



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

PROJECT NAME: SCANNELL-NEWBURGH COMMERCE CENTER
PROJECT NO.: 2021-21
PROJECT LOCATION: SECTION 95, BLOCK 1, LOT 58
REVIEW DATE: 14 JANUARY 2022
MEETING DATE: 20 JANUARY 2022
PROJECT REPRESENTATIVE: LANGAN ENGINEERING

1. This office previously circulated Notice of Intent for Lead Agency for the SEQRA review of the project. This notice was sent on 26 October 2021 and has timed out for any additional responses. Coordination with the NYSDEC and US Fish and Wildlife Service regarding potential impacts to protected Bat Species and the Upland Sandpiper are required.
2. A City of Newburgh Flow Acceptance letter is required for the project.
3. Status of review from the Jurisdictional Emergency Services should be received. It is noted the facility only has one point of access from NYS Route 17K.
4. The applicants are requested to provide preliminary analysis to determine that adequate flow and pressure exists such that a fire suppression water tank is not needed on the site.
5. All correspondence with NYSDOT should be submitted to the Planning Board as well. NYSDOT input on the access drive and utilities within the DOT right-of-way should be provided. A copy of the 17 December 2021 DOT application has been provided.
6. Appendix 17, 18 & 19 appear to be missing from the document. No information beyond the Traffic Study is provided.
7. Future submissions should provide tabs in the voluminous report provided to assist in review.
8. Noise Study should document the benefits of the sound attenuating wall proposed along the front of the parcel between the residential parcels and the subject property. In addition, a sound attenuating wall is provided along the easterly portion of the access drive.
9. A Stormwater Facilities Maintenance Agreement will be required to be executed and filed with the Town and with County Property records.
10. Two bio-retention areas are proposed for water quality control. Bio-retention area #1 is identified as having a liner while Bio-Retention area #2 is identified as not being lined. Bio-retention area #1 addresses the hot spot areas of the site while bio-retention area #2 takes on a roof and passenger vehicle parking. Two separate details should be provided on the plans.

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11. It is noted in the Stormwater Model that bio-retention area #1 identifies a .25 inches per hour exfiltration in the calculation. This is a lined pond which also then takes credit for the six inch vertical underdrain.
12. The Narrative portion of the SWPPP should identify the use of the proprietary pre-treatment units prior to discharge to the bio-retention basins.
13. The location of the natural discharge for headwall #17 should be identified on the plans. The drainage course between this point discharge and the natural stream should be provided. The velocity of this discharge point should be evaluated as the pipe slopes are approximately 5% to 5.5% grades along the 17K corridor.
14. NYSDOT comments regarding placement of the storm drainage facilities within the driving lane of NYS Route 17K should be received.
15. The location of the 60 inch diameter pipe identified in the SWPPP narrative should be identified on the plans.
16. It is requested the Erosion & Sediment Control Plan address interim drainage condition along the easterly and westerly property lines existing and proposed grades.
17. It is unclear if temporary sediment traps are proposed on the plan. No detail or discussion of the same are provided. Volume of the temporary sediment traps should be calculated and identified.
18. It is requested the applicant evaluate the amount of flow directed towards Catch Basin #24 at the entrance drive. It appears that water traveling from west to east as well as the entire access road discharges to this single catch basin.
19. Limits of disturbance along residential property should be demarcated in the field with orange construction fence. Proposed grading in several locations butts the residential properties.
20. A detail for connection to existing manholes should be provided. Paved inverts for the connection within the manhole should be identified and core drilling of any town owned manhole is required.

Respectfully submitted,

MHE Engineering, D.P.C.

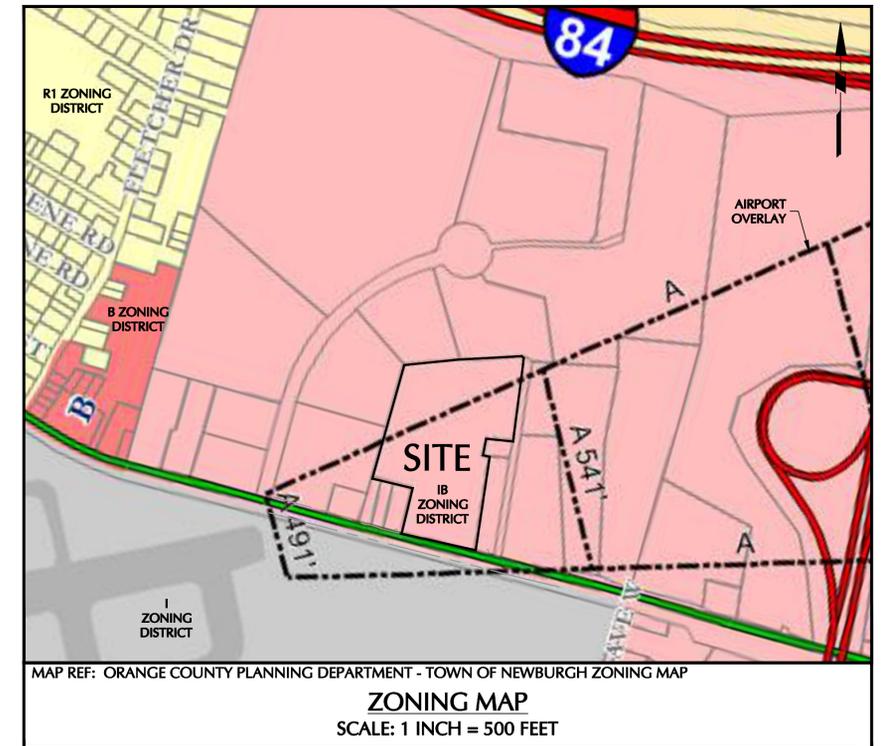
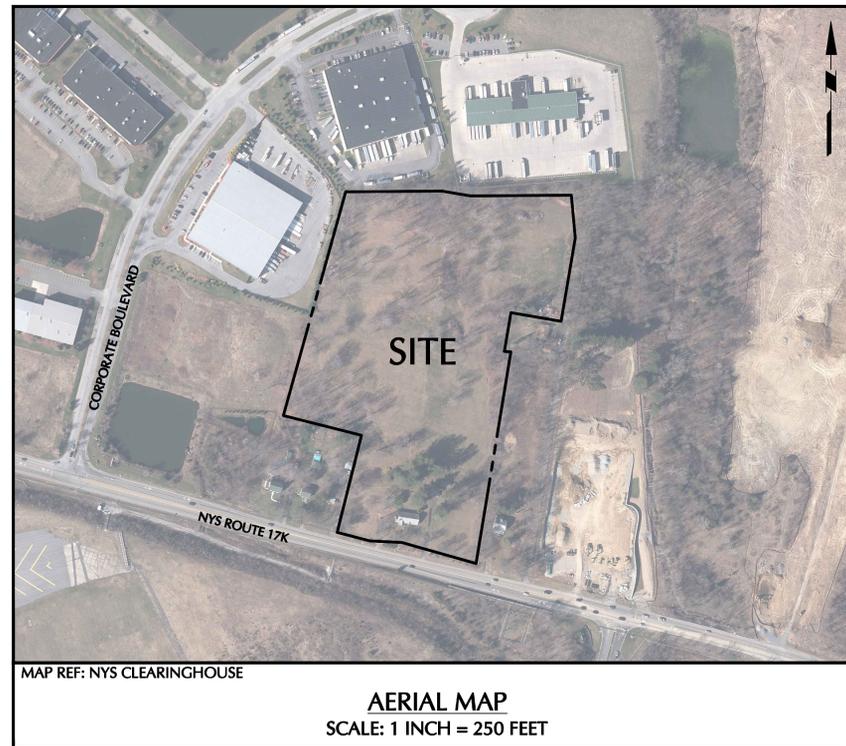
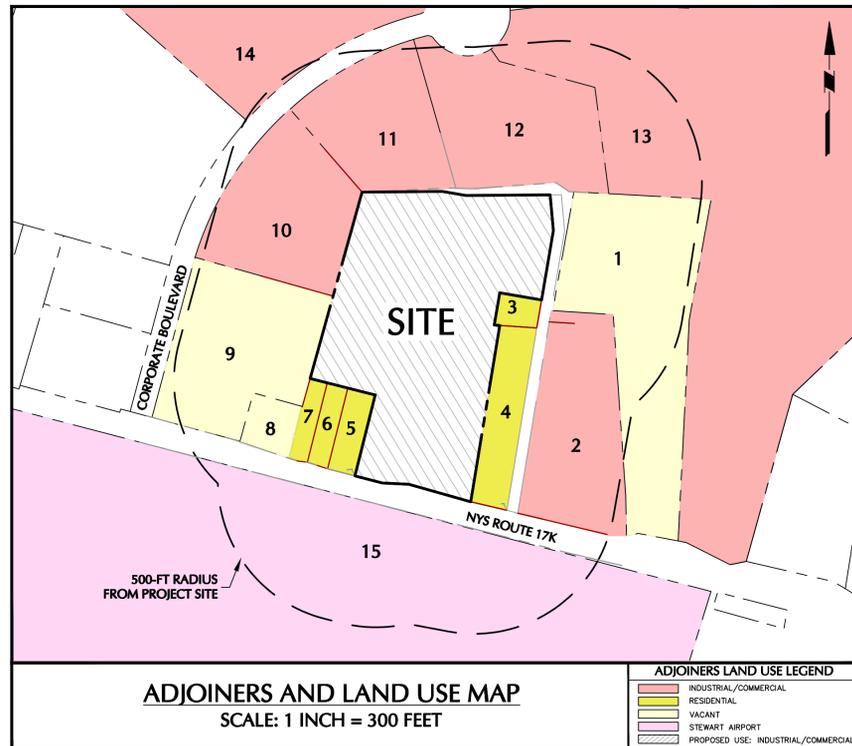


Patrick J. Hines
Principal

PJH/kbw

SITE PLAN APPROVAL DOCUMENTS FOR NEWBURGH COMMERCE CENTER

TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK
SECTION 95, BLOCK 1, LOT 58
PLANNING BOARD PROJECT No: 2021-21



ADJACENT PROPERTY OWNERS

1. 95-1-54.2 PDH Realty, LLC P.O. Box 859 Goshen, NY 10924	4. 95-1-57 Cosimo J. Colandrea P.O. Box 3257 Newburgh, NY 12550	7. 95-1-61 Brandon Ozman 130 W Main Street Walden, NY 12586	10. 95-1-75 JDP Associates, LLC 160 Middlesex Turnpike Bedford, MA 01730	13. 95-1-1.1 Northeast Business Center 3 Manhattanville Road Purchase, NY 10577
2. 95-1-53 PDH Realty, LLC P.O. Box 859 Goshen, NY 10924	5. 95-1-59 TJP Realty, LLC 70 Taylors Way Newburgh, NY 12550	8. 95-1-64 Platinos Property Inc. 113 Dogwood Lane Newburgh, NY 12550	11. 95-1-1.32 Business Center Northeast 3 Manhattanville Road Purchase, NY 10577	14. 95-1-79.2 Matrix Newburgh I, LLC CN 4000 Forsgate Drive Cranbury, NJ 08512
3. 95-1-56 Van Schrier 120 Route 17K Newburgh, NY 12550	6. 95-1-60 Michael W. Kane 128 Route 17K Newburgh, NY 12550	9. 95-1-76 Palm Hospitality, LLC 48 Sherwood Heights Wappingers Falls, NY 12590	12. 95-1-69.12 A Duie Pyle P.O. Box 564 650 Westtown Road West Chester, PA 19381	15. 89-1-79 NYS Department of Transportation Albany, NY 12201

PROJECT CONTACTS

APPLICANT:	SCANNELL PROPERTIES, LLC 8801 RIVER CROSSING BOULEVARD, SUITE 300 INDIANAPOLIS, IN 46240
OWNER:	RED OAK SOS, LLC 1400 E 66TH AVENUE DENVER, CO 80229

DRAWING NO.	SHEET NO.	DRAWING TITLE	DATE	LATEST REVISION
CS001	1 OF 14	COVER SHEET	8/19/2021	1/7/2022
CD101	2 OF 14	EXISTING CONDITIONS AND SITE REMOVALS PLAN	8/19/2021	1/7/2022
CS101	3 OF 14	SITE PLAN	8/19/2021	1/7/2022
CS201	4 OF 14	TRUCK TURNING MOVEMENT PLAN	1/7/2022	-
CG201	5 OF 14	GRADING AND DRAINAGE PLAN	11/29/2021	1/7/2022
CU101	6 OF 14	UTILITY PLAN	10/8/2021	1/7/2022
CE101	7 OF 14	EROSION AND SEDIMENT CONTROL PLAN	11/29/2021	11/29/2022
CS501	8 OF 14	DETAILS (1 OF 3)	11/29/2021	1/7/2022
CS502	9 OF 14	DETAILS (2 OF 3)	11/29/2021	11/29/2021
CS503	10 OF 14	DETAILS (3 OF 3)	1/7/2022	-
LL101	11 OF 14	SITE LIGHTING PLAN	12/30/2021	1/7/2022
LL501	12 OF 14	SITE LIGHTING NOTES AND DETAILS	12/30/2021	1/7/2022
LP101	13 OF 14	PLANTING PLAN	8/19/2021	1/7/2022
LP501	14 OF 14	PLANTING NOTES AND DETAILS	8/19/2021	1/7/2022

Date	Description	No.
01/07/22	REVISED PER TOWN COMMENTS	3
11/29/21	PLANNING BOARD SUBMISSION	2
09/09/21	ZBA SUBMISSION	1

01/07/2022
DATE SIGNED
W. CHARLES HUSTON, JR., PE
PROFESSIONAL ENGINEER Lic. No. 062303

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Landscape Architecture and Geology, D.P.C.
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Project
**NEWBURGH
COMMERCE CENTER**
SECTION No. 95, BLOCK No. 1, LOT No. 58
TOWN OF NEWBURGH
ORANGE COUNTY
NEW YORK

Drawing Title
COVER SHEET

Project No.
190071901
Date
AUGUST 19, 2021
Drawn By
JN
Checked By
CZ

Drawing No.
CS001
Sheet 1 of 14

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, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

REFERENCE NOTES

- EXISTING SITE FEATURES, TOPOGRAPHIC, AND UTILITY INFORMATION SHOWN HEREON ARE FROM THE ALTA/NSPS LAND TITLE SURVEY "LANDS OWNED BY RED OAK SOS LLC" TAX PARCEL 95-1-58, PREPARED BY MJ ENGINEERING AND LAND SURVEYING, P.C., DATED OCTOBER 7, 2021.
- THE HORIZONTAL DATUM REFERENCED TO NORTH AMERICAN DATUM OF 1983, NEW YORK STATE PLANE EAST ZONE 3101.
- THE VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

SITE REMOVALS NOTES

- THE SITE DEMOLITION ACTIVITIES SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LABOR, MATERIALS, EQUIPMENT, SUPERVISION, COORDINATION EFFORTS, PERMITTING COSTS, SERVICES, FILING FEES, TESTING COSTS, SECURITY, INSURANCE, AND ALL OTHER ASSOCIATED OR RELATED ITEMS REQUIRED TO COMPLETE THE SCOPE OF WORK DESCRIBED IN THIS SECTION.
 - INSTALL AND MAINTAIN ROADWAY CONSTRUCTION SIGNAGE AND ASSOCIATED TRAFFIC MEASURES.
 - INSTALL AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING THE ADJACENT ROADWAYS DUE TO DEMOLITION RELATED DEBRIS, DUST, AND SEDIMENT AS NECESSARY OR AS DIRECTED BY THE OWNER OR OWNER'S ENGINEER.
 - IMPLEMENT ALL SAFETY MEASURES AND ANY OTHER MEASURES DEEMED NECESSARY OR REQUIRED BY GOVERNING AUTHORITIES TO PROTECT FROM HARM OR DAMAGE ADJACENT AND ON-SITE PERSONS, PROPERTY, BUILDINGS, HOMES, BUSINESSES, FACILITIES, AND UTILITIES.
 - DISCONNECT AND CAP/TERMINATE ALL UTILITY SERVICES (E.G. WATER, SEWER, GAS, ELECTRIC, TELEPHONE, ETC.) IN ACCORDANCE WITH ALL LOCAL REGULATIONS AND UTILITY SERVICE COMPANY REQUIREMENTS. WHERE NECESSARY, THE WORK SHALL INCLUDE THE RESTORATION OF PAVEMENT AND CURBING IMPACTED WITHIN THE PUBLIC RIGHT-OF-WAY BY UTILITY REMOVAL AND DEMOLITION WORK.
 - REMOVE AND DISPOSE OF OFF-SITE ALL EXISTING SITE FEATURES INCLUDING, BUT NOT LIMITED TO ALL ASPHALT, CONCRETE SIDEWALKS, WALLS, STAIRWAYS, RAMPS, RAILINGS, BUSHES, TREES, CURBING, FENCES, POLES, ETC. WITHIN SITE AREAS.
 - UPON COMPLETION OF DEMOLITION, THE CONTRACTOR SHALL TEMPORARILY STABILIZE THE SITE IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENT CONTROL PLAN, SHEET CE101. TEMPORARY STABILIZATION MAY BE SUBJECT TO ADDITIONAL EROSION CONTROL MEASURES AS DETERMINED BY THE TOWN ENGINEER AT NO ADDITIONAL COST TO THE OWNER OR TOWN.
 - AN ABOVE GROUND STORAGE TANK USED FOR HEATING AND COOLING IS LOCATED IN THE BASEMENT OF THE RESIDENCE FRONTING ROUTE 17K. THE FILL PORT ASSOCIATED WITH THE AST IS LOCATED ON THE EXTERIOR SOUTHWEST PORTION OF THE BUILDING. THE AST SHALL BE REMOVED IN ACCORDANCE WITH APPLICABLE STANDARDS.
 - THE RESIDENCE FRONTING ROUTE 17 IS ON A PRIVATE SEPTIC SYSTEM AND PRIVATE WATER WELL. THE SEPTIC SYSTEM AND WELL SHALL BE REMOVED IN ACCORDANCE WITH APPLICABLE STANDARDS.
 - A DEMOLITION PERMIT IS REQUIRED FROM THE TOWN'S CODE ENFORCEMENT OFFICE PRIOR TO THE START OF ANY DEMOLITION.
 - 145 TREES TO BE REMOVED OVER THE 13.8 ACRE SITE. TREES SHALL BE REMOVED BETWEEN THE DATES OF OCTOBER 1 - MARCH 31.

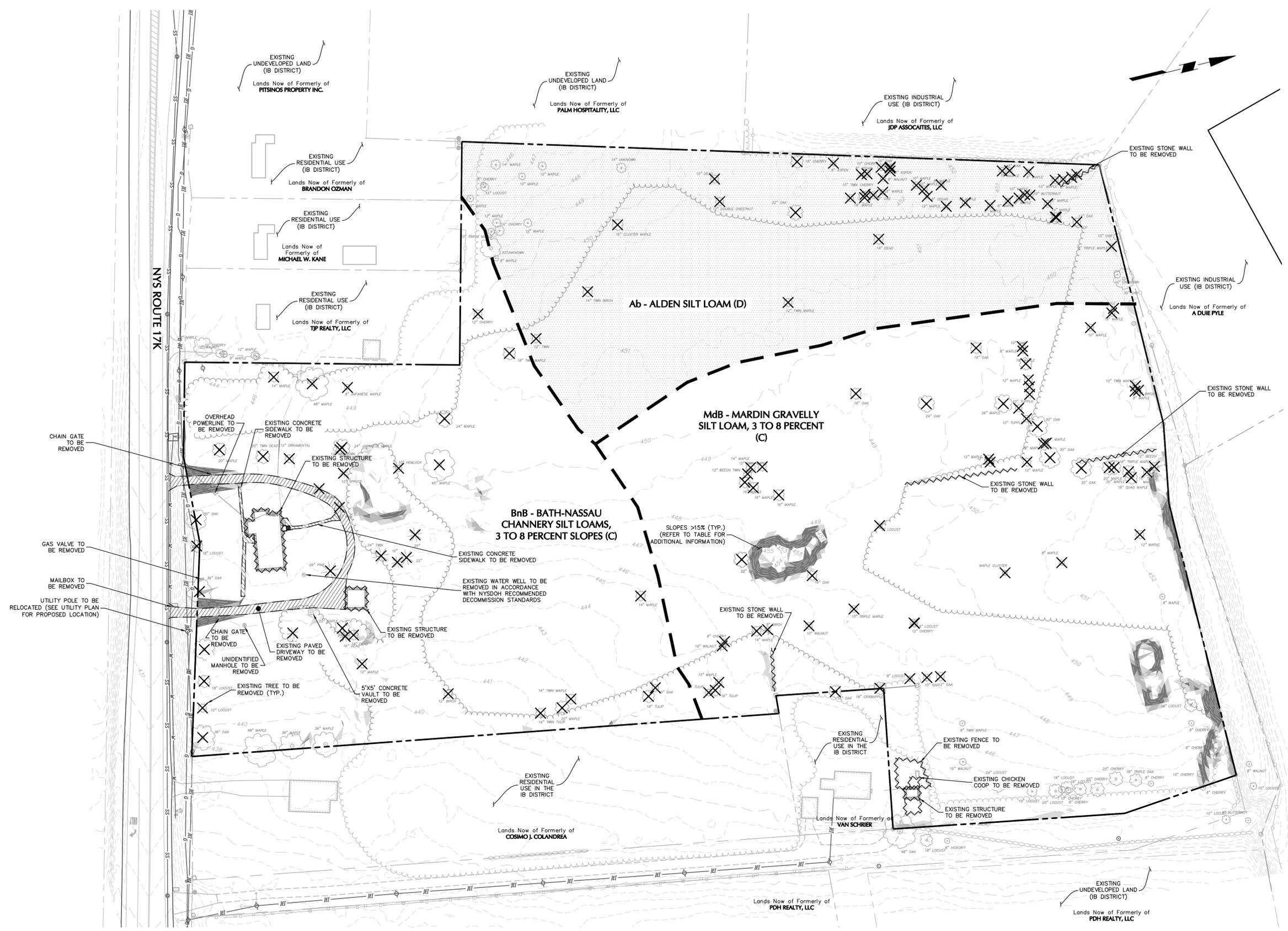
LEGEND

	PROPERTY LINE
	SITE FEATURE TO BE REMOVED
	TREE TO BE REMOVED
	EXISTING PAVEMENT/CONCRETE TO BE REMOVED

SLOPES TABLE

NUMBER	MIN. SLOPE	MAX. SLOPE	AREA (SF)	COLOR
1	15.0%	20.0%	4,962	
2	20.0%	25.0%	1,938	
3	25.0%	Vertical	2,160	

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Date	Description	No.
01/07/22	REVISED PER TOWN COMMENTS	4
01/03/22	REVISED PER TREE CLEARING	3
11/29/21	PLANNING BOARD SUBMISSION	2
09/09/21	ZBA SUBMISSION	1
Date	Description	No.

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 PROFESSIONAL ENGINEER Lic. No. 0625303

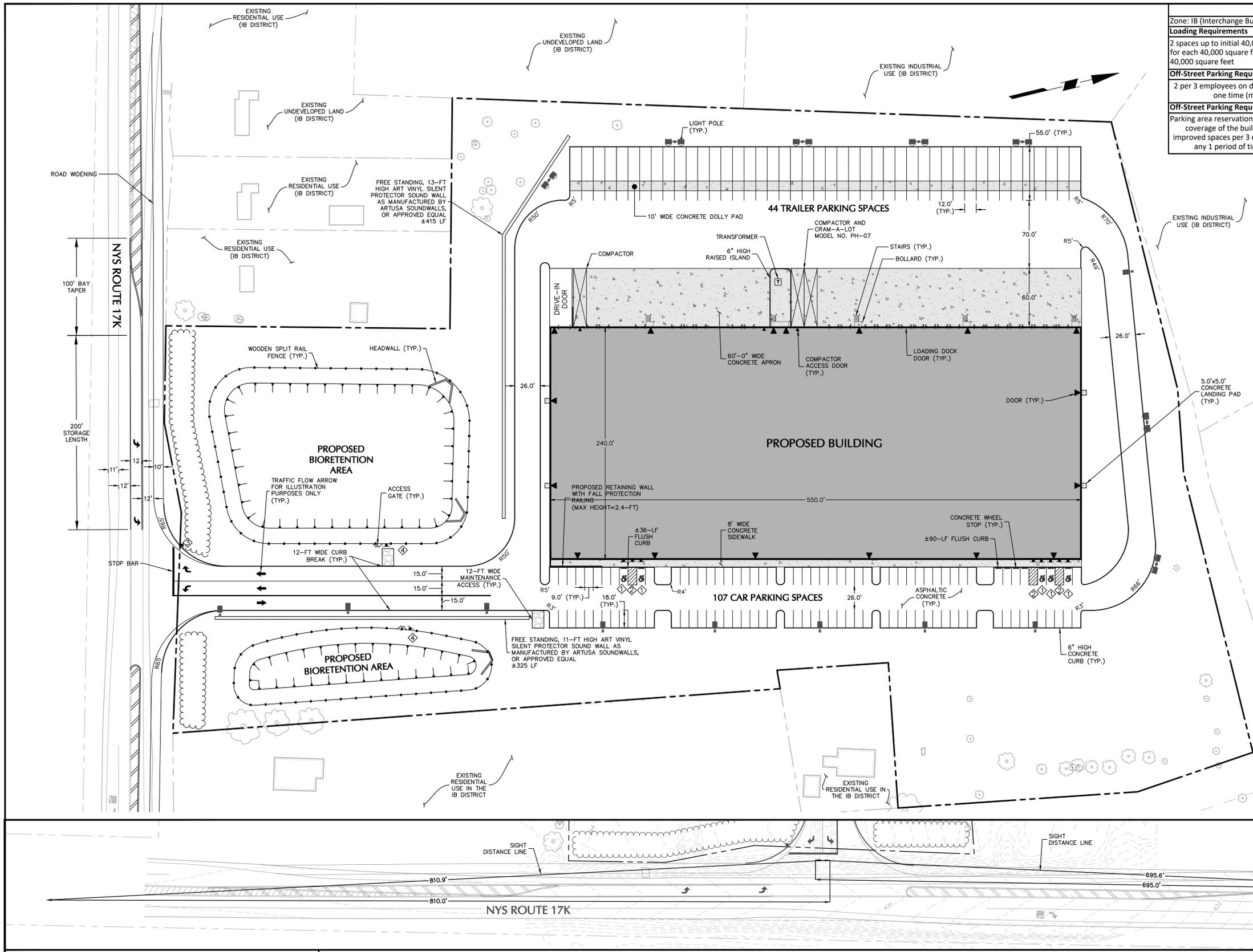
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Project
NEWBURGH COMMERCE CENTER
 SECTION No. 95, BLOCK No. 1, LOT No. 58
 TOWN OF NEWBURGH
 ORANGE COUNTY NEW YORK

Drawing Title
EXISTING CONDITIONS AND SITE REMOVALS PLAN

Project No.	190071901	Drawing No.	CD101
Date	AUGUST 19, 2021		
Drawn By	JN		
Checked By	CZ	Sheet 2 of 14	

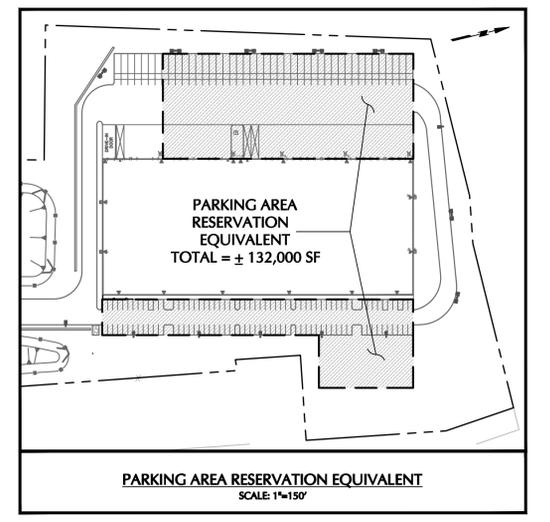




LOADING & OFF-STREET PARKING REQUIREMENTS SECTION (185-13)		
Zone: IB (Interchange Business)		
Loading Requirements	Required	Proposed
2 spaces up to initial 40,000 SF and 1 additional space for each 40,000 square feet in addition to the first 40,000 square feet	Initial 40,000 SF Building = 2 spaces 92,000 SF Remaining Building / 40,000 SF = 2.3 spaces 2 spaces + 3 spaces = 5 loading spaces required	>5 spaces provided
Off-Street Parking Requirements (Warehouse)	88 employees per shift / 3 employees = 29.3 spaces 29.3 spaces * 2 spaces = 59 spaces required	107 spaces provided
Off-Street Parking Requirements (Manufacturing or industrial establishment, research institute or laboratory)	128 employees per shift / 3 employees = 42.7 spaces 42.7 spaces * 2 spaces = 86 spaces required 130,000 SF of parking area reservation equivalent required	107 spaces provided 132,000 SF of parking area reservation equivalent provided (see insert)

ZONING TABLE: TOWN OF NEWBURGH, NY INTERCHANGE BUSINESS (IB) ZONING DISTRICT SECTION No. 95, BLOCK No. 1, LOT No. 58				
CODE REF.	BULK REGULATION	REQUIRED	PROPOSED	COMPLIANCE
Schedule 8	PRINCIPAL USE	Use subject to site plan review by Planning Board	Various ⁽¹⁾	YES
Schedule 8	MIN. LOT AREA	40,000 SF	±602,542 SF (13.8 AC)	YES
Schedule 8	MIN. LOT WIDTH	150 FT	416 FT	YES
Schedule 8	MIN. LOT DEPTH	150 FT	1,053 FT	YES
Sect. 185-18	MIN. FRONT YARD (STATE ROAD)	60 FT	381.0 FT	YES
Schedule 8	MIN. SETBACK FROM ROUTE 17K ⁽¹⁾	500 FT	381.0 FT	VARIANCE GRANTED ⁽²⁾
Schedule 8	MIN. REAR YARD	60 FT	80.8 FT	YES
Schedule 8	MIN. SIDE YARD (ONE SIDE)	30 FT	106.1 FT	YES
Schedule 8	MIN. SIDE YARD (BOTH SIDES)	80 FT	317.9 FT	YES
Schedule 8	MAX. LOT BUILDING COVERAGE	40%	21.9%	YES
Schedule 8	MAX. BUILDING HEIGHT	40 FT	< 40 FT	YES
Schedule 8	MAX. LOT SURFACE COVERAGE	80%	52.4%	YES
LANDSCAPE REQUIREMENTS				
Sect. 185-18	FRONT YARD LANDSCAPE BUFFER ALONG ROUTE 17K	35 FT	35 FT	YES
Sect. 185-13	PARKING AREA LANDSCAPING	5% OF PARKING AREA	5.1%	YES

Note:
 (1) The proposed use includes research laboratories; manufacturing, altering, fabricating, or processing products or materials; warehouse, storage, and transportation facilities, including truck and bus terminals; and offices for business, research, and professional use and banks.
 (2) Per Schedule 8, Column D., Line Item 9., "Warehouse, storage and transportation facilities, including truck and bus terminals, not within 500 feet of Route 17K" is a use subject to site plan review by the Planning Board. A variance has been granted to construct a portion of this use within 500 feet of Route 17K, and dated 12/27/2021.



SIGN SCHEDULE						
SIGN NO.	SIGN FACE	NYS NUMBER	NATIONAL NUMBER	SIZE	BACKGROUND COLOR	LEGEND COLOR
1	RESERVED PARKING	R4-6	R7-8 (NO ARROWS)	24"x24" (12"x18" WITH VAN ACCESSIBLE)	WHITE	BLUE GREEN
2	NO PARKING ANY TIME	P1-1 (NO ARROWS)	P7-1 (NO ARROWS)	12"x18"	WHITE	RED
3	STOP	R1-1	R1-1	30"x30"	RED	WHITE

NOTES: REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION AND DETAILS ON CUSTOM SIGNS.
REFER TO STORMWATER MANAGEMENT PRACTICE SIGN DETAIL ON SHEET CS501 FOR SIGN

SIGHT DISTANCE INSERT SCALE: 1"=50'		
Date	Description	No.
01/07/22	REVISED PER TOWN COMMENTS	5
11/29/21	PLANNING BOARD SUBMISSION	4
10/13/21	SD REVIEW COMMENTS	3
10/08/21	SCHEMATIC DESIGN DOCUMENTS	2
09/09/21	ZBA SUBMISSION	1

01/07/2022
 W. CHARLES HUSTON, JR., P.E.
 PROFESSIONAL ENGINEER License No. 0623503

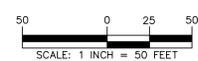
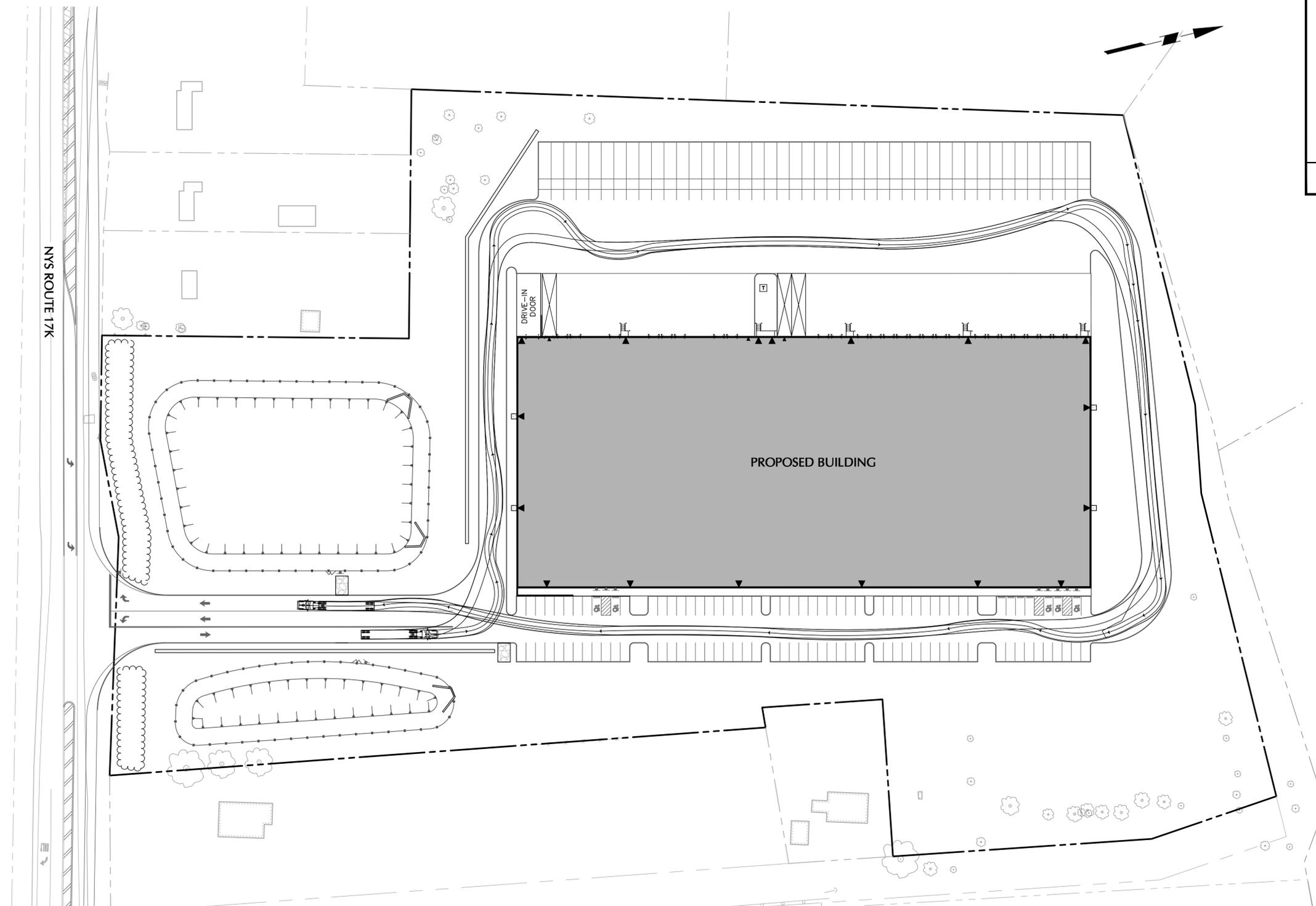
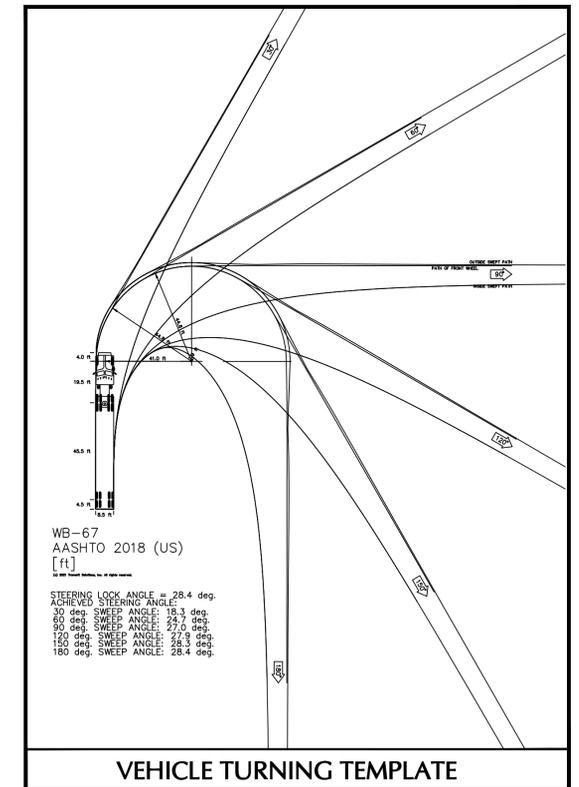
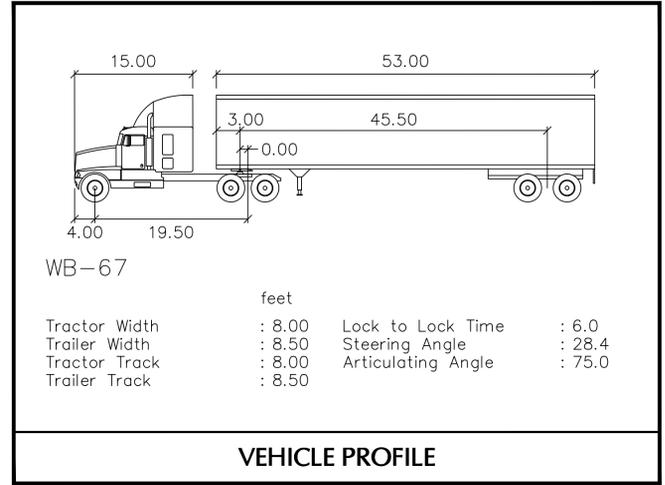
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Project
NEWBURGH COMMERCE CENTER
 SECTION No. 95, BLOCK No. 1, LOT No. 58
 TOWN OF NEWBURGH
 ORANGE COUNTY
 NEW YORK

Drawing Title
SITE PLAN

Project No.
190071901
 Date
AUGUST 19, 2021
 Drawn By
JN
 Checked By
JK

Drawing No.
CS101
 Sheet 3 of 14



Date	Description	No.
REVISIONS		

SIGNATURE: *[Signature]* DATE SIGNED: 01/07/2022
 W. CHARLES LUSVARDI, JR., PE
 PROFESSIONAL ENGINEER Lic. No. 062303

LANGAN

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Project

**NEWBURGH
COMMERCE CENTER**

SECTION No. 95, BLOCK No. 1, LOT No. 58
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title

**TRUCK TURNING
MOVEMENT PLAN**

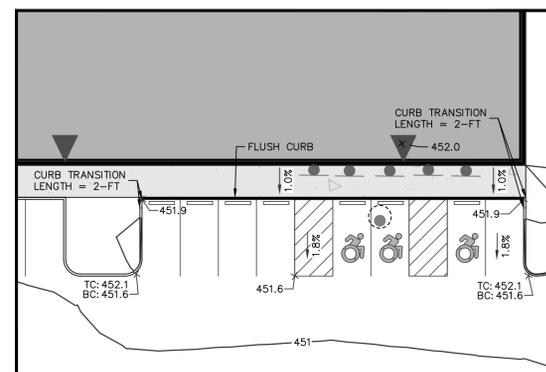
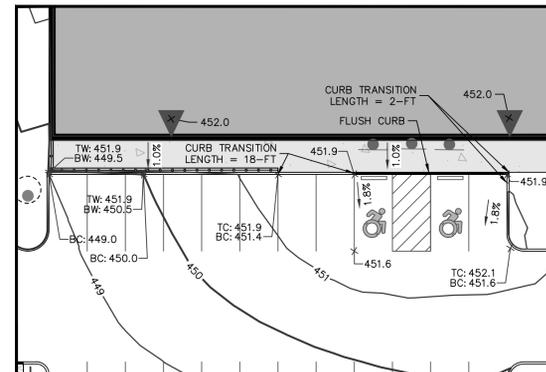
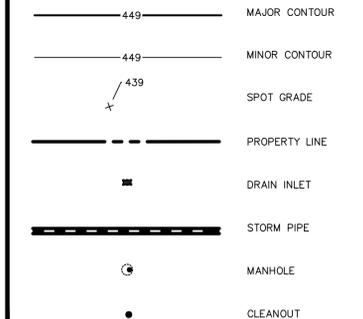
Project No.	190071901	Drawing No.	CS201
Date	JANUARY 7, 2022		
Drawn By	JN	Sheet 1 of 1	
Checked By	JK		

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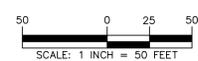
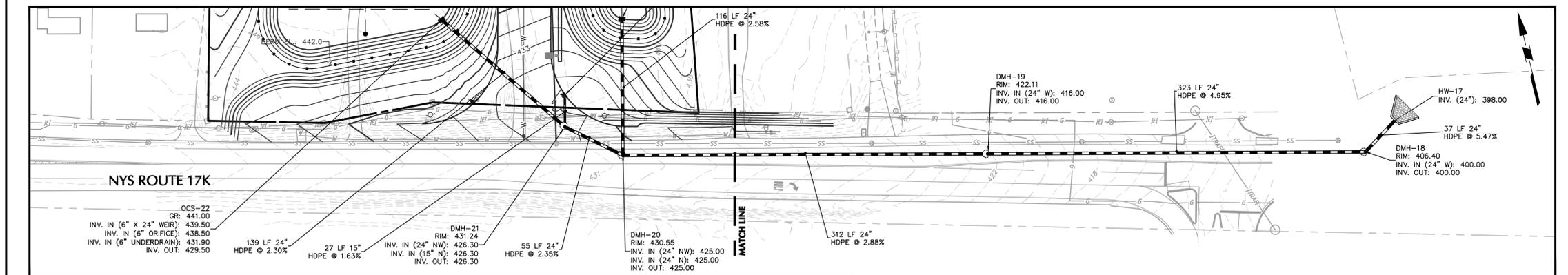
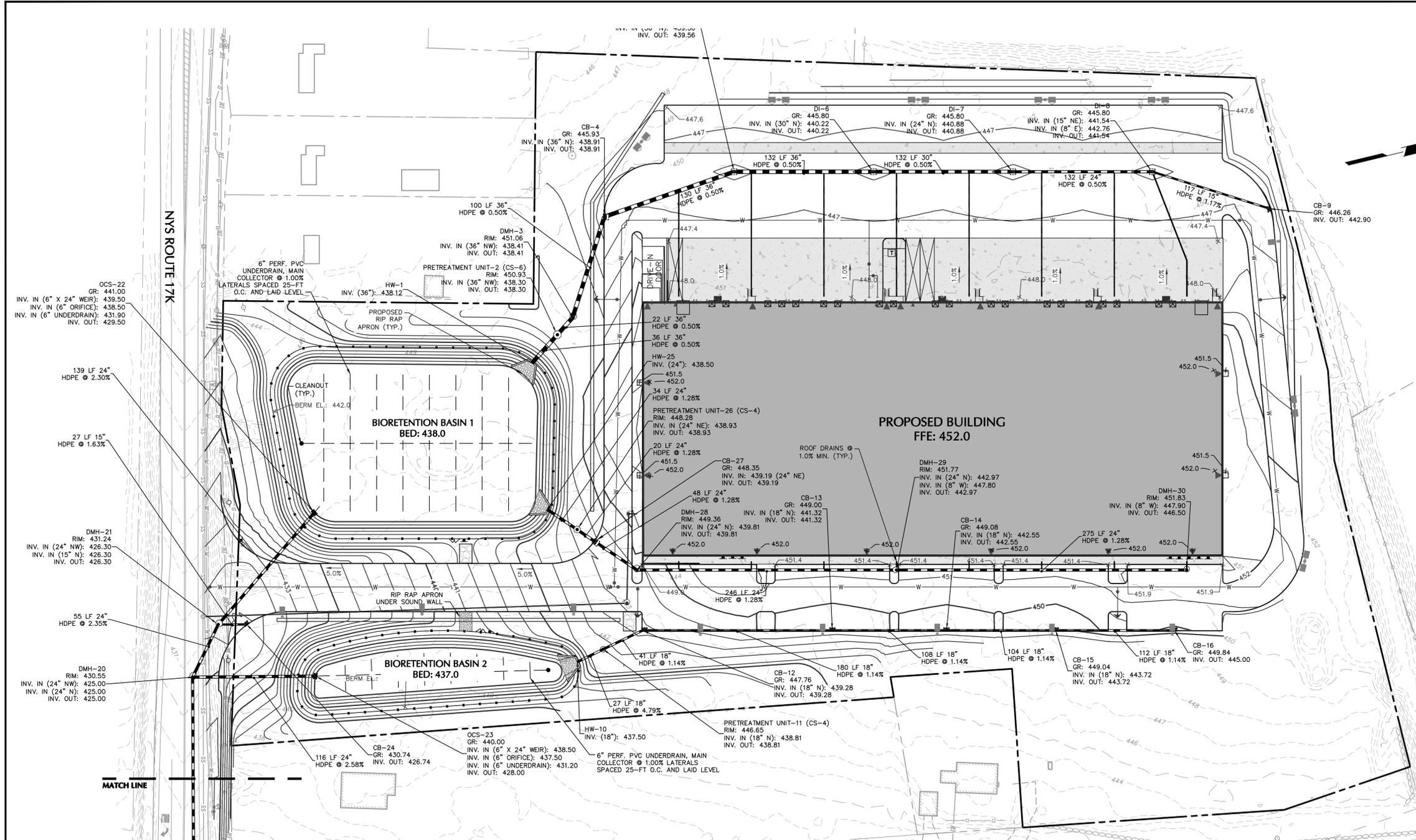
DRAINAGE NOTES

- ALL DRAINAGE STRUCTURES AND STORM PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS, AND INVERTS PRIOR TO BEGINNING CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD.
- THE CONTRACTOR MUST NOTIFY THE TOWN ENGINEERING/DEPARTMENT OF PUBLIC WORKS A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. ALL CONNECTIONS TO TOWN FACILITIES SHALL BE COORDINATED WITH AND WITNESSED BY TOWN DPW PERSONNEL.
- ABBREVIATIONS:
 HDPE = HIGH DENSITY POLYETHYLENE
 INV = INVERT
 LF = LINEAR FEET
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS AND SIZES OF ALL ROOF LEADERS AND COORDINATE WITH PROPOSED STORMWATER SYSTEM PRIOR TO INSTALLATION.
- ALL ROOF DRAINS FROM BUILDING SHALL BE BROUGHT TO FIVE (5) FEET OUTSIDE THE BUILDING LIMITS AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT THE END.
- ALL PROPOSED STORM DRAINAGE PIPING SHALL BE TEMPORARILY PROTECTED WITH REQUIRED MINIMUM COVER DURING CONSTRUCTION.
- ALL DAMAGED EXISTING DRAINAGE STRUCTURES ON-SITE OR OFF-SITE, CAUSED BY THE CONTRACTOR'S WORK SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR, AS DIRECTED BY THE OWNER'S ENGINEER, AT NO COST TO THE OWNER OR TOWN.

LEGEND



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Date	Description	No.
01/07/22	REVISED PER TOWN COMMENTS	2
11/29/21	PLANNING BOARD SUBMISSION	1

STATE OF NEW YORK
 W. CHARLES FUSCO, JR., P.E.
 PROFESSIONAL ENGINEER License No. 062503

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Project
NEWBURGH COMMERCE CENTER
 SECTION No. 95, BLOCK No. 1, LOT No. 58
 TOWN OF NEWBURGH
 ORANGE COUNTY NEW YORK

Drawing Title
GRADING AND DRAINAGE PLAN

Project No.
190071901

Date
NOVEMBER 29, 2021

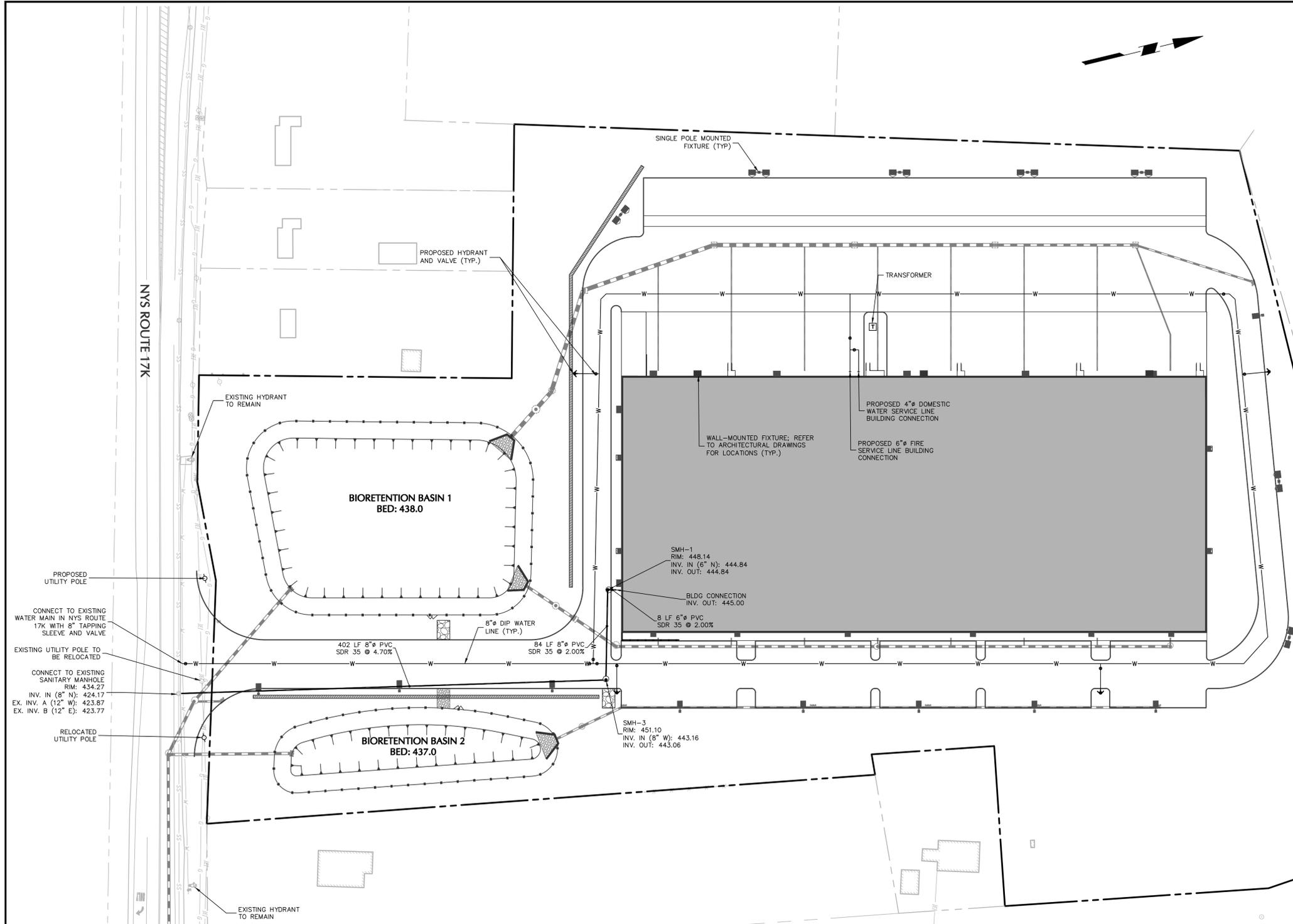
Drawn By
JN

Checked By
CZ

Drawing No.
CG201

Sheet 5 of 14

PROJECT NO. 190071901
 LANGEAN



- TELEPHONE NOTES**
- ALL UNDERGROUND TELEPHONE RELATED INSTALLATIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE TELEPHONE COMPANY.
 - TELEPHONE CONDUIT SHALL BE SCH. 40 PVC OR AS REQUIRED BY THE TELEPHONE COMPANY.
 - MINIMUM TELEPHONE CONDUIT BURIAL DEPTH SHALL BE TWO FEET, OR GREATER IF REQUIRED BY THE TELEPHONE COMPANY.
 - BUILDING CONTRACTOR SHALL ROUTE TELEPHONE SERVICE INSIDE OF THE BUILDING TO ONE COMMON POINT FOR CONNECTION TO THE SITE TELEPHONE CONDUIT.
- ELECTRICAL SERVICE NOTES**
- ALL ABOVEGROUND AND UNDERGROUND ELECTRICAL SERVICE RELATED INSTALLATIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE ELECTRIC COMPANY, CENTRAL HUDSON.
 - ELECTRICAL CONDUIT SHALL BE SCH. 80 PVC OR AS REQUIRED BY THE ELECTRIC COMPANY.
 - MINIMUM ELECTRICAL CONDUIT BURIAL DEPTH SHALL BE THREE FEET, OR GREATER IF REQUIRED BY THE ELECTRIC COMPANY.
- GAS NOTES**
- ALL UNDERGROUND GAS SERVICE RELATED INSTALLATIONS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE GAS COMPANY, CENTRAL HUDSON.
 - GAS PIPING (SIZE AND MATERIAL) SHALL BE AS REQUIRED BY THE GAS COMPANY.
 - MINIMUM GAS PIPING BURIAL DEPTH SHALL BE THREE FEET, OR GREATER IF REQUIRED BY THE GAS COMPANY.

- SEWER NOTES**
- ALL CONSTRUCTION TO COMPLY WITH CURRENT TOWN OF NEWBURGH SPECIFICATIONS AND ORDINANCES.
 - CONTRACTOR SHALL SECURE ALL PERMITS AT HIS OWN EXPENSE.
 - MATERIALS FOR SANITARY SEWER:
 - A. POLYVINYL CHLORIDE (P.V.C) SANITARY SEWER PIPE WITH INTEGRAL BELL AND SPIGOT JOINTS. PIPE SHALL CONFORM TO ASTM D3034, SPECIFICATION LATEST REVISION. GRAVITY SEWER SHALL BE PVC SDR-35.
 - B. EQUAL APPROVED BY TOWN ENGINEER.
 - HORIZONTAL SEPARATION: SEWERS SHALL BE LAID AT LEAST 10' HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE FROM EDGE TO EDGE, WHERE NOT PRACTICAL TO MAINTAIN A TEN FOOT SEPARATION, THE APPROPRIATE REVIEWING AGENCY MAY ALLOW DEVIATION ON A CASE BY CASE BASIS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE SEWER CLOSER TO A WATER MAIN, PROVIDED THAT THE WATER MAIN IS IN A SEPARATE TRENCH, OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AND AT AN ELEVATION SO THE BOTTOM OF THE WATER MAIN IS AT LEAST 18" ABOVE THE TOP OF THE SEWER.
 - CROSSINGS-SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE, OR BELOW THE SEWER. THE CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM WATERMAIN JOINTS. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.
 - ALL TRENCHING IN THE ROW SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER.
 - NOTWITHSTANDING SATISFACTORY TEST RESULTS, IF EXCESSIVE INFILTRATION IS DISCOVERED WITHIN TWO YEARS OF ACCEPTANCE OF THE SEWER SYSTEM, THE CONTRACTOR WILL BE REQUIRED TO CORRECT THE SITUATION. THE CONTRACTOR SHALL, UPON WRITTEN NOTICE FROM THE ENGINEER, TAKE THE NECESSARY STEPS TO CORRECT THE LEAK AT NO ADDITIONAL COST TO THE OWNER. SUCH WORK SHALL BE ACCOMPLISHED WITHIN TWO WEEKS OF THE DATE OF NOTIFICATION.
 - GRAVITY SANITARY SEWER SHALL BE TESTED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS AND ASTM F-1417, LATEST VERSION.
 - SEWER MANHOLES SHALL BE TESTED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS AND ASTM C-1244, LATEST VERSION.

- WATER NOTES**
- ALL CONSTRUCTION TO COMPLY WITH CURRENT TOWN OF NEWBURGH SPECIFICATIONS AND ORDINANCES.
 - CONTRACTOR SHALL SECURE ALL PERMITS AT HIS OWN EXPENSE.
 - MATERIAL FOR WATERMAINS:
 - A) CEMENT LINED DUCTILE IRON PIPE MINIMUM THICKNESS CLASS 52 WITH 150 PSI WORKING PRESSURE AND SHALL CONFORM TO AWWA SPECIFICATION C 151 LATEST REVISION FOR HYDRANT ASSEMBLIES. THE PIPE SHALL BE ENCASED WITH A MINIMUM 8 MIL POLYETHYLENE WRAP, AS PER AWWA C 105 SPECIFICATION. TYPE MECHANICAL JOINT TEES AND NIPPLES. HYDRANTS SHALL BE PLACED A MAXIMUM OF 500± APART. HYDRANTS SHALL BE "BAGGED" UNTIL READY FOR USE. HYDRANTS SHALL OPEN COUNTERCLOCKWISE [LEFT], AND CLOSE CLOCKWISE RIGHT.
 - ALL FIELD INSTALLED BOLTS SHALL BE CAPPED WITH SACRIFICIAL ZINC ANODES.
 - CONTRACTOR WILL BE RESPONSIBLE TO FURNISH AND INSTALL TEST POINTS AT THE APPROXIMATE LOCATIONS AS SHOWN ON THE DRAWING OR AS DIRECTED BY THE TOWN ENGINEER. THE TEST POINTS SHALL CONSIST OF A 1" OR 2" CORPORATION STOP, AND THE NECESSARY 1" OR 2" COPPER PIPE TO ADEQUATELY CONDUCT THE REQUIRED TESTS. AFTER TESTING HAS BEEN COMPLETED AND APPROVED, THE CONTRACTOR SHALL REMOVE THE CORPORATION STOPS AND INSTALL STANDARD AWWA FACTORY THREADED BRASS PLUGS. SAMPLE POINTS SHALL BE LOCATED AT THE BEGINNING AND END OF EACH LINE WITH A MAXIMUM SPACING OF 1000 FEET.
 - THE WATER MAIN SHALL BE TESTED, DISINFECTED, AND FLUSHED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING, DISINFECTION, AND FLUSHING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT PRIOR TO PUTTING THE WATER MAIN IN SERVICE. SATISFACTORY TESTING RESULTS FROM A CERTIFIED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH WATER DEPARTMENT AND ORANGE COUNTY HEALTH DEPARTMENT. THE TEST SAMPLES MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY AND WITNESSED BY THE WATER DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE TOWN ENGINEER A MINIMUM OF 24 HOURS PRIOR TO SAMPLING.
 - PRESSURE AND LEAKAGE TEST SHALL BE DONE IN ACCORDANCE WITH AWWA C-600 STANDARDS.
 - DISINFECTION SHALL BE COMPLETED IN ACCORDANCE WITH AWWA C651, LATEST REVISION. THE TABLET METHOD IS NOT ALLOWED.
 - INSTALLATION SHALL COMPLY WITH THE 2018 "TEN STATES STANDARDS". HORIZONTAL SEPARATION-WATERMAIN SHALL BE LAID AT LEAST 10' HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER MAIN. THE DISTANCE SHALL BE FROM EDGE TO EDGE. IN CASES WHERE IT IS NOT PRACTICAL TO MAINTAIN A TEN FOOT SEPARATION, THE APPROPRIATE REVIEWING AGENCY MAY ALLOW DEVIATION ON A CASE BY CASE BASIS, IF SUPPORTED BY DATA FROM THE DESIGN ENGINEER. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE WATERMAIN CLOSER TO A SEWER MAIN, PROVIDED THAT THE WATER MAIN IS IN A SEPARATE TRENCH, OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AND AT AN ELEVATION SO THE BOTTOM OF THE WATER MAIN IS AT LEAST 18" ABOVE THE TOP OF THE SEWER.
 - WATERMAINS CROSSING SEWERS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE, OR BELOW THE SEWER. THE CROSSINGS SHALL BE ARRANGED SO THAT THE WATERMAIN JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM SEWER MAIN JOINTS. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.

LEGEND

	SANITARY LATERAL
	WATER SERVICE LINE
	HYDRANT
	WATER VALVE
	SANITARY SEWER MANHOLE
	UTILITY POLE

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 146 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.



Date	Description	No.
01/07/22	REVISED SUBMISSION	3
11/29/21	PLANNING BOARD SUBMISSION	2
10/08/21	SCHEMATIC DESIGN DOCUMENTS	1
Date	Description	No.

REVISIONS

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Project
**NEWBURGH
 COMMERCE CENTER**
 BLOCK No. 1, LOT No.58
 TOWN OF NEWBURGH
 NEW YORK
 ORANGE COUNTY

Drawing Title
UTILITY PLAN

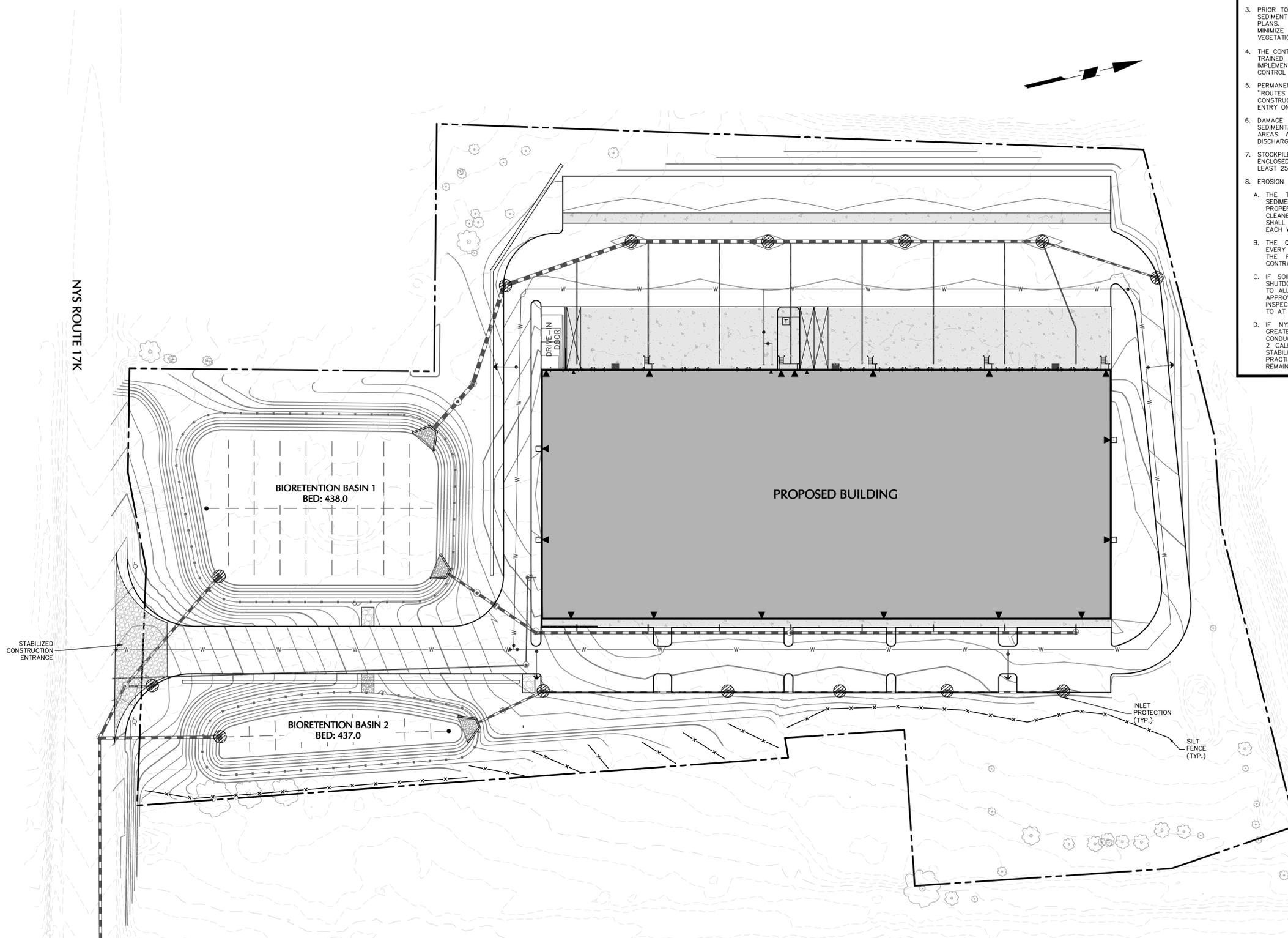
Project No.	190071901	Drawing No.	CU101
Date	OCTOBER 8, 2021	Sheet	6 of 14
Drawn By	JN	Checked By	JK

EROSION & SEDIMENT CONTROL NOTES

1. REFER TO THE SPDES GENERAL PERMIT COMPLIANCE NOTES FOR ADDITIONAL REQUIREMENTS.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IN STRICT COMPLIANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", LATEST REVISIONS.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS. SITE PREPARATION ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISRUPTION. EXISTING VEGETATION SHALL BE PRESERVED AS MUCH AS IS PRACTICAL.
4. THE CONTRACTOR AND THEIR SUBCONTRACTOR(S) SHALL IDENTIFY THE TRAINED INDIVIDUAL THAT WILL BE RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.
5. PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL POINTS OF ENTRY ONTO THE PROJECT SITE.
6. DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION SHALL BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
7. STOCKPILED TOPSOIL SHALL BE TEMPORARILY SEEDED, MULCHED, AND ENCLOSED WITH SILT FENCING. ALL GRASS SEED WILL CONTAIN AT LEAST 25 PERCENT RAPID GERMINATING PERENNIAL RYE GRASS.
8. EROSION AND SEDIMENT CONTROL INSPECTIONS:
 - A. THE TRAINED INDIVIDUAL SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES ON A DAILY BASIS TO ENSURE PROPER PERFORMANCE. ANY SEDIMENT BUILD-UP SHALL BE CLEANED. ALL DAMAGES TO EROSION AND SEDIMENT CONTROLS SHALL BE REPAIRED EITHER AT THE BEGINNING OR AT THE END OF EACH WORKING DAY.
 - B. THE QUALIFIED INSPECTOR SHALL CONDUCT SITE INSPECTIONS EVERY 7 DAYS DURING CONSTRUCTION. ANY DEFICIENCIES NOTED IN THE REPORTS SHALL 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. IN THIS CASE AND SUBJECT TO THE APPROVAL OF THE NYSDEC AND THE TOWN, THE FREQUENCY OF INSPECTIONS BY THE QUALIFIED PROFESSIONAL MAY BE REDUCED TO AT LEAST ONE INSPECTION EVERY 30 CALENDAR DAYS.
 - D. IF NYSDEC OR THE TOWN AUTHORIZES SOIL DISTURBANCES GREATER THAN 5-ACRES, THE QUALIFIED PROFESSIONAL WILL CONDUCT AT LEAST 2 SITE INSPECTIONS, SEPARATED BY AT LEAST 2 CALENDAR DAYS, EVERY 7 CALENDAR DAYS TO ENSURE THE STABILITY AND EFFECTIVENESS OF ALL PROTECTIVE MEASURES AND PRACTICES UNTIL SUCH TIME THAT LESS THAN 5-ACRES OF SOIL REMAIN DISTURBED.
9. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED. THE CONTRACTOR IS TO SUPPLY ALL EQUIPMENT AND WATER.
10. EARTHWORK ACTIVITIES SHALL BE CONSISTENT WITH THE PLANS. THE EARTHWORK OPERATION AREAS SHALL BE STABILIZED ON AN ONGOING BASIS WITH NO AREAS, WHICH ARE NOT CURRENTLY UNDER CONSTRUCTION, LEFT WITHOUT AT LEAST TEMPORARY COVER FOR MORE THAN 48 HOURS.
11. ERODIBLE MATERIAL TEMPORARILY STOCKPILED ON THE SITE DURING THE CONSTRUCTION PROCESS SHALL BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE AND SHALL BE PROPERLY PROTECTED BY A SURROUNDING SILT FENCE BARRIER.
12. FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES IN ANY PORTION OF THE SITE, PERMANENT VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED LANDSCAPE SOILS.
13. IF CONSTRUCTION TAKES PLACE IN "WET SOILS", CURTAIN DRAINS OR SUBSURFACE DRAINAGE SHALL BE INSTALLED TO DEWATER THE SOILS. DEWATERING DISCHARGES WILL NOT BE DIRECTED INTO WETLANDS, WATER COURSES, WATER-BODIES, OR STORM SEWER SYSTEMS.
14. TEMPORARY DRAINAGE SWALES WITH A MINIMUM GRADE OF ONE PERCENT SHALL BE INSTALLED TO DIRECT RUNOFF AWAY FROM EXCAVATED AREAS. SWALES SHALL BE INSTALLED WITH STAKED AND SECURED HAY BALE BERMS TO PREVENT DOWNSTREAM SILTATION. LOCATION OF THE DRAINAGE SWALES AND HAY BALES WILL BE AT THE DIRECTION OF THE DESIGN ENGINEER. SILT FENCE SHALL BE PROPERLY INSTALLED DOWN GRADE OF ALL DISTURBED AREAS. SILT FENCE SHALL BE INSTALLED ALONG CONTOURS TO FILTER SEDIMENT FROM RUNOFF. INSPECTION BY CONTRACTOR SHOULD BE FREQUENT AND REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED. SILT FENCE SHOULD BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
15. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WHEN ALL DISTURBED AREAS HAVE UNDERGONE FINAL STABILIZATION, UPGRADIENT SURFACES HAVE BEEN PROPERLY STABILIZED, AND ALL STORMWATER MANAGEMENT SYSTEMS ARE IN PLACE AND OPERABLE. ALL AREAS DISTURBED BY THE REMOVAL OF THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL 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 PERCENT COVERAGE 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. ENSURE THAT FINAL STABILIZATION OF ALL TRIBUTARY AREAS IS ACHIEVED PRIOR TO THE CONSTRUCTION OF THE BIORETENTION BASINS.

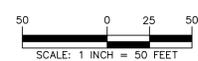
LEGEND

	PROPERTY LINE
x x x	SILT FENCE
- - -	TREE PROTECTION
●	INLET PROTECTION
▨	STABILIZED CONSTRUCTION ENTRANCE
---	LIMIT OF DISTURBANCE



NYS ROUTE 17K

STABILIZED CONSTRUCTION ENTRANCE



Date	Description	No.
11/29/21	PLANNING BOARD SUBMISSION	1
REVISIONS		

DATE SIGNED
01/07/2022
31/07/2022

SIGNATURE
W. CHARLES LUSVARDI, JR., P.E.
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Project

NEWBURGH
COMMERCE CENTER

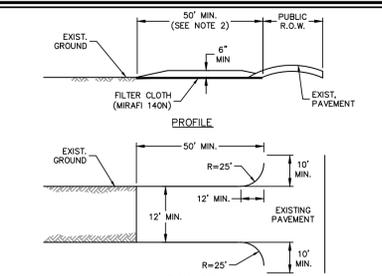
SECTION No. 95, BLOCK No. 1, LOT No. 58
TOWN OF NEWBURGH
ORANGE COUNTY NEW YORK

Drawing Title

EROSION AND
SEDIMENT
CONTROL PLAN

Project No.	190071901	Drawing No.	CE101
Date	NOVEMBER 29, 2021	Sheet 7 of 14	
Drawn By	JN		
Checked By	CZ		

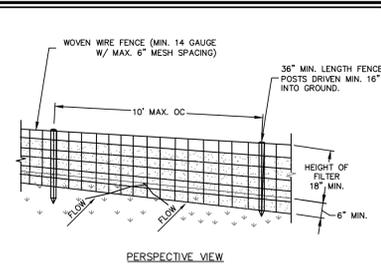
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STABILIZED CONSTR. ENTRANCE
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

- STONE SIZE - USE 3" STONE (NYSOT ITEM #623.11 SIZE DESIGNATION #2, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT).
- LENGTH - NOT LESS THAN 50-FEET (EXCEPT ON SINGLE FAMILY LOT, 30-FOOT MINIMUM LENGTH WOULD APPLY).
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- 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.
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- 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.
- 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 TRACED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



SILT FENCE
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

- WOVEN WIRE FENCE (MIN. 14 GAUGE W/ MAX. 6" MESH SPACING)
- POSTS DRIVEN MIN. 16" INTO GROUND.
- 36" MIN. LENGTH FENCE INTO GROUND.
- 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, STABILUNA T140N, OR APPROVED EQUIVALENT.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

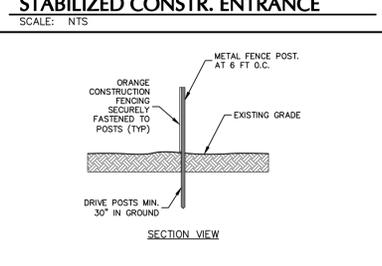
CONSTRUCTION SPECIFICATIONS

- 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.
- 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 GAUGE, 6" MAXIMUM MESH OPENING.
- 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, STABILUNA T140N, OR APPROVED EQUIVALENT.
- PREFABRICATED UNITS SHALL BE GEOTAF, ENVIROFENCE, OR APPROVED EQUIVALENT THAT MEETS THE MINIMUM REQUIREMENTS SHOWN.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

DETAIL NOTES

- INSTALLATION SHALL BE DONE IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL ("THE BLUE BOOK").
- ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE DISTURBED AREA AS POSSIBLE, BUT AT LEAST 10 FEET FROM THE TOE OF A SLOPE, STEEPER THAN 3:1, TO ALLOW FOR MAINTENANCE AND ROLL DOWN. THE AREA BEYOND THE FENCE MUST BE UNDISTURBED OR STABILIZED.
- THE TYPE OF SILT FENCE SPECIFIED FOR EACH LOCATION ON THE PLAN SHALL NOT EXCEED THE MAXIMUM SLOPE LENGTH AND MAXIMUM FENCE LENGTH REQUIREMENTS SHOWN IN THE TABLE BELOW. IF A TYPE SILT FENCE IS NOT SPECIFIED ON THE PLANS, THE CRITERIA FOR STANDARD SILT FENCE CAN BE APPLIED.
- SILT FENCE SHALL BE REMOVED AS SOON AS THE DISTURBED AREA HAS ACHIEVED FINAL STABILIZATION.

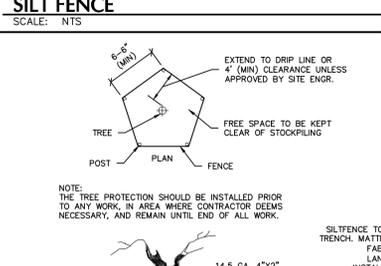
SLOPE	STEEPNESS	STANDARD	REINFORCED	SUPER
<2%	<50:1	300/1500	N/A	N/A
2-10%	50:1 TO 10:1	125/1000	250/2000	300/2500
10-20%	10:1 TO 5:1	100/750	150/1000	200/1000
20-33%	5:1 TO 3:1	60/500	80/750	100/1000
33-50%	3:1 TO 2:1	40/250	70/350	100/500
>50%	>2:1	20/125	30/175	50/250



ORANGE CONSTRUCTION FENCE
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

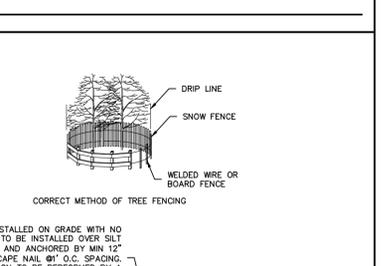
- 3' LG ORANGE OR RED HEAVY W/ FLANGING @ 5' O.C.
- 6" STEEL "T" POST AT 10' O.C. SPACING
- EXTEND TO DRIP LINE OR 7" (MIN) CLEARANCE UNLESS APPROVED BY SITE ENGR.
- FREE SPACE TO BE KEPT CLEAR OF STOCKPILING
- NOTE: THE TREE PROTECTION SHOULD BE INSTALLED PRIOR TO ANY WORK, IN AREA WHERE CONTRACTOR DEEMS NECESSARY, AND REMAIN UNTIL END OF ALL WORK.



TREE VEGETATION PROTECTION BARRIER
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

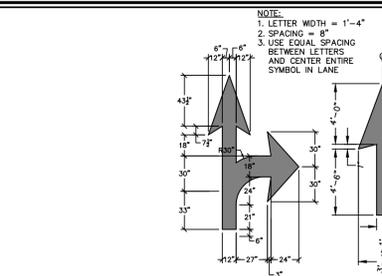
- TREE PROTECTION AREA WILL BE DETERMINED AS PART OF THE PLAN REVIEW PROCESS, EXACT LOCATION, DEPTH AND METHODS OF ROOT PRUNING TO BE DETERMINED IN FIELD BY PROJECT FORESTER.
- EXACT LOCATION OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING.
- TRENCH SHOULD BE BACKFILLED IMMEDIATELY OR INCORPORATED WITH SILT FENCE INSTALLATION.
- 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.



TEMPORARY STOCKPILE
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

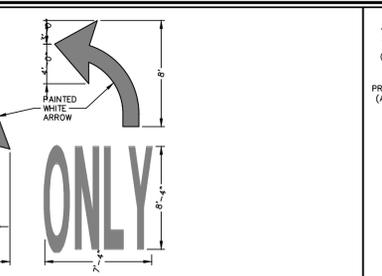
- AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
- MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2:1.
- UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
- SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.
- HAY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



PAVEMENT STRIPING
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

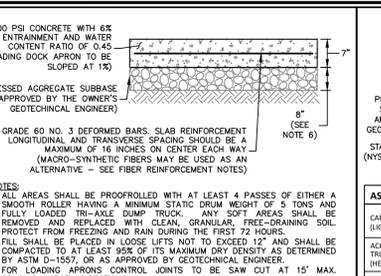
- STOP BAR SHALL BE PLACED A MINIMUM OF 4' IN ADVANCE OF THE NEAREST CROSSWALK LINE AT INTERSECTIONS WITH CROSSWALKS.
- PAINTED HANDICAP SYMBOL TO BE IN ACCORDANCE W/ ADA STANDARDS.
- STRIPING WORK SHALL BE REVIEWED AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION.



STORMWATER MANAGEMENT PRACTICE SIGN
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

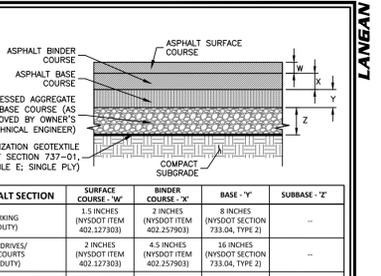
- SIGNS SHALL BE ERRECTED OR POSTED IN THE IMMEDIATE VICINITY OF THE STORMWATER MANAGEMENT PRACTICE. SIGN SHALL BE CONSPICUOUS AND LEGIBLE.
- SIGNS SHALL BE MOUNTED TO A U-CHEANNEL OR ONTO A PERIMETER FENCE IF PROVIDED.



LOADING DOCK APRON & DOLLY STRIP
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

- APRON SHALL BE 4,500 PSI CONCRETE WITH 6% AIR ENTRAINMENT AND WATER CONTENT RATIO OF 0.45 (LOADING DOCK APRON TO BE SLOPED AT 1:8).
- PROCESSED AGGREGATE SUBBASE (AS APPROVED BY THE OWNER'S GEOTECHNICAL ENGINEER)
- GRADE 60 NO. 3 DEFORMED BARS, SLAB REINFORCEMENT LONGITUDINAL AND TRANSVERSE SPACING SHOULD BE A MAXIMUM OF 18 INCHES ON CENTER EACH WAY (MACRO-SYNTHETIC FIBERS MAY BE USED AS AN ALTERNATIVE - SEE FIBER REINFORCEMENT NOTES)
- ALL AREAS SHALL BE PROOFROLLED WITH AT LEAST 4 PASSES OF EITHER A SMOOTH ROLLER HAVING A MINIMUM STATIC DRUM WEIGHT OF 5 TONS AND FULLY LOADED TRO-TRAIL TRUCK. ANY SOFT AREAS SHALL BE REMOVED AND REPLACED WITH CLEAN, GRANULAR, FREE-DRAINING SOIL PROTECT FROM FREEZING AND RAIN DURING THE FIRST 72 HOURS.
- FILL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 12" 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.
- FOR DOLLY STRIPS CONTROL JOINTS TO BE SAW CUT AT 15' MAX. SPACING IN BOTH DIRECTIONS.
- PAVEMENT SUBGRADE PREPARATION WORK SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL ENGINEER. ISOLATED AREAS THAT EXHIBIT UNSATISFACTORY CONDITIONS SHALL BE OVER-EXCAVATED TO A DEPTH AS DETERMINED BY THE GEOTECHNICAL ENGINEER AND IMMEDIATELY REPLACED WITH APPROVED COMPACTED FILL OR CRUSHED STONE.
- THE SUBBASE THICKNESS CAN BE REDUCED TO 6 INCHES IN AREAS UNDERLAIN BY BEDROCK. OTHERWISE USE 8 INCHES OF SUBBASE MATERIAL.
- SMOOTH "X"3/16" ROUND DOWELS SHALL BE SPACED 12" APART AT ALL CONSTRUCTION JOINTS.
- SUBBASE MATERIAL WILL BE GENERATED FROM ON-SITE CRUSHING OF BEDROCK THAT MEETS THE REQUIREMENTS SPECIFIED IN THE GEOTECHNICAL REPORT.



SITE ASPHALT PAVEMENT SECTION
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

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- PRIOR TO ANY PAVING ACTIVITIES, THE SUBGRADE SHALL BE PROOF ROLLED TO THE GEOTECHNICAL ENGINEER'S SATISFACTION. SOFT OR UNSTABLE AREAS SHALL BE REMEDIATED AS REQUIRED BY THE GEOTECHNICAL ENGINEER.
- PAVING BASE COURSE SHALL BE CONSTRUCTED IN LAYERS NOT LESS THAN 2 INCHES AND NOT MORE THAN 4 INCHES THICK PER LIFT.
- ALL AREAS TO BE PAVED SHALL BE PROOFROLLED TO THE GEOTECHNICAL ENGINEER'S SATISFACTION WITH AT LEAST 4 PASSES OF EITHER A SMOOTH ROLLER HAVING A MINIMUM STATIC DRUM WEIGHT OF 5-TONS OR A FULLY LOADED TANDUM 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.
- REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.
- ALL ASPHALT TO BE PLACED IN ACCORDANCE WITH NYSDOT REQUIREMENTS.



INLET PROTECTION - DANDY SACK
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

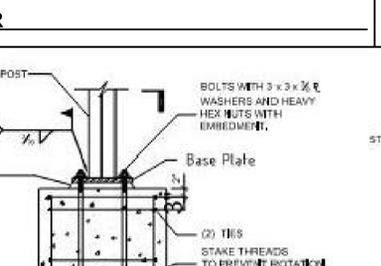
- CONTRACTOR TO MONITOR CONDITION OF ALL EROSION CONTROL DEVICES ON A REGULAR BASIS, AT LEAST ONCE PER WEEK & AFTER EVERY RUNOFF-GENERATING STORM EVENT.
- DEVICES TO BE EMPTIED/CLEANED AS NEEDED.



TREE VEGETATION PROTECTION BARRIER
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

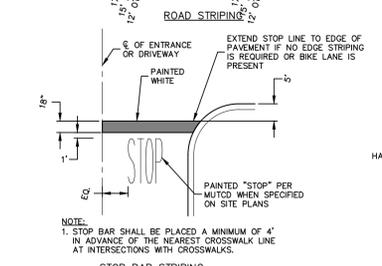
- TREE PROTECTION AREA WILL BE DETERMINED AS PART OF THE PLAN REVIEW PROCESS, EXACT LOCATION, DEPTH AND METHODS OF ROOT PRUNING TO BE DETERMINED IN FIELD BY PROJECT FORESTER.
- EXACT LOCATION OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING.
- TRENCH SHOULD BE BACKFILLED IMMEDIATELY OR INCORPORATED WITH SILT FENCE INSTALLATION.
- 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.



TEMPORARY STOCKPILE
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

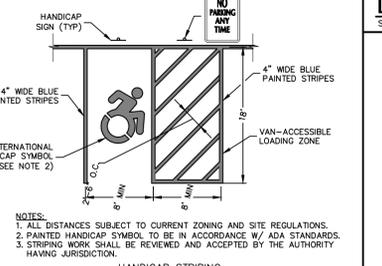
- AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
- MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2:1.
- UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
- SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.
- HAY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



PAVEMENT STRIPING
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

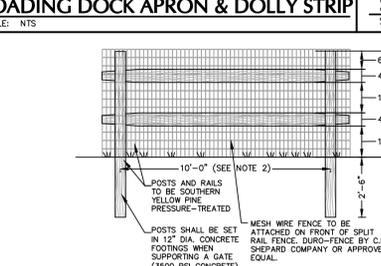
- STOP BAR SHALL BE PLACED A MINIMUM OF 4' IN ADVANCE OF THE NEAREST CROSSWALK LINE AT INTERSECTIONS WITH CROSSWALKS.
- PAINTED HANDICAP SYMBOL TO BE IN ACCORDANCE W/ ADA STANDARDS.
- STRIPING WORK SHALL BE REVIEWED AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION.



STORMWATER MANAGEMENT PRACTICE SIGN
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

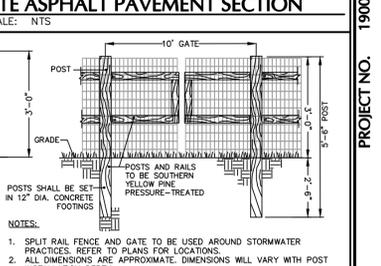
- SIGNS SHALL BE ERRECTED OR POSTED IN THE IMMEDIATE VICINITY OF THE STORMWATER MANAGEMENT PRACTICE. SIGN SHALL BE CONSPICUOUS AND LEGIBLE.
- SIGNS SHALL BE MOUNTED TO A U-CHEANNEL OR ONTO A PERIMETER FENCE IF PROVIDED.



LOADING DOCK APRON & DOLLY STRIP
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

- APRON SHALL BE 4,500 PSI CONCRETE WITH 6% AIR ENTRAINMENT AND WATER CONTENT RATIO OF 0.45 (LOADING DOCK APRON TO BE SLOPED AT 1:8).
- PROCESSED AGGREGATE SUBBASE (AS APPROVED BY THE OWNER'S GEOTECHNICAL ENGINEER)
- GRADE 60 NO. 3 DEFORMED BARS, SLAB REINFORCEMENT LONGITUDINAL AND TRANSVERSE SPACING SHOULD BE A MAXIMUM OF 18 INCHES ON CENTER EACH WAY (MACRO-SYNTHETIC FIBERS MAY BE USED AS AN ALTERNATIVE - SEE FIBER REINFORCEMENT NOTES)
- ALL AREAS SHALL BE PROOFROLLED WITH AT LEAST 4 PASSES OF EITHER A SMOOTH ROLLER HAVING A MINIMUM STATIC DRUM WEIGHT OF 5 TONS AND FULLY LOADED TRO-TRAIL TRUCK. ANY SOFT AREAS SHALL BE REMOVED AND REPLACED WITH CLEAN, GRANULAR, FREE-DRAINING SOIL PROTECT FROM FREEZING AND RAIN DURING THE FIRST 72 HOURS.
- FILL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 12" 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.
- FOR DOLLY STRIPS CONTROL JOINTS TO BE SAW CUT AT 15' MAX. SPACING IN BOTH DIRECTIONS.
- PAVEMENT SUBGRADE PREPARATION WORK SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL ENGINEER. ISOLATED AREAS THAT EXHIBIT UNSATISFACTORY CONDITIONS SHALL BE OVER-EXCAVATED TO A DEPTH AS DETERMINED BY THE GEOTECHNICAL ENGINEER AND IMMEDIATELY REPLACED WITH APPROVED COMPACTED FILL OR CRUSHED STONE.
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- SUBBASE MATERIAL WILL BE GENERATED FROM ON-SITE CRUSHING OF BEDROCK THAT MEETS THE REQUIREMENTS SPECIFIED IN THE GEOTECHNICAL REPORT.



SITE ASPHALT PAVEMENT SECTION
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

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- REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.
- ALL ASPHALT TO BE PLACED IN ACCORDANCE WITH NYSDOT REQUIREMENTS.



INLET PROTECTION - DANDY SACK
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

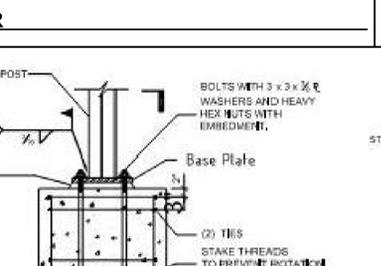
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- DEVICES TO BE EMPTIED/CLEANED AS NEEDED.



TREE VEGETATION PROTECTION BARRIER
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

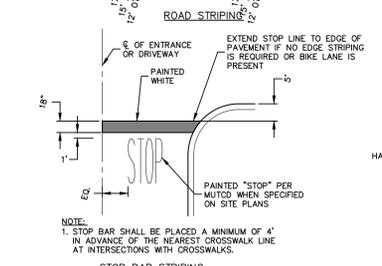
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TEMPORARY STOCKPILE
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

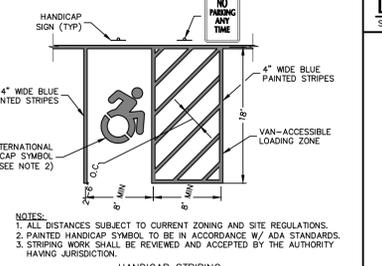
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PAVEMENT STRIPING
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

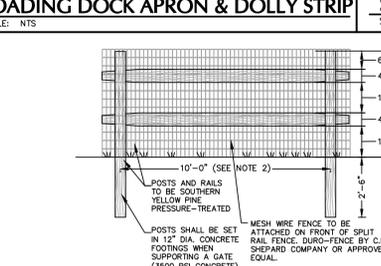
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STORMWATER MANAGEMENT PRACTICE SIGN
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

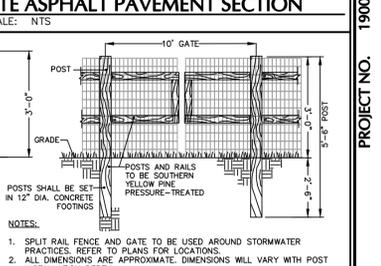
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SITE ASPHALT PAVEMENT SECTION
SCALE: NTS

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INLET PROTECTION - DANDY SACK
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

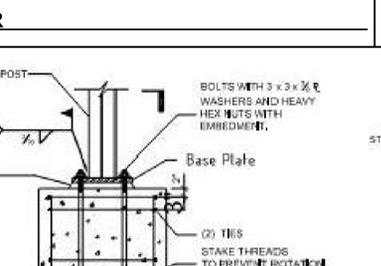
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TREE VEGETATION PROTECTION BARRIER
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

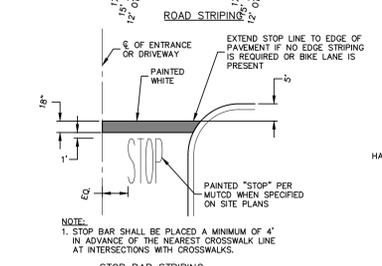
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TEMPORARY STOCKPILE
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

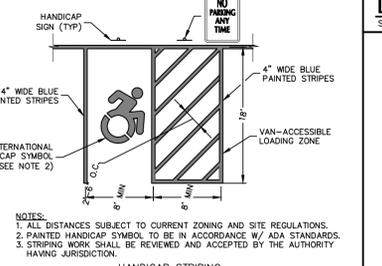
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- HAY BALES TO BE USED WHERE STOCKPILES ARE LOCATED ON PAVED AREAS.



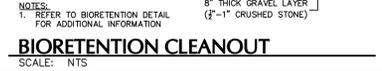
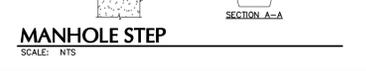
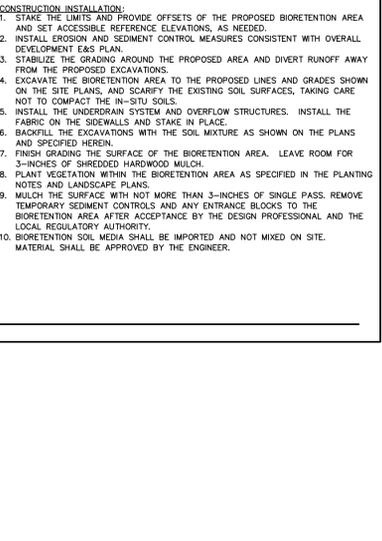
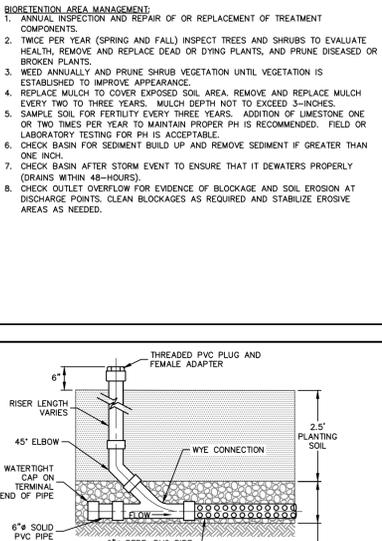
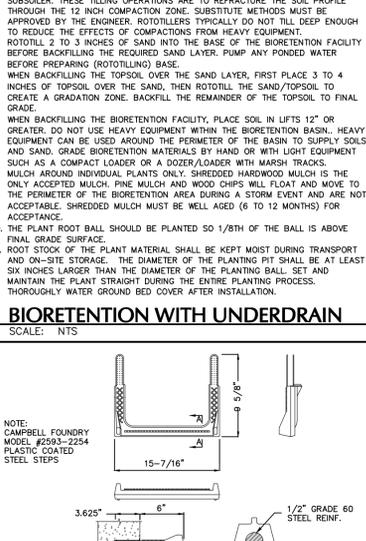
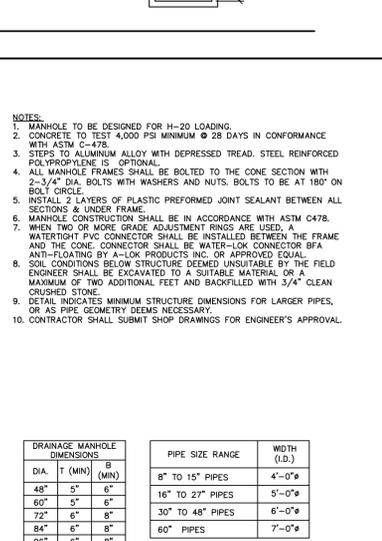
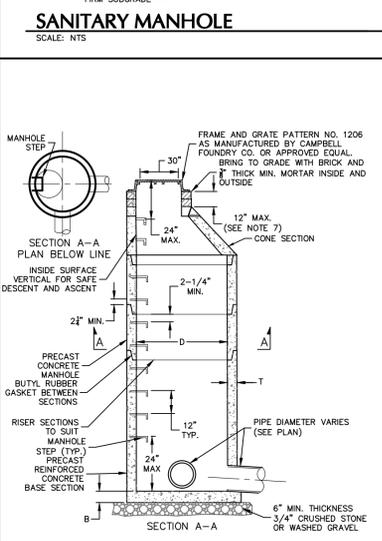
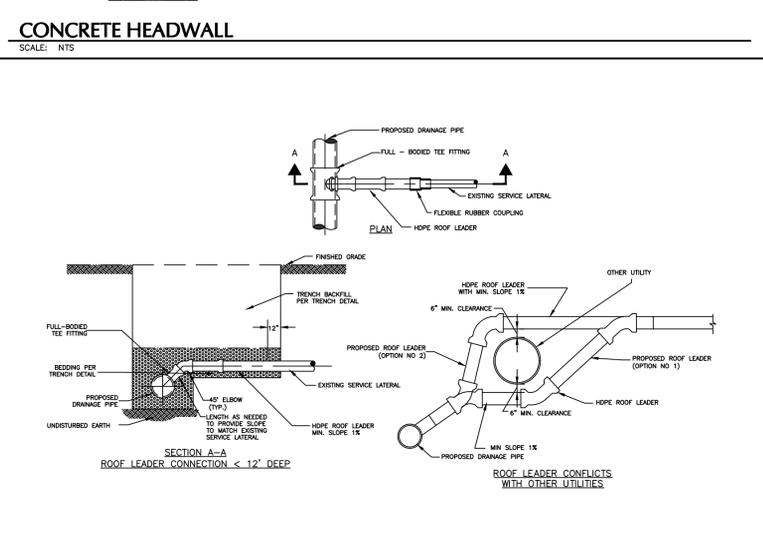
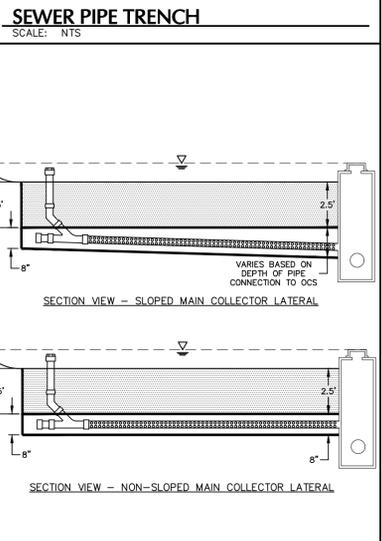
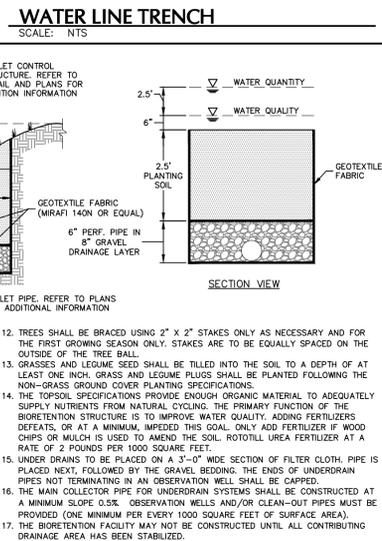
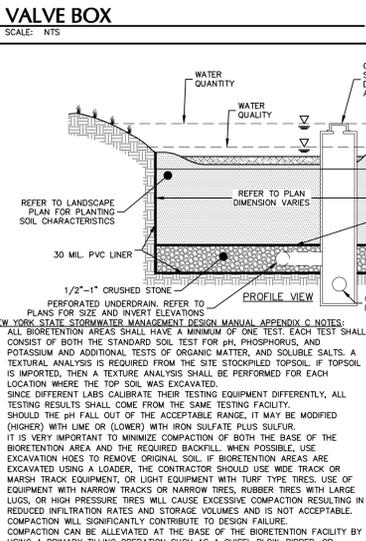
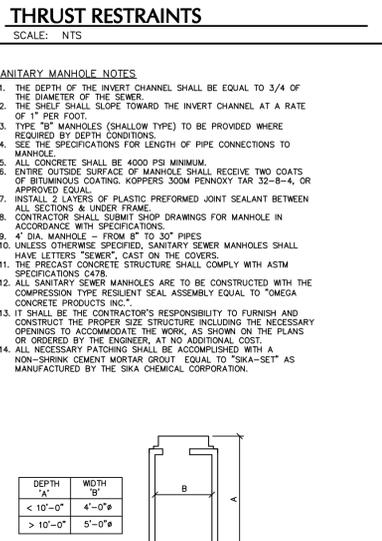
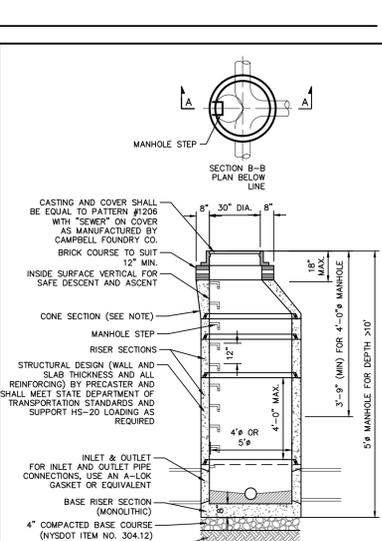
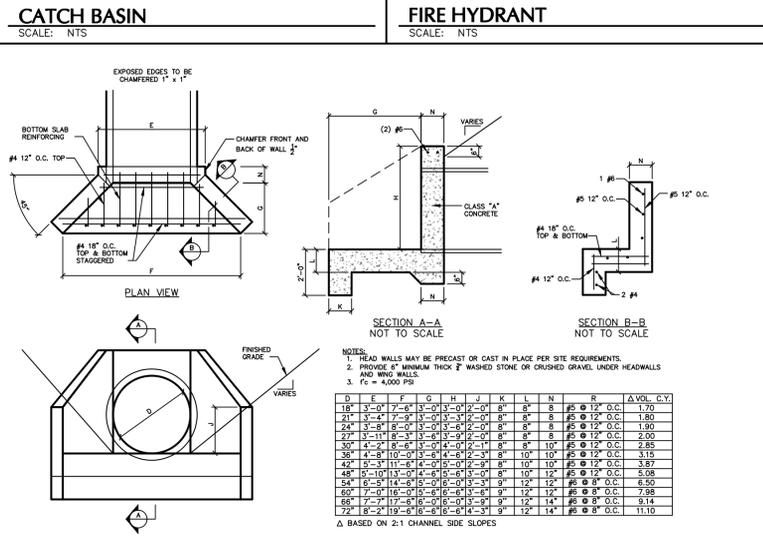
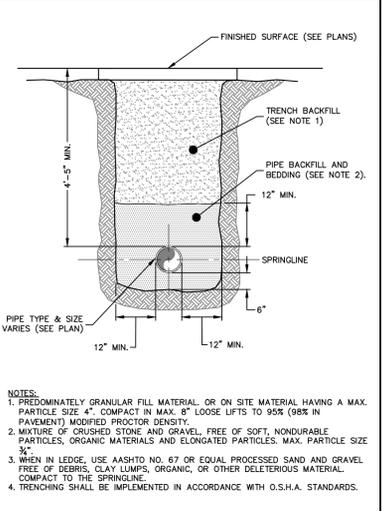
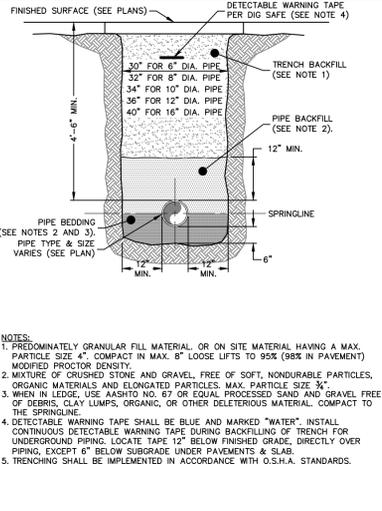
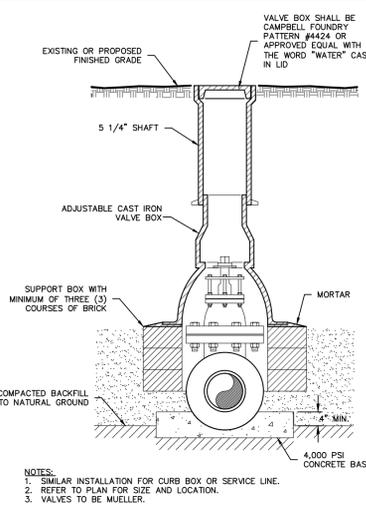
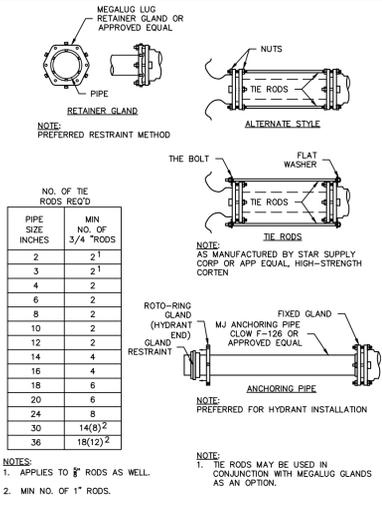
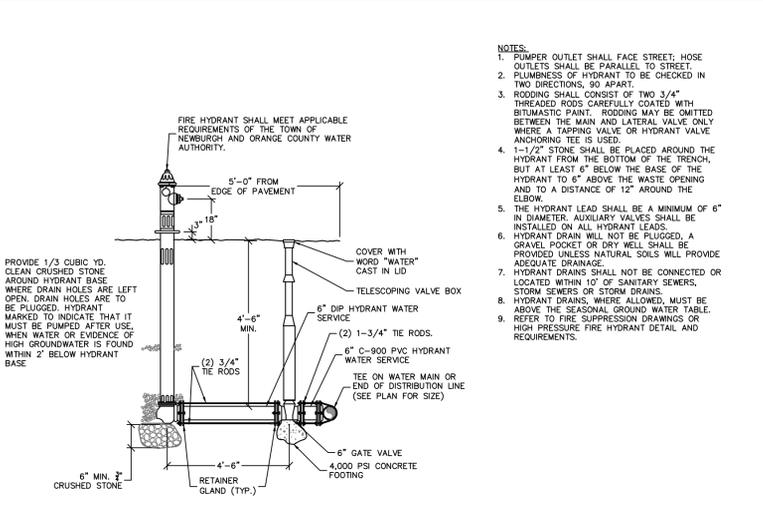
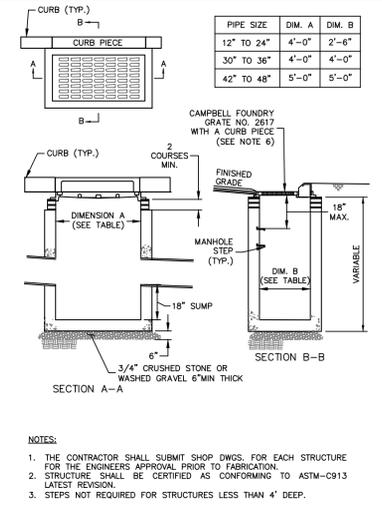
PAVEMENT STRIPING
SCALE: NTS

CONSTRUCTION SPECIFICATIONS

- STOP BAR SHALL BE PLACED A MINIMUM OF 4' IN ADVANCE OF THE NEAREST CROSSWALK LINE AT INTERSECTIONS WITH CROSSWALKS.
- PAINTED HANDICAP SYMBOL TO BE IN ACCORDANCE W/ ADA STANDARDS.
- STRIPING WORK SHALL BE REVIEWED AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION.



STORMWATER MANAGEMENT PRACTICE SIGN
SCALE: NTS



Date	Description	No.
12/29/21	REVISED PER TOWN COMMENTS	2
11/29/21	PLANNING BOARD SUBMISSION	1

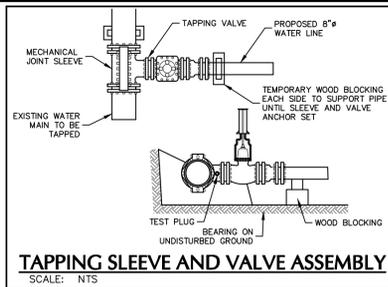
DATE SIGNED
01/07/2022
11/07/2022
W. CHAPMAN JR., PE
PROFESSIONAL ENGINEER License No. 062503

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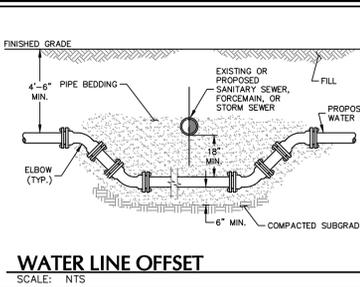
Project
NEWBURGH COMMERCE CENTER
SECTION No. 95, BLOCK No. 1, LOT No. 58
TOWN OF NEWBURGH
ORANGE COUNTY
NEW YORK

Drawing Title
DETAILS (2 OF 3)

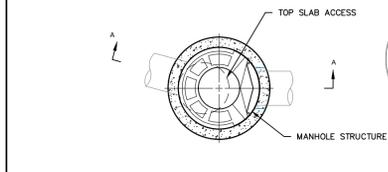
Project No. 190071901
Date NOVEMBER 29, 2021
Drawn By LM
Checked By CU
Sheet 9 of 14



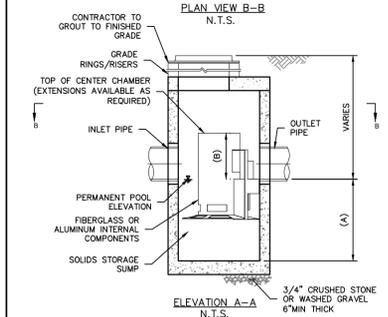
TAPPING SLEEVE AND VALVE ASSEMBLY
SCALE: NTS



WATER LINE OFFSET
SCALE: NTS



ID	UNIT	I.D.	A	B
PRETREATMENT UNIT-2	CS-6	6'-0"	5'-0"	3'-4"
PRETREATMENT UNIT-11	CS-4	4'-0"	4'-0"	2'-3"
PRETREATMENT UNIT-26	CS-4	4'-0"	4'-0"	2'-3"



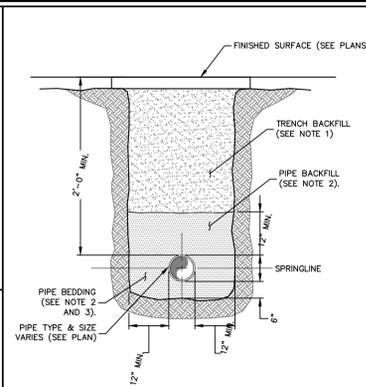
CASCADE SEPARATOR (CS) WATER QUALITY UNIT
SCALE: NTS

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.conteches.com
- CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' (610) AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M208 AND BE CAST WITH THE CONTECH LOGO.
- CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

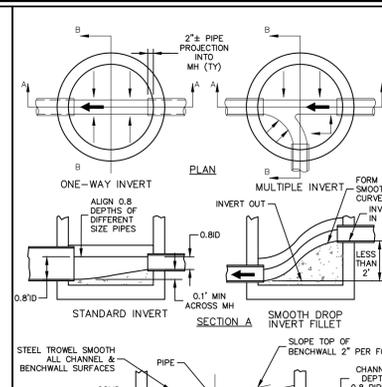
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
- CONTRACTOR TO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



NOTES

- ON-SITE SOILS HAVING A MAX. PARTICLE SIZE 4" CAN BE USED FOR REUSE OF EXISTING SOILS. COMPACT IN MAX. 8" LOOSE LIFTS TO 95% MODIFIED PROCTOR DENSITY.
- MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES. MAX. PARTICLE SIZE 3/4" COMPACT IN MAX. 6" LOOSE LIFTS.
- WHEN IN LEDGE, USE AASHTO NO. 67 OR EQUAL PROCESSED SAND AND GRAVEL, FREE OF DEBRIS, CLAY LUMPS, ORGANIC, OR OTHER DELTERIOUS MATERIAL. COMPACT TO THE SPRINGLINE IN MAX. 6" LOOSE LIFTS.
- TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

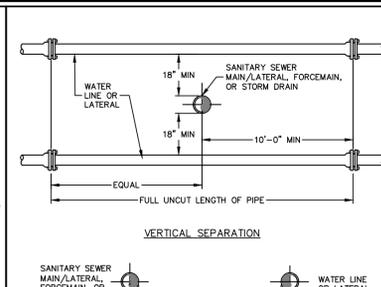
DRAINAGE PIPE TRENCH
SCALE: NTS



NOTE

- INLET AND OUTLET OF PIPES SHOWN ON PLAN VIEW OF BASE ARE NOT NECESSARILY TYPICAL OF ALL MANHOLES. REFER TO UTILITY PLAN FOR INLET AND OUTLET DIRECTIONS.

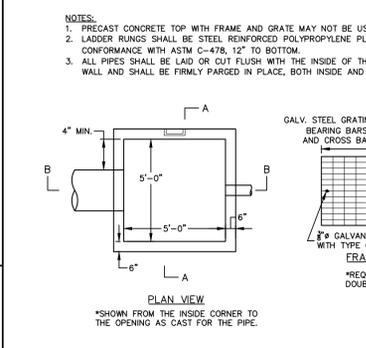
INVERT, CHANNEL AND BENCHWALLS
SCALE: NTS



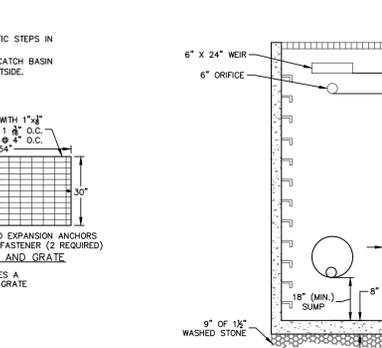
NOTES

- NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE APPROVAL OF THE HEALTH DEPARTMENT.
- IF THE MINIMUM SEPARATION REQUIREMENTS CANNOT BE ACHIEVED, ONE OF THE FOLLOWING MUST BE USED:
 - VERTICAL:**
 - OFFSET THE WATER LINE TO PROVIDE 18" MINIMUM VERTICAL SEPARATION FROM THE SEWER/STORM PIPE. ONE FULL LENGTH OF PIPE MUST BE CENTERED OVER THE SEWER/STORM PIPE SO THAT BOTH JOINTS WILL BE AS FAR AWAY FROM THE SEWER/STORM PIPE AS POSSIBLE. REFER TO WATER LINE OFFSET DETAIL FOR ADDITIONAL INFORMATION.
 - VERTICAL AND HORIZONTAL:**
 - CONSTRUCT THE SEWER OF PVC PRESSURE PIPE MATERIAL, 10' ON EACH SIDE OF THE WATER LINE/SEWER CROSSING. THE SEWER PIPE MUST BE PRESSURE TESTED.
 - ENCASE THE WATER LINE IN 50 PSI CONCRETE, 10' ON EACH SIDE OF THE WATER LINE/SEWER CROSSING. CONCRETE ENCASUREMENT MUST BE A MINIMUM OF 6" AROUND THE WATER LINE.

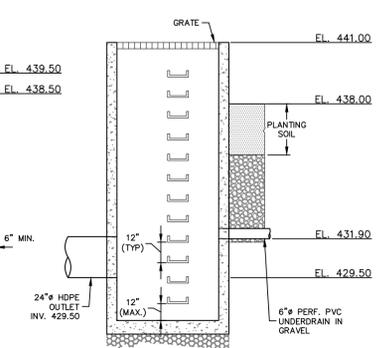
WATER LINE SEPARATION
SCALE: NTS



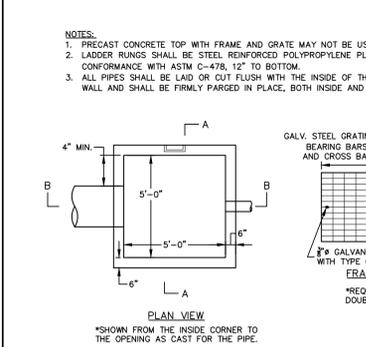
BIORETENTION 1 OUTLET CONTROL STRUCTURE OCS-22
SCALE: NTS



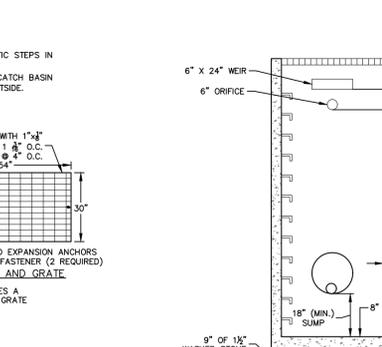
BIORETENTION 2 OUTLET CONTROL STRUCTURE OCS-23
SCALE: NTS



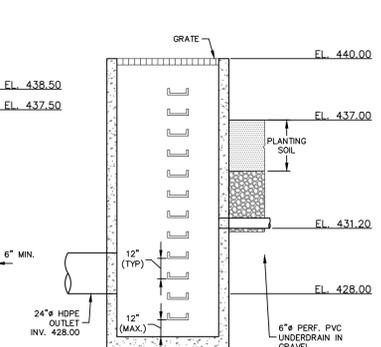
BIORETENTION 1 OUTLET CONTROL STRUCTURE OCS-22
SCALE: NTS



BIORETENTION 2 OUTLET CONTROL STRUCTURE OCS-23
SCALE: NTS



BIORETENTION 1 OUTLET CONTROL STRUCTURE OCS-22
SCALE: NTS



BIORETENTION 2 OUTLET CONTROL STRUCTURE OCS-23
SCALE: NTS

Date	Description	No.
	REVISIONS	

01/07/2022
31/07/2022
DATE SIGNED
W. CHANDLER HUSON, JR., PE
PROFESSIONAL ENGINEER Lic. No. 062303

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Project
**NEWBURGH
COMMERCE CENTER**
SECTION No. 95, BLOCK No. 1, LOT No. 58
TOWN OF NEWBURGH
ORANGE COUNTY
NEW YORK

Drawing Title
DETAILS (3 OF 3)

Project No.
190071901
Date
JANUARY 7, 2022
Drawn By
LM
Checked By
CU
Project No.
190071901
Drawing No.
CS503
Sheet 10 of 14

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 146 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

SITE LIGHTING SCHEDULE

SYMBOL	KEY	QTY.	FIXTURE MANUFACTURER	FIXTURE MODEL	FIXTURE DESCRIPTION	FIXTURE MOUNTING HEIGHT	LAMP	COLOR TEMPERATURE	OPTICS	LUMENS	LLF	FIXTURE CATALOGUE NO.	POLE MANUFACTURER	POLE DESCRIPTION	POLE LENGTH	POLE CATALOGUE NO.	REMARKS
■	A	5	COOPER	GALLEON II	TWIN POLE MOUNTED AREA FIXTURE WITH HOUSE SIDE SHIELD COLOR: BLACK	30'-0"	213W LED	3000K	TYPE 4 WITH SPILL CONTROL AND HOUSE SIDE SHIELD	20,835	0.90	GALN-SA4C-730-U-SL4-HSS-BK	HAPCO	ROUND TAPERED STEEL POLE; COLOR: BLACK	27' (MOUNTED ON 3' HEIGHT BASE)	RTS30B90-4-D218-BA	POLE TO BE FACTORY CUT TO LENGTH OF 27'; MOUNTED ON 3' HEIGHT EXPOSED CONCRETE BASE
■	B	2	COOPER	GALLEON II	SINGLE POLE MOUNTED AREA FIXTURE WITH HOUSE SIDE SHIELD COLOR: BLACK	30'-0"	213W LED	3000K	TYPE 3 WITH SPILL CONTROL AND HOUSE SIDE SHIELD	20,952	0.90	GALN-SA4C-730-U-SL3-HSS-BK	HAPCO	ROUND TAPERED STEEL POLE; COLOR: BLACK	27' (MOUNTED ON 3' HEIGHT BASE)	RTS30B90-4-D190-BA	POLE TO BE FACTORY CUT TO LENGTH OF 27'; MOUNTED ON 3' HEIGHT EXPOSED CONCRETE BASE
■	C	2	COOPER	GALLEON II	SINGLE POLE MOUNTED AREA FIXTURE WITH HOUSE SIDE SHIELD COLOR: BLACK	30'-0"	213W LED	3000K	TYPE 4 WITH SPILL CONTROL AND HOUSE SIDE SHIELD	20,835	0.90	GALN-SA4C-730-U-SL4-HSS-BK	HAPCO	ROUND TAPERED STEEL POLE; COLOR: BLACK	27' (MOUNTED ON 3' HEIGHT BASE)	RTS30B90-4-D190-BA	POLE TO BE FACTORY CUT TO LENGTH OF 27'; MOUNTED ON 3' HEIGHT EXPOSED CONCRETE BASE
■	D	2	COOPER	GALLEON II	SINGLE WALL MOUNTED AREA FIXTURE COLOR: BLACK	30'-0"	213W LED	3000K	TYPE 2 WITH SPILL CONTROL AND HOUSE SIDE SHIELD	20,730	0.90	GALN-SA4C-730-U-SL2-HSS-BK	HAPCO	ROUND TAPERED STEEL POLE; COLOR: BLACK	27' (MOUNTED ON 3' HEIGHT BASE)	RTS30B90-4-D190-BA	POLE TO BE FACTORY CUT TO LENGTH OF 27'; MOUNTED ON 3' HEIGHT EXPOSED CONCRETE BASE
■	E	5	COOPER	GALLEON II	SINGLE WALL MOUNTED AREA FIXTURE COLOR: BLACK	30'-0"	213W LED	3000K	TYPE 4 FORWARD THROW WITH HOUSE SIDE SHIELD	18,239	0.90	GALN-SA4C-730-U-T4FT-HSS-BK	HAPCO	ROUND TAPERED STEEL POLE; COLOR: BLACK	27' (MOUNTED ON 3' HEIGHT BASE)	RTS30B90-4-D190-BA	POLE TO BE FACTORY CUT TO LENGTH OF 27'; MOUNTED ON 3' HEIGHT EXPOSED CONCRETE BASE
■	F	5	COOPER	GALLEON II	SINGLE WALL MOUNTED AREA FIXTURE COLOR: BLACK	30'-0"	269W LED	3000K	TYPE 4 FORWARD THROW	31,993	0.90	GALN-SA5C-730-U-T4FT-WM-BK	N/A	N/A	N/A	N/A	N/A
■	G	2	COOPER	GALLEON II	SINGLE WALL MOUNTED AREA FIXTURE COLOR: BLACK	30'-0"	213W LED	3000K	TYPE 2 WITH SPILL CONTROL	25,283	0.90	GALN-SA4C-730-U-SL2-WM-BK	N/A	N/A	N/A	N/A	N/A
■	H	10	COOPER	IMPACT ELITE TRAPEZOID	SINGLE WALL MOUNTED AREA FIXTURE COLOR: BLACK	8'-6"	134W LED	3000K	TYPE 2	4,576	0.90	ISS-SA1C-730-U-T2-BK	N/A	N/A	N/A	N/A	N/A

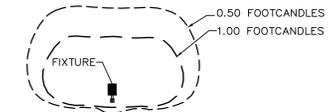
NOTE:
1. REFER TO ELECTRICAL DRAWINGS FOR SITE LIGHTING VOLTAGES.

STATISTICS

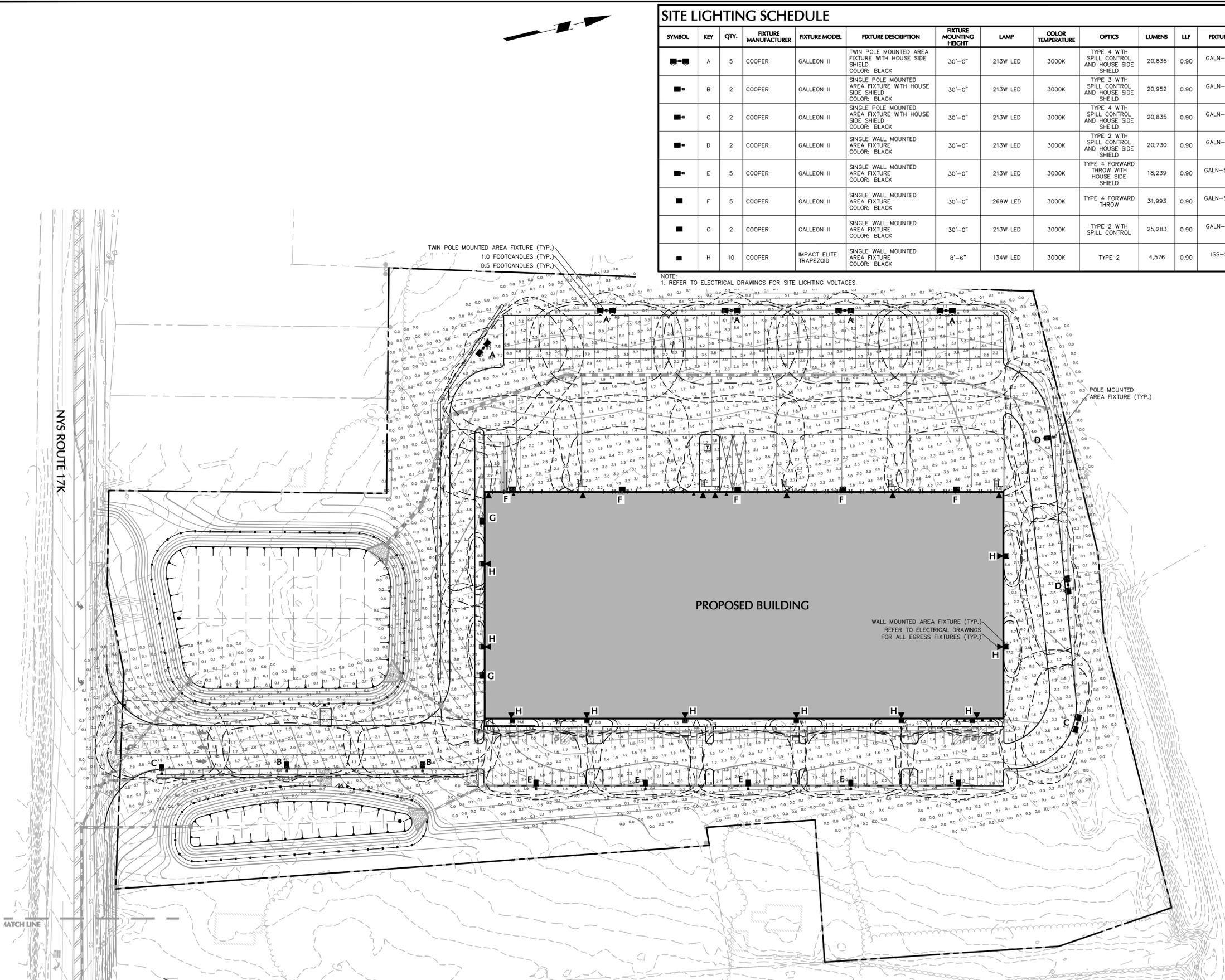
DESCRIPTION	AVG.	MAX.	MIN.	MAX./MIN.	AVG./MIN.
BUILDING ENTRANCE - NORTH	12.7 fc	12.7 fc	12.7 fc	1.0:1	1.00:1
BUILDING ENTRANCE - SOUTH	19.3 fc	19.3 fc	19.3 fc	1.0:1	1.00:1
DRIVE AISLE - NORTH	2.62 fc	4.3 fc	1.0 fc	4.3:1	2.62:1
DRIVE AISLE - SOUTH	2.52 fc	7.8 fc	1.0 fc	7.8:1	2.52:1
LOADING	2.46 fc	4.8 fc	1.2 fc	4.0:1	2.05:1
OPEN TRUCK YARD	1.84 fc	6.3 fc	1.2 fc	5.2:1	1.53:1
PARKING	1.87 fc	6.2 fc	1.0 fc	6.2:1	1.87:1
SIDEWALK	5.35 fc	18.1 fc	1.0 fc	18.1:1	5.35:1
TRAILER STORAGE	4.34 fc	9.7 fc	1.4 fc	6.9:1	3.10:1

NOTE:
1. LIGHT PHOTOMETRY AND CALCULATIONS FOR EXISTING LIGHTING ARE NOT INCLUDED IN THE ABOVE STATISTICS.

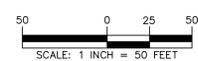
PHOTOMETRIC LIGHTING TEMPLATE:



NOTE: THE PHOTOMETRIC TEMPLATE REPRESENTS LIGHT THROW FOR EACH INDIVIDUAL FIXTURE AND DOES NOT REPRESENT LIGHT COMING FROM OTHER SOURCES.



NOTE: SEE SHEET LL501 FOR LIGHTING NOTES AND DETAILS



Date	Description	No.
01/07/22	REVISED SUBMISSION	2
10/08/21	SCHEMATIC DESIGN DOCUMENTS	1

SIGNATURE: MICHAEL A. NERI, RLA DATE SIGNED: 01/07/2022
 NY REGISTERED LANDSCAPE ARCHITECT
 Lic. No. 001901

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Project
NEWBURGH COMMERCE CENTER
 SECTION No. 95, BLOCK No. 1, LOT No. 58
 TOWN OF NEWBURGH
 ORANGE COUNTY NEW YORK

Drawing Title
SITE LIGHTING PLAN

Project No.	190071901	Drawing No.	LL101
Date	DECEMBER 30, 2021	Sheet	11 of 14
Drawn By	AC		
Checked By	MJ		

SITE LIGHTING NOTES:

GENERAL

1. POINT-BY-POINT CALCULATIONS PROVIDED WITHIN HAVE BEEN PREPARED IN ACCORDANCE TO IESNA STANDARDS AND IN CONSIDERATION OF THE VARIABLES WITHIN THESE NOTES AND SITE LIGHTING SCHEDULE. THE VALUES SHOWN ON THE PLANS ARE NOT AN INDICATION OF THE INITIAL LIGHT INTENSITIES OF THE LAMPS. THESE VALUES ARE AN APPROXIMATION OF THE MAINTAINED INTENSITIES DELIVERED TO THE GROUND PLANE USING INDUSTRY STANDARD LIGHT LOSS FACTORS (LLF) WHICH COVER LAMP DEGRADATION AND NATURAL BUILDUP / DIRT DEGRADATION ON THE FIXTURE LENS. THE LIGHTING PLAN IS DESIGNED WITH AN INDUSTRY STANDARD LLF IN ACCORDANCE WITH GUIDANCE AS PROVIDED BY IESNA. MINOR VARIATIONS IN TOPOGRAPHY, PHYSICAL OBSTRUCTIONS, AMBIENT OR ADJACENT LIGHT SOURCES AND/OR OTHER POTENTIAL IMPACTS HAVE NOT BEEN INCLUDED IN THESE CALCULATIONS. THEREFORE, AS-BUILT LIGHT INTENSITIES MAY VARY, IN EITHER DIRECTION, FROM WHAT IS EXPLICITLY PORTRAYED WITHIN THESE DRAWINGS. NO GUARANTEE OF LIGHT LEVELS IS EXPRESSED OR IMPLIED BY THE POINT BY POINT CALCULATIONS SHOWN ON THESE PLANS.

2. LIGHT LEVEL POINT SPACING IS 10 FT. LEFT TO RIGHT AND 10 FT. TOP TO BOTTOM. POINT BY POINT CALCULATIONS ARE BASED ON THE LIGHT LOSS FACTOR AS STATED IN THE LIGHTING SCHEDULE.

COMPLIANCE

3. ALL SITE LIGHTING RELATED WORK AND MATERIALS SHALL COMPLY WITH CITY, COUNTY, AND OTHER APPLICABLE GOVERNING AUTHORITY REQUIREMENTS.
4. LIGHTING LAYOUT COMPLIES WITH THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) SAFETY STANDARDS FOR LIGHT LEVELS.

COORDINATION

5. CONTRACTOR TO COORDINATE POWER SOURCE WITH LIGHT FIXTURES TO ENSURE ALL SITE LIGHTING IS OPERATING EFFECTIVELY, EFFICIENTLY AND SAFELY.
6. REFER TO ELECTRIFICATION PLAN FOR PROVIDING ADEQUATE POWER FOR SITE LIGHTING.
7. CONTRACTOR TO COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
8. INSTALLATION OF ALL LIGHTING FIXTURES, POLES, FOOTINGS, AND FEEDER CABLE TO BE COORDINATED WITH ALL SITE WORK TRADES TO AVOID CONFLICT WITH FINISHED AND PROPOSED WORK.
9. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND FEEDER CABLE FOR EXTERIOR LIGHTING WITH EXISTING AND PROPOSED UTILITIES, SITE DRAINAGE SYSTEMS, AND PAVING. CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE SHOULD ANY UTILITIES, NOT SHOWN ON THE PLANS, BE FOUND DURING EXCAVATIONS.

POLES AND FOOTINGS

10. PROVIDE A CONCRETE BASE FOR EACH LIGHT POLE AT THE LOCATIONS INDICATED ON THE CONSTRUCTION DRAWINGS AND/OR IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS RELATING DIRECTLY TO CAST-IN-PLACE CONCRETE. THE USE OF ALTERNATE LIGHTING FOUNDATIONS, SUCH AS PRECAST, MAY CHANGE THE SIZING AND REINFORCEMENT REQUIREMENTS FROM THOSE SHOWN ON THESE PLANS. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO ORDERING ANY SUBSTITUTED PRODUCTS.
11. CONTRACTOR SHALL EXAMINE AND VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO SUPPORT LOADS EXERTED UPON THE FOUNDATIONS DURING EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY UNSATISFACTORY CONDITIONS.
12. POLE FOUNDATIONS SHALL NOT BE POURED IF FREE STANDING WATER IS PRESENT IN EXCAVATED AREA.
13. ALL POLES HIGHER THAN 25 FT. SHALL BE EQUIPPED WITH FACTORY INSTALLED VIBRATION DAMPENERS.

WALL MOUNTED FIXTURES

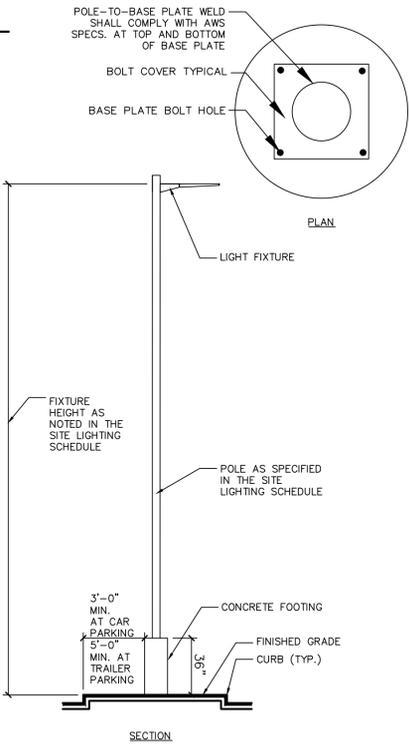
14. CONTRACTOR TO COORDINATE INSTALLATION OF ALL THE WALL MOUNTED FIXTURES AND ELECTRICAL CONNECTIONS TO SITE STRUCTURE(S) WITH BUILDING MEP, ARCHITECT, AND/OR OWNER.
15. INSTALLATION OF ELECTRICAL CONNECTIONS FOR WALL MOUNTED FIXTURES TO BE COORDINATED WITH ARCHITECTURAL, STRUCTURAL, UTILITY AND SITE PLANS AND TO BE IN ACCORDANCE WITH ALL APPLICABLE CODES.

ADJUSTMENT AND INSPECTION

16. CONTRACTOR TO OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR IMPROPER CONNECTIONS AND OPERATION.
17. CONTRACTOR TO AIM AND ADJUST ALL LUMINAIRES TO PROVIDE ILLUMINATION LEVELS AND DISTRIBUTION AS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNER.
18. CONTRACTOR TO CONFIRM THAT LIGHT FIXTURES, TILT ANGLE AND AIMING MATCH SPECIFICATIONS ON THE PLANS.

REQUIREMENTS FOR ALTERNATES

19. ALL LIGHTING SUBSTITUTIONS MUST BE MADE WITHIN 14 DAYS PRIOR TO THE BID DATE TO PROVIDE AMPLE TIME FOR REVIEW AND TO ISSUE AN ADDENDUM INCORPORATING THE SUBSTITUTION WITH THE FOLLOWING REQUIREMENTS:
A. ANY SUBSTITUTION TO LIGHTING FIXTURES, POLES, ETC. MUST BE APPROVED BY THE OWNER, ENGINEER AND TENANTS. ANY COST ASSOCIATED WITH REVIEW AND/OR APPROVAL OF THE SUBSTITUTIONS SHALL BE ENTIRELY BORNE BY THE CONTRACTOR.
B. COMPUTER PREPARED PHOTOMETRIC LAYOUT OF THE PROPOSED LIGHTED AREA WHICH INDICATES, BY ISOFOOTCANDLE, THE SYSTEM'S PERFORMANCE.
C. A PHOTOMETRIC REPORT FROM A NATIONAL INDEPENDENT TESTING LABORATORY WITH REPORT NUMBER, DATE, FIXTURE CATALOG NUMBER, LUMINAIRE AND LAMP SPECIFICATIONS; IES CALCULATIONS; POINT BY POINT FOOT CANDLE PLAN, STATISTIC ZONES SHOWING AVERAGE, MAXIMUM, MINIMUM AND UNIFORMITY RATIOS, SUMMARY, ISOLUX PLOT, AND CATALOGUE CUTS. CATALOGUE CUTS MUST IDENTIFY OPTICS, LAMP TYPE, DISTRIBUTION TYPE, REFLECTOR, LENS, BALLASTS, WATTAGE, VOLTAGE, FINISH HOUSING DESCRIPTION AND ALL OTHER PERTINENT INFORMATION.
D. POLE MANUFACTURER AASHTO CALCULATIONS INDICATING THE POLE AND ANCHOR BOLTS BEING SUBMITTED ARE CAPABLE OF SUPPORTING THE POLE AND FIXTURE SYSTEMS BEING UTILIZED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
E. THE UNDERWRITERS LABORATORY LISTING AND FILE NUMBER FOR THE SPECIFIC FIXTURE(S) TO BE UTILIZED.
F. A COLOR PHOTOGRAPH THAT CLEARLY SHOWS THE REPLACEMENT FIXTURE POLE MOUNTED, THE FIXTURE'S COLOR, FINISH, AND PHYSICAL CHARACTERISTICS.



NOTES:
1. ALL LIGHT POLES TO RECEIVE FACTORY INSTALLED VIBRATION DAMPENERS.
2. REFER TO THE PLANS FOR THE DIMENSION FROM FACE OF CURB TO FOOTING AT TRAILER PARKING.

1 LIGHT FIXTURE AND POLE NTS

Project	Catalog #	Type
Prepared by	Notes	Date

McGraw-Edison
GALN Galleon II
Area / Site Luminaire
Product Features

Interactive Menu
• Ordering Information page 2
• Mounting Details page 3
• Optical Distributions page 5
• Product Specifications page 6
• Energy and Performance Data page 6
• Control Options page 10

Product Certifications
UL, DLC, IP66, etc.

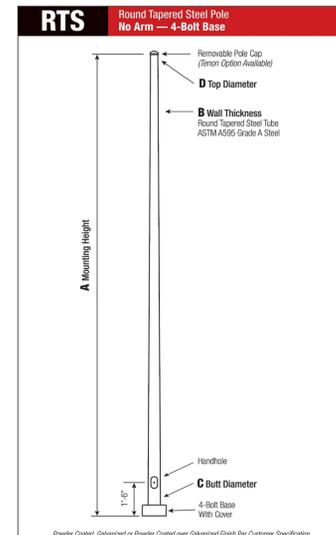
Quick Facts
• Lumen packages range from 3,300 - 73,500 (33W - 552W)
• 16 optical distributions
• Efficacy up to 159 lumens per watt

Dimensional Details

Number of Light Fixtures	Width (ft)	Mounting Length (ft)	Height with Standard or Opt. Arm	Clearance with Standard or Opt. Arm
14	10'	22'	29 ft	0.15
84	22'	22'	29 ft	0.16
74	22'	29.1/8'	48 ft	1.1

COOPER Lighting Solutions

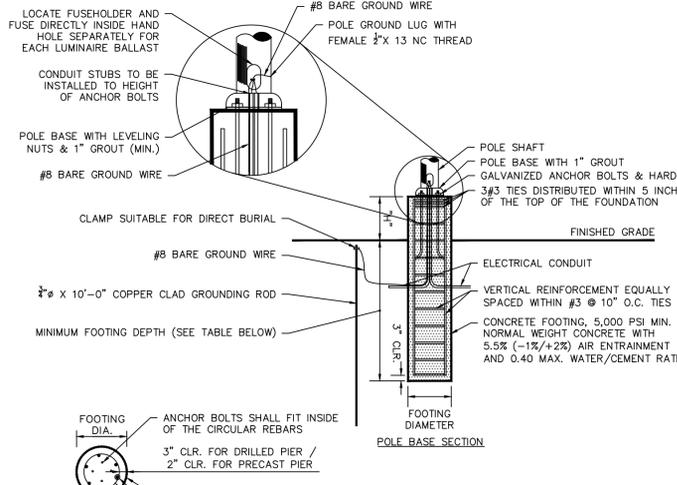
2 FIXTURE TYPE 'A, B, C, D, E, & F' NTS



C	F	G	H	I
4.5	7.5-9.5	8	3.75	75 x 17 x 3
5.2	8-10	10	3.75	75 x 17 x 5
6.1-6.8	9.5-10.5	10	3.75	75 x 20 x 3
6.8	10-11	10	3.75	75 x 20 x 5
7.7-7.5	10.5-11.5	10.5	4.075	1 x 30 x 4
8.0	11-12	11	4.075	1 x 36 x 4
8.0	11.5-12.5	12	4.075	1 x 30 x 4
9.0 (11 range)	12-13	12.375	4.075	1 x 36 x 4
9.0 (11 range)	13-14	12.75	5.075	1.25 x 48 x 6
10	13.5-14.5	13	4.075	1 x 48 x 4
11	15-16	14	5.075	1.25 x 48 x 6
12	16-17	15.5	6.25	1.5 x 58 x 4

COOPER www.cooperlighting.com

3 POLE TYPE 'A, B, C, & D' NTS

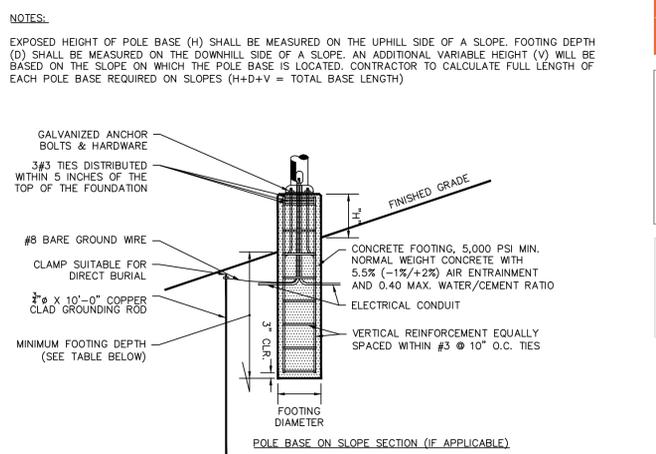


NOTES:
1. SHAFTE CAP, ARMS, BASE FLANGE, ANCHOR BOLTS, LEVELING NUTS, CONNECTION HARDWARE, BOLT COVERS, HANDHOLE COVER, AND BOLT CIRCLE TEMPLATE SHALL BE FURNISHED BY POLE MANUFACTURER.
2. EACH STANDARD TO BE PROTECTED AGAINST LIGHTNING WITH AN INTERCONNECTED GROUND ROD. THIS ROD SHALL BE BONDED PER SECTION NUMBER 250-86, N.E.C.
3. CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENT OF ACI 318. CAST-IN-PLACE SHALL HAVE UNCONFINED COMPRESSIVE STRENGTH OF AT LEAST 5,000 PSI AT 28-DAYS. DEFORMED REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60.
4. CONTRACTOR TO ENSURE CONCRETE POLE BASES ARE POURED / PLACED ABSOLUTELY VERTICAL & LEVEL.
5. IF POLE BASE IS CAST-IN-PLACE, POLE BASE SHALL BE ONE CONTINUOUS POUR. EXPOSED PORTION OF BASE SHALL BE HAND-RUBBED SMOOTH.
6. CONTRACTOR TO COMPACT SUBGRADE AROUND POLE BASE PER EARTHWORK SPECIFICATIONS / GEOTECH REPORT.
7. THE INFORMATION ILLUSTRATED IN THE LIGHT POLE FOUNDATION DETAIL HAS BEEN PROVIDED FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATE PURPOSES. LIGHT POLE FOUNDATIONS SHOULD BE DESIGNED AND DETAILED BY A LICENSED STRUCTURAL ENGINEER BASED ON EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
8. CONTRACTOR TO CONFIRM GROUNDING DESIGN WITH MEP.

MOUNTING HEIGHT	FOOTING DEPTH	FOOTING DIAMETER	VERTICAL REINFORCEMENT	'H'
30'-0"	8'-0"	2'-0"	6 #5 BARS	3'-0" EXPOSED CONCRETE BASE

COOPER Lighting Solutions

4 LIGHT POLE BASE NTS



NOTES:
1. SHAFTE CAP, ARMS, BASE FLANGE, ANCHOR BOLTS, LEVELING NUTS, CONNECTION HARDWARE, BOLT COVERS, HANDHOLE COVER, AND BOLT CIRCLE TEMPLATE SHALL BE FURNISHED BY POLE MANUFACTURER.
2. EACH STANDARD TO BE PROTECTED AGAINST LIGHTNING WITH AN INTERCONNECTED GROUND ROD. THIS ROD SHALL BE BONDED PER SECTION NUMBER 250-86, N.E.C.
3. CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENT OF ACI 318. CAST-IN-PLACE SHALL HAVE UNCONFINED COMPRESSIVE STRENGTH OF AT LEAST 5,000 PSI AT 28-DAYS. DEFORMED REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60.
4. CONTRACTOR TO ENSURE CONCRETE POLE BASES ARE POURED / PLACED ABSOLUTELY VERTICAL & LEVEL.
5. IF POLE BASE IS CAST-IN-PLACE, POLE BASE SHALL BE ONE CONTINUOUS POUR. EXPOSED PORTION OF BASE SHALL BE HAND-RUBBED SMOOTH.
6. CONTRACTOR TO COMPACT SUBGRADE AROUND POLE BASE PER EARTHWORK SPECIFICATIONS / GEOTECH REPORT.
7. THE INFORMATION ILLUSTRATED IN THE LIGHT POLE FOUNDATION DETAIL HAS BEEN PROVIDED FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATE PURPOSES. LIGHT POLE FOUNDATIONS SHOULD BE DESIGNED AND DETAILED BY A LICENSED STRUCTURAL ENGINEER BASED ON EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
8. CONTRACTOR TO CONFIRM GROUNDING DESIGN WITH MEP.

MOUNTING HEIGHT	FOOTING DEPTH	FOOTING DIAMETER	VERTICAL REINFORCEMENT	'H'
30'-0"	8'-0"	2'-0"	6 #5 BARS	3'-0" EXPOSED CONCRETE BASE

COOPER Lighting Solutions

5 WALL LIGHT FIXTURE 'G' NTS

Project	Catalog #	Type
Prepared by	Notes	Date

McGraw-Edison
Impact Elite LED
Wall Mount Luminaire
Product Certifications

Interactive Menu
• Ordering Information page 2
• Product Specifications page 2
• Energy and Performance Data page 2
• Control Options page 4

Quick Facts
• 10 Optical Distributions
• Lumen packages range from 2,459 to 8,123 (20W - 66W)
• Efficacy up to 143 lumens per watt

Dimensional Details

COOPER Lighting Solutions

5 WALL LIGHT FIXTURE 'G' NTS

NOTE: SEE SHEET LL101 FOR LIGHTING PLAN, SCHEDULE AND STATISTICS

Date	Description	No.
01/07/22	REVISED SUBMISSION	2
10/08/21	SCHEMATIC DESIGN DOCUMENTS	1

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Project
NEWBURGH COMMERCE CENTER
SECTION No. 95, BLOCK No. 1, LOT No. 58
TOWN OF NEWBURGH
ORANGE COUNTY
NEW YORK

Drawing Title
SITE LIGHTING NOTES AND DETAILS

Project No. **190071901**
Date **DECEMBER 30, 2021**
Drawing No. **LL501**
Checked By **MJ**
Sheet **12** of **14**

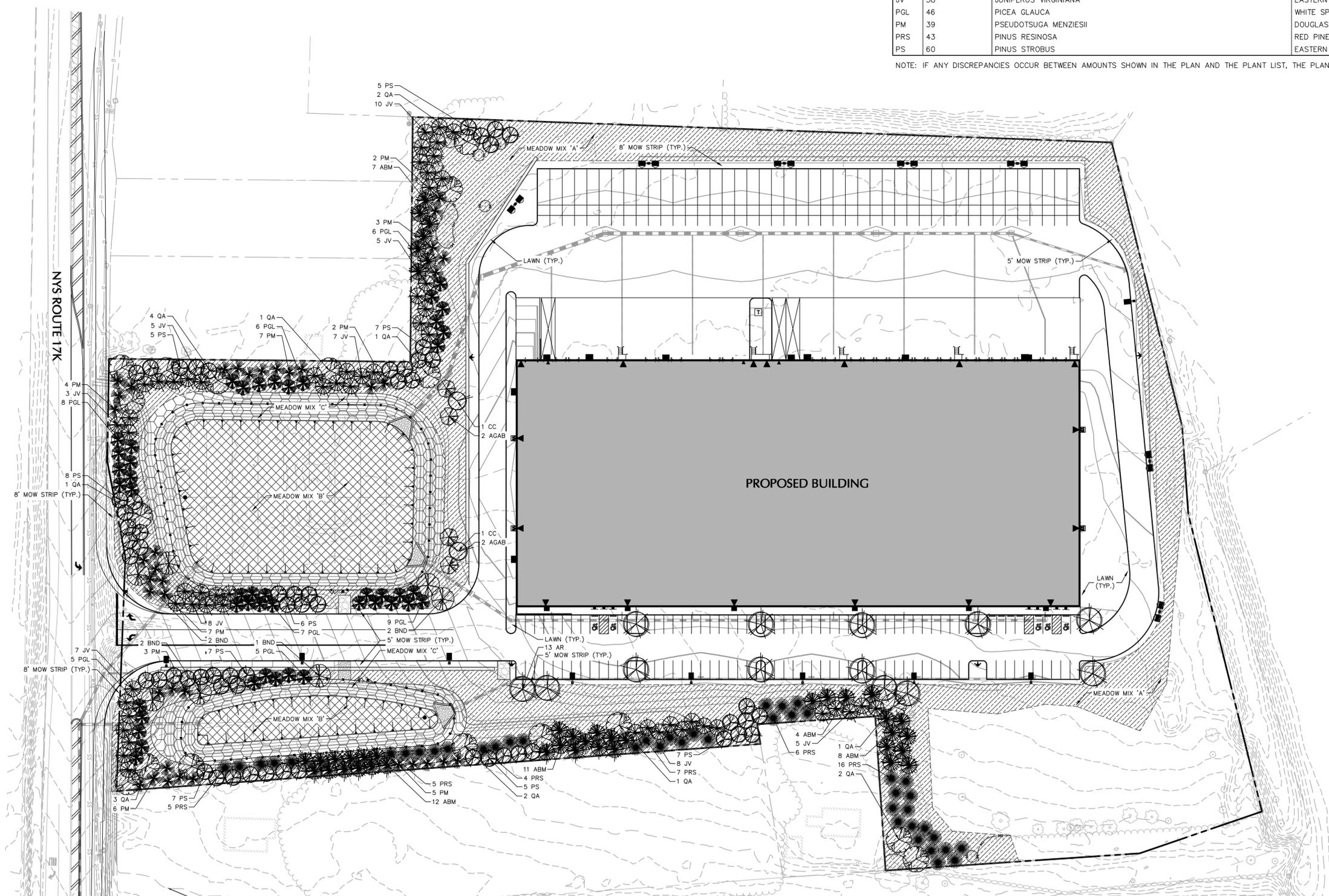
WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 146 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

PROJECT NO. 190071901

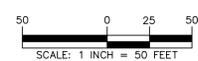
PLANT SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREE(S)						
AR	13	ACER RUBRUM	RED MAPLE	2 1/2-3" CAL.	B+B	-
QA	18	QUERCUS ALBA	WHITE OAK	2 1/2-3" CAL.	B+B	-
ORNAMENTAL TREE(S)						
AGAB	4	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	6-8'	B+B	-
BND	7	BETULA NIGRA 'DURA HEAT'	DURA HEAT RIVER BIRCH	6-8'	B+B	-
CC	2	CERCIS CANADENSIS	EASTERN REDBUD	6-8'	B+B	-
EVERGREEN TREE(S)						
ABM	42	ABIES BALSAMEA	BALSAM FIR	6-8'	B+B	-
JV	58	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	6-8'	B+B	-
PGL	46	PICEA GLAUCA	WHITE SPRUCE	6-8'	B+B	-
PM	39	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	6-8'	B+B	-
PRS	43	PINUS RESINOSA	RED PINE	6-8'	B+B	-
PS	60	PINUS STROBUS	EASTERN WHITE PINE	6-8'	B+B	-

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



NYS ROUTE 17K



Date	Description	No.
01/07/22	REVISED SUBMISSION	4
11/29/21	PLANNING BOARD SUBMISSION	3
11/29/21	ZBA SUBMISSION	2
10/08/21	SCHEMATIC DESIGN DOCUMENTS	1


 SIGNATURE: MICHAEL SURINA, RLA DATE SIGNED: 01/07/2022
 NY REGISTERED LANDSCAPE ARCHITECT Lic. No. 001901

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Project
NEWBURGH COMMERCE CENTER
 SECTION No. 95, BLOCK No. 1, LOT No. 58
 TOWN OF NEWBURGH
 ORANGE COUNTY NEW YORK

Drawing Title
PLANTING PLAN

Project No.	190071901	Drawing No.	LP101
Date	AUGUST 19, 2021		
Drawn By	MJ	Sheet 13 of 14	
Checked By	MH		

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, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.

GENERAL LANDSCAPE PLANTING NOTES

- 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 CURRENTLY ACCEPTED IN NURSERY TRADE.
- 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 EVAPORATION OF DUST.
- NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ENGINEER.
- 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 AND SPECIFIED AS THE SAME SIZE SHOULD BE SIMILAR IN GROWTH AND BE HEALTHY, VIGOROUS, AND FREE FROM DISEASES AND INSECT INFESTATION.
- 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 PLANTS' 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.
- 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.
- 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.
- 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.
- 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 ANALYZE PLANT MATERIALS AND CONDITIONS TO BE UNHEALTHY, DISEASED, INJURED, 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.
- DELIVERY, STORAGE, AND HANDLING
 - 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.
 - 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 BIND OR BIND THE TREES OR SHRUBS IN SUCH A MANNER AS TO DAMAGE BARK, BREAK BRANCHES, OR DESTROY NATURAL SUPPORTS. PROVIDE PROTECTIVE COVERING DURING TRANSPORT. DO NOT DROP BALLED AND BURLEAPPED STOCK DURING DELIVERY OR HANDLING.
 - ALL PLANTS SHALL BE BALLED AND BURLEAPPED 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 TO TWO LOCATIONS.
 - 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 MOSTLY BY COVERING WITH MULCH, BURLAP OR OTHER ACCEPTABLE MEANS OF RETAINING MOISTURE.
- 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.
- ALL PLANT MATERIAL SHALL BE INSTALLED AS PER DETAILS, NOTES AND CONTRACT SPECIFICATIONS. THE LANDSCAPE ARCHITECT MAY REVIEW INSTALLATION AND MAINTENANCE PROCEDURES.
- 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.
- 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.
- 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.
- THE BACKFILL MIXTURE AND SOIL MIXES TO BE INSTALLED PER THE SPECIFICATIONS.
- 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 1/2 OF THE ROOT BALL IS EXPOSED. SYNTHETIC BURLAP SHOULD BE REMOVED AFTER THE PLANTING HOLE IS COMPLETED.
- 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.
- ALL FENCE INSTALLATION SHALL BE COMPLETED PRIOR TO COMMENCEMENT OF ANY LANDSCAPE PLANTING, LAWN AND GRASSES, OR IRRIGATION WORK.
- FOR ANY DISCREPANCIES BETWEEN THE PLANT SCHEDULE AND PLANTING PLAN THE GRAPHIC QUANTITY SHOWN SHALL GOVERN.
- PLANT MATERIALS SHALL NOT BE PLANTED UNTIL THE FINISHED GRADING HAS BEEN COMPLETED.
- 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.

LAWN WATERING SCHEDULE

THE FOLLOWING WATERING SCHEDULE PROVIDES ROUGHLY 6 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.

- SEEDING SHALL BE DONE DURING THE SEASONS SPECIFIED IN THE LAWN SEED MIX NOTES AND/OR PROJECT SPECIFICATIONS.
- 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.
- DEPENDENT 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 GRASS THROUGHOUT.
- 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.
- BEGIN MOWING ONCE PER WEEK AFTER THE GRASS HAS REACHED 3 INCHES HEIGHT, MOW TO A HEIGHT OF NO LESS THAN 2-1/4 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.

LAWN SEED MIX

- LAWN SEED MIX:** LESCO GRASS SEED - ALL PRO TRANSITION MIX (3 TURF-TYPE TALL-FESCUE GRASSES)
 - SEED RATE:
 - NEW ESTABLISHMENT: SEED AT A RATE OF 6-8 LBS/1000 SQ FT
 - RENOVATION: 20-50% EXISTING COVER: 5-7 LBS/1000 SQ FT
 - 50-75% EXISTING COVER: 4-6 LBS/1000 SQ FT
- GENERAL SEED NOTES:**
 - FINAL SEED MIXTURES, RATES, AND SPECIES TO BE DETERMINED BASED ON PROJECT LANDSCAPE ARCHITECT REVIEW.
 - SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 15) OR THE FALL (SEPTEMBER 1 TO OCTOBER 15).
 - ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A GLYPHOSATE-BASED HERBICIDE PER MANUFACTURER'S SPECIFICATIONS.
 - IT IS RECOMMENDED THAT CONTRACTOR INSTALL SEED MIXTURE USING A NO-TILL TRUAX-TYPE DRILL SEEDER WHERE APPLICABLE.
 - THERE MUST BE CONTINUOUS SOIL MOISTURE FOR 4-6 WEEKS TO ALLOW FOR PROPER GERMINATION.

PLANTING SOIL SPECIFICATIONS

- PLANTING SOIL, ALTERNATIVELY MAY BE REFERRED TO AS TOPSOIL, SHOULD BE FRIABLE, FERTILE, WELL DRAINED, FREE OF DEBRIS, TOXINS, TRASH AND STONES OVER 1/2" DIA., IT SHOULD HAVE A HIGH ORGANIC CONTENT SUITABLE TO SUSTAIN HEALTHY PLANT GROWTH AND SHOULD LOOK AESTHETICALLY PLEASING HAVING NO NOXIOUS ODOORS.
- PLANTING SOIL:**

REUSE SURFACE SOILS STOCKPILED ON SITE, VERIFYING COMPLIANCE WITH PLANTING SOIL AND TOPSOIL CRITERIA IN THIS SPECIFICATION THROUGH TESTING. CLEAN SURFACE SOIL OF ALL ROOTS, PLANTS, SOIL, AND GRAVEL OVER 1" IN DIAMETER AND DELETERIOUS MATERIALS. IF ON-SITE SOILS ARE TO BE USED FOR PROPOSED PLANTING, THE CONTRACTOR SHALL DEMONSTRATE, THROUGH SOIL TESTING, THAT ON-SITE SOILS MEET THE SAME CRITERIA AS INDICATED IN NOTES PLANTS AND SPECIFICATIONS.

SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF-SITE SOURCES WHEN TOPSOIL AND PLANTING SOIL QUANTITIES ARE INSUFFICIENT. OBTAIN SOIL DISPLACED FROM NATURALLY WELL-DRAINED SITES WHERE TOPSOIL OCCURS AT LEAST 4" DEEP. DO NOT OBTAIN FROM AGRICULTURAL LAND, BOGS, MARSHES OR CONTAMINATED SITES.

CONTRACTOR SHALL TEST SOILS AND FURNISH SAMPLES UPON REQUEST. PACKAGED MATERIALS SHALL BE UNOPENED BAGS OR CONTAINERS, EACH BEARING A NAME, QUARANTEE, AND TRADEMARK OF THE PRODUCER, MATERIAL COMPOSITION, MANUFACTURER'S CERTIFIED ANALYSIS, AND THE WEIGHT OF THE MATERIALS. SOIL OR AMENDMENT MATERIALS SHALL BE STORED ON SITE TEMPORARILY IN STOCKPILES PRIOR TO PLACEMENT AND SHALL BE PROTECTED FROM INTRUSION OF CONTAMINANTS AND EROSION. AFTER MIXING, SOIL MATERIALS SHALL BE COVERED WITH A TARP/AULN UNTIL TIME OF ACTUAL USE.
- ALL PLANTING SOILS SHALL BE SUBMITTED FOR TESTING TO THE STATE COOPERATIVE EXTENSION SERVICE AND APPROVED EQUALS. PRIOR TO DELIVERY TO THE SITE, CONTRACTOR SHALL FURNISH SOIL SAMPLES AND SOIL TEST RESULTS TO LANDSCAPE ARCHITECT OR OWNER AT A RATE OF ONE SAMPLE PER 500 CUBIC YARDS TO ENSURE CONSISTENCY ACROSS THE TOTAL VOLUME OF PLANTING SOIL REQUIRED. TEST RESULTS SHALL EVALUATE FOR ALL CRITERIA LISTED IN THIS SPECIFICATION. IF TESTING AGENCY DETERMINES THAT THE SOILS ARE DEFICIENT IN ANY MANNER AND MAY BE CORRECTED BY ADDING AMENDMENTS, THE CONTRACTOR SHALL FOLLOW STATED RECOMMENDATIONS FOR SOIL IMPROVEMENT AND FURNISH SUBMITTALS FOR ALL AMENDMENTS PRIOR TO DELIVERY OF SOIL TO THE PROJECT SITE.

- THE FOLLOWING TESTING SHOULD BE PERFORMED AND RESULTS GIVEN TO THE LANDSCAPE ARCHITECT FOR APPROVAL BEFORE INSTALLATION:
 - PARTICLE SIZE ANALYSIS - LOAMY SAND: 60%-75% SAND, 25%-40% SILT, AND 5%-15% CLAY.
 - FERTILITY ANALYSIS: pH (5.0-6.5), SOLUBLE SALTS (LESS THAN 2 MMHO/CM), NITRATE, PHOSPHATE, POTASSIUM, CALCIUM AND MAGNESIUM.
 - ORGANIC MATTER CONTENT: 2.5%-5% IN NATIVE SOILS; UP TO 10% IN AMENDED SOILS.
 - TOXIC SUBSTANCE ANALYSIS
 - MATERIAL DRAINAGE RATE: 60% PASSING IN 2 MINUTES, 40% RETAINED
 - 1% OF MATERIAL SHALL BE RETAINED BY #4 SIEVE
- BIORETENTION SOIL MIX
 - BIORETENTION SOIL MIX IS TO BE USED IN ALL DETENTION BASINS AND RAIN GARDENS.
 - MIX TO CONSIST OF 60% COARSE SAND, 40% SUBMITTED TOPSOIL/HORTICULTURAL SOIL MIX
 - TOPSOIL/HORTICULTURAL SOIL MIX: REFER TO SPECIFICATIONS LISTED IN SECTION ABOVE.
 - COARSE SAND
 - PARTICLE SIZE ANALYSIS
 - 3/8" INCH (9.5 MM) 100
 - NO # (4.75 MM) 95-100
 - NO #20 (0.85 MM) 80-100
 - NO 16 (1.18 MM) 50-85
 - NO 30 (0.60 MM) 25-60
 - NO 50 (0.30 MM) 10-30
 - NO 100 (0.15 MM) 2-10
 - NO 200 (0.75 MM) 2-5

- CHEMICAL ANALYSIS
 - PH: LOWER THAN 7.0
 - TOXIC SUBSTANCE ANALYSIS
- FINAL BIORETENTION MIX
 - PARTICLE SIZE ANALYSIS
 - SAND - 80-85%
 - SILT - 10-15%
 - CLAY - 2-5%

NOT MORE THAN 1% OF MATERIAL TO BE RETAINED BY A #4 SIEVE

- CHEMICAL ANALYSIS
 - PH = 5.5-6.5
 - SOLUBLE SALTS: LESS THAN 2 MMHO/CM
- CONTRACTOR TO SUBMIT TOXIC SUBSTANCE ANALYSIS AND MATERIAL DRAINAGE RATE IN ADDITION TO INFORMATION LISTED ABOVE. DRAINAGE RATE OF MATERIAL TO EXCEED 1 INCH/HOUR

- SOIL AMENDMENT FOR PLANT MATERIAL:**

IF SOIL ORGANIC CONTENT IS INADEQUATE, SOIL SHALL BE AMENDED WITH COMPOST OR ACCEPTABLE, WEED FREE, ORGANIC MATTER. ORGANIC AMENDMENT SHALL BE WELL COMPACTED TO A MINIMUM OF 2" DEPTH. SOIL SHALL BE 35-55% BY WEIGHT 100% PASSING THROUGH 1" SIEVE. SOLUBLE SALT CONTENT LESS THAN 0.5 MM NOS/CM MEETING ALL APPLICABLE ENVIRONMENTAL CRITERIA FOR CLEAN FILL.

- ORGANIC MATTER AS A SOIL AMENDMENT: LEAF MULD WITH 60-90% ORGANIC CONTENT BY WEIGHT, SHREDDED LEAF LITTER, COMPOSTED FOR A MINIMUM OF 1 YEAR. SHOULD BE FREE OF DEBRIS, STONES OVER 1/2", WOOD CHIPS OVER 1".
- SOIL IN BEDS AND PLANTING ISLANDS OTHER THAN BACKFILL MATERIAL AND TOPSOIL, SHOULD BE FRIABLE, WELL DRAINED, AND FREE OF DEBRIS, INCLUDING STONES AND TRASH.

- AMENDMENTS FOR BACK FILL IN TREE AND SHRUB PITS:
 - GROUND LIMESTONE (WITH A MIN. OF 88% OF CALCIUM AND MAGNESIUM CARBONATES) USED PENDING RESULTS OF SOIL ANALYSES.
 - TERRA-SORB BY PLANT HEALTH CARE® 800-421-9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN PLANTER BACKFILL MIXTURE WITH TREES AND SHRUBS.
 - MYCOR-RSOT SAVER BY PLANT HEALTH CARE® 800-421-9051 (SEE MANUFACTURER RECOMMENDATIONS) USED IN BACKFILL MIXTURE WITH TREES.

- WHERE PLANTING AREAS ARE PROPOSED FOR FORMER PAVED OR GRAVEL AREAS, BEDS SHALL BE EXCAVATED TO A MINIMUM 30" DEPTH AND, AT A MINIMUM, BE BACKFILLED WITH BOTTOM LAYER OF SANDY LOAM (ORGANIC CONTENT LESS THAN 2%) OVER WHICH TOPSOIL AND PLANTING SOILS WILL BE PLACED AT DEPTHS INDICATED IN PLANS, DETAILS AND NOTES.

- CLEAN SOIL FILL IN LANDSCAPE AREAS:**

LANDSCAPE FILL MATERIAL, BELOW PLANTING SOILS, SHALL HAVE THE PHYSICAL PROPERTIES OF A SANDY LOAM WITH AN ORGANIC CONTENT OF LESS THAN 2% AND A PH BETWEEN 5 - 7.

- SOIL PLACEMENT:**
 - CONTRACTOR TO PROVIDE SIX INCHES (6") MINIMUM DEPTH PLANTING SOIL LAYER IN LAWN AREAS, TWELVE INCHES (12") MINIMUM DEPTH PLANTING SOIL LAYER IN GROUNDCOVER AND PERENNIAL AREAS, EIGHTEEN INCHES (18") MINIMUM DEPTH PLANTING SOIL LAYER IN SHRUB AREAS, AND THIRTY-SIX INCHES (36") MINIMUM DEPTH PLANTING SOIL LAYER IN TREE PLANTING AREAS.

- SCAFFRY AND/OR TILL COMPACTED SUBSOILS TO A MINIMUM DEPTH OF 6 INCHES. THOROUGHLY MIX A 6 INCH DEPTH LAYER OF PLANTING SOIL INTO THE SUBSOIL PRIOR TO PLACING PLANTING SOIL AT THE DEPTHS INDICATED ABOVE. PLANTING SOIL SHALL BE PLACED IN 12-18" LIFTS AND WATER THOROUGHLY BEFORE INSTALLING NEXT LIFT. REPEAT UNTIL DEPTHS AND FINISH GRADES HAVE BEEN ACHIEVED. NO SOILS SHALL BE PLACED IN A FROZEN OR MUDDY CONDITION.

- PLANTING SOIL PRESENT AT THE SITE, IF ANY, MAY BE USED TO SUPPLEMENT TOTAL AMOUNT REQUIRED. CONTRACTOR TO FURNISH AN ANALYSIS OF ON-SITE PLANTING SOIL UTILIZED IN ALL PLANTING AREAS.

- SOIL CONDITIONING:**
 - ADJUST PH AND NUTRIENT LEVELS AS REQUIRED TO ENSURE AN ACCEPTABLE GROWING MEDIUM. LOWER PH USING ELEMENTAL SULFUR ONLY. PEAT MOSS OR COPPER SULFATE MAY NOT BE USED. GROUND LIMESTONE AS A SOIL AMENDMENT MATERIAL WILL ONLY BE USED PENDING RESULTS OF SOIL ANALYSES. PROVIDE WITH MINIMUM 88% CALCIUM AND MAGNESIUM CARBONATES AND SHALL HAVE TOTAL 100% PASSING THE 10 MESH SIEVE. MINIMUM 90% PASSING 20 MESH SIEVE, AND MINIMUM 60% PASSING 100 MESH SIEVE.

- ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF AT THE CONTRACTOR'S EXPENSE.

- SOIL MODIFICATIONS (PENDING RESULTS OF SOIL ANALYSES):**
 - THOROUGHLY TILL ORGANIC MATTER (LEAF COMPOST) INTO THE TOP 6 TO 12 IN. OF MOST PLANTING SOILS TO IMPROVE THE SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS. ALL PRODUCTS SHOULD BE COMPACTED TO A DEEP COLLAR AND BE FREE OF PIECES WITH DEGRADABLE OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.0. PEAT MOSS MAY NOT BE USED AS ORGANIC MATTER AMENDMENT.

- MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. IMPROVE DRAINAGE IN HEAVY SOILS BY PLANTING ON RAISED MOUNDS OR BEDS AND INCLUDING SUBSURFACE DRAINAGE LINES.

- MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

MEADOW SEED NOTES

- MEADOW SEED MIX A - ERNST SEED MIX ERNM-123** "NATIVE UPLAND WILDFLOWERS & COVER MEADOW MIX"
 - 34.0% ANODOPOGON GERARDI, "NIAGARA"
 - 27.0% PANICUM VIRGATUM, "CAVE-IN-ROCK"
 - 21.0% ELYMUS VIRGINICUS, "MADISON"
 - 9.0% SORGHASTRUM NUTANS, "TOMAHAWK"
 - 3.0% RUBEICOLA HIRTA, PA ECOTYPE
 - 2.0% CHAMAECRISTA FASCICULATA, PA ECOTYPE
 - 1.5% HELIOPSIS HELANTHODES, PA ECOTYPE
 - 1.0% COROPHIS TRICOLOR
 - 0.4% DESMODIUM CANADENSE, PA ECOTYPE
 - 0.1% ASCLEPIAS SYRACA
 - 0.1% MONARHA FISTULOSA, PA ECOTYPE

- MEADOW SEED MIX B - ERNST SEED MIX ERNM-183** "NATIVE DETENTION AREA MIX"
 - 32% PANICUM CLANDESTINUM, "TOGA"
 - 20% CAREX VULPINODEA
 - 20% ELYMUS VIRGINICUS
 - 20% PANICUM VIRGATUM, "SHAWNEE"
 - 4% AGROSTIS PERENANS, ALBANY PINE BUSH
 - 1% JUNCUS EFFUSUS
 - 1% PANICUM RIGIDUM

- DEERTONGUE, "TOGA"
- FOX SEED
- VERGINA WILDRYE
- SWITCHGRASS, "SHAWNEE"
- AUTUMN BENTGRASS, ALBANY PINE BUSH
- PAIR RUSH
- SOFT RUSH
- REDTOP PANICGRASS

- SEED AT A RATE OF 20 LB/ACRE OF 100% PURE LIVE SEED

- SEED AT A RATE OF 60 LBS/ACRE OF 100% PURE LIVE SEED.

- SEED AT A RATE OF 60 LBS/ACRE OF 100% PURE LIVE SEED.

- MEADOW SEED MIX C - ERNM-181** "NATIVE STEEP SLOPE MIX WITH ANNUAL RYEGRASS"
 - 31% SORGHASTRUM NUTANS
 - 20% LOLIUM MULTIFLORUM
 - 14% ANODOPOGON GERARDI, "NIAGARA"
 - 10% ELYMUS VIRGINICUS
 - 4% PANICUM VIRGATUM, "SHAWNEE"
 - 4% AGROSTIS PERENANS
 - 4% PANICUM VIRGATUM "CARTHAGE"
 - 3% PANICUM CLANDESTINUM, "TOGA"
 - 1.5% ECHINACEA PURPUREA
 - 1% COROPHIS TRICOLOR
 - 1.2% HELIOPSIS HELANTHODES
 - 1% RUBEICOLA HIRTA
 - 3% MONARHA FISTULOSA
 - 2% ASCLEPIAS SYRACA
 - 2% SOLIDAGO RUPEOSA
 - 1% JUNCUS EFFUSUS
 - 1% ASTER PILOSUS

- INDIANGRASS
- ANNUAL RYEGRASS
- VERGINA WILDRYE
- AUTUMN BENTGRASS
- PURPLE CLOVERFLOR
- CAROLINA BLUEGRASS
- OEYE SUNFLOWER
- LANCELEAF CORDESPIS
- BULKEED SUSAN
- WILD BERGAMOT
- COMMON MILWEED
- WRINKLELEAF GOLDENROD
- HEATH ASTER

- SEED AT A RATE OF 60 LBS/ACRE OF 100% PURE LIVE SEED.

- GENERAL SEEDING NOTES:
 - FINAL SEED MIXTURES, RATES & SPECIES TO BE DETERMINED BASED ON SCD REVIEW.
 - SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 15) OR THE FALL (SEPTEMBER 1 TO OCTOBER 15).
 - ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A NON-SELECTIVE HERBICIDE PER MANUFACTURER'S SPECIFICATIONS.
 - CONTRACTOR INSTALL SEED MIXTURE USING A NO-TILL TRUAX-TYPE DRILL WHERE APPLICABLE.
 - THERE MUST BE CONTINUOUS SOIL MOISTURE FOR 4-6 WEEKS TO ALLOW PROPER GERMINATION.
 - NO DRILL SEEDING IS TO TAKE PLACE UNDER EXISTING TREES TO REMAIN.

- WEED CONTROL / MAINTENANCE:**
 - DURING THE ESTABLISHMENT YEAR, CONTRACTOR SHALL MOW SEEDING IF WEED HEIGHT EXCEEDS MEADOW MIX HEIGHT. MOW AT A HEIGHT OF 8"-10". DO NOT MOW CLOSE, AS SOME OF THE MEADOW MIX MAY BE DAMAGED.
 - AFTER THE FIRST GROWING SEASON, AND IF MEADOW MIX IS WELL ESTABLISHED, THE MEADOW SHOULD BE MOWED ONLY ONCE ANNUALLY. ANNUAL MAINTENANCE MOWING SHALL BE DONE IN LATE WINTER DURING THE MONTH OF MARCH.
 - MOW IN DETENTION BASIN AND WETLAND TRANSITION AREAS DURING DRIER SITE CONDITIONS WHEN SOIL DISTURBANCE WILL NOT OCCUR. MAINTENANCE MOWING FOR DETENTION BASIN AND WETLAND TRANSITION AREAS SHALL OCCUR DURING LATE SUMMER (JULY 15 - AUGUST 15) WHEN THE WATER TABLE IS USUALLY AT ITS LOWEST POINT OF THE YEAR. DO NOT MOW IN DETENTION BASIN, WETLAND OR WETLAND TRANSITION AREAS AFTER ESTABLISHMENT OF MEADOW MIX.

LANDSCAPE MAINTENANCE NOTES

- MAINTENANCE OPERATIONS BEFORE APPROVAL:**
 - PLANT CARE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS SATISFACTORILY INSTALLED AND SHALL CONTINUE THROUGHOUT THE LIFE OF THE CONTRACT UNTIL FINAL ACCEPTANCE OF THE PROJECT.
 - CARE SHALL INCLUDE, BUT NOT BE LIMITED TO, REPLACING MULCH THAT HAS BEEN DISPLACED BY EROSION OR OTHER MEANS, REPAIRING AND RESHAPING WATER RINGS OR SAUCERS, MAINTAINING STAKES AND QUIPS AS ORIGINALLY INSTALLED, WATERING WHEN NEEDED OR DIRECTED, AND PERFORMING ANY OTHER WORK REQUIRED TO KEEP THE PLANTS IN A HEALTHY CONDITION.
 - CONTRACTOR SHALL REMOVE AND REPLACE ALL DEAD, DEFECTIVE AND/OR REJECTED PLANTS AS REQUIRED BEFORE FINAL ACCEPTANCE.

- MAINTENANCE DURING CONSTRUCTION:**
 - MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING. PLANTS SHALL BE WATERED, MULCHED, WEEDED, PRUNED, SPRAYED, FERTILIZED, CULTIVATED, AND OTHERWISE MAINTAINED AND PROTECTED UNTIL PROVISIONAL ACCEPTANCE. SETTLED PLANTS SHALL BE RESET TO PROPER GRADE AND POSITION, PLANTING SAUCER RESTORED, AND DEAD MATERIAL REMOVED. STAKES AND WIRRS SHALL BE TIGHTENED AND REPAIRED. DEFECTIVE WORK SHALL BE CORRECTED AS SOON AS POSSIBLE AFTER IT BECOMES APPARENT AND WEATHER AND SEASON PERMIT.
 - IF A SUBSTANTIAL NUMBER OF PLANTS ARE SICKLY OR DEAD AT THE TIME OF INSPECTION, ACCEPTANCE SHALL NOT BE GRANTED AND THE CONTRACTOR'S RESPONSIBILITY FOR MAINTENANCE OF ALL PLANTS SHALL BE EXTENDED FROM THE REPLACEMENTS ARE MADE OR EXISTING PLANTS ARE DEEMED ACCEPTABLE BY THE LANDSCAPE ARCHITECT.

- ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE SPECIFIED ON THE PLANT LIST OR THAT WHICH WAS TO REMAIN OR BE RELOCATED. THEY SHALL BE FURNISHED AND PLANTED AS SPECIFIED. THE COST SHALL BE BORNE BY THE CONTRACTOR.

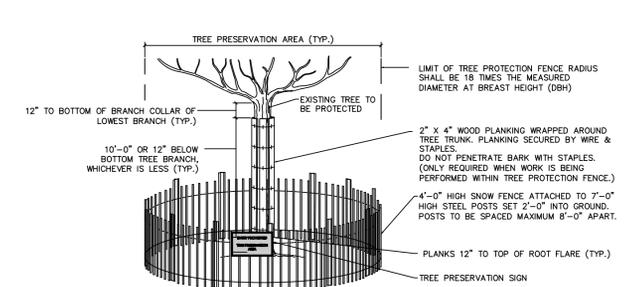
- PLANTS SHALL BE GUARANTEED FOR A PERIOD OF TWO YEARS AFTER INSPECTION AND PROVISIONAL ACCEPTANCE.

- AT THE END OF THE ESTABLISHMENT PERIOD, INSPECTION SHALL BE MADE AGAIN. ANY PLANT REQUIRED UNDER THIS CONTRACT THAT IS DEAD OR UNSATISFACTORY TO THE LANDSCAPE ARCHITECT OR OWNER SHALL BE REMOVED FROM THE SITE AND REPLACED DURING THE NORMAL PLANTING SEASON.

- LAWN MAINTENANCE:**
 - BEGIN MAINTENANCE IMMEDIATELY AFTER EACH PORTION OF LAWN IS PLANTED AND CONTINUE FOR 8 WEEKS AFTER ALL LAWN PLANTING IS COMPLETED.
 - WATER TO KEEP SURFACE SOIL MOIST, REPAIR WASHED OUT AREAS BY FILLING WITH TOPSOIL, LIMING, FERTILIZING AND RE-SEEDING; MOW TO 2 1/2 - 3 INCHES AFTER GRASS REACHES 3 1/2 INCHES IN HEIGHT, AND MOW FREQUENTLY ENOUGH TO KEEP GRASS FROM EXCEEDING 3 1/2 INCHES. WEED BY LOCAL SPOT APPLICATION OF SELECTIVE HERBICIDE ONLY AFTER GRASS IS WELL-ESTABLISHED.

TREE PROTECTION NOTES:

- ALL EXISTING TREES WITHIN THE LIMITS OF TREE PROTECTION FENCING, SHALL BE PROTECTED THROUGHOUT THE DURATION OF WORK. TREE PROTECTION FENCING SHALL BE INSTALLED AT THE DRIP-LINE OF THE PROTECTED TREE UNLESS CONDITIONS WARRANT THE FENCE TO BE LOCATED WITHIN THE LIMIT OF BRANCHING. THE PROJECT LANDSCAPE ARCHITECT TO APPROVE THE LOCATION OF ALL FENCING PRIOR TO EXCAVATION.
- TREE PROTECTION PLANKING SHALL BE INSTALLED AROUND ALL EXISTING TREES AS NOTED ON THIS DRAWING. REFER TO DETAIL ON THIS SHEET.
- TREE PROTECTION FENCING SHALL BE MAINTAINED TO PROTECT TREES AT ALL TIMES. ANY DAMAGED FENCING SHALL BE IMMEDIATELY REPLACED WHEN DAMAGED.
- IF TREE PROTECTION FENCING NEEDS TO BE MOVED OR BREACHED DUE TO TEMPORARY CONSTRUCTION ACTIVITY WITHIN THE TREE PROTECTION ZONE, THE FENCING WILL BE RESET TO ITS ORIGINAL LOCATION IMMEDIATELY AFTER CONSTRUCTION WITHIN THE TREE PROTECTION ZONE IS COMPLETE.
- DEMOLITION WORK ADJACENT TO PROTECTED TREES SHALL BE PERFORMED BY NON-MECHANICAL METHODS. CONTRACTOR TO PROTECT ROOT MASS AGAINST DAMAGE DURING EXCAVATION. ANY TREE ROOTS THAT ARE DISTURBED, BROKEN, OR CUT SHALL BE PRUNED BACK WITH CLEAN SHARP TOOLS.
- ALL EXPOSED TREE ROOTS SHALL BE THOROUGHLY IRRIGATED ON A DAILY BASIS AS DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT.
- ALL WORK TO BE PERFORMED UNDER THE DIRECT SUPERVISION OF EITHER THE OWNER'S REPRESENTATIVE OR THE PROJECT LANDSCAPE ARCHITECT.

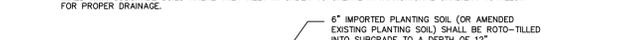


1 TREE PROTECTION FENCE AND PLANKING

NTS

GENERAL NOTE:

DUE TO GENERAL CONSTRUCTION ACTIVITIES AND ADJACENT SITE COMPACTION REQUIREMENTS, SUBGRADE SOILS WITHIN PROPOSED PLANTING AREAS TEND TO BECOME HIGHLY COMPACTED. IN ORDER TO CREATE A HEALTHY GROWTH MEDIUM TO ALLOW PROPOSED PLANTINGS TO ESTABLISH A VIGOROUS ROOT MASS, THIS SUBGRADE SOIL MUST UNDERGO A RESTORATION PROCESS. IN ADDITION, IMPORTED OR AMENDED EXISTING SOILS SHALL BE MIXED WITH SUBGRADE SOILS WHERE THEY MEET IN ORDER TO CREATE A TRANSITIONAL GRADIENT TO ALLOW FOR PROPER DRAINAGE.



2 PLANTING SOIL

NTS

EXISTING SOIL STRIPPED FROM SITE CAN BE USED FOR PLANTING SOIL UPON APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT. CONTRACTOR SHALL REFER TO PLANTING SOIL SPECIFICATIONS FOR REQUIRED SUBMITTALS.



3 TREE PLANTING

NTS

REMOVE ALL TWINE, ROPE, WIRE, AND BURLAP FROM TOP HALF OF ROOT BALL AND ALL NON-BIODEGRADABLE MATERIAL. IF PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, CUT THE WIRE BASKET IN FOUR PLACES AND FOLD DOWN 8" INTO PLANTING HOLE.



4 SHRUB AND ORNAMENTAL GRASS PLANTING

NTS

REMOVE ALL TWINE, ROPE, WIRE, AND BURL