

OCONEE JOINT REGIONAL SEWER AUTHORITY



STANDARD DETAILS


Sheet List Table

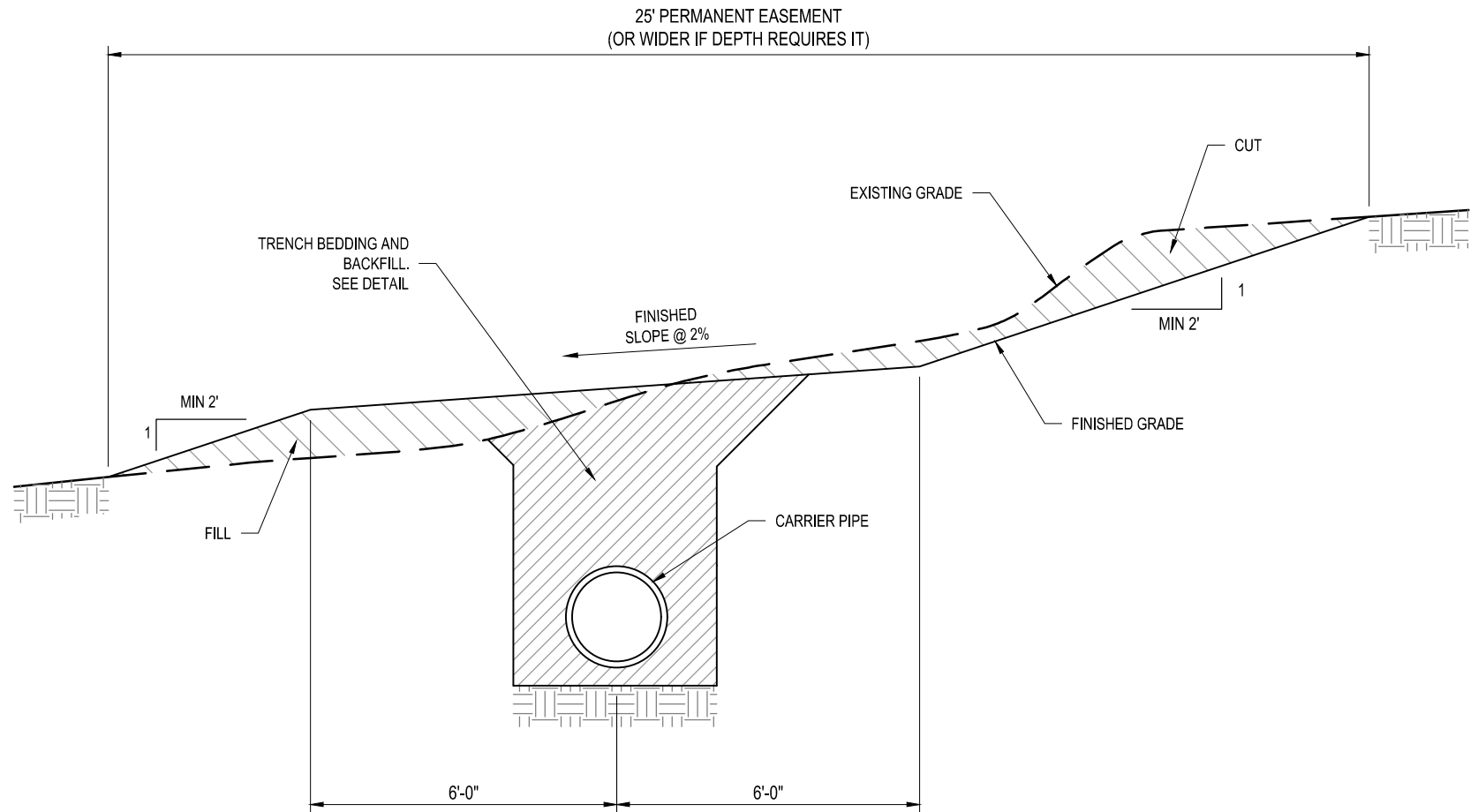
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OCONEE JOINT REGIONAL SEWER AUTHORITY


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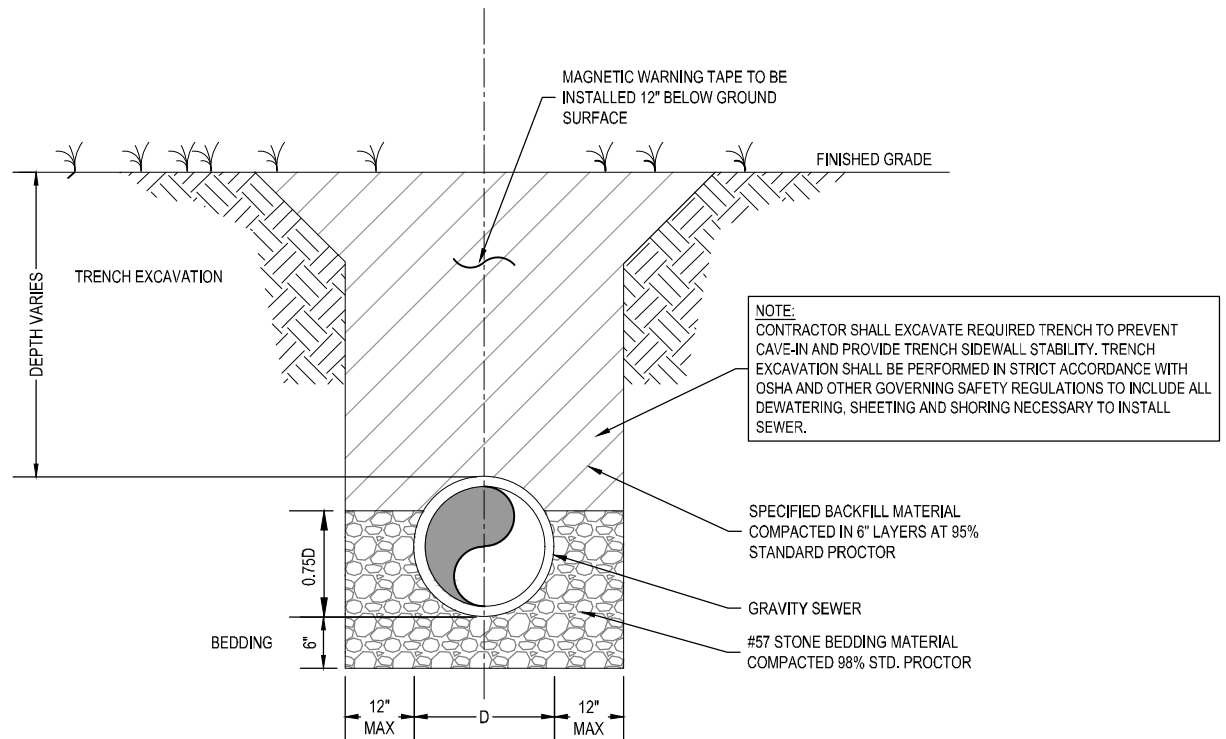
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EASEMENT GRADING


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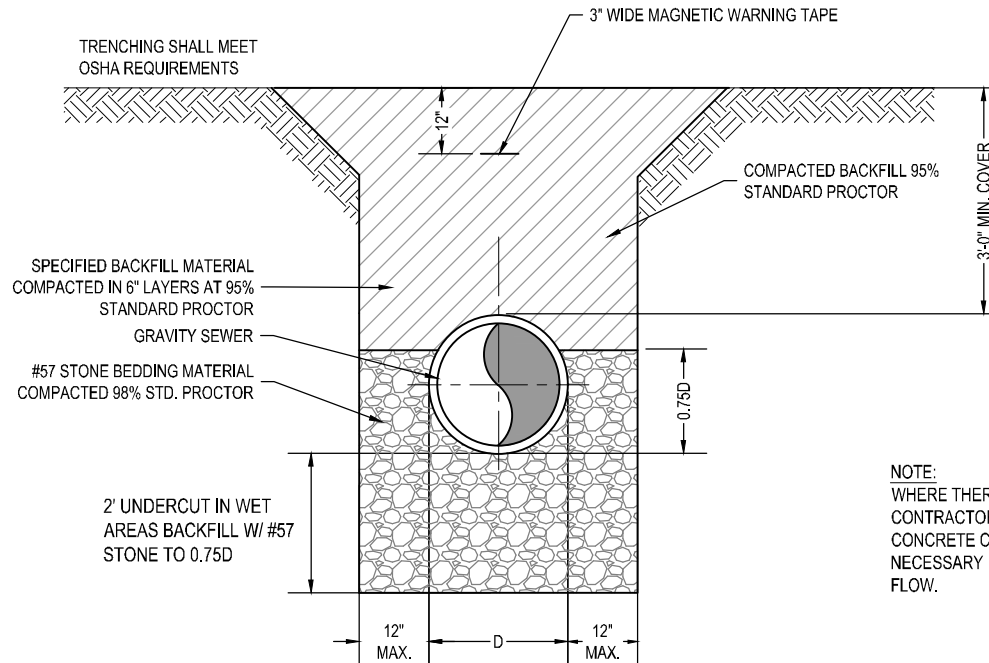
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EASEMENT GRADING		
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GRAVITY SEWER TRENCHING & BEDDING

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OCONEE JOINT REGIONAL SEWER AUTHORITY		
GRAVITY SEWER TRENCHING & BEDDING		
	DATE: 06/2020	DRAWING NO.: D 002
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NOTE:
 WHERE THERE IS EXCESSIVE GROUNDWATER, CONTRACTOR SHALL INSTALL ANTI SEEPAGE CONCRETE COLLAR IN TRENCH AROUND THE PIPE AT NECESSARY INTERVALS TO DIVERT GROUNDWATER FLOW.

TRENCH BEDDING FOR PIPE IN WET LOCATIONS

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OCONEE JOINT REGIONAL SEWER AUTHORITY

GRAVITY SEWER TRENCHING & BEDDING - WET LOCATIONS



DATE:

06/2020

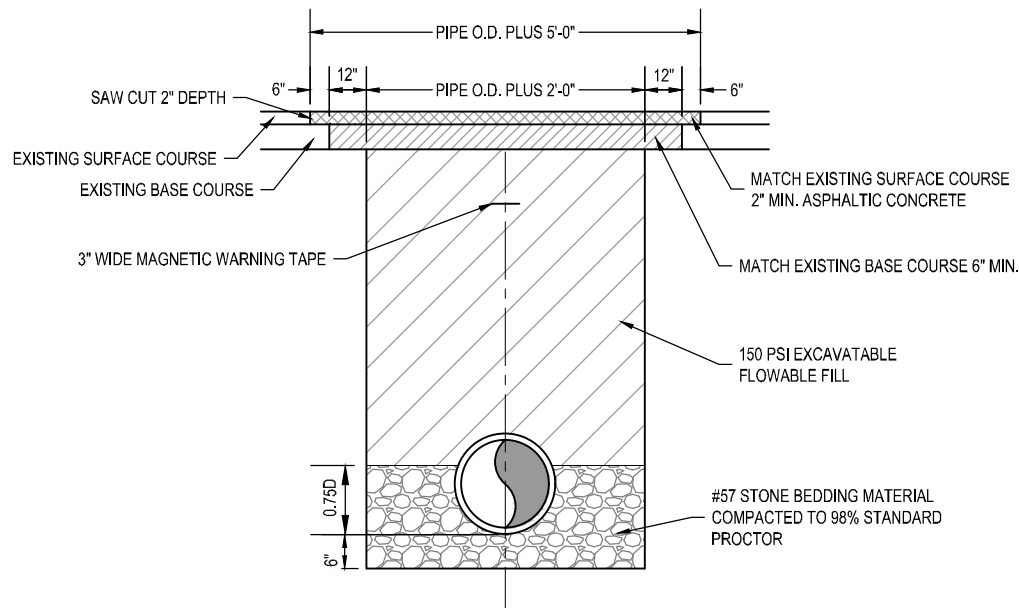
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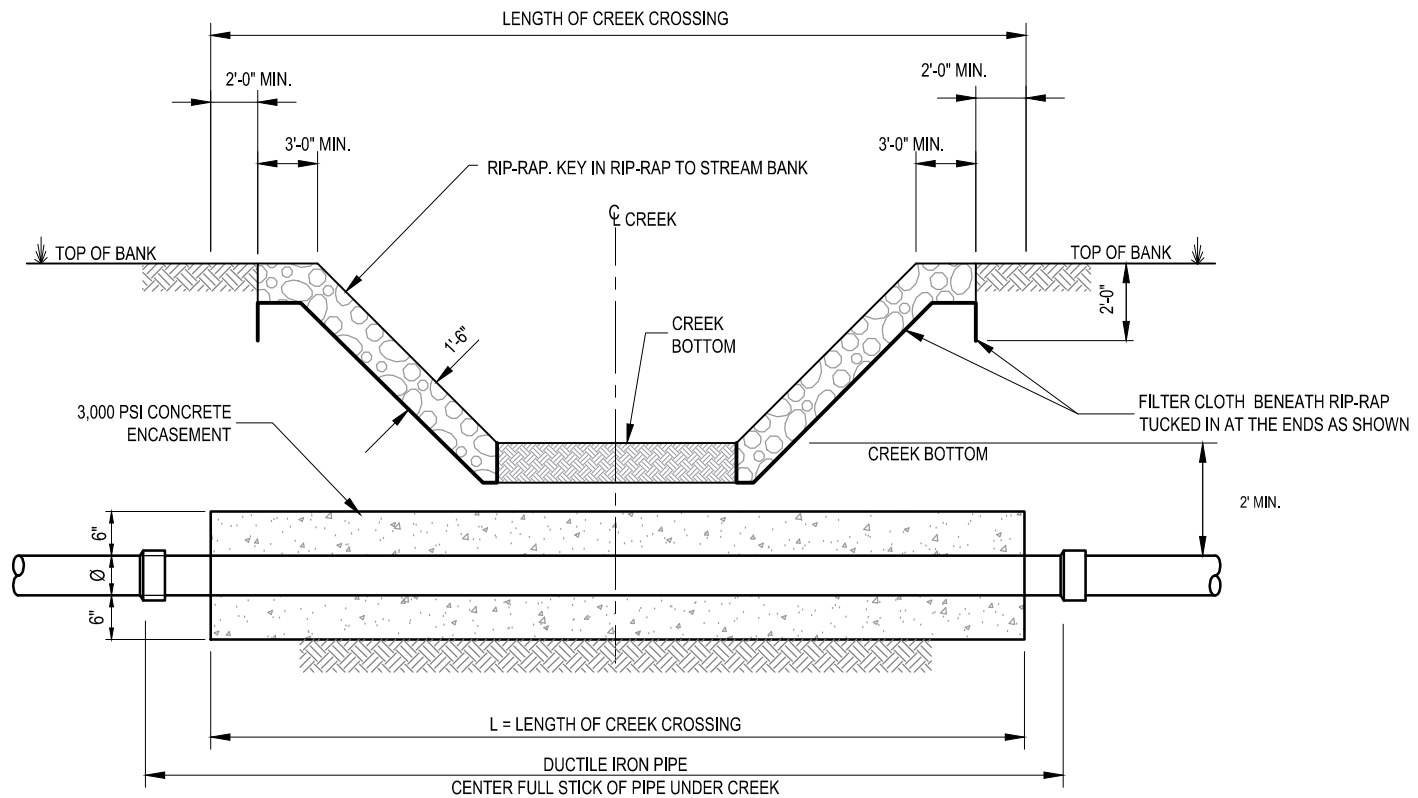
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ASPHALT PAVEMENT REPLACEMENT AT PIPE TRENCH

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OCONEE JOINT REGIONAL SEWER AUTHORITY ASPHALT PAVEMENT REPLACEMENT AT PIPE TRENCH		
	DATE: 06/2020	DRAWING NO.: D 004
	REVISED:	SCALE: NTS




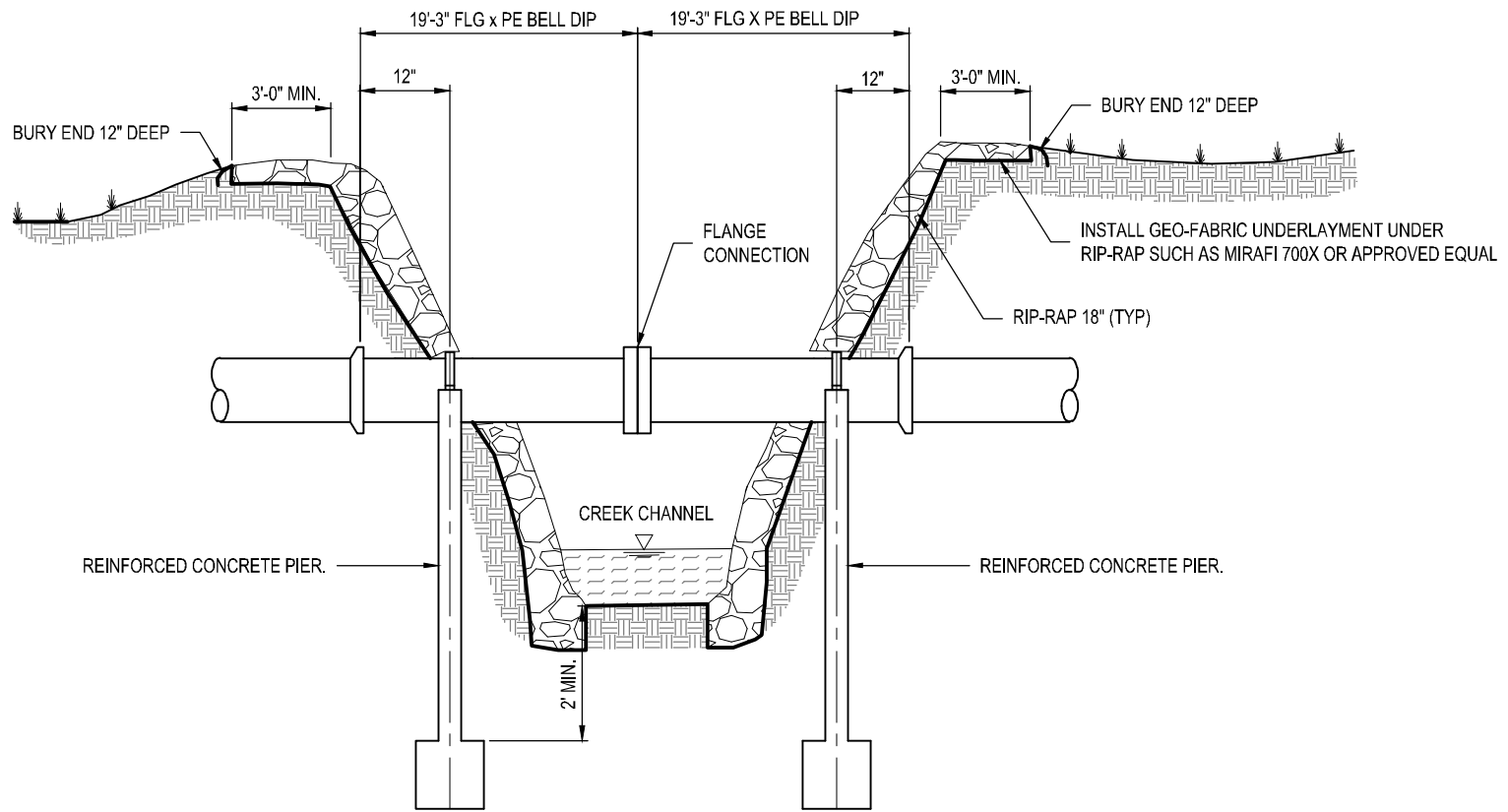
NOTES:

1. PLACE MINIMUM 2" THICKNESS OF GRAVEL SUB-BASE BETWEEN FABRIC AND RIP-RAP.

STREAM CROSSING

Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY		
STREAM CROSSING		
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	06/2020	D 005
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NOTES:

1. NO PIERS SHALL BE PLACED IN NORMAL FLOW OF CREEK.
2. ANY DESIGNS DEVIATING FROM THIS DETAIL MUST BE SUBMITTED TO OJRSA FOR REVIEW AND APPROVAL.

LONG SPAN CREEK CROSSING

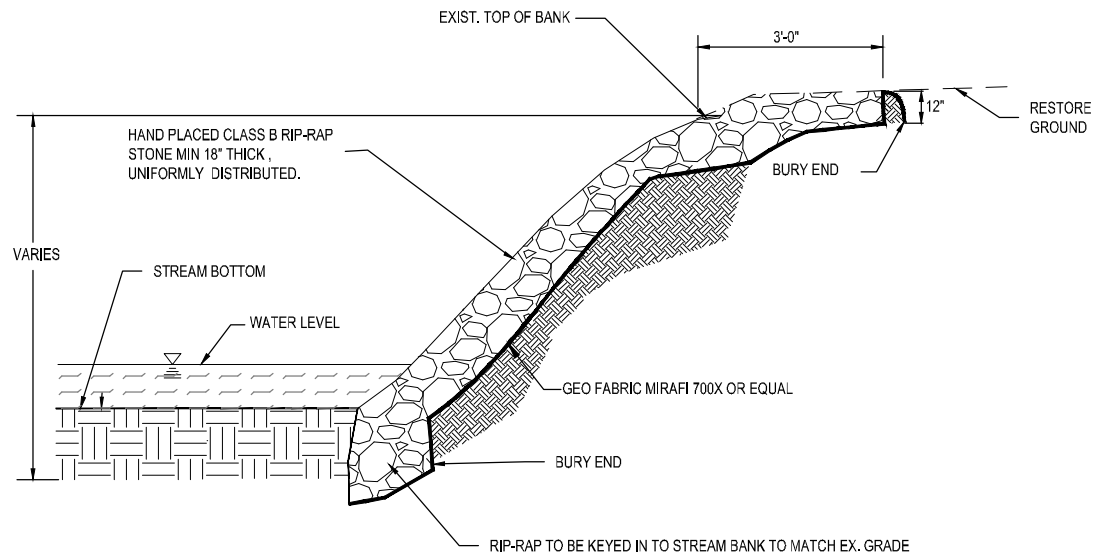
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LONG SPAN STREAM CROSSING



DATE:	06/2020	DRAWING NO.:	D 006
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STREAM BANK PROTECTION

Scale: NTS

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STREAM BANK PROTECTION



DATE:

06/2020

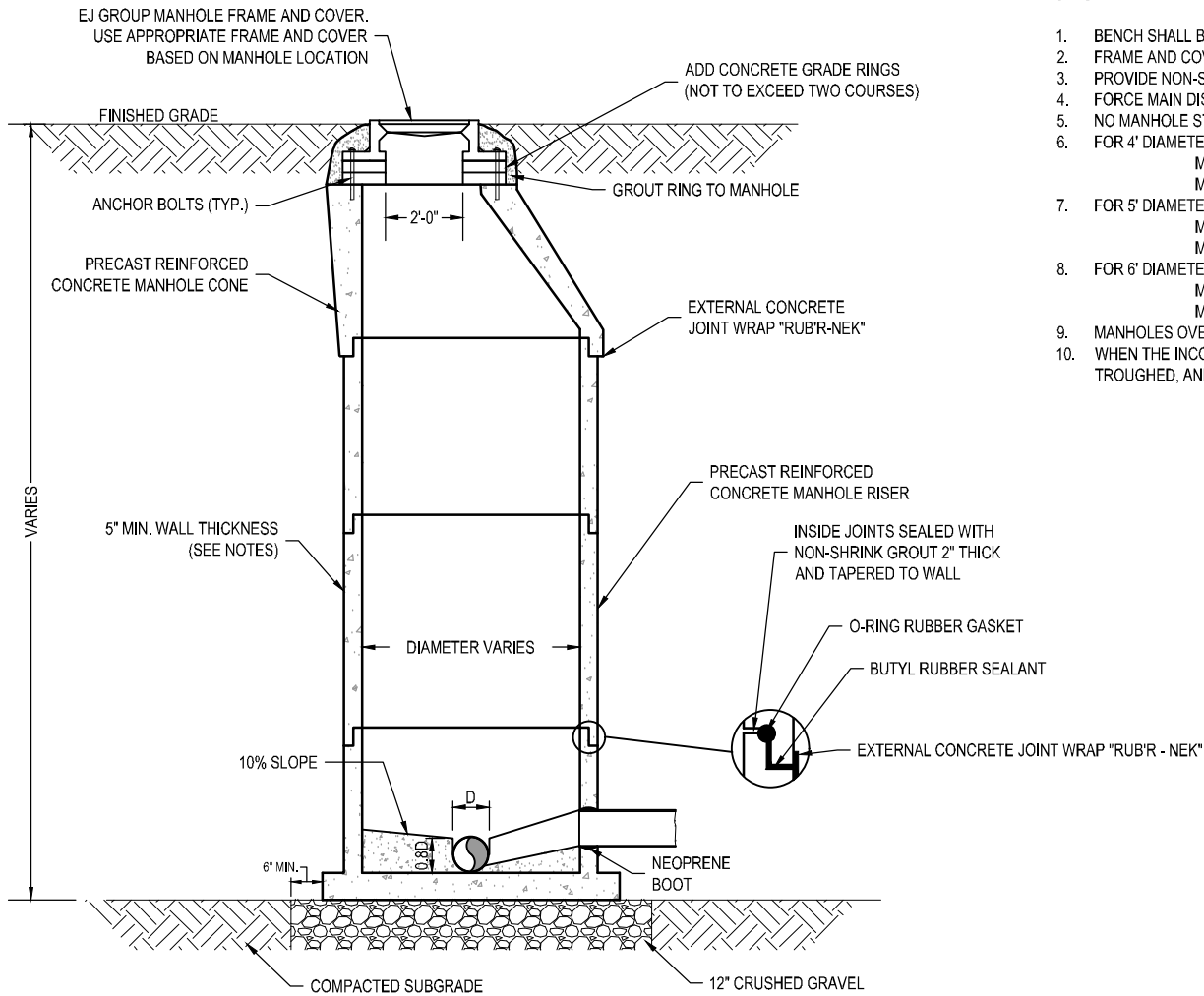
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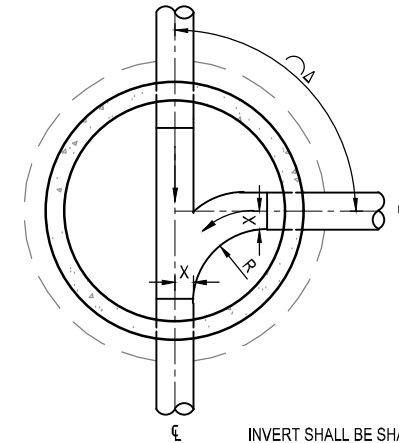
STANDARD PRECAST CONCRETE MANHOLE - SECTION

Scale: NTS

STANDARD MANHOLE SCHEDULE				
PIPE SIZE	INSIDE DIAMETER	ANGLE (Δ)	'R'	'X'
8" - 15"	4'-0"	0° - 90°	2'-0"	0"
18" - 30"	5'-0"	0° - 90°	2'-0"	6"
36" & LARGER	6'-0"	0° - 60°	3'-0"	9"
36" & LARGER	6'-0"	60° - 90°	3'-0"	1'-2"

NOTES:


- BENCH SHALL BE PRECAST.
- FRAME AND COVER SHALL BE SET ON BUTYL RUBBER AND SHALL BE BOLTED TO MANHOLE CONE.
- PROVIDE NON-SHRINK GROUT ON OUTSIDE OF GRADE RINGS AND MANHOLE FRAME OVERLAPPING CONE BY 6 INCHES.
- FORCE MAIN DISCHARGE MANHOLES SHALL BE COATED.
- NO MANHOLE STEPS WILL BE ALLOWED.
- FOR 4' DIAMETER MANHOLES:
MIN. WALL THICKNESS = 5"
MIN. BASE SLAB THICKNESS = 6"
- FOR 5' DIAMETER MANHOLES:
MIN. WALL THICKNESS = 5"
MIN. BASE SLAB THICKNESS = 8"
- FOR 6' DIAMETER MANHOLES:
MIN. WALL THICKNESS = 6"
MIN. BASE SLAB THICKNESS = 8"
- MANHOLES OVER 8' DEEP SHALL HAVE A 60° MIN. INSIDE DIAMETER.
- WHEN THE INCOMING INVERT IS LESS THAN 24" ABOVE THE OUTGOING INVERT, THE LINE SHALL BE BENCHED, TROUGHED, AND MORTAR TROWELED SMOOTH TO ENTER AT THE MANHOLE INVERT.

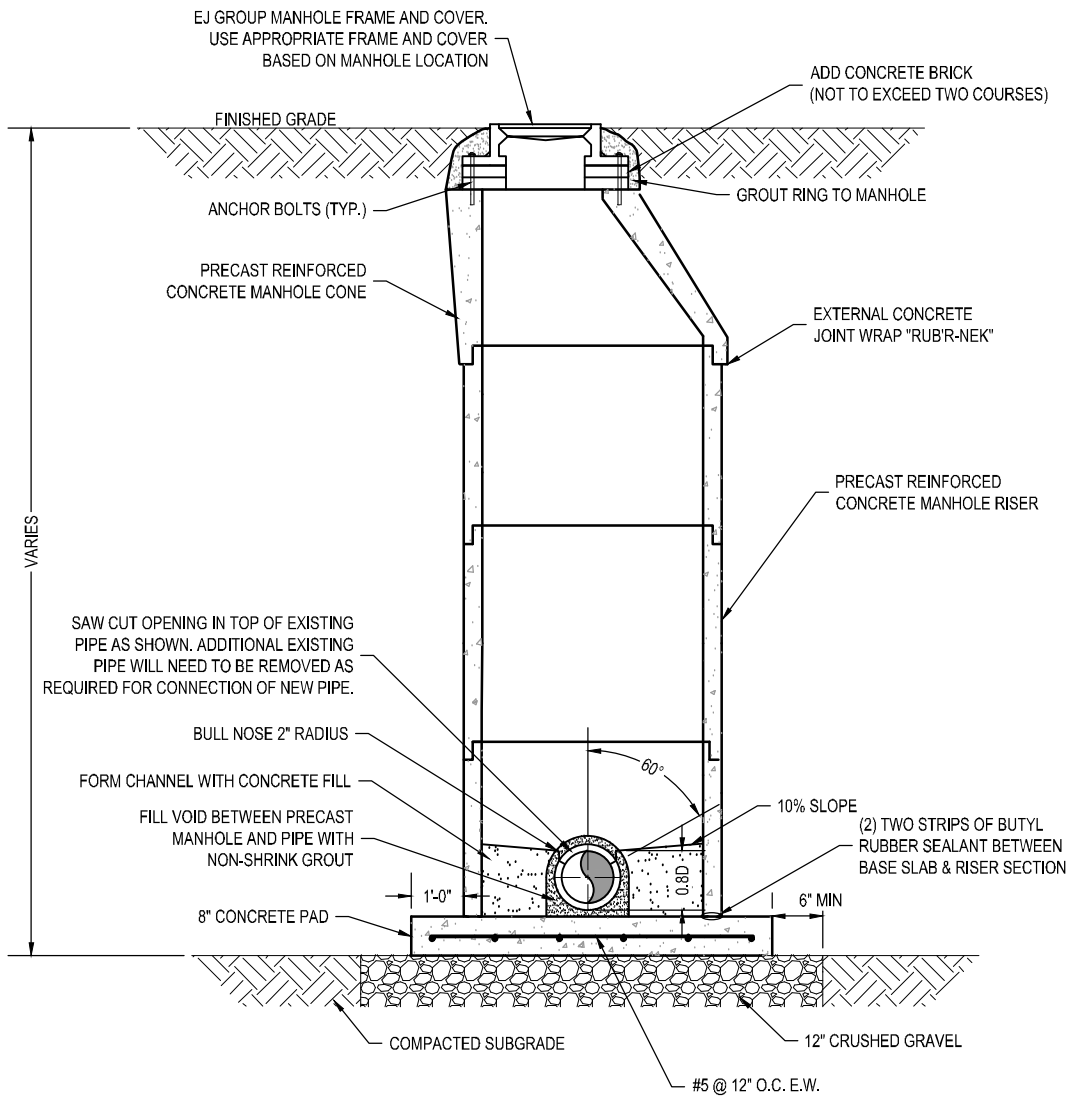


INVERT SHALL BE SHAPED AND TROWELED SMOOTH

STANDARD PRECAST CONCRETE MANHOLE - PLAN

Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY		
STANDARD MANHOLE		
	DATE:	DRAWING NO.:
	06/2020	D 008
REVISED:	SCALE:	
	NTS	



NOTES:

1. USE OF DOGHOUSE TYPE MANHOLE MUST BE APPROVED BY OJRSA.
2. SEE STANDARD PRECAST MANHOLE DETAIL FOR ADDITIONAL REQUIREMENTS.

DOGHOUSE MANHOLE - SECTION

Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY

DOGHOUSE MANHOLE



DATE:

06/2020

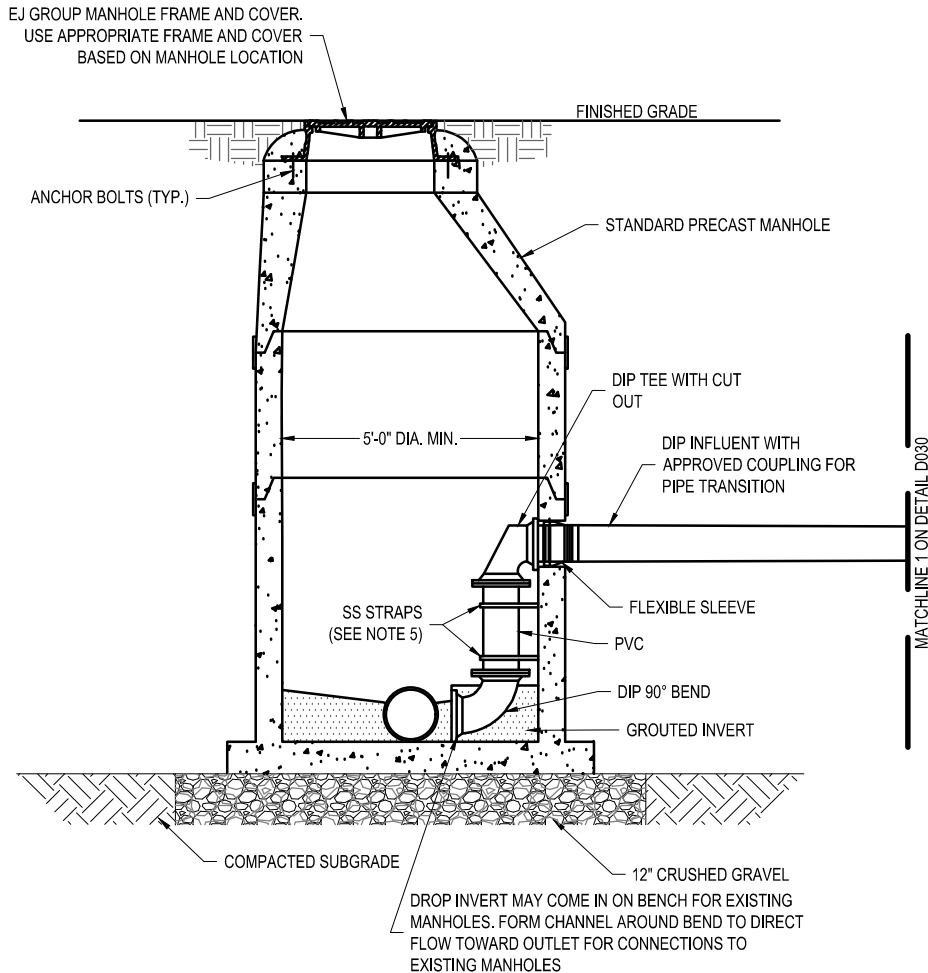
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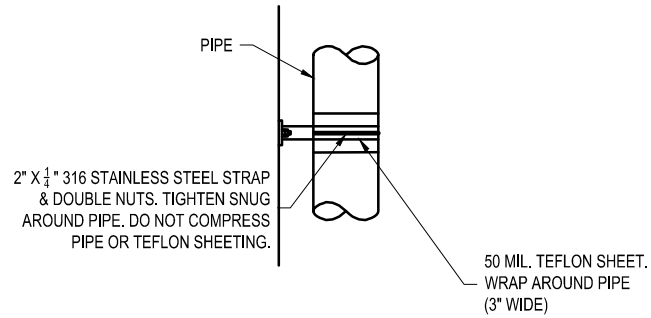
SCALE:

NTS



STANDARD INSIDE DROP MANHOLE

Scale: NTS



STAINLESS STEEL PIPE SUPPORT STRAP

Scale: NTS

NOTES:

1. PIPE SIZE FOR DROP TO EQUAL INFLOW SEWER PIPE SIZE.
2. MECHANICAL JOINT FITTINGS TO BE USED.
3. SAW-CUT OR DRILL ALL HOLES FOR PIPE AND BOLTS.
4. DROP-MANHOLE MANDATORY WHEN DIFFERENTIAL BETWEEN INVERTS IS GREATER THAN 24". DROP-MANHOLES WILL BE ALLOWED ONLY WHEN IT IS NOT FEASIBLE TO STEEPEN SLOPE SO THAT THE DROP IS LESS THAN 24".
5. INSTALL 316 STAINLESS STEEL STRAPS WITHIN 12" OF EACH PIPE JOINT AND AT 18" MAX SPACING.
6. PVC TO BE C900.
7. FITTINGS SHALL BE STANDARD AWWA-C110 FITTINGS.
8. SEE STANDARD PRE-CAST MANHOLE DETAIL FOR ADDITIONAL REQUIREMENTS.
9. SEE DETAIL D030 FOR SEWER LATERAL AND CLEANOUT.

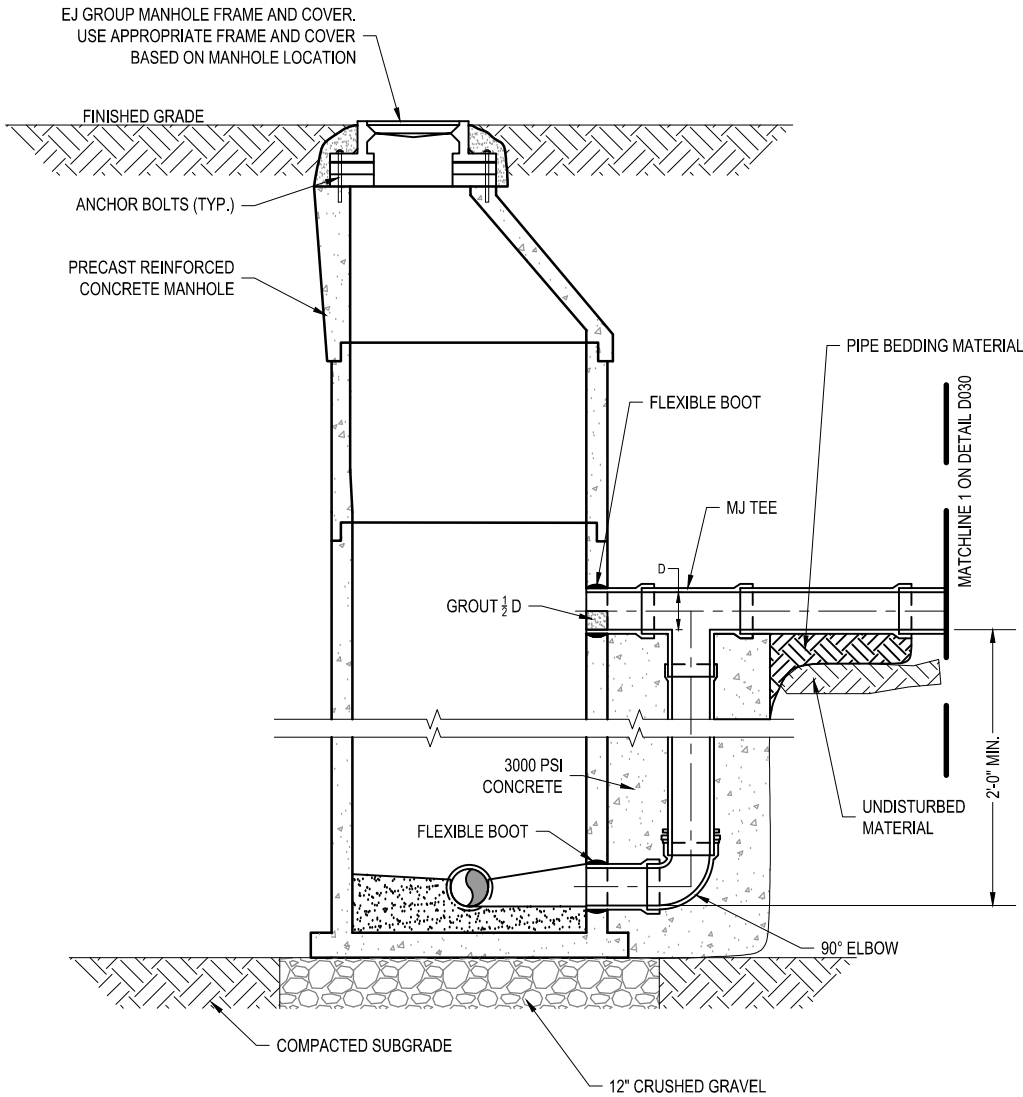
PIPE SIZE	MANHOLE CORE DIAMETER
4"	8"
6"	12"
8"	16"
10"	20"
12"	24"
15"	27"
18"	30"

OCONEE JOINT REGIONAL SEWER AUTHORITY

STANDARD INSIDE DROP MANHOLE



DATE:	11/2022	DRAWING NO.:	D 010
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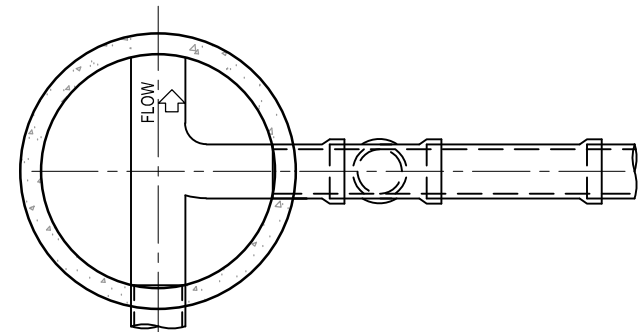


STANDARD OUTSIDE DROP MANHOLE
Scale: NTS

NOTES:


1. A DROP MANHOLE IS REQUIRED FOR DROPS OVER 24".
2. DROP ASSEMBLY SHALL BE DIP PRESSURE CLASS 150 MINIMUM.
3. SEE STANDARD PRE-CAST MANHOLE DETAIL FOR ADDITIONAL REQUIREMENTS.
4. SEE DETAIL D030 FOR SEWER LATERAL AND CLEANOUT.

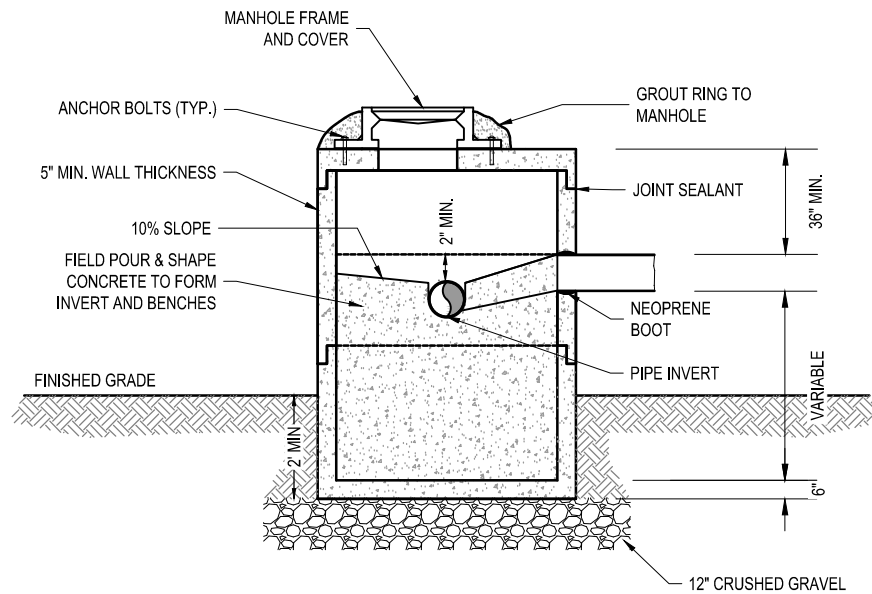
PIPE SIZE	MANHOLE CORE DIAMETER
4"	8"
6"	12"
8"	16"
10"	20"
12"	24"
15"	27"
18"	30"



OUTSIDE DROP MANHOLE - PLAN
Scale: NTS


OCONEE JOINT REGIONAL SEWER AUTHORITY
OUTSIDE DROP MANHOLE

	DATE: 11/2022	DRAWING NO.: D 011
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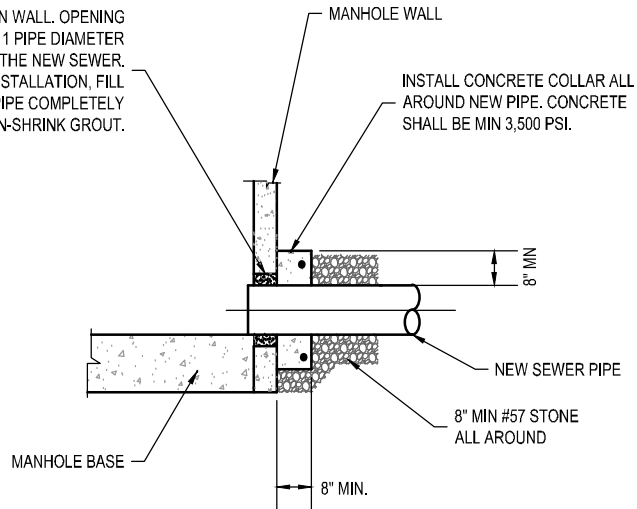


PRECAST MANHOLE FOR AERIAL GRAVITY SEWER DETAIL

Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY PRECAST MANHOLE FOR AERIAL GRAVITY SEWER		
	DATE: 06/2020	DRAWING NO.: D 012
	REVISED:	SCALE: NTS

CORE-DRILL HOLE IN WALL. OPENING TO BE TYPICALLY 1 PIPE DIAMETER LARGER THAN THE NEW SEWER. AFTER PIPE INSTALLATION, FILL VOIDS AROUND PIPE COMPLETELY WITH NON-SHRINK GROUT.

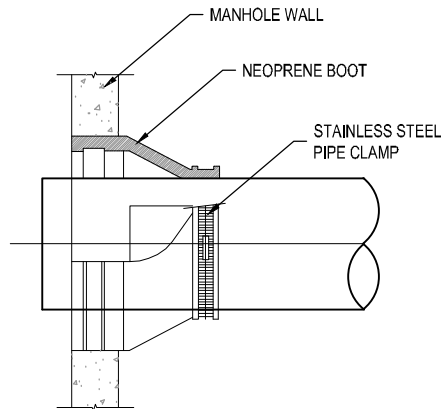


NOTES:

1. REFER TO THIS DETAIL WHEN CONNECTING NEW SEWER PIPES TO EXISTING MANHOLES.
2. THIS DETAIL DEPICTS THE NEW SEWER ENTERING AT THE EXISTING INVERT ELEVATION. THIS WILL NOT BE THE CASE FOR ALL MAIN SEWERS. PROVIDE A SMOOTH TRANSITION AND INVERT CHANNEL FOR ANY INCOMING ELEVATION FOR SEWER LINES ENTERING MANHOLES ON TOP OF THE BENCH. PROVIDE AN INVERT CHANNEL ON THE BENCH, BY GROUTING NEW CHANNEL.

NEW PIPE CONNECTION AT EXISTING MANHOLE

Scale: NTS



NOTES:

1. NEOPRENE BOOTS TO BE PROVIDED FOR ALL PIPE CONNECTIONS TO NEW MANHOLES.

RUBBER BOOT PIPE CONNECTOR FOR NEW MANHOLE

Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY

PIPE CONNECTION AT MANHOLE



DATE:

06/2020

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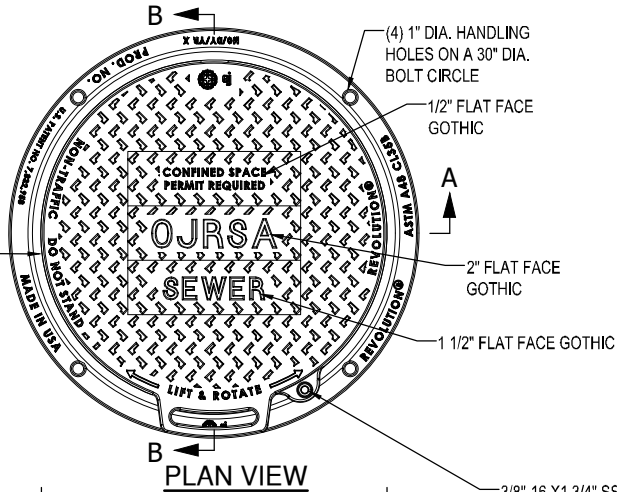
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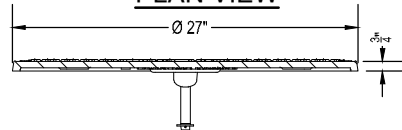
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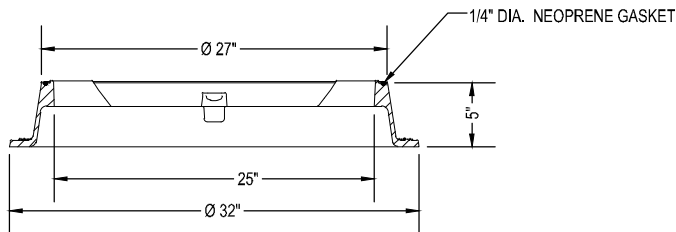
EJ MODEL REVOLUTION
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PLAN VIEW

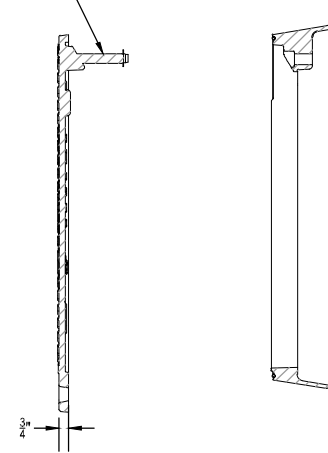


3/8"-16 X 1 3/4" SS HEX BOLT
WITH ZINC WASHER AND NUT
TO BE REPLACED BY
CUSTOMER'S PADLOCK



SECTION A-A

3/4" DIA. STAINLESS
STEEL CAST-IN BAR



SECTION B-B

STANDARD MANHOLE FRAME & COVER MIN. 2' ABOVE GRADE

Scale: NTS

OJRSA JOINT REGIONAL SEWER AUTHORITY

STANDARD MANHOLE FRAME & COVER. MIN. 2' ABOVE GRADE



DATE:

06/2020

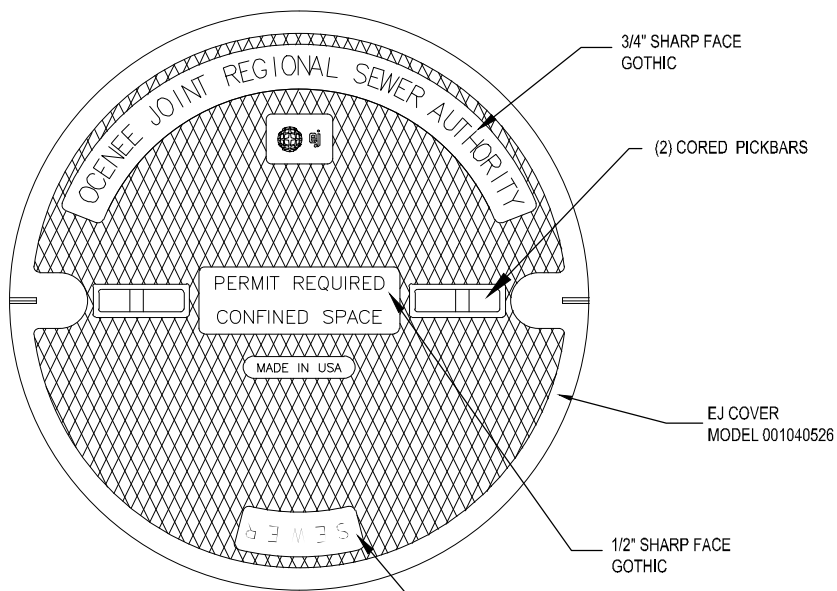
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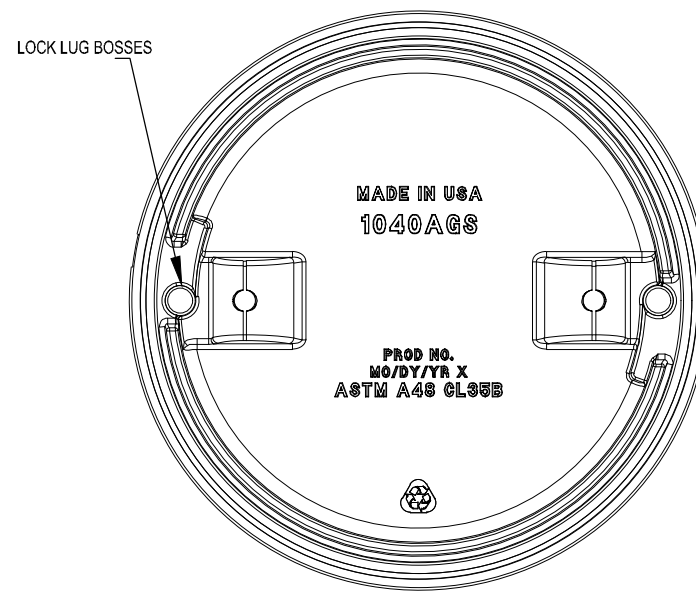
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SCALE:

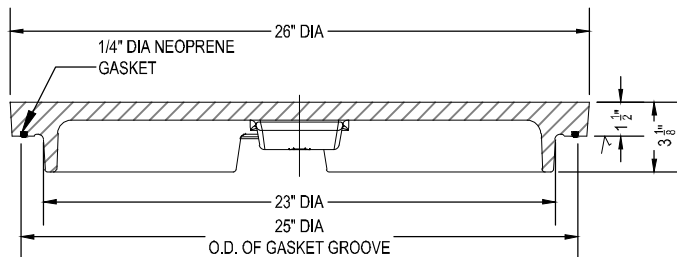
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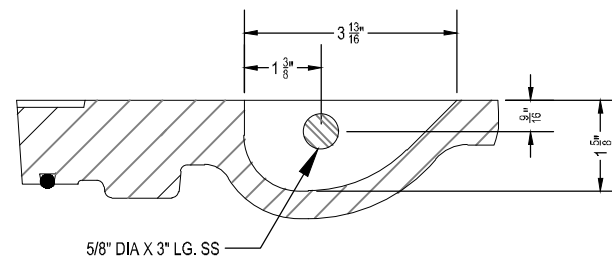
PLAN VIEW



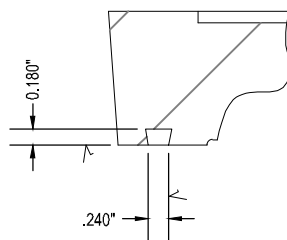
BOTTOM VIEW OF COVER



COVER SECTION




PICKBAR DETAIL

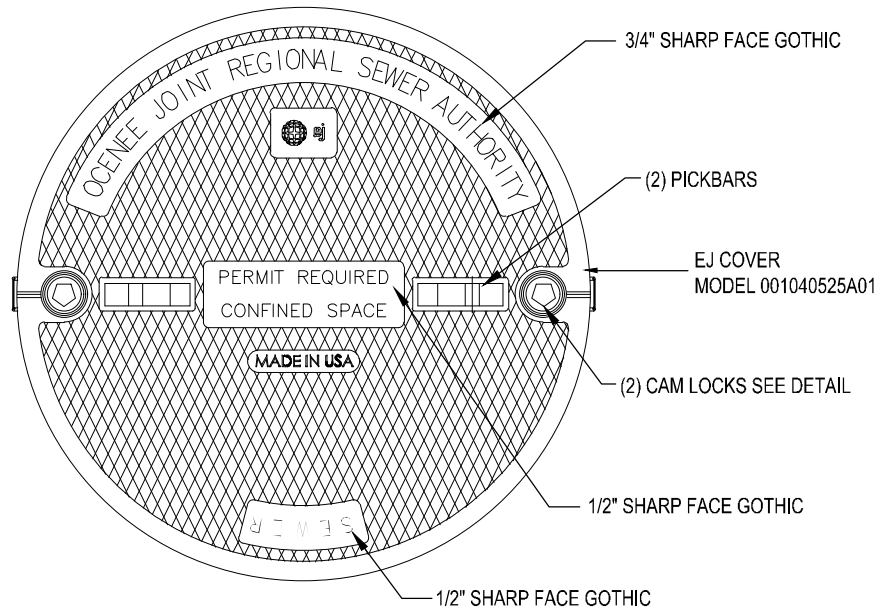


GASKET GROOVE DETAIL

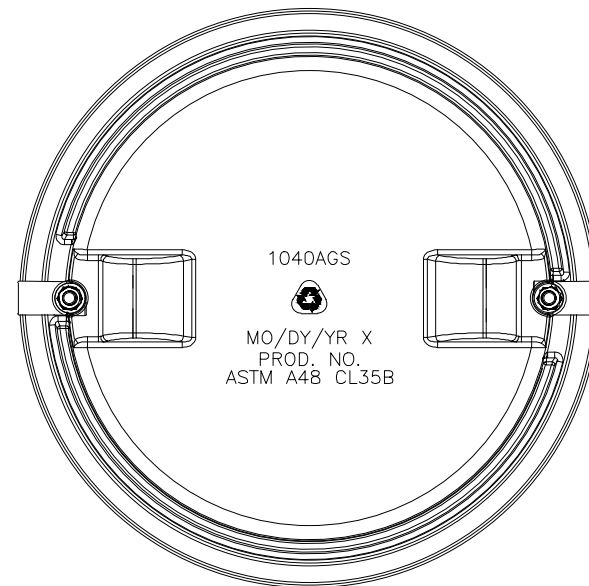
HEAVY DUTY MANHOLE COVER FOR PAVED AREAS

Scale: NTS

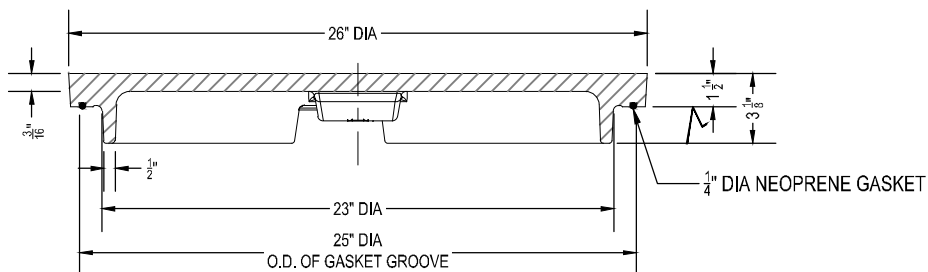
OCONEE JOINT REGIONAL SEWER AUTHORITY HEAVY DUTY MANHOLE COVER FOR PAVED AREAS		
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	06/2020	D 016
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	NTS	



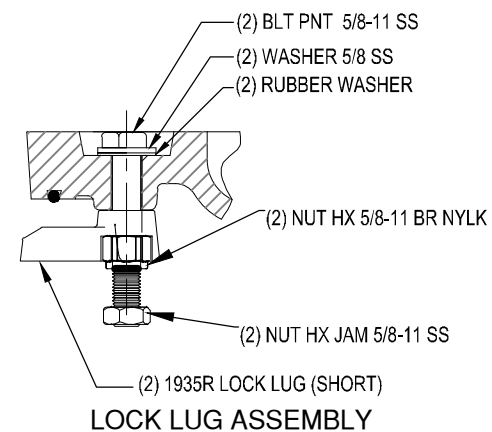
PLAN VIEW



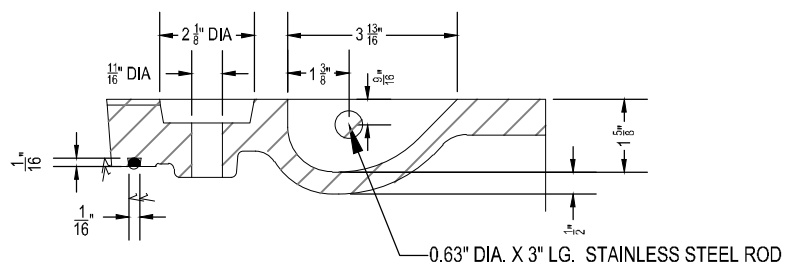
BOTTOM VIEW



SECTION VIEW



LOCK LUG ASSEMBLY



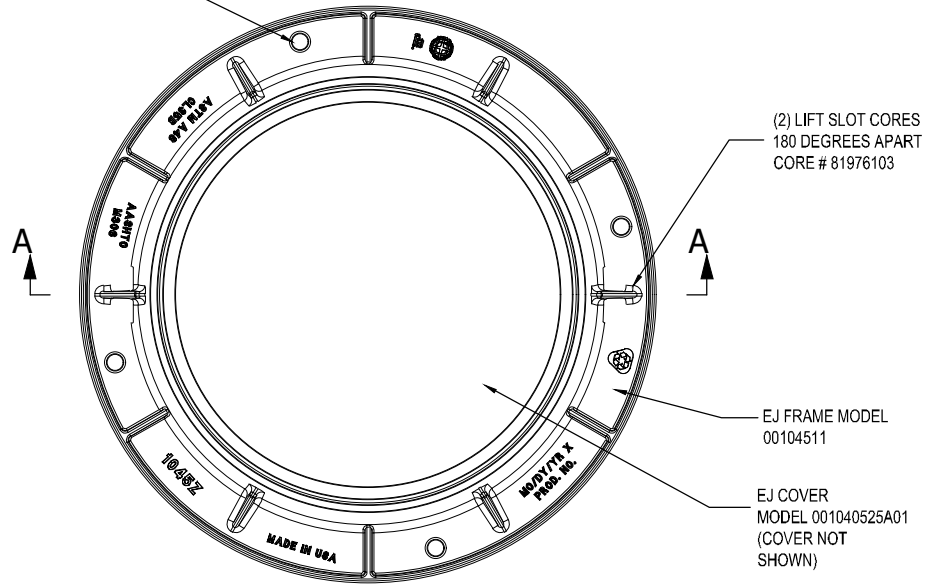
PICKBAR & LOCKLUG HOLE DETAIL

**HEAVY DUTY MANHOLE COVER WITH CAM LOCK FOR NON-PAVED
AREAS LESS THAN 2' ABOVE GROUND**

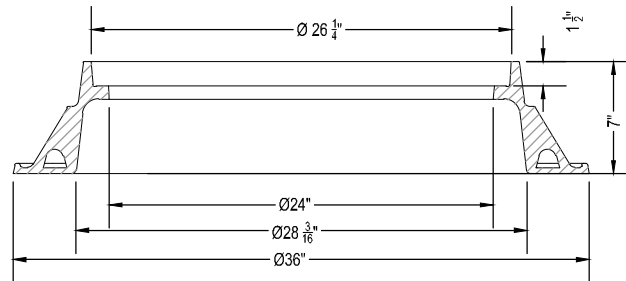
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OCONEE JOINT REGIONAL SEWER AUTHORITY		
HEAVY DUTY MANHOLE COVER WITH CAM LOCK		
	DATE:	DRAWING NO.:
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(4) 1" Ø BOLT HOLES
EQUALLY SPACED
ON A 32 ³/₄" Ø BOLT
CIRCLE



PLAN VIEW



SECTION A-A

**HEAVY DUTY MANHOLE FRAME FOR PAVED AREAS &
MANHOLES LESS THAN 2' ABOVE GRADE** Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY
HEAVY DUTY MANHOLE FRAME

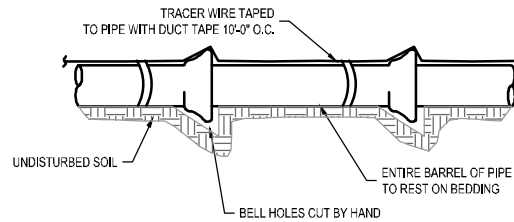
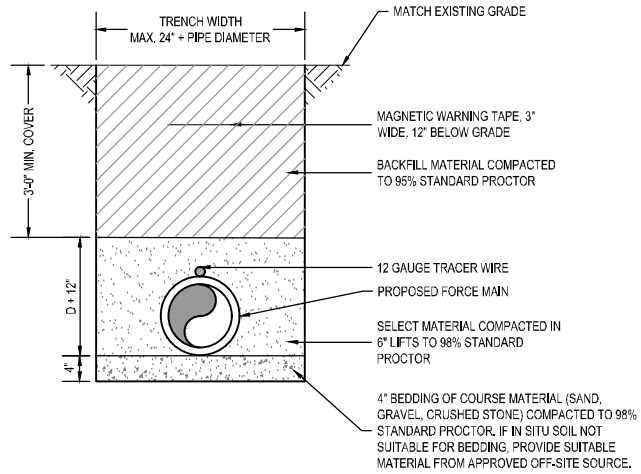


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FORCE MAIN TRENCHING & BEDDING

Scale: NTS

NOTES:

1. REFER TO SCDOT, CITY, OR COUNTY PERMITS FOR ADDITIONAL REQUIREMENTS.
2. IF UNSUITABLE MATERIAL BENEATH FINAL PIPE GRADE IS ENCOUNTERED, SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH CRUSHED STONE AND COMPACTED TO PROPER GRADE.
3. ANY DEBRIS ENCOUNTERED IN THE TRENCH EXCAVATION SHALL BE REMOVED.
4. AT APPURTENANCES, VALVES, OR WHERE PIPE ENTERS STRUCTURES, CONTRACTOR TO BRING TRACER WIRE TO A POINT ABOVE GROUND ELEVATION. LOCATION ABOVE GROUND ELEVATION WILL BE CONSPICUOUS AND EASY TO ACCESS.

OCONEE JOINT REGIONAL SEWER AUTHORITY

FORCE MAIN TRENCHING & BEDDING



DATE:

06/2020

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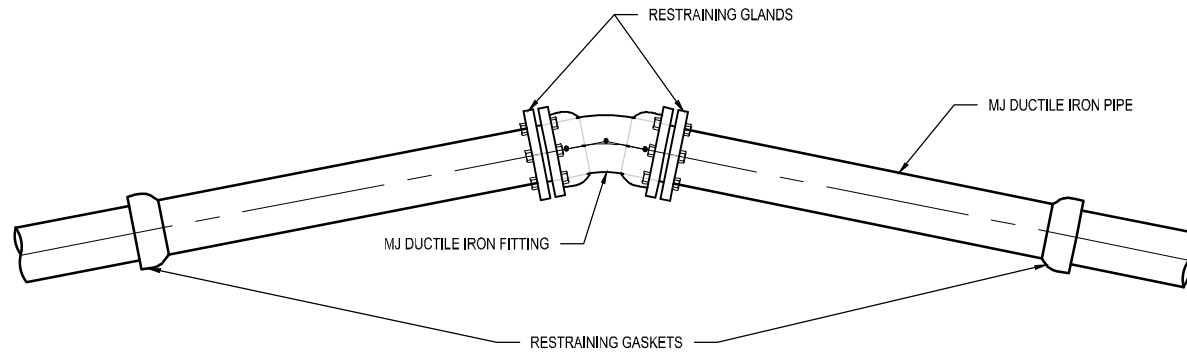
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DIP PIPE RESTRAINT JOINT TABLE							
RESTRAIN ALL JOINTS WITH THESE LENGTHS (IN L.F. EACH SIDE OF FITTING)							
SIZE (INCH)	11 1/2"	22 1/2"	45°	90°	TEE BRANCH	DEAD END	REDUCER
4	1	2	4	10	1	18	6
6	2	3	6	14	3	25	13
8	2	4	8	18	4	33	14
10	3	5	9	21	13	40	14
12	3	5	11	25	13	47	25
16	4	7	14	32	27	61	36
20	4	8	16	39	40	74	47
24	5	9	19	45	27	87	48

* RESTRAINED JOINTS SHALL BE IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) STANDARDS FOR ALL FITTINGS. FITTINGS OF OTHER SIZES, CHANGES IN CONDITIONS, ETC. NOT IN THIS TABLE SHALL BE IN ACCORDANCE WITH DIPRA STANDARDS.

PVC RESTRAINT JOINT TABLE							
RESTRAIN ALL JOINTS WITH THESE LENGTHS (IN L.F. EACH SIDE OF FITTING)							
SIZE (INCH)	11 1/2"	22 1/2"	45°	90°	TEE BRANCH	DEAD END	REDUCER
4	2	3	5	12	1	34	13
6	2	4	7	17	1	47	13
8	3	5	9	22	1	62	24
10	3	6	11	26	1	75	25
12	3	7	13	31	1	89	25
16	4	8	17	40	1	115	36
20	5	10	20	48	11	141	50
24	6	12	23	56	34	166	50

* RESTRAINED JOINTS SHALL BE IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) STANDARDS FOR ALL FITTINGS. FITTINGS OF OTHER SIZES, CHANGES IN CONDITIONS, ETC. NOT IN THIS TABLE SHALL BE IN ACCORDANCE WITH DIPRA STANDARDS.



RESTRAINED JOINT FITTING (HORIZONTAL PIPE ONLY)

Scale: NTS

NOTES:

1. THE FOLLOWING CONDITIONS WERE USED TO CALCULATE THE RESTRAINED LENGTHS SHOWN IN THE TABLE:

- * LAYING CONDITION IS TYPE 4.
- * SOIL DESIGNATED AS SANDY-CLAY.
- * DEPTH IS 3 FT.
- * DESIGN PRESSURE (TEST) IS 150 P.S.I.
- * SAFETY FACTOR IS 1.5.

FOR THE TEE BRANCH AND REDUCER, LENGTHS ARE BASED ON BRANCHING AND REDUCING FROM THE NEXT LARGER SIZE IN THE TABLE. TEE BRANCH LENGTH BASED ON RUN LENGTH TO FIRST JOINT OF 10 FT. DEVIATIONS FROM THESE CONDITIONS MUST BE BASED ON THE ABOVE PARAMETERS.

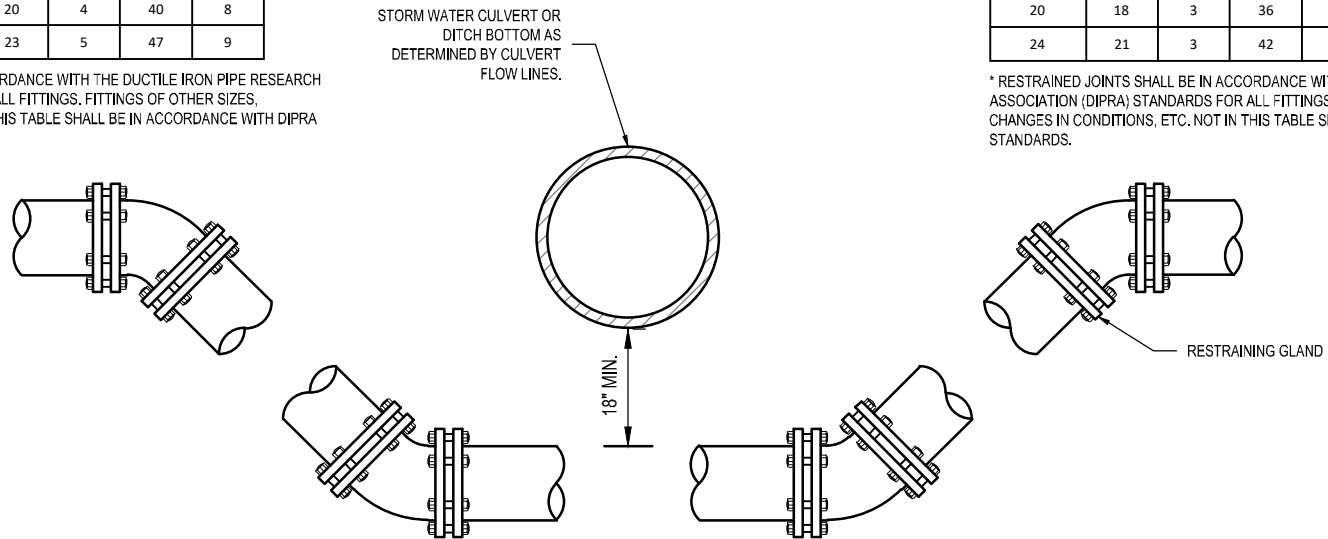
OCONEE JOINT REGIONAL SEWER AUTHORITY		
HORIZONTAL RESTRAINED JOINT FITTING		
	DATE:	DRAWING NO.:
	06/2020	D 020
REVISED:	SCALE:	
	NTS	

DIP VERTICAL RESTRAINT JOINT TABLE						
RESTRAIN ALL JOINTS (UPPER & LOWER) WITH THESE LENGTHS (IN L.F. EACH SIDE OF FITTING)						
SIZE (INCH)	11 1/2"		22 1/2"		45"	
RESTRAINT	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
4	3	1	5	1	10	2
6	4	1	7	2	14	3
8	5	1	9	2	18	4
10	6	1	11	2	22	4
12	6	2	13	3	26	5
16	8	2	16	3	33	7
20	10	3	20	4	40	8
24	12	3	23	5	47	9

* RESTRAINED JOINTS SHALL BE IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) STANDARDS FOR ALL FITTINGS, FITTINGS OF OTHER SIZES, CHANGES IN CONDITIONS, ETC. NOT IN THIS TABLE SHALL BE IN ACCORDANCE WITH DIPRA STANDARDS.

PVC PIPE VERTICAL RESTRAINT JOINT TABLE						
RESTRAIN ALL JOINTS (UPPER & LOWER) WITH THESE LENGTHS (IN L.F. EACH SIDE OF FITTING)						
SIZE (INCH)	11 1/2"		22 1/2"		45"	
RESTRAINT	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER
4	5	1	9	2	18	3
6	6	2	13	2	26	4
8	8	2	16	2	34	4
10	10	2	20	3	40	5
12	12	3	23	3	47	6
16	15	3	30	4	61	8
20	18	3	36	5	74	10
24	21	3	42	6	87	11

* RESTRAINED JOINTS SHALL BE IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) STANDARDS FOR ALL FITTINGS, FITTINGS OF OTHER SIZES, CHANGES IN CONDITIONS, ETC. NOT IN THIS TABLE SHALL BE IN ACCORDANCE WITH DIPRA STANDARDS.



RESTRAINED JOINT FITTING (VERTICAL PIPE ONLY)


Scale: NTS

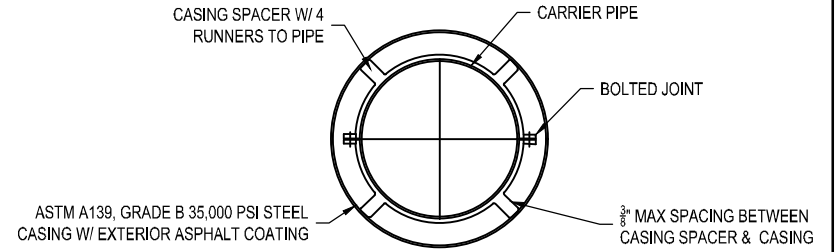
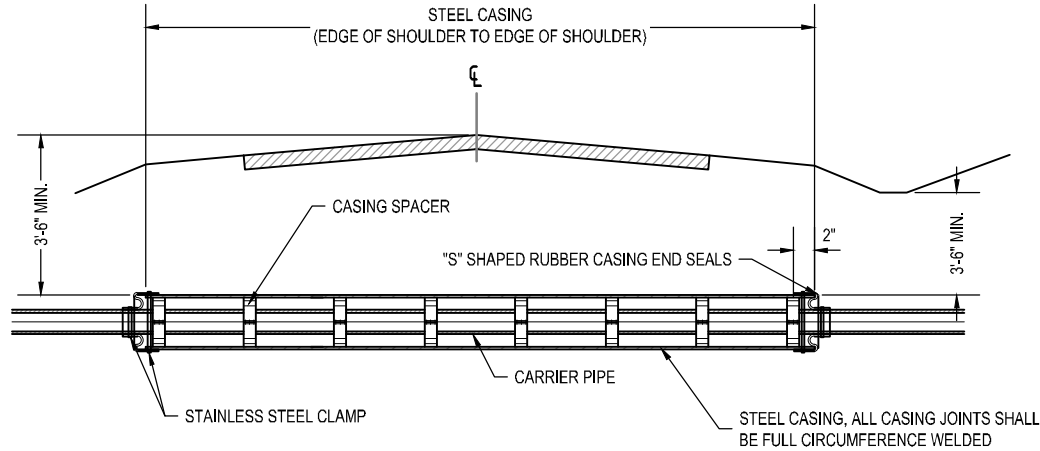
NOTES:

1. THE FOLLOWING CONDITIONS WERE USED TO CALCULATE THE RESTRAINED LENGTHS SHOWN IN THE TABLE:

- * LAYING CONDITION IS TYPE 4.
- * SOIL DESIGNATED AS SANDY-CLAY.
- * DEPTH IS 3 FT.
- * DESIGN PRESSURE (TEST) IS 150 P.S.I.
- * SAFETY FACTOR IS 1.5.

FOR THE TEE BRANCH AND REDUCER, LENGTHS ARE BASED ON BRANCHING AND REDUCING FROM THE NEXT LARGER SIZE IN THE TABLE. TEE BRANCH LENGTH BASED ON RUN LENGTH TO FIRST JOINT OF 10 FT. DEVIATIONS FROM THESE CONDITIONS MUST BE BASED ON THE ABOVE PARAMETERS.

OCONEE JOINT REGIONAL SEWER AUTHORITY		
VERTICAL RESTRAINED JOINT FITTING		
	DATE:	DRAWING NO.:
	06/2020	D 021
REVISED:	SCALE:	
	NTS	



SECTION

Scale: NTS

NOTES:

1. STAINLESS STEEL CASING SPACERS SHALL BE CASCADE CCS MODEL OR EQUAL, SPACED ALONG THE PIPE AT 10'-0" OC.
2. RUBBER CASING END SEALS SHALL BE "TYPE KG" WITH 316 STAINLESS STEEL BANDS. INSULATORS, END SEALS AND BANDS SHALL BE MANUFACTURED BY: PIPELINE SEAL AND INSULATOR, INC. HOUSTON, TEXAS 77021 OR APPROVED EQUAL.

PIPE CASING UNDER PAVED AREAS

Scale: NTS

CARRIER PIPE	CASING PIPE	
	DIA.	WALL
36" DIP	48"	0.688"
30" DIP	42"	0.625"
24" DIP	36"	0.532"
20" DIP	36"	0.532"
18" DIP	30"	0.469"
16" DIP	30"	0.469"
12" DIP	24"	0.375"
10" DIP	20"	0.344"
8" DIP	20"	0.344"
6" DIP	16"	0.281"

OCONEE JOINT REGIONAL SEWER AUTHORITY

PIPE CASING UNDER PAVED AREAS



DATE:
06/2020

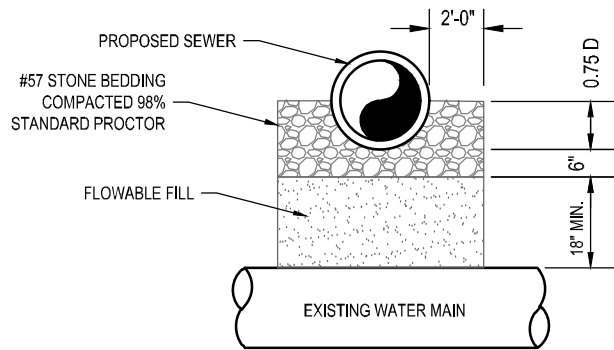
DRAWING NO.:
D 022

REVISED:

SCALE:
NTS

NOTES FOR SEWER OVER WATER MAIN:

1. INSTALL A FULL JOINT OF PIPE FOR WHICHEVER MAIN IS LAID SECOND. IT IS TO BE CENTERED AT CROSSING.
2. IF THE WATER IS EXISTING AND THE MINIMUM CLEARANCE IS NOT MET, THE SEWER SHALL BE DUCTILE IRON PIPE. PROVIDE RESTRAINED JOINT FITTINGS WHEN TRANSITIONING FROM DIP TO PVC. PLACE FLOWABLE FILL BETWEEN TOP OF WATER MAIN AND BOTTOM OF SEWER.
3. IF THE SEWER IS EXISTING, THE WATER MAIN SHALL MEET THE MINIMUM CLEARANCE.

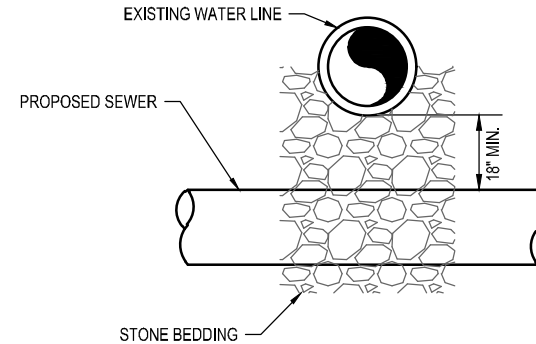


SEWER CROSSING ABOVE WATER MAIN

Scale: NTS

NOTES FOR SEWER UNDER WATER MAIN:

1. REPLACE SOIL UNDER THE WATER MAIN WITH STONE BEDDING.
2. IF CLEARANCE IS LESS THAN 18" DUCTILE IRON SHALL BE USED. PROVIDE RESTRAINED JOINT FITTINGS WHEN TRANSITIONING FROM DIP TO PVC. PLACE STONE BETWEEN TOP OF SEWER AND BOTTOM OF WATER MAIN.
3. INSTALL A FULL LENGTH OF PIPE FOR WHICHEVER MAIN IS LAID SECOND. IT IS TO BE CENTERED AT CROSSING.



SEWER CROSSING UNDER WATER MAIN

Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY

SEWER LINE CROSSING WATER LINE



DATE:

06/2020

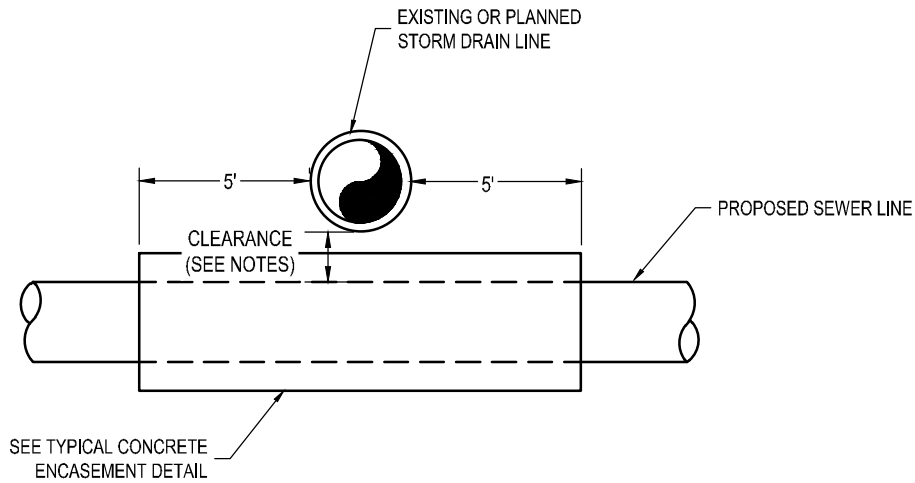
DRAWING NO.:

D 023

REVISED:

SCALE:

NTS



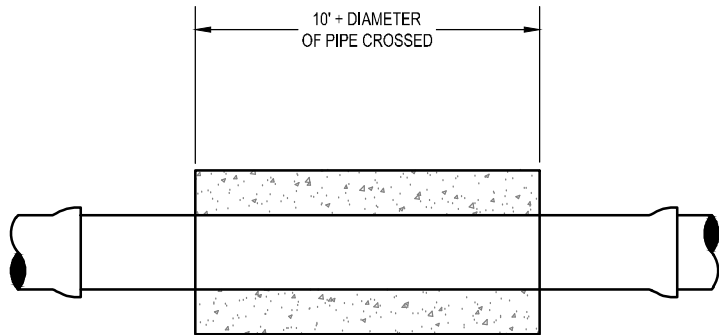
NOTES:

1. USE DUCTILE IRON IF CLEARANCE IS LESS THAN 18". CENTER FULL JOINT OF PIPE ON STORM DRAIN LINE. PROVIDE RESTRAINED JOINT FITTINGS WHEN TRANSITIONING FROM DIP TO PVC.
2. IF CLEARANCE IS LESS THAN 18", USE CONCRETE ENCASEMENT ON PIPE. USE POLYWRAP ON DUCTILE IRON PIPE PRIOR TO POURING CONCRETE.
3. WHERE SEWER LINE CROSSES ABOVE A STORM DRAINAGE PIPE OR STRUCTURE WITH LESS THAN 18" VERTICAL SEPARATION, USE DUCTILE IRON PIPE.

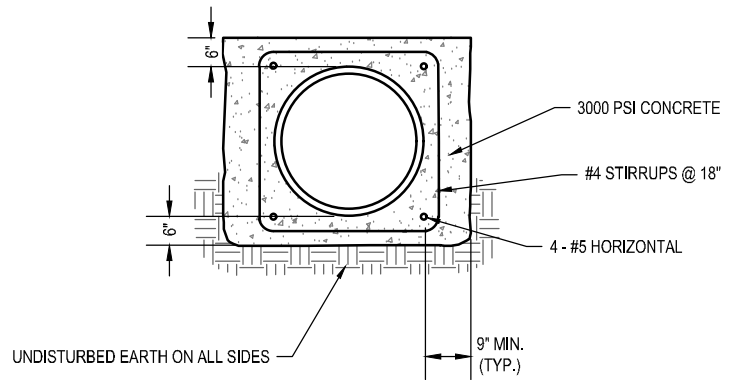
SEWER LINE CROSSING UNDER STORM DRAINAGE

Scale: NTS

<p>OCONEE JOINT REGIONAL SEWER AUTHORITY</p> <p>SEWER LINE CROSSING STORM DRAINAGE</p>		
	<p>DATE:</p> <p style="text-align: center;">06/2020</p>	<p>DRAWING NO.:</p> <p style="text-align: center;">D 024</p>
	<p>REVISED:</p>	<p>SCALE:</p> <p style="text-align: center;">NTS</p>




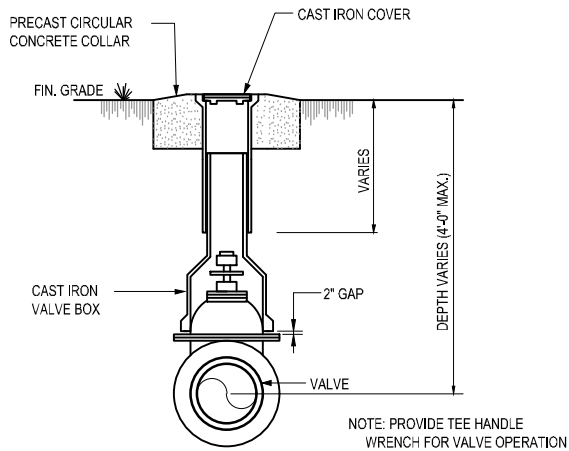
PROFILE



SECTION

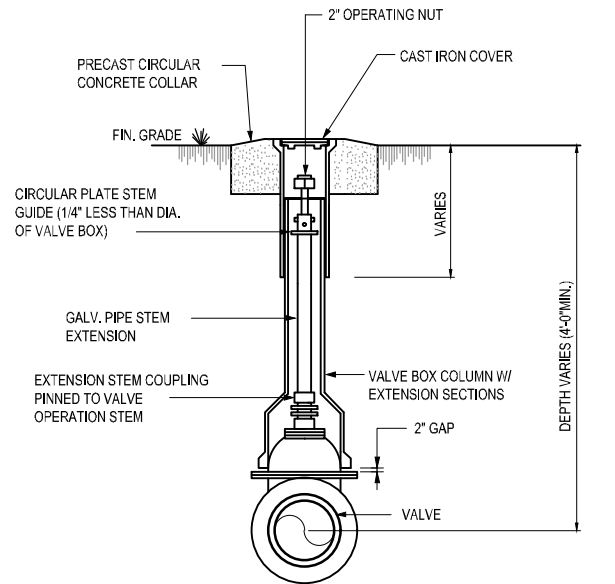
TYPICAL CONCRETE ENCASEMENT
Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY		
CONCRETE ENCASEMENT		
	DATE:	DRAWING NO.:
	06/2020	D 025
	REVISED:	SCALE:
		NTS



NOTE: VALVES SHALL BE MECHANICAL JOINT WITH MEGALUG RESTRAINTS

VALVE BOX - DEPTH - LESS THAN 4'-0"




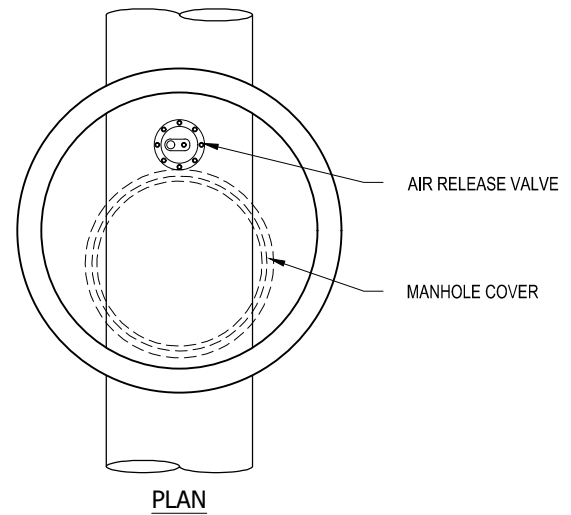
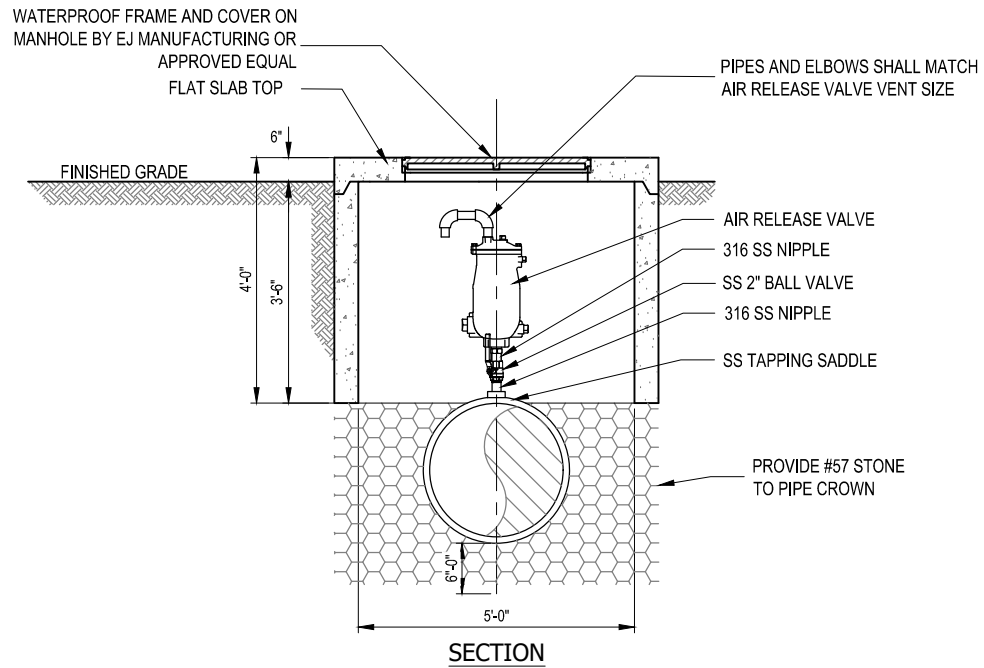
NOTE: VALVES SHALL BE MECHANICAL JOINT WITH MEGALUG RESTRAINTS

VALVE BOX - GREATER THAN 4'-0"


DETAIL - VALVE BOX INSTALLATION

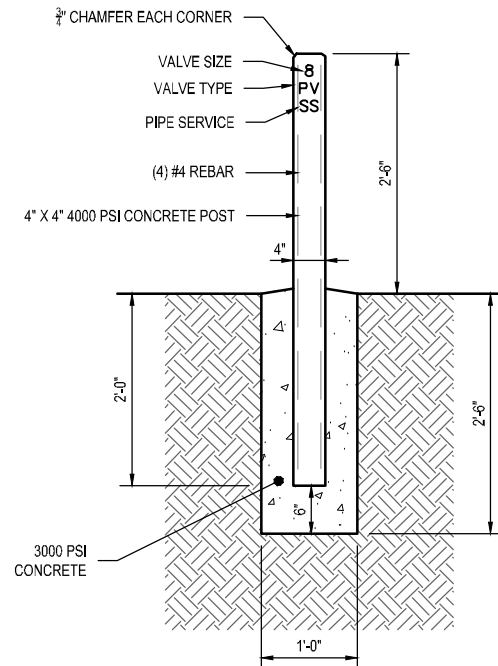
Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY		
VALVE BOX		
	DATE:	DRAWING NO.:
	06/2020	D 026
	REVISED:	SCALE:
		NTS



AIR RELEASE VALVE
Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY		
AIR RELEASE VALVE		
	DATE:	DRAWING NO.:
	03/2022	D 027
	REVISED:	SCALE:
		NTS



VALVE KEY
 AV - AIR RELEASE VALVE
 CV - CHECK VALVE
 PV - PLUG VALVE
 TV - TAPPING VALVE
 BLANK - PIPE LINE MARKER


PIPE SERVICE KEY
 SS - SANITARY SEWER

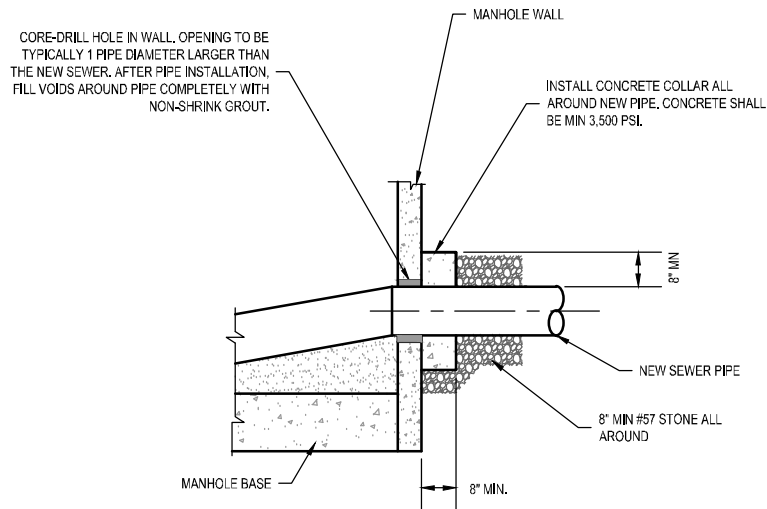
COLOR KEY
 GREEN - SANITARY SEWER

NOTE:
 1. MARKERS ARE REQUIRED AT EACH VALVE AND AT EVERY 1,000 FEET (MAX) ALONG PIPE LINE AND AT EVERY DIRECTIONAL CHANGE, UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

V
N

PIPELINE & VALVE MARKER
 Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY		
PIPELINE & VALVE MARKER		
	DATE:	DRAWING NO.:
	06/2020	D 028
REVISED:	SCALE:	
	NTS	

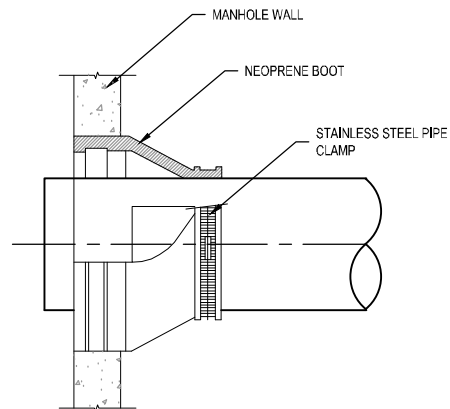


NOTES:

1. REFER TO THIS DETAIL WHEN CONNECTING NEW SEWER FORCE MAIN TO EXISTING MANHOLES.
2. PROVIDE A SMOOTH TRANSITION AND INVERT CHANNEL FOR ANY INCOMING ELEVATION, FOR SEWER FORCE MAINS ENTERING MANHOLES ON TOP OF THE BENCH, PROVIDE AN INVERT CHANNEL ON THE BENCH BY GROUTING NEW CHANNEL.
3. FORCE MAIN CONNECTION TO EXISTING MANHOLE SHALL INCLUDE COATING MANHOLE WITH MAINSTAY SOLIDS EPOXY.
4. FORCE MAIN CONNECTIONS TO NEW MANHOLES SHALL BE POLYMER CONCRETE MANHOLES.


NEW FORCE MAIN CONNECTION AT EXISTING MANHOLE

Scale: NTS



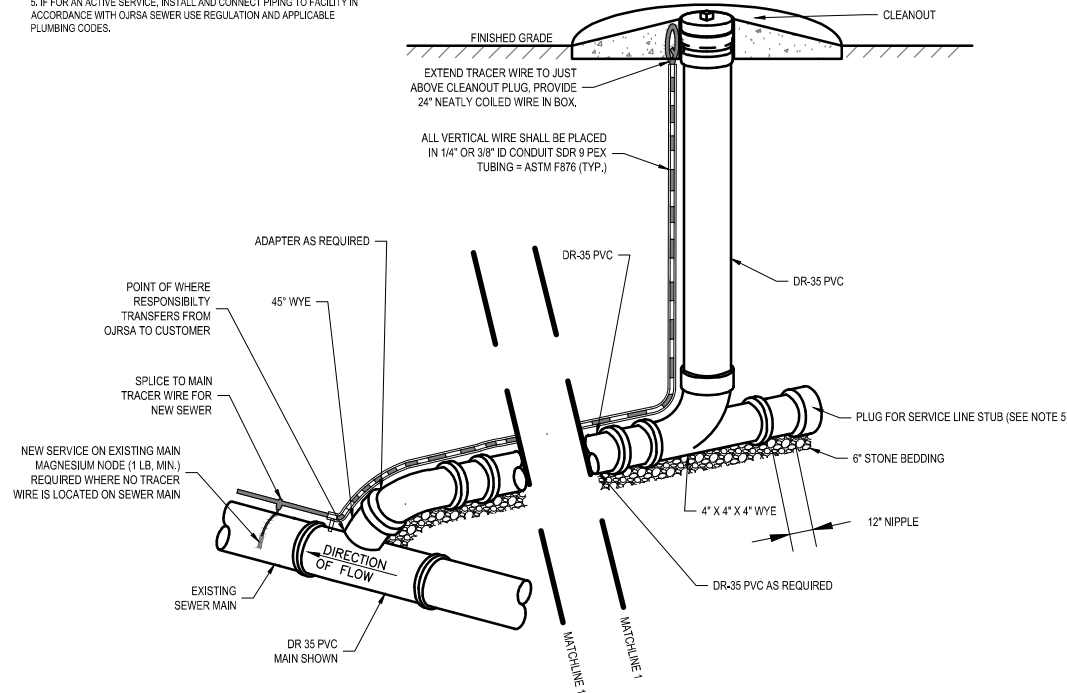
RUBBER BOOT PIPE CONNECTOR FOR NEW MANHOLE

Scale: NTS

<p>OCONEE JOINT REGIONAL SEWER AUTHORITY</p> <p>FORCE MAIN CONNECTION AT MANHOLE</p>		
	DATE:	DRAWING NO.:
	06/2020	D 029
	REVISED:	SCALE:
		NTS

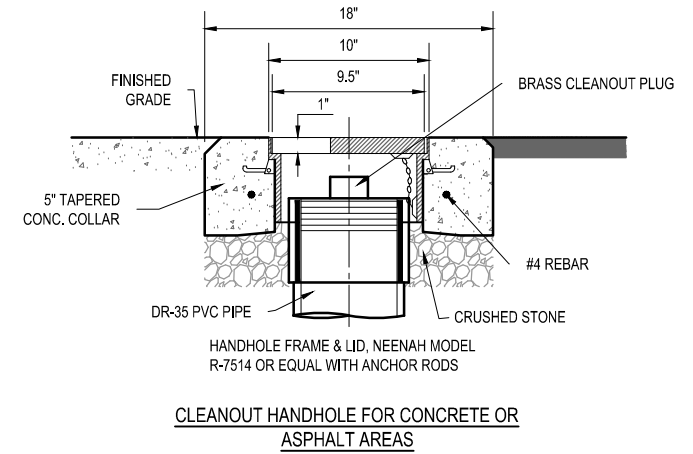
NOTES:

1. OJRSA NOT RESPONSIBLE FOR OPERATION AND MAINTENANCE BEYOND THE CLEANOUT WYE.
2. DETAIL APPLIES ONLY TO 4-INCH AND 6-INCH CONNECTIONS PER OJRSA DEVELOPMENT POLICY.
3. CLEANOUT IS TO BE INSTALLED AT THE EDGE OF OJRSA SCOOT, OR OTHER EASEMENT AS APPROPRIATE, CONTACT OJRSA AT 864-972-3900 FOR INFORMATION.
4. THE OJRSA WILL PERFORM AN INSPECTION OF THE TAP AND CLEANOUT INSTALLATION AT THE TIME THE WORK IS PERFORMED. THIS WILL NEED TO BE SCHEDULED NO SOONER THAN 48 HOURS IN ADVANCE OF WHEN THE TAP IS TO BE MADE BY CALLING OJRSA AT 864-972-3900.
5. IF FOR AN ACTIVE SERVICE, INSTALL AND CONNECT PIPING TO FACILITY IN ACCORDANCE WITH OJRSA SEWER USE REGULATION AND APPLICABLE PLUMBING CODES.

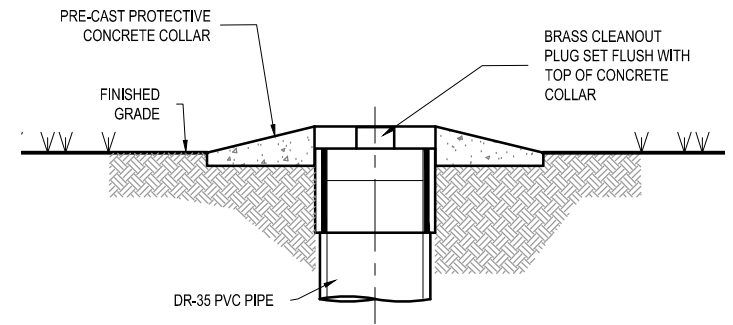


TYPICAL SEWER SERVICE LATERAL

Scale: NTS



CLEANOUT HANDHOLE FOR CONCRETE OR ASPHALT AREAS




CLEANOUT HANDHOLE FOR GRASSY AREAS

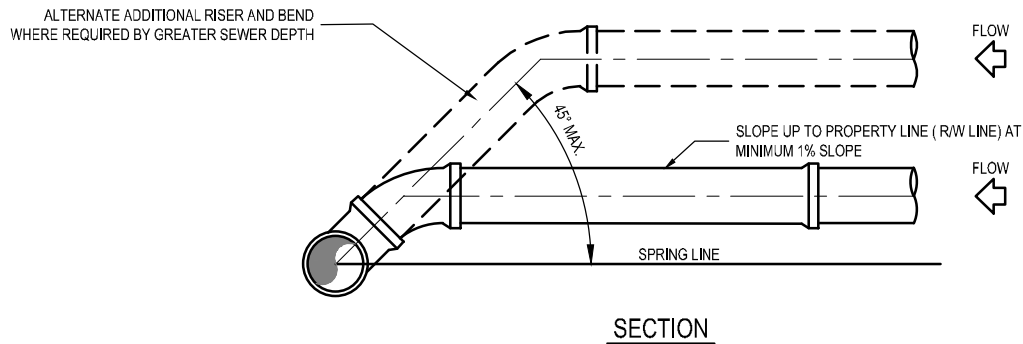
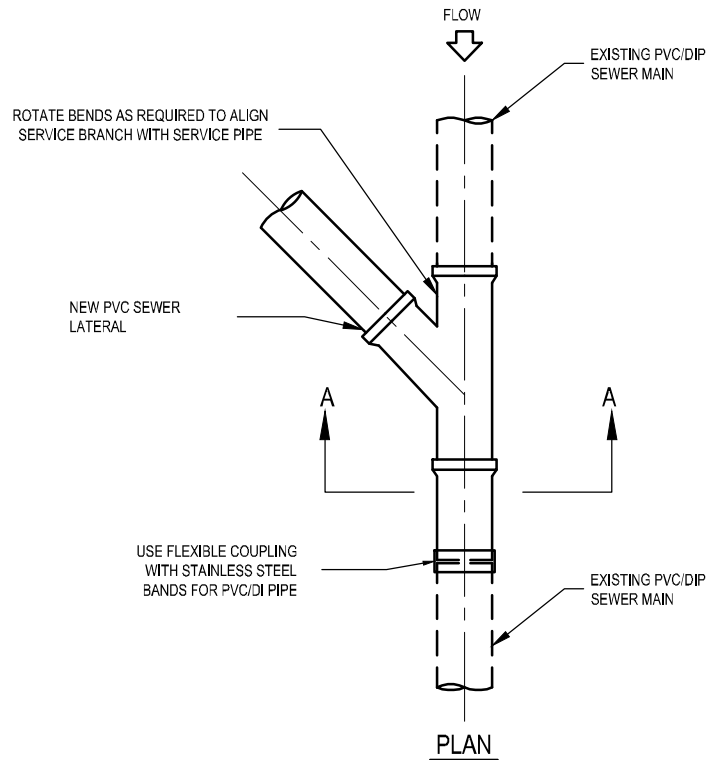
SEWER CLEANOUT

Scale: NTS

OJRSA JOINT REGIONAL SEWER AUTHORITY

SEWER LATERAL AND CLEAN OUT

	DATE:	DRAWING NO.:
	11/2022	D 030
REVISED:	SCALE:	NTS



1. SERVICE CONNECTIONS SHALL USE 4" OR 6" DR 35 PVC PIPE AND FITTINGS.
2. SERVICE CONNECTIONS BELOW 12 FEET DEPTH SHALL BE C-900 PVC PIPE AND FITTINGS UNTIL SERVICE IS LESS THAN 12 FEET DEEP.
3. USE RISER CONNECTIONS WHERE INVERT OF SEWER IS MORE THAN 7'-0" DEEP.
4. WHERE BELL OF WYE AND SPIGOT OF EXISTING MAIN ARE NOT COMPATIBLE, USE A SECOND FLEXIBLE COUPLING.
5. RIGID COUPLINGS MAY BE USED IN LIEU OF FLEXIBLE COUPLINGS.
6. MAINTAIN 36" MINIMUM COVER FROM TOP OF SERVICE TO FINISH GRADE. WHERE NOT TECHNICALLY FEASIBLE CONTACT OJRSA.
7. PVC SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH MINIMUM STANDARDS OF THE UNI-BELL HANDBOOK OF PVC PIPE DESIGN AND CONSTRUCTION, LATEST EDITION.

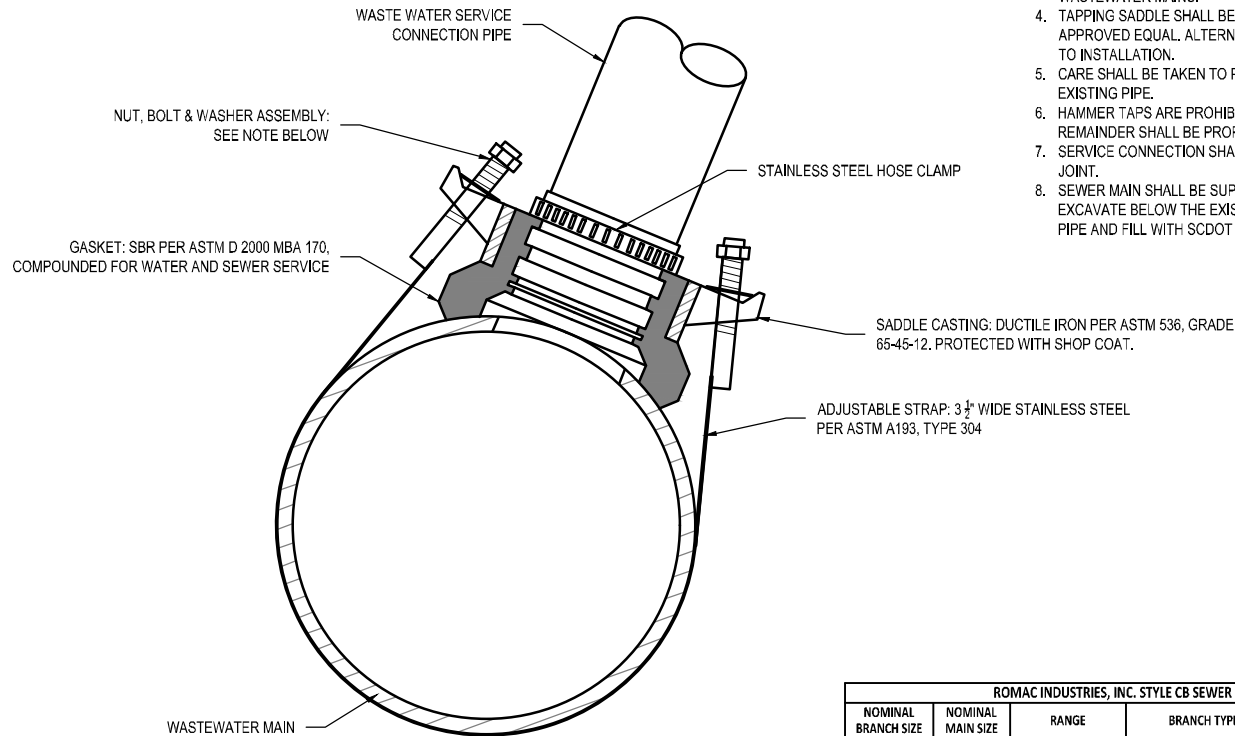
SEWER LATERAL ON EXISTING GRAVITY SEWER
Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY

SEWER LATERAL ON EXISTING GRAVITY SEWER



DATE: 06/2020	DRAWING NO.: D 031
REVISED:	SCALE: NTS



NOTE:


1. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH OJRSA SPECIFICATIONS.
2. ALL SERVICE CONNECTIONS SHALL BE INSPECTED BY OJRSA INSPECTOR.
3. THE APPLICATION SHOWN HERE IS ONLY FOR TAPPING EXISTING LIVE WASTEWATER MAINS.
4. TAPPING SADDLE SHALL BE ROMAC INDUSTRIES TYPE CB SEWER SADDLE OR APPROVED EQUAL. ALTERNATIVES SHALL BE PRE-APPROVED BY OJRSA PRIOR TO INSTALLATION.
5. CARE SHALL BE TAKEN TO PROHIBIT NEW CONNECTION FROM ENTERING INTO EXISTING PIPE.
6. HAMMER TAPS ARE PROHIBITED. EXISTING PIPE SHALL BE CORED AND REMAINDER SHALL BE PROPERLY DISPOSED.
7. SERVICE CONNECTION SHALL BE MADE NO LESS THAN 2 FEET FROM A PIPE JOINT.
8. SEWER MAIN SHALL BE SUPPORTED DURING THE WORK AS NECESSARY. EXCAVATE BELOW THE EXISTING MAIN A MINIMUM OF 6 INCHES BELOW THE PIPE AND FILL WITH SCDOT #57 STONE.

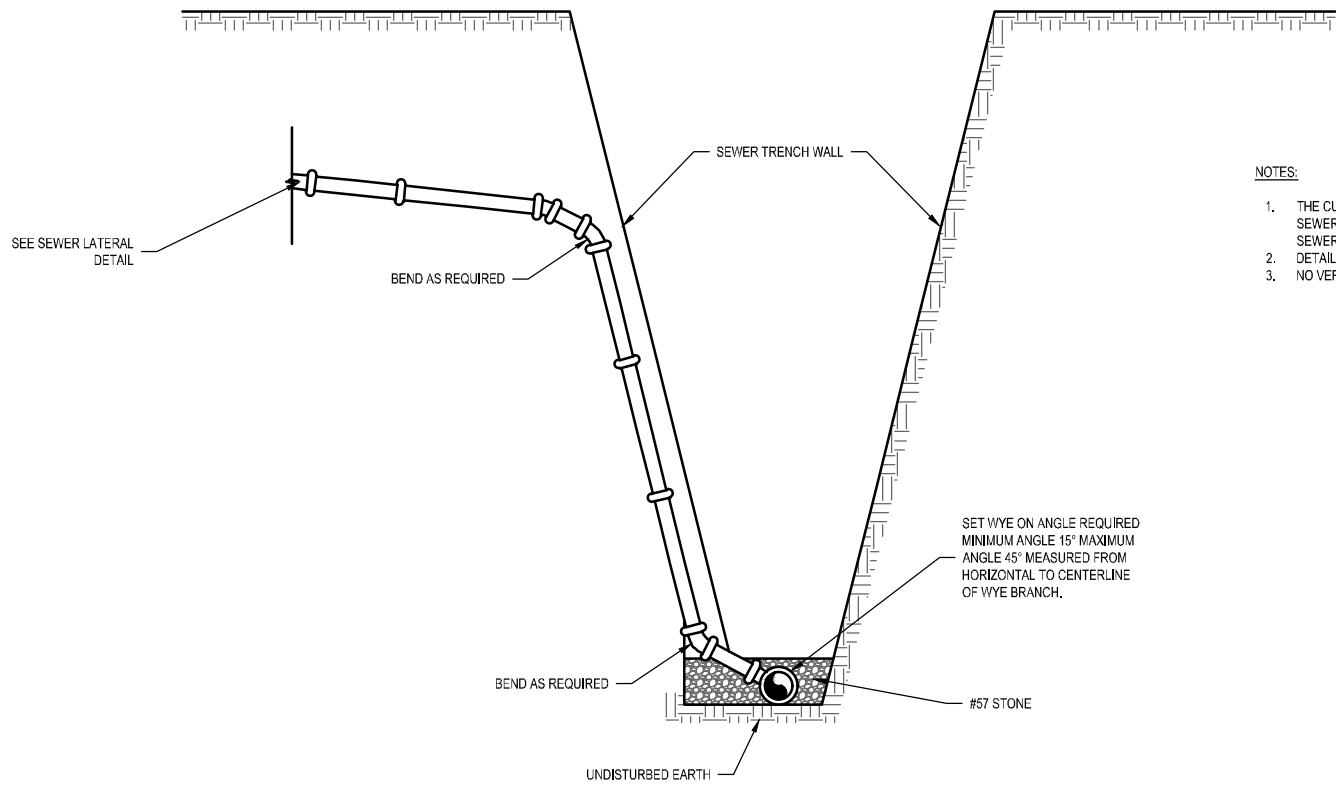
NUT, BOLT & WASHER ASSEMBLY:
 NUTS TO BE STAINLESS STEEL PER ASTM A 194, TYPE 304. BOLTS TO BE 3/8" UNC ROLLED TREAD, LUBRICANT COATED, STAINLESS STEEL PER ASTM A 193, TYPE 304. WASHERS TO BE STAINLESS STEEL PER ASTM A 240, TYPE 304 AND PLASTIC LUBRICATING WASHERS.

ROMAC INDUSTRIES, INC. STYLE CB SEWER SADDLE 1-800-426-9341					
NOMINAL BRANCH SIZE	NOMINAL MAIN SIZE	RANGE	BRANCH TYPE	BRANCH O.D.	CATALOG NUMBER
4"	6"-12" {48" STRAP}	6.27 - 14.40 {REGULAR GASKET}	UNIVERSAL {PVC SDR 35 & SCH. 40}	4.20 - 4.63	CB-4.63UN
			DUCTILE IRON PIPE	4.80	CB-4.80
	14"-24" {96" STRAP}	14.40 - 25.80 {LARGE O.D. GASKET}	UNIVERSAL {PVC SDR 35 & SCH. 40}	4.20 - 4.63	CB-4.63UNLS
			DUCTILE IRON PIPE	4.80	CB-4.80LS
6"	8"-12" {48" STRAP}	8.00 - 14.40 {REGULAR GASKET}	UNIVERSAL {PVC SDR 35 & SCH. 40}	6.27 - 6.66	CB-6.66UN
			DUCTILE IRON PIPE	6.90	CB-6.90LS
	14"-24" {96" STRAP}	14.40 - 25.80 {LARGE O.D. GASKET}	UNIVERSAL {PVC SDR 35 & SCH. 40}	6.277 - 6.66	CB-6.66UNLS
			DUCTILE IRON PIPE	6.90	CB-6.90LS

SADDLE CONNECTION FOR LIVE WASTEWATER MAINS

Scale: NTS


OCONEE JOINT REGIONAL SEWER AUTHORITY		
SADDLE CONNECTION FOR LIVE WASTEWATER MAINS		
	DATE: 06/2020	DRAWING NO.: D 032
	REVISED: 06/2021	SCALE: NTS



NOTES:

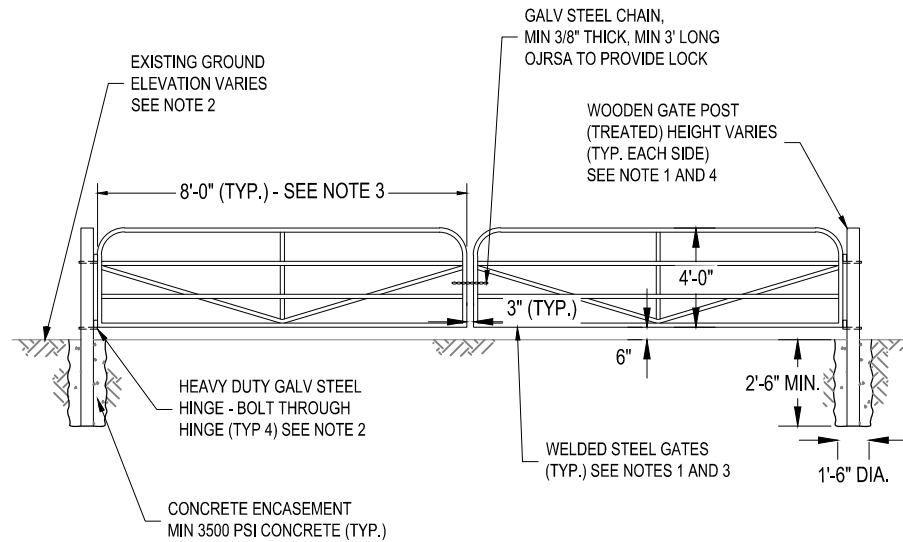
1. THE CUSTOMER SHALL OWN AND BE RESPONSIBLE FOR THE SEWER LATERAL FROM THE POINT OF CONNECTION WITH THE SEWER MAIN.
2. DETAIL APPLIES TO SEWER OVER 12' DEEP TO INVERT.
3. NO VERTICAL STACKING WILL BE ALLOWED.

DEEP SEWER SERVICE LINE
Scale: NTS

<p>OCONEE JOINT REGIONAL SEWER AUTHORITY</p> <p>DEEP SEWER SERVICE LINE</p>		
	<p>DATE:</p> <p style="text-align: center;">06/2020</p>	<p>DRAWING NO.:</p> <p style="text-align: center;">D 033</p>
	<p>REVISED:</p>	<p>SCALE:</p> <p style="text-align: center;">NTS</p>

NOTES:

1. DOUBLE STEEL GATES WILL BE REQUIRED UNDER A VARIETY OF CIRCUMSTANCES AND SITUATIONS TO PROVIDE ACCESS TO SEWERS AND TO PREVENT UNAUTHORIZED PERSONNEL FROM ACCESSING THE SEWERS AND RIGHT-OF-WAY. OJRSA AND / OR THE INDIVIDUAL PROPERTY OWNER SHALL APPROVE THE LOCATION OF ALL GATES. GATES MAY BE INSTALLED IN AN EXISTING FENCE OR OVER NEW SEWER RIGHT-OF-WAY WHERE NO FENCE CURRENTLY EXISTS. WHEN INSTALLING GATES IN AN EXISTING FENCE, THE CONTRACTOR SHALL NEATLY CUT THE EXISTING FENCE AND CONNECT THE FENCE TO THE NEW GATE POSTS IN A MANNER APPROVED BY OJRSA. THE CONNECTION SHALL BE SECURE AND PERMANENT. EXISTING FENCES MAY BE WIRE, BARBED WIRE, WOOD, OR A COMBINATION OF SUCH. WHEN INSTALLING A GATE OVER A NEW SEWER RIGHT-OF-WAY, THE GATE WILL BE TYPICALLY CENTERED OVER RIGHT-OF-WAY. THE CONTRACTOR WILL BE REQUIRED TO INSTALL NEW FENCE ON EACH SIDE OF GATE TO A LOCATION DETERMINED BY OJRSA TO BLOCK USE OF THE RIGHT-OF-WAY BY UNAUTHORIZED VEHICLES. THE EXTENT OF THE NEW FENCE WILL VARY WITH EACH INSTALLATION. THE NEW FENCE MATERIAL WILL BE DETERMINED BY OJRSA BASED ON EACH INSTALLATION AND / OR DESIRES OF PROPERTY OWNERS. FENCE MAY WIRE, BARBED WIRE, WOOD OR A COMBINATION OF SUCH. NEW FENCE POSTS SHALL BE 6"X6" TREATED WOOD POSTS OR APPROVED EQUAL INSTALLED AND ANCHORED AS SPECIFIED FOR THE GATE POSTS.
2. GROUND ELEVATIONS WILL VARY AND WILL TYPICALLY NOT BE LEVEL. CONTRACTOR TO ADJUST GATE ELEVATION AND HINGE LOCATIONS TO ACCOMMODATE THE EXISTING GROUND ELEVATIONS TO PROVIDE 6" OF CLEARANCE. DOUBLE GATE INSTALLATION MAY BE REQUIRED IN MANY SITUATIONS DUE TO SIGNIFICANT GROUND ELEVATION CHANGES AT THE GATE.
3. GATES TO BE FABRICATED FROM 1-1/2" DIA MIN HIGH-STRENGTH STEEL TUBING WITH ALL WELDED JOINTS. GATES TO BE SAND-BLASTED AND PRIME COATED AT FACTORY AND FINISH COATED AFTER INSTALLATION. COLOR SHALL BE STANDARD PRIMER RED. EACH GATE TO BE 8'-0" WIDE UNLESS OTHERWISE APPROVED BY OJRSA.
4. WOODEN GATE POSTS TO BE 6" NOM X 6" NOM TREATED POSTS OR APPROVED EQUAL. THE HEIGHT OF POSTS WILL VARY WITH EACH INSTALLATION BUT SHOULD BE AT LEAST EQUAL TO THE TOP OF THE GATE UNLESS OTHERWISE APPROVED BY OJRSA. WHEN DETERING THE HEIGHT OF THE GATE POSTS, CONSIDERATION MUST BE GIVEN TO THE EXISTING GROUND ELEVATIONS, THE LOCATIONS AND ELEVATIONS OF EXISTING OR NEW FENCES THAT WILL CONNECT TO THE GATE POSTS, AND PROPERTY OWNER CONCERNS. THE HEIGHT OF THE POSTS SHALL BE APPROVED BY OJRSA.



OCONEE JOINT REGIONAL SEWER AUTHORITY

STEEL DOUBLE GATE FOR EASEMENTS

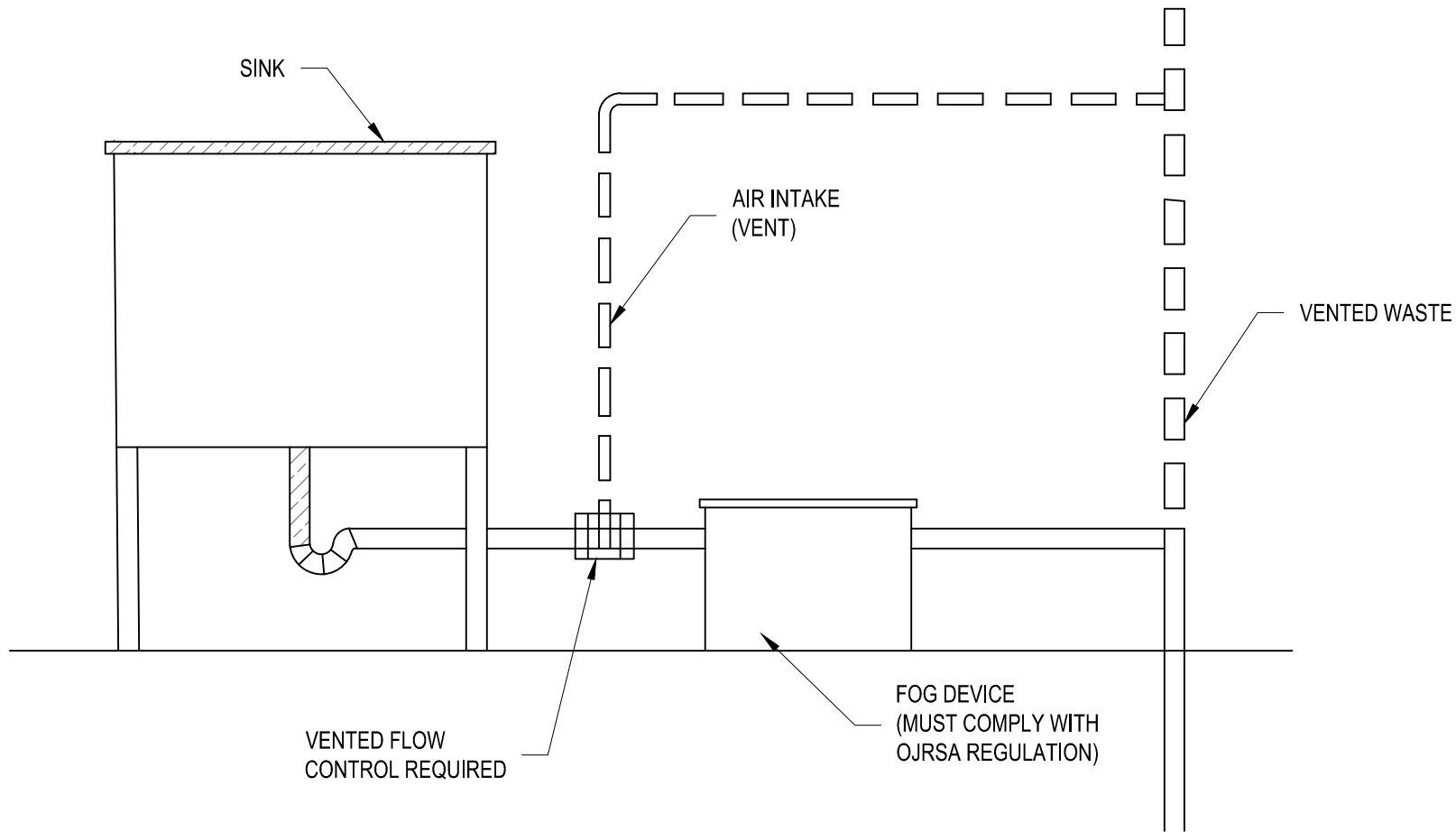


DATE:
05/2022


DRAWING NO.:
D 034

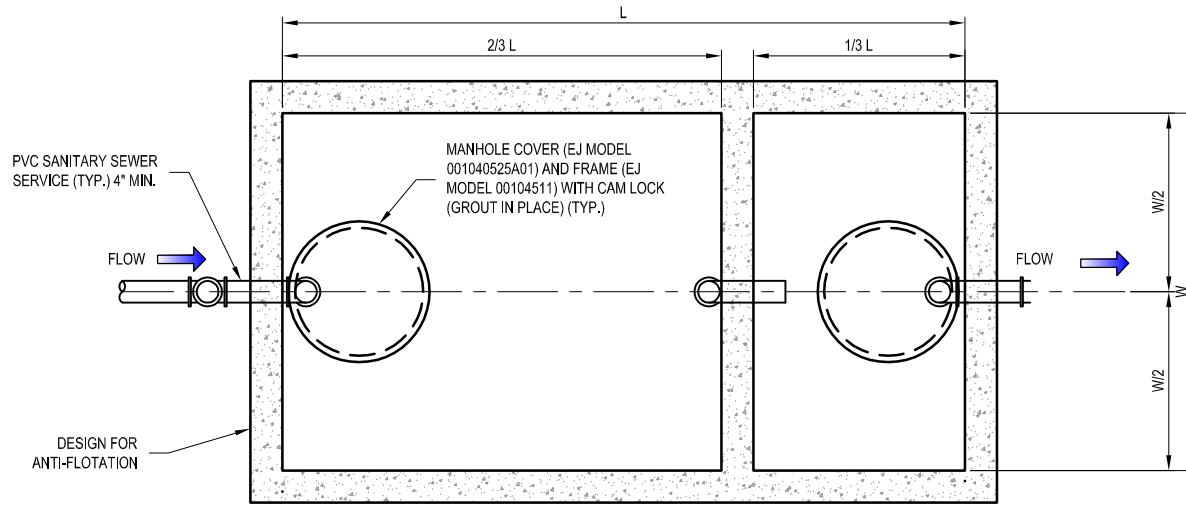
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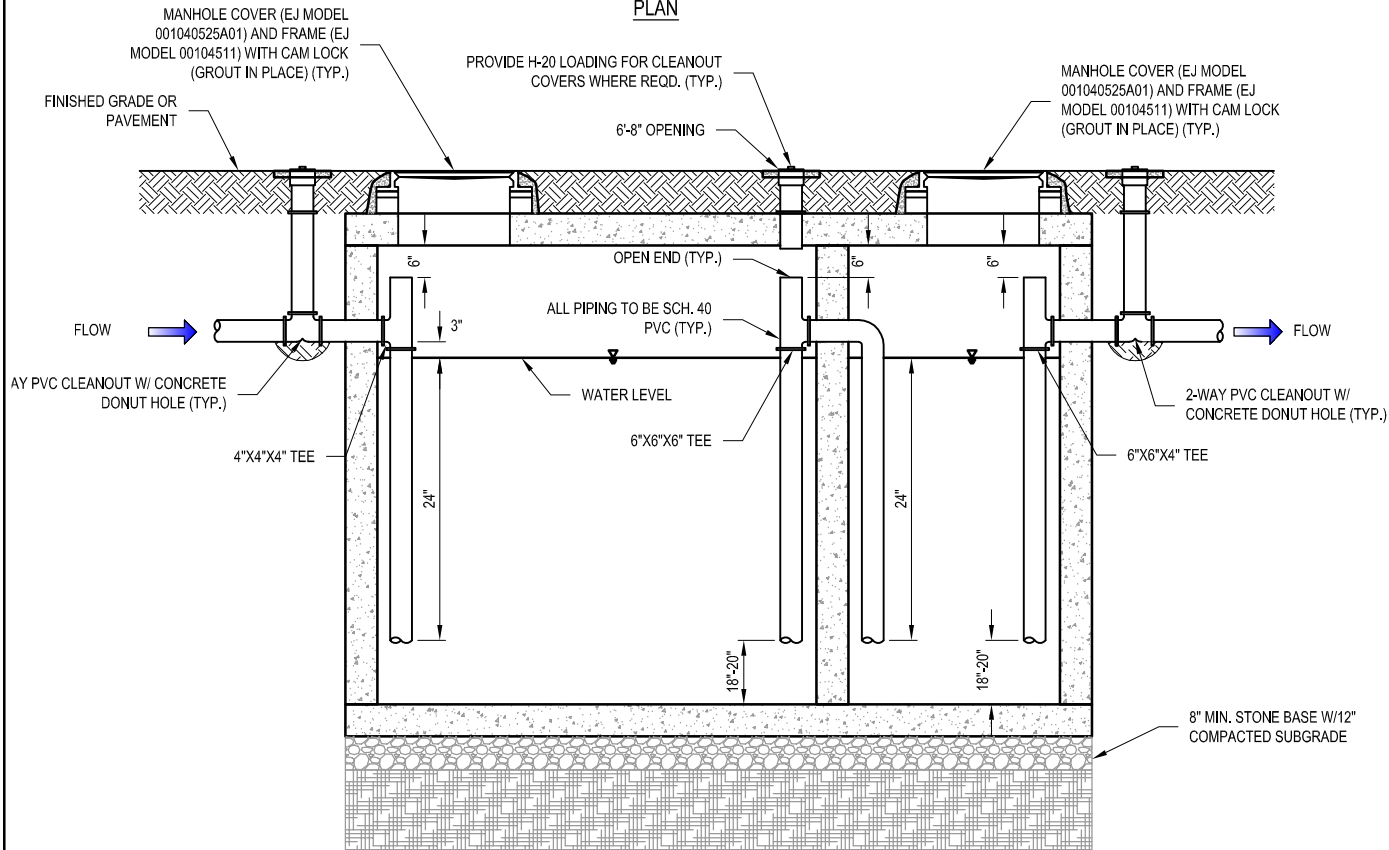


TYPICAL GREASE TRAP PLUMBING PLAN
Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY		
TYPICAL GREASE TRAP PLUMBING PLAN		
	DATE:	DRAWING NO.:
	09/2021	FOG-1
	REVISED:	SCALE:
		NTS



PLAN



PROFILE

NOTES:

1. USE NON-SHRINK GROUT AT ALL PENETRATIONS.
2. PROVIDE BUTYL RUBBER SEAL BETWEEN ALL SECTIONS AND TOP
3. ALL TEES THROUGHOUT TANK MUST BE DWV PVC 40

INTERCEPTOR DIMENSIONS		
LIQUID CAPACITY (GALLONS)	WIDTH (W)	LENGTH (L)
1,000	5'-1"	8'-2"
1,200	5'-9"	8'-6"
1,500	5'-7"	10'-8"
2,000	4'-11"	15'-11"
OTHERS AS APPROVED BY OJRSA		

OCONEE JOINT REGIONAL SEWER AUTHORITY

FATS, OILS & GREASE INTERCEPTOR

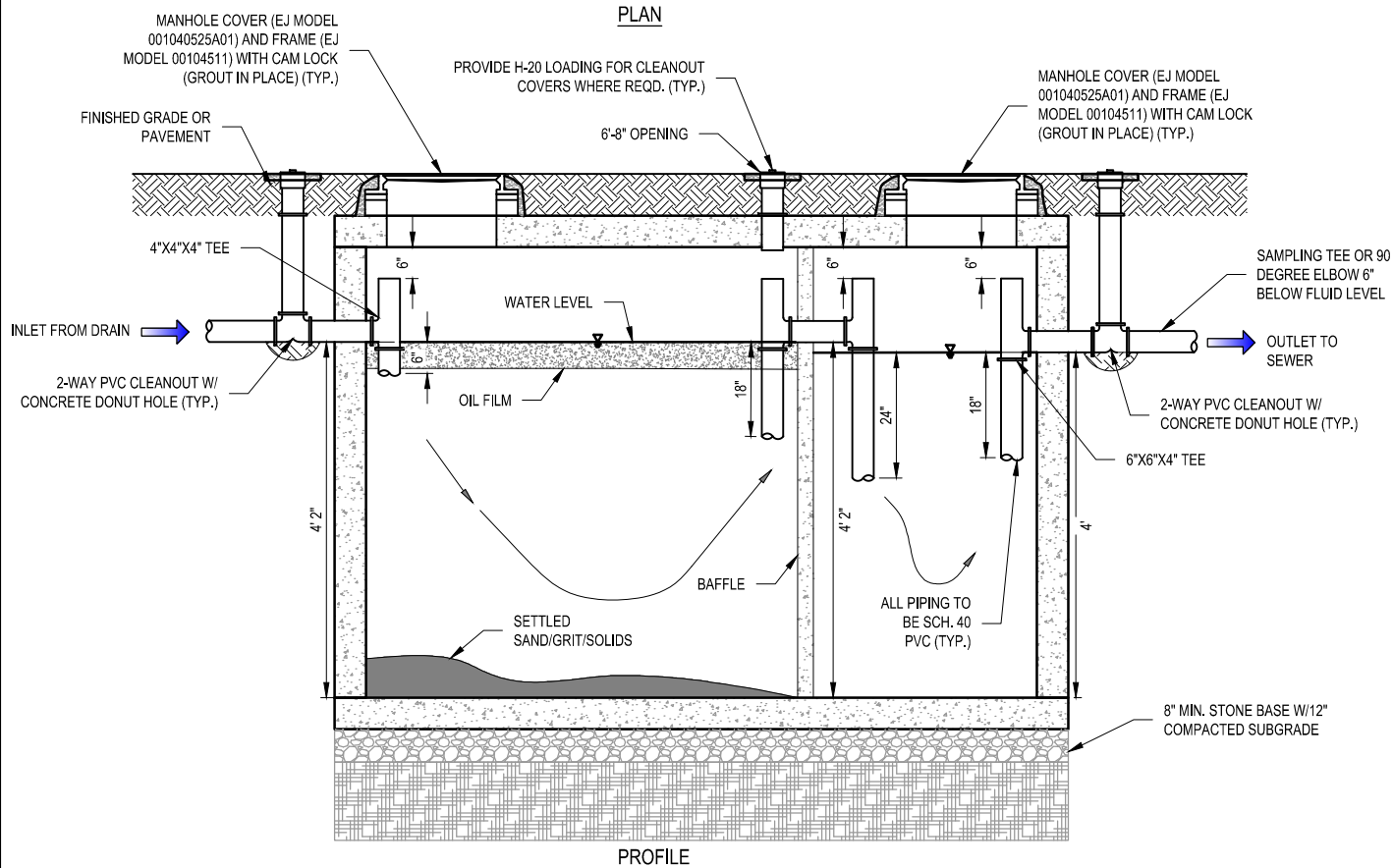
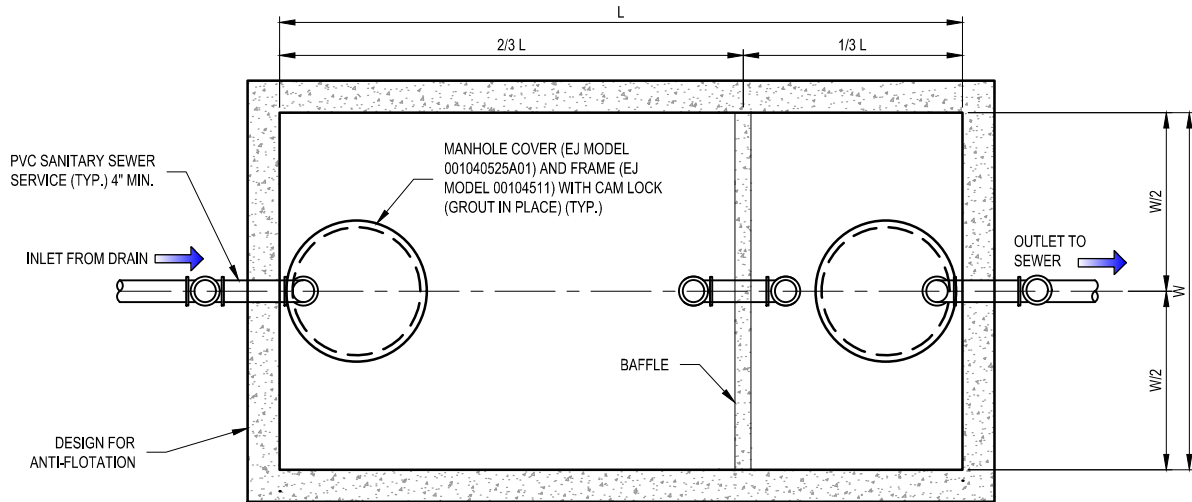


DATE:
06/2022


DRAWING NO.:
FOG-2

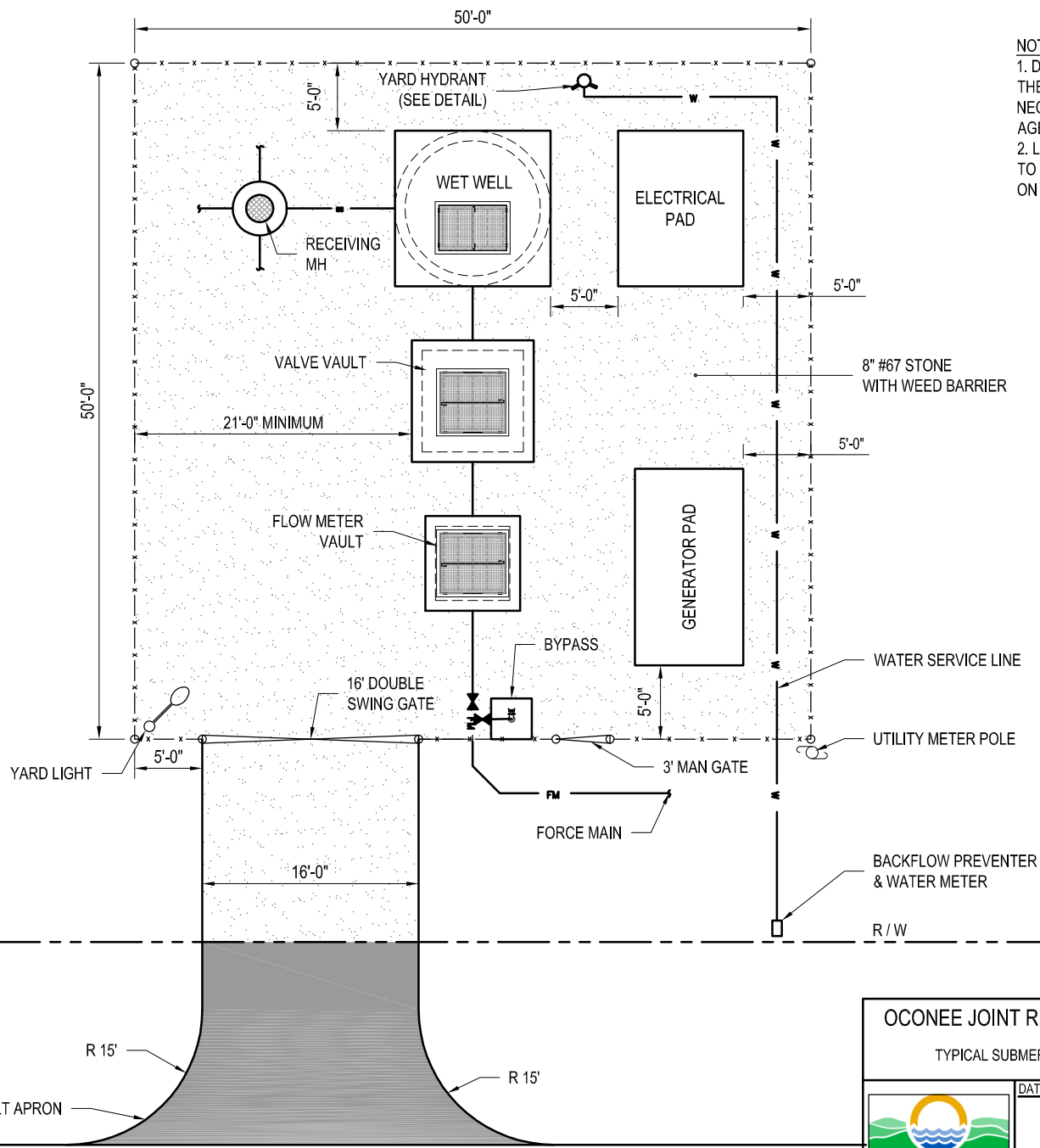
REVISED:

SCALE:
NTS




- NOTES:
1. USE NON-SHRINK GROUT AT ALL PENETRATIONS.
 2. PROVIDE BUTYL RUBBER SEAL BETWEEN ALL SECTIONS AND TOP
 3. ALL TEES THROUGHOUT TANK MUST BE DWV PVC 40

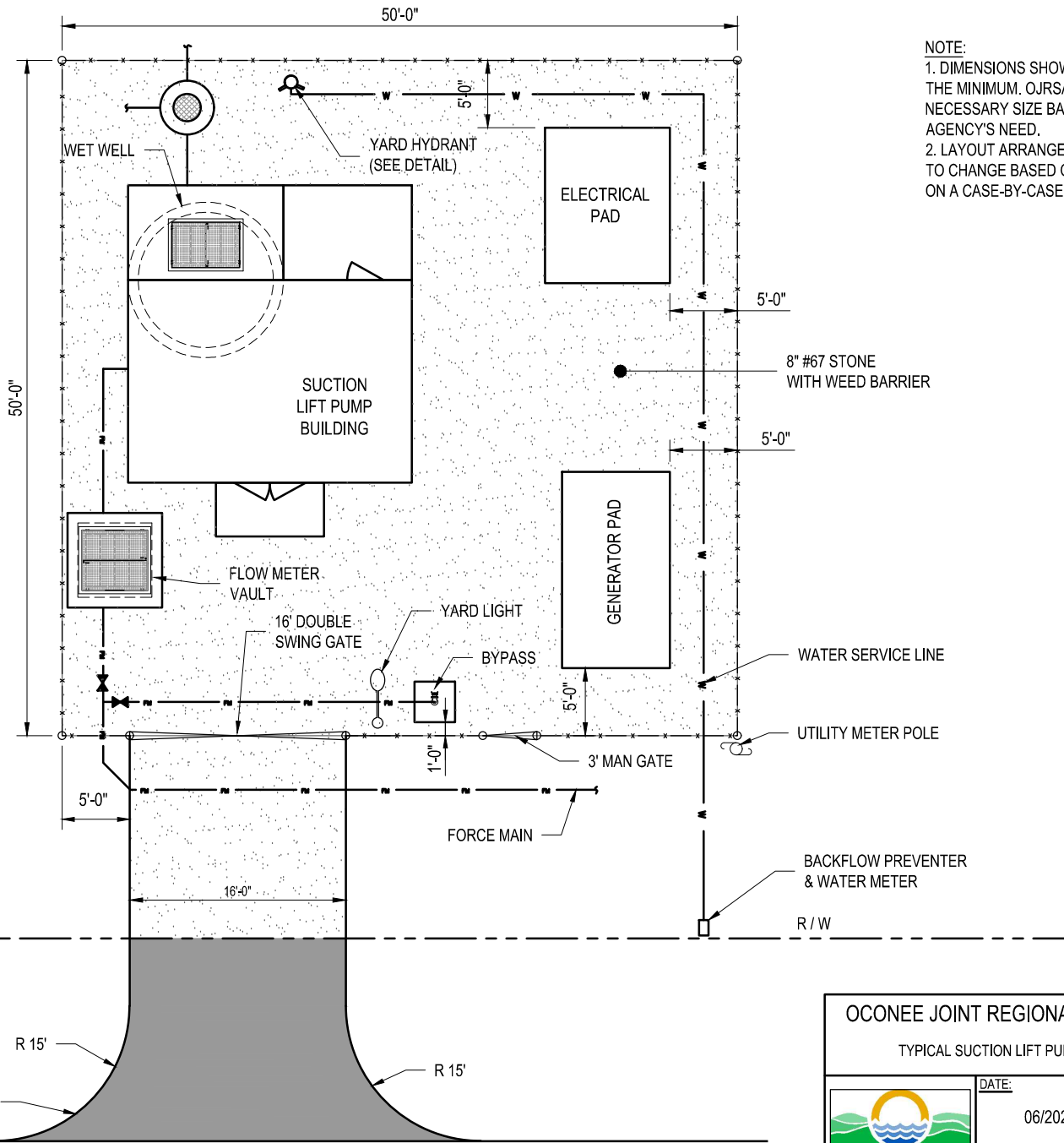
OCONEE JOINT REGIONAL SEWER AUTHORITY		
OIL/WATER SEPARATOR		
	DATE:	DRAWING NO.:
	06/2023	FOG-3
REVISED:	SCALE:	
01/2024	NTS	



NOTE:
 1. DIMENSIONS SHOWN IN DETAIL ARE THE MINIMUM. OJRSA WILL DETERMINE NECESSARY SIZE BASED ON THE AGENCY'S NEED.
 2. LAYOUT ARRANGEMENT IS SUBJECT TO CHANGE BASED ON NEED BY OJRSA ON A CASE-BY-CASE BASIS.

TYPICAL SUBMERSIBLE PUMP STATION SITE PLAN
 Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY TYPICAL SUBMERSIBLE PUMP STATION SITE PLAN		
	DATE: 06/2020	DRAWING NO.: PS-1
	REVISED:	SCALE: NTS




NOTE:
 1. DIMENSIONS SHOWN IN DETAIL ARE THE MINIMUM. OJRSA WILL DETERMINE NECESSARY SIZE BASED ON THE AGENCY'S NEED.
 2. LAYOUT ARRANGEMENT IS SUBJECT TO CHANGE BASED ON NEED BY OJRSA ON A CASE-BY-CASE BASIS.

R / W

R / W

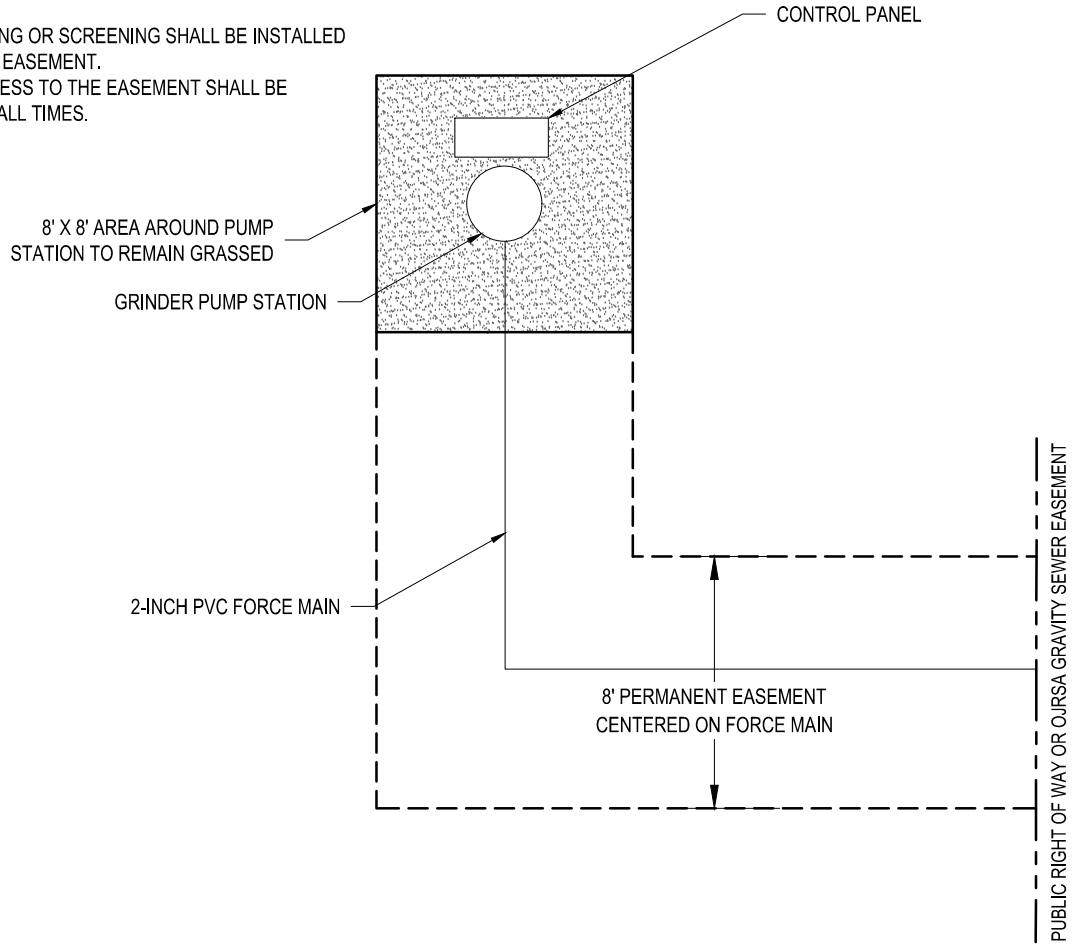
PUBLIC ROADWAY


TYPICAL SUCTION LIFT PUMP STATION SITE PLAN
 Scale: NTS

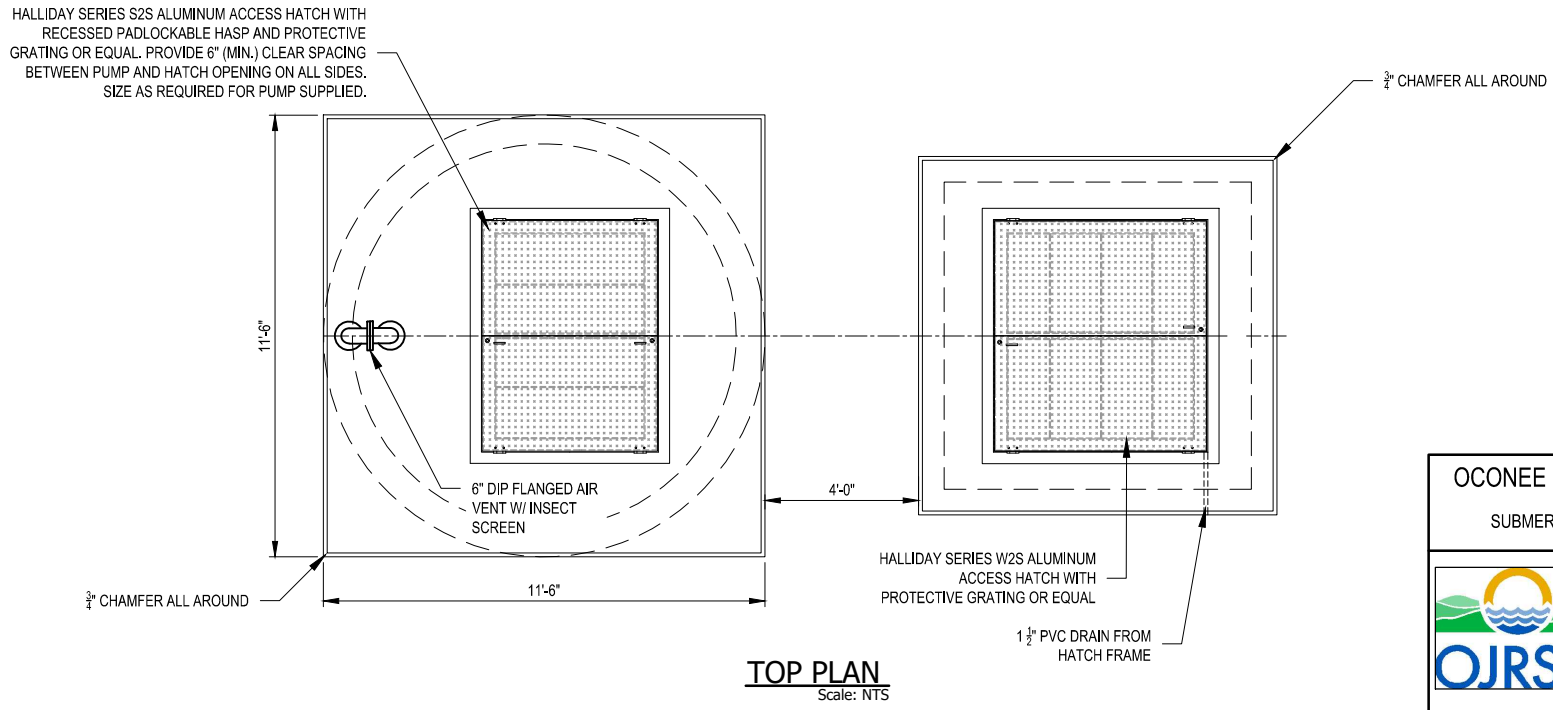
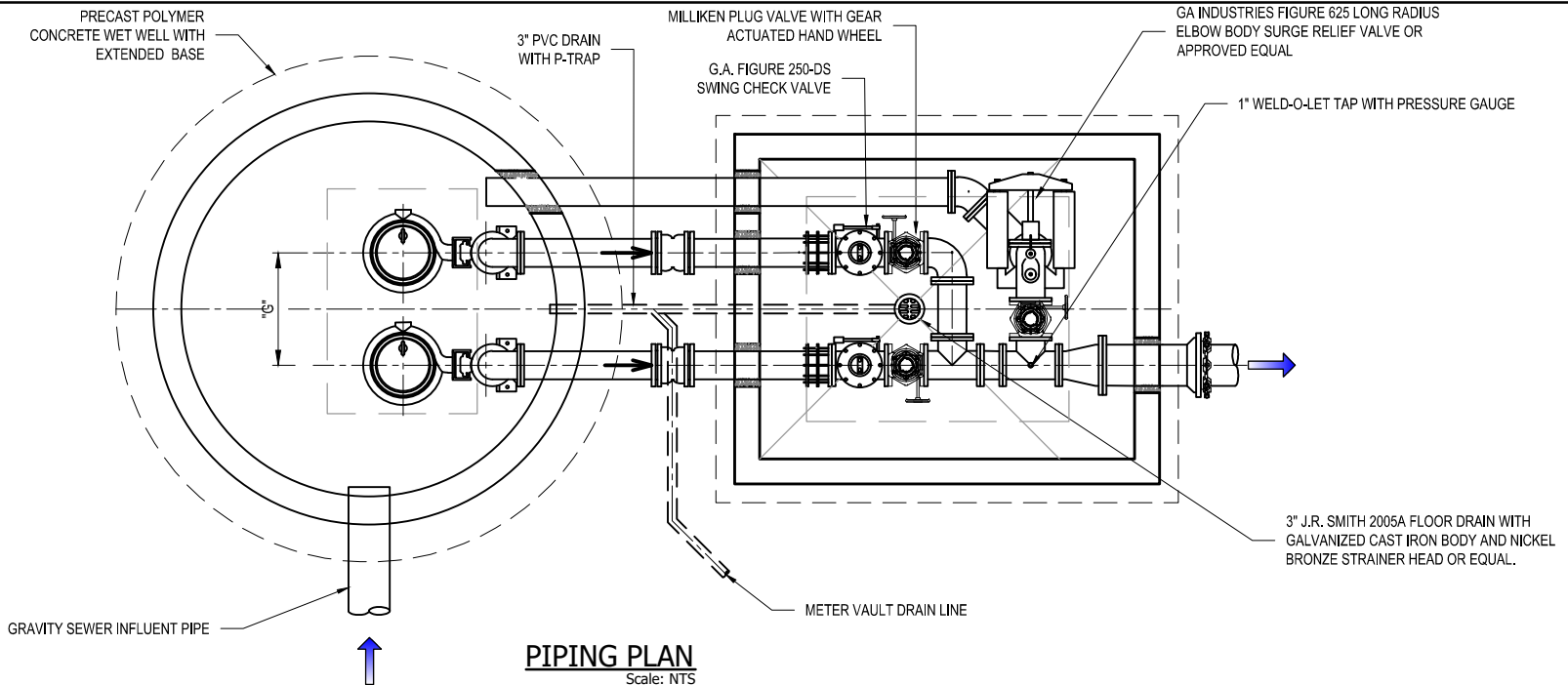
OJRSA OJRSA TYPICAL SUCTION LIFT PUMP STATION SITE PLAN		
	DATE:	DRAWING NO.:
	06/2020	PS-2
REVISED:	SCALE:	
	NTS	


NOTES:

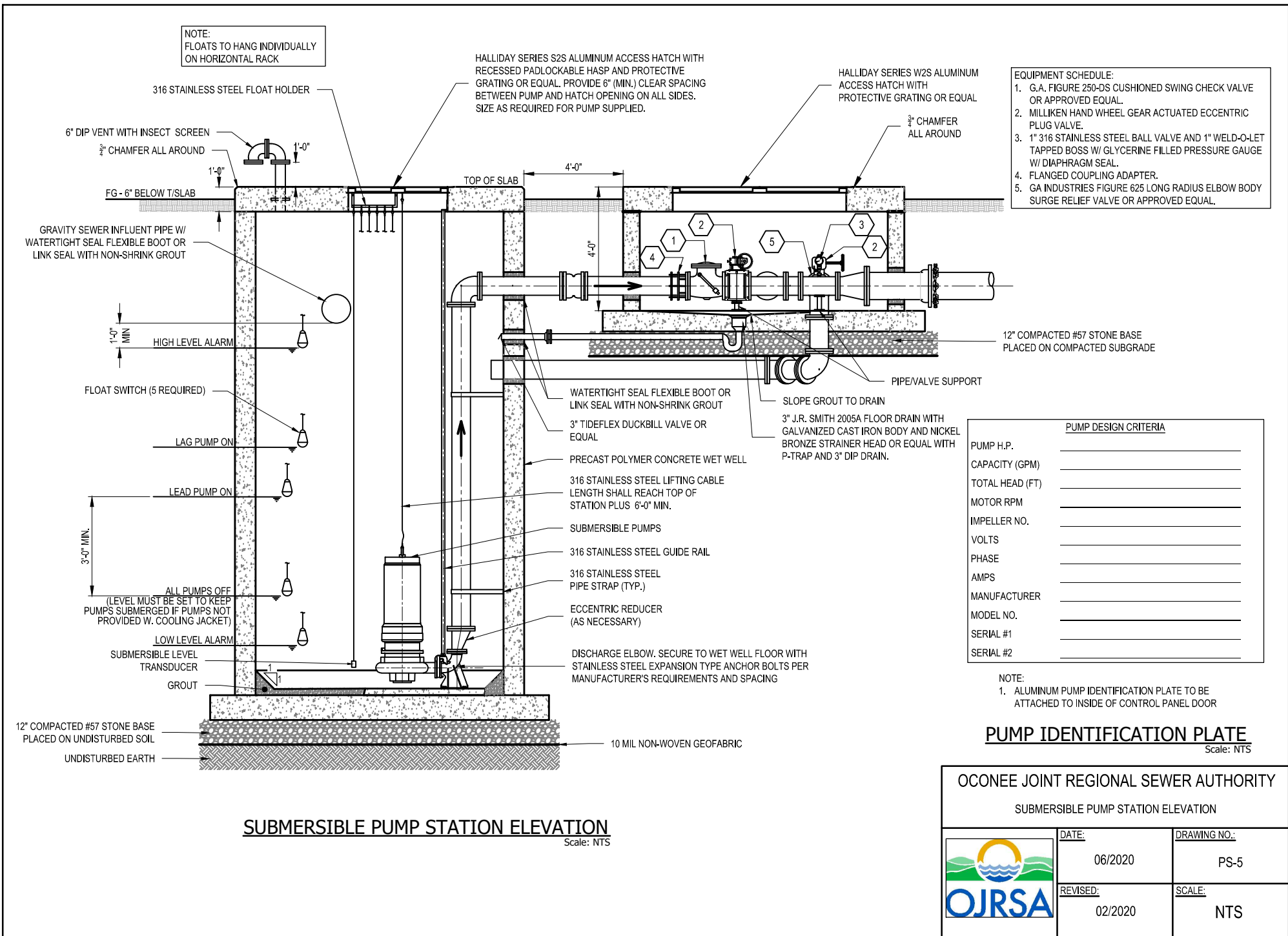
1. ANY LANDSCAPING OR SCREENING SHALL BE INSTALLED OUTSIDE OJRSA EASEMENT.
2. VEHICULAR ACCESS TO THE EASEMENT SHALL BE MAINTAINED AT ALL TIMES.



OCONEE JOINT REGIONAL SEWER AUTHORITY		
GRINDER PUMP STATION SITE PLAN		
	DATE:	DRAWING NO.:
	11/2022	PS-3
	REVISED:	SCALE:
		NTS



OCONEE JOINT REGIONAL SEWER AUTHORITY		
SUBMERSIBLE PUMP STATION TOP PLAN & PIPING PLAN		
	DATE:	DRAWING NO.:
	06/2020	PS-4
	REVISED:	SCALE:
	02/2020	NTS




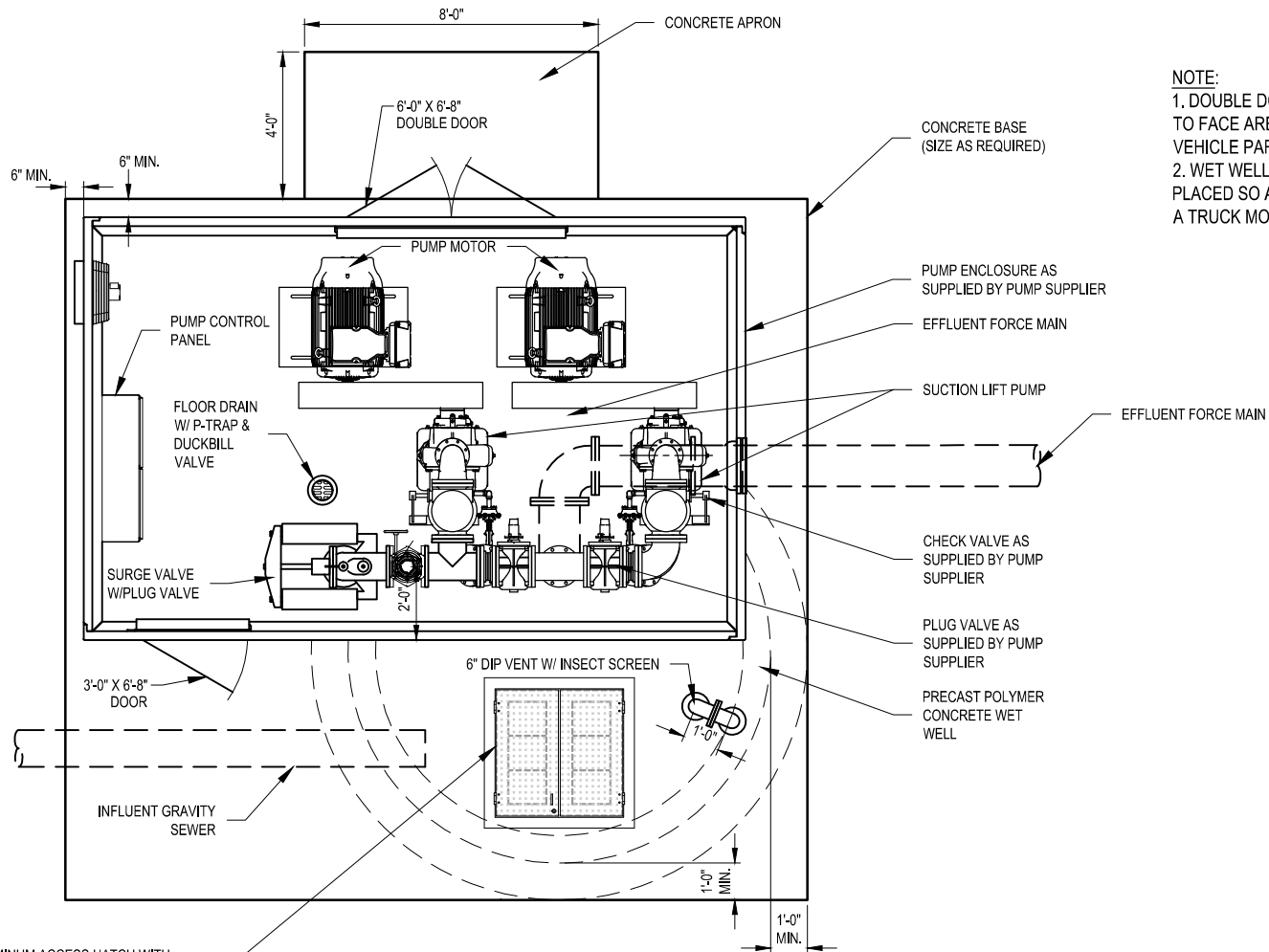
SUBMERSIBLE PUMP STATION ELEVATION

Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY

SUBMERSIBLE PUMP STATION ELEVATION

	DATE:	DRAWING NO.:
	06/2020	PS-5
REVISED:	SCALE:	
02/2020	NTS	



NOTE:
 1. DOUBLE DOORS TO BE PLACED SO AS TO FACE AREA THAT WILL BE USED FOR VEHICLE PARKING AND ACCESS.
 2. WET WELL ACCESS HATCH TO BE PLACED SO AS TO ENSURE ACCESS WITH A TRUCK MOUNTED CRANE.

HALLIDAY SERIES S2S ALUMINUM ACCESS HATCH WITH RECESSED PADLOCKABLE HASP AND PROTECTIVE GRATING OR EQUAL. PROVIDE 6" (MIN.) CLEAR SPACING BETWEEN PUMP AND HATCH OPENING ON ALL SIDES. SIZE AS REQUIRED FOR PUMP SUPPLIED.

SUCTION LIFT PUMP STATION PLAN

Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY

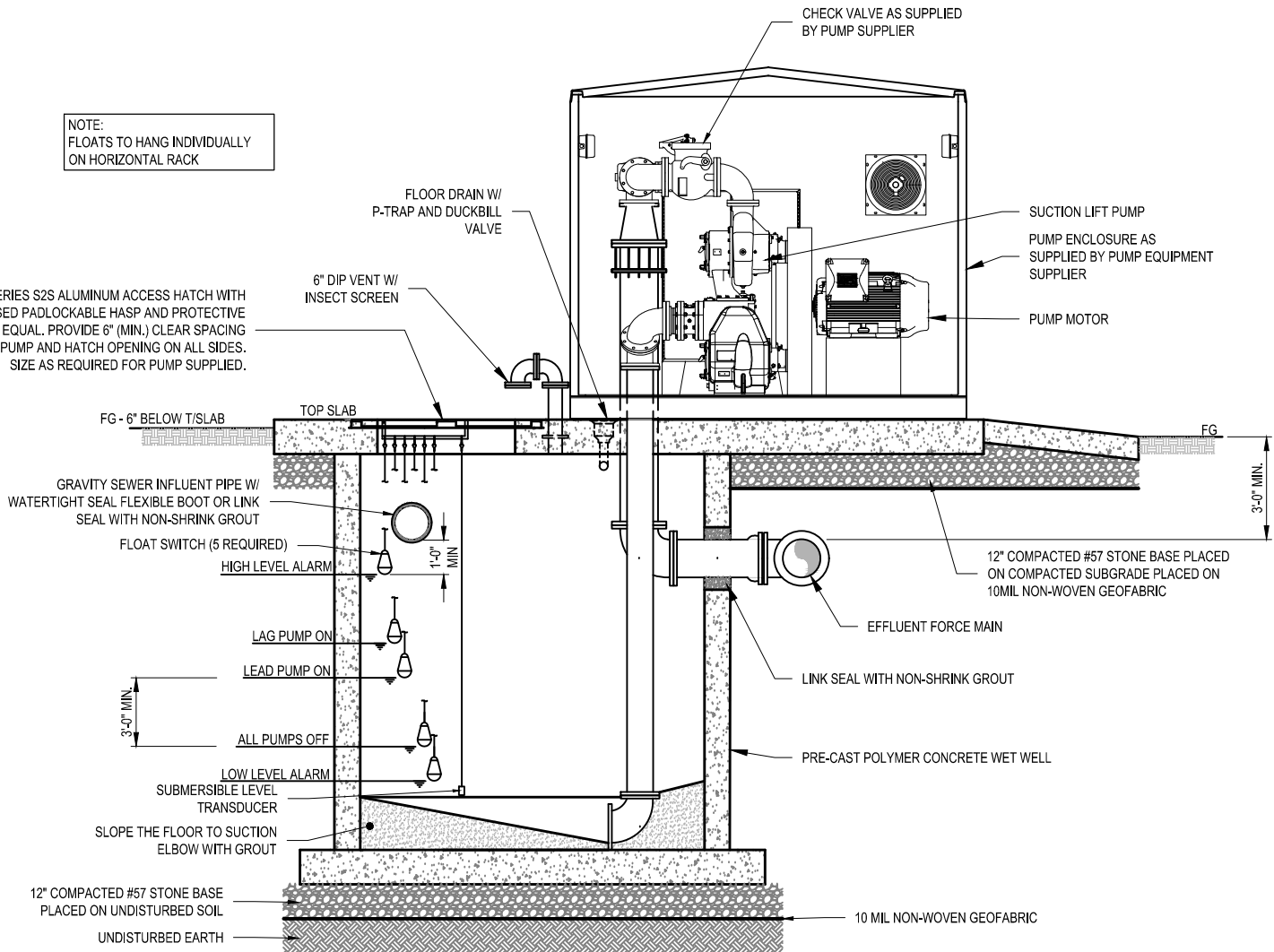
SUCTION LIFT PUMP STATION PLAN



DATE:	06/2020	DRAWING NO.:	PS-6
REVISED:	02/2020	SCALE:	NTS

NOTE:
FLOATS TO HANG INDIVIDUALLY
ON HORIZONTAL RACK

HALLIDAY SERIES S2S ALUMINUM ACCESS HATCH WITH
RECESSED PADLOCKABLE HASP AND PROTECTIVE
GRATING OR EQUAL. PROVIDE 6" (MIN.) CLEAR SPACING
BETWEEN PUMP AND HATCH OPENING ON ALL SIDES.
SIZE AS REQUIRED FOR PUMP SUPPLIED.




PUMP DESIGN CRITERIA	
PUMP H.P.	_____
CAPACITY (GPM)	_____
TOTAL HEAD (FT)	_____
MOTOR RPM	_____
IMPELLER NO.	_____
VOLTS	_____
PHASE	_____
AMPS	_____
MANUFACTURER	_____
MODEL NO.	_____
SERIAL #1	_____
SERIAL #2	_____

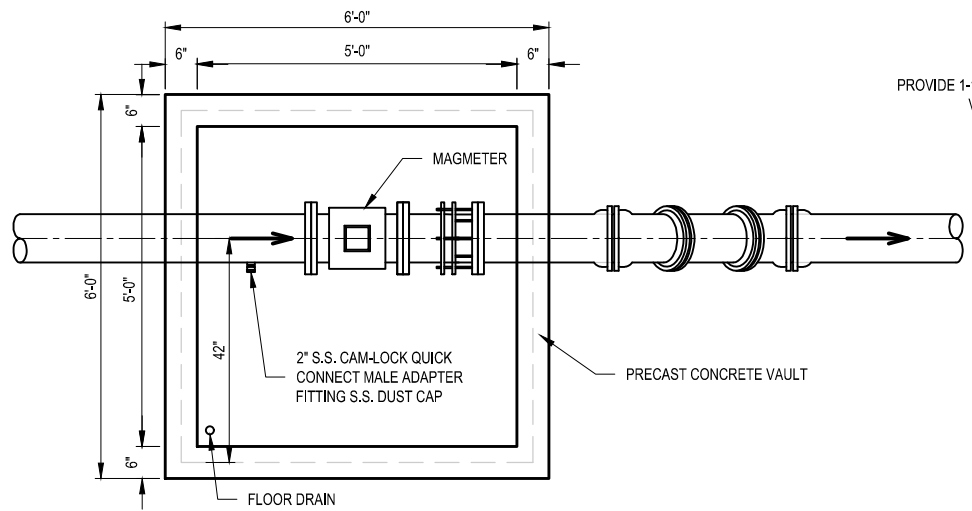
NOTE:
1. ALUMINUM PUMP IDENTIFICATION PLATE TO BE
ATTACHED TO INSIDE OF PUMP CONTROL PANEL DOOR.

PUMP IDENTIFICATION PLATE
Scale: NTS

SUCTION LIFT PUMP STATION SECTION
Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY
SUCTION LIFT PUMP STATION SECTION

	DATE: 06/2020	DRAWING NO.: PS-7
	REVISED: 02/2020	SCALE: NTS

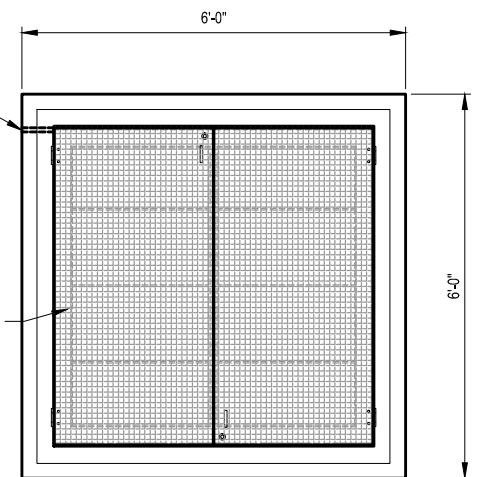


MAGMETER VAULT VAULT AND PIPING PLAN

Scale: NTS

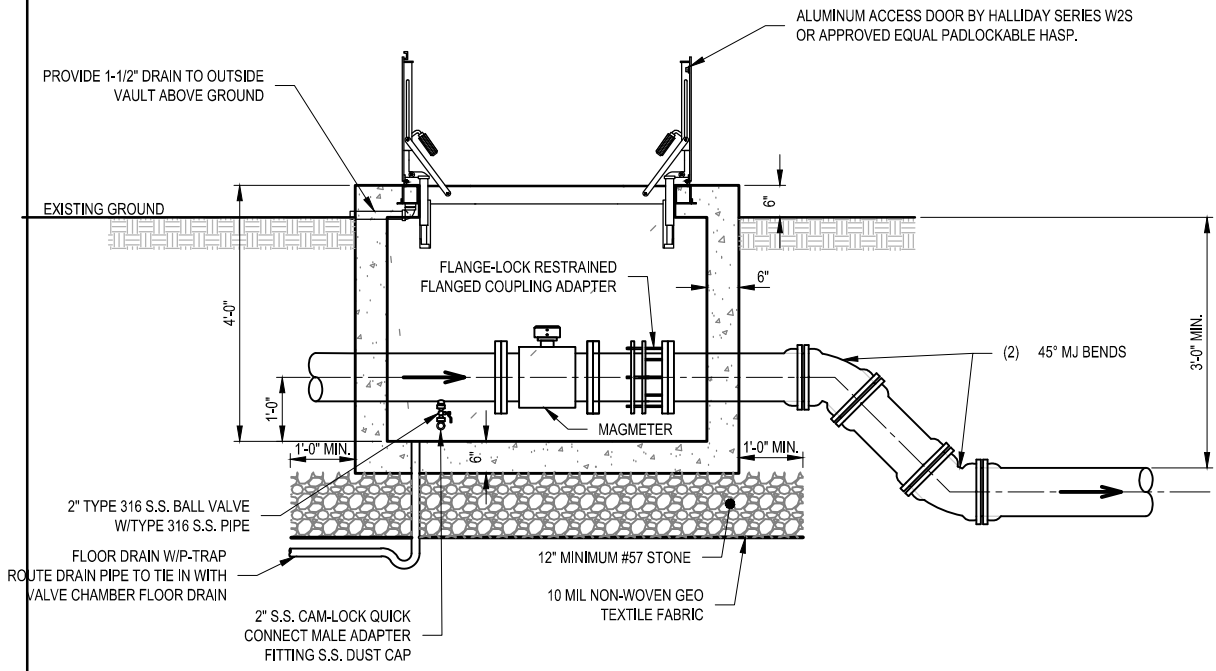
PROVIDE 1-1/2" DRAIN TO OUTSIDE VAULT ABOVE GROUND

ALUMINUM ACCESS DOOR BY HALLIDAY SERIES W2S OR APPROVED EQUAL PADLOCKABLE HASP.



MAGMETER VAULT TOP PLAN

Scale: NTS



MAGMETER VAULT SECTION

Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY

MAGMETER VAULT

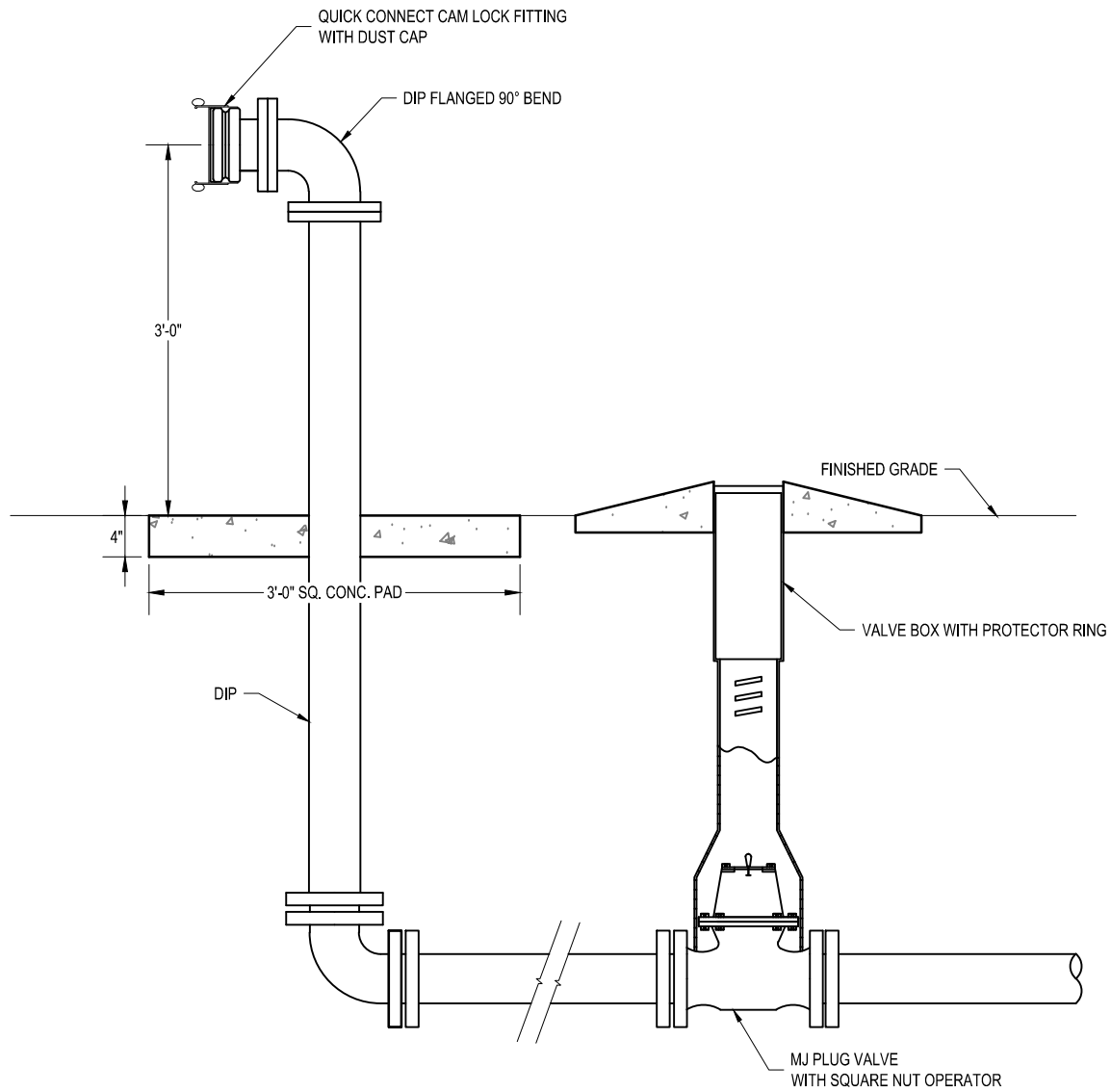


DATE:
06/2020


REVISED:

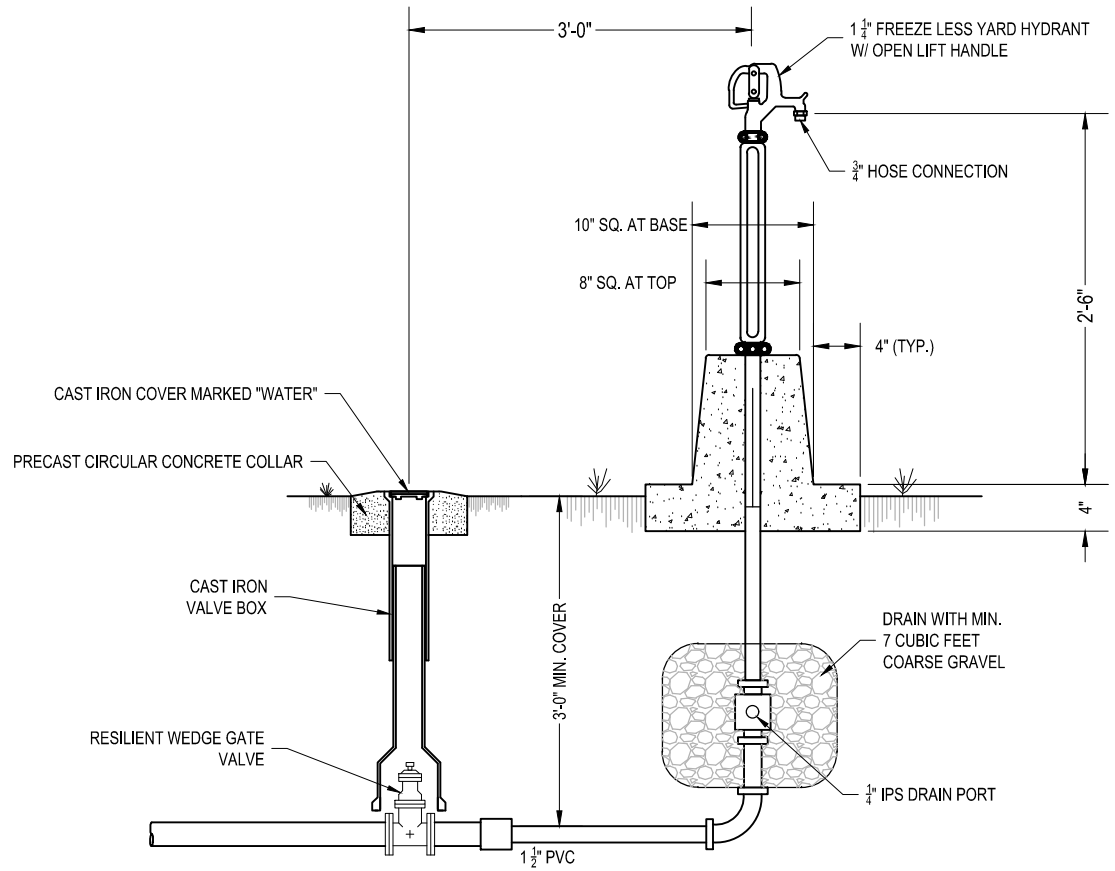
DRAWING NO.:
PS-8

SCALE:
NTS



TYPICAL BYPASS
Scale: NTS


OCONEE JOINT REGIONAL SEWER AUTHORITY TYPICAL BYPASS		
	DATE: 06/2020	DRAWING NO.: PS-9
	REVISED:	SCALE: NTS

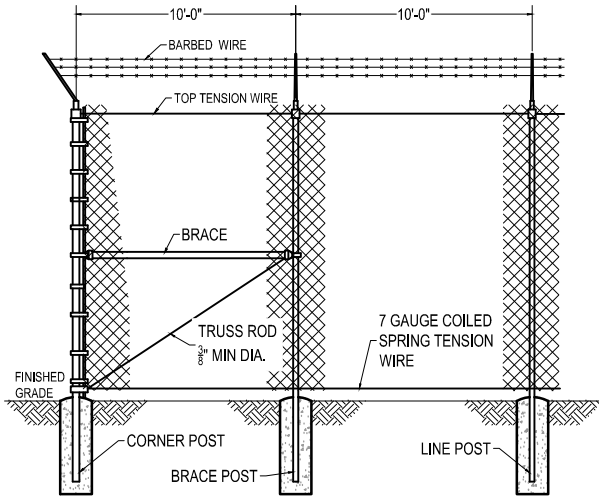


NOTES:

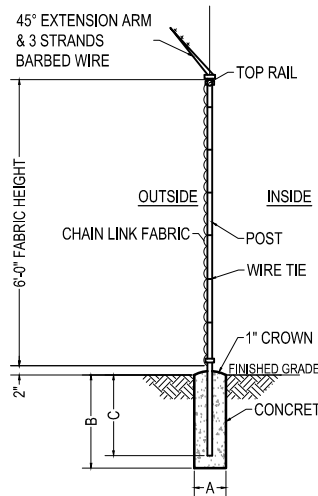
1. YARD HYDRANT SHALL HAVE 1 1/4" INLET AND 3/4" HOSE BIB CONNECTION. OPERATING PARTS OF THE HYDRANT SHALL BE SERVICEABLE OR REPLACEABLE WITHOUT DIGGING UP THE HYDRANT OR DISTURBING THE SUPPLY LINE CONNECTION.
2. YARD HYDRANT SHALL BE MANUALLY OPERATED BY PERMANENTLY MOUNTED OPEN LIFT HANDLE . POST HYDRANT SHALL CLOSE AGAINST THE PRESSURE AND SHALL BE SELF-DRAINING, NON-FREEZE, COMPRESSION TYPE.
3. YARD HYDRANT SHALL PREVENT BACKFLOW WHEN OPEN BY AUTOMATIC ACTION OF THE NOZZLE VACUUM BREAKER AND THROUGH THE DRAIN BY THE BALL CHECK VALVES. THE BACKFLOW PREVENTION SYSTEM SHALL NOT INTERFERE WITH THE NORMAL SELF-DRAINING, NON-FREEZE OPERATION OF THE HYDRANT.

TYPICAL YARD HYDRANT
Scale: NTS

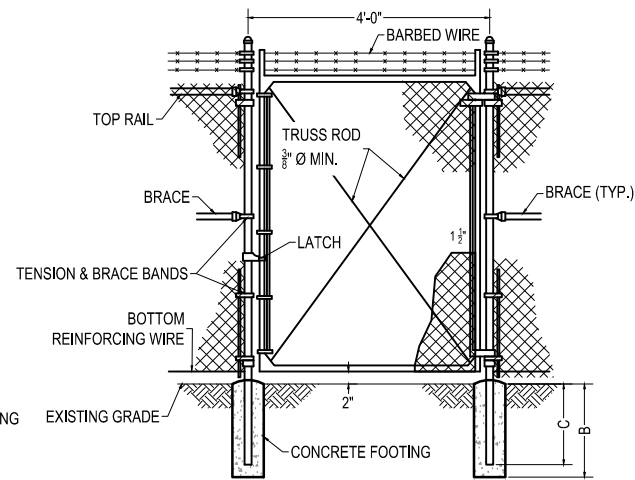
OCONEE JOINT REGIONAL SEWER AUTHORITY		
TYPICAL YARD HYDRANT		
	DATE:	DRAWING NO.:
	06/2020	PS-10
	REVISED:	SCALE:
		NTS



TYPICAL FENCE - ELEVATION
Scale: NTS

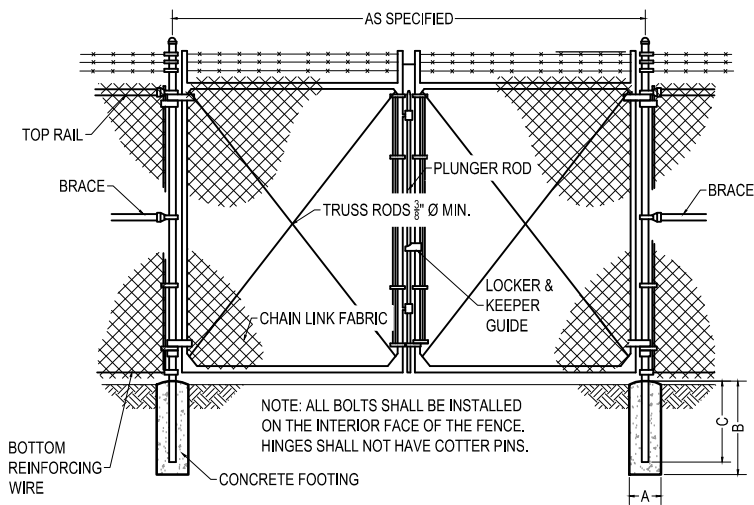


TYPICAL FENCE - SECTION
Scale: NTS



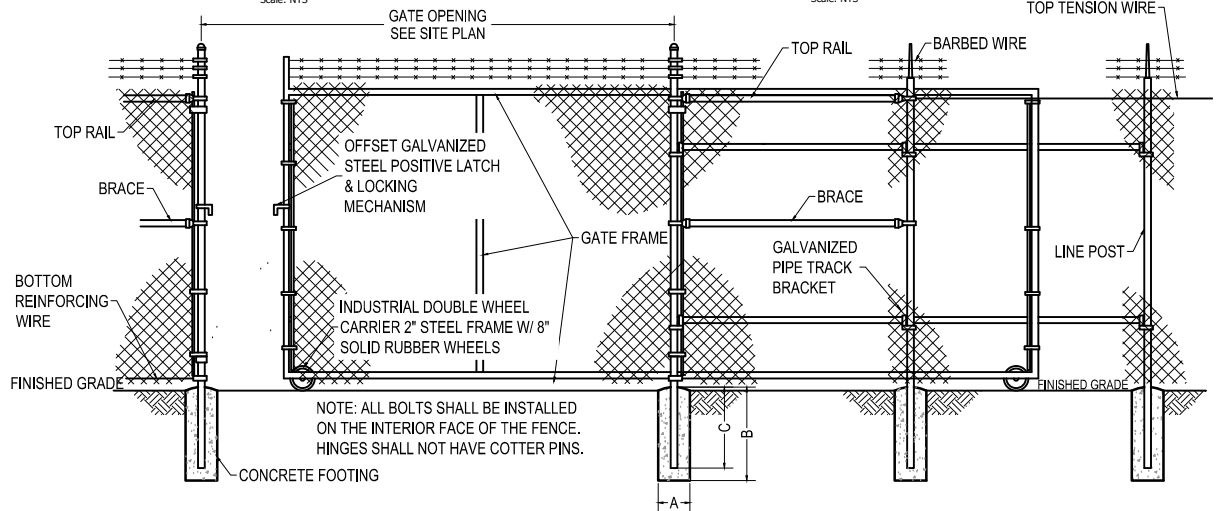
PEDESTRIAN GATE
Scale: NTS

NOTE:
1. OJRSA WILL PROVIDE PUMP STATION SIGNAGE TO BE INSTALLED BY CONTRACTOR



DOUBLE SWING GATE
Scale: NTS

NOTE: ALL BOLTS SHALL BE INSTALLED ON THE INTERIOR FACE OF THE FENCE. HINGES SHALL NOT HAVE COTTER PINS.



SLIDE GATE
Scale: NTS

NOTE: ALL BOLTS SHALL BE INSTALLED ON THE INTERIOR FACE OF THE FENCE. HINGES SHALL NOT HAVE COTTER PINS.

GATE POST				
GATE LEAF WIDTH	GATE POST (OD)	"A" DIA.	"B" DEPTH	"C" POST EMBED.
3' - 6'	2.875"	14"	48"	42"
> 6' - 12'	4.000"	16"	48"	42"
> 12' - 18'	6.625"	16"	48"	42"

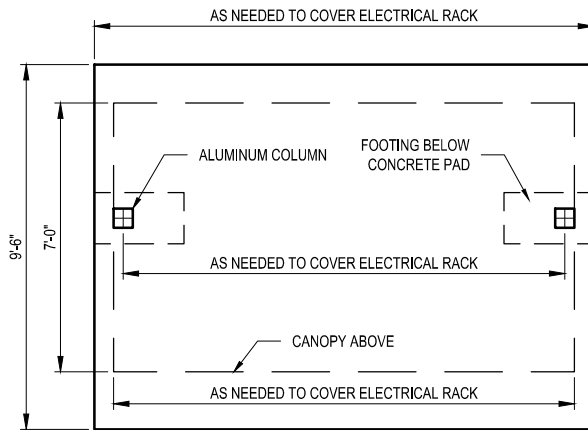
LINE & TERMINAL POSTS			
TYPE POST	"A" DIA.	"B" DEPTH	"C" POST EMBED.
LINE	12"	42"	36"
TERMINAL	12"	42"	36"

OCONEE JOINT REGIONAL SEWER AUTHORITY

STANDARD CHAIN LINK FENCING

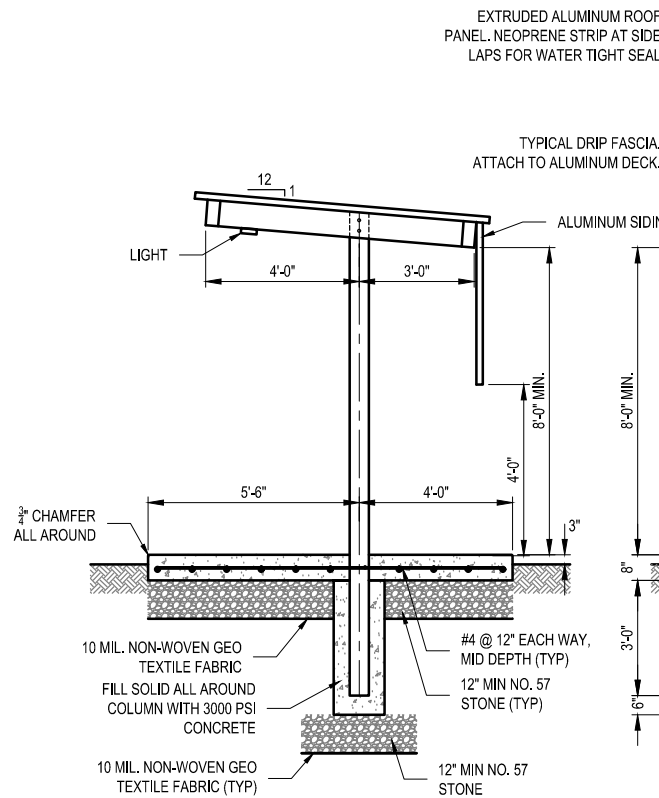


DATE:	DRAWING NO.:
06/2020	PS-11
REVISED:	SCALE:
	NTS



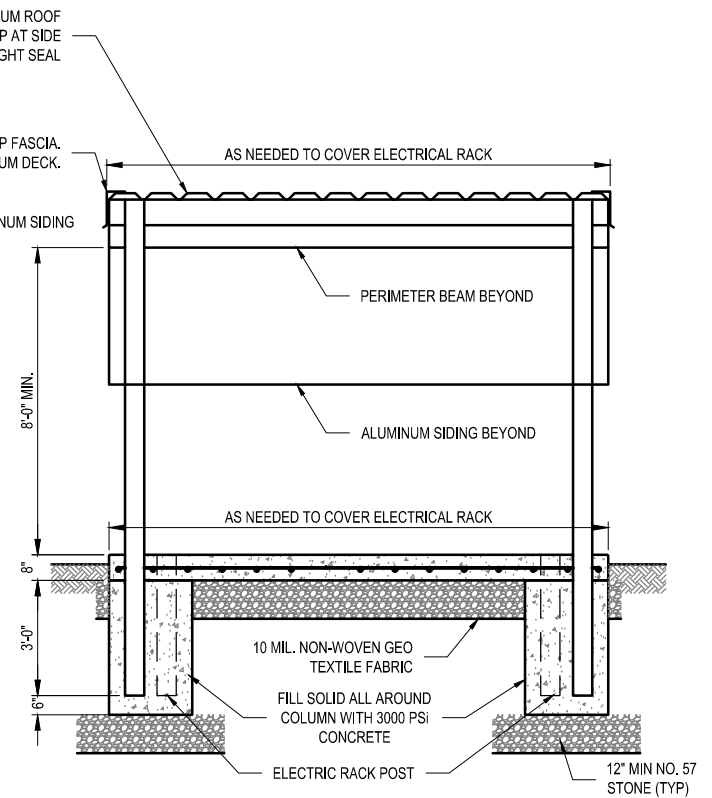
CANOPY & ELECTRICAL PAD PLAN

Scale: NTS



CANOPY & ELECTRICAL PAD SIDE ELEVATION

Scale: NTS



CANOPY & ELECTRICAL PAD FRONT ELEVATION


Scale: NTS

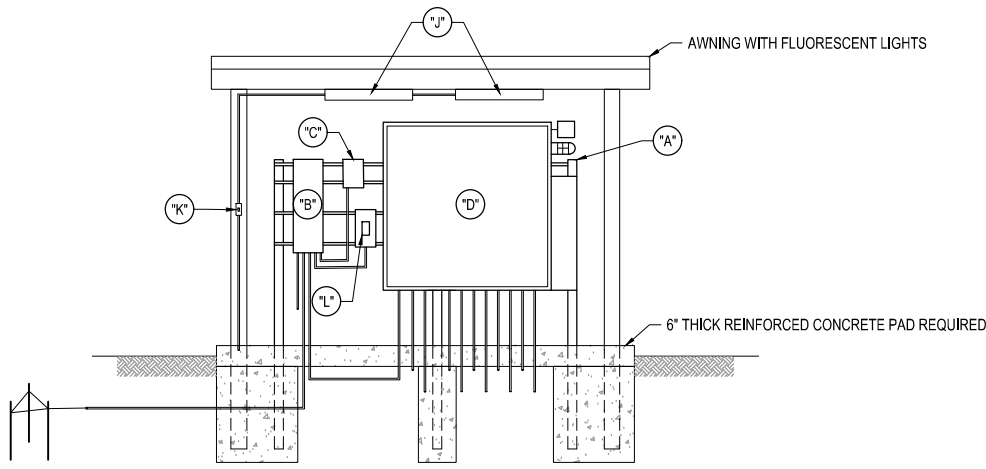
NOTES:

1. ALL NUTS, BOLTS, AND MISC. HARDWARE SHALL BE 316 STAINLESS STEEL PRIMED AND PAINTED WITH INDUSTRIAL GRADE ENAMEL TO MATCH CANOPY.
2. ALUMINUM CANOPY SHALL HAVE FACTORY COATED BAKED ENAMEL FINISH. COLOR TO BE MEDIUM BRONZE.
3. MINIMUM DESIGN LOADS:
 - a). 90 MPH WIND LOAD.
 - b). 20 LB/FT² LIVE LOAD.
 - c). ACTUAL DEAD LOAD.
 - d). 10 LB/FT² SNOW LOAD.
 - e). SEISMIC LOAD BASED ON SITE GEOTECHNICAL CONDITIONS AND IN ACCORDANCE WITH ASCE 7
4. CANOPY DESIGN SHALL BE STAMPED BY A SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER.

OCONEE JOINT REGIONAL SEWER AUTHORITY

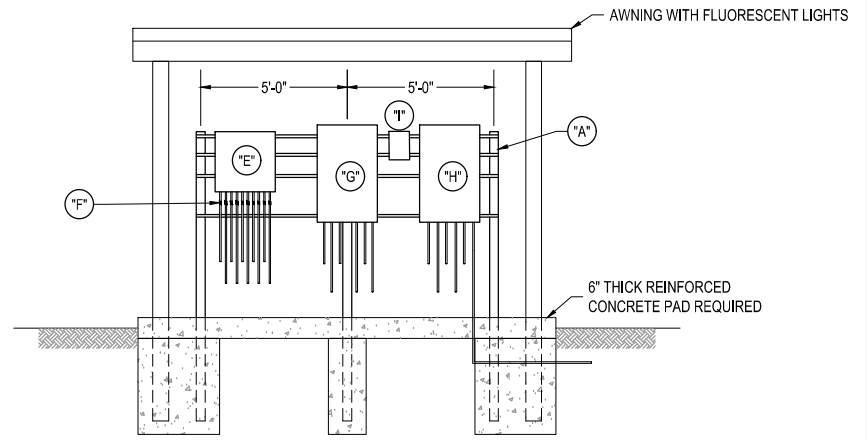
CANOPY AND ELECTRICAL PAD PLAN AND ELEVATIONS

	DATE:	DRAWING NO.:
	06/2020	S-1
REVISED:	SCALE:	
02/2020	NTS	



FRONT ELECTRICAL RACK RISER

Scale: NTS



REAR ELECTRICAL RACK RISER

Scale: NTS

ELECTRICAL NOTES:

1. ALL MATERIALS AND WORK SHALL COMPLY WITH NFPA 70-NEC (LATEST EDITION), NATIONAL ELECTRICAL SAFETY CODE, UTILITY COMPANY REQUIREMENTS, AND APPLICABLE LOCAL CODES AND REGULATIONS.
2. ALL MATERIALS SHALL BE NEW AND SHALL CONFORM WITH THE REQUIREMENTS OF THE UNDERWRITERS' LABORATORIES INC., AMERICAN NATIONAL STANDARDS INSTITUTE, NATIONAL ELECTRICAL MANUFACTURERS' ASSOCIATION, INSULATED CABLE ENGINEERS ASSOCIATION, AND INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS IN EVERY CASE WHERE A STANDARD HAS BEEN ESTABLISHED.
3. ALL ELECTRICAL EQUIPMENT SHALL BE LOCATED 2 FEET (MINIMUM) ABOVE THE 100 YEAR FLOOD ELEVATION.
4. ELECTRICAL SYSTEM SHALL BE DESIGNED TO HANDLE THE LOAD OF BOTH PUMPS RUNNING AT THE SAME TIME.

5. SHOW CONDUIT/CONDUCTOR SIZES AND RUNS ON PUMP STATION ELECTRICAL PLANS.
6. ALL WIRING SHALL BE IN CONDUIT. MINIMUM CONDUIT SIZE SHALL BE 3/4" AND MINIMUM CONDUCTOR SIZES SHALL BE #12 FOR POWER CONNECTIONS AND #14 FOR CONTROL WIRING.
7. ALL BURIED CONDUIT SHALL BE SCH.40 PVC. ALL EXPOSED CONDUIT AND CONDUIT INSIDE THE WET WELL SHALL BE PVC-COATED GRC.
8. ALL EQUIPMENT SUBJECT TO VIBRATION SHALL BE CONNECTED WITH A SECTION OF SEALTITE FLEXIBLE CONDUIT.
9. PANEL LAYOUT IS SCHEMATIC ONLY. ADJUST LAYOUT WITH OJRSA'S APPROVAL, TO ACCOMMODATE EQUIPMENT PROVIDED. MAINTAIN 4" MINIMUM CLEARANCE BETWEEN PANELS.
10. ALL ENCLOSURES SHALL BE NEMA 4X RATED 316 STAINLESS STEEL AND SHALL BE LOCKABLE, UNLESS OTHERWISE NOTED.
11. ALL CONDUIT PENETRATIONS SHALL BE MADE THROUGH THE BOTTOM OF PANELS.
12. THE PUMP STATION SHALL BE PROVIDED WITH A MISSION RTU FOR REMOTE MONITORING OF ALL PUMP STATION EQUIPMENT.


13. ALL PUMP STATION CONTROL PANELS SHALL HAVE TERMINAL BLOCKS WITH DRY CONTACTS FOR CONNECTION TO SCADA RTU.
14. EXTEND CONDUITS INSIDE WET WELL TO HATCH OPENING FOR EASE OF ACCESS. PROVIDE STRAIN RELIEF GRIPS ON ALL CABLES INSIDE WET WELL HANGING ON CABLE RACK.

RTU I/O SCHEDULE	
I/O	SIGNAL DESCRIPTION
DI-01	POWER (PHASE) FAILURE
DI-02	UTILITY POWER FAILURE
DI-03	HIGH LEVEL ALARM (FLOAT)
DI-04	PUMP #1 RUNNING
DI-05	PUMP #1 FAILURE (OVERTEMPERATURE ALARM, SEAL FAILURE ALARM, OVERLOAD ALARM, VFD FAULT ALARM)
DI-06	PUMP #2 RUNNING
DI-07	PUMP #2 FAILURE (OVERTEMPERATURE ALARM, SEAL FAILURE ALARM, OVERLOAD ALARM, VFD FAULT ALARM)
DI-08	GENERATOR RUN
DI-09	GENERATOR FAULT ALARM
DI-10	GENERATOR FUEL TANK LOW LEVEL ALARM
DI-11	ATS IN EMERGENCY POSITION
AI-01	WET WELL LEVEL
AI-02	PUMP #1 AMPS
AI-03	PUMP #2 AMPS
AI-04	PUMP STATION FLOW

ELECTRICAL EQUIPMENT SCHEDULE		
I.D.	DESCRIPTION	NOTES
A	ELECTRICAL RACK	4" DIAMETER 316 SS POSTS AT 5' (MAX.), 12 GAUGE 316 SS UNISTRUT FOR MOUNTING PANELS. ALL HARDWARE TO BE 316 SS.
B	MAIN DISCONNECT	NON-FUSED, 3-POLE MAIN DISCONNECT IN LOCKABLE 316 SS NEMA 4X ENCLOSURE.
C	TVSS	EATON PTX-160 TVSS WITH INTEGRAL DISCONNECT IN 316 SS NEMA 4X ENCLOSURE.
D	PUMP CONTROL PANEL	PROVIDED BY PUMP SUPPLIER. (APPLIES TO SUBMERSIBLE PUMPS ONLY. PUMP CONTROL PANEL FOR SUCTION LIFT PUMPS SHALL BE IN PUMP ENCLOSURE)
E	JUNCTION BOX	30"(H) x 30"(W) x 8"(D) 316 SS NEMA 4X ENCLOSURE WITH 3-PT LOCKING LATCH. PROVIDE TERMINAL BLOCKS FOR POWER AND CONTROL CONDUCTORS. INSTALL RUBBER CORD CONNECTIONS ON END OF CONDUITS FROM WET WELL.
F	SEAL-OFF	INSTALL ON CONDUITS AS SHOWN.
G	MANUAL TRANSFER SWITCH	3-POLE MTS IN 316 SS NEMA 4X ENCLOSURE. SEE SPECIFICATIONS
H	AUTOMATIC TRANSFER SWITCH	3-POLE ATS IN 316 SS NEMA 4X ENCLOSURE. SEE SPECIFICATIONS
I	PORTABLE GENERATOR RECEPTACLE	SEE SPECIFICATIONS FOR MODEL NUMBER
J	CANOPY LIGHTING	4' LED LIGHT (H.E. WILLIAMS 96-4-L62/850-HIAFR-DRV-UNV OR EQUAL)
K	CANOPY LIGHTING SWITCH	PROVIDE WEATHERPROOF ENCLOSURE. MOUNT ON CANOPY COLUMN 48" ABOVE CONCRETE PAD.
L	RECEPTACLE	20A, 120V GFI WITH WEATHERPROOF ENCLOSURE

OJRSA JOINT REGIONAL SEWER AUTHORITY

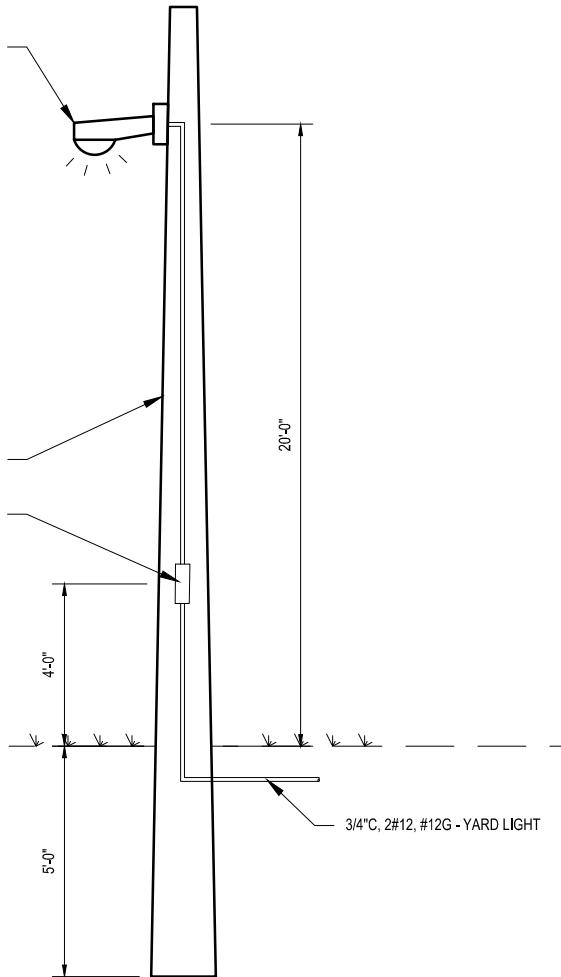
DUPLEX PUMP STATION ELECTRICAL STANDARDS

	DATE:	DRAWING NO.:
	06/2020	E-1
REVISED:	SCALE:	NTS

116 WATT LED GE AREA LIGHT MODEL
EALS-03-1-F4-AF-7-40-X-X-D1-DKBZ WITH
PHOTOCELL CONTROL

30' CLASS 4 SERVICE POLE BY ELECTRIC
CONTRACTOR

WEATHERPROOF SWITCH




YARD LIGHT DETAIL

Scale: NTS

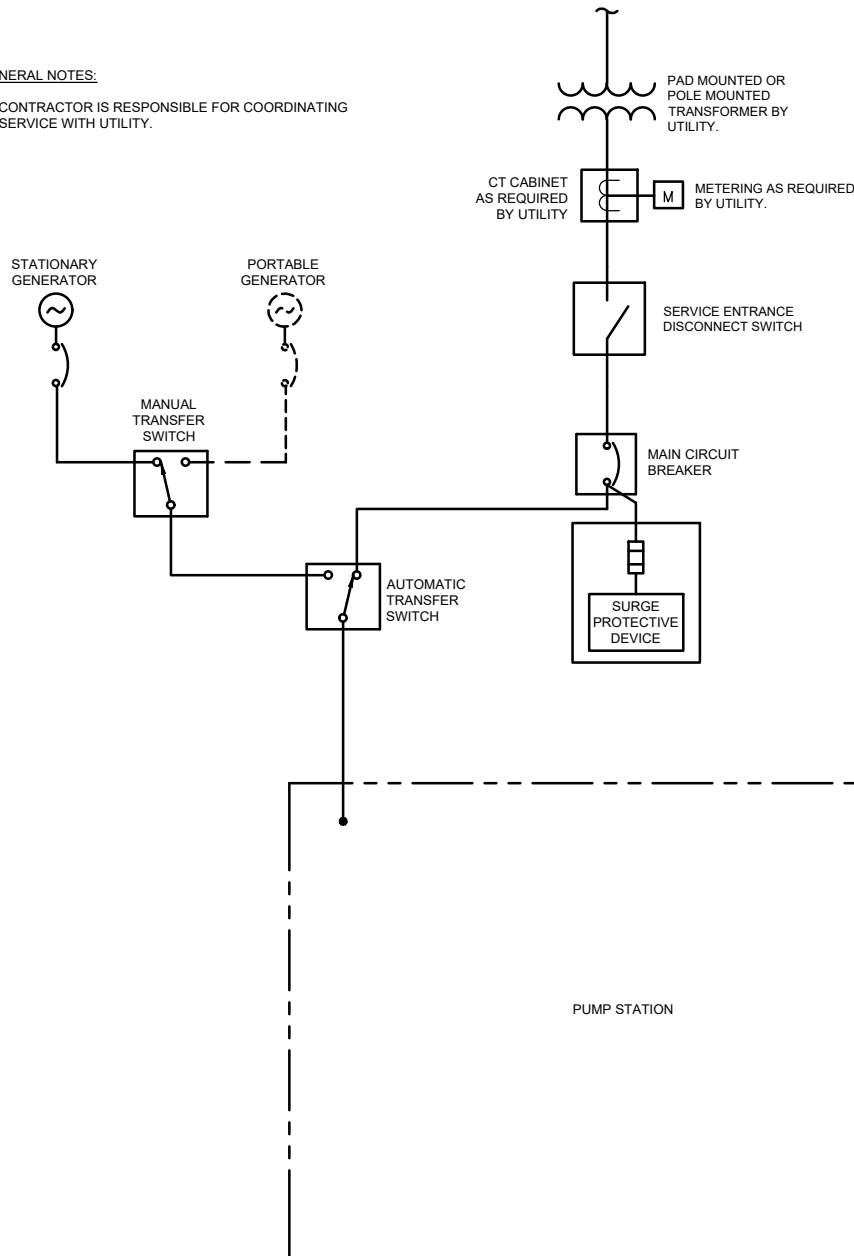
OCONEE JOINT REGIONAL SEWER AUTHORITY

YARD LIGHT

	DATE:	DRAWING NO.:
	06/2020	E-2
REVISED:	SCALE:	
	NTS	


GENERAL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR COORDINATING SERVICE WITH UTILITY.



PUMP STATION ONE-LINE DIAGRAM

Scale: NTS

OCONEE JOINT REGIONAL SEWER AUTHORITY PUMP STATION ONE-LINE DIAGRAM		
	DATE: 03/2022	DRAWING NO.: E-3
	REVISED:	SCALE: NTS