



TAYLORSVILLE-BENNION IMPROVEMENT DISTRICT WATER DETAILS

STANDARD WATER DETAILS		
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TYPICAL WATER TRENCH:

1. BLUE STAKES SHALL BE CONTACTED 48 HOURS BEFORE ANY EXCAVATION IS COMMENCED.
2. BACKFILL, ROAD BASE, AND PAVEMENT CONSTRUCTION SHALL CONFORM TO REQUIREMENTS, STANDARDS, AND REGULATIONS OF THE ROADWAY JURISDICTION.
3. TBID RECOMMENDS THE CONTRACTOR MEET ALL TRENCH SAFETY REQUIREMENTS ESTABLISHED BY OSHA & UOSHA.
4. THE DISTRICT INSPECTOR MAY REQUIRED UNSUITABLE MATERIALS BENEATH THE PIPE ZONE TO BE OVER-EXCAVATED, BACKFILLED, AND COMPACTED TO 95% MAX DENSITY.
5. EXCAVATE AT PIPE BELLS TO ENSURE PIPE IS SUPPORTED PROPERLY ALONG ITS ENTIRE LENGTH
6. PERMITS SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR.

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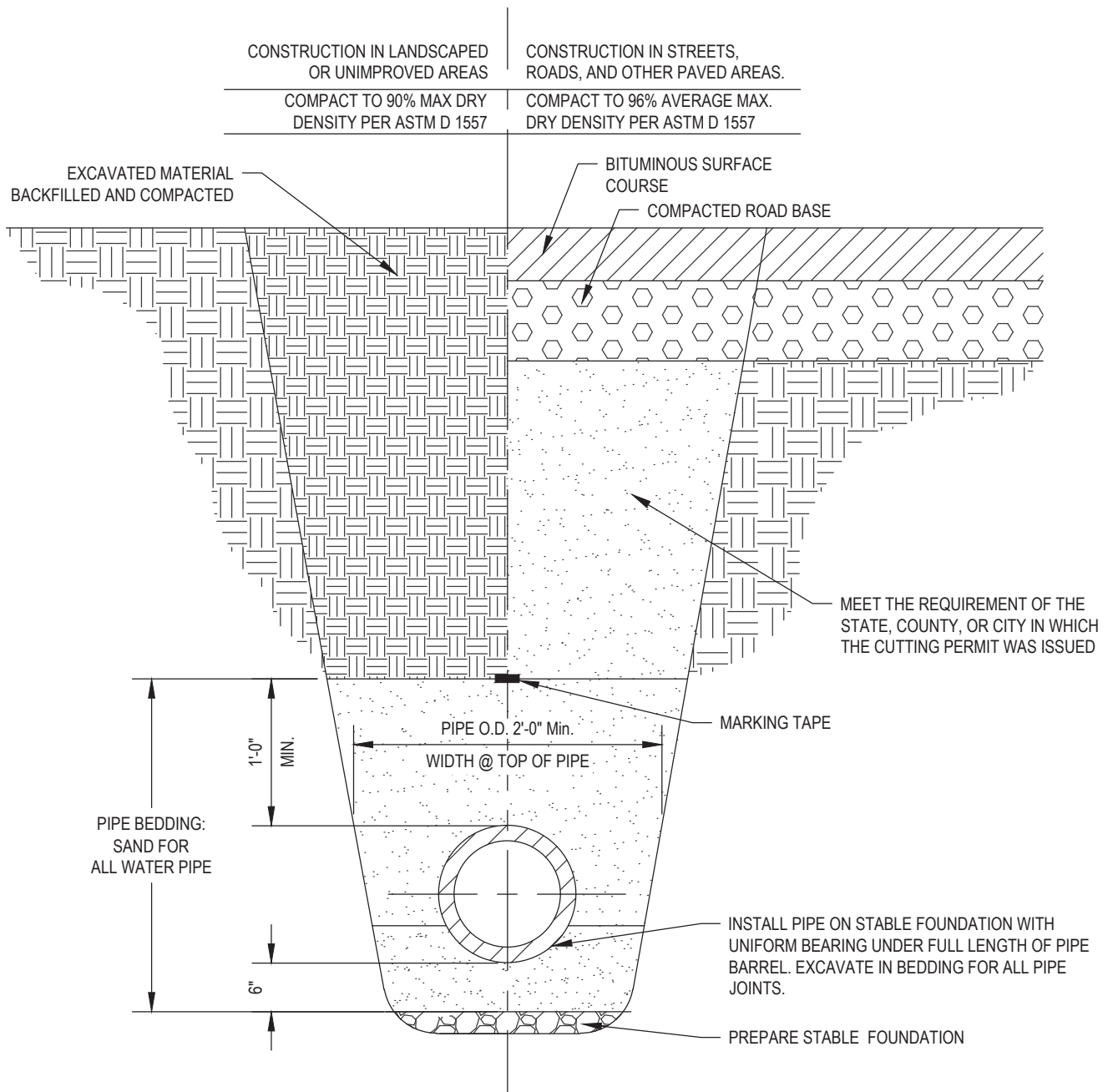


TYPICAL WATER TRENCH SECTION

NOTES

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TYPICAL WATER TRENCH SECTION

NOT TO SCALE

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THRUST BLOCKING DETAIL NOTES:

1. 8 MIL-BLACK POLYETHYLENE ENCASEMENT SHALL BE PROVIDED FOR ALL FITTINGS, VALVES, FIRE HYDRANTS, AND COUPLINGS IN ACCORDANCE WITH AWWA C105.
2. FM GREASE REQUIRED ON ALL BOLTS.
3. SIZE BLOCKS BASED UPON 200 PSI LINE PRESSURE AND SPECIFIC SOIL BEARING VALUE OF CONSTRUCTION SITE.
4. ALL THRUST BLOCK BEARING FACES SHALL BE POURED AGAINST UNDISTURBED SOIL OR AN APPROVED, COMPACTED BACKFILL.
5. THRUST BLOCK SIZES SHOWN IN THE TABLE BELOW ARE FOR HORIZONTAL BENDS BASED ON 200PSI OPERATING PRESSURE AND 1500 LBS/SQ FT SOIL BEARING PRESSURE. THRUST BLOCK SIZES MAY NEED TO BE ADJUSTED TO CONFORM WITH PROJECT SPECIFIC CONDITIONS. THRUST BLOCKS FOR VERTICAL BENDS TO BE DESIGNED BY ENGINEER.

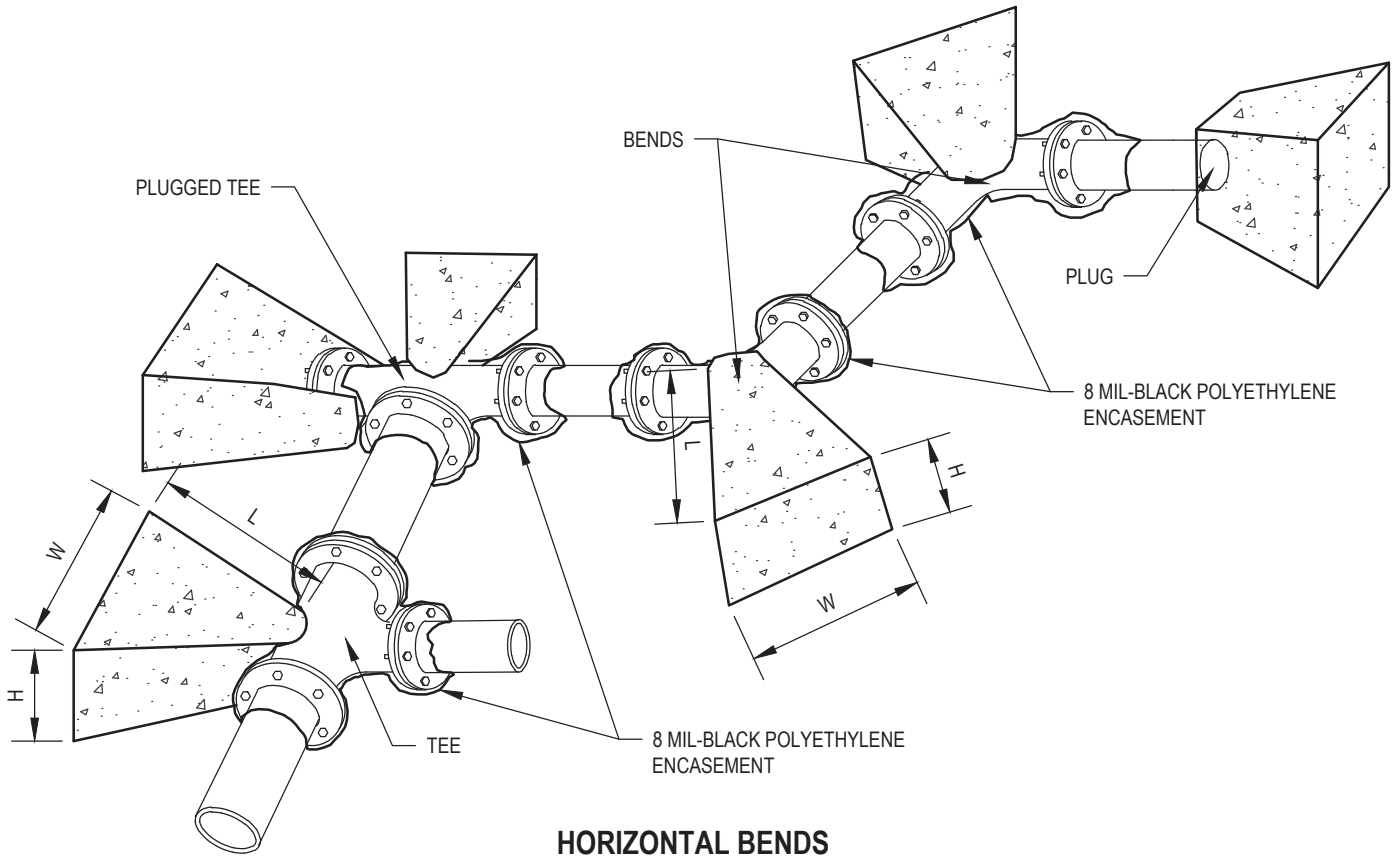
	11.25° BEND			22.5° BEND			45° BEND			90° BEND			TEE			DEAD END		
	L	W	H	L	W	H	L	W	H	L	W	H	L	W	H	L	W	H
6-INCH	0.8'	1.0'	1.0'	1.2'	1.3'	1.3'	1.6'	1.9'	1.9'	2.2'	2.5'	2.5'	1.8'	2.1'	2.1'	1.8'	2.1'	2.1'
8-INCH	1.1'	1.3'	1.3'	1.5'	1.8'	1.8'	2.1'	2.5'	2.5'	2.9'	3.3'	3.3'	2.4'	2.8'	2.8'	2.4'	2.8'	2.8'
10-INCH	1.4'	1.6'	1.6'	1.9'	2.2'	2.2'	2.6'	3.0'	3.0'	3.6'	4.1'	4.1'	3.0'	3.5'	3.5'	3.0'	3.5'	3.5'
12-INCH	1.6'	1.9'	1.9'	2.3'	2.6'	2.6'	3.1'	3.6'	3.6'	4.3'	4.9'	4.9'	3.6'	4.1'	4.1'	3.6'	4.1'	4.1'

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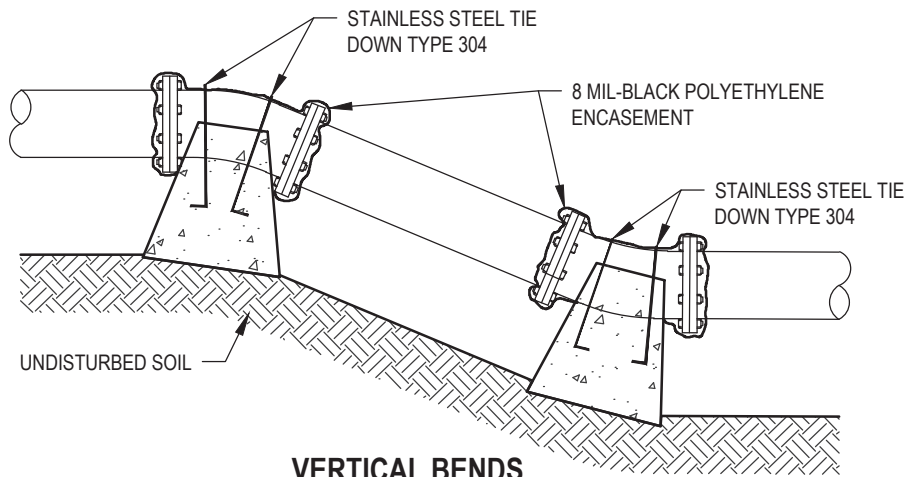


THRUST BLOCKING
NOTES

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HORIZONTAL BENDS



VERTICAL BENDS

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THRUST BLOCKING
NOT TO SCALE

3/4" AND 1" WATER LATERAL CONNECTION NOTES:

1. TBID WILL PERFORM ALL SERVICE CONNECTION TAPS. CONTACT DISTRICT INSPECTOR TO SCHEDULE TAPS.
2. TBID WILL FURNISH & INSTALL 3/4" - 2" WATER METERS AS PART OF THE CONNECTION FEE.
3. DEVELOPER IS RESPONSIBLE FOR COMPACTION IN THE WATER LATERAL TRENCH.
4. METER BOX SHALL BE INSTALLED IN THE PARK STRIP WHERE POSSIBLE. SET METER BOX SUCH THAT THE TOP OF THE LID IS EQUAL TO THE SIDEWALK ELEVATION. CONCRETE COLLARS ARE REQUIRED IF METER IS PLACED IN ASPHALT PAVEMENT.
5. WATER METER IS PRIVATE BEHIND THE METER .
6. METERS IN DRIVEWAYS/ASPHALT MAY REQUIRE SPECIAL TRAFFIC RATED DESIGN

EXAMPLE PARTS LIST:

3/4" CONNECTIONS

- 3/4"CORP STOP- 3/4" CC X CTS COMP BALL CORP (FERGUSON, PART# FFB10003QNL)
- 3/4" SETTER - 18" SETTER WITH BALL VALVE AND CHECK VALVE (FERGUSON, PART# FVBHC7218W1133NL)
- RING - 18" METER LID RING (FERGUSON, PART# DL224002I)
- LID - WATER COVER 2" RECESSED HOLE (FERGUSON, PART# DL224002I)
- BOX - 18" N12 SLD HDPE PIPE (FERGUSON, PART# A18050020)

1" CONNECTIONS

- 1" CORP - 1" CC X CTS COMP BALL CORP (FERGUSON, PART# MB25008NG)
- 1" SETTER - 18" SETTER WITH BALL VALVE AND CHECK VALVE (HYDRO SPECIALTIES, PART # 720-418WDDDD44)
- RING - 24" METER LID RING (FERGUSON, PART# DB5024R1I)
- LID - WATER COVER 2" RECESSED HOLE (FERGUSON, PART# DB502UNVI)
- BOX - 24" N12 SLD HDPE PIPE (FERGUSON, PART# A2405ABH)

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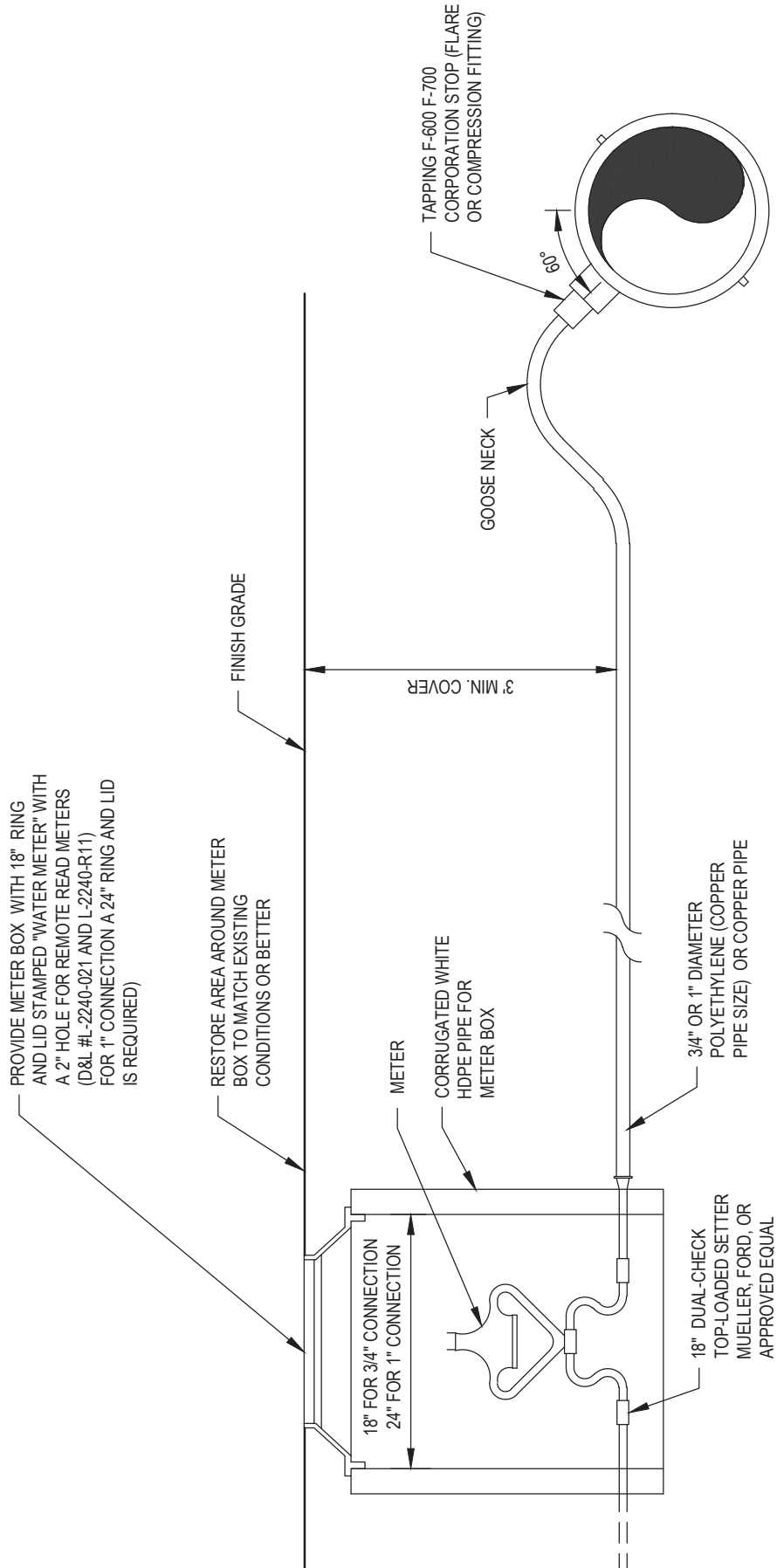
3/4" AND 1" WATER LATERAL CONNECTION

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PROVIDE METER BOX WITH 18" RING AND LID STAMPED "WATER METER" WITH A 2" HOLE FOR REMOTE READ METERS (D&L #L-2240-021 AND L-2240-R11) FOR 1" CONNECTION A 24" RING AND LID IS REQUIRED)

RESTORE AREA AROUND METER BOX TO MATCH EXISTING CONDITIONS OR BETTER

FINISH GRADE

3" MIN. COVER

METER

CORRUGATED WHITE HDPE PIPE FOR METER BOX

3/4" OR 1" DIAMETER POLYETHYLENE (COPPER PIPE SIZE) OR COPPER PIPE

18" DUAL-CHECK TOP-LOADED SETTER MUELLER, FORD, OR APPROVED EQUAL

TAPPING F-600 F-700 CORPORATION STOP (FLARE OR COMPRESSION FITTING)

GOOSE NECK

90°

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3/4" AND 1" WATER LATERAL CONNECTION

NOT TO SCALE

1-1/2" WATER LATERAL CONNECTION NOTES:

1. TBID WILL PERFORM ALL SERVICE CONNECTION TAPS. CONTACT DISTRICT INSPECTOR TO SCHEDULE TAPS.
2. TBID WILL FURNISH & INSTALL 3/4" - 2" WATER METERS AS PART OF THE CONNECTION FEES.
3. DEVELOPER IS RESPONSIBLE FOR COMPACTION IN THE WATER LATERAL TRENCH.
4. METER BOX SHALL BE INSTALLED IN THE PARK STRIP WHERE POSSIBLE. SET METER BOX SUCH THAT THE TOP OF THE LID IS EQUAL TO THE SIDEWALK ELEVATION. CONCRETE COLLARS REQUIRED IF METER IS PLACED IN ASPHALT PAVEMENT.
5. WATER SERVICE IS PRIVATE BEHIND THE METER.
6. METERS IN DRIVEWAYS/ASPHALT MAY REQUIRE SPECIAL TRAFFIC RATED DESIGN

EXAMPLE PARTS LIST:

1-1/2" CONNECTIONS

- 1" CORP - (2) 1" CC X CTS COMP BALL CORP (FERGUSON, PART# MB25008NG)
- 1 1/2" SETTER- 18" SETTER WITH BALL VALVE AND CHECK VALVE, NO BYPASS (HYDRO SPECIALTIES, PART# 720-618WDF660)
- SPLITTER ADAPTER (FERGUSON, PART# FY48246GNL)
- LID - FIBRELYTE FL36 COVER (A) FOR COMPOUND METER, (C) FOR T10 (FERGUSON, PART# C02001525)
- BOX- FIBRELYTE FL36 BOX 18" (FERGUSON, PART# C02006095)
- BOX EXTENSION - (2) FIBRELYTE FL36 EXTENSION 8" (FERGUSON, PART# C02001165)

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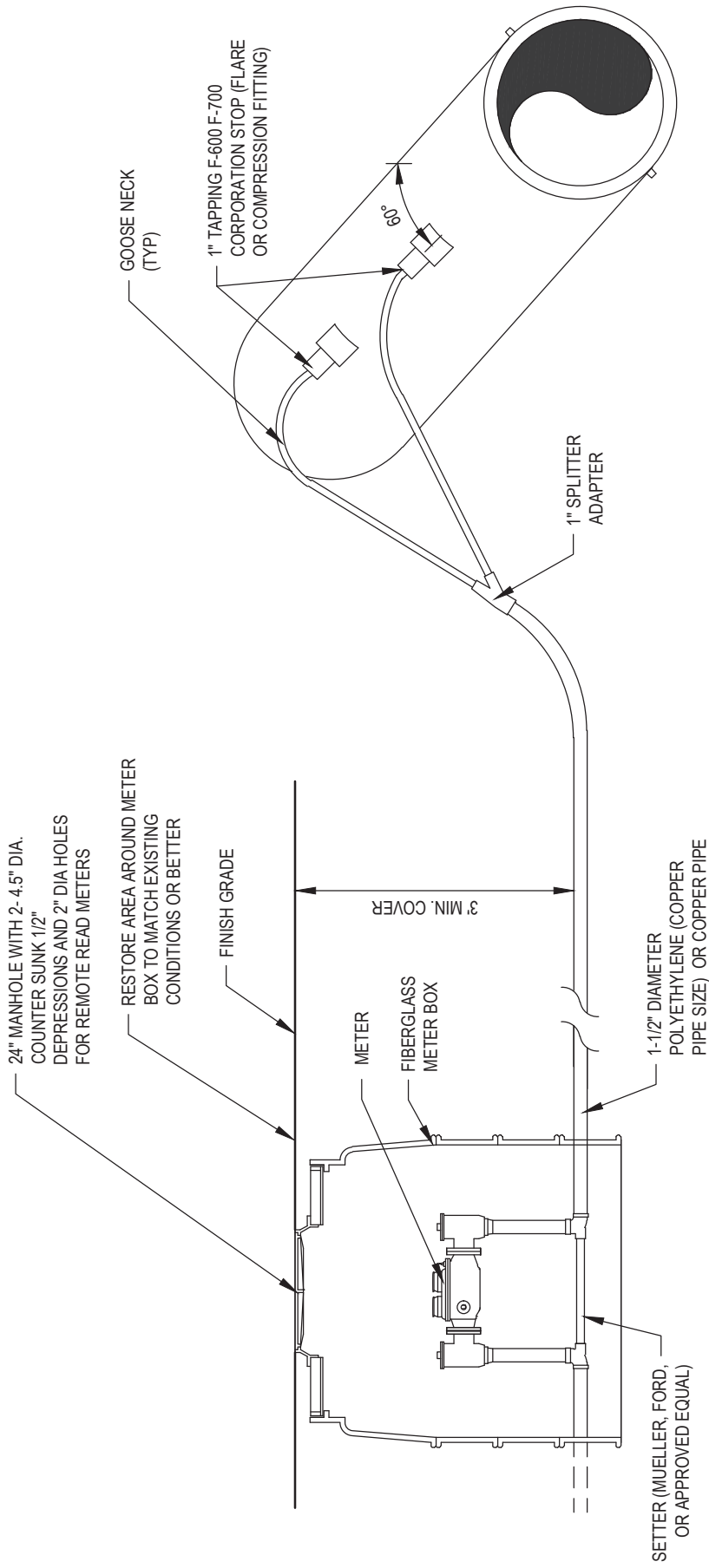


1-1/2" WATER LATERAL CONNECTION

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1-1/2" WATER LATERAL CONNECTION

NOT TO SCALE

2" WATER LATERAL CONNECTION NOTES:

1. TBID WILL PERFORM ALL SERVICE CONNECTION TAPS. CONTACT DISTRICT INSPECTOR TO SCHEDULE TAPS.
2. TBID WILL FURNISH & INSTALL 3/4" - 2" WATER METERS AS PART OF THE CONNECTION FEES.
3. DEVELOPER IS RESPONSIBLE FOR COMPACTION IN THE WATER LATERAL TRENCH.
4. METER BOX SHALL BE INSTALLED IN THE PARK STRIP WHERE POSSIBLE. SET METER BOX SUCH THAT THE TOP OF THE LID IS EQUAL TO THE SIDEWALK ELEVATION. CONCRETE COLLARS REQUIRED IF METER IS PLACED IN ASPHALT PAVEMENT.
5. WATER METER IS PRIVATE BEHIND THE METER.
6. METERS IN DRIVEWAYS/ASPHALT MAY REQUIRE SPECIAL TRAFFIC RATED DESIGN.

EXAMPLE PARTS LIST:

2" CONNECTIONS

- 1" CORP - (3) 1" CC X CTS COMP BALL CORP (FERGUSON, PART# MB25008NG)
- 2" SETTER- 18" SETTER WITH BALL VALVE AND CHECK VALVE, NO BYPASS (HYDRO SPECIALTIES, PART# 720-718WDF770)
- SPLITTER ADAPTER (FERGUSON, PART # FY48347NL)
- LID - FIBRELYTE FL36 COVER (A) FOR COMPOUND METER, (C) FOR T10 (FERGUSON, PART# C02001525)
- BOX - FIBRELYTE FL36 BOX 18" (FERGUSON, PART# C02006095)
- BOX EXTENSION - (2) FIBRELYTE FL36 EXTENSION 8" (FERGUSON, PART# C02001165)

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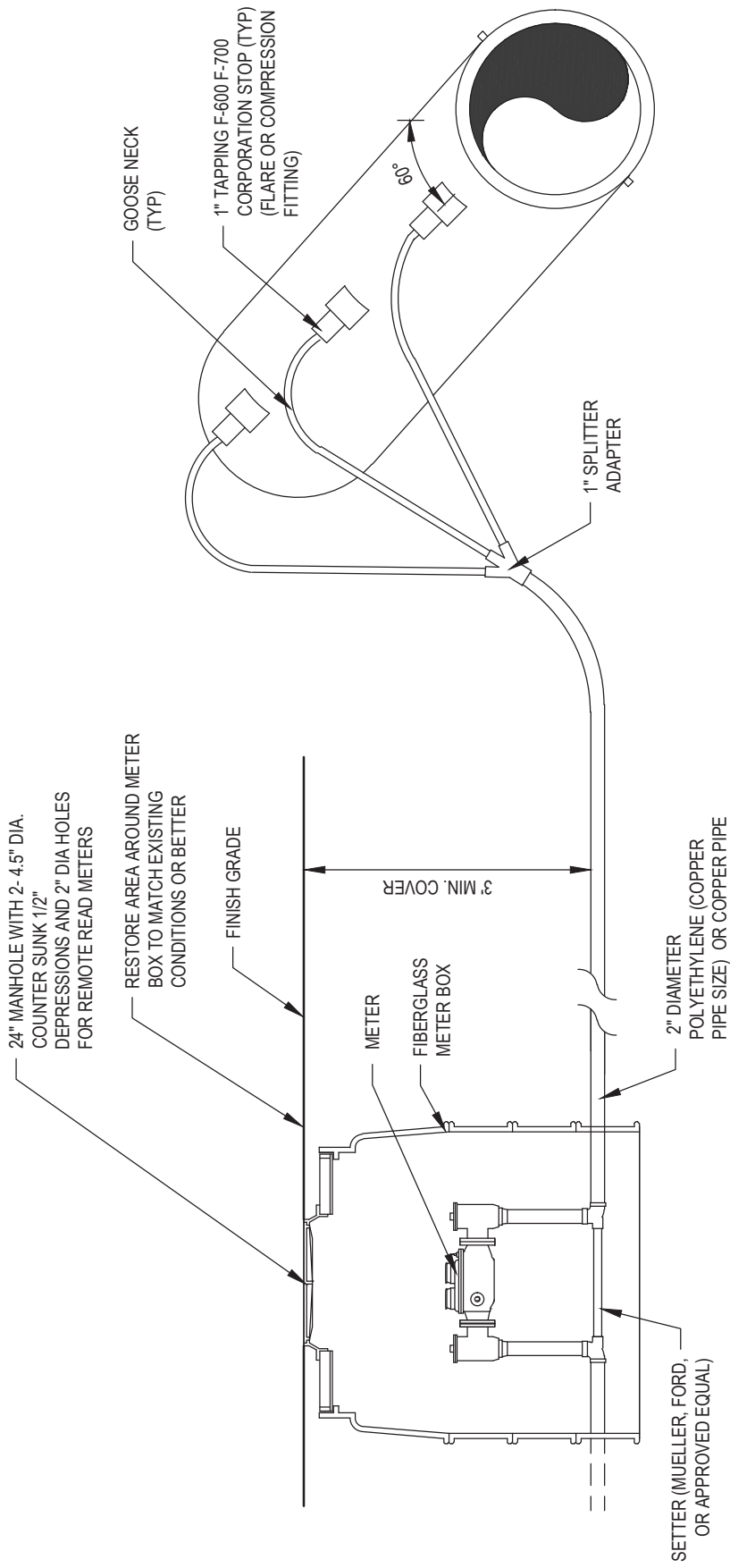


2" WATER LATERAL CONNECTION

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2" WATER LATERAL CONNECTION DETAIL

NOT TO SCALE

TYPICAL VALVE BOX NOTES:

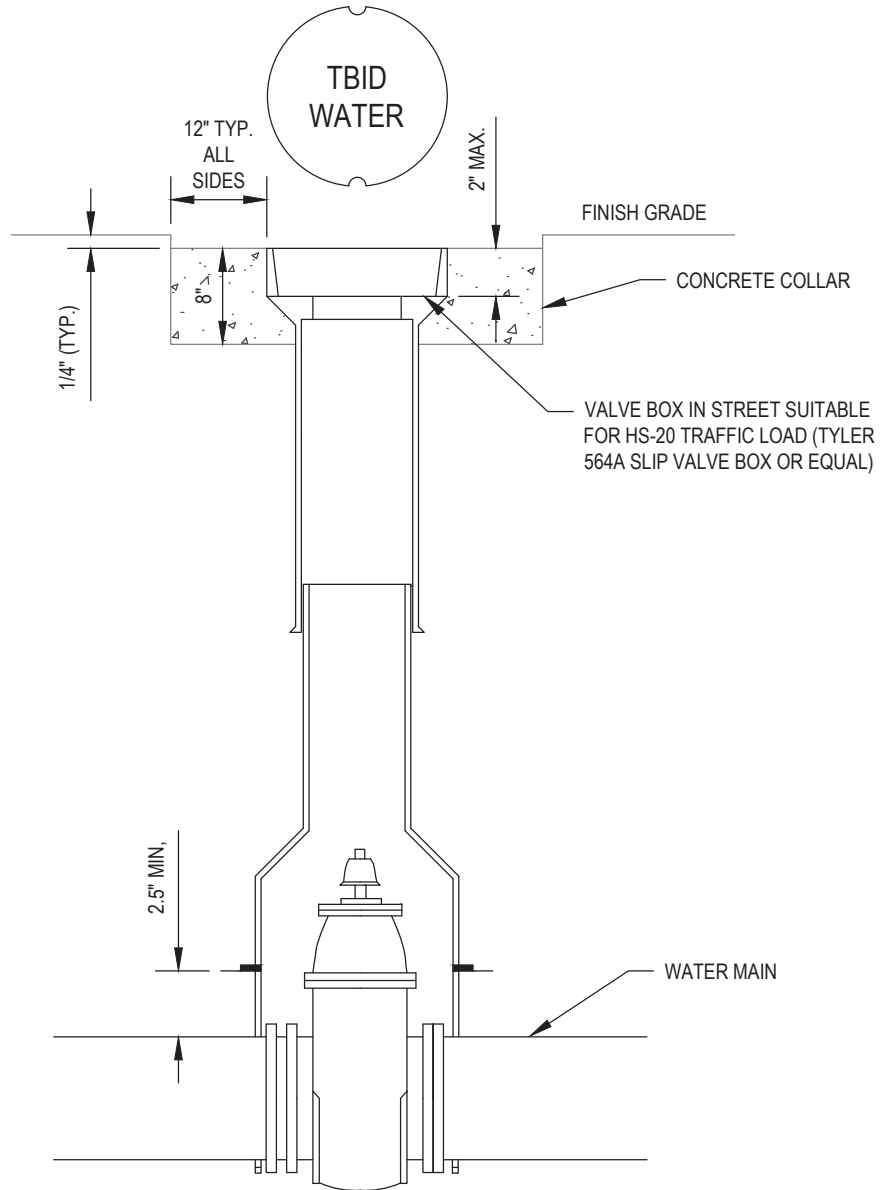
1. LEVEL AND ADJUST LID AND FRAME TO FINISH SURFACE ($\frac{1}{4}$ " MAX. BELOW SURFACE)
2. APPLY FM GREASE ON ALL BOLTS. WRAP WITH 8 MIL POLYETHYLENE AND TAPE.
3. VALVE BOX MUST BE VERTICAL TO ALLOW FOR VALVE KEY ACCESS.
4. INSTALL VALVE STEM EXTENSIONS FOR VALVES DEEPER THAN 4 FEET. SEE TB-207.
5. CONCRETE COLLARS REQUIRED IN ALL PAVED AREAS PER JURISDICTIONAL AUTHORITY.

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TYPICAL VALVE BOX
NOTES

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TYPICAL VALVE BOX

NOT TO SCALE

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TYPICAL VALVE BOX & EXTENSION STEM NOTES:

1. LEVEL AND ADJUST LID AND FRAME TO FINISH SURFACE ($\frac{1}{4}$ " MAX. BELOW SURFACE).
2. VALVE BOX AND EXTENSION MUST BE VERTICAL TO ALLOW FOR VALVE KEY ACCESS.
3. CONCRETE COLLARS REQUIRED IN ALL PAVED AREAS PER JURISDICTIONAL AUTHORITY.

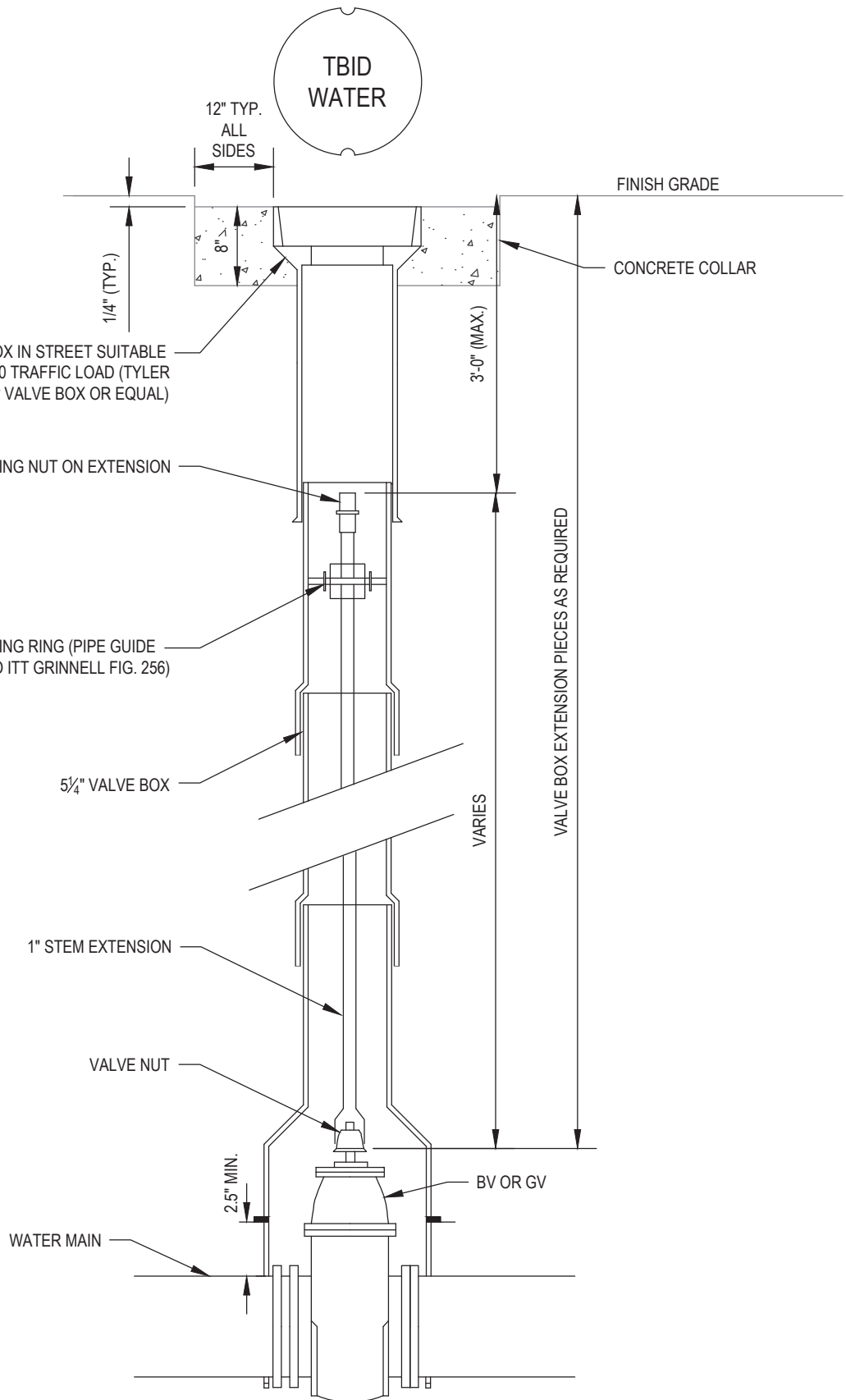
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**TYPICAL VALVE BOX &
EXTENSION STEM**

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TYPICAL VALVE BOX & EXTENSION STEM

NOT TO SCALE

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BOLLARDS DETAIL NOTES:

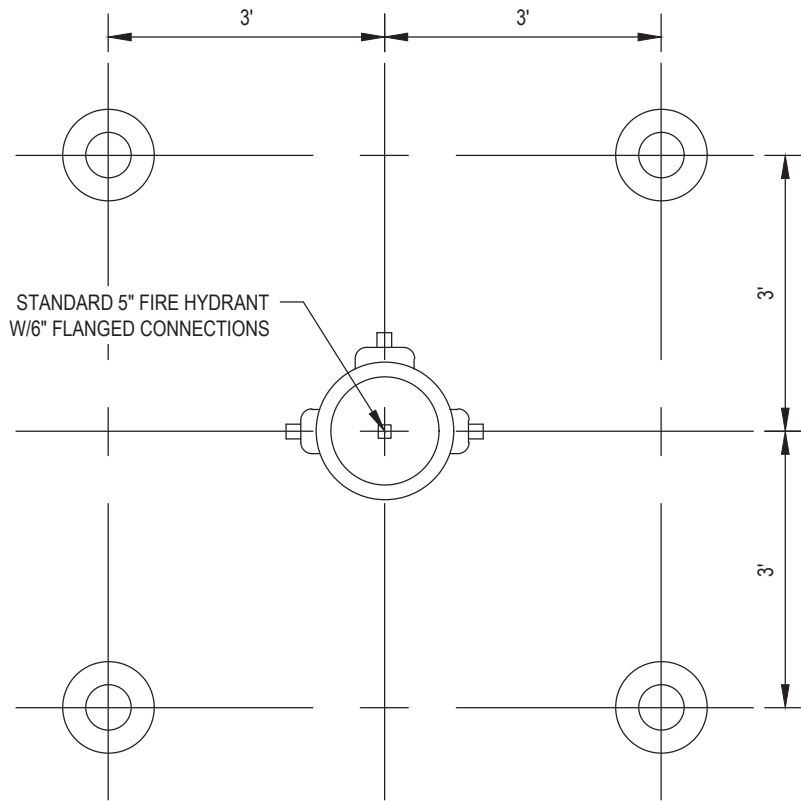
1. BOLLARDS ARE REQUIRED AROUND HYDRANTS WHERE NEEDED FOR PROTECTION AS DETERMINED BY TBID.

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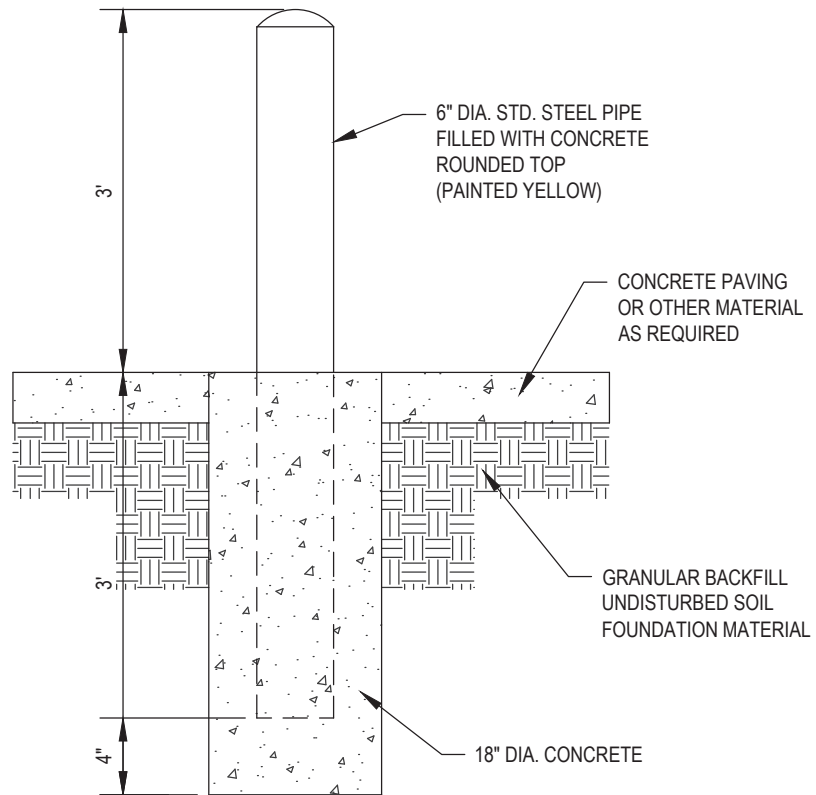


FIRE HYDRANT BOLLARDS
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PLACEMENT



SECTION

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FIRE HYDRANT BOLLARDS

NOT TO SCALE

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FIRE HYDRANT CONNECTION NOTES:

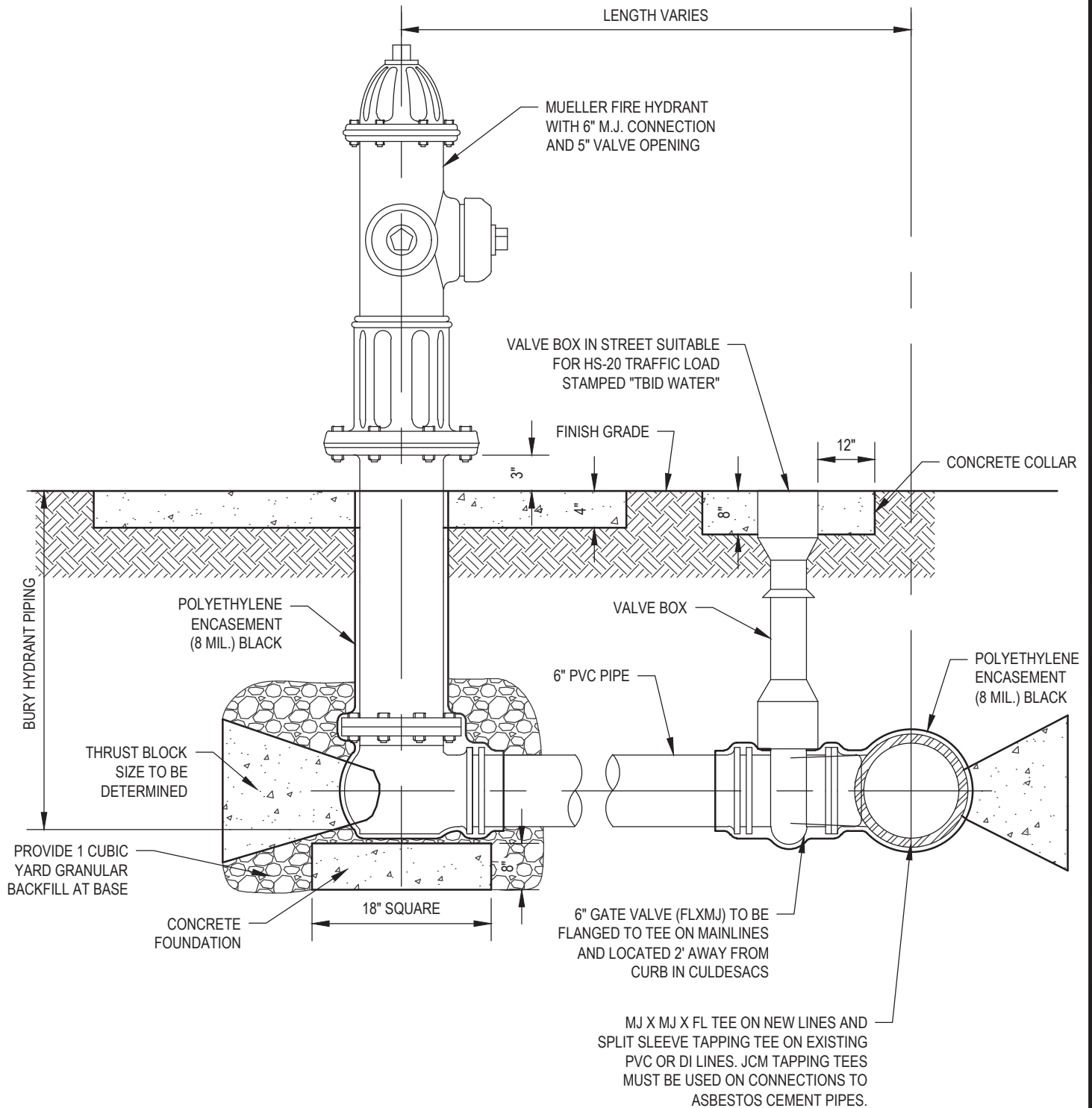
1. CONCRETE SHALL BE INSTALLED AS FOLLOWS: IN PARKSTRIP A SQUARE WITH SIDE DIMENSIONS EQUAL THE WIDTH OF THE PARKSTRIP. OUTSIDE PARKSTRIP - 5' SQUARE.
2. LEVEL & ADJUST LID & FRAME TO FINISH SURFACE (1/4" MAX BELOW SURFACE).
3. FM GREASE REQUIRED ON BOLTS. WRAP FITTINGS WITH 8 MIL POLYETHYLENE WRAP AND TAPE.
4. BOLLARDS ARE REQUIRED AROUND HYDRANTS WHERE NEEDED FOR PROTECTION AS DETERMINED BY TBID.

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FIRE HYDRANT CONNECTION
NOTES

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FIRE HYDRANT CONNECTION

NOT TO SCALE

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PREFABRICATED STEEL LOOP NOTES:

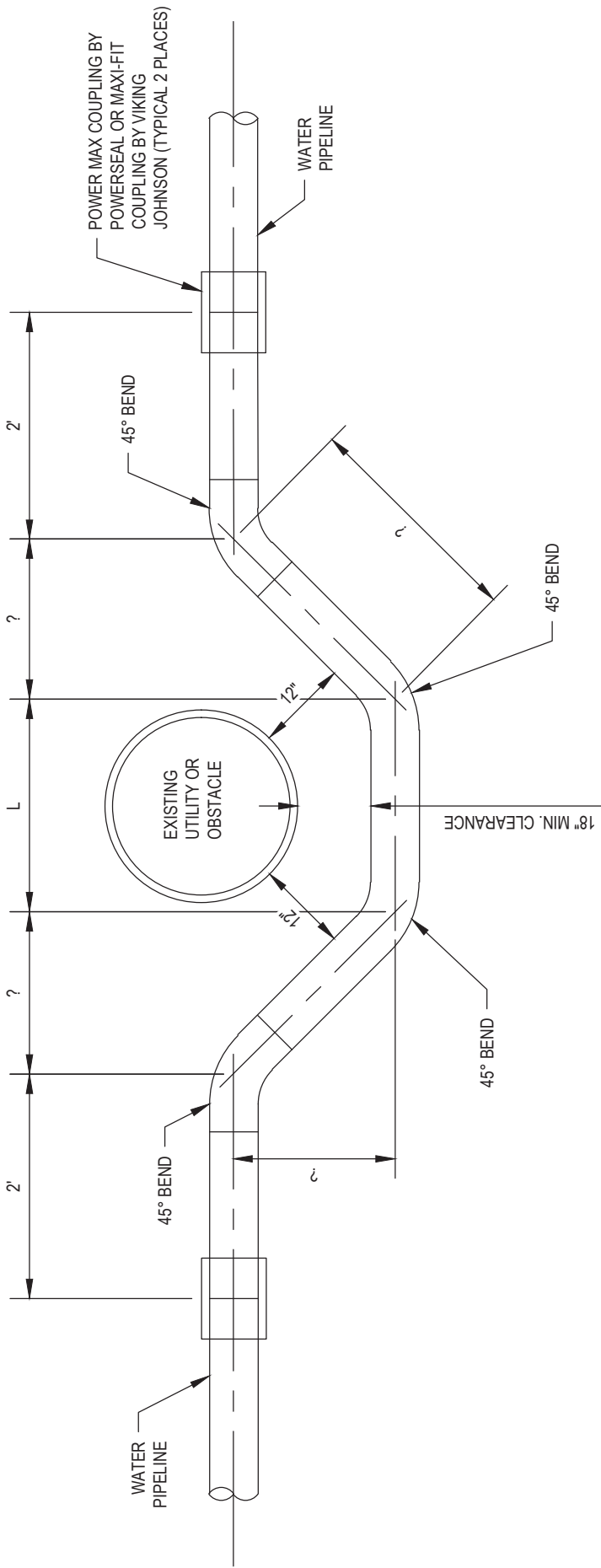
1. PREFABRICATED STEEL LOOPS REQUIRED FOR ALL UTILITY CONFLICTS. FITTING LOOPS ARE NOT PERMITTED.
2. O.D. OF STEEL LOOP TO MATCH O.D. OF CONNECTING WATER LINE WHERE IT CONNECTS TO THE PIPE.
3. ALL STEEL LOOPS WITH A "L" DIMENSION OF 10' OR GREATER SHALL REQUIRE UPLIFT AND DOWN THRUST BLOCKS.
4. SEE TBID SPECIFICATIONS FOR EPOXY COATING REQUIREMENTS.

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PREFABRICATED STEEL LOOP
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PREFABRICATED STEEL LOOP

NOT TO SCALE

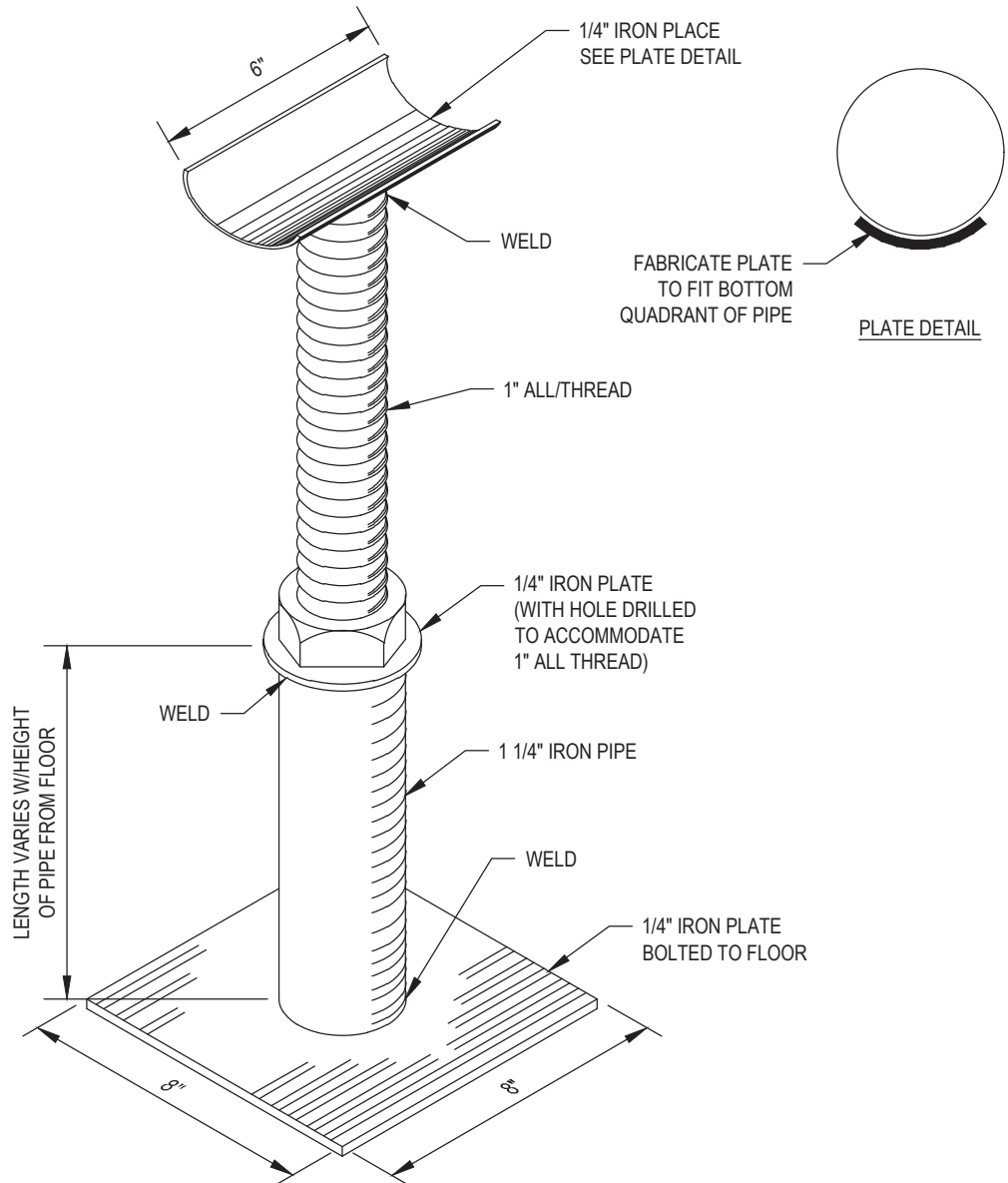
JACK STAND DETAIL NOTES:

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JACK STAND
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JACK STAND

NOT TO SCALE

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ADJUSTABLE PIPE SUPPORT NOTES:

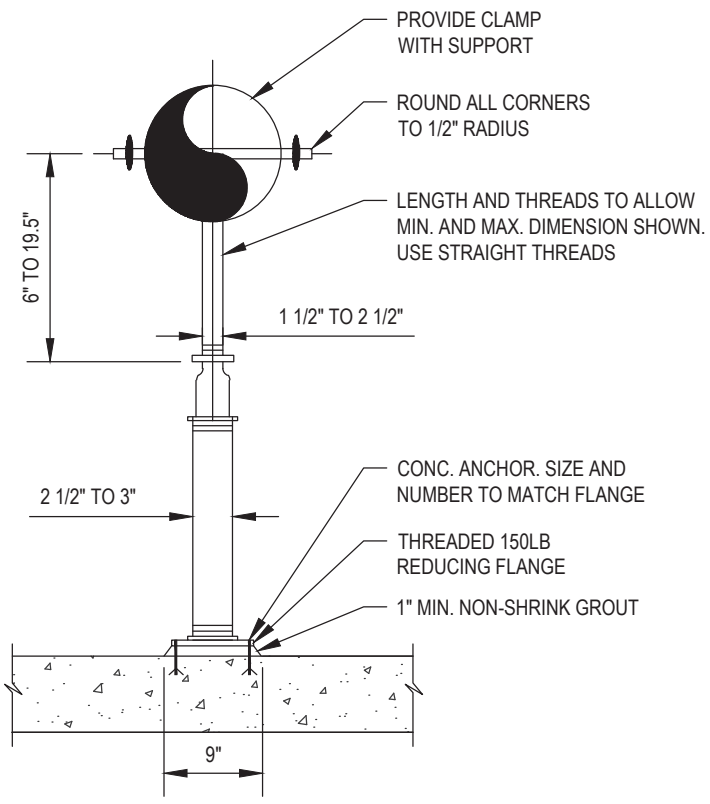
1. HOT DIP GALVANIZED AFTER FABRICATION.
2. PIPE SHALL BE SCHEDULE 40 OR SIMILAR BASED ON SUPPORTING PIPE SIZE.

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ADJUSTABLE PIPE SUPPORT
NOTES

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ADJUSTABLE PIPE SUPPORT

NOT TO SCALE

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3", 4", 6", OR 8" METER BOX NOTES:

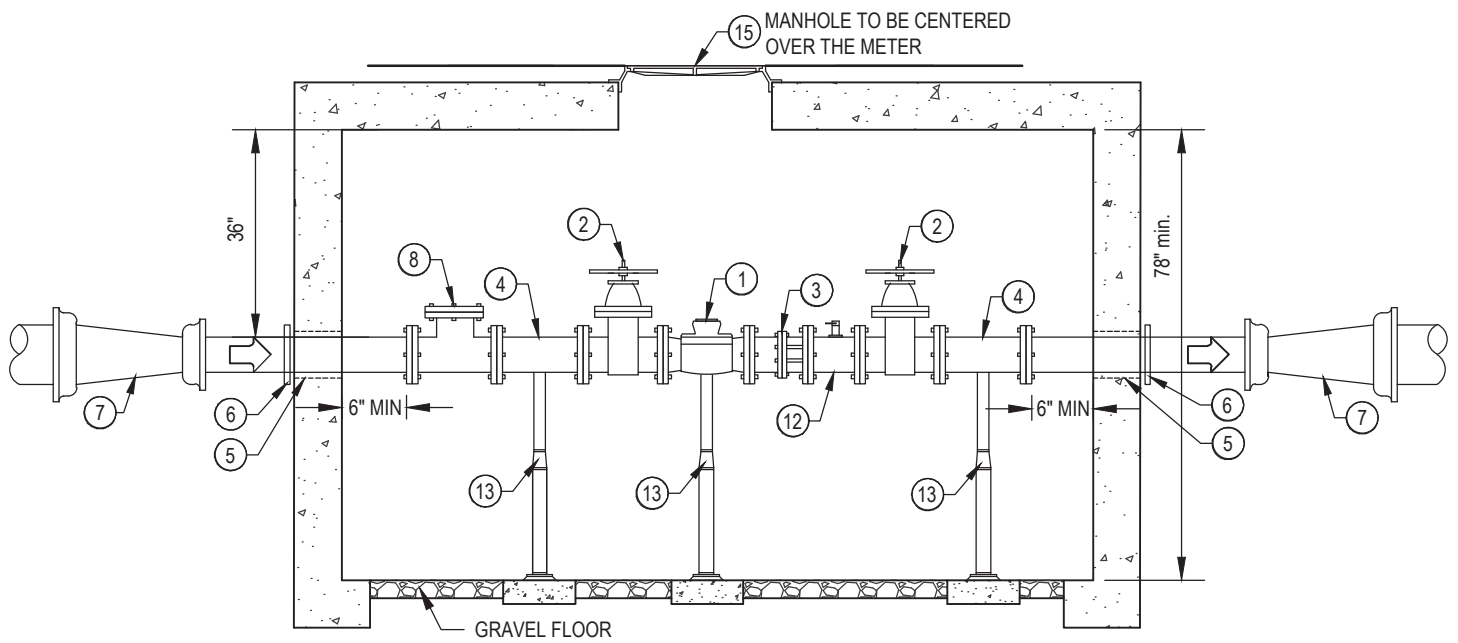
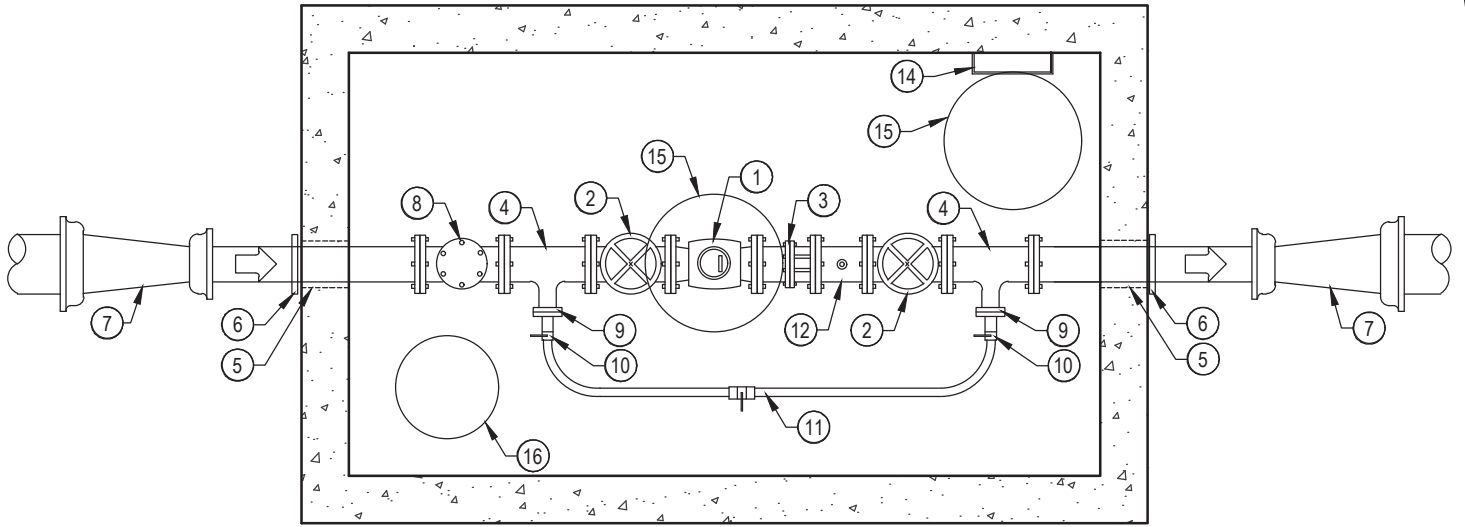
1. BOX SHALL BE DESIGNED AND CONSTRUCTED TO HS-20 LOADING CAPACITY.
2. STRAINER NOT REQUIRED WITH USE OF AN ULTRASONIC METER.

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3", 4", 6", OR 8" METER BOX
NOTES

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- | | |
|------------------------------------|---|
| ① NEPTUNE MACH 10 ULTRASONIC METER | ⑩ 2" BALL VALVE |
| ② GATE VALVE FLxFL | ⑪ 2" COPPER BYPASS LINE W/ 3-WAY BALL VALVE |
| ③ DISMANTLING FLANGE | ⑫ 12" SPOOL WITH TEST PORT |
| ④ TEE FLxFLxFL | ⑬ PIPE SUPPORT |
| ⑤ HIGH STRENGTH CONCRETE GROUT | ⑭ STEPS |
| ⑥ PIPE RESTRAINT | ⑮ 24" MANHOLE RING AND COVER |
| ⑦ REDUCER - AS REQUIRED | ⑯ 18" RING AND WATER METER LID WITH 4.5" DIA. COUNTER SUNK 1/2" DEPRESSION AND 2" DIA HOLE FOR REMOTE READ METERS |
| ⑧ CHECK VALVE | |
| ⑨ BLIND FLANGE WITH 2" TAP | |

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3", 4", 6", OR 8" METER BOX

NOT TO SCALE

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AIR & VACUUM VALVE NOTES:

1. AIR VAC VALVES TO BE INSTALLED AT ALL HIGH POINTS OF PIPE.

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AIR & VACUUM VALVE
NOTES

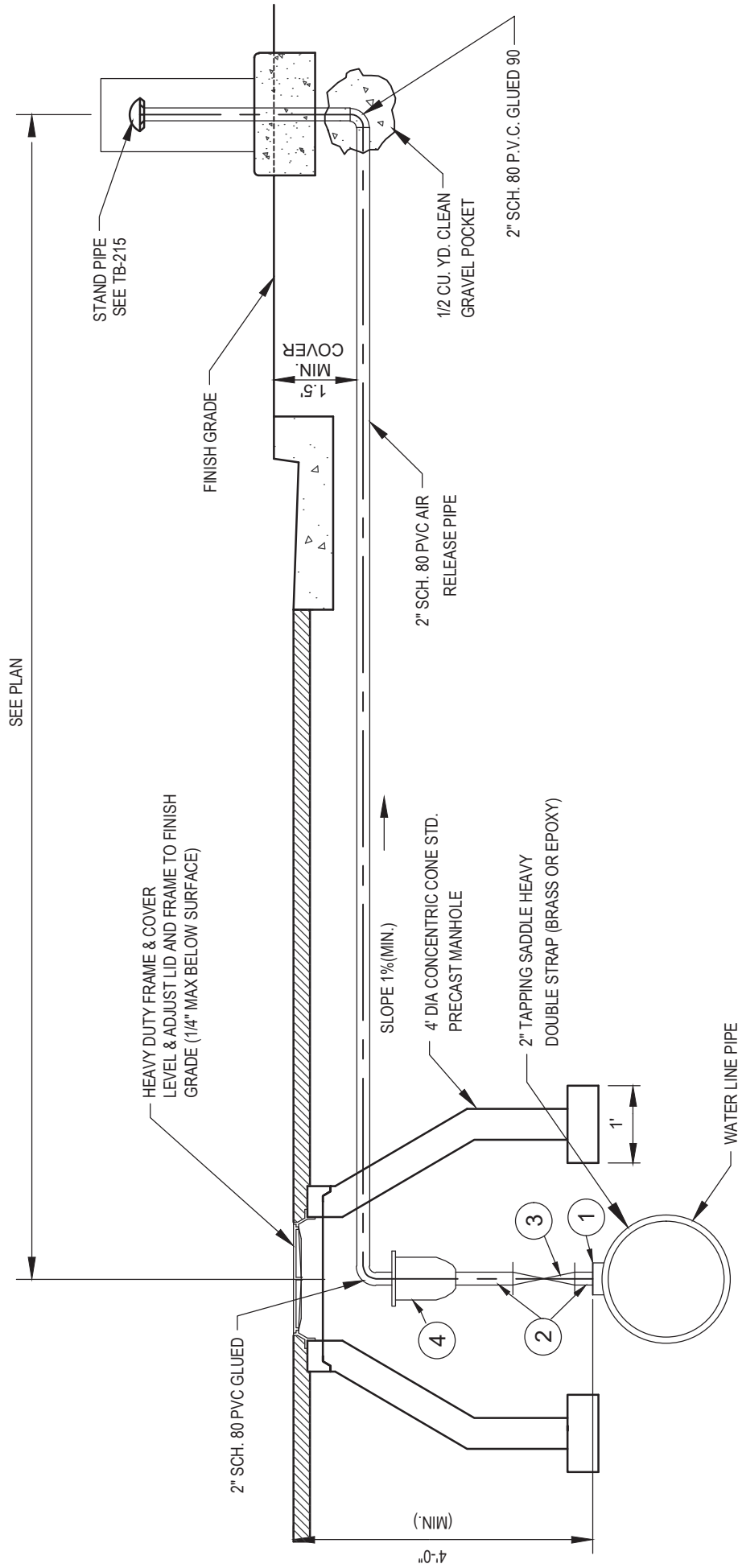
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1 REDUCING FLANGE W/2" THREADED HOLE
(INSULATING FLANGE KIT)

2 SCH. 80 BRASS NIPPLE

3 2" THREADED BRASS BALL VALVE

4 2" THREADED AIR & VACUUM VALVE EQUAL
TO APCO MODEL 145C



SEE PLAN

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AIR & VACUUM VALVE

NOT TO SCALE

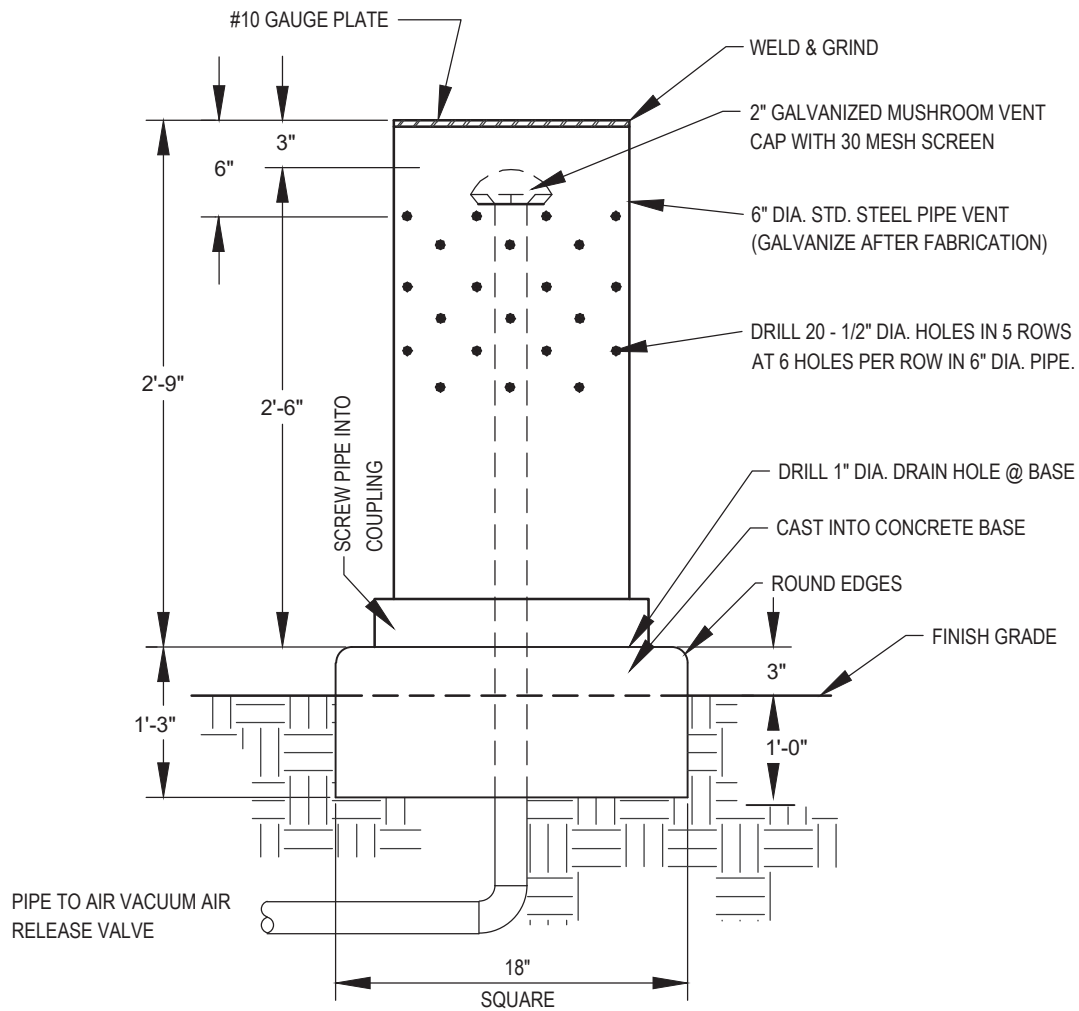
STAND PIPE DETAIL NOTES:

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STAND PIPE
NOTES

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STAND PIPE
NOT TO SCALE

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