

Project Narrative/Notes/Revisions

- 1) 04/13/18 RH - COMPLETED DESIGN FOR FIRST SUBMITTAL TO MAVERIK, INC.
- 2) 04/19/18 RH - REVISED PLAN SET TO INCLUDE SIDEWALK IN UDOT R.O.W.
- 3) 06/13/18 RH - REVISED PLAN SET PER COUNTY/MAVERIK.
- 4) 07/25/18 JM - NEW LAYOUT PER MAVERIK/COUNTY.

MAVERIK, INC.

5100 EAST & 2500 NORTH

Site Plans

EDEN, WEBER COUNTY, UTAH
APRIL 2018



Vicinity Map
NOT TO SCALE

PROJECT NUMBER

ISSUE DATE:

APR. 13, 2018

REVISIONS:

No.	Date	Description

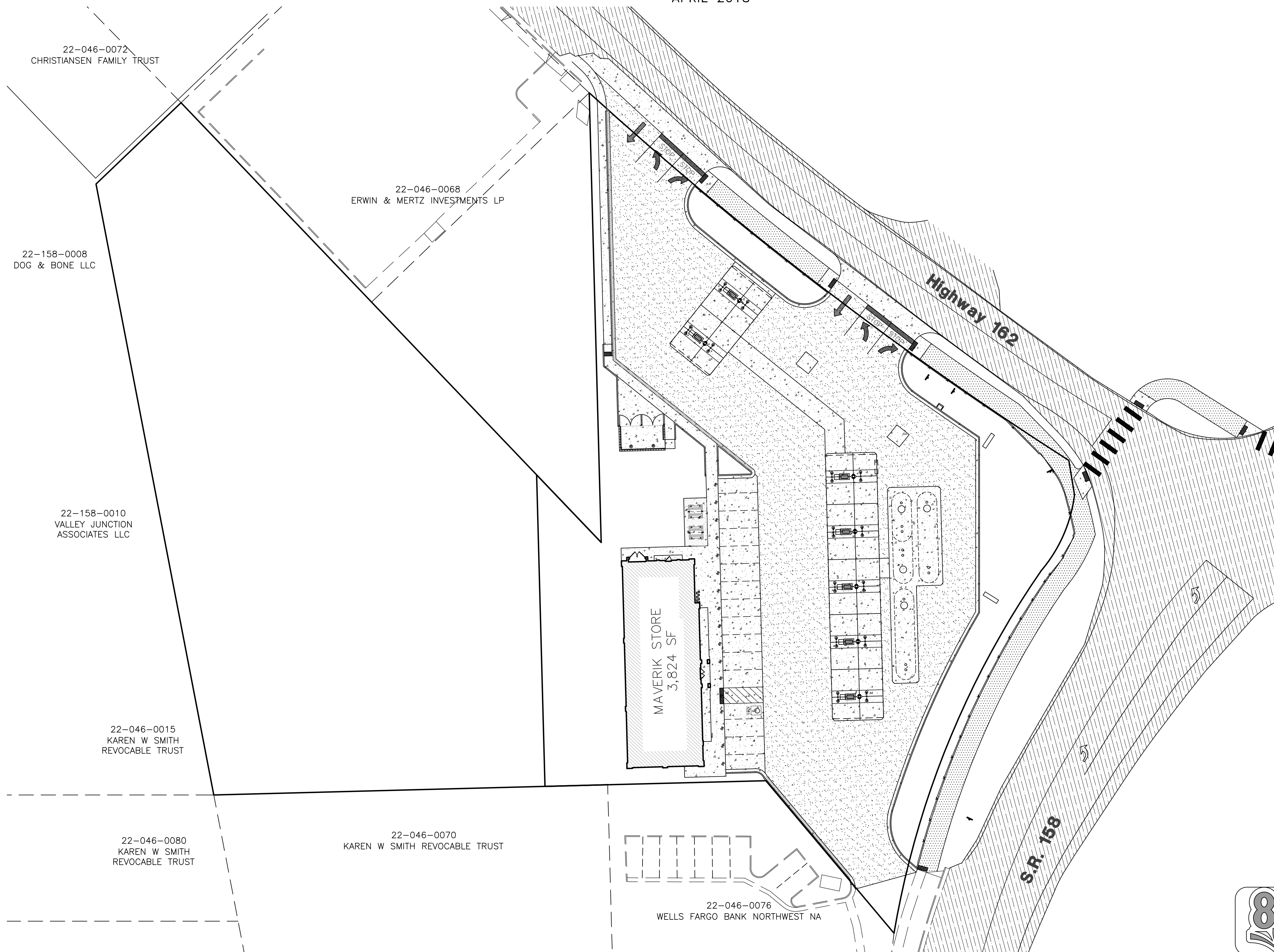
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ADVENTURE'S FIRST STOP



MAVERIK, INC. STORE #250
5100 EAST & 2500 NORTH
EDEN, UTAH



Sheet Index

- Sheet C1 - Cover/Index Sheet
- Sheet C2 - Notes & Legend Sheet
- Sheet C3 - Parcel Map
- Sheet C4 - Existing Site Plan
- Sheet C5 - Demolition Plan
- Sheet C6 - Proposed Site Plan
- Sheet C7 - Grading Plan
- Sheet C8 - Utility Plan
- Sheet C8.1 - Utility Plan - Septic Design
- Sheet C9 - Civil Details
- Sheet C9.1 - Civil Details
- Sheet C9.2 - Civil Details
- Sheet C10 - Drainage Details
- Sheet C10.1 - Drainage Details
- Sheet C11 - Underground Storage Tank Details
- Sheet C12 - Storm Water Pollution Prevention Plan
- Sheet C13 - Storm Water Pollution Prevention Plan Details
- Sheet L1 - Landscape Plan
- Sheet L2 - Landscape Details
- Sheet L3 - Irrigation Plan
- Sheet L4 - Irrigation Details

Site Information

APN# 22-046-0085
5100 EAST 2500 NORTH
EDEN, WEBER COUNTY, UTAH

PROPERTY ZONE.....CV-2, AV-3

PARKING STALLS REQUIRED.....
PARKING STALLS PROVIDED.....15 + 1 A.D.A.

BICYCLE STALLS PROVIDED.....3

TOTAL PARCEL AREA.....114,143 s.f.
DRAINFIELD AREA.....51,595 s.f.
MAVERIK PARCEL AREA.....62,548 s.f.
BUILDING AREA.....3,824 s.f. 6.1%
HARD SURFACED AREA.....45,685 s.f. 73.1%
LANDSCAPE AREA.....13,039 s.f. 20.8%



Engineer's Notice To Contractors

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM AVAILABLE INFORMATION PROVIDED BY OTHERS. THE LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR, SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE IN ALIGNMENT AND/OR GRADE OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR IS REQUIRED TO CONTACT THE UTILITY COMPANIES AND TAKE DUE PRECAUTIONARY MEASURE TO PROTECT ANY UTILITY LINES SHOWN, AND ANY OTHER LINES OBTAINED BY THE CONTRACTOR'S RESEARCH, AND OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

Elevation Datum

SITE BENCHMARK #1:
BRASS CAP MONUMENT
NORTHING = 22717.10
EASTING = 15343.94
ELEVATION = 4978.61'

Elevation Datum

SITE BENCHMARK #2:
BRASS CAP MONUMENT
NORTHING = 22736.34
EASTING = 12676.29
ELEVATION = 4963.72'

Developer Contact:

Troy Jorgensen - Maverik, Inc
185 South State, Suite 800
Salt Lake City, Ut. 84111
PH: (801) 936-5557

Project Contact:

Project Manager: Nate Reeve
Project Engineer: Thomas Hunt



5160 SOUTH 1500 WEST
RIVERDALE, UTAH 84405
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FAX: (801) 621-2666
www.reeve-assoc.com

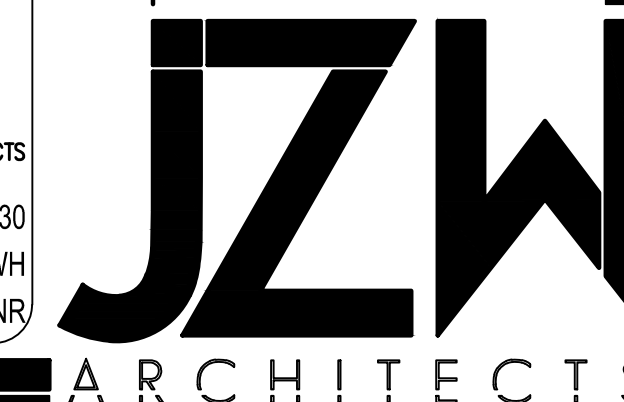
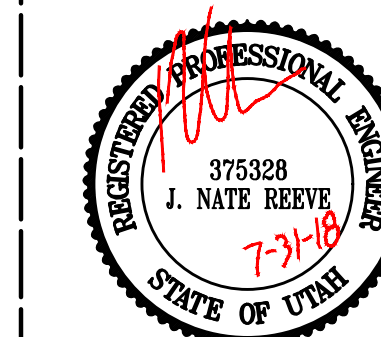
LAND PLANNERS • CIVIL ENGINEERS
LAND SURVEYORS • TRAFFIC ENGINEERS
STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

PROJECT NUMBER: 5799-230
DRAWN BY: RWH
ENGINEER: JNR

SHEET TITLE

COVER/INDEX SHEET

C1



No.	Date	Description

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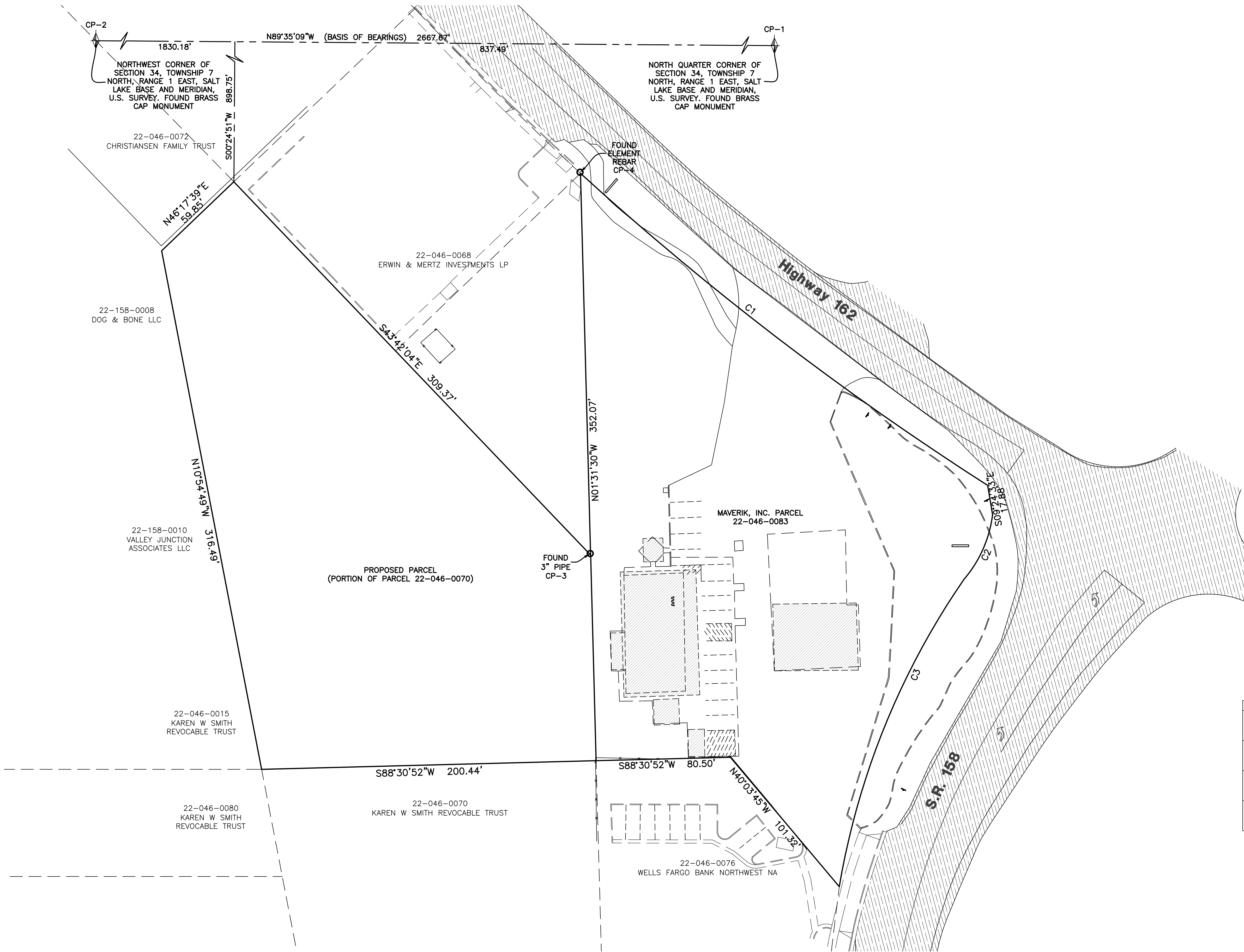
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MAVERIK, INC. STORE #250
 5100 EAST & 2500 NORTH
 EDEN, UTAH

SHEET TITLE
PARCEL MAP

C3

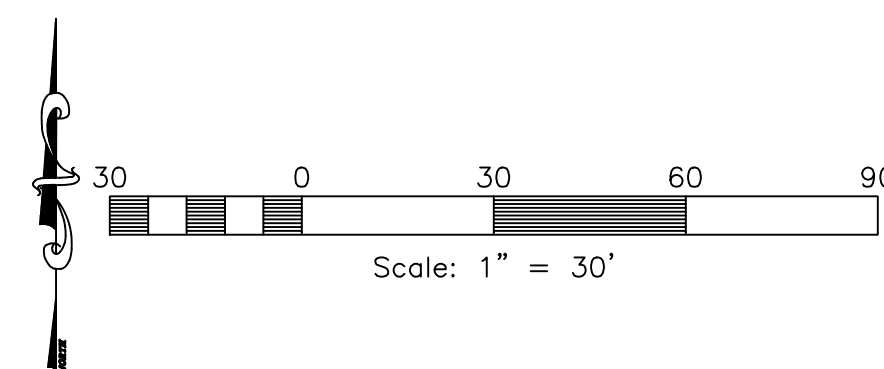


Site Control

POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP-1	BRASS CAP	22717.10	15343.94	4978.61'
CP-2	BRASS CAP	22736.34	12676.29	4963.72'
CP-3	REBAR	21601.56	14713.43	4969.99'
CP-4	3" PIPE	21830.10	14707.32	4970.01'

Curve Table

#	RADIUS	ARC LENGTH	CHD LENGTH	TANGENT	CHD BEARING	DELTA
C1	1823.73'	307.73'	307.37'	154.23'	S52°32'05"E	9°40'05"
C2	73.40'	43.07'	42.46'	22.18'	S23°56'07"W	33°37'16"
C3	459.26'	200.12'	198.54'	101.68'	S22°04'22"W	24°58'00"



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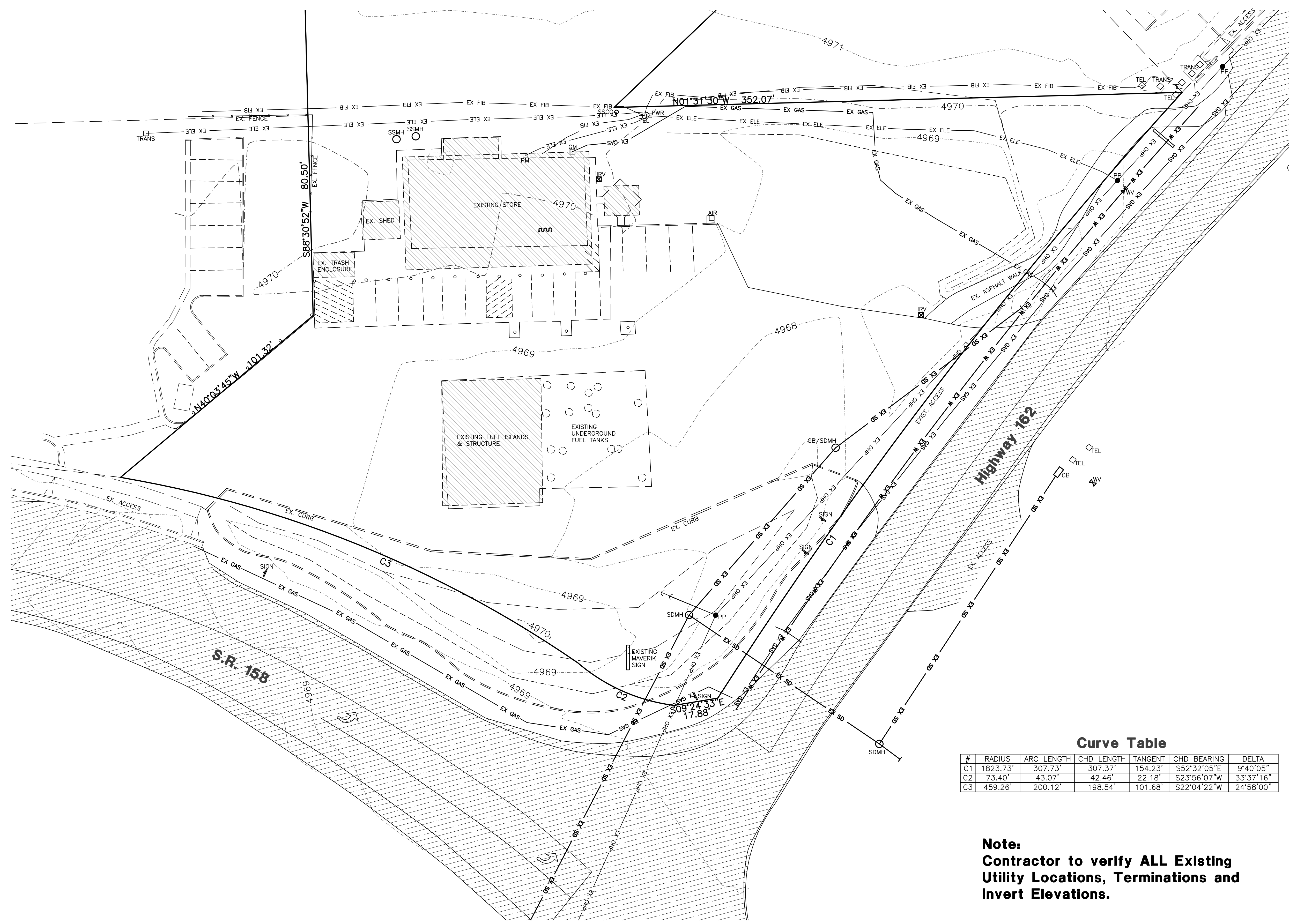
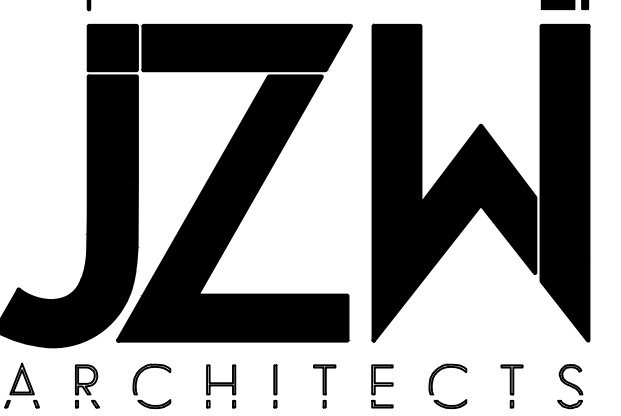
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MAVERIK, INC. STORE #250
5100 EAST & 2500 NORTH
EDEN, UTAH

SHEET TITLE
EXISTING
SITE PLAN

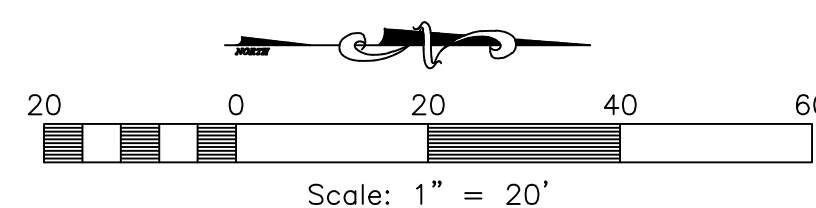
C4



Curve Table

#	RADIUS	ARC LENGTH	CHD LENGTH	TANGENT	CHD BEARING	DELTA
C1	1823.73'	307.73'	307.37'	154.23'	S52°32'05\"E	9°40'05\"
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Note:
Contractor to verify ALL Existing
Utility Locations, Terminations and
Invert Elevations.

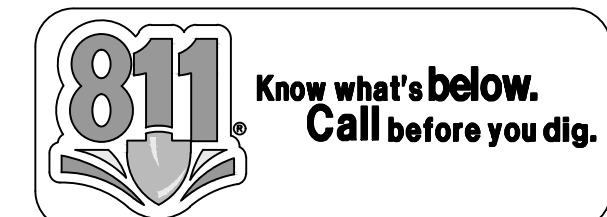


Elevation Datum

SITE BENCHMARK #1:
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ELEVATION = 4978.61'

Elevation Datum

SITE BENCHMARK #2:
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LAND SURVEYORS • TRAFFIC ENGINEERS
STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

PROJECT NUMBER: 5799-230
DRAWN BY: RWH
ENGINEER: JNR

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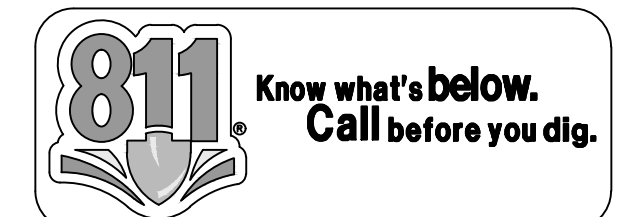
MAVERIK, INC. STORE #250

5100 EAST & 2500 NORTH EDEN, UTAH

DEMOLITION PLAN

C5

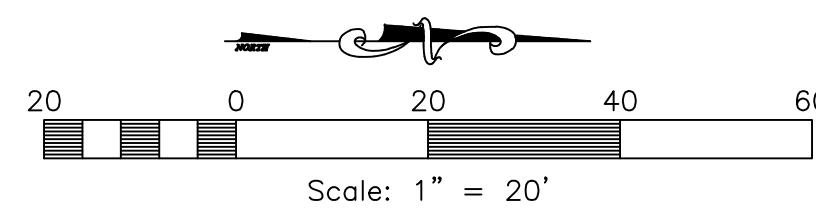
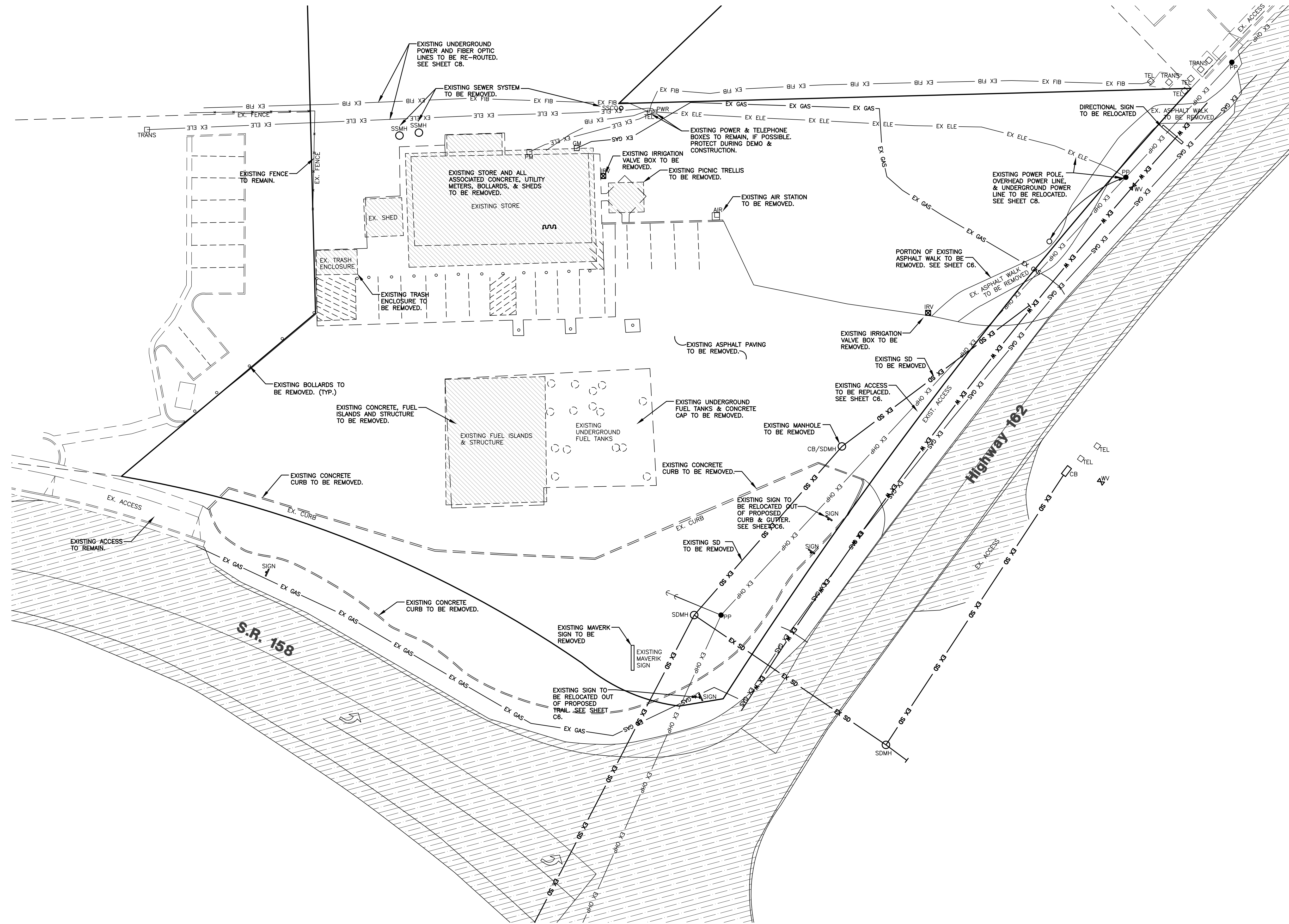
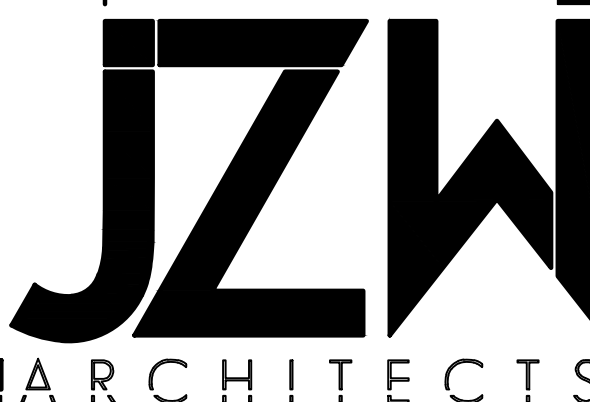
SHEET TITLE



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PROJECT NUMBER: 5799-230 DRAWN BY: RWH ENGINEER: JNR



Note: Contractor to verify ALL Existing Utility Locations, Terminations and Invert Elevations.

Elevation Datum SITE BENCHMARK #1: BRASS CAP MONUMENT NORTHING = 22717.10 EASTING = 15343.94 ELEVATION = 4978.61'

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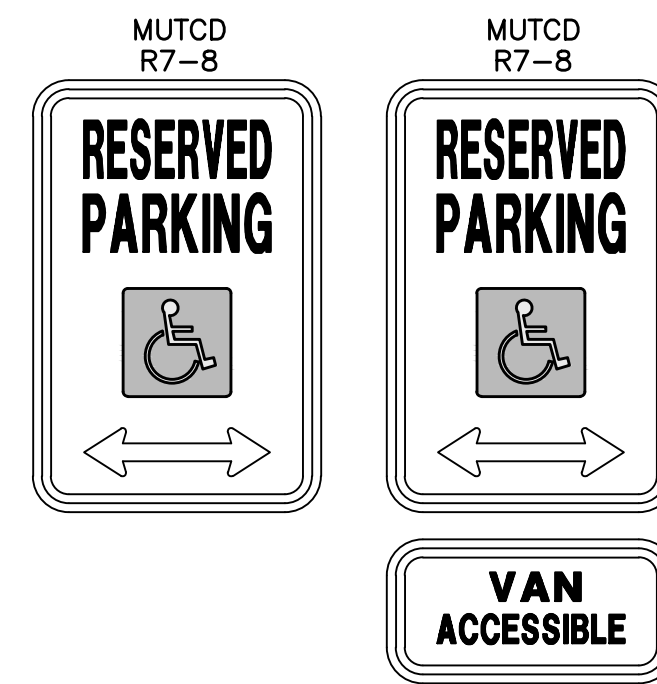
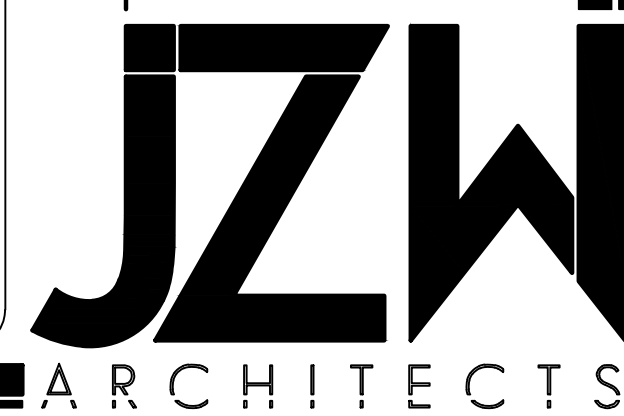
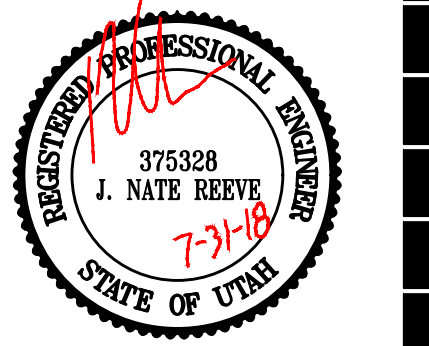
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MAVERIK, INC. STORE #250
5100 EAST & 2500 NORTH
EDEN, UTAH

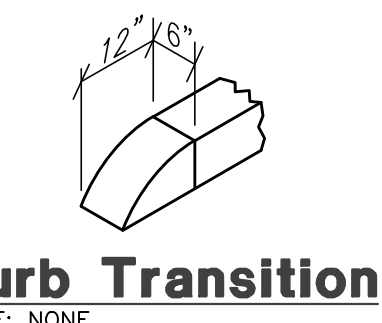
PROPOSED
SITE PLAN

C6

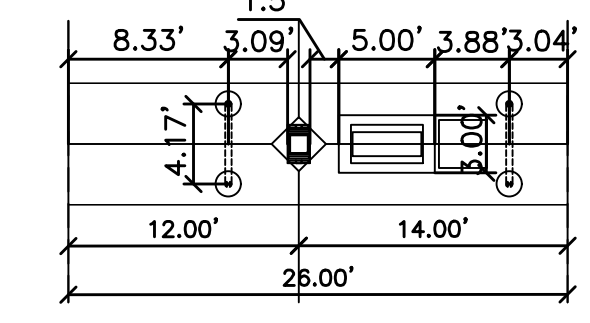


- NOTES: 1) WHERE PARKING SPACES THAT ARE RESERVED FOR PERSONS WITH DISABILITIES ARE DESIGNATED TO ACCOMMODATE WHEELCHAIR VANS, A "VAN ACCESSIBLE" (R7-8P) PLAQUE SHALL BE MOUNTED BELOW THE R7-8 SIGN. 2) SIGNS SHALL BE MOUNTED A MINIMUM OF 60" FROM BOTTOM OF SIGN TO TOP OF SIDEWALK. 3) SIGNS TO MEET ALL STATE AND LOCAL REGULATIONS.

ADA Parking Signage



Curb Transition
SCALE: NONE



Fuel Island Layout
SCALE: 1"=10'

- Legend: - EXISTING ASPHALT PAVEMENT, - EXISTING CONCRETE PAVEMENT, - PROPOSED ASPHALT PAVEMENT, - PROPOSED CONCRETE, - PROPOSED CONCRETE PAVING OR ALTERNATE BID PAVING, - A.D.A. ROUTE - NOT TO EXCEED A RUNNING SLOPE GREATER THAN 5.0% OR CROSS SLOPE GREATER THAN 15%, - A.D.A. PARKING AREAS - NOT TO EXCEED A SLOPE GREATER THAN 15% IN ANY DIRECTION, - OUTFLOW CURB (SEE GRADING PLAN)

- NOTES: 1. SEE ELECTRICAL PLANS FOR ALL LIGHT POLES & LIGHT POLE LOCATIONS. ALL LIGHT POLE BASES SHALL BE STRAIGHT AND PLASTERED SMOOTH. TOP OF LIGHT BASE SHALL BE 2'-6" ABOVE TOP OF CURB/SIDEWALK. BASES PROVIDED BY G.C., TYP. 2. XACTAIR STATION ON 30"x36" CONCRETE PAD. EQUIPMENT PROVIDED BY OWNER. G.C. TO PROVIDE ELECTRICAL SERVICE AND INSTALL AIR STATION EQUIPMENT. 3. ALL UTILITY DIGGING OR OTHER EXCAVATION SHALL TAKE IN CONSIDERATION EXISTING SIDEWALKS, CURB & GUTTERS, AND OTHER STRUCTURES THAT MAY NEED TO BE REMOVED AND/OR REPLACED AS PART OF THE G.C. BID. 4. ALL PARKING STALLS TO BE PAINTED WITH 4" YELLOW PAINT STRIPING.

Site Information
APN# 22-046-0085
5100 EAST 2500 NORTH
EDEN, WEBER COUNTY, UTAH
PROPERTY ZONE: CV-2, AV-3
PARKING STALLS REQUIRED:
PARKING STALLS PROVIDED:15 + 1 A.D.A.
BICYCLE STALLS PROVIDED:3
TOTAL PARCEL AREA:114,143 s.f.
DRAINFIELD AREA:51,595 s.f.
MAVERIK PARCEL AREA:62,548 s.f.
BUILDING AREA:3,824 s.f. 6.1%
HARD SURFACED AREA:45,685 s.f. 73.1%
LANDSCAPE AREA:13,039 s.f. 20.8%

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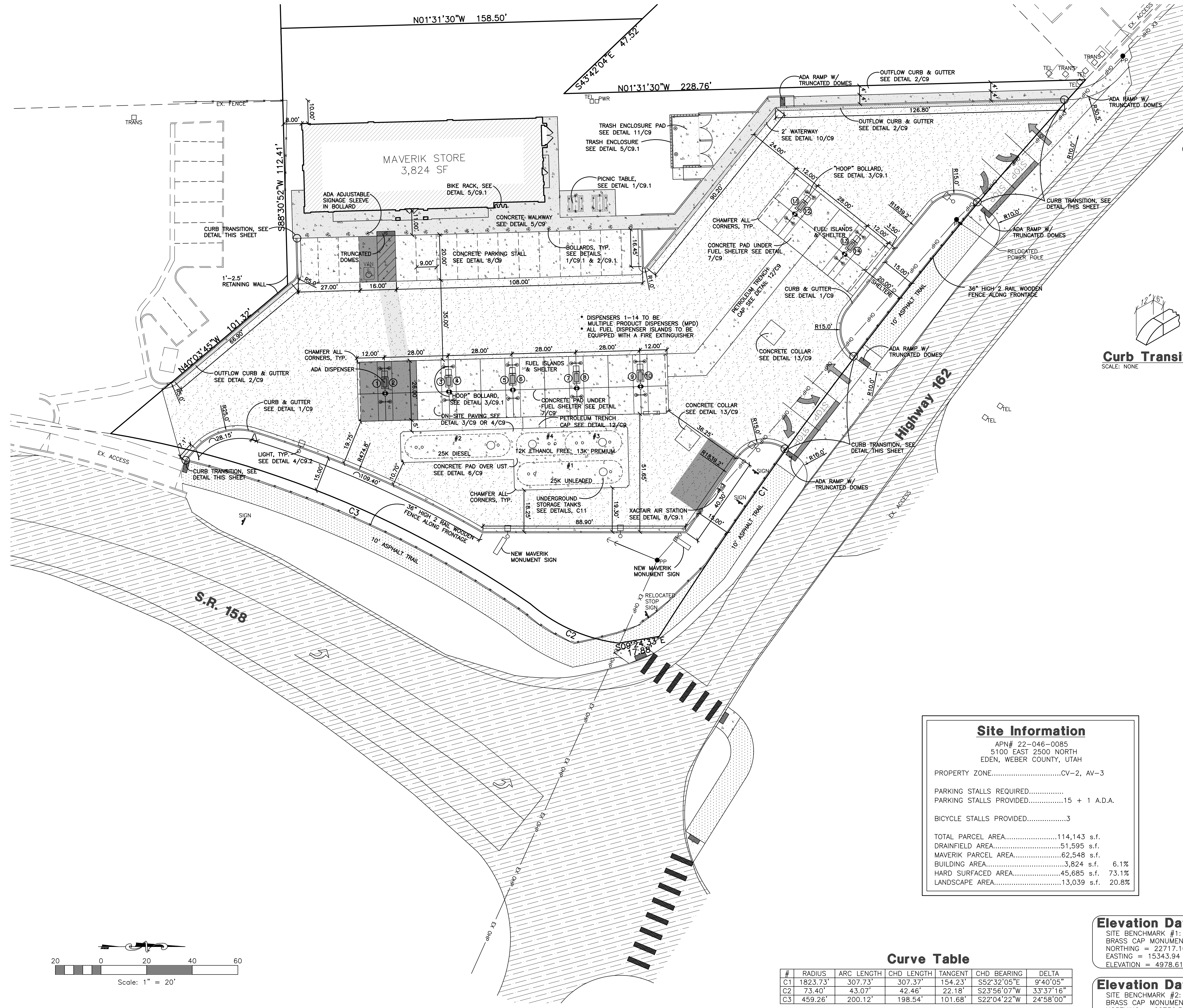
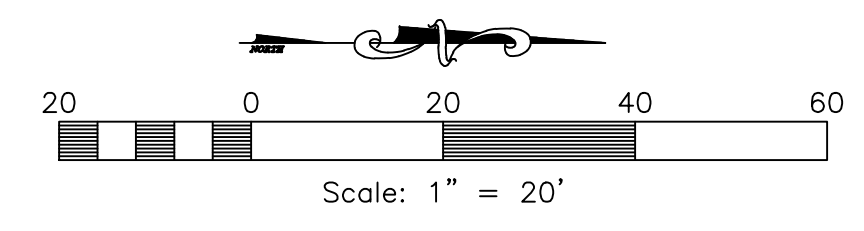
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NORTHING = 22736.34
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PROJECT NUMBER: 5799-230
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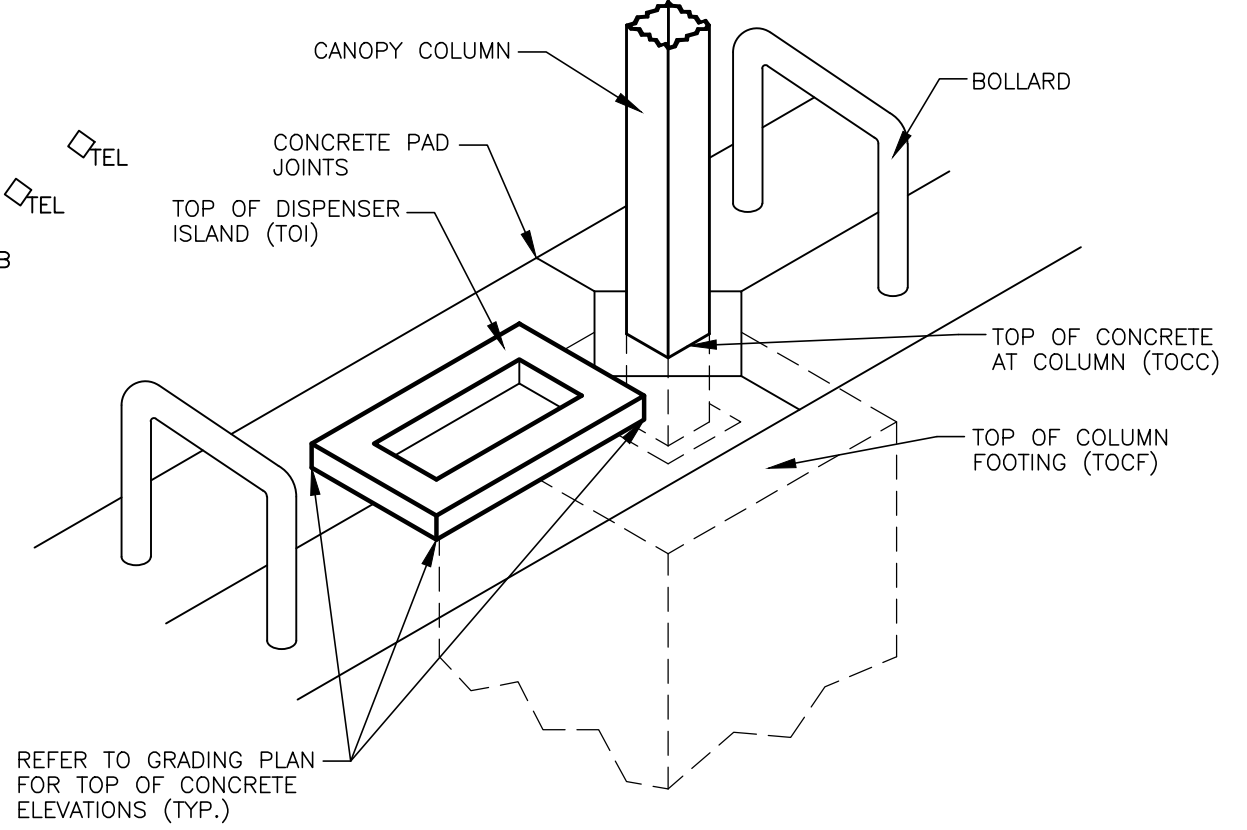
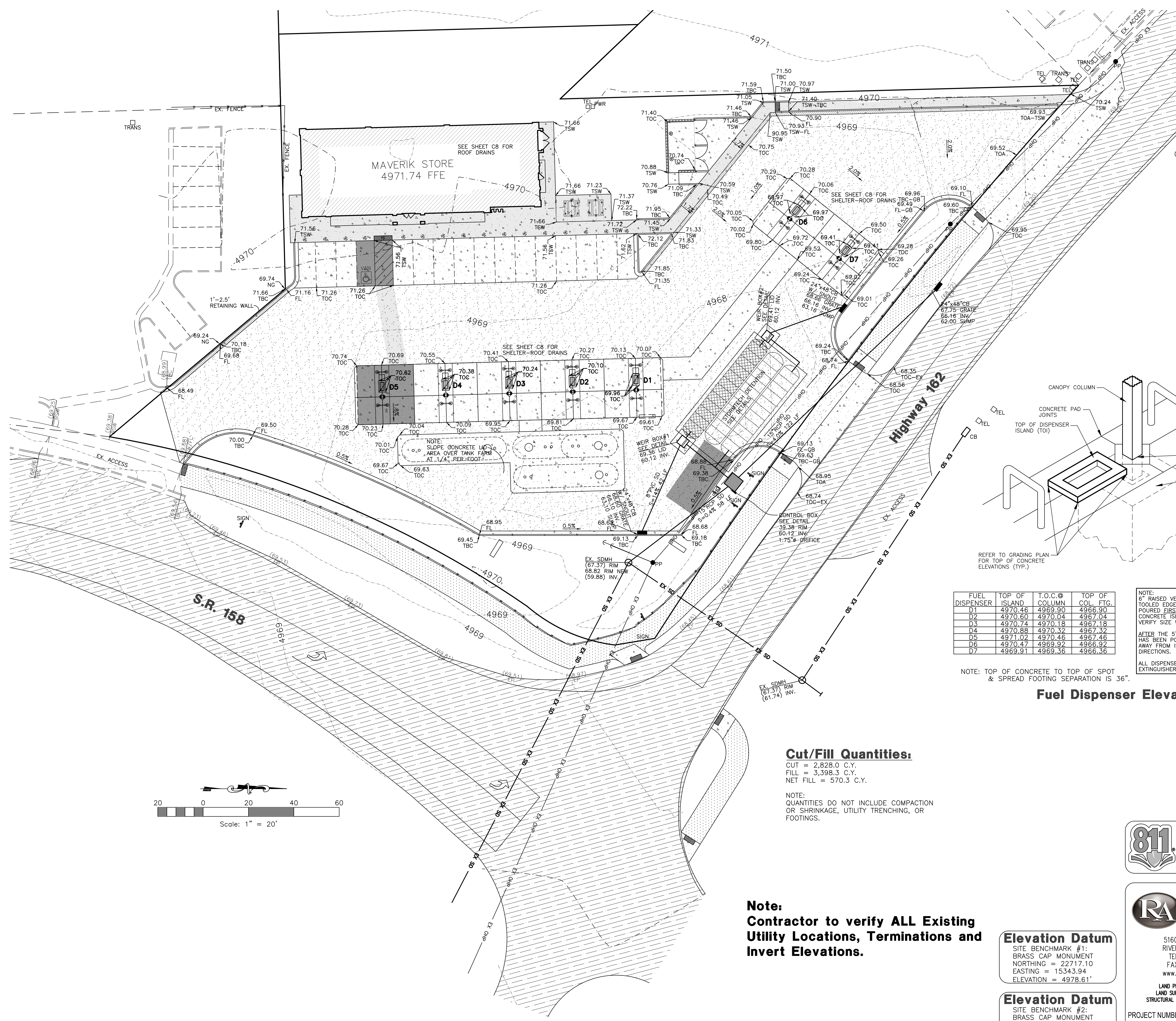


MAVERIK, INC. STORE #250
5100 EAST & 2500 NORTH
EDEN, UTAH

GRADING
PLAN

C7

SHEET TITLE



FUEL DISPENSER	TOP OF ISLAND	T.O.C. @ COLUMN	TOP OF COL. FTG.
D1	4970.46	4969.90	4966.90
D2	4970.60	4970.04	4967.04
D3	4970.74	4970.18	4967.18
D4	4970.88	4970.32	4967.32
D5	4971.02	4970.46	4967.46
D6	4970.47	4969.92	4966.92
D7	4969.91	4969.36	4966.36

NOTE: 6" RAISED VERTICAL CONCRETE ISLAND WITH TOOLED EDGES AND CORNERS TO BE POURED FIRST 5'-0" x 3'-0" CONCRETE ISLAND (NO METAL FORM - VERIFY SIZE WITH DISPENSER MANUF.) AFTER THE 5'-0" x 3'-0" FUEL ISLAND HAS BEEN POURED, SLOPE CONCRETE AWAY FROM ISLAND IN ALL (4) DIRECTIONS.

NOTE: TOP OF CONCRETE TO TOP OF SPOT & SPREAD FOOTING SEPARATION IS 36".

Fuel Dispenser Elevations

Cut/Fill Quantities:

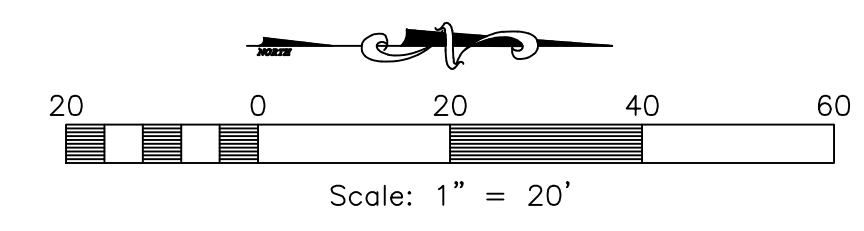
CUT = 2,828.0 C.Y.
FILL = 3,398.3 C.Y.
NET FILL = 570.3 C.Y.

NOTE: QUANTITIES DO NOT INCLUDE COMPACTION OR SHRINKAGE, UTILITY TRENCHING, OR FOOTINGS.

Note: Contractor to verify ALL Existing Utility Locations, Terminations and Invert Elevations.

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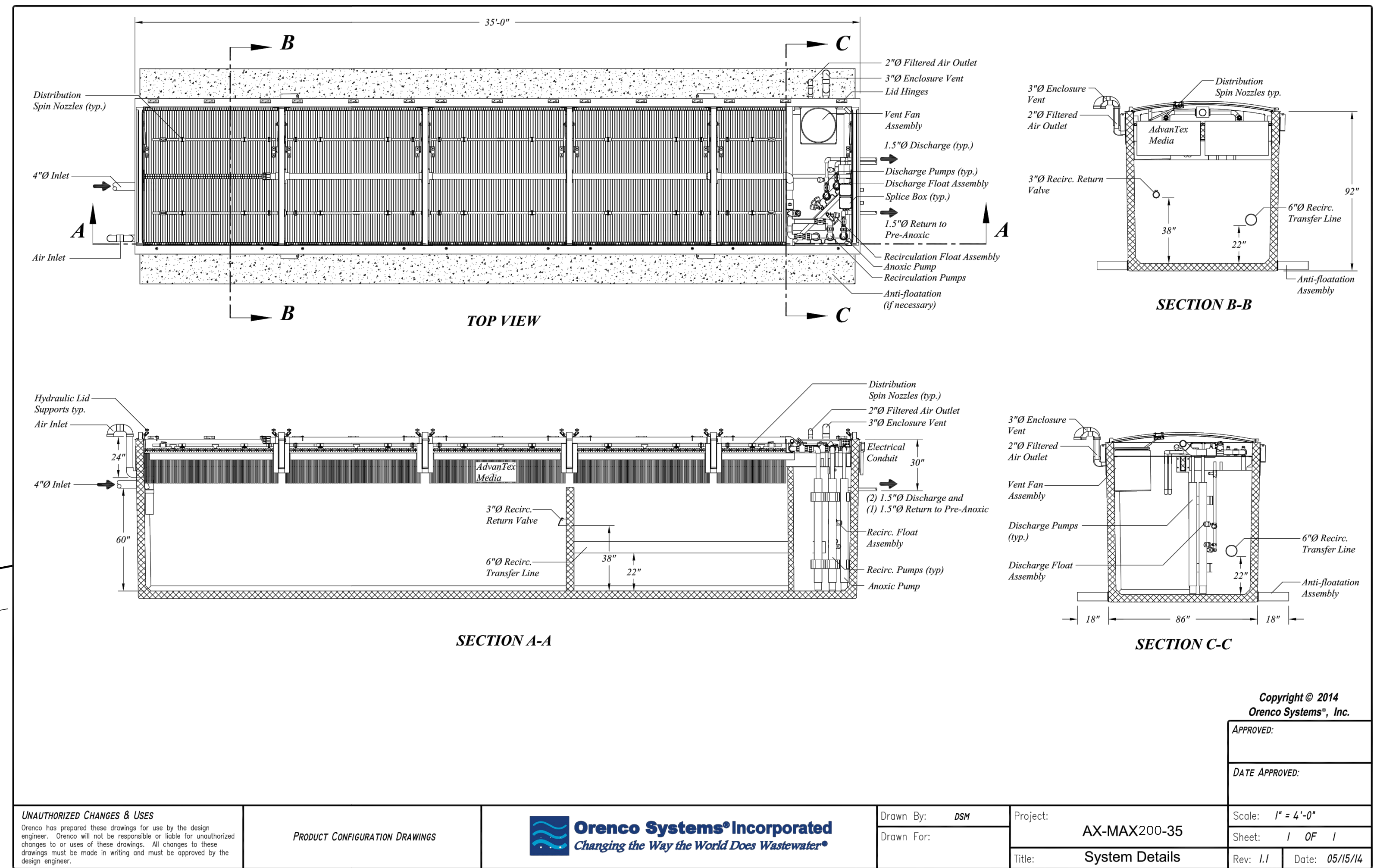
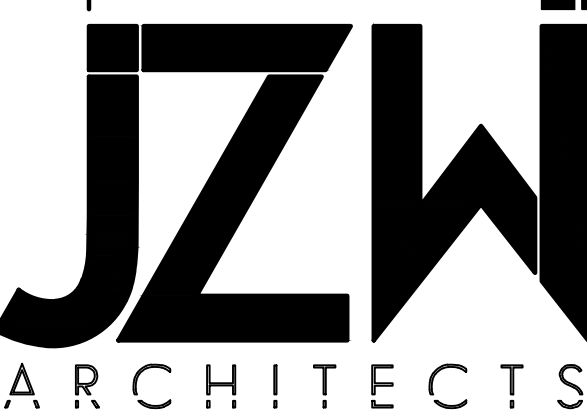
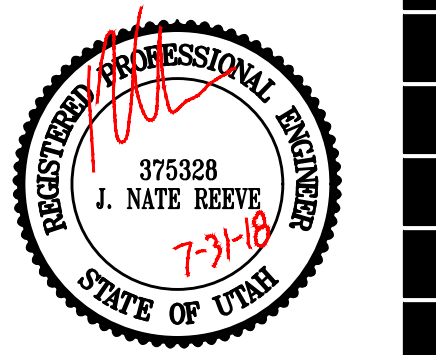
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EDEN, UTAH

SHEET TITLE
UTILITY PLAN
SEPTIC DESIGN

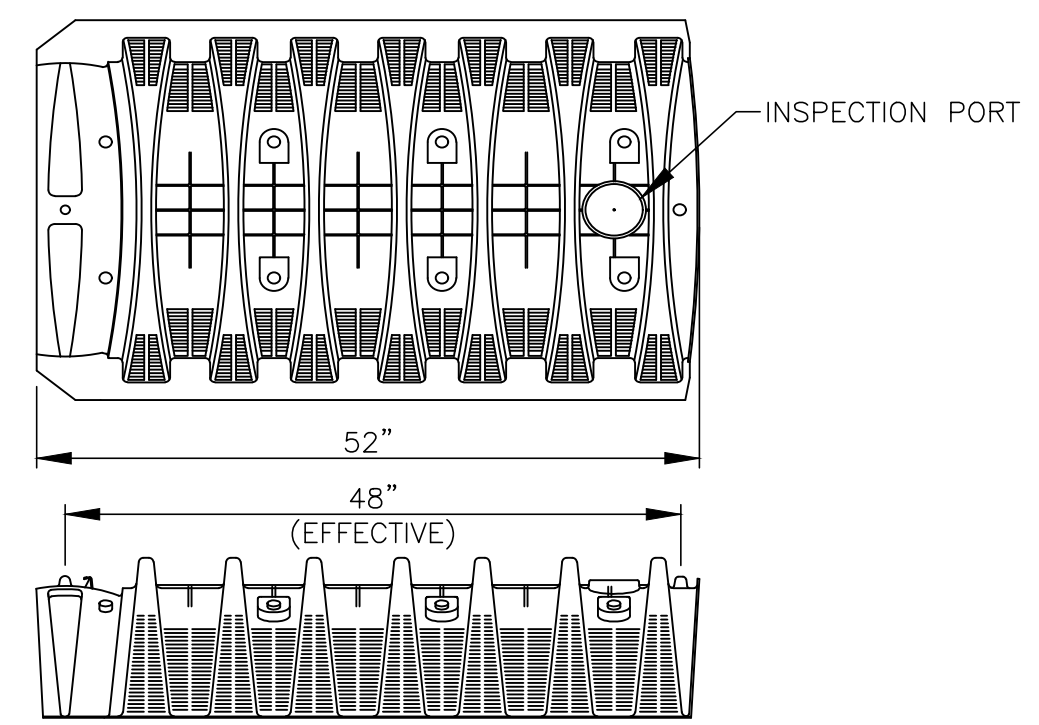
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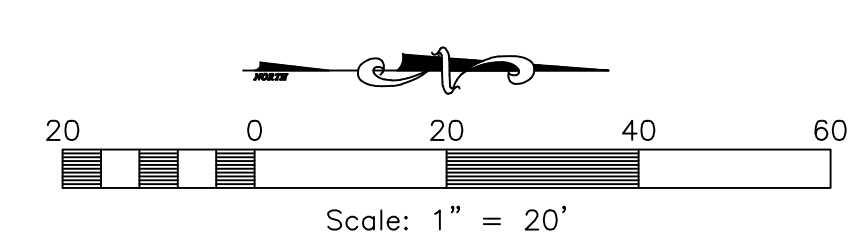
APPROVED:	Scale: 1" = 4'-0"
DATE APPROVED:	Sheet: 1 OF 1
Rev. 1.1	Date: 05/15/14

UNAUTHORIZED CHANGES & USES Orenco has prepared these drawings for use by the design engineer. Orenco will not be responsible or liable for unauthorized changes to or use of these drawings. All changes to these drawings must be made in writing and must be approved by the design engineer.	PRODUCT CONFIGURATION DRAWINGS	Orenco Systems® Incorporated Changing the Way the World Does Wastewater®	Drawn By: DSH Drawn For:	Project: AX-MAX200-35 Title: System Details
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------	-----------------------------------------------------------------------------	-----------------------------	------------------------------------------------



Infiltrator Systems Inc.
Quick4 Standard Chamber
 SCALE: NONE

Note:
Contractor to verify ALL Existing Utility Locations, Terminations and Invert Elevations.



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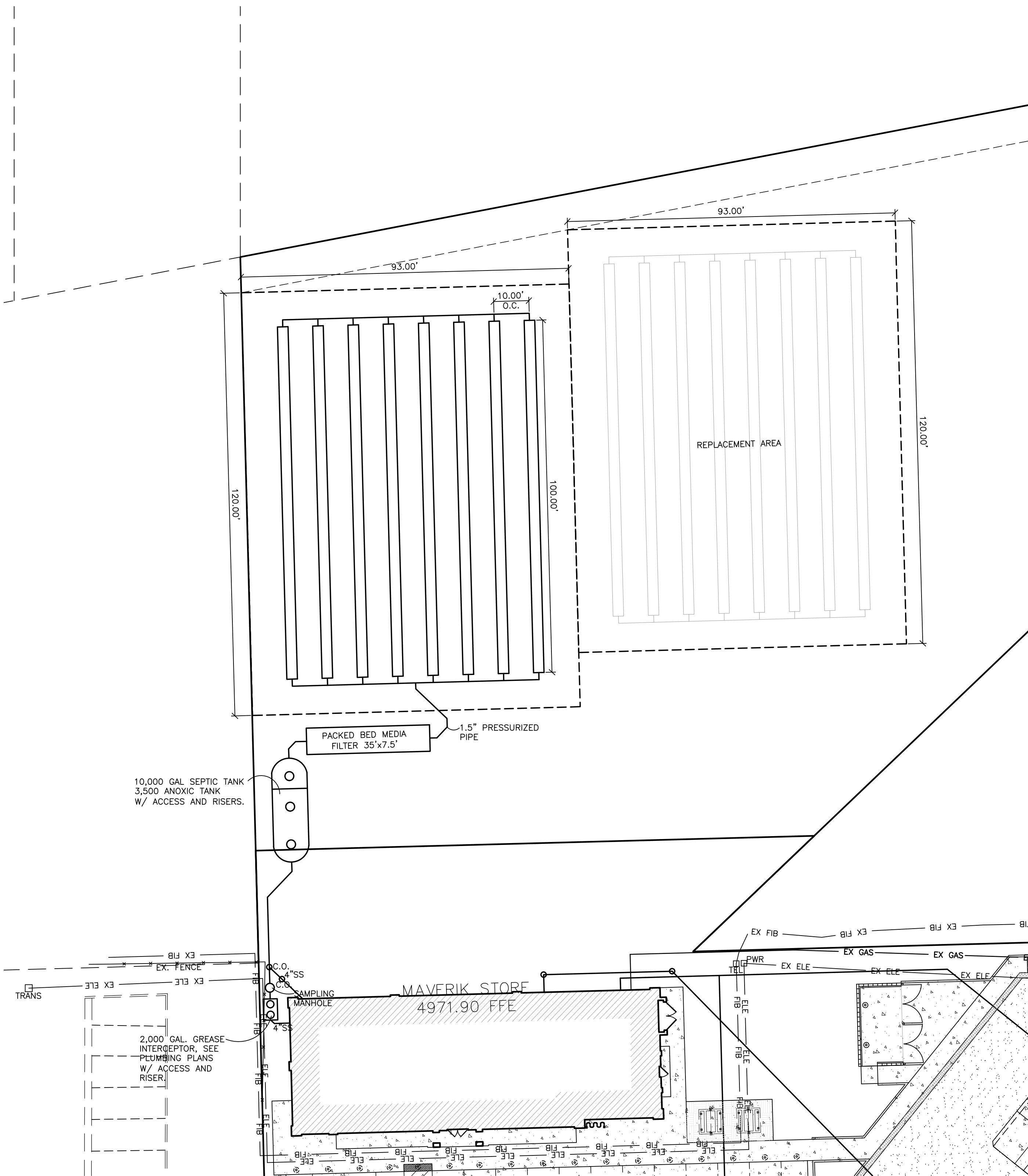
PROJECT NUMBER: 5799-230
 DRAWN BY: RWH
 ENGINEER: JNR

PACKED BED MEDIA FILTER
 Packed Bed Media Filter
 Flow 1,700 GPD

Absorption Field Trench
 Seepage (t) = 45 min/inch
 Hydraulic Loading Rate GPD/SF 0.50
 Lateral Length (AVG.) 100 FT
 Spacing between laterals 7 FT

Field Area
 1700 GPD ÷ 0.50 GPD/SF 3400 SF
 30% Reduction 2380 SF
 3400 SF x 0.70 = 2380 SF
 2380 SF / 3' (Trench width) 794 LF
 8 Trenches x 100 LF = 800 LF → OK

Septic Tank
 Grease Interceptor 2,000 Gallon
 Septic Tank 10,000 Gallon
 Anoxic Tank 3,500 Gallon



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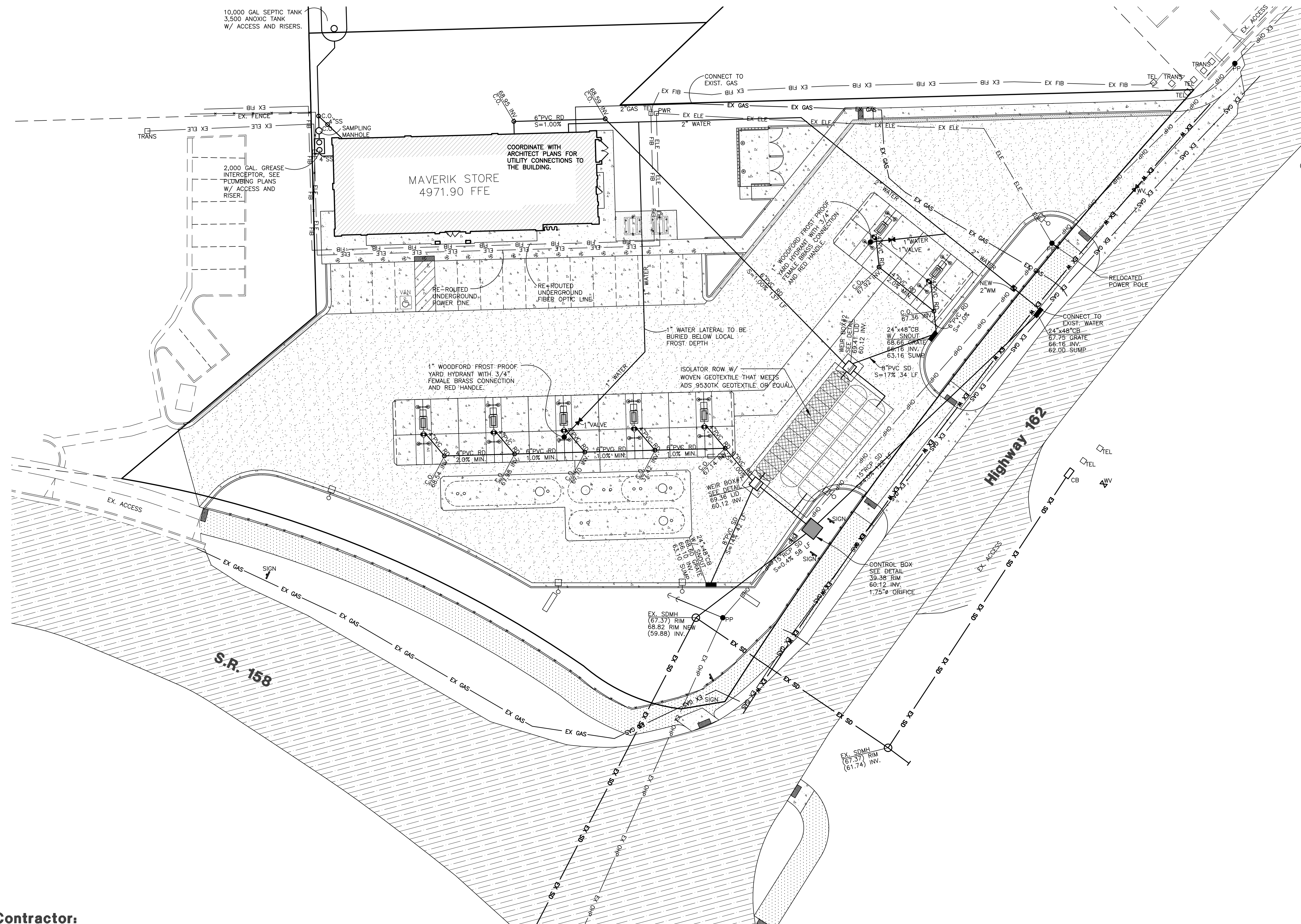
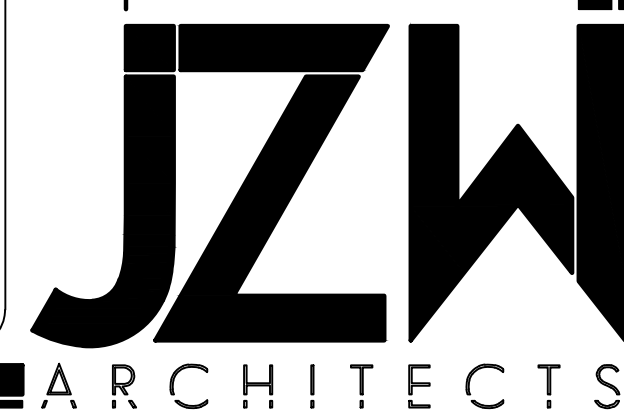
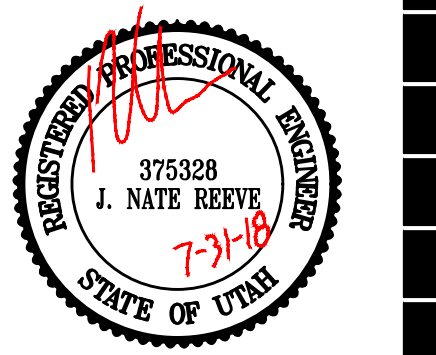
MAVERIK, INC. STORE #250

5100 EAST & 2500 NORTH EDEN, UTAH

SHEET TITLE

UTILITY PLAN

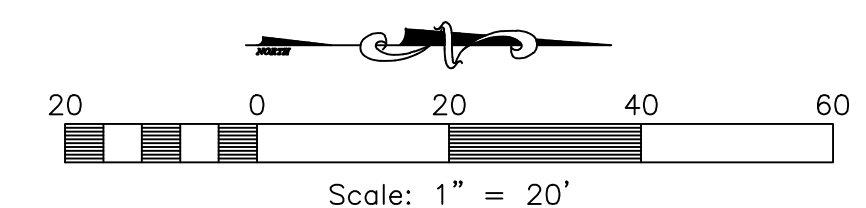
C8



Notice to Contractor:

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON RECORDS OF THE VARIOUS UTILITY COMPANIES AND/OR MUNICIPALITIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.

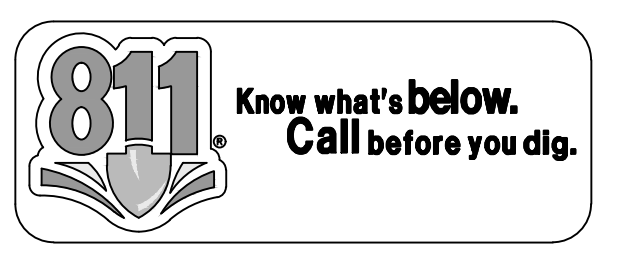
THE CONTRACTOR AGREES THAT THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND THE ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.



Note: Contractor to verify ALL Existing Utility Locations, Terminations and Invert Elevations.

Elevation Datum SITE BENCHMARK #1: BRASS CAP MONUMENT NORTHING = 22717.10 EASTING = 15343.94 ELEVATION = 4978.61'

Elevation Datum SITE BENCHMARK #2: BRASS CAP MONUMENT NORTHING = 22736.34 EASTING = 12676.29 ELEVATION = 4963.7'



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LAND PLANNERS • CIVIL ENGINEERS LAND SURVEYORS • TRAFFIC ENGINEERS STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS PROJECT NUMBER: 5799-230 DRAWN BY: RWH ENGINEER: JNR

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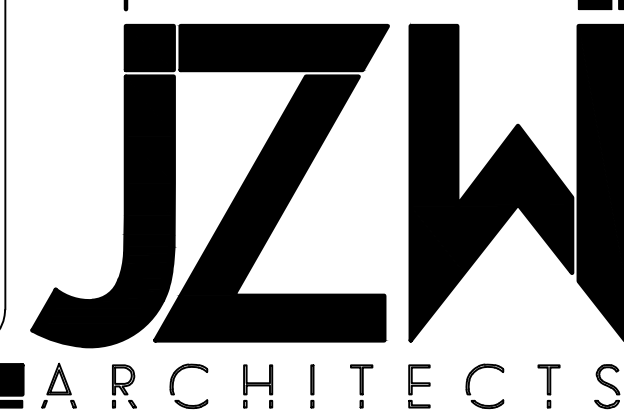
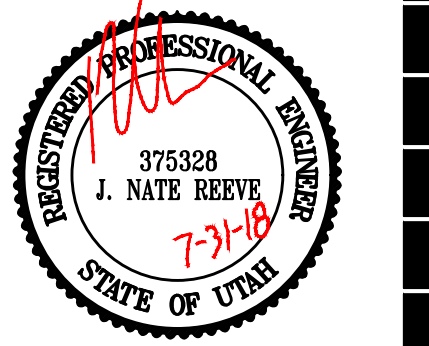
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EDEN, UTAH

SHEET TITLE
CIVIL DETAILS

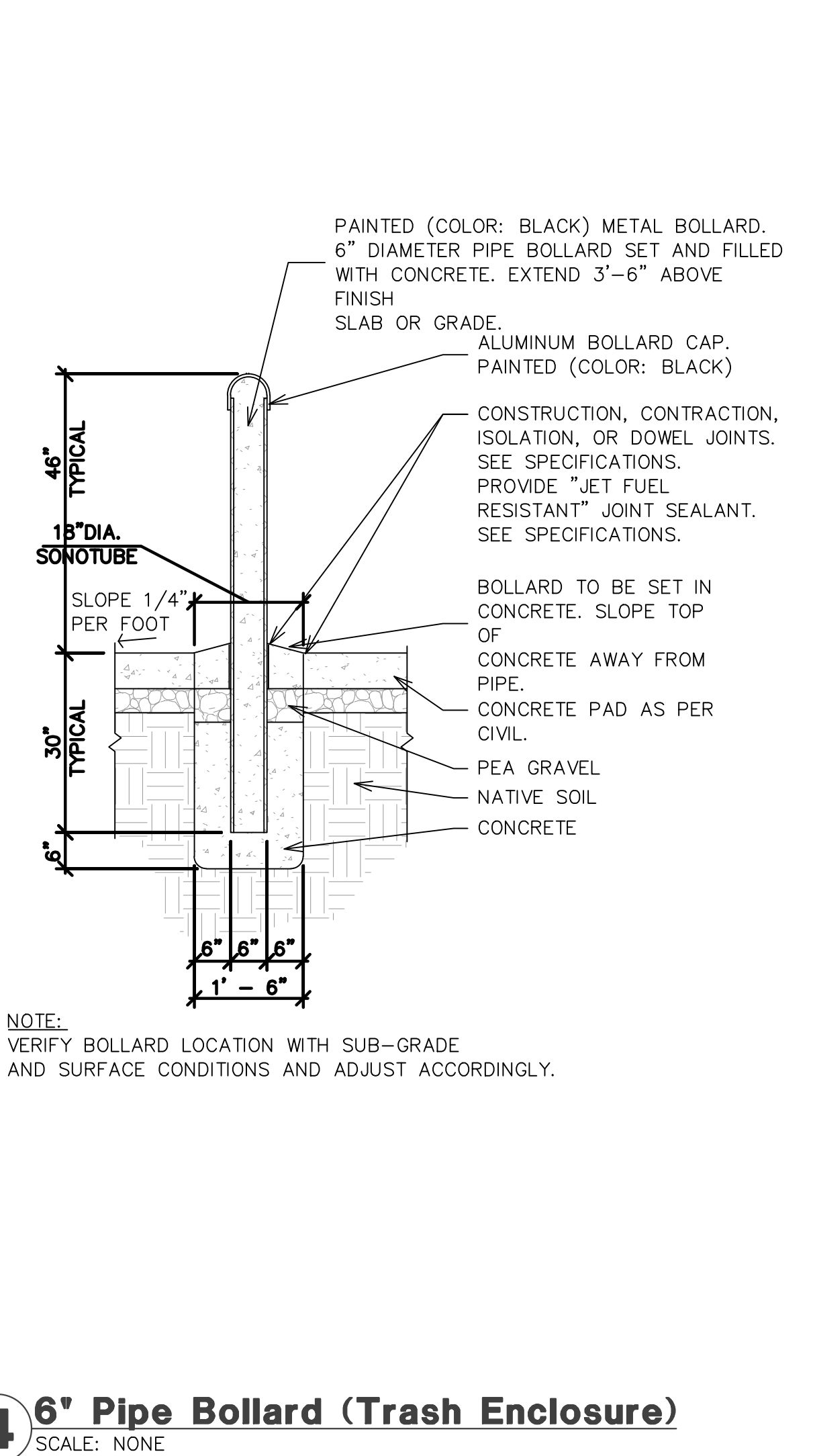
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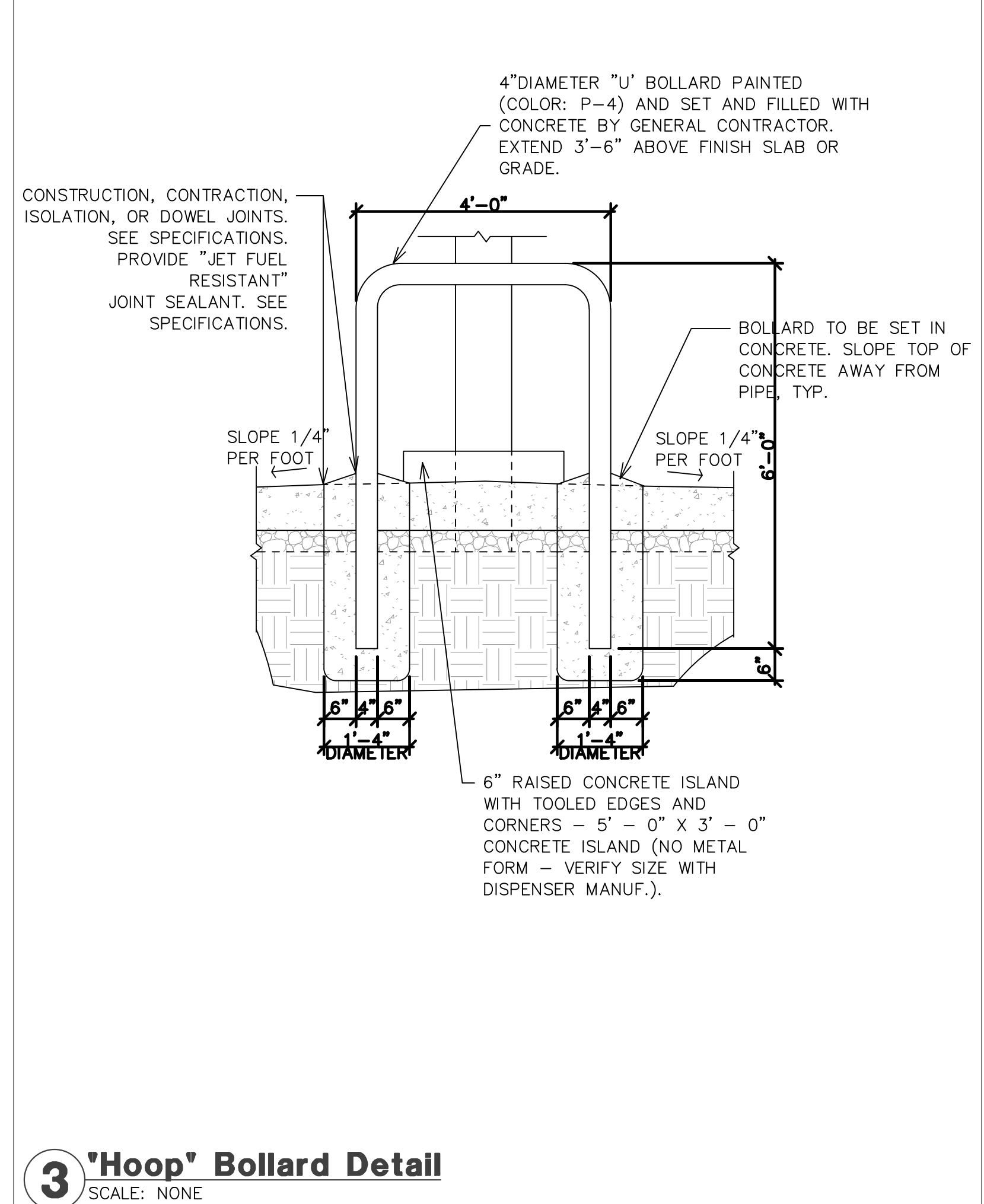
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PROJECT NUMBER: 5799-230
DRAWN BY: RWH
ENGINEER: JNR



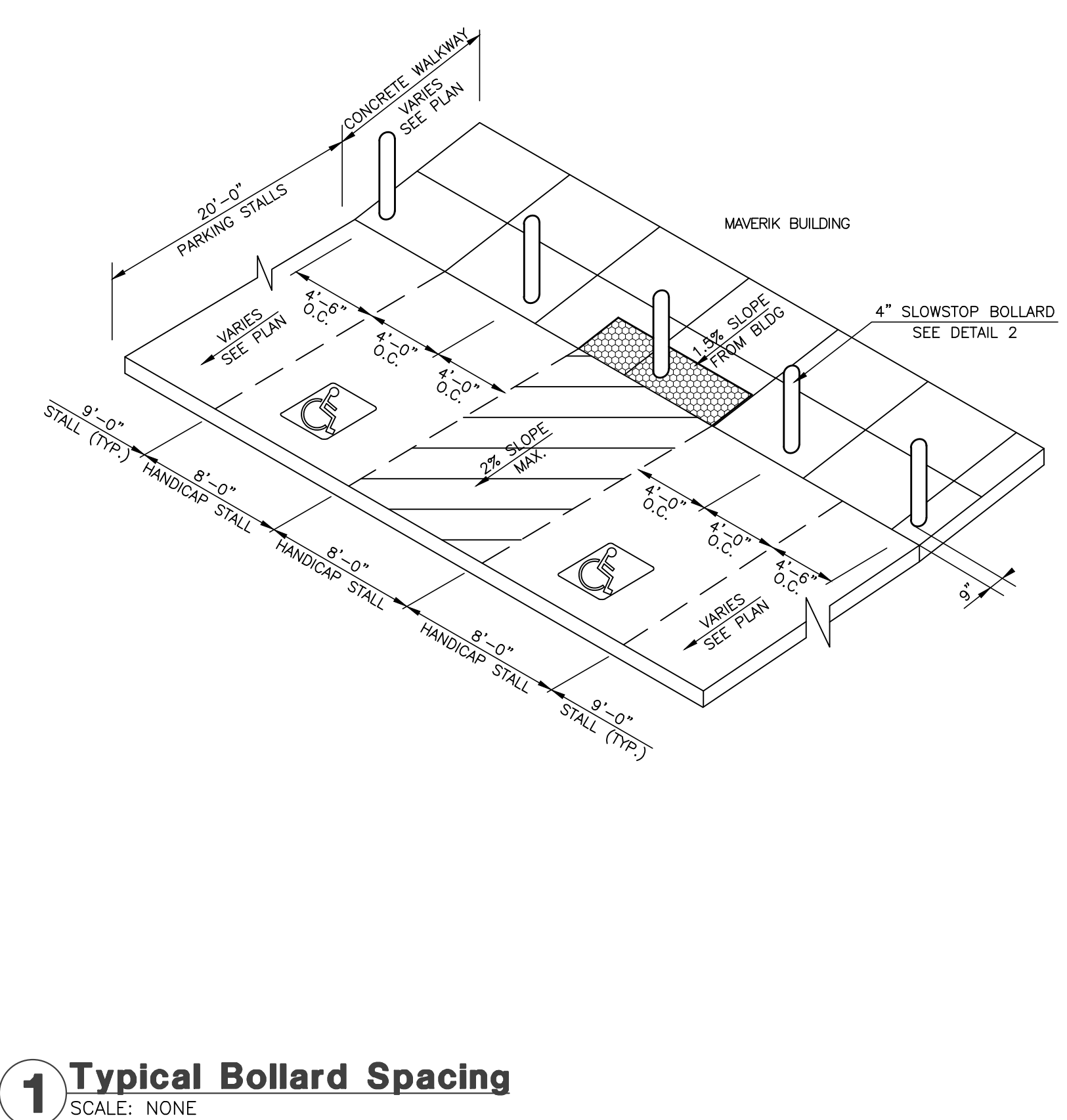
NOTE:
SEE WEBSITE FOR ADA SIGNAGE BOLLARDS.

2 4' Bollard Detail
SCALE: NONE

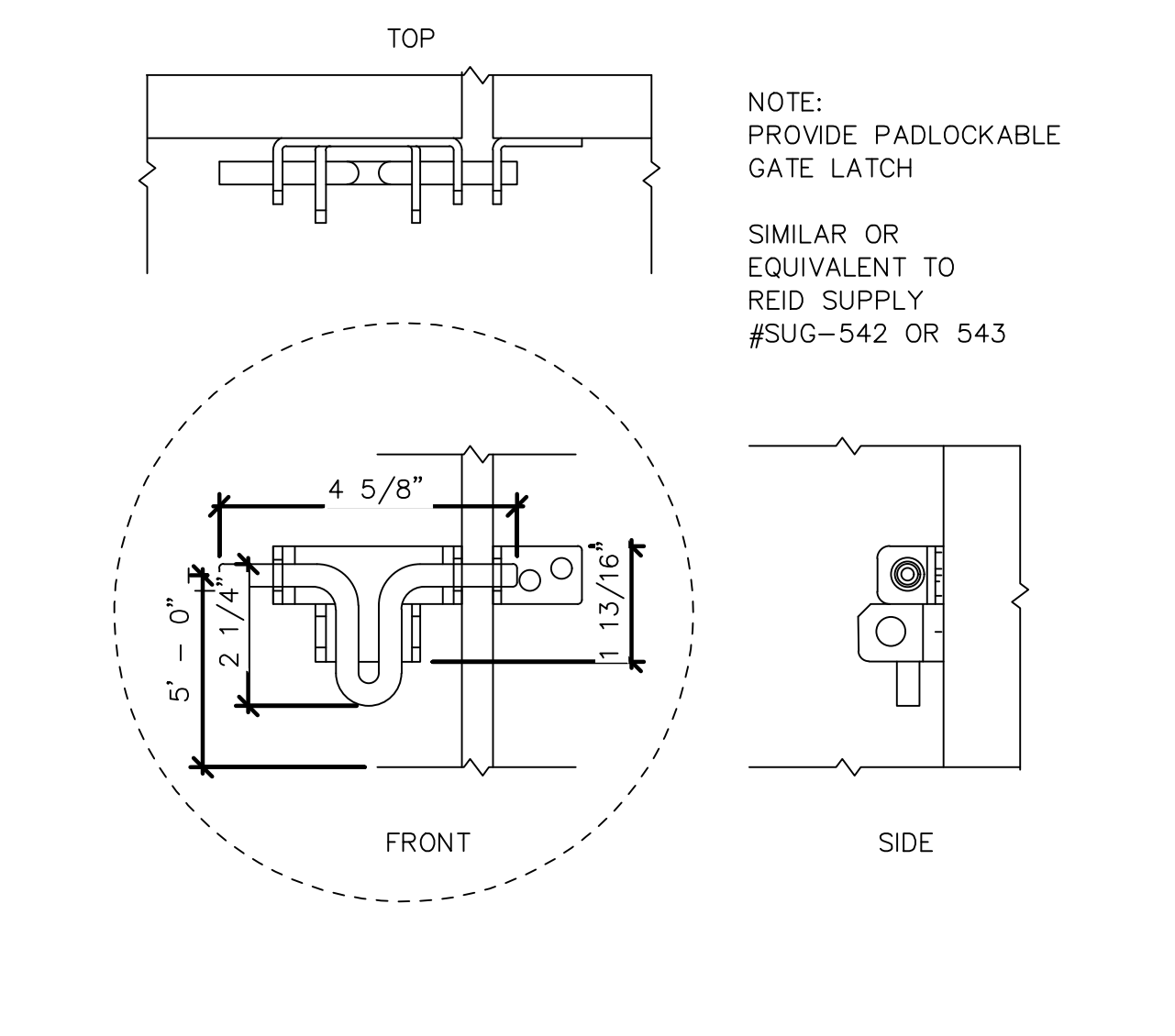


3 'Hoop' Bollard Detail
SCALE: NONE

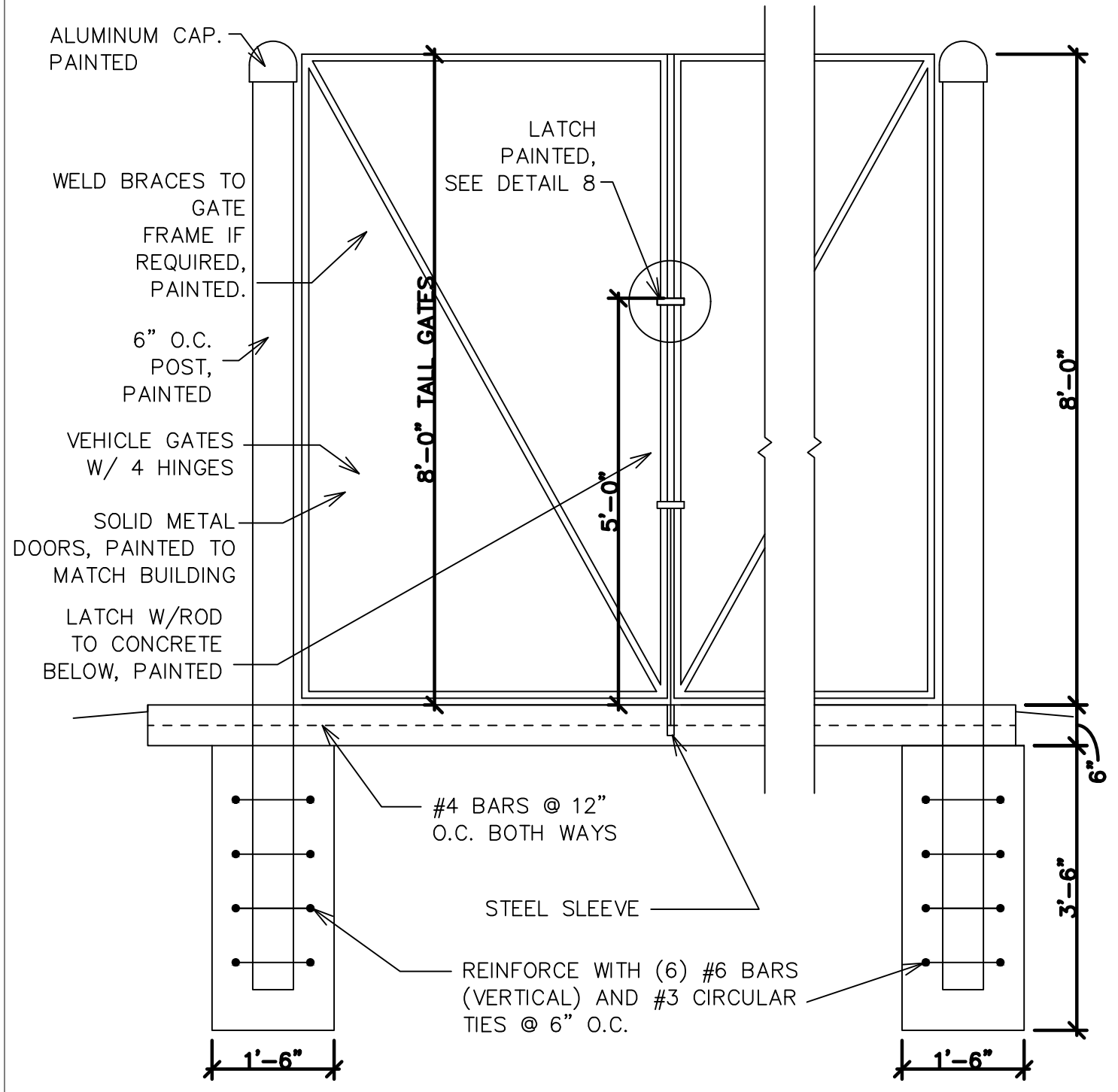
4 6' Pipe Bollard (Trash Enclosure)
SCALE: NONE



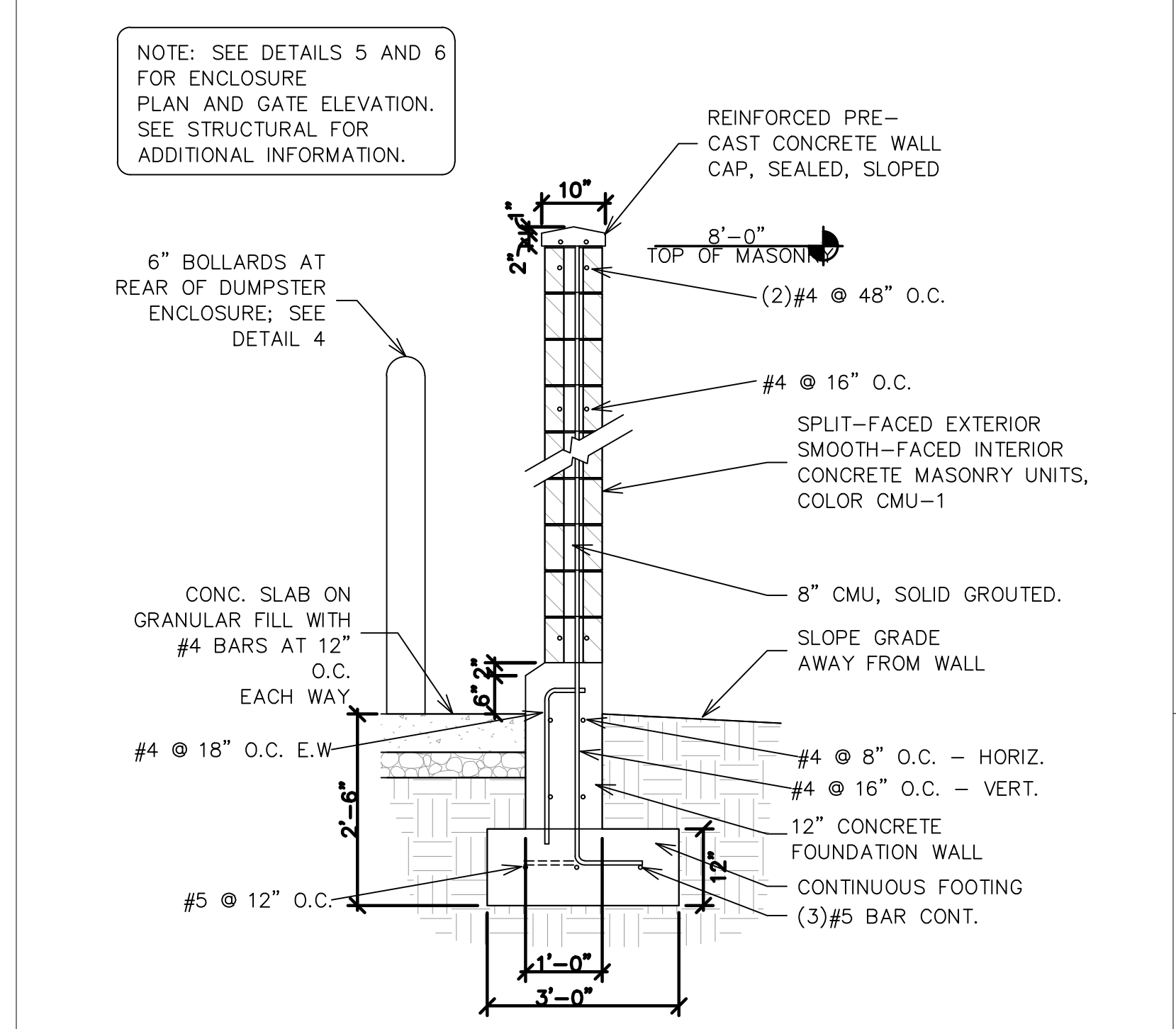
1 Typical Bollard Spacing
SCALE: NONE



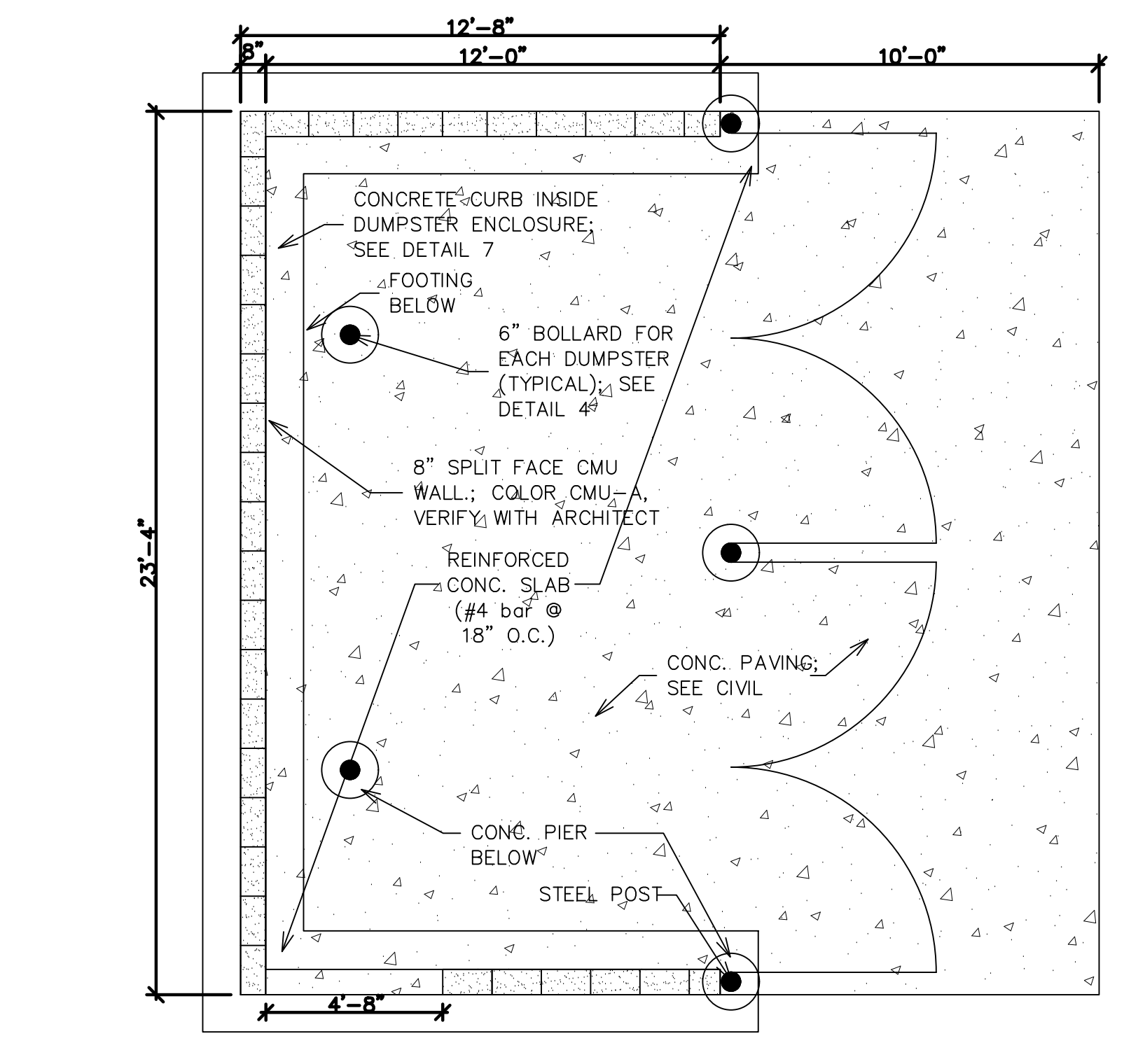
8 Trash Enclosure Gate Latch Detail
SCALE: NONE



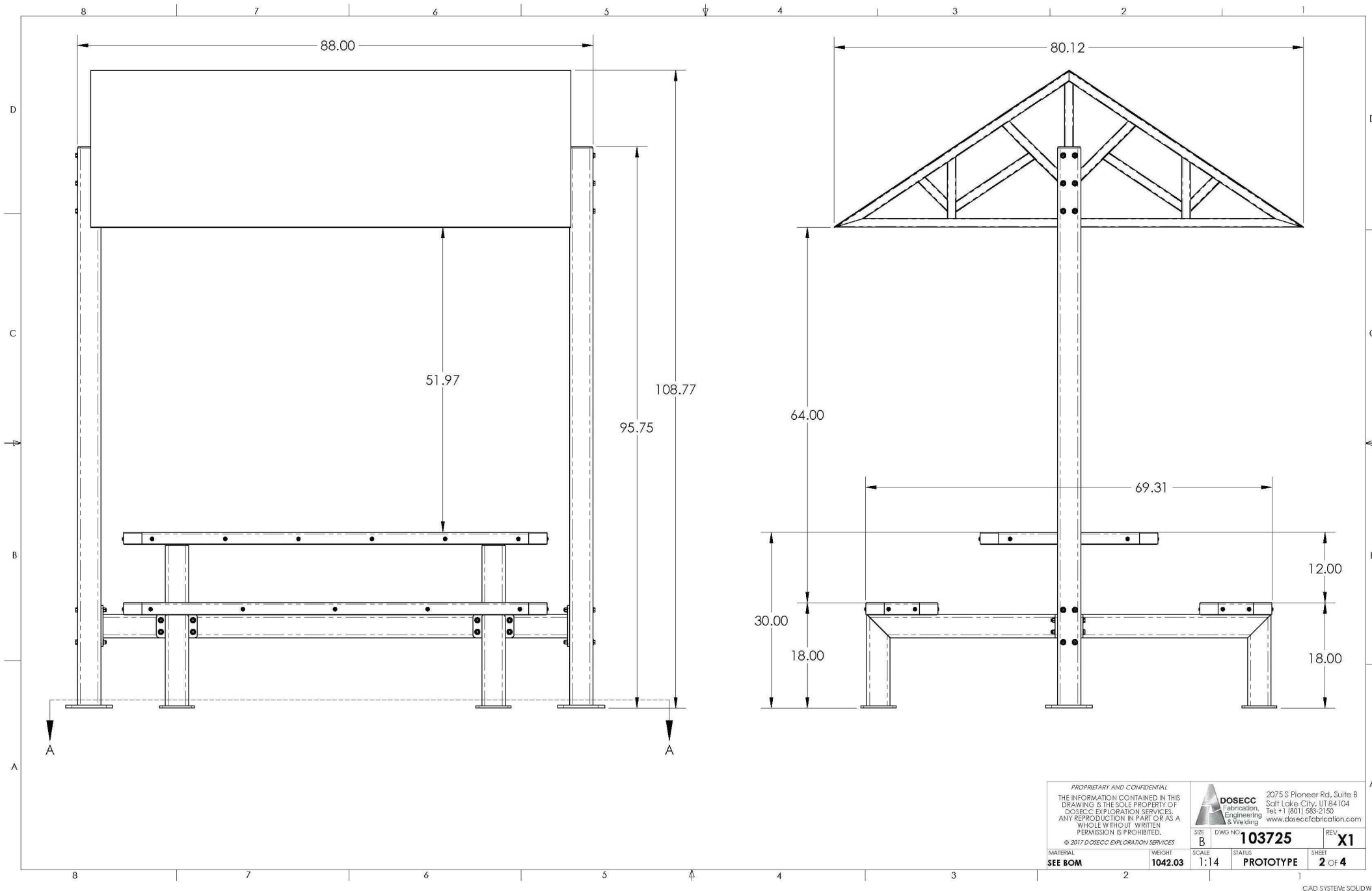
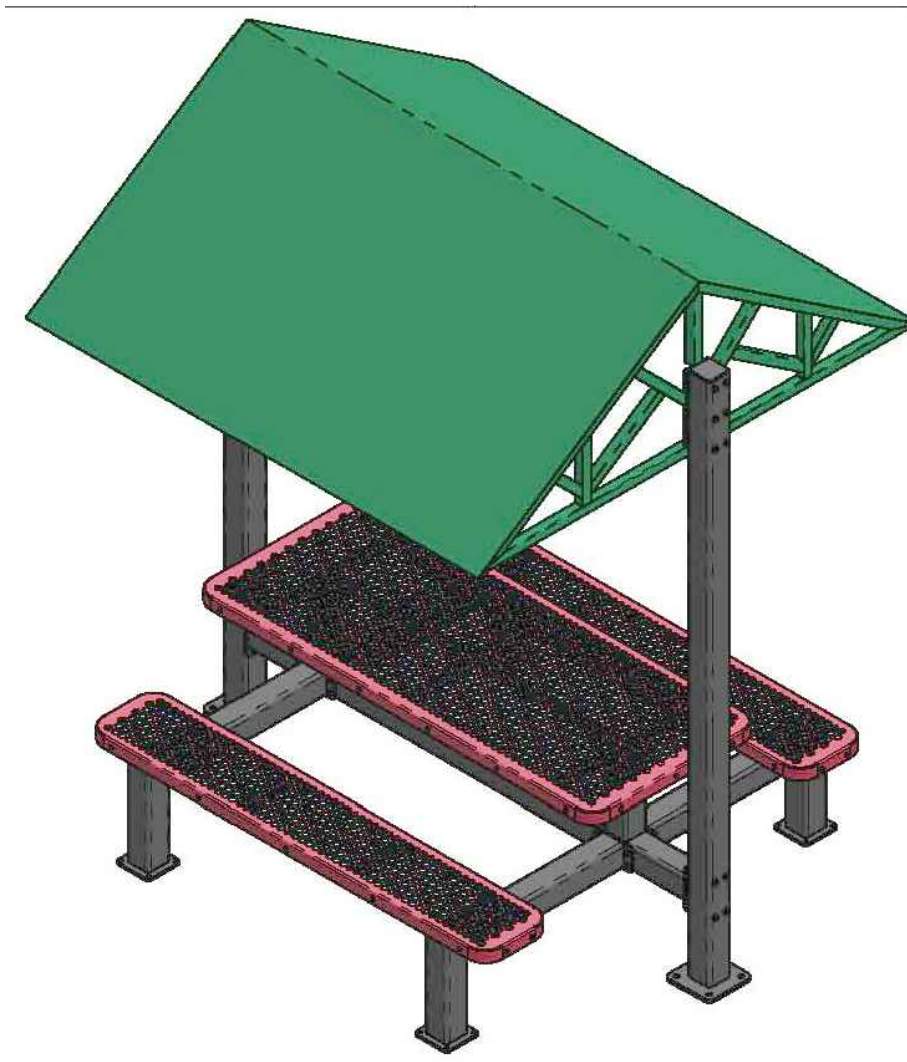
6 Trash Enclosure Gate Detail
SCALE: NONE



7 Trash Enclosure Wall Section
SCALE: NONE



5 Trash Enclosure Plan
SCALE: NONE



1 Picnic Table
SCALE: NONE

2 Not Used
SCALE: NONE

3 Not Used
SCALE: NONE

PROJECT NUMBER

ISSUE DATE:
APR. 13, 2018
REVISIONS:

No.	Date	Description

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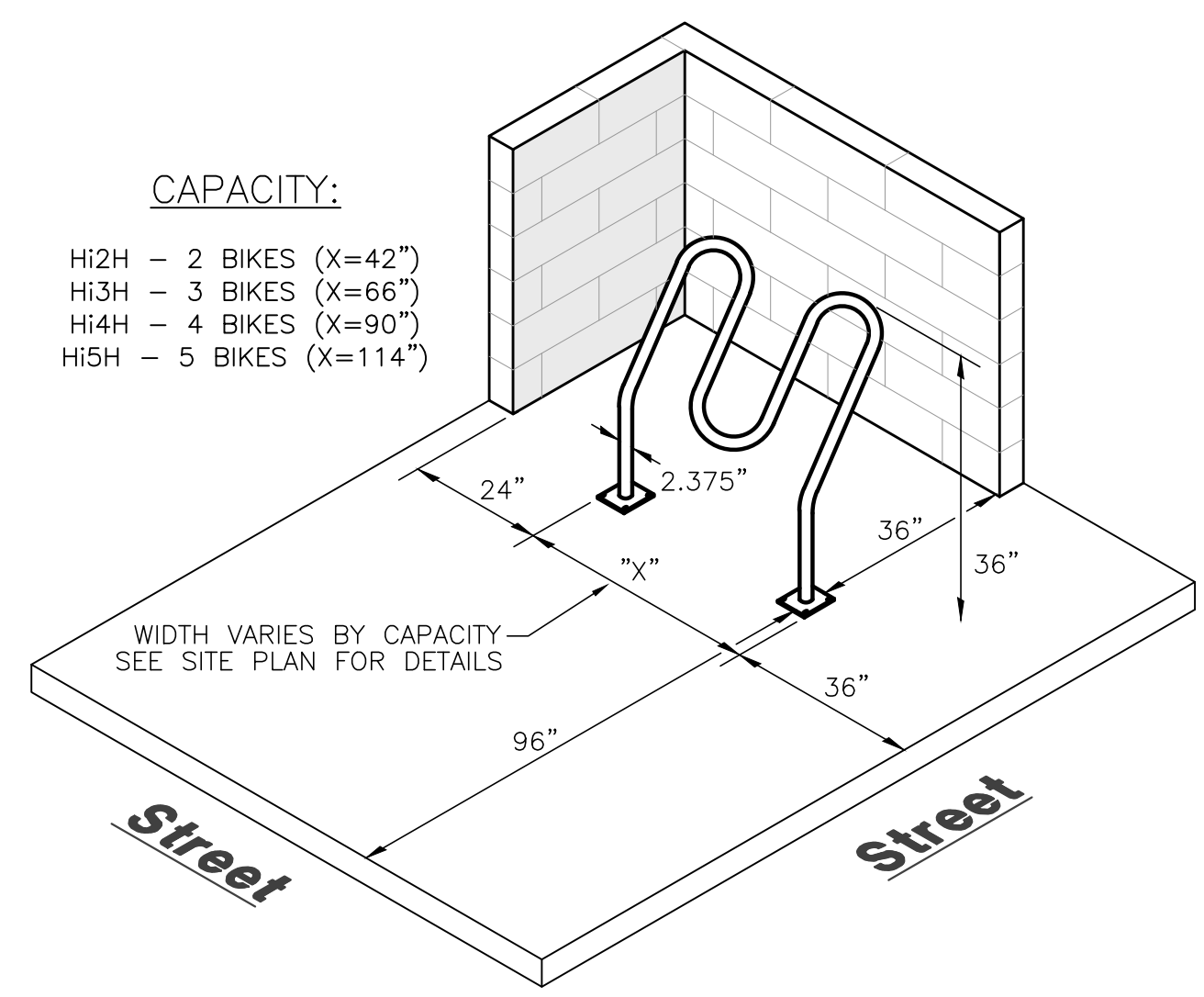
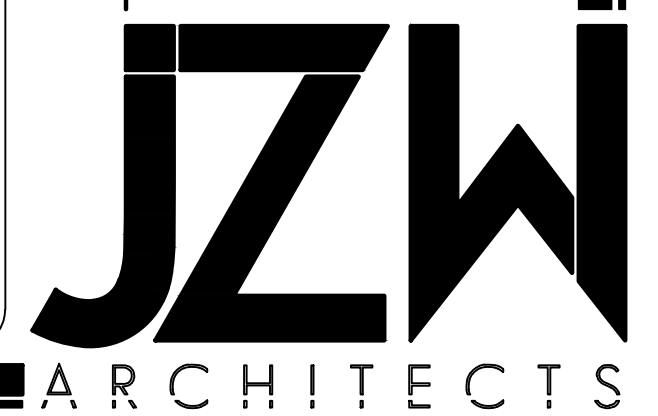
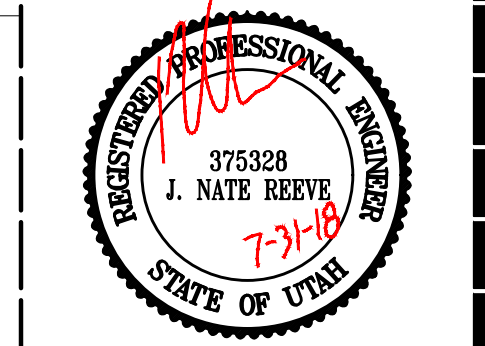
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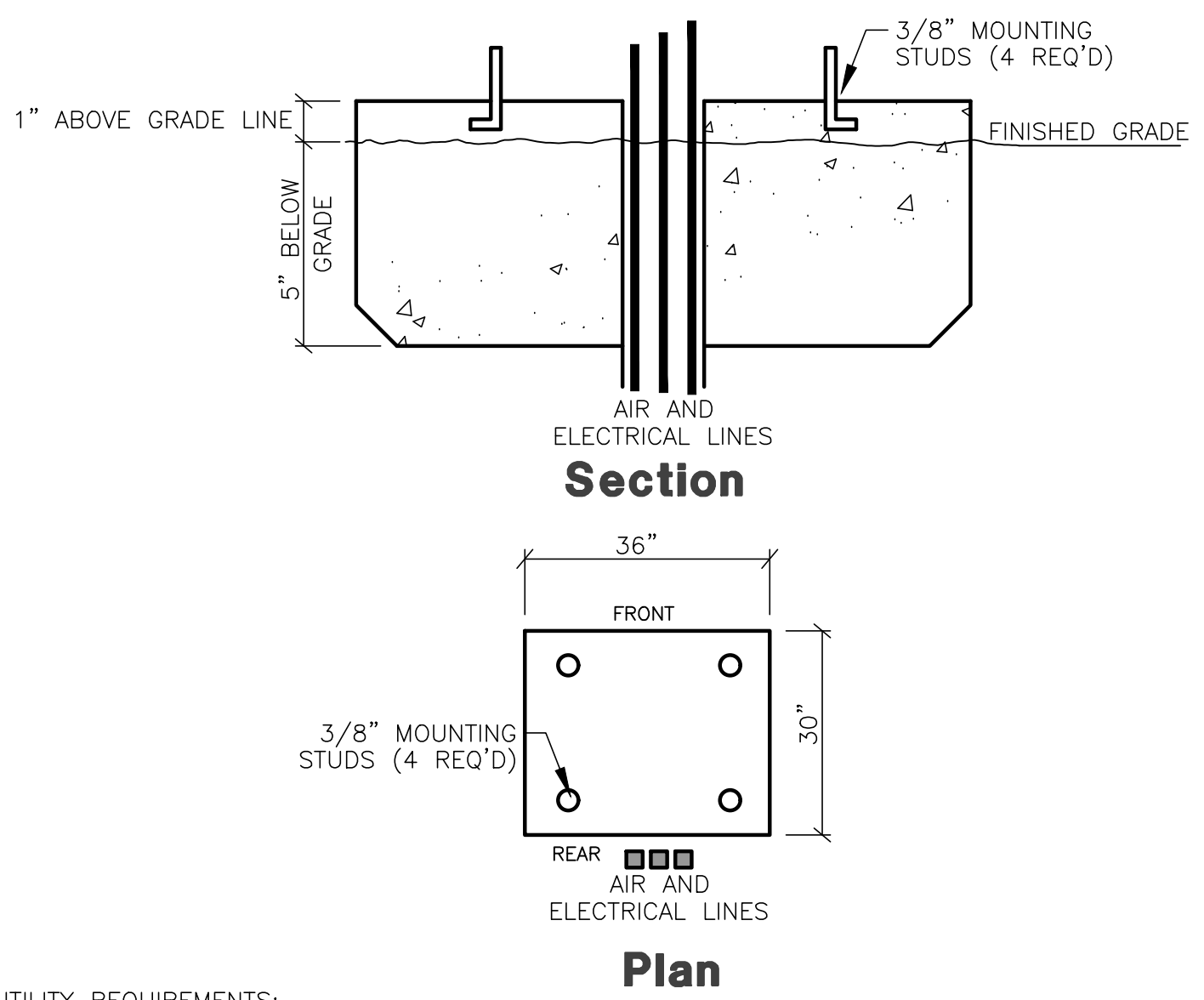
CIVIL
DETAILS

C9.2



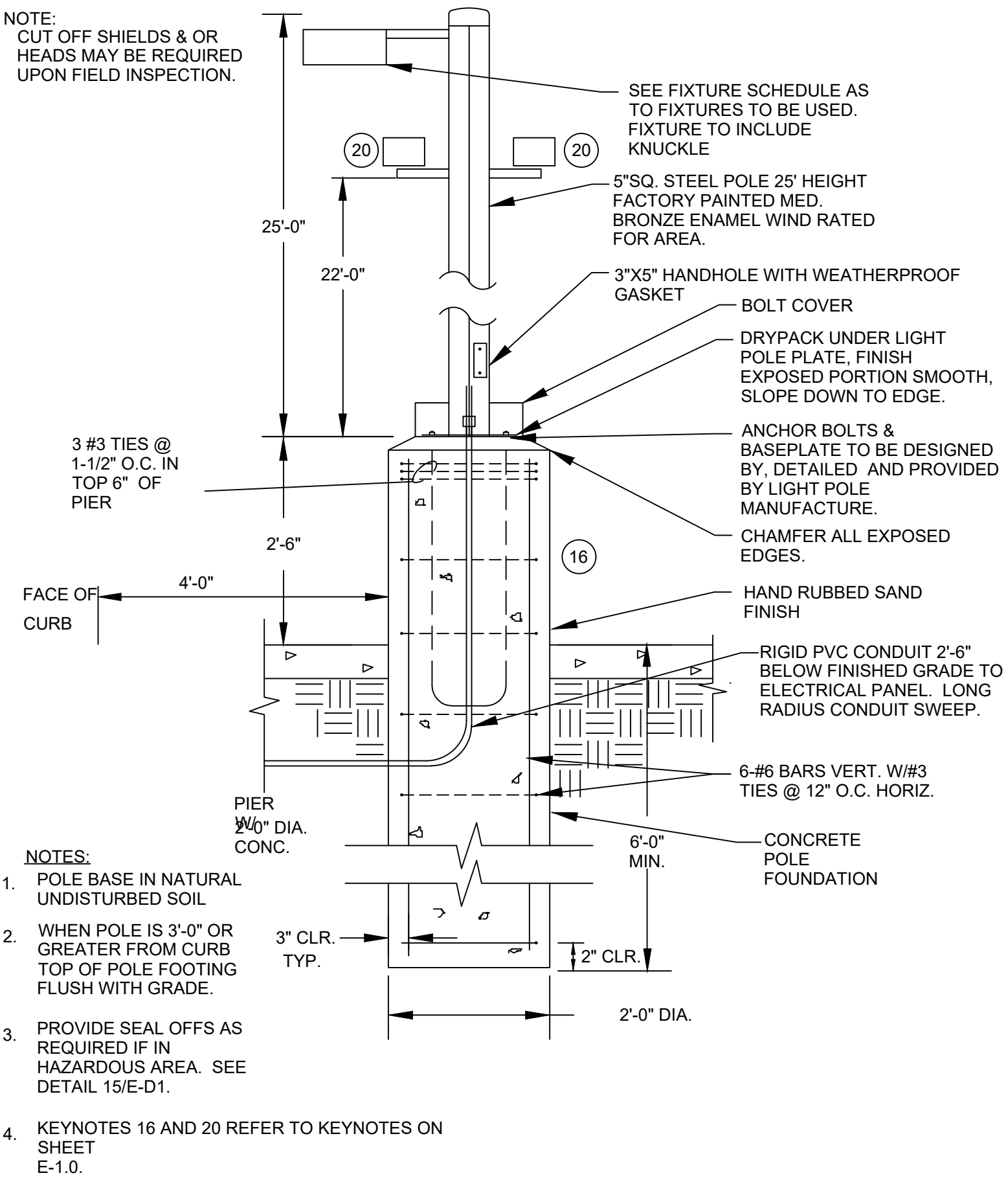
5 'Hi-Roller' Bike Rack Detail
SCALE: NONE

6 Not Used
SCALE: NONE

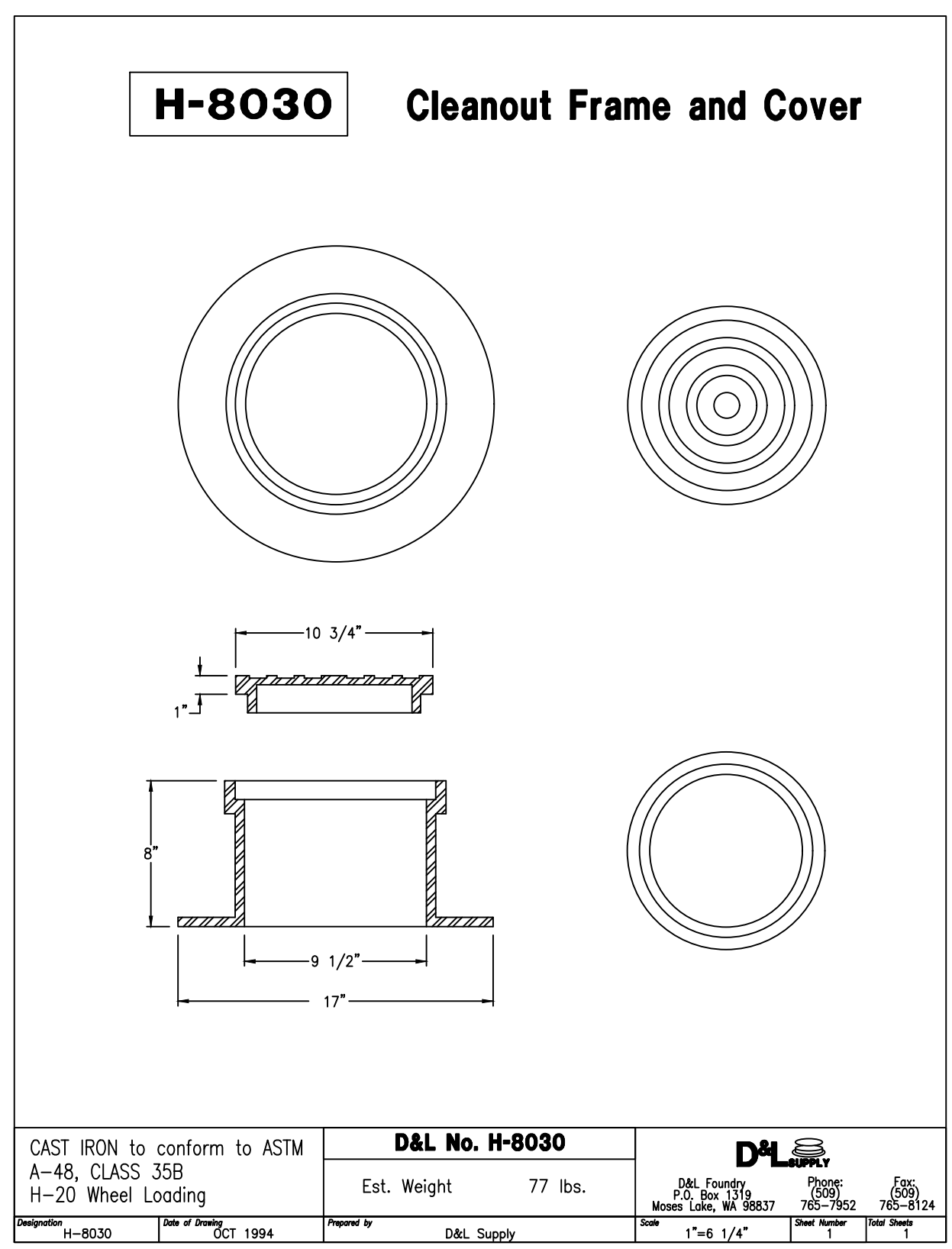


8 XactAir Air Station Foundation
SCALE: NONE

9 Not Used
SCALE: NONE



4 Typical Light Pole & Base
SCALE: NONE



7 Clean-Out Frame & Cover
SCALE: NONE

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PROJECT NUMBER: 5799-230
DRAWN BY: RWH
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SHEET TITLE

CIVIL DETAILS

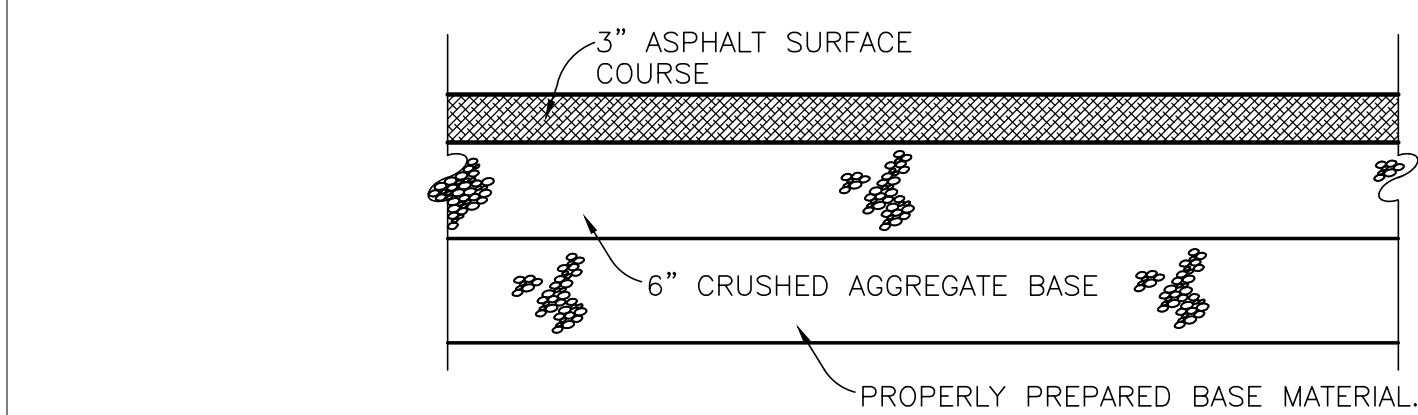
C9



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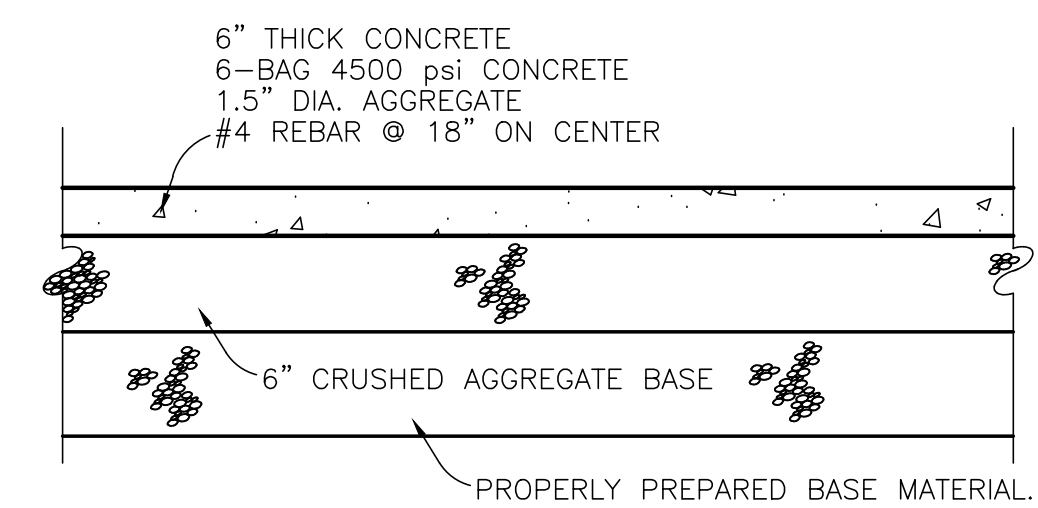
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PROJECT NUMBER: 5799-230 DRAWN BY: RWH ENGINEER: JNR



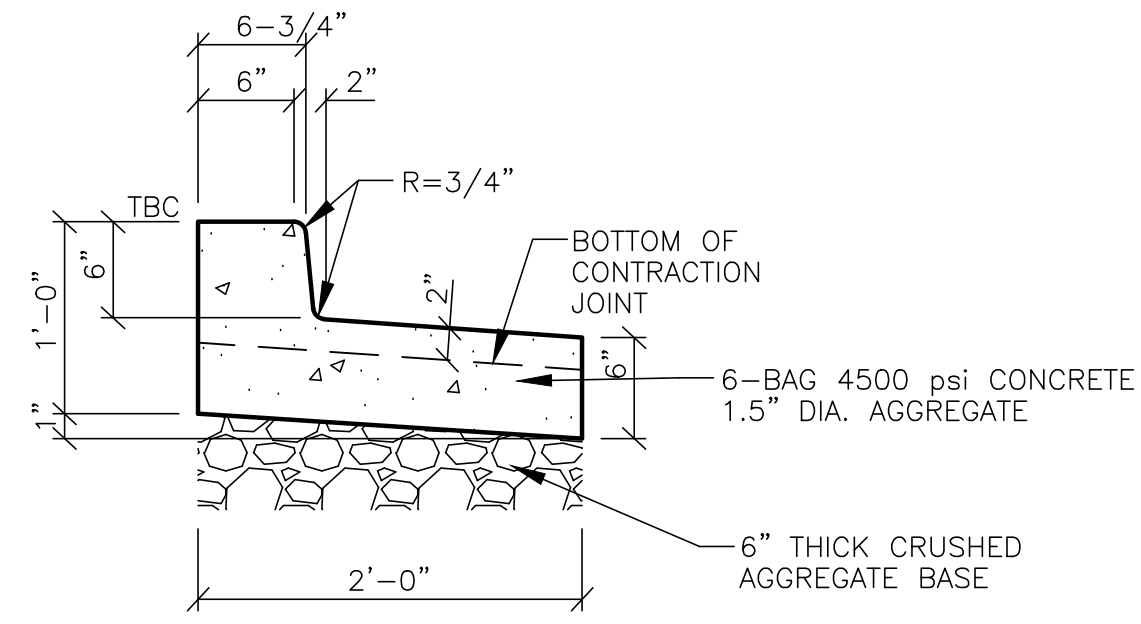
(REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT, PREPARED BY KLEINFELDER, JAN. 12, 2018. GEOTECHNICAL REPORT TO GOVERN & CONTROL.)

4 Typical On-Site Asphalt Paving - Alternate Bid SCALE: NONE



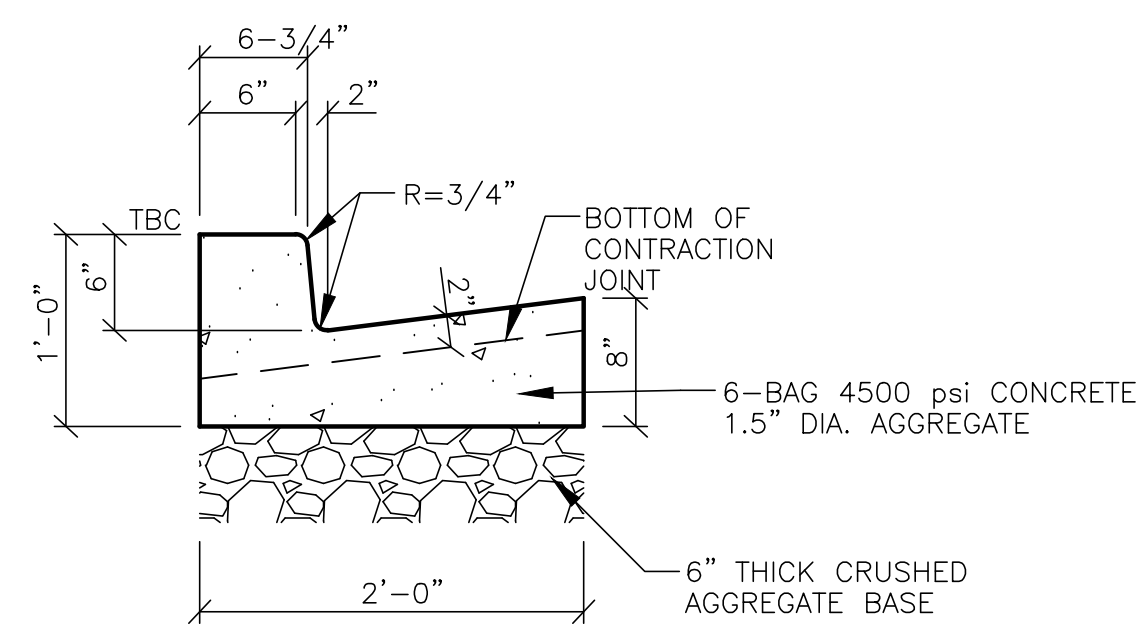
(REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT, PREPARED BY KLEINFELDER, JAN. 12, 2018. GEOTECHNICAL REPORT TO GOVERN & CONTROL.)

3 Typical On-Site Concrete Paving SCALE: NONE



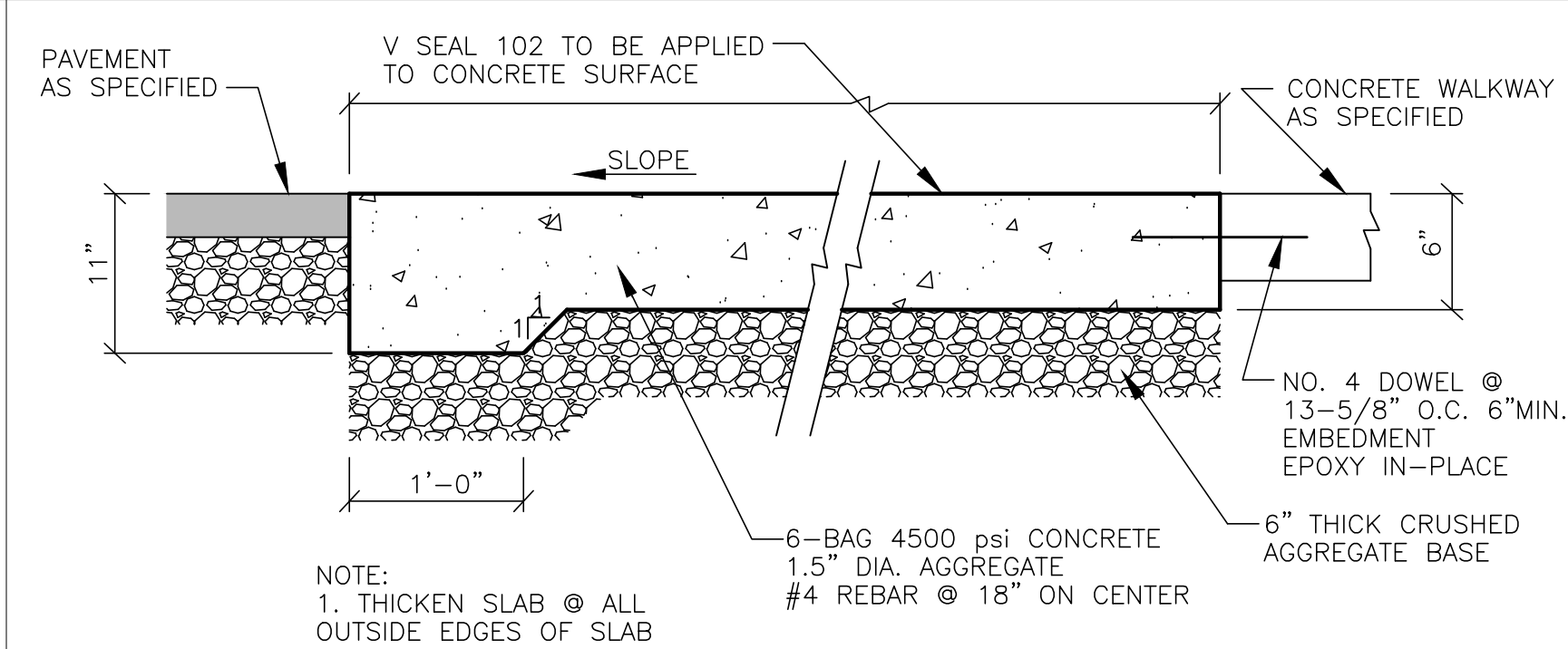
(REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT, PREPARED BY KLEINFELDER, JAN. 12, 2018. GEOTECHNICAL REPORT TO GOVERN & CONTROL.)

2 On-Site Outflow Curb & Gutter SCALE: NONE



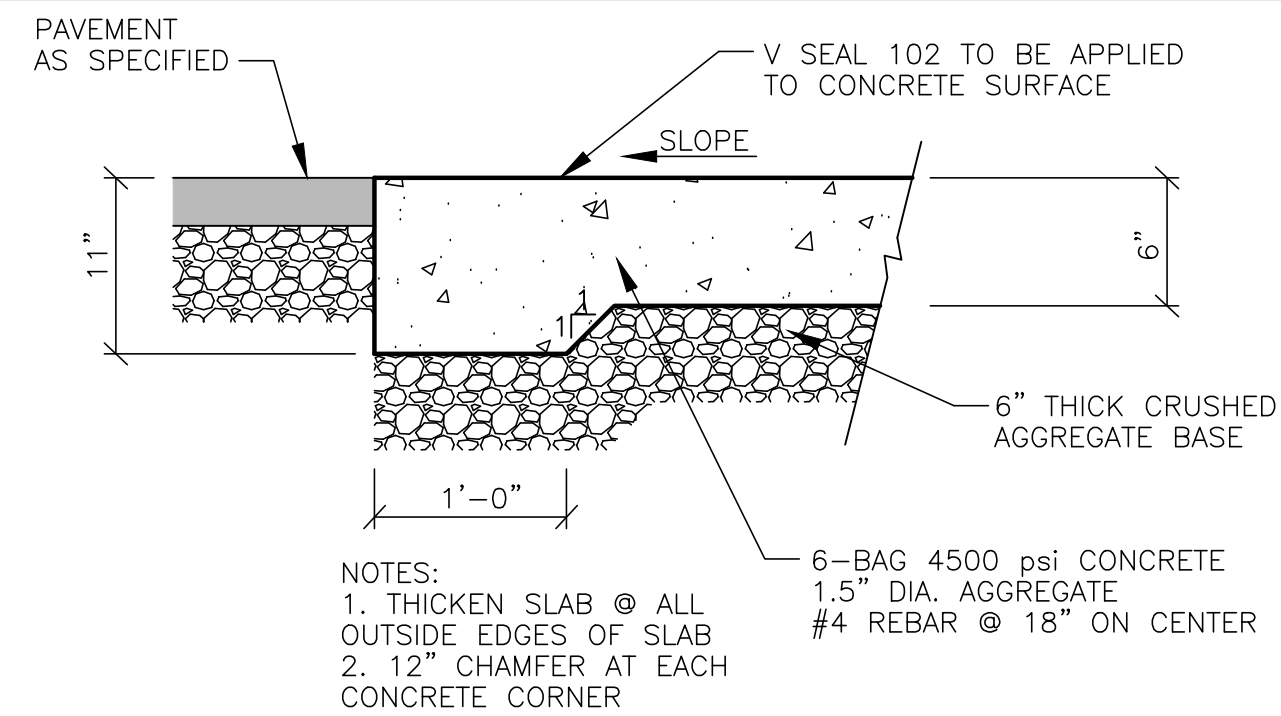
(REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT, PREPARED BY KLEINFELDER, JAN. 12, 2018. GEOTECHNICAL REPORT TO GOVERN & CONTROL.)

1 On-Site Curb & Gutter SCALE: NONE



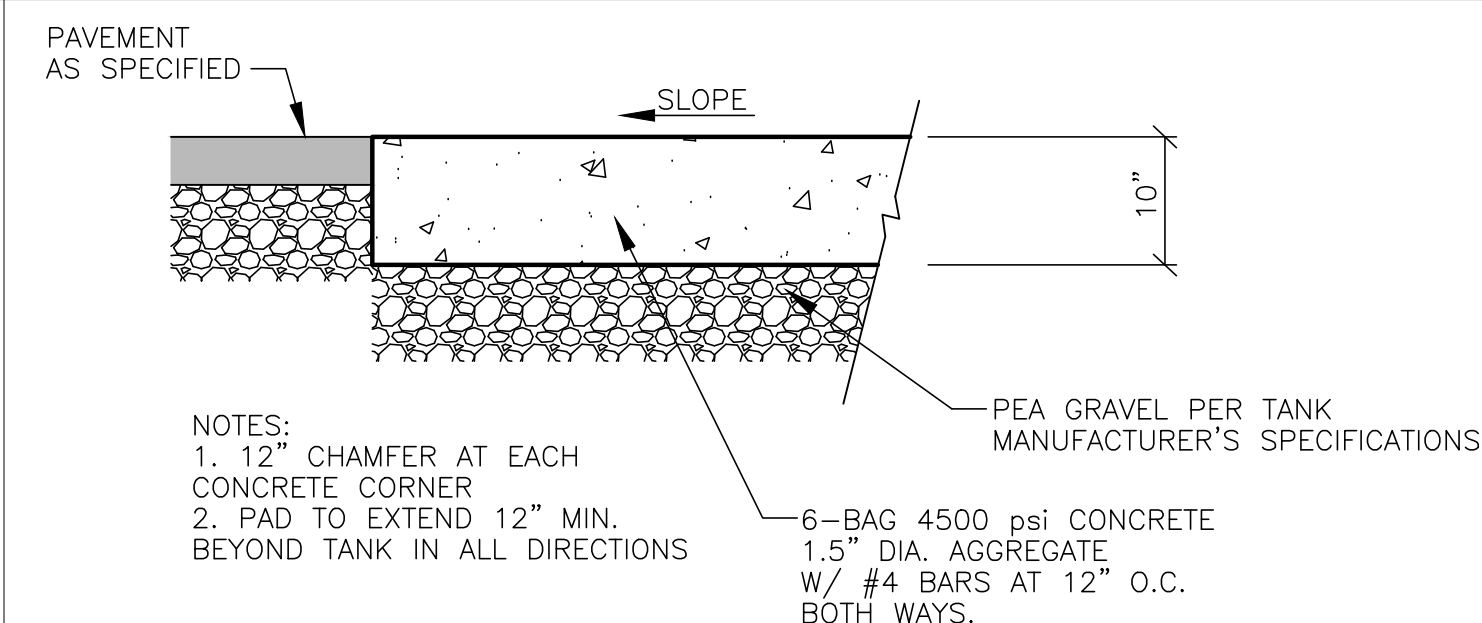
(REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT, PREPARED BY KLEINFELDER, JAN. 12, 2018. GEOTECHNICAL REPORT TO GOVERN & CONTROL.)

8 Concrete Parking Stall SCALE: NONE



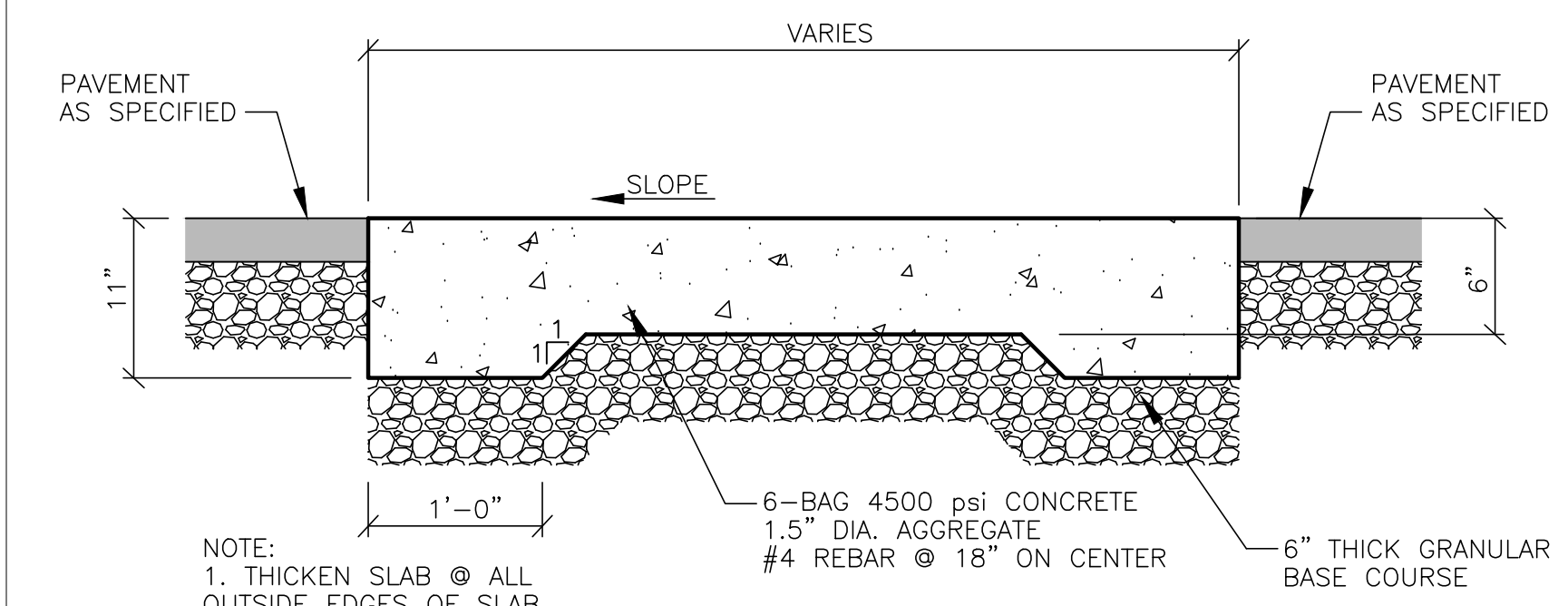
(REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT, PREPARED BY KLEINFELDER, JAN. 12, 2018. GEOTECHNICAL REPORT TO GOVERN & CONTROL.)

7 Concrete Pad under Fuel Shelter SCALE: NONE



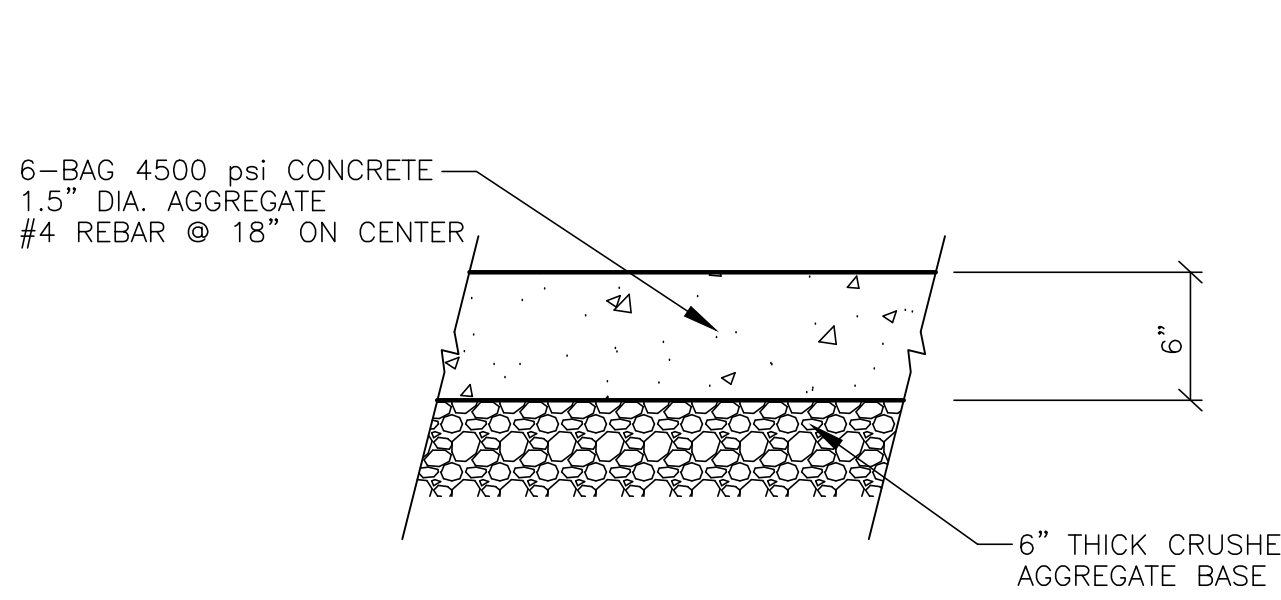
(REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT, PREPARED BY KLEINFELDER, JAN. 12, 2018. GEOTECHNICAL REPORT TO GOVERN & CONTROL.)

6 Concrete Pad over Underground Fuel Tanks SCALE: NONE



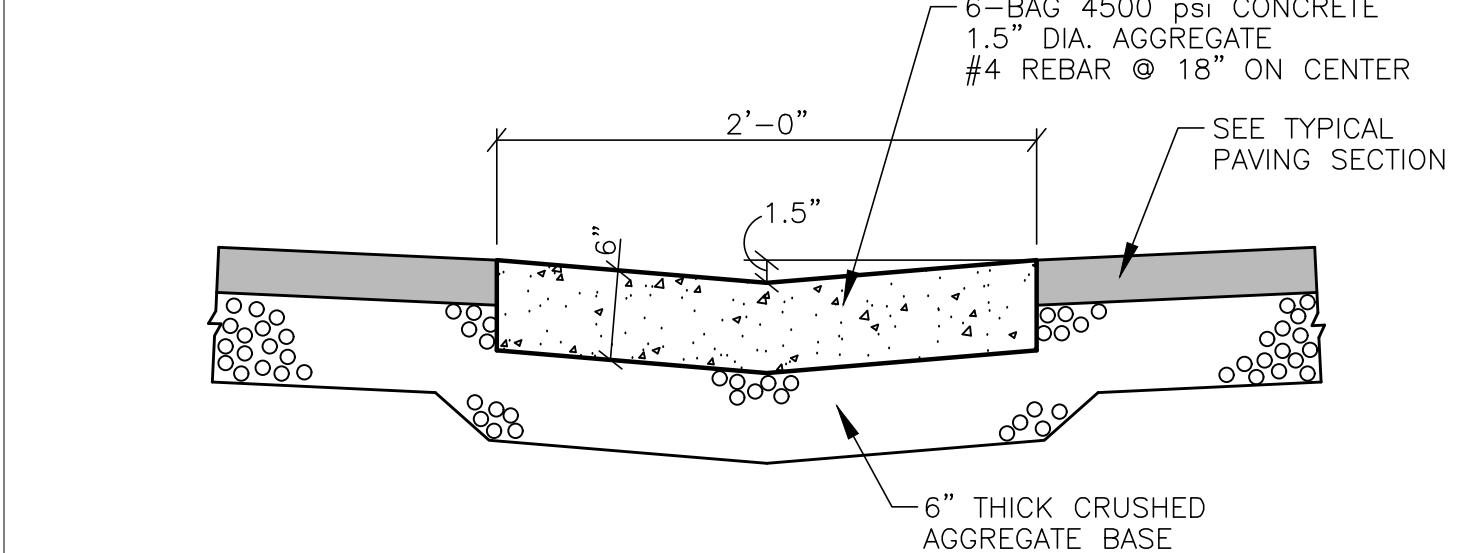
(REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT, PREPARED BY KLEINFELDER, JAN. 12, 2018. GEOTECHNICAL REPORT TO GOVERN & CONTROL.)

12 Petroleum Trench Cap Section SCALE: NONE



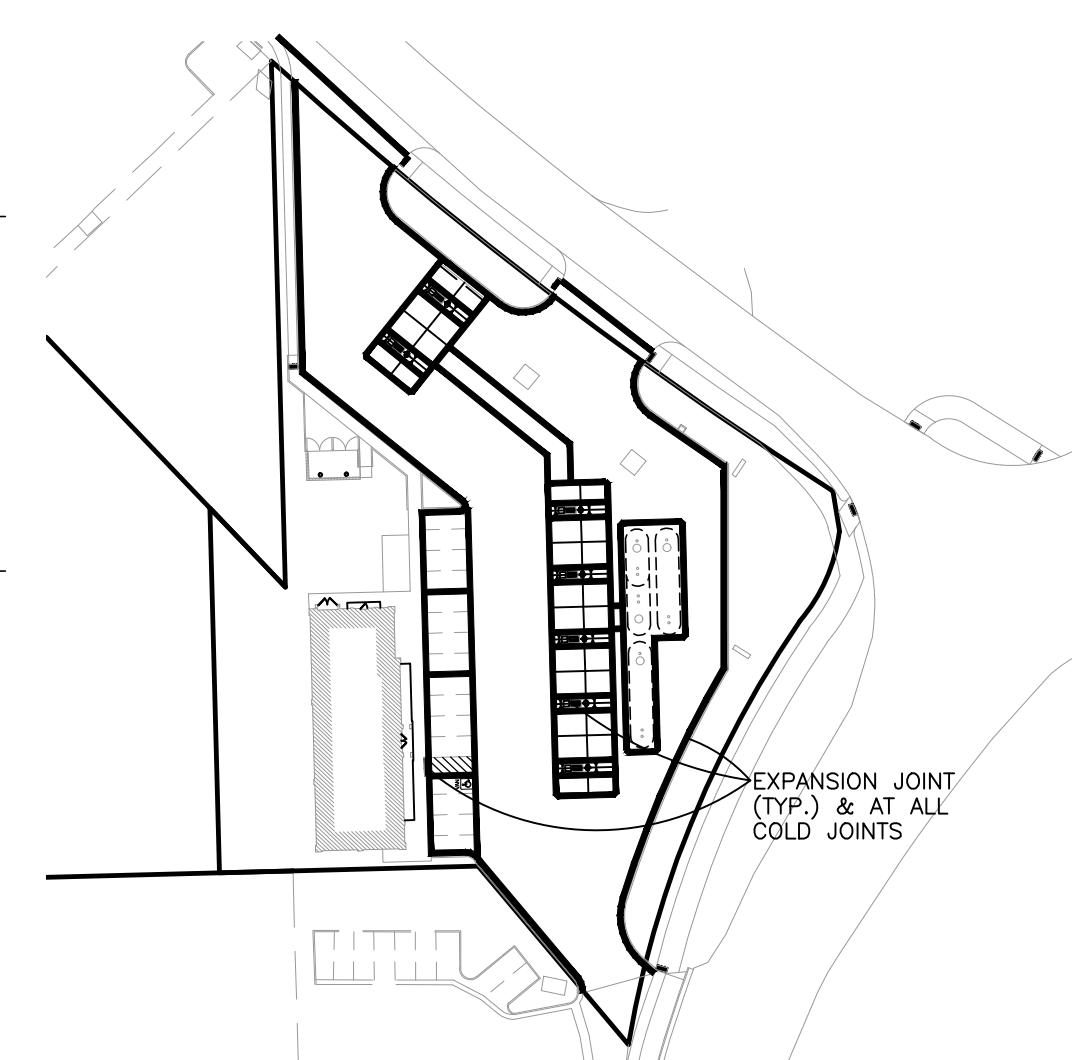
(REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT, PREPARED BY KLEINFELDER, JAN. 12, 2018. GEOTECHNICAL REPORT TO GOVERN & CONTROL.)

11 Trash Enclosure Concrete Pad SCALE: NONE



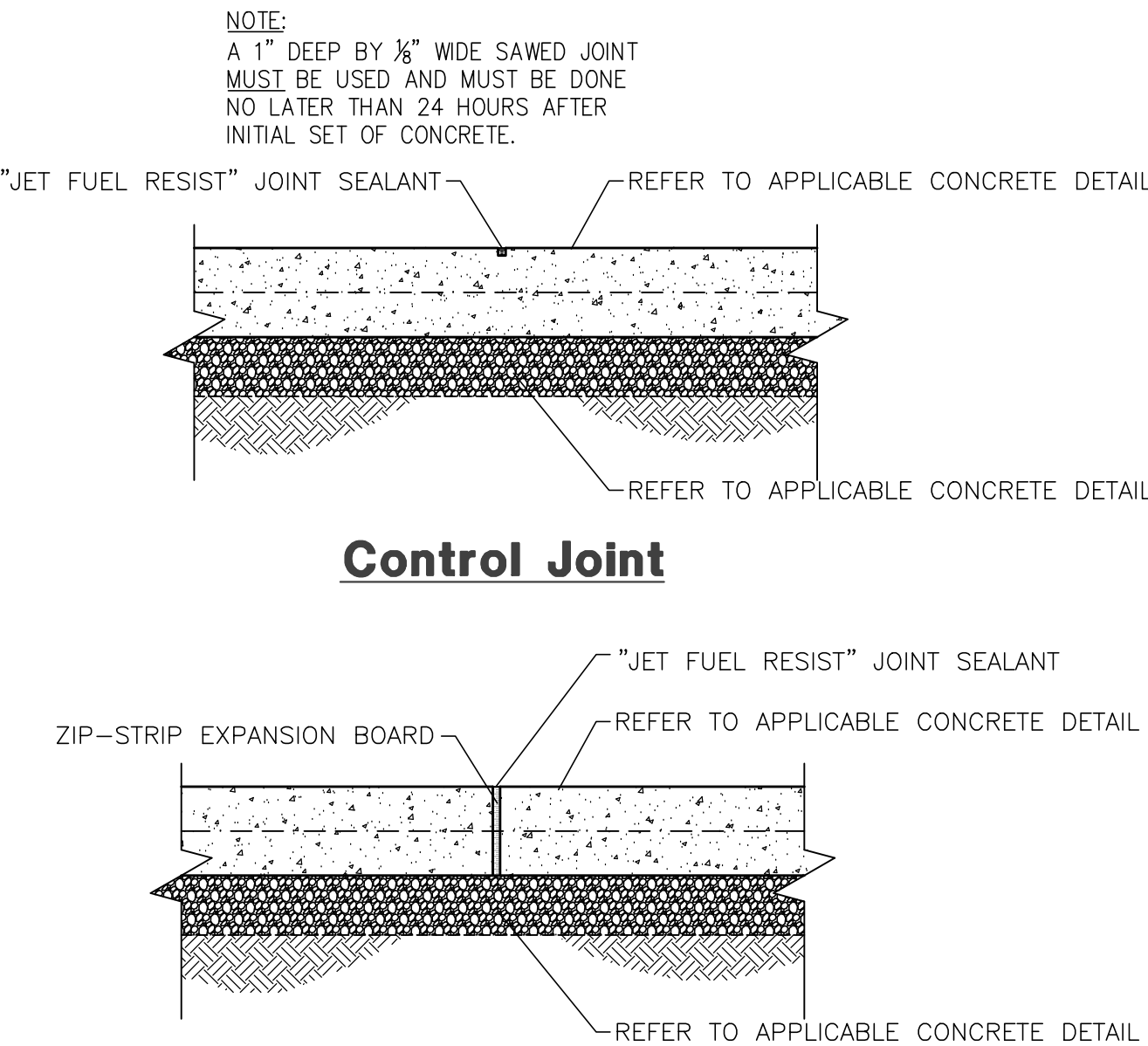
(REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT, PREPARED BY KLEINFELDER, JAN. 12, 2018. GEOTECHNICAL REPORT TO GOVERN & CONTROL.)

10 2' Concrete Waterway SCALE: NONE



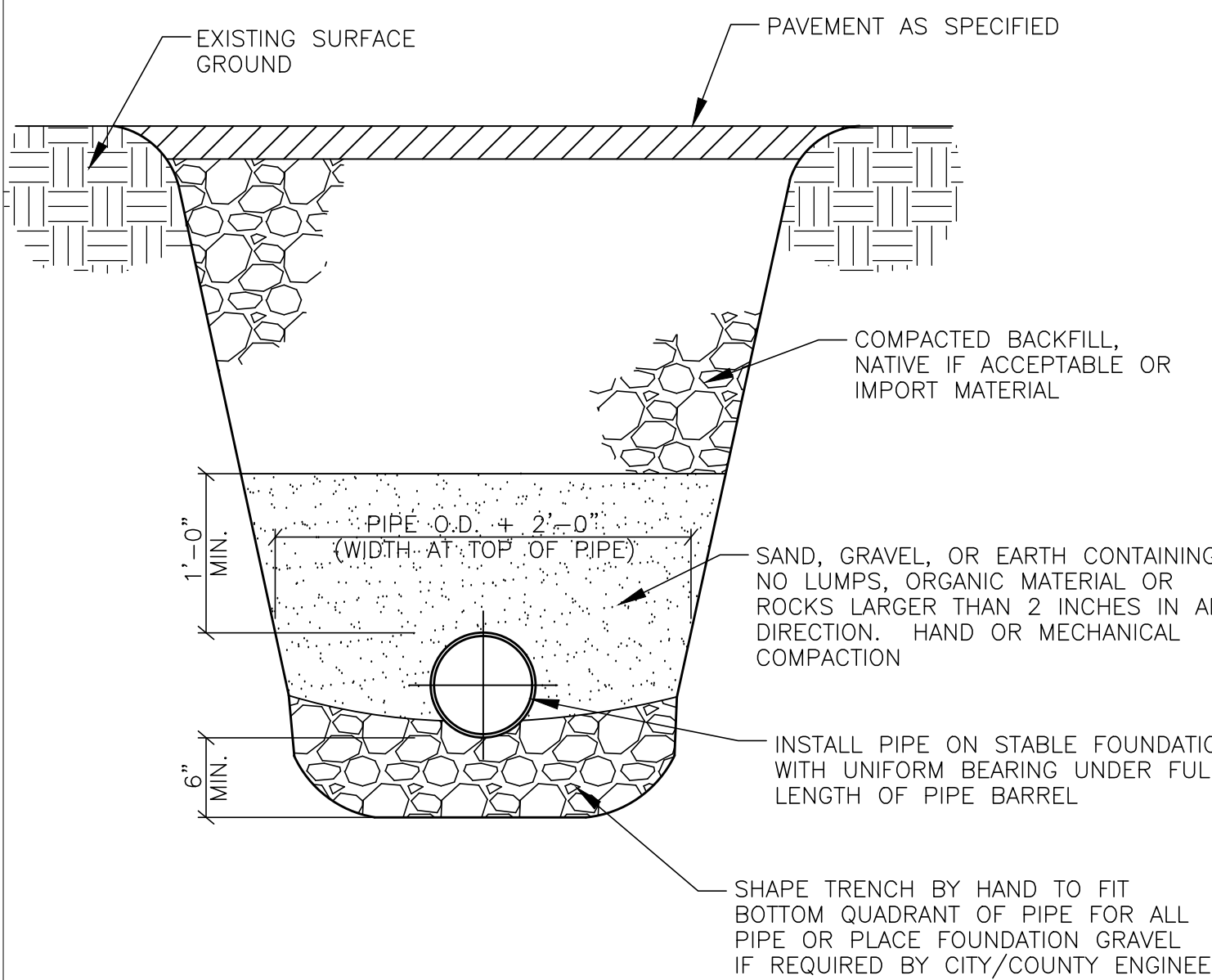
Joint Key Map FOR CONCRETE PAVING SCALE: NONE

NOTE: WITH CONCRETE PAVING, USE 50' SPACING FOR CONCRETE JOINTS.



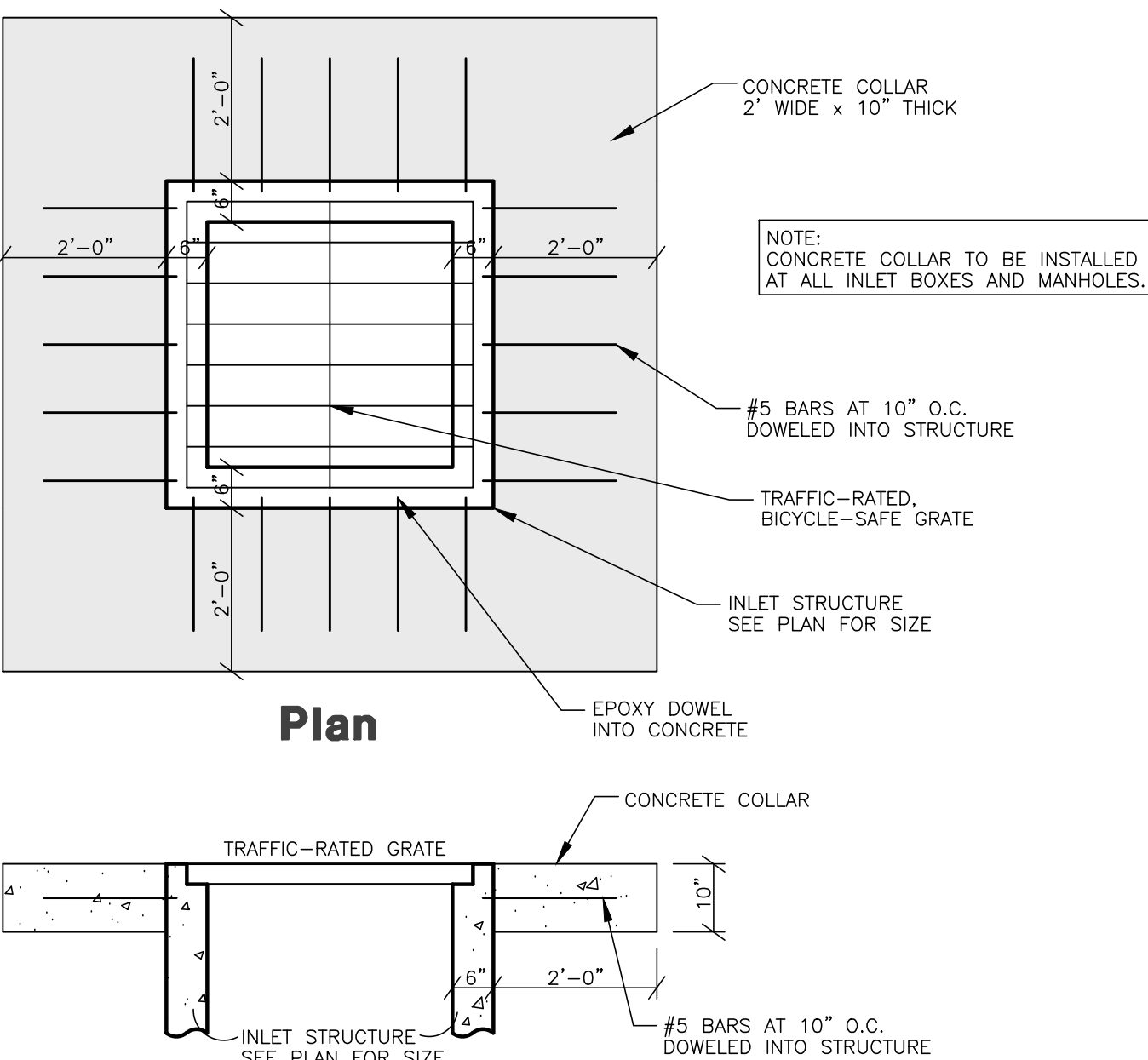
Expansion Joint

15 Typical On-Site Concrete Joints SCALE: NONE



(REFER TO THE SITE SPECIFIC GEOTECHNICAL REPORT, PREPARED BY KLEINFELDER, JAN. 12, 2018. GEOTECHNICAL REPORT TO GOVERN & CONTROL.)

14 Typical On-Site Pipe Bed Section SCALE: NONE



Section

13 Concrete Collar Detail SCALE: NONE

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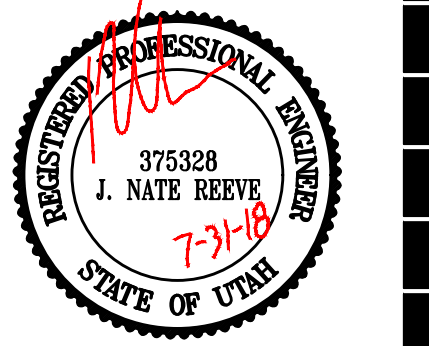


MAVERIK, INC. STORE #250 5100 EAST & 2500 NORTH EDEN, UTAH

SHEET TITLE

DRAINAGE DETAILS

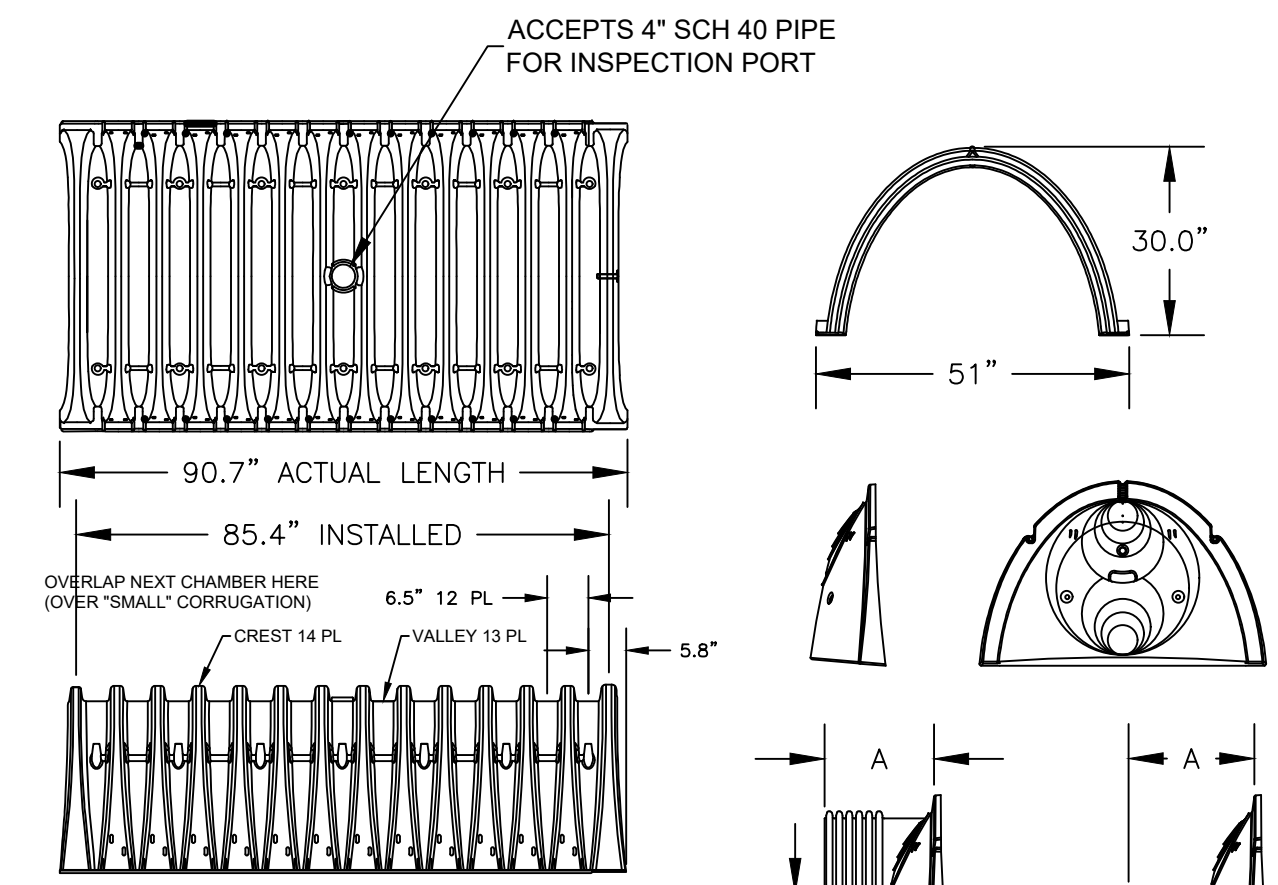
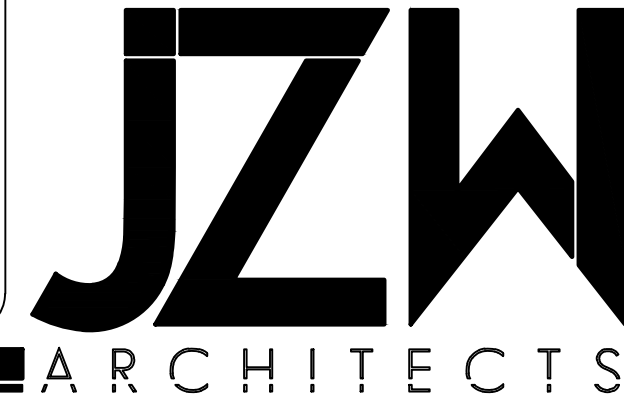
C10.1



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PROJECT NUMBER: 5799-230 DRAWN BY: RWH ENGINEER: JNR



NOMINAL CHAMBER SPECIFICATIONS

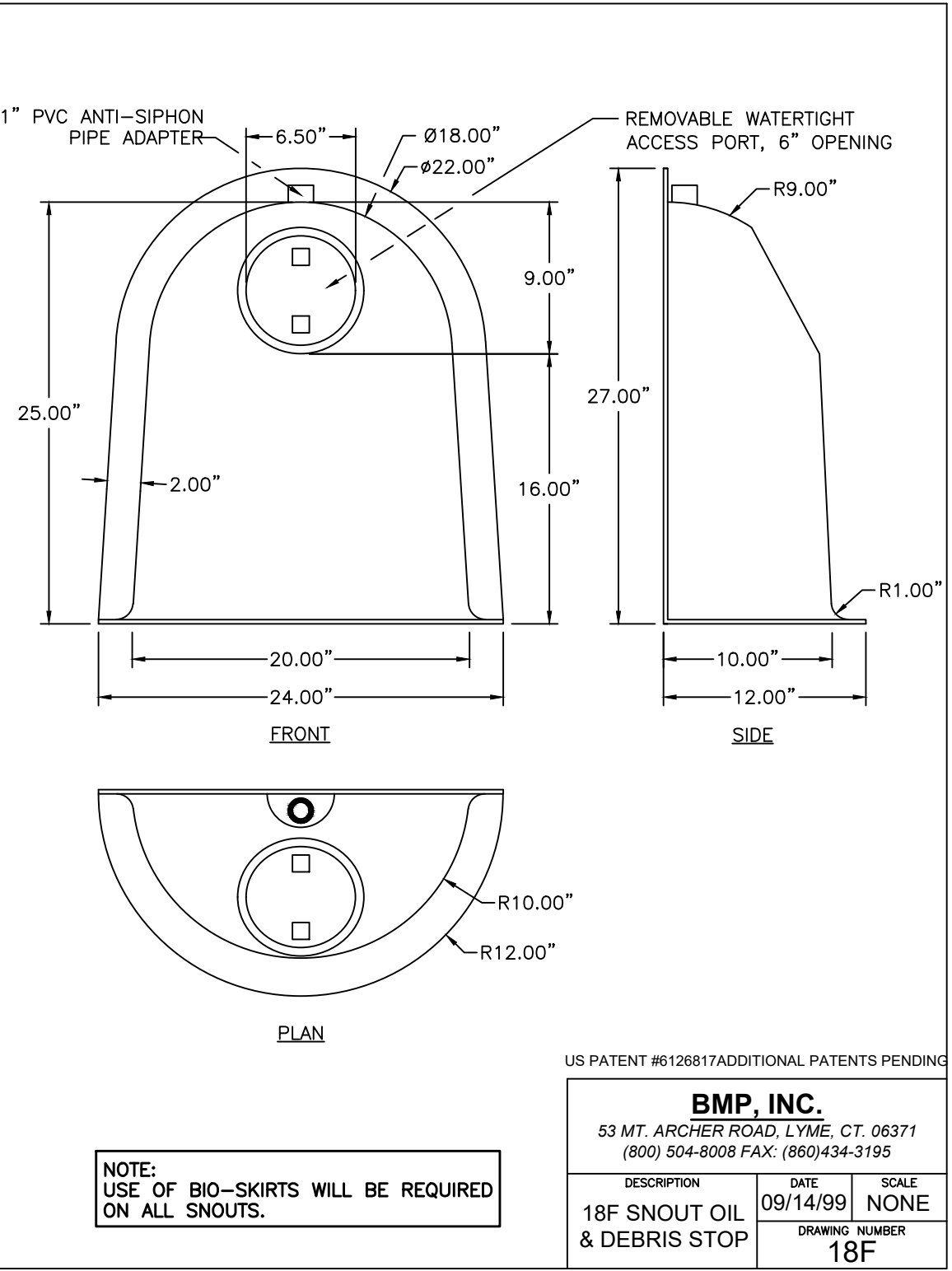
SIZE (W x H x INSTALLED LENGTH)	CHAMBER STORAGE	MINIMUM INSTALLED STORAGE	WEIGHT
51.0" x 30.0" x 85.4"	45.9 CUBIC FEET	74.9 CUBIC FEET	75 LBS.

STUBS AT TOP OF END CAP FOR PARTS NUMBERS ENDING WITH "T" STUBS AT BOTTOM OF END CAP FOR PARTS NUMBERS ENDING WITH "B"

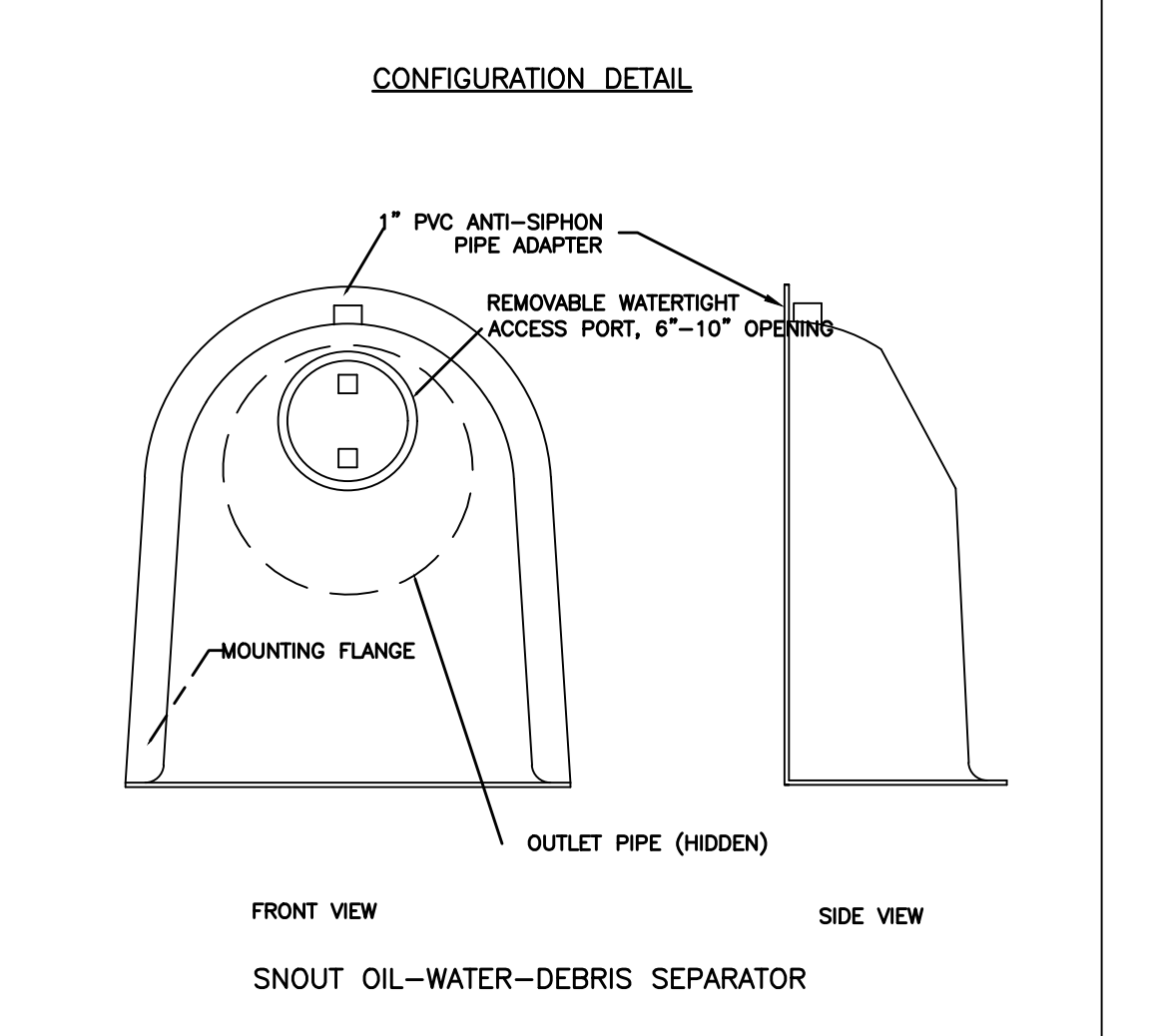
PART #	CHAMBER	PIPE SIZE	A	B	C
SC740E06T	SC-740	6 in (150 mm)	10.90 in (277 mm)	18.50 in (470 mm)	N/A
SC740E06B	SC-740	6 in (150 mm)	10.90 in (277 mm)	N/A	0.50 in (13 mm)
SC740E08T	SC-740	8 in (200 mm)	12.20 in (310 mm)	16.50 in (419 mm)	N/A
SC740E08B	SC-740	8 in (200 mm)	12.20 in (310 mm)	N/A	0.60 in (15 mm)
SC740E10T	SC-740	10 in (250 mm)	13.40 in (340 mm)	14.50 in (368 mm)	N/A
SC740E10B	SC-740	10 in (250 mm)	13.40 in (340 mm)	N/A	0.70 in (18 mm)
SC740E12T	SC-740	12 in (300 mm)	14.70 in (373 mm)	12.50 in (318 mm)	N/A
SC740E12B	SC-740	12 in (300 mm)	14.70 in (373 mm)	N/A	1.20 in (30 mm)
SC740E15T	SC-740	15 in (375 mm)	18.40 in (467 mm)	9.00 in (229 mm)	N/A
SC740E15B	SC-740	15 in (375 mm)	18.40 in (467 mm)	N/A	1.30 in (33 mm)
SC740E18T	SC-740	18 in (450 mm)	19.70 in (500 mm)	5.00 in (127 mm)	N/A
SC740E18B	SC-740	18 in (450 mm)	19.70 in (500 mm)	N/A	1.60 in (41 mm)
SC740E24B	SC-740	24 in (600 mm)	18.50 in (470 mm)	N/A	0.10 in (3 mm)

* NOTE: CHAMBER SYSTEM DESIGN MUST BE IN ACCORDANCE WITH STORMTECH DESIGN MANUAL 20 Beaver Road, Suite 104 Wethersfield, CT 06109 Phone: 888-892-2694 Fax: 866-328-8401 www.stormtech.com

SCALE: NTS CHECKED DATE: 01/25/2007 ACAD No. SHEET OF



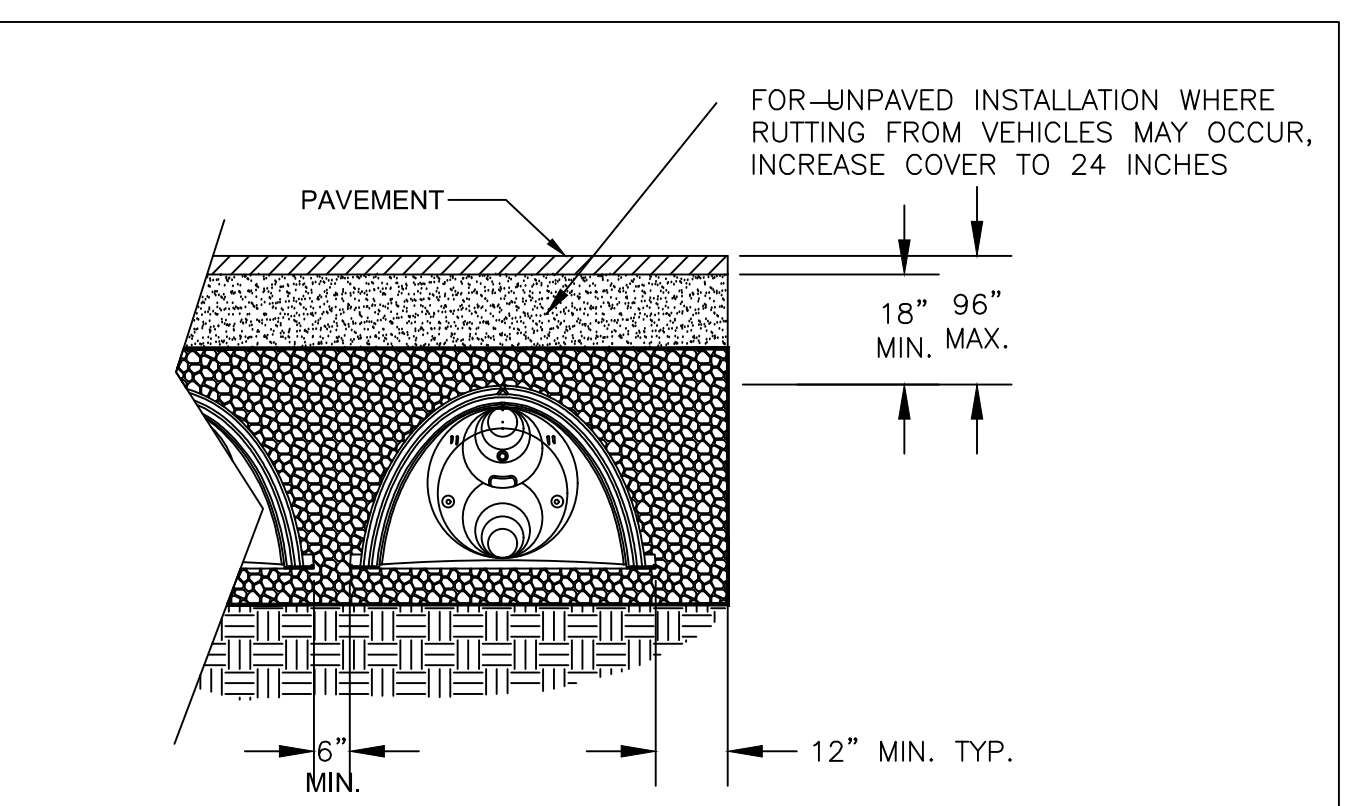
Snout Detail SCALE: NONE



Snout Oil-Water-Debris Separator

- NOTES:
- ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY: BEST MANAGEMENT PRODUCTS, INC. 53 MT. ARCHER RD. LYME, CT 06371 (860) 434-0277, (860) 434-3195 FAX TOLL FREE: (800) 504-8008 OR (888) 354-7585 WEB SITE: www.bestmp.com OR PRE-APPROVED EQUAL.
 - ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
 - ALL HOODS SHALL BE EQUIPPED WITH A WATER TIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
 - THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
 - THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
 - THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 24" ACCORDING TO STRUCTURE CONFIGURATION.
 - THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
 - THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
 - INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT. INSTALLATION KIT SHALL INCLUDE: A. INSTALLATION INSTRUCTIONS B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING D. 3/8" STAINLESS STEEL BOLTS E. ANCHOR SHIELDS
- US Patent # 6126817

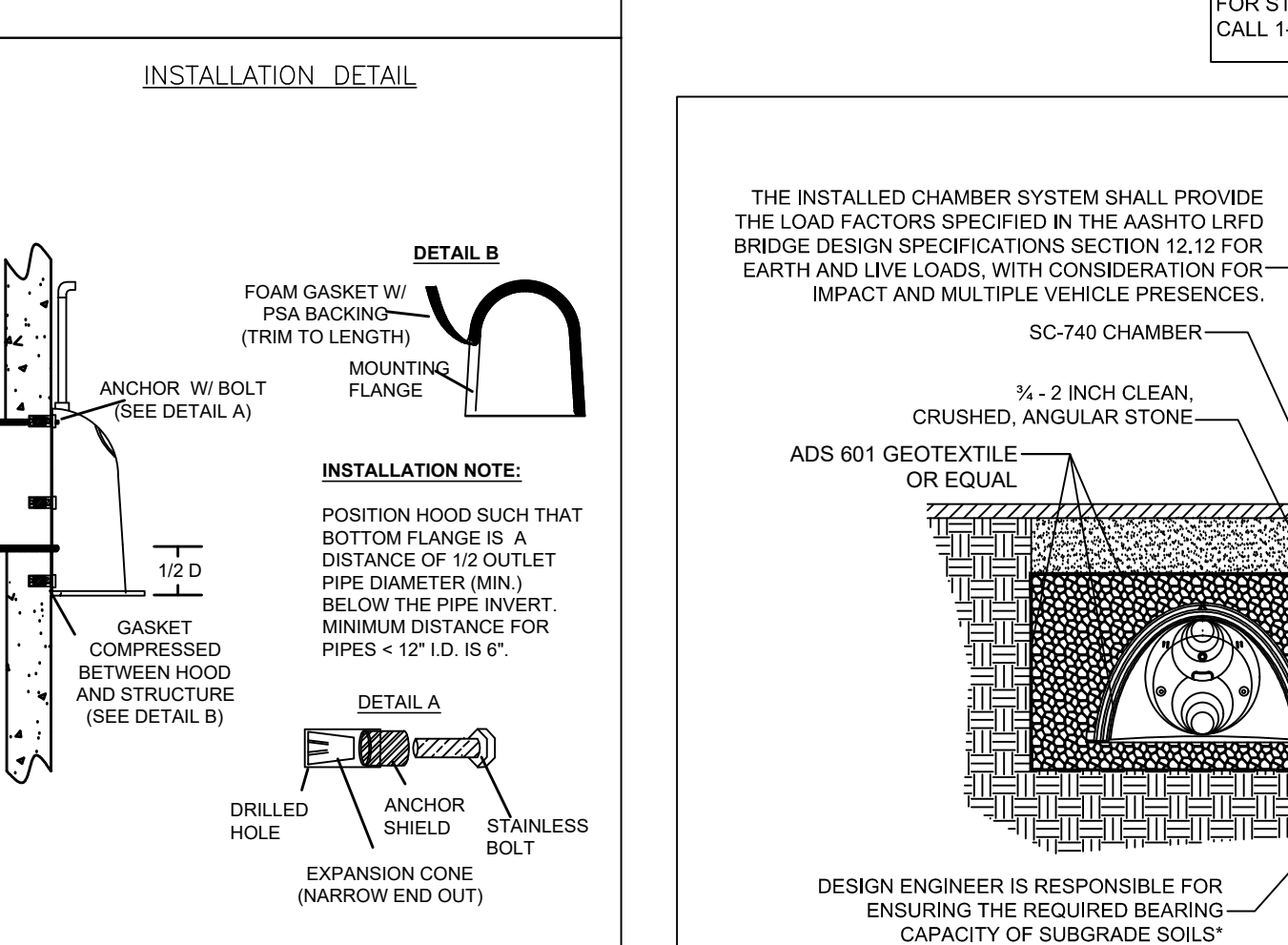
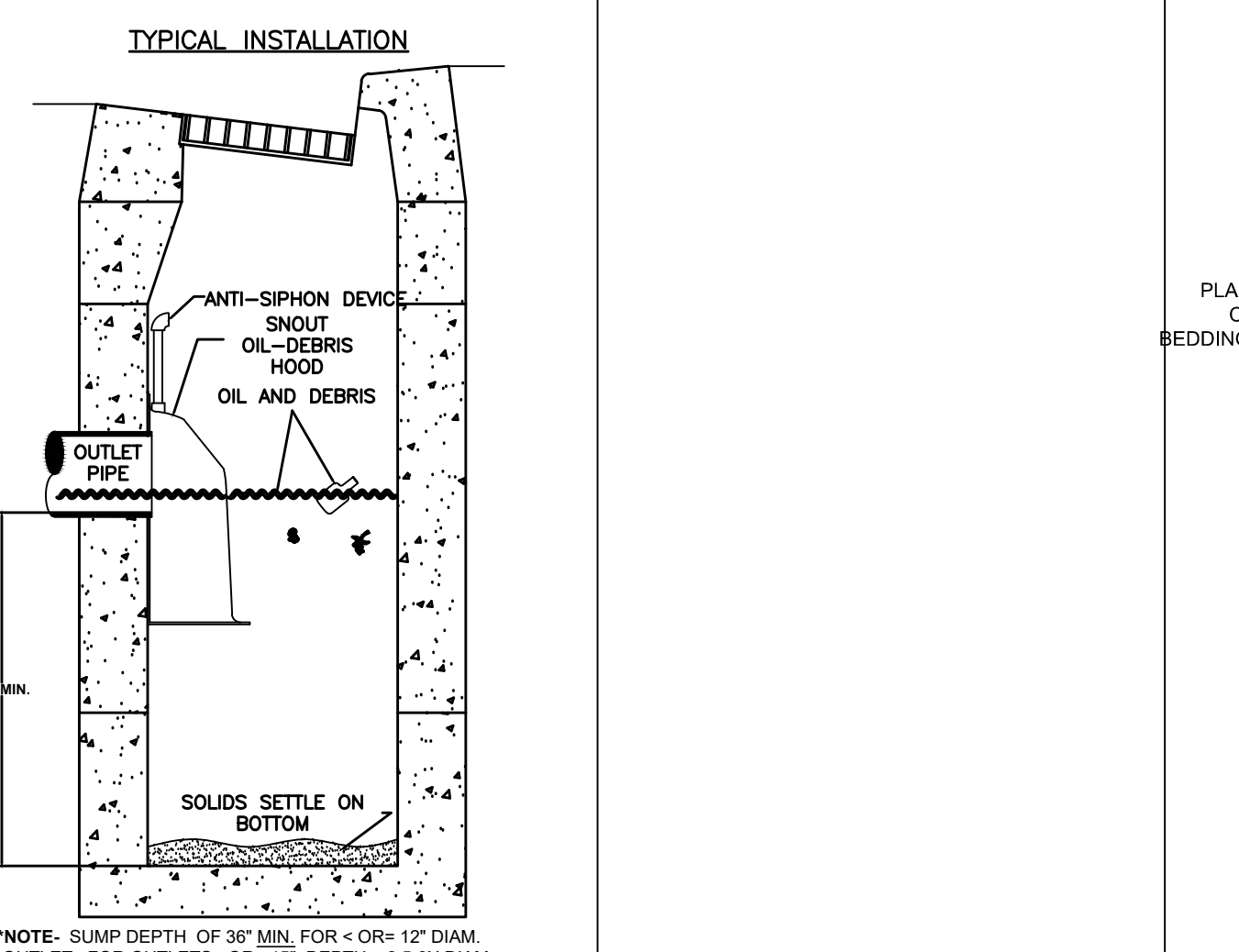
Snout Installation Specifications SCALE: NONE



StormTech Detention Site Calculator

Installed Storage Volume	6,849 c.f.
Stormtech Chamber System	MC4500
Stone Porosity (Industry Standard = 40%)	40%
Stone Foundation Depth (assumed 6" cover stone depth)	9 inches
Storage Volume Per Chamber	201.4 c.f.
Avg. Cover over Chambers (18 in min. & 96 in. max.)	12 inches
Number of Chambers Required	34
# of End Caps Required	6

StormTech Detention Site Calculator

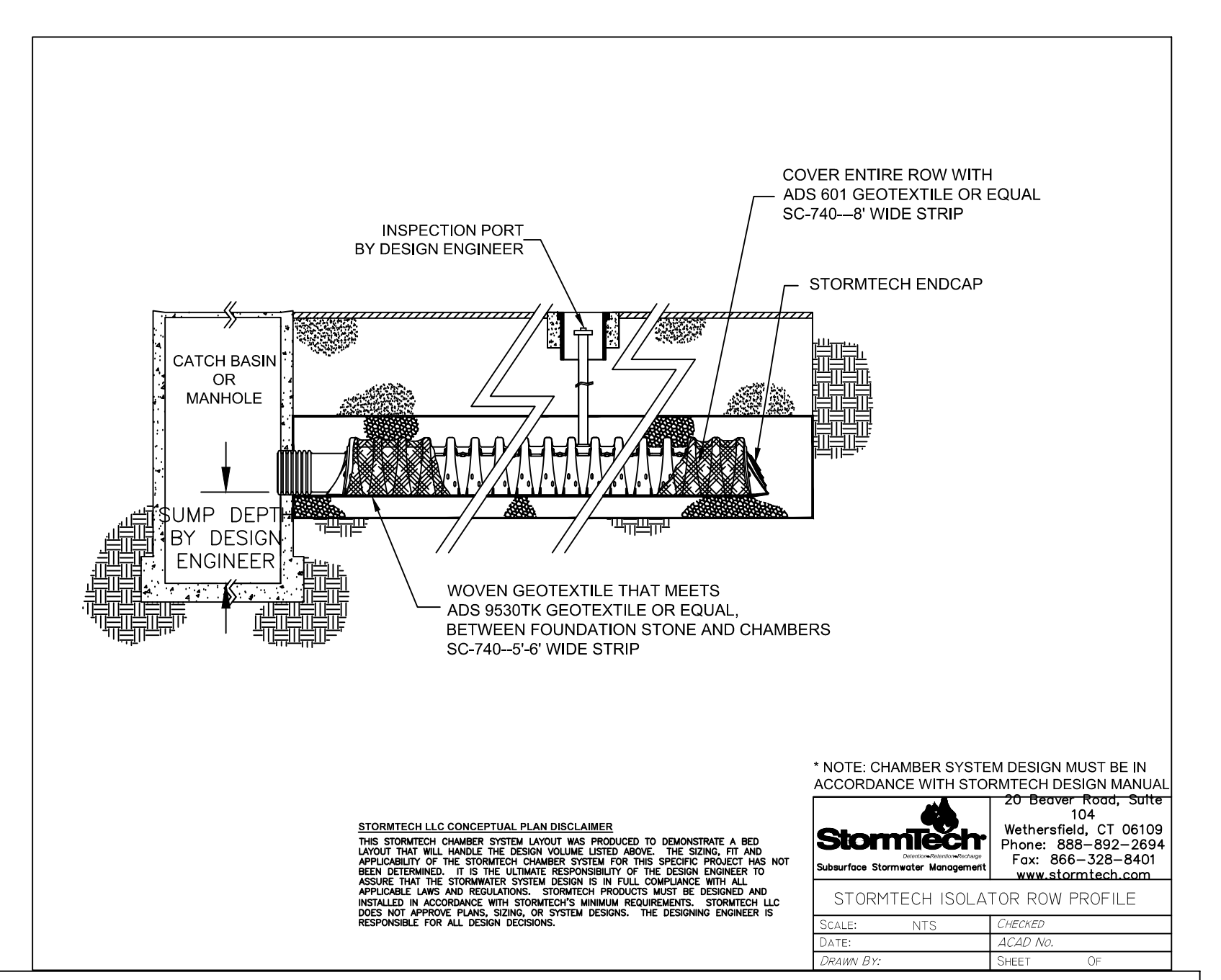


HOOD SPECIFICATION FOR CATCH BASINS AND WATER QUALITY STRUCTURES

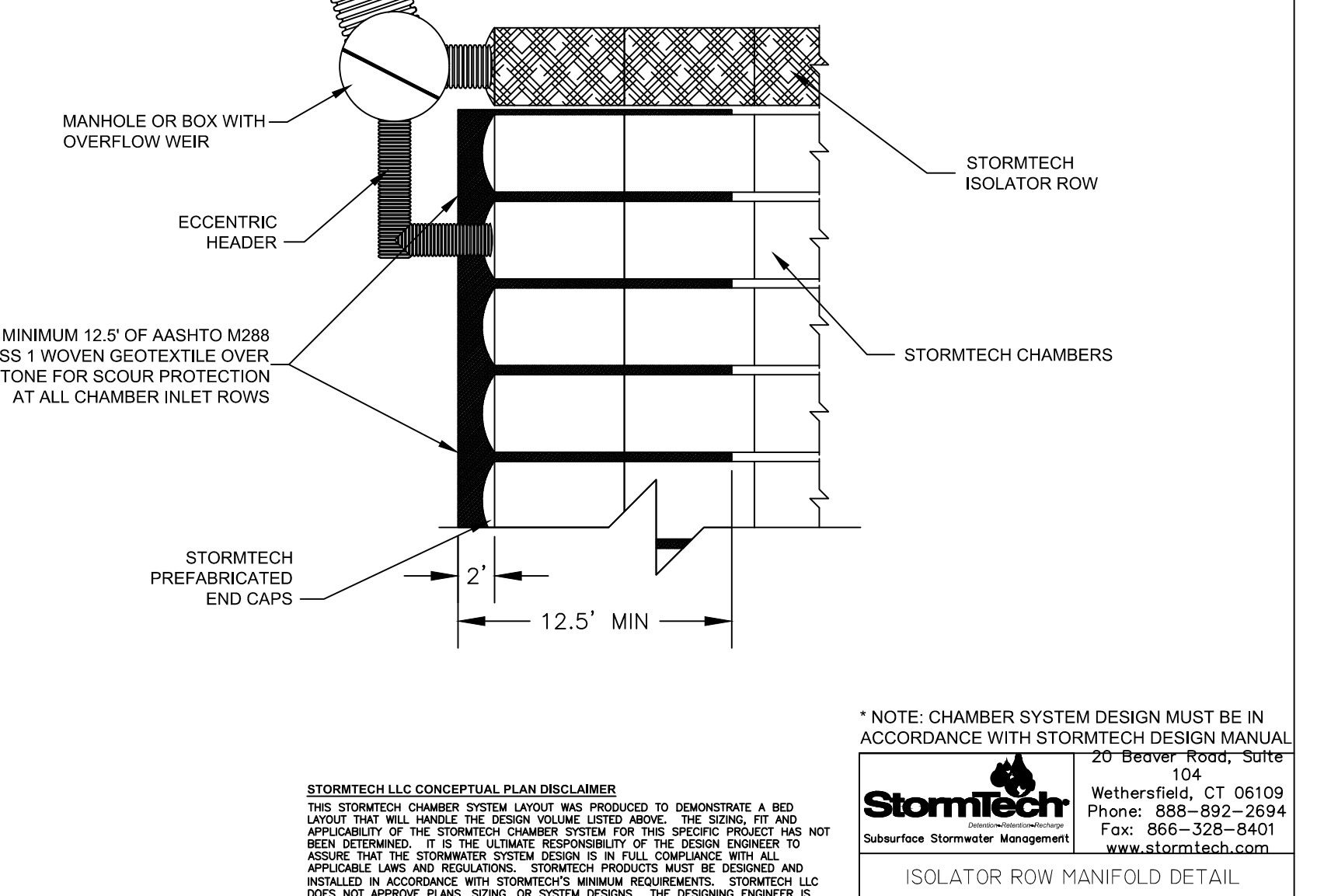
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DRAWING NUMBER: SP-SN

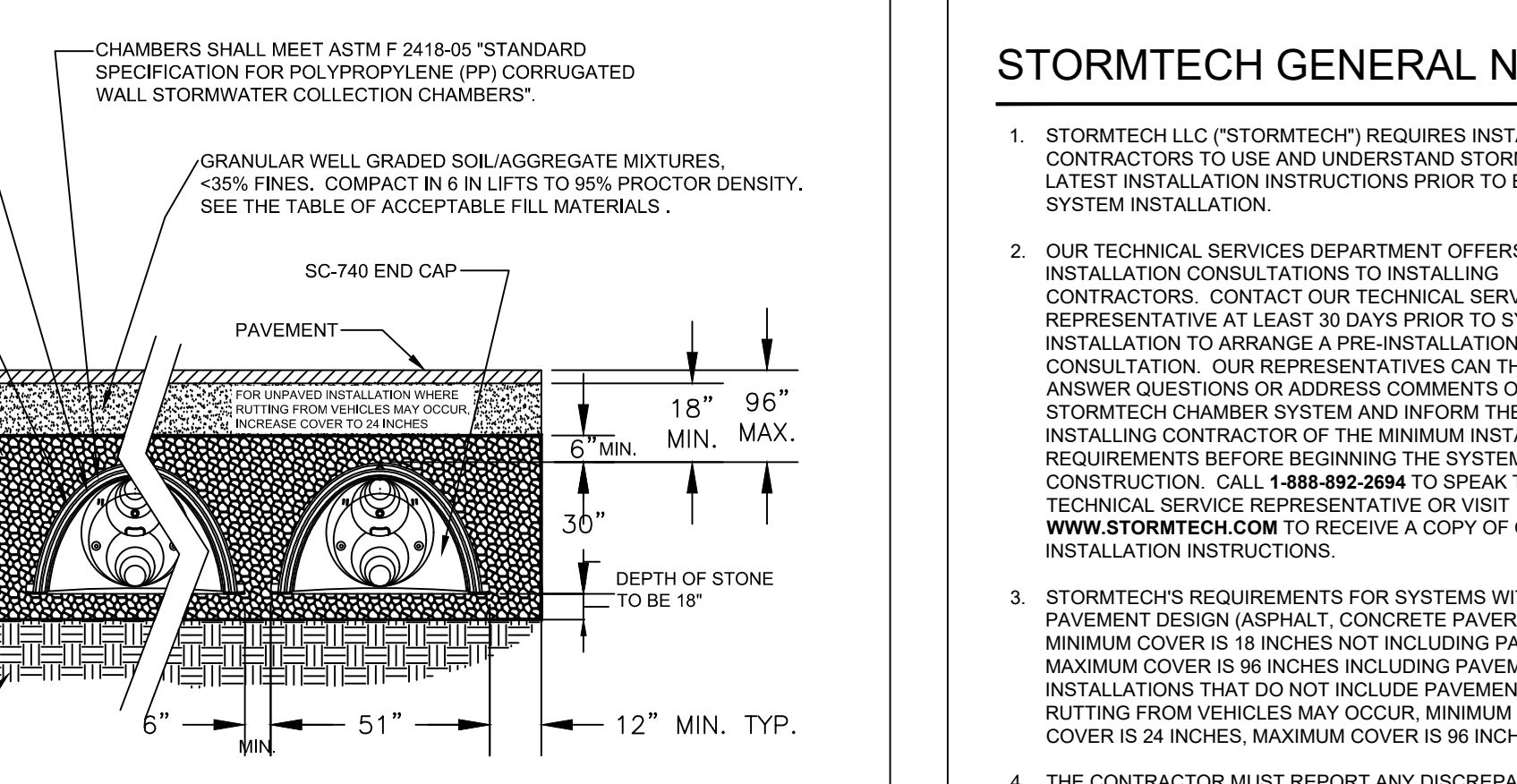
Snout Installation Specifications SCALE: NONE



* NOTE: CHAMBER SYSTEM DESIGN MUST BE IN ACCORDANCE WITH STORMTECH DESIGN MANUAL 20 Beaver Road, Suite 104 Wethersfield, CT 06109 Phone: 888-892-2694 Fax: 866-328-8401 www.stormtech.com



FOR STORMTECH INFORMATION CALL 1-888-892-2694



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SCALE: NTS CHECKED DATE: 01/25/2007 ACAD No. SHEET OF

STORMTECH GENERAL NOTES

- STORMTECH LLC ("STORMTECH") REQUIRES INSTALLING CONTRACTORS TO USE AND UNDERSTAND STORMTECH'S LATEST INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION.
- OUR TECHNICAL SERVICES DEPARTMENT OFFERS INSTALLATION CONSULTATIONS TO INSTALLING CONTRACTORS. CONTACT OUR TECHNICAL SERVICES REPRESENTATIVE AT LEAST 30 DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE A PRE-INSTALLATION CONSULTATION. OUR REPRESENTATIVES CAN THEN ANSWER QUESTIONS OR ADDRESS COMMENTS ON THE STORMTECH CHAMBER SYSTEM AND INFORM THE INSTALLING CONTRACTOR OF THE MINIMUM INSTALLATION REQUIREMENTS BEFORE BEGINNING THE SYSTEMS CONSTRUCTION. CALL 1-888-892-2694 TO SPEAK TO A TECHNICAL SERVICE REPRESENTATIVE OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF OUR INSTALLATION INSTRUCTIONS.
- STORMTECH'S REQUIREMENTS FOR SYSTEMS WITH PAVEMENT DESIGN (ASPHALT, CONCRETE PAVERS, ETC.) MINIMUM COVER IS 18 INCHES NOT INCLUDING PAVEMENT; MAXIMUM COVER IS 96 INCHES INCLUDING PAVEMENT. FOR INSTALLATIONS THAT DO NOT INCLUDE PAVEMENT, WHERE RUTTING FROM VEHICLES MAY OCCUR, MINIMUM REQUIRED COVER IS 24 INCHES, MAXIMUM COVER IS 96 INCHES.
- THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE DESIGN ENGINEER.
- AASHTO M288 CLASS 2 NON-WOVEN GEOTEXTILE (FILTER FABRIC) MUST BE USED AS INDICATED IN THE PROJECT PLANS.
- STONE PLACEMENT BETWEEN CHAMBERS ROWS AND AROUND PERIMETER MUST FOLLOW INSTRUCTIONS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- BACKFILLING OVER THE CHAMBERS MUST FOLLOW REQUIREMENTS AS INDICATED IN THE MOST CURRENT VERSION OF STORMTECH'S INSTALLATION INSTRUCTIONS.
- THE CONTRACTOR MUST REFER TO STORMTECH'S INSTALLATION INSTRUCTIONS FOR A TABLE OF ACCEPTABLE VEHICLE LOADS AT VARIOUS DEPTHS OF COVER. THIS INFORMATION IS ALSO AVAILABLE AT STORMTECH'S WEBSITE: WWW.STORMTECH.COM. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING VEHICLES THAT EXCEED STORMTECH'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE STORMWATER SYSTEM. TEMPORARY FENCING, WARNING TAPE AND APPROPRIATELY LOCATED SIGNS ARE COMMONLY USED TO PREVENT UNAUTHORIZED VEHICLES FROM ENTERING SENSITIVE CONSTRUCTION AREAS.
- THE CONTRACTOR MUST APPLY EROSION AND SEDIMENT CONTROL MEASURES TO PROTECT THE STORMWATER SYSTEM DURING ALL PHASES OF SITE CONSTRUCTION PER LOCAL CODES AND DESIGN ENGINEER'S SPECIFICATIONS.
- STORMTECH PRODUCT WARRANTY IS LIMITED. SEE CURRENT PRODUCT WARRANTY FOR DETAILS. TO ACQUIRE A COPY CALL STORMTECH AT 1-888-892-2694 OR VISIT WWW.STORMTECH.COM.

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No.	Date	Description

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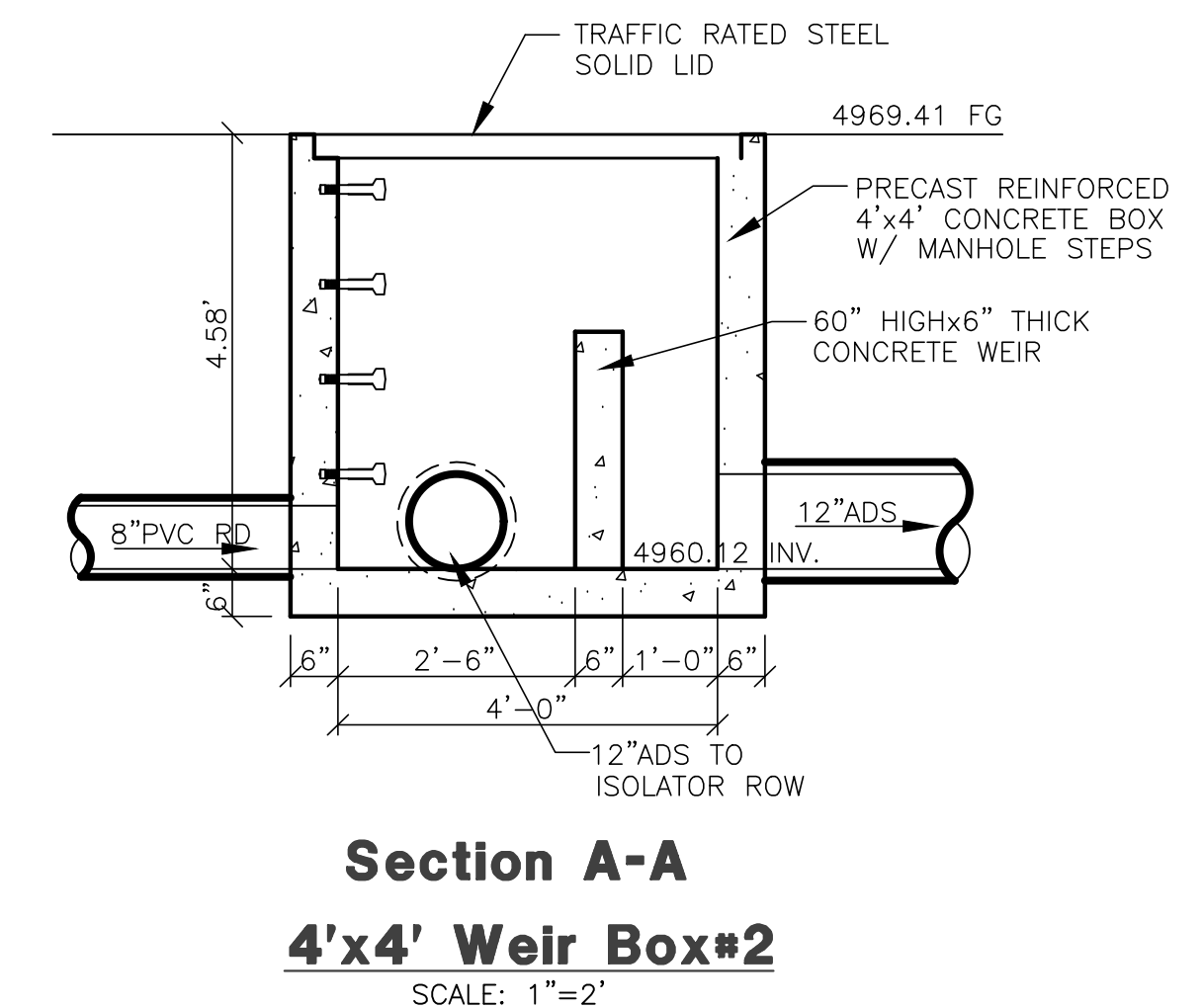
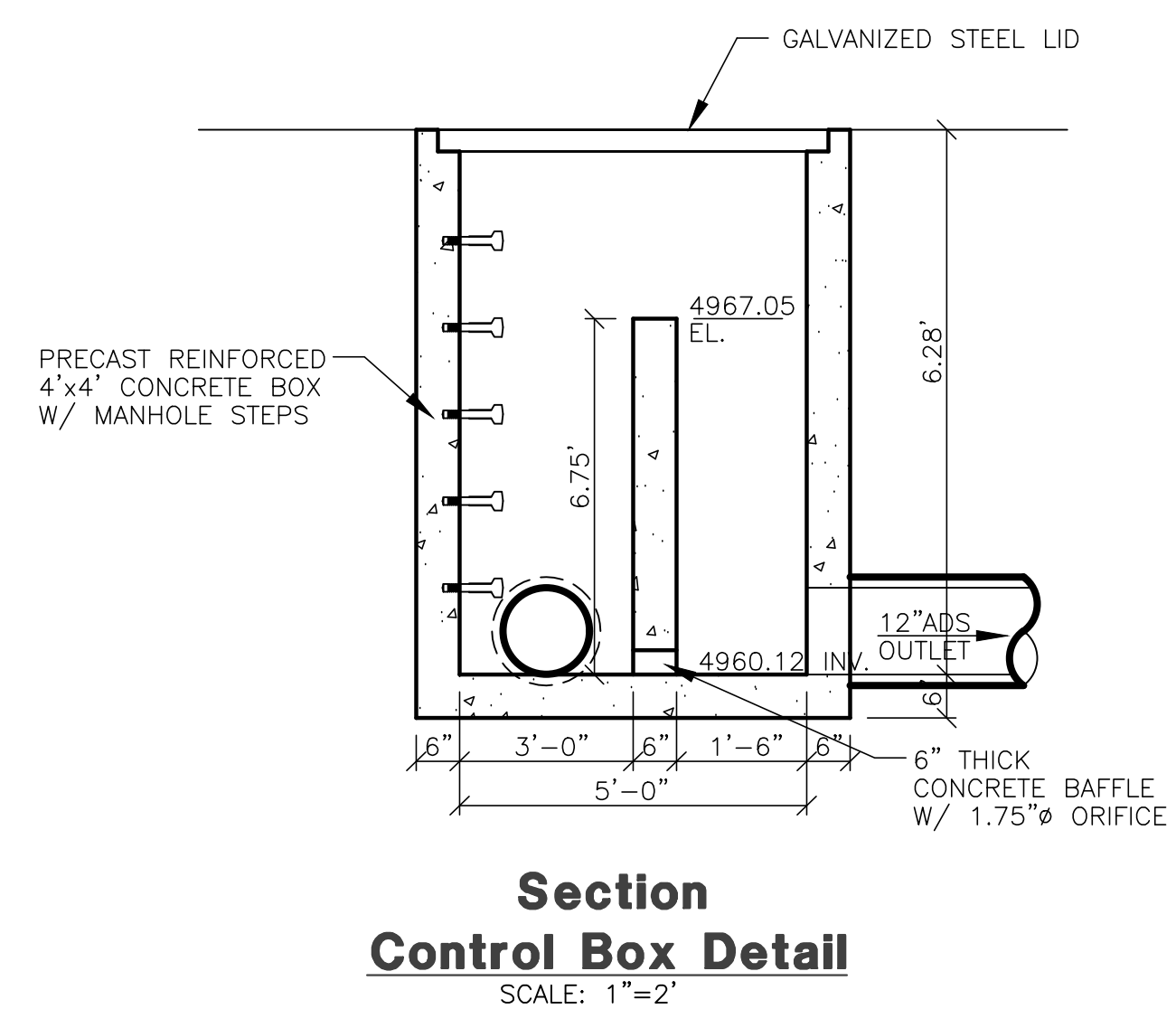
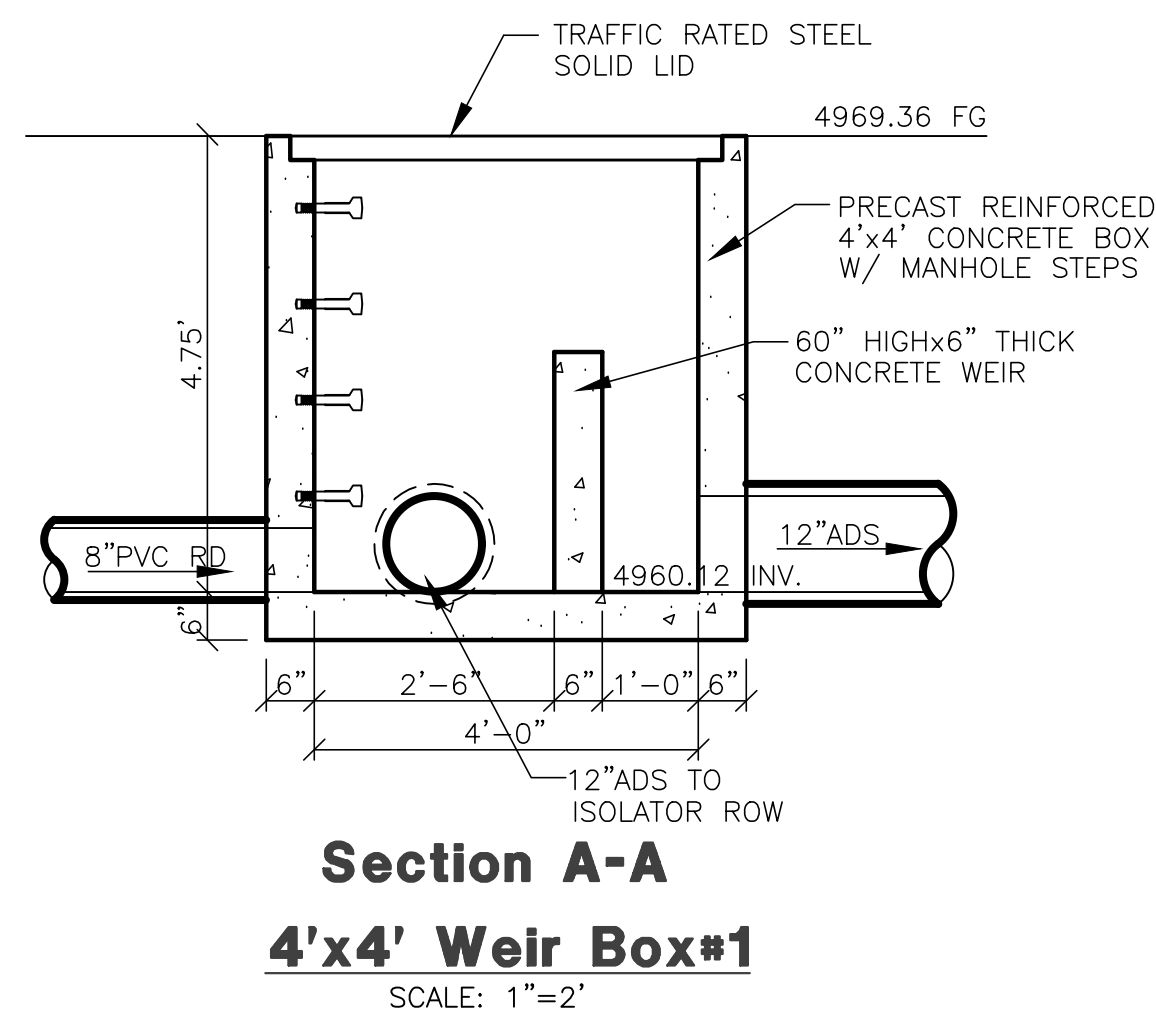
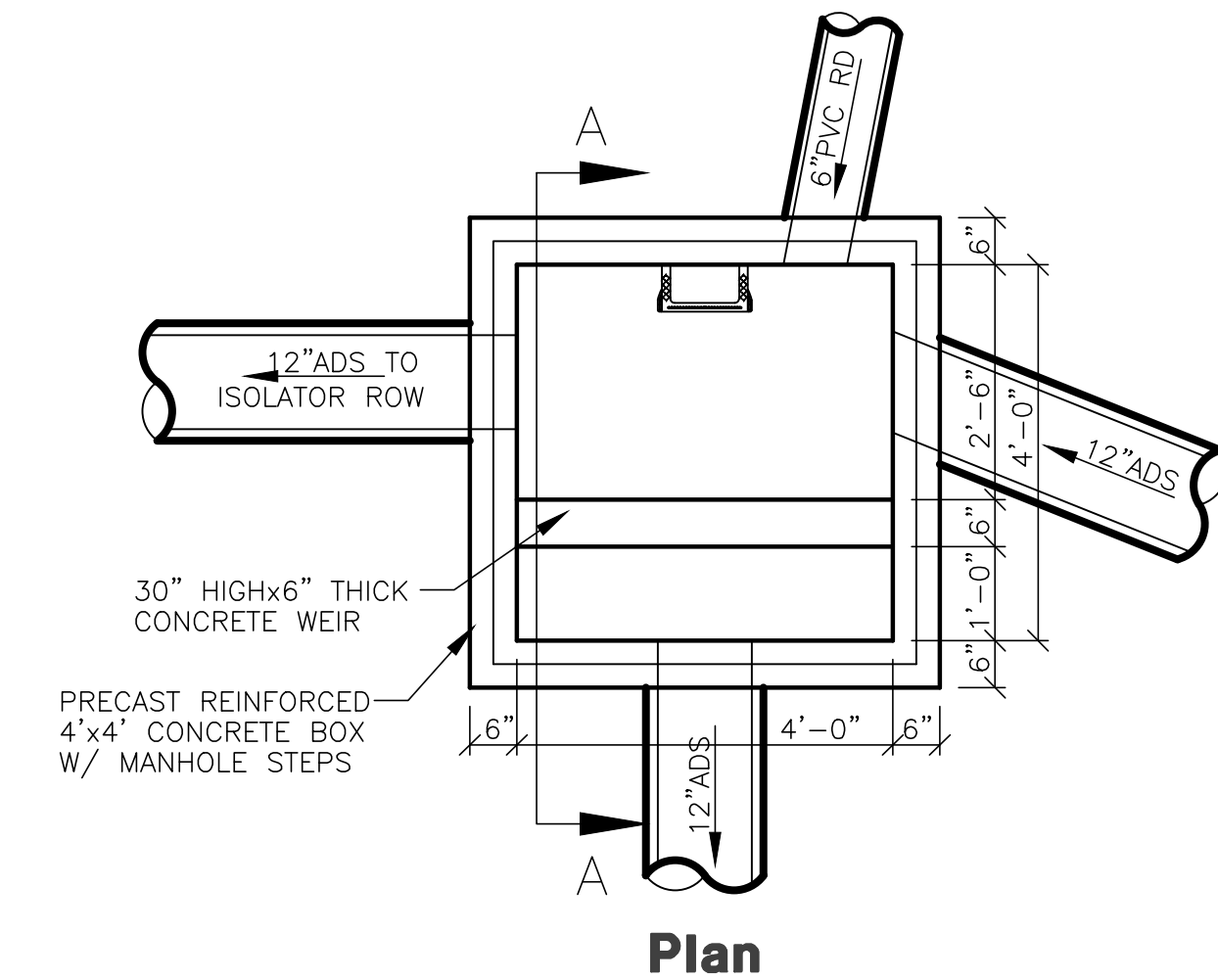
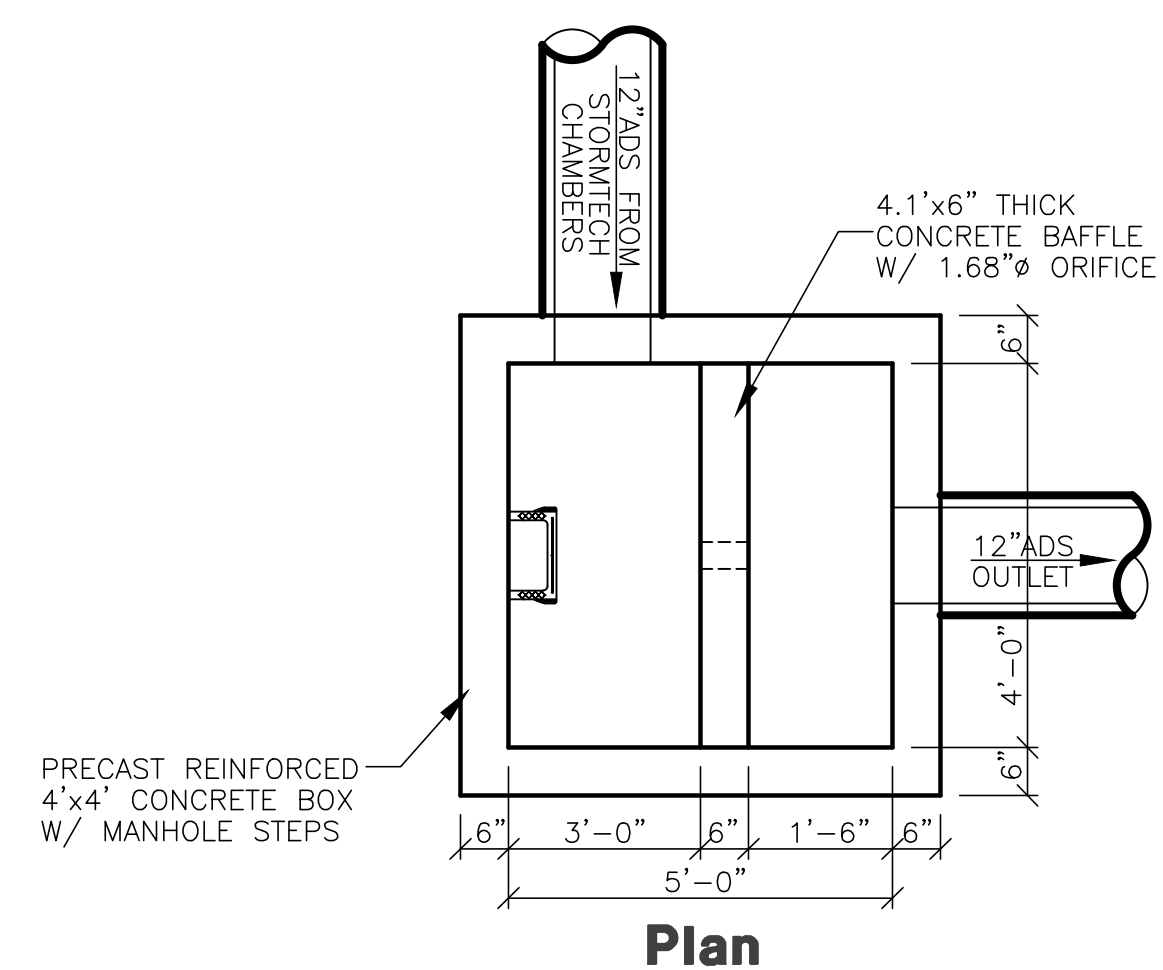
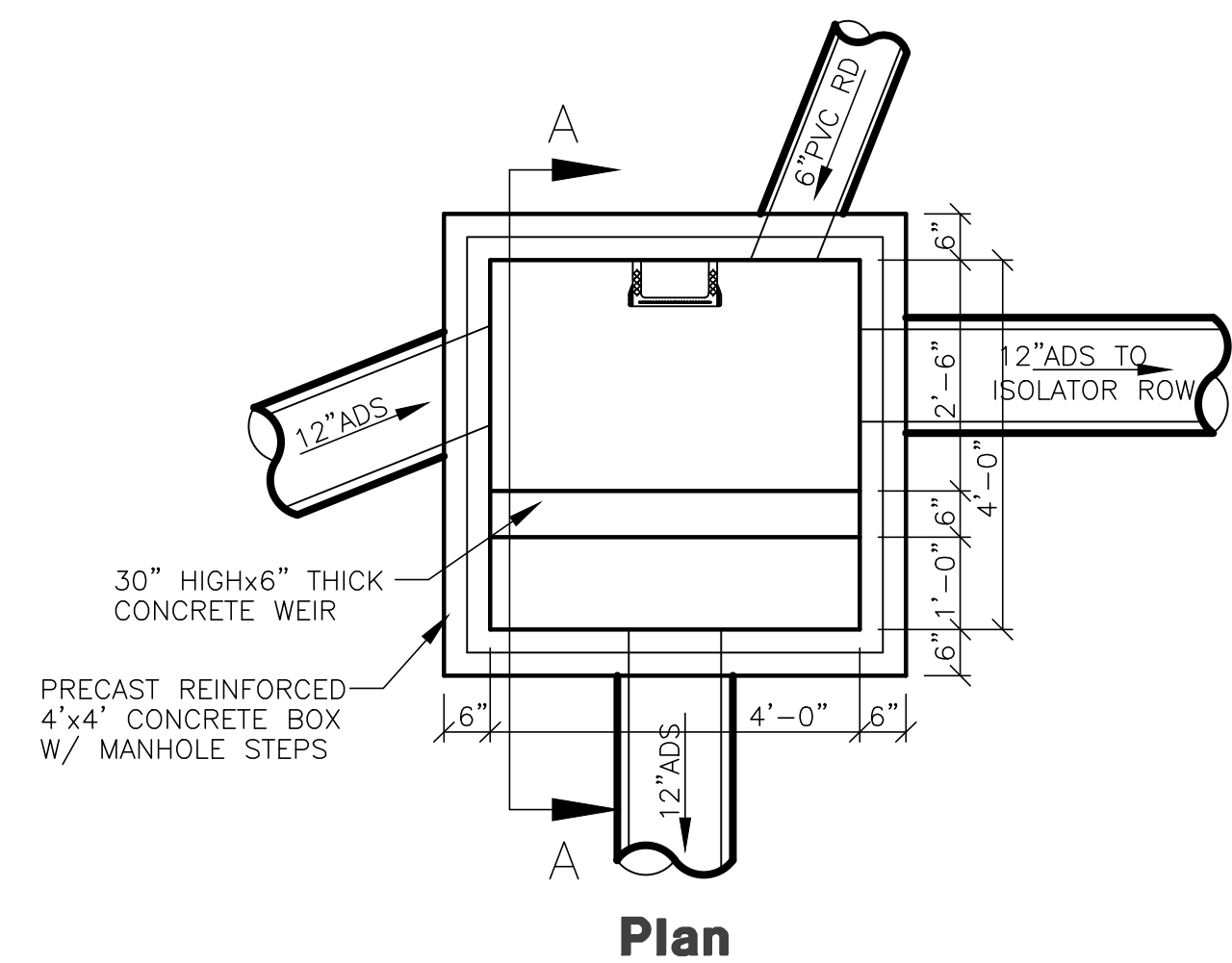
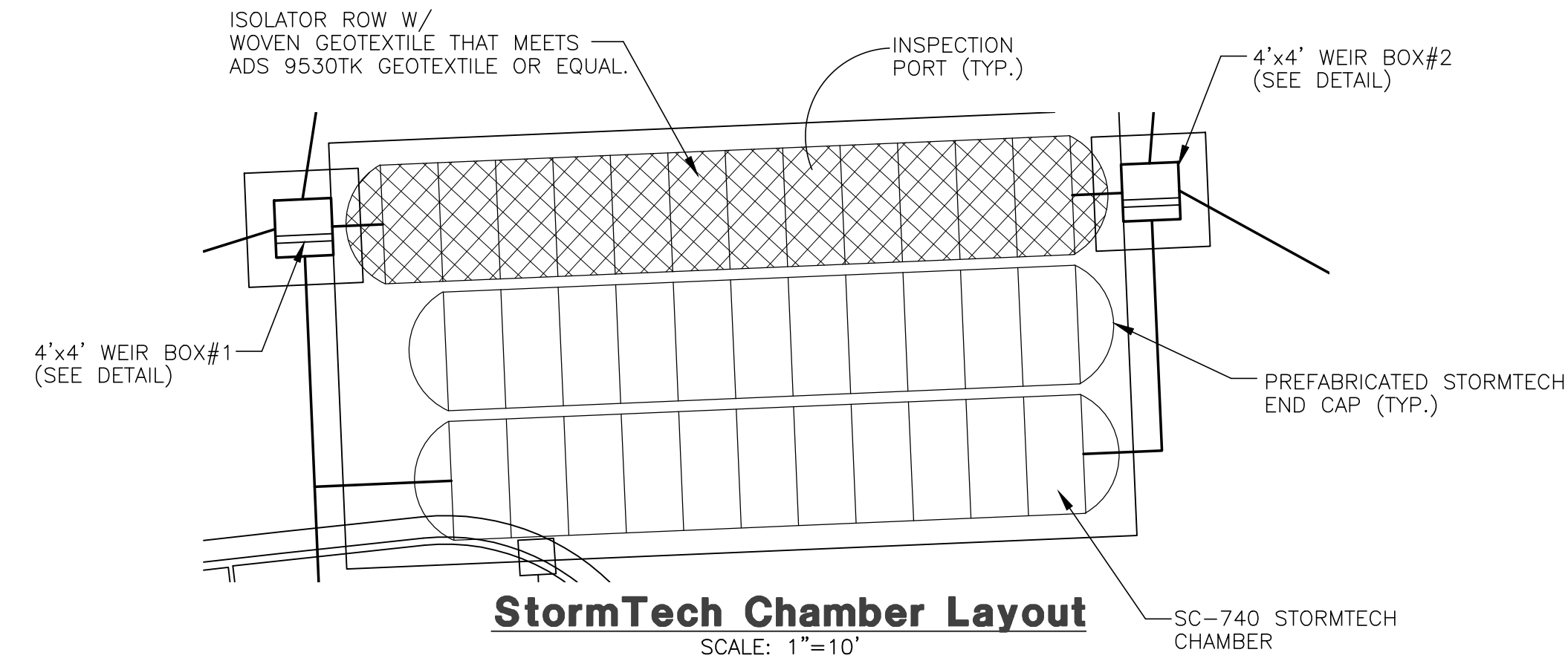
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SHEET TITLE

DRAINAGE DETAILS

C10



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LAND PLANNERS • CIVIL ENGINEERS
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 STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

PROJECT NUMBER: 5799-230
 DRAWN BY: RWH
 ENGINEER: JNR

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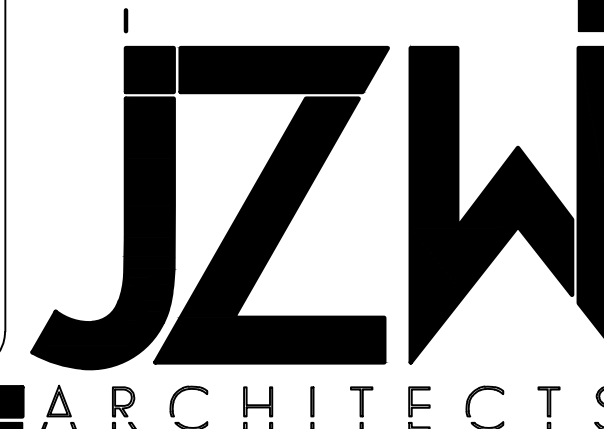
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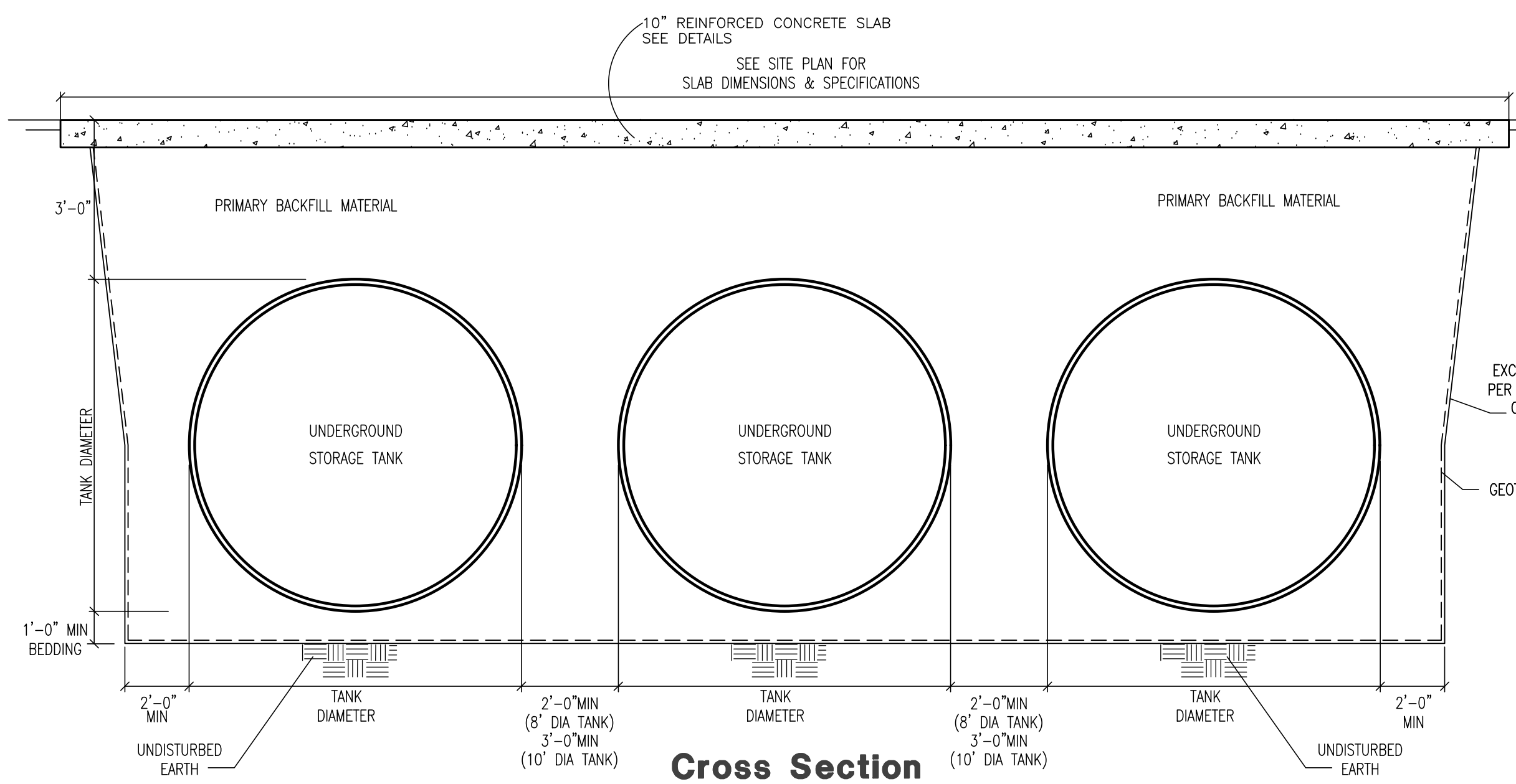
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UNDERGROUND STORAGE TANK DETAILS

C11



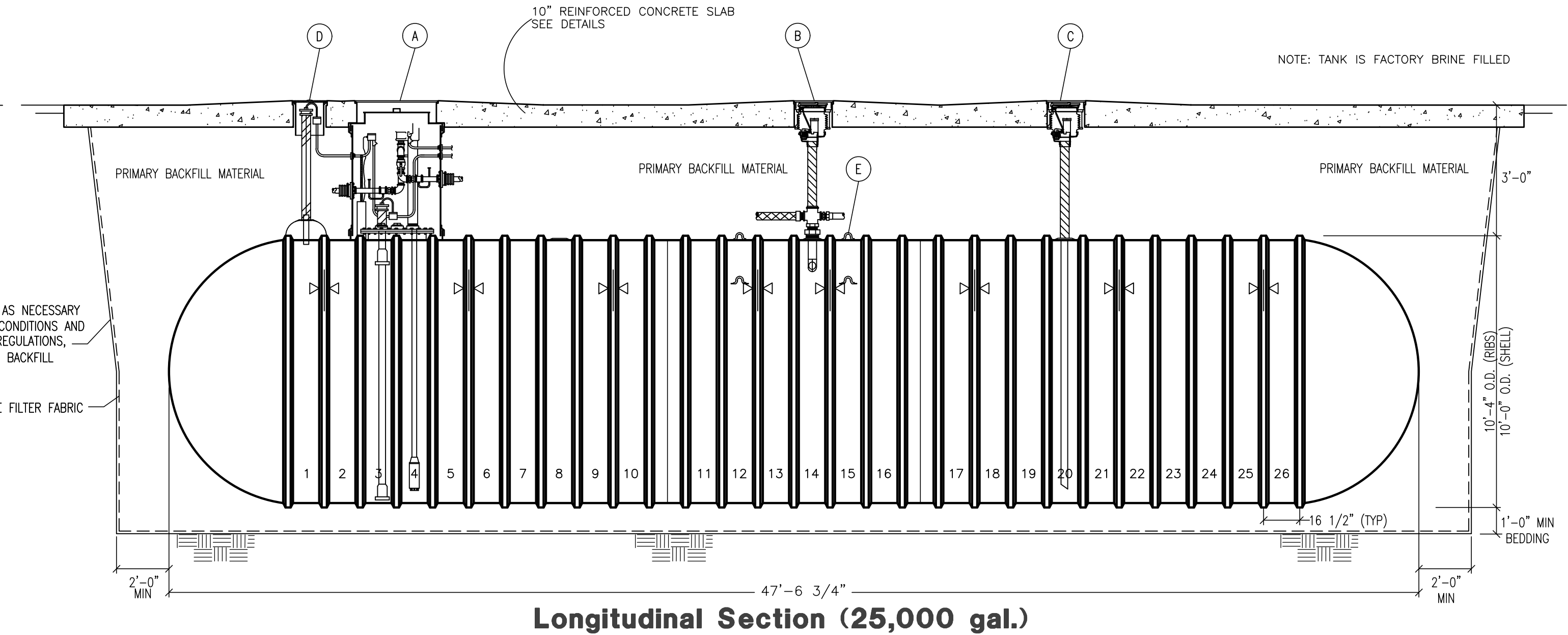
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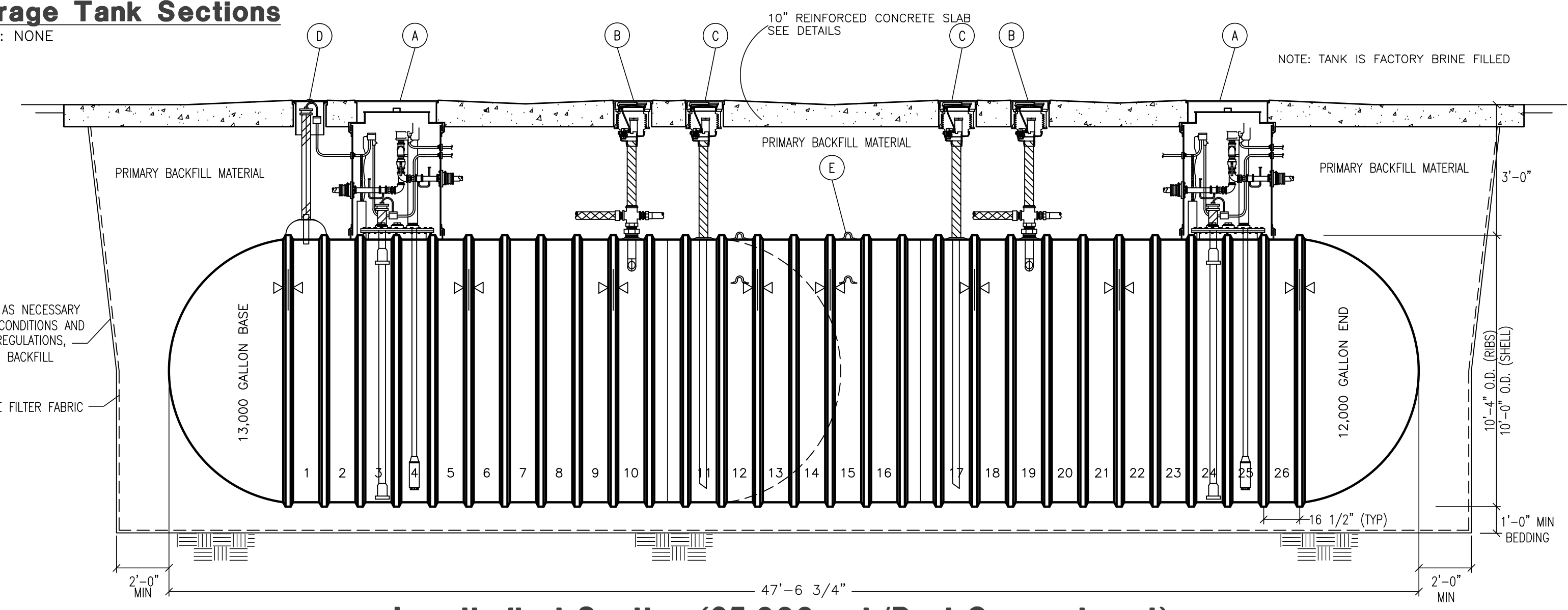
Cross Section

Underground Storage Tank Sections

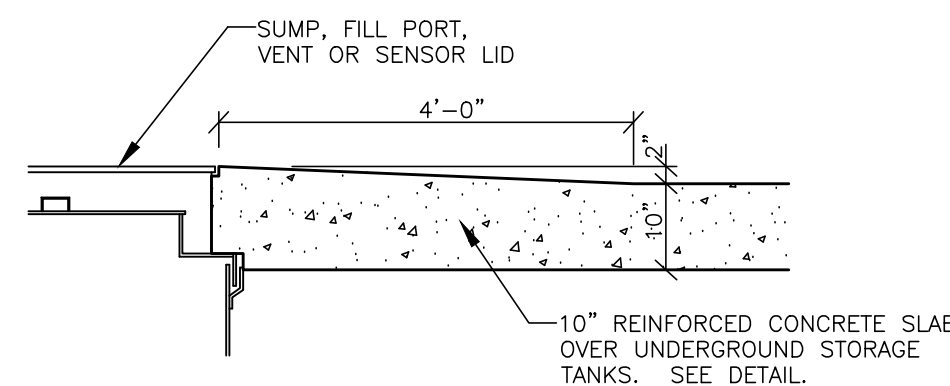
SCALE: NONE



Longitudinal Section (25,000 gal.)



Longitudinal Section (25,000 gal./Dual Compartment)



UST Lid/Concrete Detail

General Notes:

- INSTALL TANKS PER MANUFACTURER RECOMMENDATIONS AS SPECIFIED WITHIN THE "INSTALLATION MANUAL & OPERATING GUIDELINES FOR FIBERGLASS UNDERGROUND STORAGE TANKS."
 - CONTRACTOR TO BE RESPONSIBLE FOR PROTECTING THE FUEL FARM PIT FROM WATER RUN-OFF. PROVIDE BERMS AND WATER/SILT FENCING.
 - TANK SLAB BY CONTRACTOR, SEE CIVIL SITE PLAN FOR DIMENSIONS & DESIGN. CONCRETE SLAB TO EXTEND A MINIMUM 12" BEYOND TANK IN ALL DIRECTIONS.
 - SEE GRADING PLAN FOR SLOPES & GRADES OF CONCRETE.
 - SEE CIVIL SITE PLANS FOR GRADING ENSURING THAT THE FUEL DISPENSERS WILL BE INSTALLED ON A MINIMUM 6" HIGH CONCRETE ISLAND.
 - PRIMARY BACKFILL:
PRIMARY BACKFILL MATERIAL MUST MEET THE FOLLOWING SPECIFICATIONS:
* MATERIAL IS TO BE CLEAN, FREE-FLOWING, AND FREE OF DIRT, SAND, LARGE ROCKS, ROOTS, ORGANIC MATERIALS, DEBRIS, ICE AND SNOW. BACKFILL MATERIAL SHALL NOT BE FROZEN OR CONTAIN LUMPS OF FROZEN MATERIAL AT ANY TIME DURING PLACEMENT.
* AN IMPORTANT CHARACTERISTIC OF GOOD BACKFILL MATERIAL IS HARDNESS OR STABILITY WHEN EXPOSED TO WATER OR LOADS. MOST MATERIALS HAVE NO PROBLEM MEETING THE HARDNESS REQUIREMENT. MATERIALS LIKE SOFT LIMESTONE, SANDSTONE, SEA SHELLS OR SHALE SHOULD NOT BE USED AS BACKFILL BECAUSE THEY MAY BREAK DOWN OVER TIME.
* WHEN USING SELECT ROUNDED STONES, THEY MUST CONFORM TO THE SPECIFICATIONS OF ASTM C-33, SIZE NUMBERS 6, 67 OR 7.
* WHEN USING SELECT CRUSHED STONES, THEY MUST CONFORM TO THE SPECIFICATIONS OF ASTM C-33, SIZE NUMBERS 7 OR 8.
 - TEST MANIFOLD FOR EACH AIR-TESTABLE TANK OR COMPARTMENT; TEST AT 6 PSIG (4 PSIG FOR 12-FOOT DIAMETER TANKS) PER SECTION 1.3.1.7 & .8 OF THE "INSTALLATION MANUAL AND OPERATING GUIDELINES FOR FIBERGLASS UNDERGROUND STORAGE TANKS."
 - ALWAYS LIFT TANKS BY USING THE LIFTING LUGS PROVIDED WITH THE TANK. DISTRIBUTE THE LIFTING LOAD EVENLY BETWEEN THE LIFTING LUGS. USE SPREADER BARS AND EQUAL LENGTH SLINGS AS REQUIRED. USE A CRANE FOR PROPER MOVEMENT OF THE TANKS, PER SECTION 2.1.3 OF THE "INSTALLATION MANUAL AND OPERATING GUIDELINES FOR FIBERGLASS UNDERGROUND STORAGE TANKS."
 - ALL EXCAVATED PETROLEUM LINE TRENCHES ARE TO BE BACKFILLED WITH PRIMARY BACKFILL MATERIAL.
 - TANKS ARE TO BE LOCATED A MINIMUM OF 3 FEET FROM PROPERTY LINES.
 - GEOTEXTILE FILTER FABRIC:
* COVER OVER THE ENTIRE SURFACE OF BACKFILL MATERIAL.
* ALL JOINTS IN THE FILTER FABRIC MUST BE OVERLAPPED A MINIMUM OF 12".
* GEOTEXTILE FABRIC ALLOWS THE PASSAGE OF WATER IN AND OUT OF THE EXCAVATION BUT PREVENTS THE MIGRATION AND MIXING OF IN SITU SOIL AND THE SELECT BACKFILL MATERIAL. GEOTEXTILE HELPS PRESERVE THE INTEGRITY OF THE SELECT BACKFILL ENVELOPE THAT SURROUNDS AND SUPPORTS THE TANK.
* USE FILTER FABRIC PER XERXES SPECIFICATIONS.
 - PRECAST DEADMAN TANK ANCHOR TO BE SPECIFIED BY WATER TABLE REQUIREMENTS AND GEOTECHNICAL REPORT. PLACE DEADMAN ON TANK PIT BEDDING. DEADMAN LENGTH SHALL MEET OR EXCEED TANK LENGTH. PETROLEUM CONTRACTOR SHALL PROVIDE ALL EQUIPMENT I.E. CRANE AND ETC. FOR INSTALLING AND SETTING TANK ANCHOR SYSTEM.
 - TANK HOLD DOWN SYSTEM TO BE INSTALLED WITH DEADMAN ANCHORS AS SPECIFIED BY WATER TABLE AND GEOTECHNICAL REPORT. VERIFY QUANTITY AND SPACING OF STRAPS WITH TANK MANUFACTURER PRIOR TO INSTALLATION. INSTALL PER MANUFACTURERS INSTRUCTIONS. IF DEADMAN EYE BOLTS SLOTS ARE LOCATED IN THE PROPER POSITION USE TURNBUCKLE SHACKLE METHOD, OTHERWISE, USE WIRE CABLE AND TRIPLE CLAMPS.
- | | |
|-----------------------------------|--------------------------------------------------|
| A SUBMERSIBLE PUMP AND TANK SUMP | E LIFTING LUG (2 EXTRA (25,000 gal.)) |
| B STAGE 1 VAPOR RECOVERY | F POURED IN PLACE CONCRETE DEADMAN (IF REQUIRED) |
| C TANK FILL TUBE | 15' LONG FOR 25,000 GAL. TANKS |
| D HYDROSTATIC INTERSTITIAL SENSOR | HOLD DOWN STRAP LOCATION |

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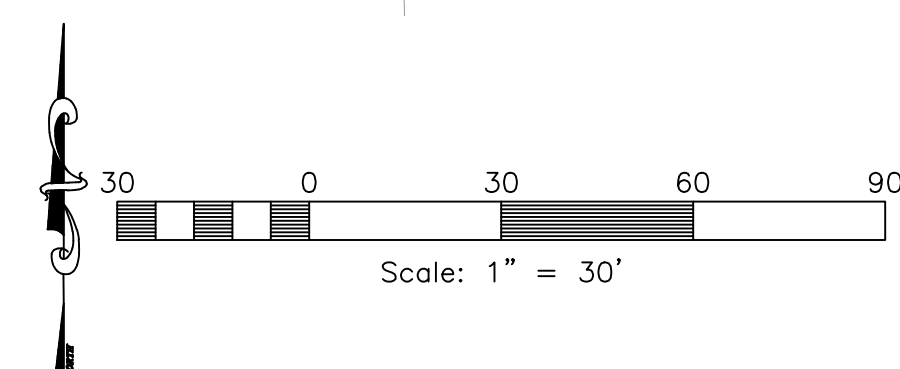
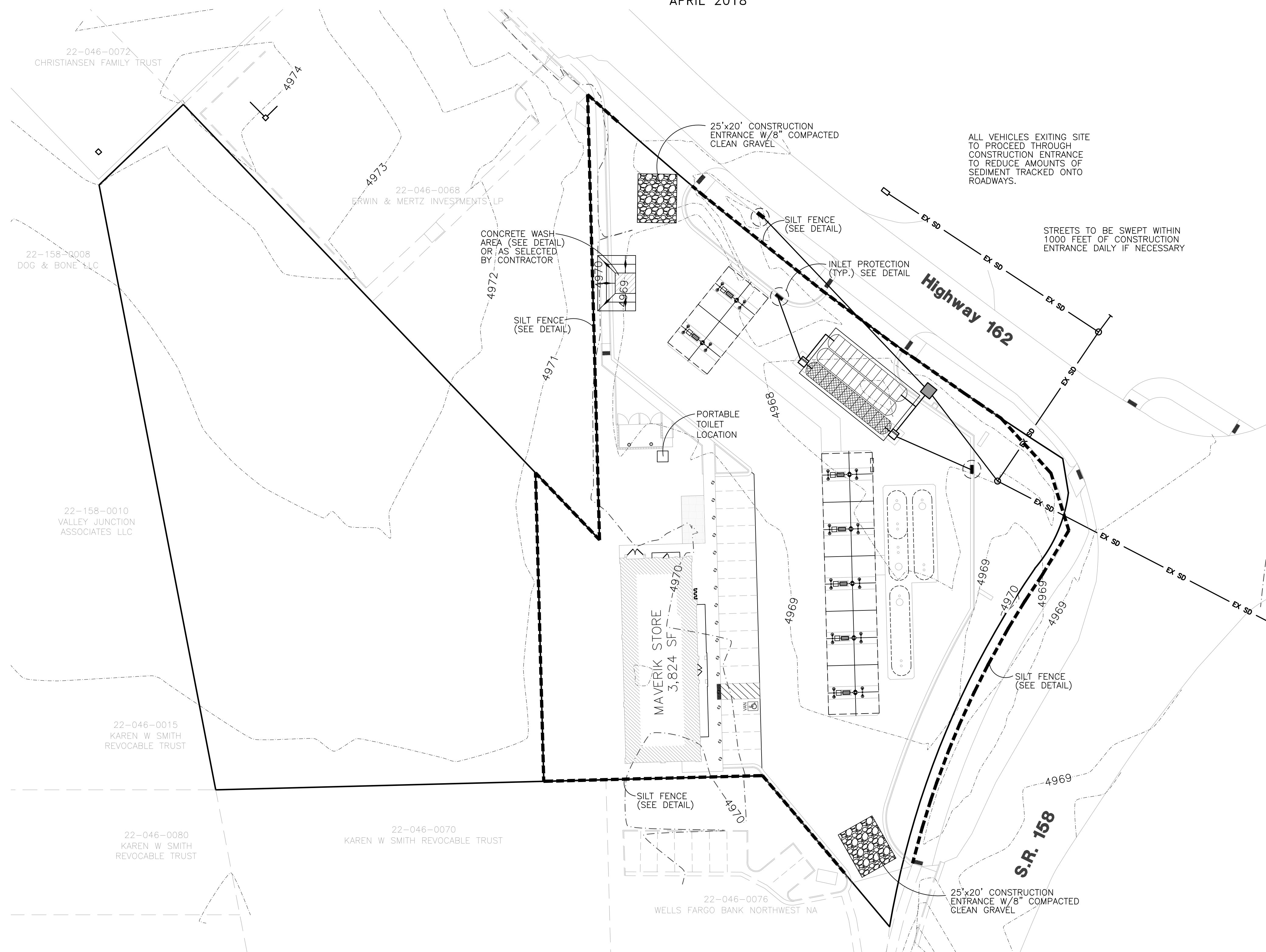
5100 EAST & 2500 NORTH

Storm Water Pollution Prevention Plan Exhibit

EDEN, WEBER COUNTY, UTAH
APRIL 2018



Vicinity Map
NOT TO SCALE



Construction Activity Schedule	
- PROJECT LOCATION.....	EDEN, WEBER COUNTY, UTAH
- PROJECT BEGINNING DATE.....	APRIL 2018
- BMP'S DEPLOYMENT DATE.....	APRIL 2018
- STORM WATER MANAGEMENT CONTACT / INSPECTOR.....	TROY JORGENSEN @ MAVERIK (877) 936-5557 UNTIL GENERAL CONTRACTOR IS HIRED
- SPECIFIC CONSTRUCTION SCHEDULE INCLUDING BMP CONSTRUCTION SCHEDULE TO BE INCLUDED WITH SWPPP BY OWNER/DEVELOPER	

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PROJECT NUMBER: 5799-230
 DRAWN BY: RWH
 ENGINEER: JNR

PROJECT NUMBER

ISSUE DATE:
APR. 13, 2018

REVISIONS:

No.	Date	Description

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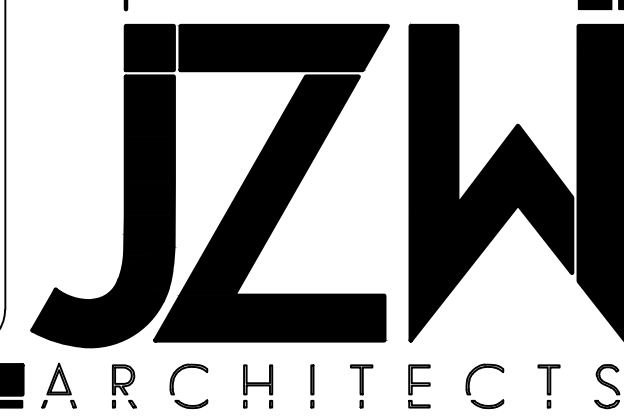
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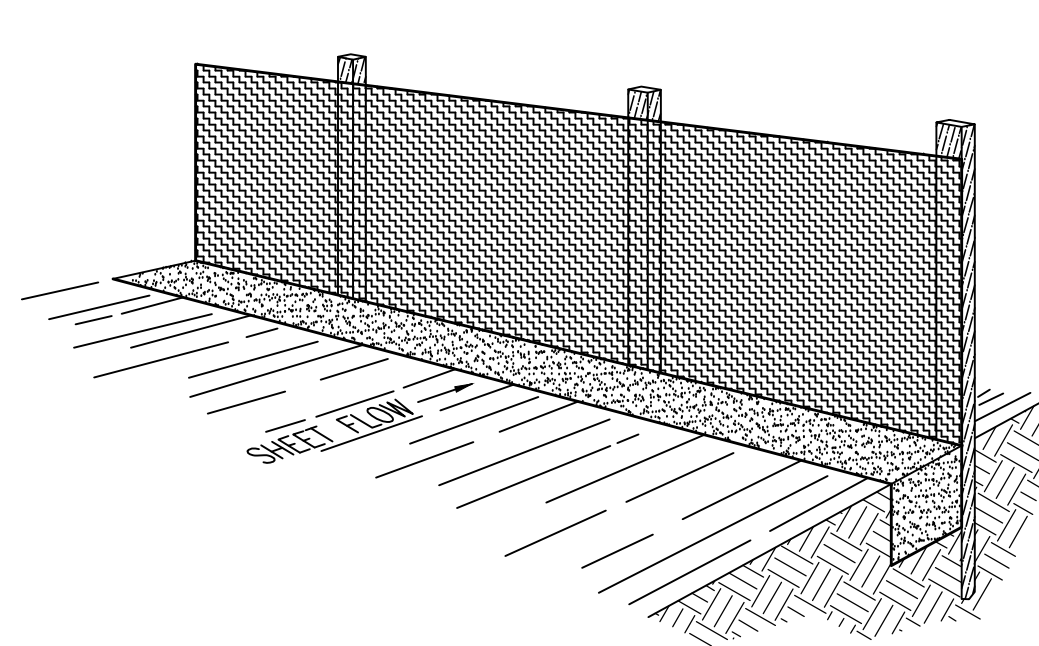
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SHEET TITLE
STORM WATER POLLUTION PREVENTION PLAN EXHIBIT

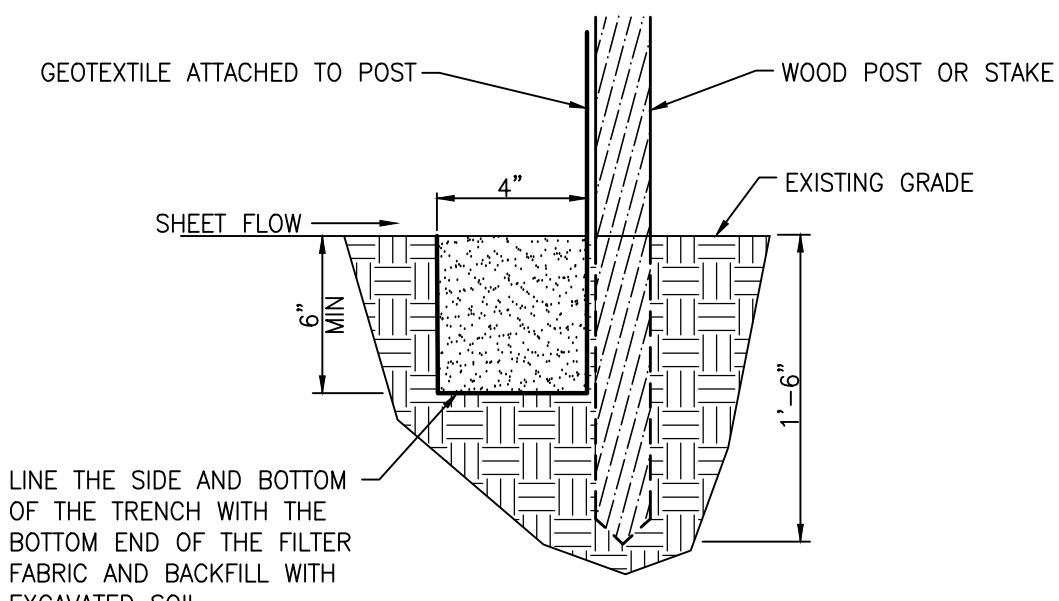
C12



- Describe all BMP's to protect storm water inlets:
All storm water inlets to be protected by straw wattle barriers, or gravel bags (see detail).
- Describe BMP's to eliminate/reduce contamination of storm water from:
 - Equipment / building / concrete wash areas:
To be performed in designated areas only and surrounded with silt fence barriers.
 - Soil contaminated by soil amendments:
If any contaminants are found or generated, contact environmental engineer and contacts listed.
 - Areas of contaminated soil:
If any contaminants are found or generated, contact environmental engineer and contacts listed.
 - Fueling area:
To be performed in designated areas only and surrounded with silt fence.
 - Vehicle maintenance areas:
To be performed in designated areas only and surrounded with silt fence.
 - Vehicle parking areas:
To be performed in designated areas only and surrounded with silt fence.
 - Equipment storage areas:
To be performed in designated areas only and surrounded with silt fence.
 - Materials storage areas:
To be performed in designated areas only and surrounded with silt fence.
 - Waste containment areas:
To be performed in designated areas only and surrounded with silt fence.
 - Service areas:
To be performed in designated areas only and surrounded with silt fence.
- Construction Vehicles and Equipment:
 - Maintenance
 - Maintain all construction equipment to prevent oil or other fluid leaks.
 - Keep vehicles and equipment clean, prevent excessive build-up of oil and grease.
 - Regularly inspect on-site vehicles and equipment for leaks, and repair immediately.
 - Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment on-site.
 - Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic, and transmission fluids.
 - Fueling
 - If fueling must occur on-site, use designated areas away from drainage.
 - Locate on-site fuel storage tanks within a bermed area designed to hold the tank volume.
 - Cover retention area with an impervious material and install in a manner to ensure that any spills will be contained in the retention area. To catch spills or leaks when removing or changing fluids.
 - Use drip pans for any oil or fluid changes.
 - Washing
 - Use as little water as possible to avoid installing erosion and sediment controls for the wash area.
 - If washing must occur on-site, use designated, bermed wash areas to prevent waste water discharge into storm water, creeks, rivers, and other water bodies.
 - Use phosphate-free, biodegradable soaps.
 - Do not permit steam cleaning on-site.
- Spill Prevention and Control
 - Minor Spills:
Minor spills are those which are likely to be controlled by on-site personnel. After contacting local emergency response agencies, the following actions should occur upon discovery of a minor spill:
 - Contain the spread of the spill.
 - If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (i.e. absorbent materials, cat litter, and / or rags).
 - If the spill occurs in dirt areas, immediately contain the spill by constructing an earth dike. Dig up property dispose of contaminated soil.
 - If the spill occurs during rain, cover the impacted area to avoid runoff.
 - Record all steps taken to report and contain spill.
 - Major Spills:
On-site personnel should not attempt to control major spills until the appropriate and qualified emergency response staff have arrived at the site. For spills of federal reportable quantities, also notify the National Response Center at (800) 424-8802. A written report should be sent to all notified authorities. Failure to report major spills can result in significant fines and penalties.
- Post Roadway / Utility Construction
 - Maintain good housekeeping practices.
 - Enclose or cover building material storage areas.
 - Properly store materials such as paints and solvents.
 - Store dry and wet materials under cover, away from drainage areas.
 - Avoid mixing excess amounts of fresh concrete or cement on-site.
 - Perform washout of concrete trucks offsite or in designated areas only.
 - Do not wash out concrete trucks into storm drains, open ditches, streets or streams.
 - Do not place material or debris into streams, gutters or catch basins that stop or reduce the flow of runoff water.
 - All public streets and storm drain facilities shall be maintained free of building materials, mud and debris caused by grading or construction operations. Roads will be swept within 1000' of construction entrance daily, if necessary.
 - Install straw wattle around all inlets contained within the development and all others that receive runoff from the development.
- Erosion Control Plan Notes
 - The contractor will designate an emergency contact that can be reached 24 hours a day 7 days a week.
 - A stand-by crew for emergency work shall be available at all times during potential rain or snow runoff events.
 - Necessary materials shall be available on site and stockpiled at convenient locations to facilitate rapid construction of emergency devices when rain or runoff is eminent.
 - Erosion control devices shown on the plans and approved for the project may not be removed without approval of the engineer of record. If devices are removed, no work may continue that have the potential of erosion without consulting the engineer of record. If deemed necessary erosion control should be reestablished before this work begins.
 - Graded areas adjacent to fill slopes located at the site perimeter must drain away from the top of the slope at the conclusion of each working day. This should be confirmed by survey or other means acceptable to the engineer of record.
 - All silt and debris shall be removed from all devices within 24 hours after each rain or runoff event.
 - Except as otherwise approved by the inspector, all removable protective devices shown shall be in place at the end of each working day and through weekends until removal of the system is approved.
 - All loose soil and debris, which may create a potential hazard to offsite property, shall be removed from the site as directed by the Engineer of record of the governing agency.
 - The placement of additional devices to reduce erosion damage within the site is left to the discretion of the Engineer of record.
 - Desilting basins may not be removed or made inoperable without the approval of the engineer of record and the governing agency.
 - Erosion control devices will be modified as need as the project progresses, and plans of these changes submitted for approval by the engineer of record and the governing agency.
- Conduct a minimum of one inspection of the erosion and sediment controls every two weeks. Maintain documentation on site.



Perspective View



Section

INSTALLATION

The silt fence should be installed prior to major soil disturbances in the drainage area. The fence should be placed across the slope along a line of uniform elevation wherever flow of sediment is anticipated. Table 1 shows generally-recommended maximum slope lengths (slope spacing between fences) at various site grades for most silt fence applications.

Slope Steepness (%)	Max. Slope Length m (ft)
<2%	30.5m (100ft)
2-5%	22.9m (75ft)
5-10%	15.2m (50ft)
10-20%	7.6m (25ft)
>20%	4.5m (15ft)

PREFABRICATED SILT FENCE ROLLS

- Excavate a minimum 15.2cm x 15.2cm (6"x6") trench at the desired location.
- Unroll the silt fence, positioning the post against the downstream wall of the trench.
- Adjacent rolls of silt fence should be joined by nesting the end post of one fence into the other. Before nesting the end posts, rotate each post until the geotextile is wrapped completely around the post, then abut the end posts to create a tight seal as shown in Figure 1.
- Drive posts into the ground until the required fence height and/or anchorage depth is obtained.
- Bury the loose geotextile at the bottom of the fence in the upstream trench and backfill with natural soil, tamping the backfill to provide good compaction and anchorage. Figure 2 illustrates a typical silt fence installation and anchor trench placement.

- should generally be less than three (3) times the height of the fence.
- If a steel or plastic mesh is required to reinforce the geotextile, it shall have a minimum mesh opening of 15.2cm (6").
- Fasten the mesh to the upslope side of the posts using heavy duty wire staples, tie wires or hog strings. Extend the mesh into the bottom of the trench.
- The geotextile shall then be stapled or wired to the posts. An extra 20-50cm (8-20") of geotextile shall extend into the trench.

INSPECTION

- Inspect the silt fence daily during periods of rainfall, immediately after significant rainfall event and weekly during periods of no rainfall. Make any repairs immediately.
- When sediment deposits behind the silt fence are one-third of the fence height, remove and properly dispose of the silt accumulations. Avoid damage to the fabric during cleanup.

REMOVAL

- Silt fence should not be removed until construction ceases and the upslope area has been properly stabilized and/or revegetated.

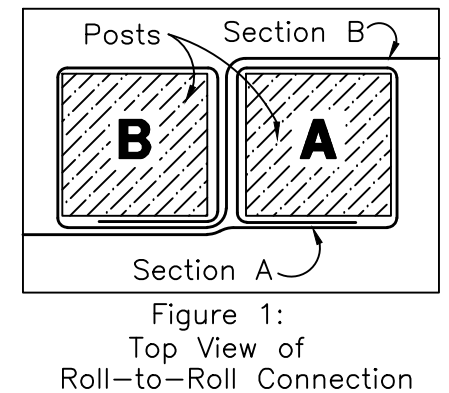


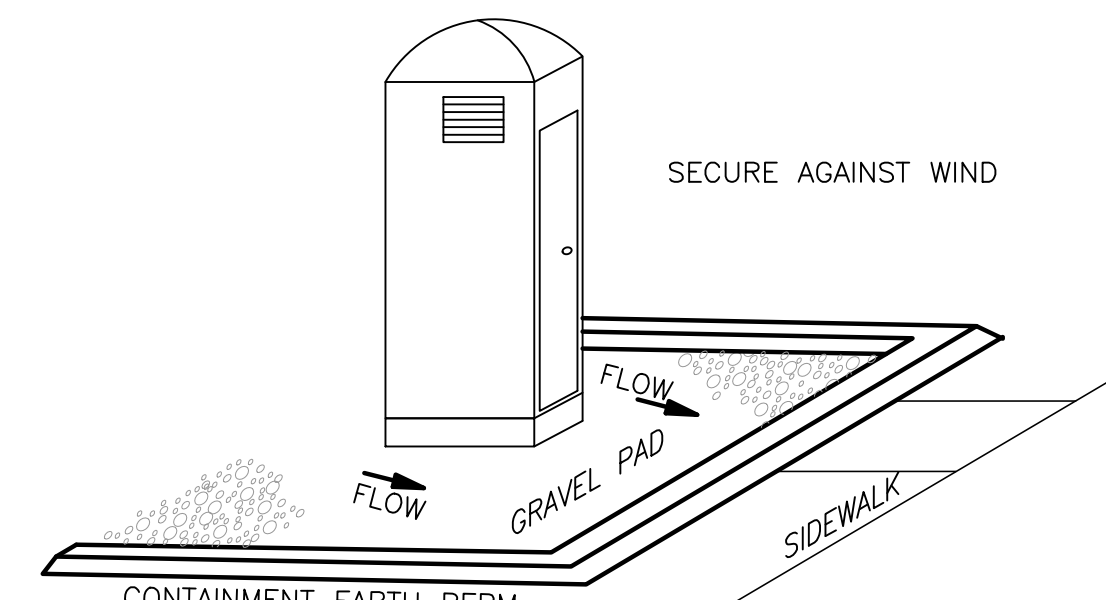
Figure 1:
Top View of
Roll-to-Roll Connection

FIELD ASSEMBLY:

- Excavate a minimum 15.2cm x 15.2cm (6"x6") trench at the desired location.
- Drive wooden posts, or steel posts with fastening projections, against the downstream wall of the trench. Maximum post spacing should be 2.4-3.0m (8-10ft). Post spacing

Silt Fence Detail

SCALE: NONE



Portable Toilet Detail

SCALE: NONE

DESCRIPTION

Temporary on-site sanitary facilities for construction personnel.

APPLICATION

All sites with no permanent sanitary facilities or where permanent facility is too far from facility.

INSTALLATION/APPLICATION FACILITY

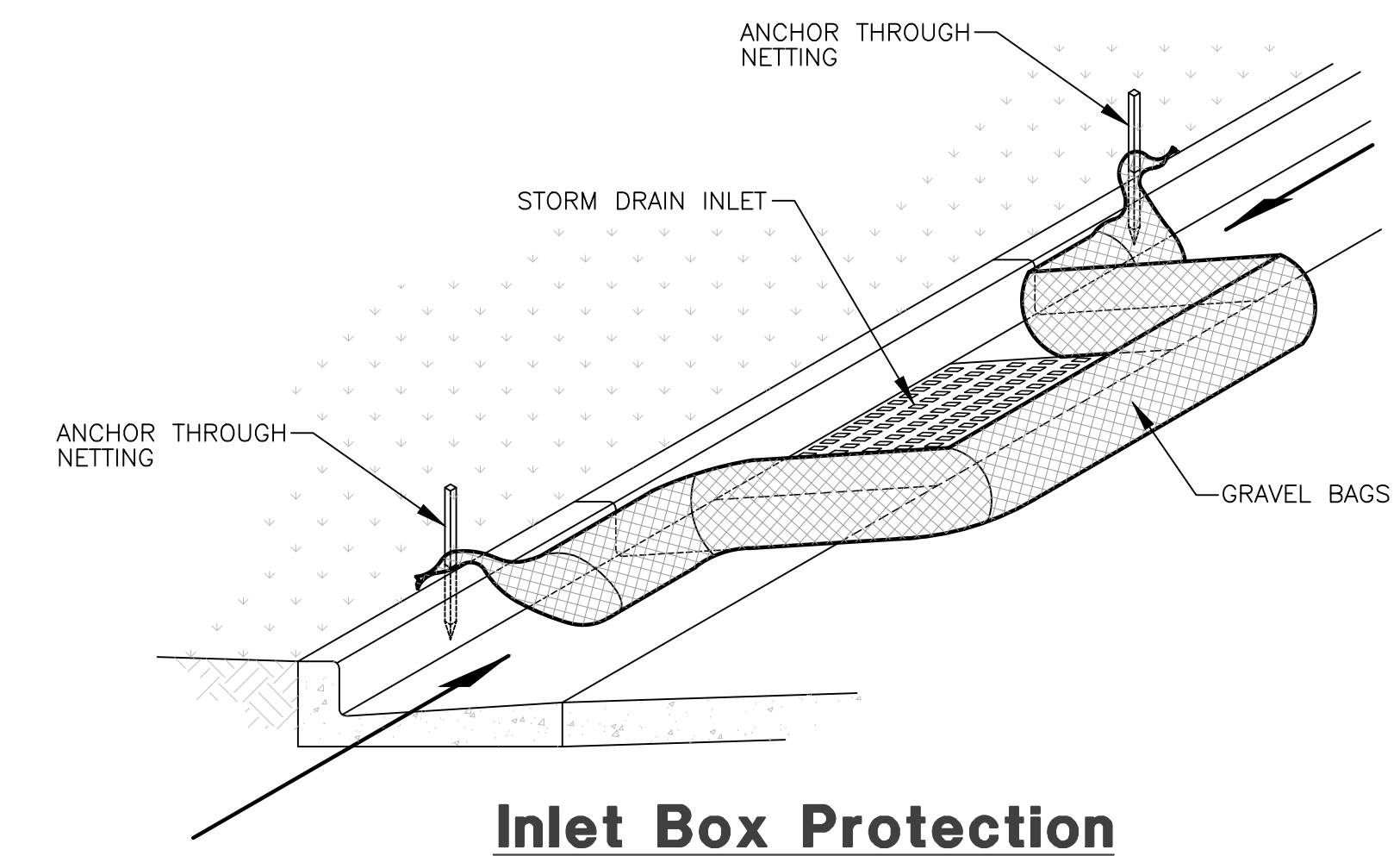
Locate portable toilets in convenient locations throughout site. Prepare level, gravel surface and provide clear access to the toilets for servicing and for on-site personnel. Construct earth berm perimeter (6" tall x 6" wide), control for spill/protection leak.

LIMITATIONS

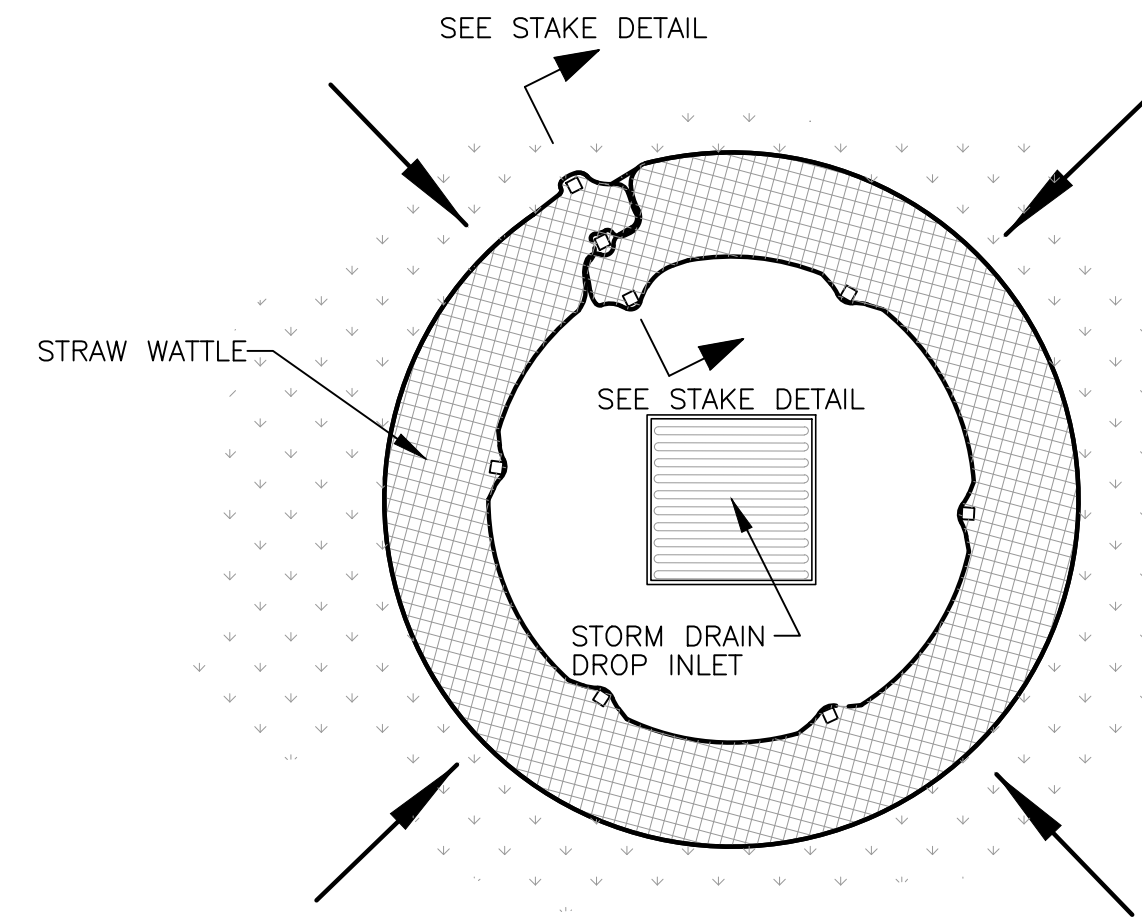
No limitations.

MAINTENANCE

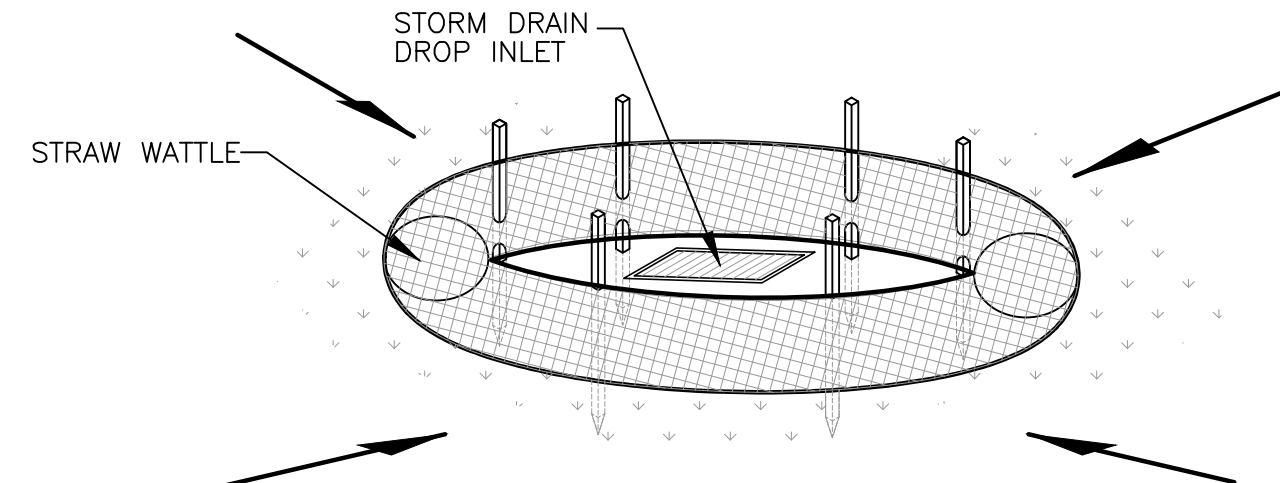
Portable toilets should be maintained in good working order by licenses service with daily observation for leak detection. Regular waste collection should be arranged with licensed service. All wastes should be deposited in sanitary sewer system for treatment with appropriate agency approval.



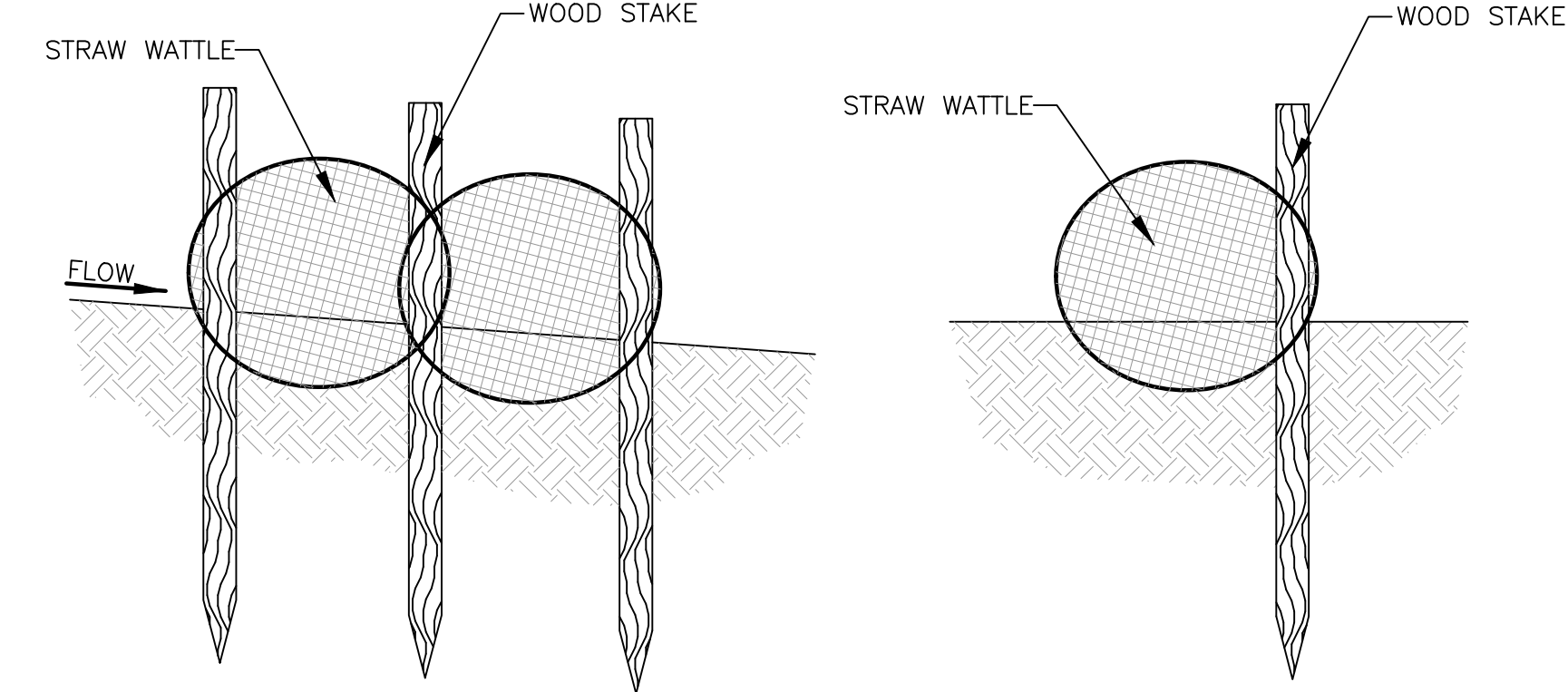
Inlet Box Protection



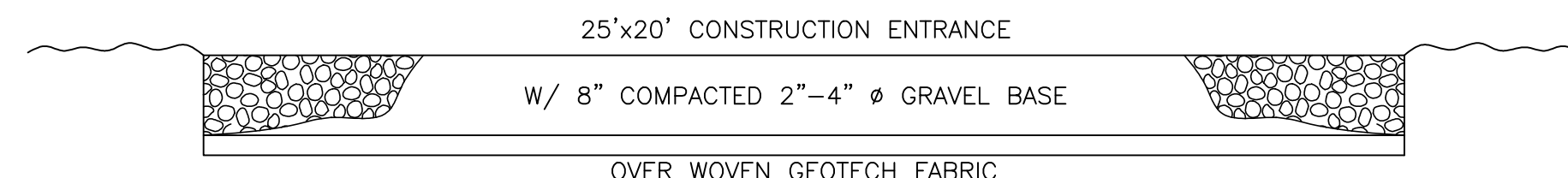
Plan View



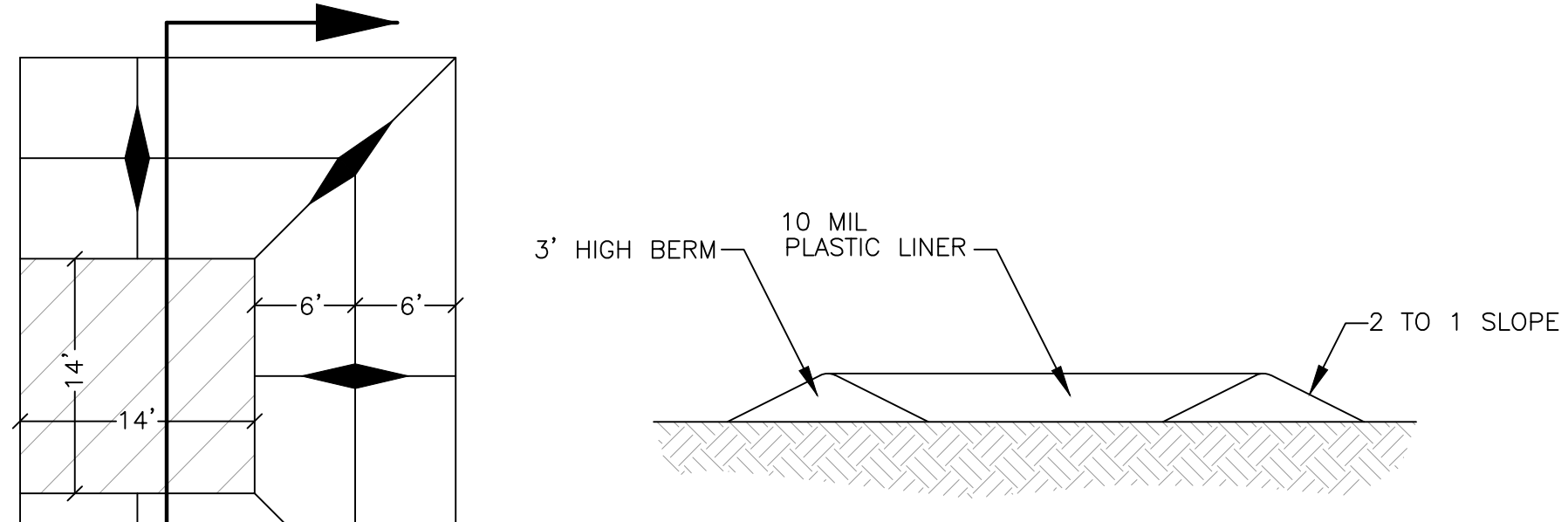
Drop Inlet Protection



Stake Detail



Cross Section 25' x 20' Construction Entrance



Concrete Washout Area w/ 10 mil Plastic Liner

SCALE: NONE

PROJECT NUMBER

ISSUE DATE:

APR. 13, 2018

REVISIONS:

No.	Date	Description

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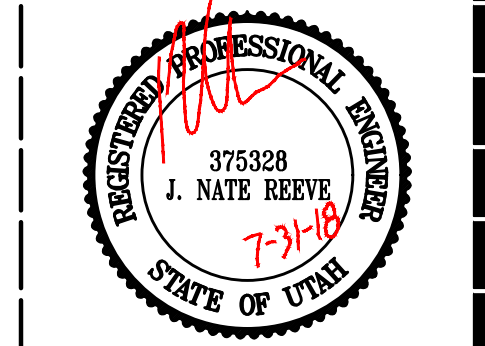
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MAVERIK, INC. STORE #250
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STORM WATER POLLUTION PREVENTION PLAN DETAILS

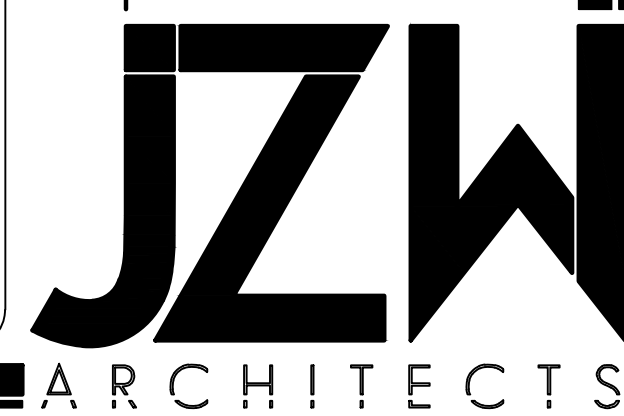
C13



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PROJECT NUMBER: 5799-230
DRAWN BY: RWJ
ENGINEER: JNR





Gleditsia tria. iner. 'Imperial'
Imperial Honeylocust



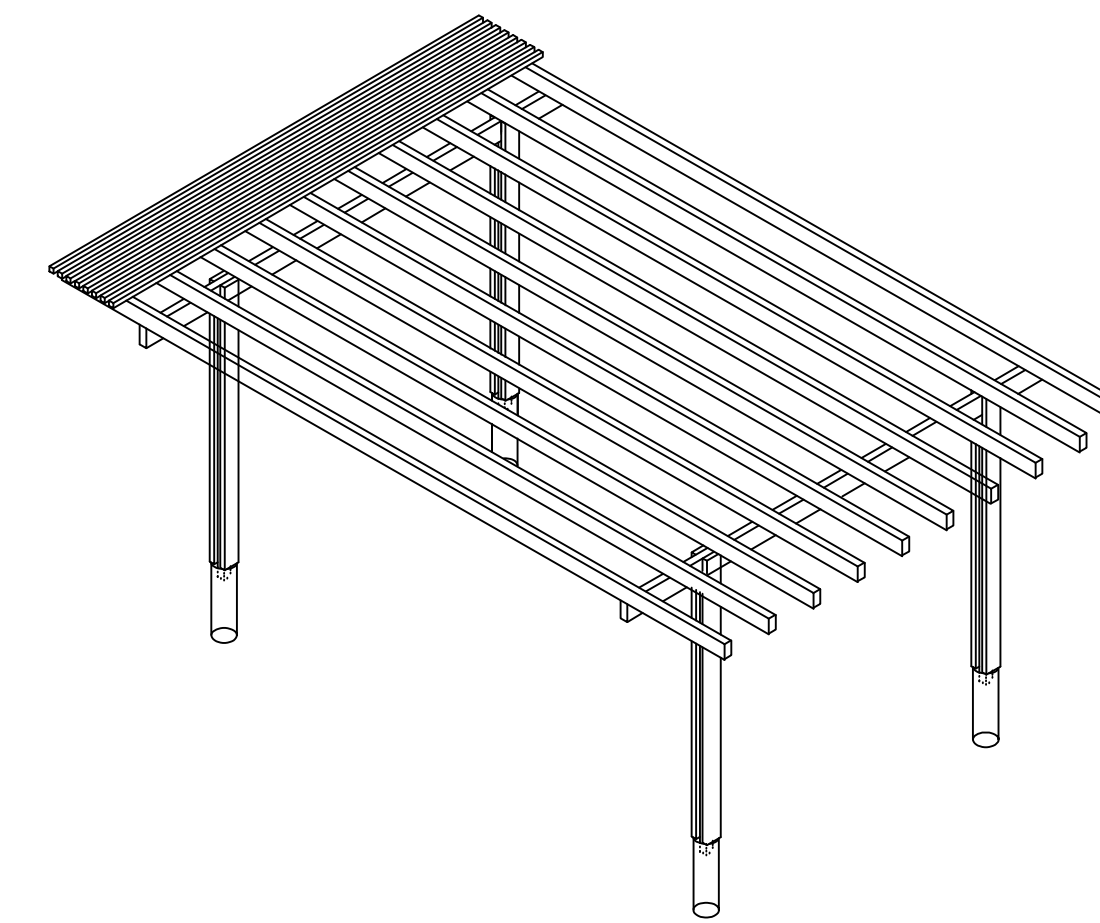
Picea pungens
Colorado Blue Spruce



Prunus padus
Mayday Tree



Syringa reticulata 'Ivory Silk'
Ivory Silk Tree Lilac



Picnic Trellis

PROJECT NUMBER

ISSUE DATE:
APR. 13, 2018

REVISIONS:

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MAVERIK, INC. STORE #250
5100 EAST & 2500 NORTH
EDEN, UTAH

SHEET TITLE

LANDSCAPE
PLAN - EXHIBIT

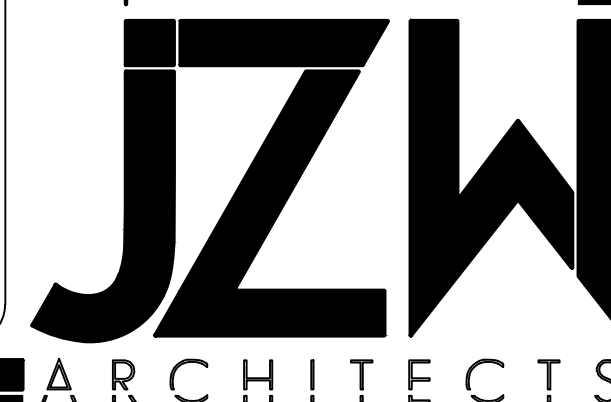
L1.1



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STRUCTURAL ENGINEERS * LANDSCAPE ARCHITECTS

PROJECT NUMBER: 5799-230
DRAWN BY: RWH
ENGINEER: JNR



No.	Date	Description

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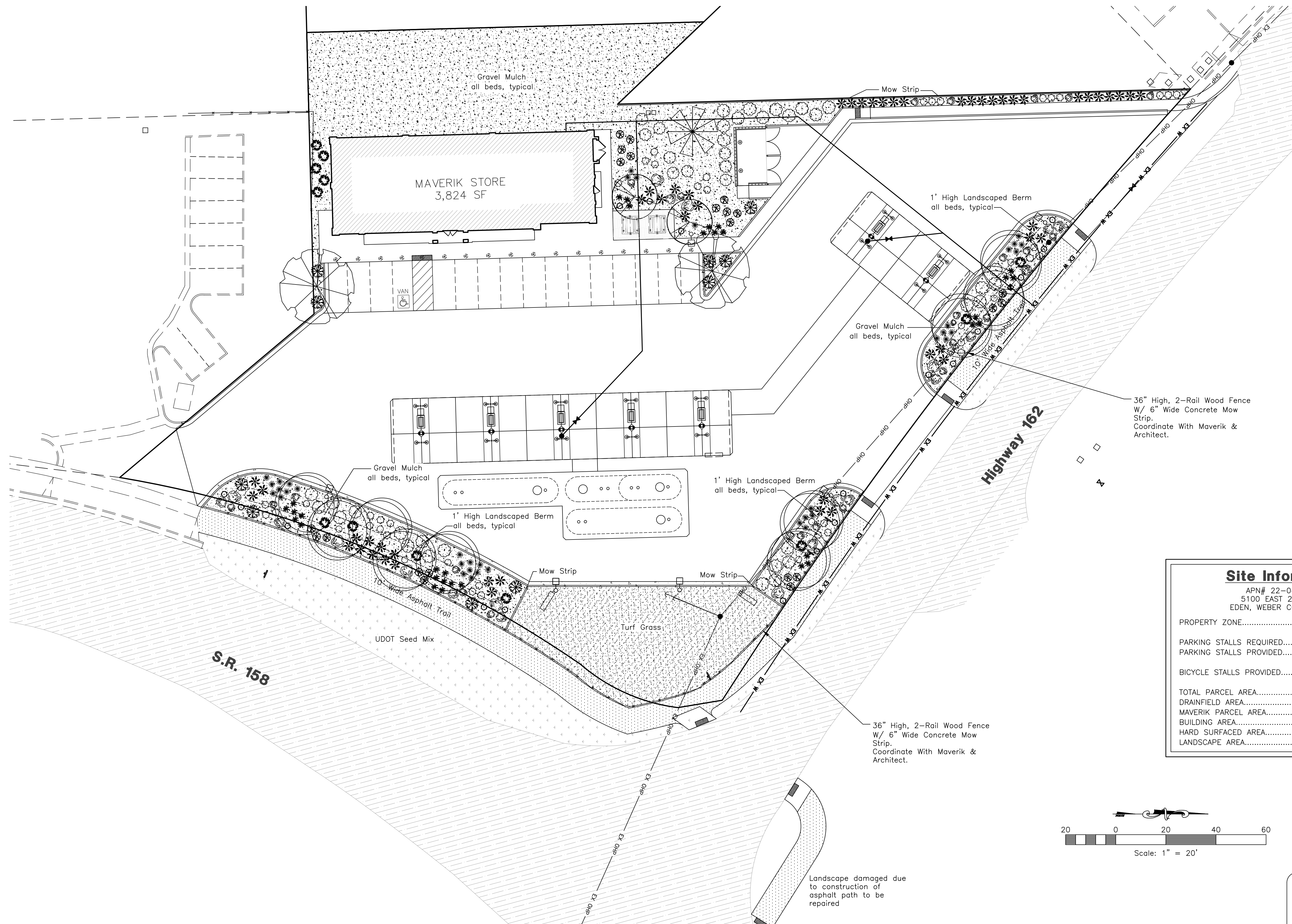
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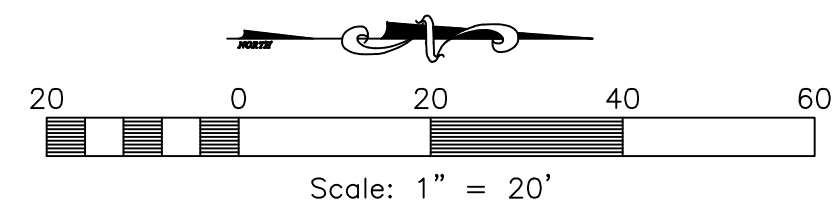
MAVERIK, INC. STORE #250
5100 EAST & 2500 NORTH
EDEN, UTAH

SHEET TITLE
LANDSCAPE PLAN

L1



Site Information	
APN#	22-046-0085
5100 EAST 2500 NORTH EDEN, WEBER COUNTY, UTAH	
PROPERTY ZONE.....	CV-2, AV-3
PARKING STALLS REQUIRED.....	
PARKING STALLS PROVIDED.....	15 + 1 A.D.A.
BICYCLE STALLS PROVIDED.....	3
TOTAL PARCEL AREA.....	114,143 s.f.
DRAINFIELD AREA.....	51,595 s.f.
MAVERIK PARCEL AREA.....	62,548 s.f.
BUILDING AREA.....	3,824 s.f. 6.1%
HARD SURFACED AREA.....	45,685 s.f. 73.1%
LANDSCAPE AREA.....	13,039 s.f. 20.8%



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PROJECT NUMBER: 5799-230
 DRAWN BY: RWH
 ENGINEER: JNR

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MAVERIK, INC. STORE #250
5100 EAST & 2500 NORTH
EDEN, UTAH

SHEET TITLE

**LANDSCAPE
 DETAILS**

L2



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PROJECT NUMBER: 5799-230
 DRAWN BY: RWH
 ENGINEER: JNR

Plant Table

Quantity	Symbol	Scientific Name	Common Name	Size	Spacing
10		Acer x freemanii 'Celzam'	Celebration Maple	2" cal.	Per Plan
2		Gleditsia tria. iner. 'Imperial'	Imperial Honeylocust	2" cal.	Per Plan
1		Picea pungens	Colorado Blue Spruce	6' B&B	Per Plan
2		Syringa reticulata 'Ivory Silk'	Ivory Silk Tree Lilac	2" cal.	Per Plan

Quantity	Symbol	Scientific Name	Common Name	Size	Spacing
36		Berberis thun. atro. 'Nano'	Crimson Pygmy Barberry	5 gal.	Per Plan
41		Euonymus alatas 'Compacta'	Dwarf Burning Bush	5 gal.	Per Plan
10		Juniperus sabina 'Buffalo'	Buffalo Juniper	5 gal.	Per Plan
14		Pinus mugo 'Pumilio'	Dwarf Mugo Pine	5 gal.	Per Plan
22		Potentilla frut. 'Gold Drop' or equal	Gold Drop Potentilla or equal	5 gal.	Per Plan

Quantity	Symbol	Scientific Name	Common Name	Size	Spacing
19		Aubrieta deltooides (purple variety)	Purple Rock Cress	1 gal.	Per Plan
52		Calamagrostis 'Karl Foerster'	Karl Foerster Grass	5 gal.	Per Plan
32		Hemerocallis 'Stella de Oro'	Stella de Oro Daylily	1 gal.	Per Plan
37		Penstemon digitalis 'Husker Red'	Husker Red Penstemon	1 gal.	Per Plan

- Decorative Boulders
- Turf Grass – To be sodded.
- UDOT Seed Mix – To be hydroseeded. See Sheet L3 for details.
- A 3" layer of 2" minus, crushed gravel mulch over Dewitt Pro 5 Weed Barrier Cloth, or equal.

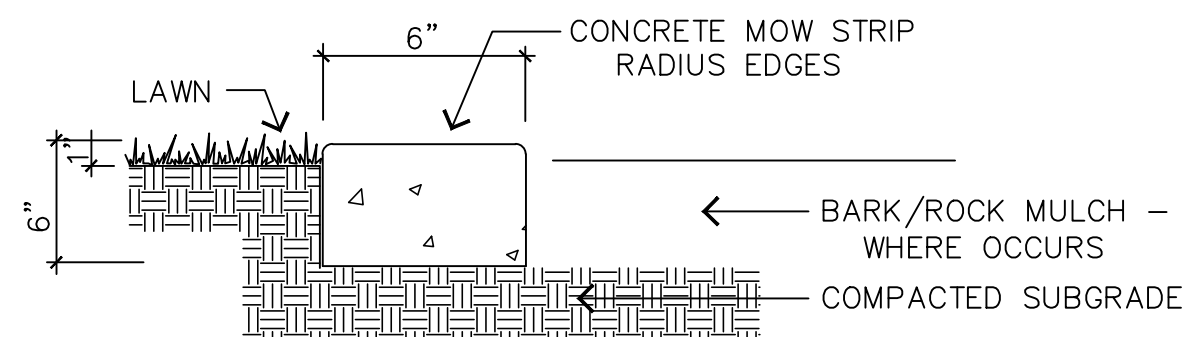
Landscape Code and Calculations

CODE: A 15' continuous landscape area shall be provided along front and side property lines adjacent to street R.O.W. planted per below.

- Trees shall be planted 50' on-center. They may be clustered.
 S.R.158 and S.R.162=397.50 LF+87.13 LF=484.63 LF total.
 484.63 LF/50'=10 trees required/provided (clustered).
- Earthen berms shall be constructed along landscape area to provide screening of off-street parking. Berm may be continuous or vary in height, with a maintained maximum height of 3' along 75% of area.
- In addition to trees, landscape area shall be planted with low shrubs, ground covers or turf. Maximum height of berm + plants shall be 4'. Xeriscape is strongly encouraged, with a maximum of 50% turf on the total site.

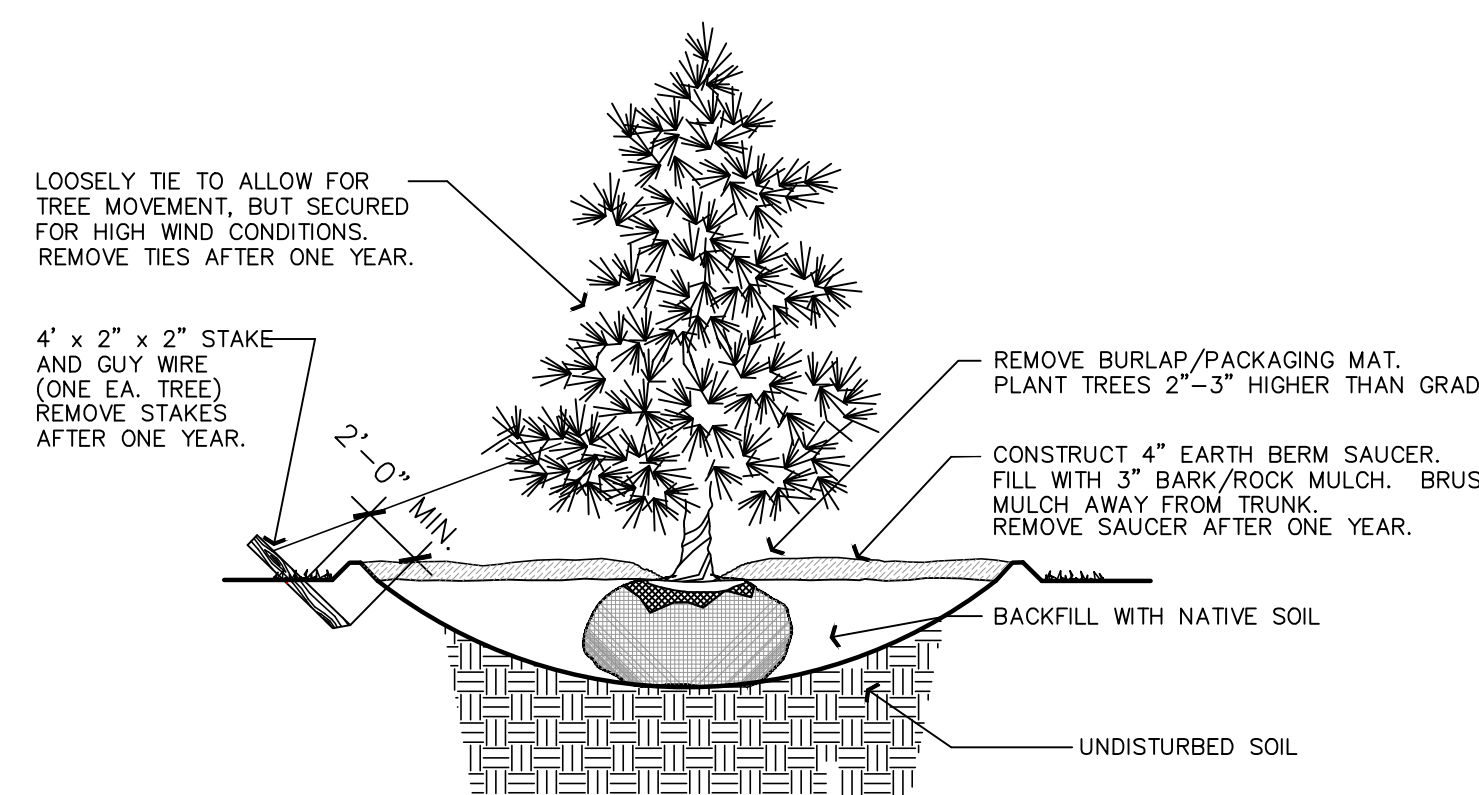
CODE: Parking areas shall be screened or buffered from view. Side and rear screens or buffers, whether plants or non-living material, shall be a minimum of 6' in height. The first 25', as measured from the street R.O.W., shall not exceed 4' in height.

CODE: Parking areas within 12' of side or rear lot lines shall have a continuous, 8' wide, landscape area consisting of a deciduous and evergreen shrub border or hedge. Combinations of shrubs and permanent fences may be considered.



CONCRETE MOW STRIP

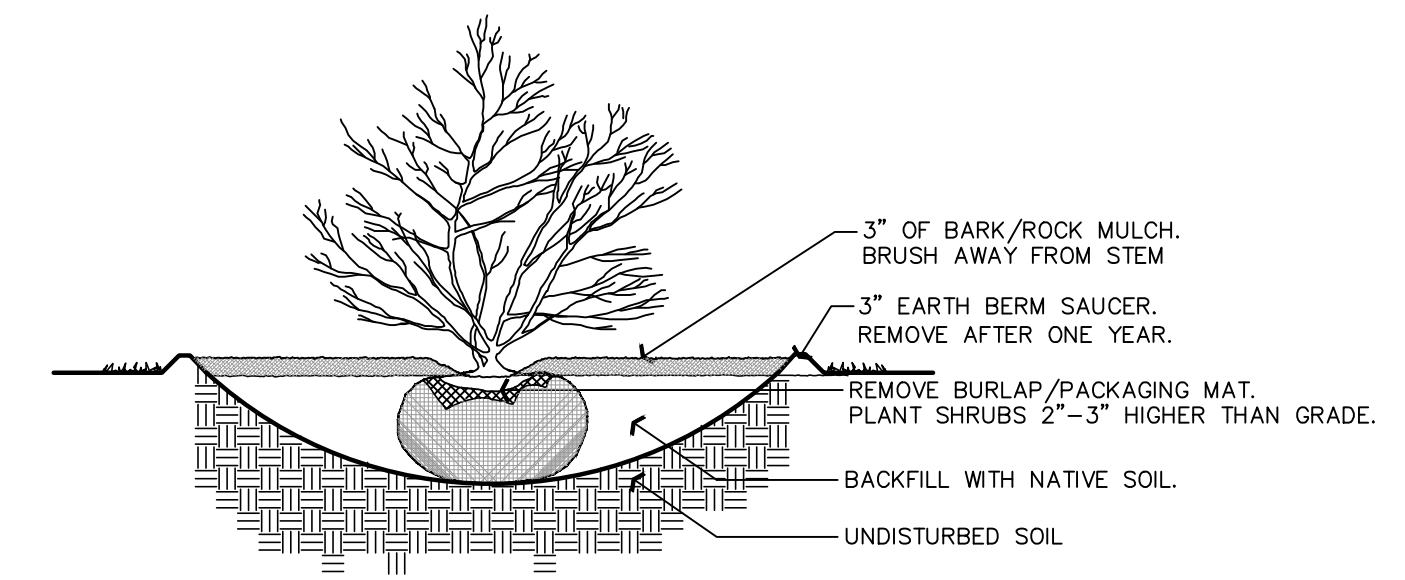
SCALE: NOT TO SCALE



NOTE: DIG HOLE THREE TIMES THE WIDTH AND AS DEEP AS ROOTBALL, EXCEPT WHERE NOTED.

CONIFEROUS TREE PLANTING

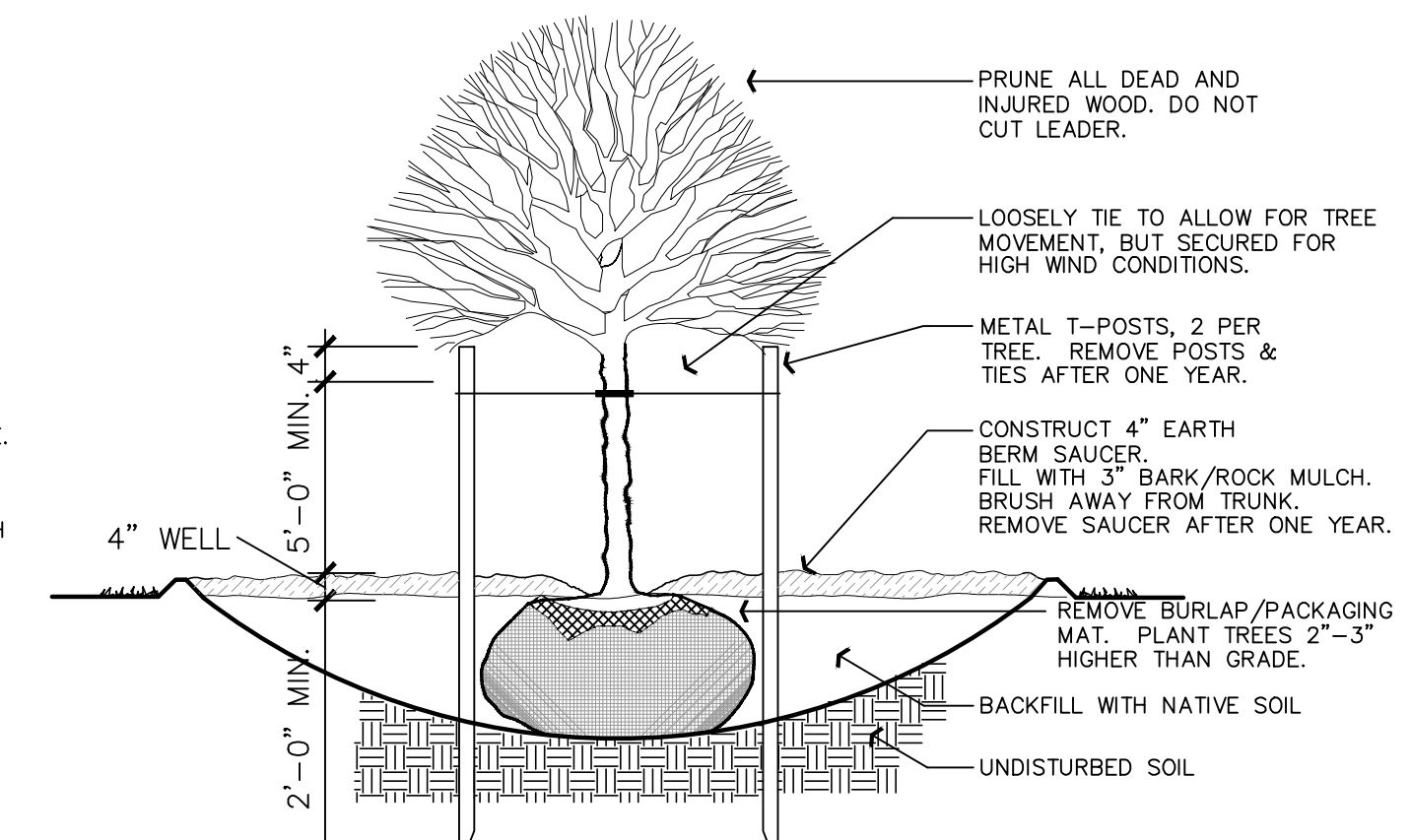
SCALE: NOT TO SCALE



NOTE: DIG HOLE THREE TIMES THE WIDTH AND AS DEEP AS ROOTBALL, EXCEPT WHERE NOTED.

SHRUB PLANTING

SCALE: NOT TO SCALE



NOTE: DIG HOLE THREE TIMES THE WIDTH AND AS DEEP AS ROOTBALL, EXCEPT WHERE NOTED.

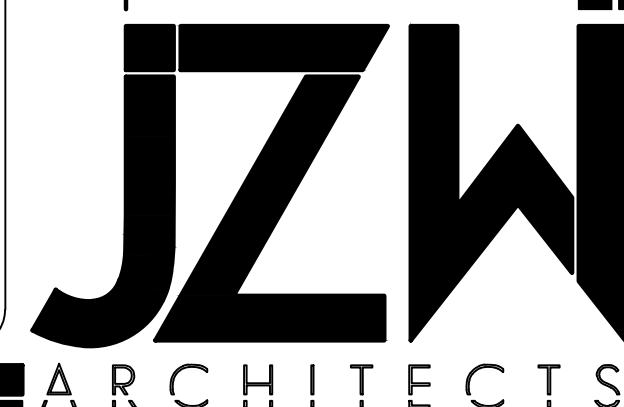
DECIDUOUS TREE PLANTING

SCALE: NOT TO SCALE

General Notes

- The contractor shall verify the exact location of all existing and proposed utilities, and all site conditions prior to beginning construction. The contractor shall coordinate his work with the project manager and all other contractors working on this site.
- The finish grade of all planting area shall be smooth, even and consistent, free of any humps, depressions or other grading irregularities. The finish grade of all landscape areas shall be graded consistently 3/4" below the top of all surrounding walks, curbs, etc.
- The contractor shall stake the location of all plants for approval prior to planting. Trees shall be located equidistant from all surrounding plant material. Shrubs and ground covers shall be triangular and equally spaced.
- The plant materials list is provided as an indication of the specific requirements of the plants specified, wherever in conflict with the planting plan, the planting plan shall govern.
- The contractor shall provide all materials, labor and equipment required for the proper completion of all landscape work as specified and shown on the drawings.

- All plant materials shall be approved prior to planting. The Owner/Landscape Architect has the right to reject any and all plant material not conforming to the specifications. The Owner/Landscape Architect decision will be final.
- The contractor shall keep the premises, storage areas and paving areas neat and orderly at all times. Remove trash, sweep, clean, hose, etc. daily.
- The contractor shall plant all plants per the planting details, stake/guy as shown. Top of root balls shall be planted flush with grade.
- The contractor shall not impede drainage in any way. The contractor shall always maintain positive drainage away from the building, walls, etc.
- The contractor shall maintain all work until ALL work is complete and accepted by the Owner. In addition, the contractor shall maintain and guarantee all work for a period of THIRTY DAYS from the date of final acceptance by the Owner. Maintenance shall include mowing, weeding, fertilizing, cleaning, insecticides, herbicides, etc.
- Maverik Corporation shall be responsible for landscape maintenance beyond construction period.



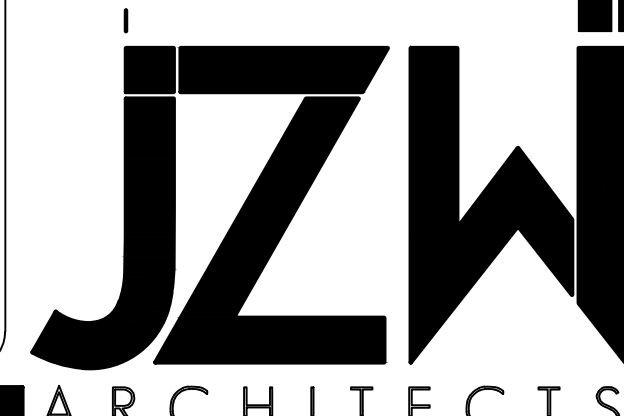
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MAVERIK, INC. STORE #250
5100 EAST & 2500 NORTH
EDEN, UTAH

LANDSCAPE
DETAILS
UDOT SEED
MIX

L3



SECTION 02922
SEED, TURF SEED, AND TURF SOD

- PART 1 GENERAL
1.1 SECTION INCLUDES
A. Seed, turf seed, and turf sod requirements and application.
B. Surface preparation.
1.2 RELATED SECTIONS
A. Section 02912: Topsoil
1.3 REFERENCES
A. Utah Seed Law
1.4 DEFINITIONS Not Used
1.5 SUBMITTALS
A. Copy of the purchase order to the Engineer documenting that all seeds, including substitutions, have been acquired before the seeding window begins.
1. Refer to this Section, article 1.6 for seeding information.
2. List the common and botanical name for each seed species on the purchase order.
B. Certification that turf sod is nursery grown and contains a minimum of three varieties of Kentucky Blue Grass.
C. Certification indicating the date and time sod was cut at the nursery.
D. Fertilizer labels to Engineer.
E. Legible copy of Seed Certification Reports to Region Landscape Architect through the Engineer.

Seed, Turf Seed, And Turf Sod
02922 - Page 1 of 7
January 1, 2012

- F. Seed certification - Include the following on seed certification reports and labels:
1. Botanical name (include variety if applicable)
2. Common name
3. Name of seed testing laboratory
4. Lot number and address of the seed company
5. Weed seed (percent)
6. Other crop seed (percent)
7. Inert matter (percent)
8. Pure live seed (percent)
9. Noxious weed seed (name and rate of occurrence)
10. Date tested (month and year)
11. Germination (percent)
12. Hard seed (percent)
13. Net weight (do not include container weight)
14. Pure live seed weight
15. Collection locations for native shrub and tree species (state, county, elevation)
G. Manufacturer's directions on drill calibration to the Engineer two working days before seeding. Refer to this Section, article 3.3.

- 1.6 DELIVERY, STORAGE, AND HANDLING
A. Mixing Seed
1. Notify Engineer seven calendar days before mixing seed.
2. Engineer will verify that the seed certification report or label represents the seed lot from which the seed is furnished.
3. Mix the different seed varieties to provide an even blend.
4. Bag the mixed seed, seal the container, and attach a signed Department label to the exterior.
B. Deliver seed or turf seed to job site in original containers showing analysis of seed mixture, net weight, and date and location of packaging. Damaged packages are not acceptable.
C. Strip turf sod from nursery no more than 24 hours before laying.
D. Deliver fertilizer in containers showing weight, chemical analysis, and name of manufacturer. Store fertilizer in a weatherproof location.

- 1.7 SCHEDULE
A. Pre-measure the area to be seeded before ordering seed from supplier. The Engineer must approve the measuring technique and determined quantity.
Seed, Turf Seed, And Turf Sod
02922 - Page 2 of 7
January 1, 2012

- B. Seeding Window
1. Complete all general roadside seeding within the appropriate seeding window.
2. Postpone seeding until the following year if the seeding is not completed within the given window.
3. A late winter exception to the seeding window may be obtained from the Region Landscape Architect through the Engineer if suitable weather and soil conditions exist.
Elevation Seeding Window
Below 4,000 ft October 1 - December 31
4,000 to 6,000 ft September 15 - December 1
Above 6,000 ft September 1 - November 15
C. Turf seed and turf sod can be placed only after irrigation system is installed and operational.
D. Topsoil
1. Refer to Section 02912.
2. Place topsoil just before seeding to eliminate competition from weeds.
3. Coordinate topsoil placement with the above seeding window.

- PART 2 PRODUCTS
2.1 SEED AND TURF SEED
A. Meet the Utah Seed Law - Utah Code - Title 4, Chapter 16.
B. Supply seed on a pure live seed (PLS) basis.
C. Obtain seed from lots that have been tested by a state certified seed testing laboratory such as Association of Seed Analyst (AOSA) or Society of Commercial Seed Technologists (SCST).
1. Seed germination test older than 18 months for grass seed and 9 months for shrubs or tree seed are not acceptable.
2. Based on the amount or type of seed required on a project, the Department may require additional testing by the Department of Agriculture.
D. Do not use wet, moldy, or otherwise damaged seed.
E. Seed Substitutions
1. Contact the major seed brokers in the state to verify that the seed is unavailable before requesting a seed substitution.
Seed, Turf Seed, And Turf Sod
02922 - Page 3 of 7
January 1, 2012

- 3.4 BROADCAST SEEDING METHOD
A. Use the broadcast method of seeding under the following conditions:
1. Slopes steeper than 3:1.
2. Slopes 3:1 and flatter where the area to be seeded is inaccessible to drill.
3. The area to be seeded is not large enough to justify using a drill.
4. Rocky surface conditions will damage a drill.
B. Obtain approval of the broadcast method by demonstrating the procedure on a 100 yd² area.
C. Evenly broadcast seed using either:
1. A cyclone seeder or other approved mechanical seeder.
2. A hydroseeder.
a) Apply seed, water, and 300 lb of cellulose fiber mulch (tracer) per acre.
D. Do not seed during windy weather or when soil is saturated.
E. Incorporate the seed into the soil by one of three methods:
1. Cat-tracking by running the dozer up and down the slope creating continuous cleat tracks that run parallel with the contours.
2. Hand raking the seed in 1/2 inch deep and along the contours of the slope.
3. Slope chaining by pulling the chain along the contour until the seed is covered.
F. Obtain written approval from the Engineer that the seed has been adequately incorporated into the soil before applying wood fiber mulch, erosion control blanket, flexible growth medium, flexible channel liner, or other topdressing. Failure to obtain written approval will be justification for non-payment.

- 3.5 TURF SEEDING
A. Apply turf seed after seedbed preparation. Refer to this Section, article 3.4, paragraph C.
B. Roll seeded areas using a hand roller half filled with water.
C. Lightly water and program the irrigation system to maintain a moist seedbed.
D. Rope off newly seeded areas along walkways using bright plastic ribbon tape attached to stakes.
Seed, Turf Seed, And Turf Sod
02922 - Page 6 of 7
January 1, 2012

- 3.6 TURF SOD PLACEMENT
A. Timing
1. Refer to this Section, article 1.6, paragraph C.
B. Prepare sod bed and place sod with all edges and joints tightly butted.
1. Do not stretch or overlap sod.
2. Keep length seams in a straight line.
C. Lay turf sod with staggered joints and trim off excess material along the edges.
D. Roll sod immediately after placing using a hand roller half filled with water.
1. Re-roll if depressions still remain.
2. Thoroughly water with a fine spray to a depth sufficient that the underside of the new sod and soil immediately below the sod are thoroughly wet.

END OF SECTION

Seed, Turf Seed, And Turf Sod
02922 - Page 7 of 7
January 1, 2012

- 2. Engineer will contact the Region Landscape Architect to verify the seed is unavailable and to recommend a seed substitution.
3. Replace originally specified seed with seed of equal or greater cost.
2.2 TURF SOD
A. Healthy and well-rooted nursery grown Kentucky Blue Grass sod comprised of a minimum of three varieties and free of weeds.
B. Machine cut in straight, uniform strips or rolls, cut at a depth between 3/4 inch and 1 inch.
2.3 FERTILIZER (turf sod and turf seed areas only)
A. Uniform in composition, dry, and free flowing.
1. Turf seed or turf sod - Elemental nitrogen in granular form. Phosphorus and potassium are optional and may be applied with nitrogen in granules. Use a slow release form of a minimum 50 percent nitrogen such as sulfur coated urea or urea formaldehyde. Apply elemental nitrogen with a concentration ranging from 21-34 percent if hydroseeding method is used.

- PART 3 EXECUTION
3.1 PREPARATION
A. Complete all final grading, irrigation work, trench setting, topsoil placement, and surface preparation before seed or sod application.
B. Prepare general seedbed for all seeded and sodded areas.
1. Verify that a suitable topsoil surface has been prepared according to Section 02912 and approved by the Engineer before seeding. Do not work topsoil or seed when the soil is saturated or frozen.
C. Prepare Turf Seedbed
1. Review finish grade to confirm that topsoil is 1 inch below the top of all walks, curbs, mow strips, and other hard surfaces.
2. Apply fertilizer at the rate of 2 lb/100 yd² and mix thoroughly into upper 2 inches of topsoil.
3. Do not apply fertilizer and seed at the same time in the same machine.

The following is from a letter issued by the Oregon State Office of the BLM explaining the method they would use to re-establish the lost section corner common to sections 16, 17, 20 and 21.

It appears Gile's measurements by triangulation have a significant amount of error. However, your measurements between found original corners indicate his chaining was good. He actually chained out to several of the corners which fell on the tidelands including the point for the corner of sections 16, 17, 20, and 21 where he set a flag to use for his triangulation to the south and west. Using double proportion to reestablish the corner point will put a considerable amount of distortion in the lines going north and east, distortion that undoubtedly was not in the original survey. Therefore, we feel the best method of reestablishing the point for the corner of sections 16, 17, 20, and 21 is by two point control at record departure from the found meander corner between sections 16 and 21, and at record latitude from the found meander corner between sections 16 and 17. This would leave some distortion, but we feel this method best protects the original survey.

Don't use proportioning blindly as a standard method for dealing with GLO corners. On the other hand, if you do use proportioning methods, use them correctly. What follows is a discussion on how to do that.

- D. Prepare Turf Sod Surface
1. Review finish grade to confirm that topsoil is 1 1/2 inch blow the top of all walks, curbs, mow strips, and other hard surfaces.
2. Apply fertilizer at the rate of 2 lb/100 yd² and mix thoroughly into upper 2 inches of topsoil.
3. Level and roll prepared areas using a 21 gal water-filled hand roller containing 8 to 10 gal of water.
4. Lightly rake and dampen with water the top 1/4 to 3/4 inches of soil just before laying the sod.
3.2 SEEDING - GENERAL
A. Notify the Engineer seven working days before seeding.
B. Apply seed at the rate indicated in the Seed Schedule shown in the plans. Note that drill seed and broadcast seed are applied at different rates.
3.3 DRILL SEEDING METHOD
A. Use the drill method of seeding on accessible slopes 3:1 and flatter.
B. Use a drill equipped with the following:
1. Depth band
2. Seed box agitator
3. Seed metering device
4. Furrow opener
5. Packer wheels or drag chains
C. Use the drill manufacturer's directions in the presence of the Engineer. Calibrate the drill to apply seed at the rate indicated in the seeding schedule.
D. Space drill rows a minimum of 6 inches and a maximum of 8 inches.
E. Fill the seed boxes no more than half full when drilling on a slope.
F. Set depth bands to drill seeds to a 1/2 inch depth.
G. Drill along the contour.
H. Maintain the drill at the calibrated setting throughout the seeding operation.
I. Allow the furrows that are created by the drill to remain.

Seed, Turf Seed, And Turf Sod
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January 1, 2012

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PROJECT NUMBER: 5799-230
DRAWN BY: RWH
ENGINEER: JNR

No.	Date	Description

NOTE:
 Bid documents should not be separated or issued as partial sets to subcontractors. Bidders are responsible for all portions of the documents that pertain to work covered by sub-bids. Bidder assumes full responsibility for error or misinterpretations resulting from partial sets of Bidding Documents by itself or any sub-bidder.

Conflicting information or errors found in the construction documents should be brought to the attention of the architect immediately. In the event of a conflict in the drawings, bidder should not assume the least expensive option will meet the project requirements.



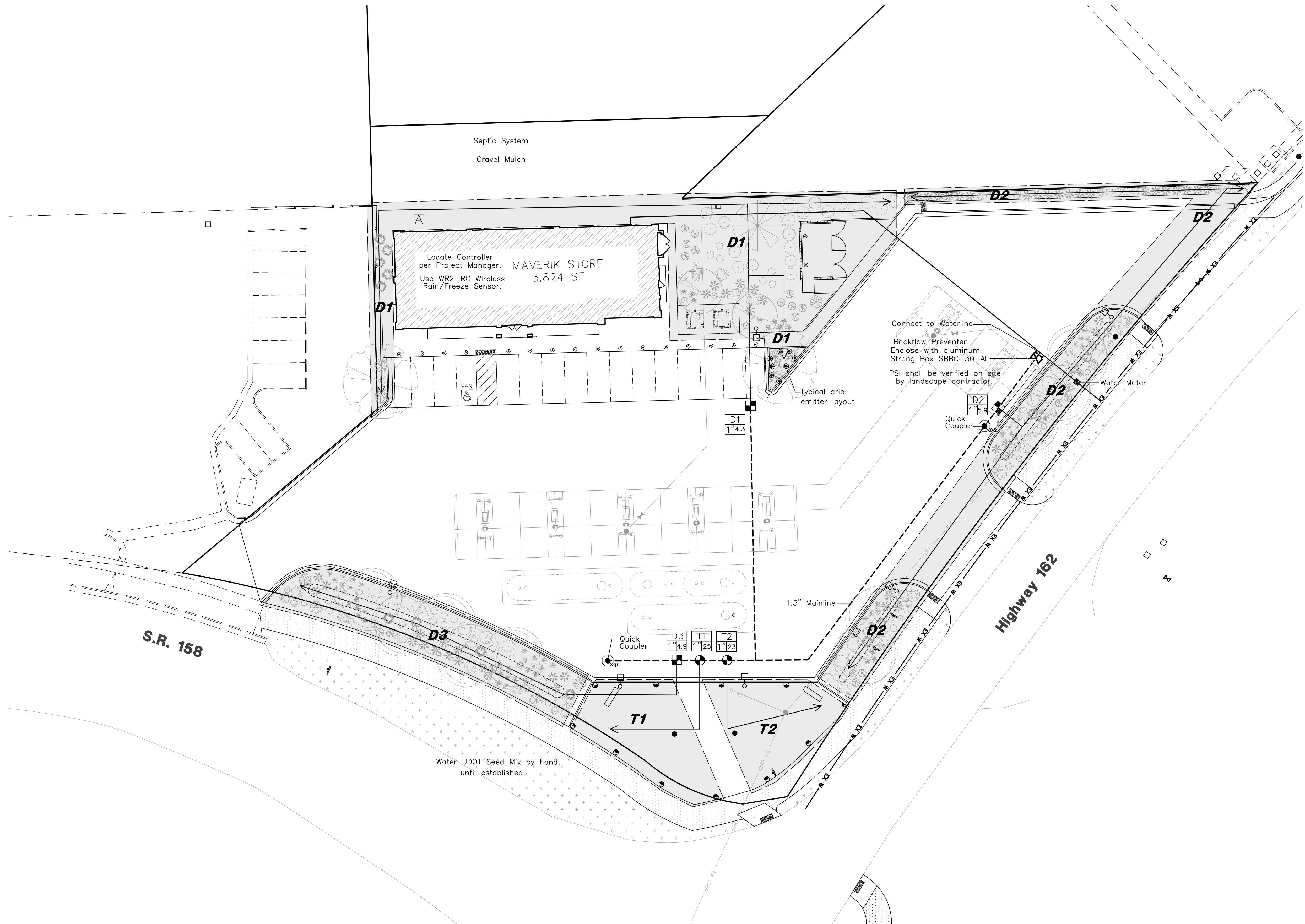
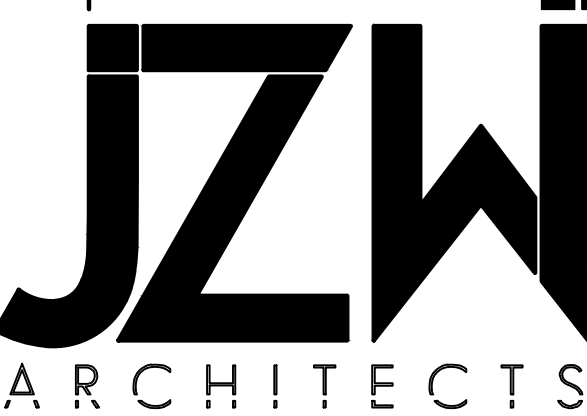
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SHEET TITLE

**IRRIGATION
 PLAN**

L4



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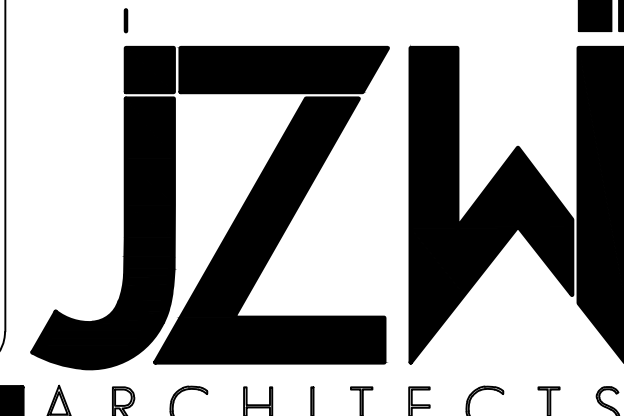
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IRRIGATION DETAILS

L5



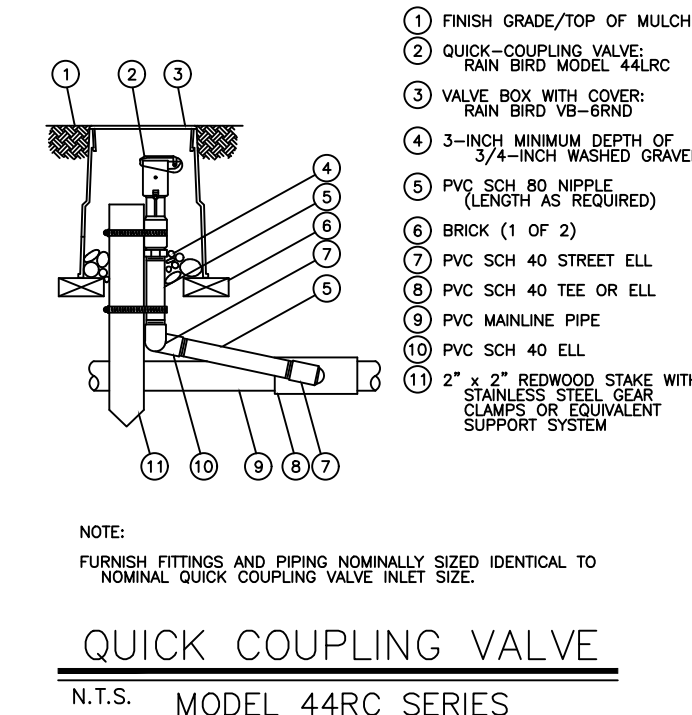
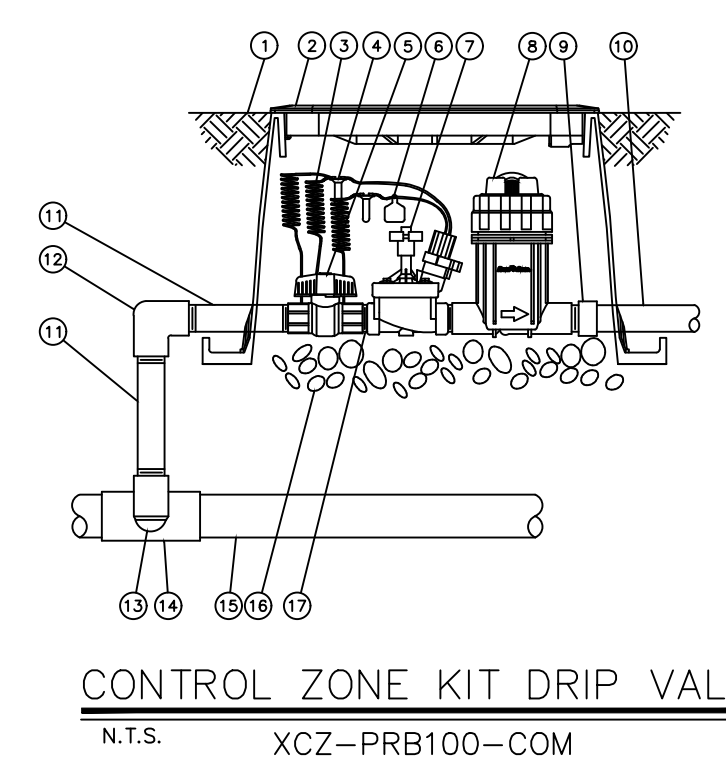
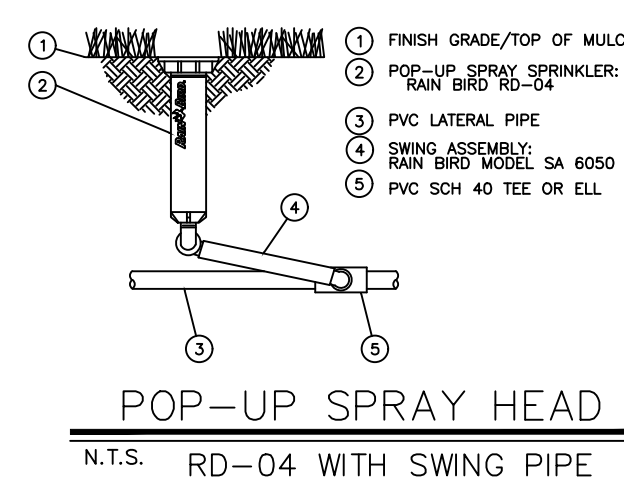
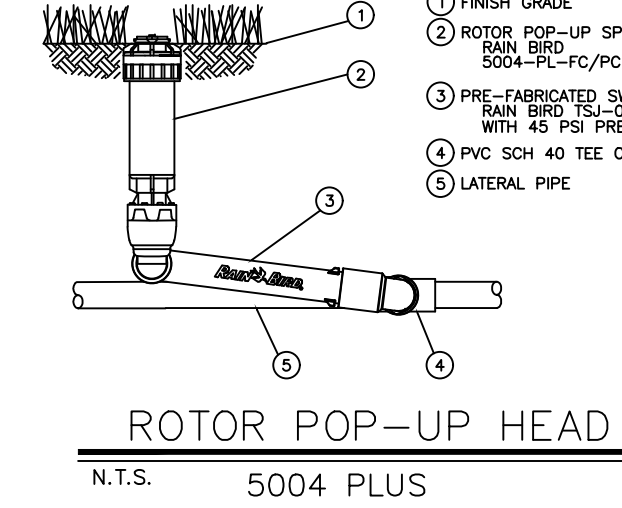
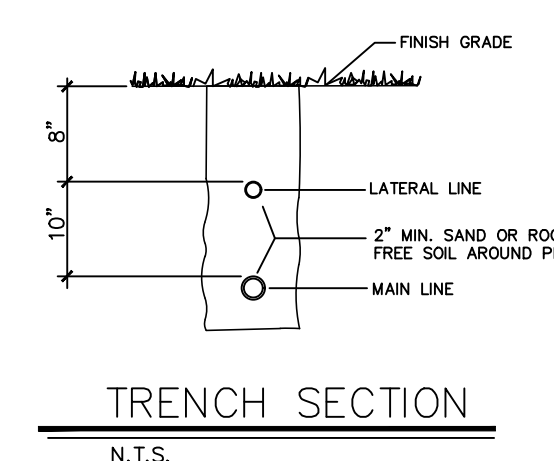
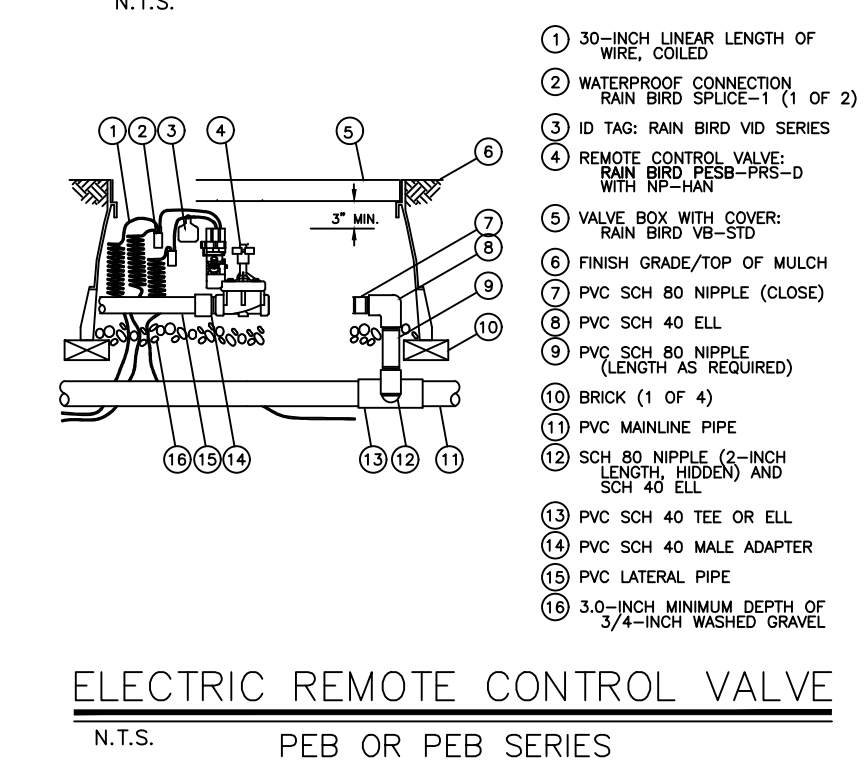
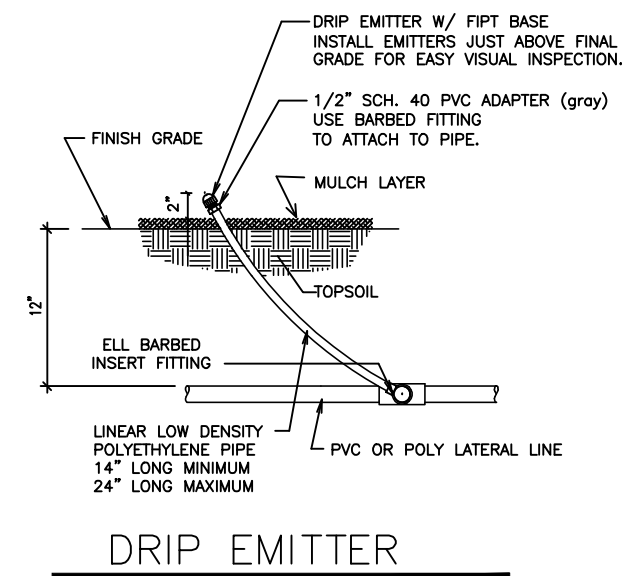
Irrigation Schedule

Table with columns: SYMBOL, MANUFACTURER, CATALOG NUMBER, DESCRIPTION. Lists various irrigation components like Rainbird rotors, valves, and controllers.

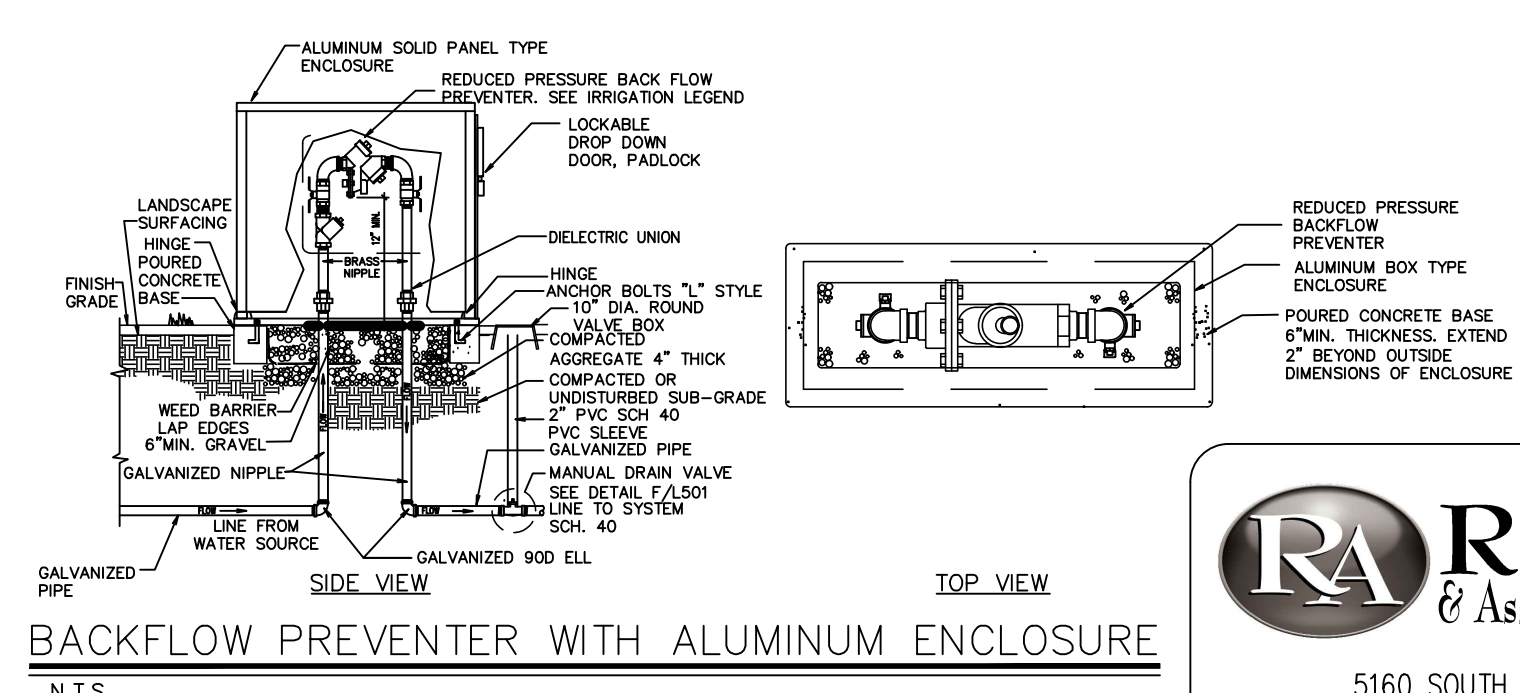
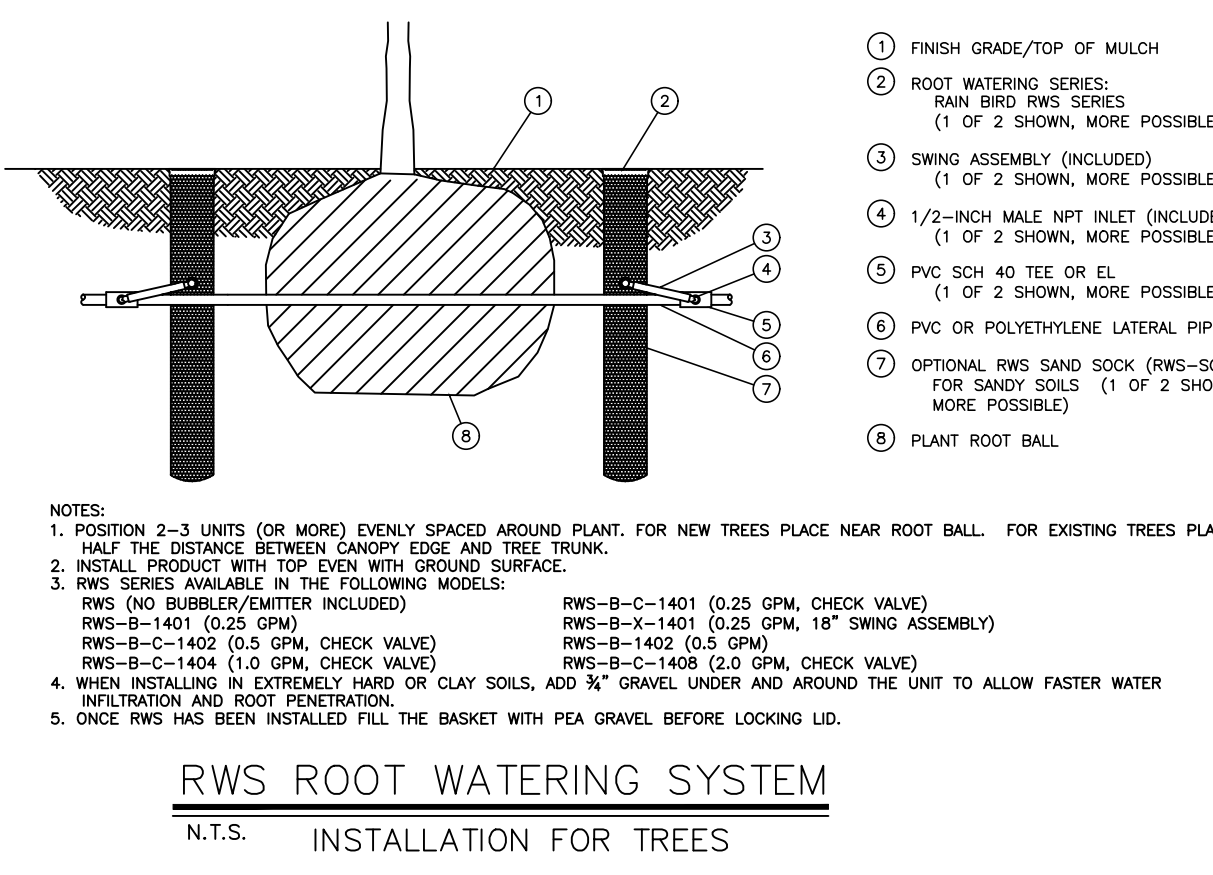
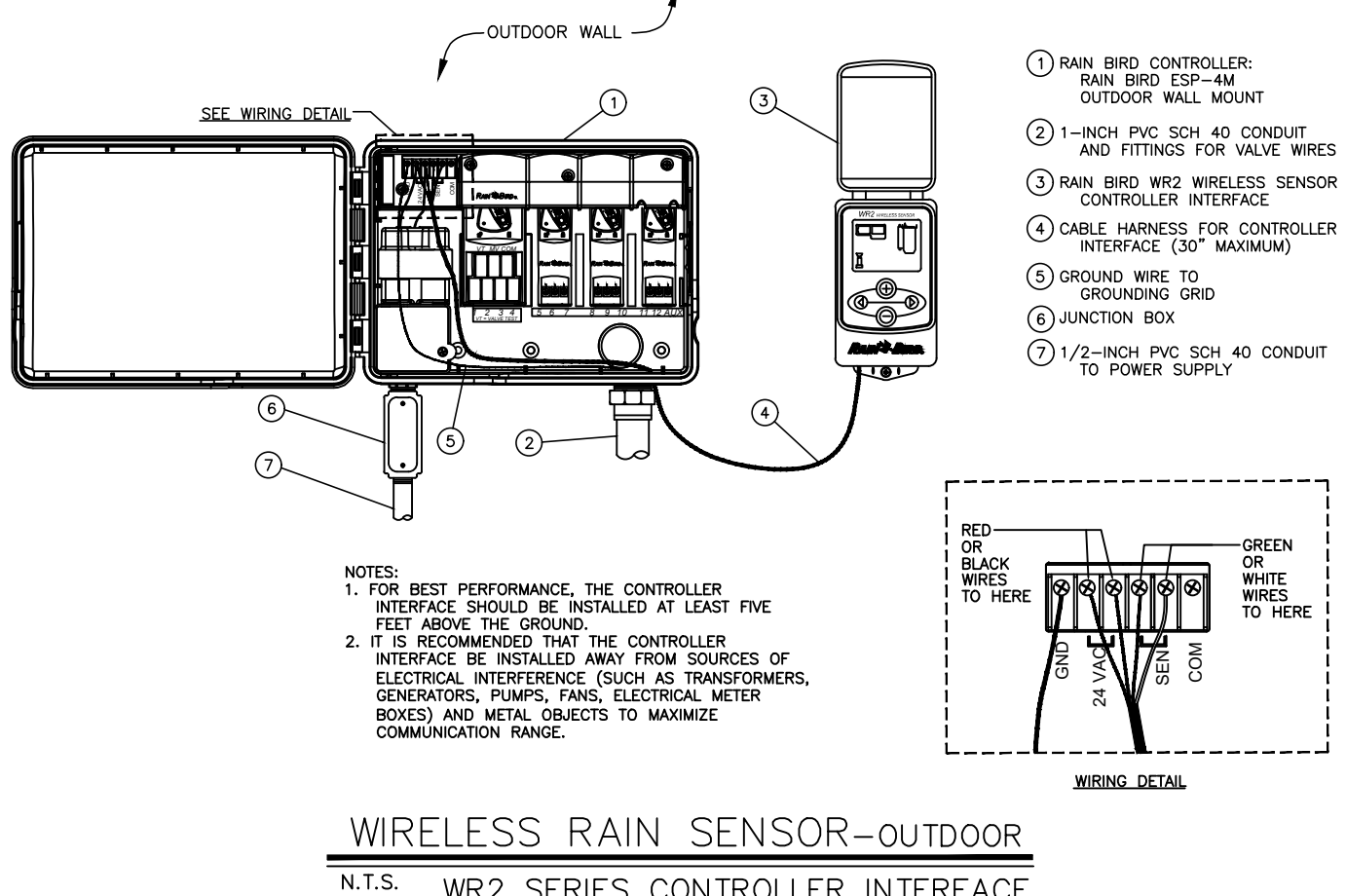
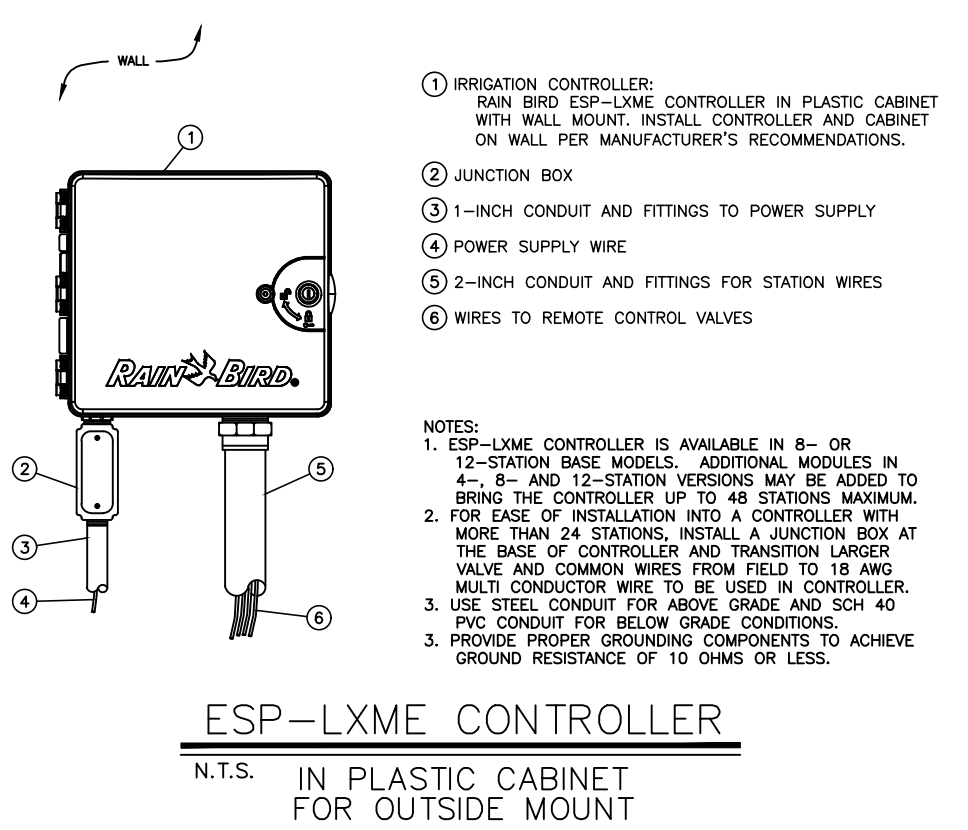
SPRINKLER NOTE

All Plant Material shown on the drawing shall be serviced by an Automatic Underground Irrigation System. The Contractor is to have a qualified Irrigation System specialist prepare a design for an Automatic Underground Irrigation System and submit drawings to the Engineer for approval at least 30 days prior to the system installation.

The Landscape Contractor shall be responsible for the installation of all irrigation sleeves prior to placement of hard improvements. Coordinate with the General Contractor. The Irrigation Control Box shall be located at the direction of the Project Manager.



NOTE: USE EXISTING SPRINKLERS IN TURF AREA, IF POSSIBLE, OTHERWISE USE NEW DESIGN.
NOTE: USE STRONG BOX SBBC 30 AL ALUMINUM BOX TO ENCLOSE BACKFLOW PREVENTER.
NOTE: WATER UDDT SEED MIX BY HAND UNTIL ESTABLISHED.
NOTE: USE WR2-RC WIRELESS RAIN/FREEZE SENSOR.



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