



Civil Engineer
Stormwater Best Management Practice (permanent) Certification Letter

December 18, 2020

El Paso County
Planning and Community Development
2880 International Circle, Suite 110
Colorado Springs, CO 80910

Attn.: Brad Walters, Inspections Supervisor

RE: **Redtail Ranch Filing No. 1**

The permanent stormwater Best Management Practices (BMPs) for **Redtail Ranch Filing No. 1** consists of a two individual Private Full Spectrum Extended Detention Basins. These facilities are described by the following:

- Pond 1 within a Stormwater Quality Easement on Lot 5
- Pond 2 within a Stormwater Quality Easement on Lot 7

Based upon this information and information gathered during periodic site visits to the project during significant/key phases of the stormwater BMP installation, along with the attached as-built plans, Classic Consulting Engineers & Surveyors, LLC is of the opinion that the stormwater BMPs have been constructed in general compliance with the approved Construction Plans, and Specifications as filed with El Paso County.

Statement Of Engineer In Responsible Charge:

I, Marc A. Whorton, a registered Professional Engineer in the State of Colorado, in accordance with Sections 5.2 and 5.3 of the Bylaws and Rules of the State Board of Registration for Professional Engineers and Professional Land Surveyors, do hereby certify that I or a person under my responsible charge periodically observed the construction of the above mentioned project. Based on the on-site

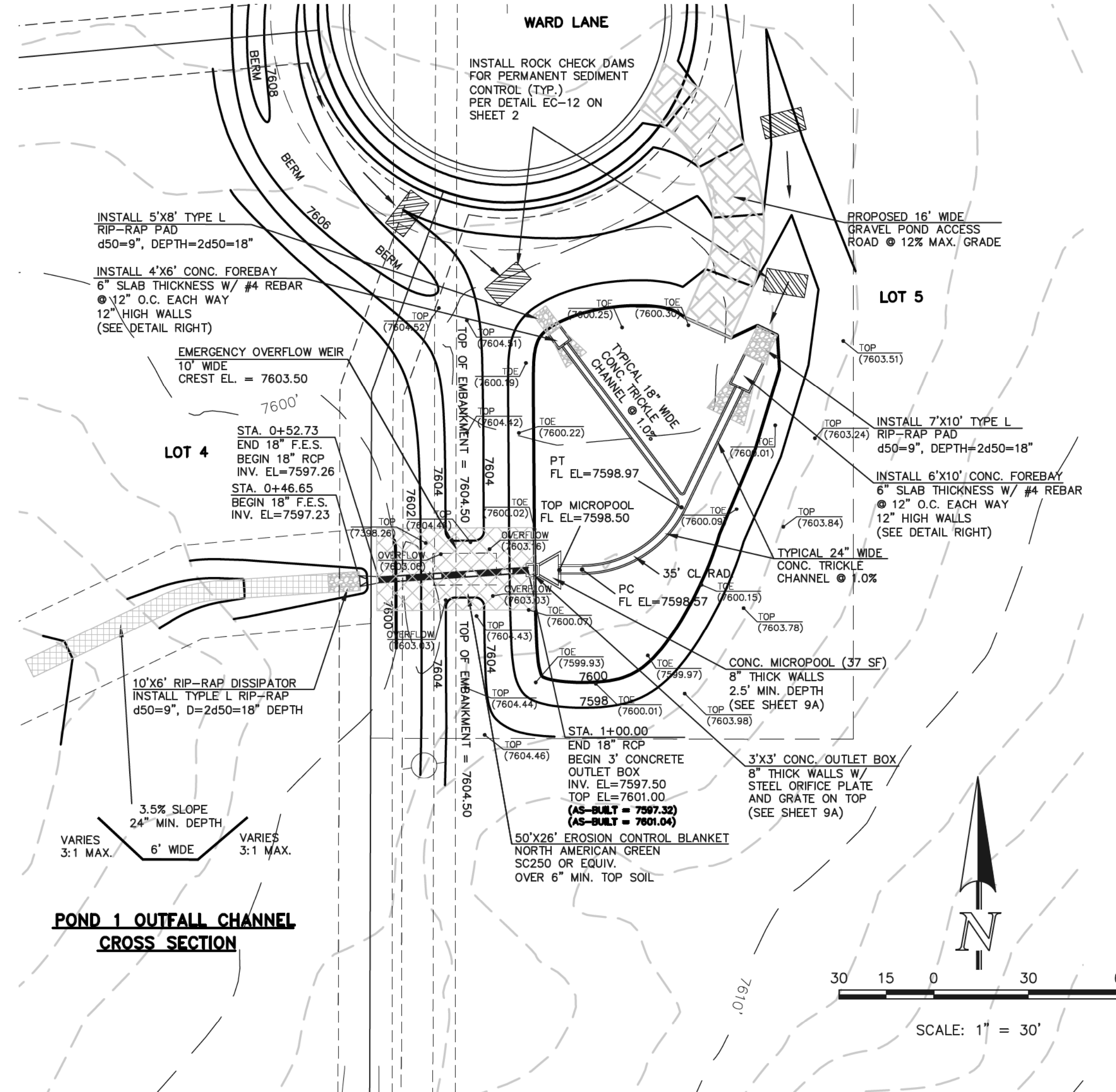
field observations and review of pertinent as-built documentation, it is my professional opinion that the required permanent BMPs have been installed and are in general compliance with the approved Construction Plans, and Specifications as filed with El Paso County. For BMPs with a Water Quality Capture Volume (WQCV), I have attached the post-construction As-Built drawings. The As-Built drawings accurately depict the final installation of the stormwater BMPs.



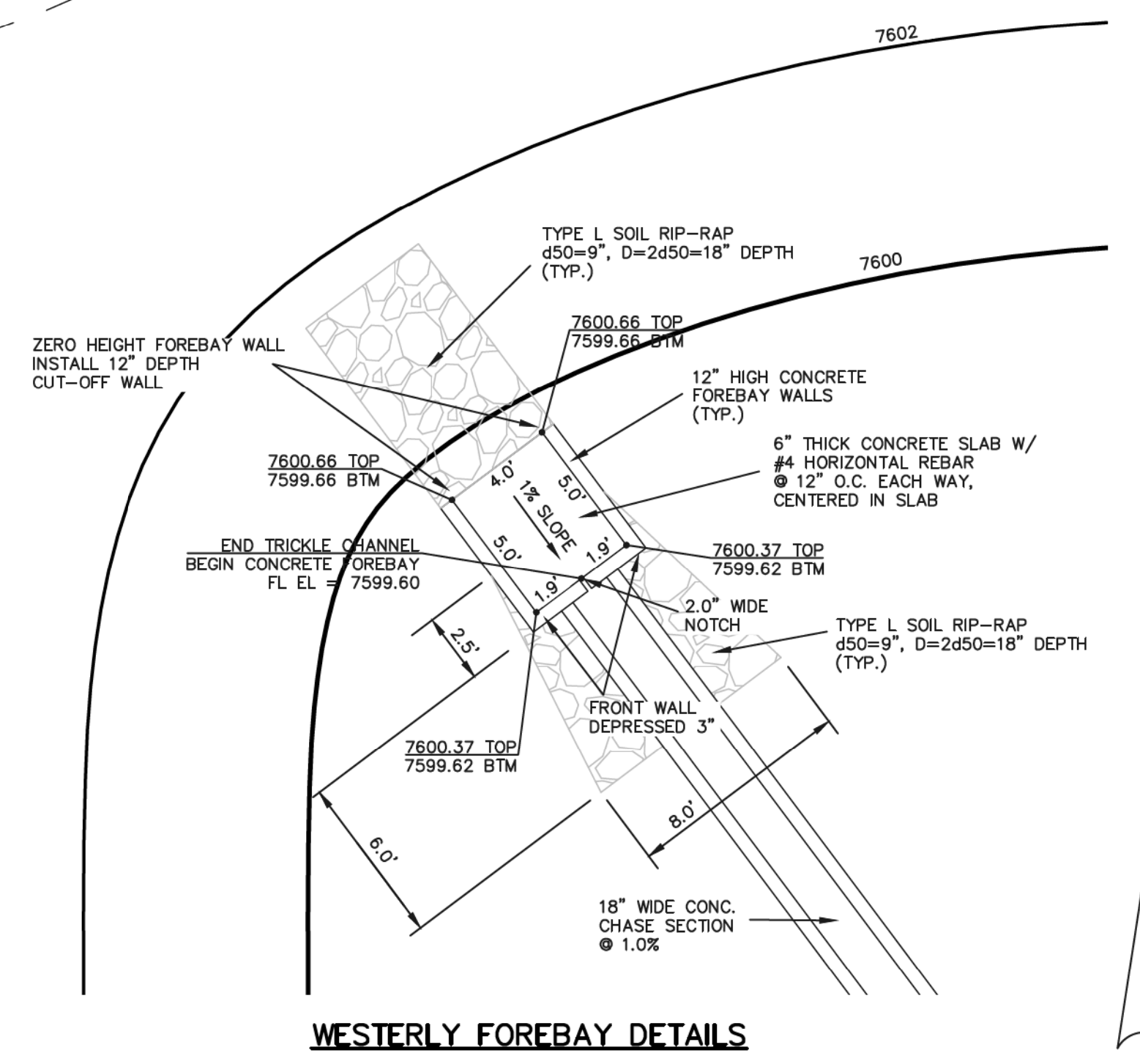
Marc A. Whorton, P.E.
Colorado No. 37155



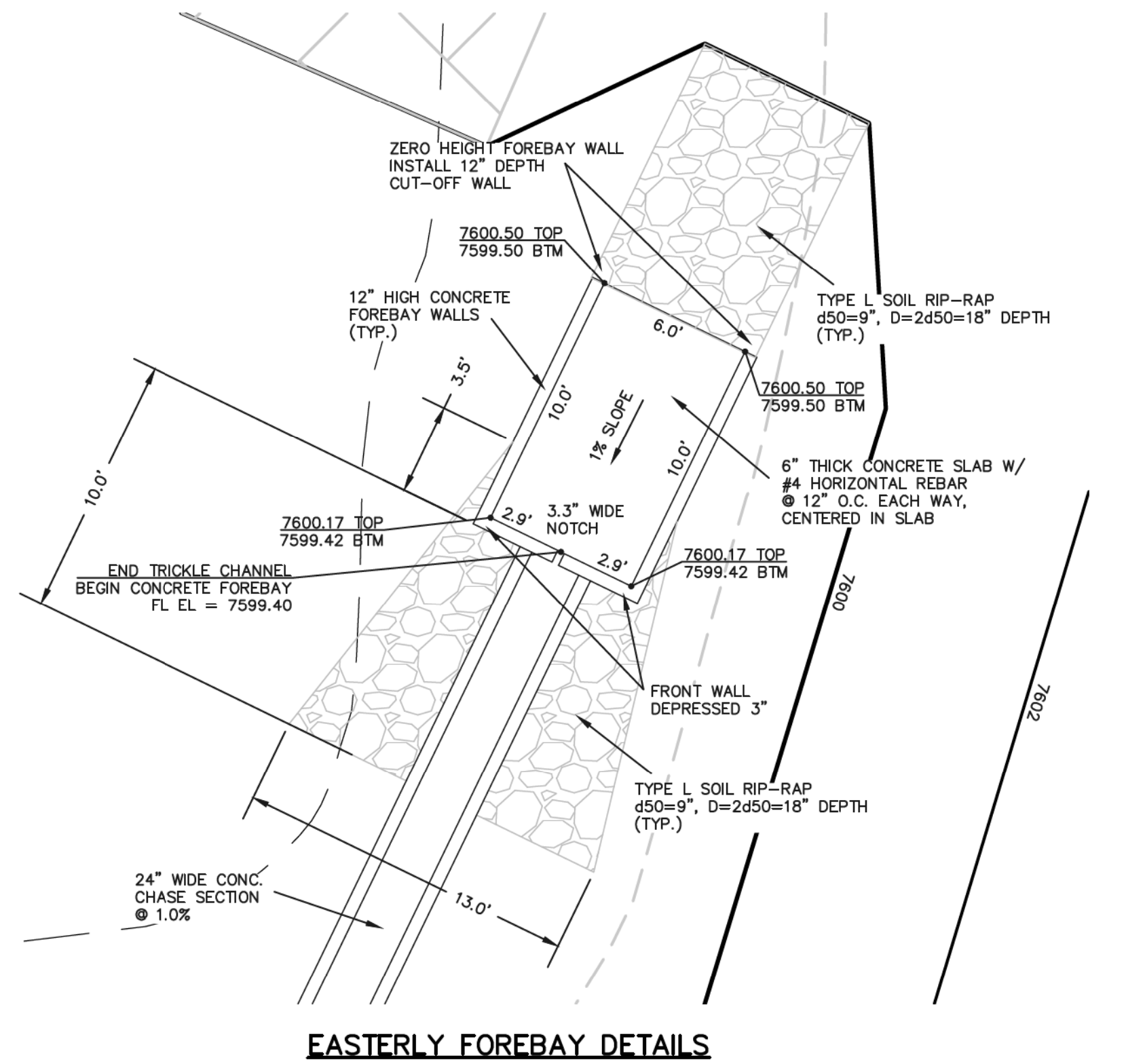
Seal & Signature of P.E. Goes Here



POND 1 OUTFALL CHANNEL CROSS SECTION

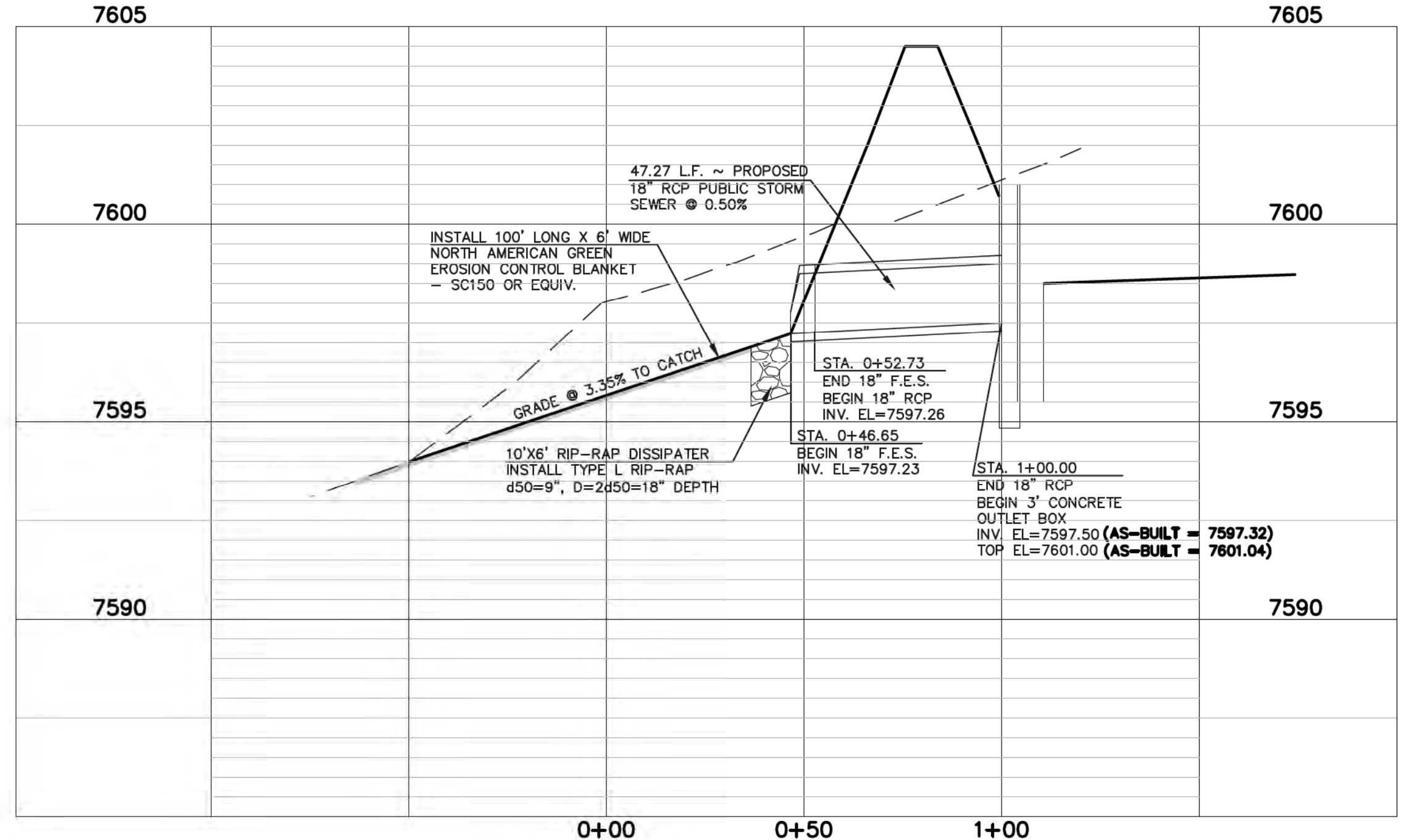


WESTERLY FOREBAY DETAILS



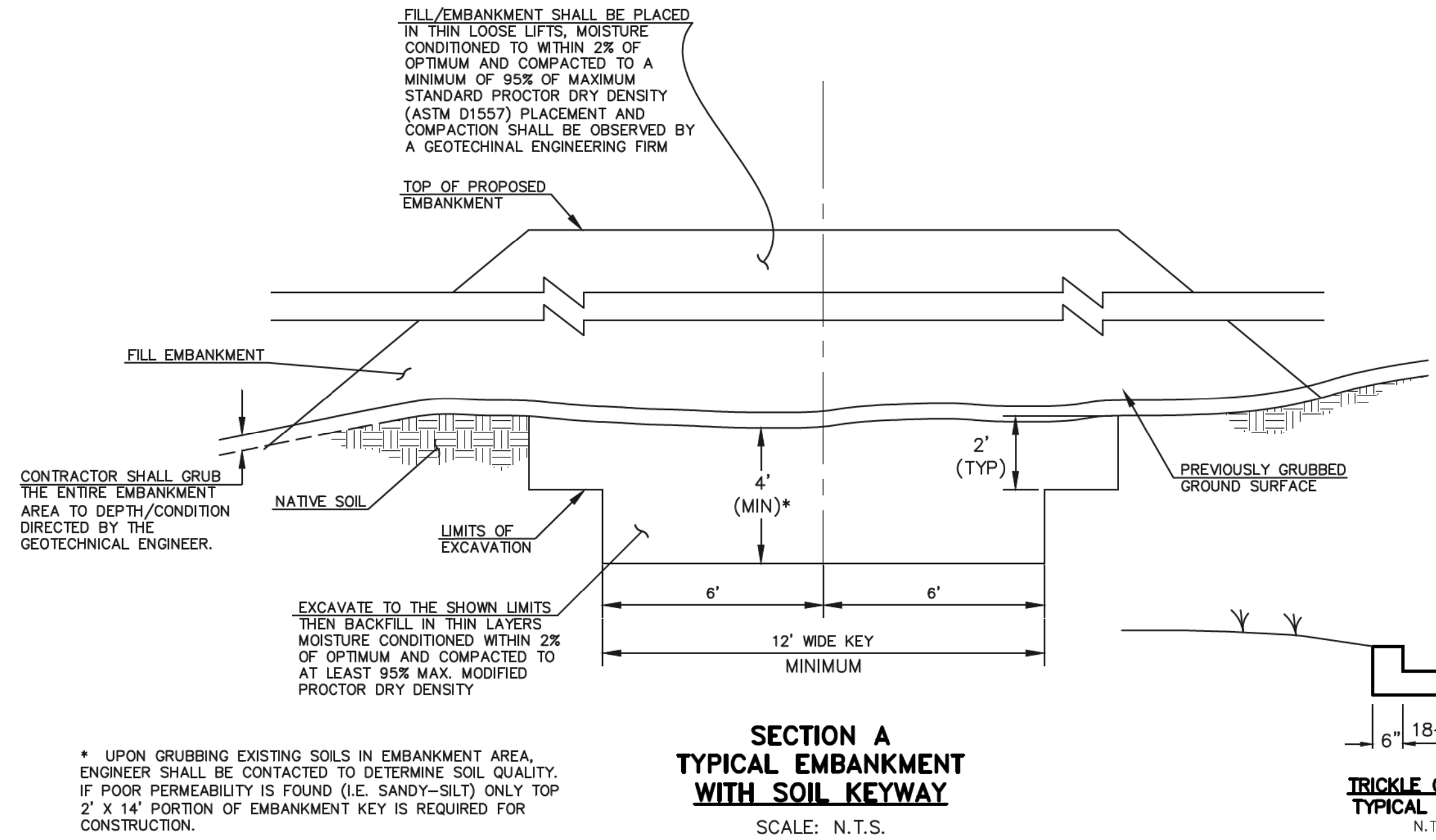
EASTERLY FOREBAY DETAILS

EXTENDED DETENTION BASIN 1



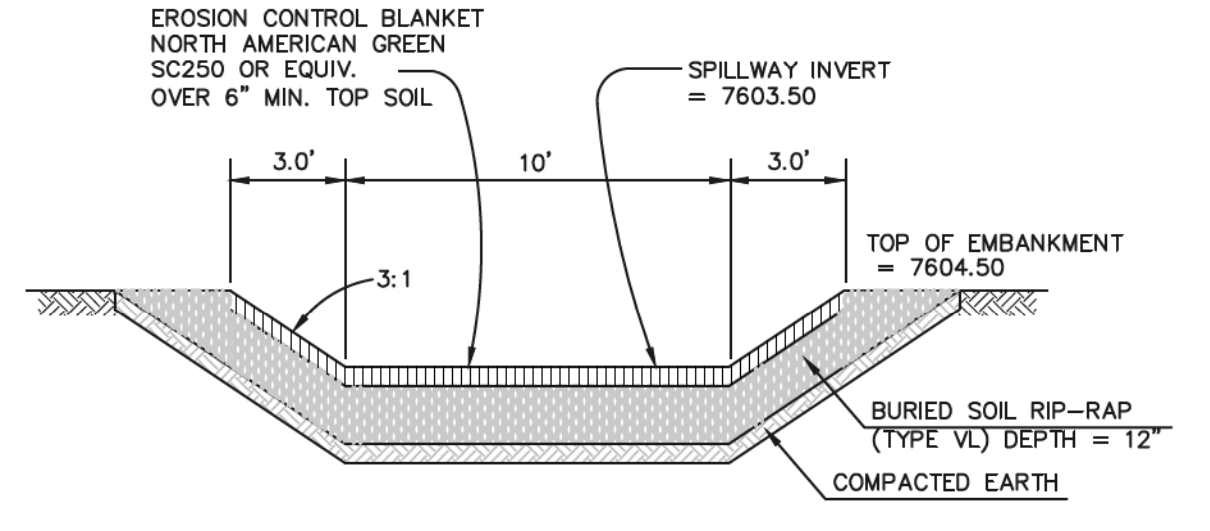
18" RCP POND OUTLET PROFILE

SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'



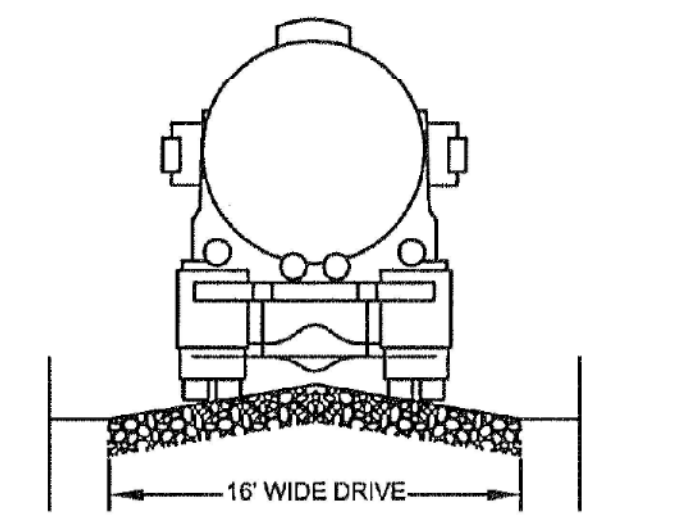
SECTION A TYPICAL EMBANKMENT WITH SOIL KEYWAY

SCALE: N.T.S.



EMERGENCY SPILLWAY CROSS SECTION

SCALE: N.T.S.



TYPICAL ACCESS ROAD CROSS SECTION

SCALE: N.T.S.

AS-BUILT

AS-BUILTS TAKEN 12/2/20

48 HOURS BEFORE YOU DIG,
CALL UTILITY LOCATORS
811
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IT'S THE LAW

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NO.	REVISION	DATE
1	REVISED PER COUNTY COMMENTS	11-14-18
2	REVISED PER COUNTY COMMENTS	1-14-19
3	REVISED TO EDB DESIGN	4-17-20

REVIEW:

PREPARED UNDER SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

MARC A. WHORTON, COLORADO P.E. #37155

DATE: 12/18/2020

CLASSIC
CONSULTING ENGINEERS & SURVEYORS

619 N. Cascade Avenue, Suite 200
Colorado Springs, Colorado 80903

(719) 785-0790
(719) 785-0799 (Fax)

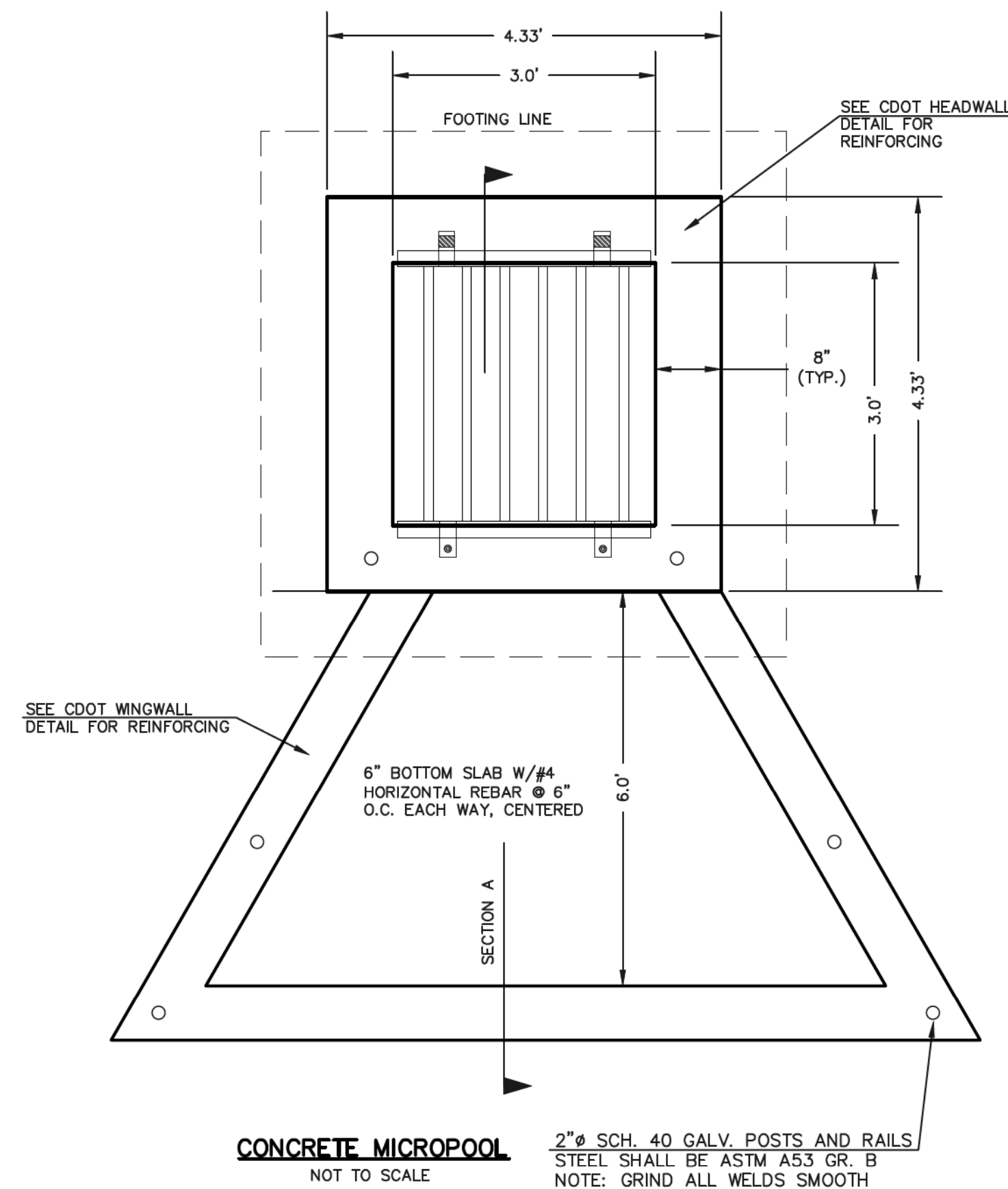
RETAIL RANCH FILING NO. 1
DRAINAGE IMPROVEMENT PLANS
EXTENDED DETENTION BASIN NO. 1
POND PLAN AND DETAILS

DESIGNED BY	MAW	SCALE	DATE
07-03-18			

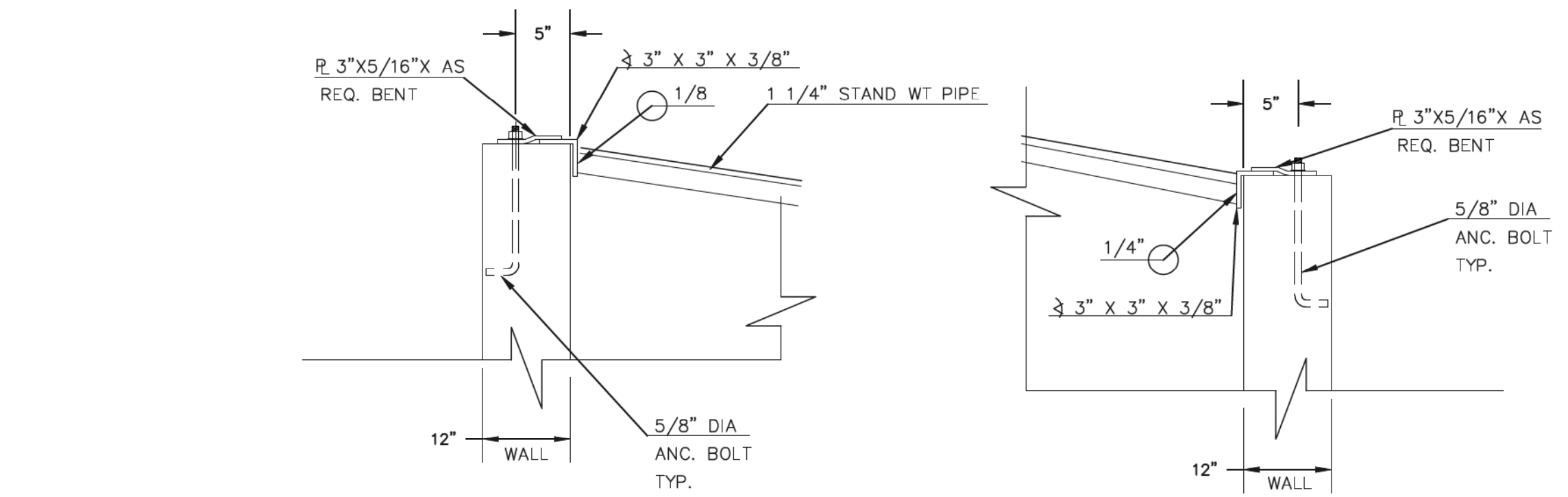
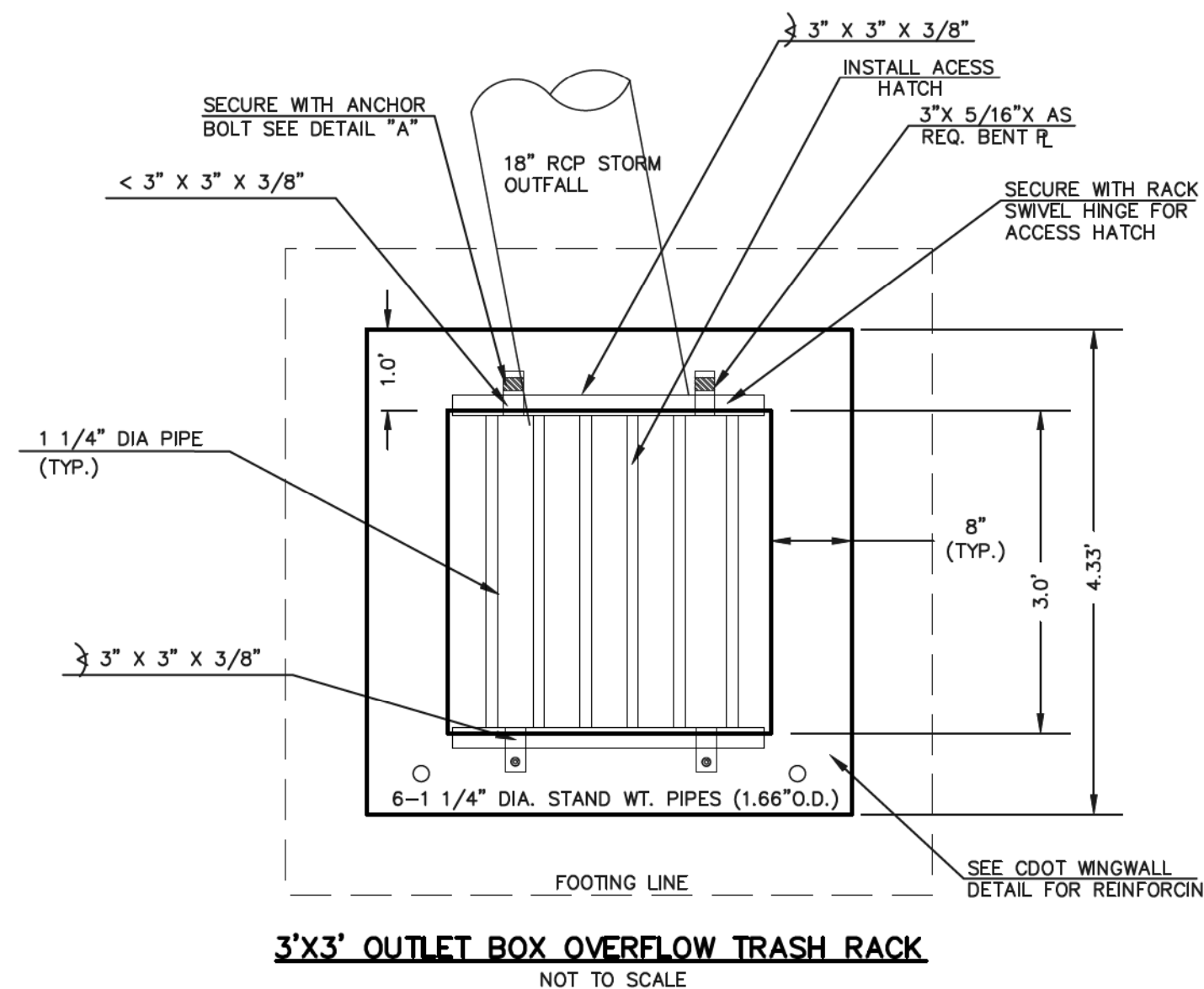
DRAWN BY	MAW	(H) 1"= 30'	SHEET 9 OF 10

CHECKED BY	(V) 1"= N/A	JOB NO.	2525.00





- NOTES:
1. WELD PLATES MAY BE SUBSTITUTED FOR PIPE EMBEDMENT. DESIGN CRITERIA SHALL BE IN ACCORDANCE WITH AASHTO STANDARDS. HANDRAIL DESIGN SHALL BE COMPATIBLE WITH THE DESIGN OF THE WINGWALLS AND HEADWALLS.
 2. RAILING POSTS SHALL BE SET TO NORMAL TO GRADE. RAILS SHALL RUN PARALLEL TO THE SLOPES OF TOPS OF THE WALLS.
 3. ALL RAILS SHALL HAVE EXPANSION JOINTS SPACED AT 40'-0" MAX. JOINT ENDS SHALL BE FREE OF ANY SHARP EDGES OR CORNERS.



(ALL MATERIALS PER EL PASO COUNTY SPECIFICATIONS)

ORIFICE PLATE NOTES:

1. INSTALL HOLES AS SHOWN ON DETAIL TO LEFT.
2. PROVIDE GASKET MATERIAL BETWEEN THE ORIFICE PLATE AND CONCRETE.

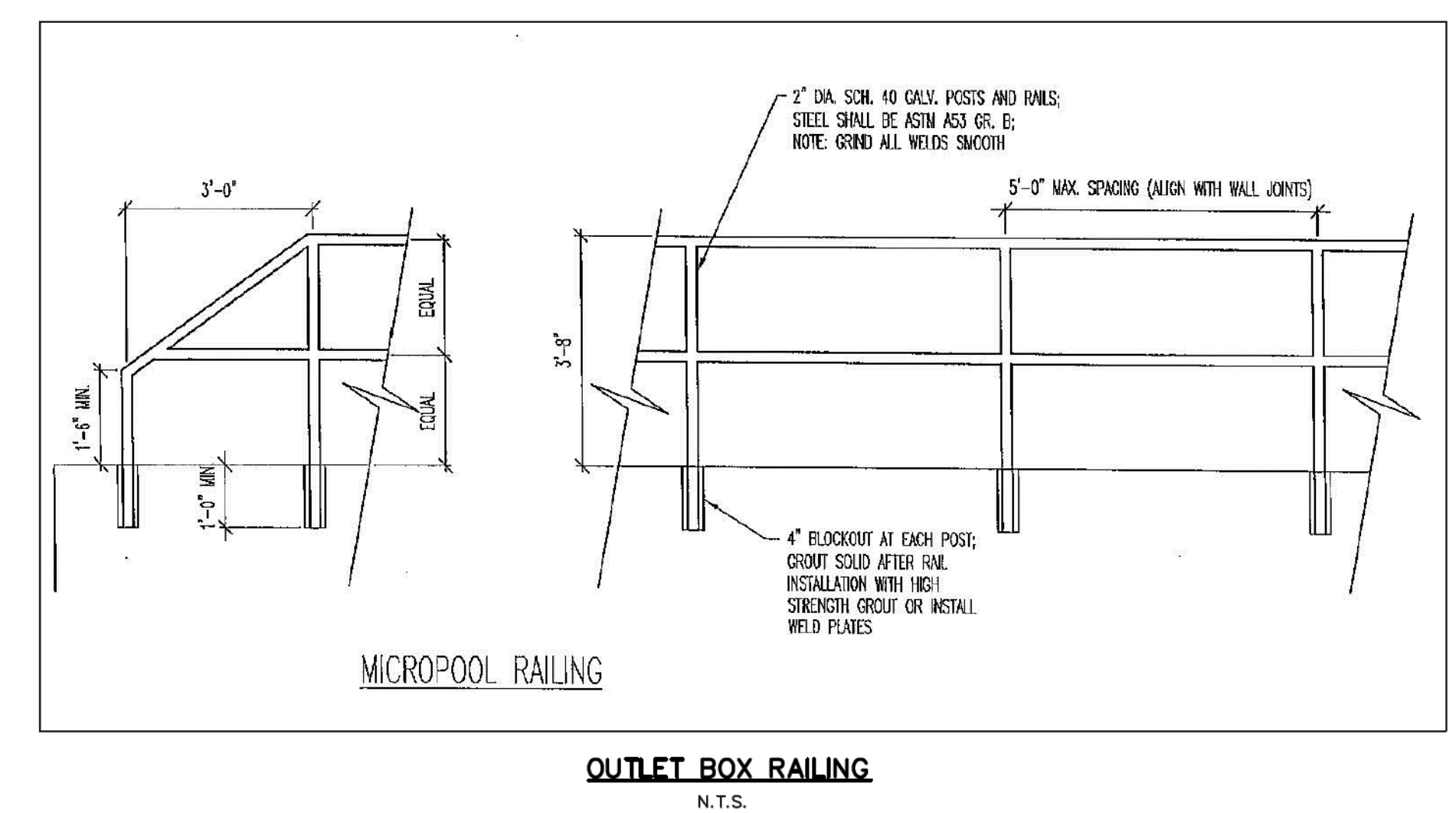
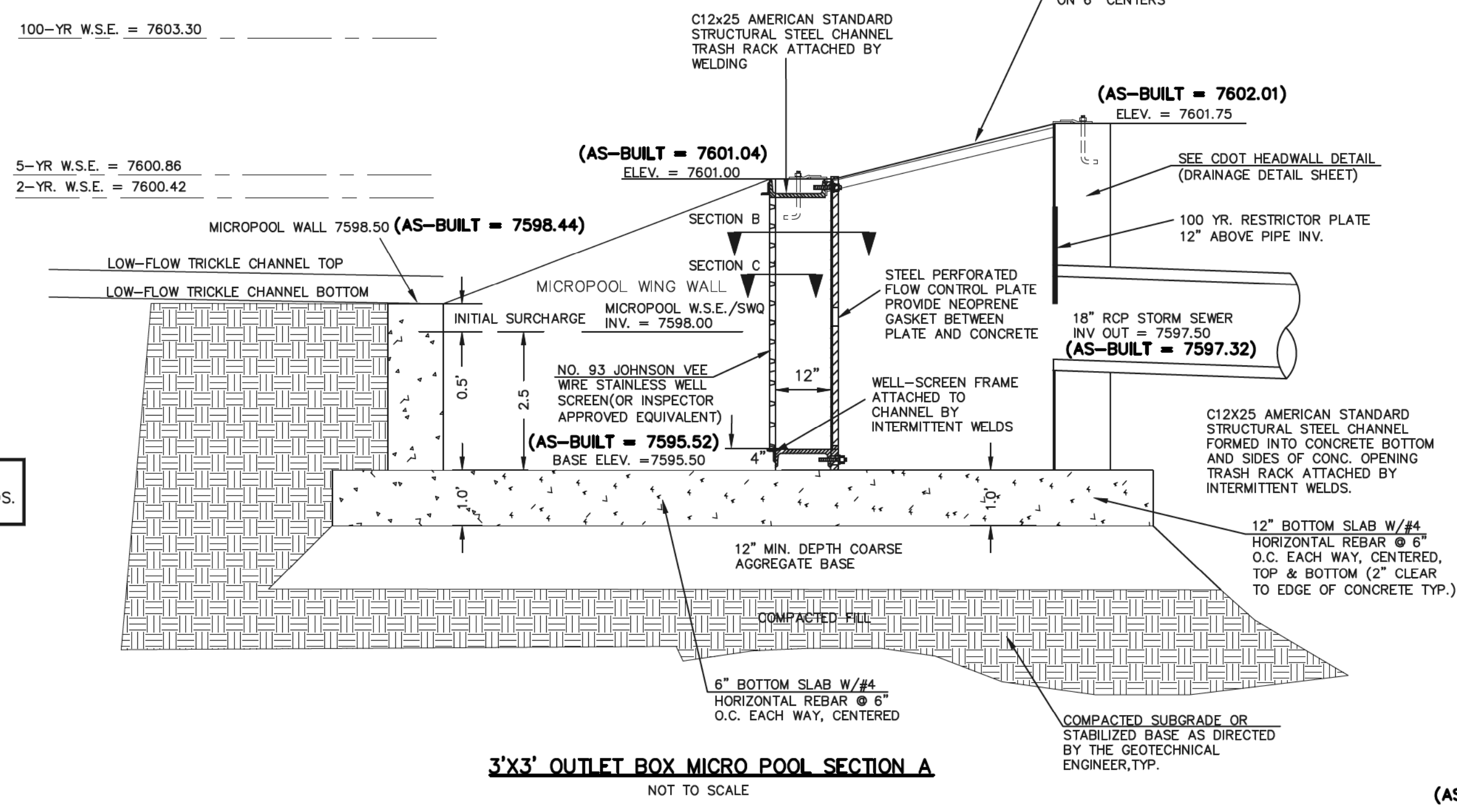
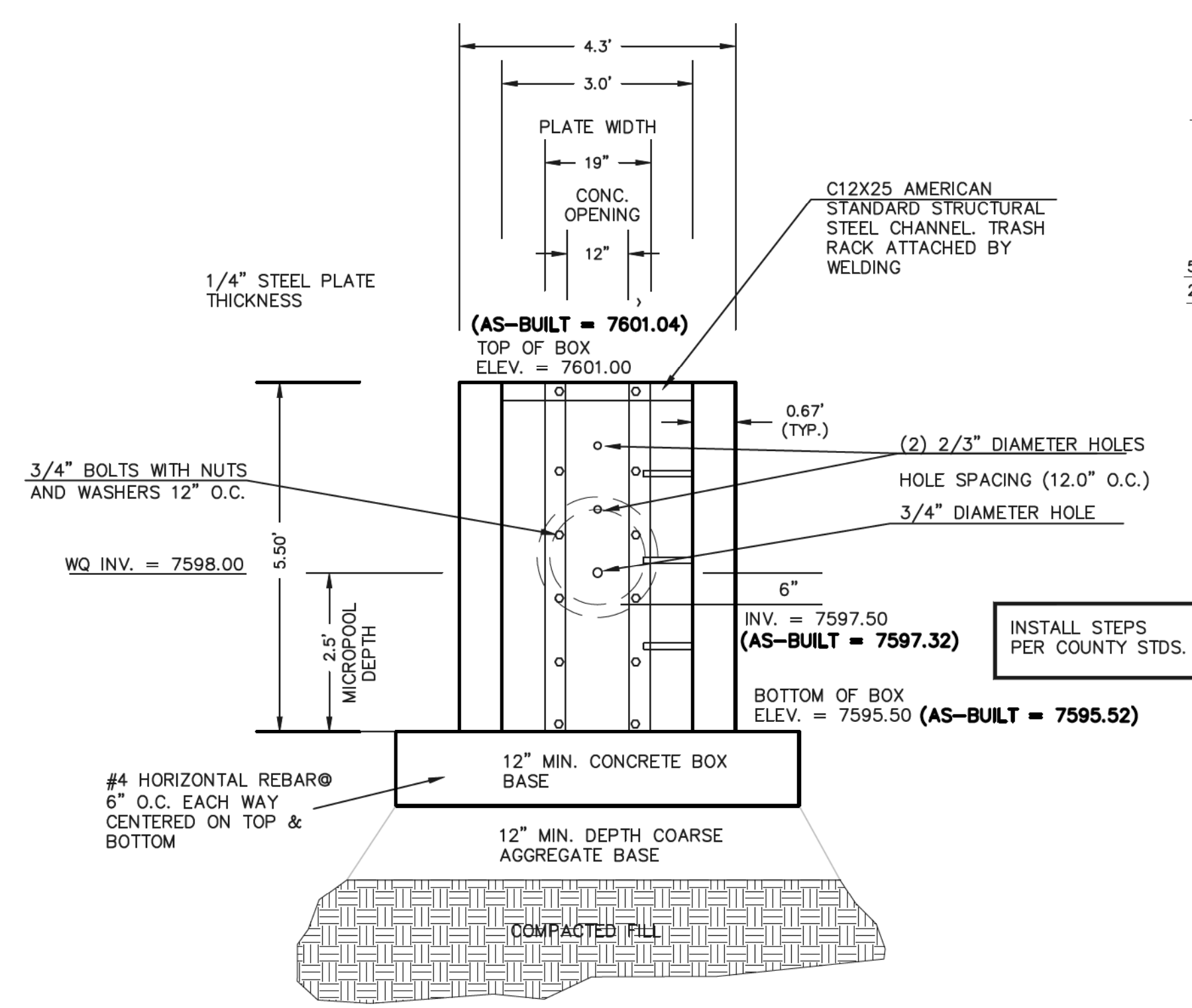
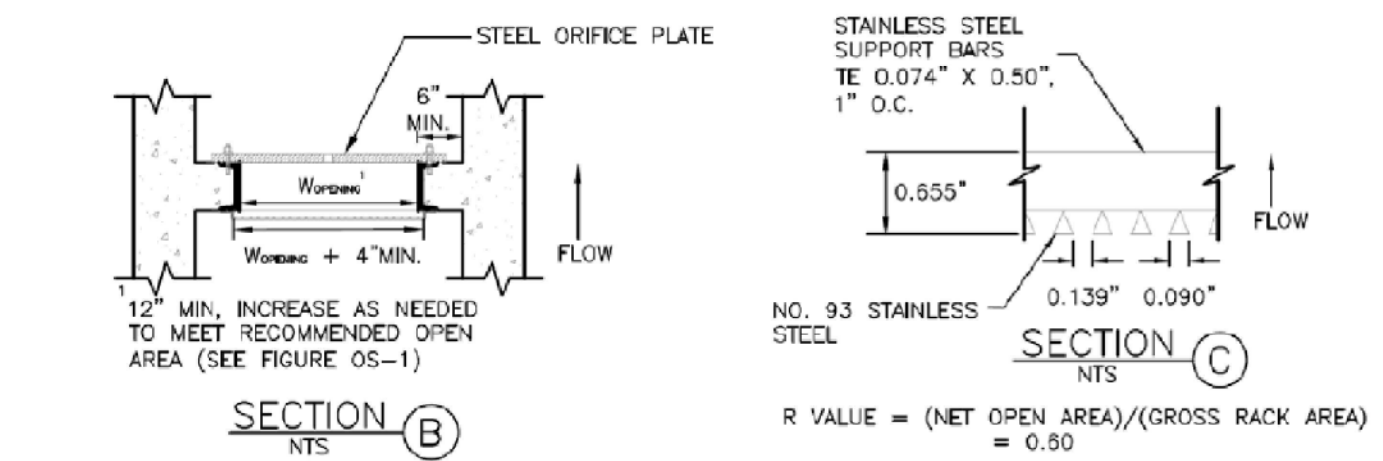
EURV AND WQCV TRASH RACKS:

3. WELL-SCREEN TRASH RACKS SHALL BE STAINLESS STEEL AND SHALL BE ATTACHED BY INTERMITTENT WELDS ALONG THE EDGE OF THE MOUNTING FRAME.
4. BAR GRATE TRASH RACKS SHALL BE ALUMINUM AND SHALL BE BOLTED USING STAINLESS STEEL HARDWARE.
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OUTLET BOX ORIFICE PLATE - 1/4" STEEL



(AS-BUILT = 7601.04) **AS-BUILT** AS-BUILTS TAKEN 12/2/20

<p>48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS</p> <p>811</p> <p>UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW</p> <p>THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.</p>	NO. REVISION	DATE	REVIEW:
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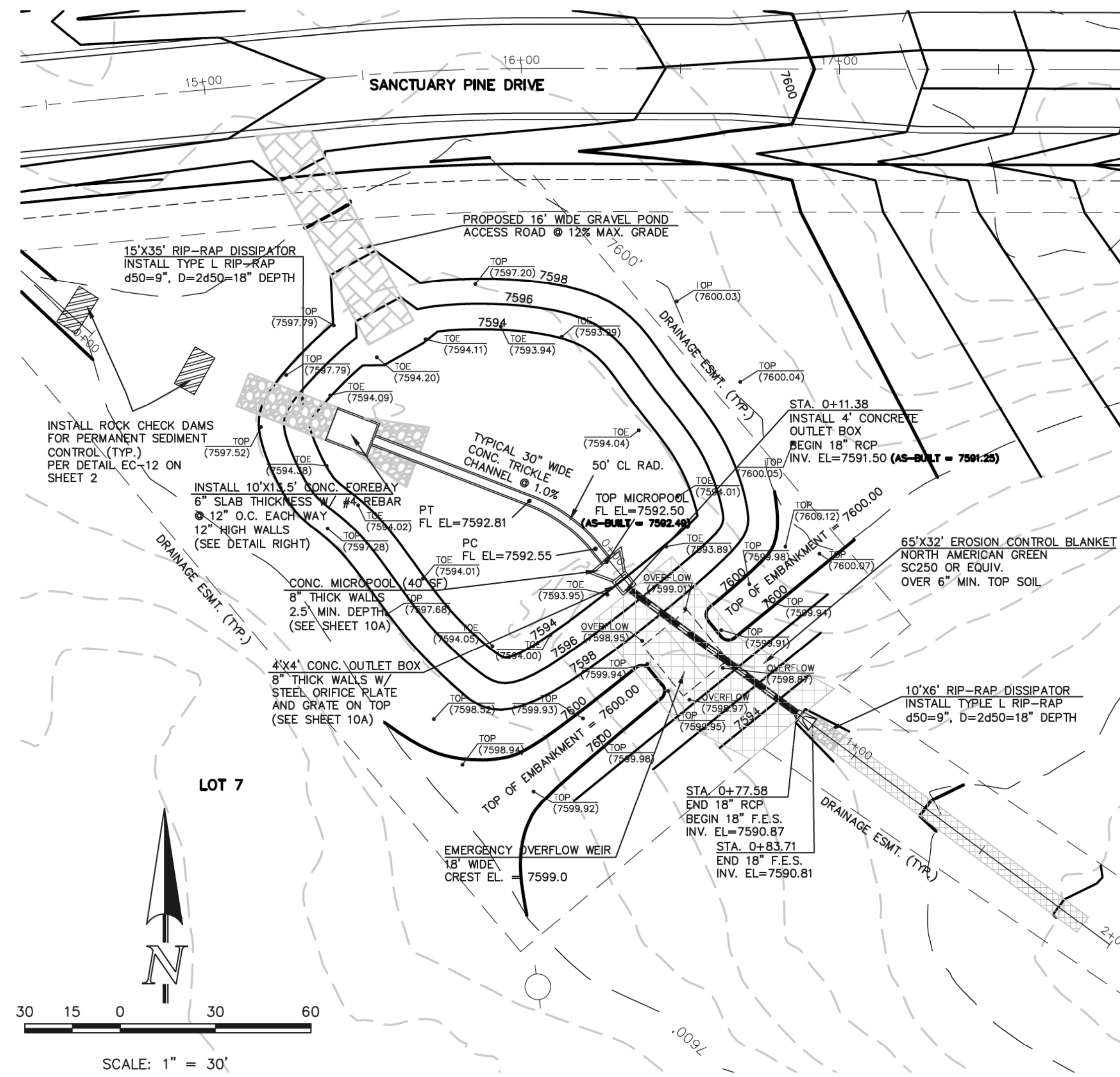
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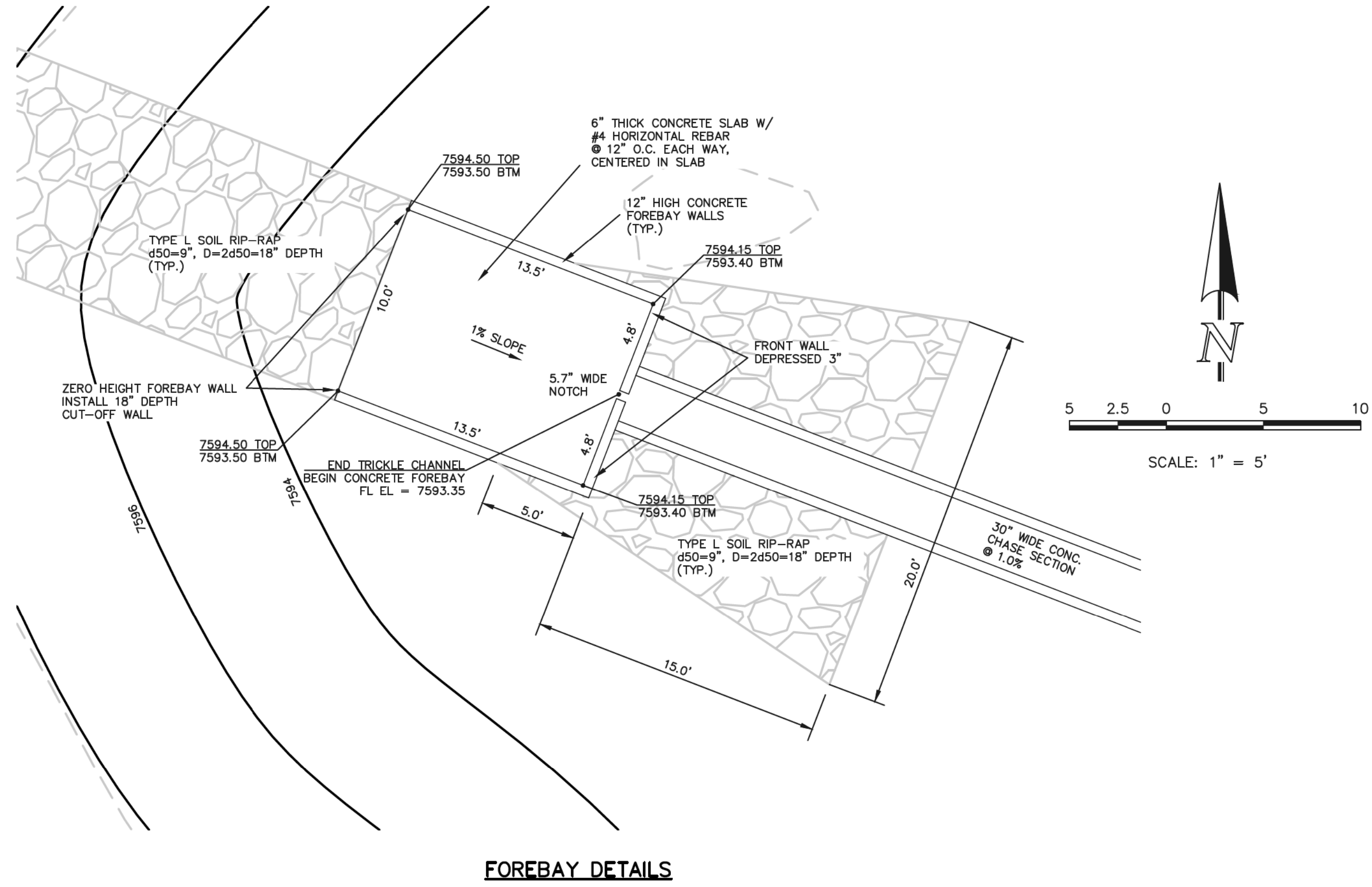
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<p>REDTAIL RANCH FILING NO. 1 DRAINAGE IMPROVEMENT PLANS EXTENDED DETENTION FACILITY NO. 1 OUTLET BOX DETAILS</p>			
DESIGNED BY	MAW	SCALE	DATE 4-15-20
DRAWN BY	MAW	(H) 1" = N/A	SHEET 9A OF 10
CHECKED BY		(V) 1" = N/A	JOB NO. 2525.00

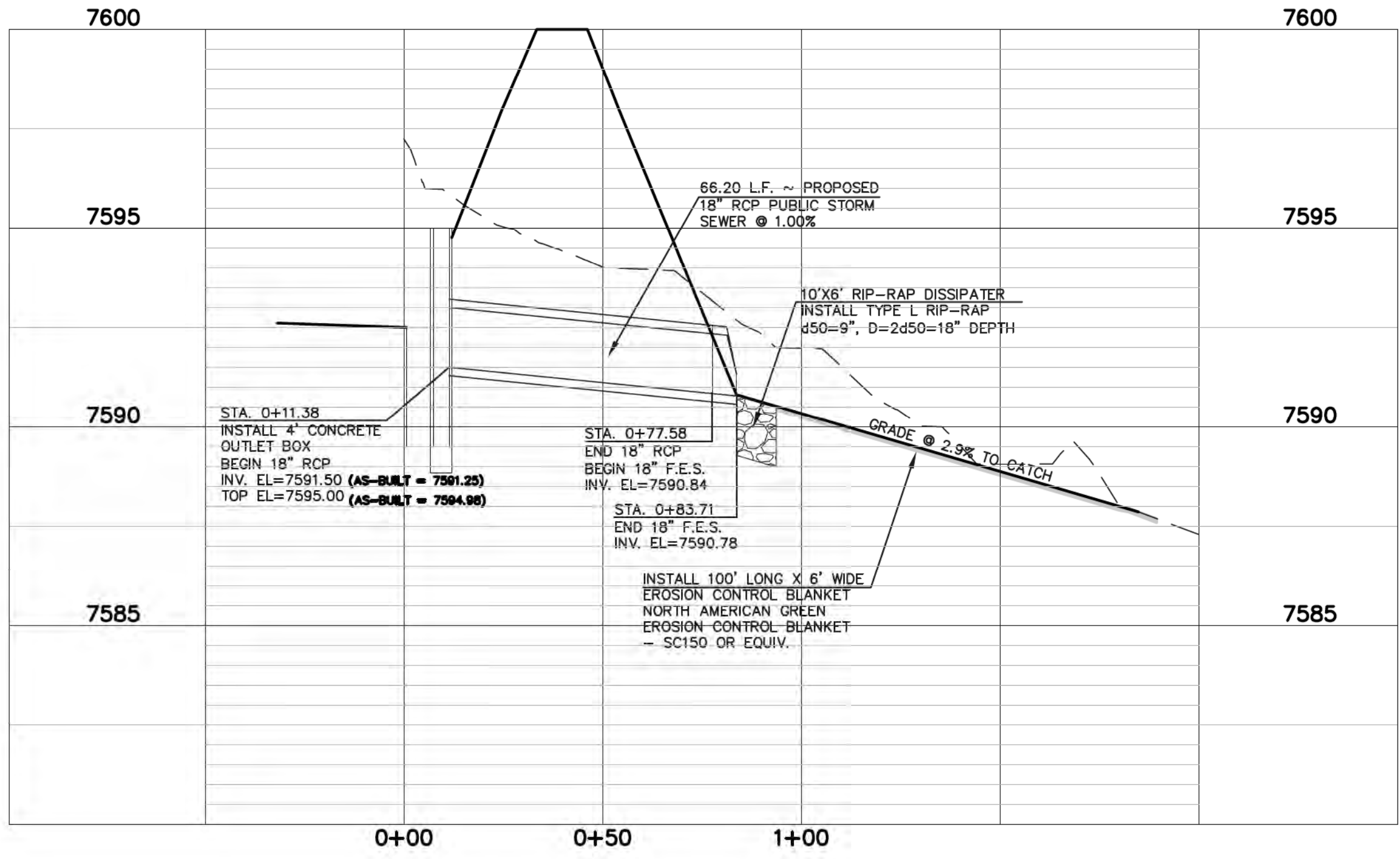
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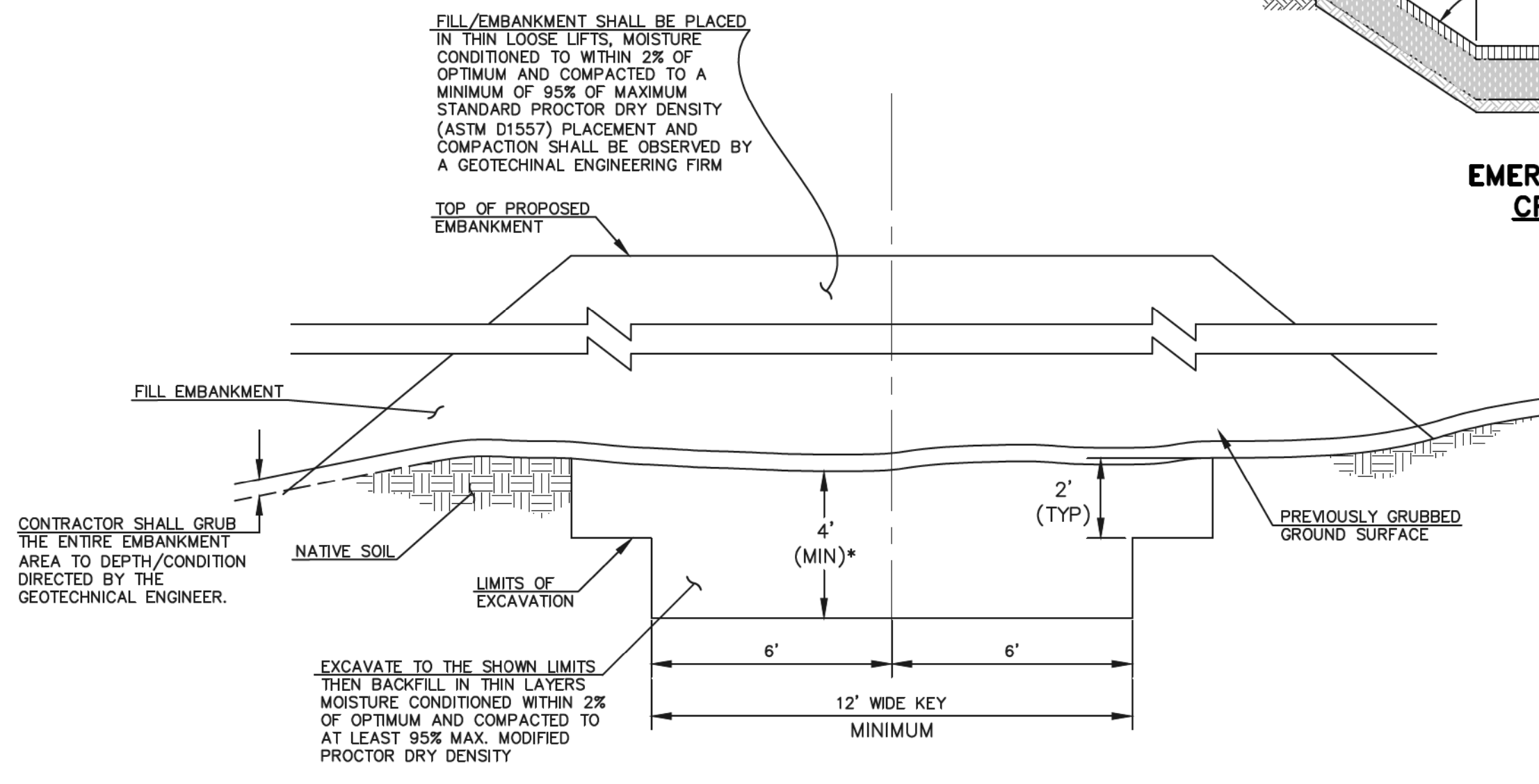
EXTENDED DETENTION BASIN 2



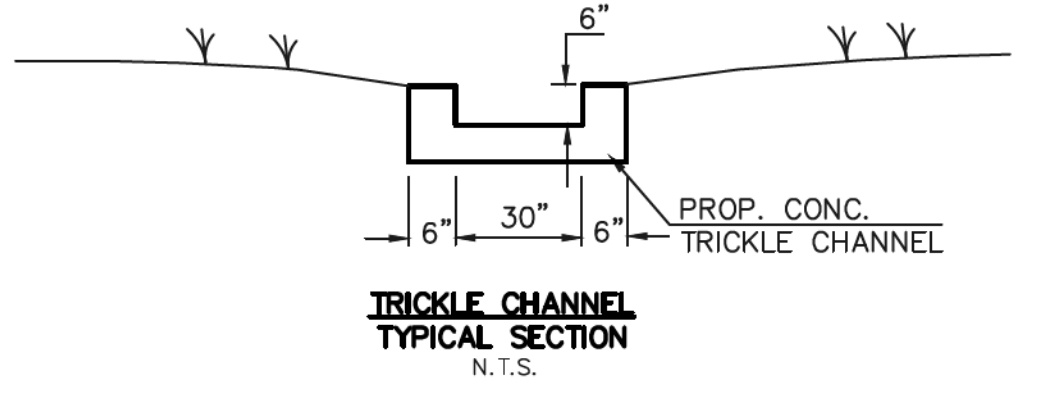
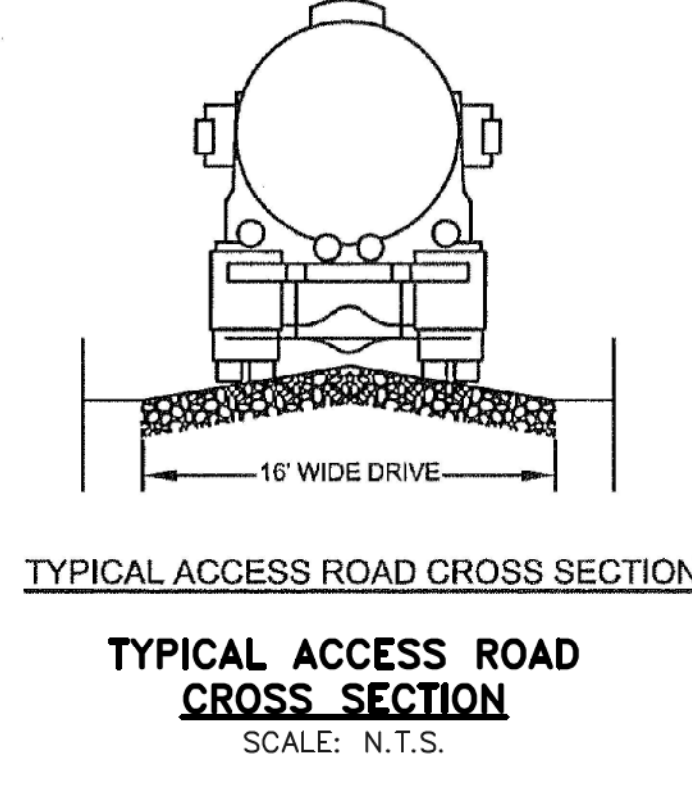
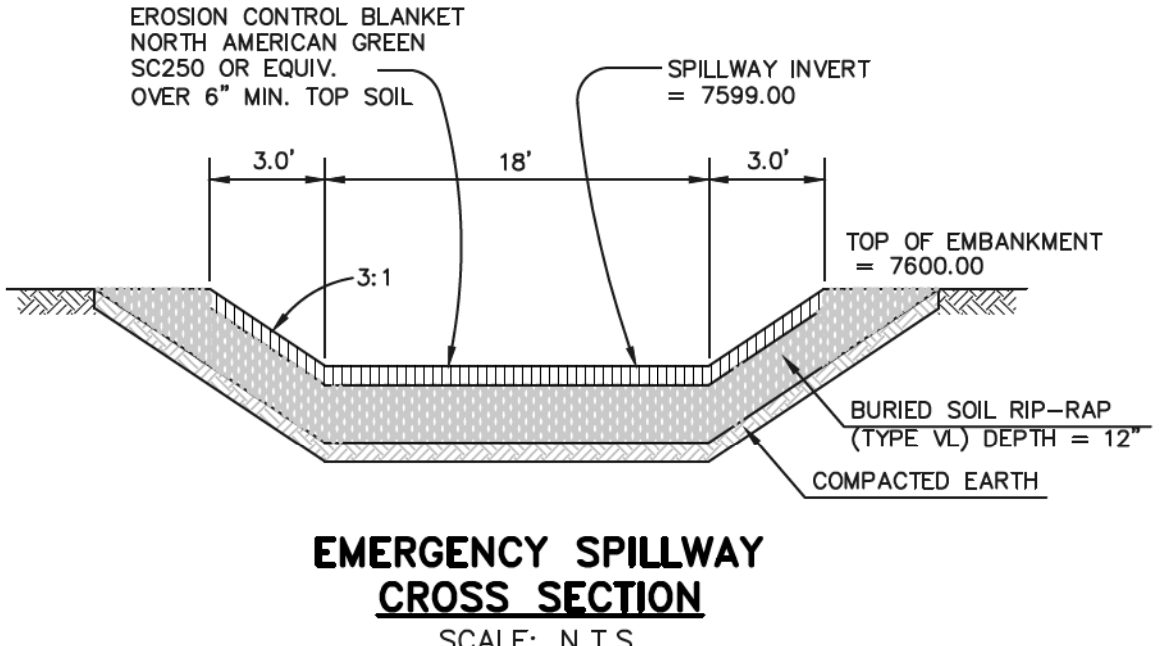
FOREBAY DETAILS



18" RCP POND OUTLET PROFILE



**SECTION A
TYPICAL EMBANKMENT
WITH SOIL KEYWAY**
SCALE: N.T.S.



* UPON GRUBBING EXISTING SOILS IN EMBANKMENT AREA, ENGINEER SHALL BE CONTACTED TO DETERMINE SOIL QUALITY. IF POOR PERMEABILITY IS FOUND (I.E. SANDY-SILT) ONLY TOP 2' X 14' PORTION OF EMBANKMENT KEY IS REQUIRED FOR CONSTRUCTION.

(AS-BUILT = 7601.04)
TOP (7604.46)

AS-BUILT

AS-BUILTS TAKEN 12/2/20

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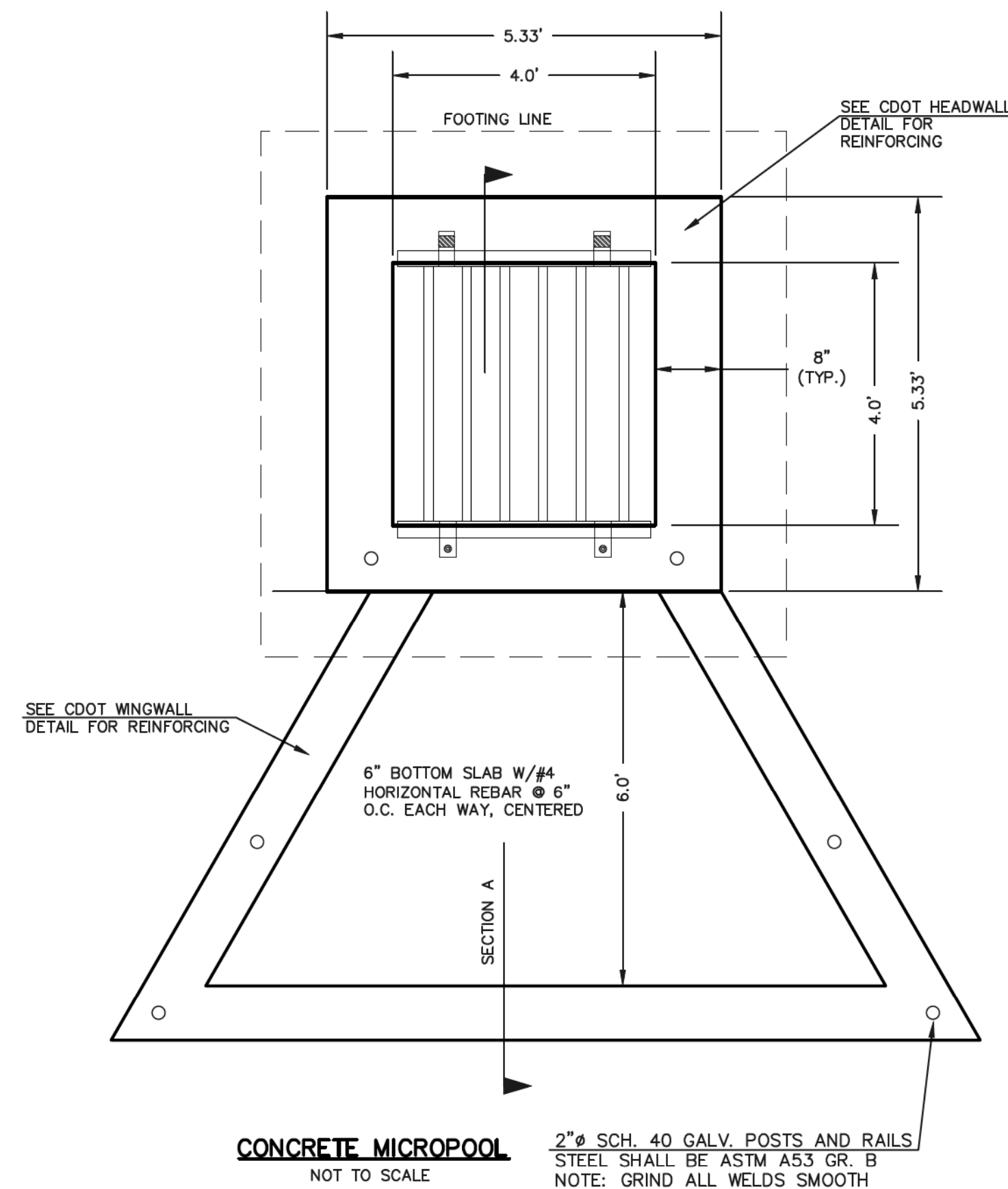
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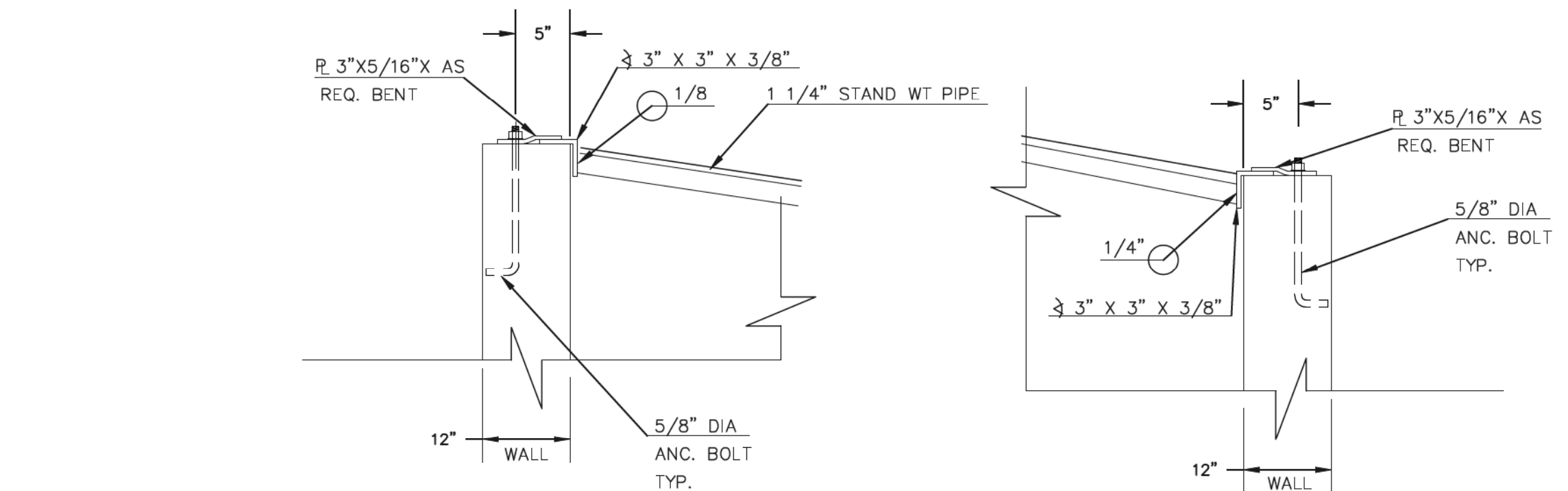
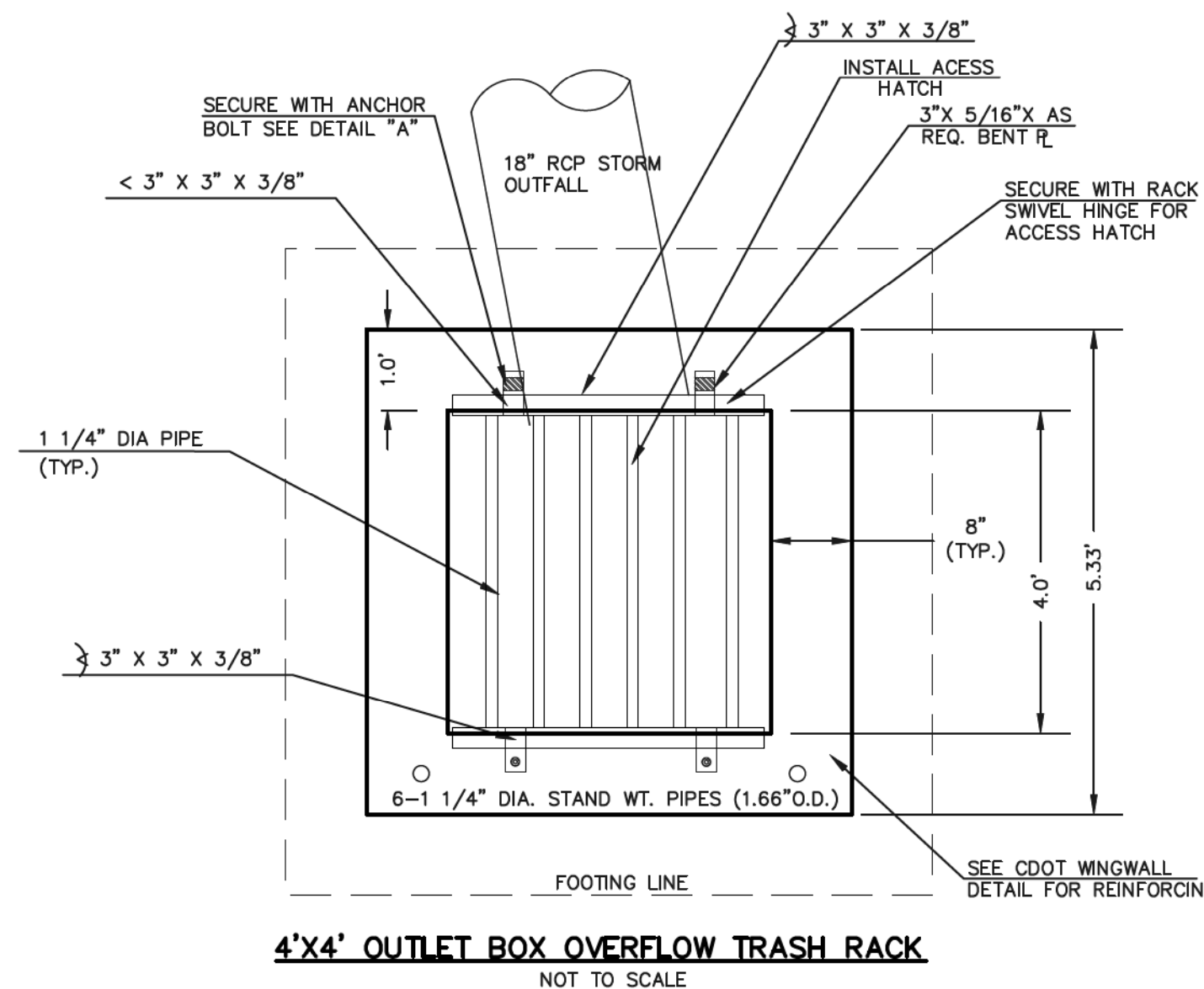
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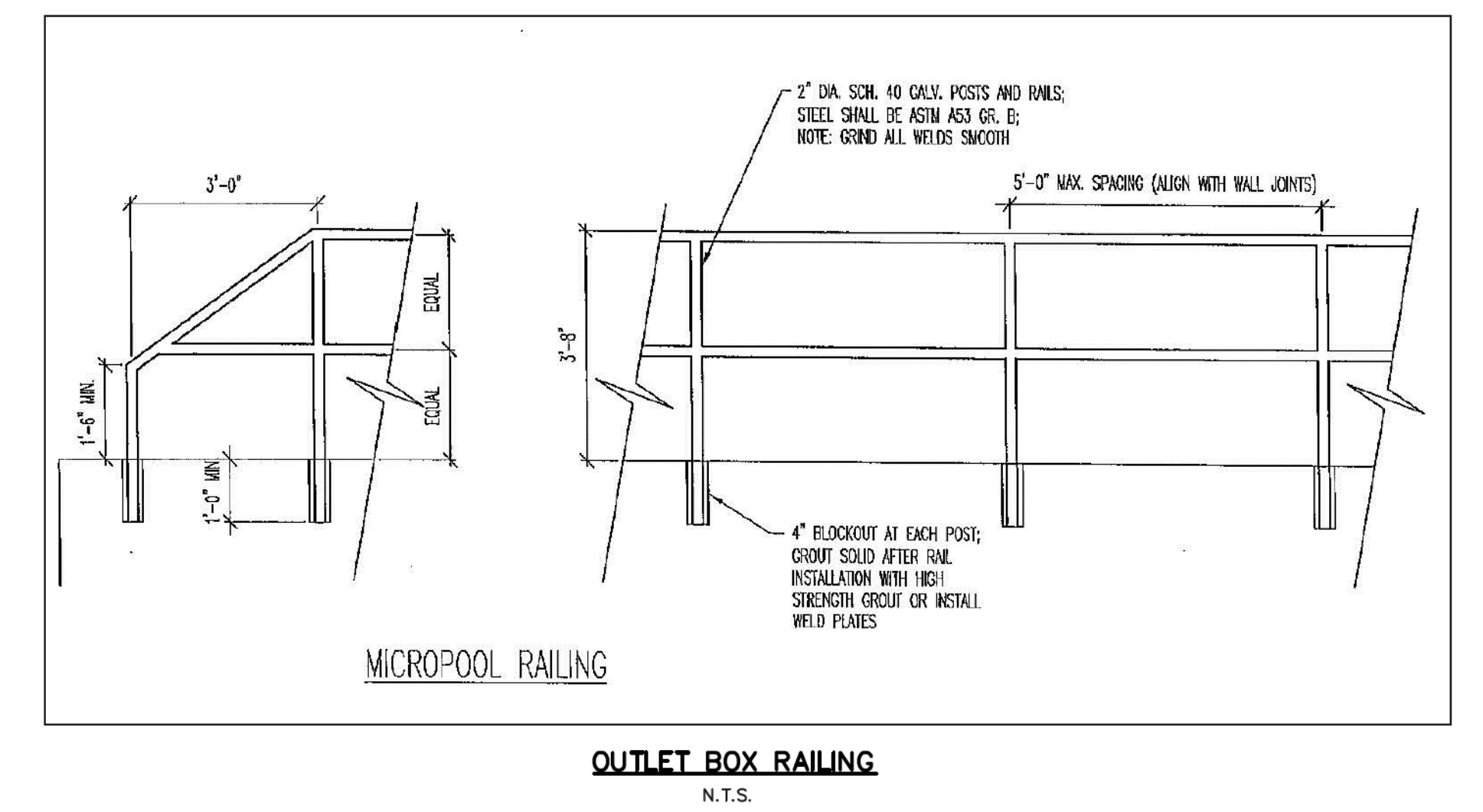
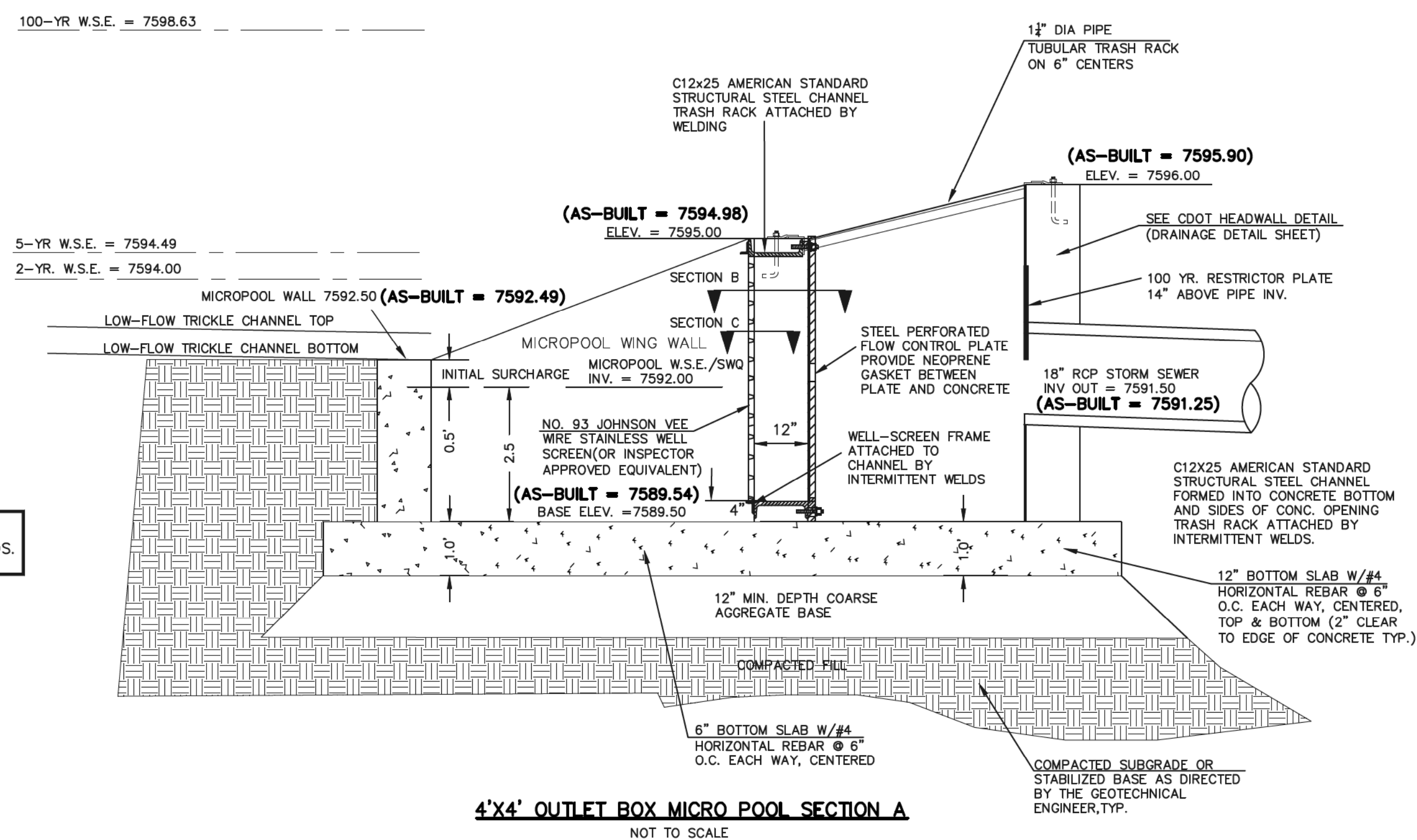
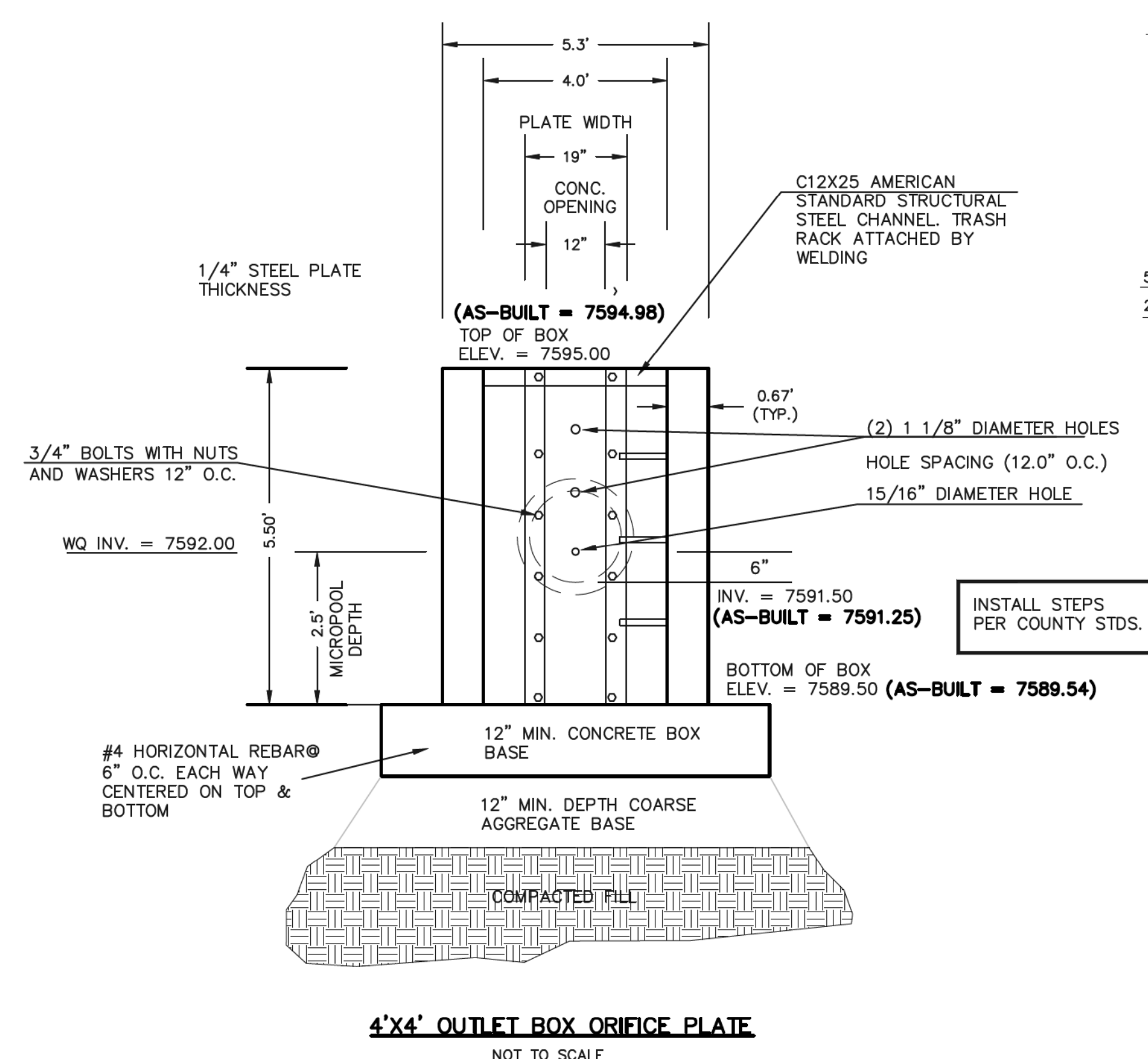
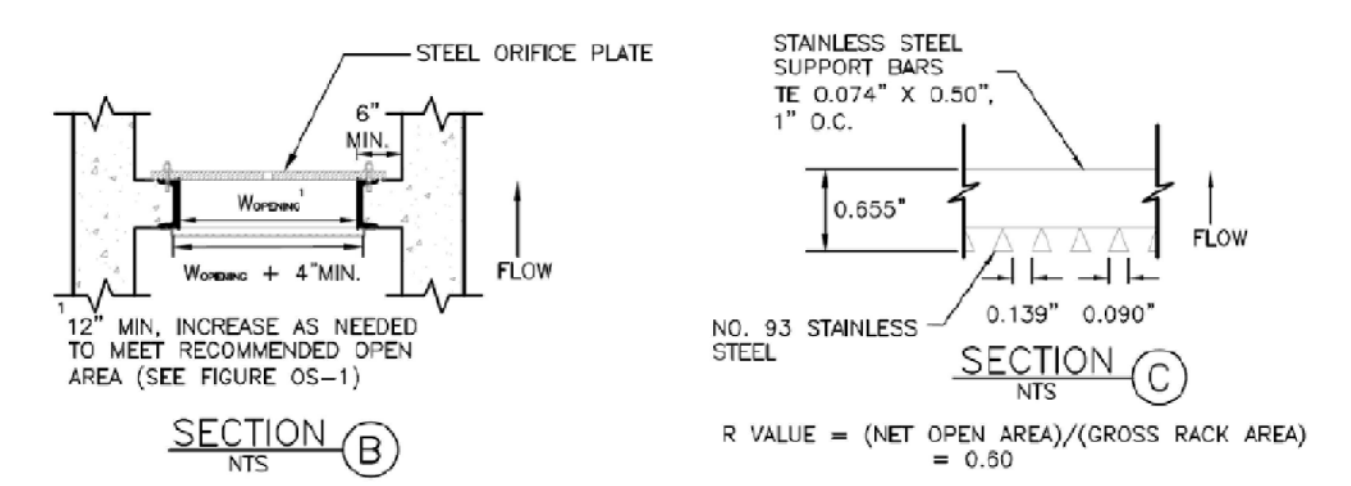
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