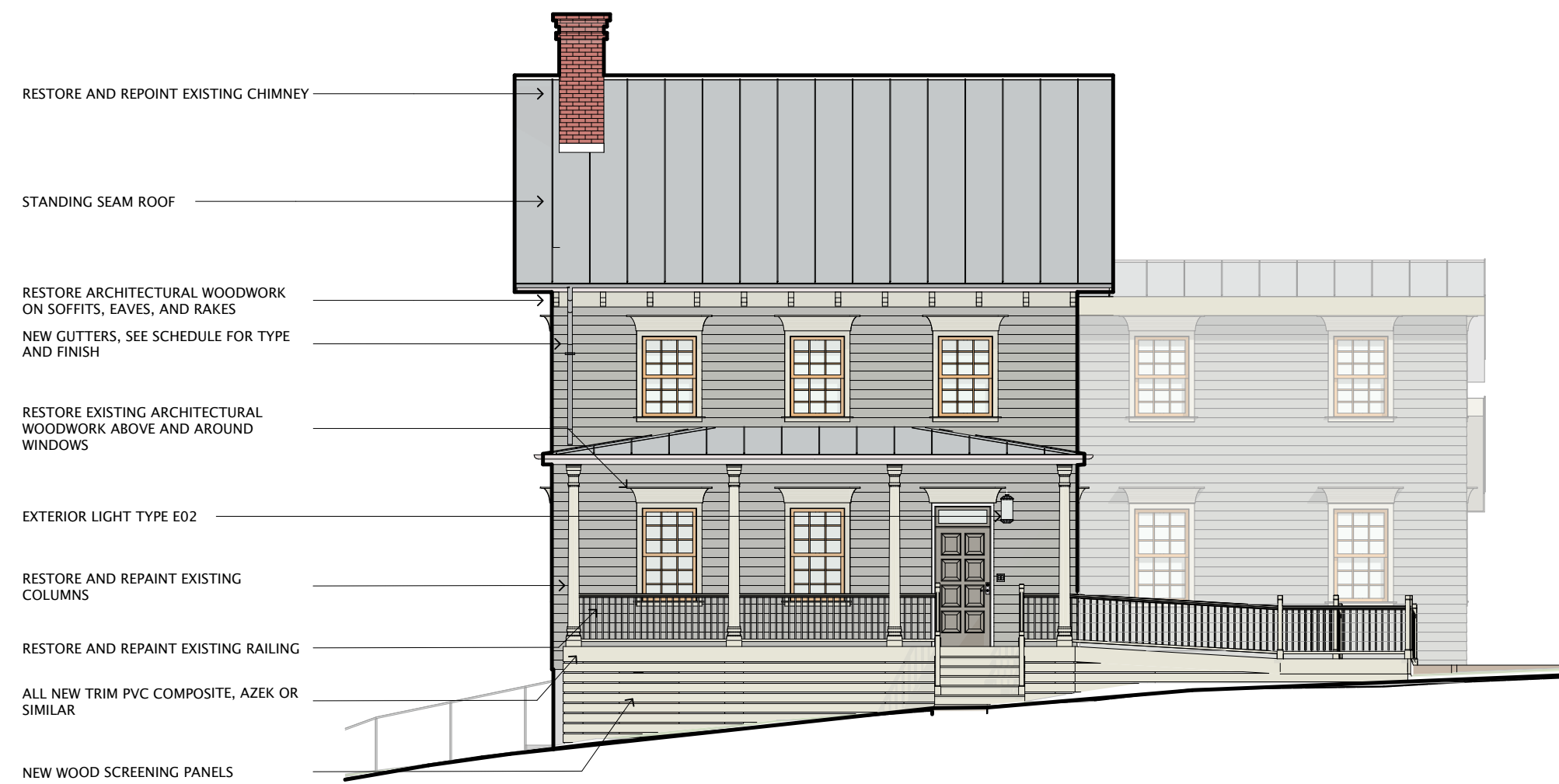
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**SITE PLAN**

JOB NO. 8032-01-01	DATE 12/26/18	SCALE 1" = 10'
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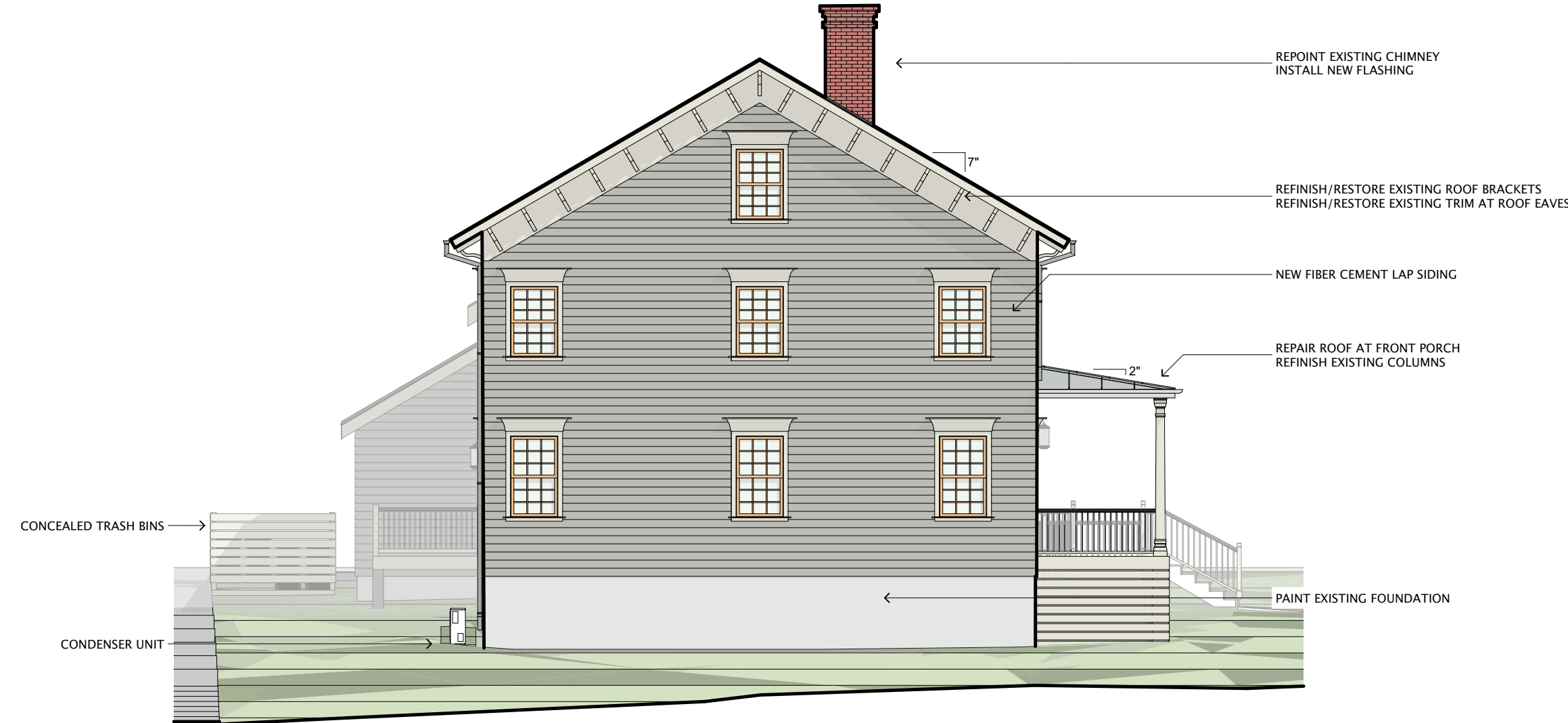
DRAWING NO.  
**01**



**AREA MAP**  
NOT TO SCALE



**C1** NORTH ELEVATION  
SCALE: 1/8" = 1'-0"



**C2** WEST ELEVATION  
SCALE: 1/8" = 1'-0"



**A1** SOUTH ELEVATION  
SCALE: 1/8" = 1'-0"



**A2** EAST ELEVATION  
SCALE: 1/8" = 1'-0"

03		
02	12/26/18	PLANNING DEPT. SUBMITTAL
01		DESIGN DEVELOPMENT
NO	DATE	ISSUE

ISSUE RECORD

SEAL & SIGNATURE

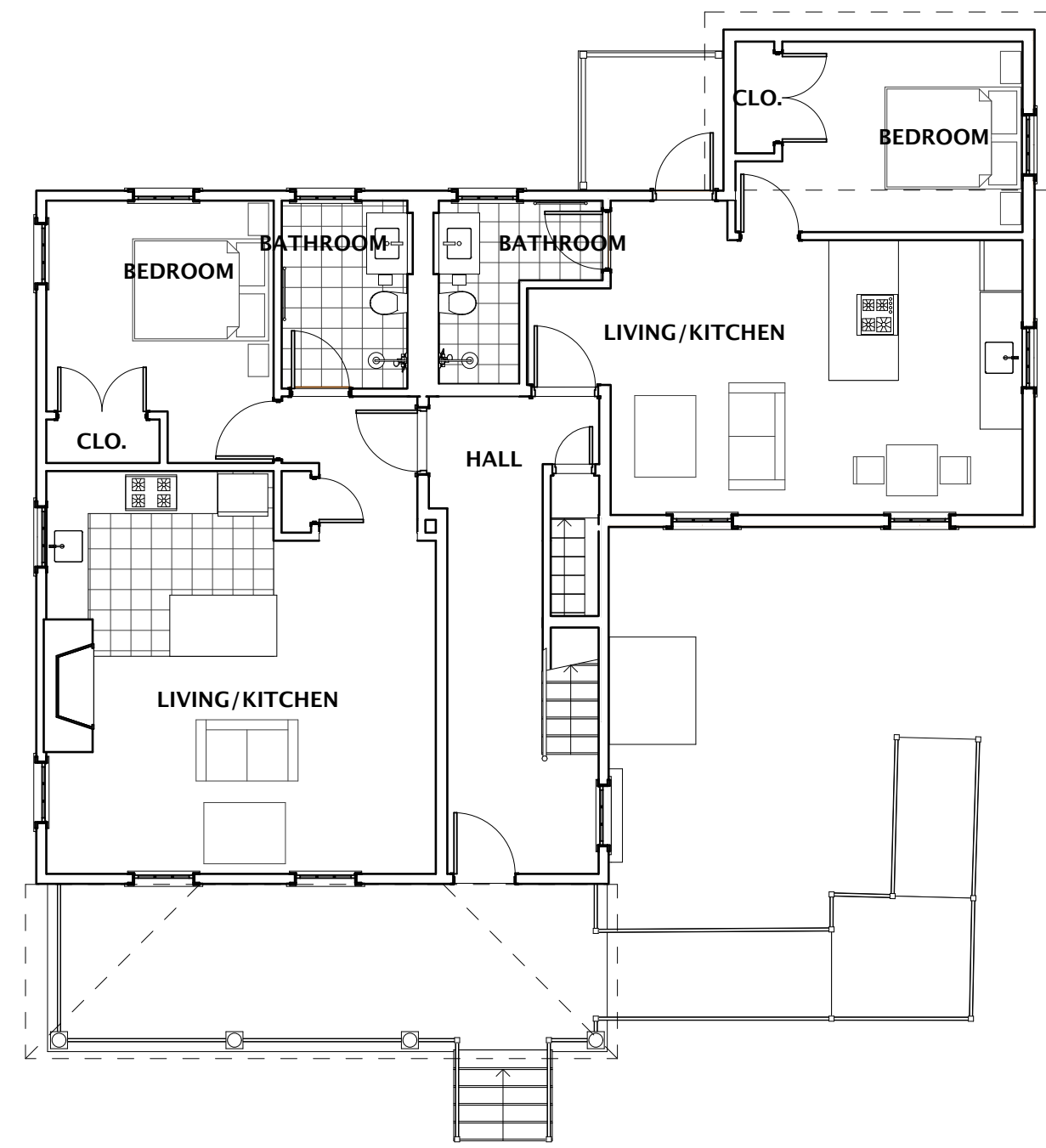
**BARRY DONALDSON ARCHITECTS**  
14 KING STREET  
CROTON ON HUDSON, NY 10520  
TEL: 844-877-8849  
EMAIL: BDD@BARRYDONALDSONARCHITECTS.COM

PROJECT  
**Renovation of 21 South Ave.**  
21 South Ave.  
Beacon, NY  
12508

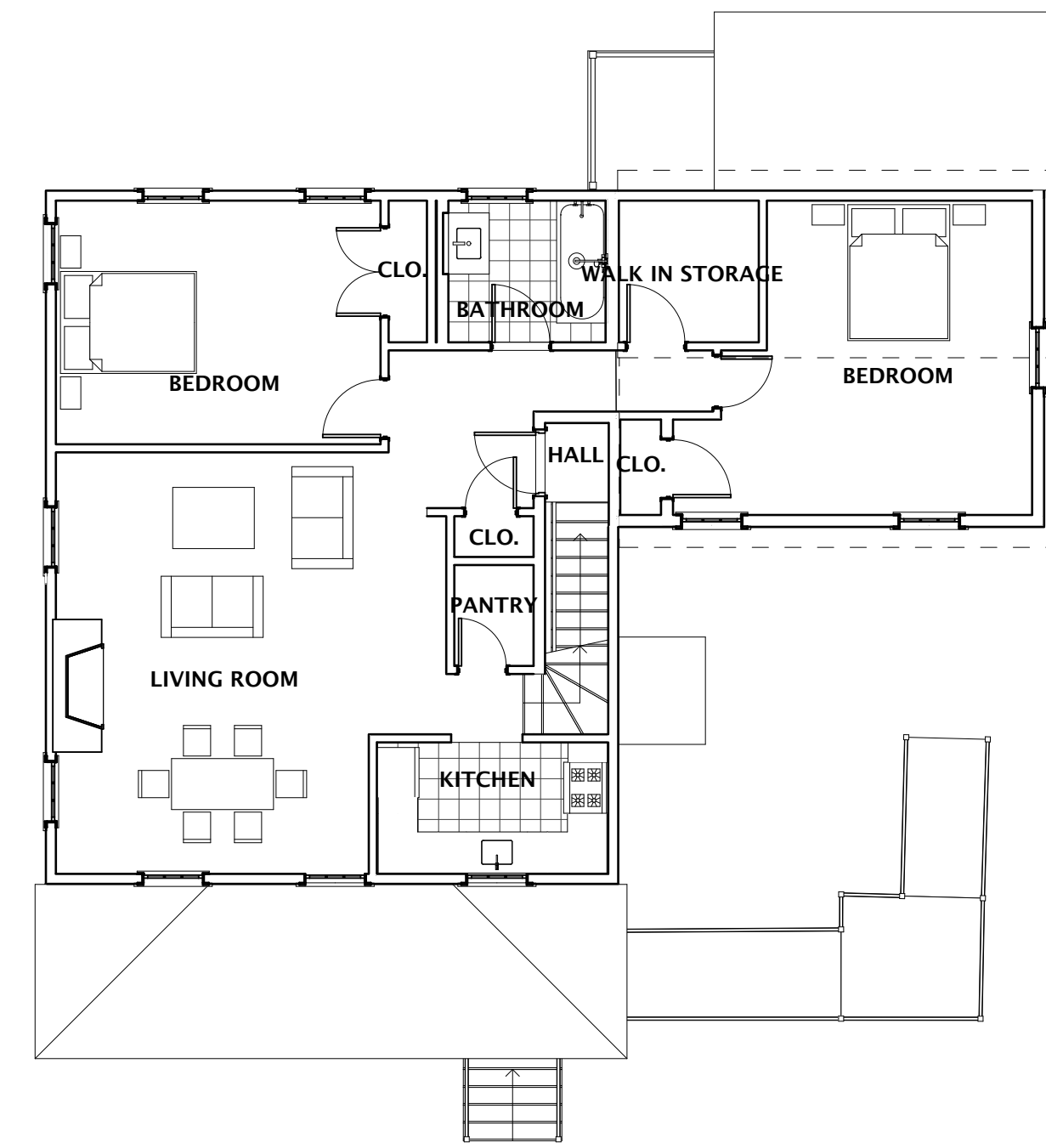
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**ELEVATIONS**

JOB NO.	DATE	SCALE
8032-01-01	12/26/18	1/8" = 1'-0"

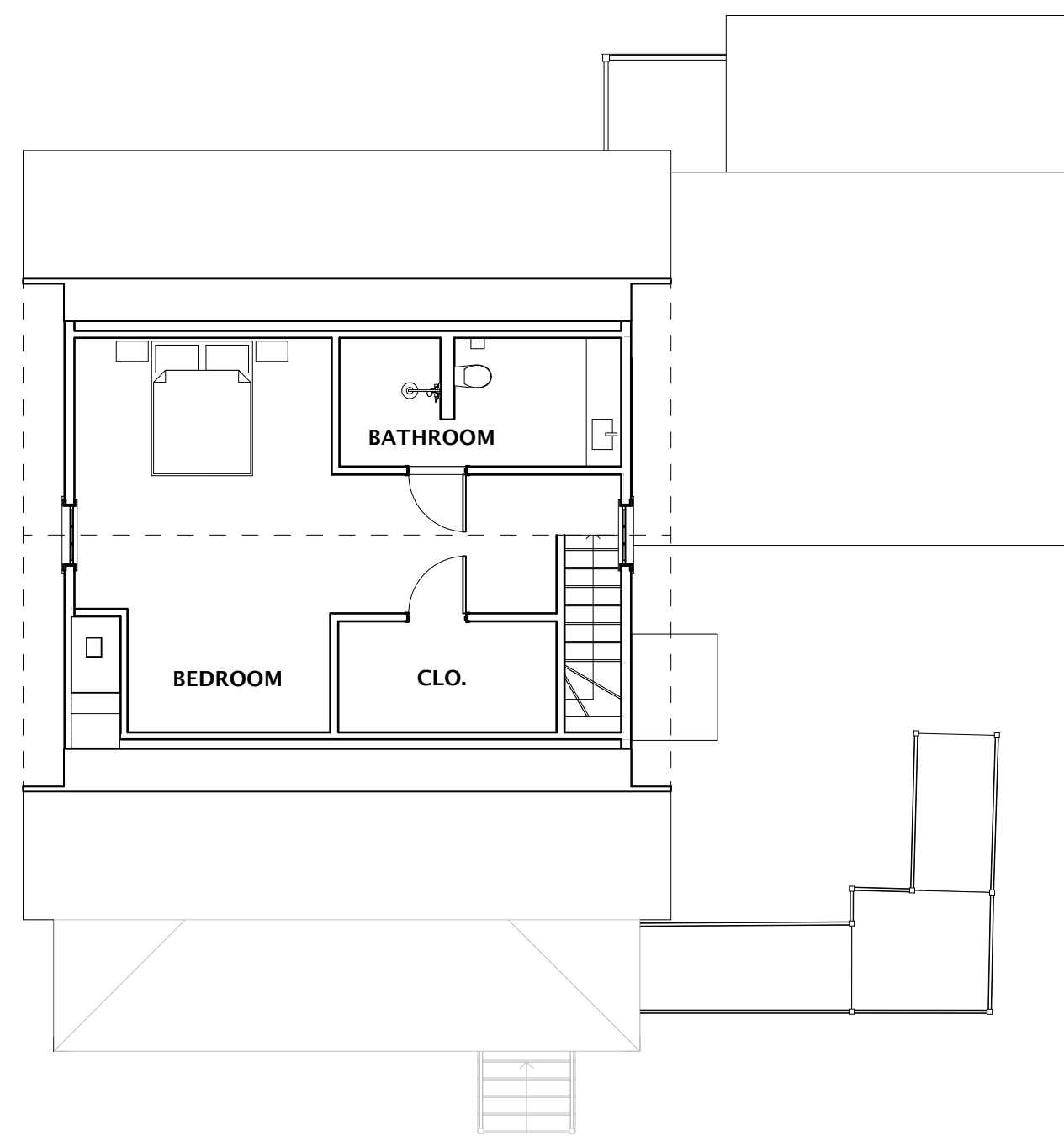
DRAWING NO.  
**02**



**C1** 1ST FLOOR APARTMENT 1 AND 2  
SCALE: 1/8" = 1'-0"



**C3** 2ND FLOOR APARTMENT 03  
SCALE: 1/8" = 1'-0"



**A1** 3RD FLOOR APARTMENT 03 MASTER BEDROOM  
SCALE: 1/8" = 1'-0"

03		
02	12/26/18	PLANNING DEPT. SUBMITTAL
01		DESIGN DEVELOPMENT
NO	DATE	ISSUE

ISSUE RECORD

SEAL & SIGNATURE

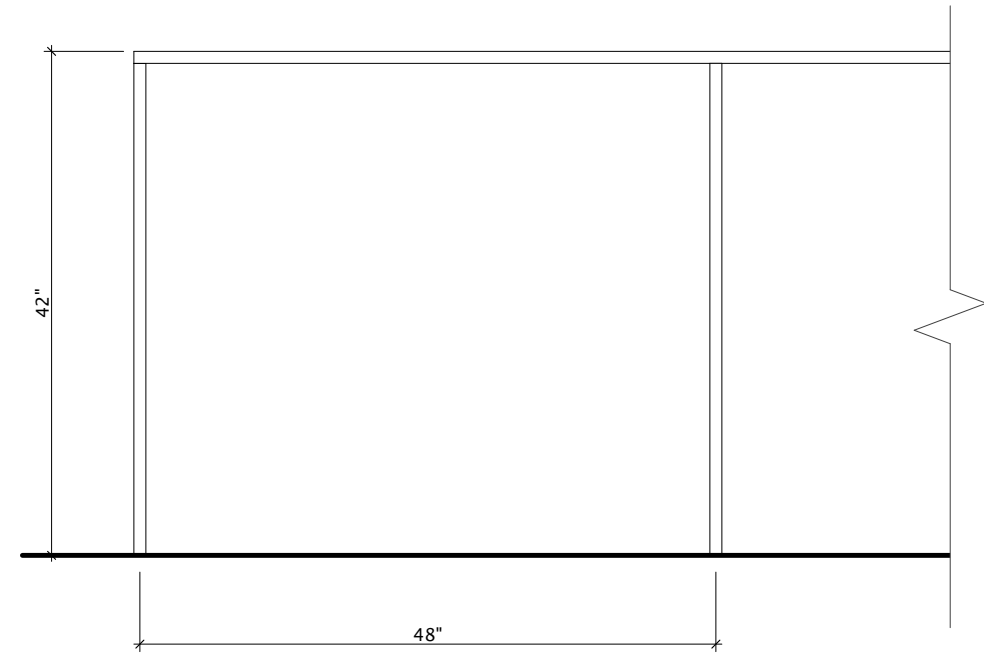
**BARRY DONALDSON ARCHITECTS**  
14 KING STREET  
CROTON ON HUDSON, NY 10520  
TEL: 914-877-8849  
EMAIL: BARRY@BARRYDONALDSONARCHITECTS.COM

PROJECT  
**Renovation of 21 South Ave.**  
21 South Ave.  
Beacon, NY  
12508

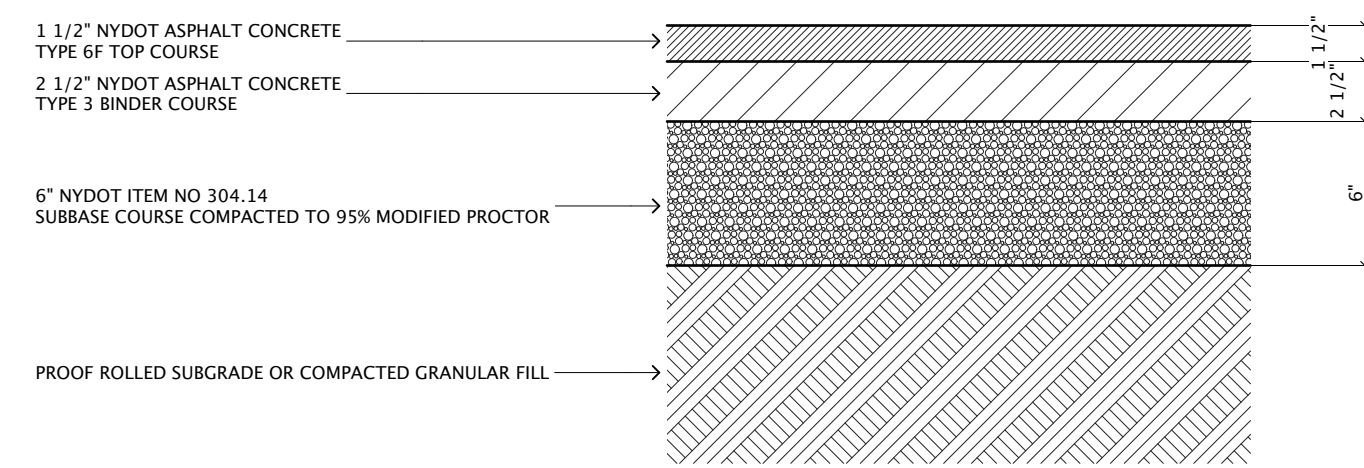
DRAWING TITLE  
**SCHEMATIC PLANS**

JOB NO.	DATE	SCALE
8032-01-01	12/26/18	1/8" = 1'-0"

DRAWING NO.
<b>03</b>

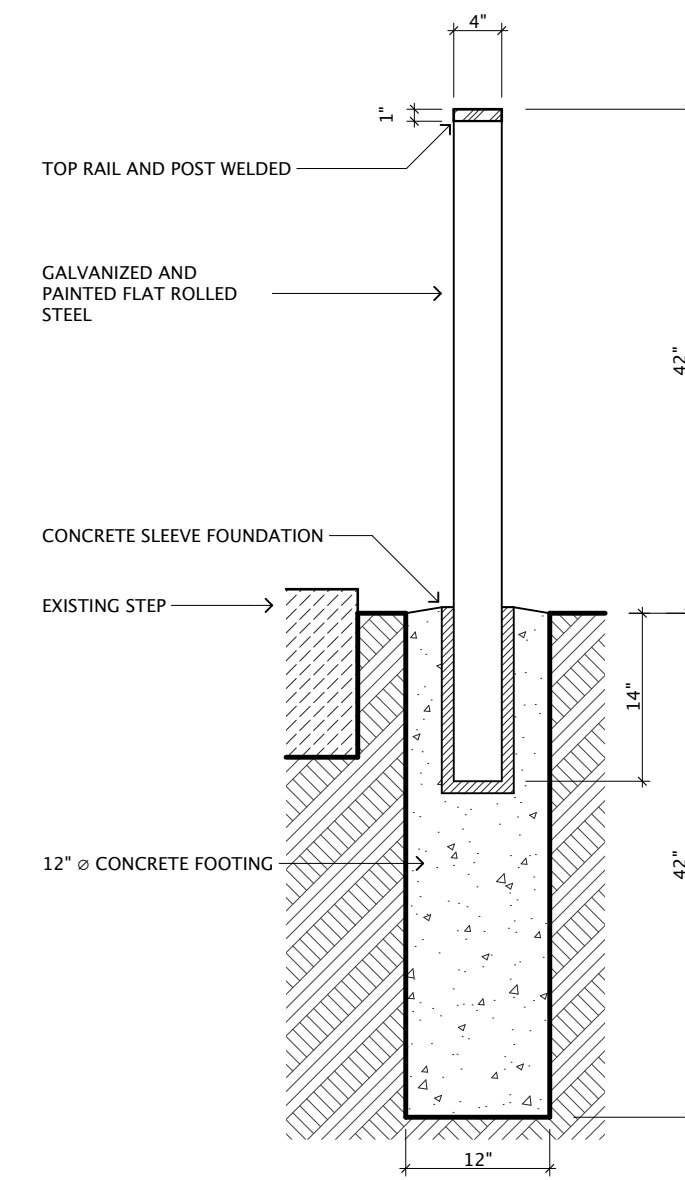


**D1 SITE RAILING ELEVATION**  
SCALE: 3/4" = 1'-0"

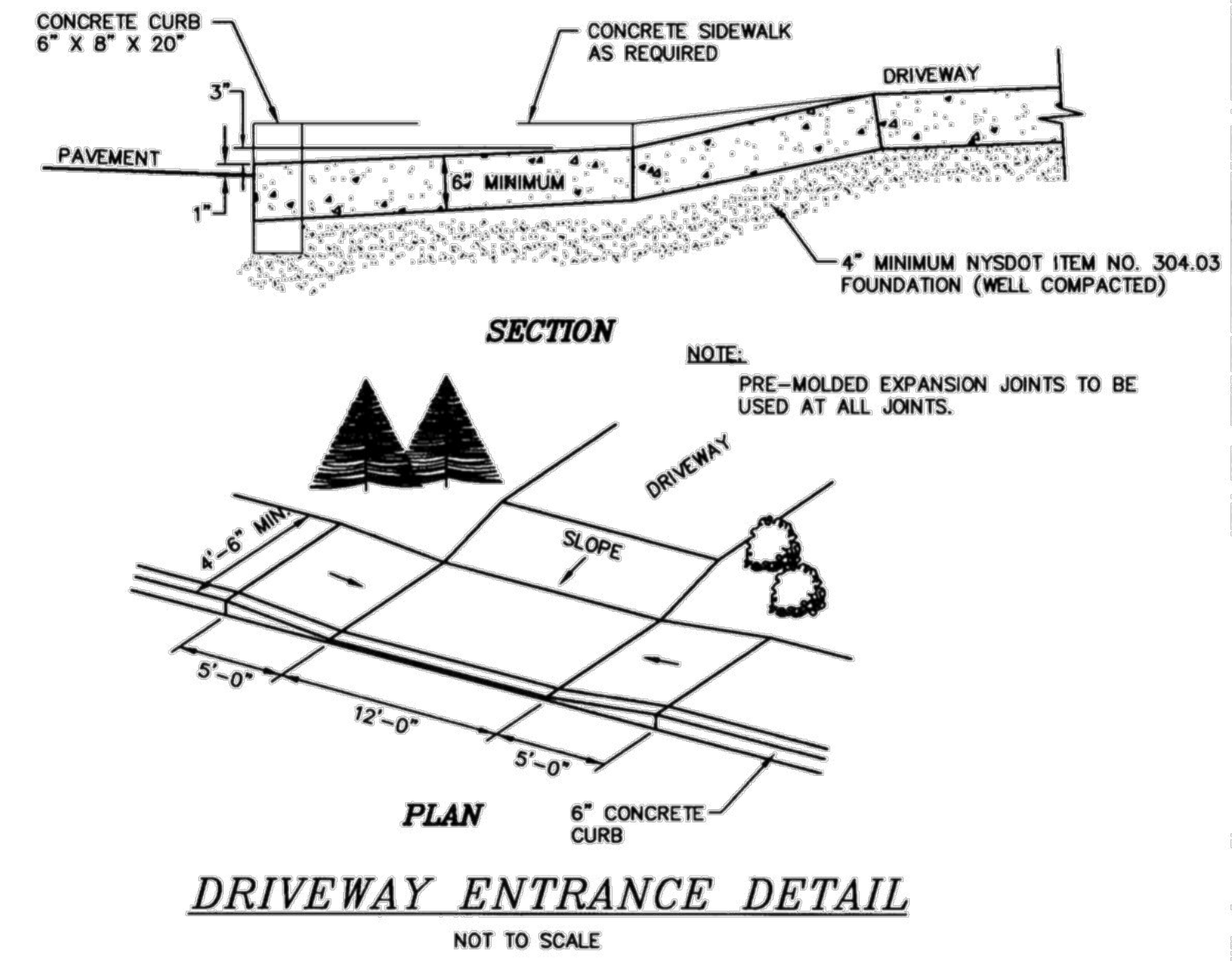


- NOTES:**
1. MATERIALS AND METHODS SHALL CONFORM TO NYS DOT STANDARDS.
  2. SUBGRADE SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS.
  3. TACK COAT WHEN SPECIFIED OR CALLED OUT IN THESE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATIONS SHALL CONFORM WITH SECTION 407 - TACK COAT OF THE ABOVE REFERENCED NYS DOT STANDARD SPECIFICATIONS.
  4. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSES OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMANCE WITH SECTION 203 EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYS DOT STANDARD SPECIFICATIONS.

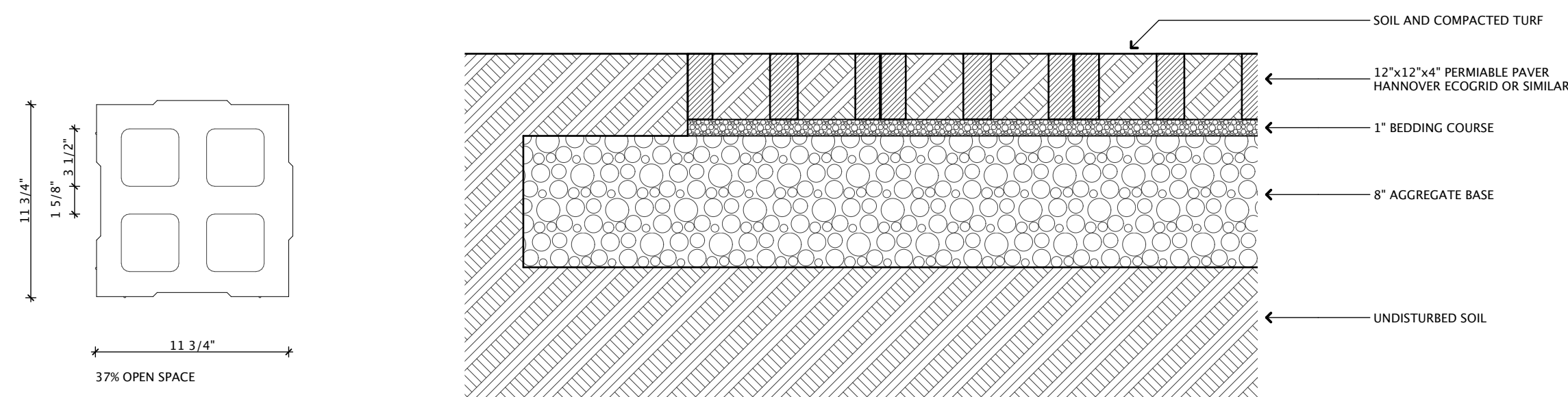
**C1 NEW PAVING DETAIL**  
SCALE: 1 1/2" = 1'-0"



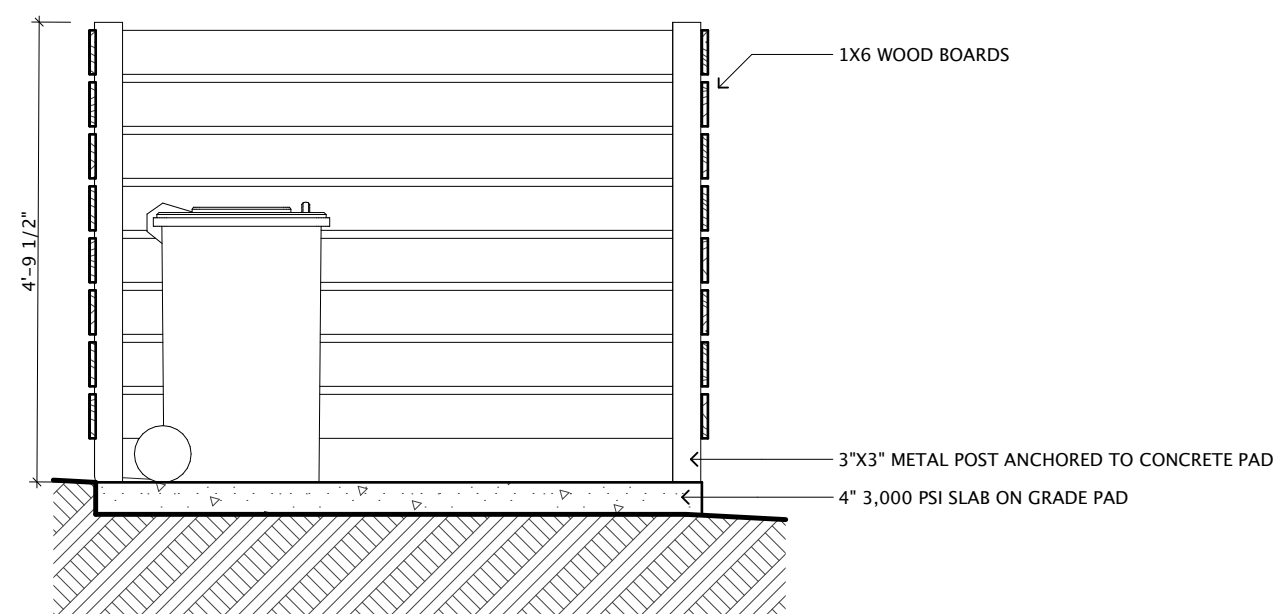
**C3 SITE RAILING DETAIL**  
SCALE: 3/4" = 1'-0"



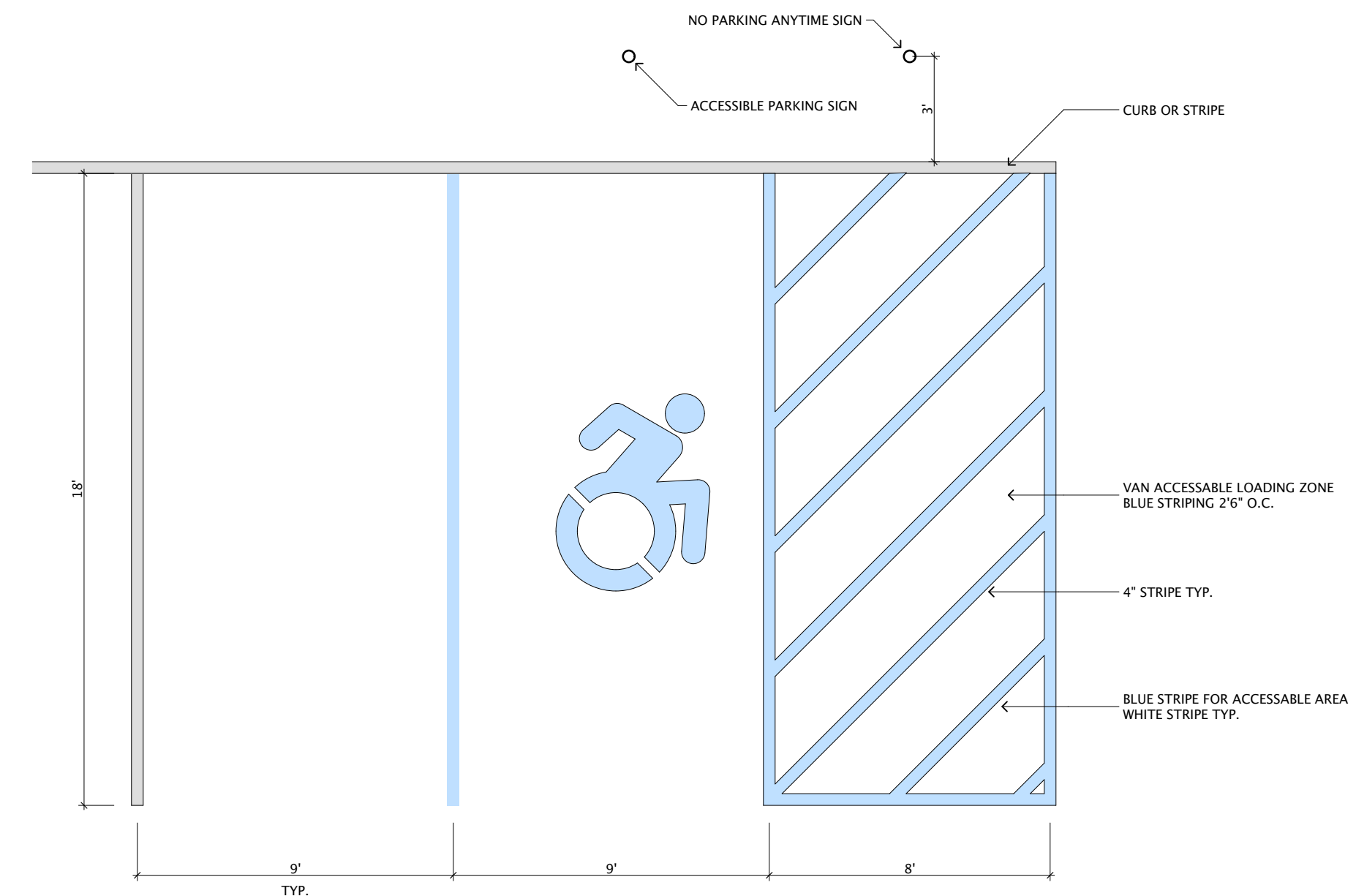
**C4 DRIVEWAY ENTRANCE DETAIL**  
SCALE: 1" = 10'



**B1 PERMIABLE PAVER DETAIL**  
SCALE: 1 1/2" = 1'-0"



**A1 WOOD TRASH ENCLOSURE DETAIL**  
SCALE: 1/2" = 1'-0"



**A4 PARKING DETAIL**  
SCALE: 1/4" = 1'-0"

03		
02	12/26/18	PLANNING DEPT. SUBMITTAL
01		DESIGN DEVELOPMENT
NO	DATE	ISSUE

ISSUE RECORD  
SEAL & SIGNATURE

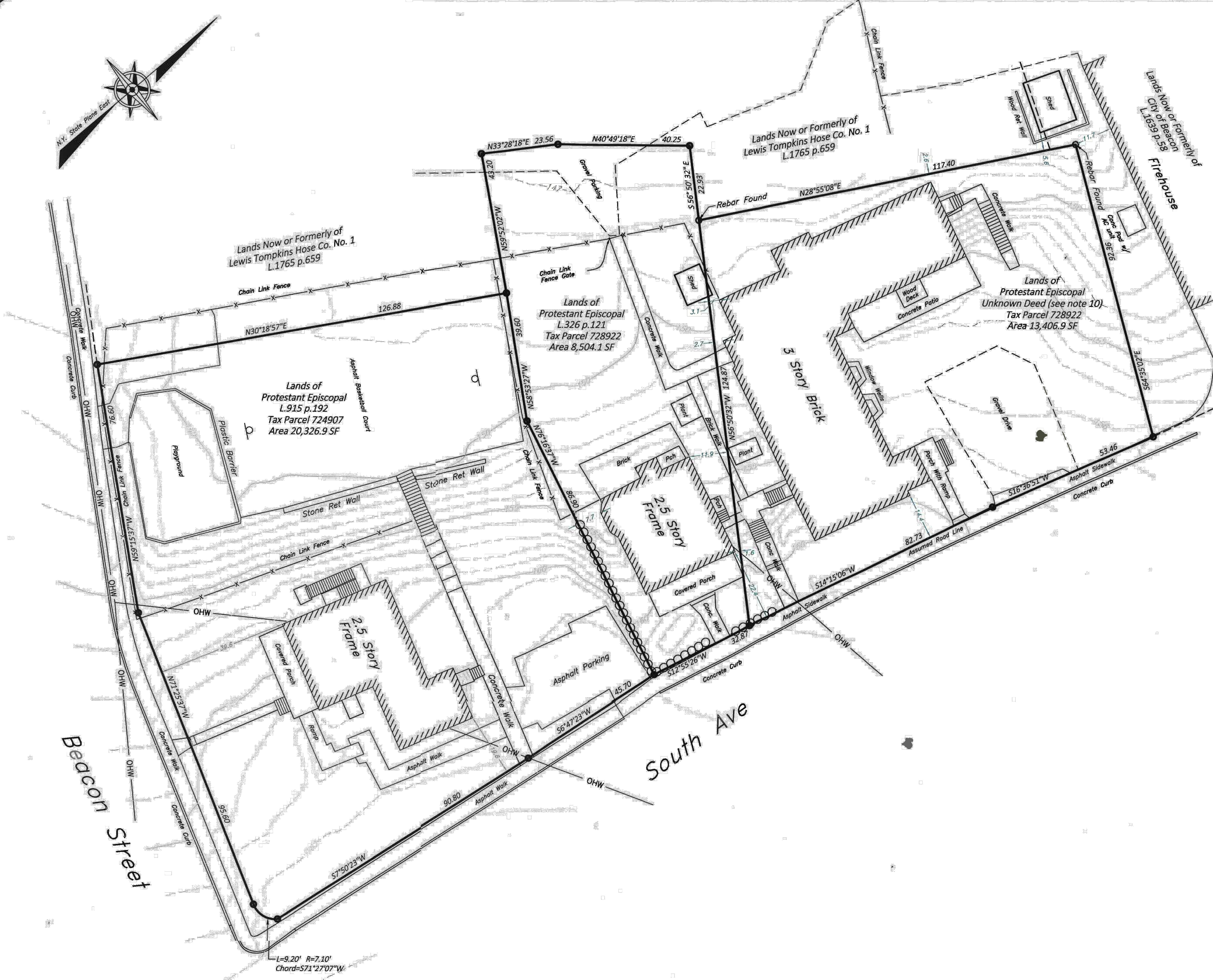
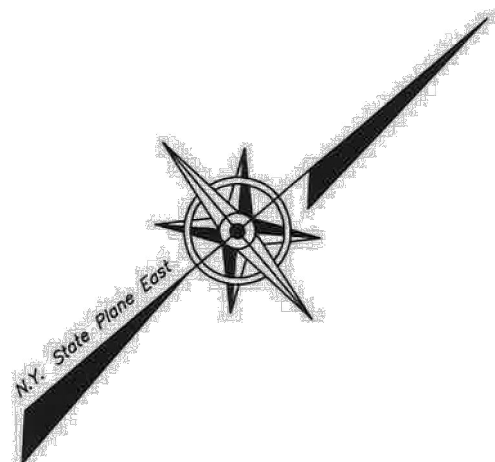
**BARRY DONALDSON ARCHITECTS**  
14 KING STREET  
CROTON ON HUDSON, NY 10520  
TEL: 914-877-8840  
EMAIL: BARRY@BARRYDONALDSONARCHITECTS.COM

PROJECT  
**Renovation of 21 South Ave.**  
21 South Ave.  
Beacon, NY  
12508

DRAWING TITLE  
**DETAILS**

JOB NO.	DATE	SCALE
8032-01-01	12/26/18	

DRAWING NO.  
**04**



**SURVEY NOTES**

1. Copyright TEC Land Surveying. All Rights Reserved. Reproduction or copying of this document may be a violation of copyright law unless permission of the author and / or copyright holder is obtained.
2. Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub-division 2, of the New York State Education Law.
3. Only boundary survey maps with the surveyor's embossed or red inked seal are genuine true and correct copies of the surveyor's original work and opinion. A copy of this document without a proper application of the surveyor's embossed or red inked seal should be assumed to be an unauthorized copy.
4. Certifications on this boundary survey map signify that the map was prepared in accordance with the current existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors, Inc. The certification is limited to persons for whom the boundary survey map is prepared, to the title company, to the governmental agency, and to the lending institution listed on this boundary survey map.
5. The certifications herein are not transferable.
6. The location of underground improvements or encroachments are not always known and often must be estimated. If any underground improvements or encroachments exist or are shown, the improvements or encroachments are not covered by this certificate.
7. Subject to the findings of a current title search.
8. Subject to covenants, easements, restrictions, conditions and agreements of record.
9. Subject to any right, title or interest the public may have for highway use.
10. Liber 326 page 121 only covers a portion of parcel 728922 as shown on the tax maps. No other deed has been found to cover this parcel. The parcel was constructed using adjoining deeds and an assumed road line.
11. Reference is made to a proposed subdivision map prepared by Dennis Walen LS which was never filed with the County Clerk or signed by the Planning Board Chairman. Said map is on file at the City of Beacon Building Department and represents the adjoining parcels as currently described.
12. Vertical Datum is NAVD88 Geoid12a as determined using RTN GPS.

rev.	date	description

**TEC LAND SURVEYING**  
 15c TIORONDA AVE. BEACON, NY 12508  
 PH: 845.445.6590 FX: 845.445.6591

THOMAS E. CERCHIARA, P.L.S.  
 P.L.S. No. 50732

19 SOUTH AVE - BEACON  
**TOPOGRAPHIC SURVEY  
 PREPARED FOR  
 ST. ANDREWS CHURCH**  
 CITY OF BEACON, COUNTY OF DUTCHESS, STATE OF NEW YORK

tax id	
address	19 South Ave
date	9/16/2015
drawn	RA
scale	1" = 20'
checked	TC
project no.	15-052
project name	19 South Ave - Beacon
sheet	<b>1 OF 1</b>



**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.

February 7, 2019

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

RE: 21 South Ave.  
City of Beacon  
Tax Map No. 5954-26-724907

Dear Mr. Gunn:

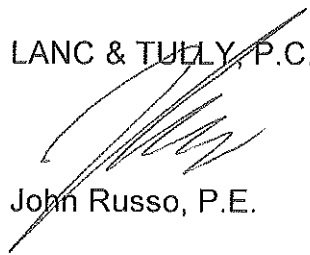
We have reviewed the plans entitled "Renovation of 21 South Avenue – Site Plan", last revised December 26, 2018 as prepared by Barry Donaldson Architects. The applicant is proposing to convert an existing dwelling into a 3-unit dwelling, which requires a Special Use Permit. The City Council issued the Special Use Permit for the project on September 17, 2018. Based upon our review of the submitted application and plans, we offer the following comments:

1. The proposed and existing topographic grades for the new entrance to the parking off Beacon Street has been shown on the plan. The applicant's consultant should revise the tie-ins for the proposed grading on the west side of the drive, as they do not appear to tie-out correctly to the existing topography.
2. At the rear left corner of the structure is a note that reads "House Drain to Street Sewer, Verify Path During Construction". Does this represent the existing sanitary sewer service for the dwelling? If so, it should be noted as such. Furthermore, this should be looked at further to verify where the lateral runs. If the lateral runs across the adjacent lands of Lewis Tompkins Hose Co., then the applicant should verify that an easement exists across the adjacent parcel for the service. If an easement does not exist, an easement will need to be acquired.
3. As previously requested, the site plan shall show the location of the required handicap parking signage for the parking stall and the "No Parking" signage for the access isle. The location of the signs once presented on the site plan should be added to the construction detail on Sheet 4, as this detail currently provides measurements that would have the signs installed in the middle of the walkway.

This completes our review at this time. Further comments may be forthcoming 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: February 8, 2019

Re: **21 South Avenue, Site Plan**

I reviewed the Special Permit Resolution approved by the City Council on September 17, 2018, a December 11, 2018 response memo from Barry Donaldson Architects, September 16, 2015 Topographic Survey, and 4-sheet Site Plan set with the last revision date of December 26, 2018.

### **Proposal**

The applicant is proposing to renovate an existing building, creating three apartments. The proposed parcel is in the R1-7.5 zoning district, the Local Waterfront Revitalization Area (LWRP), and the Historic District and Landmark Overlay (HDLO) Zone.

### **Comments and Recommendations**

1. The Sheet 1 Site Plan should include the Parking Requirements Schedule and Zoning Regulations Schedule from the previous submittal.
2. The proposed tree and shrubs now shown around the parking lot on Sheet 1 should include notes indicating the species and tree diameter.
3. Sheet 2 should include the Window Schedule, Exterior Lighting Schedule, and Finish Schedule, similar to the previous submittal.
4. The City of Beacon Historic Survey form from 1979 shows original 6 over 6 windows. The new windows should follow this historic pattern, providing vertically oriented panes consistent with Historic Preservation Section 134-7 B(3)(g).
5. A note should be included that the dividing muntins will be on the exterior of the glass.

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

John Clarke, Beacon Planning Consultant

c: Tim Dexter, Building Inspector  
Jennifer L. Gray, Esq., City Attorney  
Arthur R. Tully, P.E., City Engineer  
John Russo, P.E., City Engineer  
Barry Donaldson, Project Architect

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**296 Main Street**

**Subject:**

Continue review of application for Site Plan Approval, convert existing retail and garage to restaurant, 296 Main Street, submitted by River Valley Restaurant Group

**Background:**

**ATTACHMENTS:**

Description	Type
296 Main Street Cover Letter	Cover Memo/Letter
296 Main Street Sheet 1 Site Plan	Plans
296 Main Street Sheet 2 Existing Conditions	Plans
296 Main Street Sheet 3 Revised	Cover Memo/Letter
296 Main Street Sheet 4 Stormwater Utility Plan	Plans
296 Main Street I & I Report Revised	Backup Material
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: Ziatun Restaurant - 296 Main Street, Beacon, New York**  
*Site Plan Application – Responses to Comments*

January 29, 2019

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 January 4, 2019. Please refer to Hudson Land Design's response letter regarding Lanc & Tully's letter dated January 3, 2019.

**John Clarke Planning and Design Comment Responses:**

1. The Building Inspector has reviewed and confirmed the 1964 parking exemption.
2. The front step is now shown on the site plan. The interior layout will allow for use of the existing front door as a main entrance.
3. Elevation drawings have been added to show the North Cedar Street garage door conversions.

**Lanc & Tully Comment Responses:**

1. The I & I report is attached, along with an additional drawing sheet showing the scope of I & I mitigation work.
2. Sheet 1 has been revised to show outdoor dining
3. The survey information note has been copied to the Notes section so that it is more prominent.

# ARYEH SIEGEL

---

ARCHITECT

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

Sincerely,

A handwritten signature in black ink that reads "Aryeh Siegel". The script is fluid and cursive, with the first name "Aryeh" written in a larger, more prominent style than the last name "Siegel".

Aryeh Siegel

*Aryeh Siegel, Architect*

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.

**HATCHING LEGEND**

	CONCRETE SIDEWALK
	PAVERS
	GRASS

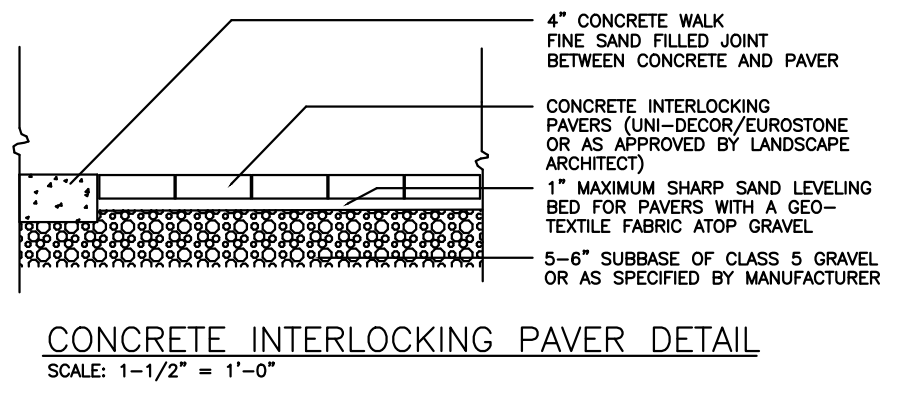
**Bulk Zoning Regulations Table**

Zoning District	Required Setbacks			Proposed Setbacks			Lot Depth Required	Lot Depth Existing	Lot Width Required	Lot Width Existing	Minimum Building Frontage	Proposed Building Frontage	Minimum Landscaped Area	Proposed Landscaped Area	Allowable Building Height	Proposed Building Height	Allowable Building Depth
	Front	Side	Rear	Front	Side	Rear											
CMS (Central Main Street District)	0' min. 10' max.	0'	25'	7.7' <sup>1</sup>	.75' <sup>1</sup> 1.5'	2.1' <sup>1</sup>	75'	108'	N/A	50'	80%	<50% <sup>1</sup>	10%	11%	38'	24'	150'

Notes:  
1. Existing Condition

**PLANT SCHEDULE**

KEY	BOTANICAL NAME	QTY.	SIZE	ROOT	SPACING	COMMENTS
<b>SHRUBS</b>						
AV	THUJA OCCIDENTALIS (ARBOR VITAE)	18	7 GAL.	CONT	6' O.C. - STAGGERED	
<b>LAWN</b>						
SEEDED WITH 5311 CONSERVATION MIX (OR APPROVED EQUAL). APPLIED AT 3-5LBS PER 1000SF 30% CREEPING RED FESCUE; 30% ANNUAL RYEGRASS; 25% KENTUCKY BLUEGRASS 'CORSAIR'; 25% KENTUCKY BLUEGRASS 'SHAMROCK'; 10% ANNUAL RYEGRASS; 10% PERENNIAL RYEGRASS. SOURCE; ERNST CONSERVATION SEEDS						
<b>VINES</b>						
AR	PARTHENOISSUS QUINQUEFOLIA (VIRGINIA CREEPER)	12	1 GAL.	OVERFLOWING FROM CONTAINER		



PERMEABLE PAVERS TO BE BELGARD "AQUA ROC™ II" OR APPROVED EQUAL

**PERMEABLE PAVER MAINTENANCE NOTES:**

- REPLENISH AGGREGATE IN JOINTS IF MORE THAN 1/2 INCH FROM CHAMFER BOTTOMS ON PAVER SURFACES
- MAINTAIN GROUND COVER AND PLANTS AROUND PICP PERIMETER TO ENSURE STABILITY AND MINIMIZE SEDIMENT RUNNING ONTO THE PAVEMENT SURFACE
- REMOVE WEEDS THAT GROW IN THE PAVER JOINTS/OPENINGS WITH A BIO-DEGRADABLE HERBICIDE
- INSPECT AND REPAIR ALL PAVER SURFACE DEFORMATIONS EXCEEDING 1/2 INCH
- REPLACE ANY CRACKED PAVER UNITS THAT COMPROMISE THE SURFACE STRUCTURAL INTEGRITY
- KEEP ANY OVERFLOW CURB CUT-OUTS FREE FROM DEBRIS
- IF AN OBSERVATION WELL IS INSTALLED, CHECK OUTFLOW



**Zoning Summary**

Zoning District: CMS (Central Main Street District)  
Tax Map No.: 5459-36-933866  
Lot Area: 0.124 acre (5,401 sf)  
Building Footprint: 3,294 square feet  
Historical Overlay District: No  
Parking Overlay District: Yes  
Existing Use: Retail / Office Space  
Proposed Use: Restaurant / Office Space

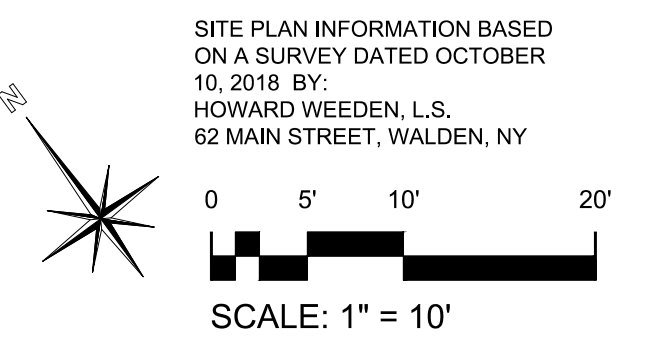
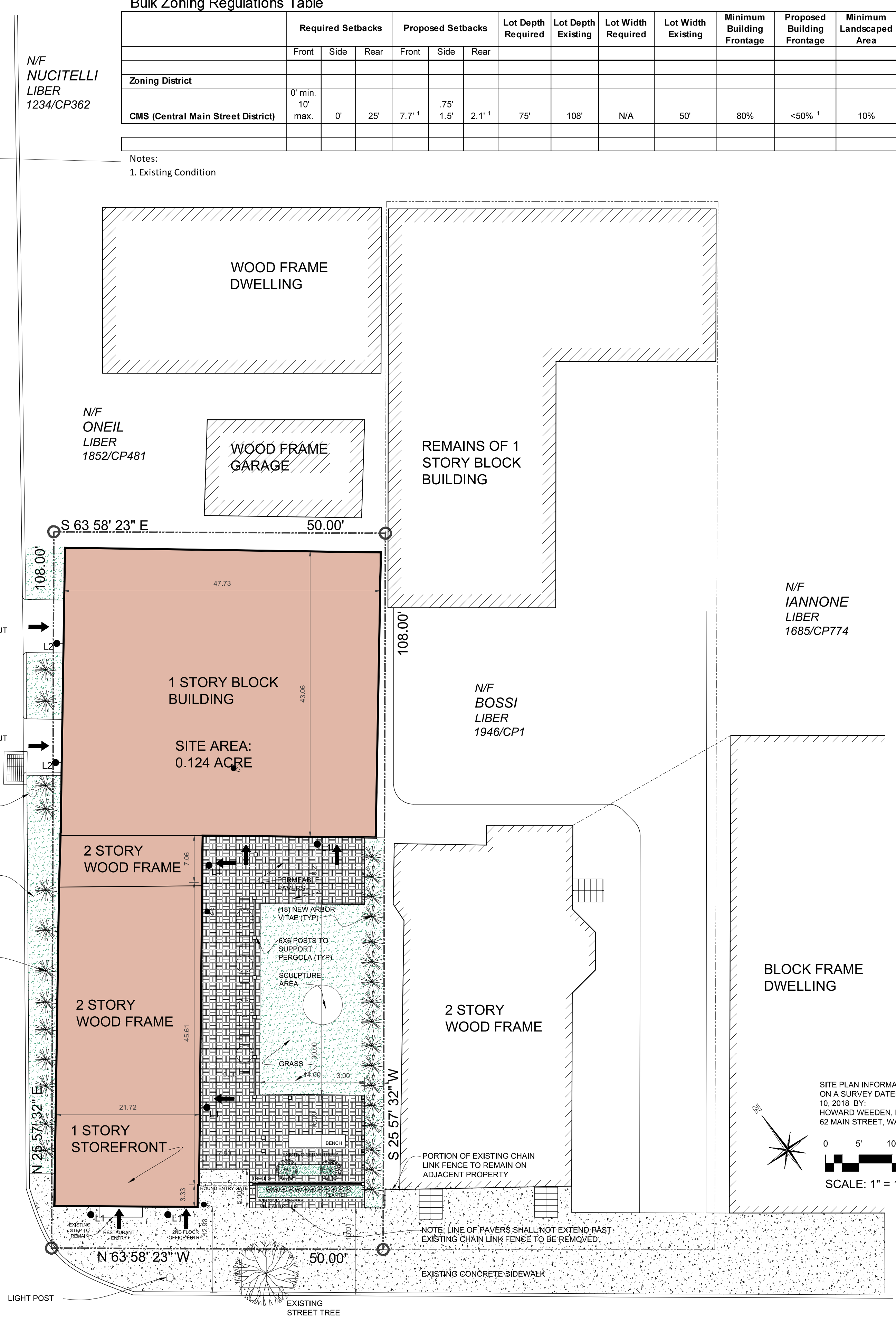
**Parking & Loading**

Use & Parking Requirements	1964 Area	1964 Parking Requirement	Proposed Area	Current Parking Requirement
<b>Retail Service</b> (1964 Use) Automobile Service Garage 1 space per 200 gsf	1,858 gsf	10 spaces		
<b>Apartment</b> 1 1/2 space per Apartment	1 Apartment	2 spaces		
<b>Retail</b> 1 space per 200 gsf	998 sf	5 spaces		
<b>Restaurant</b> 2 spaces per 1,000 square feet			3,294 sf	7 spaces
<b>Office</b> 2 spaces per 1,000 square feet			1,109 sf	3 spaces
<b>Total Required Parking Spaces</b>		<b>17 spaces</b>		<b>10 spaces</b>
<b>Total Proposed Parking Spaces</b>				<b>0 spaces (Note 1)</b>

**Notes:**

- Parking is not required per Beacon Zoning Code Section 223-26 (B.2): The building was in existence on April 20, 1964. The existing use in 1964 was retail at the 1st floor per the 1964 Beacon Directory. The new use is less than 25% greater intensity than the use existing in 1964. 17 parking spaces would have been required in 1964 for the uses in existence at that time. 10 parking spaces are required for the current proposed uses.  
  
The Building Inspector has confirmed that the 1964 exception regarding parking is applicable to this project.
- There is no space on the property to provide parking.
- For lots of 8,000 square feet or less, where the provision of on-site parking is infeasible, the Planning Board may waive all parking requirements, provided that the total floor area of the building is no greater than 5,000 square feet.
- Restaurant Hours of operation: 7am – 11pm, Monday through Sunday, inclusive
- Site Plan information based on a survey dated October 10, 2018, by Howard Weeden, L.S., 62 Main Street, Walden, NY

NORTH CEDAR STREET



**Site Plan**

Scale: 1" = 10'

**Index of Drawings**

Sheet 1 of 4	Site Plan
Sheet 2 of 4	Existing Conditions & Demolition Plan
Sheet 3 of 4	Plans & Elevations
Sheet 4 of 4	Stormwater Utility Plan

REVISIONS:

NO.	DATE	DESCRIPTION	BY
1	12/25/18	REVISED PER PLANNING BOARD COMMENTS	AJS
2	01/29/19	REVISED PER PLANNING BOARD COMMENTS	AJS

**Owner:**  
**Field Properties, LLC**  
36 Winston Lane  
Garrison, New York 10524

**Applicant:**  
**River Valley Restaurant Group**  
Beacon, New York 12508

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

**Surveyor:**  
**Howard Weeden, LS**  
62 Main Street  
Walden, New York

**296 Main Street - Ziatun Restaurant**  
Beacon, New York  
Scale: 1" = 20'  
November 27, 2018

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.



MODERN FORMS "SUSPENSE"  
 OUTDOOR DARK SKY COMPLIANT  
 WALL SCONCE #306563. SIZE:  
 SMALL. BRUSHED ALUMINUM  
 FINISH. 11 WATT (590 LUMENS)  
 120 VOLT INTEGRATED LED. CRI:  
 90 COLOR TEMP: 3000K

**L1: Wall Mounted**

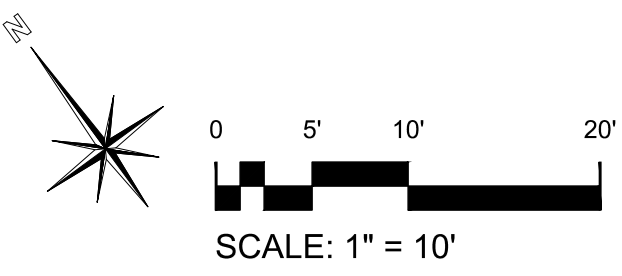
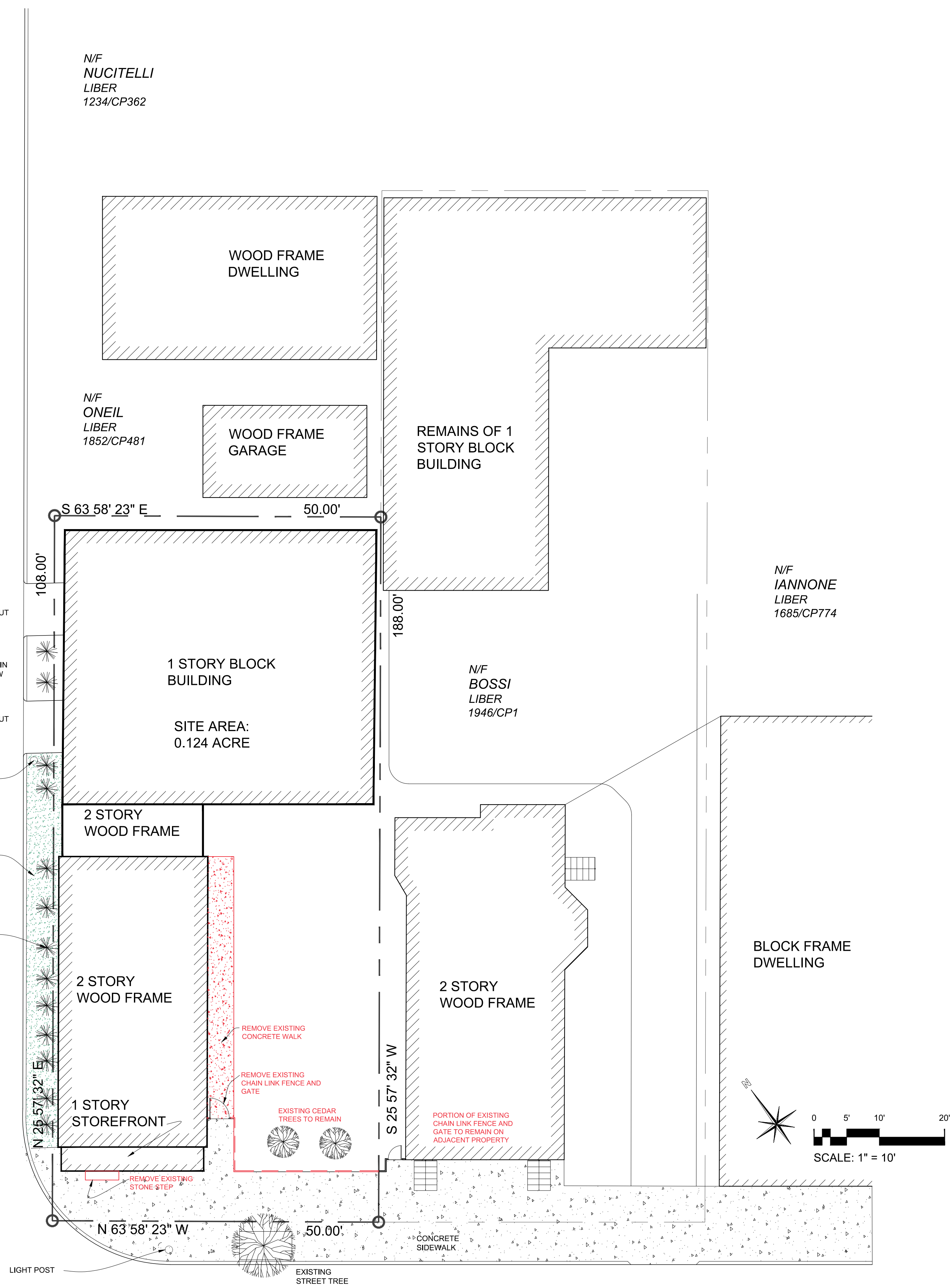
NOTE: THE MANUFACTURER DOES NOT PROVIDE PHOTOMETRIC INFORMATION FOR THESE FIXTURES. FIXTURES WILL BE SHIELDED TO AVOID LIGHT SPILLAGE ONTO ADJACENT PROPERTIES, AND TO SHIELD FROM LIGHT PROJECTING UPWARD TO THE SKY



**L2: Wall Mounted**

HAMPTON BAY  
 "1-LIGHT ZINC OUTDOOR WALL  
 LANTERN" MODEL # HSP1691A  
 60 W INCANDESCENT LAMP OR  
 LED EQUIVALENT - MAX COLOR  
 TEMPERATURE SHALL BE 3000K

NORTH CEDAR STREET



REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	12/25/18	REVISED PER PLANNING BOARD COMMENTS	AJS
2	01/29/19	NO CHANGE	AJS

**Existing Conditions & Demolition Plan**  
 Scale: 1" = 10'

**Site Plan Application**  
 Sheet 2 of 4 - Existing Conditions / Demolition Plan

Owner:  
**Field Properties, LLC**  
 36 Winston Lane  
 Garrison, New York 10524

Applicant:  
**River Valley Restaurant Group**  
 Beacon, New York 12508

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

Surveyor:  
**Howard Weeden, LS**  
 62 Main Street  
 Walden, New York

**296 Main Street - Ziatun Restaurant**  
 Beacon, New York  
 Scale: 1" = 20'  
 November 27, 2018



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\_\_\_\_\_ SECRETARY

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REVISIONS:				
NO.	DATE	DESCRIPTION	BY	
1	12/25/18	REVISED PER PLANNING BOARD COMMENTS	AJS	
2	01/29/19	REVISED PER PLANNING BOARD COMMENTS	AJS	



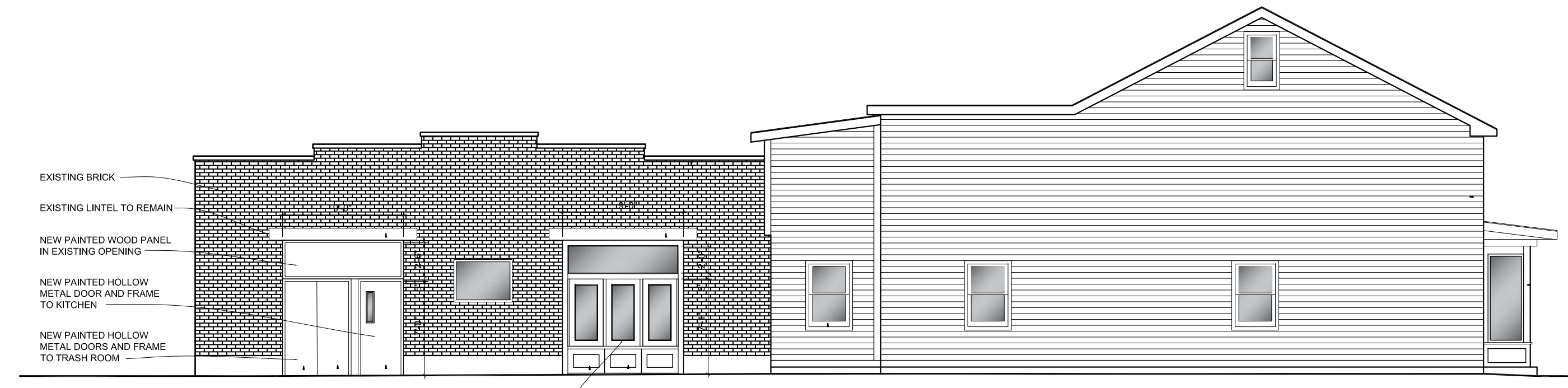
**Elevation: Front**

Scale: 1/8" = 1'-0"



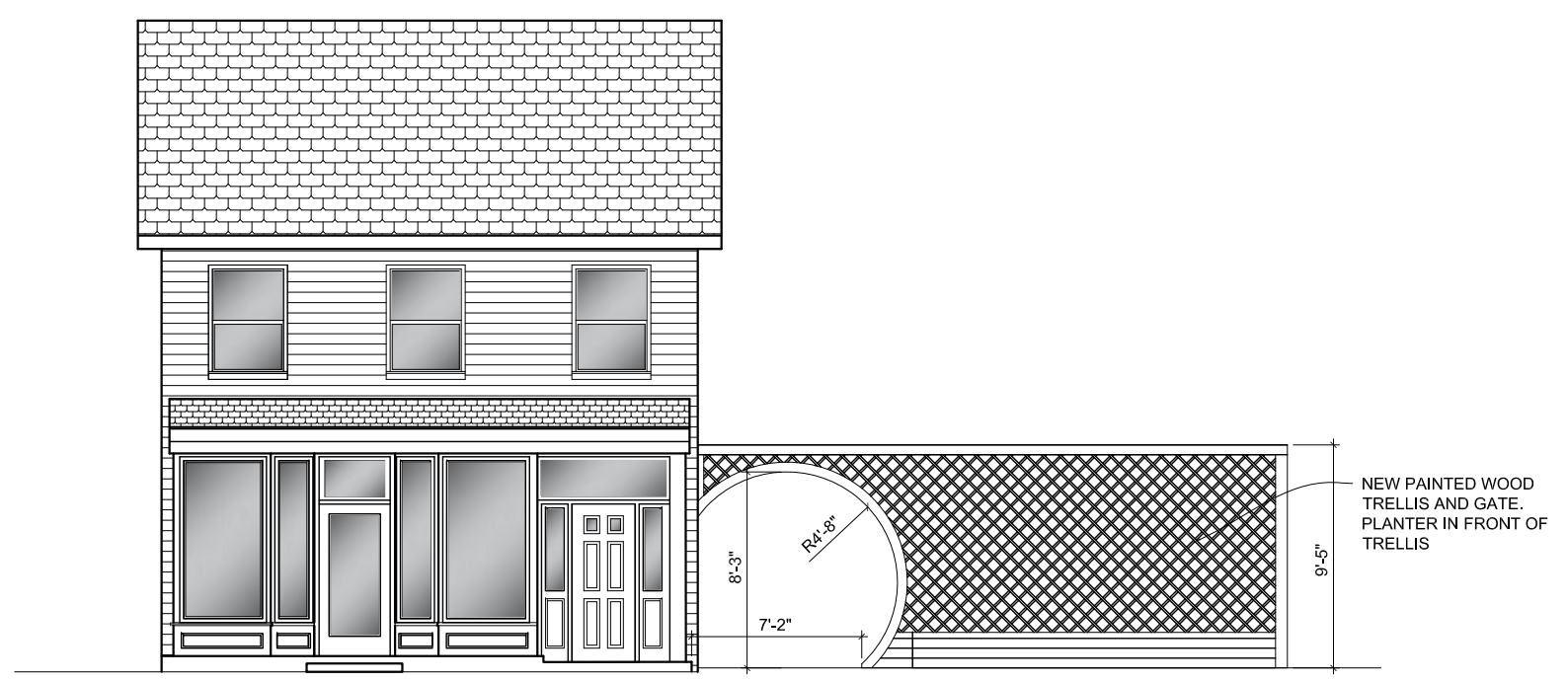
**Elevation: East**

Scale: 1/8" = 1'-0"



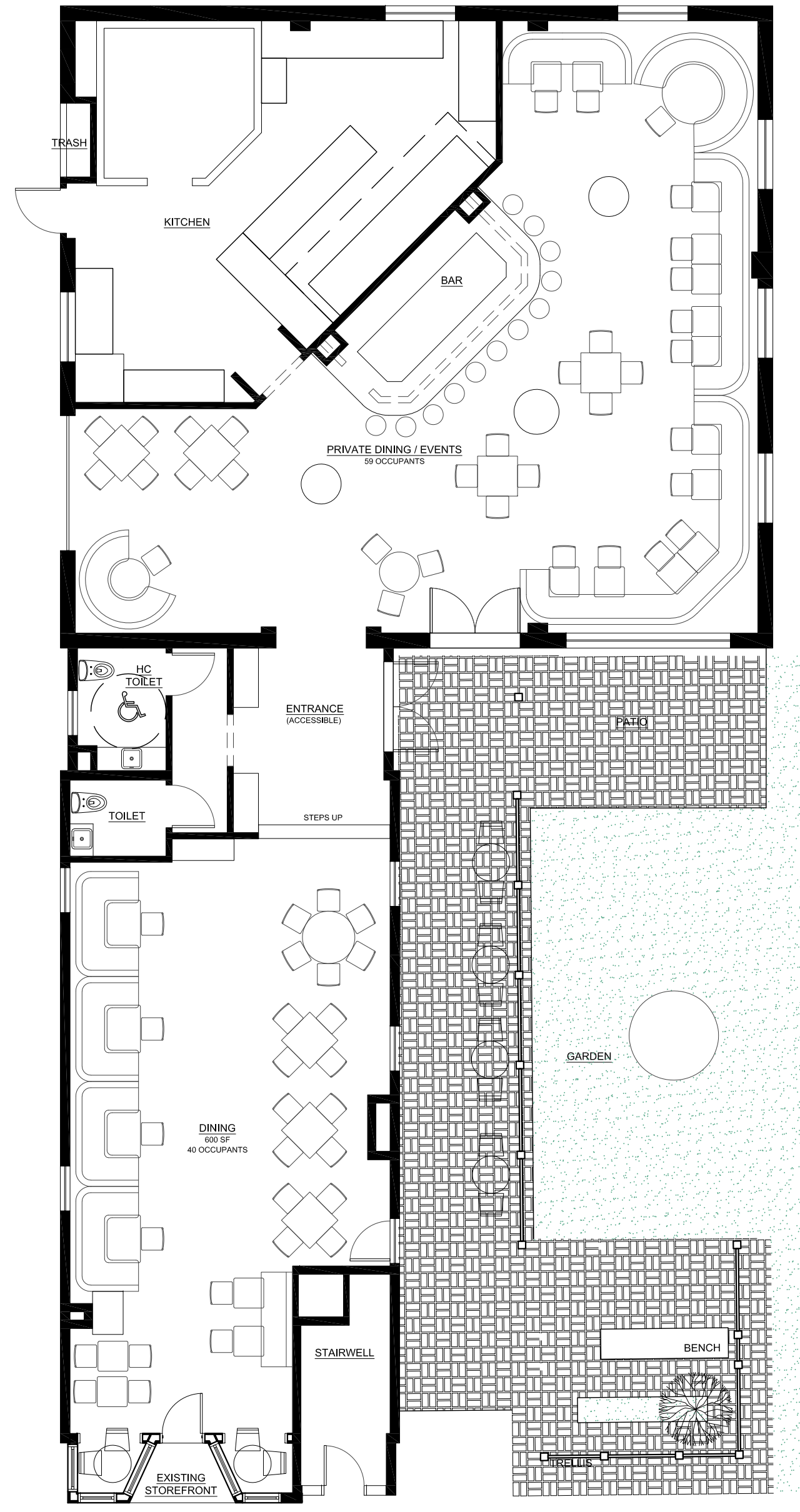
**Elevation: West**

Scale: 1/8" = 1'-0"



**Elevation: Front with Gate**

Scale: 1/8" = 1'-0"



**1st Floor Plan**

Scale: 1/8" = 1'-0"



**View 1 - Main Street Corner**



**View 2 - Main Street**



**View 3 - North Cedar Street**

# Site Plan Application

Sheet 3 of 4 - Plans & Elevations

Owner:  
**Field Properties, LLC**  
36 Winston Lane  
Garrison, New York 10524

Applicant:  
**River Valley Restaurant Group**  
Beacon, New York 12508

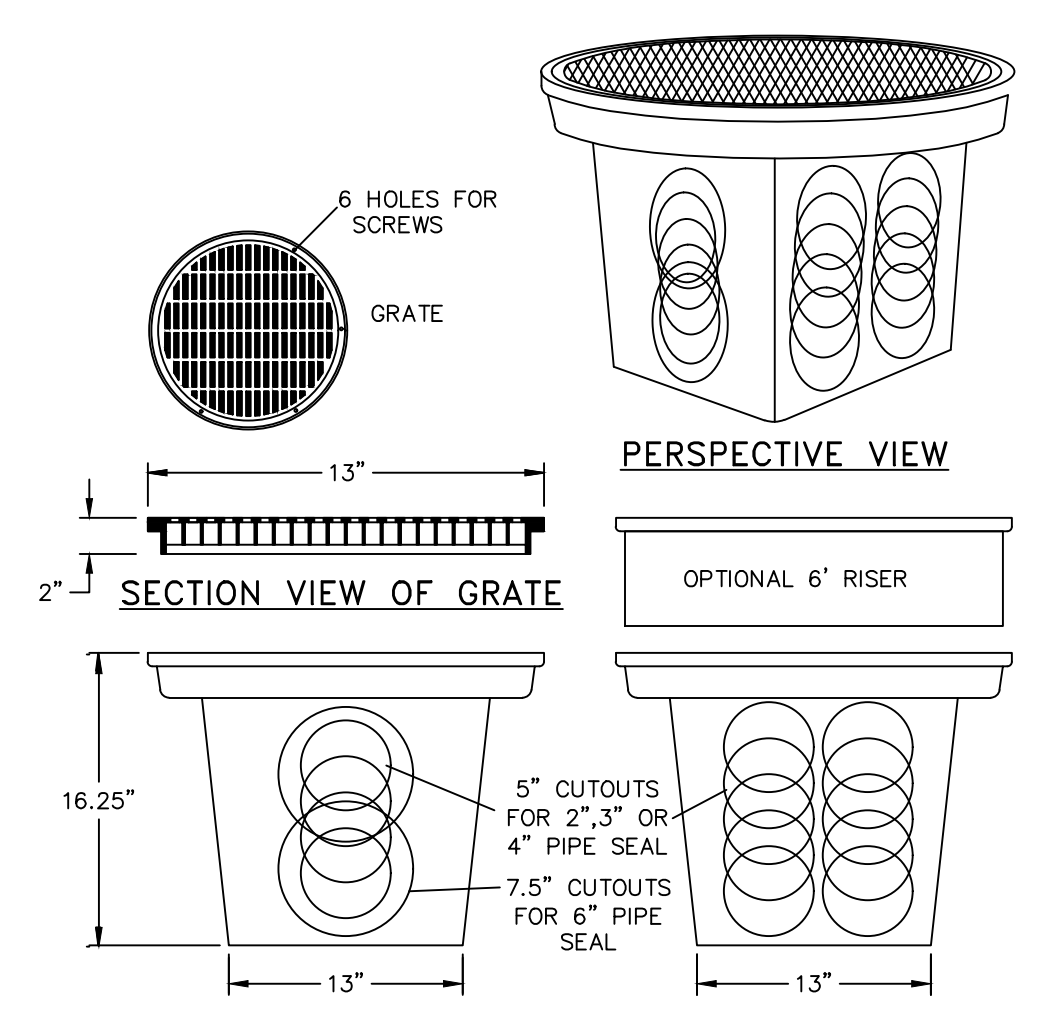
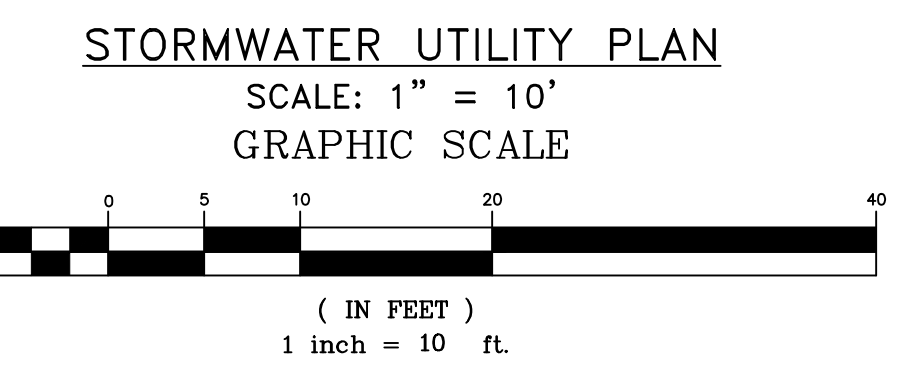
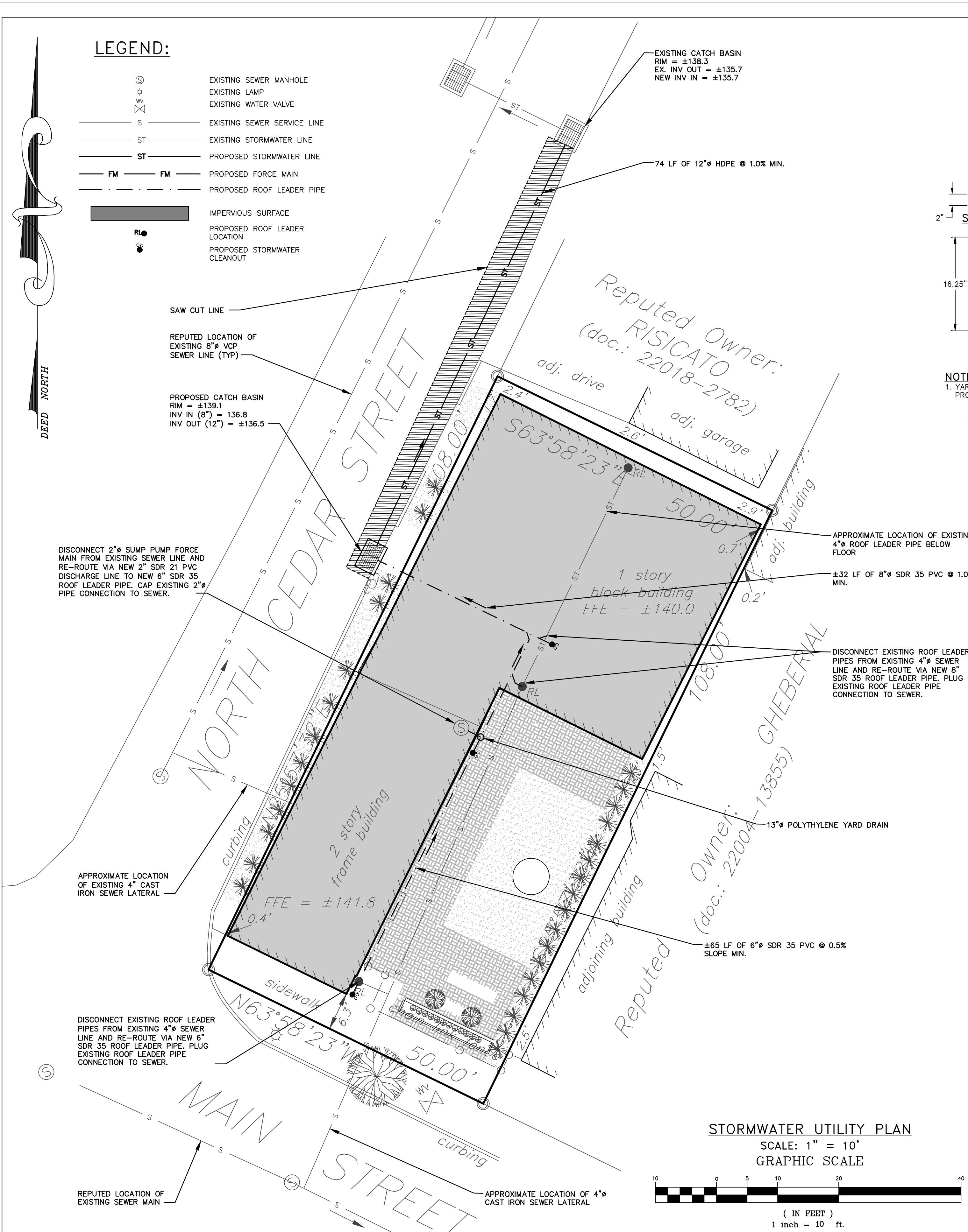
Architect:  
**Aryeh Siegel, Architect**  
84 Mason Circle  
Beacon, New York 12508

Surveyor:  
**Howard Weeden, LS**  
62 Main Street  
Walden, New York

**296 Main Street - Ziatun Restaurant**  
Beacon, New York  
Scale: 1" = 20'  
November 27, 2018

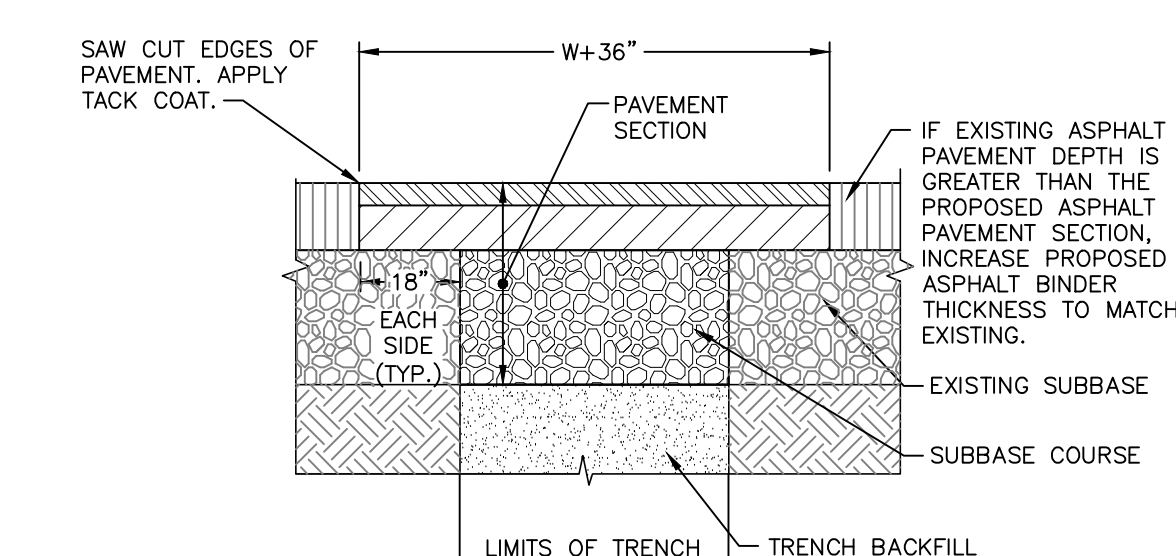
**LEGEND:**

- ⊙ EXISTING SEWER MANHOLE
- ⊙ EXISTING LAMP
- ⊙ EXISTING WATER VALVE
- S — EXISTING SEWER SERVICE LINE
- ST — EXISTING STORMWATER LINE
- ST — PROPOSED STORMWATER LINE
- FM — PROPOSED FORCE MAIN
- FM — PROPOSED ROOF LEADER PIPE
- IMPERVIOUS SURFACE
- PROPOSED ROOF LEADER LOCATION
- PROPOSED STORMWATER CLEANOUT



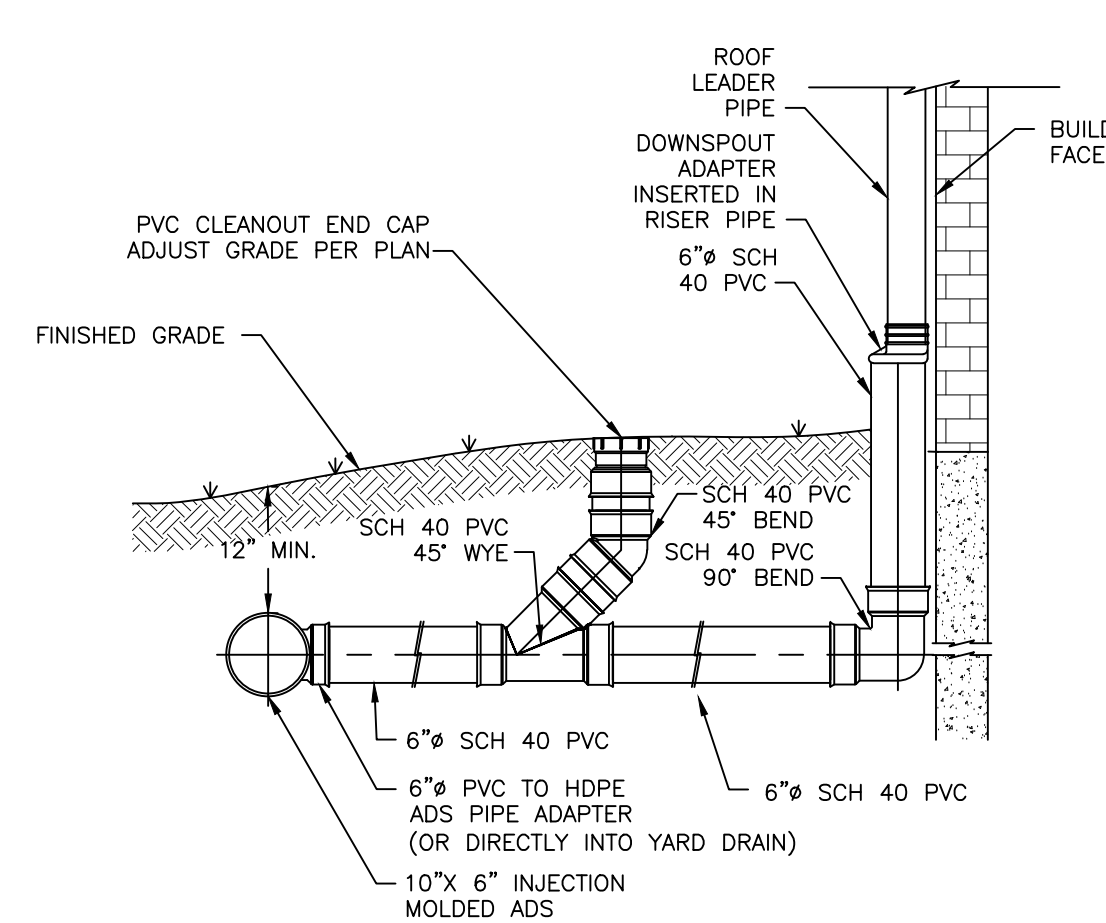
**NOTES:**  
 1. YARD DRAIN TO BE MODEL DB-POLY2001A FROM WOODARDS CONCRETE PRODUCTS, 629 LYBOLT ROAD BULLVILLE, NY 10915.

**POLYETHYLENE YARD DRAIN DETAIL**  
 NOT TO SCALE



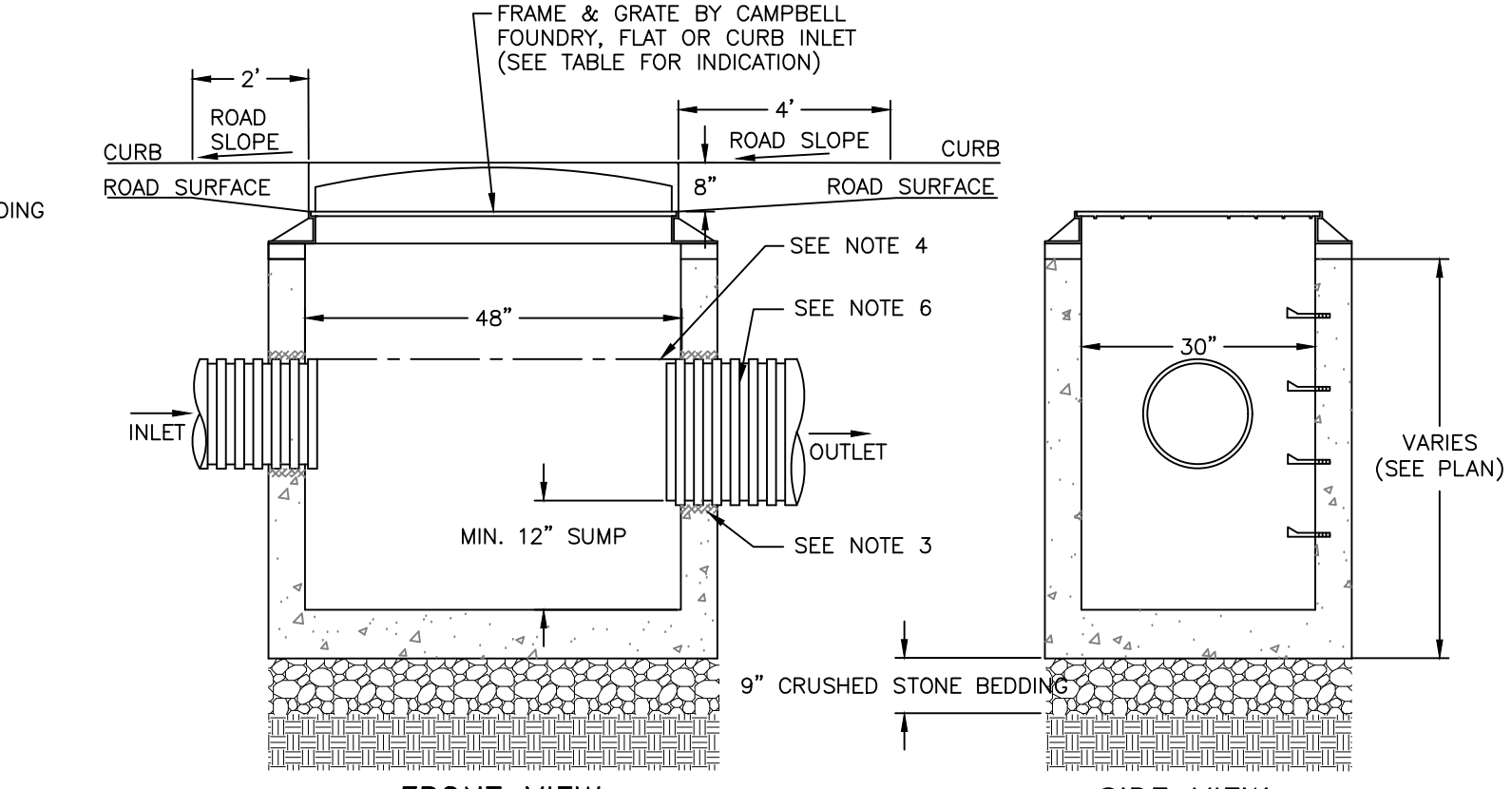
**NOTES:**  
 1. SAW CUT AS INDICATED, 18" BEYOND EXCAVATION.  
 2. FURNISH, PLACE, AND COMPACT SUBBASE.  
 3. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.  
 4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.

**PAVEMENT RESTORATION DETAIL**  
 NOT TO SCALE



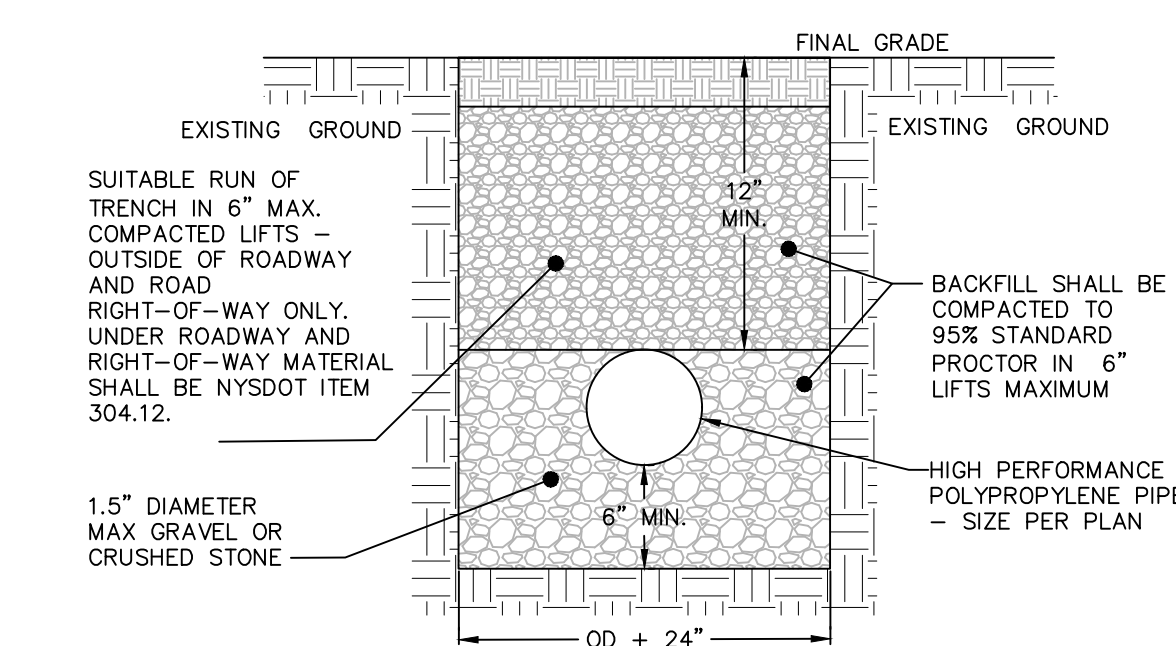
**NOTES:**  
 1. ALL ROOF LEADER PIPES SHALL BE 6" SCH 40 PVC @ 2.0% SLOPE MIN. UNLESS SPECIFIED OTHERWISE.  
 2. PVC JOINT CONNECTIONS SHALL BE MADE WITH PVC CEMENT.  
 3. ROOF LEADER HEADER PIPES SHALL BE 10" HDPE PIPE.  
 4. SUBSTITUTIONS OF PIPE MATERIAL SHALL BE BROUGHT TO THE DESIGN ENGINEER'S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

**ROOF LEADER CONNECTION DETAIL**  
 NOT TO SCALE



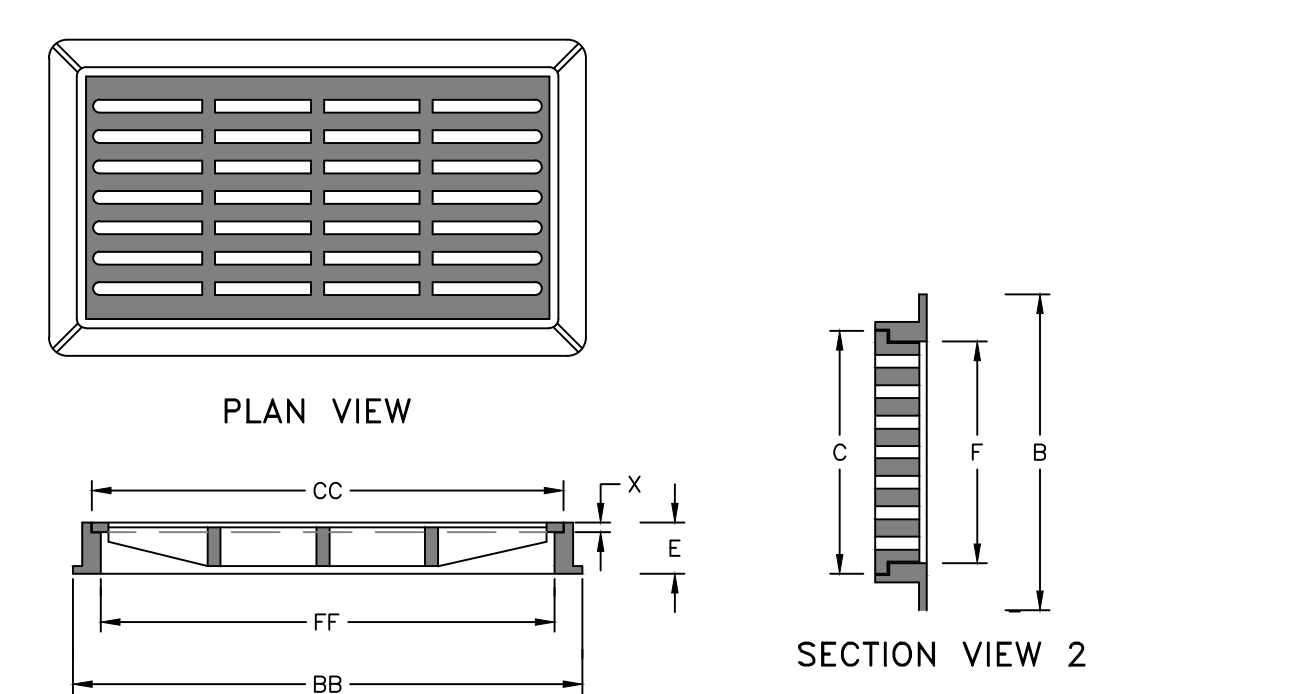
**NOTES:**  
 1. PRECAST CONCRETE CATCH BASIN WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.  
 2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE CATCH BASIN AND PARGED AROUND.  
 3. PIPES SHALL BE PARGED AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS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

**CATCH BASIN DETAIL**  
 NOT TO SCALE



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

**STORM LINE TRENCH DETAIL**  
 NOT TO SCALE



**NOTES:**  
 1. HEAVY DUTY RECTANGULAR STORMWATER INLET GRATE TO BE CAMPBELL FOUNDRY MODEL 3433, OR APPROVED EQUAL.

**CAST IRON STORMWATER FLAT INLET GRATE DETAIL**  
 NOT TO SCALE

**PROJECT INFORMATION:**

PARCEL OWNER:	FIELD PROPERTIES, LLC, 36 WINSTON LANE, GARRISON NY 10524
ENGINEER OF RECORD:	HUDSON LAND DESIGN P.C., 174 MAIN STREET, BEACON NY 12508
PROJECT LOCATION:	296 MAIN STREET BEACON, NY 12508
TAX PARCEL ID:	5954-27-869916
PARCEL AREA:	±0.09 ACRES
ZONING DISTRICT:	(CMS) CENTRAL MAIN STREET
POTABLE WATER SUPPLY:	MUNICIPAL
SEWAGE DISPOSAL:	MUNICIPAL

**INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES**

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

**EXISTING STORM AND SEWER NOTES**  
 1. EXISTING STORM AND SEWER LINE LOCATIONS AND ELEVATIONS SHOWN ON THIS PLAN WERE TAKEN FROM FIELD MEASUREMENTS, GIS INFORMATION AND OBSERVATIONS BY HUDSON LAND DESIGN, AND HAVE NOT BEEN VERIFIED BY THE PROJECT SURVEYOR. THEREFORE, THE LOCATIONS AND ELEVATIONS SHOULD BE CONSIDERED APPROXIMATE.

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY



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

**STORMWATER UTILITY PLAN**  
 296 MAIN STREET - ZIATUN RESTAURANT  
 296 MAIN STREET  
 CITY OF BEACON  
 DUTCHESS COUNTY, NEW YORK  
 TAX ID: 5954-27-869916 (± 0.09 AC.)

JOB #: 2018-051  
 DATE: 01/29/19  
 SCALE: 1" = 20'  
 TITLE: SUP-1  
 SHEET: 4 OF 4



*Civil & Environmental Engineering Consultants  
174 Main Street, Beacon, New York 12508  
13 Chambers Street, Newburgh, New York 12550  
Phone: 845-440-6926 Fax: 845-440-6637  
[www.HudsonLandDesign.com](http://www.HudsonLandDesign.com)*

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December 31, 2018  
Revised: January 29, 2019

Mr. Dave Buckley  
City of Beacon Building Inspector  
1 Municipal Center  
Beacon, NY 12508

Re: Infiltration and Inflow Investigation  
296 Main Street Project  
296 Main Street  
City of Beacon, New York  
Tax ID: 5954-27-869916 ( $\pm$  0.09 acres)

Dear Mr. Buckley,

Hudson Land Design (HLD) has completed an infiltration and inflow investigation at the above referenced parcel as required by the City of Beacon. The investigation was conducted on December 20, 2018, and January 28, 2019 at the existing building located at 296 Main Street, which consists of a two-story wood construction building that fronts on Main Street, and single-story brick building behind it that has frontage on North Cedar Street. Both buildings are currently vacant.

The first phase of the study consisted of an exterior inspection of the building to determine the location of roof leader discharge points. There were two roof leaders observed on the southeast corner of the exterior of the building on the Main Street side that are connected to underground piping. The discharge location of these underground pipes could not be determined by visual inspection (see Figure 1 at the end of this report).

On January 28, 2019, a dye test was conducted with Beacon Sewer Department personnel. In addition, an endoscope was lowered into the ground pipe that the roof leaders discharge into. A blockage was discovered in one of the pipes. The other roof leader discharges into a horizontal cast iron pipe that is directed toward main street. It is believed that this pipe is the sewer lateral pipe from the rear building. There is no storm system in Main Street in the vicinity of this pipe. Dye was administered into the drain

line that discharges from the rear building along the exterior of the east wall of the front building; The results of the dye test confirmed that this pipe discharges to the sewer main within Main Street. It is assumed that since there is no stormwater infrastructure in this location, the two roof leaders located in the southeast corner of the building discharge to this sewer line. Per City of Beacon requirements, these two roof leader pipes will need to be disconnected from the sewer line from the rear building. The Site Plan set currently before the planning board has been updated to show design for re-routing these roof leader pipes to the storm system.

No other exterior roof leader pipes were observed; however, based upon our initial inspection, the building consists of two sections. The front portion of the building is two-story wood-framed construction, and the rear portion is single-story brick construction. It appears that the rear section was added onto the front building. The front building contains a gabled roof that half of which drains toward Main Street and the other half drains toward the rear of the building. The portion of the front building roof that drains toward Main Street is collected by two roof gutters which discharge into the two roof leaders at the southeast corner of the building mentioned earlier in this report.

The rear portion of the gabled roof drains to a lower shed roof that is also pitched toward the rear building. Both of these roofs discharge to the rear building roof which is pitched toward two interior roof leaders located within the rear building. See the attached sketch with Appendix A that shows the locations of the roof leaders and gutters.

The second phase of the investigation consisted of an interior investigation of the front and rear buildings. The rear building is single-story on slab with no basement. There are two roof leaders within the rear building that are piped below the slab – one on the north wall and one on the south wall (Figures 3 & 4). The north roof leader pipe continues below the slab into a 90° elbow where it travels toward the south into a sump with metal cover within the center of the slab floor (Figure 2). The sump has an open bottom to ground where the roof leader discharge is allowed to infiltrate into the subsoils. There is a downward facing 90° elbow overflow outlet on the south side of the sump. It is believed that this overflow pipe is connected to the south roof leader.

Dye was introduced into a sink located adjacent to the south roof leader (Figure 3). The sink drain and the roof leader drain both are directed into a common sewer line. The dye test was conducted to determine where this drain line is directed toward. Manholes were opened on Main Street, and North Cedar Street after the dye was introduced. Dye was observed in a sewer manhole within Main Street; therefore, it has been confirmed that the 4" cast iron sewer line from the rear building discharges toward Main Street along the east exterior wall of the front building into the City sewer system. These roof drains will need to be disconnected from the sewer pipe and re-directed to the storm system. The Site Plan set currently before the planning board has been updated to show design for re-routing these roof leader pipes to the storm system.

The front portion of the building has a basement. The basement was investigated for any interior roof leaders, floor drains or sump pumps that could be connected to the building sewer. A sump pump was observed in the northeast corner of the front building's basement (Figure 5). It was confirmed that the discharge line from the sump pump is connected to the building sewer line. The building sewer line travels along the

westerly wall of the front building and exists the building out of the west wall toward North Cedar Street (Figure 6). There is a sewer manhole within N. Cedar Street that is located just upstream of the sewer lateral coming from the building. The sewer manhole was inspected on January 28, 2019 with the Beacon Sewer Department. It was confirmed that the sewer lateral from the front building is connected to the 8” sewer main within North Cedar Street. The sump pump will need to be disconnected from the sewer pipe and re-routed to the storm system. The Site Plan set currently before the planning board has been updated to show design for re-routing the sump pump to the storm system.

**Proposed Mitigation**

All roof leaders and the sump pump discharge line will be disconnected from the sewer and re-routed to the City stormwater system. The two roof leaders shown in Figure 1 at the end of this report will be re-routed to storm system by installing a 6” SDR 35 PVC header pipe from this location and directed toward the rear building along the east building wall of the front building. The sump pump discharge line will exit the east building wall and connect directly to this line within an ADS polyethylene catch basin. The 6” SDR 35 PVC continues into the rear building where it will intercept both roof leaders within the rear building below the concrete slab. The sewer line will increase to 8” SDR 35 PVC after intercepting the two roof leader pipes. From there, the 8” pipe is directed toward North Cedar Street.

North Cedar Street does not contain stormwater infrastructure in this area; however, there is a catch basin located approximately 72 feet to the north within North Cedar Street. Therefore, a new catch basin will be installed in this location with a 12” HDPE pipe directed toward the existing catch basin toward the north. The Site Plan set currently before the planning board has been updated to show design for re-routing the sump pump and roof leader pipes to the storm system.

**Hydrologic Calculations**

A hydrologic model has been developed to determine the amount of stormwater removed from the City sewer system as a result of disconnecting the roof leaders and sump pump. The entire roof area is 3,749 square feet. The hydrologic analysis is summarized within Table I below:

**TABLE I**  
**STORMWATER VOLUME REMOVED FROM SANITARY SEWER SYSTEM**

<b>Designation</b>	<b>1-Year 2.61 inches</b>	<b>10-Year 4.69 inches</b>	<b>25-Year 5.89 inches</b>	<b>100-Year 8.32 inches</b>
Volume (acre-feet)	0.016	0.030	0.038	0.053
Volume (gallons)	5,214	9,775	12,382	17,270

The hydraulic model can be found within Appendix B.

Based on our observations, HLD believes that there are illicit stormwater connections from the building located at 296 Main Street to the City of Beacon's sanitary sewer collection system. A stormwater utility plan has been developed that shows design for disconnection of roof leaders and sump pump from the sewer system and re-routing to the storm system.

Should you have any questions, please feel free to call me at 845-440-6926.

Sincerely,

A handwritten signature in black ink, appearing to read "Mr. Bodendorf". The signature is fluid and cursive, with the first name "Mr." written in a smaller, more compact script than the last name "Bodendorf".

Michael A. Bodendorf, P.E.

cc:

Aryeh Seigel  
Daniel G. Koehler, P.E. (HLD file)

## Appendix A

### Photographs



**Figure 1 – View of Roof Leader Pipes Located in the Southwest Corner of the Front Building**



**Figure 2 - View of Sump Within Floor of Rear Building**



**Figure 3 - View of Roof Leader on South Side of Rear Building**



**Figure 4 - View of Roof Leader on North Side of Rear Building**





**Figure 5 - View of Sump Pump in Basement of Front Building**



**Figure 6 - View of Sewer Lateral Leaving Front Building Through the West Wall Toward North Cedar Street**

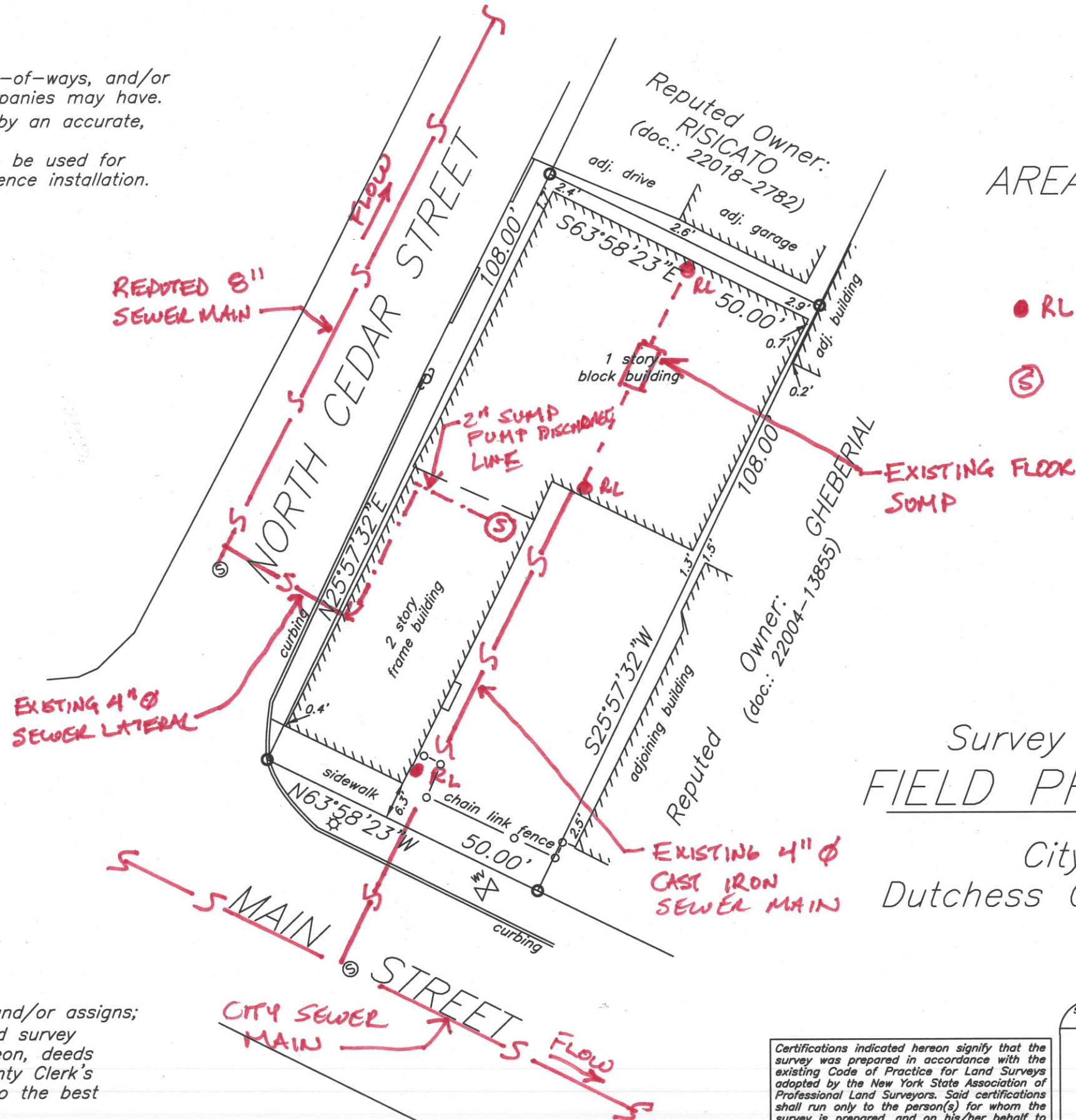
Appendix A  
I&I Investigation Sketch

**NOTES:**

SUBJECT to any easements, rights-of-ways, and/or agreements that the utility companies may have.  
 SUBJECT to such facts disclosed by an accurate, up-to-date title search.  
 OFFSETS shown hereon are not to be used for construction purposes and/or fence installation.

**REFERENCES:**

TAX MAP DATA:  
 Section: 5954  
 Block: 36  
 Lot: 933866  
 Doc. No.: 22017-9684



AREA = 5,400 S.F.  
 = 0.124± acres

● RL - ROOF LEADER LOCATION  
 ⊙ S - SUMP PUMP

Survey of Property for  
**FIELD PROPERTIES, LLC**  
 located in the  
 City of Beacon  
 Dutchess County - New York

I hereby certify to:  
 -Field Properties, LLC;  
 -RG Title Agency (RGD-21747);  
 -Walden Savings Bank, its successors and/or assigns;  
 that this mapping is based on a field survey performed on the date indicated hereon, deeds and/or maps obtained from the County Clerk's office, and is correct and accurate to the best of my knowledge.

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.

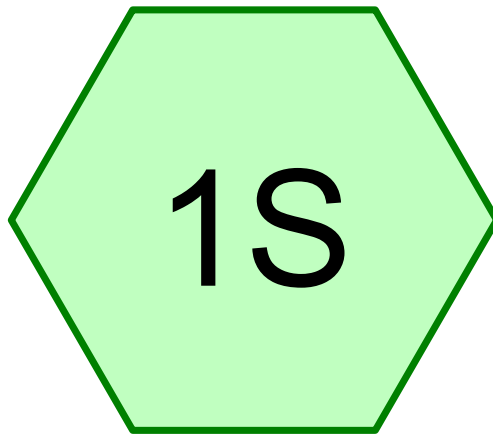
Certifications indicated hereon signify that the survey was prepared in accordance with the existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors. Said certifications shall run only to the person(s) for whom the survey is prepared, and on his/her behalf to the title company, governmental agency and lending institution listed hereon, and to the assignees of the lending institution. Certifications are not transferable to additional institutions or their subsequent owners.

scale: 1" = 20' date: 10 Oct. 2018 file no.: 18-526

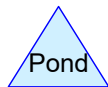
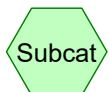
**HOWARD W. WEEDEN, PLS, PC**  
 PROFESSIONAL LAND SURVEYING  
 62 Main Street, Walden, N.Y. 12586  
 tel.: (845) 778-7643  
 © copyright by Howard W. Weeden, PLS, PC, Walden, New York



Appendix B  
Hydrologic Model



# ROOF DRAINAGE



# DRAINAGE-POST

Prepared by Hudson Land Design

HydroCAD® 10.00-20 s/n 04797 © 2017 HydroCAD Software Solutions LLC

296 Main Street

Type III 24-hr 1 Year Storm Rainfall=2.61"

Page 2

## Summary for Subcatchment 1S: ROOF DRAINAGE

Runoff = 0.21 cfs @ 12.09 hrs, Volume= 0.016 af, Depth> 2.23"

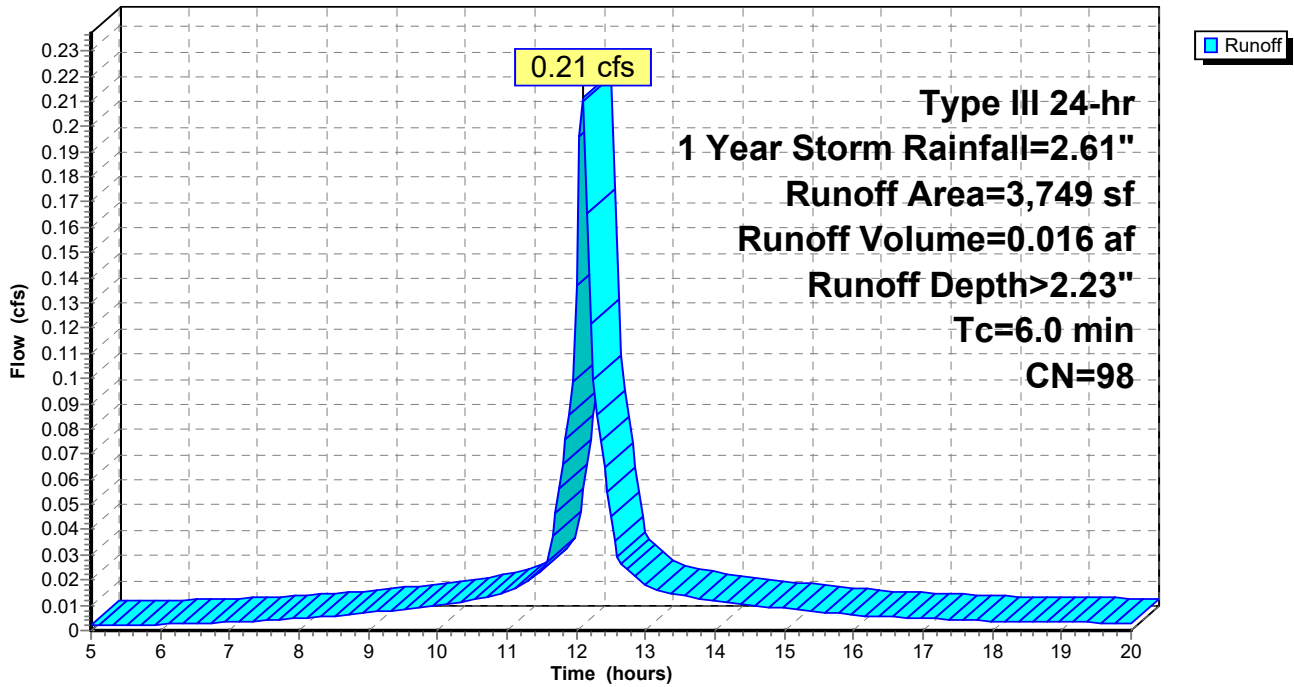
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 1 Year Storm Rainfall=2.61"

Area (sf)	CN	Description
3,749	98	Roofs, HSG B
3,749		100.00% Impervious Area

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

## Subcatchment 1S: ROOF DRAINAGE

Hydrograph



# DRAINAGE-POST

Prepared by Hudson Land Design

HydroCAD® 10.00-20 s/n 04797 © 2017 HydroCAD Software Solutions LLC

296 Main Street

Type III 24-hr 10 Year Storm Rainfall=4.69"

Page 3

## Summary for Subcatchment 1S: ROOF DRAINAGE

Runoff = 0.39 cfs @ 12.09 hrs, Volume= 0.030 af, Depth> 4.14"

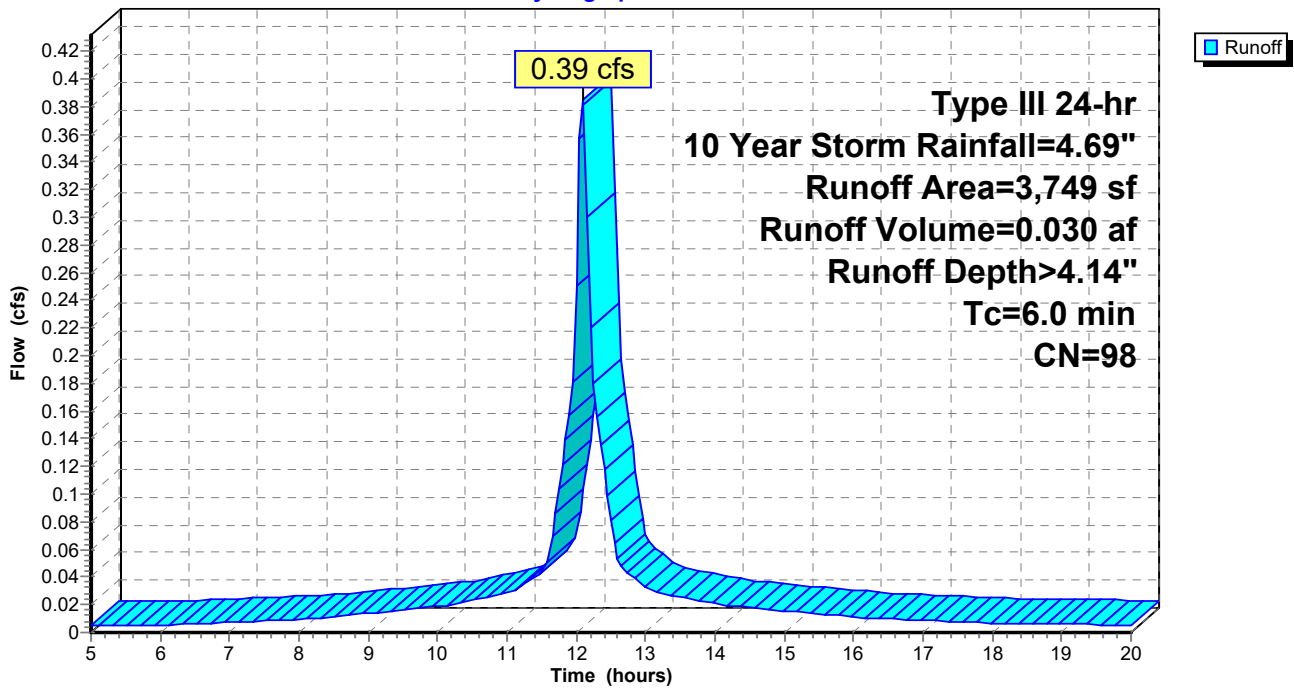
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 10 Year Storm Rainfall=4.69"

Area (sf)	CN	Description
3,749	98	Roofs, HSG B
3,749		100.00% Impervious Area

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

## Subcatchment 1S: ROOF DRAINAGE

Hydrograph



# DRAINAGE-POST

Prepared by Hudson Land Design

HydroCAD® 10.00-20 s/n 04797 © 2017 HydroCAD Software Solutions LLC

296 Main Street

Type III 24-hr 25 Year Storm Rainfall=5.89"

Page 4

## Summary for Subcatchment 1S: ROOF DRAINAGE

Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.038 af, Depth> 5.23"

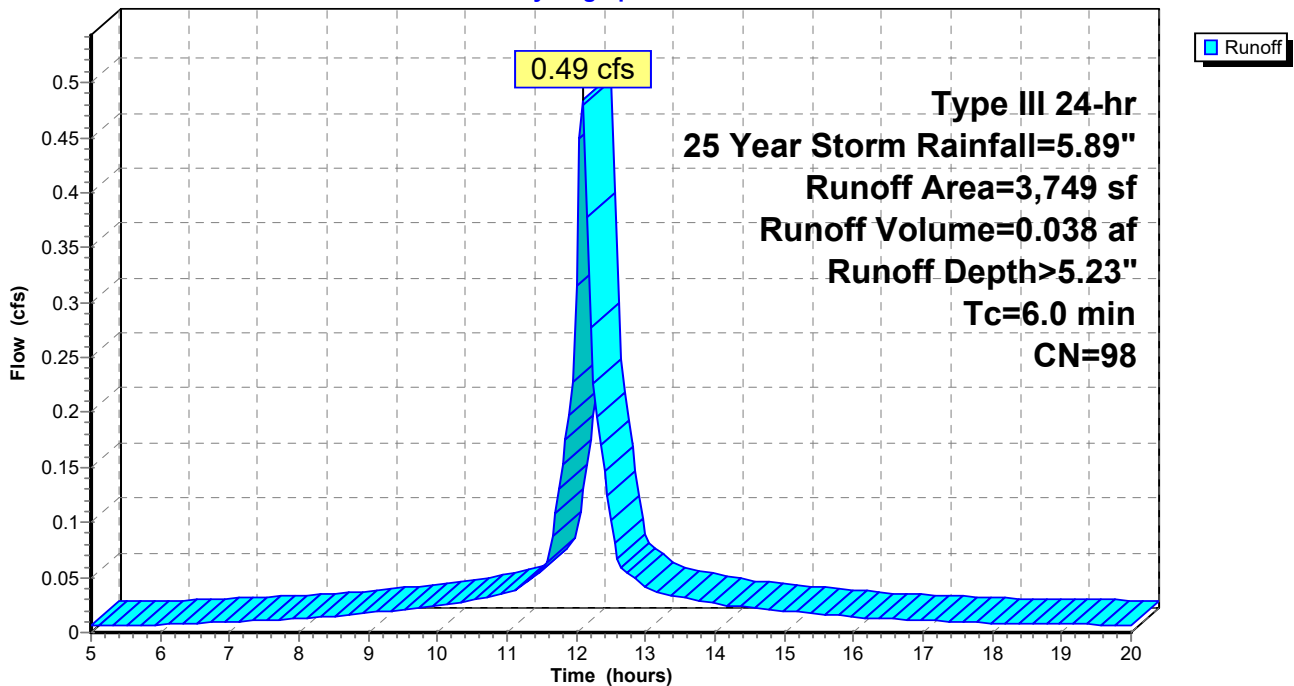
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 25 Year Storm Rainfall=5.89"

Area (sf)	CN	Description
3,749	98	Roofs, HSG B
3,749		100.00% Impervious Area

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

## Subcatchment 1S: ROOF DRAINAGE

Hydrograph





# DRAINAGE-POST

Prepared by Hudson Land Design

HydroCAD® 10.00-20 s/n 04797 © 2017 HydroCAD Software Solutions LLC

296 Main Street

Type III 24-hr 100 Year Storm Rainfall=8.32"

Page 5

## Summary for Subcatchment 1S: ROOF DRAINAGE

Runoff = 0.69 cfs @ 12.09 hrs, Volume= 0.053 af, Depth> 7.43"

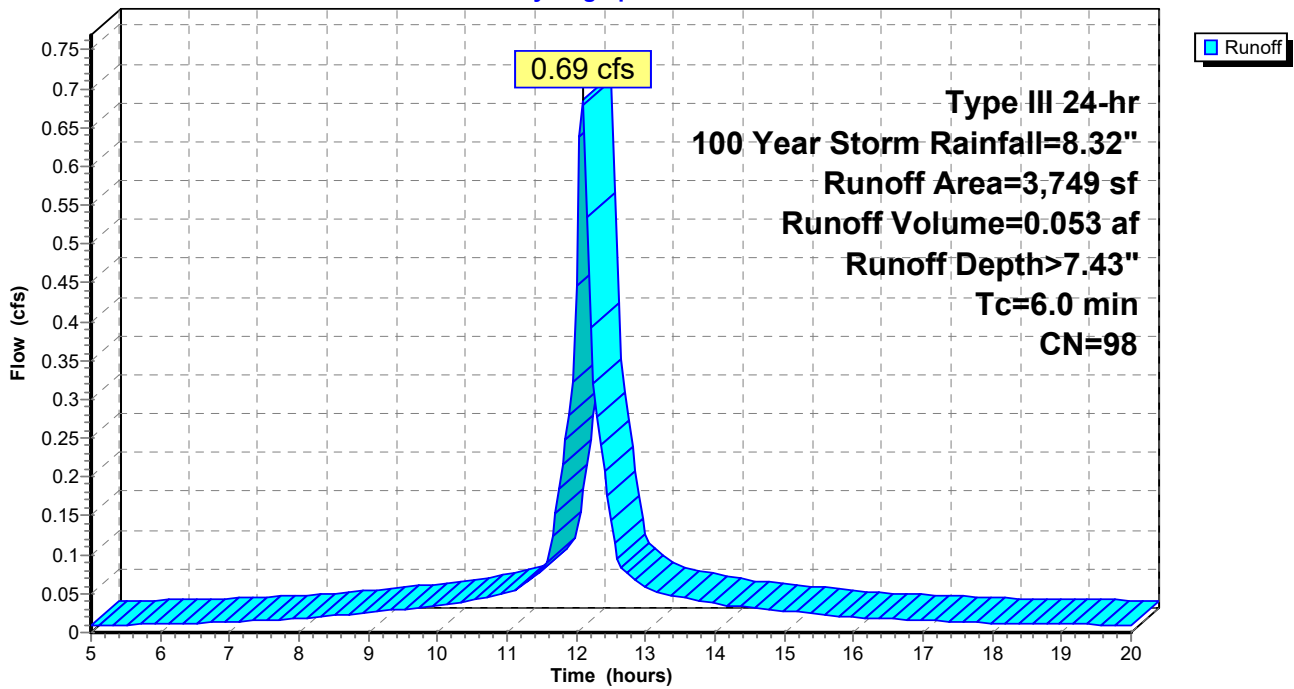
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs  
Type III 24-hr 100 Year Storm Rainfall=8.32"

Area (sf)	CN	Description
3,749	98	Roofs, HSG B
3,749		100.00% Impervious Area

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

## Subcatchment 1S: ROOF DRAINAGE

Hydrograph



**LANC & TULLY**  
ENGINEERING AND SURVEYING, P.C.

John J. O'Rourke, P.E., Principal  
David E. Higgins, P.E., Principal  
John Queenan, P.E., Principal

Rodney C. Knowlton, L.S., Principal  
Jerry A. Woods, L.S., Principal

John D. Russo, P.E., Principal  
John Lanc, P.E., L.S.  
Arthur R. Tully, P.E.

February 7, 2019

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

RE: Ziatun Restaurant - 296 Main Street  
City of Beacon

Dear Mr. Gunn:

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

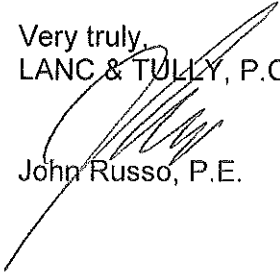
- Aryeh Siegel correspondence dated January 29, 2019.
- Infiltration and Inflow (I&I) report with the latest revision date of January 29, 2019, as prepared by Hudson Land Design.
- Set of plans entitled "Site Plan Application – 296 Main Street – Ziatun Restaurant", with the latest revision date of January 29, 2019 and consisting of sheets 1 through 4 as prepared by Aryeh Siegel, Architect and Hudson Land Design

Based on our review of the above, we would like to offer the following comments:

1. Based upon the I&I testing that was conducted, it was found that the roof leaders and sump pump for the existing building are tied into the sanitary sewer in Main Street. These connections could be contributing anywhere from 5,214 gallons for a 1-year storm event, up to 17,270 gallons for a 100-year storm event. The plans have now been updated to address these illegal connections by proposing to extend existing drainage on North Cedar Street to the project site, so that the applicant can connect the sump pump and roof leaders to the City's drainage system. As this will require work within the City's road right-of-way and an extension of a public utility, the applicant will need to acquire a road opening permit from the City, will need to post a performance bond for the proposed public improvements, and will need to post escrow for construction observation while the public utility is extended. The applicant's engineer shall prepare and submit to the City Engineer a construction cost estimate for all work proposed within the public right-of-way.
2. Although Sheet 1 has been revised to show the outdoor dining as depicted on the 1<sup>st</sup> floor plan, it is barely visible through the hatching for the permeable pavers. The hatching should be reduced in line weight and color so that all notes and depictions in this area are clearly and easily visible.

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

Very truly,  
LANC & TULLY, P.C.



John Russo, P.E.

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

To: John Gunn, Chair, and the City of Beacon Planning Board  
Date: February 8, 2019  
Re: **296 Main Street Site Plan**

I have reviewed a January 29, 2019 response letter from Aryeh Siegel and a 4-sheet Site Plan Application set with the last revision date of January 29, 2019.

**Proposal**

The applicant is proposing to convert an existing retail storefront and a one-story rear garage into a restaurant, maintaining the second story office use. The 0.124-acre parcel is in the Central Main Street (CMS) district.

**Comments and Recommendations**

1. The front step should not be noted for removal on Sheet 2 to match the note on Sheet 1.
2. The window between the garage doors along North Cedar Street should be shown on the elevations with same vertical proportions as the existing window opening to be consistent with Section 223-41.18 J(9).

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

John Clarke, Beacon Planning Consultant

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

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**3 Beekman Street**

**Subject:**

Review application to amend an existing Site Plan Approval, employee parking lot, 3 Beekman Street; submitted by Dia Center for the Arts

**Background:**

**ATTACHMENTS:**

Description	Type
3 Beekman Street Cover Letter	Cover Memo/Letter
3 Beekman Street Short EAF	EAF
3 Beekman Street Site Plan Application	Application
3 Beekman Street Sheet 1 Boundary Plan & Zoning Data	Plans
3 Beekman Street Sheet 2 Site Plan	Plans
3 Beekman Street Sheet 3 Landscape & Lighting Plan	Plans
3 Beekman Street Sheet 4 Erosion Control	Plans
Application Processing Restriction Form	Backup Material
Engineer Review Letter	Consultant Comment
Planner Review Letter	Consultant Comment

# T.M. DePUY ENGINEERING AND LAND SURVEYING, P.C.

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2656 Route 302  
Middletown, NY 10941

Tel # (845) 361-5421  
Fax# (845) 361-5229

January 28, 2019

City of Beacon  
Planning Department  
One Municipal Plaza  
Beacon, NY 12508

**Re: DIA Center for the Arts  
Amended Site Plan  
Employee Parking Lot Expansion  
SBL: 5954-41-605699**

Dear Planning Board Members;

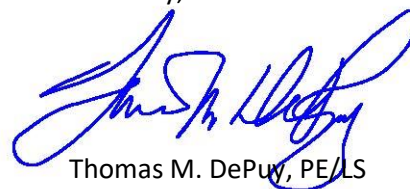
Please find enclosed the following items in reference to the above noted projected.

- 5 sets of Site Plan Drawings
- Application for Site plan Approval
- Affidavit of Property Owner
- Site Plan Specification Form
- Short Form EAF
- Check #4120 in the amount of \$500.00 for Application Fees
- Check #4121 in the amount of \$1,500.00 for Escrow Fees

An email containing the PDF files of all of the above will be sent to the Planning Department. We would like to request placement on the February 12, 2019 Planning Board Agenda.

If you should have any further questions or require additional information please contact me at 845-361-5421, Monday through Friday, 8:00am – 5:00pm.

Sincerely,



Thomas M. DePuy, PE/LS

TMD/nk

Cc: Tom E. Shannon, Director of Facilities

# *Short Environmental Assessment Form*

## *Part 1 - Project Information*

### Instructions for Completing

**Part 1 - Project Information.** The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

<b>Part 1 - Project and Sponsor Information</b>				
Name of Action or Project:				
Project Location (describe, and attach a location map):				
Brief Description of Proposed Action:				
Name of Applicant or Sponsor:		Telephone:		
		E-Mail:		
Address:				
City/PO:		State:	Zip Code:	
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			<b>NO</b>	<b>YES</b>
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval:			<b>NO</b>	<b>YES</b>
3.a. Total acreage of the site of the proposed action? _____ acres				
b. Total acreage to be physically disturbed? _____ acres				
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ acres				
4. Check all land uses that occur on, adjoining and near the proposed action.				
<input type="checkbox"/> Urban <input type="checkbox"/> Rural (non-agriculture) <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Residential (suburban)				
<input type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input type="checkbox"/> Other (specify): _____				
<input type="checkbox"/> Parkland				

5. Is the proposed action, a. A permitted use under the zoning regulations?	<b>NO</b>	<b>YES</b>	<b>N/A</b>
b. Consistent with the adopted comprehensive plan?			
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	<b>NO</b>	<b>YES</b>	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____ _____	<b>NO</b>	<b>YES</b>	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	<b>NO</b>	<b>YES</b>	
b. Are public transportation service(s) available at or near the site of the proposed action?			
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?			
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: _____ _____	<b>NO</b>	<b>YES</b>	
10. Will the proposed action connect to an existing public/private water supply?  If No, describe method for providing potable water: _____ _____	<b>NO</b>	<b>YES</b>	
11. Will the proposed action connect to existing wastewater utilities?  If No, describe method for providing wastewater treatment: _____ _____	<b>NO</b>	<b>YES</b>	
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?  b. Is the proposed action located in an archeological sensitive area?	<b>NO</b>	<b>YES</b>	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?  b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____ _____	<b>NO</b>	<b>YES</b>	
14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply: <input type="checkbox"/> Shoreline <input type="checkbox"/> Forest <input type="checkbox"/> Agricultural/grasslands <input type="checkbox"/> Early mid-successional <input type="checkbox"/> Wetland <input type="checkbox"/> Urban <input type="checkbox"/> Suburban			
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	<b>NO</b>	<b>YES</b>	
16. Is the project site located in the 100 year flood plain?	<b>NO</b>	<b>YES</b>	
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? <input type="checkbox"/> NO <input type="checkbox"/> YES  b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: <input type="checkbox"/> NO <input type="checkbox"/> YES _____ _____	<b>NO</b>	<b>YES</b>	



<p>18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)?</p> <p>If Yes, explain purpose and size: _____</p> <p>_____</p> <p>_____</p>	<p><b>NO</b></p> <p><input checked="" type="checkbox"/></p>	<p><b>YES</b></p> <p><input type="checkbox"/></p>
<p>19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?</p> <p>If Yes, describe: _____</p> <p>_____</p> <p>_____</p>	<p><b>NO</b></p> <p><input checked="" type="checkbox"/></p>	<p><b>YES</b></p> <p><input type="checkbox"/></p>
<p>20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?</p> <p>If Yes, describe: _____</p> <p>_____</p> <p>_____</p>	<p><b>NO</b></p> <p><input type="checkbox"/></p>	<p><b>YES</b></p> <p><input checked="" type="checkbox"/></p>
<p><b>I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE</b></p> <p>Applicant/sponsor name: <u>Tom E. Shannon</u> Date: _____</p> <p>Signature: _____</p>		



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

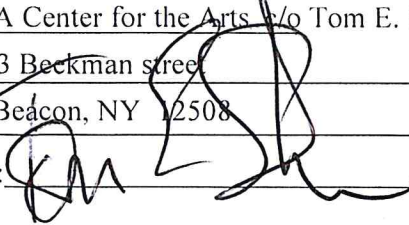


Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National Register of Historic Places]	Yes
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	Yes
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	Yes

**APPLICATION FOR SITE PLAN APPROVAL**

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

**IDENTIFICATION OF APPLICANT**

Name: DIA Center for the Arts / c/o Tom E. Shannon  
Address: 3 Beckman street  
Beacon, NY 12508  
Signature:   
Date: \_\_\_\_\_  
Phone: 845-416-5503

*(For Official Use Only)*

Application & Fee Rec'd \_\_\_\_\_  
Initial Review \_\_\_\_\_  
Public Hearing \_\_\_\_\_  
Conditional Approval \_\_\_\_\_  
Final Approval \_\_\_\_\_

Date Initials

**IDENTIFICATION OF REPRESENTATIVE / DESIGN PROFESSIONAL**

Name: T.M. DePuy Engineering & Land Surveying, PC Phone: 845-361-5421  
Address: 2656 NYS Route 302 Fax: 845-361-5229  
Middletown, NY 10941 Email address: tmdepu@tmdepu.com

**IDENTIFICATION OF SUBJECT PROPERTY:**

Property Address: 3 Beekman Street, Beacon, New York 12508  
Tax Map Designation: Section 5954 Block 41 Lot(s) 605699  
Land Area: 20.500 Acres Zoning District(s) LB

**DESCRIPTION OF PROPOSED DEVELOPMENT:**

Proposed Use: Site Plan Amendment reflecting additional Employee Parking  
Gross Non-Residential Floor Space: Existing \_\_\_\_\_ Proposed \_\_\_\_\_  
TOTAL: \_\_\_\_\_  
Dwelling Units (by type): Existing \_\_\_\_\_ Proposed \_\_\_\_\_  
TOTAL: \_\_\_\_\_

**ITEMS TO ACCOMPANY THIS APPLICATION**

- a. One electronic and five (5) **folded** paper copies of a site location sketch showing the location of the subject property and the proposed development with respect to neighboring properties and developments.
- b. One electronic and five (5) **folded** paper copies of the proposed site development plan, consisting of sheets, showing the required information as set forth on the back of this form and other such information as deemed necessary by the City Council or the Planning Board to determine and provide for the property enforcement of the Zoning Ordinance.
- c. One electronic and five (5) **folded** paper copies of additional sketches, renderings or other information.
- d. An application fee, payable to the City of Beacon, computed per the attached fee schedule.
- e. An initial escrow amount, payable to the City of Beacon, as set forth in the attached fee schedule.

**INFORMATION TO BE SHOWN ON SITE LOCATION SKETCH**

- a. Property lines, zoning district boundaries and special district boundaries affecting all adjoining streets and properties, including properties located on the opposite sides of adjoining streets.
- b. Any reservations, easements or other areas of public or special use which affect the subject property.
- c. Section, block and lot numbers written on the subject property and all adjoining properties, including the names of the record owners of such adjoining properties.

**INFORMATION TO BE SHOWN ON THE SITE DEVELOPMENT PLAN**

- a. Title of development, date and revision dates if any, north point, scale, name and address of record owner of property, and of the licensed engineer, architect, landscape architect, or surveyor preparing the site plan.
- b. Existing and proposed contours at a maximum vertical interval of two (2) feet.
- c. Location and identification of natural features including rock outcrops, wooded areas, single trees with a caliper of six (6) or more inches measured four (4) feet above existing grade, water bodies, water courses, wetlands, soil types, etc.
- d. Location and dimensions of all existing and proposed buildings, retaining walls, fences, septic fields, etc.
- e. Finished floor level elevations and heights of all existing and proposed buildings.
- f. Location, design, elevations, and pavement and curbing specifications, including pavement markings, of all existing and proposed sidewalks, and parking and truck loading areas, including access and egress drives thereto.
- g. Existing pavement and elevations of abutting streets, and proposed modifications.
- h. Location, type and design of all existing and proposed storm drainage facilities, including computation of present and estimated future runoff of the entire tributary watershed, at a maximum density permitted under existing zoning, based on a 100 year storm.
- i. Location and design of all existing and proposed water supply and sewage disposal facilities.
- j. Location of all existing and proposed power and telephone lines and equipment, including that located within the adjoining street right-of-way. All such lines and equipment must be installed underground.
- k. Estimate of earth work, including type and quantities of material to be imported to or removed from the site.
- l. Detailed landscape plan, including the type, size, and location of materials to be used.
- m. Location, size, type, power, direction, shielding, and hours of operation of all existing and proposed lighting facilities.
- n. Location, size, type, and design of all existing and proposed business and directional signs.
- o. Written dimensions shall be used wherever possible.
- p. Signature and seal of licensed professional preparing the plan shall appear on each sheet.
- q. Statement of approval, in blank, as follows:

**Approved by Resolution of the Beacon Planning Board  
on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_  
subject to all conditions as stated therein**

\_\_\_\_\_  
**Chairman, City Planning Board**

\_\_\_\_\_  
**Date**

## APPLICATION FEES

<b>Site Plan</b>	<b><u>Residential</u></b> \$500 + \$250 per dwelling unit
	<b><u>Commercial</u></b> \$500 + \$250 per 1,000 s.f.
<b>Special Use Permit</b>	<b><u>Residential</u></b> \$500 + \$250 per dwelling unit
	<b><u>Commercial</u></b> \$500 + \$250 per 1,000 s.f.
<b>Subdivision</b>	\$ 750 for 2-4 lots + \$100 per lot
	\$1,000 for 5 or more lots + \$300 per lot
<b>Zoning Board of Appeals</b>	Use Variance \$500
	Area Variance \$250
	Interpretation \$250

## ESCROW FEES

### ALL SUBDIVISIONS, AND RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

No. of Lots or Dwelling Units	Initial Deposit	Depleted to	Replenishment
1-5 (including lot-line realignment)	\$ 2,500	\$ 1,000	Current bills + \$1,000
6-15	\$ 7,500	\$ 2,500	Current bills + \$1,000
Over 15	\$ 15,000	\$ 5,000	Current bills + \$5,000

### NON-RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

	Initial Deposit	Depleted to	Replenishment
Existing Buildings/Change of Use with no site development	\$ 1,500	\$ 1,000	Current bills + \$500
Up to 3,000 s.f. gross floor area	\$ 2,500	\$ 1,000	Current bills + \$1,000
3,000 to 10,000 s.f. gross floor area	\$ 2,500 + \$0.50 per sq.ft. over 3,000	\$ 2,500	Current bills + \$2,500
Over 10,000 s.f. gross floor area	\$ 7,500 + \$0.50 per sq.ft. over 10,000	\$ 2,500	Current bills + \$2,500

### ZONING

<i>* if required by Chairman</i>	Initial Deposit	Depleted to	Replenishment
Use Variance*	\$ 1,000	\$500	Current bills + \$500
Area Variance*	\$ 1,000	\$500	Current bills + \$500
Interpretation*	\$ 1,000	\$500	Current bills + \$500

### ARCHITECTURAL REVIEW OR CERTIFICATE OF APPROPRIATENESS *(if not currently before PB)*

<i>* if required by Chairman</i>	Initial Deposit	Depleted to	Replenishment
Single Family House*	\$500	\$250	Current bills + \$250
All others*	\$500	\$250	Current bills + \$250

**APPLICATION PROCESSING RESTRICTION LAW**  
**Affidavit of Property Owner**

Property Owner: DIA Center for the Arts

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

List all properties in the City of Beacon that you hold a 5% interest in:  
Bayview Avenue - 0.22 Acres, 130200-5954-33-595769

Beekman Lot #1 - 12.392 acres, 130200-5954-49-608543

Applicant Address: 3 Beekman Street, Beacon, NY 12508

Project Address: 3 Beekman Street, Beacon, NY 12508

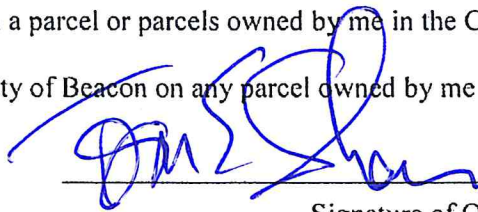
Project Tax Grid # 130200-5954-41-605699

Type of Application Site Plan - amendment to existing approval

Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent (5%) interest in a corporation or partnership or other business.

I, Tom E. Shannon, the undersigned owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true.

- |                                                                                                 |              |
|-------------------------------------------------------------------------------------------------|--------------|
| 1. No violations are pending for ANY parcel owned by me situated within the City of Beacon      | <u>True</u>  |
| 2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon | <u>False</u> |
| 3. ALL tax payments due to the City of Beacon are current                                       | <u>True</u>  |
| 4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon         | <u>False</u> |
| 5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon | <u>False</u> |
| 6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current      | <u>True</u>  |



Signature of Owner

Tom E. Shannon, Director of Facilities

Title if owner is corporation

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

**CITY OF BEACON  
SITE PLAN SPECIFICATION FORM**

Name of Application: *"DIA Center for the Arts - Site Plan Amendment reflecting additional Employee Parking"*

<b>PLEASE INDICATE WHETHER THE SITE PLAN DRAWINGS SHOW THE SUBJECT INFORMATION BY PLACING A CHECK MARK IN THE APPROPRIATE BOXES BELOW.</b>		
	<b>YES</b>	<b>NO</b>
The site plan shall be clearly marked "Site Plan", it shall be prepared by a legally certified individual of firm, such as a Registered Architect or Professional Engineer, and it shall contain the following information:	X	
<b>LEGAL DATA</b>		
Name and address of the owner of record.	X	
Name and address of the applicant (if other than the owner).	X	
Name and address of person, firm or organization preparing the plan.	X	
Date, north arrow, and written and graphic scale.	X	
<b>NATURAL FEATURES</b>		
Existing contours with intervals of two (2) feet, referred to a datum satisfactory to the Planning Board.	X	
Approximate boundaries of any areas subject to flooding or stormwater overflows.	N/A	
Location of existing watercourses, wetlands, wooded areas, rock outcrops, isolated trees with a diameter of eight (8) inches or more measured three (3) feet above the base of the trunk, and any other significant existing natural features.	N/A	
<b>EXISTING STRUCTURES, UTILITIES, ETC.</b>		
Outlines of all structures and the location of all uses not requiring structures. Paved areas, sidewalks, and vehicular access between the site and public streets.	X	
Locations, dimensions, grades, and flow direction of any existing sewers, culverts, water lines, as well as other underground and above ground utilities within and adjacent to the property.	N/A	
Other existing development, including fences, retaining walls, landscaping, and screening.	X	
Sufficient description or information to define precisely the boundaries of the property.	X	
The owners of all adjoining lands as shown on the latest tax records.	X	
The locations, names, and existing widths of adjacent streets and curb lines.	X	
Location, width, and purpose of all existing and proposed easements, setbacks, reservations, and areas dedicated to private or public use within or adjacent to the properties.	X	

<b>PROPOSED DEVELOPMENT</b>	<b>YES</b>	<b>NO</b>
The location, use and design of proposed buildings or structural improvements.	N/A	
The location and design of all uses not requiring structures, such as outdoor storage (if permitted), and off-street parking and unloading areas.	X	
Any proposed division of buildings into units of separate occupancy.	N/A	
The location, direction, power, and time of use for any proposed outdoor lighting.		
The location and plans for any outdoor signs.	N/A	
The location, arrangement, size(s) and materials of proposed means of ingress and egress, including sidewalks, driveways, or other paved areas.	X	
Proposed screening and other landscaping including a planting plan and schedule prepared by a qualified individual or firm.		
The location, sizes and connection of all proposed water lines, valves, and hydrants and all storm drainage and sewer lines, culverts, drains, etc.	N/A	
Proposed easements, deed restrictions, or covenants and a notation of any areas to be dedicated to the City.	N/A	
Any contemplated public improvements on or adjoining the property.	N/A	
Any proposed new grades, indicating clearly how such grades will meet existing grades of adjacent properties or the street.	X	
Elevations of all proposed principal or accessory structures.	N/A	
Any proposed fences or retaining walls.	N/A	
<b>MISCELLANEOUS</b>		
A location map showing the applicant's entire property and adjacent properties and streets, at a convenient scale.	X	
Erosion and sedimentation control measures.		
A schedule indicating how the proposal complies with all pertinent zoning standards, including parking and loading requirements.	X	
An indication of proposed hours of operation.		
If the site plan only indicates a first stage, a supplementary plan shall indicate ultimate development.	N/A	



For all items marked "NO" above, please explain below why the required information has not been provided:

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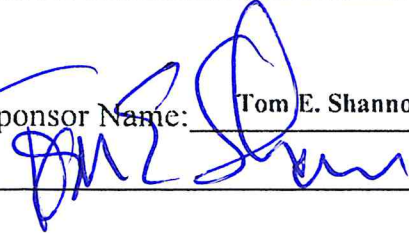
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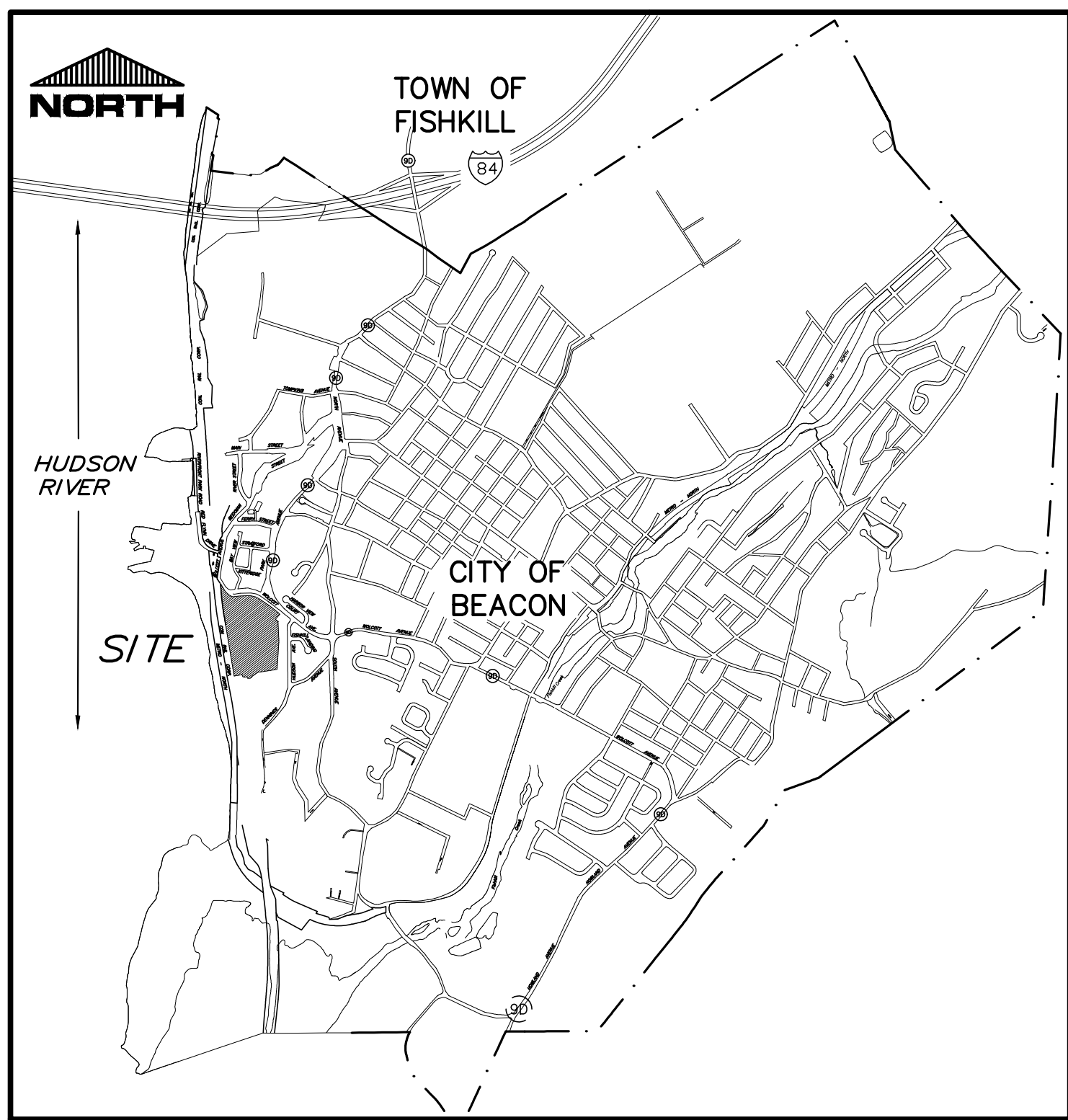
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Applicant/Sponsor Name: Tom E. Shannon, Director of Facilities  
Signature:   
Date: \_\_\_\_\_



VICINITY MAP  
SCALE: 1" = 2000'

**SURVEY AND PARCEL INFORMATION:**

- MAP REFERENCE: "SUBDIVISION PLAT, DIA CENTER FOR THE ARTS, CITY OF BEACON, DUTCHESS COUNTY, NEW YORK" DATED AUGUST 27, 2002, LAST REVISED SEPTEMBER 19, 2002, PREPARED BY T.M. DEPUY ENGINEERING & LAND SURVEYING, P.C. AND FILED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON OCTOBER 18, 2002 AS MAP NO. 9679A..
- MAP REFERENCE: "SUBDIVISION OF PROPERTY FOR FEDERAL PAPER BOARD COMPANY, INC." FILED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON MARCH 25, 1983 AS MAP #9679.
- MAP REFERENCE: "SUBDIVISION MAP OF PROPERTY LINE REALIGNMENT BETWEEN BEACON COMMUNITY DEVELOPMENT AGENCY AND NABISCO, INC." FILED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON AUGUST 26, 1983 AS MAP #6690.
- MAP REFERENCE: "SUBDIVISION PLAT, SECTION 1 OF FISHKILL LANDING" FILED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON SEPTEMBER 9, 1983 AS MAP #6724.
- MAP REFERENCE: "SUBDIVISION PLAT, SECTION 2 OF FISHKILL LANDING" FILED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON SEPTEMBER 30, 1983 AS MAP #6724.
- MAP REFERENCE: "SURVEY OF PROPERTIES FOR NATIONAL BISCUIT COMPANY AKA NABISCO, INC., CITY OF BEACON, DUTCHESS COUNTY, NEW YORK" DATED NOVEMBER 26, 1984 AND PREPARED BY JAMES DILLON, L.S.
- MAP REFERENCE: "NEW YORK STATE DEPARTMENT OF TRANSPORTATION, DESCRIPTION AND MAPS FOR THE ACQUISITION OF PROPERTY, CITY OF BEACON, NORTH-SOUTH ARTERIAL, DUTCHESS COUNTY" DATED NOVEMBER 26, 1984. (ROYAL ABSTRACT SCH.B-5B) MAP #125, PARCEL 150 MAP #126, PARCEL 151
- STREET RIGHT-OF-WAY AS PER MAP REFERENCE #7, M126, P151.
- SUBJECT TO A RAILROAD TRACK EASEMENT AND MAINTENANCE AGREEMENT, WATER LINE EASEMENT AS DESCRIBED IN LIBER 1926 OF DEEDS, PAGE 249. (ROYAL ABSTRACT SCH.B-5A)
- SUBJECT TO A GRANT OF EASEMENT TO CENTRAL HUDSON GAS AND ELECTRIC CORP. AND NEW YORK TELEPHONE CO. AS DESCRIBED IN LIBER 1614 OF DEEDS, PAGE 918. (ROYAL ABSTRACT SCH.B-5C)
- SUBJECT TO A DRAINAGE EASEMENT GRANTED TO THE CITY OF BEACON AS DESCRIBED IN LIBER 1615 OF DEEDS, PAGE 696. (ROYAL ABSTRACT SCH.B-5D)
- SUBJECT TO A SEWER LINE EASEMENT GRANTED TO THE CITY OF BEACON AS DESCRIBED IN LIBER 1087 OF DEEDS, PAGE 489. (ROYAL ABSTRACT SCH.B-5E)
- SUBJECT TO ENVIRONMENTAL CONSTRAINT DEED RESTRICTION.
- THE PROPERTY IS LOCATED IN FLOOD ZONE C AS DESIGNATED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) WHICH INDICATES TO BE AREAS OF MINIMAL FLOODING. THIS IS BASED ON THE FLOOD INSURANCE RATING MAP, CITY OF BEACON, NEW YORK, DUTCHESS COUNTY COMMUNITY - PANEL #360217 0003B EFFECTIVE MARCH 1, 1984.
- TITLE REPORT REFERENCE: ROYAL ABSTRACT, COMMONWEALTH LAND TITLE INSURANCE COMPANY TITLE NO. 817892 (1458712) (NO DATE).

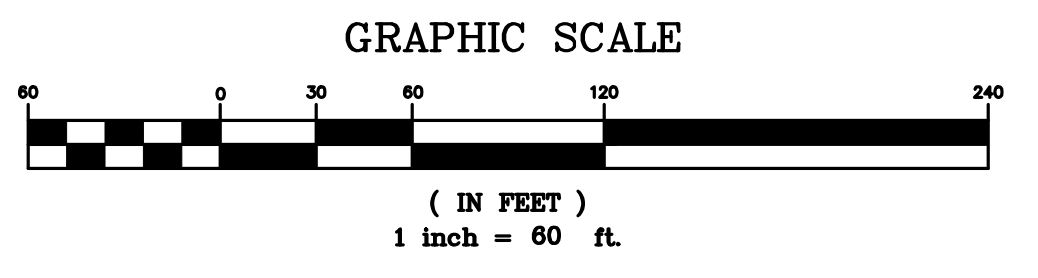
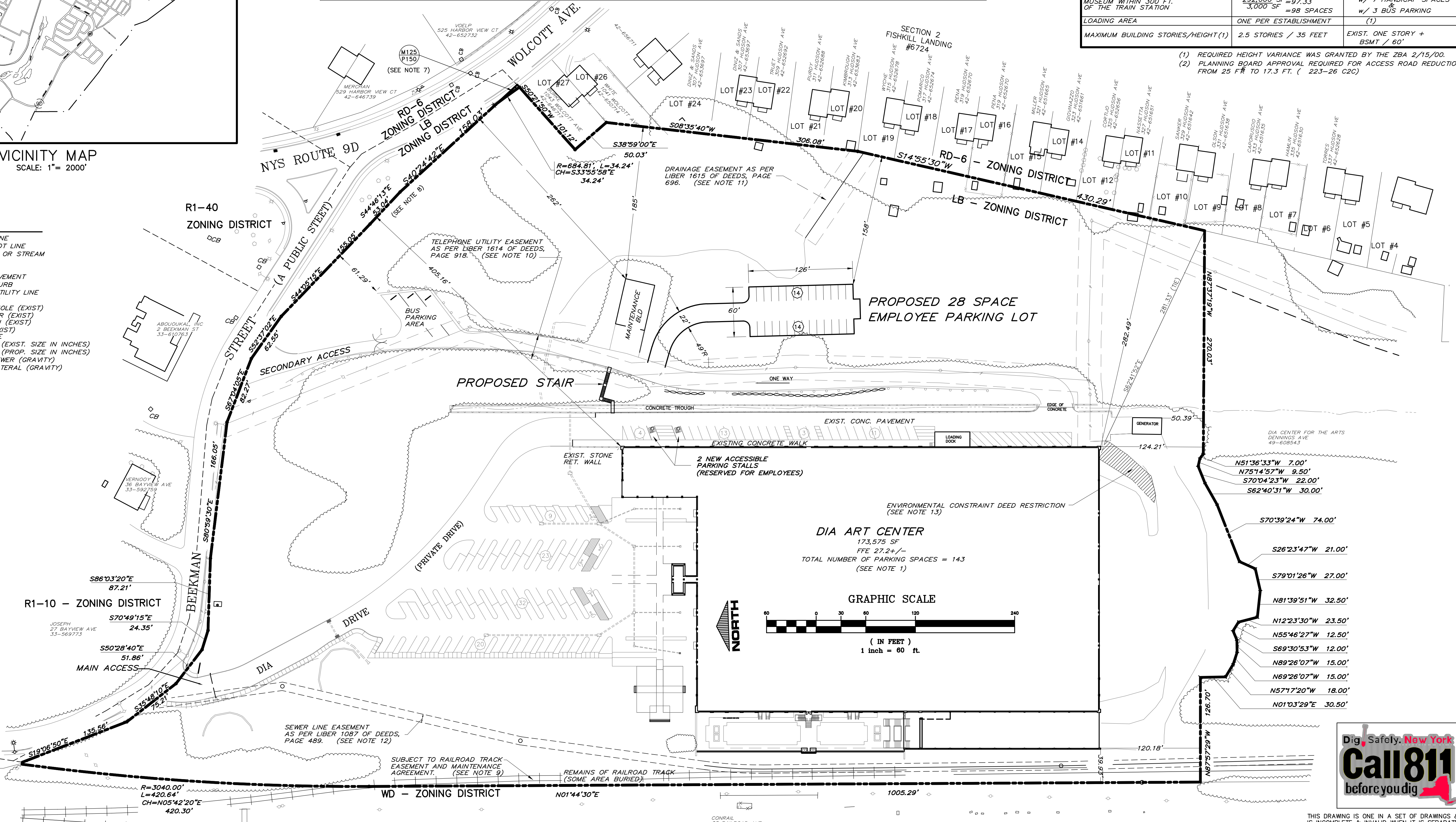
**PARCEL, OWNER AND ZONING INFORMATION**

- RECORD OWNER: DIA CENTER FOR THE ARTS  
3 BEEKMAN ST  
BEACON, NEW YORK 12508
- TAX MAP REFERENCE: 130200-5954-41-605699
- PARCEL AREA: 20,500 ACRES
- DEED MAP REFERENCE: DEED BOOK 21999, PAGE 10481
- MAP REFERENCE: FILED MAP NO 9679A
- ZONING DISTRICT: LB - LOCAL BUSINESS DISTRICT
- ZONING REQUIREMENTS: SEE "CITY OF BEACON" CHART AT LEFT

CITY OF BEACON LB (LOCAL BUSINESS DISTRICT)		
MUSEUM USE	REQUIREMENT	EXISTING
MUSEUM USE	PERMITTED	PERMITTED
MINIMUM LOT AREA	—	20,500 AC.
MINIMUM LOT WIDTH	—	800'
MINIMUM LOT DEPTH	100 FEET	1270'
MINIMUM FRONT YARD	0 FEET	61.29' (BUS PARKING)
MINIMUM SIDE	20 FEET	39.93'
MINIMUM REAR YARD	25 FEET	50.39' (GEN SET)
PARKING SPACES MUSEUM WITHIN 300 FT. OF THE TRAIN STATION	1 SPACE PER 300 SF (1) 292,000 SF = 97.33 3,000 SF = 98 SPACES	143 PARKING SPACES w/ 7 HANDICAP SPACES w/ 3 BUS PARKING
LOADING AREA	ONE PER ESTABLISHMENT	(1)
MAXIMUM BUILDING STORIES/HEIGHT(1)	2.5 STORIES / 35 FEET	EXIST. ONE STORY + BSMT / 60'

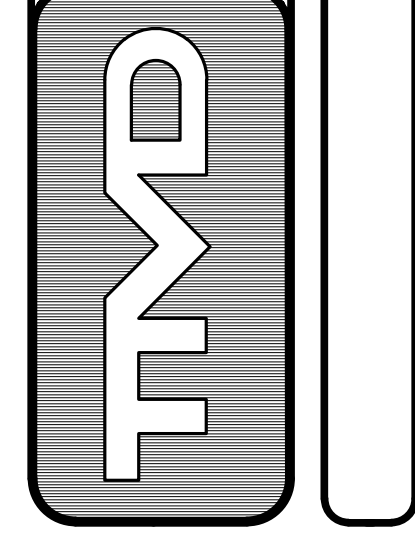
(1) REQUIRED HEIGHT VARIANCE WAS GRANTED BY THE ZBA 2/15/00.  
(2) PLANNING BOARD APPROVAL REQUIRED FOR ACCESS ROAD REDUCTION FROM 25 FT TO 17.5 FT. ( 223-26 C2C)

- LEGEND**
- PROPERTY LINE
  - ADJOINING LOT LINE
  - WATER EDGE OR STREAM
  - GUIDE RAIL
  - FENCE LINE
  - EDGE OF PAVEMENT
  - CONCRETE CURB
  - OVERHEAD UTILITY LINE
  - UTILITY POLE
  - SEWER MANHOLE (EXIST)
  - STORM SEWER (EXIST)
  - CATCH BASIN (EXIST)
  - HYDRANT (EXIST)
  - WATER VALVE
  - 6" W WATER MAIN (EXIST, SIZE IN INCHES)
  - 8" W WATER MAIN (PROP, SIZE IN INCHES)
  - 4" S SANITARY SEWER (GRAVITY)
  - 3" S SANITARY LATERAL (GRAVITY)



NO.	DATE	DESCRIPTION	BY

**T.M. DEPUY**  
ENGINEERING & LAND SURVEYING, P.C.  
2656 ROUTE 302, MIDDLETOWN, NY 10941  
PHONE: (845) 361-5421 FAX: (845) 361-5229



PROPOSED EMPLOYEE PARKING LOT  
DIA CENTER FOR THE ARTS  
CITY OF BEACON  
DUTCHESS COUNTY, NEW YORK



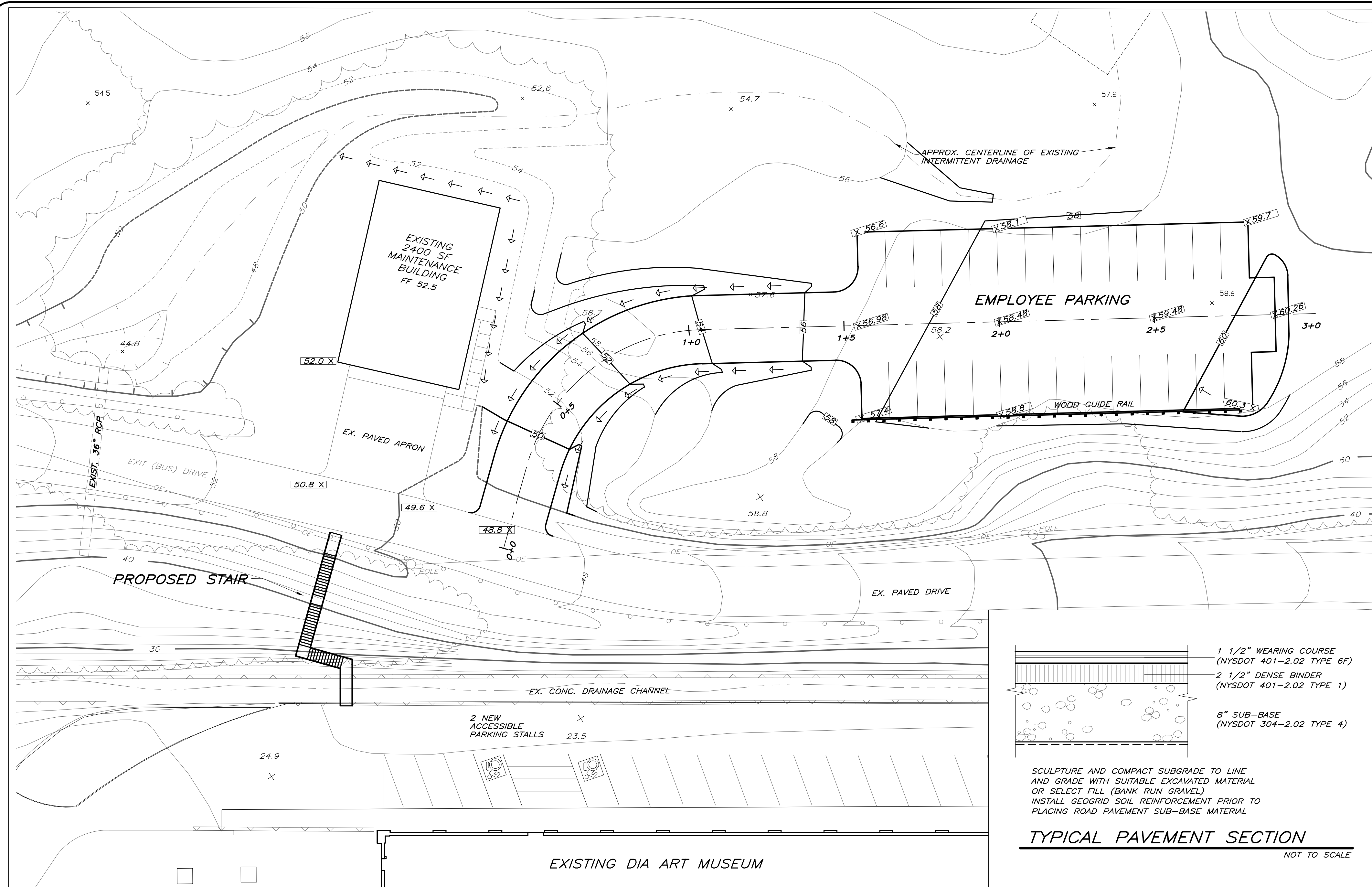
TITLE  
**BOUNDARY PLAN AND ZONING DATA**

JOB: 99021  
DATE: JAN. 28, 2019  
SCALE: 1" = 20'  
DWG.

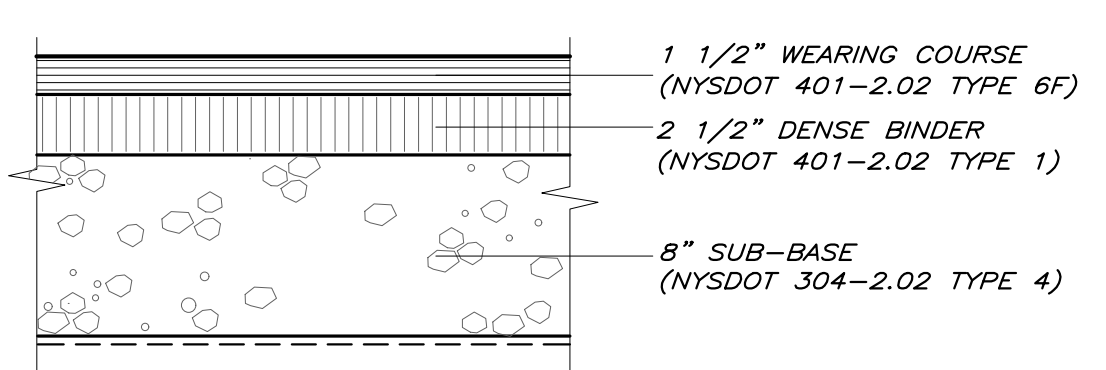
**SP1**  
OF 4



THIS DRAWING IS ONE IN A SET OF DRAWINGS & IS INCOMPLETE & INVALID WHEN IT IS SEPARATED FROM THIS SET.  
Unauthorized alteration or addition to this drawing is a violation of Section 7209 (2) of the NYS Education Law.

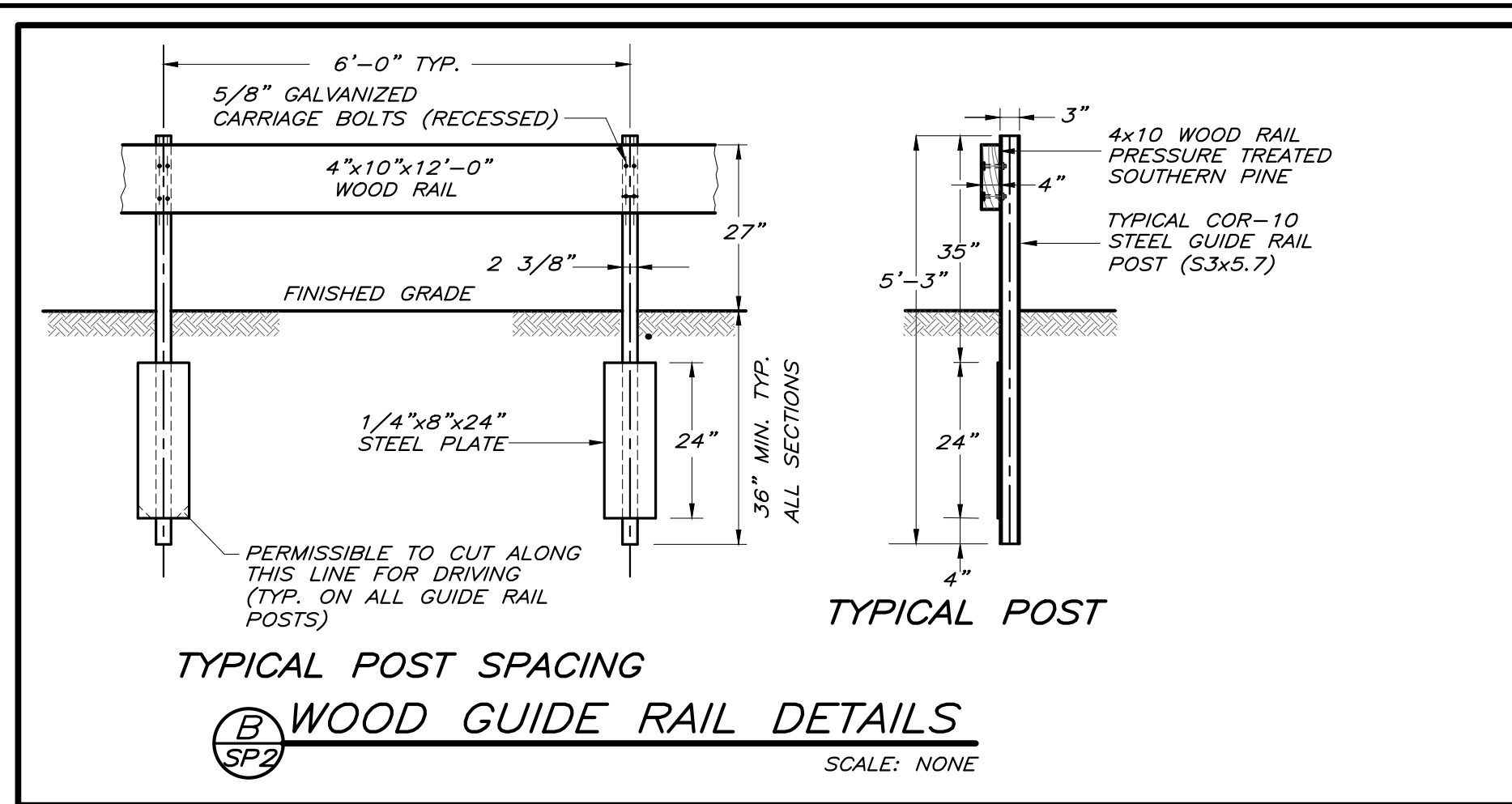


**SITE PLAN**  
SCALE: 1" = 20'

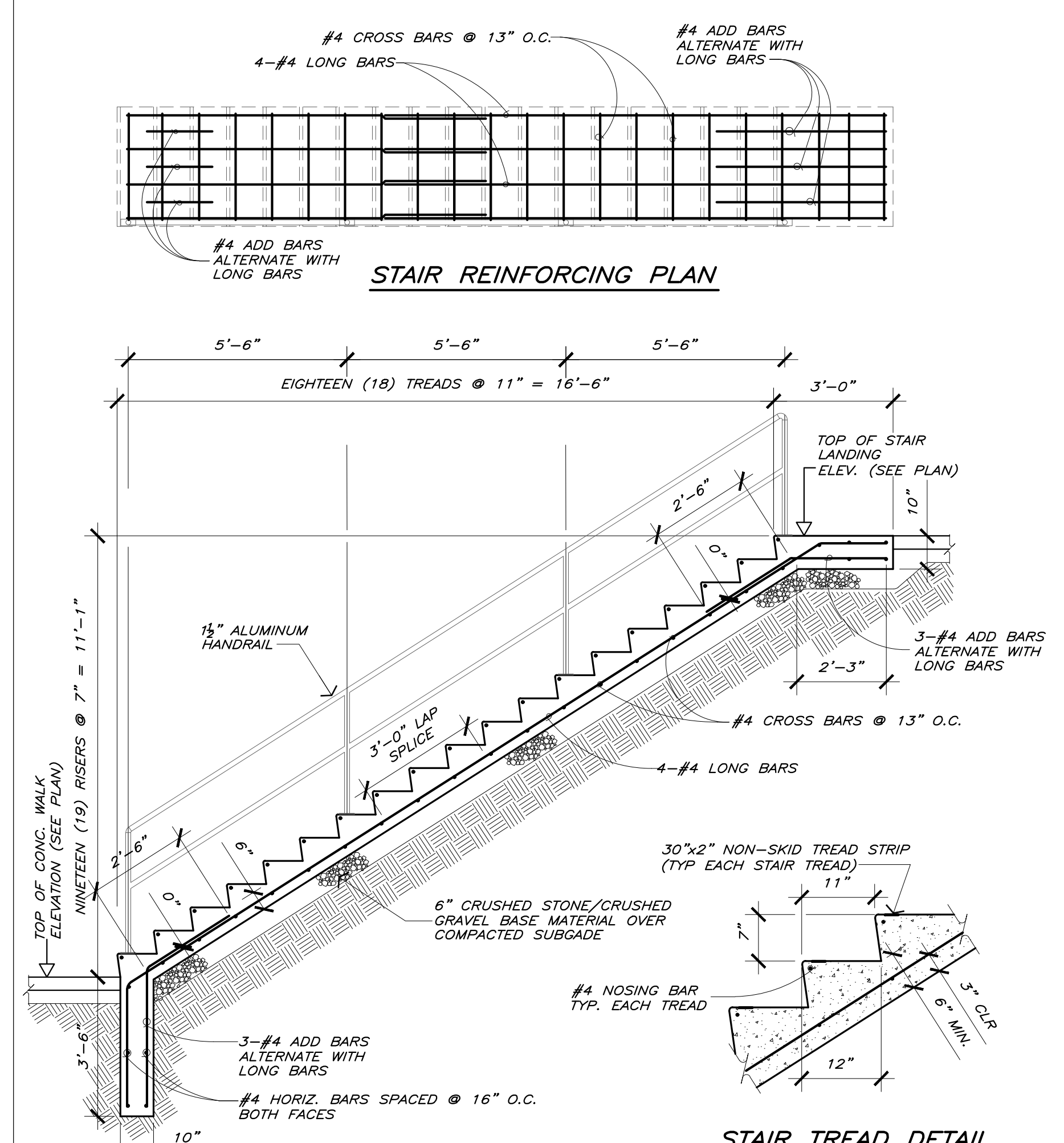


SCULPTURE AND COMPACT SUBGRADE TO LINE AND GRADE WITH SUITABLE EXCAVATED MATERIAL OR SELECT FILL (BANK RUN GRAVEL) INSTALL GEOGRID SOIL REINFORCEMENT PRIOR TO PLACING ROAD PAVEMENT SUB-BASE MATERIAL

**TYPICAL PAVEMENT SECTION**  
NOT TO SCALE

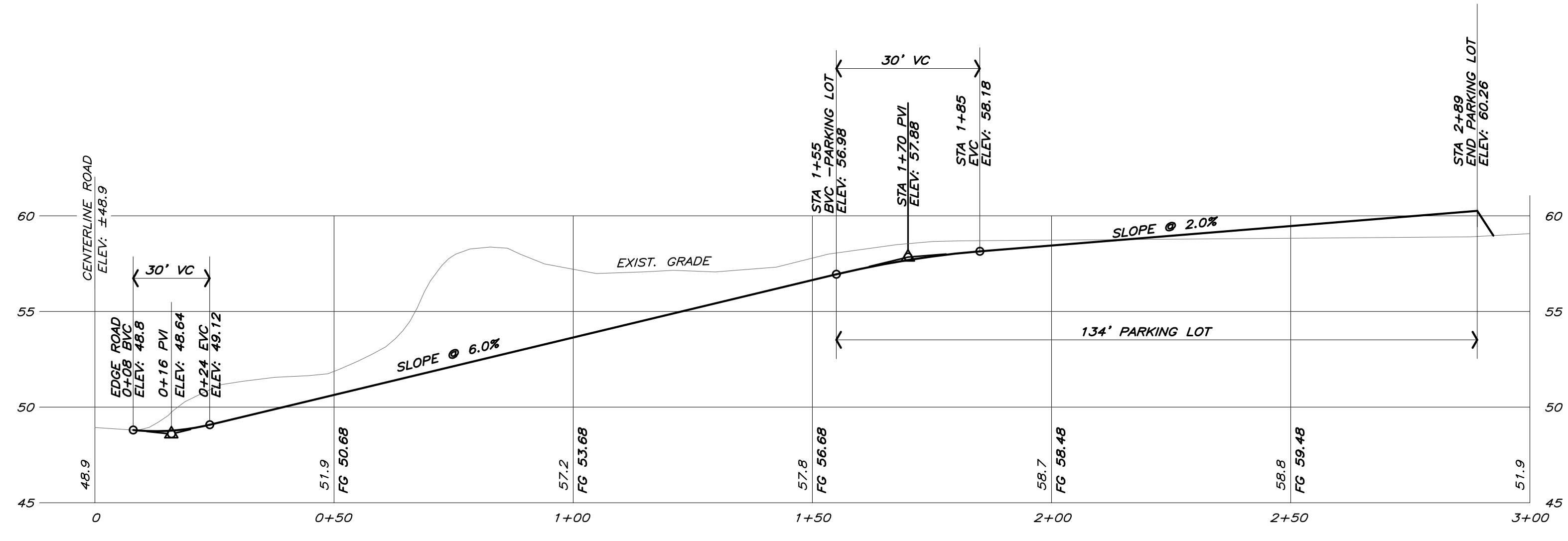


**TYPICAL POST SPACING**  
**WOOD GUIDE RAIL DETAILS**  
SCALE: NONE

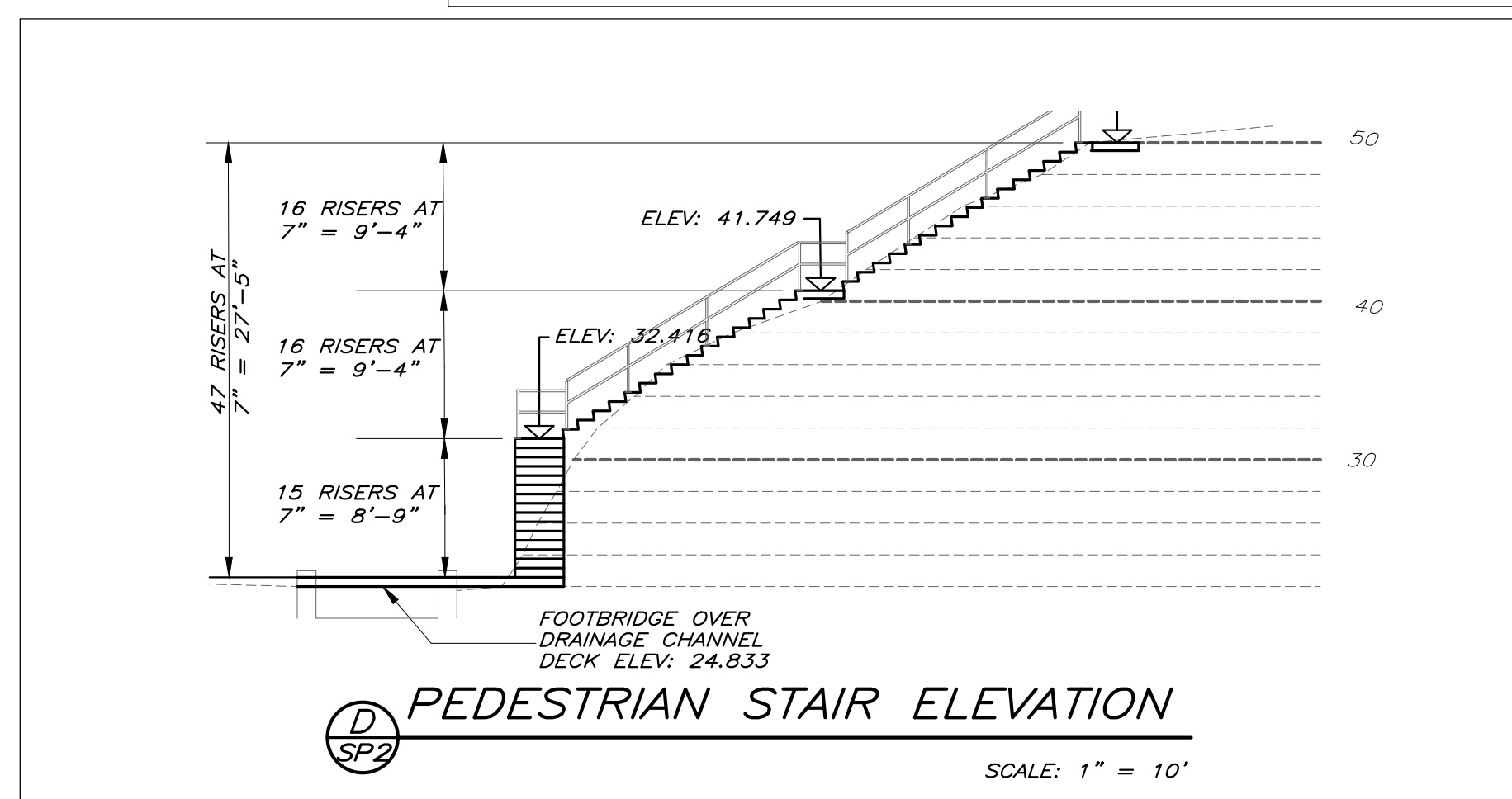


**EXTERIOR CONCRETE STAIR DETAIL**  
SCALE: 3/8" = 1'-0"

1. EXTERIOR CONCRETE WORK AND MATERIALS SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318. FINISHED CONCRETE STAIR SHALL BE RUBBED AND FILLED TO PROVIDE A CLEAN AND SMOOTH SURFACE, FREE FROM HOLES, FINS, HONEYCOMB AND VISIBLE IMPERFECTIONS.
2. EXTERIOR CONCRETE STAIR SHALL BE CONSTRUCTED OF CAST-IN-PLACE CONCRETE HAVING A 28 DAY DESIGN STRENGTH OF 4000 PSI, 4-6% AIR ENTRAINMENT AND MAX. SLUMP OF 5" AT TIME OF PLACEMENT.
3. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.



**DRIVEWAY PROFILE**  
SCALE: HORIZ: 1" = 20'  
VERT: 1" = 5'



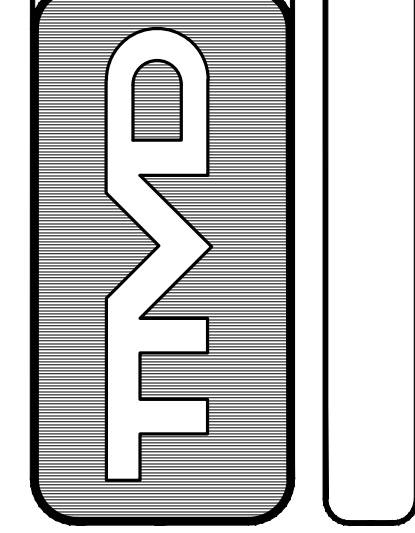
**PEDESTRIAN STAIR ELEVATION**  
SCALE: 1" = 10'



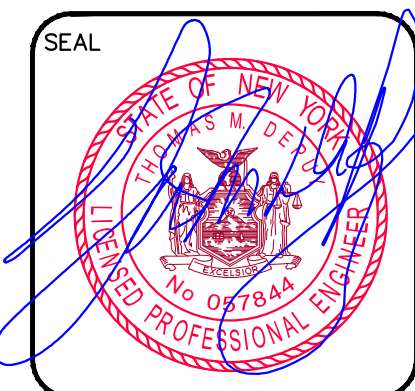
THIS DRAWING IS ONE IN A SET OF DRAWINGS & IS INCOMPLETE & INVALID WHEN IT IS SEPARATED FROM THIS SET.  
Unauthorized alteration or addition to this drawing is a violation of Section 7209 (2) of the NYS Education Law.

NO.	DATE	DESCRIPTION	BY

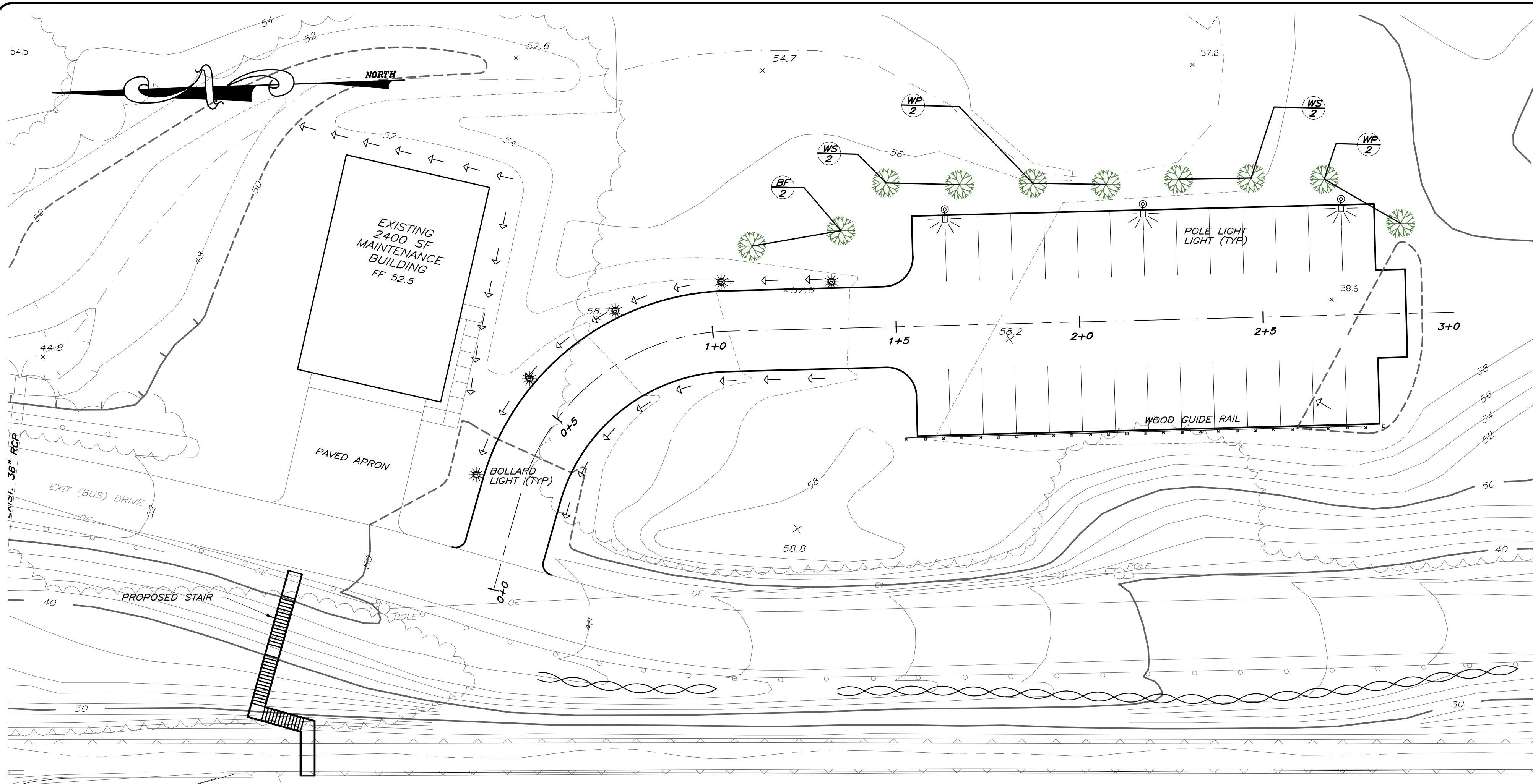
**T.M. DEPUY**  
ENGINEERING & LAND SURVEYING, P.C.  
2655 ROUTE 302, MIDDLETOWN, NY 10941  
PHONE: (845) 361-5421 FAX: (845) 361-5229



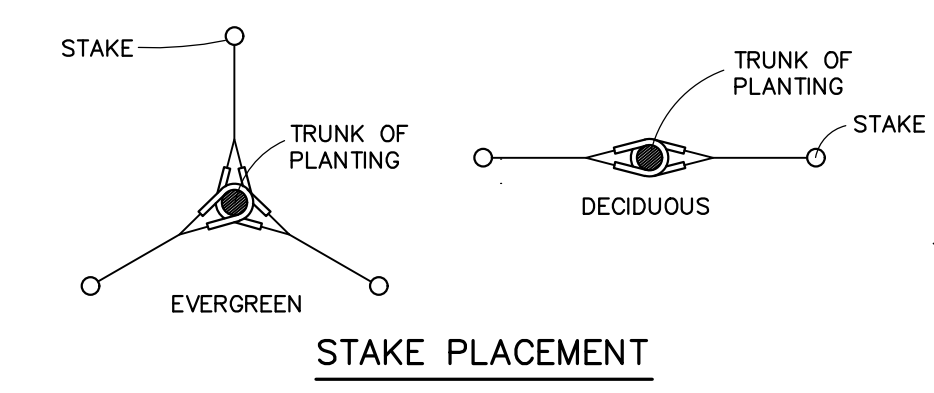
PROPOSED EMPLOYEE PARKING LOT  
DIA CENTER FOR THE ARTS  
CITY OF BEACON  
DUTCHESS COUNTY, NEW YORK



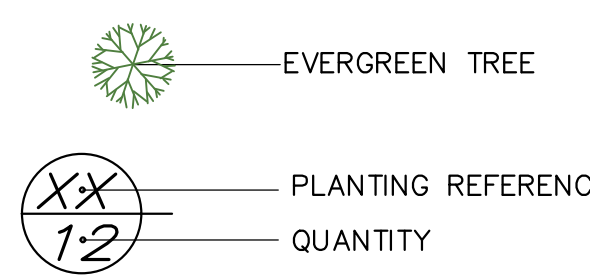
TITLE	<b>SITE PLAN</b>
JOB	99021.PL
DATE	JAN 28, 2019
SCALE	AS NOTED
DWG.	<b>SP2</b>
	OF 4



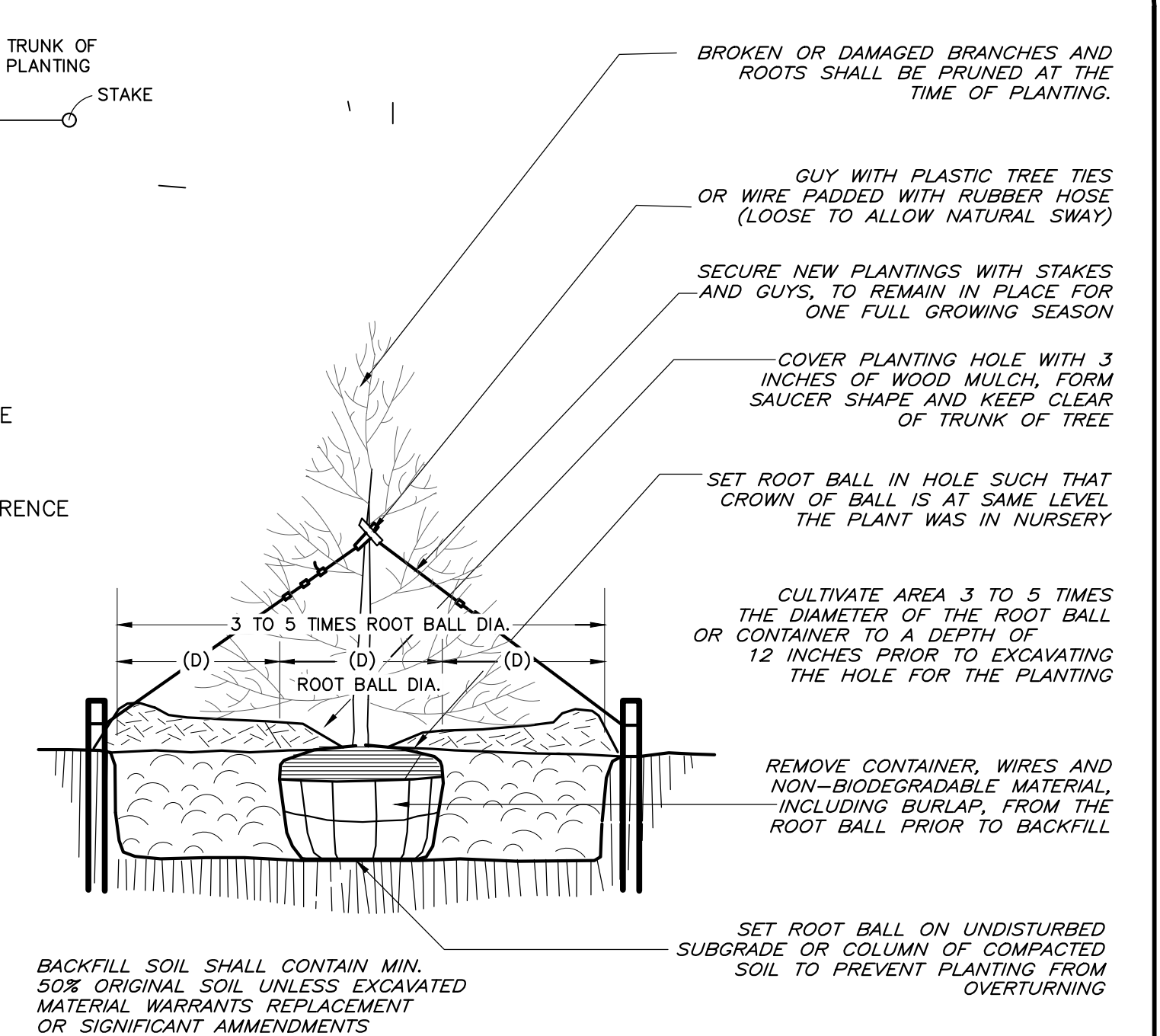
**LANDSCAPE PLAN**  
SCALE: 1" = 20'



**STAKE PLACEMENT**



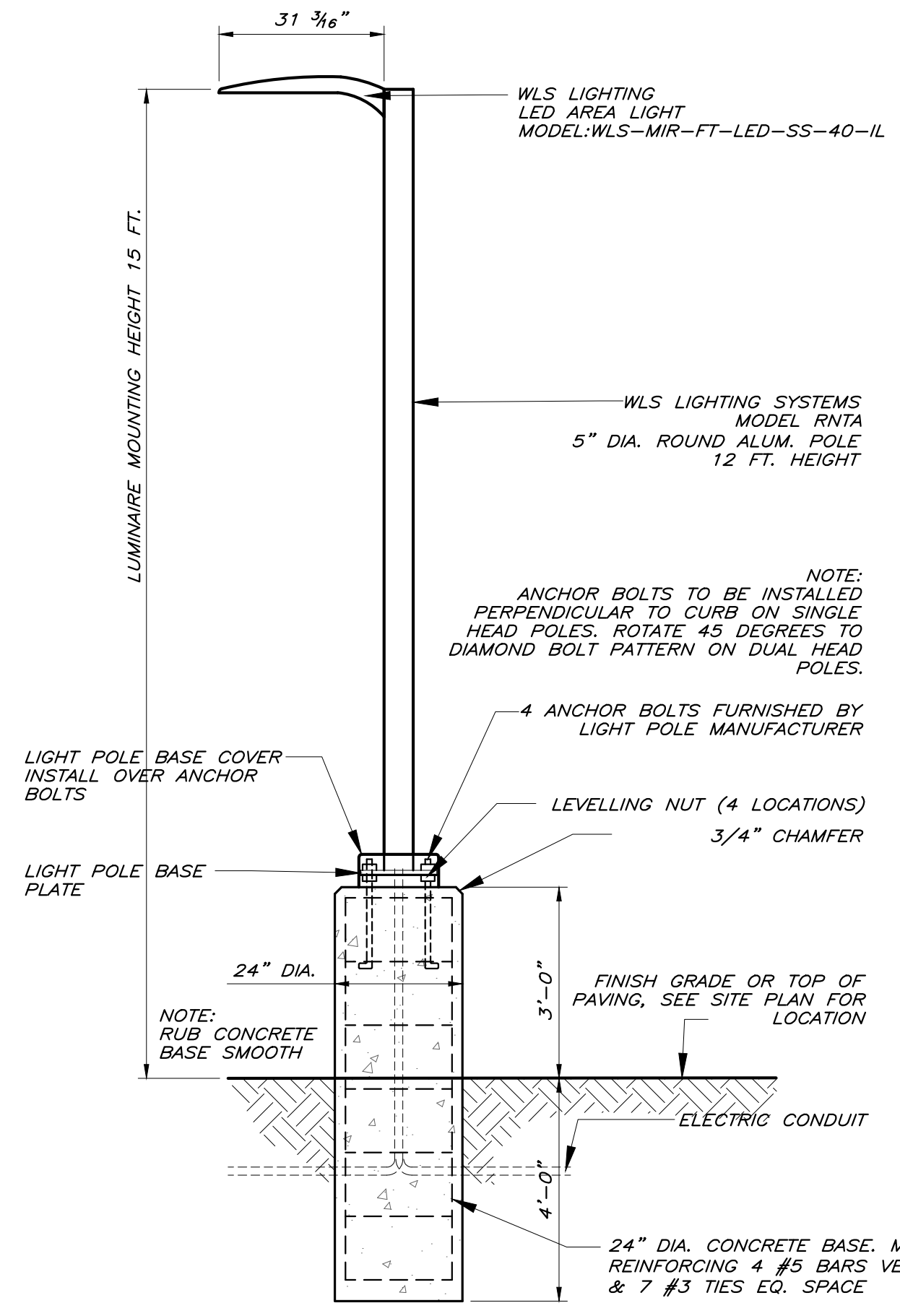
**PLANTING KEY**



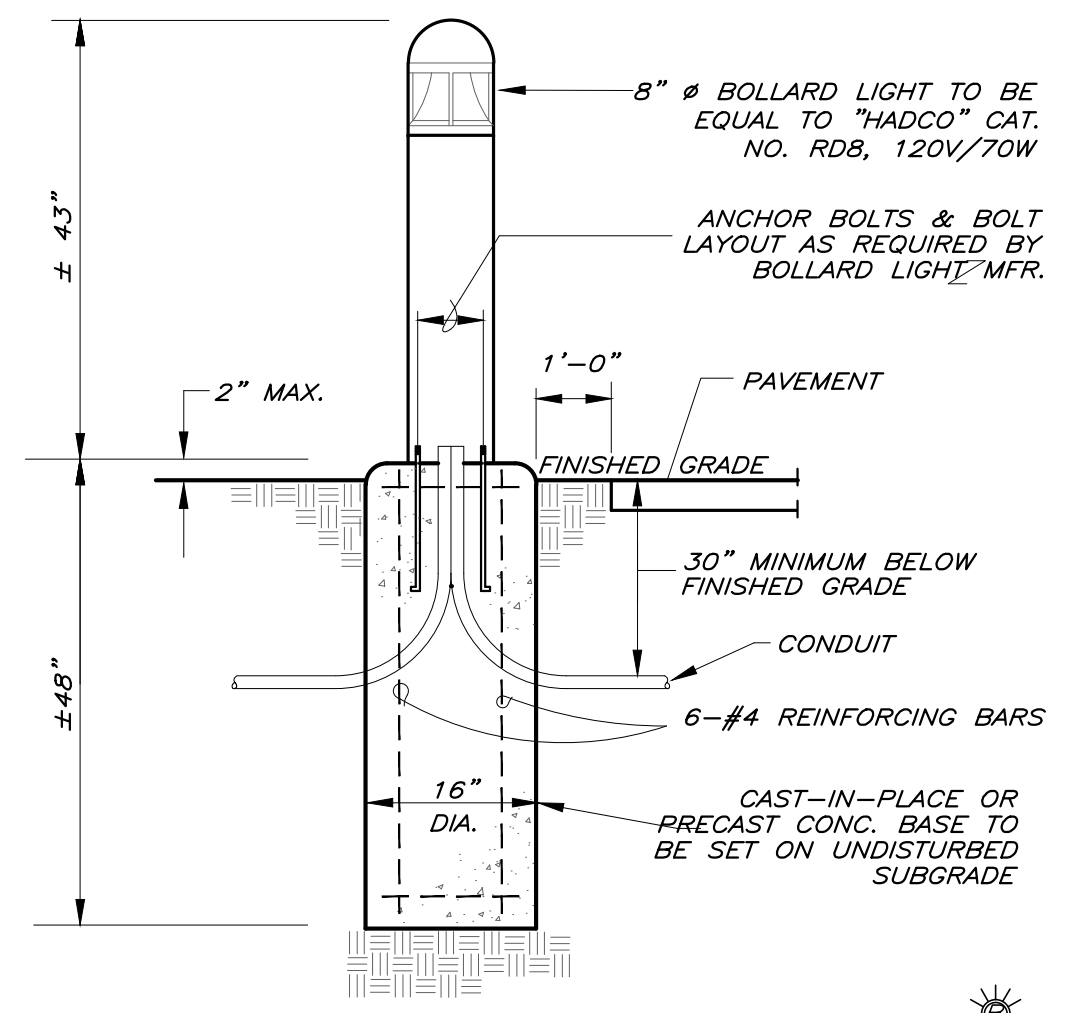
**TREE PLANTING DETAIL**  
SCALE: NONE

**PLANTING SCHEDULE**

SYMBOL	QTY.	COMMON NAME	BOTANICAL NAME	SIZE/CALIPER	REMARKS
BF	2	BALSAM FIR	ABIES BALSAMEA	6" TO 7" HEIGHT.	BALLED & BURLAP (B & B)
WP	4	WHITE PINE	PINUS STROBUS	7" TO 8" HEIGHT	(B & B)
WS	4	WHITE SPRUCE	PICEA GLAUCA	7" TO 8" HEIGHT	(B & B)



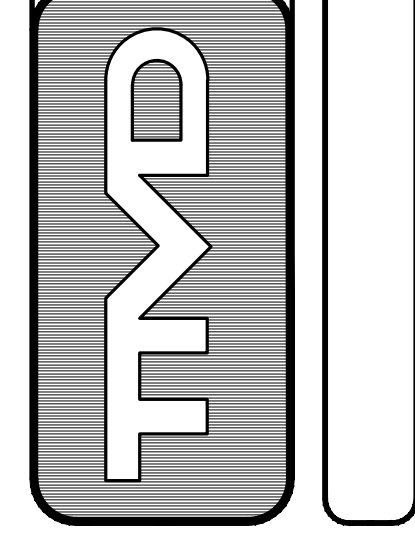
**A AREA LIGHT POLE**  
SCALE: N.T.S.  
SEE SITE PLAN FOR POLE AND FIXTURE LOCATIONS AND ORIENTATIONS.



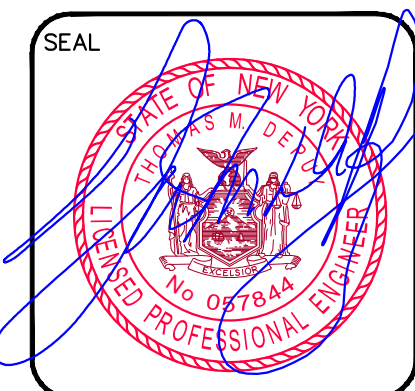
**B BOLLARD LIGHT DETAIL**  
SCALE: N.T.S.  
SEE SITE PLAN FOR POLE AND FIXTURE LOCATIONS AND ORIENTATIONS.

NO.	DATE	DESCRIPTION	REVISIONS	BY

**T. M. DEPUY**  
ENGINEERING & LAND SURVEYING, P.C.  
2656 ROUTE 302, MIDDLETOWN, NY 10941  
PHONE: (845) 361-5421 FAX: (845) 361-5229



PROPOSED EMPLOYEE PARKING LOT  
DIA CENTER FOR THE ARTS  
CITY OF BEACON  
DUTCHESS COUNTY, NEW YORK

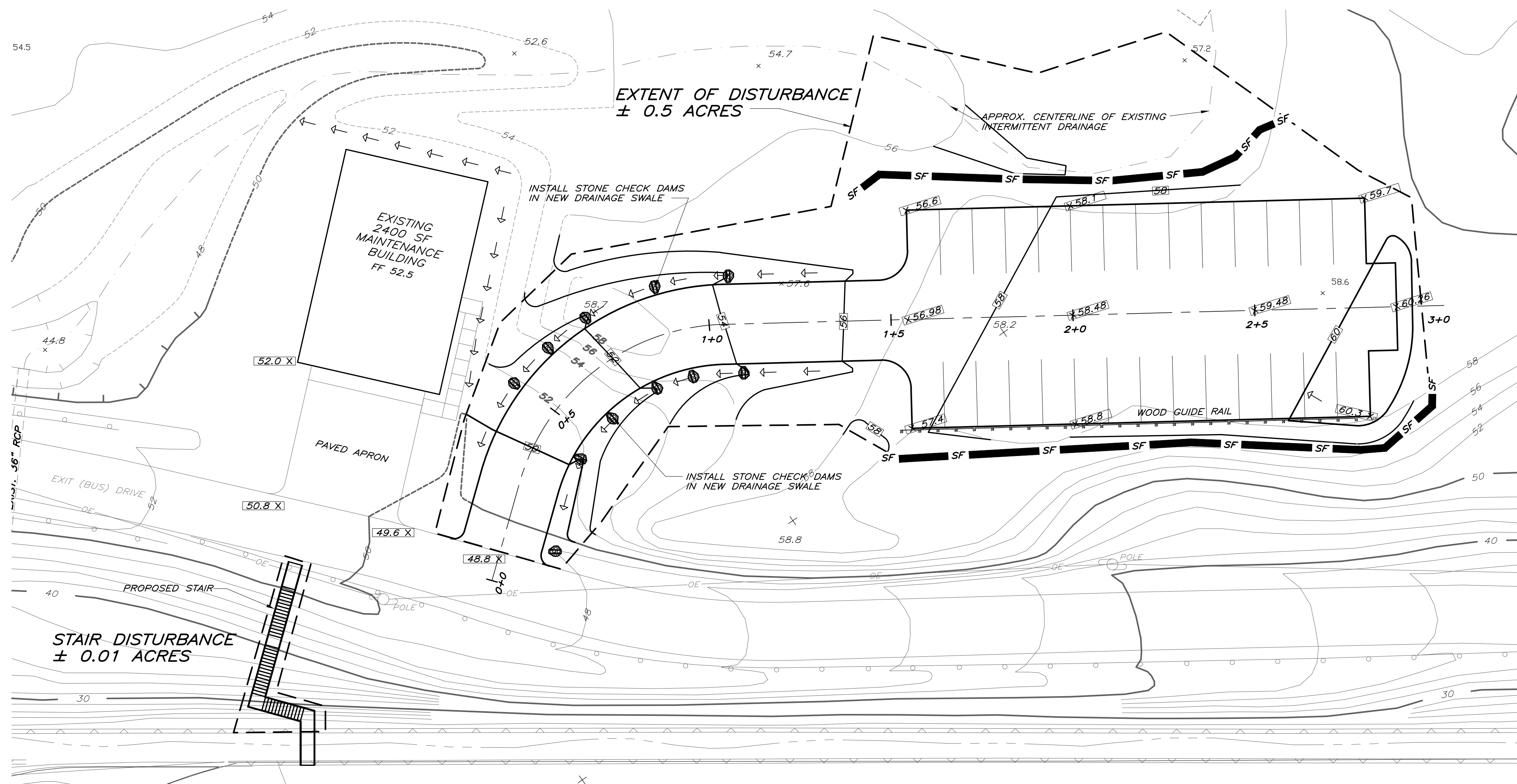


TITLE  
**LANDSCAPE AND SITE LIGHTING PLAN**  
JOB 99021.PL  
DATE JAN. 28, 2019  
SCALE 1" = 20"  
DWG.

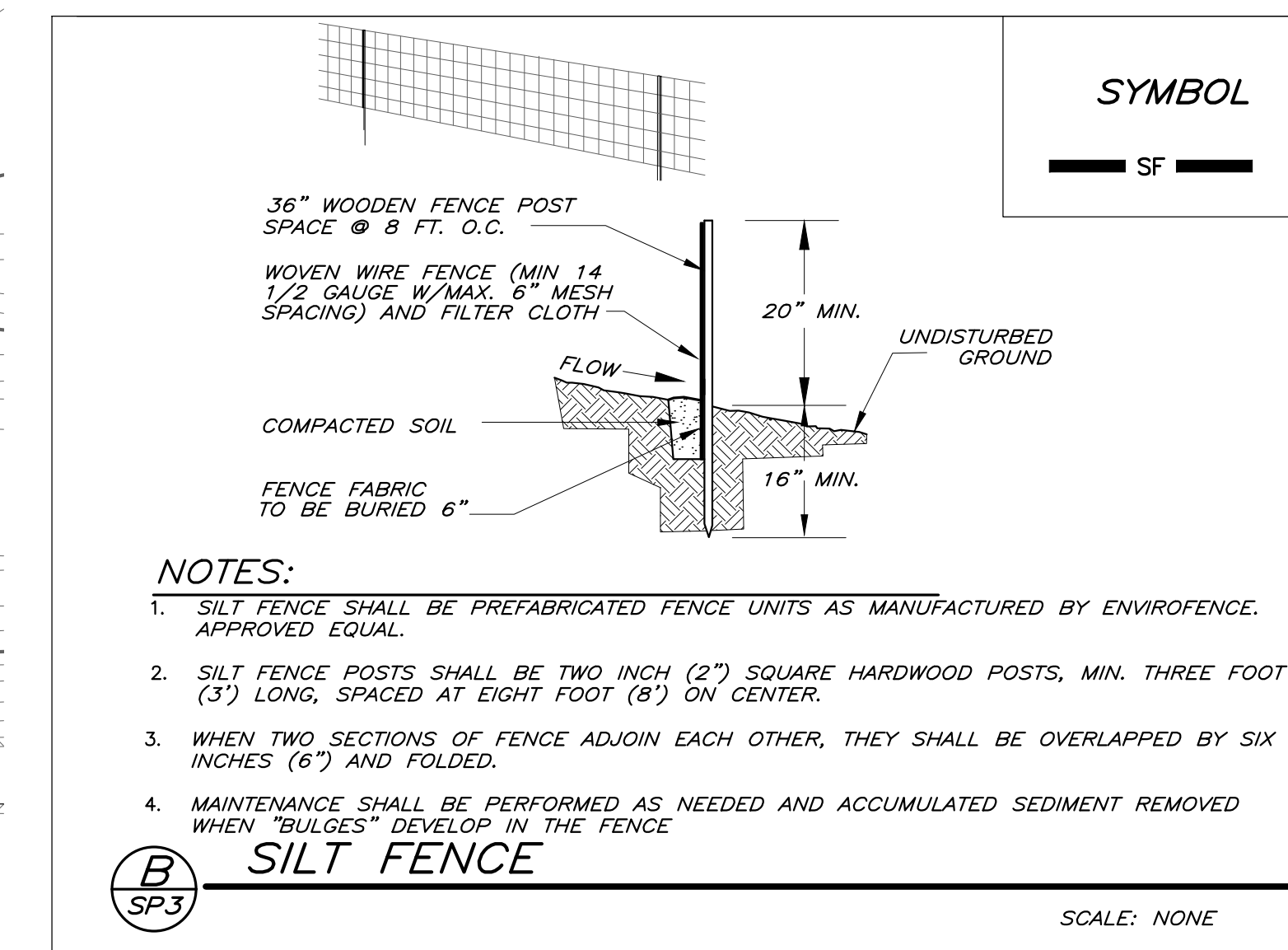
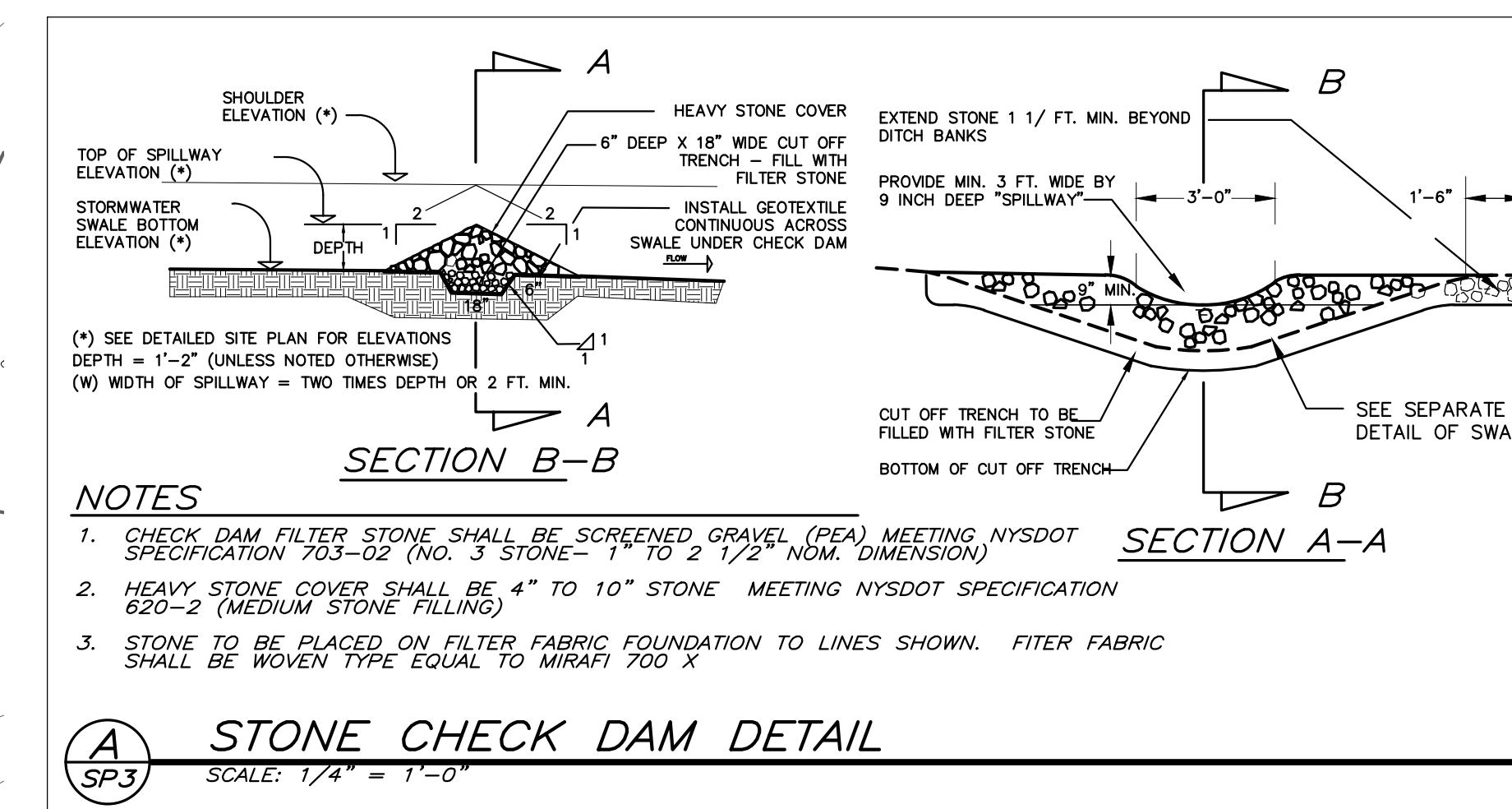
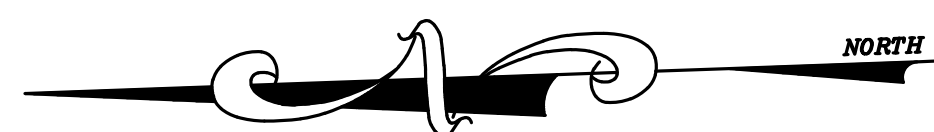


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**SP3**  
OF 4



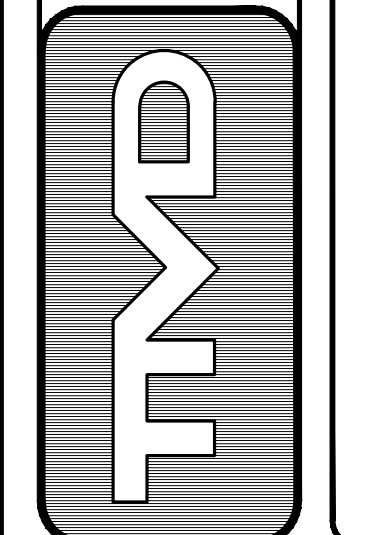
**EROSION CONTROL PLAN**  
SCALE: 1" = 20'



THIS DRAWING IS ONE IN A SET OF DRAWINGS & IS INCOMPLETE & INVALID WHEN IT IS SEPARATED FROM THIS SET.  
Unauthorized alteration or addition to this drawing is a violation of Section 7209 (2) of the NYS Education Law.

NO.	DATE	DESCRIPTION	REVISIONS	BY

**T.M. DEPUY**  
ENGINEERING & LAND SURVEYING, P.C.  
2656 ROUTE 302, MIDDLETOWN, NY 10941  
PHONE: (845) 361-5421 FAX: (845) 361-5229



PROPOSED EMPLOYEE PARKING LOT  
DIA CENTER FOR THE ARTS  
CITY OF BEACON  
DUTCHESS COUNTY, NEW YORK



TITLE	EROSION CONTROL PLAN
JOB	99021.PL
DATE	JAN. 28, 2019
SCALE	1" = 20"
DWG.	SP4
	OF 4

**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 Lenc, P.E., L.S.  
Arthur R. Tully, P.E.

February 7, 2019

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

RE: DIA Art Center – Parking  
City of Beacon  
Tax Map No. 5954-41-605699

Dear Mr. Gunn:

Our office has reviewed the following documents and plans as related to the project:

- Applicant for site plan approval
- Short Environmental Assessment Form
- Plans entitled “Proposed Employee Parking Lot - DIA Center for the Arts”, dated January 28, 2019 and consisting of Sheet 1 through 4 of 4, as prepared by T.M. DePuy Engineering & Land Surveying, P.C.

The applicant is proposing to construct a 28-employee parking lot to be located to the east of the main building and south of the maintenance building. The plans also depict the construction of a new stair well from the secondary access road, across from the maintenance building up to the drive on the east side of the building, as well as 2 new accessible parking stalls for employees to be located in the parking adjacent to the east side of the main building. Based upon our review of the submitted information, we offer the following comments:

1. The submitted Short EAF shall be dated and signed.
2. As shown on Sheet 2, the drainage on the north side of the parking lot entrance is shown to be draining towards the secondary access road, we would recommend that a drainage pipe be installed under the parking lot access drive to convey run-off to the drainage swale located on the south side of the parking lot entrance so that it does not flow out and across the secondary access drive.
3. The proposed stairway is shown to crossover the existing concrete drainage channel. The “Pedestrian Stair Elevation” on Sheet 2 notes that this crossing is to be accomplished by means of a footbridge. Construction details for this foot bridge should be provided on the plans.

4. Sheet 3 shows the proposed bollard lights along the parking lot entrance drive located in the drainage swale. We would that these lights be removed from the drainage channel by either shifting the lights further back or shifting the drainage channel back.
5. The photometrics of the proposed lighting should be provided on the plans. It should also be noted the hours of operation for the proposed lighting. Is there a need for the lighting to be on all night?
6. As 2 accessible parking stalls are being added to the parking on the east side of the main building, what is the accessible route for those that park in these stalls to enter the building? Section 1106.6 of the International Building Code (IBC) states "Accessible parking spaces shall be located on the shortest accessible route of travel from adjacent parking to an accessible building entrance."
7. Construction details for the proposed accessible parking stalls should be provided on the plan along with the required signage. The Site Plan on Sheet 2 should show the location of the required signage for these parking stalls and access aisle.

This completes our review at this time. Further comments may be forth coming based upon future submissions. **A written response letter shall be provided with the next submission addressing each of the comments provided above.** If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.

  
John Russo, P.E.

Cc: Jennifer Gray, Planning Board Attorney  
David Buckley, Building Inspector  
John Clarke, Planner

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

Date: February 8, 2019

Re: **Dia Center for the Arts, Amended Site Plan**

I reviewed the January 29, 2019 Site Plan Application, an undated Short EAF Part 1, and 4-sheet Site Plan set, dated January 28, 2019.

### **Proposal**

The applicant is proposing to construct a 28-space employee parking lot. The parcel is in the Local Business (LB) zoning district and the Local Waterfront Revitalization Program area (LWRP).

### **Comments and Recommendations**

1. The Site Plan detail on Sheet SP2 should show the species and diameter of all existing trees over six inches in diameter within the area of disturbance and indicate any major trees that will be removed.
2. If a significant number of trees are to be removed, the applicant should address any potential impacts on Indiana bats and any other threatened or endangered species.
3. The Site Plan drawings should show a striped crosswalk across the access drive at the base of the proposed stairway.
4. The Board should consider whether to include sidewalk or gravel path to connect the new parking lot with the top of the proposed stairway.
5. The lighting details on Sheet SP3 should include a note that the fixtures will be dark sky compliant and will prevent the source of light from being seen from any adjacent residential property.
6. Since this parcel is in the LWRP area, the application requires a LWRP consistency justification.

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

John Clarke, Beacon Planning Consultant

c: Tim Dexter, Building Inspector  
Jennifer L. Gray, Esq., City Attorney  
Arthur R. Tully, P.E., City Engineer  
John Russo, P.E., City Engineer  
Thomas M. Depuy, P.E., Project Engineer



**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**1154 North Avenue**

**Subject:**

Review application for Site Plan Approval, 2 art galleries, 1154 North Avenue, submitted by Paola Ochoa

**Background:**

**ATTACHMENTS:**

Description	Type
Application Processing Restriction Form	Backup Material
1154 North Avenue Cover Letter	Cover Memo/Letter
1154 North Avenue Application	Application
1154 North Avenue Site Plan Set	Plans
1154 North Avenue I&I Report	Backup Material
1154 North Avenue Door Drawing	Backup Material
1154 North Avenue Hardware Spec	Backup Material
Engineer Review Letter	Consultant Comment
Planner Review Letter	Consultant Comment



*Civil & Environmental Engineering Consultants  
174 Main Street, Beacon, New York 12508  
13 Chambers Street, Newburgh, New York 12550  
Phone: 845-440-6926 Fax: 845-440-6637  
[www.HudsonLandDesign.com](http://www.HudsonLandDesign.com)*

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January 29, 2019

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

Re: 1154 North Avenue Site Plan Application  
Tax ID: 5954-26-740983 ( $\pm$  0.11 acre)  
City of Beacon, New York

Dear Chairman Gunn and Members of the Planning Board:

On behalf of the Applicant for the above referenced project, Hudson Land Design (HLD) has enclosed the following materials for the Planning Board's consideration at your next available regularly scheduled meeting:

- Application for Site Plan Approval (original plus 4 copies);
- Individual Disclosure Form (original plus 4 copies);
- Application Processing Restriction Law (original plus 4 copies);
- Infiltration and Inflow letter report (original plus 4 copies);
- Site Plan Set prepared by bar Down Studio – 2 Sheets (5 copies);
- Door and Hardware Submittals (5 copies);
- Copy of the above noted items on CD; and
- Two checks for application and escrow fees in the amount of \$1,640.00 (Ochoa check #199) and \$1,500.00 (Ochoa check #200), respectively.

The project involves the interior renovation of both the first and second floors of the existing building located at 1154 North Avenue (NYS Route 9D), with the addition of a low impact gravel walkway along the rear of the building to serve as access to the second floor. Minor renovations to the exterior of the existing building will be the replacement of an existing overhead door on the rear (east) side of the building and addition of lighting at the rear entrance.

The proposed use will be two separate art galleries. Paola Ochoa is the project applicant and will occupy the first-floor art gallery to be known as Mother Gallery. The second-floor gallery will be known as Parts & Labor. As the site is located within the Central Main Street (CMS) zoning district, these uses are as of right and require site plan approval (based on CMS parking requirement in comparison to the previous {storage} use parking requirement – refer to notes on the Site Plan sheet).

Please note that we are seeking relief of the parking requirement from the Planning Board based on the existing site geometry and proximity to the intersection of North Avenue with Main Street (refer to Parking Note 3).

Please also note that we have not submitted an environmental assessment form (EAF). We believe that this project is classified as a Type II action with regard to 2018 SEQRA amendments (effective January 1, 2019), specifically Part 617.5(C)(18), which added a new express Type II category for re-use of a commercial structure, which appears to be applicable in this instance. The new category classification carries a caveat that the action does not meet or exceed any of the thresholds in Section 617.4 (Type I action list). We do not believe that there are any Type I thresholds exceeded by this action.

In addition, it should be noted that the site is not located within the established boundary of the Local Waterfront Revitalization Program or within the bounds of the Historic District and Landmark Overlay Zone.

We look forward to discussing the design details of the project with you and your Board members and will seek to schedule a site plan public hearing following our discussion.

Should you have any questions or require additional information, please feel free to call me at 845-440-6926.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel G. Koehler", with a long horizontal flourish extending to the right.

Daniel G. Koehler, P.E.  
Principal

cc: Paola Ochoa, Applicant (via email)  
Bar Down Studio, architect for Applicant (via email)  
Michael A. Bodendorf, P.E. (HLD File)

**APPLICATION FOR SITE PLAN APPROVAL**

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

**IDENTIFICATION OF APPLICANT**

Name: Paola Ochoa (Mother Gallery)  
Address: 16 W Church St  
Beacon, NY  
Signature: [Signature]  
Date: 01.25.19  
Phone: 646-386-6014

(For Official Use Only)

Application & Fee Rec'd  
Initial Review  
Public Hearing  
Conditional Approval  
Final Approval

Date Initials

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**IDENTIFICATION OF REPRESENTATIVE / DESIGN PROFESSIONAL**

Name: Hudson Land Design Professional Engineering  
Address: c/o Daniel G. Koehler, P.E.  
174 Main Street Beacon NY 12508

Phone: 845-440-6926  
Fax: 845-440-6637  
Email address: DKoehler@HudsonLandDesign.com

**IDENTIFICATION OF SUBJECT PROPERTY:**

Property Address: 1154 North Ave  
Tax Map Designation: Section S954 Block 26 Lot(s) 740983  
Land Area: .10 Ac Zoning District(s) CMS

**DESCRIPTION OF PROPOSED DEVELOPMENT:**

Proposed Use: 2 Art Galleries, 1 per floor  
Gross Non-Residential Floor Space: Existing ~~4,561~~ 4,561 sf Proposed ~~4,561~~ 4,561 sf  
TOTAL: 4,561 sf  
Dwelling Units (by type): Existing N/A Proposed N/A  
TOTAL: N/A

**ITEMS TO ACCOMPANY THIS APPLICATION**

- a. One electronic and five (5) **folded** paper copies of a site location sketch showing the location of the subject property and the proposed development with respect to neighboring properties and developments.
- b. One electronic and five (5) **folded** paper copies of the proposed site development plan, consisting of sheets, showing the required information as set forth on the back of this form and other such information as deemed necessary by the City Council or the Planning Board to determine and provide for the property enforcement of the Zoning Ordinance.
- c. One electronic and five (5) **folded** paper copies of additional sketches, renderings or other information.
- d. An application fee, payable to the City of Beacon, computed per the attached fee schedule.
- e. An initial escrow amount, payable to the City of Beacon, as set forth in the attached fee schedule.

**CITY OF BEACON  
SITE PLAN SPECIFICATION FORM**

Name of Application: 1154 North Avenue Site Plan

**PLEASE INDICATE WHETHER THE SITE PLAN DRAWINGS SHOW THE SUBJECT INFORMATION BY PLACING A CHECK MARK IN THE APPROPRIATE BOXES BELOW.**

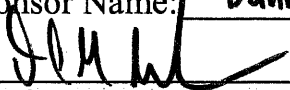
	YES	NO
The site plan shall be clearly marked "Site Plan", it shall be prepared by a legally certified individual of firm, such as a Registered Architect or Professional Engineer, and it shall contain the following information:	✓	
<b>LEGAL DATA</b>		
Name and address of the owner of record.	✓	
Name and address of the applicant (if other than the owner).	✓	
Name and address of person, firm or organization preparing the plan.	✓	
Date, north arrow, and written and graphic scale.	✓	
<b>NATURAL FEATURES</b>		
Existing contours with intervals of two (2) feet, referred to a datum satisfactory to the Planning Board.		✓
Approximate boundaries of any areas subject to flooding or stormwater overflows. (Notation)	✓	
Location of existing watercourses, wetlands, wooded areas, rock outcrops, isolated trees with a diameter of eight (8) inches or more measured three (3) feet above the base of the trunk, and any other significant existing natural features. (Notation, except trees)	✓	
<b>EXISTING STRUCTURES, UTILITIES, ETC.</b>		
Outlines of all structures and the location of all uses not requiring structures.	✓	
Paved areas, sidewalks, and vehicular access between the site and public streets.	✓	
Locations, dimensions, grades, and flow direction of any existing sewers, culverts, water lines, as well as other underground and above ground utilities within and adjacent to the property. (existing water and sanitary connections)	✓	
Other existing development, including fences, retaining walls, landscaping, and screening.	✓	
Sufficient description or information to define precisely the boundaries of the property.	✓	
The owners of all adjoining lands as shown on the latest tax records.	✓	
The locations, names, and existing widths of adjacent streets and curb lines. (except width)	✓	
Location, width, and purpose of all existing and proposed easements, setbacks, reservations, and areas dedicated to private or public use within or adjacent to the properties.	✓	

PROPOSED DEVELOPMENT	YES	NO
The location, use and design of proposed buildings or structural improvements.	✓	
The location and design of all uses not requiring structures, such as outdoor storage (if permitted), and off-street parking and unloading areas. (N/A)		✓
Any proposed division of buildings into units of separate occupancy.	✓	
The location, direction, power, and time of use for any proposed outdoor lighting. (details forthcoming)	✓	
The location and plans for any outdoor signs. (details forthcoming)	✓	
The location, arrangement, size(s) and materials of proposed means of ingress and egress, including sidewalks, driveways, or other paved areas.	✓	
Proposed screening and other landscaping including a planting plan and schedule prepared by a qualified individual or firm. (existing to remain)	✓	
The location, sizes and connection of all proposed water lines, valves, and hydrants and all storm drainage and sewer lines, culverts, drains, etc. (connections shown)	✓	
Proposed easements, deed restrictions, or covenants and a notation of any areas to be dedicated to the City. (N/A)		✓
Any contemplated public improvements on or adjoining the property. (N/A)		✓
Any proposed new grades, indicating clearly how such grades will meet existing grades of adjacent properties or the street. (limited site work)		✓
Elevations of all proposed principal or accessory structures. (photographs provided)	✓	
Any proposed fences or retaining walls. (N/A)		✓
<b>MISCELLANEOUS</b>		
A location map showing the applicant's entire property and adjacent properties and streets, at a convenient scale.	✓	
Erosion and sedimentation control measures. (N/A)		✓
A schedule indicating how the proposal complies with all pertinent zoning standards, including parking and loading requirements.	✓	
An indication of proposed hours of operation.	✓	
If the site plan only indicates a first stage, a supplementary plan shall indicate ultimate development. (N/A)		✓

For all items marked "NO" above, please explain below why the required information has not been provided:

- Existing Contours - not available. The proposal calls for very limited site work.
- Other items checked "No" are not applicable to the project.

Applicant/Sponsor Name: Daniel G. Koehler, Engineer for applicant

Signature: 

Date: 1/29/2019

<b>FOR OFFICE USE ONLY</b>
Application #

**CITY OF BEACON**  
**1 Municipal Plaza, Beacon, NY**  
**Telephone (845) 838-5000 • <http://cityofbeacon.org/>**

**INDIVIDUAL DISCLOSURE FORM**

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any person(s))

Disclosure of the names and addresses of all persons filing a land-use application with the City is required pursuant to Section 223-62 of the City Code of the City of Beacon. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

**SECTION A**

Name of Applicant: PAOLA OCHOA

Address of Applicant: 16 W. CHURCH ST

Telephone Contact Information: 646.386.6014

**SECTION B.** List all owners of record of the subject property or any part thereof.

Name	Residence or Business Address	Telephone Number	Date and Manner title was acquired	Date and place where the deed or document of conveyance was recorded or filed.
The Lindley Co	4 CROSS ST BEACON NY 12508	917-687-0486	1/17/2018 fee simple	

**SECTION B.** Is any owner of record an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon?

YES       NO



If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

Agency	Title	Date of Hire, Date Elected, or Date Appointed	Position or Nature of Relationship

**SECTION C.** If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application.

**SECTION D.** Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.

YES

NO

I, Paola Ochoa being first duly sworn, according to law, deposes and says that the statements made herein are true, accurate, and complete.

(Print) PAOLA OCHOA

(Signature) \_\_\_\_\_



**APPLICATION PROCESSING RESTRICTION LAW**

**Affidavit of Property Owner**

Property Owner: The Lindley LLC

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

Janet St. Goar

List all properties in the City of Beacon that you hold a 5% interest in:

pls see attached

Applicant Address: 4 Cross St, Beacon

Project Address: 1154 North Avenue, Beacon

Project Tax Grid # \_\_\_\_\_

Type of Application Site Plan Approval

Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent (5%) interest in a corporation or partnership or other business.

I, Janet St. Goar, the undersigned owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true.

- 1. No violations are pending for ANY parcel owned by me situated within the City of Beacon
- 2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon
- 3. ALL tax payments due to the City of Beacon are current
- 4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon
- 5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon
- 6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current

Janet St Goar  
Signature of Owner

member  
Title if owner is corporation

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

**Beacon Property List –  
Janet St Goar**

Location	Property Type	Number of Residential	Number of Commercial
<b>Hudson Todd LLC</b>			
25 North Elm St	Single Family	1	0
321 Main St - Binnacle Books	Mixed Use	1	1
23 Beacon St	Single Family	1	0
40 Church St	Single Family	1	0
12 Ralph St	Single Family	1	0
172 Main St - Riverwinds Gallery	Commercial plus 2 upstairs apt.	1	2
19 Paye St	Single Family	1	0
16 Grove St	Two Family	2	0
6 South Cedar St	Single Family	1	0
8 South Cedar St	Single Family	1	0
62 South Brett St	Single Family	1	0
6 Commerce St	Single Family	1	0
21 W Main St	Single Family Semi-Attached	1	0
<b>Beacon Todd LLC</b>			
18-20 W Main St	Commercial warehouse	0	14
<b>The Lindley LLC</b>			
1154 North Ave	Commercial	0	2
13 W Church St	2 Family	2	0
7 High St	Single Family	1	0

<b>Main St, The Lindley Todd LLC</b>		<b>88 apartments, 18 commercial</b>	
134 Main St	Mixed Use retail+apts	4	1
142 Main St	Mixed Use retail+apts	4	1
144-146 Main St	Mixed Use retail+apts	8	3
150 Main St	Mixed Use retail+apts	5	1
152 Main St	Mixed Use retail+apts	15	1
160 Main St (unimproved)	land	0	0
127 Main St (unimproved)	land	0	0
129 Main St	Mixed Use retail+apts	3	1
131-137 Main St	Mixed Use retail+apts	9	3
145 Main St	Mixed Use retail+apts	10	2
149 Main St	Mixed Use retail+apts	9	1
201-211 Main St	Mixed Use retail+apts	18	5
15 W.Church (unimproved)	land	0	0
17 W.Church (unimproved)	land	0	0
19 W.Church (unimproved)	land	0	0
23 W.Church (unimproved)	land	0	0

**SUBJECT PARCEL INFO:**  
 1154 NORTH AVENUE  
 BEACON, NY 12508  
 TAX ID: 5954-26-740983  
 ZONING: CENTRAL MAIN STREET (CMS)

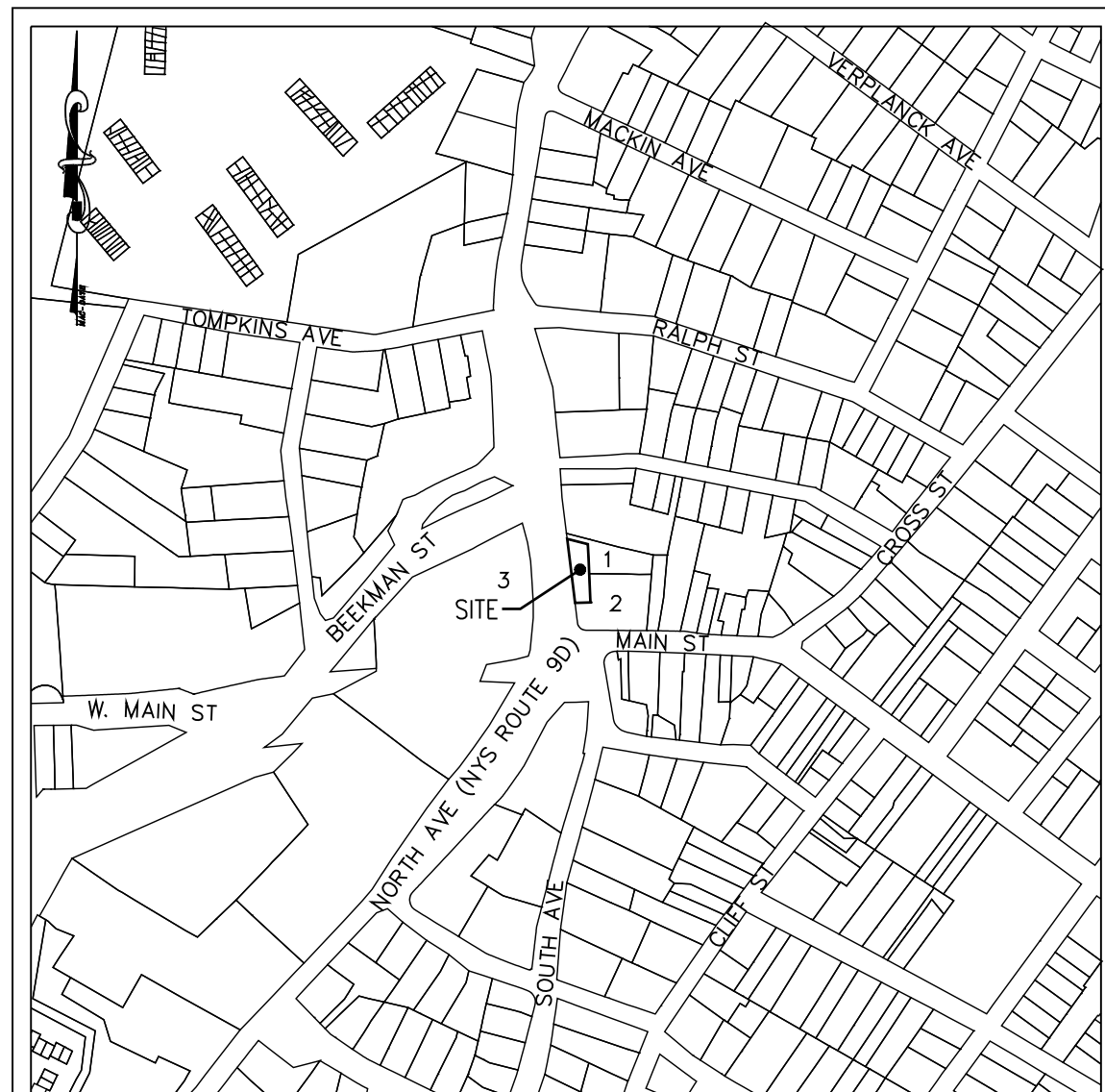
**OWNER:**  
 THE LINDLEY LLC  
 4 CROSS STREET  
 BEACON, NY 12508  
**APPLICANT:**  
 PAOLA OCHOA  
 MOTHER GALLERY  
 16 W. CHURCH STREET  
 BEACON, NY 12508

**GENERAL NOTES:**

1. THE SUBJECT PARCEL LIES WITHIN THE CENTRAL MAIN STREET (CMS) ZONING DISTRICT, AND AS SUCH, IS GOVERNED BY ARTICLE IV D OF CHAPTER 223 (ZONING) FOR THE CITY OF BEACON. THE PARCEL ALSO LIES WITHIN THE CITY'S PARKING OVERLAY DISTRICT.
2. ART GALLERIES ARE CLASSIFIED AS USES BY RIGHT WITHIN THE CMS ZONING DISTRICT.
3. THE SITE WAS PREVIOUSLY USED AS STORAGE, AND PER SECTION 223-41.18(A), SITE PLAN REVIEW IS REQUIRED FOR THE CHANGE OF USE (TO ART GALLERIES) AS THE SITE PARKING REQUIREMENT FOR THE ART GALLERIES HAS BEEN CALCULATED TO BE 9 PARKING SPACES, WHICH EXCEEDS 125% OF THE PREVIOUS USE'S REQUIRED PARKING OF 5 SPACES. SEE ALSO PARKING NOTES.
4. THE SITE IS NOT LOCATED WITHIN THE BOUNDARY OF A FLOODPLAIN PER FEDERAL EMERGENCY MANAGEMENT ASSOCIATION FLOOD INSURANCE RATE MAP PANEL 463 OF 602 (MAP NUMBER 36027C0463E) EFFECTIVE MAY 2, 2012.
5. THERE ARE NO STATE OR FEDERAL WETLANDS LOCATED ON SITE.
6. THE PROJECT IS SERVICED BY PUBLIC WATER AND SEWER FROM THE CITY OF BEACON.
7. NEW YORK STATE ROUTE 9D A.K.A. NORTH AVENUE IS A STATE ROAD. THERE ARE NO PROPOSED IMPROVEMENTS TO EXISTING DRIVEWAYS OR SIDEWALKS OR UTILITIES WITHIN THE STATE RIGHT-OF-WAY; THEREFORE, NO STATE DEPARTMENT OF TRANSPORTATION PERMITS ARE SOUGHT.
8. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UPPO @ 1-800-962-7962.
9. THE CONTRACTOR SHALL KEEP THE SITE IN A CLEAN AND ORDERLY MANNER.
10. THE CONTRACTOR SHALL NOT INTERRUPT EXISTING ACCESS OR OPERATIONS FOR THE ADJACENT 1156 NORTH AVENUE PARCEL.

**PARKING NOTES:**

1. PER SECTION 223-41.18(G)(2), BOTH OFFICE AND NON-RETAIL COMMERCIAL & RETAIL COMMERCIAL AND PERSONAL SERVICES REQUIRE TWO PARKING SPACES PER 1,000 SQUARE FEET OF FLOOR AREA. THE EXISTING FLOOR AREA TOTALS 4,561 SQUARE FEET, RESULTING IN 9.1 REQUIRED PARKING SPACES. THE EXISTING BUILDING IS LOCATED ON THE NORTHERN PORTION OF THE SITE WITH AN EXISTING GRASSY AREA ON THE SOUTHERN PORTION OF THE SITE THAT IS BIFURCATED BY AN EXISTING RETAINING WALL. DUE TO ITS PROXIMITY TO THE INTERSECTION OF NORTH AVENUE WITH MAIN STREET AND THE LIMITED SIZE OF THE AVAILABLE AREA TO PROVIDE PARKING WITH TURNAROUND CAPABILITY TO AVOID BACKING ONTO NORTH AVENUE, PARKING IN THE GRASSY AREA IS NOT PROPOSED. THEREFORE, THERE ARE NO PROPOSED ON-SITE PARKING SPACES.
2. BASED ON PROPOSED HOURS OF OPERATION THAT DO NOT COINCIDE WITH TYPICAL COMMUTER TRAFFIC, IT IS ANTICIPATED THAT ON-STREET PARKING WILL BE AVAILABLE ON BEEKMAN STREET AS WELL AS NEARBY MUNICIPAL LOTS.
3. THE APPLICANT IS REQUESTING RELIEF OF THE PARKING REQUIREMENT FROM THE PLANNING BOARD PER SECTION 223-41.18(G)(4). THE PLANNING BOARD HAS THE ABILITY TO WAIVE THE PARKING REQUIREMENT BASED ON THE LOT SIZE BEING LESS THAN 8,000 SQUARE FEET WHERE ON-SITE PARKING IS INFEASIBLE, AND PROVIDED THAT THE TOTAL FLOOR AREA OF THE BUILDING IS LESS THAN 5,000 SQUARE FEET.



**SITE LOCATION MAP** SCALE: 1" = 400'

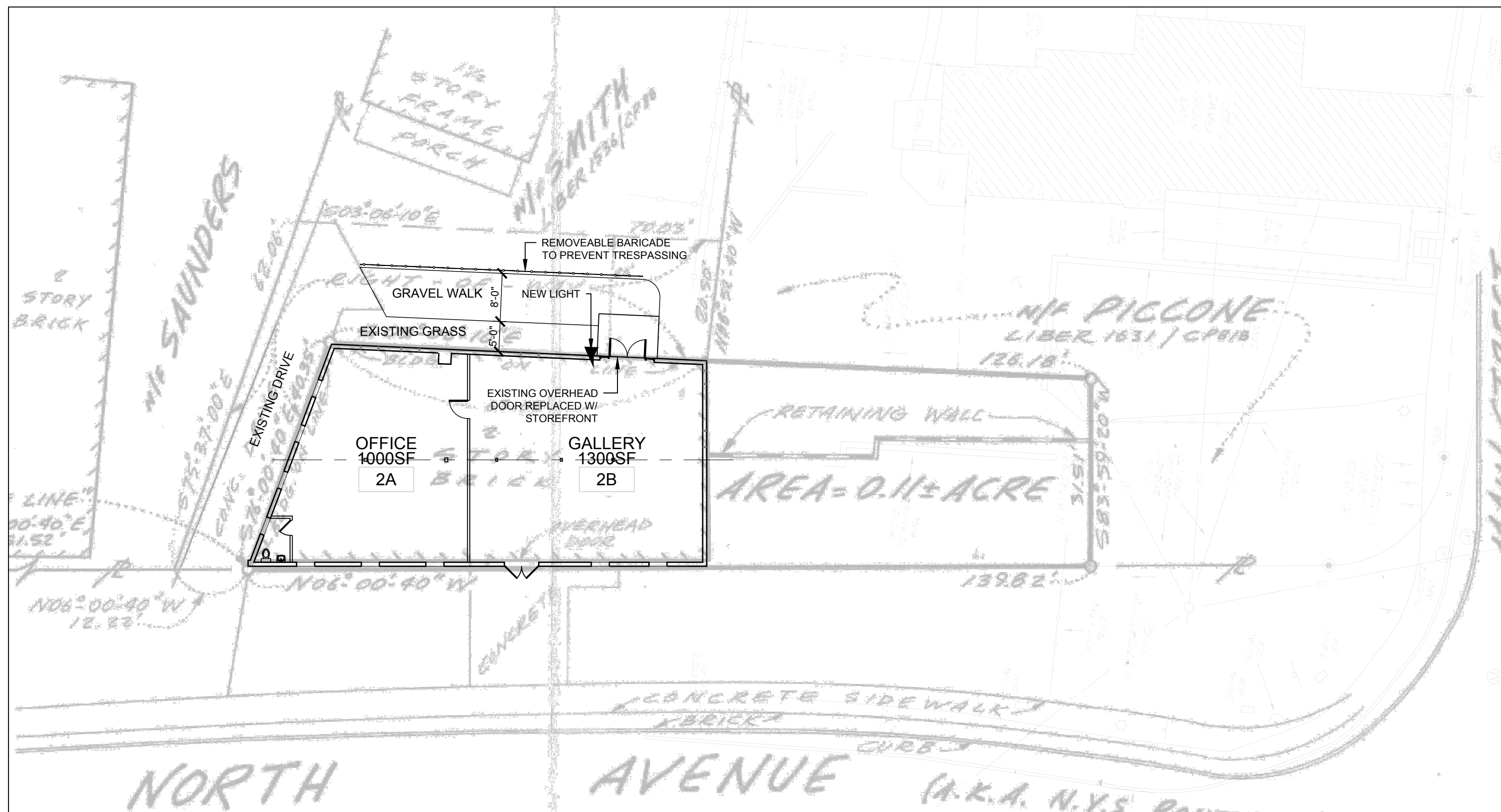
**ADJACENT PARCELS:**

- PARCEL: OWNER & MAILING ADDRESS**
- 1: 1156 NORTH AVENUE LLC, 121 MONTGOMERY ST NEWBURGH, NY 12550, TAX ID 5954-26-748987
  - 2: THE LINDLEY TODD LLC, 4 CROSS STREET BEACON, NY 12508, TAX ID 5954-26-747977
  - 3: CITY OF BEACON, 1 MUNICIPAL PLZ, BEACON, NY 12508, TAX ID 5954-26-708967

**SCHEDULE OF REGULATIONS (CMS ZONING DISTRICT) AND LOT CONFORMANCE TABLE:**

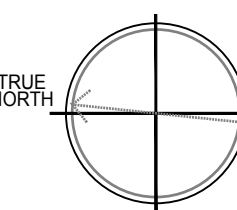
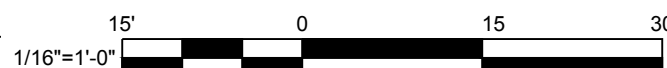
PARAMETER	REQUIREMENT	EXISTING
LOT AREA:	NO REQUIREMENT	±4,636 S.F.
LOT WIDTH:	NO REQUIREMENT	±132 FEET
LOT DEPTH:	75 FEET MINIMUM	±34.7 FEET <sup>(1)</sup>
FLOOR AREA RATIO:	NO REQUIREMENT	0.98
<b>YARD SETBACKS (PRINCIPAL STRUCTURE):</b>		
FRONT YARD:	0 FEET MINIMUM/10 FEET MAXIMUM	±1.5 FEET
SIDE YARD:	0 FEET MINIMUM	0 FEET
REAR YARD:	10 FEET MINIMUM <sup>(2)</sup>	0 FEET <sup>(1)</sup>
MAIN BUILDING HEIGHT:	MIN. 2 STORIES/MAX 3 STORIES (38 FEET)	2 STORIES
LANDSCAPED AREA:	MINIMUM 10%	45.9%

1. PRE-EXISTING; NON CONFORMING
2. 10 FEET MINIMUM FOR LOTS LESS THAN 100 FEET DEEP, 25 FEET MINIMUM FOR LOTS 100 FEET DEEP AND MORE.



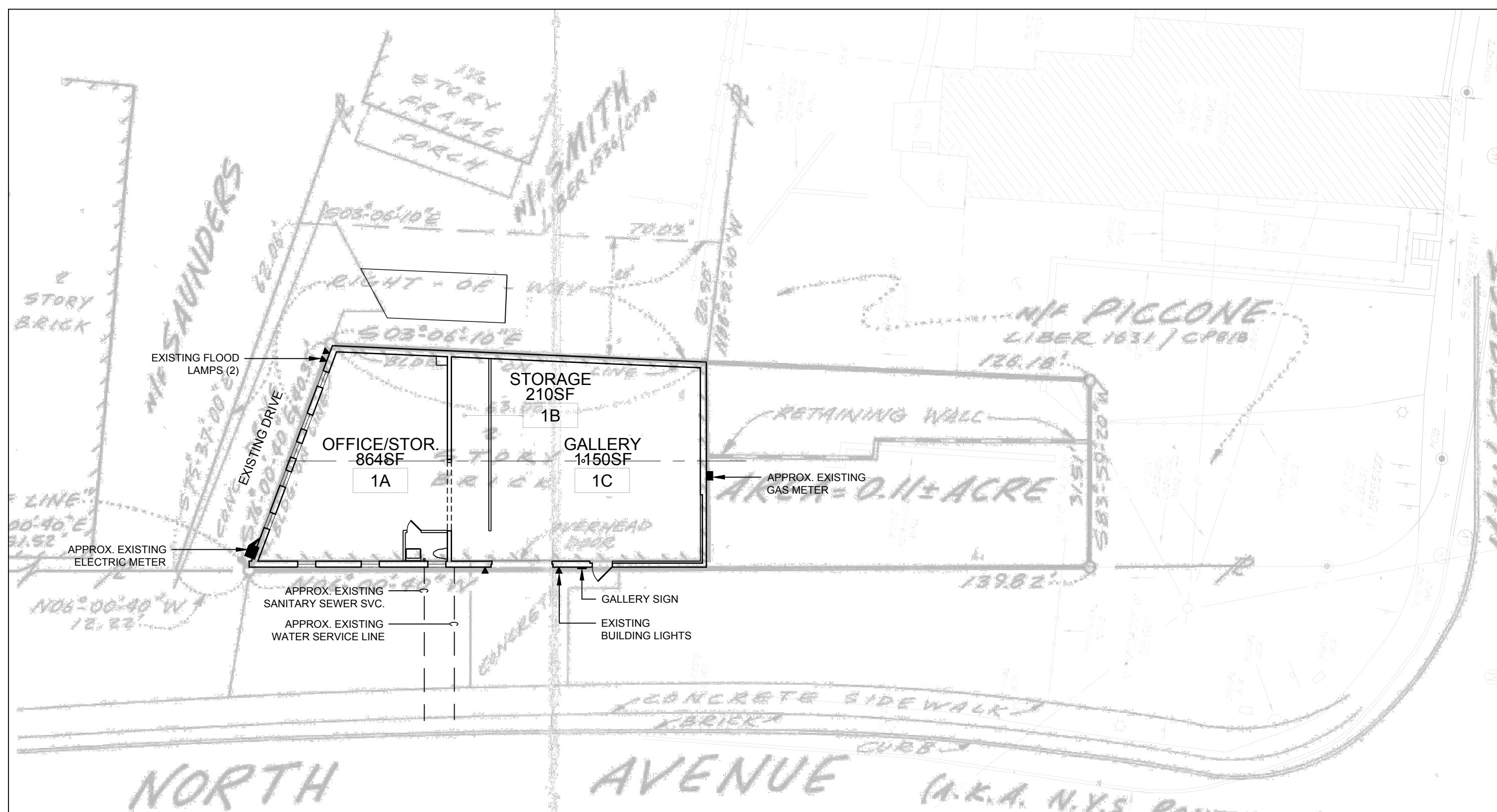
**2 SITE/2ND FLOOR PLAN**

SCALE 1/16" = 1'-0"



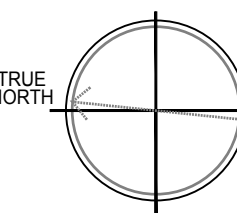
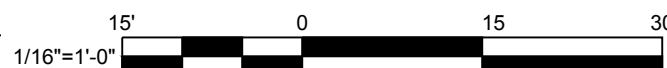
**NOTES:**

- 1) BASE MAP REFERENCES:
  - MAP OF SURVEY FOR HIBERNATION AUTO STORAGE, INC., PETER R. HUSTIS, L.L.S., 1987
  - 'ON THE SQUARE APARTMENTS', DECKER SURVEYING, 2013
- 2) THERE ARE NO PROPOSED SIGNS FOR THE PARTS AND LABOR GALLERY.
- 3) GALLERY HOURS OF OPERATION:
  - FRIDAY - SUNDAY 12-5PM



**1 SITE/1ST FLOOR PLAN**

SCALE 1/16" = 1'-0"



**NOTES:**

- 1) ALL EXISTING LANDSCAPING TO REMAIN.
- 2) EXISTING OVERHEAD DOOR TO REMAIN.
- 3) GALLERY HOURS OF OPERATION:
  - FRIDAY - SUNDAY 12-5PM
  - OPENINGS EVERY 6 WEEKS 6-9PM

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

SIGNED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, BY \_\_\_\_\_

CHAIRMAN

SECRETARY

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

**OWNER'S CONSENT:**

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

THE LINDLEY, LLC

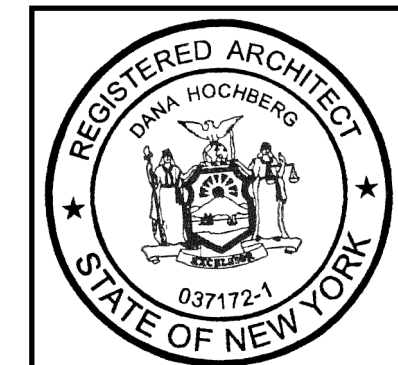
DATE



Consultant

**THE LINDLEY LLC.**  
**1154 NORTH AVENUE**  
**BEACON NY**

Project Title



No.	Date	Revision	By
4			
3			
2			
1			

Drawn By: dbh  
 Checked By: dbh  
 BDS Proj. #: 17-10  
 Date: 01/29/19

Sheet Title

**SITE PLAN & NOTES**

Sheet No.

**A100**



4 VIEW FROM WEST  
N.T.S.



3 VIEW FROM NE (REAR)  
N.T.S.



2 VIEW FROM NW (FRONT)  
N.T.S.



1 VIEW FROM SOUTH  
N.T.S.

Consultant

Project Title  
**THE LINDLEY LLC.  
1154 NORTH AVENUE  
BEACON NY**



4			
3			
2			
1			
No.	Date	Revision	By

Drawn By: dbh  
Checked By: dbh  
BDS Proj. #: 17-10  
Date: 01/29/19

Sheet Title  
**SITE  
PHOTOS**

Sheet No.  
**A101**



*Civil & Environmental Engineering Consultants  
174 Main Street, Beacon, New York 12508  
13 Chambers Street, Newburgh, New York 12550  
Phone: 845-440-6926 Fax: 845-440-6637  
[www.HudsonLandDesign.com](http://www.HudsonLandDesign.com)*

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January 29, 2019

David Buckley  
City of Beacon Building Inspector  
1 Municipal Center  
Beacon, NY 12508

Re: Infiltration and Inflow Investigation  
1154 North Avenue Project  
City of Beacon, New York  
Tax ID: 5954-26-740983 ( $\pm$  0.11 acre)

Dear Mr. Buckley,

Hudson Land Design (HLD) has completed an infiltration and inflow investigation at the above referenced parcel as required by the City of Beacon. The investigation was conducted on January 28, 2019 at the existing building located at 1154 North Avenue (NYS Route 9D), which consists of a two-story space that is currently vacant.

The first phase of the study consisted of an exterior inspection of the building to determine the location of roof leader discharge points. Based on the observation of the roof system from the second-floor interior, and from an uphill vantage point to the east, the entire roof pitches from front to back (west to east). There is a gutter along the back side of the building with a downspout located at the southeast corner of the building. The downspout angles to discharge in a southwesterly direction near the retaining wall.

The second phase of the study consisted of interior inspection of the building to determine if there are any illicit connections to the building sewer line from sump pumps, floor drains, etc. The building is on concrete slab with no basement. There were no floor drains, sump pumps, or any other potential source of illicit connections observed within the first floor of the building. There is an existing bathroom in the northwest corner of the second floor and appears to be a former bathroom area generally central to the building on its west side (see attachment 1 and photo 1). From the first floor, the sewer line is visible. It conveys flow southerly along the west side of the building to about midpoint, where the first-floor bathroom is located. There appears to be an additional

vent at the connection to the vertical line that conveys second floor sewage down (see photo 2). From the first floor, the sewer line appears to go into the slab, and presumably to the sanitary sewer collection system along North Avenue (see photo 3).

Based on our observations, HLD believes that there are not illicit stormwater connections from the building located at 1154 North Avenue to the City of Beacon's sanitary sewer collection system. The former toilet drain appears to be disconnected (see photo 2, left hand side). The existing floor drain was for a former bathroom on a very small concrete slab (where the remainder of the floor is wood). The floor drain is not fed by any source (e.g., HVAC condensate line) and is therefore no significant source of illicit flow to the sanitary sewer. However, as part of the application, it is proposed to physically disconnect the floor drain from the sanitary sewer.



Photo 1: Presumed former bathroom on second floor



Photo 2: View of plumbing from first floor beneath presumed former second floor bathroom



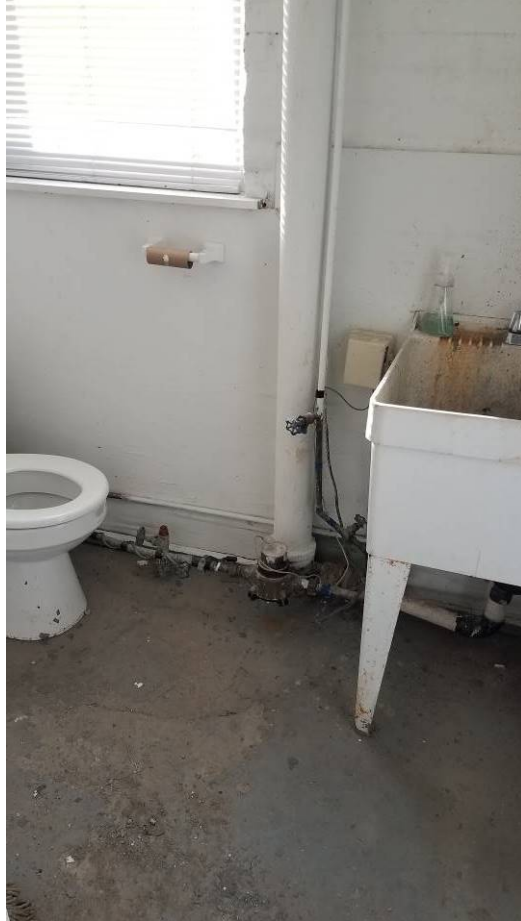


Photo 3: View of first floor bathroom, vertical sewer line from second floor  
Should you have any questions, please feel free to call me at 845-440-6926.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel G. Koehler". The signature is fluid and cursive, with a long horizontal stroke at the end.

Daniel G. Koehler, P.E.  
Principal

cc: Paola Ochoa, Applicant (via email)  
Bar Down Studio, Architect for Applicant (via email)  
Michael A. Bodendorf, P.E. (HLD file)

WEST CHURCH STREET



NORTH AVENUE (A.K.A. N.Y.S. ROUTE 9-D)

Attachment 1

MAP OF SURVEY FOR

HIBERNATION AUTO STORAGE, INC.

CITY OF BEACON  
SCALE: 1" = 20'

DUTCHESS COUNTY, N.Y.  
NOVEMBER 9, 1987

IT IS HEREBY CERTIFIED THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS, INC.

CERTIFIED TO: HIBERNATION  
AUTO STORAGE, INC.; FISHKILL  
NATIONAL BANK; PREMIER  
ABSTRACT, LTD. (TITLE NO. 152-  
4066B)

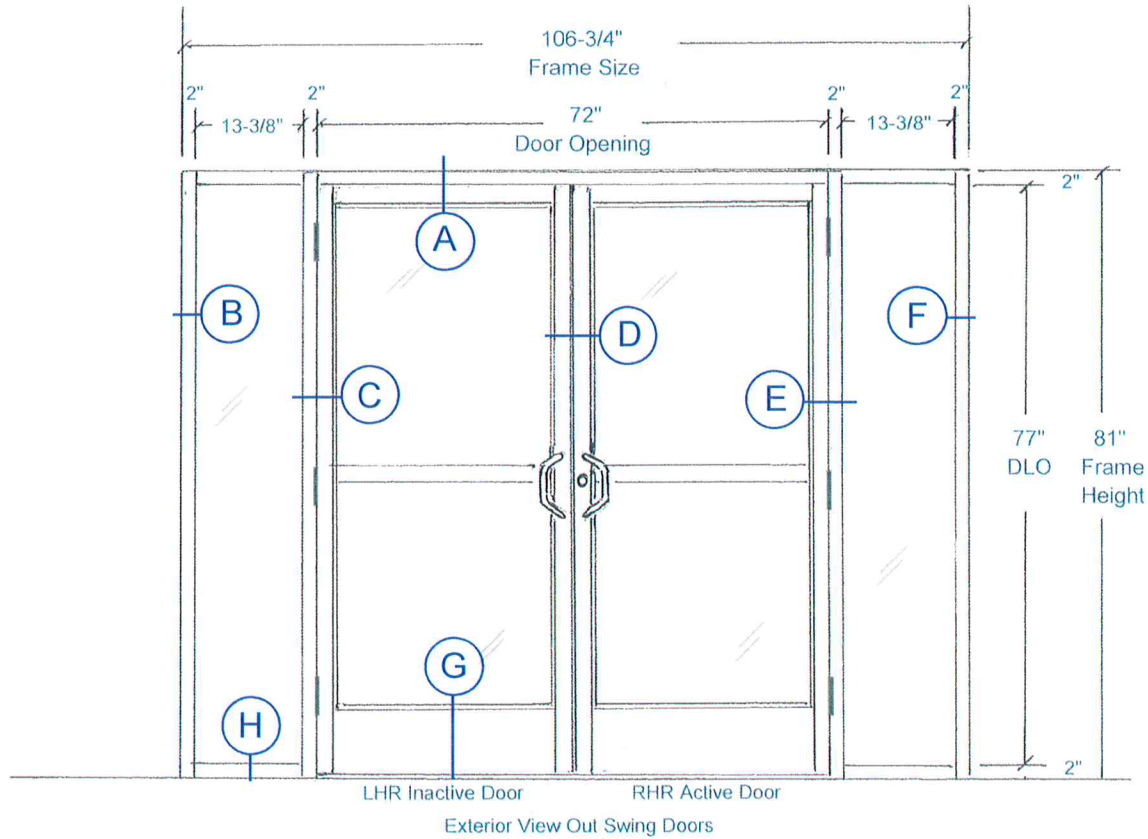
PETER R. HUSTIS, L.L.S.

33 HENRY STREET, BEACON, NEW YORK  
P. O. BOX 3311, NEWBURGH, NEW YORK



DATEPRINT NB773

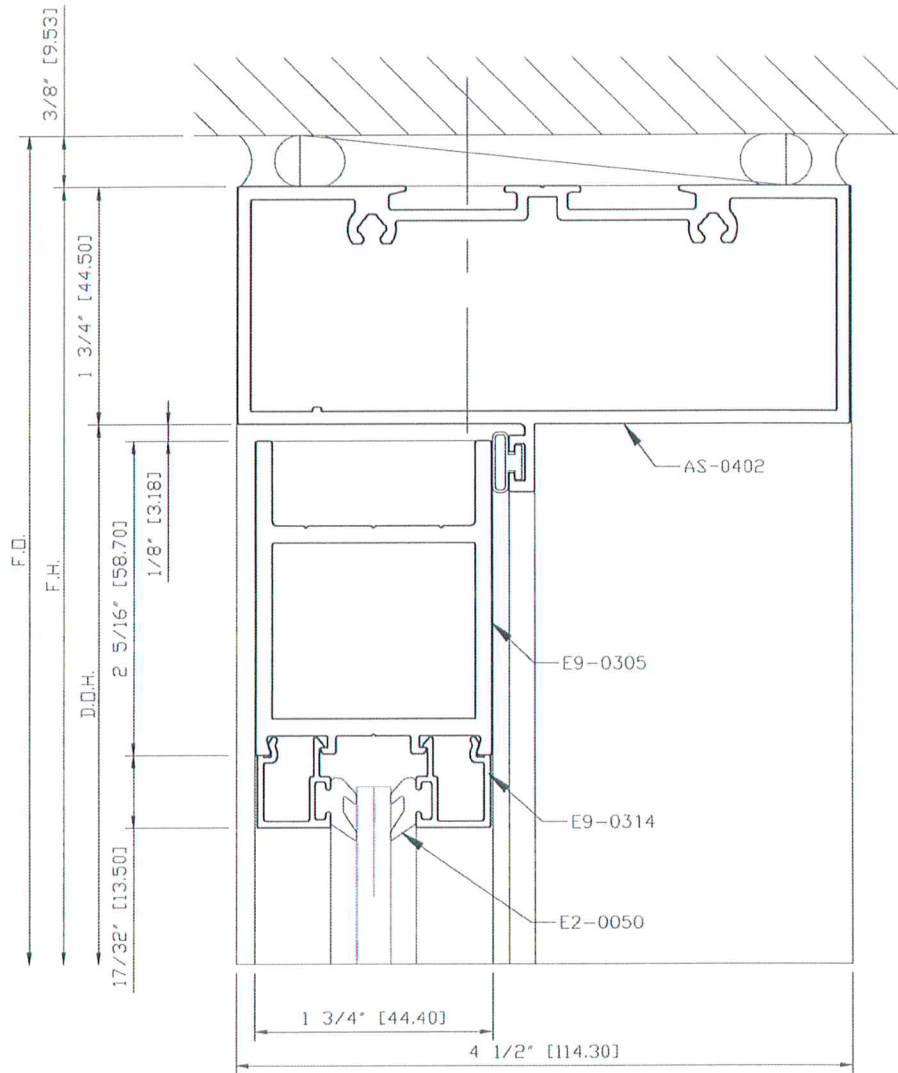
JOB NO.  
79-0208



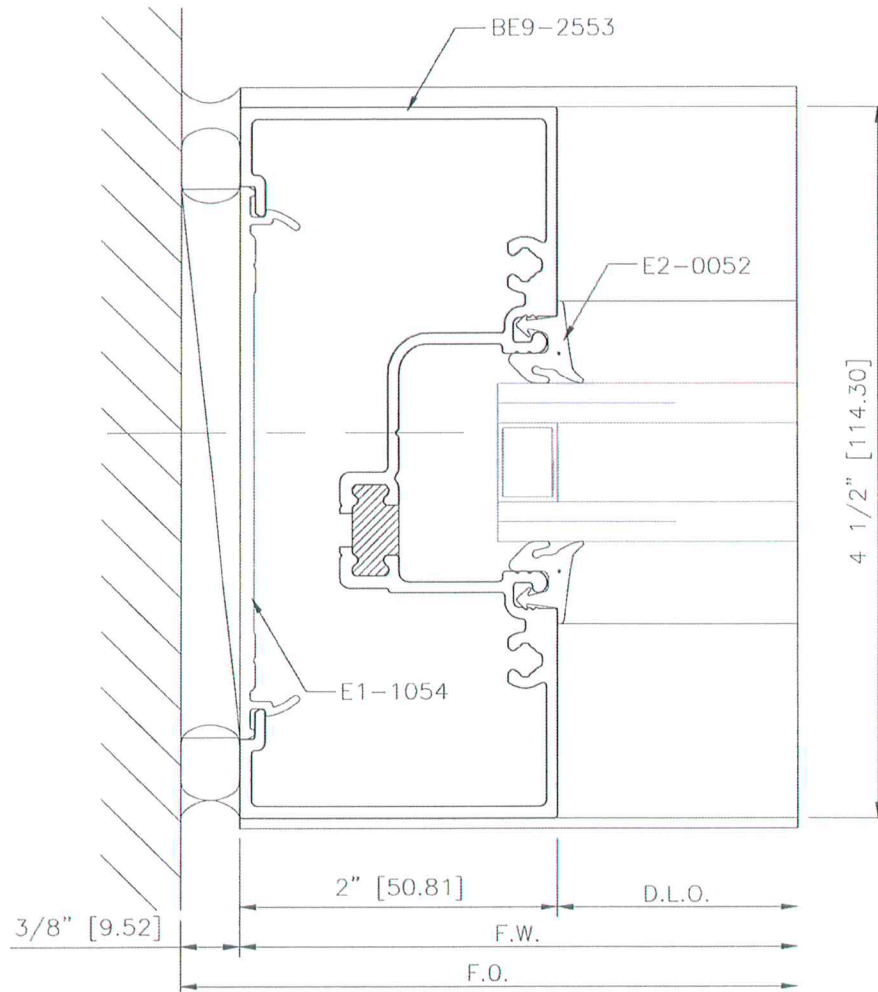
Provided Rough Opening Size: 107-1/2" Wide x 81-1/2" High  
 Frame Dimensions: 106-3/4" Wide x 81" High  
 FRAME: YKK YES 45 TU (Thermally Broken) Storefront  
 DOORS: YKK 20D Narrowstile Doors (6'0" x 6'7")  
 \* RHR Active: 36" x 79" with (3) Stainless Steel Hinges, Smart Series Push/Pulls,  
 Exterior Keyed Cylinder, Surface Mount Closer, 36" Door Sweep  
 \* LHR Inactive: 36" x 79" with (3) Stainless Steel Hinges, Smart Series Push/Pulls,  
 Top and Bottom Flush Bolts.  
 HARDWARE includes 4" wide x 1/2" High Aluminum Threshold  
 GLASS: 1" Insulated Glazing in Sidelites and 1/4" Clear Tempered Glass in Doorlites

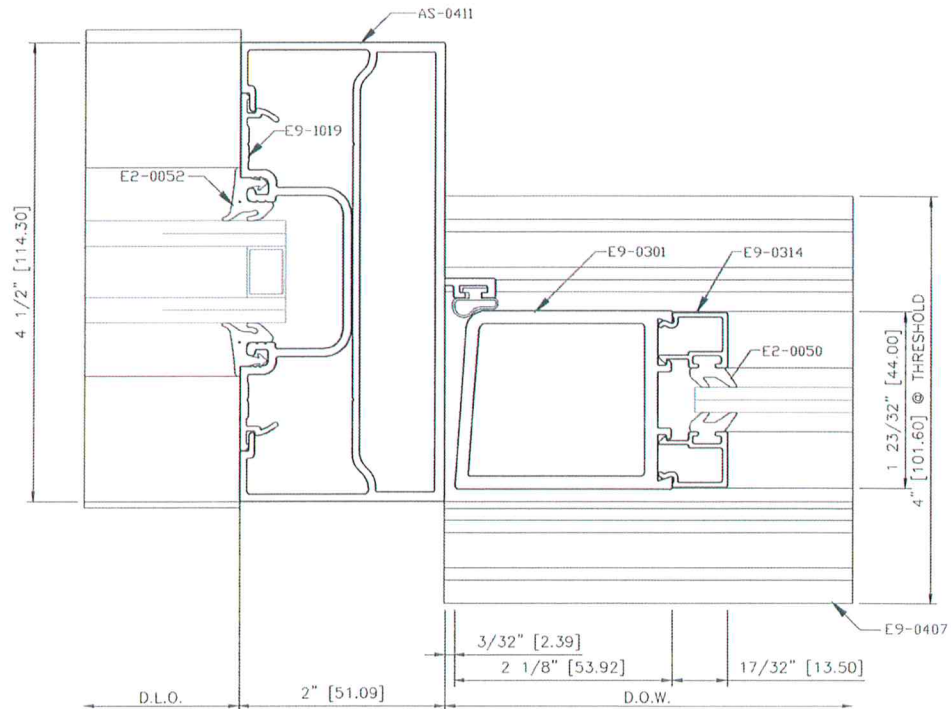
1154 North Ave Beacon NY Rear Entrance		
SCALE	APPROVED BY	DRAWN BY CFM
DATE 08/02/2018		REVISED
<b>Reliable</b> GLASS & DOOR CORP		DRAWING NUMBER
80 SOUTH PLANK RD. • NEWBURGH, NY 12550		

A

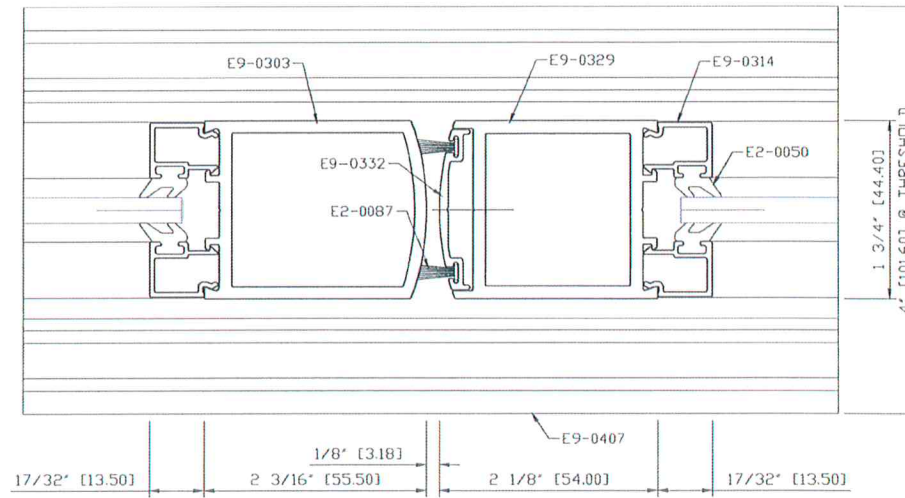


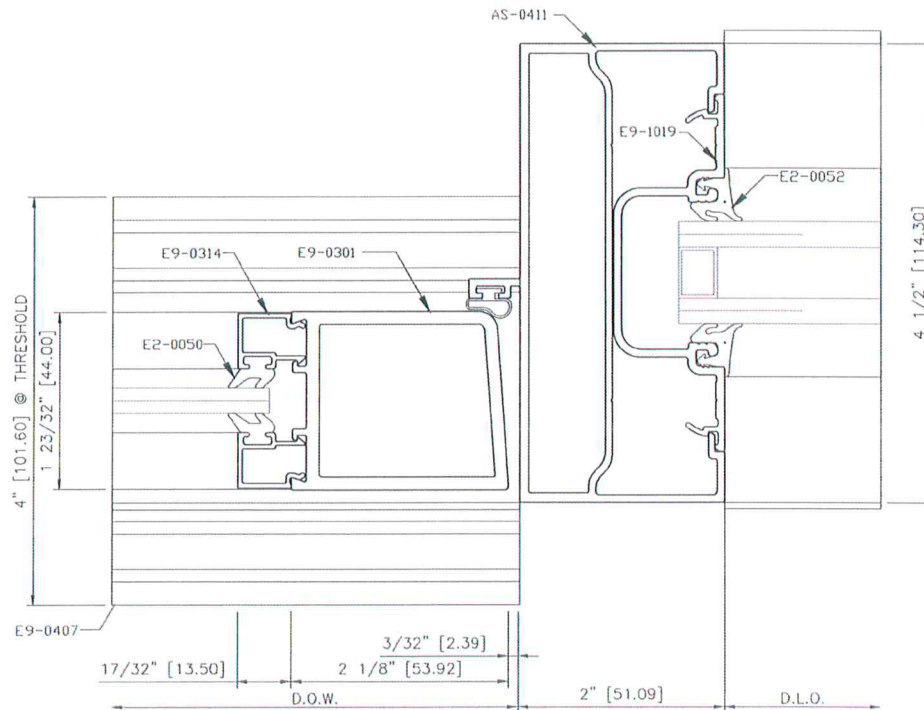
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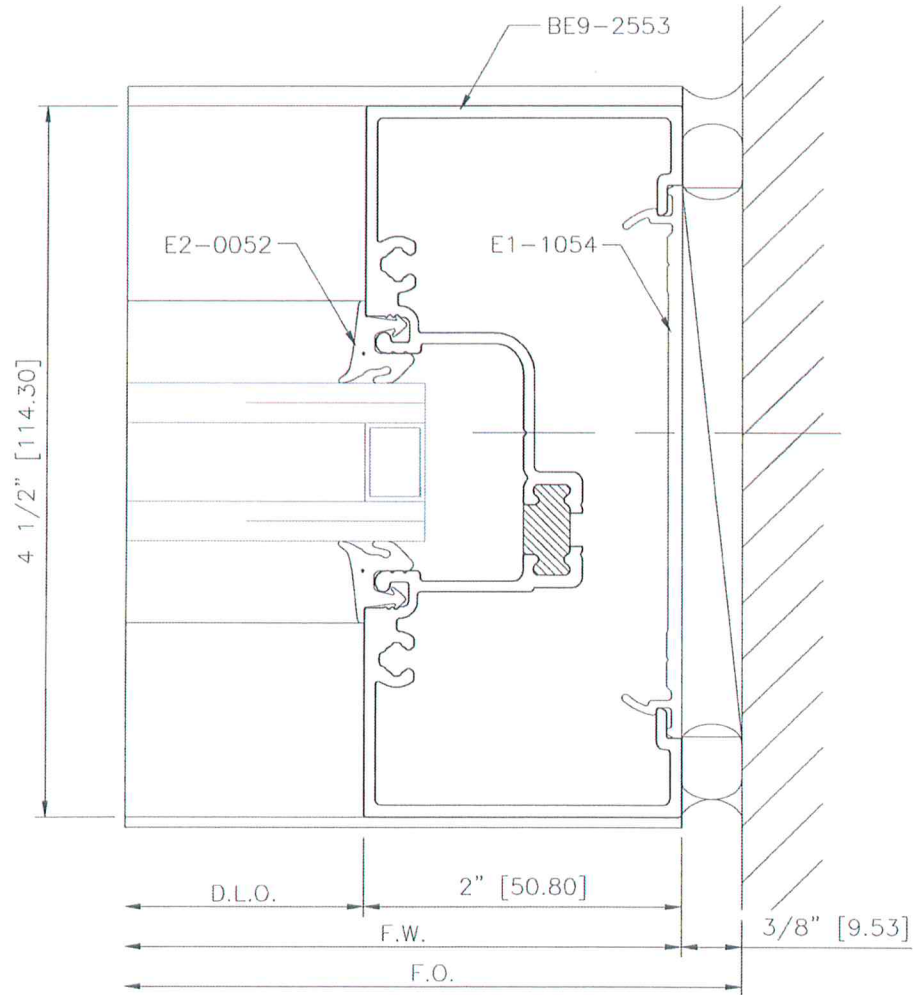
D

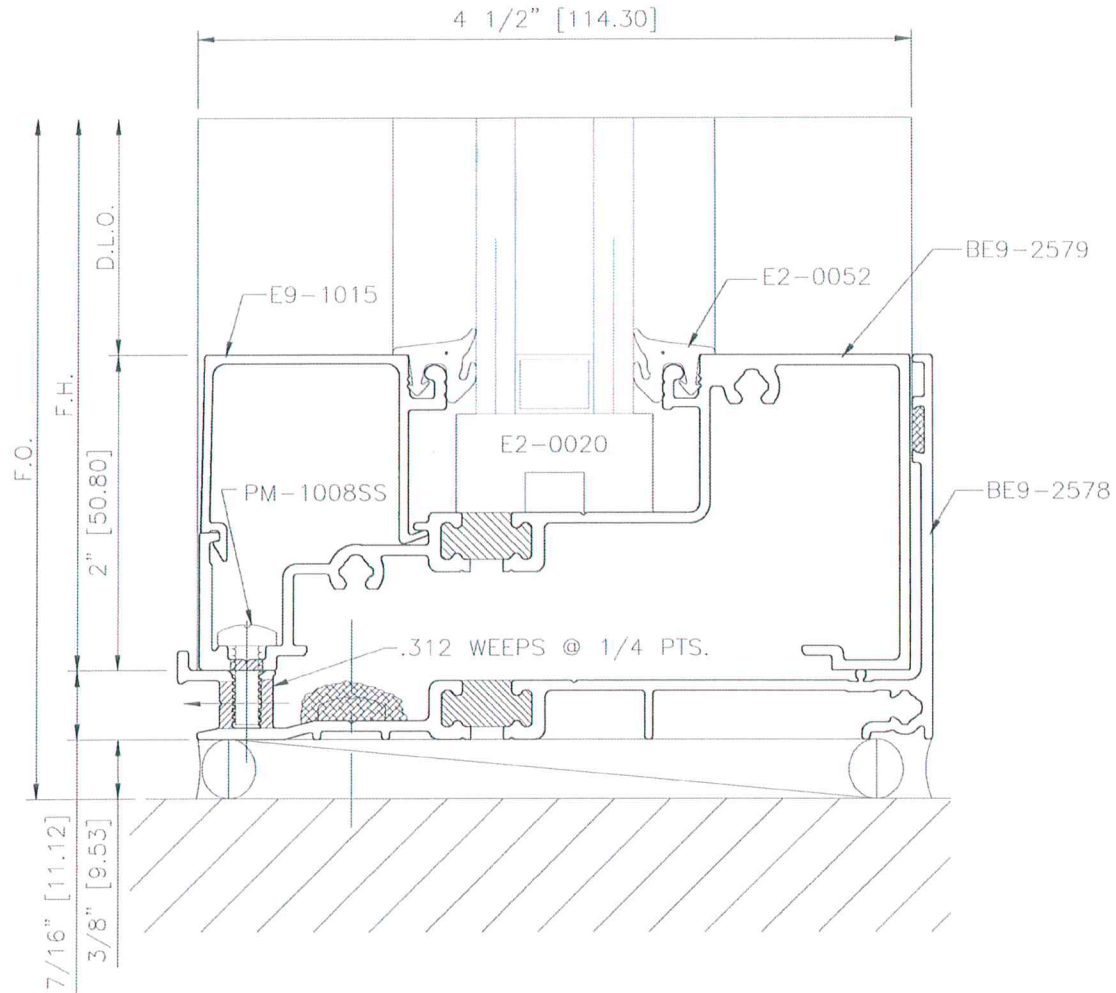






F





APPALACHIAN HARLEY-DAVIDSON

# > Model 20D/35D/50D Standard Entrances

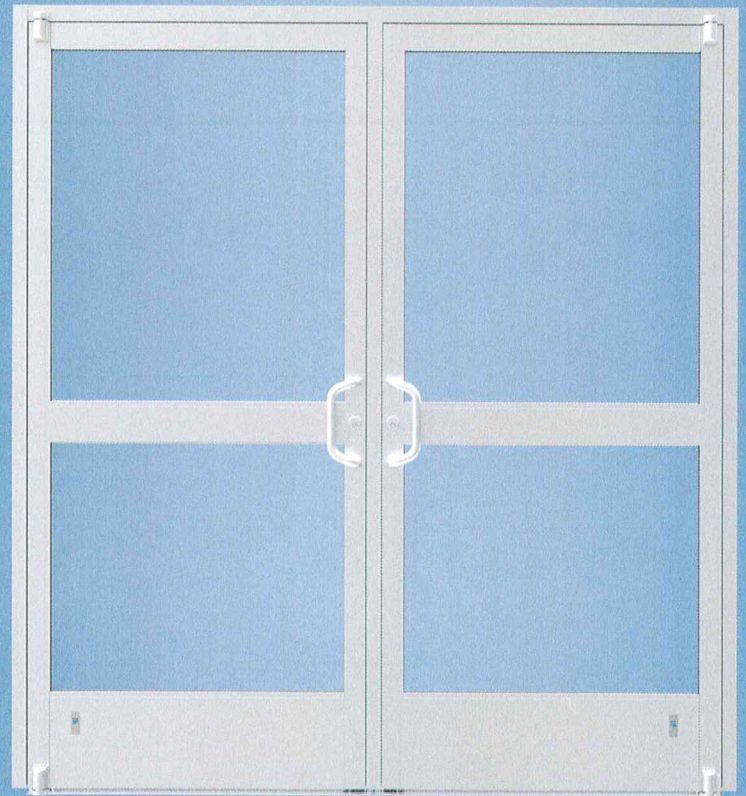
## Everyday Performance and Style

Entrance systems by YKK AP offer an abundance of design options. VersaJamb<sup>®</sup>, our unique reinforced tubular door frame, allows for side-lite glazing without shear clips while maintaining the structural integrity of transom frames.

Door corners are mechanically joined and welded to ensure that they are more than capable of withstanding today's most demanding conditions. Standard hardware options include the Smart Series Push/Pull and touch bar exit devices. Custom entrances are available with options for one inch glazing, mid rails, high bottom rails and will accommodate most custom hardware.

## 20D/35D/50D Entrance Doors:

YKK AP standard doors are far above standard quality and performance. These institutional grade entrances provide complete design freedom via varied rail and stile widths. All door corners are mechanically joined and welded — and carry a lifetime warranty.



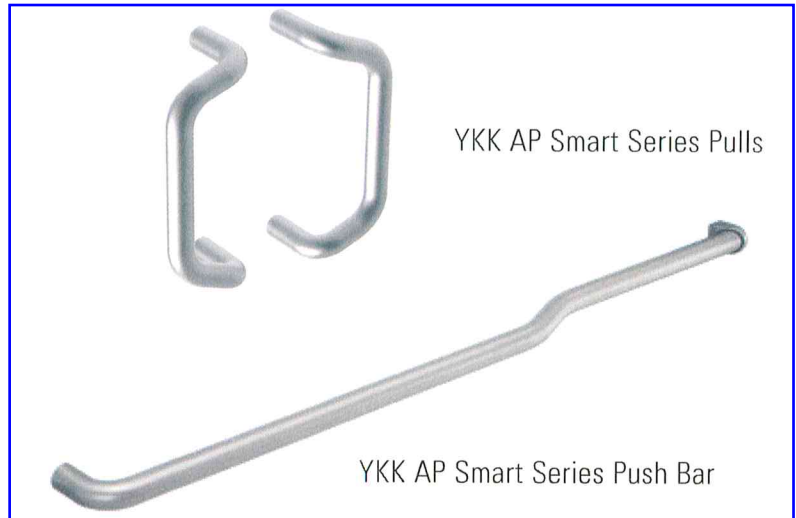
# > Model 20D/35D/50D

## Standard Entrances

Quoted as MS Lock and Smart Series Push/Pulls

### Smart Series Push/Pull

YKK AP's Smart Series one inch diameter Push/Pull provides maximum flexibility and occupant safety. The pull handle is open to permit access to the lock cylinder and is slightly angled to provide a uniquely modern look. The Smart Push starts at the locking stile similar to a typical one inch diameter push bar, but then has an ergonomic "S-Bend" toward the locking stile to bring the bar closer to the door where it is captured by a patented end cap. This innovative push bar easily accommodates custom width openings while subtly informing a pedestrian which side of the door to push on when exiting a building.

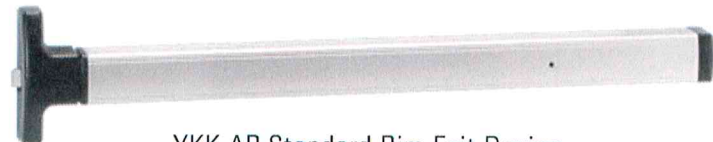


### YKK AP Standard Exit Devices

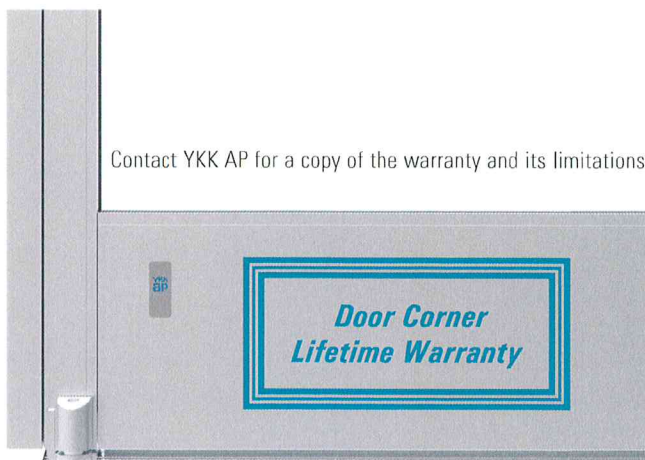
The modern and economical YKK AP standard touch bar exit devices are ideally suited for all applications that require emergency egress. The devices are ANSI Grade 1, carry the UL label and are approved for Life Safety. Both the rim and concealed vertical rod devices feature single point dogging and are available with electric actuation.



\* Provided Option for CVR Exit Device  
YKK AP Standard Concealed Vertical Rod Exit Device



YKK AP Standard Rim Exit Device



### Stock Entrances

- 20D Narrow Stile 3'-0" and 3'-6" x 7'-0" Singles
- 20D Narrow Stile 6'-0" x 7'-0" Pairs
- Offset Pivot, Butt Hung and Center Pivot
- MS Lock and CVR Exit Device (Offset Pivot only)

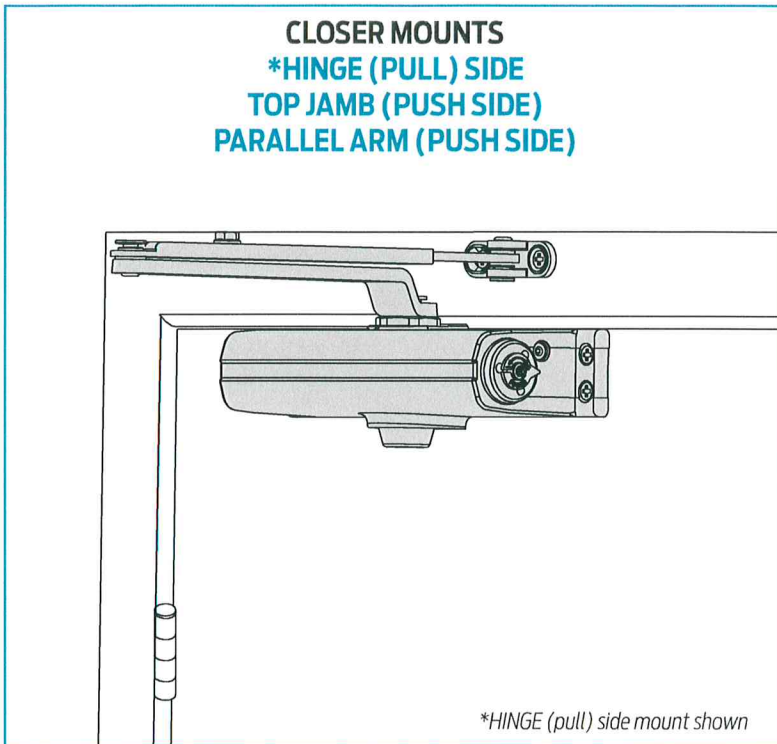
### Custom Entrances

- 20D, 35D, and 50D
- Doors up to 8'-0" Tall
- Standard and Custom Hardware

For additional information on architectural aluminum products offered by YKK AP America Inc. visit our web site at [www.ykkap.com](http://www.ykkap.com).

# 1260 SERIES

## FEATURES



The 1260 is a light to medium duty cast iron closer designed to fit into the most common commercial foot print. The 1260 is adjustable for spring sizes 1-5. The 1260 also features a complete line of regular and extra duty arms, LCN's peel-n-stick installation templates, a convenient spring adjust pointer, and an optional Quick Fix™ bracket kit.

- Cast Iron
- All weather fluid
- Non-handed
- Peel-n-stick templates for fast and accurate installation
- UL and cUL listed

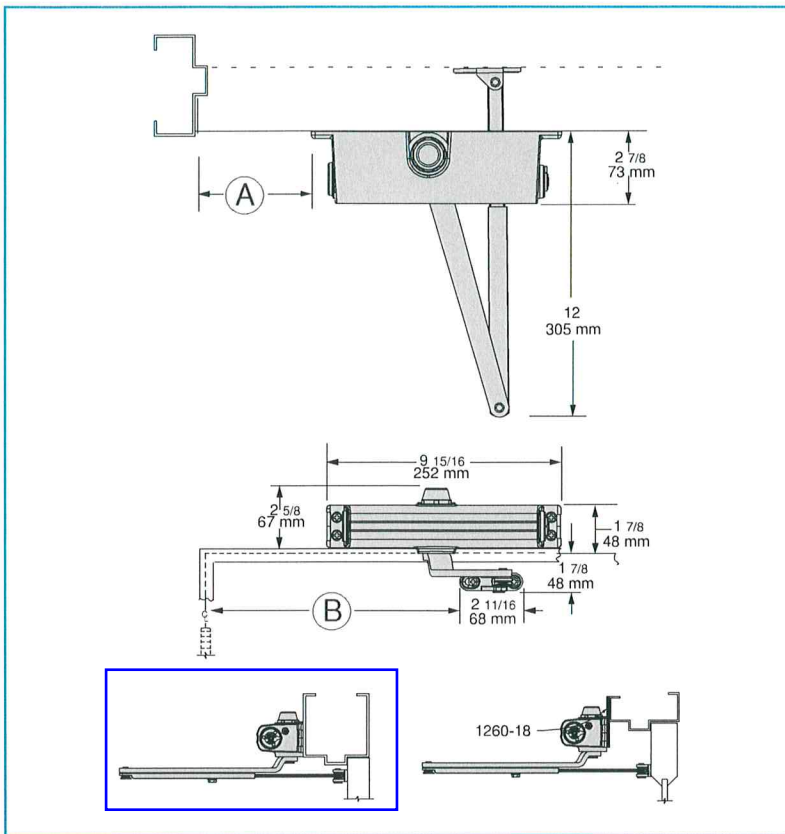
- Standard 1260 Series closer shipped with regular arm, a shaft cover, and self reaming and tapping screws. See 1260 Series Pages 8-9 for options.
- Non-sized (1-5) cylinder is adjustable for interior doors to 4'6" and exterior doors to 3'6".
- Closer mounts hinge side, top jamb and parallel arm on either right or left swinging doors.
- Mounts to most common commercial footprint (3/4" x 9-1/16").
- Closer meets ADA requirements. See 1260 Series page 10.
- Optional Quick Fix™ bracket kit.
- Standard or optional custom powder coat finish.
- Optional SRI primer for installations in corrosive conditions. (Available with powder coat finishes only).
- Optional Slim Line cover.
- Tested and certified under ANSI Standard A156.4, grade one.

MOUNTING					FINISH		COVER	CYLINDER			*ARM FUNCTION										
HINGE (PULL) SIDE	TOP JAMB (PULL)	TOP JAMB (PUSH)	PARALLEL ARM	STOP FACE	POWDER COAT	PLATED	PLASTIC	METAL	DESIGNER SERIES	NON-HANDED	NON-SIZED	ACCESSIBILITY	DELAYED ACTION	REGULAR (DOUBLE)	STANDARD (SINGLE)	HEAVY DUTY	HOLD-OPEN	EDA/EDA	CUSH/HOUSH	SCUSH/SHCUSH	
●	●	○	●	○	●	○	●	○	○	●	○	○	○	○	○	○	○	○	○	○	○

● AVAILABLE  
○ NOT AVAILABLE

♿ Closer available with less than 5.0 lbs. opening force on 36" door.  
\* Maximum opening/hold-open point with standard template.

# 1260 SERIES



## TOP JAMB (PUSH SIDE) MOUNTING

### MAXIMUM OPENING

To 100°

Ⓐ = 7-1/16" (179 mm)

Ⓑ = 12-15/16" (329 mm)

or 101° to 120°

Ⓐ = 5-9/16" (141 mm)

Ⓑ = 11-7/16" (291 mm)

or \*121° to 180°

Ⓐ = 3-1/16" (78 mm)

Ⓑ = 8-15/16" (227 mm)

Hold-open points up to maximum opening with hold-open arm.

\*Frame and trim permitting.

- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Auxiliary Stop** is recommended at hold-open point or where a door cannot swing 180°.
- **Reveal**

Arm Type	Maximum Reveal	Opening
Regular Arm	3-1/2"	Up to 120°
Regular Arm	2-1/4"	121° to 180°
Long Arm	7-1/2"	Up to 120°
Long Arm	3-1/2"	121° to 180°
Hold-Open Arm	2"	Up to 120°
Hold-Open Arm	2-1/4"	121° to 180°
Long Hold-Open Arm	4-1/2"	Up to 120°
Long Hold-Open Arm	4-1/2"	121° to 160°

- **Top Rail** requires 1-3/4" (44 mm) minimum. 2-1/2" (64 mm) minimum with closer on PLATE, 1260-18.
- **Head Frame** less than 1-3/4" (44 mm) requires PLATE, 1260-18. For flush ceiling condition with 2" (51 mm) headframe, use PLATE, 1260-18. (Plate requires 1-3/8" (35 mm) minimum.)

### Options

- Long arm, hold-open arm.
- Long hold-open arm.  
Slim Line cover (SLIM).

### Special Templates

Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.

# 1260 SERIES

\* Optional Mounting, but will require Parallel Arm Drop Plates and be visible through the glass doorlite \*

## PARALLEL ARM (PUSH SIDE) MOUNTING

Optional mounting requires PA SHOE, 1260-62PA for REGULAR or HOLD-OPEN arms. 1260 Parallel arm closer includes 1260-201 FIFTH HOLE SPACER to support PA SHOE.

## MAXIMUM OPENING

Regular or hold-open arm can be templated to 100°

Ⓐ = 7-3/16" (183 mm)

Ⓑ = 8-5/8" (219 mm)

or 101° to 130°

Ⓐ = 5-11/16" (144 mm)

Ⓑ = 7-1/8" (181 mm)

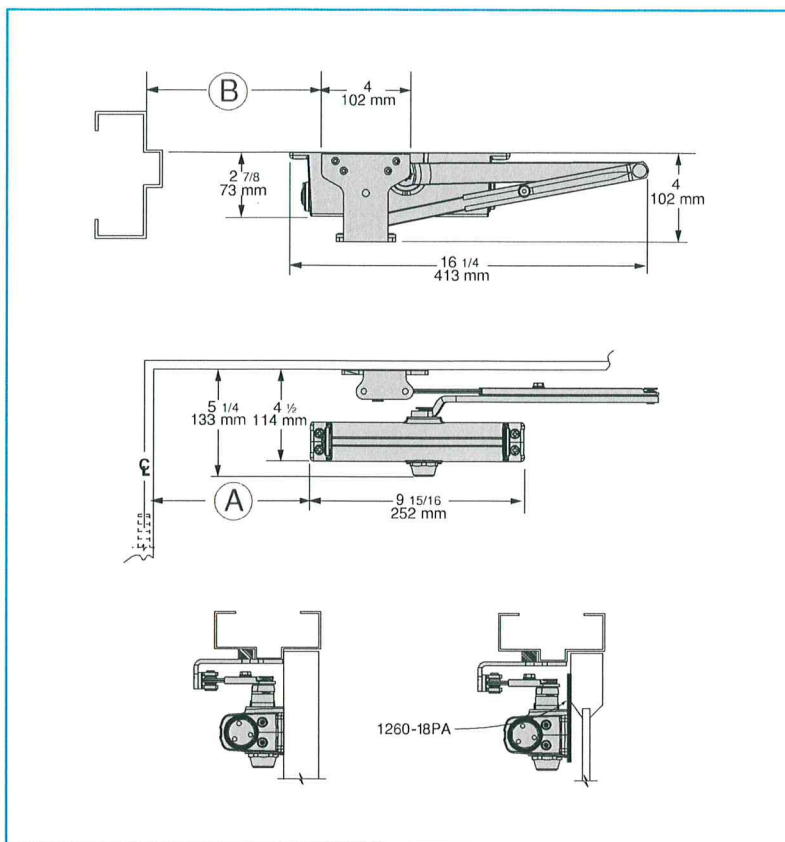
or \*131° to 180°

Ⓐ = 3-11/16" (94 mm)

Ⓑ = 5-1/8" (130 mm)

Hold-open points up to maximum opening with hold-open arm.

\*Frame and trim permitting.



## 1260 REGULAR OR HOLD-OPEN MOUNT

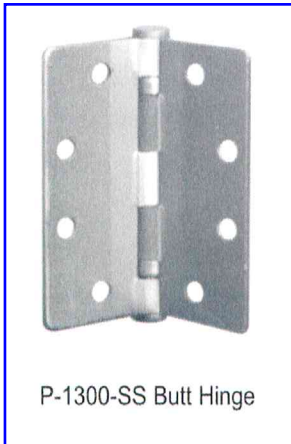
- **Butt Hinges** should not exceed 5" (127 mm) in width.
- **Auxiliary Stop** is recommended at hold-open point, where a door cannot swing 180°, or where CUSH-N-STOP arm is not used.
- **Clearance** for 1260-62PA shoe is 4" (102 mm) from door face.
- **Top Rail** less than 4-3/8" (111 mm) measured from the stop requires PLATE, 1260-18PA.
- **Stop Width** minimum 1" (25 mm).
- **Blade Stop** clearance, requires 1/2" (13 mm) BLADE STOP SPACER, 1260-61.
- **Auxiliary Shoe**, 1260-62A allows installation of regular arm with overhead holder/stop. Special templating required.

### Options

- Slim Line cover (SLIM).
- Hold-open PA, HEDA, EDA, CUSH, HCUSH arm.

### Special Templates

Customized installation templates or products may be available to solve unusual applications. Contact LCN Product Support for assistance.



#### STANDARD – BUTT HINGE, 4-1/2" X 4"

##### Description:

1. Commercial quality five knuckle, two ball bearing raceway construction type stainless steel; enclosed hinge barrel with button tips incorporating non-rising removable steel pin.
2. Radius corner hinge. Standard template butt, 4-1/2" X 4" X 0.134" thickness (114.3mm by 101.6mm by 3.4mm).
4. Tapped back-up reinforcing plates are provided for each hinge.

##### Finish:

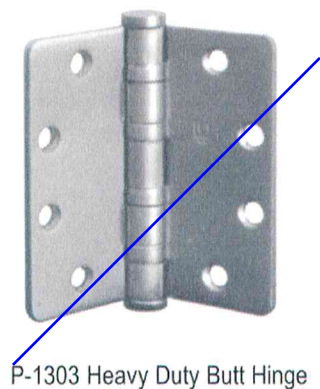
Standard: Stainless Steel for clear anodized.

Optional: 335 Black finish for color anodized and/or painted finished.

##### Application:

1. Butt hinge fully mortised into door hinge stile and frame hinge jamb.
2. Back-up or reinforcing plates are used in both frame jamb and hinge stile.
3. Use intermediate butt (1-1/2 pair per leaf) for doors in high traffic areas or for doors over 7'-6" high.

**For use with:** Models 20D/35D/50D, 35XT/50XT, 35H (optional), and 25FD.



#### ~~HEAVY DUTY – BUTT HINGE, 4-1/2" X 4-1/2"~~

##### Description:

1. Grade 1 heavy weight quality. Five knuckle, four ball bearing brass with stainless steel pin. Testing in conformance with ANSI-A156.1-81.
2. Pin is non-rising with optional non-removable (NRP) pin available.
3. Radius corner (RC) hinge. 4-1/2" x 4-1/2" x 0.180" thickness (114.3mm by 114.3mm by 4.6mm)
4. Tapped back-up reinforcing plates are provided for each hinge.

##### Finish:

628 Clear, for clear anodized or painted surfaces or 335 Black, finish for color anodized and/or painted finished.

##### Application:

1. Hinge is fully mortised into door hinge stile and frame hinge jamb. On 40M/50M Monumental doors hinge is mortised into the frame, but requires no backer plate for extra strength.
2. Back-up or reinforcing plates are used whenever mortising of hinge is required.
3. Intermediate hinge is standard on all 40M/50M Monumental entrances and recommended on all high traffic applications. Doors over 7'-6" in height also require the use of intermediate hinges.

**For use with:** Models 40M and 50M.

Optional for Models 20D/35D/50D, 35XT/50XT, 35H, and 25FD.



Exterior Key Cylinder with Interior Thumb-turn



**STANDARD – CYLINDERS**

**Description:**

1. 5 Pin - mortised, 1-5/32" (29.4mm) diameter.
2. Standard cylinders are key operated on the exterior and thumbturn operated on the interior.
3. Blank cylinders available as an option.
4. Keyed alike cylinders are available, when specified.
5. Master keying and special order keying systems are special order; contact factory.

**Finish:**

Cylinder caps are either 628 Clear, for clear anodized or painted surfaces or 335 Black, finish for color anodized and/or painted finished..

~~**OPTIONAL – CYLINDER GUARD**~~

~~**Description:**~~

1. Adams-Rite® MS 4043 Cylinder Guard; tapered and hardened steel material collar with hardened steel retainer plate.
2. Cylinder guard is collar designed to protect the vulnerable soft brass cylinder. Guard held in place with hardened steel retainer plate for additional security.

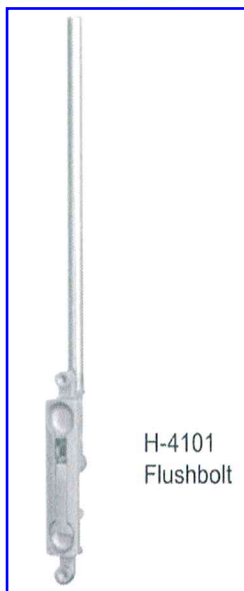
~~**Application:**~~

~~Use with Adams-Rite MS 1850A, MS 1853A-050 or deadlatch series.~~

**For use with:** All YKK AP entrances.



Top and Bottom Flush Bolts in Inactive Door



**STANDARD – FLUSHBOLT**

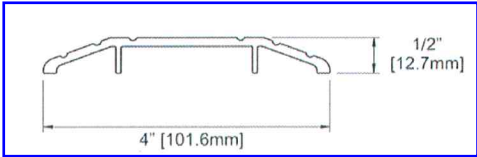
**Description:**

- Inactive leaf on door pairs:
1. Top and bottom bolts in inactive leaf provide two lock points allowing active door leaf to lock into inactive leaf.
  2. Flush bolts are flush mounted in door stile "edge."

**Finish:**

Black for color anodized finishes and aluminum color for clear anodized finishes.

**For use with:** All YKK AP entrances.

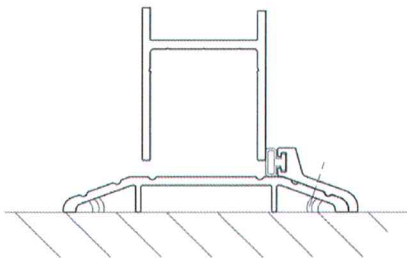


**THRESHOLDS**

**Description:**

- 1. Factory fabricated extruded aluminum; factory prepped for specified hinging and locking hardware; (specify).
- 2. Standard threshold: 4" (101.6mm) wide x 1/2" (12.7mm) high by width required.

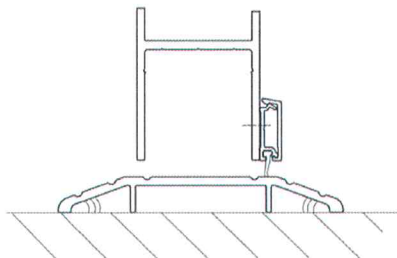
**Finish:** Mill finish.



~~**THRESHOLD STOP**~~

**Description:** Surface applied stop. Screw applied with gasket to 1/2" (12.7mm) high threshold.

**Finish:** Mill finish.



~~**WEATHER STRIPPING**~~  
~~**BOTTOM DOOR SWEEPS**~~

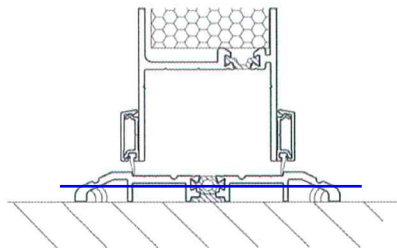
**Description:** Extruded aluminum, surface applied weather-strip with elastomer sweep and concealed fasteners; applied to bottom interior door rail.

**Finish:** Clear or black anodized finish. Painted finishes available to match door.

**Length:** 3'-0" to 4'-0"

**H-7107**

H-7107 (Finish Code) 0300	3'-0"
H-7107 (Finish Code) 0400	4'-0"



**BE9-1535**

NOTE: Model 35XT and 50XT require sweeps at interior and exterior.  
Model 35H requires sweep at exterior for air and water threshold.



NATIONAL GUARD  
PRODUCTS

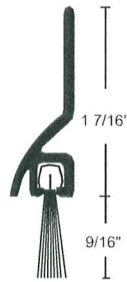
## Nylon Brush Sweep C627




**Material**  
Nylon Brush

**Finishes**  
C627A Anodized Aluminum Gray Brush  
C627B Gold Black Brush  
C627DKB Dark Bronze Black Brush

<b>Project:</b>
<b>Submitted by:</b>
<b>Date:</b>
<b>Notes:</b> Nylon Brush Door Sweeps on exterior side of opening



1154 North Avenue Beacon NY

Make-up Name	Make-up Icon	Glass 1 & Coating	Glass 2 & Coating	Transmittance		Reflectance			U-Value		Solar Heat Gain Coefficient (SHGC)
				Visible ( $\tau_v$ %)	Solar ( $\tau_e$ %)	Visible		Solar	Winter Night (Btu/hrd <sup>2</sup> F)	Summer Day (Btu/hrd <sup>2</sup> F)	
						$\rho_v$ % out	$\rho_v$ % in	$\rho_e$ % out			
Default Make-up 01		Clear (North America)	N/A	89	81	8	8	8	1.03	0.93	0.84

Calculation Standard: NFRC 2010

\* 1/4" Clear Tempered Glass for Doorlites \*

Default Make-up 01

Outdoors

GLASS 1

Clear (North America)	#1 ----
Thickness = 1/4" = 6mm	#2 ----

Total Unit (Nominal) = 1/4 in / 6 mm

Slope = 90°

Window Height = 1 meter

Estimated Nominal Glazing Weight: 2.87 lb/ft<sup>2</sup>

Indoors

Important Notes

The performance values shown above represent NOMINAL VALUES for the center of glass with no spacer system or framing. Slight variations may occur due to manufacturing tolerances, point of manufacture, and type of instrumentation used to measure the optical properties. For configurations that include non-specular (diffuse) components, performance results cannot be verified and should only be used as a general indication of performance. For configurations which include ceramic frit coating, the actual values may vary significantly based upon the thickness and composition of the frit. For configurations with coatings laminated facing the PVB, there may be a noticeable color change. Guardian recommends a full size mock-up be approved. Calculations and terms in this report are based on NFRC 2010.

Please note that the THERMAL STRESS GUIDELINE is only a rough reference to the thermal safety of a glazing. Other factors such as the size of glass areas, shapes and patterns, glass thickness, glass damaged during shipping, handling or installation, orientation of the building, exterior shading, overhangs/fins that reduce wind speed, and areas with high daily temperature fluctuations can all increase the probability of thermal breakage. The results shown are not for any specific glazing installation and do not constitute a warranty against glass breakage.

Explanation of Terms

- % **Transmittance Visible or Light Transmittance ( $\tau_v$  %)** is the percentage of visible light at normal incidence (90° to surface) that is transmitted by the glass.
- % **Ultraviolet (UV) Transmittance ( $\tau_{UV}$  %)** is the percentage of ultraviolet light at normal incidence directly transmitted by the glass. Ultraviolet Light is defined as radiant energy from the sun having a wavelength range of 300 nm to 380 nm.
- % **Solar Energy Direct Transmittance ( $\tau_e$  %)** is the percentage of solar energy at normal incidence directly transmitted by the glass. Solar Energy is the radiant energy from the sun having a wavelength range of 300 nm to 2500 nm.
- % **Reflectance Visible Outdoors or Light Reflectance Out ( $\rho_v$  % out)** is the percentage of visible light at normal incidence directly reflected by the glass back outdoors.
- % **Reflectance Visible Indoors or Light Reflectance In ( $\rho_v$  % in)** is the percentage of visible light at normal incidence directly reflected by the glass back indoors.
- % **Solar Energy Reflected Outdoors or Solar Direct Reflectance Out ( $\rho_e$  % out)** is the percentage of solar energy at normal incidence directly reflected by the glass back outdoors.
- % **Solar Energy Reflected Indoors or Solar Direct Reflectance In ( $\rho_e$  % in)** is the percentage of solar energy at normal incidence directly reflected by the glass back indoors.

**Absorptance ( $\alpha_e$  %)** (Solar, Visible or UV) is defined as a process in which a range of radiation is retained by a substance and converted into heat energy. The creation of heat energy also causes the substance to emit its own radiation.

**U-Factor or U-Value ( $U_G$ )** is the air-to-air thermal conductance of 39" high glazing and associated air films. US Standard units are Btu/hr.ft<sup>2</sup>.F. and SI / Metric units are W/m<sup>2</sup>K. Winter night values are 12.3 mph wind at -0.4°F outdoors and 69.8°F still indoor air. Summer values are 0 sun, 6.15 mph wind at 89.6°F outdoors and 75.2°F still indoor air.

**Relative Heat Gain (RHG)** is the total net heat gain to the indoors due to both the air-to-air thermal conductance and the solar heat gain. Imperial units are Btu/hr.ft<sup>2</sup>.  $RHG = [(Summer\ U-Value)(89.6^\circ F - 75.2^\circ F) + (Shading\ Coefficient)(200\ Btu/hr-ft^2)]$ . Metric units are W/m<sup>2</sup>.  $RHG = [(Summer\ U-Value)(32^\circ C - 24^\circ C) + (Shading\ Coef.)(631\ W/m^2)]$

**Shading Coefficient (SC)** is the fraction of solar heat, direct (300 to 2500 nm) plus indirect (5 to 40  $\mu$ m), transferred indoors through the glass. For reference, 1/8" (3.1 mm) clear glass has a value of 1.00 (SC is an older term being replaced by the SHGC).

**Solar Heat Gain Coefficient (SHGC)** is the fraction of solar energy incident on the glazing that is transferred indoors both directly and indirectly through the glazing. The direct gain portion equals the direct solar transmittance, while the indirect is the fraction of the solar energy absorbed to the energy reradiated and convected indoors. No heat gain from warmer outdoor air is included.  $SHGC = (Direct\ Solar\ Trans) + \{[(Indirect\ Solar\ Heat\ Gain) - (Summer\ U-Value)(89.6^\circ F - 75.2^\circ F)] / (248.209\ Btu/hr-ft^2)\}$

**Light-to-Solar Gain (LSG)** is the ratio of visible light gain to solar gain.  $LSG = (Visible\ Transmittance) / (SHGC)$

**Color Rendering Index in transmission, D65 ( $R_a$ )** is the change in color of an object as a result of the light being transmitted by the glass.

**Weighted Sound Reduction Index ( $R_w$ )** is a single-number quantity which characterizes the airborne sound insulation of a material or building element over a range of frequencies.

**Sound Transmission Class (STC)** is a single-number quantity which characterizes the airborne sound insulation of a material or building element over a range of frequencies.

#### Disclaimer

This performance analysis is provided for the limited purpose of assisting the user in evaluating the performance of the glass products identified on this report. Spectral data for products manufactured by Guardian reflect nominal values derived from typical production samples. Spectral data for products not manufactured by Guardian were derived from the LBNL International Glazing Database and have not been independently verified by Guardian. The values calculated by this tool are generated according to established engineering practices and applicable calculation standards. Many factors may affect glass performance, including glass size, building orientation, shading, wind speed, type of installation, and others. The applicability and results of the analysis are directly related to user inputs and any changes in actual conditions can have a significant effect on the results. It is possible to create many different glazing types and glass make-ups using this tool. Guardian makes no guarantee that any glazing modeled by the tool is available from Guardian or any other manufacturer. The user has the responsibility to check with the manufacturer regarding availability of any glass type or make-up. While Guardian has made a good faith effort to verify the reliability of this tool, it may contain unknown programming errors that could result in incorrect results. The user assumes all risk relating to the results provided by the tool and is solely responsible for selection of appropriate products for the user's application. GUARDIAN MAKES NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND WITH RESPECT TO THE PERFORMANCE CALCULATOR. THERE ARE NO WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PERFORMANCE CALCULATOR AND NO WARRANTY SHALL BE IMPLIED BY OPERATION OF LAW OR OTHERWISE. IN NO EVENT SHALL GUARDIAN BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND RELATING TO OR RESULTING FROM USE OF THE PERFORMANCE CALCULATOR.

Program Version: 4.1.0.5419  
Database Version: 20170804

1154 North Ave Beacon NY

Make-up Name	Make-up Icon	Outboard Substrate & Coating	Inboard Substrate & Coating	Transmittance		Reflectance			U-Value		Shading Coefficient (sc)	Solar Heat Gain Coefficient (SHGC)
				Visible ( $\tau_v$ %)	Solar ( $\tau_e$ %)	Visible		Solar	Winter Night (Btu/hrd <sup>2</sup> F)	Summer Day (Btu/hrd <sup>2</sup> F)		
						$\rho_v$ % out	$\rho_v$ % in	$\rho_e$ % out				
1" Insulated: 1/4" clear over 1/4" clear		Clear (North America)	Clear (North America)	80	67	15	15	13	0.47	0.50	0.85	0.74

Calculation Standard: NFRC 2010

1" Insulated: 1/4" clear over 1/4" clear

\* 1" Insulated Tempered Glass Units for Sidelites \*

## Outdoors

LITE	Clear (North America)	#1 -----
	Thickness = 1/4" = 6mm	#2 -----
GAP	100% Air, 1/2" = 12.7 mm	
LITE	Clear (North America)	#3 -----
	Thickness = 1/4" = 6mm	#4 -----
Total Unit = 0.942 in / 23.927 mm		Slope = 90°
		Window Height = 1 meter

## Indoors

**Important Notes**

The performance values shown above represent NOMINAL VALUES for the center of glass with no spacer system or framing. Slight variations may occur due to manufacturing tolerances, point of manufacture, and type of instrumentation used to measure the optical properties. For configurations that include non-specular (diffuse) components, performance results cannot be verified and should only be used as a general indication of performance. For configurations which include ceramic frit coating, the actual values may vary significantly based upon the thickness and composition of the frit. For configurations with coatings laminated facing the PVB, there may be a noticeable color change. Guardian recommends a full size mock-up be approved. Calculations and terms in this report are based on NFRC 2010.

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% **Transmittance Visible or Light Transmittance** ( $\tau_v$  %) is the percentage of visible light at normal incidence (90° to surface) that is transmitted by the glass.

% **Ultraviolet (UV) Transmittance** ( $\tau_{UV}$  %) is the percentage of ultraviolet light at normal incidence directly transmitted by the glass. Ultraviolet Light is defined as radiant energy from the sun having a wavelength range of 300 nm to 380 nm.

% **Solar Energy Direct Transmittance** ( $\tau_e$  %) is the percentage of solar energy at normal incidence directly transmitted by the glass. Solar Energy is the radiant energy from the sun having a wavelength range of 300 nm to 2500 nm.

% **Reflectance Visible Outdoors or Light Reflectance Out** ( $\rho_v$  % out) is the percentage of visible light at normal incidence directly reflected by the glass back outdoors.

% **Reflectance Visible Indoors or Light Reflectance In** ( $\rho_v$  % in) is the percentage of visible light at normal incidence directly reflected by the glass back indoors.

% **Solar Energy Reflected Outdoors or Solar Direct Reflectance Out** ( $\rho_e$  % out) is the percentage of solar energy at normal

incidence directly reflected by the glass back outdoors.

**% Solar Energy Reflected Indoors or Solar Direct Reflectance In ( $\rho_e$  % in)** is the percentage of solar energy at normal incidence directly reflected by the glass back indoors.

**Absorptance ( $\alpha_e$  %)** (Solar, Visible or UV) is defined as a process in which a range of radiation is retained by a substance and converted into heat energy. The creation of heat energy also causes the substance to emit its own radiation.

**U-Factor or U-Value ( $U_G$ )** is the air-to-air thermal conductance of 39" high glazing and associated air films. US Standard units are Btu/hr.ft<sup>2</sup>.F. and SI / Metric units are W/m<sup>2</sup>K. Winter night values are 12.3 mph wind at -0.4°F outdoors and 69.8°F still indoor air. Summer values are 0 sun, 6.15 mph wind at 89.6°F outdoors and 75.2°F still indoor air.

**Relative Heat Gain (RHG)** is the total net heat gain to the indoors due to both the air-to-air thermal conductance and the solar heat gain. Imperial units are Btu/hr.ft<sup>2</sup>.  $RHG = [(Summer\ U-Value)(89.6^\circ F - 75.2^\circ F) + (Shading\ Coefficient)(200\ Btu/hr-ft^2)]$ . Metric units are W/m<sup>2</sup>.  $RHG = [(Summer\ U-Value)(32^\circ C - 24^\circ C) + (Shading\ Coef.)(631\ W/m^2)]$

**Shading Coefficient (SC)** is the fraction of solar heat, direct (300 to 2500 nm) plus indirect (5 to 40  $\mu$ m), transferred indoors through the glass. For reference, 1/8" (3.1 mm) clear glass has a value of 1.00 (SC is an older term being replaced by the SHGC).

**Solar Heat Gain Coefficient (SHGC)** is the fraction of solar energy incident on the glazing that is transferred indoors both directly and indirectly through the glazing. The direct gain portion equals the direct solar transmittance, while the indirect is the fraction of the solar energy absorbed to the energy reradiated and convected indoors. No heat gain from warmer outdoor air is included.  $SHGC = (Direct\ Solar\ Trans) + \{[(Indirect\ Solar\ Heat\ Gain) - (Summer\ U-Value)(89.6^\circ F - 75.2^\circ F)] / (248.209\ Btu/hr-ft^2)\}$

**Light-to-Solar Gain (LSG)** is the ratio of visible light gain to solar gain.  $LSG = (Visible\ Transmittance) / (SHGC)$

**Color Rendering Index in transmission, D65 ( $R_a$ )** is the change in color of an object as a result of the light being transmitted by the glass.

**Weighted Sound Reduction Index (Rw)** is a single-number quantity which characterizes the airborne sound insulation of a material or building element over a range of frequencies.

**Sound Transmission Class (STC)** is a single-number quantity which characterizes the airborne sound insulation of a material or building element over a range of frequencies.

#### Disclaimer

This performance analysis is provided for the limited purpose of assisting the user in evaluating the performance of the glass products identified on this report. Spectral data for products manufactured by Guardian reflect nominal values derived from typical production samples. Spectral data for products not manufactured by Guardian were derived from the LBNL International Glazing Database and have not been independently verified by Guardian. The values calculated by this tool are generated according to established engineering practices and applicable calculation standards. Many factors may affect glass performance, including glass size, building orientation, shading, wind speed, type of installation, and others. The applicability and results of the analysis are directly related to user inputs and any changes in actual conditions can have a significant effect on the results. It is possible to create many different glazing types and glass make-ups using this tool. Guardian makes no guarantee that any glazing modeled by the tool is available from Guardian or any other manufacturer. The user has the responsibility to check with the manufacturer regarding availability of any glass type or make-up. While Guardian has made a good faith effort to verify the reliability of this tool, it may contain unknown programming errors that could result in incorrect results. The user assumes all risk relating to the results provided by the tool and is solely responsible for selection of appropriate products for the user's application. GUARDIAN MAKES NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND WITH RESPECT TO THE PERFORMANCE CALCULATOR. THERE ARE NO WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE PERFORMANCE CALCULATOR AND NO WARRANTY SHALL BE IMPLIED BY OPERATION OF LAW OR OTHERWISE. IN NO EVENT SHALL GUARDIAN BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND RELATING TO OR RESULTING FROM USE OF THE PERFORMANCE CALCULATOR.

Program Version: 4.1.0.4805  
Database Version: 20161114

**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 Lenc, P.E., L.S.  
Arthur R. Tully, P.E.

February 7, 2019

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

RE: 1154 North Avenue  
City of Beacon

Dear Mr. Gunn:

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

- Hudson Land Design correspondence dated January 29, 2019, along with the required application documents for the site plan.
- Infiltration and Inflow (I&I) report dated January 29, 2019, as prepared by Hudson Land Design.
- Set of plans entitled "The Lindley LLC. – 1154 North Avenue", dated January 29, 2019 and consisting of 2 sheets, as prepared by Dana Hochberg, Architect.

Based on our review of the above, we would like to offer the following comments:

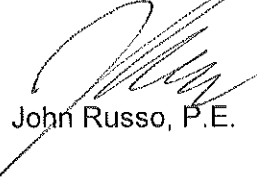
1. Although plans have been stamped by an architect, the architect's signature should accompany their stamp.
2. Hudson Land Design performed an Infiltration and Inflow (I&I) study of the subject parcel and determined that there are no illegal connections to the City's sanitary sewer system. The report does not state that the floor drain located in the building will be physically disconnected from the sanitary sewer. A note shall be added to the plans stating that this work is to be done.
3. The applicant is seeking relief from providing parking for the project under Section 223-41.18(G)(4). Based upon General Note No. 3, the project requires a total of 9 parking spaces. The applicant should note how many of the parking spaces they are requesting the Planning Board to waive, as it appears that the applicant could accommodate at least one to two cars along the north side of the building.
4. Provide a detail of the removeable barricade that is called out on the plans for the site/2<sup>nd</sup> floor plan.



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

Very truly,

LANC & TULLY, P.C.



John Russo, P.E.

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

To: John Gunn, Chair, and the City of Beacon Planning Board  
Date: February 8, 2019  
Re: **1154 North Avenue Site Plan**

I have reviewed a January 29, 2019 cover letter from Hudson Land Design, January 25, 2019 Site Plan Application, October 2, 2018 door detail, and a 2-sheet Site Plan Application, dated January 29, 2019.

### **Proposal**

The applicant is proposing to convert an existing two-story building, previously used for storage, into two art galleries. Minor exterior improvements on the east side include a new gravel walkway, side light, and double glass door to the upper floor gallery. The 4,636 square foot parcel is in the Central Main Street (CMS) district, which allows art galleries as a permitted use.

### **Comments and Recommendations**

1. The applicant should provide evidence of legal rights allowing public access over the adjacent driveway to the rear door.
2. Details for the new doorway, exterior light, walkway, and removable barricade should be provided on the Site Plan sheets.
3. The plan should show existing trees and shrubs along the frontage and any proposed landscaping.
4. Parking spaces cannot be safely provided on this small parcel along Route 9D, so the applicant is requesting that the Board waive the required parking under Section 223-41.18 G(4). The site qualifies since the lot is under 8,000 square feet and the building is under 5,000 square feet.
5. This building is not currently in the Historic District and Landmark Overlay (HDLO) zone, but it is on a list of parcels in the Main Street area that is currently under consideration for HDLO nomination. Rather than leaving the modern front door and blank, covered-over southwest corner, the owner should consider reproducing the original storefront cornice, front door, and showroom windows as part of this application.

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

John Clarke, Beacon Planning Consultant

c: Dave Buckley, Deputy Building Inspector  
Jennifer L. Gray, Esq., City Attorney  
Arthur R. Tully, P.E., City Engineer  
John Russo, P.E., City Engineer  
Daniel G. Koehler, P.E., Project Engineer

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**248 Tioronda Avenue**

**Subject:**

Review Concept Plan, undertake SEQRA and LWRP review as requested by City Council, 248 Tioronda Avenue, submitted by Chai Builders Corp.

**Background:**

**ATTACHMENTS:**

Description	Type
City Council Resolution of Referral	Resolution
248 Tioronda Cover Letter	Cover Memo/Letter
248 Tioronda Site Plan Application	Application
248 Tioronda FEAF Report	EAF
248 Tioronda Closing Deed	Backup Material
248 Tioronda Wetland Investigation Summary	Backup Material
248 Tioronda Plan Set	Plans
Planner Review Memo	Consultant Comment
Engineer Review Letter	Consultant Comment



**CITY OF BEACON  
CITY COUNCIL  
RESOLUTION NO. 16 OF 2019**

**A RESOLUTION TO REFER THE CONCEPT PLAN FOR CHAI BUILDERS  
CORP. TO THE DUTCHESS COUNTY PLANNING BOARD AND THE CITY  
PLANNING BOARD FOR REPORT AND RECOMMENDATION**

**WHEREAS**, the City Council has received an application from Chai Builders Corp. (the “Applicant”), for Concept Plan approval. The Applicant seeks to redevelop the northern portion of the former Tuck Industries manufacturing site with a 64-unit multifamily residential development and a 25,400 square foot office building with associated parking (the “Proposed Action”); and

**WHEREAS**, the project site is 9.18 acres on property located at 248 Tioranda Avenue, designated on the City tax maps as parcels 5954-16-993482 and 6054-45-012574 (the “Property”); and

**WHEREAS**, the Property is located in the Fishkill Creek Development (“FCD”) Zoning District and in the Local Waterfront Revitalization Area; and

**WHEREAS**, the multifamily use and office building use are considered principal uses permitted in the FCD District.

**WHEREAS**, the Project requires a determination of significance under the New York State Environmental Quality Review Act (“SEQRA”), a Local Water Revitalization Policy (“LWRP”) consistency determination, Concept Plan approval from the City Council and Site Plan approval from the Planning Board.

**NOW THEREFORE BE IT RESOLVED**, that the City Council hereby refers the Concept Plan to the Dutchess County Planning Board and the City Planning Board for a report and recommendation; and

**BE IT FURTHER RESOLVED**, that the City Council requests the City Planning Board be the Lead Agency to undertake the SEQRA review of the Project and make a Determination of Significance and evaluate the application for consistency in accordance with the City’s LWRP standards and conditions; and

**BE IT FURTHER RESOLVED**, that upon receipt of the Planning Board’s Determination of Significance and LWRP consistency determination, and report and

recommendation from the County and City Planning Board, the City Council will continue its review of the Concept Plan.

<b>Resolution No. <u>16</u> of 2019</b>			<b>Date: <u>January 22, 2019</u></b>				
<input type="checkbox"/> <b>Amendments</b>			<input type="checkbox"/> <b>On roll call</b>			<input type="checkbox"/> <b>2/3 Required.</b>	
<input type="checkbox"/> <b>Not on roll call.</b>						<input type="checkbox"/> <b>3/4 Required</b>	
<b>Motion</b>	<b>Second</b>	<b>Council Member</b>	<b>Yes</b>	<b>No</b>	<b>Abstain</b>	<b>Reason</b>	<b>Absent</b>
<b>x</b>		<b>Terry Nelson</b>	<b>x</b>				
	<b>x</b>	<b>Jodi McCredo</b>	<b>x</b>				
		<b>George Mansfield</b>	<b>x</b>				
		<b>Lee Kyriacou</b>	<b>x</b>				
		<b>John Rembert</b>					<b>x</b>
		<b>Amber Grant</b>	<b>x</b>				
		<b>Mayor Randy J. Casale</b>	<b>x</b>				
		<b>Motion Carried</b>	<b>x</b>				

January 30, 2019

John Gunn, Chairman  
and Members of the Beacon Planning Board  
Beacon City Hall  
1 Municipal Center  
Beacon, New York 12508

VIA HAND DELIVERY

*Re: Beacon 248 Holdings LLC – Proposed Multifamily Development and Office Building  
(Formerly Beacon 248 Development, LLC, Multifamily Development)  
248 Tioronda Avenue, City of Beacon, Dutchess County, NY  
Chazen Project #81750.00*

Dear Chairman Gunn:

The Beacon 248 Development project, located in the Fishkill Creek Development (FCD) District, was granted a Special Use Permit by the City of Beacon Common Council on August 7, 2014, and site plan approval and subdivision approval were granted by the City of Beacon Planning Board on January 13, 2015. The approved project consisted of the construction of 100 two-bedroom apartment units within four buildings and a 1,200 SF clubhouse on the 9.16-acre site. Extensions of these approvals were subsequently granted. A public Greenway Trail was proposed along the Creek. Access to the project was via an easement over the Metro North railroad property, and emergency access was proposed from Wolcott Avenue. All conditions of approval were met, and the approved plan sets were signed by the Planning Board Chairman.

The current Applicant, Beacon 248 Holdings LLC, is now proposing a site plan for a multifamily development and office building on the property which complies with the amended zoning regulations for the FCD District. The number of dwelling units has been reduced to 64 dwelling units (28 one-bedroom units and 36 two-bedroom units) and the project includes 25,400 square feet of non-residential space, which represents 27.7% of the total proposed floor area. As required, 10% of the dwelling units will meet the requirements of Article XVI.B, *Affordable Workforce Housing*. The new plan also includes a public Greenway Trail.

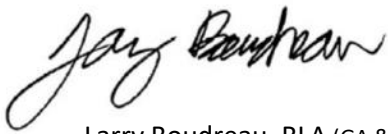
The currently proposed project was submitted to the City Council for concept plan review in July 2018. The plans have been revised in accordance with comments received, and on January 22, 2019, the City Council voted to refer to the project to the Planning Board.

The following items are attached:

- Site Plan Application with deed (5 copies)
- Full Environmental Assessment Form (FEAF) Part 1 revised January 30, 2019 (5 copies)
- Site Plan Set (5 copies)
- CD with pdfs of submittal items

Please place this project on the agenda of the agenda of the Wednesday, February 13<sup>th</sup>, Planning Board meeting. If you have any questions or need anything further, please call me at 845-486-1510. Thank you.

Sincerely,

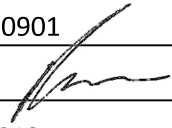
A handwritten signature in black ink that reads "Larry Boudreau". The signature is written in a cursive, flowing style.

Larry Boudreau, RLA (GA & NY), MBA  
Director of Land Development

**APPLICATION FOR SITE PLAN APPROVAL**

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

**IDENTIFICATION OF APPLICANT**

Name: Beacon 248 Holdings LLC (Bernard Kohn)  
Address: 120 Route 59 Suite 201  
Suffern, NY 10901  
Signature:   
Date: January 30, 2019  
Phone: 917-696-4402

*(For Official Use Only)*  
Application & Fee Rec'd \_\_\_\_\_  
Initial Review \_\_\_\_\_  
Public Hearing \_\_\_\_\_  
Conditional Approval \_\_\_\_\_  
Final Approval \_\_\_\_\_

Date \_\_\_\_\_  
Initials \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**IDENTIFICATION OF REPRESENTATIVE / DESIGN PROFESSIONAL**

Name: The Chazen Companies (Larry Boudreau)  
Address: 21 Fox Street  
Poughkeepsie, NY 12601

Phone: 845-454-3980  
Fax: 845-454-4026  
Email address: lboudreau@chazencompanies.com

**IDENTIFICATION OF SUBJECT PROPERTY:**

Property Address: 248 Tioronda Avenue, City of Beacon  
Tax Map Designation: Section 5954 & 6054 Block 16 and 45 Lot(s) 993482 and 012574  
Land Area: 9.18 acres Zoning District(s) Fishkill Creek Development (FCD) District

**DESCRIPTION OF PROPOSED DEVELOPMENT:**

Proposed Use: 64-unit multifamily development and 25,400 SF office building  
Gross Non-Residential Floor Space: Existing 0 Proposed 25,400 SF  
TOTAL: 25,400 SF  
Dwelling Units (by type): Existing 0 Proposed 64  
TOTAL: 64 units (28 one-bedroom and 36 two-bedroom)

**ITEMS TO ACCOMPANY THIS APPLICATION**

- a. One electronic and five (5) **folded** paper copies of a site location sketch showing the location of the subject property and the proposed development with respect to neighboring properties and developments.
- b. One electronic and five (5) **folded** paper copies of the proposed site development plan, consisting of sheets, showing the required information as set forth on the back of this form and other such information as deemed necessary by the City Council or the Planning Board to determine and provide for the property enforcement of the Zoning Ordinance.
- c. One electronic and five (5) **folded** paper copies of additional sketches, renderings or other information.
- d. An application fee, payable to the City of Beacon, computed per the attached fee schedule.
- e. An initial escrow amount, payable to the City of Beacon, as set forth in the attached fee schedule.



**INFORMATION TO BE SHOWN ON SITE LOCATION SKETCH**

- a. Property lines, zoning district boundaries and special district boundaries affecting all adjoining streets and properties, including properties located on the opposite sides of adjoining streets.
- b. Any reservations, easements or other areas of public or special use which affect the subject property.
- c. Section, block and lot numbers written on the subject property and all adjoining properties, including the names of the record owners of such adjoining properties.

**INFORMATION TO BE SHOWN ON THE SITE DEVELOPMENT PLAN**

- a. Title of development, date and revision dates if any, north point, scale, name and address of record owner of property, and of the licensed engineer, architect, landscape architect, or surveyor preparing the site plan.
- b. Existing and proposed contours at a maximum vertical interval of two (2) feet.
- c. Location and identification of natural features including rock outcrops, wooded areas, single trees with a caliper of six (6) or more inches measured four (4) feet above existing grade, water bodies, water courses, wetlands, soil types, etc.
- d. Location and dimensions of all existing and proposed buildings, retaining walls, fences, septic fields, etc.
- e. Finished floor level elevations and heights of all existing and proposed buildings.
- f. Location, design, elevations, and pavement and curbing specifications, including pavement markings, of all existing and proposed sidewalks, and parking and truck loading areas, including access and egress drives thereto.
- g. Existing pavement and elevations of abutting streets, and proposed modifications.
- h. Location, type and design of all existing and proposed storm drainage facilities, including computation of present and estimated future runoff of the entire tributary watershed, at a maximum density permitted under existing zoning, based on a 100 year storm.
- i. Location and design of all existing and proposed water supply and sewage disposal facilities.
- j. Location of all existing and proposed power and telephone lines and equipment, including that located within the adjoining street right-of-way. All such lines and equipment must be installed underground.
- k. Estimate of earth work, including type and quantities of material to be imported to or removed from the site.
- l. Detailed landscape plan, including the type, size, and location of materials to be used.
- m. Location, size, type, power, direction, shielding, and hours of operation of all existing and proposed lighting facilities.
- n. Location, size, type, and design of all existing and proposed business and directional signs.
- o. Written dimensions shall be used wherever possible.
- p. Signature and seal of licensed professional preparing the plan shall appear on each sheet.
- q. Statement of approval, in blank, as follows:

**Approved by Resolution of the Beacon Planning Board  
on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_  
subject to all conditions as stated therein**

\_\_\_\_\_  
**Chairman, City Planning Board**

\_\_\_\_\_  
**Date**

## APPLICATION FEES

<b>Site Plan</b>	<b><u>Residential</u></b> \$500 + \$250 per dwelling unit
	<b><u>Commercial</u></b> \$500 + \$250 per 1,000 s.f.
<b>Special Use Permit</b>	<b><u>Residential</u></b> \$500 + \$250 per dwelling unit
	<b><u>Commercial</u></b> \$500 + \$250 per 1,000 s.f.
<b>Subdivision</b>	\$ 750 for 2-4 lots + \$100 per lot
	\$1,000 for 5 or more lots + \$300 per lot
<b>Zoning Board of Appeals</b>	<b>Use Variance</b> \$500
	<b>Area Variance</b> \$250
	<b>Interpretation</b> \$250

## ESCROW FEES

### ALL SUBDIVISIONS, AND RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

No. of Lots or Dwelling Units	Initial Deposit	Depleted to	Replenishment
1-5 (including lot-line realignment)	\$ 2,500	\$ 1,000	Current bills + \$1,000
6-15	\$ 7,500	\$ 2,500	Current bills + \$1,000
Over 15	\$ 15,000	\$ 5,000	Current bills + \$5,000

### NON-RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

	Initial Deposit	Depleted to	Replenishment
Existing Buildings/Change of Use with no site development	\$ 1,500	\$ 1,000	Current bills + \$500
Up to 3,000 s.f. gross floor area	\$ 2,500	\$ 1,000	Current bills + \$1,000
3,000 to 10,000 s.f. gross floor area	\$ 2,500 + \$0.50 per sq.ft. over 3,000	\$ 2,500	Current bills + \$2,500
Over 10,000 s.f. gross floor area	\$ 7,500 + \$0.50 per sq.ft. over 10,000	\$ 2,500	Current bills + \$2,500

### ZONING

<i>* if required by Chairman</i>	Initial Deposit	Depleted to	Replenishment
Use Variance*	\$ 1,000	\$500	Current bills + \$500
Area Variance*	\$ 1,000	\$500	Current bills + \$500
Interpretation*	\$ 1,000	\$500	Current bills + \$500

### ARCHITECTURAL REVIEW OR CERTIFICATE OF APPROPRIATENESS *(if not currently before PB)*

<i>* if required by Chairman</i>	Initial Deposit	Depleted to	Replenishment
Single Family House*	\$500	\$250	Current bills + \$250
All others*	\$500	\$250	Current bills + \$250

# APPLICATION PROCESSING RESTRICTION LAW

## Affidavit of Property Owner

Property Owner: Beacon 248 Holdings LLC

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

Bernard Kohn

List all properties in the City of Beacon that you hold a 5% interest in:

Project parcels = 5954-16-993482 & 6054-45-012574

Applicant Address: 120 Route 59 Suite 201, Suffern, NY 10901

Project Address: 248 Tioronda Avenue, City of Beacon

Project Tax Grid # 5954-16-993482 & 6054-45-012574

Type of Application Site Plan Application & FCD Application was submitted to City Council

Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent (5%) interest in a corporation or partnership or other business.

I, Bernard Kohn of 248 Beacon Holdings LLC, the undersigned owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true.

1. No violations are pending for ANY parcel owned by me situated within the City of Beacon X
2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon NA
3. ALL tax payments due to the City of Beacon are current X
4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon NA
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon NA
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current X



Signature of Owner

Partner

Title if owner is corporation

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

**CITY OF BEACON  
SITE PLAN SPECIFICATION FORM**

Name of Application: Proposed Multifamily Development and Office Building

<b>PLEASE INDICATE WHETHER THE SITE PLAN DRAWINGS SHOW THE SUBJECT INFORMATION BY PLACING A CHECK MARK IN THE APPROPRIATE BOXES BELOW.</b>		
	<b>YES</b>	<b>NO</b>
The site plan shall be clearly marked "Site Plan", it shall be prepared by a legally certified individual of firm, such as a Registered Architect or Professional Engineer, and it shall contain the following information:	X	
<b>LEGAL DATA</b>		
Name and address of the owner of record.	X	
Name and address of the applicant (if other than the owner).	X	
Name and address of person, firm or organization preparing the plan.	X	
Date, north arrow, and written and graphic scale.	X	
<b>NATURAL FEATURES</b>		
Existing contours with intervals of two (2) feet, referred to a datum satisfactory to the Planning Board.	X	
Approximate boundaries of any areas subject to flooding or stormwater overflows.	X	
Location of existing watercourses, wetlands, wooded areas, rock outcrops, isolated trees with a diameter of eight (8) inches or more measured three (3) feet above the base of the trunk, and any other significant existing natural features.	X	
<b>EXISTING STRUCTURES, UTILITIES, ETC.</b>		
Outlines of all structures and the location of all uses not requiring structures. Paved areas, sidewalks, and vehicular access between the site and public streets.	X	
Locations, dimensions, grades, and flow direction of any existing sewers, culverts, water lines, as well as other underground and above ground utilities within and adjacent to the property.	X	
Other existing development, including fences, retaining walls, landscaping, and screening.	X	
Sufficient description or information to define precisely the boundaries of the property.	X	
The owners of all adjoining lands as shown on the latest tax records.	X	
The locations, names, and existing widths of adjacent streets and curb lines.	X	
Location, width, and purpose of all existing and proposed easements, setbacks, reservations, and areas dedicated to private or public use within or adjacent to the properties.	X	

<b>PROPOSED DEVELOPMENT</b>	<b>YES</b>	<b>NO</b>
The location, use and design of proposed buildings or structural improvements.	X	
The location and design of all uses not requiring structures, such as outdoor storage (if permitted), and off-street parking and unloading areas.	X	
Any proposed division of buildings into units of separate occupancy.	X	
The location, direction, power, and time of use for any proposed outdoor lighting.	X	
The location and plans for any outdoor signs.	X	
The location, arrangement, size(s) and materials of proposed means of ingress and egress, including sidewalks, driveways, or other paved areas.	X	
Proposed screening and other landscaping including a planting plan and schedule prepared by a qualified individual or firm.		X
The location, sizes and connection of all proposed water lines, valves, and hydrants and all storm drainage and sewer lines, culverts, drains, etc.	X	
Proposed easements, deed restrictions, or covenants and a notation of any areas to be dedicated to the City.	X	
Any contemplated public improvements on or adjoining the property.	X	
Any proposed new grades, indicating clearly how such grades will meet existing grades of adjacent properties or the street.	X	
Elevations of all proposed principal or accessory structures.	X	
Any proposed fences or retaining walls.	X	
<b>MISCELLANEOUS</b>		
A location map showing the applicant's entire property and adjacent properties and streets, at a convenient scale.	X	
Erosion and sedimentation control measures.		X
A schedule indicating how the proposal complies with all pertinent zoning standards, including parking and loading requirements.	X	
An indication of proposed hours of operation.		X
If the site plan only indicates a first stage, a supplementary plan shall indicate ultimate development.	NA	

For all items marked "NO" above, please explain below why the required information has not been provided:

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The currently submitted plan is conceptual. Detailed plans will be provided with subsequent submission to the Planning Board. Landscape plan details and erosion and sediment control plan will be provided during site plan review by the Planning Board. Hours of operation for the office use will be determined based on individual tenants.

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Applicant/Sponsor Name: Beacon 248 Holdings LLC

Signature: 

Date: January 30, 2019

<b>FOR OFFICE USE ONLY</b>
Application #

**CITY OF BEACON**  
**1 Municipal Plaza, Beacon, NY**  
**Telephone (845) 838-5000 • <http://cityofbeacon.org/>**

**INDIVIDUAL DISCLOSURE FORM**

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any person(s))

Disclosure of the names and addresses of all persons) filing a land-use application with the City is required pursuant to Section 223-62 of the City Code of the City of Beacon. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**SECTION A**

Name of Applicant: Beacon 248 Holdings LLC (Bernard Kohn)

Address of Applicant: 120 Route 59 Suite 201, Suffern, NY 10901

Telephone Contact Information: 917-696-4402

**SECTION B.** List all owners of record of the subject property or any part thereof.

Name	Residence or Business Address	Telephone Number	Date and Manner title was acquired	Date and place where the deed or document of conveyance was recorded or filed.
Beacon 248 Holdings LLC	120 Rt 59 Suite 201 Suffern, NY 10901	917-696-4402	12-10-2018	01-18-2019 at DC Clerk's Office

**SECTION B.** Is any owner of record an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon ?

YES       NO

If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

Agency	Title	Date of Hire, Date Elected, or Date Appointed	Position or Nature of Relationship

**SECTION C.** If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application.

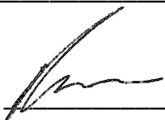
**SECTION D.** Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.

YES

NO

I, Bernard Kohn being first duly sworn, according to law, deposes and says that the statements made herein are true, accurate, and complete.

(Print) Bernard Kohn

(Signature)  \_\_\_\_\_



**FOR OFFICE USE ONLY**

Application #

**CITY OF BEACON**  
**1 Municipal Plaza, Beacon, NY**  
Telephone (845) 838-5000 • <http://cityofbeacon.org/>

**ENTITY DISCLOSURE FORM**

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any entity)

Disclosure of the names and addresses of all persons or entities owning any interest or controlling position of any Limited Liability Company, Partnership, Limited Partnership, Joint Venture, Corporation or other business entity (hereinafter referred to as the "Entity") filing a land-use application with the City is required pursuant to Section 223-62 of the City Code of the City of Beacon. If any Member of the Entity is not a natural person, then the names and addresses as well as all other information sought herein must be supplied about the non-natural person member of that Entity, including names, addresses and Formation filing documents. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

**SECTION A.**

**IF AFFIANT IS A PARTNERSHIP, JOIN VENTURE OR OTHER BUSINESS ENTITY, EXCEPT A CORPORATION:**

Name of Entity	Address of Entity
Place where such business entity was created	Official Registrar's or Clerk's office where the documents and papers creating entity were filed
Date such business entity or partnership was created	Telephone Contact Information

**IF AFFIANT IS A CORPORATION:**

Name of Entity Beacon 248 Holdings LLC	Telephone Contact Information 917-696-4402
Principal Place of Business of Entity 120 Route 59, Suite 201 Suffern, NY 10901	Place and date of incorporation Rockland County 03-29-2017
Method of Incorporation Limited Liability Corporation (LLC)	Official place where the documents and papers of incorporation were filed Rockland County

**SECTION B.** List all persons, officers, limited or general partners, directors, members, shareholders, managers, and any others with any interest in or with the above referenced Entity. List all persons to whom corporate stock has been pledged,



**SECTION C.** List all owners of record of the subject property or any part thereof.

Name	Residence or Business Address	Telephone Number	Date and Manner title was acquired	Date and place where the deed or document of conveyance was recorded or filed.
Beacon 248 Holdings LLC	120 Rt 59 Suite 201 Suffern, NY 10901	917-696-4402	12-10-2018	01/18/2019 at DC Clerk's Office

**SECTION D.** Is any owner, of record or otherwise, an officer, director, stockholder, agent or employee of any person listed in Section B-C?

YES

NO

Name	Employer	Position

**SECTION E.** Is any party identified in Sections A- C an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon ?

YES                       NO

If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

Agency	Title	Date of Hire, Date Elected, or Date Appointed	Position or Nature of Relationship

**SECTION F.** Was any person referred to in Sections A-D known by any other name within five (5) years preceding the date of the application?

YES                       NO

Current Name	Other Names

**SECTION G.** List the names and addresses of each person, business entity, partnership and corporation in the chain of title of the subject premises for the five (5) years next preceding the date of the application.

Name	Address
Beacon 248 Development LLC	104 Rochelle Avenue, Rochelle Park, NJ 07662
CHG&E Corp.	284 South Avenue, Poughkeepsie, NY 12601

**SECTION H.** If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application.

**SECTION I.** Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.

YES

NO

I, Bernard Kohn being first duly sworn, according to law, deposes and says that I am (Title) \_\_\_\_\_, an active and qualified member of the Beacon 248 Holdings LLC, a business duly authorized by law to do business in the State of New York, and that the statements made herein are true, accurate, and complete.

(Print) Bernard Kohn

(Signature)  \_\_\_\_\_

# Exhibit # 1

CLOSING MEMORANDUM – December 10, 2018

Purchaser: Beacon 248 Holdings LLC

Premises: Tioranda Avenue and Wollcott Avenue, Beacon, New York

**BARGAIN AND SALE DEED WITH COVENANT AGAINST GRANTOR'S  
ACTS (INDIVIDUAL OR CORPORATION)**

CAUTION: THIS AGREEMENT SHOULD BE PREPARED BY AN ATTORNEY AND REVIEWED BY ATTORNEYS FOR SELLER AND PURCHASER BEFORE SIGNING.

*THIS INDENTURE*, made this 10<sup>th</sup> day of December, 2018,

**between**

Beacon 248 Development, LLC,  
104 Rochelle Avenue, Rochelle Park, NJ

party of the first part, and

Beacon 248 Holdings, LLC,  
15 Sycamore Lane, Suffern, NY 10901

party of the second part,

*WITNESSETH*, that the party of the first part, in consideration of Ten Dollars and No Cents (\$10.00), lawful money of the United States, paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

*ALL* that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the City of Beacon, County of Dutchess, State of New York, described in Schedule A annexed hereto.

*BEING* the same premises (1) conveyed by Deed from Joseph Rendeiro, dated June 14, 2006, and recorded on June 20, 2006, as Document #02-2006-4859 in the official records of the Dutchess County Clerk's Office Division of Land Records, and (2) conveyed by Deed from Central Hudson Gas and Electric Corporation dated November 27, 2017 and recorded on December 4, 2017 as Document #02-2017-9110.

*TOGETHER* with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof,

*TOGETHER* with the appurtenances and all the estate and rights of the party of the first part in and to said premises,

*TO HAVE AND TO HOLD* the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

*AND* the party of the first part, covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

*AND* the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

*IN WITNESS WHEREOF*, the party of the first part has duly executed this deed the day and year first above written.

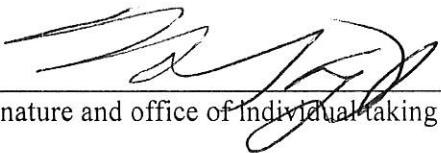
**Beacon 248 Development, LLC**



By **PETER DeROSA**

STATE OF NEW YORK            )  
COUNTY OF DUTCHESS        ) ss.:  
                                          )

On the 10<sup>th</sup> day of December in the year 2018, before me, the undersigned, personally appeared PETER DeROSA, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that they executed the same in their capacity(ies), and that by their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.



(signature and office of individual taking acknowledgment)

HAROLD D. EPSTEIN  
Notary Public, State of New York  
Residing in Dutchess County  
My Commission Expires November 30, 20 21

***DEED***

**Title No.**

**Swiss Code**           130200  
**Section**               5954  
**Block**                 16  
**Lot**                    993482-0000  
**County or Town**   DUTCHESS COUNTY  
**Street Address**    Tioranda Avenue  
                                  City of Beacon

to

**Swiss Code**           130200  
**Section**               6054  
**Block**                 45  
**Lot**                    012574-0000  
**County or Town**   DUTCHESS COUNTY  
**Street Address**    Tioranda Avenue  
                                  City of Beacon



## **Schedule A - Lot 1**

**All** that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the City of Beacon, County of Dutchess and State of New York, shown as Parcel 1B on Subdivision Plat prepared for Advantage Mortgage, Inc., which map was filed in the Office of the Dutchess County Clerk on February 22, 2000 as Map No. 10970.

## Schedule A - Lot 2

ALL that certain plot, piece, or parcel of land situate, lying and being in the City of Beacon, County of Dutchess and State of New York, being bounded and described as follows:

BEGINNING at an iron pipe set, South 72 degrees 46' East 25.00 feet from an existing iron pin marking the monumented center line at point of tangency Station 1972 + 60.64 of the Central New England Railway Company centerline; thence on a curve to the right with a radius of 1612.28 feet and having a central angle of 9 degrees 01' 22" for a distance of 253.90 feet, more or less, parallel to the aforesaid monumented center line to a point, the long chord of said curve being, North 21 degrees 45' East 253.64 feet, more or less, thence, South 61 degrees 30' East 85.84 feet along the southerly line of Wolcott Avenue to a point in range with westerly end of a bridge over the Fishkill Creek; thence, South 61 degrees 30' East 51.30 feet continuing along the southerly line of Wolcott Avenue and passing through the abutment of the aforesaid bridge to a point in the Fishkill Creek which is level with the crest of a dam on the lands of NY Rubber Corporation; thence the following three courses along and in the Fishkill Creek being maintained level with the crest of said dam, South 27 degrees 06' West 56.46 feet, more or less, to a point; thence, South 25 degrees 29' West 175.24 feet and South 22 degrees 48' West 143.91 feet to a point; thence, North 72 degrees 46' West 13.15 feet to an iron pipe set in the root of a tree; thence, on the same course, 77.62 feet to an iron pipe set in the center line of a Central Hudson Gas & Electric Corporation electric transmission line; thence on the same course, 5.30 feet to a point distant easterly 35.0 feet (measured at right angles) from the monumented center line of the aforesaid railroad; thence, North 3 degrees 12' East 41.23 feet to a point, said point being distant easterly 25.0 feet (measured at right angles) from the monumented center line of the aforesaid railroad; thence, North 17 degrees 14' East 106.00 feet parallel to the aforesaid monumented center line to the point of beginning.

EXCEPTING and reserving from the above described parcel the shoulders and all other parts of the access road lying on the westerly side of said parcel.

EXCEPTING and reserving from the above described parcel all that certain piece of parcel of land conveyed by quit claim deed by the NY Rubber Corporation to the City of Beacon dated 11/30/1936 and recorded 12/14/1936 in Liber 556 cp 508, which said parcel contains .1 acre.

FURTHER EXCEPTING and reserving from the above described parcel all that certain piece or parcel of land required in fee by The People of the State of New York pursuant to Notice of Appropriation dated 12/4/1997 and recorded 12/4/1997 in Liber 2002 cp 511, which said parcel contains 0.096 acre more or less.

ALSO CONVEYING the right to construct, maintain and use driveways and footwalks over the premises conveyed to the City of Beacon in Liber 556 cp 508 pursuant to reservation contained therein.

ALSO CONVEYING all other rights including the right of reverter reserved in the deed to the City of Beacon in Liber 556 cp 508.

Full Environmental Assessment Form Part 1  
for  
*Proposed Multifamily Development and Office Building*

**248 Tioronda Avenue**  
**City of Beacon**  
**Dutchess County, New York**



Issued: September 10, 2018  
Reissued: October 15, 2018  
Reissued: November 26, 2018  
Reissued: January 17, 2019  
Reissued: January 30, 2019

Prepared for:

248 Beacon Holdings LLC.  
120 Route 59 Suite 201  
Suffern, New York 10901

Prepared by:

Chazen Engineering, Land Surveying &  
Landscape Architecture Co., D.P.C.  
21 Fox Street Suite 201  
Poughkeepsie, NY 12601  
845-454-3980

Chazen Project No. 81750.00

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- Attachment A: Updated Traffic Synchro Analysis
- Attachment B: NYSDEC Correspondence and US Fish & Wildlife Service (USFWS) Official Species List

Note: Site Plan submitted separately.

## PROJECT NARRATIVE

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## 1.0 PROJECT DESCRIPTION

### 1.1 Introduction

The Applicant, 248 Beacon Holdings LLC, proposes the redevelopment of the northern portion of the former Tuck Industries manufacturing site with a 64-unit multifamily residential development and a 25,400 square foot (SF) office building, with associated parking. A Greenway Trail for public use is proposed along the Fishkill Creek. The 9.18-acre project site consists of two tax parcels identified as parcels 5954-16-993482 and 6054-45-012574 on the City of Beacon tax map, which are proposed to be consolidated. Access to the development is provided from Tioronda Avenue across the Metropolitan Transit Authority (MTA) property via easement. A second gated access for emergency and pedestrian use only is provided from Wolcott Avenue (NYS Route 9D). The proposed development is contained almost entirely within the former Tuck Industries development area.

The FEAF was completed utilizing the NYSDEC EAF Mapper, which provides automated responses to certain questions. The EAF Mapper tool sometimes indicates limited availability for some digital data. This narrative provides clarification for responses and/or reference used for the responses.

### 1.1 Project History

The project site is located in the Fishkill Creek Development (FCD) District, according to the City of Beacon Zoning Map. Development within this District requires both City Council and Planning Board approvals. The current property owner and previous Applicant, Beacon 248 Development, LLC, received Concept Plan and Special Permit Approvals by the City of Beacon City Council on August 4<sup>th</sup>, 2014, for the redevelopment of the site for a 100-unit multifamily residential development. The Planning Board was Lead Agency for the State Environmental Quality Review (SEQR), and a Negative Declaration was adopted on April 8, 2014, after determination that the project would not have any significant adverse environmental impacts. Planning Board Approvals for Subdivision (lot consolidation) and Site Plan were granted on January 13, 2015. The approved site plan layout included four residential buildings, a 1,200 SF clubhouse, and a swimming pool for use by residents only. The site plan also included a Greenway Trail along the Fishkill Creek for public use. An access easement was granted by MTA for the Tioronda Avenue access drive. The property owner subsequently was granted extensions of the Planning Board approvals for site plan and subdivision.

In 2017, the City Council adopted zoning amendments which included amendments to the FCD regulations. "Attached apartment and multifamily dwellings" is a permitted principal use that previously required a special permit from the City Council in the FCD District. However, the adopted zoning amendments eliminate the need for a special permit. "Professional and business offices in buildings that face streets" are also permitted in the FCD District. A FCD project requires concept approval and SEQR by the City Council and site plan approval by the Planning Board. The zoning amendments also result in a reduction in the number of dwelling units that would be permitted for this property.

## 1.2 Current Project

The current Applicant has presented a new concept plan that meets the amended FCD requirements. The number of dwelling units has been reduced from 100 units to 64 units, which include 28 one-bedroom units and 36 two-bedroom units (100 bedrooms). The proposed site plan includes two residential buildings and a 25,400 SF office building. Many of the features that were incorporated into the approved plan have been retained in the currently proposed site plan, including the Greenway Trail and emergency access drive. The current plan continues to be located mostly within the area of development for the former Tuck Industries facility.

## 2.0 LAND USE AND ZONING

### 2.1 Land Use

The project site is located on Tioronda Avenue with additional road frontage on Wolcott Avenue. Figure 3 shows land uses within 1,000 feet of the site. The properties north of the project site are vacant residential land and the City of Beacon highway garage. The project site is separated from Tioronda Avenue by a railroad bed owned by MTA, and across Tioronda Avenue are single family residences and a public school. Adjacent to the project site to the south is a vacant industrial property, also located in the FCD district. Uses across the Fishkill Creek from the project site include single family residences, a two-family residence, vacant residential land owned by the City of Beacon, and an animal rescue facility. The proposed residential and office uses will blend in with the other residential uses in the area and will be consistent with future development of the FCD properties to the north and south. The project involves the redevelopment of a deteriorated former industrial site. The project will aesthetically improve the site with new landscaping, decorative lighting, and architecturally pleasing new buildings, as well as providing a public Greenway Trail along the Fishkill Creek.

### 2.2 City of Beacon Comprehensive Plan

The City of Beacon Comprehensive Plan adopted December 17, 2007, proposed a combination of new open spaces and parks balanced with new opportunities for commercial and residential development in several key areas of the City, including the former industrial sites along the Fishkill Creek. The 2007 Comprehensive Plan encouraged residential development at these old industrial sites, and actually provided for greater density (15 dwelling units per acre), stating that: *“Allowing these lands to be built at greater densities represents an efficient use of land in a location capable of supporting this level of development. The City expects to benefit from this through the physical revitalization of these areas.”*

The Comprehensive Plan Update adopted April 3, 2017, (the “Plan”) reflects land use, demographic and socioeconomic changes that have taken place since the 2007 plan was adopted. The updated recommendations in the Plan address environmental protection, economic development, affordable housing and improved community services and facilities. The primary focus of the 2017 Plan is the waterfront and train station area; therefore, many of the policies and recommendations of the 2007 Comprehensive Plan that applied to the project site are still applicable.

One of the Goals of the Plan is to “encourage a vibrant business community in harmony with existing commercial and industrial areas throughout the community. Employ all available mechanisms to meet the City’s objectives for economic development” (page 66), and Objectives and Recommendations under this Goal for vacant industrial sites is to “encourage the environmental cleanup and redevelopment of the unused or underutilized industrial sites along Fishkill Creek for new light industrial, commercial, or residential uses, as appropriate. New uses proposed for the vacant sites away from Main Street should not conflict or compete unduly with existing uses in the City” (page 68).

The goals of the Plan that relate to “Environmental Resources” include to “preserve environmentally significant features and create an open space system of sufficient size to reserve adequate areas for the protection of water related resources, wildlife, and land forms of particular environmental value. The rare assets of the City, such as the Hudson River and Fishkill Creek, should be protected, as should the Hudson Highlands on the slopes of Mt. Beacon” and to “encourage high environmental standards for development and infrastructure, develop sources of renewable energy and improve the environmental performance of City-owned property (page 24).” One of the objectives of this goal is to “establish and preserve open space corridors along Fishkill Creek and the Hudson River, and seek open space linkages to the large areas of open space in the Hudson Highlands on the slopes of Mt. Beacon”. The proposed public Greenway Trail is consistent with this goal and objective, as the trail area along the creek is preserved with a conservation easement, and extends across the site to allow connection to adjacent properties along the creek.

The goal of the Comprehensive Plan that relates to “Population and Residential Development” includes “(1) strive to maintain a variety of housing opportunities that area accessible to a wide variety of income levels”; “(4) encourage residential development of vacant and underutilized former industrial sites”; and “(5) ensure continued racial, ethnic, age and economic diversity of the population through encouraging a wide range of housing choices” (page 52). The City’s creation of the Fishkill Creek Development (FCD) district represents implementation of this goal and these objectives. The project is consistent in that it is a mix of uses which include market rate residential housing along with a public Greenway Trail. The project will comply with the requirements for affordable-workforce housing per Article IVBX of the zoning code. Stormwater management will include green infrastructure practices such as bioretention.

The goal of the Comprehensive Plan that relates to “Commercial, Office, and Industrial Development” is to “encourage a vibrant business community in harmony with existing commercial and industrial areas throughout the community. Employ all available mechanisms to meet the City’s objectives for economic development” (page 66). An objective of this goal (Objective F) is to “encourage the environmental cleanup and redevelopment of the unused or underutilized industrial sites along Fishkill Creek for new light industrial, commercial, or residential uses, as appropriate. New uses proposed for the vacant sites away from Main Street should not conflict or compete unduly with existing uses in the City” (page 68).

The project consists of the redevelopment of the former Tuck Industries manufacturing site for a multifamily residential development and office building. The project site was listed in the NYSDEC’s Environmental Remediation Database as a Site Code 314044, formerly operated as a tape manufacturing facility. The listing was the result of leaking drums and storage tanks that contained solvents and solvent recovery system waste which resulted in soil contamination. The industrial buildings were demolished and removed, and the site was remediated to the satisfaction of NYSDEC, and is ready for redevelopment, consistent with this goal and objective of the Comprehensive Plan.

The goal of the Comprehensive Plan that relates to “Recreation and Community Facilities” is that “community services for all age groups should be provided consistent with the economic growth of the City and its available resources. Regional facilities should be encouraged to locate in the City. Develop a recreational open space system of sufficient size and locational qualities to meet the complete range of recreational needs for the people” (page 142). An objective of this goal is to “continue to develop Greenways along the Hudson River and Fishkill Creek for public recreation, and provide linkages to trails towards the Hudson Highlands and the slopes of Mt. Beacon” and to “determine the future use of the railroad tracks along Fishkill Creek for vehicles capable of utilizing the tracks or for a bicycle and pedestrian path, and implement the decision” (page 144).

The project includes a Greenway Trail along the Fishkill Creek that will be accessible to the public and which can connect to adjacent properties. The proposed Greenway Trail is likely to alleviate some of the pressure on other public parks and recreational facilities in the City.

Based on this information, the project is consistent with the City of Beacon Comprehensive Plan.

### **2.3 City of Beacon Zoning**

The project site is situated in the Fishkill Creek Development (FCD) District as designated by the City of Beacon zoning regulations. According to Article IVC, *Fishkill Creek Development (FCD) District*, the purposes of the FCD District include:

- A. *Encourage the development and/or redevelopment of undeveloped or underutilized industrial properties along the Fishkill Creek in a manner that provides a mix of residential and nonresidential uses. Properties in this category are generally more remote from the Central Business District, but offer larger sites for a flexible range of compatible nonresidential uses.*
- B. *Establish and preserve open space corridors along Fishkill Creek and the Hudson River, and seek open space linkages to the large areas of open space in the Hudson Highlands on the slopes of Mount Beacon.*
- C. *Continue to develop greenways along the Hudson River and Fishkill Creek for public recreation, and provide linkages to trails towards the Hudson Highlands and the slopes of Mount Beacon. Improve boat access to Fishkill Creek and the Hudson River. Determine the future use of the railroad tracks along Fishkill Creek for vehicles capable of utilizing the tracks or for a bicycle and pedestrian path, and implement the decision.*

The project is consistent with the purposes of the FCD District, as it represents redevelopment of an abandoned industrial site, provides a mix of uses, preserves a buffer along the Fishkill Creek, and provides a Greenway Trail for public use which can connect to future trails along the creek on adjacent properties. The trail extends a distance of approximately 1,830 linear feet with an additional 470 linear feet within two spurs, representing a significant addition to the City’s proposed Fishkill Creek Greenway & Heritage Trail (FCG&HT) Master Plan fulfillment. This trail will connect to Wolcott Avenue by means of the emergency access to Wolcott Avenue, and to the Sisters property to the south. Public access to the trail is also provided from Tioronda Avenue.

According to Section 223-41.13.D, each FCD proposal requires SEQR and concept plan approval by the Beacon City Council and site plan approval by the Beacon Planning Board. These reviews may proceed

simultaneously. The Zoning Law Section 223-41.13.B specifically permits “attached apartment and multifamily dwellings” and “professional and business offices in buildings that face streets” in the FCD district. Section 223-41.14 provides the bulk requirements for the FCD District. The proposed density of 64 dwelling units is permitted by zoning, without the use of available incentives that would increase the maximum density. A zoning compliance table is provided on Sheet T1 of the site plan set, and density calculations are provided on Sheet EC1. The maximum residential development density in the FCD district per Section 223-41.14B is 11 dwelling units per acre of lot area, where lot area on all development proposals involving more than three acres is calculated by deducting any lot area with existing, pre-development very steep slopes of 25 percent or more as defined in Section 223- 63, covered by surface water, within a federal regulatory floodway, or within a state or federally regulated wetland. Additionally, a minimum of 25 percent of the total development's floor area shall be permitted nonresidential uses other than dwelling units or artist live/work spaces, which must be built out before or concurrently with the residential development of the site. Less nonresidential square footage may be granted by the City Council for the voluntary and guaranteed inclusion in the project of desirable environmental, transportation, or other substantial public benefits which would not otherwise be required of the project, as determined at the sole discretion of the City Council as part of the concept plan approval.

Section 223-41.13(3)(b) provides a list of conditions and standards for the City Council’s approval of a FCD concept plan. These standards include the preservation of open space along the Fishkill Creek and the provision of a public Greenway Trail along the creek that would connect to future trails on adjacent properties.

The project provides a buffer along the Fishkill Creek to preserve existing vegetation and significant trees, as well as viewsheds along this corridor. The setback from the Fishkill Creek as measured from the top of the creek bank varies from approximately 45 feet to 110 feet, with an average setback of 75 feet, which exceeds the minimum required setback of 25 feet and the minimum required average setback of 50 feet. The layout was designed to avoid 100-year floodplain areas and steep slopes. Site development is fitted to the topography and soil so as to create the least potential for vegetation loss and site disturbance. The project avoids the steeper slopes and floodplain areas. The buffer along the creek will be protected by a conservation easement as required. This will supersede the existing 6-foot easement along the Fishkill Creek shown on the filed subdivision map. The approved site plan was endorsed by the City of Beacon Greenway Trail Committee. The proposed Greenway Trail has been relocated to avoid the stream and floodplain areas.

Approximately 5.95 acres of the 9.18-acre site will be disturbed for the project. During construction, protective fencing will be placed at or one foot beyond the drip line of trees that will be preserved as shown on the plan. Temporary vegetation sufficient to stabilize the soil will be provided on all disturbed areas as needed to prevent soil erosion, in accordance with the SWPPP. New planting shall be given sufficient water, fertilizer and protection to ensure establishment.

The project meets the Fishkill Creek development design standards set forth in Section 223-41.13.I, to the extent applicable at the concept plan stage. Parking requirements and information are provided in Section 6.2.

Since the project is consistent with the Zoning regulations, no significant adverse impacts will result from the project.

## 2.4 City of Beacon Local Waterfront Revitalization Plan (LWRP)

The project is consistent with the Beacon LWRP. Policy #25 of the LWRP adopted March 7, 2011, lists 13 viewsheds that should be protected which contribute to the scenic quality of the coastal area. None of the views extends over the subject development site, or over any nearby site in the Fishkill Creek Corridor. The project is consistent with the applicable LWRP recommendations for development in scenic viewsheds, including setback from the Fishkill Creek shoreline to preserve the privacy and some grade-separation of the pedestrian trail along the Creek. Section 12.0, Community Character, provides a description of the proposed architecture and preliminary information regarding visual impacts.

Since the project is consistent with the LWRP, no significant adverse impacts are anticipated. A Coastal Consistency determination will be required.

## 3.0 COMMUNITY SERVICES

Police protection is provided by the City of Beacon Police Department. The project site is within the City of Beacon Fire District, which has three fire stations located at 425 Main Street, 57 East Main Street, and 13 South Avenue. Buildings will be sprinklered, and the proposed site plan includes a gated access drive from Wolcott Avenue for emergency access only, since the main access crosses an MTA railroad line. A truck maneuvering plan is included as Sheet C200. The Police Department and Fire Department will have the opportunity to review and provide further comments on the project during the site plan review process. Therefore, the project is not expected to result in any adverse impacts in regard to police, fire, or emergency services.

## 4.0 SOILS, TOPOGRAPHY, AND WATER RESOURCES

### 4.1 Soils and Topography

Figure 5 shows the soil types that are expected to be present on the project site, and Table 4-1 provides characteristics of these soil types, according to Dutchess County Soil Survey information available in GIS and the Natural Resource Conservation Service website.

**Table 4-1: Characteristics of Soil Types within Project Site**

SOIL SYMBOL	SOIL TYPE	SLOPES	DRAINAGE	DEPTH TO WATER TABLE (FT)	DEPTH TO BEDROCK (INCHES)
Ud	Udorthents, smoothed	mostly 0 to 8% but 8 to 25% on sides of excavations and along highways	somewhat excessively to moderately well	>3.0 Nov-Jun	>60
W	Water	NA	NA	0	NA

Figure 5 shows slopes on the site, which vary from 0% to greater than 20%. Areas of “very steep slopes”, which are defined in Section 223-63 of the zoning regulations as “an area of land with a gradient of 25% or more extending over a contiguous land area of at least 10,000 square feet”, are shown on Sheet C100. No development is proposed in these areas of very steep slopes.

The project is not expected to result in any significant adverse impacts related to soils or topography.

## 4.2 Water Resources

According to the NYSDEC Environmental Resource Map (Figure 7), the site does not contain nor is contiguous to a State regulated wetland or associated adjacent area. According to Figure 7, the project site is contiguous to the Fishkill Creek, a NYSDEC stream identified as H-95, a tributary of the Hudson River (NYCRR Title 6 Chapter X Subchapter B Section 862.6 Table 1 Item 237). This stream is classified as a Class C stream in the vicinity of the project site; therefore, it is not regulated by NYSDEC as a protected water. The site was investigated by a Chazen wetland biologist on November 6, 2018, and a Wetland Investigation Memo dated January 30, 2019, was prepared. No wetlands were observed on the project site. The Fishkill Creek flows directly into the Hudson River, a traditionally navigable water, approximately 800 feet to the southwest. The US Army Corps of Engineers (USACOE) regulates wetlands and waters with a significant nexus under Section 404 of the Clean Water Act, and specifically regulates the discharge of dredged or fill material into such waters. The USACOE does not regulate a buffer around these aquatic resources. Since this stream flows directly into the Hudson River, a Traditionally Navigable Water in close proximity to the site, significant nexus is presumed. The project does not involve any disturbance to wetlands or streams; therefore, no permits will be required. Therefore, no significant adverse impacts to water resources are anticipated as a result of the project.

## 4.3 Floodplain

According to the National Flood Insurance Program Flood Insurance Rate Map (FIRM), City of Beacon, New York, Community Panel 360217, a portion of the project site along the Fishkill Creek is located within Flood Zone AE, which is described as an area of the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual (100-year) chance flood can be carried without substantial increases in flood heights. No building construction is proposed within Zone AE.

## 5.0 UTILITIES

### 5.1 Water and Wastewater

The project will be served by City of Beacon municipal water and sewer service. A 12” water main and 8” sewer main are located along Tioronda Avenue. Sewage generated from both residential and non-residential buildings will be conveyed via gravity flow to an onsite sewage pump station, where it will be pumped via force main and tapped in to the existing 2-inch fiberglass pipe which extends under the railroad property and ties into the City sewer system.

According to the NYSDEC Design Standards for Intermediate-Sized Wastewater Treatment Systems, March 2014, an apartment is expected to result in 110 gallons per day (gpd) per bedroom water usage and wastewater generation, which incorporates a reduction for the use of water saving plumbing fixtures.

An office building is expected to result in 15 gpd per employee, with an additional 20% reduction for the use of water saving plumbing fixtures. Thus, the project with 100 bedrooms would be expected to result in 11,000± gallons per day water usage and wastewater generation. The Urban Land Institute *Employment and Parking in Suburban Business Parks: A Pilot Study*, 1986, Table 14, estimates a mean employment density of 347 SF per employee, which results in an estimated 73 employees for the 25,400 SF office building. Thus, the office building would be expected to result in 876 gpd, after applying the 20% reduction. Therefore, the total estimated water usage and wastewater generation for the project is estimated to be 11,876 gpd. Detailed plans and specifications will be submitted to the DCDOH for approval of the proposed water and sewer infrastructure as part of the site plan review.

The previously approved project with 100 two-bedroom units was be expected to result in 22,800± gallons per day water usage and wastewater generation (FEAF dated March 24, 2014). Thus, the proposed project represents a reduction in estimated water usage and wastewater generation of 10,924 gpd as compared to the approved site plan.

## 5.2 Stormwater

The project will result in a disturbance area of 5.95 acres of the 9.18-acre site, but virtually all of the disturbance is within the area already disturbed by the factory buildings, parking areas, and other areas associated with the industrial development. The project will increase the impervious area by 0.48 acres. As a redevelopment project with an increase in overall impervious area, treatment of stormwater will be provided for 100% of the additional new impervious area and 25% of the existing disturbed impervious area. The project proposes to use a combination of standard stormwater management practices and alternative practices. The site will continue to discharge stormwater runoff to the Fishkill Creek. A downstream analysis was performed for the previous project. Pre- and post-development surface runoff rates will be evaluated for the 1-, 10-, and 100-year 24-hour storm events. Comparison of pre- and post-development watershed conditions at the design point in the Fishkill Creek will demonstrate that the project will not have a significant adverse impact on the adjacent or downstream properties or receiving water courses. Therefore, extended detention of stormwater will not be required for the proposed redevelopment project. An Erosion and Sediment Control Plan will be provided and shall be employed during the construction phase to protect off-site waters from the adverse effects of sedimentation and erosion. Therefore, the project is not expected to result in any adverse impacts in regard to stormwater.

## 6.0 TRAFFIC AND PARKING

### 6.1 Traffic

Access to the project site is provided from Tioronda Avenue over an at grade crossing easement granted by the MTA. This access was used for many years when the Tuck Industries manufacturing facility was in operation. The grade crossing provides access both to the project site and to the adjoining Sisters property, avoiding multiple accesses onto Tioronda Avenue. The Filed Subdivision Map (FM #10970 filed February 20, 2000) provides for a shared access. The Applicant will offer emergency access to other owners of the FCD properties subject to contribution of a fair share of the costs of building the emergency access. The 555 South Avenue property has its own entrance, at a point approximately 2,400 feet south of the entrance to Beacon 248.



The general interior configuration of the project road system is shown on the plans. The road system provides for circulation by means of a left turn inside the site to reach the proposed buildings, and a right turn inside the site to reach Sisters property.

The project will generate new traffic in the vicinity of the project site, since the site is currently vacant. All traffic will be oriented to travel to and from the site via the intersection of Tioronda Avenue with Wolcott Avenue/Route 9D. The present access design is to prohibit arrivals to the site from the south, and prohibit left turns out of the site to travel south on Tioronda Avenue. This traffic routing meets the needs of travelers, since Wolcott Avenue provides the best routing in either direction to I-84, the train station, and Route 9D going either north or south. It also protects the neighborhoods to the south and west of the site from additional traffic through local neighborhoods. The limitation on turning movements does not create any traffic difficulties for the residents of the project or for the local community.

The Institute of Transportation Engineers (ITE) Trip Generation Manual, 10<sup>th</sup> Edition, 2017, provides trip generation rates by land use categories, using different variables. Table 6-1 provides estimates for traffic generation for the two proposed uses on the site for the weekday a.m. peak hour of adjacent street traffic and the weekday p.m. peak hour of adjacent street traffic.

**Table 6-1: Traffic Generation**

LAND USE	Land Use Code	AM Peak		PM Peak	
		Rate	vte's	Rate	vte's
Multifamily Housing (Mid-Rise) (64 dwelling units)	221	0.36 vte's per dwelling unit	23	0.44 vte's per dwelling unit	28
General Office Building (25,400 SF)	710	1.16 vte's per 1,000 SF GFA	29	1.15 vte's per 1,000 SF GFA	29
Total			52		57
vte = vehicle trip end					

Thus, the project with 64 dwelling units and 25,400 SF of office space is expected to generate 52 vte's during the weekday a.m. peak hour of adjacent street traffic and 57 vte's during the weekday p.m. peak hour of adjacent street traffic. These rates do not exceed the SEQR threshold of 100 vte's. Consideration of traffic generated by the previous occupancy of the site would further reduce the impacts of the proposed project on traffic conditions at the site.

The previously approved project with 100 dwelling units was expected to generate slightly more traffic, with 53 vte's during the weekday a.m. peak hour of adjacent street traffic and 73 vte's during the weekday p.m. peak hour of adjacent street traffic. Since the estimated traffic generation for the current project is expected to be less than that of the approved project, no significant adverse impacts to traffic are anticipated.

A Traffic Impact Study dated November 13, 2013, was prepared, and was supplemented by another study dated March 20, 2014. The March 2014 Supplemental study evaluated the traffic movements considering also the traffic to be generated by potential development of the Sisters property and the Beacon Terminals 555 South Avenue property, both of which are also within the FCD district. The March 2014 study concludes that even with the development of the FCD parcels to the south, all intersections studied will

continue to operate at a Level of Service (LOS) of "A" (excellent) with the exception of the Wolcott Avenue/Tioronda Avenue intersection, where the Wolcott Avenue approaches will operate at LOS "B" (good) and the Tioronda Avenue approaches will operate at LOS "A" (excellent). The 2015 buildout analysis for the intersection of Wolcott Avenue and Tioronda Avenue showed LOS "B" for AM and PM build conditions using Synchro Version 8. Re-creating the 2015 analysis using Synchro Version 10 shows a LOS "A" for AM and PM using Synchro version 10. A change in the LOS at this intersection from "A" to "B" for the AM peak would require the addition of 300 vehicles eastbound and westbound on Wolcott Avenue, and 50 vehicles southbound on Tioronda Avenue (with no change in northbound vehicles). Delay in this case would be increased by approximately 3 seconds. A change in the LOS from "A" to "B" for the PM peak would require 200 vehicles eastbound and westbound on Wolcott Avenue, and 50 vehicles southbound on Tioronda Avenue, resulting in an increase in delay of approximately 3 seconds. Based on land use trip generation numbers at the am and pm rates for multifamily and general office, the capacity of the intersection could support an additional 833 multifamily units during the am peak and 681 units on the pm peak OR an additional 258,000 SF of general office at the AM peak and 260,000 SF at the PM peak, and still maintain a LOS of "B". In conclusion, Wolcott Avenue and Tioronda Avenue can support significantly more traffic and still operate with a very good level of service. An updated Synchro analysis was performed by a Chazen transportation engineer which generates the same conclusion (Attachment A).

Additionally, a significant portion of the former manufacturing facility traffic consisted of truck traffic. Truck traffic generated by the proposed office use will be minimal.

A site distance evaluation was completed in the 2013 Traffic Impact Study which examined the two access drive locations. The evaluation determined that sight distance is excellent for vehicles making either a left or right turn into the driveway from Wolcott Avenue.

The existing driveway on Tioronda Avenue is situated on a north-north-west skew to Tioronda Avenue. Existing vegetation between the driveway and Tioronda Avenue obscures vision. With the removal of this vegetation, sight distance along Tioronda Avenue will be in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards for the operating speed on Tioronda Avenue at or adjacent to the exit driveway/Knevels Avenue. Speed data collected during the 24-hour counts indicated that the 85% speed was between 35 and 39 mph, depending on the direction and the day the data was recorded. AASHTO sight distance design criteria for 40-mph operating speed is 445 feet for a left turn out onto Tioronda Avenue, and 385 feet for a right turn out onto Tioronda Avenue. AASHTO sight distance for a left turn into the site driveway is 325 feet and the stopping sight distance is 305 feet. Once the existing vegetation is removed, all sight distances will meet or exceed AASHTO criteria applicable to this location.

Temporary traffic generated during demolition and construction activities includes construction employees and the delivery of equipment and materials. The project is not expected to result in any adverse impacts in regard to temporary traffic during construction.

## 6.2 Parking

Parking is provided in a surface lot located between the proposed office building and residential buildings, and within a parking garage located below grade that extends under and between the two residential buildings. According to the City of Beacon Zoning Code Section 223-26.F, a multifamily residential use requires 1 space for each dwelling unit plus 1/4 space for each bedroom, and a professional office use requires 1 space for each 200 square feet of gross floor area, excluding utility areas. Therefore, the 64-unit residential development with 28 one-bedroom units and 36 two-bedroom units (100 bedrooms total) requires 89 parking spaces and the 25,400 SF office building requires 127 parking spaces, for a total required parking of 216 spaces. This requirement is both a maximum and minimum for an FCD project. The proposed site plan provides 89 parking spaces for the residential portion (15 surface lot spaces and 74 garage spaces). The proposed site plan provides the required spaces for the office use, with a portion of the required spaces being land banked spaces which would be reserved for future use if needed.

Per Section 223-26.H(b), a minimum of 1 loading space for the first 20,000 square feet of GFA, is required plus one space for each additional 40,000 square feet of GFA or major portion thereof. Therefore, the project with 25,400 SF of office space is expected to require 1 loading space, which is shown on the site plan.

## 7.0 NOISE AND LIGHTING

### 7.1 Noise

The project is not expected to result in an increase in noise levels above local ambient noise levels after completion of construction.

The proposed construction activities may result in temporary noise that exceeds local ambient noise levels. These activities will be limited to the hours of 7:00 AM to 7:00 PM Monday through Saturday, and all motorized equipment used in construction activity shall be operated with a muffler, in compliance with the City of Beacon Code Chapter 149, Noise, Section 149-6.F. Therefore, the project is not expected to result in any adverse impacts with regard to noise.

### 7.2 Lighting

All exterior lighting will be downward directed, and will be of such type and location and will have such shading to prevent the source of light from being seen from any adjacent residential property or from the street in accordance with Section 223-14.B of the zoning regulations. Lighting will consist of decorative full cut-off lighting with International Dark-Sky Association-approved "dark sky friendly" performance. The average level within the parking lots, access, and sidewalks will be sufficient to promote safety and encourage pedestrian use. Lighting photometrics and details will be provided during the site plan review process. Light pole locations are shown on Sheet C130 of the site plan set.

## 8.0 SOLID WASTE

FEAF Question D.2.r requests information on solid waste generation for commercial or industrial projects only (not for residential uses). According to the Development Impact Assessment Handbook, Urban Land Institute, 1994, an office use is expected to generate 0.001 tons per employee per day. Thus, the proposed office building with an estimated 73 employees is expected to generate 0.073 tons of solid waste per day or 2 tons per month. Solid waste will be picked up regularly by a licensed solid waste hauler for disposal at the Dutchess County Resource Recovery Agency facility in Poughkeepsie. Recyclable materials will be separated onsite and carted to this facility for recycling.

## 9.0 CONTAMINATION HISTORY

The project site was listed in the NYSDEC's Environmental Remediation Database as Site Code 314044, formerly owned by Tuck Industries and operated as a tape manufacturing facility. The listing was the result of leaking drums and storage tanks that contained solvents and solvent recovery system waste (primarily heptanes and toluene), which resulted in soil contamination. The NYSDEC website indicates that the has been remediated and assigned a classification of C, which means that the NYSDEC has determined that remediation has been satisfactorily completed under a remedial program. The site has been delisted from the NYS Registry of Inactive Hazardous Waste Disposal Sites per NYSDEC correspondence dated October 11, 2002.

## 10.0 ENDANGERED, THREATENED AND RARE SPECIES AND SIGNIFICANT HABITAT

The NYSDEC Environmental Resource Map shows the southern portion of the site within an area with a known occurrence of a rare animal (Figure 7). Correspondence from the NYSDEC New York Natural Heritage Program dated July 24, 2013, identified the site as being near a waterfowl winter concentration area and an anadromous fish concentration area, and also indicated the presence of non-breeding Bald Eagle. By email dated August 8, 2013, the NYSDEC indicated that the non-breeding occurrence is associated with wintering eagles and known roosting location, and that this roosting location was at the mouth of Fishkill Creek at the Hudson River at Denning's Point, approximately 0.77 miles from the project site. However, correspondence from NYSDEC dated November 7, 2018, (Attachment B) in response to a request for updated information indicates that there are currently no records of rare or state-listed animals or plants, or significant natural communities, at the project site. The NYSDEC letter continues to note the presence of anadromous fish, several state-listed animals and plants, and significant natural communities at the mouth of the Fishkill Creek, but no longer indicates the occurrence of the Bald Eagle in the vicinity of the project site. The NYSDEC recommends that the project work be conducted so as to avoid significant impacts to the water quality of Fishkill Creek, including erosion and run-off of sediments, nutrients, and pollutants. The project does not propose any marina or boating activities, and the project will retain much of the wooded vegetation along Fishkill Creek. The activities proposed on the site are less disruptive than previous on-site activities associated with the former manufacturing facility and the Metro-North railroad. As discussed in Section 5.2, an Erosion and Sediment Control Plan will be provided and shall be employed during the construction phase to protect off-site waters from the adverse effects of sedimentation and erosion.

The US Fish & Wildlife Service (USFWS) Official Species List (included in Attachment B) indicates the potential for the Indiana Bat, Northern Long Eared Bat, and Dwarf Wedgemussel in the vicinity of the project site. The USFWS List indicates that there are no critical habitats within the project area under USFWS jurisdiction. While the NYSDEC indicated that the closest occurrence of Indiana Bat is more than 2.5 miles away, the USFWS requested that the project limit tree clearing to October 1 to March 31, minimize removal of large trees, use cut-off lighting, and not use pesticides or herbicides in any stormwater basins. The updated Wetland Investigation Memo dated January 30, 2019, indicates that timing of tree removal between November 1<sup>st</sup> and March 31<sup>st</sup> would be adequate to avoid impacts to the bat species, provided that tree removal is less than 10 acres.

According to the Wetland Investigation Memo, the only known locations for Dwarf Wedgemussels in New York are in Delaware/Sullivan County, Orange County, and a small population in Dutchess County. The NYNHP probable associated ecological community is deepwater river, which is the aquatic community of very large, very deep quiet, base level sections of streams with a very low gradient. In places the water is deep enough so that light cannot reach the bottom. The Fishkill Creek represents potential habitat above the dam, although there is no state record of this species at this location. Given that the stream will not be impacted, the project would result in a determination of “No Take” under Section 10 or a determination of “No Effect” under Section 7 of the federal Endangered Species Act.

Consultation with NYSDEC and USFWS will be completed as required. Therefore, no significant adverse impacts to endangered, threatened or rare species are anticipated as a result of the project.

## 11.0 HISTORIC AND ARCHEOLOGICAL RESOURCES

According to the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) Cultural Resource Information System (CRIS) mapping (Figure 8), the project site is not substantially contiguous to nor does it contain a building site, or district, listed on the National or State Register of Historic Places. The CRIS mapping indicates that the Wolcott Avenue bridge over the Fishkill Creek (aka Cooperation Bridge) was determined to be eligible for listing on the Register (evaluated under NYSOPRHP Project Number 93PR0331, USN 02741.000362). The mapping also shows the project site as being located within a known archaeologically sensitive area.

A Phase 1A Archeological Investigation dated July 2013 was conducted by Hartgen Archaeological Associates, Inc. The report concluded that as a result of the impacts related to the continuous industrial development of the property combined with the impacts surrounding the removal the buildings associated with the New York Rubber Company facility, it is likely no significant cultural deposits, specific to the early to mid-19th century development of the property remain. The Phase 1A report was submitted to NYSOPRHP for review, under the previously approved project. Correspondence from NYSOPRHP dated September 27, 2013, requested additional project information due to the project’s location adjacent to a National Register-Eligible district to the east. The Applicant then submitted the additional requested information, and in correspondence dated December 23, 2013, NYSOPRHP concluded that the massing of the buildings as proposed at that time was appropriate for the site, and determined that the approved project would have No Adverse Impact upon cultural resources in or eligible for inclusion in the State and National Register of Historic Places. Information and plans for the currently proposed project will be uploaded to NYSOPRHP CRIS for review and determination. Since the project is similar to the approved

project in regard to disturbance area and architecture, it is anticipated that NYSOPRHP's determination will remain the same, and no impacts to cultural resources will occur.

## 12.0 COMMUNITY CHARACTER

The project involves the redevelopment of a deteriorated former industrial site. The project will aesthetically improve the site with new landscaping, decorative lighting, and architecturally pleasing new buildings, as well as providing a public Greenway Trail along the Fishkill Creek. The properties north of the project site are vacant residential land and the City of Beacon highway garage. The project site is separated from Tioronda Avenue by a railroad bed owned by MTA, and across Tioronda Avenue are single family residences and a public school. Adjacent to the project site to the south is a vacant industrial property, also located in the FCD district. Uses across the Fishkill Creek from the project site include single family residences, a two-family residence, vacant residential land owned by the City of Beacon, and an animal rescue facility. The proposed residential and office uses will blend in with the other uses in the area and will be consistent with future development of the FCD property to the north and south.

Architectural elevations have been provided. The architecture and building materials depicted on the exterior elevations of the buildings are quality examples of urban architecture typical of older City of Beacon structures. The buildings are designed to present a subtly varied, yet ordered and cohesive appearance in terms of architectural style. Architecturally pleasing from all sides, they will be consistent with older industrial buildings in the city, but with more residential proportions. Scales, forms and materials used are appropriate to ensure that buildings and other structures are compatible with and add interest to the landscape. The elevations are clad predominately in brick. Third story and cellar level elevations are set back to mitigate the perceived height of the buildings on all sides. The setbacks are clad in black metal panels which complement the brick cladding well. Windows, doors and trim will be black powder coated aluminum. Painted black steel balconies will be provided for a number of units. Proposed retaining walls on the site will be poured in place concrete with fieldstone veneer. Proposed retaining walls will be segmental concrete block walls in earthtone colors. The proposed refuse container will be screened from view by a cedar fence, and will comply with the City's requirements in Section 223-14.C.

Cross sectional views were submitted which show that the properties to the west are much higher in elevation than the project property, and the site drops off to a lower elevation east of the tracks. Since the project site is much lower than much of the surrounding area, only the higher portions of the proposed buildings are expected to be visible. Photo simulations have been prepared which depict the three proposed buildings as seen from eye level vantage points along Tioronda Avenue. These vantage points are shown on the "Vantage Point Location Plan". Starting at the northwest corner of proposed residential Building 300, the vantage points advance southwards, ending at the west side of the proposed commercial building at the south of the property.

The City's Local Waterfront Revitalization Plan designates 13 local viewsheds under Policy 25A that are designated for protection. The applicant's development site is not within any of the designated viewsheds. The proposed development area is not located in a designated LWRP viewshed; however, the project design is consistent with the applicable LWRP recommendations for developing in scenic view sheds.

The proposed layout maintains the original land form, as it utilizes the existing disturbed area from the former heavy industrial development, while the area at the top of the bank of the creek is preserved. The natural grade changes across the site (west to east), serve to screen the parking and lower the height of the buildings as viewed from Tioronda Avenue and from residential properties across Tioronda Avenue.

The access road to Wolcott Avenue does not present adverse visual impacts. The new wall required for the access to Wolcott Avenue is substantially lower than the existing wall associated with Tioronda Avenue itself. The new wall serves to hide some of the graffiti on the Tioronda wall. The applicant intends to design plantings to soften views of the new wall (to be refined during site plan review by the Planning Board).

The Greenway Trail will connect to the property to the South. An official "Greenway Trail" on the property to the south does not currently exist; however, there is a 6-foot trail easement along the property boundary with the Fishkill Creek, which was designated at the time the property was subdivided. At the north end of the project site, the Trail connects to Wolcott Avenue. The Greenway Trail will be constructed to the guidelines of the City's FCG&HT Master Plan. The provision of the trail easement is a major benefit to the City of this project. The trail width is 8 feet, with an easement width of 20 feet. Presently, the City has only a 6-foot wide easement at the property edge, pursuant to the filed subdivision map. The project site contains a very attractive section of waterfront, including views of a waterfall. Extensive existing natural vegetation between the project and the creek will help screen the buildings from views across the creek.

The project will enhance the site, thus improving the value and development capability of nearby properties.

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# FULL ENVIRONMENTAL ASSESSMENT FORM (FEAF) PART 1 FORM

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**Full Environmental Assessment Form**  
**Part 1 - Project and Setting**

**Instructions for Completing Part 1**

**Part 1 is to be completed by the applicant or project sponsor.** Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

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

**A. Project and Sponsor Information.**

Name of Action or Project: Proposed Multifamily Development and Office Building		
Project Location (describe, and attach a general location map):		Refer to Figures 1 and 2.
248 Tioronda Avenue (along Fishkill Creek), City of Beacon, Dutchess County, NY; Tax Parcels 5954-16-993482 & 6054-45-012574		
Brief Description of Proposed Action (include purpose or need):  The Applicant proposes the redevelopment of the northern portion of the former Tuck Industries manufacturing site with a 64-unit multifamily residential development and a 25,400 square foot (SF) office building, with associated parking. A Greenway Trail for public use is proposed along the Fishkill Creek. The 9.18-acre project site consists of two tax parcels identified as parcels 5954-16-993482 and 6054-45-012574 on the City of Beacon tax map. Access to the development is provided from Tioronda Avenue across the Metropolitan Transit Authority (MTA) property via easement. A second gated access for emergency and pedestrian use only is provided from Wolcott Avenue (NYS Route 9D). The proposed development is contained almost entirely within the former Tuck Industries development area. Please refer to site plan.		
Name of Applicant/Sponsor: 248 Beacon Holdings LLC (Bernard Kohn)		Telephone: 917-696-4402 E-Mail: berry@chaibuilders.com
Address: 120 Route 59 Suite 201		
City/PO: Suffern	State: NY	Zip Code: 10901
Project Contact (if not same as sponsor; give name and title/role): Same as Applicant		Telephone: E-Mail:
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): Beacon 248 Development, LLC		Telephone: E-Mail:
Address: 104 Rochelle Avenue		
City/PO: Rochelle Park	State: NJ	Zip Code: 07662

**B. Government Approvals**

<b>B. Government Approvals, Funding, or Sponsorship.</b> (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)		
<b>Government Entity</b>	<b>If Yes: Identify Agency and Approval(s) Required</b>	<b>Application Date (Actual or projected)</b>
a. City Council, Town Board, or Village Board of Trustees <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	FCD Concept Plan Approval	Sep 2018
b. City, Town or Village Planning Board or Commission <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Site Plan Approval; lot consolidation	Sep 2018
c. City Council, 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	DCDOH for water/sewer; DC Planning 239m referral	To be determined
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-0-15-002	To be determined
h. Federal agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
i. Coastal Resources.		
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <a href="#">Refer to FEAF Narrative Section 2.3.</a>		<input checked="" type="checkbox"/> Yes <input 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**

<b>C.1. Planning and zoning actions.</b>	
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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<ul style="list-style-type: none"> <li>• <b>If Yes</b>, complete sections C, F and G.</li> <li>• <b>If No</b>, proceed to question C.2 and complete all remaining sections and questions in Part 1</li> </ul>	
<b>C.2. Adopted land use plans.</b>	
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? <a href="#">Refer to FEAF Narrative Section 2.2.</a>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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?)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes, identify the plan(s): Remediation Sites:314044 , Remediation Sites:546031 ( <a href="#">Refer to response to Question E.1.h.iv</a> )	
_____	
_____	
_____	
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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?  
Fishkill Creek Development (FCD) District; refer to FEAF Narrative Section 2.3.

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

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

**C.4. Existing community services.**

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

b. What police or other public protection forces serve the project site?  
City of Beacon Police Department with support from Dutchess County Sheriff's Department and NYS Police

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

d. What parks serve the project site?  
Hudson Highlands State Park, Memorial Park, South Avenue 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 and commercial (office)

b. a. Total acreage of the site of the proposed action? 9.18 acres  
b. Total acreage to be physically disturbed? 5.95 acres  
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 9.18 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? (lot consolidation)  Yes  No  
If Yes,  
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

ii. Is a cluster/conservation layout proposed?  Yes  No  
iii. Number of lots proposed? \_\_\_\_\_  
iv. Minimum and maximum proposed lot sizes? Minimum \_\_\_\_\_ Maximum \_\_\_\_\_

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

f. Does the project include new residential uses?  Yes  No  
 If Yes, show numbers of units proposed.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	64
At completion of all phases	_____	_____	_____	64

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

i. Total number of structures 3 (2 residential buildings and an office building)  
 ii. Dimensions (in feet) of largest proposed structure: 3 stories height; 100' width; and 100' length  
 iii. Approximate extent of building space to be heated or cooled: 101,602 square feet

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

i. Purpose of the impoundment: \_\_\_\_\_  
 ii. If a water impoundment, the principal source of the water:  Ground water  Surface water streams  Other specify: \_\_\_\_\_  
 iii. If other than water, identify the type of impounded/contained liquids and their source. \_\_\_\_\_  
 iv. Approximate size of the proposed impoundment. Volume: \_\_\_\_\_ million gallons; surface area: \_\_\_\_\_ acres  
 v. Dimensions of the proposed dam or impounding structure: \_\_\_\_\_ height; \_\_\_\_\_ length  
 vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): \_\_\_\_\_

**D.2. Project Operations**

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both?  Yes  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?  Yes  No  
 If yes, describe. \_\_\_\_\_  
 \_\_\_\_\_  
 v. What is the total area to be dredged or excavated? \_\_\_\_\_ acres  
 vi. What is the maximum area to be worked at any one time? \_\_\_\_\_ acres  
 vii. What would be the maximum depth of excavation or dredging? \_\_\_\_\_ feet  
 viii. Will the excavation require blasting?  Yes  No  
 ix. Summarize site reclamation goals and plan: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

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

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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

iii. Will proposed action cause or result in disturbance to bottom sediments?  Yes  No  
If Yes, describe: \_\_\_\_\_

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

- acres of aquatic vegetation proposed to be removed: \_\_\_\_\_
- expected acreage of aquatic vegetation remaining after project completion: \_\_\_\_\_
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): \_\_\_\_\_
- proposed method of plant removal: \_\_\_\_\_
- if chemical/herbicide treatment will be used, specify product(s): \_\_\_\_\_

v. Describe any proposed reclamation/mitigation following disturbance: \_\_\_\_\_

c. Will the proposed action use, or create a new demand for water? Refer to FEAF Narrative Section 5.1.  Yes  No  
If Yes:

i. Total anticipated water usage/demand per day: \_\_\_\_\_ 11,876 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 water district
- Does the existing public water supply have capacity to serve the proposal?  Yes  No
- Is the project site in the existing district?  Yes  No
- Is expansion of the district needed?  Yes  No
- Do existing lines serve the project site?  Yes  No

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

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

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

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

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

vi. If water supply will be from wells (public or private), maximum pumping capacity: \_\_\_\_\_ gallons/minute.

d. Will the proposed action generate liquid wastes? Refer to FEAF Narrative Section 5.1.  Yes  No  
If Yes:

i. Total anticipated liquid waste generation per day: \_\_\_\_\_ 11,876 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 sewage

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

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

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

 If Yes:
 

- Describe extensions or capacity expansions proposed to serve this project: \_\_\_\_\_

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

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

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

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vi. Describe any plans or designs to capture, recycle or reuse liquid waste: \_\_\_\_\_  
 NA \_\_\_\_\_

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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? [Refer to FEAF Narrative Section 5.2.](#)  Yes  No  
 If Yes:
 

- How much impervious surface will the project create in relation to total size of project parcel?  
 \_\_\_\_\_ Square feet or 2.78 acres (impervious surface)  
 \_\_\_\_\_ Square feet or 9.18 acres (parcel size)
- Describe types of new point sources. To be determined
- 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)?  
 Stormwater management system which will discharge to Fishkill Creek
  - If to surface waters, identify receiving water bodies or wetlands: \_\_\_\_\_  
 Fishkill Creek
  - Will stormwater runoff flow to adjacent properties?  Yes  No

---

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

---

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

- Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)
- Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)
- Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

---

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

- Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year)  Yes  No
- In addition to emissions as calculated in the application, the project will generate:
  - \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide (CO<sub>2</sub>)
  - \_\_\_\_\_ Tons/year (short tons) of Nitrous Oxide (N<sub>2</sub>O)
  - \_\_\_\_\_ Tons/year (short tons) of Perfluorocarbons (PFCs)
  - \_\_\_\_\_ Tons/year (short tons) of Sulfur Hexafluoride (SF<sub>6</sub>)
  - \_\_\_\_\_ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflouorocarbons (HFCs)
  - \_\_\_\_\_ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)



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

If Yes:

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

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

---

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

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

---

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? Refer to FEAF Narrative Section 6.1.  Yes  No

If Yes:

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

ii. For commercial activities only, projected number of semi-trailer truck trips/day: \_\_\_\_\_

iii. Parking spaces: Existing \_\_\_\_\_ Proposed \_\_\_\_\_ Net increase/decrease \_\_\_\_\_

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

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

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

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

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

---

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

If Yes:

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

To be determined

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):  
 Central Hudson Gas & Electric Corp. \_\_\_\_\_

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

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

<p>i. During Construction:</p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ 7:00 am to 7:00 pm _____</li> <li>• Saturday: _____ 7:00 am to 7:00 pm _____</li> <li>• Sunday: _____ NA _____</li> <li>• Holidays: _____ NA _____</li> </ul>	<p>ii. During Operations: <span style="color: blue;">office building hours to be determined based on individual tenants</span></p> <ul style="list-style-type: none"> <li>• Monday - Friday: _____ 24 hours (residential) _____</li> <li>• Saturday: _____ 24 hours (residential) _____</li> <li>• Sunday: _____ 24 hours (residential) _____</li> <li>• Holidays: _____ 24 hours (residential) _____</li> </ul>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both?  Yes  No  
 If yes:  
 i. Provide details including sources, time of day and duration:  
 Temporary noise from construction activities will be limited to the hours of 7:00 AM to 7:00 PM Monday to Saturday, and all motorized equipment used in construction will be operated with a muffler, in compliance with the City of Beacon Code Chapter 149, Noise, Section 149-6.F.

ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen?  Yes  No  
 Describe: \_\_\_\_\_

---

n. Will the proposed action have outdoor lighting?  Yes  No  
 If yes:  
 i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:  
 All exterior lighting will be of such type and location and will have such shading to prevent the source of light from being seen from any adjacent residential property or from the street in accordance with Section 223-14.B of the zoning regulations.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen?  Yes  No  
 Describe: \_\_\_\_\_

---

o. Does the proposed action have the potential to produce odors for more than one hour per day?  Yes  No  
 If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage?  Yes  No  
 If Yes:  
 i. Product(s) to be stored \_\_\_\_\_  
 ii. Volume(s) \_\_\_\_\_ per unit time \_\_\_\_\_ (e.g., month, year)  
 iii. Generally describe proposed storage facilities: \_\_\_\_\_  
 \_\_\_\_\_

---

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation?  Yes  No  
 If Yes:  
 i. Describe proposed treatment(s): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

---

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? [Refer to FEAF Narrative Section 8.0.](#)  Yes  No  
 If Yes:  
 i. Describe any solid waste(s) to be generated during construction or operation of the facility:  
 • Construction: \_\_\_\_\_ NA tons per \_\_\_\_\_ NA (unit of time)  
 • Operation : \_\_\_\_\_ 2 tons per \_\_\_\_\_ month (unit of time)  
 ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:  
 • Construction: NA \_\_\_\_\_  
 • Operation: \_\_\_\_\_ Recyclable materials will be separated and hauled to the DC Resource Recovery Agency Facility in Poughkeepsie for recycling.  
 \_\_\_\_\_  
 iii. Proposed disposal methods/facilities for solid waste generated on-site:  
 • Construction: NA \_\_\_\_\_  
 • Operation: \_\_\_\_\_ Solid waste will be picked up regularly by a licensed solid waste hauler for disposal at the Dutchess County Resource Recovery Agency facility in Poughkeepsie.  
 \_\_\_\_\_

s. Does the proposed action include construction or modification of a solid waste management facility?  Yes  No  
 If Yes:  
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): \_\_\_\_\_  
 ii. Anticipated rate of disposal/processing:  
 • \_\_\_\_\_ Tons/month, if transfer or other non-combustion/thermal treatment, or  
 • \_\_\_\_\_ Tons/hour, if combustion or thermal treatment  
 iii. If landfill, anticipated site life: \_\_\_\_\_ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste?  Yes  No  
 If Yes:  
 i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: \_\_\_\_\_  
 \_\_\_\_\_  
 ii. Generally describe processes or activities involving hazardous wastes or constituents: \_\_\_\_\_  
 \_\_\_\_\_  
 iii. Specify amount to be handled or generated \_\_\_\_\_ tons/month  
 iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: \_\_\_\_\_  
 \_\_\_\_\_  
 v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility?  Yes  No  
 If Yes: provide name and location of facility: \_\_\_\_\_  
 \_\_\_\_\_  
 If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:  
 \_\_\_\_\_  
 \_\_\_\_\_

### E. Site and Setting of Proposed Action

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

a. Existing land uses.  
 i. Check all uses that occur on, adjoining and near the project site. [Refer to Figure 3 and FEA Narrative Section 2.1.](#)  
 Urban  Industrial  Commercial  Residential (suburban)  Rural (non-farm)  
 Forest  Agriculture  Aquatic  Other (specify): school, animal rescue facility  
 ii. If mix of uses, generally describe:  
 City of Beacon highway garage, public school, single family residences, two family residence, vacant residential land, animal rescue facility, vacant FCD property, MTA railroad property

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	2.30	2.78	+0.48
• Forested	3.5	2.75	-0.75
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	2.37	0	-2.37
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	
• Surface water features (lakes, ponds, streams, rivers, etc.)	0.31	0.31	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0.70	0	-0.70
• Other Describe: <u>lawn/landscaped areas</u>	0	3.34	+3.34

\* Prior to demolition of former manufacturing buildings.

c. Is the project site presently used by members of the community for public recreation?  Yes  No  
i. If Yes: explain: \_\_\_\_\_

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site?  Yes  No  
If Yes,  
i. Identify Facilities:  
Beacon City School District public school across Tioronda Avenue from site  
\_\_\_\_\_

e. Does the project site contain an existing dam?  Yes  No  
If Yes:  
i. Dimensions of the dam and impoundment:  
• Dam height: \_\_\_\_\_ feet  
• Dam length: \_\_\_\_\_ feet  
• Surface area: \_\_\_\_\_ acres  
• Volume impounded: \_\_\_\_\_ gallons OR acre-feet  
ii. Dam's existing hazard classification: \_\_\_\_\_  
iii. Provide date and summarize results of last inspection:  
\_\_\_\_\_

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility?  Yes  No  
If Yes:  
i. Has the facility been formally closed?  Yes  No  
• If yes, cite sources/documentation: \_\_\_\_\_  
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:  
\_\_\_\_\_  
iii. Describe any development constraints due to the prior solid waste activities: \_\_\_\_\_

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste?  Yes  No  
If Yes:  
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:  
NYSDEC Remediation Site Code 314044. Refer to FEAR Narrative Section 9.0.  
\_\_\_\_\_

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?  Yes  No  
If Yes:  
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:  Yes  No  
 Yes – Spills Incidents database Provide DEC ID number(s): \_\_\_\_\_  
 Yes – Environmental Site Remediation database Provide DEC ID number(s): 314044 , 546031  
 Neither database  
ii. If site has been subject of RCRA corrective activities, describe control measures: \_\_\_\_\_  
NA \_\_\_\_\_  
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database?  Yes  No  
If yes, provide DEC ID number(s): C314117, 314044 , C314118, 546031  
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s): \_\_\_\_\_

Refer to FEAR Narrative Section 9.0 for information on Site Code 314044. C314117: Beacon Terminal = Classification A; 546031: Hudson River PCB Contamination = Classification 02; C314118: Churchill Mills = Classification N

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

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

---

**E.2. Natural Resources On or Near Project Site** Refer to Figure 4 and FEAF Narrative Section 4.1.

a. What is the average depth to bedrock on the project site? \_\_\_\_\_ >5 feet

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

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

Udorthents, smoothed	_____	100 %
_____	_____	_____ %
_____	_____	_____ %

d. What is the average depth to the water table on the project site? Average: \_\_\_\_\_ >3 feet

e. Drainage status of project site soils:

<input checked="" type="checkbox"/> Well Drained:	_____	45 % of site
<input checked="" type="checkbox"/> Moderately Well Drained:	_____	45 % of site
<input checked="" type="checkbox"/> Poorly Drained	_____	10 % of site

f. Approximate proportion of proposed action site with slopes:  0-10%: \_\_\_\_\_ 15 % of site  
Refer to Figure 5.  10-15%: \_\_\_\_\_ 40 % of site  
 15% or greater: \_\_\_\_\_ 45 % of site

g. Are there any unique geologic features on the project site?  Yes  No  
If Yes, describe: \_\_\_\_\_  
\_\_\_\_\_

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? Refer to Figure 5 and FEAF Narrative Section 4.2.  Yes  No

ii. Do any wetlands or other waterbodies adjoin the project site?  Yes  No  
If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency?  Yes  No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name Fishkill Creek (NYSDEC Stream H-95) Classification \_\_\_\_\_
- Lakes or Ponds: Name NA Classification \_\_\_\_\_
- Wetlands: Name Federal Waters, Federal Waters - None (refer to Section 4.2) Approximate Size 0 acres within site
- Wetland No. (if regulated by DEC) NA

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

---

i. Is the project site in a designated Floodway? Refer to Figure 6 and FEAF Narrative Section 4.3.  Yes  No

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

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

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer?  Yes  No  
If Yes:

i. Name of aquifer: Principal Aquifer

<p>m. Identify the predominant wildlife species that occupy or use the project site: _____  Common urban species _____  Refer to FEAF Narrative Section 10.0. _____</p>	
<p>n. Does the project site contain a designated significant natural community? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>  If Yes:  i. Describe the habitat/community (composition, function, and basis for designation): _____  ii. Source(s) of description or evaluation: _____  iii. Extent of community/habitat:  <ul style="list-style-type: none"> <li>• Currently: _____ acres</li> <li>• Following completion of project as proposed: _____ acres</li> <li>• Gain or loss (indicate + or -): _____ acres</li> </ul> </p>	
<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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>   Refer to Figure 7 and FEAF Narrative Section 10.0.</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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span></p>	
<p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>  If yes, give a brief description of how the proposed action may affect that use: _____  _____</p>	
<b>E.3. Designated Public Resources On or Near Project Site</b>	
<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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>  If Yes, provide county plus district name/number: _____</p>	
<p>b. Are agricultural lands consisting of highly productive soils present? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>  i. If Yes: acreage(s) on project site? _____  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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>  If Yes:  i. Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature  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? <span style="float: right;"><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</span>  If Yes:  i. CEA name: _____  ii. Basis for designation: _____  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, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places? <a href="#">Refer to Figure 8 and FEA Narrative Section 11.0.</a>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If Yes: i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District ii. Name: <u>St. Luke's Episcopal Church Complex, Wolcott Avenue Bridge (eligible)</u> iii. Brief description of attributes on which listing is based: _____	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? <a href="#">Refer to Figure 8 and FEA Narrative Section 11.0.</a>	<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? If Yes: i. Describe possible resource(s): _____ ii. Basis for identification: _____	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? <a href="#">Refer to Figure 9.</a> If Yes: i. Identify resource: <u>Refer to Figure 9.</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>SASS, NYSDEC trails, NYS Scenic Byway; Federal, State, County, and municipal recreation, State Park scenic trails</u> iii. Distance between project and resource: <u>Wolcott Ave Bridge</u> miles.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? If Yes: i. Identify the name of the river and its designation: _____ ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <input type="checkbox"/> Yes <input type="checkbox"/> No

**F. Additional Information**

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

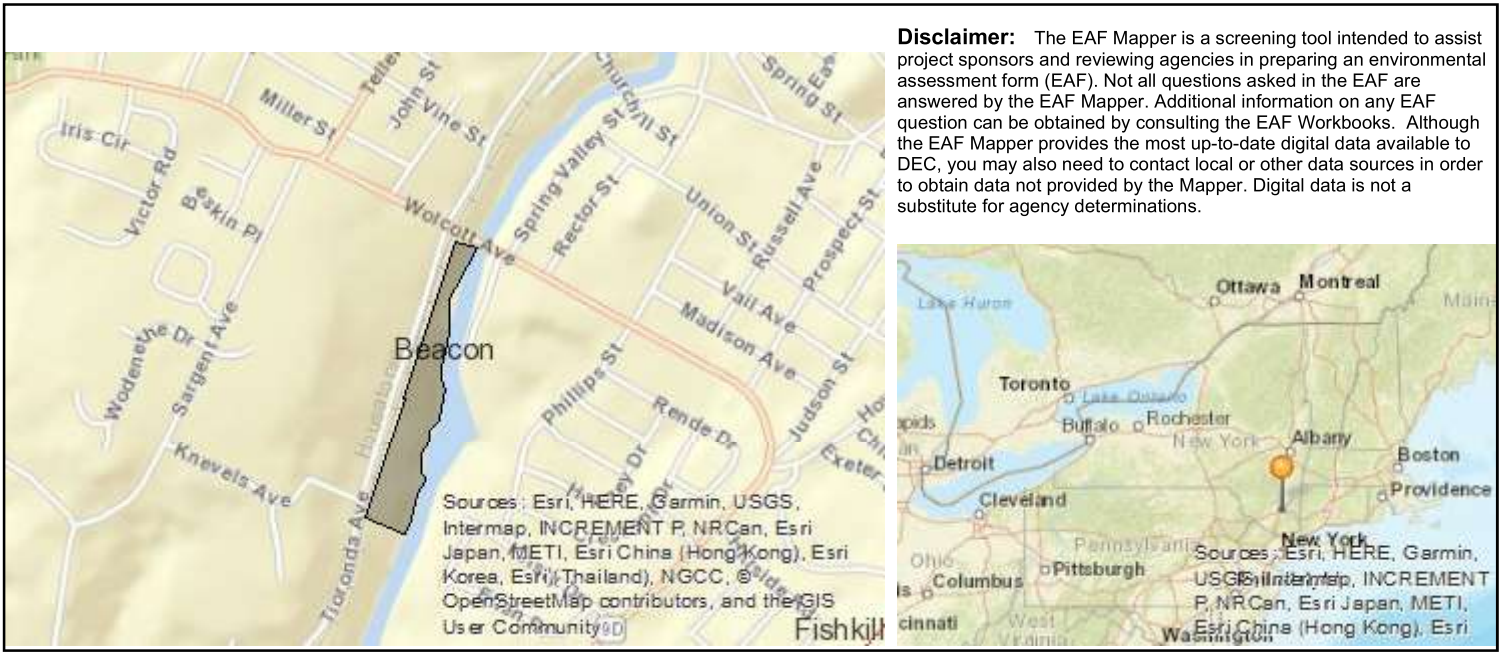
If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

**G. Verification**

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

Applicant/Sponsor Name 248 Beacon Holdings LLC Date Sep 10, 2018; Last reissued January 30, 2019

Signature  Title Planner  
 Deborah S Hubbard for The Chazen Companies, Agent for Applicant



**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]	Yes
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	Remediaton Sites:314044 , Remediaton Sites:546031
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Yes - Digital mapping data for Spills Incidents are not available for this location. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Yes
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Yes
E.1.h.i [DEC Spills or Remediation Site - DEC ID Number]	314044 , 546031
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	C314117, 314044 , C314118, 546031
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]	Yes
E.2.j. [100 Year Floodplain]	Yes



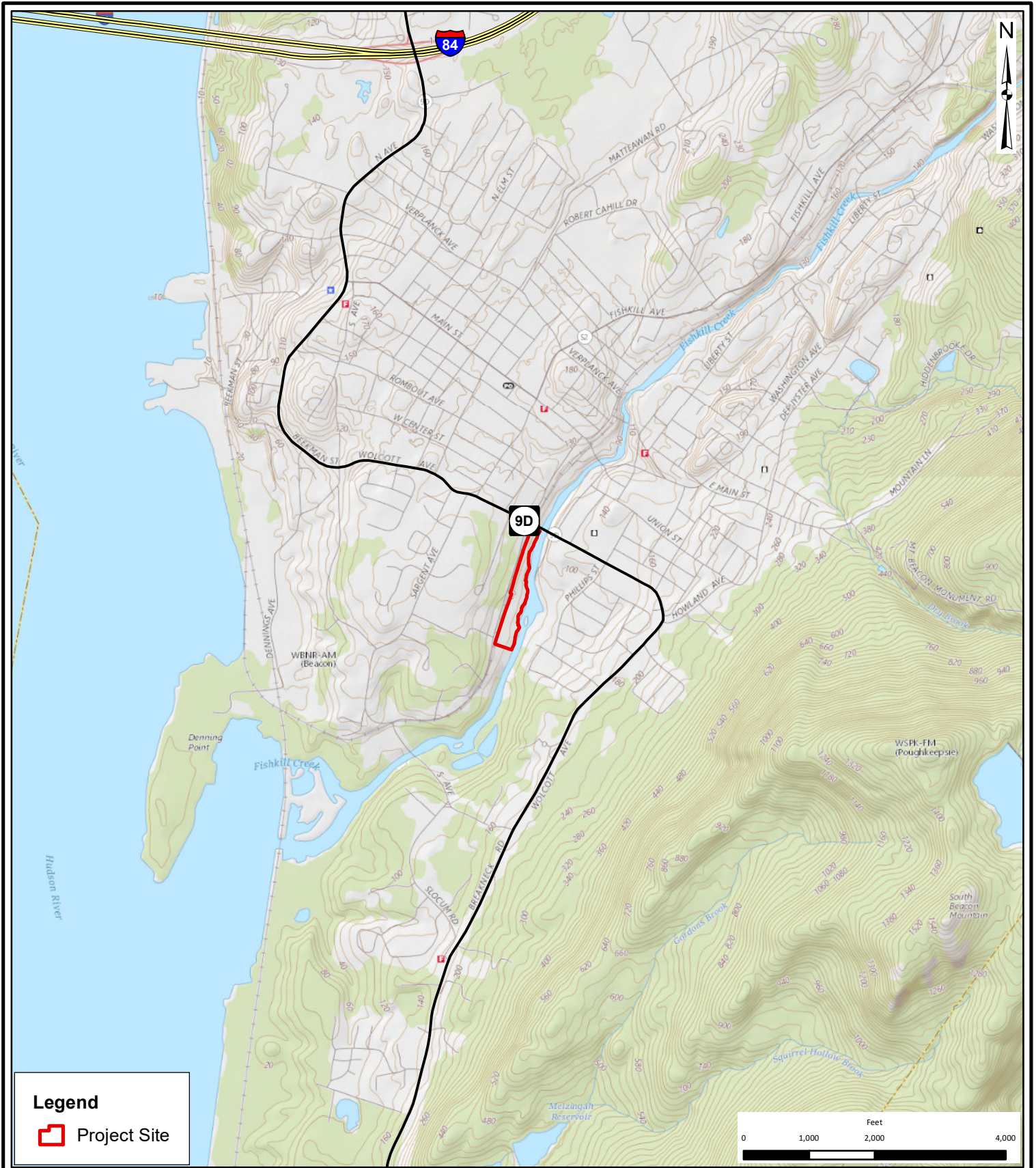
E.2.k. [500 Year Floodplain]	Yes
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Principal Aquifer
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National Register of Historic Places]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National Register of Historic Places - Name]	St. Luke's Episcopal Church Complex
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

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## FIGURES

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**Legend**

▭ Project Site

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**Capital District Office:**  
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 Phone: (518) 273-0055

**North Country Office:**  
 375 Bay Road, Queensbury, NY 12804  
 Phone: (518) 812-0513

**Proposed Fishkill Creek Development (FCD) Site Plan**

**USGS Location Map**

Tioronda Avenue, City of Beacon - Dutchess County, NY

Drawn:	RLB
Date:	09/06/2018
Scale:	1 in = 2,000 feet
Project:	81750.00
Figure:	1



**Legend**

- ▭ Project Site
- Tax Parcels

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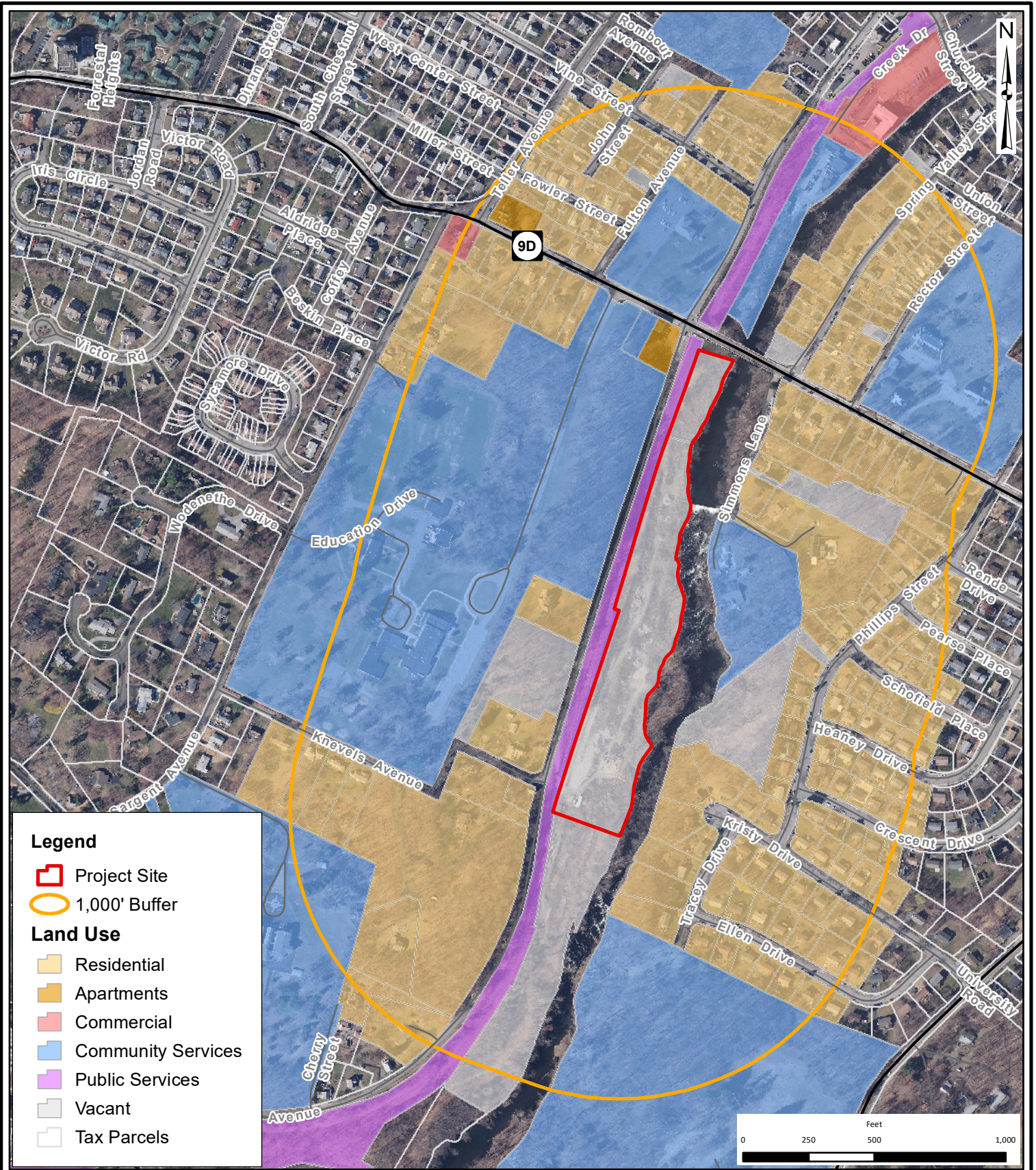
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**Proposed Fishkill Creek Development (FCD) Site Plan**

**Orthophoto Tax Map**

Tioronda Avenue, City of Beacon - Dutchess County, NY

Drawn:	RLB
Date:	09/06/2018
Scale:	1 in = 300 feet
Project:	81750.00
Figure:	2



**Legend**

- Project Site
- 1,000' Buffer

**Land Use**

- Residential
- Apartments
- Commercial
- Community Services
- Public Services
- Vacant
- Tax Parcels

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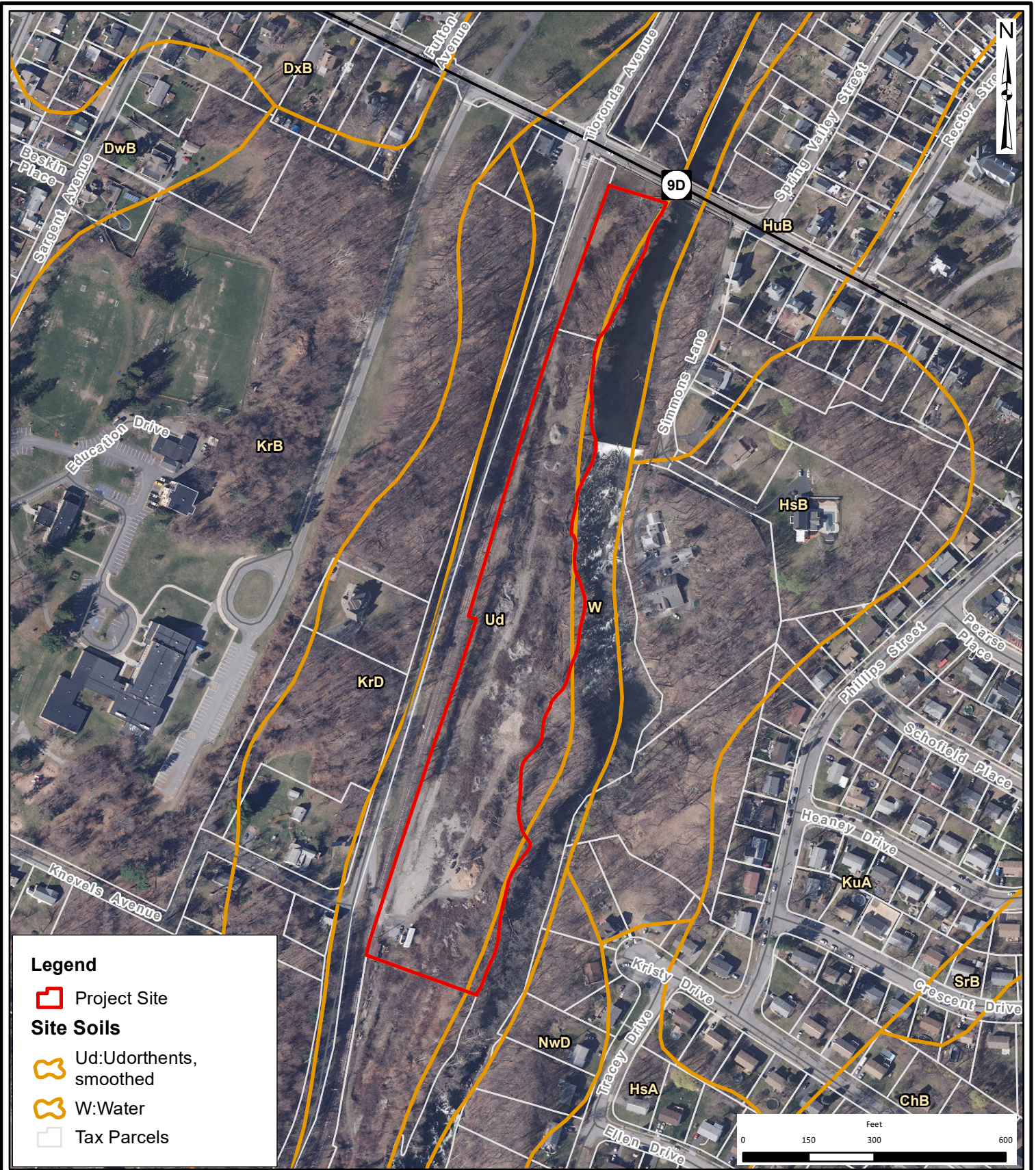
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**Proposed Fishkill Creek Development (FCD) Site Plan**

**Land Use Map**

Tioronda Avenue, City of Beacon - Dutchess County, NY

Drawn:	RLB
Date:	09/06/2018
Scale:	1 in = 500 feet
Project:	81750.00
Figure:	3



**Legend**

- Project Site
- Site Soils**
- Ud:Udorthents, smoothed
- W:Water
- Tax Parcels

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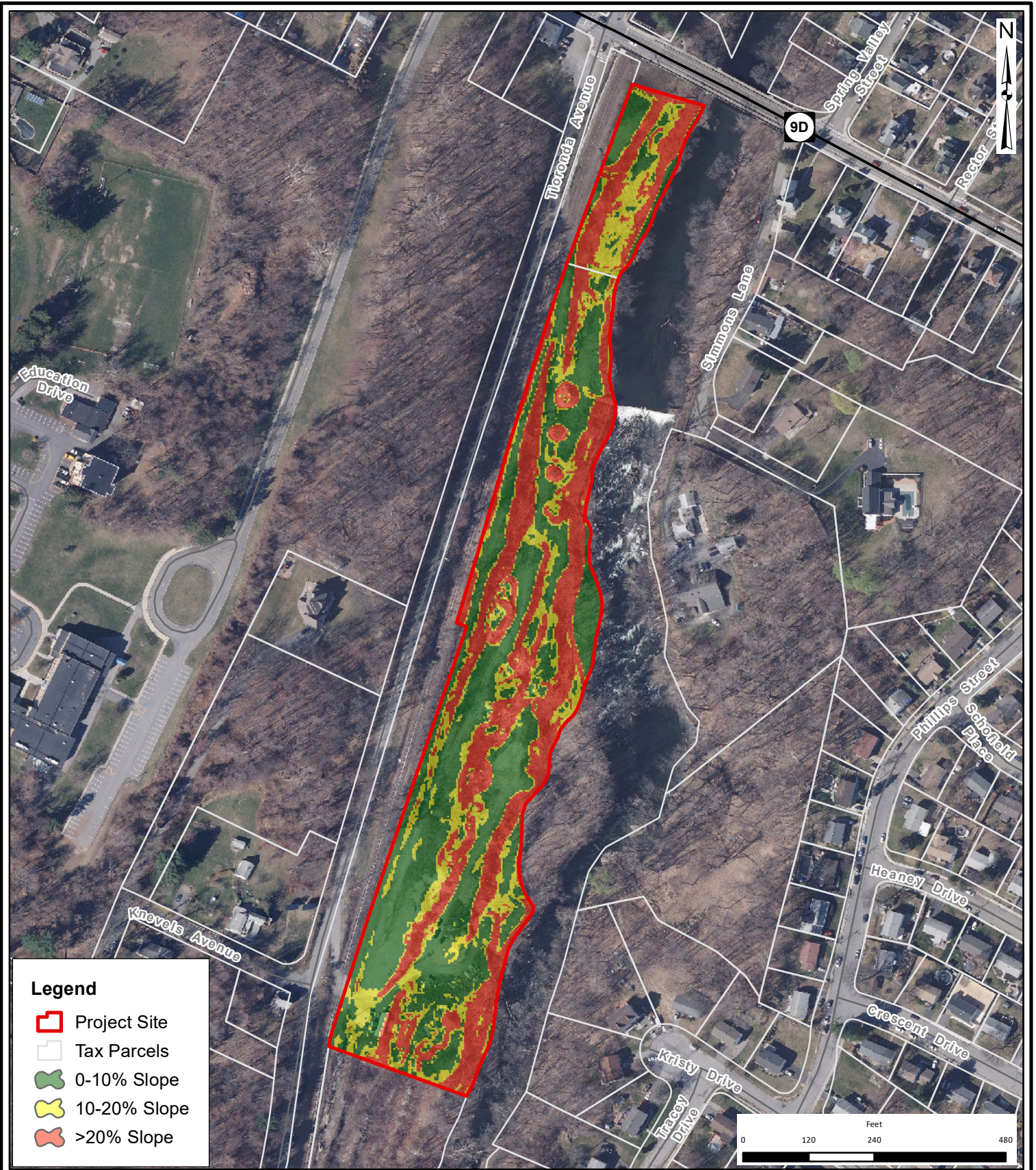
**Proposed Fishkill Creek Development (FCD) Site Plan**

**Soils Map**

Tioronda Avenue, City of Beacon - Dutchess County, NY

Drawn:	RLB
Date:	09/06/2018
Scale:	1 in = 300 feet
Project:	81750.00
Figure:	4





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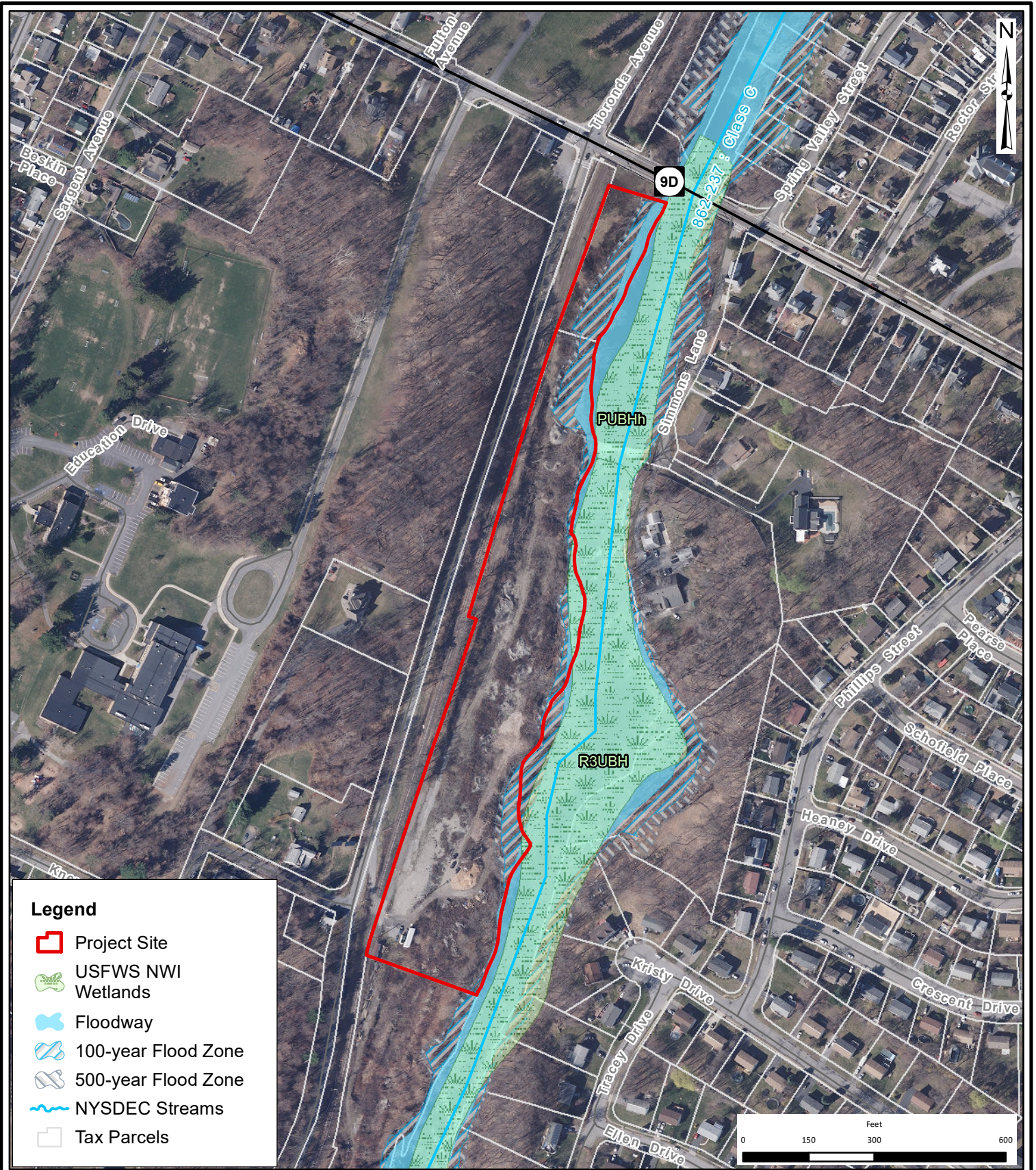
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**Proposed Fishkill Creek Development (FCD) Site Plan**








**Slopes Map**

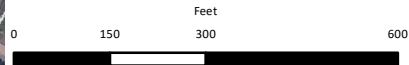
Tioronda Avenue, City of Beacon - Dutchess County, NY

Drawn:	RLB
Date:	09/06/2018
Scale:	1 in = 240 feet
Project:	81750.00
Figure:	5



**Legend**

-  Project Site
-  USFWS NWI Wetlands
-  Floodway
-  100-year Flood Zone
-  500-year Flood Zone
-  NYSDEC Streams
-  Tax Parcels



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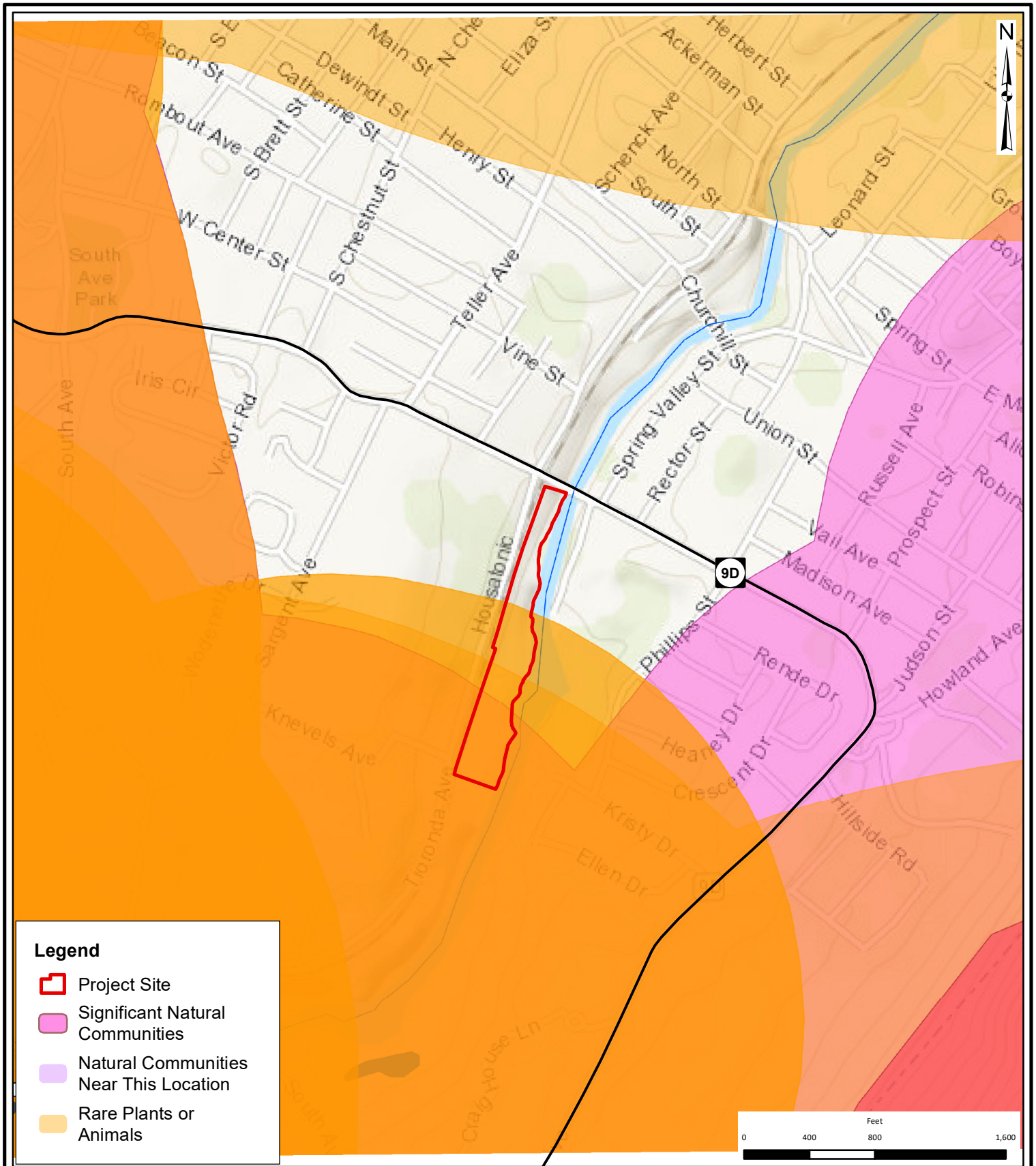
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**Proposed Fishkill Creek Development (FCD) Site Plan**





**Wetland, Streams and Floodplain Map**

Tioronda Avenue, City of Beacon - Dutchess County, NY

Drawn:	RLB
Date:	09/06/2018
Scale:	1 in = 300 feet
Project:	81750.00
Figure:	6



**Legend**

-  Project Site
-  Significant Natural Communities
-  Natural Communities Near This Location
-  Rare Plants or Animals



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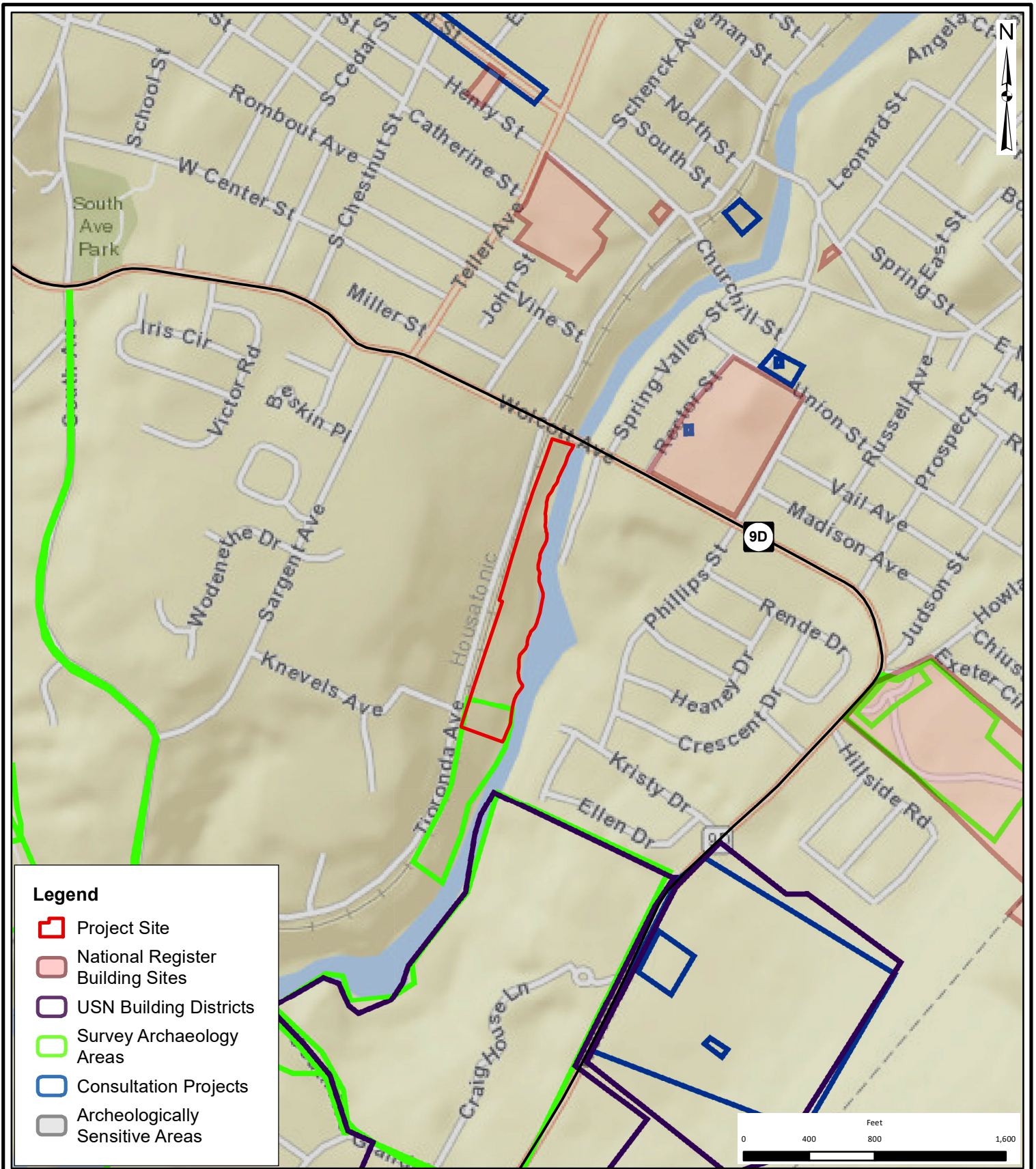
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**Proposed Fishkill Creek Development (FCD) Site Plan**

**NYSDEC Environmental Resource Map**

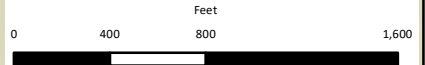
Tioronda Avenue, City of Beacon - Dutchess County, NY

Drawn:	RLB
Date:	09/07/2018
Scale:	1 in = 800 feet
Project:	81750.00
Figure:	7



**Legend**

- Project Site
- National Register Building Sites
- USN Building Districts
- Survey Archaeology Areas
- Consultation Projects
- Archeologically Sensitive Areas



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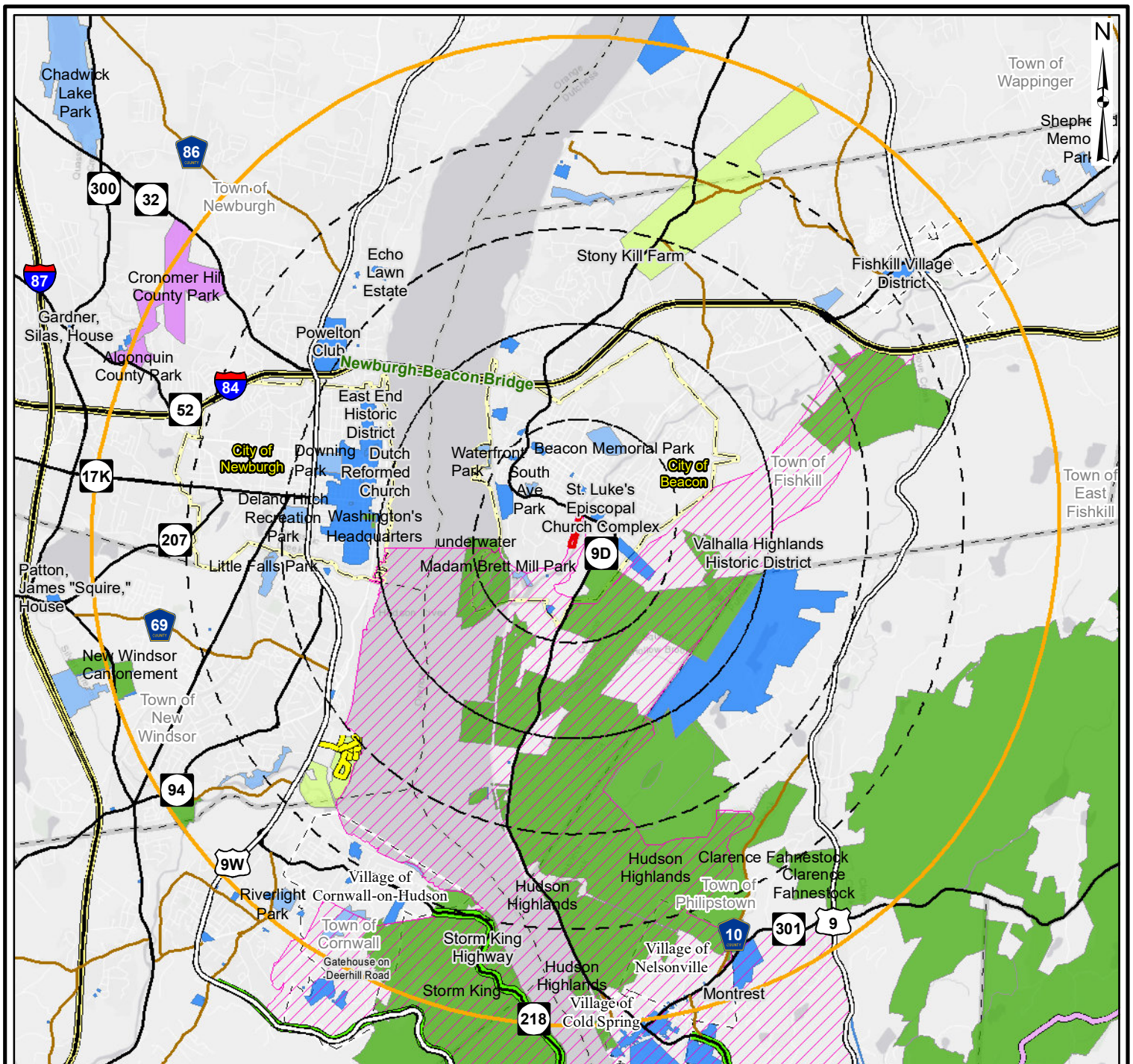
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**Proposed Fishkill Creek Development (FCD) Site Plan**

**NYSOPRHP Cultural Resource Information System (CRIS)**

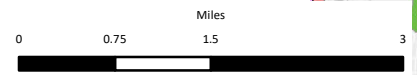
Tioronda Avenue, City of Beacon - Dutchess County, NY

Drawn:	RLB
Date:	09/07/2018
Scale:	1 in = 800 feet
Project:	81750.00
Figure:	8



**Legend**

- 5-mile Buffer
- 1-mile Buffers
- Project Site
- NYS scenic byways
- Scenic Trails
- DEC Trails
- Scenic Areas of Statewide Significance
- Municipal Recreation
- County Recreation
- Federal Recreation
- State Parks And Historic Sites
- State Recreation
- State And National Register Listed



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**Proposed Fishkill Creek Development (FCD) Site Plan**

**Publicly Accessible  
 Federal, State, or Local Scenic or Aesthetic  
 Resources within 5 Miles**

Tioronda Avenue, City of Beacon - Dutchess County, NY

Drawn: RL-B
Date: 09/07/2018
Scale: 1 in = 1.5 miles
Project: 81750.00
Figure: 9

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ATTACHMENT A  
Updated Traffic Synchro Analysis

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## Tom Johnson

---

**From:** Tom Johnson  
**Sent:** Monday, October 29, 2018 9:45 AM  
**To:** Larry Boudreau  
**Subject:** RE: Beacon - 248 Tioronda

Larry, previous traffic analysis files are not in the project folder so I re-created them. Here is summary of updated analysis for Wolcott/Tioronda intersection:

1. The 2015 analysis showed LOS B for AM and PM build using Synchro version 8
2. Re-creating the 2015 analysis showed LOS A for AM and PM using Synchro version 10 which is 2 versions after 8
3. To change LOS A to B for AM peak I added 300 vehicles EB on Wolcott, 300 vehicles WB on Wolcott, and 50 vehicles SB on Tioronda (kept NB the same). Delay increased by about 3 seconds.
4. To change LOS A to B for PM peak I added 200 vehicles EB on Wolcott, 200 vehicles WB on Wolcott, and 50 vehicles SB on Tioronda (kept NB the same). Delay increased by about 3 seconds.

Bottom line: intersection can handle a lot more traffic and still operate with very good levels of service.

Thomas R. Johnson, P.E., PTOE  
Transportation Services Manager  
*The Chazen Companies*  
547 River Street  
Troy, NY 12180  
Direct: (518) 266-7369  
[tjohnson@chazencompanies.com](mailto:tjohnson@chazencompanies.com)  
[www.chazencompanies.com](http://www.chazencompanies.com)

---

**From:** Larry Boudreau  
**Sent:** Friday, October 26, 2018 2:53 PM  
**To:** 'Ward-Willis, Nicholas M.' <[NWard-Willis@kblaw.com](mailto:NWard-Willis@kblaw.com)>; 'John Russo' <[jdr@lanctully.com](mailto:jdr@lanctully.com)>  
**Cc:** 'Anthony Ruggiero' <[aruggiero@cityofbeacon.org](mailto:aruggiero@cityofbeacon.org)>; 'John Clarke' <[jclarkeplandesign@gmail.com](mailto:jclarkeplandesign@gmail.com)>  
**Subject:** RE: Beacon - 248 Tioronda

Yes I understand. The TIS completed at that time indicated that all studied intersections were operating at a health good to excellent service (LOS A and B), and the 2015 build volumes did not change the LOS at the studied intersections. I will prepare a ppt slide to review this Monday night. Thanks Nic.

Larry

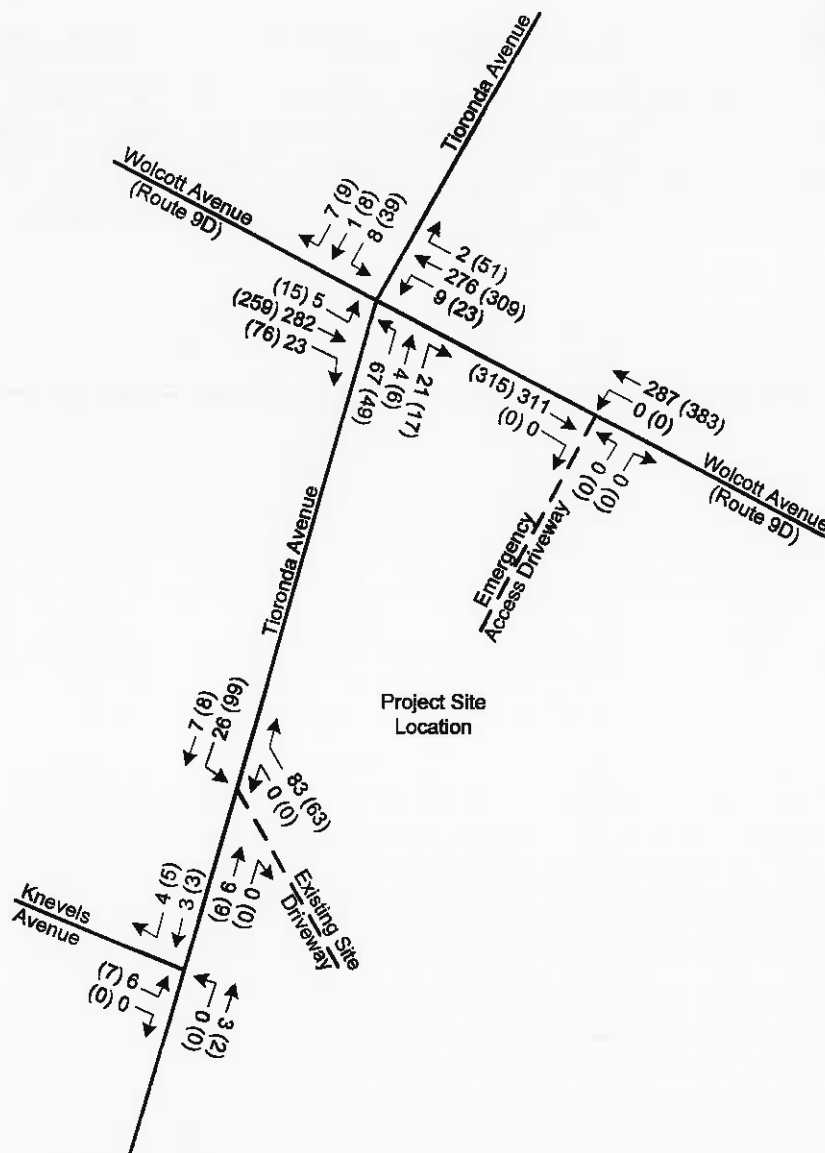
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**From:** Ward-Willis, Nicholas M. <[NWard-Willis@kblaw.com](mailto:NWard-Willis@kblaw.com)>  
**Sent:** Friday, October 26, 2018 1:51 PM  
**To:** Larry Boudreau <[lboudreau@chazencompanies.com](mailto:lboudreau@chazencompanies.com)>; 'John Russo' <[jdr@lanctully.com](mailto:jdr@lanctully.com)>  
**Cc:** 'Anthony Ruggiero' <[aruggiero@cityofbeacon.org](mailto:aruggiero@cityofbeacon.org)>; 'John Clarke' <[jclarkeplandesign@gmail.com](mailto:jclarkeplandesign@gmail.com)>  
**Subject:** RE: Beacon - 248 Tioronda

Larry, thanks. I read that language in the EAF, but my question is more focused on whether given the changes in Beacon in the last 5 years since the report was done, have the traffic counts on Route 9D and Tioronda Avenue and traffic patterns changed, such that the 2013 Study should be updated. As the attorney, I don't know the answer, but in my mind, it is a legitimate question.

Nick

Scenario 1



AM PEAK HOUR TRAFFIC VOLUMES (PM PEAK HOUR TRAFFIC VOLUMES)

THE  
**Chazen**  
COMPANIES®

**Beacon 248 Development, LLC**  
Tioronda Avenue  
City of Beacon  
Dutchess County, New York

2015 Build  
Traffic Volumes  
(Scenario 1)

Project #: 81056.00

Date: October 2013

Figure: #A3

Lanes, Volumes, Timings  
3: Tioronda & Wolcott (9D)

10/29/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		🚗			🚗			🚗			🚗	
Traffic Volume (vph)	5	282	23	9	276	2	67	4	21	8	1	7
Future Volume (vph)	5	282	23	9	276	2	67	4	21	8	1	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frnt		0.990			0.999			0.969			0.940	
Flt Protected		0.999			0.998			0.965			0.976	
Satd Flow (prot)	0	1842	0	0	1857	0	0	1742	0	0	1709	0
Flt Permitted		0.993			0.983			0.788			0.866	
Satd Flow (perm)	0	1831	0	0	1829	0	0	1422	0	0	1516	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd Flow (RTOR)		18			1			16			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		964			1319			984			876	
Travel Time (s)		21.9			30.0			22.4			19.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	307	25	10	300	2	73	4	23	9	1	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	337	0	0	312	0	0	100	0	0	18	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		2.5	2.5		2.5	2.5	

Lanes, Volumes, Timings  
3: Tioronda & Wolcott (9D)

10/29/2018

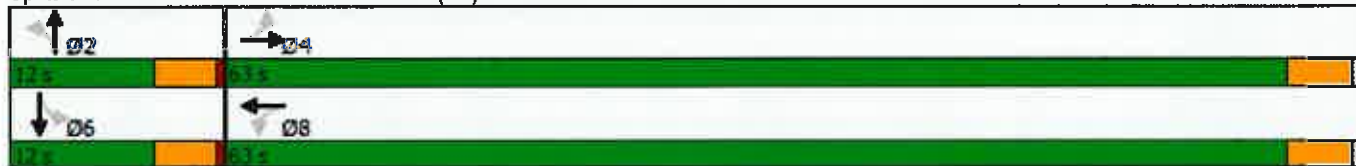


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		8.0	8.0		8.0	8.0	
Total Split (s)	63.0	63.0		63.0	63.0		12.0	12.0		12.0	12.0	
Total Split (%)	84.0%	84.0%		84.0%	84.0%		16.0%	16.0%		16.0%	16.0%	
Maximum Green (s)	59.0	59.0		59.0	59.0		8.0	8.0		8.0	8.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effect Green (s)		9.6			9.6			8.0			8.0	
Actuated g/C Ratio		0.37			0.37			0.31			0.31	
v/c Ratio		0.48			0.46			0.22			0.04	
Control Delay		8.2			8.3			7.8			6.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.2			8.3			7.8			6.1	
LOS		A			A			A			A	
Approach Delay		8.2			8.3			7.8			6.1	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type	Other
Cycle Length:	75
Actuated Cycle Length:	25.7
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	8.2
Intersection Capacity Utilization:	34.0%
Analysis Period (min):	15
Intersection LOS:	A
ICU Level of Service:	A

Splits and Phases: 3: Tioronda & Wolcott (9D)



Lanes, Volumes, Timings  
3: Tioronda & Wolcott (9D)

10/29/2018

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	259	76	23	309	51	49	5	17	39	8	9
Future Volume (vph)	15	259	76	23	309	51	49	5	17	39	8	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't		0.971			0.982			0.968			0.978	
Flt Protected		0.998			0.997			0.966			0.967	
Sat'd Flow (prot)	0	1805	0	0	1824	0	0	1742	0	0	1762	0
Flt Permitted		0.975			0.963			0.784			0.789	
Sat'd Flow (perm)	0	1764	0	0	1762	0	0	1414	0	0	1437	0
Right Turn on Red			Yes			Yes			Yes			Yes
Sat'd Flow (RTOR)		63			34			17			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		964			1319			984			876	
Travel Time (s)		21.9			30.0			22.4			19.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	282	83	25	336	55	53	5	18	42	9	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	381	0	0	416	0	0	76	0	0	61	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		2.5	2.5		2.5	2.5	

Lanes, Volumes, Timings  
3: Tioronda & Wolcott (9D)

10/29/2018



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		8.0	8.0		8.0	8.0	
Total Split (s)	63.0	63.0		63.0	63.0		12.0	12.0		12.0	12.0	
Total Split (%)	84.0%	84.0%		84.0%	84.0%		16.0%	16.0%		16.0%	16.0%	
Maximum Green (s)	59.0	59.0		59.0	59.0		8.0	8.0		8.0	8.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		11.1			11.1			8.1			8.1	
Actuated g/C Ratio		0.41			0.41			0.30			0.30	
v/c Ratio		0.50			0.56			0.18			0.14	
Control Delay		7.3			8.8			8.1			8.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.3			8.8			8.1			8.2	
LOS		A			A			A			A	
Approach Delay		7.3			8.8			8.1			8.2	
Approach LOS		A			A			A			A	

Intersection Summary

Area Type	Other
Cycle Length:	75
Actuated Cycle Length:	27.3
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.56
Intersection Signal Delay:	8.1
Intersection Capacity Utilization:	39.3%
Analysis Period (min):	15
Intersection LOS:	A
ICU Level of Service:	A

Splits and Phases: 3: Tioronda & Wolcott (9D)



Lanes, Volumes, Timings  
3: Tioronda & Wolcott (9D)

10/29/2018

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Volume (vph)	5	582	23	9	576	2	67	4	21	60	1	7
Future Volume (vph)	5	582	23	9	576	2	67	4	21	60	1	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frnt	0.995						0.969			0.985		
Flt Protected				0.999			0.965			0.958		
Satd Flow (prot)	0	1853	0	0	1861	0	0	1742	0	0	1758	0
Flt Permitted	0.996			0.989			0.743			0.697		
Satd Flow (perm)	0	1846	0	0	1842	0	0	1341	0	0	1279	0
Right Turn on Red	Yes			Yes			Yes			Yes		
Satd Flow (RTOR)	9			1			16			7		
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	964			1319			984			876		
Travel Time (s)	21.9			30.0			22.4			19.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	633	25	10	626	2	73	4	23	65	1	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	663	0	0	638	0	0	100	0	0	74	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		2.5	2.5		2.5	2.5	

Lanes, Volumes, Timings  
3: Tioronda & Wolcott (9D)

10/29/2018

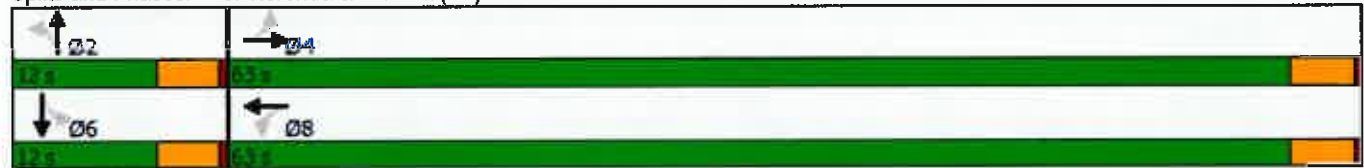


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		8.0	8.0		8.0	8.0	
Total Split (s)	63.0	63.0		63.0	63.0		12.0	12.0		12.0	12.0	
Total Split (%)	84.0%	84.0%		84.0%	84.0%		16.0%	16.0%		16.0%	16.0%	
Maximum Green (s)	59.0	59.0		59.0	59.0		8.0	8.0		8.0	8.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		17.4			17.4			8.2			8.2	
Actuated g/C Ratio		0.51			0.51			0.24			0.24	
v/c Ratio		0.69			0.67			0.30			0.24	
Control Delay		10.2			9.7			13.9			13.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.2			9.7			13.9			13.9	
LOS		B			A			B			B	
Approach Delay		10.2			9.7			13.9			13.9	
Approach LOS		B			A			B			B	

Intersection Summary

Area Type	Other
Cycle Length: 75	
Actuated Cycle Length: 33.8	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 10.4	Intersection LOS: B
Intersection Capacity Utilization: 48.0%	ICU Level of Service: A
Analysis Period (min): 15	

Splits and Phases: 3: Tioronda & Wolcott (9D)





Lanes, Volumes, Timings  
3: Tioronda & Wolcott (9D)

10/29/2018

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	459	76	23	509	51	49	5	17	90	8	9
Future Volume (vph)	15	459	76	23	509	51	49	5	17	90	8	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.981			0.988			0.968			0.988	
Flt Protected		0.999			0.998			0.966			0.960	
Satd Flow (prot)	0	1826	0	0	1837	0	0	1742	0	0	1767	0
Flt Permitted		0.981			0.970			0.745			0.708	
Satd Flow (perm)	0	1793	0	0	1785	0	0	1343	0	0	1303	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd Flow (RTOR)		36			21			17			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		964			1319			984			876	
Travel Time (s)		21.9			30.0			22.4			19.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	499	83	25	553	55	53	5	18	98	9	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	598	0	0	633	0	0	76	0	0	117	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		2.5	2.5		2.5	2.5	

Lanes, Volumes, Timings  
3: Tioronda & Wolcott (9D)

10/29/2018

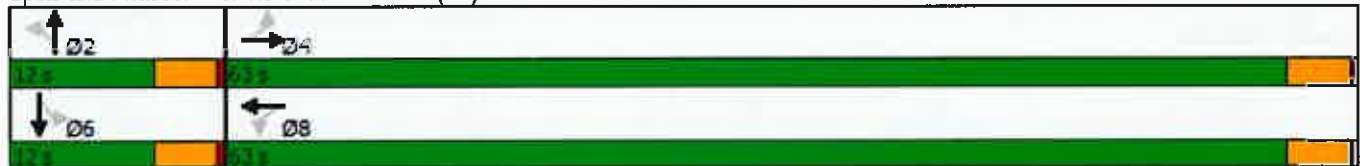


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	22.5	22.5		22.5	22.5		8.0	8.0		8.0	8.0	
Total Split (s)	63.0	63.0		63.0	63.0		12.0	12.0		12.0	12.0	
Total Split (%)	84.0%	84.0%		84.0%	84.0%		16.0%	16.0%		16.0%	16.0%	
Maximum Green (s)	59.0	59.0		59.0	59.0		8.0	8.0		8.0	8.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		17.0			17.0			8.2			8.2	
Actuated g/C Ratio		0.51			0.51			0.25			0.25	
v/c Ratio		0.64			0.69			0.22			0.36	
Control Delay		8.9			10.1			12.2			16.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.9			10.1			12.2			16.0	
LOS		A			B			B			B	
Approach Delay		8.9			10.1			12.2			16.0	
Approach LOS		A			B			B			B	

Intersection Summary

Area Type	Other
Cycle Length: 75	
Actuated Cycle Length: 33.4	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 10.2	Intersection LOS: B
Intersection Capacity Utilization: 54.5%	ICU Level of Service: A
Analysis Period (min): 15	

Splits and Phases: 3: Tioronda & Wolcott (9D)



**ATTACHMENT B**  
**NYSDEC Correspondence and**  
**USFWS Official Species List**

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# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program

625 Broadway, Fifth Floor, Albany, NY 12233-4757

P: (518) 402-8935 | F: (518) 402-8925

www.dec.ny.gov

November 7, 2018

Deborah Hubbard  
The Chazen Companies  
21 Fox Street  
Poughkeepsie, NY 12601

Re: Chai Builders Multifamily Development and Office Building (formerly Beacon 248 Development)

County: Dutchess Town/City: City Of Beacon

Dear Ms. Hubbard:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site.

The project site is situated on Fishkill Creek. From just downstream of the project site to its mouth, Fishkill Creek is a designated significant concentration area for anadromous fish, including alewife and blueback herring. At the mouth of Fishkill Creek are several state-listed animals and plants, and significant brackish tidal marsh and brackish intertidal mudflats. We recommend that the project work be conducted so as to avoid significant impacts to the water quality of Fishkill Creek, including erosion and run-off of sediments, nutrients, and pollutants.

For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

For information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 3 Office, Division of Environmental Permits, at [dep.r3@dec.ny.gov](mailto:dep.r3@dec.ny.gov).

Sincerely,



Nicholas Conrad  
Information Resources Coordinator  
New York Natural Heritage Program

1164



Department of  
Environmental  
Conservation



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New York Ecological Services Field Office  
3817 Luker Road  
Cortland, NY 13045-9385

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

In Reply Refer To:

September 10, 2018

Consultation Code: 05E1NY00-2018-SLI-3255

Event Code: 05E1NY00-2018-E-09923

Project Name: Chai Builders Proposed Multifamily Development and Office Building

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

To Whom It May Concern:

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

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

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

[eagle\\_guidance.html](#)). Additionally, wind energy projects should follow the Services wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

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

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

Attachment(s):

- Official Species List

## Official Species List

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

This species list is provided by:

**New York Ecological Services Field Office**

3817 Luker Road

Cortland, NY 13045-9385

(607) 753-9334

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## Project Summary

Consultation Code: 05E1NY00-2018-SLI-3255

Event Code: 05E1NY00-2018-E-09923

Project Name: Chai Builders Proposed Multifamily Development and Office Building

Project Type: DEVELOPMENT

Project Description: The Applicant, Chai Builders Corp., proposes the redevelopment of the northern portion of the former Tuck Industries manufacturing site with a 64-unit multifamily residential development and a 25,400 square foot (SF) office building, with associated parking. A Greenway Trail for public use is proposed along the Fishkill Creek. The proposed development is contained almost entirely within the former Tuck Industries development area.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/41.49552009435731N73.96812773240211W>



Counties: Dutchess, NY

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## Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

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

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

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

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

### Mammals

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

### Clams

NAME	STATUS
Dwarf Wedgemussel <i>Alasmidonta heterodon</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/784">https://ecos.fws.gov/ecp/species/784</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/363/office/52410.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/363/office/52410.pdf</a>	Endangered

### Critical habitats

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

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# Exhibit # 1

CLOSING MEMORANDUM – December 10, 2018

Purchaser: Beacon 248 Holdings LLC

Premises: Tioranda Avenue and Wollcott Avenue, Beacon, New York

**BARGAIN AND SALE DEED WITH COVENANT AGAINST GRANTOR'S  
ACTS (INDIVIDUAL OR CORPORATION)**

CAUTION: THIS AGREEMENT SHOULD BE PREPARED BY AN ATTORNEY AND REVIEWED BY ATTORNEYS FOR SELLER AND PURCHASER BEFORE SIGNING.

***THIS INDENTURE***, made this 10<sup>th</sup> day of December, 2018,

**between**

Beacon 248 Development, LLC,  
104 Rochelle Avenue, Rochelle Park, NJ

party of the first part, and

Beacon 248 Holdings, LLC,  
15 Sycamore Lane, Suffern, NY 10901

party of the second part,

***WITNESSETH***, that the party of the first part, in consideration of Ten Dollars and No Cents (\$10.00), lawful money of the United States, paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

***ALL*** that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the City of Beacon, County of Dutchess, State of New York, described in Schedule A annexed hereto.

***BEING*** the same premises (1) conveyed by Deed from Joseph Rendeiro, dated June 14, 2006, and recorded on June 20, 2006, as Document #02-2006-4859 in the official records of the Dutchess County Clerk's Office Division of Land Records, and (2) conveyed by Deed from Central Hudson Gas and Electric Corporation dated November 27, 2017 and recorded on December 4, 2017 as Document #02-2017-9110.

***TOGETHER*** with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof,

***TOGETHER*** with the appurtenances and all the estate and rights of the party of the first part in and to said premises,

***TO HAVE AND TO HOLD*** the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

***AND*** the party of the first part, covenants that the party of the first part has not done or suffered anything whereby the said premises have been encumbered in any way whatever, except as aforesaid.

*AND* the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

*IN WITNESS WHEREOF*, the party of the first part has duly executed this deed the day and year first above written.

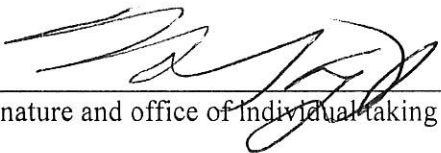
**Beacon 248 Development, LLC**



By **PETER DeROSA**

STATE OF NEW YORK            )  
COUNTY OF DUTCHESS        ) ss.:  
                                          )

On the 10<sup>th</sup> day of December in the year 2018, before me, the undersigned, personally appeared PETER DeROSA, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that they executed the same in their capacity(ies), and that by their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.



(signature and office of individual taking acknowledgment)

HAROLD D. EPSTEIN  
Notary Public, State of New York  
Residing in Dutchess County  
My Commission Expires November 30, 20 21

***DEED***

**Title No.**

**Swiss Code**           130200  
**Section**               5954  
**Block**                 16  
**Lot**                    993482-0000  
**County or Town**   DUTCHESS COUNTY  
**Street Address**    Tioranda Avenue  
                                  City of Beacon

to

**Swiss Code**           130200  
**Section**               6054  
**Block**                 45  
**Lot**                    012574-0000  
**County or Town**   DUTCHESS COUNTY  
**Street Address**    Tioranda Avenue  
                                  City of Beacon

## **Schedule A - Lot 1**

**All** that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the City of Beacon, County of Dutchess and State of New York, shown as Parcel 1B on Subdivision Plat prepared for Advantage Mortgage, Inc., which map was filed in the Office of the Dutchess County Clerk on February 22, 2000 as Map No. 10970.

## Schedule A - Lot 2

ALL that certain plot, piece, or parcel of land situate, lying and being in the City of Beacon, County of Dutchess and State of New York, being bounded and described as follows:

BEGINNING at an iron pipe set, South 72 degrees 46' East 25.00 feet from an existing iron pin marking the monumented center line at point of tangency Station 1972 + 60.64 of the Central New England Railway Company centerline; thence on a curve to the right with a radius of 1612.28 feet and having a central angle of 9 degrees 01' 22" for a distance of 253.90 feet, more or less, parallel to the aforesaid monumented center line to a point, the long chord of said curve being, North 21 degrees 45' East 253.64 feet, more or less, thence, South 61 degrees 30' East 85.84 feet along the southerly line of Wolcott Avenue to a point in range with westerly end of a bridge over the Fishkill Creek; thence, South 61 degrees 30' East 51.30 feet continuing along the southerly line of Wolcott Avenue and passing through the abutment of the aforesaid bridge to a point in the Fishkill Creek which is level with the crest of a dam on the lands of NY Rubber Corporation; thence the following three courses along and in the Fishkill Creek being maintained level with the crest of said dam, South 27 degrees 06' West 56.46 feet, more or less, to a point; thence, South 25 degrees 29' West 175.24 feet and South 22 degrees 48' West 143.91 feet to a point; thence, North 72 degrees 46' West 13.15 feet to an iron pipe set in the root of a tree; thence, on the same course, 77.62 feet to an iron pipe set in the center line of a Central Hudson Gas & Electric Corporation electric transmission line; thence on the same course, 5.30 feet to a point distant easterly 35.0 feet (measured at right angles) from the monumented center line of the aforesaid railroad; thence, North 3 degrees 12' East 41.23 feet to a point, said point being distant easterly 25.0 feet (measured at right angles) from the monumented center line of the aforesaid railroad; thence, North 17 degrees 14' East 106.00 feet parallel to the aforesaid monumented center line to the point of beginning.

EXCEPTING and reserving from the above described parcel the shoulders and all other parts of the access road lying on the westerly side of said parcel.

EXCEPTING and reserving from the above described parcel all that certain piece of parcel of land conveyed by quit claim deed by the NY Rubber Corporation to the City of Beacon dated 11/30/1936 and recorded 12/14/1936 in Liber 556 cp 508, which said parcel contains .1 acre.

FURTHER EXCEPTING and reserving from the above described parcel all that certain piece or parcel of land required in fee by The People of the State of New York pursuant to Notice of Appropriation dated 12/4/1997 and recorded 12/4/1997 in Liber 2002 cp 511, which said parcel contains 0.096 acre more or less.

ALSO CONVEYING the right to construct, maintain and use driveways and footwalks over the premises conveyed to the City of Beacon in Liber 556 cp 508 pursuant to reservation contained therein.

ALSO CONVEYING all other rights including the right of reverter reserved in the deed to the City of Beacon in Liber 556 cp 508.

## MEMORANDUM

To: Larry Boudreau

From: David MacDougall

cc: Barbara Beall

Date: January 16, 2019  
**Revised** January 28, 2019

Re: Wetlands Investigation

Job #: 81750

The Chai Builders Corp. property, at 248 Tioronda Avenue (Tax Parcel 5954-16-993482 and 6054-45-012574) is located east of Tioronda Avenue in the City of Beacon, Dutchess County, NY. The property is approximately 9.18± acres of which 6.57 acres is proposed to be developed ("Site") and includes successional field, deciduous forest, floodplain, and riparian habitats.

The Site was investigated on November 6, 2018 by Chazen scientist David MacDougall for the presence of aquatic resources and habitat to support endangered species. This memorandum summarizes the findings of that investigation and potential regulatory implications as it relates to the potential development of this Site.

### SUMMARY OF POTENTIAL RESTRICTIONS

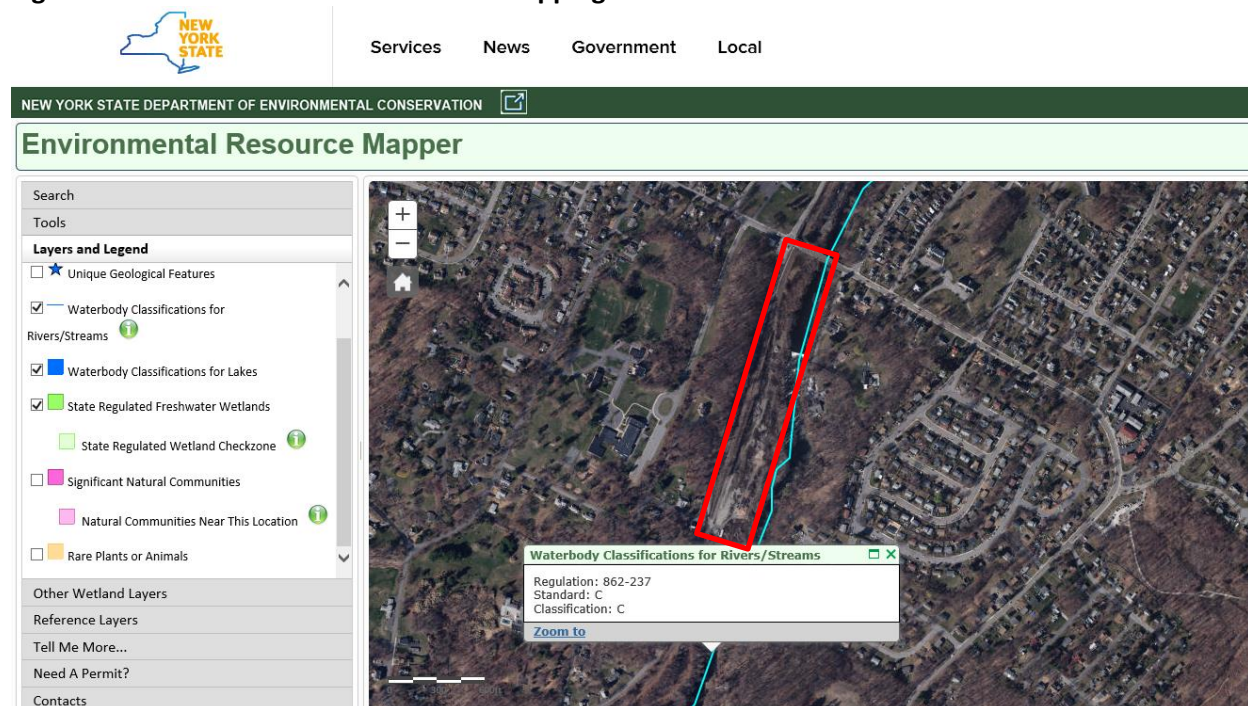
- Wetlands were not observed on the project site.
- There is one stream mapped on the site by the NYSDEC (862-237) and USFWS NWI mapping (R3UBH).
- There are no NYSDEC wetlands mapped on the site.
- According to the NYSDEC ERM Mapper a state-threatened or endangered species occurrence record encompasses a portion of the property. By letter dated November 7, 2018 the New York Natural Heritage Program indicates that this is for an Anadromous Fish Concentration Area, Freshwater Tidal Marsh, and rare plants located in the vicinity (downstream) of the project site.
- The USFWS identified this site as being in the range of Indiana and northern long-eared bats, dwarf wedgemussel, and bog turtle. The site contains habitat for bats outside of the proposed limits of disturbance (LOD); should clearing be required outside of the previously cleared LOD, winter tree clearing (November 1 to March 31) should be adequate mitigation to address these two species. The site is less than 10 acres, approximately 6.57 acres. Since no wetlands were observed on site, no habitat for bog turtles is present.



## AQUATIC REOURCES – DESKTOP MAPPING

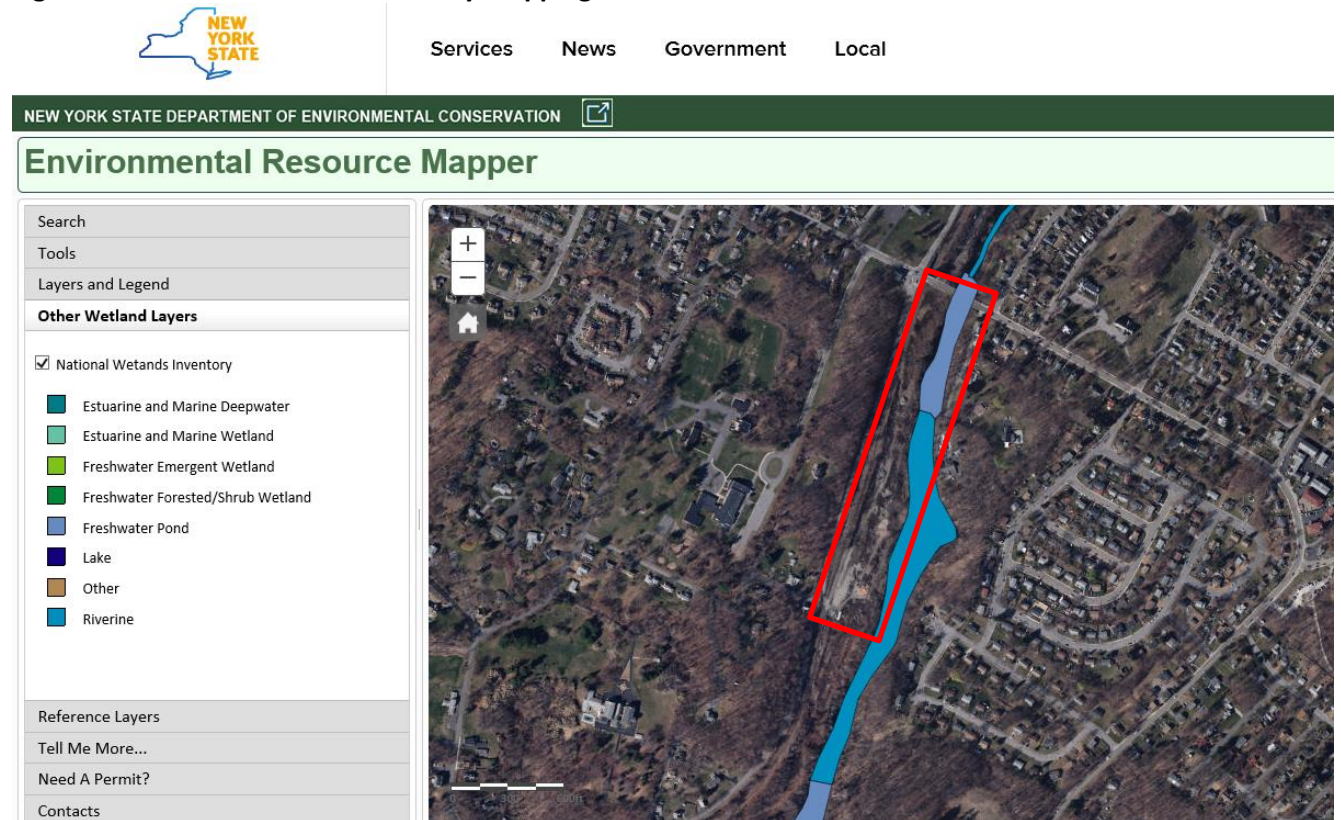
**New York State Department of Environmental Conservation (NYSDEC):** The New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper (ERM) shows one state-regulated stream on the Site. The Fishkill Creek (Stream Item Number 862-237, Class C, Standard C), a Class C stream is not regulated by the NYSDEC. No state regulated wetlands are mapped on site or in the immediate vicinity of the site.

**Figure 1 – NYSDEC Wetland and Stream Mapping**



**US Army Corps of Engineers (Corps):** The USFWS National Wetland Inventory Mapper (NWI) shows two aquatic resources on Site. See Figure 2. The NWI is a non-regulatory map indicating potential wetlands and streams on a Site. The Corps regulates, under Section 404 of the Clean Water Act, any waters or wetlands present on a site that have a significant nexus to traditionally navigable waters. Generally, streams or wetlands that flow off a site are likely to have such a nexus. At this Site, Stream 1 flows directly into the Hudson River, a traditionally navigable water, approximately 800 feet to the southwest, straight line distance. The Corps regulates wetlands and waters (with a significant nexus) under Section 404 of the Clean Water Act, and specifically regulates the discharge of dredged or fill material into such waters. The Corps does not regulate a buffer around these aquatic resources. Since this stream flows directly into the Hudson River, a Traditionally Navigable Water in close proximity to the site, Significant Nexus is presumed.

**Figure 2 – National Wetland Inventory Mapping**



**City of Beacon:** The City of Beacon reviews impacts to wetlands, watercourses, hilltops, ridgelines and steep slopes under Chapter Section 223-16 of their Zoning Code. Any impact or change in contours to wetlands and watercourses has to be approved by the planning board which will review those changes and their potential effect on water recharge areas, water table levels, water pollution, aquatic animal and plant life, temperature change, drainage, flooding, runoff and erosion.

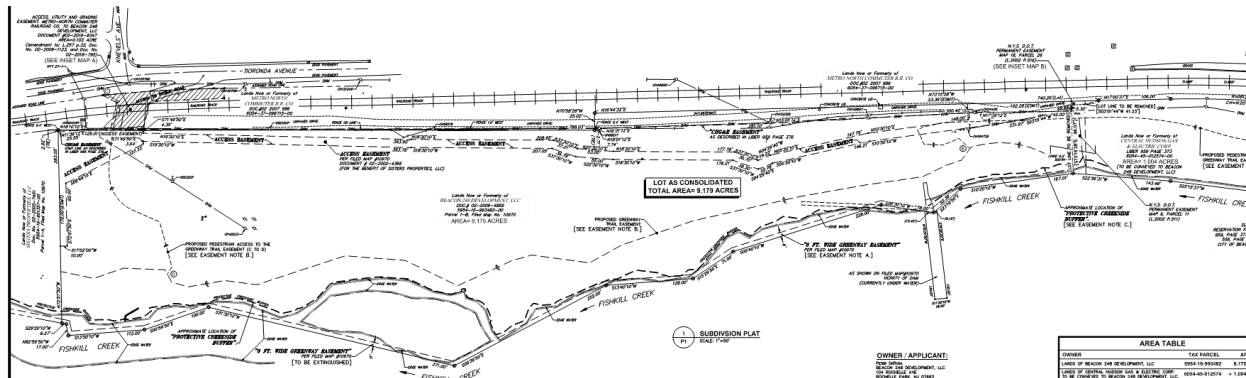
#### **AQUATIC REOURCES – SITE INSPECTION**

The site is dominated by successional field, deciduous forest, and riparian floodplain along Fishkill Creek. The upland forest that comprises the northern portion of the site is dominated by maple. The trees on the site were 30 to 50-year age class, and some do exhibit habitat features for bats.

One Stream was identified along the eastern edge of the property. See Figure 3. This stream is Fishkill Creek and was flagged as Streams 1 and 2 above and below the dam but is the same stream system.

Photos of this aquatic resource and a photo location map are provided at the end of this memo. The ordinary high water mark of the stream was delineated and the flags marking the boundaries were collected with a handheld Trimble GeoXT GPS unit.

**Figure 3 – Location of Delineated Stream**



**PROPOSED ACTIVITY AND AUTHORIZATIONS**

The client is proposing to develop the Site with a 64-unit multifamily residential development and a 25,400 square foot (SF) office building, with associated parking. A Greenway Trail for public use is proposed along the Fishkill Creek.

**Corps of Engineers:** The Corps regulates the discharge of dredged or fill materials into Waters of the United States under Section 404 of the Clean Water Act. In order for an aquatic resource to be determined a “Water of the United States,” it should have a significant nexus to a traditionally navigable water of the United States. Wetlands within the 100-year FEMA Floodplain or within 100 feet of a tributary water, have regulation established “per se” or by the law. If a wetland is more than 100 feet from a Navigable Water (Hudson River), but less than 4,000 feet from that water, a Significant Nexus determination is needed for the Corps to determine that this wetland is not regulated. The Fishkill Creek would be a regulated water due to its connection to the Hudson River.

The Corps would regulate moving soil around in this aquatic resource or placing fill material in any form, into this aquatic resource. The Corp has a set of Nationwide Permits to authorize minor impacts associated with dredging or filling in Waters of the United States (streams, wetlands with a significant nexus to off-Site waters). For example, Nationwide Permit 39, for Commercial Development, could be used to authorize permanent or temporary fills associated with a development and attendant features including driveway, parking, and stormwater.

Use of Nationwide Permit 39 requires a pre-construction notification to the Corps and could allow up to ½ acre impact to waters of the United States and 300 linear feet of stream bed. Compensatory wetland mitigation (replacement of wetland functions and areas through wetland creation, enhancement or preservation) is required for impacts greater than 0.1 acre.

Other Associated Regulations: Use of federal wetland permits triggers other reviews by the Corps including compliance with the federal Endangered Species Act, Section 401 of the Clean Water Act – Water Quality Certification (WQC) from the NYSDEC, and the federal National Historic Preservation Act (cultural resources).

The NYSDEC has reviewed the Nationwide Permits to determine if their use will have an adverse impact on water quality; in some cases, a blanket (i.e., pre-authorized) Section 401 WQC has been issued, and in other cases an individual WQC is required. In general, use of a blanket water quality certificate requires impacts <0.25 acre and compliance with other conditions, such as culverts with aquatic resource connectivity. The involvement of the NYSDEC also requires SEQRA review, either through the NYSDEC, or in this case, more likely through the City.

**NYSDEC Regulations:** There is one NYSDEC stream mapped on the project site though it would not be regulated by the NYSDEC due to its C classification. No wetland or stream disturbance permits are required from the NYSDEC. As stated above, a NYSDEC Section 401 Water Quality Certificate would be required for impacts to federally regulated aquatic resources.

### **Ecological Resources**

**USFWS:** Per the USFWS IPAC site, the site is in the range of the Indiana Bat (*Myotis sodalis*) (Federal/State Endangered); the northern long-eared bat (*Myotis septentrionalis*) (Federal/State Threatened); dwarf wedgemussel (Federal/State Endangered), and bog turtle (*Glyptemys muhlenbergii*) (Federal Threatened/State Endangered).

Bats: Trees on the site were large enough (>3" dbh) and contained features to provide suitable summer roosts for Indiana and northern long-eared bat outside of the proposed LOD. The closest hibernaculum is 7.5 miles to the south. The site has been previously developed and trees within the proposed LOD have been previously removed by B248, (previous owner) during the tree removal timeframe. Timing of tree removal during hibernation (November 1-March 31) should be adequate mitigation for these species if additional tree clearing is required outside of the previously cleared LOD.

Dwarf wedgemussel: Currently, the only known locations for dwarf wedgemussels in New York are in Delaware/Sullivan County, Orange County, and a small population in Dutchess County. The Neversink River is a westerly-flowing creek tributary to the Delaware River. This project site is in Dutchess County and at least 30 miles straight line distance from the Webatuck Creek. The NYNHP probable associated ecological community is deepwater river, which is the aquatic community of very large, very deep quiet, base level sections of streams with a very low gradient. In places the water is deep enough so that light

cannot reach the bottom. One stream was observed on-site and the stream represents potential habitat above the dam, although there is no state record of this species in this location. Given that the stream will not be impacted, the project would result in a determination of “No Take” under Section 10 or a determination of “No Effect” under Section 7 of the federal Endangered Species Act.

**Bog Turtle:** The closet known bog turtle site is approximately 8 miles from the project site. No wetlands were observed, and no suitable bog turtle habitat is present at this site.

The level of coordination with the USFWS is dependent upon whether any federal permits are sought. If federal permits are sought, consultation with the USFWS is required under Section 7 of the federal Endangered Species Act. This typically requires preparation of a species conclusion table and some written documentation that is included in any Joint Permit Application to the Corps. If no permits are needed, then the landowner makes the determination of effect for the species.

**NYSDEC:** The NYSDEC Environmental Resource Mapper indicates that a portion of the site is within an occurrence zone for state Endangered or Threatened Species. A response was received on November 7, 2018 from the NYNHP. The following animals have been documented in the sites vicinity and are of conservation concern to the State: Anadromous Fish Concentration Area, (Freshwater Tidal Marsh) is a significant natural community located near the project site, and rare plants. Natural Heritage requested that steps be taken to prevent sedimentation and other potential impacts to water quality downstream of the project site.

### **Next Steps for Aquatic and Ecological Resources**

We recommend the following next steps to advance this project.

- While no fill is proposed for this project. In general, a Nationwide Permit can be used to authorize impacts less than 0.5 acre in size; if impacts are less than 0.1 acre, no compensatory mitigation is required. In general, impacts of 0.25 acre can be authorized with a blanket Section 401 Water Quality Certificate from the NYSDEC, impacts greater than 0.25 acre requires an individual blanket Section 401 Water Quality Certificate.
- Any federal permitting would include a discussion to address federal endangered species. This would need to include a species conclusion table and discussion related to recommended mitigation of a timing restriction on clearing of November 1 to March 31 to address bat species, if tree removal was proposed outside of the previously cleared LOD. Given the current site layout no federal permitting is required.
- The City Planning Board would need to be consulted if impacts are proposed to the stream.
- No impacts to the floodplain are currently proposed. FEMA floodplain issues would need to be addressed if fill materials or construction were proposed within the FEMA Floodplain.
- Complete SEQRA (by the local municipality) as part of site plan approval.
- State Historic Preservation Office (SHPO) review has been completed as SHPO issue a No Adverse Impact letter on December 23, 2013 for this property.

Figure 4: FEMA Flood Insurance Rate Map mapping

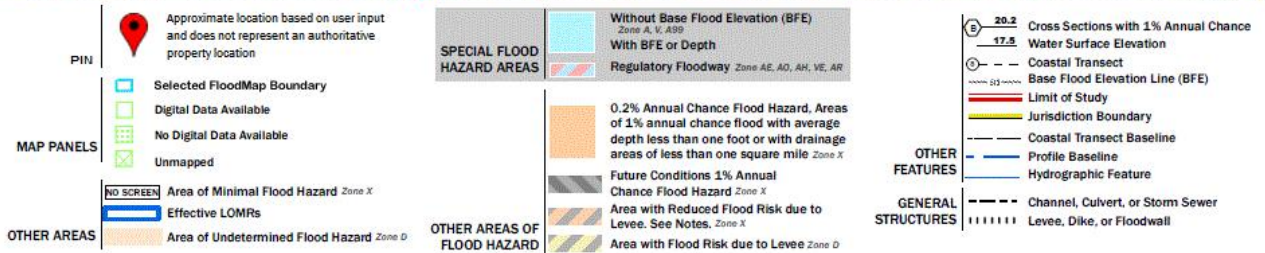
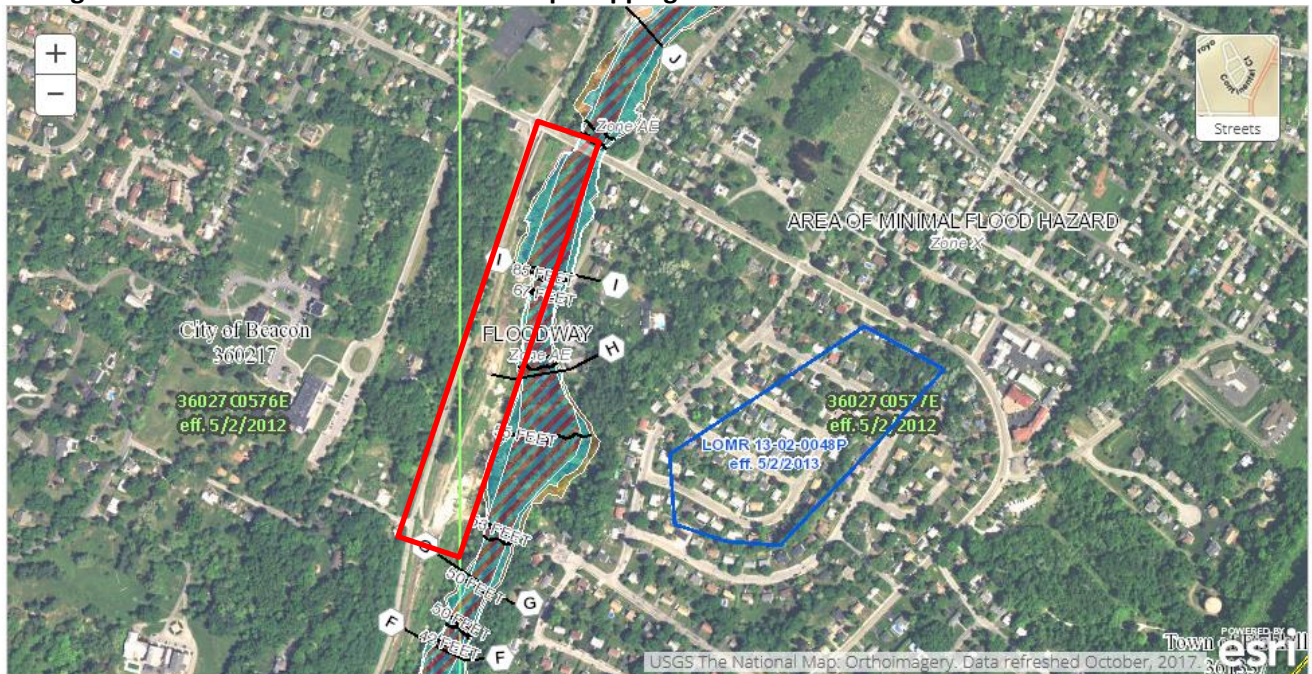


Figure 5 - Photo Location Map





Photo #1

Description: View north near the southeast corner of the property.



Photo #2

Description: View southwest near the southeast corner of the property.





Photo #3

Description: View south near the northwest portion of the property.



Photo #4

Description: View north near the northeast central portion of the property.



Photo #5

Description: View south of a wet spot that did not contain hydric soils and appeared to be underlain by bedrock.



Photo #6

Description: View west of a wet spot that did not contain hydric soils.



Photo #7

Description: View east of Stream 1 which flows along the eastern edge of the property.

a



Photo #8

Description: View north of Stream 1 which flows along the eastern edge of the property.



Photo #9

Description: View west of a rock lined ditch on the north end of the property, this watercourse appears to be man made.

a



Photo #10

Description: View east of an erosional swale on the north end of the property.



Photo #11

Description: View north of the floodplain of Stream 1 which did not contain hydric soils and was not dominated by hydrophytic vegetation.

a



Photo #12

Description: View south of the floodplain of Stream 1 which did not contain hydric soils and was not dominated by hydrophytic vegetation.

To: Mayor Casale and the Beacon City Council  
Date: January 22, 2019  
Re: 248 Tioronda Avenue, Concept Plan Application

I have reviewed digital files of a January 17, 2019 response letter and January 16, 2019 Wetlands Investigation Memorandum from The Chazen Companies, January 17, 2019 reissued Full EAF Part 1 and Narrative, January 17, 2019 updated photo-simulations from five locations, January 17, 2019 revised Site Sections and Elevations, and a 7-sheet Site Plan set with all but Sheet SP1 having a last revision date of January 17, 2019.

### **Proposal**

The applicant is proposing to construct two multifamily buildings with a total of 64 units and a separate office building with 25,400 square feet on two parcels containing 9.18 acres in the Fishkill Creek Development district. The two lots will need to be consolidated, and a Greenway Trail is proposed as part of the project.

### **Comments and Recommendations**

1. Sheet C100 includes the combined floodway, wetland, and surface water boundaries, as well as the proposed development footprints, but not the very steep slopes layer.
2. On Sheet G001 the Site Statistics Table should indicate 216 parking spaces. According to Section 223-41.13 I(11)(b) the minimum required parking should also be the maximum allowed.
3. As requested, a new photo-simulation is included from across the creek. Existing trees along the creek and additional trees and landscaping, as indicated in the sections, will help to screen views of the buildings from the east.
4. The submission also provides updated cross-sections, showing an enhanced separation between the buildings and Greenway Trail. For future ease of understanding, the buildings should be labeled the same in the sections, elevations, site simulations, and site plan, and the section lines should be identified. The east and west elevations of Building A seem to be mis-labeled.
5. Two alternative plans have been provided, both of which use land-banked parking to create space for a central green. Option B appears to be the preferable Concept Plan and consistent with the Council's direction at the last workshop. It provides a much larger and more usable greenspace. In Option A the truck loading area awkwardly separates the commercial building from the narrow green. The land-banked parking in Option B should be increased from 20 to 33 to match the number proposed in Option A.
6. If possible, an ADA-compliant section of the Greenway Trail should be provided through the green near the retaining wall to bypass the lower segment with stairs.

7. The November response letter from The Chazen Companies reported that the federal wetlands boundary was re-delineated on November 5, 2018 and was under review by the Army Corps of Engineers. The January 16, 2019 Wetlands Investigation Memorandum confuses the matter. It starts out by stating that wetlands were not observed on the project site and concludes with photos showing Wetlands A through D. The Photo Location Map should be more precise and identify all 24 photos. The November 5, 2018 updated delineation was not discussed or represented with a map. Wetland boundaries and any significant impacts will need to be clarified before any SEQRA determination is possible.

Once the Council decides between Option A and Option B, the proposed Concept Plan should be ready to forward to the County Planning Department for comments and the City Planning Board for a SEQRA determination, Local Waterfront Revitalization Program consistency review, and advisory recommendations. Specific architectural, landscaping, lighting, and engineering details should be covered by the Planning Board during the subsequent Site Plan review.

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

John Clarke, Beacon Planning Consultant

- c: Dave Buckley, Building Inspector
- Nicholas M. Ward-Willis, Esq., City Attorney
- Arthur R. Tully, P.E., City Engineer
- John Russo, P.E., City Engineer
- Larry Boudreau, RLA, Project Representative

**LANC & TULLY**  
ENGINEERING AND SURVEYING, P.C.

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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.

February 7, 2019

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

RE: Beacon 248 Development  
City of Beacon  
Tax Map Nos. 5954-10-993482,  
6054-45-012574

Dear Mr. Gunn:

Our office has reviewed Full EAF prepared for 248 Tioronda Avenue project, last revised January 30, 2019, along with the 5 sheet set of existing conditions and conceptual layout plans with the latest revision date of January 17, 2019, both as prepared by Chazen Companies. Based upon our review of the EAF and plans, we offer the following comments:

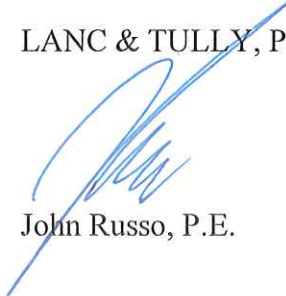
1. Although Section 4.2 states that there are "no wetlands observed on the project site." This should be revised to read that there are "no wetlands observed in the area of proposed construction", as the project site is the overall parcel which includes wetlands as shown on the submitted plan SP1.
2. Dutchess County Parcel Access notes that tax parcel 6054-45-012574 is currently owned by Beacon 248 Development, whereas the Existing Conditions plan (SP1) notes that this parcel is owned by Central Hudson. The plan should be updated to reflect the current owner of the parcel. The notes and information provided on this plan may also need to be updated based upon this change.
3. Will gate(s) be provided at either end, or both ends, of the emergency access drive? If so, they should be shown on the concept plan. If not, how will the access drive be controlled to prevent daily use of this access by the residents or those visiting the site?
4. The Planning Board should be aware that our office previously performed an analysis of the site for the City Council with regards to steep slopes, wetlands, and floodway mapping to determine the maximum number of units that could be constructed on the site with these given constraints. Based upon our analysis we determined that 64.74 units, which is rounded down to 64 units, could be achieved on the site once these constraints were taken into consideration.



This completes our review at this time. Further comments may be forth coming based upon more detailed future submissions to the City. If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.



John Russo, P.E.

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

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**Zoning Board of Appeals**

**Subject:**

Zoning Board of Appeals – February Agenda

**Background:**

**ATTACHMENTS:**

Description

February 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 **Wednesday, February 20, 2019** in the Municipal Center courtroom, located at One Municipal Plaza, Beacon, New York. The meeting will take place at 7:00 PM and the public hearing portion of the meeting will begin immediately thereafter, but not later than 8:00 PM.

**Regular Meeting**

1. Continue review of application submitted by PIE Developers, 53 Eliza Street, Tax Grid No. 30-6054-29-031870-00, R1-5 Zoning District, seeking relief from Section 223-17(C) for a Use Variance and Area Variance to allow a 9-unit multi-family development (***this is not a public hearing***)
1. Application submitted by Travis & Katherine Hayes, 11 Iris Circle, Tax Grid No. 30-5954-43-786650-00, R1-7.5 Zoning District, for relief from Section 223-17(C) to construct a one-story dining room and living room addition with a 6 ft. side yard setback (*10 ft. required*)
2. Application submitted by Thom & LouAnn Joyce, 136 Washington Avenue, Tax Grid No. 30-6054-32-389796-00, R1-10 Zoning District, for relief from Section 223-17(C) for a front and rear addition with 26 ft. front yard setback (*35 ft. required*) and a 26 ft. rear yard setback (*35 ft. required*)
3. Application submitted by Ryan Havers & Lori Merhige, 104 South Chestnut Street, Tax Grid No. 30-5954-44-880723-00, R1-5 Zoning District, for relief from Section 223-17(C) for a second floor addition with 21 ft. front yard setback (*30 ft. required*) and a 4 ft. side yard setback (*12.5 ft. required*)

**Miscellaneous Business**

1. 98 Rombout Avenue - consider request for 6-month extension of approval granted 7/17/18

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**25 Townsend Street**

**Subject:**

Consider request for two 90-day extensions of Subdivision Approval – 25 Townsend Street, submitted by AK Property Holding, LLC

**Background:**

**ATTACHMENTS:**

Description

Type

1.2.19 Extension Request AK Property Holding

Cover Memo/Letter



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

Taylor M. Palmer  
tpalmer@cuddyfeder.com

January 2, 2019

**BY FEDERAL EXPRESS  
AND E-MAIL**

Hon. John Gunn, Chairman  
& Members of the Planning Board  
One Municipal Plaza  
Beacon, New York 12508

Re: AK Property Holding, LLC – Request for Extension of Final Subdivision Approval  
Property: 25 Townsend Street, Beacon, New York

Dear Chairman Gunn and Planning Board Members:

On behalf of AK Property Holding, LLC (the “Applicant”), we are writing to request two (2) 90-day extensions of the July 10, 2018 Final Subdivision Approval Resolution for a proposed thirteen (13) lot residential subdivision.<sup>1</sup> This request is timely, as 180 days (six (6) months)) have not elapsed since the date of the 2018 Approval Resolution.

The Applicant has been working diligently with the project consultants and City Staff to satisfy each of the prerequisite Conditions provided in the 2018 Approval Resolution in order for the Final Subdivision Plat to be signed by the Planning Board Chairman and subsequently recorded in the Dutchess County Clerk’s Office. County Health Department approval is anticipated in the next few months. Additionally, the Applicant has prepared drafts of the following documents, which have been forwarded to the Planning Board Attorney for review:

- a. 20’ wide Conservation and Landscape Easement;
- b. 10’ wide Drainage Easement;
- c. 15’ wide Drainage Easement with Diversion Berm; and
- d. Stormwater Management Maintenance & Access Easement.<sup>2</sup>

Given the particular circumstances noted above, we respectfully submit this formal request for two (2) 90-day extensions (180 days) of the Final Subdivision Approval, thus extending to July 10, 2019, the date by which the Applicant must satisfy conditions A.1-A.8 of the 2018 Approval Resolution in order for the Final Subdivision Plat to be signed by the Chairman of the Planning Board. This Board has the authority to grant the requested extension pursuant to City of Beacon Code Section 195-14(D).

---

<sup>1</sup> A copy of the 2018 Approval Resolution, Adopted July 10, 2018 (the “2018 Approval Resolution”), is attached to this letter as **Exhibit A**.

<sup>2</sup> **Note:** Copies of the draft deliverables are available at this Board’s request. As noted above, these documents are currently being reviewed by the Planning Board Attorney.



January 2, 2019  
Page -2-

In furtherance of this request for an extension, the Applicant delivered a new escrow check in the amount of \$3,170.75 payable to the City of Beacon. We respectfully request that you please place this matter on the next available Planning Board Agenda for consideration of the Applicant's request for two (2) 90-day extensions. Thank you in advance for your consideration in this matter.

Very truly yours,

A handwritten signature in black ink, appearing to read "Taylor M. Palmer", is written over a horizontal line. The signature is fluid and cursive.

Taylor M. Palmer

Enclosure

cc: Jennifer L. Gray, Esq. – Planning Board Attorney

# EXHIBIT A

## RESOLUTION

### PLANNING BOARD BEACON, NEW YORK

#### FINAL SUBDIVISION PLAT APPROVAL FOR 25 TOWNSEND STREET

**WHEREAS**, the Beacon Planning Board received an application for Final Subdivision Plat Approval from AK Property Holding LLC (“Applicant”) for a residential subdivision (the “Project” or “Proposed Action”); and

**WHEREAS**, the property is located within the R1-7.5 One-Family Residence District and is designated as Parcel 6055-03-383149 on the City Tax Map (collectively, the “Subject Property” or “Site”); and

**WHEREAS**, the Subject Property is owned by AK Property Holding LLC and is comprised of approximately 5 acres which was formerly the site of the Knights of Columbus; and

**WHEREAS**, the Applicant is proposing to subdivide the parcel to create 13 residential lots for the construction of new single-family residences with an additional common lot for stormwater infiltration and 50’ right-of-way offered for dedication to the City of Beacon for future road purposes and the opportunity to connect the Subject Property to the adjacent parcel upon the development of the adjacent parcel; and

**WHEREAS**, the new lots would be serviced by a cul-de-sac roadway with sidewalks and a landscaped center island; and

**WHEREAS**, the subdivision is shown on the drawing, entitled “Preliminary Subdivision Plan,” last revised June 26, 2018, prepared by Hudson Land Design, Beacon, N.Y.; and

**WHEREAS**, the plans reviewed by the Planning Board consist of the following:

- Sheet 1 of 8, entitled “Existing Conditions and Demo Plan,” last revised June 26, 2018, prepared by Hudson Land Design, Beacon N.Y.
- Sheet 2 of 8, entitled “Preliminary Subdivision Plan,” last revised June 26, 2018, prepared by Hudson Land Design, Beacon, N.Y.
- Sheet 3 of 8, entitled “Utility Plan,” last revised June 26, 2018, prepared by Hudson Land Design, Beacon N.Y.
- Sheet 4 of 8, entitled “Utility Plan and Profile,” last revised June 26, 2018, prepared by Hudson Land Design, Beacon N.Y.
- Sheet 5 of 8, entitled “Erosion & Sediment Control Plan,” last revised June 26, 2018, prepared by Hudson Land Design, Beacon N.Y.



**Resolution of Final Subdivision Approval –  
25 Townsend Street**

- Sheet 6 of 8, entitled “Construction Details,” last revised June 26, 2018, prepared by Hudson Land Design, Beacon N.Y.
- Sheet 7 of 8, entitled “Construction Details,” last revised June 26, 2018, prepared by Hudson Land Design, Beacon N.Y.
- Sheet 8 of 8, entitled “Construction Details,” last revised June 26, 2018, prepared by Hudson Land Design, Beacon N.Y.

**WHEREAS**, the application also consists of application forms and the Environmental Assessment Form (EAF), and all other submissions by the Applicant; and

**WHEREAS**, the Planning Board reviewed the application at its meetings on January 12, 2016, June 14, 2016, April 11, 2017, May 9, 2017, August 8, 2017, September 12, 2017, February 14, 2018, March 13, 2018, April 10, 2018, May 8, 2018, June 12, 2018 and July 10, 2018; and

**WHEREAS**, on March 13, 2018, following a coordinated review pursuant to SEQRA the Planning Board adopted a Negative Declaration after taking a “hard look” at each of the relevant areas of environmental concern through review of the EAF and all associated materials prepared in connection with the Proposed Action; and

**WHEREAS**, following the adoption of the Negative Declaration pursuant to SEQRA, on March 13, 2018, the Planning Board opened the public hearing on the application for Subdivision Approval, at which time all those interested were given an opportunity to be heard and the public hearing was continued to May 8, 2018 and June 12, 2018, and closed on June 12, 2018; and

**WHEREAS**, on June 12, 2018 the Planning Board granted Preliminary Subdivision Approval for the Project; and

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

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

**BE IT FURTHER RESOLVED**, that the Planning Board finds that the conditions 1 and 2 in Section “A” of the Preliminary Subdivision Approval Resolution, adopted on June 12, 2018, have been fulfilled to the satisfaction of the Planning Board, except for those conditions that have become conditions of Final Subdivision Approval set forth below, and the Planning Board hereby amends the conditions of the Preliminary Subdivision Approval Resolution to remove condition 4 in Section “A” therein.

**Resolution of Final Subdivision Approval –  
25 Townsend Street**

**BE IT FURTHER RESOLVED**, that the Planning Board hereby grants Final Subdivision Plat Approval to the Project, as shown on the application materials enumerated above, subject to the following conditions and modifications:

- A. The following conditions shall be fulfilled prior to the signing of the Final Subdivision Plat by the Chairman of the Planning Board:**
1. The comments contained in the City Engineer’s letter to the Planning Board dated July 5, 2018, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Engineer.
  2. The comments contained in the City Planner’s letter to the Planning Board dated July 5, 2018, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Planner.
  3. All application review fees shall be paid in full.
  4. The Applicant shall seek and obtain all required permits and/or approvals from the appropriate agencies for the Project, including but not necessarily limited to approval from the Dutchess County Department of Health for the extension of water distribution and sewer collection systems, and shall meet all conditions contained in such approvals, as required therein.
  5. The Applicant shall submit all necessary easements in recordable form satisfactory to the City Attorney, which shall be recorded in the Dutchess County Clerk’s Office simultaneously with the Subdivision Plat and prior to the transfer of any subdivision lot, with a copy of the recorded documents submitted to the City Clerk for filing. Such easements include but may not be limited to the following:
    - a. 20’ wide Conservation and Landscape Easement
    - b. 10’ wide Drainage Easement
    - c. 15’ wide Drainage Easement with diversion berm
    - d. Stormwater Management Maintenance Agreement & Access Easement in accordance with Section 190-9 of the City Code

Thereafter, the Applicant shall submit written evidence certifying that such easements have been duly recorded in the Dutchess County Clerk’s Office.

6. The Applicant shall submit appropriate Homeowner’s Association documentation for review as to form by the City Attorney, which shall include maintenance obligations for the landscaped cul-de-sac island and all stormwater facilities, including the infiltration basin and all pipes, swales and structures that convey stormwater through the Subject Property. The “HOA Lot” containing the infiltration basin shall be owned and maintained by the HOA. Unless and until the City of Beacon accepts the

**Resolution of Final Subdivision Approval –  
25 Townsend Street**

offer of dedication of the 50' right of way spur off of the cul-de-sac, such right-of-way shall be owned and maintained by the HOA.

7. Pursuant to Section 195-15 of the City Code, the Applicant shall submit a performance guarantee for the construction of all public improvements in an amount to be determined by the City Engineer and in a form acceptable to the City Attorney.
8. Sheet 2 of 8, entitled "Preliminary Subdivision Plan," last revised June 26, 2018, prepared by Hudson Land Design, Beacon, N.Y. shall be re-labeled as "Final Subdivision Plan."

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

1. The Applicant shall submit a Construction Management Plan for review and approval of the Building Inspector, Highway Superintendent and City Engineer.
2. The Applicant shall fund an escrow account with the City of Beacon for the monthly stormwater inspections in an amount as determined by the City Engineer.


**C. The following are general conditions which shall be fulfilled:**

1. Based on the current and anticipated future need for park and recreational opportunities in the City of Beacon, as set forth in the analysis provided by BFJ Planning, and the demands of the future population of the Project, the Planning Board hereby finds that additional recreation/parkland should be created as a condition of approval. However, the Planning Board hereby determines that recreation/parkland of adequate size and location cannot be provided on the Project Site. Therefore, that Applicant shall pay a Recreation Fee as prescribed under Section 195-25.A(4) of the City Code. The Planning Board hereby requires that, prior to the issuance of the Certificate of Occupancy, the Applicant shall pay a Recreation Fee as per the City's Fee Schedule in effect at the time of payment.
2. The Building Inspector and the City Engineer shall have the right to direct the Applicant to cause the placement, cleaning and/or repair of sedimentation and erosion control devices wherever and whenever deemed necessary during construction.
3. This approval is conditioned upon compliance with all of the mitigation measures specified in the Applicant's Environmental Assessment Form. The Applicant shall be responsible for the funding and/or implementation of all such identified mitigation measures. Where the terms of this Resolution may be inconsistent with the EAF, the terms of this Resolution shall be controlling.

**Resolution of Final Subdivision Approval –  
25 Townsend Street**

4. The Applicant shall be responsible for the payment of all application review costs incurred by the City in its review and approval of this project. Such fees shall be paid by the Applicants within thirty (30) days of each written notification by the City that such fees are due. If such fees are not paid within the thirty (30) day period, and an extension therefor has not been granted by the City, this Resolution shall be rendered null and void if the Final Plat has not yet been filed in the Dutchess County Clerk's Office.
5. As used herein, the term "Applicant" shall include their heirs, successors and assigns, and where applicable its contractors and employees.
6. If any of the conditions enumerated in this Resolution upon which this approval is granted are found to be invalid or unenforceable, then the integrity of this Resolution and the remaining conditions shall remain valid and intact.
7. The approvals granted by this Resolution do not supersede the authority of any other entity.
8. Conditional approval of the Final Subdivision Plat shall expire one hundred eighty (180) days from the date of the adoption of this Resolution unless all items in Condition A above have been certified as completed and the Final Plat has been submitted for endorsement by the Planning Board Chairman, or unless a written request for an extension of Final Subdivision Plat Approval is granted. The Planning Board may grant ninety (90) day extensions to said time period.
9. Once the Final Subdivision Plat has been endorsed by the Planning Board Chairman, said Plat must be filed in the Dutchess County Clerk's Office within sixty-two (62) days. After said filing, two (2) copies of the Final Plat certified by Dutchess County shall be submitted to the Planning Board Secretary. One (1) certified copy of the Final Plat shall be retained by the Planning Board and the other certified copy shall be transmitted to the City Clerk along with a signed copy of this Resolution.
10. The Applicant must return for approval from the Planning Board if any changes to the endorsed plans and/or this Resolution of approval are subsequently desired.

Resolution Adopted: July 10, 2018  
Beacon, New York

  
John Gunn, Chairman

7/10/2018  
Date

Motion by R. Williams, seconded by R. Muscat :

Gary Barrack	Voting <u>AYE</u>	Rick Muscat	Voting <u>AYE</u>
David Burke	Voting <u>EXCUSED</u>	Randall Williams	Voting <u>AYE</u>
Jill Reynolds	Voting <u>AYE</u>	John Gunn, Chairman	Voting <u>AYE</u>
Patrick Lambert	Voting <u>AYE</u>		

Received in the Office of the  
City Clerk  
July 12, 2018

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**22 Edgewater Place**

**Subject:**

Consider request for two 90-day extensions of Subdivision Approval – 22 Edgewater Place, submitted by Scenic Beacon Developments, LLC

**Background:**

**ATTACHMENTS:**

Description	Type
22 Edgewater Place Extension Request	Cover Memo/Letter



*Civil & Environmental Engineering Consultants  
174 Main Street, Beacon, New York 12508  
13 Chambers Street, Newburgh, New York 12550  
Phone: 845-440-6926 Fax: 845-440-6637  
[www.HudsonLandDesign.com](http://www.HudsonLandDesign.com)*

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January 28, 2019

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

Re: Edgewater Site Plan and Subdivision Request for Two (2) 90-Day Extensions of Approval  
Tax IDs 5954-25-566983, 574979, 582985, & 5955-19-590022  
City of Beacon, New York

Dear Chairman Gunn:

The above referenced project was granted conditional Site Plan and Subdivision approval by resolution on September 11, 2018. The one hundred eighty (180) day period to fulfill all items noted within Conditions A and B of the adopted resolution will expire on March 10, 2019. Pursuant to Section 276(7)(c) of the New York State Town Law and General Condition E.12 of the Code of the adopted Site Plan and Subdivision Resolution, the Applicant hereby respectfully requests two (2) 90-day extensions of the time from September 11, 2018 within which the conditionally-approved final plat for the subject subdivision must be submitted for signature.

The Applicant has made substantial progress toward fulfilling Conditions A and B within the adopted resolution which include, but are not limited to the following:

**Condition A – Subdivision Plat**

2. The plans have been submitted to the Dutchess County Department of Behavioral and Community Health (DCDBCH) and are currently under review. It should be noted that the DCDBCH has been taking several months to turn around reviews as they have lost several key personnel over the last year.
3. A revised Subdivision Plat has been provided to the City Engineer for final review.
4. A revised Subdivision Plat has been provided to the City Planner for final review.

5. The required note has been added to the Subdivision Plat and provided to the Planning Board's consultants for review.
6. The Subdivision Plat has been revised to reference a reservation by rights by the City of Beacon with a grant of easement rights to the City of Beacon. The plat is currently under review by the planning board consultants.
7. The Connection Trail Regulations are included within maintenance agreement for the Connection Trail easement. The easement agreement is being finalized by the Applicant's Attorney.
8. All easements are now shown on the Plat and have been provided to the Planning Board's consultants for review.
9. The Stormwater Easement and Maintenance Agreement has been provided to the Planning Board's Attorney for Review.
10. The Offer of Dedication is clearly delineated on the Subdivision Plat and a draft Offer of Dedication has been prepared by the Applicant's attorney. The Offer of Dedication will be provided to the Planning Board's consultants for review once the metes and bounds on all easements and lot lines have been accepted by the City.
11. Draft Offer of Dedication and Maintenance Agreement for the Water Main Easement have been prepared by the Applicant's attorney. They will be provided to the Planning Board's consultants for review once the metes and bounds on all easements and lot lines have been accepted by the City.
12. A bond estimate is currently being prepared and will be provided for review once complete.

**Condition B – Site Plan**

1. Condition noted. See Condition A.2 response above.
2. Condition noted. See Condition A.3 response above.
3. Condition noted. See Condition A.4 response above.

Based upon the status of the conditions listed above, we are respectfully requesting two (2) 90-day extensions of approval in order to complete all conditions. The Applicant's attorney will provide all easement descriptions and agreements once the City's consultants have signed off on the lot line and easement metes and bounds. If the conditions are fulfilled prior to the expiration date, we will withdraw our extension request. Please place this item on the next available planning board agenda for consideration of two (2) 90-day extensions.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Mr. Bodendorf". The signature is fluid and cursive, with the first name "Mr." written in a smaller, more formal script than the last name "Bodendorf".

Michael A. Bodendorf, P.E.  
Principal

cc: Weber Projects, LLC  
Tina Andress-Landolfi  
Taylor Palmer, Esq.  
Aryeh Siegel, AIA  
Daniel G. Koehler, P.E. (HLD File)



**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**1181 North Avenue**

**Subject:**

Consider request for one 90-day extension of Subdivision Approval – 1181 North Avenue, submitted by Normington Schofield (North Avenue Properties, LLC)

**Background:**

**ATTACHMENTS:**

Description	Type
1181 North Avenue Extension Request	Cover Memo/Letter



*Civil & Environmental Engineering Consultants  
174 Main Street, Beacon, New York 12508  
13 Chambers Street, Newburgh, New York 12550  
Phone: 845-440-6926 Fax: 845-440-6637  
[www.HudsonLandDesign.com](http://www.HudsonLandDesign.com)*

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January 29, 2019

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

Re: 1181 North Avenue (Schofield) – Subdivision and Special Use Permit Applications  
Tax Parcel ID: 5955-19-716048 (±0.70 acres)  
City of Beacon, Dutchess County, NY

Dear Chairman Gunn:

At the September 11, 2018 meeting, the Planning Board resolved to grant Preliminary and Final Subdivision Plat, Site Plan and Certificate of Appropriateness Approvals for the aforementioned project. In addition, the Planning Board, at its January 8, 2019 meeting, made an administrative amendment to the resolution.

Since the original approval, professionals for the applicant have been working on satisfying the various conditions associated with the resolution. As such, on behalf of the applicant, Hudson Land Design respectfully requests one (1) 90-day extension of approval, which is due to expire on March 10, 2019. Please place this item on your February 2019 agenda to further discuss.

In addition to the requested extension of approval, we request an administrative amendment to the resolution. Specifically we are requesting that General Condition B(4) be amended from “Normington Schofield” to “North Avenue Properties, LLC”.

Should you have any questions or require additional information, please feel free to call me at 845-440-6926.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel G. Koehler". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Daniel G. Koehler, P.E.  
Principal

cc: Norm Schofield (via email)  
Aryeh Siegel (via email)  
Niki Pagonos Quinn (via email)  
Michael A. Bodendorf, P.E. (HLD File)

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**Tioronda Bridge**

**Subject:**

City Council request to review Tioronda Bridge

**Background:**

**ATTACHMENTS:**

Description	Type
Referring_Tioronda_Bridge_Historic_Preservation_quesiton_to_Planning_Board	Backup Material
Feasibility_Study_for_Adaptive_Reuse_of_Bridge_Parts	Backup Material
South_Ave_Presentation_2_26_18	Backup Material
South_Avenue_Pictures	Backup Material
Historic_Preservation_Code	Backup Material

**CITY OF BEACON  
CITY COUNCIL**

**RESOLUTION NO. OF 2018**

**A RESOLUTION REFERRING TIORONDA BRIDGE HISTORIC PRESERVATION  
QUESTION TO PLANNING BOARD**

**WHEREAS**, the Tioronda Bridge, now dismantled, originally spanned the upper tidal reach of Fishkill Creek where it meets the Hudson River at the former Tioronda Hat Works factory. Erected in 1873 by the Ohio Bridge Company, the three-span, Rezner patent, bowstring arch structure was listed in the National Register of Historic Places by the U.S. Department of the Interior, National Park Service in 1976 for its significance in U.S. bridge engineering and place in Beacon's industrial history; and

**WHEREAS**, the trusses were removed in 2006, and are now stored at the Beacon Highway Department Transfer Station and all that remains at the original bridge site is the two split stone abutments and two piers, portions of which were modified when the sewer and water utilities crossing the Fishkill Creek were rehabilitated in 2013/2014; and

**WHEREAS**, the NYS Office of Parks, Recreation, and Historic Preservation has advised the City that through the move and process of deterioration, the Tioronda Bridge has substantially lost its historic integrity and ability to illustrate its significance and should be delisted from the National Register.

**WHEREAS**, the City Council is considering constructing a new one lane bridge for vehicular and pedestrian crossing; and

**WHEREAS**, this property is located within the Historic District; and

**WHEREAS**, the City Council has discussed whether Chapter 134 of the City Code regarding Historic Preservation applies to the design of a new bridge; and

**WHEREAS**, the City Council believes it is appropriate to understand the requirements of Chapter 134 prior to spending money on the design of the bridge.

**NOW THEREFORE, BE IT RESOLVED**, that the City Council requests that the Planning Board advise how Chapter 134 and the requirement to obtain a Certificate of Appropriateness applies to the design of a new bridge at this location.

**BE IT FURTHER RESOLVED**, that the City Administrator and City Attorney will prepare a memorandum to the City's Planning Board providing the relevant reports and City Code language for the Planning Board's discussion.

Resolution No. \_\_\_\_\_ of 2018

Date: 2018

- Amendments
- Not on roll call
- On roll call

- 2/3 Required
- 3/4 Required

Motion	Second	Council Member	Yes	No	Abstain	Reason	Absent
		Terry Nelson					
		Jodi McCredo					
		George Mansfield					
		Lee Kyriacou					
		John Rembert					
		Amber Grant					
		Mayor Randy J. Casale					
		<b>Motion Carried</b>					

# TIORONDA BRIDGE BEACON, NEW YORK



1980s



2018

Feasibility Study For Adaptive Reuse Of Bridge Parts

Dr. Francis E. Griggs, Jr., Dist. M. ASCE

October 2018

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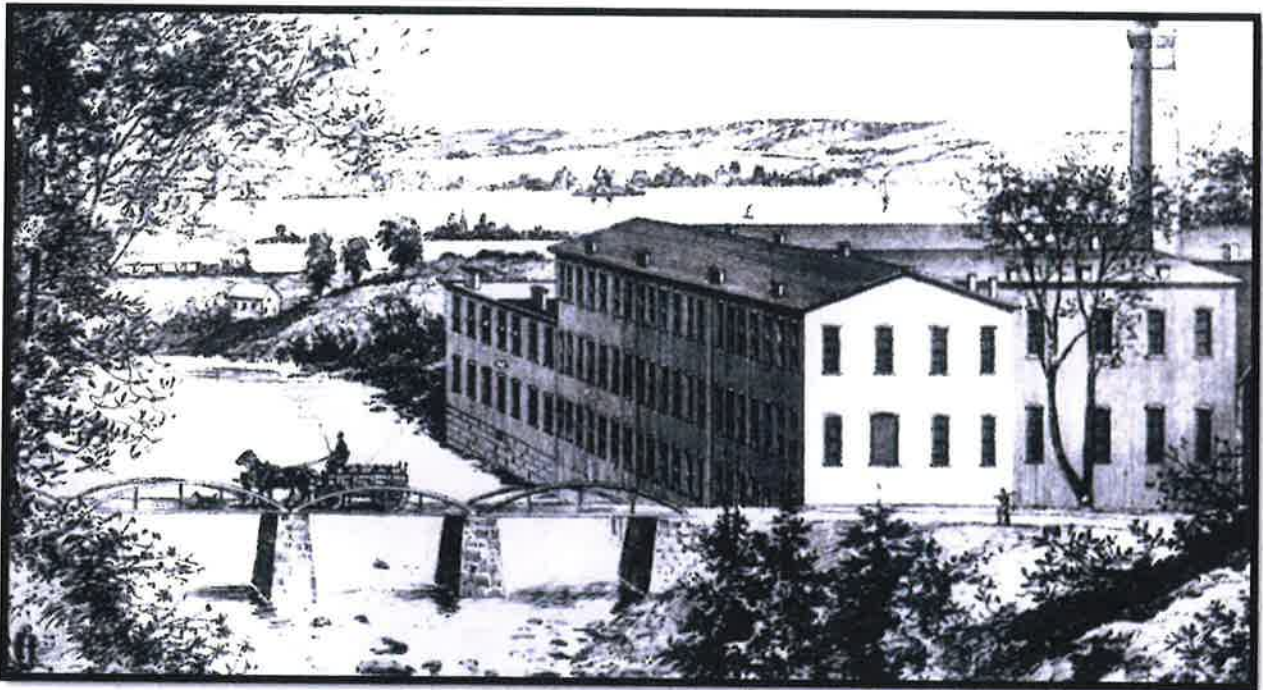
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## Introduction

The purpose of this study is to advise the City of Beacon on the feasibility of salvaging and reconstructing the Tioronda Bridge parts stored at the Transfer Station into either a one span-two arch pedestrian bridge or failing that as a single arch to be used in a historical display.

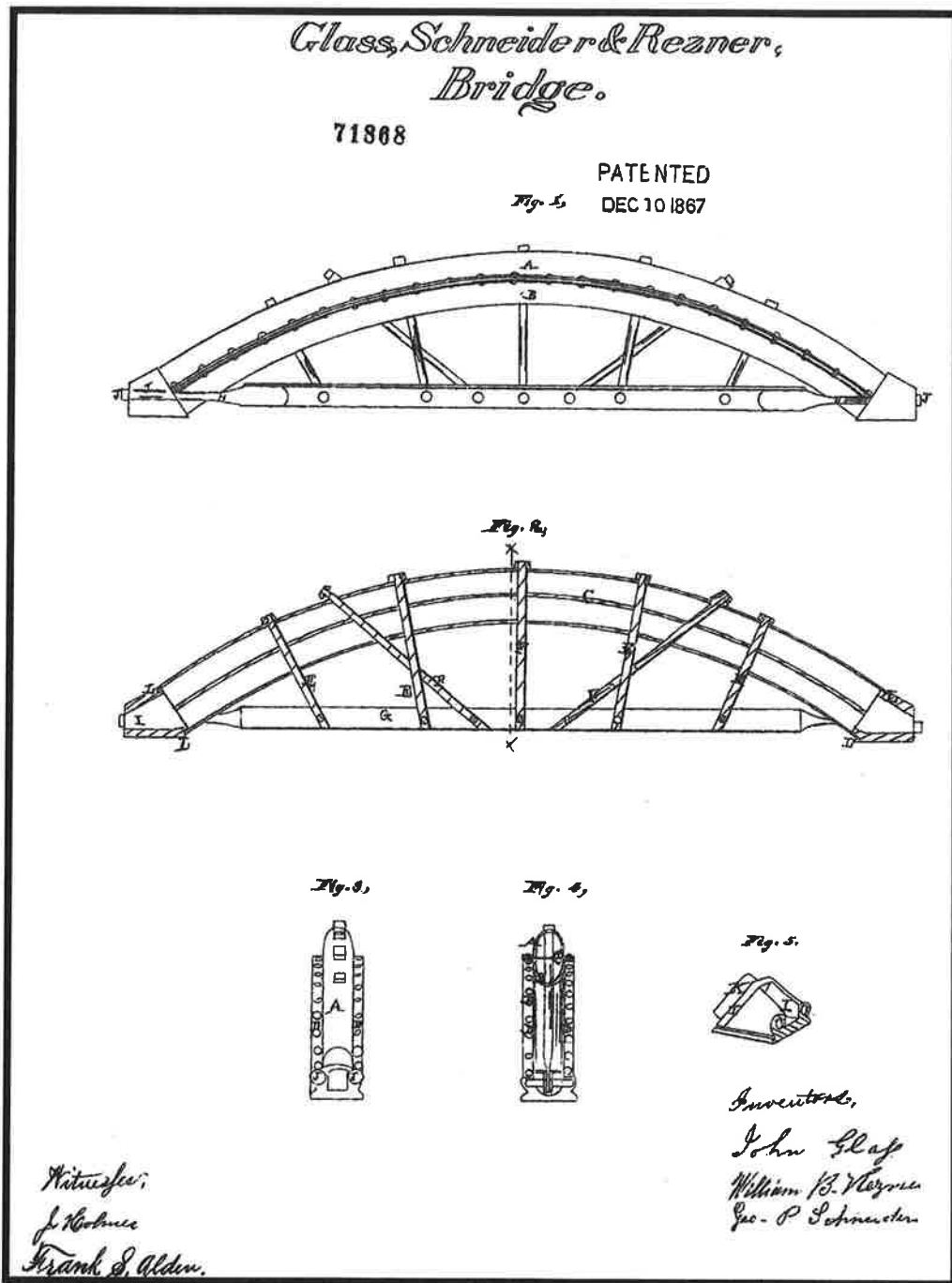
The Tioronda Bridge built in 1872 by the Ohio Bridge Company survived in its original location carrying South Avenue across the Fishkill Creek for 134 years. It received a new deck in 1955 at which time the wrought iron arches ceased to carry any vehicular loadings. It was placed on the National Register of Historic Places by the National Park Service in 1976 and was closed to all vehicular traffic in 1985. It was documented by HAER in 1987. Due to deteriorating piers the bridge superstructure was removed in 2006 with the understanding that it would be saved and possibly re-erected at another site. From photographic evidence the bridge was handled with care during the lift and its initial storage. After that it was apparently moved several times ending up in a field adjacent to the Transfer Station against a chain link fence. From the manner in which the arches were stored it appears little care was taken during the latter move.



Early Bridge Engraving

Miscellaneous information on bridge

Rezner, et. al. Patent, Drawings and Model



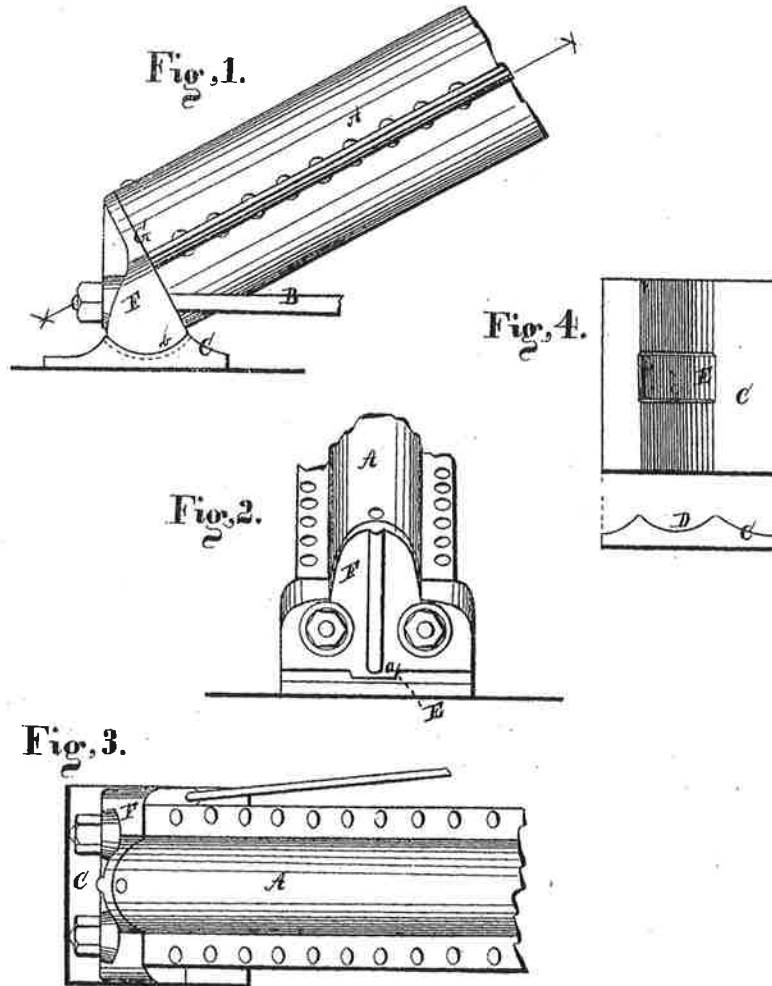
Glass, Schneider & Rezner Bridge  
1867, Patent #71,868

W. B. REZNER.

Improvement in Arch-Bridges.

No. 128,509.

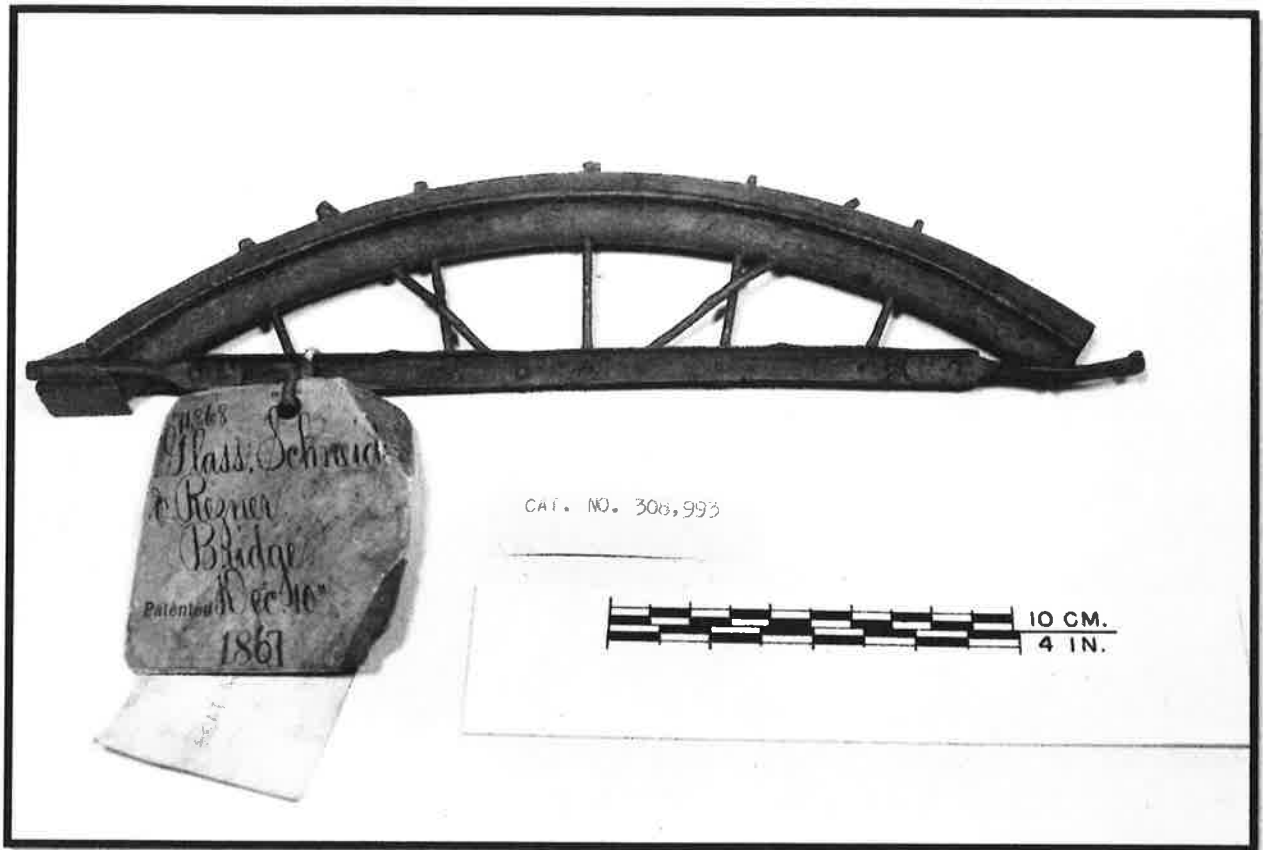
Patented July 2, 1872.



Witnesses.  
J. C. Fryett.  
A. K. Cornell.

Inventor.  
Wm B. Rezner.  
Per Burridge & Co  
Attys

Improvement in Arch-Bridges  
1872, Patent #128,509



Patent Model 1867  
#71,868

They made two claims that their bridge was an improvement on previous patents. They were,

1. The tubular flanged sections AB, as arranged in combination with the diaphragm C, for purpose and in the manner substantially as set forth.
2. The tubular arch, as constructed with sections ABC, in combination with the foot-block I, provided with a flange or boss, K, when arranged in the manner as and for the purpose set forth.

The claimed the diaphragm was to, “resist the lateral strain upon the tubes.” Their web members, verticals and diagonals, were not pinned to the upper and lower chords so the structure cannot be considered a true truss. Their design was for a tied arch similar to that of William H. H. Moseley (patented 1857 and rebuilt on Campus of Merrimack College) and Joseph Henzey (patented 1869 and rebuilt on campus of Central Penn College). Both of these were rebuilt by the author.

There are three other bridges built to the same patent currently extant. The first is the 50' span Potawatomi Park Bridge (formerly on the Gangloff-Sayler farmstead) in Jasper County, Indiana across the Iroquois River. It was restored in 2012 and a photo-documentation can be found online at [Historic Bridges.org](http://HistoricBridges.org). A full history of the bridge was written by James L. Cooper and is available on line at the same site.

The other is the 127' span White Bowstring Arch Truss Bridge in Poland, Ohio over the Yellow Creek. Built in 1877 by the Wrought Iron Bridge Company of Canton, Ohio to Rezner's Patent. Its photo-documentation can also be found online at [Historic Bridges.org](http://HistoricBridges.org). In addition, HAER documented the bridge, HAER No. Oh-39, in 1986. The Ohio Bridge Company had merged with the larger Wrought Iron Bridge Company around 1874.

The Hoyt Street Bridge near Beatrice in Gage County, Nebraska across the Big Blue River has been abandoned in place. It was originally built as the Blue Springs Bridge in 1870 and moved to the current site in 1890.



Ohio Bridge Company Advertisement Jan. 1, 1870

The Bridgehunter.com website lists 12 bridges built to the patent with only the first two bridges mentioned above still extant and carrying pedestrians only. The Hoyt Street Bridge has been abandoned in place.

**Extracts from Nomination of Bridge to the National Register of Historic Places, 1976  
(Raymond W. Smith and William P. Chamberlin)**

**Describe the Present and original (if known) Physical Appearance**

The Tioronda Bridge carries South Avenue over Fishkill Creek in the southwestern portion of the City of Beacon. Occupying less than one acre, the bridge is surrounded by saplings and undergrowth on the stream bank. Light industry occupies several brick buildings on the Fishkill's west bank, slightly south of the bridge. The Tioronda Bridge is a manufactured three-span vehicular bridge constructed of iron and situated on the site where it was originally erected. The overall length of the bridge is 110 feet. Each span is nominally thirty-four feet in length measured from the outer ends of the truss bearing shoes, and sixteen feet wide measured from center to center of opposite trusses. The end abutment and two midstream piers are of random natural stone laid in random ashlar fashion.

The upper chords (bowstring) of each truss are formed from a continuous arched tube constructed from two flanged semi-oval iron plates riveted together at the flanges. They enclose an iron diaphragm, which lies along the minor (horizontal) axis of the tube. This arched tube and the details of its construction are the distinctive feature of this bridge and the principal claim of its patent. The lower chord is formed of two parallel ½ by 6-inch continuous wrought iron bars that once supported the original floor beams. The ends of the lower chords are connected to the end of the arch by threaded rods which pass through and bear upon cast iron foot blocks or shoes, against which the ends of the arch also abut.

The bridge trusses now serve only as guide rails since the original deck and floor beams have been replaced by five parallel I-beam stringers which bear on the original abutments and piers, and which now totally support traffic. Each truss is braced laterally by a single 2 ½ by 2 ½ cruciform strut extending diagonally (approximately 30° from the vertical) from the outer flange of the upper chord at mid-span to an extension of the original floor beams now cut and bolted to the web of the outer I-beam stringer.

The present deck is built of 3 ½ by 11-inch timber planks supported by wooden stringers which bear on the upper flanges of the I-beams. The roadway is defined by 4 by 5 ½ inch timber curbs bolted to the deck through a 4 by 1 ½ inch timber cap plate.

**Statement of Significance**

The Tioronda Bridge is an important transportation landmark erected sometime between 1869 and 1873. This early iron truss bridge incorporates the arched or "bowstring" design features common during the pioneering decades of American iron bridge technology. Built by the Ohio Bridge Company of Cleveland, the Tioronda Bridge is a rare surviving example of an iron patent bridge manufactured by one of the small firms which flourished briefly in the period immediately following the Civil War. The Tioronda Bridge contributed to the industrial growth and physical expansion of what became the City of Beacon.

American bridge-building technology was characterized by the use of iron as its principal

structural material for a period of approximately forty years between 1850 and 1890. During this time, iron was a transitional material between wood, which had less strength and durability, and steel, which ultimately was produced with greater elasticity and uniformity. Literally hundreds of patents for iron bridges and their components were granted. Many of these bridges, however, were never built and others were either unique or built in limited numbers by short-lived firms. Most of the iron vehicular bridges that have survived were built according to several basic patents controlled by the large dominant manufacturers of the last quarter of the nineteenth century.

The Tioronda Bridge is based upon patent No. 71,868 issued in 1867 to John Glass, George P. Schneider, and William B. Rezner of Cleveland, Ohio. Until the Tioronda Bridge was identified in the spring of 1973, this bridge design was known only from its patent model, now in the collection of the Smithsonian Institution. One other example of the bridge has subsequently been identified: a ninety-three-foot, eleven-panel, single span over Sandy Creek in Allegheny County, Pennsylvania.

William Rezner was a Cleveland physician in his early forties when he collaborated with foundry man John Glass and machinist George Schneider on their 1867 patent. In 1869, Rezner entered into the partnership with local businessman Frank D. Stone to manufacture and sell iron bridges under the name of the Ohio Bridge Company. John Glass became a financial patron of the new enterprise during the business market value of \$86,000. In 1873, however the firm suddenly ceased its operations and dissolved, a possible victim of the economic depression which began that year. Dr. Rezner soon thereafter returned to practicing medicine while Stone established a mattress manufacturing enterprise and Glass entered the real estate business...

The Tioronda Bridge is an important structure in the history of American transportation and technology because it is among the oldest vehicular iron bridges surviving in New York State; because it is one of the few surviving products of the post-Civil War "boom" in iron truss bridge construction; and because it is one of the few nineteenth century iron bridges for which a patent model survives.







### **DESCRIPTON OF THE BRIDGE**

The Tioronda Bridge, carrying South Avenue across Fishkill Creek in the City of Beacon, New York, was erected in early 1872. This bridge is a rare surviving example of the iron "bowstring" truss bridge patented by John Glass, George P. Schneider, and William B. Rezner on December 10, 1867 (No. 71,868). The bridge also utilizes a distinctive, adjustable cast iron skewback (foot block) patented by William B. Rezner on July 2, 1872 (No. 128,509). Each abutment and pier supports a cast iron plate with a concave top. Set into this plate is a triangular-shaped, cast iron block with a convex shaped bottom and a sloping side abutting the end of the "bowstring" arch. A wide rib on the face of the sloping side projects into the hollow arch tube. The skew back was designed to hold the tubular iron arch in place and transmit compressive force from the arch to the abutments and piers.

The Tioronda Bridge consists of three arch spans with an overall length of 110 feet and sits approximately 16 feet 6 inches above the waters of Fishkill Creek. Each span is a slightly different length, measuring (from south to north), 35 feet 8 inches, 37 feet 10 inches, and 32 feet 8 inches. The two abutments and two piers are all rubble stone with ashlar coursing. Piers measure 6 feet wide and 23 feet 6 inches long at the top and taper outward at the base. The Tioronda Bridge was built by the Ohio Bridge Company of Cleveland, a company formed by Glass, Schneider, and Rezner in 1869. The Ohio Bridge Company, one of the many small bridge building companies to appear and briefly prosper in the years after the Civil War, ceased to exist after the "financial panic" of the last few months of 1873.

### **ORIGINS OF THE TIORONDA BRIDGE**

The Tioronda Bridge is located within the City of Beacon. Beacon was formed in 1913 as a result of the merger of the hamlets of Matteawan and Fishkill Landing, originally hamlets within the Town of Fishkill. Tioronda, also known as Byrnsville, was a smaller settlement upstream from the mouth of the Fishkill Creek, approximately one mile south of Fishkill Landing. Tioronda was also part of the Town of Fishkill and the site of grist, saw, and cotton mills and in the late 1800's the home of the Tioronda Hat Works. Fishkill was a prosperous and industrially active town with railroad and highway transportation routes running both east and west as well as north and south. The Tioronda bridge no doubt was important in linking the activities of these adjacent water-powered mills and manufacturing sites with the Town of Fishkill's railroad transportation lines and other manufacturing establishments.

On December 26, 1871 the Town of Fishkill Board of Supervisors passed a resolution approving the expenditure of \$2,700 for a new iron bridge across Fishkill Creek at Tioronda. Two days later Edward H. Goring, the Fishkill representative to the Dutchess County Board of Supervisors, requested and obtained the permission of the Board of Supervisors for the town to borrow \$2,700 to build the bridge. The bridge bonds were to pay seven percent annual interest and be repaid in full by March 1, 1873.

With permission to borrow the funds granted in December 1871 it is likely that construction of the bridge proceeded as soon as weather permitted in 1872. The use of the skewback patented by Rezner in July 1872 adds weight to this assumption. Most likely, the skewback was introduced and utilized prior to the patent approval, making the installation of the skewback in the Tioronda Bridge a very early application of Rezner's patented design.

In 1871 the Town of Fishkill recorded a payment of \$588.98 to Daniel Green for "Tioronda (sic) Bridge," possibly for the construction of the two stone abutments and two stone piers upon which the bridge was erected. During this time period bridge building companies required that the abutments and piers be built by the town under a separate contract with a local mason. In 1872, the Ohio Bridge Company was awarded a contract to build an iron truss swing bridge across Wappingers Falls, also in the Town of Fishkill. This contract required the county to "furnish and have ready the substructure [abutments and center pier] of the bridge."

The Ohio Bridge Company was represented by Henry C. Haskell. Haskell operated the Albany Iron and Machine Works and advertised his company as the manufacturer of "steam engines and boilers, bridge and roof bolts... iron work of all kinds, railings, balconies, verandas, iron bridges, wrought iron beams, doors and shutters" and also "Reyner, (sic) Stone & Co.'s [most likely is an erroneous reference to Rezner, Glass, and Schneider] patent improved Wrought Iron Tubular Arch Truss Bridge."

With Haskell as the agent of the Ohio Bridge Company in 1871, it is possible that the iron for the Tioronda Bridge was fabricated by the Albany Iron and Machine Works at its 50-56 Liberty Street foundry.

# HAER DRAWINGS

## TIORONDA BRIDGE

BEACON · 1872 - 73 · NEW YORK

THE TIORONDA BRIDGE, CARRYING SOUTH AVENUE ACROSS FISHPOND CREEK IN THE CITY OF BEACON, NEW YORK, WAS ERECTED DURING 1872-73. THIS BRIDGE IS A RARE SURVIVING EXAMPLE OF THE IRON TRUSS-BRIDGE DESIGN INVENTED BY JOHN BLOOM, GEORGE F. SCHNEIDER, AND LEONARD D. NEWELL ON FEBRUARY 24, 1871. THE BRIDGE ALSO INCLUDES A DISTINCTIVE ADJUSTABLE CAST IRON SKIDBLOCK (PATENTED BY WILLIAM B. KLEBER ON JULY 7, 1883) (NO. 18,109).

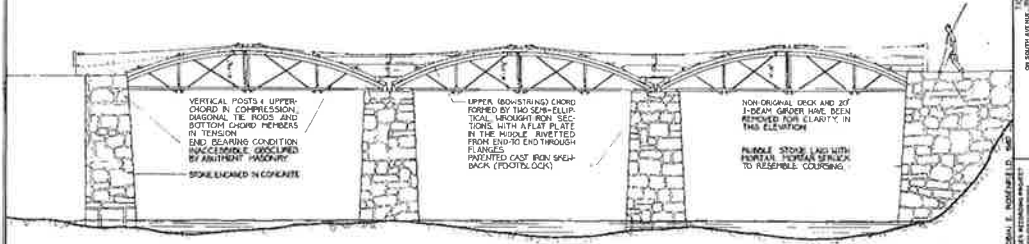
NEWELL CALLED HIS BRIDGE AN OVAL WHOLESTONE TRUSS-ARCH TRUSS OF EQUAL INTEREST AS THE FOOT BRICKS ARE. THE TRUSS ARCHES, WHICH WERE PATENTED FROM TWO HALF SECTIONS OF WHOLESTONE ROLLERS IN AN ELLIPTICAL FORM THAT HE CALLED "DRESSY" AND A FLAT PLATE HE CALLED A "HOCKNEY". ALL THREE PIECES WERE CURVED AND FITTED FROM END-TO-END THROUGH FLANGES.

THE TIORONDA BRIDGE WAS BUILT BY THE OHIO BRIDGE COMPANY OF CLEVELAND, A COMPANY FORMED BY GLASS, SCHNEIDER, AND NEWELL IN 1868. THE OHIO BRIDGE COMPANY WAS ONE OF THE EARLY BRIDGE BUILDERS CAPABLE TO ANALYZE AND DESIGN PROSPER IN THE YEARS AFTER THE CIVIL WAR, CLASSIC TO BEING IN 1874.

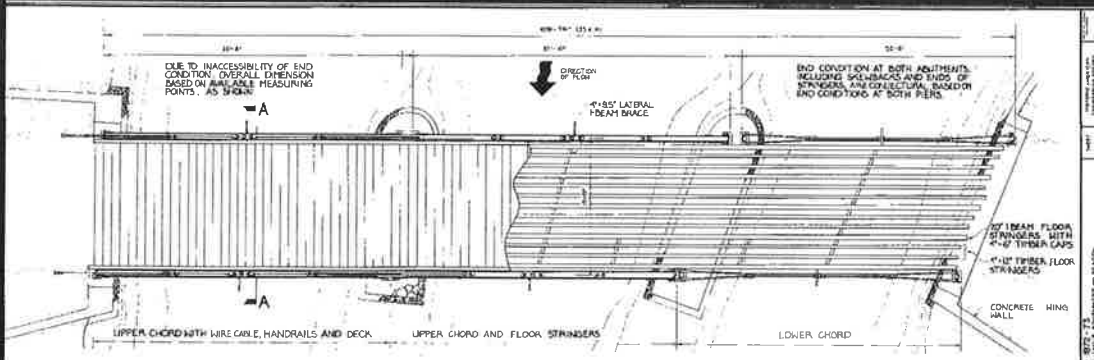
THIS RECONSTRUCTION PROJECT IS PART OF THE HISTORIC AMERICAN ENGINEERING RECORD (HAER), A LONG-RANGE PROGRAM TO DOCUMENT THE ENGINEERING AND INDUSTRIAL HERITAGE OF THE UNITED STATES. THE HAER PROGRAM IS ADMINISTERED BY THE NATIONAL PARK SERVICE, U.S. DEPARTMENT OF THE INTERIOR. THE NEW YORK HISTORIC BRIDGES RECORDING PROJECT WAS COORDINATED BY THE OFFICE OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION, FRANKLIN WHITE, COORDINATOR, CANTON, NEW YORK, DIRECTOR, PROJECT PLANNING AND MANAGEMENT GROUP, FORT LEE, AND

KAREN PUGAN, ENVIRONMENTAL BUREAU, WILLIAM P. CHAMBERLAIN, ENGINEERING RESEARCH AND DEVELOPMENT BUREAU.

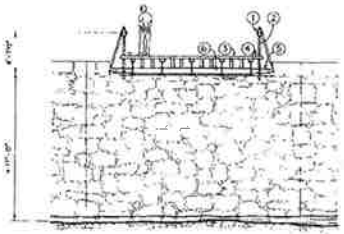
FIELD WORK, MEASURED DRAWINGS, HISTORICAL RESEARCH, AND PHOTOGRAPHS WERE PREPARED UNDER THE GENERAL DIRECTION OF DR. ROBERT F. PATTERSON, CHIEF HISTORIC AMERICAN BUILDINGS SURVEY/HISTORIC AMERICAN ENGINEERING RECORD (HAER) AND ERIC DELBERT, PRINCIPAL ARCHITECT HAER. THE RECONSTRUCTION TEAM CONSISTED OF CHARLES SCOTT, PRINCIPAL HISTORIAN, BRUSH & GORHAM ARCHITECTURAL SUPERVISOR, ANDREW D. COLE, PH.D., ARCHITECTURAL CONSULTANT, STANFORD AND MIT/STANFORD UNIVERSITY OF ARIZONA, ROBERT RUSSELL FIELD (TUSK) FIELD CONSULTANT, AND CHARLES JAMES LINGG (TUSK) ARCHITECTURAL CONSULTANT. ADDITIONAL PHOTOGRAPHS WERE TAKEN BY MARTIN STUPICH. CONSULTING SERVICES WERE PROVIDED BY JOHN R. DONAHUE, AIA.



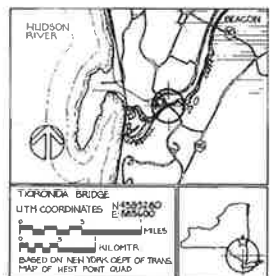
WEST ELEVATION



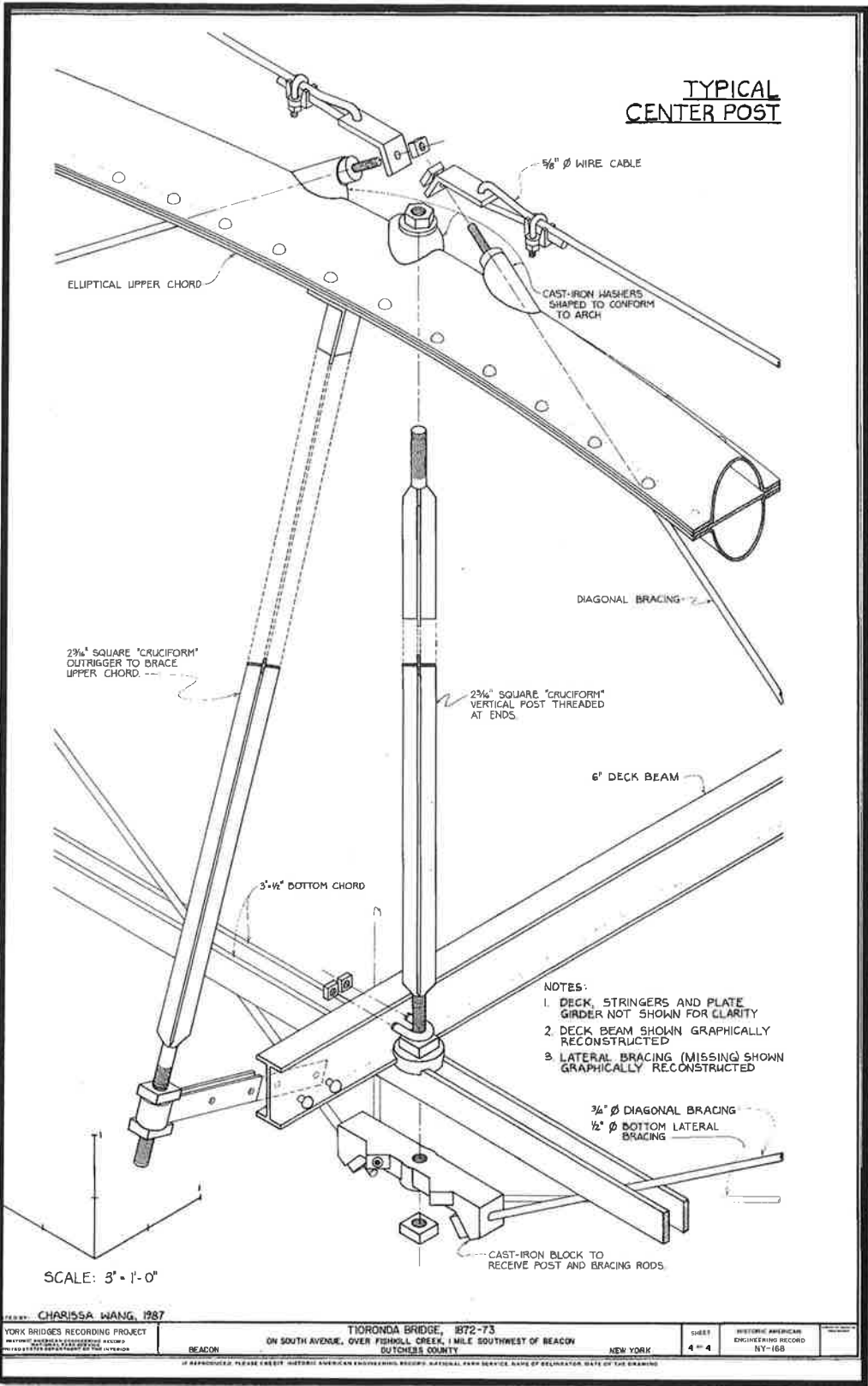
FLOOR PLAN



SECTION A-A



# TYPICAL CENTER POST



CHARISSA WANG, 1987

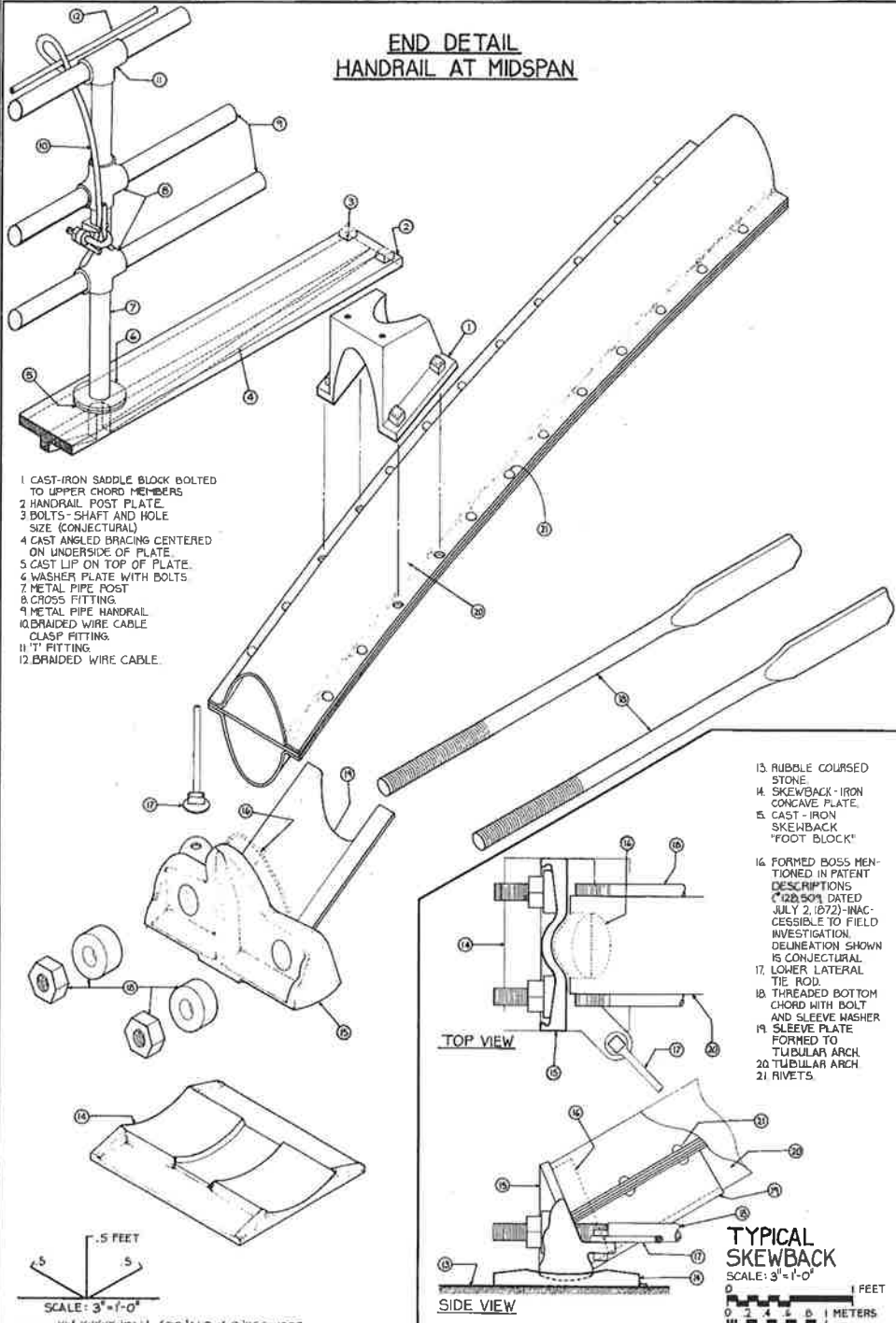
YORK BRIDGES RECORDING PROJECT  
 HISTORIC AMERICAN ENGINEERING RECORD  
 NATIONAL PARK SERVICE, BUREAU OF LAND MANAGEMENT

BEACON TIORONDA BRIDGE, 1872-73  
 ON SOUTH AVENUE, OVER FISHPOND CREEK, 1 MILE SOUTHWEST OF BEACON  
 DUTCHESS COUNTY NEW YORK

SHEET 4 OF 4  
 HISTORIC AMERICAN ENGINEERING RECORD  
 NY-168

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END DETAIL  
HANDRAIL AT MIDSPAN



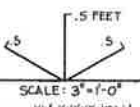
- 1 CAST-IRON SADDLE BLOCK BOLTED TO UPPER CHORD MEMBERS
- 2 HANDRAIL POST PLATE
- 3 BOLTS - SHAFT AND HOLE SIZE (CONJECTURAL)
- 4 CAST ANGLED BRACING CENTERED ON UNDERSIDE OF PLATE
- 5 CAST LIP ON TOP OF PLATE
- 6 WASHER PLATE WITH BOLTS
- 7 METAL PIPE POST
- 8 CROSS FITTING
- 9 METAL PIPE HANDRAIL
- 10 BRAIDED WIRE CABLE CLASP FITTING
- 11 "T" FITTING
- 12 BRAIDED WIRE CABLE

- 13 RUBBLE COURSED STONE
- 14 SKEWBACK-IRON CONCAVE PLATE
- 15 CAST-IRON SKEWBACK "FOOT BLOCK"
- 16 FORMED BOSS MENTIONED IN PATENT DESCRIPTIONS (122,504 DATED JULY 2, 1872)-INACCESSIBLE TO FIELD INVESTIGATION DELINEATION SHOWN IS CONJECTURAL
- 17 LOWER LATERAL TIE ROD
- 18 THREADED BOTTOM CHORD WITH BOLT AND SLEEVE WASHER
- 19 SLEEVE PLATE FORMED TO TUBULAR ARCH
- 20 TUBULAR ARCH
- 21 RIVETS

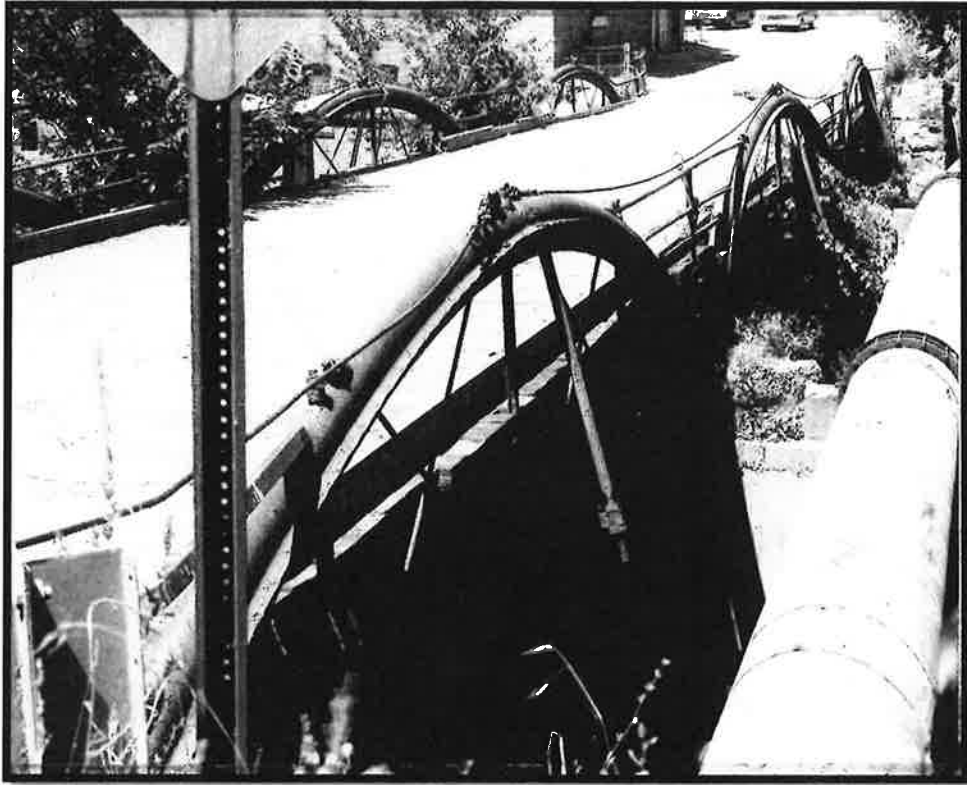
TOP VIEW

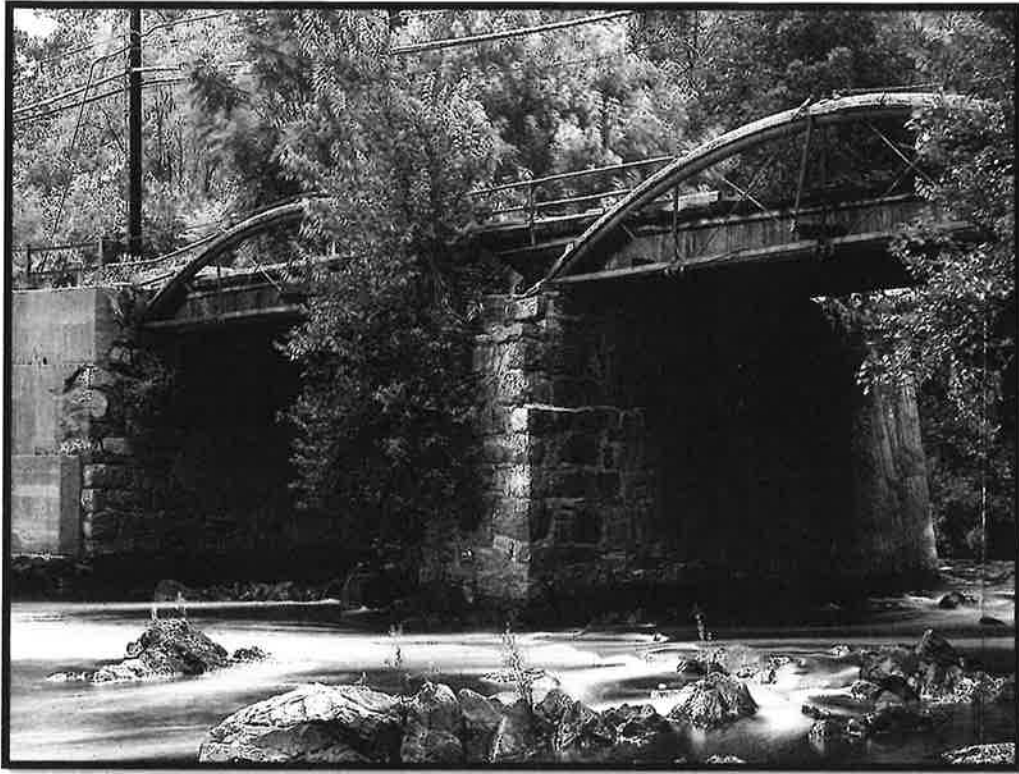
SIDE VIEW

TYPICAL SKEWBACK  
SCALE: 3"=1'-0"



HAER PHOTOGRAPHS (typical)



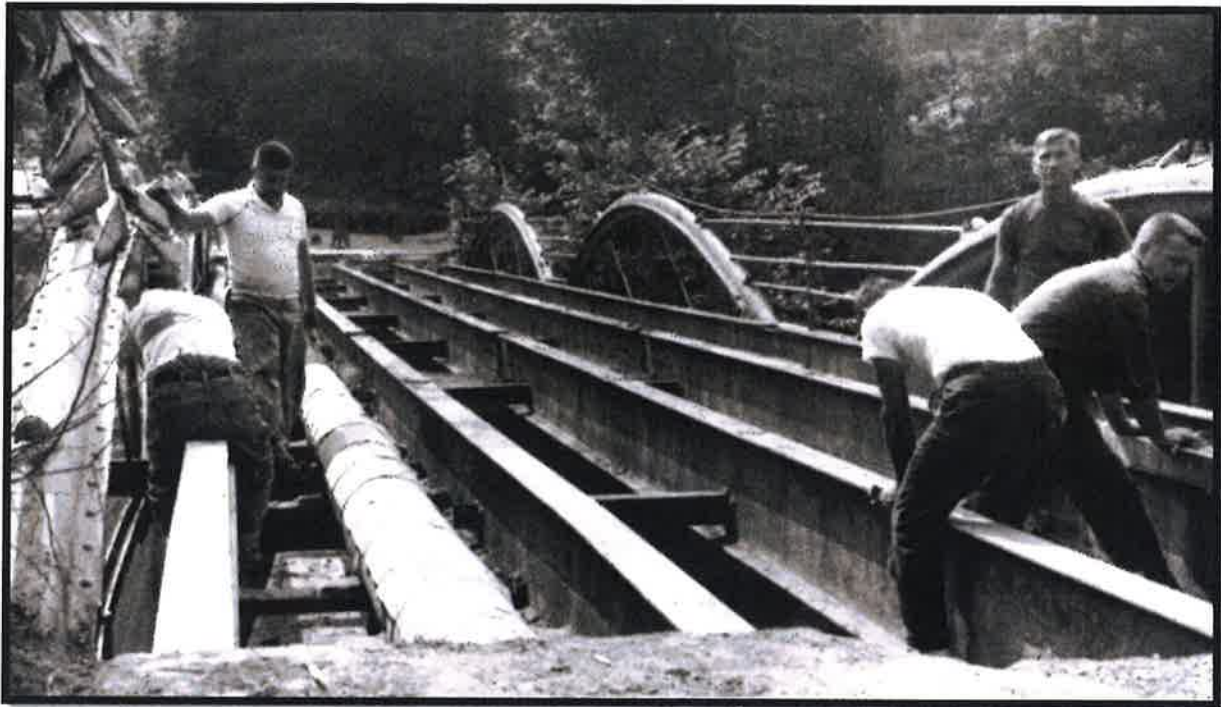


Bridge Seat detail on midstream pier



Detail of top chord diagonals & vertical

Replacing Deck in 1955 With Five Steel Stringers



Removing Bridge from Site and Storage 2006



Removing Center Arch





Removing Last Arch



Arches in temporary storage, out of doors at Welding Studio.



Three arches in temporary storage in seeming good condition.



Arches in storage near Transfer Station.  
before growth of weeds, etc.



Arches in Storage near Transfer Station,  
after growth of weeds, etc.

## General Notes

The bridge suffered its greatest corrosion at its ends setting on the abutments. At this location the wrought iron was buried in dirt and debris. This along with water accelerates the corrosion of the wrought iron. The cast iron bridge seats at this location, while in the same environment, did not suffer any corrosion. Less corrosion is found at the ends of the arches setting on the piers, as they were not buried in soil, etc.



Typical corrosion at abutments L0 top tube and some bottom tube section and plate gone.  
Arch #4



Corrosion showing top and bottom semi-ellipse and middle plate gone

## Rust Bulge

Rust bulge is common in wrought iron (and steel) bridges when two or more plates are riveted together. The moisture and water that collects in these areas promotes corrosion. As the iron

corrodes it increases in volume pushing the plates apart between the rivets. If the expansion is great enough it pops the heads of the rivets off. (see below)



Rust bulge, rivets popped, Arch 1 joint U3, note missing portion of cruciform vertical



Looking up tube section at L0 for arch #2. Diagonal U1-L1 shown in background

Looking back up the tube it appears that the plate section may have corroded on the right side due to rust bulge for some distance. It will not be possible to determine the extent of this corrosion until the pack rust in the rust bulges is removed. Since the tube is closed it is not possible therefore, by visual means, to determine how much corrosion has taken place along the tube, especially on the plate riveted between the two rolled wrought iron semi-elliptical segments. Hammer blows indicate that the metal is still sound over most of the length of the tubes. This is the most problematic issue in the restoration of the arches.

That the tubes retain some of their strength was evident when the arches were picked up at two points about 10 ft. apart and there was no deflection of the ends.

Some corrosion has also taken place where the cruciform verticals and diagonal rods pass through the top tube. In addition, all threads on these members are corroded making them unusable.



End view of bridge seat and corroded threads from lower tension straps.

### **Bolts or rivets?**

It is recommended that bolts be used initially to replace all removed rivets. After all restoration is completed a riveting specialist can be contracted to replace all of the bolts in one visit.

### **Top Chord splice couplings**

The top chord tube sections are connected by splice plates as shown below.



Splice coupling - note coupling riveted to one end of tube in shop and bolted through drilled and tapped hole on adjacent tube section in the field. Note also that plate has completely corroded between the flange of the top and bottom tube sections. Image from arch #6.



Note existing splice connection on top tube and lower tube members. Some riveted some bolted. Also note rust bulge, rivets popped and probable plate corrosion. Arch #1

**Inspection, Wednesday October 10, 2018**

I arrived at the site at 8:45AM expecting that the arches would have been laid out as requested



Arches as of 9:00AM

At that time two workers at the Transfer Station came over and I told them that the arches should have been laid out. They were very helpful and called their boss who instructed the men, who had previously placed the arches against the fence several years ago, to spread them out as requested. Using a backhoe with canvas slings between 9:30 and 10:30 they spread all the arches out as shown below. They had no blocking so they set them directly on the ground which complicated the visual inspection.





Lifting first arch from pile



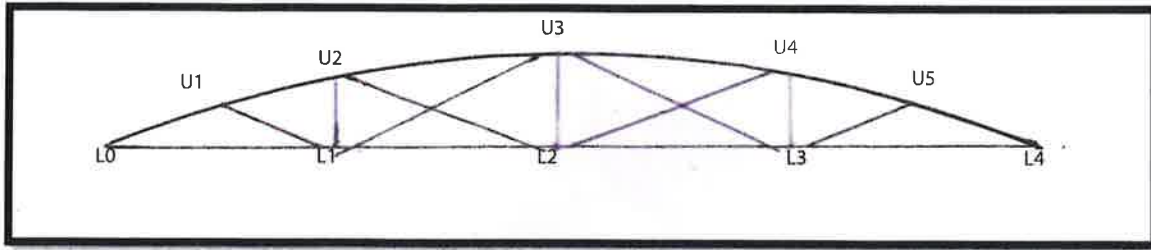
All six arches laid out on the ground

I started the inspection on arch #1 while the crew was lifting and setting the other five arches. The crew was very careful lifting and setting the arches so that no further damage was inflicted on them. The results of the visual inspection follow. It should be understood that I could only inspect and measure those parts of the arches that were visually accessible.



Arches 1, 2, 3 and miscellaneous pieces

**Arch # 1 (number one painted in red at ends and center)**



(note image flipped 180 degrees, e.g. right is left.)

Length not determinable due to ends missing

Radius of arch (centerline of tube) 37' 6" (measured chord and middle ordinate)

All diagonals bent, threads bad

Missing end of tube left and right L0, L4

Lower tension bars broken in two places, little section loss

Missing bearing plates both ends

All cruciform verticals okay, threads bad

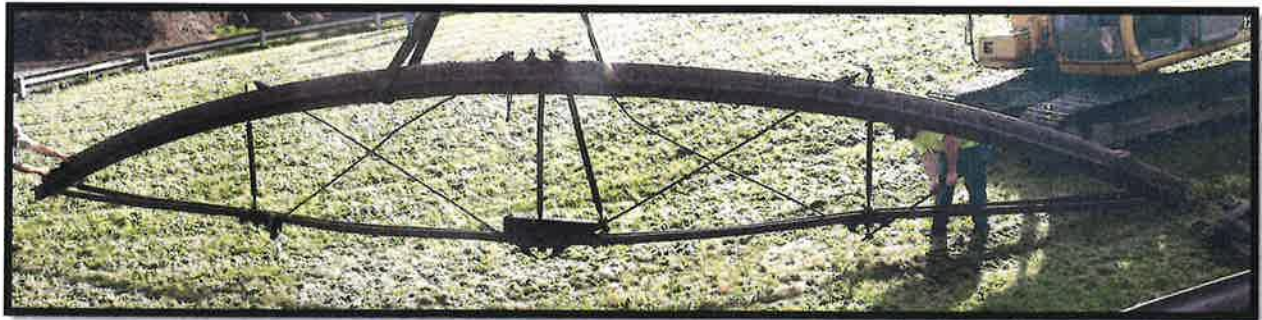
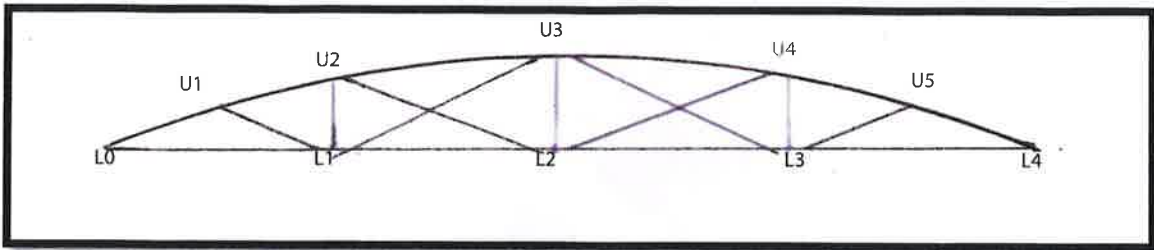
Threads at ends of lower tension chord poor

Rust bulge common with several rivets popped along tube.

All top chord washers in place

Lower casting connecting diagonals, on right L3, cracked.

Arch #2 (number 2 painted in red at ends and center)



Length = 36' 6"

Radius of arch (centerline of tube) 37' 6"

All crossed diagonals bent

Left end L0 of tube partially corroded completely through top segment and plate

Lower tension bars in tact, some section loss at middle lower chord point

End shoes okay, missing bearing plates both ends

Two end cruciform verticals okay, center broken at top

Threads at ends of lower tension chord and top and bottom ends of diagonals and verticals poor

Rust bulge common with several rivets popped along tube.

Missing three top chord washers

Section loss at ends of diagonals

Lower casting connecting diagonals on right L3 cracked.



Joint L4



Joint L0, top shot



Joint L0 under



Joint L0, side shot



Joint L0, side shot





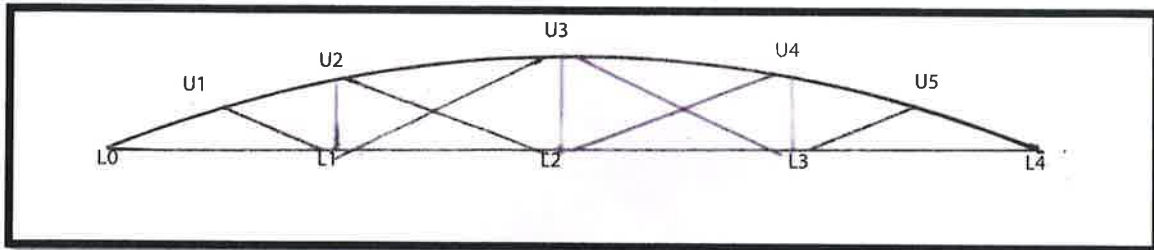
Center vertical, with cruciform brace, etc. L2, U3

Tentative steps required to restore Arch #2 - these are called tentative steps, as they all cannot be confirmed until engineer is on site with the contractor doing the work.

1. Remove all rust bulge and inspect the three members of iron used to fabricate the tube. (note this is the critical step to determine if and how the arch can be rehabilitated. If the middle flat plate is corroded such that it is detached from the upper and lower tube sections full restoration would be very expensive) If the middle plate is intact, or deemed in the field to sufficiently intact, use heat and hammering (without damaging metal) to close up space that has been deflected upwards and replace any popped rivets with bolts.
2. At the ends of all diagonal threaded bars cut off approximately 1'-0" of bar and weld on new threaded steel bar. Typically bridge companies would increase the diameter of bars on the ends so that the net section after the threads were cut would be equal to or slightly greater than the rest of the bar. I don't think this would be necessary in this case so I would use the diagonal bars from cannibalized arches and thread them. On cruciform verticals and ends of lower chord tension bars cut off approximately 1'-0" and use new threaded steel bars of same diameter. Use new square nuts to adjust members. Replace these member using existing cast iron washers and new nuts.
3. Straighten diagonals and lower chord tension bars.

4. At L0 remove rivets (by chipping or torch) and cut out (making sure cut is radial) approximately 5' (to be determined in the field) of corroded top tube and plate. Remove a corresponding length from arch #6 (or other appropriate arch). Add new plate to replace corroded plate. Remove splice coupling from arch #6. Connect this plate to the end of the existing plate using a method to be determined when the splice point is determined. Connect splice coupling to existing top tube member with bolts into drilled and tapped holes. Place top chord tube member onto plate lining up existing rivet holes if possible or drilling new ones as required. Connect top chord tube member to splice coupling using bolts into drilled and tapped holes. Note rivet spacing near the end of the member is closer than on the rest of the tube.
5. Any portion of the tension chord that has suffered section loss should be investigated on site to determine the best way of restoring the member to full capacity.
6. Adjust cruciform brace as required.
7. Machine two new base plates to match those shown on the HAER drawings.
8. Apply three coats of paint.

Arch #3 (number 3 painted in red at ends and center)



Length = not known due missing ends of tube

Radius of arch (centerline of tube) 37' 6"

All crossed diagonals bent

Left end L0 and right end L4 of tube missing

Lower tension bars missing two members at left end and right end, shoes okay but not connected,

Missing bearing plates both ends.

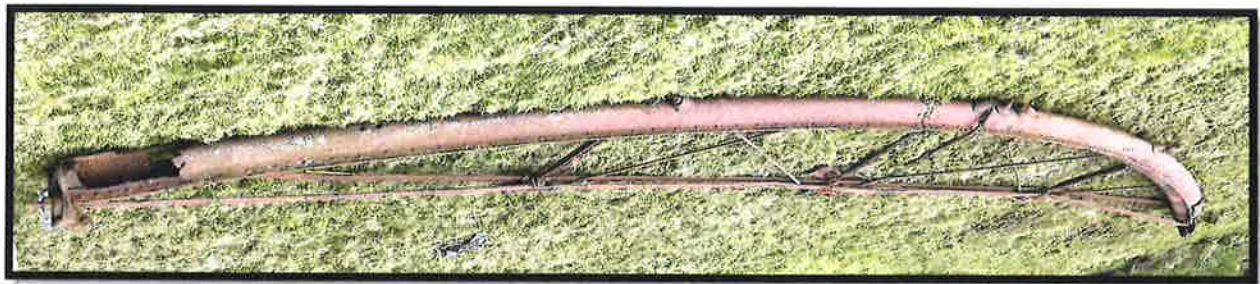
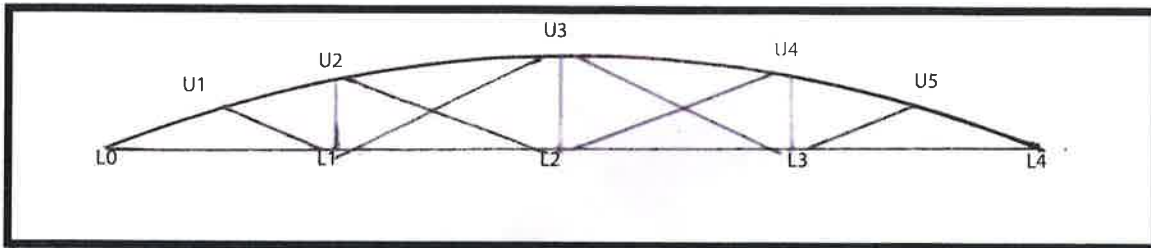
Cruciform verticals okay, threads bad

Threads at ends of lower tension chord and top ends of diagonals and verticals poor

Rust bulge common with several rivets popped along tube.

Missing four top chord washers

**Arch #4 (number 4 painted in red at ends and center)**



Length = 32' 10" (measured half length and doubled)

Radius of arch (centerline of tube) 37' 6"

All crossed diagonals bent

Left end of tube and bridge seat off, right end badly corroded (top and plate). (Note image flipped 180 degrees)

Lower tension bars okay, missing bearing plates both ends

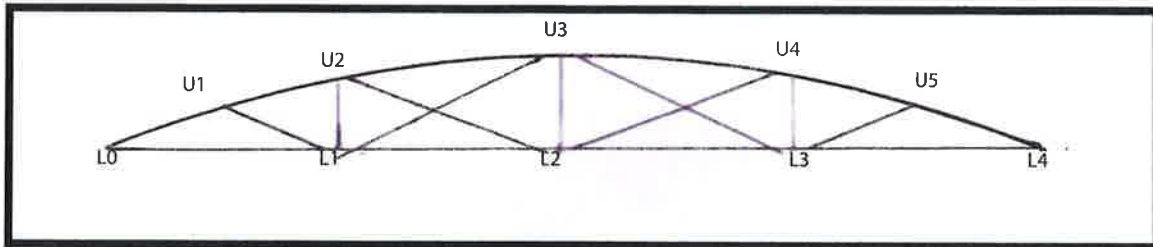
Cruciform verticals okay, threads bad.

Threads at ends of lower tension chord and top ends of diagonals and verticals poor

Rust bulge common with several rivets popped along tube.

Missing four top chord washers

**Arch #5 (number 5 painted in red at ends and center)**



Length = 31' 8"

Radius of arch (centerline of tube) 37' 6"

All crossed diagonals bent

Left end of tube badly corroded

End shoes okay, missing bearing plates both ends

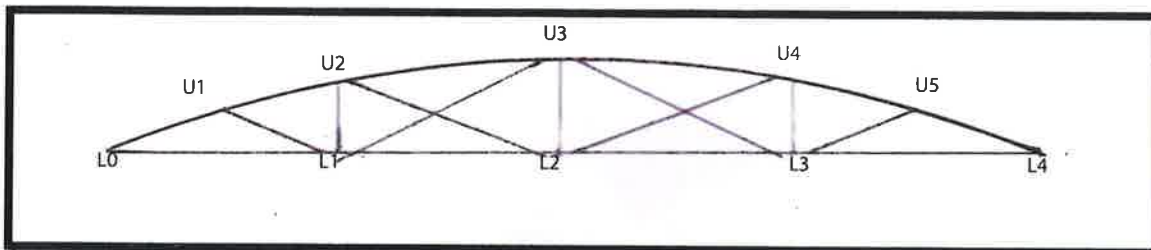
Cruciform verticals okay except threads

Threads at ends of lower tension chord and top ends of diagonals and verticals poor

Rust bulge common with several rivets popped along tube.

Missing two top chord washers

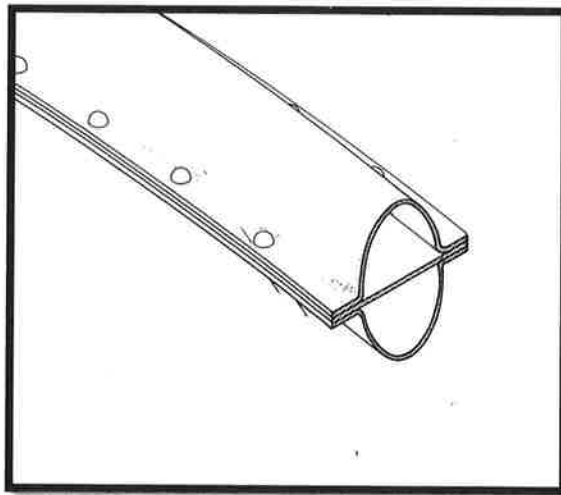
Arch #6 (number 6 painted in red at approximate ends and center)



Length = not known due to missing ends  
Radius of arch (centerline of tube) 37' 6"  
Tube broken in half with missing ends  
No end shoes, missing bearing plates both ends  
Cruciform verticals missing,  
Rust bulge common with several rivets popped along tube.

## Conclusion

Based upon the visual inspection of all six arches, arch #2 and arch #4 appear to be the best candidates for restoration. I would recommend starting with arch #2 and if the methods adopted work out well move to arch #4. As mentioned in General Notes the greatest impediment to a complete restoration is the possible separation of the flanges of the top and bottom tube sections from the flat plate connecting them. (See below) It will not be possible to determine the extent of this corrosion and separation until the rust bulges are removed. If this separation is prevalent the cost to rebuild the arches to their original geometry would be excessive requiring the removal of all the rivets along the flanges and the insertion of an entirely new plate along the entire length, as well as a possible build up of the flanges of the top and bottom sections, and finally a re-riveting of the entire length of the members making up the arch.



Tube section showing semi-elliptical sections and flat plate

The function of the flat plate is to give lateral stiffness to the elliptical tube as well as, to a lesser degree, to give increased section to resist compression stresses along the arch. It is believed by the writer that the tube sections alone would be adequate to resist the dead load stresses of the member if used for display purposes only. It would in the writer's opinion, rule out the arches carrying the live load associated with a pedestrian bridge, as it would be difficult for any engineer to actually assign a reasonable cross section of a restored tube given the unknown thickness of the tube along its length due to corrosion. And like a chain being only as strong as its weakest link, a tube is only as good as its weakest point (or lowest cross section). The other four arches are not candidates for restoration given the extent of their deterioration.

The diagonals, verticals and lower tension chord can be restored to original dimensions and, with new threaded ends welded to original members, adjusted as required. The restored arches will have the appearance of the original arches. Structurally they will be different in that the plate between the tube sections may not be continuous.

Since the live load any restored arch can safely carry is unknown, or not calculable, the writer believes the only feasible solution is to restore one, possibly two arches, for display purposes, without a continuous plate connecting the tubular sections. One suggestion would be to place one arch near the South Avenue bridge site, assuming a new bridge will be placed at this location, with an interpretive panel explaining the history and significance of the original bridge.



# **Proposed South Avenue Bridge**

**Presented to:**

**Beacon City Council**

**February 26, 2018**

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# Original Bridge 1/07



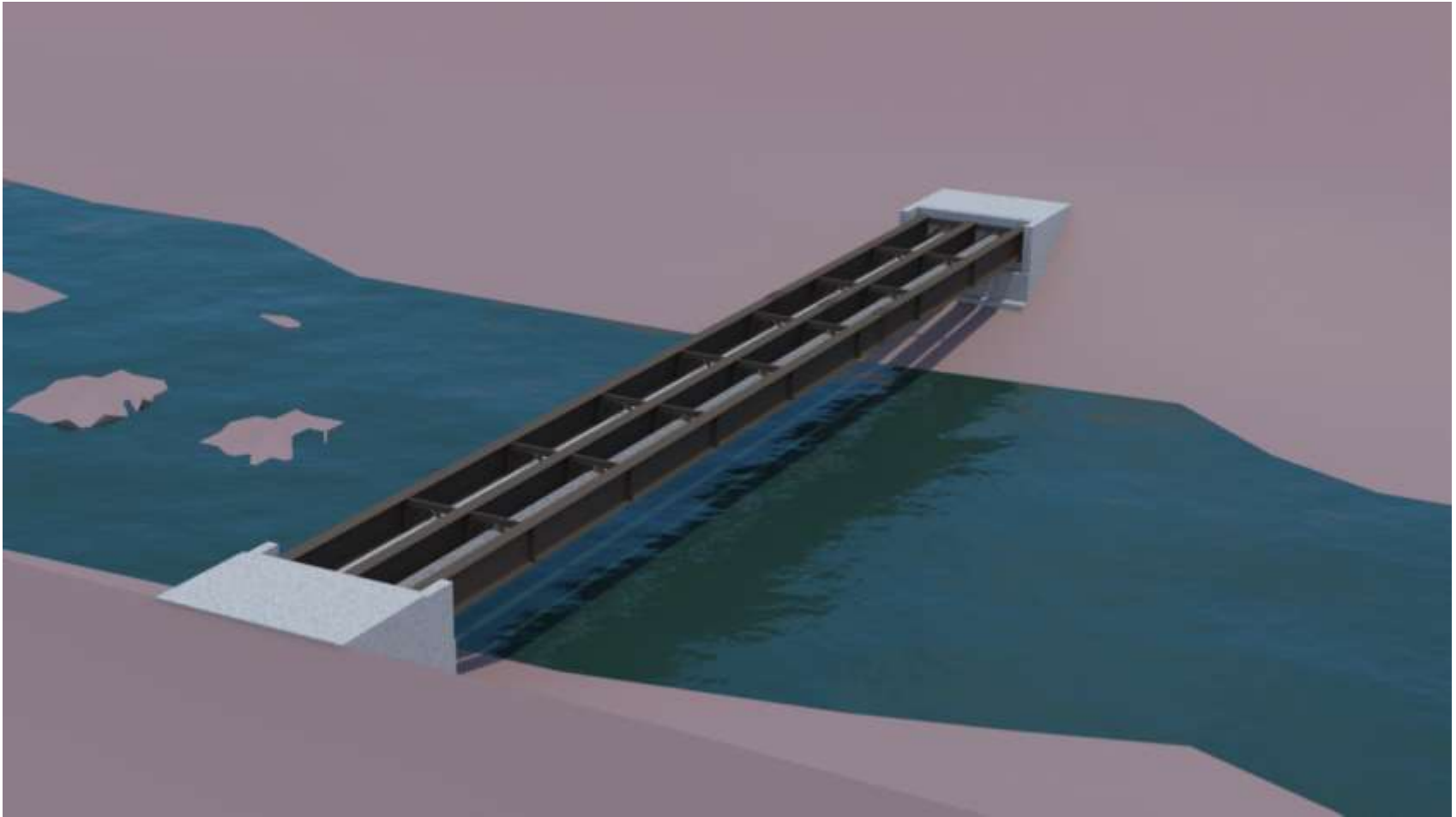
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# Present Configuration



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# Present Configuration



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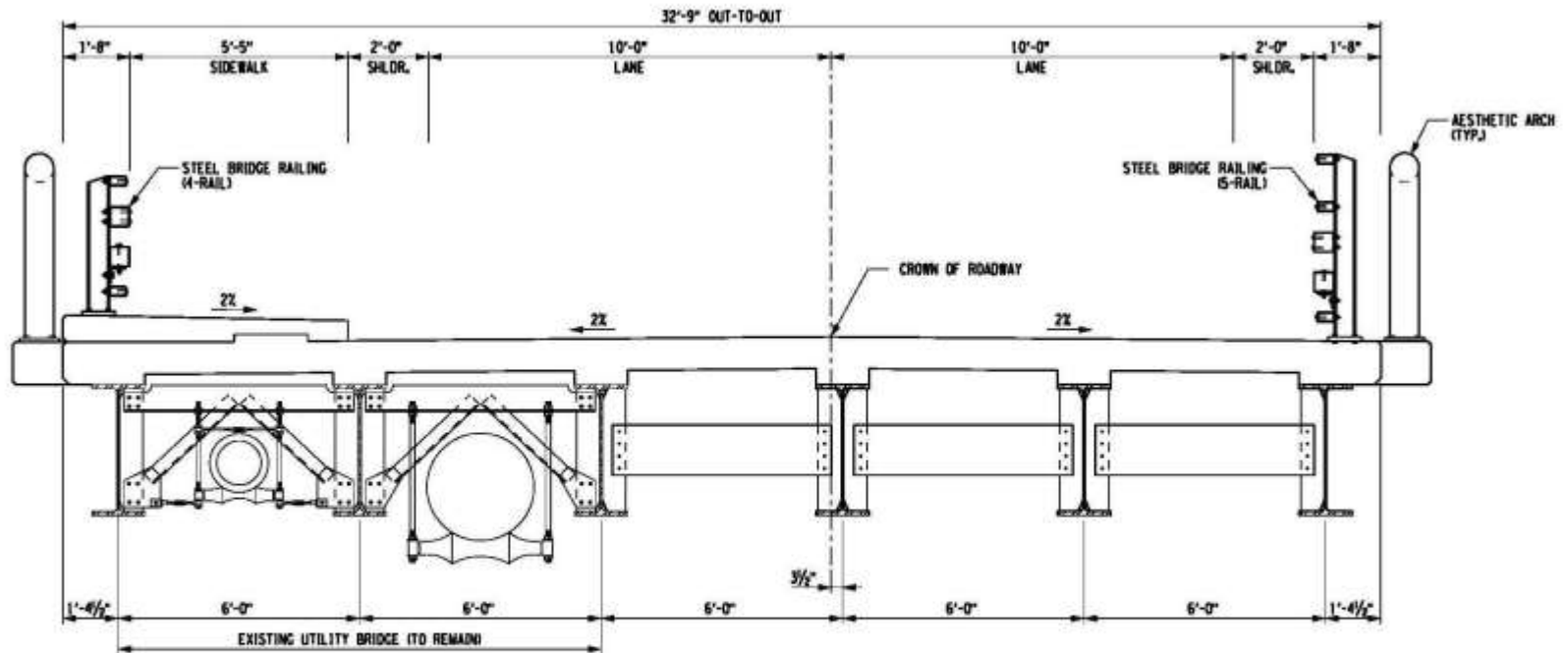
# South Avenue Bridge

- Original Concept Design Parameters
  - Two Lane Bridge
  - Pedestrian Sidewalk
  - Bicycles to Share Roadway
  - South Avenue is a Designated Scenic Road
    - 10' lanes
    - 2' shoulders
  - Urban Street Design Speed (20-30 mph)

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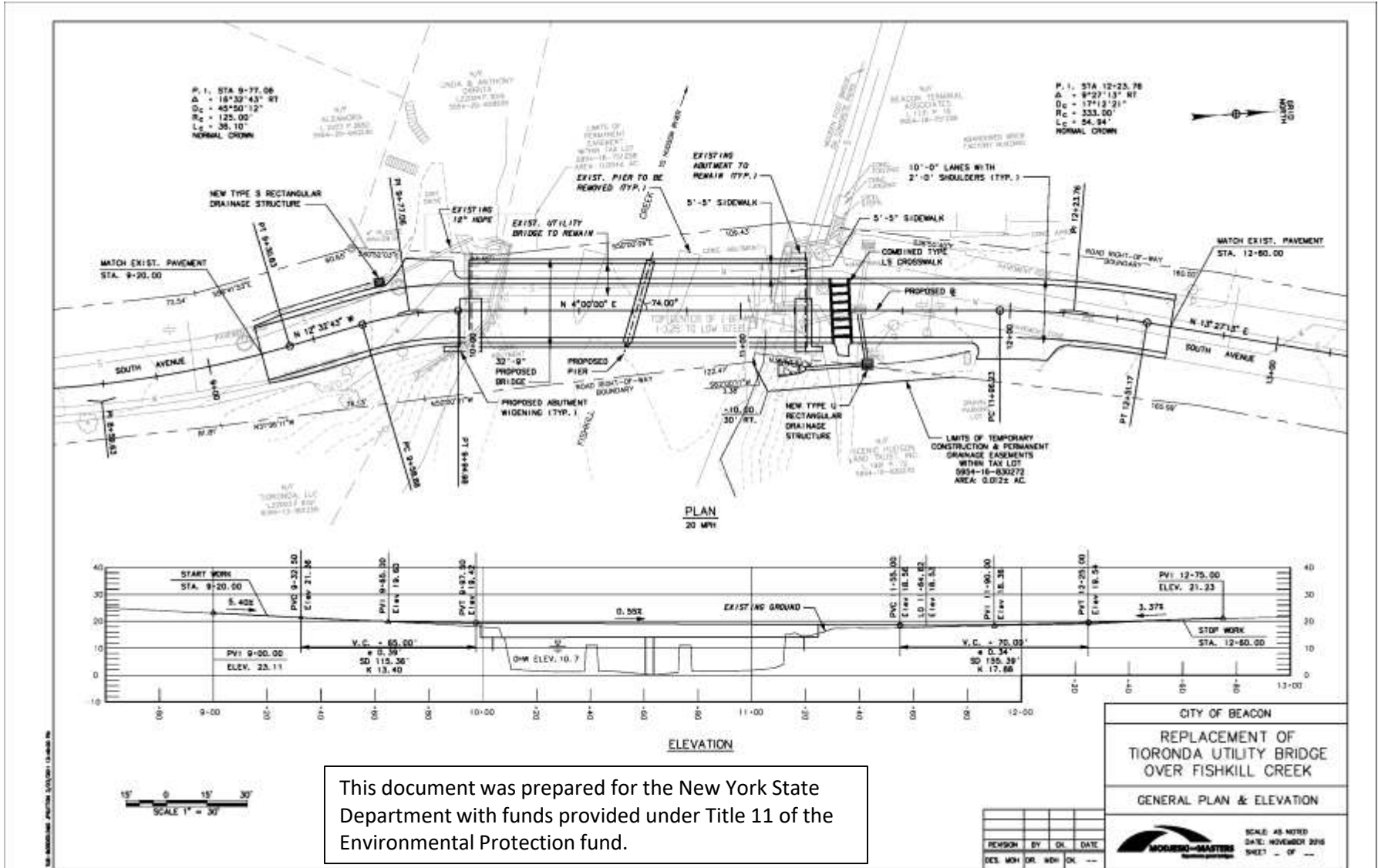
# Original Proposal (Section)



TYPICAL SECTION  
LOOKING AHEAD STATION  
SCALE 1/4" = 1'-0"

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# Original Proposal (Plan)



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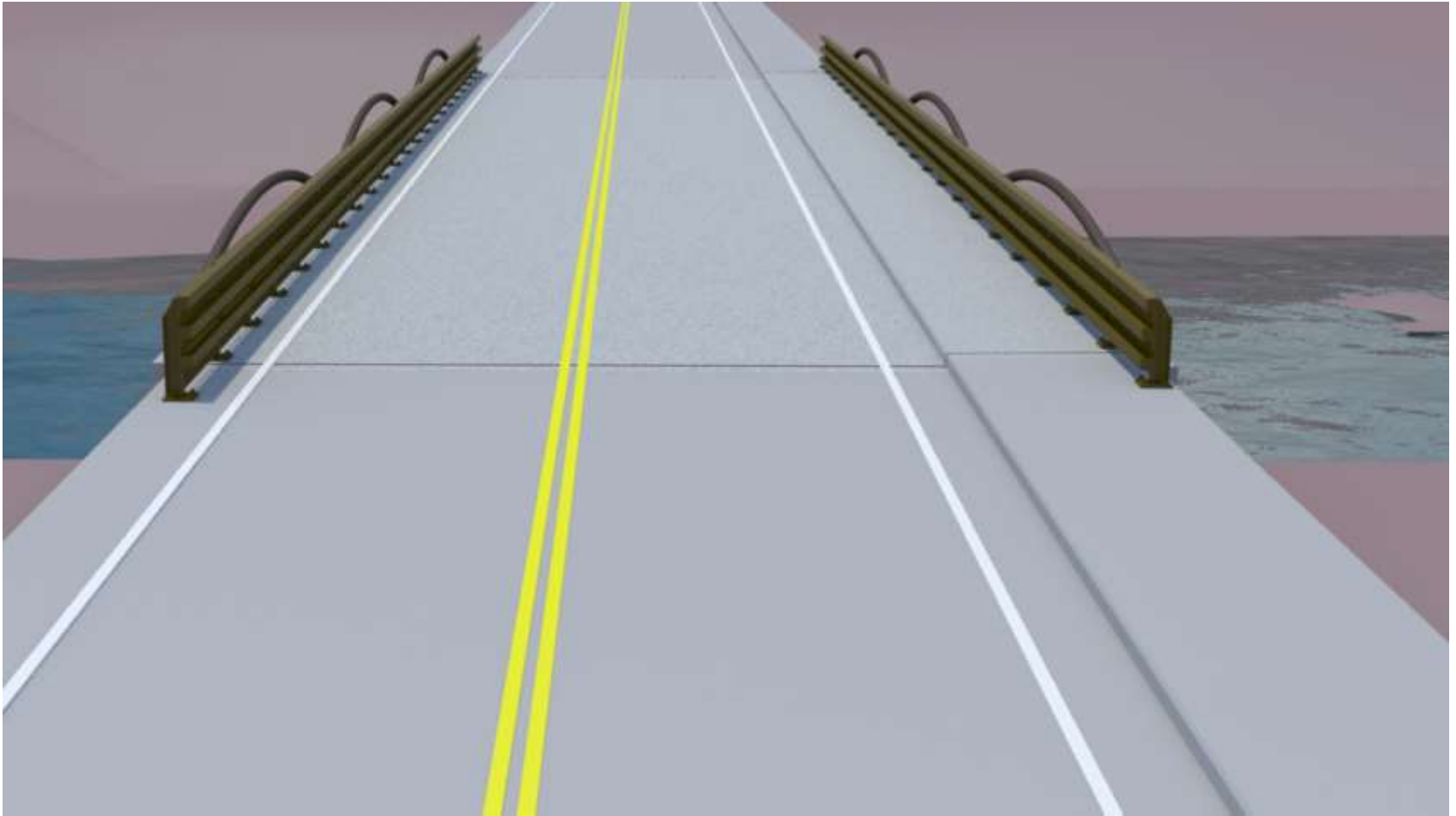
# Original Proposal (Visualization)



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# Original Proposal (Visualization)



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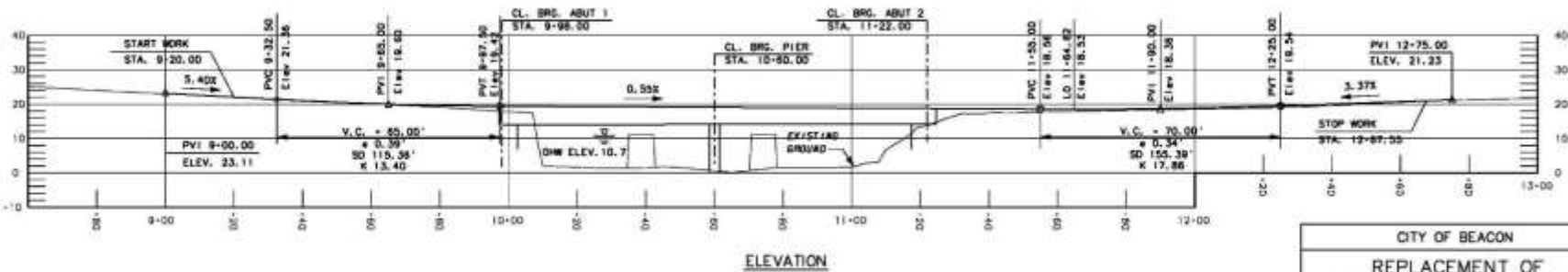
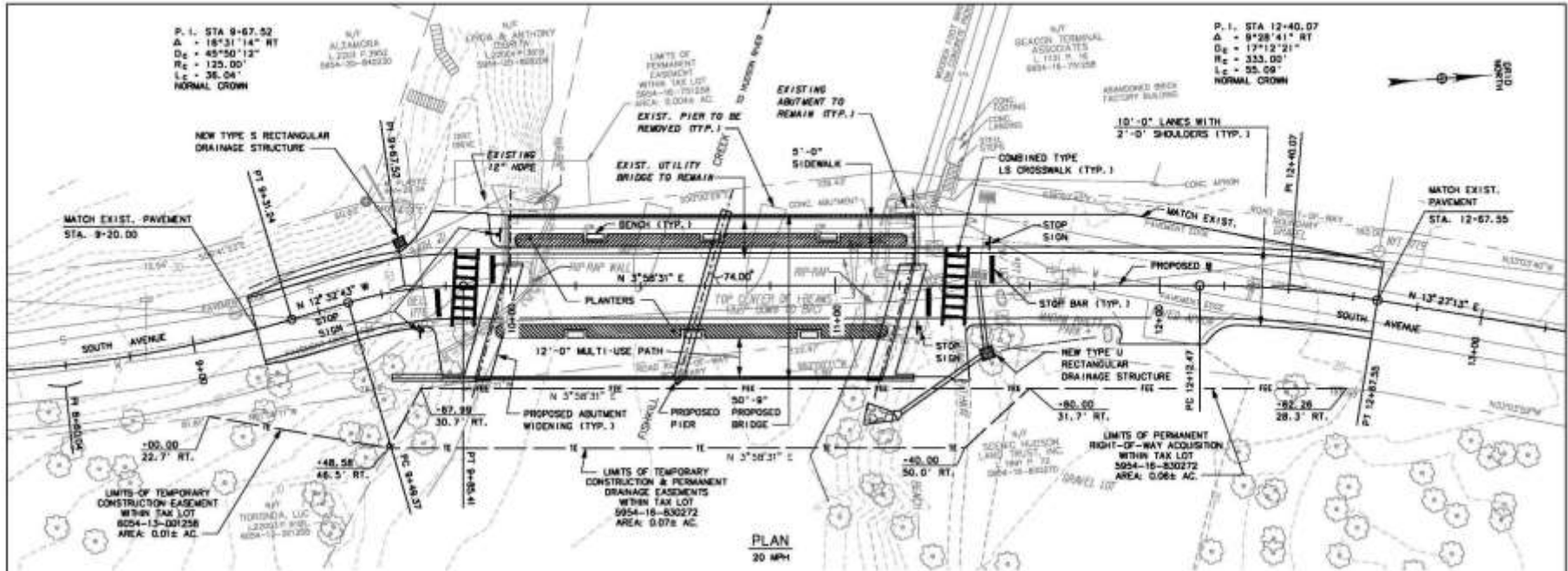
# Alternative



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# Second Iteration (Plan View)



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CITY OF BEACON

REPLACEMENT OF  
TIRONDA UTILITY BRIDGE  
OVER FISHKILL CREEK

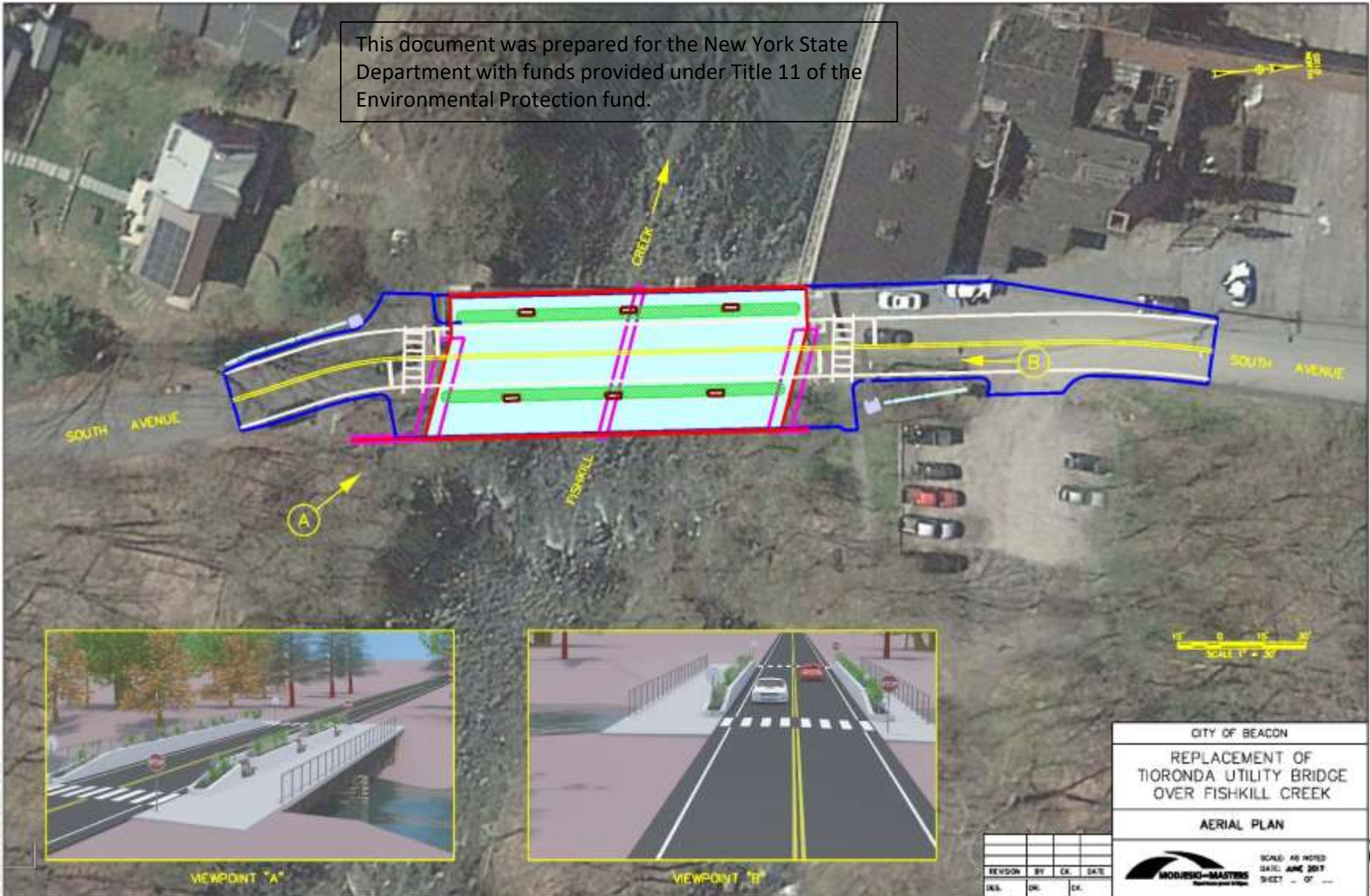
GENERAL PLAN & ELEVATION

REVISION	BY	CHK.	DATE
DES. MOD.	DR. MOD.	CH. ---	

SCALE: AS NOTED  
DATE: NOVEMBER 2018  
SHEET -- OF --

# Second Iteration (Plan View)

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CITY OF BEACON			
REPLACEMENT OF TIORONDA UTILITY BRIDGE OVER FISHKILL CREEK			
AERIAL PLAN			
SCALE: AS NOTED		DATE: JUNE 2017	
SHEET - 0F -		MOOREHEAD-MASTERS Engineering & Architecture	

REVISION	BY	CHK	DATE

# Second Iteration (Visualization)



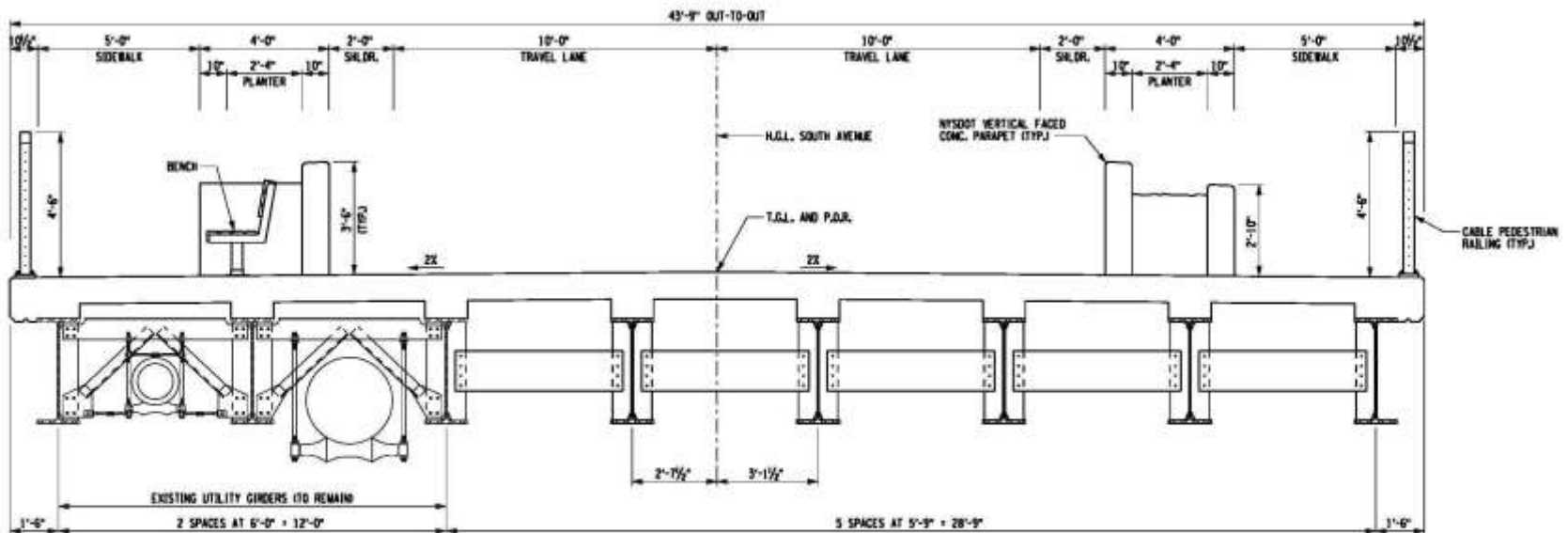
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# Second Iteration (Visualization)



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# 7-31-17 Iteration (Section)

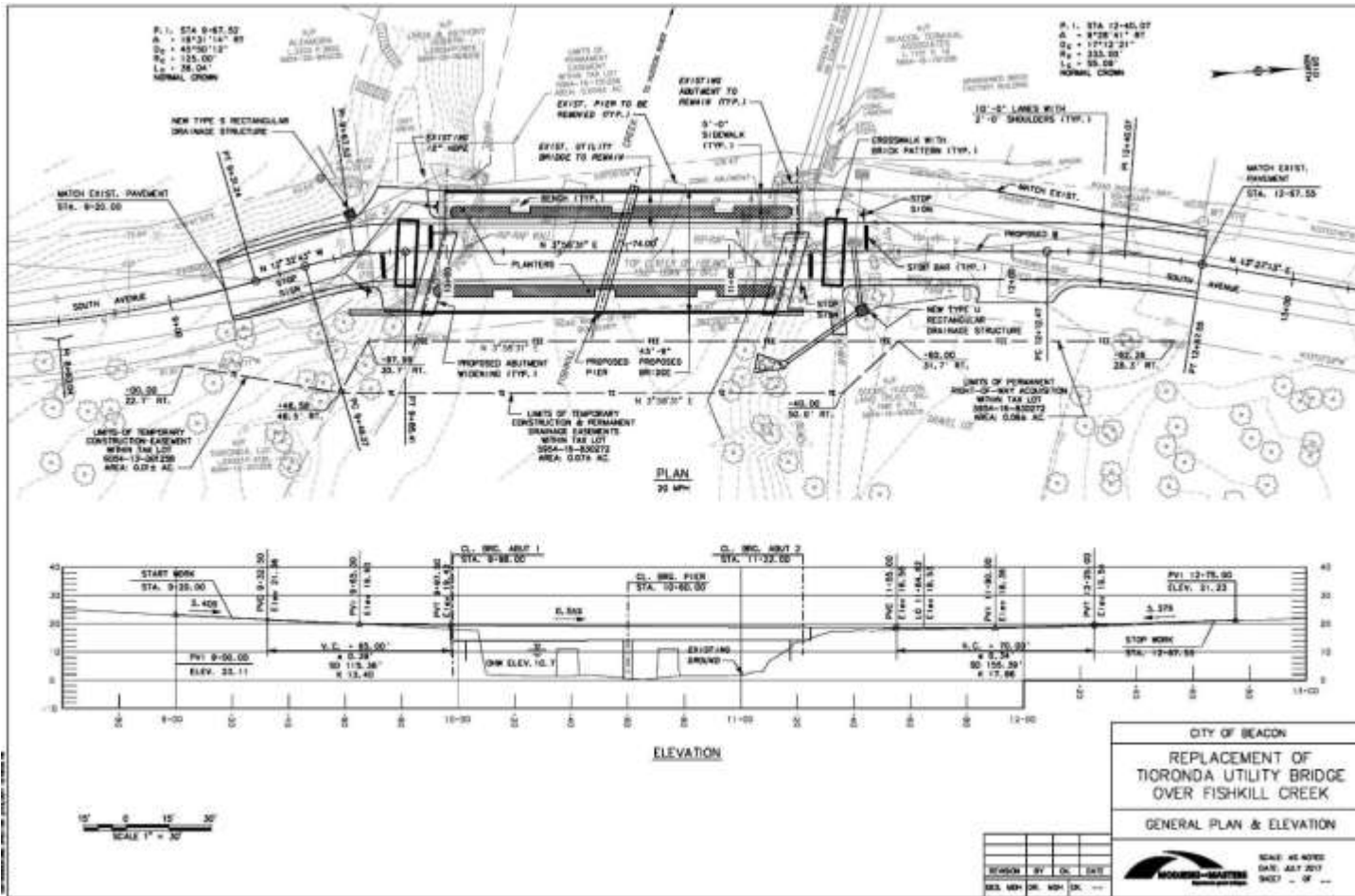


PROPOSED BRIDGE SECTION  
 LOOKING AHEAD STATION  
 SCALE 1/8" = 1'-0"

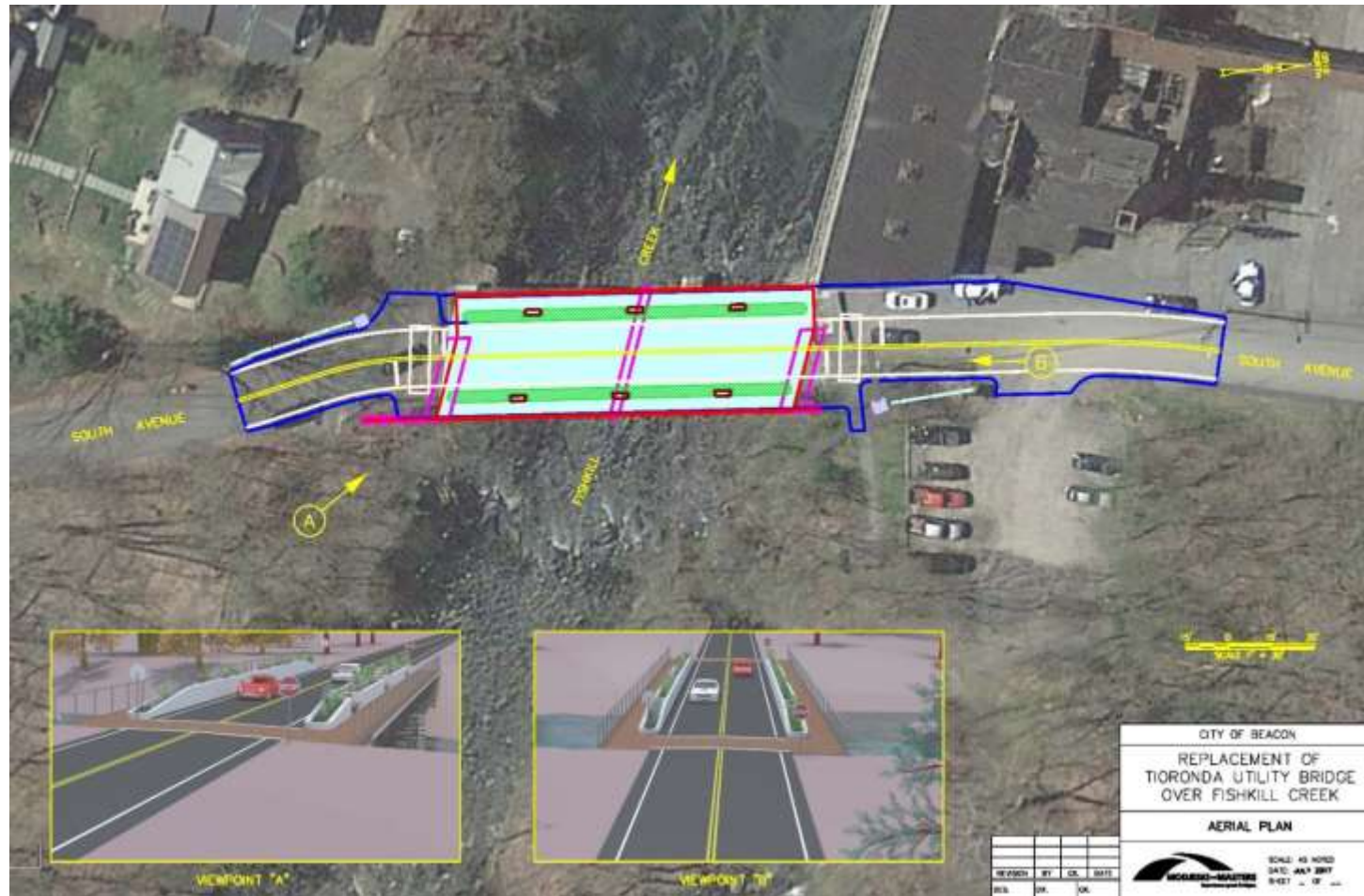
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# 7-31-17 Iteration (Plan View)



# 7-31-17 Iteration (Aerial)



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# 7-31-17 Iteration (Visualization)



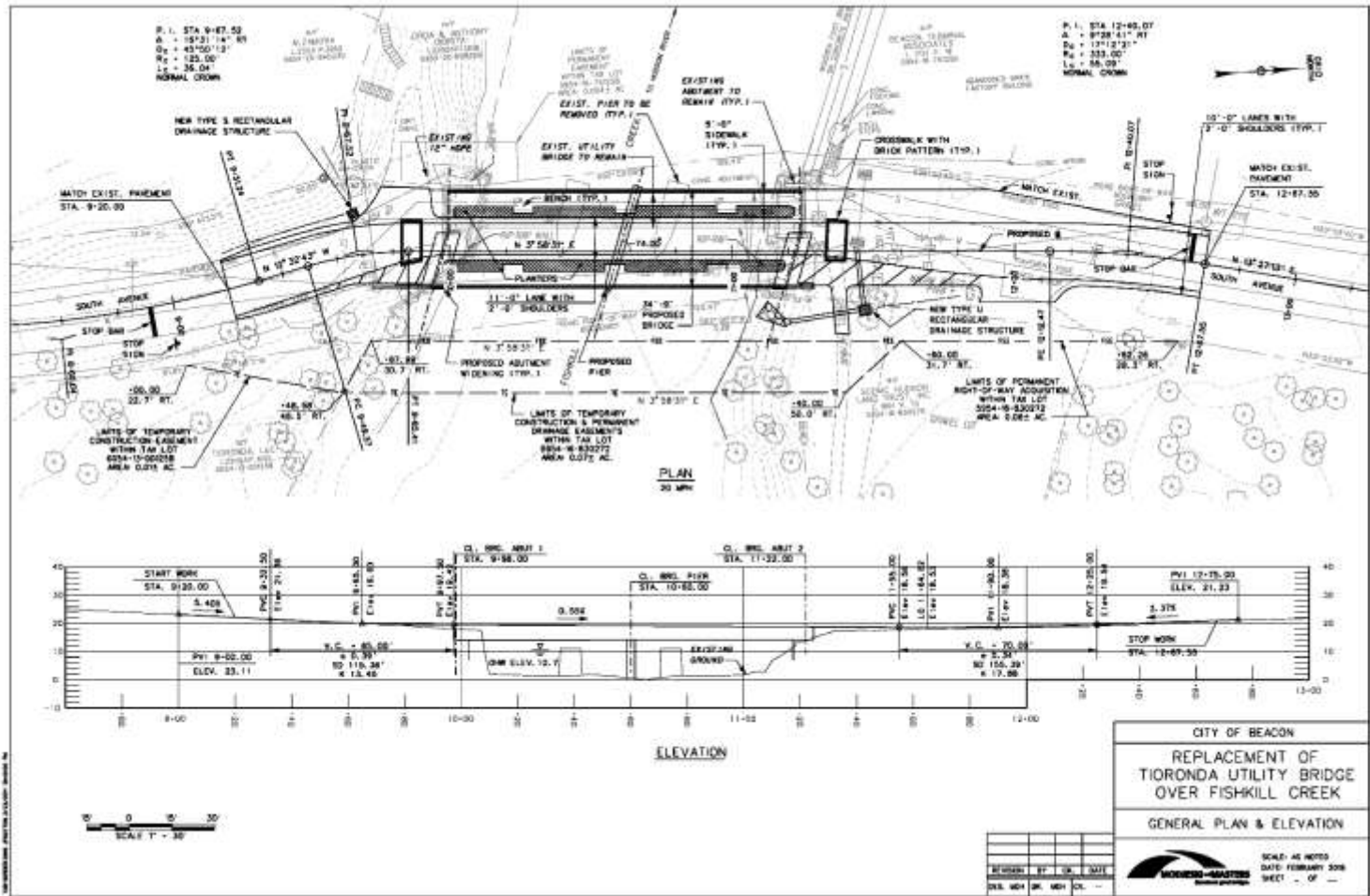
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# 7-31-17 Iteration (Visualization)

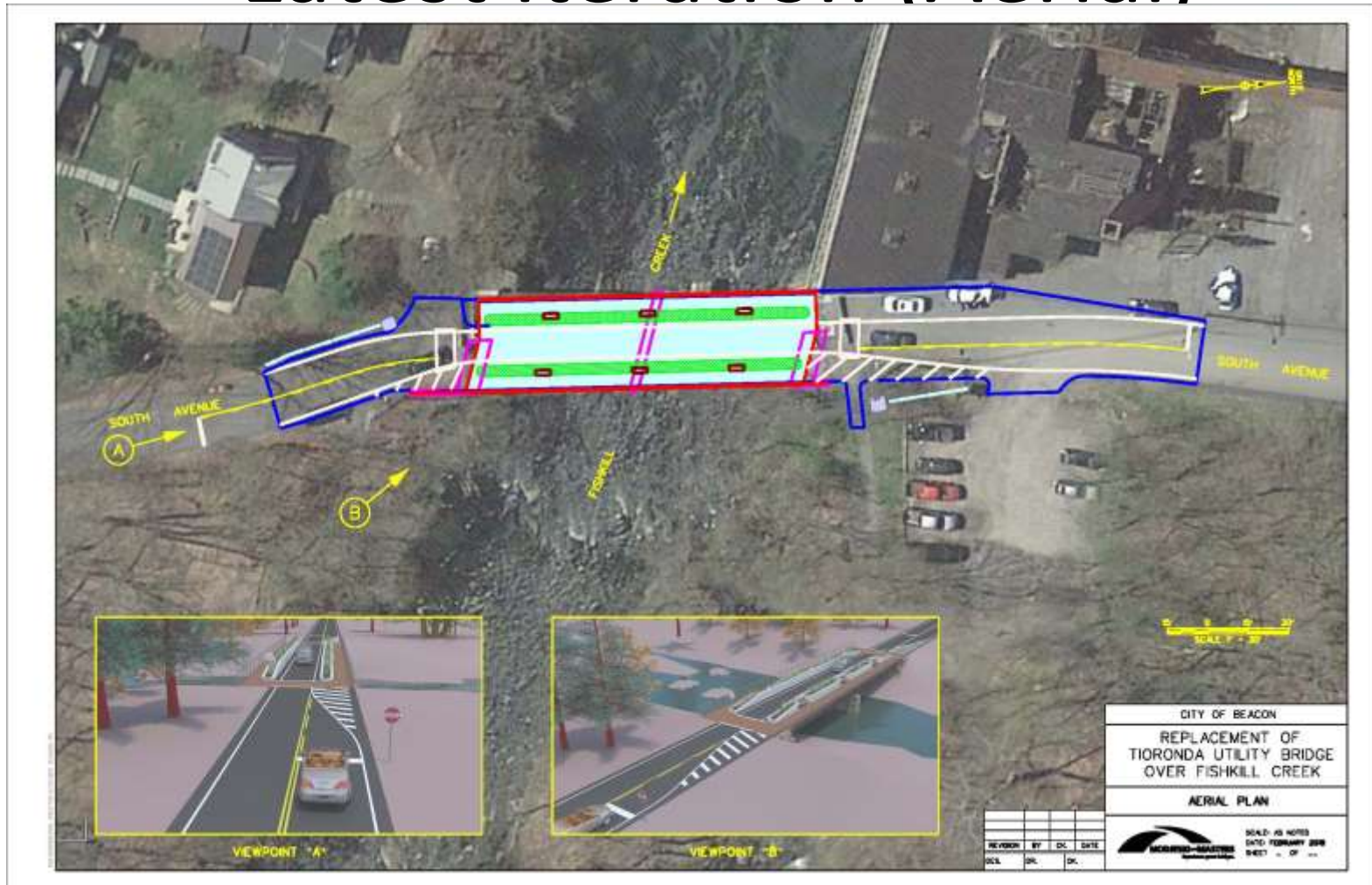


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# Latest Iteration (Plan View)

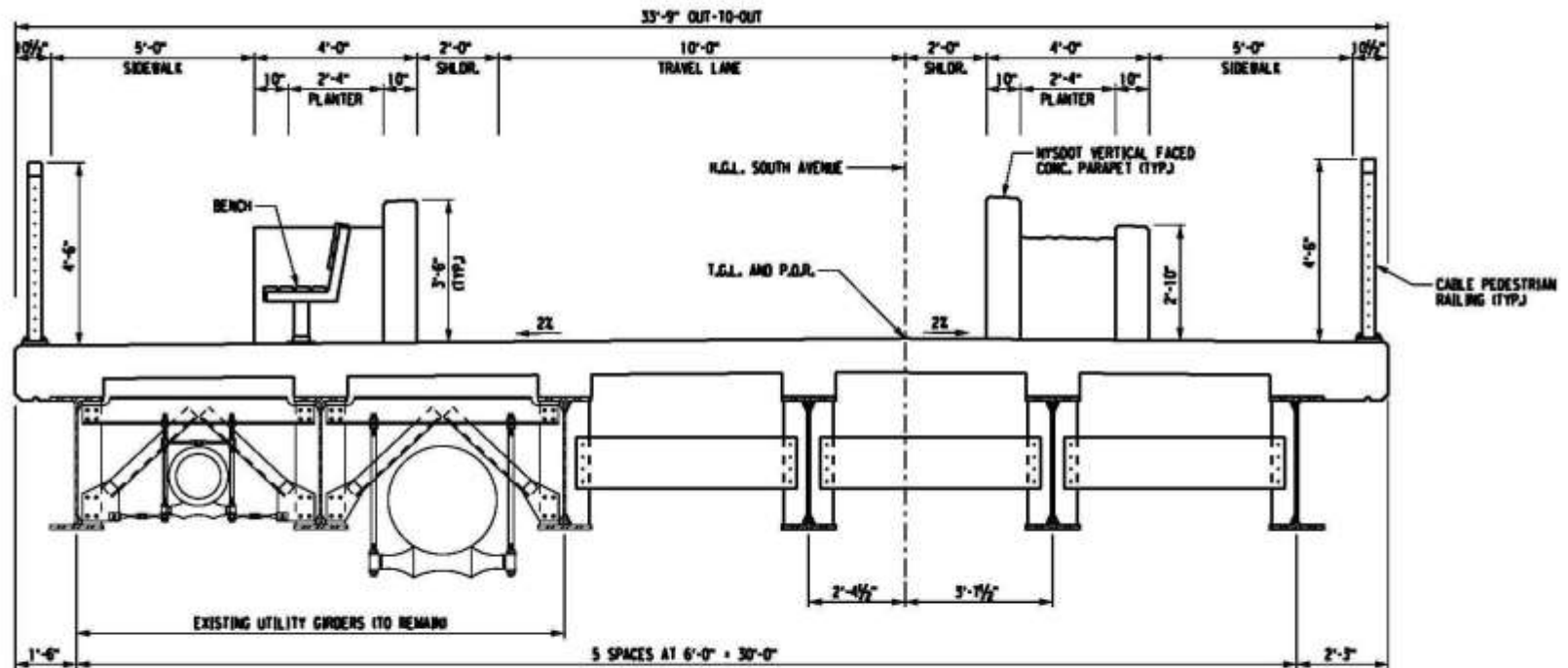


# Latest Iteration (Aerial)



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# Latest Iteration (Visualization)



PROPOSED BRIDGE SECTION  
 LOOKING AHEAD STATION  
 SCALE 1/4" = 1'-0"

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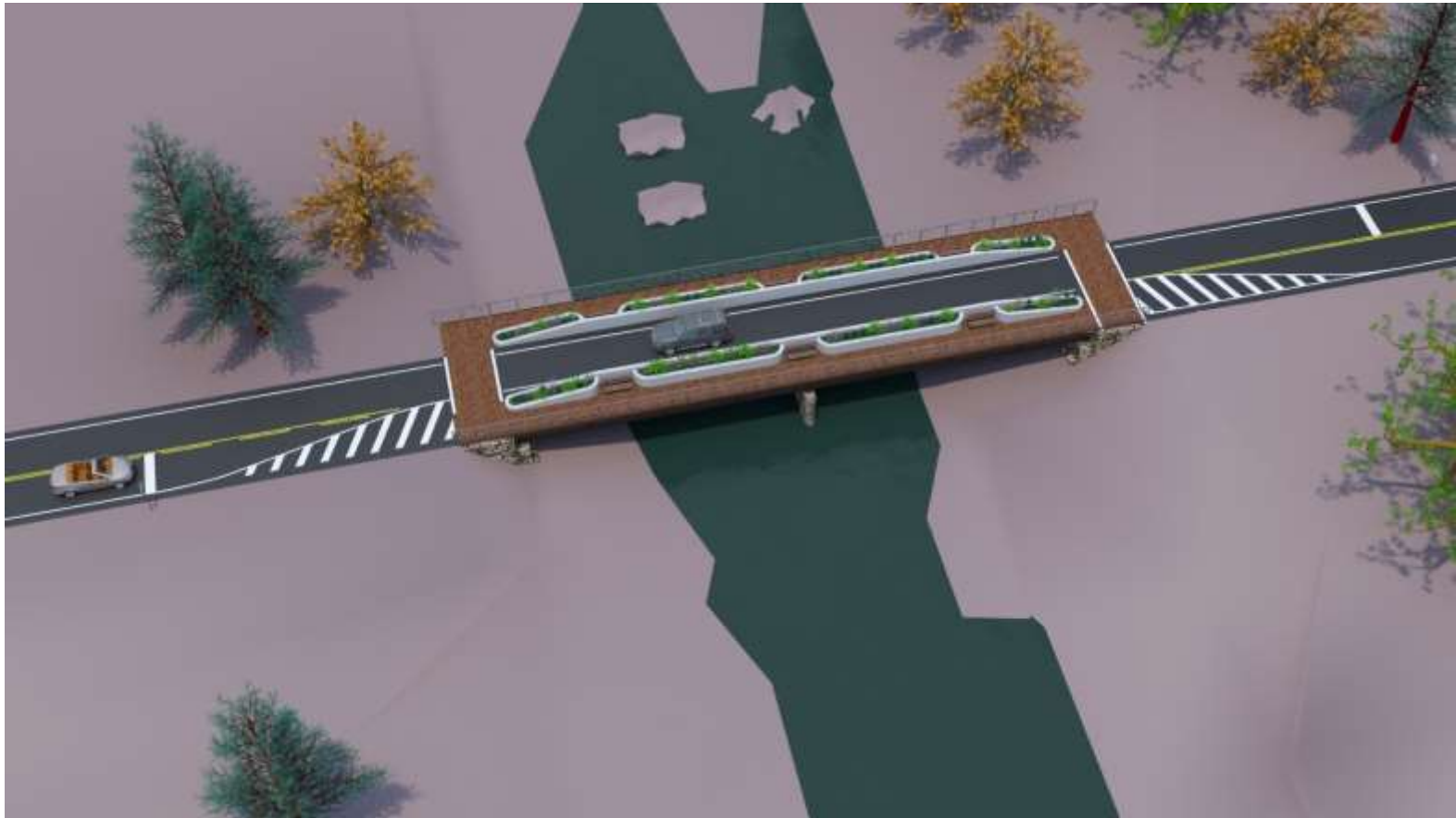
# Latest Iteration (Visualization)



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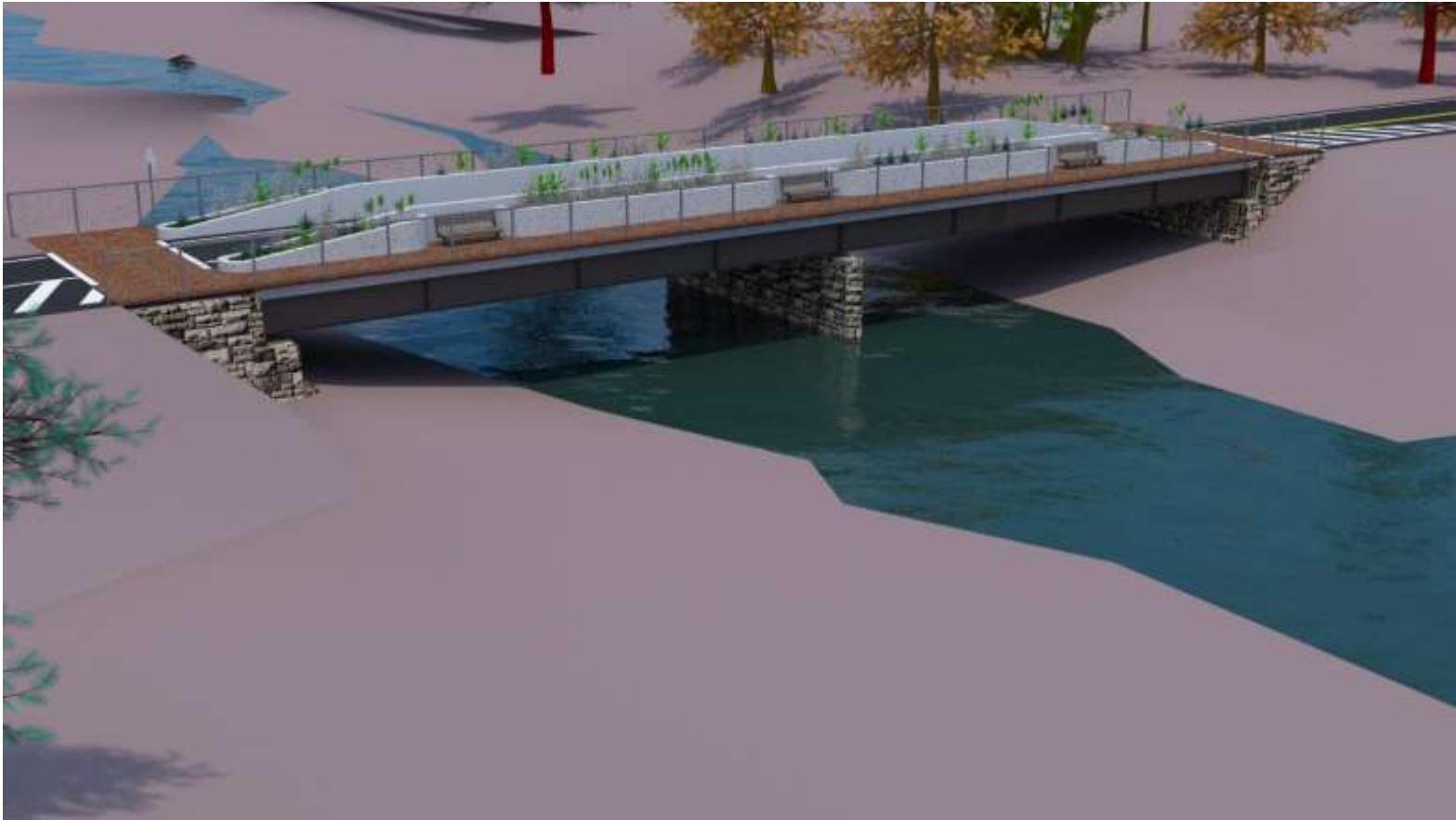


# Latest Iteration (Visualization)



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# Latest Iteration (Visualization)



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# Latest Iteration (Visualization)



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*Thank You!*

*Questions?*





**South Avenue Bridge Pictures**

# EXISTING SOUTH AVENUE BRIDGE



# EXISTING SOUTH AVENUE BRIDGE



# EXISTING SOUTH AVENUE BRIDGE





# DENNING'S POINT BRIDGE



# DENNING'S POINT BRIDGE



# Chapter 134

## HISTORIC PRESERVATION

### GENERAL REFERENCES

Zoning — See Ch. 223.

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#### **§ 134-1. Purpose.**

There exist within the City of Beacon landmarks, structures, buildings and districts of special historic significance which, by reason of their antiquity or uniqueness of architectural construction or design, are of particular significance to the heritage of the City, county, state or nation.

#### **§ 134-2. Historic District.**

An Historic District and Landmark Overlay Zone (HDLO) is hereby established for the purposes of encouraging the protection, enhancement, perpetuation and use of buildings and structures and appurtenant vistas having special historical or aesthetic value which represent or reflect elements of the City's cultural, social, economic, political and architectural history.

#### **§ 134-3. Definitions.**

Unless specifically defined below, words or phrases in this chapter shall be interpreted so as to give them the same meaning as they have in common usage and so as to give this chapter its most reasonable application.

**ALTERATION** — Any act or process that changes one or more of the exterior architectural features of a structure, including but not limited to the erection, construction, restoration, renovation, reconstruction, demolition, moving or removal of any structure.

**CERTIFICATE OF APPROPRIATENESS** — A certificate issued by the Planning Board indicating its approval of plans for alteration, construction, removal or demolition of a landmark or of a structure within an historic district.

**CERTIFICATE OF ECONOMIC HARDSHIP** — A certificate issued by the Zoning Board of Appeals authorizing an alteration, construction, removal or demolition even though a certificate of appropriateness has previously been denied.

**CONSTRUCTION** — The act of making an addition to an existing structure or the erection of a new principal or accessory structure on a lot or parcel.

**DEMOLITION** — Any act or process that destroys in part or in whole a landmark or a structure within an historic district.

**EXTERIOR ARCHITECTURAL FEATURES** — The design and general arrangement of the exterior of a structure open to view from a public way, public property or any part of any public building, including the kind and texture of building materials and number, proportion, type and spacing of windows, doors, walls, roofs, murals, projections and signs. This term shall also include all earthworks, sidewalks, driveways, fences, trees, landscaping and other features visible from a public way, public property or any part of any public building.

**HISTORIC DISTRICT** — An area designated as an "historic district" by action of the City Council in enacting this chapter and which contains within definable geographic boundaries one or more landmarks and which may have within its boundaries other properties or structures that, while not of such historic and/or architectural significance to be designated as landmarks, nevertheless contribute to the overall visual characteristics of the landmark or landmarks located within the historic district.

**LANDMARK** — A property or structure designated as a "landmark" by action of the City Council in enacting this chapter that is worthy of rehabilitation, restoration and preservation because of its historic and/or architectural significance to the City of Beacon.

**OWNER OF RECORD** — The person, corporation or other legal entity issued as owner of a parcel according to the records of the Dutchess County Clerk.

**REPAIR** — Any change that is not construction, removal or alteration.

**STRUCTURE** — Anything constructed or erected, the use of which requires permanent or temporary location on or in the ground, including, but without limiting the generality of the foregoing, buildings, fences, gazebos, walls, sidewalks, signs, billboards, backstops for tennis courts, radio and television antennae, including supporting towers, and swimming pools.

#### **§ 134-4. Designation of landmarks or historic districts.**

- A. The City Council may act upon its own initiative or upon petition from the owner of a proposed landmark, site, structure or property, the Planning Board, or historic preservation committee, to consider designation of an historic district or historic landmark, site, structure or property. All designated historic districts and landmarks shall be included in the HDLO.
- B. The City Council shall, upon investigation as it deems necessary, make a determination as to whether a proposed district or landmark meets one or more of the following criteria:
  - (1) Possesses special character or historic or aesthetic interest or value as part of the cultural, political, economic or social history of the City, county, state or nation;
  - (2) Is identified with historic personages or with important events in national, state or local history;

- (3) Embodies distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period, style, method of construction or of indigenous materials or craftsmanship;
  - (4) Is the work of a designer whose work has significantly influenced an age; or
  - (5) Qualifies for inclusion on the State or National Registers of Historic Places.
- C. Notice of a proposed designation shall be sent by certified mail or personal delivery to the owner of the property proposed for designation, describing the property proposed and announcing a public hearing by the City Council to consider the designation. Once the City Council has issued notice of a proposed designation, no building permits shall be issued by the Building Inspector until the Council has made its decision.
- D. Notice of the public hearing shall be given by publication in a newspaper of general circulation in the City of Beacon at least 14 calendar days prior to the date of such hearing.
- E. The City Council shall hold a public hearing prior to designation of any landmark or historic district. The City Council, owners and any interested parties may present testimony or documentary evidence at the hearing which will become part of a record regarding the historic, architectural or cultural importance of the proposed landmark or historic district. The record may also contain reports, public comments or other evidence offered outside of the hearing.
- F. In determining whether or not to designate a new historic landmark, the City Council shall consider the factors listed in § 134-4B and any testimony or evidence presented during the public hearing.
- G. The City Council shall make a decision within 60 days of the conclusion of the hearing. If the City Council fails to act within 60 days, or fails to extend the period in which to act, the designation shall be deemed to have been denied. A super majority vote of five Council members is necessary to designate a new historic landmark if the property owner objects to such designation.
- H. The City Council shall forward notice of each property designated as a landmark and the boundaries of each designated historic district to the property owner, the City Clerk, the Planning Board, the Zoning Board, and the offices of the Dutchess County Clerk for recordation.
- I. A list of designated properties shall be maintained on file with the City Clerk and shown on the City of Beacon Zoning Map.

**§ 134-5. Uses permitted by special permit.**

Section 223-24.7 of Chapter 223, Zoning, of the City Code, enumerates the uses which may be permitted by special permit, issued by the City Council, in the Historic District and Landmark Overlay Zone, and the process by which such uses may be permitted.

**§ 134-6. Certificate of appropriateness.**

No person shall carry out any exterior alteration of a landmark or property within an historic district without first obtaining a certificate of appropriateness from the Planning Board or a certificate of economic hardship from the Zoning Board. No certificate of appropriateness is needed for changes to interior spaces, unless they are open to the public, to architectural features that are not visible from a public street or way, public property or public building, or for the installation of a temporary sign as described in § 223-15F of the Zoning Ordinance of the City of Beacon if located in a nonresidential district. Nothing in this chapter shall be construed to prevent the ordinary maintenance and repair of any exterior architectural feature of a landmark or property within an historic district which does not involve a change in design, material or outward appearance.

**§ 134-7. Criteria for approval of certificate of appropriateness or special permit in HDLO.**

- A. Historic districts are living entities that have typically grown and accommodated change through multiple time periods. HDLO buildings are recognized as models for how to design high-quality, enduring structures that have gained in public appreciation over time, thereby serving as excellent examples for sustainable development. In reviewing an HDLO application and plans, the City Council or Planning Board shall give consideration to:
- (1) The historic or architectural value or significance of the structure and its relation to the historic character of the surrounding area.
  - (2) The relationship of the exterior architectural features of such structure to the rest of the structure and to the surrounding area.
  - (3) The compatibility of exterior design in terms of scale, arrangement, texture and materials proposed, roof and cornice forms, spacing and proportion of windows and doors, exterior architectural details, signs, and street-front fixtures.
- B. In applying the principle of compatibility, the City Council or Planning Board shall use the following standards for new structures, additions, or alterations in the HDLO. Standards using the verb "shall" are required; "should" is used when the standard is to be applied unless the Planning Board or City Council finds a strong justification for an alternative solution in an unusual and specific circumstance; and "may"

means that the standard is an optional guideline that is encouraged but not required.

- (1) The design, character, and appropriateness to the property of the proposed alteration or new construction.
  - (a) Construction shall build on the historic context with applications required to demonstrate aspects of inspiration or similarities to adjacent HDLO structures or historic buildings in the surrounding area.
  - (b) Compatibility does not imply historic reproduction, but new architecture shall also not arbitrarily impose contrasting materials, scales, colors, or design features.
  - (c) The intent is to reinforce and extend the traditional patterns of the HDLO district, but new structures may still be distinguishable in up-to-date technologies and details, most evident in window construction and interiors.
  - (d) Exterior accessory elements, such as signs, lighting fixtures, and landscaping, shall emphasize continuity with adjacent HDLO properties and the historic characteristics of the sidewalk and streetscape.
  - (e) Where possible, parking shall be placed towards the rear of the property in an unobtrusive location with adequate screening from public views, unless another location provides better screening.
- (2) The scale and height of the proposed alteration or new construction in relation to the property itself, surrounding properties, and the neighborhood.
  - (a) Where possible, an addition to an historic structure should be placed towards the rear, or at least recessed, so that the historic structure remains more prominent than the subsidiary addition.
  - (b) Any alteration or addition to an historic structure shall not damage or obscure the character-defining features of the architecture or site to the maximum extent possible.
  - (c) The height of any new building facades in the HDLO shall not conflict with the heights of adjacent historic structures on adjoining HDLO parcels.
  - (d) Larger buildings or additions should incorporate significant breaks in the facades and rooflines, generally at intervals of no more than 35 feet.
- (3) Architectural and site elements and their relation to similar features of other properties in the HDLO.

- (a) It is not appropriate to disrupt the relationship between an historic building and its front yard or landscape, including screening historic properties from traditional street views by high walls or hedges.
- (b) Historic storefronts, porches, cornices, window and door surrounds, or similar architectural features should not be enclosed, obscured, or removed so that the character of the structure is substantially changed.
- (c) Deteriorated building features should be repaired rather than being replaced and, if not repairable, should be replicated in design, materials, and other historic qualities.
- (d) New buildings in the HDLO should have a top-floor cornice feature and first-floor architectural articulation, such as an architecturally emphasized entrance doorway or porch, to accent the central body of the building.
- (e) Architectural features and windows shall be continued on all sides that are clearly visible from a street or public parking area, avoiding any blank walls, except in cases of existing walls or potential common property walls.
- (f) New HDLO buildings shall have a front entrance door facing the primary street and connected to the sidewalk.
- (g) Primary individual window proportions shall be greater in height than width, but the approving body may allow exceptions for storefront, transom, and specialty windows. Mirrored, reflective, or tinted glass and all-glass walls, except greenhouses, shall not be permitted. Any shutters shall match the size of the window opening and appear functional.
- (h) Finish building materials should be wood, brick, traditional cement-based stucco, stone, smooth cast stone, smooth-finished fiber-cement siding, or other materials deemed acceptable by the approving body. Vinyl, aluminum or sheet metal siding or sheet trim, exposed concrete blocks or concrete walls, plywood or other similar prefabricated panels, unpainted or unstained lumber, synthetic rough-cut stone, synthetic brick, synthetic stucco, exterior insulation and finishing system (EIFS), direct-applied finish system (DAFS), and chain link, plastic, or vinyl fencing shall not be permitted.
- (i) Materials and colors should complement historic buildings on the block. Fluorescent, neon, metallic, or other intentionally garish colors, as well as stripes, dots, or other incompatible patterns, shall be prohibited.
- (j) Mechanical equipment and refuse containers shall be concealed from public view by approved architectural or



landscaping elements and shall be located to the rear of the site. Window or projecting air conditioners shall not be permitted on the front facade of new buildings or additions.

**§ 134-8. Certificate of appropriateness application procedure.**

- A. Prior to the commencement of any work requiring a certificate of appropriateness, the owner shall file an application for such a certificate with the Planning Board. The application shall include:
- (1) The name, address and telephone number of the applicant.
  - (2) Scaled drawings showing the proposed changes.
  - (3) Descriptions or samples of materials to be used.
  - (4) (Where the proposal includes signs or lettering,) a scaled drawing showing the type of lettering to be used, all dimensions and colors, a description of materials to be used, method of illumination, if any, and a plan showing the sign's location on the property.
  - (5) Any other information which the Planning Board may deem necessary in order to visualize the proposed work.
- B. No building permit shall be issued for such proposed work until a certificate of appropriateness has first been issued by the Planning Board. The certificate of appropriateness required by this act shall be in addition to and not in lieu of any building permit that may be required by any other ordinance of the City of Beacon.
- C. The applicant may consult with the Planning Board or its designated agent prior to submitting an application.
- D. Where site plan review or subdivision approval is also required for the application, the certificate of appropriateness procedure shall be conducted simultaneously with such review by the Planning Board.
- E. The Planning Board shall approve, deny or approve the permit with modifications within 45 days from receipt of the completed application. The Planning Board may hold a public hearing on the application at which an opportunity will be provided for proponents and opponents of the application to present their views. Notice of the public hearing shall be provided by the applicant in the same manner as required in § 223-61.3.
- F. All decisions of the Planning Board shall be in writing. A copy shall be sent to the applicant by registered mail and a copy filed with the City Clerk's Office for public inspection. The Planning Board's decision shall state the reasons for denying or modifying any application.

**§ 134-9. Hardship criteria and application procedure.**

- A. An applicant whose certificate of appropriateness has been denied may apply to the Zoning Board of Appeals for a certificate of economic hardship to obtain relief from the requirements of this chapter. Upon receipt of an application for relief, the Zoning Board shall, within 45 calendar days thereafter, hold a public hearing. Notice of the public hearing shall be provided by the applicant in the same manner as required in § 223-61.3.
- B. At the public hearing, the Zoning Board may hear testimony and entertain the submission of written evidence from the applicant and/or the public.
- C. To obtain a certificate of economic hardship, the applicant must prove the existence of economic hardship by establishing that:
  - (1) The property is incapable of earning a reasonable return, regardless of whether that return represents the most profitable return possible; and
  - (2) The property cannot be adapted for any other use, whether by the current owner or by a purchaser, which would result in a reasonable return; and
  - (3) Efforts to find a purchaser interested in acquiring the property and preserving it have failed.
- D. The Zoning Board shall take into consideration the economic feasibility of alternatives to removal, alteration or demolition of a landmark or portion thereof, and balance the interest of the public in preserving the historic landmark or building, or portion thereof, and the interest of the owner in removing, altering or demolishing the landmark or portion thereof.
- E. The Zoning Board shall make a decision within 30 days of the conclusion of the hearing on the application. The Board's decision shall be in writing and shall state the reasons for granting or denying the hardship application.
- F. All decisions of the Zoning Board of Appeals shall be in writing. A copy shall be sent to the applicant, and a copy shall be filed with the City Clerk. The Board's decision shall state the reasons for approving or denying the application. If the Zoning Board of Appeals approves the application, the Board shall issue a certificate of economic hardship.

#### **§ 134-10. Enforcement.**

All work performed pursuant to a certificate of appropriateness issued under this chapter shall conform to any requirements included therein. It shall be the duty of the Building Inspector to inspect periodically any such work to assure compliance. In the event that work is found that is not performed in accordance with the certificate of appropriateness, or upon notification of such fact by the Planning Board, the Building Inspector shall

issue a stop-work order, and all work shall immediately cease. No further work shall be undertaken on the project as long as a stop-work order is in effect.

**§ 134-11. Penalties for offenses.**

- A. Failure to comply with any of the provisions of this local law shall be deemed a violation, and the violation is subject to the penalties provided in § 223-53 of Chapter 223, Zoning.
- B. The City Council is also authorized to institute any and all actions required to enforce this chapter. This civil remedy shall be in addition to and not in lieu of any criminal prosecution and penalty.

**§ 134-12. Fees.**

- A. Each application for a certificate of appropriateness shall be accompanied by a fee, in an amount set by the City Council, payable to the City Clerk.
- B. The applicant may be charged a fee by the Planning Board for the actual cost of preparation and publication of each public notice of hearing on the application. Said fees shall also be fixed from time to time by resolution of the City Council.

**§ 134-13. Assessment abatement.**

Any person who is granted a certificate of appropriateness and performs the work detailed in the application submitted to the Planning Board will not be subject to an increase in assessment for the subject property as a result of the improvements made to the buildings and structures on said property. This clause does not apply to applicants who also receive a special permit as set forth in § 223-18 of Chapter 223, Zoning.

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**Review Amended Local Law**

**Subject:**

City Council request to review changes made to proposed Local Law to amend Section 223-24.5 of City Code concerning Wireless Telecommunication Services Facilities

**Background:**

**ATTACHMENTS:**

Description	Type
DOCS-#624386-v7- Local_Law_Telecommunication_Facilities_	Local Law
DOCS-#659814-v1- Memo_Updates_to_Telecommunication_Local_Law	Cover Memo/Letter

**DRAFT LOCAL LAW NO. \_\_\_\_ OF 2018**

**CITY COUNCIL  
CITY OF BEACON**

**PROPOSED LOCAL LAW TO  
AMEND SECTION 223-24.5, WIRELESS TELECOMMUNICATION  
SERVICES FACILITIES;  
SECTION 23-25, SITE DEVELOPMENT PLAN APPROVAL;  
SECTION 26.4, SMALL CELL WIRELESS TELECOMMUNICATIONS  
FACILITIES; AND SECTION 223-63, DEFINITIONS OF THE CODE OF  
THE CITY OF BEACON**

A LOCAL LAW to amend Sections 223-24.5; 223-25, 223-26.4 and 223-63 of Code of the City of Beacon, concerning Wireless Telecommunication Services Facilities.

**BE IT ENACTED** by the City Council of the City of Beacon as follows:

**SECTION 1.** Section 223-24.5 of the Code of the City of Beacon entitled “Wireless Telecommunication Services Facilities” is amended as follows:

§ 223-24.5. Wireless telecommunication services facilities.

A. Statement of intent and objectives.

- (1) The City Council has determined that the establishment of zoning provisions to institute minimum standards for wireless telecommunications services facilities shall be among the legislative purposes of the Zoning Law of the City of Beacon and is in accordance with the goals, objectives and policies of the City's Development Plan.
- (2) The purpose of these special regulations is to reasonably control the location, construction and maintenance of wireless telecommunications services facilities in order to encourage the siting of said facilities in nonresidential areas and to protect, to the maximum extent practicable, aesthetic impacts, the open space character of portions of the City of Beacon, the property values of the community, and the health

and safety of citizens, while not unreasonably limiting competition among telecommunication providers.

- B. Use. Except as provided hereinafter, no wireless telecommunication services facility shall be located, constructed or maintained on any lot, building, structure or land area in the City of Beacon unless a special use permit has been issued in conformity with the requirements of this chapter and all other applicable regulations.
- C. Exemptions. The provisions of this section shall not apply to (1) wireless telecommunication services facilities that obtain a small cell permit from the Planning Board pursuant to § 223-26.4, or (2) unlicensed wireless telecommunication services facilities installed wholly within a principal or accessory building, such as but not limited to baby monitors, heart monitors, garage door openers and burglar alarm transmitters, and serving only that building.

D. Special use permit application.

(1) An application for approval of a wireless telecommunication services facility shall be submitted on the relevant forms for special use permit approval and shall be jointly filed by the operator of the wireless telecommunication services facility and the owner of the property on which such facility is proposed to be located.

(2) The special use permit application shall contain the following:

(a) A site development plan showing applicant's entire property and adjacent properties and streets, at a convenient scale. The site development plan shall also describe any new proposed structure and antenna(s) and all related fixtures, accessory equipment, appurtenances and apparatus, including but not limited to height above preexisting grade, materials, color and lighting;

(b) The location, size, and height of all existing and proposed structures on the property which is the subject of the application;

(c) The applicant's name, address, telephone number, and e-mail address;

(d) The names, addresses, telephone numbers, and email addresses of all consultants, if any, acting on behalf of the applicant with respect to the filing of the special use permit application;

(e) A descriptive statement of the objective(s) for the new facility or modification including and expanding on a need such as coverage and/or capacity requirements;

(f) The location of the nearest residential structure;

- (g) Identify and disclose the number and locations of wireless telecommunication services facilities that the applicant has installed or locations the applicant has considered in the past year within the City;
- (h) A description of the anticipated maintenance needs, including frequency of service, personnel needs and equipment needs, and the potential traffic safety and noise impact of such maintenance;
- (i) Identify all existing and proposed wireless telecommunication services facilities which impact upon the service area covering the City of Beacon, including but not limited to topographic maps of the City with service coverage and service gap grids and all proposed as well as other functionally acceptable locations for such facility(ies);
- (j) The operator of the wireless telecommunication services facility shall submit a certificate of public utility, unless it can be demonstrated to the satisfaction of the City Council that the operator of such facility is exempt from such requirement pursuant to New York State law;
- (k) Where the owner of the property on which a wireless telecommunication services facility is proposed contemplates that such property may be used for the installation of two or more such facilities, the property owner shall submit a conceptual master plan identifying the total number and location of such facilities; and
- (l) Any application for a wireless telecommunication services facility shall include a statement and appropriate documentation demonstrating that City-owned sites, buildings and structures and the City's existing facilities inventory have been reviewed to the extent relevant to provide wireless telecommunication services facility in the area which is the subject of such application and that all reasonable efforts have been made to locate or collocate such facility on all City-owned sites, buildings and structures and on all sites identified in such existing facilities inventory within the service area.
- (m) Any amendment to information contained in a special use permit application shall be submitted in writing to the City within 30 days after the change necessitating the amendment.
- (3) The City may reject applications not meeting the requirements stated herein or which are otherwise incomplete.
- (4) No wireless telecommunication services facilities shall be installed, constructed or modified until the application is reviewed and approved by the City Council and the special use permit has been issued.

(5) As a condition of special use permit approval, the applicant shall be required to provide a written agreement, in recordable form suitable for filing and prepared to the satisfaction of the City Attorney, acknowledging that it shall be required to allow the ~~co-location~~ collocation of other future wireless telecommunication service facilities at fair market cost, unless otherwise unreasonably limited by technological, structural or other engineering considerations.

(6) The applicant and all future owners of the premises and the wireless telecommunication services facility shall at all times keep on file in the office of the City Clerk the name, address, and telephone number of the owner and operator of such facility and of at least one individual who shall have authority to arrange for the maintenance of the premises and facility and who shall be authorized to accept service of notices and legal process on behalf of the owner and operator(s) of the premises and facility and to bind the owner to any settlement, fine, judgment, or other disposition (other than incarceration) which may result from any civil or criminal action or proceeding instituted by the City against such owner and/or operator(s).

E. Every application for a small cell wireless telecommunication services facility shall be referred to the Planning Board for report and recommendation thereon before the public hearing required by law. Within 30 days of the date of the first Planning Board meeting on or after the date of referral, the Planning Board shall forward its recommendation to the City Council and the applicant, and shall indicate whether the application should be approved, disapproved or approved with modifications and shall specify what modifications, if any, are necessary.

F. Application fees. At the time an applicant submits an application for a wireless telecommunication services facility, such applicant shall pay a nonrefundable application fee in an amount as determined by the City Council and set forth in the City of Beacon fee schedule, in addition to any other fee required by law.

G. Reimbursement for the use of the public right-of-way. In addition to permit application fees, every wireless telecommunication services facility located in the public right-of-way is subject to the City's right to fix annually a fair and reasonable fee to be paid for use and occupancy of the public right-of-way. The annual fee for use of the public right-of-way shall be set forth in the City of Beacon fee schedule.

D.H. Location and access.

(a)(1) Subject to the City Council's review and evaluation of technological, structural, safety and financial considerations associated with alternative locations for the siting of wireless telecommunication services facilities, the ~~following~~ locational priorities shall apply in the order specified set forth below are, consistent with the City's obligation to create the least amount of adverse aesthetic impact and to preserve the scenic values of the City:



(2) Applications for small cell wireless facilities shall locate, site and erect said facility in accordance with the following priorities, (a) being the highest priority and (f) being the lowest priority.

(a) On the roof of any City-owned or federal, state or local government owned buildings or structures.

(b) Location on privately owned buildings.

(c) Location on existing City-owned utility poles.

(d) Location on City-owned infrastructure on private poles.

(e) Location on City-owned property, where there is no existing pole.

(f) Location on privately owned utility poles.

(3) Applications for all non-small cell wireless facilities shall locate, site and erect said facility in accordance with the following priorities, (a) being the highest priority and (g) being the lowest priority:

(a) Collocation on existing wireless telecommunication services facilities on lands owned or controlled by the City; City-owned or City Housing Authority-owned sites, buildings and structures.

(b) Co-loc

(b) Collocation on a site with existing wireless telecommunication services facilities in the City; an existing wireless telecommunication services facility or radio tower, as identified on an inventory of existing facilities which shall be maintained by the City (the "existing facilities inventory"). Collocation shall be required unless it has been demonstrated to the satisfaction of the City Council that:

[1] None of the sites identified on the existing facilities inventory within the service area can accommodate the proposed wireless telecommunication services facility in a reasonable financially and technologically feasible manner consistent with the wireless communications service carrier's system requirements;

[2] None of the sites identified on the existing facilities inventory within the service area can accommodate the proposed wireless telecommunications services facility with respect to structural or other engineering limitations, including frequency incompatibilities; or

~~{3}~~—The owners of the sites identified on the existing facilities inventory within the service area lawfully refuse to permit the applicant's use of the site.

~~(a)~~(c) On sites, buildings and structures located in the HI and LI Zoning Districts.

~~(b)~~(d) On sites, buildings and structures in the PB, ~~HB~~, OB, LB and GB Zoning Districts.

(e) On sites, buildings and structures in the ~~CB-CMS~~ Zoning District.

(f) On sites, buildings and structures in Residential Zoning Districts.

~~(e)~~(g) On sites, buildings and structures in the WD, WP, or Historic District and Landmark Overlay Zone.

(4) If the proposed site is not the highest priority listed above, then a detailed explanation must be provided as to why a site of higher priority was not selected. The applicant seeking such an exemption must satisfactorily demonstrate the reason or reasons why such a special use permit should be granted for the proposed site and the hardship that would be incurred by the applicant if the permit was not granted for the proposed use.

~~(2)~~ Except for collocation on an existing wireless telecommunication services facility or radio tower identified on the existing facilities inventory and except for location on a building (and the premises thereof) which is at least nine stories in height, new wireless telecommunication services facilities shall not be located in the WD, WP and Residential Zoning Districts, nor in the Historic District and Landmark Overlay Zone.

~~(3)~~(5) Wherever possible, new wireless telecommunication services facilities shall be in the form of antennas attached to an existing building or structure and/or shall be in the form of stealth structures. Lattice towers shall be the structures of last resort.

~~(4)~~(6) All new wireless telecommunication services facilities and premises shall be of proper size, location and design to accommodate ~~co-location~~ collocation of other service providers' facilities, unless otherwise permitted by the City Council. To the maximum extent practicable, existing roadways shall be used to provide access to the site of a wireless telecommunication services facility.

~~(5)~~(7) An applicant may not bypass a site of higher priority by stating the site presented is the only site leased or selected. An application shall address ~~collocation~~ collocation as an option and, if such option is not proposed, the applicant must explain why collocation is commercially or otherwise impracticable.

~~(6)~~(8) Notwithstanding the above, wireless telecommunication services facilities are permitted in all zoning districts in the City of Beacon. The City Council may approve any site located within the City, provided the City Council finds that the proposed site is in the best interest of the health, safety and welfare of the City and its inhabitants.

~~E.H.~~ Setbacks. Wireless telecommunication services facilities, except those structurally mounted to an existing building or structure, shall be located not less than two times the otherwise applicable setback requirements for principal structures for the district in which the property is located, or not less than the height of the facility plus the otherwise applicable setback requirements for principal structures for the zoning district in which the property is located, whichever shall be greater. Wireless telecommunication services facilities structurally mounted to the roof of an existing building or structure shall be set back at least 15 feet from the edge of the roof along any street frontage from the side of the building or structure so as to minimize its visibility, but in no case less than 10 feet unless a stealth design is proposed, in which case the City Council may waive or modify this requirement the City Council makes a written determination that such designs are not necessary or feasible.

~~F.I.~~ Height limitations. Notwithstanding the following height limitations, in no case shall a wireless telecommunication services facility exceed the minimum height reasonably necessary to accomplish the purpose it is proposed to serve.

(1) The height of any antennas, or other associated equipment, structurally mounted as part of a wireless telecommunication services facility shall not ~~exceed~~ be placed more than 15 feet above the highest point of the existing structure on which such antennas or equipment is affixed.

(2) The height of any monopole or tower utilized in a wireless telecommunication services facility shall not exceed 150 feet in height measured from the highest point of such facility to the finished grade elevation of the ground immediately adjacent to the structure.

(3) Applicants must submit documentation justifying the total height.

~~J.~~ Visual mitigation. The applicant/provider shall prepare a visual impact assessment of the proposed wireless telecommunication services facility based upon appropriate modeling, photographic simulation and other pertinent analytical techniques as required by the City Council.

(1) All wireless telecommunication services facilities shall be sited so as to have the least adverse visual effect on the environment and its character, on existing vegetation and on the residents in the area of the wireless telecommunication services facility.

~~(2)~~ Landscaping and/or other screening and mitigation, including but not limited to architectural treatment, stealth design, use of neutral or compatible coloring and materials, or alternative construction and transmission technologies, shall be required to minimize the visual impact of such facility from public thoroughfares, important viewsheds designated by the City Council or listed in the City's Comprehensive Plan, vantage points and surrounding properties to the extent practicable, as determined by the City Council.

~~(3)~~ No signs shall be erected on any wireless telecommunication services facility except as may be required by the City Council for security or safety purposes.

~~(4)~~ All equipment enclosures and storage buildings associated with the wireless telecommunication services facilities shall be consistent or compatible with adjacent buildings in terms of design, materials and colors and shall be appropriately landscaped.

~~G-(5)~~ All special use permit applications for wireless telecommunication services facilities shall contain a demonstration that the facility is sited as to have the least adverse visual effect on the environment and its character, on existing vegetation and on the residences in the area of the wireless telecommunication services facilities.

~~H-K.~~ Materials. A wireless telecommunication services facility shall be of galvanized finish or painted gray or another neutral or compatible color determined to be appropriate for the proposed location of such facility in the reasonable judgment of the City Council. The mountings of wireless telecommunication antennas shall be nonreflective and of the appropriate color to blend with their background.

~~H-L.~~ Lighting. The wireless telecommunication services facility shall not be artificially lighted unless otherwise required by the Federal Aviation Administration or other federal, state or local authority.

~~J-M.~~ Operational characteristics. Unless otherwise superseded by the Federal Communications Commission (FCC), the design and use of the proposed wireless telecommunication services facility, including its cumulative impact with other existing and approved facilities, shall be certified to conform to the maximum NIER exposure standards promulgated by the FCC, as amended. Said certification shall include a report by a licensed professional electrical engineer with expertise in radio communication facilities and/or health physicist acceptable to the City Council. A copy of such certification report shall be submitted to the City Council prior to commencing operation of such facility and a copy shall be filed with the Building Inspector. The City Council may require annual certification of conformance with the applicable emission standards. Additionally, copies of certification reports shall be submitted to the City Council whenever they are required to be submitted to the FCC. The City Council may hire a qualified professional of its choosing to review and confirm such initial and subsequent

certification report(s), the cost of which shall be reimbursed by the applicant in accordance with the escrow account procedures established by the City for the reimbursement of professional review fees for subdivision, site plan and special use permit applications. Any violation of the emissions standards shall require immediate discontinuation and correction of the use responsible for the violation.

~~K.N.~~ Noise. Noise-producing equipment shall be sited and/or insulated to prevent any detectable increase in noise above ambient levels as measured at the property line.

~~L.O.~~ Utility service. Electrical and land-based telephone lines extended to serve the wireless telecommunication services facility sites shall be installed underground. If the wireless telecommunication services facility is attached to a building, and if determined practical and economically feasible by the City Council, all wires from the ground to said facility shall be located within the building. If permitted to be located outside said building, the wires shall be enclosed in a conduit whose materials and colors are consistent or compatible with the building.

~~M.P.~~ Safety provisions. A wireless telecommunication services facility shall be designed and erected so that in the event of structural failure it will fall within the required setback area and, to the maximum extent possible, away from adjacent development.

~~N.Q.~~ Security provisions. A security program shall be formulated and implemented for the site of a wireless telecommunication services facility. Such program may include physical features such as fencing, anti-climbing devices or elevating ladders on monopoles and towers, and/or monitoring either by staff or electronic devices to prevent unauthorized access and vandalism.

~~O.R.~~ Annual sStructural/safety inspection and report.

(1) A monopole or tower over 50 feet in height shall be inspected ~~annually~~ at least once a year from a structural and safety perspective at the expense of the service provider by a licensed professional engineer, or at any other time upon a determination by the Building Inspector that the monopole or tower may have sustained structural damage, and a copy of the inspection report shall be submitted to the Building Inspector.

(2) The City of Beacon reserves the right to inspect any wireless telecommunication services facility to ensure compliance with the provisions of this section and any other provisions found within the City of Beacon Code, State or Federal Law. The City of Beacon and/or its agents shall have the authority to enter the property upon which a wireless telecommunication facility is located at any time, upon reasonable notice to the operator, to ensure such compliance.

~~P.S.~~ Lease agreement. In the case of an application for approval of a wireless telecommunication services facility to be located on lands owned by a party other than

the applicant or the City, a copy of the lease agreement with the property owner, absent the financial terms of such agreement, together with any subsequent modifications thereof, shall be provided to the City Council and a copy shall be filed with the City Clerk and the Building Inspector.

Q.T. Interference. In the event that the wireless telecommunication services facility causes interference with the radio or television reception within the City of Beacon, the applicant, at the applicant's sole expense, shall thereafter ensure that any interference problems are promptly corrected.

~~S. Removal. A wireless telecommunication services facility shall be dismantled and removed from the property on which it is located within 60 days when it has been inoperative or abandoned for a period of one year or more from the date on which it ceased operation. The applicant shall provide to the City written notification, including identification of the date the use of the facility was discontinued or abandoned by one or more of the service providers, acknowledgment of the requirement to remove the facility, and identification of plans for the future of the facility. The applicant shall post a bond to ensure that the wireless telecommunication services facility shall be removed upon abandonment as set forth herein at the applicant's sole expense.~~

~~R. Application procedure:~~

~~(a) An application for approval of a wireless telecommunication services facility shall be submitted on the relevant forms for special use permit approval and shall be jointly filed by the operator of the wireless telecommunication services facility and the owner of the property on which such facility is proposed to be located. A site plan drawing showing the location of the proposed facility shall accompany the application for special use permit approval. Special use approval by the City Council in accordance with §§ 223-18 and 223-19 of this chapter shall be required. The City may enlist the services of a radio frequency (RF) engineer and/or other relevant consultants, at the applicant's cost, for the review of the application.~~

~~(b) The operator of the wireless telecommunication service shall submit a certificate of public utility, unless it can be demonstrated to the satisfaction of the City Council that the operator of such facility is exempt from such requirement pursuant to New York State law. The operator of such facility shall also demonstrate to the satisfaction of the City Council that there is a compelling public need for such facility at the location(s) proposed by the applicant. Such demonstration shall include the preparation of existing and master effective service area plans which:~~

~~(a) Minimize the number of such facilities within the service area(s);~~

- ~~(b) Maximize co-location collocation of wireless telecommunication service facilities;~~
- ~~(c) Identify all existing and proposed wireless telecommunication facilities which impact upon the service area covering the City of Beacon, including but not limited to topographic maps of the City with service coverage and service gap grids and all proposed as well as other functionally acceptable locations for such facility(ies); and~~
- ~~(d) Analyze feasible alternatives to reasonably minimize the visual impacts and exposure levels.~~
- ~~(e) Where the owner of the property on which a wireless telecommunication services facility is proposed contemplates that such property may be used for the installation of two or more such facilities, the property owner shall submit a conceptual master plan identifying the total number and location of such facilities.~~
- ~~(d) Any application for a wireless telecommunication services facility shall include a statement and appropriate documentation demonstrating that City-owned sites, buildings and structures and the City's existing facilities inventory have been reviewed to the extent relevant to provide wireless telecommunication services in the area which is the subject of such application and that all reasonable efforts have been made to locate or co-locate such facility on all City-owned sites, buildings and structures and on all sites identified in such existing facilities inventory within the service area.~~
- ~~(2) As a condition of special use permit approval, the applicant shall be required to provide a written agreement, in recordable form suitable for filing and prepared to the satisfaction of the City Attorney, acknowledging that it shall be required to allow the co-location collocation of other future wireless telecommunication service facilities at fair market cost, unless otherwise unreasonably limited by technological, structural or other engineering considerations.~~
- ~~(3) The applicant and all future owners of the premises and the wireless telecommunication services facility shall at all times keep on file in the office of the City Clerk the name, address, and telephone number of the owner and operator of such facility and of at least one individual who shall have authority to arrange for the maintenance of the premises and facility and who shall be authorized to accept service of notices and legal process on behalf of the owner and operator(s) of the premises and facility and to bind the owner to any settlement, fine, judgment, or other disposition (other than incarceration) which may result from any civil or criminal action or proceeding instituted by the City against such owner and/or operator(s).~~

S.U. The City Clerk shall forward a copy of the City Council special use permit decision to the City Tax Assessor to allow the City to better assess the utility infrastructure for wireless telephone facilities.

F.V. Removal, relocation or modification of wireless telecommunication services facilities in the public right of way

(1) Notice. Within ninety (90) days following written notice from the City , the wireless provider shall, at its own expense, protect, support, temporarily or permanently disconnect, remove, relocate, change or alter the position of any wireless telecommunication services facility within the public right-of-way whenever the City has determined that such removal, relocation, change or alteration, is necessary for the construction, repair, maintenance, or installation of any City improvement in or upon, or the operations of the City in or upon, the public right-of-way.

(+)(2) Abandonment of Facilities. Upon abandonment of a wireless telecommunication service facility within a public right-of-way of the City, the wireless provider shall notify the City within ninety (90) days. Following receipt of such notice the City may direct the wireless provider to remove all or any portion of the small cell facility if the City, or any of its departments, determines that such removal will be in the best interest of the public health, safety and welfare.



**SECTION 2.** Section 223-25 entitled “Site Development Plan Approval,” Subsection A, is hereby amended as follows:

§ 223-25. Site development plan approval.

- A. Approval required. No building permit shall be issued, other than for interior alterations, and no change in type of use, as categorized in § 223-26F hereof, shall be permitted, other than one-family dwellings or small cell wireless telecommunication services facilities, except in conformity with an approved site development plan, and no certificate of occupancy for such structure or use shall be issued until all the requirements for such approval and any conditions attached thereto have been met. The continued validity of any certificate of occupancy shall be subject to continued conformance with such approved plan and conditions. Revisions of such plans shall be subject to the same approval procedure.

**SECTION 3.** Section 223-26.4 entitled “Small Cell Wireless Telecommunications Facilities” Subsection B(6) of the Code of the City of Beacon is hereby amended as follows:

§ 223-26.4 Small cell wireless telecommunications facilities.

- B. Special use permit approval by the City Council is required under § 223-24.5 for the following uses. All special use permit applications must comply with the requirements set forth in § 223-24.5.

...

- (6) Installation of equipment on a pole, located at an elevation less than ~~45~~8 feet from the ground.

**SECTION 4.** Section 223-26.4 entitled “Small Cell Wireless Telecommunications Facilities” Subsection C(4) of the Code of the City of Beacon is hereby amended as follows:

§ 223-26.4 Small cell wireless telecommunications facilities.

- C. Small cell permit from the Planning Board.

...

- (4) Small cell permit application for Planning Board approval. The small cell permit application shall be made by the wireless telecommunications provider or its duly authorized representative and shall contain the following:

- (a) A site development plan showing applicant’s entire property and adjacent properties and streets, at a convenient scale. The site development plan shall also describe any new proposed structure and antenna(s) and all related

fixtures, accessory equipment, appurtenances and apparatus, including but not limited to height above preexisting grade, materials, color and lighting;

~~(b)~~ The location, size, and height of all existing and proposed structures on the property which is the subject of the application;

~~(a)~~~~(c)~~ The applicant's name, address, telephone number, and email address;

~~(b)~~~~(d)~~ The names, addresses, telephone numbers, and email addresses of all consultants, if any acting on behalf of the applicant with respect to the filing of the application;

~~(e)~~ A general description of the proposed work and the purpose of the work proposed. A descriptive statement of the objective(s) for the new facility or modification including and expanding on a need such as coverage and/or capacity requirements;

~~(f)~~ The location of the nearest residential structure;

~~(e)~~~~(g)~~ .Identify and disclose the number and locations of any small cells that the applicant has installed or locations the applicant has considered in the past year for small cell infrastructure within the City and those submitted or anticipated to be submitted within a one-year period;

~~(h)~~ A description of the anticipated maintenance needs, including frequency of service, personnel needs and equipment needs, and the potential traffic safety and noise impact of such maintenance; and

~~(d)~~~~(i)~~ The operator of the wireless telecommunication services facility shall submit a certificate of public utility, unless it can be demonstrated to the satisfaction of the City Council that the operator of such facility is exempt from such requirement pursuant to New York State law.

~~(j)~~ Any amendment to information contained in a small cell permit application shall be submitted in writing to the City within 30 days after the change necessitating the amendment.

~~(k)~~ The City may reject applications not meeting the requirements stated herein or which are otherwise incomplete.

**SECTION 5.** Section 223-26.4 entitled “Small Cell Wireless Telecommunications Facilities” Subsection C(5) of the Code of the City of Beacon is hereby amended as follows:

§ 223-26.4 Small cell wireless telecommunications facilities.

C. Small cell permit from the Planning Board.

...

~~(5) A wireless telecommunications provider shall pay to the City an application fee and administrative fee as set forth in this section.~~

(5) Small Cell Wireless Facility Fees

- (a) Application fee. At the time an applicant submits an application for a small cell facility, such applicant shall pay a nonrefundable application fee in an amount as determined by the City Council and set forth in the City of Beacon fee schedule, in addition to any other fee required by law.
- (b) Reimbursement for the use of the public right-of-way. In addition to permit application fees, every wireless telecommunication services facility located in the public right-of-way is subject to the City’s right to fix annually a fair and reasonable fee to be paid for use and occupancy of the public right-of-way. The annual fee for use of the public right-of-way shall be set forth in the City of Beacon fee schedule.

**Section 6.** Section 223-26.4 Subsection E of the Code of the City of Beacon entitled “Small cell facility permit fees” is hereby amended as follows:

§ 223-26.4. Small cell wireless telecommunication facilities.

...

~~E. Small cell facility permit fees:~~

- ~~(1) In order to ensure that the limited private use of the public right of way authorized herein does not become an additional cost to the City, it is hereby determined by the City Council that the following fees shall be charged to small cell permit applicants and small cell permit holders:~~
- ~~(2) Small cell permit application fee shall be \$250 (nonrefundable) due to the City Building Department upon submittal of a completed application for review.~~
- ~~(3) Annual small cell permit fees:
  - ~~(a) For placement on existing private utility poles: \$500 per year per pole.~~
  - ~~(b) For placement on existing City owned buildings, utility poles, infrastructure or property: \$750 per year.~~~~

- ~~(c) For placement of new poles in the right-of-way: \$1,000 per year per pole.~~
- ~~(d) Fee start date: The annual permit fee shall be payable January 2 of the year following installation. Failure to pay the annual permit fee shall result in the imposition of a 5% penalty fee, additional collection fees if necessary, and suspension or revocation of the permit.~~

E. Structural/safety inspection and report. The City of Beacon reserves the right to inspect any wireless telecommunication services facility to ensure compliance with the provisions of this section and any other provisions found within the City of Beacon Code, State or Federal Law. The City of Beacon and/or its agents shall have the authority to enter the property upon which a wireless telecommunication services facility is located at any time, upon reasonable notice to the operator, to ensure such compliance.

**Section 7.** Section 223-26.4.F(1)(a) of the Code of the City of Beacon entitled is hereby amended as follows:

§ 223-26.4 Small cell wireless telecommunication facilities.

...

F. Planning Board requirements as to aesthetics and neighborhood impact mitigation for small cell permits.

(1) In order to preserve the character and integrity of City neighborhoods the City Council finds that the following requirements are essential to protect the public health, safety and welfare, and scenic preservation.

- (a) New small cell facilities shall not be located in the Historic District and Landmark Overlay Zone, unless the applicant demonstrates to the Planning Board's satisfaction that the selected site is necessary to provide adequate wireless services, including but not limited to, filling a gap in coverage, densifying a wireless network, introducing a new service or otherwise improving service capabilities.

**SECTION 8.** Chapter 223, Article VI, Section 63 of the Code of the City of Beacon entitled “ Definitions” is hereby amended to add and amend the following definitions:

§ 223-63 Definitions.

**ANTENNA EQUIPMENT**

Equipment, switches, wiring, cabling, power sources, shelters or cabinets associated with an antenna, located at the same fixed location as the antenna, and when collocated on a structure, is mounted or installed at the same time as such antenna.

**SMALL CELL WIRELESS TELECOMMUNICATIONS FACILITY or SMALL CELL FACILITY**

Small cells are low-powered wireless base stations that function like cells in a mobile wireless network, typically covering targeted indoor or localized outdoor areas ranging in size from homes and offices to stadiums, shopping malls, hospitals, and metropolitan outdoor spaces. A small cell facility meets each of the following conditions:

- A. The structure on which antenna facilities are mounted:
  - a. Is 50 feet or less in height, or
  - b. Is no more than 10 percent taller than other adjacent structures, or
  - c. Is not extended to a height of more than 10 percent above its preexisting height as a result of the collocation of new antenna facilities; and
- B. Each antenna associated with the deployment, exuding associated antenna equipment, is no more than three cubic feet in volume;
- C. All other wireless equipment associated with the structure, including the wireless equipment associated with the antenna and any pre-existing associated equipment on the structure, is no more than 28 cubic feet in volume;
- D. The facility does not require federal antenna structure registration;
- E. The facility is not located on Tribal lands, as defined under 36 C.F.R. § 800.16(x); and
- F. The facility does not result in human exposure to radiofrequency radiation in excess of the applicable safety standards established by the Federal Communications Commission in Rule 1.1307(b).

~~both the following qualifications: i) each antenna is located inside an enclosure of no more than six cubic feet in volume or, in the case of an antenna that has exposed element, the antenna and all of its exposed elements could fit within an imaginary enclosure of no more than six cubic feet; and ii) all other wireless equipment associated with the facility is~~

~~cumulatively no more than 17 cubic feet in volume. The following types of associated ancillary equipment are not included in the calculation of equipment volume: electric meter, concealment elements, telecommunications demarcation box, ground based enclosures, grounding equipment, power transfer switch, cut-off switch, and vertical cable runs for the connection of power and other services.~~

## **Section 9.** Ratification, Readoption and Confirmation

Except as specifically modified by the amendments contained herein, Chapter 223 of the City of Beacon Code is otherwise to remain in full force and effect and is otherwise ratified, readopted and confirmed.

## **Section 10.** Numbering for Codification

It is the intention of the City of Beacon and it is hereby enacted that the provisions of this Local Law shall be included in the Code of the City of Beacon; that the sections and subsections of this Local Law may be re-numbered or re-lettered by the Codifier to accomplish such intention; that the Codifier shall make no substantive changes to this Local Law; that the word “ Local Law” shall be changed to “ Chapter,” “ Section” or other appropriate word as required for codification; and that any such rearranging of the numbering and editing shall not affect the validity of this Local Law or the provisions of the Code affected thereby.

## **Section 11.** Severability

The provisions of this Local Law are separable and if any provision, clause, sentence, subsection, word or part thereof is held illegal, invalid or unconstitutional, or inapplicable to any person or circumstance, such illegality, invalidity or unconstitutionality, or inapplicability shall not affect or impair any of the remaining provisions, clauses, sentences, subsections, words or parts of this Local Law or their petition to other persons or circumstances. It is hereby declared to be the legislative intent that this Local law would have been adopted if such illegal, invalid or unconstitutional provision, clause, sentence, subsection, word or part had not been included therein, and if such person or circumstance to which the Local Law or part hereof is held inapplicable had been specifically exempt there from.

## **Section 12.** Effective Date

This local law shall take effect immediately upon filing with the Office of the Secretary of State.

## MEMORANDUM

**TO:** City of Beacon City Council  
**FROM:** Keane & Beane, P.C.  
**RE:** Wireless Telecommunication Local Law  
**DATE:** February 1, 2019

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On August 6, 2018, the City Council adopted Local Law 13-2018 to create Section 223-26.4 of the Code of the City of Beacon to regulate small cell wireless facilities. This local law specifically established policies and procedures for the deployment and installation of small cell wireless telecommunication facilities in the City of Beacon.

Existing Section 223-24.5 of the Code of the City of Beacon regulates all other wireless telecommunication facilities not specifically addressed by the provisions of Local Law 13-2018. Section 223-24.5 requires certain wireless telecommunication facilities to obtain a special use permit from the City Council. The provisions of Section 223-24.5 have not been updated since 2002. As they exist now, the provisions set forth in Section 223-24.5 conflict with Local Law 13-2018 and the Federal Communications Commission's adopted *Declaratory Ruling and Third Report and Order*.

Please note that the Local Law has been expanded to amend the following Sections of the City of Beacon Code in addition to Section 223-24.5, Wireless Telecommunication Services Facilities.

- Section 223-25.A., Site Development Plan Approval.
- Section 223-26.4., Small Cell Wireless Telecommunications Facilities, Subsection B(6), C(4), C(5), E and F.
- Section 223-63., Definitions.

This memorandum explains the revisions made to the proposed Local Law concerning Wireless Telecommunication Services Facilities.

### **Purpose of the Wireless Telecommunication Local Law**

The proposed amendments to Section 223-24.5 eliminate any conflict with the provisions of Local Law 13-2018. Specifically, the proposed local law makes it clear that wireless telecommunication facilities that obtain small cell permits from the Planning Board are exempt from the special permit application process and requirements set forth in Section 223-24.5.

Certain small cell facilities will require special use permit approval if the small cell facility falls within Section 223-26.4.B. The proposed Local Law amending Section 223-24.5 creates a special use permit approval process designed to regulate both small cell facilities and telecommunication towers.

### **Wireless Infrastructure Order**

On September 26, 2018, the Federal Communications Commission (“FCC”) adopted the *Declaratory Ruling and Third Report and Order* (the “Wireless Infrastructure Order”). In the Wireless Infrastructure Order, the FCC concluded that a state or local regulation constitutes an illegal effective prohibition of a wireless facility if it “materially limits or inhibits the ability of any competition or potential competitor to compete in a fair and balanced legal and regulatory environment.” The FCC advises that a state or local legal regulation will have the effect of prohibiting wireless telecommunication services where such regulation materially inhibits a provider’s ability to engage in any of a variety of activities related to its provision of a covered service, including but not limited to, filling a coverage gap, densifying a wireless network, introducing new services or otherwise improving service capabilities.

### **Amendments to Prior Draft Concerning Section 223-24.5**

Our office has updated the attached local law concerning Wireless Telecommunication Services Facilities to incorporate the revisions suggested by the City of Beacon Planning Board in its memorandum dated January 8, 2019 and to address requirements adopted by the FCC in its Wireless Infrastructure Order. Please note, the Dutchess County Planning Department reviewed the local law and indicated it to be a matter of local concern. The County did not provide any additional comments.

Specifically, the updated Local Law sets forth different locational priorities for small cell facilities and non-small cell wireless telecommunication service facilities. The updated Local Law makes it clear that wireless telecommunication facilities are permitted in all zoning districts; however an applicant must provide a detailed explanation as to why a site of higher priority was not selected. The locational priorities have been updated and reorganized to better address the City’s goals.

In addition, our office removed the requirement set forth in Section 223-24.5.R(2), that applicants must demonstrate that there is a compelling public need for the wireless telecommunication facility. The FCC has concluded that there is a compelling need to deploy small cell facilities to ensure that the United States remains the leader in advanced wireless services and wireless technology. Under the Wireless Infrastructure Order, municipalities may not prohibit wireless telecommunication services if a provider is filling a coverage gap, densifying a wireless network, introducing new services or improving service capabilities.



Please note that all the special use permit application requirements have been moved from Subsection R to Subsection D. We believe it is important that such requirements appear earlier in Section 223-24.5 to make it more clear to a potential applicant what materials they must submit to the City. To create a more complete application, we have also added several new application requirements, specifically adding the requirements listed in Sections 223-24.5.D(2)(a),(b),(e) and (f).

### **Site Development Plan Approval for Small Cell Wireless Telecommunication Facilities**

Section 223-25 of the City Code has been amended to exempt small cell wireless telecommunication service facilities from requirements of site development plan approval. An applicant for both a small cell permit and a wireless telecommunication facility special use permit is required to submit a site development plan. While formal site plan review by the Planning Board pursuant to Section 223-25 is not required for small cell wireless telecommunication facilities, the Planning Board or the City Council is required to perform a thorough review of the application materials and assess project specific impacts. Under both Section 223-24.5 and Section 223-26.4 the Planning Board or the City Council will review and consider the submitted site plan and application materials so that the proposed development will have a harmonious relationship with the existing or permitted development of contiguous land and adjacent neighborhoods.

Furthermore, every application for a small cell wireless telecommunication facility before the City Council for special use permit approval shall be referred to the Planning Board for report and recommendation thereon before the public hearing.

We believe these changes will improve the City's review of small cell wireless telecommunication facilities and improve the procedural process for obtaining a small cell permit or a special use permit.

### **Amendments Concerning Section 223-26.4**

The following changes were made to Section 223-26.4 to respond to the FCC's Wireless Infrastructure Order. Section 223-26.4 was adopted before the Wireless Infrastructure Order was issued.

- Section 223-26.4.B(6): This Section currently requires an application for a small cell wireless facility to obtain a special use permit from the City Council if the applicant proposes to install equipment on a pole, located at an elevation less than 15 feet from the ground. In light of our review of several recent small cell wireless facility applications, our office believes that 15 feet is difficult for applicants to meet. We believe that an 8 foot requirement may be more practical.

- Section 223-26.4.C(4): To create a more complete small cell application, we have added several new application requirements, specifically adding the requirements listed in Sections 223-26.4.C(4)(a),(b),(e), (f) and (i). These provisions are also included in Section 223-24.5.
- Section 223-26.4.C(5): Our office has deleted the reference to application fees. Such fees will be adopted by resolution and set forth in the City of Beacon Fee Schedule. We have added new language to address the required application fee and right-of-way fee.
- Section 223-26.4.E. Our office has deleted the reference to specific fees because, as stated above, such fees will be adopted by resolution and set forth in the City of Beacon Fee Schedule. We have added a new Section E to address structural and safety inspections.
- Section 223-26.4.F(1)(a): Our office has amended this Section to state new small cell facilities shall not be located in the Historic District and Landmark Overlay Zone, unless the applicant demonstrates to the Planning Board's satisfaction that the selected site is necessary to provide wireless services, including but not limited to, filling a gap in coverage, densifying a wireless network, introducing a new service or otherwise improving service capabilities. This language is used by the FCC in the Wireless Infrastructure Order.

### **Amendments Concerning Section 223-63**

We have updated the definition of small cell wireless telecommunications facility to mimic the definition adopted and codified by the FCC. We have also added a definition for antenna equipment. This definition also mimics the definition adopted and codified by the FCC.

Please let us know if you have any questions or comments.

Ecc: Anthony Ruggiero, City Administrator  
Dave Buckley, Building Inspector  
John Clarke, City Planner

**City of Beacon Planning Board**  
**2/13/2019**

**Title:**

**19 Russell Avenue**

**Subject:**

Single Family House – 19 Russell Avenue; elevations approved 9/11/18; colors and materials only

**Background:**

**ATTACHMENTS:**

Description	Type
19 Russell Avenue Application	Application

ARCHITECTURAL REVIEW BOARD APPLICATION

2nd appearance

Date: 1-2-2019

Project Address: 19 Russell Avenue

Project Architect/Engineer: Beth Sigler

Owner/Builder: Paula Dowd

Contact Phone No.: 617-688-6998

Approval Requested: Certificate of Appropriateness [checked] New Single Family House

Color/Materials:

Siding: Hardi Plank Clapboard 6" (7.25") Benjamin Moore Iron Gray

Roofing: GAF SG Timberland Architectural Charcoal Shingle

Windows: Color: Black Exterior Sash Type: Jeld Wen Aluminum Clad Wood Int.

Trim: 5/4 6" Iron Gray Benjamin Moore Satin

Garage Door: N/A

Stone/Brick: N/A

Signature of Paula Dowd

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