



**LANDSCAPE ARCHITECT:**  
BLADES & GOVEN LANDSCAPE ARCHITECTS  
60 THORPE STREET  
FAIRFIELD, CT 06824  
P:203 254 8530

**BUTTERFIELD REDEVELOPMENT  
PROJECT  
3102 ROUTE 9  
COLD SPRING, NY**

VILLAGE OF COLD SPRING  
PUTNAM COUNTY, NEW YORK

<u>SHEET NUMBER</u>	<u>DRAWING TITLE</u>
G-1	NOTES
G-2	EROSION & SEDIMENT CONTROL NOTES
C-101	SITE/ SUBDIVISION PLAN
C-102	EXISTING CONDITIONS & DEMOLITION PLAN
C-103	EROSION & SEDIMENT CONTROL PLAN
C-104	GRADING PLAN
C-105	UTILITY PLAN
C-106	GRADING & UTILITY PLAN
L-401	LANDSCAPE & LIGHTING PLAN
C-301	DRIVEWAY PROFILES
C-302	UTILITY PROFILES
C-501	EROSION & SEDIMENT CONTROL DETAILS
C-502	SITE DETAILS
C-503	WATER UTILITY DETAILS
C-504	STORM-SANITARY DETAILS
C-505	STORM WATER MANAGEMENT DETAILS
C-506	ADS 36" DETAILS
C-507	ADS 48" DETAILS
C-508	RETAINING WALL DETAILS







1. Contractor shall be responsible for compliance with all sediment and erosion control practices. The sediment and erosion control practices are to be installed prior to any major soil disturbances, and maintained until permanent protection is established. Road surface flows from the site should be dissipated with tracking pad or appropriate measures during adjacent road shoulder grading. Contractor is responsible for the installation and maintenance of all soil erosion and sedimentation control devices throughout the course of construction.
2. Catch basin inlet protection must be installed and operating at all times until tributary areas have been stabilized. When possible flows should be stabilized before reaching inlet protection structure. Timely maintenance of sediment control structures is the responsibility of the Contractor.
3. All structures shall be maintained in good working order at all times. The sediment level in all sediment traps shall be closely monitored and sediment removed promptly when maximum levels are reached or as ordered by the engineer. All sediment control structures shall be inspected on a regular basis, and after heavy rain to insure proper operation as designed. An inspection schedule shall be set forth prior to the start of construction.
4. The locations and the installation times of the sediment capturing standards shall be as specified in these plans, as ordered by the Engineer, and in accordance with the latest edition of the 'New York' Standards and Specifications for Erosion and Sediment Control' (NYSESC).
5. The contractor shall be responsible for maintaining a stockpile for reuse on the site. A stockpile material required for final grading and stored on site shall be temporarily seeded and mulched within 7 days. Refer to soil stockpile details.
6. Any disturbed areas that will be left exposed more than 7 days and not subject to construction traffic, shall immediately receive temporary seeding. Mulch shall be used if the season prevents the establishment of a temporary cover. Disturbed areas shall not be limed and fertilized prior to temporary seeding.
7. All disturbed areas within 500 feet of an inhabited dwelling shall be seeded as necessary to provide dust control.
8. The contractor shall keep the roadways within the project clear of soil and debris and is responsible for any street cleaning necessary during the course of the project.
9. Sediment and erosion control structures shall be removed and the area stabilized when the drainage area has been properly stabilized by permanent measures.
10. All sediment and erosion control measures shall be installed in accordance with current edition of NYSESC.
11. All regraded areas must be stabilized appropriately prior to any rock blasting, cutting, and/or filling of soils. Special care should be taken during construction to insure stability during maintenance and integrity of control structures.
12. Any slopes graded at 3:1 or greater shall be stabilized with erosion blankets to be staked into place in accordance with the manufacturers requirements. Erosion blankets shall be installed at the road or project site at the request of the Village or the Project Engineer. When stabilized blanket is utilized for channel stabilization, place all of the volume of seed mix prior to laying net, or as recommended by the manufacturer.
13. To prevent heavy construction equipment and trucks from tracking soil off-site, construct a previous crushed stone pad. Locate and construct pads as detailed in these plans.
14. Contractor is responsible for controlling dust by sprinkling exposed soil areas periodically with water as required. Contractor to supply all equipment and water.
15. Contractor shall be responsible for construction specifications as per NYSESC PG-10-101 and Village of Cold Spring Code.

Certification Statement - All contractors and subcontractors as identified in a SWPPP, by the Owner or Operator, in accordance with Part III.A.5 of the SPDES General Permit for Stormwater Runoff from Construction Activity, GP-0-10-001 dated January 28, 2010, Page 10 of 40, shall sign a copy of the following Certification Statement before undertaking any construction activity at the Site identified in the SWPPP:

Individual Contractor: \_\_\_\_\_

Name and Title (please print): \_\_\_\_\_

Signature of Contractor: \_\_\_\_\_

Company / Contracting Firm: \_\_\_\_\_

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

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

Telephone Number / Cell Number: \_\_\_\_\_

Site Information: \_\_\_\_\_

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

\_\_\_\_\_

Today's Date: \_\_\_\_\_

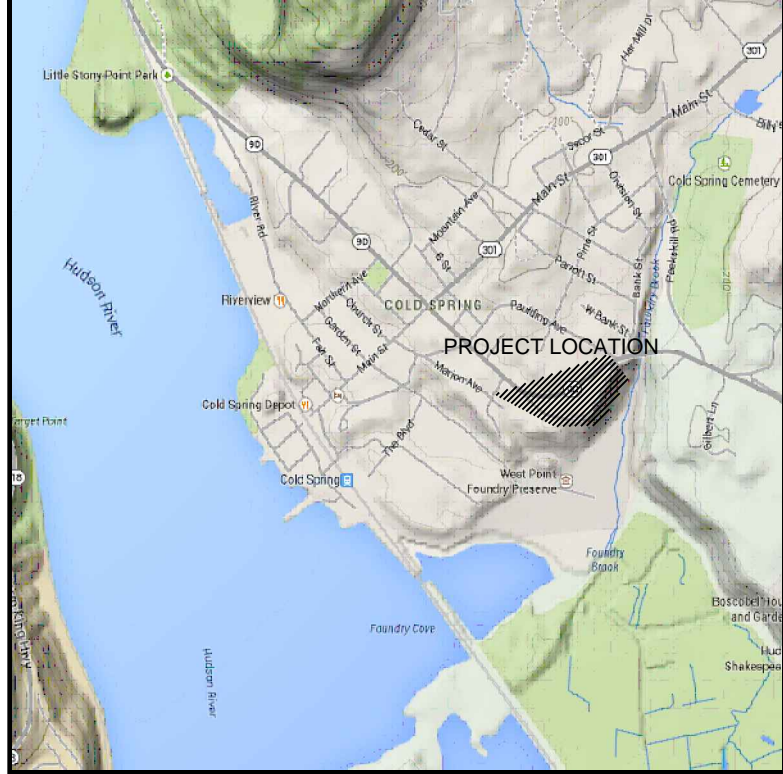
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage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

1. Trees and vegetation shall be protected at all times as shown on the detail drawing and as directed by the Engineer.
2. Care should be taken so as not to channel concentrated runoff through the areas of construction activity on the site.
3. All sites shall be stabilized with erosion control materials which causes water to pond in areas of stabilization.
4. Runoff from land disturbances shall not be discharged or have the potential to discharge off site without first being intercepted by a control structure, such as a sediment trap or silt fence. Sediment shall be removed before exceeding 50% of the retention structure's capacity.
5. For finished grading, adequate grade shall be provided so that water will not pond on lawns for more than 24 hours after rainfall, except in swales.
6. All swales and other areas of concentrated flow shall be properly stabilized with temporary control measures to prevent erosion and sediment travel. Surface flows over cut and fill areas shall be stabilized at all times.
7. All sites shall be stabilized with erosion control materials within 7 days of final grading.
8. Temporary sediment trapping devices shall be removed from the site within 30 days of final stabilization.

	DAILY	WEEKLY	MONTHLY	AFTER RAINFALL	NECESSARY TO MAINTAIN FUNCTION	AFTER APPROVAL OF INSPECTOR
SILT FENCE	---	----	INSP.	INSP.	CLEAN/ REPLACE	REMOVE
WHEEL CLEANER	CLEAN	----	----	----	REPLACE	REMOVE
INLET PROTECTION	---	INSP.	INSP.	CLEAN	REPLACE	REMOVE

Same as permanent vegetative cover





**SITE DATA:**

OWNER / DEVELOPER: BUTTERFIELD REALTY LLC  
3102 ROUTE 9  
COLD SPRING, NY 10516  
PROJECT LOCATION: 55 PAULDING AVENUE  
COLD SPRING, NEW YORK, 10516  
EXISTING ZONE: B-4A, MEDICAL AND HEALTH CARE FACILITY MIXED USED  
R-1, ONE FAMILY RESIDENCE DISTRICT  
TOWN TAX MAP DATA: SECTION 49.5, BLOCK 3, LOT 45  
SITE AREA: 5.791 ACRES (252,517.32SF)  
SEWAGE FACILITIES: PUBLIC SEWERS  
WATER FACILITIES: PUBLIC WATER FACILITIES

**PROJECT SUMMARY:**

- BUILDING 1, **MUNICIPAL OFFICE BUILDING** - 6,000 SF FOOTPRINT, WITH 15,000 SF TOTAL (FIRST FLOOR RETAIL NOT TO EXCEED 6,000SF)
- BUILDING 2, **RETAIL OFFICE BUILDING** - 7,000 SF FOOTPRINT, WITH 17,500 SF TOTAL (FIRST FLOOR RETAIL NOT TO EXCEED 7,000SF)
- BUILDINGS 3 - 6, **SENIOR CONDOMINIUM** - 55 UNITS
- LOTS 1, 2, & 3 - THREE (3) SINGLE FAMILY HOMES

**Parking Schedule**

Building	Land Use	Parking Code	Code Requirement Spaces	Shared Parking Reduction	Required Parking After Reduction	Provided
1	Retail (6,000 SF)	1 Space per 150 SF	40	20%	32	63
	Office (6,000 SF)	1 Space per 300 SF	20	20%	16	
2	Retail (7,000 SF)	1 Space per 150 SF	47	20%	38	70
	Office (10,500 SF)	1 Space per 300 SF	35	20%	28	
Lahey Pavilion	Existing	----	35	----	35	35
<b>Non-Residential Parking</b>			<b>177</b>	<b>20%</b>	<b>149</b>	<b>166</b>
3 - (25 units)*	Multi Family	1 space per unit	25	0%	25	26 Interior Parking
4, 5, & 6 - (30 units)*	Multi Family	1 space per unit	31	0%	31	39 Interior Parking
<b>Multi Family Parking</b>			<b>56</b>	<b>0%</b>	<b>56</b>	<b>69</b>
Lots 1, 2, & 3	Single Family		3	0%	3	3
<b>Single Family Parking</b>			<b>3</b>		<b>3</b>	<b>3</b>
<b>Total Parking</b>					<b>208</b>	<b>237</b>

\* Interior Parking

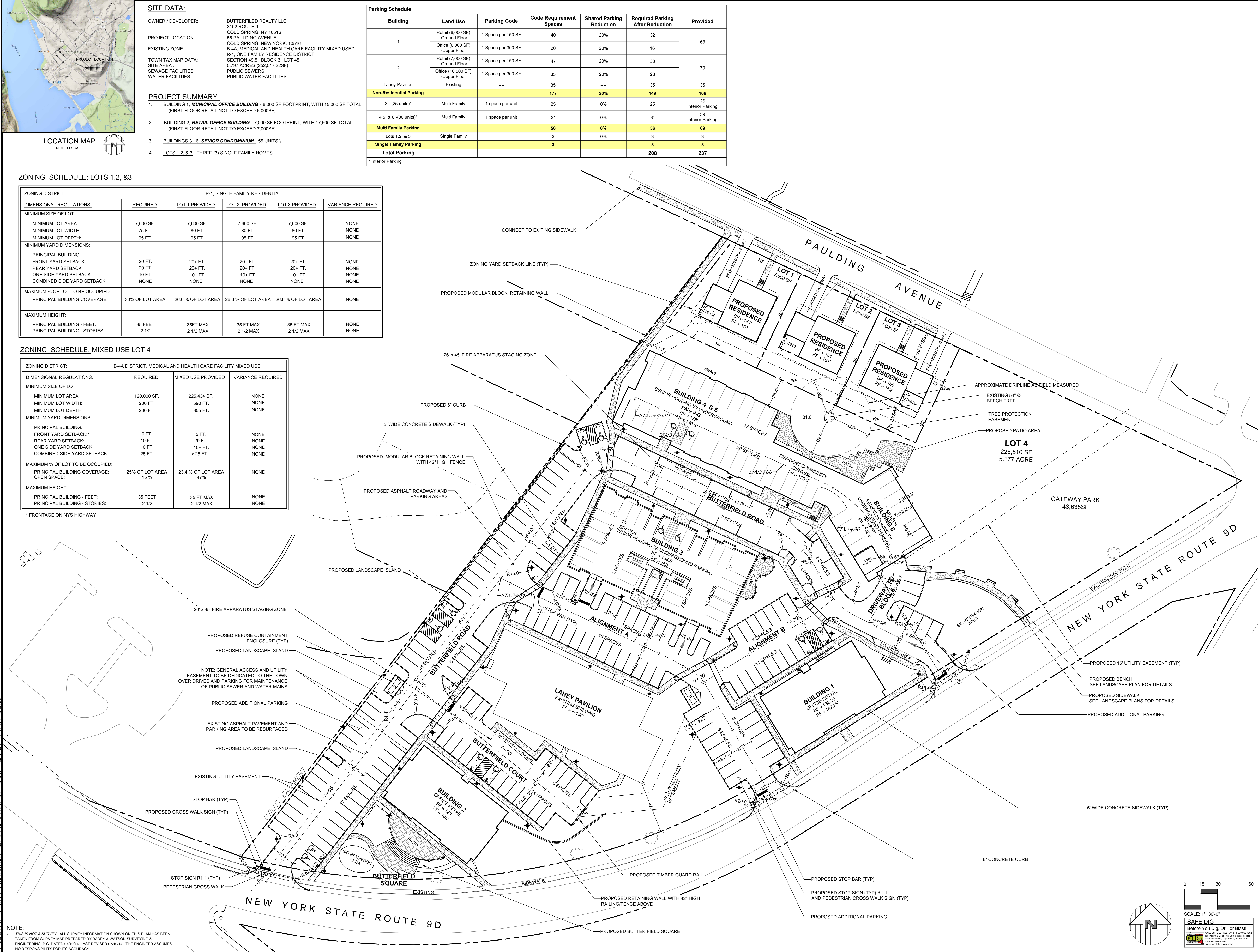
**ZONING SCHEDULE: LOTS 1, 2, & 3**

R-1, SINGLE FAMILY RESIDENTIAL					
DIMENSIONAL REGULATIONS:	REQUIRED	LOT 1 PROVIDED	LOT 2 PROVIDED	LOT 3 PROVIDED	VARIANCE REQUIRED
MINIMUM SIZE OF LOT:					
MINIMUM LOT AREA:	7,600 SF.	7,600 SF.	7,600 SF.	7,600 SF.	NONE
MINIMUM LOT WIDTH:	75 FT.	80 FT.	80 FT.	80 FT.	NONE
MINIMUM LOT DEPTH:	95 FT.	95 FT.	95 FT.	95 FT.	NONE
MINIMUM YARD DIMENSIONS:					
PRINCIPAL BUILDING:					
FRONT YARD SETBACK:	20 FT.	20+ FT.	20+ FT.	20+ FT.	NONE
REAR YARD SETBACK:	20 FT.	20+ FT.	20+ FT.	20+ FT.	NONE
ONE SIDE YARD SETBACK:	10 FT.	10+ FT.	10+ FT.	10+ FT.	NONE
COMBINED SIDE YARD SETBACK:	NONE	NONE	NONE	NONE	NONE
MAXIMUM % OF LOT TO BE OCCUPIED:					
PRINCIPAL BUILDING COVERAGE:	30% OF LOT AREA	26.6% OF LOT AREA	26.6% OF LOT AREA	26.6% OF LOT AREA	NONE
MAXIMUM HEIGHT:					
PRINCIPAL BUILDING - FEET:	35 FEET	35 FT MAX	35 FT MAX	35 FT MAX	NONE
PRINCIPAL BUILDING - STORIES:	2 1/2	2 1/2 MAX	2 1/2 MAX	2 1/2 MAX	NONE

**ZONING SCHEDULE: MIXED USE LOT 4**

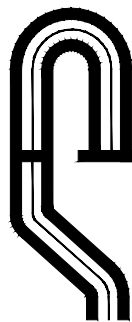
B-4A DISTRICT, MEDICAL AND HEALTH CARE FACILITY MIXED USE			
DIMENSIONAL REGULATIONS:	REQUIRED	MIXED USE PROVIDED	VARIANCE REQUIRED
MINIMUM SIZE OF LOT:			
MINIMUM LOT AREA:	120,000 SF.	225,434 SF.	NONE
MINIMUM LOT WIDTH:	200 FT.	590 FT.	NONE
MINIMUM LOT DEPTH:	200 FT.	355 FT.	NONE
MINIMUM YARD DIMENSIONS:			
PRINCIPAL BUILDING:			
FRONT YARD SETBACK:	0 FT.	5 FT.	NONE
REAR YARD SETBACK:	10 FT.	29 FT.	NONE
ONE SIDE YARD SETBACK:	10 FT.	10+ FT.	NONE
COMBINED SIDE YARD SETBACK:	25 FT.	< 25 FT.	NONE
MAXIMUM % OF LOT TO BE OCCUPIED:			
PRINCIPAL BUILDING COVERAGE:	25% OF LOT AREA	23.4% OF LOT AREA	NONE
OPEN SPACE:	15%	47%	NONE
MAXIMUM HEIGHT:			
PRINCIPAL BUILDING - FEET:	35 FEET	35 FT MAX	NONE
PRINCIPAL BUILDING - STORIES:	2 1/2	2 1/2 MAX	NONE

\* FRONTAGE ON NYS HIGHWAY



NOTE: 1. THIS IS NOT A SURVEY. ALL SURVEY INFORMATION SHOWN ON THIS PLAN HAS BEEN TAKEN FROM SURVEY MAP PREPARED BY BARRY & WATSON SURVEYING & ENGINEERING, P.C. DATED 07/10/14. LAST REVISED 07/10/14. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY.

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www.sitedesignconsultants.com

Engineer:

Joseph C. Rima, P.E.  
NYS Lic. No. 64431

Revisions:  
No. Date Comments:

SCALE:  
1" = 30'

DRAWN BY:  
EL

DATE:  
10/22/14

**SITE /SUBDIVISION  
PLAN**

**BUTTERFIELD SITE**  
1756 NEW YORK 9D

PUTNAM COUNTY

TOWN OF COLD SPRINGS

**C - 101**







CONTRACTOR CERTIFICATION STATEMENT  
Certification Statement: All contractors and subcontractors as identified in a SWPPP, by the Owner or Operator, in accordance with Part III.A.5 of the SPDES General Permit for Stormwater Runoff from Construction Activity, GP-0-10-001, dated January 28, 2010, Page 10 of 40, shall sign a copy of the following Certification Statement before undertaking any construction activity at the Site identified in the SWPPP.

"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the Qualified Inspector during a site inspection. I also understand that the Owner or Operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System ("SPDES") General Permit for Stormwater Discharge from Construction Activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings."

Individual Contractor: \_\_\_\_\_  
Name and Title (please print): \_\_\_\_\_  
Signature of Contractor: \_\_\_\_\_  
Company / Contracting Firm: \_\_\_\_\_  
Name of Company: \_\_\_\_\_  
Address of Company: \_\_\_\_\_  
Telephone Number / Cell Number: \_\_\_\_\_  
Site Information: \_\_\_\_\_  
Address of Site: \_\_\_\_\_

Today's Date: \_\_\_\_\_

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

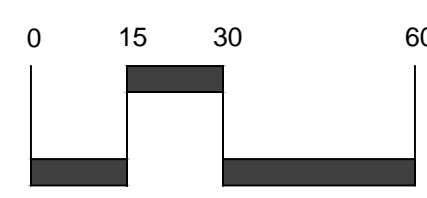
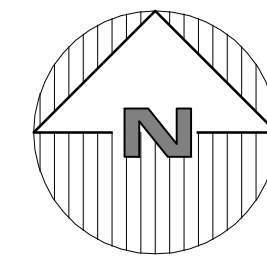
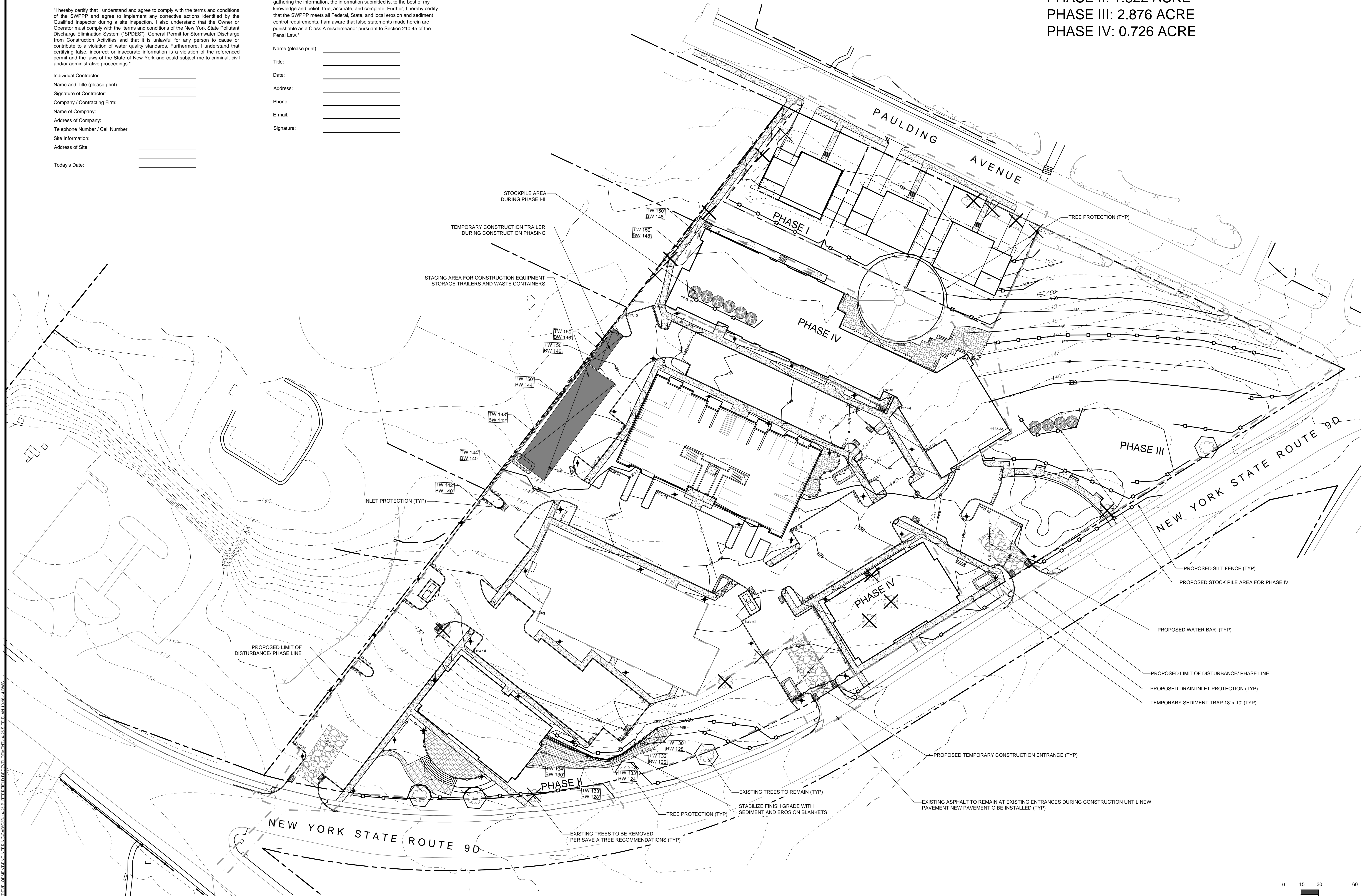
Name (please print): \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_  
E-mail: \_\_\_\_\_  
Signature: \_\_\_\_\_

PROJECT DISTURBANCE  
PHASE I: 0.610 ACRE  
PHASE II: 1.322 ACRE  
PHASE III: 2.876 ACRE  
PHASE IV: 0.726 ACRE

1756 NEW YORK STATE ROUTE 9D BUTTERFIELD SITE 2014-05-14.DWG

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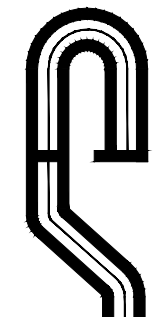
Revisions:	No.	Date	Comments

SCALE: 1"=30'-0"  
DRAWN BY: EL  
DATE: 10/22/14

EROSION & SEDIMENT CONTROL PLAN

SITE PLAN PREPARED FOR  
BUTTERFIELD SITE  
1756 NEW YORK 9D  
TOWN OF COLD SPRINGS  
PUTNAM COUNTY

C - 103



PROJECT # 14-25

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Joseph C. Riina, P.E.

Revisions:		
No	Date	Comments

SCALE:  
1" = 30'

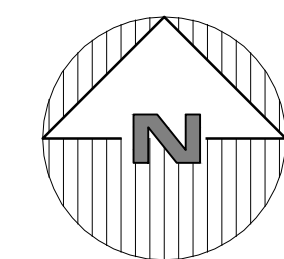
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## PITTNAM COUNTY

TOWN OF COLD SPRINGS

C - 105



0 15 30 60

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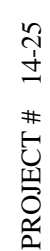












Joseph C. Riina, P.E.

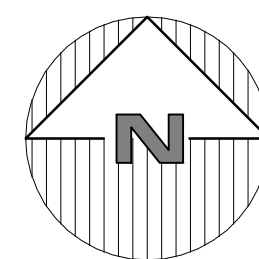
Revisions:		
No	Date	Comments:

DATE \_\_\_\_\_

## PITTNAM COUNTY

TOWN OF COLD SPRINGS

C - 105



0 15 30 6

SCALE: 1"=30'-0"

**SAFE DIG**

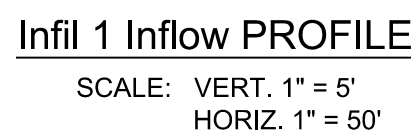
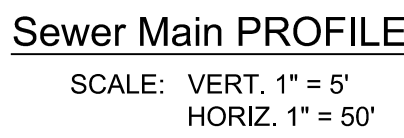
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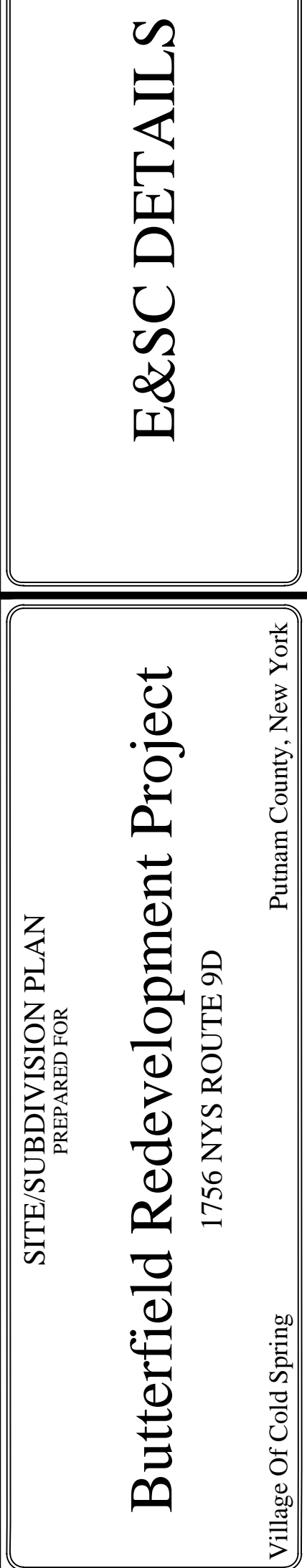
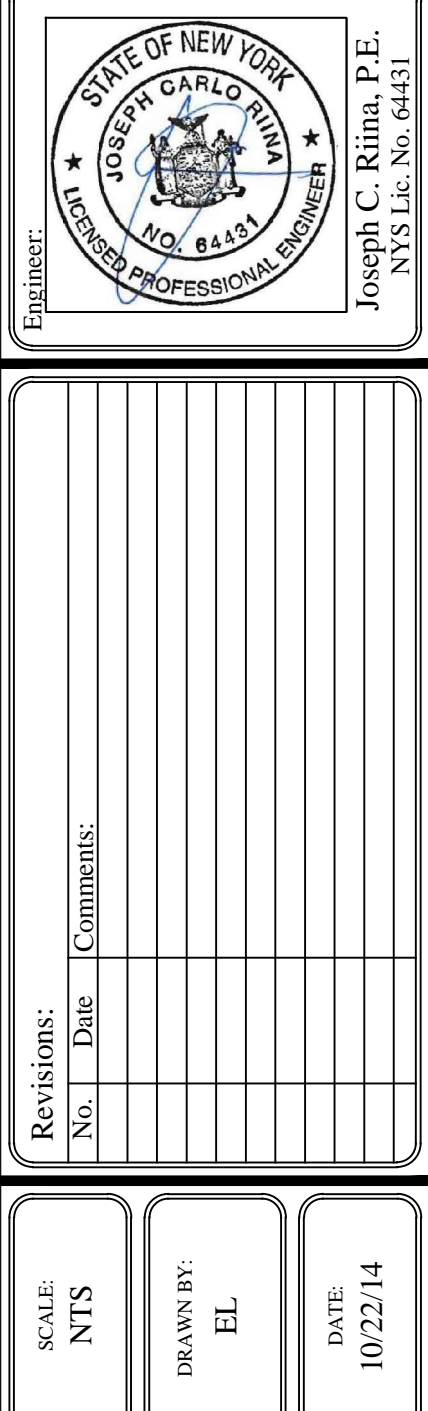
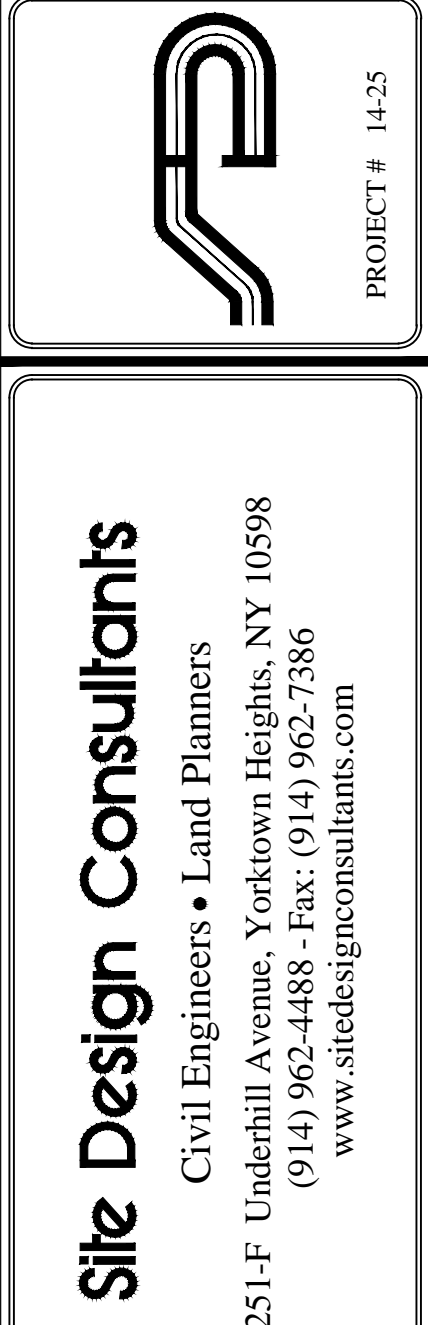
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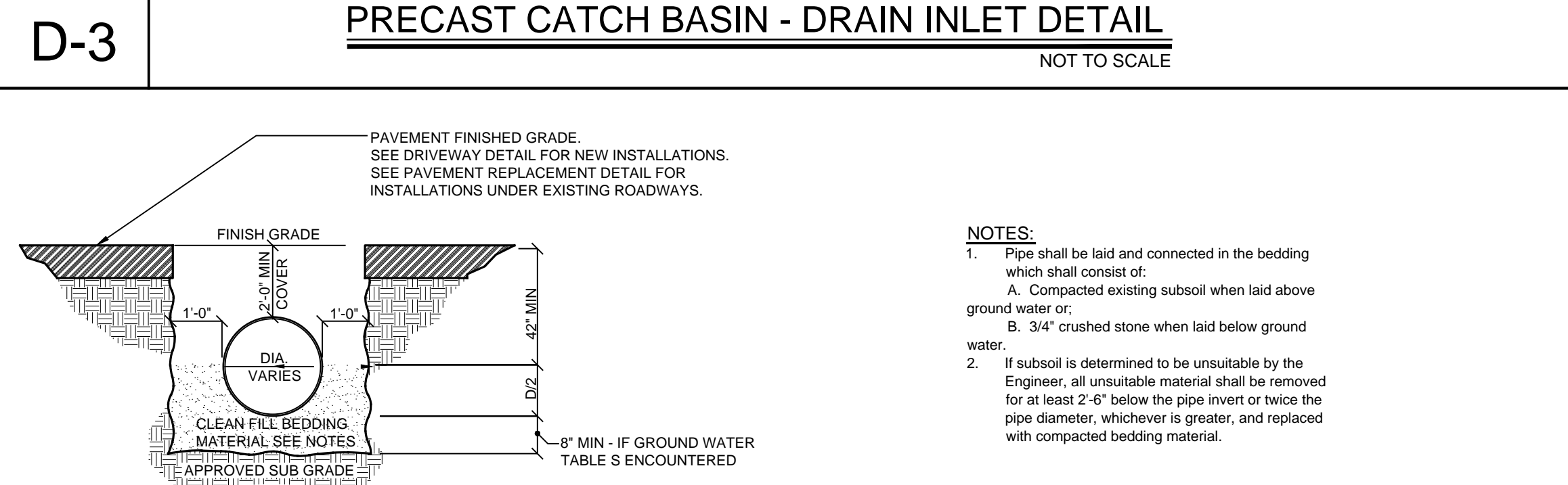
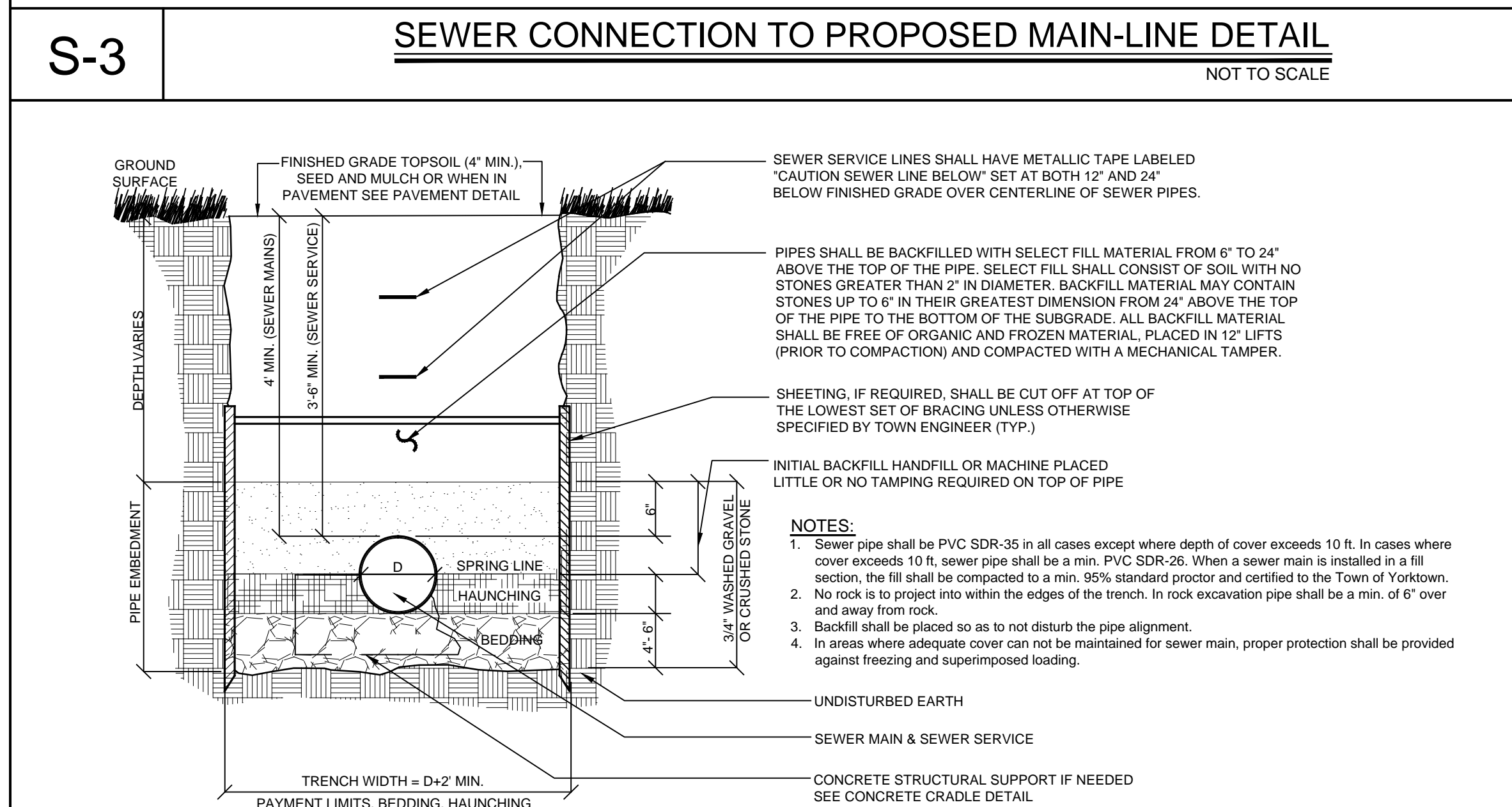
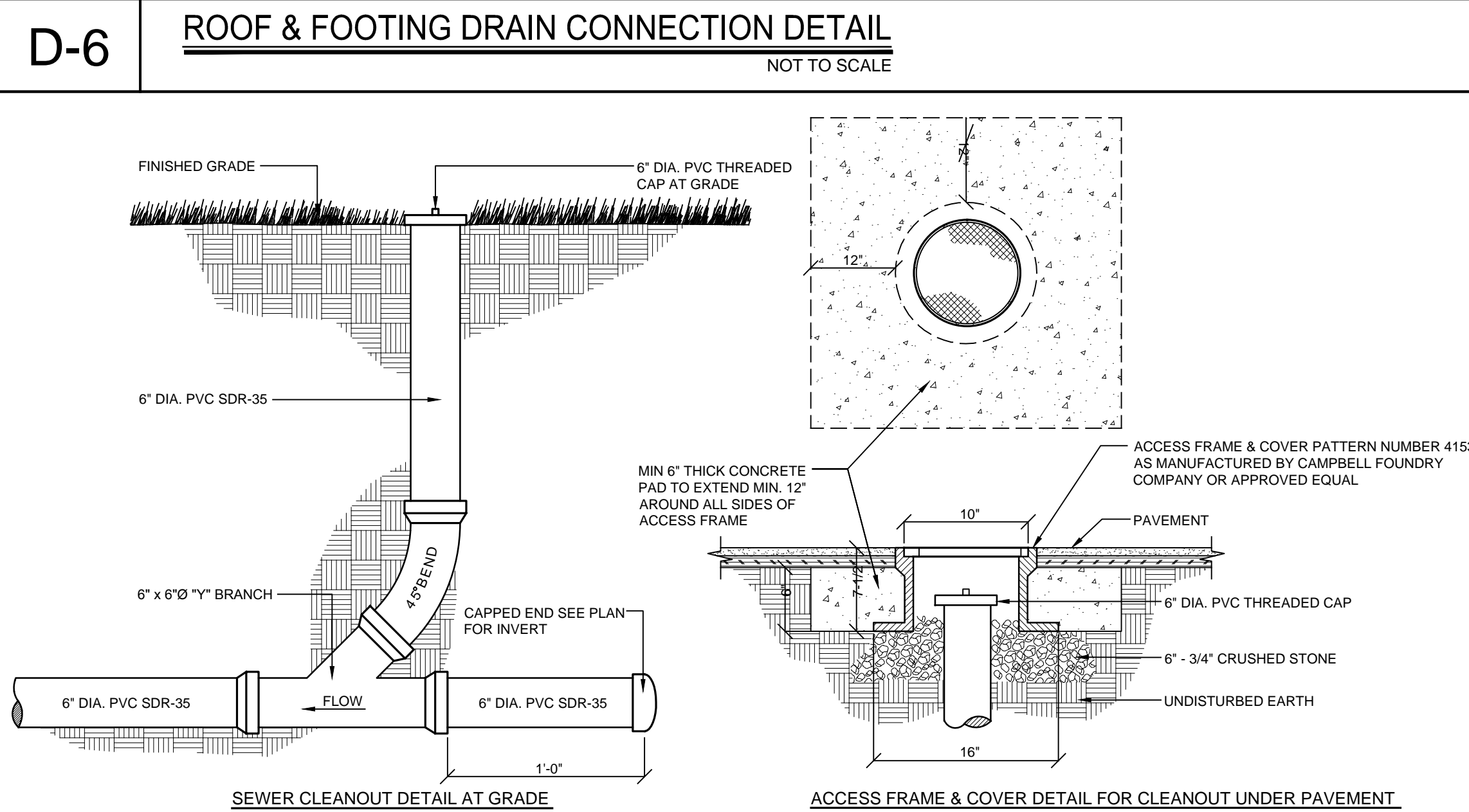
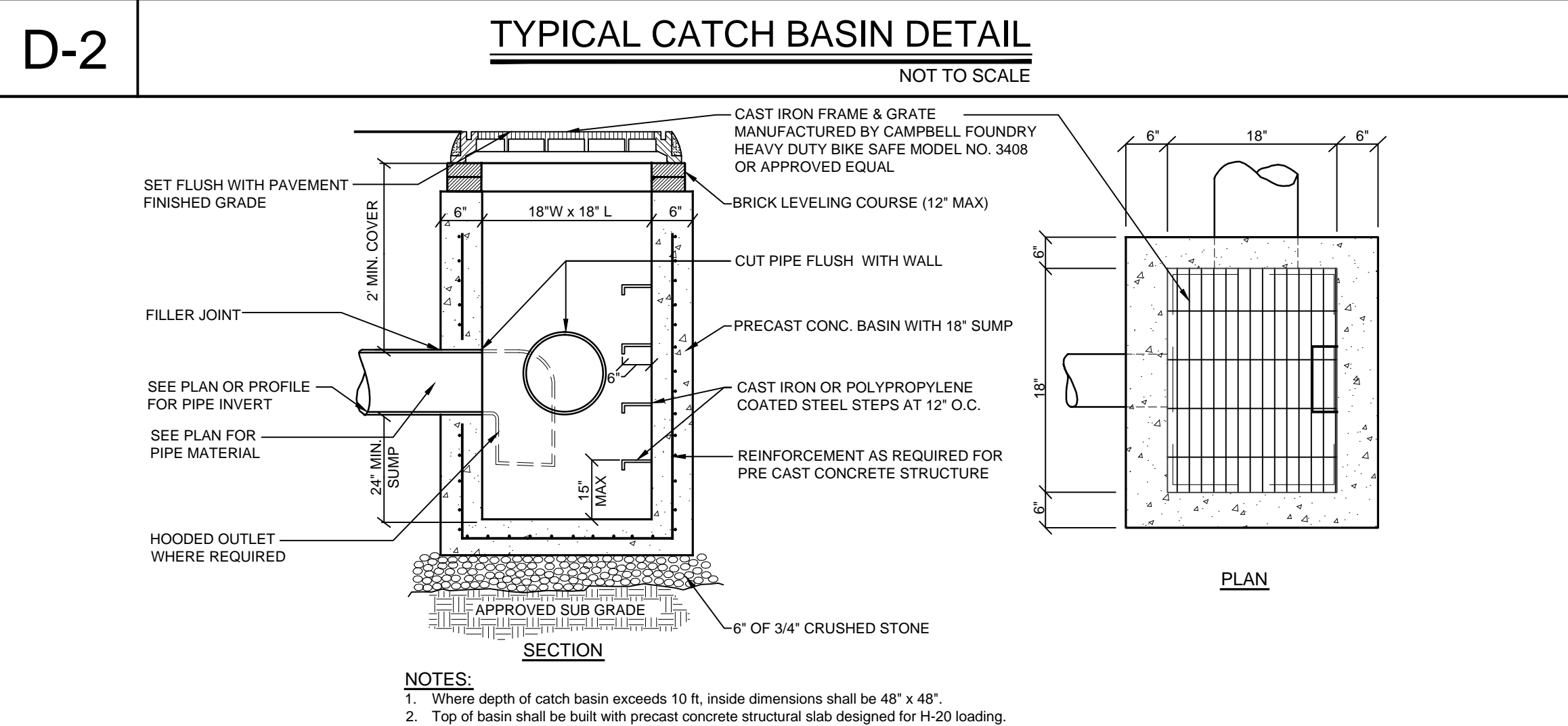
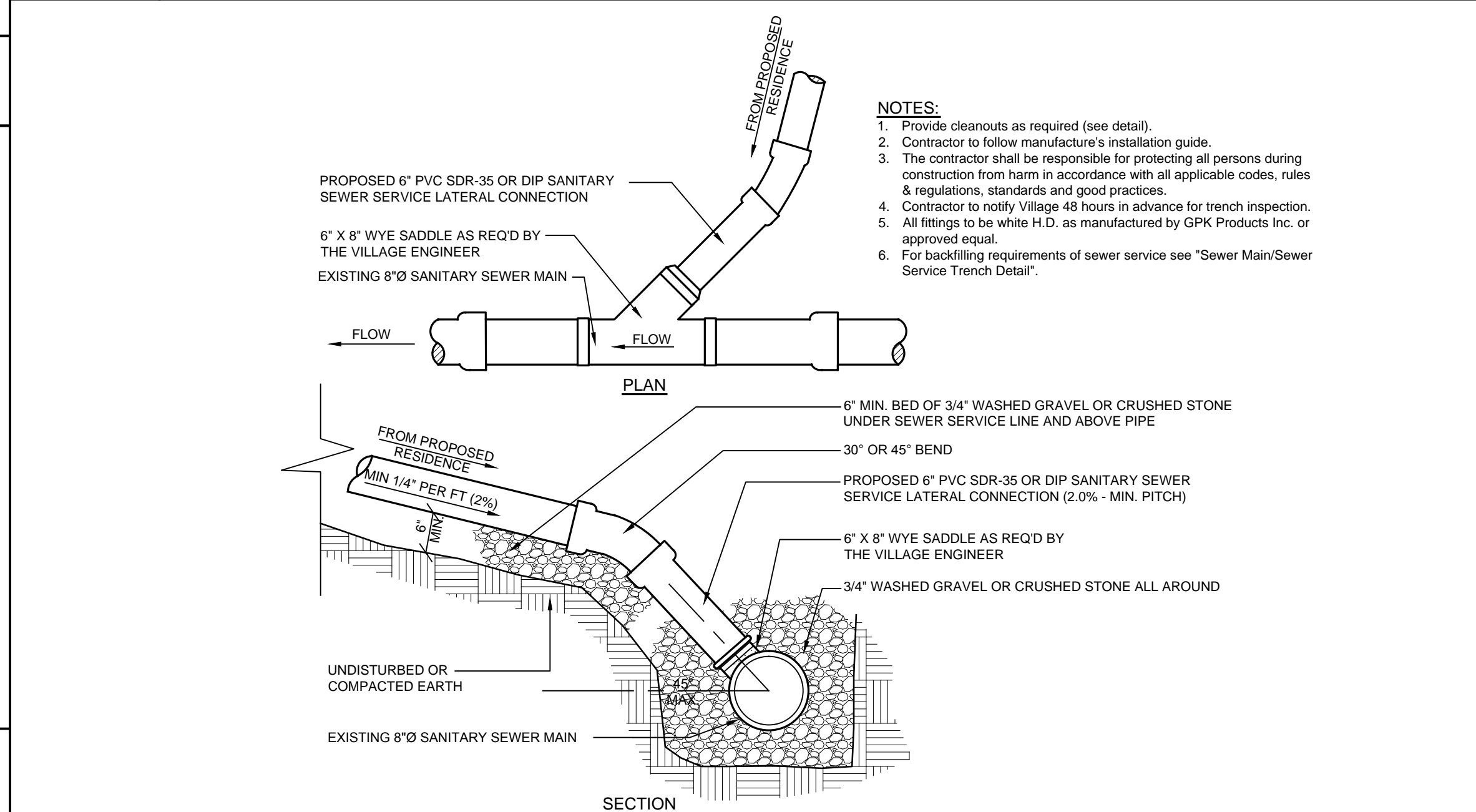
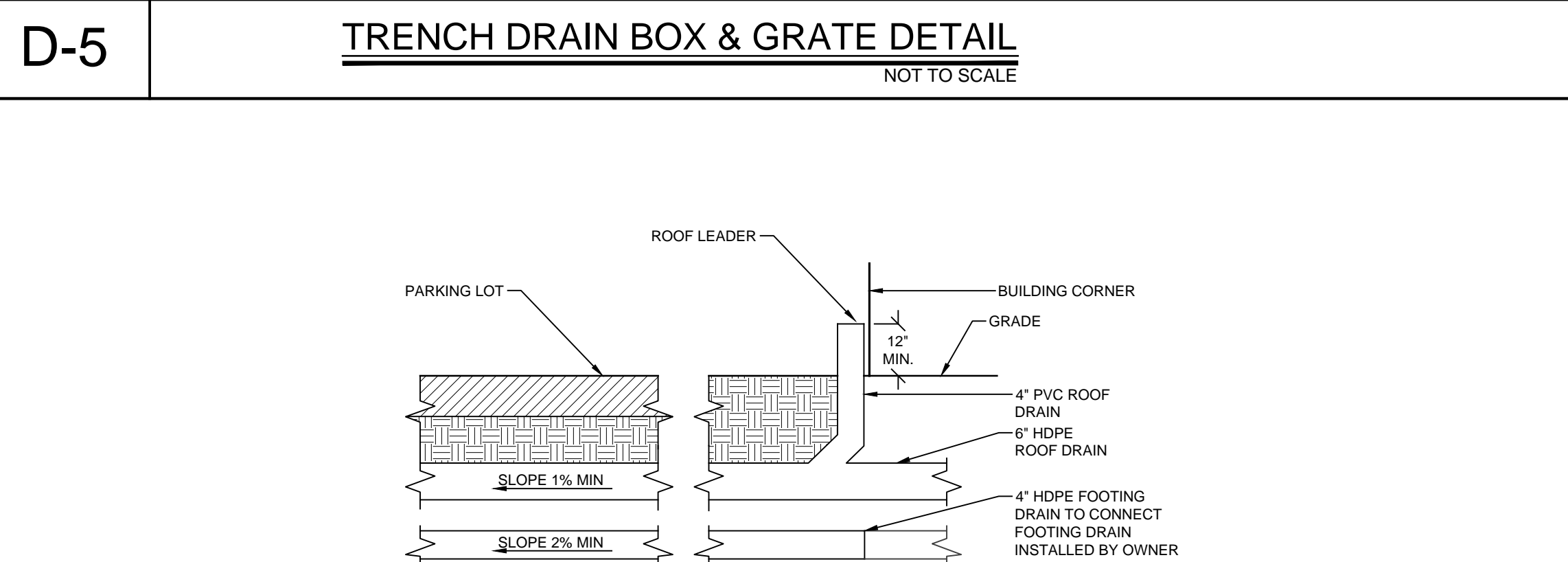
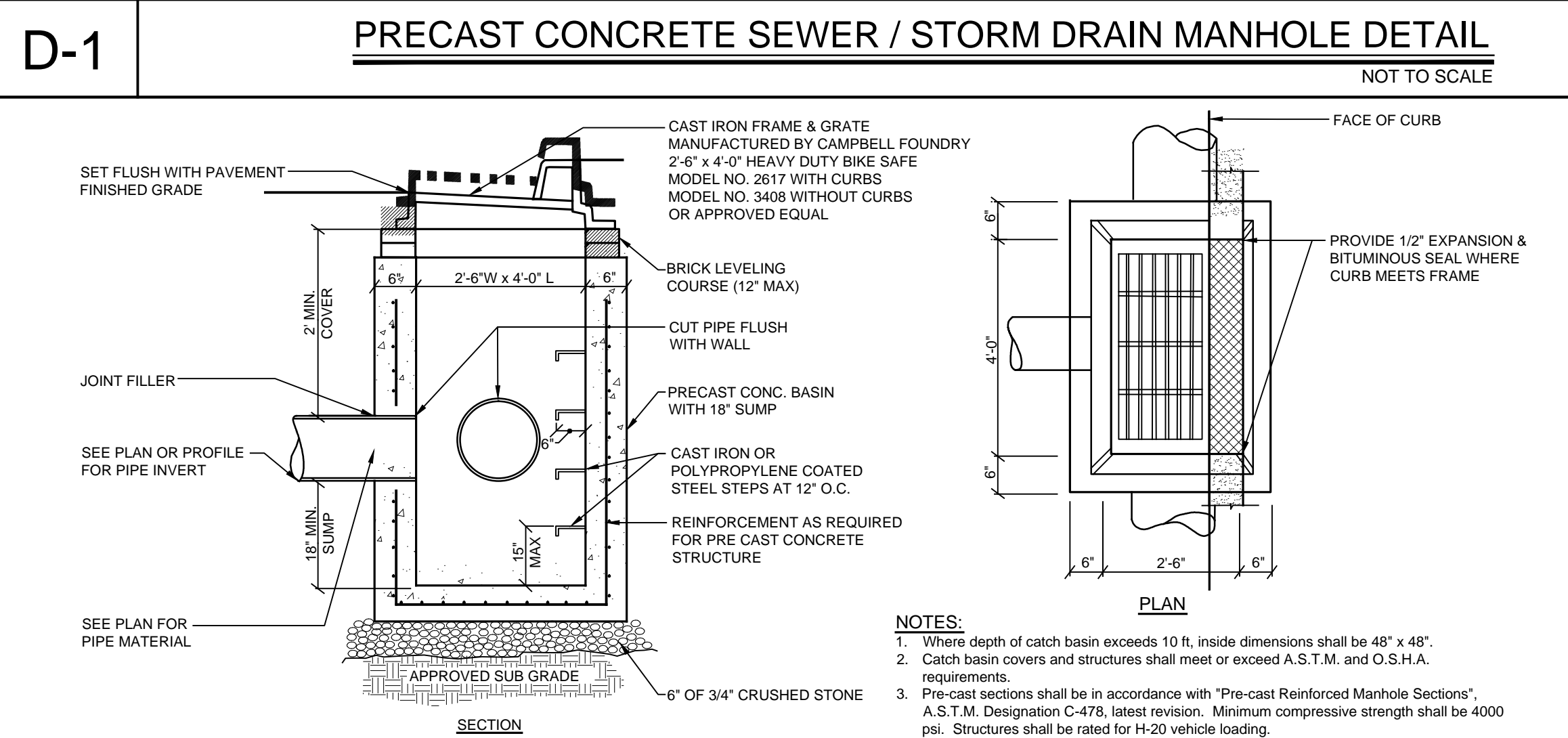
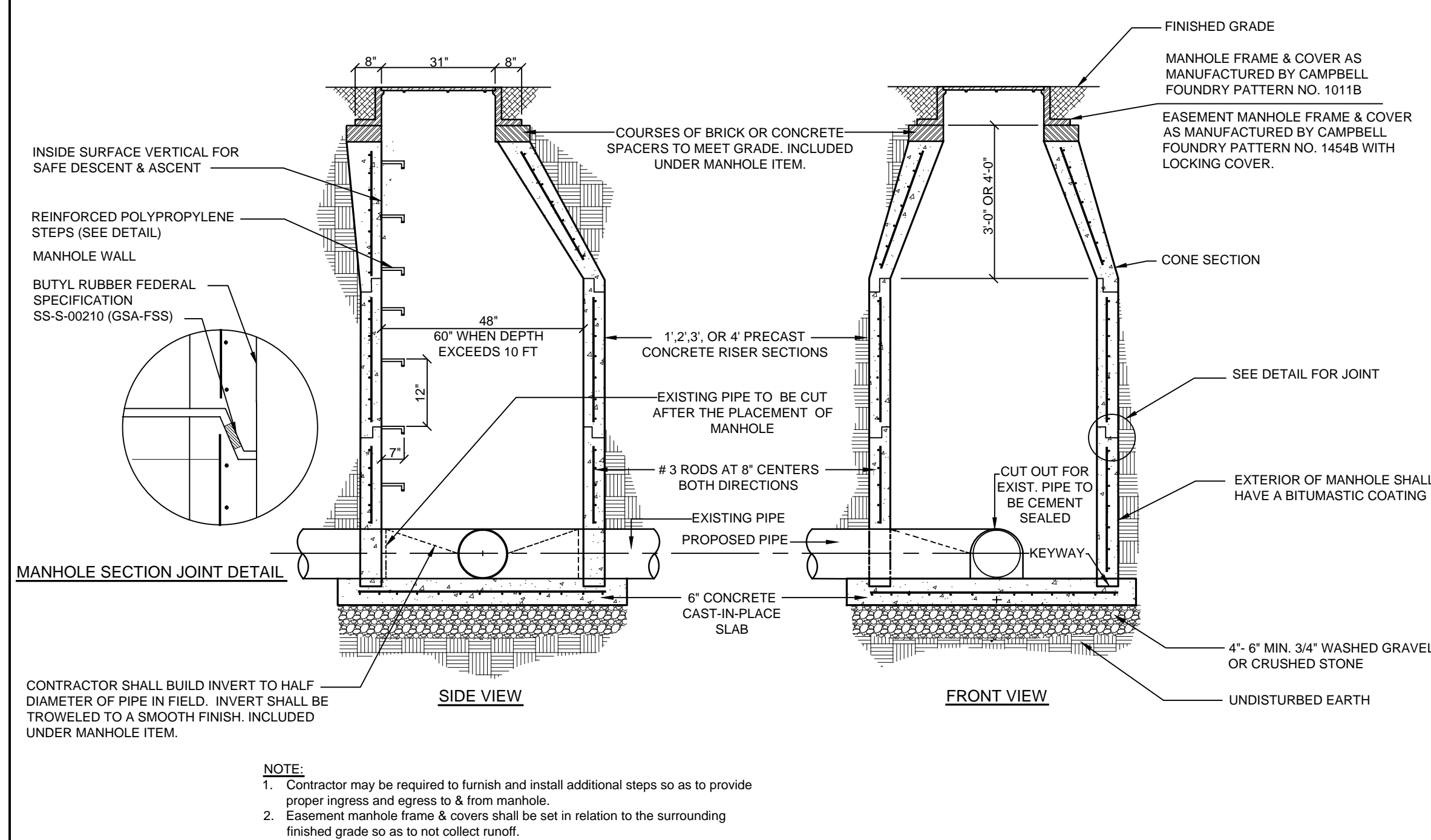
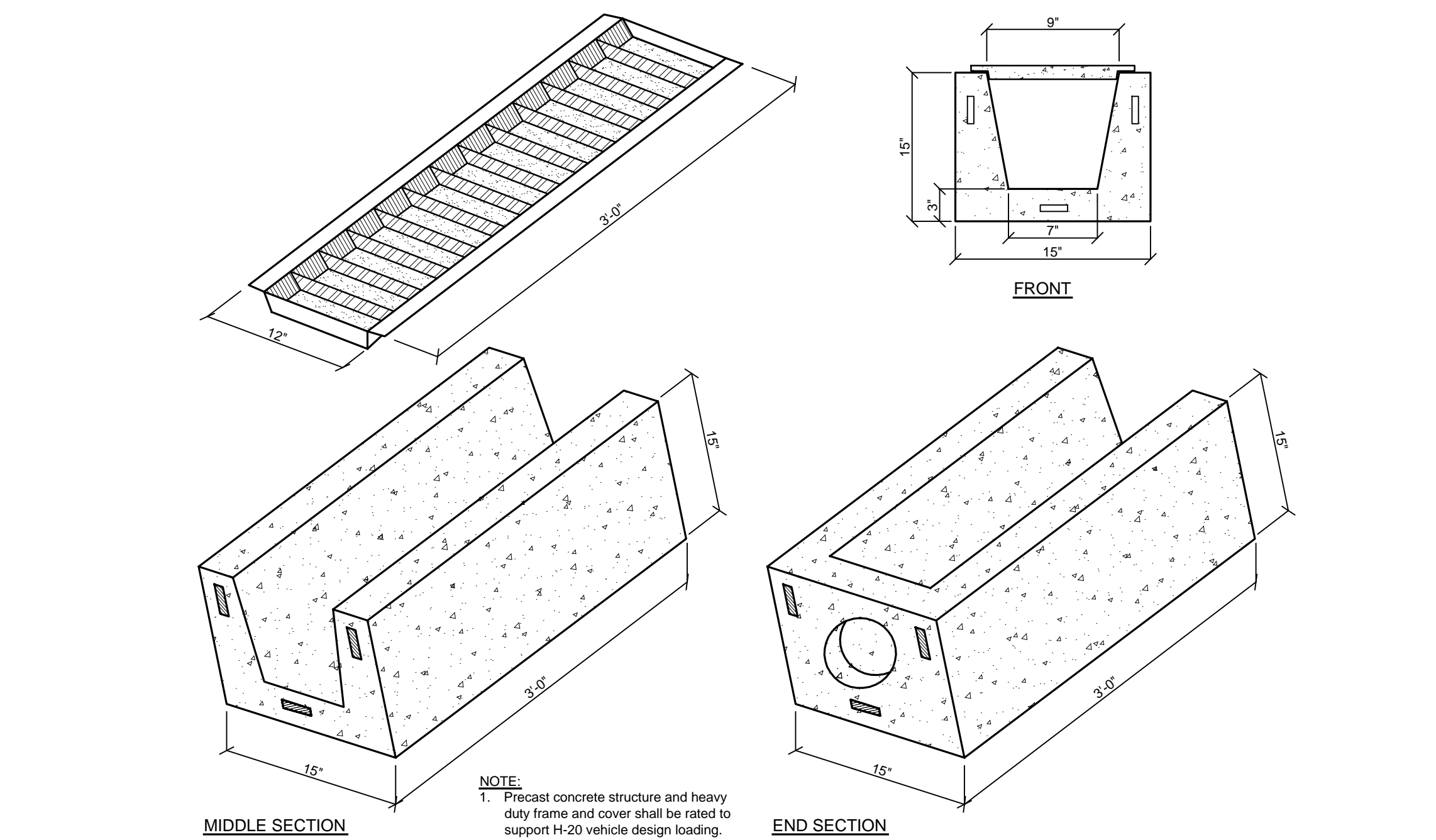
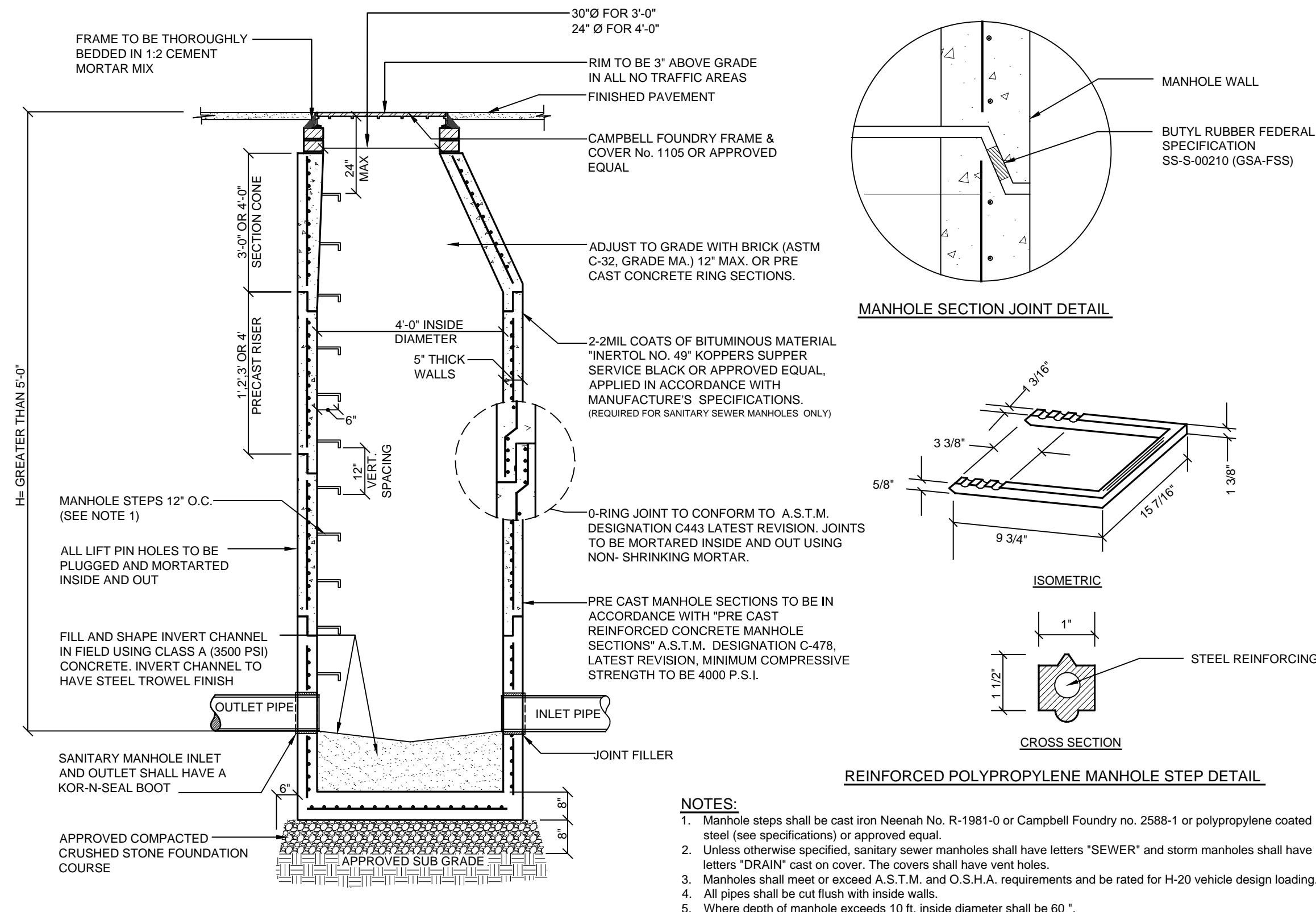




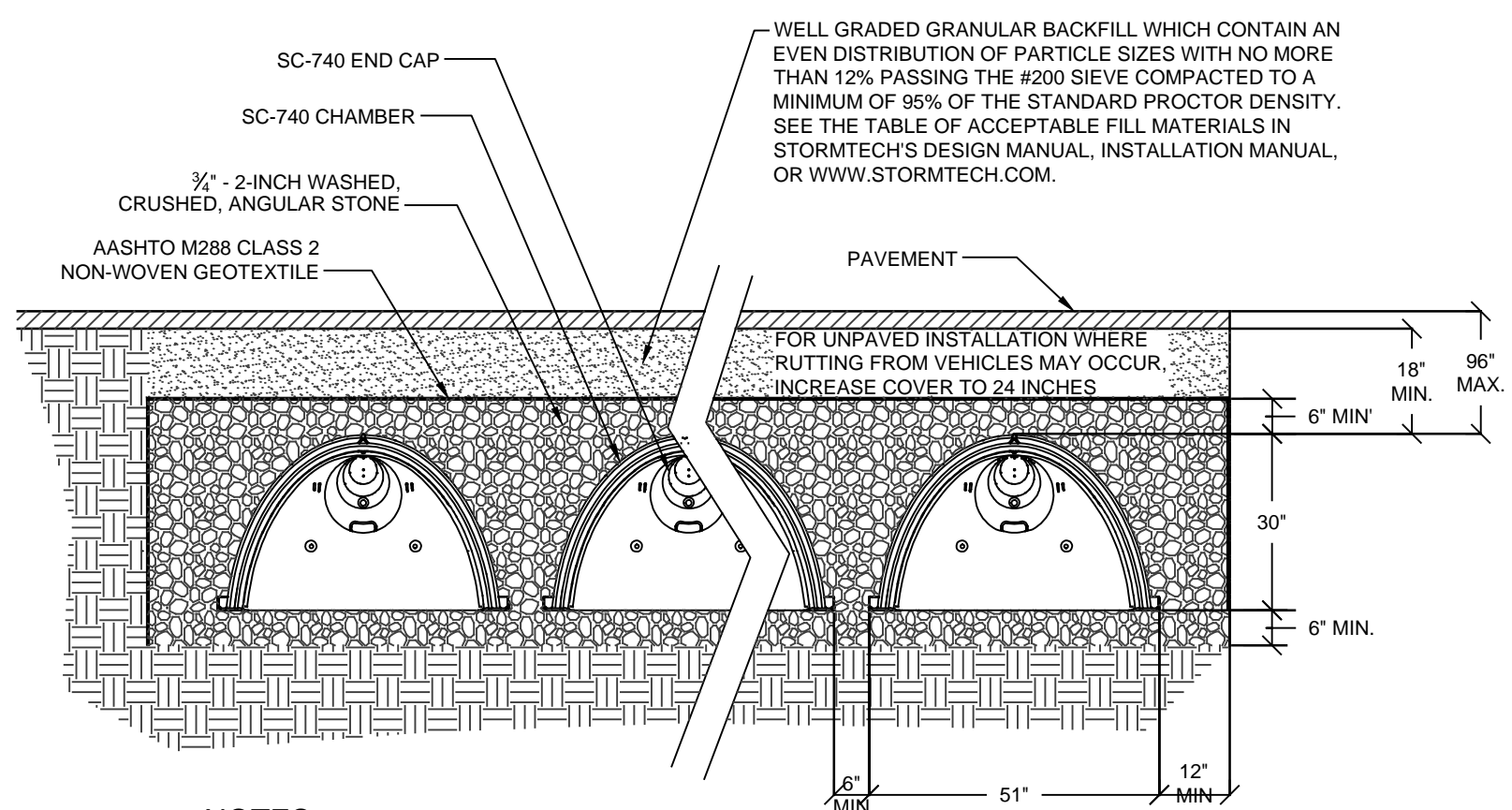






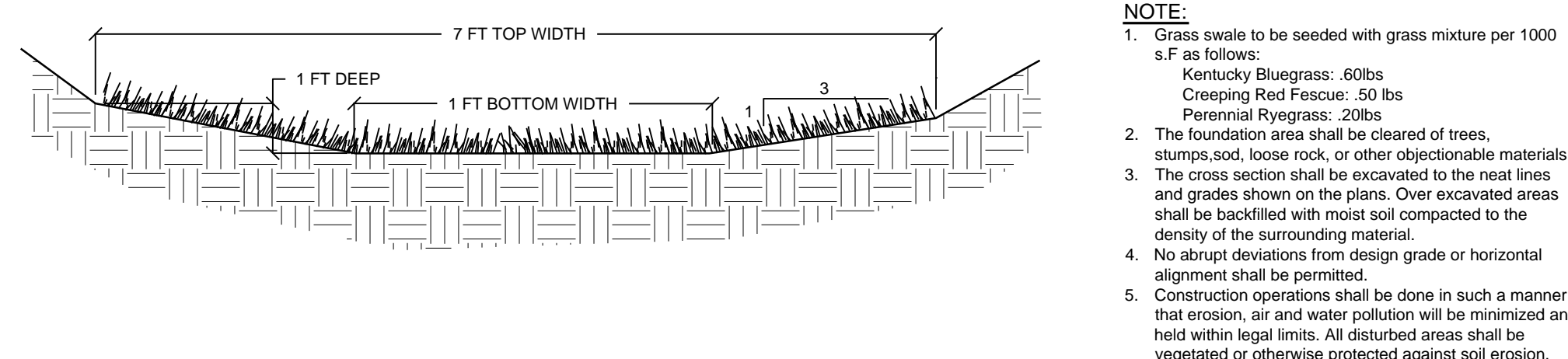




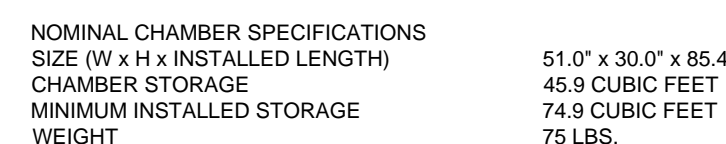


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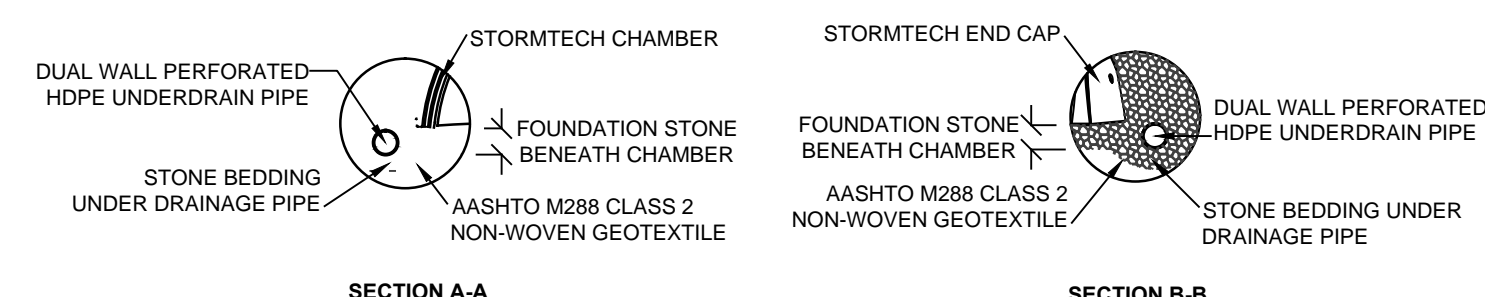
SW-6	<h2 style="margin: 0;">TYPICAL BIORETENTION DETAIL</h2> <p style="margin: 0; font-size: small;">NOT TO SCALE</p>
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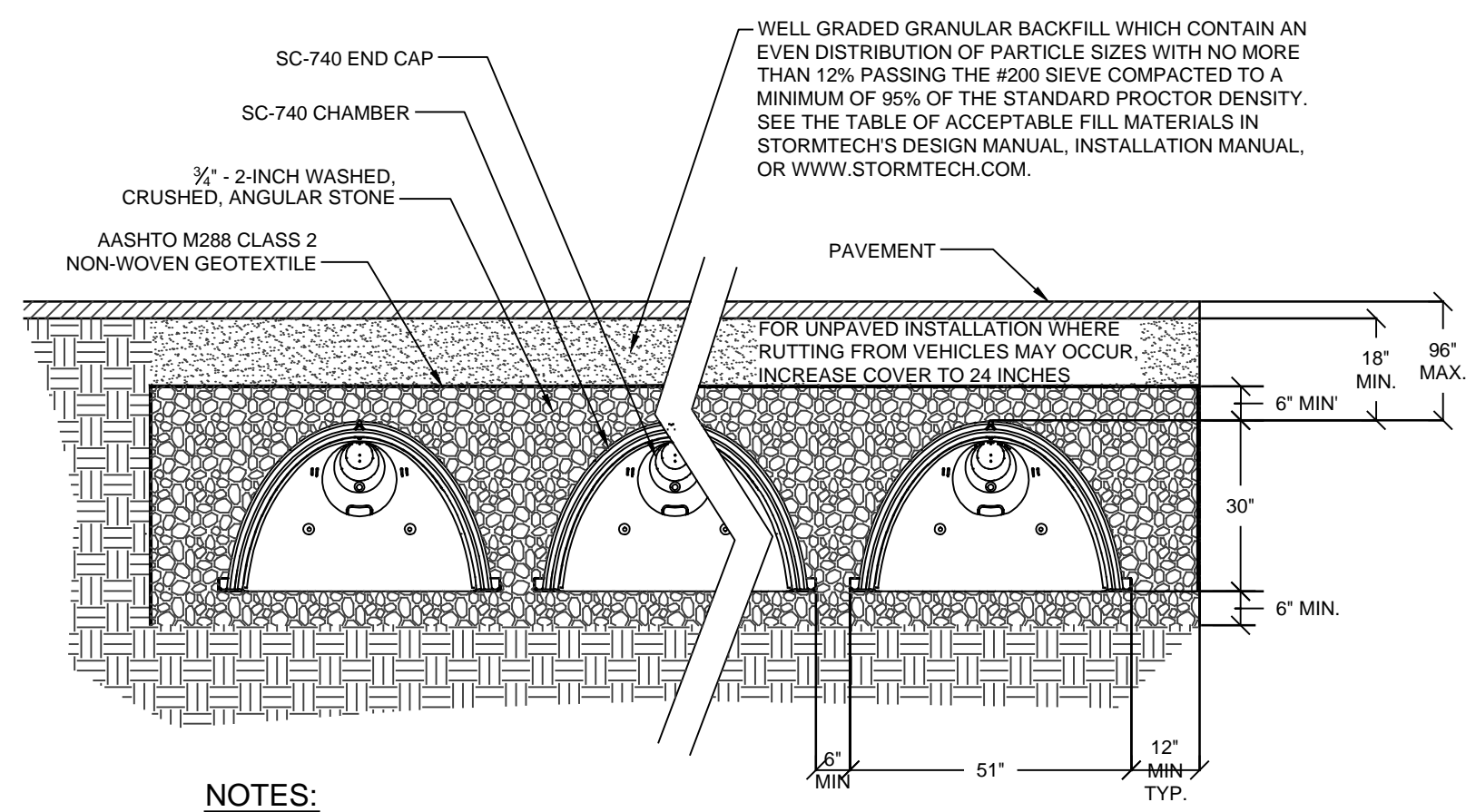
Stormwater Management System Rims and Inverts					
System	Systerm Inv.	Pipe In Size (in)	Inv.	Pipe Out Size (in)	Inv.
Infil. 1 Pretreatment	111.58	15	113.33	15	113.33
Infiltration 1	111.58	15	113.3	12	112.93
Cistern 1	123.5	8	125.83	8	125
Infil. 2 Pretreatment 48 inch	122.98	15	125.73	15	124.73
Infil. 2 Pretreatment 36 inch	128.5	12	130.5	12	130.5
Infiltration 2	121.93	12, 15	124.93, 124.43	12	124.43
Cistern 2	127.83	8	130.16	12	129.83
Infil. 3 Pretreatment	129.65	15	132.4	12	131.25
Infiltration 3	127.5	12	130.5	12	130





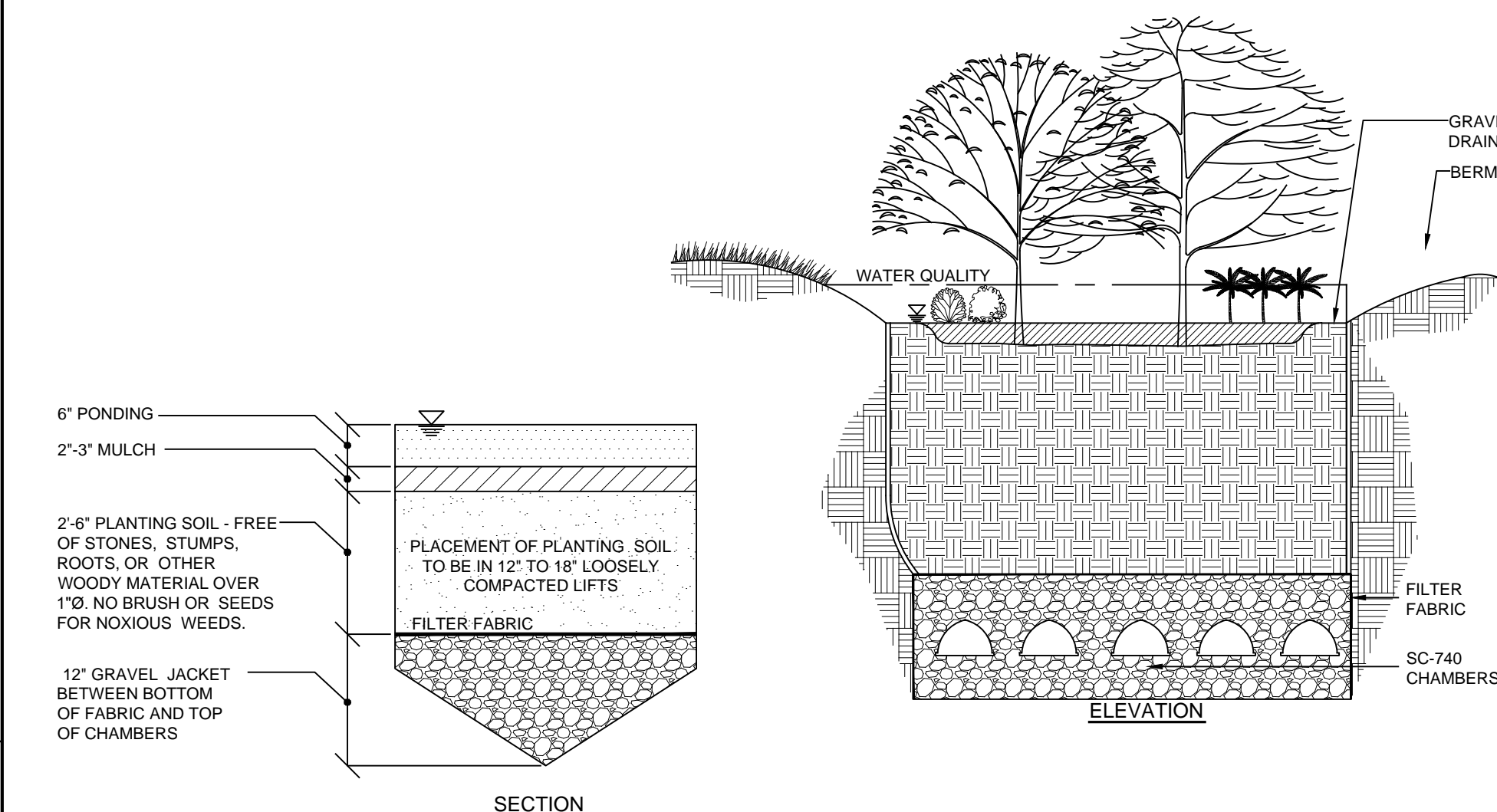


1. All design specifications for Stormtech SC-740 chambers shall be in accordance with the Stormtech design manual.
2. The installation of Stormtech SC-740 chambers shall be in accordance with the latest Stormtech installation instructions.
3. The contractor is advised to review and understand the installation instructions prior to beginning system installation. Call 1-888-982-2694 or visit [www.stormtech.com](http://www.stormtech.com) to receive a copy of the latest Stormtech installation instructions.
4. Chambers shall meet the design requirements and load factors specified in Section 12.12 of the latest edition of the AASHTO LRFD bridge design specifications



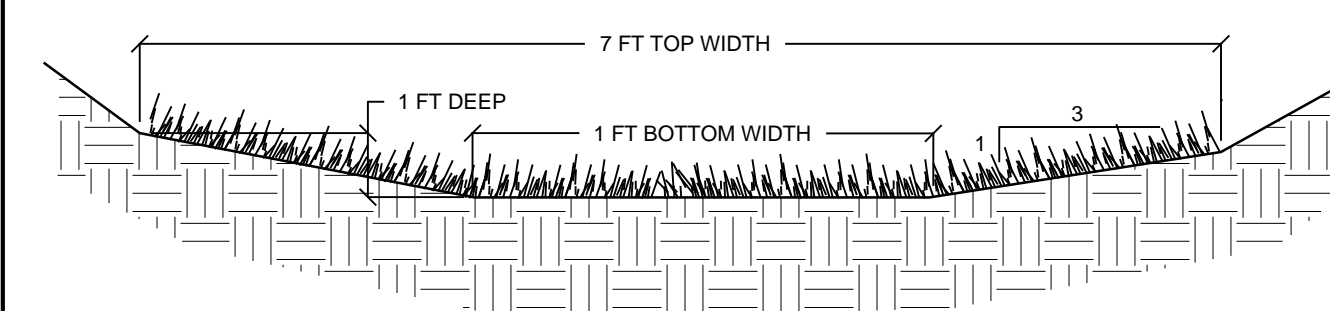
1. All design specifications for Stormtech SC-7400 chambers shall be in accordance with the Stormtech design manual.
2. The installation of Stormtech SC-7400 chambers shall be in accordance with the latest Stormtech installation instructions.
3. The contractor is advised to review and understand the installation instructions prior to beginning construction. Call 1-888-992-2694 or visit [www.stormtech.com](http://www.stormtech.com) to receive a copy of the latest Stormtech installation instructions.
4. Chambers shall meet the design requirements and load factors specified in Section 12.12 of the latest edition of the AASHTO LRFD bridge design specifications

NOT TO SCALE



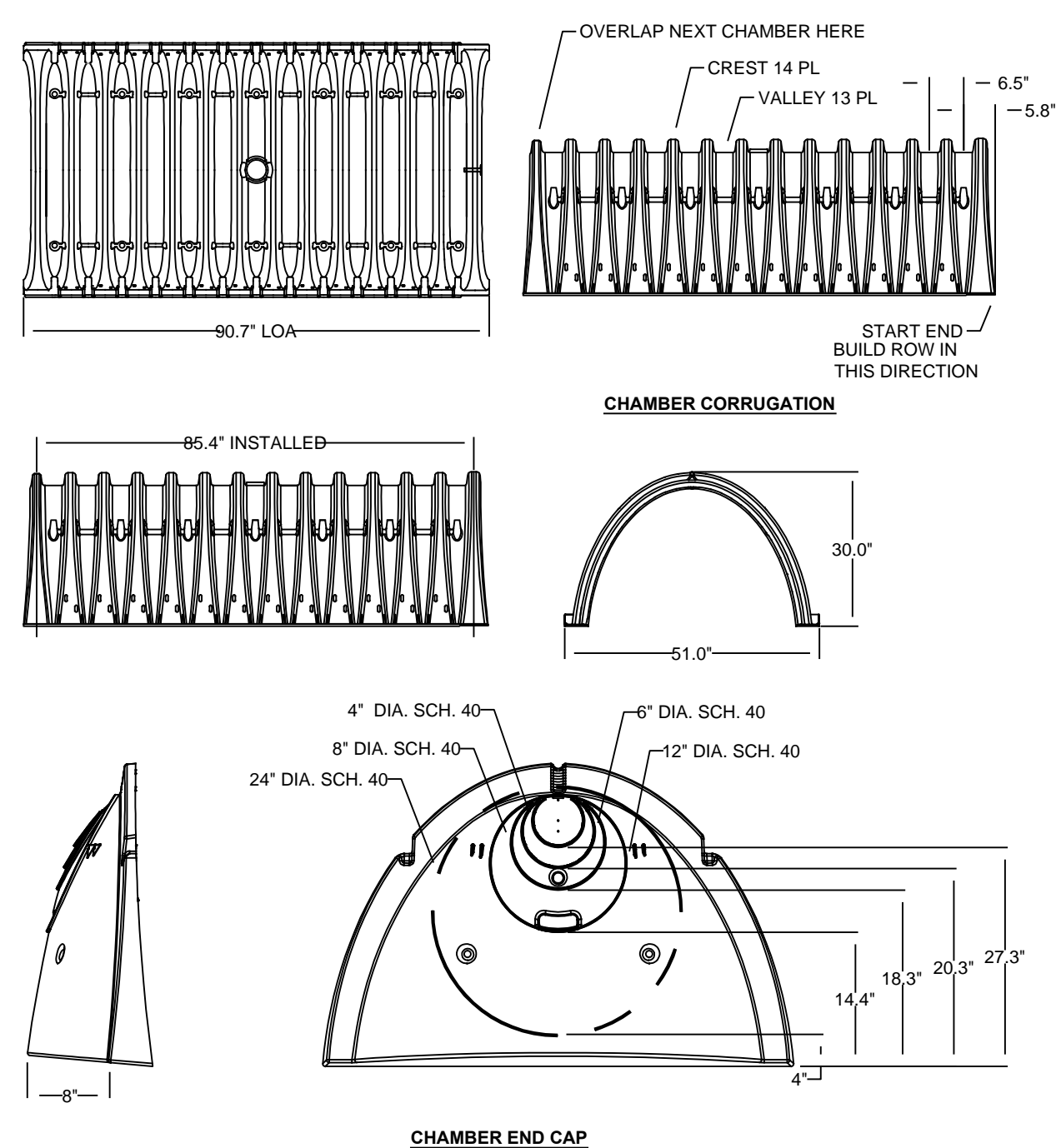
<u>PLANTING SPECIFICATIONS:</u>	
- CLASSIFICATION	SM OR ML-UNIFIED SOIL CLASSIFICATION SYSTEM
- PERMEABILITY	1.0 FEET PER DAY OR 0.5% INCHES PER HOUR
- PH RANGE	5.2 TO 7.0%
- ORGANIC MATTER	1.5 TO 4.0%
- MAGNESIUM	35 LBS / ACRE PER MIN.
- PHOSPHORUS	75 LBS / ACRE PER MIN.
- POTASSIUM	85 LBS / ACRE PER MIN.
- SOLUBLE SALTS	≤ 500 PPM
- CLAY	10 TO 25%
- SILT	30 TO 55%
- SAND	35 TO 80%

NOT TO SCALE


$$\begin{array}{c} \text{---} \\ \boxed{\phantom{00}} \rightarrow \text{GL} \rightarrow \boxed{\phantom{00}} \end{array}$$

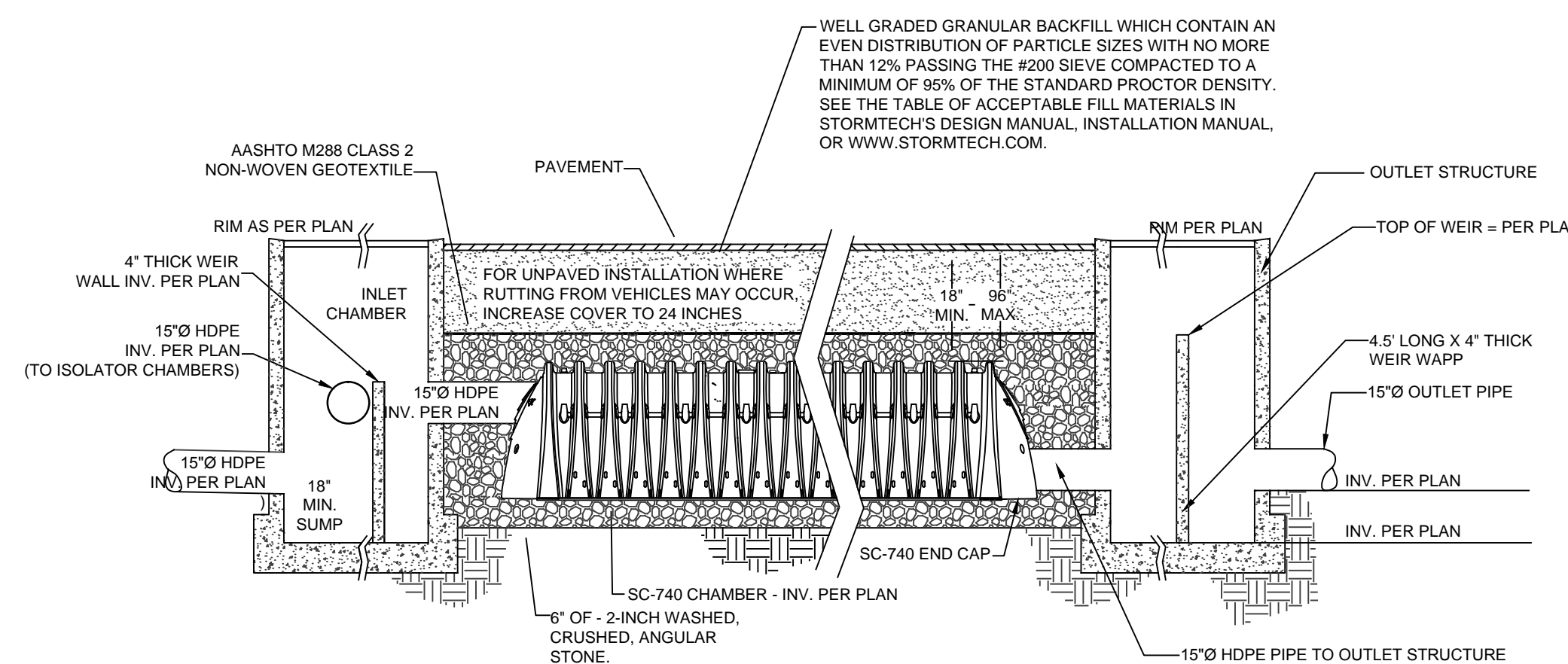
1. Grass sward to be seeded with grass mixture per 1000 s.f. as follows:
  - Kentucky Bluegrass: 60lbs
  - Creeping Red Fescue: 50 lbs
  - Perennial Ryegrass: 20lbs
2. The foundation area shall be cleared of trees, stumps, sod, loose rock, or other objectionable materials.
3. The cross section shall be excavated to the neat lines and grades shown on the plans. Over excavated areas shall be backfilled with moist soil compacted to the density of the surrounding material.
4. No abrupt deviations from design grade or horizontal alignment shall be permitted.
5. Construction operations shall be done in such a manner that erosion, air and water pollution will be minimized and held within legal limits. All disturbed areas shall be vegetated or otherwise protected against soil erosion.

NOT TO SCALE



NOMINAL CHAMBER SPECIFICATIONS	
SIZE (W x H x INSTALLED LENGTH)	51.0" x 30.0" x 85.4"
CHAMBER STORAGE	45.9 CUBIC FEET
MINIMUM INSTALLED STORAGE	74.9 CUBIC FEET
WEIGHT	75 LBS.

NOT TO SCALE



NOT TO SCALE

Stormwater Management System Rims and Inverts					
System	System Inv.	Pipe In Size (in)	Inv.	Pipe Out Size (in)	Inv.
Infil. 1 Pretreatment	111.58	15	113.33	15	113.33
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Infiltration 3	127.5	12	130.5	12	130

NOT TO SCALE

## PROJECT # 14-25

**Site Design Consultants**  
Civil Engineers • Land Planners  
251-F Underhill Avenue, Yorktown Heights, NY 10598  
(914) 962-4488 • Fax: (914) 962-7386  
[www.sitedesignconsultants.com](http://www.sitedesignconsultants.com)



Engineer.  Joseph

Revisions:

SCALE  
NITE

DRAWN BY:

DATE: 10/22/14

## STORMWATER MANAGEMENT DETAILS

**SITE PLAN**  
PREPARED FOR  
**BUTTERFIELD DEVELOPMENT**  
1756 NY 9D  
Putnam County, NY

Village Of Cold Spring

Sheet C-505

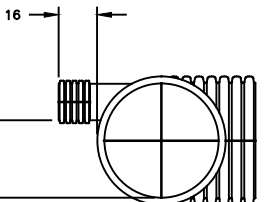
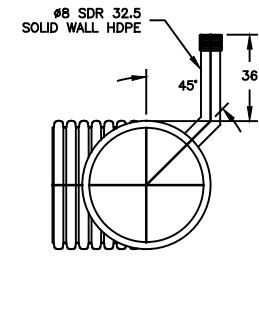
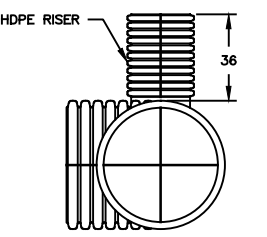
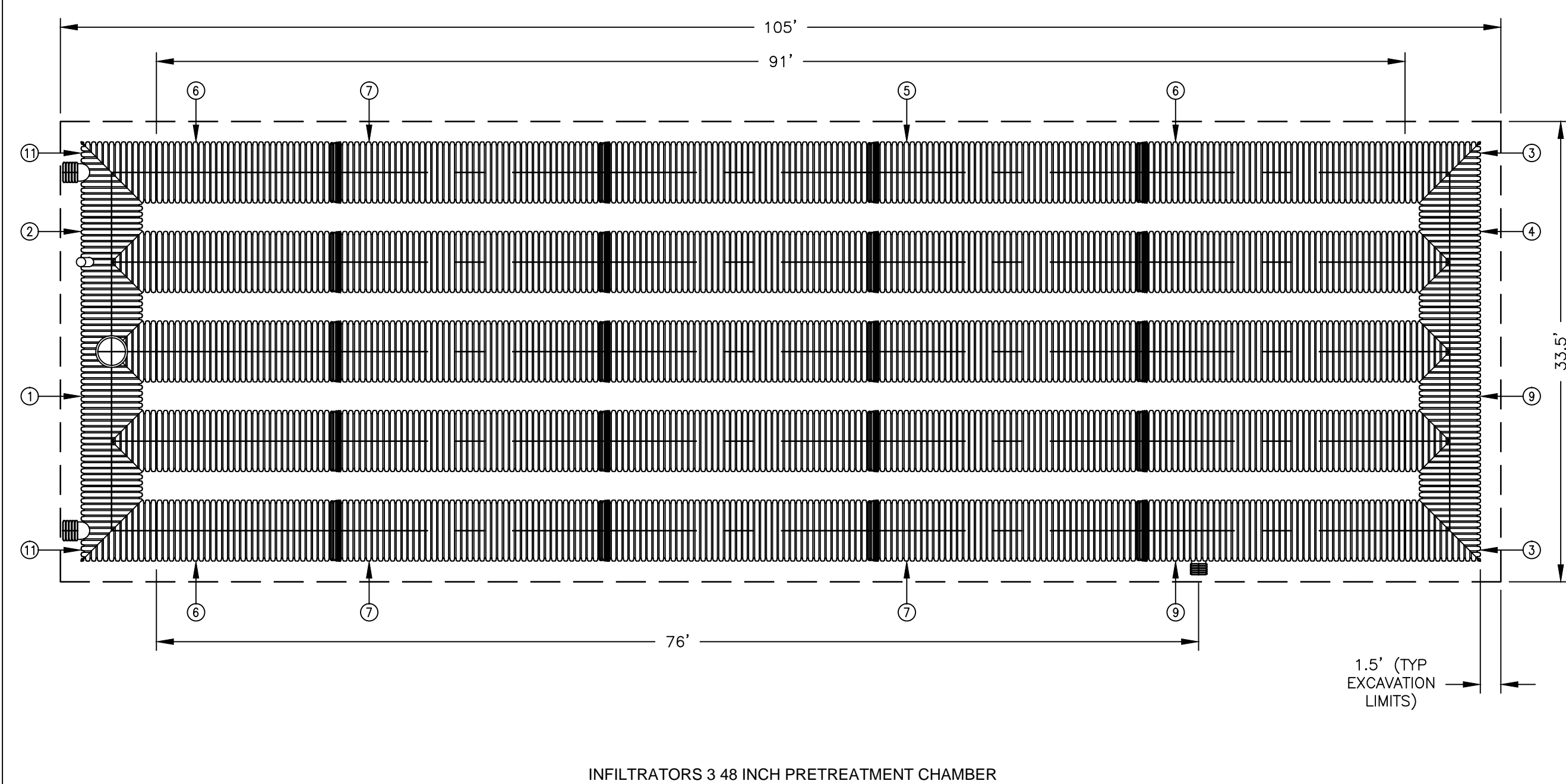
2014-25 BUTTERFIELD REDEVELOPMENT ENGINEERING CAD/C3D-14-25 BUTTERFIELD REDEVELOPMENT 14-25 DETAILS DWG

NOTE: UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW.

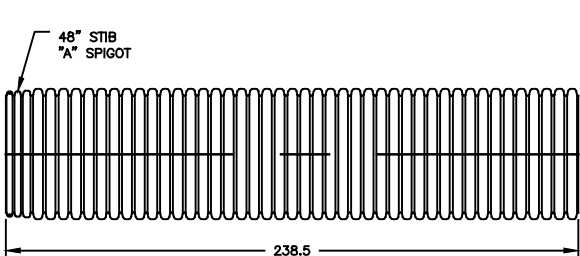
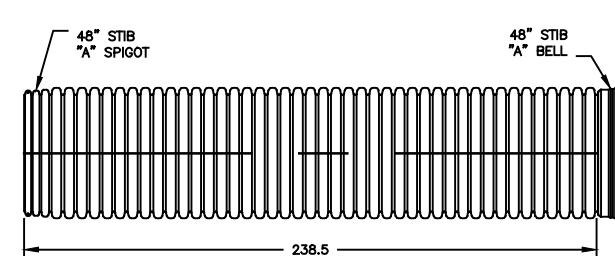
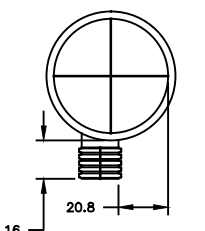
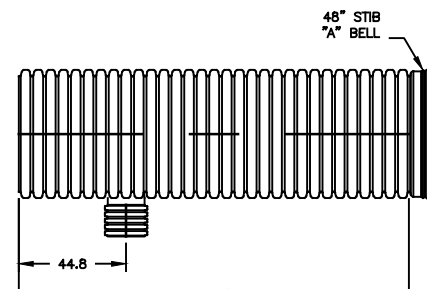
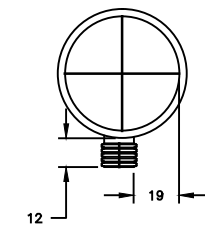
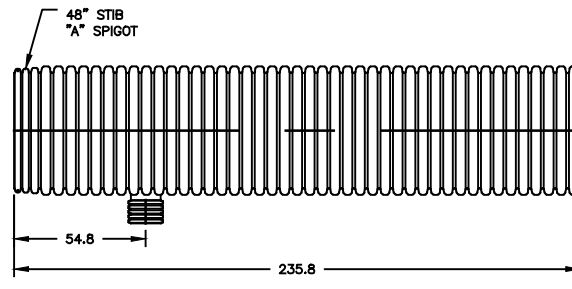
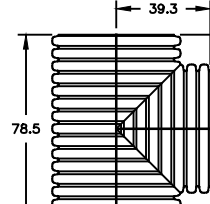
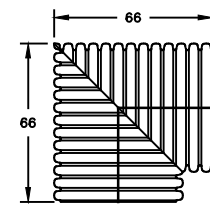
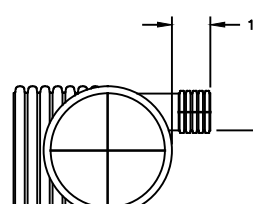
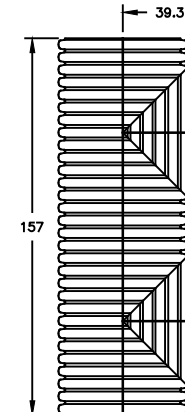








UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209 (2) OF THE NE





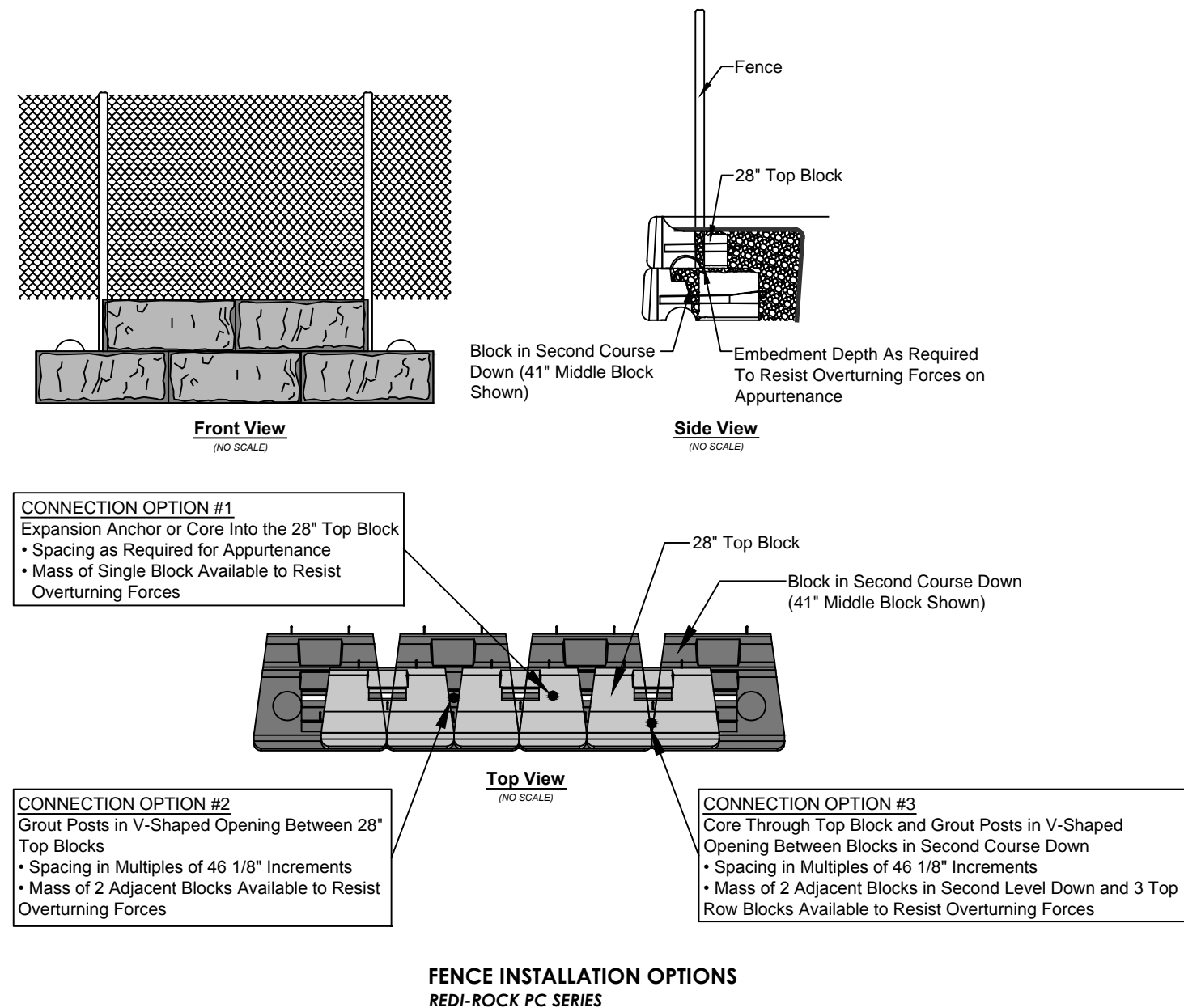
NOTE: THIS DETAIL IS PROVIDED FOR BID PURPOSES ONLY. THE CONTRACTOR SHALL PROVIDE SEALED SHOP DRAWINGS PROVIDED BY THE MANUFACTURER AND SIGNED BY A LICENSED NYS PROFESSIONAL ENGINEER

ST-1 TYPICAL GRAVITY WALL SECTION DETAIL

NOT TO SCALE

TYPICAL WALL CHART

WALL HEIGHT	NO. COURSES	MINIMUM BURY DEPTH	LEVELING PAD DEPTH	NO. 60" BLOCK COURSES	NO. 41" BLOCK COURSES	NO. 28" BLOCK COURSES	Comments
3.0'	3	1.5'	1.0'	0	0	3	1. Number of courses shown in Table does NOT include course for free standing block.
4.0'	3	0.5'	1.0'	0	0	3	2. Hold top of wall elevations.
5.0'	4	1.0'	1.0'	0	3	1	3. Step walls as required to meet grades shown.
7.0'	5	0.5'	1.0'	0	4	1	4. All walls shall be topped with 28" middle block and 24" free standing block.
8.0'	6	1.0'	1.0'	1	4	1	
9.0'	7	1.5'	1.0'	1	5	1	



ST-2 FENCE INSTALLATION DETAILS

NOT TO SCALE

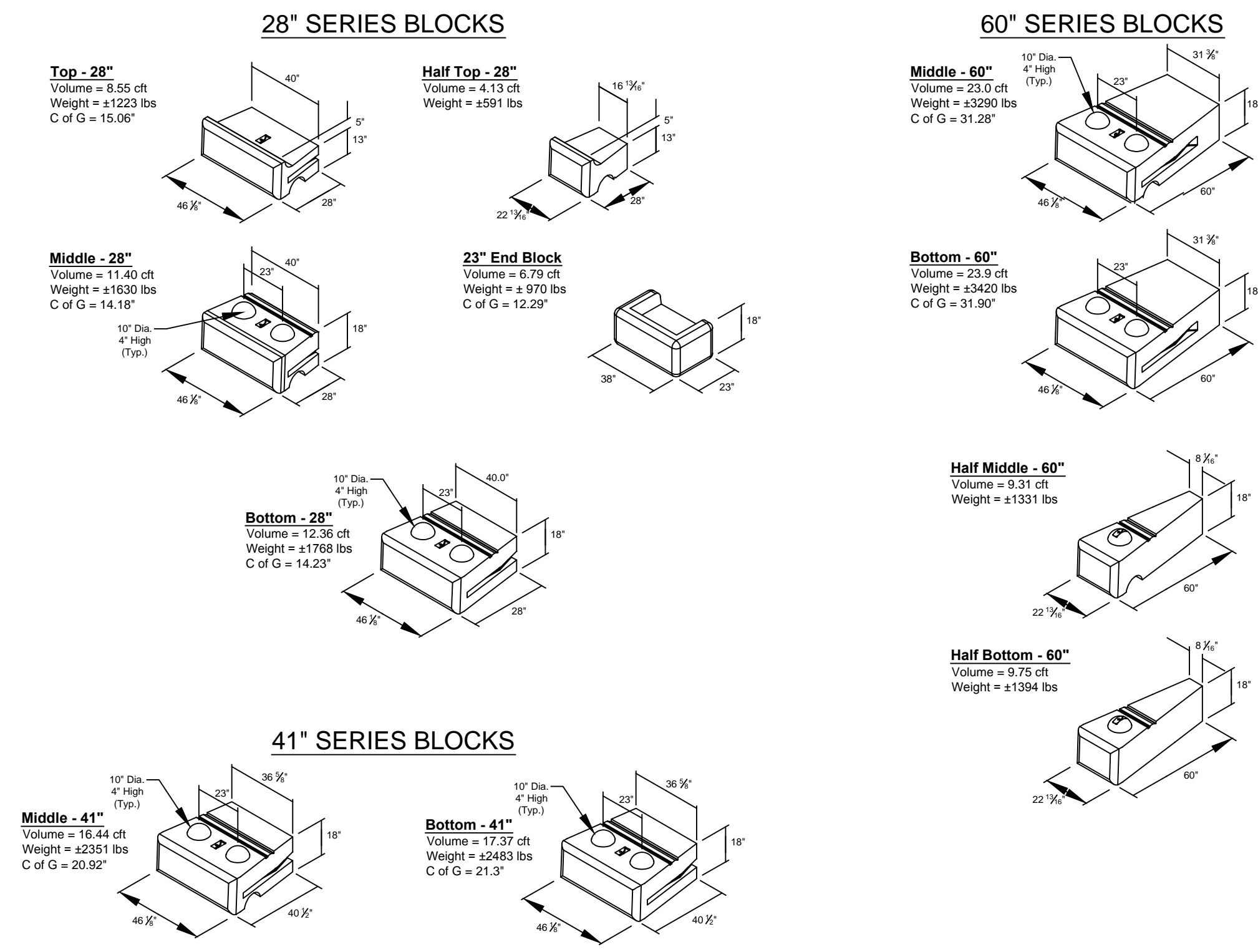
GENERAL NOTES:

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE TOWN CODE OF PRACTICE AND THE NEW YORK STATE BUILDING CONSTRUCTION CODE.
- ALL CHANGES MADE TO THESE PLANS SHALL BE APPROVED BY THE ENGINEER AND ANY SUCH CHANGES SHALL BE FILED AS AMENDMENTS TO THE ORIGINAL BUILDING PERMIT.
- ALL WRITTEN DIMENSIONS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER ANY SCALED DIMENSIONS.
- THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER FOR THE ACTS AND OMISSIONS OF HIS EMPLOYEES, SUBCONTRACTORS, AND THEIR AGENTS AND EMPLOYEES, AND ANY OTHER PERSONS PERFORMING ANY WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT HIS WORK AND WILL BE HELD RESPONSIBLE FOR CONSEQUENTIAL DAMAGE DUE TO HIS ACTIVITIES. THE OWNER AND THE ENGINEER SHALL BE HELD HARMLESS.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR A BUILDERS RISK POLICY TO COVER THE PERIOD OF CONSTRUCTION. THE ENGINEER & OWNER SHALL BE NAMED AS ADDITIONAL INSURED. ALL CONTRACTORS EMPLOYED AT THE SITE SHALL BE COVERED BY WORKMANS COMPENSATION.
- ENGINEER'S WHOSE SEAL APPEARS HEREON HAS NOT BEEN RETAINED FOR SUPERVISION OF CONSTRUCTION. SUBSEQUENTLY, HE IS NOT RESPONSIBLE FOR CONSTRUCTION AND THEREFORE ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION PRACTICES, PROCEDURES, AND RESULTS THEREFROM.

CONSTRUCTION NOTES:

- WALL UNITS SHALL BE REDI-ROCK® AS PRODUCED BY A LICENSED MANUFACTURER.
  - WALL UNITS SHALL BE MADE WITH READY-MIXED CONCRETE IN ACCORDANCE WITH ASTM C94, LATEST REVISION AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH  $f'_c = 4,000$  PSI.
  - REDI-ROCK WALL UNITS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND INSTALLATION MANUAL.
  - ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE, ACI 318, LATEST EDITION.
  - EXCAVATION IN GENERAL SHALL CONFORM TO THE LINES AND GRADES SHOWN ON THE CONTRACT DRAWINGS.
  - FILL MATERIAL SHALL BE PLACED IN LOOSE 6 INCH LIFTS. PRIOR TO COMPACTION, EACH LIFT SHALL BE MOISTENED OR AERATED AS NECESSARY TO PROVIDE OPTIMUM MOISTURE CONTENT. EACH LIFT SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY A.S.T.M. D1557 METHOD C. THE CONTRACTOR WILL BE REQUIRED TO HIRE AN INDEPENDENT CERTIFIED TESTING LAB TO PERFORM FIELD DENSITY TESTS. FIELD TESTING SHALL BE PERFORMED IN ACCORDANCE WITH A.S.T.M. D1556 OR D2922. A MINIMUM OF 6 IN-PLACE FIELD DENSITY TESTS SHALL BE PERFORMED ON ALTERNATE LIFTS. FILLING OPERATIONS MAY NOT PROCEED UNTIL IN-PLACE DENSITY TESTS HAVE BEEN PERFORMED AND THE FILL PROPERLY COMPACTED.
  - FILL SHALL CONSIST OF SOUND DURABLE PARTICLES TO THE GRADATION SHOWN IN THE TABLE BELOW. THE MATERIAL SHALL BE GRANULAR AND FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL. IN GENERAL THE SOIL SHALL BE NON-PLASTIC WITH A PLASTICITY INDEX LESS THAN 5 AND SHALL CONFORM TO THE UNIFIED SOIL CLASSIFICATION SYSTEM FOR AN "SW" SOIL OR THE REQUIREMENTS OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION SECTION 203-2 ITEM NO. 203.07 SELECT GRANULAR FILL, HOWEVER THE MAXIMUM SIZE SHALL BE 3 INCHES.
- | SIEVE SIZE | PERCENT PASSING BY WEIGHT |
|------------|---------------------------|
| 3"         | 100                       |
| No. 40     | 0 - 70                    |
| No. 200    | 0 - 15                    |

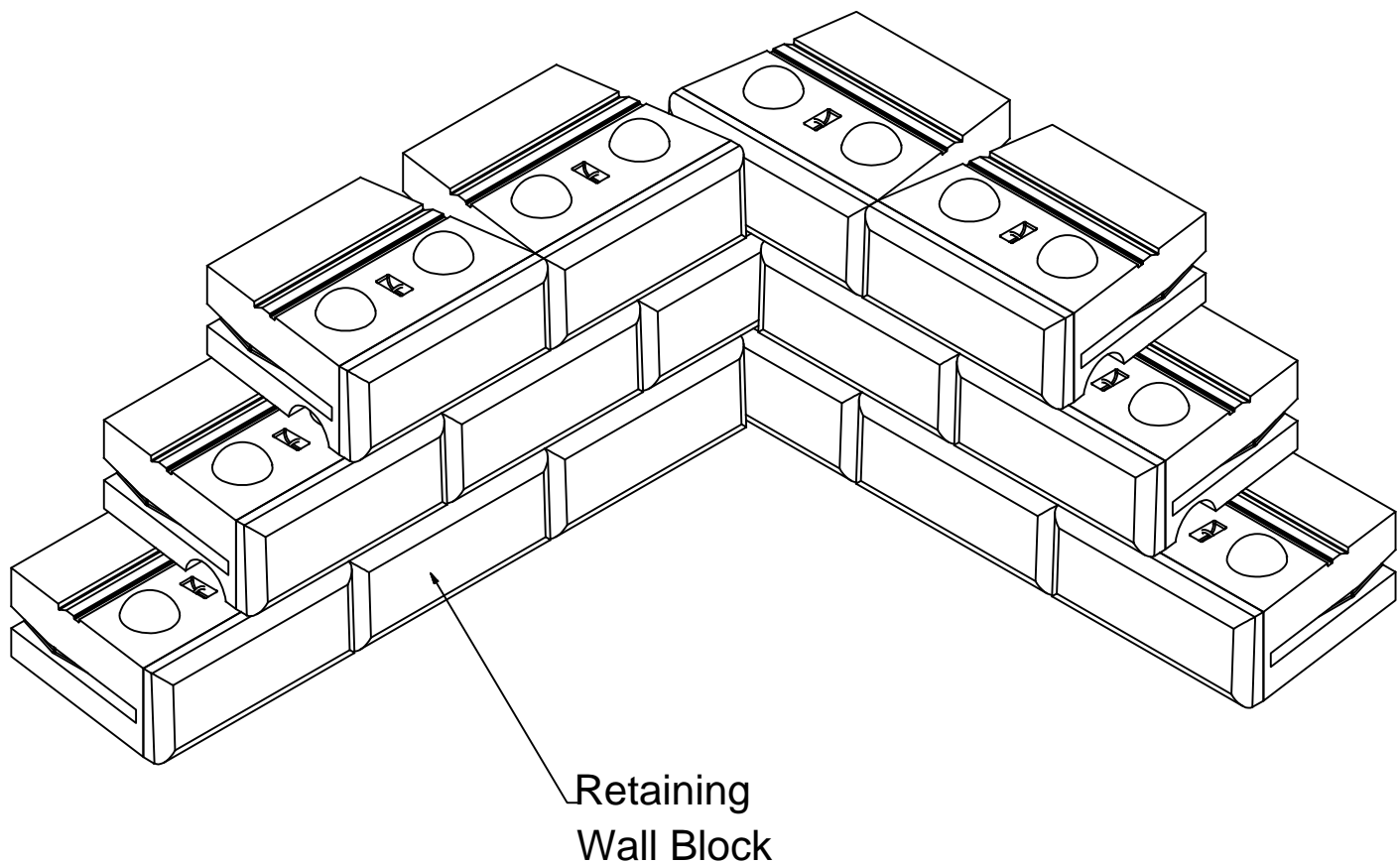
- IF ON-SITE EXCAVATED MATERIAL IS USED IT MUST CONFORM TO THE SAME MINIMUM REQUIREMENTS SPECIFIED. IN ALL INSTANCES, THE CONTRACTOR MUST SUBMIT CERTIFIED LABORATORY TEST REPORTS ON ALL MATERIALS USED FOR BACKFILL. THE FOLLOWING REPORTS SHALL BE PROVIDED AND BE IN ACCORDANCE WITH THE FOLLOWING ASTM SPECIFICATIONS:
- PARTICLE SIZE ANALYSIS - A.S.T.M. D422
  - SOIL CLASSIFICATION - A.S.T.M. D2487
  - LIQUID & PLASTIC LIMITS - A.S.T.M. D424
  - MODIFIED PROCTOR MAXIMUM DENSITY - A.S.T.M. D1557 METHOD C
- EXCAVATION SHALL BE PERFORMED IN ACCORDANCE WITH THE "CONSTRUCTION SAFETY & HEALTH ACT O.S.H.A. PART 192
  - GEOTEXTILE FABRIC SHALL BE TREVIRA SPUNBOUND NON-WOVEN #1125 OR APPROVED EQUAL. THE GEOTEXTILE SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AND GUIDELINES.
  - THE CONTRACTOR SHALL NOT USE LARGE OR HEAVY CONSTRUCTION EQUIPMENT WITHIN 5 FEET OF THE RETAINING WALL. SUITABLE HAND/SMALL COMPACTION EQUIPMENT SHALL BE USED WITHIN 5 FEET OF THE WALL.
  - FOOTINGS CONSTRUCTED ON VIRGIN IN-SITU SOIL SHALL HAVE A MINIMUM ALLOWABLE BEARING CAPACITY OF 3000 PSF.
  - TO INSURE A PROPER BEARING SURFACE FOR THE FOOTINGS CONSTRUCTED ON NATURAL IN-SITU SOIL, THE CONTRACTOR SHALL STRIP ALL TOP SOIL PRIOR TO CONSTRUCTION OF THE FOOTINGS. THE AREA SHALL BE COMPACTED USING SUITABLE COMPACTION EQUIPMENT. A MINIMUM 3 PASSES SHALL BE MADE.
  - DURING BACKFILL OPERATIONS, THE CONTRACTOR SHALL BE CAREFUL NOT TO CREATE UNBALANCED LOADING CONDITIONS ON THE WALL. BACKFILL SHOULD BE PLACED AND COMPACTED ON BOTH SIDES OF THE WALL SIMULTANEOUSLY.
  - ALL FOOTINGS SHALL BE LOCATED A MINIMUM OF 3'-6" BELOW ANY ADJACENT FINISHED GRADE.
  - ALL CONCRETE SUPPLIED TO THE PROJECT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH  $f'_c = 4000$  PSI AND SHALL CONTAIN A MINIMUM 5% AIR ENTRAINING ADMIXTURE IN ACCORDANCE WITH A.S.T.M. C 260.
  - STEEL REINFORCEMENT SHALL BE OF THE SIZES SPECIFIED AND SHALL HAVE A MIN. YIELD STRENGTH  $f_y = 60,000$  PSI.
  - THE CONTRACTOR SHALL PROVIDE EXPANSION JOINTS @ 90'-0" O.C. (MAX.) IN THE WALL.
  - FOOTINGS SHALL NOT BE CONSTRUCTED ON WET OR FROZEN GROUND. UNSUITABLE MATERIAL SHALL BE EXCAVATED AND REPLACED WITH COMPACTED GRANULAR FILL OR 3/4" CRUSHED STONE.



NOTES:  
Volume and Center of Gravity (C of G) calculations are based on the blocks as shown.  
Center of Gravity is measured from the back of the block.  
Half blocks may include a fork lift slot on one side.  
Actual weights and volumes may vary.  
Weights shown are based on 143 pcf concrete.

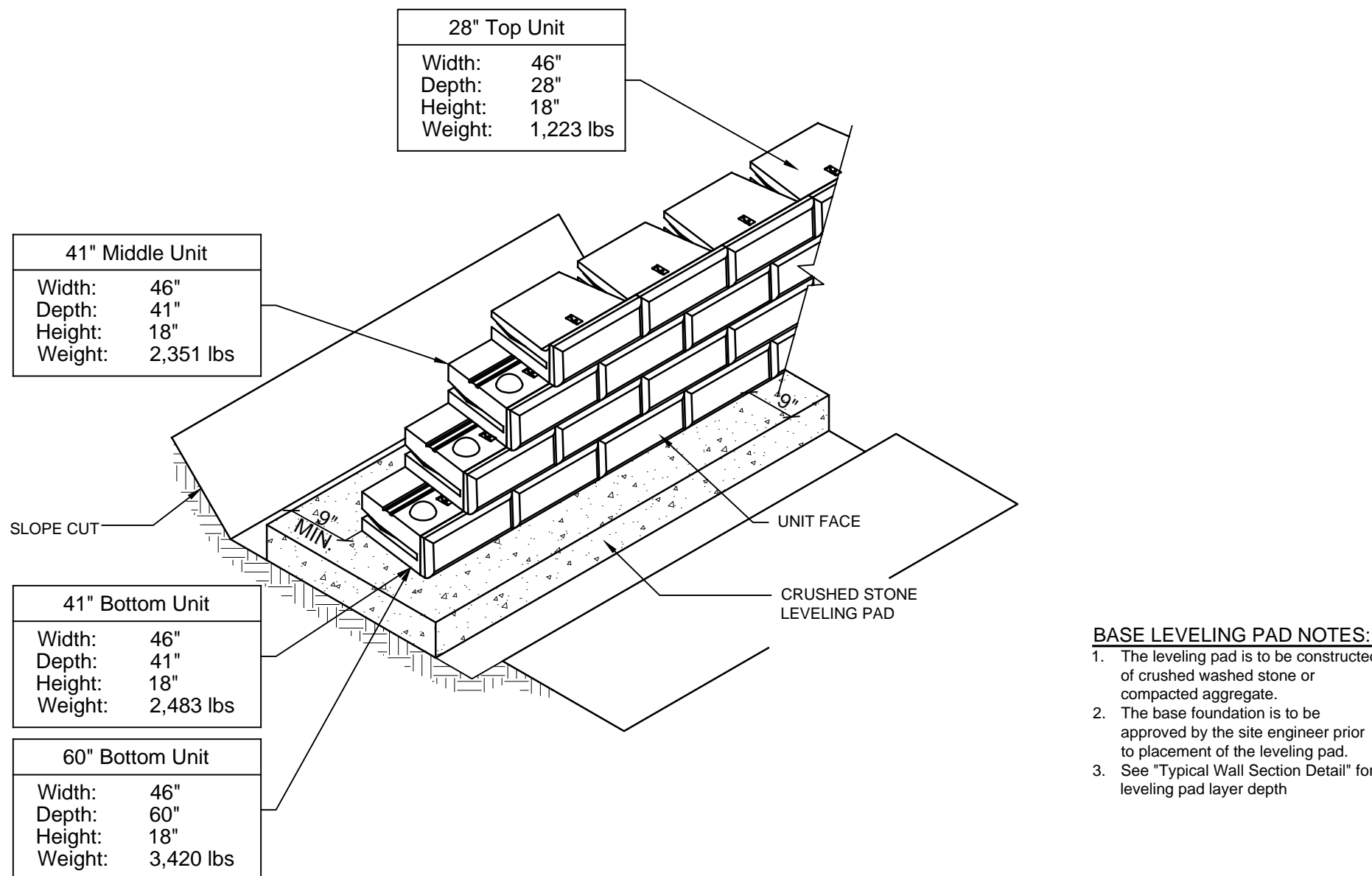
ST-3 REDI ROCK BLOCK DETAILS

NOT TO SCALE



ST-4 REDI ROCK CORNER DETAIL

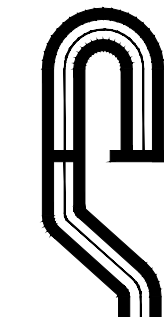
NOT TO SCALE



- BASE LEVELING PAD NOTES:
- The leveling pad is to be constructed of crushed washed stone or compacted aggregate.
  - The base foundation is to be approved by the site engineer prior to placement of the leveling pad.
  - See "Typical Wall Section Detail" for leveling pad layer depth.

ST-5 STANDARD UNIT/BASE PAD ISOMETRIC VIEW DETAIL

NOT TO SCALE



PROJECT # 14-25

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www.sitedesignconsultants.com



Revisions:  
No. 1 Date Comments:

SCALE: NTS

DRAWN BY: EL

DATE: 10/22/14

RETAINING WALL DETAILS

Butterfield Redevelopment Project  
1756 NYS ROUTE 9D  
Village Of Cold Spring  
Putnam County, New York

SITE/SUBDIVISION PLAN  
PREPARED FOR

C-508

Sheet