

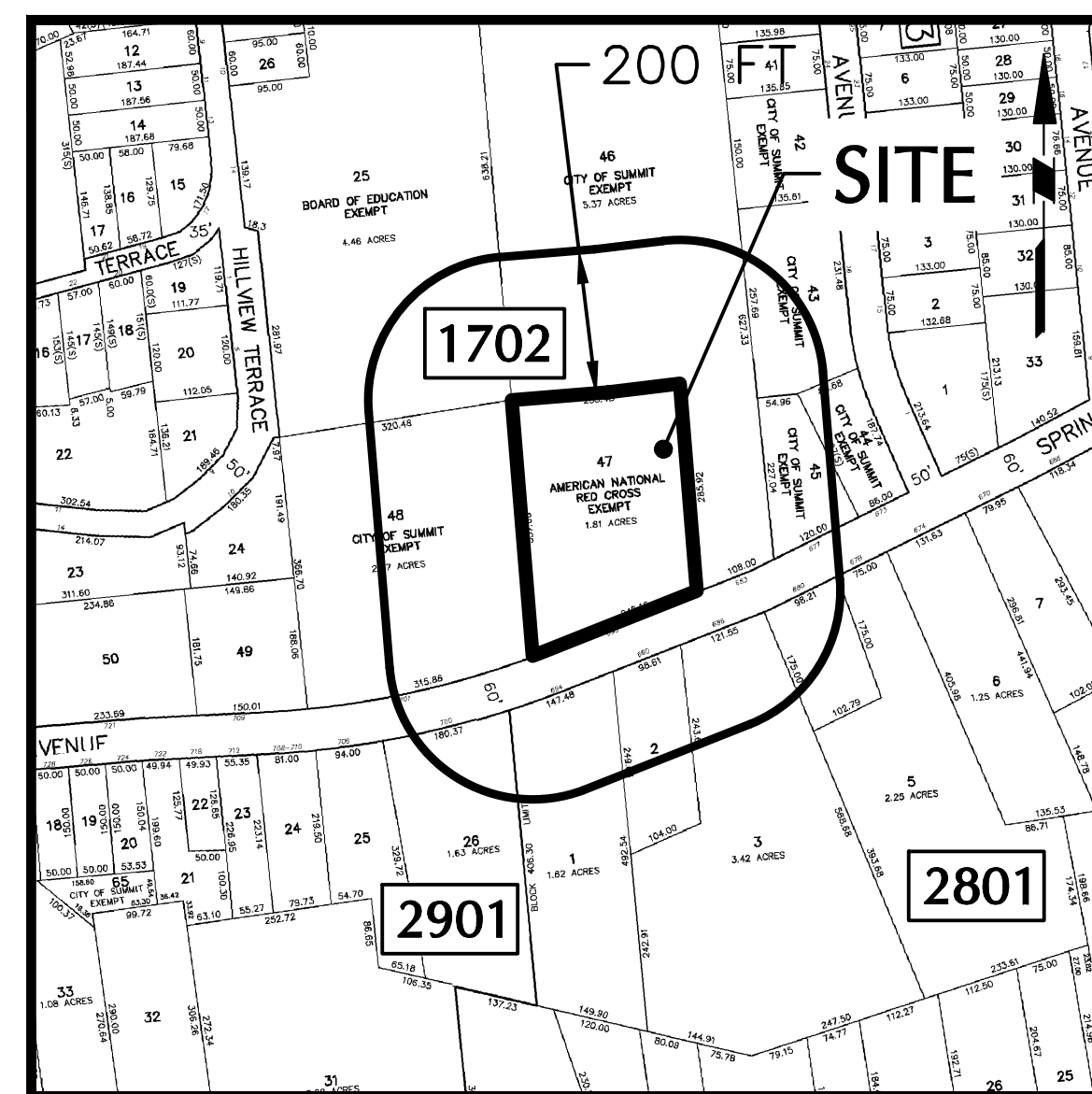
BEACON UNITARIAN UNIVERSALIST CONGREGATION

PRELIMINARY & FINAL SITE PLANS

BLOCK No. 1702, LOT No. 47

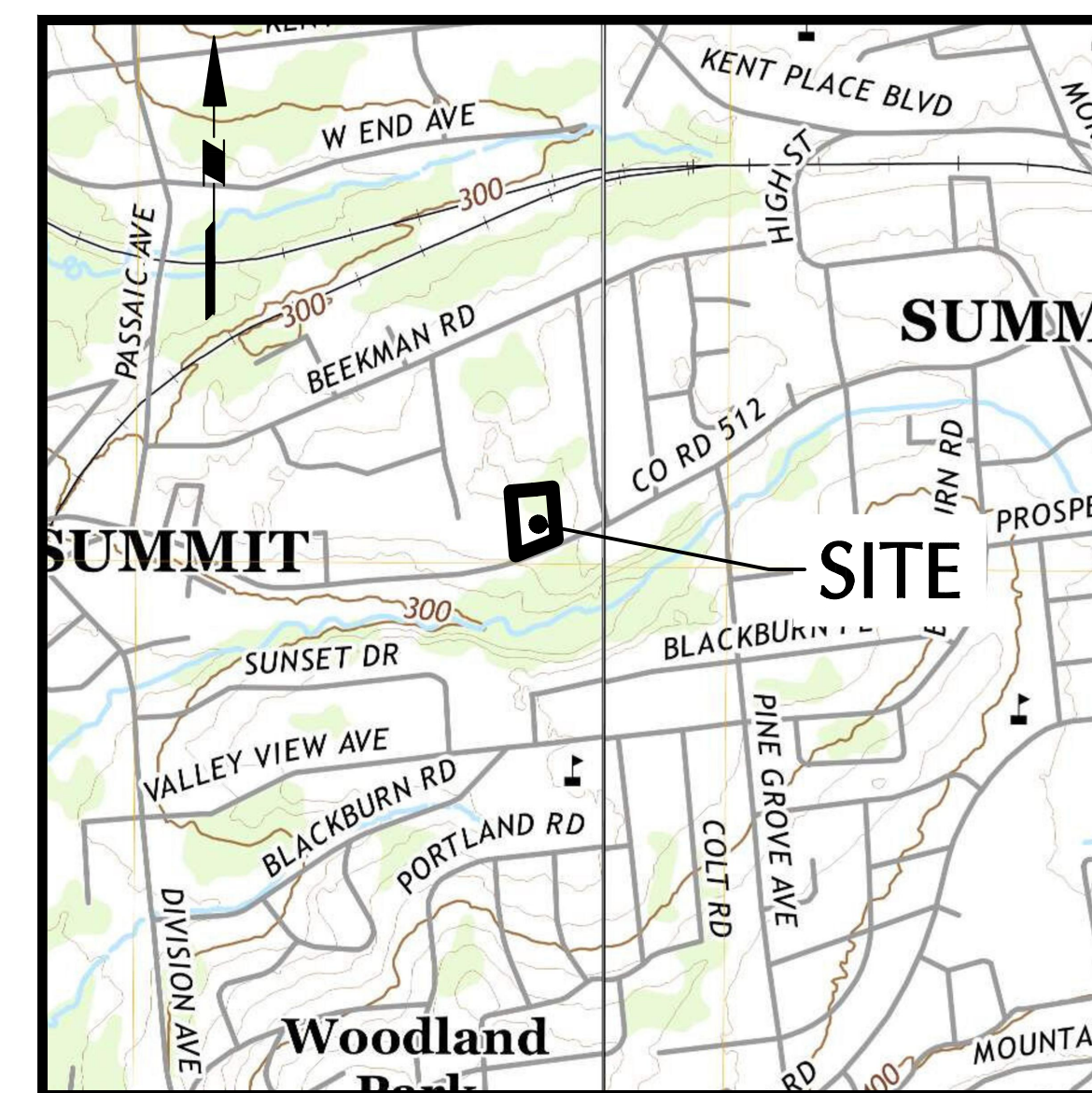
CITY OF SUMMIT, UNION COUNTY, NEW JERSEY

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



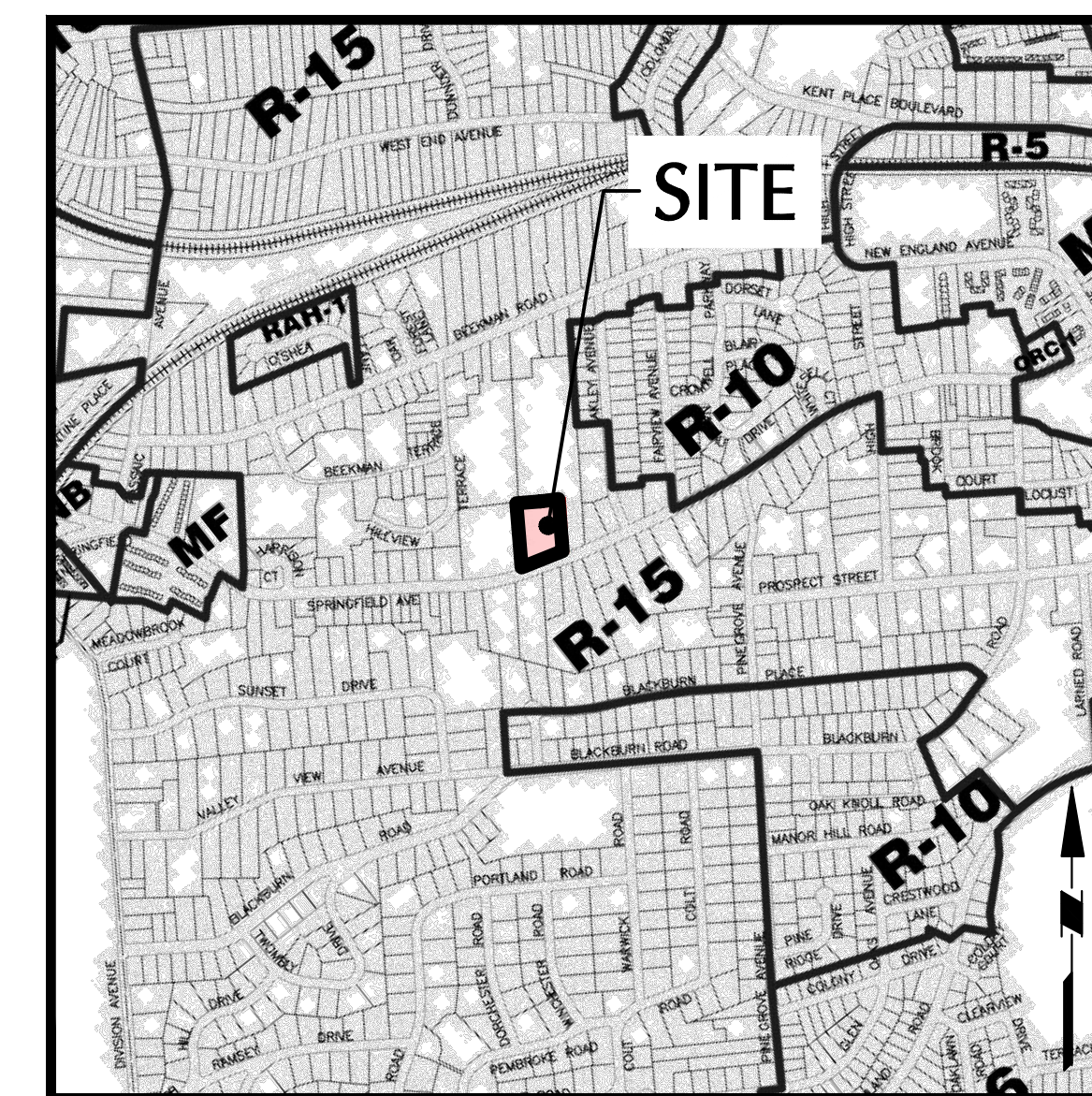
MAP REFERENCED: CITY OF SUMMIT, NEW JERSEY TAX MAP SHEET 17 LAST REVISED AUGUST 2022, SHEET 28 LAST REVISED FEBRUARY 2018, SHEET 29 LAST REVISED AUGUST 2022.

TAX MAP
SCALE: 1" = 250'



MAP REFERENCED: ROSELLE, NJ U.S.G.S. QUADRANGLE MAP, DATED 2019 & CHATHAM, NJ QUADRANGLE MAP, DATED 2019.

LOCATION MAP
SCALE: 1" = 1,000'



MAP REFERENCED: CITY OF SUMMIT ZONING MAP, LAST REVISED 10/03/2020.

ZONING MAP
SCALE: 1" = 1,000'

200' PROPERTY OWNERS LIST					
BLOCK	LOT	PROPERTY ADDRESS	OWNER	OWNER ADDRESS	CITY / STATE / ZIP
1702	25	14 BEEKMAN TERRACE	BOARD OF EDUCATION	90 MAPLE STREET	SUMMIT NJ 07901
1702	43	16 OAKLEY AVENUE	CITY OF SUMMIT	512 SPRINGFIELD AVE	SUMMIT NJ 07901
1702	44	673 SPRINGFIELD AVENUE	CITY OF SUMMIT	512 SPRINGFIELD AVE	SUMMIT NJ 07901
1702	45	677 SPRINGFIELD AVENUE	CITY OF SUMMIT	512 SPRINGFIELD AVE	SUMMIT NJ 07901
1702	46	683 SPRINGFIELD AVENUE	CITY OF SUMMIT	512 SPRINGFIELD AVE	SUMMIT NJ 07901
1702	48	701 SPRINGFIELD AVENUE	CITY OF SUMMIT	512 SPRINGFIELD AVE	SUMMIT NJ 07901
2801	1	694 SPRINGFIELD AVENUE	AGGARWAL, ALKA & SINGH, SURENDRA	694 SPRINGFIELD AVE	SUMMIT NJ 07901
2801	2	690 SPRINGFIELD AVENUE	RANGANATHAN, RAGHAV & KULKARNI, R	690 SPRINGFIELD AVE	SUMMIT NJ 07901
2801	3.01	684 SPRINGFIELD AVENUE	KHADEMI, ALLEN M & HILLARY J	684 SPRINGFIELD AVE	SUMMIT NJ 07901
2801	3.02	686 SPRINGFIELD AVENUE	COGAN, DAVID & CHRISTINA	686 SPRINGFIELD AVE	SUMMIT NJ 07901
2801	4	680 SPRINGFIELD AVENUE	PADEK, APARNA	680 SPRINGFIELD AVE	SUMMIT NJ 07901
2801	5	678 SPRINGFIELD AVENUE	BOND, BRETT D & CAROLAN, MONICA	678 SPRINGFIELD AVE	SUMMIT NJ 07901
2801	26	700 SPRINGFIELD AVENUE	LOWENTHAL, J. MARVIN & ELLEN TCHORNI	700 SPRINGFIELD AVE	SUMMIT NJ 07901

PROJECT CONTACTS	
OWNER / APPLICANT:	BEACON UNITARIAN UNIVERSALIST CONGREGATION 4 WALDRON AVE SUMMIT, NJ 07901 (908) 219-9785
CONTACT:	TULI PATEL
SITE/CIVIL ENGINEER, SURVEYOR:	LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, LLC 300 KIMBALL DRIVE PARSIPPANY, NJ 07054 (973) 560-4900
CONTACT:	JOHN COTE, P.E., VP/ASSOCIATE PRINCIPAL
ARCHITECT:	LOUIS CHERRY ARCHITECTURE, PLLC 222 N. BLOODWORTH ST RALEIGH, NC 27601 (919)-971-2299
CONTACT:	LOUIS CHERRY
LANDSCAPE ARCHITECT:	VIRIDIAN LANDSCAPE STUDIO 3868 TERRACE ST PHILADELPHIA, PA 19128 (215)-482-7973
CONTACT:	TRAVIS DOCKWILLER

DRAWING LIST					
SHEET NUMBER	DRAWING NUMBER	DRAWING TITLE	DRAWING SCALE	DATE	REVISION DATE
1	GI001	COVER SHEET	AS SHOWN	2/9/2024	7/1/2025
2	VA101	BOUNDARY, TOPOGRAPHY & UTILITY SURVEY	1" = 40'	4/26/2023	-
3	CD101	DEMOLITION PLAN	1" = 20'	2/9/2024	7/18/2024
4	CS101	SITE PLAN	1" = 20'	2/9/2024	7/1/2025
5	CS501	SITE DETAILS	N.T.S.	2/9/2024	7/18/2024
6	CP101	TRUCK CIRCULATION PLAN	1" = 20'	2/9/2024	-
7	CG101	GRADING PLAN	1" = 20'	2/9/2024	5/22/2025
8	CG102	DRAINAGE PLAN	1" = 20'	2/9/2024	7/1/2025
9	CG501	DRAINAGE DETAILS	N.T.S.	2/9/2024	-
10	CG502	DRAINAGE DETAILS	N.T.S.	2/9/2024	7/1/2025
11	CG503	DRAINAGE DETAILS	N.T.S.	2/9/2024	7/1/2025
12	CG504	DRAINAGE DETAILS	N.T.S.	2/9/2024	-
13	CG505	DRAINAGE DETAILS	N.T.S.	2/9/2024	-
14	CU101	UTILITY PLAN	1" = 20'	2/9/2024	5/22/2025
15	CU501	UTILITY DETAILS	N.T.S.	2/9/2024	-
16	CE101	SOIL EROSION & SEDIMENT CONTROL PLAN	1" = 20'	2/9/2024	7/1/2025
17	CE501	SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS	N.T.S.	2/9/2024	-
18	LL101	LIGHTING PLAN	1" = 20'	2/9/2024	5/22/2025
19	LL501	LIGHTING DETAILS AND NOTES	N.T.S.	2/9/2024	7/18/2024

SUPPLEMENTAL DRAWING LIST (LANDSCAPE ARCHITECT)					
SHEET NUMBER	DRAWING NUMBER	DRAWING TITLE	DRAWING SCALE	DATE	REVISION DATE
1	L-100	SITE MATERIAL PLAN	1" = 20'	2/8/2024	6/11/2024
2	L-500	SITE DETAILS	N.T.S.	2/8/2024	6/11/2024
3	L-501	SITE DETAILS	N.T.S.	2/8/2024	6/11/2024
4	L-502	SITE DETAILS	N.T.S.	2/8/2024	6/11/2024
5	L-503	SITE DETAILS	N.T.S.	2/8/2024	6/11/2024
6	LP100	TREE PRESERVATION PLAN	1" = 20'	2/8/2024	6/11/2024
7	LP101	TREE & SHRUB PLANTING PLAN	1" = 20'	2/8/2024	6/11/2024
8	LP102	PHASE 1 GRASS & PERENNIAL PLANTING PLAN	1" = 20'	2/8/2024	6/11/2024
9	LP103	PHASE 2 GRASS & PERENNIAL PLANTING PLAN	1" = 20'	2/8/2024	6/11/2024
10	LP500	PLANTING DETAILS	N.T.S.	2/8/2024	6/11/2024

SUPPLEMENTAL DRAWING LIST (ARCHITECT)					
SHEET NUMBER	DRAWING NUMBER	DRAWING TITLE	DRAWING SCALE	DATE	REVISION DATE
1	A-100	FAR CALCULATION	1/16" = 1"	7/18/2024	-
2	A-201	EXTERIOR ELEVATIONS	1/8" = 1"	2/9/2024	7/18/2024
3	A-202	EXTERIOR ELEVATIONS	1/8" = 1"	2/9/2024	7/18/2024
4	A-203	EXTERIOR ELEVATIONS	1/8" = 1"	2/9/2024	7/18/2024
5	A-204	EXTERIOR ELEVATIONS	1/8" = 1"	2/9/2024	7/18/2024

Date	Description	No.
7/01/25	REVISED PER CITY COMMENTS	3
5/22/25	REVISED PER CITY COMMENTS	2
07/18/24	REVISED PER TRC COMMENTS	1

Revisions

SIGNATURE: JOHN COTE
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800
DATE

LANGAN
Langan Engineering and Environmental Services, LLC
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project: **BEACON UNITARIAN UNIVERSALIST CONGREGATION**
UNION COUNTY SUMMIT NEW JERSEY
Drawing Title

COVER SHEET

Project No. 101007201
Drawing No. **GI001**

Date: **FEBRUARY 9, 2024**
Drawn By: **SS**
Checked By: **TH**

Sheet 1 of 19

APPROVED BY THE CITY OF SUMMIT PLANNING BOARD

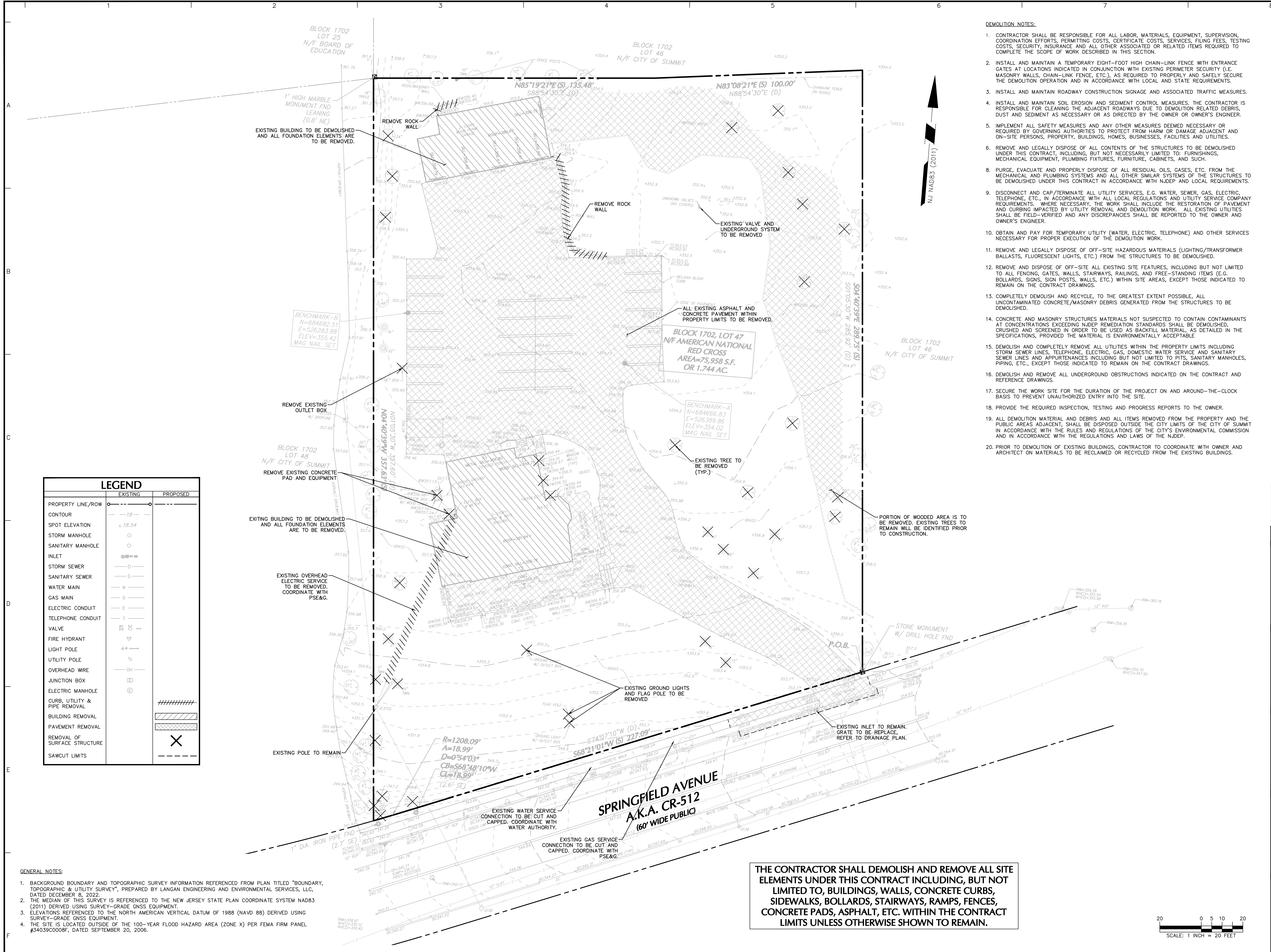
SIGNATURE: CHAIRMAN DATE
SIGNATURE: SECRETARY DATE
SIGNATURE: ENGINEER DATE

APPROVED BY THE COUNTY PLANNING BOARD COUNTY OF UNION, NEW JERSEY

ATTESTED BY: DATE
Director, Dept. of Planning & Economic Development

CALL BEFORE YOU DIG TO LOCATE UNDERGROUND UTILITIES
1 (800) 272-1000
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
CALL AT LEAST 3 DAYS PRIOR TO GROUND DISTURBANCE

CALL BEFORE YOU DIG

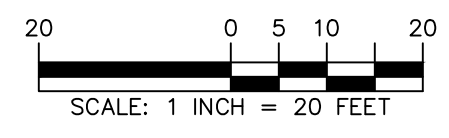


- DEMOLITION NOTES:**
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LABOR, MATERIALS, EQUIPMENT, SUPERVISION, COORDINATION EFFORTS, PERMITTING COSTS, CERTIFICATE COSTS, SERVICES, FILING FEES, TESTING COSTS, SECURITY, INSURANCE AND ALL OTHER ASSOCIATED OR RELATED ITEMS REQUIRED TO COMPLETE THE SCOPE OF WORK DESCRIBED IN THIS SECTION.
 - INSTALL AND MAINTAIN A TEMPORARY EIGHT-FOOT HIGH CHAIN-LINK FENCE WITH ENTRANCE GATES AT LOCATIONS INDICATED IN CONJUNCTION WITH EXISTING PERIMETER SECURITY (I.E. MASONRY WALLS, CHAIN-LINK FENCE, ETC.), AS REQUIRED TO PROPERLY AND SAFELY SECURE THE DEMOLITION OPERATION AND IN ACCORDANCE WITH LOCAL AND STATE REQUIREMENTS.
 - 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.
 - REMOVE AND LEGALLY DISPOSE OF ALL CONTENTS OF THE STRUCTURES TO BE DEMOLISHED UNDER THIS CONTRACT, INCLUDING, BUT NOT NECESSARILY LIMITED TO: FURNISHINGS, MECHANICAL EQUIPMENT, PLUMBING FIXTURES, FURNITURE, CABINETS, AND SUCH.
 - PURGE, EVACUATE AND PROPERLY DISPOSE OF ALL RESIDUAL OILS, GASES, ETC. FROM THE MECHANICAL AND PLUMBING SYSTEMS AND ALL OTHER SIMILAR SYSTEMS OF THE STRUCTURES TO BE DEMOLISHED UNDER THIS CONTRACT IN ACCORDANCE WITH NJDEP AND LOCAL REQUIREMENTS.
 - 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 BY UTILITY REMOVAL AND DEMOLITION WORK. ALL EXISTING UTILITIES SHALL BE FIELD-VERIFIED AND ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER AND OWNER'S ENGINEER.
 - OBTAIN AND PAY FOR TEMPORARY UTILITY (WATER, ELECTRIC, TELEPHONE) AND OTHER SERVICES NECESSARY FOR PROPER EXECUTION OF THE DEMOLITION WORK.
 - REMOVE AND LEGALLY DISPOSE OF OFF-SITE HAZARDOUS MATERIALS (LIGHTING/TRANSFORMER BALLASTS, FLUORESCENT LIGHTS, ETC.) FROM THE STRUCTURES TO BE DEMOLISHED.
 - REMOVE AND DISPOSE OF OFF-SITE ALL EXISTING SITE FEATURES, INCLUDING BUT NOT LIMITED TO ALL FENCING, GATES, WALLS, STAIRWAYS, RAILINGS, AND FREE-STANDING ITEMS (E.G. BOLLARDS, SIGNS, SIGN POSTS, WALLS, ETC.) WITHIN SITE AREAS, EXCEPT THOSE INDICATED TO REMAIN ON THE CONTRACT DRAWINGS.
 - COMPLETELY DEMOLISH AND RECYCLE, TO THE GREATEST EXTENT POSSIBLE, ALL UNCONTAMINATED CONCRETE/MASONRY DEBRIS GENERATED FROM THE STRUCTURES TO BE DEMOLISHED.
 - CONCRETE AND MASONRY STRUCTURES MATERIALS NOT SUSPECTED TO CONTAIN CONTAMINANTS AT CONCENTRATIONS EXCEEDING NJDEP REMEDIATION STANDARDS SHALL BE DEMOLISHED, CRUSHED AND SCREENED IN ORDER TO BE USED AS BACKFILL MATERIAL, AS DETAILED IN THE SPECIFICATIONS, PROVIDED THE MATERIAL IS ENVIRONMENTALLY ACCEPTABLE.
 - DEMOLISH AND COMPLETELY REMOVE ALL UTILITIES WITHIN THE PROPERTY LIMITS INCLUDING STORM SEWER LINES, TELEPHONE, ELECTRIC, GAS, DOMESTIC WATER SERVICE AND SANITARY SEWER LINES AND APPURTENANCES INCLUDING BUT NOT LIMITED TO PITS, SANITARY MANHOLES, PIPING, ETC., EXCEPT THOSE INDICATED TO REMAIN ON THE CONTRACT DRAWINGS.
 - DEMOLISH AND REMOVE ALL UNDERGROUND OBSTRUCTIONS INDICATED ON THE CONTRACT AND REFERENCE DRAWINGS.
 - SECURE THE WORK SITE FOR THE DURATION OF THE PROJECT ON AND AROUND-THE-CLOCK BASIS TO PREVENT UNAUTHORIZED ENTRY INTO THE SITE.
 - PROVIDE THE REQUIRED INSPECTION, TESTING AND PROGRESS REPORTS TO THE OWNER.
 - ALL DEMOLITION MATERIAL AND DEBRIS AND ALL ITEMS REMOVED FROM THE PROPERTY AND THE PUBLIC AREAS ADJACENT, SHALL BE DISPOSED OUTSIDE THE CITY LIMITS OF THE CITY OF SUMMIT IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE CITY'S ENVIRONMENTAL COMMISSION AND IN ACCORDANCE WITH THE REGULATIONS AND LAWS OF THE NJDEP.
 - PRIOR TO DEMOLITION OF EXISTING BUILDINGS, CONTRACTOR TO COORDINATE WITH OWNER AND ARCHITECT ON MATERIALS TO BE RECLAIMED OR RECYCLED FROM THE EXISTING BUILDINGS.

LEGEND		
	EXISTING	PROPOSED
PROPERTY LINE/ROW	---	---
CONTOUR	---18---	
SPOT ELEVATION	x 18.54	
STORM MANHOLE	○	
SANITARY MANHOLE	○	
INLET	⊕	
STORM SEWER	—D—	
SANITARY SEWER	—S—	
WATER MAIN	—W—	
GAS MAIN	—G—	
ELECTRIC CONDUIT	—E—	
TELEPHONE CONDUIT	—T—	
VALVE	⊕	
FIRE HYDRANT	⊕	
LIGHT POLE	⊕	
UTILITY POLE	⊕	
OVERHEAD WIRE	—OH—	
JUNCTION BOX	⊕	
ELECTRIC MANHOLE	⊕	
CURB, UTILITY & PIPE REMOVAL		
BUILDING REMOVAL		
PAVEMENT REMOVAL		
REMOVAL OF SURFACE STRUCTURE	X	
SAWCUT LIMITS	---	

- GENERAL NOTES:**
- BACKGROUND BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION REFERENCED FROM PLAN TITLED "BOUNDARY, TOPOGRAPHIC & UTILITY SURVEY", PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, LLC, DATED DECEMBER 8, 2022.
 - THE MEDIAN OF THIS SURVEY IS REFERENCED TO THE NEW JERSEY STATE PLAN COORDINATE SYSTEM NAD83 (2011) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
 - ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
 - THE SITE IS LOCATED OUTSIDE OF THE 100-YEAR FLOOD HAZARD AREA (ZONE X) PER FEMA FIRM PANEL #34039C0008F, DATED SEPTEMBER 20, 2006.

THE CONTRACTOR SHALL DEMOLISH AND REMOVE ALL SITE ELEMENTS UNDER THIS CONTRACT INCLUDING, BUT NOT LIMITED TO, BUILDINGS, WALLS, CONCRETE CURBS, SIDEWALKS, BOLLARDS, STAIRWAYS, RAMPS, FENCES, CONCRETE PADS, ASPHALT, ETC. WITHIN THE CONTRACT LIMITS UNLESS OTHERWISE SHOWN TO REMAIN.



Date	Description	No.
07/18/24	REVISED PER TRC COMMENTS	1

Revisions

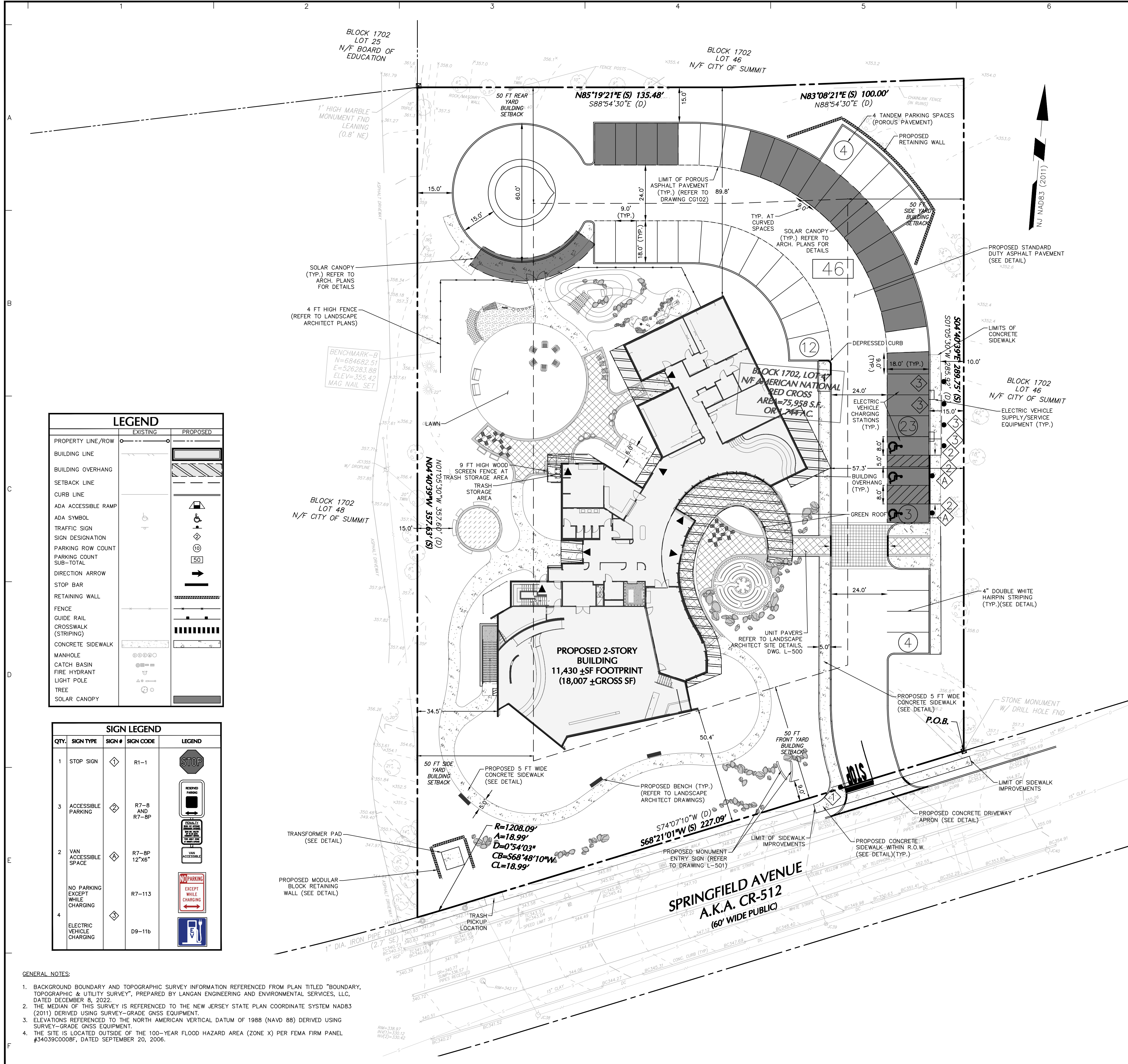
SIGNATURE: JOHN COTE
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800

LANGAN
Langan Engineering and Environmental Services, LLC
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project: **BEACON UNITARIAN UNIVERSALIST CONGREGATION**
SUMMIT NEW JERSEY

Drawing Title: **DEMOLITION PLAN**

Project No.	Drawing No.
101007201	CD101
Date	FEBRUARY 9, 2024
Drawn By	SM
Checked By	TH
Sheet 3 of 19	



CITY OF SUMMIT ZONING TABLE					
695 SPRINGFIELD AVENUE REDEVELOPMENT					
BLOCK No. 1702, LOT No. 47					
ZONING DISTRICT: R-15 SINGLE FAMILY RESIDENTIAL DISTRICT ¹					
Item	Required / Allowed	Existing	Proposed	Regulation Reference ^{2,3}	Condition
Land Use:					
Principal Use ⁴	House of Worship	Office	House of Worship	35-13.3 B.3.	V
Area, Bulk & Yard Requirements:					
Min. Lot Area (AC)	2 AC.	1.74 ± AC.	1.74 ± AC.	35-11.2.C.1.	V
Min. Frontage (FT)	50 FT	246.1 FT	246.1 FT	35-11.2.C.2.	C
Min. Front Yard Building Setback (FT)	50 FT	91.8 FT	50.4 FT	35-11.2.C.3.	C
Min. Side Yard Building Setback (FT) (Each Side)	50 FT	26.8 FT	34.5 FT	35-11.2.C.4.	V
Min. Rear Yard Building Setback (FT)	50 FT	181.8 FT	89.8 FT	35-11.2.C.5.	C
Max. Building Height (Stories/FT) ⁵	2 STORY / 35 FT	2 STORY / < 35 FT	2 STORY / 37.9 FT	35-9.4 Appendix C	V
Max. Floor Area Ratio (FAR) (%)	25%	N/A	23.7%	35-9.4 Appendix C	C
Max. Lot Coverage (%) ⁶	40%	30.1%	48.7%	35-11.2.C.9.	V
Max. Building Coverage (%)	15%	4%	16.2%	35-11.2.C.10.	V
Side Yard Buffer (FT) ⁷	47 FT	N/A	9.8 FT	35-11.2.C.7.	V
Rear Yard Buffer (FT) ⁷	50 FT	N/A	15 FT	35-11.2.C.8.	V
Min. Parking Setback (FT)	20 FT	N/A	15 FT	35-11.2.C.12.	V
Accessory Structure					
Accessory Use (Solar Canopy)	N/A	N/A	Solar Canopy ⁸	35-9.0.4.a.	V
Max. Height Solar Canopy	18 FT	N/A	< 18 FT	35-9.0.4.d.	C
Min. Setback Solar Canopy (all lot lines)	15 FT	N/A	15 FT	35-9.0.4.e.	C
Min. Setback for accessory structure (active), Side/Rear Yard	15 FT	N/A	15 FT	35-9.8 B.5.	C
Driveway, Parking & Loading Regulations					
Min. Number of Parking Spaces ⁹	79	27	46 ⁷	35-14.1 P.6.a.	V
Min. Parking Space Size (FT x FT)	9 FT x 18 FT	9 FT x 18 FT	9 FT x 18 FT	35-14.1 P.10.a.	C
Min. Drive Aisle Width (FT)	23 FT	23.3 FT	24 FT	35-14.1 P.10.a.	C
Min. Number of Electric Vehicle (EV) Spaces ⁶	4	N/A	4	35-9.9 E.2.	C
Min. Parking Lot Landscaping ¹⁰	1 Shade Tree / 10 Spaces	-	0	35-14.1 P. 2.1.	V
Miscellaneous					
Max. Height of Fences & Walls (FT) (Side/Rear Yard)	7 FT	N/A	4 FT	35-14.1 K.5.a.	C
Max. Height of Fences & Walls (FT) (Front Yard)	4 FT	N/A	4 FT	35-14.1 K.5.a.1.	C
Signage					
Max. Sign Area (SF)	12 SF	-	≤ 12 SF	35-14.1.S. Appendix D	C
Max. Lettering Height (IN.)	6"	-	≤ 6"	35-14.1.S. Appendix D	C
Abbreviations:					
V - Variance	W - Waiver	C - Compliance	NC - Existing Nonconformity	N/A - Not Applicable	
Notes:					
1. Zoning regulations and design standards referenced from City of Summit Development Regulations: Chapter 35, dated 12/01/2020.					
2. The subject property is located within the R-15 Single Family Residential Zone. House of Worship is a conditional use in the R-15 Zone. House of Worship conditional use regulations 35-11.2.C.					
3. Lot coverage includes green roof area totaling approximately 2,320 ± SF.					
4. The required parking for House of Worship is 1 Space per 3 seats or 1 space per 10 SF of Gross Floor Area, whichever is greater. Proposed facility includes 236 seat Sanctuary.					
5. Freestanding solar array canopies are expressly prohibited in residential zones (35-9.0.4.a). Variance requested for four proposed solar canopy structures.					
6. Off-street parking facilities of 20 spaces or more, a minimum of 7% of such spaces shall contain facilities for EV charging.					
7. Total parking provided includes 46 spaces on-site and 33 off-site parking spaces located along the north side of Springfield Avenue. Total 79 parking spaces can be provided between on-site and off-site parking locations.					
8. Total Building GSF is 18,007 SF (First Floor: 11,430 SF; Second Floor: 3,388 SF; Basement: 3,189 SF).					
9. Side buffer is 47 ft, average width of property is 235 ± ft. Rear buffer is 50 ft, average depth of the property is 321 ± ft.					
10. 35-14.1 P. 2.1. In outdoor parking lots of 10 or more spaces, at least 10% of the parking area shall be suitably landscaped, including landscape plantings around the perimeter of the parking area and at least one shade tree for every 10 parking spaces. The project proposes solar canopies above parking spaces which provide shade and reduce heat island effect.					

LEGEND		
	EXISTING	PROPOSED
PROPERTY LINE/ROW	---	---
BUILDING LINE	---	---
BUILDING OVERHANG	---	---
SETBACK LINE	---	---
CURB LINE	---	---
ADA ACCESSIBLE RAMP	---	---
ADA SYMBOL	---	---
TRAFFIC SIGN	---	---
SIGN DESIGNATION	---	---
PARKING ROW COUNT	---	---
PARKING COUNT SUB-TOTAL	---	---
DIRECTION ARROW	---	---
STOP BAR	---	---
RETAINING WALL	---	---
FENCE	---	---
GUIDE RAIL	---	---
CROSSWALK (STRIPING)	---	---
CONCRETE SIDEWALK	---	---
MANHOLE	---	---
CATCH BASIN	---	---
FIRE HYDRANT	---	---
LIGHT POLE	---	---
TREE	---	---
SOLAR CANOPY	---	---

SIGN LEGEND			
QTY.	SIGN TYPE	SIGN #	LEGEND
1	STOP SIGN	R1-1	STOP
3	ACCESSIBLE PARKING	R7-B AND R7-BP	ACCESSIBLE PARKING
2	VAN ACCESSIBLE SPACE	R7-BP 12'x6'	VAN ACCESSIBLE
4	NO PARKING EXCEPT WHILE CHARGING	R7-113	NO PARKING EXCEPT WHILE CHARGING
	ELECTRIC VEHICLE CHARGING	D9-11b	ELECTRIC VEHICLE CHARGING

- GENERAL NOTES:**
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 - ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
 - THE SITE IS LOCATED OUTSIDE OF THE 100-YEAR FLOOD HAZARD AREA (ZONE X) PER FEMA FIRM PANEL #34039C0008F, DATED SEPTEMBER 20, 2006.

Date	Description	No.
7/01/25	REVISED PER CITY COMMENTS	3
5/22/25	REVISED PER CITY COMMENTS	2
07/18/24	REVISED PER TRC COMMENTS	1

Revisions

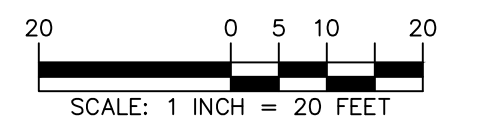
SIGNATURE: JOHN COTE
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800

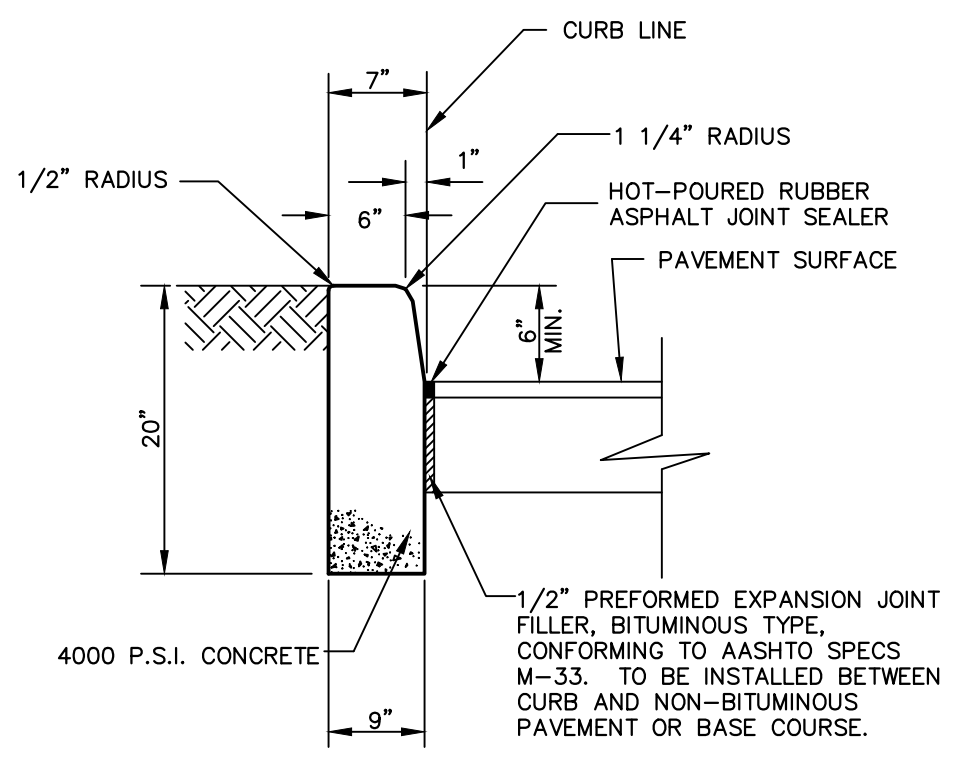
LANGAN
Langan Engineering and Environmental Services, LLC
300 Kimball Drive
Parisippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project: **BEACON UNITARIAN UNIVERSALIST CONGREGATION**
SUMMIT NEW JERSEY

Drawing Title: **SITE PLAN**

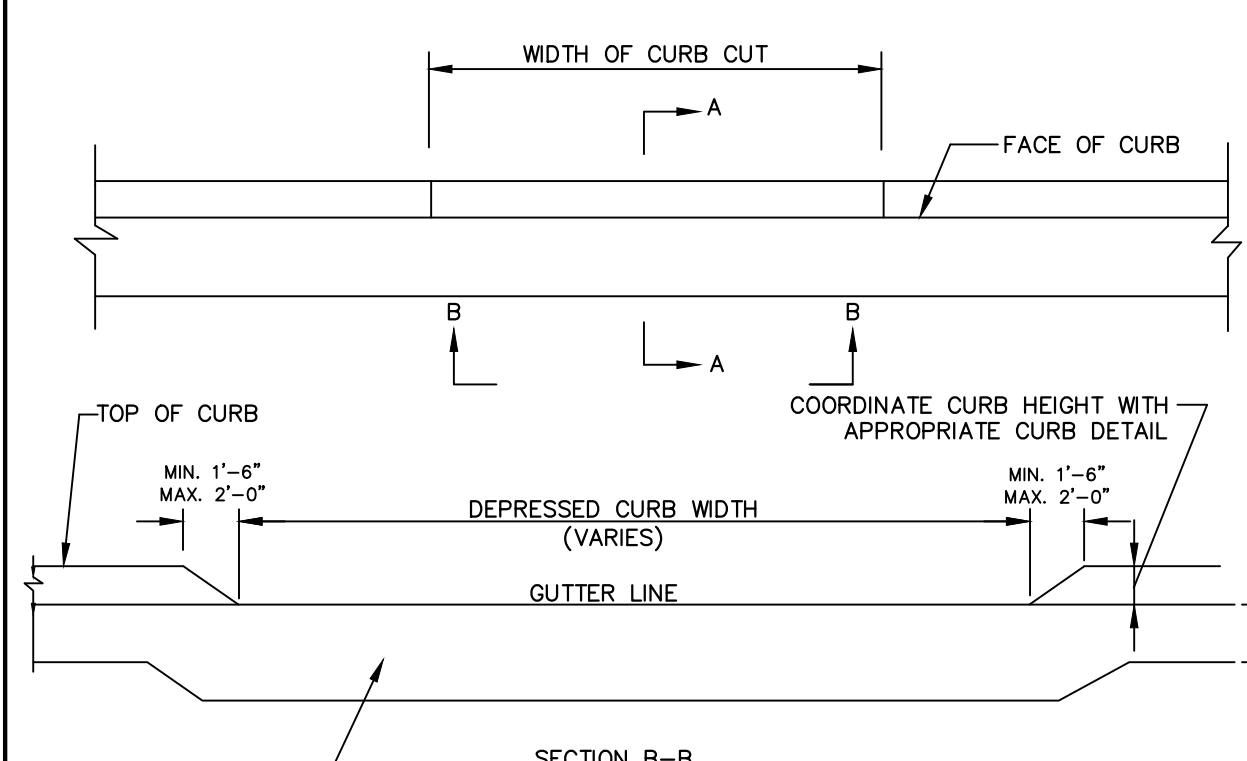
Project No.	Drawing No.
101007201	CS101
Date	Sheet 4 of 19
FEBRUARY 9, 2024	
Drawn By	
SM	
Checked By	
TH	





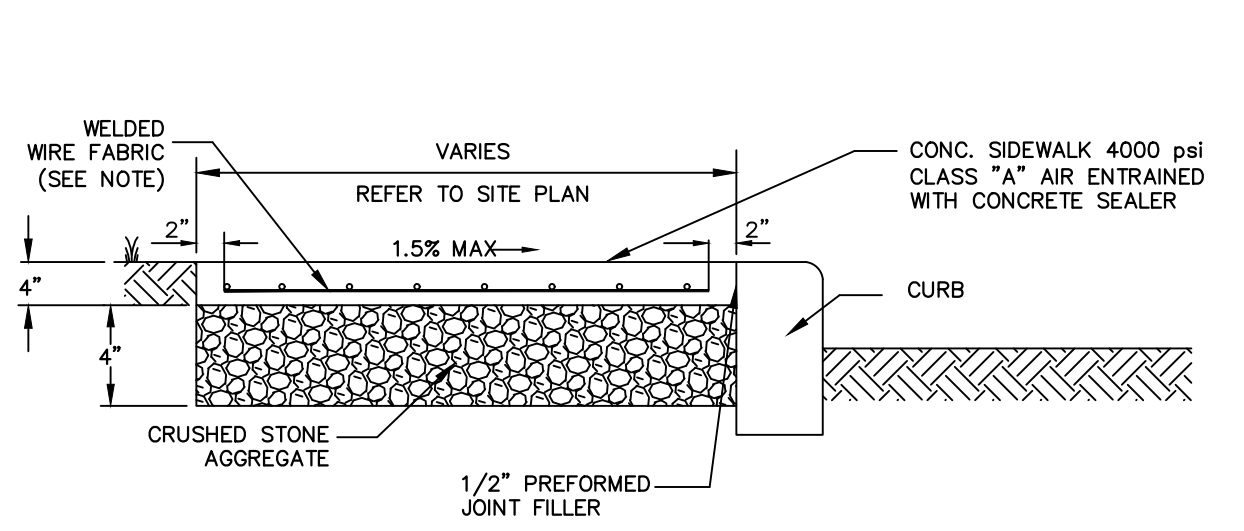
- NOTES:**
- CONCRETE TO TEST 4,000 P.S.I. MINIMUM ON 28 DAY TEST. AIR ENTRAINMENT 4% TO 7%, SLUMP TO BE 3" MAXIMUM.
 - TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20"-0" APART AND SHALL BE FILLED WITH PREFORMED BITUMINOUS-IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF AASHTO M-213, RECESSED 1-4" FROM THE FRONT FACE AND TOP OF THE CURB.
 - EXPOSED CONCRETE SURFACE IS TO BE RUBBED TO PROVIDE SMOOTH FINISHED SURFACE.
 - DUMMY JOINTS TO BE INSTALLED MIDWAY BETWEEN EXPANSION JOINTS.

6" CONCRETE CURB (ON-SITE)



- NOTES:**
- CONCRETE TO TEST 4,000 P.S.I. MINIMUM ON 28 DAY TEST. AIR ENTRAINMENT 4% TO 7%, SLUMP TO BE 3" MAXIMUM.
 - REFER TO CONCRETE DRIVEWAY APRON DETAIL FOR ADDITIONAL INFORMATION.

DEPRESSED CONCRETE CURB



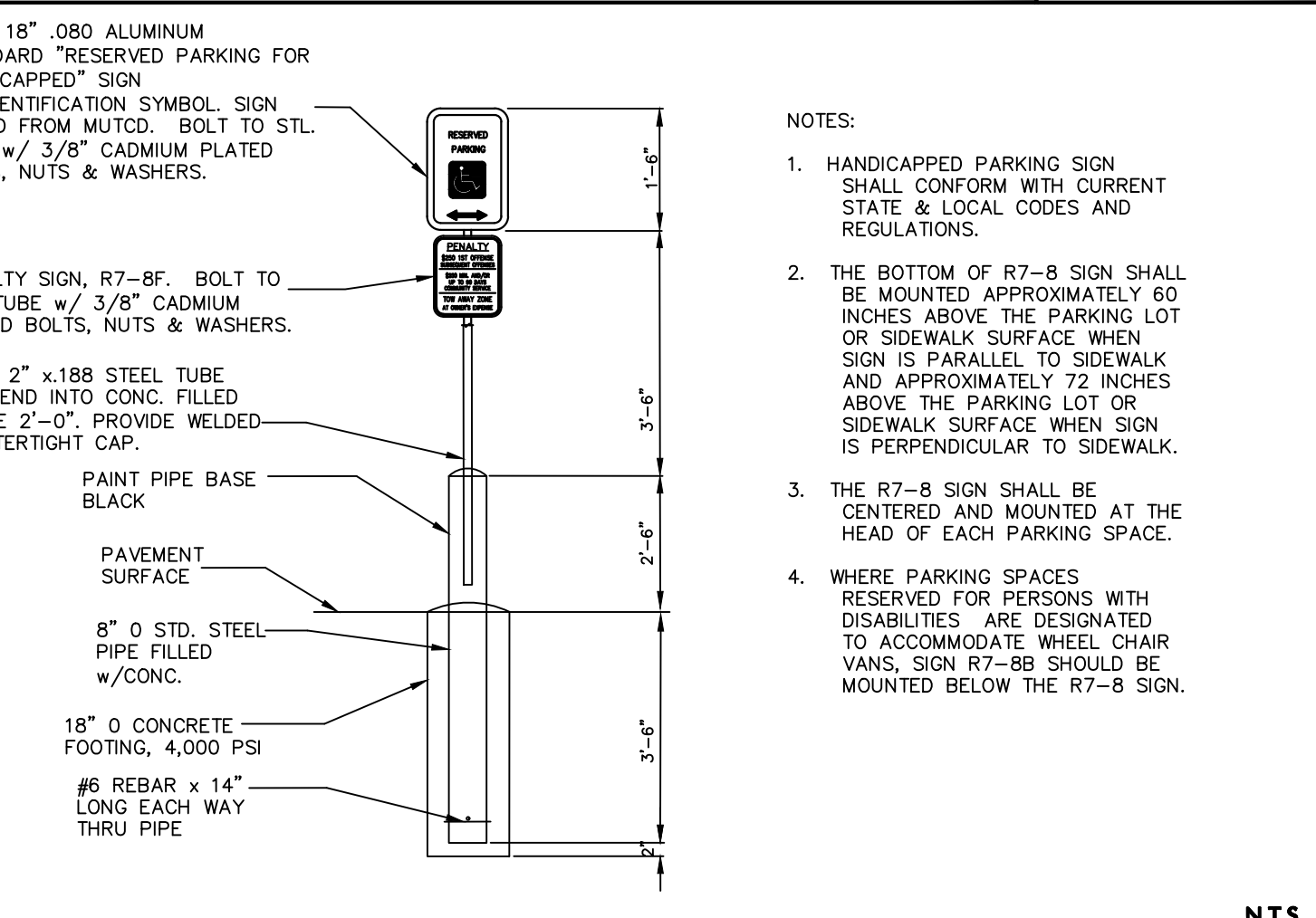
- NOTES:**
- ONE LAYER OF 6" X 6", No. 16 WELDED WIRE FABRIC SHALL BE PLACED MID-DEPTH IN CONCRETE SIDE WALKS. SPICES SHALL BE OVERLAPPED 12" AND TIED.
 - TRANSVERSE JOINTS SHALL BE PROVIDED EVERY 16' O/C. EXPANSION JOINTS SHALL BE 3/4" WIDE AND SHALL BE PROVIDED EVERY 16' O/C.
 - THE FORMS AND DIVIDERS SHALL BE OF STEEL OR WOOD AND OF SUFFICIENT STRENGTH TO RESIST SPRINGING OUT OF SHAPE; DEPTH OF FORMS SHALL BE AT LEAST THE THICKNESS OF CONCRETE AS SPECIFIED ON THIS DRAWING. WALK SHALL BE OF MONOLITHIC CONSTRUCTION FOUR (4) INCHES THICK. TRANSVERSE SURFACE GROOVES MUST BE PROVIDED FOR AT RIGHT ANGLES TO THE SIDEWALK AND AT INTERVALS EQUAL TO WIDTH OF THE SIDEWALK. AFTER THE CONCRETE IS PLACED IT SHALL BE TAMPED, SMOODED AND FINISHED TO TRUE GRADE AND SURFACE. THE FINISH SHALL BE MADE WITH A WOOD FLOAT, FOLLOWED BY A BRUSHING WITH A WET SOFT HAIR BRUSH TO A NEAT WORKMANLIKE SURFACE. TRANSVERSE EXPANSION JOINTS 1/2 INCH WIDE SHALL BE PROVIDED AT INTERVALS OF NOT LESS THAN 20 FEET AND FILLED WITH PREFORMED BITUMINOUS CELLULAR TYPE JOINT FILLER. SCORE LINES SHALL BE EVERY FIVE (5) FEET OR TO MATCH EXISTING ADJACENT SIDEWALK. LONGITUDINAL JOINTS 1/2 INCH WIDE SHALL BE PROVIDED BETWEEN CURBS AND ABUTTING SIDEWALKS AND SHALL BE FILLED WITH PREFORMED BITUMINOUS TYPE FILLER. DRIVEWAY APRON AND SIDEWALK AT DRIVEWAY SHALL BE 4500 P.S.I. AIR ENTRAINMENT SIX (6) INCHES THICK.
 - SIDEWALKS SHALL BE CONSTRUCTED WITH CROSS-SLOPES THAT DO NOT EXCEED 1.5%.

CONCRETE SIDEWALK (ON-SITE)

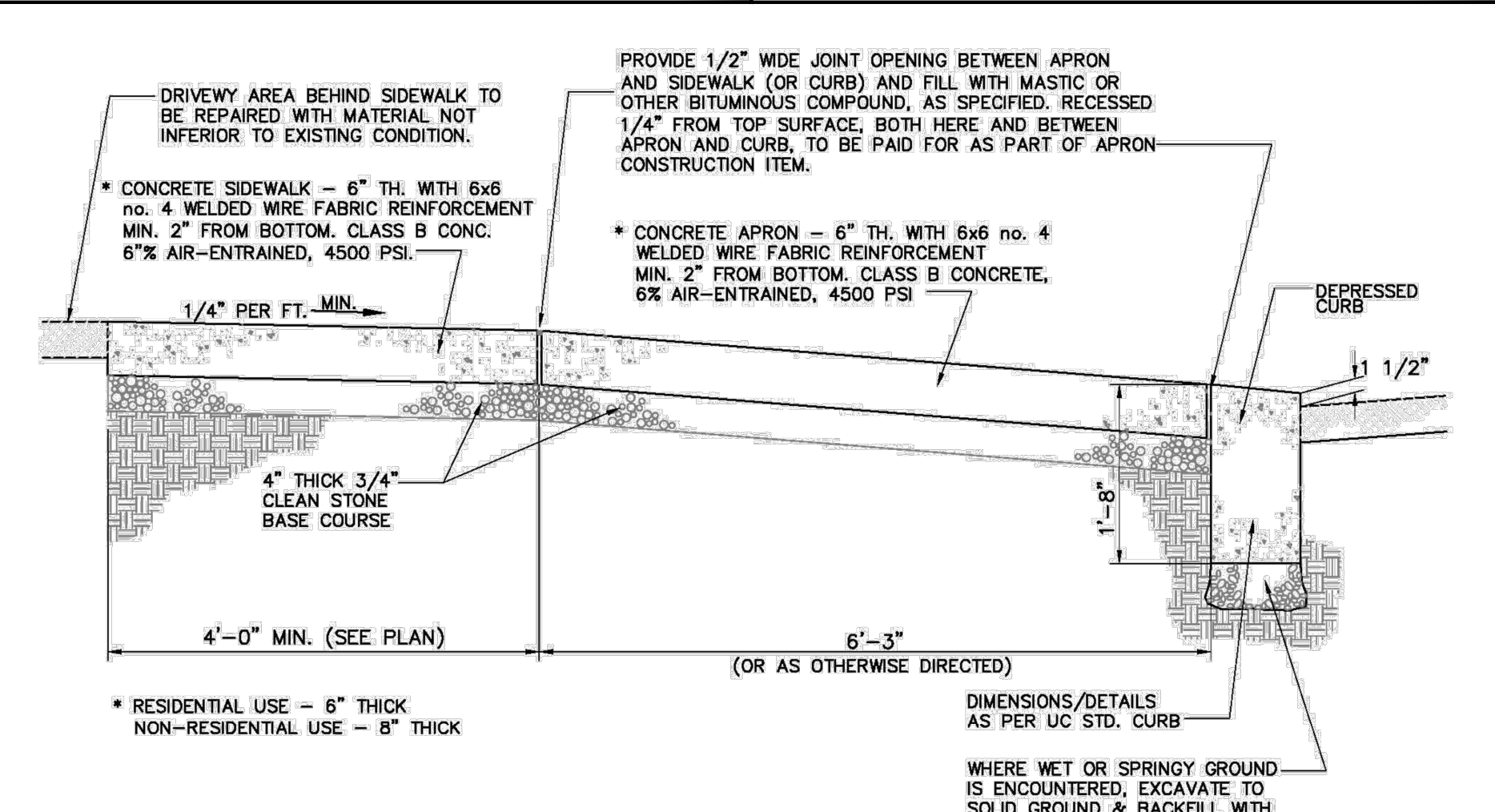
TRAFFIC SIGNS

NOTES:

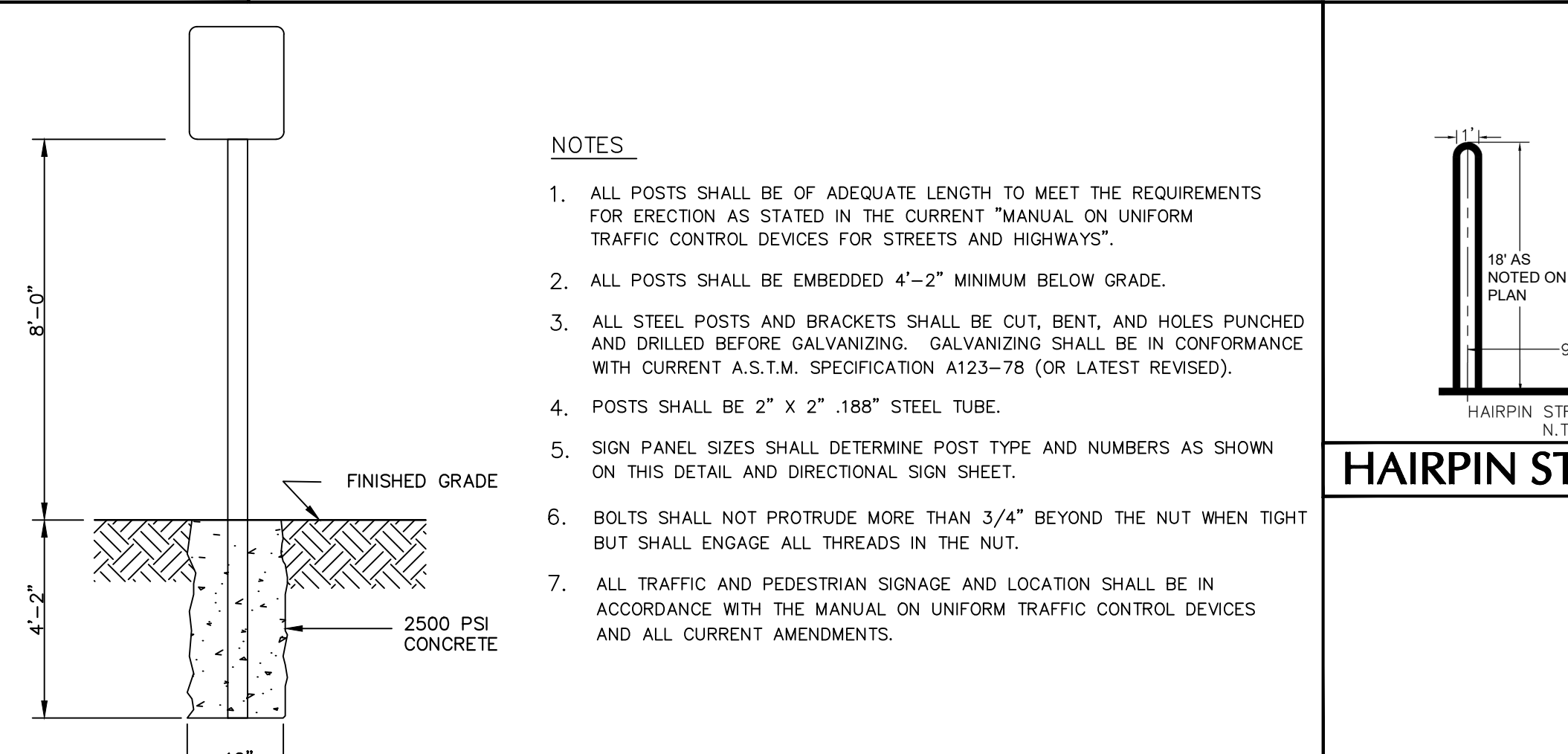
- ALL POSTS SHALL BE OF ADEQUATE LENGTH TO MEET THE REQUIREMENTS FOR ERECTION AS STATED IN THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
- ALL POSTS SHALL BE EMBEDDED 4"-2" MINIMUM BELOW GRADE EXCEPT FOR HANDICAP POSTS.
- SIGN PANEL SIZES SHALL DETERMINE POST TYPE AND NUMBERS AS SHOWN ON THIS DETAIL AND DIRECTIONAL SIGN SHEET.
- ADJACENT POSTS SHALL NOT BE CLOSER THAN 8' APART. POSTS SHALL BE "U" CHANNEL GALVANIZED STEEL POSTS.
- POSTS SHALL HAVE A WEIGHT OF 4 LB./FT. NO SIGN SHALL BE INSTALLED CLOSER THAN EIGHT (8) FEET TO CENTER OF ANY ADJACENT SIGN ALONG THE SAME CURB LINE.
- ALL TRAFFIC AND PEDESTRIAN SIGNAGE AND LOCATION SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ALL CURRENT AMENDMENTS.
- ALL TRAFFIC CONTROL SIGNS TO BE 4 LB/FT GALVANIZED.



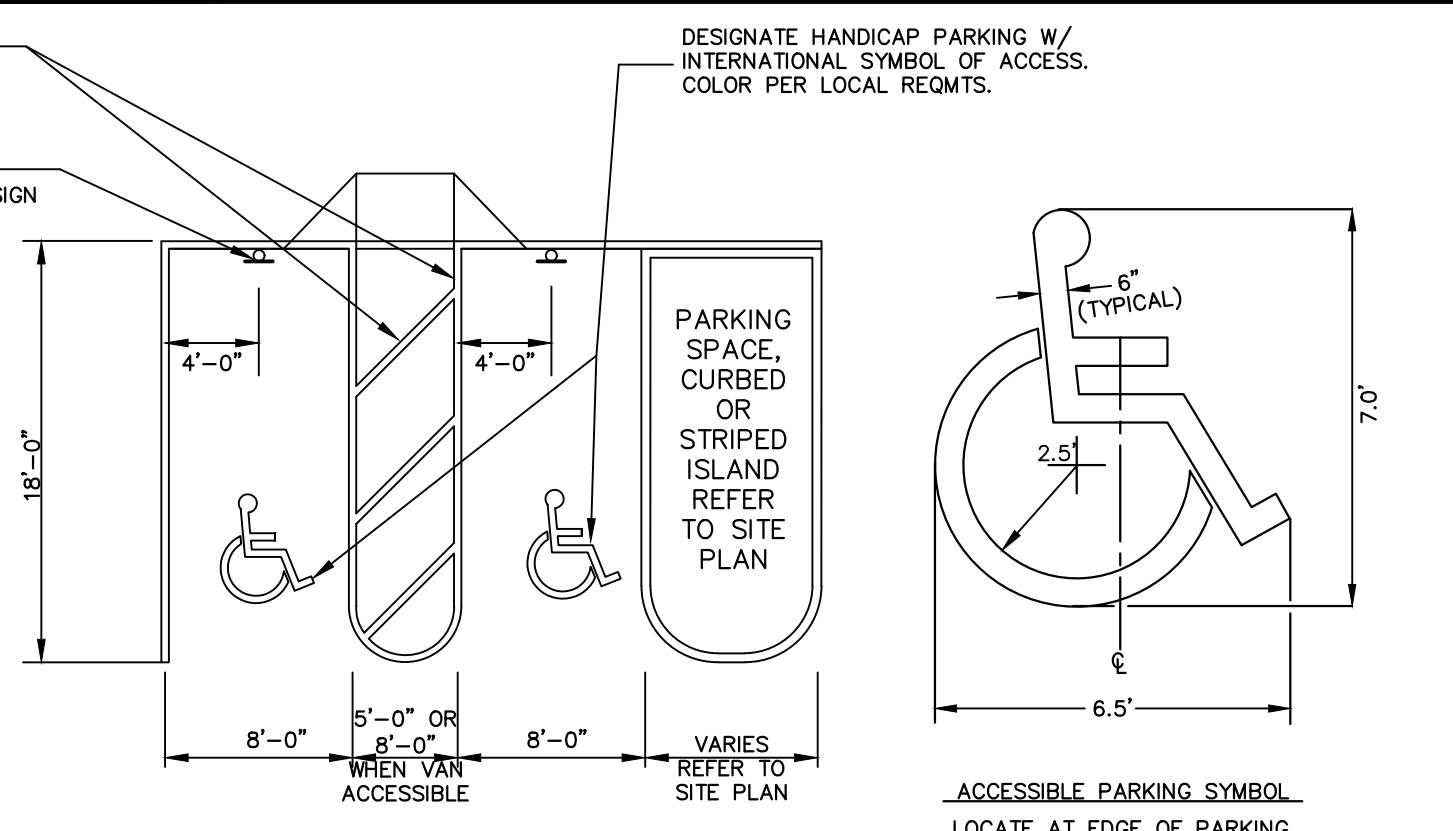
ACCESSIBLE PARKING SIGN



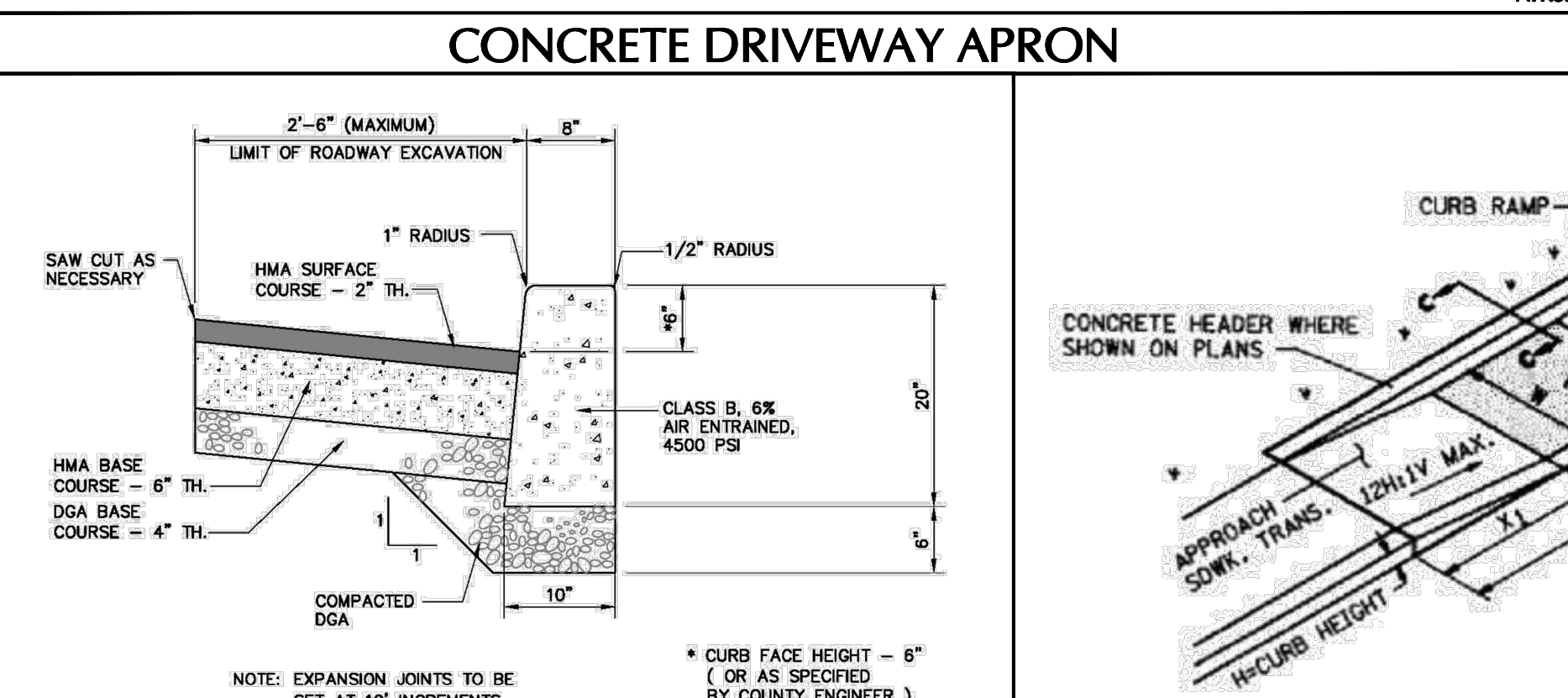
CONCRETE DRIVEWAY APRON



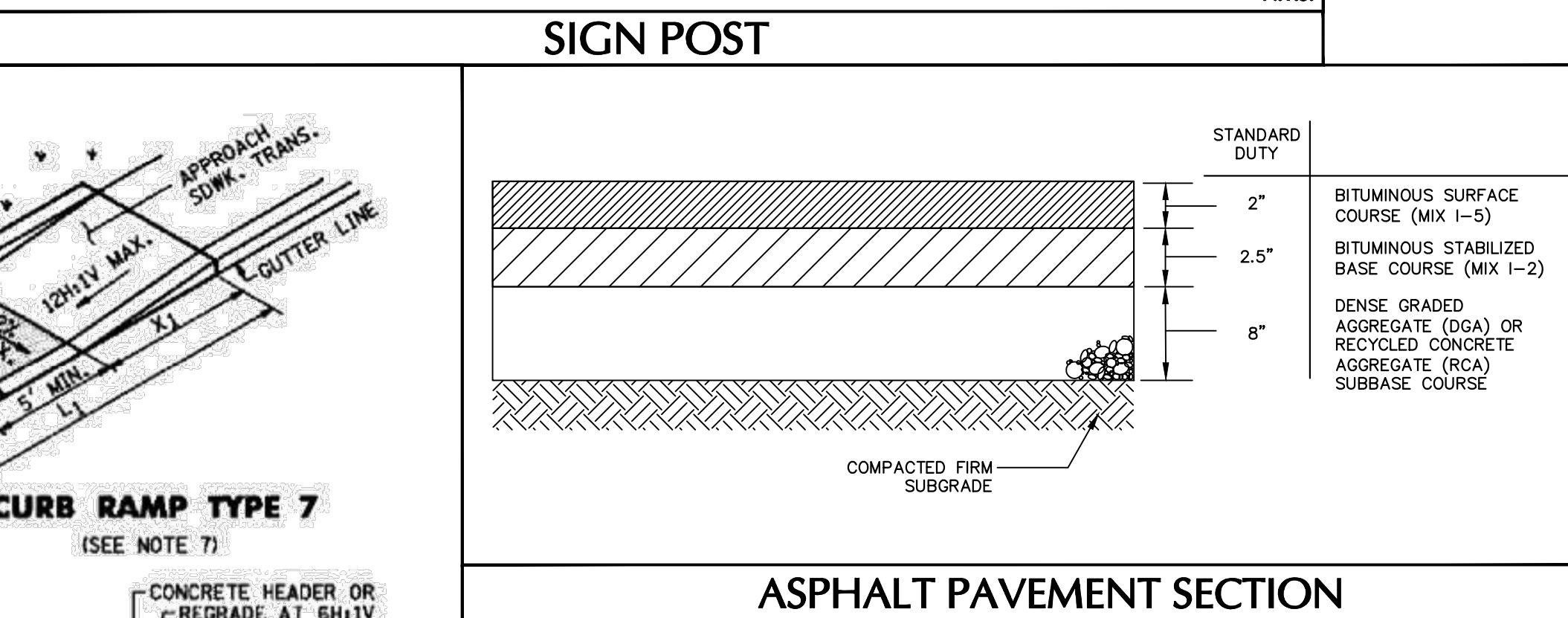
SIGN POST



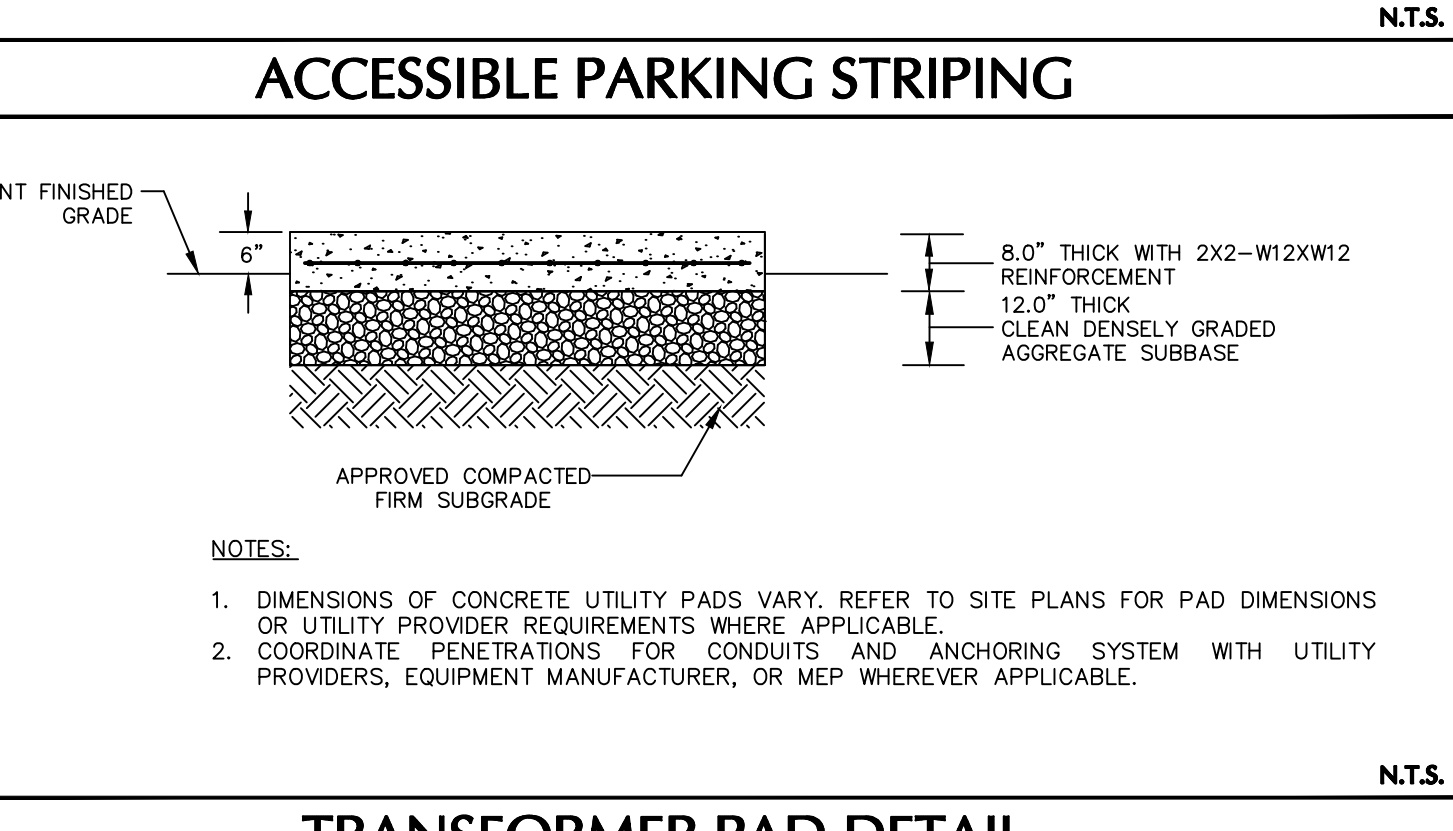
ACCESSIBLE PARKING STRIPING



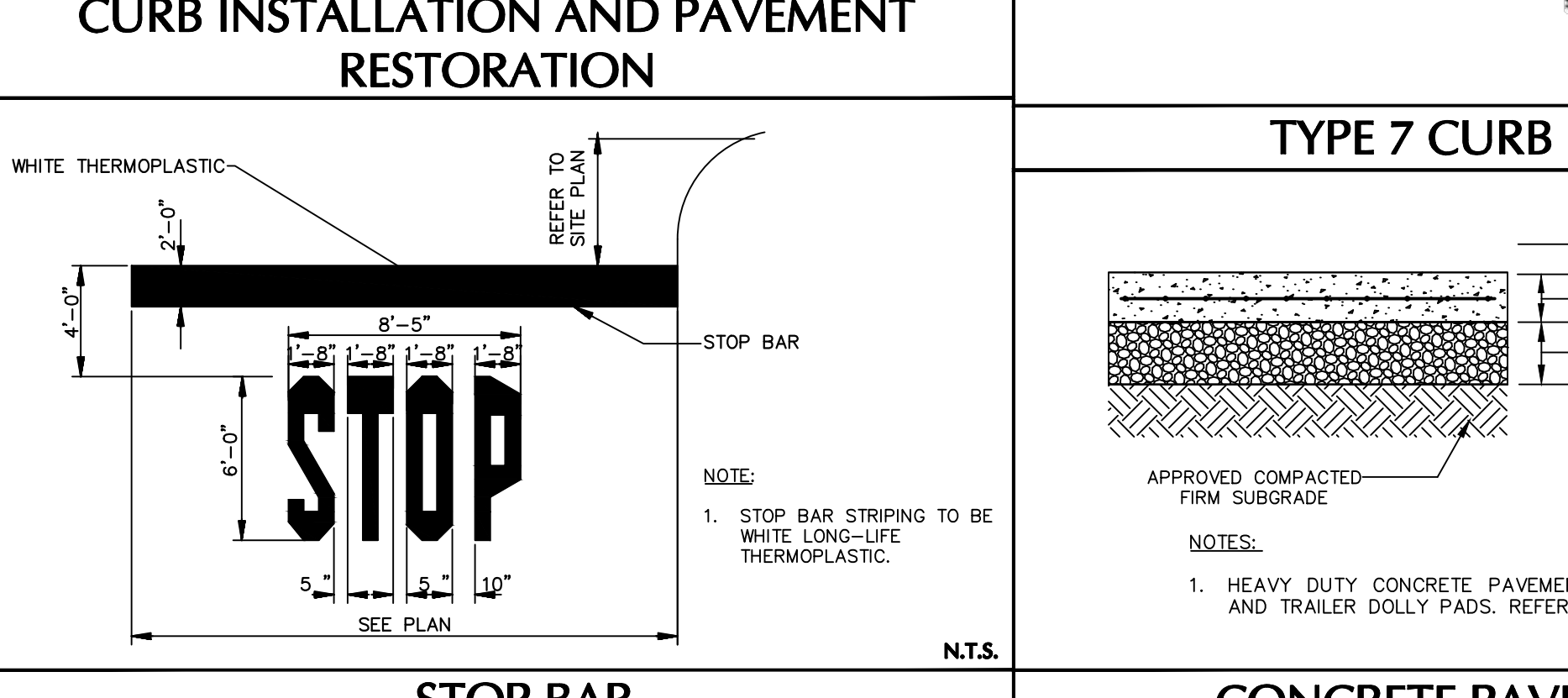
CURB INSTALLATION AND PAVEMENT RESTORATION



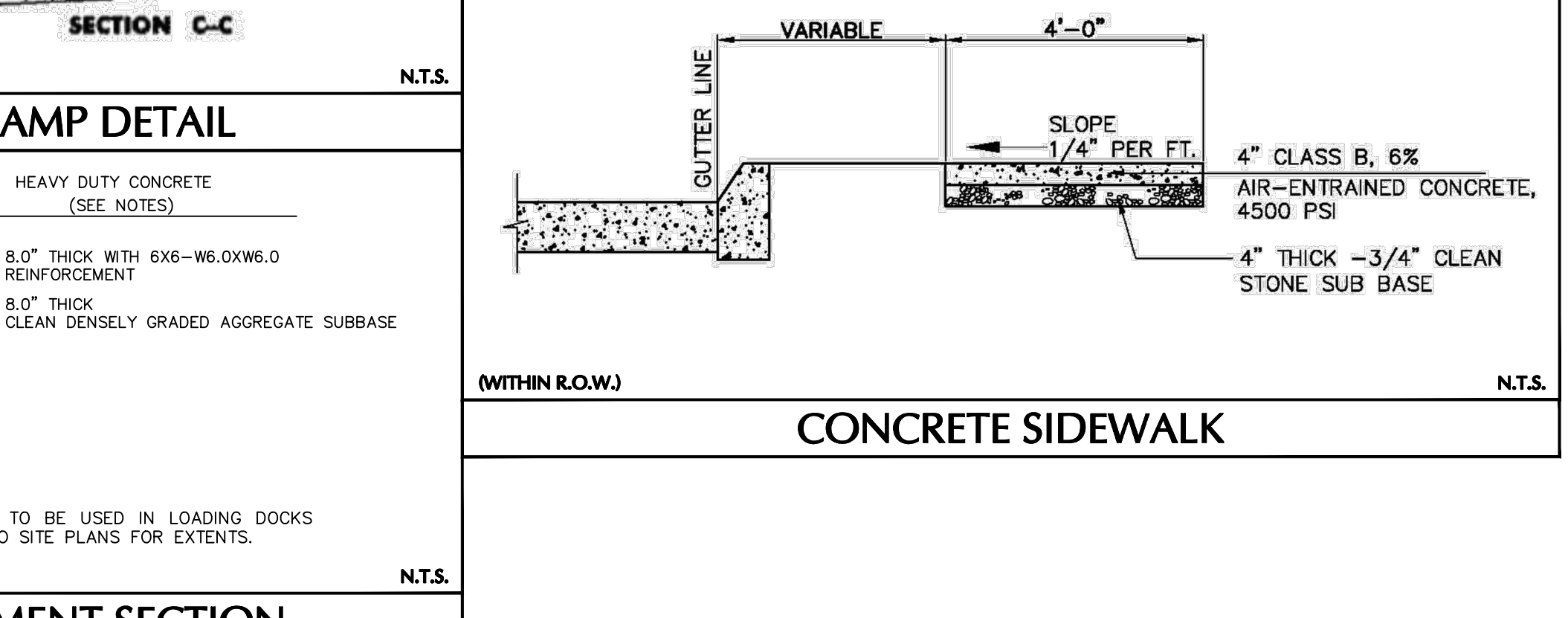
ASPHALT PAVEMENT SECTION



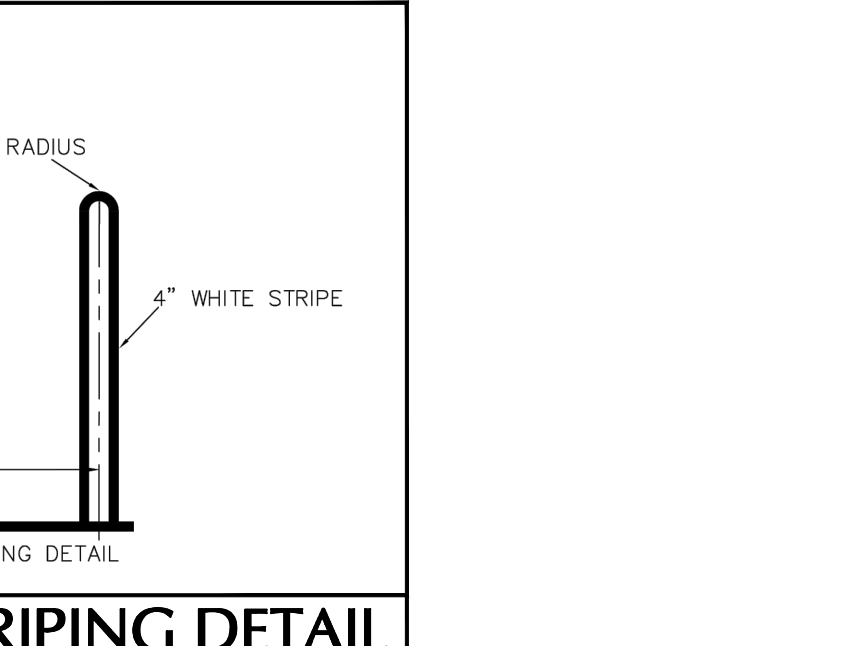
TRANSFORMER PAD DETAIL



STOP BAR



CONCRETE SIDEWALK



HAIRPIN STRIPING DETAIL

Date	Description	No.
07/18/24	REVISED PER TRC COMMENTS	1

Revisions

SIGNATURE: JOHN COTE
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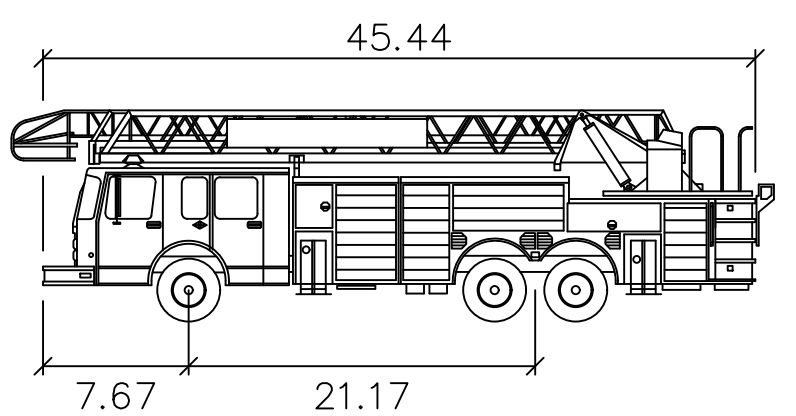
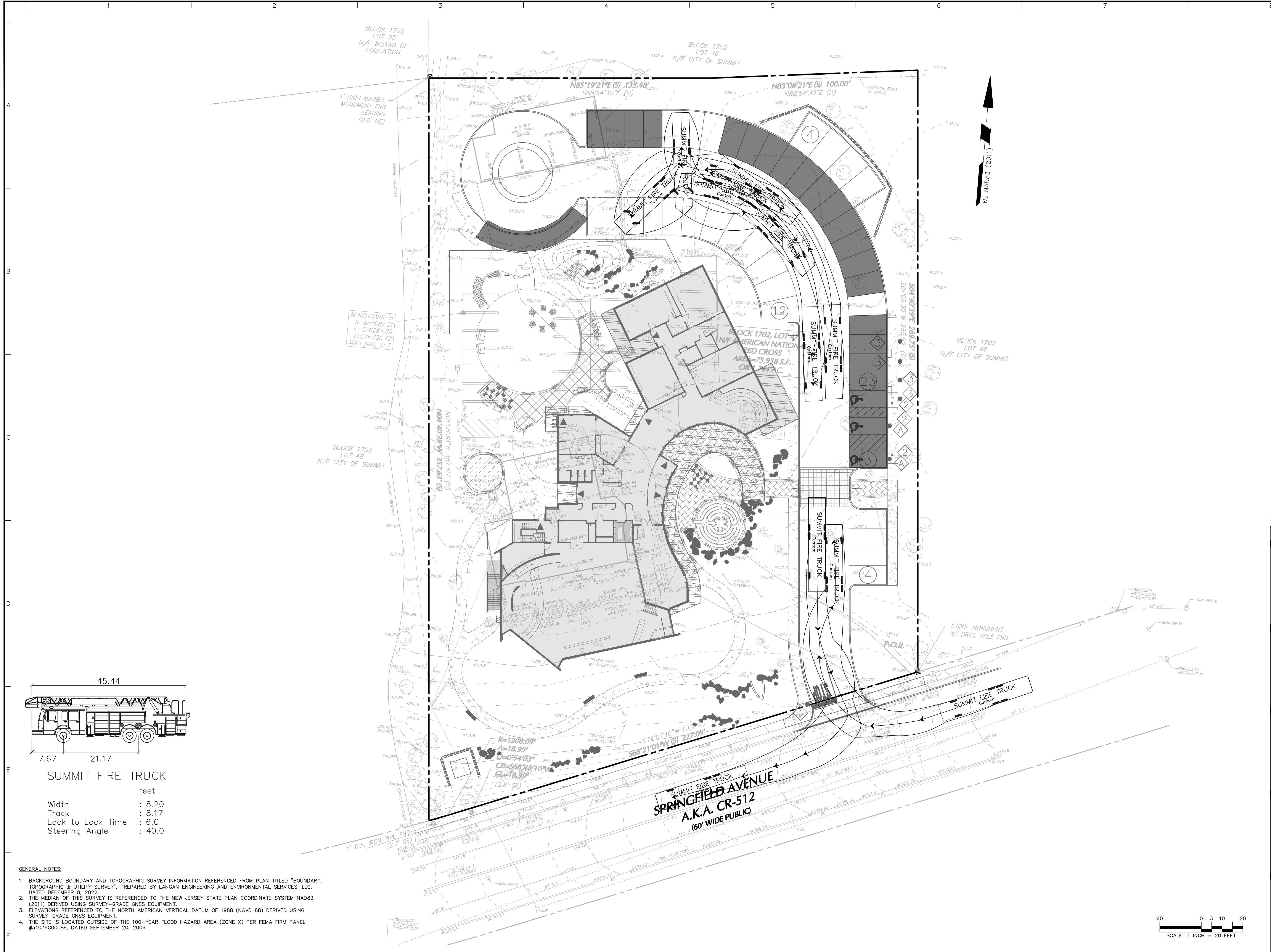
LANGAN
Langan Engineering and Environmental Services, LLC
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

BEACON UNITARIAN UNIVERSALIST CONGREGATION

SUMMIT NEW JERSEY

SITE DETAILS

Project No.	101007201	Drawing No.	CS501
Date	FEBRUARY 9, 2024	Sheet	5 of 19
Drawn By	SM		
Checked By	TH		



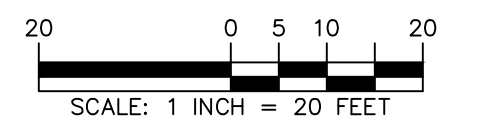
SUMMIT FIRE TRUCK

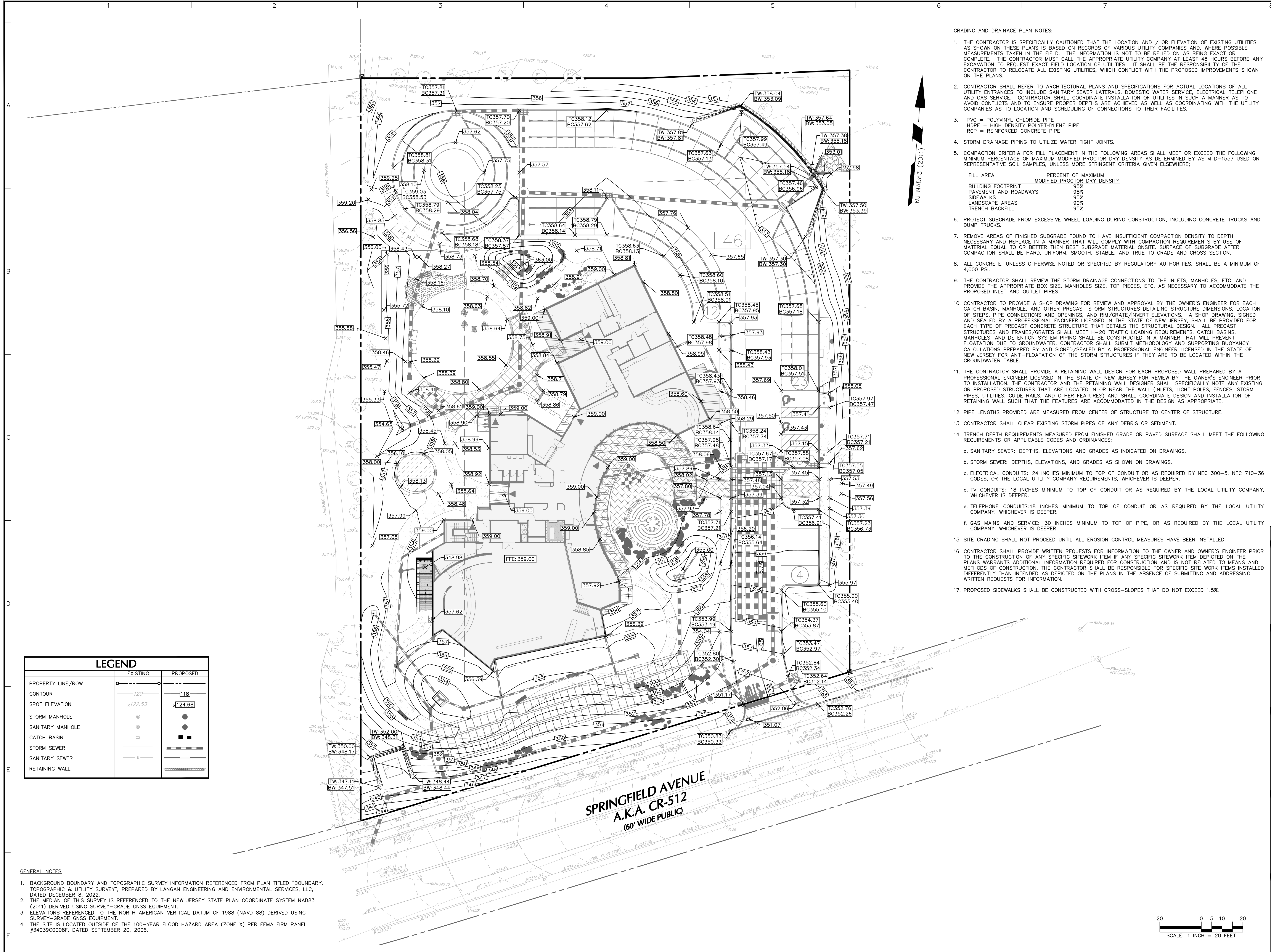
feet

Width : 8.20
 Track : 8.17
 Lock to Lock Time : 6.0
 Steering Angle : 40.0

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Date	Description	No.
Revisions		
SIGNATURE		DATE
JOHN COTE PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800		
LANGAN		
Langan Engineering and Environmental Services, LLC		
300 Kimball Drive Parsippany, NJ 07054		
T: 973.560.4900 F: 973.560.4901 www.langan.com NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400		
Project		
BEACON UNITARIAN UNIVERSALIST CONGREGATION		
SUMMIT NEW JERSEY		
Drawing Title		
FIRE TRUCK CIRCULATION PLAN		
Project No.		Drawing No.
101007201		CP101
Date	FEBRUARY 9, 2024	
Drawn By	SS	
Checked By	TH	
Sheet 6 of 19		





- GRADING AND DRAINAGE PLAN NOTES:**
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 - CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC WATER SERVICE, ELECTRICAL TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ENSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE UTILITY COMPANIES AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
 - PVC = POLYVINYL CHLORIDE PIPE
HDPE = HIGH DENSITY POLYETHYLENE PIPE
RCP = REINFORCED CONCRETE PIPE
 - STORM DRAINAGE PIPING TO UTILIZE WATER TIGHT JOINTS.
 - COMPACTION CRITERIA FOR FILL PLACEMENT IN THE FOLLOWING AREAS SHALL MEET OR EXCEED THE FOLLOWING MINIMUM PERCENTAGE OF MAXIMUM MODIFIED PROCTOR DRY DENSITY AS DETERMINED BY ASTM D-1557 USED ON REPRESENTATIVE SOIL SAMPLES, UNLESS MORE STRINGENT CRITERIA GIVEN ELSEWHERE:

FILL AREA	PERCENT OF MAXIMUM MODIFIED PROCTOR DRY DENSITY
BUILDING FOOTPRINT	95%
PAVEMENT AND ROADWAYS	98%
SIDEWALKS	95%
LANDSCAPE AREAS	90%
TRENCH BACKFILL	95%
 - PROTECT SUBGRADE FROM EXCESSIVE WHEEL LOADING DURING CONSTRUCTION, INCLUDING CONCRETE TRUCKS AND DUMP TRUCKS.
 - REMOVE AREAS OF FINISHED SUBGRADE FOUND TO HAVE INSUFFICIENT COMPACTION DENSITY TO DEPTH NECESSARY AND REPLACE IN A MANNER THAT WILL COMPLY WITH COMPACTION REQUIREMENTS BY USE OF MATERIAL EQUAL TO OR BETTER THAN BEST SUBGRADE MATERIAL ON SITE. SURFACE OF SUBGRADE AFTER COMPACTION SHALL BE HARD, UNIFORM, SMOOTH, STABLE, AND TRUE TO GRADE AND CROSS SECTION.
 - ALL CONCRETE, UNLESS OTHERWISE NOTED OR SPECIFIED BY REGULATORY AUTHORITIES, SHALL BE A MINIMUM OF 4,000 PSI.
 - THE CONTRACTOR SHALL REVIEW THE STORM DRAINAGE CONNECTIONS TO THE INLETS, MANHOLES, ETC. AND PROVIDE THE APPROPRIATE BOX SIZE, MANHOLES SIZE, TOP PIECES, ETC. AS NECESSARY TO ACCOMMODATE THE PROPOSED INLET AND OUTLET PIPES.
 - CONTRACTOR TO PROVIDE A SHOP DRAWING FOR REVIEW AND APPROVAL BY THE OWNER'S ENGINEER FOR EACH CATCH BASIN, MANHOLE, AND OTHER PRECAST STORM STRUCTURES DETAILING STRUCTURE DIMENSIONS, LOCATION OF STEPS, PIPE CONNECTIONS AND OPENINGS, AND RIM/GRATE/INVERT ELEVATIONS. A SHOP DRAWING, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY, SHALL BE PROVIDED FOR EACH TYPE OF PRECAST CONCRETE STRUCTURE THAT DETAILS THE STRUCTURAL DESIGN. ALL PRECAST STRUCTURES AND FRAMES/GRATES SHALL MEET H-20 TRAFFIC LOADING REQUIREMENTS. CATCH BASINS, MANHOLES, AND DETENTION SYSTEM PIPING SHALL BE CONSTRUCTED IN A MANNER THAT WILL PREVENT FLOATION DUE TO GROUNDWATER. CONTRACTOR SHALL SUBMIT METHODOLOGY AND SUPPORTING BUOYANCY CALCULATIONS PREPARED BY AND SIGNED/SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY FOR ANTI-FLOATION OF THE STORM STRUCTURES IF THEY ARE TO BE LOCATED WITHIN THE GROUNDWATER TABLE.
 - THE CONTRACTOR SHALL PROVIDE A RETAINING WALL DESIGN FOR EACH PROPOSED WALL PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY FOR REVIEW BY THE OWNER'S ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR AND THE RETAINING WALL DESIGNER SHALL SPECIFICALLY NOTE ANY EXISTING OR PROPOSED STRUCTURES THAT ARE LOCATED IN OR NEAR THE WALL (INLETS, LIGHT POLES, FENCES, STORM PIPES, UTILITIES, GUIDE RAILS, AND OTHER FEATURES) AND SHALL COORDINATE DESIGN AND INSTALLATION OF RETAINING WALL SUCH THAT THE FEATURES ARE ACCOMMODATED IN THE DESIGN AS APPROPRIATE.
 - PIPE LENGTHS PROVIDED ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
 - CONTRACTOR SHALL CLEAR EXISTING STORM PIPES OF ANY DEBRIS OR SEDIMENT.
 - TRENCH DEPTH REQUIREMENTS MEASURED FROM FINISHED GRADE OR PAVED SURFACE SHALL MEET THE FOLLOWING REQUIREMENTS OR APPLICABLE CODES AND ORDINANCES:
 - SANITARY SEWER: DEPTHS, ELEVATIONS AND GRADES AS INDICATED ON DRAWINGS.
 - STORM SEWER: DEPTHS, ELEVATIONS, AND GRADES AS SHOWN ON DRAWINGS.
 - ELECTRICAL CONDUITS: 24 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY NEC 300-5, NEC 710-36 CODES, OR THE LOCAL UTILITY COMPANY REQUIREMENTS, WHICHEVER IS DEEPER.
 - TV CONDUITS: 18 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY THE LOCAL UTILITY COMPANY, WHICHEVER IS DEEPER.
 - TELEPHONE CONDUITS: 18 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY THE LOCAL UTILITY COMPANY, WHICHEVER IS DEEPER.
 - GAS MAINS AND SERVICE: 30 INCHES MINIMUM TO TOP OF PIPE, OR AS REQUIRED BY THE LOCAL UTILITY COMPANY, WHICHEVER IS DEEPER.
 - SITE GRADING SHALL NOT PROCEED UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
 - CONTRACTOR SHALL PROVIDE WRITTEN REQUESTS FOR INFORMATION TO THE OWNER AND OWNER'S ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEMARK ITEM IF ANY SPECIFIC SITEMARK ITEM DEPICTED ON THE PLANS WARRANTS ADDITIONAL INFORMATION REQUIRED FOR CONSTRUCTION AND IS NOT RELATED TO MEANS AND METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SPECIFIC SITE WORK ITEMS INSTALLED DIFFERENTLY THAN INTENDED AS DEPICTED ON THE PLANS IN THE ABSENCE OF SUBMITTING AND ADDRESSING WRITTEN REQUESTS FOR INFORMATION.
 - PROPOSED SIDEWALKS SHALL BE CONSTRUCTED WITH CROSS-SLOPES THAT DO NOT EXCEED 1.5%.



LEGEND

	EXISTING	PROPOSED
PROPERTY LINE/ROW	—	—
CONTOUR	—	—
SPOT ELEVATION	122.53	124.68
STORM MANHOLE	○	●
SANITARY MANHOLE	○	●
CATCH BASIN	□	■
STORM SEWER	—	—
SANITARY SEWER	—	—
RETAINING WALL	—	—

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REVISIONS

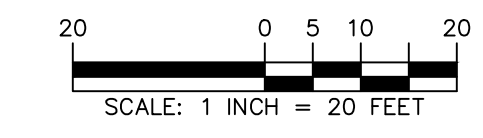
SIGNATURE: JOHN COTE
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800
DATE

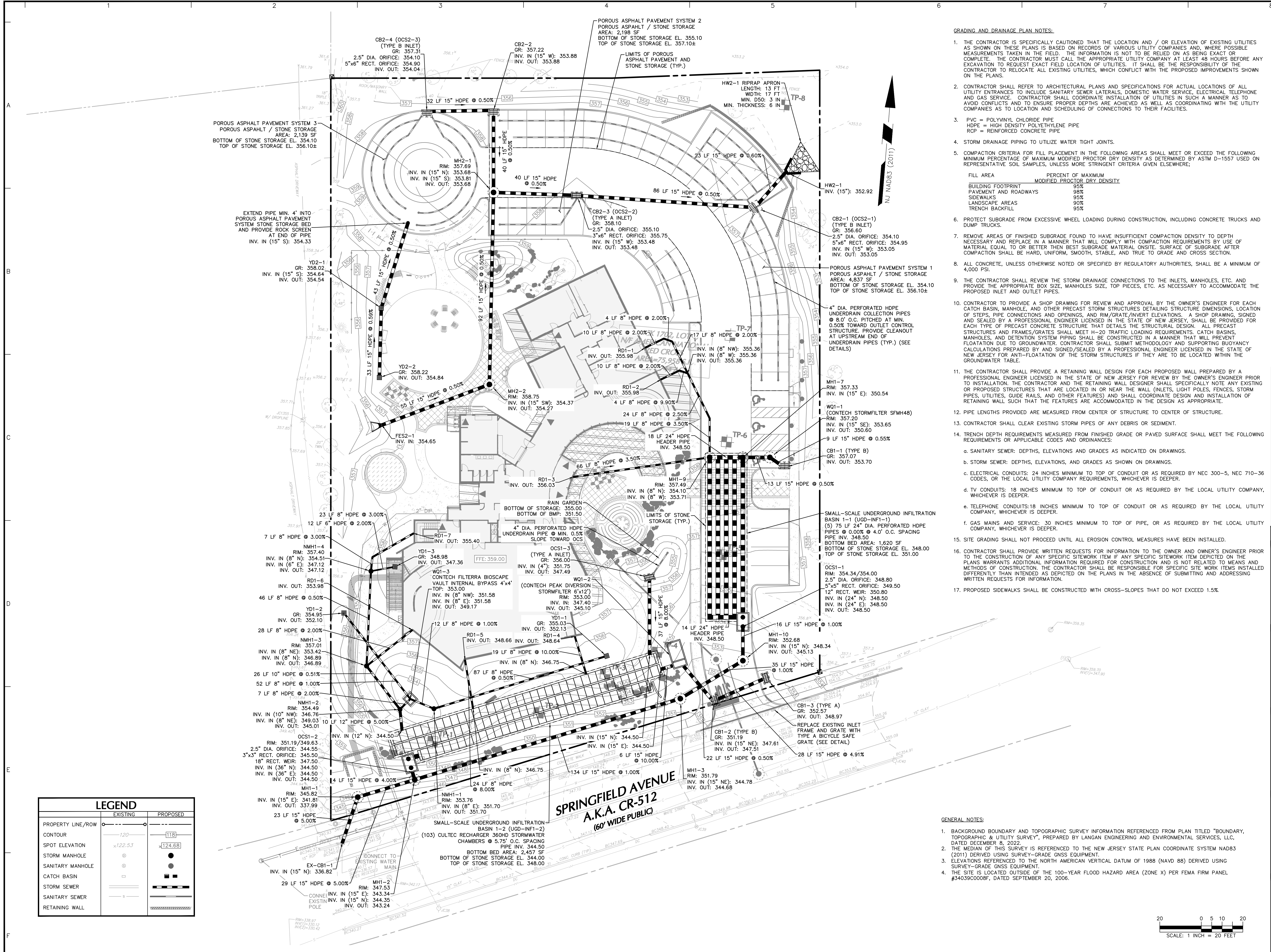
LANGAN
Langan Engineering and Environmental Services, LLC
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project: **BEACON UNITARIAN UNIVERSALIST CONGREGATION**
SUMMIT NEW JERSEY

Drawing Title: **GRADING PLAN**

Project No. 101007201	Drawing No. CG101
Date: FEBRUARY 9, 2024	Sheet 7 of 19
Drawn By: SM	
Checked By: TH	





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TRENCH BACKFILL	95%
 - PROTECT SUBGRADE FROM EXCESSIVE WHEEL LOADING DURING CONSTRUCTION, INCLUDING CONCRETE TRUCKS AND DUMP TRUCKS.
 - REMOVE AREAS OF FINISHED SUBGRADE FOUND TO HAVE INSUFFICIENT COMPACTION DENSITY TO DEPTH NECESSARY AND REPLACE IN A MANNER THAT WILL COMPLY WITH COMPACTION REQUIREMENTS BY USE OF MATERIAL EQUAL TO OR BETTER THAN BEST SUBGRADE MATERIAL ON SITE. SURFACE OF SUBGRADE AFTER COMPACTION SHALL BE HARD, UNIFORM, SMOOTH, STABLE, AND TRUE TO GRADE AND CROSS SECTION.
 - ALL CONCRETE, UNLESS OTHERWISE NOTED OR SPECIFIED BY REGULATORY AUTHORITIES, SHALL BE A MINIMUM OF 4,000 PSI.
 - THE CONTRACTOR SHALL REVIEW THE STORM DRAINAGE CONNECTIONS TO THE INLETS, MANHOLES, ETC. AND PROVIDE THE APPROPRIATE BOX SIZE, MANHOLES SIZE, TOP PIECES, ETC. AS NECESSARY TO ACCOMMODATE THE PROPOSED INLET AND OUTLET PIPES.
 - CONTRACTOR TO PROVIDE A SHOP DRAWING FOR REVIEW AND APPROVAL BY THE OWNER'S ENGINEER FOR EACH CATCH BASIN, MANHOLE, AND OTHER PRECAST STORM STRUCTURES DETAILING STRUCTURE DIMENSIONS, LOCATION OF STEPS, PIPE CONNECTIONS AND OPENINGS, AND RIM/GRADE/INVERT ELEVATIONS. A SHOP DRAWING, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY, SHALL BE PROVIDED FOR EACH TYPE OF PRECAST CONCRETE STRUCTURE THAT DETAILS THE STRUCTURAL DESIGN. ALL PRECAST STRUCTURES AND FRAMES/GRATES SHALL MEET H-20 TRAFFIC LOADING REQUIREMENTS. CATCH BASINS, MANHOLES, AND DETENTION SYSTEM PIPING SHALL BE CONSTRUCTED IN A MANNER THAT WILL PREVENT FLOATAION DUE TO GROUNDWATER. CONTRACTOR SHALL SUBMIT METHODOLOGY AND SUPPORTING BUOYANCY CALCULATIONS PREPARED BY AND SIGNED/SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY FOR ANTI-FLOATAION OF THE STORM STRUCTURES IF THEY ARE TO BE LOCATED WITHIN THE GROUNDWATER TABLE.
 - THE CONTRACTOR SHALL PROVIDE A RETAINING WALL DESIGN FOR EACH PROPOSED WALL PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY FOR REVIEW BY THE OWNER'S ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR AND THE RETAINING WALL DESIGNER SHALL SPECIFICALLY NOTE ANY EXISTING OR PROPOSED STRUCTURES THAT ARE LOCATED IN OR NEAR THE WALL (INLETS, LIGHT POLES, FENCES, STORM PIPES, UTILITIES, GUIDE RAILS, AND OTHER FEATURES) AND SHALL COORDINATE DESIGN AND INSTALLATION OF RETAINING WALL SUCH THAT THE FEATURES ARE ACCOMMODATED IN THE DESIGN AS APPROPRIATE.
 - PIPE LENGTHS PROVIDED ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
 - CONTRACTOR SHALL CLEAR EXISTING STORM PIPES OF ANY DEBRIS OR SEDIMENT.
 - TRENCH DEPTH REQUIREMENTS MEASURED FROM FINISHED GRADE OR PAVED SURFACE SHALL MEET THE FOLLOWING REQUIREMENTS OR APPLICABLE CODES AND ORDINANCES:
 - SANITARY SEWER: DEPTHS, ELEVATIONS AND GRADES AS INDICATED ON DRAWINGS.
 - STORM SEWER: DEPTHS, ELEVATIONS, AND GRADES AS SHOWN ON DRAWINGS.
 - ELECTRICAL CONDUITS: 24 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY NEC 300-5, NEC 710-36 CODES, OR THE LOCAL UTILITY COMPANY REQUIREMENTS, WHICHEVER IS DEEPER.
 - TV CONDUITS: 18 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY THE LOCAL UTILITY COMPANY, WHICHEVER IS DEEPER.
 - TELEPHONE CONDUITS: 18 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY THE LOCAL UTILITY COMPANY, WHICHEVER IS DEEPER.
 - GAS MAINS AND SERVICE: 30 INCHES MINIMUM TO TOP OF PIPE, OR AS REQUIRED BY THE LOCAL UTILITY COMPANY, WHICHEVER IS DEEPER.
 - SITE GRADING SHALL NOT PROCEED UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
 - CONTRACTOR SHALL PROVIDE WRITTEN REQUESTS FOR INFORMATION TO THE OWNER AND OWNER'S ENGINEER PRIOR TO THE CONSTRUCTION OF ANY SPECIFIC SITEMARK ITEM IF ANY SPECIFIC SITEMARK ITEM DEPICTED ON THE PLANS WARRANTS ADDITIONAL INFORMATION REQUIRED FOR CONSTRUCTION AND IS NOT RELATED TO MEANS AND METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SPECIFIC SITE WORK ITEMS INSTALLED DIFFERENTLY THAN INTENDED AS DEPICTED ON THE PLANS IN THE ABSENCE OF SUBMITTING AND ADDRESSING WRITTEN REQUESTS FOR INFORMATION.
 - PROPOSED SIDEWALKS SHALL BE CONSTRUCTED WITH CROSS-SLOPES THAT DO NOT EXCEED 1.5%.

Date	Description	No.
7/01/25	REVISED PER CITY COMMENTS	3
5/22/25	REVISED PER CITY COMMENTS	2
07/18/24	REVISED PER TRC COMMENTS	1

Revisions

SIGNATURE: JOHN COTE
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800

LANGAN
Langan Engineering and Environmental Services, LLC
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

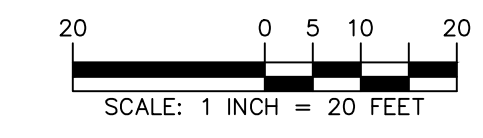
Project: **BEACON UNITARIAN UNIVERSALIST CONGREGATION**
SUMMIT NEW JERSEY

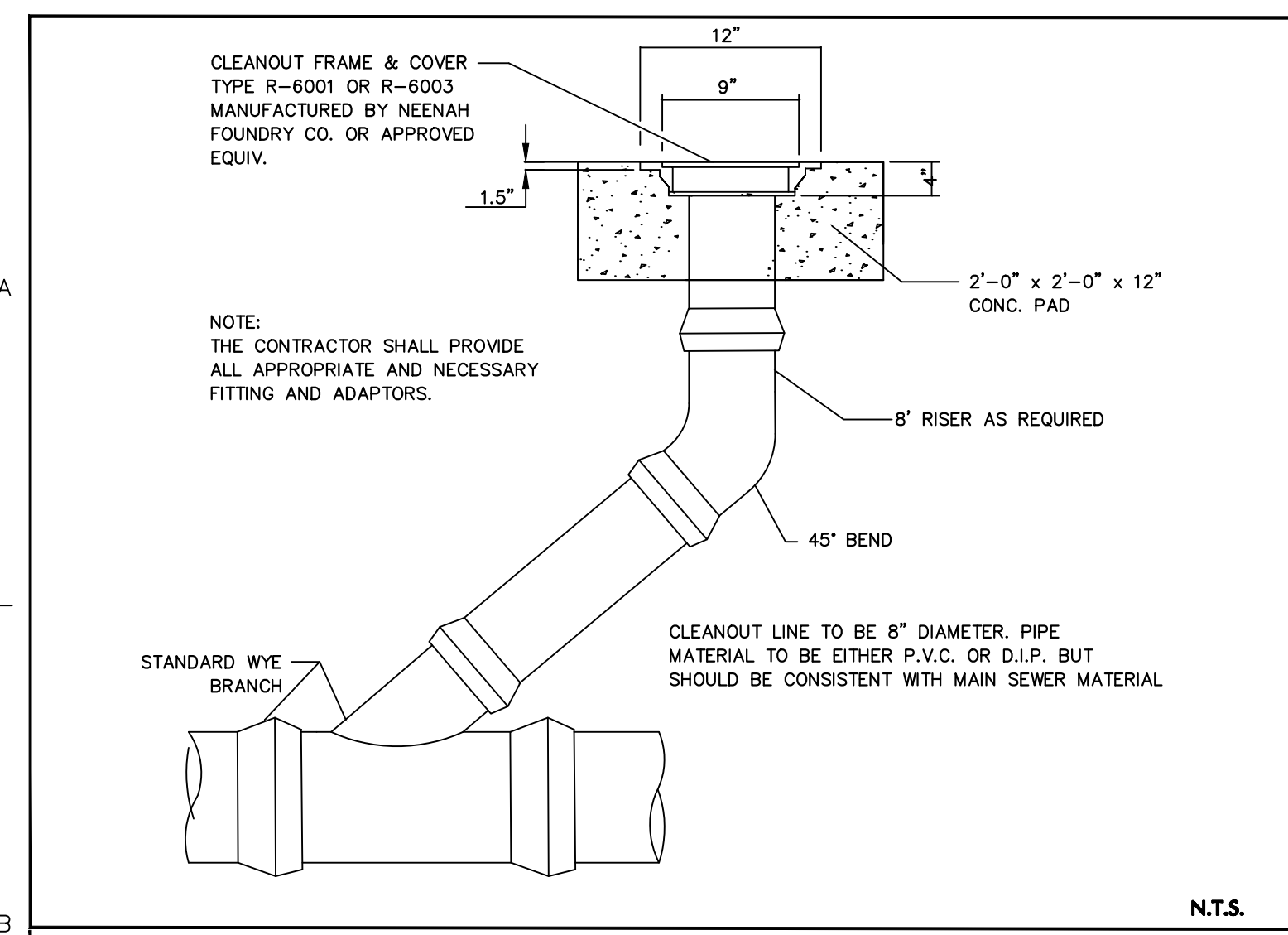
DRAINAGE PLAN

Project No.	Drawing No.
101007201	CG102
Date	FEBRUARY 9, 2024
Drawn By	SM
Checked By	TH
Sheet	8 of 19

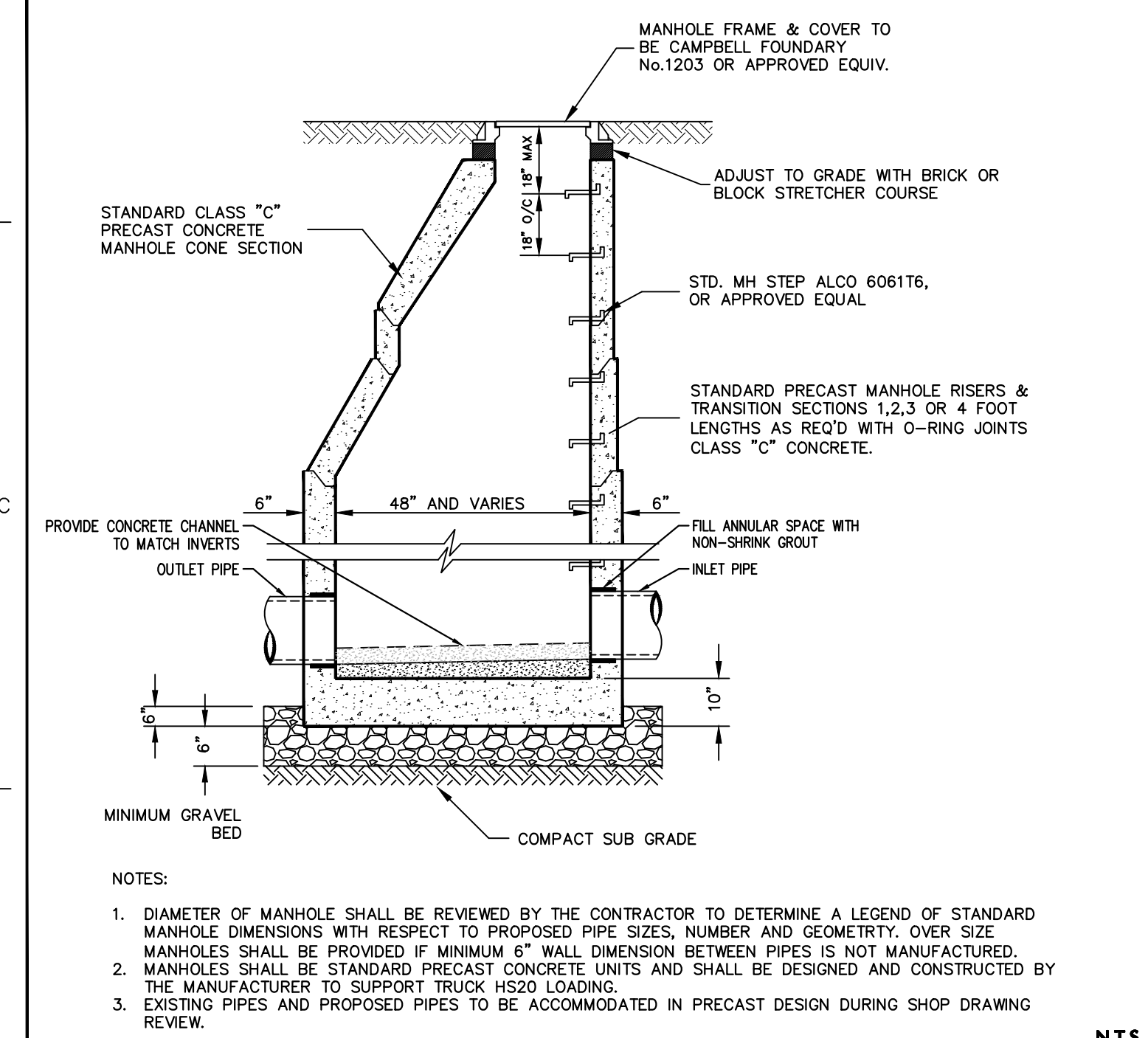
LEGEND

	EXISTING	PROPOSED
PROPERTY LINE/ROW	—	—
CONTOUR	120	118
SPOT ELEVATION	122.53	124.68
STORM MANHOLE	○	●
SANITARY MANHOLE	○	●
CATCH BASIN	□	■
STORM SEWER	—	—
SANITARY SEWER	—	—
RETAINING WALL	—	—

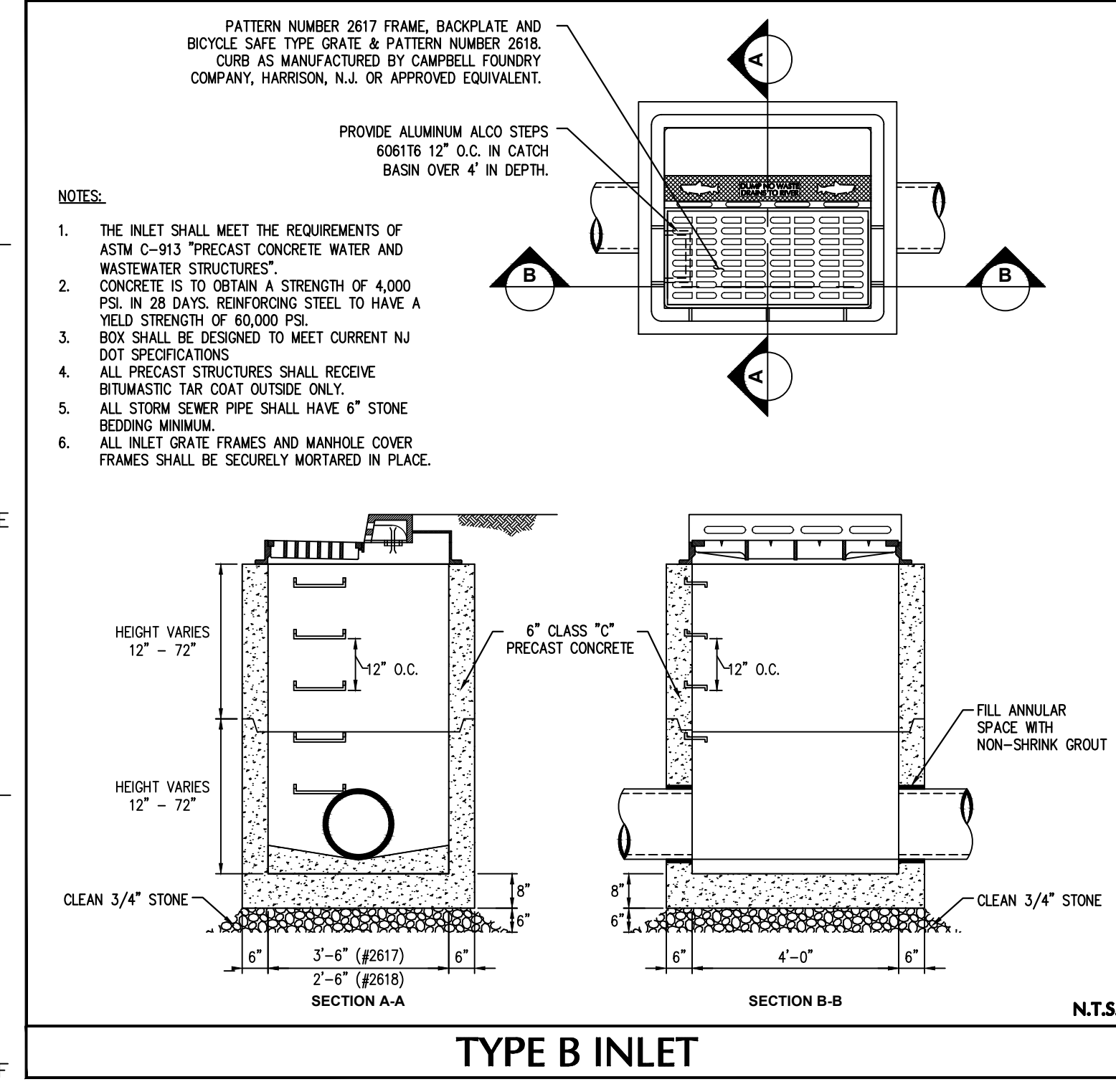




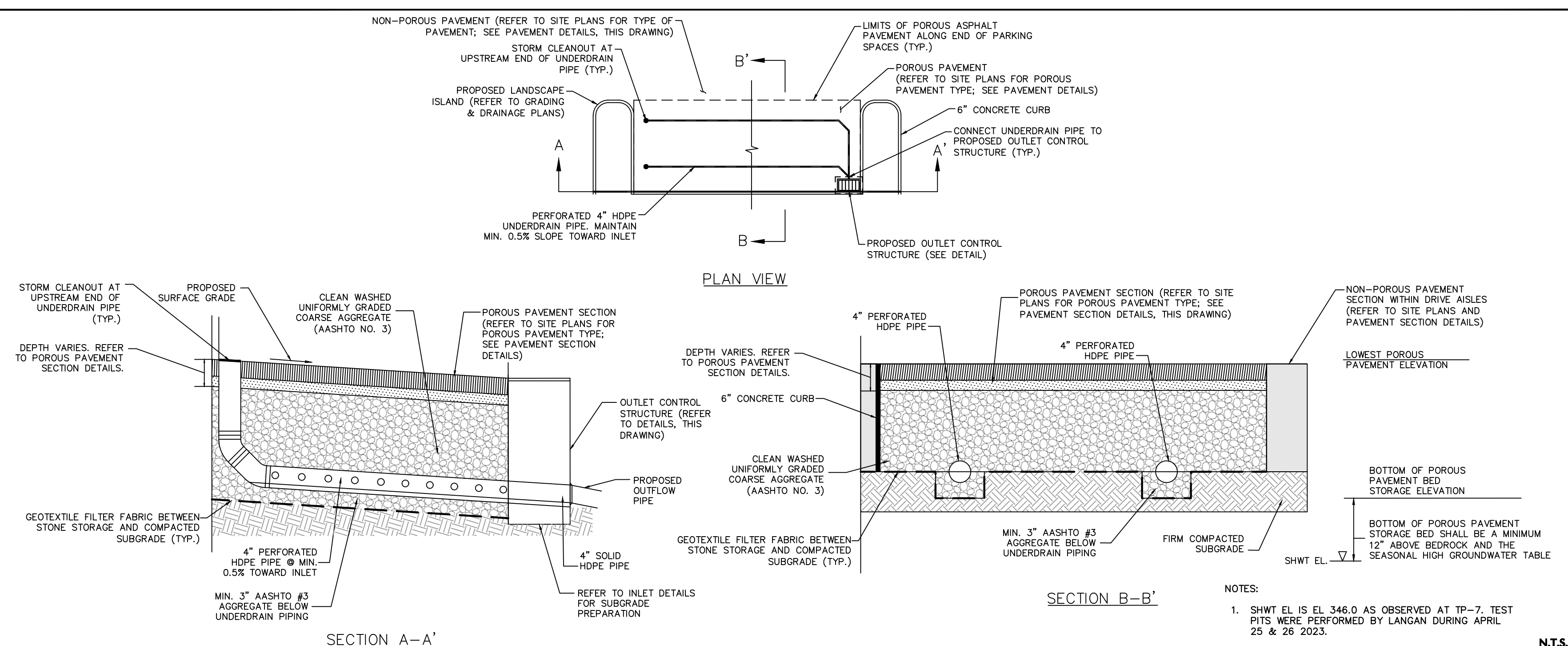
STORM CLEANOUT



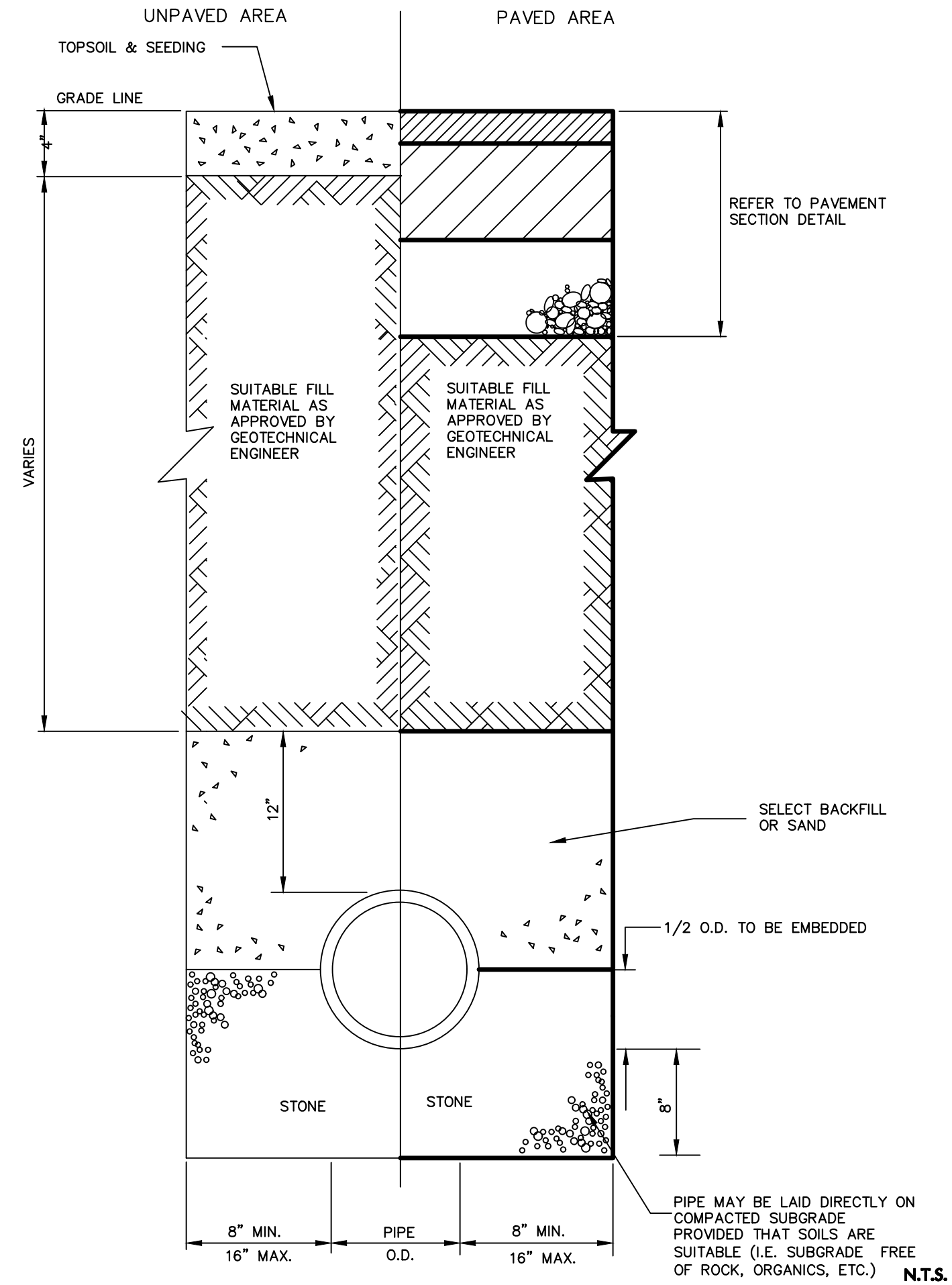
STORM MANHOLE



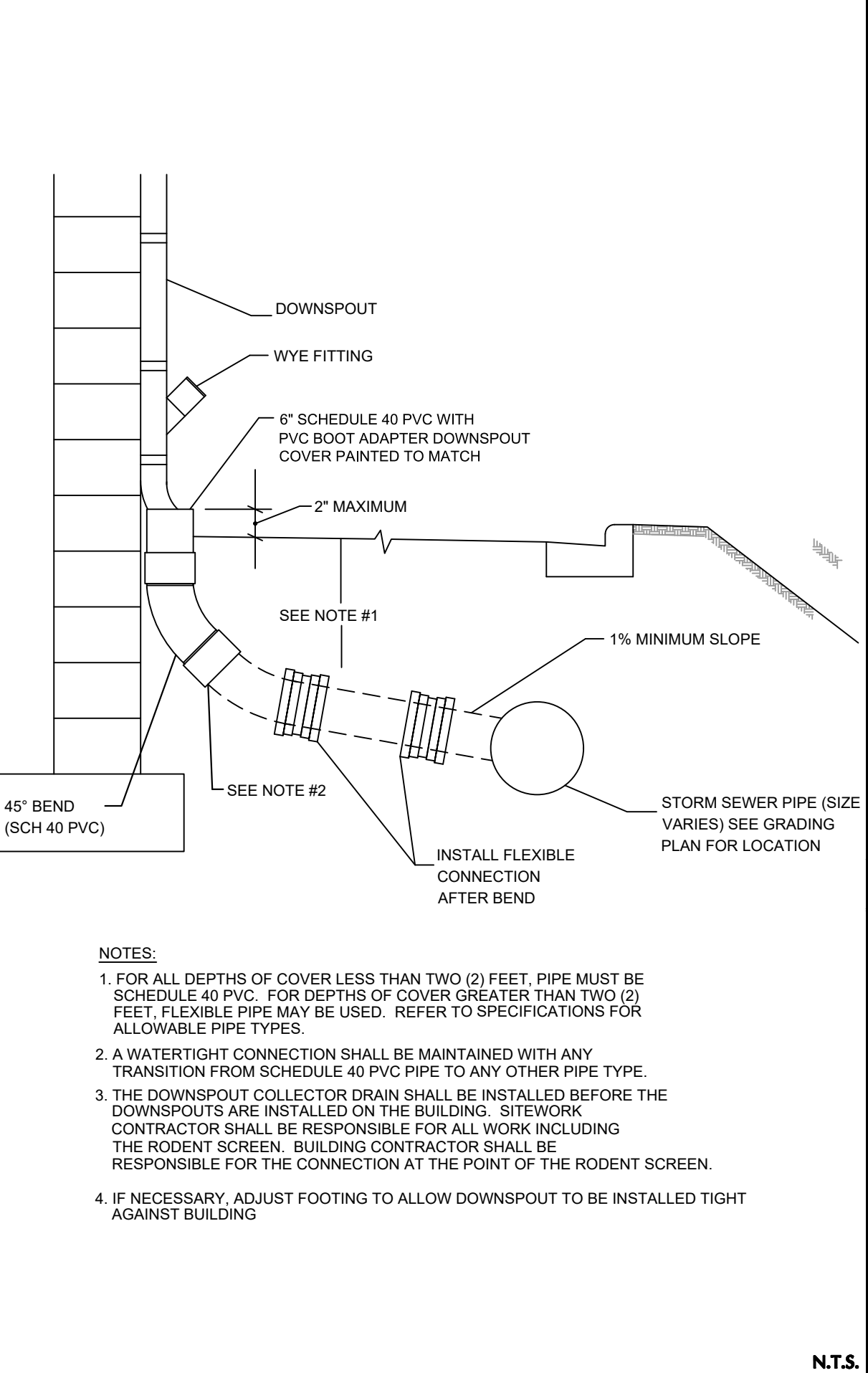
TYPE B INLET



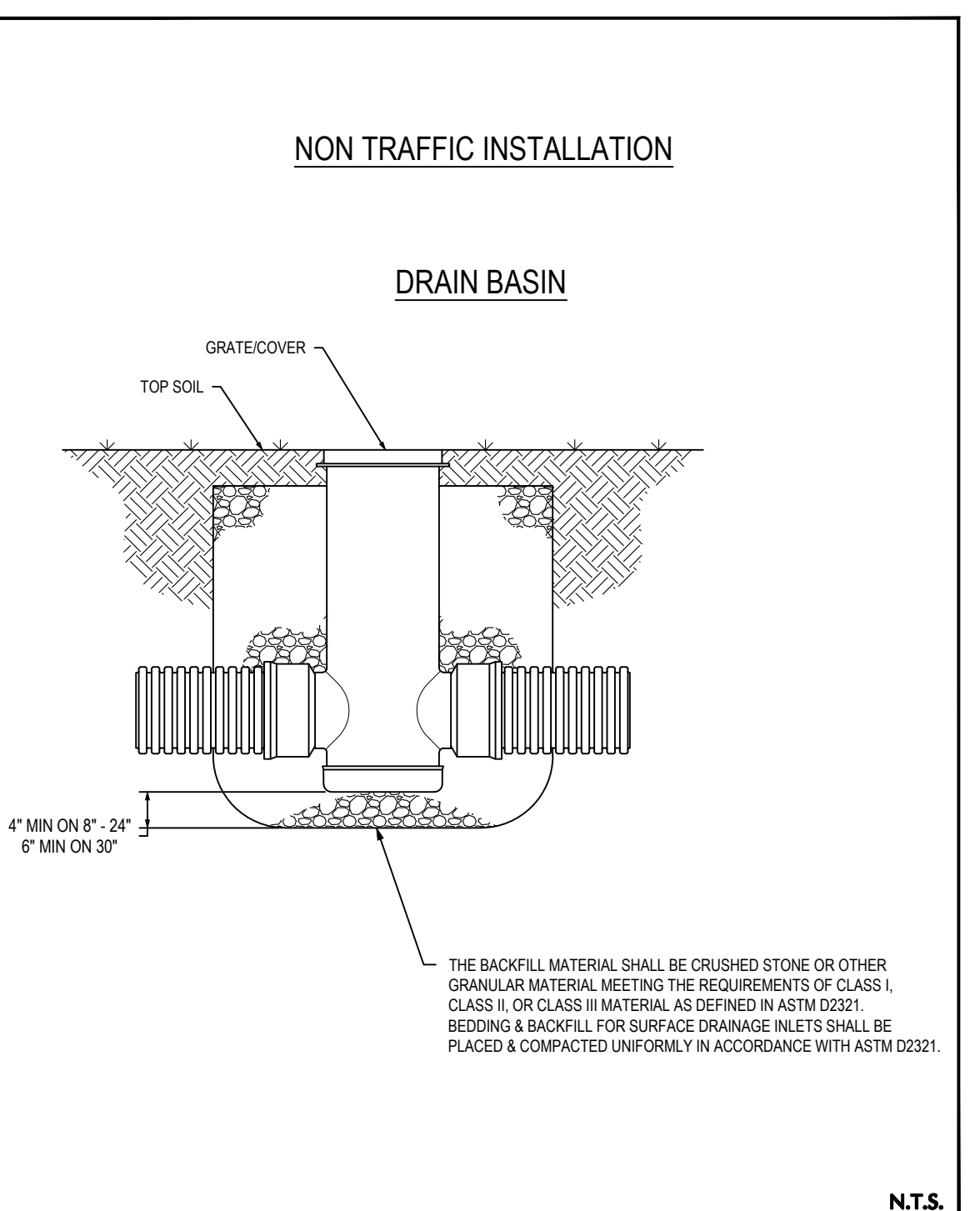
TYPICAL POROUS PAVEMENT CROSS SECTION DETAIL



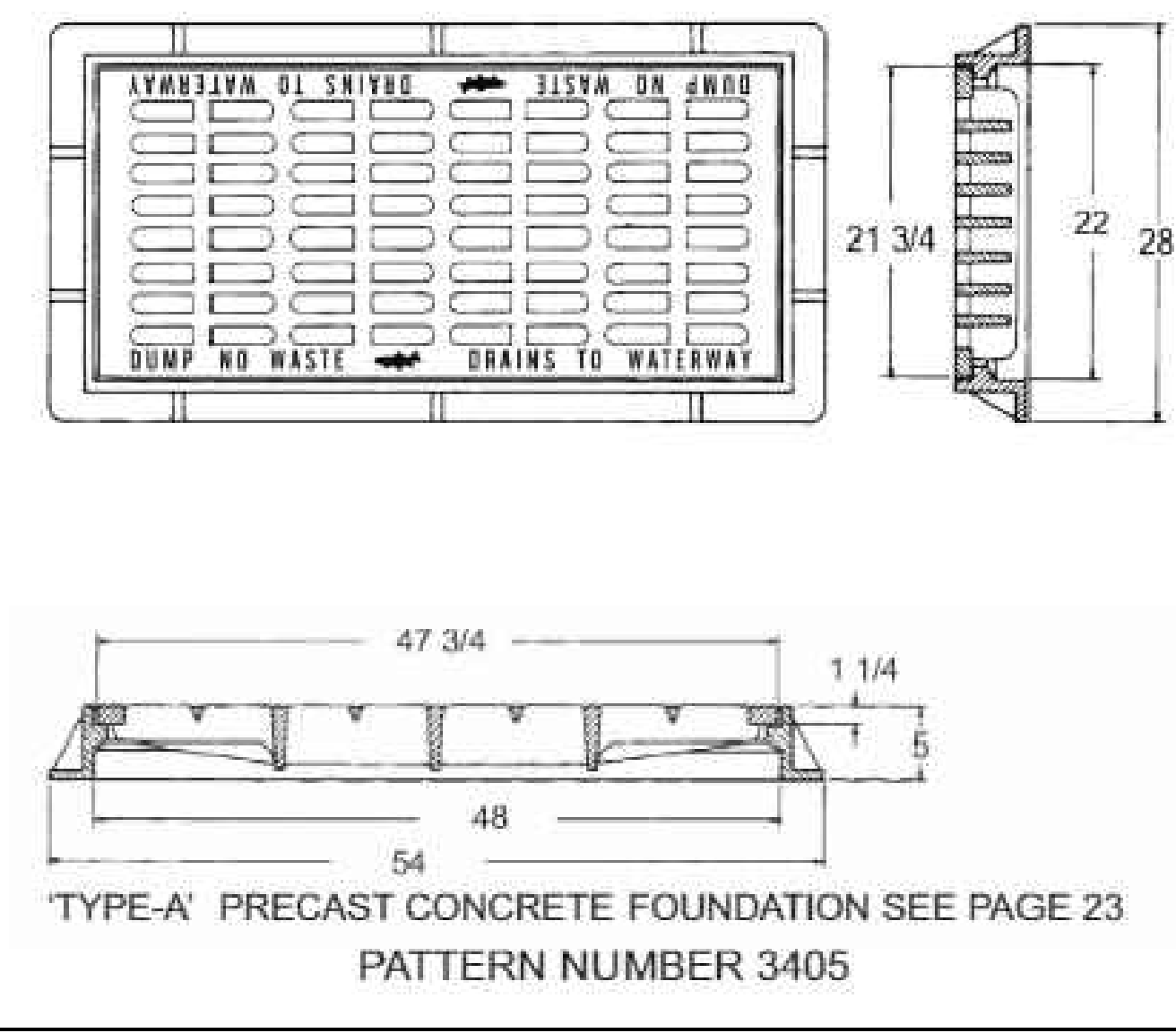
STORM SEWER TRENCH AND BEDDING



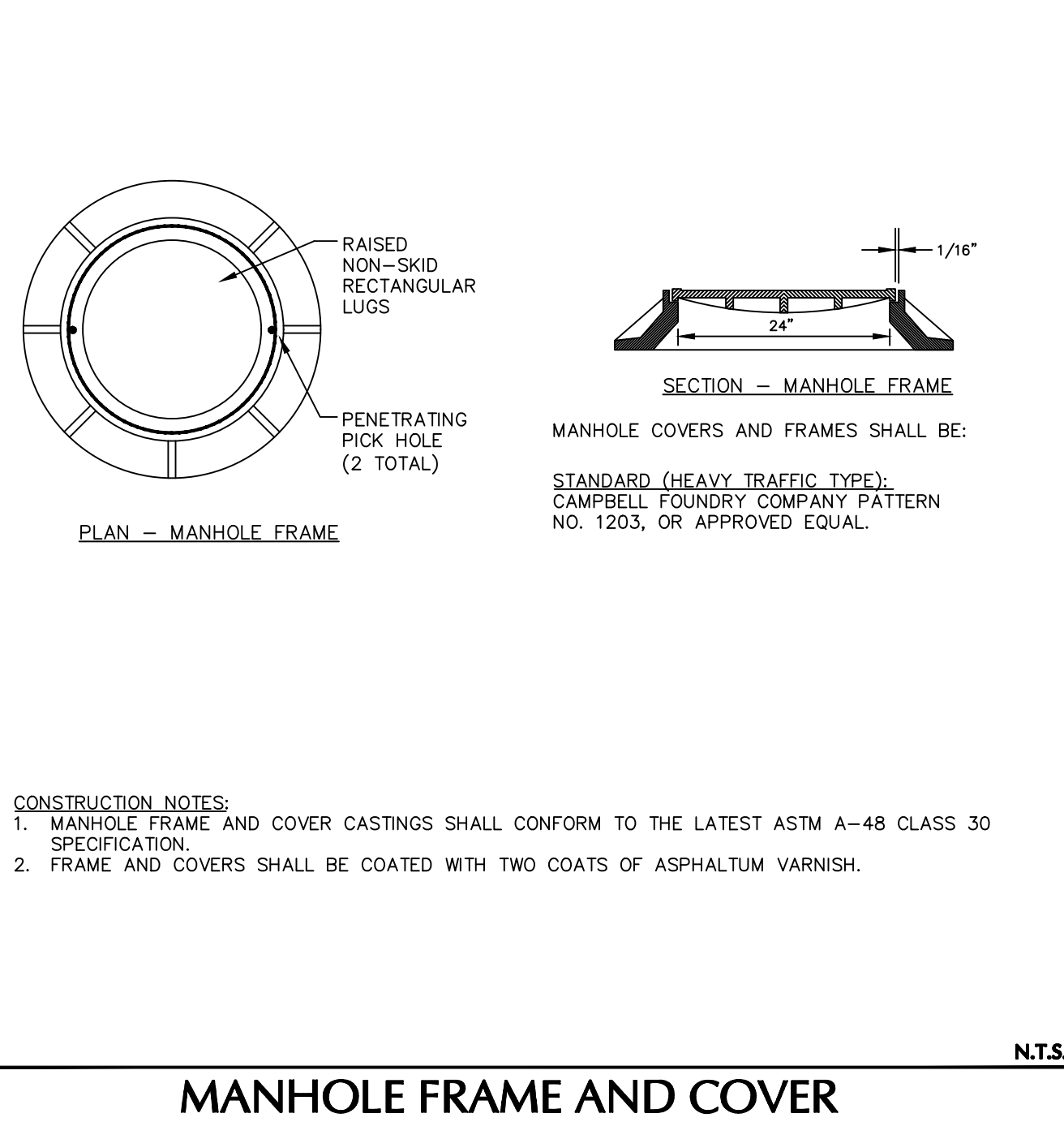
BUILDING DOWNSPOUT CONNECTION



NYLOPLAST NON-TRAFFIC INSTALLATION



INLET TYPE A BICYCLE SAFE GRATE



MANHOLE FRAME AND COVER

Date	Description	No.
Revisions		
SIGNATURE JOHN COTE DATE		
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800		

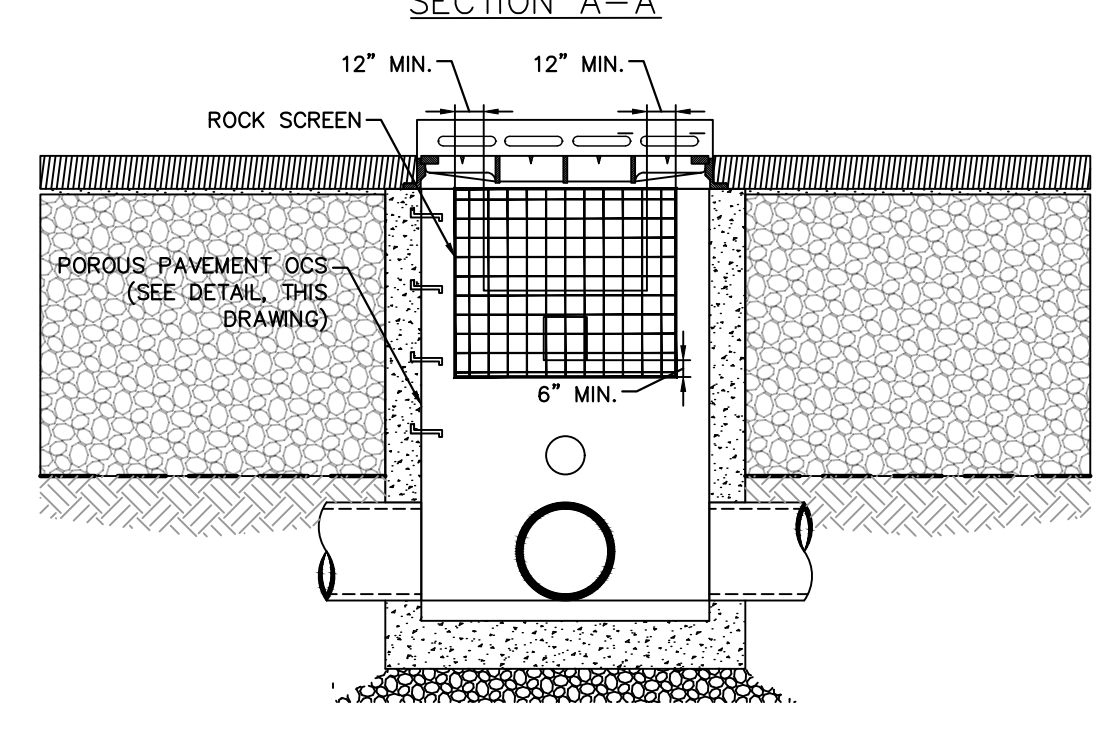
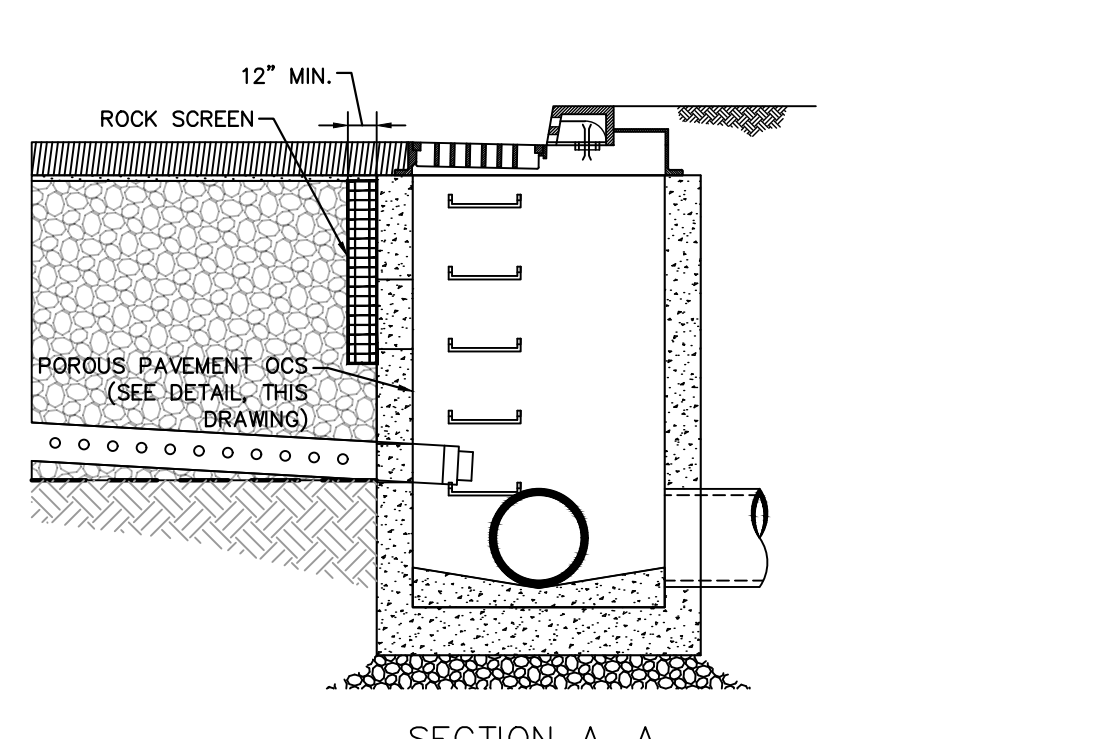
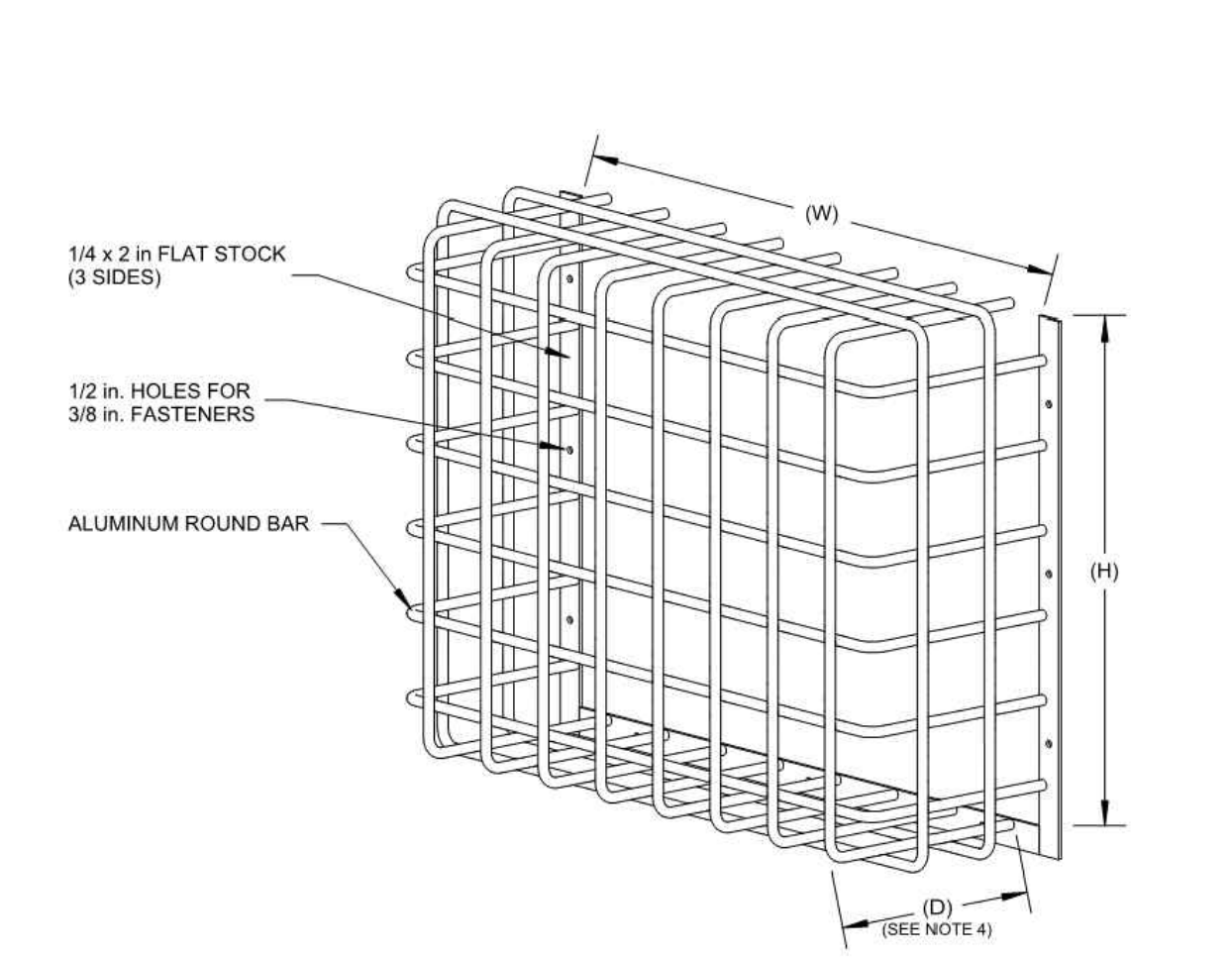
LANGAN
Langan Engineering and Environmental Services, LLC
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project **BEACON UNITARIAN UNIVERSALIST CONGREGATION**
SUMMIT NEW JERSEY

UNION COUNTY Drawing Title **DRAINAGE DETAILS**

Project No. 101007201	Drawing No. CG501
Date FEBRUARY 9, 2024	
Drawn By SM	
Checked By TH	

Sheet 9 of 19



- NOTES:
1. ALL MATERIALS TO BE ALUMINUM 6061-T6 ALLOY.
 2. WELD ALL INTERSECTIONS.
 3. FASTEN TO CONCRETE STRUCTURE WITH 3/8 IN. x 3 IN. STAINLESS STEEL CONCRETE WEDGE ANCHORS AT 18 IN. MAX. SPACING. MINIMUM OF (4).
 4. DEPTH TO O.D. OF RACK. IF THE CONCRETE WEIR EXTENDS TO THE TOP OF THE STRUCTURE, THE DEPTH OF THE TOP BARS WILL EXTEND TO MEET TOP GRATING OR FRAME OF STRUCTURE SO THERE IS NO GAP.
 5. OVERALL RACK WIDTH = (W) + 4 INCHES
 6. OVERALL RACK HEIGHT = (H) + BAR DIAMETER + 2 INCHES
 7. OPTIONAL - 10g STAINLESS STEEL WIRE MESH WITH 1 IN. GRID TO COVER RACK.

TRASH RACK INFORMATION	
RACK WIDTH (D) (W)	
RACK HEIGHT (D) (H)	
RACK DEPTH (D) (D)	
BAR DIAMETER (1/2" OR 3/4")	
BAR CENTERLINE SPACING	
STRUCTURE OPENING W	
STRUCTURE OPENING H	
WEIR EXTENDS TO TOP?	
FASTENERS (QTY)	
WIRE MESH?	
NOTES:	

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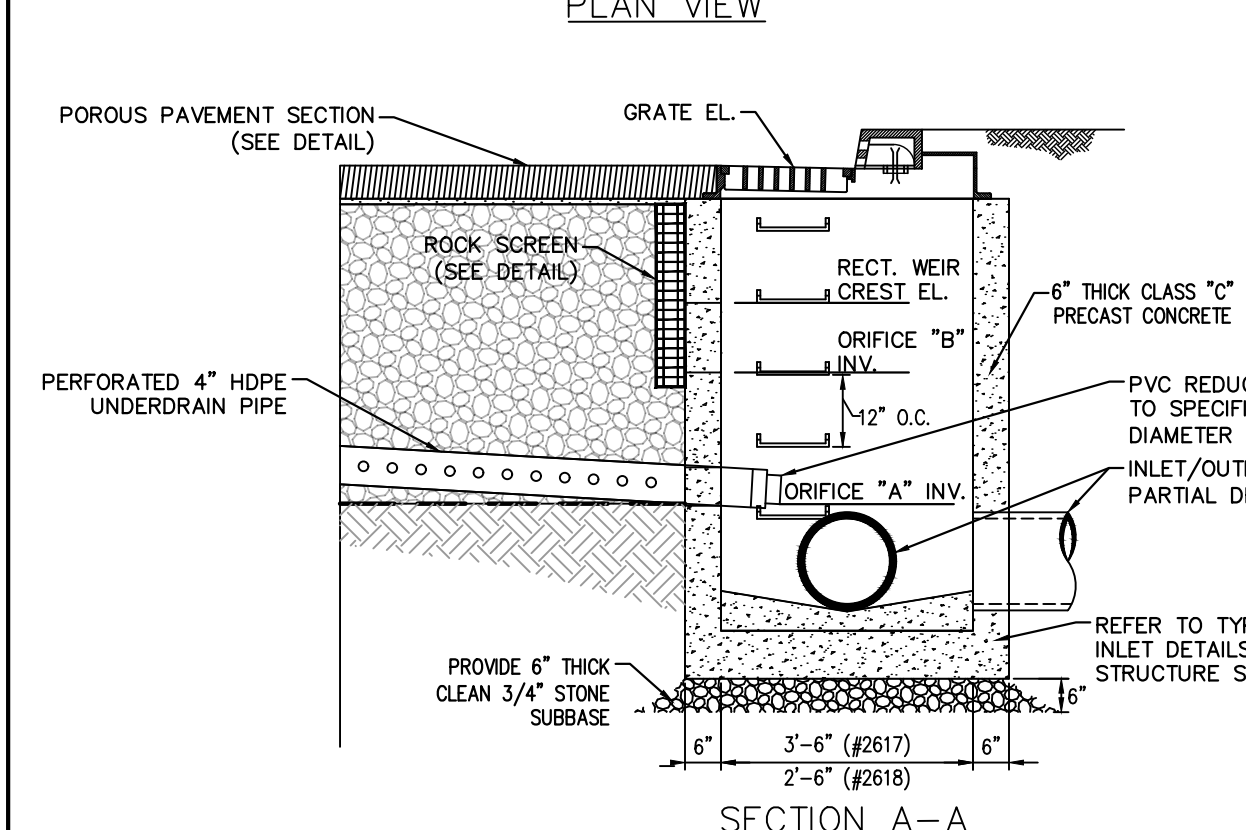
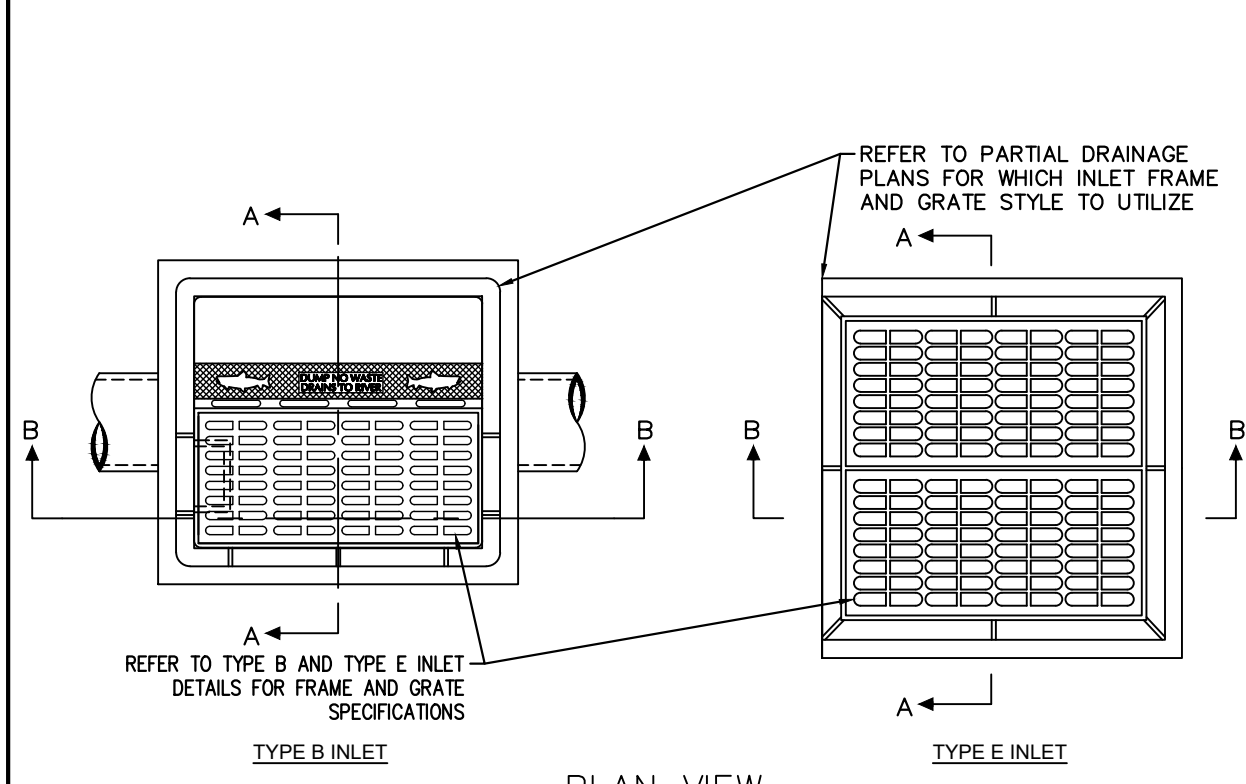
Effluent Design & Fabrication, LLC
 6 William Martin Way
 Flemington, NJ 08822
 Phone: 908.458.9220
 FAX: 908.458.9930
 www.effluentdesign.com

PROJECT: ALUMINUM BOXED SERIES AIR RACK
 DATE: 02/2022
 SCALE: AS SHOWN
 DRAWN BY: [Redacted]

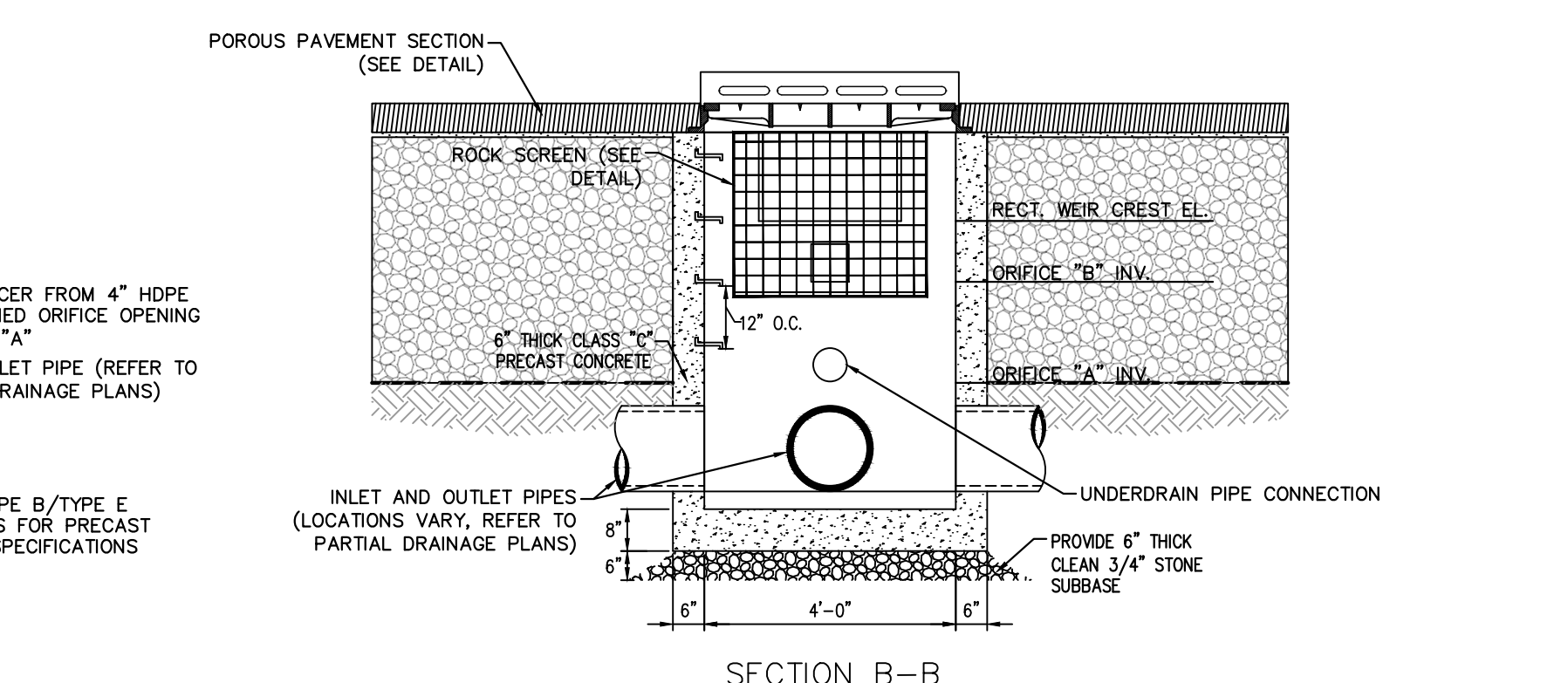
- NOTES:
1. MAX OPENING BETWEEN PARALLEL BARS TO BE 3"
 2. ROCK SCREEN TO EXTEND MIN. 12" IN BOTH DIRECTIONS BEYOND WIDTH OF RECTANGULAR WEIR, MIN 6" BELOW RECTANGULAR WEIR INVERT, AND MIN. 12" OUT FROM FACE OF OUTLET CONTROL STRUCTURE

N.T.S.

POROUS PAVEMENT OUTLET CONTROL STRUCTURE ALUMINUM ROCK SCREEN



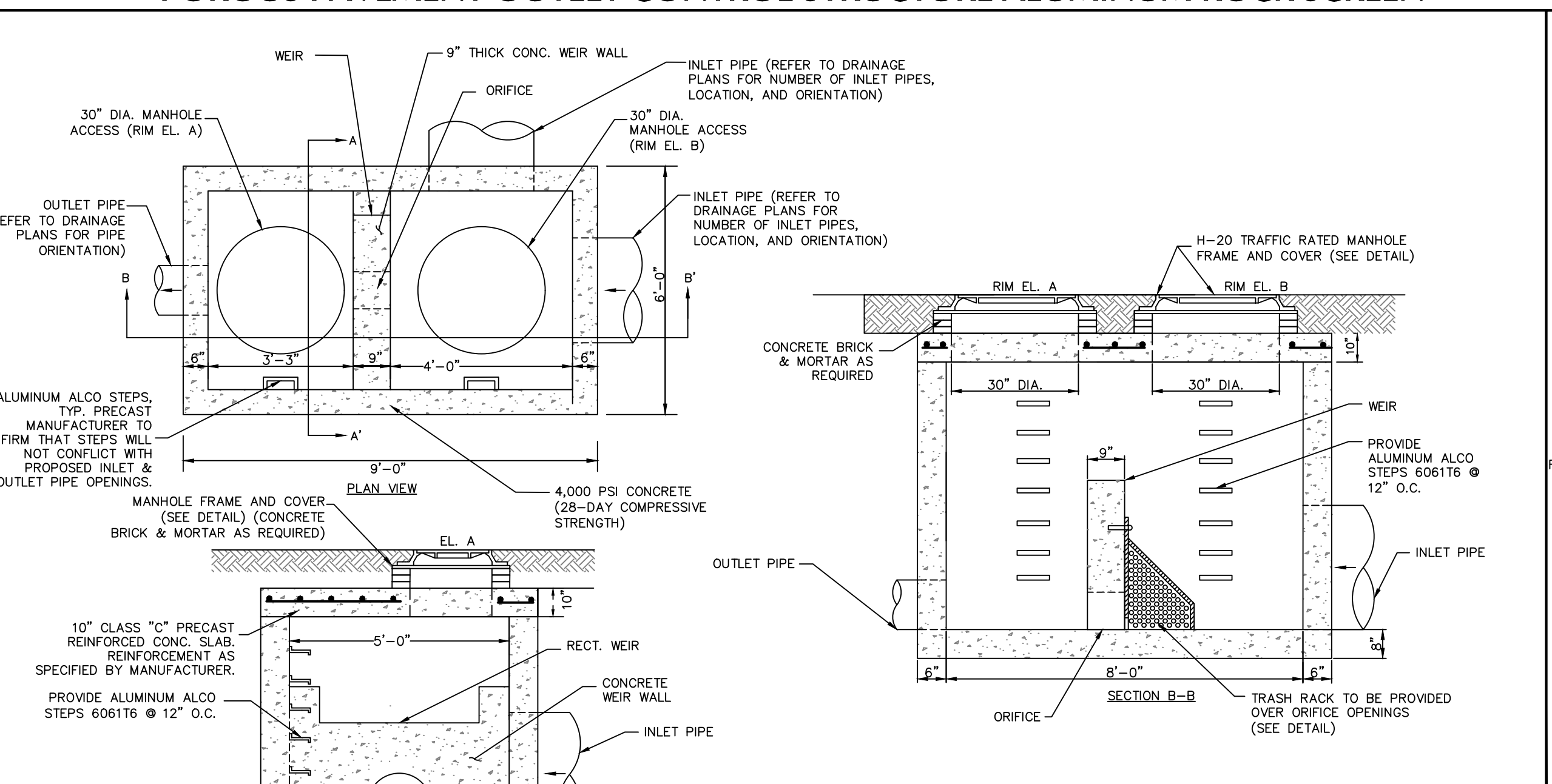
	ORIFICE "A"		ORIFICE "B"		RECT. WEIR		INLET PIPE		OUTLET PIPE		GRATE EL.
	SIZE	INVERT	SIZE	INVERT	LENGTH	CREST EL.	SIZE	INVERT	SIZE	INVERT	
OCS2-1	2.5" DIA.	354.10	5"x6"	354.95	-	-	N/A	N/A	15" HDPE	353.05	356.60
OCS2-2	2.5" DIA.	355.10	3"x6"	355.75	-	-	15"	HDPE	353.48	353.48	358.10
OCS2-3	2.5" DIA.	354.10	5"x6"	354.90	-	-	N/A	N/A	15" HDPE	354.04	357.31



- NOTES:
1. MAX OPENING BETWEEN PARALLEL BARS TO BE 3"
 2. ROCK SCREEN TO EXTEND MIN. 12" IN BOTH DIRECTIONS BEYOND WIDTH OF RECTANGULAR WEIR, MIN 6" BELOW RECTANGULAR WEIR INVERT, AND MIN. 12" OUT FROM FACE OF OUTLET CONTROL STRUCTURE

POROUS PAVEMENT SYSTEM OUTLET CONTROL STRUCTURE

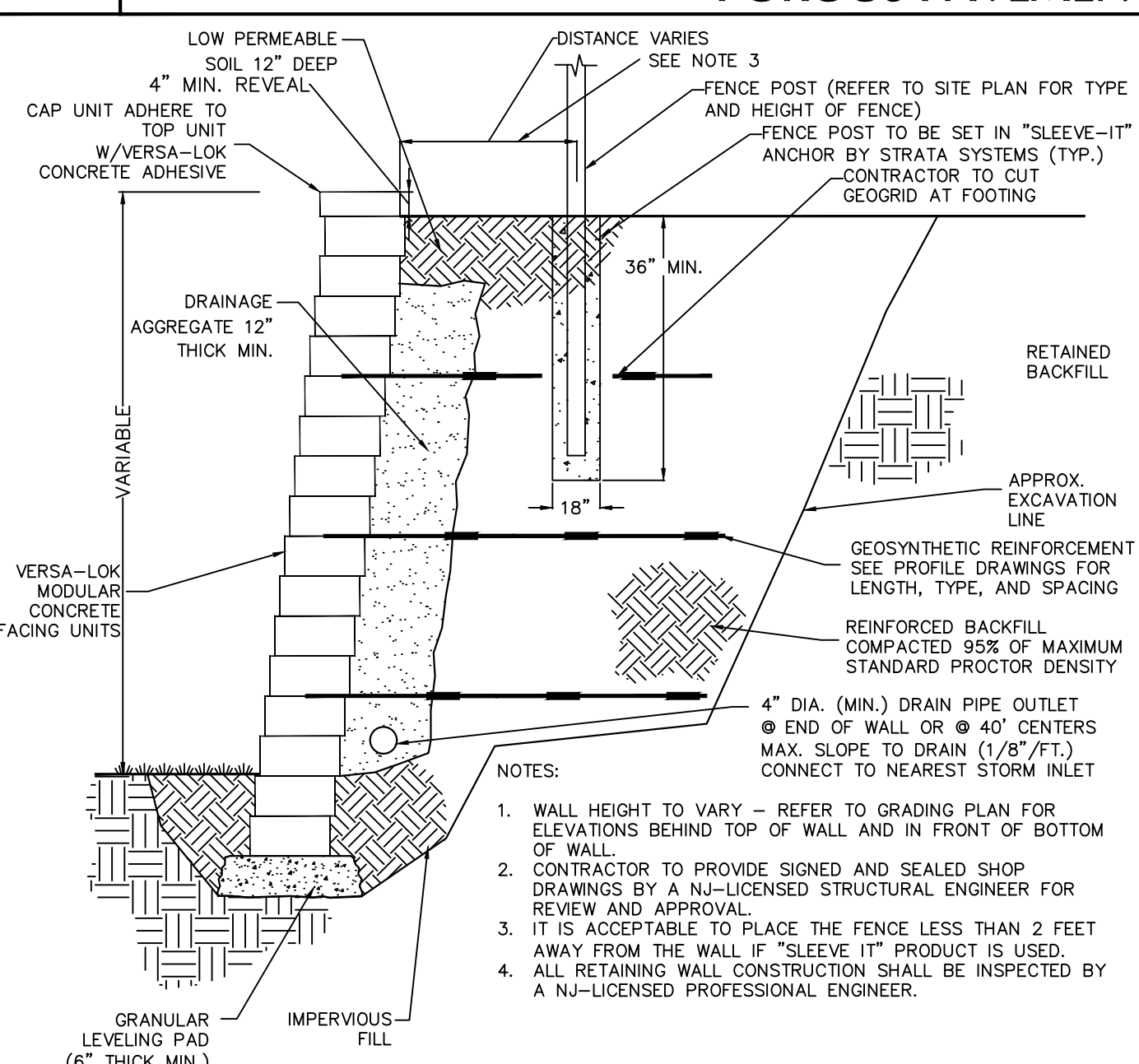
N.T.S.



	INLET PIPE(S)		OUTLET PIPE		ORIFICE		ORIFICE		RECT. WEIR		RIM EL. A	RIM EL. B
	SIZE	INVERT	SIZE	INVERT	SIZE	INVERT	SIZE	INVERT	SIZE	CREST EL.		
OCS1-1	24" HDPE	348.50	15" HDPE	348.50	2.5" DIA.	348.80	5"x5" RECT.	349.50	1' RECT.	350.80	354.34	354.00
OCS1-2	36" HDPE	344.50	15" HDPE	344.50	2.5" DIA.	344.55	5"x5" RECT.	345.50	1.5" RECT.	347.50	351.19	349.63

N.T.S.

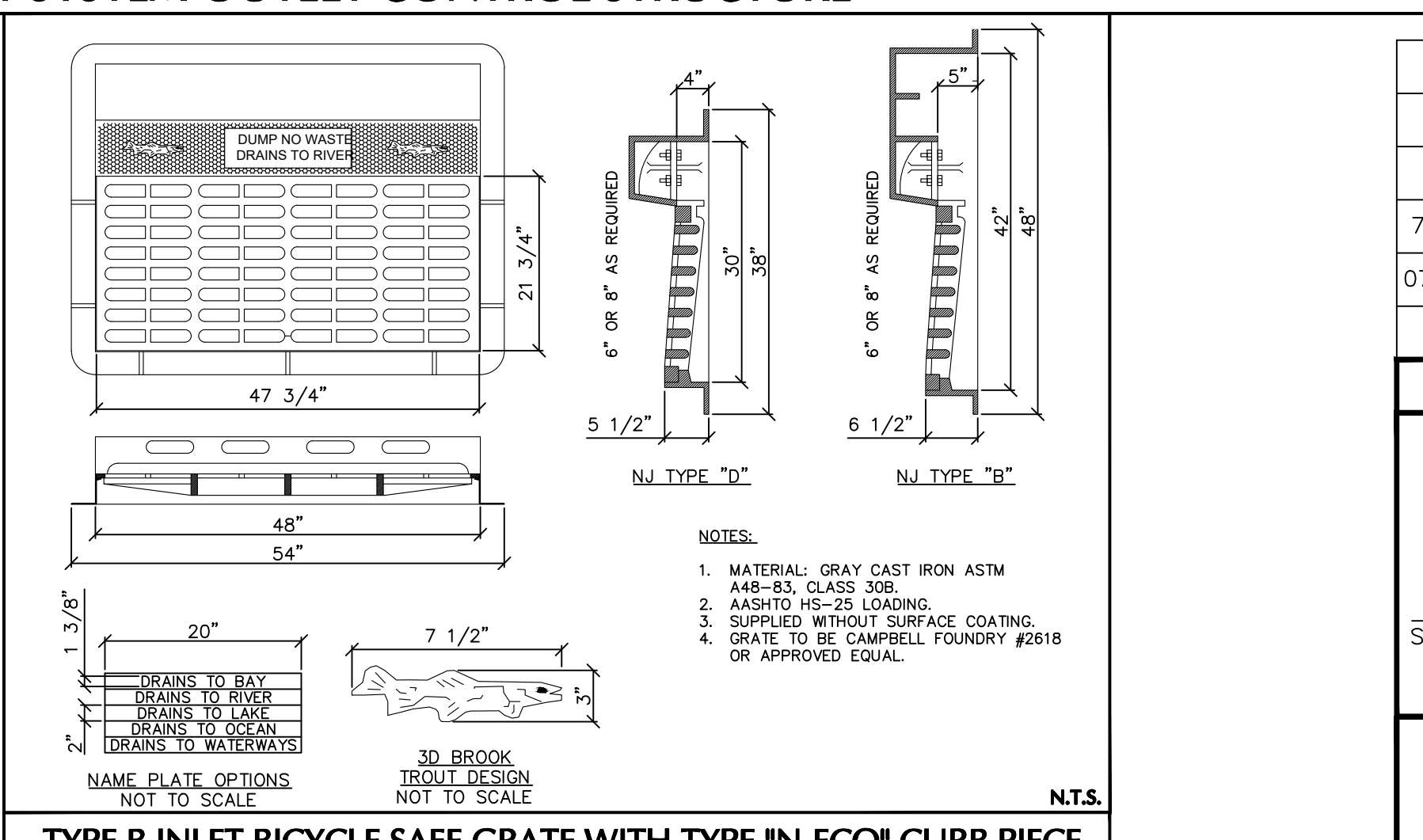
UNDERGROUND INFILTRATION BASIN OUTLET CONTROL STRUCTURES



- NOTES:
1. WALL HEIGHT TO VARY - REFER TO GRADING PLAN FOR ELEVATIONS BEHIND TOP OF WALL AND IN FRONT OF BOTTOM OF WALL.
 2. CONTRACTOR TO PROVIDE SIGNED AND SEALED SHOP DRAWINGS BY A NJ-LICENSED STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL.
 3. IT IS ACCEPTABLE TO PLACE THE FENCE LESS THAN 2 FEET AWAY FROM THE WALL IF "SLEEVE IT" PRODUCT IS USED.
 4. ALL RETAINING WALL CONSTRUCTION SHALL BE INSPECTED BY A NJ-LICENSED PROFESSIONAL ENGINEER.

TYPICAL REINFORCED MODULAR WALL

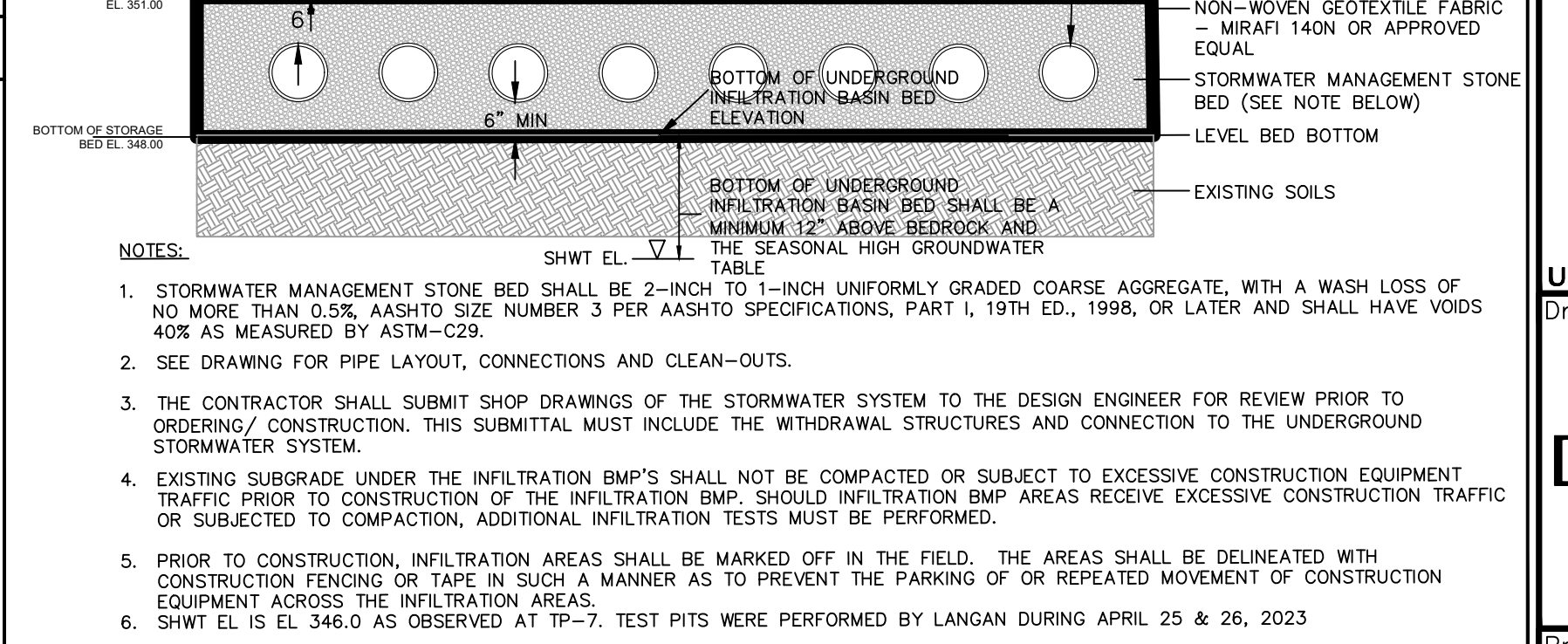
N.T.S.



TYPE B INLET BICYCLE SAFE GRATE WITH TYPE "N-ECO" CURB PIECE

- NOTES:
1. MATERIAL: GRAY CAST IRON ASTM A48-B3, CLASS JOB.
 2. AASHTO M5-25 LOADING.
 3. SUPPLIED WITHOUT SURFACE COATING.
 4. GRATE TO BE CAMPBELL FOUNDRY #2618 OR APPROVED EQUAL.

UNDERGROUND INFILTRATION BASIN 1-1 SECTION



- NOTES:
1. STORMWATER MANAGEMENT STONE BED SHALL BE 2-INCH TO 1-INCH UNIFORMLY GRADED COARSE AGGREGATE, WITH A WASH LOSS OF NO MORE THAN 0.5% AASHTO SIZE NUMBER 3 PER AASHTO SPECIFICATIONS, PART 1, 19TH ED., 1998, OR LATER AND SHALL HAVE VOIDS 40% AS MEASURED BY ASTM-C29.
 2. SEE DRAWING FOR PIPE LAYOUT, CONNECTIONS AND CLEAN-OUTS.
 3. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE STORMWATER SYSTEM TO THE DESIGN ENGINEER FOR REVIEW PRIOR TO ORDERING/ CONSTRUCTION. THIS SUBMITTAL MUST INCLUDE THE WITHDRAWAL STRUCTURES AND CONNECTION TO THE UNDERGROUND STORMWATER SYSTEM.
 4. EXISTING SUBGRADE UNDER THE INFILTRATION BMP'S SHALL NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC PRIOR TO CONSTRUCTION OF THE INFILTRATION BMP. SHOULD INFILTRATION BMP AREAS RECEIVE EXCESSIVE CONSTRUCTION TRAFFIC OR SUBJECT TO COMPACTION, ADDITIONAL INFILTRATION TESTS MUST BE PERFORMED.
 5. PRIOR TO CONSTRUCTION, INFILTRATION AREAS SHALL BE MARKED OFF IN THE FIELD. THE AREAS SHALL BE DELINEATED WITH CONSTRUCTION FENCING OR TAPE IN SUCH A MANNER AS TO PREVENT THE PARKING OF OR REPEATED MOVEMENT OF CONSTRUCTION EQUIPMENT ACROSS THE INFILTRATION AREAS.
 6. SHWT EL IS EL 346.0 AS OBSERVED AT TP-7. TEST PITS WERE PERFORMED BY LANGAN DURING APRIL 25 & 26, 2023

UNDERGROUND INFILTRATION BASIN 1-1 SECTION

N.T.S.

Date	Description	No.
7/01/25	REVISED PER CITY COMMENTS	2
07/18/24	REVISED PER TRC COMMENTS	1

Revisions

SIGNATURE: JOHN COTE
 PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800
 DATE

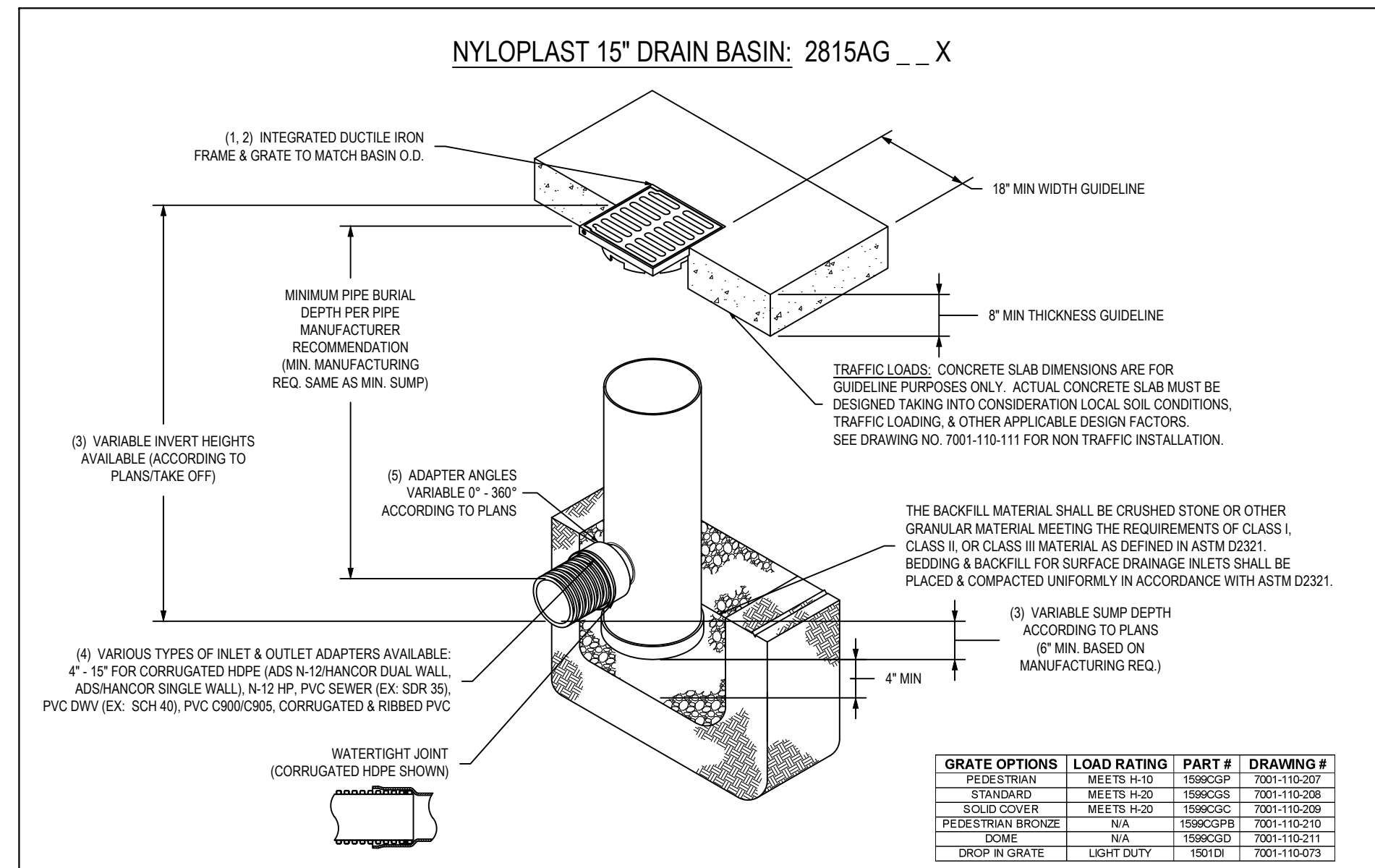


Langan Engineering and Environmental Services, LLC
 300 Kimball Drive
 Parsippany, NJ 07054
 T: 973.560.4900 F: 973.560.4901 www.langan.com
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Project: BEACON UNITARIAN UNIVERSALIST CONGREGATION
 SUMMIT NEW JERSEY

DRAINAGE DETAILS

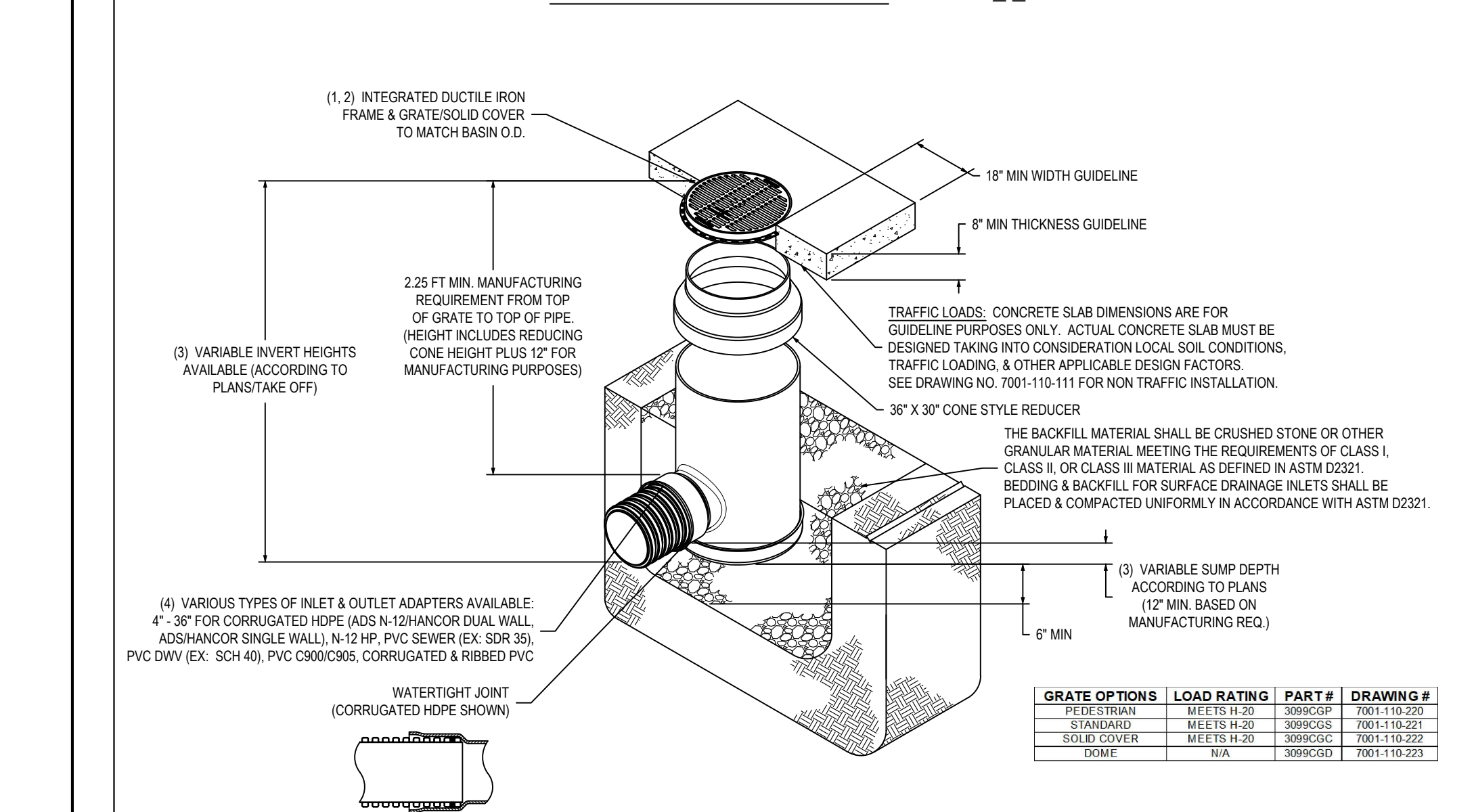
Project No.	Drawing No.
101007201	CG502
Date	FEBRUARY 9, 2024
Drawn By	SM
Checked By	TH
Project No.	Drawing No.
101007201	CG502
Date	FEBRUARY 9, 2024
Drawn By	SM
Checked By	TH



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-20	3096GDP	7001-110-207
STANDARD	MEETS H-20	3096GSC	7001-110-201
SOLID COVER	MEETS H-20	3096GSC	7001-110-208
PEDESTRIAN BRIDGE	N/A	3096GCB	7001-110-210
DOMES	N/A	3096GDD	7001-110-211
CRIP 'N' GRATE	LIGHT DUTY	1501G	7001-110-213

- INLET GRATE STYLE AND COLOR TO BE COORDINATED WITH LANDSCAPE ARCHITECT.
- INLET GRATES SHALL HAVE SAFETY LOCK.
- REFER TO NYLOPLAST NON-TRAFFIC INSTALLATION DETAIL FOR YARD INLETS TO BE INSTALLED OUTSIDE OF DRIVEWAY LIMITS.

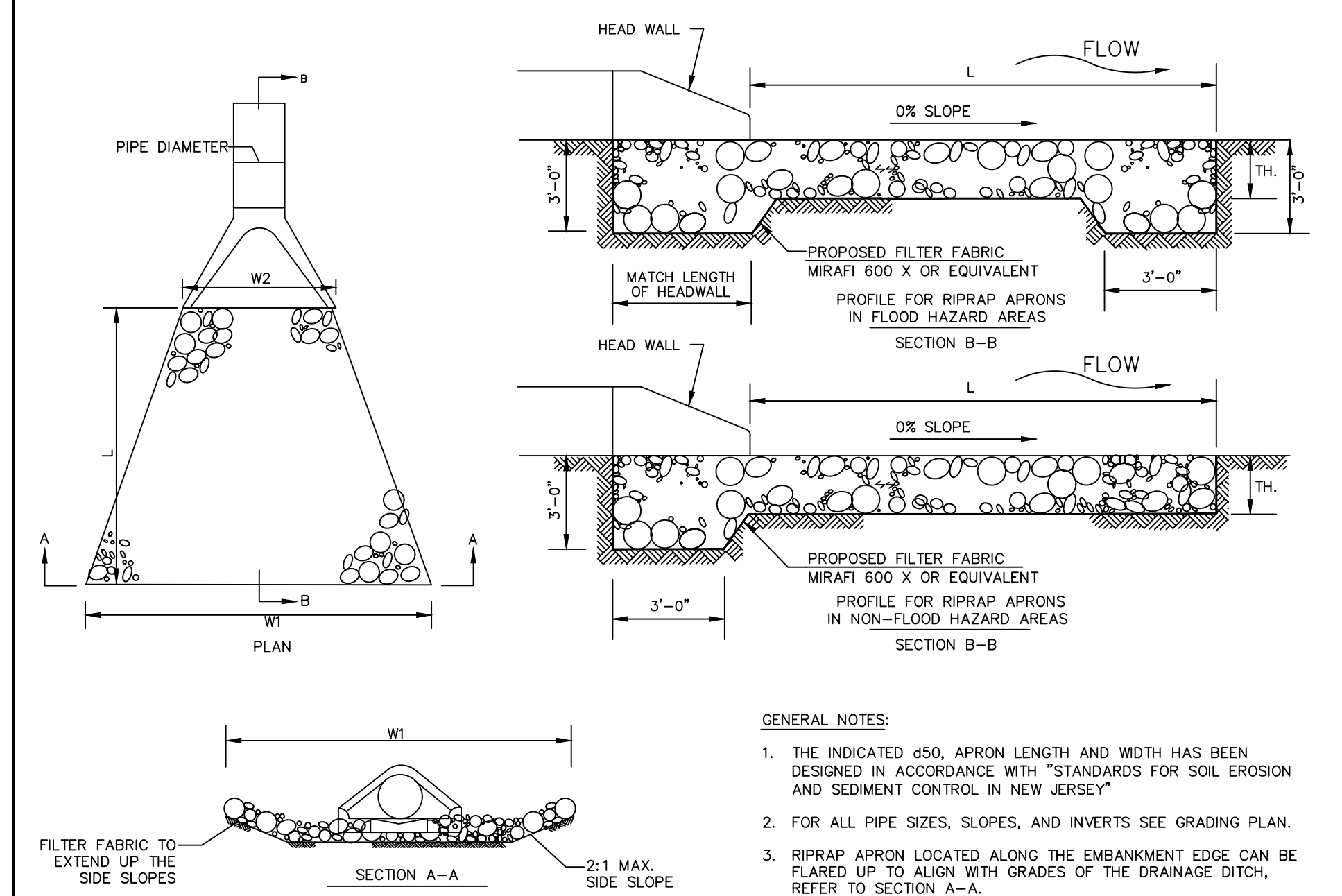
NYLOPLAST YARD INLET



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-20	3096GDP	7001-110-220
STANDARD	MEETS H-20	3096GSC	7001-110-221
SOLID COVER	MEETS H-20	3096GSC	7001-110-222
DOMES	N/A	3096GDD	7001-110-223

- STORM MANHOLES SHALL HAVE A SOLID, LOCKABLE COVER. COVER STYLE AND COLOR TO BE COORDINATED WITH THE LANDSCAPE ARCHITECT.
- POLYPROPYLENE STEPS OR LADDER SHALL BE REQUIRED WHEN THE STRUCTURE DEPTH EXCEEDS 3 FEET. FOLLOW MANUFACTURER RECOMMENDATIONS FOR INSTALLATION.
- REFER TO NYLOPLAST NON-TRAFFIC INSTALLATION DETAIL FOR MANHOLES TO BE INSTALLED OUTSIDE OF DRIVEWAY LIMITS.

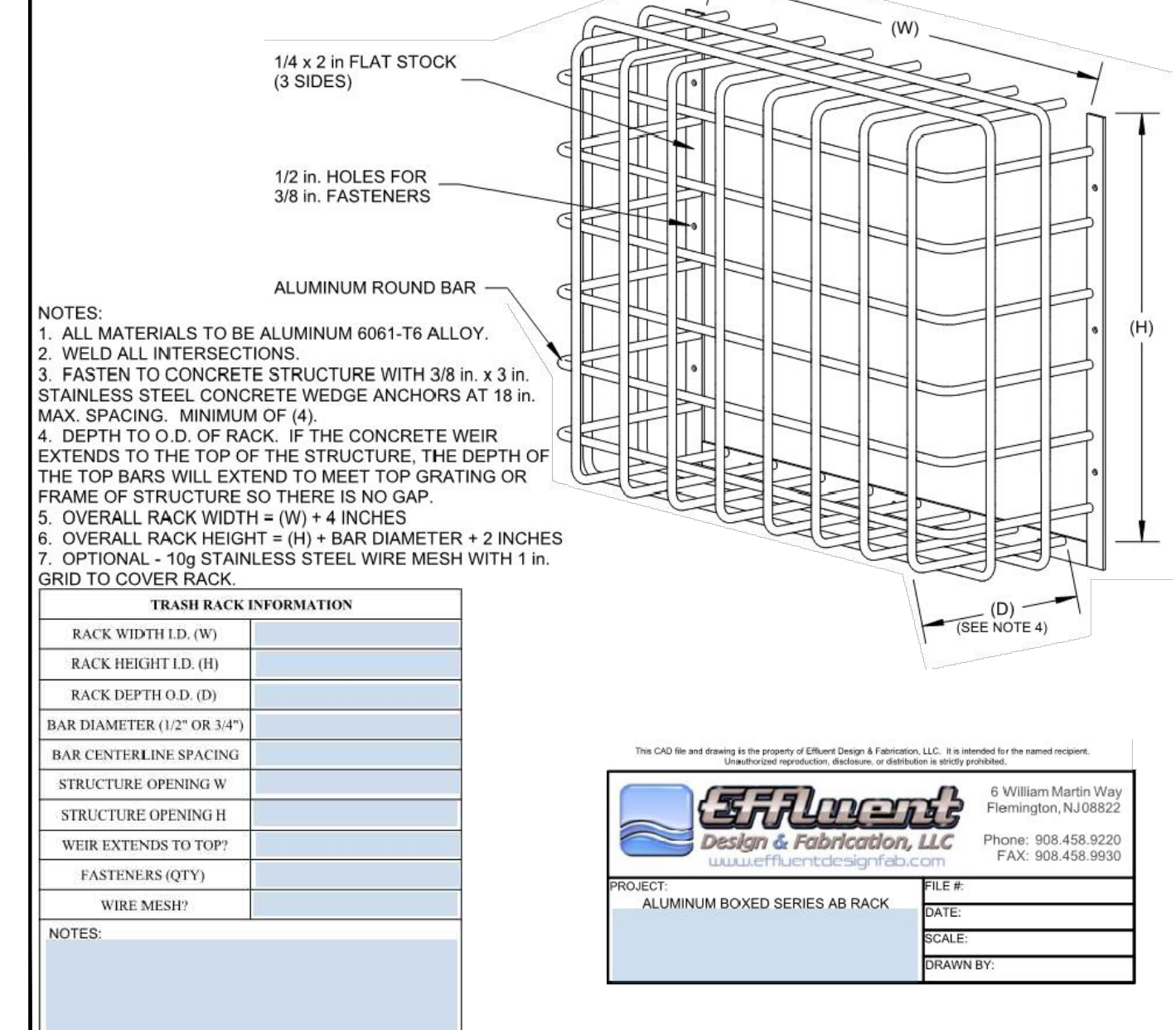
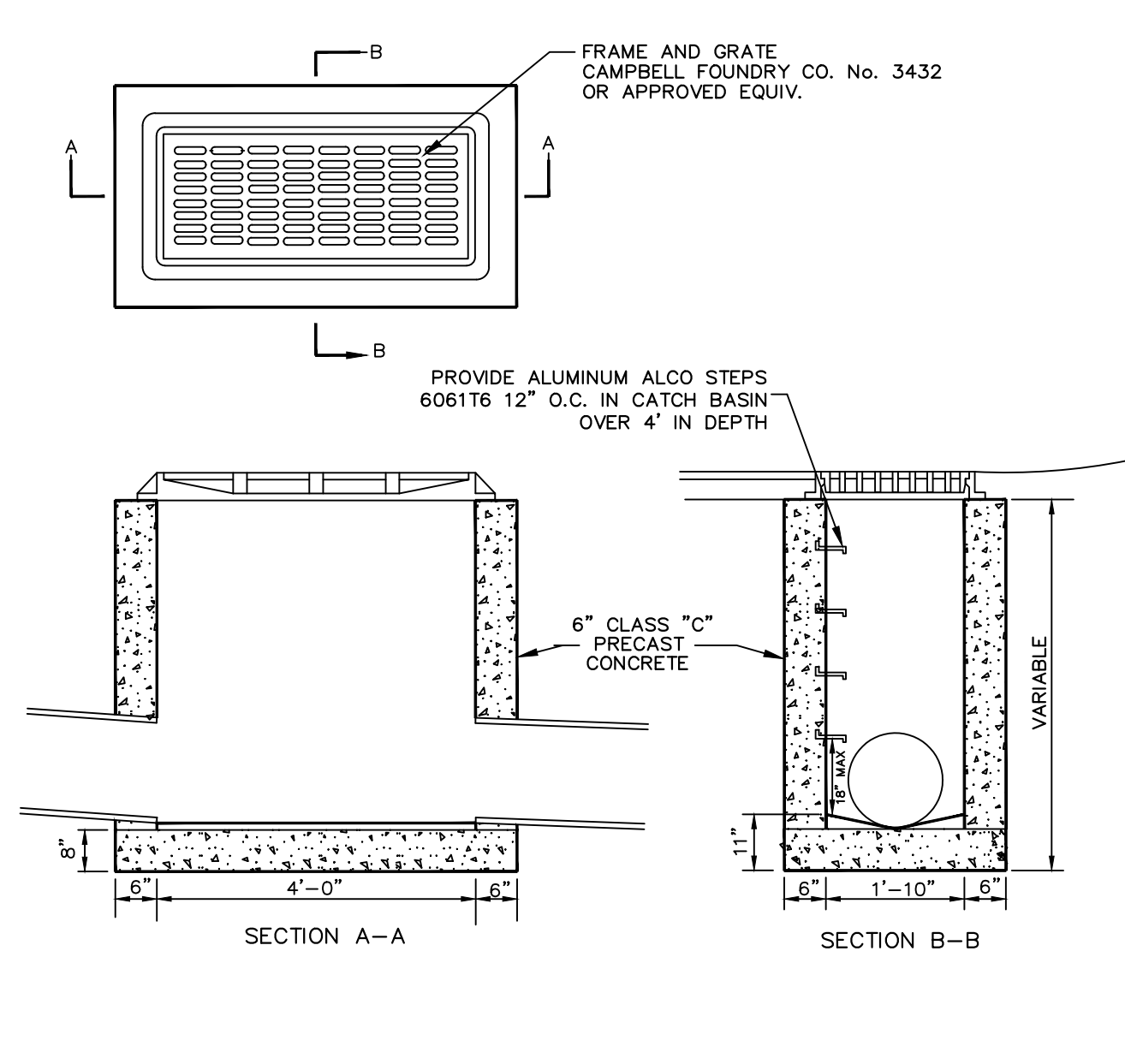
NYLOPLAST STORM MANHOLE



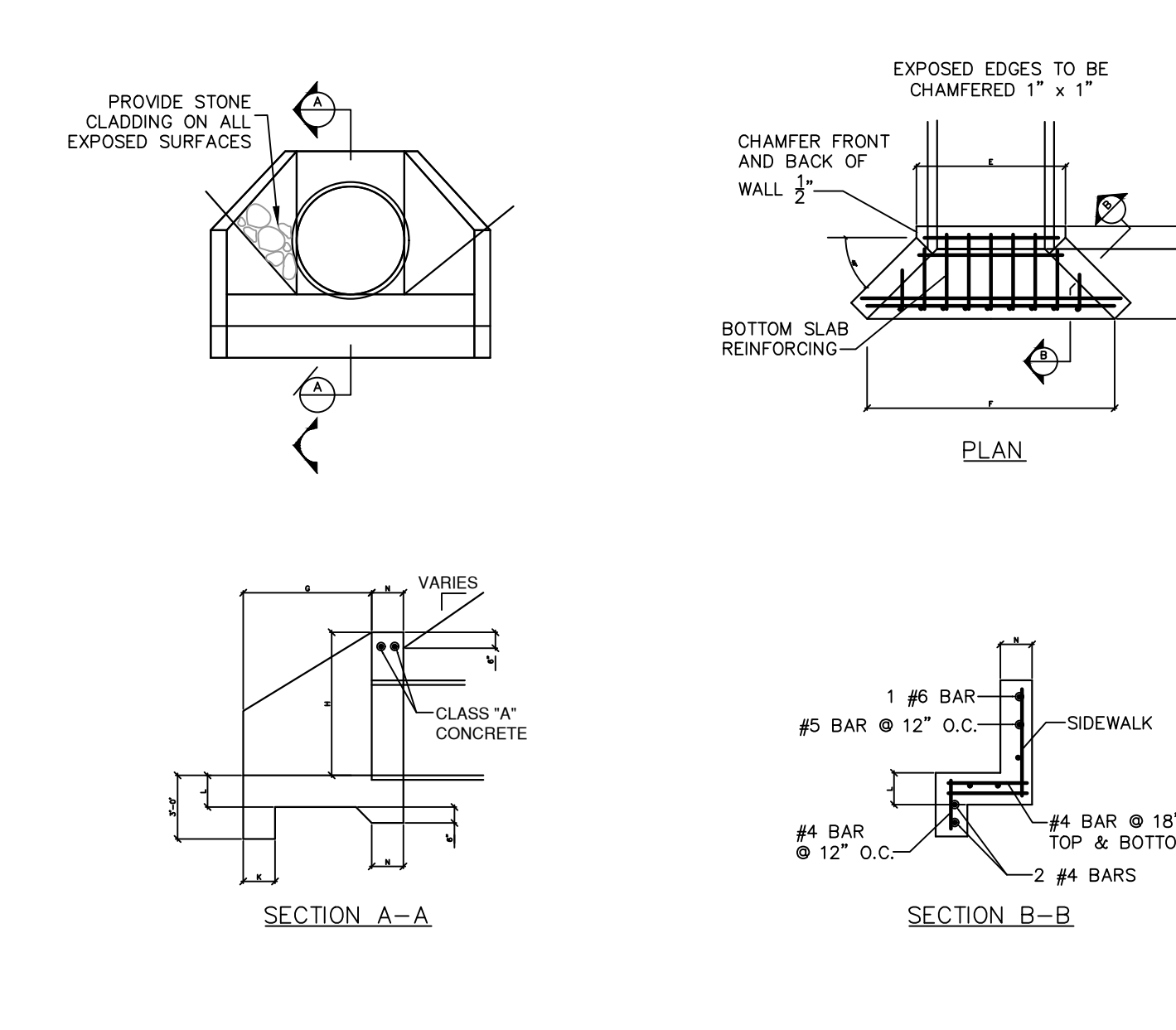
OUTLET	LENGTH	d50	W1	W2	THICKNESS
HW2-1	13.0'	3.0"	17.0'	3.75'	6"

- THE INDICATED d50, APRON LENGTH AND WIDTH HAS BEEN DESIGNED IN ACCORDANCE WITH "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY"
- FOR ALL PIPE SIZES, SLOPES, AND INVERTS SEE GRADING PLAN.
- RIPRAP APRON LOCATED ALONG THE EMBANKMENT EDGE CAN BE FLARED UP TO ALIGN WITH GRADES OF THE DRAINAGE DITCH. REFER TO SECTION A-A.

RIPRAP APRON



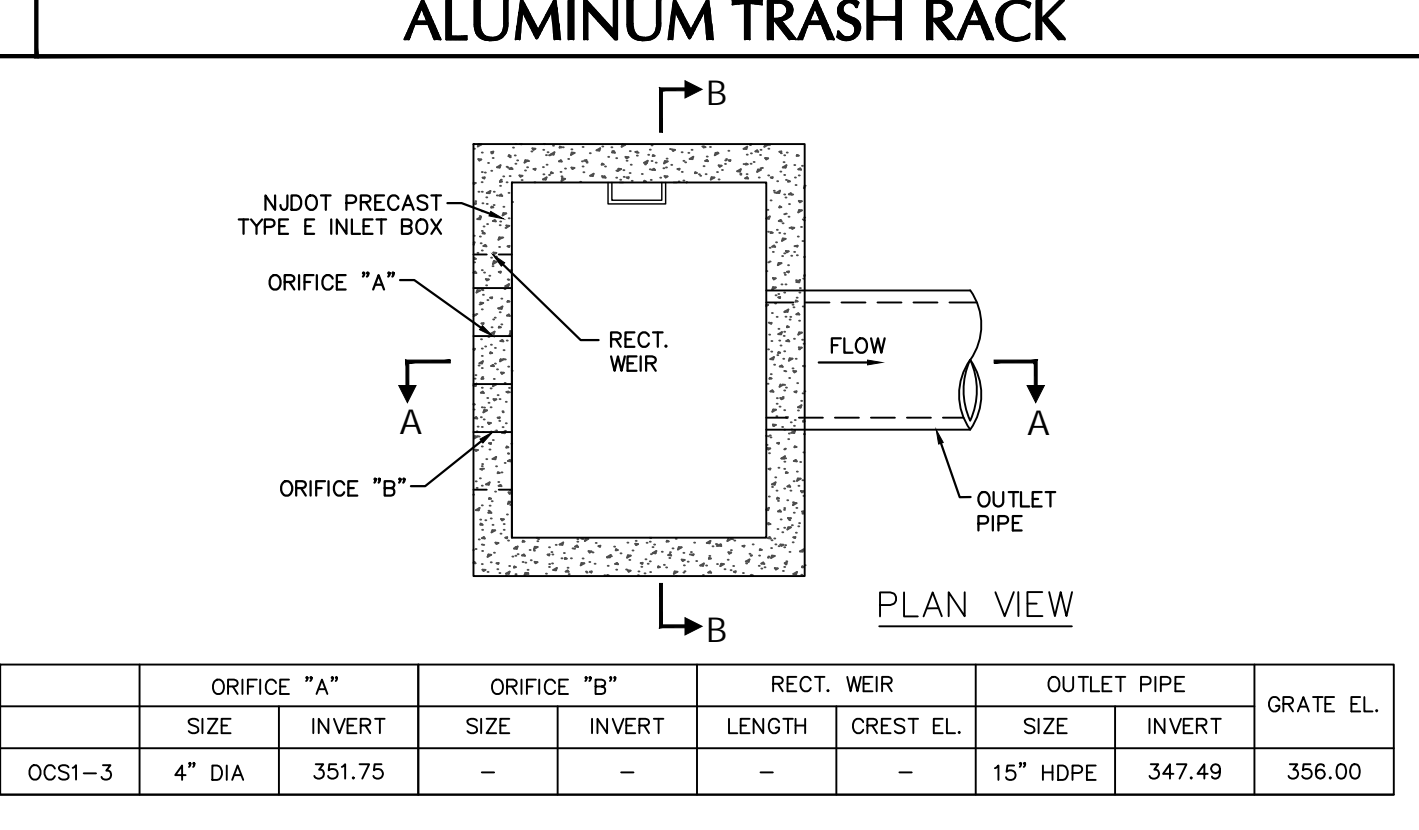
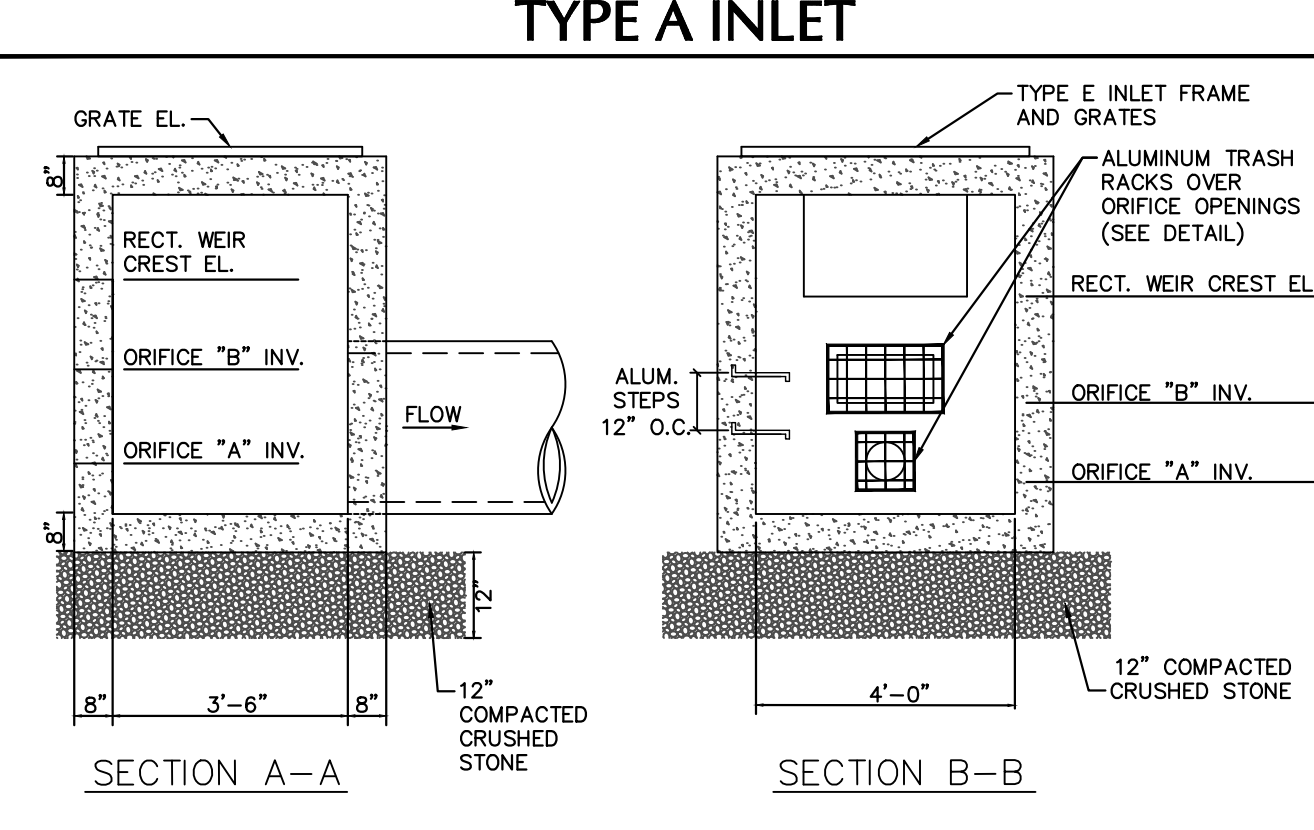
TRASH RACK INFORMATION	
RACK WIDTH (W)	14" x 2" IN FLAT STOCK (3 SIDES)
RACK HEIGHT (H)	1/2" HOLES FOR 3/8" FASTENERS
RACK DEPTH (D)	ALUMINUM ROUND BAR
BAR DIAMETER (1/2" OR 3/4")	
BAR CENTERLINE SPACING	
STRUCTURE OPENING W	
STRUCTURE OPENING H	
WEIR EXTENDS TO TOP?	
FASTENERS (QTY)	
WIRE MESH?	



D	E	F	G	H	J	K	L	N	R	VOL. C.Y.
18"	3'-0"	8'-6"	3'-0"	3'-0"	2'-0"	8"	8"	8"	#5-12" O/C	1.70
21"	3'-4"	8'-9"	3'-0"	3'-3"	2'-0"	8"	8"	8"	#5-12" O/C	1.80
24"	3'-8"	9'-0"	3'-0"	3'-6"	2'-0"	8"	8"	8"	#5-12" O/C	1.90
27"	3'-11"	9'-3"	3'-0"	3'-9"	2'-0"	8"	8"	8"	#5-12" O/C	2.00
30"	4'-2"	9'-6"	3'-0"	4'-0"	2'-11"	8"	8"	10"	#5-12" O/C	2.85
36"	4'-8"	11'-0"	3'-6"	4'-6"	2'-3"	8"	10"	10"	#5-12" O/C	3.15
42"	5'-3"	12'-6"	4'-0"	5'-0"	2'-9"	8"	10"	10"	#5-12" O/C	3.87
48"	5'-10"	14'-0"	4'-6"	5'-6"	3'-0"	8"	10"	12"	#5-12" O/C	5.08
54"	6'-5"	15'-6"	5'-0"	6'-0"	3'-3"	9"	12"	12"	#6-8" O/C	6.50
60"	7'-0"	17'-0"	5'-6"	6'-6"	3'-6"	9"	12"	12"	#6-8" O/C	7.98
66"	7'-7"	18'-6"	6'-0"	7'-0"	3'-9"	9"	12"	14"	#6-8" O/C	9.14
72"	8'-2"	20'-0"	6'-6"	7'-6"	4'-3"	9"	12"	14"	#6-8" O/C	11.10

- HEAD WALLS MAY BE PRECAST OR CAST-IN-PLACE WITH STONE FACING.
- STRUCTURAL DESIGN (WALL AND SLAB THICKNESS AND ALL REINFORCING) BY PRECASTER AND SHALL MEET STATE DEPARTMENT OF TRANSPORTATION STANDARDS AND SUPPORT HS-20 OR HS-25 LOADING AS REQUIRED.

CONCRETE HEADWALL



ORIFICE "A"	ORIFICE "B"	RECT. WEIR	OUTLET PIPE	GRATE EL.
SIZE	INVERT	SIZE	INVERT	LENGTH
4" DIA	351.75	-	-	15" HDPE
				347.49
				356.00

RAIN GARDEN OUTLET CONTROL STRUCTURE

Date	Description	No.
7/01/25	REVISED PER CITY COMMENTS	1

Revisions

SIGNATURE JOHN COTE DATE
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800

LANGAN
Langan Engineering and Environmental Services, LLC
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project **BEACON UNITARIAN UNIVERSALIST CONGREGATION**
SUMMIT NEW JERSEY

UNION COUNTY
Drawing Title **DRAINAGE DETAILS**

Project No. 101007201	Drawing No. CG503
Date FEBRUARY 9, 2024	
Drawn By SS	
Checked By TH	
	Sheet 11 of 19

CULTEC RECHARGER® 360HD PRODUCT SPECIFICATIONS

- GENERAL
CULTEC RECHARGER® 360HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.
CHAMBER PARAMETERS
1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". THE LOAD CONFIGURATION SHALL INCLUDE:
A. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER
B. MAXIMUM PERMANENT (50-YEAR) COVER LOAD
C. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD
3. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE FOLLOWING:
A. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430
B. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75
C. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95
5. THE CHAMBER SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
6. THE CHAMBER SHALL BE ARCHED IN SHAPE.
7. THE CHAMBER SHALL BE OPEN-BOTTOMED.
8. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER® 360HD SHALL BE 36 INCHES (915 mm) TALL, 60 INCHES (1525 mm) WIDE AND 20 INCHES (508 mm) LONG. THE INSTALLED LENGTH OF A JOINED RECHARGER® 360HD SHALL BE 3.67 FEET (1.12 m).
10. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER® 360HD END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCH (600 mm) HDPE OR 30 INCH (750mm) PVC.
11. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-48 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN THE SIDE PORTAL IS 10 INCH (250mm) HDPE OR 12 INCH (300mm) PVC.
12. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV™ FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1243 mm) LONG.
13. THE NOMINAL STORAGE VOLUME OF THE RECHARGER® 360HD CHAMBER SHALL BE 10.0 FT³ / FT (282 m³ / m) WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER® 360HD SHALL BE 36.66 FT³ / UNIT (1.038 m³ / UNIT) - WITHOUT STONE.
14. THE NOMINAL STORAGE VOLUME OF THE HVLV™ FC-48 FEED CONNECTOR SHALL BE 0.913 FT³ / FT (0.085 m³ / m) - WITHOUT STONE.
15. THE RECHARGER® 360HD CHAMBER SHALL HAVE 7 CORRUGATIONS.
16. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
17. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 12.0 FEET (3.66 m).

END CAP PARAMETERS

- 1. THE CULTEC RECHARGER® 360HD END CAP (REFERRED TO AS END CAP) SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE END CAP SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.
3. THE END CAP SHALL BE ARCHED IN SHAPE.
4. THE END CAP SHALL BE OPEN-BOTTOMED.
5. THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.
6. THE END CAP SHALL HAVE 5 CORRUGATIONS.
7. THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 36.5 INCHES (927 mm) TALL, 60 INCHES (1525 mm) WIDE AND 19 INCHES (483 mm) LONG. WHEN JOINED WITH A RECHARGER 360HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 15 INCHES (381 mm).
8. THE NOMINAL STORAGE VOLUME OF THE END CAP SHALL BE 5.17 FT³ / FT (0.48 m³ / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF AN INTERLOCKED END CAP SHALL BE 6.46 FT³ / UNIT (0.183 m³ / UNIT) - WITHOUT STONE.
9. MAXIMUM INLET OPENING ON THE END CAP IS 24 INCH (600 mm) HDPE OR 30 INCH (750mm) PVC.
10. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.
11. THE END CAP SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12.

Table with 3 columns: PIPE, A, B. Lists dimensions for various pipe sizes from 6" to 24" in inches and millimeters.

*THE TYPICAL INVERT TABLE ABOVE IS BASED ON THE INSIDE DIAMETER OF STANDARD CORRUGATED PLASTIC PIPE. THE HEAVY DUTY END CAP HAS PRE-MARKED TRIM LINES FOR PIPE DIAMETERS 12" (300mm), 15" (375mm), 18" (450mm) AND 24" (600mm). PIPES OF ANY SIZE AND MATERIAL UP TO 24" (600mm) MAY BE PLACED AT CUSTOM LOCATIONS AND CUSTOM INVERTS. 30" (750 mm) SMOOTH-WALL SDR-35 PVC PIPE MAY BE USED AT THE BOTTOM OF THE END CAP. THE CROWN OF THE PIPE MUST REMAIN A MINIMUM OF 3" (75mm) FROM THE EDGE OF THE HEAVY DUTY END CAP.

CULTEC HVLV FC-48 FEED CONNECTOR PRODUCT SPECIFICATIONS

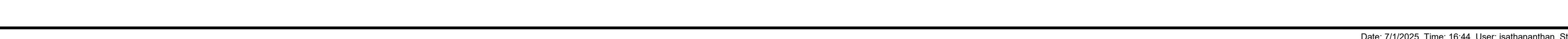
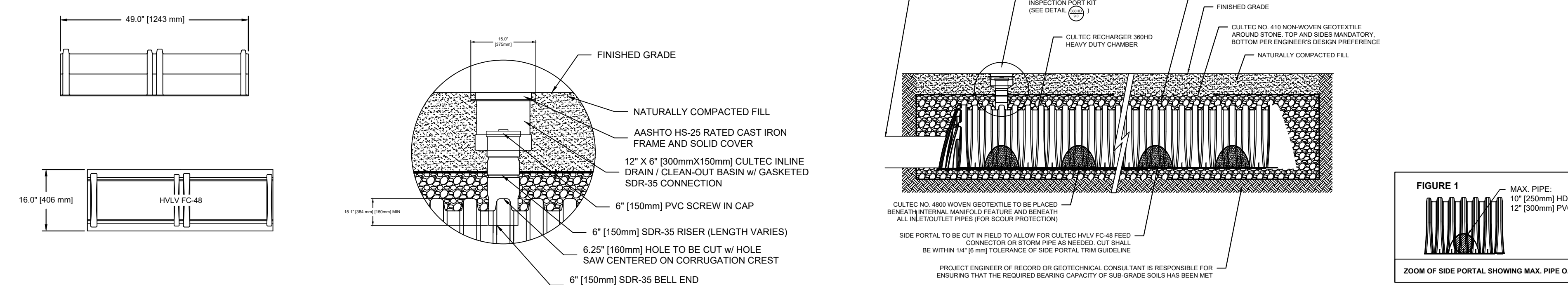
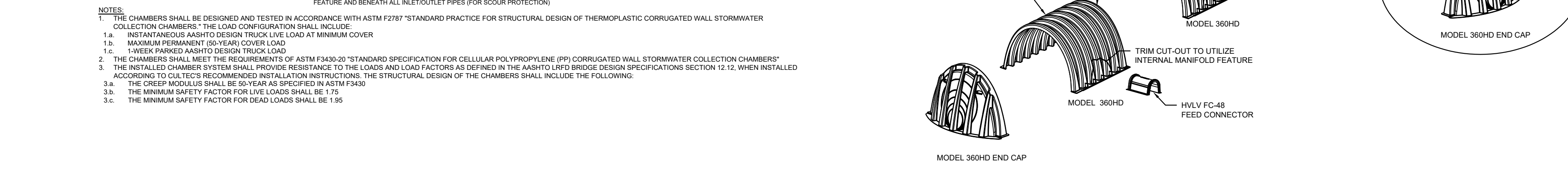
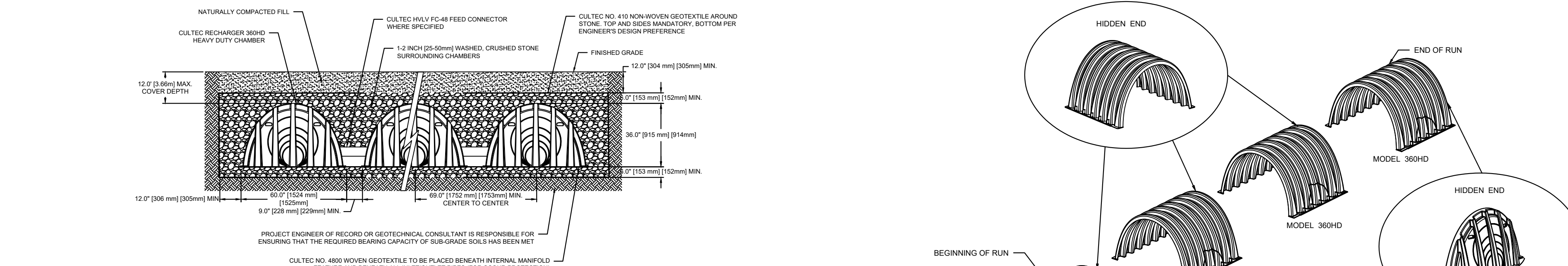
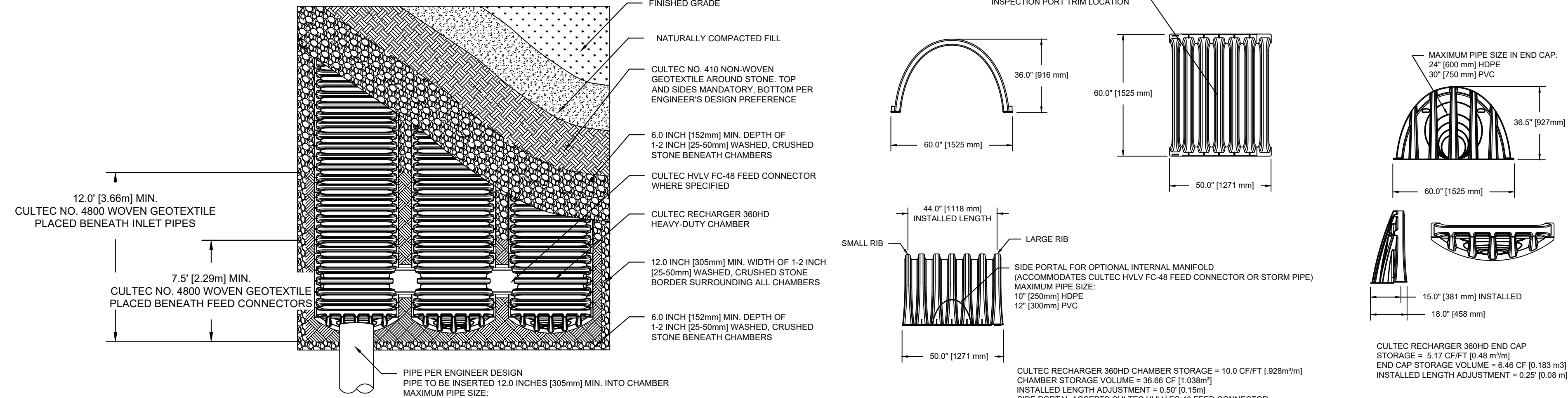
- GENERAL
CULTEC HVLV FC-48 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER MODEL 360HD STORMWATER CHAMBERS.
FEED CONNECTOR PARAMETERS
1. THE FEED CONNECTOR SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE FEED CONNECTOR SHALL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE).
3. THE FEED CONNECTOR SHALL BE ARCHED IN SHAPE.
4. THE FEED CONNECTOR SHALL BE OPEN-BOTTOMED.
5. THE NOMINAL DIMENSIONS OF THE CULTEC HVLV FC-48 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1243 mm) LONG.
6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-48 FEED CONNECTOR SHALL BE 0.913 FT³ / FT (0.085 m³ / m) - WITHOUT STONE.
7. THE HVLV FC-48 FEED CONNECTOR SHALL HAVE 4 CORRUGATIONS.
8. THE HVLV FC-48 FEED CONNECTOR MUST BE FORMED AS A WHOLE UNIT HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHARGER STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
9. THE FEED CONNECTOR SHALL BE DESIGNED TO WITHSTAND AASHTO HS-25 DEFINED LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
10. THE FEED CONNECTOR SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY.

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE

- CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.
GEOTEXTILE PARAMETERS
1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M²).
4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A ADS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

CULTEC NO. 4800™ WOVEN GEOTEXTILE

- CULTEC NO. 4800™ WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE.
GEOTEXTILE PARAMETERS
1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 550 X 550 LBS (2,448 X 2,448 N) PER ASTM D4632 TESTING METHOD.
4. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK RESISTANCE OF 20 X 20% PER ASTM D4632 TESTING METHOD.
5. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 5,070 X 5,070 LBS/FT (74 X 74 KN/M) PER ASTM D4595 TESTING METHOD.
6. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 2% STRAIN OF 960 X 1,096 LBS/FT (14 X 16 KN/M) PER ASTM D4595 TESTING METHOD.
7. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 5% STRAIN OF 2,740 X 2,740 LBS/FT (40 X 40 KN/M) PER ASTM D4595 TESTING METHOD.
8. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 10% STRAIN OF 4,800 X 4,800 LBS/FT (70 X 70 KN/M) PER ASTM D4595 TESTING METHOD.
9. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,700 LBS (7,560 N) PER ASTM D6241 TESTING METHOD.
10. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 180 X 180 LBS (801 X 801 N) PER ASTM D4533 TESTING METHOD.
11. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 40 US STD. SIEVE (0.425 MM) PER ASTM D4751 TESTING METHOD.
12. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.15 SEC-1 PER ASTM D4491 TESTING METHOD.
13. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 11.5 GPM/FT² (470 LPM/M²) PER ASTM D4491 TESTING METHOD.
14. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 80% @ 500 HRS. PER ASTM D4355 TESTING METHOD.



SMALL SCALE SUBSURFACE INFILTRATION BASIN 1-2 INSTALLATION DETAILS (CULTEC RECHARGER 360HD)

Table with 3 columns: Date, Description, No. Includes a 'Revisions' section and a signature block for JOHN COTE, PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800.

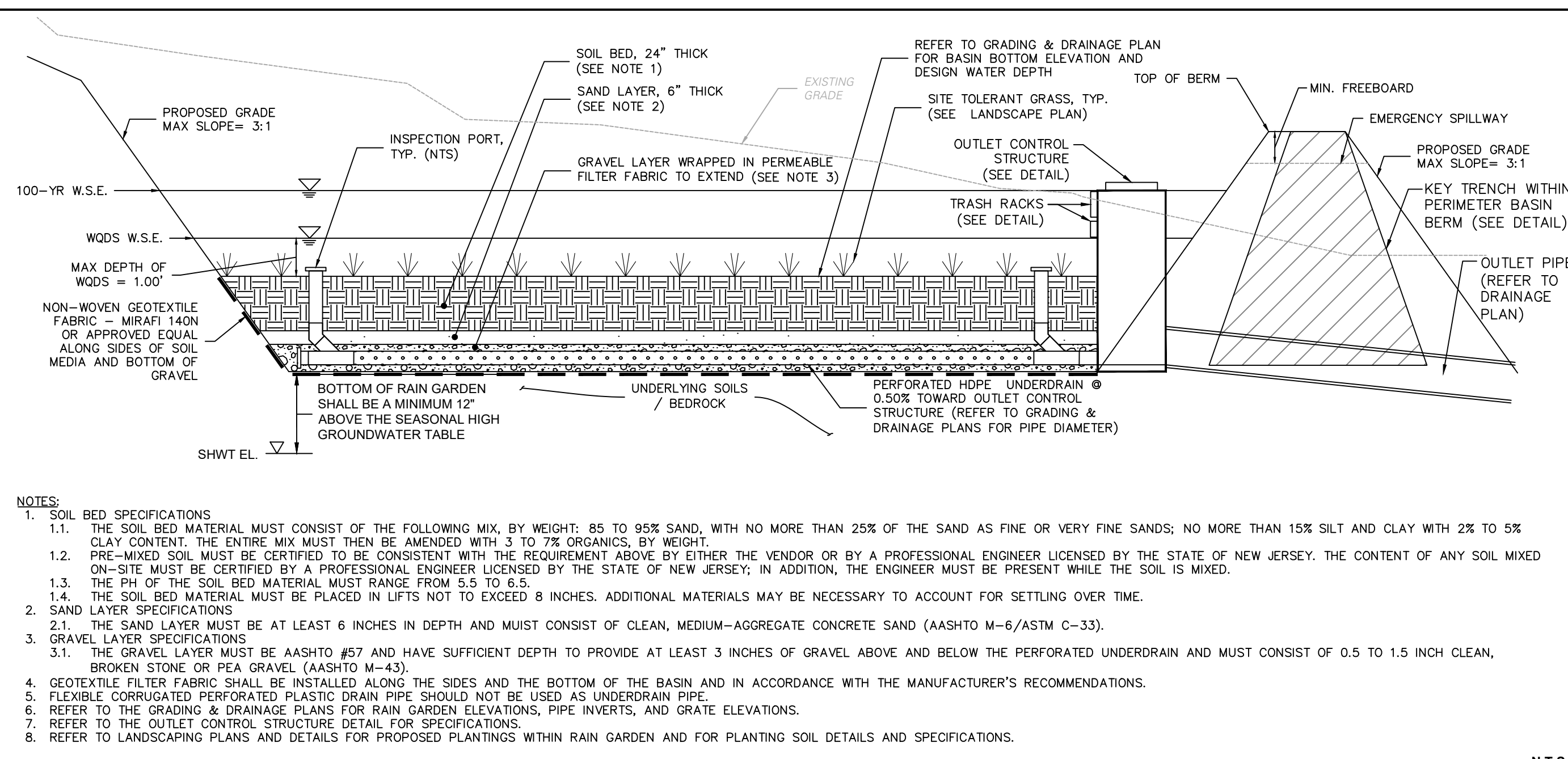
LANGAN Langan Engineering and Environmental Services, LLC 300 Kimball Drive Parsippany, NJ 07054 T: 973.560.4900 F: 973.560.4901 www.langan.com

BEACON UNITARIAN UNIVERSALIST CONGREGATION SUMMIT NEW JERSEY

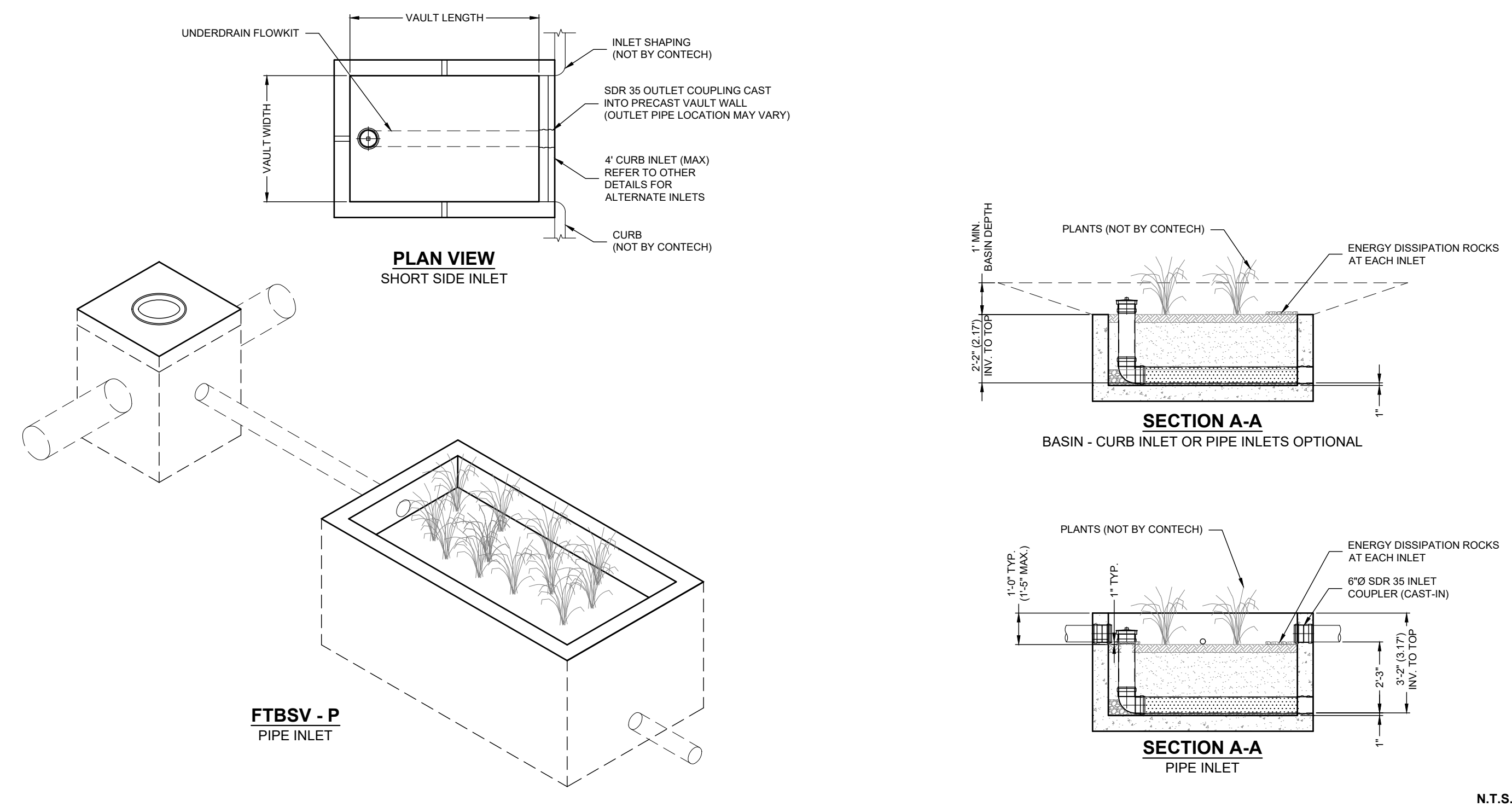
Union County Drawing Title

DRAINAGE DETAILS

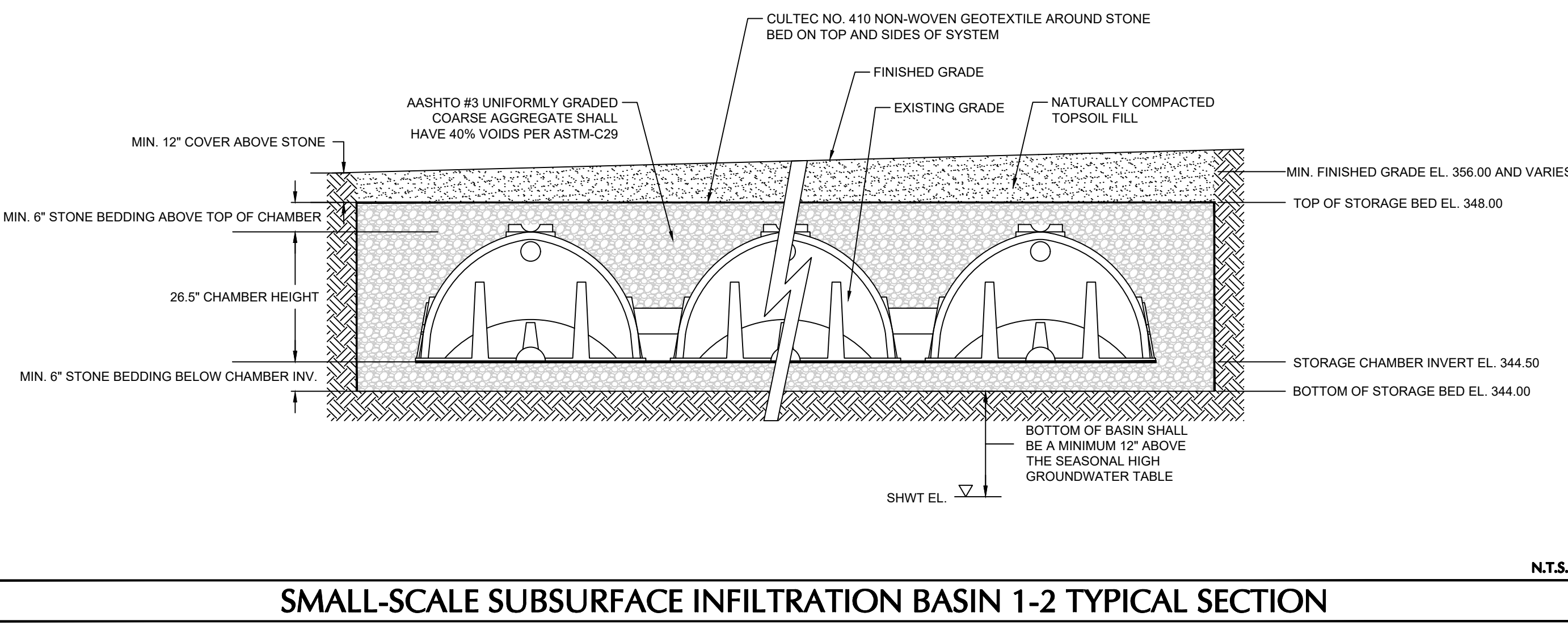
Table with 2 columns: Project No., Drawing No. Project No. 101007201, Drawing No. CG504. Includes Date (FEBRUARY 9, 2024), Drawn By (SS), Checked By (TH), and Sheet 12 of 19.



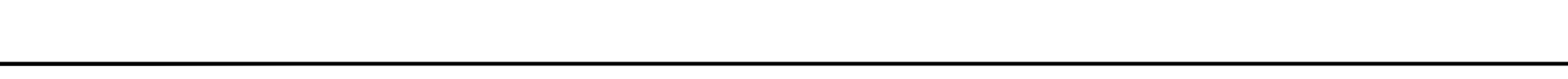
UNDERDRAINED RAIN GARDEN TYPICAL CROSS SECTION N.T.S.



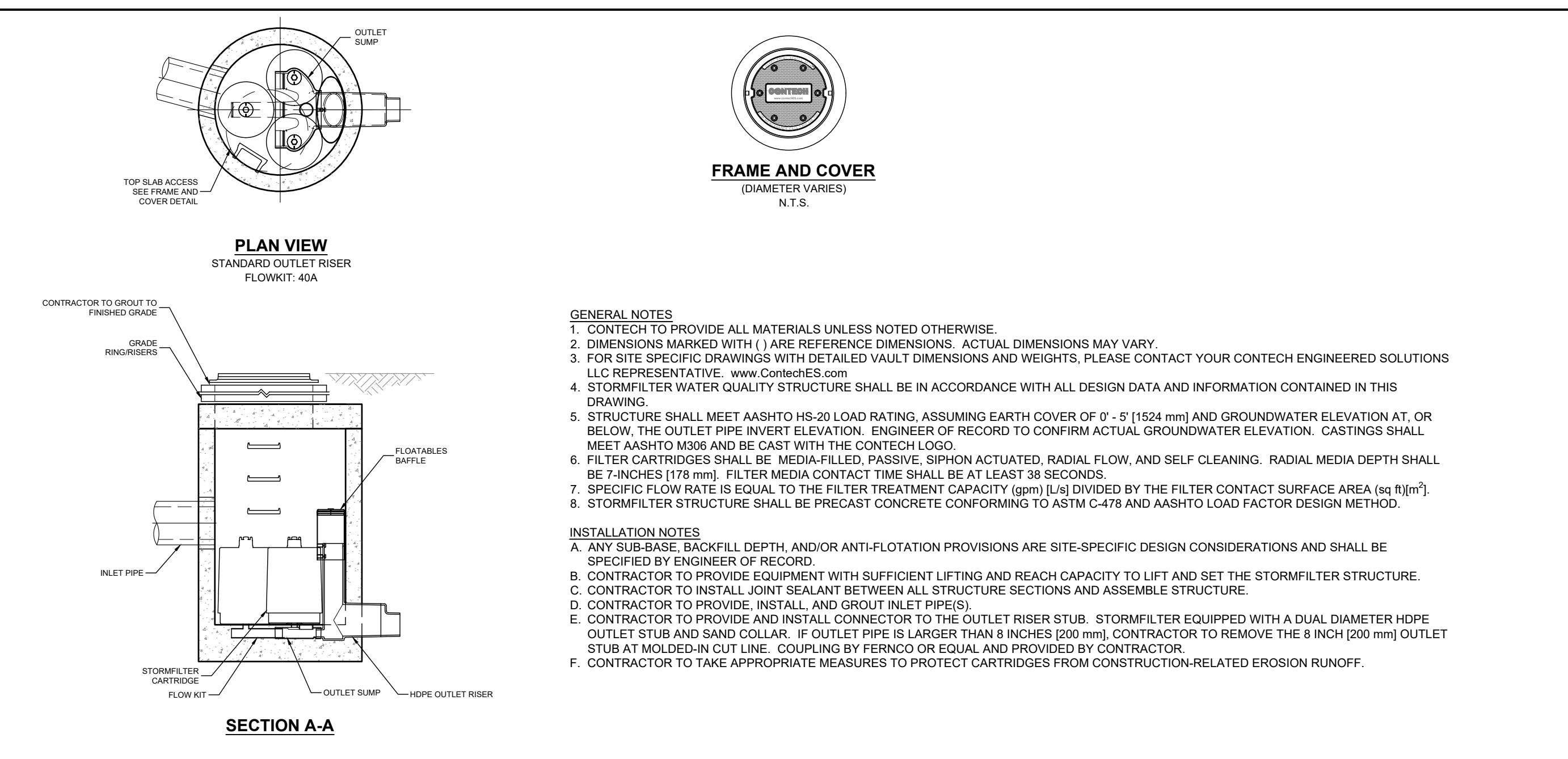
CONTECH STORMFILTER 48" MANHOLE N.T.S.



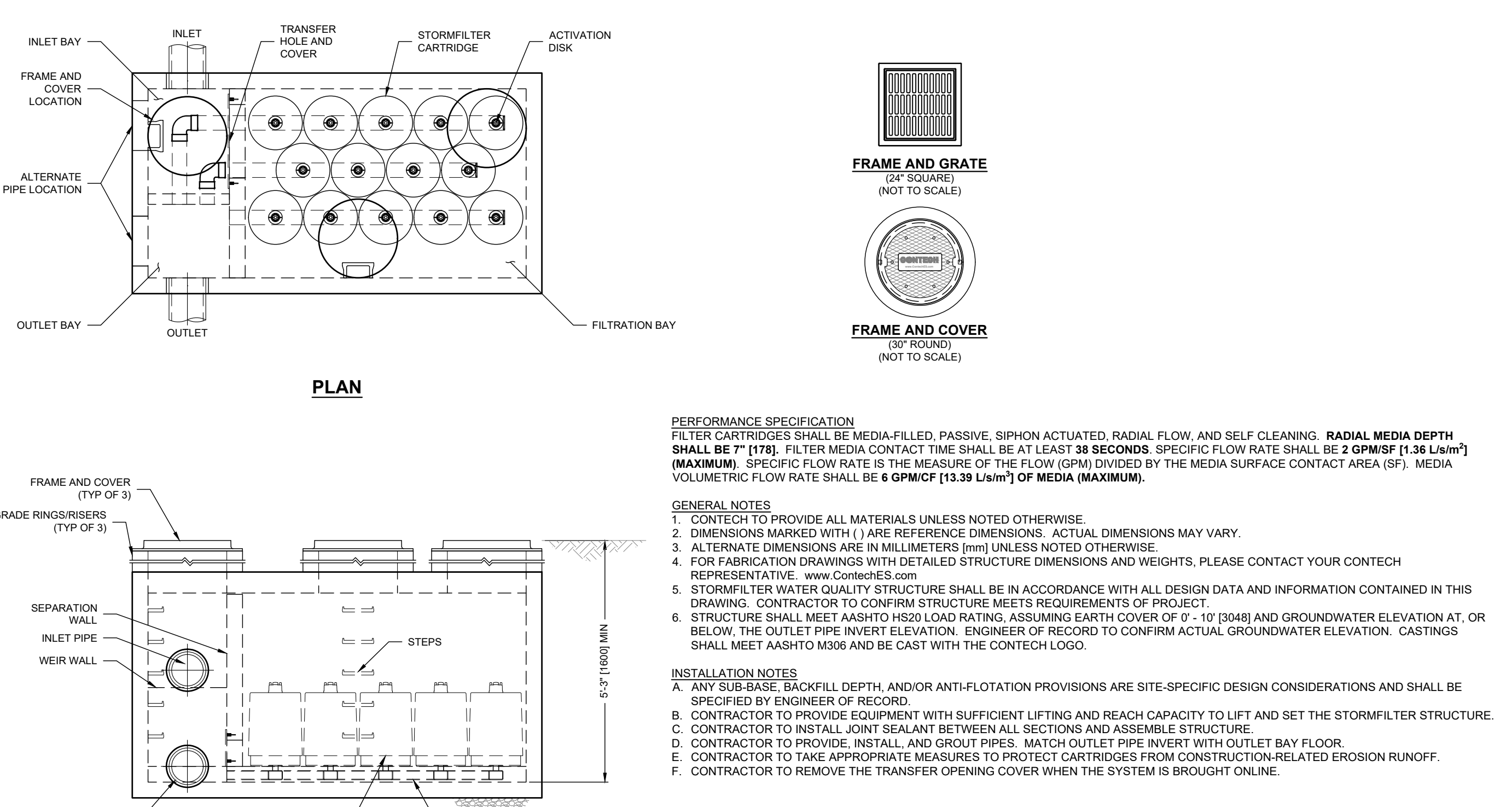
CONTECH STORMFILTER PEAK DIVERSION 6' X 12' N.T.S.



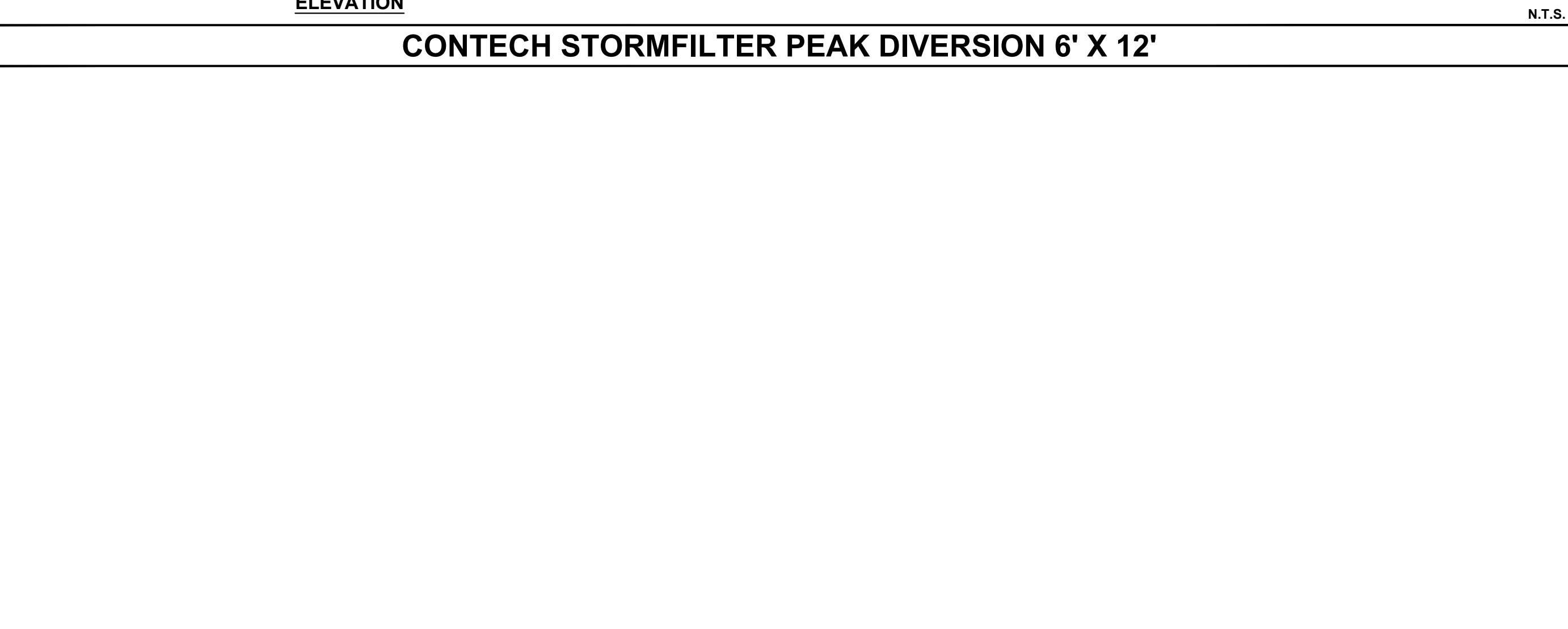
SMALL-SCALE SUBSURFACE INFILTRATION BASIN 1-2 TYPICAL SECTION N.T.S.



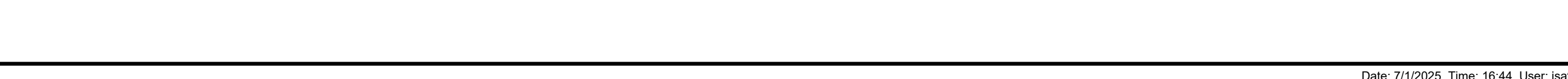
CONTECH STORMFILTER 48" MANHOLE N.T.S.



CONTECH STORMFILTER PEAK DIVERSION 6' X 12' N.T.S.



SMALL-SCALE SUBSURFACE INFILTRATION BASIN 1-2 TYPICAL SECTION N.T.S.



SMALL-SCALE SUBSURFACE INFILTRATION BASIN 1-2 TYPICAL SECTION N.T.S.

Date	Description	No.
Revisions		
SIGNATURE: JOHN COTE, PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800		
LANGAN Langan Engineering and Environmental Services, LLC 300 Kimball Drive Parsippany, NJ 07054 T: 973.560.4900 F: 973.560.4901 www.langan.com NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400		

Project: **BEACON UNITARIAN UNIVERSALIST CONGREGATION**
UNION COUNTY NEW JERSEY
SUMMIT
Drawing Title: **DRAINAGE DETAILS**

Project No.	Drawing No.
101007201	CG505
Date	February 9, 2024
Drawn By	SS
Checked By	TH
Sheet 13 of 19	

LEGEND		
	EXISTING	PROPOSED
PROPERTY LINE/ROW	---	---
CONTOUR	120	118
SPOT ELEVATION	x122.53	
STORM MANHOLE	⊙	●
SANITARY MANHOLE	⊙	●
SANITARY CLEANOUT	⊙	●
CATCH BASIN	⊙	●
TRENCH DRAIN	---	---
STORM SEWER	---	---
SANITARY SEWER	---	---
SANITARY SEWER FORCE MAIN	---	---
WATER MAIN	---	---
GAS MAIN	---	---
ELECTRIC CONDUIT	---	---
TELEPHONE CONDUIT	---	---
VALVE	⊙	●
FIRE HYDRANT	⊙	●
LIGHT POLE	⊙	●
UTILITY POLE	⊙	●
OVERHEAD WIRE	---	---
JUNCTION BOX	⊙	●
ELECTRIC MANHOLE	⊙	●
RETAINING WALL	---	---

GENERAL NOTES:

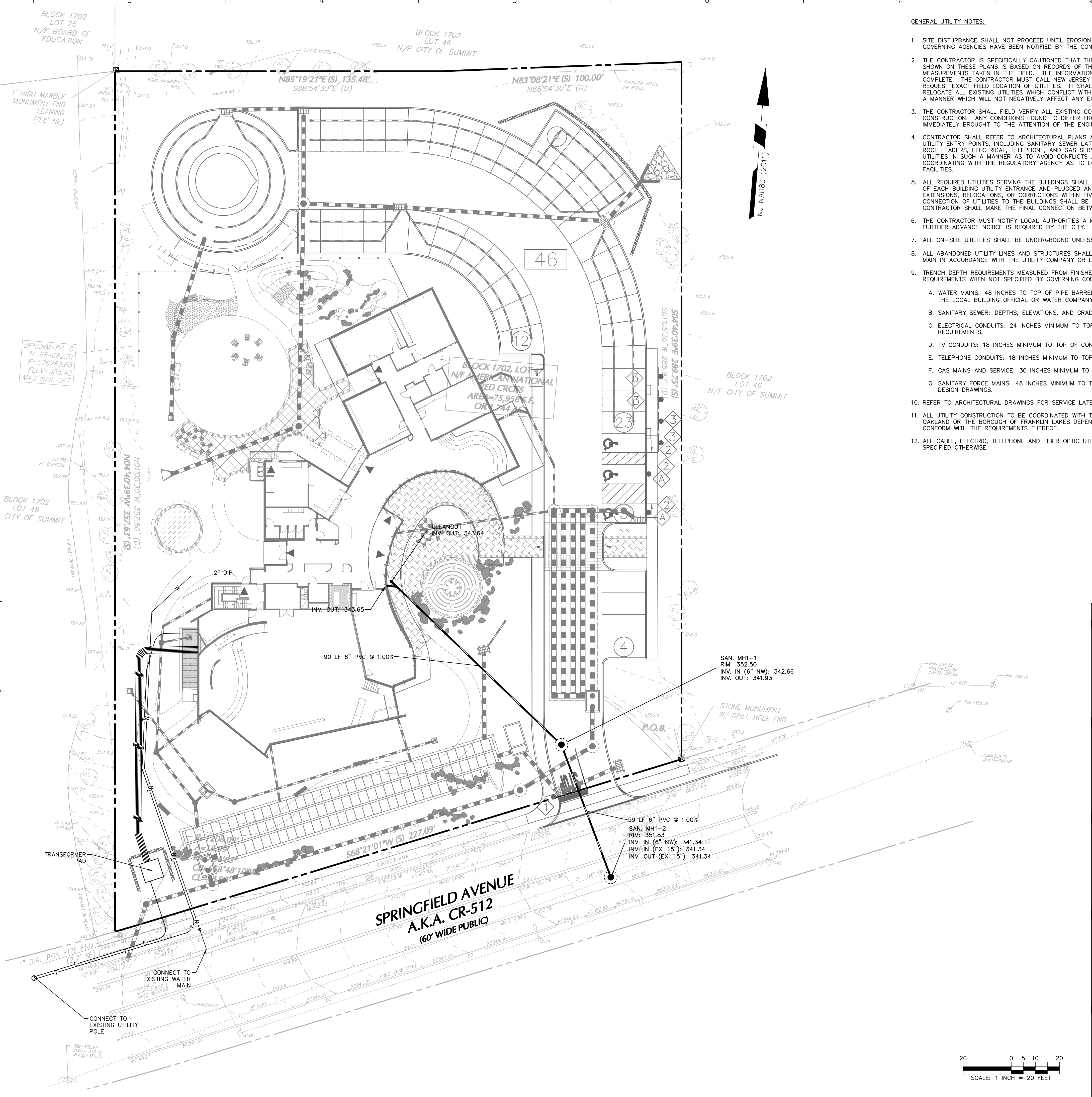
- BACKGROUND BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION REFERENCED FROM PLAN TITLED "BOUNDARY, TOPOGRAPHIC & UTILITY SURVEY", PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, LLC, DATED DECEMBER 8, 2022.
- THE MEDIAN OF THIS SURVEY IS REFERENCED TO THE NEW JERSEY STATE PLAN COORDINATE SYSTEM NAD83 (2011) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
- ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
- THE SITE IS LOCATED OUTSIDE OF THE 100-YEAR FLOOD HAZARD AREA (ZONE X) PER FEMA FIRM PANEL #34039C0008F, DATED SEPTEMBER 20, 2006.

SANITARY / SEWER NOTES:

- ALL SEWER CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE LOCAL AUTHORITY.
- WITH THE EXCEPTION OF THE TIE-IN SEWER, EXISTING ON-SITE SANITARY SEWER LINES SERVICING THE SITE SHALL BE PHYSICALLY REMOVED UNLESS NOTED OTHERWISE. CONTRACTOR TO NOTIFY OWNER'S ENGINEER PRIOR TO REMOVAL OF ANY SEWER PIPE.
- THE CONTRACTOR MUST VERIFY THE LOCATION, SIZE, AND SERVICEABILITY OF THE EXISTING SANITARY SEWER MAINS PRIOR TO BEGINNING ANY SITE OR BUILDING CONSTRUCTION.
- THE SEWER CONTRACTOR SHALL CONSTRUCT THE SANITARY SEWER LINES TO WITHIN 5 FEET OF THE PROPOSED BUILDING LIMITS WHERE THE LINE SHALL BE PLUGGED AND MARKED.
- ALL MATERIALS USED AND ALL CONSTRUCTION METHODS EMPLOYED SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR THE GOVERNING LOCAL MUNICIPAL UTILITY AUTHORITY.
- WHERE LESS THAN 18" OF VERTICAL CLEARANCE IS PROVIDED BETWEEN THE SANITARY SEWER AND OTHER UTILITIES, THE SEWER SHALL BE ENCASED IN 6 INCHES OF CONCRETE ON ALL FOUR SIDES AND SHALL EXTEND 10 FEET BEYOND CROSSING IN BOTH DIRECTIONS. DUCTILE IRON PIPE MAY BE UTILIZED IN PLACE OF CONCRETE ENCASEMENT PER N.J.A.C. 7:14A 23.6.b.4.
- WHEN SANITARY LATERALS TIE DIRECTLY INTO MANHOLES, AN APPROPRIATE OPENING WITH AN "A-LOK" OR APPROVED EQUAL JOINT SHALL BE PRECAST IN THE MANHOLE BASE. ALL MAINS SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH THE LOW PRESSURE AIR TEST METHOD OR AS OTHERWISE SPECIFIED BY LOCAL AUTHORITY OR PROJECT SPECIFICATIONS.

WATER NOTES:

- ALL WATER CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE LOCAL GOVERNING AUTHORITY.
- ALL EXISTING WATER LATERALS SERVICING THE EXISTING BUILDINGS OR REMAINING WITHIN THE SITE FROM FORMER BUILDINGS (TO BE DEMOLISHED) SHALL BE TERMINATED AT THE MAIN AND CURB SHUT-OFFS SHALL BE REMOVED. EXISTING WATER SERVICE LINES SHALL BE PHYSICALLY REMOVED UNLESS NOTED OTHERWISE. CONTRACTOR SHALL NOTIFY OWNER'S ENGINEER PRIOR TO REMOVAL OF ANY WATER LINE.
- THE CONTRACTOR MUST VERIFY THE LOCATION, SIZE, AND SERVICEABILITY OF THE EXISTING WATER MAINS PRIOR TO BEGINNING ANY SITE OR BUILDING CONSTRUCTION.
- THE MINIMUM HORIZONTAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF THE WATER AND SEWER MAIN IS TEN FEET (10'). THE MINIMUM VERTICAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF THE WATER AND SEWER LINE IS EIGHTEEN INCHES (18"). CONCRETE PIPE ENCASEMENTS WILL BE REQUIRED WHERE THE MINIMUM SEPARATION CANNOT BE ACHIEVED. LATERAL SEPARATION SHALL BE AS REQUIRED BY LOCAL CODE.
- THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES, ELBOWS, PLUGS, AND FIRE HYDRANTS.
- ALL FIRE HYDRANTS SHALL BE PROVIDED WITH AN APPROVED GATE VALVE A MAXIMUM OF 5'-0" FROM HYDRANT, AND SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL AUTHORITY.
- ALL GATE VALVES SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL AUTHORITY.
- ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.
- BACKFLOW PREVENTION DEVICES FOR DOMESTIC AND FIRE SERVICE CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL AUTHORITY.
- ALL NEW WATER LINES SHALL BE PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA STANDARD C600, OR LOCAL REQUIREMENTS, WHICHEVER IS MORE RESTRICTIVE.
- ALL NEW WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651, OR LOCAL REQUIREMENTS, WHICHEVER IS MORE RESTRICTIVE.



GENERAL UTILITY NOTES:

- SITE DISTURBANCE SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND ALL GOVERNING AGENCIES HAVE BEEN NOTIFIED BY THE CONTRACTOR.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL NEW JERSEY ONE-CALL AND THE APPROPRIATE UTILITY COMPANIES TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS IN A MANNER WHICH WILL NOT NEGATIVELY AFFECT ANY EXISTING USERS OF THESE UTILITIES.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS, AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
- CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRY POINTS, INCLUDING SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ROOF LEADERS, ELECTRICAL, TELEPHONE, AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE REGULATORY AGENCY AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
- ALL REQUIRED UTILITIES SERVING THE BUILDINGS SHALL BE COORDINATED AND CONSTRUCTED TO WITHIN FIVE FEET OF EACH BUILDING UTILITY ENTRANCE AND PLUGGED AND MARKED UNLESS OTHERWISE NOTED. ANY NECESSARY EXTENSIONS, RELOCATIONS, OR CORRECTIONS WITHIN FIVE FEET OF THE BUILDING NECESSARY TO COMPLETE CONNECTION OF UTILITIES TO THE BUILDINGS SHALL BE MADE BY THE BUILDING CONTRACTOR. THE BUILDING CONTRACTOR SHALL MAKE THE FINAL CONNECTION BETWEEN THE BUILDING SYSTEMS AND THE SITE LATERALS.
- THE CONTRACTOR MUST NOTIFY LOCAL AUTHORITIES A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION, UNLESS FURTHER ADVANCE NOTICE IS REQUIRED BY THE CITY.
- ALL ON-SITE UTILITIES SHALL BE UNDERGROUND UNLESS NOTED OTHERWISE.
- ALL ABANDONED UTILITY LINES AND STRUCTURES SHALL BE COMPLETELY REMOVED AND CAPPED/PLUGGED AT THE MAIN IN ACCORDANCE WITH THE UTILITY COMPANY OR LOCAL AUTHORITY REQUIREMENTS.
- TRENCH DEPTH REQUIREMENTS MEASURED FROM FINISHED GRADE OR PAVED SURFACE SHALL MEET THE FOLLOWING REQUIREMENTS WHEN NOT SPECIFIED BY GOVERNING CODES, ORDINANCES, OR AUTHORITIES.
 - WATER MAINS: 48 INCHES TO TOP OF PIPE BARREL OR 6 INCHES BELOW THE FROST LINE (ESTABLISHED BY THE LOCAL BUILDING OFFICIAL OR WATER COMPANY).
 - SANITARY SEWER: DEPTHS, ELEVATIONS, AND GRADES AS INDICATED ON DRAWINGS.
 - ELECTRICAL CONDUITS: 24 INCHES MINIMUM TO TOP OF CONDUIT OR AS SPECIFIED BY THE UTILITY COMPANY REQUIREMENTS.
 - TV CONDUITS: 18 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY THE UTILITY COMPANY.
 - TELEPHONE CONDUITS: 18 INCHES MINIMUM TO TOP OF CONDUIT OR AS REQUIRED BY THE UTILITY COMPANY.
 - F. GAS MAINS AND SERVICE: 30 INCHES MINIMUM TO TOP OF PIPE OR AS REQUIRED BY THE UTILITY COMPANY.
 - SANITARY FORCE MAINS: 48 INCHES MINIMUM TO TOP OF PIPE BARREL OR AS INDICATED ON THE DESIGN DRAWINGS.
- REFER TO ARCHITECTURAL DRAWINGS FOR SERVICE LATERAL CONNECTIONS TO INTERNAL BUILDING SERVICE LINES.
- ALL UTILITY CONSTRUCTION TO BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANIES, THE BOROUGH OF OAKLAND OR THE BOROUGH OF FRANKLIN LAKES DEPENDING ON LOCATION AND JURISDICTION, AND SHALL CONFORM WITH THE REQUIREMENTS THEREOF.
- ALL CABLE, ELECTRIC, TELEPHONE AND FIBER OPTIC UTILITY LINES SHALL BE INSTALLED UNDERGROUND UNLESS SPECIFIED OTHERWISE.

Date	Description	No.
5/22/25	REVISED PER CITY COMMENTS	2
07/18/24	REVISED PER TRC COMMENTS	1

Revisions

SIGNATURE: JOHN COTE DATE: _____
 PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800

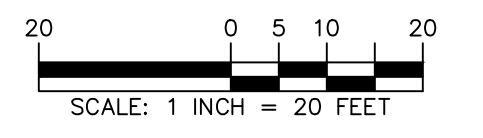
LANGAN
 Langan Engineering and Environmental Services, LLC
 300 Kimball Drive
 Parsippany, NJ 07054
 T: 973.560.4900 F: 973.560.4901 www.langan.com
 NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

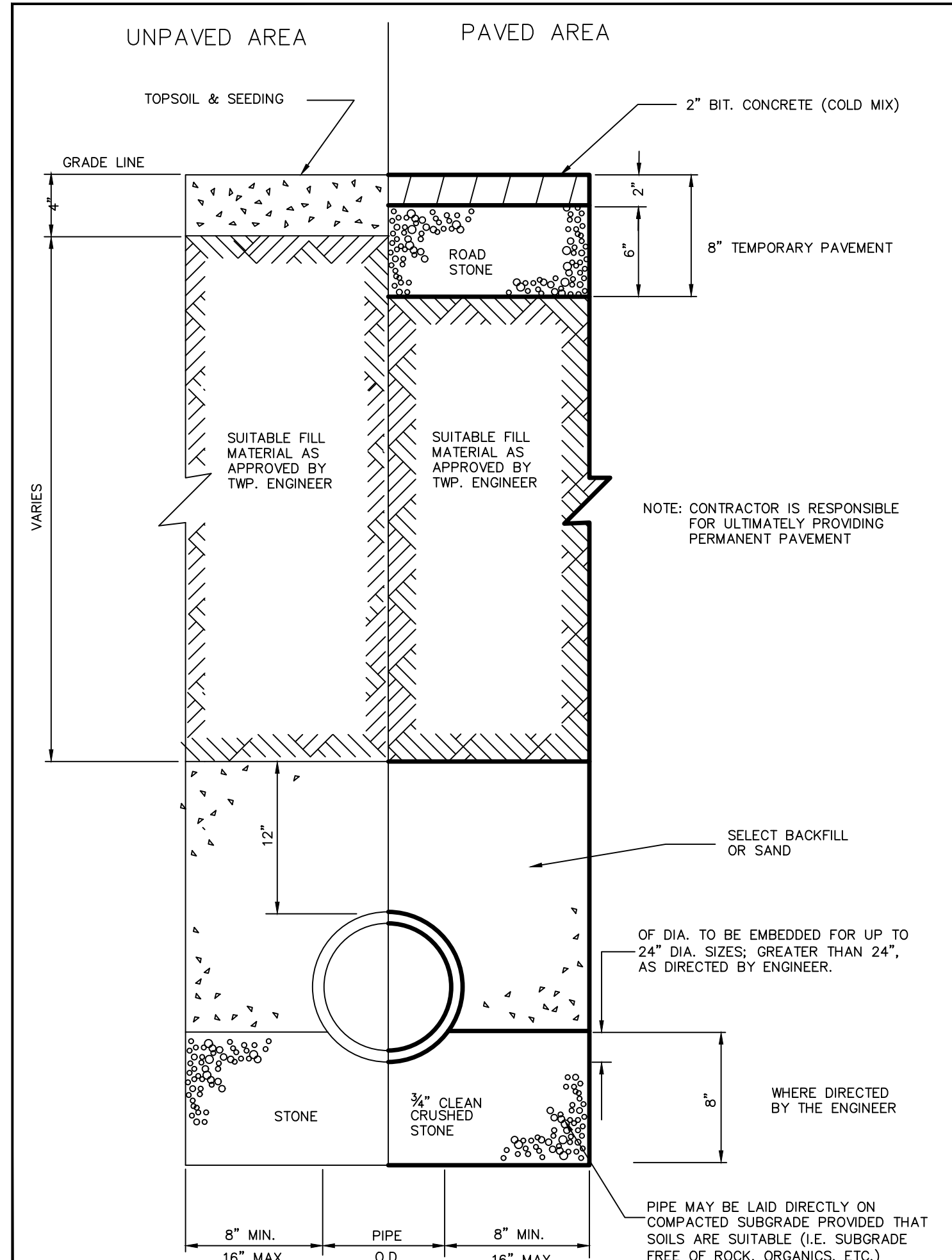
Project: **BEACON UNITARIAN UNIVERSALIST CONGREGATION**
 SUMMIT NEW JERSEY

Drawing Title: **UTILITY PLAN**

Project No. 101007201	Drawing No. CU101
Date: FEBRUARY 9, 2024	
Drawn By: SS	
Checked By: TH	

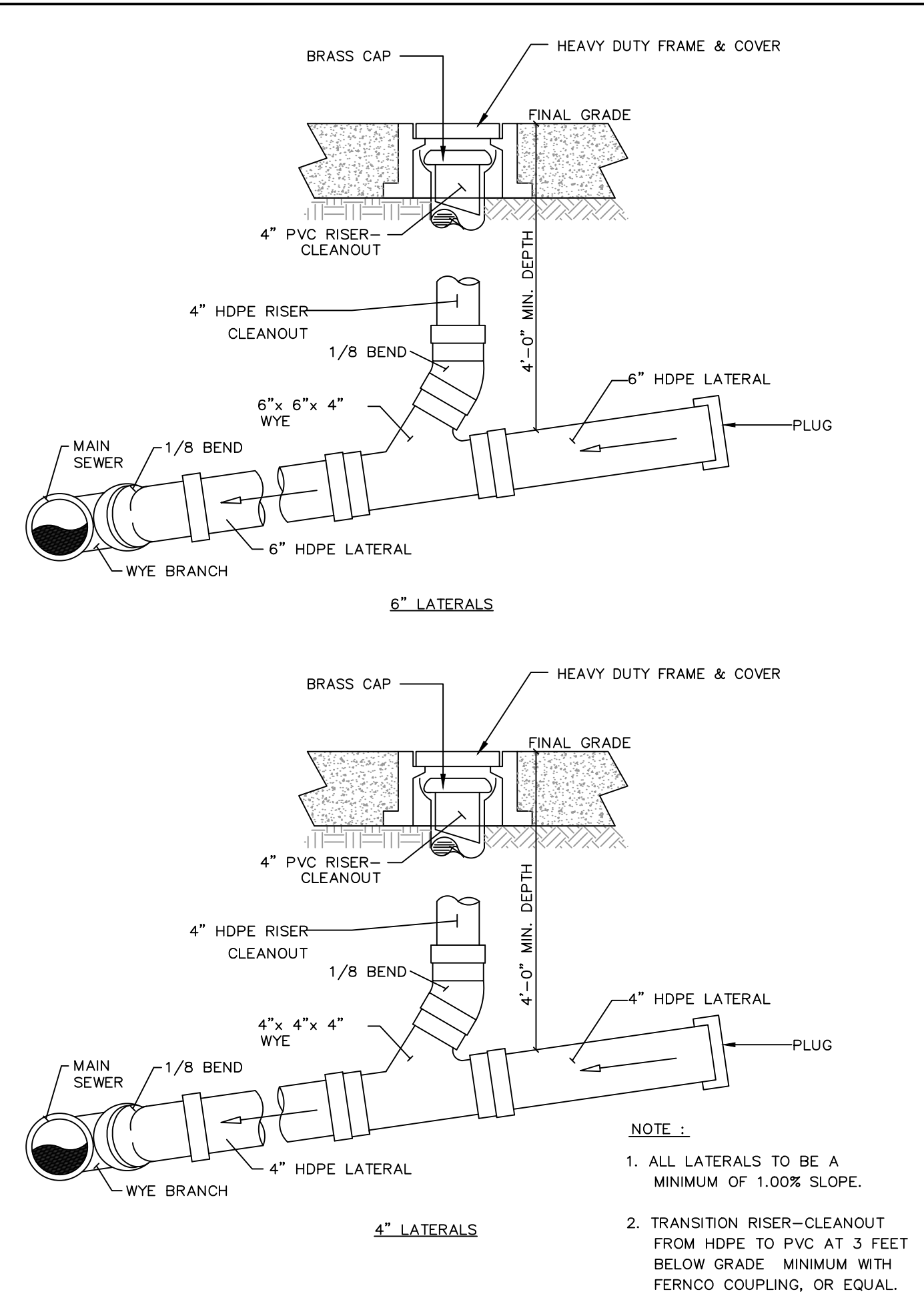
Sheet 14 of 19





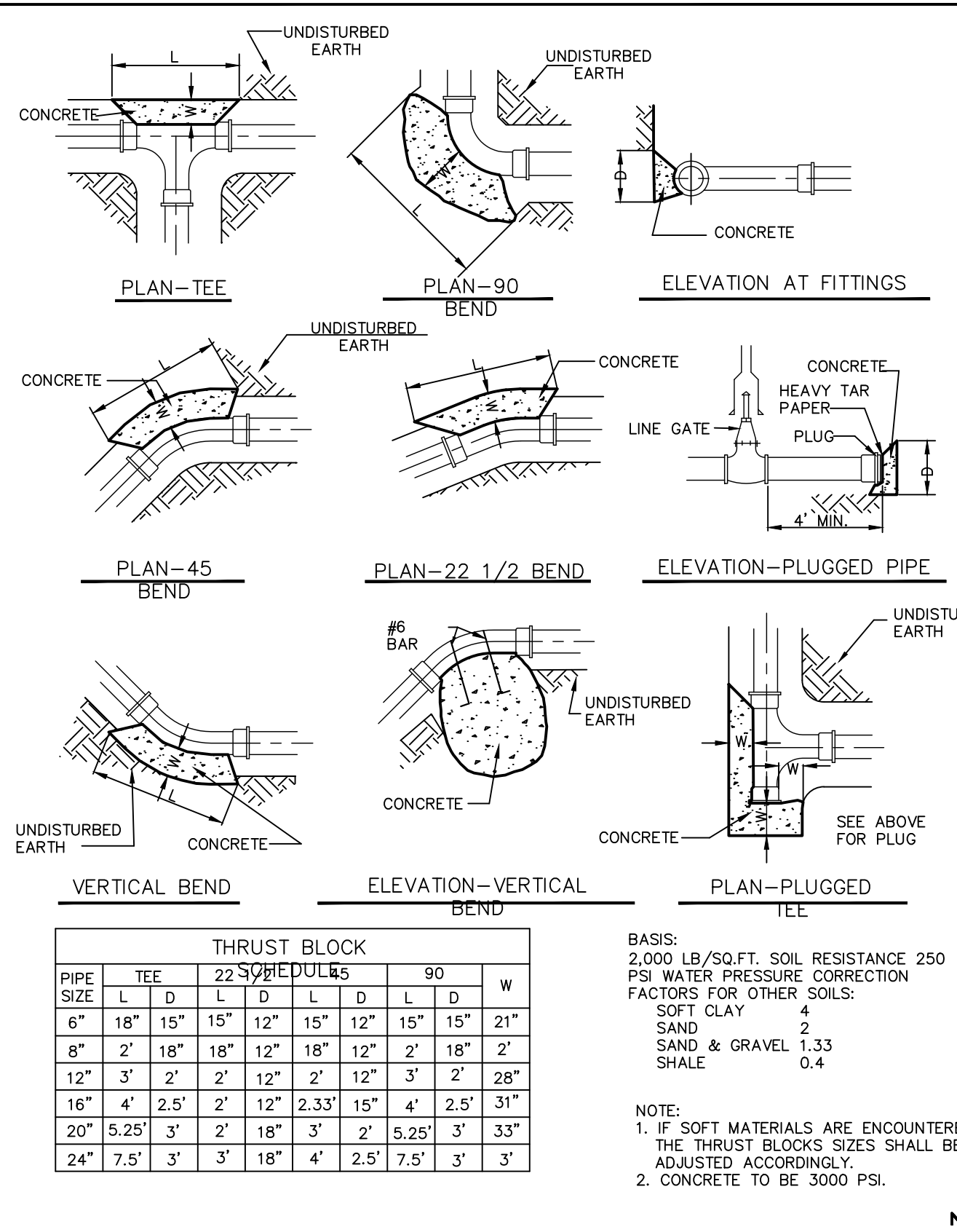
UTILITY TRENCH BEDDING

N.T.S.



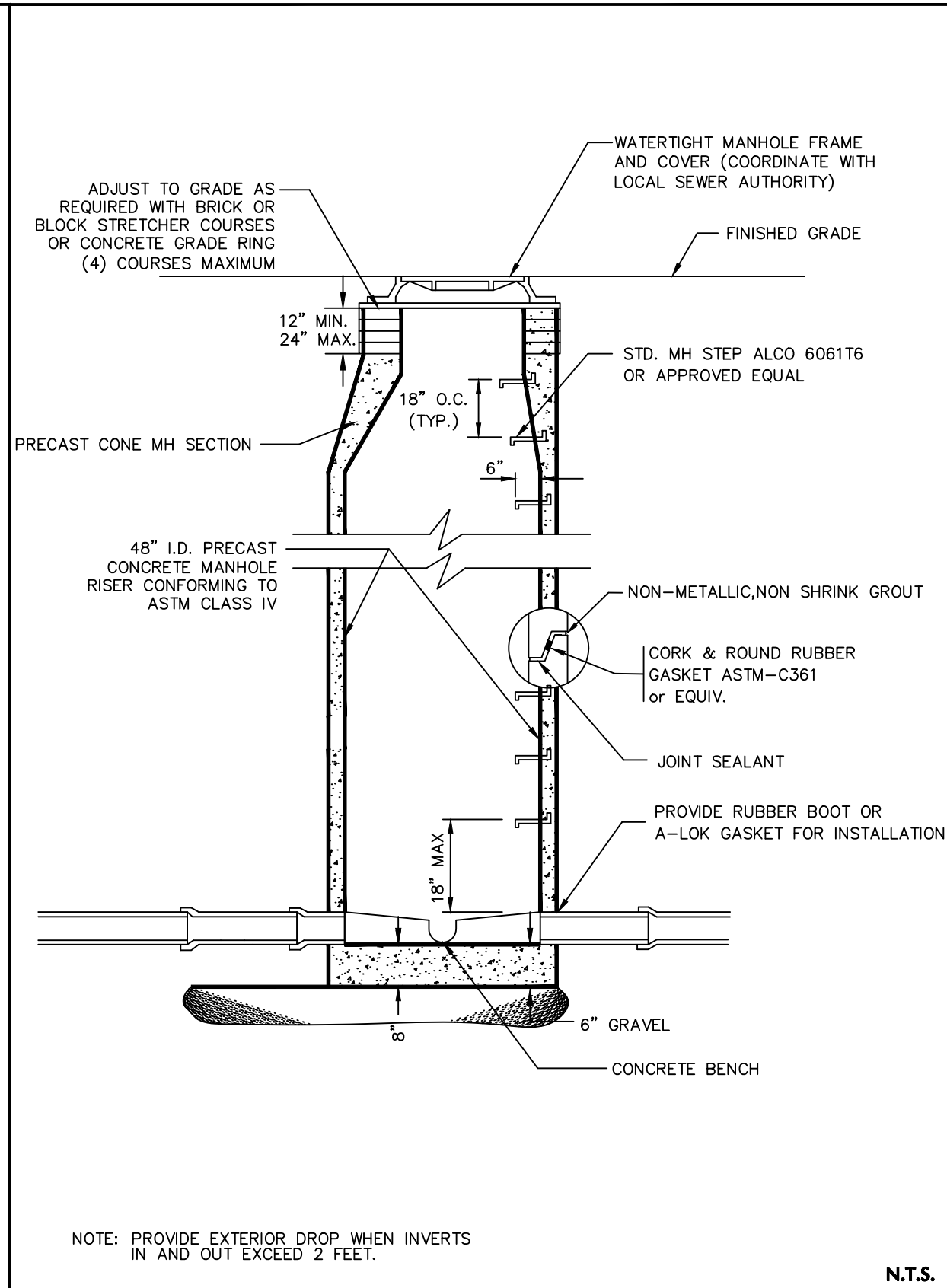
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N.T.S.



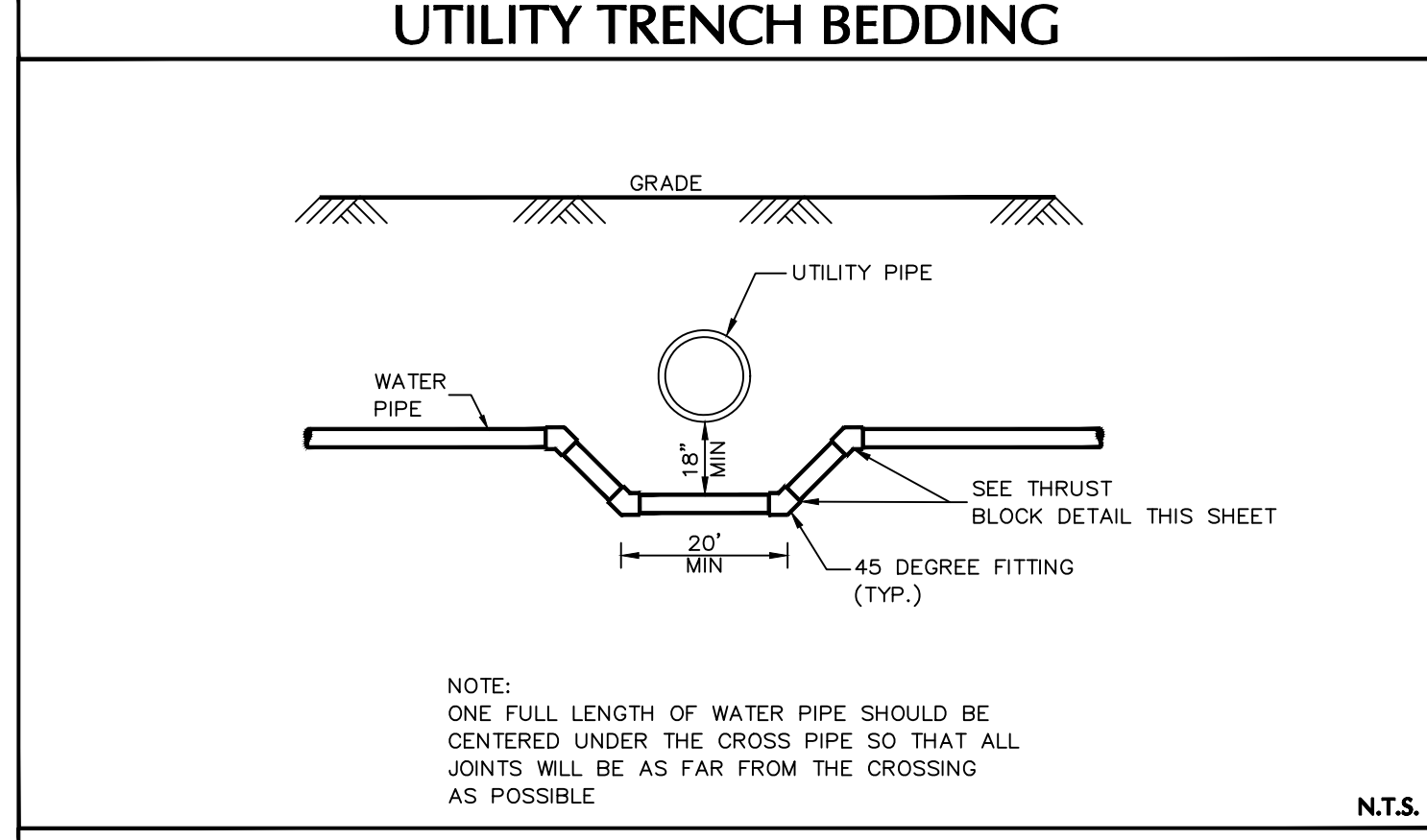
THRUST BLOCKS

N.T.S.



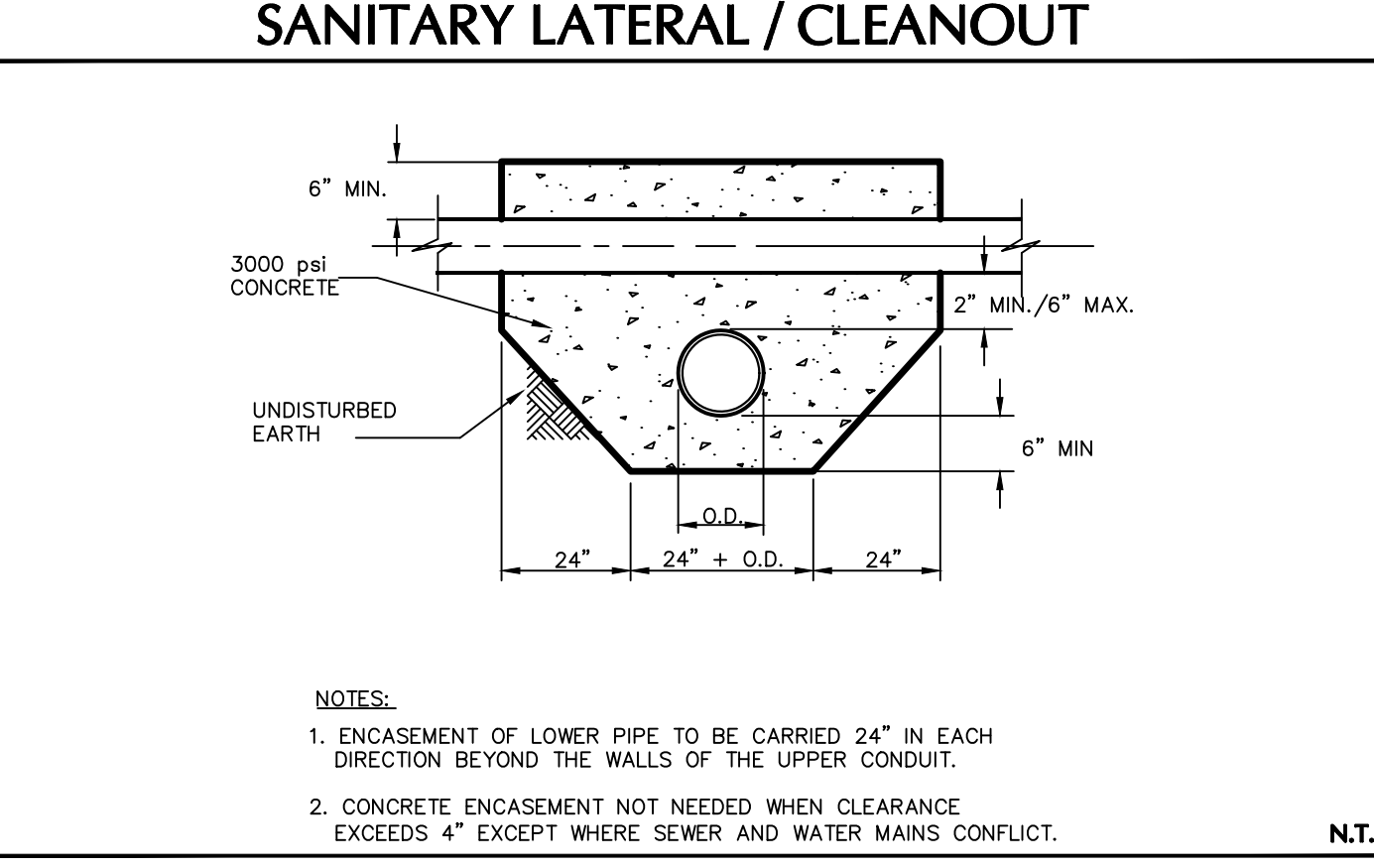
SANITARY MANHOLE

N.T.S.



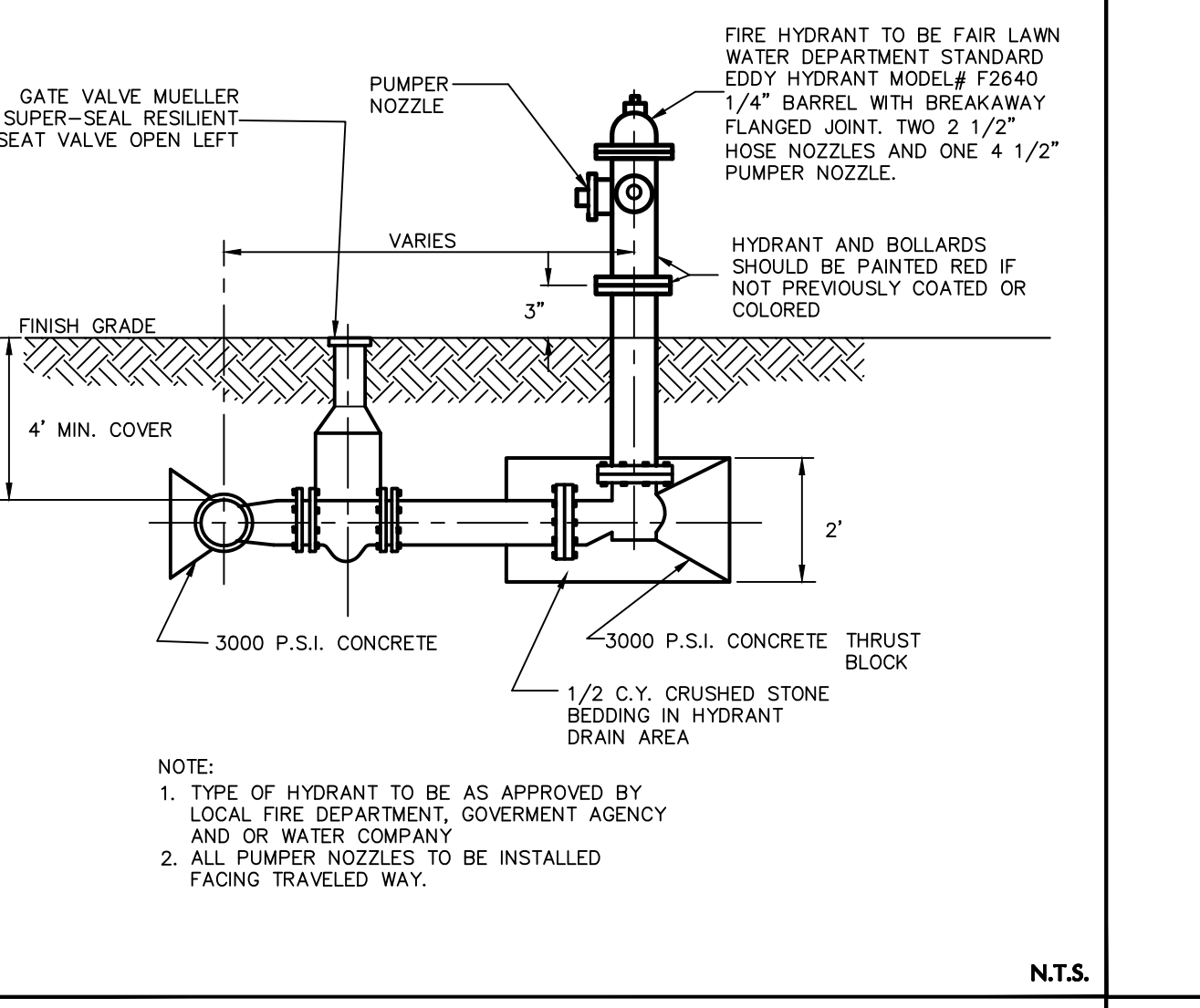
LOOPING WATER MAIN

N.T.S.



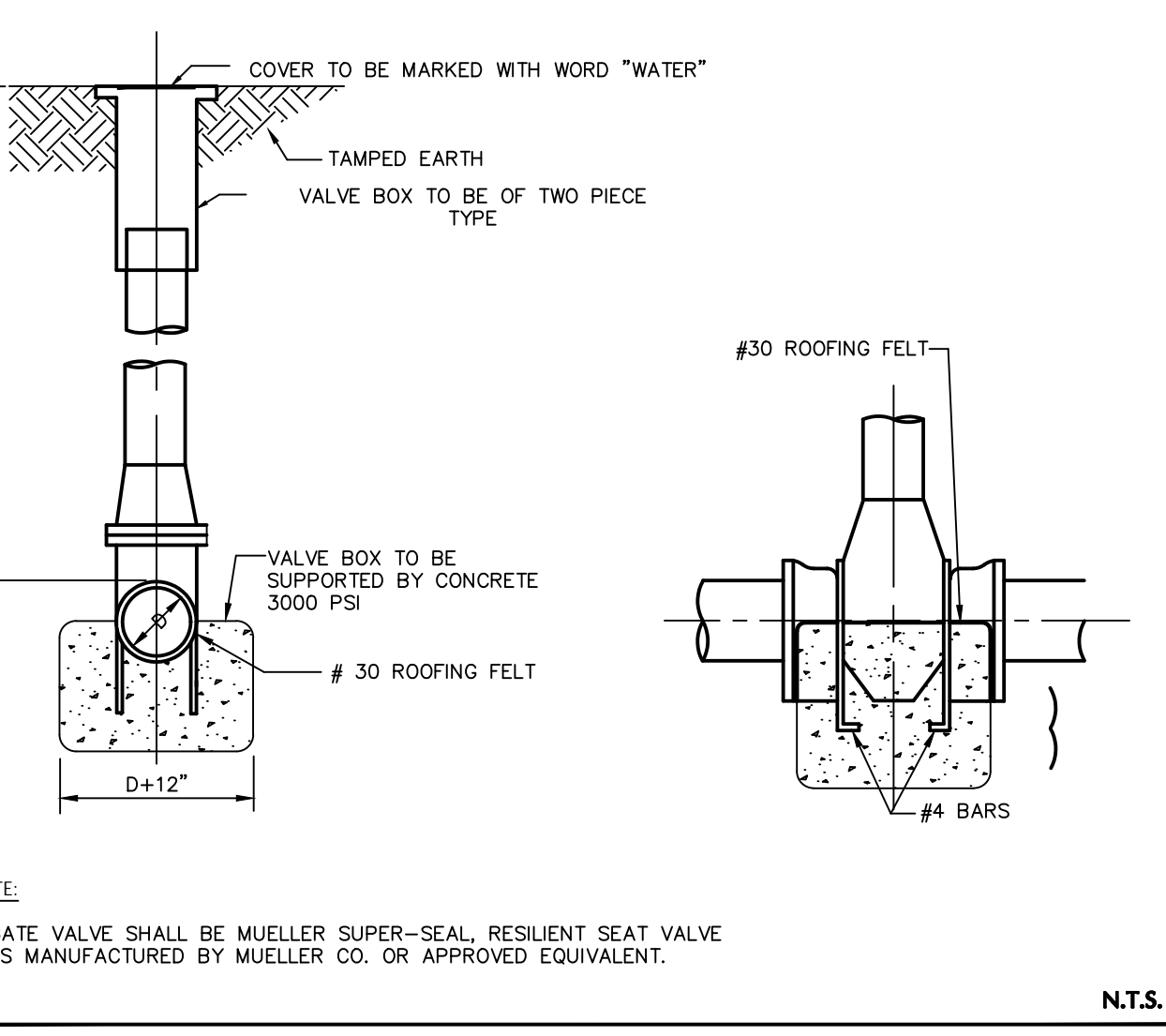
UTILITY CROSSING

N.T.S.



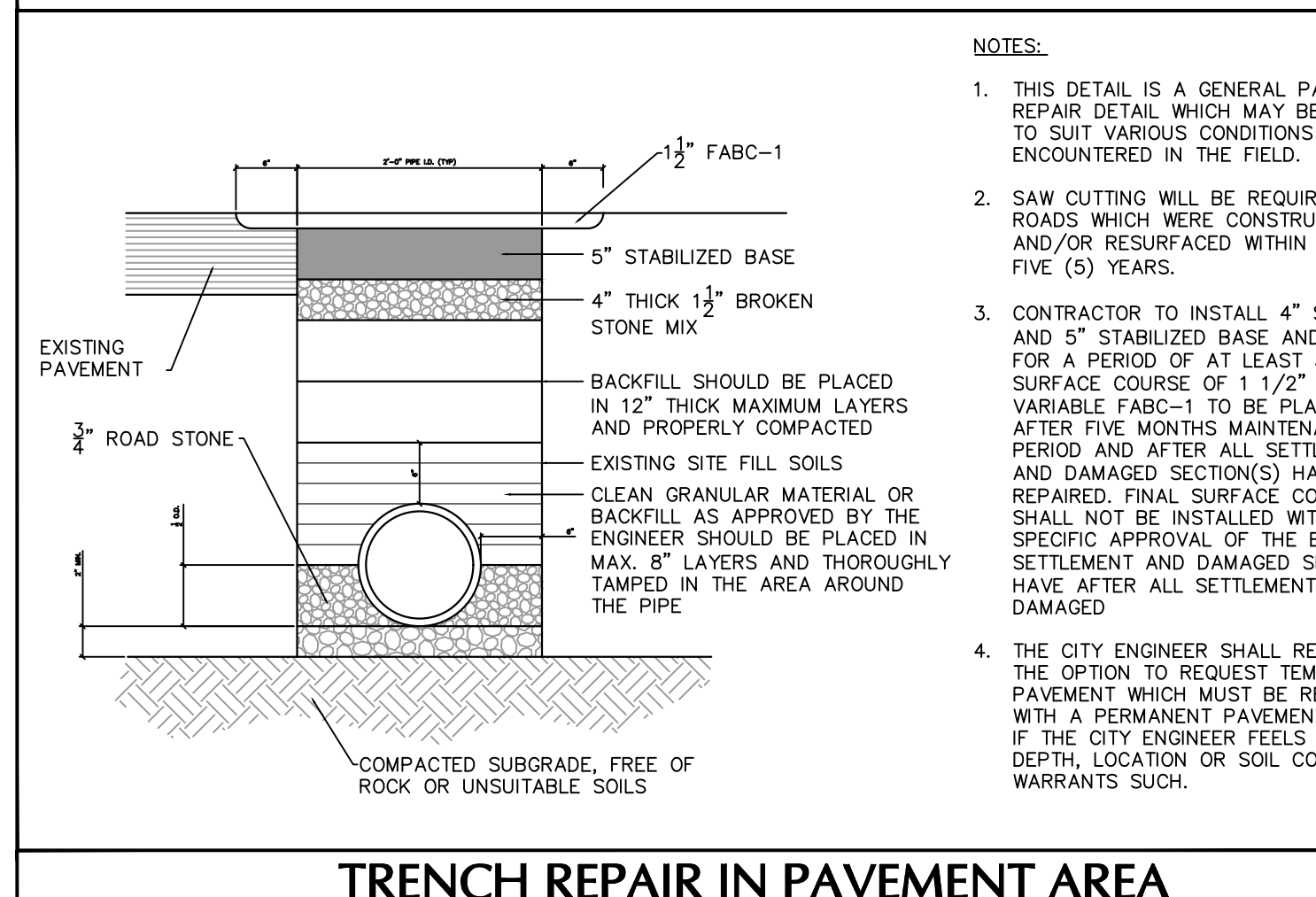
HYDRANT

N.T.S.



GATE VALVE

N.T.S.



TRENCH REPAIR IN PAVED AREA

N.T.S.

Date	Description	No.
Revisions		

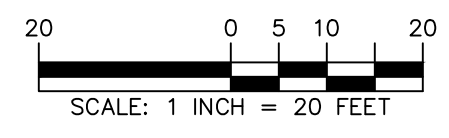
SIGNATURE: JOHN COTE
 PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800

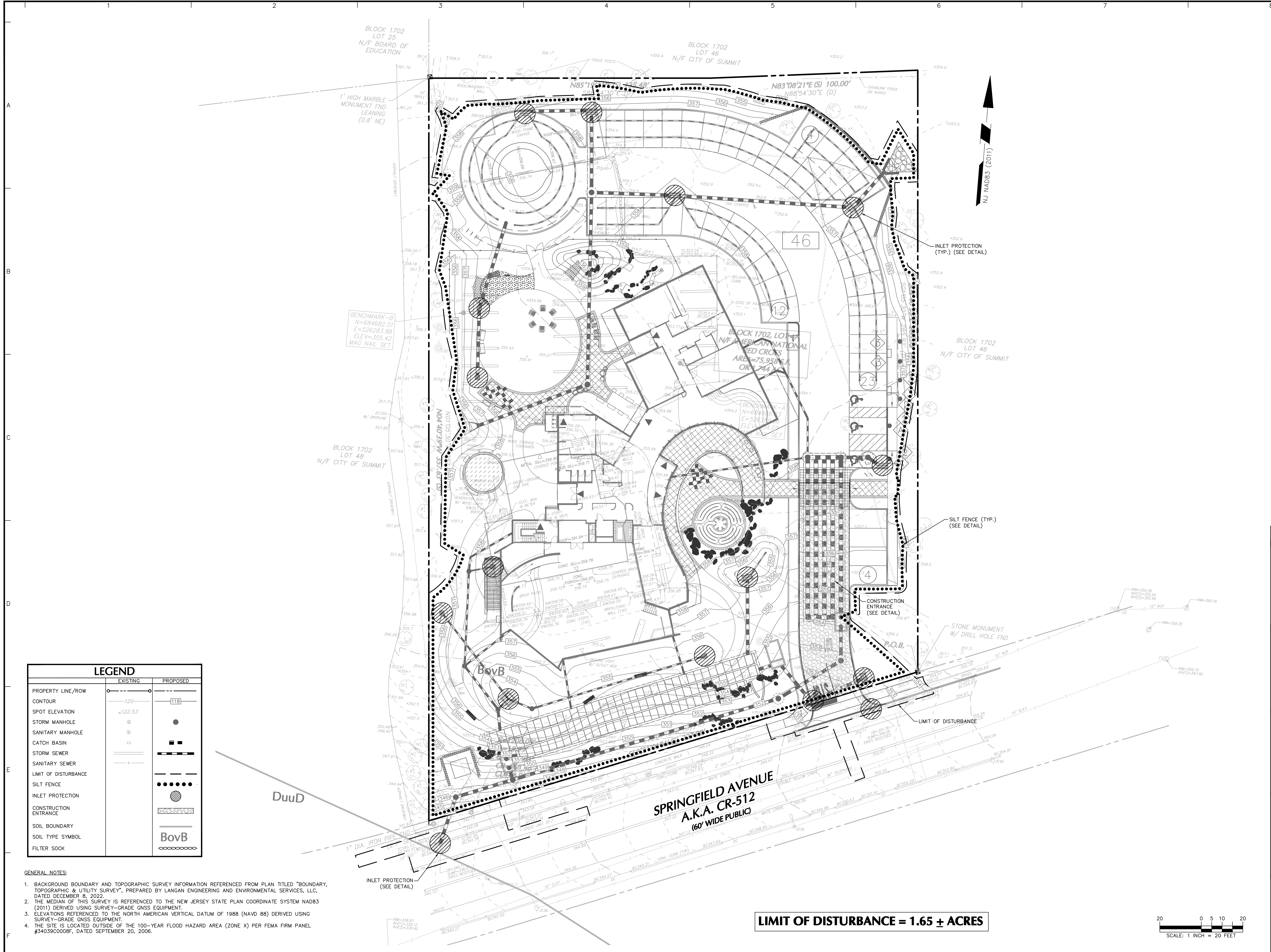
LANGAN
 Langan Engineering and Environmental Services, LLC
 300 Kimball Drive
 Parsippany, NJ 07054
 T: 973.560.4900 F: 973.560.4901 www.langan.com
 NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project: **BEACON UNITARIAN UNIVERSALIST CONGREGATION SUMMIT**
 COUNTY: UNION COUNTY NEW JERSEY

Drawing Title: **UTILITY DETAIL**

Project No.	Drawing No.
101007201	CU501
Date	Sheet 15 of 19
FEBRUARY 9, 2024	
Drawn By	
SS	
Checked By	
TH	

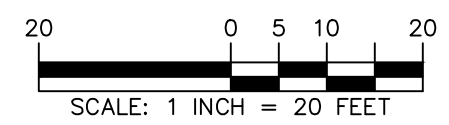




LEGEND	EXISTING	PROPOSED
	PROPERTY LINE/ROW	— 120
CONTOUR	— 120	— 118
SPOT ELEVATION	⊙ 122.53	●
STORM MANHOLE	⊙	●
SANITARY MANHOLE	⊙	●
CATCH BASIN	□	■
STORM SEWER	—	—
SANITARY SEWER	—	—
LIMIT OF DISTURBANCE	—	—
SILT FENCE	—	—
INLET PROTECTION	—	—
CONSTRUCTION ENTRANCE	—	—
SOIL BOUNDARY	—	—
SOIL TYPE SYMBOL	—	—
FILTER SOCK	—	—

- GENERAL NOTES:**
- BACKGROUND BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION REFERENCED FROM PLAN TITLED "BOUNDARY, TOPOGRAPHIC & UTILITY SURVEY", PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, LLC, DATED DECEMBER 8, 2022.
 - THE MEDIAN OF THIS SURVEY IS REFERENCED TO THE NEW JERSEY STATE PLAN COORDINATE SYSTEM NAD83 (2011) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
 - ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) DERIVED USING SURVEY-GRADE GNSS EQUIPMENT.
 - THE SITE IS LOCATED OUTSIDE OF THE 100-YEAR FLOOD HAZARD AREA (ZONE X) PER FEMA FIRM PANEL #34039C0008F, DATED SEPTEMBER 20, 2006.

LIMIT OF DISTURBANCE = 1.65 ± ACRES



Date	Description	No.
7/01/25	REVISED PER CITY COMMENTS	3
5/22/25	REVISED PER CITY COMMENTS	2
07/18/24	REVISED PER TRC COMMENTS	1

Revisions		

SIGNATURE: JOHN COTE
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 DATE: _____

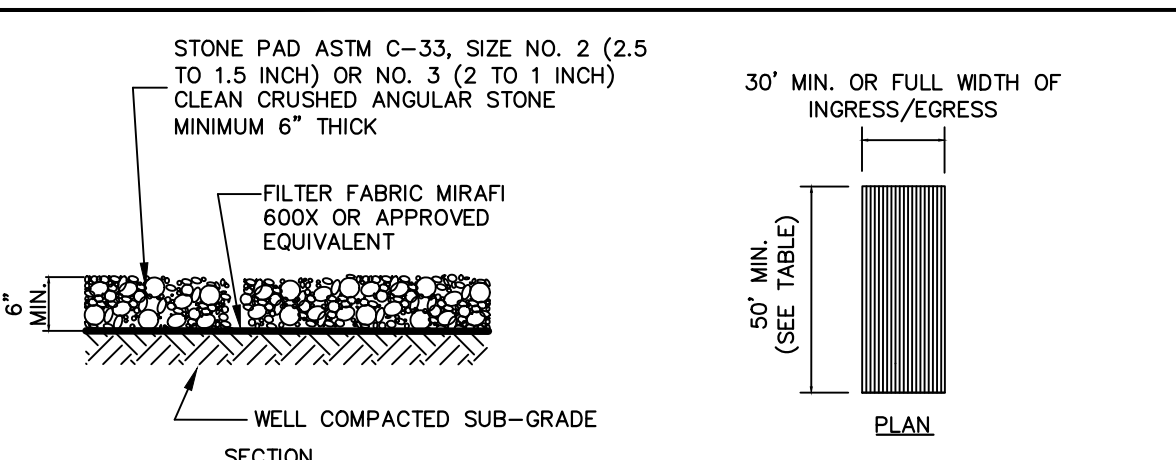
LANGAN
 Langan Engineering and Environmental Services, LLC
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 NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project: **BEACON UNITARIAN UNIVERSALIST CONGREGATION**
 SUMMIT, NEW JERSEY

SOIL EROSION & SEDIMENT CONTROL PLAN

Project No.	101007201	Drawing No.	CE101
Date	FEBRUARY 9, 2024	Sheet 16 of 19	
Drawn By	SS		
Checked By	TH		

Project No. 101007201 © 2022 Langan

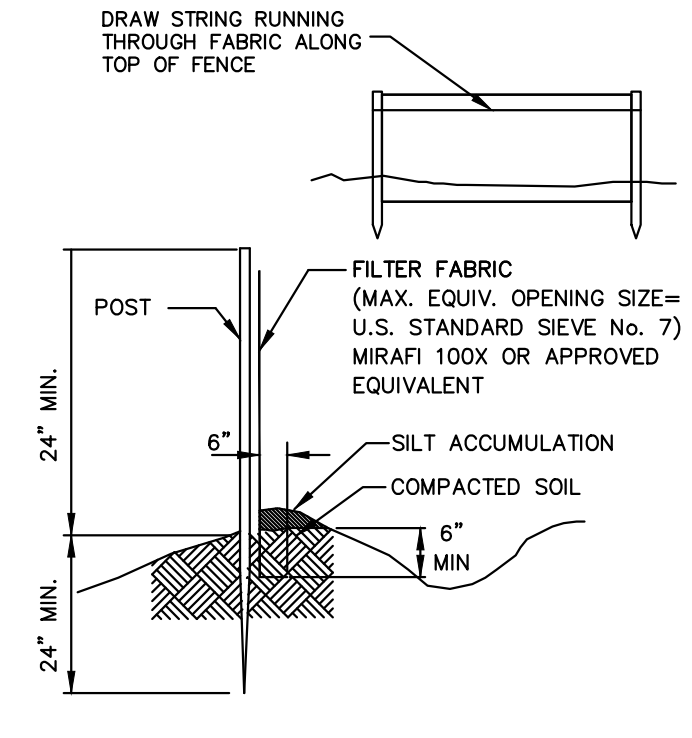


MAINTENANCE:
THE STRUCTURES THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON THE SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS, WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING OF THE ROADWAY WITH WATER IS NOT PERMITTED.

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	SAND / GRAVEL AREAS	CLAY / SILT AREAS
0 - 2%	50'	100'
2 - 5%	100'	200'
> 5%	ENTIRE SURFACE STABILIZED WITH FABC* BASE COURSE	

*FABC - FINE AGGREGATE BITUMINOUS CONCRETE

STABILIZED CONSTRUCTION ENTRANCE

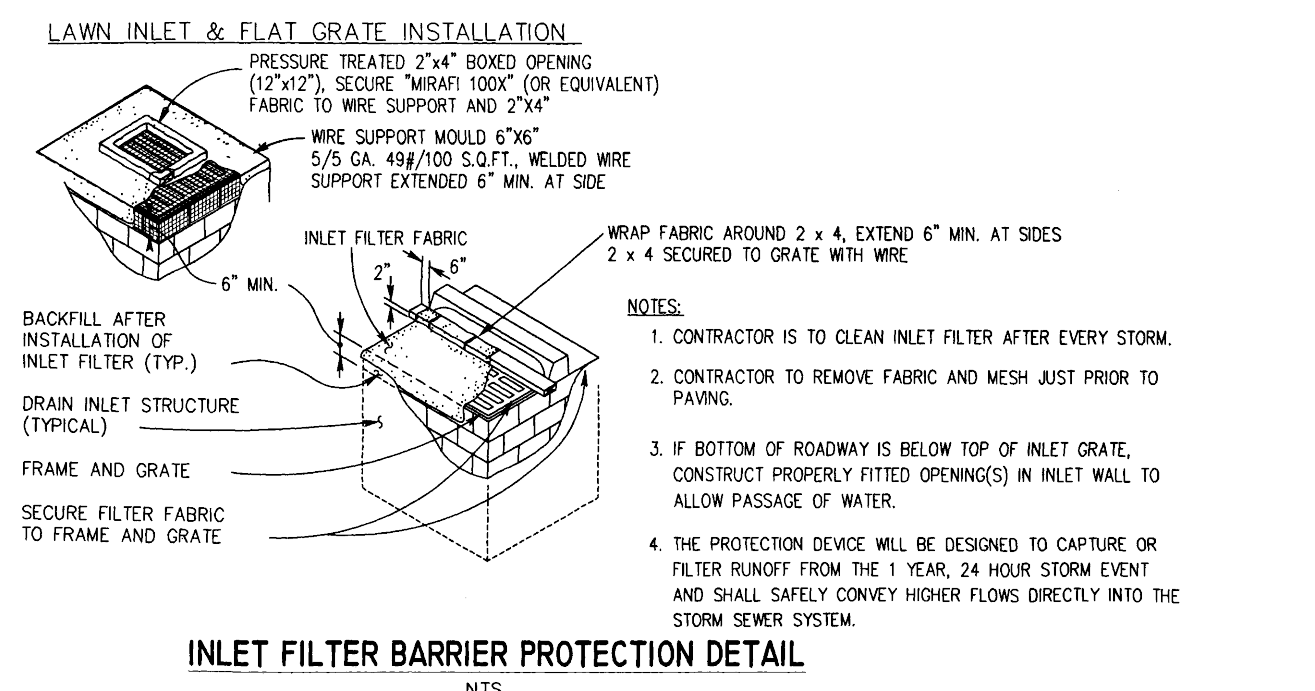


SILT FENCE IN PERVIOUS AREAS

METHOD OF INSTALLATION

- CONTRACTOR TO DIG 6" MIN. TRENCH AND LINE TRENCH WITH FILTER FABRIC PRIOR TO BACK FILL.
- EXCEPT FOR THE END POST, DRIVE ALL POSTS INTO THE GROUND AT BACK SIDE OF TRENCH SPACED A MAXIMUM OF 8 FT O.C.
- ATTACH FILTER FABRIC TO POST AND STRETCH BETWEEN POSTS. SECURE FABRIC TO POST WITH METAL FASTENER AND REINFORCEMENT MATERIAL PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC.
- POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1-1/2 INCHES.

INLET FILTER PROTECTION



INLET FILTER BARRIER PROTECTION DETAIL

METHOD OF INSTALLATION

- CONTRACTOR TO DIG 6" MIN. TRENCH AND LINE TRENCH WITH FILTER FABRIC PRIOR TO BACK FILL.
- EXCEPT FOR THE END POST, DRIVE ALL POSTS INTO THE GROUND AT BACK SIDE OF TRENCH SPACED A MAXIMUM OF 8 FT O.C.
- ATTACH FILTER FABRIC TO POST AND STRETCH BETWEEN POSTS. SECURE FABRIC TO POST WITH METAL FASTENER AND REINFORCEMENT MATERIAL PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC.
- POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1-1/2 INCHES.

GRADING NOTES

- THE CUT FACE OF EARTH EXCAVATIONS SHALL BE NO STEEPER THAN THE 1:1 SAFE ANGLE OF REPOSE FOR THE MATERIALS ENCOUNTERED AND FLAT ENOUGH FOR PROPER MAINTENANCE.
- PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES IN FILL SLOPES.
- ADJOINING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS.
- TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS, AND VEGETATIVE MATTER WHICH WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS SHALL BE REMOVED AND DISPOSED OF PER LOCAL, STATE, AND FEDERAL WASTE REMOVAL STANDARDS BY THE CONTRACTOR AT CONTRACTOR'S OWN EXPENSE.
- ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT AND FINISHED APPEARANCE AND SHALL BE PROTECTED FROM EROSION.

STABILIZATION WITH MULCH ONLY NOTES

- NON-GROWING STABILIZATION MEASURES SHALL BE USED WHERE THE SEASON & OTHER CONDITIONS MAY NOT BE SUITABLE FOR GROWING AN EROSION RESISTANT COVE OR WHERE STABILIZATION IS NEEDED FOR A SHORT PERIOD UNTIL MORE SUITABLE PROTECTION CAN BE APPLIED.
- SALT HAY, HAY FREE OF SEEDS OR UN-ROTTED SMALL GRAIN STRAW AT A RATE OF 70 TO 90 LBS./1,000 SF; TO BE APPLIED ACCORDING TO NEW JERSEY STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS IMMEDIATELY AFTER PLACEMENT (SUCH AS PEG & TWINE, MULCH NETTING OR LIQUID MULCH-BINDER)

MAINTENANCE NOTES

- MAINTENANCE IS NECESSARY TO ALLOW FOR CONTINUING PERFORMANCE OF EROSION CONTROL DEVICES DURING THE CONSTRUCTION PERIOD AND LONG TERM MAINTENANCE, FOLLOWING COMPLETION OF CONSTRUCTION, FOR THE LIFE OF STRUCTURAL MEASURES. ALL STRUCTURAL MEASURES FOR CONTROL OF SOIL EROSION AND SEDIMENTATION MUST HAVE TIMELY MAINTENANCE. PARTICULAR ATTENTION SHOULD BE GIVEN TO TEMPORARY STRUCTURES SUCH AS SEDIMENT BARRIERS AND CONSTRUCTION APRONS.

PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

- PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY." THE FOLLOWING SEEDING SCHEDULE SHOULD BE USED FOR PERMANENT SEEDING (UNLESS OTHERWISE NOTED)
 - APPLY TOPSOIL TO A DEPTH OF 5".
 - LIME - 90 LBS/1,000 SF GROUND LIMESTONE.
 - FERTILIZER - 14 LBS/1,000 SF; 10-20-10 OR EQUIVALENT, WITH 50% WATER INSOLUBLE NITROGEN, WORKED INTO SOIL TO A DEPTH OF 4 INCHES.
 - SEED - 70% TURF TYPE TALL FESCUE
20% PERENNIAL RYEGRASS
10% KENTUCKY BLUEGRASS
SEED AT A RATE OF 200 LBS./ACRE
- OPTIMAL PLANTING PERIOD BETWEEN FEBRUARY 15 AND MAY 1 OR BETWEEN AUGUST 15 AND OCTOBER 15.

DUST CONTROL SPECIFICATIONS

- ONE OR MORE OF THE FOLLOWING METHODS SHALL BE USED FOR CONTROLLING:
 - MULCHING (SEE SPECIFICATIONS, THIS SHEET).
 - VEGETATIVE COVER (SEE SPECIFICATIONS, THIS SHEET)
 - TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE AND SHOULD BE USED BEFORE SOIL PLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART AND SPRING-TOOTHED HARROWS MAY PRODUCE THE DESIRED EFFECT.
 - SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.
 - BARRIERS - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY USED TO CONTROL AIR CURRENTS, AND SOIL PLOWING.
 - CALCIUM CHLORIDE - LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON SLOPES, USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.
 - STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.
 - SPRAY-ON ADHESIVES - ON MINERAL SOILS. KEEP TRAFFIC OFF THESE AREAS.

SEQUENCE OF CONSTRUCTION

- SOMERSET-UNION SOIL CONSERVATION DISTRICT SHOULD BE NOTIFIED IN WRITING 48 HOURS PRIOR TO ANY LAND DISTURBANCES. A PRE-CONSTRUCTION MEETING IS TO BE HELD WITH THE DISTRICT, ON SITE, PRIOR TO DISTURBANCE. AN OWNER REPRESENTATIVE, THE SITE CONTRACTOR REPRESENTATIVE, PROJECT ENGINEER, AND ANY OTHER PERTINENT PERSONNEL SHOULD ATTEND. THE CITY OF SUMMIT SHALL BE NOTIFIED OF SAID MEETING. (DURATION - 1 DAY)
- INSTALL CONSTRUCTION ENTRANCE AS SHOWN ON THE PLAN AND IN ACCORDANCE WITH THE DETAIL. TRAFFIC SHOULD USE ONLY THIS AREA FOR INGRESS AND EGRESS. AS CONDITIONS WARRANT, THIS LOCATION MAY BE MODIFIED WITH THE PRIOR APPROVAL FROM THE SOMERSET-UNION SOIL CONSERVATION DISTRICT. (DURATION - 2 DAYS)
- INSTALL SILT FENCE AND INLET PROTECTION AS INDICATED ON THE PLAN. METHOD OF INSTALLATION AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL AND AS INDICATED ON THE CONSTRUCTION DETAILS. (DURATION - 2 DAYS)
- BEGIN DEMOLITION OF EXISTING BUILDINGS, ALONG WITH ASSOCIATED UTILITY INFRASTRUCTURE, FOUNDATION ELEMENTS, AND CONCRETE AND ASPHALT PAVEMENT. EXISTING PAVEMENT MATERIAL IS TO BE CRUSHED AND STOCKPILED FOR RE-USE AS FILL MATERIAL WHERE SUITABLE. AS GRADING OPERATIONS COMMENCE, EXCAVATED SOIL IS TO BE STOCKPILED AND TEMPORARILY STABILIZED IN ACCORDANCE WITH THE SPECIFICATIONS AND CONSTRUCTION DETAIL. (DURATION - 60 DAYS)
- CONSTRUCT STORM DRAINAGE SYSTEM CONCURRENTLY WITH GRADING OPERATIONS TO MINIMIZE CUTS. AS CATCH BASINS ARE CONSTRUCTED, PLACE INLET PROTECTION OVER GRATES AND MAINTAIN AS INDICATED ON THE PLAN AND DETAILS. (DURATION - 120 DAYS)
- CONSTRUCT UNDERGROUND UTILITIES, CONCURRENTLY WITH GRADING OPERATIONS TO MINIMIZE CUTS. ON-SITE UTILITIES SHALL CONSIST OF GAS, ELECTRIC, TELEPHONE, CABLE, WATER AND SANITARY SEWER. ADVANCE TRENCH EXCAVATION SHALL BE LIMITED TO THE LENGTH OF PIPE WHICH CAN BE COMPLETED IN THE SAME DAY. IF NO FURTHER GRADING IS REQUIRED IN THE AREA OF THE COMPLETED UTILITY TRENCH THEN THE TRENCH SHALL BE GRADED TO FINISH SUB-GRADE ELEVATION AS SHOWN ON THE PLAN AND IMMEDIATELY THEREAFTER STABILIZED. (DURATION - 60 DAYS)
- BEGIN CONSTRUCTION OF BUILDING. (DURATION - 180 DAYS)
- CONSTRUCT CONCRETE CURB, PARKING AREAS, DRIVEWAYS AND ACCESS WAYS AND PLACE GRAVEL SUB-BASE AND BITUMINOUS BASE COURSE. (DURATION - 60 DAYS)
- COMPLETE FINAL SITE GRADING AND LANDSCAPE OF ALL APPROPRIATE AREAS AS INDICATED ON THE LANDSCAPE PLAN. STABILIZE WITH PERMANENT SEEDING. (DURATION - 60 DAYS)
- CONSTRUCTION ENTRANCE, SILT FENCE, INLET PROTECTION, AND ALL OTHER SOIL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE MAINTAINED UNTIL ALL DISTURBED PORTIONS OF THE SITE ARE PERMANENTLY STABILIZED AND A REPORT OF COMPLIANCE IS OBTAINED FROM THE SOIL CONSERVATION DISTRICT. THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT ON BEHALF OF THE OWNER / APPLICANT AND OBTAIN THE REPORT OF COMPLIANCE PRIOR TO OBTAINING A CERTIFICATE OF OCCUPANCY. (DURATION - VARIABLE)
- ONCE ALL PERMANENT STABILIZATION MEASURES HAVE BEEN INSTALLED AND ARE ESTABLISHED, THE CONSTRUCTION ENTRANCE, SILT FENCE, FILTER SOCK, INLET PROTECTION, AND ALL OTHER TEMPORARY SOIL EROSION AND SEDIMENT CONTROL DEVICES MAY BE REMOVED. ALL DISTURBED AREAS CAUSED BY THE REMOVAL OF TEMPORARY SEDIMENT POLLUTION CONTROL DEVICES MUST BE IMMEDIATELY PERMANENTLY STABILIZED. (DURATION - VARIABLE)

SOIL EROSION AND SEDIMENT CONTROL NOTES

- All Soil Erosion and Sediment Control practices shall be installed prior to any major soil disturbances, or in their proper sequence and maintained until permanent protection is established.
- Any Disturbed areas that will be left exposed more than 30 Days and not subject to construction traffic, will immediately receive a temporary seeding. If the season prevents the establishment of a temporary cover, the disturbed areas will be mulched with straw, or equivalent material, at a rate of two (2) tons per acre, according to NJ State Standards.
- Permanent Vegetation shall be seeded or sodded on all exposed areas within ten (10) days after final grading. Mulch will be used for protection until seeding is established.
- All work shall be done in accordance with the NJ State Standards for Soil Erosion and Sediment Control in New Jersey, 7th Edition last revised January 2014
- A sub-base course will be applied immediately following rough grading and installation of improvements in order to stabilize streets, roads, driveways and parking areas. In areas where no utilities are present, the sub-base shall be installed within 15 days or preliminary grading.
- Immediately following initial disturbance or rough grading all critical areas subject to erosion (i.e.: steep slopes, roadway embankments) will receive a temporary seeding in combination with straw mulch or a suitable equivalent, at a rate of two (2) tons per acre, according to the NJ State Standards.
- Any steep slopes receiving pipeline installation will be backfilled and stabilized daily, as the installation proceeds (i.e.: slopes greater than 3:1)
- Traffic control Standards require the installation of a 50'x30'x6" pad of 1 1/2" or 2" stone, at all construction driveways, immediately after initial site disturbance.
- The Somerset-Union Soil Conservation District shall be notified in writing 48 hours in advance of any land disturbing activity.
- At the time when the site preparation for permanent vegetative stabilization is going to be accomplished, any soil that will not provide a suitable environment to support adequate vegetative ground cover, shall be removed or treated in such a way that will permanently adjust the soil conditions and render it suitable for vegetative ground cover. If the removal or treatment of the soil will not provide suitable conditions, non-vegetative means of permanent ground stabilization will have to be employed. Topsoil should be handled only when it is dry enough to work without damaging the soil structure. A uniform application to a depth of 5 inches (unsettled) is required on all sites.
- In that N.J.S.A. 4:24-39 et seq., requires that no Certificate of Occupancy be issued before the provisions of the Certified Plan for Soil Erosion and Sediment Control have been complied with for permanent measures, all site work for site plans and all work ground individual lots in subdivisions, will have to be completed prior to the District issuing a Report of Compliance for the issuance of a Certificate of Occupancy by the Municipality.
- Conduit Outlet Protection must be installed at all required outfalls prior to the drainage system becoming operational.
- Any changes to the Certified Soil Erosion and Sediment Control Plan will require the submission of revised Soil Erosion and Sediment Control Plans to the District for re-certification. The revised plans must meet all current NJ State Soil Erosion & Sediment Control Standards.
- The Somerset-Union Soil Conservation District shall be notified of any changes in ownership.
- Mulching to the NJ Standards is required for obtaining a Conditional Report of Compliance. Conditionals are only issued when the season prohibits seeding.
- Contractor is responsible for keeping all adjacent roads clean during life of construction project.
- The developer shall be responsible for remediating any erosion or sediment problems that arise as a result of ongoing construction at the request of the Somerset-Union Soil Conservation District.
- Hydro seeding is a two-step process. The first step includes seed, fertilizer, lime, etc., along with minimal amounts of mulch to promote consistency, good seed to soil contact, and give a visual indication of coverage. Upon completion of seeding operation, hydro-mulch should be applied at a rate of 1500 lbs. per acre in second step. The use of hydro-mulch, as opposed to straw, is limited to optimum seeding dates as listed in the NJ Standards.

Soil De-compaction and Testing Requirements

Soil Compaction Testing Requirements

- Subgrade soils **prior to the application of topsoil** (see permanent seeding and stabilization notes for topsoil requirements) shall be free of excessive compaction to a depth of 6.0 inches to enhance the establishment of permanent vegetative cover.
- Areas of the site which are subject to compaction testing and/or mitigation are **graphically denoted** on the certified soil erosion control plan.
- Compaction testing locations** are denoted on the plan. A copy of the plan or portion of the plan shall be used to mark locations of tests, and attached to the compaction remediation form, available from the local soil conservation district. This form must be filled out and submitted prior to receiving a certificate of compliance from the district.
- In the event that testing indicates compaction in excess of the maximum thresholds indicated for the simplified testing methods (see details below), the contractor/owner shall have the option to perform either (1) compaction mitigation over the entire mitigation area denoted on the plan (excluding exempt areas), or (2) perform additional, more detailed testing to establish the limits of excessive compaction whereupon only the excessively compacted areas would require compaction mitigation. Additional detailed testing shall be performed by a trained, licensed professional.

Compaction Testing Methods

- Probing Wire Test (see detail)
- Hand-held Penetrometer Test (see detail)
- Tube Bulk Density Test (licensed professional engineer required)
- Nuclear Density Test (licensed professional engineer required)

Note: Additional testing methods which conform to ASTM standards and specifications, and which produce a dry weight, soil bulk density measurement may be allowed subject to District approval.

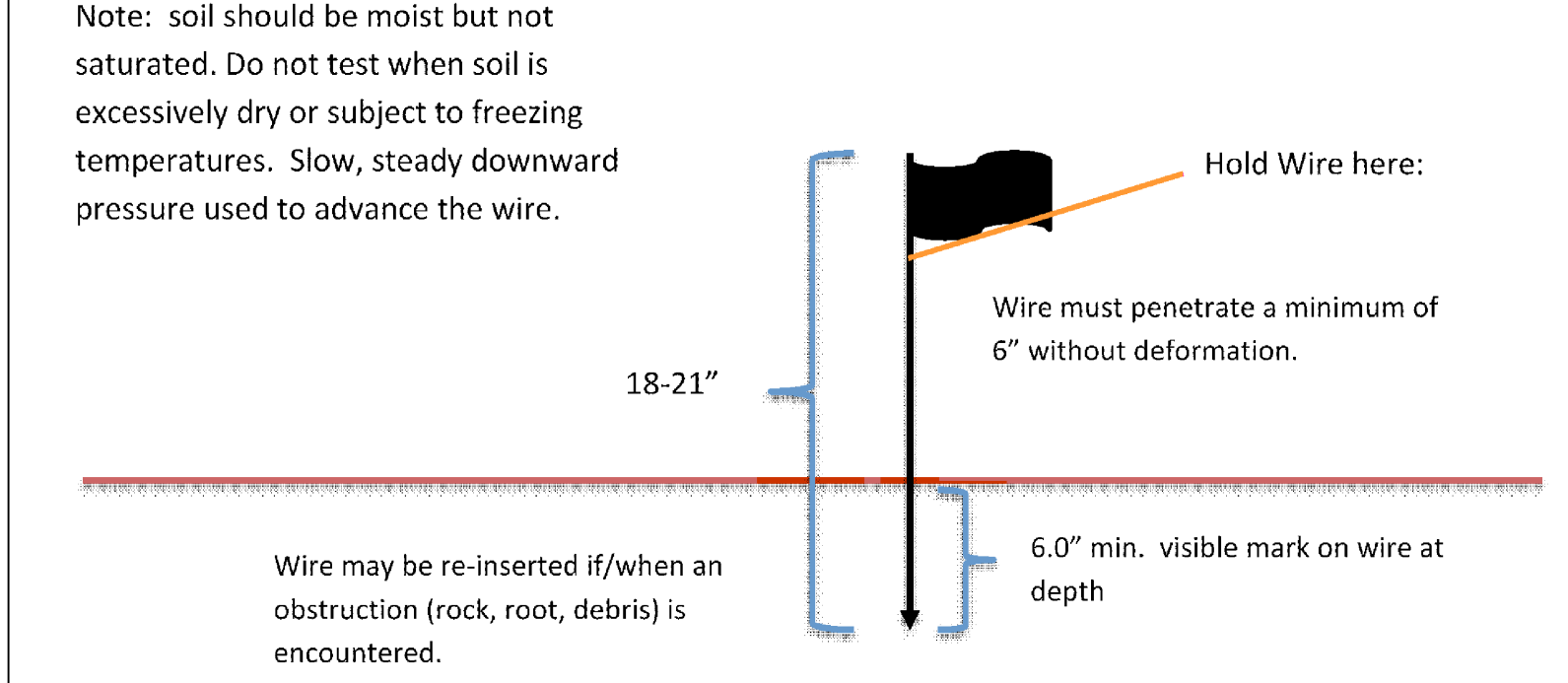
Soil compaction testing is not required if/when subsoil compaction remediation (scarification/tillage (6" minimum depth) or similar) is proposed as part of the sequence of construction.

Procedures for Soil Compaction Mitigation

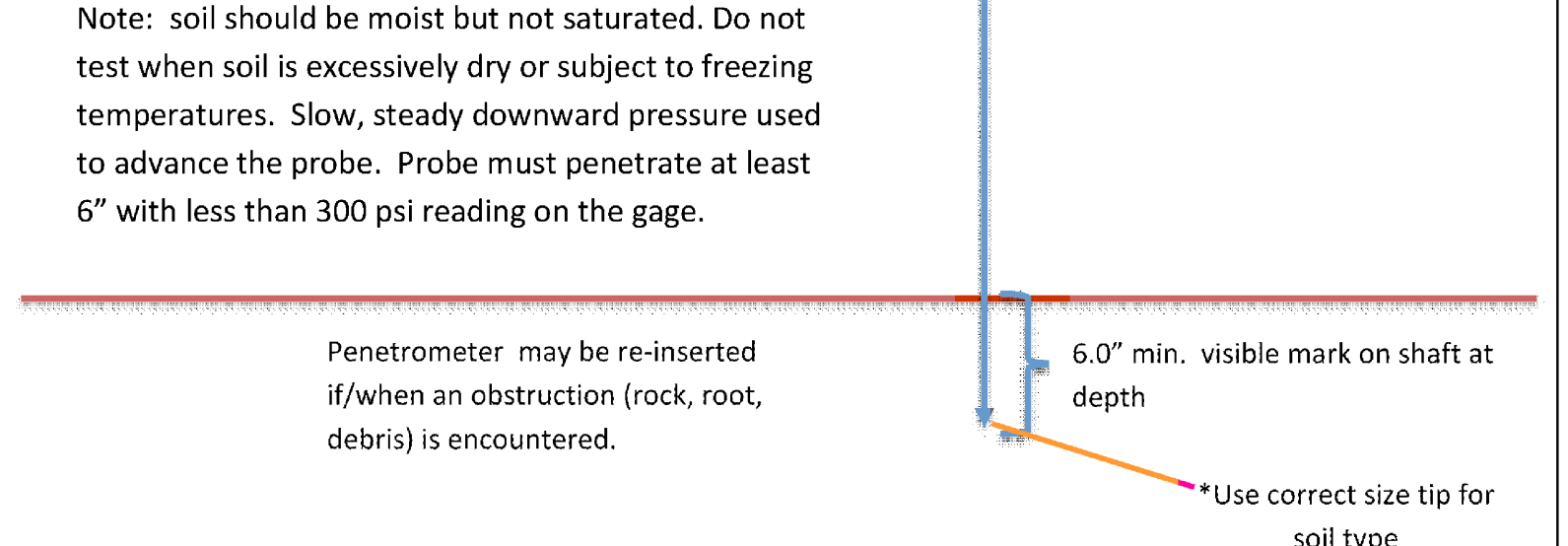
Procedures shall be used to mitigate excessive soil compaction **prior to placement of topsoil** and establishment of permanent vegetative cover.

Restoration of compacted soils shall be through deep scarification/tillage (6" minimum depth) where there is no danger to underground utilities (cables, irrigation systems, etc.). In the alternative, another method as specified by a New Jersey Licensed Professional Engineer maybe substituted subject to District Approval.

Probing Wire Test- 15.5 ga steel wire (survey flag)



Handheld Soil Penetrometer Test



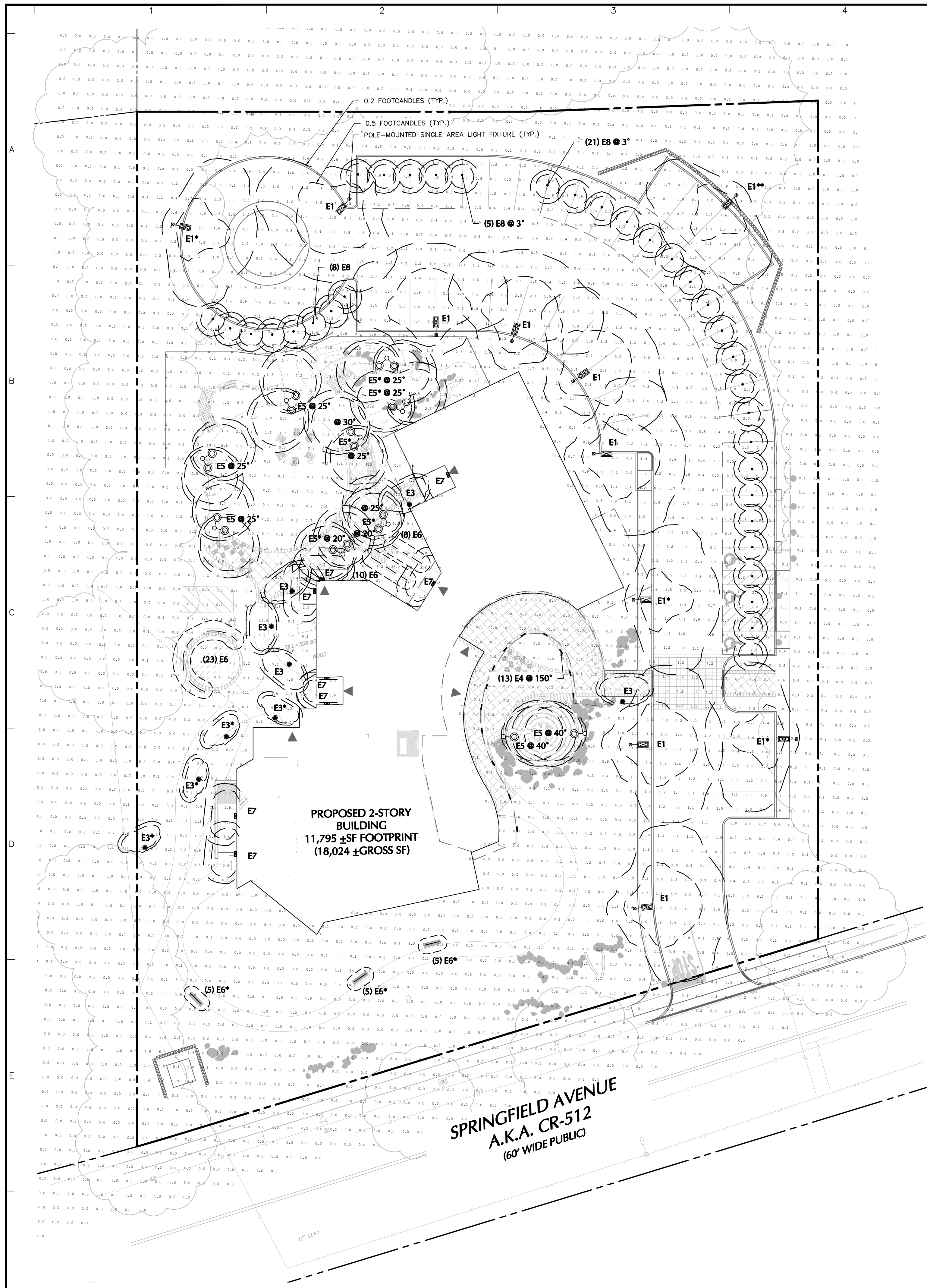
Date	Description	No.
Revisions		
SIGNATURE JOHN COTE DATE		
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800		

LANGAN
Langan Engineering and Environmental Services, LLC
300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project
BEACON UNITARIAN UNIVERSALIST CONGREGATION
SUMMIT NEW JERSEY

UNION COUNTY
Drawing Title
SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS

Project No. 101007201	Drawing No. CE501
Date FEBRUARY 9, 2024	
Drawn By SS	
Checked By TH	Sheet 17 of 19



ORDINANCE COMPLIANCE TABLE				
ZONING DISTRICT (CITY OF SUMMIT) ZONING DISTRICT R-1S SINGLE FAMILY RESIDENTIAL DISTRICT				
ITEM	REQUIRED	PROPOSED	COMPLIES	ORDINANCE SECTION (PAGE)
GENERAL DESIGN REQUIREMENTS				
LIGHT FIXTURE MOUNTING HEIGHT	THE MAXIMUM HEIGHT OF ALL LIGHT FIXTURES SHALL NOT EXCEED 15 FEET.	MAXIMUM 15' MOUNTING HEIGHT OF ALL FIXTURES	YES	ZONING 35-14.1 M.2.a
LUMINANCE REQUIREMENTS	WALKWAYS, STAIRWAYS AND BIKEWAYS (DISTANT FROM ROADWAYS) 0.2 FC	MAXIMUM AVERAGE OF 0.2 FC IS PROPOSED.	YES	ZONING 35-14.1 M.2.g (3)(d)
COLOR TEMPERATURE	LIGHTING FIXTURES SHALL NOT EXCEED A COLOR TEMPERATURE OF 3,500 KELVIN.	PROPOSED FIXTURES ARE ALL 2700 KELVIN	YES	ZONING 35-14.1 M.2.g (3)(d)
PROPERTY LINE	THE MAXIMUM ILLUMINATION AT PROPERTY LINES SHALL BE 1/10 FOOTCANDLE AT GRADE.	MAXIMUM ILLUMINATION AT PROPERTY LINE IS 0.1 FC.	YES	ZONING 35-14.1 M.2.g (3)(d)

SITE LIGHTING SCHEDULE																	
SYMBOL	KEY	QTY.	FIXTURE MANUFACTURER	FIXTURE MODEL	FIXTURE DESCRIPTION	FIXTURE MOUNTING HEIGHT	LAMP	OPTICS	LUMENS	LLF	TILT ANGLE	IES FILE	FIXTURE CATALOGUE NO.	POLE MANUFACTURER	POLE DESCRIPTION	POLE LENGTH	POLE CATALOGUE NO.
⊖	E1	7	WE-EF	AF120 LED	POLE MOUNTED SINGLE AREA LIGHT FIXTURE; COLOR = BLACK	15'-0"	26.5W LED	FORWARD THROW	2,983	0.90	0°	102-0317.IES	102-0317 INCLUDE: 430-0029	LUMCA POLE	ROUND STRAIGHT ALUMINUM POLE	15'-0"	AP04-HD15-WB11-4-BK
⊖	E1*	3	WE-EF	AF120 LED	POLE MOUNTED SINGLE AREA LIGHT FIXTURE; COLOR = BLACK	15'-0"	26.5W LED	FORWARD THROW WITH HOUSE SIDE SHIELD	2,983	0.90	0°	102-0317.IES	102-0317 INCLUDE: 430-0029 (FIELD ADJUSTABLE BACKLIGHT SHIELD)	LUMCA POLE	ROUND STRAIGHT ALUMINUM POLE	15'-0"	AP04-HD15-WB11-4-BK
⊖	E1**	1	WE-EF	AF120 LED	POLE MOUNTED SINGLE AREA LIGHT FIXTURE; COLOR = BLACK	15'-0"	26.5W LED	FORWARD THROW WITH HOUSE SIDE SHIELD	2,983	0.90	0°	102-0317.IES	102-0317 INCLUDE: 430-0029 (FIELD ADJUSTABLE BACKLIGHT SHIELD)	LUMCA POLE	ROUND STRAIGHT ALUMINUM POLE	TBD, SEE NOTE #7	AP04-HD15-WB11-4-BK
●	E3	5	WE-EF	MRY224 LED II	BOLLARD LIGHT FIXTURE; COLOR = BLACK	2'-10"	13.5W LED	ASYMMETRIC	844	0.90	0°	115-9801.IES	115-980				
●	E3*	4	WE-EF	MRY224 LED II	BOLLARD LIGHT FIXTURE; DIMMED @ 40% (SEPARATE CIRCUIT) COLOR = BLACK	2'-10"	13.5W LED	ASYMMETRIC	844	0.90	0°	115-9801.IES	115-980				
—	E4	13	WE-EF	FLC311 SPIGOT MOUNTED	COLUMN MOUNTED ACCENT LIGHT; COLOR = BLACK	7'-6"	11W LED	—	836	0.90	0°	145-7793.IES	145-7793 INCLUDE: 145-7785 (SNOOT) 145-7784 (GLARE SHIELD) 145-9536 (COLUMN FITTER)				N/A
⊖	E5	2	WE-EF	FLC210 LED	POLE MOUNTED SINGLE AREA LIGHT FIXTURE; COLOR = BLACK	12'-0"	13.9W LED	—	1212	0.90	REFER TO PLAN	139-2391_us.IES	139-2704 (SINGLE POLE CLAMP) INCLUDE: 139-2407 (SNOOT) 139-2408 (GLARE SHIELD)	LUMCA POLE	ROUND STRAIGHT ALUMINUM POLE	15'-0"	AP04-HD15-WB11-4-BK
⊖	E5*	8	WE-EF	FLC210 LED	POLE MOUNTED TWIN AREA LIGHT FIXTURE; COLOR = BLACK	12'-0"	13.9W LED	—	1212	0.90	REFER TO PLAN	139-2391_us.IES	139-2704 (SINGLE POLE CLAMP) INCLUDE: 139-2407 (SNOOT) 139-2408 (GLARE SHIELD)	LUMCA POLE	ROUND STRAIGHT ALUMINUM POLE	15'-0"	AP04-HD15-WB11-4-BK (TWIN FIXTURE)
—	E6	41	Q-TRAN	THIN-FLAT (01)	RECESSED MOUNTED UNDER BENCH; SATIN	1'-5"	1.44W LED	—	185	0.85	0°	TH15W-1_5HE-30-DRY-STD-FR-ST.IES	TH15W-1.5-27-WET-STD-FR-ST.IES				N/A
—	E6*	15	Q-TRAN	THIN-FLAT (01)	RECESSED MOUNTED UNDER BENCH; DIMMED @ 50% (SEPARATE CIRCUIT) COLOR = SATIN	1'-5"	1.44W LED	—	185	0.85	0°	TH15W-1_5HE-30-DRY-STD-FR-ST.IES	TH15W-1.5-27-WET-STD-FR-ST.IES				N/A
■	E7	8	WE-EF	RLS410 LED	WALL MOUNTED LIGHT FIXTURE; COLOR = BLACK	8'-0" ABOVE FFE	7.5W LED	—	510	0.90	0°	131-9601_us.IES	131-9601				N/A
•	E8	34	KLK USA	KLK LED PDD XL32	CANOPY DOWNLIGHT; COLOR = BLACK	10'-6"	6.10W LED	SYMMETRIC	368	0.50	0°	LPD0XL32F-Dir-FL-W-SymRef-500.IES	LPD0XL32F-Dir-FL-W-SymRef-500				N/A

- NOTES:
- REFER TO ELECTRICAL DRAWINGS FOR SITE LIGHTING VOLTAGES AND ELECTRICAL LAYOUTS.
 - FINAL LOCATION OF BUILDING MOUNTED FIXTURES TO BE COORDINATED WITH ARCHITECTURAL PLANS.
 - FIXTURES TO ADHERE TO THE CRITERIA FOR DARK SKY COMPLIANCE SET FORTH BY THE INTERNATIONAL DARK SKY ASSOCIATION.
 - ALL MOUNTING METHODS, CONDUITS, WIRING AND THE SUPPLY OF THE CORRECT ELECTRICAL POWER IN ACCORDANCE WITH ALL LOCAL CODES IS THE RESPONSIBILITY OF THE INSTALLER.
 - MINIMAL TREE ACCENT LIGHTING WILL BE PROVIDED IN CERTAIN AREAS AT A FUTURE DATE.
 - CONTRACTOR TO CONFIRM CONTROLS SYSTEM REQUIRED BY THE OWNER AND PER CODE. BID PRICING SHALL INCLUDE SYSTEM. EXTERIOR LIGHTING WILL RESPOND TO MOTION SENSORS AND PHOTOCELL AND /OR TIMECLOCK WITH MANUAL OVERRIDE AT A CENTRAL LOCATION. PROVIDE SEPARATE CIRCUITS FOR GROUPINGS OF DIMMED FIXTURES PER PLAN.
 - (**) LENGTH OF POLE ADJUSTED FOR GRADE CHANGE AT THIS LOCATION. MOUNTING HEIGHT ABOVE ADJACENT PAVEMENT TO BE 15'-0".

STATISTICS					
DESCRIPTION	AVG.	MAX.	MIN.	MAX/MIN	AVG/MIN
DRIVE AND PARKING - VEHICULAR	1.2 FC	3.4 FC	0.2 FC	17.0:1	6.0:1
SOUTH PATH - PEDESTRIAN	0.2 FC	1.4 FC	0.0 FC	N/A	N/A
NORTH EAST PATH - PEDESTRIAN	0.2 FC	0.5 FC	0.1 FC	2.0:1	5.0:1
EAST EGRESS - PEDESTRIAN	1.7 FC	5.8 FC	1.0 FC	1.7:1	5.8:1
WEST EGRESS - PEDESTRIAN	5.0 FC	21.9 FC	1.1 FC	4.5:1	19.9:1
PROPERTY LINE	0.0 FC	0.1 FC	0.0 FC	N/A	N/A

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

NOTE: REFER TO SHEET LL501 FOR LIGHTING NOTES & DETAILS.

NOTE:
 LIGHTING LAYOUT BASED ON PLANS PREPARED BY JAMES CLOTFELTER, LIGHTING DESIGN, DATED JANUARY 31, 2024.

5/22/25	REVISED PER CITY COMMENTS	2
07/18/24	REVISED PER TRC COMMENTS	1

Date	Description	No.
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Revisions

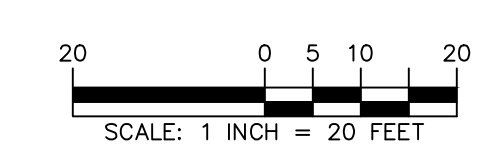
SIGNATURE: MICHAEL SZURA DATE: N.J. LICENSED LANDSCAPE ARCHITECT LICENSE NO. A500815

LANGAN
 Langan Engineering and Environmental Services, LLC
 300 Kimball Drive
 Parsippany, NJ 07054
 T: 973.560.4900 F: 973.560.4901 www.langan.com
 NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

Project: **BEACON UNITARIAN UNIVERSALIST CONGREGATION**
 SUMMIT NEW JERSEY

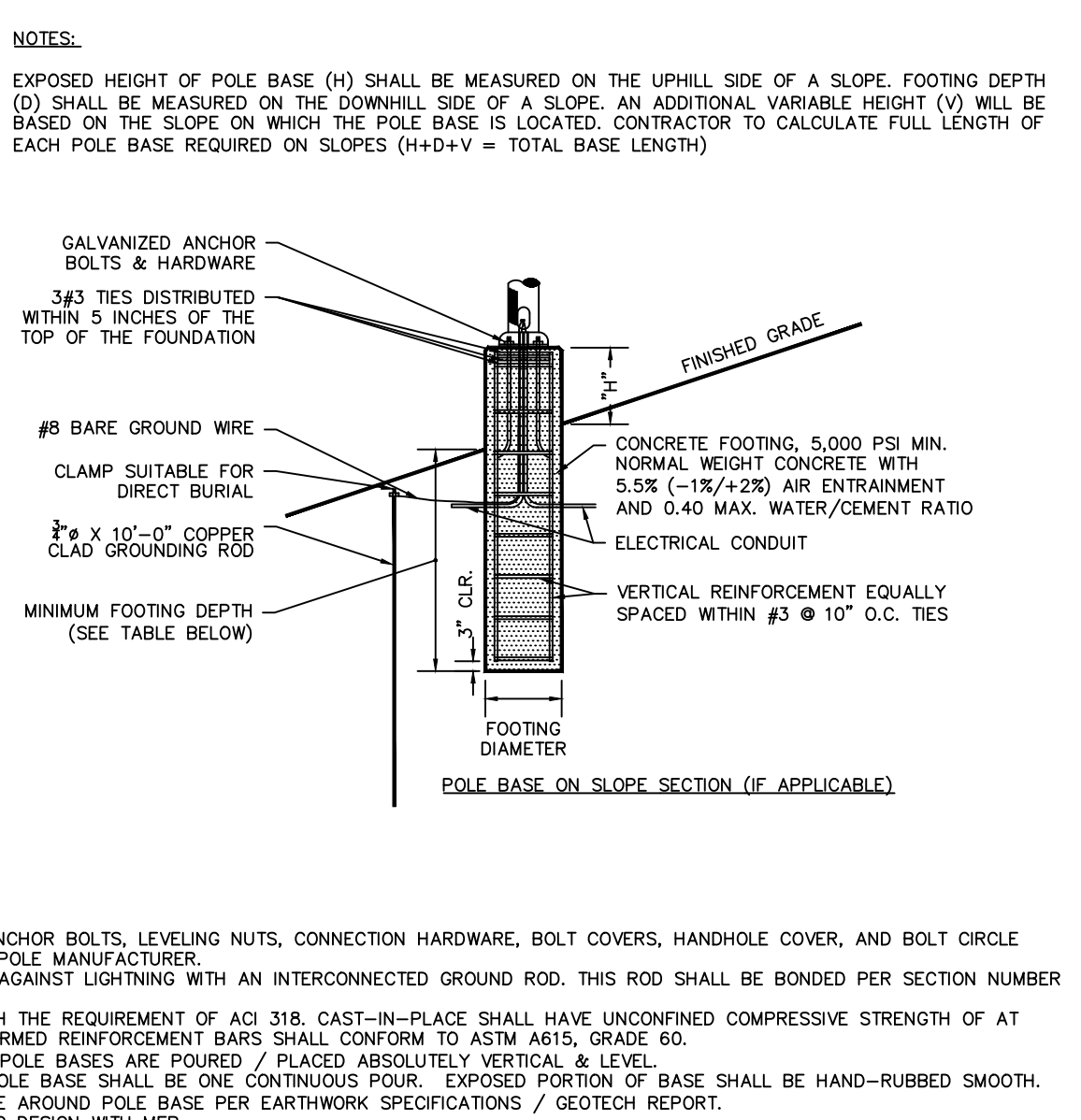
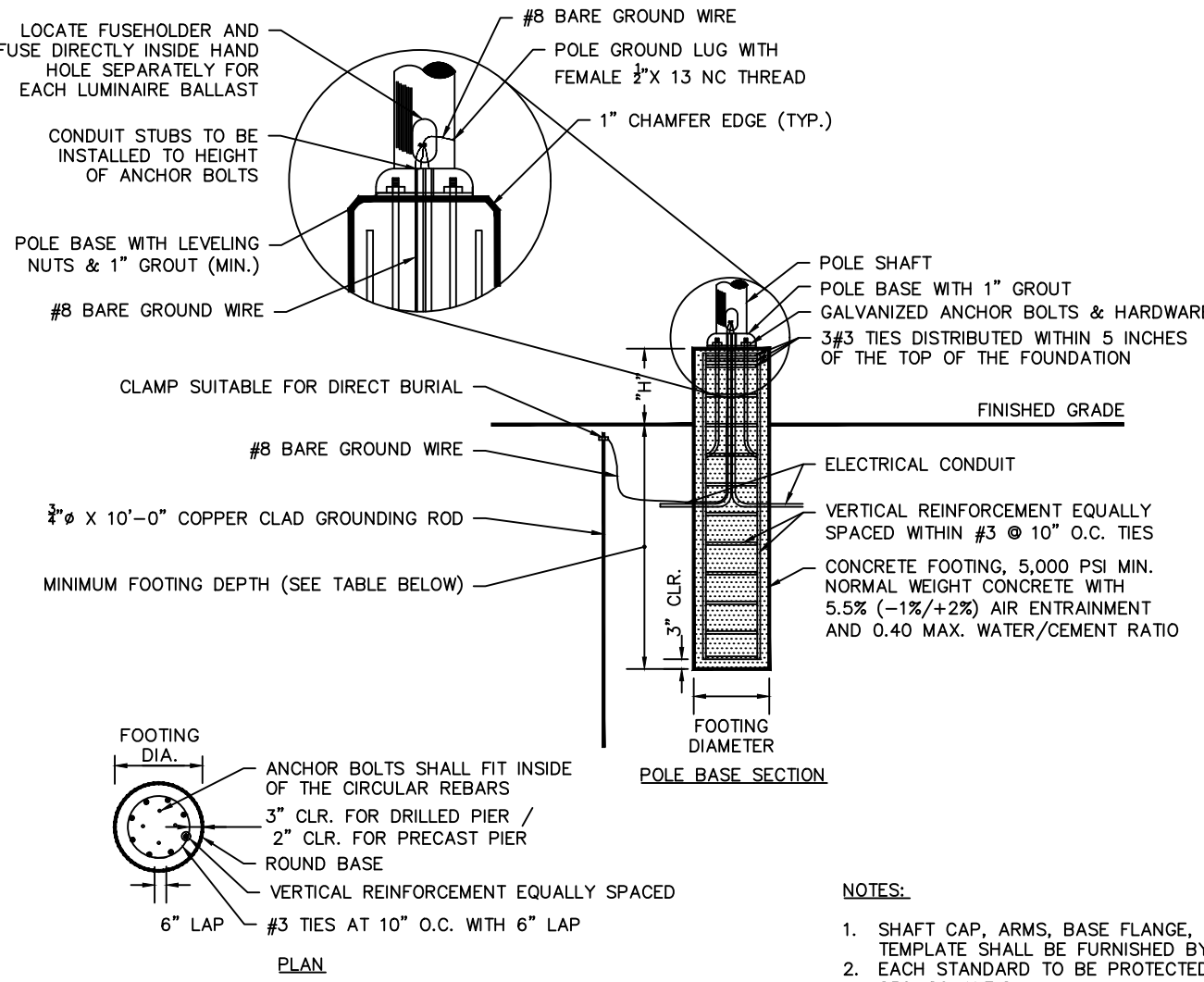
UNION COUNTY
 Drawing Title: **LIGHTING PLAN**

Project No.	Drawing No.
101007201	LL101
Date	February 9, 2024
Drawn By	GR
Checked By	DB
Sheet	18 of 19



LIGHTING NOTES:

- GENERAL**
- 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.
 - LIGHT LEVEL POINT SPACING IS 5 FT. LEFT TO RIGHT AND 5 FT. TOP TO BOTTOM. POINT BY POINT CALCULATIONS ARE BASED ON THE LIGHT LOSS FACTOR AS STATED IN THE LIGHTING SCHEDULE.
 - ALL FIXED LUMINAIRE ARE DARK SKY COMPLIANT WITH FULL CUTOFF.
 - POLE-MOUNTED AREA LIGHTS ABOVE 10 FT WILL BE AIMED LESS THAN 45 DEG. BELOW HORIZONTAL AND UTILIZE OPTICAL SHIELDING TO LIMIT GLARE AND PROVIDE FULL CUTOFF 90 DEG. ABOVE NAIR.
- COORDINATION**
- CONTRACTOR TO COORDINATE POWER SOURCE WITH LIGHT FIXTURES TO ENSURE ALL SITE LIGHTING IS OPERATING EFFECTIVELY, EFFICIENTLY AND SAFELY.
 - REFER TO ELECTRIFICATION PLAN FOR PROVIDING ADEQUATE POWER FOR SITE LIGHTING.
 - CONTRACTOR TO COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
 - 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.
 - 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**
- 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 FOR THOSE SHOWN ON THESE PLANS. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO ORDERING ANY SUBSTITUTED PRODUCTS.
 - 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.
 - POLE FOUNDATIONS SHALL NOT BE POURED IF FREE STANDING WATER IS PRESENT IN EXCAVATED AREA.
 - ALL POLES SHALL BE EQUIPPED WITH FACTORY INSTALLED VIBRATION DAMPENERS.



FOOTING HEIGHT	FOOTING DEPTH	FOOTING DIAMETER	EXPOSED HEIGHT**	VERTICAL REINFORCEMENT
15'-0"	4'-6"	2'-0"	0'-2"	6#5 BARS
12'-0"	4'-6"	2'-0"	0'-2"	6#5 BARS

LIGHT POLE BASE

AFL120 LED
102-0317

E1 **we-ef**



Description	IP66, Class I or Class II, IK08. Marine-grade, die-cast aluminum alloy. SCE superior corrosion protection including PCS hardware, CO2/B Controlled Compression Gasket. Non-reflective flat safety glass cover, hinged, integral EC electronic converter. CAD-optimized optics for superior illumination and glare control. OLC/DB One LED Concept. Factory installed LED circuit board. The luminaire is factory-sealed and does not need to be opened during installation. Can be used as a post top or side entry version. Specification at time of order is recommended. Spigot Ø 7/8" x 100 mm, Ø 1" x 100 mm or Ø 1 1/4" x 100 mm option available. Must be indicated during order placement. Contact WE-EF direct or your local WE-EF sales representative for an individual solution designed to precisely meet your needs.	Beam Type	rectangular, forward throw [B6]
Light Source	LED-24W / 350 mA - 2700 K	CR	80
Gear Type	electronic gear	Nominal Luminous Flux (lm)	145 lm
LEDs	24	LED Lumens	124.3 lm
Total Lumens	3480 lm	Total Lumens	2982.0 lm
Ta	85 °C	Rated Input Power	26.5 W

MRY224 LED II
115-9801

E3 **we-ef**



Description	IP66, Class I, IK10. Marine-grade, all aluminum construction. Pole section features anodized aluminum core. SCE superior corrosion protection including PCS hardware, Silicone CO2/B Controlled Compression Gasket. Polycarbonate main lens, UV-stabilized, CAD-optimized optics for superior illumination and glare control. Integral driver. Advanced thermal management protects LEDs while optimizing lumens output. Luminaire is factory sealed and does not need to be opened during installation. Suitable for areas prone to flooding. Specify product with 7 Digit product code - Finish Color. Accessories, such as mounting, optical, and electrical, must be specified separately. Example: XXX-XXXX-9004 (Black) + XXX-XXXX (Accessory 1)	Beam Type	asymmetric, side throw beam [S60]
Light Source	LED-11W / 300 mA - 2700 K	CR	80
Gear Type	electronic gear	Nominal Luminous Flux (lm)	1323 lm
LEDs	11	LED Lumens	1323 lm
Total Lumens	1323 lm	Total Lumens	1323 lm
Ta	25 °C	Rated Input Power	13.5 W

FLC311 Spigot mounted Projectors

E4 **we-ef**



Description	IP66, IK08. Marine-grade, die-cast aluminum alloy. SCE superior corrosion protection including PCS hardware, Silicone CO2/B Controlled Compression Gasket. Safety glass lens. Integral driver. Thermally separated. CAD-optimized optics for superior illumination and glare control. OLC/DB One LED Concept. Factory installed LED circuit board. 6-10V Dimming comes standard with luminaire. Optional 220V version available, to be specified at time of ordering. True Amber upon request. Maximum on internal optical accessory possible, to be specified at time of ordering. Specify product with 7 Digit product code - Finish Color. Accessories, such as mounting, optical, and electrical, must be specified separately. Example: XXX-XXXX-9004 (Black) + XXX-XXXX (Accessory 1)	Beam Type	symmetric, wide beam [W]
Light Source	LED-31W / 350 mA - 2700 K	CR	80
Gear Type	electronic gear	Nominal Luminous Flux (lm)	492.7 lm
LEDs	31	LED Lumens	492.7 lm
Total Lumens	1478 lm	Total Lumens	1478 lm
Ta	85 °C	Rated Input Power	14 W

FLC210 LED
139-2391

E5 **we-ef**



Description	IP66, IK08. Marine-grade, die-cast aluminum alloy. SCE superior corrosion protection including PCS hardware, Silicone CO2/B Controlled Compression Gasket. Safety glass lens. Integral driver. Thermally separated. CAD-optimized optics for superior illumination and glare control. OLC/DB One LED Concept. Factory installed LED circuit board. 6-10V Dimming comes standard with luminaire. Optional 220V version available, to be specified at time of ordering. True Amber upon request. Maximum on internal optical accessory possible, to be specified at time of ordering. Specify product with 7 Digit product code - Finish Color. Accessories, such as mounting, optical, and electrical, must be specified separately. Example: XXX-XXXX-9004 (Black) + XXX-XXXX (Accessory 1)	Beam Type	symmetric, wide beam [W]
Light Source	LED-31W / 350 mA - 2700 K	CR	80
Gear Type	electronic gear	Nominal Luminous Flux (lm)	492.7 lm
LEDs	31	LED Lumens	492.7 lm
Total Lumens	1478 lm	Total Lumens	1478 lm
Ta	85 °C	Rated Input Power	14 W

THIN-FLAT (01) Linear Fixtures

E6 **we-ef**



Description	IP66, IK08. Marine-grade, die-cast aluminum alloy. SCE superior corrosion protection including PCS hardware, Silicone CO2/B Controlled Compression Gasket. Safety glass lens. Integral driver. Thermally separated. CAD-optimized optics for superior illumination and glare control. OLC/DB One LED Concept. Factory installed LED circuit board. 6-10V Dimming comes standard with luminaire. Optional 220V version available, to be specified at time of ordering. True Amber upon request. Maximum on internal optical accessory possible, to be specified at time of ordering. Specify product with 7 Digit product code - Finish Color. Accessories, such as mounting, optical, and electrical, must be specified separately. Example: XXX-XXXX-9004 (Black) + XXX-XXXX (Accessory 1)	Beam Type	symmetric, wide beam [W]
Light Source	LED-31W / 350 mA - 2700 K	CR	80
Gear Type	electronic gear	Nominal Luminous Flux (lm)	492.7 lm
LEDs	31	LED Lumens	492.7 lm
Total Lumens	1478 lm	Total Lumens	1478 lm
Ta	85 °C	Rated Input Power	14 W

WE-EF LIGHTING USA LLC
Spec. Support Hotline: +1 813 936-1410 (9:00am-5:00pm EST) | Warehouse PA 15086 U.S.A. | Tel: +1 724 742 9000 | info.usa@we-ef.com | www.we-ef.com | 25-04-2023 15:21
Technical modifications and errors excluded

WE-EF LIGHTING USA LLC
Spec. Support Hotline: +1 813 936-1410 (9:00am-5:00pm EST) | Warehouse PA 15086 U.S.A. | Tel: +1 724 742 9000 | info.usa@we-ef.com | www.we-ef.com | 25-04-2023 15:21
Technical modifications and errors excluded

WE-EF LIGHTING Pty Ltd
6/13 Downard Street, 3195 Broadmead, Victoria - Phone: +61 3 8587 0444 - Fax: +61 3 8587 0499
info.australia@we-ef.com | https://www.we-ef.com/australia
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Technical modifications and errors excluded

AREA LIGHT

BOLLARD LIGHT

ACCENT LIGHT

AREA LIGHT

RECESSED SURFACE LIGHT

AP04 AP04-HD

Description
IP66, IK08. Marine-grade, die-cast aluminum alloy. SCE superior corrosion protection including PCS hardware, Silicone CO2/B Controlled Compression Gasket. Safety glass lens. Integral driver. OLC/DB One LED Concept. Factory installed LED circuit board. 6-10V Dimming comes standard with luminaire. Optional 220V version available, to be specified at time of ordering. True Amber upon request. Maximum on internal optical accessory possible, to be specified at time of ordering. Specify product with 7 Digit product code - Finish Color. Accessories, such as mounting, optical, and electrical, must be specified separately. Example: XXX-XXXX-9004 (Black) + XXX-XXXX (Accessory 1)

Beam Type rectangular asymmetric Type II [B42]
Light Source LED-31W / 350 mA - 2700 K
CR 80
Gear Type electronic gear
Nominal Luminous Flux (lm)
LED Lumens 492.7 lm
LEDs 31
Total Lumens 1478 lm
Tj 85 °C
Delivered Lumens Flux (lm)
LED Lumens 170.1 lm
Total Lumens 510.4 lm
Ta 25 °C
Rated Input Power 14 W

Construction AP04
• Ø4" (102mm) OD anodized aluminum
• Ø 1/2" (12.7mm) wall thickness
• Stainless steel hardware
• Aluminum ground lag welded on the pole behind the door

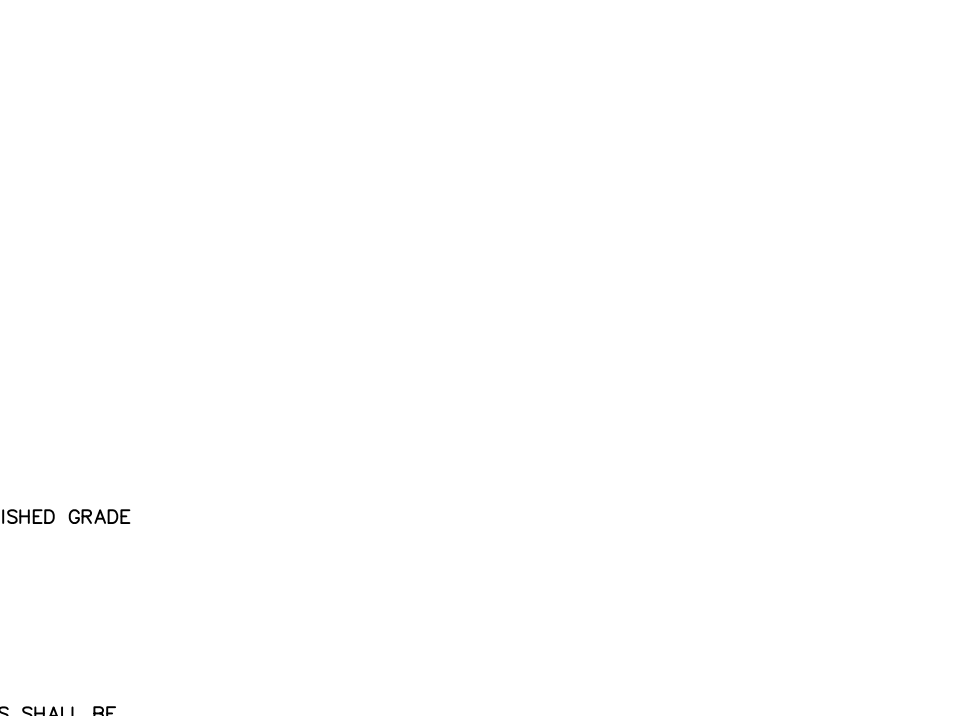
Construction AP04-HD
• Ø4" (102mm) OD anodized aluminum
• Ø 1/2" (12.7mm) wall thickness
• Stainless steel hardware
• Aluminum ground lag welded on the pole behind the door

Finish
• Polycarbonate (100% recycled) with anodized aluminum housing (available in black, silver, and bronze finishes)
• Polyester powder coating
• Minimum thickness of 200 microns
• Meets ASTM B117 corrosion test with salt water
• Meets ASTM B117 corrosion test with salt water
• WW: White Powder Coat
• W: White Powder Coat

Wood finish (optional)
• Sublimation (also available in a substance from the solid phase to go photo)
• WW: White Powder Coat
• W: White Powder Coat

Notes:
1. CURB LOCATION IS SHOWN FOR SCHEMATIC PURPOSE. LIGHT POLES SHALL BE LOCATED PER THE LIGHTING PLANS.

LIGHT POLE



NOTES:
1. CURB LOCATION IS SHOWN FOR SCHEMATIC PURPOSE. LIGHT POLES SHALL BE LOCATED PER THE LIGHTING PLANS.

LIGHT FIXTURE AND POLE NTS

RLS410 LED
131-9601 (previous product code: E03-8422 for reference only)

E7 **we-ef**

Description
IP66, IK08. Marine-grade, die-cast aluminum alloy. SCE superior corrosion protection including PCS hardware, Silicone CO2/B Controlled Compression Gasket. Safety glass lens. Integral driver. OLC/DB One LED Concept. Factory installed LED circuit board. 6-10V Dimming comes standard with luminaire. Optional 220V version available, to be specified at time of ordering. True Amber upon request. Maximum on internal optical accessory possible, to be specified at time of ordering. Specify product with 7 Digit product code - Finish Color. Accessories, such as mounting, optical, and electrical, must be specified separately. Example: XXX-XXXX-9004 (Black) + XXX-XXXX (Accessory 1)

Beam Type rectangular asymmetric Type II [B42]
Light Source LED-31W / 350 mA - 2700 K
CR 80
Gear Type electronic gear
Nominal Luminous Flux (lm)
LED Lumens 492.7 lm
LEDs 31
Total Lumens 1478 lm
Tj 85 °C
Delivered Lumens Flux (lm)
LED Lumens 170.1 lm
Total Lumens 510.4 lm
Ta 25 °C
Rated Input Power 14 W

Construction AP04
• Ø4" (102mm) OD anodized aluminum
• Ø 1/2" (12.7mm) wall thickness
• Stainless steel hardware
• Aluminum ground lag welded on the pole behind the door

Construction AP04-HD
• Ø4" (102mm) OD anodized aluminum
• Ø 1/2" (12.7mm) wall thickness
• Stainless steel hardware
• Aluminum ground lag welded on the pole behind the door

Finish
• Polycarbonate (100% recycled) with anodized aluminum housing (available in black, silver, and bronze finishes)
• Polyester powder coating
• Minimum thickness of 200 microns
• Meets ASTM B117 corrosion test with salt water
• Meets ASTM B117 corrosion test with salt water
• WW: White Powder Coat
• W: White Powder Coat

Notes:
1. CURB LOCATION IS SHOWN FOR SCHEMATIC PURPOSE. LIGHT POLES SHALL BE LOCATED PER THE LIGHTING PLANS.

WALL MOUNTED LIGHT FIXTURE



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LIGHT FIXTURE AND POLE NTS

KLIK LEDpod™ XL32 Patented

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CANOPY LIGHT FIXTURE



NOTES:
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Date	Description	No.
07/18/24	REVISED PER TRC COMMENTS	1

Revisions

SIGNATURE: JOHN COTE
PROFESSIONAL ENGINEER NJ Lic. No. 24GE03705800
DATE

LANGAN
Langan Engineering and Environmental Services, LLC

300 Kimball Drive
Parlissippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA27996400

BEACON UNITARIAN UNIVERSALIST CONGREGATION

UNION COUNTY SUMMIT NEW JERSEY
Drawing Title

LIGHTING NOTES & NOTES

Project No.	101007201	Drawing No.	LL501
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Checked By	DB	Sheet	19 of 19

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