

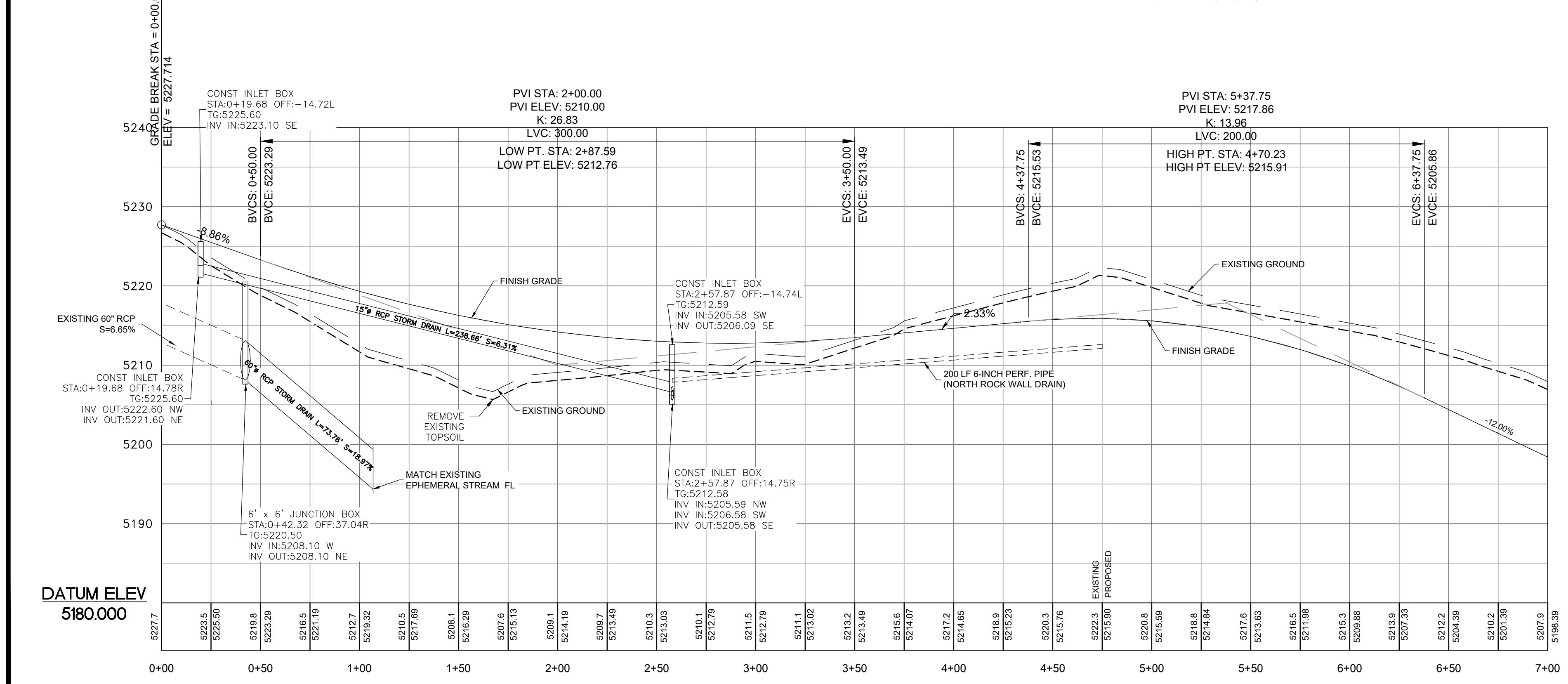
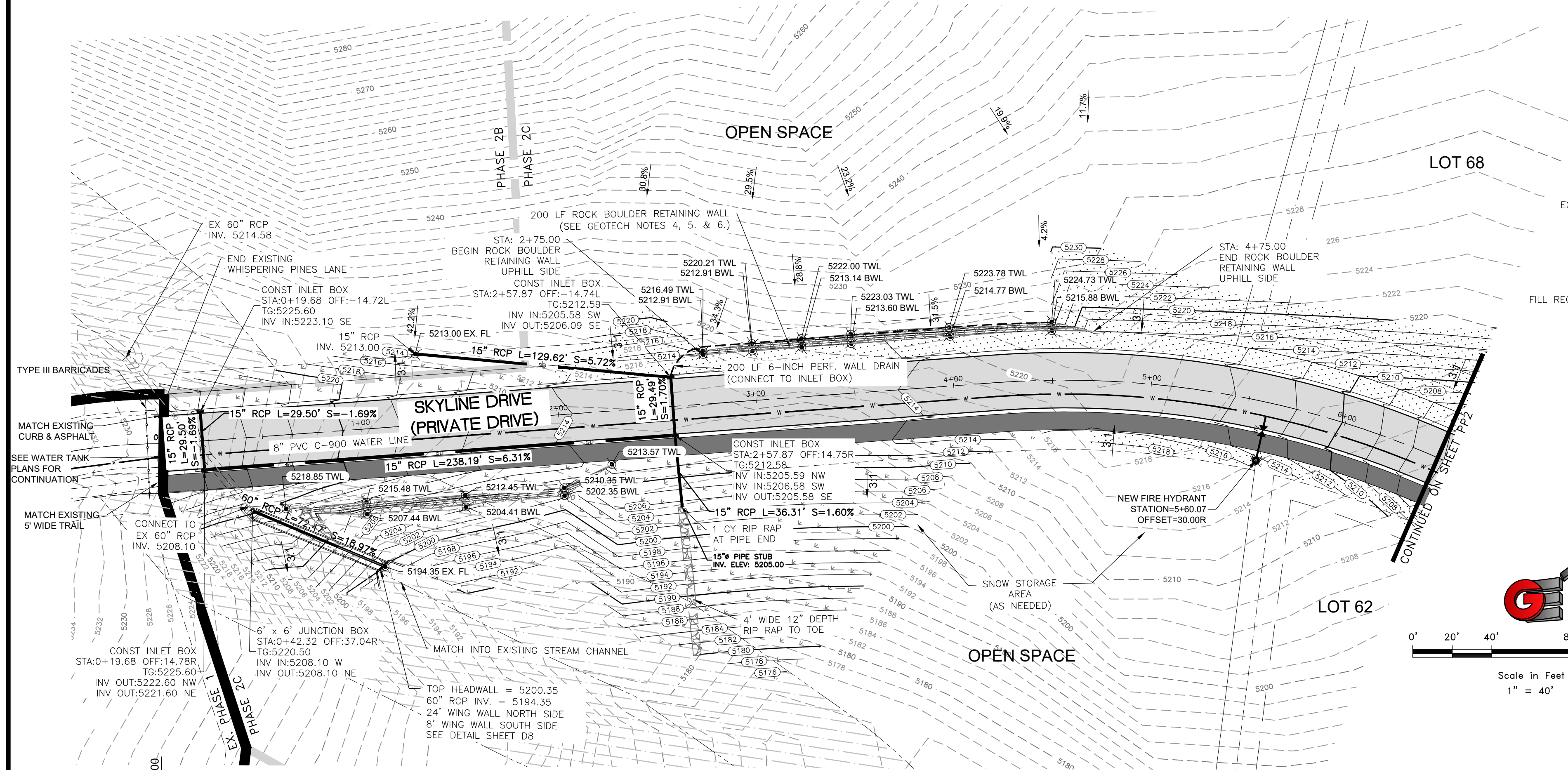
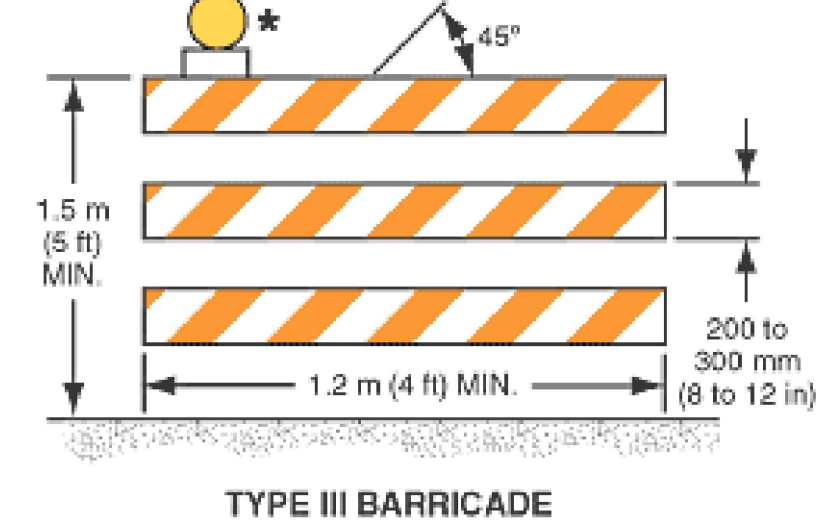
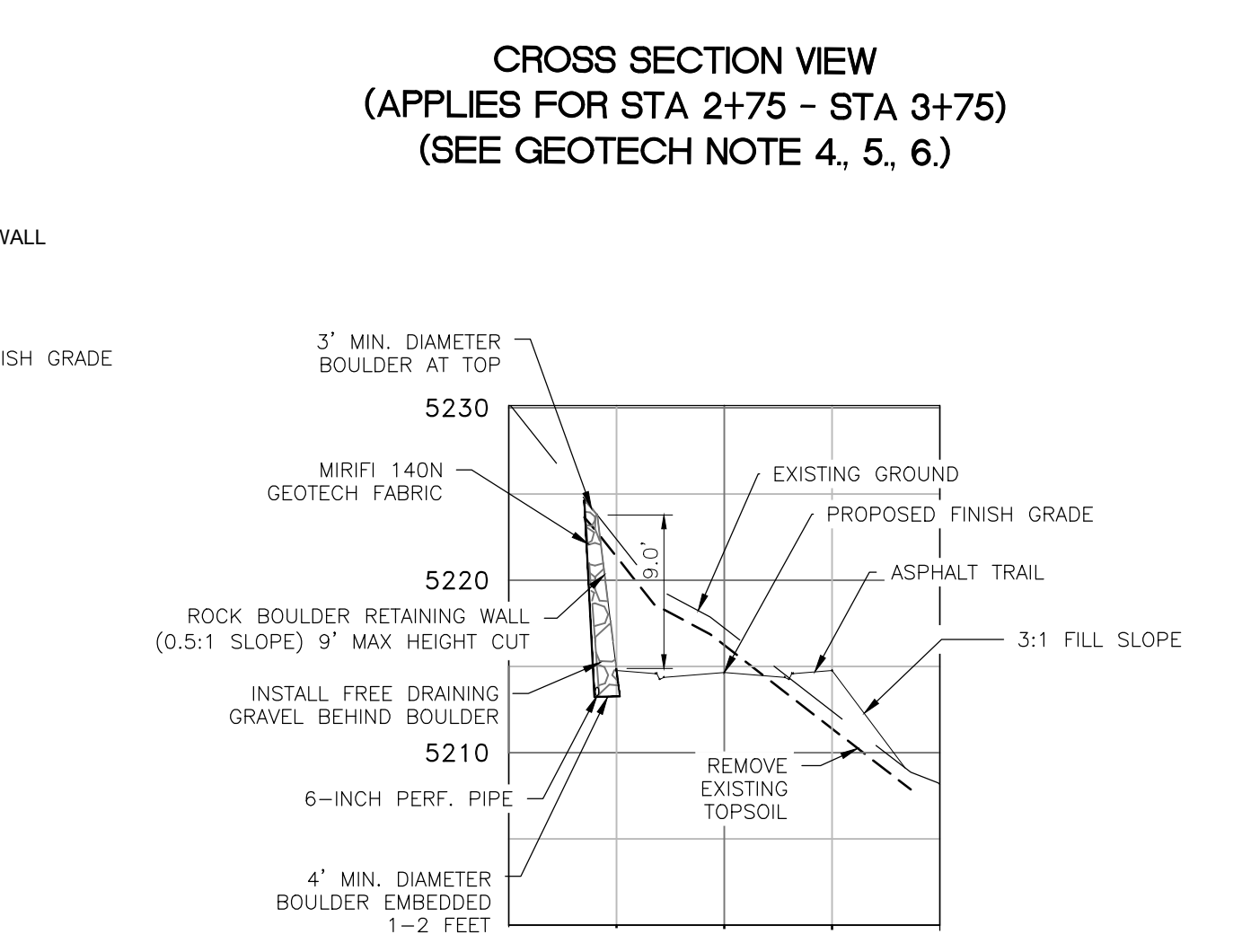
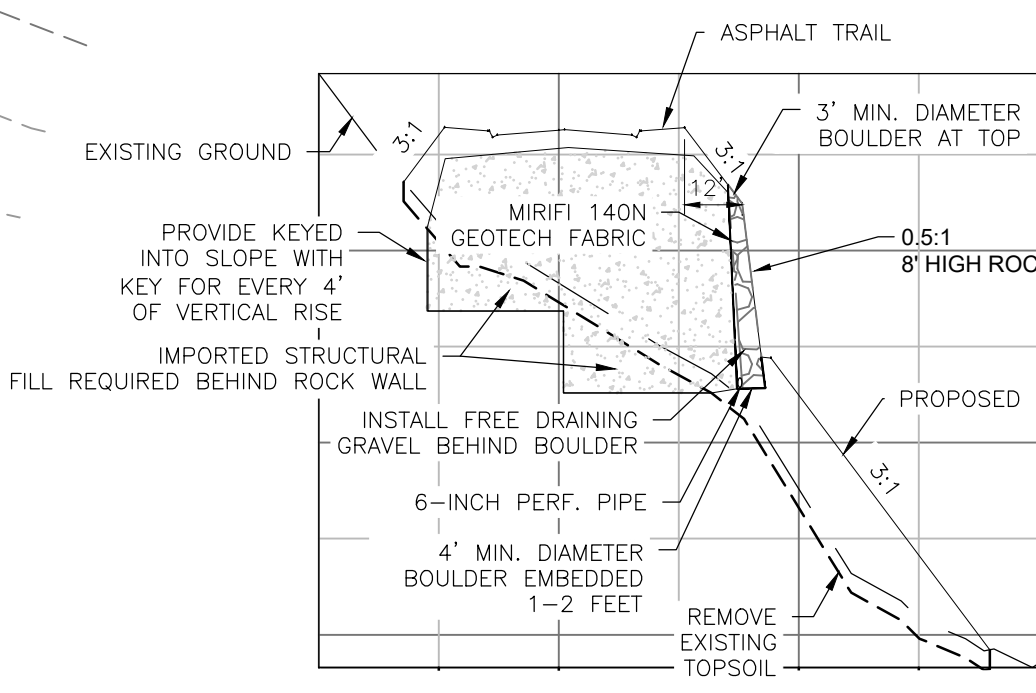
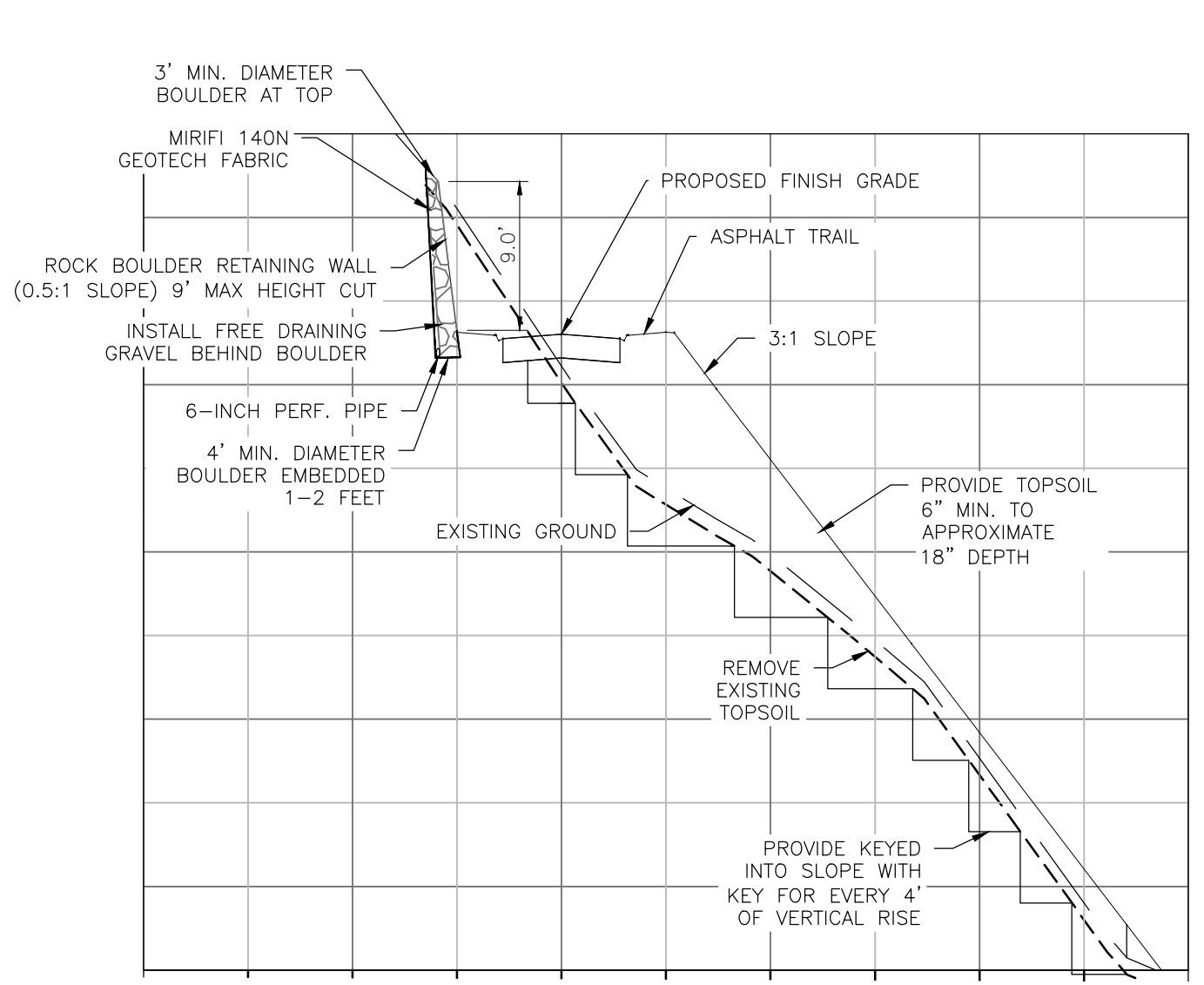
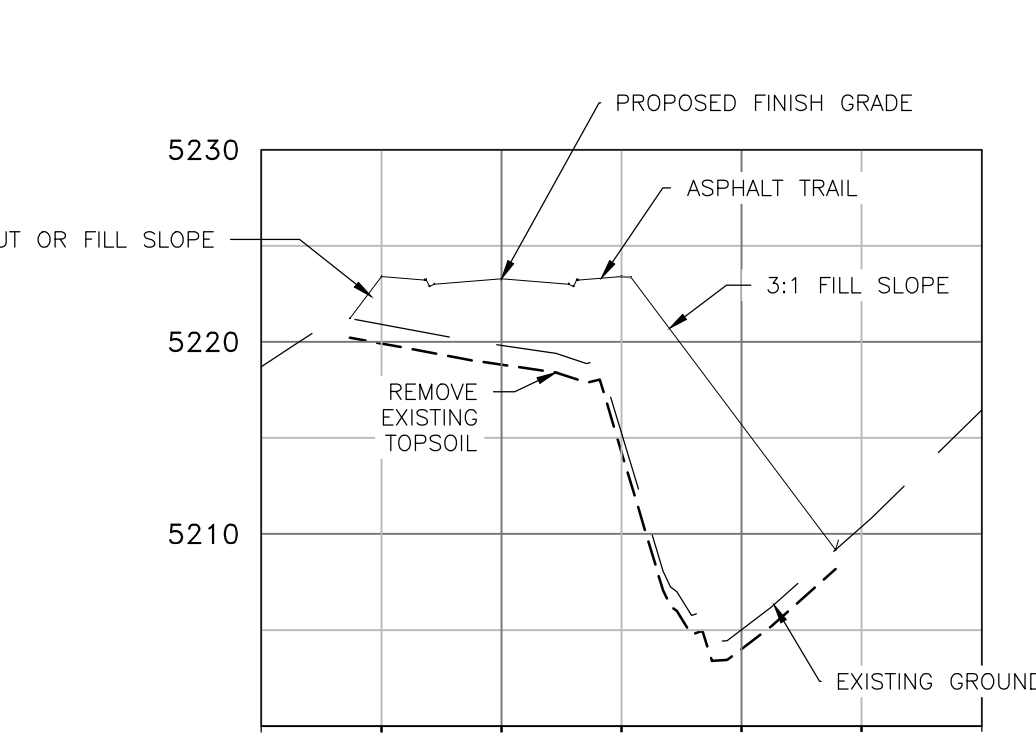
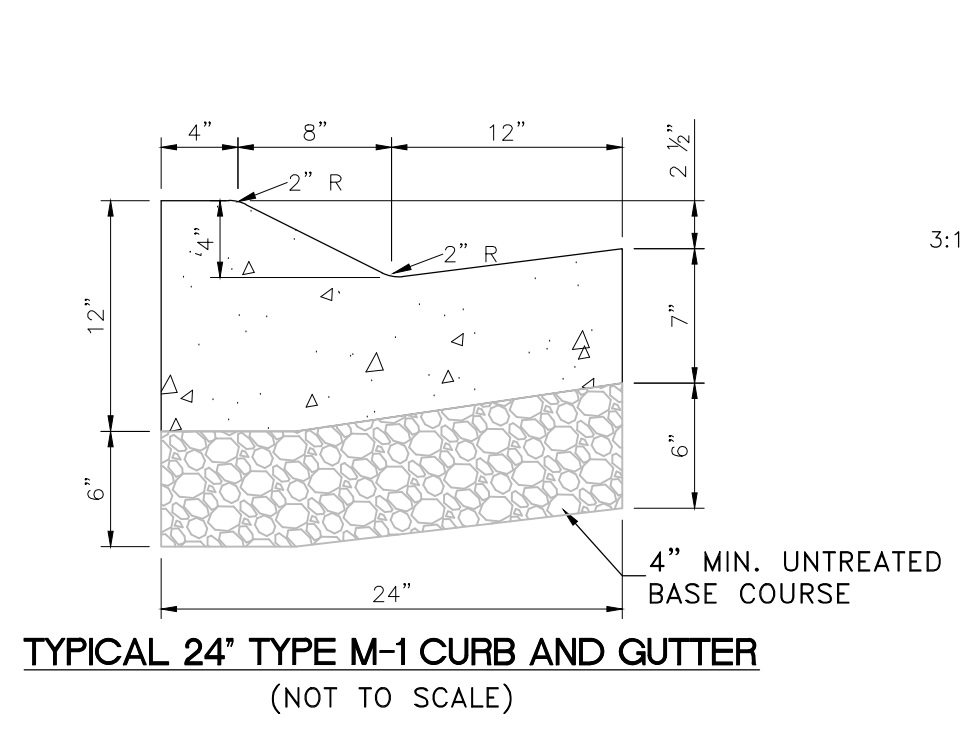
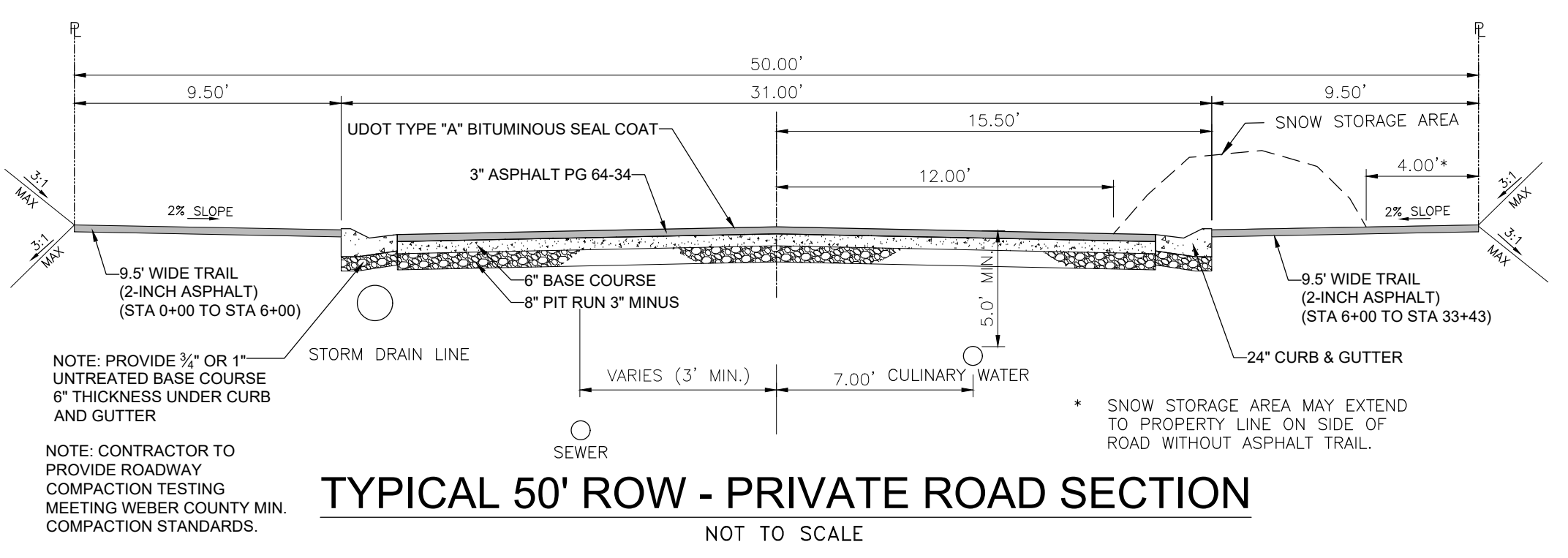
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REVISIONS	DATE	DESCRIPTION		



SKYLINE DRIVE - PLAN AND PROFILE  
 THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2  
 1250 NORTH 5200 EAST  
 EDEN, WEBER COUNTY, UTAH

**GARDNER ENGINEERING**  
 CIVIL-LAND PLANNING  
 MUNICIPAL-LAND SURVEYING  
 5150 SOUTH 375 EAST OGDEN, UT  
 OFFICE: 801-476-0202 FAX: 801-476-0066

PP1

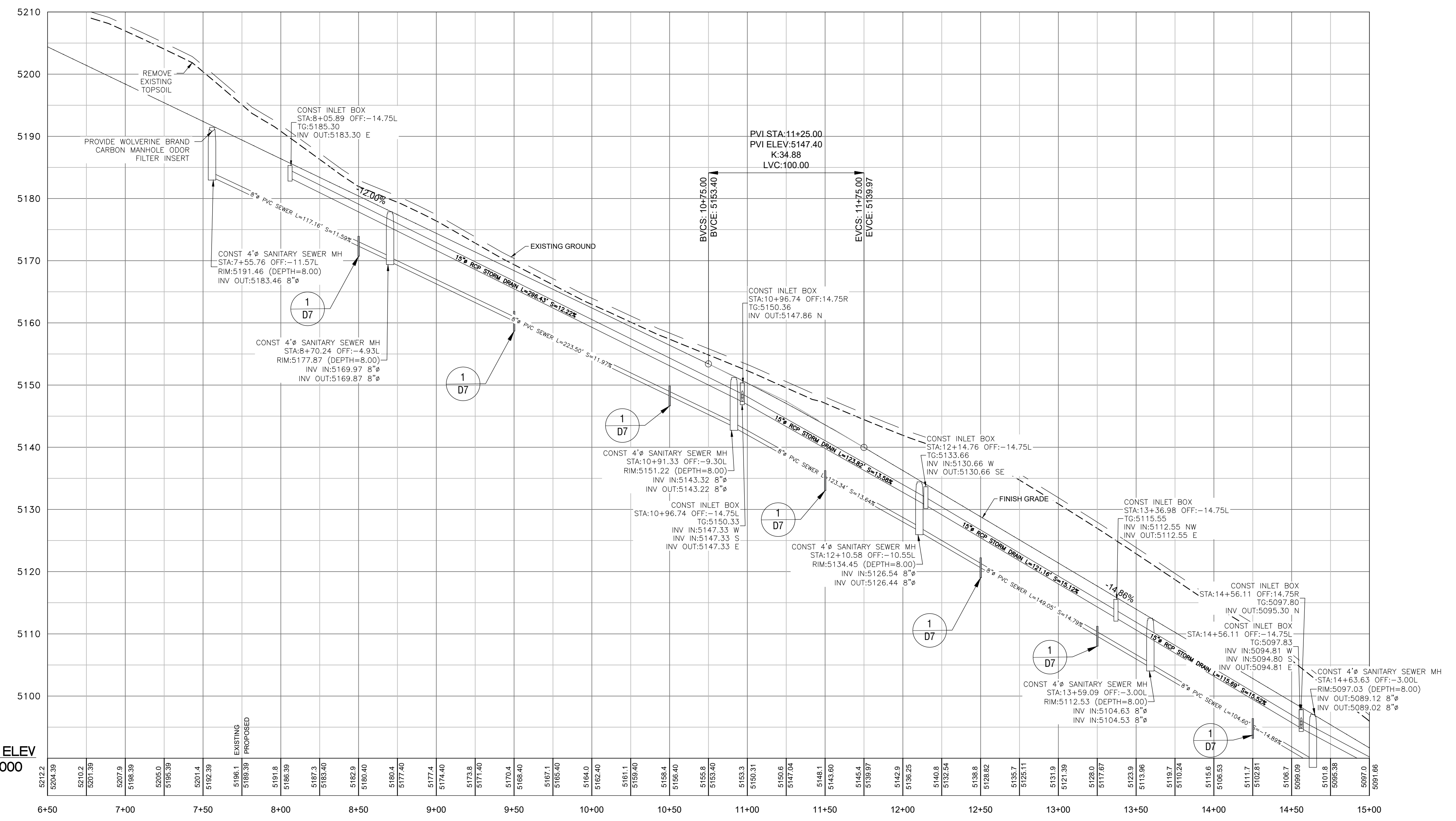
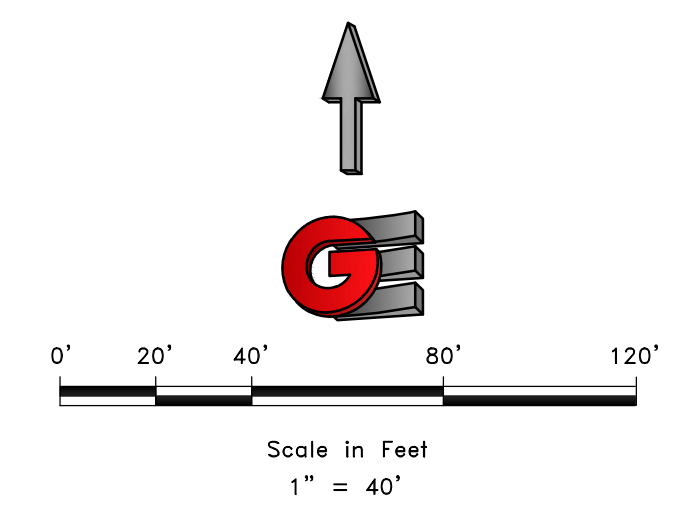
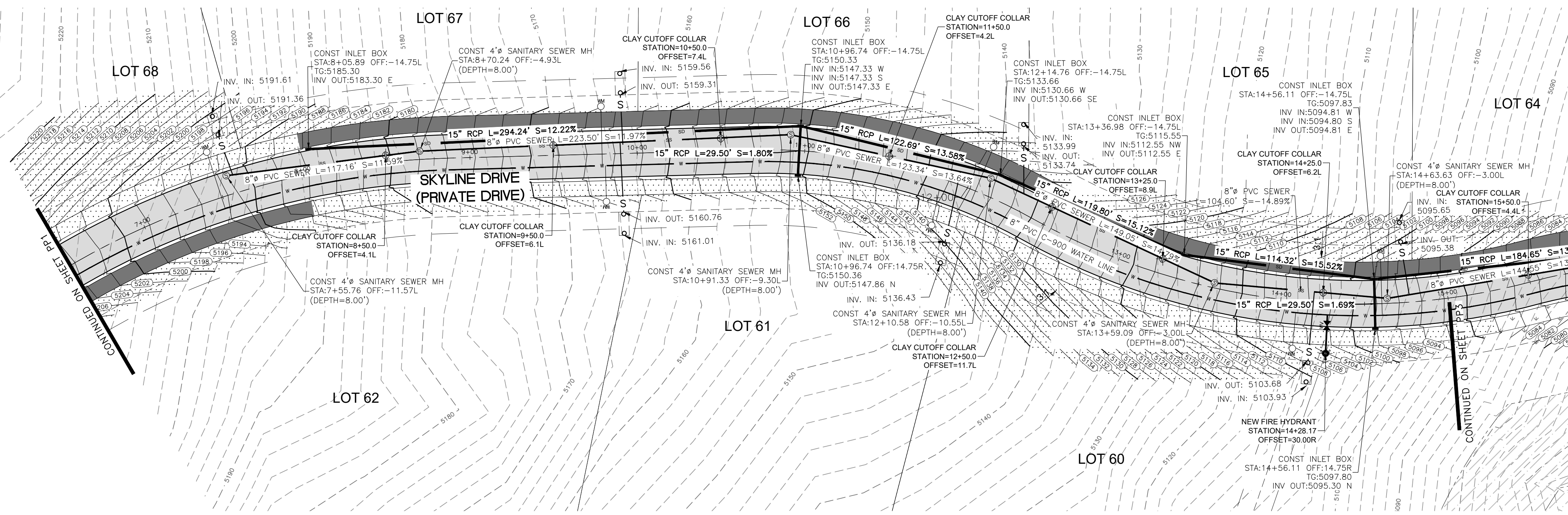


- GEOTECHNICAL NOTES:**
1. AGEC REPRESENTATIVE SHOULD OBSERVE THE SITE GRADING OPERATIONS.
  2. CONTRACTOR IS TO REFER TO "GEOTECHNICAL INVESTIGATION PROPOSED CRIMSON RIDGE- PHASE 2 & 3 5129 EAST WHISPERING PINES LANE EDEN, UTAH" DATED SEPTEMBER 15, 2020 PREPARED BY AGEC.
  3. CONTRACTOR IS TO REFER TO "GEOLOGIC HAZARDS EVALUATION PROPOSED CRIMSON RIDGE PHASE 2 SUBDIVISION ABOUT 1100 NORTH MORNINGSIDE LANE EDEN, UTAH" DATED MAY 15, 2020.
  4. REPRESENTATIVE FROM AGEC TO BE PRESENT PRIOR TO CONSTRUCTION AT PRE-CONSTRUCTION MEETING.
  5. REPRESENTATIVE FROM AGEC TO BE ONSITE DURING CONSTRUCTION TO OBSERVE ROCK WALL CONSTRUCTION AND FILL MATERIAL PLACEMENT
  6. REFER TO ROCKERY RECOMMENDATIONS REPORT BY AGEC DATED FEBRUARY, 2021.

**LEGEND**

	SUBDIVISION BOUNDARY
	ROAD CENTERLINE
	EXISTING EDGE OF ASPHALT
	EXISTING 1' CONTOUR
	EXISTING 5' CONTOUR
	FINISH GRADE 1' CONTOUR
	EXISTING SANITARY SEWER
	NEW SANITARY SEWER
	NEW PRESSURE SEWER LATERAL
	EXISTING STORM DRAIN
	NEW STORM DRAIN
	EXISTING CULINARY WATER
	NEW CULINARY WATER
	NEW CULINARY WATER LATERAL
	EXISTING FIRE HYDRANT
	NEW FIRE HYDRANT
	EXISTING SECONDARY WATER
	NEW ASPHALT PAVING
	6" DEPTH CUT AREA, OVER EX & 6" TOPSOIL OR 6" TRAIL MATERIAL PLACEMENT (HYDRO SEED IN DESIGNATED PHASE)
	HYDRO SEED FILL SLOPES IN DESIGNATED PHASE

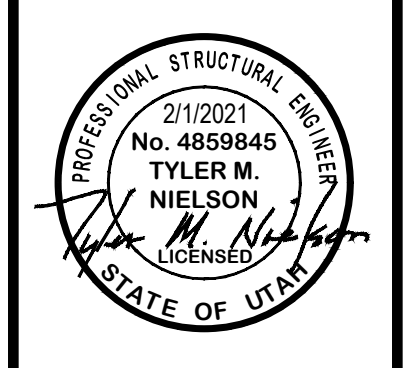




**LEGEND**

- SUBDIVISION BOUNDARY
- ROAD CENTERLINE
- EXISTING EDGE OF ASPHALT
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- FINISH GRADE 1' CONTOUR
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- HYDRO SEED FILL SLOPES IN DESIGNATED PHASE

SCALE	1" = 40'
DATE	2/1/2021
DESIGN	BSD/MUS
DRAWN	BSD/MUS
CHECKED	TJN
DATE	
REVISIONS	DESCRIPTION
DATE	

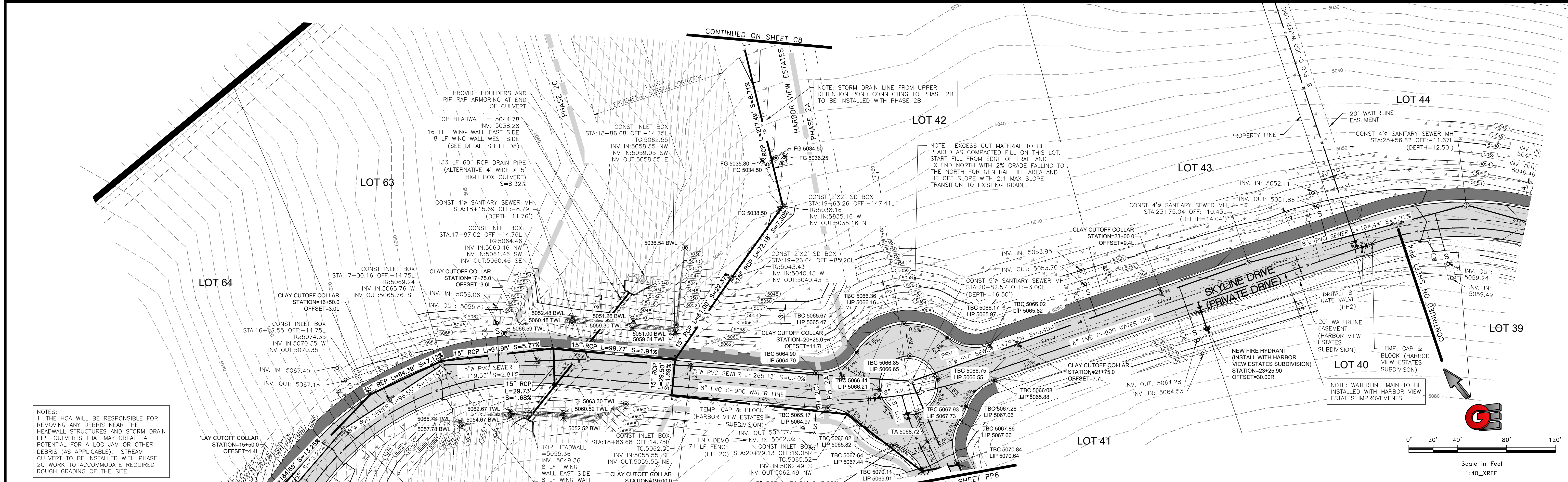


SKYLINE DRIVE - PLAN AND PROFILE  
 THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2  
 1250 NORTH 5200 EAST  
 EDEN, WEBER COUNTY, UTAH



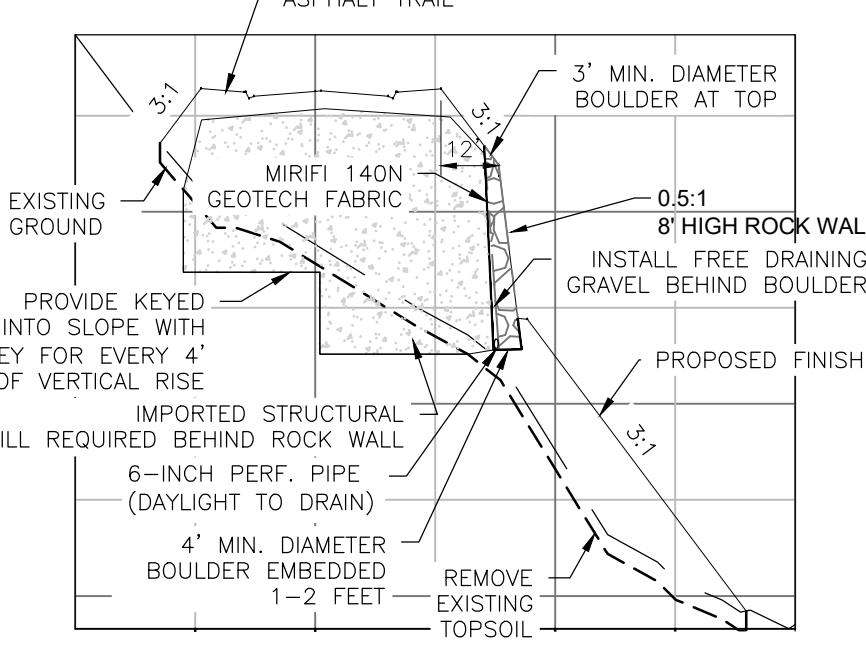
PP2



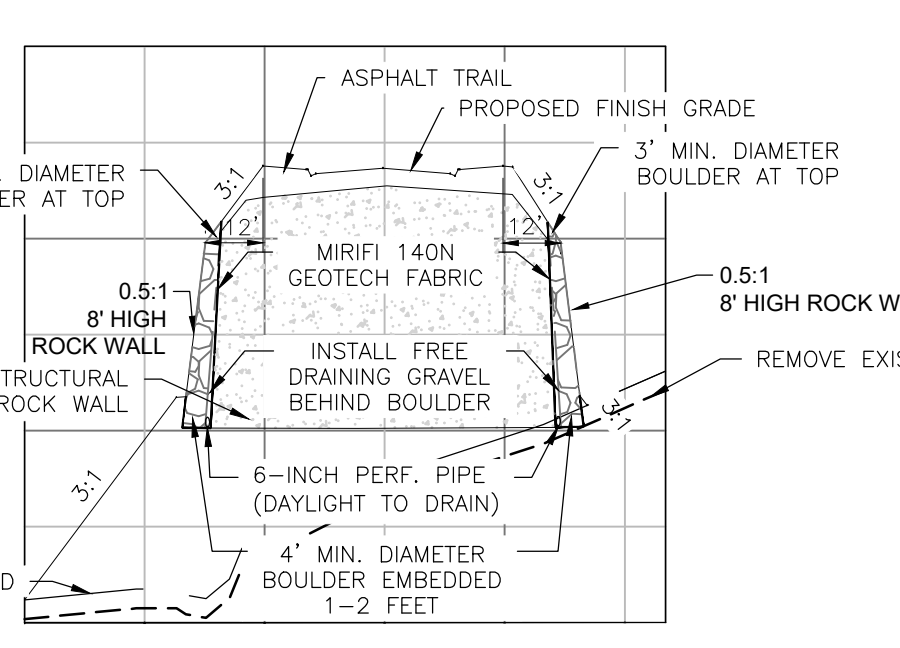


NOTES:  
1. THE HOA WILL BE RESPONSIBLE FOR REMOVING ANY DEBRIS NEAR THE HEADWALL STRUCTURES AND STORM DRAIN PIPE CULVERTS THAT MAY CREATE A POTENTIAL FOR A LOG JAM OR OTHER DEBRIS (AS APPLICABLE). STREAM CULVERT TO BE INSTALLED WITH PHASE 2C WORK TO ACCOMMODATE REQUIRED ROUGH GRADING OF THE SITE.

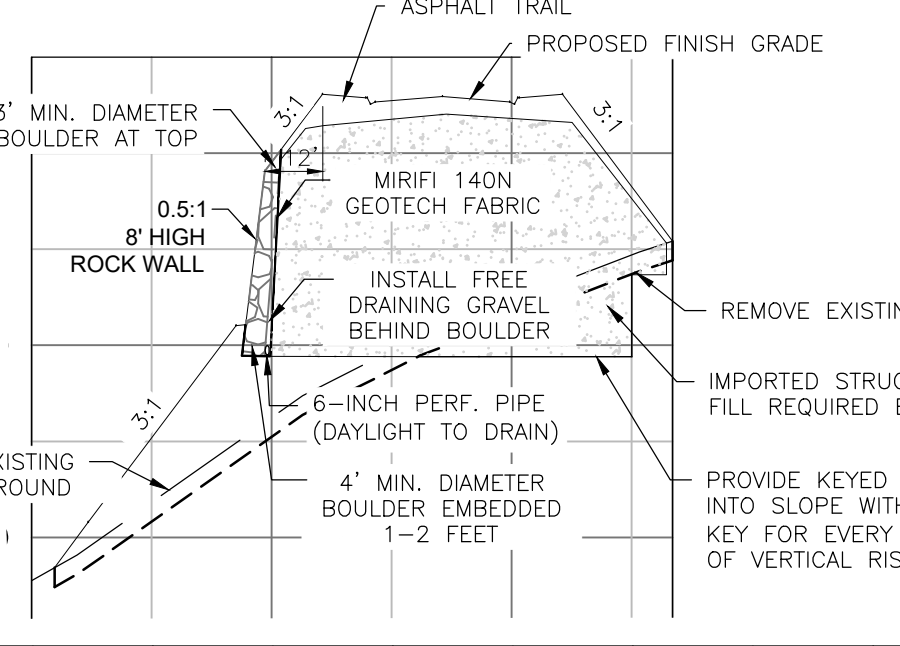
CROSS SECTION VIEW  
(APPLIES FOR STA 16+75 - STA 17+50)  
(SEE GEOTECH NOTE 4, 5, 6. ON SHEET PP1)



CROSS SECTION VIEW  
(APPLIES FOR STA 17+50 - 18+50)  
(SEE GEOTECH NOTE 4, 5, 6. ON SHEET PP1)

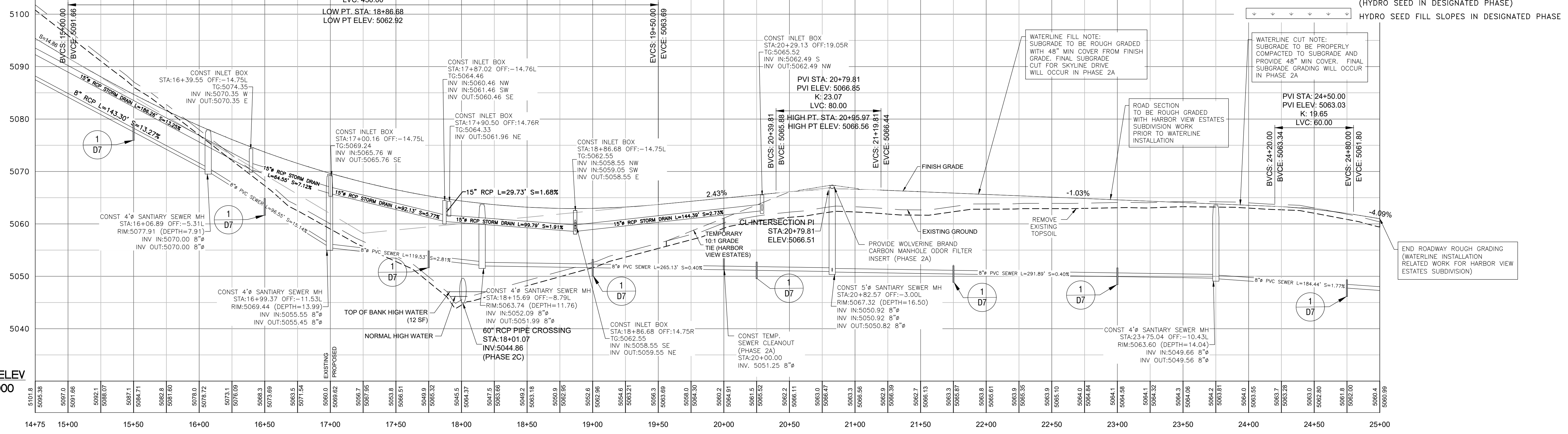


CROSS SECTION VIEW  
(APPLIES FOR STA 18+50 - 18+85)  
(SEE GEOTECH NOTE 4, 5, 6. ON SHEET PP1)



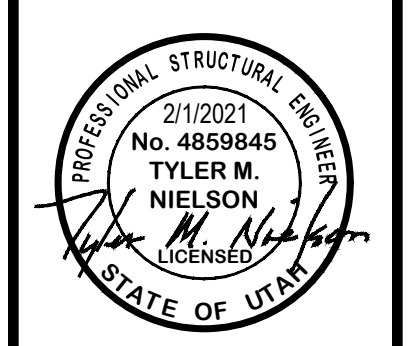
**LEGEND**

- SUBDIVISION BOUNDARY
- ROAD CENTERLINE
- EXISTING EDGE OF ASPHALT
- EXISTING 1' CONTOUR
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- HYDRO SEED FILL SLOPES IN DESIGNATED PHASE



SCALE: 1"=40'  
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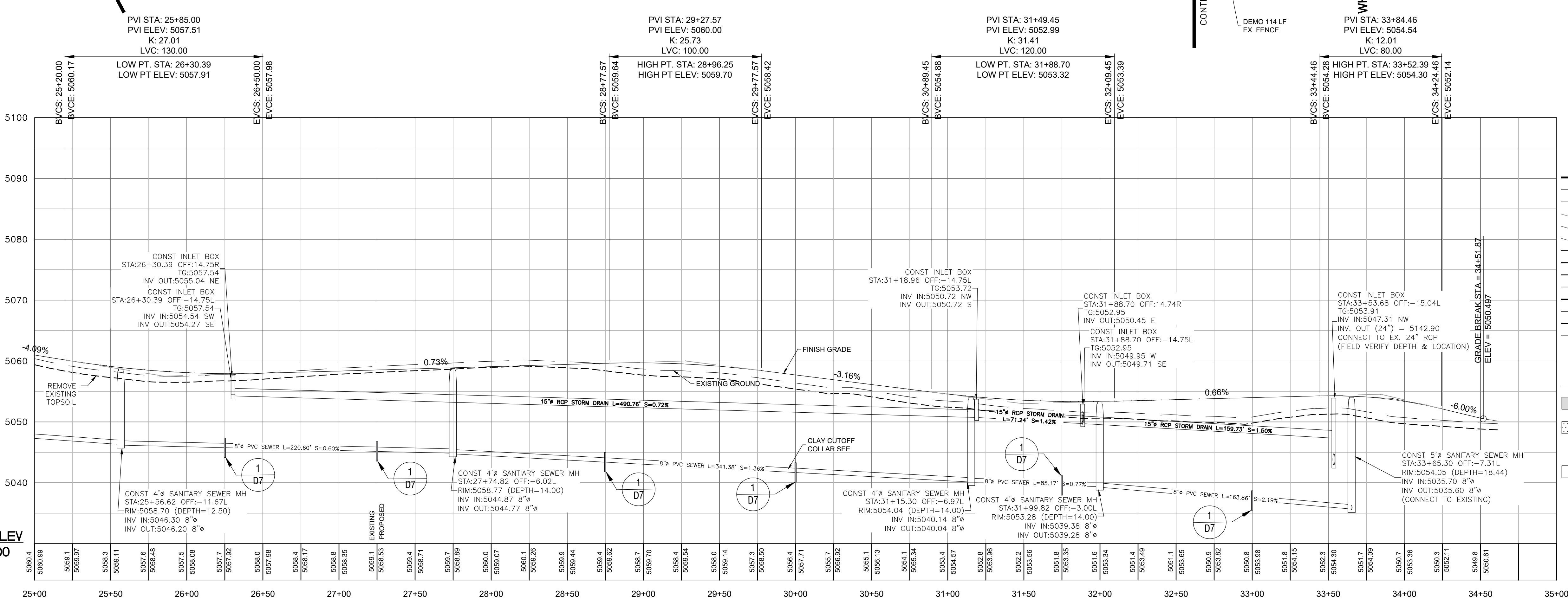
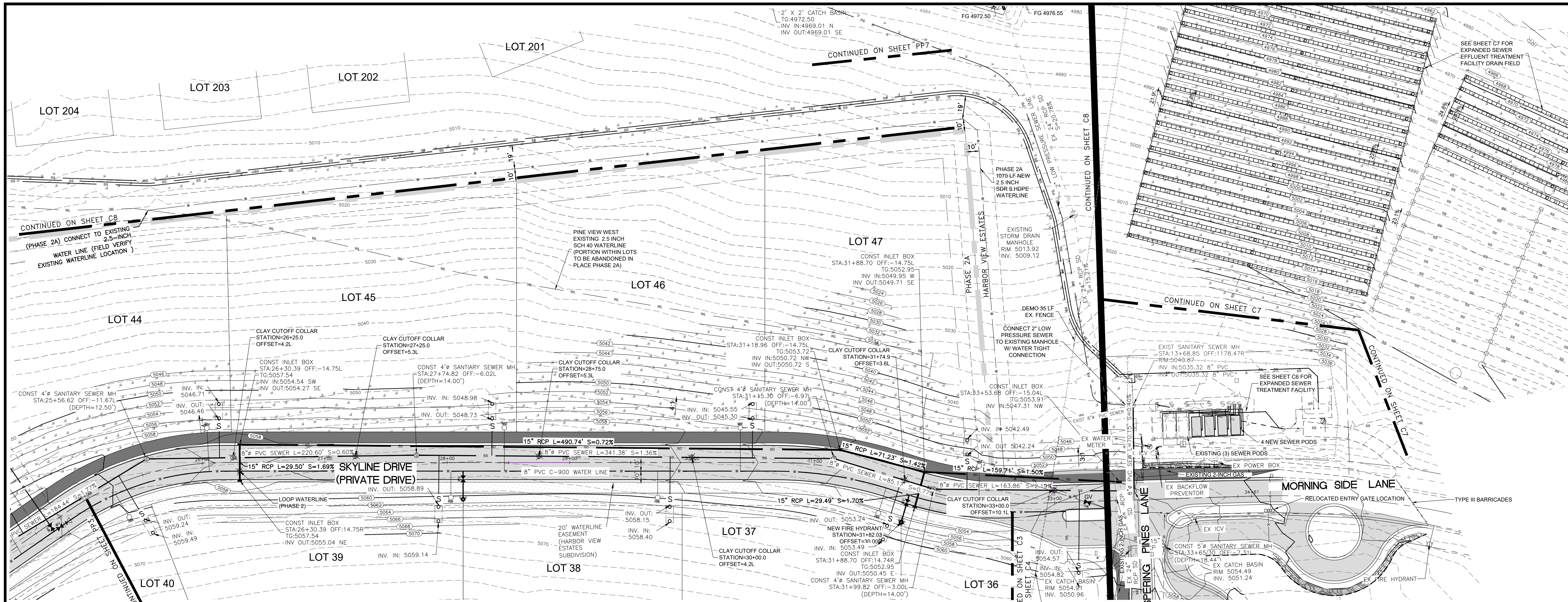
REVISIONS	DESCRIPTION
DATE	



SKYLINE DRIVE - PLAN AND PROFILE  
THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2  
1250 NORTH 5200 EAST  
EDEN, WEBER COUNTY, UTAH

**GARDNER ENGINEERING**  
CIVIL-LAND PLANNING  
MUNICIPAL-LAND SURVEYING  
5150 SOUTH 375 EAST OGDEN, UT  
OFFICE: 801-476-0202 FAX: 801-476-0066





**LEGEND**

- SUBDIVISION BOUNDARY
- ROAD CENTERLINE
- EXISTING EDGE OF ASPHALT
- EXISTING 1' CONTOUR
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- NEW PRESSURE SEWER LATERAL
- EXISTING STORM DRAIN
- NEW STORM DRAIN
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- HYDRO SEED FILL SLOPES IN DESIGNATED PHASE

SCALE: 1"=40'

REVISIONS	DATE	DESCRIPTION

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 CHECKED: TIM  
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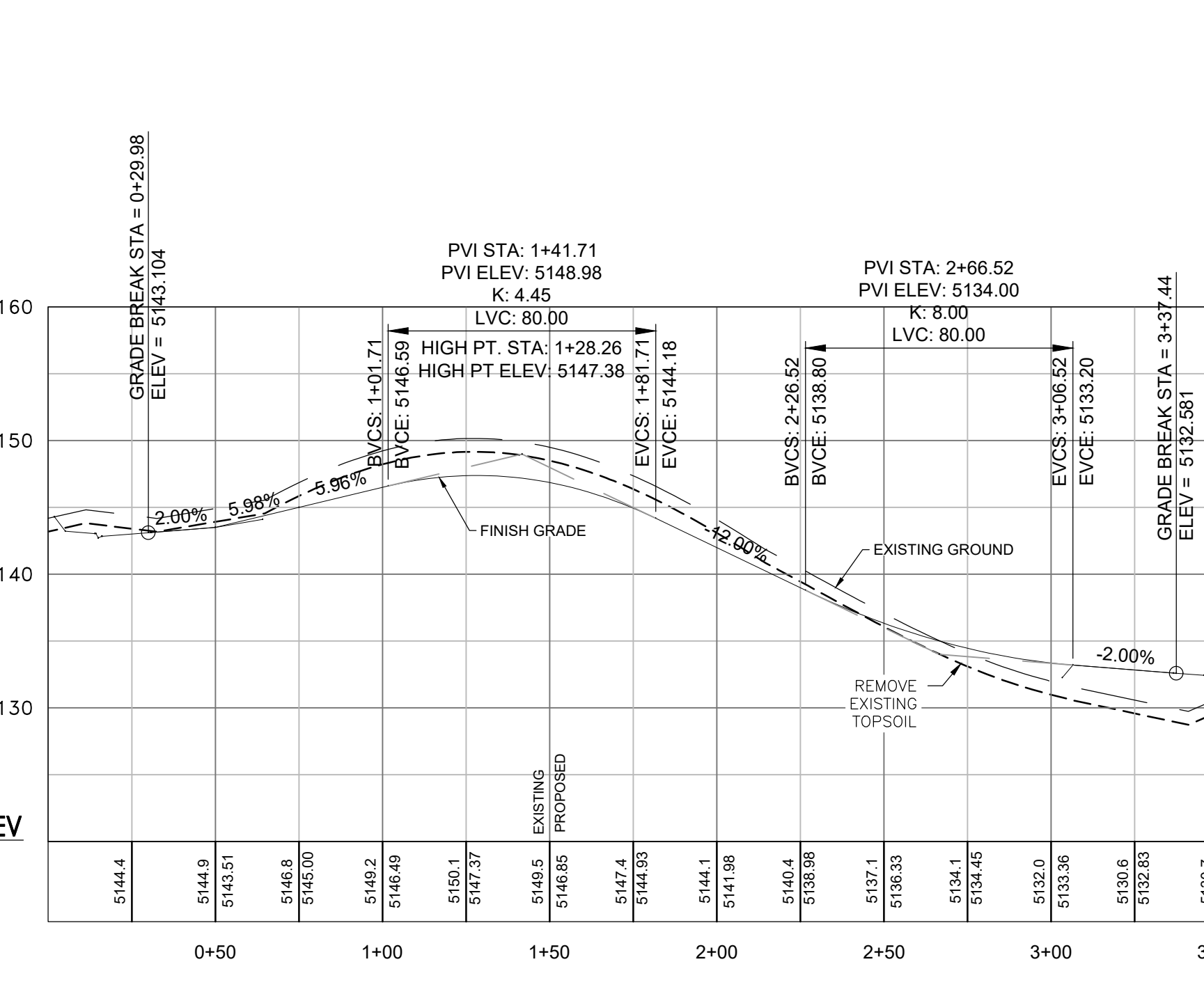
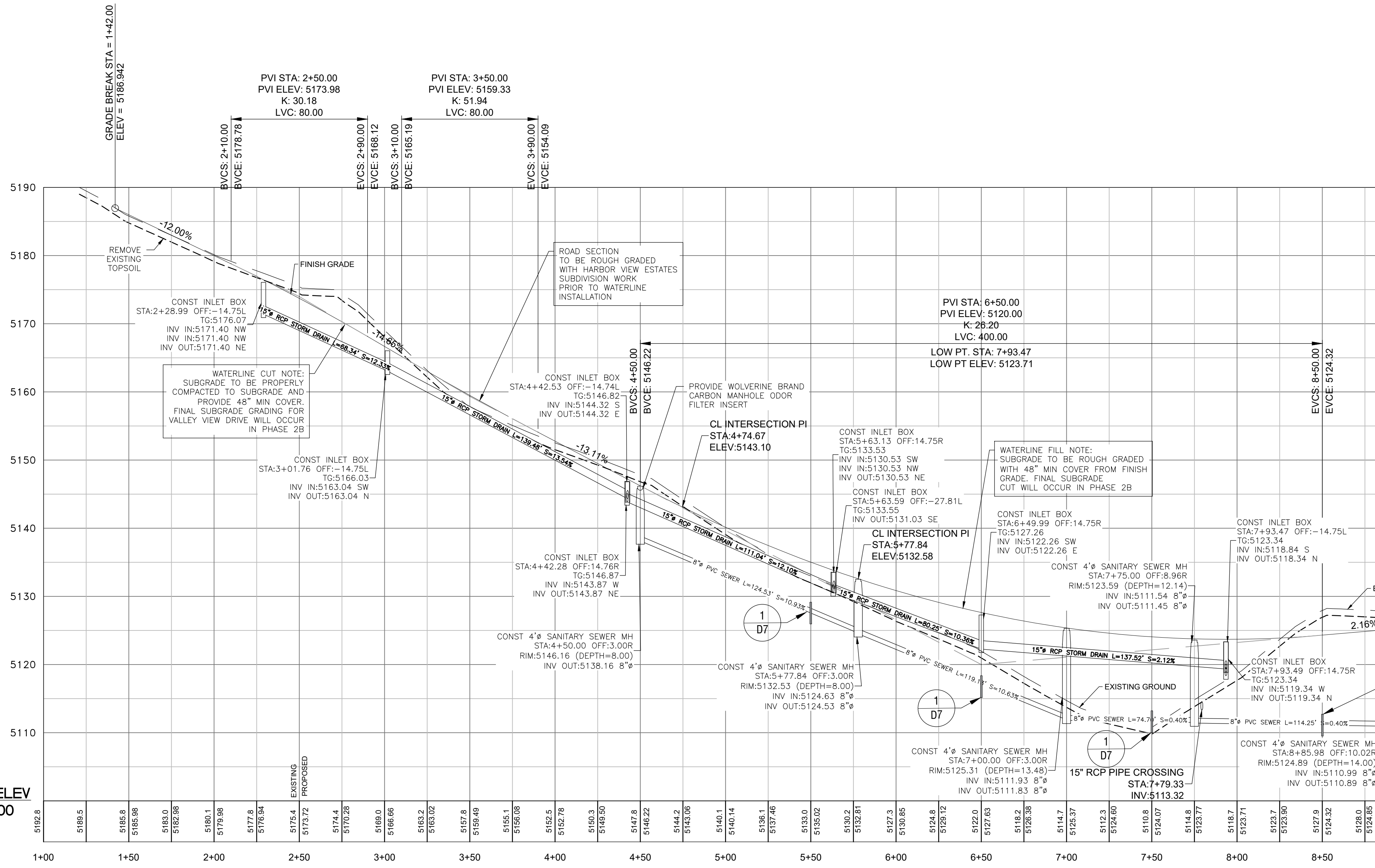
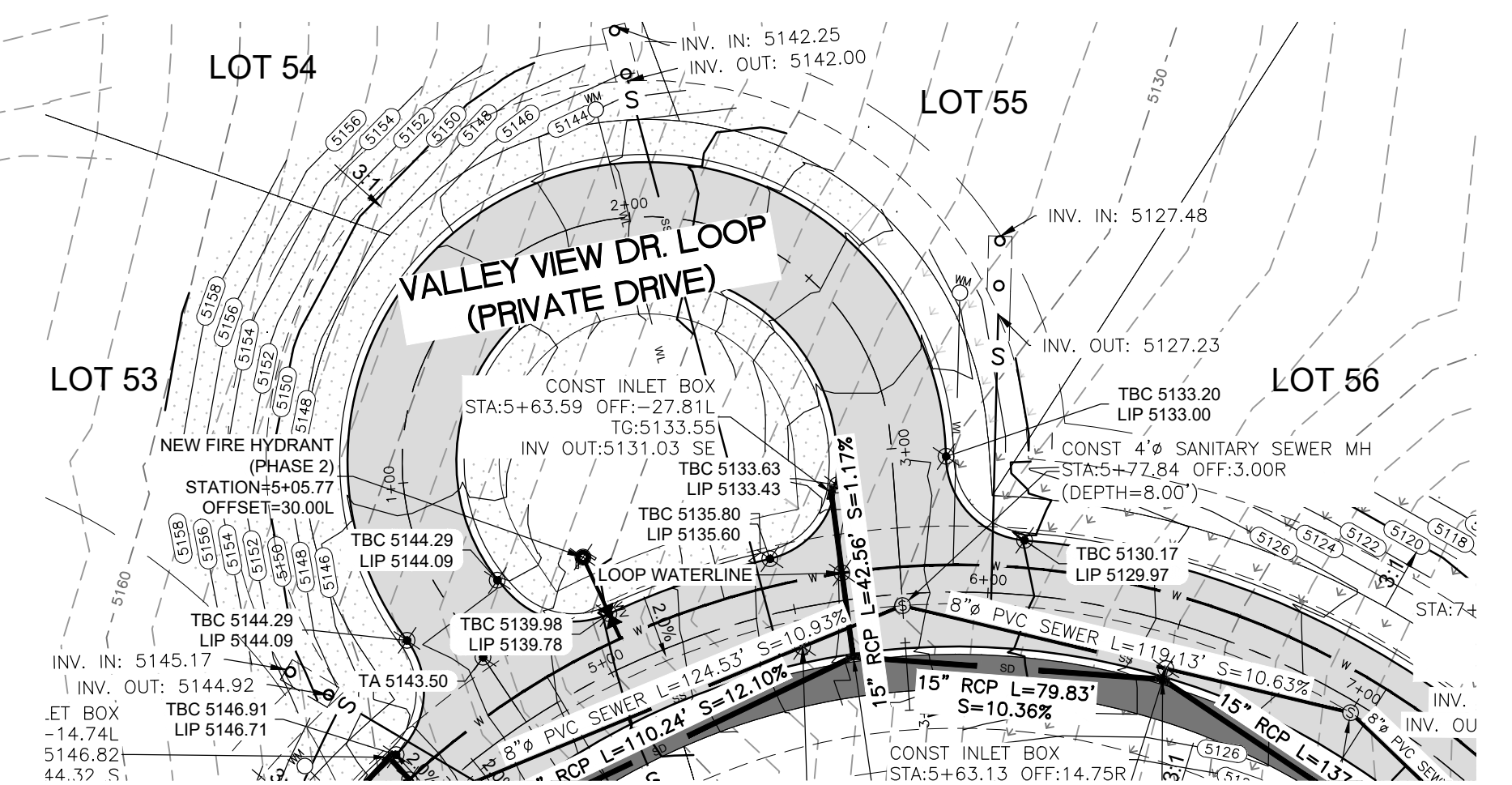
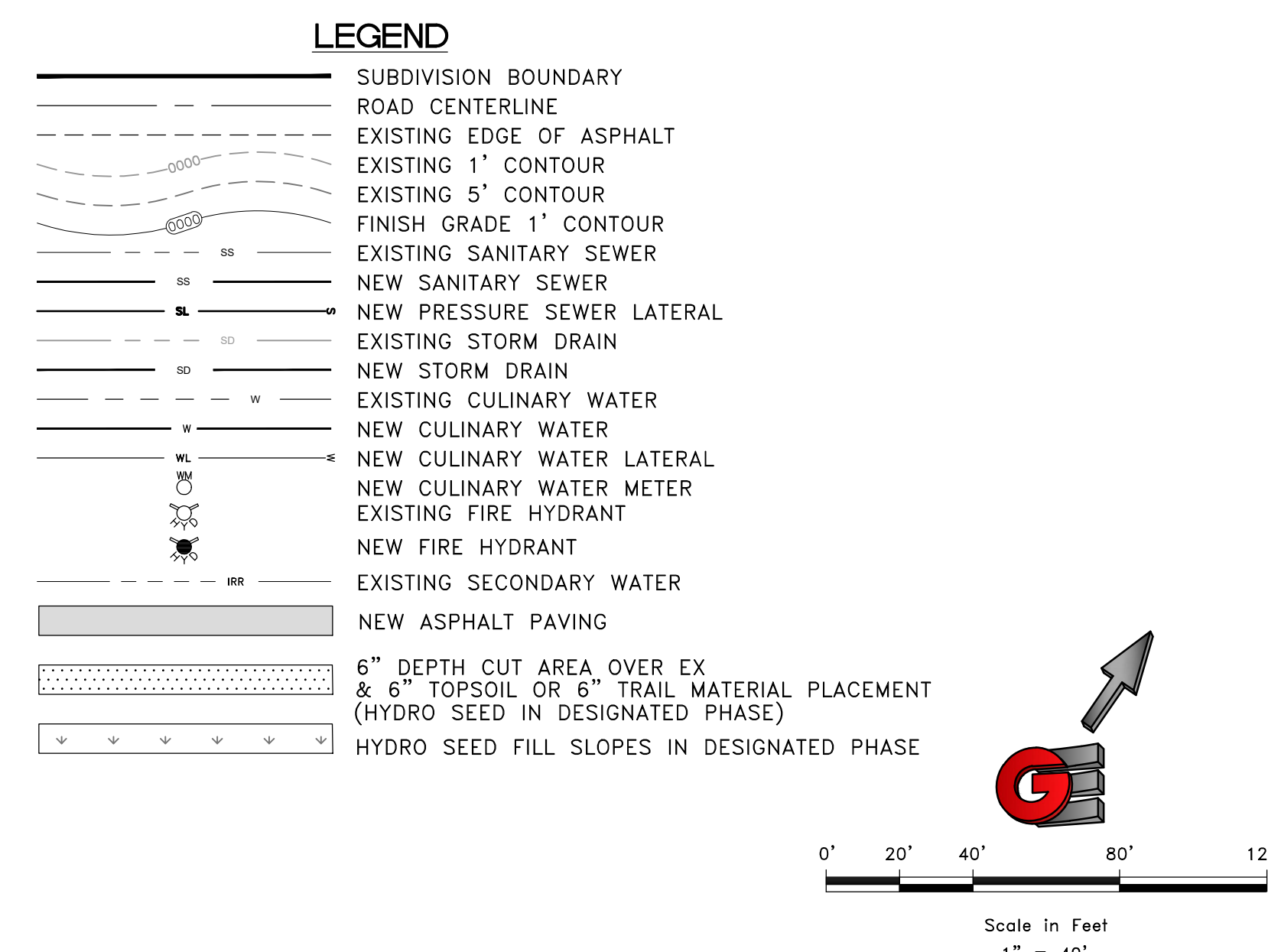
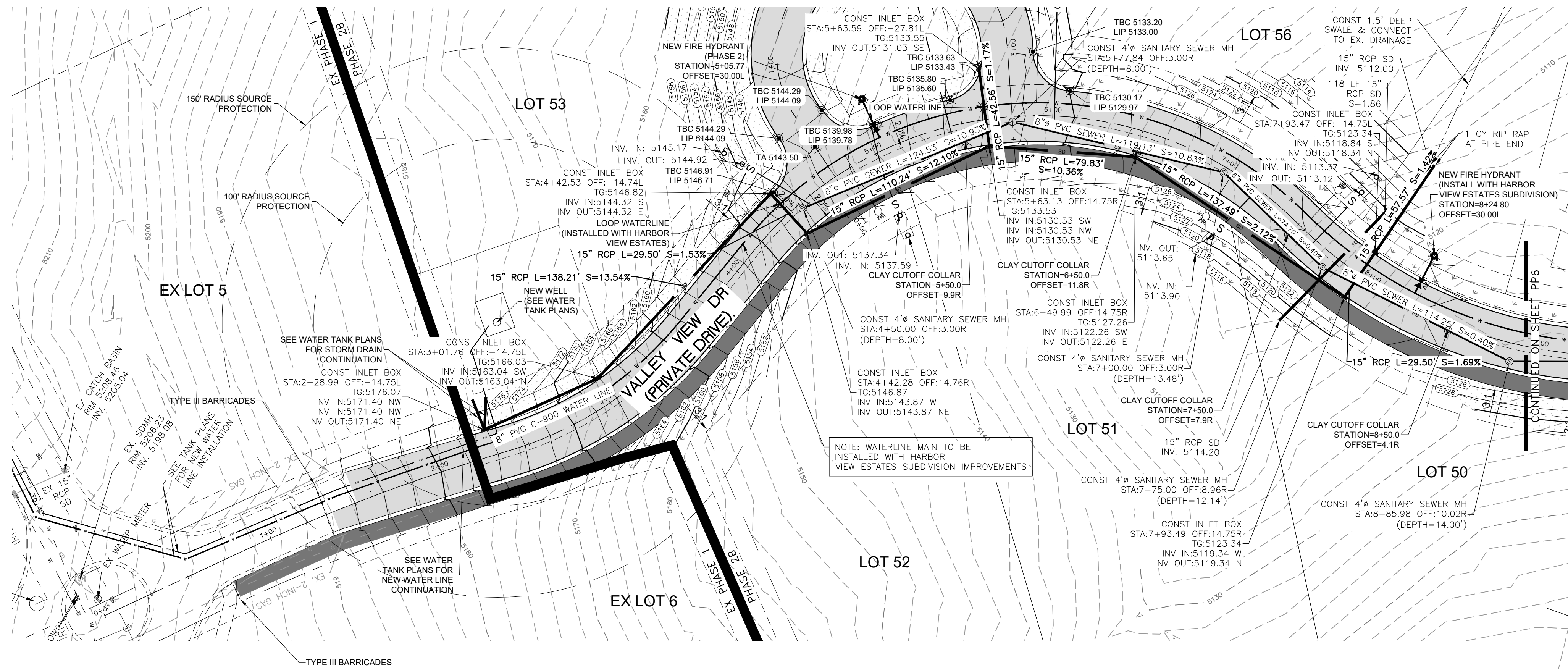


SKYLINE DRIVE - PLAN AND PROFILE  
 THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2  
 1250 NORTH 5200 EAST  
 EDEN, WEBER COUNTY, UTAH

**GARDNER ENGINEERING**  
 CIVIL-LAND PLANNING  
 MUNICIPAL-LAND SURVEYING

5150 SOUTH 375 EAST OGDEN, UT  
 OFFICE: 801-476-0202 FAX: 801-476-0066





SCALE: 1" = 40'  
 DATE: 2/1/2021  
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REVISIONS

DATE	DESCRIPTION

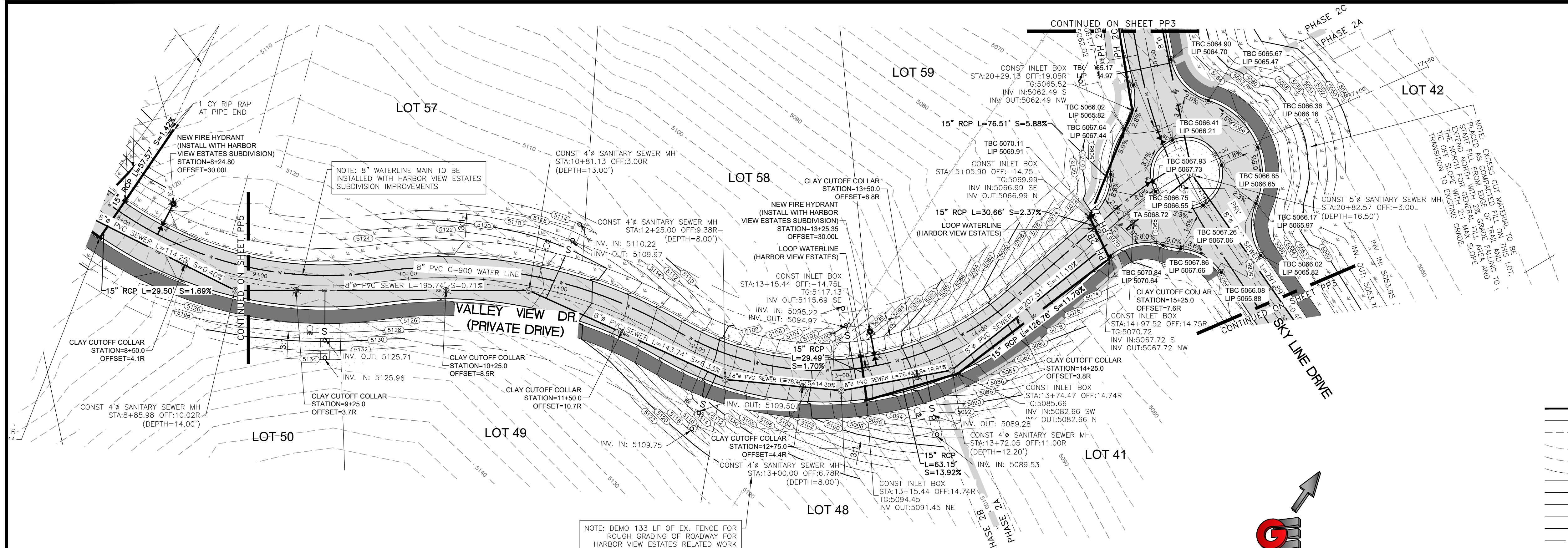
PROFESSIONAL STRUCTURAL ENGINEER  
 2/1/2021  
 No. 4859845  
 TYLER M. NIELSON  
 LICENSED  
 STATE OF UTAH

VALLEY VIEW DR - PLAN AND PROFILE  
 THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2  
 1250 NORTH 5200 EAST  
 EDEN, WEBER COUNTY, UTAH

**GARDNER ENGINEERING**  
 CIVIL-LAND PLANNING  
 MUNICIPAL-LAND SURVEYING  
 5150 SOUTH 375 EAST OGDEN, UT  
 OFFICE: 801-476-0202 FAX: 801-476-0066

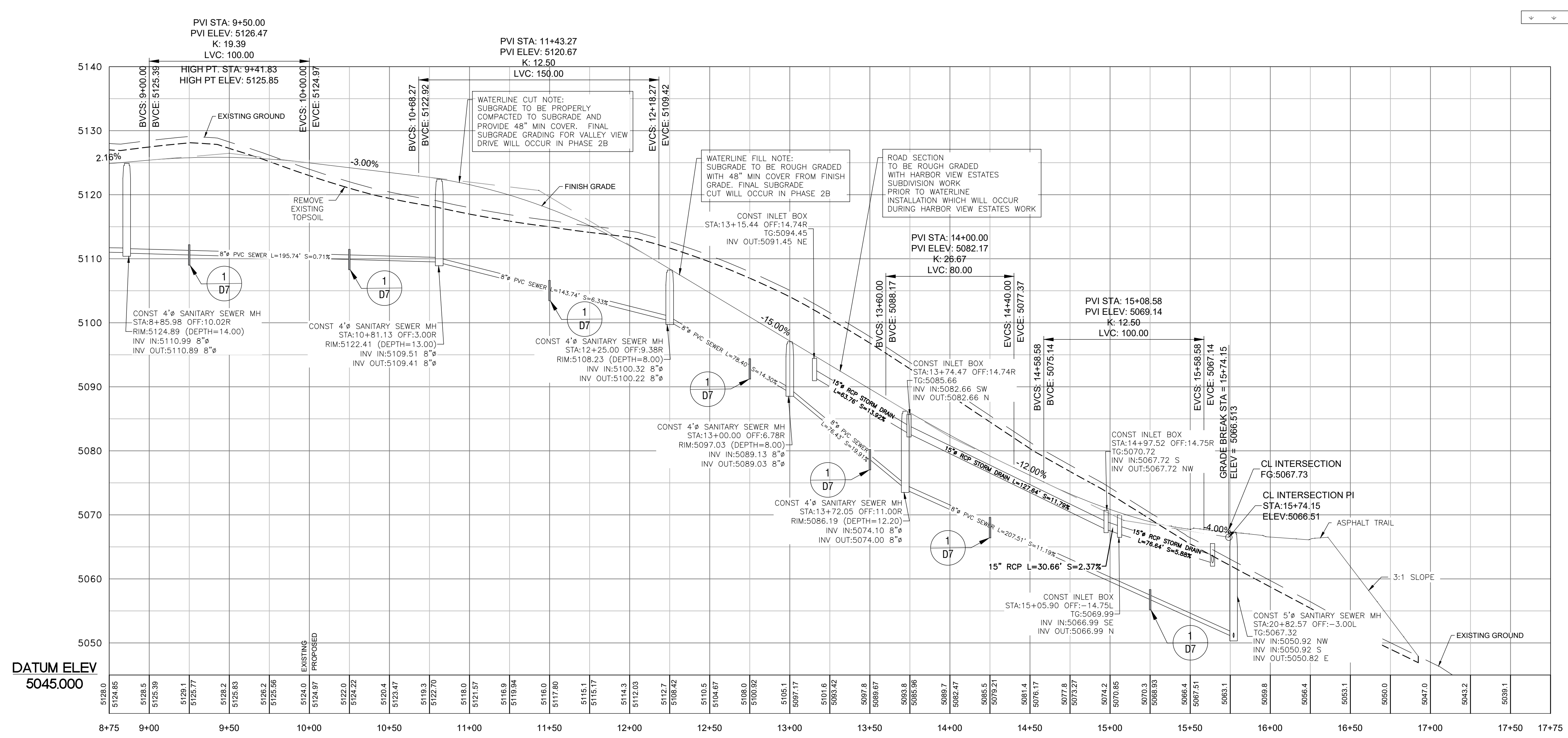
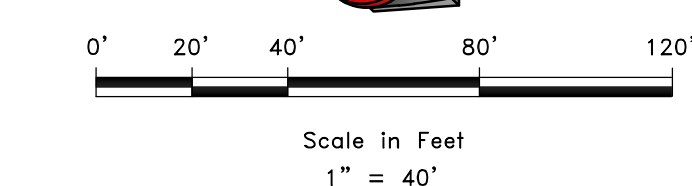
PP5





**LEGEND**

- SUBDIVISION BOUNDARY
- ROAD CENTERLINE
- EXISTING EDGE OF ASPHALT
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- FINISH GRADE 1' CONTOUR
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- HYDRO SEED FILL SLOPES IN DESIGNATED PHASE



SCALE: 1" = 40'

DATE: 2/1/2021

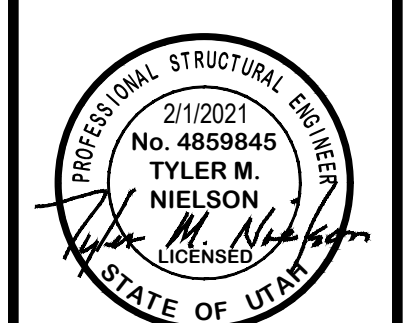
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DRAWN: BSO/MUS

CHECKED: TIM

DWG#: 15-2021-08 - BAH INVESTMENT, CRIMSON RIDGE, CRIMSON RIDGE - COS.DWG

REVISIONS	DESCRIPTION
DATE	



VALLEY VIEW DR - PLAN AND PROFILE

THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2

1250 NORTH 5200 EAST

EDEN, WEBER COUNTY, UTAH

**GARDNER ENGINEERING**

CIVIL - LAND PLANNING

MUNICIPAL - LAND SURVEYING

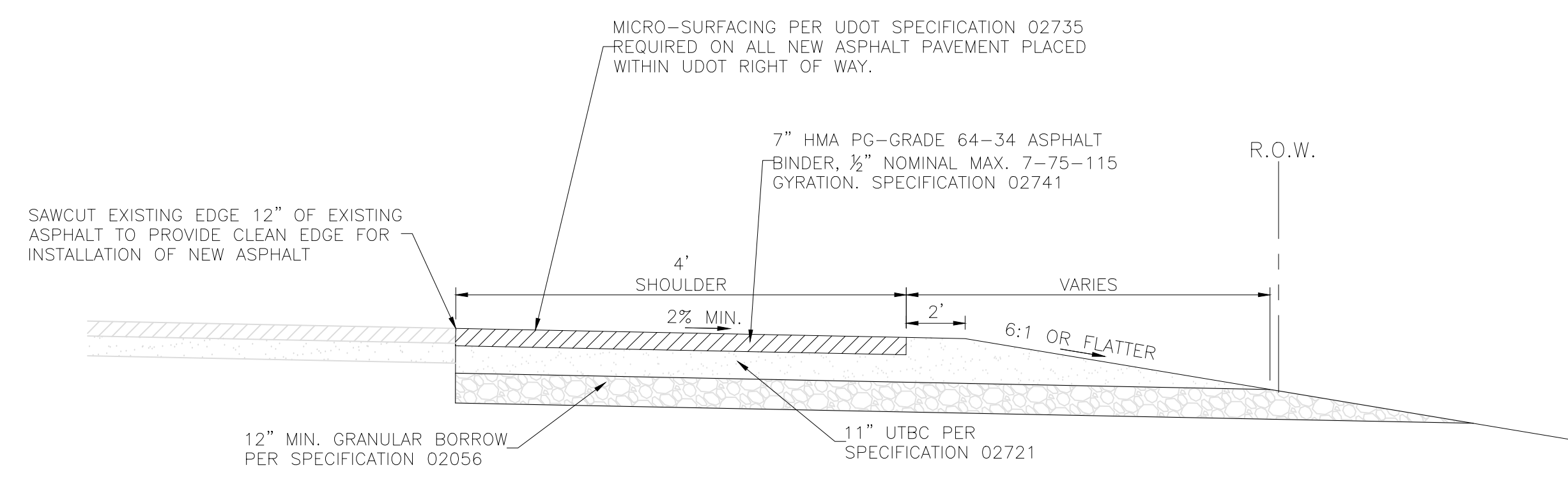
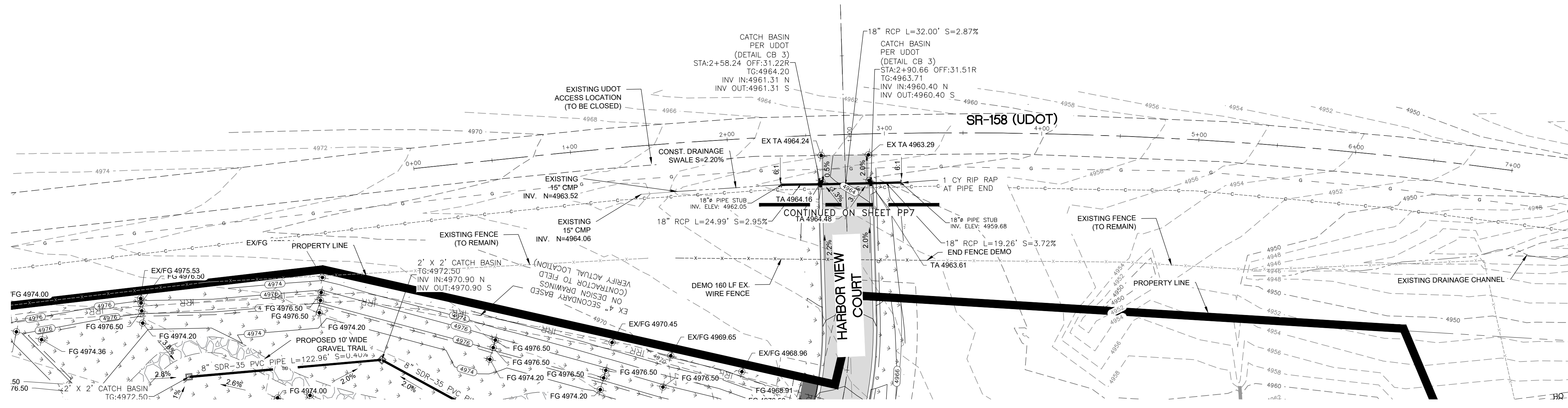
5150 SOUTH 375 EAST OGDEN, UT

OFFICE: 801.476.0202 FAX: 801.476.0066





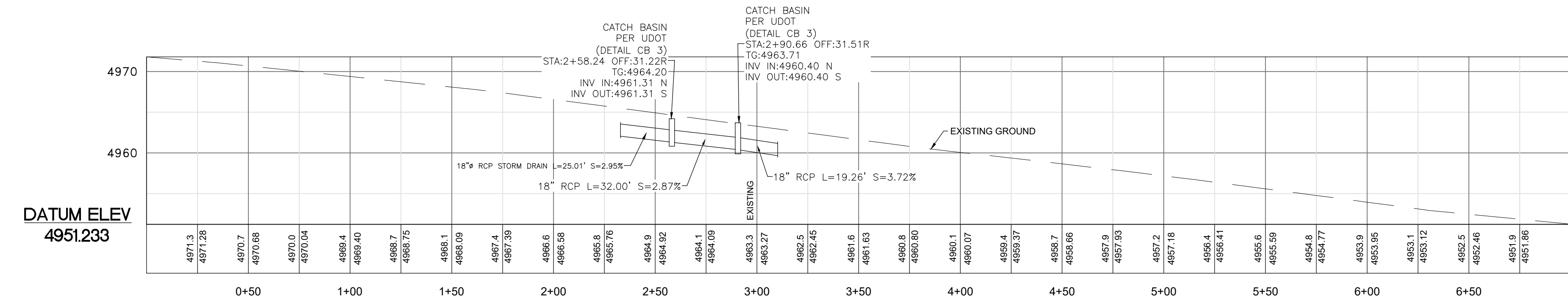
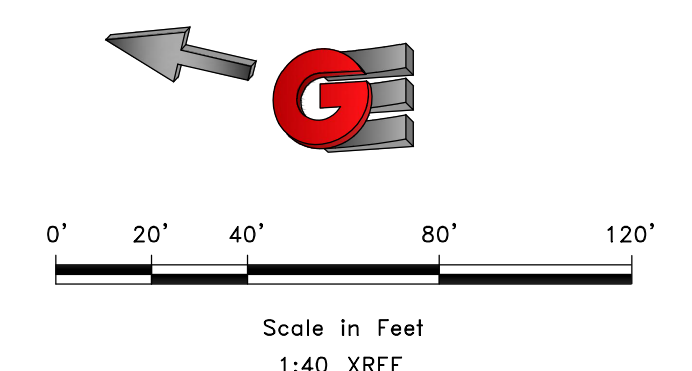




**TYPICAL SECTION - SR-158**  
NOT TO SCALE

**LEGEND**

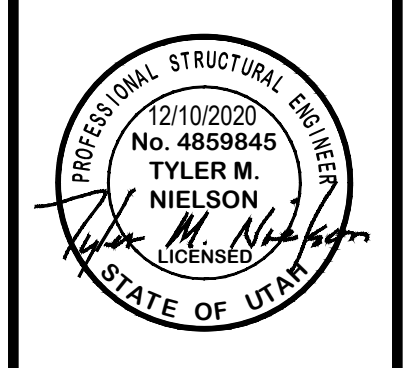
	SUBDIVISION BOUNDARY
	ROAD CENTERLINE
	EXISTING EDGE OF ASPHALT
	EXISTING 1' CONTOUR
	EXISTING 5' CONTOUR
	FINISH GRADE 1' CONTOUR
	EXISTING SANITARY SEWER
	NEW SANITARY SEWER
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	EXISTING STORM DRAIN
	NEW STORM DRAIN
	EXISTING CULINARY WATER
	NEW CULINARY WATER
	NEW CULINARY WATER LATERAL
	NEW CULINARY WATER METER
	EXISTING FIRE HYDRANT
	NEW FIRE HYDRANT
	EXISTING SECONDARY WATER
	NEW ASPHALT PAVING
	6" DEPTH CUT AREA OVER EX & 6" TOPSOIL OR 6" TRAIL MATERIAL (HYDRO SEED IN DESIGNATED PHASE)
	HYDRO SEED FILL SLOPES AND DETENTION POND DISTURBED AREAS



**DATUM ELEV**  
4951.233

SCALE: 1/4"=1'-0" XREF  
DATE: 12/10/2020  
DESIGN: BSO/ML/S  
DRAWN: BSO/ML/S  
CHECKED: TMN  
DWG#: 8112028 - 884 INVESTMENT/CRIMSON RIDGE DESIGN/DWG/CRIMSON RIDGE - COS.DWG

REVISIONS	DESCRIPTION
DATE	



SR-158 (UDOT) - PLAN AND PROFILE  
HARBOR VIEW ESTATES SUBDIVISION  
HARBOR VIEW COURT (1250 NORTH) HWY 158  
EDEN, WEBER COUNTY, UTAH

**GARDNER ENGINEERING**  
CIVIL-LAND PLANNING  
MUNICIPAL-LAND SURVEYING

5150 SOUTH 375 EAST OGDEN, UT  
OFFICE: 801-476-0202 FAX: 801-476-0066



**Pump Selection for a Non-Pressurized System - Single Family Residence Project**  
Crimson Ridge / Harbor View Estates - Effluent Sewer Section



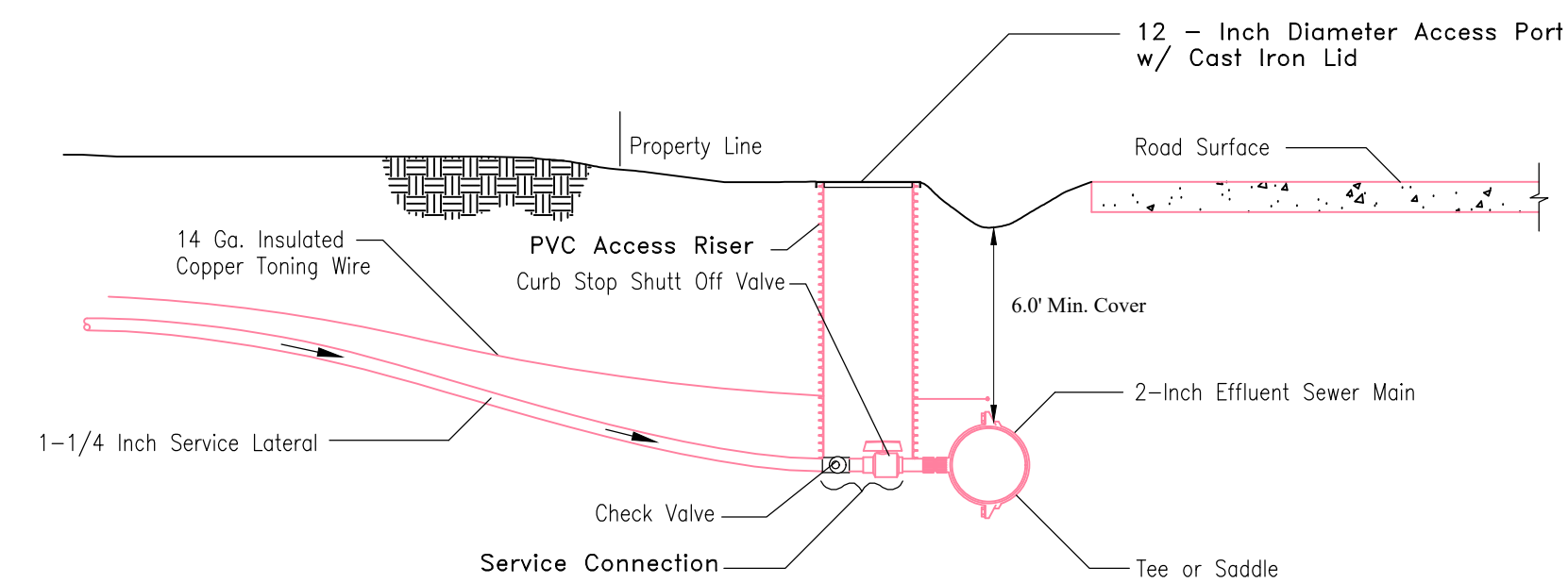
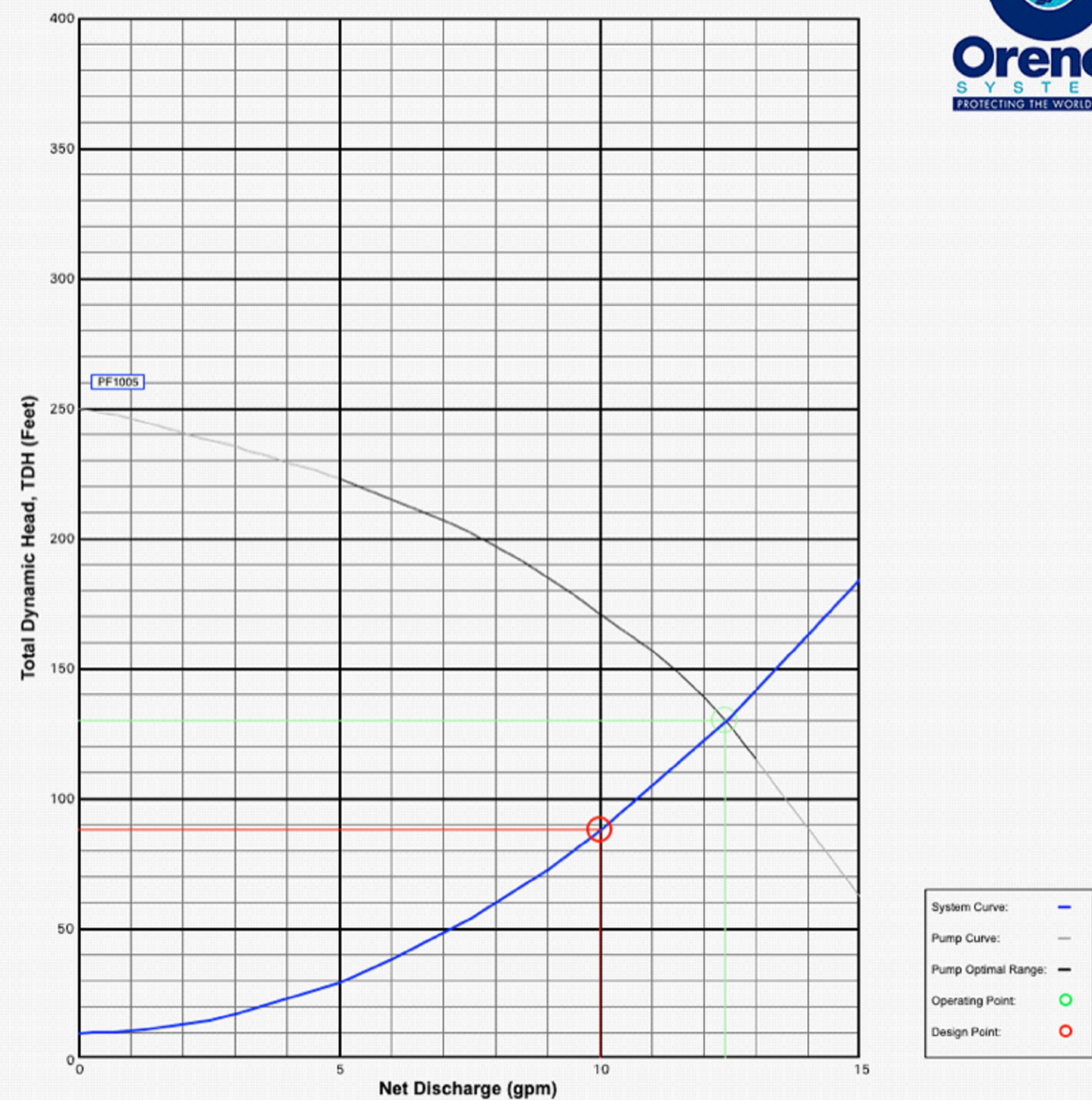
Parameters	
Discharge Assembly Size	1.25 inches
Transport Length	70 feet
Transport Pipe Class	40
Transport Line Size	1.25 inches
Distributing Valve Model	None
Max Elevation Lift	10 feet
Design Flow Rate	10 gpm
Flow Meter	None
'Add-on' Friction Losses	76 feet

Calculations	
Transport Velocity	2.2 fps

Frictional Head Losses	
Loss through Discharge	0.7 feet
Loss in Transport	1.0 feet
Loss through Valve	0.0 feet
Loss through Flowmeter	0.0 feet
'Add-on' Friction Losses	76.0 feet

Pipe Volumes	
Vol of Transport Line	5.4 gals

Minimum Pump Requirements	
Design Flow Rate	10.0 gpm
Total Dynamic Head	87.7 feet



All service line connections shall be solvent welded. The only acceptable solvents and cements are those that are recommended by the pipe manufacturer. All service laterals from the effluent sewer main to the property line shall be pressure tested prior to any backfilling.

**1 EFFLUENT PRESSURE SEWER TYPICAL SERVICE CONNECTION**  
Scale: (NOT TO SCALE)

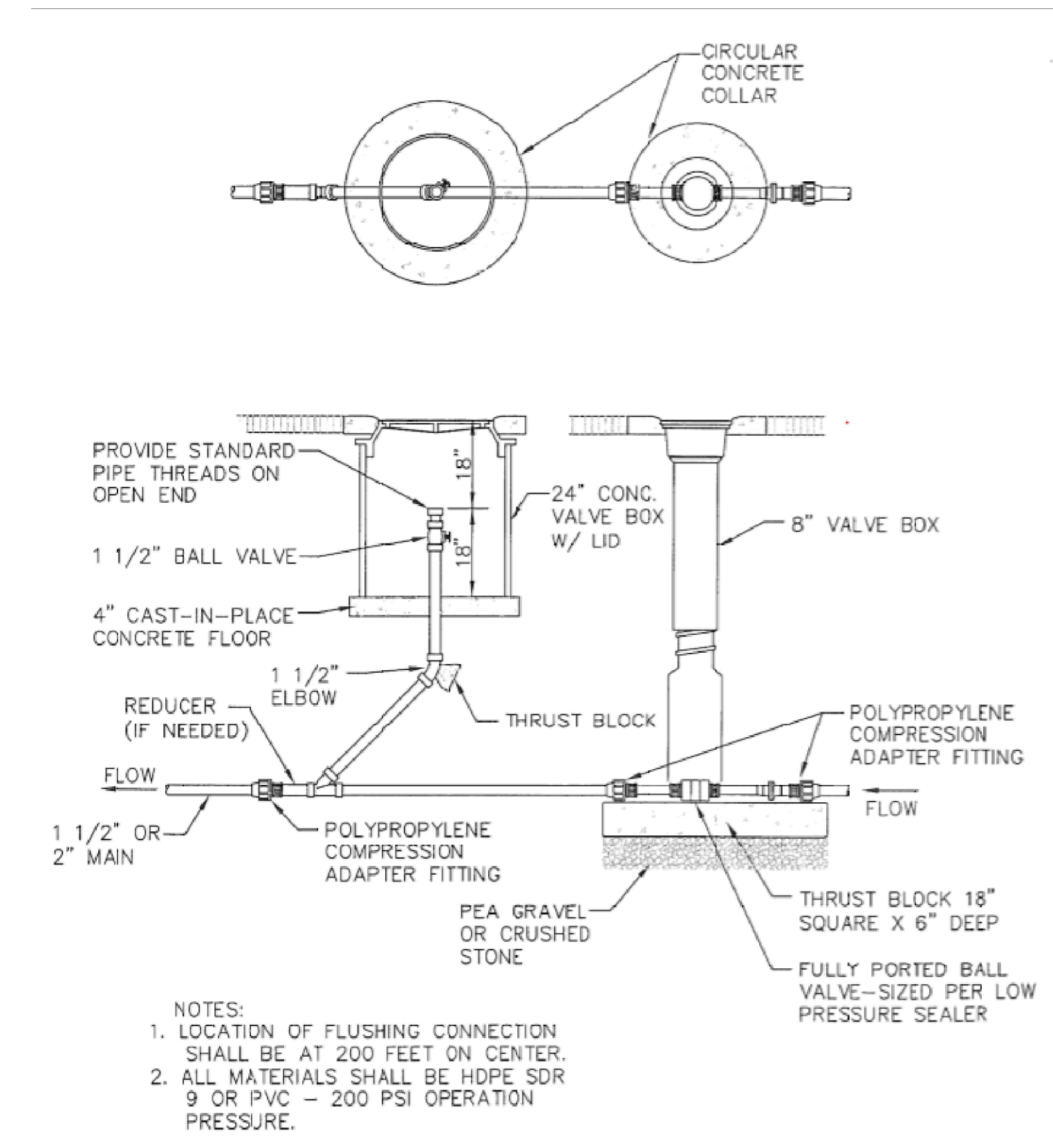
REVISIONS	DATE	DESCRIPTION

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DRAWN: BBO/MS  
CHECKED: TMN  
DWG: 81V208 - 848 INVESTMENT, CRIMSON RIDGE, CRIMSON RIDGE - COS.DWG

ORENCO 1,000 GALLON PROCESSOR WITH PUMP DISCHARGE  
SCALE: (NOT TO SCALE)

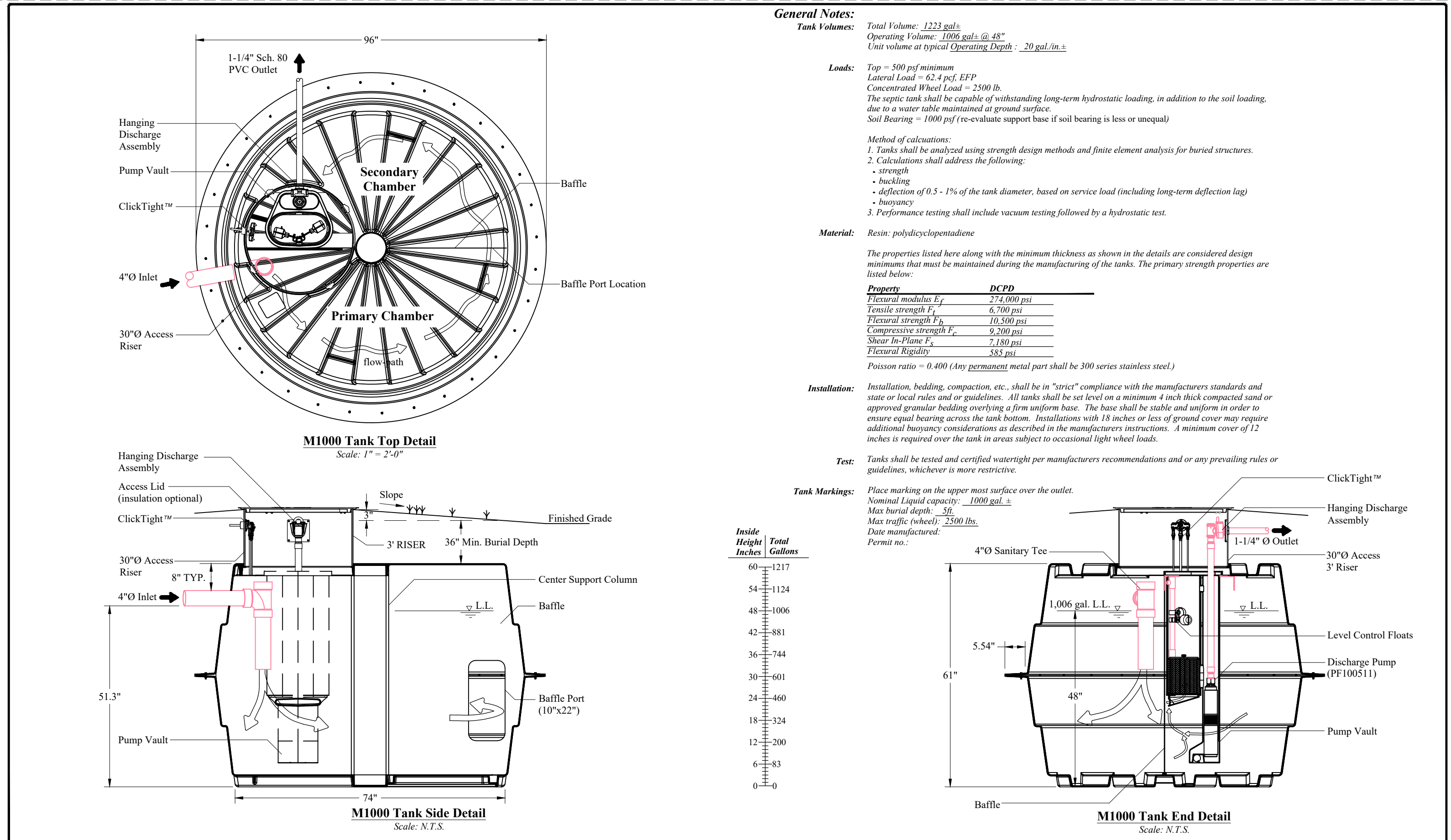
ORENCO AUTHORIZED DEALER  
JEX ENVIRONMENTAL SOLUTIONS  
PO BOX 3603  
LOGAN, UT 84323  
1-833-753-2051

PRELOS 1000 GALLON PROCESSOR WITH PUMP NOTES:  
THIS UNIT (COMPLETE) TO BE INSTALLED AND MAINTAINED BY FUTURE HOME OWNER. AT LEAST TWO INDEPENDENT POWER SOURCES WITH APPROVED WIRING SHALL BE INSTALLED.



NOTES:  
1. LOCATION OF FLUSHING CONNECTION SHALL BE AT 200 FEET ON CENTER.  
2. ALL MATERIALS SHALL BE HDPE SDR 9 OR PVC - 200 PSI OPERATION PRESSURE.

**3 EFFLUENT PRESSURE SEWER TYPICAL FLUSHING CONNECTION ON MAIN LINE**  
Scale: (NOT TO SCALE)



**General Notes:**  
Tank Volume: Total Volume: 1223 gal., Operating Volume: 1005 gal. @ 48" Line Volume at typical Operating Depth: 20 gal./in.  
Loads: Top = 500 psf minimum, Lateral Load = 62.4 pcf, EFP Concentrated Wheel Load = 2500 lb. The septic tank shall be capable of withstanding long-term hydrostatic loading, in addition to the soil loading, due to a water table maintained at ground surface. Soil Bearing = 1000 psf (re-evaluate support base if soil bearing is less or unequal)  
Method of calculations: 1. Tanks shall be analyzed using strength design methods and finite element analysis for buried structures. 2. Calculations shall address the following: strength, buckling, deflection of 0.5 - 1% of the tank diameter, based on service load (including long-term deflection lag) buoyancy. 3. Performance testing shall include vacuum testing followed by a hydrostatic test.  
Material: Resin: polydicyclopentadiene  
The properties listed here along with the minimum thickness as shown in the details are considered design minimums that must be maintained during the manufacturing of the tanks. The primary strength properties are listed below:  
Property DCPD  
Flexural modulus E<sub>f</sub> 274,000 psi  
Tensile strength F<sub>t</sub> 6,700 psi  
Flexural strength F<sub>b</sub> 10,500 psi  
Compressive strength F<sub>c</sub> 9,200 psi  
Shear by Tensile F<sub>v</sub> 7,100 psi  
Flexural Rigidity 585 psi  
Poisson ratio = 0.400 (Any permanent metal part shall be 300 series stainless steel)  
Installation: Installation, bedding, compaction, etc., shall be in "strict" compliance with the manufacturers standards and state or local rules and/or guidelines. All tanks shall be set level on a minimum 4 inch thick compacted sand or approved granular bedding covering a firm uniform base. The base shall be stable and uniform in order to ensure equal bearing across the tank bottom. Installations with 18 inches or less of ground cover may require additional buoyancy considerations as described in the manufacturers instructions. A minimum cover of 12 inches is required over the tank in areas subject to occasional light wheel loads.  
Test: Tanks shall be tested and certified watertight per manufacturers recommendations and/or any prevailing rules or guidelines, whichever is more restrictive.  
Tank Markings: Place marking on the upper most surface over the outlet.  
Nominal Liquid Capacity: 1000 gal. ±  
Max burial depth: 5ft.  
Max traffic wheels: 2200 lbs.  
Date manufactured:  
Permit no.:

<b>Orengo SYSTEMS</b>	© Orengo Systems, Inc. Portions or all of this Proposed System Configuration Drawing, as appropriate, may be reproduced and integrated into the site-specific layout and configuration of a system by its designer.	Disclaimer: This Proposed System Configuration Drawing is provided solely as a design aid and illustrates one possible configuration of a system that would comply with Orengo's design criteria for the requirements and/or specifications that have been communicated to Orengo (based on third-party standards listing protocols and performance reports, as applicable). Design decisions, including the actual layout and configuration of the system and its viability for the project, are at the sole discretion of the system's designer.	<b>Prelos 1000 Processor with Pump Discharge</b>	Drawn By: CSJ	Scale: N.T.S.
DESIGN AID	Reviewed By: TB	File Name: 80W-TP-105-100-DWG	Rev: 1.0	Date: 11/24/20	Sheet: 1 OF 1

**2 ORENCO 1,000 GALLON PROCESSOR WITH PUMP DISCHARGE**  
Scale: (NOT TO SCALE)

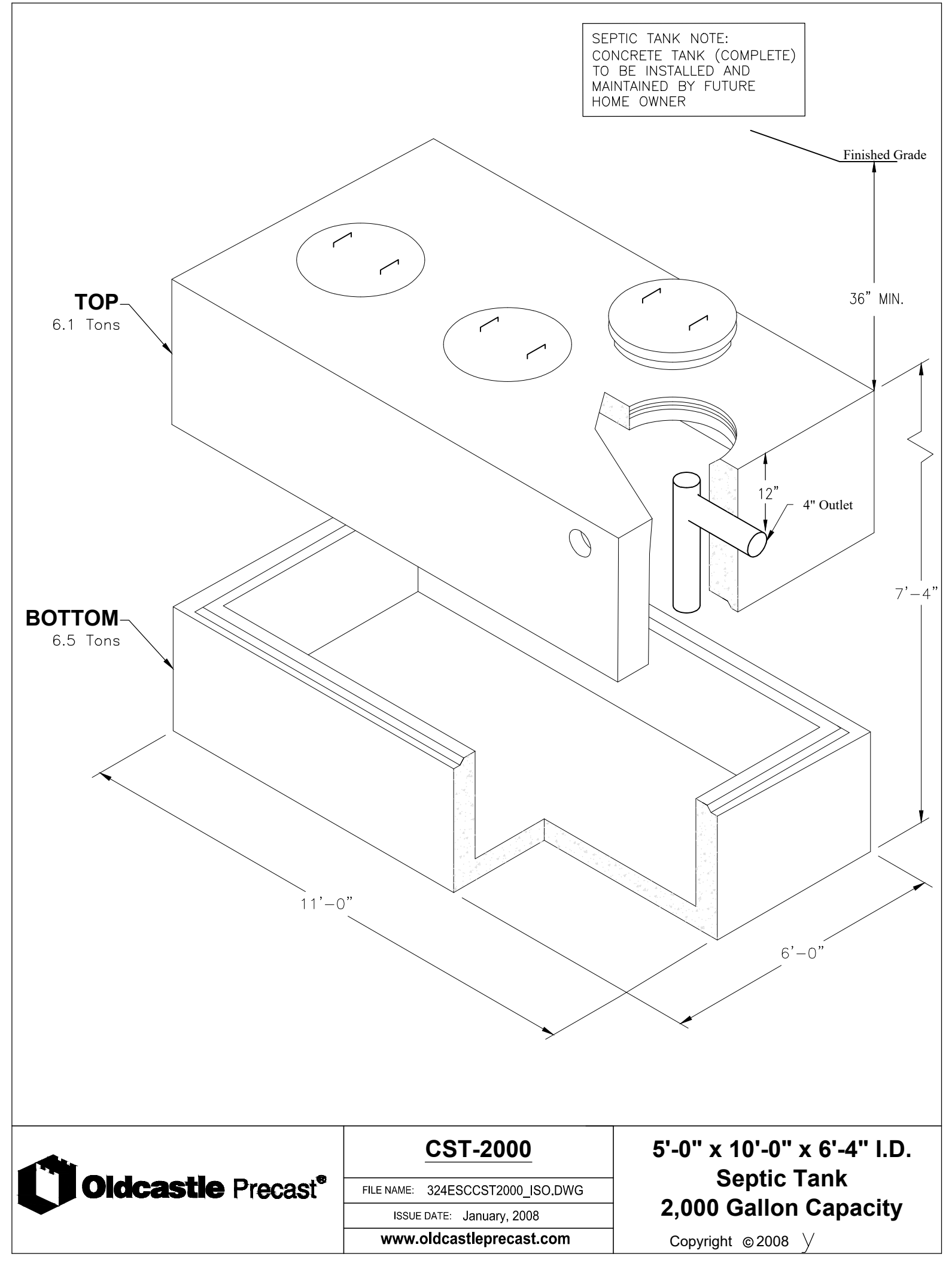
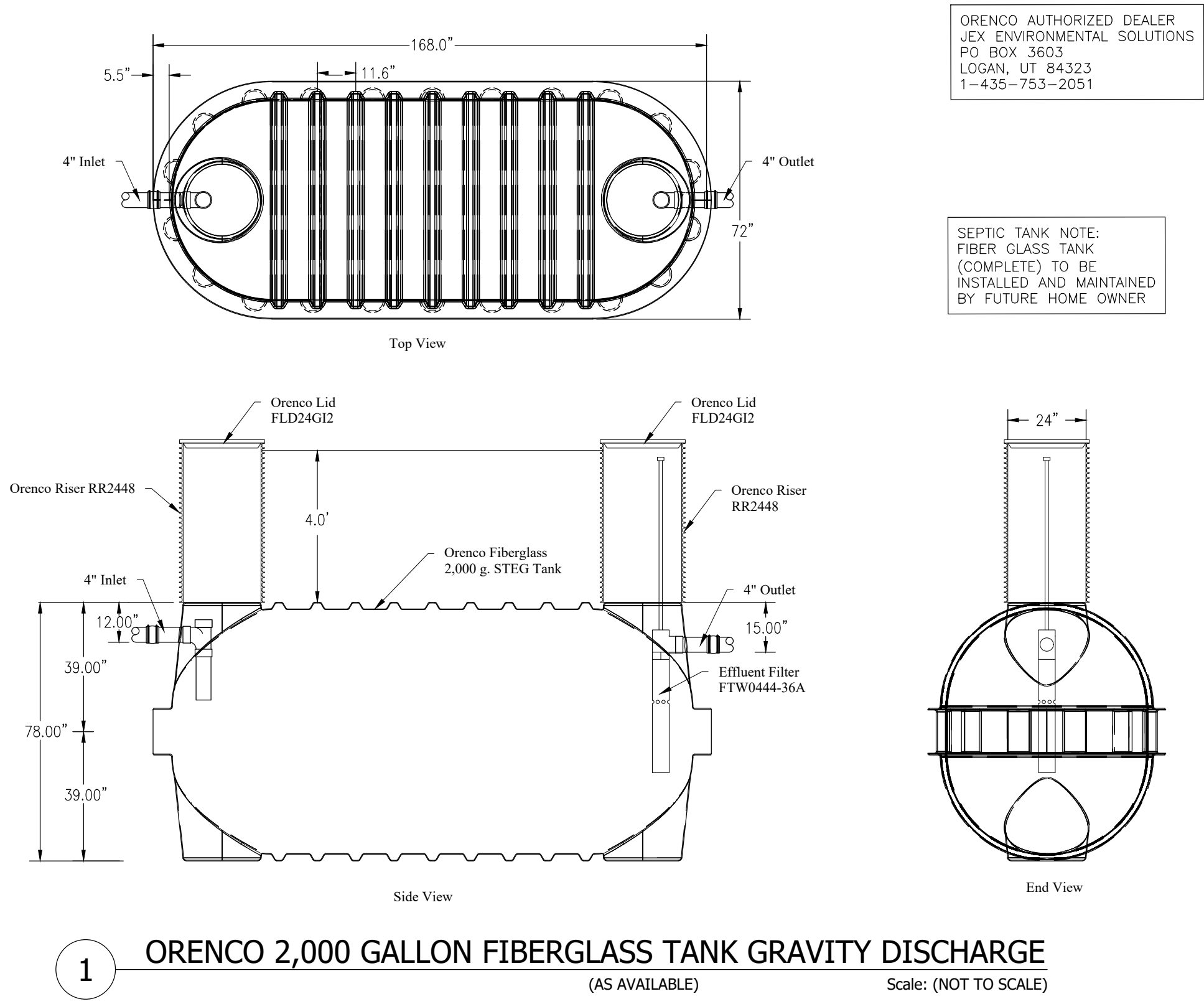
D1

ORENCO 1,000 GALLON PROCESSOR WITH PUMP DISCHARGE  
SCALE: (NOT TO SCALE)

THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2  
1250 NORTH 5200 EAST  
EDEN, WEBER COUNTY, UTAH

**GARDNER ENGINEERING**  
CIVIL - LAND PLANNING  
MUNICIPAL - LAND SURVEYING  
5150 SOUTH 375 EAST OGDEN, UT  
OFFICE: 801-476-0202 FAX: 801-476-0066



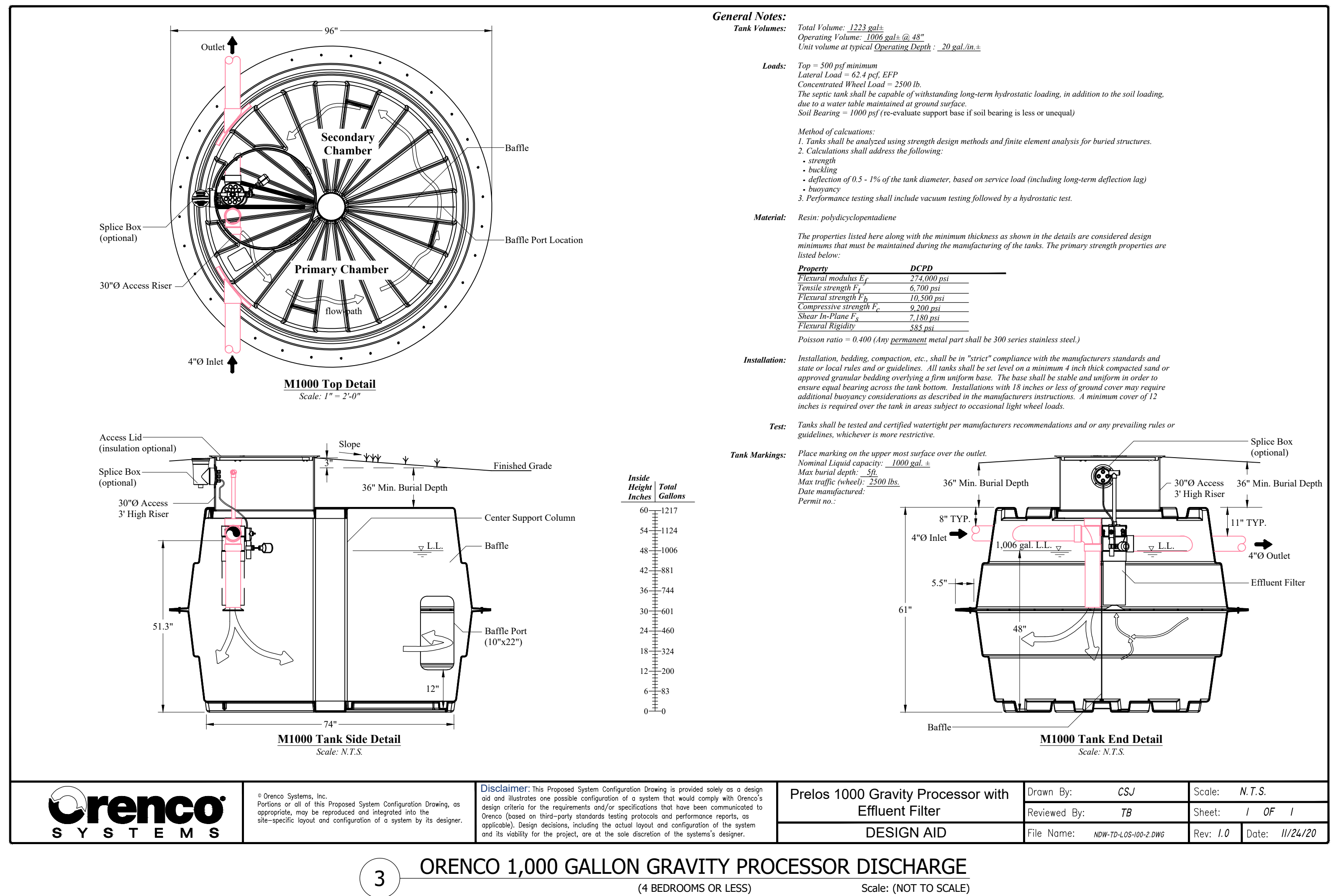
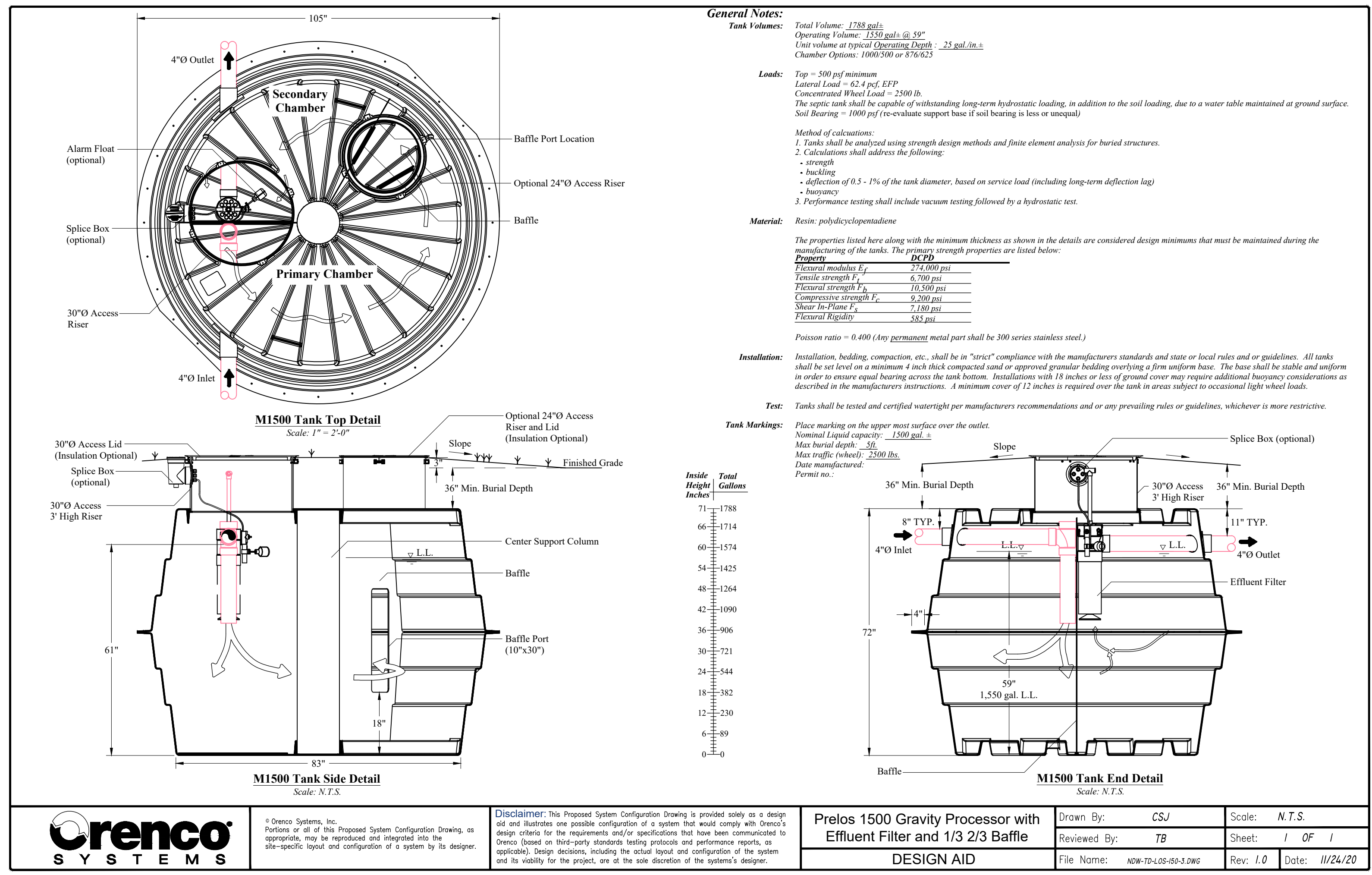


PRELOS 1500 GALLON GRAVITY PROCESSOR NOTES: THIS UNIT (COMPLETE) TO BE INSTALLED AND MAINTAINED BY FUTURE HOME OWNER. AT LEAST TWO INDEPENDENT POWER SOURCES WITH APPROVED WIRING SHALL BE INSTALLED.

ORENCO AUTHORIZED DEALER  
JEX ENVIRONMENTAL SOLUTIONS  
PO BOX 3603  
LOGAN, UT 84323  
1-435-753-2051

PRELOS 1000 GALLON GRAVITY PROCESSOR NOTES: THIS UNIT (COMPLETE) TO BE INSTALLED AND MAINTAINED BY FUTURE HOME OWNER. AT LEAST TWO INDEPENDENT POWER SOURCES WITH APPROVED WIRING SHALL BE INSTALLED.

ORENCO AUTHORIZED DEALER  
JEX ENVIRONMENTAL SOLUTIONS  
PO BOX 3603  
LOGAN, UT 84323  
1-435-753-2051



SCALE: N.T.S. DATE: 1/26/2021 DESIGN: BBD/MS DRAWN: BBD/MS CHECKED: TMM DWG: 8N/2028 - 884 INVESTMENT/CRIMSON RIDGE DESIGN/DWG/CRIMSON RIDGE - COS.DWG

REVISIONS DESCRIPTION DATE

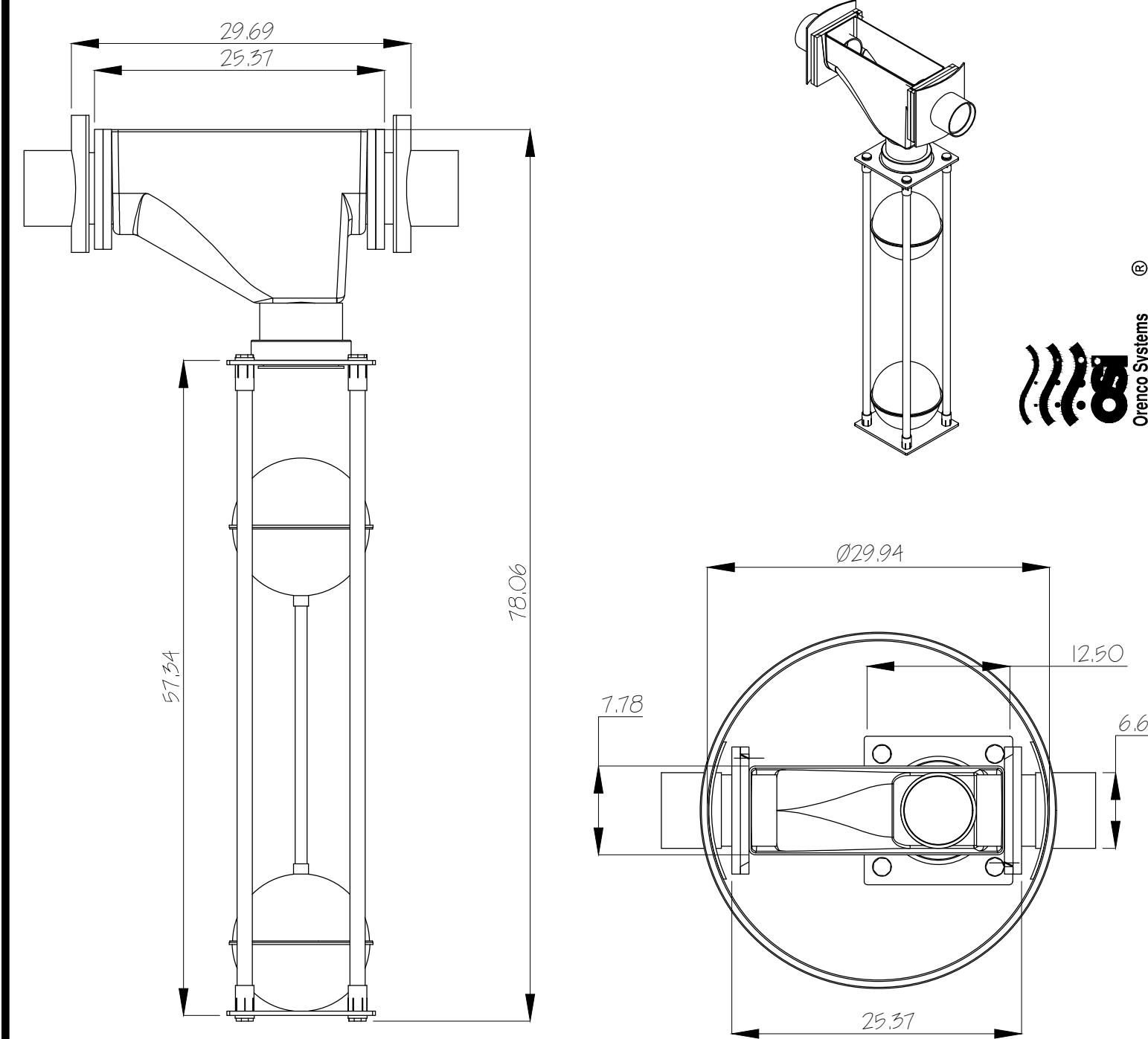
PROFESSIONAL STRUCTURAL ENGINEER  
No. 4859845  
TYLER M. NIELSON  
LICENSED  
STATE OF UTAH

SEPTIC TANK DETAILS PHASE 2A, 2B, + 2C  
THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2  
1250 NORTH 5200 EAST  
EDEN, WEBER COUNTY, UTAH

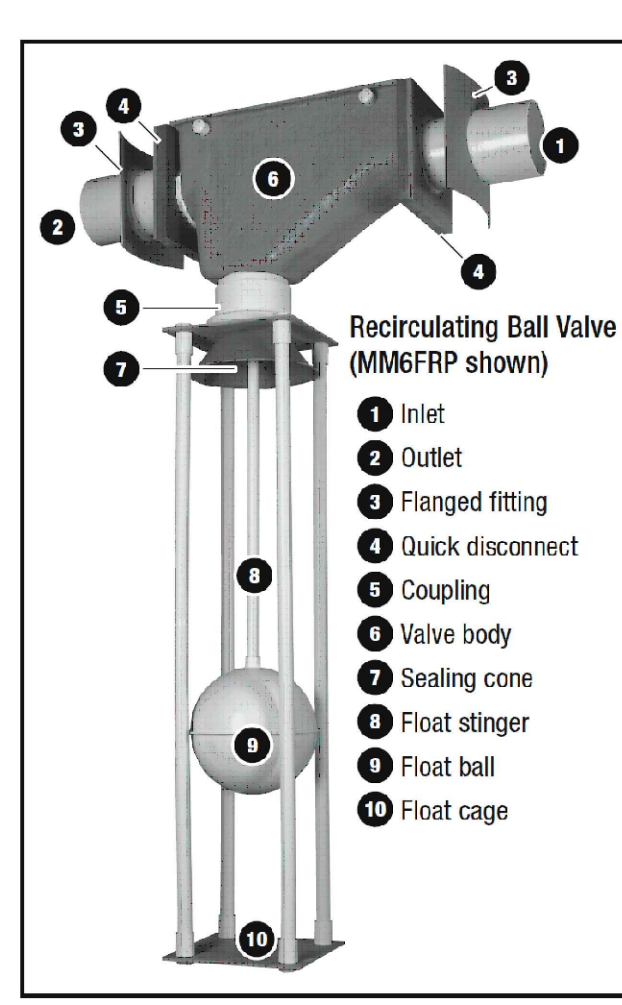
**GARDNER ENGINEERING**  
CIVIL/LAND PLANNING  
MUNICIPAL/LAND SURVEYING  
5150 SOUTH 375 EAST OGDEN, UT  
OFFICE: 801-476-0202 FAX: 801-476-0066

D2

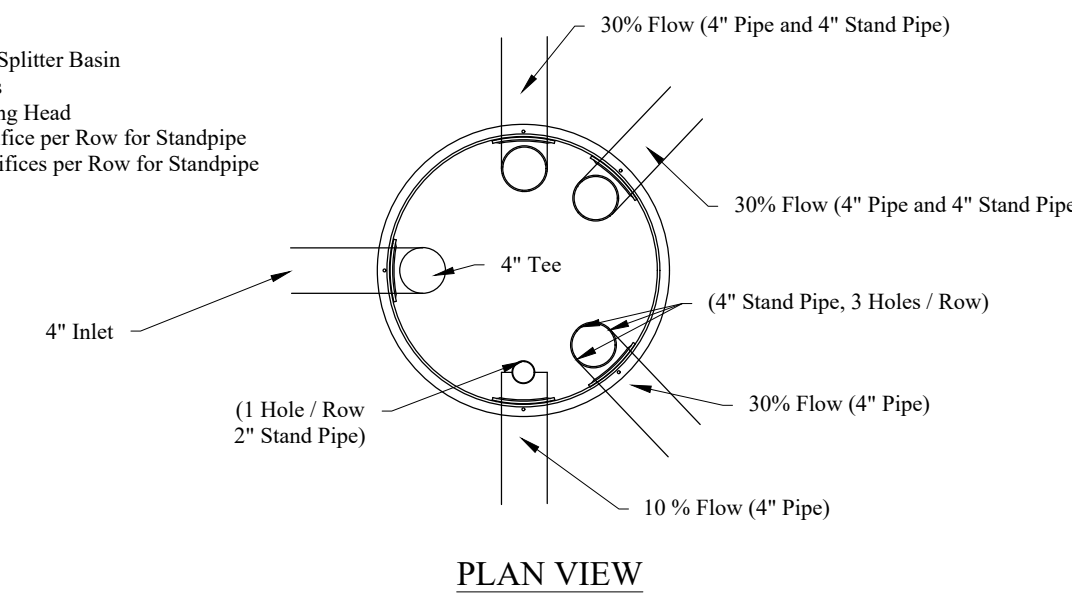




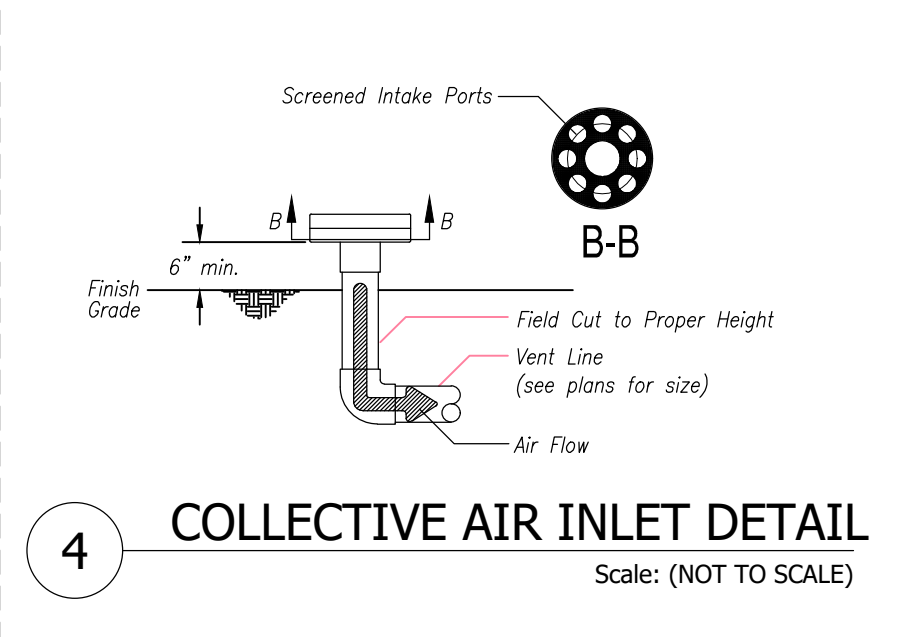
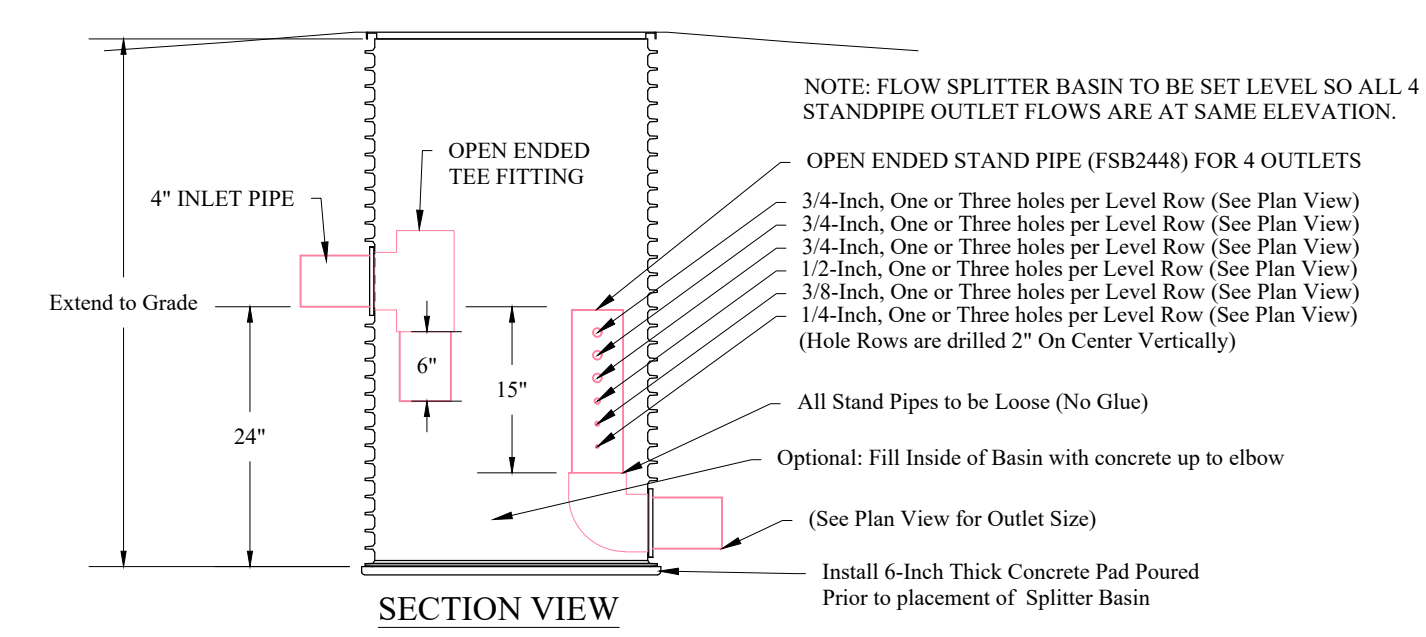
1 RECIRCULATING SPLITTER VALVE DETAIL (MM6-FRP)  
Scale: (NOT TO SCALE)



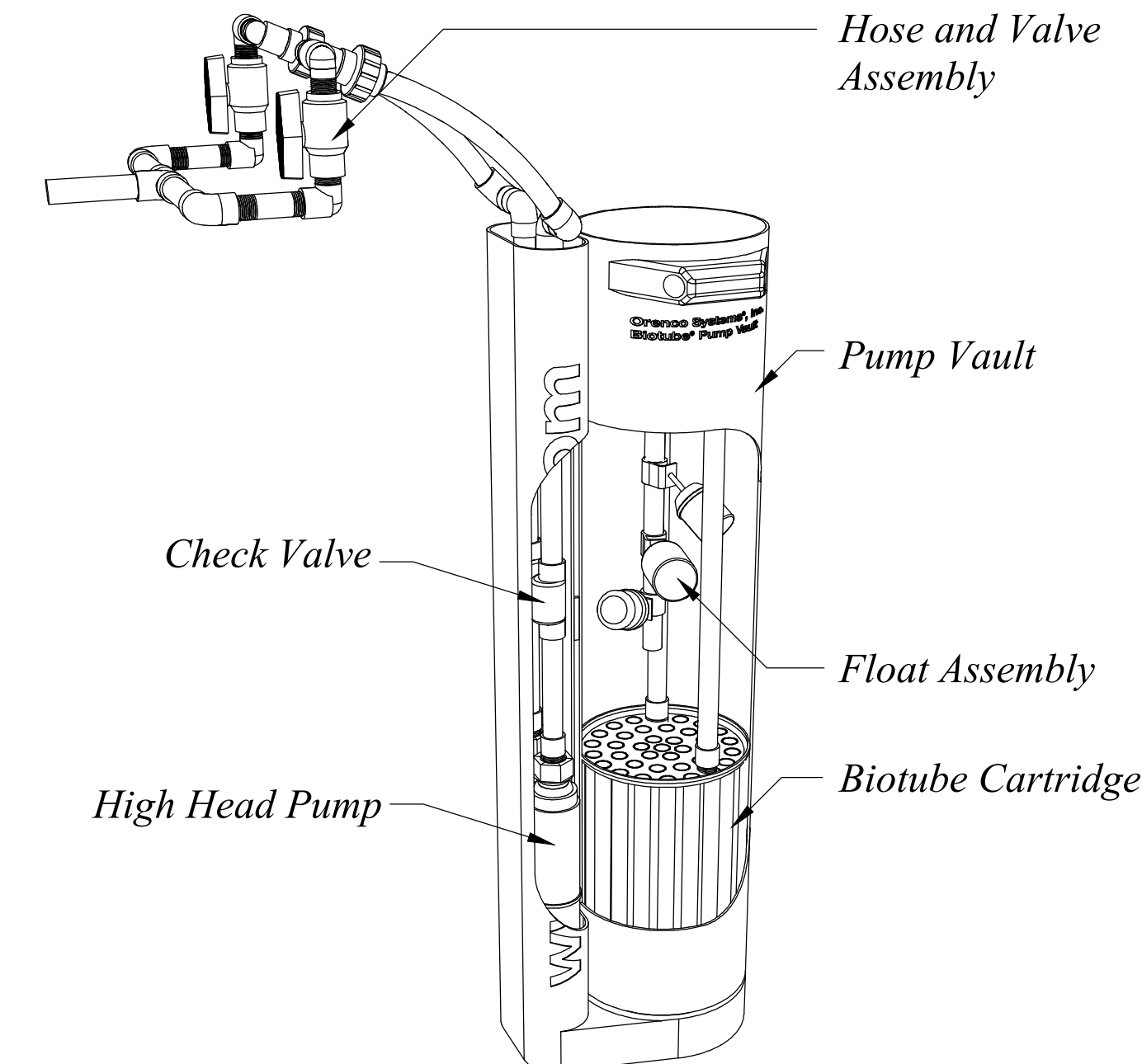
Orenco Multi-Outlet Flow Splitter Basin  
FSB2448 (4) Outlets  
- Minimum 15" Driving Head  
- (1) Outlet Single Orifice per Row for Standpipe  
- (3) Outlets Three Orifices per Row for Standpipe



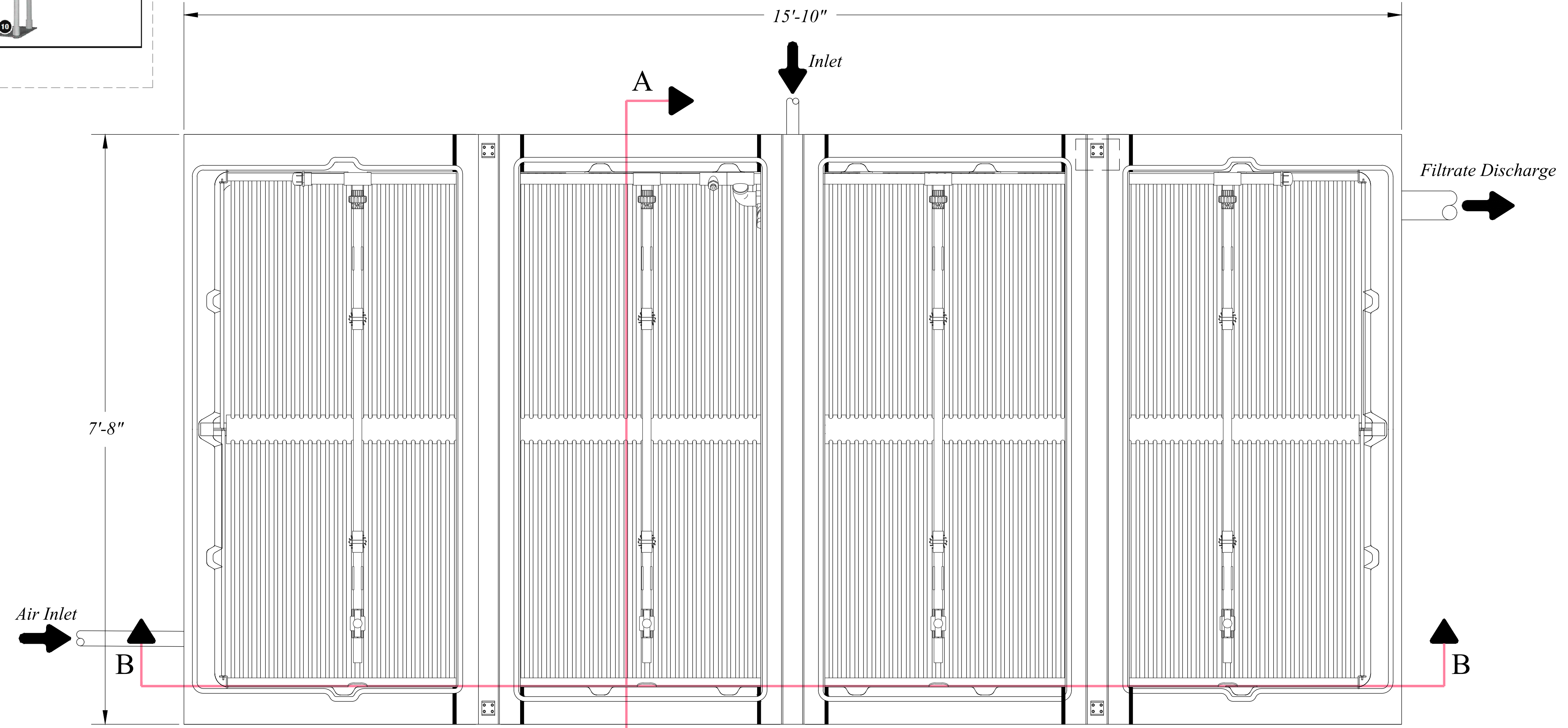
2 MULTI-OUTLET FLOW SPLITTER BASIN DETAIL  
Scale: (NOT TO SCALE)



4 COLLECTIVE AIR INLET DETAIL  
Scale: (NOT TO SCALE)

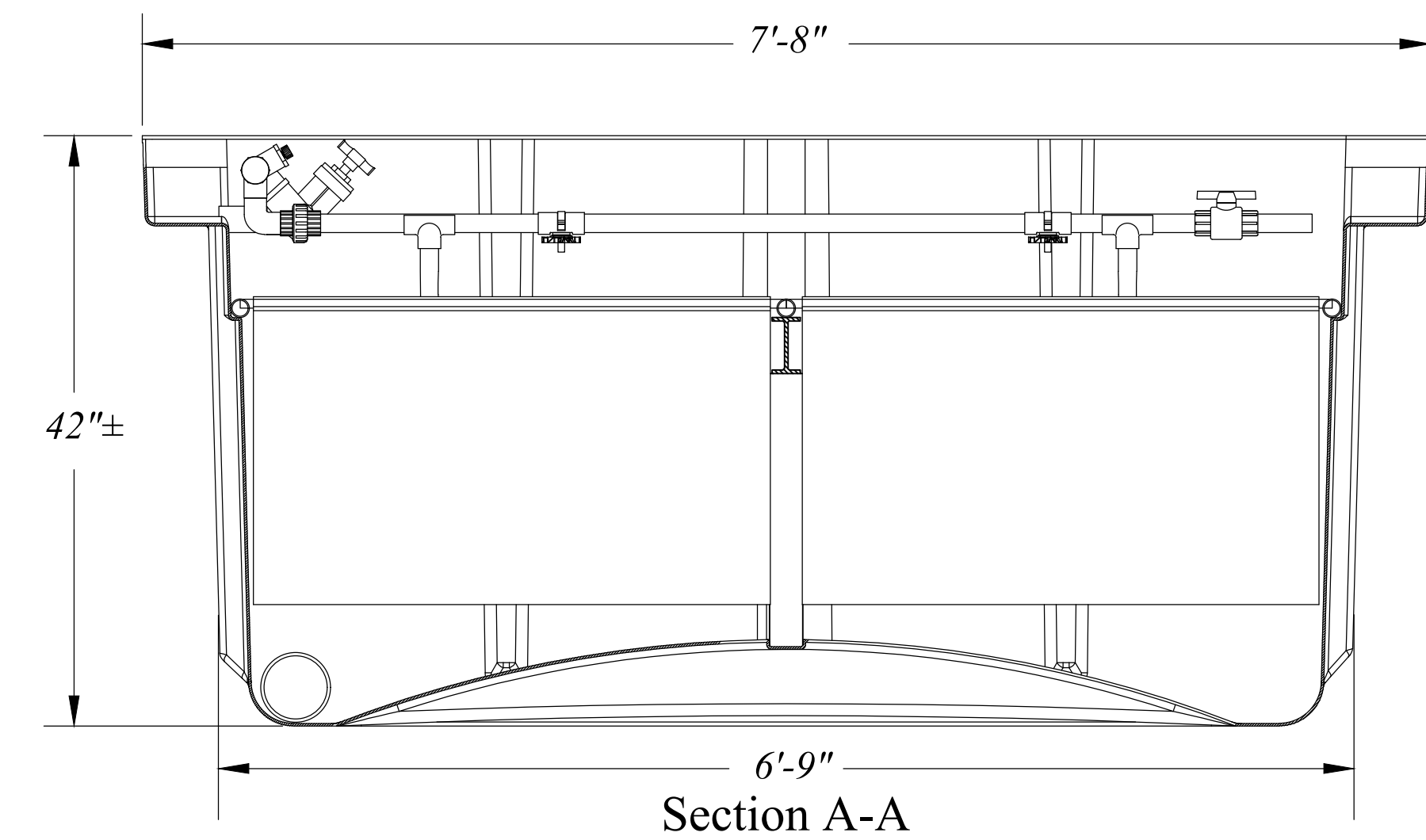


3 DUPLEX PUMP VAULT DETAIL  
Scale: (NOT TO SCALE)

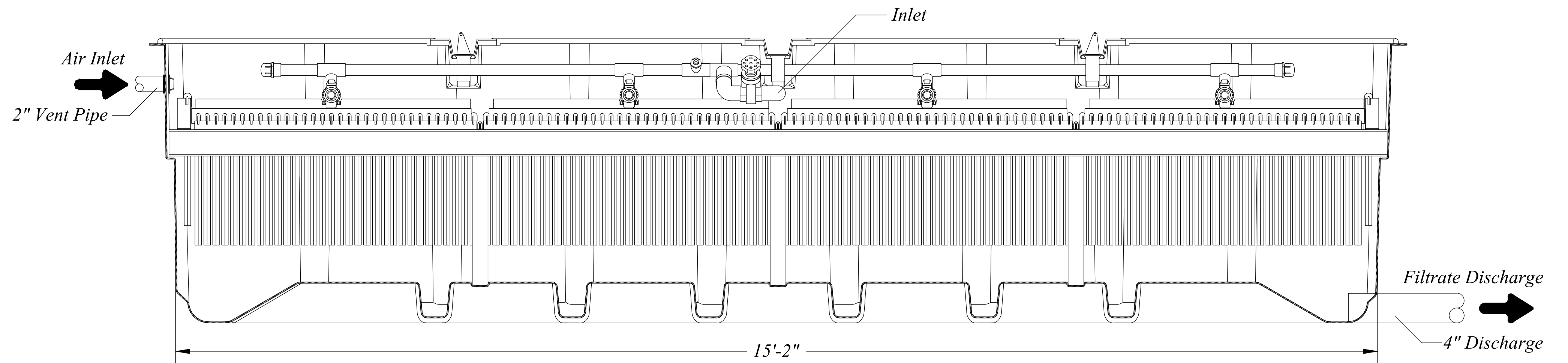


5 ORENCO FILTER POD ADVANTEX AX 100 DETAIL  
Scale: (NOT TO SCALE)

ORENCO AUTHORIZED DEALER  
JEX ENVIRONMENTAL SOLUTIONS  
PO BOX 3603  
LOGAN, UT 84323  
1-435-753-2051

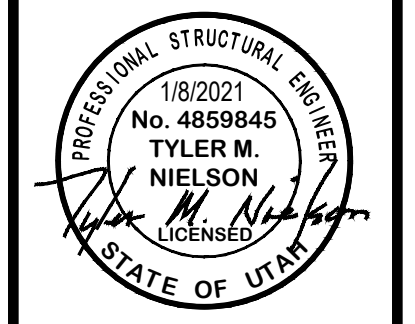


Section A-A



Section B-B

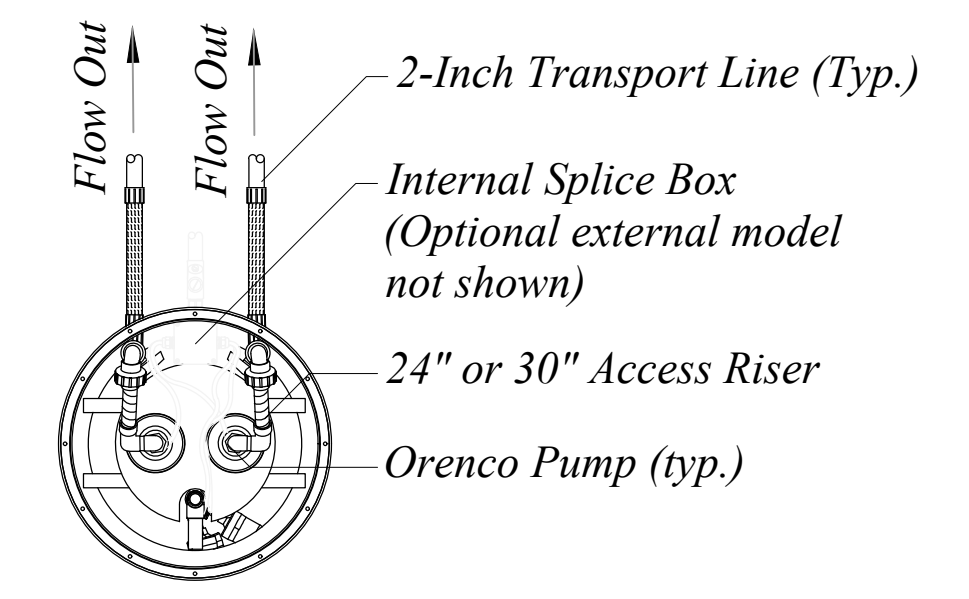
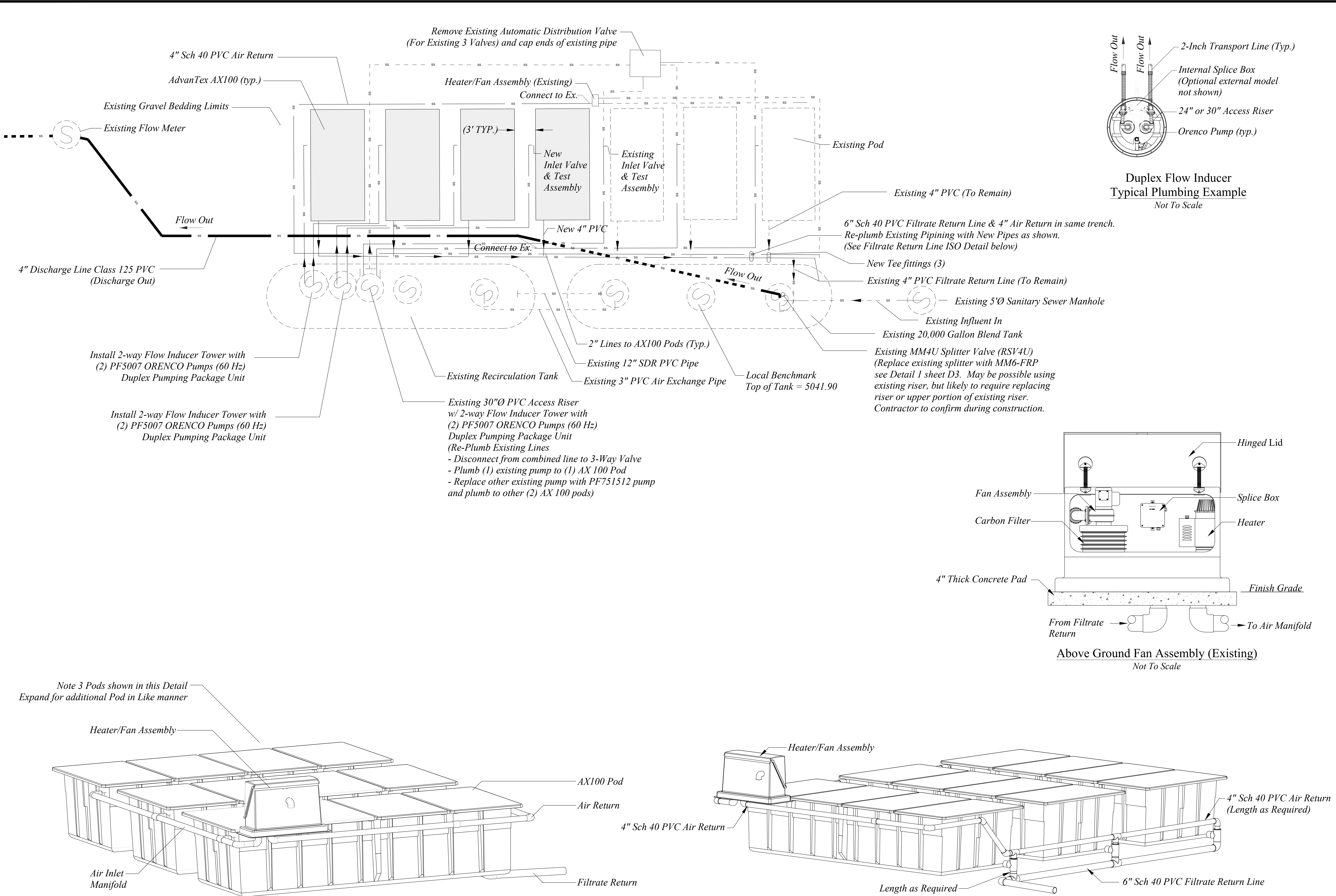
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REVISIONS	DESCRIPTION	DATE		



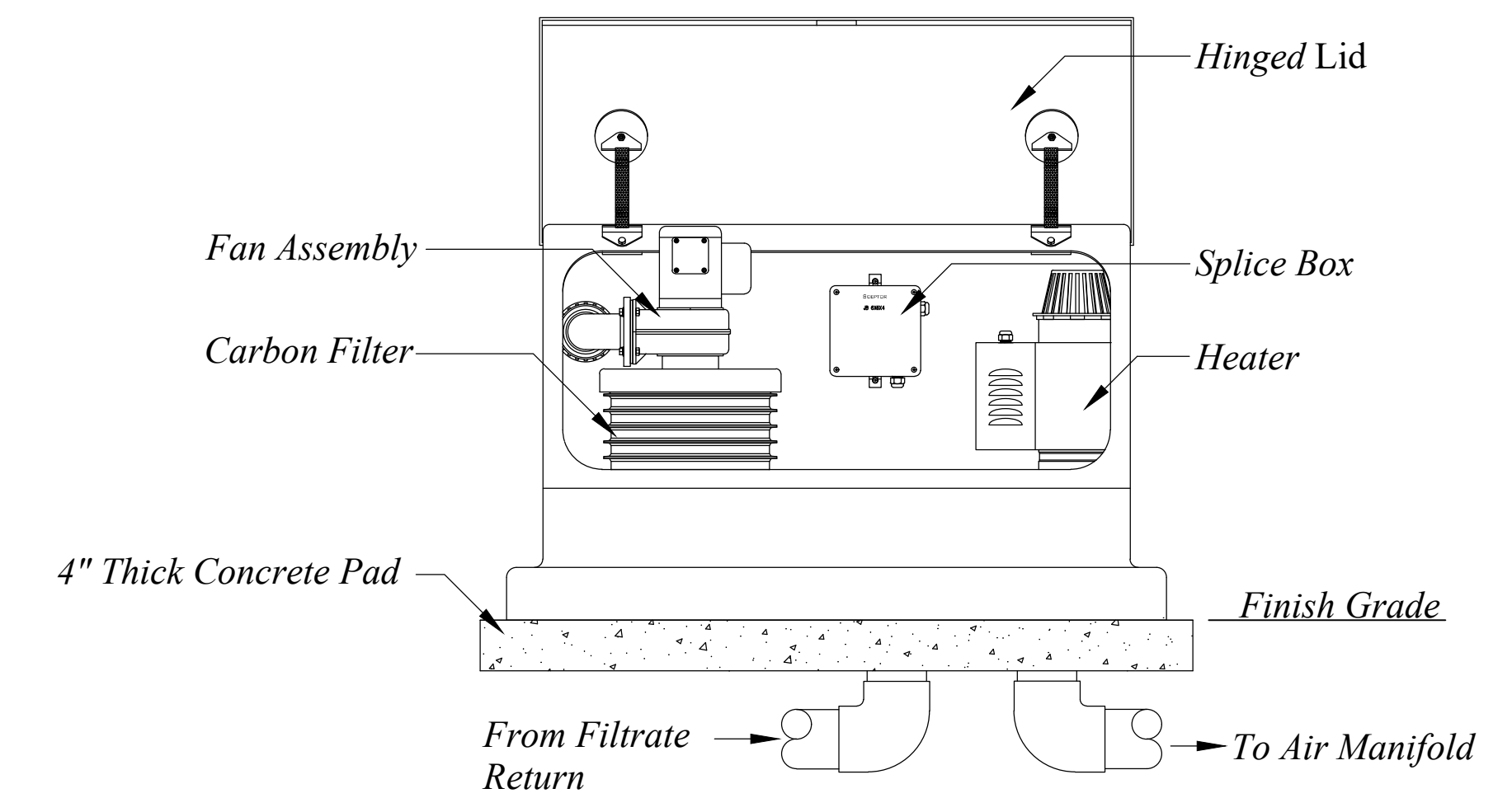
EFFLUENT TREATMENT FACILITY DETAILS  
THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2  
1250 NORTH 5200 EAST  
EDEN, WEBER COUNTY, UTAH



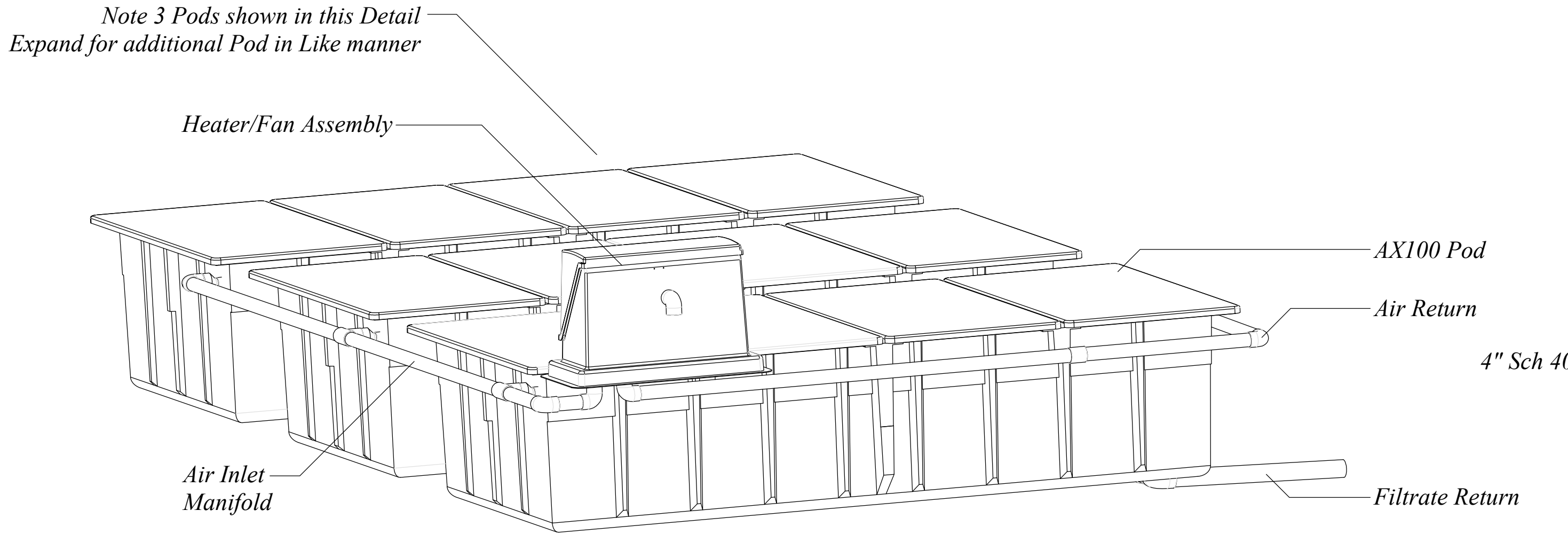




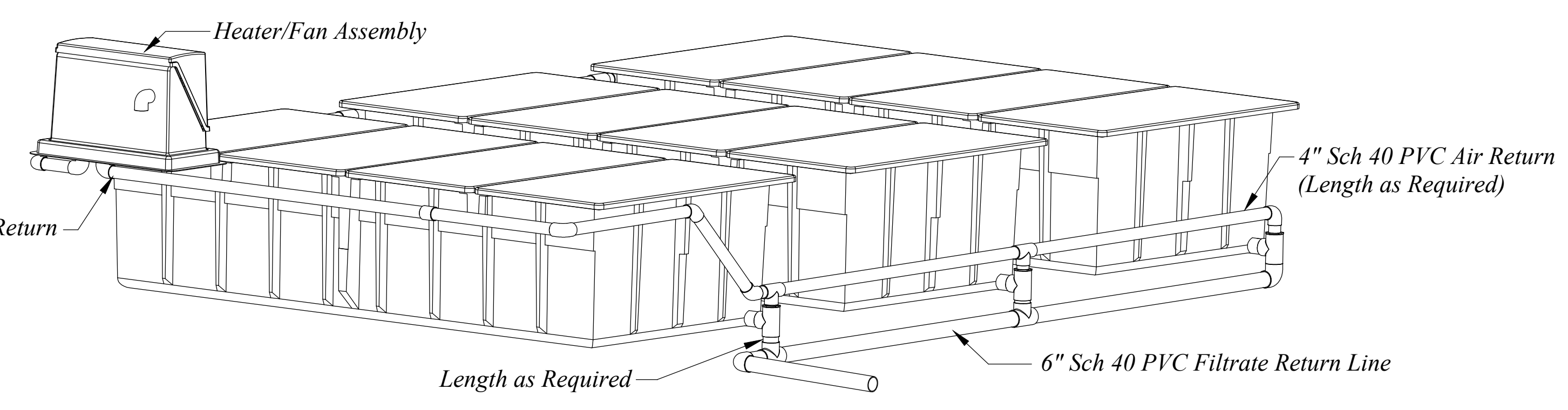
Duplex Flow Inducer  
Typical Plumbing Example  
Not To Scale



Above Ground Fan Assembly (Existing)  
Not To Scale



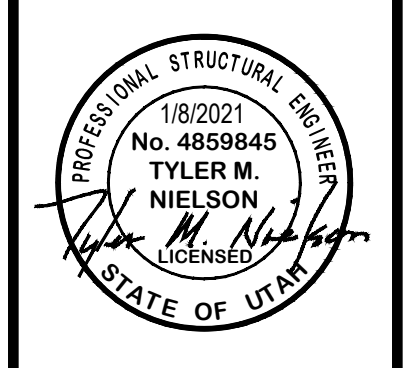
Air Manifold Iso  
Not To Scale



Filtrate Return Line Iso  
Not To Scale

AdvanTex AX100 System  
Cold Weather Venting (Example)

SCALE	NTS
DATE	1/8/2021
DESIGN	BSD/MS
DRAWN	BSD/MS
CHECKED	TJM
DWG. # 151508 - BAA INVESTMENT, CRIMSON RIDGE, CRIMSON RIDGE - COS.DWG	



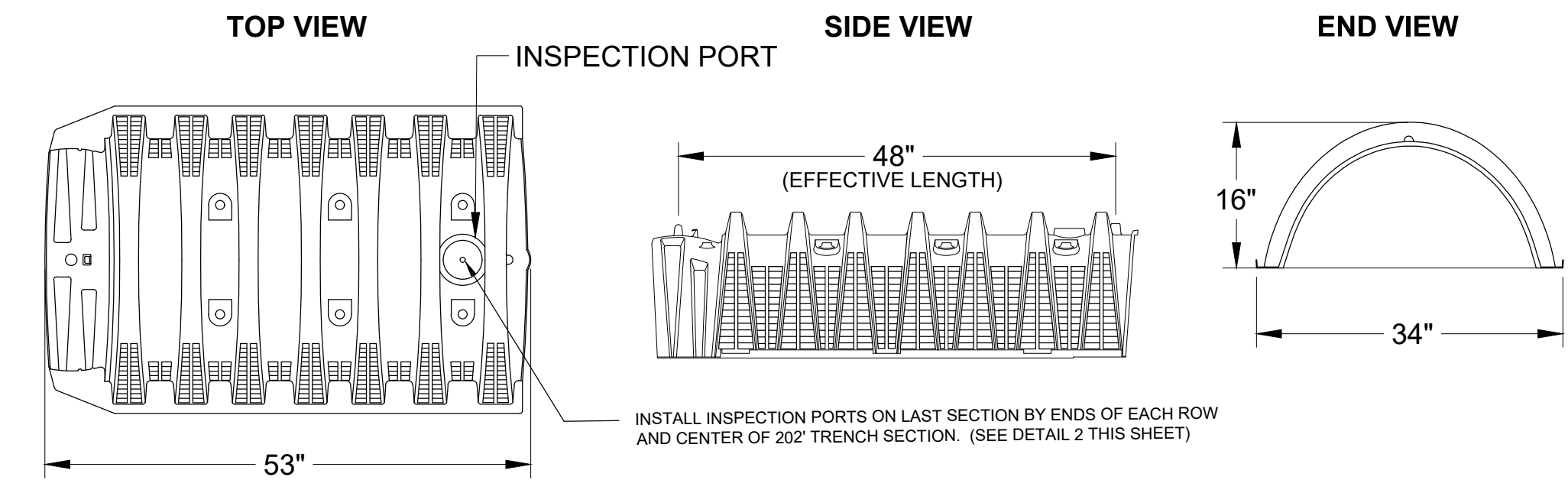
EFFLUENT + AIR POD DETAILS  
THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2  
1250 NORTH 5200 EAST  
EDEN, WEBER COUNTY, UTAH

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5150 SOUTH 375 EAST OGDEN, UT  
OFFICE: 801.476.0202 FAX: 801.476.0066

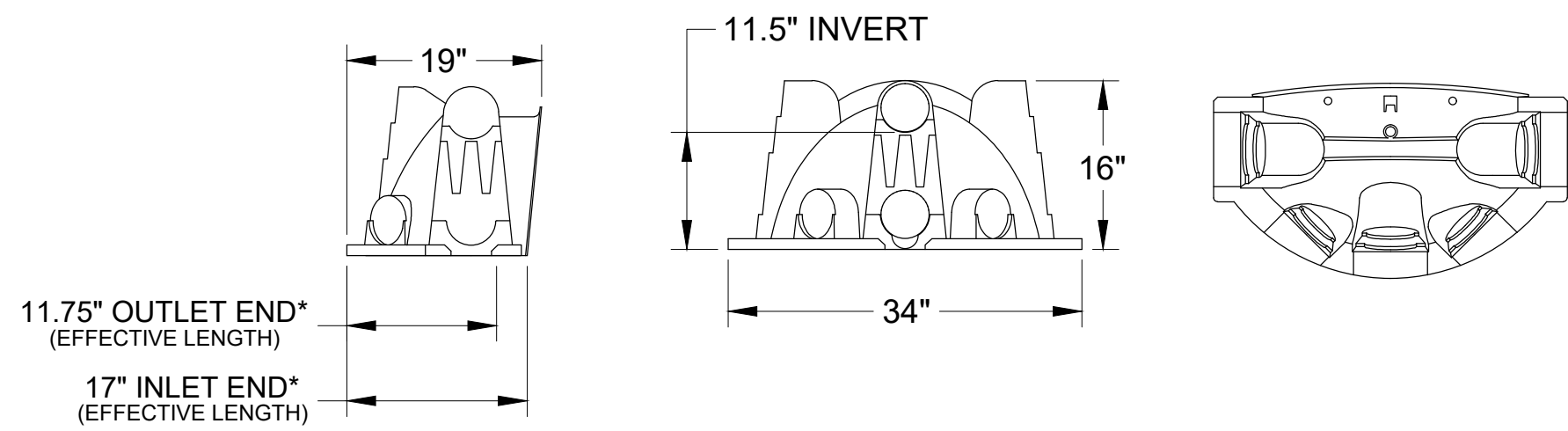


**INFILTRATOR WATER TECHNOLOGIES  
QUICK4 HIGH CAPACITY CHAMBER  
PRODUCT SPECIFICATIONS  
(NOT TO SCALE)**

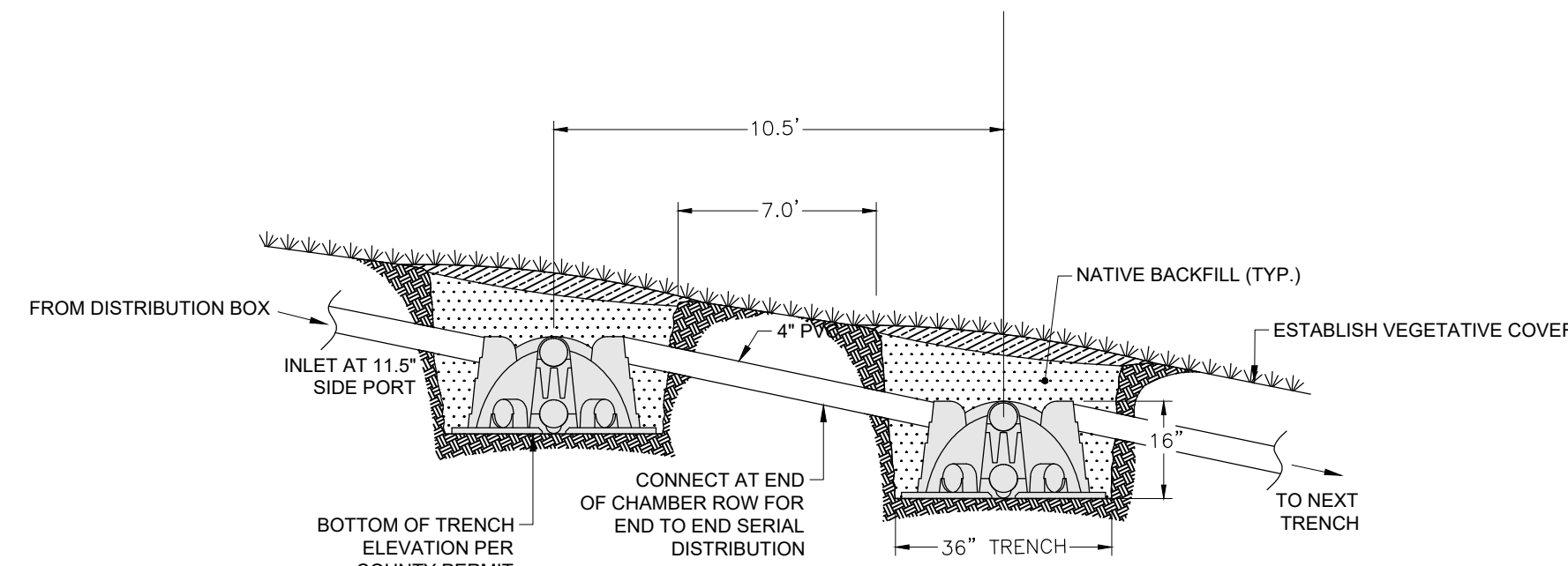


INSTALL INSPECTION PORTS ON LAST SECTION BY ENDS OF EACH ROW AND CENTER OF 20' TRENCH SECTION. (SEE DETAIL 2 THIS SHEET)

**QUICK4 HIGH CAPACITY MULTI-PORT END CAP**



\*ALL VIEWS = INSTALLED LENGTHS.



SEE SHEET C7 FOR PLAN VIEW LENGTHS.  
CENTER TO CENTER SPACING PER STATE CODE.

**INFILTRATOR WATER TECHNOLOGIES  
QUICK4 HIGH CAPACITY CHAMBER  
SERIAL DISTRIBUTION TYPICAL  
SECTION VIEW  
(NOT TO SCALE)**

THIS PLAN SET IS BASED UPON THE EXPECTED FLOWS AND WASTE STRENGTHS FOR THE PURPOSE OF SERVING THE RESERVE AT CRIMSON RIDGE SUBDIVISION.

**EXPECTED INFLUENT CHARACTERISTICS:**

TYPE	AVERAGE mg/L	WEEKLY PEAK mg/L	RARELY EXCEEDS mg/L
BOD	150	250	500
TSS	40	75	150
TKN	65	75	150
FOG	20	25	30

ONCE THE EXPANDED FACILITY IS OPERATIONAL, THE WASTE STRENGTHS AND FLOWS TO THE FACILITY SHOULD BE MONITORED. IF ANY OF THE INFLUENT WASTE STRENGTHS OR FLOW EXCEED THOSE LISTED IN THE DESIGN ABOVE, MEASURES SHOULD BE TAKEN TO REDUCE THESE PARAMETERS TO THOSE LISTED ON THIS PLAN SET. OTHERWISE ADDITIONAL TREATMENT CAPACITY AND PLANT EXPANSION WILL BE NECESSARY.

DO NOT DISPOSE OF TOXINS OR CHEMICALS INTO SYSTEM. EXAMPLES: WAX STRIPPER FOR LINOLEUM, CARPET SHAMPOO, RESTAURANT DEGREASERS AND CLEANSERS, AND OTHER WASTE PRODUCTS OR OTHER TOXINS.

BASED ON PERC RATE 53 MIN/IN  
APPLICATION RATE 0.4 GAL/SF PER TABLE 1 PAGE 8 GEOFLOW WASTE WATER DESIGN, INSTALLATION & MAINTENANCE GUIDELINES.

ABSORPTION APPLICATION RATES  
Q = 5.0 MIN/IN / (53 MIN/IN \* 0.5) = 0.68 GAL/SF

EXISTING TRENCH FIELD - PHASE 1  
7,177 LF

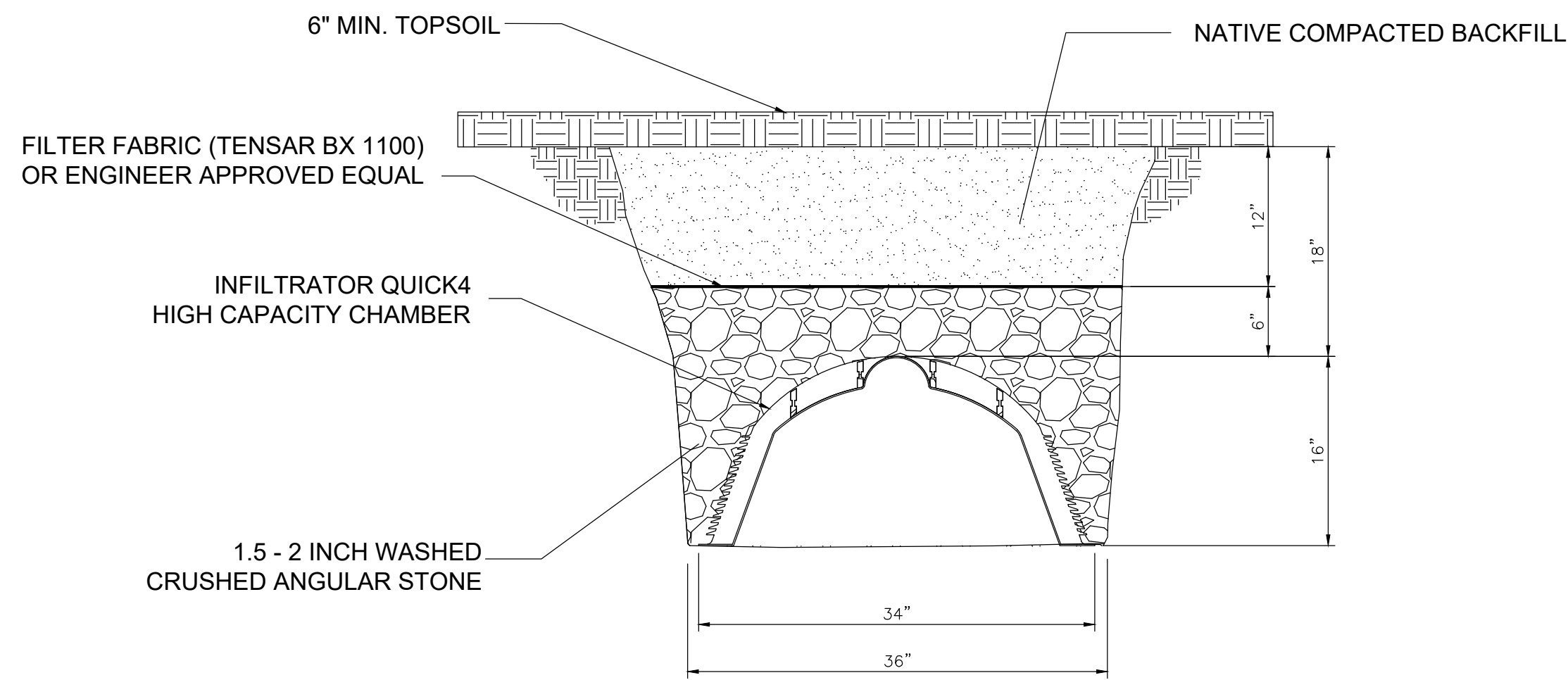
ABSORPTION FIELD TOTAL BUILD OUT (INCLUDES EX. PHASE 1, PHASE 2 & HARBOR VIEW ESTATES SUBDIVISION)  
76 LOTS (TOTAL BUILD OUT)  
76 LOTS @ 400 GAL/LOT/DAY = 30,400 GAL/DAY

APPROXIMATE APPLICATION RATES ABSORPTION FIELD  
Q = 5.0 MIN/IN / (53 MIN/IN \* 0.5) = 0.68 GAL/SF  
(BASED ON ORIGINAL PHASE 1 DESIGN REQUIREMENTS)

REQUIRED ABSORPTION FIELD AREA TRENCH  
30,400 GAL/DAY / 0.68 GAL/SF = 44,706 SF

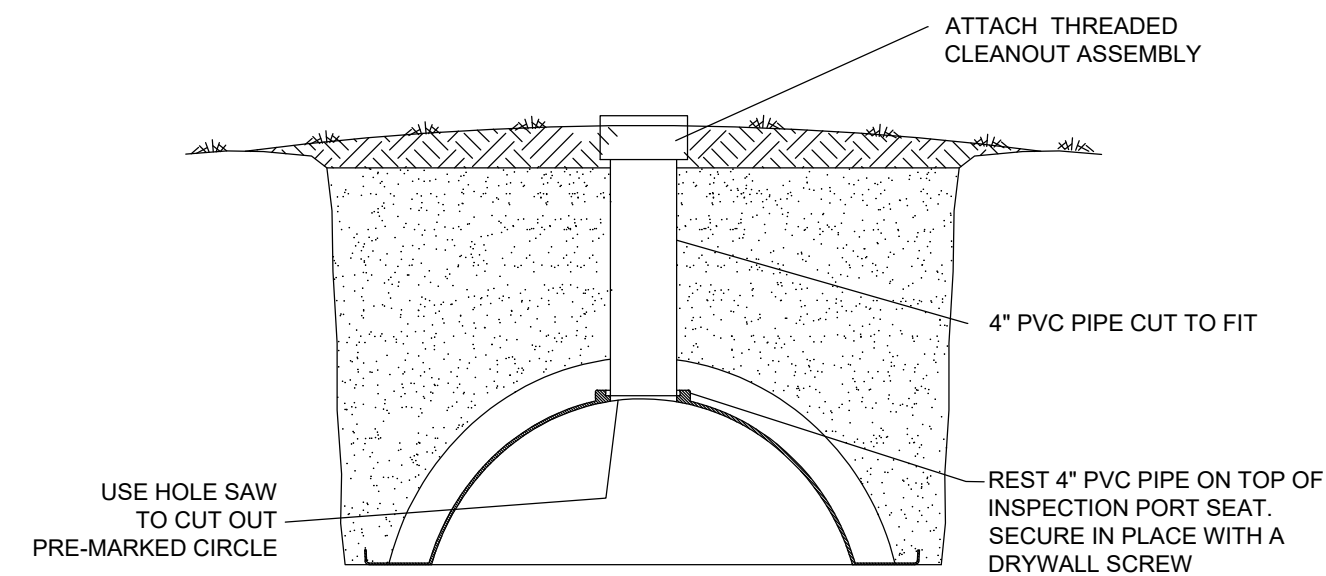
REQUIRED ABSORPTION TRENCH LENGTH  
44,706 SF / 3' = 14,901 LF OF TRENCH REQUIRED

14,933 LF OF TRENCH PROVIDED



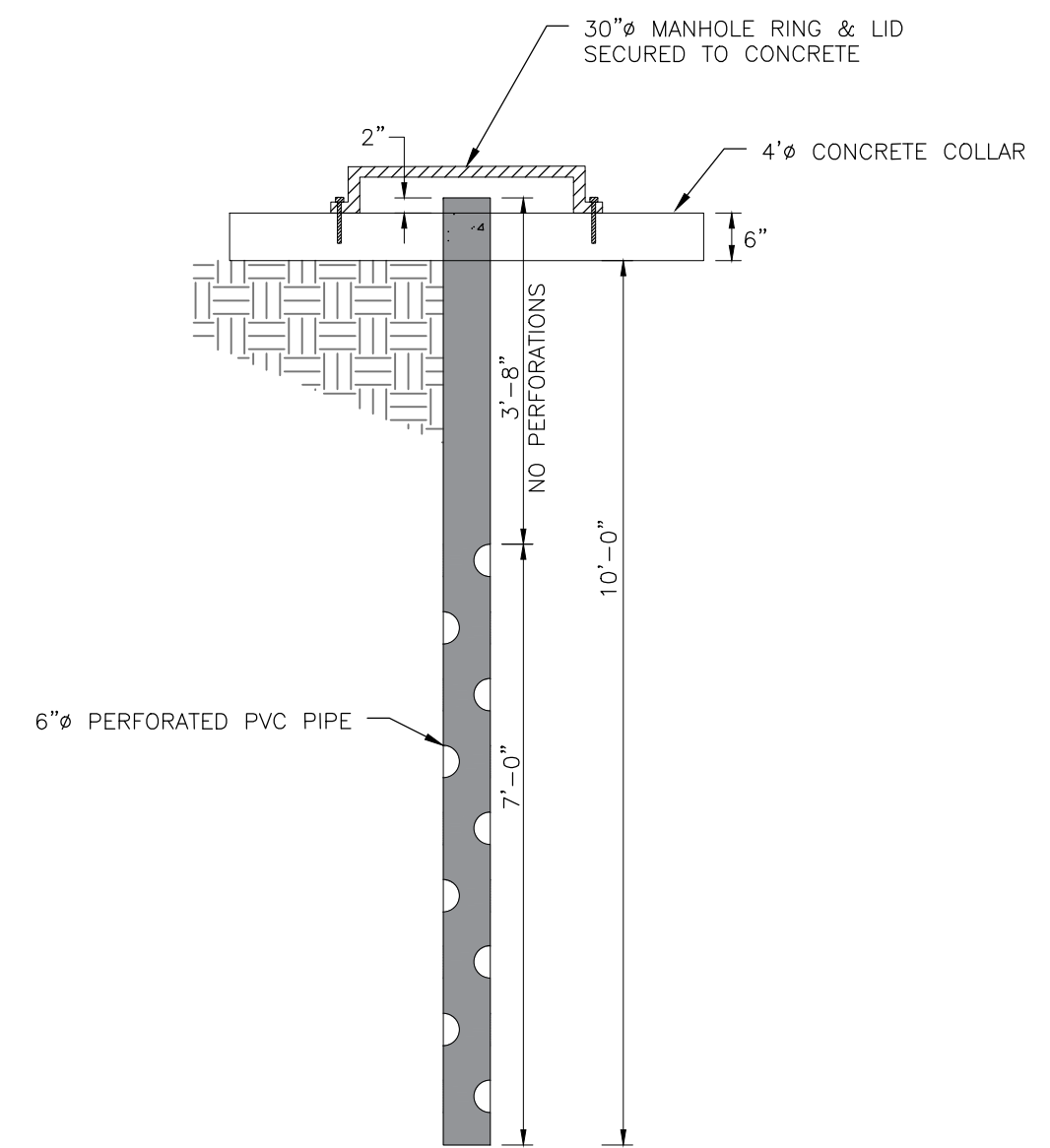
**CHAMBER SYSTEM  
TRENCH DETAIL  
(NOT TO SCALE)**

**1 INFILTRATION TRENCH DETAIL**  
Scale: (NOT TO SCALE)



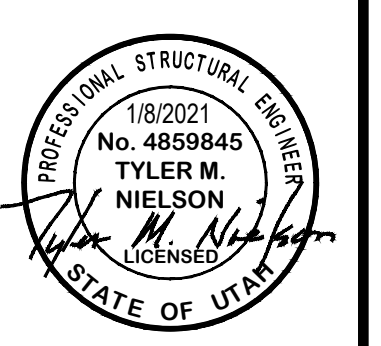
**QUICK4 CHAMBERS  
INSPECTION PORT  
TYPICAL INSTALLATION DETAIL  
(Not to Scale)**

**2 CHAMBER CLEANOUT DETAIL**  
Scale: (NOT TO SCALE)



**3 MONITORING / SAMPLING WELL**  
Scale: (NOT TO SCALE)

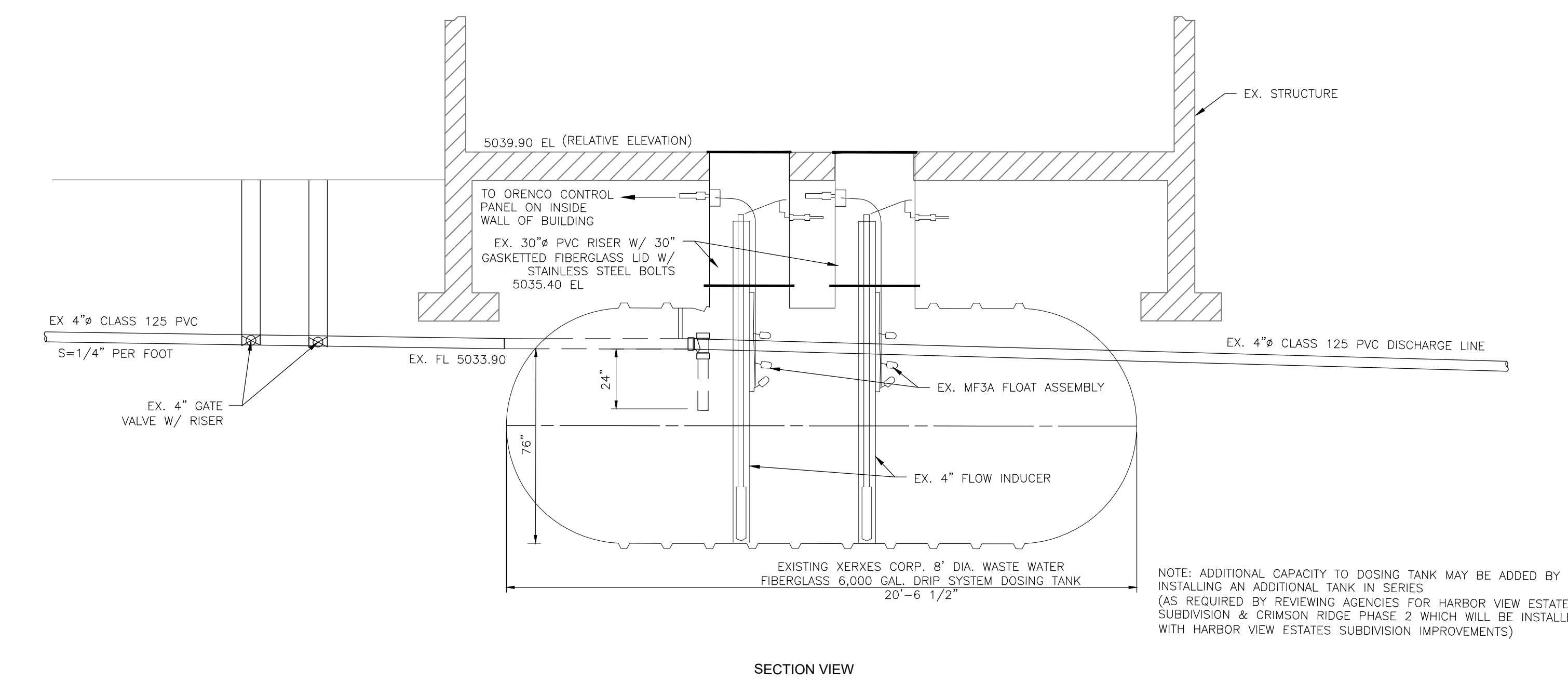
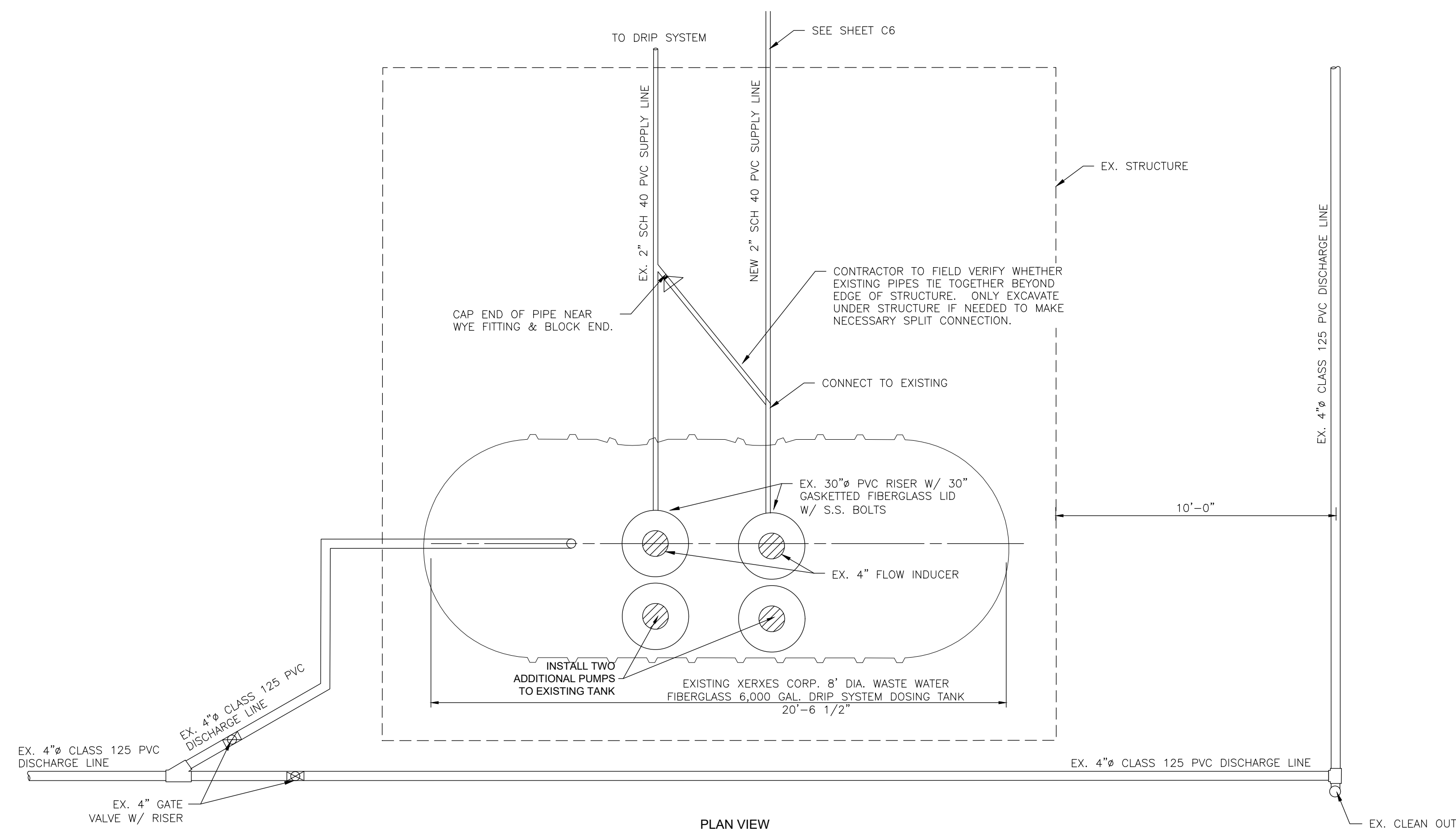
SCALE	NTS
DATE	1/8/2021
DESIGN	BSD/MLS
DRAWN	BSD/MLS
CHECKED	TJM



EFFLUENT TREATMENT - ABSORPTION BED DETAILS  
THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2  
1250 NORTH 5200 EAST  
EDEN, WEBER COUNTY, UTAH

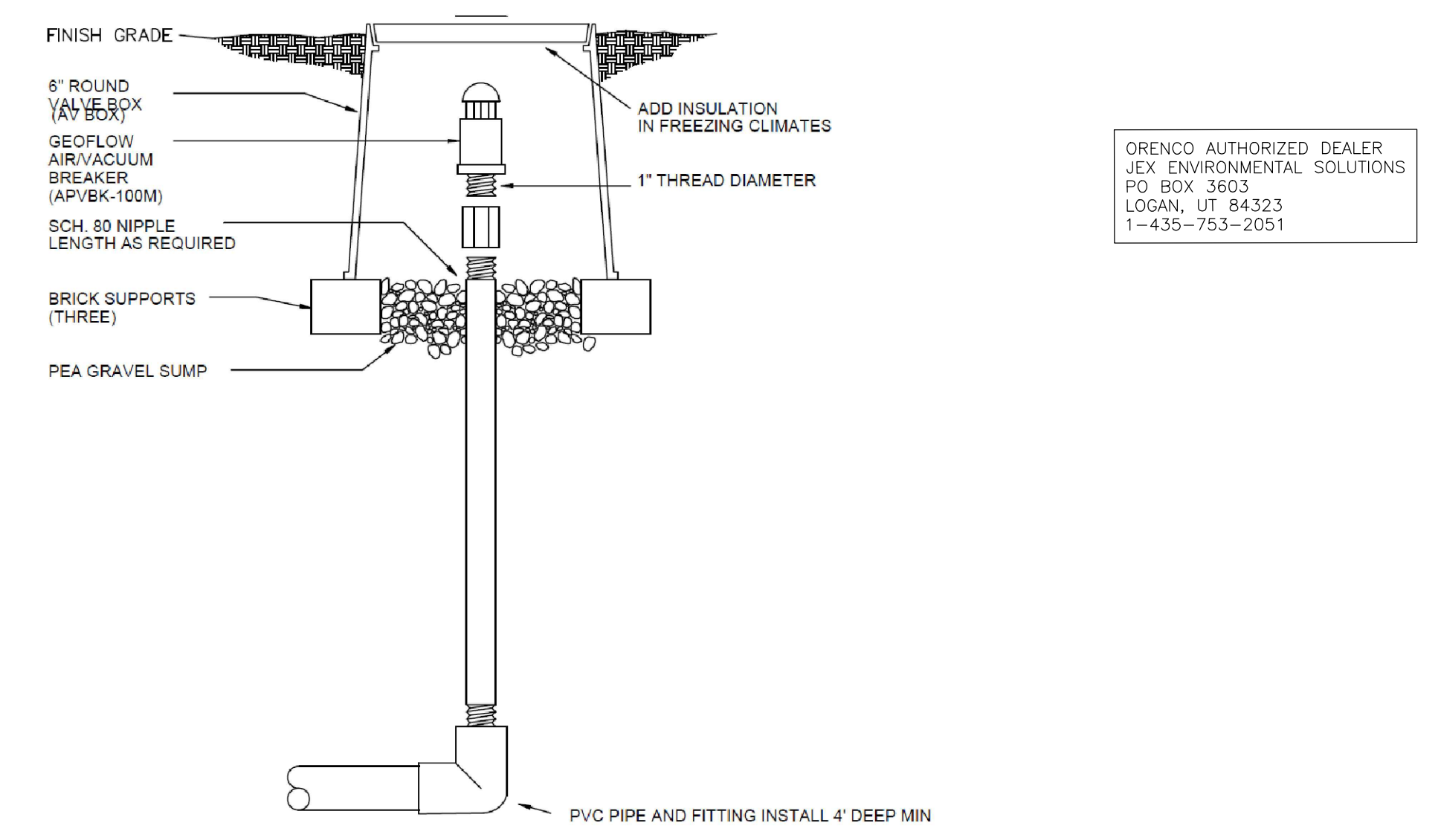
**GARDNER ENGINEERING**  
CIVIL-LAND PLANNING  
MUNICIPAL-LAND SURVEYING  
5150 SOUTH 375 EAST OGDEN, UT  
OFFICE: 801.476.0202 FAX: 801.476.0066





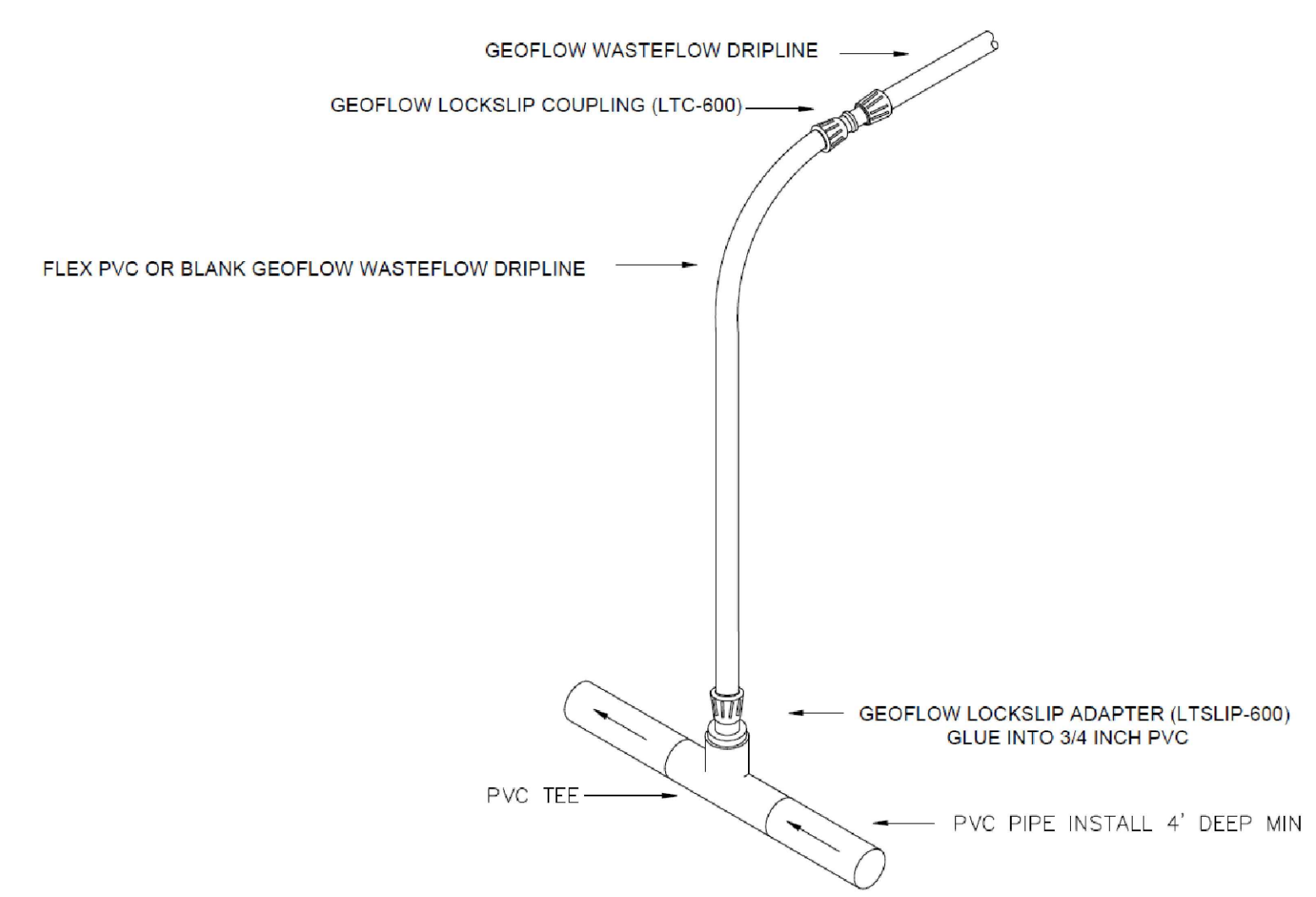
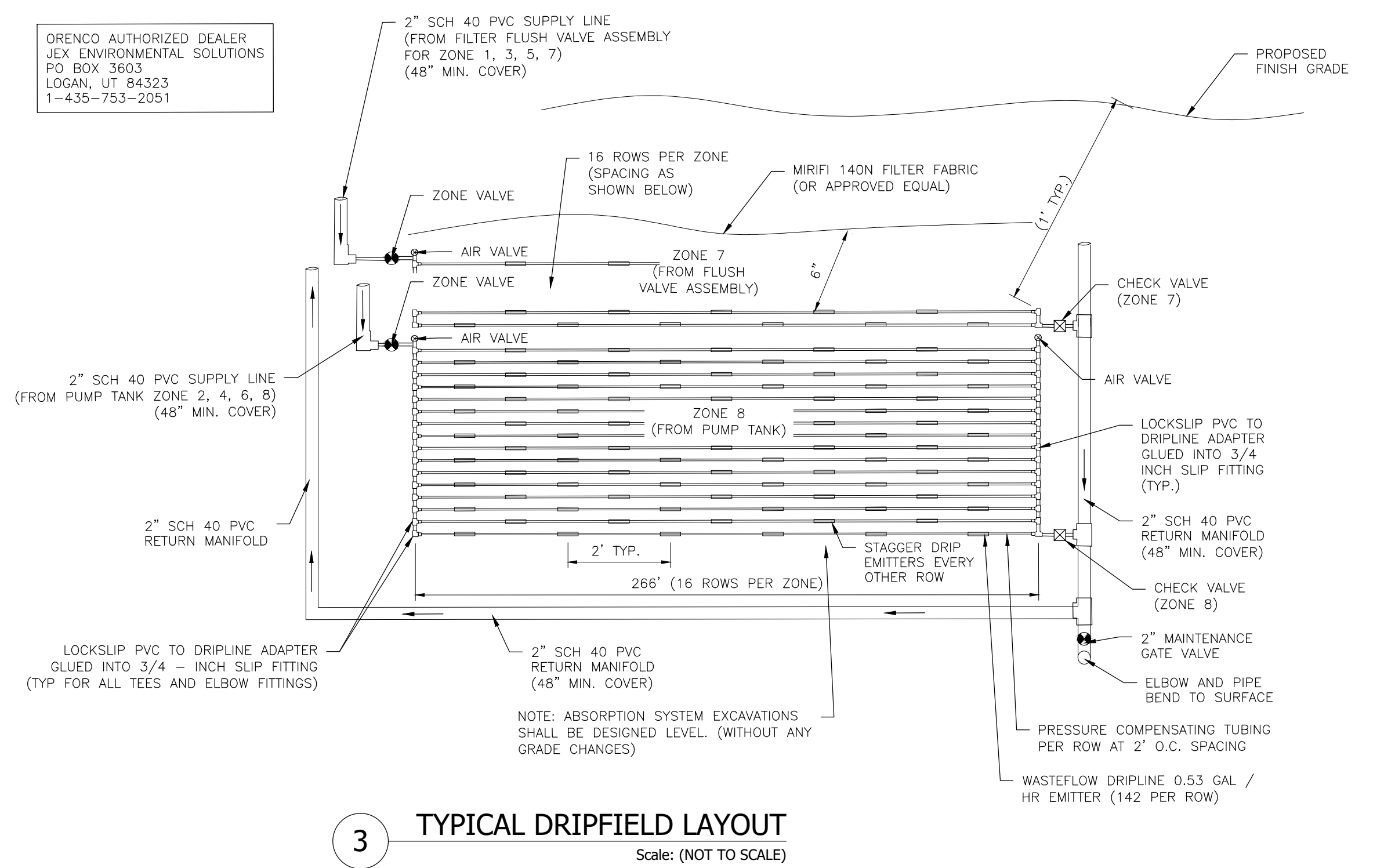
1 DRIP SYSTEM DOSING TANK (EXISTING)  
Scale: (NOT TO SCALE)

NOTE: ADDITIONAL CAPACITY TO DOSING TANK MAY BE ADDED BY INSTALLING AN ADDITIONAL TANK IN SERIES (AS REQUIRED BY REVIEWING AGENCIES FOR HARBOR VIEW ESTATES SUBDIVISION & CRIMSON RIDGE PHASE 2 WHICH WILL BE INSTALLED WITH HARBOR VIEW ESTATES SUBDIVISION IMPROVEMENTS)

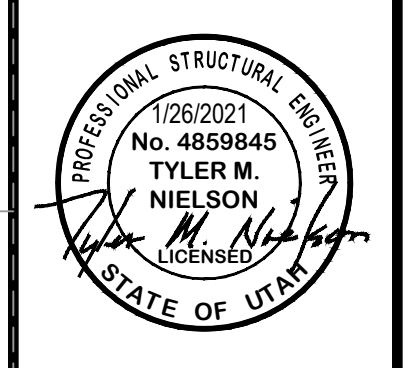


ORENCO AUTHORIZED DEALER  
JEX ENVIRONMENTAL SOLUTIONS  
PO BOX 3603  
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1-435-753-2051

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JEX ENVIRONMENTAL SOLUTIONS  
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LOGAN, UT 84323  
1-435-753-2051



SCALE	NTS
DATE	1/26/2021
DESIGN	BSD/MUS
DRAWN	BSD/MUS
CHECKED	TJM
DWG.	8/1/2018 - 8/8/ INVESTMENT, CRIMSON RIDGE, DESIGN, CIVIL, CRIMSON RIDGE - COS.DWG

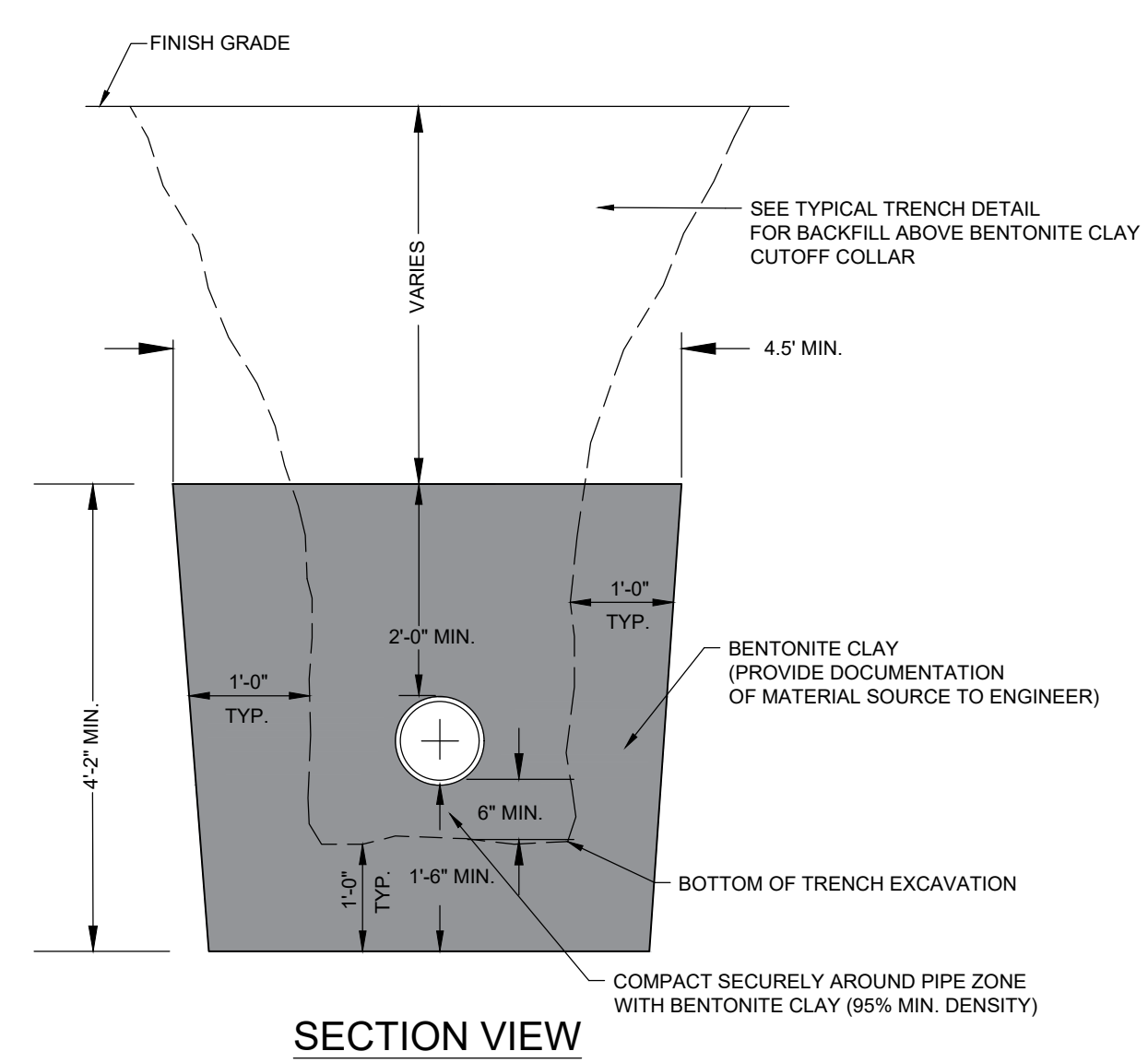
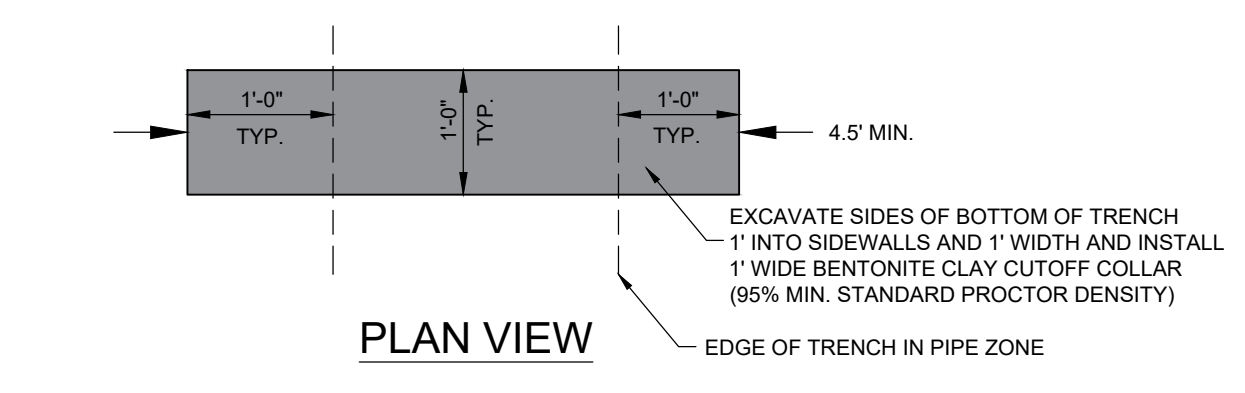


EFFLUENT TREATMENT FACILITY DRIP SYSTEM DETAILS  
THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2  
1250 NORTH 5200 EAST  
EDEN, WEBER COUNTY, UTAH

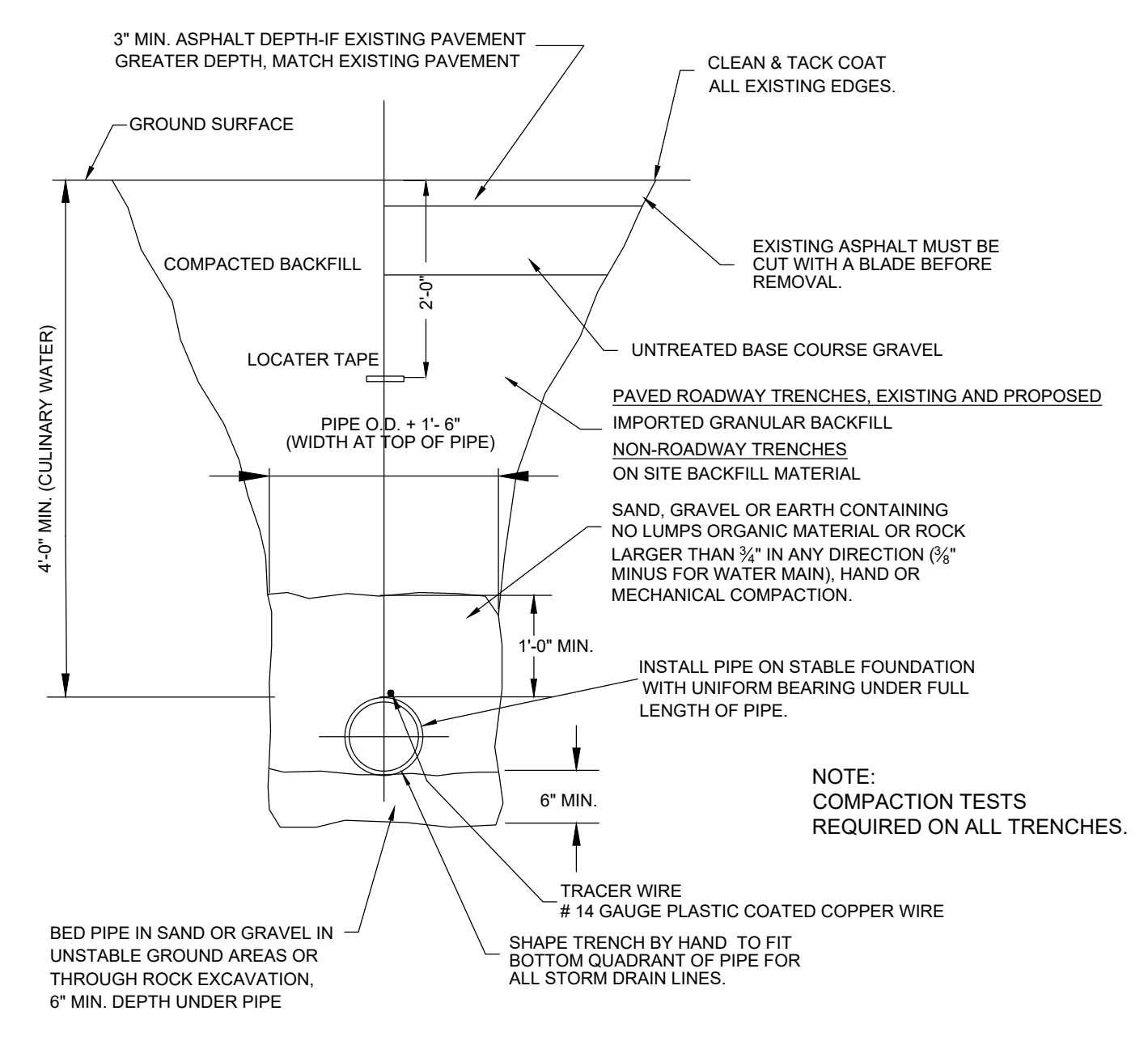
**GARDNER ENGINEERING**  
CIVIL-LAND PLANNING  
MUNICIPAL-LAND SURVEYING

5150 SOUTH 375 EAST OGDEN, UT  
OFFICE: 801.476.0202 FAX: 801.476.0066

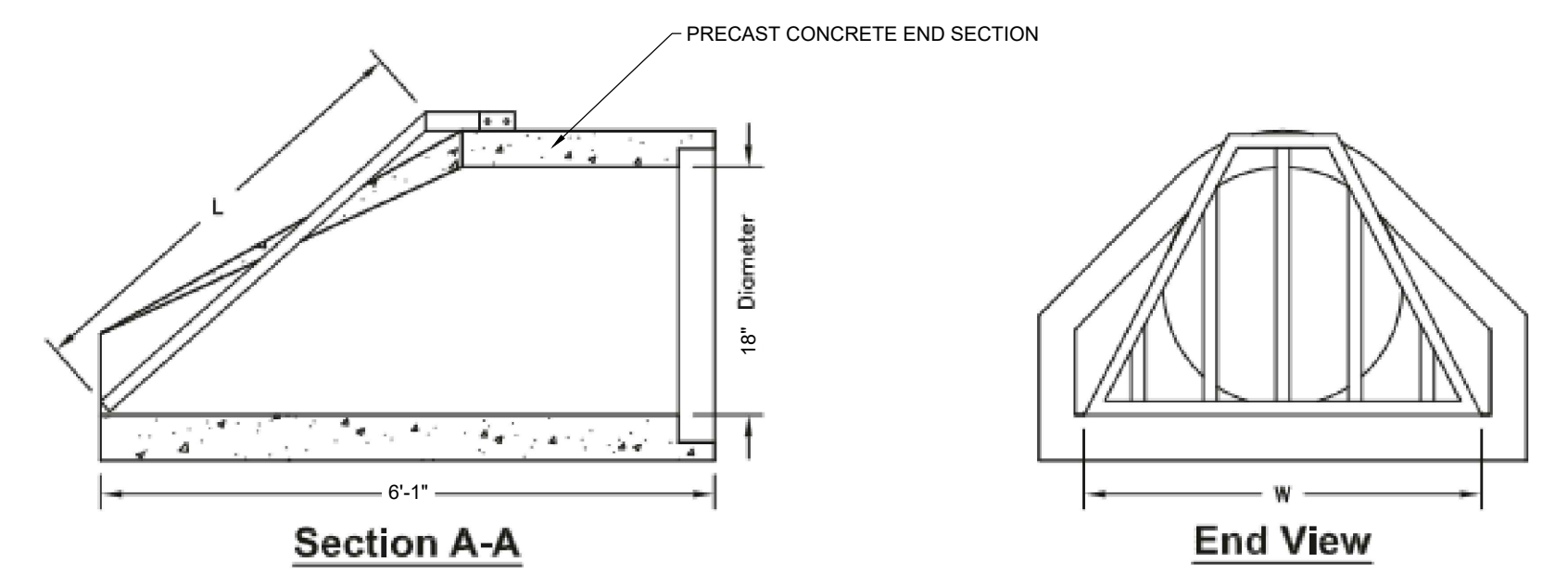
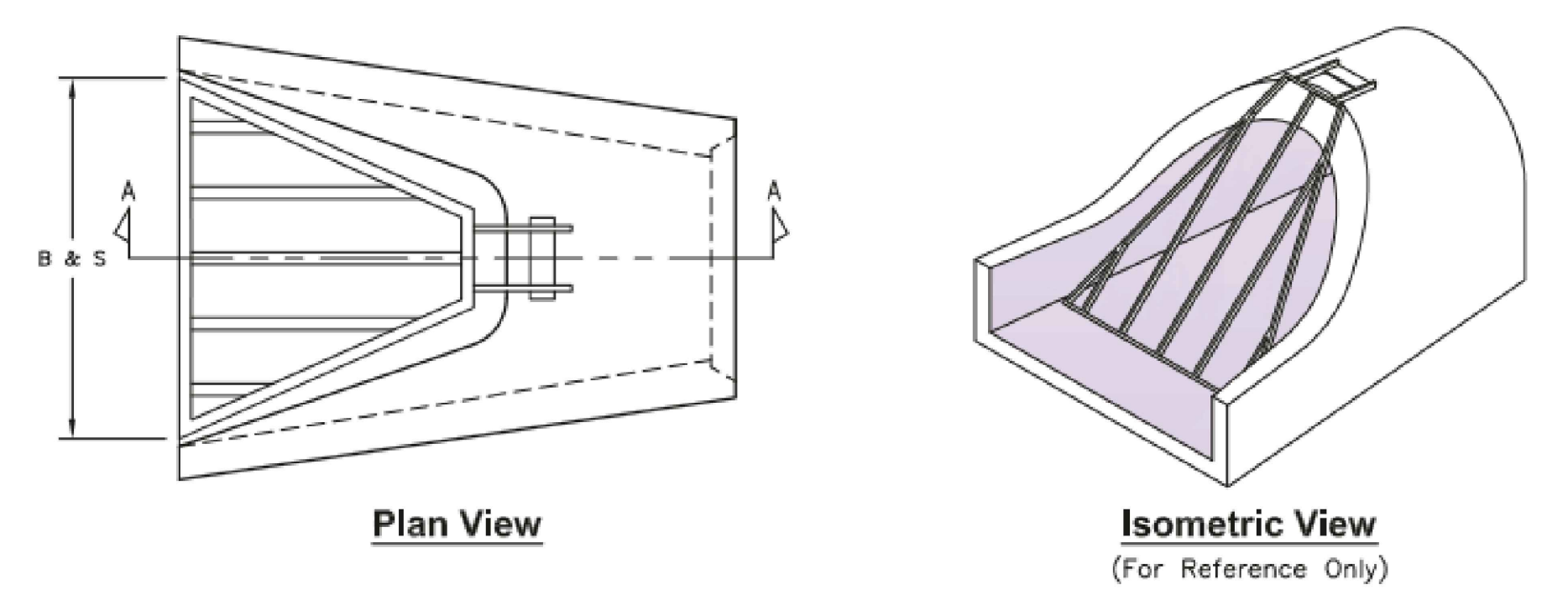




1 CUTOFF TRENCH DETAIL Scale: (NOT TO SCALE)

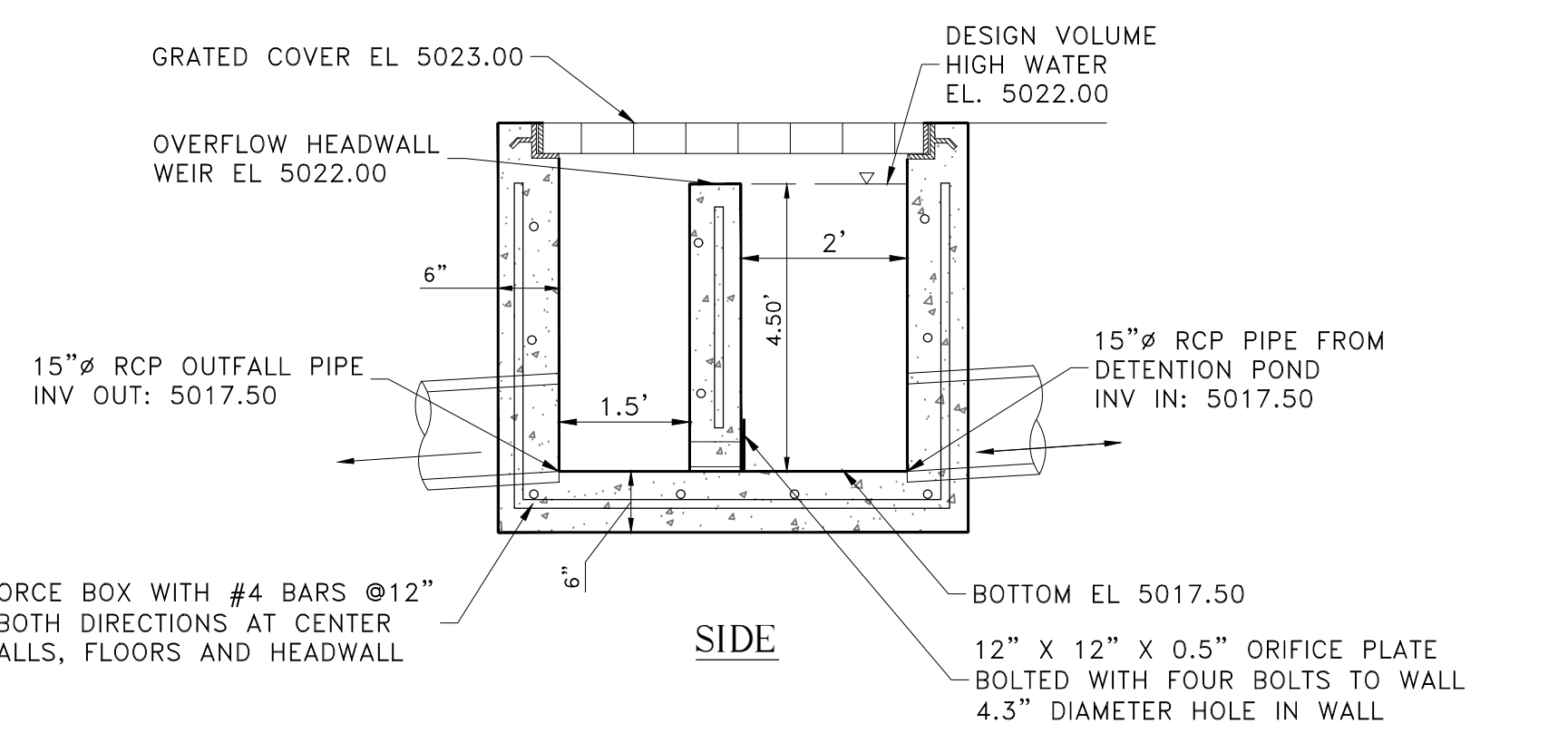
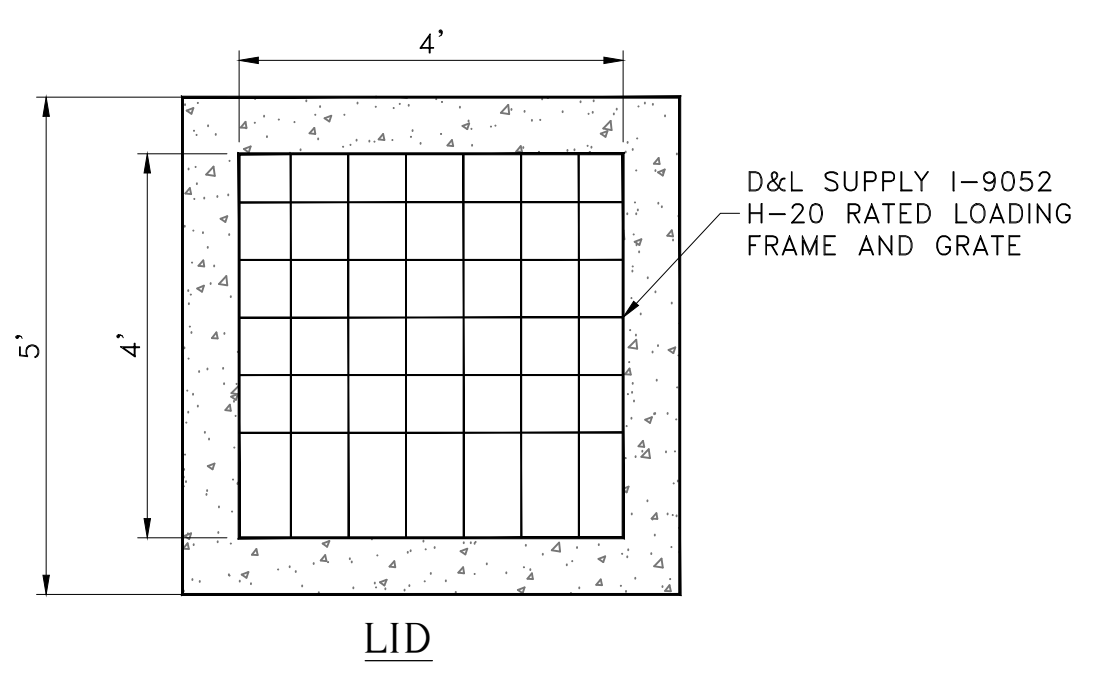
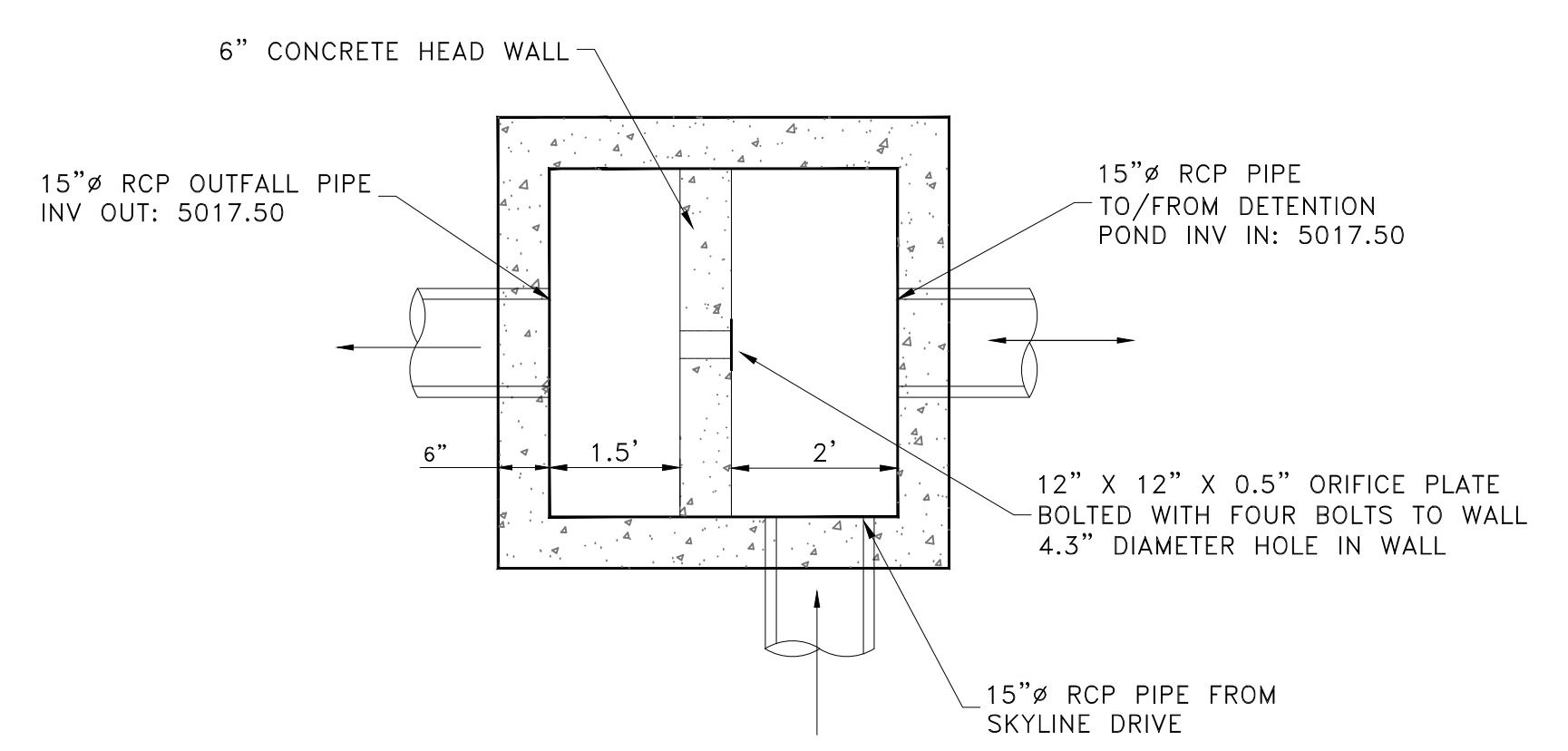


TYPICAL TRENCH DETAIL Scale: (NOT TO SCALE)

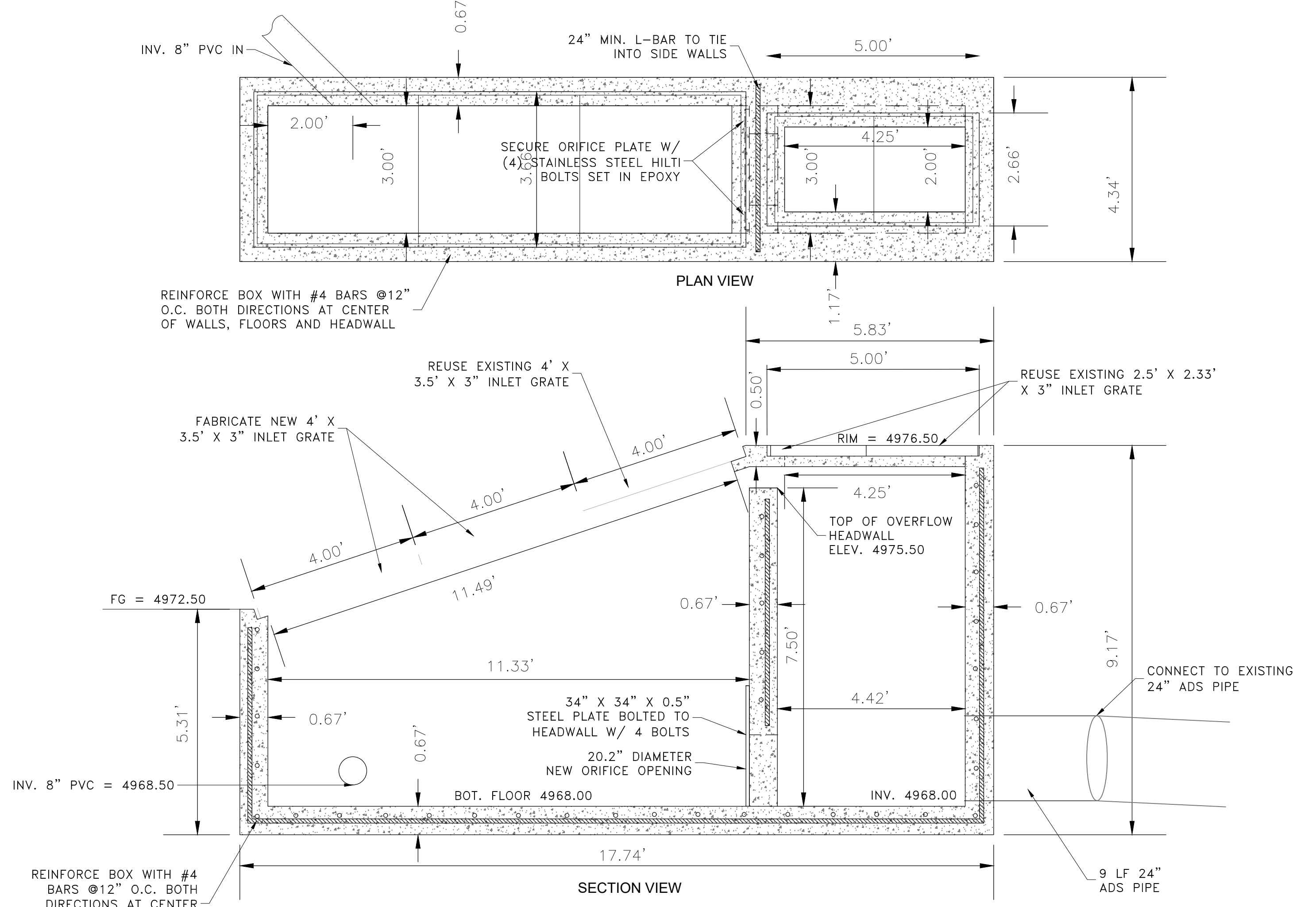


Pipe Diameter	Trash Rack Width W (in.)	Trash Rack Length L (in.)	Total # of Bars B	Bar Spacing S (in.)
12"	21.00"	30.00"	3	6.0"
15"	28.00"	32.00"	3	6.5"
18"	33.00"	34.00"	3	8.0"

2 FLARED END SECTION OR ENGINEER APPROVED EQUAL Scale: (NTS)



3 4' x 4' STORM DRAIN OUTLET CONTROL BOX (UPPER DETENTION POND) Scale: (NOT TO SCALE)



4 OUTLET CONTROL BOX (LOWER DETENTION POND) Scale: (NOT TO SCALE)

MISC. DETAILS

THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2  
1250 NORTH 5200 EAST  
EDEN, WEBER COUNTY, UTAH

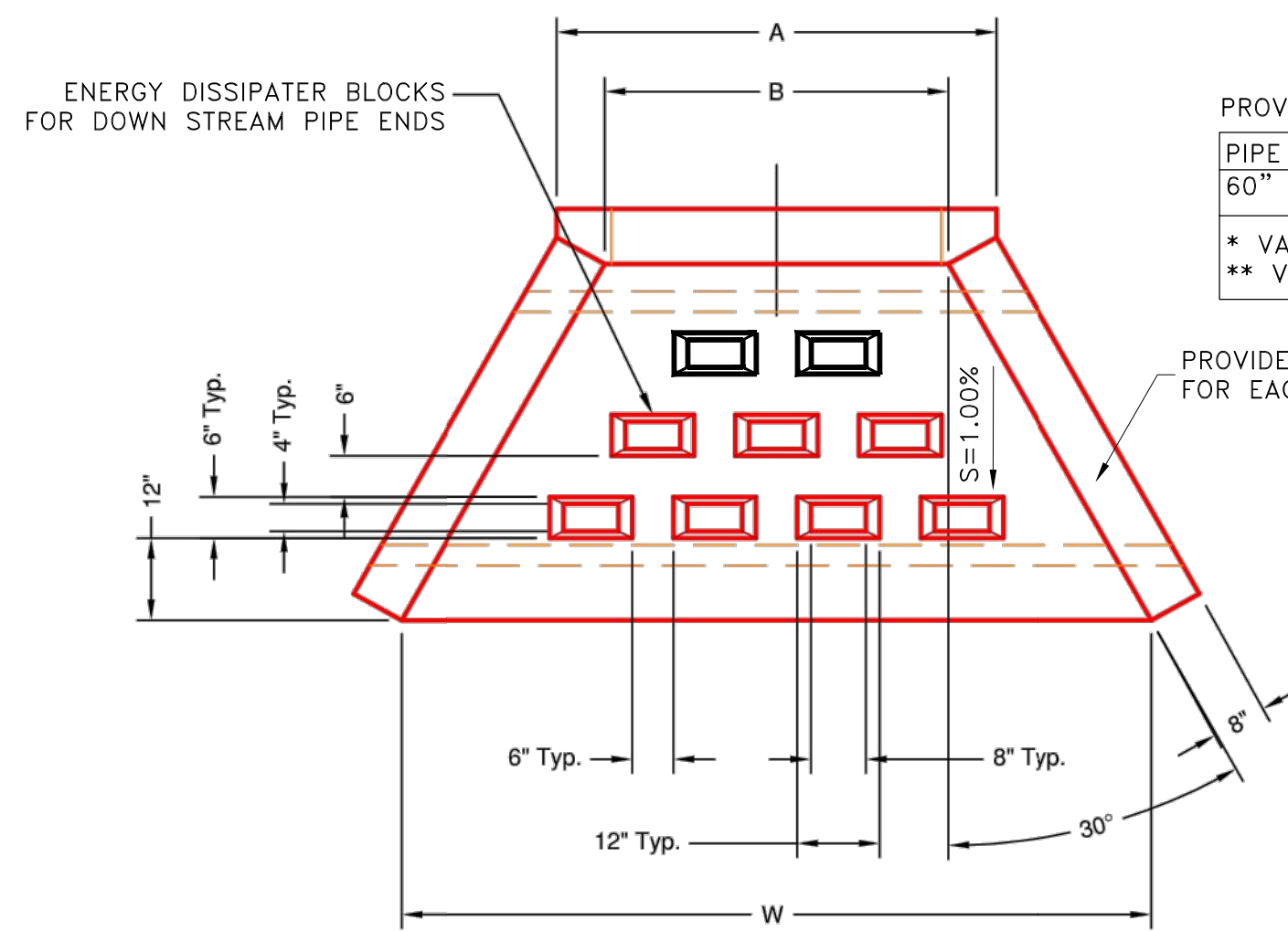
**GARDNER ENGINEERING**  
CIVIL-LAND PLANNING  
MUNICIPAL-LAND SURVEYING

18/2021 No. 4859845  
TYLER M. NIELSON  
LICENSED  
STATE OF UTAH

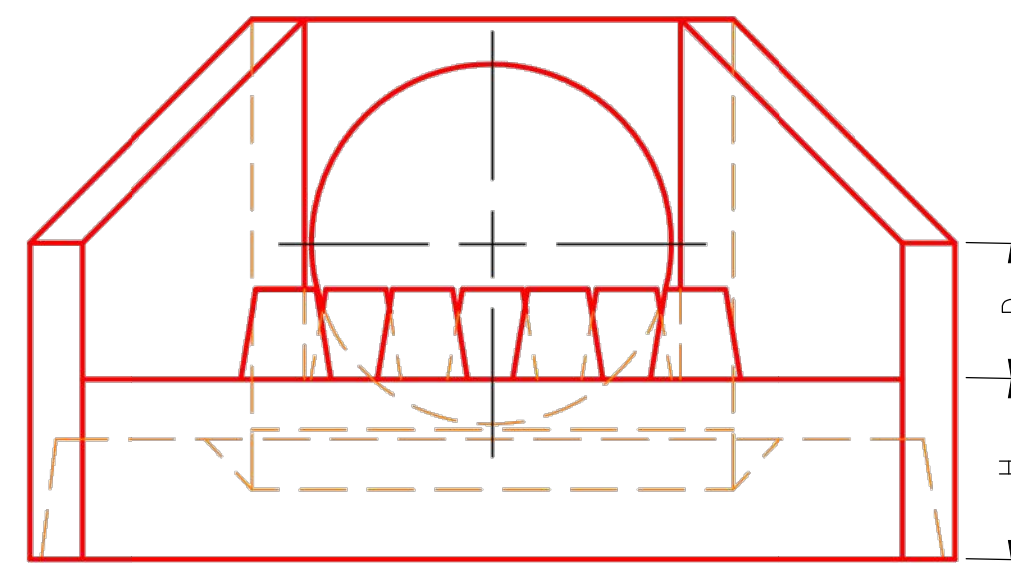
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DATE: 18/2021  
DESIGN: BBD/MS  
DRAWN: BBD/MS  
CHECKED: TMN  
DWG: 18/2021 - 884 INVESTMENT/CRIMSON RIDGE DESIGN/CRIMSON RIDGE - COS.DWG

D7





**PLAN VIEW**



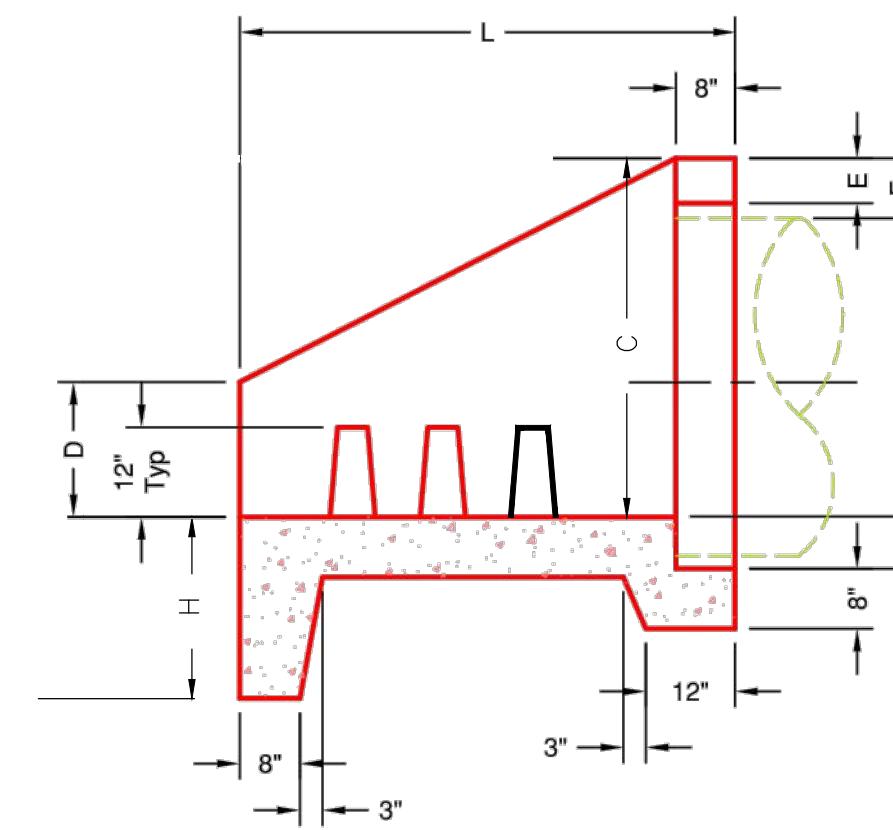
**FRONT VIEW**

PROVIDE OLDCASTLE PRECAST (OR CAST IN PLACE)

PIPE SIZE	HOLE SIZE	W	L	H	A	B	C	D	E	F	G
60" RCP	76"	*	**	24"	105"	96"	86"	33"	20"	26"	6"

\* VARIES  
\*\* VARIES SEE PROFILE SHEET FOR DIMENSIONS

PROVIDE 2 ROWS 12-INCH O.C. EACH WAY NO. 5 BAR FOR EACH FACE 2.5-INCH MIN. CLEAR FROM OUTER EDGE

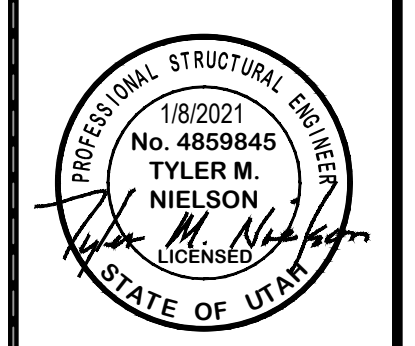


**SECTION A-A**

1 60-INCH PIPE HEADWALL DETAIL  
Scale: (NOT TO SCALE)

SCALE	NTS
DATE	18/2021
DESIGN	BSD/M/S
DRAWN	BSD/M/S
CHECKED	T/M

REVISIONS	DESCRIPTION
DATE	



MISC. DETAILS  
THE RESERVE AT CRIMSON RIDGE CLUSTER SUBD. PHASE 2  
1250 NORTH 5200 EAST  
EDEN, WEBER COUNTY, UTAH

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