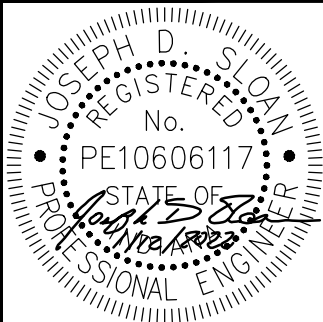


NOTES:

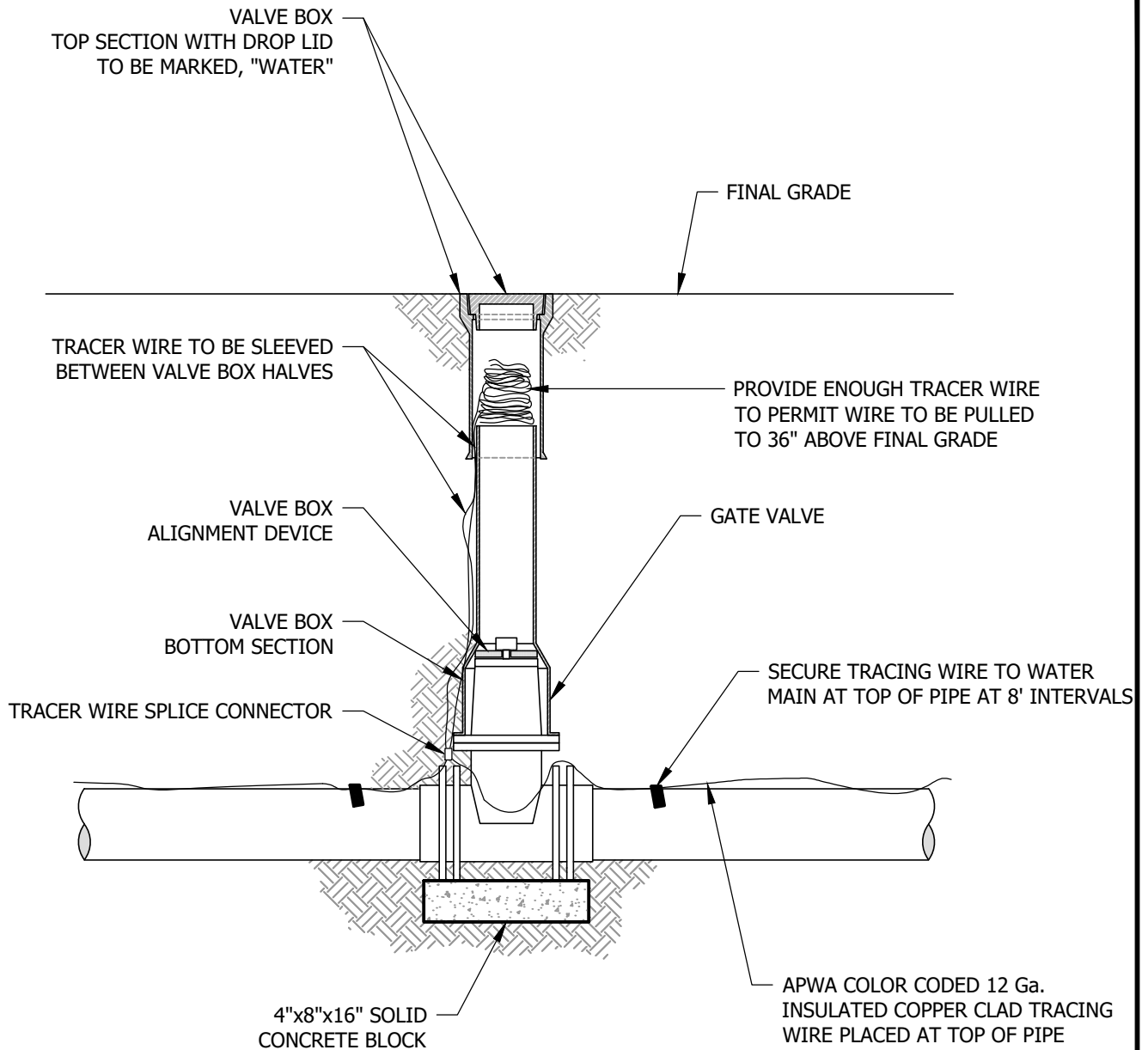
1. 4" TO 16" C900 OR DUCTILE IRON PIPE.
2. SEE PLAN AND PROFILE FOR DEPTH OF COVER. MAINTAIN 48" MINIMUM.
3. MATERIALS SHALL EXCLUDE ORGANICS AS DEFINED BY ASTM D2321, CLASS V.
4. PIPE TO BE SUPPORTED ALONG THE ENTIRE LENGTH BY A FIRM TRENCH BOTTOM OR BEDDING.



TYPICAL WATER MAIN TRENCH

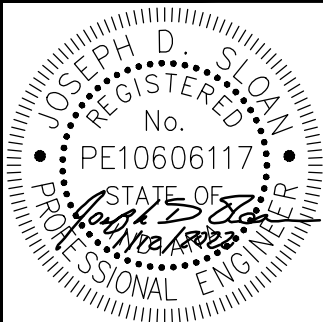
Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure DW01



NOTE:

USE SPLICE CONNECTORS TO ALLOW TRACING WIRE TO BE LOCATED IN ALL REQUIRED DIRECTIONS IN CASES WHERE WATER MAINS CONNECT AT TEES, JUNCTIONS, ETC.



TRACING WIRE DETAIL

Approved: 01/12/2022

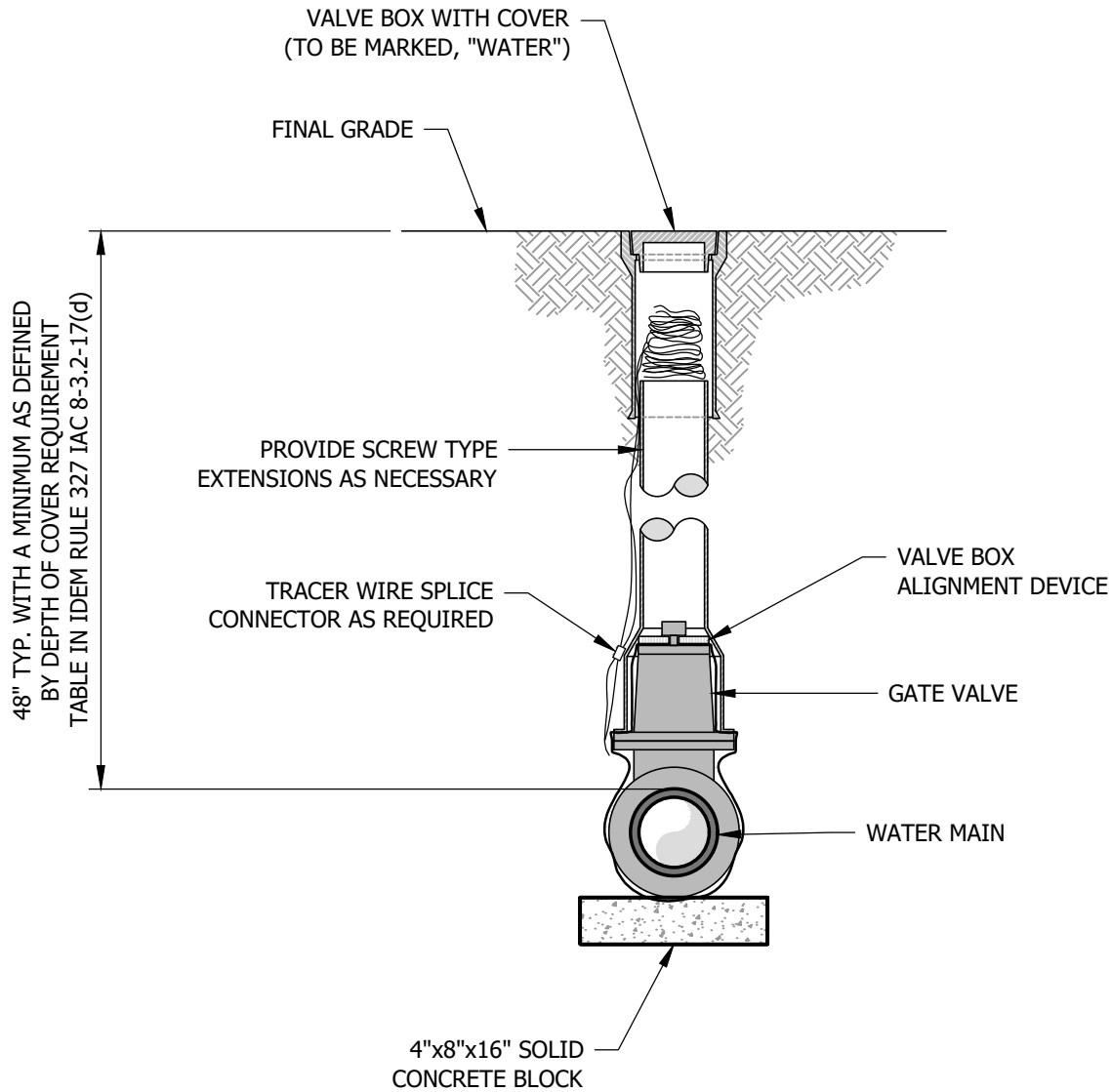
Approved By: Joseph D. Sloan, P.E.

Adopted: 01/18/2022

Scale: N.T.S.

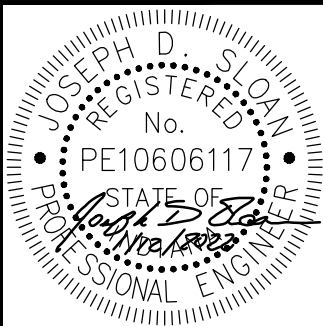
Figure

DW02



NOTE:

GATE VALVES INSTALLED DEEPER THAN 5'-0"
SHALL REQUIRE STAINLESS STEM EXTENSIONS.



GATE VALVE INSTALLATION DETAIL

Approved: 01/12/2022

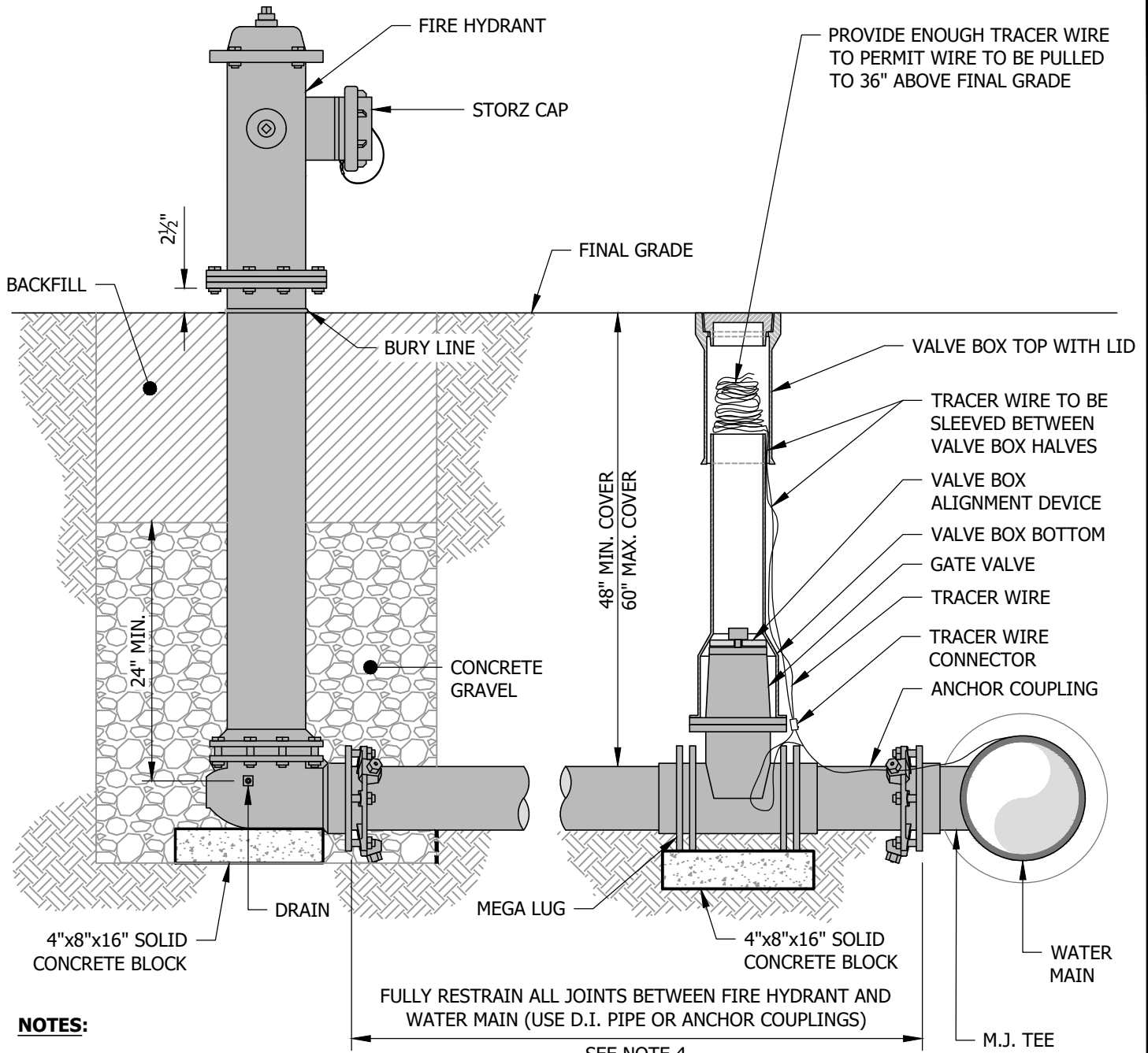
Adopted: 01/18/2022

Figure

Approved By: Joseph D. Sloan, P.E.

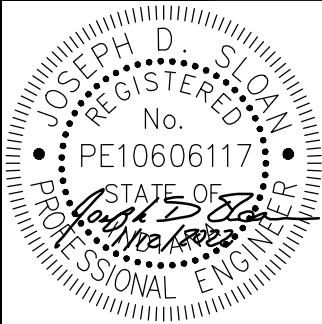
Scale: N.T.S.

DW03



NOTES:

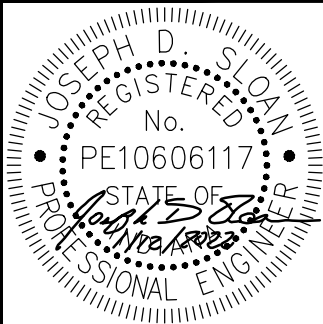
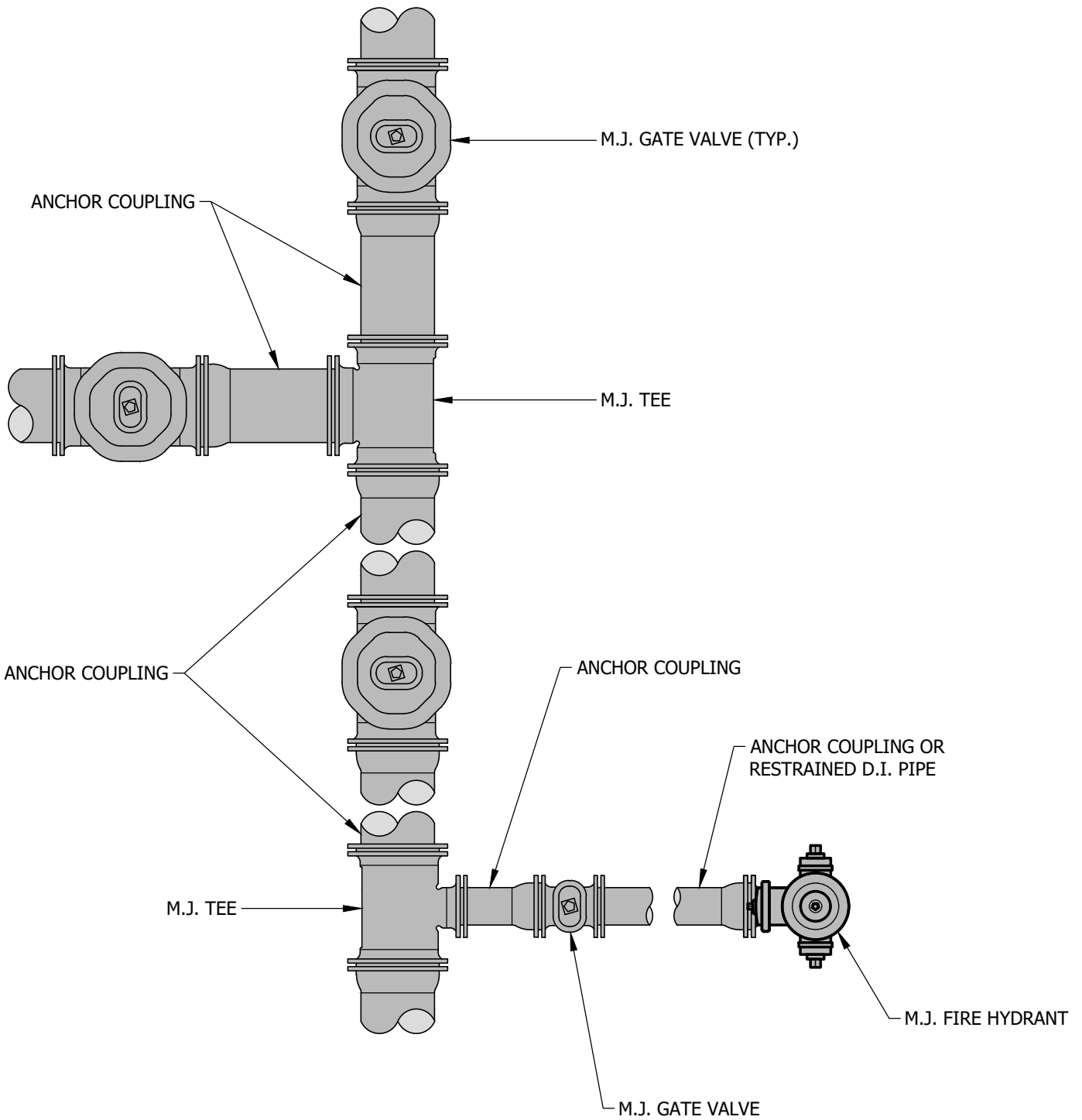
1. BARREL EXTENSIONS ARE NOT PERMITTED. USE NECESSARY BENDS BEYOND GATE VALVE TO ACHIEVE PROPER BURY DEPTH.
2. FIRE HYDRANTS ARE LIMITED TO 5'-0" MAXIMUM BURY DEPTH.
3. MECHANICAL JOINT OFFSET FITTING PERMITTED TO ACHIEVE APPROPRIATE BURY DEPTH. OFFSET FITTINGS SHOULD BE INSTALLED BETWEEN GATE VALVE AND FIRE HYDRANT.
4. ALL D.I. PIPE AND FITTINGS SHALL BE WRAPPED WITH V-BIO ENHANCED POLYETHYLENE PER MANUFACTURER'S RECOMMENDATIONS.



FIRE HYDRANT ASSEMBLY

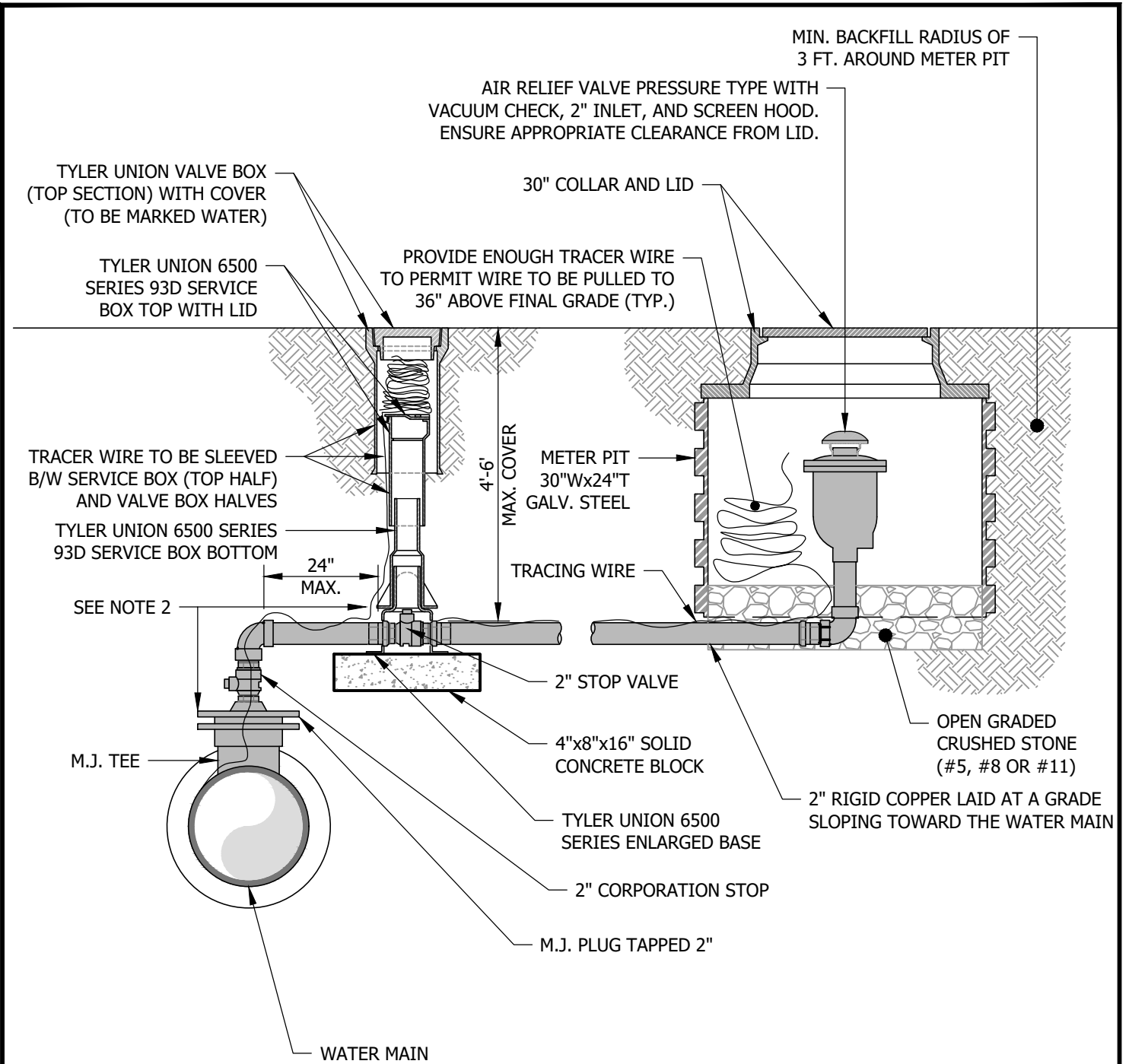
Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure DW04



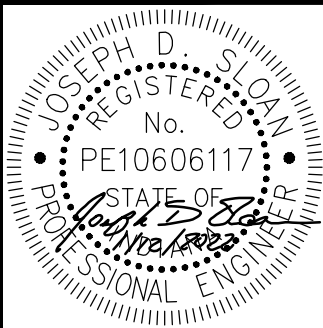
ANCHOR COUPLING DETAIL

Approved:	01/12/2022	Adopted:	01/18/2022	Figure DW05
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.	



NOTES:

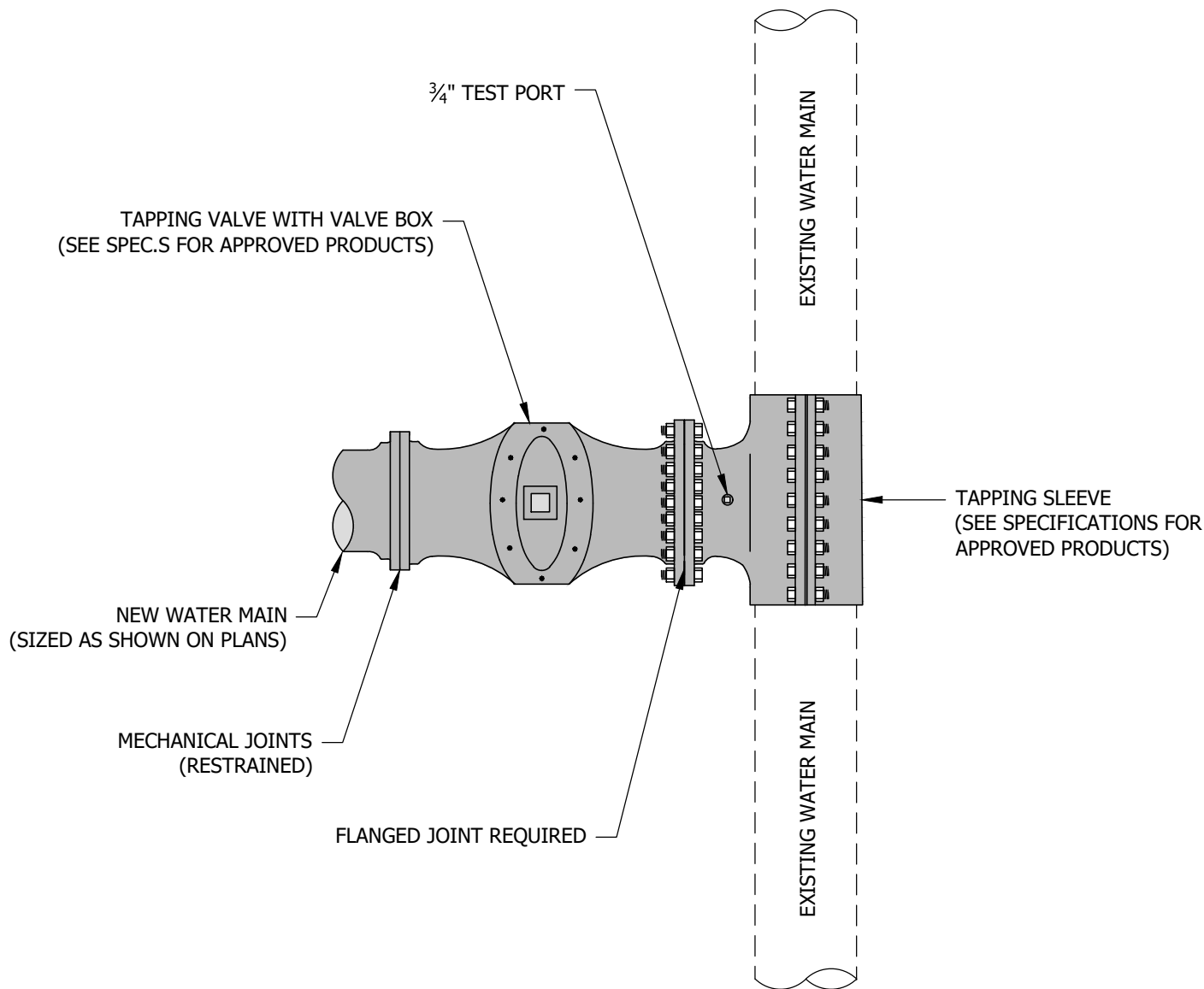
1. IN CASES WHERE AIR RELIEF ASSEMBLY IS LOCATED IN TRAFFIC AREA, REFER TO DW26 FOR METER PIT REQUIREMENTS AND DETAILS.
2. ALL FITTINGS BETWEEN M.J. PLUG (AT WATER MAIN) AND STOP VALVE SHALL BE BRASS.



AIR RELIEF ASSEMBLY (NON-TRAFFIC RATED)

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure DW06



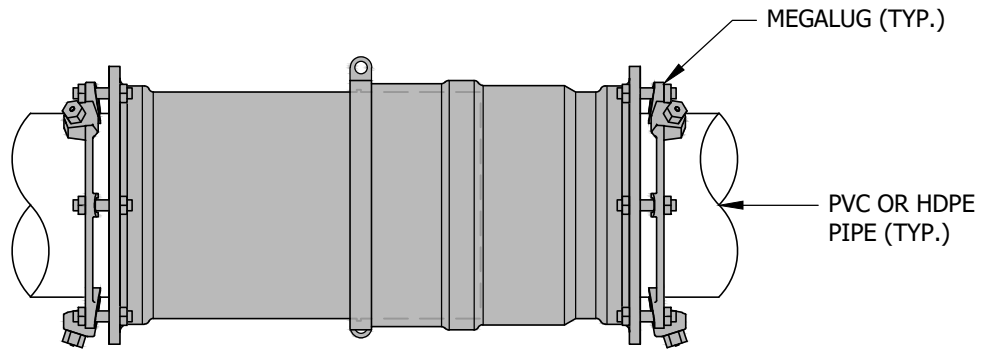
NOTES:

1. TAPPING SLEEVE TO BE PRESSURE TESTED PRIOR TO TAPPING. REFER TO PROJECT SPECIFICATIONS FOR REQUIREMENTS.
2. TAPPING FUSIBLE PVC REQUIRES SPECIAL SLEEVES, COORDINATE WITH EWSU PRIOR TO INSTALLATION.

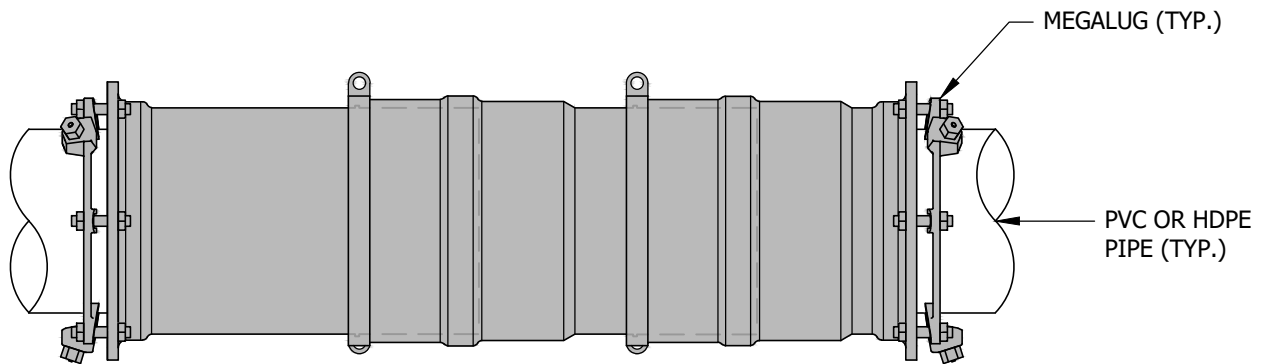


PRESSURE TAPPING DETAIL

Approved:	01/12/2022	Adopted:	01/18/2022	Figure DW07
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.	



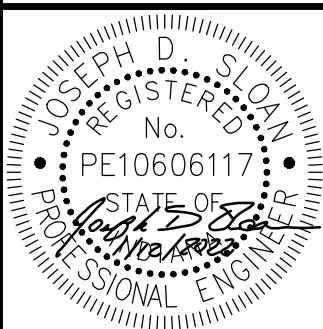
STANDARD UNIT (2.5" MOVEMENT MAX.)



UNIT WITH ONE ADDITIONAL SLEEVE (5" MOVEMENT MAX.)

NOTES:

1. ENGINEER TO PROVIDE CALCULATIONS AND PLACEMENT OF EXPANSION JOINT.
2. THIS DETAIL IS FOR SPECIAL CIRCUMSTANCES AS DETERMINED BY THE ENGINEER OF RECORD.
3. USE MANUFACTURER'S RECOMMENDED EXPANSION COUPLING COMPATIBLE WITH R.J. PIPE. COORDINATE WITH EWSU PRIOR TO USE.

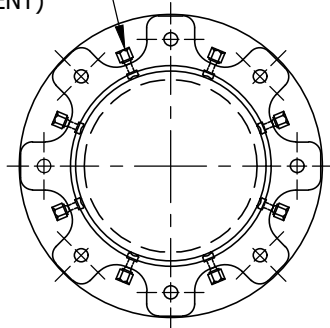


**EXPANSION COUPLING
(4" THROUGH 12")**

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

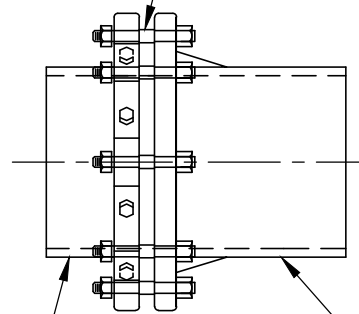
Figure DW08

SERRATED TORQUE-LIMITING SCREWS SUFFICIENT TO HOLD WORKING AND TEST PRESSURES (EBAA IRON SERIES 2000 PV FOR PVC PIPE AND MEGALUG FOR D.I. PIPE OR APPROVED EQUIVALENT)



PVC OR D.I. PIPE

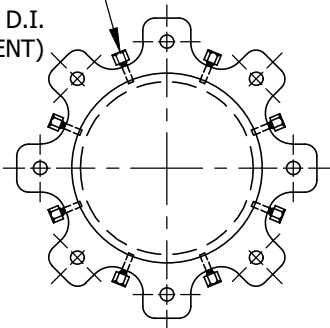
SUFFICIENT No./DIA. OF DUCTILE TIE BOLTS OR TIE RODS TO RESTRAIN WORKING AND TEST PRESSURES



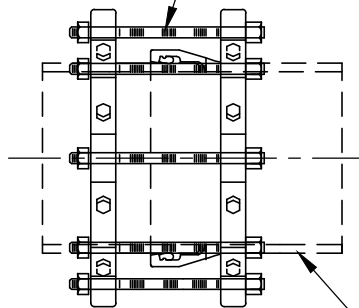
MECHANICAL JOINT PIPE

RESTRAINED JOINTS ON MECHANICAL JOINT PIPE & FITTINGS

SERRATED TORQUE-LIMITING SCREWS SUFFICIENT TO HOLD WORKING AND TEST PRESSURES (EBAA IRON SERIES 2000 PV FOR PVC PIPE AND MEGALUG FOR D.I. PIPE OR APPROVED EQUIVALENT)



SUFFICIENT No./DIA. OF DUCTILE TIE BOLTS OR TIE RODS TO RESTRAIN WORKING AND TEST PRESSURES



SLIP JOINT PIPE

RESTRAINED JOINTS ON SLIP JOINT PIPE

(USING GRIPPING TYPE RETAINERS)

NOTE:

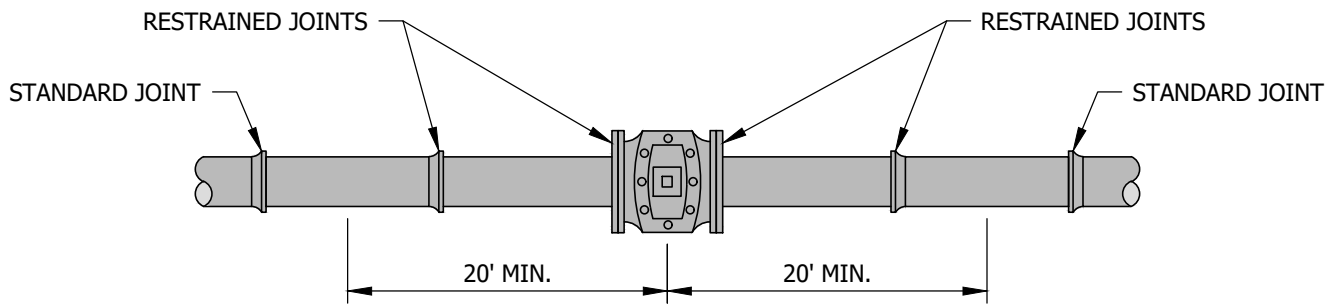
ALL JOINT RESTRAINTS ARE TO BE INSTALLED IN ACCORDANCE WITH THE EBAA IRON RESTRAINT LENGTH CALCULATOR USING A MINIMUM WORKING PRESSURE OF ONE HUNDRED FIFTY (150) psi WITH A SAFETY FACTOR OF 2.0.



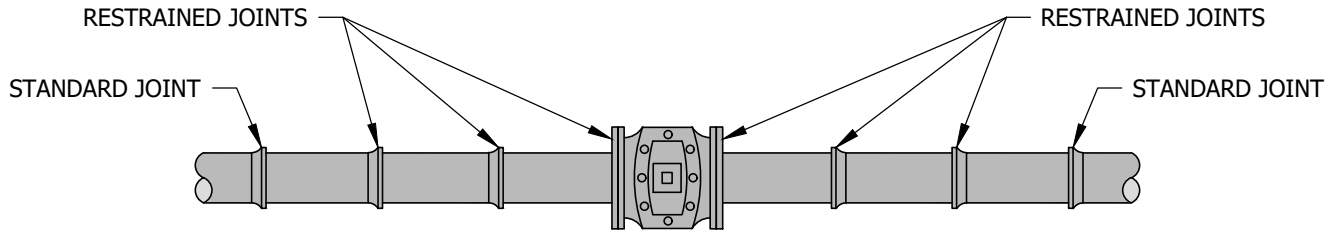
RESTRAINED JOINTS (MECHANICAL JOINT AND SLIP JOINT PIPES)

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

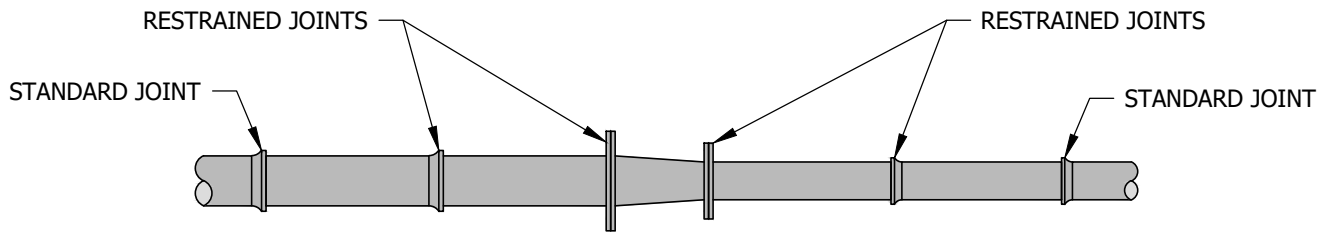
Figure DW09



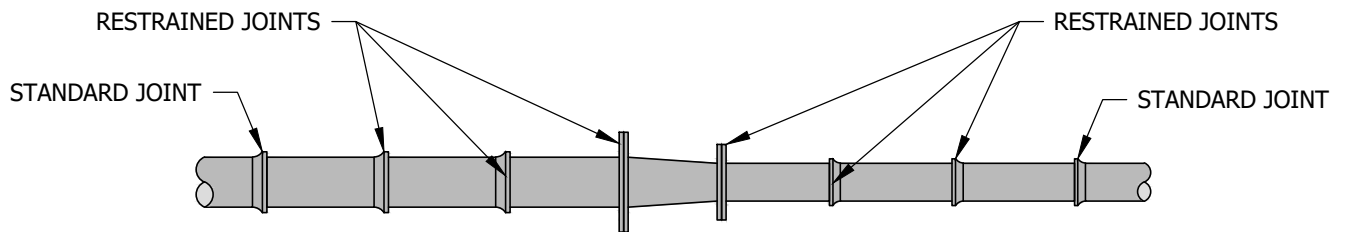
VALVES (NON-DEAD END) 8" AND SMALLER



VALVES (NON-DEAD END) 12" AND LARGER



REDUCERS - LARGER PIPE DIAMETER IS 8" OR SMALLER



REDUCERS - LARGER PIPE DIAMETER IS 12" OR LARGER

NOTE:

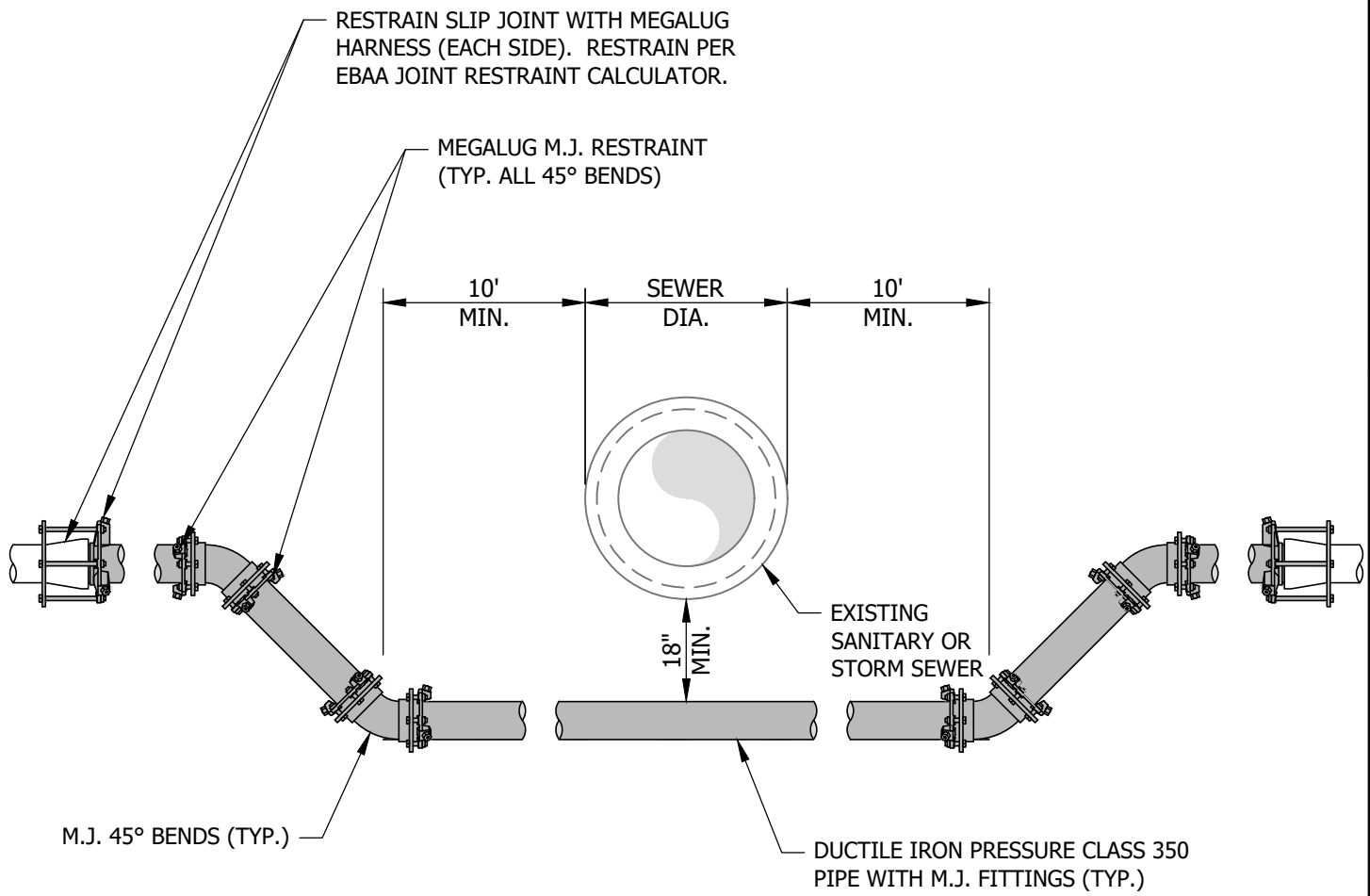
ALL JOINT RESTRAINTS ARE TO BE INSTALLED IN ACCORDANCE WITH THE EBAA IRON RESTRAINT LENGTH CALCULATOR USING A MINIMUM WORKING PRESSURE OF ONE HUNDRED FIFTY (150) psi WITH A SAFETY FACTOR OF 2.0.



**TYPICAL RESTRAINING
FOR VALVES AND REDUCERS**

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure DW10



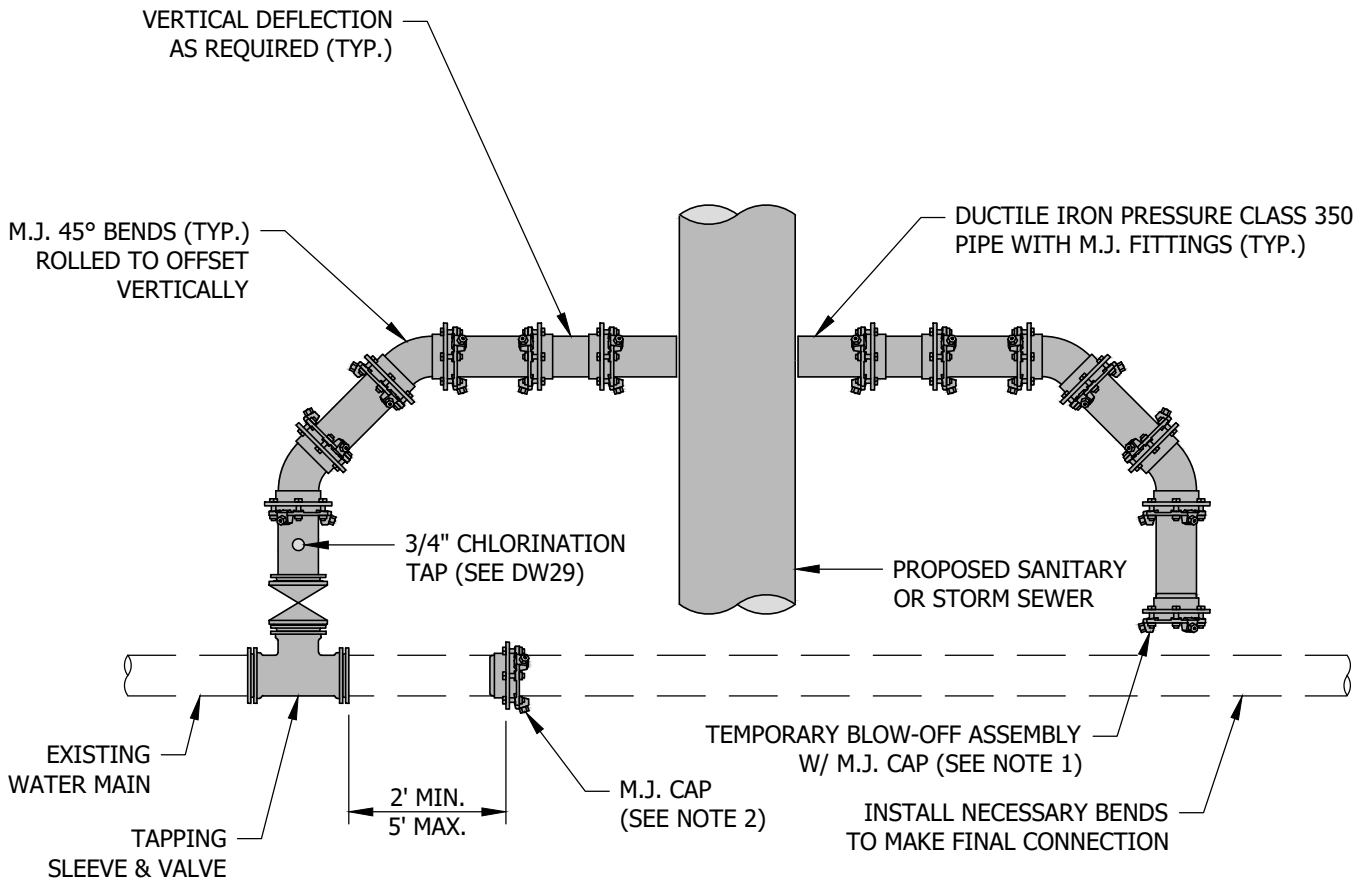
NOTES:

1. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH V-BIO ENHANCED POLYETHYLENE.
2. PRESSURE CLASS 350 DUCTILE IRON PIPE SHALL BE USED UNLESS OTHERWISE NOTED ON THE PLANS.



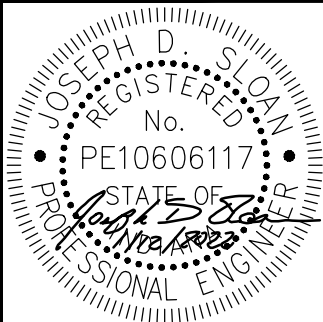
TYPICAL OFFSET ASSEMBLY (STORM OR SANITARY CROSSING)

Approved:	01/12/2022	Adopted:	01/18/2022	Figure DW11-1
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.	



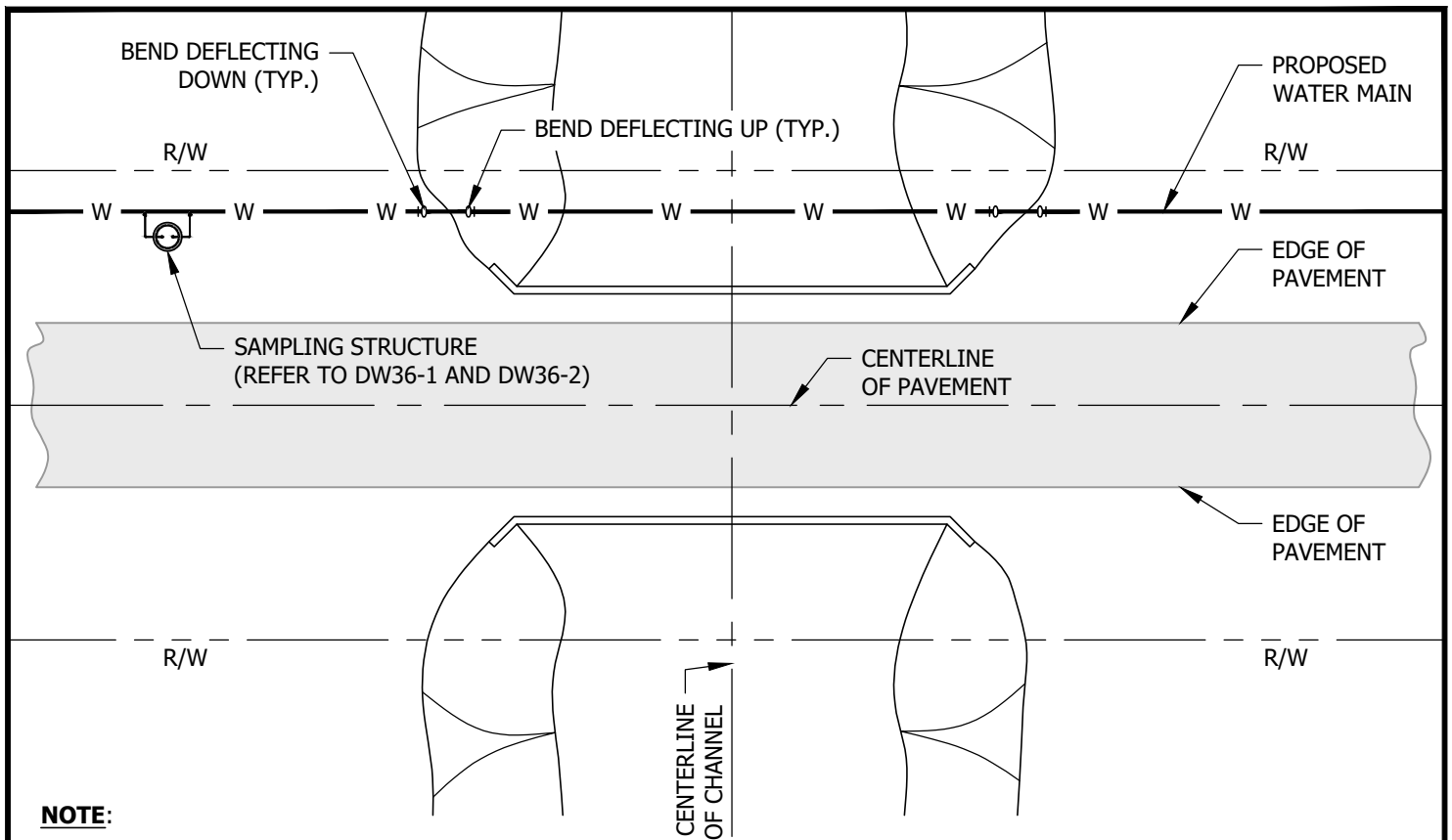
NOTES:

1. REMOVE TEMPORARY BLOW-OFF ASSEMBLY AND M.J. CAP TO MAKE FINAL CONNECTION UPON RECEIPT OF PASSING WATER QUALITY SAMPLING RESULTS.
2. CUT AND CAP EXISTING WATER MAIN CONCURRENTLY WITH CONNECTION TO EXISTING WATER MAIN.
3. CONNECTION TO EXISTING WATER MAIN SHALL BE SOLID SLEEVE FOR CAST IRON/IPS PIPE OR APPROVED DISSIMILAR COUPLING.
4. RESTRAIN EXISTING WATER MAIN BEYOND CONNECTIONS PER EBAA JOINT RESTRAINT CALCULATOR.
5. COORDINATE ALL ACTIVITIES WITH EWSU PRIOR TO STARTING WORK.



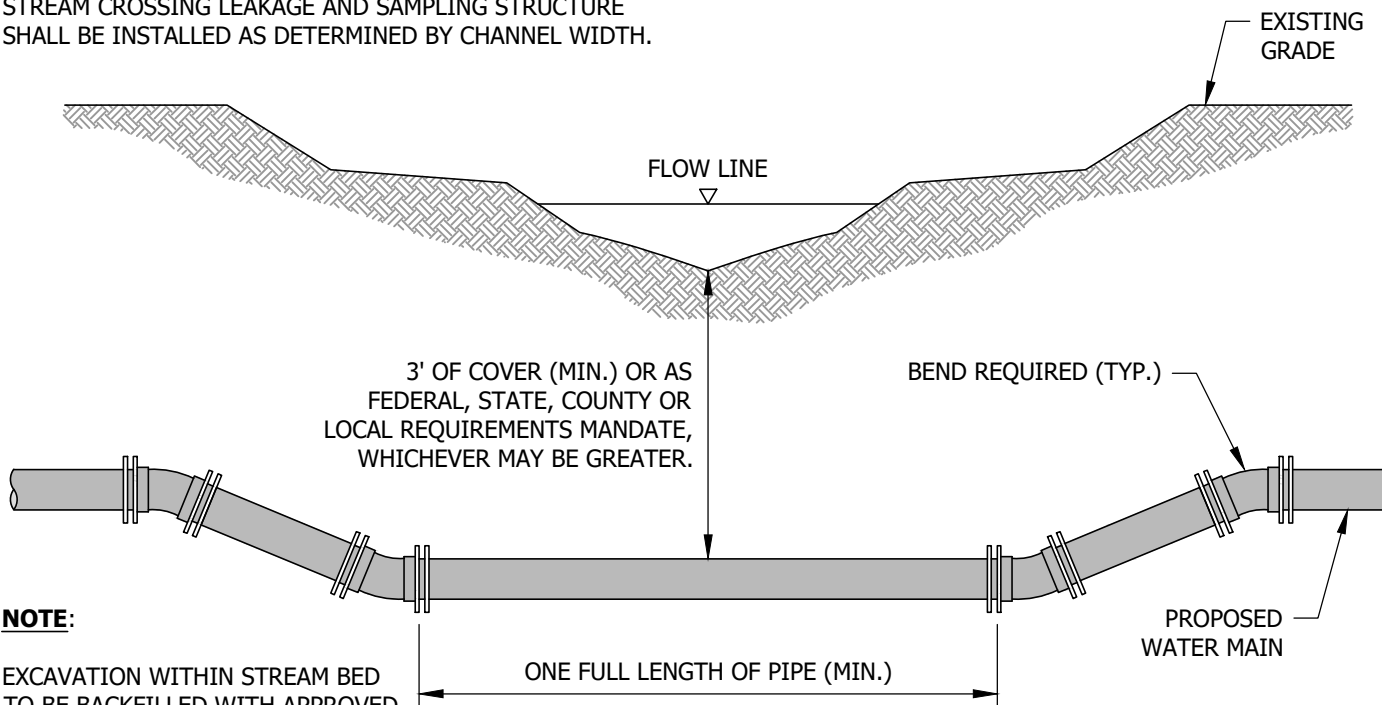
**TYPICAL OFFSET ASSEMBLY OF EXISTING WATER MAIN
(STORM OR SANITARY CROSSING)**

Approved:	01/12/2022	Adopted:	01/18/2022	Figure DW11-2
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.	



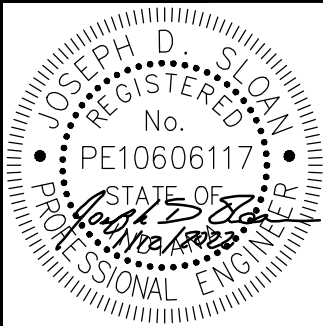
NOTE:

STREAM CROSSING LEAKAGE AND SAMPLING STRUCTURE SHALL BE INSTALLED AS DETERMINED BY CHANNEL WIDTH.



NOTE:

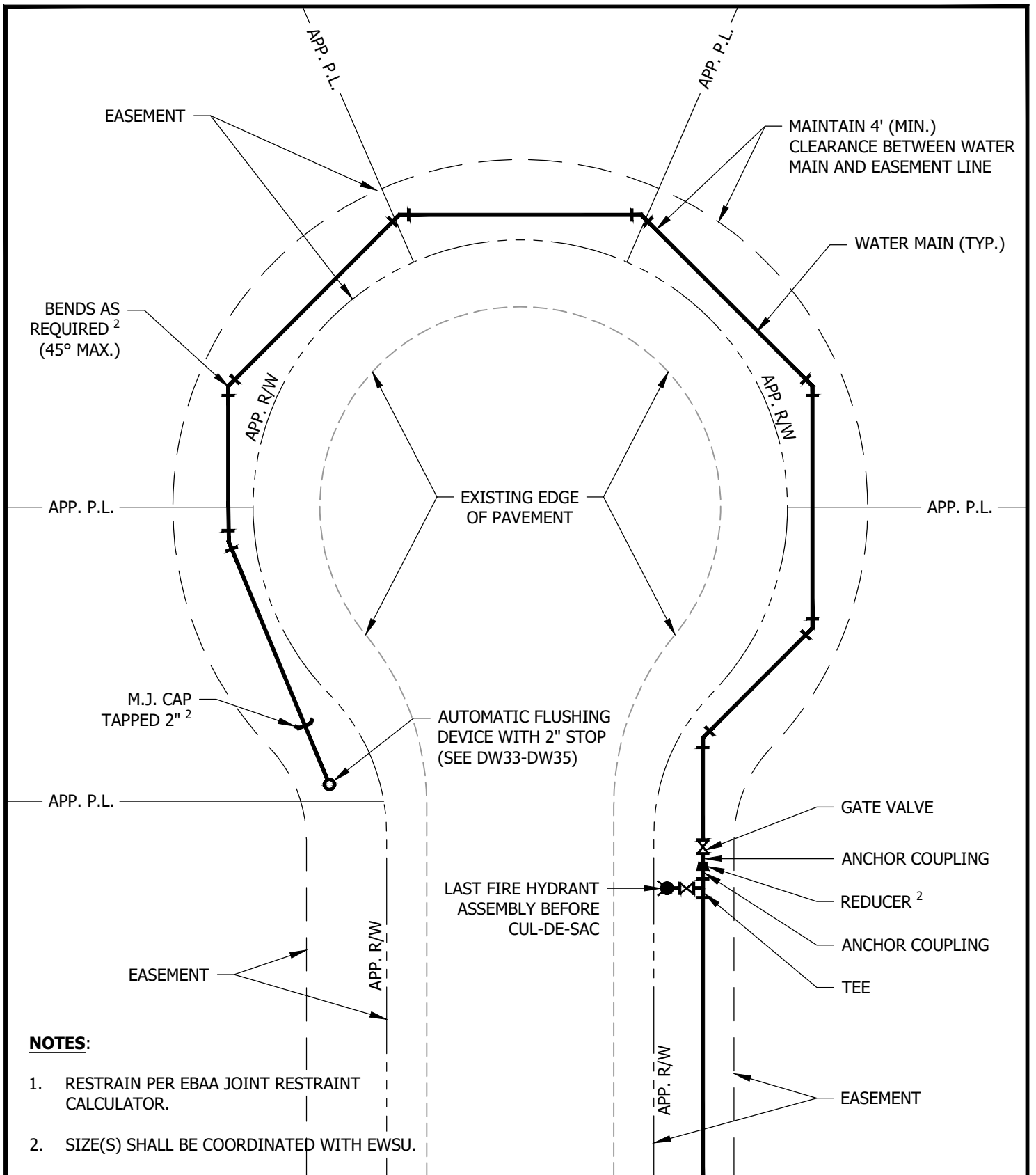
EXCAVATION WITHIN STREAM BED TO BE BACKFILLED WITH APPROVED MATERIAL AND COMPACTED. RESTRAIN PER PROJECT PLANS.



TYPICAL CHANNEL CROSSING

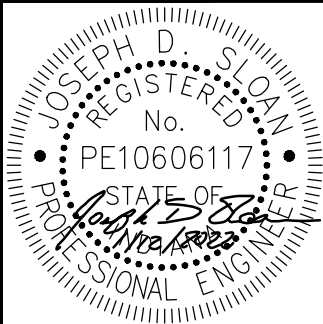
Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure DW12



NOTES:

1. RESTRAIN PER EBAA JOINT RESTRAINT CALCULATOR.
2. SIZE(S) SHALL BE COORDINATED WITH EWSU.



WATER LINE LOCATION FOR CUL-DE-SAC

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

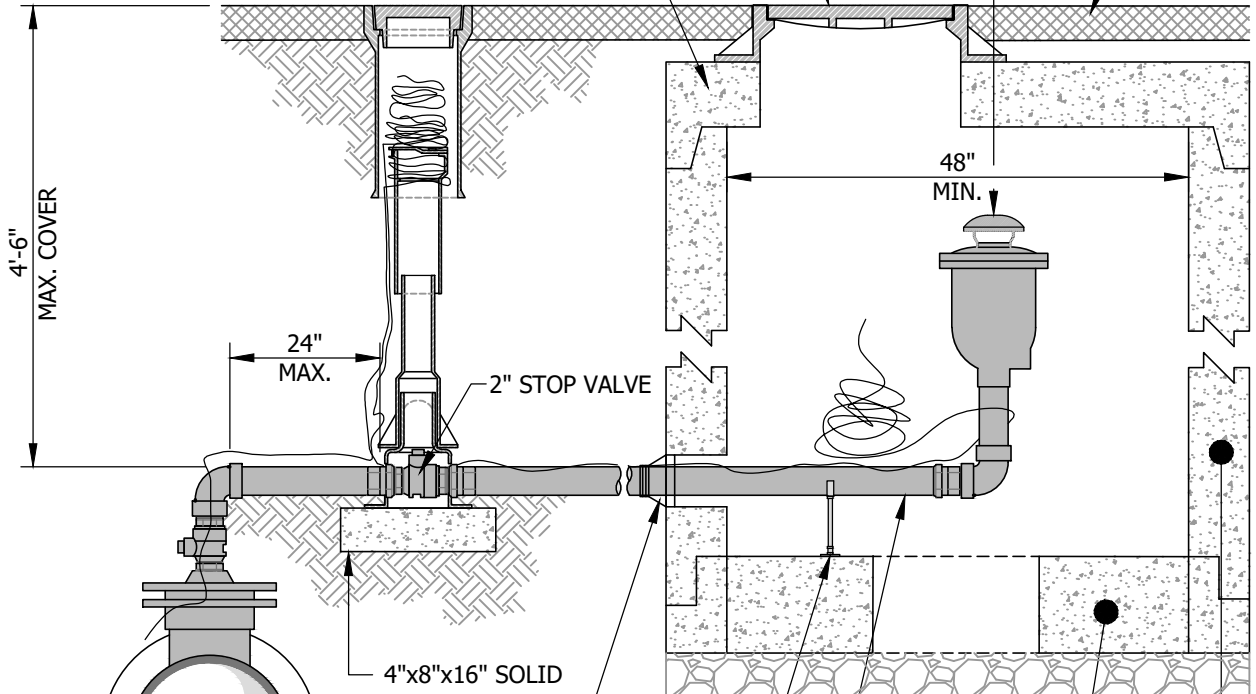
Figure DW13

AIR RELIEF VALVE PRESSURE TYPE WITH VACUUM CHECK, 2" INLET, AND CAST IRON HOOD ENSURE APPROPRIATE CLEARANCE FROM LID

EJIW SERIES 1022 FRAME WITH HD VENTED COVER OR APPROVED EQUAL

PRECAST LID, ASTM C-478 4000 PSI CONCRETE

PAVEMENT SEE DETAIL



4'-6"
MAX. COVER

24"
MAX.

2" STOP VALVE

48"
MIN.

4"x8"x16" SOLID
CONCRETE BLOCK

M.J. TEE

RESILIENT PIPE TO MH
CONNECTOR, ASTM C-923

S.S. PIPE SUPPORT

WATER MAIN

2" RIGID COPPER LAID AT A GRADE
SLOPING TOWARD THE WATER MAIN

PRECAST BASE SECTION W/ 12" DIA. (MIN) OPEN
HOLE ON #5, #8, OR #11 STONE BASE, 6" (MIN)

PRECAST RISER, ASTM C-478 4000 PSI
CONCRETE JOINTS SHALL BE 1-1/4" PREFORMED
BUTYL RUBBER MEETING ASTM C-990



AIR RELIEF ASSEMBLY (TRAFFIC RATED)

Approved: 01/12/2022

Adopted: 01/18/2022

Figure

Approved By: Joseph D. Sloan, P.E.

Scale: N.T.S.

DW14

EXISTING EDGE OF PAVEMENT

CHLORINATION TAP
(2'-0" MIN FROM VALVE)

TAPPING SLEEVE

FIRE SUPPRESSION VALVE

TAPPING SLEEVE

CORPORATION STOP

EXISTING EDGE OF PAVEMENT

- W - - W -

CORPORATION STOP (TYP)

3/4" TO 1" WATER SERVICE (TYP)

STOP VALVE (TYP)

R/W OR EASEMENT

WATER METER
AS PER METER DETAIL

WM

IRRIGATION
SERVICE LINE

BACKFLOW PREVENTER
(WHEN IRRIGATION SERVICE)

4'
(MIN.)

4'
(MIN.)

WM

TAPPING
SLEEVE

EXISTING
WATER MAIN

CORPORATION STOP

STOP VALVE
(2" SERVICE)

R/W OR EASEMENT

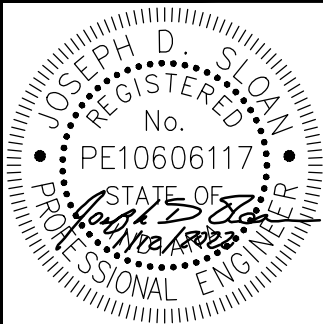
DOMESTIC METER
AS PER METER DETAIL

2" WATER SERVICE (TYP)

DOMESTIC SERVICE
LINE TO BUILDING

FIRE SUPPRESSION
LINE TO BUILDING

GATE VALVE
AT PROPERTY LINE

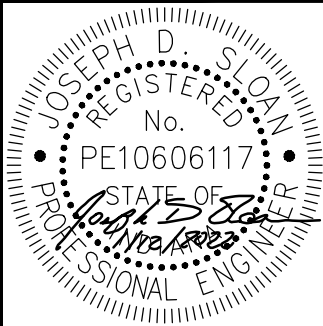
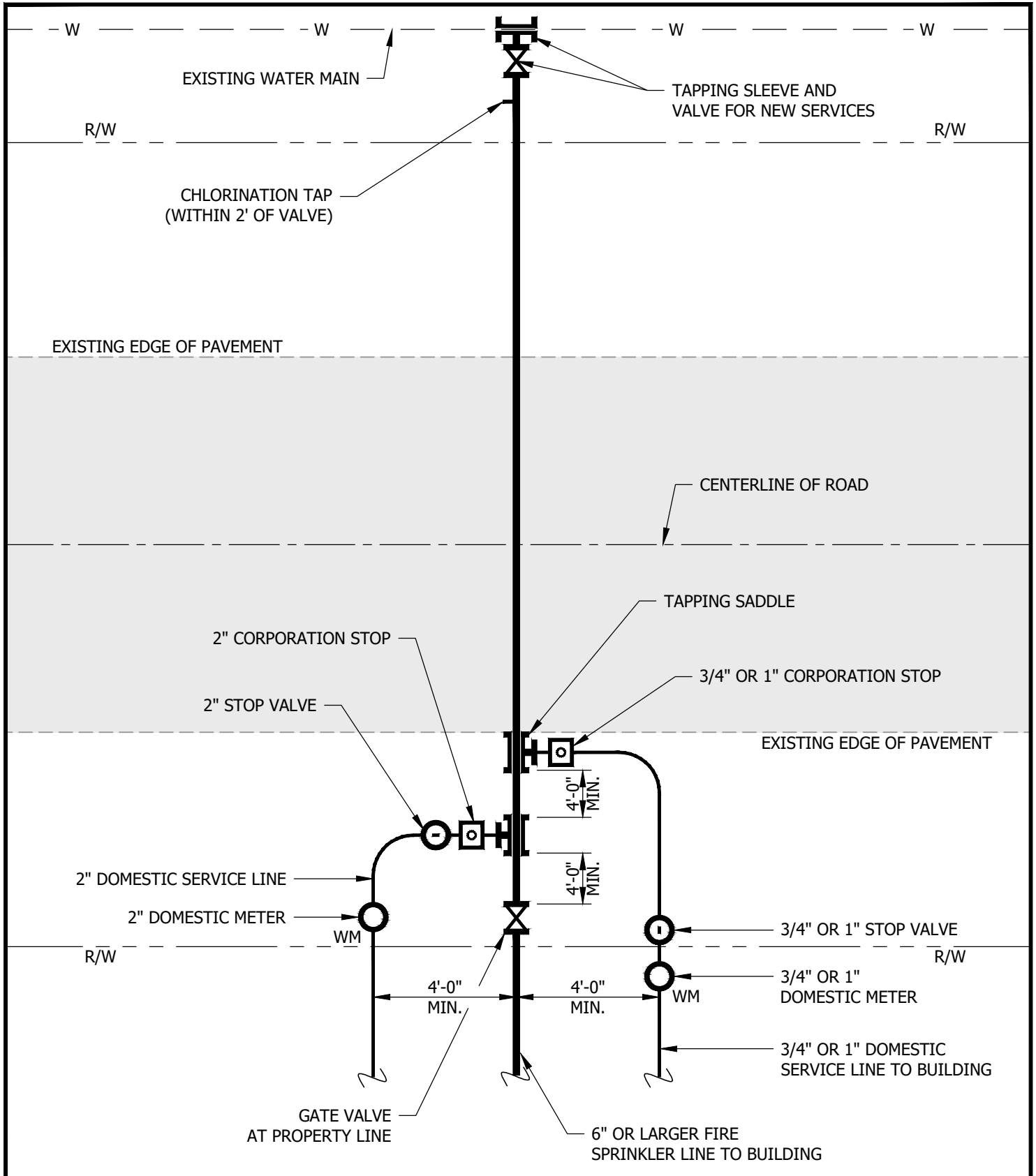


TYPICAL COMMERCIAL SERVICE CONNECTIONS (SAME SIDE OF ROADWAY)

Approved: 01/12/2022
Approved By: Joseph D. Sloan, P.E.

Adopted: 01/18/2022
Scale: N.T.S.

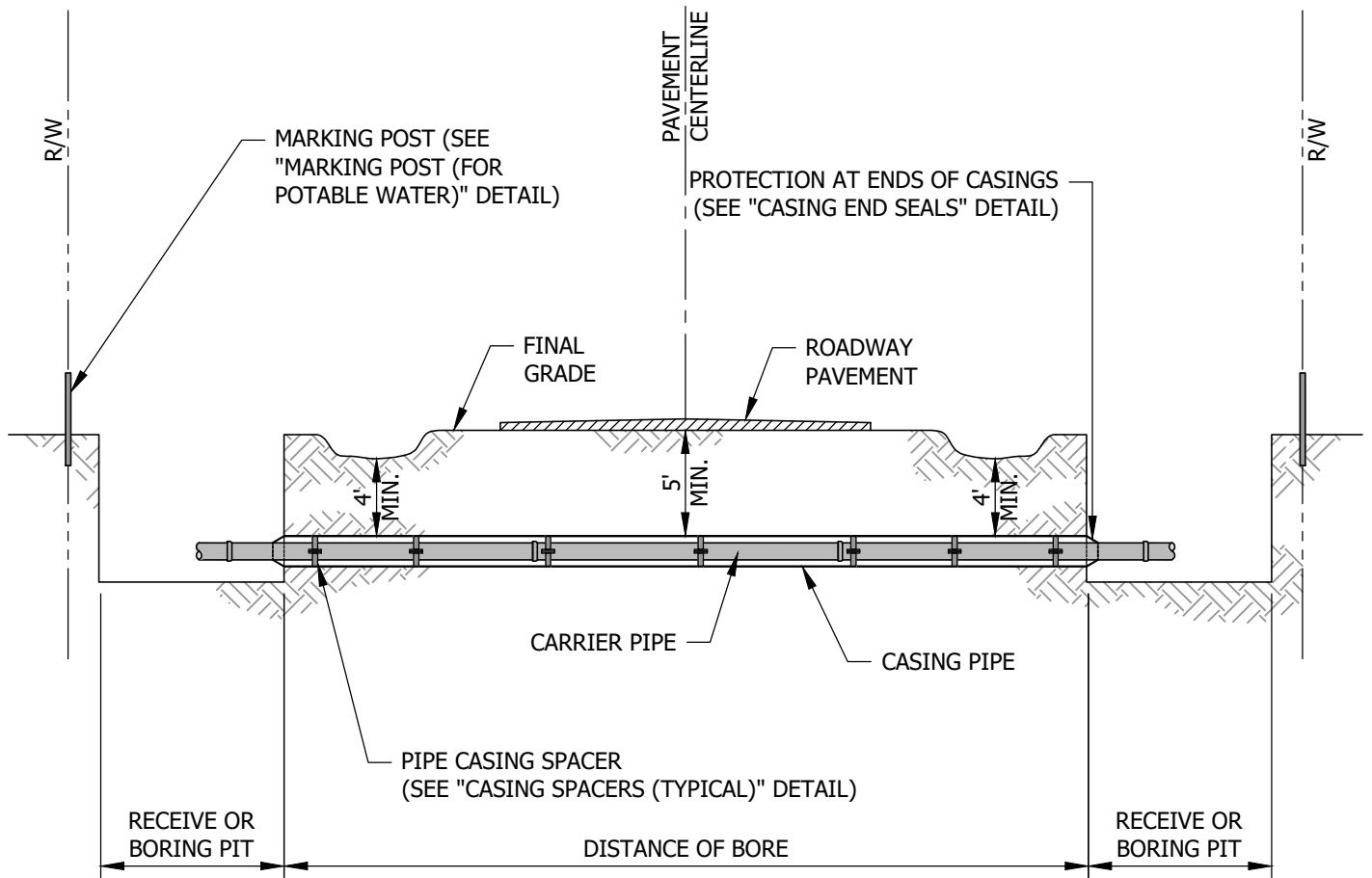
Figure DW15



TYPICAL COMMERCIAL SERVICE CONNECTIONS

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure DW16

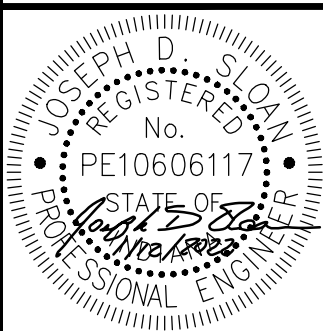


WELDING:

STEEL CASING SECTIONS SHALL BE CONNECTED BY WELDING. WELD SHALL CONFORM TO AWWA C206.

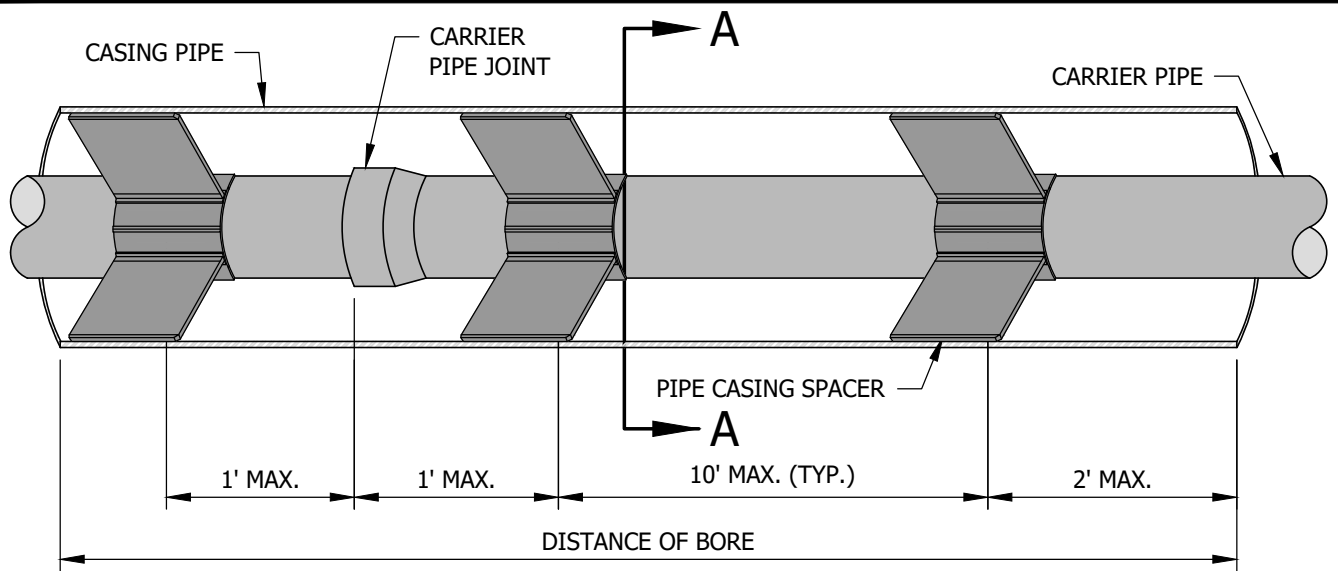
NOTES:

1. ALL PIPE JOINTS WITHIN THE CASING ARE TO BE RESTRAINED.
2. TRACING WIRE TO BE INSTALLED THROUGH ALL CASED BORINGS AND CONNECTED TO MARKING POSTS.
3. STEEL PIPE CASING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A283, GRADE B, C, OR D. ALL JOINTS SHALL BE WELDED. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AWWA C206, "AWWA STANDARD FOR FIELD WELDING OF STEEL WATER PIPE".
4. STEEL PIPE CASING SHALL BE INSTALLED SYMMETRICAL ABOUT WATER MAIN CENTERLINE (TYP). PIPE CASING SHALL BE LAID TRUE TO LINE AND GRADE WITH NO BENDS OR CHANGES IN GRADE FOR THE FULL LENGTH OF THE CASING.



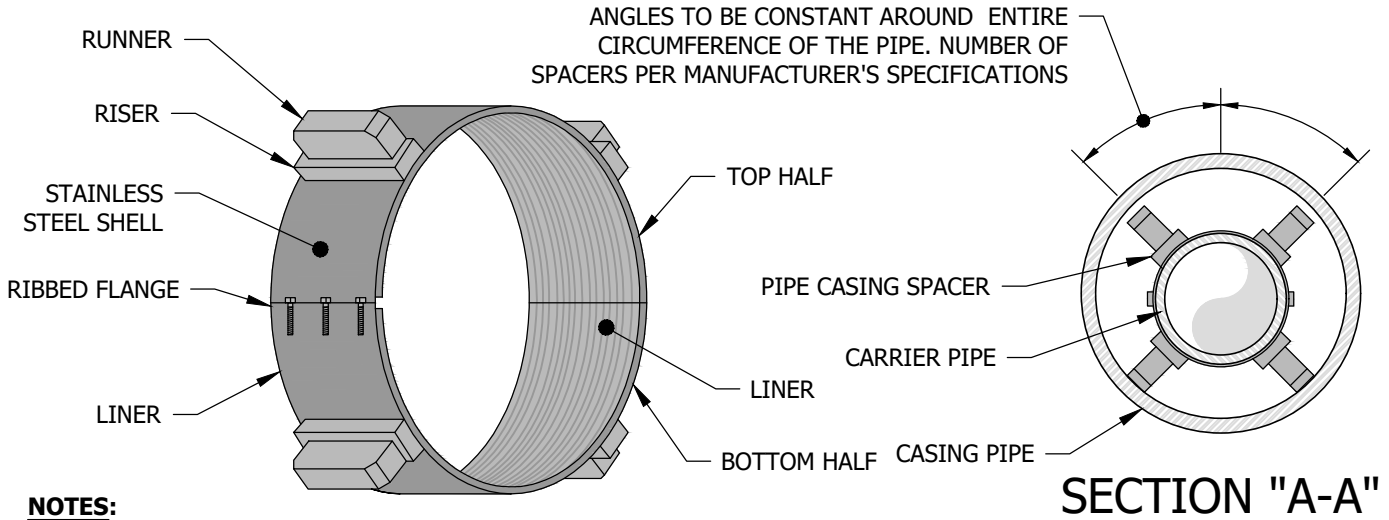
TYPICAL JACK AND BORE CASING PIPE

Approved:	01/12/2022	Adopted:	01/18/2022	Figure DW17
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.	



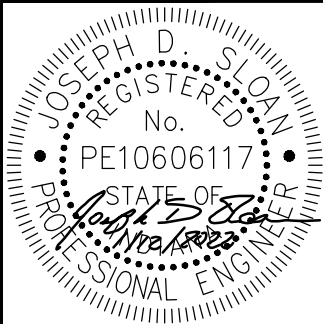
CARRIER PIPE			CARRIER PIPE		
PIPE SIZE	MIN. CASING O.D.	THICKNESS *	PIPE SIZE	MIN. CASING O.D.	THICKNESS *
4"	12"	1/4"	12"	24"	5/16"
6"	16"	1/4"	16"	30"	3/8"
8"	18"	1/4"	18"	30"	3/8"
10"	20"	5/16"	20"	36"	1/2"
			24"	42"	1/2"

* UNLESS OTHERWISE REQUIRED BY INDOT, RAILROAD OR OTHER SUCH GOVERNING AUTHORITY.



NOTES:

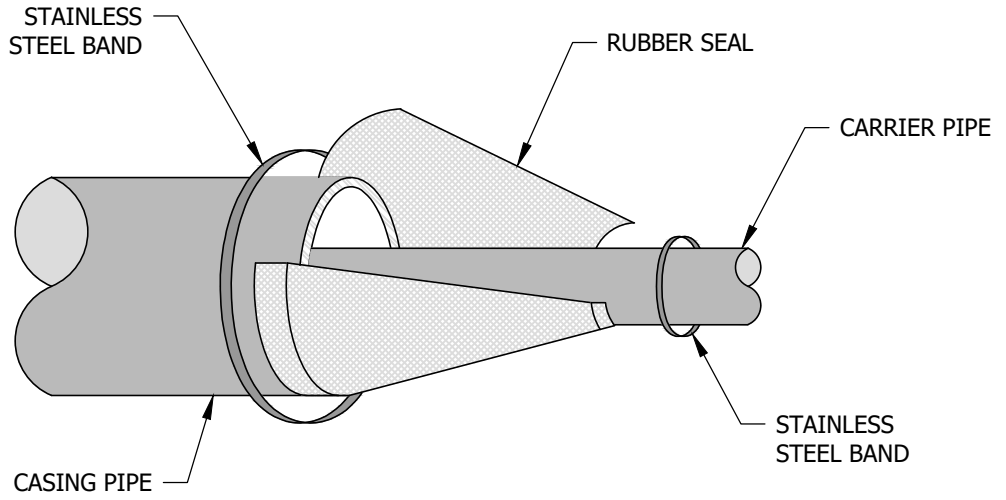
- CASING SPACERS SHALL BE CCS SERIES BY CASCADE WATERWORKS MFG. ALTERNATE CASING SPACERS MAY BE USED WITH PRIOR APPROVAL FROM CITY UTILITIES PROJECT ENGINEER.
- CITY UTILITIES APPROVED CASING SPACERS AND END SEALS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. USE A "CENTERED" CONFIGURATION AND PROVIDE THE MANUFACTURER WITH THE FOLLOWING INFORMATION: CARRIER PIPE O.D., CASING PIPE I.D., AND CASING LENGTH.



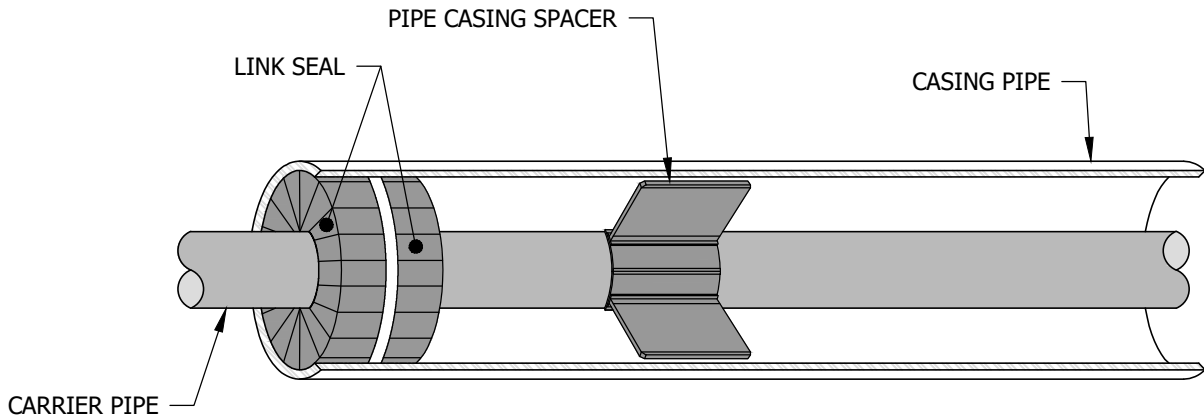
TYPICAL CASING SPACERS

Approved: 01/12/2022 Adopted: 01/18/2022
 Approved By: Joseph D. Sloan, P.E. Scale: N.T.S.

Figure DW18



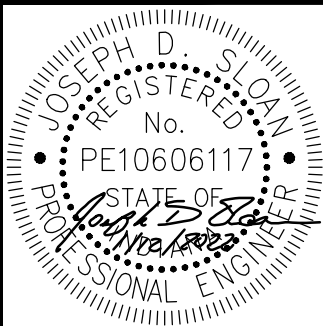
METHOD 'A'



NOTE:

THIS STANDARD IS APPLICABLE FOR 4" DIAMETER AND LARGER CARRIER PIPE.

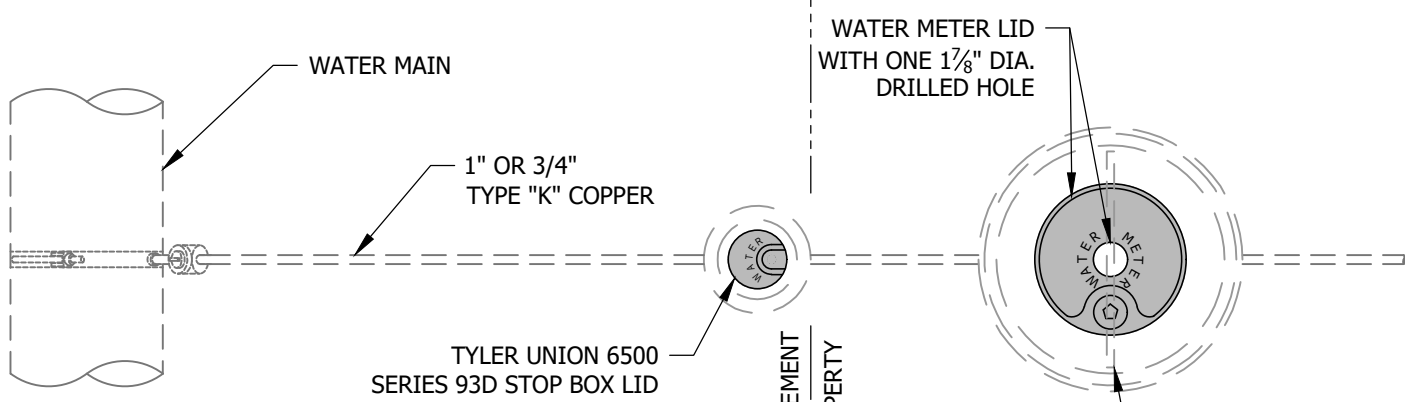
METHOD 'B'



TYPICAL CASING END SEALS

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

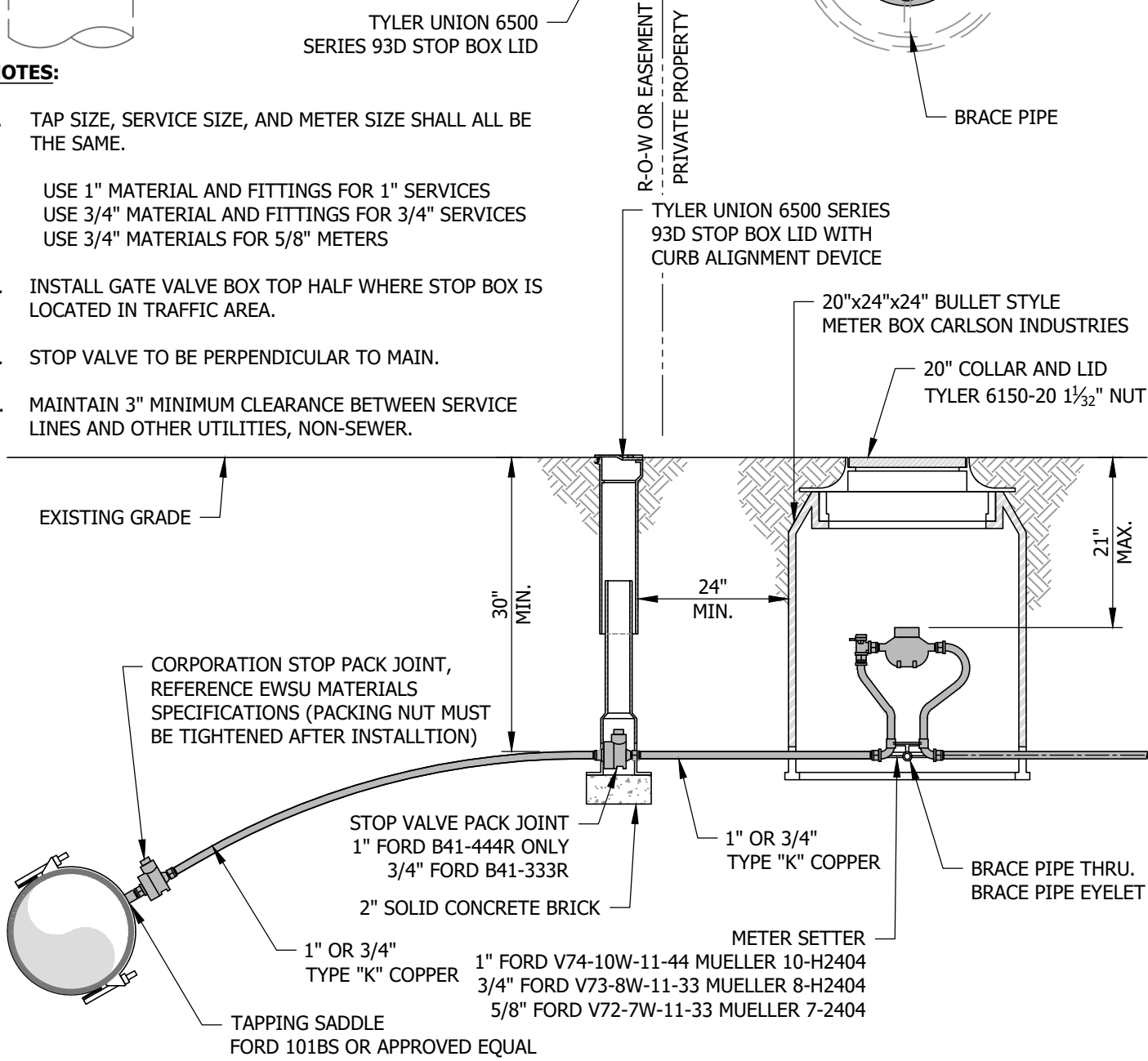
Figure DW19



NOTES:

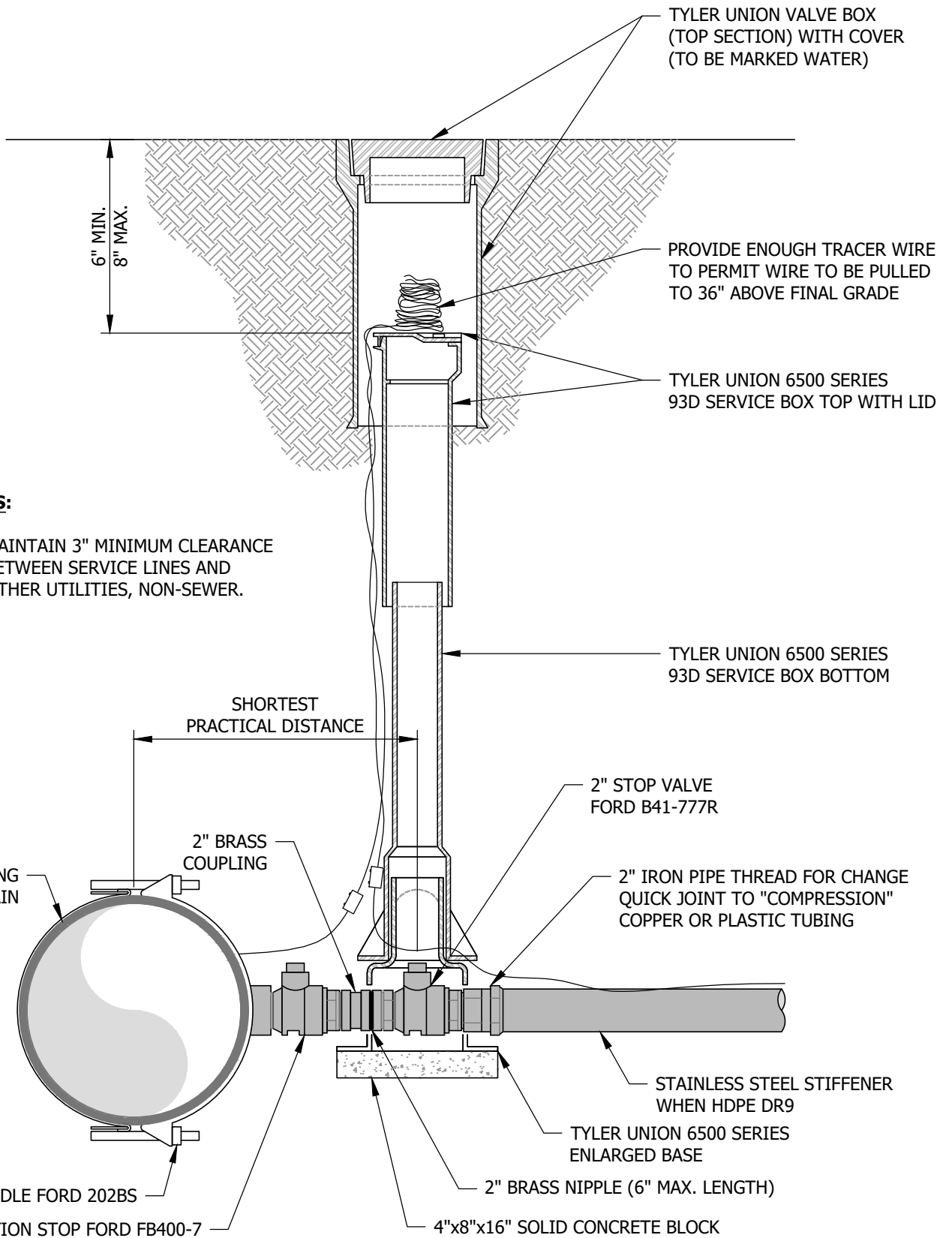
1. TAP SIZE, SERVICE SIZE, AND METER SIZE SHALL ALL BE THE SAME.

USE 1" MATERIAL AND FITTINGS FOR 1" SERVICES
USE 3/4" MATERIAL AND FITTINGS FOR 3/4" SERVICES
USE 3/4" MATERIALS FOR 5/8" METERS
2. INSTALL GATE VALVE BOX TOP HALF WHERE STOP BOX IS LOCATED IN TRAFFIC AREA.
3. STOP VALVE TO BE PERPENDICULAR TO MAIN.
4. MAINTAIN 3" MINIMUM CLEARANCE BETWEEN SERVICE LINES AND OTHER UTILITIES, NON-SEWER.



3/4" OR 1" METER SERVICE CONNECTION

Approved:	01/12/2022	Adopted:	01/18/2022	Figure DW20
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.	



NOTES:

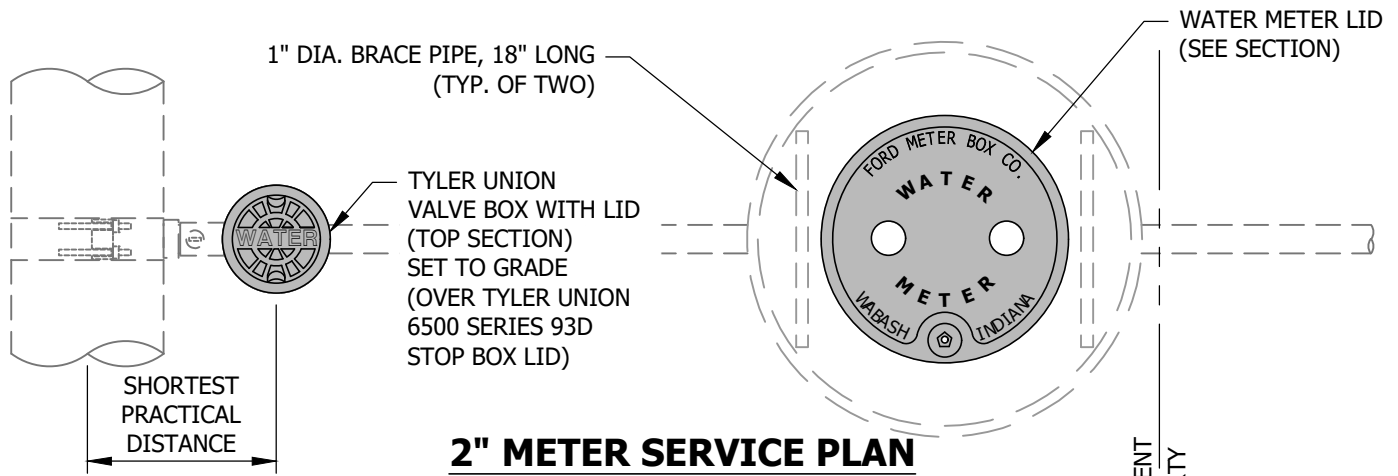
1. MAINTAIN 3" MINIMUM CLEARANCE BETWEEN SERVICE LINES AND OTHER UTILITIES, NON-SEWER.



2" TAP DETAIL

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure DW21

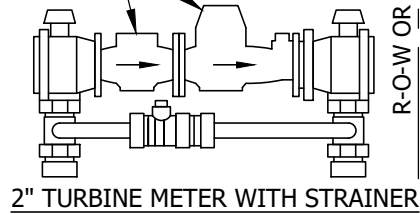


2" METER SERVICE PLAN

NOTES:

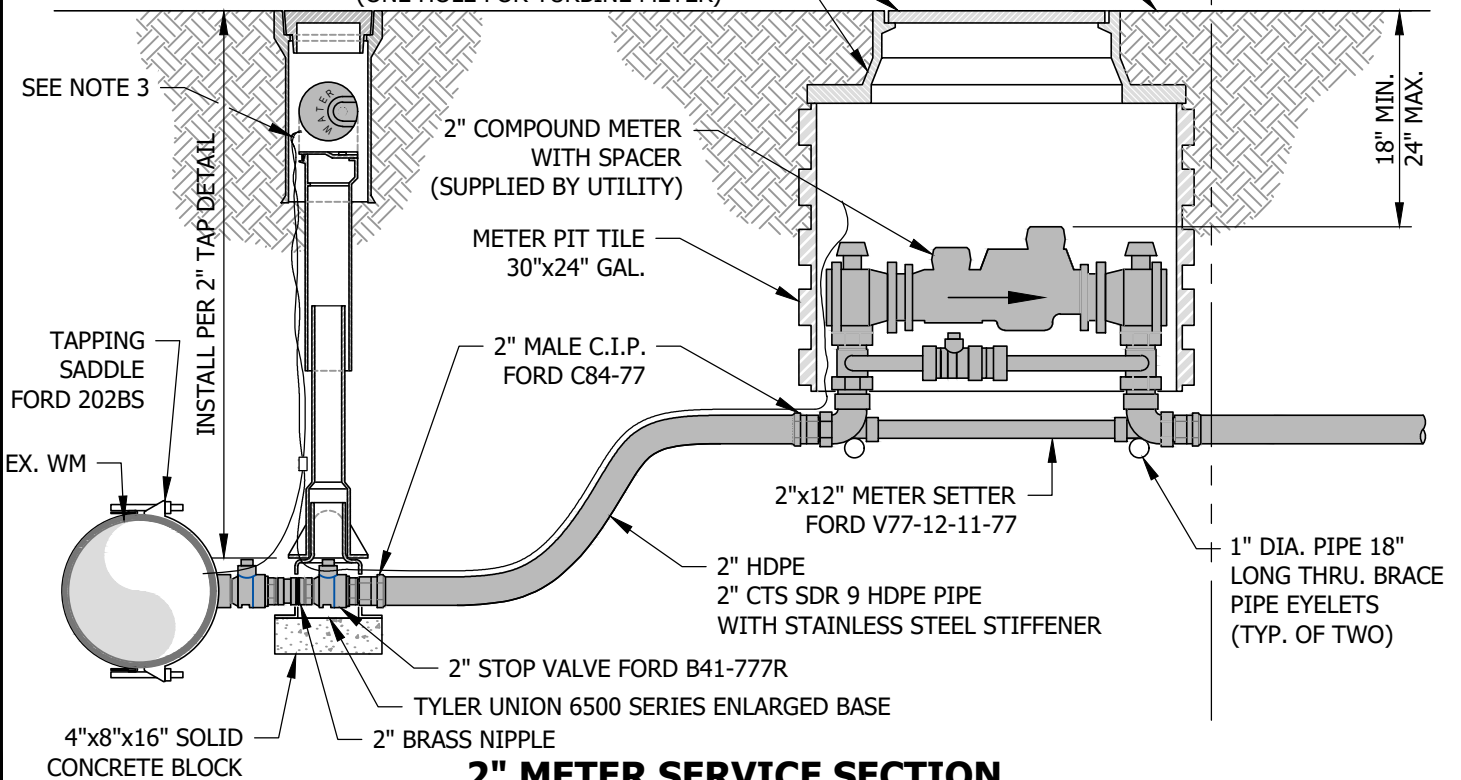
1. MAINTAIN 3" MINIMUM CLEARANCE BETWEEN SERVICE LINES AND OTHER UTILITIES, NON-SEWER.
2. METER PIT SHALL BE PERPENDICULAR TO MAIN.
3. PROVIDE ENOUGH TRACER WIRE TO PERMIT WIRE TO BE PULLED TO 36" ABOVE FINAL GRADE.

2" TURBINE METER WITH STRAINER (SUPPLIED BY UTILITY)



30" ALUM. COLLAR AND LID
1 3/4" DIA. HOLES DRILLED:
TWO HOLES FOR COMPOUND METER
(ONE HOLE FOR TURBINE METER)

EXISTING GRADE



2" METER SERVICE SECTION



2" METER SERVICE CONNECTION

Approved: 01/12/2022
Approved By: Joseph D. Sloan, P.E.

Adopted: 01/18/2022
Scale: N.T.S.

Figure DW22

FLANGED 4" 90° BEND (TYP.)
(LONG RADIUS REQ'D FOR FIRE METER)

DUCTILE IRON PIPE

FLOW

FLANGED 4"x4"x4" TEE

13"

FLANGED 4"
GATE VALVE

9"

2" TEST PLUG

20"
SEE NOTE 2

UNIFLANGE
ADAPTER

VARIES

84"

UNIFLANGE ADAPTER

VARIES

UNIFLANGE
ADAPTER

FLANGED 4" GATE VALVE

FLANGED 4"
GATE VALVE

9"

FLANGED 4"x4"x4" TEE

13"

FLOW

17.5"

NOTES:

1. ALL VALVES SHALL BE OPEN RIGHT. INDICATE DIRECTION OF OPERATION ON HANDWHEEL.
2. 4" OMNI C2 COMPOUND METER SHOWN
(4" OMNI F2 METER = 33")
(4" OMNI T2 METER = 23")



4" METER SERVICE CONNECTION

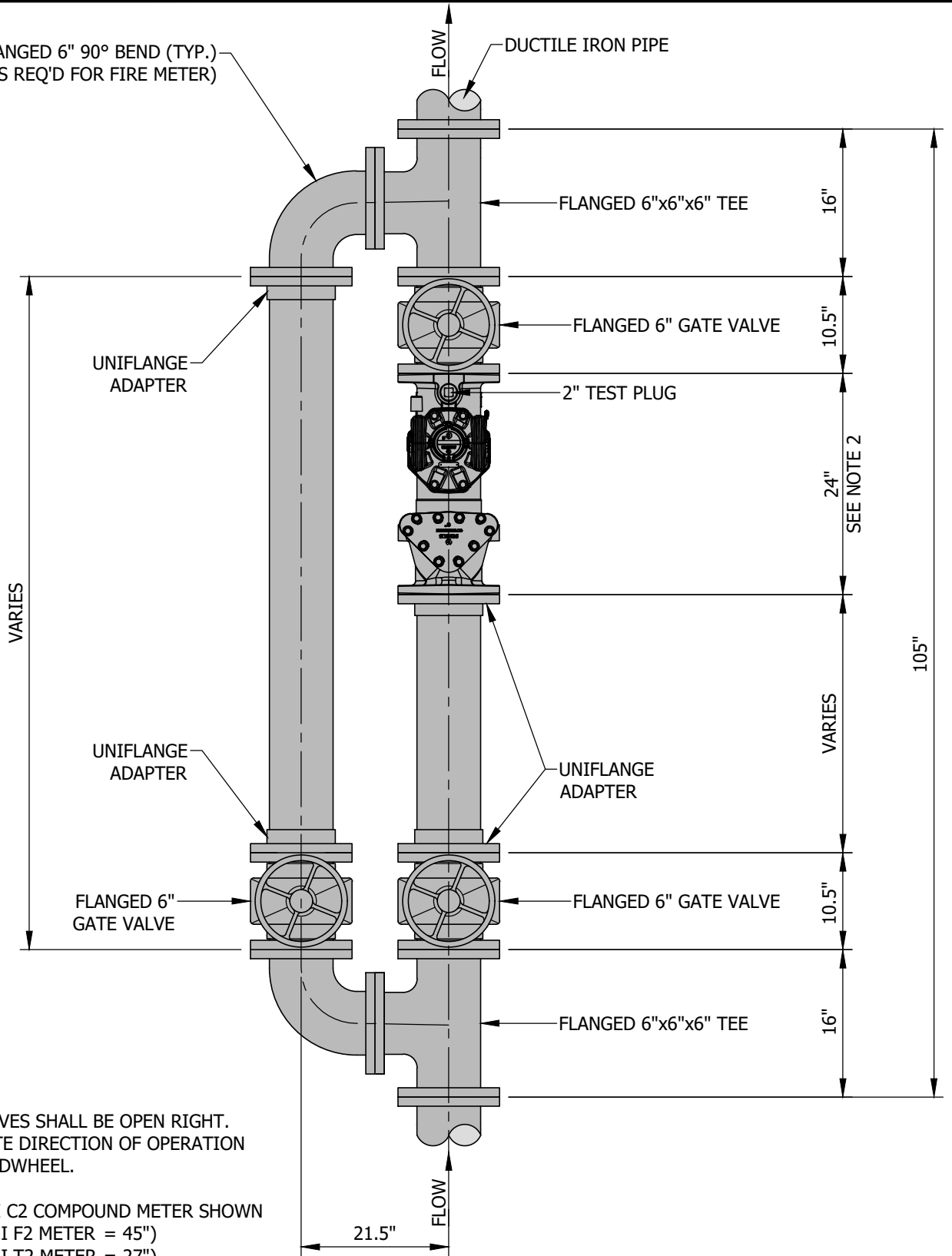
Approved: 01/12/2022
Approved By: Joseph D. Sloan, P.E.

Adopted: 01/18/2022
Scale: N.T.S.

Figure DW23

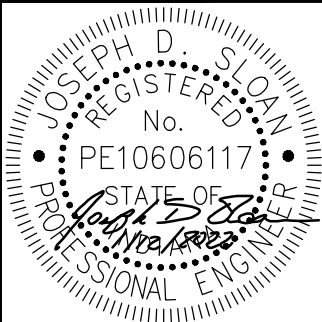
FLANGED 6" 90° BEND (TYP.)
(LONG RADIUS REQ'D FOR FIRE METER)

DUCTILE IRON PIPE



NOTES:

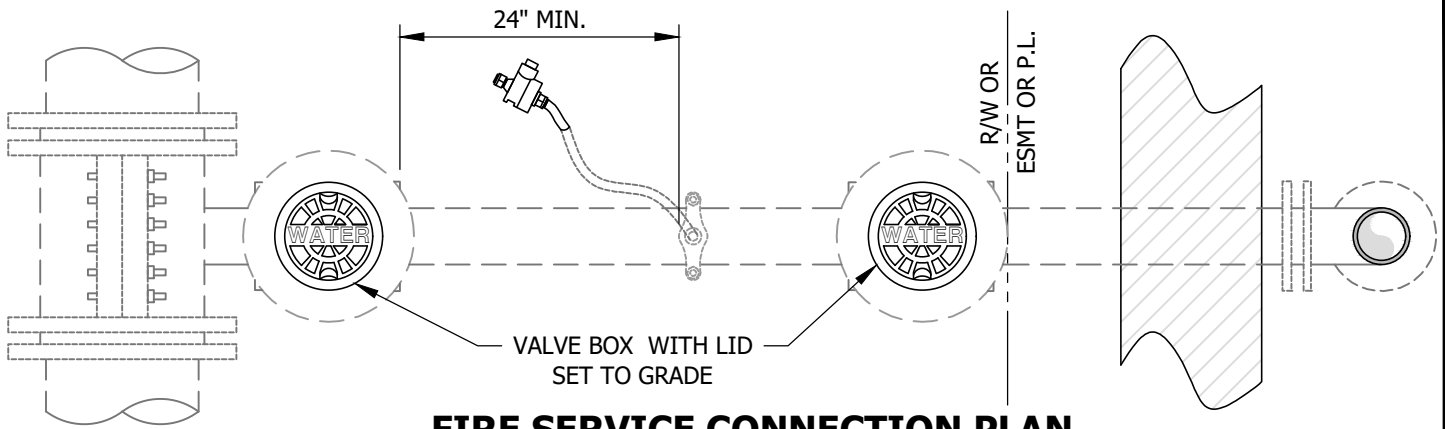
1. ALL VALVES SHALL BE OPEN RIGHT. INDICATE DIRECTION OF OPERATION ON HANDWHEEL.
2. 6" OMNI C2 COMPOUND METER SHOWN
(6" OMNI F2 METER = 45")
(6" OMNI T2 METER = 27")



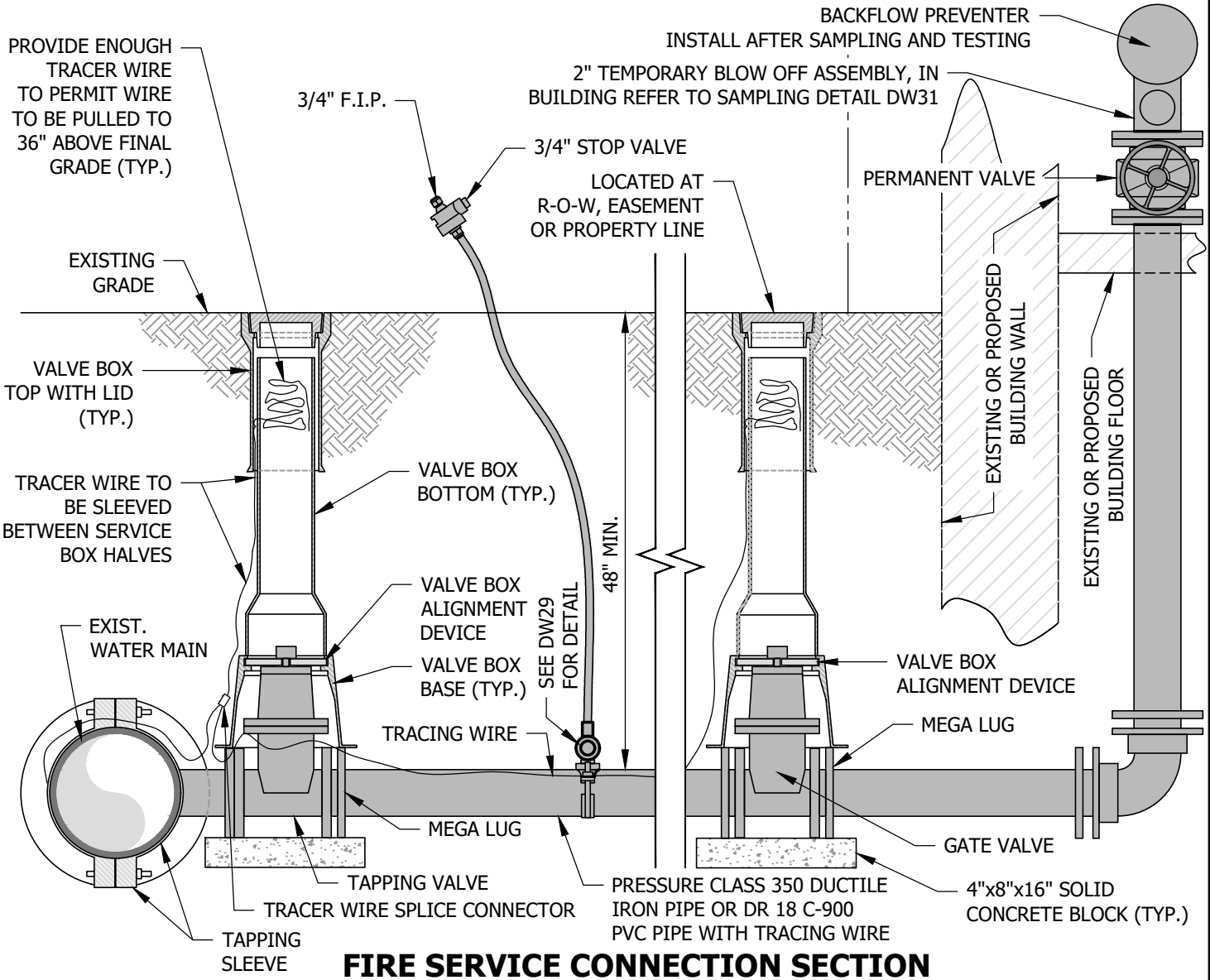
6" METER SERVICE CONNECTION

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

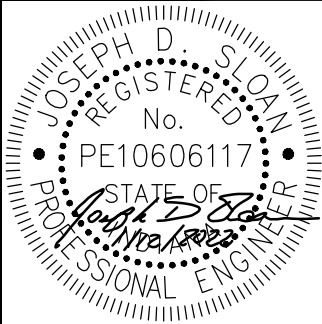
Figure DW24



FIRE SERVICE CONNECTION PLAN



FIRE SERVICE CONNECTION SECTION

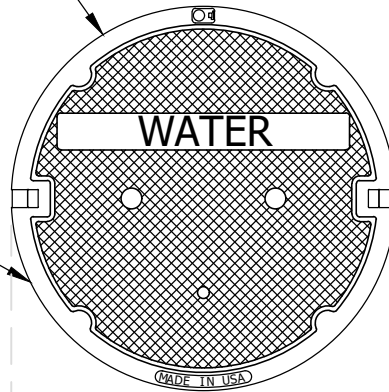


FIRE SERVICE CONNECTION

Approved:	01/12/2022	Adopted:	01/18/2022	Figure DW25
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.	

COVER DRILLED WITH
1 3/4" DIAMETER HOLES
(TWO HOLES FOR COMPOUND METER
AND ONE HOLE FOR ALL OTHER METERS)

EJ #1480C
HEAVY DUTY COVER
MARKED "WATER"



EJ FRAME #1480Z

FINAL GRADE

STAINLESS STEEL WEDGE
ANCHOR 1/2"x3/4" WITH
S.S. NUT AND WASHER
(MINIMUM OF TWO)

18" MIN.
24" MAX.

30" RCP

METER SETTER
(TYPE VARIES)

VARIES

6"

10"

#4 BARS @ 12" O.C.
EACH WAY

POURED CONCRETE BASE

4" OPEN GRADED CRUSHED STONE (#5, #8, OR #11)

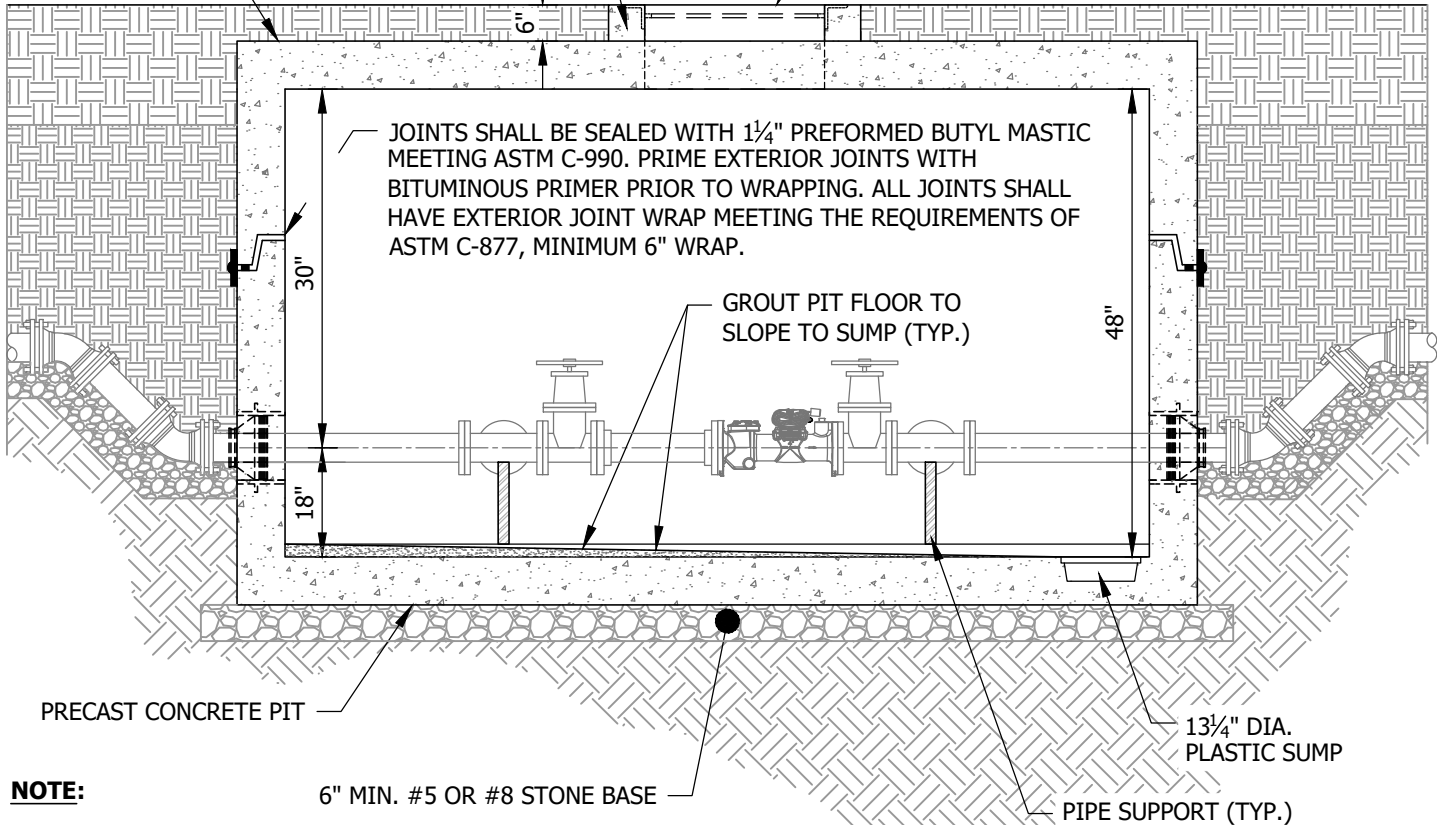
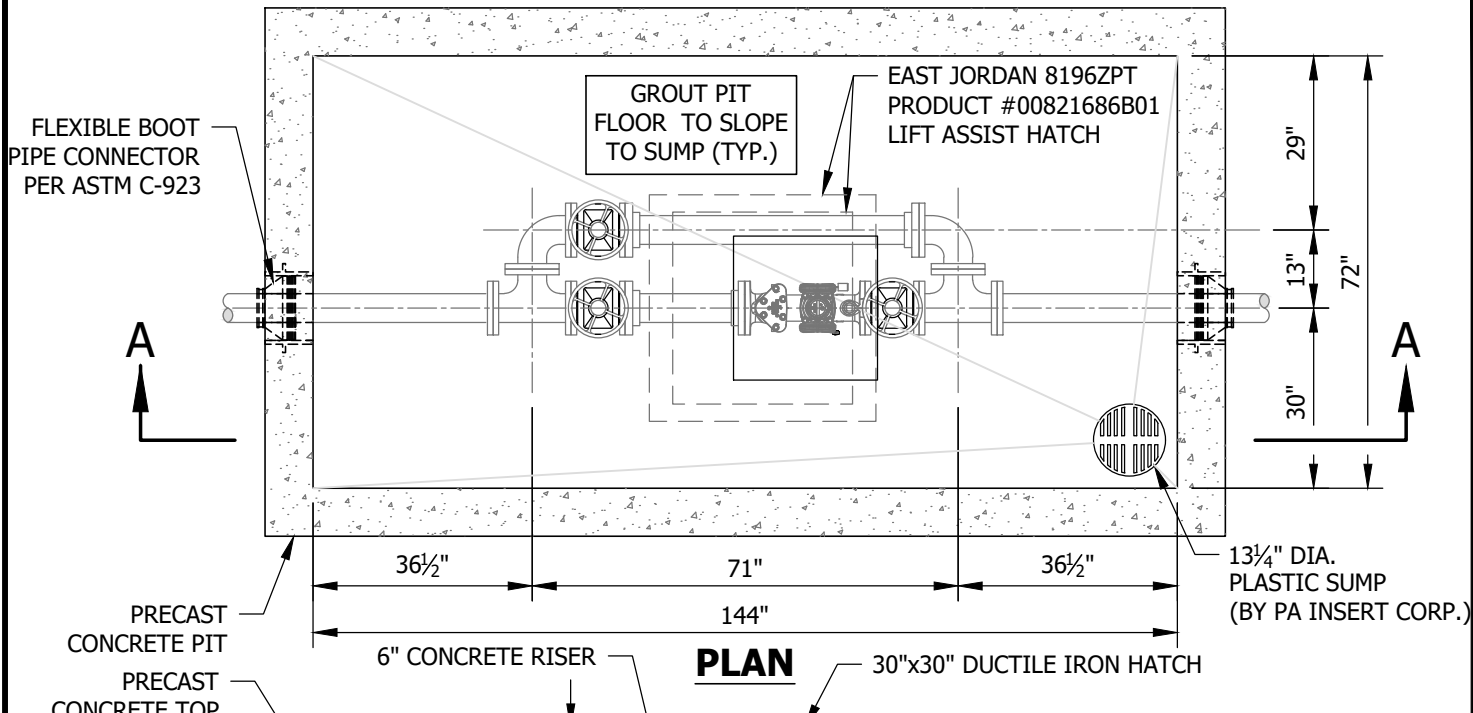


TRAFFIC RATED METER PIT

Approved: 01/12/2022
Approved By: Joseph D. Sloan, P.E.

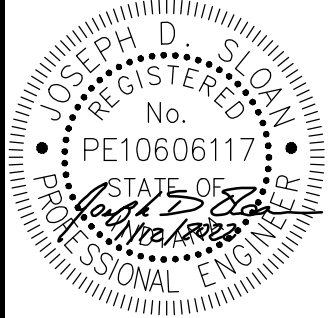
Adopted: 01/18/2022
Scale: N.T.S.

Figure DW26



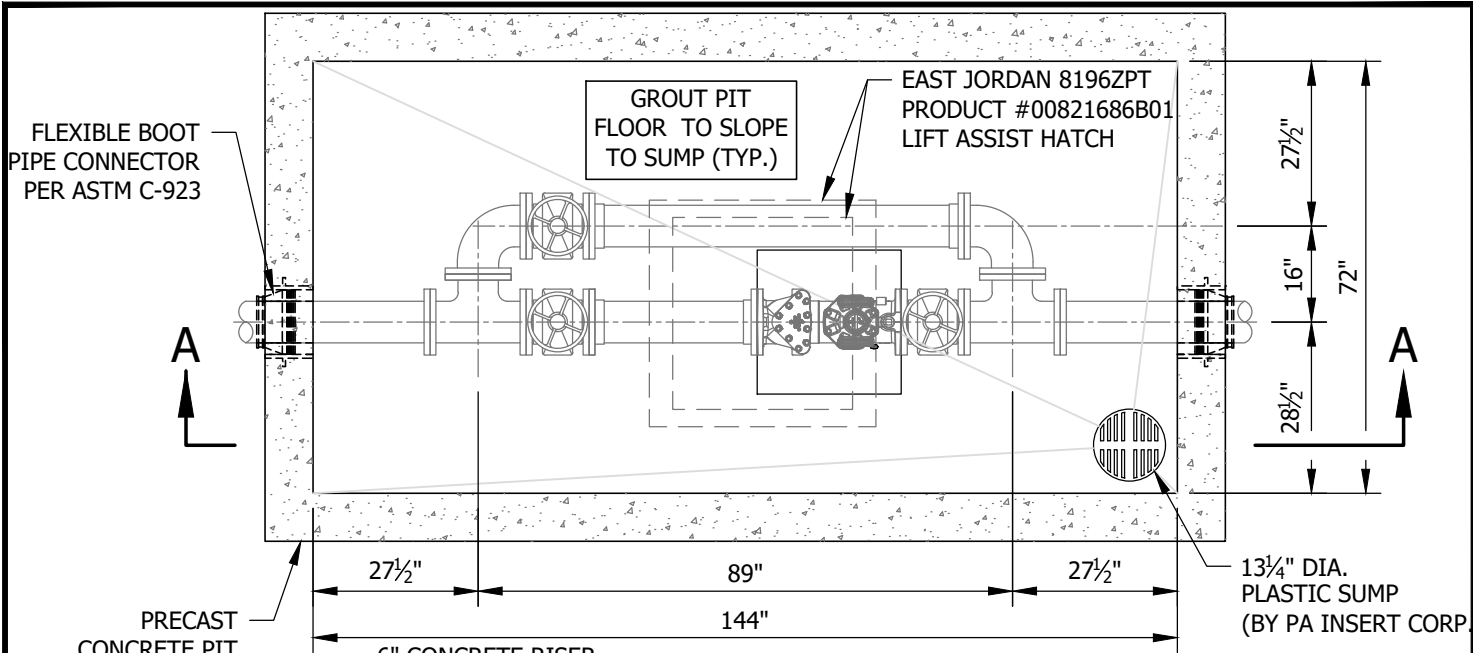
NOTE:
SEE 4" AND 6" METER SERVICE CONNECTION DETAILS FOR PIPING, VALVES AND APPURTENANCES.

SECTION "A-A"

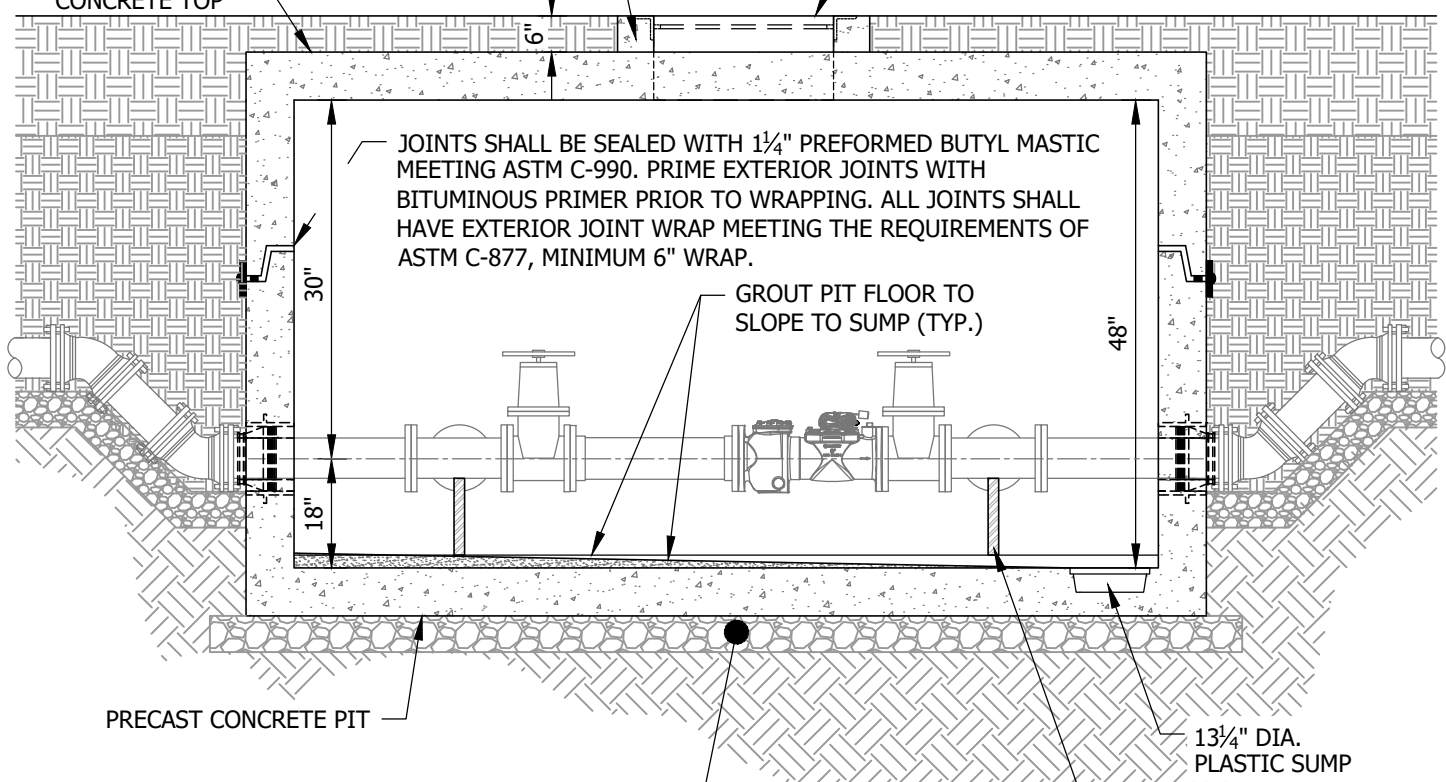


4" METER PIT

Approved:	01/12/2022	Adopted:	01/18/2022	Figure DW27
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.	



PLAN



SECTION "A-A"

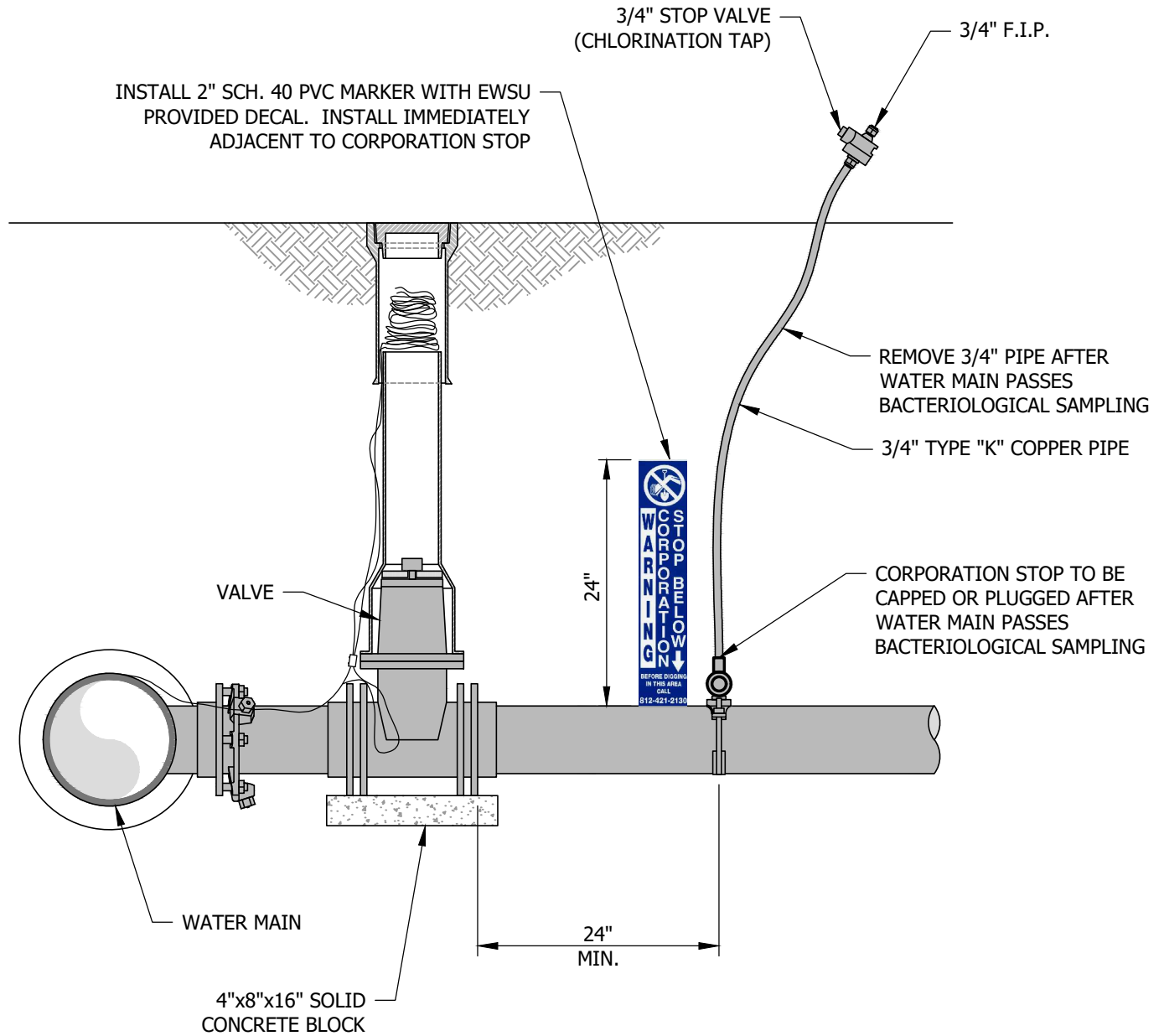
NOTE:

SEE 4" AND 6" METER SERVICE CONNECTION DETAILS FOR PIPING, VALVES AND APPURTENANCES.



6" METER PIT

Approved:	01/12/2022	Adopted:	01/18/2022	Figure DW28
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.	



NOTES:

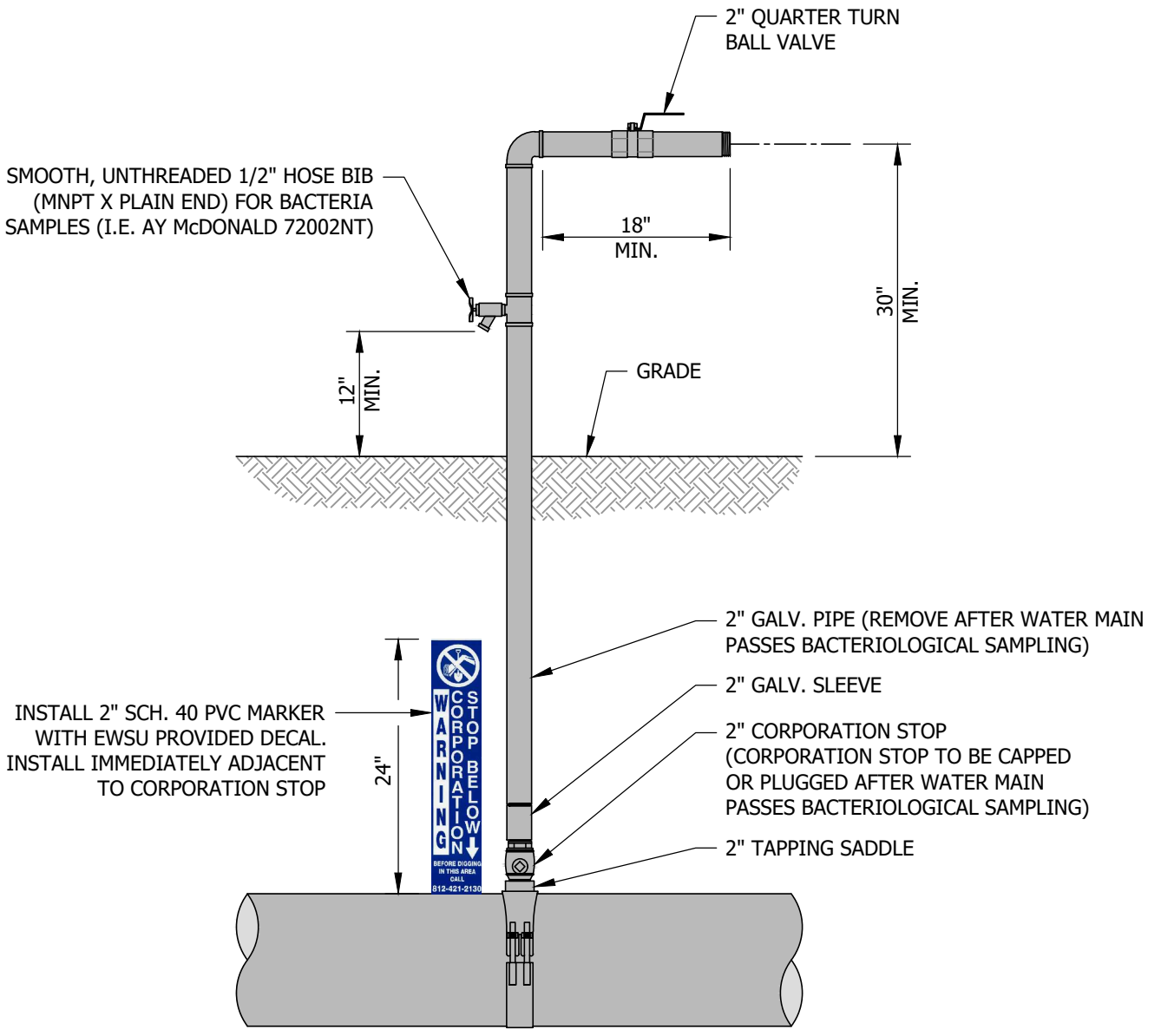
1. CORPORATION STOP TO BE CAPPED OR PLUGGED AFTER WATER MAIN PASSES BACTERIOLOGICAL SAMPLING.
2. INSTALL 2" SCH. 40 PVC MARKER WITH EWSU PROVIDED DECAL. INSTALL IMMEDIATELY ADJACENT TO CORPORATION STOP.
3. DETAIL REPRESENTS A TYPICAL WATER MAIN BRANCH CONNECTION.



CHLORINATION / DISINFECTION TAP

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure DW29



NOTES:

1. CORPORATION STOP TO BE CAPPED OR PLUGGED AFTER WATER MAIN PASSES BACTERIOLOGICAL SAMPLING.
2. INSTALL 2" SCH. 40 PVC MARKER WITH EWSU PROVIDED DECAL. INSTALL IMMEDIATELY ADJACENT TO CORPORATION STOP.

24" MIN. TO NEAREST JOINT, VALVE, FITTING, OR APPURTENANCE



TEMPORARY BLOWOFF ASSEMBLY WITH SADDLE

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

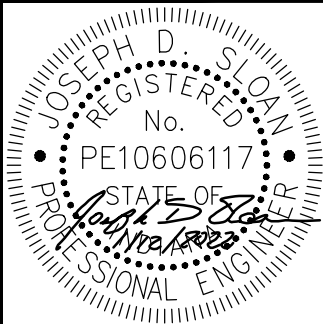
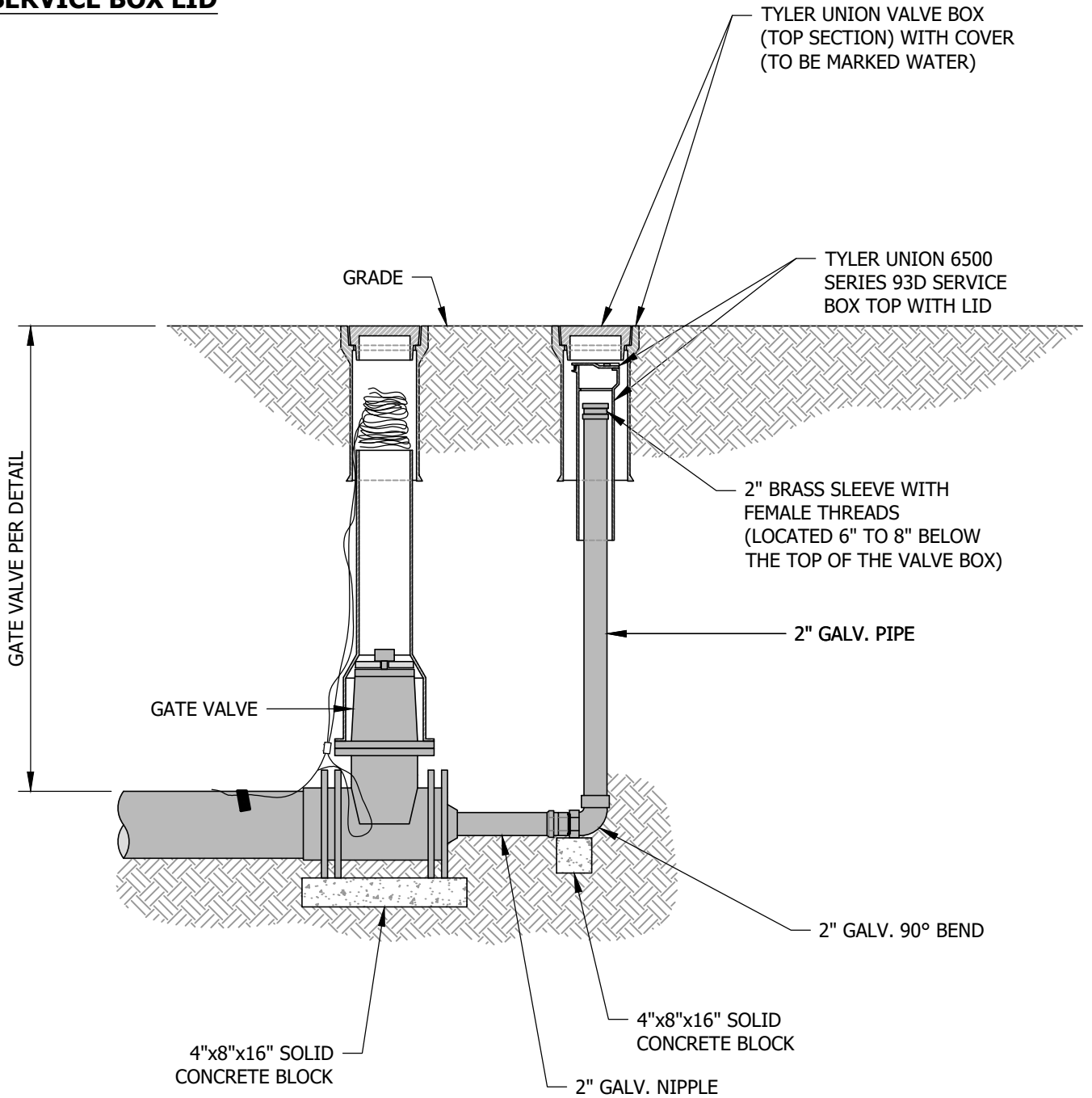
Figure **DW30-1**



VALVE BOX COVER



SERVICE BOX LID



**TEMPORARY BLOWOFF ASSEMBLY
IN TRAFFIC AREA**

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

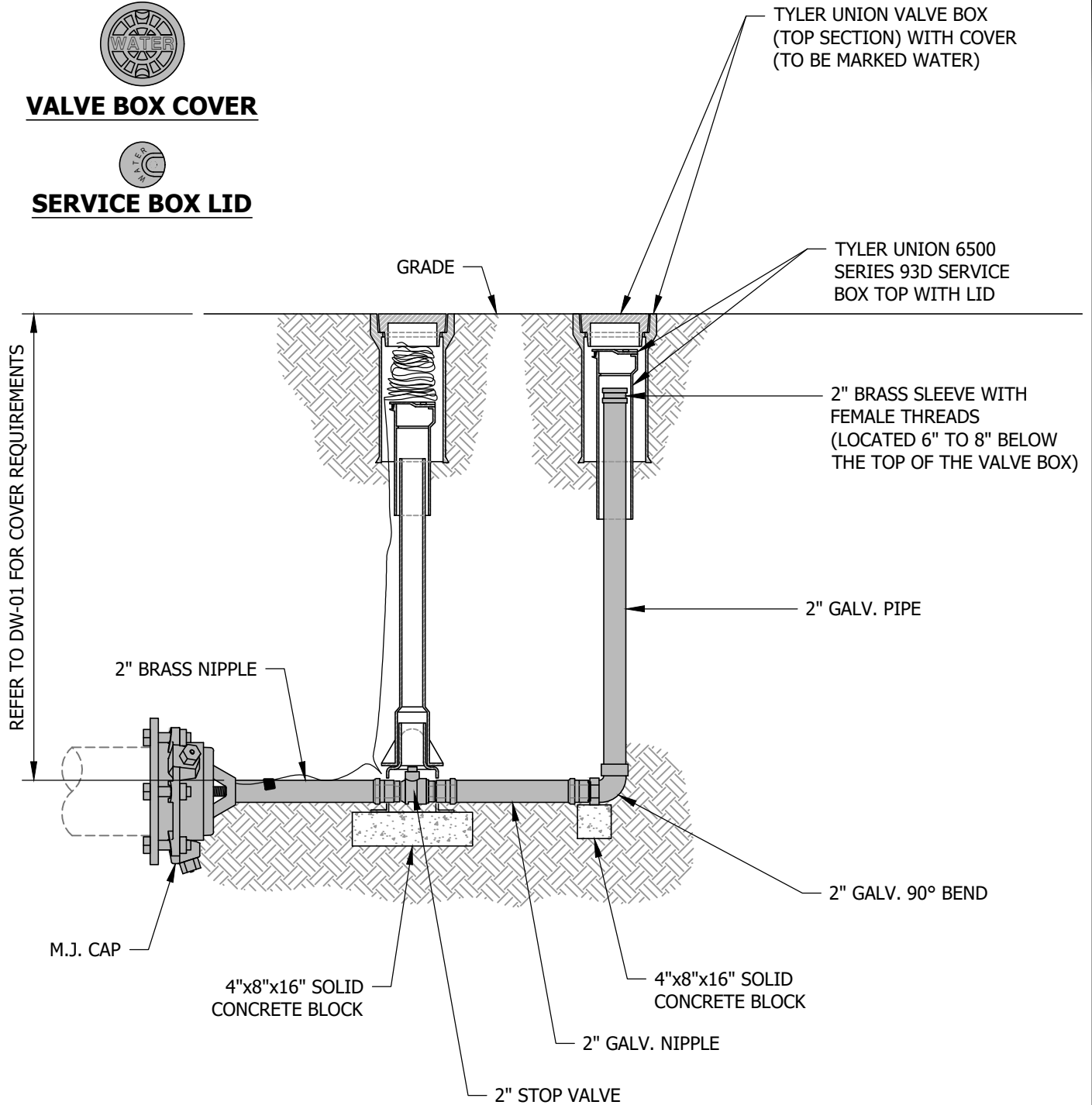
Figure DW30-2



VALVE BOX COVER

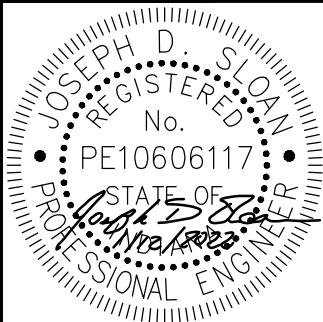


SERVICE BOX LID



NOTE:

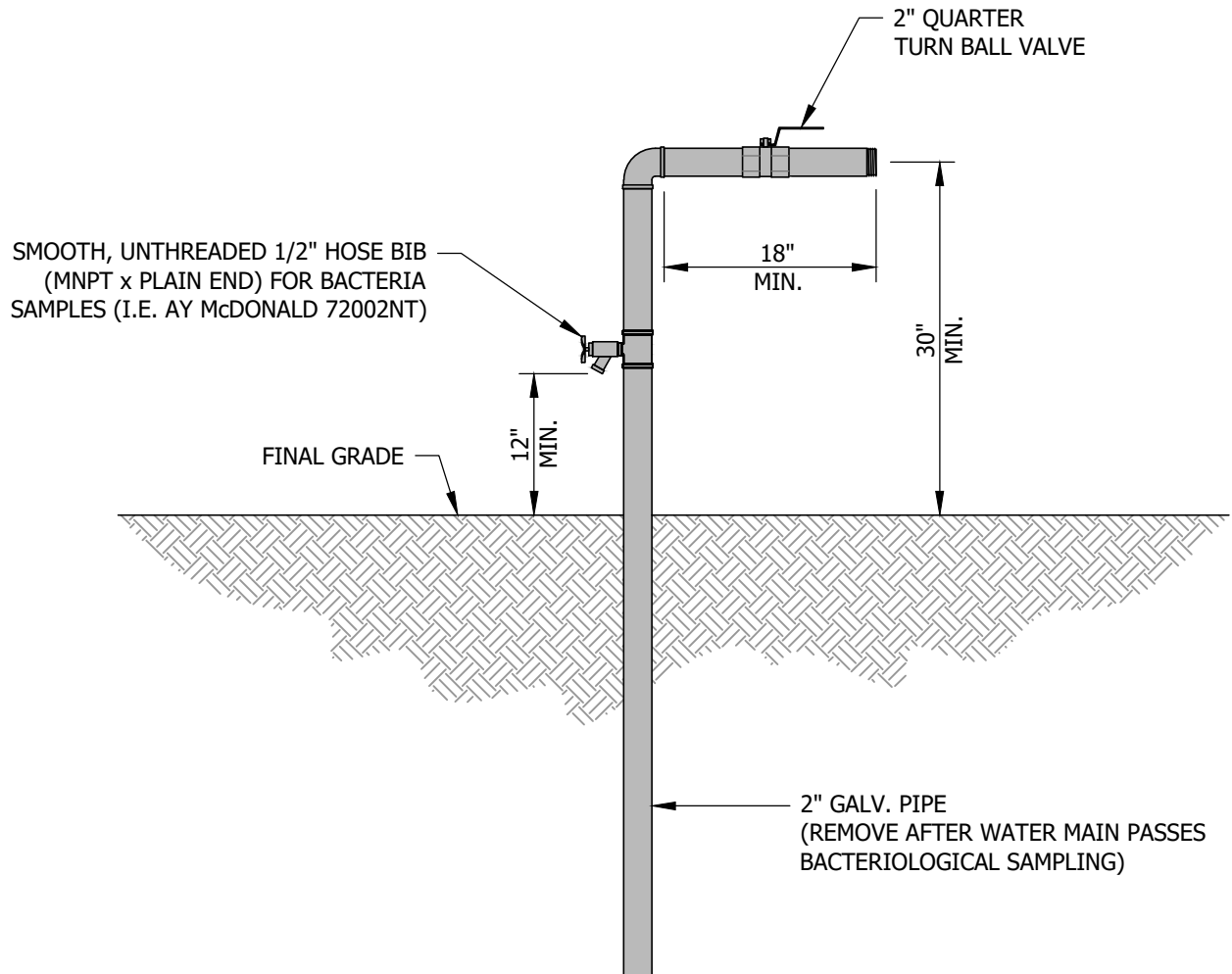
HISTORIC DETAIL. FOR REFERENCE ONLY FOR USE IN WATER MAIN EXTENSION INSTALLATION CLARIFICATION.



**PERMANENT BLOWOFF ASSEMBLY
WITH 2" STOP VALVE**

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

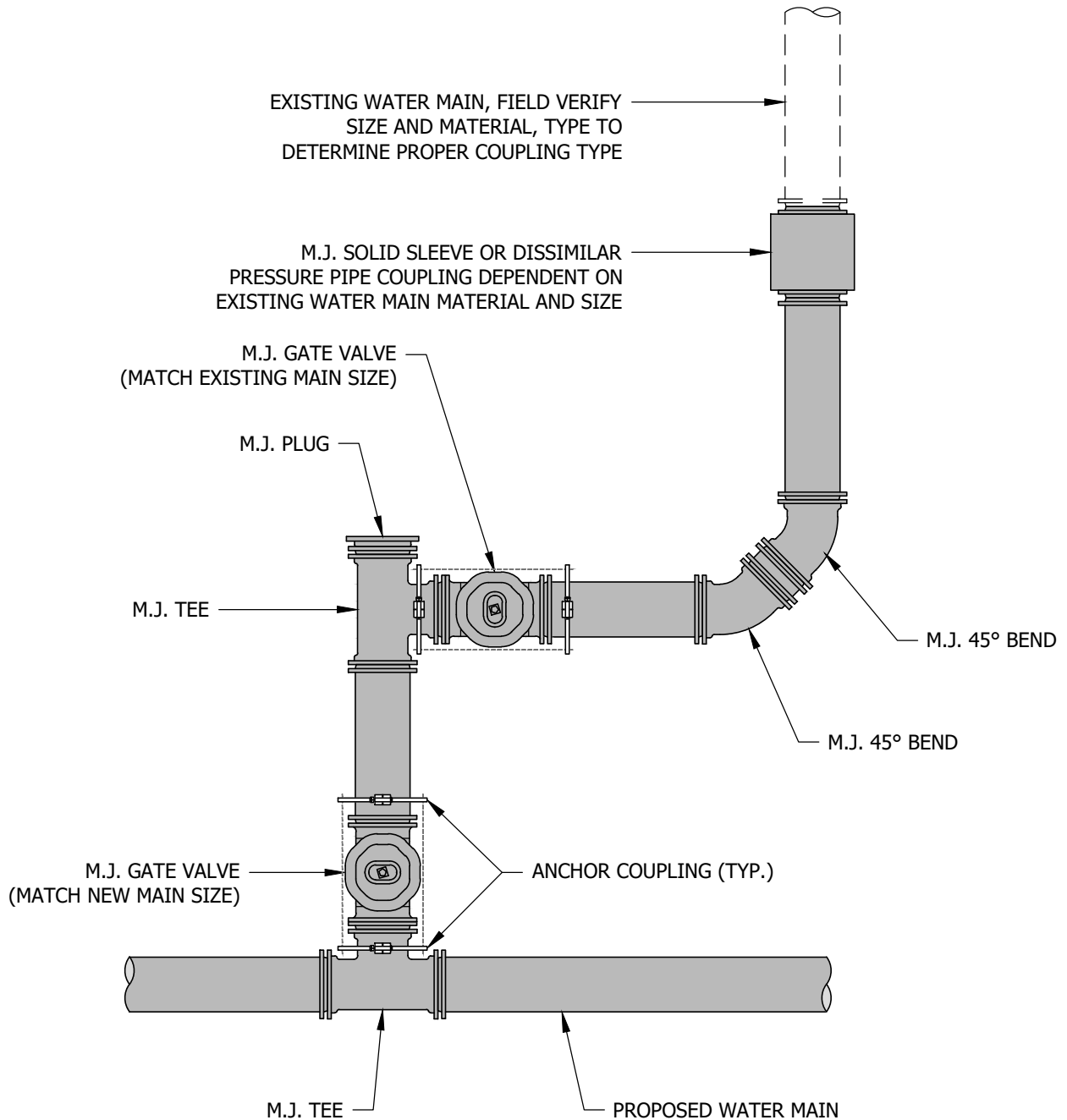
Figure DW30-3



WATER MAIN FLUSHING AND SAMPLING ASSEMBLY

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure
DW31



NOTE:

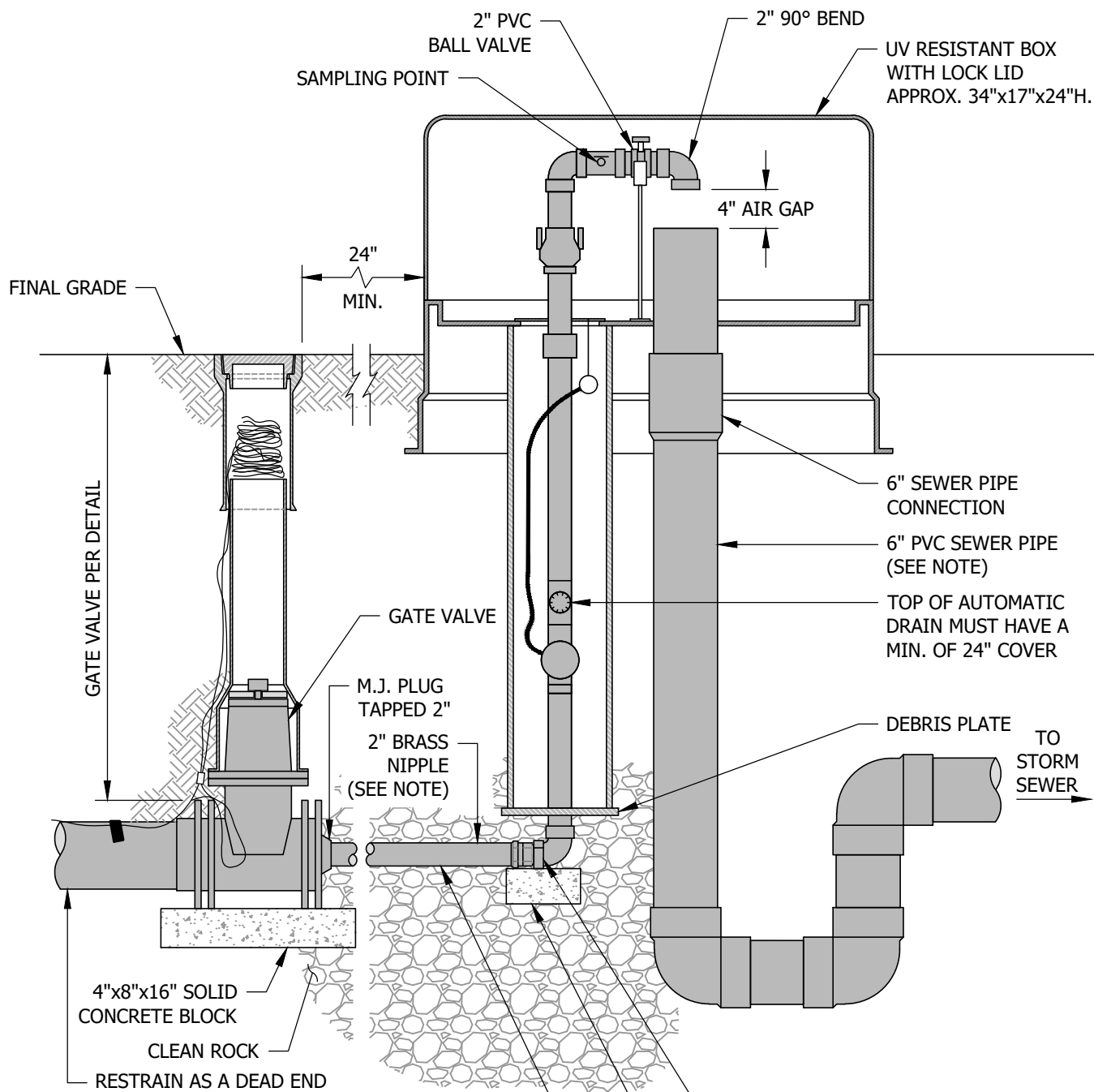
IF CONNECTING EXISTING WATER MAIN IS DEAD END OR IF LENGTH OF NEW ANCILLARY PIPING IS GREATER THAN 20 FEET, AN M.J. GATE VALVE SHOULD BE ADDED BETWEEN THE M.J. TEE AND M.J. PLUG.



TYPICAL ANCILLARY WATER MAIN CONNECTION DETAIL

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure DW32



NOTES:

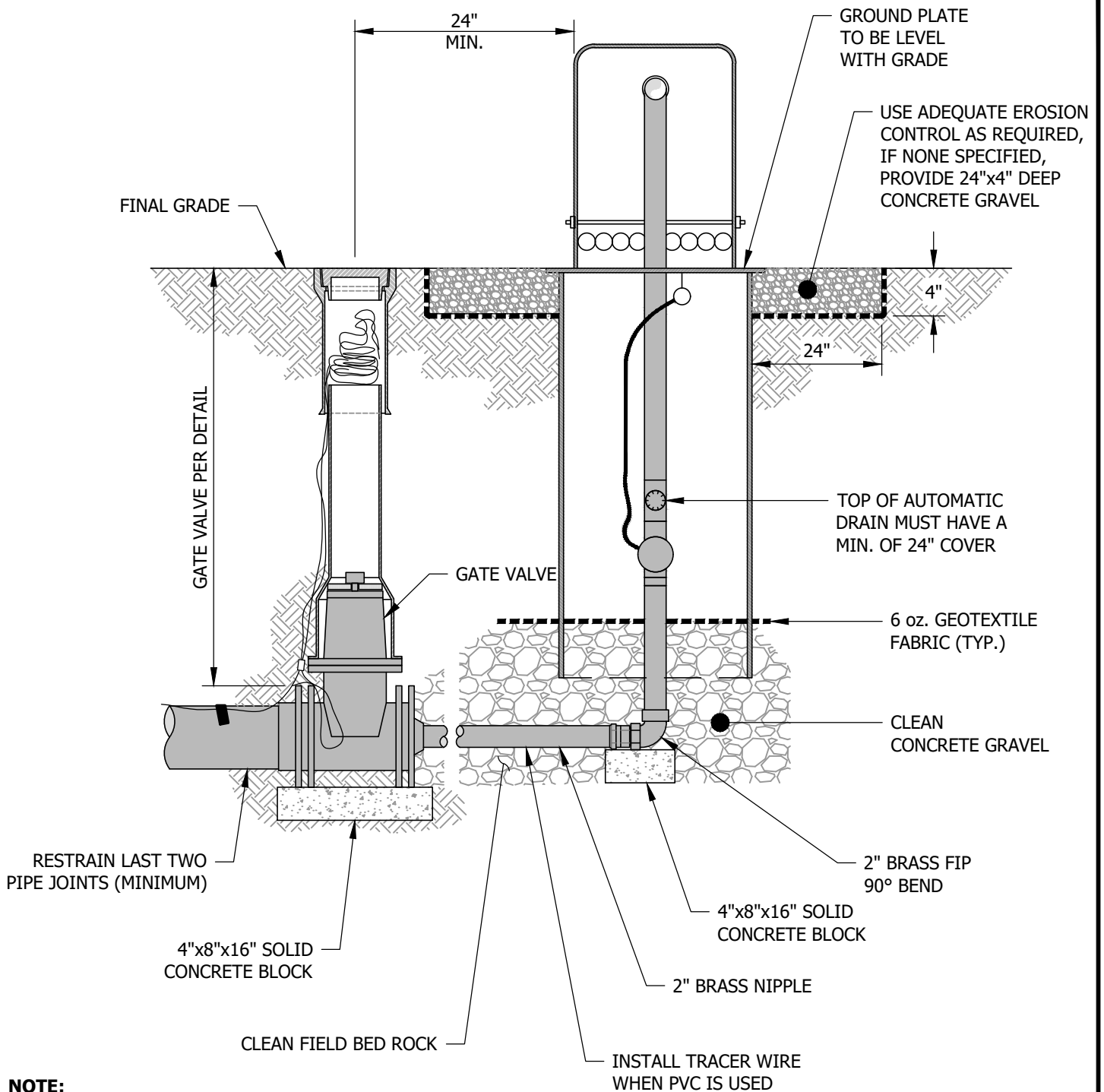
1. MAY USE TYPE "K" RIGID COPPER IF OVER 3'-0".
2. CONTRACTOR TO PROVIDE KEYS TO EWSU UPON INSTALLATION.
3. PRIOR TO THE PERMANENT INSTALLATION OF THE VERTICAL FLUSHING DEVICE, THE VERTICAL PIPING AND SURFACE COMPONENTS OF THE TEMPORARY BLOWOFF ASSEMBLY REPRESENTED IN DW31 MAY BE INSTALLED ABOVE THE 2" BRASS FIP 90° BEND FOR A FLUSHING AND SAMPLING LOCATION DURING TESTING.



AUTOMATIC FLUSHING DEVICE WITH GATE VALVE (ECLIPSE 9800)

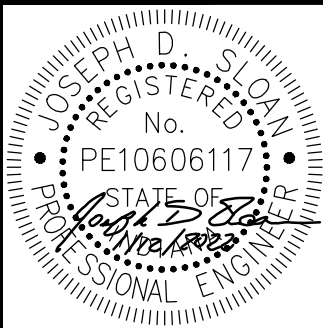
Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure
DW33



NOTE:

PRIOR TO THE PERMANENT INSTALLATION OF THE VERTICAL PIPING FOR THE AUTOMATIC FLUSHING DEVICE, THE VERTICAL PIPING AND SURFACE COMPONENTS OF THE TEMPORARY BLOWOFF ASSEMBLY REPRESENTED IN DW31 MAY BE INSTALLED ABOVE THE 2" BRASS FIP 90° BEND FOR A FLUSHING AND SAMPLING LOCATION DURING TESTING.



AUTOMATIC FLUSHING DEVICE WITH GATE VALVE (ECLIPSE 9400)

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

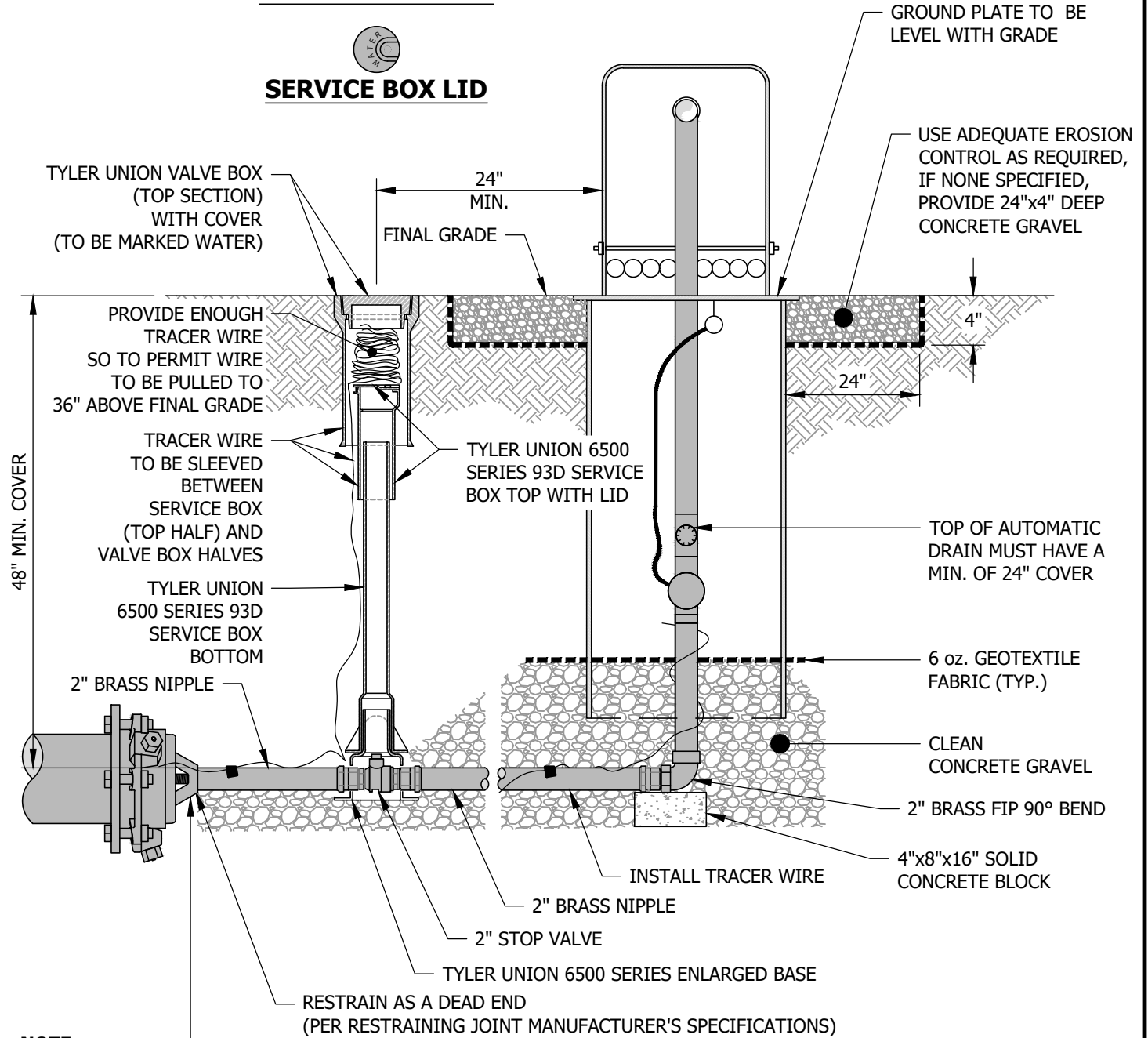
Figure **DW34**



VALVE BOX COVER



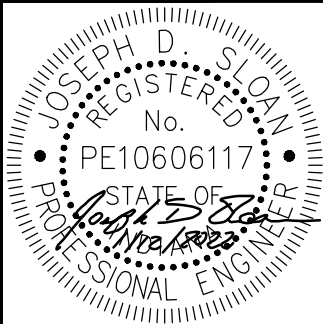
SERVICE BOX LID



NOTE:

D.I.M.J. CAP, TAPPED 2" w/ THREADED CONNECTION AND CAP, REDUCE TO 2" TO MAKE CONNECTION

PRIOR TO THE PERMANENT INSTALLATION OF THE VERTICAL PIPING FOR THE AUTOMATIC FLUSHING DEVICE, THE VERTICAL PIPING AND SURFACE COMPONENTS OF THE TEMPORARY BLOWOFF ASSEMBLY REPRESENTED IN DW31 MAY BE INSTALLED ABOVE THE 2" BRASS FIP 90° BEND FOR A FLUSHING AND SAMPLING LOCATION DURING TESTING.



**AUTOMATIC FLUSHING DEVICE WITH
2" STOP VALVE (ECLIPSE 9400)**

Approved: 01/12/2022

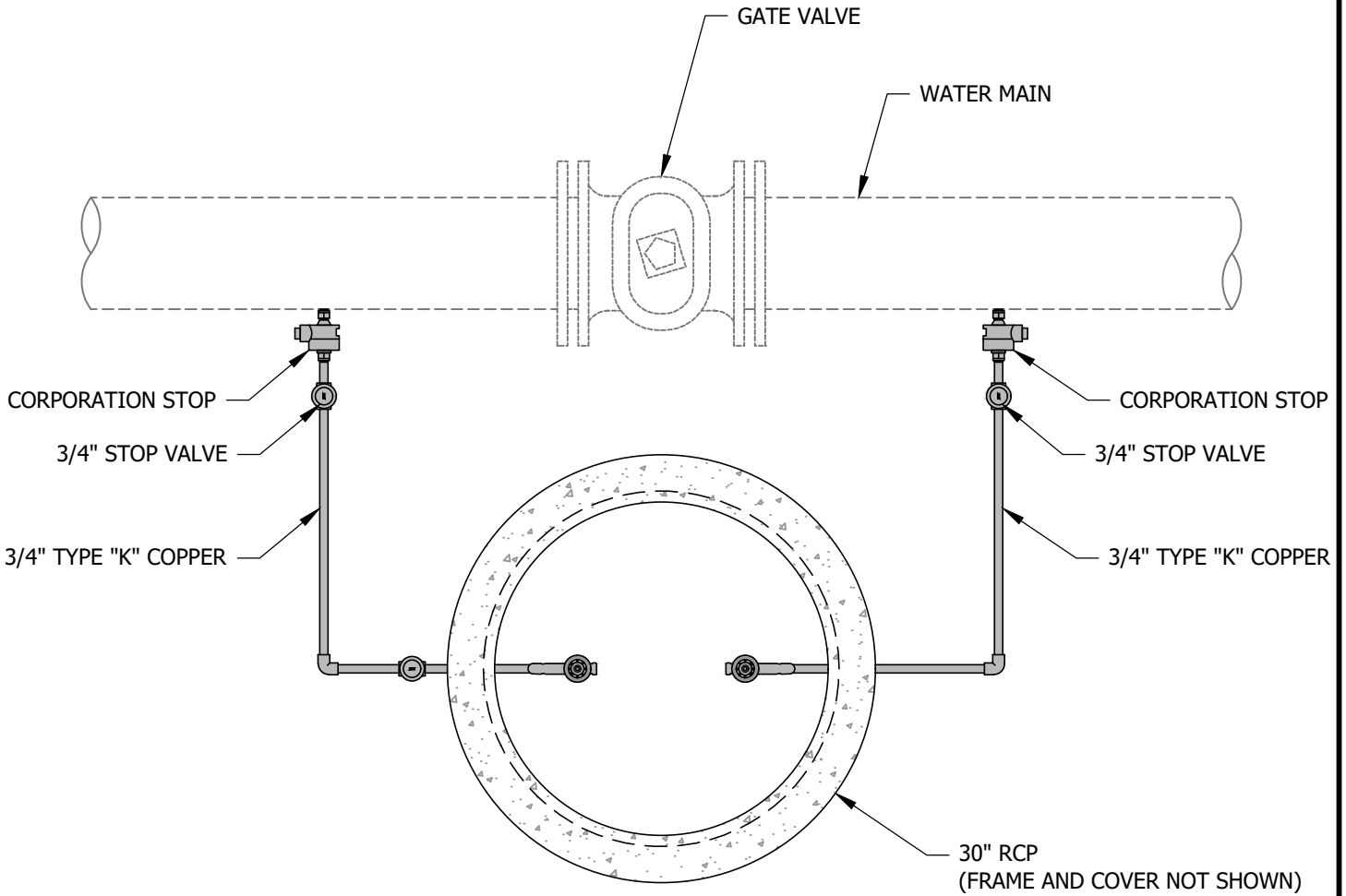
Adopted: 01/18/2022

Figure

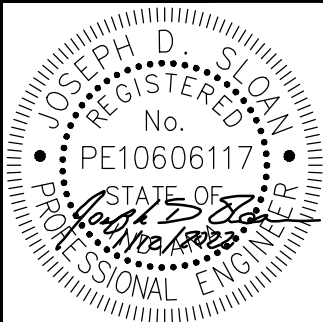
Approved By: Joseph D. Sloan, P.E.

Scale: N.T.S.

DW35



PLAN VIEW



STREAM CROSSING LEAKAGE AND SAMPLING STRUCTURE

Approved: 01/12/2022

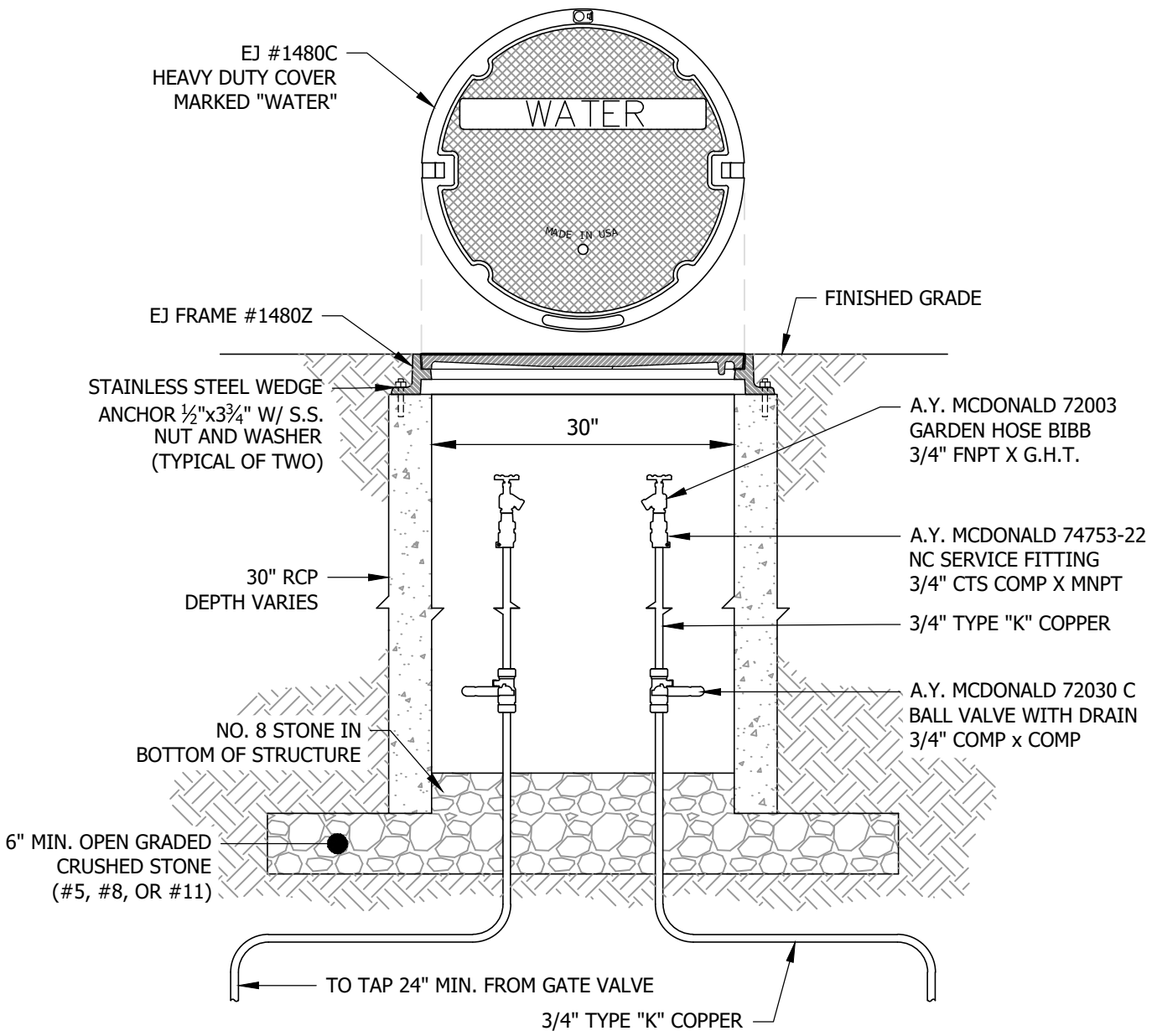
Approved By: Joseph D. Sloan, P.E.

Adopted: 01/18/2022

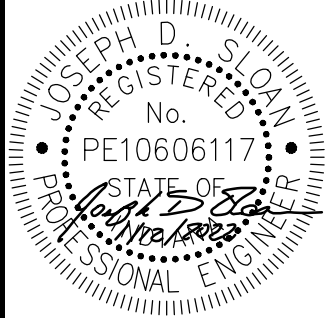
Scale: N.T.S.

Figure

DW36-1



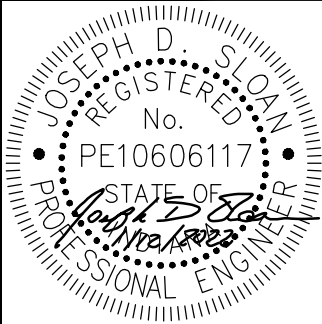
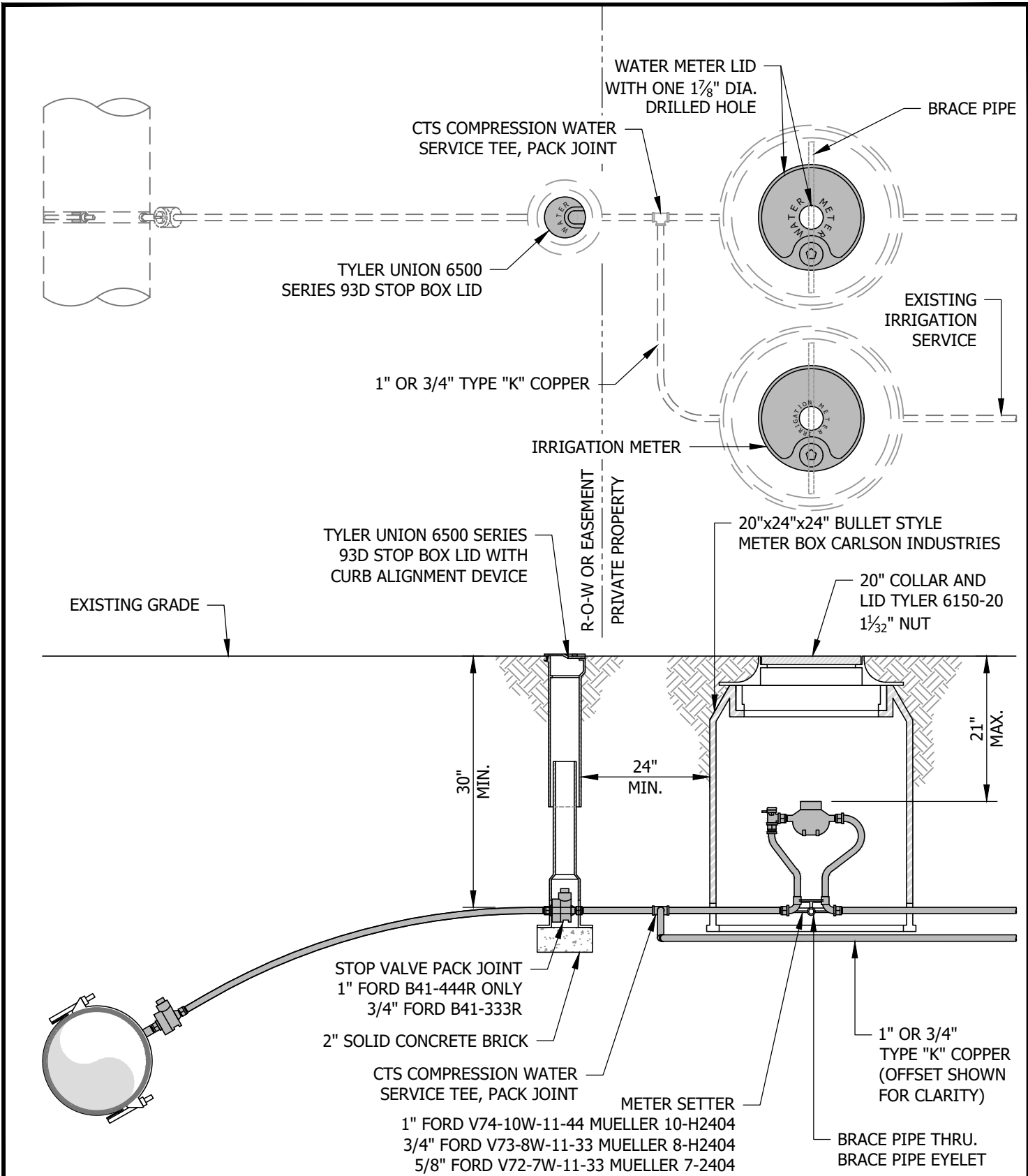
SECTION VIEW



STREAM CROSSING LEAKAGE AND SAMPLING STRUCTURE

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

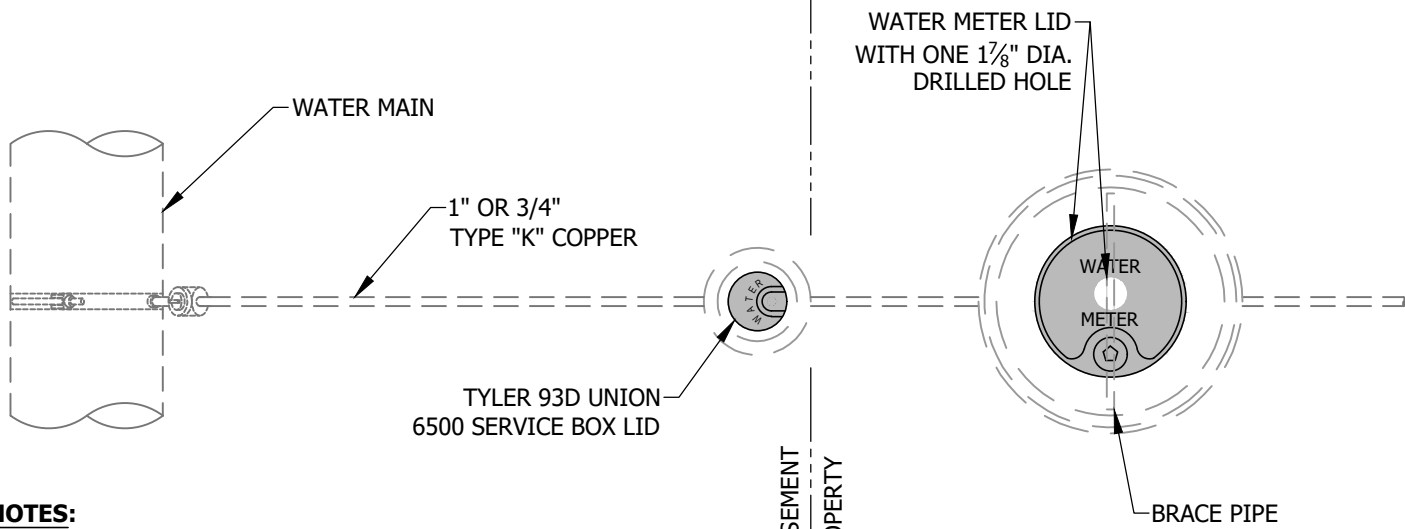
Figure DW36-2



3/4" OR 1" IRRIGATION SPLIT SERVICE CONNECTION

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

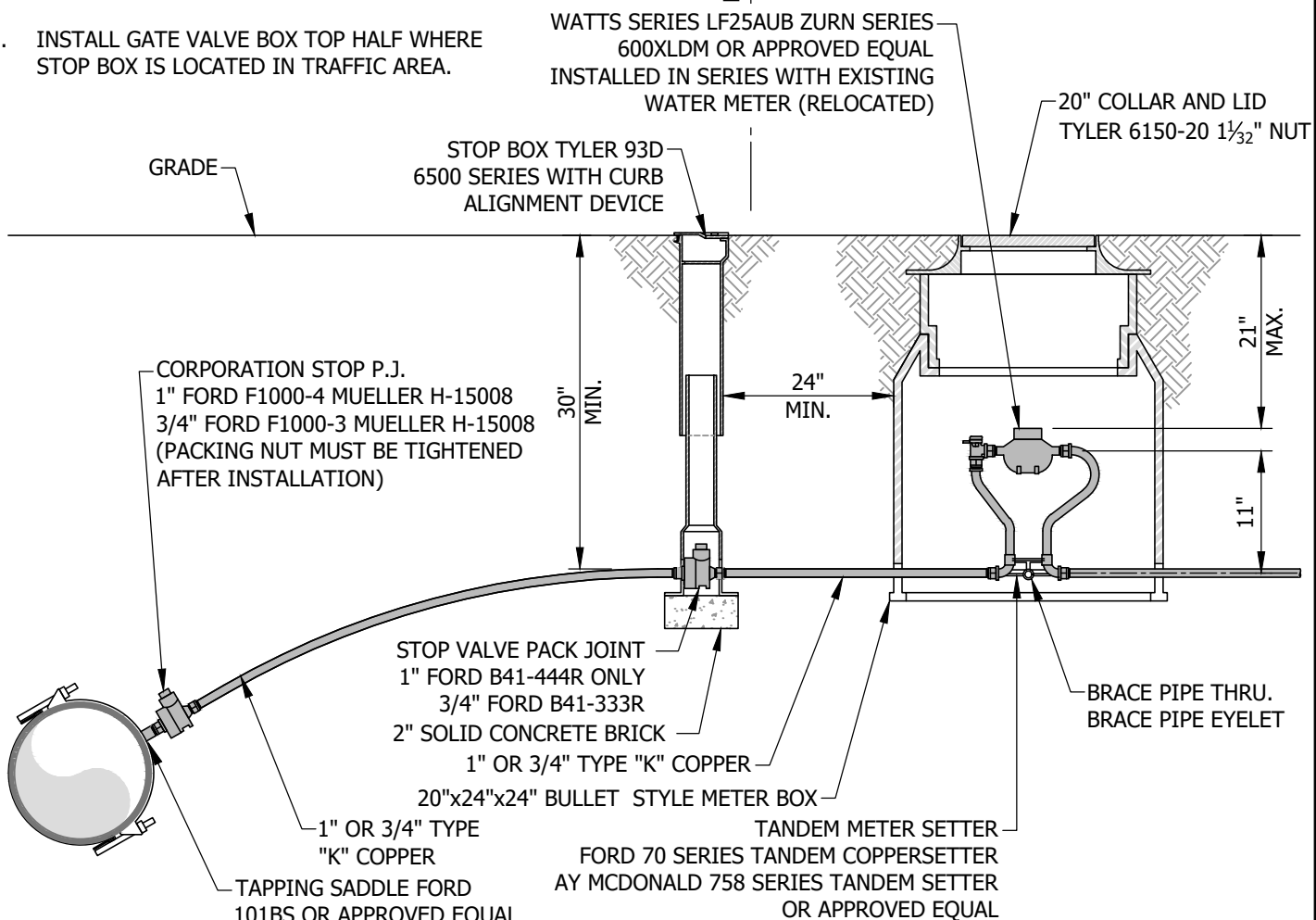
Figure **DW37**



NOTES:

1. TAP SIZE, SERVICE SIZE, AND METER SIZE SHALL ALL BE THE SAME. USE 1" MATERIAL AND FITTINGS FOR 1" SERVICES AND USE 3/4" MATERIAL AND FITTINGS FOR 3/4" SERVICES.
2. INSTALL GATE VALVE BOX TOP HALF WHERE STOP BOX IS LOCATED IN TRAFFIC AREA.

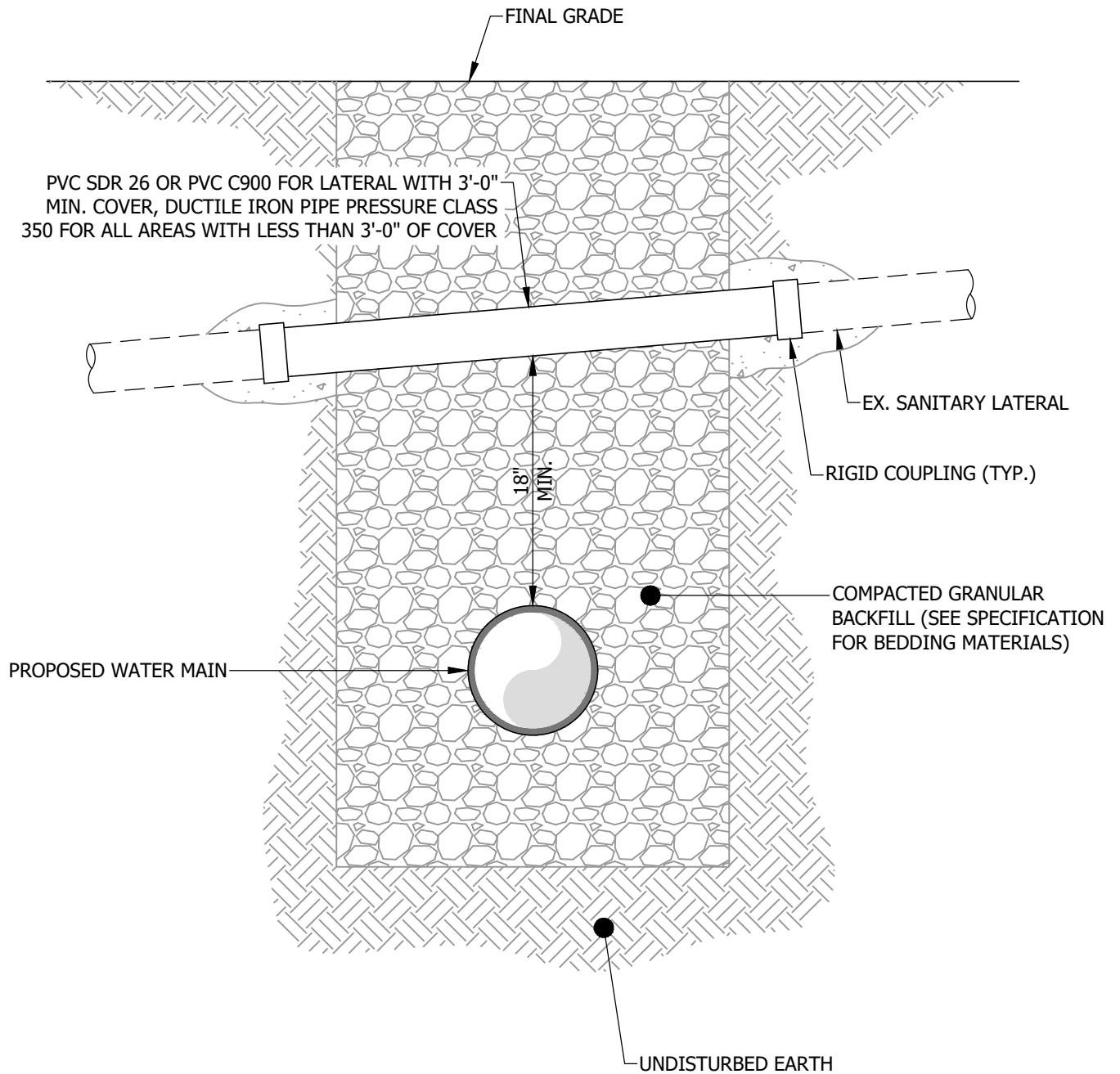
R-O-W OR EASEMENT
PRIVATE PROPERTY



3/4" OR 1" METER SERVICE CONNECTION WITH PRESSURE REDUCING VALVE

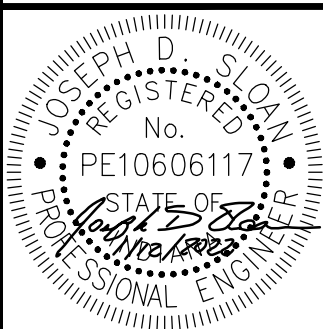
Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure DW38



NOTES:

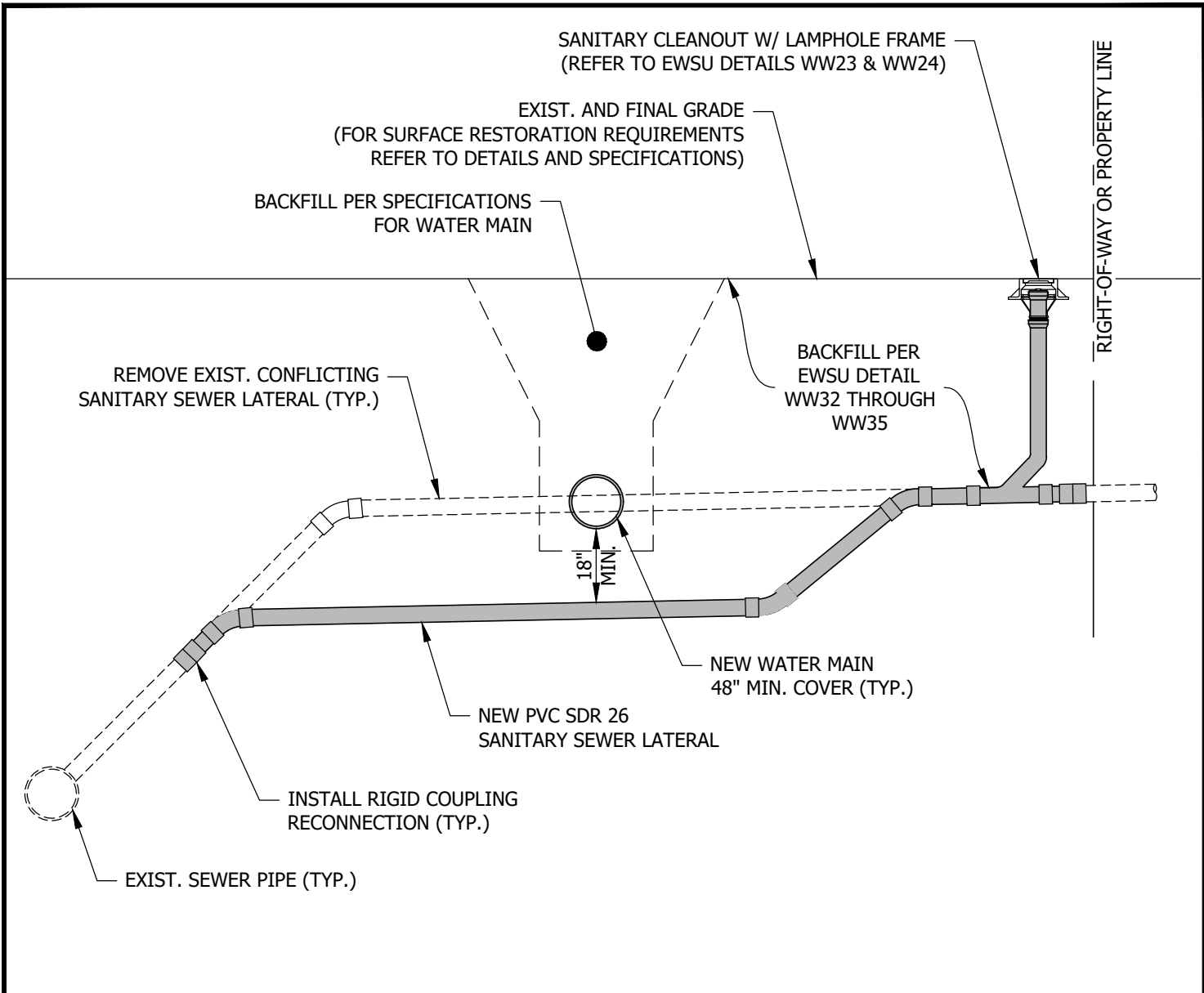
1. RIGID COUPLINGS FOR PVC SHALL BE PVC SDR 26 OR PVC C900. RIGID COUPLINGS FOR DISSIMILAR CONNECTIONS SHALL BE HYMAX, ROMAC, OR APPROVED EQUAL.
2. REFERENCE SECTION 410 IAC 6-8.3-57 FOR SEPARATION REQUIREMENTS.
3. IF PIPE COVER IS LESS THAN 3'-0", USE DUCTILE IRON PIPE.



SANITARY SEWER LATERAL REPAIR DETAIL

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure **DW39**



GENERAL NOTES:

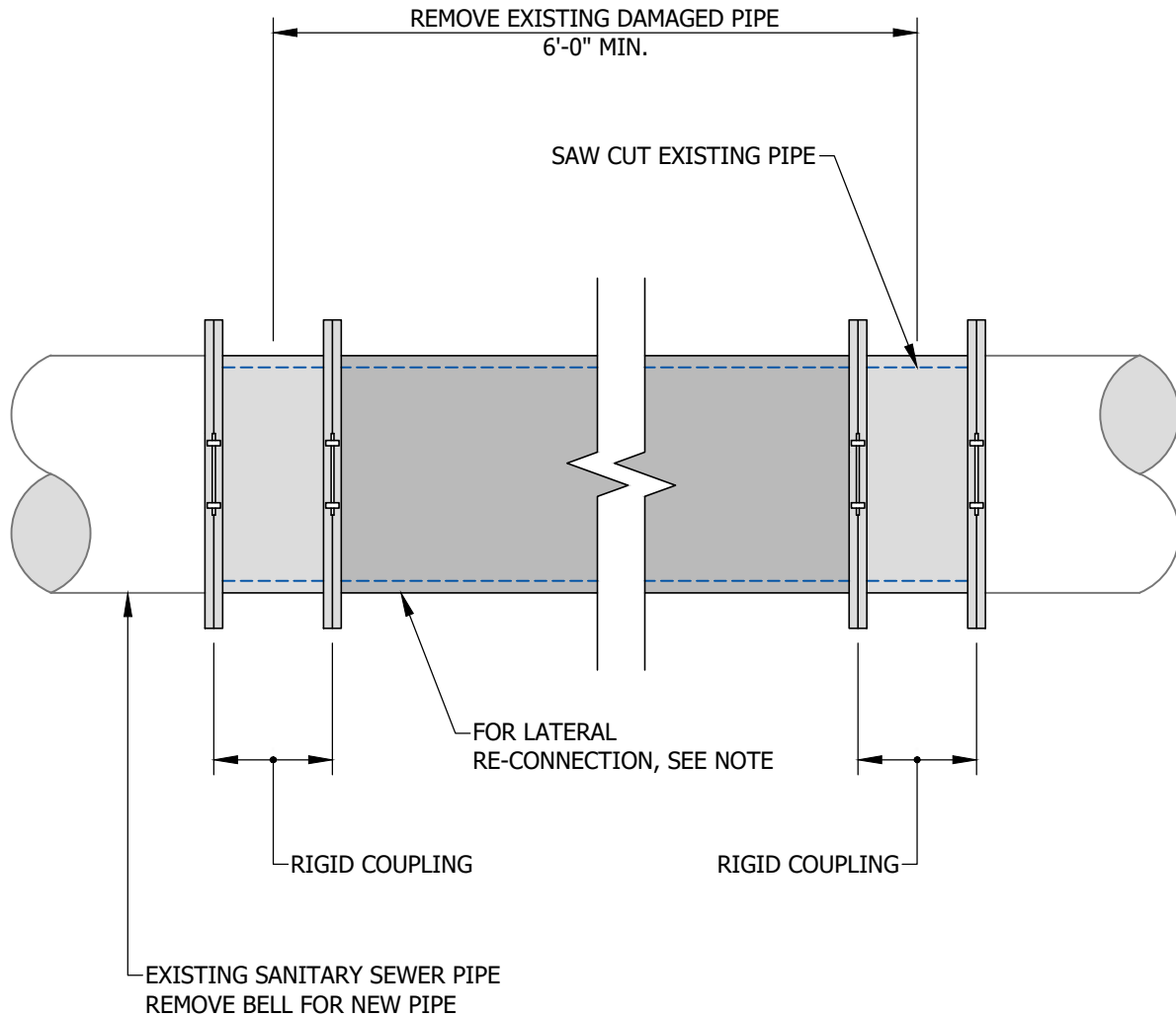
1. LATERAL ADJUSTMENTS REQUIRE ENGINEER AND OWNER APPROVAL. DEPENDENT UPON SANITARY SEWER LAYOUT, EACH ADJUSTMENT IS UNIQUE IN NATURE AND THIS DETAIL IS A GENERAL PROCEDURE. IN GENERAL, CONTRACTOR SHALL PROVIDE SEPARATION BY ADJUSTING WATER MAIN. CONTRACTOR SHALL FIELD LOCATE LATERALS PRIOR TO WATER MAIN INSTALLATION.
2. CONTRACTOR SHALL MATCH EXISTING INSIDE PIPE DIAMETER AS CLOSELY AS POSSIBLE.
3. REFER TO EWSU STANDARD DETAILS WW21 THROUGH WW24 FOR ADDITIONAL SANITARY SEWER LATERAL AND SANITARY SEWER MAIN DETAILS AND REQUIREMENTS.
4. DETAIL IS INTENDED TO BE USED WHEN WATER MAIN PROFILE CANNOT BE ADJUSTED DUE TO DEPTHS OF EXISTING FACILITIES.



SANITARY SEWER LATERAL ADJUSTMENT

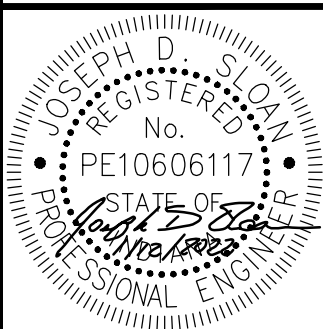
Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure DW40



NOTE:

FOR RE-CONNECTIONS, REFER TO EWSU STANDARD DETAILS WW21 TO WW24 AND WW22 TO WW23 FOR ADDITIONAL LATERAL DETAILS. IN GENERAL, LATERAL SEWER RE-CONNECTIONS IS CONSIDERED FOR PAVEMENT FROM NEW OR RELOCATED SEWER MAIN WYE TO MI. OF 5 FT. BEYOND SEWER MAIN OR EDGE OF EASEMENT OR RIGHT-OF-WAY OR AS REQUIRED TO PROVIDE RE-CONNECTION. CLEANOUTS ARE ONLY NECESSARY WHERE SPECIFICALLY SHOWN ON THE PLANS OR REQUIRED WITHIN THE DETAIL SPECIFICATIONS.



SANITARY SEWER MAIN REPAIR DETAIL

Approved:	01/12/2022	Adopted:	01/18/2022
Approved By:	Joseph D. Sloan, P.E.	Scale:	N.T.S.

Figure DW41