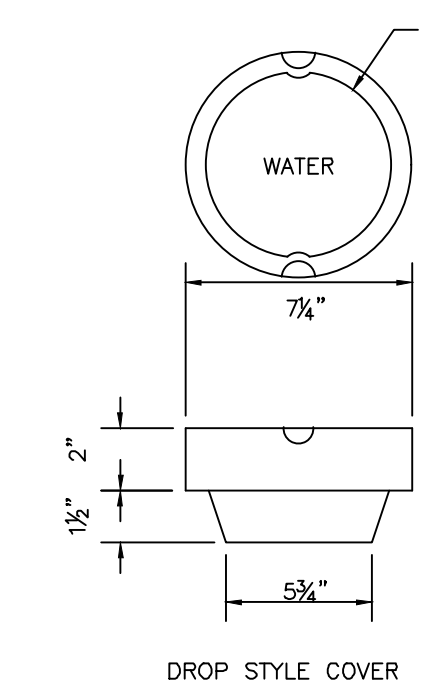
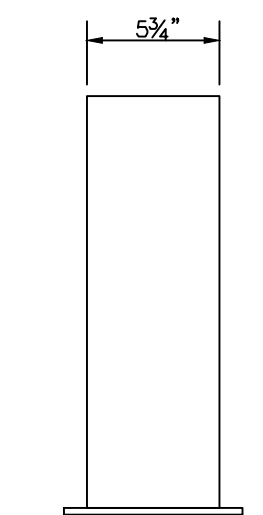


VALVE BOX & COVER
NOT TO SCALE

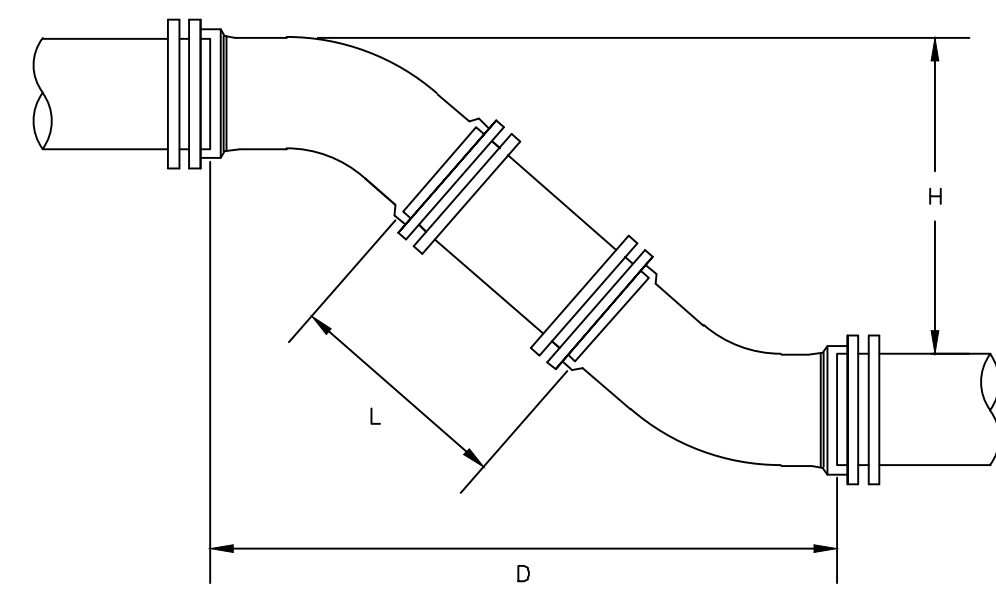
- NOTES:**
- DIMENSIONS APPLICABLE FOR 5 1/2" BUFFALO VALVE BOXES
 - BASE SECTION MAY BE USED AS INTERMEDIATE SECTION



DROP STYLE COVER



- NOTES:**
- DIMENSIONS APPLICABLE FOR 5 1/2" BUFFALO VALVE BOXES
 - BASE SECTION MAY BE USED AS INTERMEDIATE SECTION



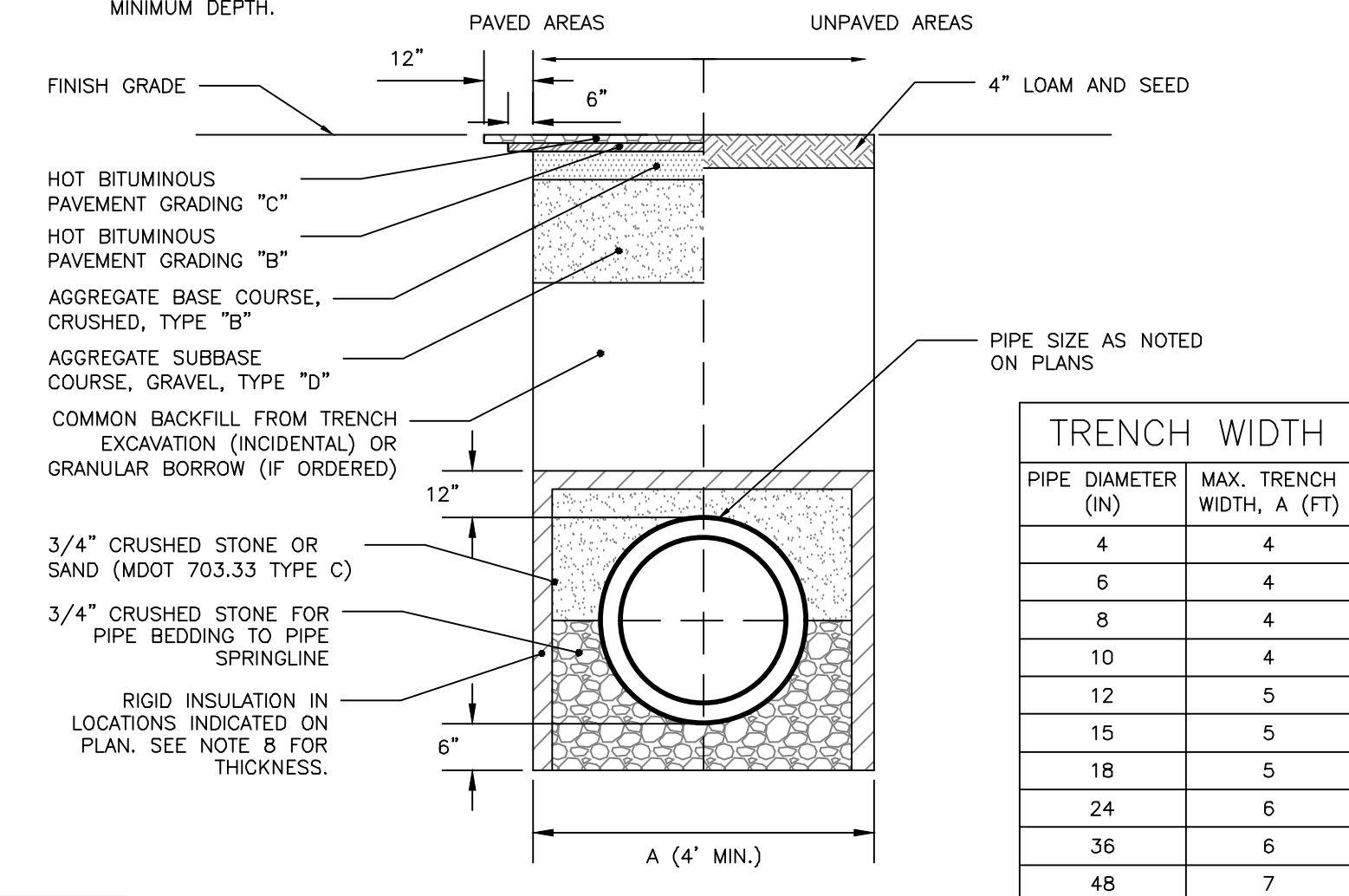
TYPICAL SERVICE CONNECTION
NOT TO SCALE

NOTES:

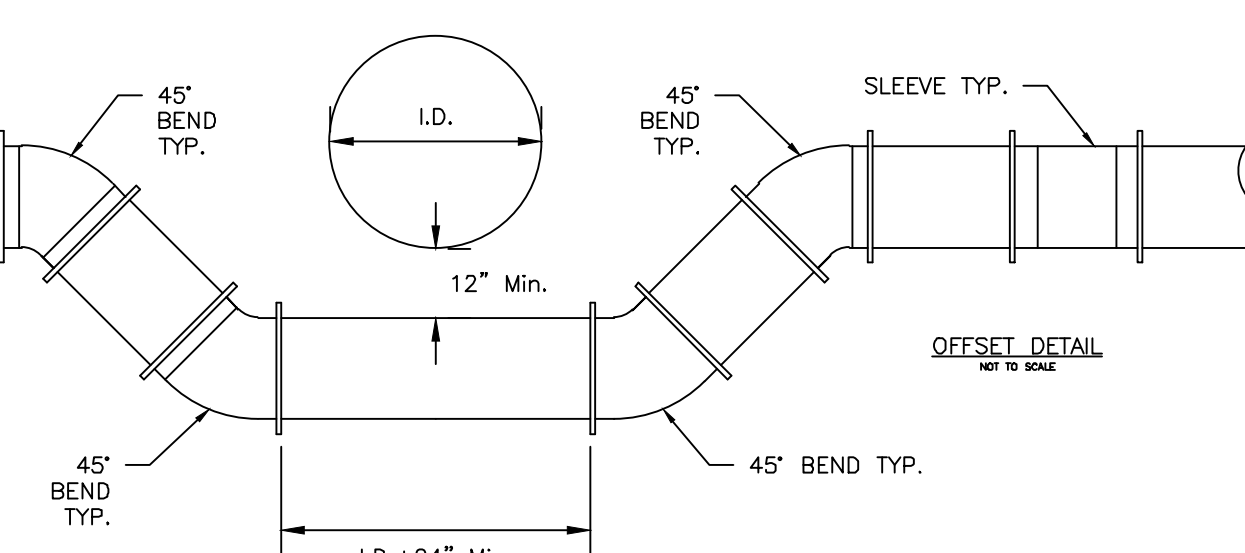
- ALL MATERIALS AND INSTALLATION PROCEDURES MUST COMPLY WITH THE CITY OF PORTLAND WATER DISTRICT (PWD) SPECIFICATIONS.
- CURB STOP BALL VALVE TO BE MADE OF COPPER OR BRASS UNLESS OTHERWISE NOTED BY THE PORTLAND WATER DISTRICT.
- SERVICE LINE TO BE MADE OF TYPE K COPPER.
- CONCRETE BLOCKING MAY BE ADDED TO THE BASE OF THE CURB STOP TO PROVIDE STRUCTURAL SUPPORT FOR THE CURB STOP AND SERVICE BOX.

NOTES:

- ANY ALTERNATE TRENCHING METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
- ALL CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-2.
- BRACING & SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- WHERE APPLICABLE, PERFORATIONS IN STORM DRAIN (PERF.SD) SHALL BE ORIENTED UP.
- ALL STORM DRAINS SHALL BE PVC SDR 35 MIN PS-46 RATING OR IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL MANUAL - SECTION 2 - SANITARY SEWER AND STORM DRAIN - PART 2.5.2
- IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
- THIS DETAIL SHALL BE APPLIED ONLY TO PIPE TRENCHES WITHIN OF THE CITY OF PORTLAND ROW STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION, COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION. OTHER UTILITIES: ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.

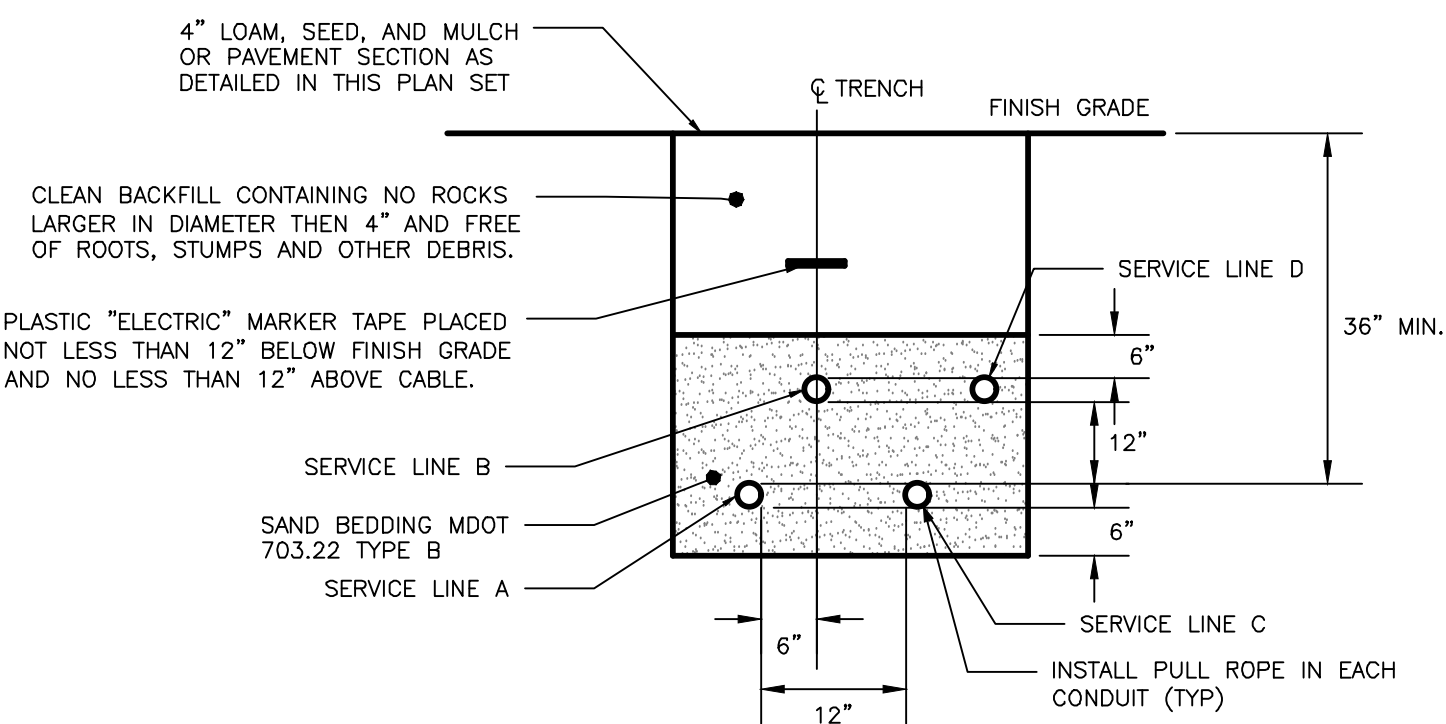


CITY OF PORTLAND TYPICAL PIPE TRENCH DETAIL
NOT TO SCALE



TYPICAL MAIN OFFSET
NOT TO SCALE

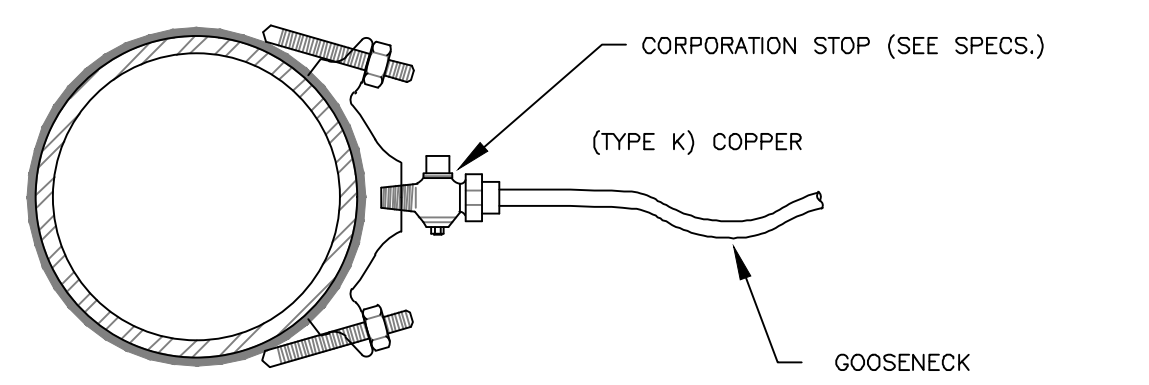
- NOTES:**
- DIMENSIONS APPLICABLE FOR SIGMA COMPACT BENDS. FOR TYLER COMPACT BENDS, ADD 1/2" TO "D" DIMENSION AND SUBTRACT 1/2" FROM "L" DIMENSION.
 - FOR OTHER FITTINGS REFER TO MANUFACTURER'S RECOMMENDATIONS.



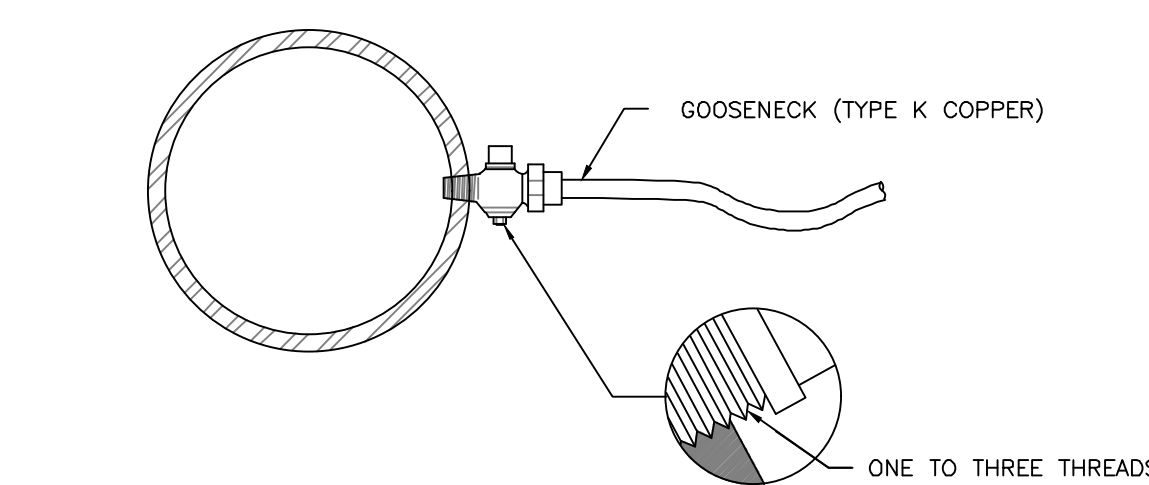
UTILITY TRENCH: PRIMARY AND SECONDARY POWER, TELEPHONE, AND CABLE
NOT TO SCALE

CONDUIT TYPE				
SERVICE	CONDUIT SIZE	GRASS AND PAVED AREAS	UTILITY	REMARKS
A	2-5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
B	2-4"	SCHEDULE 40 PVC ELECTRICAL GRADE	COMMUNICATION	-
C	2-4"	SCHEDULE 40 PVC ELECTRICAL GRADE	SPARE	IF REQUIRED
D	2-4"	SCHEDULE 40 PVC ELECTRICAL GRADE	CABLE	-

- NOTES:**
- ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10" ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS.
 - MINIMUM SEPARATION OF 24 INCHES BETWEEN PRIMARY CABLE/CONDUIT AND GAS LINES SHALL BE MAINTAINED.



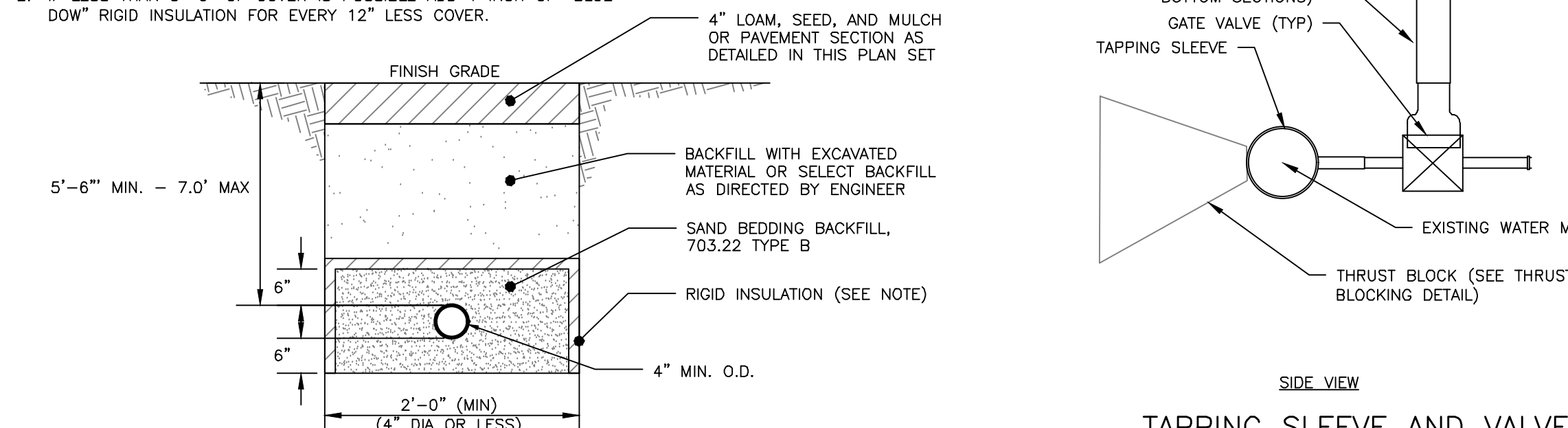
SERVICE SADDLE: 1-1/2" AND 2" C.C. THREAD
NOT TO SCALE



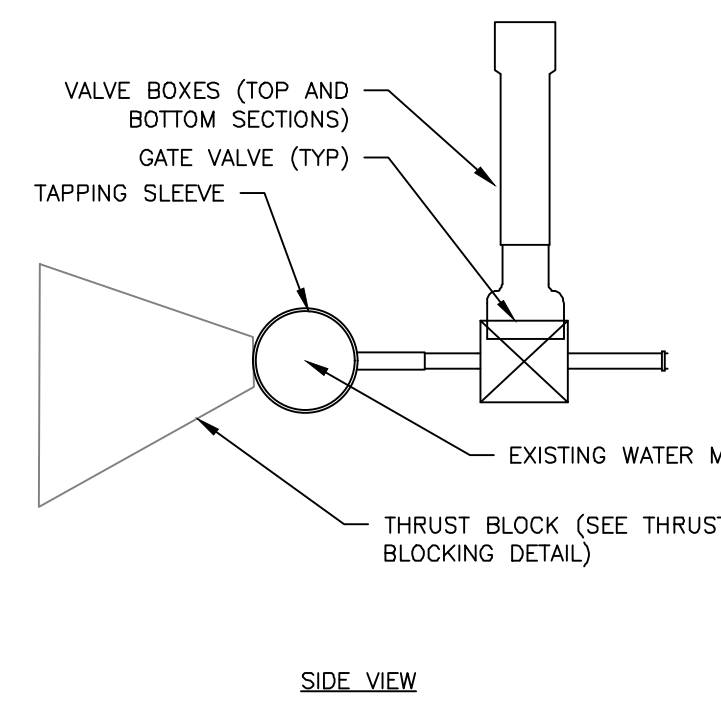
SERVICE TAP: 3/4" AND 1" C.C. THREAD
NOT TO SCALE

NOTES:

- THE WATER TRENCH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARD DETAILS & SPECIFICATIONS.
- IF LESS THAN 5'-6" OF COVER IS POSSIBLE ADD 1 INCH OF "BLUE DOW" RIGID INSULATION FOR EVERY 12" LESS COVER.



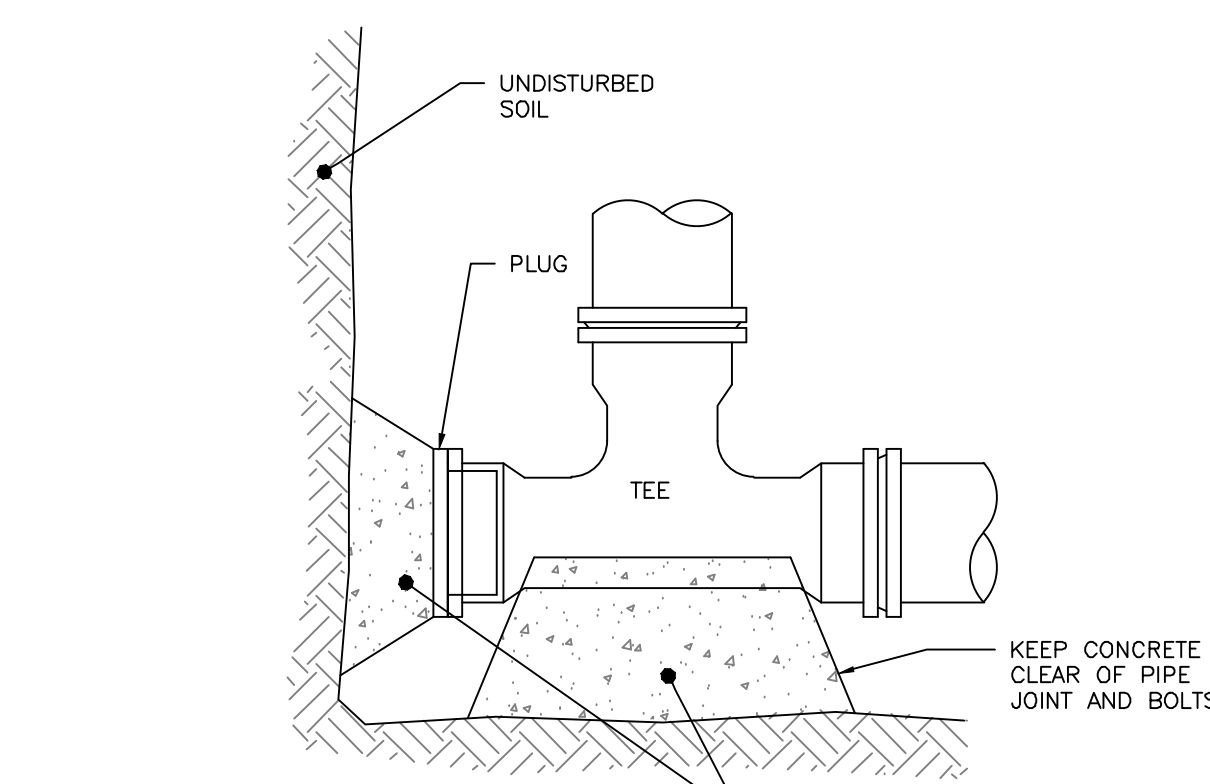
WATER SERVICE TRENCH SECTION DETAIL
NOT TO SCALE



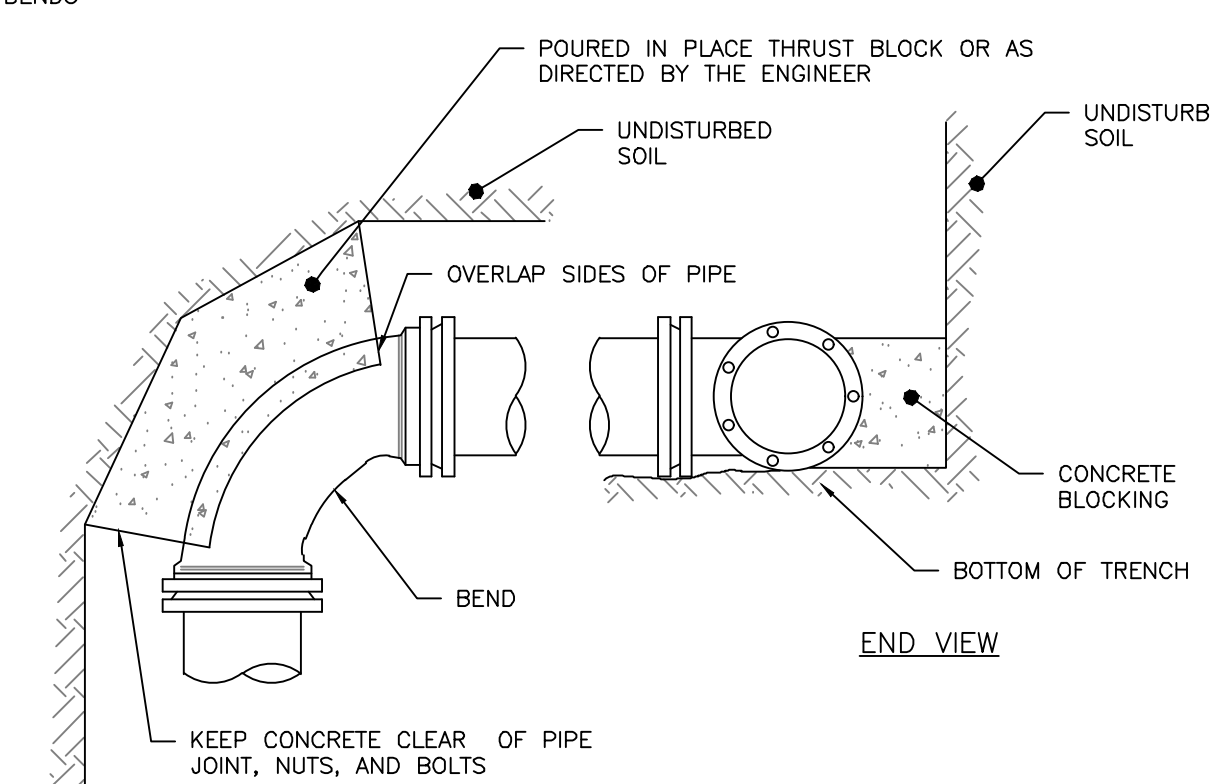
TAPPING SLEEVE AND VALVE
NOT TO SCALE

NOTES:

- IF DEAD END WITH TEE, THRUST BLOCK WOULD BE REQUIRED OR AS DIRECTED BY THE ENGINEER
- SEE THRUST/RETAINER GLAND SCHEDULE FOR TYPE OF BLOCKING TO BE USED ON BENDS



END SECTION



THRUST BLOCKING: REGULAR BEND
NOT TO SCALE

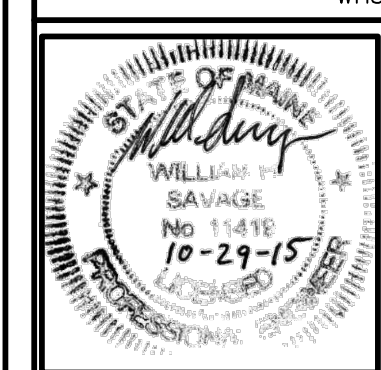
ISSUED FOR CONSTRUCTION

ISSUED FOR	BY	DATE
PRELIM. APPLICATION	WHS	7/30/15
PC DD SET	WHS	8/7/15
PC PROGRESS SET	WHS	8/27/15
COMMENT/RESPONSE	WHS	7/15/15
FINAL SUBMISSION	WHS	10/13/15
BIDDING	WHS	10/13/15
COA	WHS	11/2/15
FOR CONSTRUCTION	WHS	11/2/15

REVISION	REV.	DATE

DRAWING NAME: **UTILITY DETAILS**
 PROJECT NAME: **667 CONGRESS STREET REDEVELOPMENT**
 CLIENT: **REDERN PROPERTIES, LLC.**
 P.O. BOX 8818 PORTLAND, ME 04104

FILE:	1060_DETAILS
DATE:	4/20/2015
JN:	1060
SCALE:	NTS
DESIGNED BY:	WHS
DRAWN BY:	MAC
CHECKED BY:	WHS



DRAWING NO.
C-42