



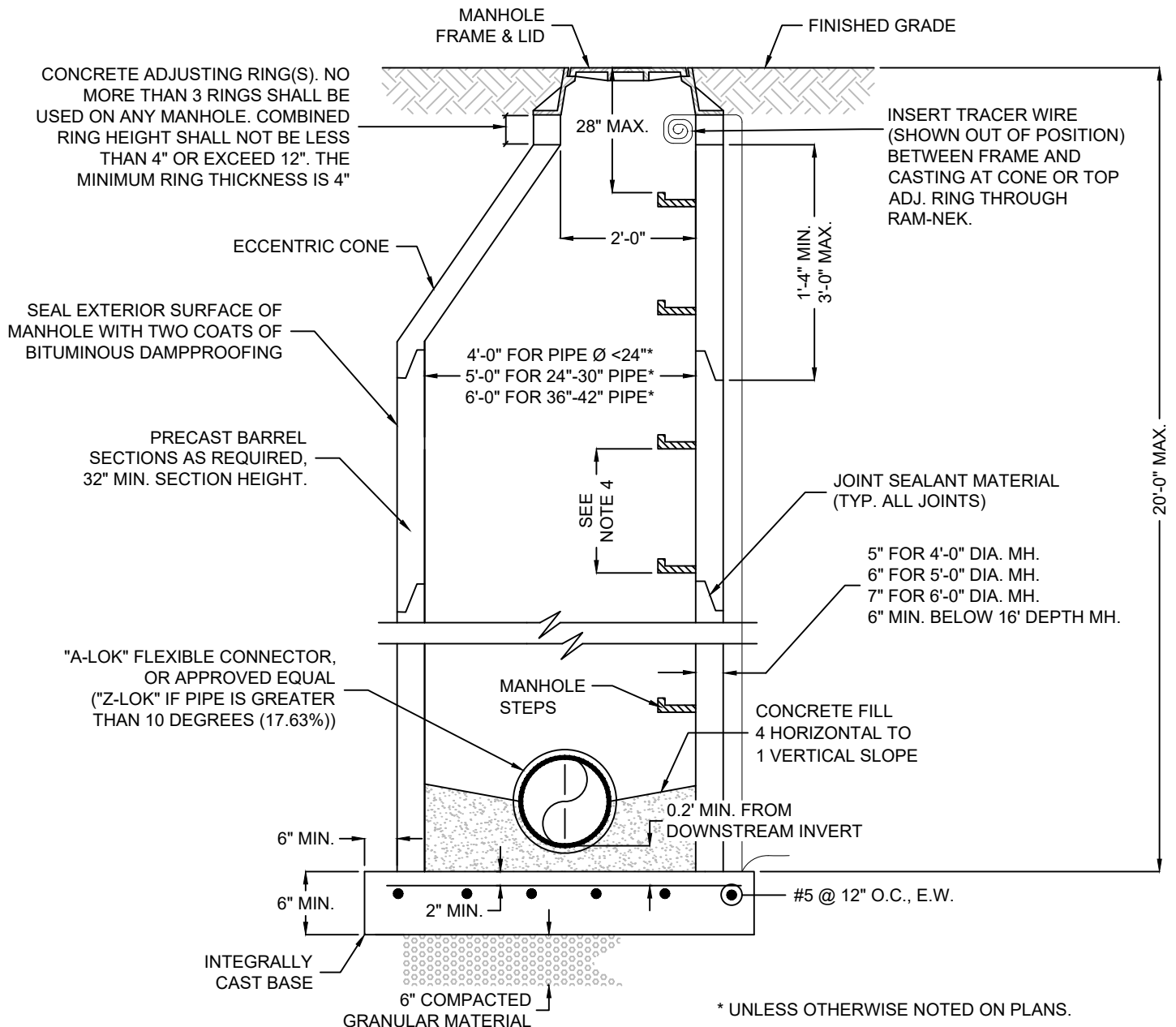
TCRSD Standard Details

Helping to Preserve Our Natural Resources!

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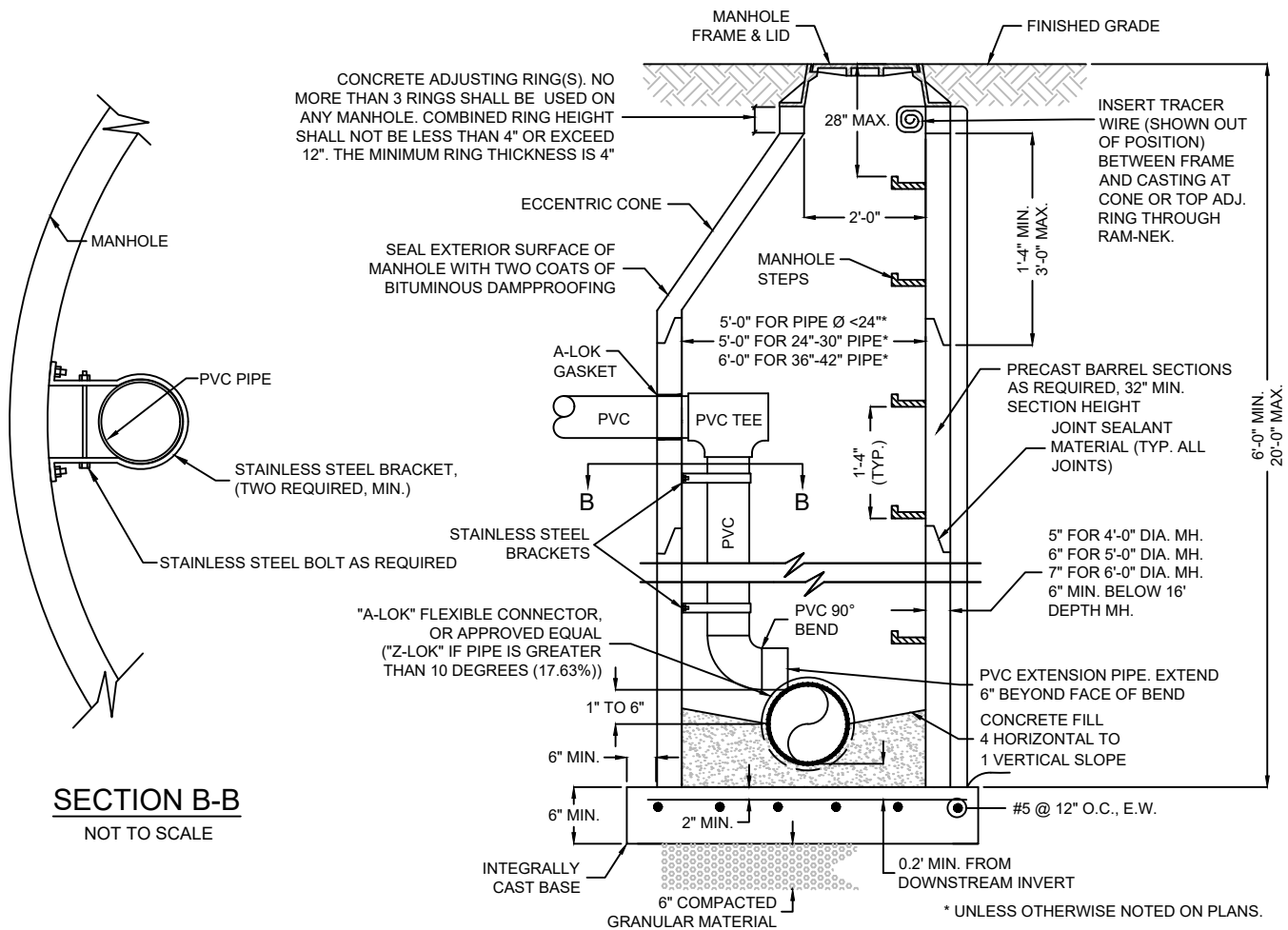
NOTES:

1. MANHOLE FLOW CHANNEL SHALL BE MADE TO CONFORM IN SHAPE AND SLOPE TO THAT OF THE SEWERS.
2. UNLESS OTHERWISE NOTED, ALL PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C-478 REQUIREMENTS.
3. GROUTED INVERT SHALL BE TROWELED SMOOTH.
4. MANHOLE STEPS SHALL BE ALIGNED SO AS TO FORM A CONTINUOUS LADDER WITH RUNGS EQUALLY SPACED VERTICALLY IN THE ASSEMBLED MANHOLE AT A MINIMUM DISTANCE OF 12 INCHES APART AND A MAXIMUM OF 16 INCHES APART.
5. TRACER WIRE SHALL BE INSTALLED PER SPECIFICATION 02537. TRACER WIRE SHALL BE COILED AROUND A 1" DIAMETER PVC PIPE AND STAGED AT TOP OF MANHOLE.

STANDARD PRECAST MANHOLE

SCALE: NONE

REV. DATE: 03/06/2023



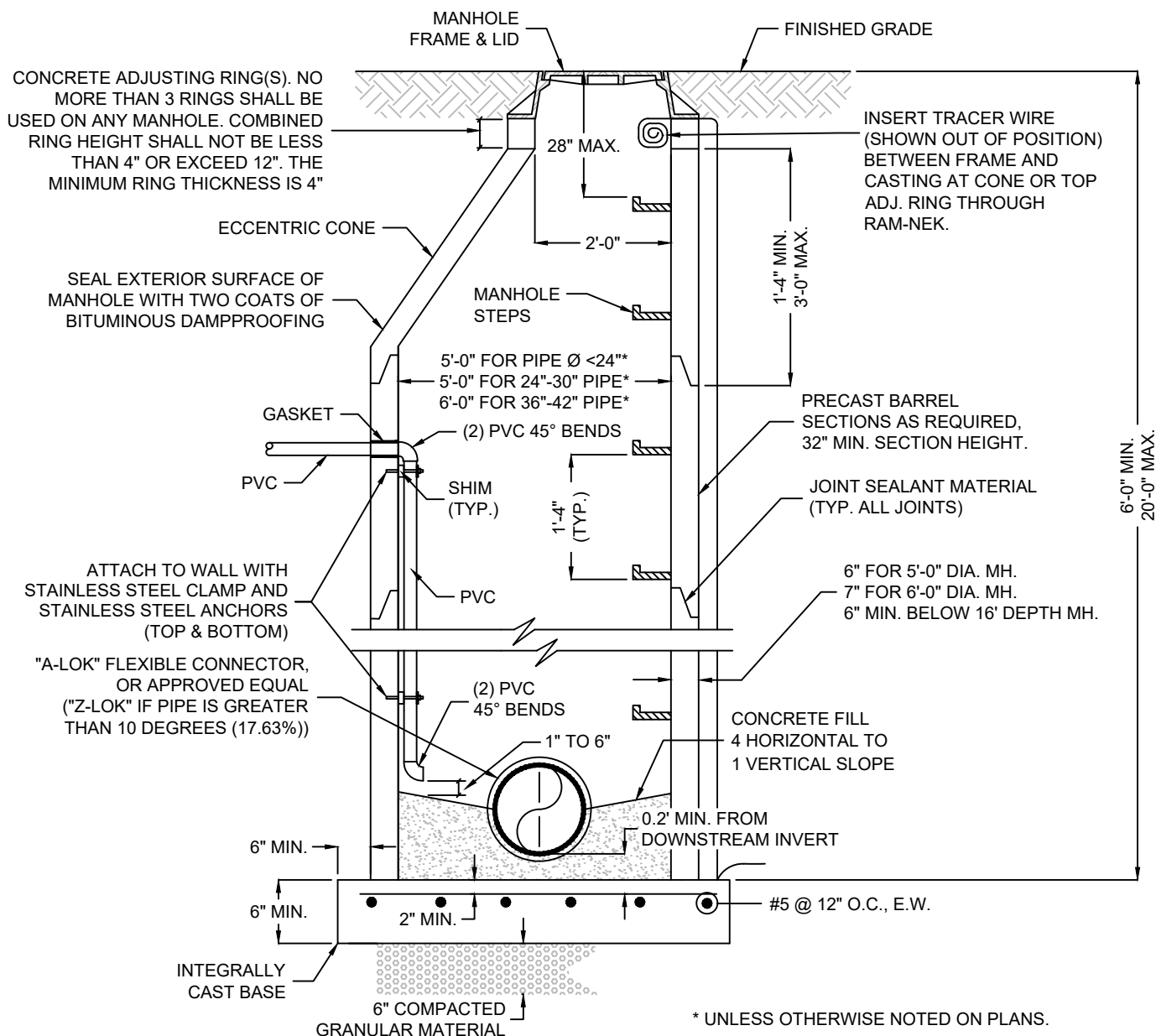
NOTES:

1. BITUMINOUS COAT ALL METAL SURFACES FOR ALL TYPES OF INTERIOR DROP MANHOLES.
2. CONFIGURATIONS SHOWN WILL ALSO BE UTILIZED FOR DROP ASSEMBLIES INSTALLED IN EXISTING MANHOLES.
3. MANHOLE FLOW CHANNEL SHALL BE MADE TO CONFORM IN SHAPE AND SLOPE TO THAT OF THE SEWERS.
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7. TRACER WIRE SHALL BE INSTALLED PER SPECIFICATION 02537. TRACER WIRE SHALL BE COILED AROUND A 1" DIAMETER PVC PIPE AND STAGED AT TOP OF MANHOLE.
8. ALL MOUNTING BRACKETS, BOLTS, AND CLAMPS SHALL BE 316 STAINLESS STEEL.

INSIDE DROP MANHOLE (GRAVITY)

SCALE: NONE

REV. DATE: 03/06/2023



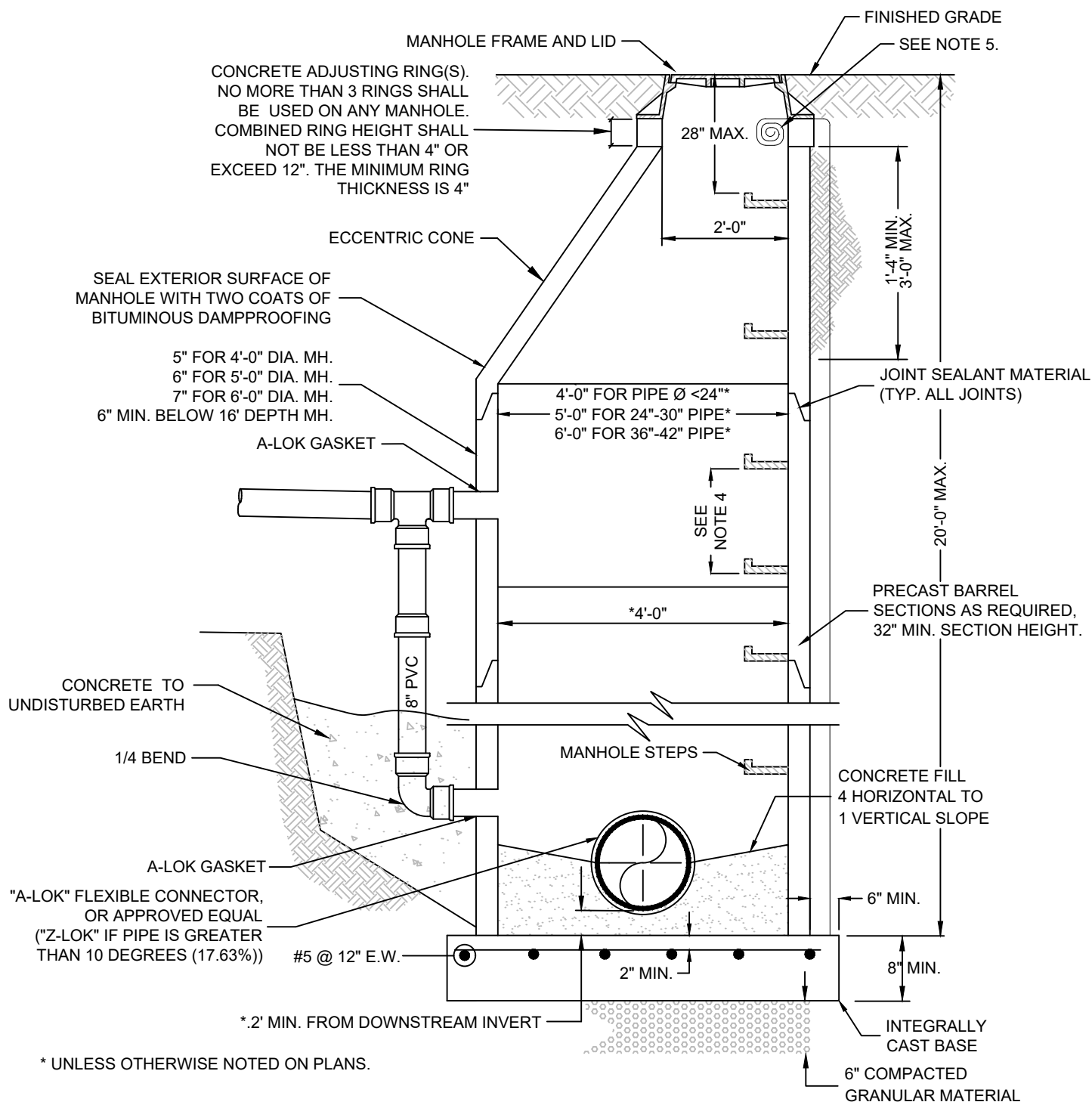
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INSIDE DROP MANHOLE (FORCEMAIN)

SCALE: NONE

REV. DATE: 03/06/2023



* UNLESS OTHERWISE NOTED ON PLANS.

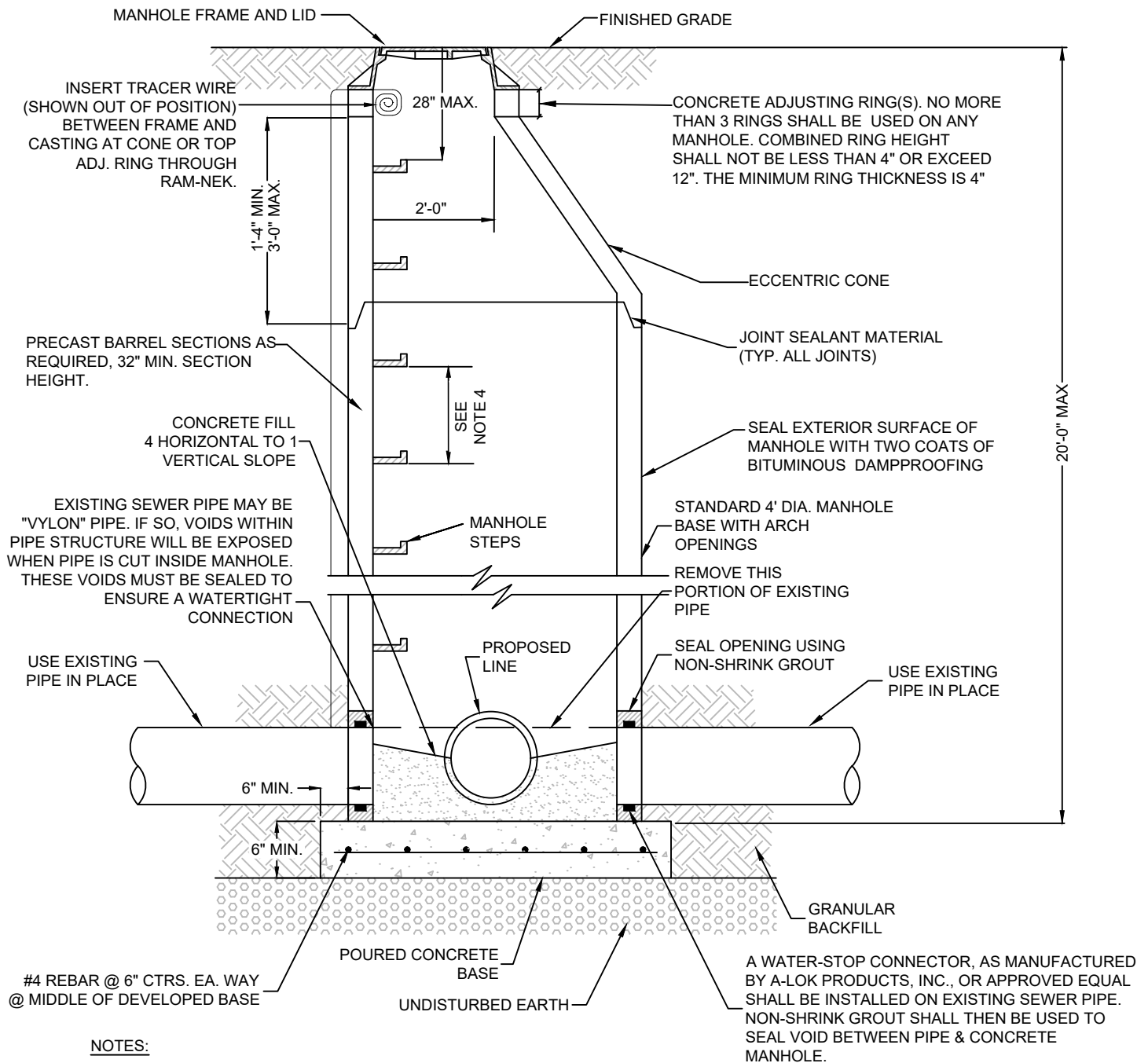
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OUTSIDE DROP

SCALE: NONE

REV. DATE: 03/06/2023



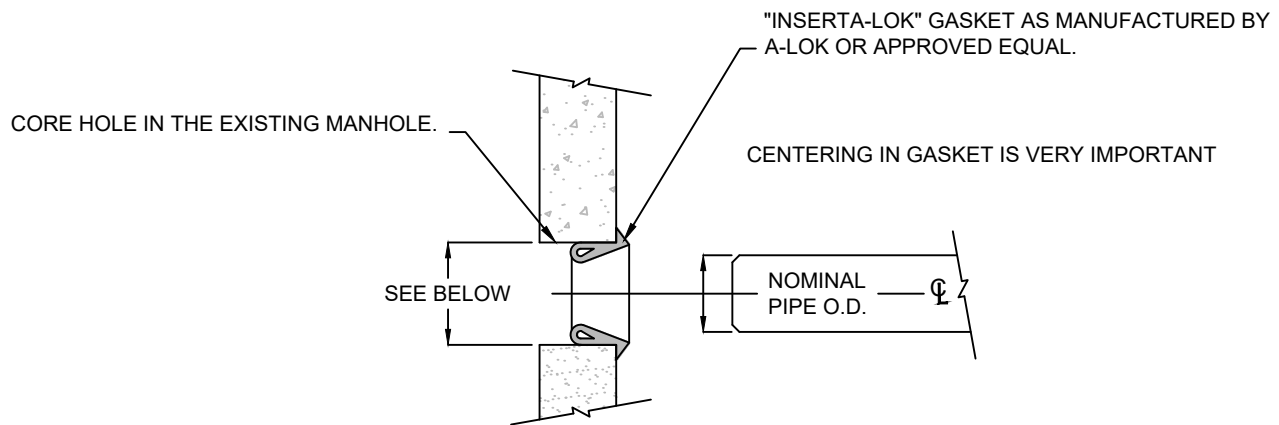
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STRADDLE MANHOLE

SCALE: NONE

REV. DATE: 03/06/2023



CORE HOLE EXAMPLES:

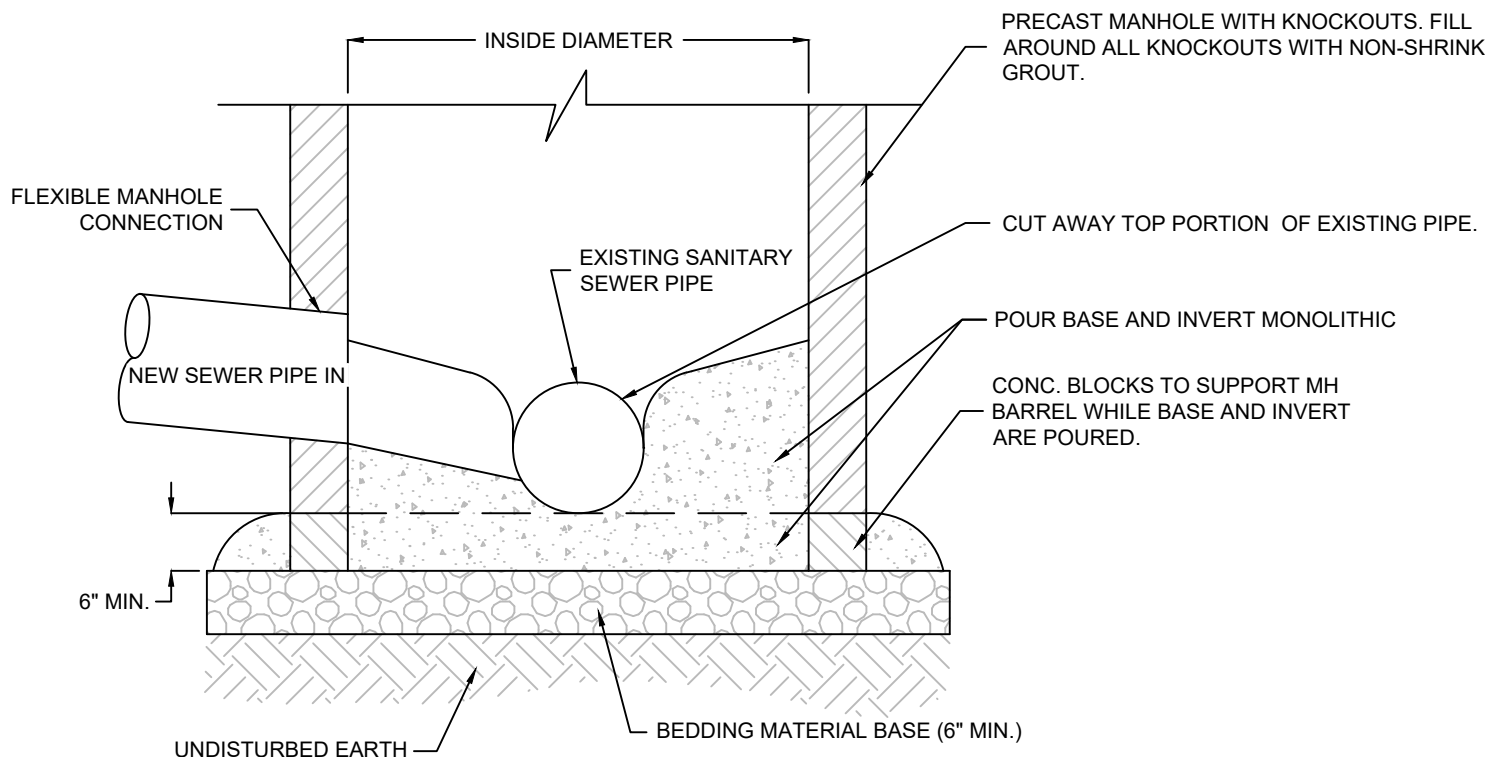
8"Ø PVC = 10"Ø HOLE
 10"Ø PVC = 12"Ø HOLE
 12"Ø PVC = 14"Ø HOLE

1. BEVEL PIPE WITH GRINDER
2. THEN LUBE PIPE
3. THEN LUBE INSERTA-LOK
4. THEN CENTER PIPE IN GASKET

CONNECTION TO EXISTING MANHOLE

NOT TO SCALE

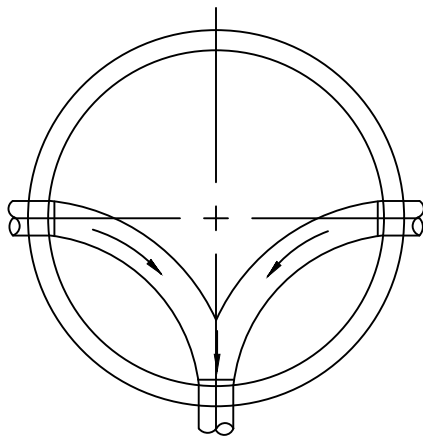
REV. DATE: 03/06/2023



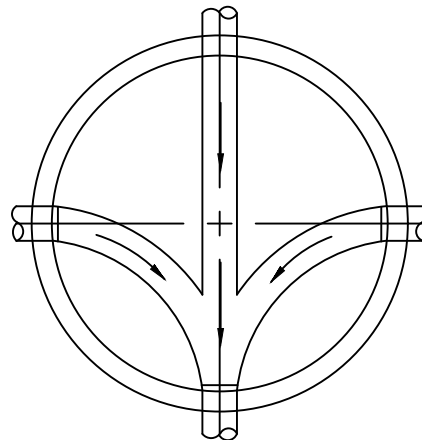
NEW MANHOLE ON EXISTING LINE

NOT TO SCALE

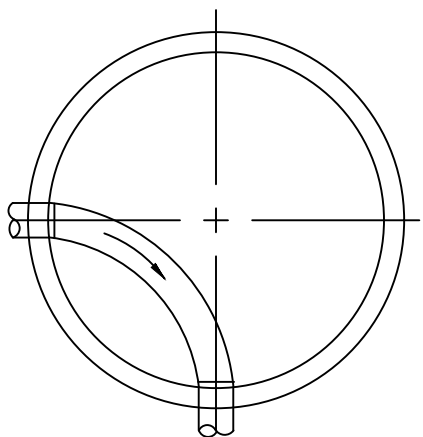
REV. DATE: 03/06/2023



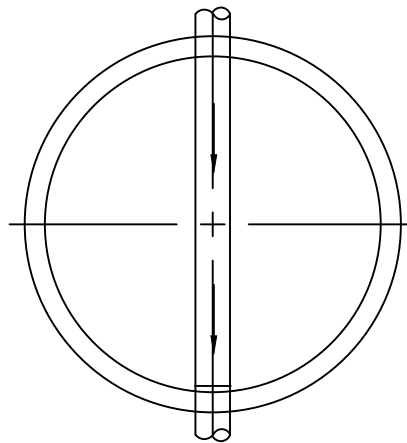
JUNCTION



JUNCTION



RIGHT ANGLE



STRAIGHT THRU

NOTES:

1. DEPTH OF CHANNELS TO BE 1/2 I.D. OF PIPE.
2. PROVIDE SMOOTH FLOW ACROSS BOTTOM OF MANHOLE.
3. FLOW CHANNEL SHALL HAVE TROWELED FINISH.

MANHOLE BOTTOM

NOT TO SCALE

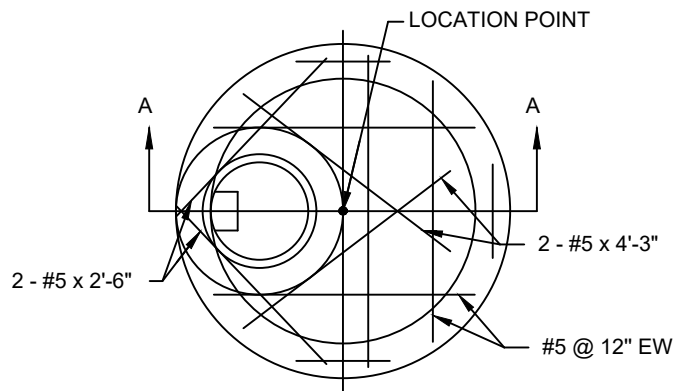
REV. DATE: 03/06/2023

NOTES:

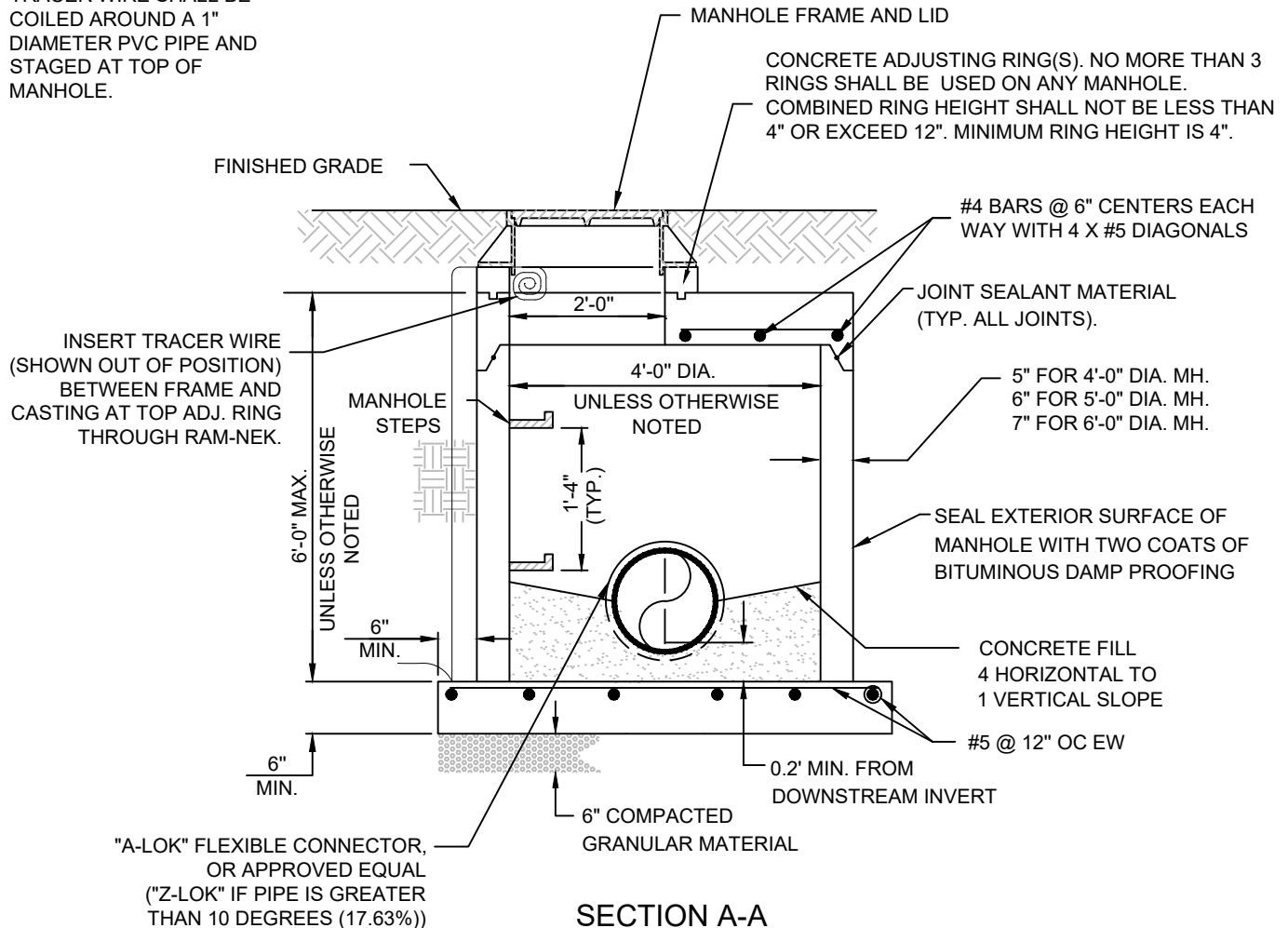
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2.) UNLESS OTHERWISE NOTED, ALL PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C-478 REQUIREMENTS.

3.) TRACER WIRE SHALL BE INSTALLED PER SPECIFICATION 02537. TRACER WIRE SHALL BE COILED AROUND A 1" DIAMETER PVC PIPE AND STAGED AT TOP OF MANHOLE.



PLAN VIEW

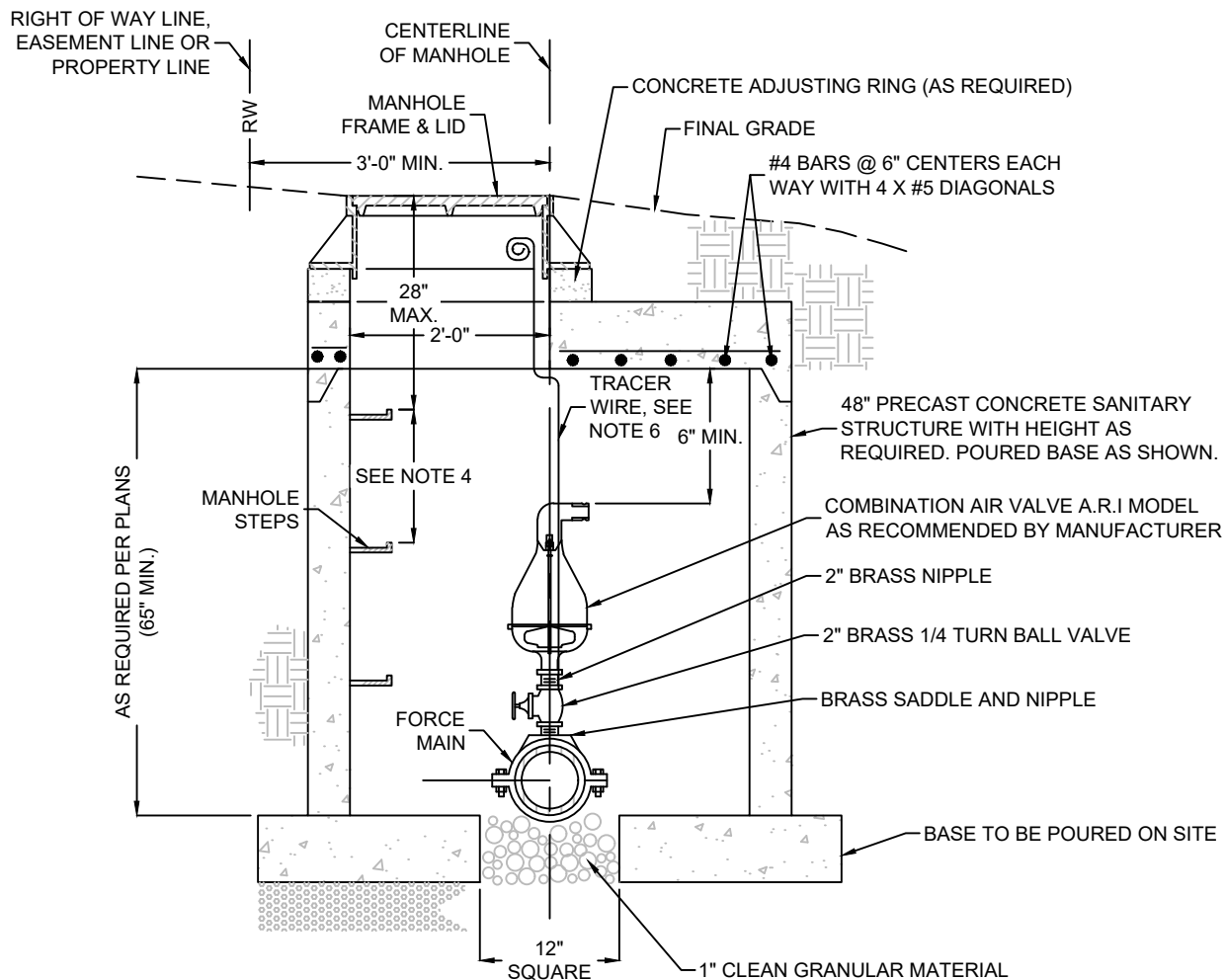


SECTION A-A

SHALLOW PRECAST CONCRETE SANITARY MANHOLE

NOT TO SCALE

REV. DATE: 09/06/2024



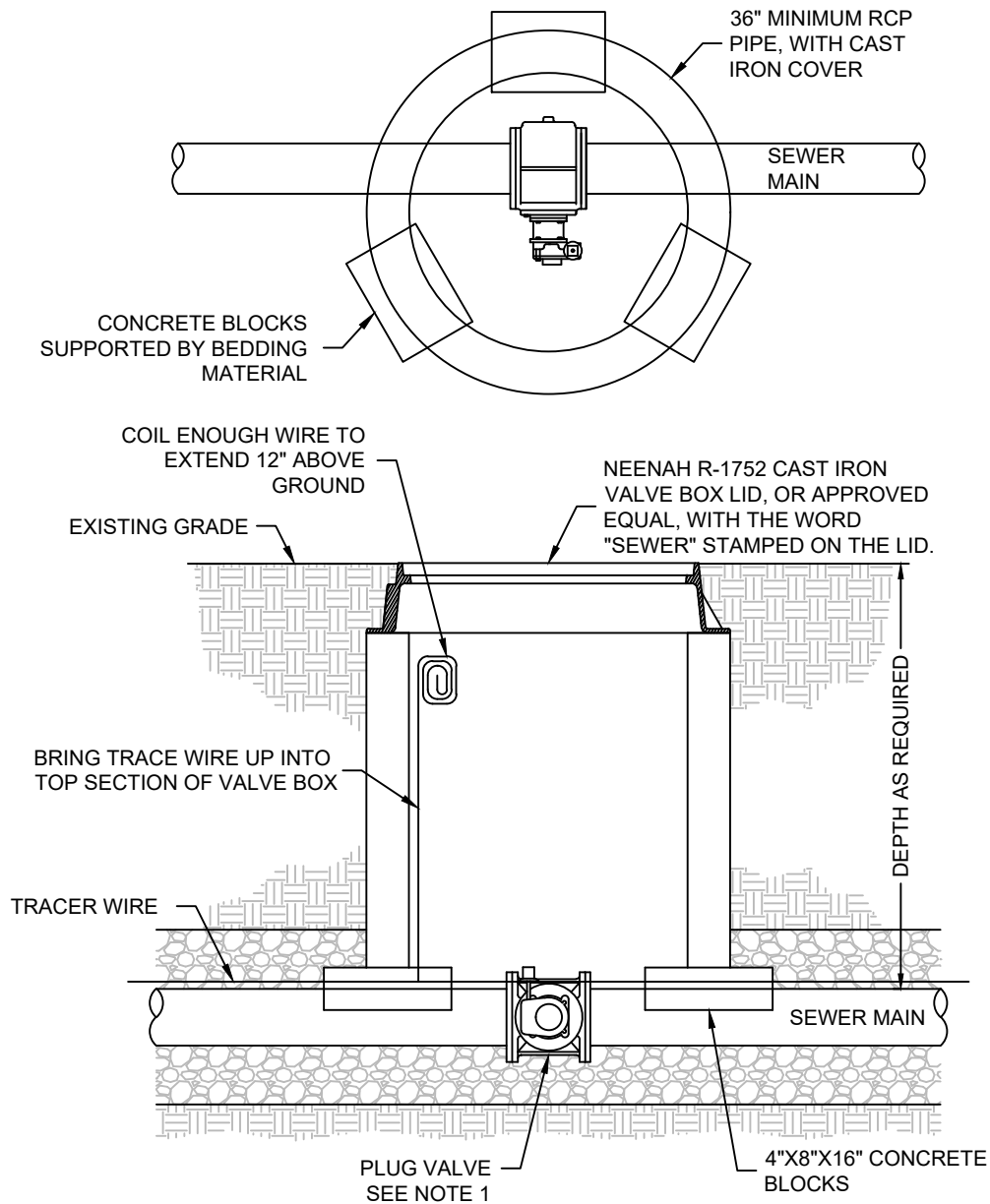
COMBINATION AIR RELEASE/VACUUM VALVE

SCALE: NONE

NOTES:

- AIR-VACUUM VALVE INSTALLATIONS POSITION RING AND COVER ON AIR-VACUUM VALVE ASSEMBLY MANHOLES NEAREST TO RIGHT-OF-WAY LINE, EASEMENT LINE, OR PROPERTY LINE AS PRACTICABLE. INSTALL WARNING SIGN APPROXIMATELY 3" ON RIGHT-OF-WAY OR EASEMENT LINE ADJACENT TO MANHOLE. WARNING SIGN SHALL BE A MINIMUM 16 GAUGE, WHITE BACKGROUND WITH RED LETTER DENOTING "CAUTION SEWER". SIGN SHALL BE APPROXIMATELY 8" WIDE, 12" TALL, AND SHALL BE BOLTED TO A SUITABLE GALVANIZED POST A MINIMUM OF 6' IN LENGTH. SIGN SHALL BE POSITIONED WITH THE TOP OF THE SIGN APPROXIMATELY 42" ABOVE GRADE.
- CONTRACTOR SHALL PROVIDE ADEQUATE PIPE BACKING AND SUPPORT.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS TO COMPLETE INSTALLATION TO DIFFERENT SIZE PRESSURE SEWER LINES.
- MANHOLE STEPS SHALL BE ALIGNED SO AS TO FORM A CONTINUOUS LADDER WITH RUNGS EQUALLY SPACED VERTICALLY IN THE ASSEMBLED MANHOLE AT A MINIMUM DISTANCE OF 12 INCHES APART AND A MAXIMUM OF 16 INCHES APART.
- UNLESS OTHERWISE NOTED, ALL PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C-478 REQUIREMENTS.
- TRACER WIRE SHALL BE INSTALLED PER SPECIFICATION 02537. TRACER WIRE SHALL BE COILED AROUND A 1" DIAMETER PVC PIPE AND STAGED AT TOP OF MANHOLE.

REV. DATE: 10/01/2024



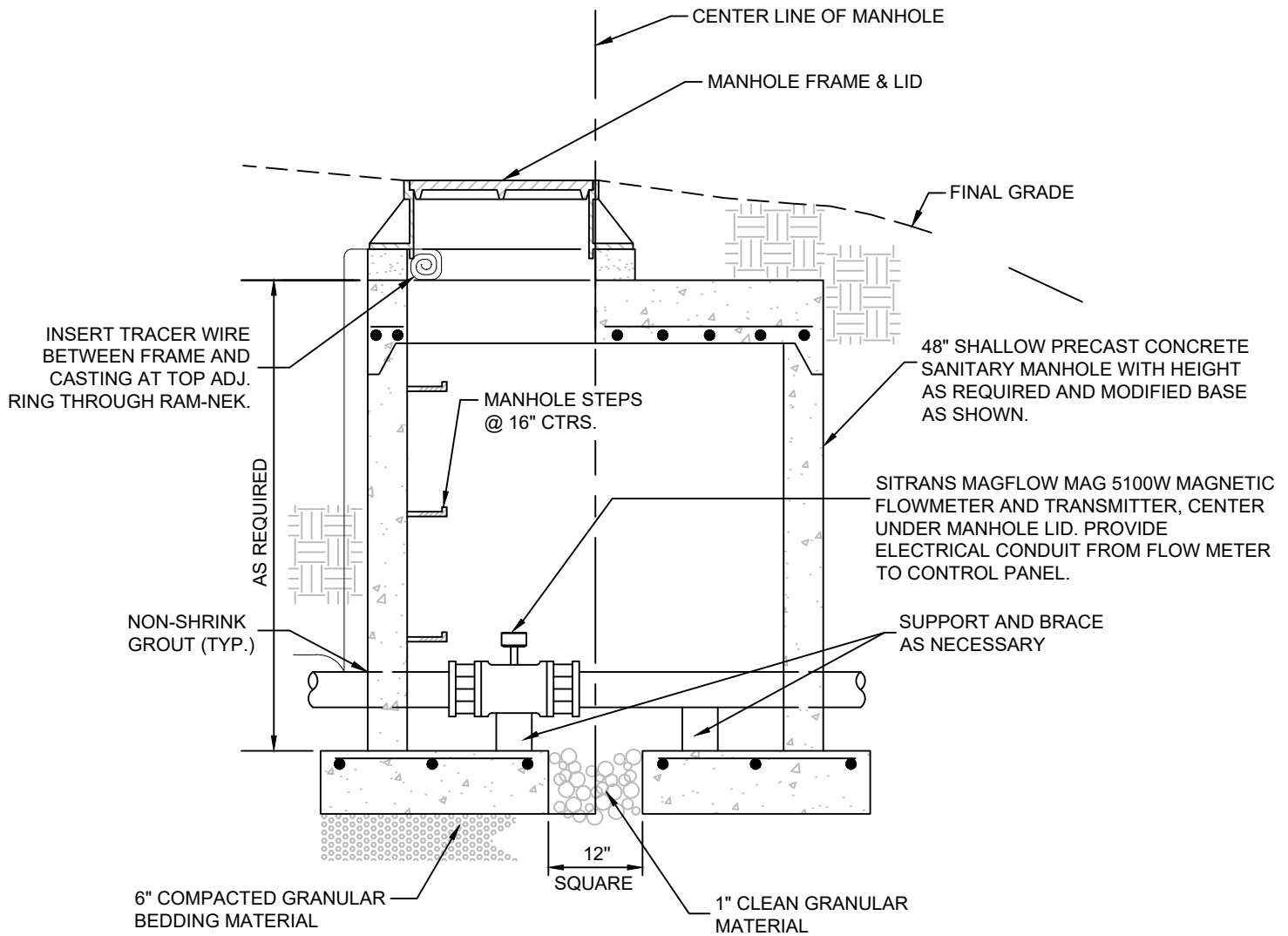
IN-LINE ISOLATION PLUG VALVE

NOT TO SCALE

NOTES:

1. PLUG VALVE SHALL BE VALMATIC BRAND WITH 2" OPERATIONAL NUT. ENSURE THAT VALVE IS POSITIONED FOR EASY ACCESS FROM GROUND SURFACE.

REV. DATE: 03/07/2025



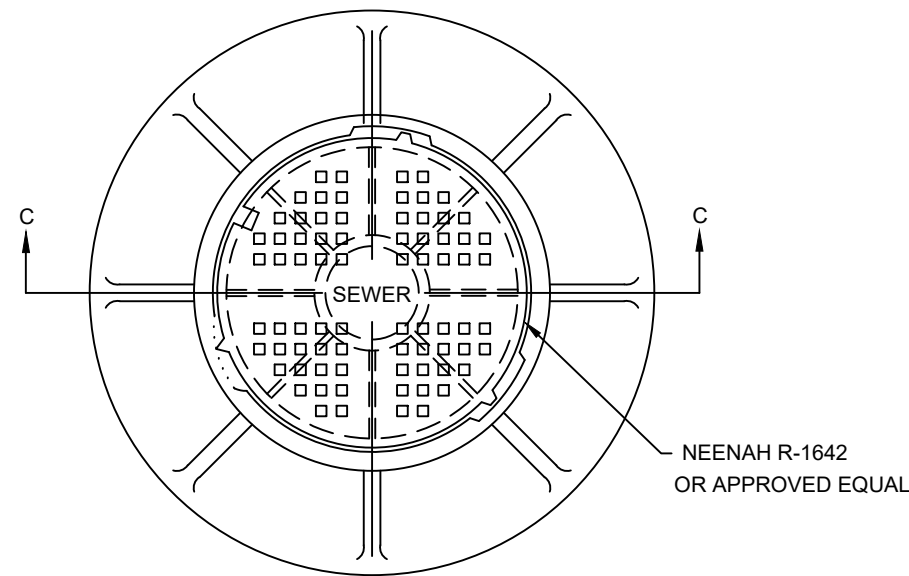
FLOWMETER DETAIL

NOT TO SCALE

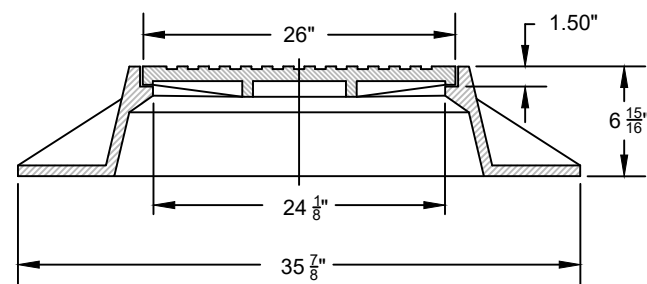
NOTES:

1. CONTRACTOR SHALL PROVIDE ADEQUATE PIPE BACKING AND SUPPORT.
2. CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS TO COMPLETE INSTALLATION TO DIFFERENT SIZE PRESSURE SEWER LINES.
3. STEEL REINFORCING SHALL BE PER PRECAST PROVIDER'S DESIGN AND IS SHOWN FOR REFERENCE ONLY.
4. INSTALL NEMA 4X STAINLESS STEEL ENCLOSURE INSIDE OF LIFT STATION FENCE TO TRANSMITTER. MOUNT ON GALVANIZED POLE OR RACK WITH CONCRETE FOUNDATION. SUPPLY CONDUIT FROM METER VAULT TO ENCLOSURE.
5. CONTRACTOR TO CONNECT FLOWMETER AND TRANSMITTER TO ELECTRICAL POWER SOURCE AT EXISTING LIFT STATION CONTROL PANEL. ALL ELECTRICAL WIRING SHALL BE CONTAINED IN CONDUIT.
6. TRACER WIRE SHALL BE INSTALLED PER SPECIFICATION 02537. TRACER WIRE SHALL BE COILED AROUND A 1" DIAMETER PVC PIPE AND STAGED AT TOP OF MANHOLE.

REV. DATE: 09/06/2024

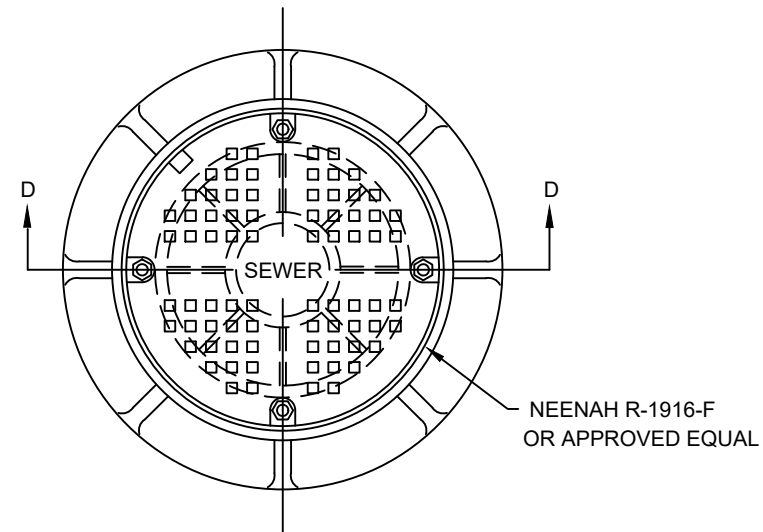


PLAN VIEW

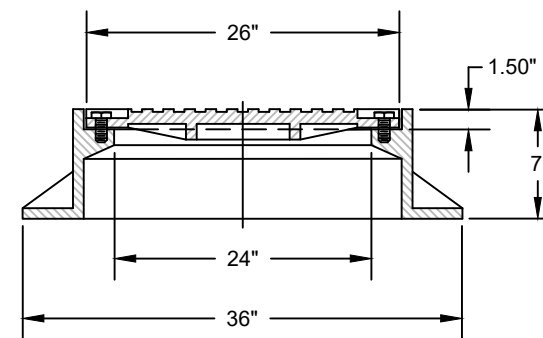


SECTION C-C

STANDARD MANHOLE
FRAME & LID
NOT TO SCALE

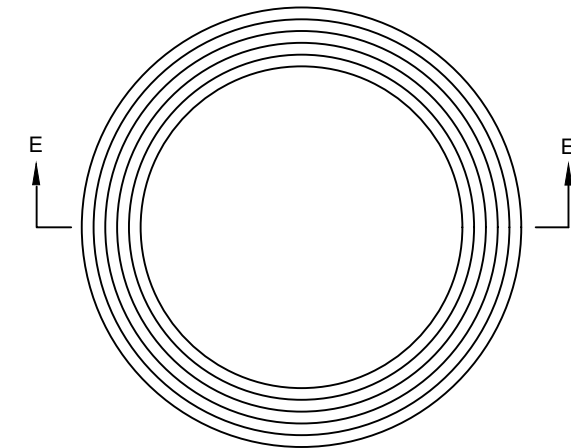


PLAN VIEW

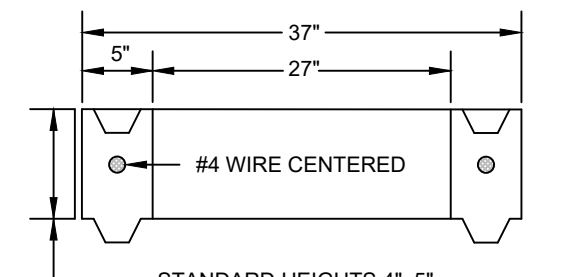


SECTION D-D

WATERTIGHT MANHOLE FRAME & LID
(BOLT DOWN)
NOT TO SCALE



PLAN VIEW



STANDARD HEIGHTS 4", 5",
6", 7", 8", 10", 12"
REINFORCEMENT: #4 WIRE, ASTM-8
CONCRETE: 4000 PSI
WEIGHT: 41 LBS PER VERTICAL INCH

SECTION E-E
CONCRETE GRADE RING
NOT TO SCALE

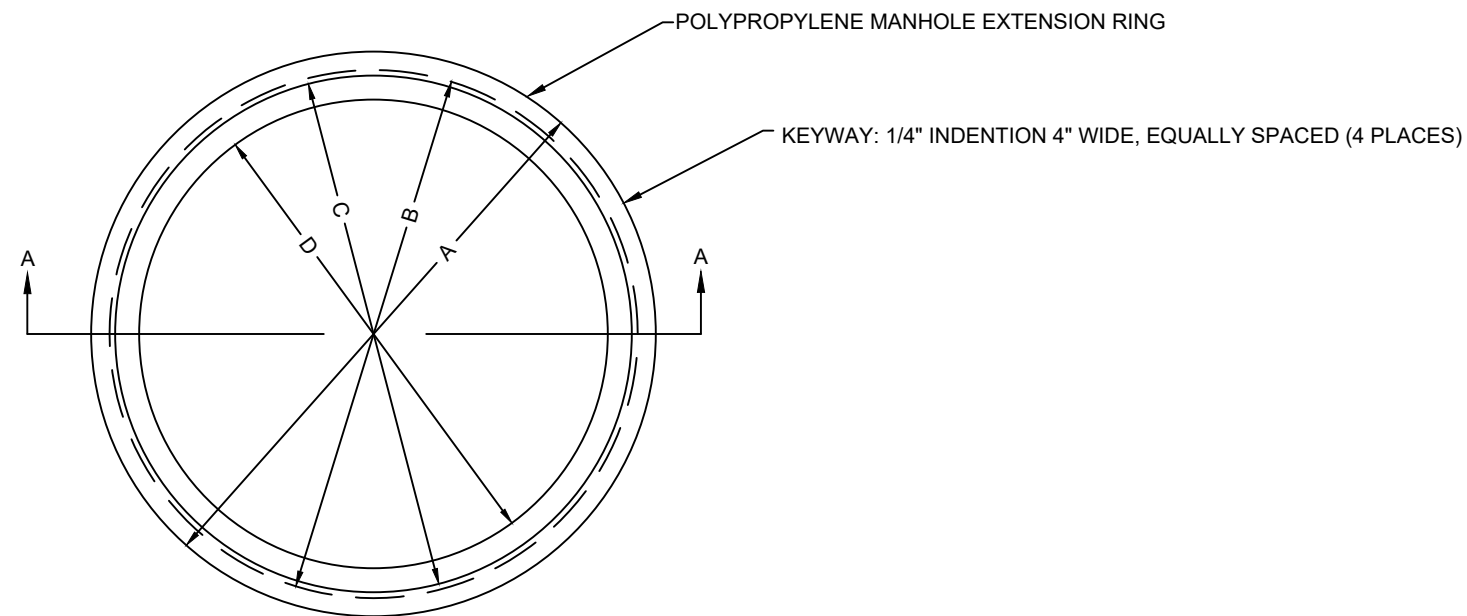
NOTES:

1. BOLT DOWN FRAMES SHALL BE ANCHORED A MINIMUM OF 5" DEEP INTO THE CONCRETE CONE. MINIMUM 4 STAINLESS STEEL ANCHORS PER FRAME SIZED TO MAXIMIZE BOLT HOLE DIAMETER.

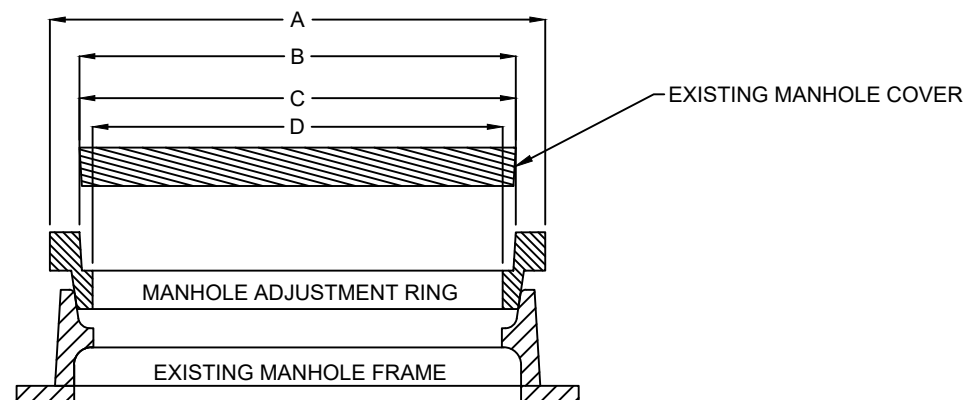
REV. DATE: 03/06/2023



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 13
MANHOLE FRAME & LID VARIATIONS

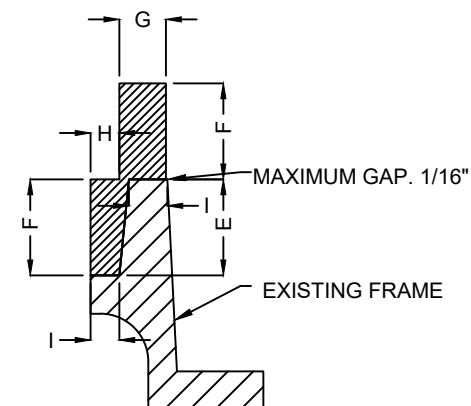


PLAN VIEW



SECTION A-A

COMPOSITE
MANHOLE RISER
NOT TO SCALE



SCHEDULE

A	B	C	D	E	F*	G	H	I	J
36	33 $\frac{1}{2}$	33	31	1 $\frac{3}{8}$	1	1 $\frac{1}{4}$	1 $\frac{5}{16}$	1 $\frac{5}{16}$	1 $\frac{5}{16}$
36	33 $\frac{1}{2}$	33	31	1 $\frac{3}{8}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	1 $\frac{5}{16}$	1 $\frac{5}{16}$	1 $\frac{5}{16}$
34	32	31 $\frac{3}{4}$	30	1 $\frac{3}{8}$	1	1	1 $\frac{3}{4}$	1	1 $\frac{5}{8}$
34	32	31 $\frac{3}{4}$	30	1 $\frac{3}{8}$	1 $\frac{1}{2}$	1	1 $\frac{3}{4}$	1	1 $\frac{5}{8}$
34	32	31 $\frac{3}{4}$	30	1 $\frac{3}{8}$	2	1	1 $\frac{3}{4}$	1	1 $\frac{5}{8}$
31	29	28 $\frac{3}{4}$	27	1 $\frac{3}{8}$	1	1 $\frac{7}{4}$	1 $\frac{3}{4}$	1	1 $\frac{5}{8}$
31	29	28 $\frac{3}{4}$	27	1 $\frac{3}{8}$	1 $\frac{1}{2}$	1 $\frac{7}{3}$	1 $\frac{3}{4}$	1	1 $\frac{5}{8}$
31	29	28 $\frac{3}{4}$	27	1 $\frac{3}{8}$	2	1 $\frac{7}{3}$	1 $\frac{3}{4}$	1	1 $\frac{5}{8}$
MAX	36	34	33 $\frac{1}{2}$	31 $\frac{1}{2}$	2	3	1 $\frac{1}{4}$	1	1 $\frac{5}{16}$
MIN	22	20	19 $\frac{1}{2}$	17 $\frac{1}{2}$	1 $\frac{7}{8}$	1 $\frac{7}{3}$	1 $\frac{3}{4}$	1 $\frac{7}{8}$	1 $\frac{5}{8}$

(SIZES ARE IN INCHES) F* - DIMENSIONS TO BE IN INCREMENTS OF 1/6"

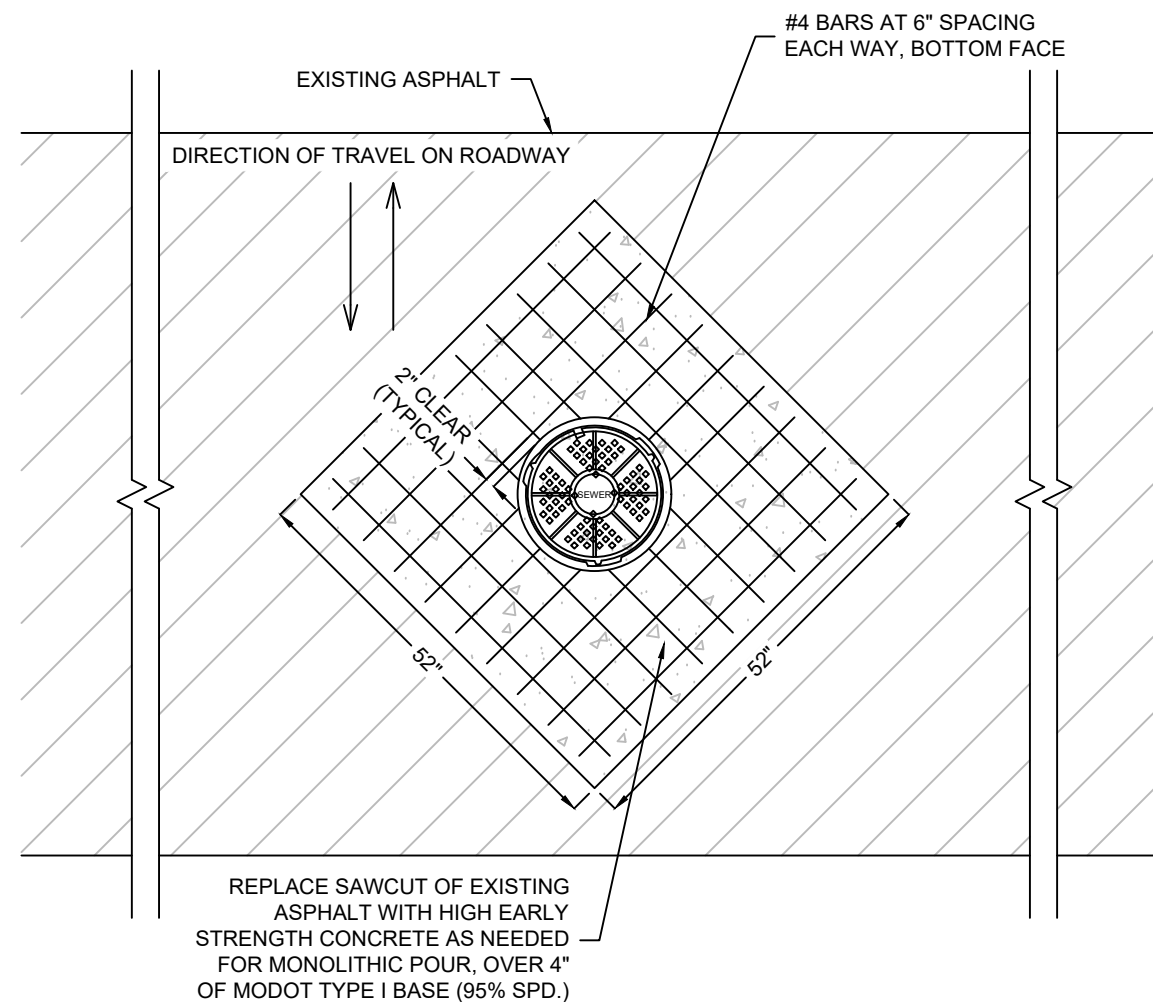
NOTE:

1. THE TABLE ABOVE REPRESENTS THE MOST COMMONLY AVAILABLE SIZES. IN ADDITION, RINGS ARE AVAILABLE IN OTHER CIRCUMFERENCES AND OVERLAY AND COVER THICKNESS AS REQUIRED. NOTE THE ABOVE MAXIMUM AND MINIMUM DIMENSIONS. CONSULT MANUFACTURE FOR ADDITIONAL SPECIFICATIONS.

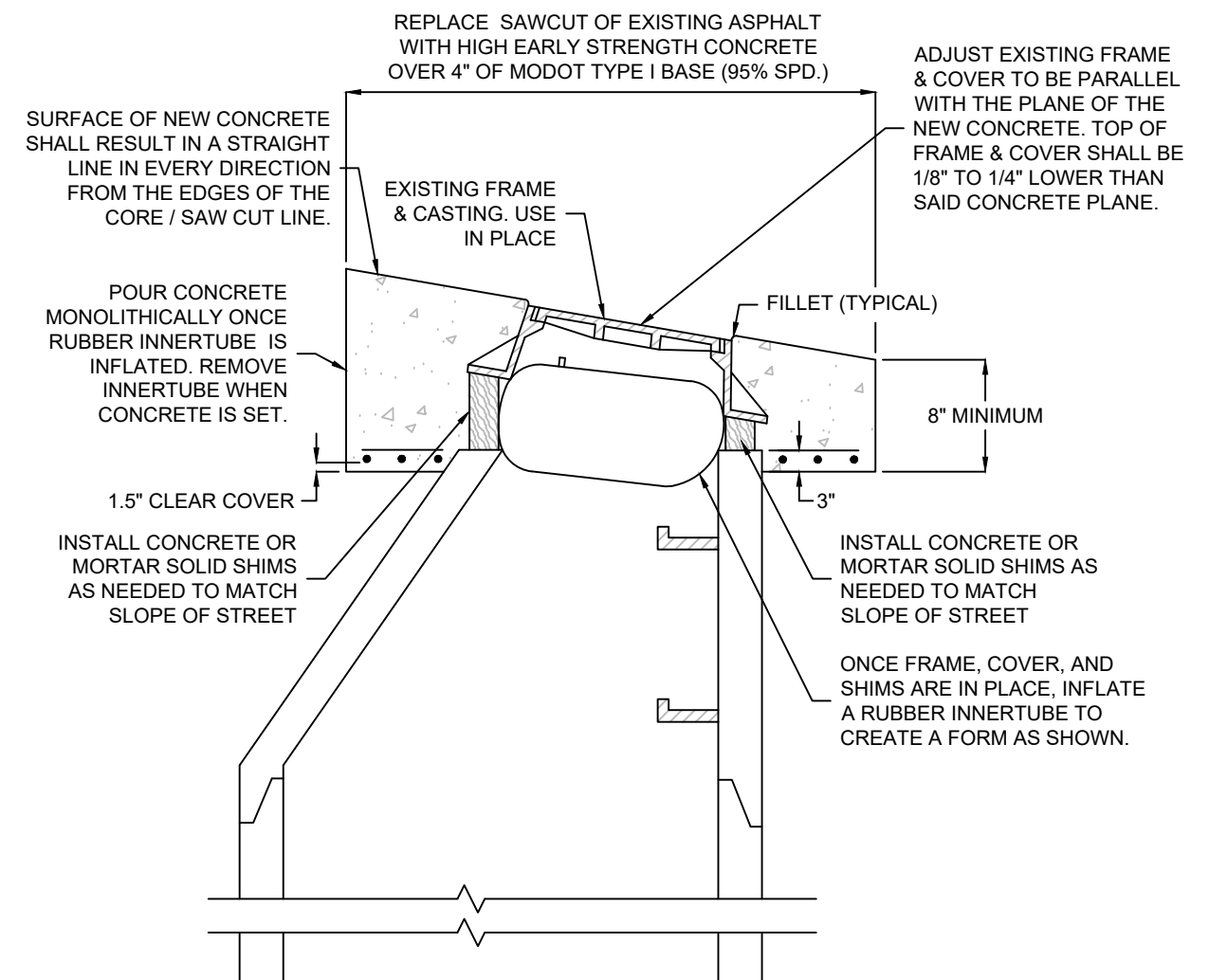
REV. DATE: 03/06/2023



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 14
COMPOSITE MANHOLE RISER



PLAN VIEW

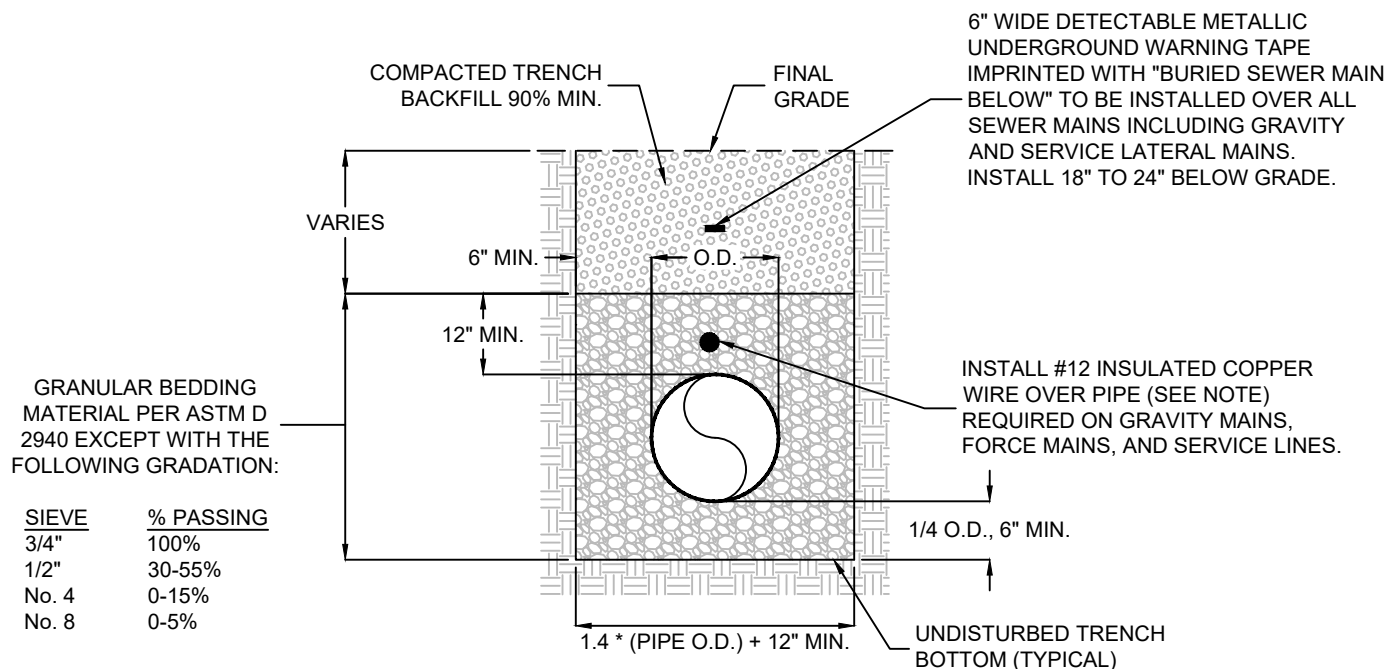


PROFILE VIEW

FRAME & COVER ADJUSTMENT

NOT TO SCALE

REV. DATE: 09/06/2024



SINGLE PIPE IN TRENCH

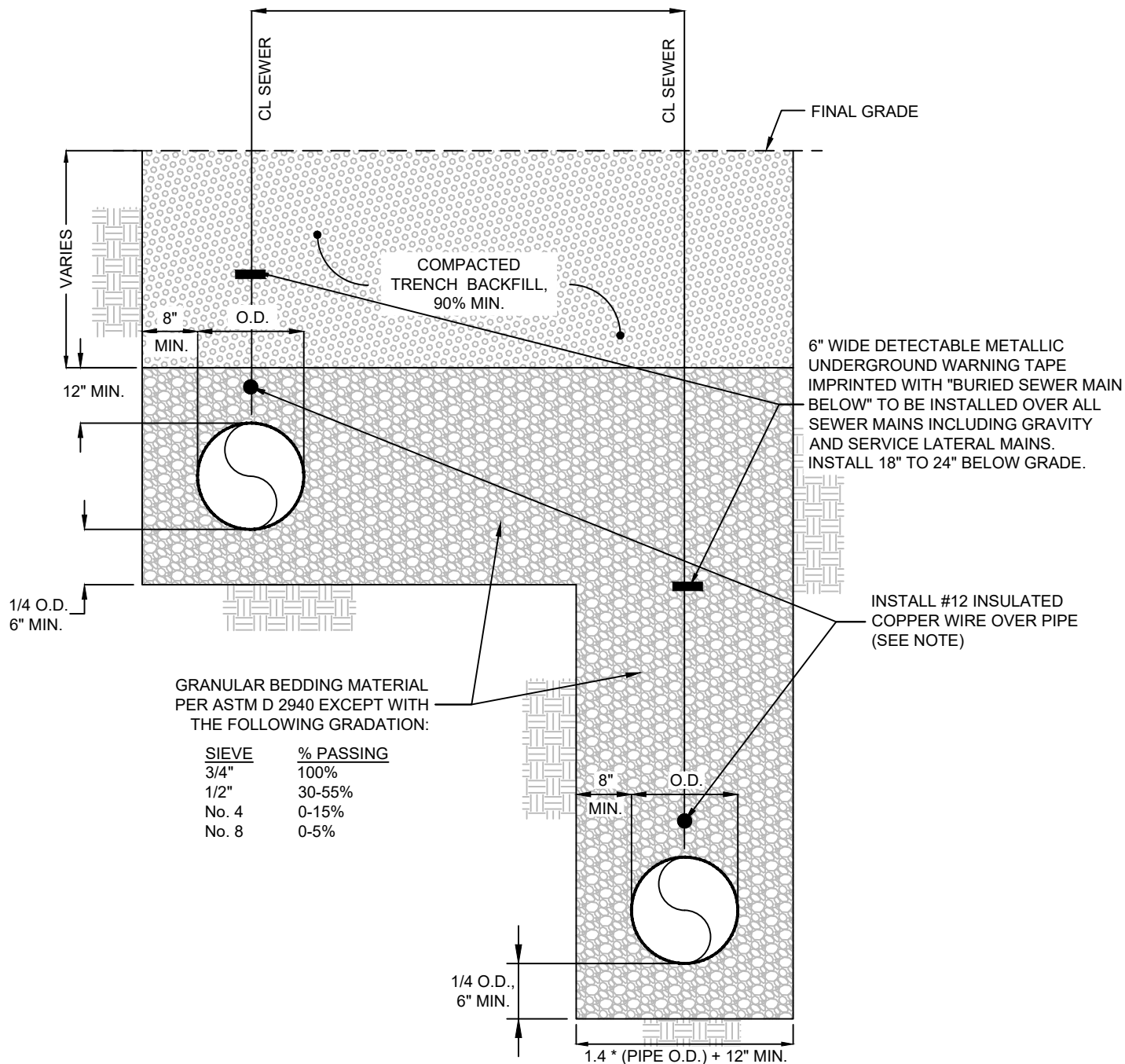
NOTE:
LOCATOR WIRE SHALL BE INSTALLED PER SPECIFICATION 02537.

PIPE INSTALLATION

SCALE: NONE

REV. DATE: 03/06/2023

4'-0" MIN. BETWEEN 2 FORCE MAINS
 5'-0" MIN. BETWEEN GRAVITY LINE & FORCE MAINS
 7'-0" MIN. BETWEEN 2 GRAVITY LINES OR AS REQUIRED



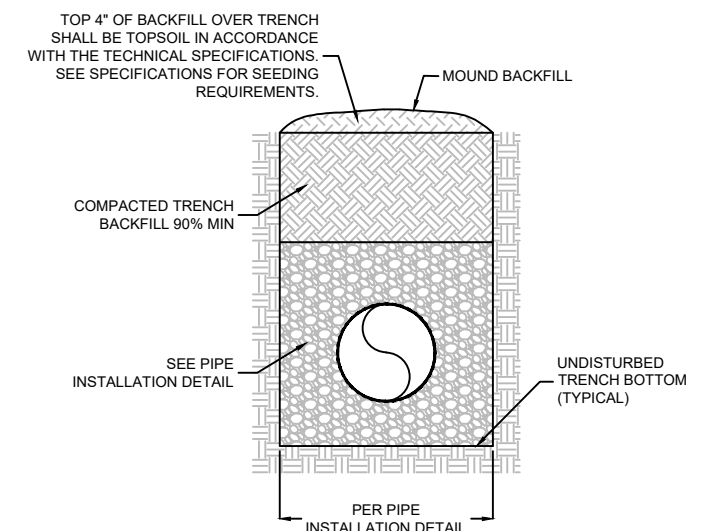
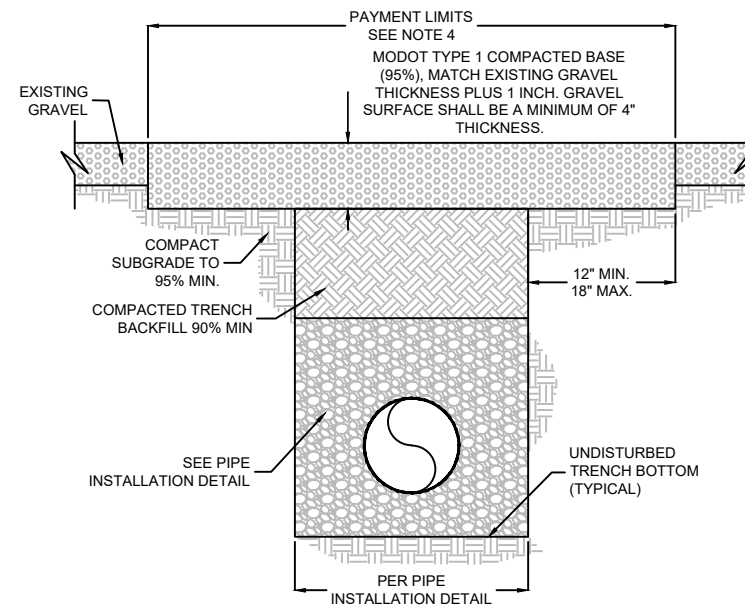
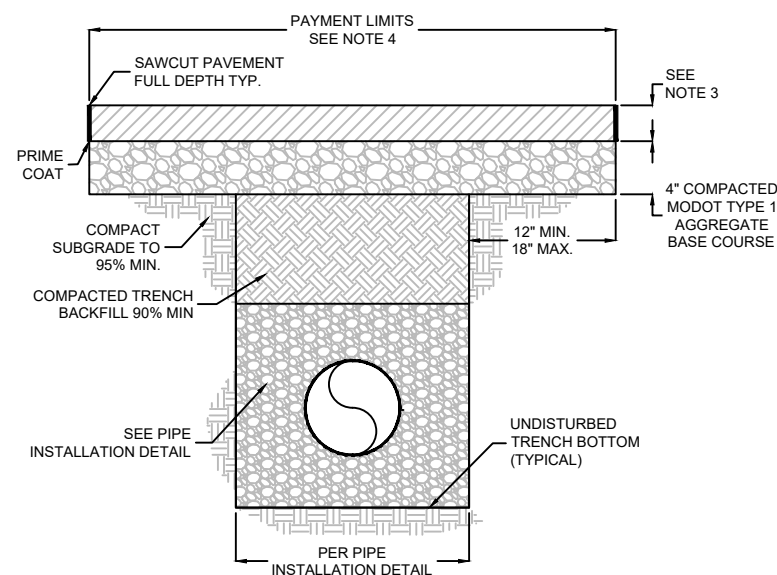
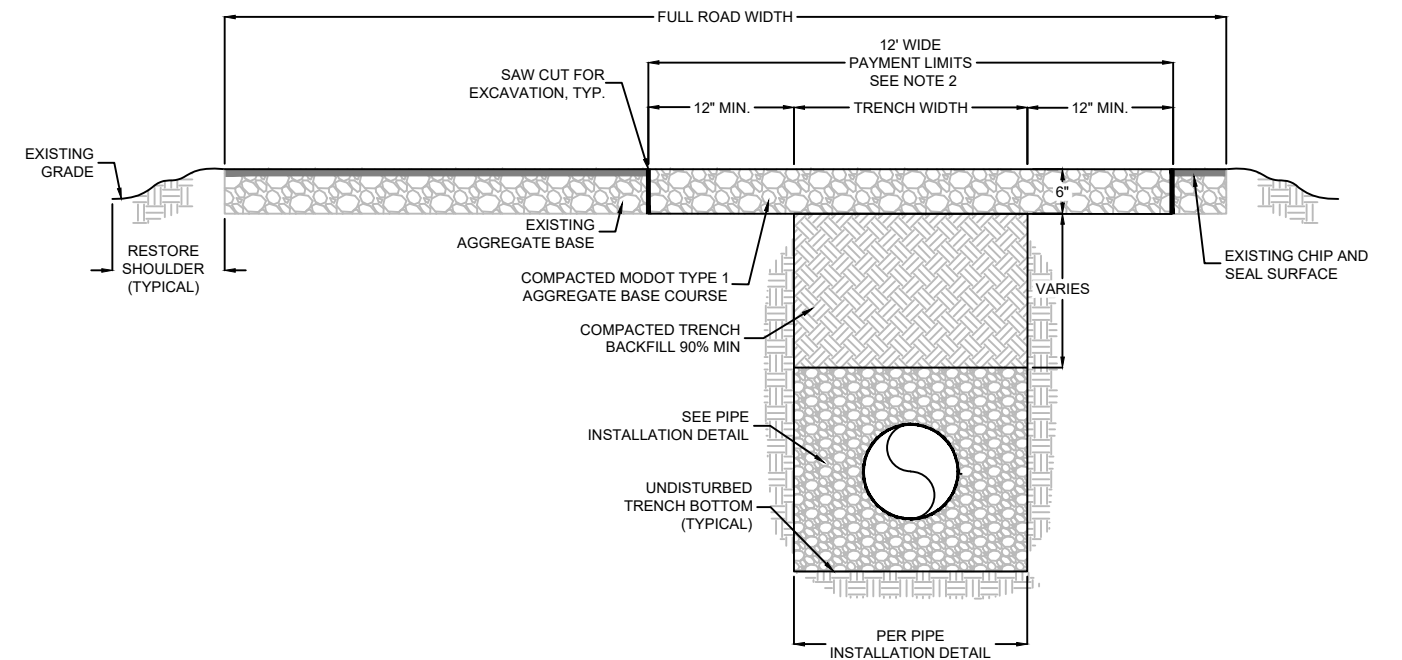
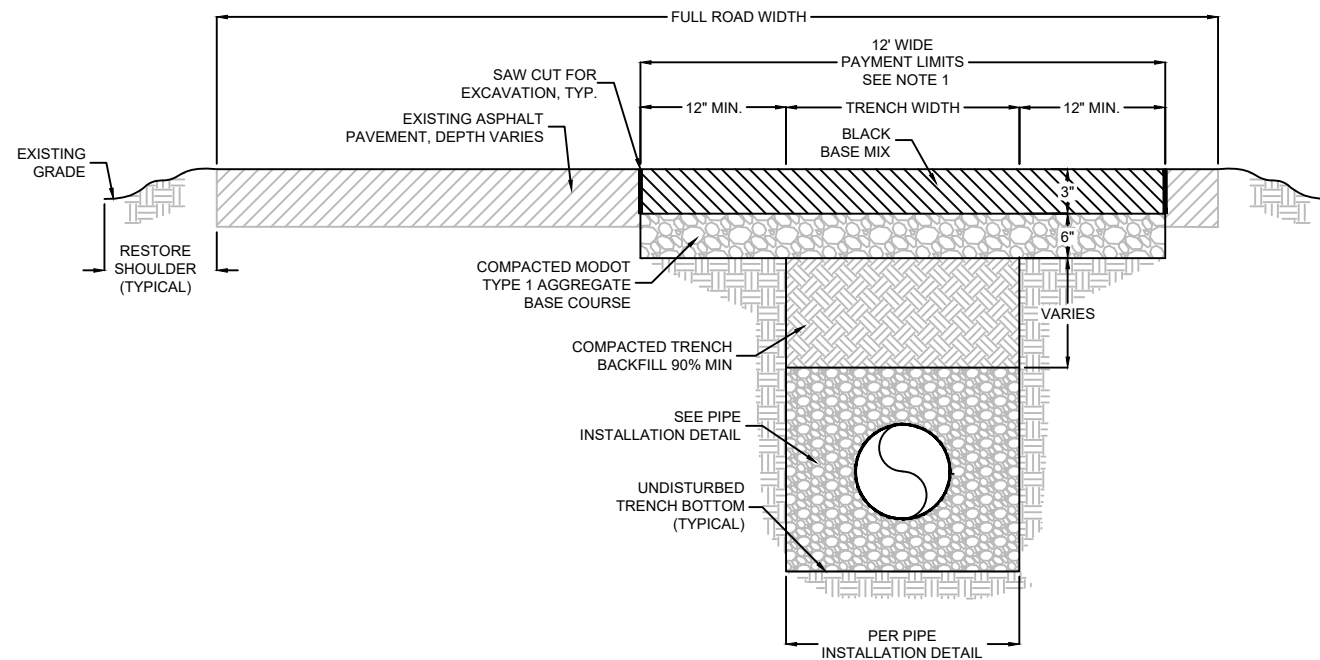
PARALLEL PIPES IN JOINT TRENCH

NOT TO SCALE

NOTE:

LOCATOR WIRE SHALL BE INSTALLED PER SPECIFICATION 02537.

REV. DATE: 03/06/2023



- NOTES:
1. PAYMENT LIMIT FOR COUNTY ROAD ASPHALT PAVEMENT REPAIR SHALL BE LIMITED TO 12 FEET. CONTRACTOR TO SAWCUT AND REMOVE PAVEMENT AS SHOWN. CONTRACTOR TO PROVIDE MODOT BASE PLANT MIX BITUMINOUS PAVEMENT AS SHOWN. ASPHALT OVERLAY WILL BE INSTALLED BY TANEY COUNTY ROAD & BRIDGE IN THE FUTURE. ANY AREA DISTURBED BEYOND PAYMENT LIMITS SHALL BE RESTORED IN ACCORDANCE WITH DETAILS AND SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.
 2. PAYMENT LIMIT FOR COUNTY ROAD CHIP AND SEAL PAVEMENT REPAIR SHALL BE LIMITED TO 12 FEET. CONTRACTOR TO PROVIDE 6" COMPACTED MODOT TYPE 1 AGGREGATE BASE COURSE WITH AGGREGATE TRANSITION FROM PAVEMENT TO BASE ROCK AS SHOWN. CHIP AND SEAL OVERLAY WILL BE INSTALLED BY TANEY COUNTY ROAD & BRIDGE IN THE FUTURE. CONTRACTOR TO REMOVE EXISTING CHIP AND SEAL SURFACE AS SHOWN. ANY AREA DISTURBED BEYOND PAYMENT LIMITS SHALL BE RESTORED IN ACCORDANCE WITH DETAILS AND SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.
 3. MODOT BP-1 PLANT MIX BITUMINOUS PAVEMENT, MATCH EXISTING ASPHALT THICKNESS PLUS 1 INCH. ASPHALT SHALL BE A MINIMUM OF 3" THICKNESS AND A MAXIMUM OF 6" THICKNESS. IF BITUMINOUS SURFACE THICKNESS IS 4 INCHES OR GREATER, THE TOP 2 INCHES OF PAVEMENT SHALL BE MODOT BP-1 PLANT MIX BITUMINOUS PAVEMENT AND THE REMAINING PAVEMENT THICKNESS SHALL BE MODOT BASE PLANT MIX BITUMINOUS PAVEMENT.
 4. PAYMENT FOR ROAD CROSSING REPLACEMENT SHALL BE TO THE LIMITS SHOWN IN THE DETAILS. ANY AREA DISTURBED BEYOND PAYMENT LIMITS SHALL BE RESTORED IN ACCORDANCE WITH DETAILS AND SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.
 5. CONTRACTOR TO RESHOULDER ROAD WITH TOPSOIL, SEED, AND MULCH OR MODOT TYPE 1 BASE AS REQUIRED TO MATCH EXISTING SHOULDER.
 6. KEEP TRENCH WIDTH AS NARROW AS POSSIBLE TO MINIMIZE AREA OF PAVEMENT REPLACEMENT.

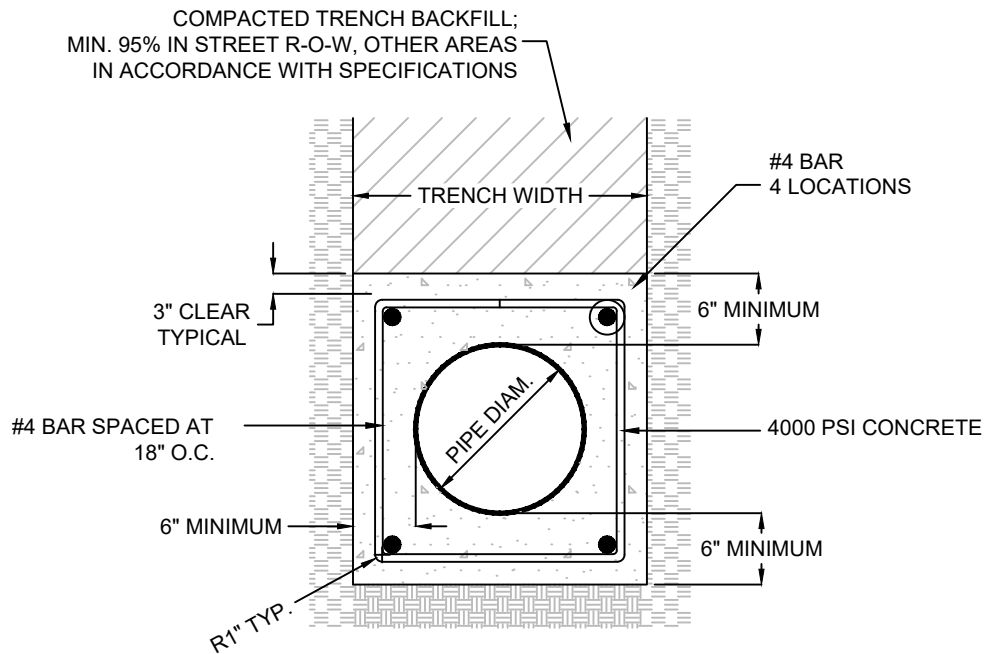
ROAD REPLACEMENT AND TRENCHING BACKFILL METHODS

SCALE: NONE

REV. DATE: 12/17/2025



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 18
ROAD REPLACEMENT AND TRENCHING



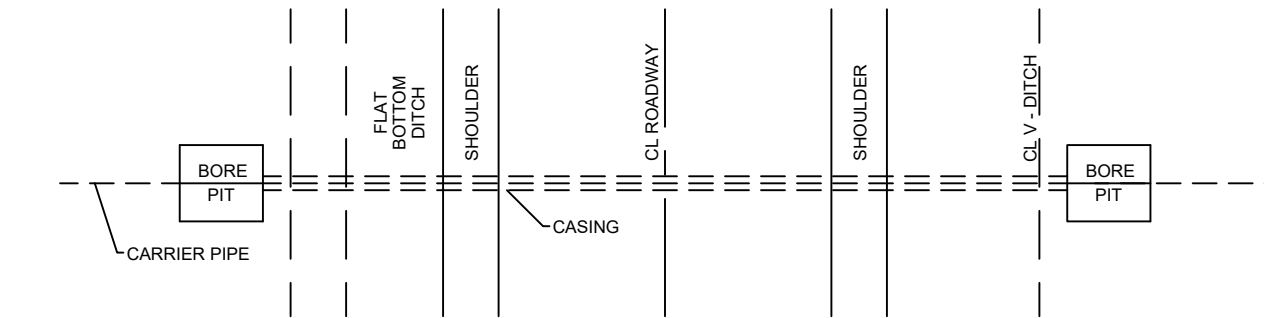
NOTES:

1. BLOCK UP PIPE TO PROVIDE MINIMUM CLEARANCE INDICATED.
2. CONTRACTOR SHALL INSTALL TIE DOWNS AS REQUIRED TO PREVENT FLOATING.

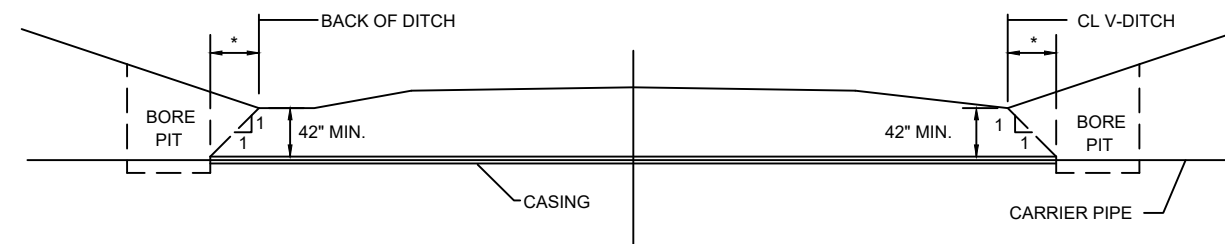
CONCRETE ENCASEMENT

NOT TO SCALE

REV. DATE: 03/06/2023

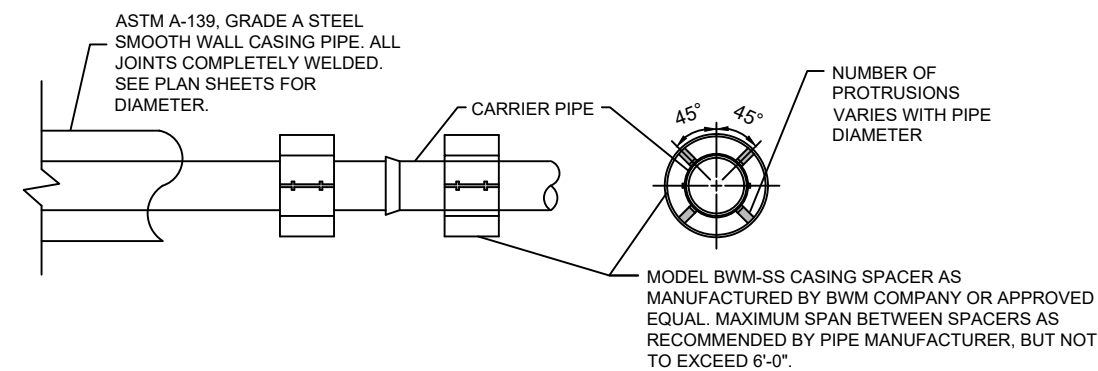


PLAN VIEW



CROSS SECTION

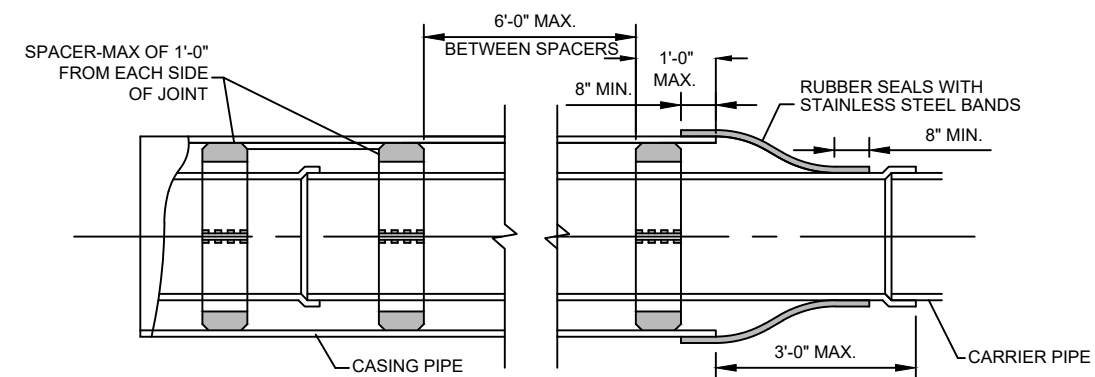
* CASING SHALL EXTEND BEYOND THE BACK OF DITCH FOR A DISTANCE EQUAL TO THE DEPTH OF THE CASING.



CARRIER PIPE DIA. (PVC)	CASING PIPE DIA. (STEEL)	MIN. WALL THICKNESS (IN.)
4"	10"	0.188
6"	12"	0.188
8"	14"	0.219
10"	16"	0.250
12"	20"	0.281

NOTES:

1. STEEL CASING REQUIRED.
2. EACH END OF CASING TO BE SEALED WITH END SEALS PROVIDED BY THE MANUFACTURER OF CASING SPACERS.
3. CASING SHALL BE INSTALLED SIMULTANEOUSLY W/ BORING OPERATION. ALL AREAS DISTURBED DURING CONSTRUCTION AND TRENCHES SHALL BE COMPACTED, AND RESTORED PER SPECIFICATIONS.



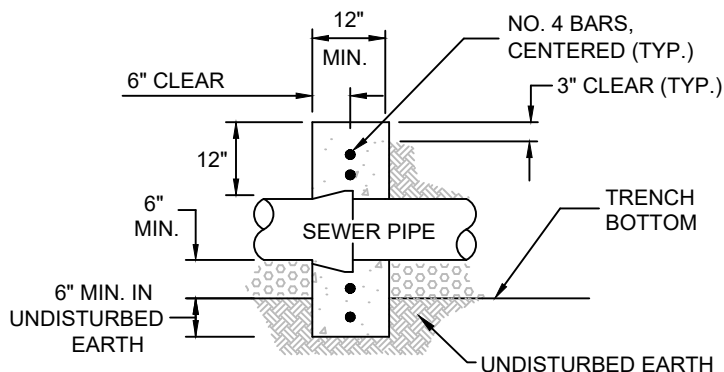
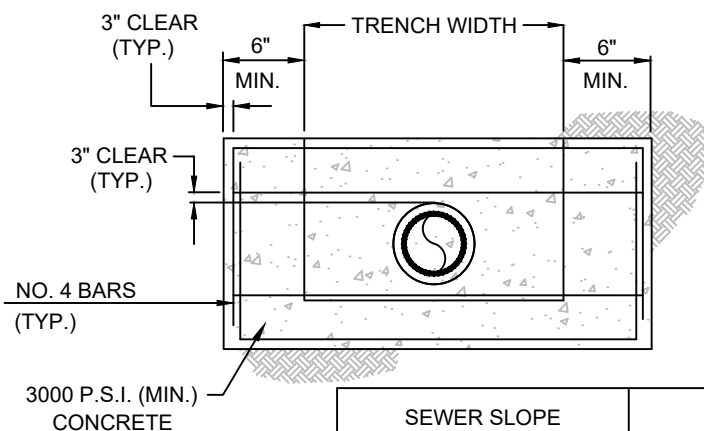
PROFILE
NOT TO SCALE

TYPICAL ROAD BORING

REV. DATE: 09/06/2024



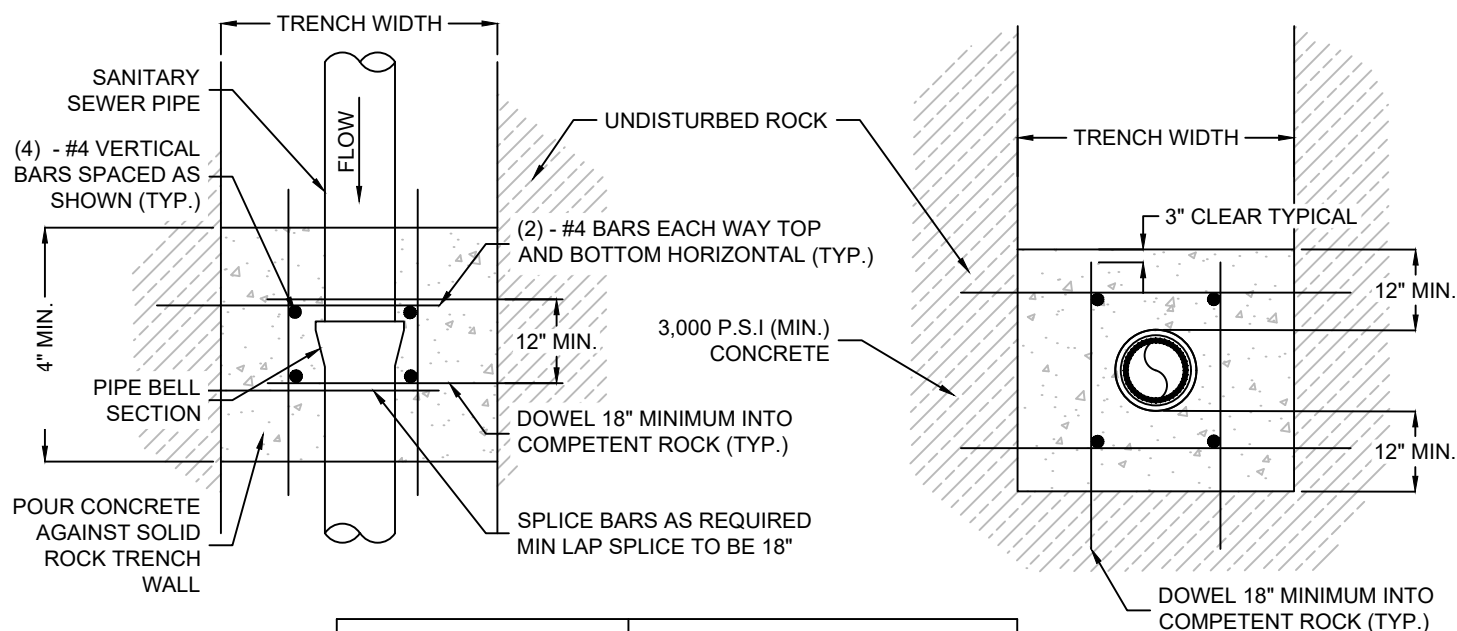
TECHNICAL SPECIFICATIONS
STANDARD DETAIL 20
TYPICAL ROAD BORING



SEWER SLOPE	MAX SPACING, FT
< 20%	NOT REQ'D
20% - 34.9%	36
35% - 49.9%	24
≥ 50%	16

SEWER CONCRETE SLOPE ANCHOR (SOILS TRENCH)

NOT TO SCALE

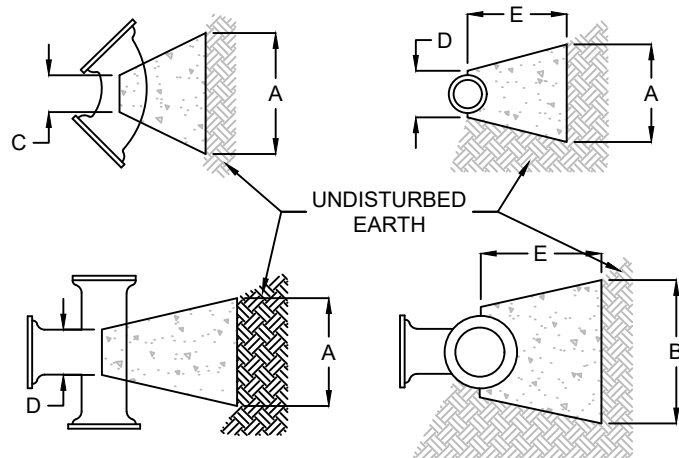


SEWER SLOPE	MAX SPACING, FT
< 20%	NOT REQ'D
20% - 34.9%	36
35% - 49.9%	24
≥ 50%	16

SEWER CONCRETE SLOPE ANCHOR (ROCK TRENCH)

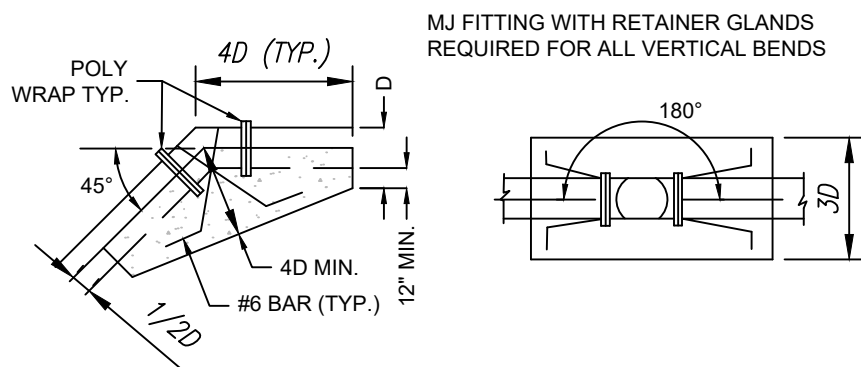
NOT TO SCALE

REV. DATE: 09/06/2024



CONCRETE THRUST BLOCK

SCALE: NONE



MJ FITTING WITH RETAINER GLANDS
REQUIRED FOR ALL VERTICAL BENDS

VERTICAL BEND THRUST BLOCK

SCALE: NONE

PIPE SIZE	FITTING	DISTANCE IN INCHES				
		A	B	C	D	E
4" AND SMALLER	11.25 & 22.5°	9	9	8	8	6
	45°	18	9	8	8	12
	90°	21	12	8	8	12
	TEE/PLUG	15	12	8	8	12
6"	11.25 & 22.5°	12	12	8	10	12
	45°	27	12	8	10	12
	90°	33	18	8	10	12
	TEE/PLUG	24	18	8	10	12
8"	11.25 & 22.5°	18	15	8	10	12
	45°	33	15	8	10	18
	90°	42	24	8	10	18
	TEE/PLUG	30	24	8	10	18
10" & 12"	11.25 & 22.5°	27	24	12	12	18
	45°	51	24	12	12	24
	90°	63	36	12	12	30
	TEE/PLUG	45	36	12	12	24
14" & 16"	11.25 & 22.5°	33	33	12	16	18
	45°	69	33	12	16	30
	90°	84	48	12	16	36
	TEE/PLUG	60	48	12	16	30

NOTES:

- THRUST BLOCKS ARE BASED ON A WORKING PRESSURE OF 200 P.S.I., PLUS 0% SURGE & 2,000 P.S.F. ALLOWABLE SOIL BEARING PRESSURE.
- FOR PIPE SIZES NOT SHOWN USE DIMENSIONS FOR NEXT LARGER SIZE.
- USE 3/8" PLYWOOD SEPARATOR BETWEEN BLOCKS AND PLUGS TO PROVIDE FOR FUTURE REMOVAL.
- WRAP ALL FITTINGS W/6 MIL POLY PRIOR TO PLACEMENT OF CONCRETE THRUST BLOCKING.
- ALL THRUST BLOCKS TO BE INSPECTED BY OWNER BEFORE BACKFILLING.

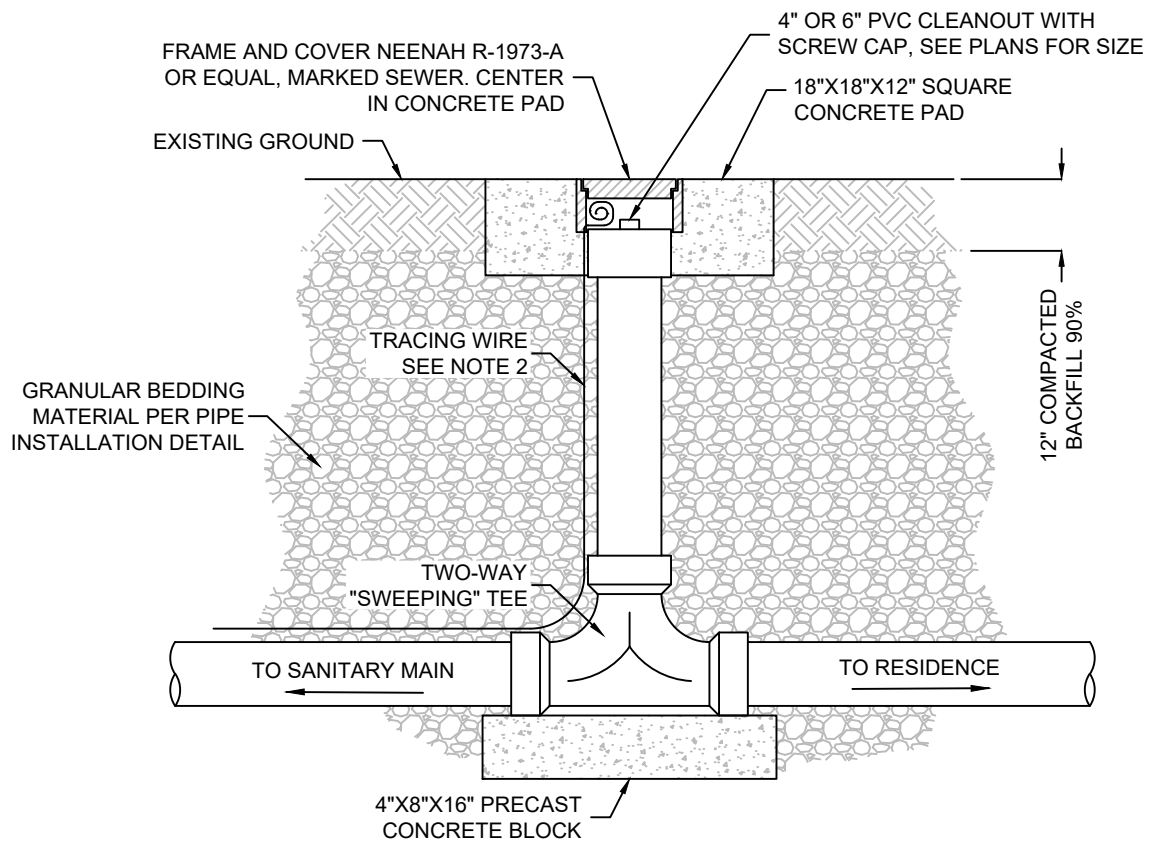
THRUST BLOCKING DETAIL

SCALE: NONE

REV. DATE: 03/06/2023



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 22
THRUST BLOCKING DETAIL



SECTION VIEW

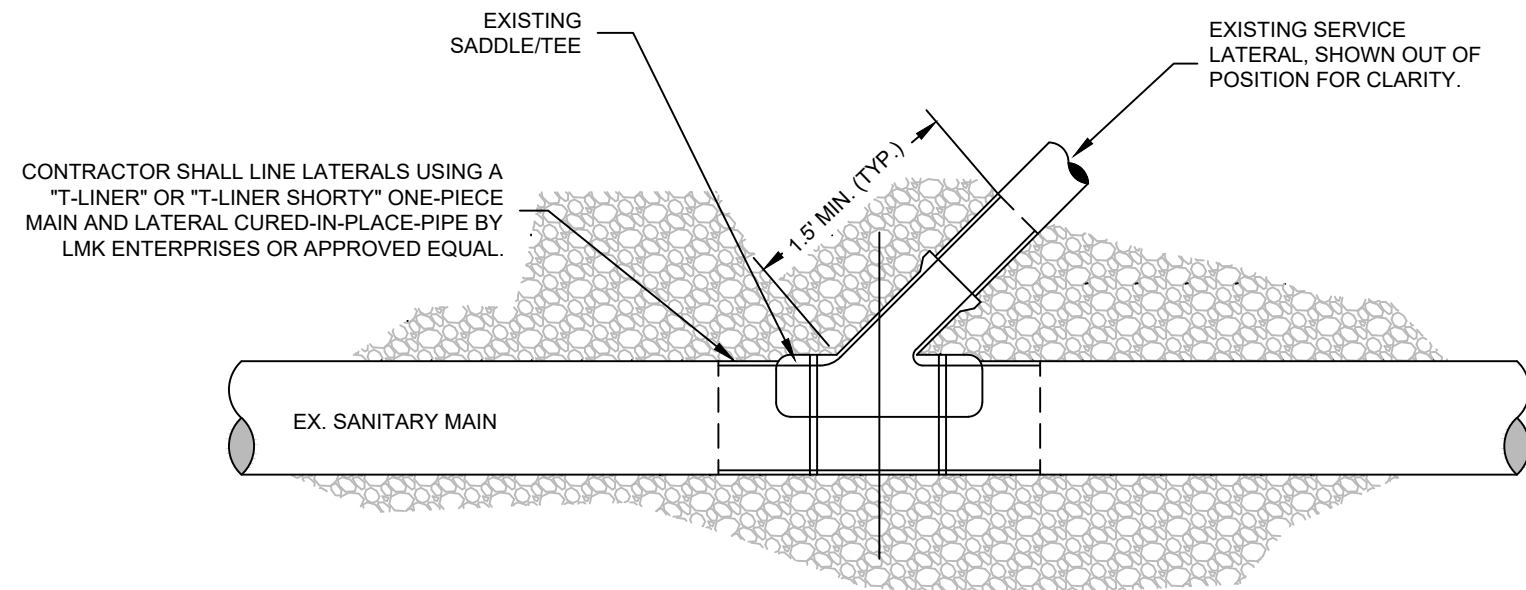
NOTE:

1. ALL FITTINGS ON SERVICE CLEAN OUT DETAIL SHALL BE SCHEDULE 40 PIPE AND JOINTS BE GLUED WITH AN APPROVED ADHESIVE.
2. TRACER WIRE SHALL BE INSTALLED PER SPECIFICATION 02537. TRACER WIRE SHALL BE COILED AROUND A 1" DIAMETER PVC PIPE AND STAGED AT TOP OF CLEANOUT.

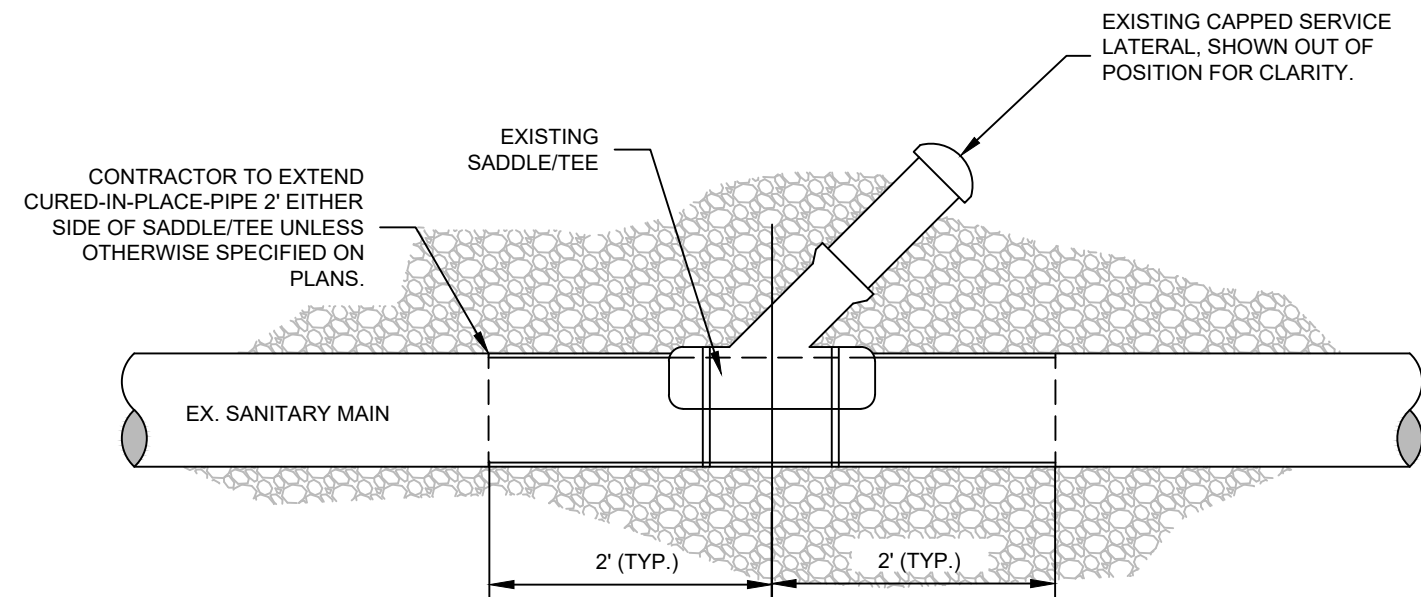
TWO-WAY SERVICE CLEANOUT INSTALLATION

SCALE: NONE

REV. DATE: 03/06/2023



EXISTING SERVICE LATERAL - IN USE
NOT TO SCALE



EXISTING SERVICE LATERAL - CAPPED
NOT TO SCALE

CURED-IN-PLACE LINER AT SERVICE LATERALS

NOT TO SCALE

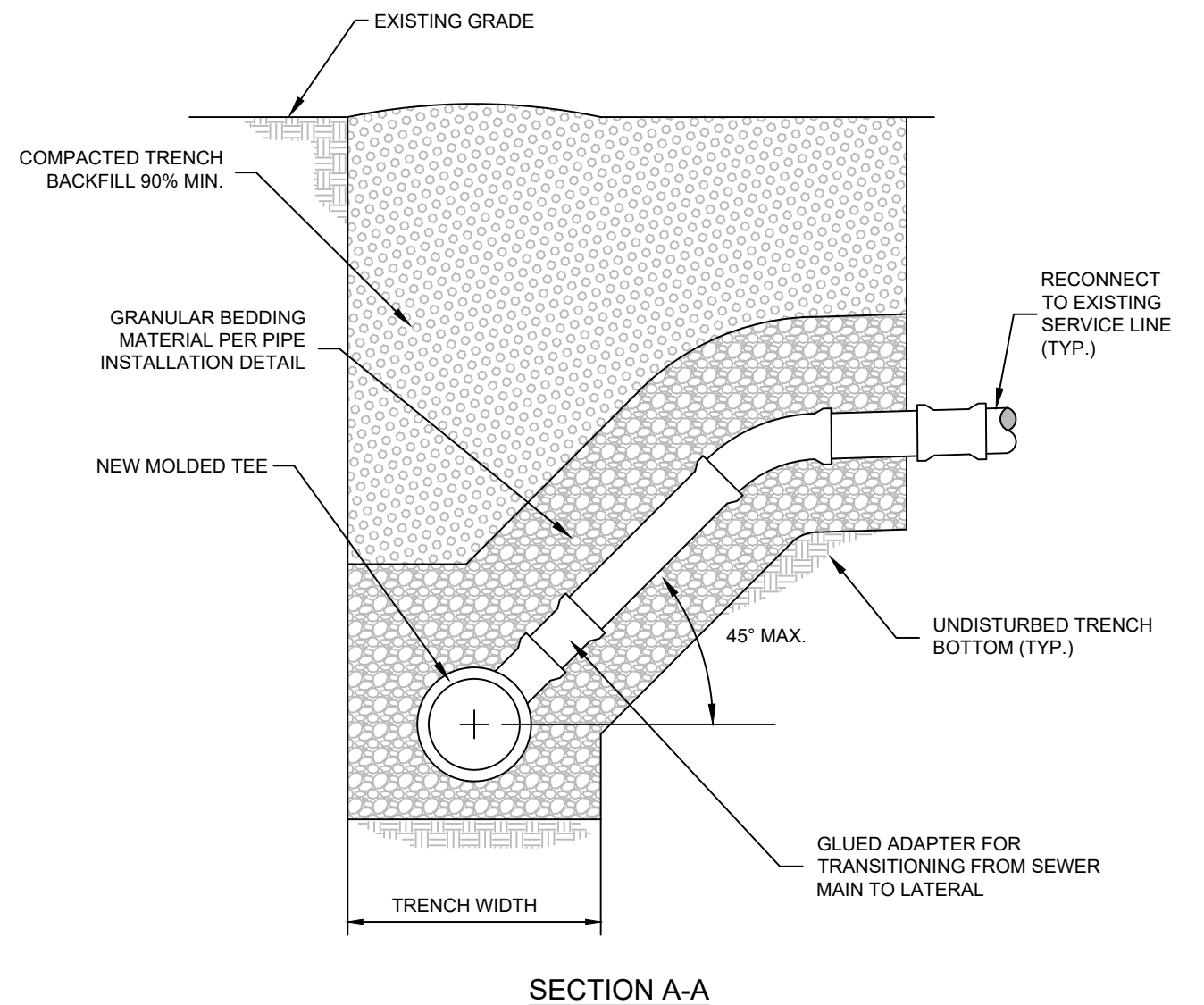
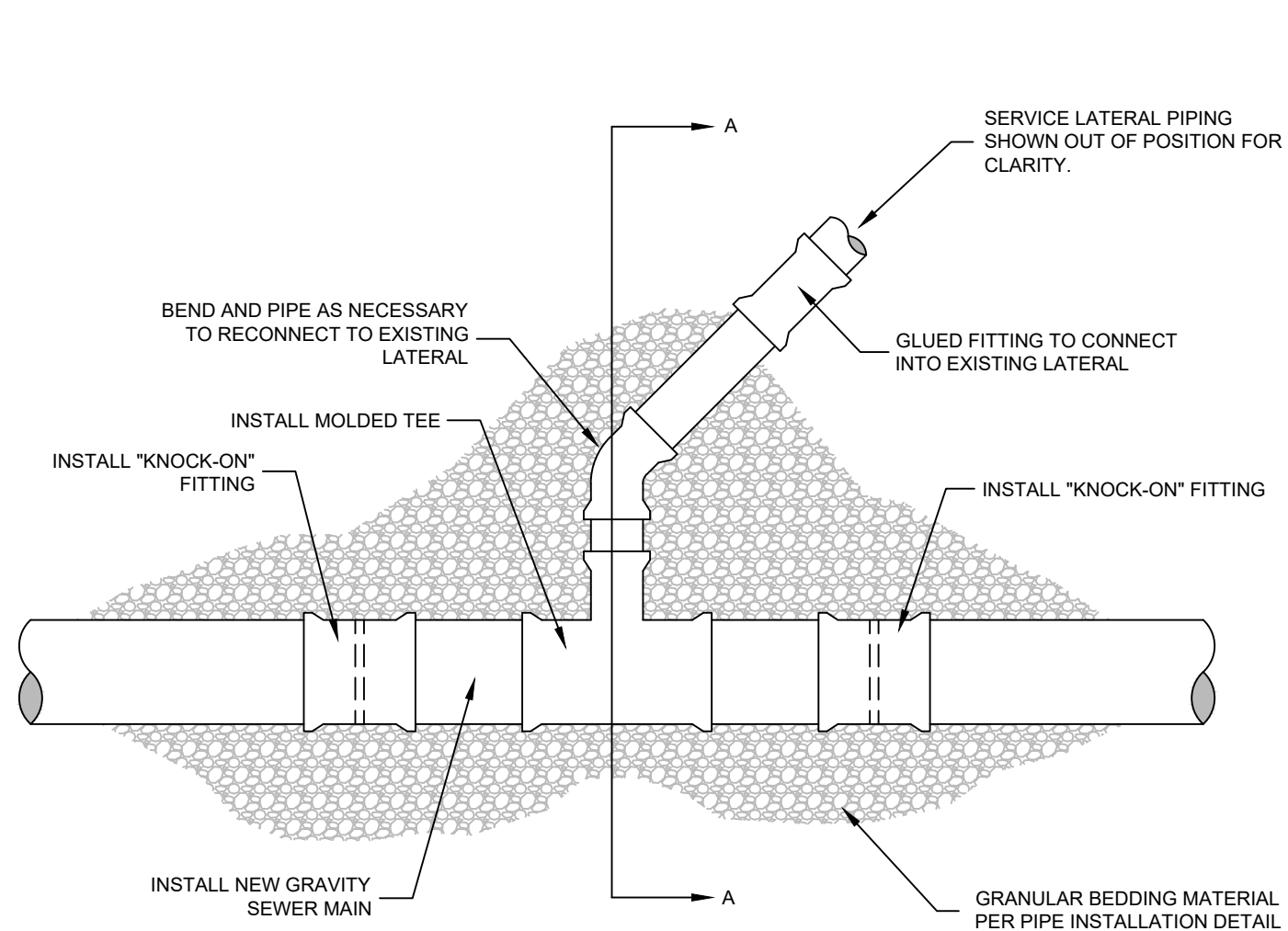
GENERAL NOTES:

1. LINING OF EXISTING SERVICE LATERALS IN USE USING CURED-IN-PLACE "T-LINER SHORTY" OR "T-LINER" PRODUCT OR APPROVED EQUAL ARE DESIGNATED BY THE SYMBOL ① ON THE REHABILITATION MAPS LOCATED IN THE CONSTRUCTION DRAWINGS.
2. CURED-IN-PLACE LINER FOR CAPPED SERVICE LATERALS ARE DESIGNATED BY THE SYMBOL ② ON THE REHABILITATION MAPS LOCATED IN THE CONSTRUCTION DRAWINGS.
3. WHERE ADDITIONAL CLEANOUTS ARE REQUIRED TO BE INSTALLED ON EXISTING SERVICE LATERALS FOR THE INSTALLATION OF THE "T-LINER SHORTY" OR "T-LINER" PRODUCT, OR APPROVED EQUAL, CLEANOUTS SHALL BE INSTALLED WITHIN THE TEMPORARY CONSTRUCTION EASEMENT LIMITS OR RIGHT-OF-WAY. IF ADDITIONAL CLEANOUTS ARE TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION THEN LOCATION MUST BE COORDINATED AND APPROVED BY PROPERTY OWNER. CONTRACTOR MUST ALSO COORDINATE WITH PROPERTY OWNER THE ELEVATION OF THE TOP OF THE CLEANOUT. IF THE PROPERTY OWNER IS NOT AVAILABLE THEN CONTRACTOR WILL SET THE TOP OF THE CLEANOUT FLUSH WITH THE EXISTING GRADE. IF AN EXISTING CLEANOUT WILL BE UTILIZED, CONTRACTOR SHALL OBTAIN APPROVAL FROM THE PROPERTY OWNER PRIOR TO UTILIZING EXISTING CLEANOUTS.

REV. DATE: 03/06/2023



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 24
CURED-IN-PLACE LINER AT LATERALS



NOTE:

1. SERVICE TEE CONNECTIONS REQUIRED ON NEW MAIN INSTALLATION TO BE INSTALLED PER SECTION A-A DETAIL.

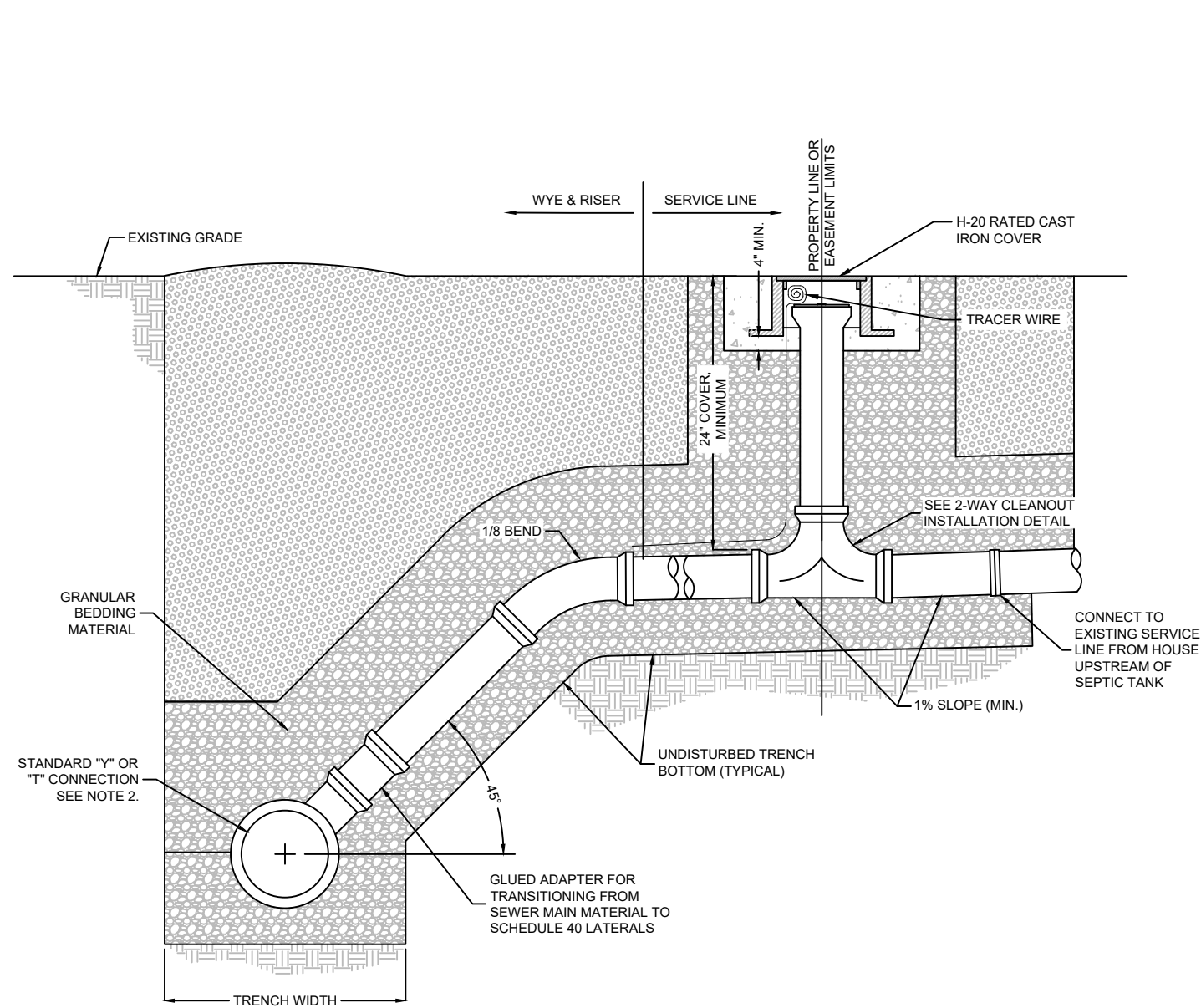
TEE REPLACEMENT ON EXISTING MAIN

NOT TO SCALE

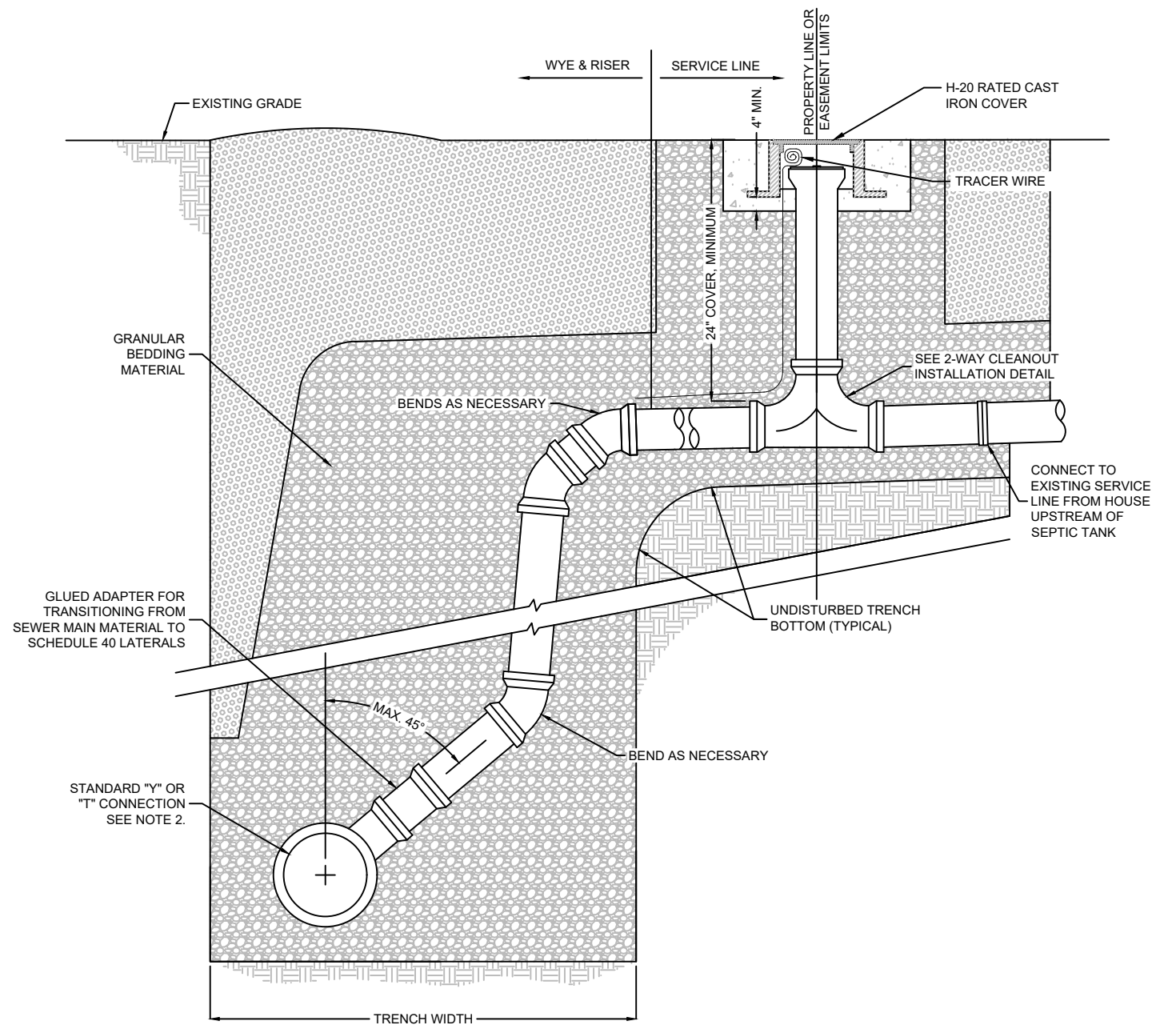
REV. DATE: 03/06/2023



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 25
TEE REPLACEMENT ON EXISTING MAIN



CONNECTIONS TO SEWERS LESS THAN
12' DEEP



CONNECTIONS TO SEWERS BETWEEN
12' AND 20' DEEP OR IN SOLID ROCK TRENCHES

NOTES:

1. UNLESS OTHERWISE NOTED, RESIDENTIAL SINGLE FAMILY SERVICE LINES AND RISERS SHALL BE 4" DIA. ALL OTHERS SHALL BE 6" DIA., UNLESS OTHERWISE NOTED.
2. MOLDED TEES OR WYES ARE REQUIRED FOR ALL SERVICE LINES ON NEW SEWER LINES. FOR CONNECTION TO EXISTING SEWER LINES, USE PIPECONX PCX SADDLE TEE OR APPROVED EQUAL.
3. ALL SERVICE LINES SHALL BE SCHEDULE 40 PIPE AND JOINTS BE GLUED WITH AN APPROVED ADHESIVE.
4. CONSTRUCT SERVICE LINE AT A DEPTH REQUIRED TO PROPERLY SERVE THE EXISTING HOUSE OR STRUCTURE.
5. INSTALL SERVICE LINES AS PER "PIPE INSTALLATION DETAILS"
6. TRACER WIRE SHALL BE INSTALLED PER SPECIFICATION 02537. TRACER WIRE SHALL BE COILED AROUND A 1" DIAMETER PVC PIPE AND STAGED AT TOP OF CLEANOUT.

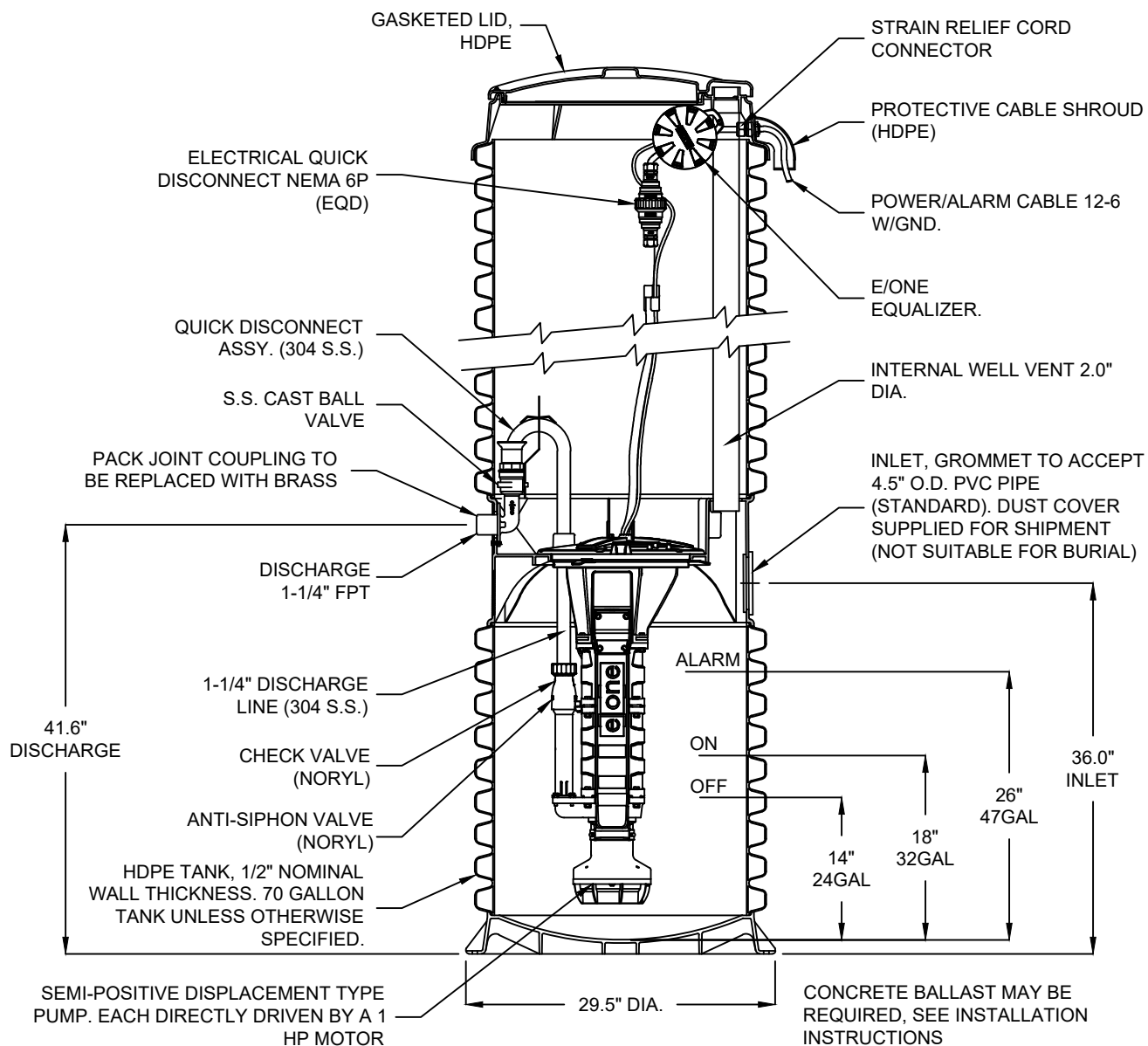
WYE, RISER AND GRAVITY SERVICE LINE

NOT TO SCALE

REV. DATE: 03/06/2025

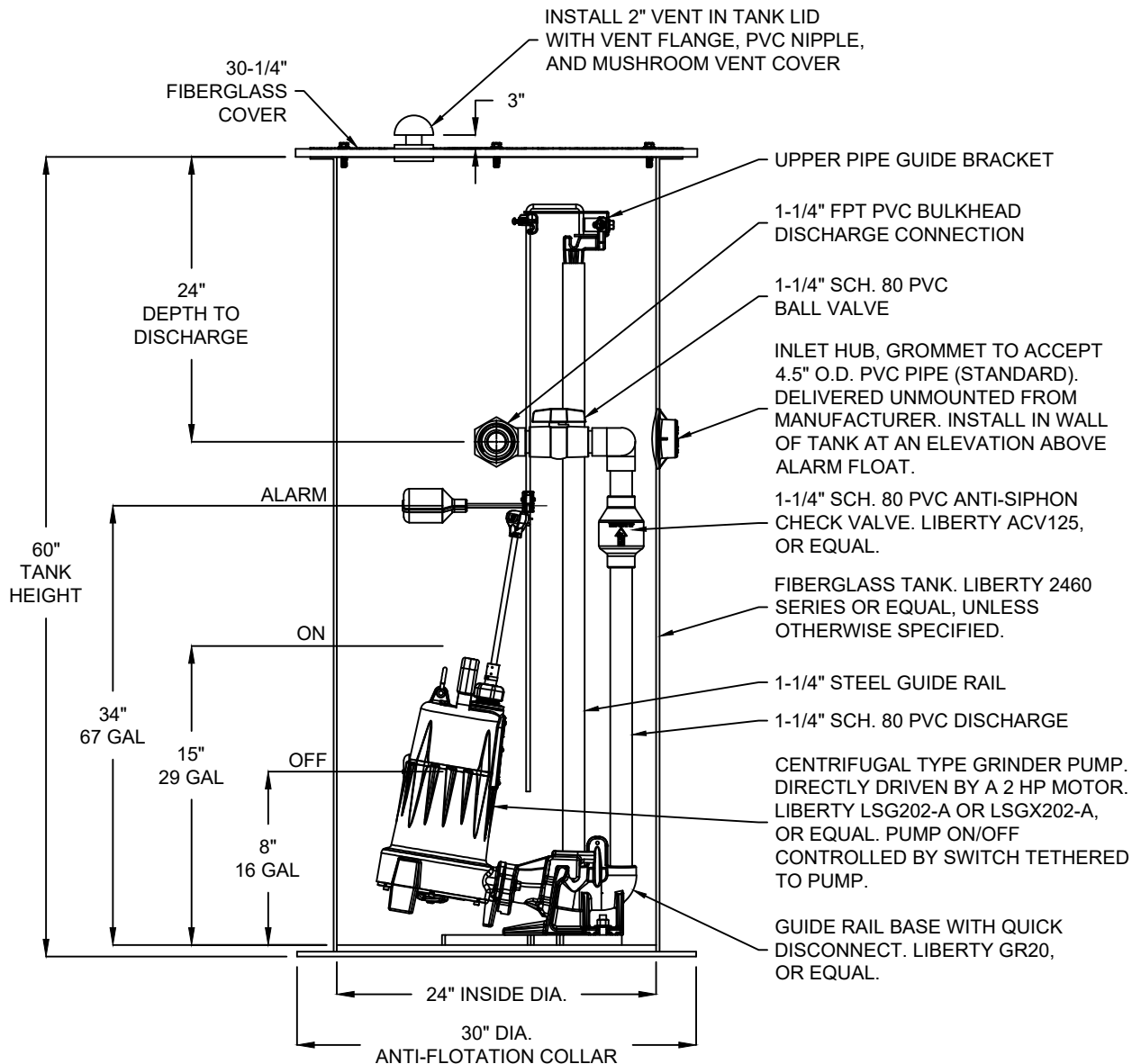


**TECHNICAL SPECIFICATIONS
STANDARD DETAIL 26
WYE, RISER AND GRAVITY SERVICE LINE**



TYPICAL SIMPLEX GRINDER PUMP STATION (SPD TYPE)
NOT TO SCALE

REV. DATE: 07/02/2026



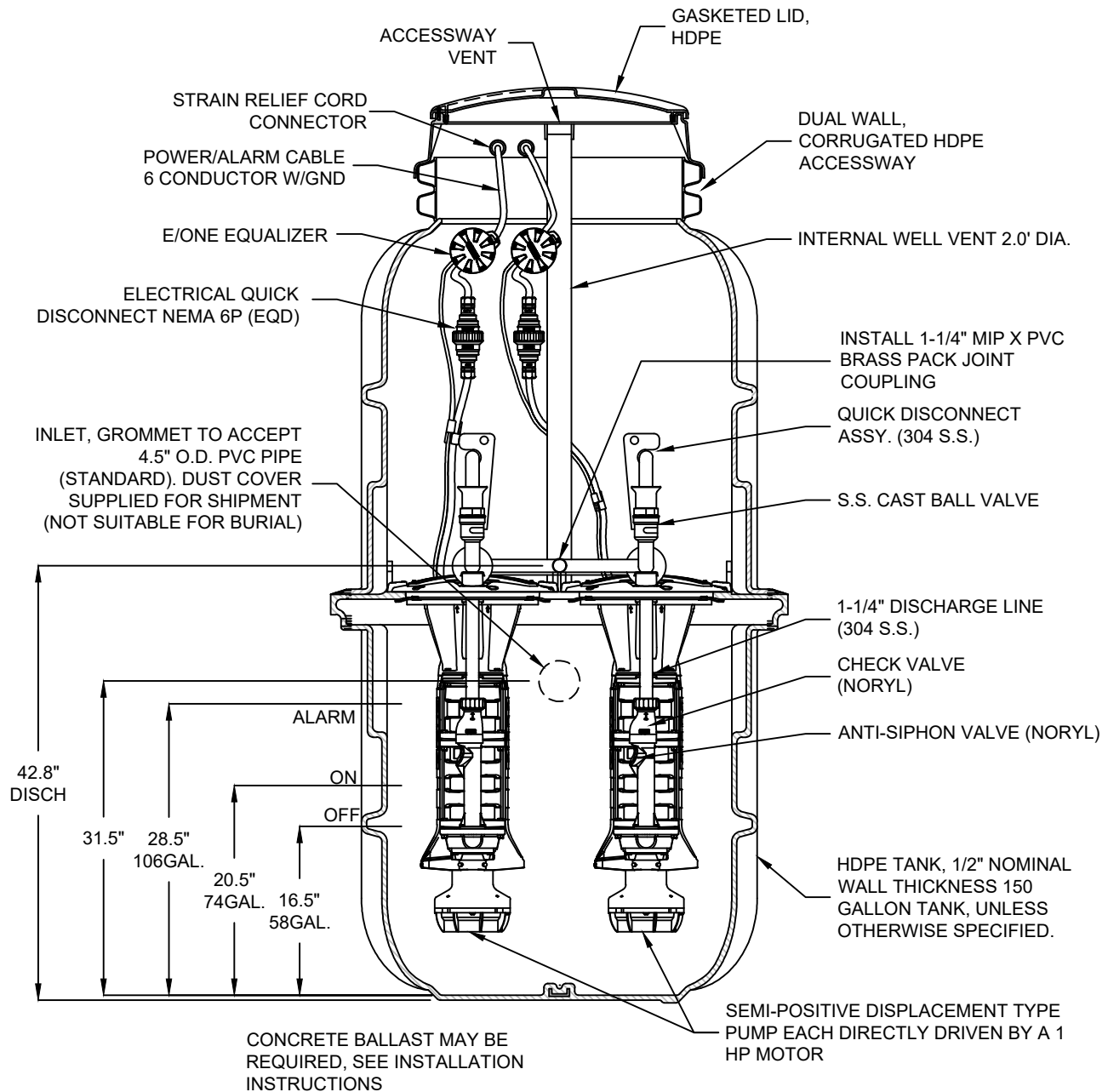
NOTES:

1. CONCRETE BALLAST MAY BE REQUIRED. SEE INSTALLATION INSTRUCTIONS.
2. DO NOT INSTALL ELECTRICAL ENCLOSURE INSIDE GRINDER PUMP TANK.

TYPICAL SIMPLEX GRINDER PUMP STATION (CENTRIFUGAL TYPE)

NOT TO SCALE

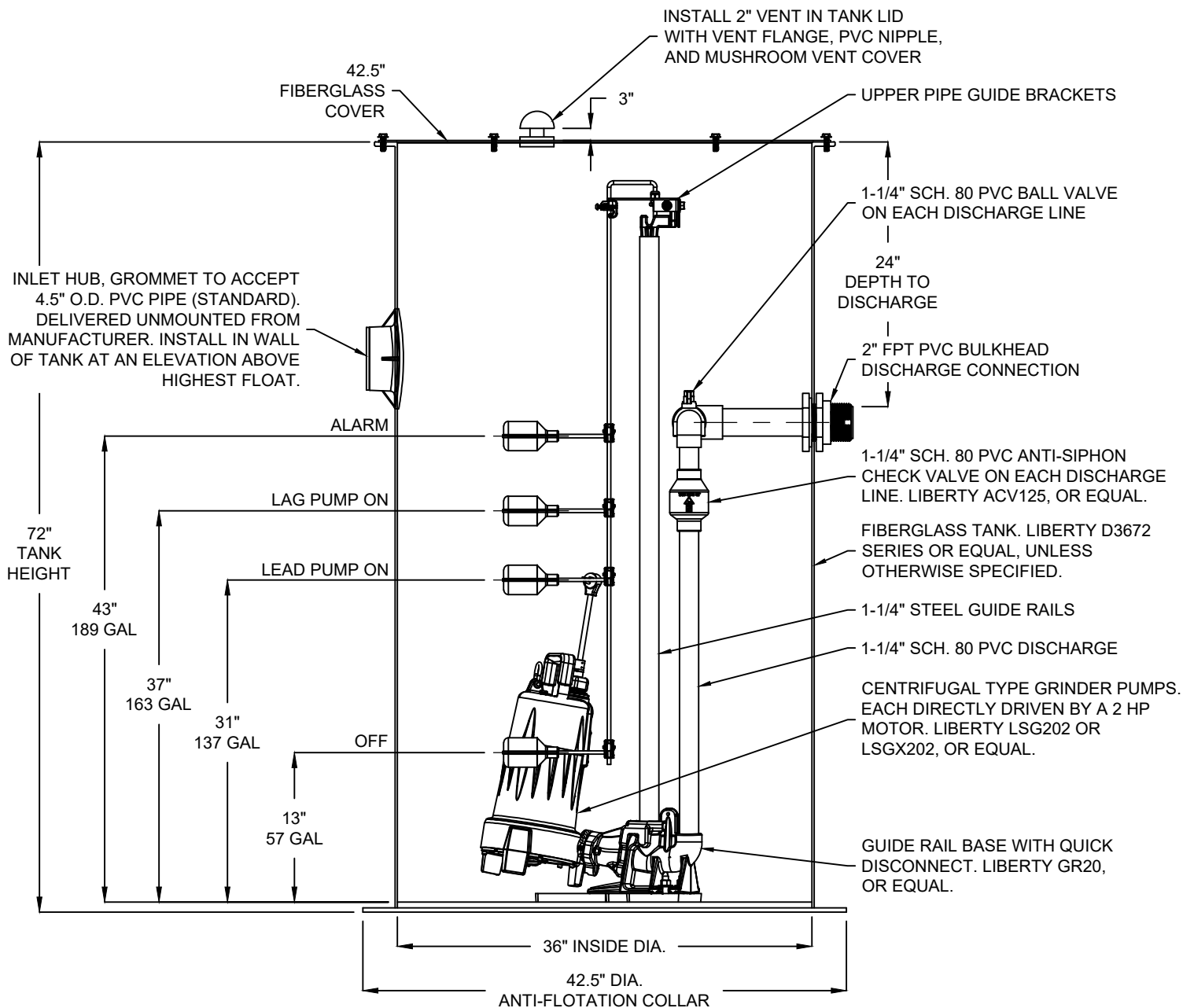
REV. DATE: 07/02/2026



TYPICAL DUPLEX GRINDER PUMP STATION (SPD TYPE)

NOT TO SCALE

REV. DATE: 07/02/2026



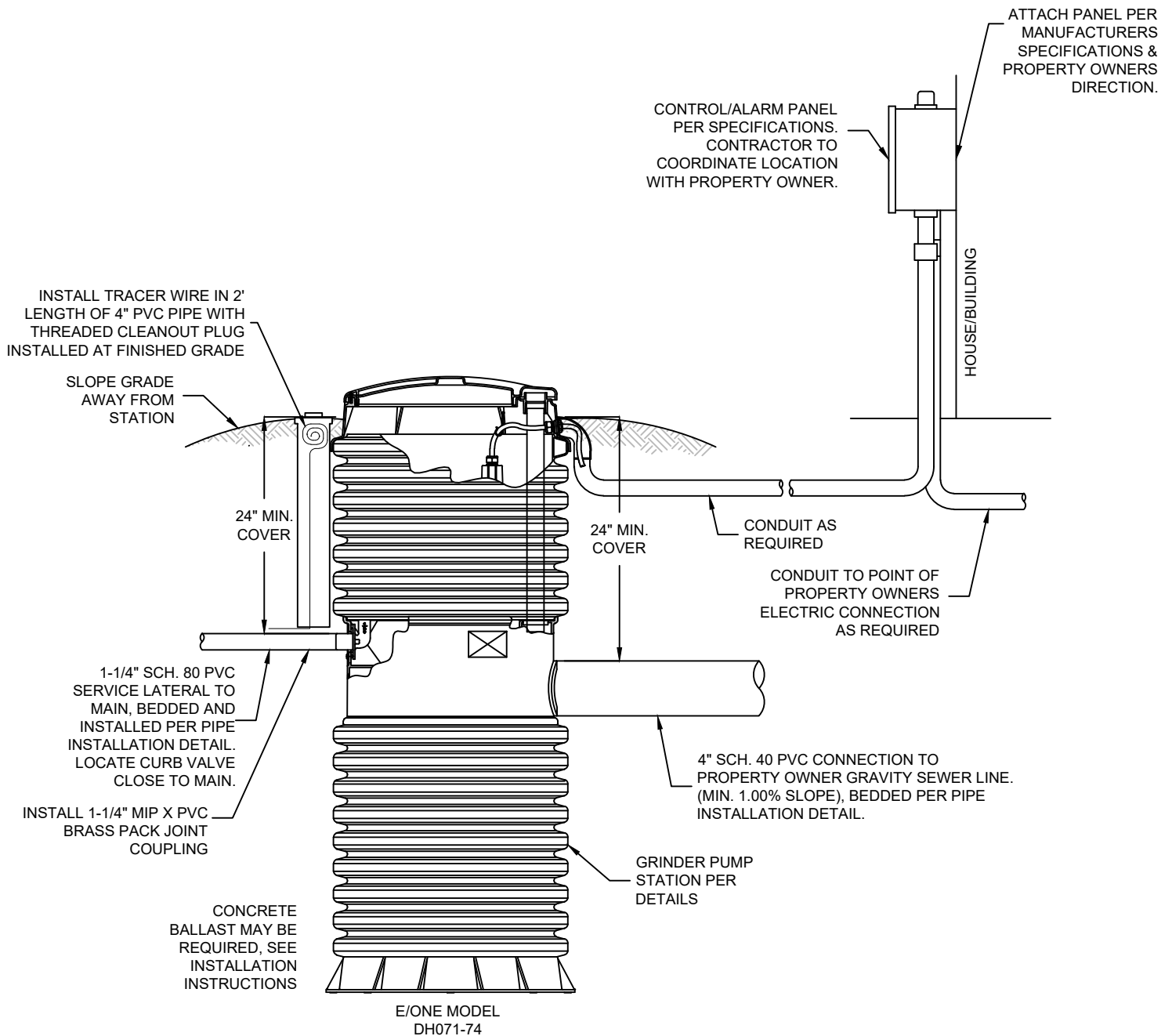
NOTES:

1. CONCRETE BALLAST MAY BE REQUIRED. SEE INSTALLATION INSTRUCTIONS.
2. DO NOT INSTALL ELECTRICAL ENCLOSURE INSIDE GRINDER PUMP TANK.

TYPICAL DUPLEX GRINDER PUMP STATION (CENTRIFUGAL TYPE)

NOT TO SCALE

REV. DATE: 07/02/2026



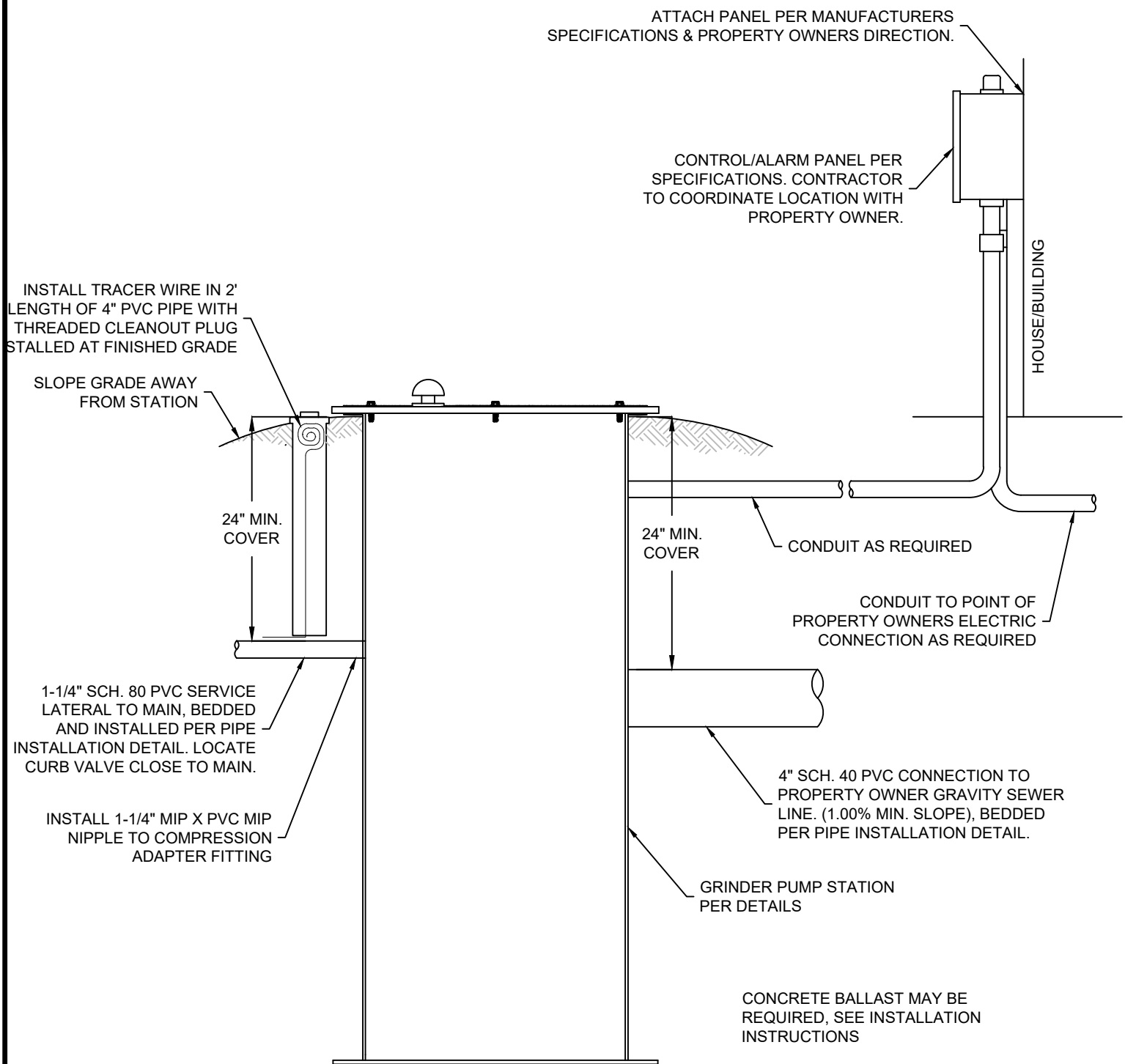
NOTES:

1. CONTRACTOR SHALL MAKE ELECTRICAL CONNECTION FOR PUMP SUCH THAT PUMP IS OPERATIONAL UPON COMPLETION OF THE PROJECT.
2. TO ACHIEVE THIS THE CONTRACTOR SHALL CONNECT THE PUMP TO THE PROPERTY OWNERS BREAKER BOX/ELECTRICAL PANEL OR INSTALL A COMBINATION ELECTRIC METER SUCH THAT CONNECTION CAN BE MADE AT THE METER.
3. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC.
4. TRACER WIRE SHALL BE INSTALLED PER SPECIFICATION 02537. TRACER WIRE SHALL BE COILED AROUND A 1" DIAMETER PVC PIPE AND STAGED AT TOP OF GRINDER PUMP STATION.

GRINDER PUMP STATION CONNECTION DETAIL (SPD TYPE)

NOT TO SCALE

REV. DATE: 07/02/2026



NOTES:

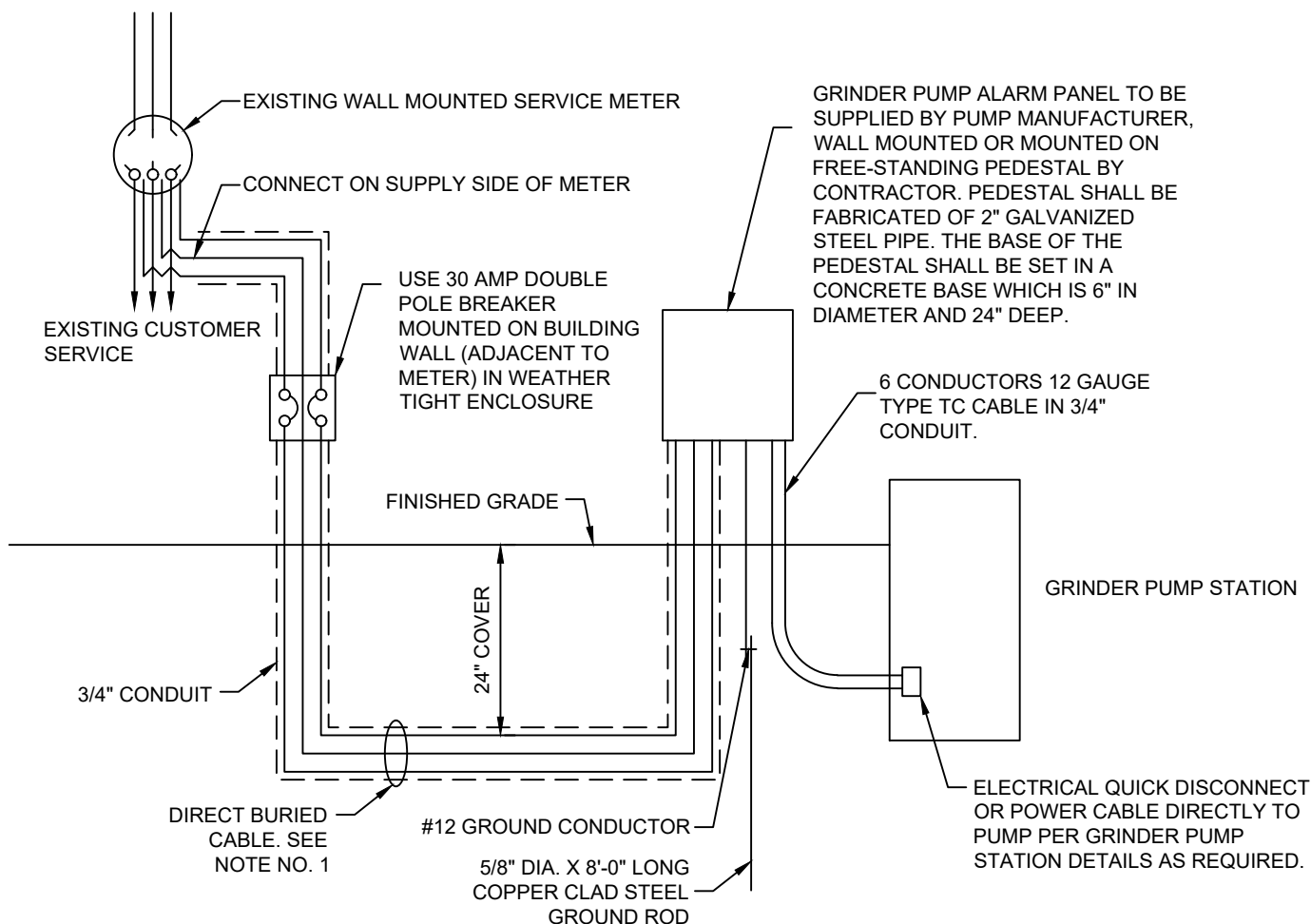
1. CONTRACTOR SHALL MAKE ELECTRICAL CONNECTION TO PUMP SUCH THAT PUMP IS OPERATIONAL UPON COMPLETION OF THE PROJECT.
2. TO ACHIEVE THIS THE CONTRACTOR SHALL CONNECT THE PUMP TO THE PROPERTY OWNERS BREAKER BOX/ELECTRICAL PANEL OR INSTALL A COMBINATION ELECTRIC METER SUCH THAT CONNECTION CAN BE MADE AT THE METER.
3. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC.
4. TRACER WIRE SHALL BE INSTALLED PER SPECIFICATION 02537. TRACER WIRE SHALL BE COILED AROUND A 1" DIAMETER PVC PIPE AND STAGED AT TOP OF GRINDER PUMP STATION.

GRINDER PUMP STATION CONNECTION DETAIL (CENTRIFUGAL TYPE)

NOT TO SCALE

REV. DATE: 07/02/2026

120/240 VOLT. SINGLE
PHASE ELECTRICAL
SERVICE FROM UTILITY



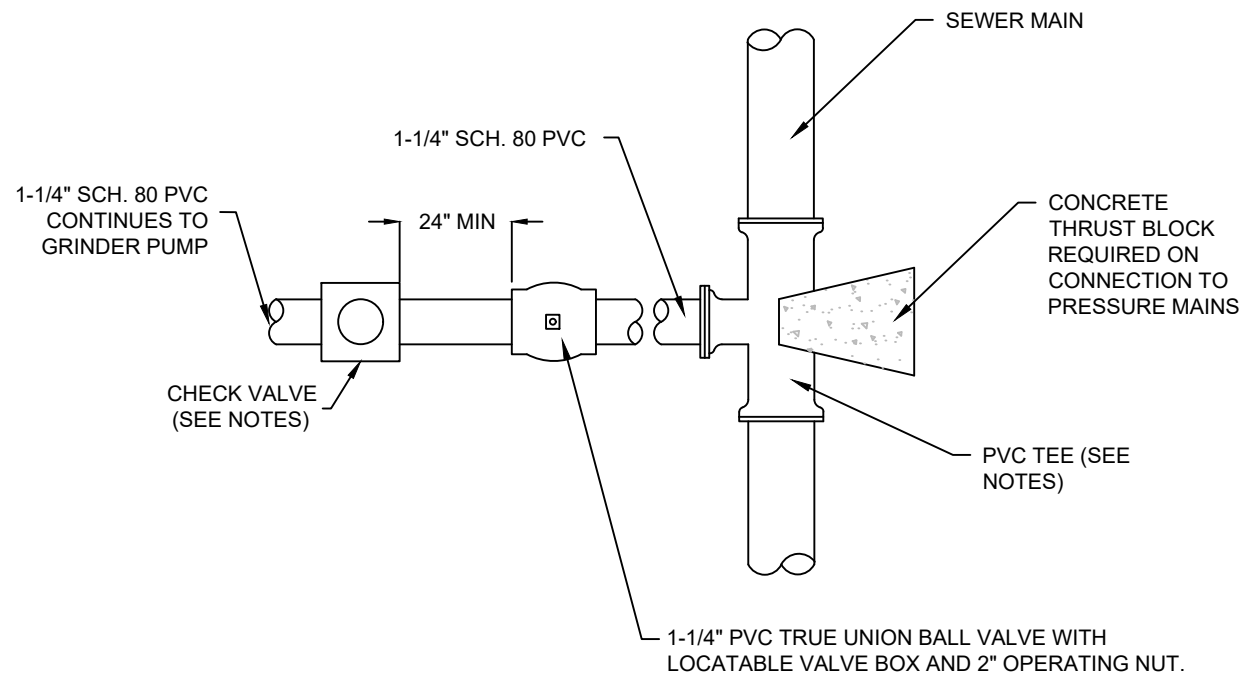
NOTES:

1. DIRECT BURIED CABLE SHALL BE 4 - #10 CONDUCTORS.
2. EACH SERVICE CONNECTION OF THIS TYPE SHALL REQUIRE THE TEMPORARY REMOVAL OF THE CUSTOMER ELECTRIC SERVICE METER. THE CONTRACTOR SHALL BE REQUIRED TO CONTACT THE LOCAL UTILITY COMPANY AND MAKE ARRANGEMENTS FOR THE TEMPORARY REMOVAL OF EACH SERVICE METER AND REINSTALLATION OF METER. THE CONTRACTOR SHALL ALSO COORDINATE WITH THE INDIVIDUAL ELECTRIC SERVICE CUSTOMERS TO MINIMIZE INCONVENIENCE TO THE CUSTOMERS.

TYPICAL GRINDER PUMP STATION ELECTRIC SERVICE DIAGRAM

NOT TO SCALE

REV. DATE: 07/02/2026

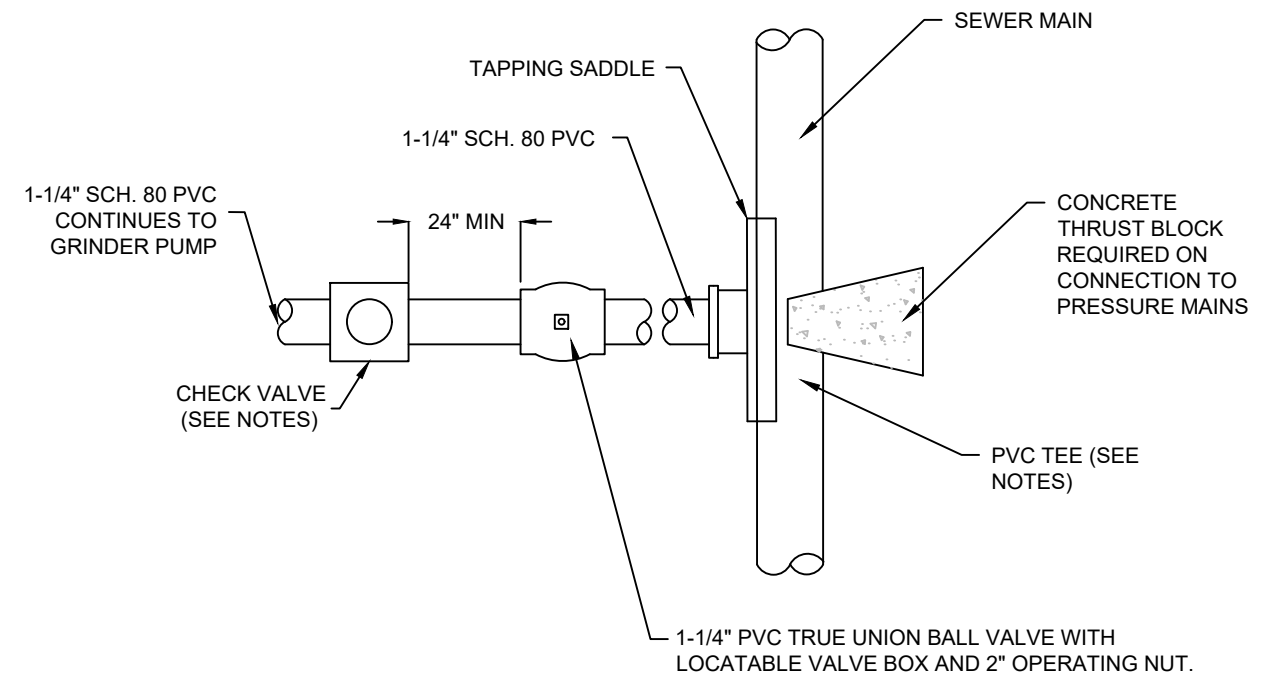


NOTES:

1. DISCHARGE PIPE SHALL BE SCHEDULE 80 PVC.
2. TEE SHALL BE AS REQUIRED FOR ALL NEW MAIN LINES.
3. CONTRACTOR SHALL COORDINATE LOCATION OF BALL VALVE WITH ENGINEER.
4. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS SHOWING EXACT STATION OF LATERAL AND BALL VALVE.
5. DEPTH OF COVER FOR SERVICE LINES SHALL BE 24 INCHES MINIMUM, UNLESS OTHERWISE NOTED.
6. BEDDING AND INSTALLATIONS AS PER "PIPE INSTALLATION DETAIL."
7. INSTALL BRASS CHECK VALVE WITHIN 2' OF SHUTOFF IN LOCATABLE VALVE BOX ON ALL GRINDER SYSTEMS.

LOW PRESSURE LATERAL CONNECTION ON NEW MAIN

NOT TO SCALE



NOTES:

1. DISCHARGE PIPE SHALL BE SCHEDULE 80 PVC.
2. TAPPING SADDLE SHALL BE AS REQUIRED FOR ALL NEW MAIN LINES.
3. CONTRACTOR SHALL COORDINATE LOCATION OF BALL VALVE WITH ENGINEER.
4. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS SHOWING EXACT STATION OF LATERAL AND BALL VALVE.
5. DEPTH OF COVER FOR SERVICE LINES SHALL BE 24 INCHES MINIMUM, UNLESS OTHERWISE NOTED.
6. BEDDING AND INSTALLATIONS AS PER "PIPE INSTALLATION DETAIL."
7. INSTALL BRASS CHECK VALVE WITHIN 2' OF SHUTOFF IN LOCATABLE VALVE BOX ON ALL GRINDER SYSTEMS.

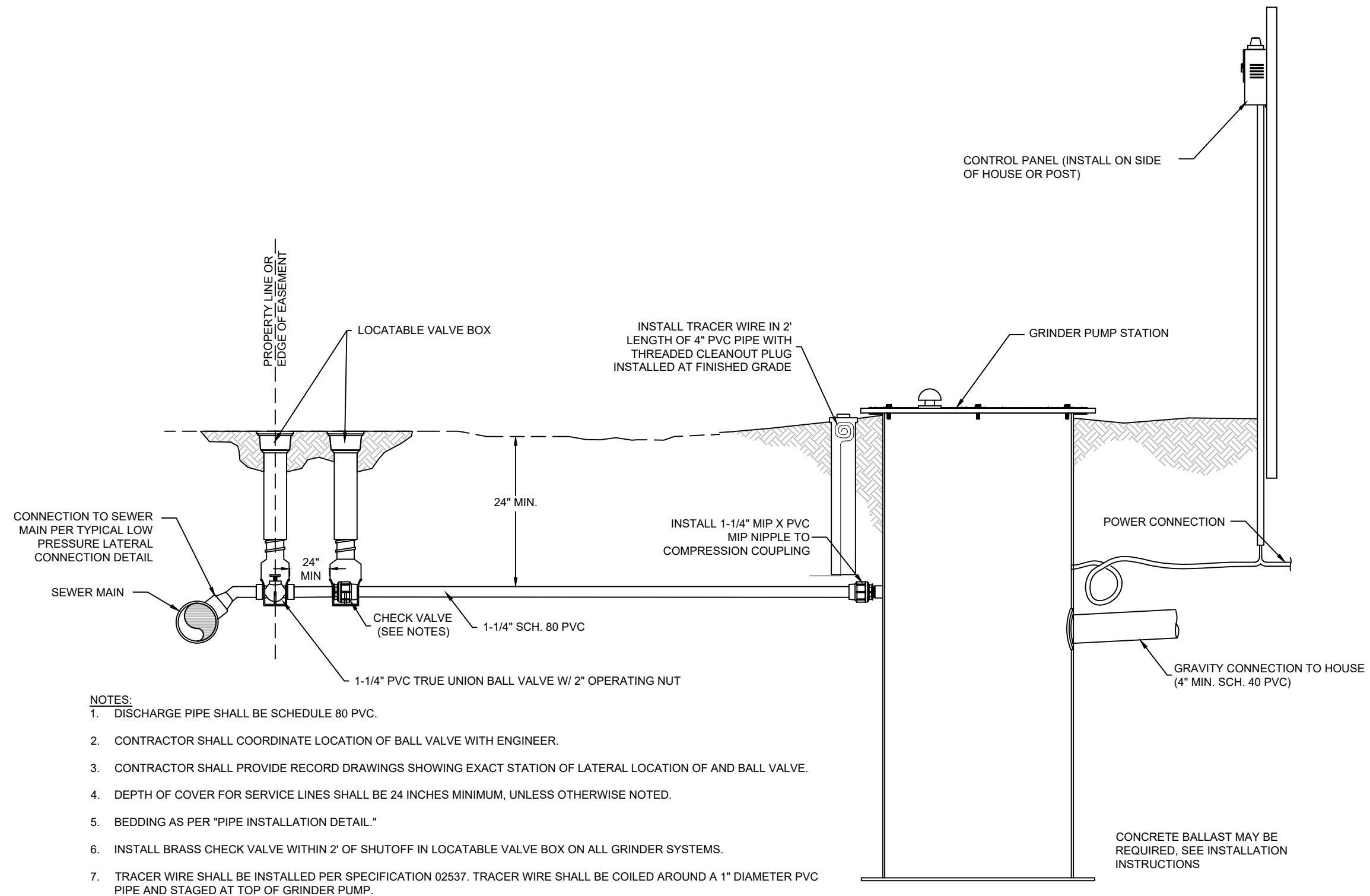
LOW PRESSURE LATERAL CONNECTION ON EXISTING MAIN

NOT TO SCALE

REV. DATE: 09/06/2024



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 31
LOW PRESSURE LATERAL CONNECTION



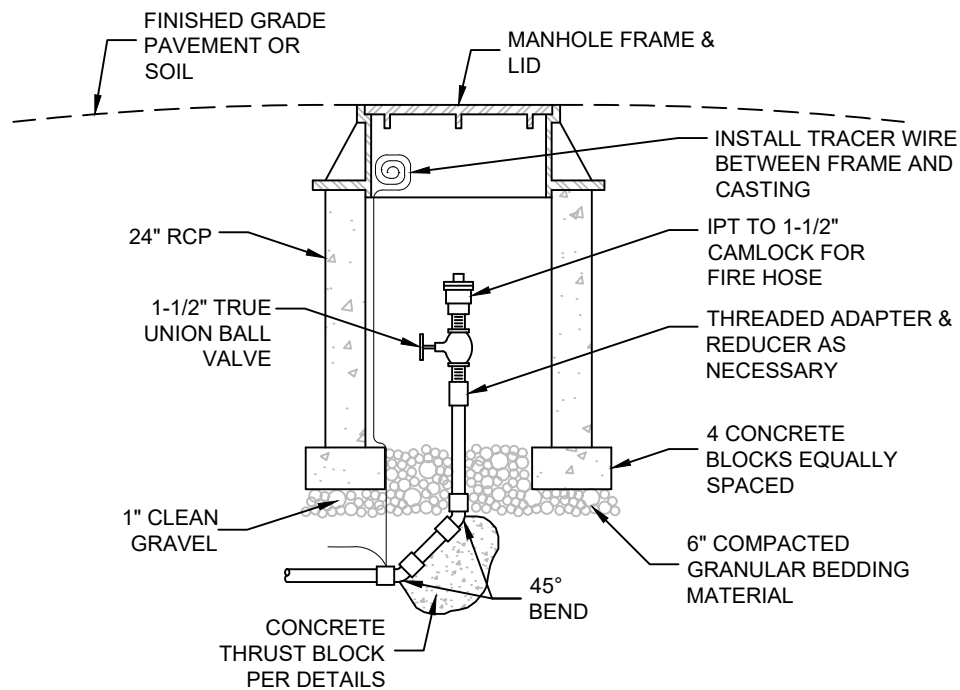
TYPICAL LOW PRESSURE LATERAL & GRINDER PUMP INSTALLATION (CENTRIFUGAL TYPE)

SCALE: NONE

REV. DATE: 07/02/2026



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 32A
LOW PRESSURE LATERAL & GRINDER PUMP
(CENTRIFUGAL TYPE)



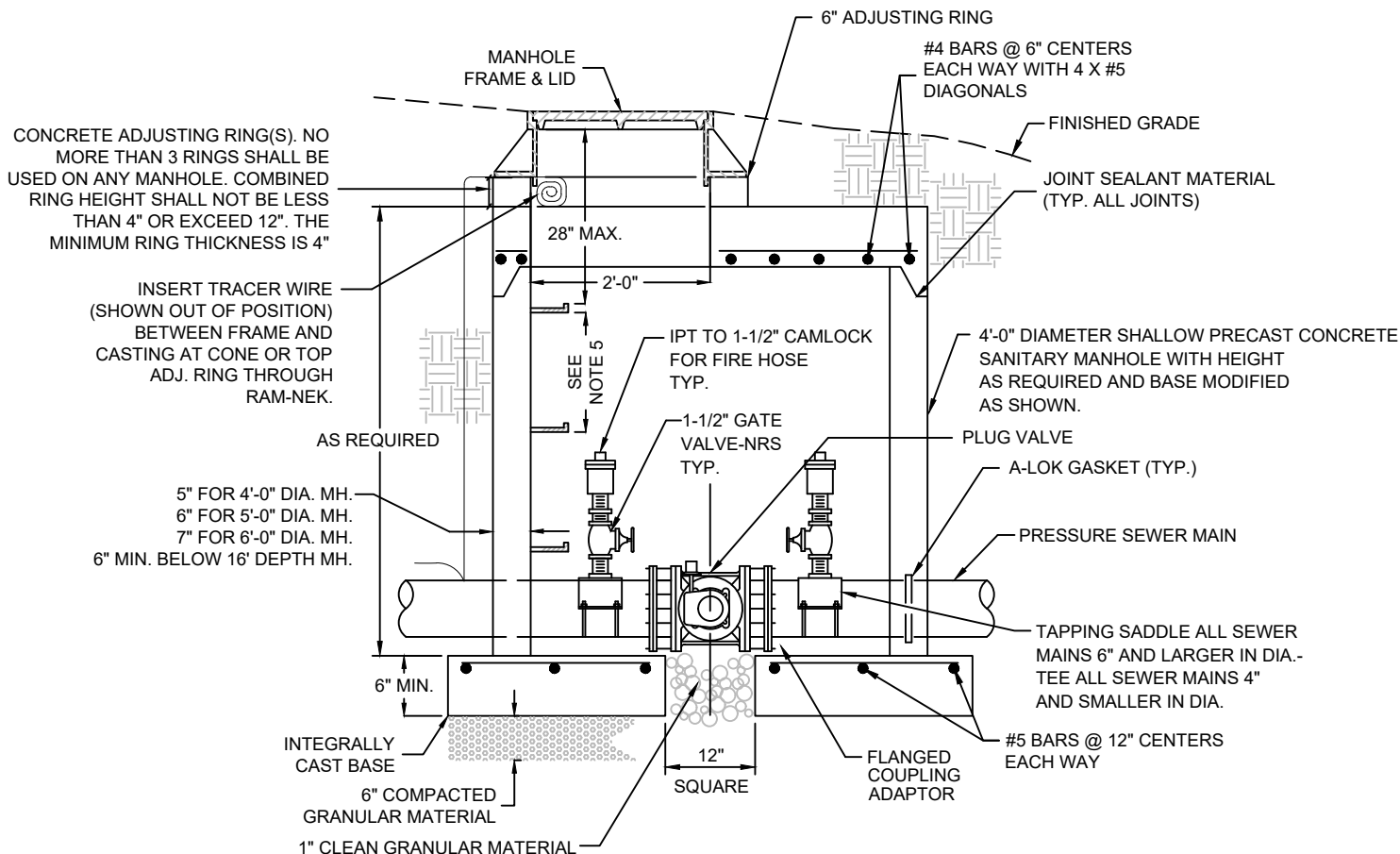
NOTES:

1. CONTRACTOR SHALL PROVIDE ADEQUATE PIPE BACKING AND SUPPORT.
2. CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS TO COMPLETE INSTALLATION TO DIFFERENT SIZE PRESSURE SEWER LINES.
3. TRACER WIRE SHALL BE INSTALLED PER SPECIFICATION 02537. TRACER WIRE SHALL BE COILED AROUND A 1" DIAMETER PVC PIPE AND STAGED AT TOP OF VAULT.

LOW PRESSURE SEWER END-OF-LINE CLEANOUT

NOT TO SCALE

REV. DATE: 09/06/2024



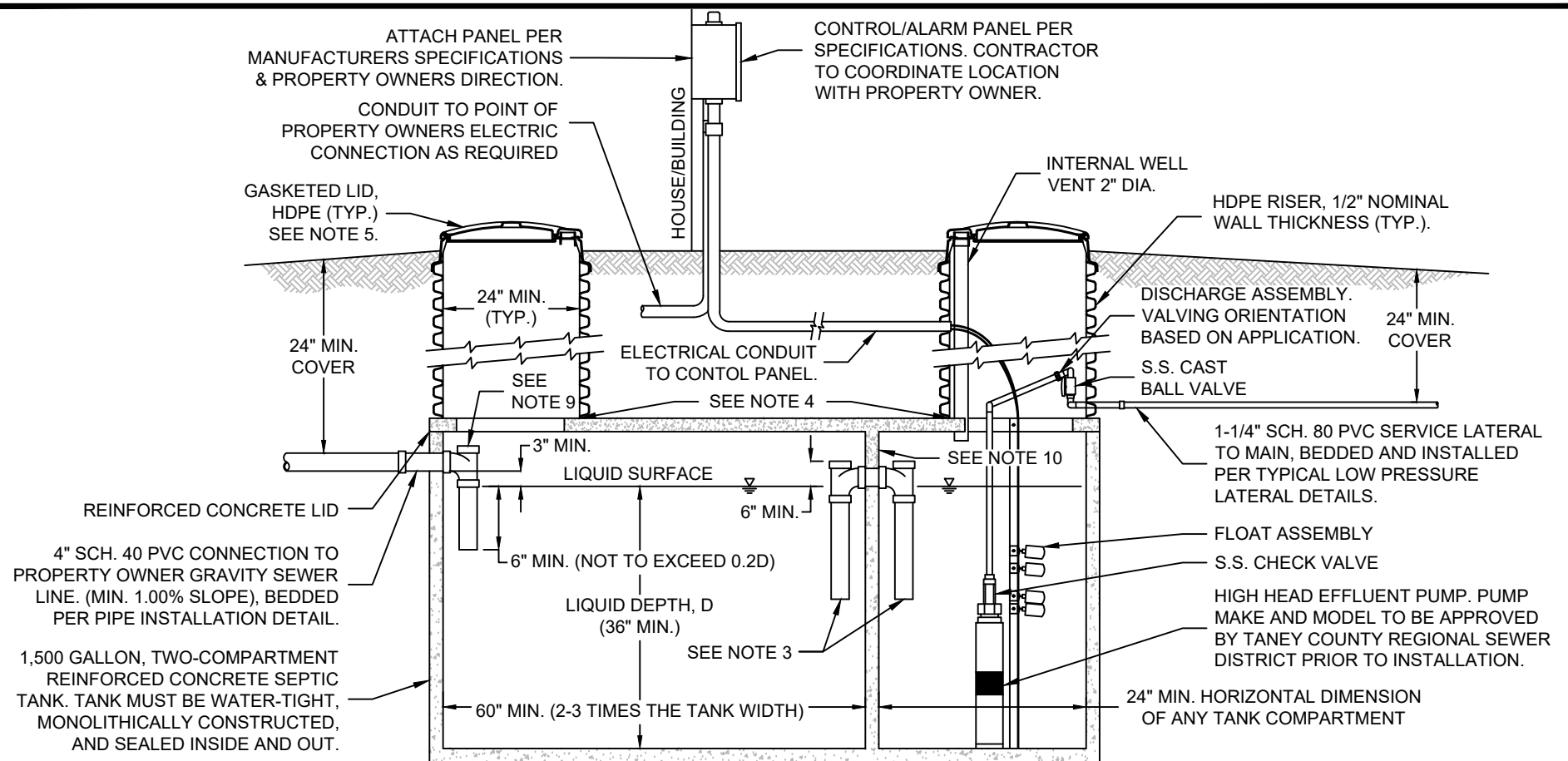
NOTES:

1. CONTRACTOR SHALL PROVIDE ADEQUATE PIPE BACKING AND SUPPORT.
2. CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS TO COMPLETE INSTALLATION TO DIFFERENT SIZE PRESSURE SEWER LINES.
3. UNLESS OTHERWISE NOTED, ALL PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C-478 REQUIREMENTS.
4. GROUTED INVERT SHALL BE TROWELED SMOOTH.
5. MANHOLE STEPS SHALL BE ALIGNED SO AS TO FORM A CONTINUOUS LADDER WITH RUNGS EQUALLY SPACED VERTICALLY IN THE ASSEMBLED MANHOLE AT A MINIMUM DISTANCE OF 12 INCHES APART AND A MAXIMUM OF 16 INCHES APART.
6. TRACER WIRE SHALL BE INSTALLED PER SPECIFICATION 02537. TRACER WIRE SHALL BE COILED AROUND A 1" DIAMETER PVC PIPE AND STAGED AT TOP OF MANHOLE.

IN-LINE FLUSHING ASSEMBLY

NOT TO SCALE

REV. DATE: 03/06/2023



NOTES:

1. ASSEMBLY, INSTALLATION, COMPONENTS, AND MATERIALS SHALL COMPLY WITH ALL TANEY COUNTY REGIONAL SEWER DISTRICT STANDARDS.
2. BEDDING MATERIAL SHALL BE A MINIMUM 6\" THICK USING 3/8\" CRUSHED ROCK.
3. THE BOTTOM OF THE RISER BETWEEN THE PRIMARY AND SECONDARY SIDES OF THE TANK SHALL BE AT A DISTANCE BELOW THE LIQUID SURFACE EQUAL TO 0.4D.
4. INSTALL RISER WITH BUTYL TAPE AND TANK ADAPTER PER RISER MANUFACTURER'S SPECIFICATIONS. ALL JOINTS MUST BE WATER TIGHT.
5. TRAFFIC RATED LIDS AND RISER REQUIRED FOR ALL TRAFFIC AREAS. COVER SHALL BE ADEQUATELY SEALED TO PREVENT ACCIDENTAL ACCESS OR SHALL HAVE AN EFFECTIVE LOCKING DEVICE.
6. SANITARY TEES SHALL BE AT LEAST FOUR INCHES (4\") IN DIAMETER AND SHALL BE AFFIXED TO THE INLET OR OUTLET PIPES WITH A PERMANENT WATERPROOF ADHESIVE.
7. THE SPACE IN THE TANK BETWEEN THE LIQUID SURFACE AND THE TOP OF THE INLET AND OUTLET SANITARY TEES SHALL NOT BE LESS THAN 20 PERCENT OF THE TOTAL REQUIRED CAPACITY.
8. THE INLET SANITARY TEE SHALL EXTEND AT LEAST ONE INCH (1\") ABOVE THE CROWN OF THE INLET SEWER.
9. THERE SHALL BE AT LEAST ONE INCH (1\") BETWEEN THE UNDERSIDE OF THE TOP OF THE TANK AND THE HIGHEST POINT OF THE INLET AND OUTLET SANITARY TEES.
10. ADEQUATE VENTING SHALL BE PROVIDED BETWEEN COMPARTMENTS BY AN OPENING OF AT LEAST 50 SQUARE INCHES NEAR THE TOP OF THE COMPARTMENT WALL.

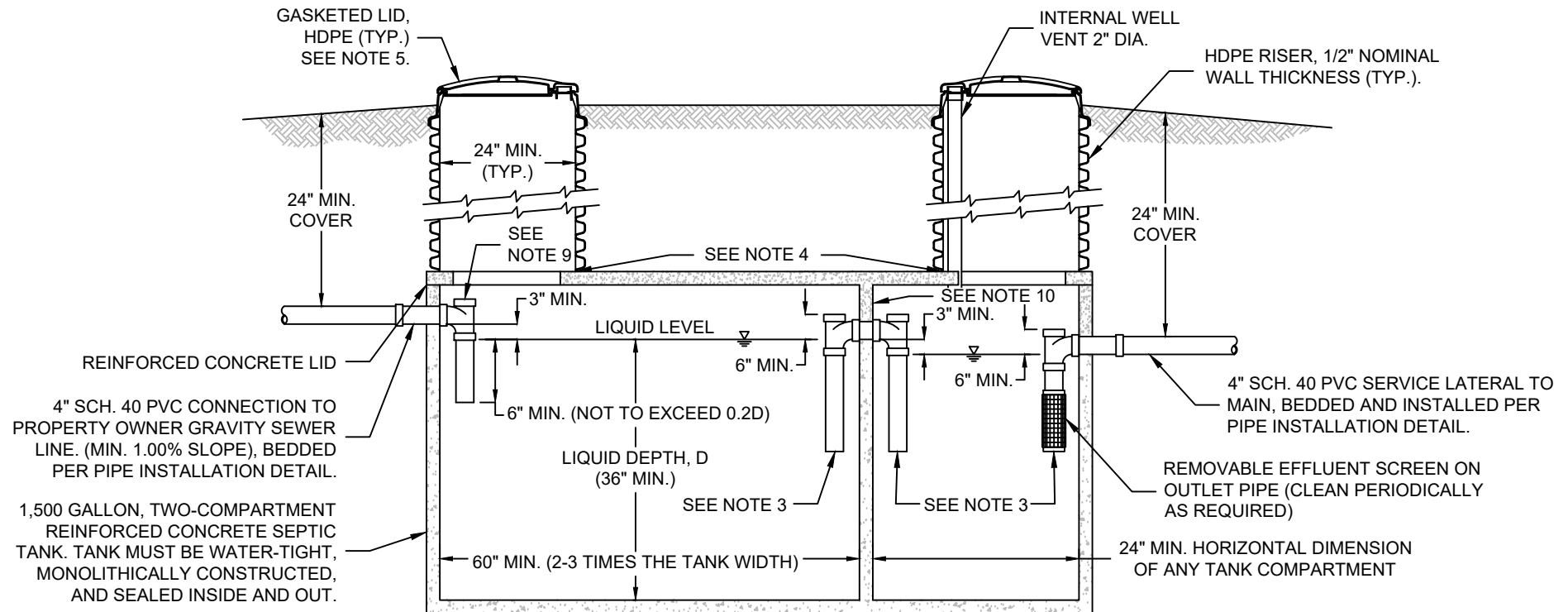
1,500 GALLON SEPTIC TANK WITH EFFLUENT PUMP (STEP) DETAIL

NOT TO SCALE

REV. DATE: 03/06/2023



**TECHNICAL SPECIFICATIONS
STANDARD DETAIL 35
1,500 GALLON STEP DETAIL**



NOTES:

1. ASSEMBLY, INSTALLATION, COMPONENTS, AND MATERIALS SHALL COMPLY WITH ALL TANEY COUNTY REGIONAL SEWER DISTRICT STANDARDS.
2. BEDDING MATERIAL SHALL BE A MINIMUM 6" THICK USING 3/8" CRUSHED ROCK.
3. THE BOTTOM OF THE RISER BETWEEN THE PRIMARY AND SECONDARY SIDES OF THE TANK SHALL BE AT A DISTANCE BELOW THE LIQUID SURFACE EQUAL TO 0.4D.
4. INSTALL RISER WITH BUTYL TAPE AND TANK ADAPTER PER RISER MANUFACTURER'S SPECIFICATIONS. ALL JOINTS MUST BE WATER TIGHT.
5. TRAFFIC RATED LIDS AND RISER REQUIRED FOR ALL TRAFFIC AREAS. COVER SHALL BE ADEQUATELY SEALED TO PREVENT ACCIDENTAL ACCESS OR SHALL HAVE AN EFFECTIVE LOCKING DEVICE.
6. SANITARY TEES SHALL BE AT LEAST FOUR INCHES (4") IN DIAMETER AND SHALL BE AFFIXED TO THE INLET OR OUTLET PIPES WITH A PERMANENT WATERPROOF ADHESIVE.
7. THE SPACE IN THE TANK BETWEEN THE LIQUID SURFACE AND THE TOP OF THE INLET AND OUTLET SANITARY TEES SHALL NOT BE LESS THAN 20 PERCENT OF THE TOTAL REQUIRED CAPACITY.
8. THE INLET SANITARY TEE SHALL EXTEND AT LEAST ONE INCH (1") ABOVE THE CROWN OF THE INLET SEWER.
9. THERE SHALL BE AT LEAST ONE INCH (1") BETWEEN THE UNDERSIDE OF THE TOP OF THE TANK AND THE HIGHEST POINT OF THE INLET AND OUTLET SANITARY TEES.
10. ADEQUATE VENTING SHALL BE PROVIDED BETWEEN COMPARTMENTS BY AN OPENING OF AT LEAST 50 SQUARE INCHES NEAR THE TOP OF THE COMPARTMENT WALL.

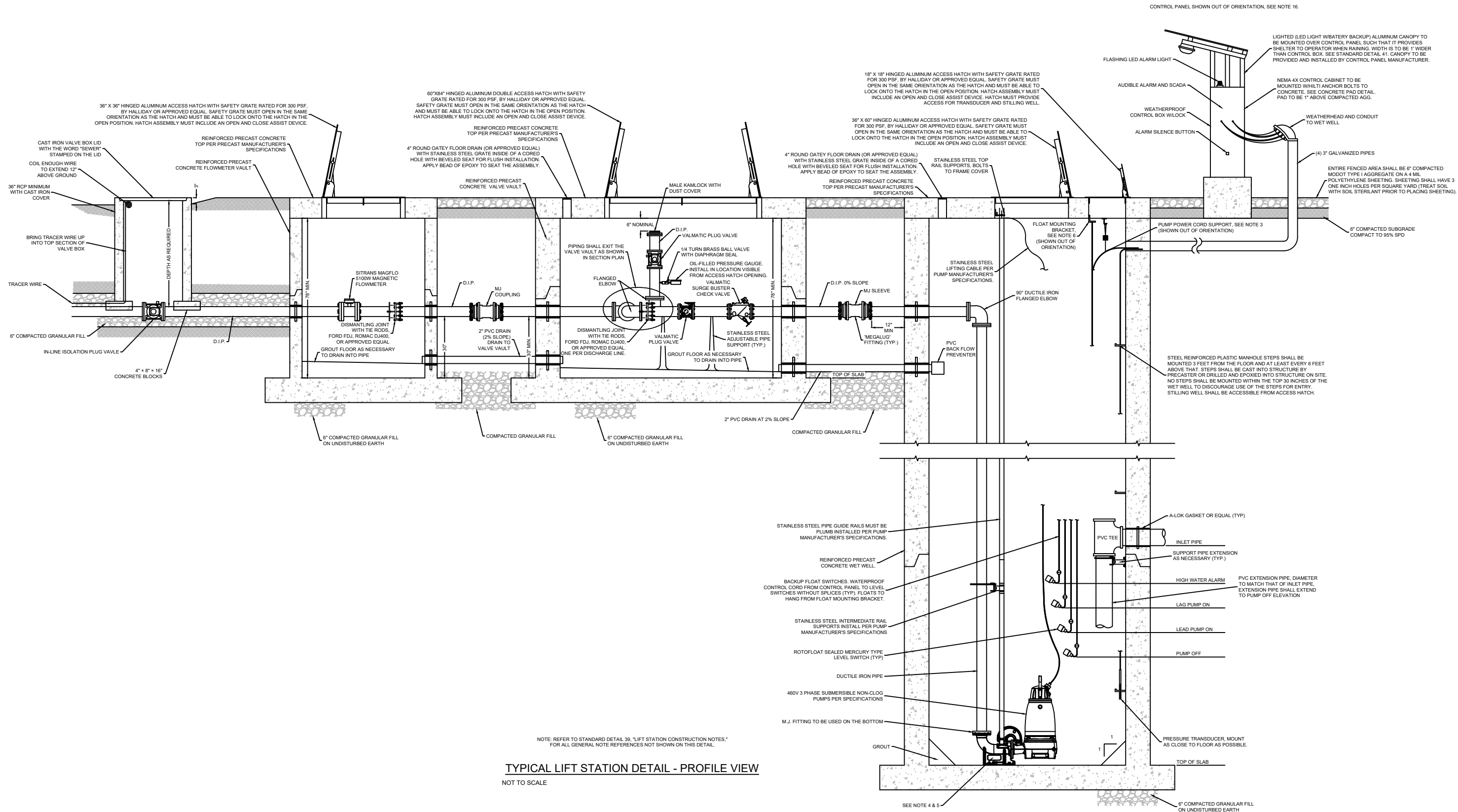
1,500 GALLON SEPTIC TANK WITH EFFLUENT GRAVITY FLOW (STEG) DETAIL

NOT TO SCALE

REV. DATE: 03/06/2023



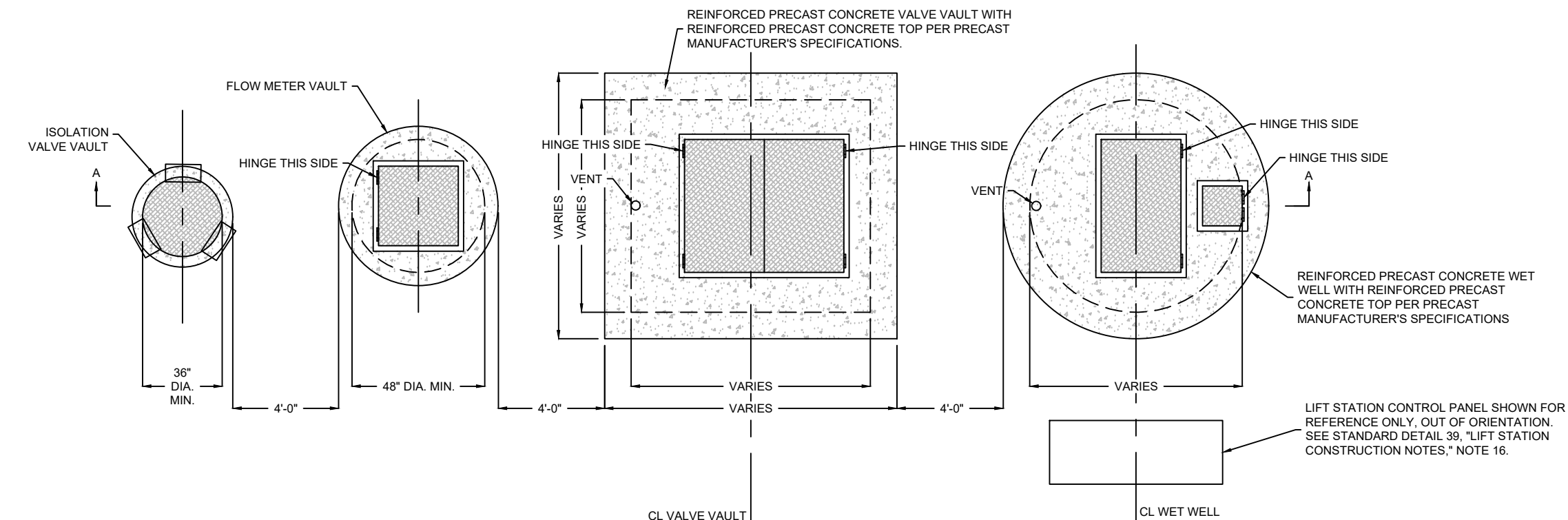
**TECHNICAL SPECIFICATIONS
STANDARD DETAIL 36
1,500 GALLON STEG DETAIL**



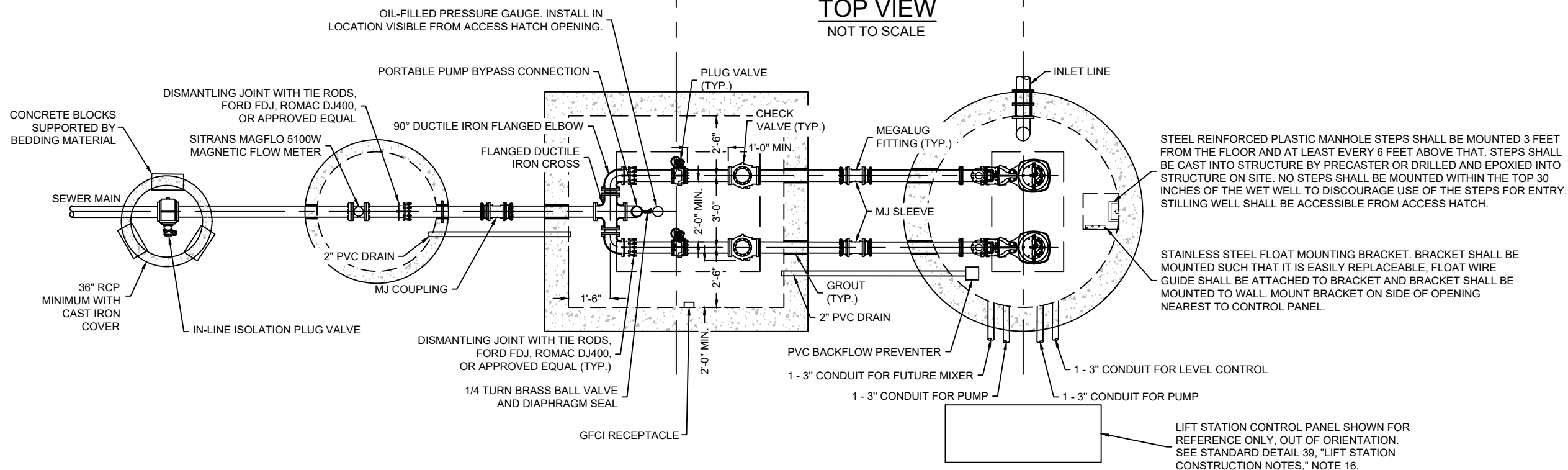
NOTE: REFER TO STANDARD DETAIL 39, "LIFT STATION CONSTRUCTION NOTES," FOR ALL GENERAL NOTE REFERENCES NOT SHOWN ON THIS DETAIL.

TYPICAL LIFT STATION DETAIL - PROFILE VIEW

NOT TO SCALE



TOP VIEW
NOT TO SCALE



SECTION PLAN
NOT TO SCALE

TYPICAL LIFT STATION DETAIL - PLAN VIEW
NOT TO SCALE

NOTES:

1. STRUCTURE DIMENSIONS VARY ACCORDING TO SIZE OF PIPING. THE TABLE BELOW PROVIDES MINIMUM SIZING GUIDELINES FOR VALVE VAULTS AND WET WELLS.
2. MINIMUM PUMP SPACING RECOMMENDED BY PUMP MANUFACTURER MAY REQUIRE GREATER DISTANCE BETWEEN PIPES THAN WHAT IS SHOWN. ENGINEER MAY INCREASE VALVE VAULT WIDTH BEYOND THE MINIMUMS IN THIS DETAIL AS NEEDED.
3. STANDARD DETAIL DRAWING DEPICTS 4" PIPING AND VALVES. ENGINEER OF RECORD IS RESPONSIBLE FOR ENSURING ACCURATE REPRESENTATION OF ALL COMPONENTS ACCORDING TO PROJECT-SPECIFIC CONDITIONS AND REQUIREMENTS WHEN UTILIZING THIS DETAIL.

NOMINAL PIPE SIZE	VALVE VAULT MINIMUM INTERIOR DIMENSIONS	WET WELL MINIMUM INTERIOR DIAMETER
4"	8' X 9'	8'
6"	8' X 9'	8'
8"	9' X 9'	8'

REV. DATE: 05/13/2026



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 38
TYPICAL LIFT STATION DETAIL - PLAN VIEW

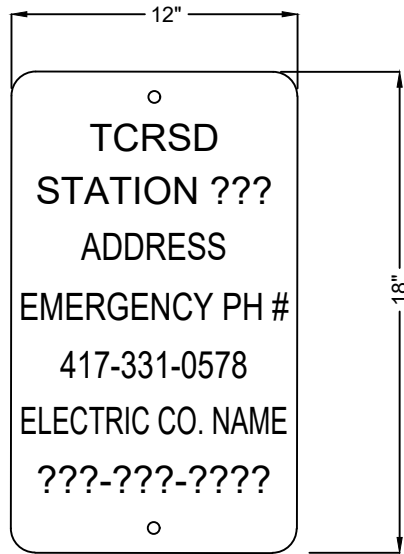
LIFT STATION CONSTRUCTION NOTES

1. PRECAST MANUFACTURER TO SUBMIT SHOP DRAWINGS ON ALL PRECAST STRUCTURES.
2. CERTIFIED TESTS OF THE SPECIFIC PUMPING UNITS SUPPLIED ARE REQUIRED, SEE SPECIFICATIONS.
3. PROVIDE SUFFICIENT CABLE (W/O SPLICES) TO ALLOW DISCONNECTION AND PUMP REMOVAL WITHOUT ENTERING WET WELL. SUPPORT POWER CORD W/STAINLESS STEEL 'J' BOLT AND CABLE SUPPORT MOUNTED IN TOP OF WET WELL.
4. ANCHOR BOLT ALIGNMENT AS SPECIFIED BY THE MANUFACTURER. PUMP SUPPORT ANCHOR BOLT, PUMP SPACING, CLEARANCE AND INSTALLATION DIMENSIONS DEPENDANT ON EQUIPMENT FURNISHED.
5. BOTTOM OF BASIN MUST HAVE SMOOTH TROWELED SURFACE FOR MOUNTING SUPPORT CASTING.
6. STAINLESS STEEL FLOAT MOUNTING BRACKET. BRACKET SHALL BE MOUNTED SUCH THAT IT IS EASILY REPLACEABLE, FLOAT WIRE GUIDE SHALL BE ATTACHED TO BRACKET AND BRACKET SHALL BE MOUNTED TO WALL. BRACKET SHOWN OUT OF POSITION IN STANDARD DETAIL 37, "TYPICAL LIFT STATION DETAIL - PROFILE VIEW." SEE SECTION PLAN, STANDARD DETAIL 38, "TYPICAL LIFT STATION DETAIL, PLAN VIEW," FOR APPROPRIATE LOCATION.
7. BACKFILL ALL STRUCTURES IN 8" LIFTS COMPACTED TO 95% STANDARD PROCTOR.
8. NO ROCK LARGER THAN 4" MAX. DIMENSION SHALL BE PLACED WITHIN 1' OF EXTERIOR SURFACE OF ANY STRUCTURE.
9. PROVIDE 4-3" PVC CONDUITS W/ GALVANIZED WEATHERHEADS. ONE CONDUIT FOR EACH PUMP, ONE FOR MIXER (FUTURE MIXER), ONE FOR LEVEL CONTROL (FLOATS AND TRANSDUCER).
10. ALL PUMP DISCHARGE PIPING WITHIN WET WELL AND VALVE VAULT SHALL BE FLANGED DUCTILE IRON PIPE; ALL BOLTS SHALL BE STAINLESS STEEL.
11. ALL EXTERIOR SURFACES OF WET WELL AND VALVE VAULT SHALL BE COATED WITH TWO COATS OF BITUMINOUS MATERIAL OR APPROVED EQUAL.
12. ALL ACCESS HATCHES TO BE PROVIDED WITH APPROVED LOCKING DEVICES WITH OPEN AND CLOSE ASSIST MECHANISM. HATCHES SHALL BE ALUMINUM, HALLIDAY OR EQUAL. HATCH SHOWN OPENING OUT OF POSITION IN SECTION A-A, SEE TOP VIEW FOR ACTUAL HINGE LOCATIONS. ACCESS HATCH OPENING LOCATION ON WET WELL SHALL BE RECOMMENDED BY PUMP MANUFACTURER. ACCESS HATCH OPENING LOCATIONS ON VALVE VAULT SHALL BE SITUATED TO PROVIDE CLEAR ACCESS TO VALVES AND LADDER AS SHOWN. SAFETY HATCHES TO BE PROVIDED AND SHALL OPEN ON SAME SIDE AS HATCH.
13. ALL PIPE FITTINGS SHALL BE INSTALLED WITH STAINLESS STEEL BOLTS. ALL POWER CORDS AND CONTROL CABLE HANGERS AND STRAIN RELIEF GRIPS SHALL BE STAINLESS STEEL.
14. ELEVATED LIGHT POLE BASE(S) TO BE POURED IN PLACE. NO POLE IS TO BE PLACED DIRECTLY IN THE GROUND.
15. LIFT STATION CONTROL PANEL SHALL NOT BE LOCATED BEHIND HINGED SIDE OF WET WELL ACCESS. LOCATE LIFT STATION CONTROL PANEL TO THE SIDE OF THE WET WELL OPENING. AN ELECTRICAL SITE PLAN SHOWING THE LOCATION OF THE CONTROL PANEL SHALL BE PROVIDED BY THE DESIGN ENGINEER.

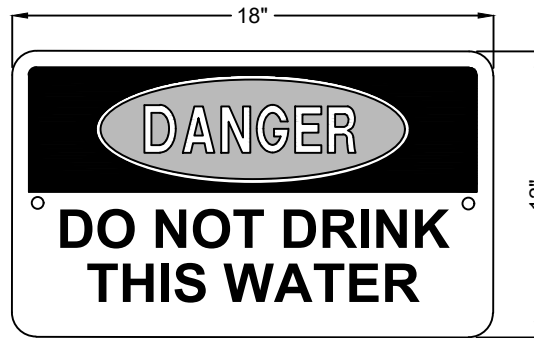
REV. DATE: 06/05/2025



TECHNICAL SPECIFICATIONS STANDARD DETAIL 39 LIFT STATION CONSTRUCTION NOTES



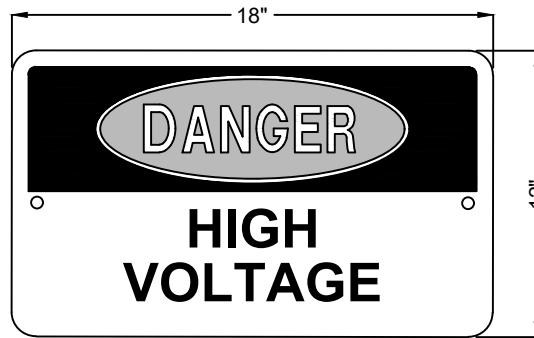
TYPE I SIGN



TYPE II SIGN



TYPE III SIGN



TYPE IV SIGN

WARNING SIGNS STANDARD NOTES:

- 1.) REQUIRED SIGNS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
- 2.) EACH PUMP STATION SHALL BE EQUIPPED WITH SIGNS PRIOR TO BEING PLACED IN OPERATION.
- 3.) ONE (1) TYPE I SIGN SHALL BE PLACED ON THE FACILITY GATE OR ON THE NEAREST PRACTICAL VERTICAL SURFACE IF NO GATE IS USED.
- 4.) ONE (1) TYPE II SIGN SHALL BE PLACED ON THE FACILITY GATE.
- 5.) ONE (1) TYPE III SIGN AND ONE (1) TYPE IV SIGN SHALL BE PLACED ON THE FACILITY GATE AND ON EACH EXTERIOR WALL OF THE FACILITY.
- 5.) SIGNS SHALL BE CONSTRUCTED OF ALUMINUM WITH A MINIMUM THICKNESS OF 0.080" AND SHALL BE SECURELY FASTENED TO WITHSTAND WIND. LETTERS AND SYMBOLS MAY BE PAINTED OR BAKED ENAMEL AND SHALL BE IN PROPORTION TO THOSE ON THE SIGNS SHOWN.
- 6.) SHADED AREA OF SIGN DETAIL REPRESENTS RED. BLACK AREA REPRESENTS BLACK. WHITE REPRESENTS WHITE.

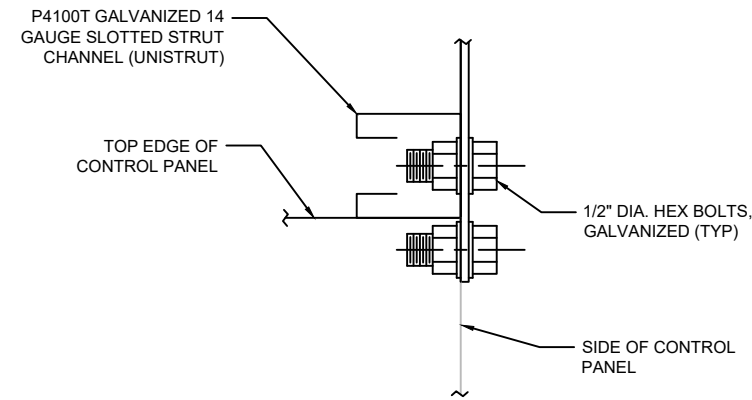
TYPICAL PUMP STATION WARNING SIGNS

SCALE: NONE

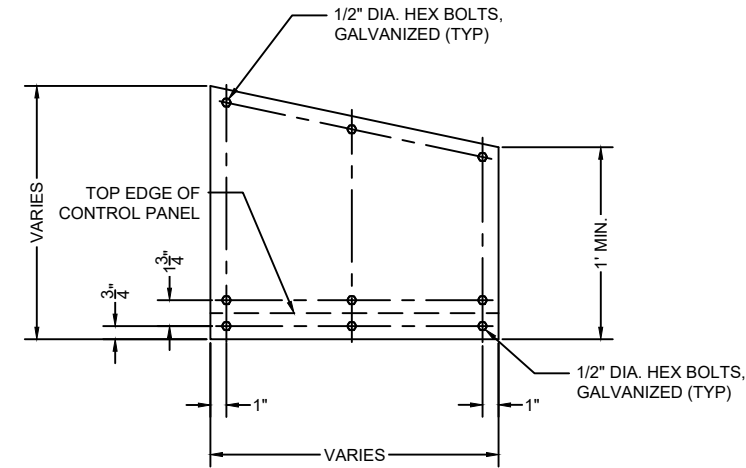
REV. DATE: 02/26/2025



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 40
TYPICAL PUMP STATION WARNING SIGNS

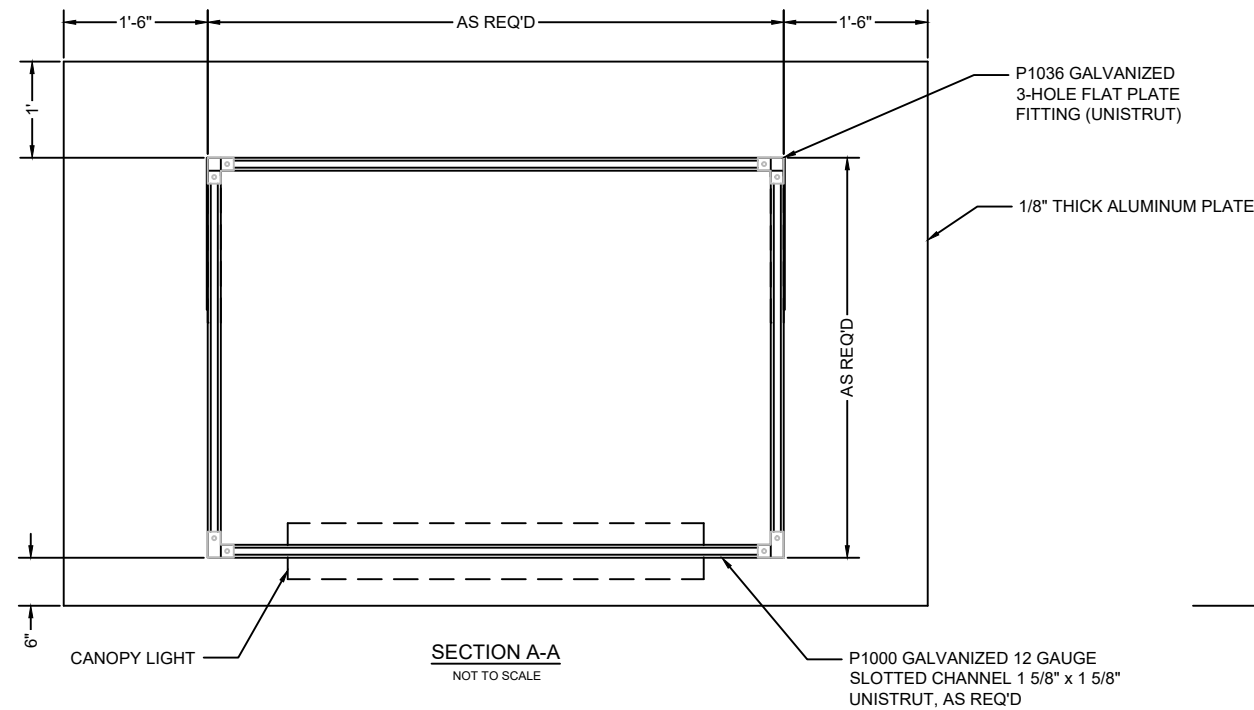


DETAIL "A"
NOT TO SCALE

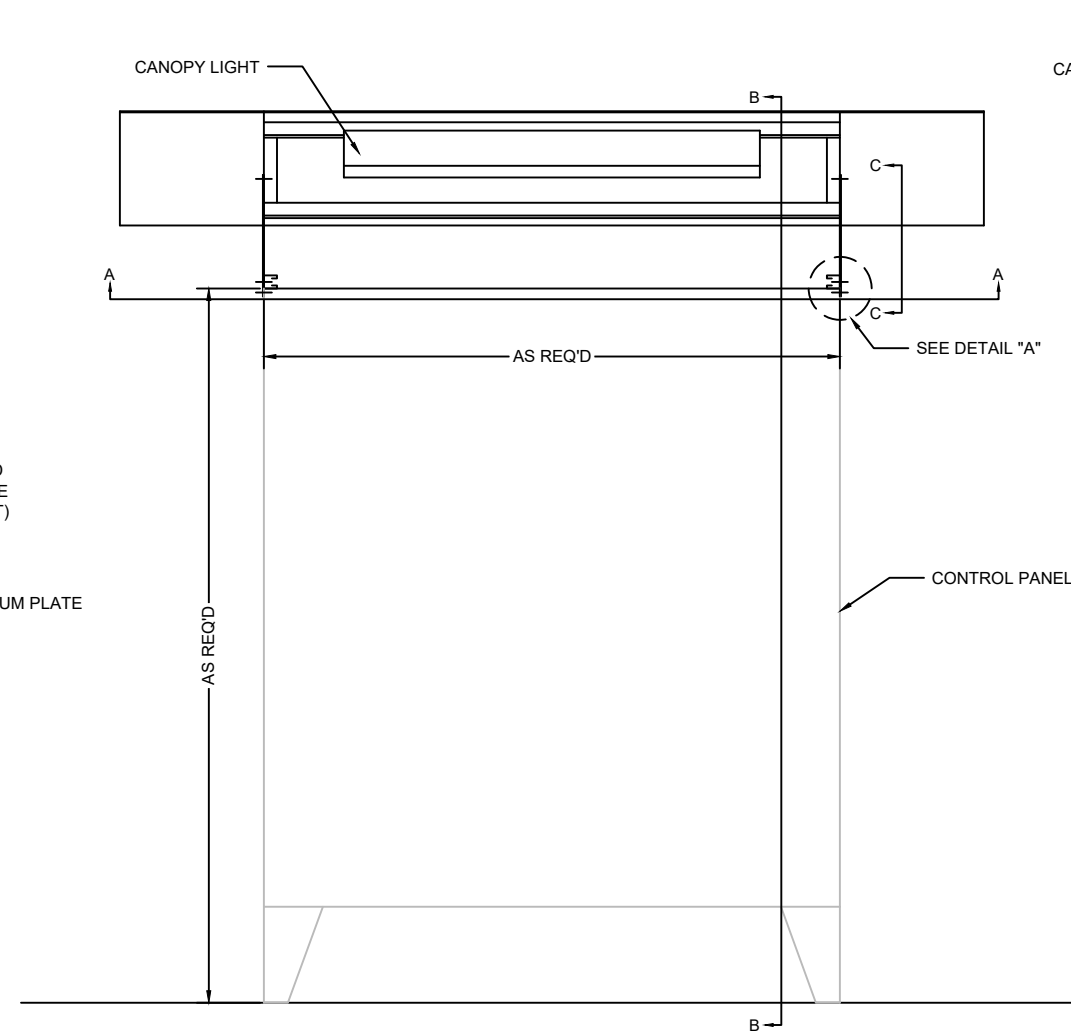


SECTION C-C
NOT TO SCALE

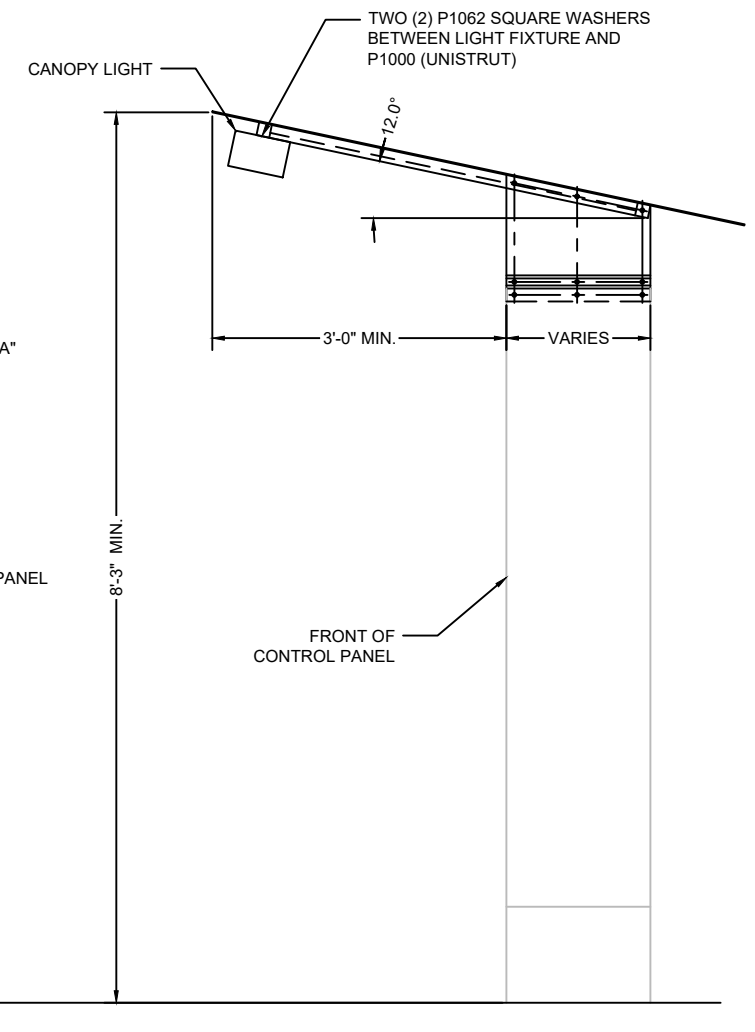
NOTES:
1. ALL HARDWARE TO BE GALVANIZED.



SECTION A-A
NOT TO SCALE

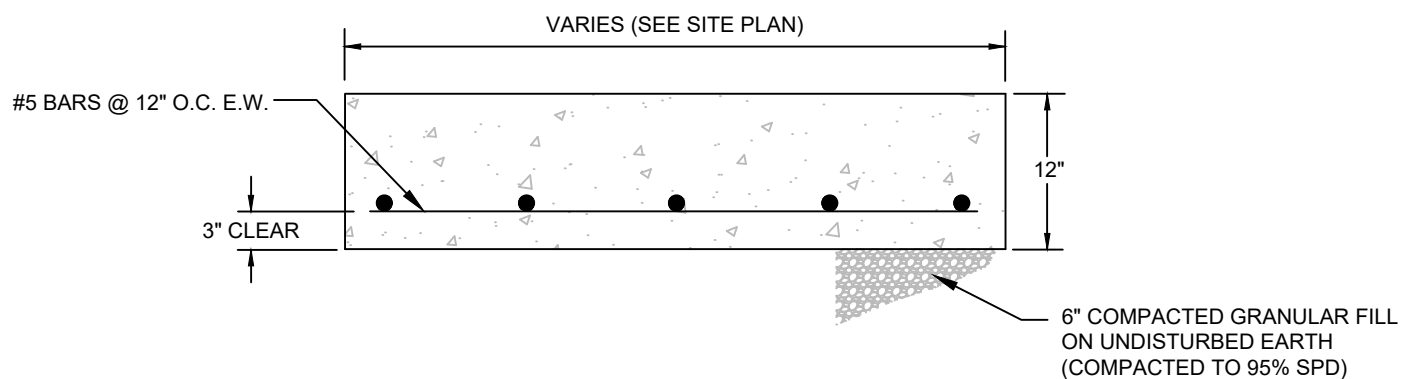


FRONT VIEW
NOT TO SCALE



SECTION B-B
NOT TO SCALE

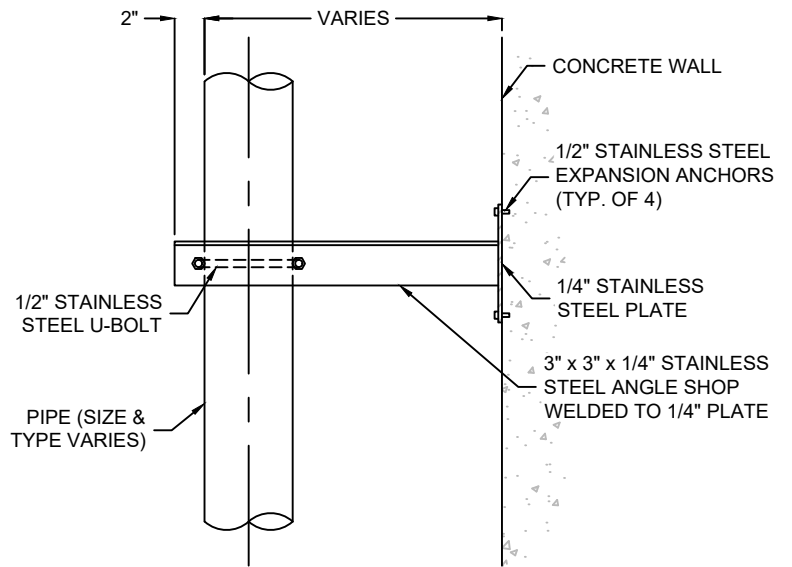
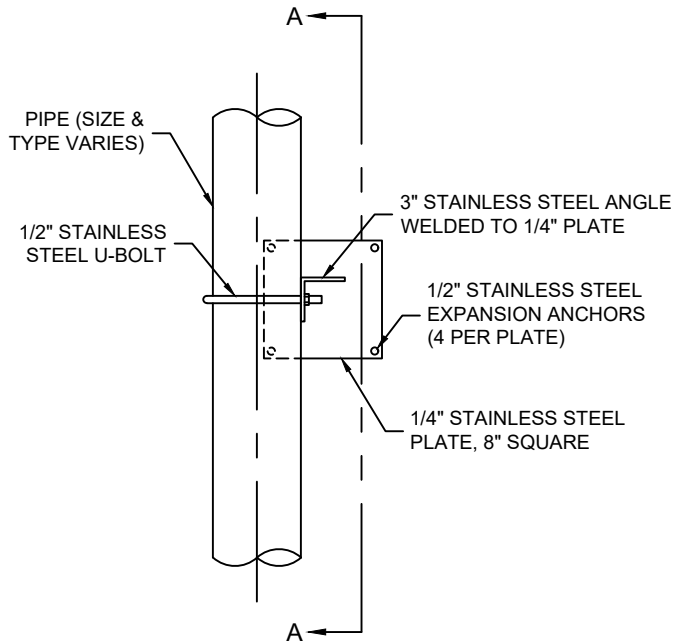
REV. DATE: 09/06/2024



CONCRETE GENERATOR PAD DETAIL

NOT TO SCALE

REV. DATE: 03/06/2023

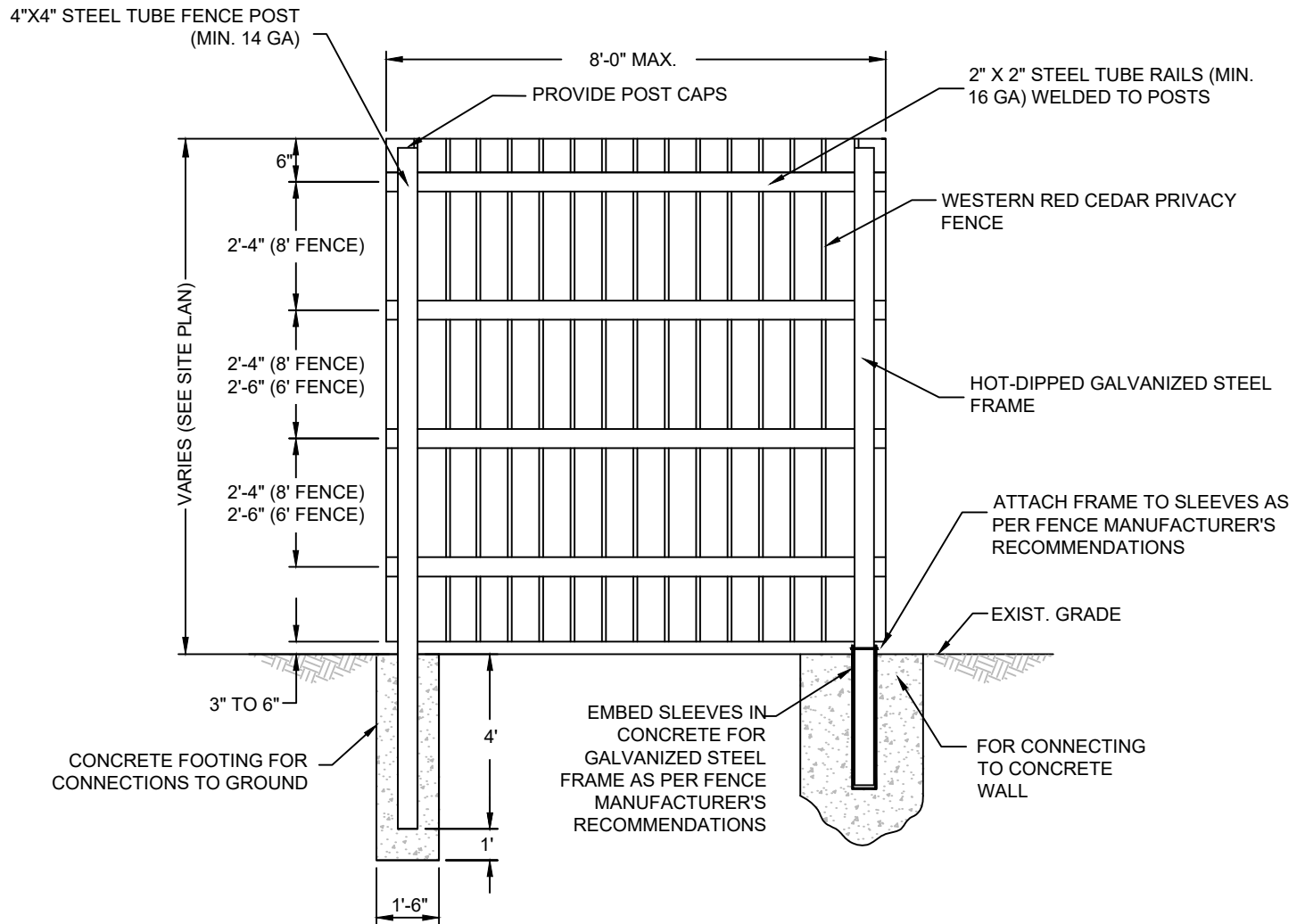


SECTION A-A

PIPE SUPPORT DETAIL

NOT TO SCALE

REV. DATE: 03/06/2023



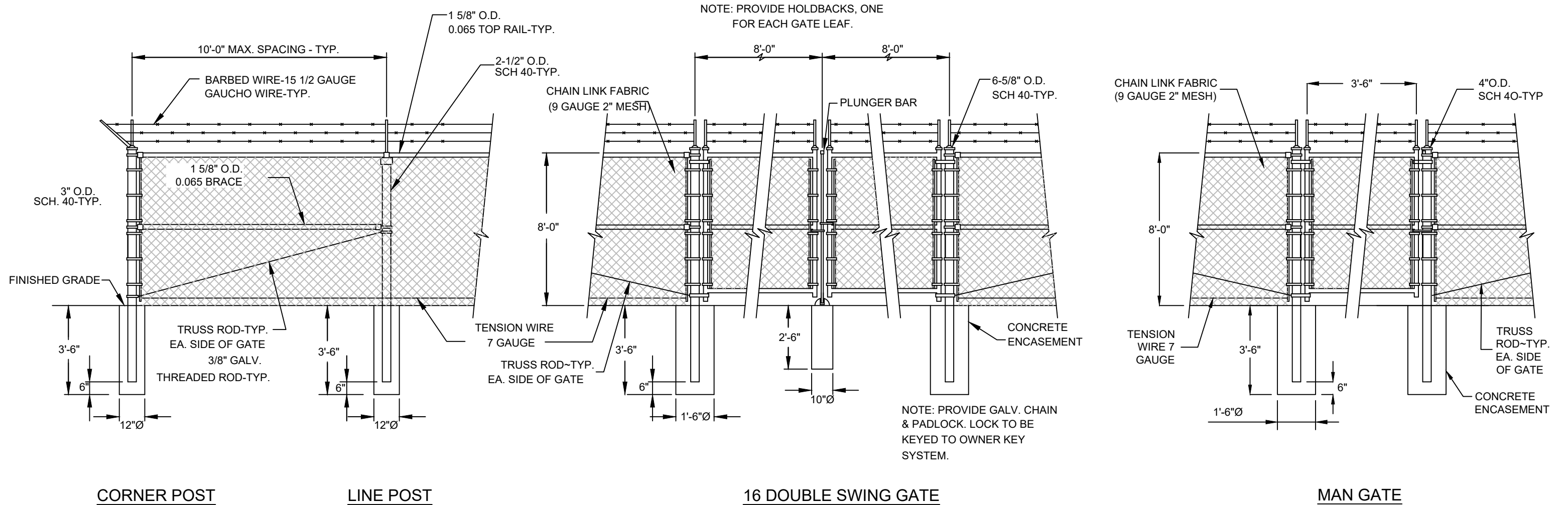
NOTES:

1. USE FOUR (4) RAILS FOR 8' FOOT HIGH FENCE, USE THREE (3) RAILS FOR 6' HIGH FENCE.
2. ALL STEEL SHALL BE HOT-DIPPED GALVANIZED.

WOOD FENCE DETAIL

NOT TO SCALE

REV. DATE: 05/13/2026



NOTES:

1. PROVIDE GALVANIZED CHAIN & PADLOCK. LOCK TO BE KEYED TO OWNER KEY SYSTEM.

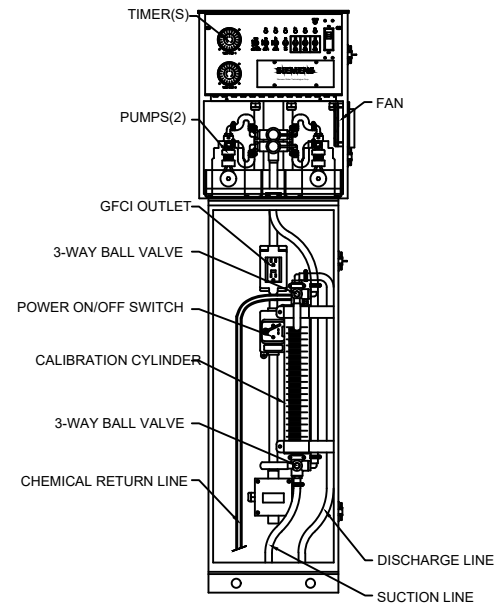
LIFT STATION CHAINLINK FENCE DETAIL

NOT TO SCALE

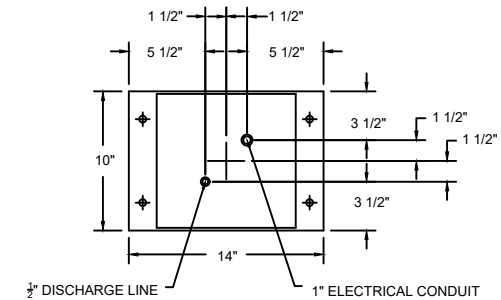
REV. DATE: 03/06/2023



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 46
LIFT STATION CHAINLINK FENCE DETAIL



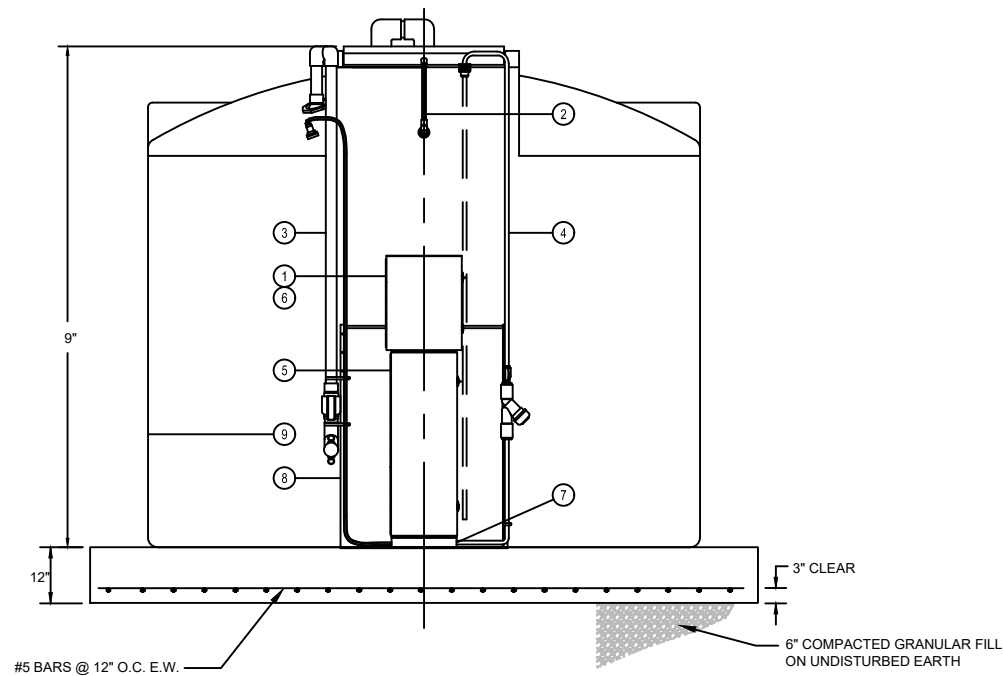
DETAIL VIEWS OF CHEMICAL CONTROL
STAND AND PANEL



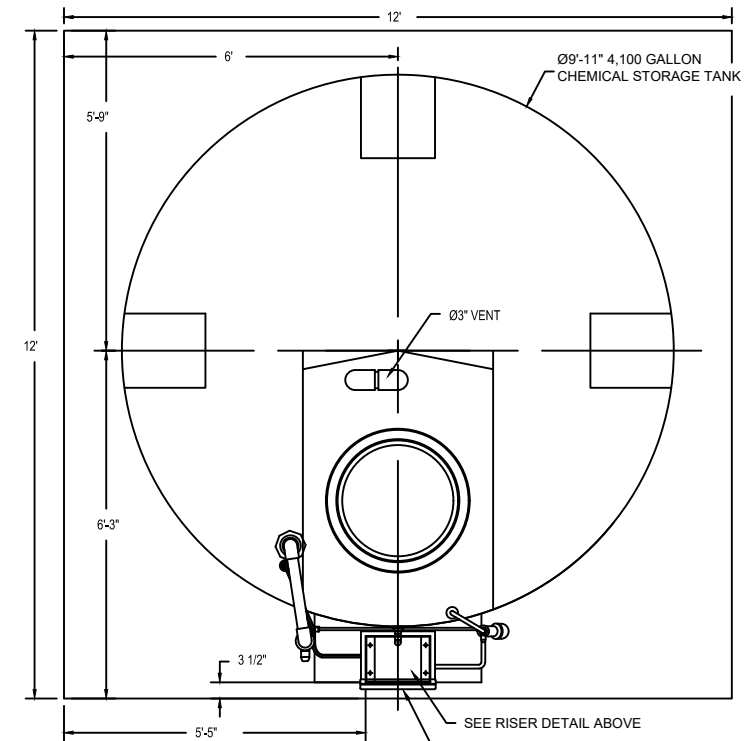
RISER/SLAB PENETRATION DETAIL

- 1 CONTROL BOX ASSEMBLY (W/PUMPS)
- 2 OVERFILL PIPING ASSEMBLY
- 3 Ø2" FILL PIPING ASSEMBLY
- 4 Ø1/2" SUCTION PIPING ASSEMBLY
- 5 CALIBRATION STAND ASSEMBLY
- 6 PUMP(S)
- 7 14" X 10" SS PIPE STAND RISER
- 8 36" X 24" X 48" SS TANK PIPE/UTIL STAND
- 9 4,100 GALLON TANK: 9'-10" DIAMETER, 9'-0" HIGH

NOMENCLATURE



ELEVATION



PLAN VIEW

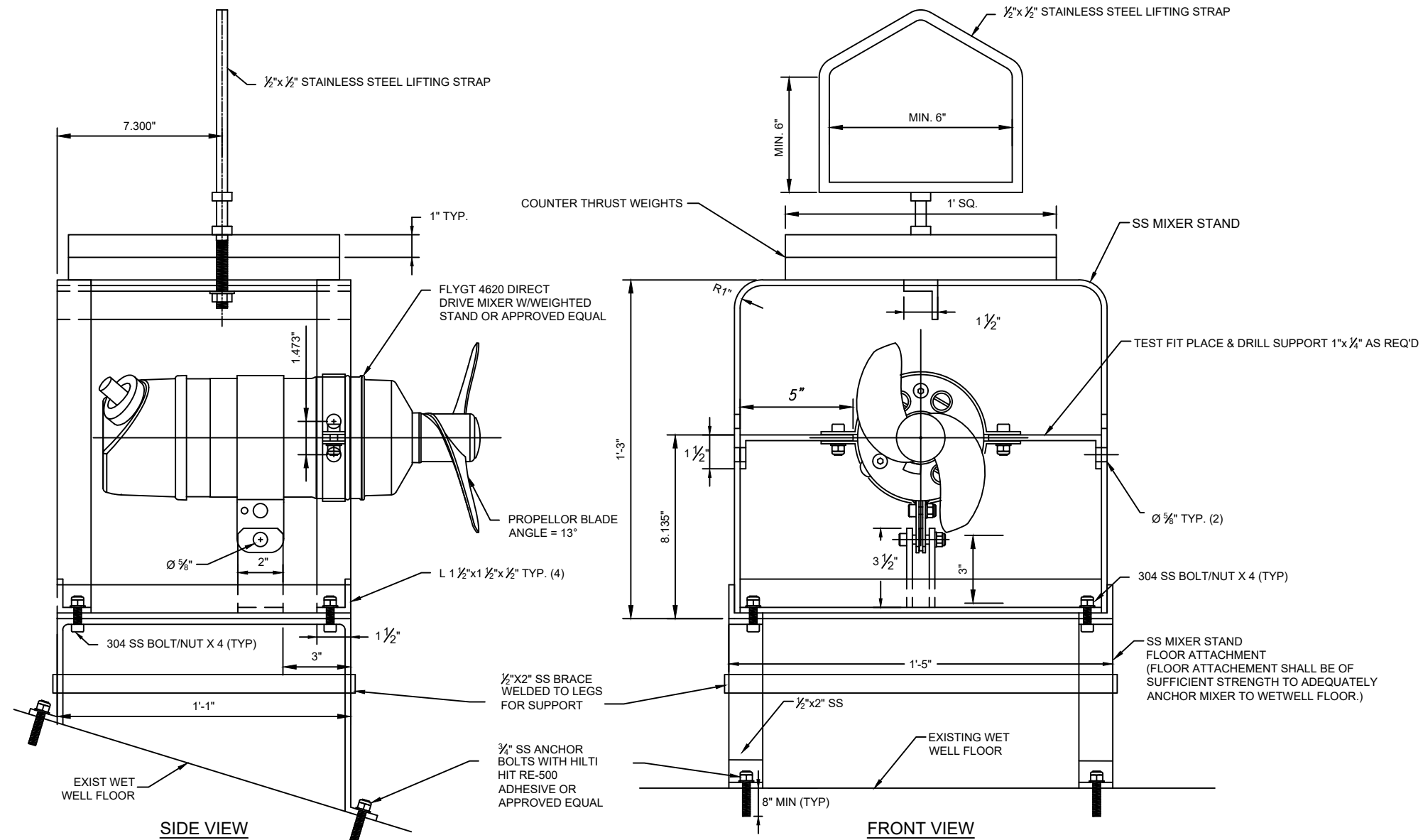
CONTRACTOR TO CONSTRUCT 2" PVC DISCHARGE LINE WITH 1/2" TYGON TUBING INSIDE FROM FEED SYSTEM TO CONCRETE WET WELL. CONTRACTOR SHALL AVOID USING 90 DEGREE FITTINGS ON 2" PVC LINE (45 DEGREE OR SWEEP IS ACCEPTABLE). PVC PIPE SHALL SLOPE BACK TO WET WELL TO ENSURE DRAINAGE.

ODOR CONTROL
CHEMICAL FEED AND STORAGE UNIT

REV. DATE: 03/06/2023



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 47
ODOR CONTROL



MIXER NOTES:

1. MIXER STAND MATERIAL SHALL BE 1/4" THICK 304 SS UNLESS NOTED OTHERWISE. FLOOR ATTACHMENT SHALL BE 1/2" THICK 304 SS.
2. COUNTER THRUST WEIGHTS TO BE PAINTED CARBON STEEL.
3. CONTRACTOR RESPONSIBLE FOR CONNECTING ELECTRIC FOR MIXER TO EXISTING DISTRIBUTION PANEL. MIXER TO BE WIRED TO RUN WHEN PUMPS ARE OFF. ALL ELECTRICAL WORK ASSOCIATED WITH MAKING THIS A COMPLETE WORKING CONNECTION, WHETHER DETAILED IN THESE PLANS OR NOT, SHALL BE INCLUDED IN THE CONTRACTOR'S BID.
4. CONSTRUCTION OF MIXER FLOOR ATTACHMENT WILL VARY SITE TO SITE. FLOOR ATTACHMENT SHALL BE INSTALLED WITH MIXER WHERE MIXER WILL BE INSTALLED ON A SLOPED WET WELL FLOOR. CONTRACTOR RESPONSIBLE FOR COORDINATING WITH TCRSD ON PLACEMENT OF MIXER IN BOTTOM OF WET WELLS.
5. MIXER MUST HAVE MINIMUM COVERAGE OF 27" WHEN RUNNING. THE 27" SHALL BE MEASURED FROM THE "PUMP OFF" ELEVATION OF THE EXISTING WET WELL.
6. ELECTRICAL CABLES FOR MIXER SHALL BE SUPPORTED IN WET WELL AND INSTALLED SUCH THAT THE CABLES DO NOT INTERFERE WITH MAINTENANCE AND/OR REMOVAL OF EXISTING EQUIPMENT. CABLES SHALL BE RUN UNDERGROUND FROM EXISTING CONTROL PANEL TO WET WELL. WET WELL SHALL BE CORED FOR CONDUIT ENTRANCE.
7. INSTALL MIXER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND MINIMUM CLEARANCES.

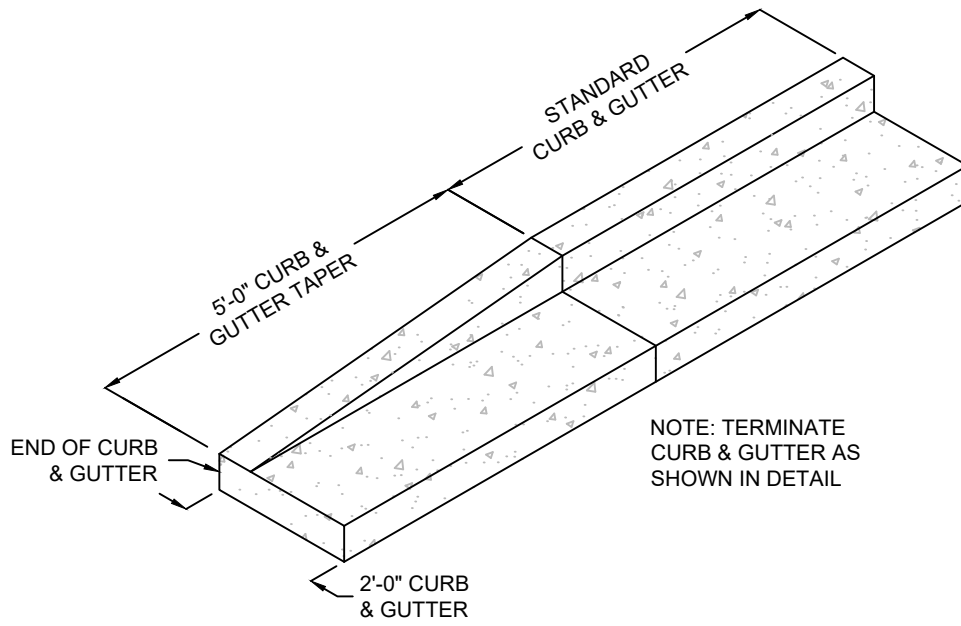
WET WELL MIXER WITH WEIGHTED MIXER STAND

NOT TO SCALE

REV. DATE: 03/06/2023



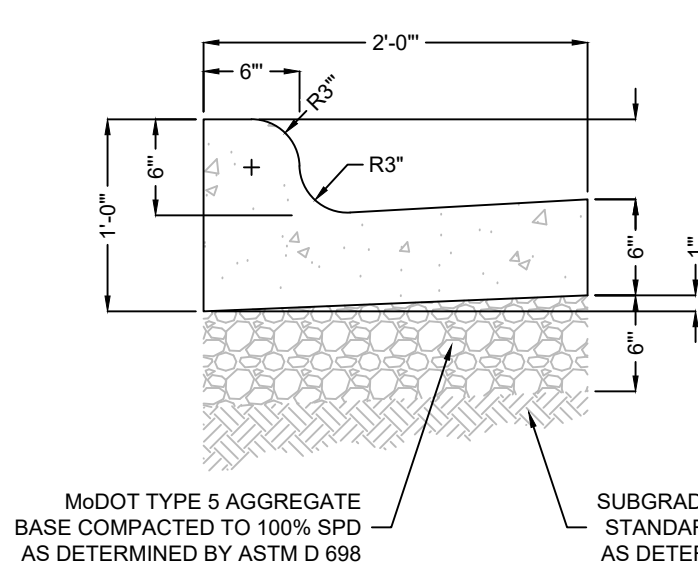
TECHNICAL SPECIFICATIONS
STANDARD DETAIL 48
WET WILL MIXER WITH WEIGHTED STAND



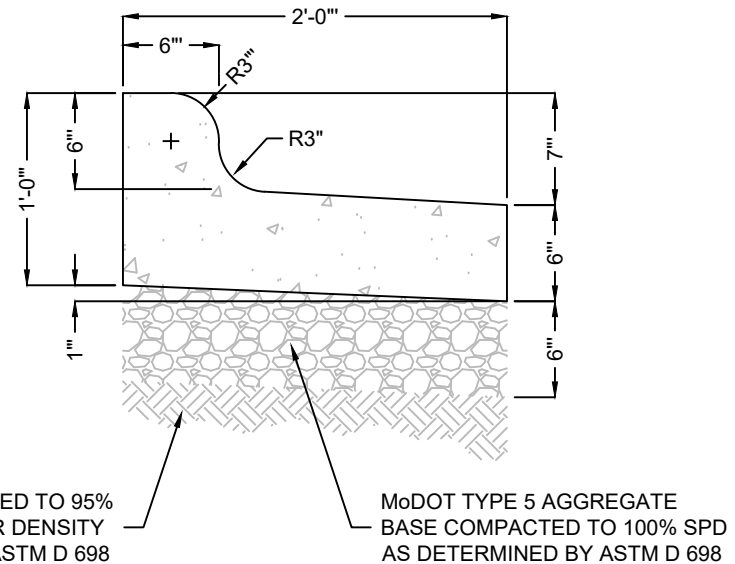
CURB TRANSITION DETAIL

NOT TO SCALE

REV. DATE: 03/06/2023



CATCH CURB



SPILL CURB

NOTES:

1. EXPANSION JOINTS SHALL BE FORMED BY A ONE-HALF (1/2) INCH THICK PREFORMED JOINT FILLER, CUT TO THE CONFIGURATION OF THE FULL SIZE OF THE CURB AND GUTTER SECTION AND BEING SECURED SO THAT THEY ARE NOT MOVED BY DEPOSITING AND COMPACTING THE CONCRETE AT THESE JOINTS. THE EDGES OF THESE JOINTS SHALL BE ROUNDED WITH AN EDGING TOOL ONE-EIGHTH (1/8) INCH RADIUS.
2. EXPANSION JOINTS SHALL BE PLACED WHERE CURB AND GUTTER ABUTS OTHER STRUCTURES AND AT ALL TANGENT POINTS TO CURBS. EXPANSION JOINTS SHALL NOT BE SPACED MORE THAN 50 FEET APART ON STRAIGHT RUNS FOR HAND LAID CURBS AND NOT MORE THAN 100 FEET APART FOR MACHINE LAID CURB AND GUTTER PROVIDED THAT ONE-HALF (1/2) INCH THICK JOINT FILLER IS USED. ALL JOINTS SHALL BE FORMED AT RIGHT ANGLES TO THE ALIGNMENT OF THE CURB AND GUTTER.
3. CONTRACTION JOINTS SHALL BE CONSTRUCTED BY INSERTING A REMOVABLE METAL TEMPLATE IN THE FRESH CONCRETE, THEY SHALL NOT BE SAW CUT, CONTRACTION JOINTS SHALL BE TO A DEPTH OF NOT LESS THAN ONE AND ONE-FOURTH (1-1/4) INCHES BELOW THE SURFACE AND TO A WIDTH NOT TO EXCEED THREE-EIGHTHS (3/8) INCH. CONTRACTION JOINTS SHALL BE LOCATED APPROXIMATELY 10 FEET APART.

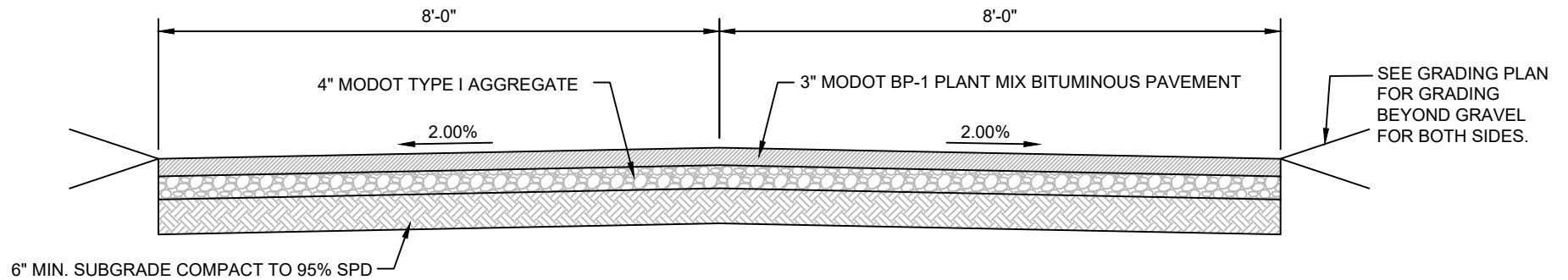
24" CONCRETE CURB AND GUTTER

NOT TO SCALE

REV. DATE: 03/06/2023

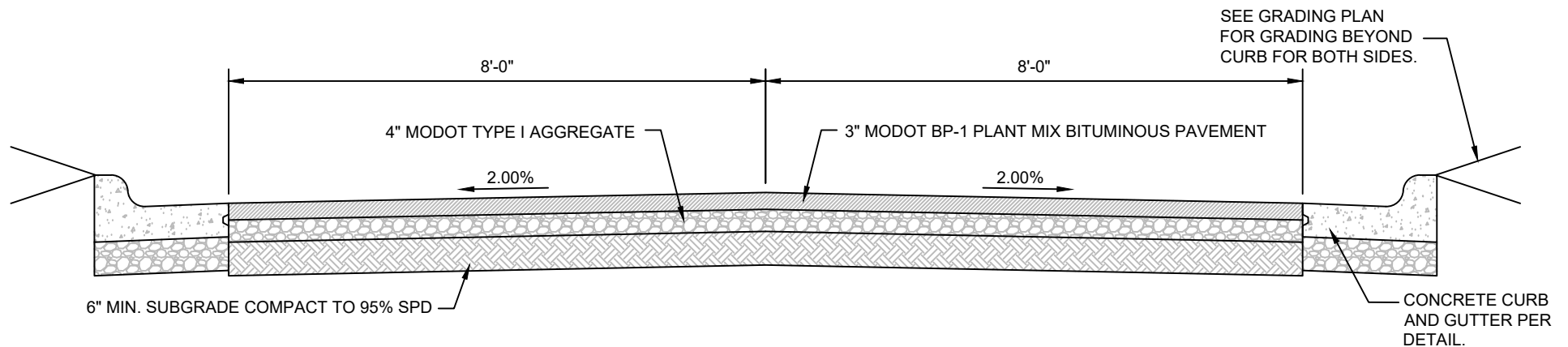


TECHNICAL SPECIFICATIONS
STANDARD DETAIL 50
24" CONCRETE CURB AND GUTTER



TYPICAL LIFT STATION ROAD CROSS SECTION WITHOUT CURB

NOT TO SCALE



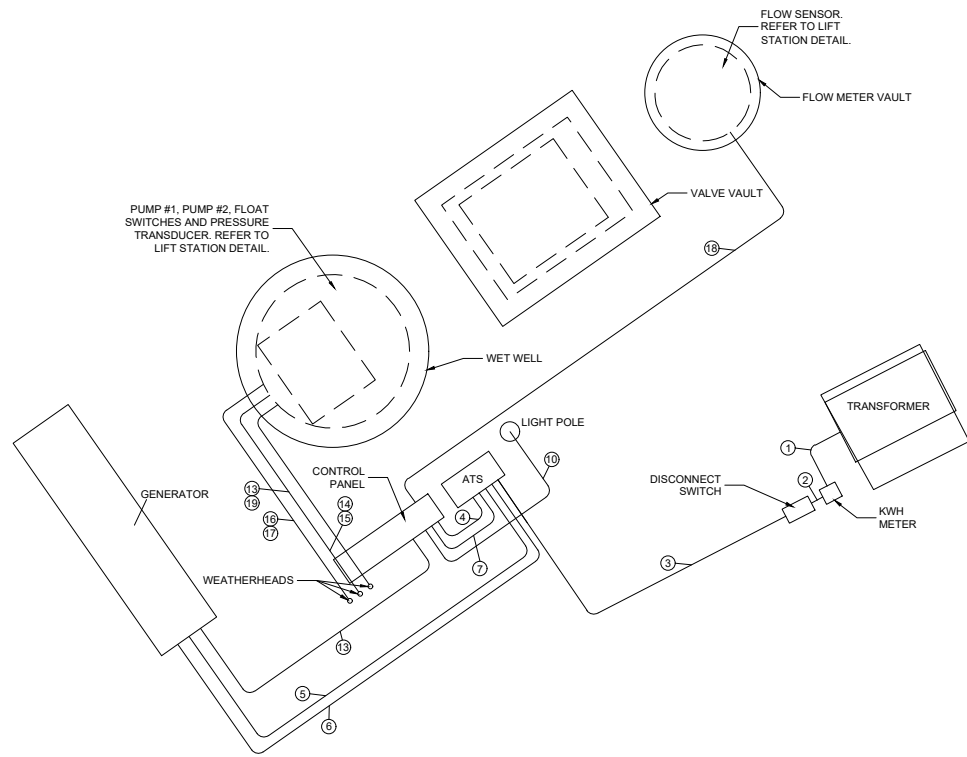
TYPICAL LIFT STATION ROAD CROSS SECTION WITH CURB

NOT TO SCALE

REV. DATE: 03/06/2023



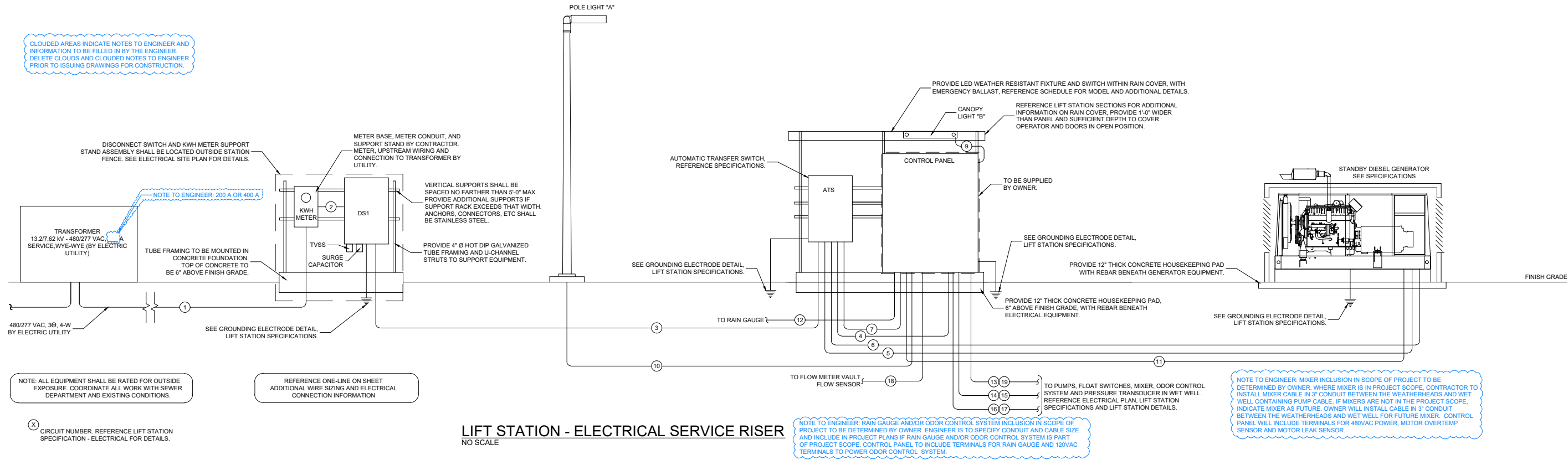
TECHNICAL SPECIFICATIONS
STANDARD DETAIL 51
LIFT STATION ROAD CROSS SECTION



LIFT STATION - ELECTRICAL PLAN
NO SCALE

- GENERAL ELECTRICAL NOTES:**
1. ELECTRICAL UTILITIES SHOWN ON THESE PLANS ARE INTENDED TO INDICATE EXISTING ELECTRICAL EQUIPMENT SERVING THE AFFECTED AREA AND ARE NOT INTENDED TO BE A COMPLETE SCHEMATIC OF ALL EXISTING ELECTRICAL EQUIPMENT. UTILITIES SHOWN ARE BASED ON A SITE UTILITY SURVEY AND FIELD OBSERVATIONS. ALL ELECTRICAL EQUIPMENT NOT SHOWN TO BE REMOVED OR RELOCATED IS ASSUMED TO REMAIN.
 2. CONTRACTOR SHALL CONTACT THE LOCAL ELECTRICAL UTILITY COMPANY AND ARRANGE FOR ELECTRIC SERVICE AS INDICATED ON DRAWINGS. SEWER DISTRICT SHALL PAY ALL UTILITY COSTS, CHARGES, FEES, ETC. DIRECTLY TO THE UTILITY COMPANY. PROVIDE ALL MATERIALS AS REQUIRED BY LOCAL AUTHORITIES FOR ELECTRIC SERVICE INSTALLATION. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL AUTHORITIES.
 3. PLANS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO CIVIL DRAWINGS FOR DIMENSIONS.
 4. ALL HOMERUNS SHALL BE INSTALLED IN PVC CONDUIT BELOW GRADE, RIGID STEEL CONDUIT ABOVE GRADE. TRANSITION TO STEEL CONDUIT SHALL BE MADE PRIOR TO COMING UP FROM BELOW GRADE.
 5. ALL WIRING SHALL BE IN CONDUIT AND SHALL BE CONCEALED. CONDUITS SHALL BE INSTALLED BELOW GRADE BETWEEN BOXES, LIGHTS, RECEPTACLES, ETC. UNLESS OTHERWISE NOTED. CONCEAL ALL TERMINATIONS AND CONDUIT UNLESS OTHERWISE NOTED.
 6. REFERENCE SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING EQUIPMENT SHOWN ON THIS SHEET.
 7. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2014 NATIONAL ELECTRICAL CODE (NEC) AS ADOPTED BY TANEY COUNTY, MISSOURI. CONTRACTOR SHALL ARRANGE FOR ALL PERMITS AS REQUIRED.
 8. CONTRACTOR TO COORDINATE CONTROL PANEL CONDUIT ENTRY LOCATIONS WITH CONTROL PANEL MANUFACTURER.

CLOUDED AREAS INDICATE NOTES TO ENGINEER AND INFORMATION TO BE FILLED IN BY THE ENGINEER. DELETE CLOUDS AND CLOUDED NOTES TO ENGINEER PRIOR TO ISSUING DRAWINGS FOR CONSTRUCTION.

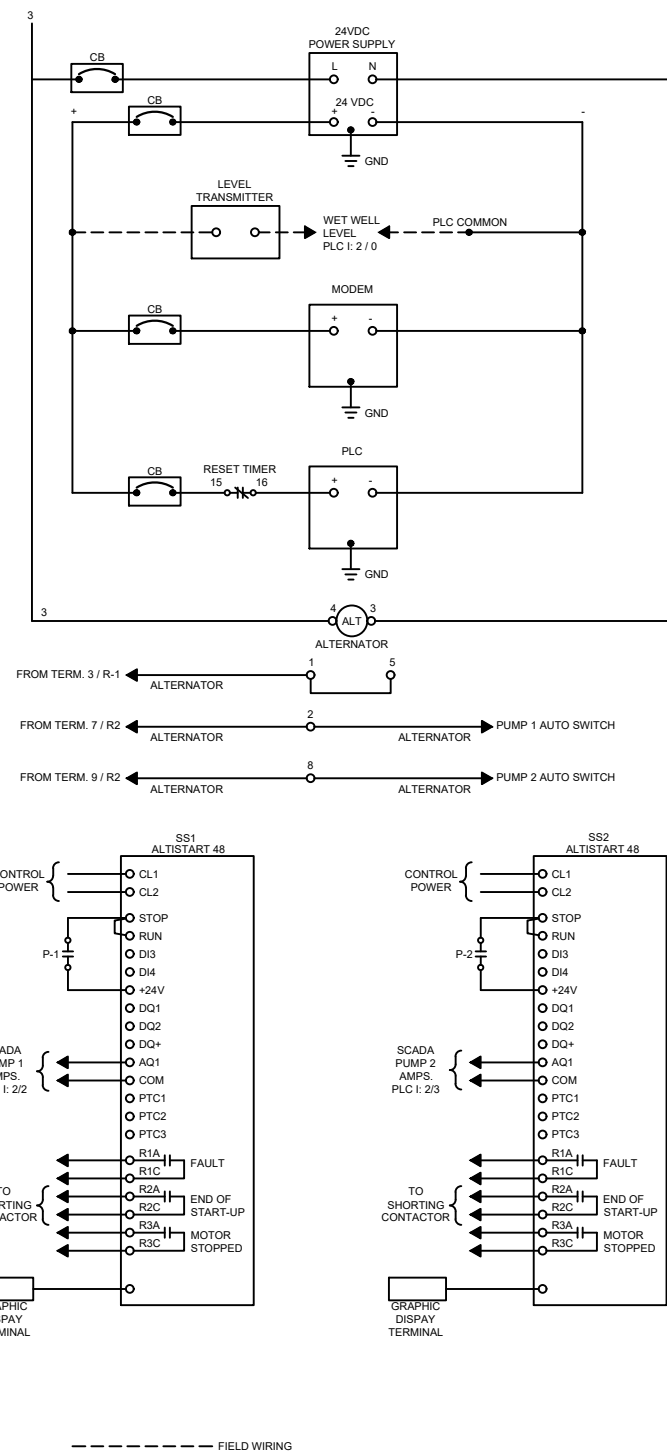
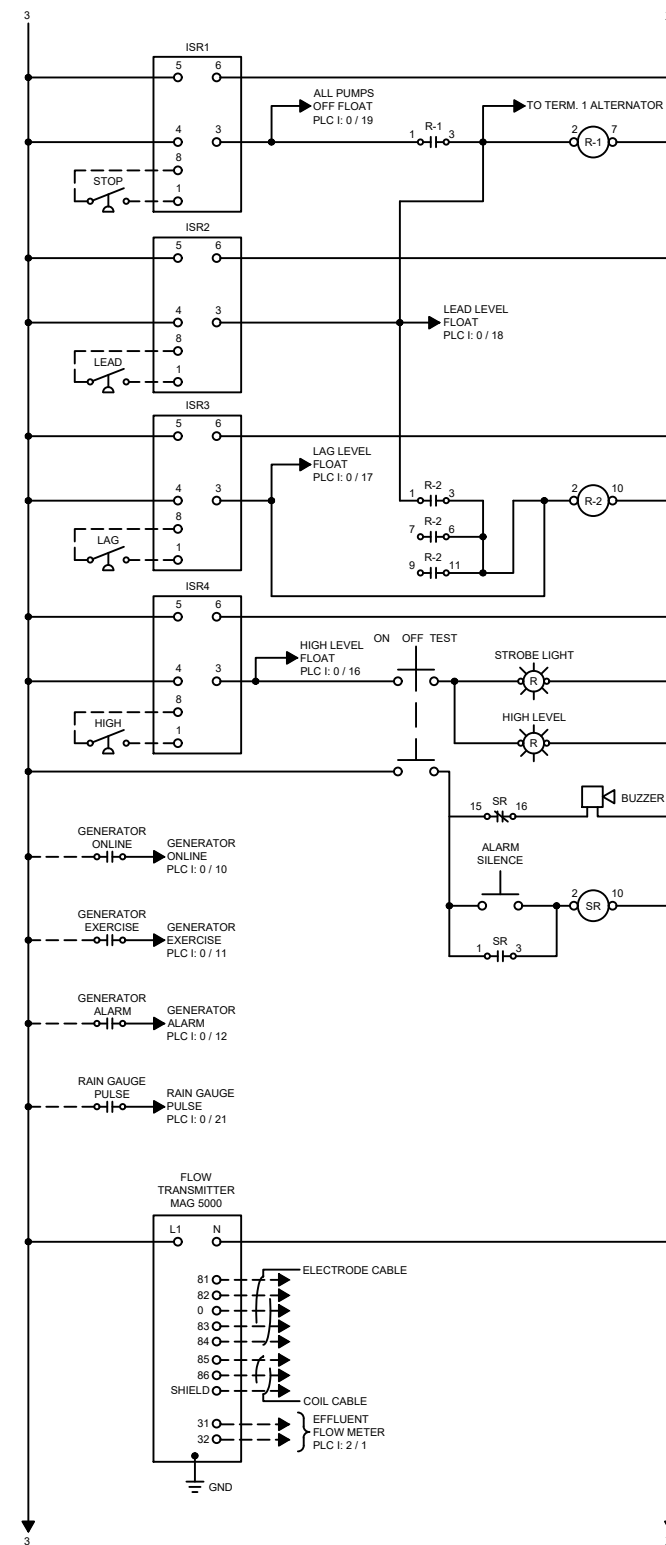
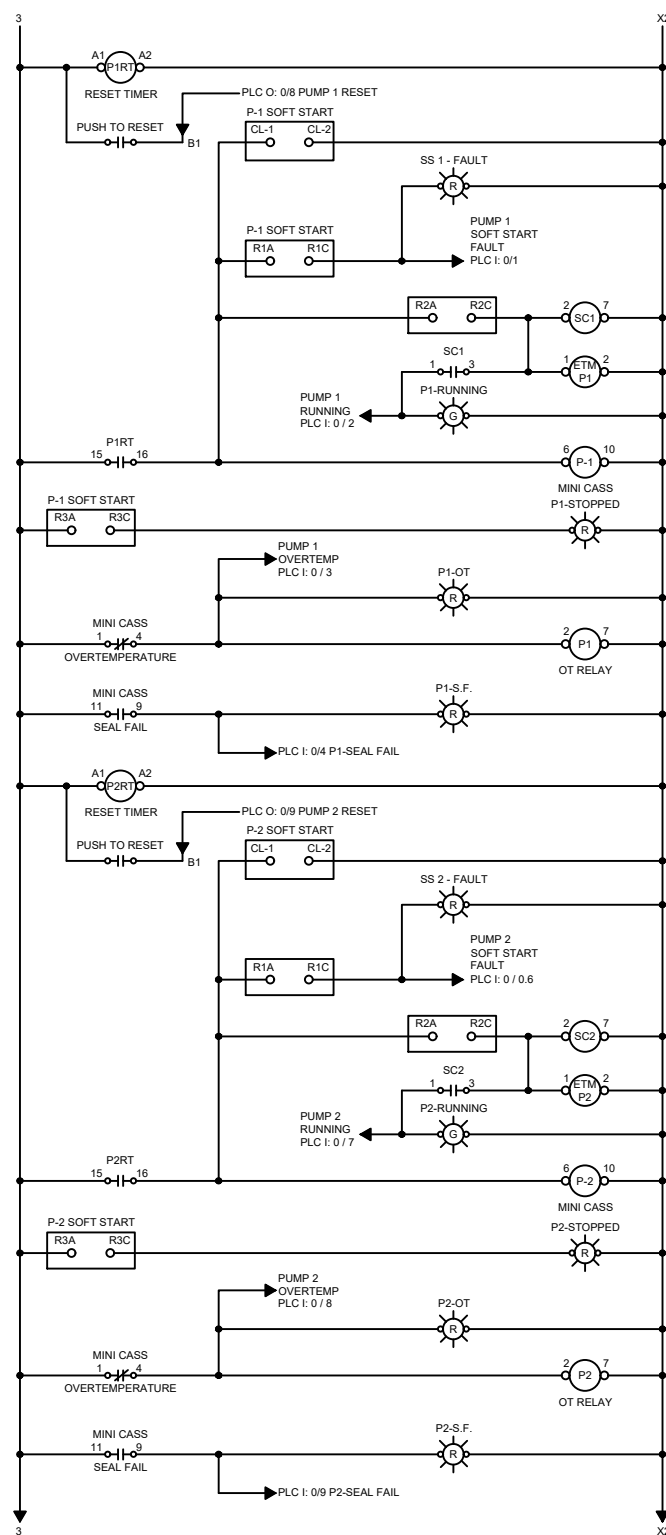
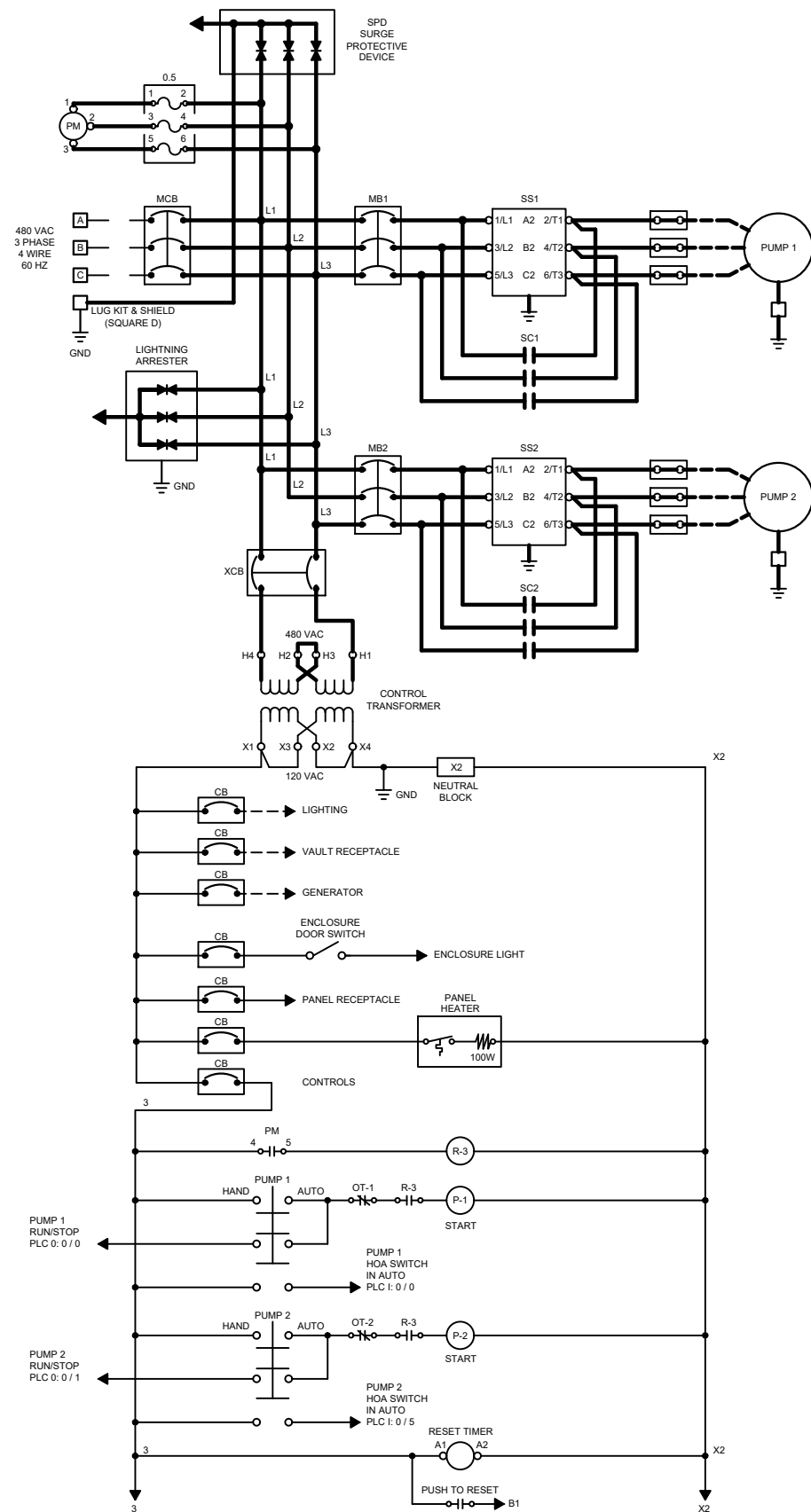


LIFT STATION - ELECTRICAL SERVICE RISER
NO SCALE

REV. DATE: 4/17/2024



**TECHNICAL SPECIFICATIONS
STANDARD DETAIL 52
LIFT STATION ELECTRICAL**

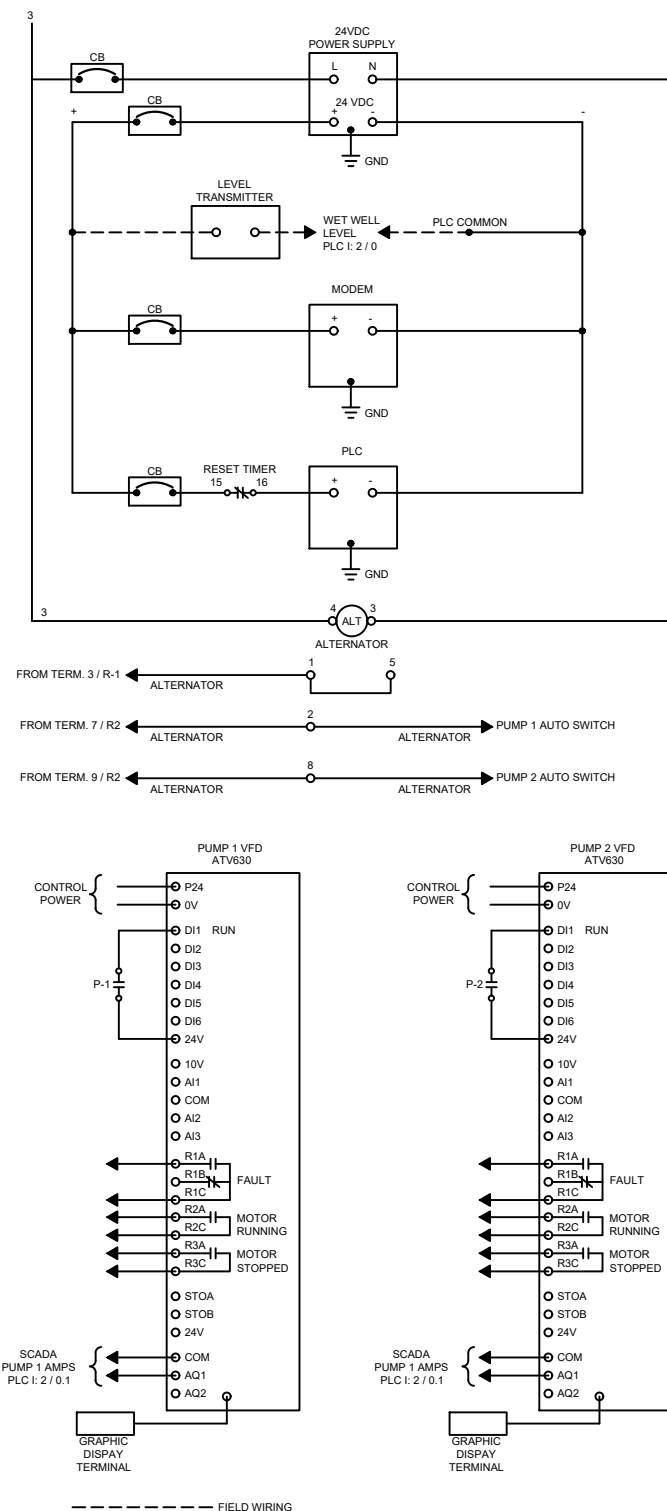
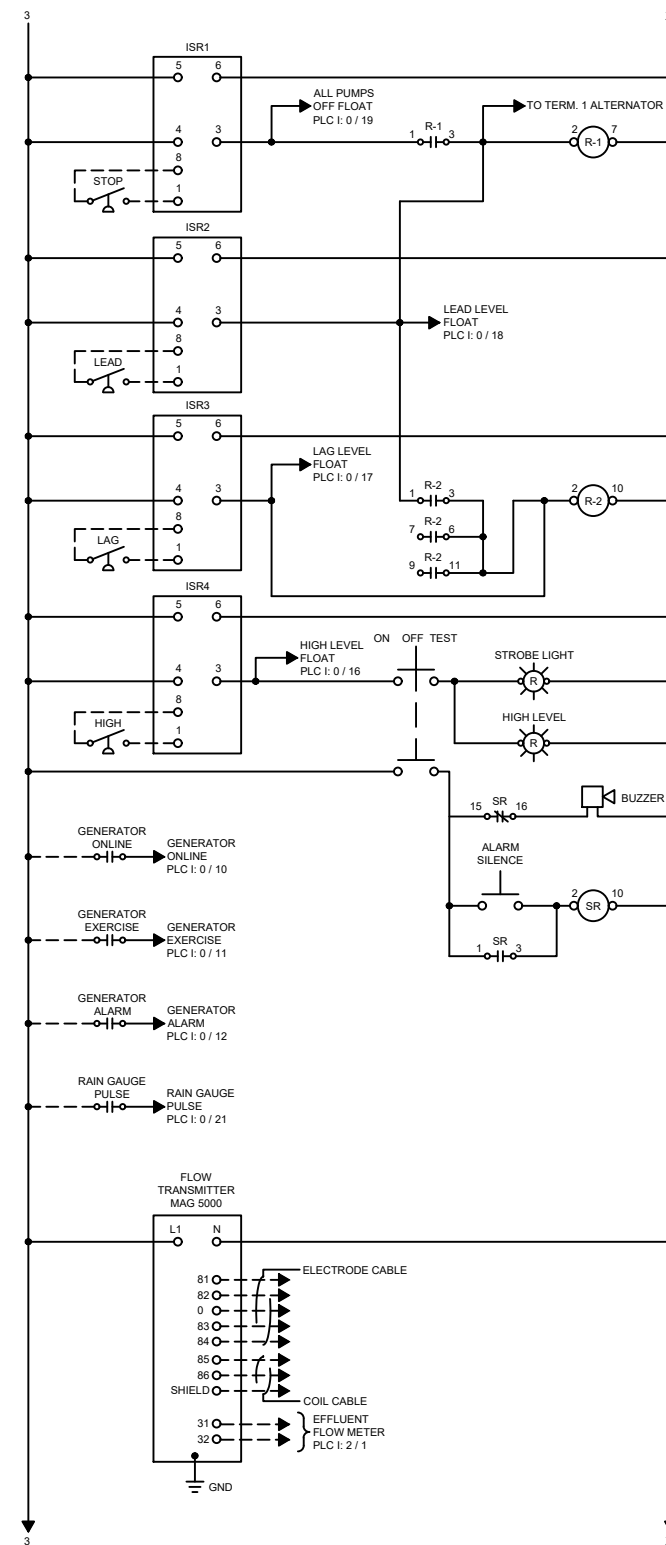
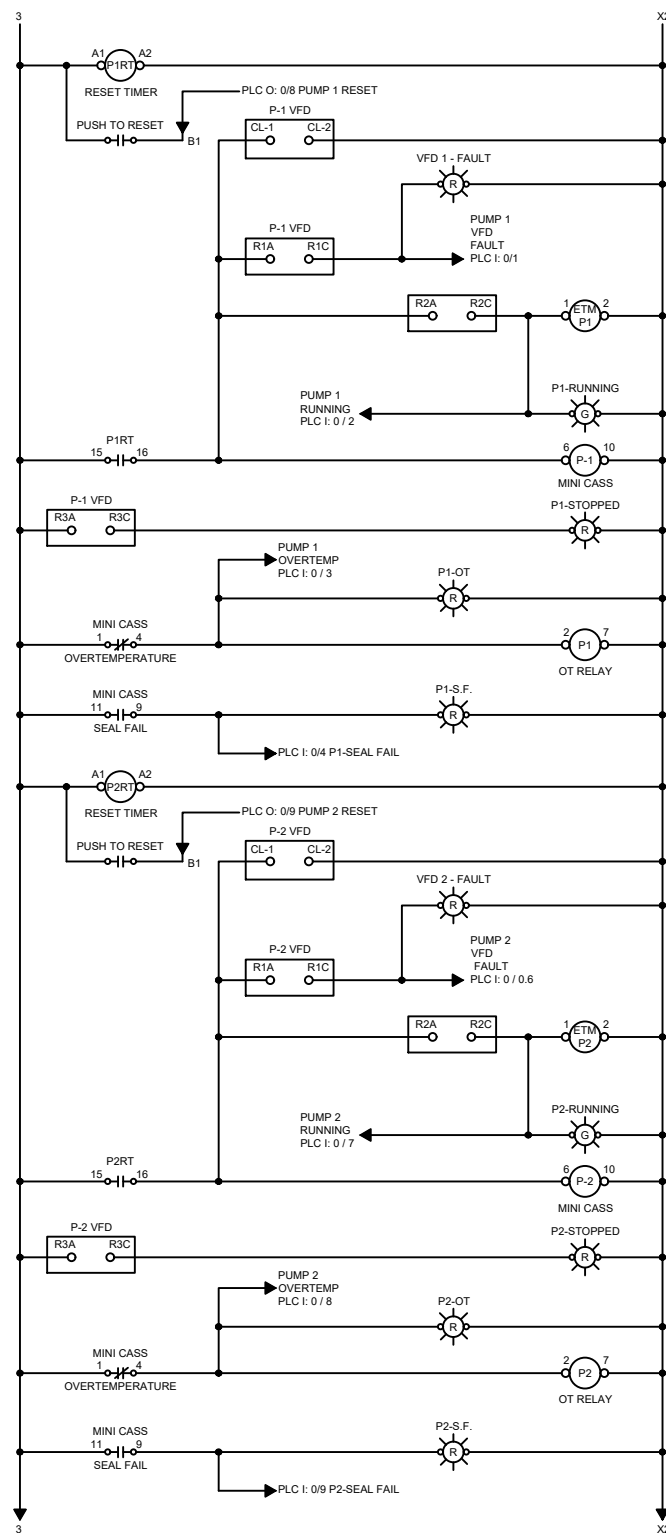
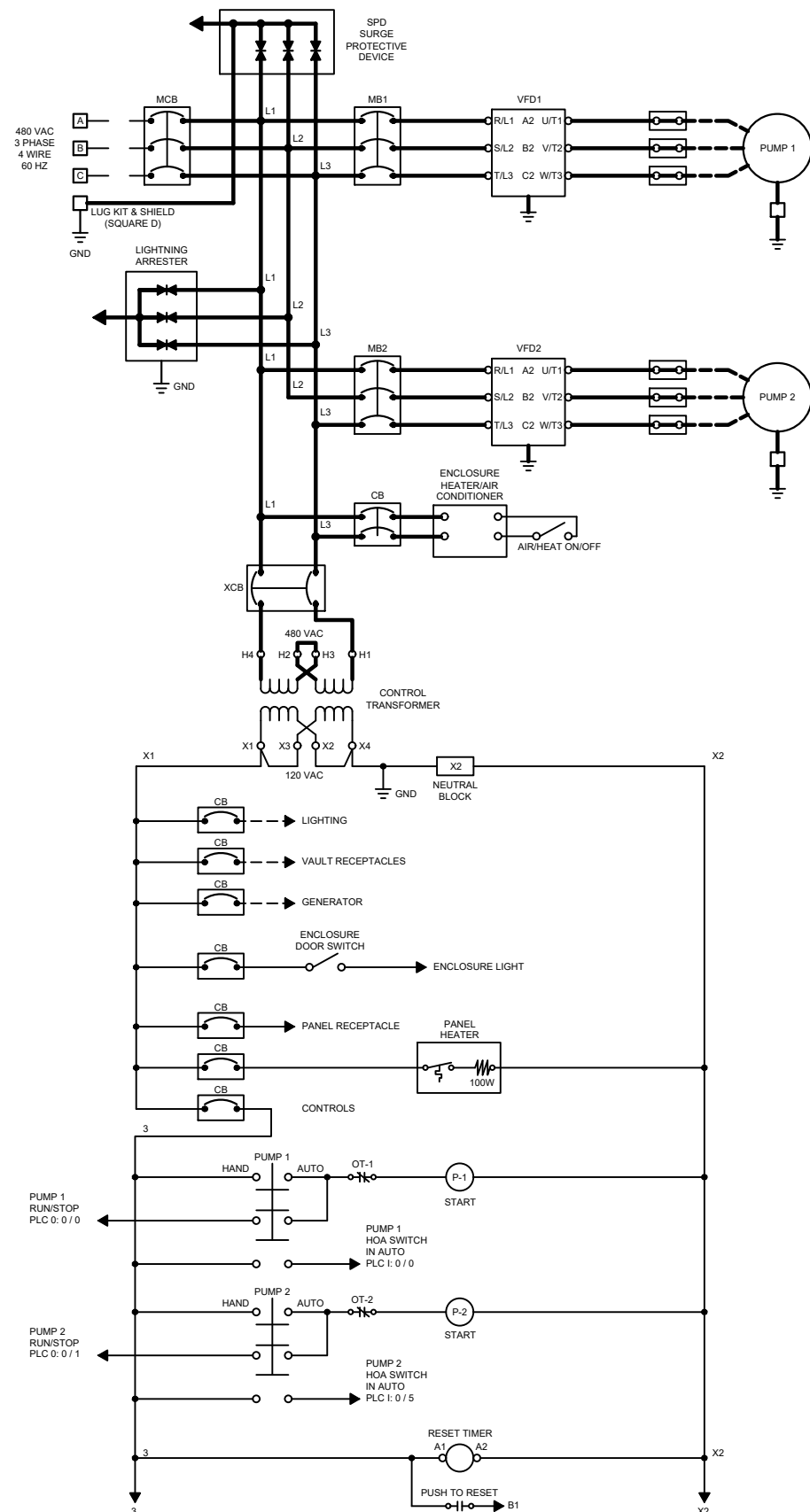


GENERIC LIFT STATION SCHEMATIC - SOFT STARTER

REV. DATE: 09/06/2024



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 53
GENERIC LIFT STATION SCHEMATIC -
SOFT STARTER CONTROL PANEL

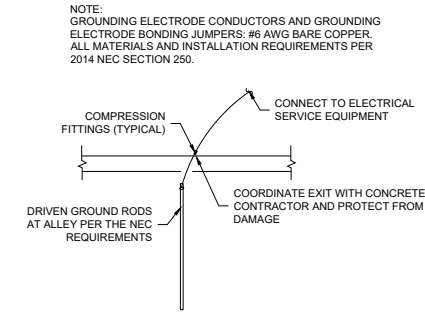


GENERIC LIFT STATION SCHEMATIC - VFD

REV. DATE: 09/06/2024

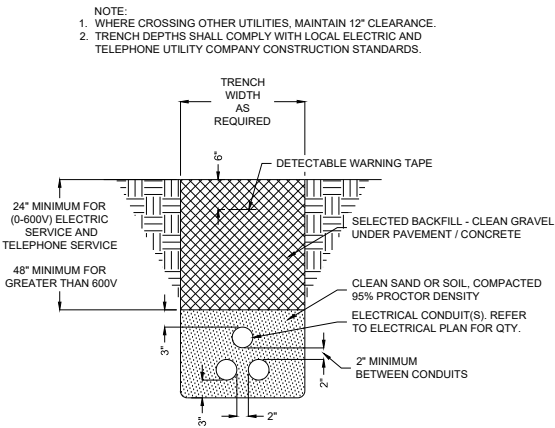


TECHNICAL SPECIFICATIONS
STANDARD DETAIL 54
GENERIC LIFT STATION SCHEMATIC
- VFD CONTROL PANEL



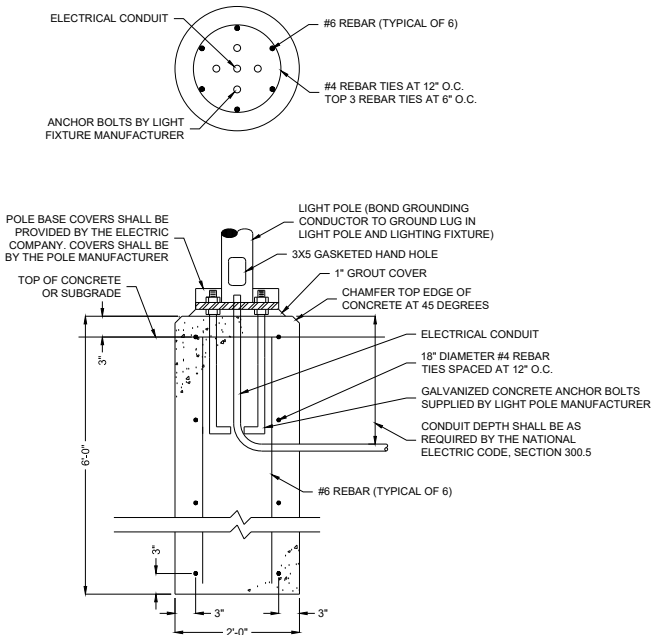
GROUNDING ELECTRODE DETAIL

NO SCALE



UNDERGROUND ELECTRICAL CONDUITS

NO SCALE



LIGHT POLE BASE DETAIL

NO SCALE

GENERAL ELECTRICAL NOTES:

- ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2014 NATIONAL ELECTRIC CODE AS ADOPTED BY TANEY COUNTY, MISSOURI. CONTRACTOR SHALL ARRANGE FOR ALL PERMITS AS REQUIRED.
- PROVIDE CONDUCTORS FOR LISTED APPLICATIONS AS FOLLOWS:

LIGHTING AND RECEPTACLE CIRCUITS: TYPE THHN, 600 VOLT, 75 DEGREE C (194 DEGREES F) THERMOPLASTIC INSULATED BUILDING CONDUCTOR.

POWER CIRCUITS AND FEEDERS: TYPE THHN, 600 VOLT, 75 DEGREE C (194 DEGREES F) THERMOPLASTIC INSULATED BUILDING CONDUCTOR.

LOW VOLTAGE AND LINE VOLTAGE CONDUCTORS SIZES NO. 16 AND NO. 18 AWG: TYPE TFFN, 600 VOLT 90 DEGREES C (194 DEGREE F) THERMOPLASTIC INSULATED BUILDING CONDUCTOR.

UNDERGROUND POWER CIRCUITS AND FEEDERS: TYPE THHN/TWHN, 600 VOLT, 75 DEGREE C (167 DEGREES F) WET RATING AND 90 DEGREES C (194 DEGREES F) DRY RATED THERMOSETTING FILLED INSULATING CABLE.
- ALL WIRING SHALL BE IN CONDUIT AND SHALL BE CONCEALED. CONDUITS SHALL BE INSTALLED BELOW GRADE BETWEEN BOXES, LIGHTS, RECEPTACLES, ETC. UNLESS OTHERWISE NOTED. CONCEAL ALL TERMINATIONS AND CONDUIT UNLESS OTHERWISE NOTED.
- ALL POWER CIRCUITS SHALL HAVE A GROUNDING CONDUCTOR. BOND VALVE PIT STEEL AND CONTROL PANEL MOUNTING FRAME TO SERVICE ENTRANCE GROUND PER NEC REQUIREMENTS.
- DUPLEX RECEPTACLES SHALL BE HUBBELL MODEL GF5352 SERIES GFCI 20A, 125V, NEMA CONFIGURATION 5-20R DUPLEX RECEPTACLE. WEATHER PROOF RECEPTACLES SHALL BE GFI TYPE MOUNTED IN APPROPRIATE WEATHERPROOF BOX WITH LIFT COVER PLATE.
- SWITCHES SHALL BE RATED FOR 20A, 120-277V, GRAY IN COLOR, WEATHERPROOF, AND SHALL BE AS FOLLOWS:

SINGLE POLE HUBBELL 1221-GY

THREE WAY HUBBELL 1223-GY
- ALL DEVICES AND COVER PLATES SHALL BE GRAY PLASTIC.
- ALL WIRES SHALL BE IDENTIFIED ON EACH END. ALL EXTERIOR LABELS SHALL BE ON PHENOLIC MATERIAL. ALL INTERIOR LABELS SHALL BE LAMINATED OR SIMILARLY PROTECTED AGAINST WATER EXPOSURE.
- PROVIDE ROT PROOF PULL WIRE IN ALL EMPTY CONDUITS.
- ALL HOME RUNS SHALL BE INSTALLED IN PVC CONDUIT BELOW GRADE, RIGID METALLIC CONDUIT (RMC) ABOVE GRADE. TRANSITION TO RMC CONDUIT SHALL BE MADE PRIOR TO COMING UP FROM BELOW GRADE.

TRANSFORMER SCHEDULE								
MARK	RATING		MOUNTING	TEMP RISE (°C)	PRIMARY		SECONDARY	
	KVA	PHASE			VOLTAGE	CONNECTION	VOLTAGE	CONNECTION
TF1	5	1	WALL*	150	480	-	120	

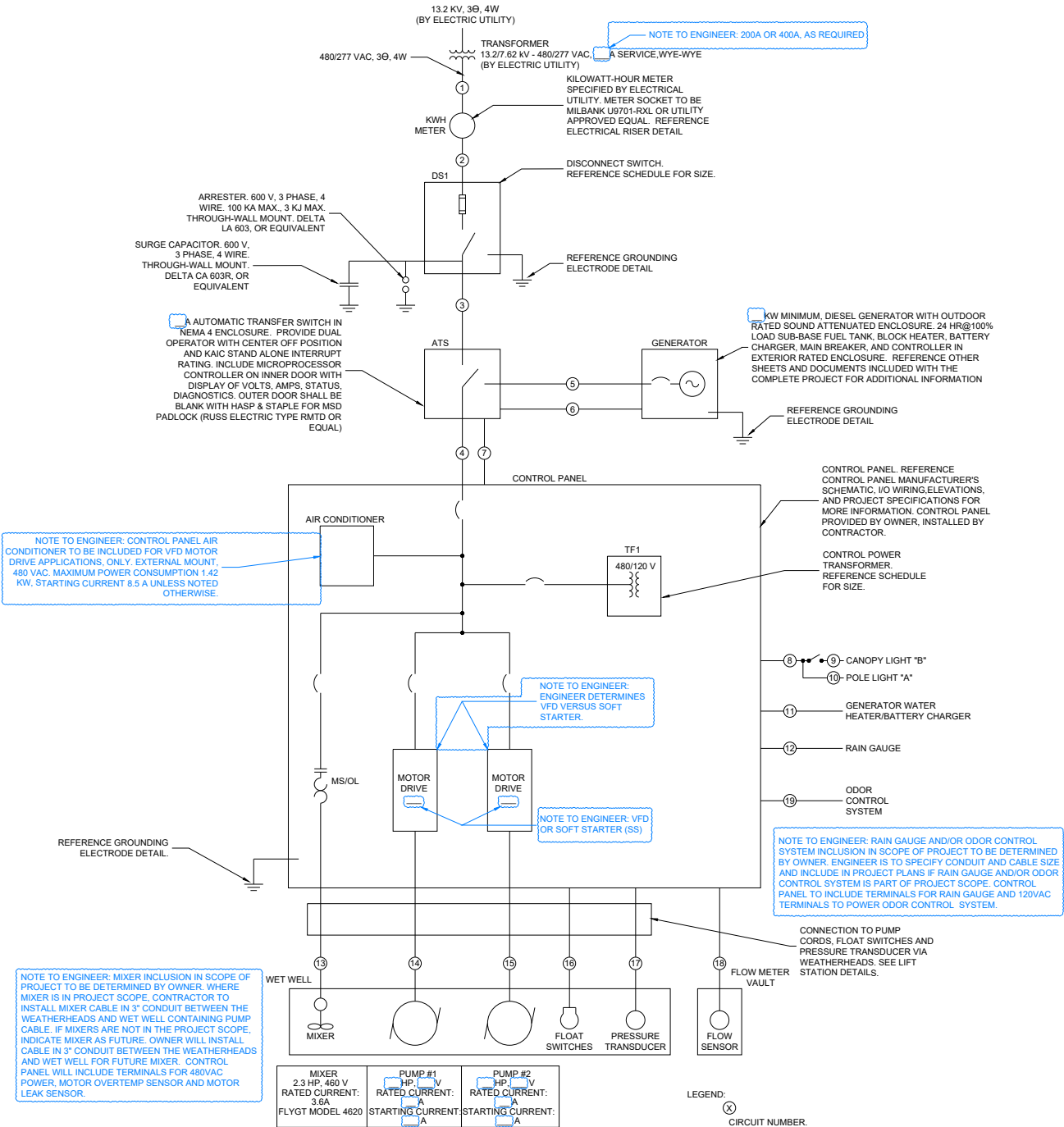
*PROVIDE WITH NEMA 3R RATED ENCLOSURE

DISCONNECT SWITCH SCHEDULE									
MARK	LOAD		SWITCH		FUSE		ENCLOSURE	NOTES	
	EQUIPMENT SERVED	VOLTS	DUTY	AMP	POLE	AMP			
DS1	SERVICE, LIFT STATION	480	HD		3		FRS-R	3R	LD, SER, SN

ABBREVIATIONS:
GD-GENERAL DUTY
HD-HEAVY DUTY
LK-LOCKABLE
SER-SERVICE ENTRANCE DUTY
SN-SOLID NEUTRAL

LIGHTING FIXTURE SCHEDULE							
MARK	MFG	CATALOG #/DESCRIPTION	MTG	FINISH	LAMPS		
					TYPE	CODE	QTY.
A	AMERICAN ELECTRIC LIGHTING	ACP1LED10M/VOL765TMPCLL 120V-277V, SOLID STATE PHOTOCONTROL	TENON SLIPFITTER KNUCKLE	GRAY PAINT	LED	38,000 LUMENS, 4000K CCT, WIDE FLOOD RECTANGULAR (6 x 5)	1
B	WILLIAMS	96-4-L62-8-30-HIAFR-EM/10W-WET/1 -UNV 4' LONG, 10W EMER BATTERY, 120V-277V	SURFACE		LED	6,200 LUMENS, 3000K	1

SCHEDULE NOTES:
1. LIGHT POLE TO BE 20' HIGH, ROUND TAPERED ALUMINUM, HOLOPHANE RTA SERIES, SATIN BRUSH FINISH, BASE POLE NUMBER RTA2060G, 9.5" BOLT CIRCLE DIAMETER WITH B04 TENON, 2.38 O.D. X 4" LONG POLE TOP. INCLUDES 3/4" X 20" GALVANIZED ANCHOR BOLTS WITH NUTS AND WASHERS, COVERED HAND HOLE AND GROUND PROVISIONS.
2. CONFIRM ORIENTATION OF TYPE "A" FIXTURE WITH CIVIL ENGINEER BEFORE FIXTURE INSTALLATION.



ONE-LINE DIAGRAM

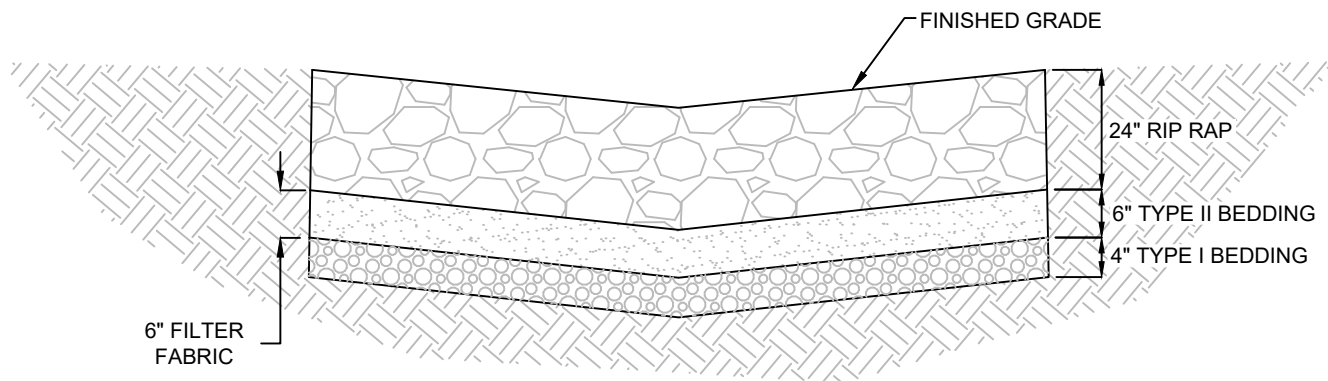
NO SCALE

LEGEND:
X
CIRCUIT NUMBER, REFERENCE CIRCUIT SCHEDULE



TECHNICAL SPECIFICATIONS STANDARD DETAIL 55 LIFT STATION SPECIFICATIONS-ELECTRICAL

REV. DATE: 09/06/2023



NOTES:

1. RIP RAP AND FILTER BLANKET SHALL BE A MINIMUM 34" DEPTH AT ALL AREAS NOTED.
2. WHERE CONCRETE IS SHALLOW, PROVIDE A MINIMUM 18" DEPTH OF RIP RAP OVER TOP OF CONCRETE. MINIMUM 24" DEPTH SHALL RESUME ON EITHER SIDE OF CONCRETE ENCASEMENT.
3. RIP RAP SHALL EXTEND 5' UPSTREAM AND 5' DOWNSTREAM OF CENTERLINE OF TRENCH.
4. MINIMUM ROCK DIAMETER SHALL BE 6", $D_{50} = 18"$, MAXIMUM ROCK DIAMETER SHALL BE 24".
5. GRANULAR BEDDING GRADATION PER TABLE BELOW.

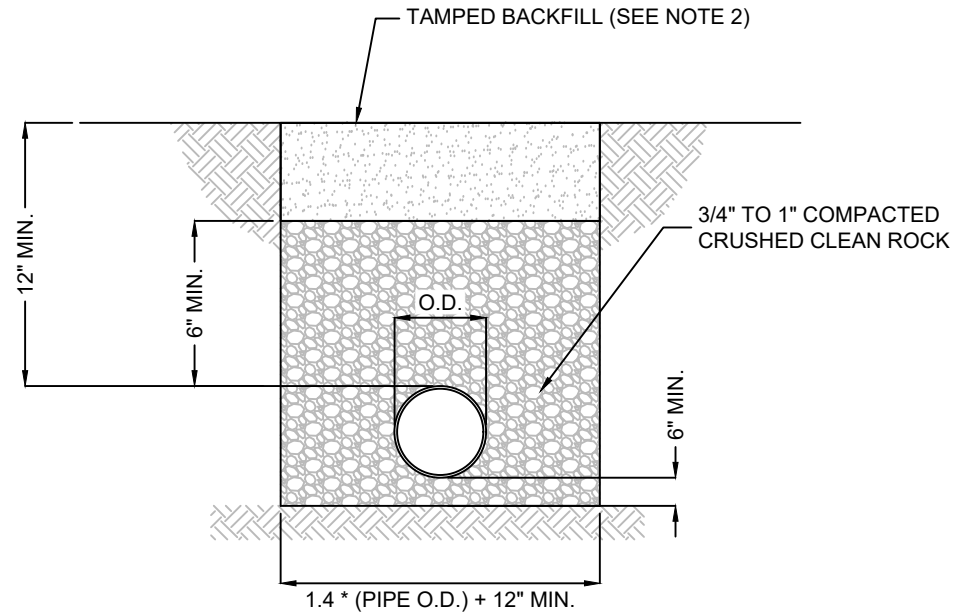
U.S. STANDARD SIEVE SIZE	PERCENT (%) PASSING GIVEN BY WEIGHT	
	TYPE I	TYPE II
3 INCHES	---	90 - 100
3/4 INCHES	---	20 - 90
3/8 INCHES	100	---
#4	95 - 100	0 - 20
#16	45 - 80	---
#50	10 - 30	---
#100	2 - 10	---
#200	0 - 2	0 - 3

GRADATION REQUIREMENTS FOR GRANULAR BEDDING

RIP RAP DETAIL

NOT TO SCALE

REV. DATE: 09/06/2024



NOTES:

1. PIPE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
2. TAMPED BACKFILL IN ALL NON STREET CROSSING AREAS SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL AND STONES, TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO STANDARD, METHOD T-99.

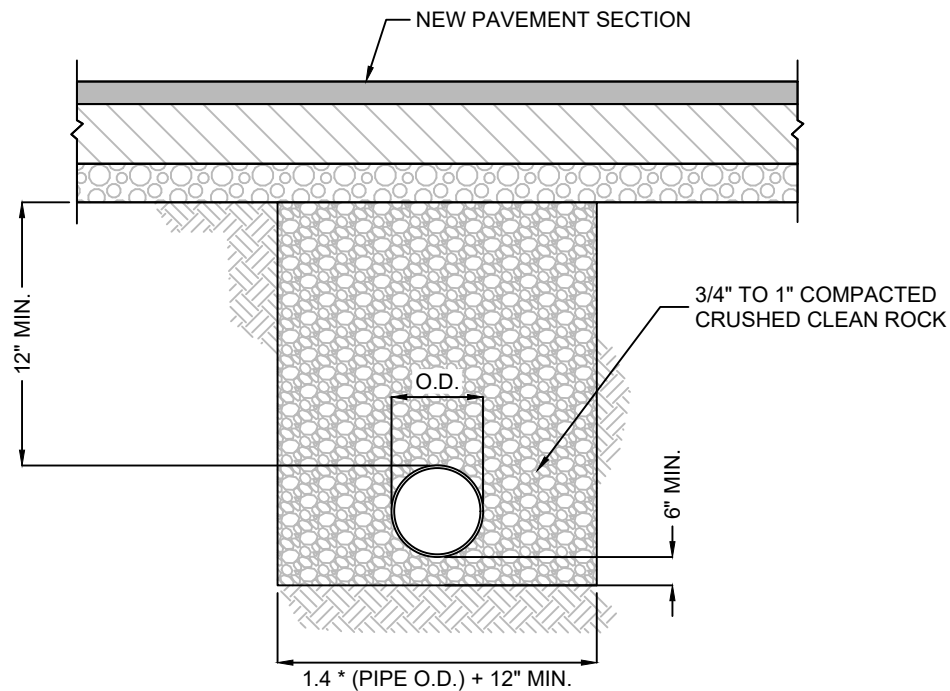
STORM SEWER TRENCH DETAIL NOT UNDER STREETS

SCALE: NONE

REV. DATE: 09/06/2024



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 57
STORM TRENCH DETAIL - UNPAVED



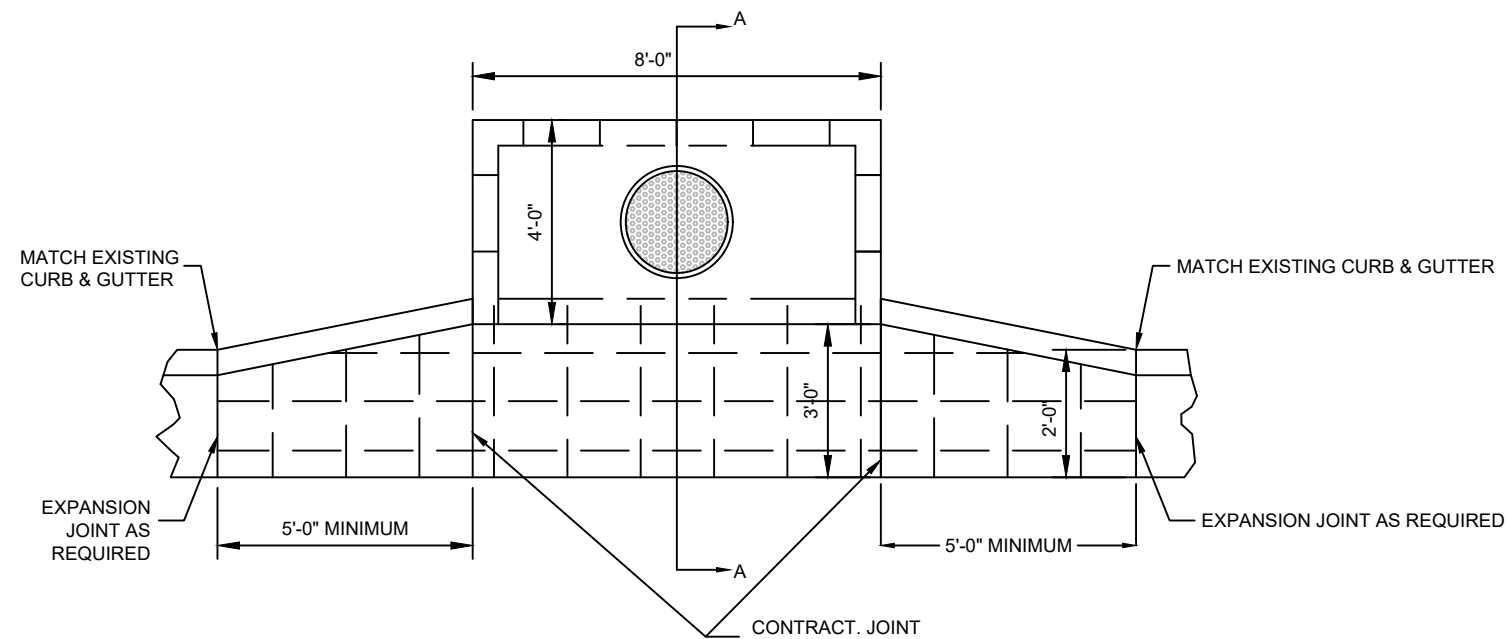
NOTE:

PIPE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

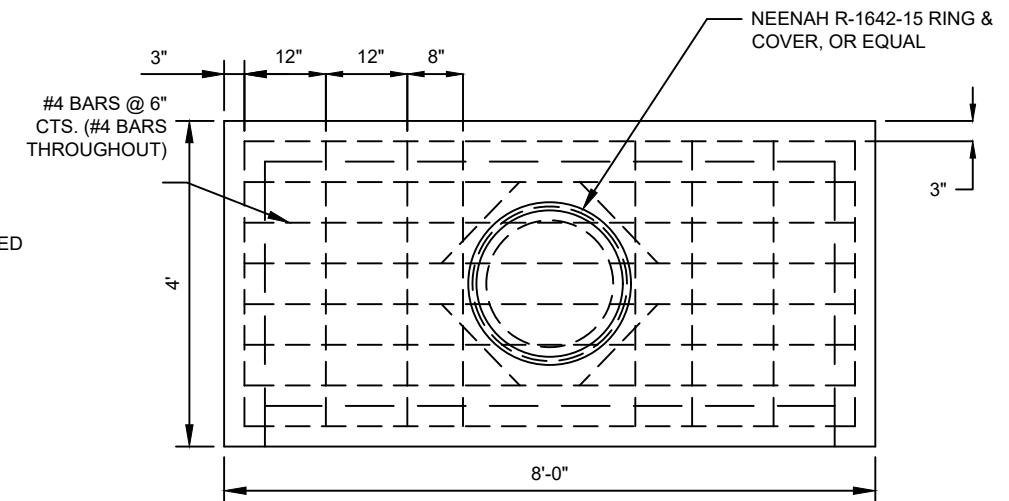
STORM SEWER TRENCH DETAIL UNDER STREETS

SCALE: NONE

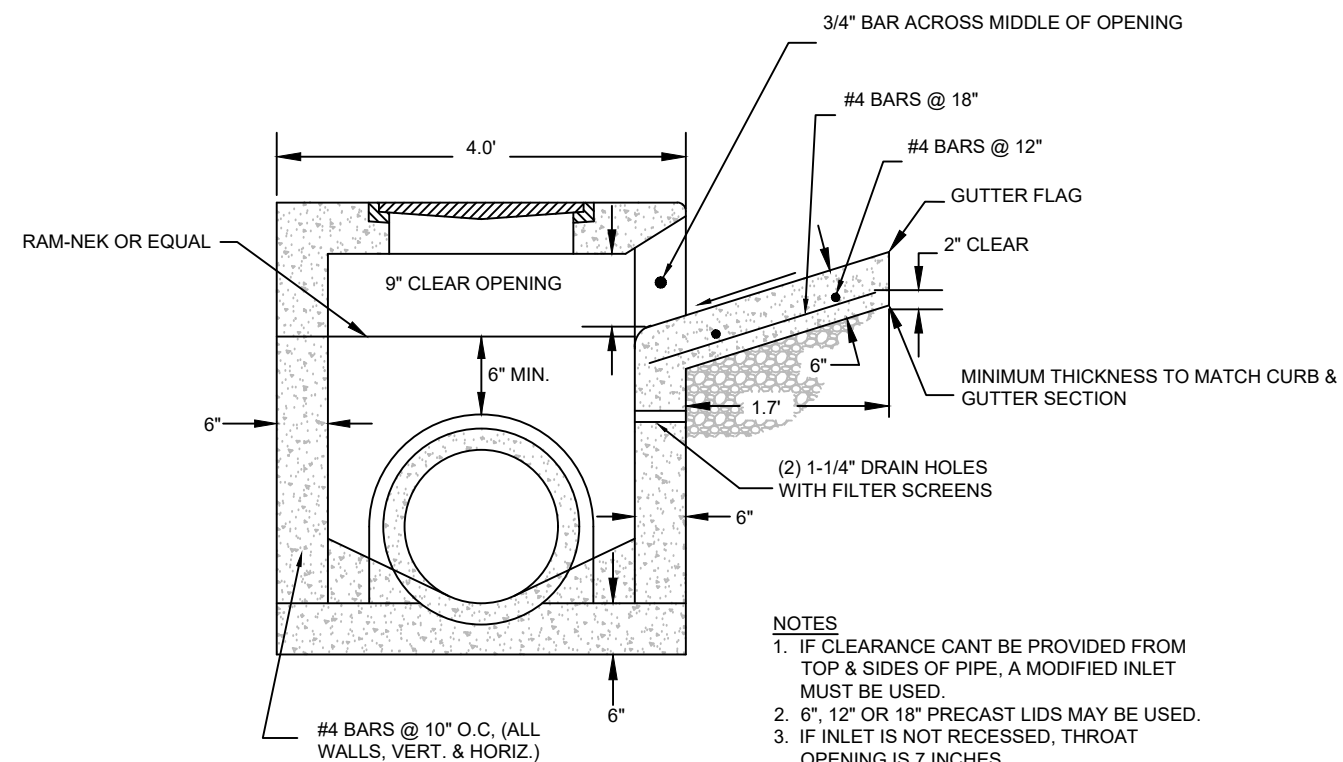
REV. DATE: 09/06/2024



4' X 8' RECESSED CURB INLET
NO SCALE



TOP REINFORCEMENT

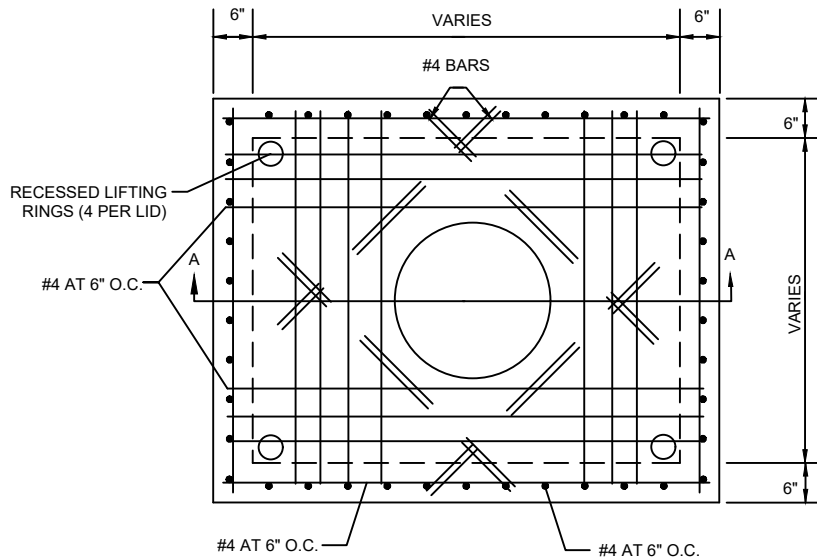


SECTION "A-A"

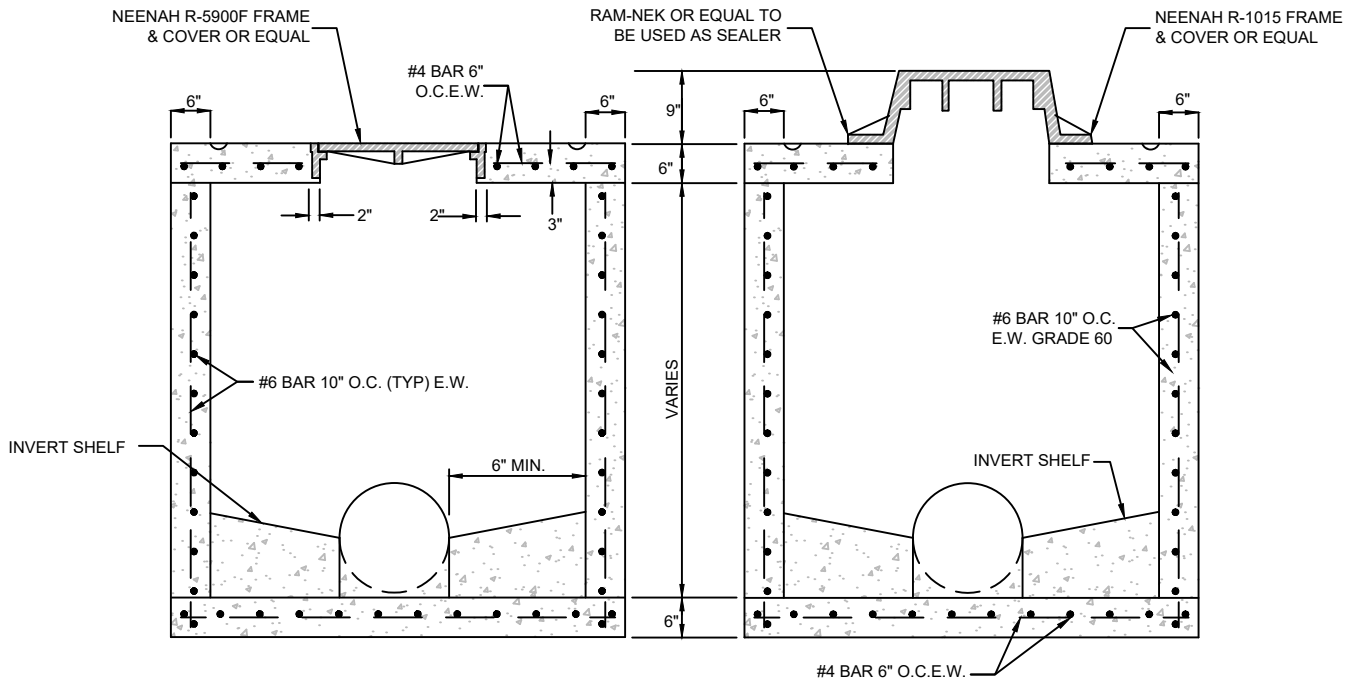
- NOTES:**
1. BOTTOM TO BE CAST IN PLACE.
 2. PIPE TO BE ON GRADE BEFORE BOTTOM IS CONSTRUCTED.
 3. FOR 6" TOP USE 4 - #4 Ø DOWELS; ONE IN EACH CORNER W/ RAM-NEK OR EQUAL.
 4. RAM-NEK ALL JOINTS (OR EQUAL).
 5. 6" INVERT REQUIRED TO PREVENT SEDIMENTATION.
 6. #4 Ø @ 10" C.C. (ALL WALLS, VERT. & HOR.) SEE DETAIL FOR TOP SLAB REINFORCEMENT

INLET TOP
NO SCALE

REV. DATE: 09/06/2024



PLAN



NOTES:

1. DIAGONAL BARS IN TOP SLAB NEAR BOTTOM OF SLAB.
2. REINFORCING BARS SHALL BE CUT OR BENT AT PIPE OPENINGS.
3. ALL PIPES SHALL FIT FLUSH WITH INSIDE FACE OF BOX.
4. BOTTOM OF BOX TO BE FILLED WITH CONCRETE TO MID-DEPTH OF PIPE FORMING CHANNELS TOWARD OUTLET PIPE FROM ALL INLET PIPES.
5. ALL CONCRETE SHALL HAVE 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I.
6. ALL REINFORCING BARS TO BE DEFORMED BARS AND MEET REQUIREMENTS OF 1966 A.S.T.M. STANDARDS NO. A-615-68 MIN. GRADE 60.
7. 4" BEDDING MATERIAL TO BE USED UNDER BOX.
8. IF BOX IS GREATER THAN 9', MUST BE SPECIAL DESIGN.
9. MUST MAINTAIN 6" CLEARANCE BETWEEN THE PIPE AND ALL WALLS (SLAB) FOR PRECAST BOXES.

STANDARD JUNCTION BOX

REV. DATE: 09/06/2024

GENERAL NOTE FOR SEDIMENTATION & EROSION CONTROL:

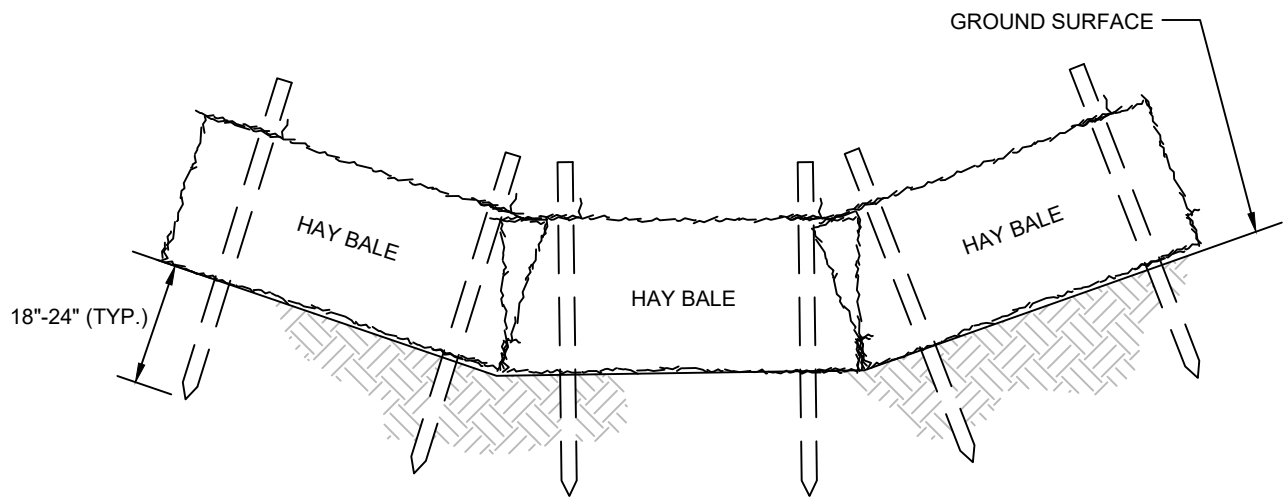
1. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING EROSION AND DISCHARGE OF SEDIMENT FROM THE SITE AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE NECESSARY MEASURES DURING ALL PHASES OF HIS OPERATIONS REGARDLESS OF WHETHER THEY ARE SPECIFICALLY NOTED ON THIS PLAN AND SHALL MAINTAIN AND REPLACE CONTROLS AS NECESSARY DURING THE COURSE OF HIS OPERATIONS.
2. SILT SOXX, SILT FENCE, AND OTHER INITIAL SEDIMENT CONTROLS SHOWN ON THIS PLAN MUST BE INSTALLED PRIOR TO ANY OTHER WORK.
3. SILT SOXX OR SILT FENCE SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF ALL SANITARY SEWER MAINS AND/OR EASEMENTS. THIS DOES NOT INCLUDE INSTALLATION ALONG SANITARY SEWER LATERALS.
4. THE CONTRACTOR SHALL CLEAN STREETS AND PARKING LOTS BOTH INTERIOR AND ADJACENT TO THE SITE, AS NEEDED AFTER EACH RAINFALL, AND AT THE END OF CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST DURING CONSTRUCTION AND SHALL WATER CONSTRUCTION AREAS WHENEVER CONDITIONS WARRANT.
6. ALL DISTURBED AREAS NOT RECEIVING OTHER PERMANENT STABILIZATION SUCH AS PAVEMENT, ROOF, SOD, ETC., SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH SPECIFICATIONS BEFORE TEMPORARY SEDIMENT CONTROLS CAN BE REMOVED AND PRIOR TO FINAL APPROVAL OF CONSTRUCTION.
7. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND REVISING THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS SITE CONDITIONS CHANGE OR AS REQUIRED. CONTRACTOR WILL PROVIDE UPDATES FOR THE SWPPP TO ENGINEERS OR ENGINEER'S REPRESENTATIVE FOR THE DURATION OF THE PROJECT. THE CONTRACTOR IS TO HAVE SWPPP AVAILABLE ON SITE DURING WORKING HOURS.

GENERAL NOTES FOR SEDIMENTATION & EROSION CONTROL

REV. DATE: 09/06/2024



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 61
EROSION CONTROL GENERAL NOTES



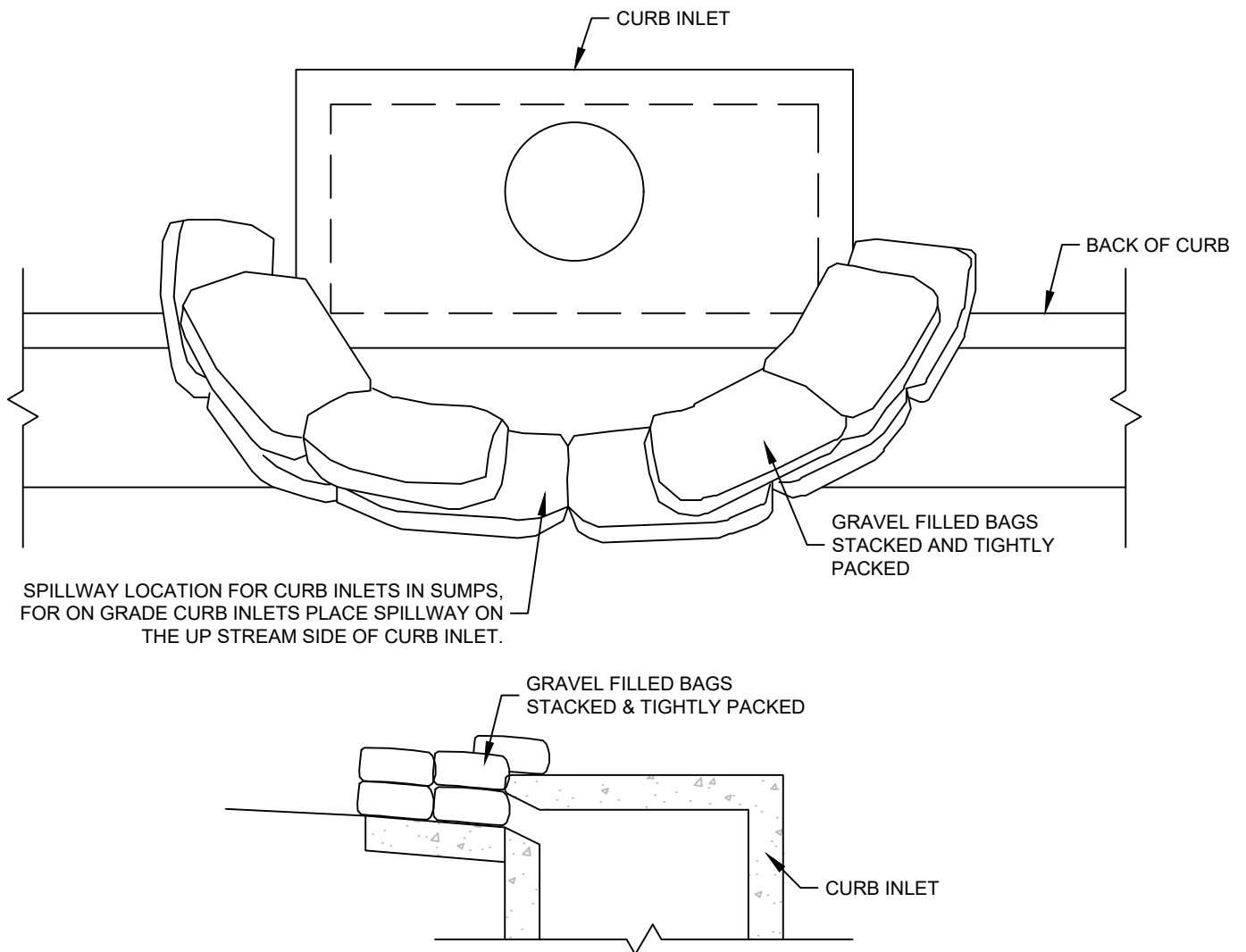
NOTES:

1. IN ADDITION TO SPECIFIC AREAS INDICATED ON PLANS, CONTRACTOR SHALL PLACE HAY BALE DAMS AS NECESSARY TO CONTROL EROSION AND DISCHARGE OF SEDIMENT FROM THE SITE.

HAY BALE DAM DETAIL

NOT TO SCALE

REV. DATE: 09/06/2024



CROSS SECTION

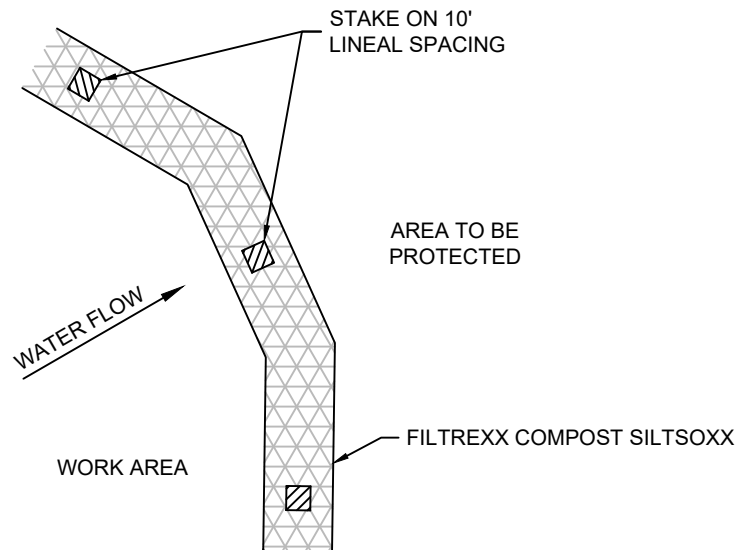
NOTES:

1. PLACE CURB INLET SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS OR IN SUMPS WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. BAGS, OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC, ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.
3. LEAVE ONE BAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH RAINFALL EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

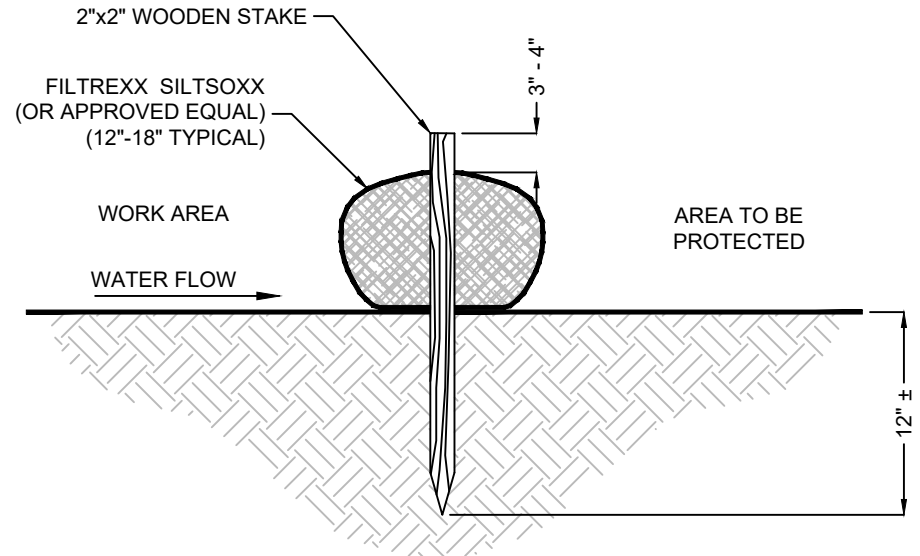
CURB INLET SEDIMENT BARRIER DETAIL

SCALE: NONE

REV. DATE: 09/06/2024



PLAN VIEW



SECTION VIEW

NOTES:

1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS (OR APPROVED EQUAL).
2. SILT SOXX COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS.
3. SILT SOXX DEPICTED IS FOR MINIMUM SLOPES. GREATER SLOPES MAY REQUIRE LARGER SOCKS PER THE ENGINEER.
4. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.
5. SILT SOXX TO BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.

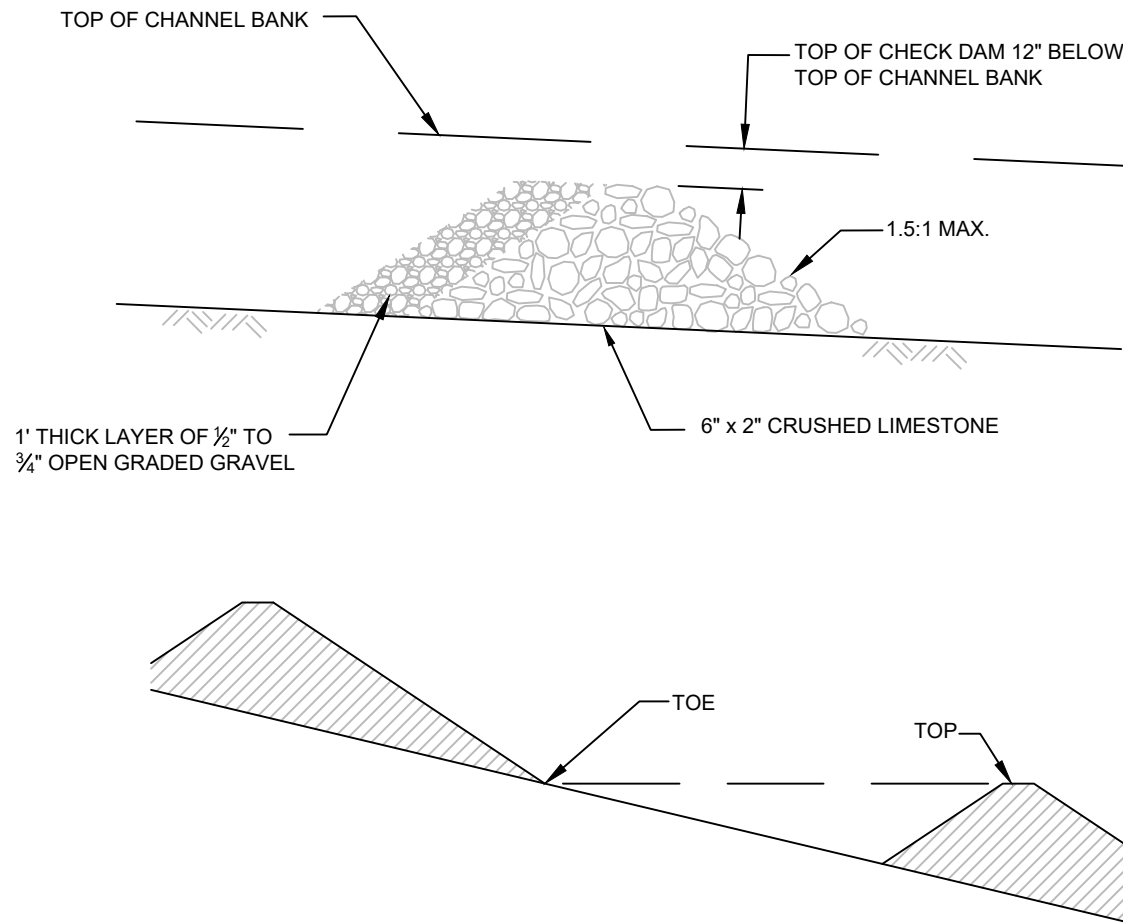
SILT SOXX EROSION CONTROL

SCALE: NONE

REV. DATE: 09/06/2024



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 64
SILT SOXX EROSION CONTROL



NOTES:

1. IN ADDITION TO SPECIFIC AREAS INDICATED ON PLANS, CONTRACTOR SHALL PLACE ROCK CHECK DAMS AS NECESSARY TO CONTROL EROSION AND DISCHARGE OF SEDIMENT FROM THE SITE.

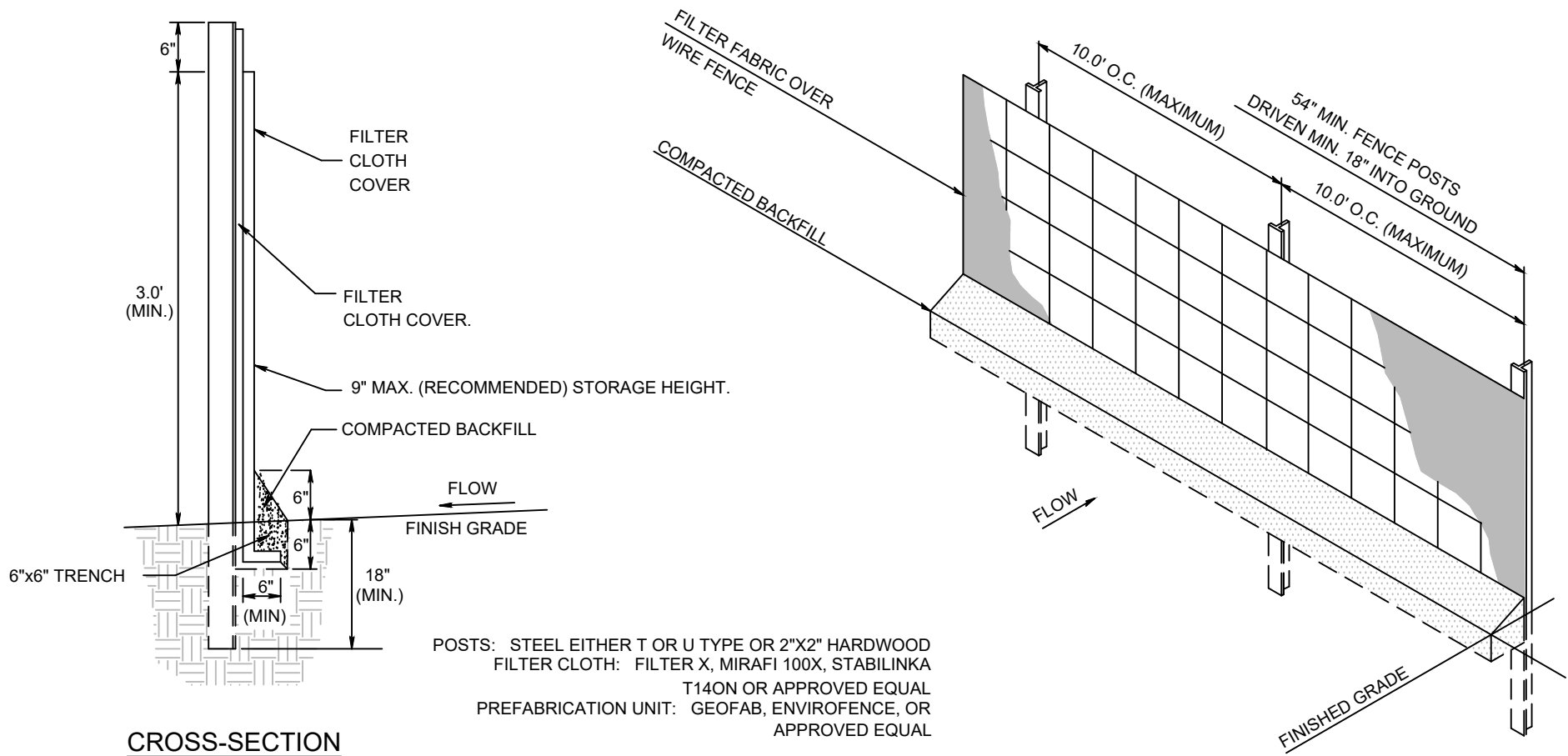
TYPICAL ROCK CHECK DAM

NOT TO SCALE

REV. DATE: 09/06/2024



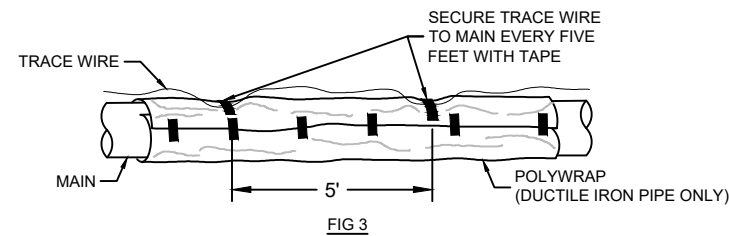
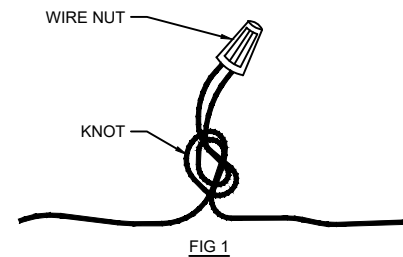
TECHNICAL SPECIFICATIONS
STANDARD DETAIL 65
TYPICAL ROCK CHECK DAM



REV. DATE: 09/06/2024

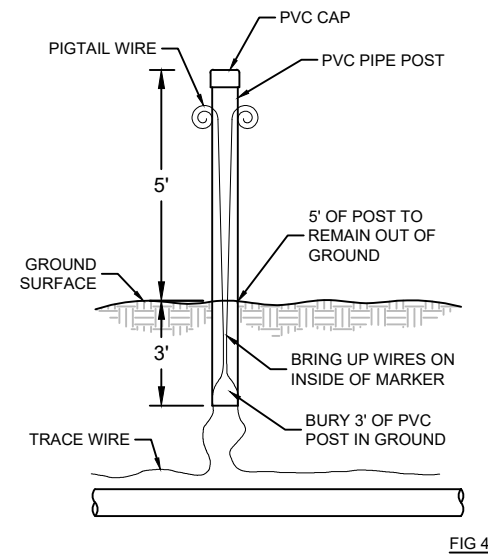
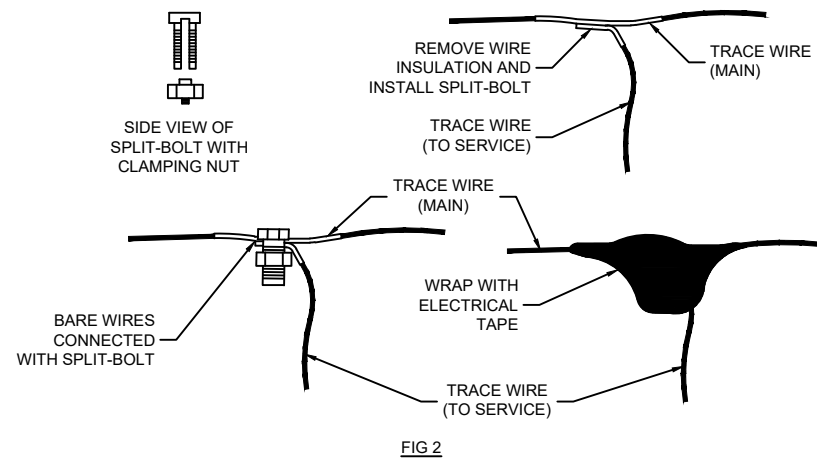


TECHNICAL SPECIFICATIONS
 STANDARD DETAIL 66
 POST MESH SILT-FENCE



TRACER WIRE NOTES:

1. TRACE WIRE TO BE INSTALLED PER TECHNICAL SPECIFICATION 02537 INSTALLATION OF TRACE WIRE.
2. TRACE WIRE SHALL BE #12 TW SOLID, COATED COPPER WIRE.
3. FIGURE 1 SHOWS A TYPICAL SPLICE USING A PLASTIC WIRE NUT AND TYING THE WIRE IN A KNOT TO STRENGTHEN THE CONNECTION.
4. FIGURE 2 SHOWS A CONNECTION FOR A LEAD TO A MAIN RUN. A SPLIT-BOLT CONNECTION OR A 3M SCOTCHLOK ELECTRICAL IDC 562 (OR APPROVED EQUAL) MAY BE UTILIZED.
5. TRACER WIRE SHALL BE INSTALLED ON TOP OF ALL MAINS AND SERVICES, SECURED TO THE PIPE EVERY FIVE (5) FEET WITH TAPE AS SHOWN IN FIGURE 3.
6. BRING TRACE WIRE TO THE SURFACE AT A MAXIMUM OF ONE THOUSAND (1,000) FEET. TRACE WIRE SHALL BE BROUGHT TO THE SURFACE UTILIZING A 3" SCH 40 PVC MARKER.
7. FIGURE 4 SHOWS INSTALLATION OF TRACE WIRE UTILIZING A PVC MARKER.
8. WHEN INSTALLING TRACE WIRE IN A VAULT, INSTALLATION LOCATIONS CAN BE FOUND IN VARIOUS STANDARD VAULT DETAILS AND SPECIFICATION 02537.
9. TRACE WIRE MARKER LOCATIONS SHALL BE NOTED ON AS-BUILT DRAWINGS.



POST MARKER
BY TCRSD

**CSP
CAUTION
PIPE
LINE**

BEFORE
DIGGING
OR IN AN
EMERGENCY
CALL
XXX-XXX-XXXX

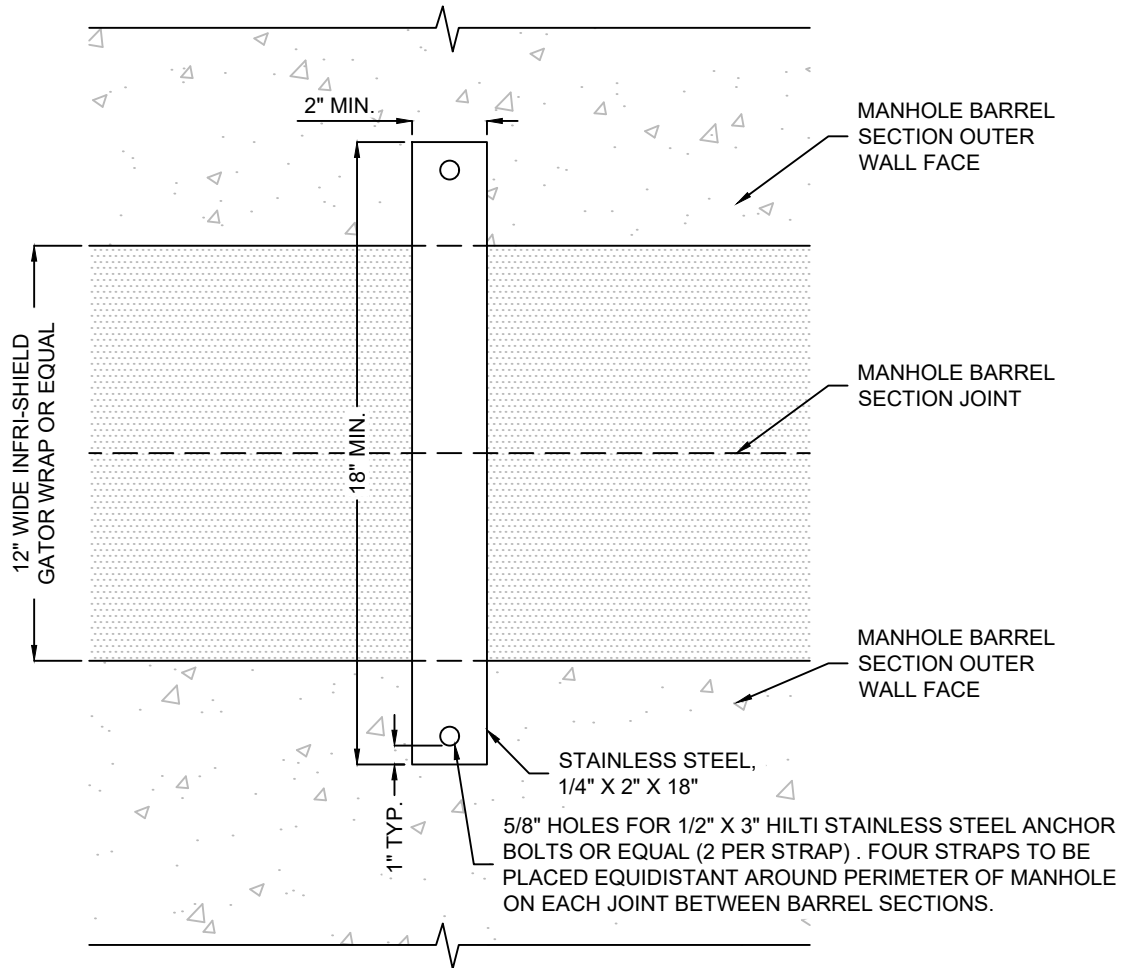
INSTALLATION OF TRACE WIRE

NOT TO SCALE

REV. DATE: 11/05/2024



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 67
INSTALLATION OF TRACE WIRE



MANHOLE STRAP AND GATOR WRAP DETAIL

SCALE: NONE

REV. DATE: 02/25/2025

GENERAL CONSTRUCTION NOTES

1. THE GENERAL NOTES ON THE DRAWINGS ARE INTENDED TO SUPPLEMENT THE GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS. WHEN THE NOTES ON THE DRAWINGS CONFLICT WITH THE TECHNICAL REQUIREMENTS OUTLINED IN THE SPECIFICATIONS, THE MORE STRINGENT CRITERIA WILL GOVERN.

2. ALL REFERENCES TO "DISTRICT" IN THESE GENERAL NOTES, AND THROUGHOUT THIS SET OF PLANS SHALL BE MEANT TO REFER TO THE TANEY COUNTY REGIONAL SEWER DISTRICT UNLESS OTHERWISE SPECIFIED.

3. CONSTRUCTION OF THE IMPROVEMENTS SHOWN OR IMPLIED BY THIS SET OF DRAWINGS SHALL NOT BE INITIATED OR ANY PART THEREOF UNDERTAKEN UNTIL THE DISTRICT IS NOTIFIED OF SUCH INTENT AND ALL REQUIRED AND PROPERLY EXECUTED BONDS AND PERMITS ARE RECEIVED AND APPROVED BY THE DISTRICT.

4. THE CONTRACTOR SHALL NOTIFY THE DISTRICT NO LESS THAN FORTY-EIGHT (48) HOURS (2 BUSINESS DAYS) PRIOR TO THE BEGINNING OF CONSTRUCTION.

5. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE PLANS AND ONE (1) COPY OF THE APPROPRIATE CONSTRUCTION STANDARDS AND SPECIFICATIONS ON THE JOB SITE AT ALL TIMES.

6. CONTRACTORS ALLOWABLE WORK HOURS AT THE PROJECT SITE SHALL BE 7:00AM TO 5:30PM, MONDAY THROUGH FRIDAY. NO WORK WILL BE ALLOWED ON SATURDAY, SUNDAY OR HOLIDAYS RECOGNIZED BY THE DISTRICT. ANY REQUESTS TO WORK OUTSIDE THE AFOREMENTIONED ALLOWABLE WORK HOURS MUST BE REQUESTED IN WRITING BY THE CONTRACTOR TO THE ENGINEER AND OWNER NO LESS THAN (48) HOURS (TWO BUSINESS DAYS), PRIOR TO FOR WORK OUTSIDE NORMAL HOURS. SHOULD SUCH REQUESTS BE APPROVED, THE CONTRACTOR WILL BE RESPONSIBLE FOR REIMBURSING THE OWNER FOR THE COSTS OF OWNER'S AND ENGINEER'S ON-SITE REPRESENTATIVES DURING THE HOURS OUTSIDE OF THE AFOREMENTIONED ALLOWABLE WORK HOURS, INCLUDING COSTS ASSOCIATED WITH OVERTIME. SAID COSTS WILL BE REIMBURSED TO THE OWNER BY REDUCING THE AMOUNT OF THE CONTRACTOR'S PAY REQUEST IN AMOUNTS EQUAL TO THE OWNER'S COST.

7. A PROJECT MANAGER, SUPERINTENDENT OR FOREMAN COMPETENT AND KNOWLEDGEABLE OF THE PROJECT, PLANS AND SPECIFICATIONS SHALL BE ONSITE DURING ALL WORKING HOURS.

8. CONTRACTOR SHALL LIMIT HIS WORK AREA TO RIGHT-OF-WAYS, PERPETUAL SEWER EASEMENTS, AND THE TEMPORARY CONSTRUCTION EASEMENTS FOR THE PROJECT. CONTRACTOR SHALL OBTAIN ANY ADDITIONAL TEMPORARY CONSTRUCTION EASEMENTS THAT HE DEEMS NECESSARY FOR CONSTRUCTION AT NO ADDITIONAL COST TO THE DISTRICT. ANY WORK PERFORMED OUTSIDE OF THE RIGHT-OF-WAYS, PERPETUAL SEWER EASEMENTS, AND TEMPORARY CONSTRUCTION EASEMENTS SHALL BE A PRIVATE AGREEMENT BETWEEN THE CONTRACTOR AND THE INDIVIDUAL PROPERTY OWNER. THE DISTRICT SHALL NOT BE A PARTY TO SAID AGREEMENT.

9. ANY DEVIATIONS FROM REQUIREMENTS OF THE PROJECT PLANS AND SPECIFICATIONS PROPOSED BY PRIVATE AGREEMENTS BETWEEN CONTRACTOR AND INDIVIDUAL PROPERTY OWNERS MUST BE DOCUMENTED IN WRITING AND APPROVED BY THE OWNER AND INDIVIDUAL PROPERTY OWNER AFFECTED.

10. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE, INCLUDING ADEQUATE TRAFFIC CONTROL AND SAFETY OF PERSONS AND PROPERTY DURING PERFORMANCE OF WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS.

11. THE DUTY OF THE ENGINEER OR OWNER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE.

12. THE CONTRACTOR SHALL PROTECT ADJACENT PROPERTIES FROM DAMAGE DURING THE CONSTRUCTION OF THE PROJECT. IF ANY DAMAGES TO ADJACENT PROPERTIES OCCUR, IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

13. ALL MATERIALS AND WORKMANSHIP ASSOCIATED WITH THIS PROJECT SHALL BE SUBJECT TO INSPECTION BY THE DISTRICT AND THEIR ENGINEER(S). THE DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO THE PLANS AND TECHNICAL SPECIFICATIONS. ALL MATERIALS AND WORKMANSHIP ASSOCIATED WITH COUNTY ROADS SHALL BE SUBJECT TO INSPECTION BY THE TANEY COUNTY ROAD AND BRIDGE DEPARTMENT. THE TANEY COUNTY ROAD AND BRIDGE DEPARTMENT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO THE PLANS AND TECHNICAL SPECIFICATIONS. ALL MATERIALS AND WORKMANSHIP ASSOCIATED WITH STATE HIGHWAYS SHALL BE SUBJECT TO INSPECTION BY THE MISSOURI DEPARTMENT OF TRANSPORTATION (MODOT). MODOT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM WITH THE PLANS AND TECHNICAL SPECIFICATIONS.

14. ALL WORK REQUIRED IN THE CONTRACT DOCUMENTS WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR UNLESS IT IS SPECIFICALLY NOTED AS ANOTHER PARTY'S RESPONSIBILITY. CONTRACTOR WILL ONLY BE PAID FOR THE PAYMENT ITEMS LISTED ON THE BID FORM AND DESCRIBED IN THE MEASUREMENT AND PAYMENT SPECIFICATION UNLESS SPECIFICALLY CALLED OUT AS A LEGITIMATE CHANGE ORDER ITEM. WORK NOT LISTED AS A PAYMENT ITEM ON THE BID FORM AND DESCRIBED IN THE MEASUREMENT AND PAYMENT SPECIFICATION SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT COST AND WILL NOT BE PAID FOR SEPARATELY.
15. PROPERTY LINES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY AND ARE NOT BASED ON ACTUAL BOUNDARY SURVEYS.

16. HORIZONTAL CONTROL: TO BE PROVIDED BY ENGINEER OF THE PROJECT.

17. VERTICAL CONTROL: TO BE PROVIDED BY ENGINEER OF THE PROJECT.

18. THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL UTILITIES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL MISSOURI ONE CALL AT 1-800-344-7483 AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES. DURING CONSTRUCTION CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UTILITIES WHERE CONFLICTS MIGHT OCCUR WITH PROPOSED UTILITIES OR GRADING ACTIVITIES. IF A CONFLICT BECOMES APPARENT THE CONTRACTOR SHALL CONTACT ENGINEER FOR DIRECTION. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE UTILITY COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION BEING PERFORMED.

19. EXISTING UNDERGROUND UTILITIES IN THE VICINITY OF THE WORK TO BE DONE ARE INDICATED ON THE PLANS ONLY TO THE EXTENT SUCH INFORMATION HAS BEEN MADE AVAILABLE OR DISCOVERED BY THE ENGINEER IN PREPARATION OF THE PLANS. THERE IS NO GUARANTEE AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES, INCLUDING SERVICE CONNECTIONS, IN ADVANCE OF CONSTRUCTION ACTIVITIES BY CONTACTING THE OWNERS THEREOF AND BY PROSPECTING. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE OWNER AND ENGINEER IN WRITING OF ANY DISCREPANCIES WITH THE PLAN INFORMATION. ALL DAMAGE TO EXISTING UTILITIES, INCLUDING SERVICE CONNECTIONS, SHALL BE REPAIRED BY AND AT THE EXPENSE OF THE CONTRACTOR.

20. CONTRACTOR SHALL EXPOSE ALL UTILITIES TO VERIFY LOCATION AND DEPTHS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL RECORD THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES ON CONSTRUCTION RECORD DRAWINGS. UTILITIES DAMAGED THROUGH THE NEGLIGENCE OF THE CONTRACTOR TO OBTAIN THE LOCATION OF THE SAME SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS EXPENSE.

21. THE EXISTING FEATURES AND EXISTING UTILITIES SHOWN THROUGHOUT THESE PLANS ARE SHOWN FOR GENERAL HORIZONTAL LAYOUT LOCATION AND ORIENTATION. THE PLAN LOCATION OF THE EXISTING FEATURES AND EXISTING UTILITIES MAY VARY FROM THE ACTUAL FIELD LOCATION.

22. CONTRACTOR SHALL PROVIDE PROTECTION TO PREVENT UNDERMINING OR DAMAGING THE STRUCTURAL INTEGRITY OF ALL BUILDINGS, POWER POLES, FENCES, BLOCK WALLS, SCREEN WALLS, RETAINING WALLS, HIGHWAY AND STREET SIGNS OR OTHER UTILITY POLES THAT PARALLEL OR CROSS THE SEWER AND FORCE MAIN ALIGNMENTS, AND MAKE ARRANGEMENTS WITH THE OWNER OF SAID ITEMS AS REQUIRED TO PROVIDE TEMPORARY SUPPORT OR PROTECTION DURING CONSTRUCTION WORK. THIS REQUIREMENT AND WORK SHALL BE CONSIDERED AS INCIDENTAL TO THE COST OF THE PROJECT CONSTRUCTION AND WILL NOT BE PAID FOR SEPARATELY.

23. CONTRACTOR SHALL TAKE ALL APPROPRIATE STEPS TO MAINTAIN CONTINUAL SERVICE OF UTILITIES. CONTRACTOR SHALL PROVIDE SUPPORT AND PROTECTION OF ALL UTILITY LINES TO PREVENT UNDERMINING OR DAMAGING OF THE UTILITY DURING CONSTRUCTION. THE ACCEPTABILITY OF THE CONTRACTOR'S PROPOSED PLAN TO CROSS AND/OR SUPPORT UTILITIES SHALL BE APPROVED BY UTILITY OWNER.

24. MAINTAIN THE MAXIMUM SEPARATION DISTANCE POSSIBLE BETWEEN WATER MAINS, SEWER LINES AND OTHER UTILITY LINES. SOME MINOR DEVIATION OF THE SEWER AND FORCE MAIN ALIGNMENTS MAY BE ALLOWED DEPENDING ON ACTUAL LOCATIONS OF EXISTING WATER, SEWER AND UTILITY LINES. A MINIMUM VERTICAL SEPARATION OF 18 INCHES IS REQUIRED WHEN A WATER MAIN AND SANITARY SEWER CROSS.

25. RELOCATIONS OF ANY BURIED UTILITY OR SERVICE LINE THEREOF REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT HIS EXPENSE, WHETHER OR NOT THE UTILITY OR SERVICE LINE IS SHOWN ON THE PLANS OR IN THE ACTUAL LOCATION. THIS SHALL BE INCIDENTAL TO THE COST OF THE PROJECT AND SHALL NOT BE PAID FOR SEPARATELY. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS, REPAIRS, ETC., ASSOCIATED WITH DAMAGING, REPLACING OR RELOCATING ANY UNDERGROUND UTILITY OR SERVICE, REGARDLESS OF UTILITY LINE BEING MARKED CORRECTLY OR INCORRECTLY.

26. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN THAT CONFORMS TO THE LATEST EDITION OF THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATIONS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" FOR REVIEW AND APPROVAL BY THE ENGINEER, OWNER, AND OWNER OF AFFECTED ROAD PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PERFORM HIS WORK IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLAN. THE TRAFFIC CONTROL PLAN WILL BE UPDATED BY CONTRACTOR AS NECESSARY DURING CONSTRUCTION AND UPDATES MUST BE APPROVED BY THE ENGINEER, OWNER, AND OWNER OF THE AFFECTED ROAD. THE PLAN SHALL PROVIDE CONTINUOUS ACCESS TO ALL RESIDENTS DURING CONSTRUCTION AND SHALL NOT CLOSE ANY STREET WITHOUT THE PRIOR CONSENT OF THE GOVERNING BODY WITH JURISDICTION OVER THE STREET.

27. FORTY-EIGHT (48) HOURS PRIOR TO ANY APPROVED ROAD CLOSURES THE CONTRACTOR SHALL NOTIFY THE FIRE, POLICE AND AMBULANCE DEPARTMENTS, SCHOOL DISTRICTS AND THE POST OFFICE. CONTRACTOR SHALL TAKE STEPS TO ENSURE ACCESS FOR EMERGENCY VEHICLES AND RESIDENTS AFFECTED BY CONSTRUCTION THROUGHOUT THE COURSE OF CONSTRUCTION.

28. CONTRACTOR SHALL REMOVE MAILBOXES, WALLS, SIGNS, FENCES, LANDSCAPING BUSHES, GATES, ROADS AND DRIVEWAYS, CURB AND GUTTER, ROCK RIP-RAP, DRAINAGE CULVERTS AND OTHER EXISTING FEATURES AS REQUIRED FOR CONSTRUCTION PURPOSES. CONTRACTOR SHALL RESTORE ALL REMOVED OR DAMAGED ITEMS TO A CONDITION EQUAL TO OR BETTER THAN PRE-PROJECT CONDITION. CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY FEATURES TO ACCOMMODATE PROPERTY OWNERS AND THE PUBLIC DURING CONSTRUCTION WHEN THE CONSTRUCTION NECESSITATES REMOVING AN EXISTING FEATURE. EXAMPLES OF THIS INCLUDE, BUT ARE NOT LIMITED TO: MAILBOXES, STREET SIGNS, ROADS, DRIVEWAYS, FENCES, ETC. CONTRACTOR TO COORDINATE WITH PROPERTY OWNER AND ENGINEER PRIOR TO REMOVAL OF NECESSARY ITEMS FOR THE PURPOSES OF CONSTRUCTION.

29. IN CASES WHERE THE CONTRACTOR DAMAGES OR REMOVES A ROAD OR DRIVEWAY FOR CONSTRUCTION, CONTRACTOR SHALL REPAIR OR REPLACE THE ROAD OR DRIVEWAY TO A CONDITION EQUAL TO OR BETTER THAN THE PRE-PROJECT CONDITION. CONTRACTOR SHALL SAW CUT EXISTING CONCRETE, ASPHALT, AND CHIP SEAL SURFACES AT THE LIMITS OF THE REPAIR/REPLACEMENT. REPAIRS TO BE PER DETAILS AS SHOWN IN CONSTRUCTION PLANS BUT UNDER NO CIRCUMSTANCES SHALL THE REPAIRED OR REPLACED SECTION BE LESS THAN THE FOLLOWING:

A. FOR EXISTING GRAVEL SURFACES:
COMPACT SUB-GRADE TO 95%. PLACE MODOT TYPE 1 AGGREGATE BASE COURSE, MATCH EXISTING GRAVEL SURFACE THICKNESS PLUS 1 INCH. GRAVEL SURFACE SHALL BE A MINIMUM OF 4 INCH THICKNESS.

B. FOR EXISTING CHIP & SEAL SURFACES:
COMPACT SUB-GRADE TO 95%. PLACE AND COMPACT 5 INCHES OF MODOT TYPE 1 AGGREGATE BASE COURSE. APPLY A DOUBLE COAT CHIP SEAL.

C. FOR EXISTING ASPHALT SURFACES:
COMPACT SUB-GRADE TO 95%. PLACE AND COMPACT 5 INCHES OF MODOT TYPE 1 AGGREGATE BASE COURSE. PLACE 6 INCHES OF MODOT CLASS B CONCRETE WITH CONTRACTION JOINTS EACH WAY NOT EXCEEDING 8 FEET ON CENTER AND ISOLATION JOINTS NOT EXCEEDING 32 FEET ON CENTER. JOINTS SHALL BE PLACED AS CLOSE AS POSSIBLE TO EQUAL DISTANT IN BOTH DIRECTIONS, WITH THE DIMENSION IN ONE DIRECTION NOT BEING LESS THAN 80% OF THE DIMENSION IN THE OPPOSITE DIRECTION.

D. FOR EXISTING CONCRETE SURFACES:
COMPACT SUB-GRADE TO 95%. PLACE AND COMPACT 4 INCHES OF MODOT TYPE 1 AGGREGATE BASE COURSE. PLACE 6 INCHES OF MODOT CLASS B CONCRETE WITH CONTRACTION JOINTS EACH WAY NOT EXCEEDING 8 FEET ON CENTER AND ISOLATION JOINTS NOT EXCEEDING 32 FEET ON CENTER. JOINTS SHALL BE PLACED AS CLOSE AS POSSIBLE TO EQUAL DISTANT IN BOTH DIRECTIONS, WITH THE DIMENSION IN ONE DIRECTION NOT BEING LESS THAN 80% OF THE DIMENSION IN THE OPPOSITE DIRECTION.

30. CONTRACTOR SHALL MAINTAIN EXISTING SANITARY SEWER SERVICE TO ALL RESIDENTS AND BUSINESSES IN THE PROJECT AREA AT ALL TIMES. SHOULD THIS REQUIRE TEMPORARY HOLDING TANKS, SLUDGE TRUCK PUMPING, AND/OR REPAIRS TO EXISTING SYSTEMS, SAID ACTIVITIES AND COSTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THIS WILL BE CONSIDERED INCIDENTAL TO THE PROJECT COST AND THE CONTRACTOR WILL NOT BE PAID FOR IT SEPARATELY.

31. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE FULL CONNECTION OF ALL STRUCTURES PROPOSED TO BE SERVED BY THESE IMPROVEMENTS.

32. CONTRACTOR SHALL VERIFY WITH THE PROPERTY OWNER THE EXACT PLACEMENT OF EACH SERVICE LATERAL AND IF APPLICABLE, GRINDER PUMP. THE POSITION OF THE LATERAL AND PUMP SHOWN ON THE PLAN IS A GUIDELINE FOR THE CONTRACTOR AND MAY BE SHIFTED ACCORDING TO FIELD CONDITIONS AND THE PROPERTY OWNER'S DIRECTIONS. ANY CHANGES TO THE SERVICE LATERAL AND/OR PUMP LOCATION MUST BE APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL RECORD THE STATION AND LENGTH OF EACH SERVICE LATERAL AND THE LOCATION OF THE GRINDER PUMP ON THE CONSTRUCTION RECORD DRAWINGS.

33. CONTRACTOR IS RESPONSIBLE TO PROVIDE INDIVIDUAL PROPERTY OWNERS A MINIMUM OF 48 HOURS ADVANCE NOTICE PRIOR TO STARTING CONSTRUCTION ON PROPERTY OWNER'S PROPERTY.

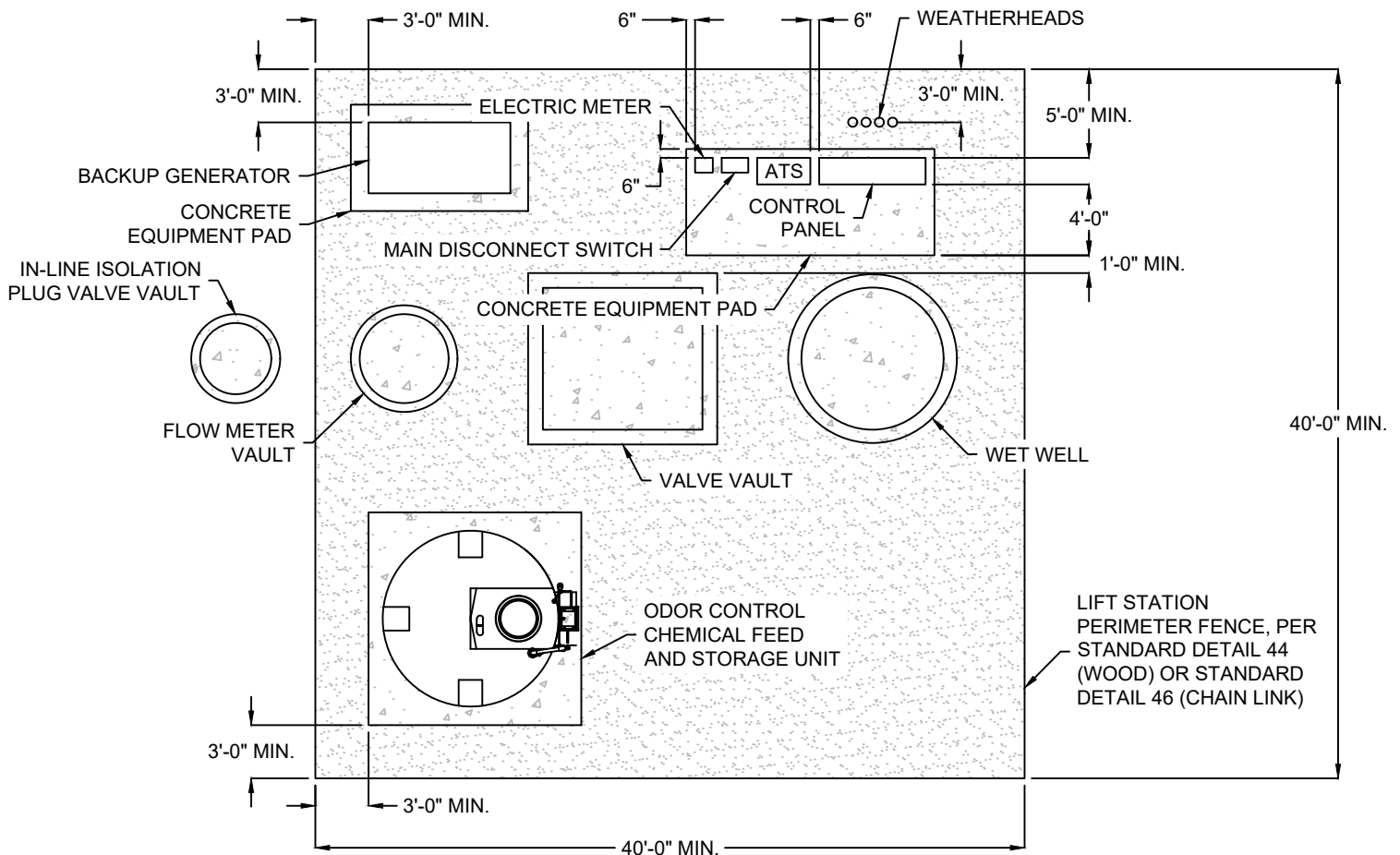
34. ALL GRAVITY SERVICE LATERALS SHALL BE LAID AT MINIMUM 1.00% GRADE AND AT A DEPTH REQUIRED TO PROPERLY SERVE THE EXISTING HOUSE OR STRUCTURE UNLESS APPROVED OTHERWISE.

35. UNLESS OTHERWISE NOTED, THE CONTRACTOR WILL ADJUST MANHOLE RIMS AS NECESSARY TO ENSURE THAT THE RIMS OF ALL MANHOLES ARE PLACED FLUSH WITH THE FINISHED GROUND, ROAD SURFACE OR AS SHOWN ON PLANS. MANHOLES IN STREETS MUST BE LEVEL WITH FINISHED PAVEMENT ELEVATION AND SLOPED TO MATCH STREET GRADE LONGITUDINALLY AND CROSS SLOPE PER DETAIL. THIS SHALL BE INCIDENTAL TO THE COST OF THE PROJECT AND SHALL NOT BE PAID FOR SEPARATELY.

36. MINIMUM DEPTH OF COVER FOR GRAVITY SEWER MAINS SHALL BE 36 INCHES AND FORCE MAINS SHALL BE 36 INCHES UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER.

37. SEWER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAINS. IN SOME CASES, WHERE IT IS NOT PRACTICAL TO MAINTAIN TEN FEET SEPARATION, THE WATER MAIN MUST BE IN SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AT AN ELEVATION SUCH THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.

38. ON FORCE MAINS, CONTRACTOR CAN DEFLECT PIPES AT JOINTS IN ACCORDANCE
- WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS. IN CASES WHERE BENDS ARE REQUIRED TO MEET THE HORIZONTAL AND VERTICAL ALIGNMENTS SHOWN ON THE PLANS AND/OR REQUIRED FOR THE PROJECT, CONTRACTOR SHALL FURNISH AND INSTALL NECESSARY BENDS, FITTINGS, AND THRUST BLOCKS. BENDS, FLANGES AND THRUST BLOCKS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT COST AND SHALL NOT BE PAID FOR SEPARATELY. WHETHER OR NOT THEY ARE SHOWN ON THE PLANS. CONTRACTORS WILL NOT CREATE HIGH POINTS IN THE FORCE MAIN, EXCEPT WHERE SHOWN ON PLANS. IF ADDITIONAL HIGH POINTS IN THE FORCE MAIN ARE UNAVOIDABLE, THEN ENGINEERS' APPROVAL MUST BE REQUESTED IN WRITING PRIOR TO CONTINUING WITH THE FORCE MAIN INSTALLATION.
39. CONTRACTOR SHALL PROVIDE CONTINUOUS PROTECTION AGAINST THE ENTRANCE OF DRAINAGE, MUD, DEBRIS, TRASH, ROCK, ETC INTO EXCAVATIONS OF ALL BORINGS, BORE PITS AND NEWLY INSTALLED PIPES. THE CONTRACTOR SHALL INSTALL AND PROPERLY MAINTAIN A MECHANICAL PLUG AT ALL CONNECTION POINTS WITH EXISTING LINES UNTIL SUCH TIME THAT THE NEW LINE IS TESTED. CONTRACTOR WILL BE RESPONSIBLE FOR ENSURING NO MUD, GRAVEL, ROCK, TRASH, DEBRIS, ETC IS ALLOWED TO ENTER THE NEW PIPE. IF MUD, DEBRIS, GRAVEL, ROCK, ETC., IS ALLOWED TO ENTER THE NEW PIPE, THEN THE CONTRACTOR WILL BE RESPONSIBLE FOR JETTING AND CLEANING PIPE RUNS AS REQUIRED TO REMOVE DEBRIS. COSTS ASSOCIATED WITH JETTING WILL BE INCIDENTAL AND NOT PAID FOR SEPARATELY.
40. TRACE WIRE AND DETECTABLE WARNING TAPE SHALL BE INSTALLED ON ALL GRAVITY MAINS, FORCE MAINS AND SERVICE LINES, INSTALLATION SHALL BE PER DETAILS AND SPECIFICATIONS.
41. CONTRACTOR SHALL COMPACT ALL BACKFILL IN ACCORDANCE WITH THE SPECIFICATIONS.
42. NO TRENCHER CUTTINGS WILL BE ALLOWED FOR TRENCH BACKFILL. IN THE EVENT THAT OVER TRENCHING OCCURS THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE OVER TRENCHED MATERIAL AND REPLACE WITH GRANULAR BEDDING MATERIAL AT THE CONTRACTOR'S EXPENSE. THIS IS INCIDENTAL AND WILL NOT BE PAID FOR SEPARATELY.
43. UNLESS OTHERWISE NOTED, ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE COVERED WITH A MINIMUM 4" OF TOPSOIL AND RESTORED IN ACCORDANCE WITH THE SPECIFICATIONS. ALL AREAS DIRECTLY OVER A TRENCH SHALL BE RESTORED IN ACCORDANCE WITH TRENCHING BACKFILL METHODS DETAIL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TOPSOIL UNTIL A HARDY STAND OF GRASS IS ESTABLISHED.
44. THE CONTRACTOR SHALL BACKFILL ALL TRENCHES AS SOON AS POSSIBLE, BUT NO LATER THAN AT THE END OF THE DAY. THE CONTRACTOR MAY LEAVE THE LAST SECTION OF PIPE EXPOSED AT THE END OF EACH WORKING DAY PROVIDED THAT THE OPEN EXCAVATION IS COMPLETELY FENCED OFF WITH ADEQUATE FENCING AND POSTS AND THAT THE SECTION IS NOT LOCATED IN A ROADWAY. IF THE LAST SECTION OF PIPE IS IN A ROADWAY, THEN THE TRENCH CAN BE PLATED IN SUCH A MANNER AS TO REOPEN ALL LANES WITHIN THE ROADWAY TO TRAFFIC.
45. THE CONTRACTOR SHALL CONFORM WITH THE REQUIREMENTS OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND TAKE APPROPRIATE STEPS TO PREVENT EROSION OF EARTHWORK AND DEPOSITION OF SEDIMENTS INTO WATER COURSES OR DRAINAGE SWALES. IN ADDITION TO PERFORMING THE SEDIMENT AND EROSION CONTROL MEASURES REQUIRED BY THE (SWPPP), THE CONTRACTOR IS RESPONSIBLE FOR UPDATING THE (SWPPP) AS REQUIRED, PERFORMING INSPECTIONS REQUIRED BY THE (SWPPP), MAINTAINING ADEQUATE RECORDS AS OUTLINED IN THE (SWPPP), AND PAYING ALL FINES, COSTS, ETC., THAT MAY BE LEVIED DUE TO CONTRACTOR'S FAILURE TO ADEQUATELY FOLLOW THE (SWPPP). UPDATES TO BE PROVIDED TO THE ENGINEER.
46. THE EROSION CONTROL PLAN SHOWS LOCATION AND DETAILS FOR PRIMARY EROSION CONTROLS TO BE CONSTRUCTED. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING EROSION AND DISCHARGE OF SEDIMENT FROM THE SITE AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE NECESSARY MEASURES DURING ALL PHASES OF HIS OPERATIONS REGARDLESS OF WHETHER THEY ARE SPECIFICALLY NOTED ON THE EROSION CONTROL PLAN AND SHALL MAINTAIN AND REPLACE CONTROLS AS NECESSARY DURING THE COURSE OF HIS OPERATIONS.
47. INITIAL SEDIMENT CONTROLS SHOWN ON THE EROSION CONTROL PLAN MUST BE INSTALLED PRIOR TO ANY OTHER WORK.
48. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO KEEP ROCK, MUD AND OTHER DEBRIS CAUSED BY CONSTRUCTION EQUIPMENT OFF OF STREETS THROUGHOUT THE DAY AND AT THE END OF EACH DAY.
49. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST DURING CONSTRUCTION AND SHALL WATER CONSTRUCTION AREAS WHENEVER CONDITIONS WARRANT.
50. TREES WITHIN PERPETUAL EASEMENTS MAY BE REMOVED UNLESS NOTED OTHERWISE. TREES WITHIN TEMPORARY EASEMENTS SHALL BE REMOVED ONLY WITH APPROVAL OF ENGINEER AND AS REQUIRED FOR CONSTRUCTION. TREES WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE REMOVED ONLY WITH THE APPROVAL OF ENGINEER AND TANEY COUNTY ROAD AND BRIDGE DEPARTMENT AS REQUIRED FOR CONSTRUCTION.
51. CONTRACTOR SHALL RESTORE ALL PRIVATE LAWNS AND ALL OTHER NON-PAVED AREAS DISTURBED BY CONSTRUCTION IN ACCORDANCE WITH THE SPECIFICATIONS.
52. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING AND MAINTENANCE OF DISTURBED AREAS UNTIL A HARDY STAND OF GRASS IS ESTABLISHED PER THE SPECIFICATIONS.
53. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING SILT FROM STORM DRAINS, INLETS, CULVERTS, ETC. PRIOR TO APPROVAL OF CONSTRUCTION.
54. ALL DISTURBED AREAS NOT RECEIVING OTHER PERMANENT STABILIZATION SUCH AS PAVEMENT, ROOFS, SOD AND ETC., SHALL BE SEEDED AND MULCHED, AS PER THE PROJECT SPECIFICATIONS BEFORE TEMPORARY SEDIMENT CONTROLS CAN BE REMOVED AND PRIOR TO FINAL APPROVAL OF CONSTRUCTION.
55. EXISTING FENCES DO NOT REPRESENT RIGHT-OF-WAY OR PROPERTY LINES. CONTRACTOR TO FIELD VERIFY RIGHT-OF-WAY OR PROPERTY LINES.
56. CONTRACTOR SHALL BE RESPONSIBLE TO HAVE A MISSOURI PROFESSIONAL LAND SURVEYOR RESET ANY PROPERTY BOUNDARY PINS THAT ARE DAMAGED DURING CONSTRUCTION OF THE PROJECT. COST OF RESETTNG PINS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND WILL NOT BE PAID FOR SEPARATELY.
57. ENVIRONMENTAL CONTAMINATION:
- A. SUBSURFACE AND SOIL INVESTIGATIONS HAVE NOT BEEN CONDUCTED TO IDENTIFY POTENTIAL ENVIRONMENTAL POLLUTANTS OR CONTAMINANTS. IF, DURING CONSTRUCTION, THE CONTRACTOR ENCOUNTERS ANY ENVIRONMENTAL POLLUTANTS, HAZARDOUS SUBSTANCES, CONTAMINATED PRODUCTS, BY-PRODUCTS, SAMPLES OR ANY OTHER POTENTIAL OR UNIDENTIFIABLE POLLUTANTS, THE CONTRACTOR SHALL STOP WORK AND IMMEDIATELY NOTIFY THE OWNER AND ENGINEER.
- B. ENVIRONMENTAL POLLUTANTS, HAZARDOUS SUBSTANCES, CONTAMINATED PRODUCTS OR UNIDENTIFIABLE POLLUTANTS SHALL NOT BE CONSIDERED TYPICAL WASTE MATERIALS AND SHALL BE HANDLED IN A MANNER REGULATED UNDER APPLICABLE ENVIRONMENTAL LAWS.
- C. UNLESS A SPECIFIC CONTAMINATED AREA AND REMEDIATION PROCEDURE IS CALLED OUT IN THE DOCUMENTS, THE COST OF ANY UNFORESEEN CONTAMINATION WILL BE COVERED BY AN APPROVED CHANGE ORDER.
58. USE OF CONSTRUCTION DOCUMENTS:
PROJECT PLANS AND TECHNICAL SPECIFICATIONS ARE PROVIDED AS A SERVICE. PROJECT PLANS AND TECHNICAL SPECIFICATIONS ARE NOT INTENDED FOR USE ON OTHER PROJECTS AT THIS SITE OR OTHER SITES WITHOUT WRITTEN APPROVAL OF THE ENGINEER. ANY COPYING OF DRAWINGS FOR REPRODUCTION AND/OR SCALING MAY ALTER THE INDICATED GRAPHIC SCALES. ¼ SET DRAWINGS ARE NOT SCALABLE FOR CONSTRUCTION PURPOSE.
- PROJECT SPECIFIC NOTES
- USE THIS LOCATION FOR NOTES THAT WOULD RELATE TO THE PROJECT SPECIFICALLY.
- REV. DATE: 04/22/2025
-
- TECHNICAL SPECIFICATIONS
STANDARD DETAIL 69
TYPICAL GENERAL NOTES



NOTES:

- DESIGN ENGINEER SHALL PROVIDE MINIMUM CLEARANCES BETWEEN STRUCTURES AND EQUIPMENT AS SHOWN IN THIS DETAIL.
- LAYOUT OF LIFT STATION IS DEPICTED IN THIS DETAIL FOR REFERENCE ONLY. ENGINEERING JUDGMENT SHALL BE USED TO PROVIDE THE FINAL LIFT STATION LAYOUT ON A PER-SITE BASIS, SUBJECT TO OWNER APPROVAL.
- WET WELL, VALVE VAULT, FLOW METER VAULT, AND ISOLATION VALVE VAULT SHALL BE PER STANDARD DETAILS 37, 38, AND 39.
- PROVIDE A 16 FOOT WIDE DOUBLE SWING GATE FOR PRIMARY ACCESS TO LIFT STATION. LOCATE DOUBLE GATE TO PROVIDE ACCESS TO WET WELL AND VALVE VAULT.
- PROVIDE A MAN GATE IN A LOCATION READILY ACCESSIBLE FROM THE INSIDE AND OUTSIDE OF LIFT STATION. MAN GATE SHALL BE LOCATED AS NEAR TO MAIN ELECTRIC DISCONNECT SWITCH AS POSSIBLE.
- CONCRETE EQUIPMENT PADS SHALL BE PER STANDARD DETAIL 42.
- BACKUP GENERATOR SHALL HAVE THREE FEET (3'-0") MINIMUM CLEARANCE ON ALL SIDES. MINIMUM CLEARANCE MAY BE GREATER IF RECOMMENDED BY GENERATOR MANUFACTURER.
- CONTRACTOR SHALL COORDINATE WITH EQUIPMENT MANUFACTURERS FOR SIZING RECOMMENDATIONS OF CONCRETE EQUIPMENT PADS.
- ODOR CONTROL CHEMICAL FEED AND STORAGE UNIT SHALL BE PER STANDARD DETAIL 47, PROVIDED SUBJECT TO OWNER APPROVAL.

TYPICAL LIFT STATION CLEARANCES

SCALE: NONE

REV. DATE: 07/30/2025

GENERAL

1. THESE GENERAL CONSTRUCTION NOTES SUPPLEMENT THE PROJECT PLANS, TECHNICAL SPECIFICATIONS, AND THE DISTRICT'S STANDARD DETAILS AND TECHNICAL SPECIFICATIONS. WHERE THE NOTES CONFLICT WITH THE PROJECT SPECIFICATIONS OR THE DISTRICT'S STANDARD DETAILS AND TECHNICAL SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.
2. "DISTRICT" SHALL MEAN THE TANEY COUNTY REGIONAL SEWER DISTRICT. "DEVELOPER" SHALL MEAN THE OWNER OF THE PROJECT AND ANY PROPERTY OWNERS' ASSOCIATION, CONDOMINIUM ASSOCIATION, OR HOMEOWNERS' ASSOCIATION FORMED IN CONNECTION WITH THE DEVELOPMENT. "CONTRACTOR" SHALL MEAN THE CONSTRUCTION CONTRACTOR ENGAGED BY THE DEVELOPER. "ENGINEER" SHALL MEAN THE MISSOURI-LICENSED PROFESSIONAL ENGINEER OF RECORD ENGAGED BY THE DEVELOPER.
3. THESE PLANS HAVE BEEN REVIEWED AND APPROVED BY THE DISTRICT PURSUANT TO SECTION 4.05 OF THE DISTRICT'S RULES, RATES, AND REGULATIONS. THE DISTRICT'S DECISION OF RECORD FOR THE PROJECT, ISSUED PURSUANT TO SECTION 4.05(7), SETS FORTH THE SPECIFIC TERMS AND CONDITIONS OF THE DISTRICT'S APPROVAL AND IS INCORPORATED HEREIN BY REFERENCE.
4. CONSTRUCTION SHALL NOT COMMENCE UNTIL (A) THE DISTRICT HAS ISSUED THE DECISION OF RECORD; (B) THE DEVELOPER HAS PAID THE DISTRICT'S INSPECTION FEE PER SECTION 4.05(7)(C) OF THE RULES; (C) THE CONTRACTOR HAS MET THE QUALIFICATION, INSURANCE, AND BOND REQUIREMENTS OF SECTION 4.04(C) OF THE RULES; (D) A PRE-CONSTRUCTION MEETING HAS BEEN HELD BETWEEN THE DISTRICT, THE DEVELOPER, THE ENGINEER, AND THE CONTRACTOR; AND (E) ALL EASEMENTS REQUIRED BY THE DECISION OF RECORD HAVE BEEN RECORDED WITH THE TANEY COUNTY RECORDER'S OFFICE.
5. THE CONTRACTOR SHALL NOTIFY THE DISTRICT NO LESS THAN FORTY-EIGHT (48) HOURS (TWO BUSINESS DAYS) PRIOR TO THE BEGINNING OF CONSTRUCTION. THE CONTRACTOR SHALL KEEP ONE (1) SIGNED COPY OF THE PLANS, ONE (1) COPY OF THE PROJECT TECHNICAL SPECIFICATIONS, AND ONE (1) COPY OF THE CURRENT DISTRICT STANDARD DETAILS AND TECHNICAL SPECIFICATIONS ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.
6. THE CONTRACTOR'S ALLOWABLE WORK HOURS SHALL BE 7:00 A.M. TO 5:30 P.M., MONDAY THROUGH FRIDAY. NO WORK SHALL BE ALLOWED ON SATURDAYS, SUNDAYS, OR HOLIDAYS RECOGNIZED BY THE DISTRICT WITHOUT PRIOR WRITTEN APPROVAL FROM THE DISTRICT. A COMPETENT PROJECT MANAGER, SUPERINTENDENT, OR FOREMAN SHALL BE ON SITE DURING ALL WORKING HOURS.
7. THE CONTRACTOR SHALL LIMIT ITS WORK AREA TO THE RIGHTS-OF-WAY, PERPETUAL EASEMENTS, AND TEMPORARY CONSTRUCTION EASEMENTS ESTABLISHED FOR THE PROJECT. ANY ADDITIONAL CONSTRUCTION EASEMENTS REQUIRED BY THE CONTRACTOR SHALL BE OBTAINED BY THE CONTRACTOR AT NO COST TO THE DEVELOPER OR THE DISTRICT.
8. ANY DEVIATION FROM THE PROJECT PLANS, THE TECHNICAL SPECIFICATIONS, OR THE DISTRICT'S STANDARD DETAILS AND TECHNICAL SPECIFICATIONS MUST BE APPROVED IN WRITING IN ADVANCE BY THE ENGINEER AND THE DISTRICT.
9. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE, INCLUDING TRAFFIC CONTROL AND THE SAFETY OF PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONSTRUCTION REVIEW BY THE ENGINEER, THE DEVELOPER, OR THE DISTRICT DOES NOT INCLUDE REVIEW OF THE CONTRACTOR'S SAFETY MEASURES.
10. THE CONTRACTOR SHALL PROTECT ADJACENT PROPERTIES FROM DAMAGE DURING CONSTRUCTION. ANY DAMAGE TO ADJACENT PROPERTIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

DISTRICT INSPECTION AND OVERSIGHT

11. ALL MATERIALS AND WORKMANSHIP ARE SUBJECT TO INSPECTION BY THE DISTRICT. THE DISTRICT MAY REJECT ANY MATERIALS OR WORKMANSHIP THAT DOES NOT CONFORM TO THE PLANS, THE TECHNICAL SPECIFICATIONS, THE DISTRICT'S STANDARD DETAILS AND TECHNICAL SPECIFICATIONS, OR OTHER APPLICABLE LAW. REJECTED MATERIALS OR WORKMANSHIP SHALL BE REMOVED, REPLACED, REPAIRED, OR CORRECTED BY THE CONTRACTOR AT THE CONTRACTOR'S SOLE EXPENSE.
12. ALL MATERIALS AND WORKMANSHIP ASSOCIATED WITH CROSSINGS OF, WORK WITHIN, OR WORK ADJACENT TO TANEY COUNTY ROADS ARE SUBJECT TO INSPECTION BY THE TANEY COUNTY ROAD AND BRIDGE DEPARTMENT. THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED BY THE ROAD AND BRIDGE DEPARTMENT PRIOR TO COMMENCING WORK WITHIN COUNTY RIGHT-OF-WAY.
13. ALL MATERIALS AND WORKMANSHIP ASSOCIATED WITH CROSSINGS OF, WORK WITHIN, OR WORK ADJACENT TO MISSOURI STATE HIGHWAY RIGHT-OF-WAY ARE SUBJECT TO INSPECTION BY THE MISSOURI DEPARTMENT OF TRANSPORTATION (MODOT). THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED BY MODOT PRIOR TO COMMENCING WORK.
14. THE CONTRACTOR SHALL PROVIDE THE DISTRICT WITH NO LESS THAN FORTY-EIGHT (48) HOURS' ADVANCE NOTICE OF ANY PIPE TESTING, MANHOLE TESTING, FORCE MAIN TESTING, TAP OR CONNECTION TO THE EXISTING SYSTEM, OR OTHER COMPONENT OF CONSTRUCTION REQUIRING DISTRICT WITNESS. THE DISTRICT INSPECTOR SHALL BE PRESENT FOR, AT MINIMUM: (A) ALL TAPS AND CONNECTIONS TO THE EXISTING SYSTEM; (B) ALL TESTING OF NEW PUBLIC SEWER MAINS, MANHOLES, AND FORCE MAINS; (C) TESTING OF BUILDING SERVICE CONNECTIONS; AND (D) ANY WORK THE DISTRICT HAS IDENTIFIED IN THE DECISION OF RECORD AS REQUIRING INSPECTION. IN ADDITION, THE DISTRICT INSPECTOR SHALL BE PRESENT PRIOR TO BACKFILLING OF ALL PIPING, STRUCTURES, AND APPURTENANCES. WORK PERFORMED OR BACKFILLED WITHOUT REQUIRED DISTRICT INSPECTION WITNESS MAY, AT THE DISTRICT'S DISCRETION, BE REQUIRED TO BE UNCOVERED FOR INSPECTION AT THE CONTRACTOR'S OR DEVELOPER'S

EXPENSE.

15. APPROVAL OF THESE PLANS BY THE DISTRICT, THE DISTRICT'S INSPECTION OF CONSTRUCTION, AND THE DISTRICT'S ACCEPTANCE OF THE COMPLETED WORK SHALL NOT RELIEVE THE DEVELOPER, THE CONTRACTOR, OR THE ENGINEER OF ANY RESPONSIBILITY FOR THE DESIGN, MATERIALS, WORKMANSHIP, OR PERFORMANCE OF THE CONSTRUCTED FACILITIES.

EXISTING CONDITIONS AND UTILITIES

16. PROPERTY LINES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY AND ARE NOT BASED ON ACTUAL BOUNDARY SURVEYS UNLESS OTHERWISE NOTED. EXISTING FENCES DO NOT REPRESENT RIGHT-OF-WAY OR PROPERTY LINES. THE CONTRACTOR SHALL FIELD-VERIFY RIGHT-OF-WAY AND PROPERTY LINES AND SHALL ENGAGE A MISSOURI PROFESSIONAL LAND SURVEYOR, AT THE CONTRACTOR'S SOLE EXPENSE, TO RESET ANY PROPERTY BOUNDARY PINS DAMAGED DURING CONSTRUCTION.
17. HORIZONTAL CONTROL AND VERTICAL CONTROL BENCHMARKS SHALL BE PROVIDED BY THE ENGINEER.
18. EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL UTILITIES PRESENT. THE CONTRACTOR SHALL CALL MISSOURI ONE CALL AT 1-800-344-7483 AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL FIELD-VERIFY EXISTING UTILITY LOCATIONS WHERE CONFLICTS MIGHT OCCUR WITH PROPOSED UTILITIES OR GRADING, AND SHALL CONTACT THE ENGINEER FOR DIRECTION IF A CONFLICT IS IDENTIFIED. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES THAT HAVE FACILITIES IN THE VICINITY OF THE CONSTRUCTION PRIOR TO COMMENCEMENT OF WORK.
19. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES, INCLUDING SERVICE CONNECTIONS, IN ADVANCE OF CONSTRUCTION ACTIVITIES BY CONTACTING THE UTILITY OWNERS AND BY PROSPECTING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE DEVELOPER IN WRITING OF ANY DISCREPANCIES WITH THE PLAN INFORMATION. ALL DAMAGE TO EXISTING UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
20. THE CONTRACTOR SHALL EXPOSE UTILITIES TO VERIFY LOCATION AND DEPTHS PRIOR TO CONSTRUCTION, AND SHALL RECORD THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES ON THE CONSTRUCTION RECORD DRAWINGS.
21. THE CONTRACTOR SHALL PROVIDE PROTECTION TO PREVENT UNDERMINING OR DAMAGE TO THE STRUCTURAL INTEGRITY OF BUILDINGS, POWER POLES, FENCES, WALLS, SIGNS, AND OTHER FEATURES NEAR THE CONSTRUCTION. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNERS OF AFFECTED ITEMS FOR TEMPORARY SUPPORT OR PROTECTION AS REQUIRED. THE COST OF SUCH PROTECTION IS THE RESPONSIBILITY OF THE CONTRACTOR.
22. THE CONTRACTOR SHALL MAINTAIN CONTINUAL SERVICE OF UTILITIES DURING CONSTRUCTION. THE CONTRACTOR'S PROPOSED METHODS TO MAINTAIN UTILITY SERVICE MUST BE APPROVED BY THE AFFECTED UTILITY COMPANY IN ADVANCE OF CONSTRUCTION. A MINIMUM VERTICAL SEPARATION OF EIGHTEEN (18) INCHES BETWEEN WATER MAINS AND SANITARY SEWER SHALL BE MAINTAINED AT ALL CROSSINGS. FITTINGS, BENDS, OR THRUST BLOCKS REQUIRED TO ACCOMMODATE FIELD-LOCATED UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR WHETHER OR NOT SHOWN ON THE PLANS.

TRAFFIC CONTROL AND ROAD WORK

23. THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN THAT CONFORMS TO THE CURRENT EDITION OF THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) FOR REVIEW AND APPROVAL BY THE ENGINEER AND THE OWNER OF AFFECTED ROADS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL PERFORM ITS WORK IN ACCORDANCE WITH THE APPROVED TRAFFIC CONTROL PLAN AND SHALL UPDATE THE PLAN AS NECESSARY DURING CONSTRUCTION. THE CONTRACTOR SHALL ENSURE ACCESS FOR EMERGENCY VEHICLES AND RESIDENTS AFFECTED BY CONSTRUCTION THROUGHOUT THE DURATION OF CONSTRUCTION, AND SHALL NOTIFY THE APPROPRIATE POLICE, FIRE, AMBULANCE, SCHOOL, AND POSTAL AUTHORITIES OF ANY ROAD CLOSURES.
24. THE CONTRACTOR SHALL REMOVE AND RESTORE (TO A CONDITION EQUAL TO OR BETTER THAN PRE-PROJECT) MAILBOXES, WALLS, SIGNS, FENCES, LANDSCAPING, GATES, ROADS AND DRIVEWAYS, CURB AND GUTTER, ROCK RIP-RAP, DRAINAGE CULVERTS, AND OTHER EXISTING FEATURES AS REQUIRED FOR CONSTRUCTION. THE CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY FEATURES TO ACCOMMODATE PROPERTY OWNERS AND THE PUBLIC DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH AFFECTED PROPERTY OWNERS AND THE ENGINEER PRIOR TO REMOVAL OF ANY FEATURE.
25. WHERE THE CONTRACTOR DAMAGES OR REMOVES A ROAD OR DRIVEWAY FOR CONSTRUCTION, THE CONTRACTOR SHALL SAW-CUT EXISTING CONCRETE, ASPHALT, AND CHIP-SEAL SURFACES AT THE LIMITS OF REPAIR AND SHALL REPAIR OR REPLACE THE ROAD OR DRIVEWAY TO A CONDITION EQUAL TO OR BETTER THAN PRE-PROJECT CONDITION. PAVEMENT REPAIR AND REPLACEMENT SHALL BE IN ACCORDANCE WITH THE DISTRICT'S STANDARD DETAIL 18 (ROAD REPLACEMENT AND TRENCHING BACKFILL METHODS) AND THE PROJECT PLANS. SUBGRADES BENEATH PAVEMENT REPAIRS SHALL BE COMPACTED TO 95% MINIMUM.

SEWER MAIN AND SERVICE LINE CONSTRUCTION

26. ALL SEWER MAINS, MANHOLES, FORCE MAINS, LIFT STATIONS, SERVICE LINES, AND OTHER PROJECT COMPONENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT PLANS, THE TECHNICAL SPECIFICATIONS, THE DISTRICT'S STANDARD DETAILS AND TECHNICAL SPECIFICATIONS, MISSOURI DEPARTMENT OF NATURAL RESOURCES REGULATIONS, AND OTHER APPLICABLE LAW.
27. THE CONTRACTOR SHALL MAINTAIN EXISTING SANITARY SEWER SERVICE TO ALL RESIDENTS AND BUSINESSES IN THE PROJECT AREA AT ALL TIMES

DURING CONSTRUCTION. COSTS OF ANY TEMPORARY HOLDING TANKS, SLUDGE TRUCK PUMPING, OR REPAIRS TO EXISTING SYSTEMS NECESSARY TO MAINTAIN SERVICE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

28. THE CONTRACTOR SHALL MAKE FULL CONNECTION OF ALL STRUCTURES PROPOSED TO BE SERVED BY THESE IMPROVEMENTS AS SHOWN ON THE PLANS, UNLESS OTHERWISE NOTED. EACH BUILDING SHALL BE SERVED BY A SEPARATE, INDIVIDUAL BUILDING SERVICE LINE LEAVING THE BUILDING AND CONNECTING TO THE PUBLIC MAIN, PRIVATE SEWER MAIN, OR GRINDER PUMP, AS SHOWN ON THE APPROVED PLANS. POOLING, MANIFOLDING, OR CONSOLIDATION OF WASTEWATER FROM TWO (2) OR MORE BUILDINGS WITHIN A SINGLE SERVICE LINE PRIOR TO CONNECTION TO A PUBLIC OR PRIVATE SEWER MAIN IS PROHIBITED.
29. THE CONTRACTOR SHALL VERIFY WITH THE PROPERTY OWNER OR THE DEVELOPER THE EXACT PLACEMENT OF EACH SERVICE LATERAL AND, IF APPLICABLE, GRINDER PUMP. THE POSITION SHOWN ON THE PLANS IS A GUIDELINE; FIELD SHIFTS MAY BE MADE WITH THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RECORD THE STATION AND LENGTH OF EACH SERVICE LATERAL AND THE LOCATION OF EACH GRINDER PUMP ON THE CONSTRUCTION RECORD DRAWINGS.
30. THE CONTRACTOR SHALL PROVIDE INDIVIDUAL PROPERTY OWNERS OR THE DEVELOPER WITH NO LESS THAN FORTY-EIGHT (48) HOURS' ADVANCE NOTICE PRIOR TO STARTING CONSTRUCTION ON THE PROPERTY IN QUESTION.
31. ALL GRAVITY SERVICE LATERALS SHALL BE LAID AT A MINIMUM 1.00% GRADE AND AT A DEPTH REQUIRED TO PROPERLY SERVE THE BUILDING, UNLESS APPROVED OTHERWISE.
32. MINIMUM COVER, MEASURED FROM FINAL GROUND SURFACE TO THE TOP OF THE BARREL OF THE PIPE, SHALL BE THIRTY-SIX (36) INCHES FOR GRAVITY SEWER MAINS, FORTY-TWO (42) INCHES FOR FORCE MAINS, AND TWENTY-FOUR (24) INCHES FOR SERVICE LATERALS (GRAVITY OR PRESSURE), UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER AND THE DISTRICT.
33. SEWER MAINS SHALL BE LAID NOT LESS THAN TEN (10) FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAINS. WHERE TEN (10) FEET OF SEPARATION IS NOT PRACTICAL, THE WATER MAIN MUST BE IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF WITH THE BOTTOM OF THE WATER MAIN AT LEAST EIGHTEEN (18) INCHES ABOVE THE TOP OF THE SEWER.
34. ON FORCE MAINS, THE CONTRACTOR MAY DEFLECT PIPES AT JOINTS IN ACCORDANCE WITH THE PIPE MANUFACTURER'S RECOMMENDATIONS. BENDS, FITTINGS, AND THRUST BLOCKS REQUIRED TO MEET HORIZONTAL AND VERTICAL ALIGNMENTS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR WHETHER OR NOT SHOWN ON THE PLANS. NO HIGH POINTS SHALL BE CREATED IN FORCE MAINS EXCEPT WHERE SHOWN ON THE PLANS; IF ADDITIONAL HIGH POINTS ARE UNAVOIDABLE, THE ENGINEER'S WRITTEN APPROVAL MUST BE OBTAINED PRIOR TO INSTALLATION.
35. MANHOLE RIMS SHALL BE ADJUSTED AS NECESSARY TO BE FLUSH WITH FINISHED GROUND, ROAD SURFACE, OR AS SHOWN ON PLANS. MANHOLES IN STREETS SHALL BE FLUSH WITH FINISHED PAVEMENT AND SLOPED TO MATCH STREET GRADE LONGITUDINALLY AND CROSS-SLOPE PER DETAIL.
36. TRACER WIRE SHALL BE INSTALLED ON TOP OF ALL GRAVITY MAINS, FORCE MAINS, AND SERVICE LINES. TRACER WIRE SHALL BE #12 TW SOLID, COATED COPPER WIRE, SECURED TO THE PIPE EVERY FIVE (5) FEET, AND BROUGHT TO THE SURFACE AT A MAXIMUM INTERVAL OF 1,000 FEET USING A 3-INCH SCH 40 PVC MARKER, ALL IN ACCORDANCE WITH THE DISTRICT'S SPECIFICATION 02637 (INSTALLATION OF TRACE WIRE) AND STANDARD DETAIL 67. DETECTABLE WARNING TAPE, IMPRINTED "BURIED SEWER MAIN BELOW," SHALL BE INSTALLED 18 TO 24 INCHES BELOW GRADE OVER ALL SEWER MAINS IN ACCORDANCE WITH THE DISTRICT'S STANDARD DETAIL 16.
37. THE CONTRACTOR SHALL PROVIDE CONTINUOUS PROTECTION AGAINST THE ENTRANCE OF DRAINAGE, MUD, DEBRIS, TRASH, ROCK, OR OTHER FOREIGN MATERIAL INTO EXCAVATIONS, BORE PITS, AND NEWLY INSTALLED PIPES. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A MECHANICAL PLUG AT ALL CONNECTION POINTS WITH EXISTING LINES UNTIL THE NEW LINE IS TESTED. COSTS TO JET OR CLEAN PIPE RUNS TO REMOVE DEBRIS ARE THE CONTRACTOR'S RESPONSIBILITY.

EARTHWORK AND TRENCHING

38. THE CONTRACTOR SHALL COMPACT ALL BACKFILL IN ACCORDANCE WITH THE SPECIFICATIONS AND THE DISTRICT'S STANDARD DETAILS AND TECHNICAL SPECIFICATIONS.
39. TRENCHER CUTTINGS SHALL NOT BE USED FOR TRENCH BACKFILL. IF OVER-TRENCHING OCCURS, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE OVER-TRENCHED MATERIAL AND REPLACE WITH GRANULAR BEDDING MATERIAL AT THE CONTRACTOR'S EXPENSE.
40. ALL DISTURBED AREAS SHALL BE COVERED WITH A MINIMUM OF FOUR (4) INCHES OF TOPSOIL AND RESTORED PER THE SPECIFICATIONS, UNLESS OTHERWISE NOTED. AREAS DIRECTLY OVER A TRENCH SHALL BE RESTORED PER THE TRENCH BACKFILL DETAIL. THE CONTRACTOR IS RESPONSIBLE FOR TOPSOIL AND AREA RESTORATION UNTIL A HARDY STAND OF GRASS IS ESTABLISHED.
41. THE CONTRACTOR SHALL BACKFILL TRENCHES AS SOON AS POSSIBLE, BUT NO LATER THAN THE END OF EACH WORKING DAY. THE CONTRACTOR MAY LEAVE THE LAST SECTION OF PIPE EXPOSED AT THE END OF EACH WORKING DAY PROVIDED THE OPEN EXCAVATION IS FENCED OFF WITH ADEQUATE FENCING. TRENCHES IN ROADWAYS MAY BE PLATED PROVIDED ALL LANES ARE REOPENED TO TRAFFIC.

EROSION CONTROL AND ENVIRONMENTAL

42. THE CONTRACTOR SHALL CONFORM WITH THE REQUIREMENTS OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND SHALL TAKE ALL STEPS NECESSARY TO PREVENT EROSION OF EARTHWORK AND DEPOSITION OF SEDIMENT INTO WATER COURSES OR DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR UPDATING THE SWPPP AS REQUIRED, PERFORMING INSPECTIONS REQUIRED BY THE SWPPP, MAINTAINING REQUIRED RECORDS,

AND PAYING ALL FINES OR COSTS THAT MAY BE LEVIED DUE TO THE CONTRACTOR'S FAILURE TO FOLLOW THE SWPPP. UPDATES SHALL BE PROVIDED TO THE ENGINEER.

43. THE EROSION CONTROL PLAN SHOWS THE LOCATION AND DETAILS OF PRIMARY EROSION CONTROLS TO BE CONSTRUCTED. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING EROSION AND SEDIMENT DISCHARGE FROM THE SITE AT ALL TIMES DURING CONSTRUCTION, REGARDLESS OF WHETHER SPECIFIC MEASURES ARE SHOWN ON THE EROSION CONTROL PLAN. INITIAL SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO ANY OTHER WORK.
44. THE CONTRACTOR SHALL KEEP ROCK, MUD, AND OTHER CONSTRUCTION DEBRIS OFF OF STREETS THROUGHOUT EACH DAY. THE CONTRACTOR SHALL CONTROL DUST AND SHALL WATER CONSTRUCTION AREAS WHEN CONDITIONS WARRANT.
45. TREES WITHIN PERPETUAL EASEMENTS MAY BE REMOVED UNLESS OTHERWISE NOTED. TREES WITHIN TEMPORARY EASEMENTS SHALL BE REMOVED ONLY WITH THE APPROVAL OF THE ENGINEER. TREES WITHIN TANEY COUNTY RIGHT-OF-WAY SHALL BE REMOVED ONLY WITH THE APPROVAL OF THE ENGINEER AND THE TANEY COUNTY ROAD AND BRIDGE DEPARTMENT. TREES WITHIN MODOT RIGHT-OF-WAY SHALL BE REMOVED ONLY WITH MODOT APPROVAL.
46. THE CONTRACTOR SHALL RESTORE ALL PRIVATE LAWNS AND NON-PAVED DISTURBED AREAS PER THE SPECIFICATIONS, AND SHALL BE RESPONSIBLE FOR WATERING AND MAINTENANCE OF DISTURBED AREAS UNTIL A HARDY STAND OF GRASS IS ESTABLISHED.
47. ALL DISTURBED AREAS NOT RECEIVING OTHER PERMANENT STABILIZATION SHALL BE SEEDED AND MULCHED PER THE SPECIFICATIONS BEFORE TEMPORARY SEDIMENT CONTROLS ARE REMOVED AND BEFORE FINAL APPROVAL OF CONSTRUCTION. THE CONTRACTOR SHALL CLEAN SILT FROM STORM DRAINS, INLETS, AND CULVERTS PRIOR TO FINAL APPROVAL.
48. ENVIRONMENTAL CONTAMINATION. SUBSURFACE AND SOIL INVESTIGATIONS HAVE NOT BEEN CONDUCTED TO IDENTIFY POTENTIAL ENVIRONMENTAL POLLUTANTS OR CONTAMINANTS. IF THE CONTRACTOR ENCOUNTERS ANY ENVIRONMENTAL POLLUTANTS, HAZARDOUS SUBSTANCES, CONTAMINATED PRODUCTS, OR UNIDENTIFIABLE POLLUTANTS DURING CONSTRUCTION, THE CONTRACTOR SHALL STOP WORK AND IMMEDIATELY NOTIFY THE DEVELOPER, THE ENGINEER, AND THE DISTRICT. SUCH MATERIALS SHALL NOT BE CONSIDERED TYPICAL WASTE AND SHALL BE HANDLED PER APPLICABLE LAW.

TESTING, RECORD DRAWINGS, AND ACCEPTANCE

49. ALL GRAVITY SEWER MAINS, MANHOLES, FORCE MAINS, AND SERVICE LINES SHALL BE TESTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE DISTRICT'S STANDARD DETAILS AND TECHNICAL SPECIFICATIONS. THE DISTRICT INSPECTOR SHALL BE PRESENT FOR ALL REQUIRED TESTING. FAILED SEGMENTS SHALL BE REPAIRED AND RETESTED AT THE CONTRACTOR'S EXPENSE UNTIL PASSING RESULTS ARE OBTAINED.
50. THE CONTRACTOR SHALL MAINTAIN A MARKED-UP SET OF THE APPROVED PLANS ON SITE AT ALL TIMES, RECORDING THE ACTUAL LOCATION, DEPTH, ALIGNMENT, AND ELEVATION OF ALL INSTALLED FACILITIES, INCLUDING SERVICE LATERALS, GRINDER PUMPS, MANHOLES, AND CONNECTIONS TO EXISTING UTILITIES. THE ENGINEER SHALL USE THE CONTRACTOR'S FIELD-MARKED PLANS, SUPPLEMENTED BY POST-CONSTRUCTION SURVEY AS REQUIRED, TO PREPARE THE CONSTRUCTION RECORD DRAWINGS.
51. CONSTRUCTION RECORD DRAWINGS SHALL BE SUBMITTED TO THE DISTRICT IN ELECTRONIC PDF FORMAT AND, WHERE REQUIRED BY THE DISTRICT, IN CAD FORMAT AND GIS-COMPATIBLE SHAPEFILES PER THE DISTRICT'S RECORD DRAWING AND GIS DATA STANDARDS, WITHIN SIXTY (60) DAYS OF SUBSTANTIAL COMPLETION.
52. UPON SUCCESSFUL COMPLETION OF TESTING AND SUBMITTAL OF ACCEPTABLE CONSTRUCTION RECORD DRAWINGS, THE DEVELOPER SHALL TRANSFER OWNERSHIP OF THE PUBLIC SEWER EXTENSION TO THE DISTRICT BY AGREEMENT TO TRANSFER ASSETS AND BILL OF SALE ON FORMS PROVIDED BY THE DISTRICT. THE DEVELOPER WARRANTS THE WORKMANSHIP, COMPONENTS, AND MATERIALS OF THE SEWER EXTENSION FOR ONE (1) YEAR FROM THE DATE OF THE DISTRICT'S ACCEPTANCE, AND SHALL CORRECT DEFECTS IDENTIFIED DURING THE WARRANTY PERIOD AT THE DEVELOPER'S EXPENSE.

DEVELOPER / ENGINEER INSTRUCTIONS (REMOVE FROM FINAL PLAN SHEET): THESE GENERAL CONSTRUCTION NOTES ARE REQUIRED TO BE INCORPORATED, VERBATIM, INTO THE PLAN SET SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL. THE ENGINEER MAY ADD PROJECT-SPECIFIC NOTES BELOW THE DISTRICT'S NOTES PROVIDED THAT NO PROJECT-SPECIFIC NOTE CONFLICTS WITH OR MODIFIES ANY DISTRICT NOTE. IF A PROJECT-SPECIFIC PROVISION IS NEEDED THAT WOULD CONFLICT WITH A DISTRICT NOTE, THE ENGINEER SHALL REQUEST A WRITTEN VARIANCE FROM THE DISTRICT IN ADVANCE. ADD A "PROJECT-SPECIFIC NOTES" SECTION BELOW THE DISTRICT GENERAL CONSTRUCTION NOTES FOR ANY PROJECT-UNIQUE CONDITIONS (DEPTH, SPECIAL CROSSINGS, MATERIALS SUBSTITUTIONS APPROVED IN WRITING BY THE DISTRICT, ETC.).



TECHNICAL SPECIFICATIONS
STANDARD DETAIL 71
TYPICAL GENERAL NOTES FOR
DEVELOPER PROJECTS