McGOEY, HAUSER and EDSALL
CONSULTING ENGINEERS D.P.C.

MARK J. EDSALL, P.E., P.P. (NY, NJ & PA)
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TOWN OF NEWBURGH
PLANNING BOARD
TECHNICAL REVIEW COMMENTS

PROJECT:	**A. DUIE PYLE MAINTENANCE BUILDING**
PROJECT NO.:	**19-09**
PROJECT LOCATION:	**SECTION 95, BLOCK 1, LOT 69.1 & 79**
REVIEW DATE:	**11 APRIL 2019**
MEETING DATE:	**18 APRIL 2019**
PROJECT REPRESENTATIVE:	**LANGDON ENGINEERS/Justin Macalintal, Snr. Staff Engineer**

1. Detail Sheets contain a detail for thrust blocks. Town of Newburgh requires restrain joint pipe. Restrain joint pipe details and chart should be added to the plans.

2. Fire/potable water service detail does not comply with Town of Newburgh standards. The fire shut off valve must be located upstream of the potable water valve such that potable water is terminated when fire service supply is terminated.

3. The Building Departments attention is called to the turnstile access gate. It is unclear if this gate provides for accessible access to the sight.

4. The sanitary sewer pump station report should identify operating flows, pressures and head. It appears that the pump station will only have capacity for 230 gallons of storage. Additional storage may be required or confirmation that the facility is connected to a generator should be provided. Details for the sanitary sewer connection to the proposed dog house manhole should be provided.

5. The specified pump station appears to have a 4 inch DWV pipe inlet connection while plans identify a minimum 6 inch diameter SDR35 pipe.

6. Previous comment identified the discharge of the emergency spillway at the retaining wall. Response identifies that rip rap will be provided at base of wall. This should be depicted on the Grading and Drainage Plan.

7. Details of the pneumatic valve proposed for diversion of runoff versus truck wash should be provided on the plans.

8. A Stormwater Pollution Prevention Plan has been revised pursuant to our previous comments.

The Stormwater Pollution Prevention Plan now addresses the 110% treatment of the water quality volume, stormwater hot spot design, and installation of proprietary water quality product on the existing stormwater collection and conveyance system.

9. A Stormwater Facilities Maintenance Agreement must be provided prior to final approval. Stormwater Facilities Maintenance Agreement should address the entire site.

Respectfully submitted,

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

_____

Patrick J. Hines
Principal
PJH/kbw

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

April 9, 2019

Mr. John Ewasutyn
Town of Newburgh Planning Board
308 Gardnertown Road
Newburgh, New York 12550

Re: A.Duie Pyle Maintenance Building
Responses to Technical Review Comments
Project No.:PB 2019-09
Langan Project No.: 190048601

Dear Mr Ewasutyn:

On behalf of the Applicant, A. Duie Pyle, please accept this resubmission package in response to the technical review comment letters dated March 15, 2019 and March 21, 2019 for the above referenced project. Enclosed for your review are fourteen (14) copies of the following documents:

A. "Site Plan and Lot Line Change Documents for A. Duie Pyle Maintenance Building," prepared by Langan, revised April 9, 2019 (12 sheets);
B. "Boundary and Topogrpahic Survey," prepared by Langan, dated January 24, 2019 (1 sheet);
C. Stormwater Pollution Prevention Plan," prepared by Langan, revised April 9, 2019 (narrative only);
D. "Sanitary Sewer Report," prepared by Langan, dated April 9, 2019.

The following is an itemized response to the Technical Review comments (comments are italicized and our responses are in bold text):

Review Letter prepared by Creighton Manning Engineers, dated March 15, 2019

Comment 1. *The existing employee parking lot surface is rough. The plan shows that the existing 23-space lot will be resurfaced, stopping short of the concrete driveway. We recommend that the resurface extend all the way to the concrete driveway, an additional ±260 SF. In addition, the 13-space employee parking lot could use a resurfacing, or at a minimum, the parking stalls restriped to Town standards.*

Response: **The Applicant agrees to mill and overlay the employee parking area in the front of the property. See sheet 4 of 12 of the revised site plans.**

Comment 2. *The site plan should show new striping for the two existing employee parking lots.*

Response: **The plans were revised to show the two existing employee parking lots to be restriped. See sheet 4 of 12 of the revised site plans.**

Comment 3. *We concur with the narrative that project will not add any substantial increase in traffic or trucks.*

Response: **Comment noted.**

Comment 4. *Independent of this project, we note that the exit curb of Corporate Boulevard at Route 17K is being damaged by trucks turning right from the project. Tractor trailers off-track over the curb, damaging it and the signal pullbox (see photos below). The signal appears to be a permit signal, so the ultimate responsibility for repair or correction may fall to the park owner. Whether part of this project or independently, we suggest discussing this condition with NYSDOT.*

Response: **The damaged exit curb of Corporate Boulevard and Route 17K will be brought to the attention of the park owner.**

Review Letter prepared by McGoey, Hauser and Edsall, dated March 21, 2019

Comment 1. *Project involves a lot line change between the proposed project and the adjoining lot owned by Matrix Newburgh I, LLC. Lot line change proposes to transfer 2.94 acres from the Matrix parcel to the A. Duie Pyle parcel. A review of the Bulk Table for both parcels identifies continued compliance with all Bulk Table regulations after the lot line change. No zoning deficiencies are identified.*

Response: **Comment noted.**

Comment 2. *Water connection to the building must be designed to separate the fire flow and potable water systems whereby if fire flow systems are terminated potable water to the building is terminated. Typical detail for Town of Newburgh is required.*

Response: **The utility plan was revised to show separate fire flow and potable water service lines to the proposed maintenance building. Water utility details for the Town of Newburgh were added to the detail sheets.**

Comment 3. *Sanitary sewer design incorporates a proposed oil/water separator and pump station with force main. Design report and design details for this must be provided. Sizing of the oil/water separator as well as design of all the pump station must be included.*

Response: **The proposed oil/water separator and pump station were designed based on an anticipated sanitary demand of 800± gallons per day. The project will include an oil/water separator with a 1,250 gallon capacity (50% additional reserve capacity over sanitary demand) and a low pressure pump station (E/One Model WH231 or approved equal) capable of conveying 850 gallons per day.**

Comment 4. *A review of the drainage plans identify "overflow from water recycling containment." This overflow from the recycled containment should be discharged to the sanitary sewer system and not the stormwater system. Project site discharge is tributary to a NYSDEC Class A Watershed.*

Response: **The wash bay operates such that, when in use, excess water from the trucks is collected by the trench drains and conveyed to a clarifier tank where it is treated and recycled for future washes. An overflow discharge pipe from the clarifier tank sends excess water to the oil/water separator and is then pumped to the on-site gravity sewer line. When the wash bay is not in operation, an automated 3-way pneumatic valve reroutes the stormwater runoff collected from the trench drains to a roof leader that discharges to the pretreatment swale. Details of the wash bay piping infrastructure will be provided when filing for the building permit.**

Comment 5. *A City of Newburgh Flow Acceptance letter for the increased flow from the maintenance building and wash bays must be received*

Response: **A City of Newburgh Flow Acceptance Letter has been sent to James Osborne, Town Engineer requesting for permission to discharge into the Town sanitary sewer collection system. A response letter from the City of Newburgh will be distributed upon receipt.**

Comment 6. *Check grading at proposed swale from passenger parking lot. A defined swale should be located in this area as all run off from the parking lot will discharge via the drop curb to the rip rap in this vicinity.*

Response: **The grading around the passenger parking lot has been revised to establish a more defined swale to the bioretention basin. See sheet 6 of 12 of the revised site plans.**

Comment 7. *Accessible parking spaces are depicted on the opposite side of the fence. Applicants are requested to evaluate the accessible route as a row of parking exists on the interior side of the fence. A gate is identified in this vicinity as well.*

Response: **The site plans were revised to remove employee parking spaces inside the fenced area in order to keep employee traffic and truck traffic separate for safety purposes. The proposed handicap spaces are located next to the proposed turnstile entrance to the facility. See sheet 4 of 12 of the revised site plans.**

Comment 8. *This office is reviewing a Stormwater Pollution Prevention Plan submitted for the project. Initial review identifies that the project has not been evaluated as a stormwater hot spot in accordance with the NYSDEC design manual Section 4.11. Project design utilizing bio- retention with infiltration practices should be further evaluated.*

Response: **The bioretention basin detail was revised to show a 30 mil PVC liner as accepted by the NYSDEC when treating hot spot runoff. Therefore, the bioretention basin serves as a filtration practice and complies with Section 4.11 of the NYSDEC Design Manual.**

Comment 9. *Project is located within a City of Newburgh tributary to Class A stream. Town of Newburgh policy is to require 110% treatment of the water quality volume.*

Response: **According to the NYSDEC Design Manual, the calculated WQv is 10,176 cubic-feet. 110% of the WQv is 11,194 cubic-feet. The bioretention basin has been resized to a volume of 11,688 cubic-feet which exceeds 110% treatment of the water quality volume. See sheet 6 of 12 of the revised site plans and the revised SWPPP for more information.**

Comment 10. While portions of the site are considered re-development, no stormwater improvements have been identified on the existing site. Existing site was constructed prior to stormwater regulations being in effect. It is requested the Applicant evaluate implementation of Best Management Practices which could be utilized to retro-fit/treat stormwater from the existing site.

Response: The Applicant agrees to install two hydrodynamic separators to replace two existing catch basins in order to treat the existing impervious area of the site that will remain undisturbed during construction. Doing so will exceed the NYSDEC requirements for redevelopment projects and further improve the water quality for the Town and City of Newburgh. See sheet 6 of 12 of the revised site plans and the revised SWPPP for more information.

Comment 11. Extensive retaining walls are proposed along the eastern portion of the site. Design of these retaining walls should be incorporated into the plan sheets. An evaluation as to the impacts of the retaining wall on Stormwater Management Facilities located in close proximity should be prepared.

Response: The site plan was revised to include a segmental block wall detail. The structural design of the retaining wall will be included with our application for building permit.

Comment 12. Pre-treatment of stormwater discharging to the bio-retention area is required.

Response: The project proposes a pre-treatment forebay that provides 3,525 cubic-feet of pre-treatment at the east end of the property and a pre-treatment swale that provides 2,145 cubic-feet of pre-treatment along the north face of the maintenance building prior to discharging to the bioretention basin. Both pre-treatment practices meet the required volumes per the NYSDEC Design Manual. See Appendix E of the revised SWPPP.

Comment 13. Emergency spill way for bio-retention area discharges at a retaining wall, this should be further evaluated.

Response: **The emergency spillway elevation for the bioretention basin was set to the 100-year water surface elevation (EL: 442.0) with 1 foot of freeboard to the top of the berm. The spillway and retaining wall were redesigned to include rip rap at the bottom of the wall to prevent eroding the soil during storm events beyond the 100-year storm. See sheet 6 of 12 of the revised site plans.**

We trust that the above responses and enclosed documents satisfy the comment letters pertaining to this application. If you have any questions or require additional information, please do not hesitate to contact us.

Sincerely,

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

W. Charles Utschig, Jr., P.E.
Associate

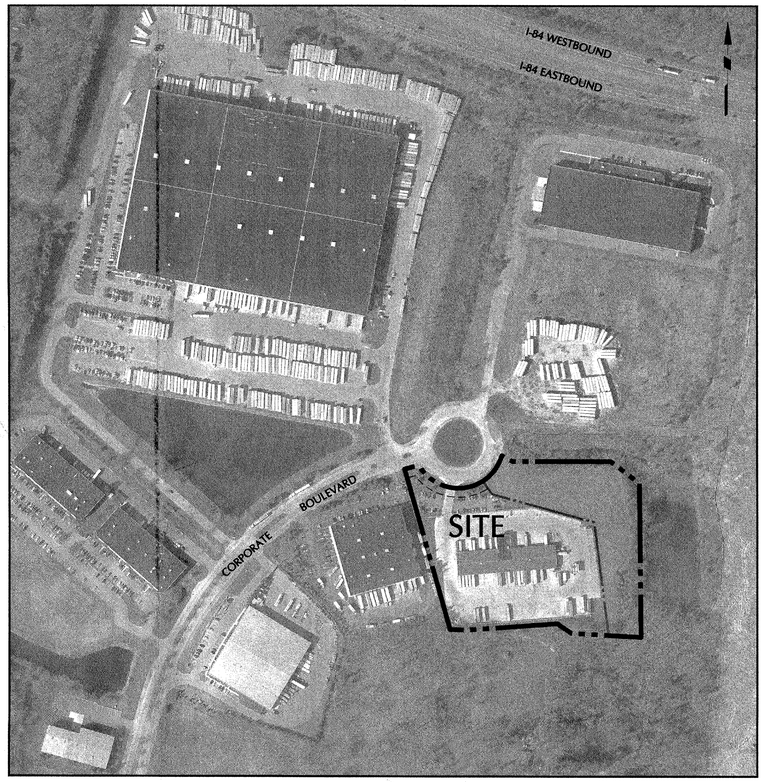
MF/lr

Cc: Michael H. Donnelly, Esq.
Patrick Hines – McGoey, Hauser and Edsall Consulting Engineers, D.P.C.
Kenneth Wersted, PE – Creighton Manning Engineering, LLP
Timothy Koch – A. Duie Pyle
Greg Seifert – Geis Companies
David Everett, Esq. – Whiteman Osterman & Hanna, LLP
Michael Finan, PE - Langan

SITE PLAN AND LOT LINE CHANGE DOCUMENTS

A. DUIE PYLE MAINTENANCE BUILDING

TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK



LOCATION MAP
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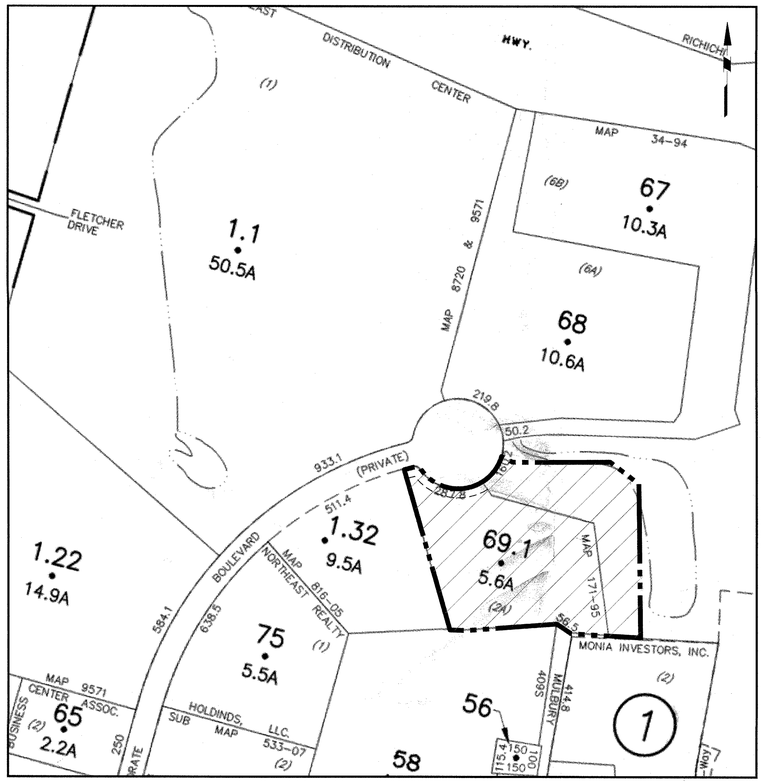

TAX MAP
1"=200'

SITE INFORMATION

ADDRESS: 1000 CORPORATE BOULEVARD
NEWBURGH, NY 12550

SECTION: 95
BLOCK: 1
LOT: 69.1

ZONE: IB – INTERCHANGE BUSINESS

APPLICANT

A. DUIE PYLE

650 WESTTOWN ROAD
WEST CHESTER, PA 19381-0564

TELEPHONE: 610-350-3048

CONTACT: TIM KOCH

CIVIL ENGINEER

LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING, LANDSCAPE ARCHITECTURE, AND GEOLOGY, D.P.C.

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CONTACT: MICHAEL FINAN, PE

SURVEYOR

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CONTACT: STEVE WALDEMER, LS

DRAWING LIST

DRAWING NO.	SHEET NO.	DRAWING TITLE
	CIVIL	
CS001	1 OF 12	COVER SHEET
CD101	2 OF 12	SITE REMOVALS PLAN
SA101	3 OF 12	SLOPES ANALYSIS PLAN
CS101	4 OF 12	SITE PLAN
CS201	5 OF 12	SURFACE MATERIALS PLAN
CG101	6 OF 12	GRADING & DRAINAGE PLAN
CU101	7 OF 12	UTILITY PLAN
CE101	8 OF 12	EROSION & SEDIMENT CONTROL PLAN
LS101	9 OF 12	LANDSCAPE PLAN, NOTES, & DETAILS
CS501	10 OF 12	DETAILS (1 OF 3)
CS502	11 OF 12	DETAILS (2 OF 3)
CS502	12 OF 12	DETAILS (3 OF 3)
	SURVEY	
VB101	1 OF 1	BOUNDARY & TOPOGRAPHIC SURVEY

200 0 100 200
SCALE IN FEET

TOWN OF NEWBURGH APPROVAL BOX
TOWN PROJECT # PB 2019-09

PLANNING BOARD CHAIRMAN JOHN P. EWASUTYN — DATE

Date	Description	No.
04/09/19	REVISED PER TOWN COMMENTS	1.
REVISIONS		

4/9/2019
SIGNATURE DATE SIGNED
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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Project: A. DUIE PYLE MAINTENANCE BUILDING
BLOCK No. 1, LOT No.69.1
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

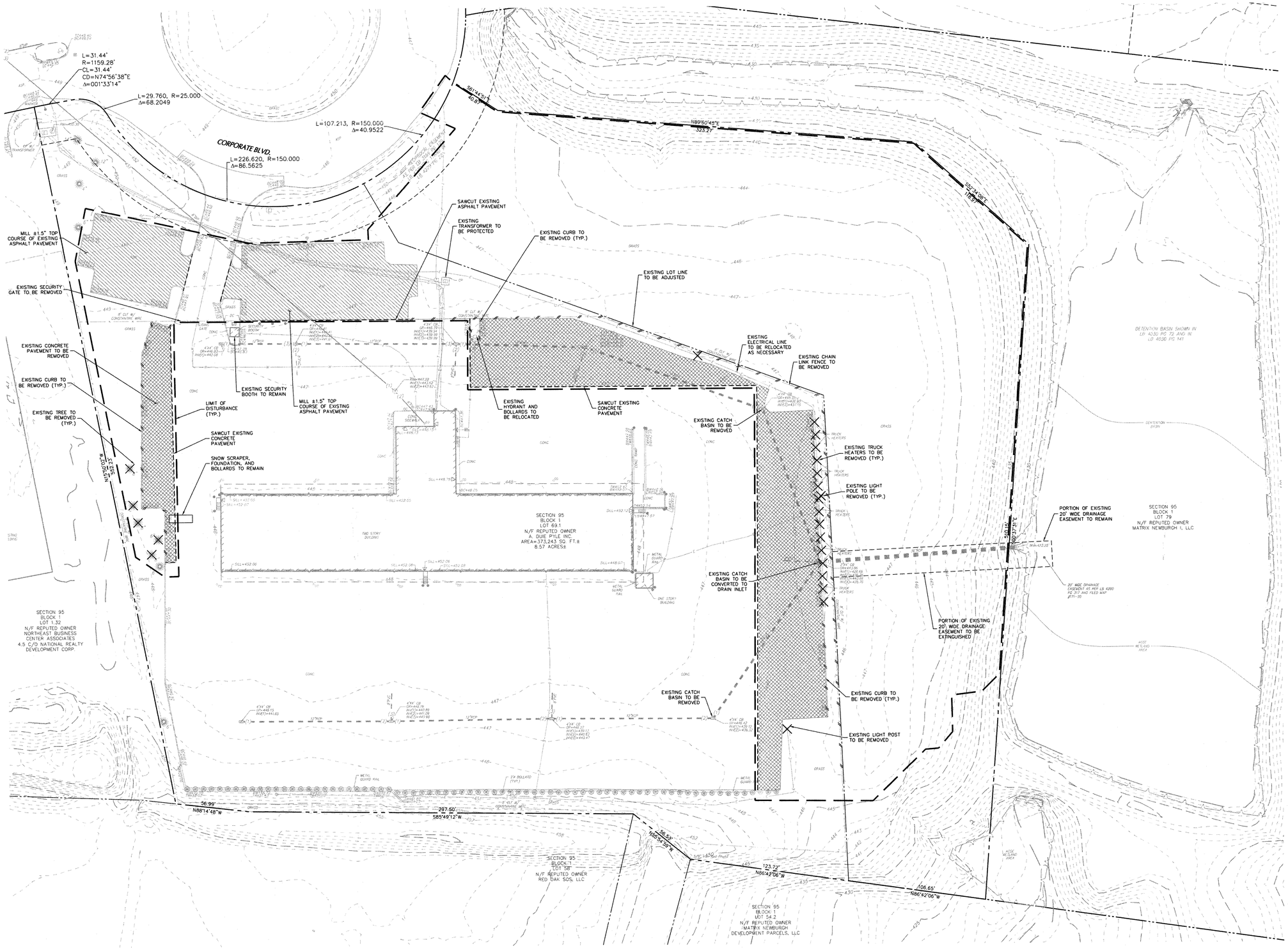
Drawing Title: COVER SHEET

Project No. 190048601
Date MARCH 11, 2019
Drawn By JM
Checked By MF

Drawing No. CS001
Sheet 1 of 12

Filename: \\langan.com\data\WPW\data8\190048601\Project Data\CAD\01\Sheet Files\Site Plan Approval\190048601-CS001-0101.dwg Date: 4/9/2019 Time: 14:32 User: jmacelrat Style Table: Langan.stb Layout: ARCH F-BL

LANGAN
PROJECT NO. 190048601



LEGEND

- SITE FEATURE TO BE REMOVED
- SITE FEATURE TO BE REMOVED
- UTILITY TO BE REMOVED
- FULL DEPTH PAVEMENT TO BE REMOVED
- TOP COURSE ASPHALT TO BE REMOVED
- SAWCUT LINE
- LIMIT OF DISTURBANCE

30 0 15 30
SCALE IN FEET

WARNING:
IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

No.	Description	Date
1.	REVISED PER TOWN COMMENTS	04/09/19

REVISIONS

4/9/2019
SIGNATURE DATE SIGNED
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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Project
A. DUIE PYLE MAINTENANCE BUILDING
BLOCK No. 1, LOT No.69.1
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

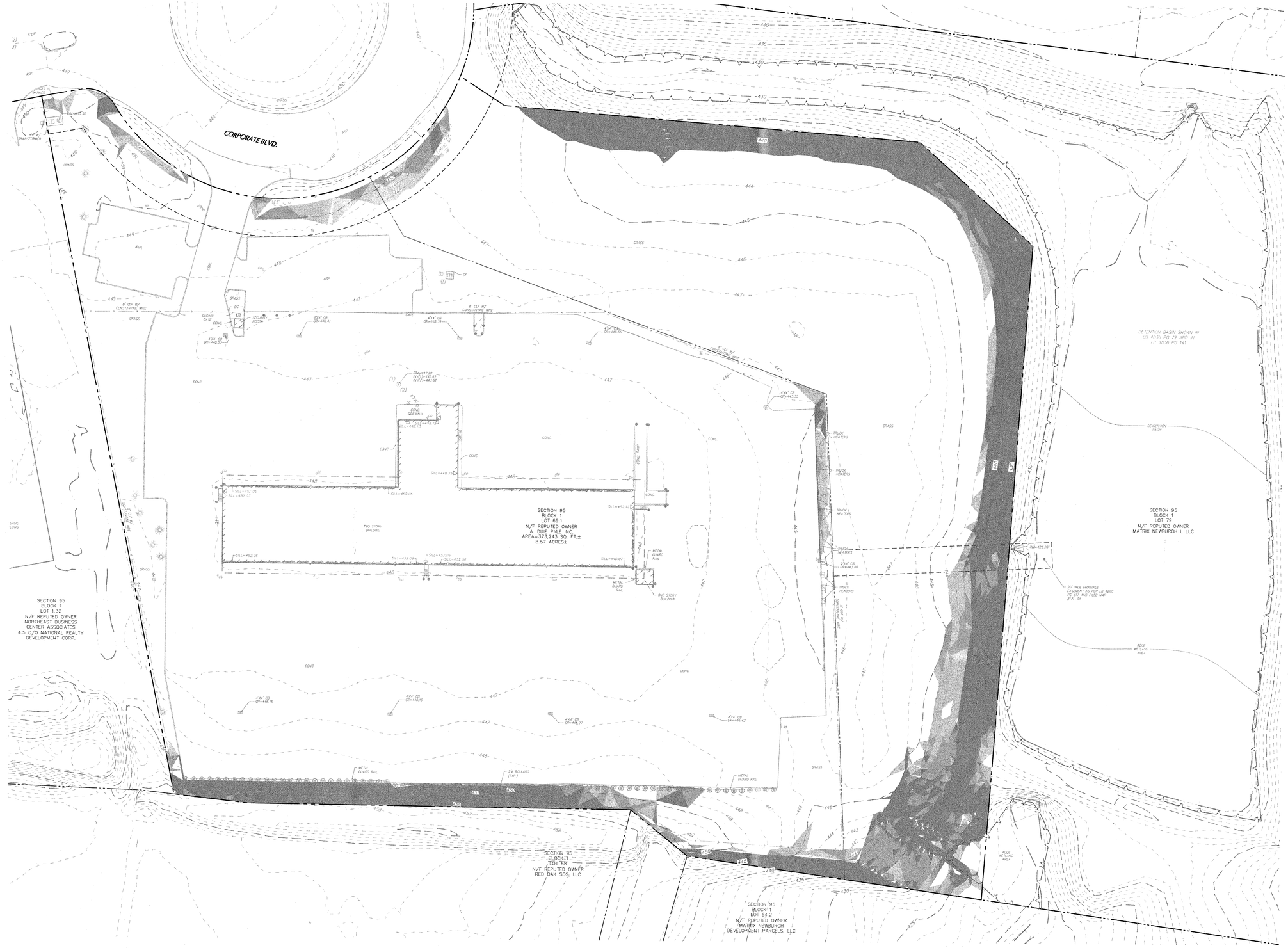
Drawing Title
SITE REMOVALS PLAN

Project No. 190048601
Date MARCH 11, 2019
Drawn By JM
Checked By MF

Drawing No. CD101
Sheet 2 of 12

LANGAN
PROJECT NO. 190048601

Filename: \\langan.com\data\WP\Wdata6\190048601\Project Data\CAD\01SheetFiles\Site Plan Approval\190048601-CD101-0101.dwg Date: 4/9/2019 Time: 14:32 User: jmacalintal Style Table: Langan.stb Layout: ARCH-BL



SLOPES TABLE				
NUMBER	MIN. SLOPE	MAX. SLOPE	AREA (SF)	COLOR
1	15.0%	20.0%	8418	
2	20.0%	25.0%	6894	
3	25.0%	Vertical	31876	

NOTE: STEEP SLOPES ARE DEFINED AS A CONTIGUOUS AREA OF AT LEAST 5,000 SF CONTAINING A SLOPE WITH A TOPOGRAPHICAL GRADIENT EQUAL TO OR GREATER THAN 25%.

30 0 15 30
SCALE IN FEET

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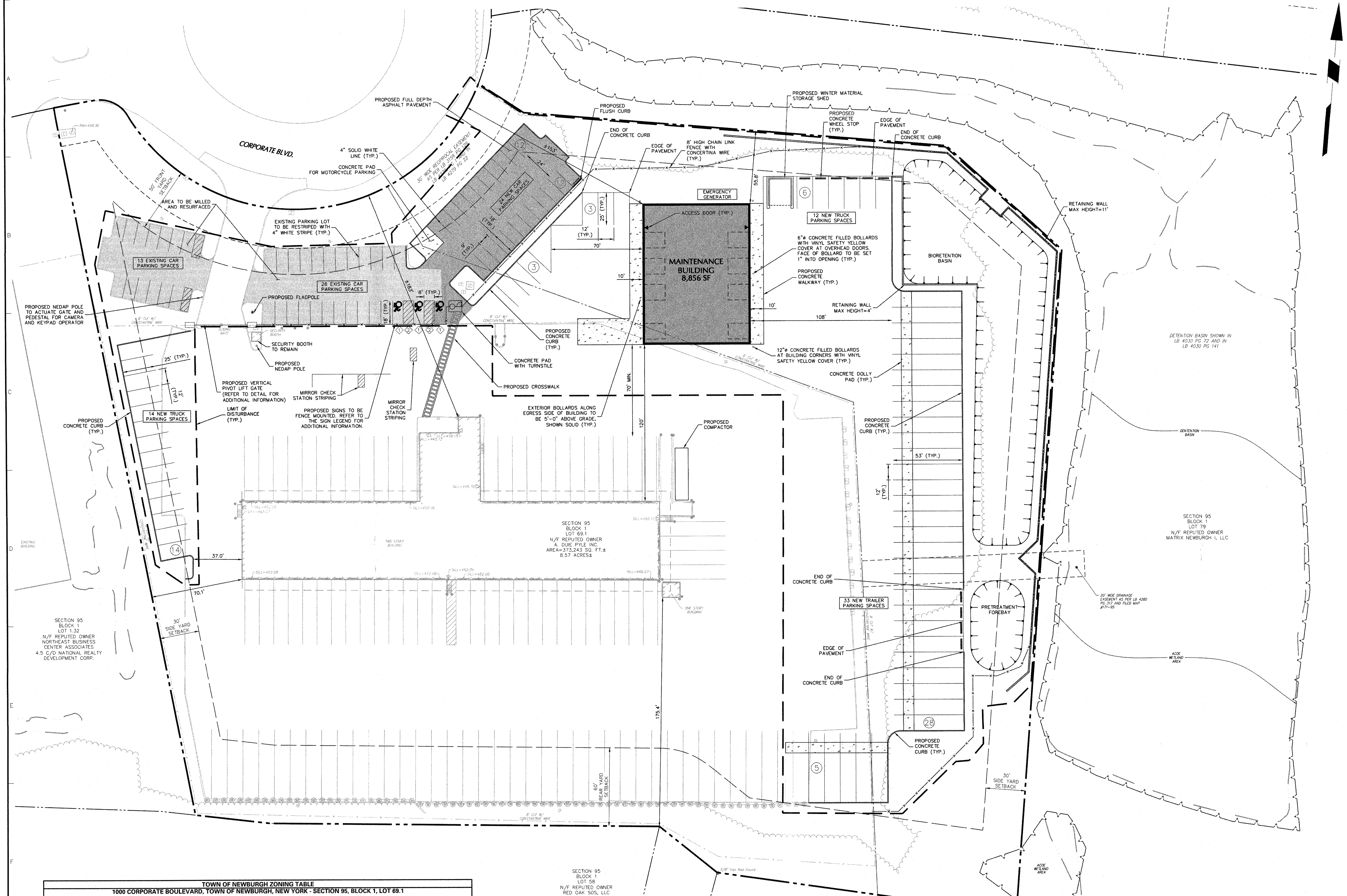
Project
A. DUIE PYLE MAINTENANCE BUILDING
BLOCK No. 1, LOT No.69.1
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
SLOPES ANALYSIS PLAN

Project No. 190048601
Date MARCH 11, 2019
Drawn By JM
Checked By MF

Drawing No. SA101
Sheet 3 of 12

PROJECT NO. 190048601



GENERAL CONTRACTOR SITE NOTES

1. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST AND COMPLETE ALL WORK TO THE SATISFACTION OF THE ENGINEER AND OWNER IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION; AS SUCH, THESE PLANS DO NOT COMPLETELY REPRESENT, NOR ARE THEY INTENDED TO REPRESENT, ALL SPECIFIC INSTRUCTIONS REQUIRED FOR SITEWORK CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO CONSTRUCT ALL IMPROVEMENTS DEPICTED ON THESE PLANS IN ACCORDANCE WITH ALL APPLICABLE RULES, REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION.
2. THE CONTRACTOR SHALL ACCEPT THE SITE AS IS. THE CONTRACTOR SHALL ASSESS CONDITIONS, AND THE KIND, QUALITY AND QUANTITY OF WORK REQUIRED. THE OWNER AND ENGINEER MAKE NO GUARANTEE IN REGARD TO THE ACCURACY OF ANY INFORMATION THAT WAS OBTAINED DURING INVESTIGATIONS. THE CONTRACTOR SHALL: MAKE A THOROUGH SITE INSPECTION IN ORDER TO FIELD CHECK EXISTING SITE CONDITIONS; CORRELATE CONDITIONS WITH THE DRAWINGS; AND, RESOLVE ANY POSSIBLE CONSTRUCTION CONFLICTS WITH THE OWNER AND ENGINEER PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL PERFORM ADDITIONAL TOPOGRAPHIC SURVEYS HE/SHE DEEMS NECESSARY, PROVIDED THEY ARE COORDINATED WITH THE OWNER. ANY CONDITIONS DETERMINED BY THE CONTRACTOR THAT DIFFER FROM THE INFORMATION SHOWN ON THE DRAWINGS THAT ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER PRIOR TO THE START OF WORK SHALL NOT BE CONSIDERED GROUNDS FOR ADDITIONAL PAYMENT OR CHANGES TO THE CONTRACT DURATION, OR ANY OTHER CLAIMS AGAINST THE OWNER OR OWNER'S ENGINEER.
3. THE CONTRACTOR SHALL, WHEN HE/SHE DEEMS NECESSARY, PROVIDE A WRITTEN REQUEST FOR INFORMATION (RFI) TO THE OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEWORK ITEM. THE (RFI) SHALL BE IN A FORM ACCEPTABLE TO OWNER AND/OR OWNER'S DESIGNATED REPRESENTATIVE, AND ENGINEER AND SHALL ALLOW FOR A MINIMUM OF THREE WORK DAYS FOR A WRITTEN REPLY. RFIS SHALL BE NUMBERED CONSECUTIVELY BY DATE SUBMITTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITEWORK ITEMS CONSTRUCTED DIFFERENTLY THAN INTENDED OR AS DEPICTED ON THE PLANS.
4. INFORMATION RELATED TO ELEVATIONS AND PROPOSED UTILITIES (SUCH AS ROADWAY GRADES, INVERT ELEVATIONS, RIM ELEVATIONS, GRATE ELEVATIONS, BUILDING FINISHED FLOOR ELEVATIONS, ETC.) MAY BE FOUND IN MORE THAN ONE LOCATION IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUFFICIENTLY REVIEW ALL PLANS, PROFILES AND ANY OTHER INFORMATION IN THE CONTRACT DOCUMENTS FOR CONSISTENCY PRIOR TO BID. ANY INCONSISTENCIES OR DISCREPANCIES THAT ARE FOUND BY THE CONTRACTOR OR HIS ASSIGNS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER IN WRITING, IN THE FORMAT OF AN RFI PRIOR TO BID.
5. THERE ARE ADDITIONAL NOTES, SPECIFICATIONS AND REQUIREMENTS CONTAINED THROUGHOUT THE PLAN SET AS WELL AS REFERENCES TO SPECIFICATIONS FROM APPLICABLE GOVERNING AUTHORITIES AND INDUSTRY STANDARDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, REVIEW AND ADHERE TO ALL THESE DOCUMENTS.
6. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT ALL CONSTRUCTION STAKEOUT FOR THIS PROJECT MUST BE COMPLETED FROM THE SITE SPECIFIC SURVEY CONTROL (HORIZONTAL AND VERTICAL) UPON WHICH THE DESIGN IS BASED. THE CONTRACTOR SHOULD NOT RELY ON OR RE-ESTABLISH SURVEY CONTROL BY GPS OR OTHER METHODS FOR USE IN CONSTRUCTION STAKEOUT OR ANY OTHER PURPOSE FOR THIS PROJECT. ANY DISCREPANCIES BETWEEN THE EXISTING HORIZONTAL OR VERTICAL DATA SHOWN ON THESE DRAWINGS AND THAT ENCOUNTERED IN THE FIELD MUST BE REPORTED TO THE DESIGN TEAM PRIOR TO CONSTRUCTION FOR RESOLUTION.

SIGN LEGEND

RESERVED PARKING — ① R7-8 12"x18"

NO PARKING ANY TIME — ② R7-1 12"x18"

NOTE: ALL PROPOSED SIGNAGE SHALL CONFORM TO THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) FOR SIZE, LEGEND AND PLACEMENT.

LEGEND

- PROPOSED PROPERTY LINE
- EXISTING PROPERTY LINE
- PROPERTY SETBACK LINE
- STORMWATER MANAGEMENT AREA
- PROPOSED FENCE
- LIMIT OF DISTURBANCE

30 0 15 30
SCALE IN FEET

TOWN OF NEWBURGH ZONING TABLE
1000 CORPORATE BOULEVARD, TOWN OF NEWBURGH, NEW YORK - SECTION 95, BLOCK 1, LOT 69.1
IB INTERCHANGE BUSINESS ZONE

ITEM	REQUIRED/PERMITTED	EXISTING	PROPOSED
Land Use	Warehouse	Warehouse	Warehouse
LOT			
Minimum Lot Area	40,000 SF	244,991 SF (5.62 AC)	373,243 SF (8.57 AC)
Minimum Lot Width	150 FT	288 FT	395 FT
Minimum Lot Depth	150 FT	500 FT	500 FT
YARD			
Minimum Front Yard	50 FT/60 FT	183 FT	153 FT
Minimum Side Yard (1 Side Yard)	30 FT	70.1 FT	55.8 FT
Minimum Side Yard (Both Side Yards)	80 FT	209.4 FT	125.9 FT
Minimum Rear Yard	60 FT	175.4 FT	175.4 FT
Minimum Landscape Buffer at 17K	35 FT	N/A	N/A
LOT COVERAGE			
Maximum Lot Building Coverage	40%	11%	10%
Maximum Lot Surface Coverage	80%	79%	73%
BUILDING			
Maximum Building Height	40 FT	21 FT	25 FT
Maximum Accessory Building Height	15 FT	N/A	N/A
Minimum Accessory Building Setback from Principal Building	10 FT	N/A	N/A
PARKING			
Minimum Number of Car Parking Spaces	40	39	63

Date	Description	No.
04/09/19	REVISED PER TOWN COMMENTS	1.

REVISIONS

SIGNATURE 4/9/2019 DATE SIGNED
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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T: 914.323.7400 F: 914.323.7401 www.langan.com

Project: A. DUIE PYLE MAINTENANCE BUILDING
BLOCK No. 1, LOT No.69.1
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title: SITE PLAN

Project No. 190048601
Date MARCH 11, 2019
Drawn By JM
Checked By MF

Drawing No. CS101

LANGAN PROJECT NO. 190048601

LEGEND

(heavy-duty pattern)	PROPOSED HEAVY-DUTY ASPHALT PAVEMENT
(standard-duty pattern)	PROPOSED STANDARD-DUTY ASPHALT PAVEMENT
(overlay pattern)	PROPOSED ASPHALT OVERLAY
(concrete pattern)	PROPOSED CONCRETE

WARNING:
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Date	Description	No.
04/09/19	REVISED PER TOWN COMMENTS	1.

REVISIONS

SIGNATURE 4/9/2019 DATE SIGNED
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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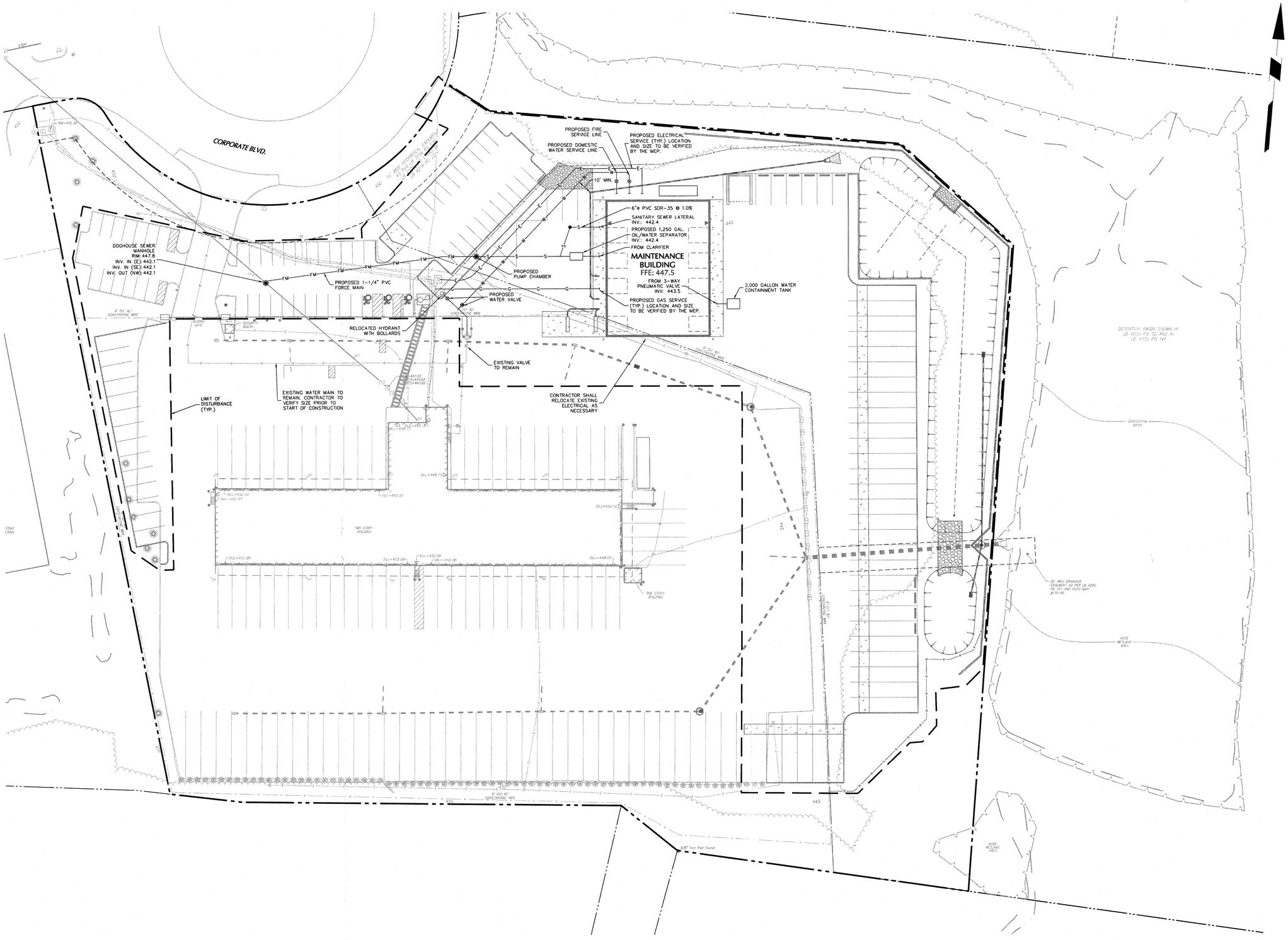
Project
A. DUIE PYLE MAINTENANCE BUILDING
BLOCK No. 1, LOT No.69.1
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title
SURFACE MATERIALS PLAN

Project No. 190048601
Date MARCH 11, 2019
Drawn By JM
Checked By MF
Drawing No. CS201
Sheet 5 of 12

Filename: \\langan.com\data\WPW\data6\190048601\Project Data\CAD\01\SheetFiles\Site Plan Approval\190048601-CS201-0101.dwg Date: 4/9/2019 Time: 14:34 User: jmacalintal Style Table: Langan.stb Layout: ARCHF-BL

LANGAN PROJECT NO. 190048601



UTILITY NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS IN A MANNER WHICH WILL NOT NEGATIVELY AFFECT ANY EXISTING USERS OF THESE UTILITIES.
2. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY (WATER, SEWER, GAS, ELECTRIC, TELEPHONE AND CABLE) LOCATIONS, INVERTS AND CONDITIONS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN ON THE DRAWINGS AND REQUIRING MODIFICATIONS TO THE SITE DESIGN SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE CONSTRUCTION. DIFFERING UTILITY CONDITIONS THAT ARE ENCOUNTERED BY THE CONTRACTOR, THAT REQUIRE MODIFICATION OF SITE DESIGN AND THAT ARE NOT BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CORRECT AT HIS SOLE COST.
3. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE, CABLE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS AND LOCATIONS ARE ACHIEVED AS WELL AS COORDINATING WITH THE UTILITY AGENCIES FOR APPROVAL OF UTILITY LOCATIONS AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
4. THE LOCATION OF EXISTING GAS MAINS ARE APPROXIMATE. THE CONTRACTOR MUST CONSULT THE LOCAL UTILITY COMPANIES FOR ADDITIONAL INFORMATION. ALL PROPOSED GAS WORK AND OTHER ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL, COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS.
5. THE LOCATION OF EXISTING ELECTRIC LINES ARE APPROXIMATE. THE CONTRACTOR MUST CONSULT THE LOCAL UTILITY COMPANIES FOR ADDITIONAL INFORMATION. ALL PROPOSED ELECTRICAL WORK, TRANSFORMER PADS, AND ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL, COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS.
6. MIN. DEPTH OF COVER OVER ELECTRIC, GAS, AND CABLE SERVICES SHALL BE TWO (2) FT.
7. THE CONTRACTOR SHALL COORDINATE THE WATER WORK WITH THE TOWN OF NEWBURGH AND ORANGE COUNTY DEPARTMENT OF HEALTH. ALL WATER MAINS ARE TO HAVE A MINIMUM COVER OF 4 FEET FROM THE TOP OF THE PIPE TO THE PROPOSED SURFACE ELEVATION. ALL PROPOSED WATER MAINS SHALL BE DUCTILE IRON PIPE CLASS 50 BITUMINOUS COATED DOUBLE CEMENT MORTAR LINED. THE CONTRACTOR MUST CONTACT THE TOWN OF NEWBURGH ONE WEEK PRIOR TO WATER MAIN CONSTRUCTION, AND 72 HOURS PRIOR TO EXCAVATION NEAR AND CONNECTION TO EXISTING WATER AND SEWER MAINS. ALL WATER MAIN FITTINGS AND VALVES SHALL BE MECHANICAL JOINT (RESTRAINED) AND THE FITTINGS SHALL BE PROVIDED WITH THRUST BLOCKING. REFER TO DETAILS FOR THRUST BLOCK DETAILS AND FITTING SCHEDULES. ALL FIRE HYDRANTS AND VALVES SHALL OPEN RIGHT (CLOCKWISE).
8. THE CONTRACTOR SHALL COORDINATE THE SANITARY SEWER WORK WITH THE TOWN OF NEWBURGH. SANITARY SEWER SHALL BE PVC SDR 35 UNLESS SPECIFIED DIFFERENTLY ON THESE PLANS.
9. A MINIMUM FOUR (4) FOOT HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN WATER MAIN AND STORM SEWER. A MINIMUM EIGHTEEN (18) INCHES VERTICAL CLEARANCE MUST BE MAINTAINED BETWEEN WATER MAIN AND ALL OTHER UTILITIES. WHERE CLEARANCE CANNOT BE MAINTAINED, THEN WATER MAIN SHALL BE ENCASED IN CONCRETE 10 FEET ON EACH SIDE OF THE CROSSING IN CASES WHERE THE UTILITY IS A SANITARY OR STORM SEWER MAIN OR LATERAL AND THE CLEARANCE CANNOT BE MAINTAINED, THEN THE SEWER SHALL ALSO BE ENCASED.
10. PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 10 FT BETWEEN SANITARY SEWER MAINS AND WATER MAINS. PROVIDE A 5 FT MINIMUM HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER MAINS AND ALL OTHER UTILITIES. PROVIDE A 5 FT MINIMUM HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER MAINS AND CONCRETE CURBS. A MINIMUM DISTANCE OF 10 FT SHALL BE PROVIDED BETWEEN NEW WATER AND SEWER SERVICE LINES AND LIGHT POLES, TREES ETC.

LEGEND

FM FM	PROPOSED FORCEMAIN
S S	PROPOSED SEWER
E E	PROPOSED ELECTRICAL LINE
W W	PROPOSED WATER LINE
G G	PROPOSED GAS LINE
	LIMIT OF DISTURBANCE

30 0 15 30
SCALE IN FEET

WARNING:
IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

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04/09/19	REVISED PER TOWN COMMENTS	1.

REVISIONS

SIGNATURE
4/9/2019
DATE SIGNED
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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UTILITY PLAN

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Drawing No. CU101
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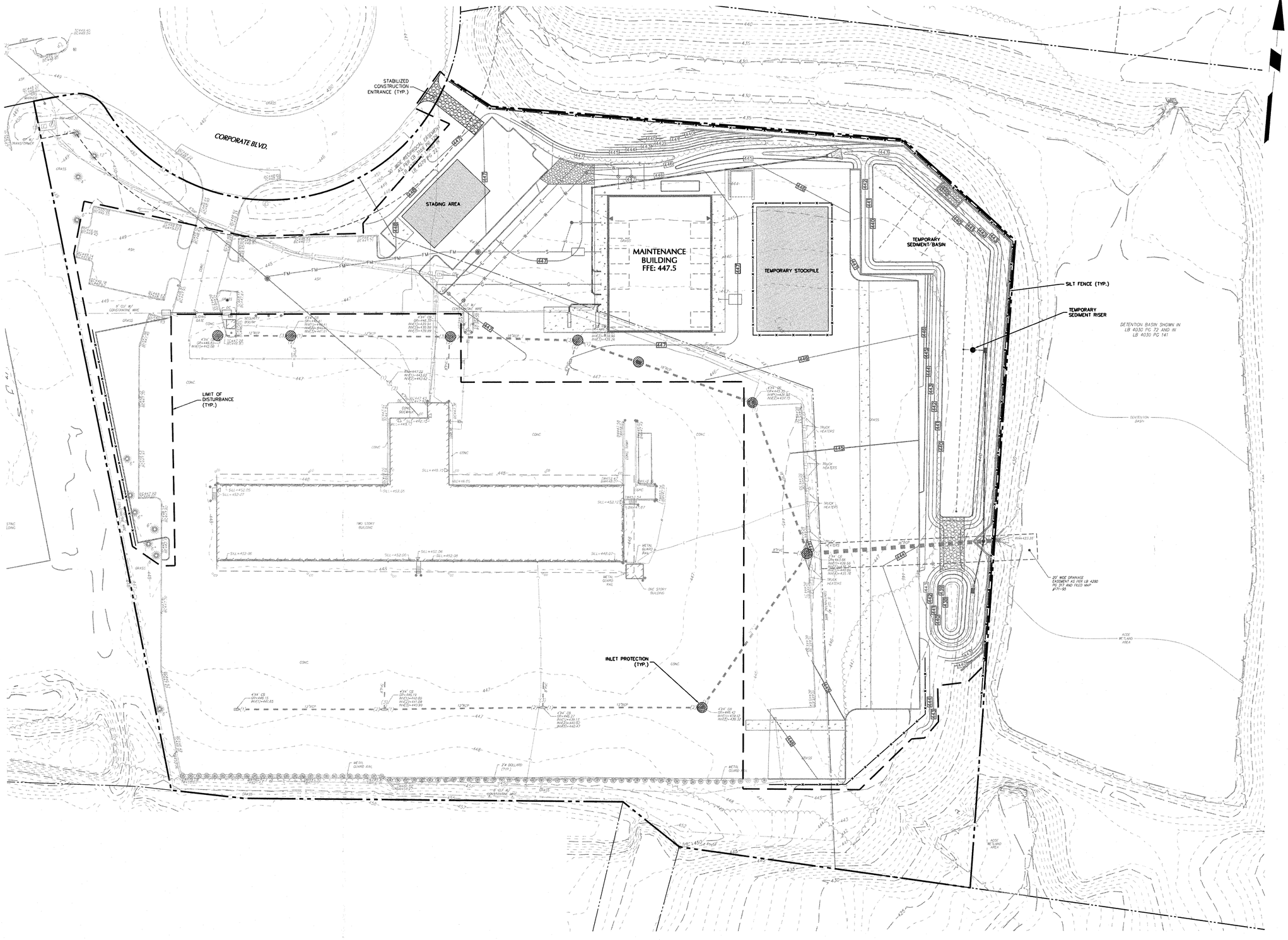

EROSION AND SEDIMENT CONTROL NOTES

1. REFER TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) SPDES GENERAL PERMIT IN APPENDIX A OF THE STORMWATER POLLUTION PREVENTION PLAN FOR ADDITIONAL REQUIREMENTS.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED IN ACCORDANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" LATEST EDITION.
3. BEFORE BEGINNING CONSTRUCTION, THE OWNER MUST SET UP A PRE-CONSTRUCTION MEETING WITH THE QUALIFIED PROFESSIONAL, QUALIFIED INSPECTOR, CONTRACTORS, AND SUBCONTRACTORS TO DISCUSS THE RESPONSIBILITIES RELATED TO THE STORMWATER POLLUTION PREVENTION PLAN IMPLEMENTATION.
4. THE CONTRACTOR AND SUBCONTRACTOR MUST IDENTIFY THE TRAINED INDIVIDUAL THAT WILL BE RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION.
5. BEFORE BEGINNING CONSTRUCTION, ALL EROSION AND SEDIMENT CONTROLS MUST BE INSTALLED IN ACCORDANCE WITH THE PLANS. SITE PREPARATION ACTIVITIES MUST BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISTURBANCE. EXISTING VEGETATION TO REMAIN MUST BE PROTECTED TO ENSURE OVER CLEARING DOES NOT OCCUR.
6. PERMANENT TRAFFIC CORRIDORS MUST BE ESTABLISHED AND "ROUTES OF CONVENIENCE" MUST BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES MUST BE INSTALLED AT THE LOCATIONS SHOWN ON THE PROJECT PLANS.
7. STOCKPILED TOPSOIL MUST BE ENCLOSED WITH SILT FENCE OR HAY BALES AND COVERED OR TEMPORARILY SEEDED. ALL GRASS SEED MUST CONTAIN AT LEAST 25% RAPID GERMINATING PERENNIAL RYE GRASS.
8. DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION MUST BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
9. DUST MUST BE CONTROLLED BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED.
10. EROSIVE MATERIAL TEMPORARILY STOCKPILED ON SITE DURING CONSTRUCTION MUST BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE AND MUST BE PROPERLY PROTECTED BY A SILT FENCE BARRIER.
11. EARTHWORK ACTIVITIES MUST BE CONSISTENT WITH THE PHASING PLANS. THE EARTHWORK OPERATION AREAS MUST BE STABILIZED ON AN ONGOING BASIS WITH NO AREAS THAT ARE NOT CURRENTLY UNDER CONSTRUCTION LEFT WITHOUT AT LEAST TEMPORARY COVER FOR MORE THAN 14 DAYS.
12. EROSION AND SEDIMENT CONTROL INSPECTIONS:
    - A. THE TRAINED INDIVIDUAL MUST INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES ON A DAILY BASIS TO ENSURE PROPER PERFORMANCE. ANY SEDIMENT BUILD-UP MUST BE CLEANED AND REMOVED. ALL DAMAGES TO EROSION AND SEDIMENT CONTROLS MUST BE REPAIRED AT THE END OF THE WORK DAY.
    - B. THE QUALIFIED INSPECTOR MUST CONDUCT SITE INSPECTIONS EVERY 7 DAYS. ANY DEFICIENCIES NOTED IN THE REPORTS MUST BE CORRECTED IMMEDIATELY BY THE CONTRACTOR.
    - C. IF SOIL DISTURBANCE ACTIVITIES ARE SUSPENDED FOR WINTER SHUTDOWN, TEMPORARY STABILIZATION MEASURES WILL BE APPLIED TO ALL DISTURBED AREAS. IF APPROVED BY THE NYSDEC OR MS4 MUNICIPALITY, THE FREQUENCY OF INSPECTIONS BY THE QUALIFIED INSPECTOR MAY BE REDUCED TO ONE INSPECTION EVERY 30 DAYS.
    - D. IF AUTHORIZED BY THE NYSDEC OR MS4 MUNICIPALITY TO DISTURB MORE THAN 5 ACRES AT ONE TIME, THE QUALIFIED INSPECTOR MUST CONDUCT AT LEAST 2 SITE INSPECTIONS, SEPARATED BY 2 DAYS, EVERY 7 DAYS UNTIL SUCH TIME THAT LESS THAN 5 ACRES OF SOIL REMAIN EXPOSED.
13. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE REMOVED WHEN ALL DISTURBED AREAS HAVE UNDERGONE FINAL STABILIZATION, WHEN UPGRADE SURFACES ARE PROPERLY STABILIZED AND ALL STORMWATER MANAGEMENT SYSTEMS ARE IN PLACE AND OPERATIONAL. ALL AREAS DISTURBED BY THE REMOVAL OF THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE FILLED IN, TOPSOILED, SEEDED, AND MULCHED. FINAL STABILIZATION IS ACHIEVED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 80% IS ESTABLISHED, OR EQUIVALENT STABILIZATION MEASURES, SUCH AS PLACEMENT OF MULCH OR GEOTEXTILE, IS COMPLETED ON ALL AREAS NOT PAVED OR COVERED BY PERMANENT STRUCTURES.

LEGEND

- SILT FENCE
- INLET PROTECTION
- CONSTRUCTION ENTRANCE
- STOCKPILE/STAGING AREA
- LIMIT OF DISTURBANCE

30 0 15 30
SCALE IN FEET

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STATE OF NEW YORK — W. CHARLES UTSCHIG JR. — 062303 — PROFESSIONAL ENGINEER

SIGNATURE — 4/9/2019 DATE SIGNED

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EROSION & SEDIMENT CONTROL PLAN

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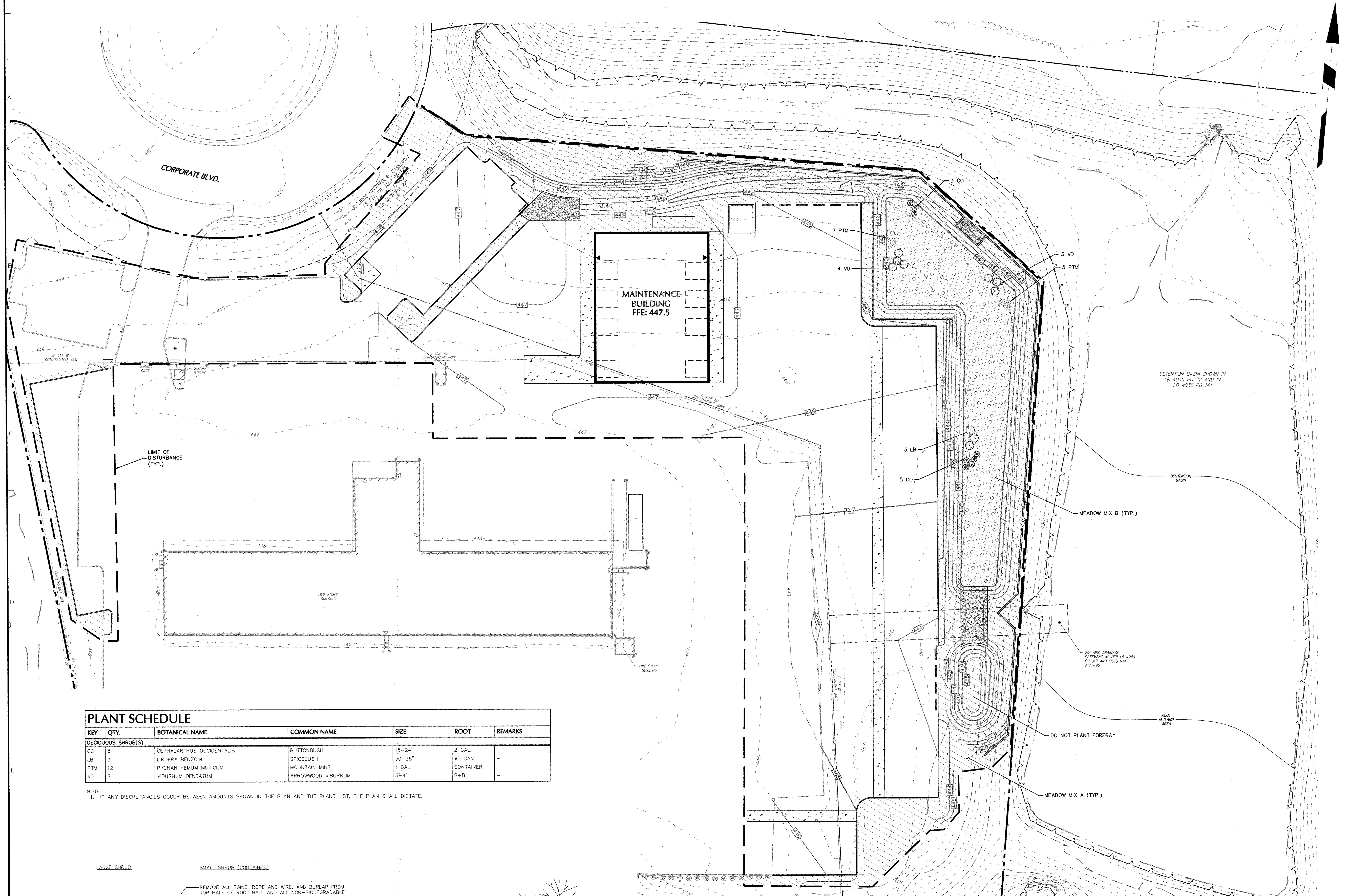
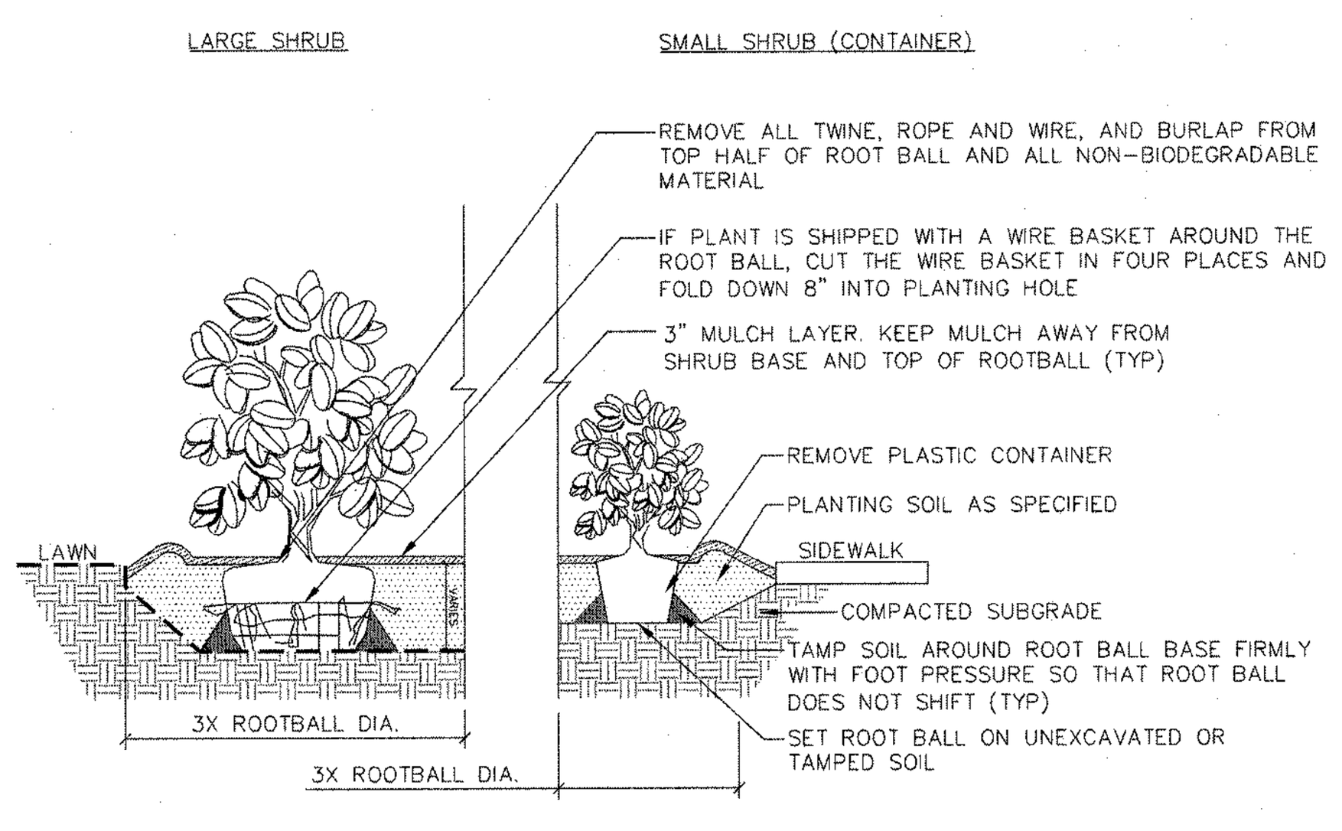


PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
DECIDUOUS SHRUB(S)						
CO	8	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	18–24"	2 GAL.	–
LB	3	LINDERA BENZOIN	SPICEBUSH	30–36"	#5 CAN	–
PTM	12	PYCNANTHEMUM MUTICUM	MOUNTAIN MINT	1 GAL.	CONTAINER	–
VD	7	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	3–4'	B+B	–

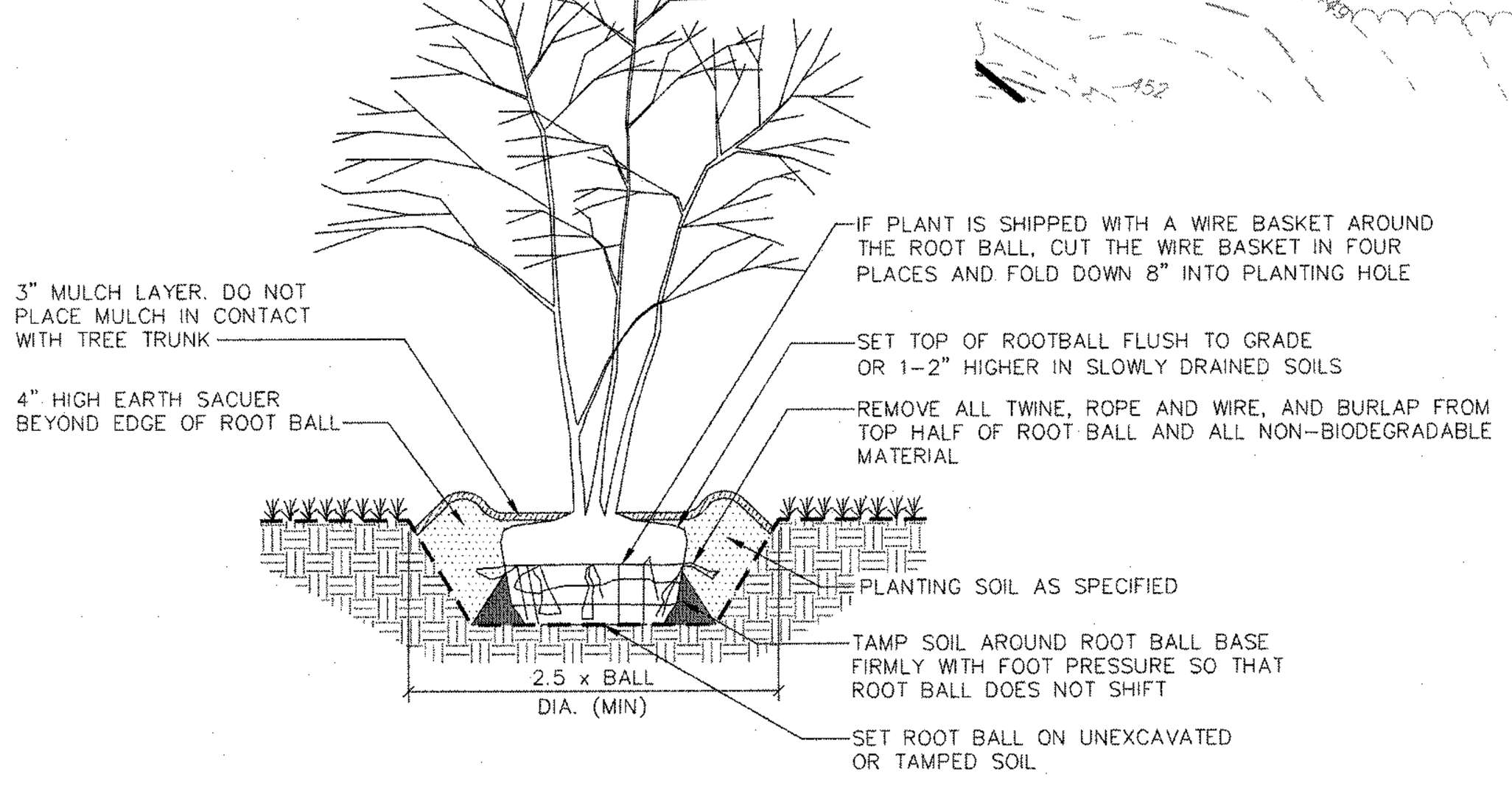
NOTE:
1. IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.



NOTES:

1. ALL SHRUBS TO BE SET PLUMB.
2. REFER TO LANDSCAPE PLAN FOR SPACING OF INDIVIDUAL PLANTS.
3. REMOVE ALL WIRE, PLASTIC, TAGS OR SYNTHETIC MATERIAL FROM PLANTS PRIOR TO PLANTING.

1 SHRUB PLANTING
NTS



2 MULTISTEM TREE PLANTING
NTS

GENERAL PLANTING NOTES:

1. NAMES OF PLANTS AS DESCRIBED ON THIS PLAN CONFORM TO THOSE GIVEN IN "STANDARDIZED PLANT NAMES", 1942 EDITION, PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE. NAMES OF PLANT VARIETIES NOT INCLUDED THEREIN CONFORM TO NAMES GENERALLY ACCEPTED IN NURSERY TRADE.
2. ALL EXPOSED GROUND SURFACES THAT ARE NOT PAVED WITHIN THE CONTRACT LIMIT LINE, AND THAT ARE NOT COVERED BY LANDSCAPE PLANTING OR SEEDING AS SPECIFIED, SHALL BE COVERED BY A NATURAL MULCH THAT WILL PREVENT SOIL EROSION AND THE EMANATION OF DUST.
3. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ENGINEER.
4. STANDARDS FOR TYPE, SPREAD, HEIGHT, ROOT BALL AND QUALITY OF NEW PLANT MATERIAL SHALL BE IN ACCORDANCE WITH GUIDELINES AS SET FORTH IN THE "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. PLANT MATERIAL SHALL HAVE NORMAL HABIT OF GROWTH AND BE HEALTHY, VIGOROUS, AND FREE FROM DISEASES AND INSECT INFESTATION.
5. NEW PLANT MATERIAL SHALL BE NURSERY GROWN UNLESS SPECIFIED OTHERWISE. ALL PLANTS SHALL BE SET PLUMB AND SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING. PLANT MATERIAL OF THE SAME SPECIES AND SPECIFIED AS THE SAME SIZE SHOULD BE SIMILAR IN SHAPE, COLOR AND HABIT. THE LANDSCAPE ARCHITECT HAS THE RIGHT TO REJECT PLANT MATERIAL THAT DOES NOT CONFORM TO THE TYPICAL OR SPECIFIED HABIT OF THAT SPECIES.
6. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY AND SEWER LINES PRIOR TO THE START OF EXCAVATION ACTIVITIES. NOTIFY THE PROJECT ENGINEER AND OWNER IMMEDIATELY OF ANY CONFLICTS WITH PROPOSED PLANTING LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE.
7. THE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS. IF THE SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, THE CONTRACTOR SHALL SUBMIT PROOF OF NON-AVAILABILITY TO THE LANDSCAPE ARCHITECT AND OWNER, TOGETHER WITH A WRITTEN PROPOSAL FOR USE OF AN EQUIVALENT MATERIAL.
8. LANDSCAPE CONTRACTOR TO STAKE OUT PLANTING LOCATIONS, FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT AND/OR OWNER BEFORE PLANTING WORK BEGINS. THE LANDSCAPE ARCHITECT AND/OR OWNER SHALL DIRECT THE CONTRACTOR IN THE FINAL PLACEMENT OF ALL PLANT MATERIAL AND LOCATION OF PLANTING BEDS TO ENSURE COMPLIANCE WITH DESIGN INTENT UNLESS OTHERWISE INSTRUCTED.
9. THE LANDSCAPE ARCHITECT MAY REVIEW PLANT MATERIALS AT THE SITE, BEFORE PLANTING, FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. THE LANDSCAPE ARCHITECT RETAINS THE RIGHT TO FURTHER REVIEW PLANT MATERIALS FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEM, INSECTS, INJURIES, AND LATENT DEFECTS, AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. THE CONTRACTOR SHALL REMOVE REJECTED PLANT MATERIALS IMMEDIATELY FROM PROJECT SITE AS DIRECTED BY THE LANDSCAPE ARCHITECT OR OWNER.
10. DELIVERY, STORAGE, AND HANDLING
    - A. PACKAGED MATERIALS: PACKAGED MATERIALS SHALL BE DELIVERED IN CONTAINERS SHOWING WEIGHT, ANALYSIS, AND NAME OF MANUFACTURER. MATERIALS SHALL BE PROTECTED FROM DETERIORATION DURING DELIVERY, AND WHILE STORED AT SITE.
    - B. TREES AND SHRUBS: THE CONTRACTOR SHALL PROVIDE TREES AND SHRUBS DUG FOR THE GROWING SEASON FOR WHICH THEY WILL BE PLANTED. DO NOT PRUNE PRIOR TO DELIVERY UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING TRANSIT. DO NOT DROP BALLED AND BURLAPPED STOCK DURING DELIVERY OR HANDLING.
    - C. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOTBALL WRAPPING AND BINDING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED FROM THE TOP OF THE BALL AT THE TIME OF PLANTING. IF THE PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, THE WIRE BASKET SHALL BE CUT AND FOLDED DOWN 8 INCHES INTO THE PLANTING HOLE. WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE ROOT BALL SHALL BE CUT THROUGH THE SURFACE IN TWO LOCATIONS.
    - D. THE CONTRACTOR SHALL HAVE TREES AND SHRUBS DELIVERED TO SITE AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND PLANT IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 6 HOURS AFTER DELIVERY, THE CONTRACTOR SHALL SET TREES AND SHRUBS IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE AND KEEP ROOTS MOIST BY COVERING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE.
11. ALL LANDSCAPED AREAS TO BE CLEARED OF ROCKS, STUMPS, TRASH AND OTHER UNSIGHTLY DEBRIS. ALL FINE GRADED AREAS SHOULD BE HAND RAKED SMOOTH ELIMINATING ANY CLUMPS AND UNEVEN SURFACES PRIOR TO PLANTING OR MULCHING.
12. ALL PLANT MATERIAL SHALL BE INSTALLED AS PER DETAILS, NOTES AND CONTRACT SPECIFICATIONS. THE LANDSCAPE ARCHITECT MAY REVIEW INSTALLATION AND MAINTENANACE PROCEDURES.
13. NEW PLANT MATERIAL SHALL BE GUARANTEED TO BE ALIVE AND IN VIGOROUS GROWING CONDITION FOR A PERIOD OF ONE YEAR FOLLOWING ACCEPTANCE BY THE OWNER. PLANT MATERIAL FOUND TO BE UNHEALTHY, DYING OR DEAD DURING THIS PERIOD, SHALL BE REMOVED AND REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
14. THE CONTRACTOR SHALL KEEP AREA CLEAN DURING DELIVERY AND INSTALLATION OF PLANT MATERIALS. REMOVE AND DISPOSE OF OFF-SITE ANY ACCUMULATED DEBRIS OR UNUSED MATERIALS. REPAIR DAMAGE TO ADJACENT AREAS CAUSED BY LANDSCAPE INSTALLATION OPERATIONS.
15. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24- HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED WEEKLY OR AS REQUIRED BY SITE AND WEATHER CONDITIONS TO MAINTAIN VIGOROUS AND HEALTHY PLANT GROWTH.
16. THE BACKFILL MIXTURE AND SOIL MIXES TO BE INSTALLED PER THE SPECIFICATIONS.
17. AFTER PLANT IS PLACED IN TREE PIT LOCATION, ALL TWINE HOLDING ROOT BALL TOGETHER SHOULD BE COMPLETELY REMOVED AND THE BURLAP SHOULD BE PULLED DOWN SO 1/3 OF THE ROOT BALL IS EXPOSED. SYNTHETIC BURLAP SHOULD BE COMPLETELY REMOVED AFTER INSTALLATION.
18. MULCH SHOULD NOT BE PILED UP AROUND THE TRUNK OF ANY PLANT MATERIAL. NO MULCH OR TOPSOIL SHOULD BE TOUCHING THE BASE OF THE TRUNK ABOVE THE ROOT COLLAR.
19. ALL FENCE INSTALLATION SHALL BE COMPLETED PRIOR TO COMMENCEMENT OF ANY LANDSCAPE PLANTING, LAWN AND GRASSES, OR IRRIGATION WORK.
20. CONTRACTOR TO COORDINATE FENCE INSTALLATION WITH OTHER TRADES INVOLVED WITH SITE WORK. CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL FENCE POST INSTALLATION WITH EXISTING AND PROPOSED UTILITIES.
21. REFER TO SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS FOR EROSION CONTROL BLANKET SPECIFICATIONS. MAT TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
22. ALL PLANT INSTALLATIONS SHALL BE COMPLETED EITHER BETWEEN APRIL 1 – JUNE 15 OR AUGUST 15 – NOVEMBER 1, UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT. SEE LAWN SEEDING DATES IN SEEDING NOTES.
23. ALL PLANTINGS AND EXISTING TREES DESIGNATED FOR PRESERVATION THAT DIE OR ARE DESTROYED WITHIN TWO YEARS MUST BE REPLACED

MEADOW SEEDING NOTES:

1. MEADOW SEED MIX A – ERNST SEED MIX ERNMX-181 "NATIVE STEEP SLOPE SLOPE MIX W/ ANNUAL RYE"

20%	LOLIUM MULTIFLORUM	ANNUAL RYEGRASS
20%	ANDROPOGON SCOPARIUS	LITTLE BLUESTEM, CAMPER
20%	ELYMUS CANADENSIS	CANADA WILD RYE
10%	SPOROBOLUS ASPER	ROUGH DROPSEED
10%	BROMUS CILIATUS	FRINGED BROME
10%	AGROSTIS PERENNANS	AUTUMN BENTGRASS
5%	RUDBECKIA HIRTA	BLACK EYED SUSAN
3%	ASTER PRENANTHIODIES/NOVI-BELGII	ZIGZAG ASTER/NEW YORK ASTER MIX
2%	SOLIDAGO NEMORALIS	GRAY GOLDENROD

NOTES:

1. SEED AT A RATE OF 30 LBS./ACRE.
2. APPLY A NURSE CROP OF ANNUAL RYE AT A RATE OF 10 LBS./ACRE.

2. MEADOW SEED MIX B – ERNST SEED MIX ERNMX-127 "RETENTION BASIN FLOOR SEEDING MIX"

20%	AGROSTIS STOLONIFERA	CREEPING BENTGRASS
25%	ALOPECURUS AURNDINACEUS	GARRISON CREEPING FOXTAIL
25%	ELYMUS VIRGINICUS	VIRGINIA WILD RYE
5%	FESTUCA RUBRA	CREEPING RED FESCUE
5%	BIDENS CERNUA	NODDING BUR-MARIGOLD
4%	SPARGANIUM EURYCARPUM	GIANT BUR-REED
4%	SCIRUPS ATROVIRENS	GREEN BULRUSH
4%	SCIRPUS POLYPHYLLUS	MANY LEAVED BULRUSH
3%	VERBERA HASTATA	BLUE VERVAIN
3%	SCIRPUS CYPERINUS	WOOLGRASS
1%	MIMULUS RINGENS	MONKEY FLOWER
1%	SOLIDAGO PATULA	ROUGH LEAF GOLDENROD

NOTES:
1. SEED AT A RATE OF 15 LBS./ACRE.
2. FOR SPRING SEEDING, APPLY A NURSE CROP OF OATS AT A RATE OF 20 LBS./ACRE.
3. FOR FALL SEEDING, APPLY A NURSE CROP OF BARLEY AT A RATE OF 20 LBS./ACRE.

3. GENERAL SEEDING NOTES:

1. SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 1) OR THE FALL (SEPTEMBER 1 TO OCTOBER 1).
2. ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A BROAD-SPECTRUM NON-SELECTIVE HERBICIDE PER MANUFACTURER'S SPECIFICATIONS.
3. IT IS RECOMMENDED THAT CONTRACTOR INSTALL SEED MIXTURE USING A NO-TILL TRUAX-TYPE DRILL WHERE APPLICABLE.
4. CONTINUOUS MOISTURE FOR 4-6 WEEKS MUST BE INSURED TO ALLOW PROPER GERMINATION.

4. WEED CONTROL/MAINTENANCE NOTES:

1. DURING THE ESTABLISHMENT YEAR, CONTRACTOR SHALL MOW SEEDING IF WEED HEIGHT EXCEEDS MEADOW MIX HEIGHT. MOW AT A HEIGHT OF 8"-10". DO NO MOW CLOSE, AS SOME OF THE MEADOW MIX MAY BE DAMAGED.
2. AFTER THE FIRST GROWING SEASON, AND IF MEADOW MIX IS WELL ESTABLISHED, THE MEADOW MIX SHALL BE MOWED ONLY ONCE ANNUALLY. ANNUAL MAINTENANCE MOWING SHALL BE DONE IN LATE WINTER DURING THE MONTH OF MARCH.
3. MOW IN WETLAND AND WETLAND TRANSITION AREAS DURING DRIER SITE CONDITIONS WHEN SOIL DISTURBANCE WILL NOT OCCUR. MAINTENANCE FOR WETLAND AND WETLAND TRANSITION AREAS SHALL OCCUR DURING LATE SUMMER (JULY 1 TO AUGUST 15) WHEN THE WATER TABLE IS USUALLY AT ITS LOWEST POINT OF THE YEAR. DO NOT MOW IN WETLAND OR WETLAND TRANSITION AREAS ESTABLISHMENT OF MEADOW MIX.

LAWN WATERING SCHEDULE:

THE FOLLOWING WATERING SCHEDULE COVERS ROUGHLY 8 WEEKS TO ESTABLISH A HEALTHY STAND OF GRASS FROM SEED. THE CONTRACTOR SHALL BE OBLIGATED TO ENSURE A HEALTHY STAND OF GRASS AT THE END OF THE MAINTENANCE/BOND PERIOD. ANY BARE OR DEAD AREAS IN THE LAWN SHALL BE PREPARED, RESEEDED AND REESTABLISHED PRIOR TO THE END OF THE MAINTENANCE/BOND PERIOD AND TO THE SATISFACTION OF THE PROJECT LANDSCAPE ARCHITECT AND THE OWNER.

IMPORTANT ASPECTS TO ATTAINING AND SUSTAINING A HEALTHY STAND OF GRASS ARE THE INSTALLATION OF TOPSOIL, SEED BED PREPARATION, ATTAINING OPTIMAL pH FOR THE INTENDED PLANT SPECIES, FERTILIZING, MULCH COVERING, AND SUFFICIENT WATERING PER THESE NOTES AND/OR PROJECT SPECIFICATIONS.

1. SEEDING SHALL BE DONE DURING THE SEASONS SPECIFIED IN THE LAWN SEED MIX NOTES AND/OR PROJECT SPECIFICATIONS.
2. AFTER THE SEEDBED IS PREPARED, SEED IS INSTALLED, AND MULCH IS APPLIED, WATER LIGHTLY TO KEEP THE TOP 2 INCHES OF SOIL CONSISTENTLY MOIST, NOT SATURATED. AT NO TIME SHOULD WATER BE APPLIED TO THE POINT OF RUNOFF OR THE DISPLACEMENT OF SEED.
3. DEPENDING ON SOIL TEMPERATURES, IT MAY TAKE SEVERAL WEEKS FOR GERMINATION TO OCCUR. DIFFERENT SPECIES WITHIN THE MIX GERMINATE AT DIFFERENT TIMES AND THEREFORE CONTRACTOR SHOULD CONTINUE THE LIGHT WATERING, AS DESCRIBED ABOVE, UNTIL THERE IS AT LEAST 2 INCHES OF GROWTH THROUGHOUT.
4. AT THIS POINT, WATERING FREQUENCY MAY BE REDUCED TO EVERY 3 TO 5 DAYS. WATER SHALL BE APPLIED TO WET A 6 INCH MINIMUM SOIL DEPTH TO PROMOTE HEALTHY DEEP ROOTS.
5. BEGIN MOWING ONCE PER WEEK AFTER THE GRASS HAS REACHED 3 INCHES HEIGHT. MOW TO A HEIGHT OF NO LESS THAN 2-½ INCHES. AFTER 2 TO 3 WEEKS OF MOWING, CONTINUE TO WATER TO A 6 INCH MINIMUM SOIL DEPTH AS NECESSARY PER WEATHER CONDITIONS, AND SOIL MOISTURE SENSORS IF APPLICABLE.

LEGEND

(diagonal hatch)	MEADOW MIX A
(circle pattern)	MEADOW MIX B

SCALE IN FEET: 30 0 15 30

Date	Description	No.
04/09/19	REVISED PER TOWN COMMENTS	1.

REVISIONS

SIGNATURE 4/9/2019 DATE SIGNED
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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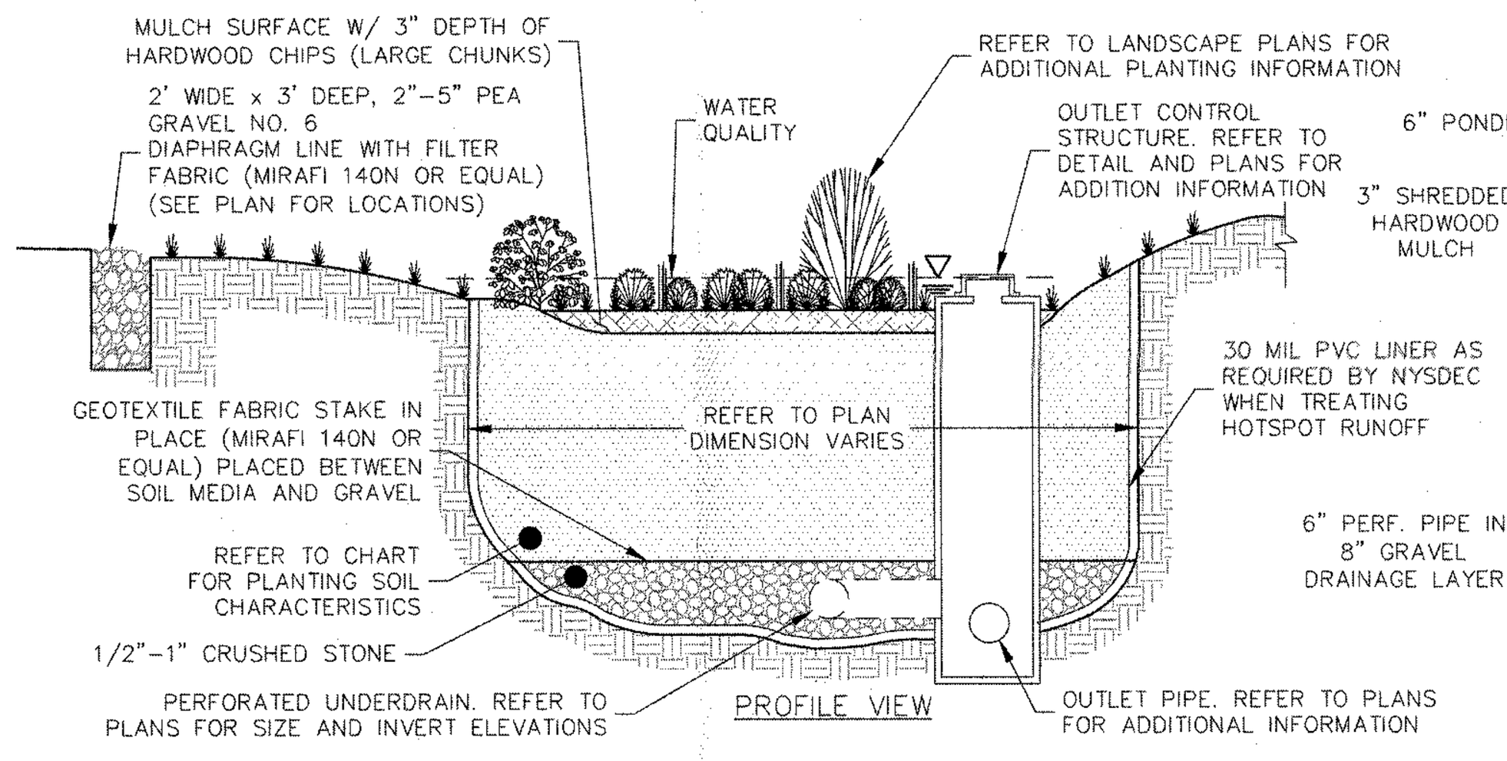
Project: A. DUIE PYLE MAINTENANCE BUILDING
BLOCK No. 1, LOT No.69.1
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

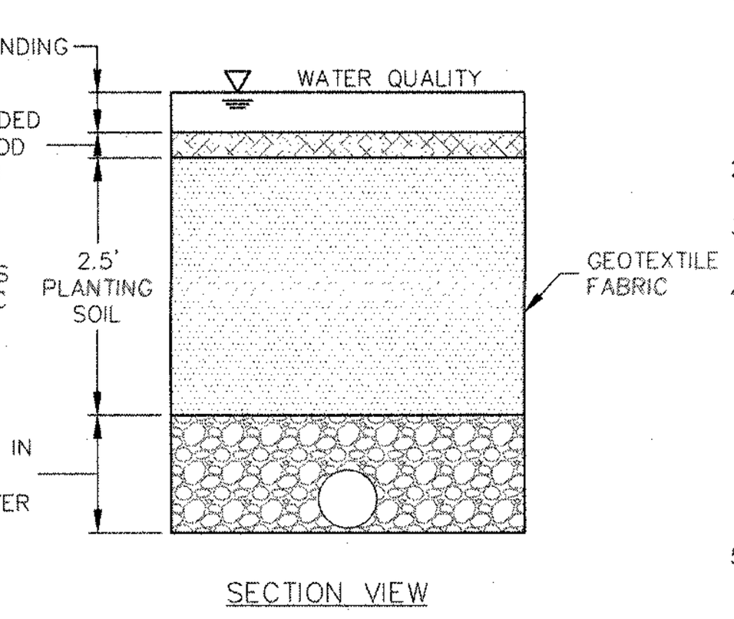
Drawing Title: LANDSCAPE PLAN, NOTES, & DETAILS

Project No. 190048601
Date MARCH 11, 2019
Drawn By JM
Checked By MF
Drawing No. LS101
Sheet 9 of 12

Filename: \\langan.com\data\WPW\data6\190048601\Project Data\CAD\01\SheetFiles\Site Plan Approval\190048601-LP101-0101.dwg Date: 4/9/2019 Time: 14:36 User: jmacalintal Style Table: Langan.stb Layout: ARCHF-BL

LANGAN PROJECT NO. 190048601





PLANTING MEDIA NOTES:

1. PLANTING SOIL TO BE A SANDY LOAM, LOAMY SAND, LOAM (USDA), OR A LOAM/SAND MIX (MIN. 35 TO 60% SAND BY VOLUME).
2. PLANTING SOIL TO HAVE A PERMEABILITY OF AT LEAST 0.5 FOOT PER DAY.
3. PLANTING SOIL TO BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER.
4. PLACEMENT OF PLANTING SOILS TO BE IN 12 TO 18" LIFTS, LOOSELY COMPACTED.
5. SPECIFIC SPECIFICATIONS

PARAMETER	VALUE
pH RANGE	5.2 TO 7.0
ORGANIC MATTER	1.5 TO 4.0%
MAGNESIUM	35 LBS/AC (MIN.)
PHOSPHOROUS	75 LBS/AC (MIN.)
POTASSIUM	85 LBS/AC (MIN.)
SOLUBLE SALTS	NOT TO EXCEED 500 PPM
CLAY	10 TO 25%
SILT	30 TO 35%
SAND	35 TO 60%

6. MULCH LAYER TO BE STANDARD LANDSCAPE STYLE, SINGLE OR DOUBLE, SHREDDED HARDWOOD MULCH OR CHIPS. THE MULCH LAYER SHOULD BE WELL AGED (STOCKPILED OR STORED FOR AT LEAST 12 MONTHS), UNIFORM IN COLOR, AND FREE OF WEEDS, ROOTS, SOIL, ETC. GRASS CLIPPINGS SHALL NOT BE USED AS MULCH MATERIAL.

BIORETENTION AREA MANAGEMENT:

1. ANNUAL INSPECTION AND REPAIR OF OR REPLACEMENT OF TREATMENT COMPONENTS.
2. TWICE PER YEAR (SPRING AND FALL) INSPECT TREES AND SHRUBS TO EVALUATE HEALTH, REMOVE AND REPLACE DEAD OR DYING PLANTS, AND PRUNE DISEASED OR BROKEN PLANTS.
3. WEED ANNUALLY AND PRUNE SHRUB VEGETATION UNTIL VEGETATION IS ESTABLISHED TO IMPROVE APPEARANCE.
4. REPLACE MULCH TO COVER EXPOSED SOIL AREA. REMOVE AND REPLACE MULCH EVERY TWO TO THREE YEARS. MULCH DEPTH NOT TO EXCEED 3-INCHES.
5. SAMPLE SOIL FOR FERTILITY EVERY THREE YEARS. ADDITION OF LIMESTONE ONE OR TWO TIMES PER YEAR TO MAINTAIN PROPER PH IS RECOMMENDED. FIELD OR LABORATORY TESTING FOR PH IS ACCEPTABLE.
6. CHECK BASIN FOR SEDIMENT BUILD UP AND REMOVE SEDIMENT IF GREATER THAN ONE INCH.
7. CHECK BASIN AFTER STORM EVENT TO ENSURE THAT IT DEWATERS PROPERLY (DRAINS WITHIN 48-HOURS).
8. CHECK OUTLET OVERFLOW FOR EVIDENCE OF BLOCKAGE AND SOIL EROSION AT DISCHARGE POINTS. CLEAN BLOCKAGES AS REQUIRED AND STABILIZE EROSIVE AREAS AS NEEDED.

NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL APPENDIX C NOTES:

1. ALL BIORETENTION AREAS SHALL HAVE A MINIMUM OF ONE TEST. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR pH, PHOSPHORUS, AND POTASSIUM AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOP SOIL WAS EXCAVATED.
2. SINCE DIFFERENT LABS CALIBRATE THEIR TESTING EQUIPMENT DIFFERENTLY, ALL TESTING RESULTS SHALL COME FROM THE SAME TESTING FACILITY.
3. SHOULD THE pH FALL OUT OF THE ACCEPTABLE RANGE, IT MAY BE MODIFIED (HIGHER) WITH LIME OR (LOWER) WITH IRON SULFATE PLUS SULFUR.
4. IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE BIORETENTION AREA AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF BIORETENTION AREAS ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND STORAGE VOLUMES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.
5. COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTIONS FROM HEAVY EQUIPMENT.
6. ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE REQUIRED SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE.
7. WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.
8. WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" OR GREATER. DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN.. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS BY HAND OR WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.
9. MULCH AROUND INDIVIDUAL PLANTS ONLY. SHREDDED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.
10. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE.
11. ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.
12. TREES SHALL BE BRACED USING 2" X 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.
13. GRASSES AND LEGUME SEED SHALL BE TILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.
14. THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMUM, IMPEDED THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH IS USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.
15. UNDER DRAINS TO BE PLACED ON A 3'-0" WIDE SECTION OF FILTER CLOTH. PIPE IS PLACED NEXT, FOLLOWED BY THE GRAVEL BEDDING. THE ENDS OF UNDERDRAIN PIPES NOT TERMINATING IN AN OBSERVATION WELL SHALL BE CAPPED.
16. THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).
17. THE BIORETENTION FACILITY MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

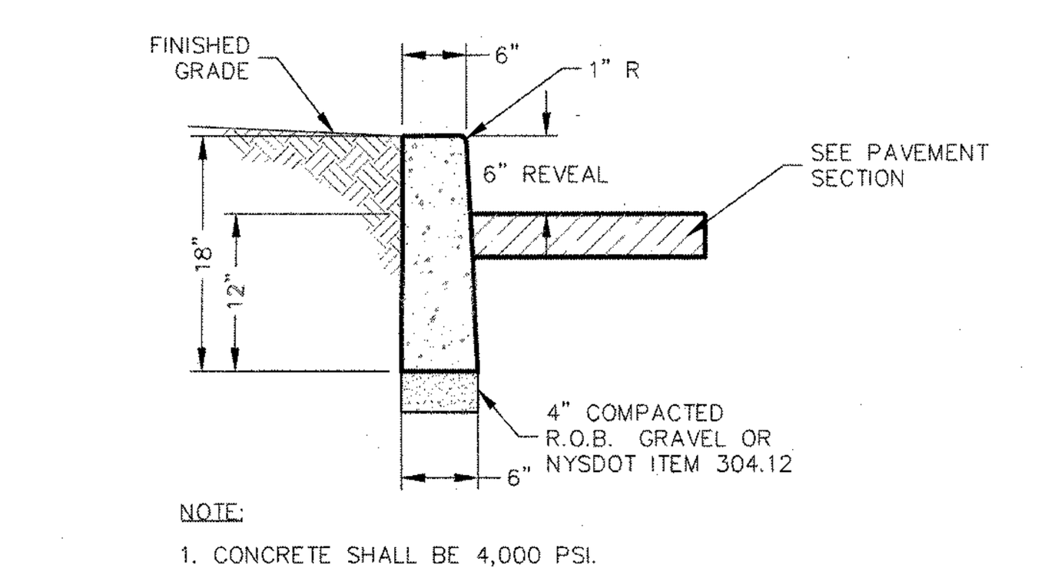
CONSTRUCTION INSTALLATION:

1. STAKE THE LIMITS AND PROVIDE OFFSETS OF THE PROPOSED BIORETENTION AREA AND SET ACCESSIBLE REFERENCE ELEVATIONS, AS NEEDED.
2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES CONSISTENT WITH OVERALL DEVELOPMENT E&S PLAN.
3. STABILIZE THE GRADING AROUND THE PROPOSED AREA AND DIVERT RUNOFF AWAY FROM THE PROPOSED EXCAVATIONS.
4. EXCAVATE THE BIORETENTION AREA TO THE PROPOSED LINES AND GRADES SHOWN ON THE SITE PLANS, AND SCARIFY THE EXISTING SOIL SURFACES, TAKING CARE NOT TO COMPACT THE IN-SITU SOILS.
5. INSTALL THE UNDERDRAIN SYSTEM AND OVERFLOW STRUCTURES. INSTALL THE FABRIC ON THE SIDEWALLS AND STAKE IN PLACE.
6. BACKFILL THE EXCAVATIONS WITH THE SOIL MIXTURE AS SHOWN ON THE PLANS AND SPECIFIED HEREIN.
7. FINISH GRADING THE SURFACE OF THE BIORETENTION AREA. LEAVE ROOM FOR 3-INCHES OF SHREDDED HARDWOOD MULCH.
8. PLANT VEGETATION WITHIN THE BIORETENTION AREA AS SPECIFIED IN THE PLANTING NOTES AND LANDSCAPE PLANS.
9. MULCH THE SURFACE WITH NOT MORE THAN 3-INCHES OF SINGLE PASS. REMOVE TEMPORARY SEDIMENT CONTROLS AND ANY ENTRANCE BLOCKS TO THE BIORETENTION AREA AFTER ACCEPTANCE BY THE DESIGN PROFESSIONAL AND THE LOCAL REGULATORY AUTHORITY.

MATERIALS SPECIFICATIONS FOR BIORETENTION

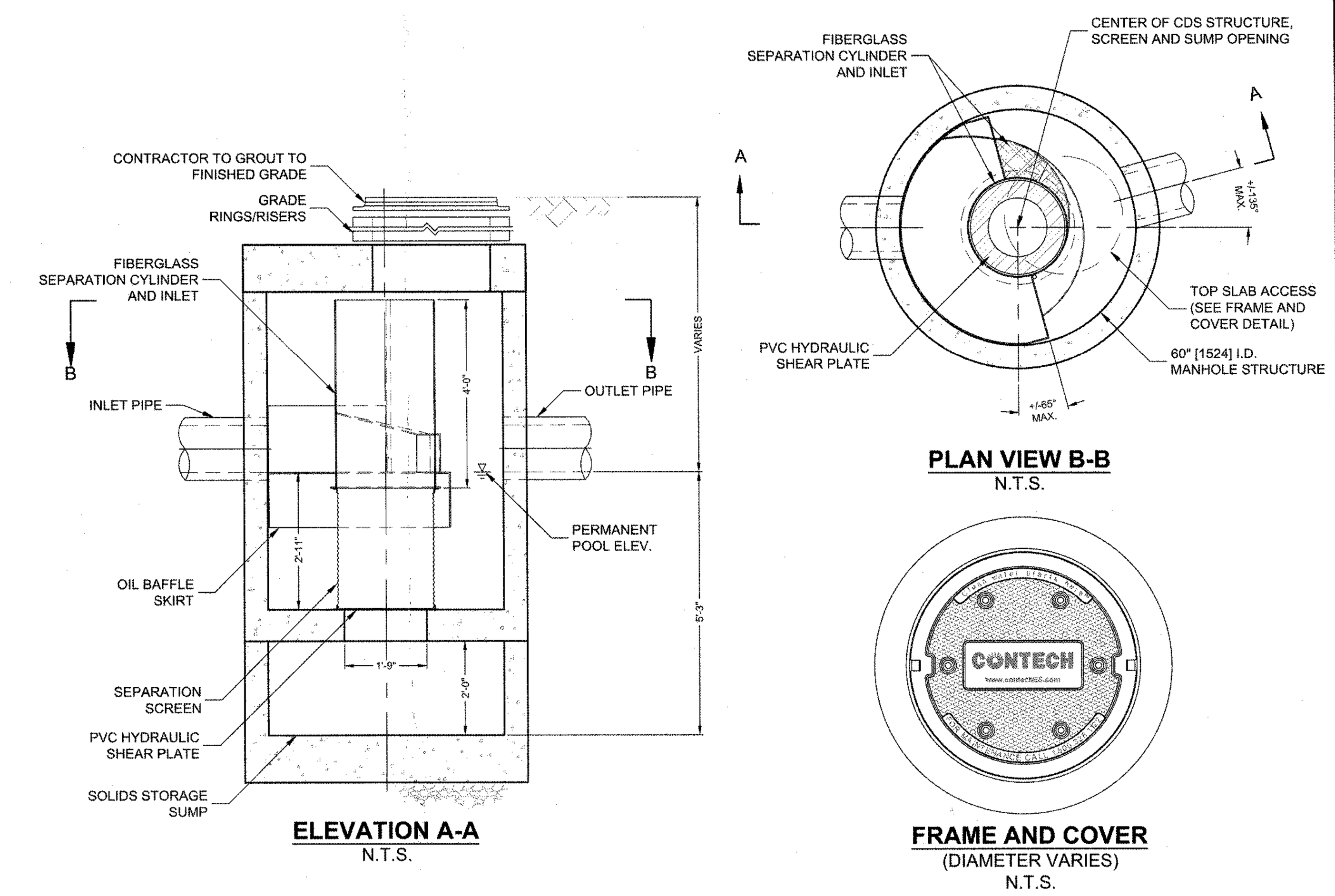
PARAMETER	SPECIFICATIONS	SIZE	NOTES
PLANTINGS	SEE YOUR LOCAL STANDARDS AND SPECIFICATIONS	N/A	PLANTINGS ARE SITE-SPECIFIC
PLANTING SOIL (4=DEEP)	SAND 35-60% SILT 30-55% CLAY 10-25%	N/A	USDA SOIL TYPES LOAMY SAND, SANDY LOAM OR LOAM
MULCH	SHREDDED HARDWOOD		AGED 6 MONTHS, MINIMUM
PEA GRAVEL DIAPHRAGM AND CURTAIN DRAIN	PEA GRAVEL: ASTM D 448 ORNAMENTAL STONE: WASHED COBBLES	PEA GRAVEL: No. 6 STONE: 2" TO 5"	
GEOTEXTILE	CLASS "C" APPARENT OPENING SIZE (ASTM-D-4751) GRAB TENSILE STRENGTH (ASTM-D-4632) BURST STRENGTH (ASTM-D-4833)	N/A	FOR USE AS NECESSARY BENEATH UNDERDRAINS ONLY
UNDERDRAIN GRAVEL	AASHTO M-43. No. 67	0.25" TO 0.75"	
UNDERDRAIN PIPING	ASTM D 1785 OR AASHTO M-278	6" RIGID SCHEDULE 40 PVC	3/8" PERF. @ 6" ON CENTER, 4 HOLES PER ROW; MINIMUM OF 3" OF GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES
POURED IN PLACE CONCRETE (IF REQUIRED)	SEE LOCAL DOT STANDARDS AND SPECS; F=C=3500PSI @ 28 DAYS, NORMAL WEIGHT, AIR-ENTRAINED; RE-INFORCING TO MEET ASTM 615-60	N/A	ON-SITE TESTING OF POURED-IN-PLACE CONCRETE REQUIRED: 28 DAY STRENGTH AND SLUMP TEST; ALL CONCRETE DESIGN (CAST-IN-PLACE OR PRE-CAST) NOT USING PREVIOUSLY APPROVED STATE OR LOCAL STANDARDS REQUIRES DESIGN DRAWINGS SEALED AND APPROVED BY A LICENSED PROFESSIONAL STRUCTURLA ENGINEER.
SAND (1=DEEP)	AASHTO M-6 OR ASTM C-33	0.02" TO 0.04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NO "ROCK DUST" CAN BE USED FOR SAND.

BIORETENTION WITH UNDERDRAIN
SCALE: NTS



NOTE:
1. CONCRETE SHALL BE 4,000 PSI.

CONCRETE CURB
SCALE: NTS



CDS UNIT 2520-5 (CDS-5)
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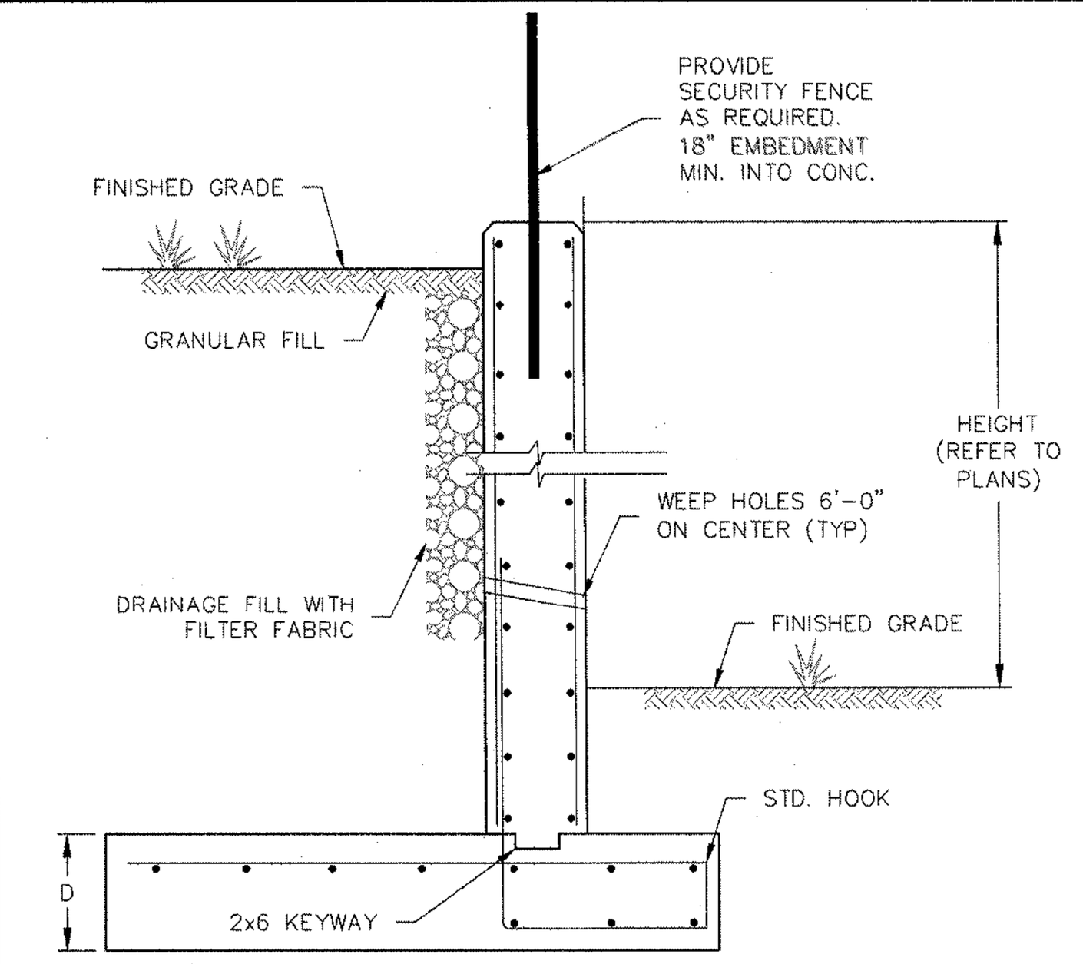
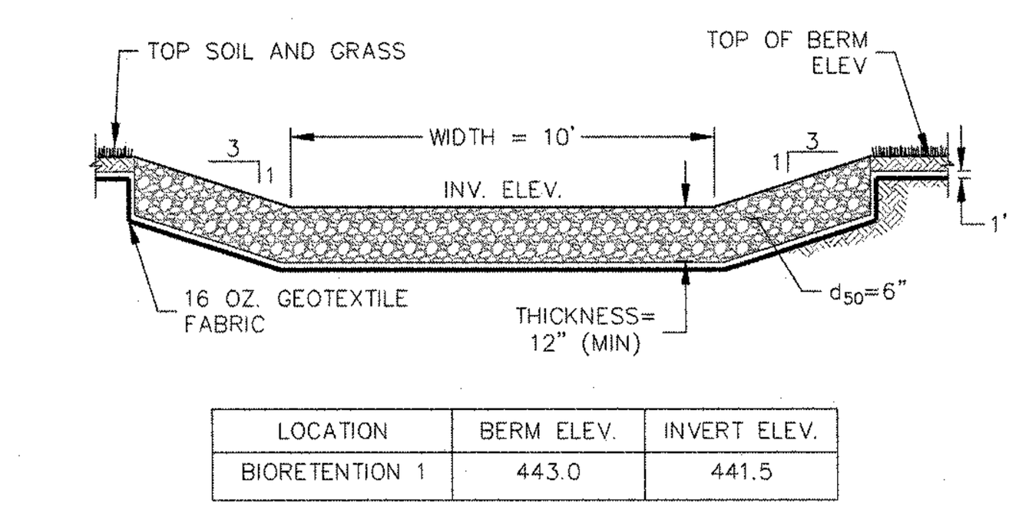


ALL CONRETE TO BE 4,000 PSI MINIMUM

NOTES:

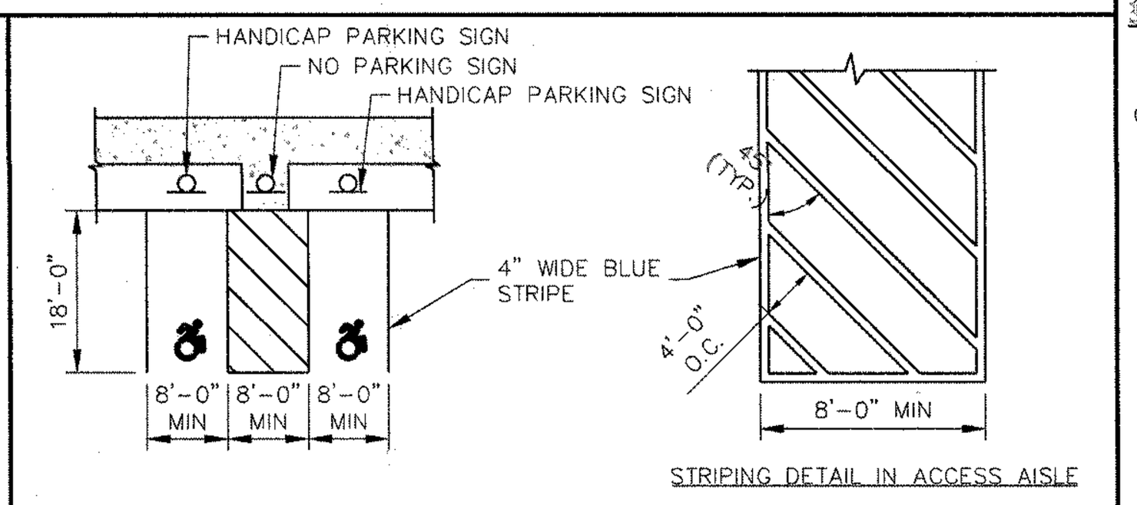
1. ALL CAST IN PLACE RETAINING WALLS SHALL BE DESIGNED, SIGNED AND SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF NEW YORK AND RETAINED BY THE CONTRACTOR. ALL RETAINING WALL DESIGNS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW.
2. F'c = 4,000 PSI MIN.
3. SOIL CONDITIONS SHALL BE DETERMINED BY THE CONTRACTOR OR CONTRACTOR'S CONSULTANTS.

REINFORCED CONCRETE WALL
SCALE: NTS



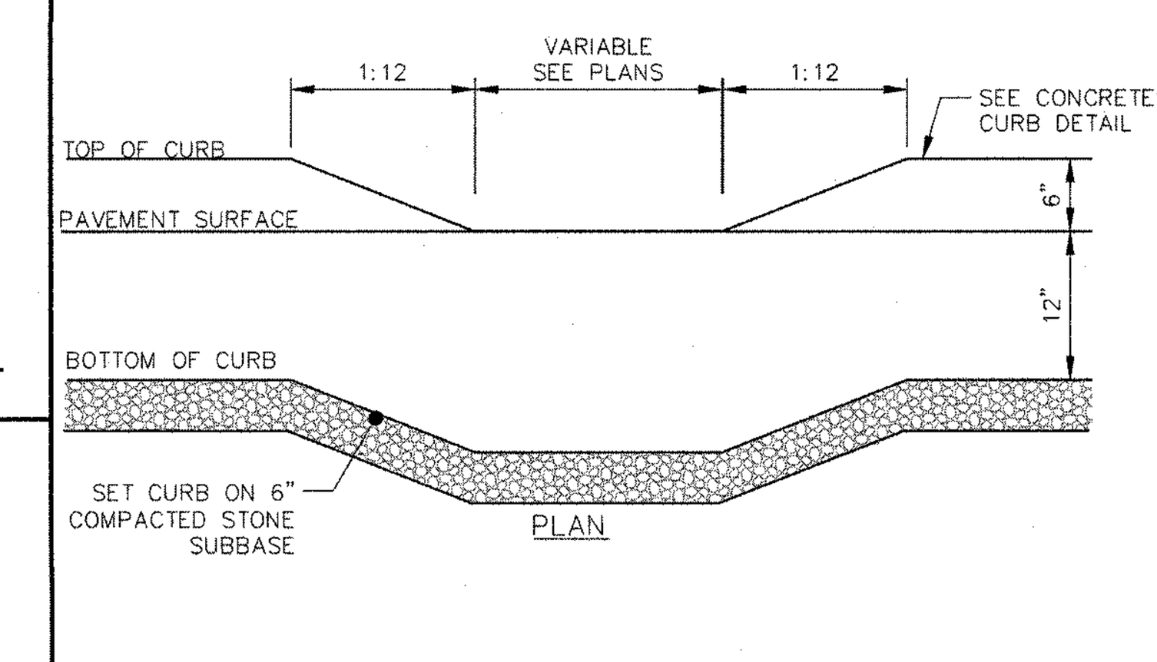
LOCATION	BERM ELEV.	INVERT ELEV.
BIORETENTION 1	443.0	441.5

OVERFLOW WEIR
SCALE: NTS



NOTES:
1. ALL STALLS SHALL BE A MINIMUM OF 8'-0"X18'-0".
2. PROPOSED STRIPING SHALL BE BLUE IN COLOR

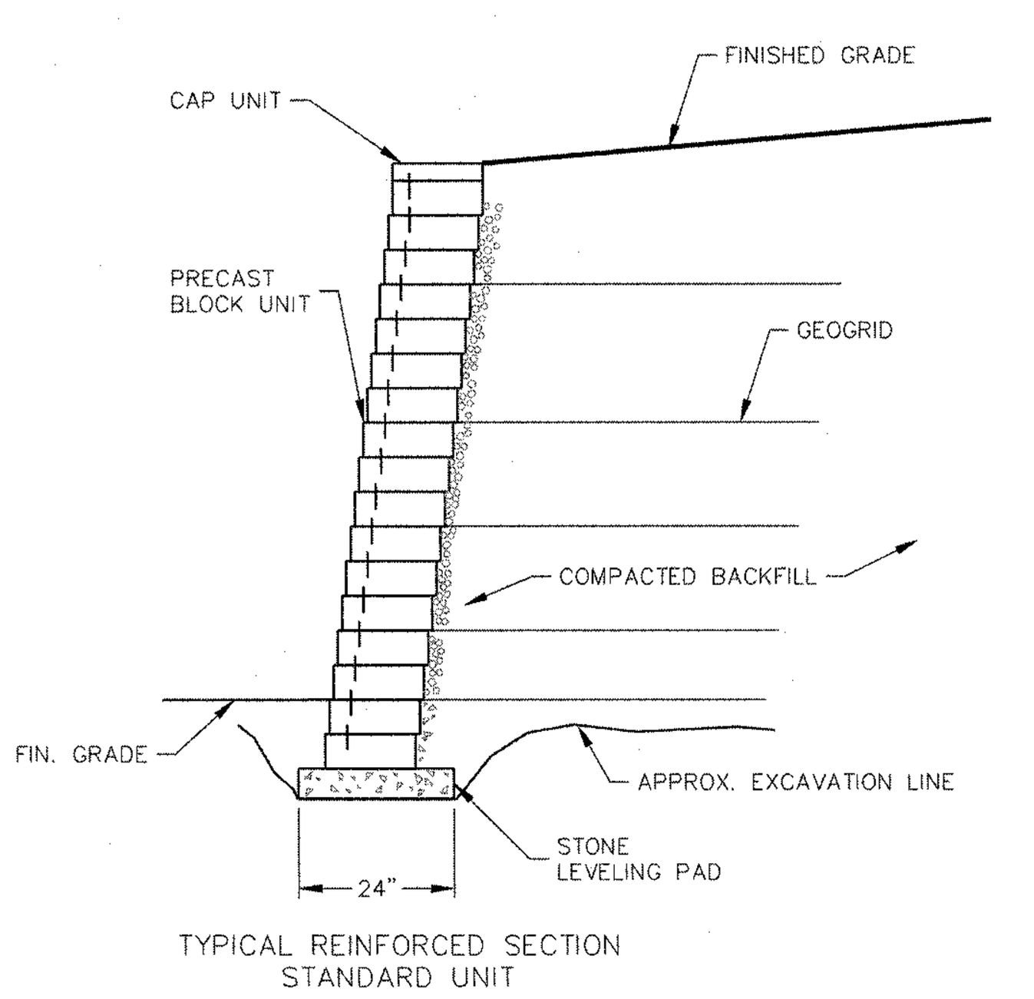
HANDICAP PARKING
SCALE: NTS



NOTES:

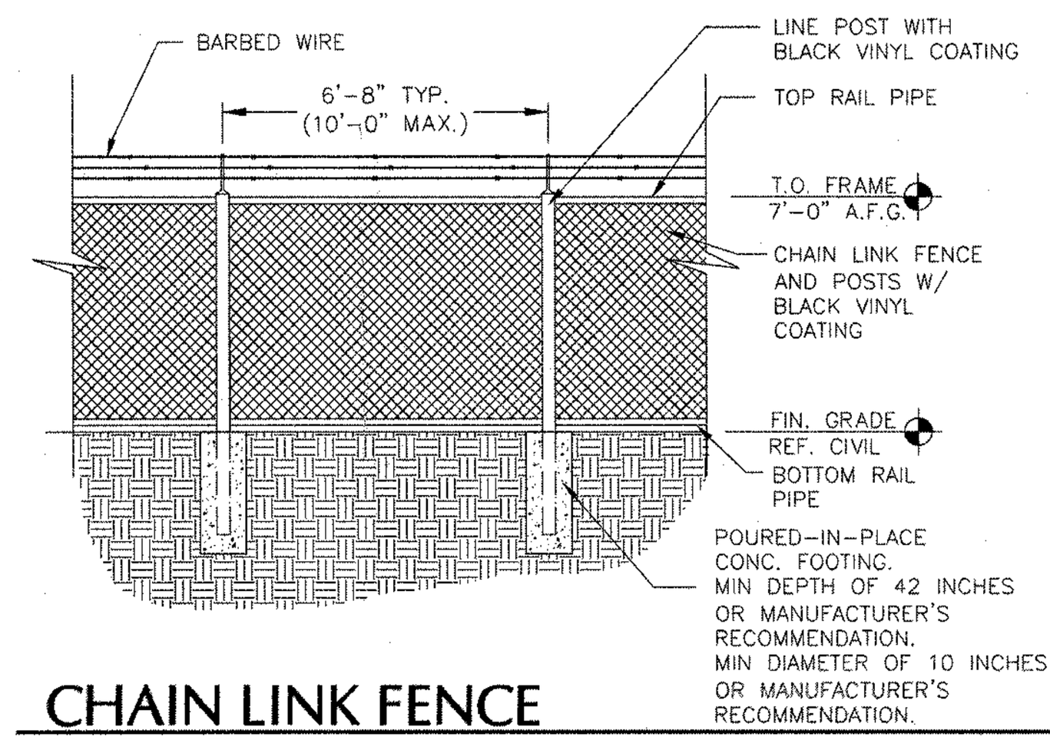
1. OPEN JOINTS SHALL BE PROVIDED AT INTERVALS OF 20 FEET AND SHALL BE FILLED WITH 1/2 BITUMINOUS CELLAR COMPRESSION JOINT MATERIAL, RECESSED 1/4-INCH FROM THE FRONT FACE AND TOP OF THE CURB.
2. CURB AT DRIVEWAYS SHALL BE DEPRESSED SO THAT THE TOP OF THE CONCRETE IS 1 1/2-INCHES ABOVE THE ADJACENT PAVEMENT.
3. CONCRETE SHALL BE AIR ENTRAINED, 4,000 PSI AT 28 DAY TEST.

FLUSH CURB
SCALE: NTS

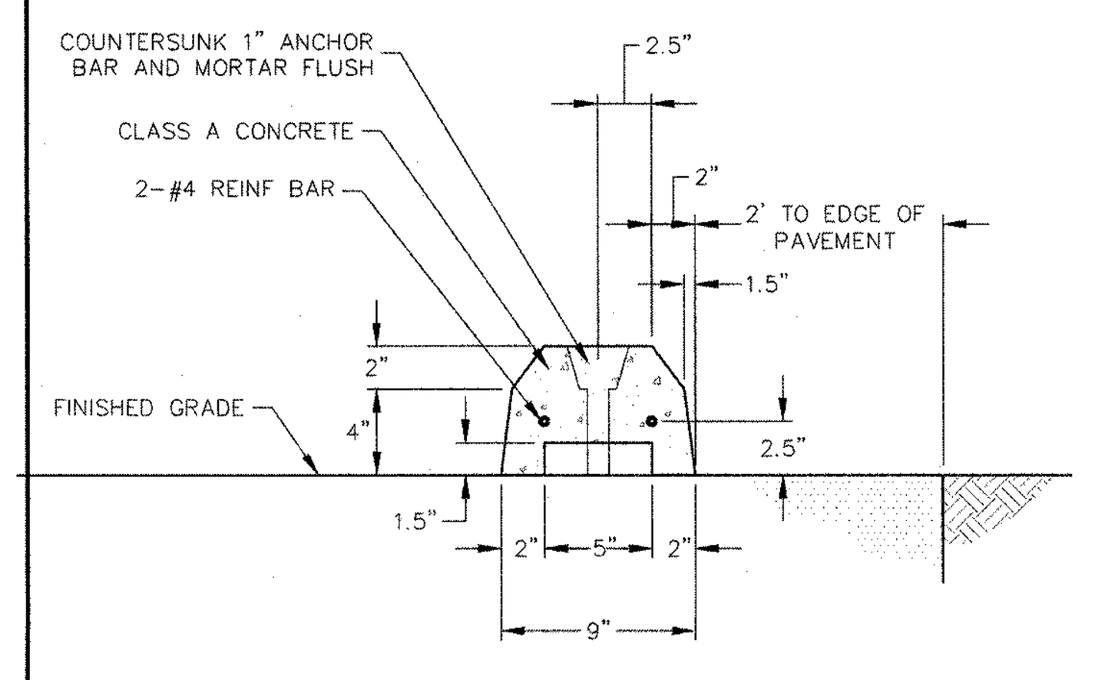


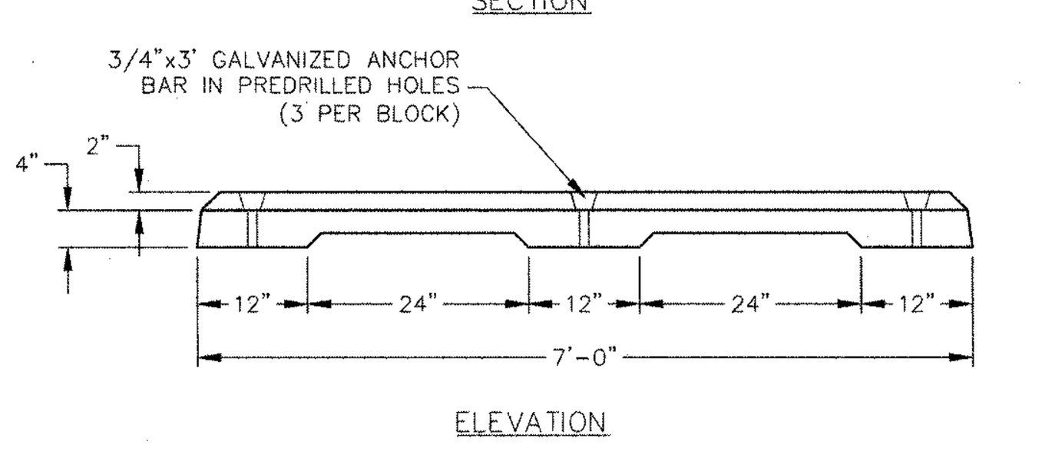
NOTES:
1. RETAINING WALL SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.

TYPICAL SEGMENTAL BLOCK RETAINING WALL
SCALE: NTS



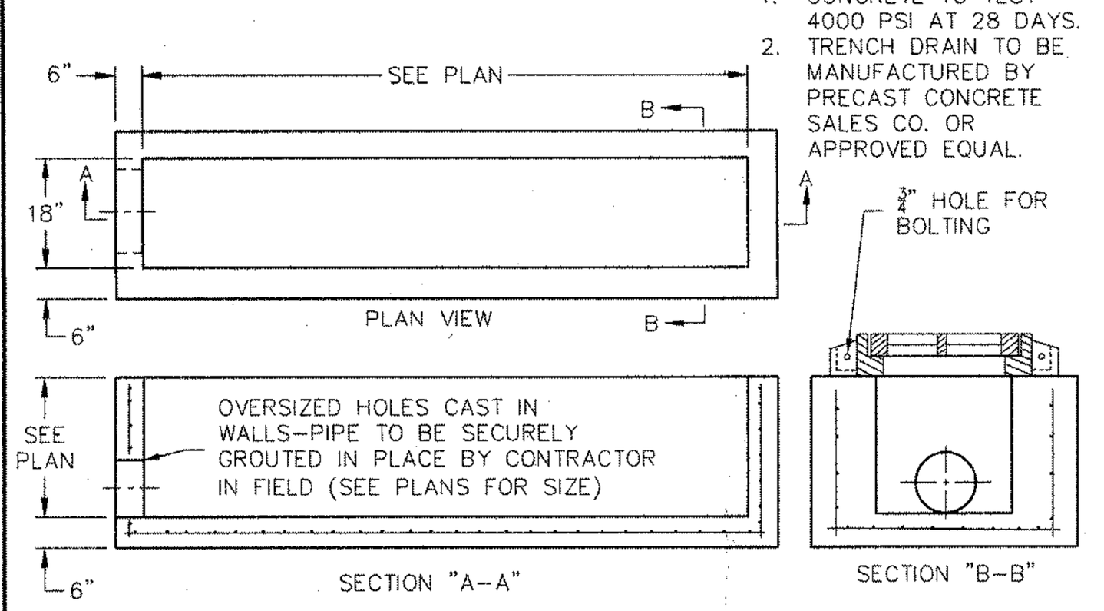
CHAIN LINK FENCE
SCALE: NTS





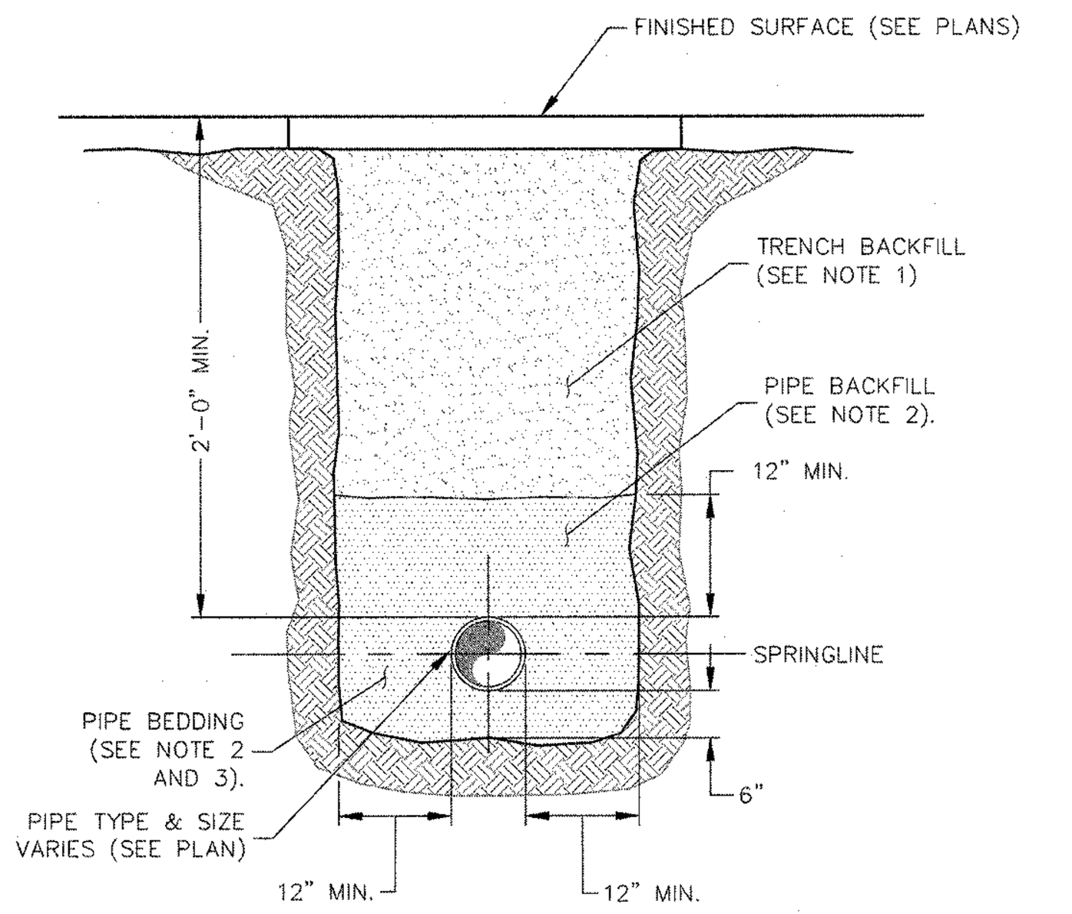
NOTES:
1. EMBED STEEL PIN FLUSH TO TOP OF WHEEL STOP.
2. CONTRACTOR TO CLEAR SURFACE TO PREVENT DAMAGE TO UTILITIES OR OTHER SUBSURFACE FEATURES.

CONCRETE WHEEL STOP
SCALE: NTS



NOTE:
1. CONCRETE TO TEST 4000 PSI AT 28 DAYS.
2. TRENCH DRAIN TO BE MANUFACTURED BY PRECAST CONCRETE SALES CO. OR APPROVED EQUAL.

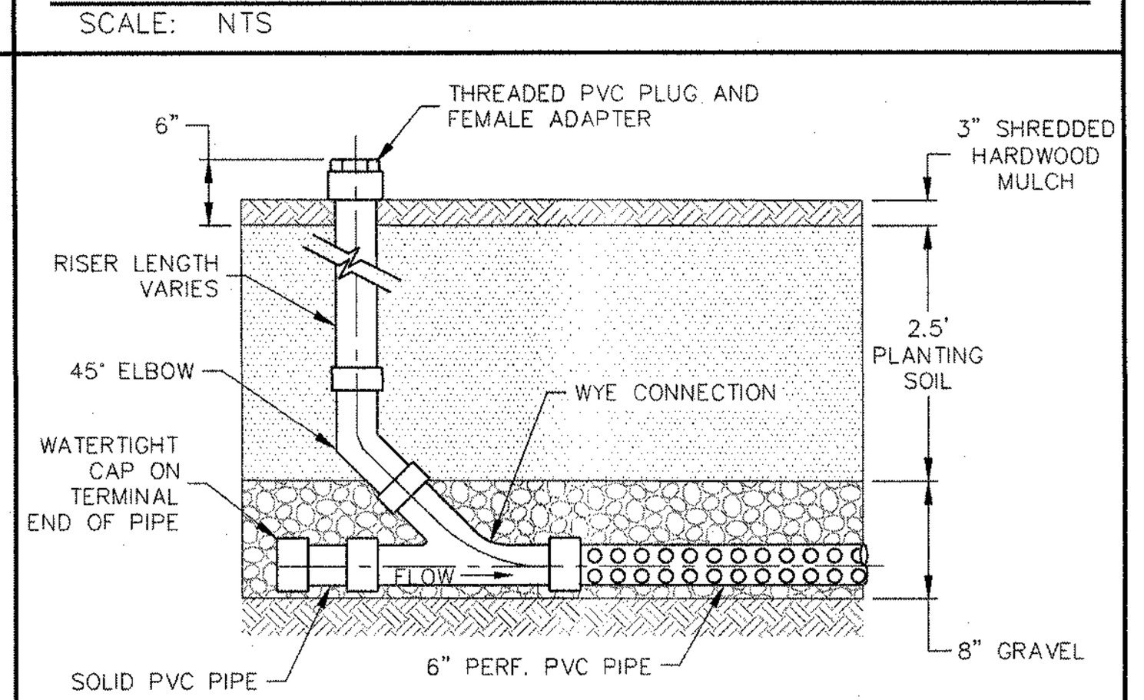
TRENCH DRAIN
SCALE: NTS



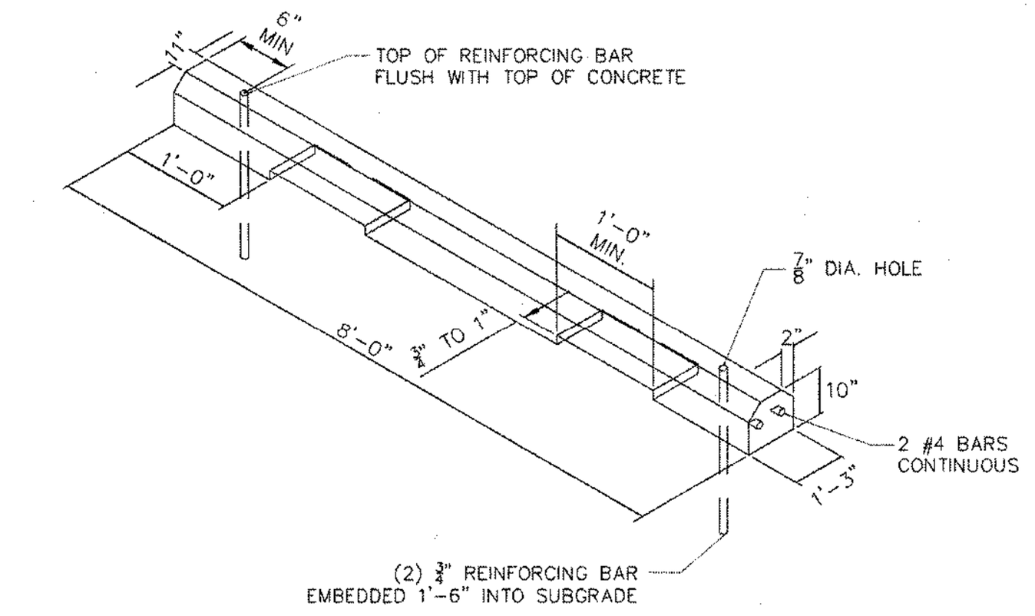
NOTES:

1. PREDOMINATELY GRANULAR FILL MATERIAL. MAX. PARTICLE SIZE 4". COMPACT IN MAX. 8" LOOSE LIFTS TO 95% MODIFIED PROCTOR DENSITY USING ONSITE MATERIALS.
2. MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES. MAX. PARTICLE SIZE ¾". COMPACT IN MAX. 6" LOOSE LIFTS.
3. WHEN IN LEDGE, USE AASHTO NO. 67 OR EQUAL PROCESSED SAND AND GRAVEL FREE OF DEBRIS, CLAY LUMPS, ORGANIC, OR OTHER DELETERIOUS MATERIAL. COMPACT TO THE SPRINGLINE IN MAX. 6" LOOSE LIFTS.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

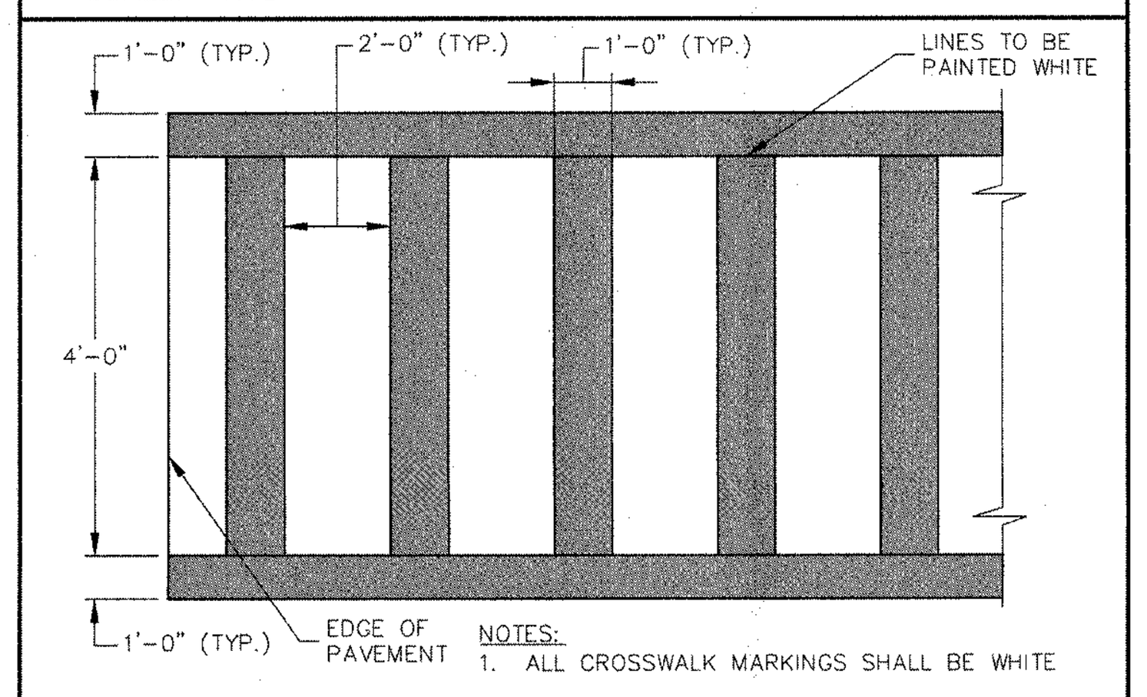
DRAINAGE PIPE TRENCH
SCALE: NTS



BIORETENTION CLEANOUT
SCALE: NTS

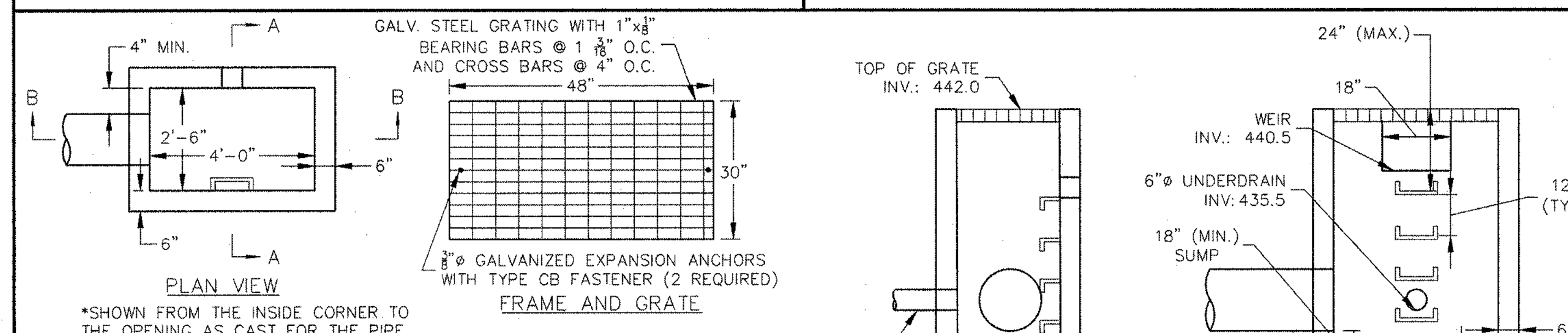


TRUCK WHEEL STOP
SCALE: NTS



NOTES:
1. ALL CROSSWALK MARKINGS SHALL BE WHITE

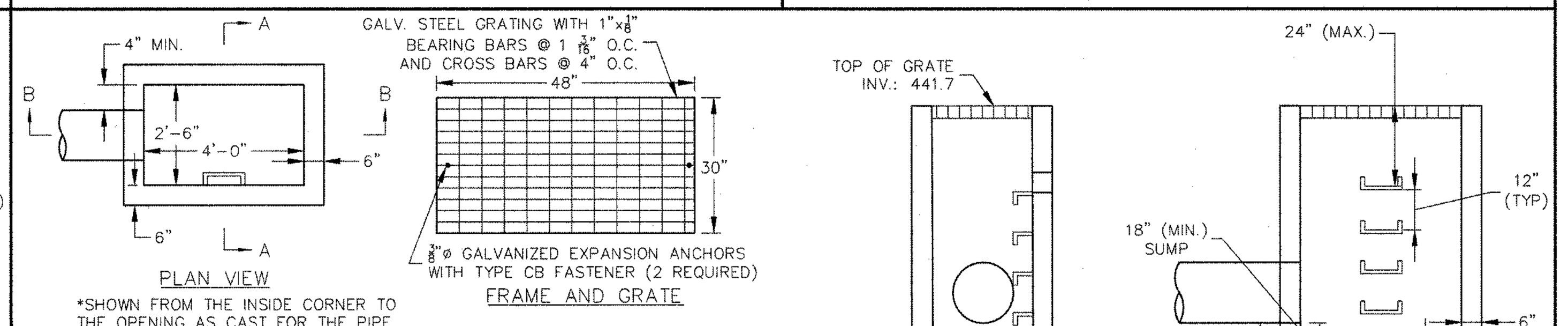
CROSSWALK STRIPING (TYPE LS)
SCALE: NTS



*SHOWN FROM THE INSIDE CORNER TO THE OPENING AS CAST FOR THE PIPE.

NOTES:
1. PRECAST CONCRETE TOP WITH FRAME AND GRATE MAY NOT BE USED.
2. LADDER RUNGS SHALL BE STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS IN CONFORMANCE WITH ASTM C-478, 12" TO BOTTOM.
3. ALL PIPES SHALL BE LAID OR CUT FLUSH WITH THE INSIDE OF THE CATCH BASIN WALL AND SHALL BE FIRMLY PARGED IN PLACE, BOTH INSIDE AND OUTSIDE.
4. SEE PLANS FOR UNDERDRAIN INLET ELEVATIONS AND PIPE OUTLET ELEVATIONS.

OUTLET CONTROL STRUCTURE 1 (BIORETENTION)
SCALE: NTS



*SHOWN FROM THE INSIDE CORNER TO THE OPENING AS CAST FOR THE PIPE.

NOTES:
1. PRECAST CONCRETE TOP WITH FRAME AND GRATE MAY NOT BE USED.
2. LADDER RUNGS SHALL BE STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS IN CONFORMANCE WITH ASTM C-478, 12" TO BOTTOM.
3. ALL PIPES SHALL BE LAID OR CUT FLUSH WITH THE INSIDE OF THE CATCH BASIN WALL AND SHALL BE FIRMLY PARGED IN PLACE, BOTH INSIDE AND OUTSIDE.
4. SEE PLANS FOR UNDERDRAIN INLET ELEVATIONS AND PIPE OUTLET ELEVATIONS.

OUTLET CONTROL STRUCTURE 2 (FOREBAY)
SCALE: NTS

Date	Description	No.
04/09/19	REVISED PER TOWN COMMENTS	1

REVISIONS

SIGNATURE 4/9/2019 DATE SIGNED
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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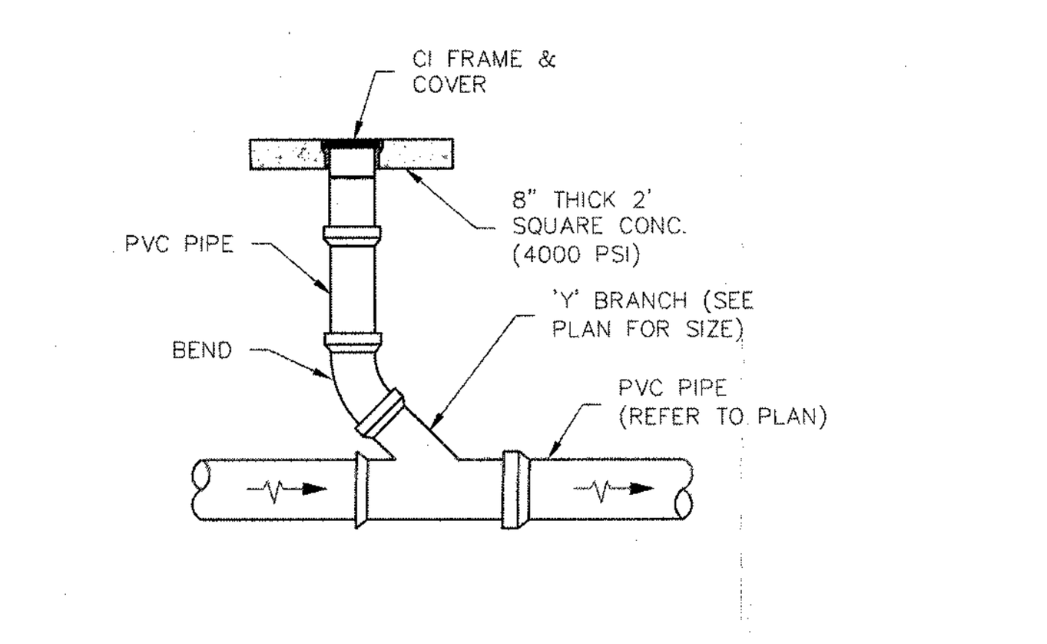
Project: A. DUIE PYLE MAINTENANCE BUILDING
BLOCK No. 1, LOT No.69.1
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

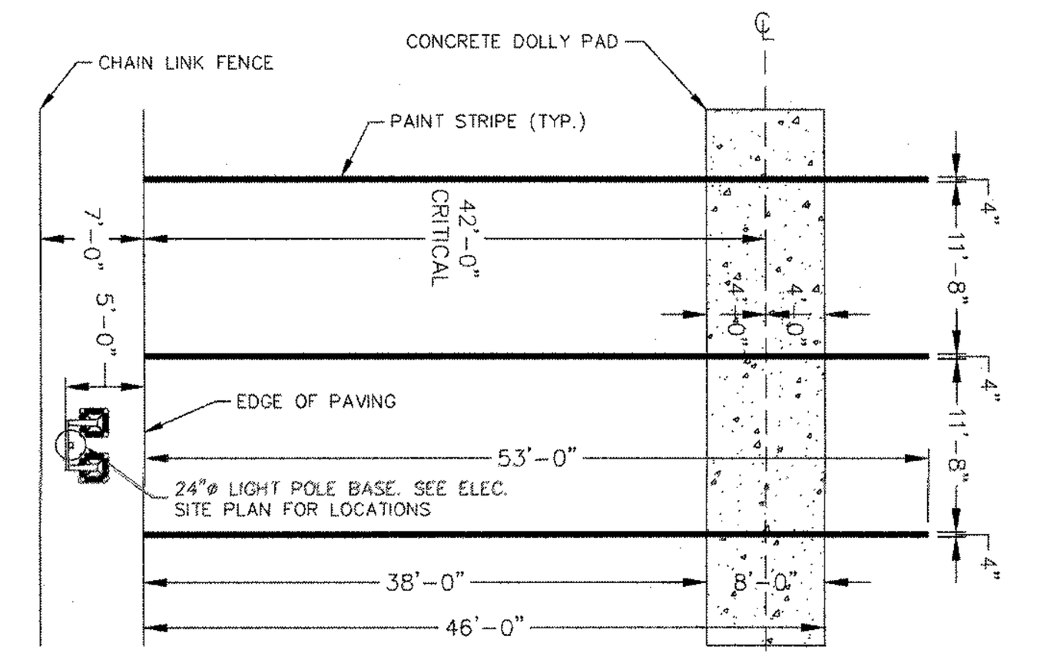
Drawing Title: DETAILS (1 OF 3)

Project No. 190048601
Date MARCH 11, 2019
Drawn By JM
Checked By MF
Drawing No. CS501

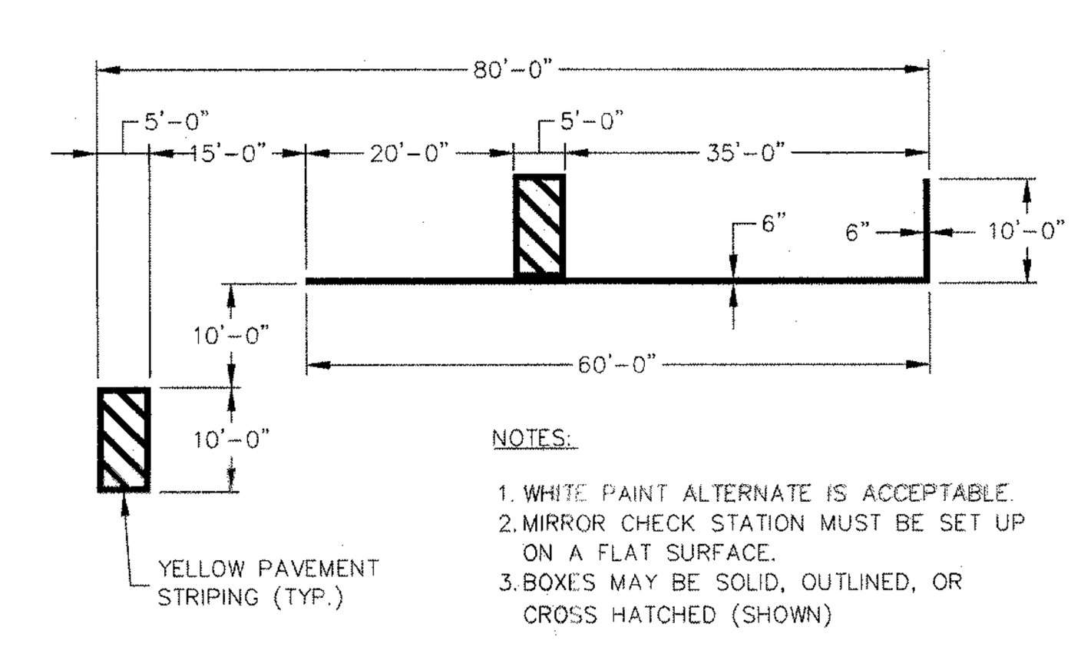
PROJECT NO. 190048601



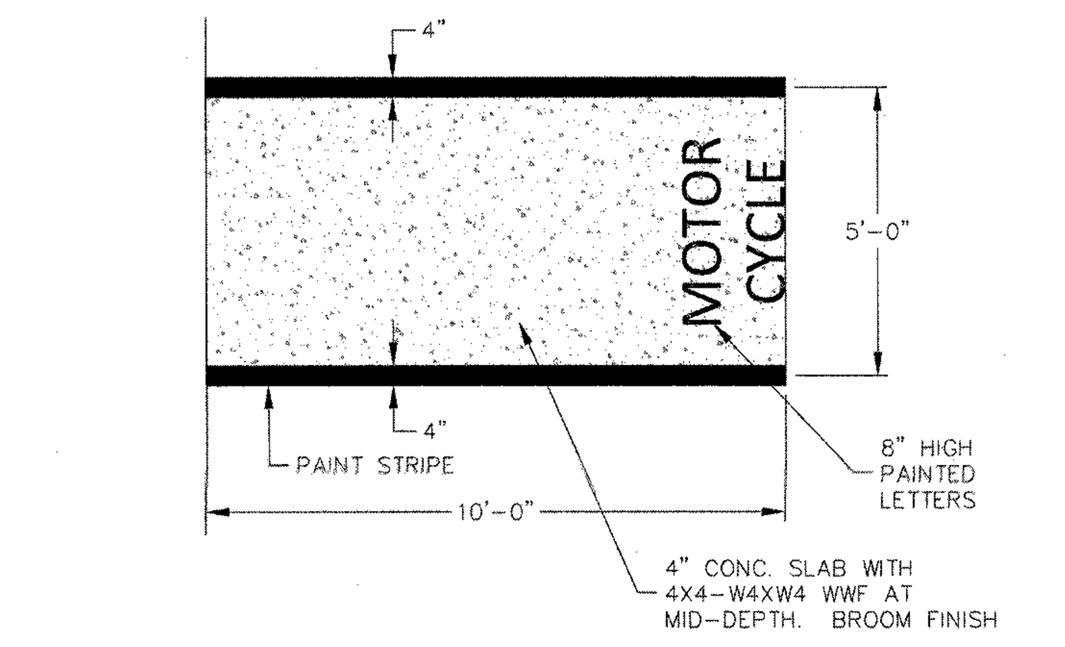
SANITARY CLEANOUT
SCALE: NTS



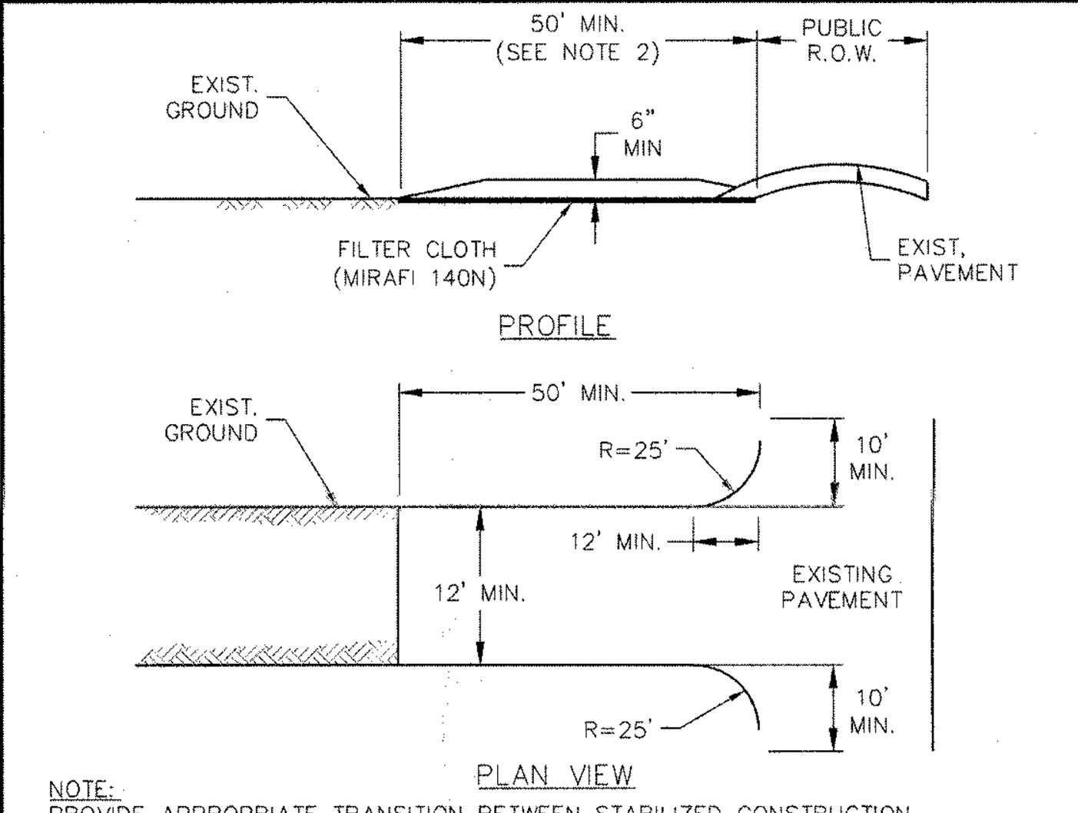
TRAILER PARKING
SCALE: NTS



MIRROR CHECK STATION
SCALE: NTS



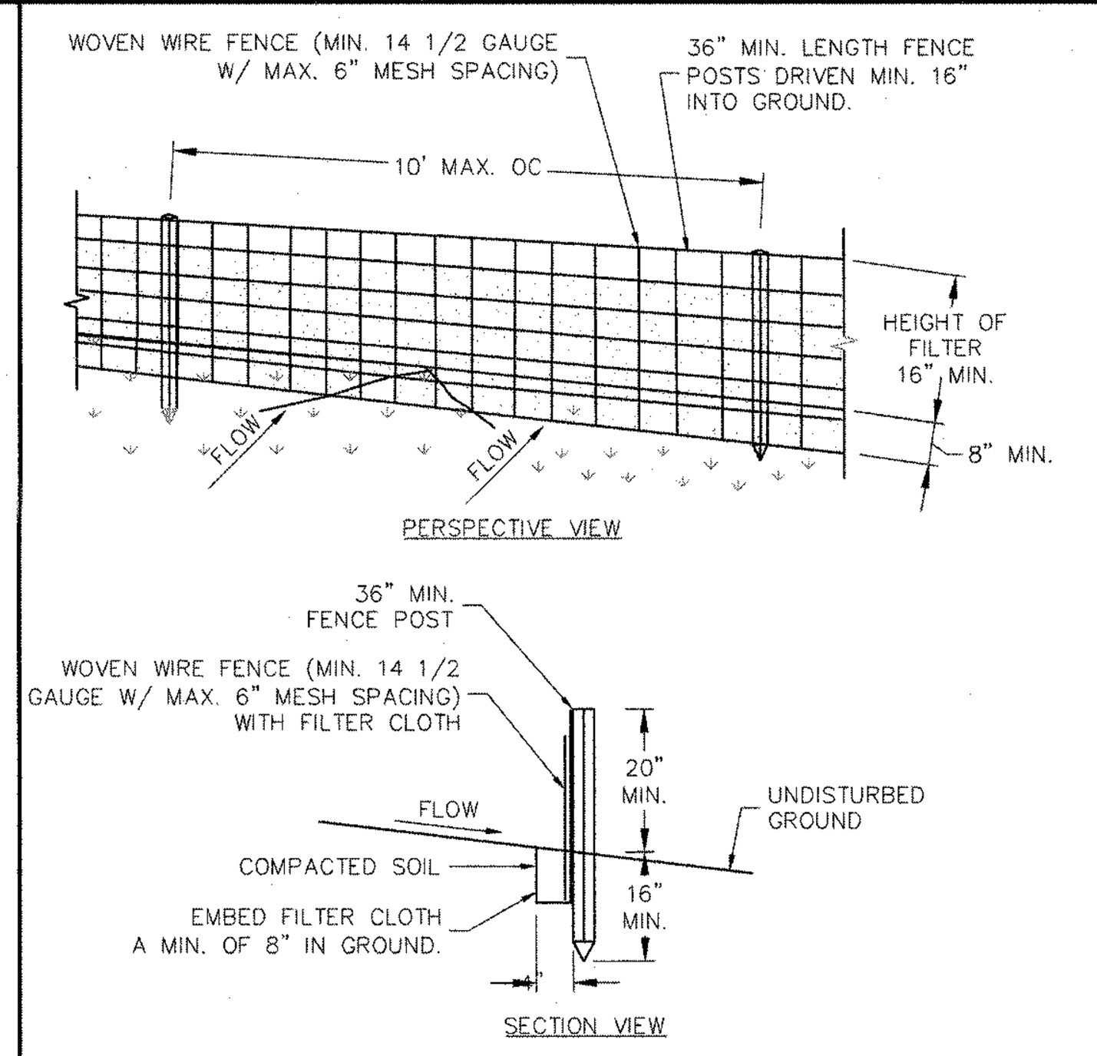
MOTORCYCLE PARKING
SCALE: NTS



NOTE:
PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND PUBLIC R.O.W.

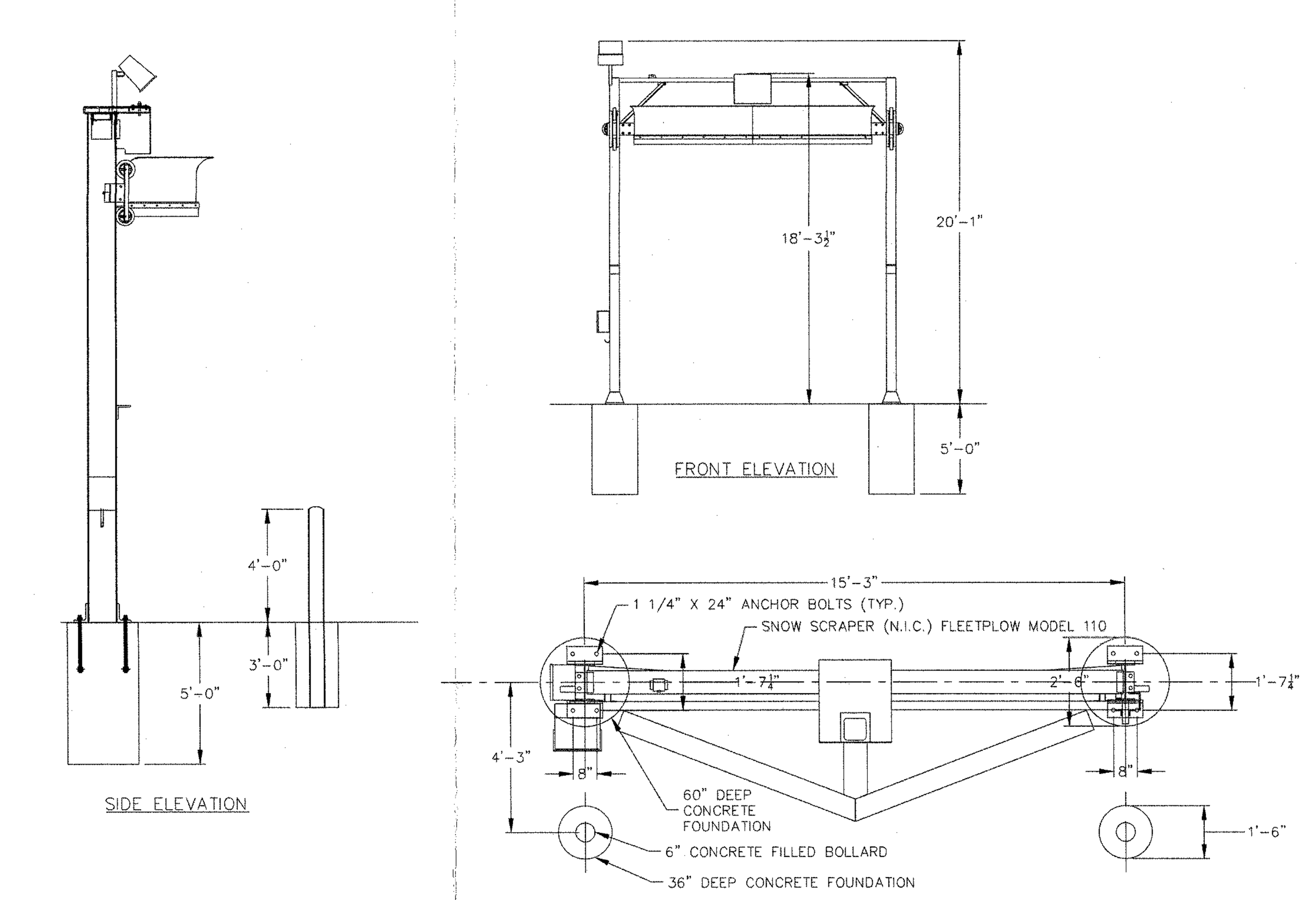
CONSTRUCTION SPECIFICATIONS
1. STONE SIZE – USE 3" STONE (NYSDOT ITEM #623.11 SIZE DESIGNATION #2, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50–FEET (EXCEPT ON SINGLE FAMILY LOT, 30–FEET MINIMUM LENGTH WOULD APPLY.)
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM. BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY–FOUR (24) FOOT IF SINGLE ENTRANCE TO SIGHT.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL. A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A 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 CONSTR. ENTRANCE
SCALE: NTS

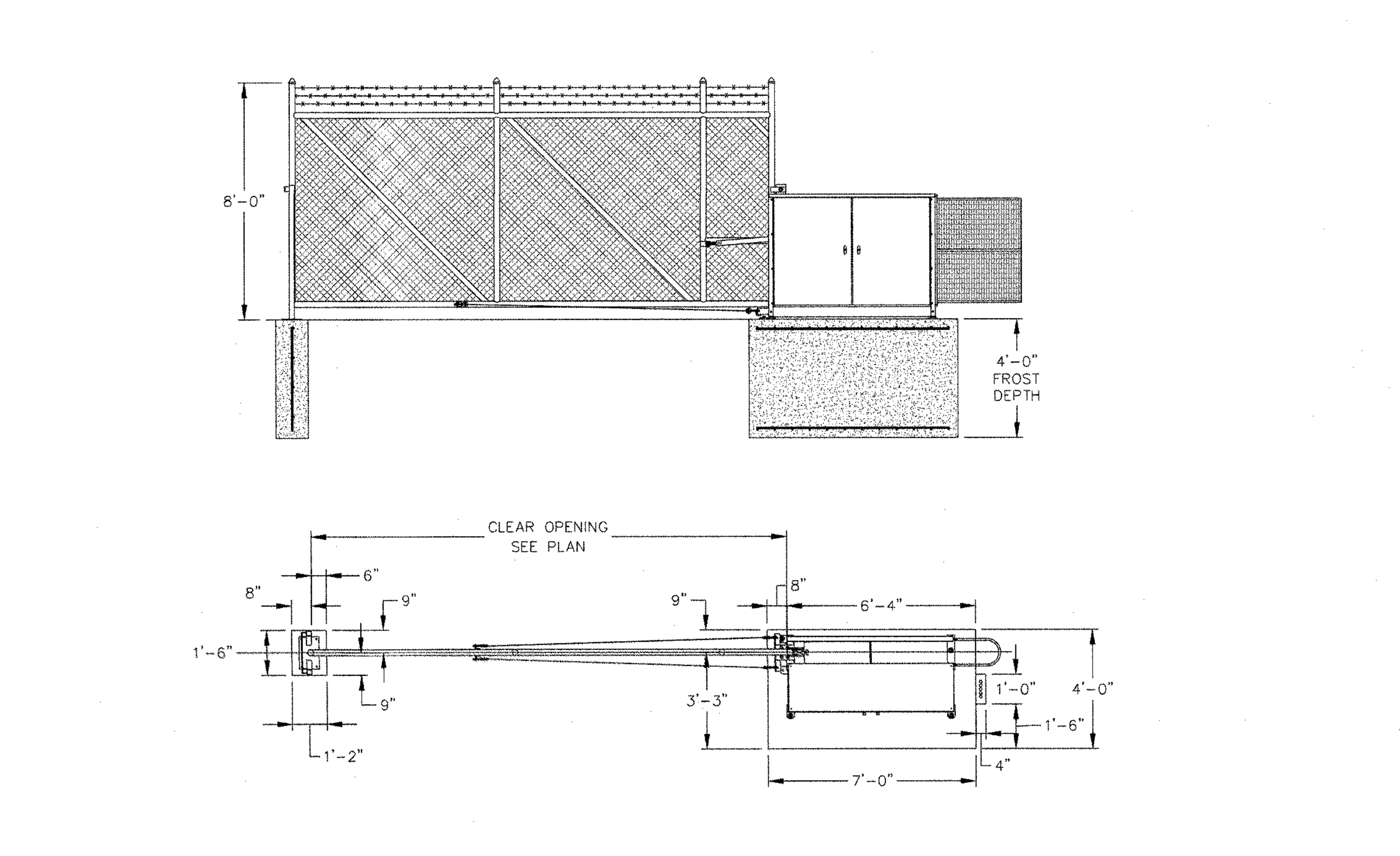


CONSTRUCTION SPECIFICATIONS
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL, EITHER "T" OR "U" TYPE, OR HARDWOOD.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 14–1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER–LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE
SCALE: NTS

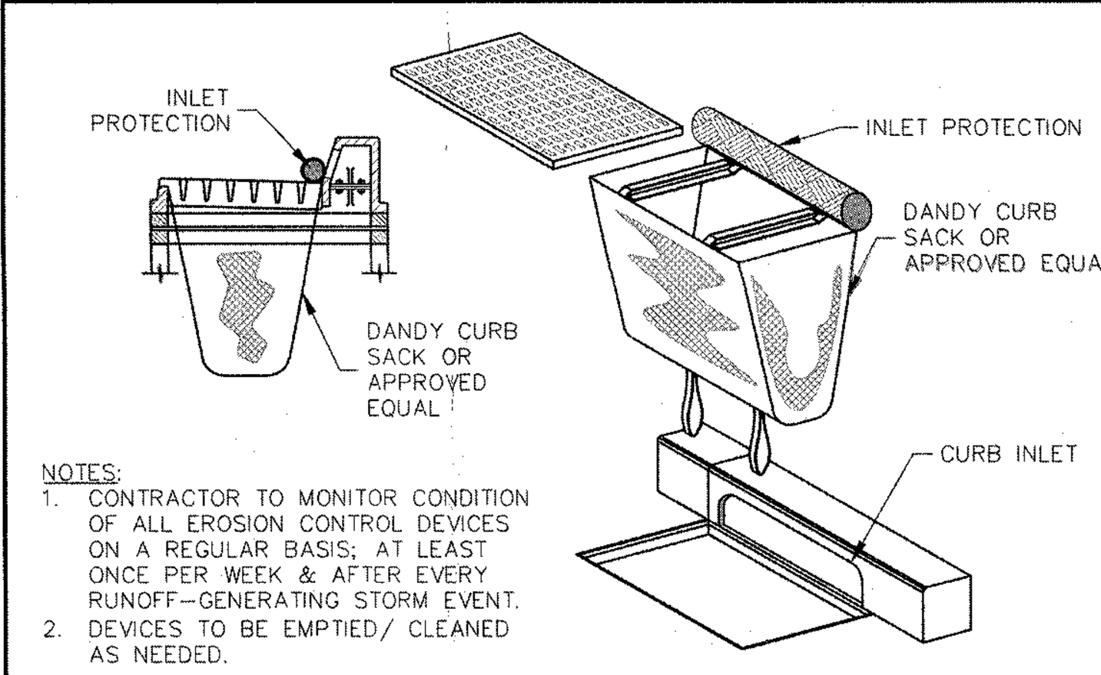


SNOW SCRAPER
SCALE: NTS



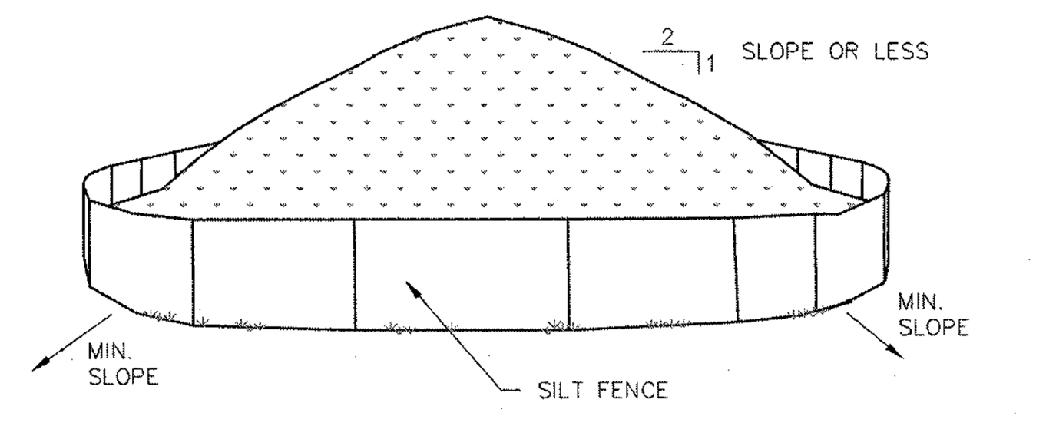
NOTE:
1. GATE SHOULD BE ROADWAY WIDTH PLUS 16" MIN.
2. 120 V, 15A OPERATOR

VERTICAL PIVOT LIFT GATE
SCALE: NTS



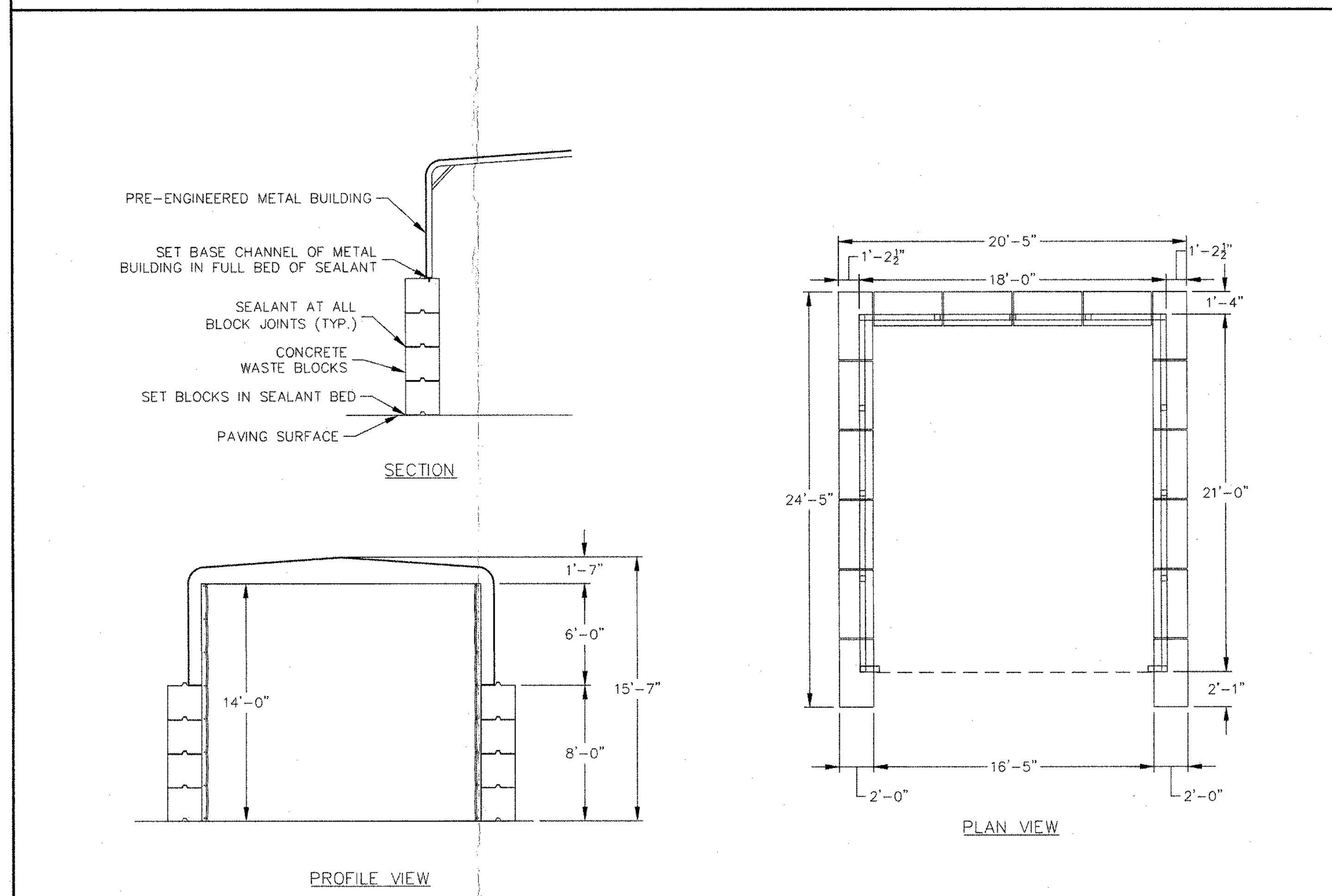
NOTES:
1. CONTRACTOR TO MONITOR CONDITION OF ALL EROSION CONTROL DEVICES ON A REGULAR BASIS; AT LEAST ONCE PER WEEK & AFTER EVERY RUNOFF–GENERATING STORM EVENT.
2. DEVICES TO BE EMPTIED/ CLEANED AS NEEDED.

INLET PROTECTION - DANDY SACK
SCALE: NTS

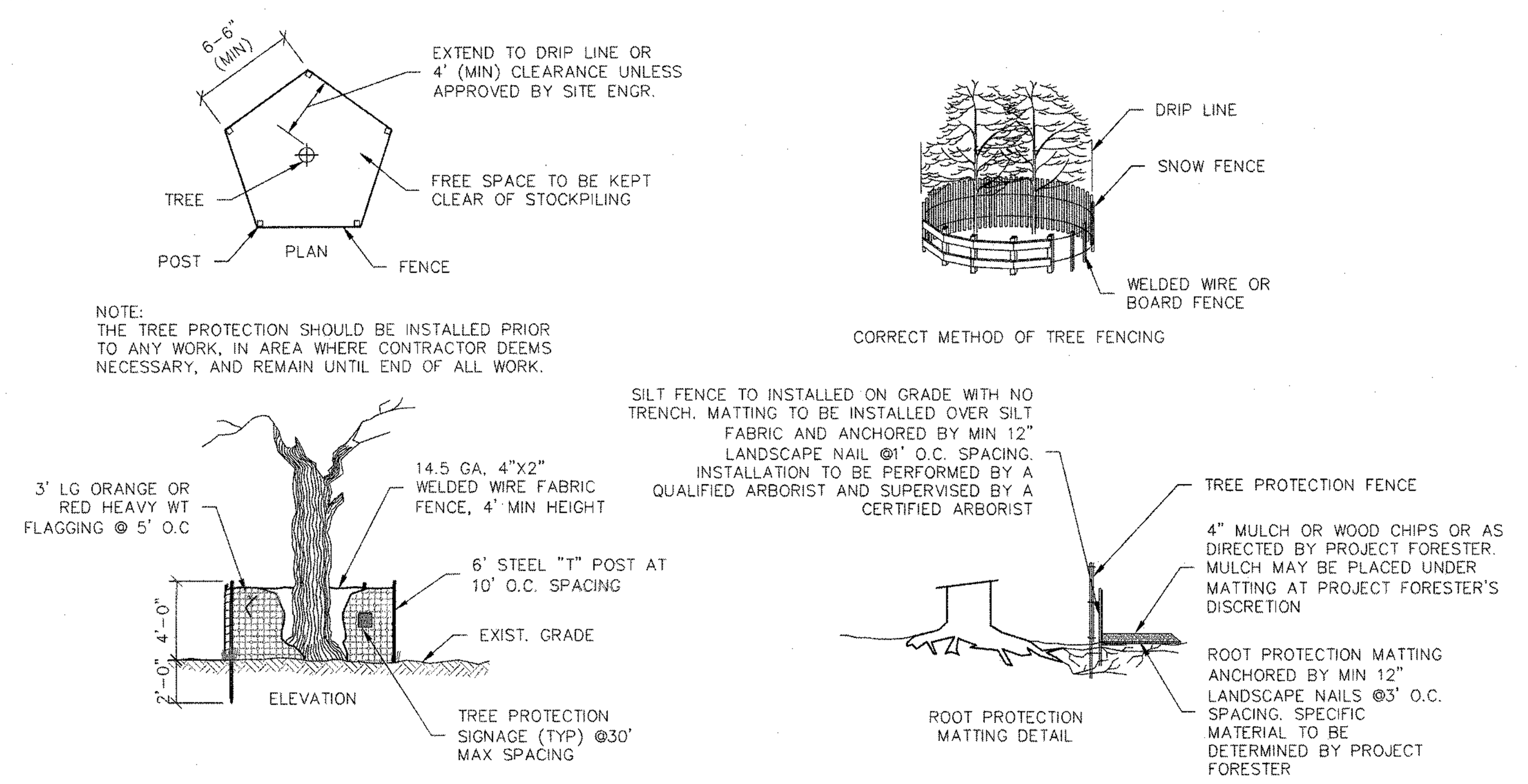


NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V: 2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.
5. HAY BALES TO BE USED WHERE STOCKPILES ARE LOCATED ON PAVED AREAS.

TEMPORARY STOCKPILE
SCALE: NTS



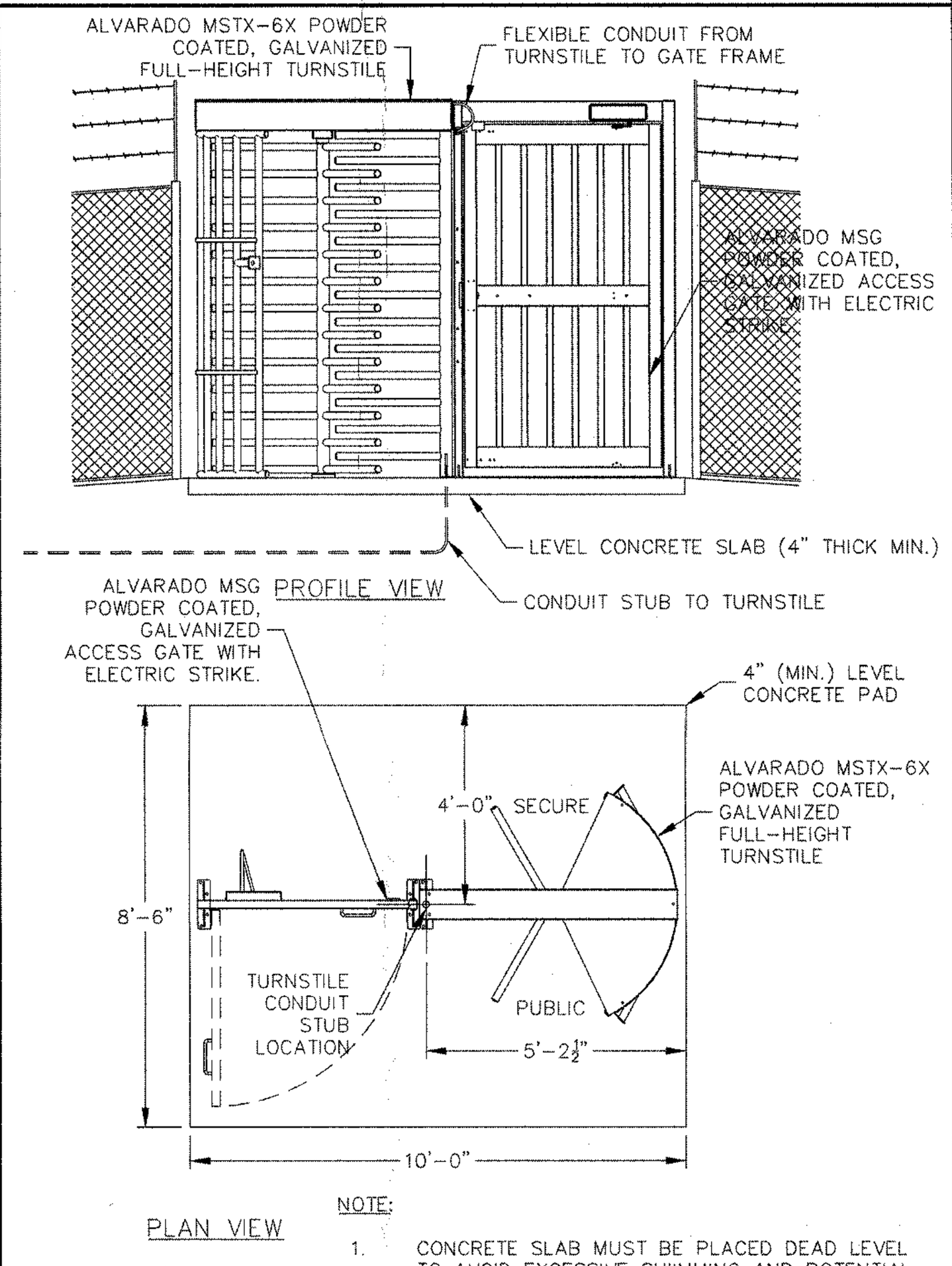
WINTER MATERIAL SHED
SCALE: NTS



CONSTRUCTION SPECIFICATIONS

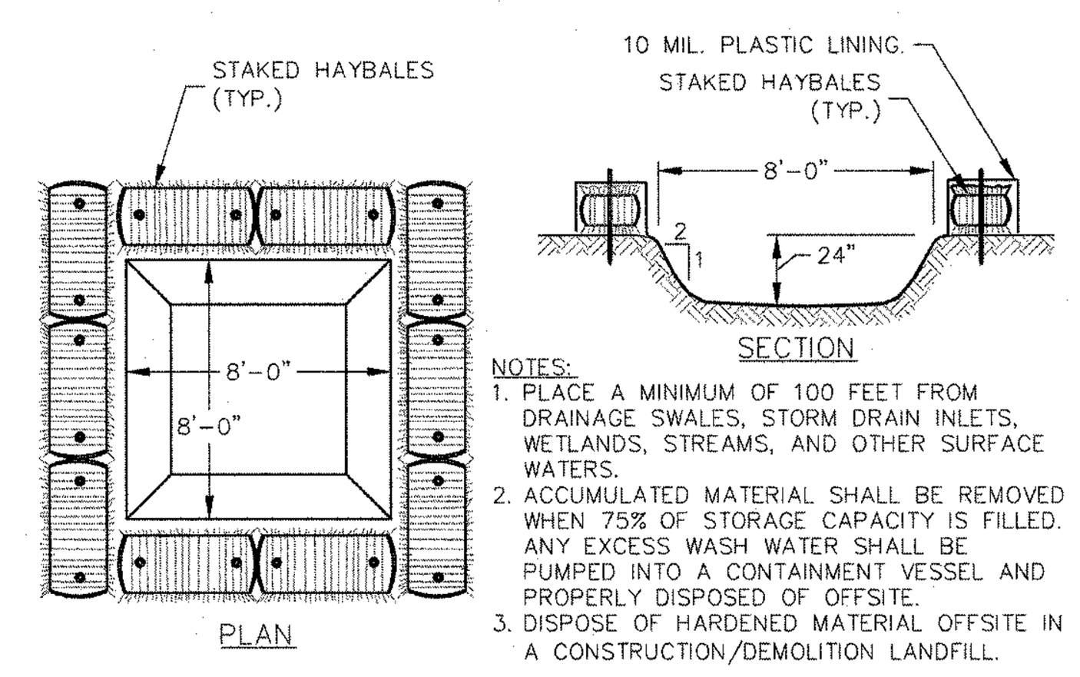
1. TREE PROTECTION AREA WILL BE DETERMINED AS PART OF THE PLAN REVIEW PROCESS. EXACT LOCATION, DEPTH AND METHODS OF ROOT PRUNING TO BE DETERMINED IN FIELD BY PROJECT FORESTER.
2. EXACT LOCATION OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING.
3. TRENCH SHOULD BE BACKFILLED IMMEDIATELY OR INCORPORATED WITH SILT FENCE INSTALLATION.
4. ROOTS SHOULD BE SEVERED BY TRENCHER, VIBRATORY PLOW OR APPROVED EQUIVALENT. ROOTS OVER 1.5" DIAMETER SHOULD BE CLEANLY CUT BY HAND. ROOT PRUNING ADJACENT TO SPECIMEN TREES MAY REQUIRE SOIL REMOVAL BY SUPERSONIC AIR TOOL TO MINIMIZE TREE AND ROOT IMPACTS.

TREE VEGETATION PROTECTION BARRIER
SCALE: NTS



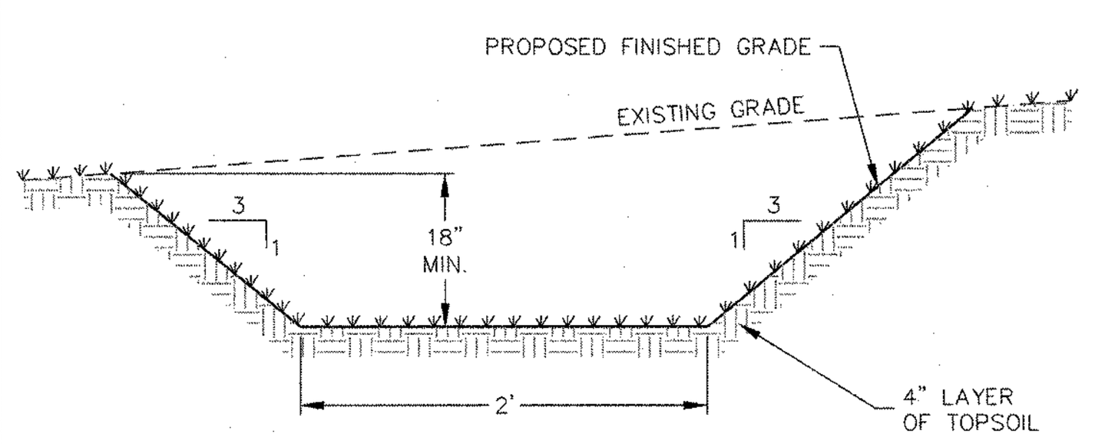
NOTE:
1. CONCRETE SLAB MUST BE PLACED DEAD LEVEL TO AVOID EXCESSIVE SHIMMING AND POTENTIAL CONFLICT WITH GATE AND TURNSTILE OPERATION.

TURNSTILE
SCALE: NTS



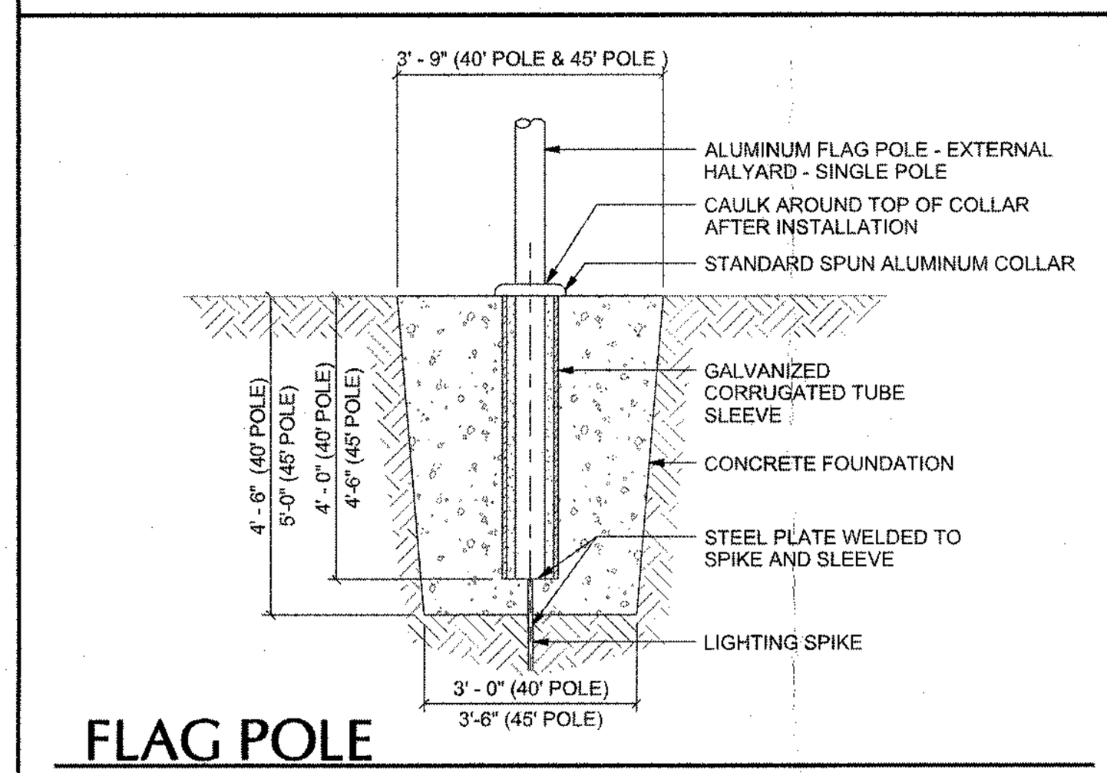
NOTES:
1. PLACE A MINIMUM OF 100 FEET FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS, AND OTHER SURFACE WATERS.
2. ACCUMULATED MATERIAL SHALL BE REMOVED WHEN 75% OF STORAGE CAPACITY IS FILLED. ANY EXCESS WASH WATER SHALL BE PUMPED INTO A CONTAINMENT VESSEL AND PROPERLY DISPOSED OF OFFSITE.
3. DISPOSE OF HARDENED MATERIAL OFFSITE IN A CONSTRUCTION/DEMOLITION LANDFILL.

TEMPORARY CONCRETE WASH AREA
SCALE: NTS

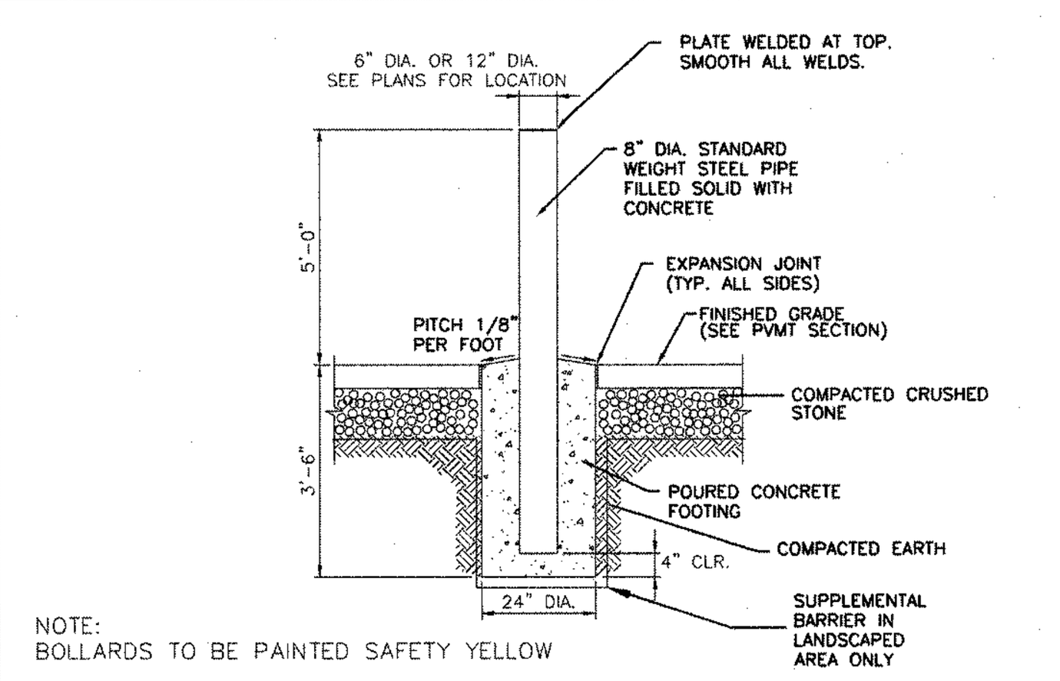


NOTES:
1. SWALE SHALL BE SEEDED AND MULCHED WITH FAST GERMINATING RYE 15 LBS TO 25 LBS PER 1,000 SQUARE FEET.

GRASS SWALE
SCALE: NTS

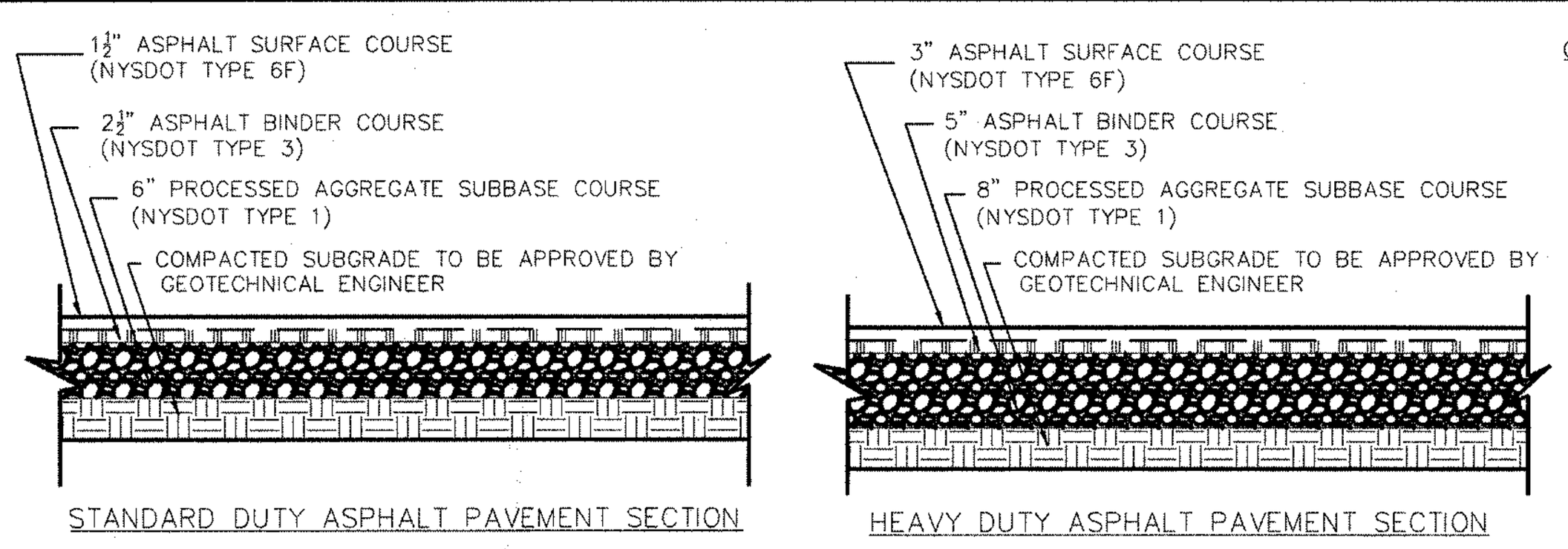


FLAG POLE



NOTE:
BOLLARDS TO BE PAINTED SAFETY YELLOW

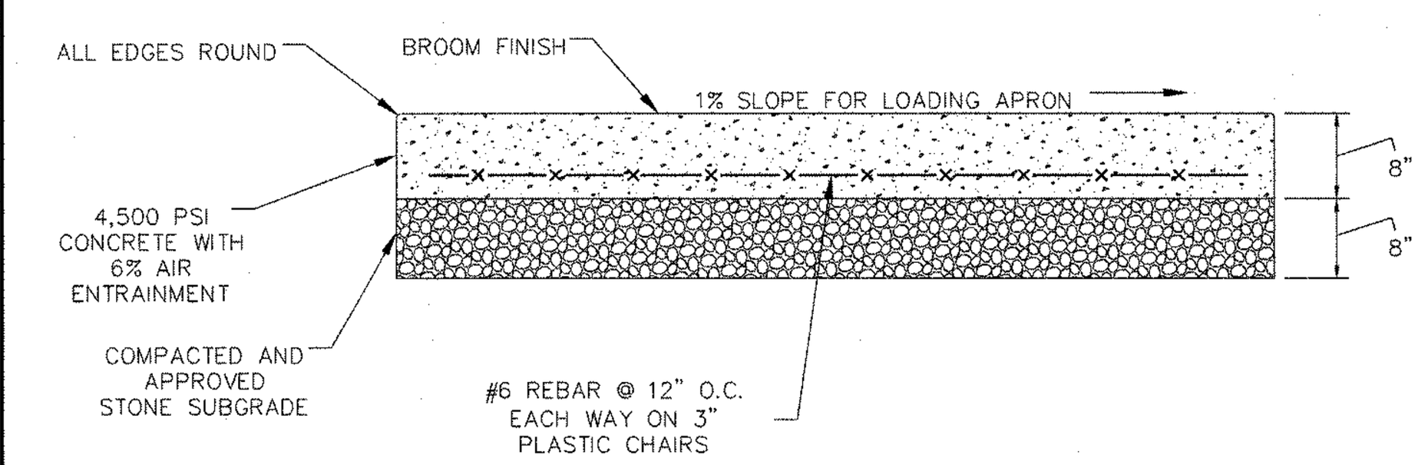
BOLLARD
SCALE: NTS



GENERAL NOTES:

1. PRIOR TO ANY PAVING ACTIVITIES, THE SUBGRADE OR SUBBASE SHALL BE PROOF ROLLED. ALL AREAS TO BE PAVED SHALL BE PROOF ROLLED WITH AT LEAST 4 PASSES OF EITHER A SMOOTH ROLLER HAVING A MINIMUM STATIC DRUM WEIGHT OF 5–TONS OR A FULLY LOADED TANDEM DUMP TRUCK. ANY SOFT AREAS SHALL BE REMOVED AND REPLACED WITH CLEAN, GRANULAR, FREE–DRAINING SOIL. FILL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 12–INCHES AND SHALL BE COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D–1557.
2. PAVING BASECOURSE SHALL BE CONSTRUCTED IN LAYERS NOT LESS THAN 2 INCHES AND NOT MORE THAN 5 INCHES THICK PER LIFT.
3. ASPHALT SECTIONS TO BE CONFIRMED WITH GEOTECHNICAL ENGINEER.

ASPHALT PAVEMENT SECTION
SCALE: NTS



NOTES:

1. ALL AREAS TO BE PAVED SHALL BE PROOFROLLED WITH AT LEAST 4 PASSES OF EITHER A SMOOTH ROLLER HAVING A MINIMUM STATIC DRUM WEIGHT OF 5–TONS AND A FULLY LOADED TRI–AXLE DUMP TRUCK.
2. ANY SOFT AREAS SHALL BE REMOVED AND REPLACED WITH CLEAN, GRANULAR, FREE–DRAINING SOIL.
3. FILL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 12–INCHES AND SHALL BE COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D–1557, OR AS APPROVED BY GEOTECHNICAL ENGINEER.
4. PROTECT FROM FREEZING AND RAIN DURING THE FIRST 72 HOURS.
5. FOR DOLLY STRIPS CONTROL JOINTS TO BE SAW CUT AT 15 FT MAXIMUM SPACING. EXPANSION JOINTS TO BE PROVIDED AT 60 FT MAXIMUM SPACING.
6. FOR LOADING APRONS CONTROL JOINTS TO BE SAW CUT AT 15 FT MAXIMUM SPACING IN BOTH DIRECTIONS. EXPANSION JOINTS TO BE PLACED AT BUILDING AND AT 60 FT MAXIMUM SPACING PERPENDICULAR TO BUILDING.
7. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION

CONCRETE PAVEMENT SECTION FOR LOADING APRONS AND DOLLY STRIPS
SCALE: NTS

Date	Description	No.
04/09/19	REVISED PER TOWN COMMENTS	1.

REVISIONS

SIGNATURE 4/9/2019 DATE SIGNED
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

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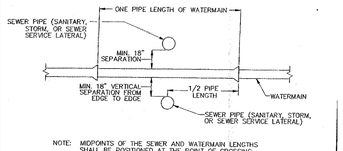
Project: A. DUIE PYLE MAINTENANCE BUILDING
BLOCK No. 1, LOT No.69.1
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title: DETAILS (3 OF 3)

Project No.: 190048601
Date: APRIL 4, 2019
Drawn By: JM
Checked By: MF
Drawing No.: CS503
Sheet 12 of 12

Filename: \\langan.com\data\WPW\data6\190048601\Project Data\CAD\01\SheetFiles\Site Plan Approval\190048601-CS501-0101.dwg Date: 4/9/2019 Time: 14:36 User: jmacalintal Style Table: Langan.stb Layout: Details (3 Of 3)



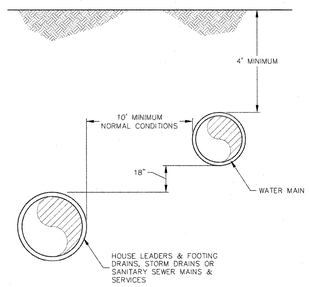
NOTE: MIDPOINTS OF THE SEWER AND WATERMAIN LENGTHS SHALL BE POSITIONED AT THE POINT OF CROSSING.

TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS

WATERMAIN/SEWER CROSSING

DATE: NOVEMBER 2001 | BY: CLD | NO SCALE

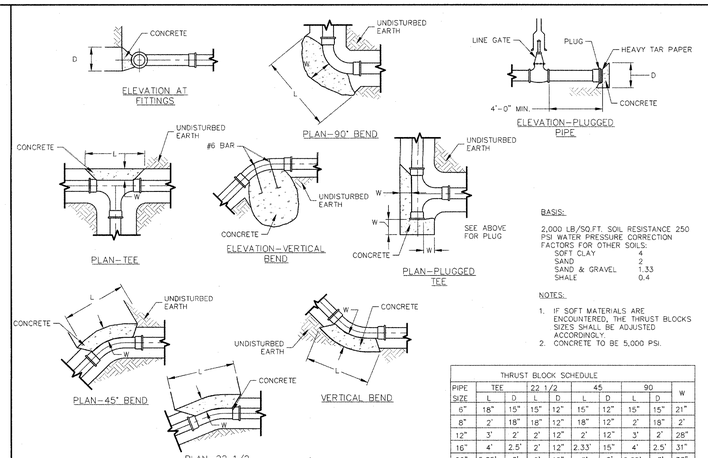
WATER / SEWER CROSSING
SCALE: NTS



NOTE:

WHERE A 10' MINIMUM HORIZONTAL SEPARATION CANNOT BE OBTAINED DUE TO FIELD CONDITIONS, THE VERTICAL CLEAR DISTANCE SHALL BE A MINIMUM OF 18". HOWEVER, AN EXCEPTION TO THE 10' MINIMUM HORIZONTAL SEPARATION REQUIRES SEPARATE APPROVAL OF THE ORANGE COUNTY HEALTH DEPARTMENT.

SEPARATION OF WATER MAIN AND SEWER PARALLEL INSTALLATION
SCALE: NTS



BASIS:

2,000 LB/SQ.FT. SOIL RESISTANCE 250 PSI WATER PRESSURE CORRECTION FACTORS FOR OTHER SOILS:

SOFT CLAY	4
SAND	2
SAND & GRAVEL	1.33
SHALE	0.4

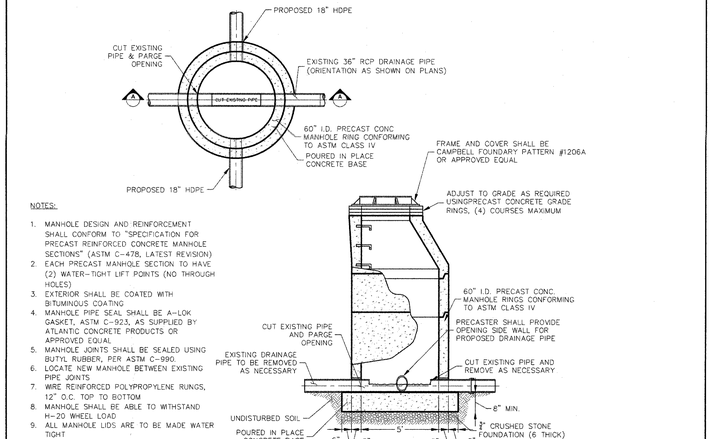
NOTES:

1. IF SOFT MATERIALS ARE ENCOUNTERED, THE THRUST BLOCKS SIZES SHALL BE ADJUSTED ACCORDINGLY.
2. CONCRETE TO BE 5,000 PSI.

THRUST BLOCK SCHEDULE

PIPE	TEE		22 1/2		45		90		W
SIZE	L	D	L	D	L	D	L	D	
6"	18"	15"	15"	12"	15"	12"	15"	15"	21"
8"	2'	18"	18"	12"	18"	12"	2'	18"	2'
12"	3'	2'	2'	12"	2'	12"	3'	2'	28"
16"	4'	2.5'	2'	12"	2.33'	15"	4'	2.5'	31"
20"	5.25'	3'	2'	18"	3'	2'	5.25'	3'	33"
24"	7.5'	3'	3'	18"	4'	2.5'	7.5'	3'	3'

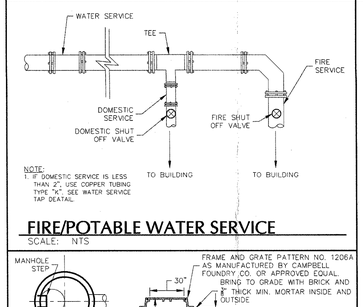
THRUST BLOCKS
SCALE: NTS



NOTES:

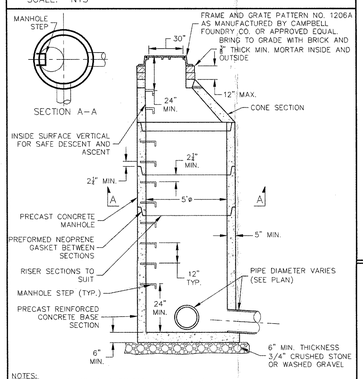
1. MANHOLE DESIGN AND REINFORCEMENT SHALL CONFORM TO "SPECIFICATION FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS" (ASTM C-478, LATEST REVISION)
2. EACH PRECAST MANHOLE SECTION TO HAVE (2) WATER-TIGHT LIFT POINTS (NO THROUGH HOLES)
3. EXTERIOR SHALL BE COATED WITH BITUMINOUS COATING
4. MANHOLE PIPE SEAL SHALL BE A-LOK GASKET, ASTM C-923, AS SUPPLIED BY ATLANTIC CONCRETE PRODUCTS OR APPROVED EQUAL
5. MANHOLE JOINTS SHALL BE SEALED USING BUTYL RUBBER, PER ASTM C-990.
6. LOCATE NEW MANHOLE BETWEEN EXISTING PIPE JOINTS
7. WIRE REINFORCED POLYPROPYLENE RUNGS, 12" O.C. TOP TO BOTTOM
8. MANHOLE SHALL BE ABLE TO WITHSTAND H-20 WHEEL LOAD
9. ALL MANHOLE LIDS ARE TO BE MADE WATER TIGHT

DRAINAGE DOG HOUSE MANHOLE
SCALE: NTS



NOTE:
1. IF DOMESTIC SERVICE IS LESS THAN 2", USE COPPER TUBING TYPE "K". SEE WATER SERVICE TAP DEATAIL.

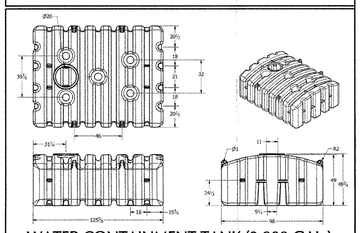
FIRE/POTABLE WATER SERVICE
SCALE: NTS



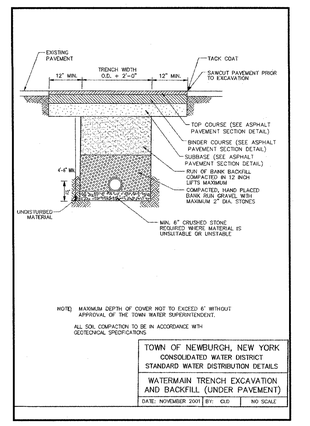
NOTES:

1. MANHOLE TO BE DESIGNED FOR H-20 LOADING.
2. SEE THE SPECIFICATIONS FOR LENGTH OF PIPE CONNECTIONS TO MANHOLE.
3. CONCRETE TO TEST 4,000 PSI MINIMUM @ 28 DAYS IN CONFORMANCE WITH ASTM C-478.
4. INSTALL BUTYL RUBBER BETWEEN ALL SECTIONS OF MANHOLE.
5. STEPS TO ALUMINUM ALLOY WITH DEPRESSED TREAD. STEEL REINFORCED POLYPROPYLENE IS OPTIONAL.
6. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER'S APPROVAL.
7. SOIL CONDITIONS BELOW STRUCTURE DEEMED UNSUITABLE BY THE FIELD ENGINEER SHALL BE EXCAVATED TO A SUITABLE MATERIAL OR A MAXIMUM OF TWO ADDITIONAL FEET AND BACKFILLED WITH 3/4" CLEAN CRUSHED STONE.

STORMWATER MANHOLE - 5' DIA.
SCALE: NTS



WATER CONTAINMENT TANK (2,000 GAL.)
SCALE: NTS



NOTE: MAXIMUM DEPTH OF COVER NOT TO EXCEED 6' WITHOUT APPROVAL OF THE TOWN WATER SUPERINTENDENT.

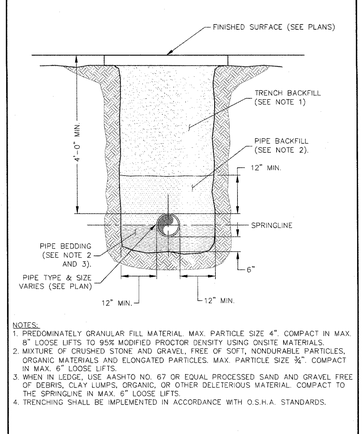
ALL SOIL COMPACTION TO BE IN ACCORDANCE WITH GEOTECHNICAL SPECIFICATIONS

TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS

WATERMAIN TRENCH EXCAVATION AND BACKFILL (UNDER PAVEMENT)

DATE: NOVEMBER 2001 | BY: CLD | NO SCALE

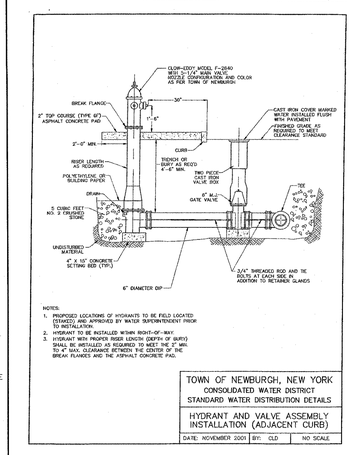
WATERMAIN TRENCH
SCALE: NTS



NOTES:

1. PREDOMINATELY GRANULAR FILL MATERIAL MAX. PARTICLE SIZE 4", COMPACT IN MAX. 8" LOOSE LIFTS TO 95% MODIFIED PROCTOR DENSITY USING ONSITE MATERIALS.
2. MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES. MAX. PARTICLE SIZE ¾". COMPACT IN MAX. 6" LOOSE LIFTS.
3. WHEN IN LEDGE, USE AASHTO NO. 67 OR EQUAL PROCESSED SAND AND GRAVEL FREE OF DEBRIS, CLAY LUMPS, ORGANIC, OR OTHER DELETERIOUS MATERIAL. COMPACT TO THE SPRINGLINE IN MAX. 6" LOOSE LIFTS.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

SEWER PIPE TRENCH
SCALE: NTS



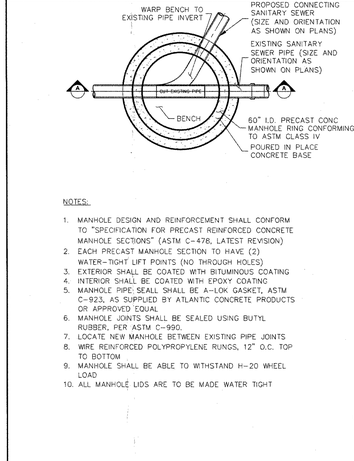
NOTES:
1. PROPOSED LOCATIONS OF HYDRANTS TO BE FIELD LOCATED (STAKED) AND APPROVED BY WATER SUPERINTENDENT PRIOR TO INSTALLATION.
2. HYDRANT TO BE INSTALLED WITHIN RIGHT-OF-WAY.
3. HYDRANT WITH PROPER RISER LENGTH (DEPTH OF BURY) SHALL BE INSTALLED AS REQUIRED TO MEET THE 2' MIN. TO 4' MAX. CLEARANCE BETWEEN THE CENTER OF THE BREAK FLANGES AND THE ASPHALT CONCRETE PAD.

TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS

HYDRANT AND VALVE ASSEMBLY INSTALLATION (ADJACENT CURB)

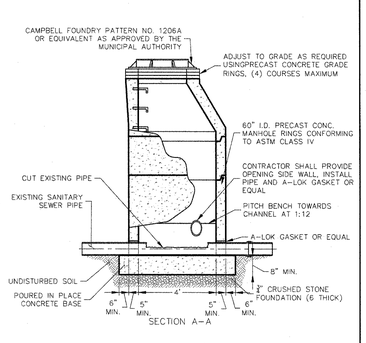
DATE: NOVEMBER 2001 | BY: CLD | NO SCALE

FIRE HYDRANT
SCALE: NTS



NOTES:

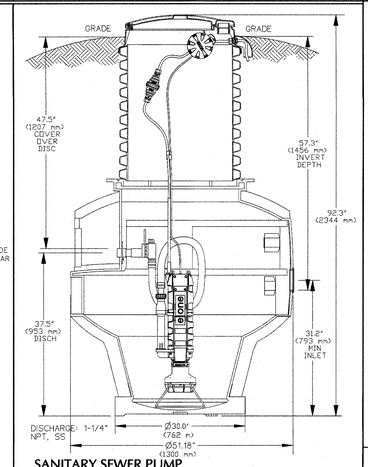
1. MANHOLE DESIGN AND REINFORCEMENT SHALL CONFORM TO "SPECIFICATION FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS" (ASTM C-478, LATEST REVISION)
2. EACH PRECAST MANHOLE SECTION TO HAVE (2) WATER-TIGHT LIFT POINTS (NO THROUGH HOLES)
3. EXTERIOR SHALL BE COATED WITH BITUMINOUS COATING
4. INTERIOR SHALL BE COATED WITH EPOXY COATING
5. MANHOLE PIPE SEALL SHALL BE A-LOK GASKET, ASTM C-923, AS SUPPLIED BY ATLANTIC CONCRETE PRODUCTS OR APPROVED EQUAL
6. MANHOLE JOINTS SHALL BE SEALED USING BUTYL RUBBER, PER ASTM C-990.
7. LOCATE NEW MANHOLE BETWEEN EXISTING PIPE JOINTS
8. WIRE REINFORCED POLYPROPYLENE RUNGS, 12" O.C. TOP TO BOTTOM
9. MANHOLE SHALL BE ABLE TO WITHSTAND H-20 WHEEL LOAD
10. ALL MANHOLE LIDS ARE TO BE MADE WATER TIGHT



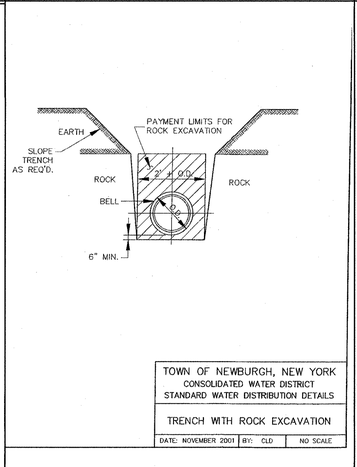
SANITARY DOG HOUSE MANHOLE
SCALE: NTS

NOTES:
1. REMOVE EXISTING CATCH BASIN FRAME AND GRATE AND EXISTING STRUCTURE AS REQUIRED.
2. CONSTRUCT & INSTALL REINFORCED CONCRETE BEAM.
3. INSTALL NEW FRAME AND COVER.

CONVERT EXISTING CB CASTING TO DI CASTING
SCALE: NTS



SANITARY SEWER PUMP (E/ONE MODEL #WH231 OR APPROVED EQUAL)
SCALE: NTS

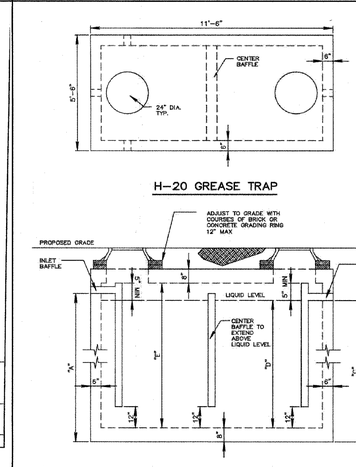


TOWN OF NEWBURGH, NEW YORK
CONSOLIDATED WATER DISTRICT
STANDARD WATER DISTRIBUTION DETAILS

TRENCH WITH ROCK EXCAVATION

DATE: NOVEMBER 2001 | BY: CLD | NO SCALE

TRENCH WITH ROCK EXCAVATION
SCALE: NTS



TANK CAPACITY	"A" INLET HGT.	"B" O.A. HGT.	"C" OUTLET HGT.	"D" LIQUID LEVEL	"E" INSIDE HGT.
1000 GAL. *	47"	61"	44"	38"	45"
1250 GAL.	56"	70"	53"	45"	54"
1500 GAL.	66"	79"	63"	55"	63"
2000 GAL.	82"	95"	79"	71"	79"
2500 GAL.	102"	115"	98"	92"	99"
3000 GAL.	117"	130"	114"	108"	114"
3500 GAL.	135"	148"	132"	124"	132"

* 1000 GALLONS MINIMUM SIZE

OIL-WATER SEPARATOR
SCALE: NTS

WARNING:
IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

Date	Description	No.
04/09/19	REVISED PER TOWN COMMENTS	1.

REVISIONS

4/9/2019
SIGNATURE DATE SIGNED
W. CHARLES UTSCHIG JR., P.E.
PROFESSIONAL ENGINEER NY Lic. No. 062303

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
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White Plains, NY 10601
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Project
A. DUIE PYLE MAINTENANCE BUILDING
BLOCK No. 1, LOT No.69.1
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

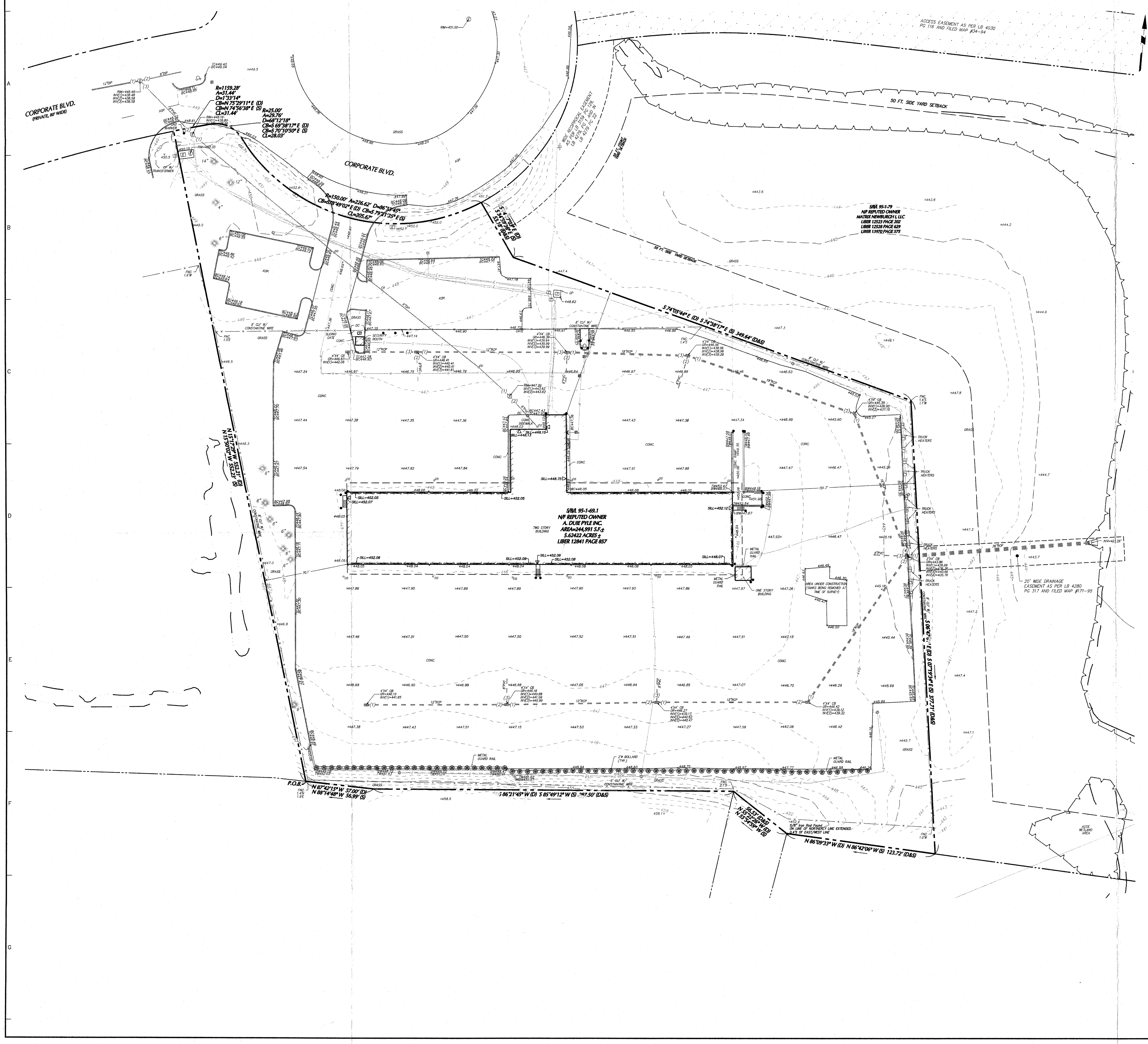
Drawing Title
DETAILS (2 OF 3)

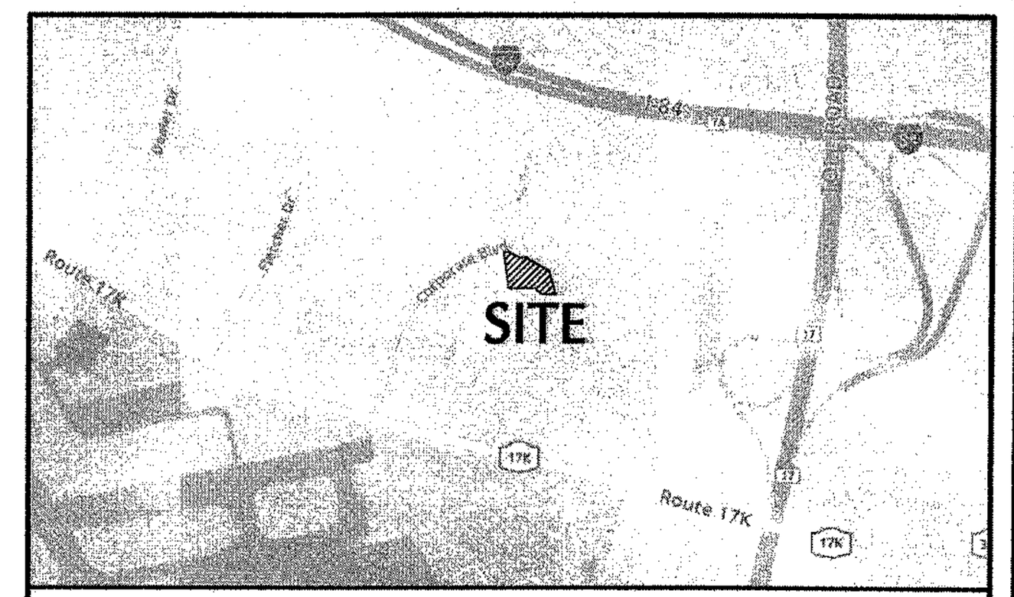
Project No. 190048601
Date MARCH 11, 2019
Drawn By JM
Checked By MF

Drawing No. CS502
Sheet 11 of 12

LANGAN PROJECT NO. 190048601

Filename: \\langan.com\data\WPW\data6\190048601\Project Data\CAD\01SheetFiles\Site Plan Approval\190048601-CS501-0101.dwg Date: 4/9/2019 Time: 14:38 User: jmacalintal Style Table: Langan.stb Layout: Details (2 Of 3)





PROJECT LOCATION MAP

SCALE: N.T.S.

SOURCE:
MAPQUEST

NOTES

1. THIS SURVEY IS BASED UPON EXISTING PHYSICAL CONDITIONS FOUND AT THE SUBJECT SITE, AND THE FOLLOWING REFERENCES:

   A. TAX MAP

   B. A SURVEY BY LANGAN TITLED "ALTA/NSPS LAND TITLE SURVEY, MATRIX NEWBURGH I, L.L.C.", PROJECT No. 9190601, DRAWING No. VL-101, DATED SEPTEMBER 8, 2016.

2. THE SURVEYED PROPERTY IS SUBJECT BUT NOT LIMITED TO THE FOLLOWING FACTS AS REVEALED BY THE HEREON REFERENCED INFORMATION. THE INFORMATION SHOWN HEREON DOES NOT CONSTITUTE A TITLE SEARCH BY THE SURVEYOR. ALL INFORMATION THAT MAY AFFECT THE QUALITY OF TITLE TO BOTH THE SUBJECT AND ADJOINING PARCELS SHOULD BE VERIFIED BY AN ACCURATE AND CURRENT TITLE REPORT.

   (NONE PROVIDED)

3. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD83) (EPOCH2011) NEW YORK EAST STATE PLAIN COORDINATE SYSTEM GRID NORTH AND SCALED TO GROUND AT A POINT HAVING A NORTH COORDINATE OF 975715.51 AND AN EAST COORDINATE OF 606492.44. THE AVERAGE COMBINED SCALE FACTOR FOR SAID POINT TO SCALE FROM GRID TO GROUND IS 1.00010540 AND THE RECIPROCAL SCALE FROM GROUND TO GRID IS 0.99989461. POSITION WAS DETERMINED BY GLOBAL NAVIGATION SATELLITE SYSTEMS (GNSS) AS PROVIDED BY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS).

4. ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) (GEOID12B) AS DETERMINED BY GNSS METHODS.

5. STREET NAMES, SECTION, BLOCK AND LOT NUMBERS AS PER MAPS REFERENCED IN NOTE 1.A.

6. PLANIMETRIC INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM GROUND SURVEYS BY LANGAN ENGINEERING, ENVIRONMENTAL, SURVEYING AND LANDSCAPE ARCHITECTURE, D.P.C. DURING DECEMBER OF 2019.

7. AS PER THE "NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP TITLED ORANGE COUNTY, NEW YORK (ALL JURISDICTIONS) PANEL 139 OF 630, MAP NUMBER 36071C0139E, EFFECTIVE DATE AUGUST 3, 2009." THE ENTIRE SUBJECT PROPERTY LIES WITHIN ZONE X (UNSHADED), AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

8. OFFSETS (IF SHOWN) ARE FOR SURVEY REFERENCES ONLY AND ARE NOT TO BE USED IN CONSTRUCTION OF ANY TYPE.

9. WETLANDS, ENVIRONMENTAL AND/OR HAZARDOUS MATERIALS LOCATION, IF ANY, NOT COVERED UNDER THIS CONTRACT.

10. UNLESS SPECIFICALLY NOTED HEREON, STORM AND SANITARY SEWER INFORMATION (INCLUDING PIPE INVERT, PIPE MATERIAL, AND PIPE SIZE) WAS OBSERVED AND MEASURED AT FIELD LOCATED STRUCTURES (MANHOLES/CATCH BASINS, ETC). CONDITIONS CAN VARY FROM THOSE ENCOUNTERED AT THE TIMES WHEN AND THE LOCATIONS WHERE DATA WAS OBTAINED. DESPITE MEETING THE REQUIRED STANDARD OF CARE THE SURVEYOR CANNOT AND DOES NOT WARRANT THAT PIPE MATERIAL AND/OR PIPE SIZE THROUGHOUT THE PIPE RUN ARE THE SAME AS THOSE OBSERVED AT EACH STRUCTURE, OR THAT THE PIPE RUN IS STRAIGHT BETWEEN THE LOCATED STRUCTURES.

11. ADDITIONAL UTILITY (WATER, GAS, ELECTRIC ETC...) DATA MAY BE SHOWN FROM FIELD LOCATED SURFACE MARKINGS (BY OTHERS), EXISTING STRUCTURES, AND/OR FROM EXISTING DRAWINGS.

12. UNLESS SPECIFICALLY NOTED HEREON THE SURVEYOR HAS NOT EXCAVATED TO PHYSICALLY LOCATE THE UNDERGROUND UTILITIES. THE SURVEYOR MAKES NO GUARANTEES THAT THE SHOWN UNDERGROUND UTILITIES ARE EITHER IN SERVICE, ABANDONED OR SUITABLE FOR USE, NOR ARE IN THE EXACT LOCATION OR CONFIGURATION INDICATED HEREON.

13. PRIOR TO ANY DESIGN OR CONSTRUCTION THE PROPER UTILITY AGENCIES MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS.

14. UNLESS NOTED BELOW SUPPLEMENTAL DOCUMENTS WERE NOT USED TO COMPILE THE SUBSURFACE UTILITY INFORMATION SHOWN HEREON.

   A. UTILITY MARK-OUT AND SKETCHES PERFORMED AND PROVIDED BY UNDERGROUND SERVICES INC. "SOFTDIG".

15. 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.

16. THIS PLAN NOT VALID UNLESS EMBOSSED OR BLUE INK STAMPED WITH THE SEAL OF THE PROFESSIONAL.

LEGEND (NOT SHOWN TO SCALE)

- BOLLARD
- COLUMN
- DOOR
- OVERHEAD DOOR
- SIGN
- TREE
- CATCH BASIN
- CLEANOUT
- ELECTRIC BOX
- ELECTRIC METER
- FIRE HYDRANT
- FLARED END SECTION
- GAS METER
- GAS VALVE
- LIGHT POLE
- MANHOLE (TYPE AS LABELED)
- POWER POLE
- ROOF DRAIN
- STANDPIPE
- TELEPHONE BOX
- WATER VALVE
- X262.3 — SPOT ELEVATION
- ASP. — ASPHALT
- CONC. — CONCRETE
- CP — CONCRETE PAD
- TW — TOP OF WALL
- BW — BOTTOM OF WALL
- TC — TOP OF CURB
- BC — BOTTOM OF CURB
- DC — DEPRESSED CURB
- INV — INVERT ELEVATION
- (D) — PER DEED
- (S) — PER SURVEY
- N, E, S, W — NORTH, EAST, SOUTH, WEST
- RCP — REINFORCED CONCRETE PIPE
- DIP — DUCTILE IRON PIPE
- PVC — POLYVINYL CHLORIDE PIPE
- CLF — CHAINLINK FENCE
- METAL GUARD RAIL
- CHAINLINK FENCE
- TREE LINE
- WETLAND LINE
- EASEMENT LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- CONTOUR LINE
- ELECTRIC MARK OUT LINE
- COMMUNICATION MARK OUT LINE
- GAS MARK OUT LINE
- WATER MARK OUT LINE

30 0 15 30
SCALE IN FEET

Date	Description	No.
	REVISIONS	

"I hereby state that this plan is based on a field survey made by me or under my immediate supervision in accordance with NYSPLS Code of Practice for Land Surveyors and to the best of my professional knowledge, information and belief, and in my professional opinion, correctly represents the conditions found on the date of the field survey at the subject property".

SIGNATURE — DATE SIGNED
STEVEN WALDEMER
PROFESSIONAL LAND SURVEYOR
NY Lic. No. 050898

LANGAN
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
707 Westchester Avenue, Suite 304
White Plains, NY 10604

T: 914.323.7400 F: 914.323.7401 www.langan.com

Project

A. DUIE PYLE MAINTENANCE BUILDING

SECTION No. 95, BLOCK No. 1, LOT No. 69.1
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title

BOUNDARY & TOPOGRAPHIC SURVEY

Project No.	Drawing No.
190048601	VB101
Date: JANUARY 14, 2019	
Drawn By: ML/SLW	
Checked By: SLW	Sheet 1 of 1

PROJECT NO. 190048601

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