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**TOWN OF NEWBURGH
PLANNING BOARD
TECHNICAL REVIEW COMMENTS**

PROJECT: U.S. CRANE & RIGGING
PROJECT NO.: 2016-14
PROJECT LOCATION: SECTION 97, BLOCK 1, LOT 21.2
REVIEW DATE: 31 AUGUST 2017
MEETING DATE: 7 SEPTEMBER 2017
PROJECT REPRESENTATIVE: MASER CONSULTING

1. The Applicants representative are requested to discuss with the Planning Board the removal of the northerly most garage bay doors. Previous conversations with the Applicant identified that trucks would be pulling into the facility loaded and pull out of the facility. The current layout of access doors require all vehicles to pull in and back out of the facility. Back up alarms on the vehicles will add to site operating noises as all trucks entering or exiting the facility must back through the bay doors on the eastern portion of the property.
2. The Applicants representative have identified that during construction a crusher and/or concrete batch plant are to be located on the site. Previous noise studies did not identify noise from a crusher or a concrete batch plant. It is unclear why a crusher is proposed on the site as blasting was identified as not being required on the site. Does the Applicant intend to bring material in to be processed. If material is to be brought in this must be addressed on the site plan as to the source of the material, storage of the material, quantities of material to be brought in and truck traffic associated with this operation should be identified on the traffic study.
3. The revised layout has increased the size of the vehicle parking area to the north side of the buildings where the overhead doors were removed. The revised layout includes revisions to the previously proposed islands in the parking lot area and increases the parking lot area to incorporate the former access drive. The revised grading has eliminated the interconnect between the proposed parking area and the northern portion of the site. The purpose and use of the larger paved parking area should be addressed by the Applicants representative.

4. A Stormwater Facilities Control Maintenance Agreement continues to be required for the long term operation and maintenance of the proposed proprietary stormwater quality structures proposed.
5. The amended site plan must be submitted to NYSDOT and Orange County Planning due to the access from the state highway.
6. The supplemental Stormwater Management Report submitted must have a revised Appendix 14 as site development has altered this appendix. In addition, Appendix 14 identifies a breakdown in change in impervious surfaces. Previously approved Appendix 14 does not contain said breakdown. Since the limits of disturbance have increased and the reduction in impervious cover has decreased, by percentage a revised Appendix 14 should be submitted identifying the changes.
7. The NOI submitted should be revised at Item 4 to correspond to the revised Stormwater Management Report.
8. Item 38 on the NOI identifies VGR Associates, Inc. as the long term operation and maintenance entity. It is unclear who this entity is as the project is identified as being owned by 18 Route 17K.

Respectfully submitted,

McGoey, Hauser and Edsall
Consulting Engineers, D.P.C.

Patrick J. Hines
Principal

PJH/kbw

Business Planners Surveyors Landscape Architects Environmental Scientists



MASER
CONSULTING P. A.

AUG 23 2017

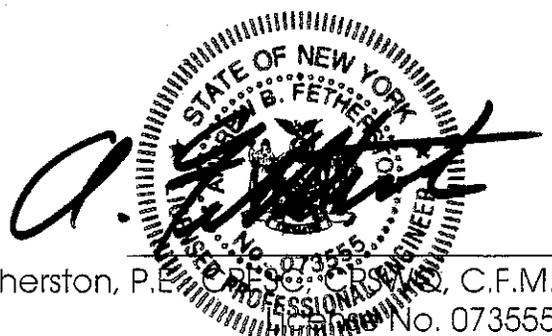
Storm Water Pollution Prevention Plan (SWPPP)

FOR
18 ROUTE 17K LLC
18 NYS Route 17K
Town of Newburgh, Orange County, NY

May 2017
Addendum August 2017

Prepared For
18 Route 17K LLC
1520 Decatur Street
Ridgewood, NY 11385

Prepared By
Maser Consulting P.A.
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Andrew B. Fetherston, P.E., C.R.S.M., C.F.M.
Professional Engineer No. 073555





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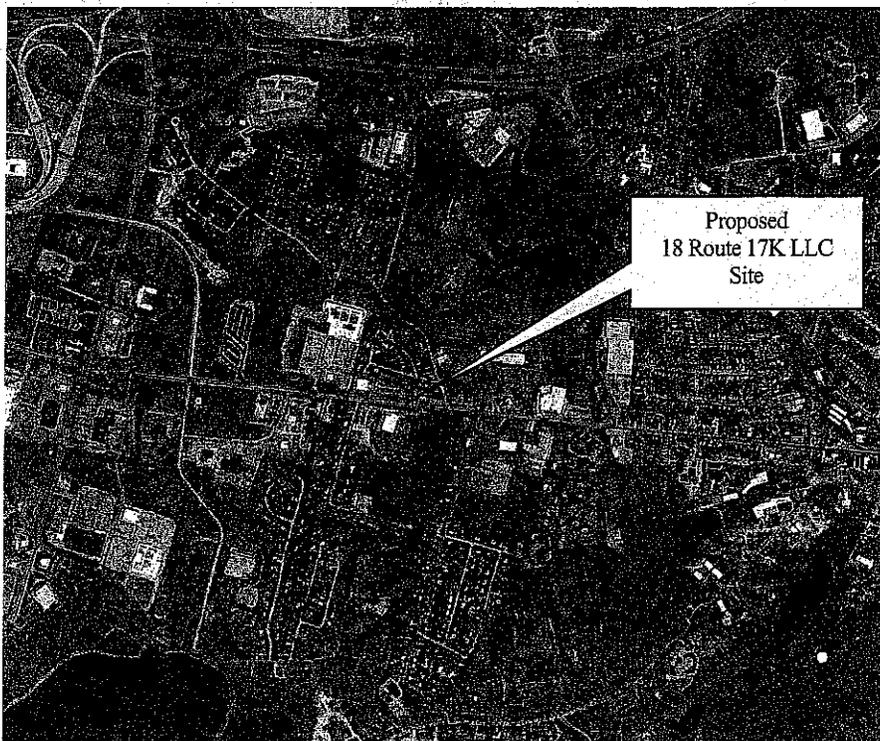
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I. EXECUTIVE SUMMARY

The existing parcel is approximately 97.8 acres in size with frontage on NYS Route 17K along its southern boundary, Stewart Avenue and Tarr Road to the west. Brookside Pond and the associated wetlands existing on the northern and eastern portions of the site. Currently, the site is substantially developed with a large commercial garage structure, vehicle washing & service building, guard booths and large expanses of paved areas for vehicle storage. The existing site consists of approximately 25 acres of impervious surface. This applicant proposes a new 66,100 S.F. building, built on an existing parking lot. The proposed improvements will result in a reduction to impervious area on site, classifying it as a redevelopment with respect to stormwater design. Due to this reduction in impervious area along with the fact that the site discharges into Quassaic Creek attenuation of the stormwater is not required. An aerial vicinity map has been provided below to identify the site location. The size and nature of the development will require coverage under the NYSDEC SPDES General Permit for Construction Activity (GP-0-15-002).

The NYSDEC SPDES General Permit for Construction Activity (GP-0-15-002) requires post construction stormwater design, which is included within the Stormwater Pollution Prevention Plan (SWPPP) for the proposed redevelopment. Proprietary devices and green infrastructure techniques have been utilized in the design to meet New York State Standards and requirements. The proposed SWPPP provides the maintenance of or reductions to peak flows for all required design storms. Water quality mitigation has also been designed meeting the applicable redevelopment standard. As such, there should be no adverse impacts due to storm water, on-site or off-site, as a result of the proposed redevelopment.







IV. DISCUSSION

REDEVELOPMENT

As defined in Chapter 9 of the NYSSMDM, redevelopment activity is disturbance and reconstruction of existing impervious surfaces. This includes impervious surfaces removed within the last five (5) years. Redevelopment is distinguished from new development in that new development refers to construction on land where there had not been previous construction. Redevelopment specifically applies to constructed areas with impervious surface.

According to the Design Manual, Redevelopment of previously developed sites is encouraged from a watershed protection standpoint because it often provides an opportunity to conserve natural resources in less impacted areas by targeting development to areas with existing services and infrastructure. At the same time, redevelopment provides an opportunity to correct existing problems and reduce pollutant discharges from older developed areas that were constructed without effective stormwater pollution controls.

The existing site's consists of over 25 acres of asphalt, concrete and existing buildings. The proposed redevelopment area, consisting of 4.661 acres will cause a net decrease in the amount of impervious surface on the site. A breakdown of the change in impervious area can be found in Table 1 below and I graphical representation can be found in Appendix 14.

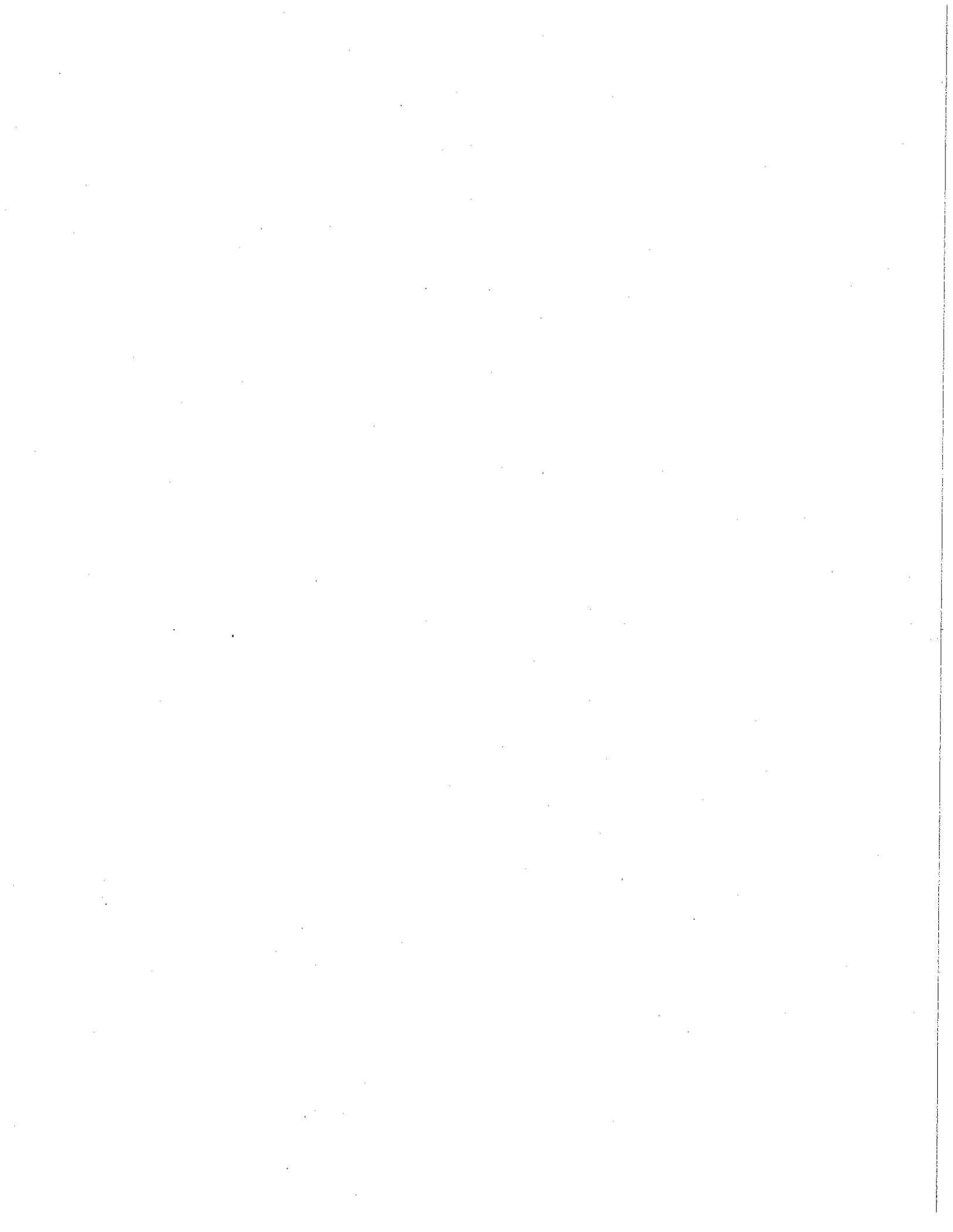
Because of this reduction in impervious area this project is considered redevelopment; also a decrease in impervious area will result in the reduction of the peak flows and the quantity of runoff for this area.

Table 1: Redevelopment Impervious Cover Comparison

	Area (acres)
Limit of Disturbance	4.661
*Existing Impervious Area Removed	-0.683
*Impervious Area added	+0.573
*Net Change in Impervious Area	-0.110
Pervious Percent Change	+2%

**Within the limit of disturbance*

Site constraints associated with pre-developed project sites are another factor that makes it more difficult to provide standard stormwater practices (SMPs). The biggest constraints encountered on this site are the presence of highly compacted and foreign soils, likely a result of the previous development. Chapter 9 of the NYSSMDM sets forth alternative design criteria for certain redevelopment projects because the technical standards contained elsewhere in the Manual were primarily intended for new development projects and compliance with those standards may present a challenge to some redevelopment projects.





Due to the high percentage of pavement on site, the minimum Tc of 6 minutes, or 0.10 hours, is shown above and noted on the watershed maps in the catchment areas where the composite travel time did not meet this minimum.

HYDROLOGIC SOILS:

The NRCS Web soil survey was used to collect general site hydrologic soil information regarding the project site. The NRCS Web Soil Survey shows the site situated upon soils divided into the following soil types: (UH) 'A', (My) 'D', (HOB) 'A', (ErA) 'D', (FAC) 'D', (HH) 'D' and (PTC) 'B'. The NRCS Web Soil Report is included in the Appendix of this report for reference.

RUNOFF REDUCTION VOLUME (RRV) & GREEN INFRASTRUCTURE:

As per Section 9.3.II.B of the NYSSMDM, although encouraged, Runoff Reduction Volume (RRV) sizing criteria, is not required for redevelopment projects. However some of the site planning and green infrastructure practices were utilized in this project such as driveway reduction, sidewalk reduction and conservation of natural areas to name a few.

Soil restoration efforts, including mechanical de-compaction and compost amendment in accordance with Section 5.1.6 and Table 5.3 of the NYSSMDM, are proposed for areas to be disturbed for improvements that will not be impervious at final buildout.

WATER QUALITY TREATMENT

As previously mentioned, the redevelopment proposes the use of alternative practices to treat the water quality from the disturbed area, which is an approved method to provide water quality treatment as described in Section 9.3.2.B.III of the NYSSMDM.

The applicant proposes to install hydrodynamic separators to provide water quality treatment for the redevelopment areas. Hydrodynamic separators are devices that move water in a circular, centrifugal manner to accelerate the separation and deposition of primarily sediment from the water. They are suitable for removal of coarse particles, oils, and fuels over small drainage areas. The NYSDEC refers to the New Jersey Department of Environmental Protection for a list of Stormwater Manufactured Treatment Devices which have received Interim Certification (including in the appendix). One of the products on the list is the Hydro International First Defense unit (see below)

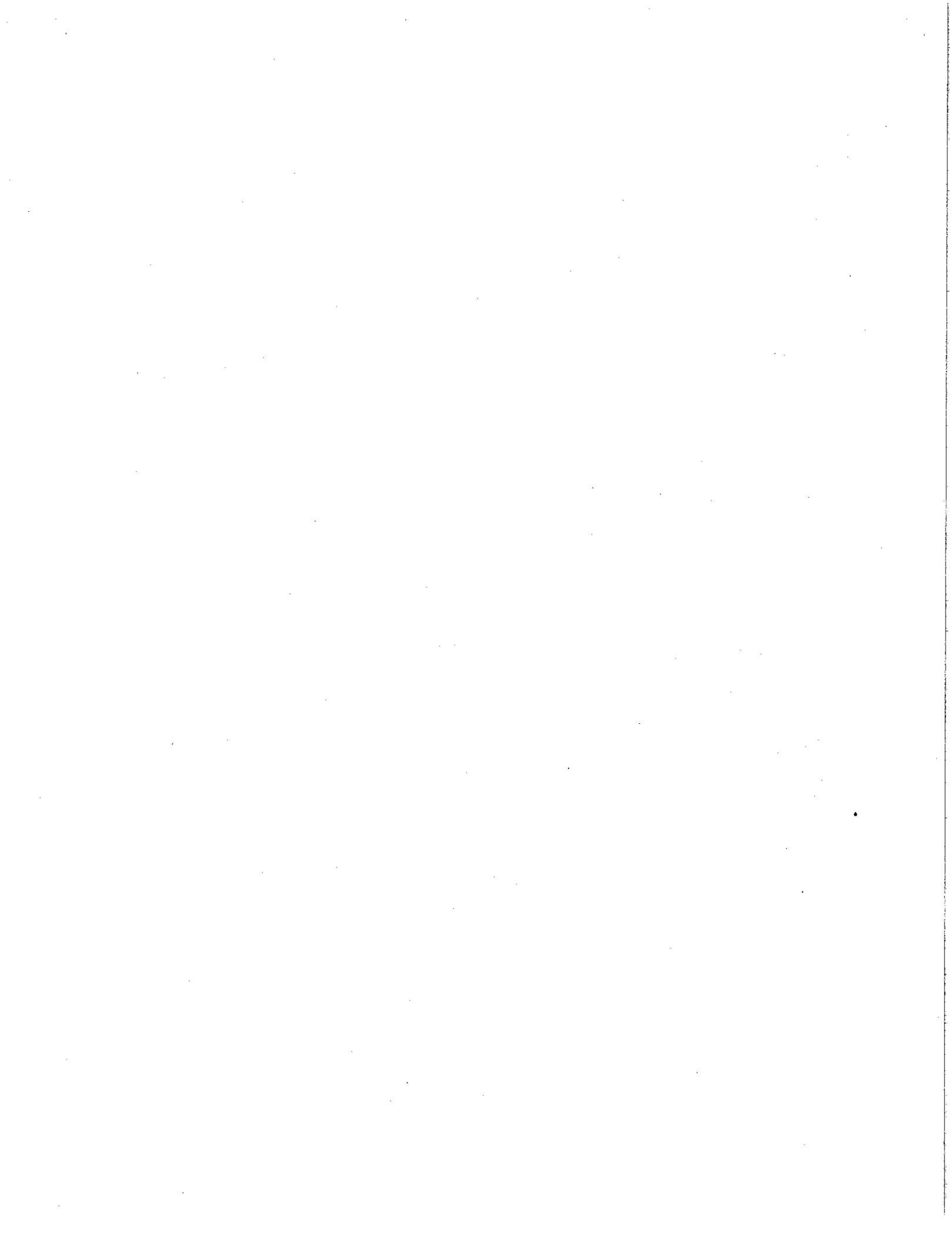


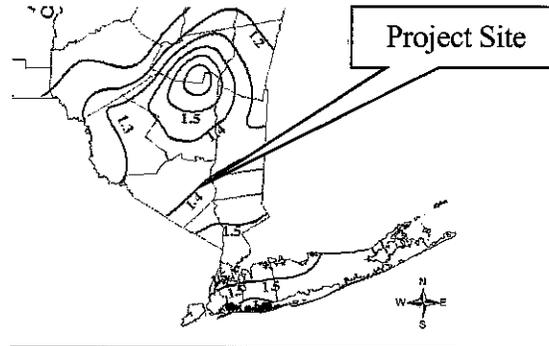


Table 3: Required Water Quality Calculation

Post-development			
Area Name	Total Area, Ac.	Composite CN	Tc, hrs.
Watershed East	2.614	93	0.10
Watershed West	1.566	96	0.10

The method used to determine the peak rate of runoff was the HydroCAD 10.00-14 computer program.

To obtain the water quality flow for each watershed, the water quality storm event (also known as the 90% rainfall event) must first be obtained prior to running the calculations in HydroCAD. The 90% rainfall event value used in the calculations is approximately 1.4 inches as can be seen below in the portion of Figure 4.1 from the NYSSMDM, Chapter 4.



Using 1.4 inches of rainfall over the two watersheds, water quality peak rates were calculated by HydroCad for the two First Defense systems. Because the proposed practice is a flow through device, and not a volume treatment, the full Water Quality peak flow rate must be treated by each First Defense hydrodynamic separator. Table 4 below lists the water quality storm event, its associated flowrate for the treatment structure, the tributary catchments, and the appropriately sized FD system capacity which provides in excess of the required flow, for each location.

Table 4: Water Quality Treatment Calculation

Proposed First Defense System	90% Rainfall Event Number (P) Inches	Tributary Catchment Areas (WS-#)	Required Water Quality Flow, cfs	Hydro International Model	Treatment Capacity, cfs
FD-1	1.40	WS-East	2.34	FD-6HC	3.38
FD-2		WS-West	1.76	FD-6HC	3.38



Each stormwater treatment system has the capacity of bypassing high flow rates internally as well as controlling flow through the treatment chamber so as to avoid wash-out of previously captured pollutants. The HydroCAD output can be found in the Appendix of this report. Specifications for the Hydro international First Defense can be found below as well as additional information in the Appendix the NJCAT certification is also included within the appendix.

First Defense ¹ High Capacity Model Number	Diameter (ft / m)	Typical TSS Treatment Flow Rates				Peak Online Flow Rate (cfs / L/s)	Maximum Pipe Diameter ¹ (in / mm)	Oil Storage Capacity (gal / L)	Typical Sediment Storage Capacity ² (yd ³ / m ³)	Minimum Distance from Outlet Invert to Top of Rim ³ (ft / m)	Standard Distance from Outlet Invert to Sump Floor (ft / m)
		NJDEP Certified (cfs / L/s)	106µm (cfs / L/s)	230µm (cfs / L/s)	Peak Online Flow Rate (cfs / L/s)						
FD-3HC	3 / 0.9	0.84 / 23.7	0.3 / 8.77	0.53 / 15.0	15 / 424	18 / 457	125 / 473	0.4 / 0.3	2.0 - 3.5 / 0.6 - 1.0	3.71 / 1.13	
FD-4HC	4 / 1.2	1.60 / 42.4	0.7 / 20	1.2 / 34	18 / 510	24 / 600	191 / 723	0.7 / 0.5	2.3 - 3.9 / 0.7 - 1.2	4.97 / 1.5	
FD-5HC	5 / 1.5	2.34 / 66.2	1.3 / 37.9	2.2 / 62.2	20 / 566	24 / 609	300 / 1135	1.1 / .84	2.5 - 4.5 / 0.7 - 1.3	5.19 / 1.5	
FD-6HC	6 / 1.8	3.38 / 95.7	2.2 / 63	3.8 / 108	32 / 906	30 / 750	495 / 1,878	1.6 / 1.2	3.0 - 5.1 / 0.9 - 1.6	5.97 / 1.8	
FD-8HC	8 / 2.4	6.00 / 169.9	5.1 / 144	8.6 / 243	50 / 1,415	48 / 1219	1120 / 4239	2.8 / 2.1	3.0 - 6.0 / 0.9 - 1.8	7.40 / 2.2	

¹Contact Hydro International when larger pipe sizes are required.

²Contact Hydro International when custom sediment storage capacity is required.

³Minimum distance for models depends on pipe diameter.

V. EROSION & SEDIMENT CONTROL

GENERAL EROSION CONTROL PLAN:

All work to be done in accordance with the New York Standards and Specifications for Erosion and Sediment Control. See the Erosion & Sediment Control Plan included in the appendix of this report which has general erosion and sediment control notes and a sequence of construction, which can also be found below.

The erosion control practices designed specifically for the site phasing to be implemented during construction include sediment traps, inlet protection, a stabilized construction entrance, staging areas, silt fence, temporary swales, temporary stockpiles, and temporary/permanent stabilization. The E&SC Plan and Details found in the appendix of this report depict the location and size of the proposed erosion control practices to be used during construction.

A sediment trap detail and sizing criteria chart has been provided on the plan; this chart identifies overall required storage per the area of disturbance as well as sub-areas and dimensions of traps to be utilized; these areas and locations are what is required and can be relocated as practical by the Contractor (note: traps must be sized to provide 3,600 CF of storage per 1-acre of disturbance and tributary to each location).



CONSTRUCTION SEQUENCE:

The applicant and the applicant's contractor are required to attend a preconstruction meeting with representatives from the Town Building Department, Highway Department, engineers and any other parties deemed necessary to review all protocols, bonding requirements, agreements and the sequence and scheduling of the work being undertaken, as applicable.

Phase 1 (Includes construction of a 66,100 sq. ft. building and associated site work in the southwest corner of the existing parking area):

Disturbance area = 4.661 acres

Note regarding temporary storage: As this phase of construction is generally encompassed by impervious parking areas, temporary sediment basin storage is neither practical nor applicable as disturbance will be at grades below the surrounding impervious areas. Care should be given to good housekeeping techniques and limit sediment tracking as much as possible.

1. Construct and maintain the construction entrance and staging areas as shown within this phase as shown on the plans, using crushed stone in kind with construction entrance bedding as shown on the detail.
2. Contractor shall install silt sock and silt fence as shown on the erosion and sediment control plan.
3. Silt fence and/or silt sock shall be installed along the proposed construction limits; silt fence shall be used in grass areas while the silt sock shall be used on impervious surfaces.
4. Contractor shall saw cut existing pavement along construction limit and remove pavement and subbase as applicable to the immediate scope, careful to limit exposed sediment below the pavement subbase.
5. Contractor shall excavate for building foundation, drive aisle, parking area as shown.
6. Contractor shall install proposed utilities including storm sewer, water main and services, sanitary sewer services, drain inlets/catch basins, and any subsurface utilities in advance of installing concrete curb, sidewalk and curb islands.
7. Contractor shall import/export necessary material to rough grade site and construct building pad. No fill is to be placed within the limits of the floodplain. The contractor should continue work on proposed building and after completion of building exterior, grade and spread topsoil on all lawn areas and seed. Maintain all seeded and planted areas to insure a viable stabilized vegetative cover.



8. The project site must meet *final stabilization* criteria prior to removing all erosion and sediment control devices and closing out the project. Litter and construction debris shall be removed as practical throughout the life of the project.
 - a. *Final Stabilization* means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.
9. The general permit for stormwater discharges from construction activities states that it is unlawful for any person to cause or contribute to a violation of water quality standards.
10. Additional erosion control measures shall be installed, as may be necessary, required and/or requested by authorities, to prevent the incidental discharge of silt laden runoff from entering a water course or a drainage system. The general permit for stormwater discharges from construction activities states that it is unlawful for any person to cause or contribute to a violation of water quality standards.
11. Phase 1 must be stabilized prior to removing all erosion and sediment control devices and progressing to next phase. Litter and construction debris shall be removed as practicable prior to beginning next phase.

For additional, general Erosion and Sediment Control notes including seeding, please refer to the Erosion and Sediment Control Plans.

VI. CHEMICAL, LITTER & DEBRIS CONTROL MEASURES

All parties involved in the construction process, including but not limited to, truck drivers, laborers, foremen, and operators, will be informed of spill prevention and litter control practices and procedures herein prior to construction activity. The project superintendent will inspect the site daily, at a minimum for litter and debris throughout the site, and will specifically inspect storage areas prior to exiting site. Specific prevention and control measures on the site will be employed as follows:

Petroleum Products

All on-site vehicles will be monitored for leaks and will receive preventive maintenance to reduce the chance of leakage. Equipment and vehicles should be stored on impervious surfaces to manage spills where practical. Petroleum products will be stored in tightly sealed containers that are clearly labeled. Any asphalt substances used on-site will be applied according to manufacturer's recommendations. Storage facilities shall be located as far as practical from private residences, business, and public Right-of-Ways. Storage shall be located in an isolated location, where



practical, and in accordance with all federal, state, and local regulations. **No vehicle maintenance, handling, or storage of petroleum products will occur within 100 feet of a wetland, waterway, or drainage facility.**

Hazardous Substances (Paints, Solvents, etc.)

All containers will be tightly sealed and stored when not required for use. Excess materials will not be discharged to the storm sewer system, buried onsite, or disposed of in any other inappropriate fashion; but will be properly disposed according to manufacturer's instructions and/or state and local regulations (whichever is more stringent). **No storage will occur within 100 feet of a wetland, waterway, or onsite drainage facility.**

Fertilizers

Fertilizer will be applied per NYS Law and only in the minimum amounts recommended by the manufacturer. Once applied, the fertilizer will be worked into the soil to limit exposure to storm runoff and wind. Storage will be in a covered shed, and the contents of any partially used bags will be transferred into a sealable, plastic bin to avoid spills. **No fertilizer storage shall occur within 100 feet of a wetland, waterway, or onsite drainage facility.**

Debris & Litter Control

The Contractor shall provide covered dumpsters onsite and be placed in practical locations to promote use by all parties; this location should not interfere with site activities, ingress, or egress. Debris and litter shall be managed and placed in the onsite dumpsters to minimize unintended transport by unintended construction efforts or weather conditions. This will reduce litter accumulation and improve worker safety and aesthetics in and around the project site. Dumpsters shall be emptied regularly by a licensed contractor to prevent overfilling and unsightly conditions and disposed of in accordance with federal, state, and local environmental regulations. All construction waste shall be placed in dumpsters following the completion of construction. No trash or construction waste will be buried onsite. No construction materials shall be stored for extended period's onsite, except for those to be used for construction taking place within a reasonable and practical time frame.

Concrete Washout

Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water within 100 feet of a wetland, waterway, or into any drainage structure already installed. A specific concrete washout location will be identified by the superintendent and will be relocated as appropriate to remain practical as the project is phased.

Trucking Management (Dust & Sediment Control)

Concrete trucks and other construction vehicles shall only leave the project site where directed. A stabilized construction entrance shall be installed and maintained at the specified entrance/exit



location(s). The length of the stabilization blanket shall be extended if trucks leaving the site track sediment onto public Rights-of-Way. Crushed stone, as specified, shall be re-applied as necessary, and when directed in inspection reports, conducted immediately. A truck wash location shall be implemented and maintained, as necessary.

VII. OPERATION AND MAINTENANCE PLAN

Below is a summary of basic maintenance requirements associated to construction and ongoing activity. The site specific, operation and maintenance plan can be found in the Appendix of this report.

MAINTENANCE PLAN DURING CONSTRUCTION

During construction, the contractor is responsible for maintaining all permanent stormwater mitigation features including catch basins, pipes and systems as well as temporary measures including silt fence, construction entrances, and sediment traps. Maintenance records should be kept identifying date and activity, at a minimum.

LONG-TERM OPERATION & MAINTENANCE

After construction is complete, the property owner shall be responsible for the maintenance of the proposed stormwater mitigation features, including catch basins, drain/yard inlets, pipes, swales, bioretention areas, storm basins, and subsurface chambers. A complete Operation & Maintenance Plan is included within the Appendix of this report that details the inspection and maintenance requirements for each stormwater mitigation feature. Records shall be retained for a minimum of 5-years and shall be provided to the Municipal Stormwater Manager annually.

Lastly, the owner of a post-construction stormwater management practice shall erect or post, in the immediate vicinity of the stormwater management practice, a conspicuous and legible sign as directed by section 3.5 of the NYSSMDM. The sign should read:

STORMWATER MANAGEMENT PRACTICE – (Type of Practice)
Project Identification – SPDES Permit # NYR _____
Must Be Maintained In Accordance With O&M Plan
DO NOT REMOVE OR ALTER

VIII. SUMMARY OF PROPOSED STORMWATER IMPROVEMENTS

The entirety of the proposed project falls under the New York State definition of redevelopment and has provided a reduction in impervious area in the proposed conditions and similarly a reduction in the peak design storms. As such peak attenuation requirements do not apply and water quality has been provided by Hydro International FD units which meet the proprietary practice requirements; these structures were used to provide 100% or greater treatment of the water quality volume (Section 9.2.1bIII). The design utilizes practices that help maintain the existing hydrology.



IX. CONCLUSION

As the proposed redevelopment proposes to reduce impervious area, and the storm water pollution prevention plan provides water quality mitigation meeting the applicable standards, there should be no adverse impacts due to storm water, on-site or off-site, as a result of the proposed redevelopment.



MC Project No. 16001017A
18 Route 17K LLC

APPENDIX 1
WATERSHED MAPS

REV	DATE	DESCRIPTION

ANDREW B. FETHERSTON
 NEW YORK LICENSED PROFESSIONAL
 ENGINEER - LICENSE NUMBER 073354

**PRELIMINARY
 SITE PLAN
 FOR
 18 ROUTE 17K LLC**

**SECTION 97
 BLOCK 1
 LOT 21.2**

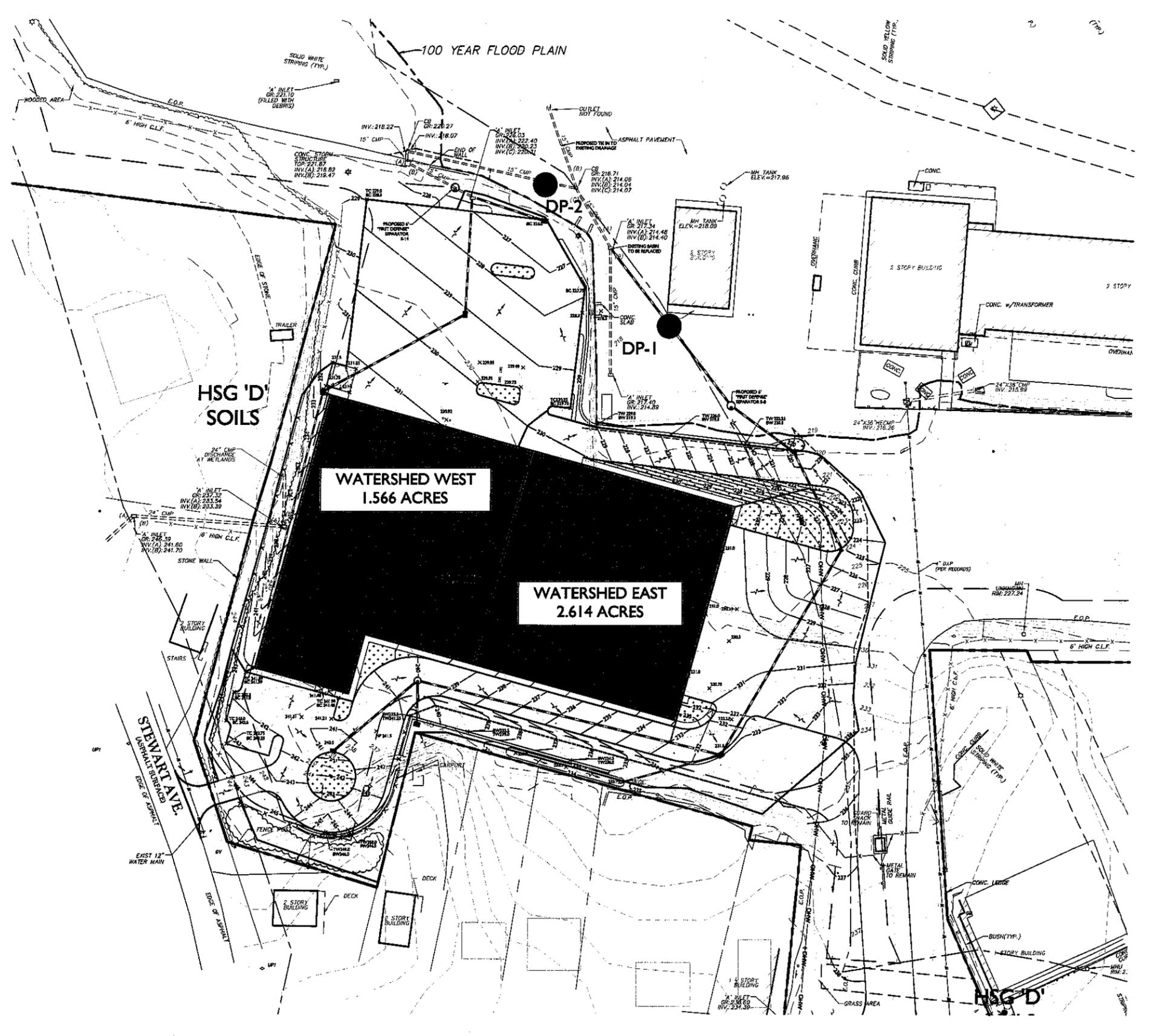
**TOWN OF NEWBURGH
 COUNTY OF ORANGE
 STATE OF NEW YORK**

NEW WINDSOR OFFICE
 555 Hudson Valley Avenue
 Suite 101
 New Windsor, NY 12553
 Phone: 845.564.4995
 Fax: 845.567.1025

SCALE: AS SHOWN	DATE: 02/04/2017	DRAWN BY: CMH	CHECKED BY: ABF
PROJECT NUMBER: 1601017A	DRAWING NAME: C-WSHD		

**POST-DEVELOPMENT
 WATERSHED MAP**

SHEET NUMBER:
 | of |



- NOTES:**
- BOUNDARY & TOPOGRAPHICAL INFORMATION IS TAKEN FROM A SURVEY ENTITLED "BOUNDARY AND PARTIAL TOPOGRAPHIC SURVEY FOR 18 ROUTE 17K LLC", PREPARED BY MASER CONSULTING, P.A. DATED AUGUST 19, 2016.
 - WHERE A TIME OF CONCENTRATION (TC) HAS NOT BEEN SHOWN, THE MINIMUM TC (4.0 MINUTES) HAS BEEN APPLIED BECAUSE THE TC DID NOT MEET THIS REQUIREMENT FOR THAT CATCHMENT AREA.

- LEGEND**
- PROPOSED WATERSHED BOUNDARY
 - HSG 'C'
 - HYDROLOGIC SOIL GROUP BOUNDARY
 - DP-I
 - WATERSHED DESIGN POINT
 - PROPOSED TIME OF CONCENTRATION (TC)

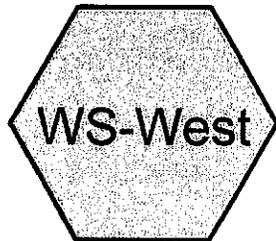


2016.08.01: 18 ROUTE 17K LLC, NEW WINDSOR, NY, PROJECT NO. 1601017A, SHEET C-WSHD



MC Project No. 16001017A
18 Route 17K LLC

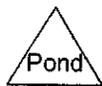
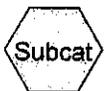
APPENDIX 2
HYDROCAD MODEL OUTPUT



Proposed WS



Proposed WS



Summary for Subcatchment WS-East: Proposed WS

Runoff = 2.34 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 0.78"

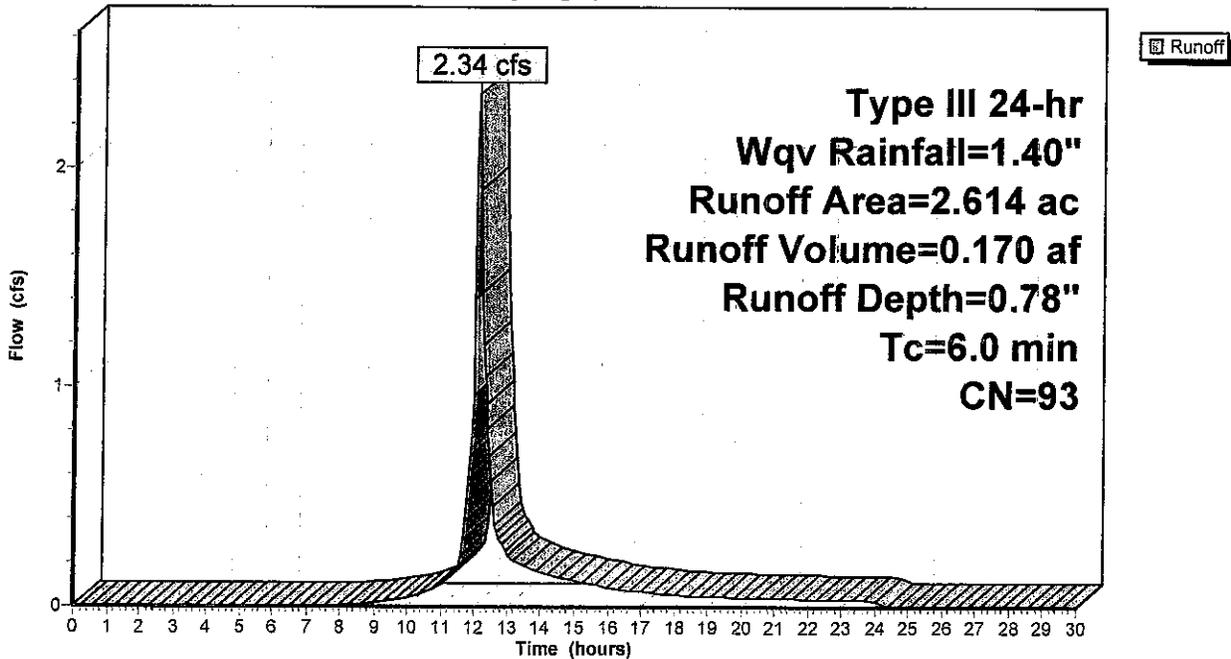
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr Wqv Rainfall=1.40"

Area (ac)	CN	Description
2.107	98	Paved parking, HSG D
0.067	39	>75% Grass cover, Good, HSG A
0.013	61	>75% Grass cover, Good, HSG B
0.427	80	>75% Grass cover, Good, HSG D
2.614	93	Weighted Average
0.507		19.40% Pervious Area
2.107		80.60% Impervious Area

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

Subcatchment WS-East: Proposed WS

Hydrograph



Summary for Subcatchment WS-West: Proposed WS

Runoff = 1.76 cfs @ 12.09 hrs, Volume= 0.131 af, Depth= 1.00"

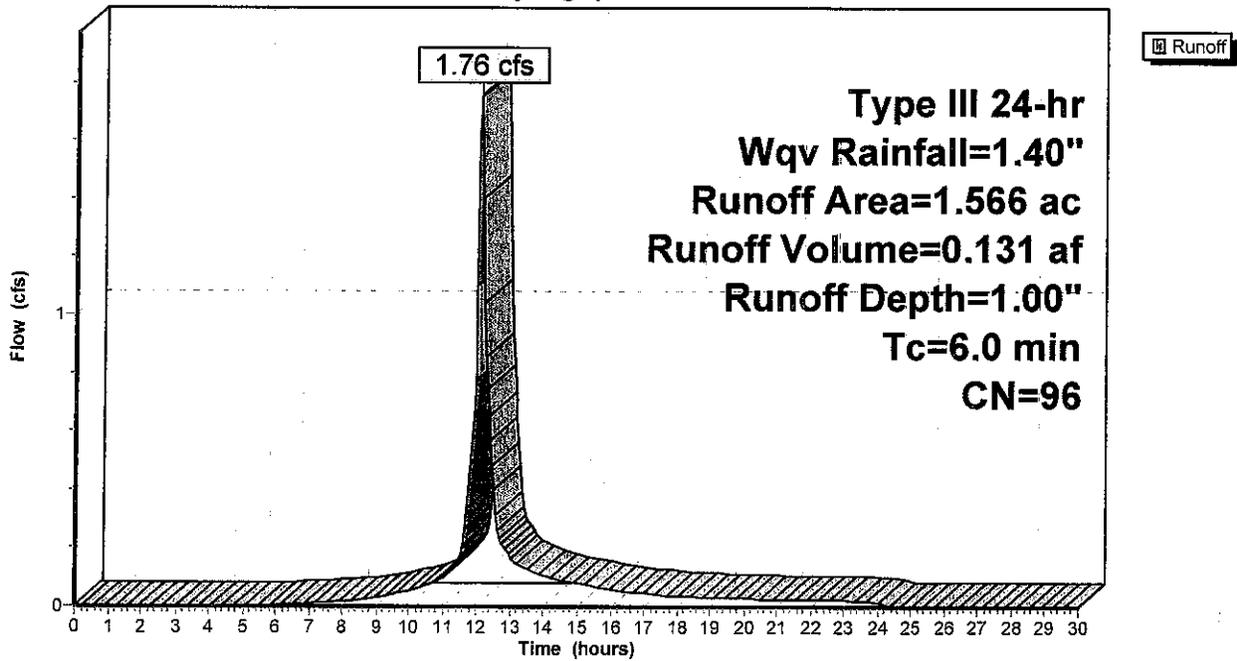
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Type III 24-hr Wqv Rainfall=1.40"

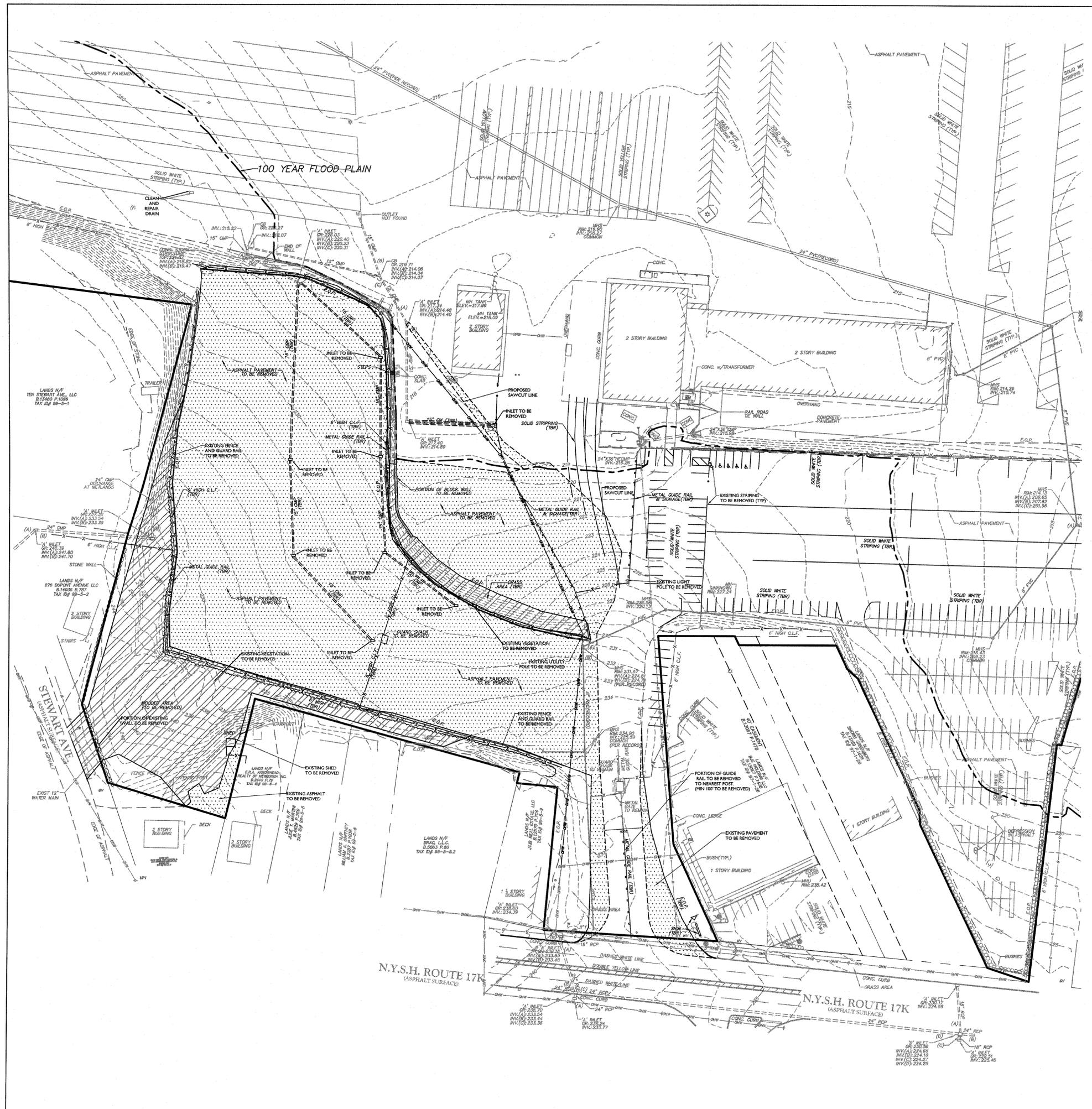
Area (ac)	CN	Description
1.411	98	Paved parking, HSG D
0.155	80	>75% Grass cover, Good, HSG D
1.566	96	Weighted Average
0.155		9.90% Pervious Area
1.411		90.10% Impervious Area

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

Subcatchment WS-West: Proposed WS

Hydrograph





DEMOLITION NOTES:

- IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL BE REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES ONE CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION. DIG SAFELY, NEW YORK REG-02121 OR 811. A RESOLUTION CONFORMANCE WILL NEED TO BE ARRANGED WITH DIG SAFELY, NEW YORK AND MUST BE HELD A MINIMUM OF 7 DAYS BEFORE THE START OF ANY DEMOLITION.
- CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING SITE IMPROVEMENTS AND UTILITIES. ALL DISCREPANCIES SHALL BE IDENTIFIED TO THE ENGINEER IN WRITING.
- ALL DEMOLITION DEBRIS TO BE REMOVED BY CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
- MASER CONSULTING, P.A. IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION.
- ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN ACCORDANCE WITH THESE PLANS, AS WELL AS ALL FEDERAL, STATE AND LOCAL REGULATIONS. ANY DISCREPANCIES OR DEVIATIONS SHALL BE IDENTIFIED BY THE CONTRACTOR TO MASER CONSULTING, P.A. IN WRITING FOR RESOLUTION PRIOR TO INITIATION OF SITE ACTIVITY.
- PRIOR TO STARTING ANY DEMOLITION CONTRACTOR IS RESPONSIBLE FOR:
 - ENSURING COPIES OF ALL PERMITS AND APPROVALS MUST BE MAINTAINED ON SITE AND AVAILABLE FOR REVIEW (SEE "REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE").
 - INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE.
 - ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.
 - PROTECTING AND MAINTAINING IN OPERATION ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.
 - HANDLING THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING PROVIDER AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
 - CLEAN THE EXISTING UTILITY STRUCTURES ON-SITE PRIOR TO CONSTRUCTION AND VERIFY THE INVESTIGATOR CONNECTION.
- COORDINATION WITH UTILITY COMPANIES AND THE TOWN OF NEWBURGH REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MANAGE THE IMPACT ON THE AFFECTED PARTIES.
- A COMPLETE INSPECTION FOR CONTAMINANTS BY A LICENSED ENVIRONMENTAL TESTING AGENCY, SHALL BE PERFORMED OF ALL BUILDINGS AND/OR STRUCTURES PRIOR TO REMOVAL. SAME SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS. ANY/all CONTAMINANTS SHALL BE REMOVED AND DISPOSED OF BY A FEDERALLY LICENSED CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. ALL ENVIRONMENTAL WORK, INCLUDING HAZARDOUS MATERIAL, SOILS, ASBESTOS, OR OTHER REFERENCED OR IMPLIED HEREIN IS THE SOLE RESPONSIBILITY OF THE OWNER'S ENVIRONMENTAL CONSULTANT.
- MASER CONSULTING, P.A. IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE O.S.H.A. REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
- THE CONTRACTOR SHALL PROVIDE ALL THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN AS A RESULT OF HIS ACTIVITIES. ALL REPAIRS SHALL USE NEW MATERIAL. THE REPAIRS SHALL RESTORE THE ITEM TO THE PRE-DEMOLITION CONDITION.
- TREE CLEARING ACTIVITIES CAN ONLY OCCUR BETWEEN THE DATES OF OCTOBER 1ST AND MARCH 31ST.
- THE CONTRACTOR SHALL PERFORM EARTH MOVEMENT ACTIVITIES, DEMOLITION AND REMOVAL OF ALL FOUNDATION WALLS, FOOTINGS, AND OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE IN ACCORDANCE WITH DIRECTION BY OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
- ROCK EXCAVATIONS WILL BE PERFORMED BY MECHANICAL MEANS ONLY. USE OF EXPLOSIVES IS PROHIBITED. ALL THE REQUIRED PERMITS AND CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE AND LOCAL GOVERNMENTS SHALL BE IN PLACE PRIOR TO STARTING. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES, AS APPLICABLE.
- CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL, AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL," AS WELL AS FEDERAL, STATE AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROADWAY RIGHTS-OF-WAY.
- CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO INSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AGENCY.
- DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROPERTY LINE WITHOUT WRITTEN PERMISSION OF THE OWNER AND/OR APPROPRIATE GOVERNMENT AGENCY.
- USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
- THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL METHODS AND MEANS ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL O.S.H.A. AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
- DEBRIS SHALL NOT BE BURNED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL TOWN, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES.
- DEMOLITION SHALL NOT PROCEED UNTIL THE APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE MARKED IN THE FIELD AND ALL UTILITY CONNECTIONS ARE SUITABLY SHUT OFF AND DISCONNECTED AND PROPER DEMOLITION PERMITS ARE IN PLACE WITH THE TOWN.
- CONTRACTOR IS RESPONSIBLE TO RESTORE ALL DISTURBED SITE AREAS TO ORIGINAL CONDITION AS DIRECTED BY THE OWNER.
- PROTECT ALL EXISTING UTILITIES TO REMAIN (INCLUDING DRAINAGE STRUCTURES, HYDRANTS, VALVES, SEWER MANHOLES, ETC.) DURING DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIMSELF OR SUB-CONTRACTORS.

DRAWING LEGEND

PROPERTY BOUNDARY	---
EDGE OF PAVEMENT (E.O.P.)	---
EXISTING CURB	---
DEPRESSED CURB	---
PAVEMENT STRIPING	---
OVERHEAD WIRES	---W---W---W---
WATERLINE MARKOUT	---
EASEMENTS	---
MAJOR CONTOUR	---
MINOR CONTOUR	---
SANITARY PIPES	---
STORMWATER PIPES	---
TREELINE	---
SGN	---
POST / BOLLARD	●
UTILITY POLE	○
GUY WIRE	☆
LIGHT POLE	☆
SANITARY MANHOLE	⊙
SANITARY CLEANOUT	⊙
DRAINAGE MANHOLE	⊙
WATER VALVE	⊙
CATCH BASIN	⊙
TBR = TO BE REMOVED	□
UTP = UTILITY POLE	○
DI = DRAIN INLET	○
CB = CATCH BASIN	○
GR = GRATE	○
CO = CLEANOUT	○
SAWCUT LINE	---
VEGETATION TO BE REMOVED	---

MASER CONSULTING, P.A.
 355 Hudson Valley Avenue
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 New Windsor, NY 12553
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 Fax: 845.567.1025

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ANDREW B. FETHERSTON
 NEW YORK LICENSED PROFESSIONAL
 ENGINEER - LICENSE NUMBER: 07355-1

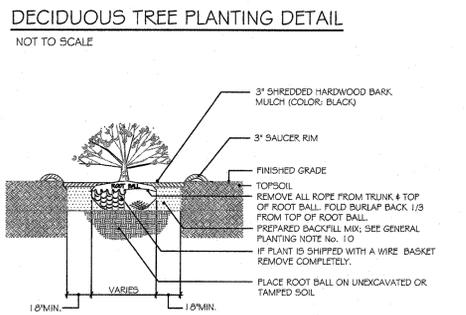
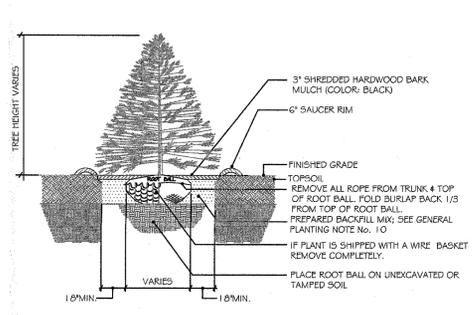
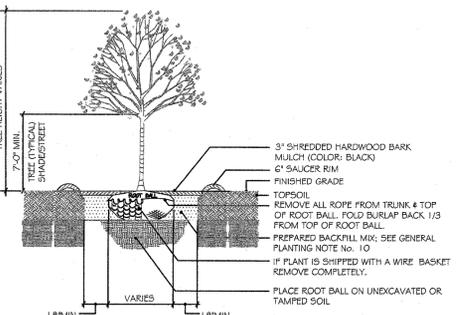
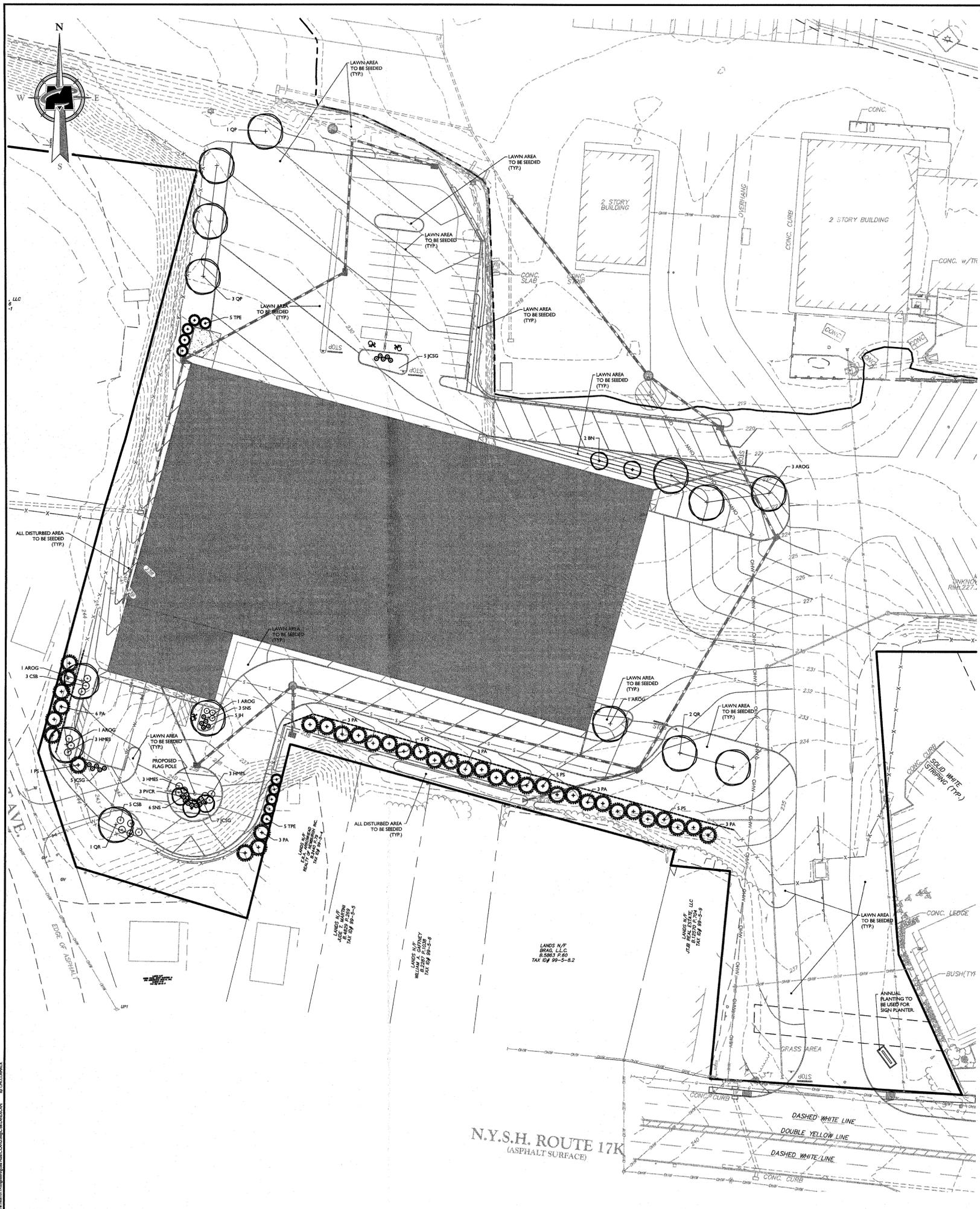
SITE PLAN
 FOR
18 ROUTE 17K, LLC
 SECTION 97
 BLOCK 1
 LOT 21.2
 TOWN OF NEWBURGH
 COUNTY OF ORANGE
 STATE OF NEW YORK

NEW WINDSOR OFFICE
 355 Hudson Valley Avenue
 Suite 101
 New Windsor, NY 12553
 Phone: 845.564.4495
 Fax: 845.567.1025

DATE	DATE	DRAWN BY	CHECKED BY
AS SHOWN	3/11/17	CPH	AMP
PROJECT NUMBER	DRAWING NAME		
1601017A	C-DEMO		

EXISTING CONDITIONS & DEMOLITION PLAN

02 of 11



GENERAL PLANTING NOTES

- THIS PLAN SHALL BE USED FOR LANDSCAPE PLANTING PURPOSES ONLY. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES AND STRUCTURES AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES OR LOCATION CONFLICTS PRIOR TO PLANTING INSTALLATION.
- THE CONTRACTOR IS RESPONSIBLE TO LOCATE AND VERIFY LOCATION OF ALL UTILITIES ON SITE PRIOR TO CONSTRUCTION.
- ALL PLANT MATERIAL SHALL CONFORM TO GUIDELINES AS SET FORTH IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERY STOCK OR THE PLANT MATERIAL WILL BE UNACCEPTABLE. ALL PLANT MATERIAL SHALL BE TRUE TO SPECIES, VARIETY, SIZE AND BE CERTIFIED DISEASE AND INSECT FREE. THE OWNER AND/OR THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO APPROVE ALL PLANT MATERIAL ON SITE PRIOR TO INSTALLATION.
- NO PLANT SUBSTITUTIONS SHALL BE PERMITTED WITH REGARD TO SIZE, SPECIES, OR VARIETY WITHOUT WRITTEN PERMISSION OF THE LANDSCAPE CONSULTANT FOR THE TOWN OF NEWBURGH. WRITTEN PROOF OF PLANT MATERIAL UNAVAILABILITY MUST BE DOCUMENTED.
- THE LOCATION OF ALL PLANT MATERIAL INDICATED ON THE LANDSCAPE PLANS ARE APPROXIMATE. THE FINAL LOCATION OF ALL PLANT MATERIAL AND PLANTING BED LINES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT.
- ALL STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 8' OF ABOVE GRADE. ALL PLANT MATERIAL LOCATED WITHIN SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 50' ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL STREET TREES PLANTED IN SIGHT TRIANGLE EASEMENTS SHALL BE PRUNED TO NOT HAVE BRANCHES BELOW 10'0".
- THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.
- ALL PLANT MATERIAL SHALL BE PROPERLY INSTALLED IN CONFORMANCE WITH THE TYPICAL PLANTING DETAILS. INSTALL ALL PLANT MATERIAL ON UNDISTURBED GRADE. CUT AND REMOVE JUTE BURLAP FROM TOP QUARTER OF THE ROOT BALL. WIRE BASKETS AND NON-JUTE BURLAP SHALL BE COMPLETELY REMOVED PRIOR TO BACKFILLING THE PLANT PIT.
- BRANCHES OF DECIDUOUS TREES SHALL BE PRUNED BACK BY NO MORE THAN ONE QUARTER (1/4) TO BALANCE THE TOP GROWTH WITH ROOTS AND TO PRESERVE THEIR CHARACTER AND SHAPE. THE CENTRAL LEADER OF TREE SHALL NOT BE PRUNED.
- PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH ONE PART EACH OF TOPSOIL, PEAT MOSS AND PARENT MATERIAL. IF WET SOIL CONDITIONS EXIST THEN PLANTING PITS SHALL BE EXCAVATED AN ADDITIONAL 12" AND FILLED WITH CRUSHED STONE.
- ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO EXISTING GRADE AT NURSERY.
- OPTIMUM PLANTING TIME:
DECIDUOUS - APRIL 1 TO JUNE 1 & OCTOBER 15 TO DECEMBER 15.
CONIFEROUS - APRIL 1 TO JUNE 1 & SEPTEMBER 1 TO NOVEMBER 1.
- NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF ALL PLANTS.
- ALL PLANT MATERIAL SHALL BE GUARANTEED FOR TWO YEARS AFTER THE DATE OF FINAL ACCEPTANCE. ANY PLANT MATERIAL THAT DIES WITHIN THAT TIME PERIOD SHALL BE REMOVED, INCLUDING THE STUMP, AND REPLACED BY A TREE OF SIMILAR SIZE AND SPECIES AT NO EXPENSE TO THE OWNER.
- THE LANDSCAPE CONTRACTOR SHALL PROVIDE A MINIMUM 4"-6" LAYER OF TOPSOIL IN ALL LAWN AREAS AND A MINIMUM 12" OF TOPSOIL IN ALL PLANTING AREAS. A FULL SOIL ANALYSIS SHALL BE CONDUCTED AFTER CONSTRUCTION AND PRIOR TO PLANTING TO DETERMINE THE EXTENT OF SOIL AMENDMENT REQUIRED. SOIL PH SHOULD BE 5.5-6.5.
- ALL DISTURBED LAWN AREAS SHALL BE STABILIZED WITH SEED AS INDICATED ON THE LANDSCAPE PLANS. TEMPORARY SEEDING SHALL BE IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENT CONTROL PLAN, WHILE PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH THE SEEDING NOTES ON THE EROSION CONTROL SHEET. ALL DISTURBED LAWN AREAS SHALL BE TOPDRESSED, LIMED, FERTILIZED AND FINE GRADED PRIOR TO LAWN INSTALLATION.
- ALL PLANTING BEDS SHALL RECEIVE 3" OF SHREDDED HARDWOOD BARK MULCH (COLOR: BLACK).
- ALL SHRUB MASSSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS.
- ALL EXISTING TREES AND SHRUBS TO BE PRESERVED ON SITE SHALL BE PROTECTED AGAINST CONSTRUCTION DAMAGE BY SNOW FENCING. ALL FENCING SHALL BE PLACED OUTSIDE THE INDIVIDUAL TREE CANOPY. ALL TREES TO REMAIN SHALL BE IDENTIFIED IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION, GRADING OR CLEARING. ALL EXISTING VEGETATION BEING PRESERVED AND LOCATED AT THE EDGE OF THE NEW TREELINE, SHALL BE PRUNED AND TRIMMED TO REMOVE ALL DEAD, DISEASED, OR DAMAGED BRANCHES.
- ALL PLANTING MEDIA (WIRE, TWINE, RUBBER HOSE, BACKFILL, ETC.) SHALL BE REMOVED FROM THE SITE AFTER PLANTING IS COMPLETE. PROPERLY IT IS TO BE LEFT IN A NEAT ORDERLY CONDITION IN ACCORDANCE WITH ACCEPTED PLANTING PRACTICES.

PLANT DETAIL NOTES

- NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT. MULCH SHALL NOT TOUCH THE TREE TRUNK.
- PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.
- WIRE BASKETS AND NON-JUTE BURLAP MUST BE ENTIRELY REMOVED FROM THE ROOT BALL. JUTE BURLAP MUST BE REMOVED FROM THE TOP 1/3 OF THE ROOT BALL.
- DEPTH OF PLANT FIT SHALL BE INCREASED BY 12" WHEREVER POOR SOIL CONDITIONS OCCUR, WITH THE ADDITION OF LOOSE AGGREGATE.
- CONTRACTOR SHALL PARTIALLY FILL WITH WATER A REPRESENTATIVE NUMBER OF PITS IN EACH AREA OF THE PROJECT PRIOR TO PLANTING TO DETERMINE IF THERE IS ADEQUATE PERCOLATION. IF PIT DOESN'T PERCOLATE, MEASURES MUST BE TAKEN TO ASSURE PROPER DRAINAGE BEFORE PLANTING.
- PLANTING MUST BE GUARANTEED FOR TWO FULL GROWING SEASONS FROM THE TIME OF FINAL ACCEPTANCE BY THE TOWN LANDSCAPE CONSULTANT. CONTRACTOR SHALL REMOVE ALL WRAPPING AT THE END OF GUARANTEE PERIOD.
- BACKFILL MIXTURE TO BE SPECIFIED BASED UPON SOIL TEST AND CULTURAL REQUIREMENTS OF PLANT.
- PRUNE DAMAGED AND CONFLICTING BRANCHES MAINTAINING NORMAL TREE SHAPE, NEVER CUT CENTRAL TRUNK OR LEADER.

SITE PLANTING SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	CALIPER	SPREAD	ROOT	REMARKS
SHADE TREES								
ARQG	7	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE		2" - 2 1/2"		B & B	STRAIGHT LEADER/SYM. BRANCHING
QP	4	QUERCUS FALLENBERGII	PIN OAK		2" - 2 1/2"		B & B	STRAIGHT LEADER/SYM. BRANCHING
QR	7	QUERCUS RUBRA	NORTHERN RED OAK		2" - 2 1/2"		B & B	STRAIGHT LEADER/SYM. BRANCHING
EVERGREEN TREES								
PA	21	PICEA ABIES	NORWAY SPRUCE	10' - 12'			B & B	STRAIGHT LEADER/TYP. SPECIES HABIT
PS	15	PRINUS STROBILIS	EASTERN WHITE PINE	10' - 12'			B & B	STRAIGHT LEADER/TYP. SPECIES HABIT
TPE	10	THUJA PLICATA 'EXCELSA'	EXCELSA WESTERN ARBORVITAE	8' - 10'			B & B	STRAIGHT LEADER/TYP. SPECIES HABIT
ORNAMENTAL TREES								
BN	3	BETULA NIGRA 'DURA HEAT'	DURA HEAT RIVER BIRCH	8' - 10'			CONT.	CLUMP/TYP. SPECIES HABIT
PVCR	3	PRUNUS VIRGINIANA 'CANADA RED'	CANADA RED CHOKECHERRY		1.34" - 2"		B & B	STRAIGHT LEADER/TYP. SPECIES HABIT
SHRUBS								
CSB	8	CORNUS SERICEA 'BAILEY'	RED OSER DOGWOOD	24'-30'			CONT.	TYPICAL SPECIES HABIT
HME	9	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER'	ENDLESS SUMMER HYDRANGEA	24'-30'			CONT.	TYPICAL SPECIES HABIT
JCSG	17	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER		24'-30'		CONT.	TYPICAL SPECIES HABIT
JH	5	JUNIPERUS HORIZONTALIS 'SEA HARBOR'	SEA HARBOR JUNIPER		24'-30'		CONT.	TYPICAL SPECIES HABIT
SNS	9	SPIRAEA JAPONICA 'SNOWMOUND'	SNOWMOUND SPIREA	18'-24'			CONT.	TYPICAL SPECIES HABIT

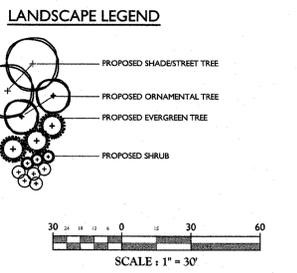
NOTE:
FALL PLANTING HAZARD

PLAN NOTE

- THESE PLANS ARE TO BE USED FOR LANDSCAPE PURPOSES ONLY. REFER TO EROSION AND SEDIMENT CONTROL DETAIL SHEET FOR SEEDING NOTES.

LANDSCAPE NOTES

- LOCATIONS OF ALL PLANT MATERIAL AND PLANTING BED OUTLINES IS APPROXIMATE AND MAY VARY DUE TO THE LOCATIONS OF SITE IMPROVEMENTS AND/OR BUILDINGS.
- FINAL LOCATION OF ALL PLANT MATERIAL AND PLANTING BED OUTLINES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE PROJECT LANDSCAPE ARCHITECT.
- ALL AREAS WITHIN THE PLANTING BED LIMITS SHALL BE MULCHED WITH 3" OF SHREDDED HARDWOOD BARK MULCH (COLOR: BLACK).
- LAWN AREAS SHALL BE STABILIZED WITH SEED.
- ANY PROPOSED IRRIGATION DESIGN AND/OR SYSTEM WILL BE DETERMINED IN THE FIELD BY THE IRRIGATION CONTRACTOR.
- ALL PLANT MATERIAL SHALL CONFORM TO GUIDELINES AS SET FORTH IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARD FOR NURSERY STOCK.
- NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE MADE WITHOUT WRITTEN CONSENT FROM THE TOWN OF NEWBURGH LANDSCAPE CONSULTANT.



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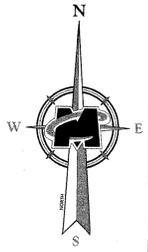
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JUSTIN E. DATES
NEW YORK REGISTERED
LANDSCAPE ARCHITECT - LICENSE NUMBER: 001964

SITE PLAN
FOR
18 ROUTE 17K, LLC
SECTION 97
BLOCK 1
LOT 21.2
TOWN OF NEWBURGH
COUNTY OF ORANGE
STATE OF NEW YORK

NEW WINDSOR OFFICE
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
Fax: 845.567.1025

SCALE: AS SHOWN DATE: 3/9/17 DRAWN BY: CS1 CHECKED BY: JED
PROJECT NUMBER: 1600107A DRAWING NAME: C-LAND
SHEET TITLE: **LANDSCAPE PLAN**
SHEET NUMBER: **08 of 11**



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REV	DATE	DRAWN BY	DESCRIPTION
1	10/10/17	CPH	ISSUED PER PLANNING BOARD COMMENTS
2	11/08/17	CPH	ISSUED PER ARCHITECTURAL NATIONAL
3			

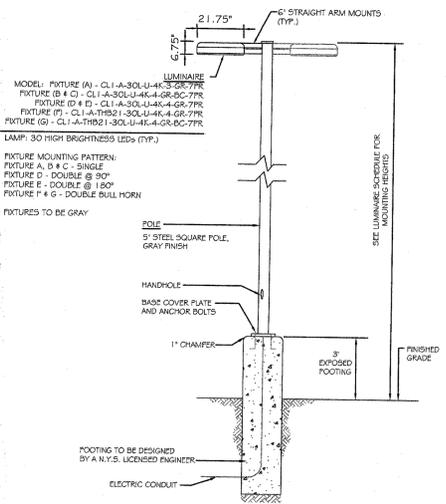
REGISTERED LANDSCAPE ARCHITECT

JUSTIN E. DATES
 NEW YORK REGISTERED
 LANDSCAPE ARCHITECT - LICENSE NUMBER: 00194

SITE PLAN
 FOR
18 ROUTE 17K, LLC
 SECTION 97
 BLOCK 1
 LOT 21.2
 TOWN OF NEWBURGH
 COUNTY OF ORANGE
 STATE OF NEW YORK

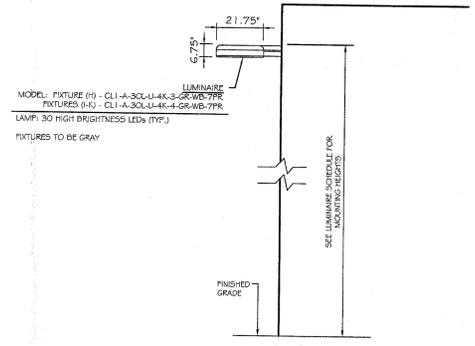
NEW WINDSOR OFFICE
 335 Hudson Valley Avenue
 Suite 101
 New Windsor, NY 12553
 Phone: 845.544.4995
 Fax: 845.561.1025

SCALE: AS SHOWN DATE: 10/17/17 DRAWN BY: CPH CHECKED BY: JED
 PROJECT NUMBER: 1809107A DRAWING NAME: CLIGHT
 SHEET TITLE: **LIGHTING PLAN**
 SHEET NUMBER: 09 of 11



POLE MOUNTED FIXTURE DETAIL (FIXTURES: A-G)
 NOT TO SCALE

- NOTES:
1. LUMINAIRES AND POLE TO BE MANUFACTURED BY SPAULDING LIGHTING.
 2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
 3. FOOTING TO BE DESIGNED, SIGNED, AND SEALED BY A N.Y.S. LICENSED ENGINEER.
 4. VOLTAGE TO BE CONFIRMED BY ELECTRICIAN CONTRACTOR.



WALL MOUNTED FIXTURE DETAIL (FIXTURES: H-K)
 NOT TO SCALE

- NOTES:
1. LUMINAIRES AND WALL BRACKET TO BE MANUFACTURED BY SPAULDING LIGHTING.
 2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
 3. WALL BRACKET CATALOG NUMBER: WB-AREA-025
 4. VOLTAGE TO BE CONFIRMED BY ELECTRICIAN CONTRACTOR.

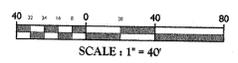
LUMINAIRE SCHEDULE

KEY	QTY.	DESCRIPTION	ARRANGEMENT	MTG. HT.	LUMENS	LLF	CATALOG #
A	5	SPAULDING LIGHTING CIMARRON LED	POLE - SINGLE	20'	13,500	0.98	CL1-A-30L-U-4K-3-GR-7PR
B	3	SPAULDING LIGHTING CIMARRON LED	POLE - SINGLE	16'	13,500	0.98	CL1-A-30L-U-4K-4-GR-BC-7PR
C	2	SPAULDING LIGHTING CIMARRON LED	POLE - SINGLE	20'	13,500	0.98	CL1-A-30L-U-4K-4-GR-BC-7PR
D	2	SPAULDING LIGHTING CIMARRON LED	POLE-DOUBLE @ 90'	25'	13,500	0.98	CL1-A-30L-U-4K-4-GR-7PR
E	2	SPAULDING LIGHTING CIMARRON LED	POLE-DOUBLE @ 180'	20'	13,500	0.98	CL1-A-30L-U-4K-4-GR-7PR
F	5	SPAULDING LIGHTING CIMARRON LED	POLE-DOUBLE BULL HORN	25'	13,500	0.98	CL1-A-30L-U-4K-4-GR-7PR
G	1	SPAULDING LIGHTING CIMARRON LED	POLE-DOUBLE BULL HORN	25'	13,500	0.98	CL1-A-30L-U-4K-4-GR-7PR
H	2	SPAULDING LIGHTING CIMARRON LED	WALL MOUNT-SINGLE	17'	13,500	0.98	CL1-A-30L-U-4K-3-GR-WB-7PR
I	2	SPAULDING LIGHTING CIMARRON LED	WALL MOUNT-SINGLE	20'	13,500	0.98	CL1-A-30L-U-4K-4-GR-WB-7PR
J	1	SPAULDING LIGHTING CIMARRON LED	WALL MOUNT-SINGLE	17'	13,500	0.98	CL1-A-30L-U-4K-4-GR-WB-7PR
K	2	SPAULDING LIGHTING CIMARRON LED	WALL MOUNT-SINGLE	12'	13,500	0.98	CL1-A-30L-U-4K-4-GR-WB-7PR

CALCULATION SUMMARY

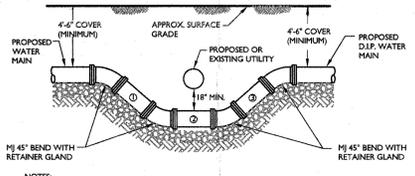
AREA	CALC TYPE	UNITS	AVG	MAX	MIN
PARKING/DRIVES/WALKS	ILLUMINANCE	Fc	1.1	5.4	0.1

- LIGHTING NOTES:**
1. THIS PLAN IS TO BE USED FOR LIGHTING PURPOSES ONLY.
 2. POLES, LUMINAIRES AND FIXTURES AS SUPPLIED BY SPAULDING LIGHTING.
 3. LAMPS ARE TO BE LEDS. A LIGHT LOSS FACTOR OF 0.98 WAS USED.
 4. LUMINAIRES AND POLES ARE TO BE GRAY.
 5. POLE MOUNTED FIXTURES SHALL BE PLACED A MINIMUM OF THREE (3) FEET BEHIND CURBS IN CAR PARKING AREAS.
 6. PROPOSED LIGHT FIXTURE LOCATIONS ARE CRITICAL TO PROVIDE THE LIGHTING LEVELS DEPICTED ON THIS PLAN. THE LIGHTING CONTRACTOR SHALL FIELD VERIFY FIXTURE LOCATIONS PRIOR TO INSTALLATION. IF ADJUSTMENT TO ANY LIGHT FIXTURE LOCATION IS REQUIRED DUE TO FINAL CONSTRUCTION OF UTILITIES AND SITE IMPROVEMENTS, THE LIGHTING CONTRACTOR SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO INSTALLATION.
 7. POLE SIZES TO BE CONFIRMED WITH MANUFACTURER.
 8. LIGHTING SHOWN ON PLAN DEPICTS AVERAGE MAINTAINED FOOTCANDLE LEVELS AT GRADE.
 9. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT.
 10. ELECTRICAL PLANS FOR WIRING LAYOUT BY OTHERS.
 11. POLE BASE INSTALLATION SHALL INCLUDE A SUPPLEMENTARY GROUND ROD AND WIRE LEAD TO BASE FOR POWER CONNECTION. DETAILS PER PROJECT ELECTRICAL ENGINEER.



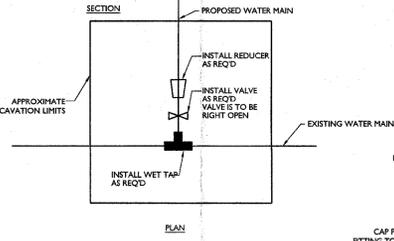
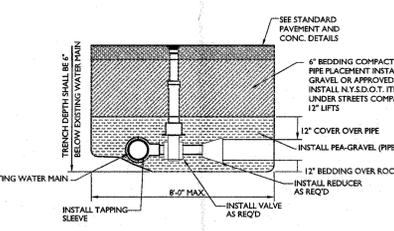
TOWN WATER SYSTEM NOTES

- CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH WATER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH WATER DEPARTMENT. ALL REQUIREMENTS SHALL CONFORM TO THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF HEALTH AND THE TOWN OF NEWBURGH.
- ALL WATER SERVICE LINES FOUR (4) INCHES AND LARGER IN DIAMETER SHALL BE CEMENT LINED, CLASS 52, DUCTILE IRON PIPE CONFORMING TO ANSI/AWWA C151A21.51-1 OR LATER REVISION FOR DUCTILE IRON PIPE JOINTS SHALL BE EITHER PUSH-ON OR MECHANICAL JOINT AS REQUIRED.
- THRUST RESTRAINT OF THE PIPE SHALL BE THROUGH THE USE OF JOINT RESTRAINT. THRUST BLOCKS ARE NOT ACCEPTABLE. JOINT RESTRAINT SHALL BE THROUGH THE USE OF MECHANICAL JOINT PIPE WITH RETAINER GLANDS. ALL FITTINGS AND VALVES SHALL BE INSTALLED WITH RETAINER GLANDS FOR JOINT RESTRAINT. RETAINER GLANDS SHALL BE BRASS IRON RESISTALU SERIES 1100 OR APPROVED EQUAL. THE USE OF A MANUFACTURED RESTRAINED JOINT PIPE IS ACCEPTABLE WITH PRIOR APPROVAL OF THE WATER DEPARTMENT.
- ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON, MECHANICAL JOINT, CLASS 250 AND CONFORM TO ANSI/AWWA C110A21.10-87 OR LATEST REVISION FOR DUCTILE AND GRAY IRON FITTINGS OR ANSI/AWWA C151A21.51-14 FOR LATEST REVISION FOR DUCTILE IRON COMPACT FITTINGS.
- ALL VALVES SHALL BE RESILIENT WEDGE MECHANICAL JOINT GATE VALVES CONFORMING TO ANSI/AWWA C501 OR LATEST REVISION SUCH AS MUELLER H-10312 OR APPROVED EQUAL. ALL GATE VALVES SHALL OPEN LEFT (COUNTER CLOCK WISE).
- TAPPING SLEEVES SHALL BE MECHANICAL JOINT SUCH AS MUELLER H-415 OR EQUAL. TAPPING VALVE SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI/AWWA C509 SUCH AS MUELLER MODEL T-3360-19 OR APPROVED EQUAL. ALL TAPPING SLEEVES AND VALVES SHALL BE TESTED TO 150 PSI MINIMUM TESTING OF THE TAPPING SLEEVE AND VALVE MUST BE WITNESSED AND ACCEPTED BY THE TOWN OF NEWBURGH WATER DEPARTMENT PRIOR TO CUTTING INTO THE PIPE.
- ALL WATER SERVICE LINES TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING. CORROSION STOPS SHALL BE MUELLER H-1500 FOR 1/2" AND 1" INCH SIZES. CURB VALVES SHALL BE MUELLER H-1501-2 FOR 1/2" AND 1" INCH OR MUELLER B-25204 FOR 1/2" AND 2" INCH SIZES. CURB BOXES SHALL BE MUELLER H-10312 FOR 1/2" AND 1" INCH AND MUELLER H-10310 FOR 1/2" AND 2" INCH SIZES.
- ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH WATER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT.
- THE WATER MAIN SHALL BE TESTED, DISINFECTED AND FLUSHED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING, DISINFECTION AND FLUSHING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT. PRIOR TO PUTTING THE WATER MAIN IN SERVICE, SATISFACTORY SANITARY RESULTS FROM A CERTIFIED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH WATER DEPARTMENT. THE TEST SAMPLES MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY AND WITNESSED BY THE WATER DEPARTMENT.
- THRUST RESTRAINT SHALL BE PROVIDED BY THE RODS AND RETAINER GLANDS. THE LENGTH OF RESTRAINED PIPE SHALL BE DETERMINED BASED UPON WORKING PRESSURES, SOIL CONDITIONS AND DEPTH OF BURY ACCORDING TO DRPPA STANDARDS.
- PRESSURE AND LEAKAGE TESTS ARE REQUIRED AND SHALL BE DONE IN ACCORDANCE WITH AWWA C-600 STANDARDS.
- DISINFECTION OF ALL NEW WORK SHALL BE DONE IN ACCORDANCE WITH AWWA C-651 - YEAR OF LATEST REVISION STANDARDS.
- ALL WATER MAINS SHALL BE 8" CLASS 52, DUCTILE IRON PIPE UNLESS OTHERWISE NOTED.
- THE FINAL LAYOUT OF THE PROPOSED WATER AND/OR SEWER CONNECTION, INCLUDING ALL MATERIALS, SIZE AND LOCATION OF SERVICE AND ALL APPURTENANCES, IS SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF NEWBURGH WATER AND/OR SEWER DEPARTMENT. NO PERMITS SHALL BE ISSUED FOR A WATER AND/OR SEWER CONNECTION UNTIL A FINAL LAYOUT IS APPROVED BY THE RESPECTIVE DEPARTMENT.

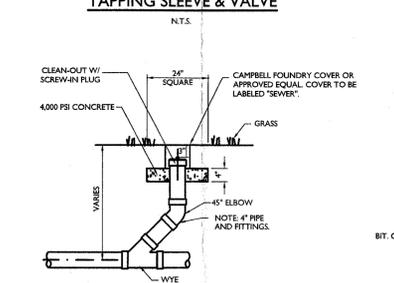


TYPICAL POTABLE WATER SERVICE DETAIL

UTILITY CROSSING DETAIL



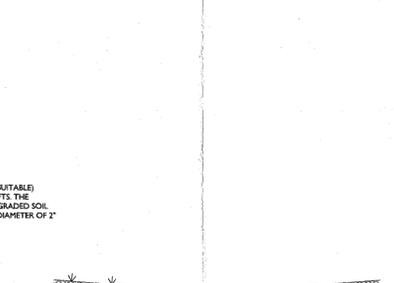
TAPPING SLEEVE & VALVE



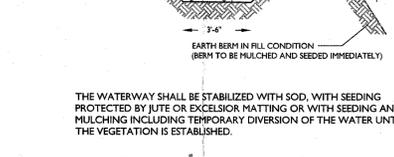
SANITARY SEWER CLEANOUT INLINE



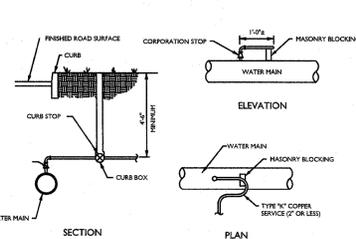
ROOF LEADER CLEANOUT AT BEND



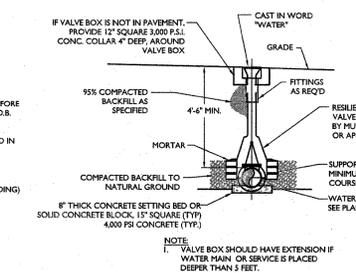
SANITARY SEWER TRENCH & GRAVITY OR FORCE MAIN PIPE BEDDING DETAIL



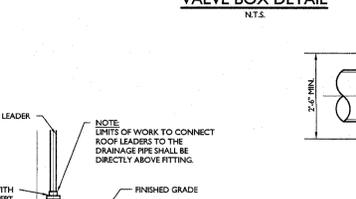
DRAINAGE SWALE DETAIL



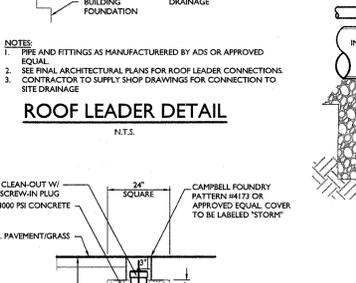
WATER SERVICE TRENCH DETAIL



VALVE BOX DETAIL



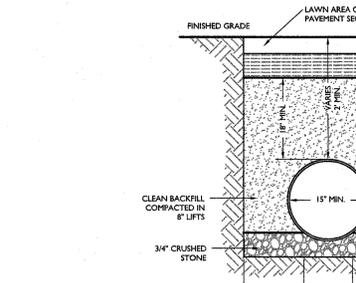
ROOF LEADER DETAIL



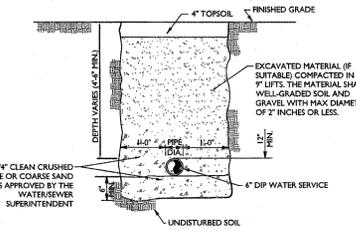
STANDARD CATCH BASIN DETAILS



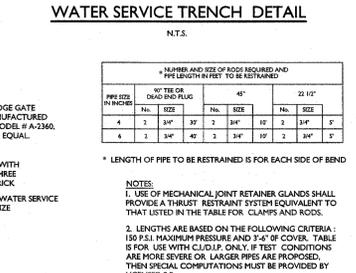
STORM DRAIN TRENCH & BEDDING



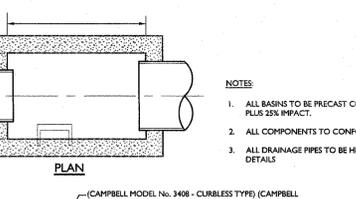
PRECAST STORM DRAIN MANHOLE SECTION



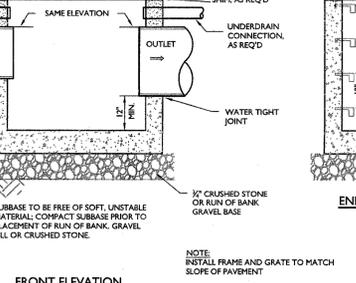
JOINT RESTRAINTS SCHEDULE



SANITARY/STORM SEWER-WATER MAIN SEPARATION DETAIL



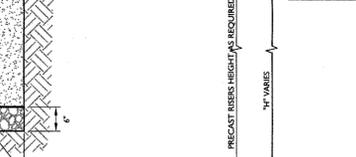
WET TAP DETAIL



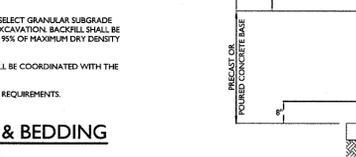
PRECAST STANDARD SEWER MANHOLE DETAIL



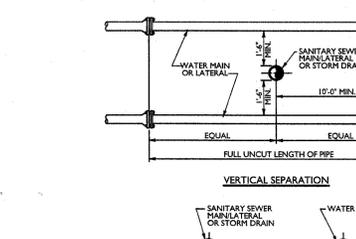
SITE PLAN



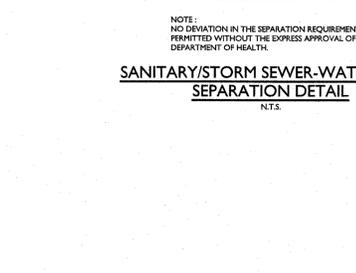
SECTION 97 BLOCK 1 LOT 2.12



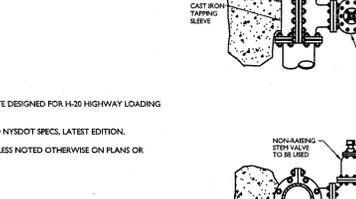
TOWN OF NEWBURGH COUNTY OF ORANGE STATE OF NEW YORK



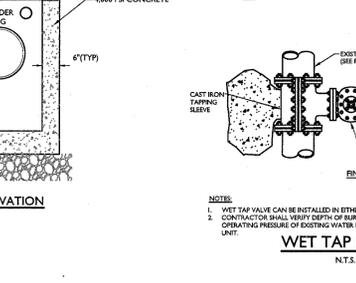
HEIGHT OF COMPONENT



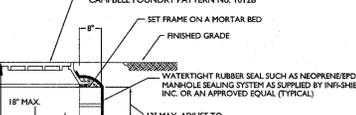
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6' DIAMETER FIRST DEFENSE



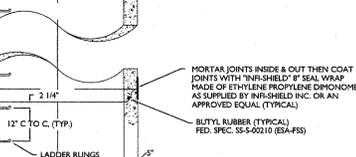
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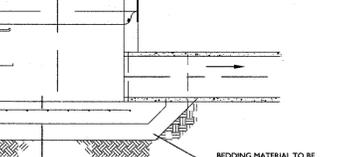
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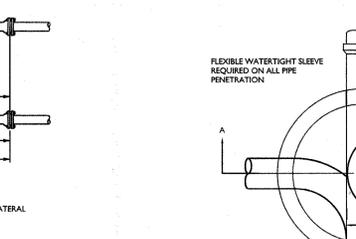
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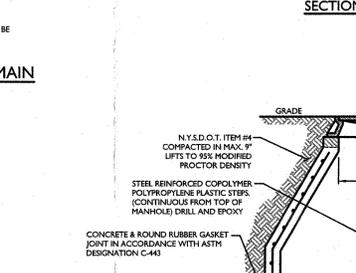
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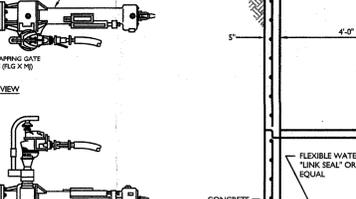
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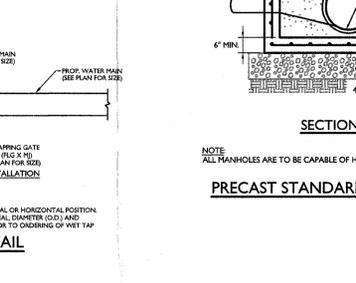
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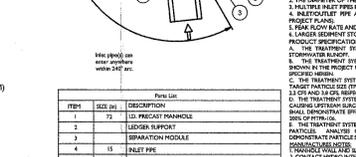
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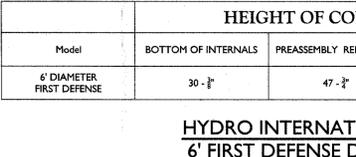
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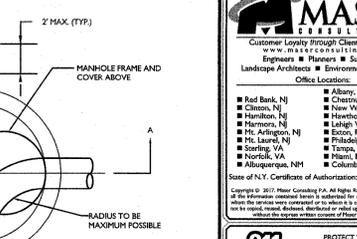
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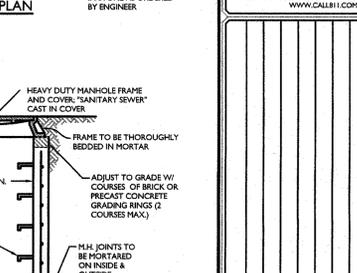
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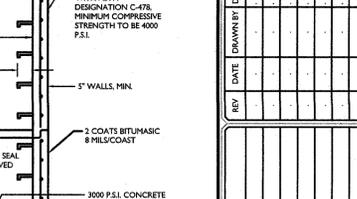
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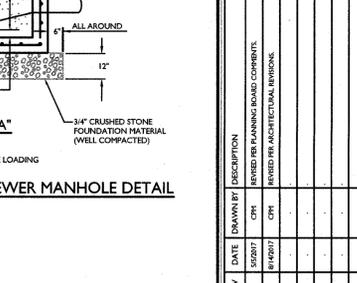
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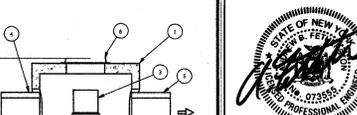
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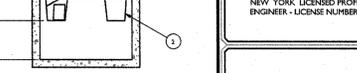
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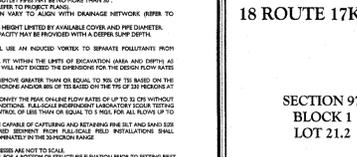
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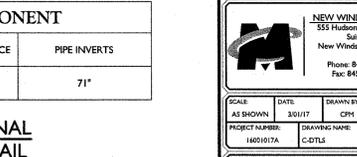
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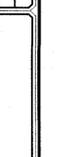
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REV	DATE	DESCRIPTION
1		
2		

REV	DATE	DESCRIPTION
1		
2		



ANDREW B. FETHERSTON
 NEW YORK LICENSED PROFESSIONAL
 ENGINEER - LICENSE NUMBER: 07355-1

SITE PLAN

FOR
18 ROUTE 17K, LLC

**SECTION 97
 BLOCK 1
 LOT 2.12**

**TOWN OF NEWBURGH
 COUNTY OF ORANGE
 STATE OF NEW YORK**

NEW WINDSOR OFFICE
 555 Hudson Valley Avenue
 Suite 101
 New Windsor, NY 12553
 Phone: 845.564.4495
 Fax: 845.567.1025

SCALE: AS SHOWN
 DATE: 8/31/17
 DRAWN BY: CP1
 CHECKED BY: ABF
 PROJECT NUMBER: 1602107A
 DRAWING NAME: C-DTLS

CONSTRUCTION DETAILS