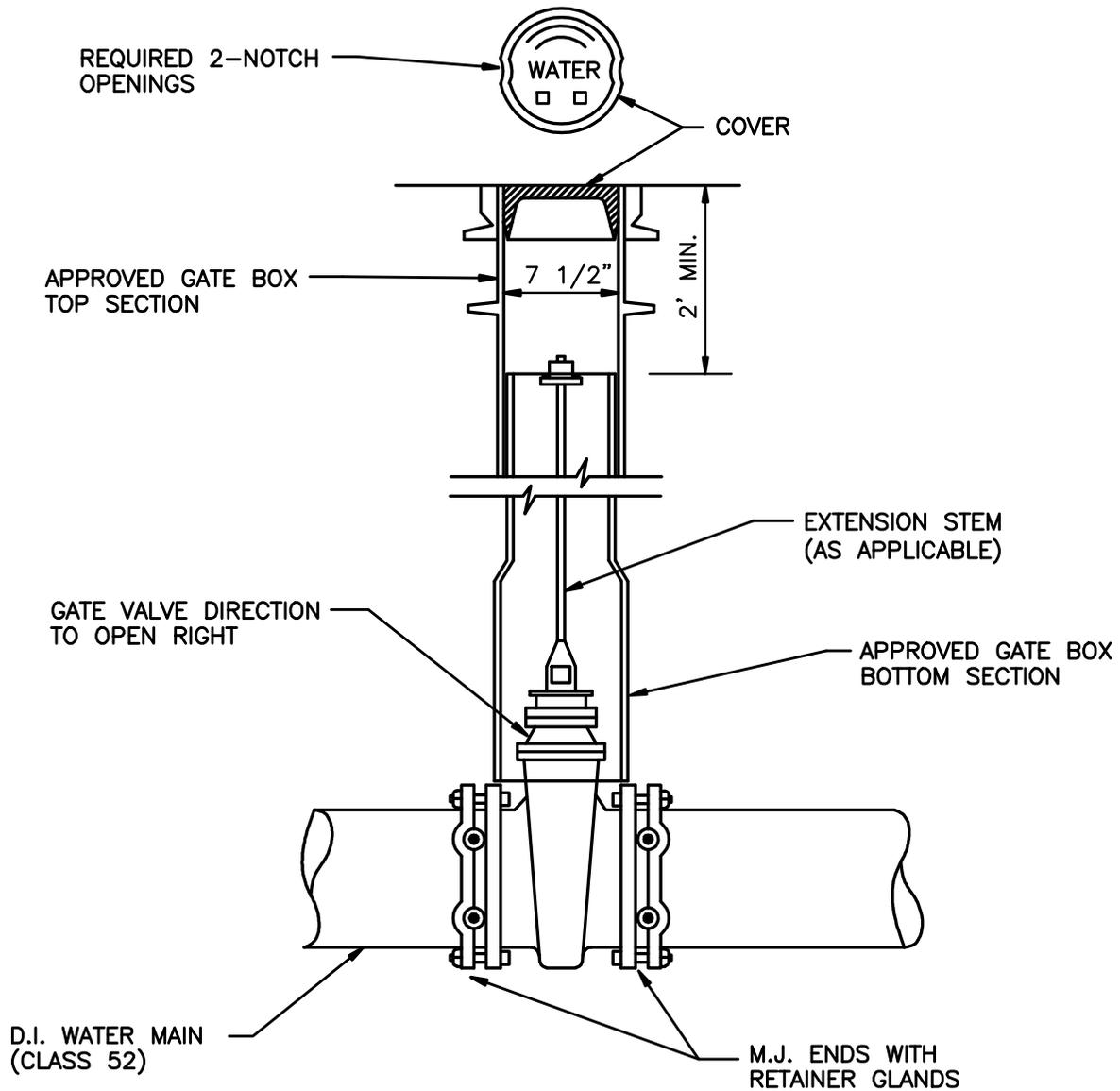


WATER MAIN TRENCH DETAIL

NOT TO SCALE

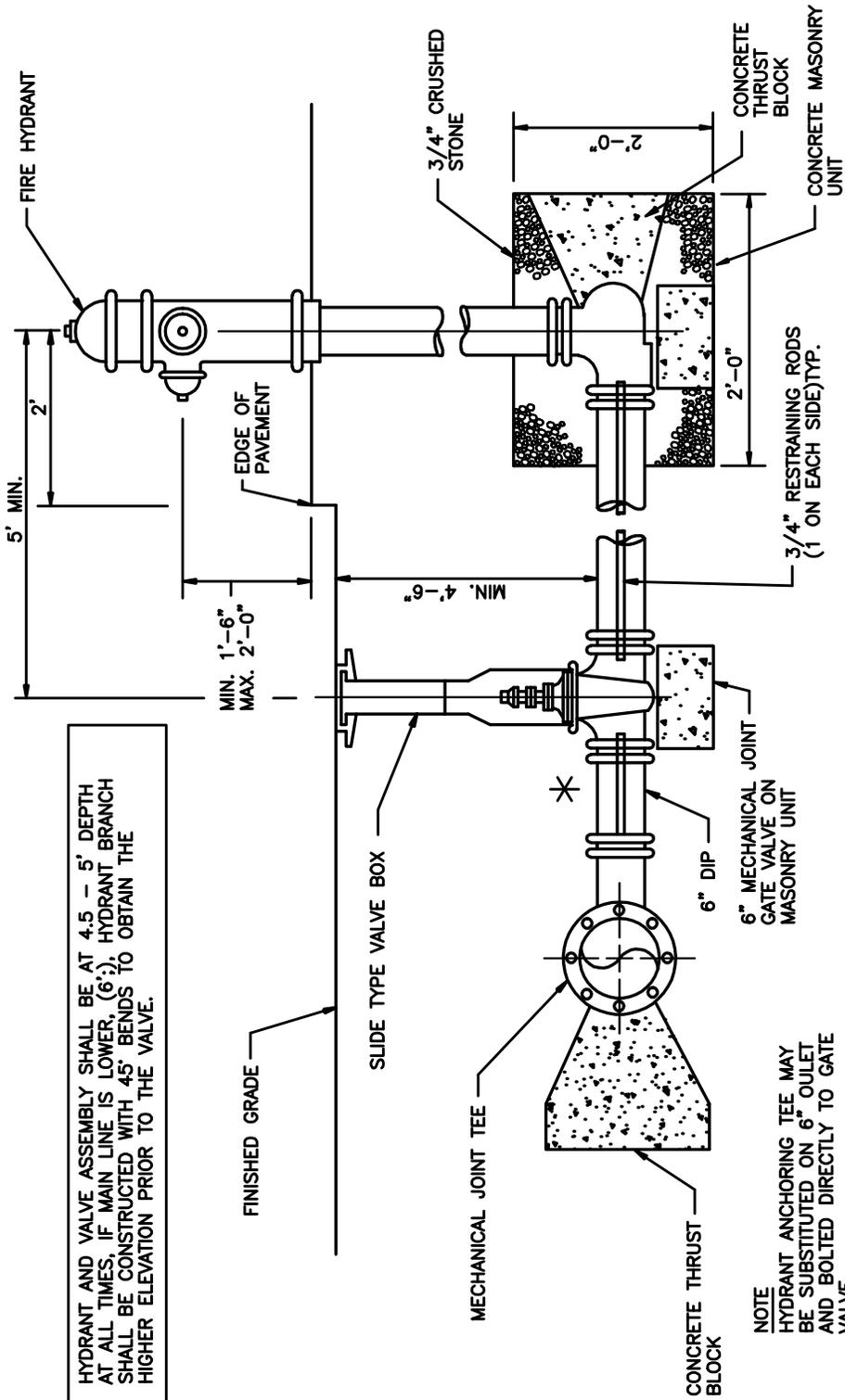
W-1	STANDARD WATER DETAILS
	NORWICH PUBLIC UTILITIES



12" OR LESS VERTICAL GATE VALVE AND GATE BOX

NOT TO SCALE

W-2	STANDARD WATER DETAILS
	NORWICH PUBLIC UTILITIES



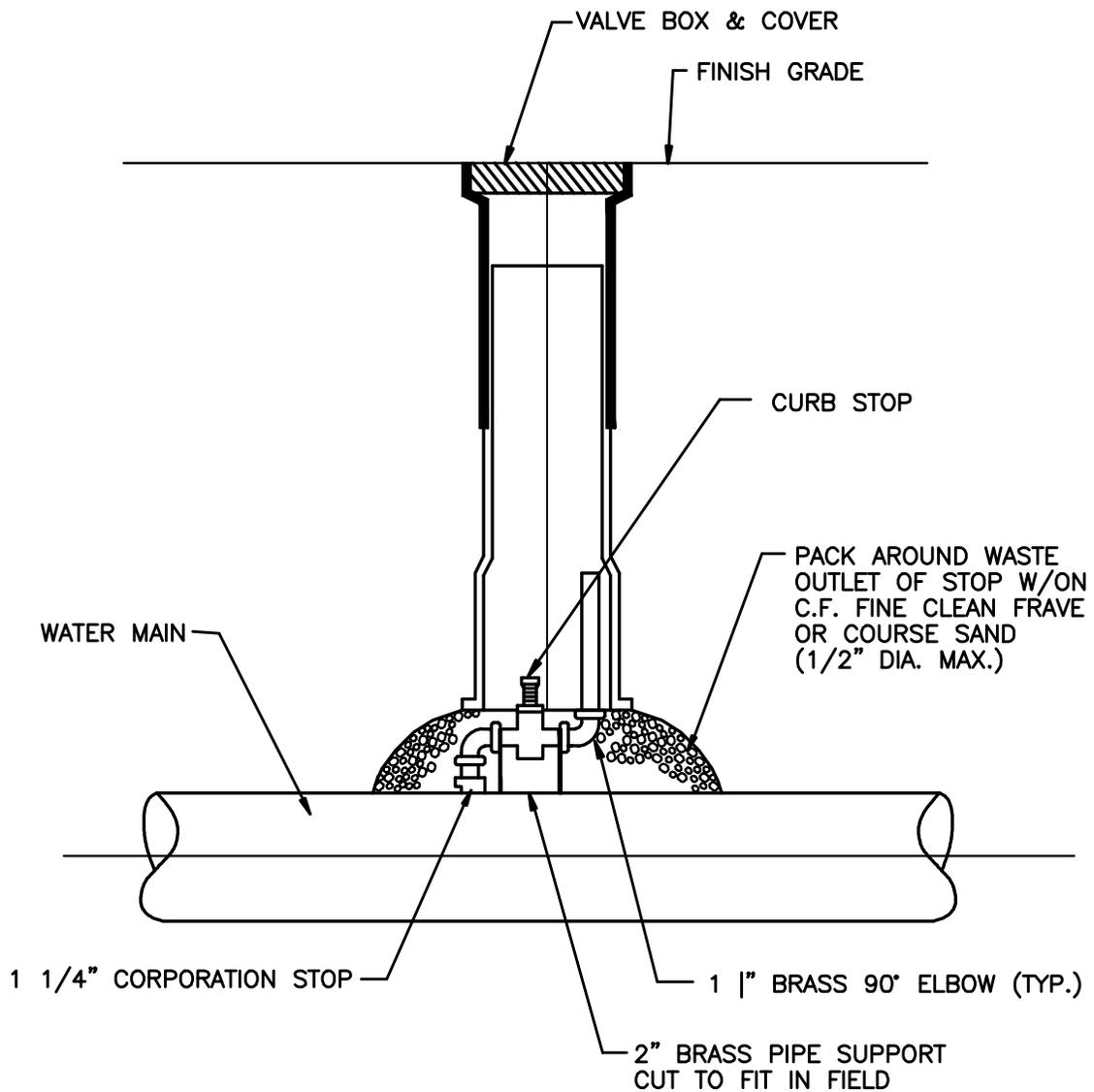
* HYDRANT AND VALVE ASSEMBLY SHALL BE AT 4.5 - 5' DEPTH AT ALL TIMES. IF MAIN LINE IS LOWER (6'); HYDRANT BRANCH SHALL BE CONSTRUCTED WITH 45° BENDS TO OBTAIN THE HIGHER ELEVATION PRIOR TO THE VALVE.

NOTE
HYDRANT ANCHORING TEE MAY
BE SUBSTITUTED ON 6" OULET
AND BOLTED DIRECTLY TO GATE
VALVE

FIRE HYDRANT ASSEMBLY

NOT TO SCALE

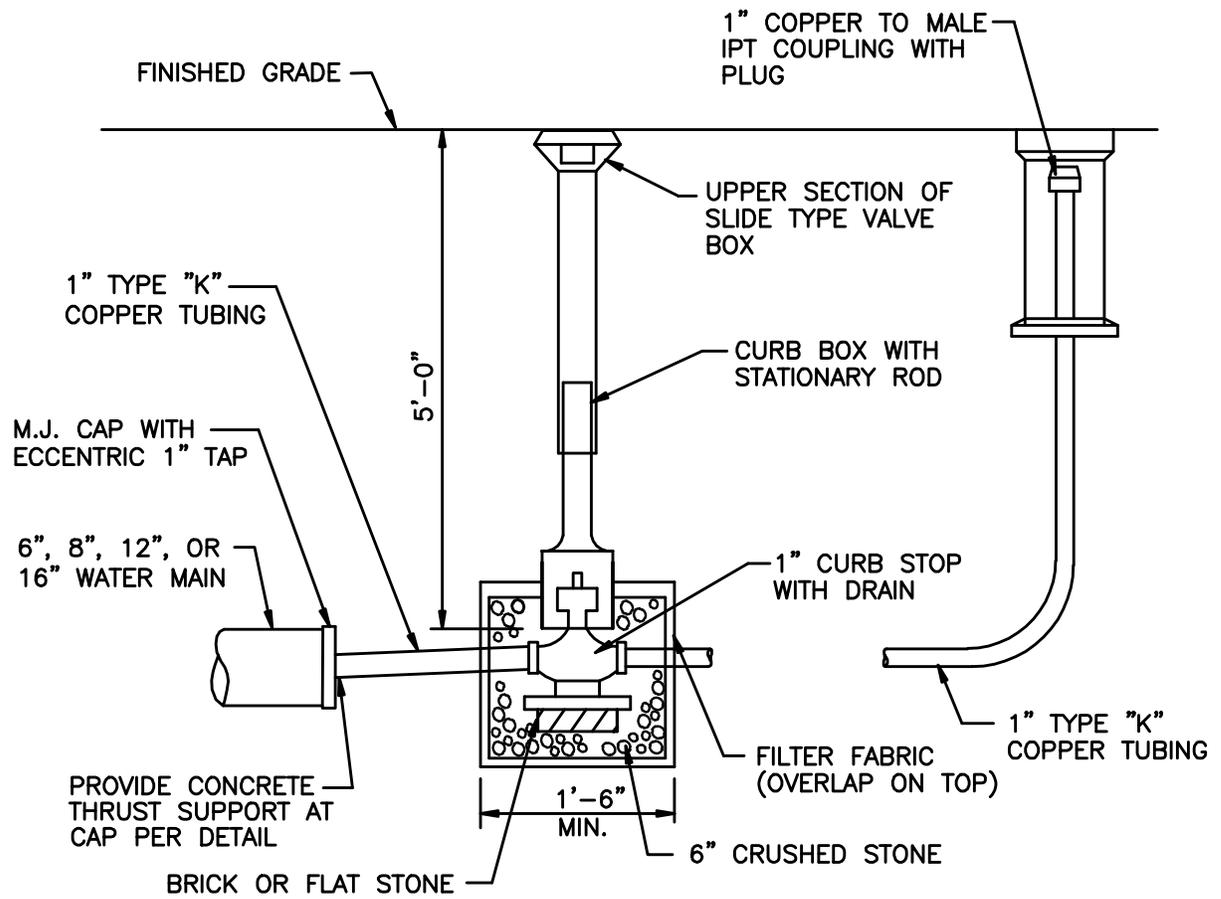
W - 3	STANDARD WATER DETAILS
	NORWICH PUBLIC UTILITIES



WATER—MANUAL AIR RELEASE

NOT TO SCALE

W-4	STANDARD WATER DETAILS
	NORWICH PUBLIC UTILITIES



1" FLUSHING ASSEMBLY

NOT TO SCALE

W-6

STANDARD WATER
DETAILS

NORWICH PUBLIC UTILITIES

**SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL
AREAS SHOWN ARE BASED ON 100 PSI TEST PRESSURE (SEE NOTE BELOW)**

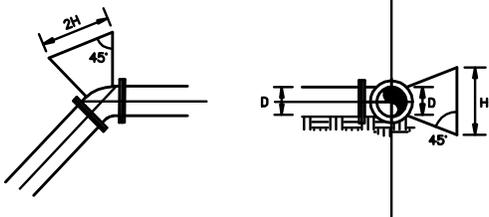
REACTION TYPE	PIPE SIZE											
	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"
A 90° ELBOW	0.9	2.2	3.9	5.6	8.6	10.9	15.4	18.0	24.1	34.6	53.8	77.4
B 180° TEE	0.7	1.6	2.8	4.2	6.1	8.4	10.9	13.9	17.0	24.5	38.1	54.7
C 45° ELBOW	0.5	1.2	2.1	3.0	4.7	5.9	8.3	9.7	13.0	18.8	29.1	41.9
D 22° ELBOW	RETAINER GLANDS REQUIRED "MEGA-LUG" OR EQUAL											
E 11° ELBOW	RETAINER GLANDS REQUIRED "MEGA-LUG" OR EQUAL											
OTHER TEST PRESSURES FOR THE ABOVE REACTIONS	SQUARE FEET OF CONCRETE THRUST BLOCKING FOR OTHER TEST PRESSURES IS DIRECTLY PROPORTIONAL TO THE ABOVE TABLE. FOR INSTANCE, AT 200 PSI TEST PRESSURE THE ABOVE NUMBERS DOUBLE. THE ABOVE NUMBERS REPRESENT MINIMUM ALLOWABLE SIZES FOR THRUST BLOCKS *											

* ACTUAL TEST PRESSURE IS 200 PSI AND ALL BEARING AREA NUMBERS ABOVE MUST BE MULTIPLIED BY 2

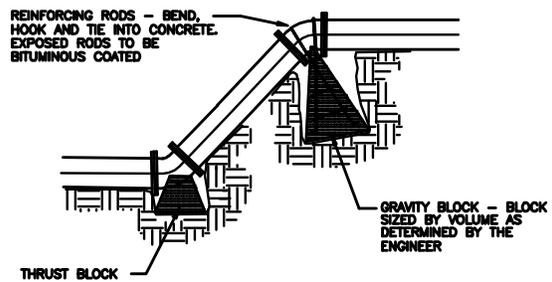
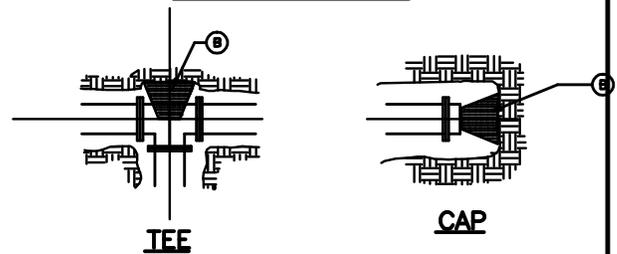
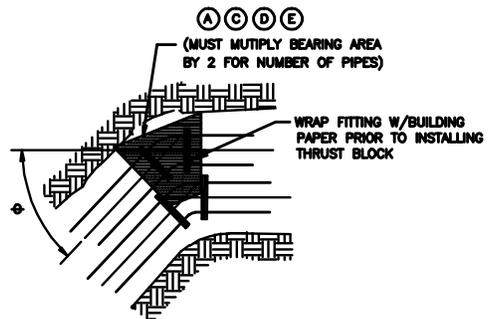
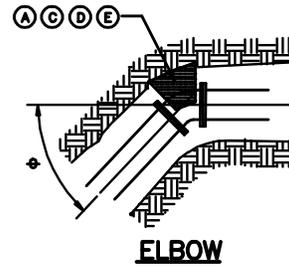
NOTES

- POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL. WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
- ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
- PLACE BOARD IN FRONT OF ALL CAPS BEFORE POURING THRUST BLOCK.
- REQUIREMENTS OF THE ABOVE TABLE PRESUME MINIMUM SOIL BEARING OF ONE TON PER SQUARE FOOT, AND MAY BE VARIED BY THE ENGINEER TO MEET OTHER CONDITIONS ENCOUNTERED.

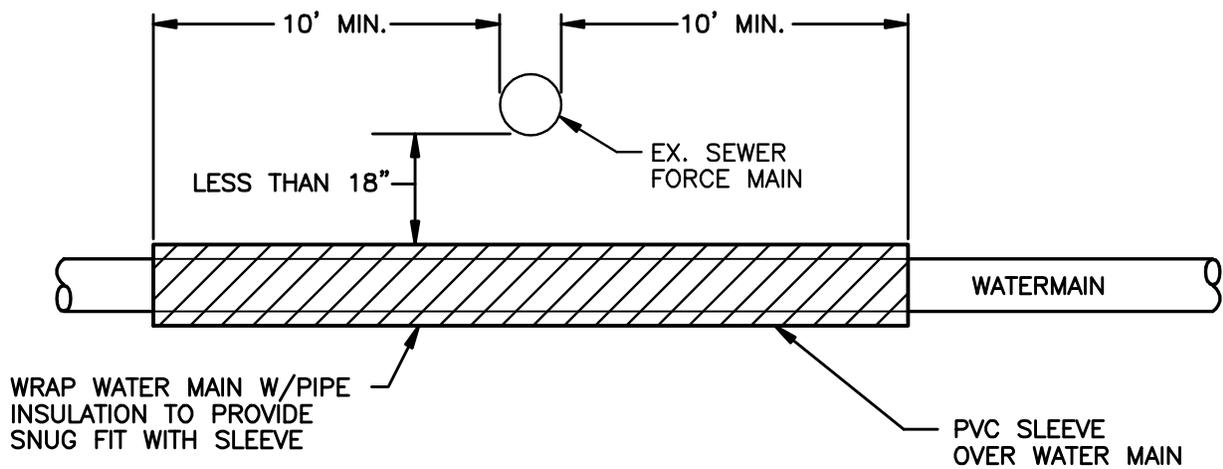
TYPICAL THRUST BLOCK DETAILS AND DIMENSIONS
NOT TO SCALE



MINIMUM THRUST BLOCK DIMENSION REQUIREMENTS



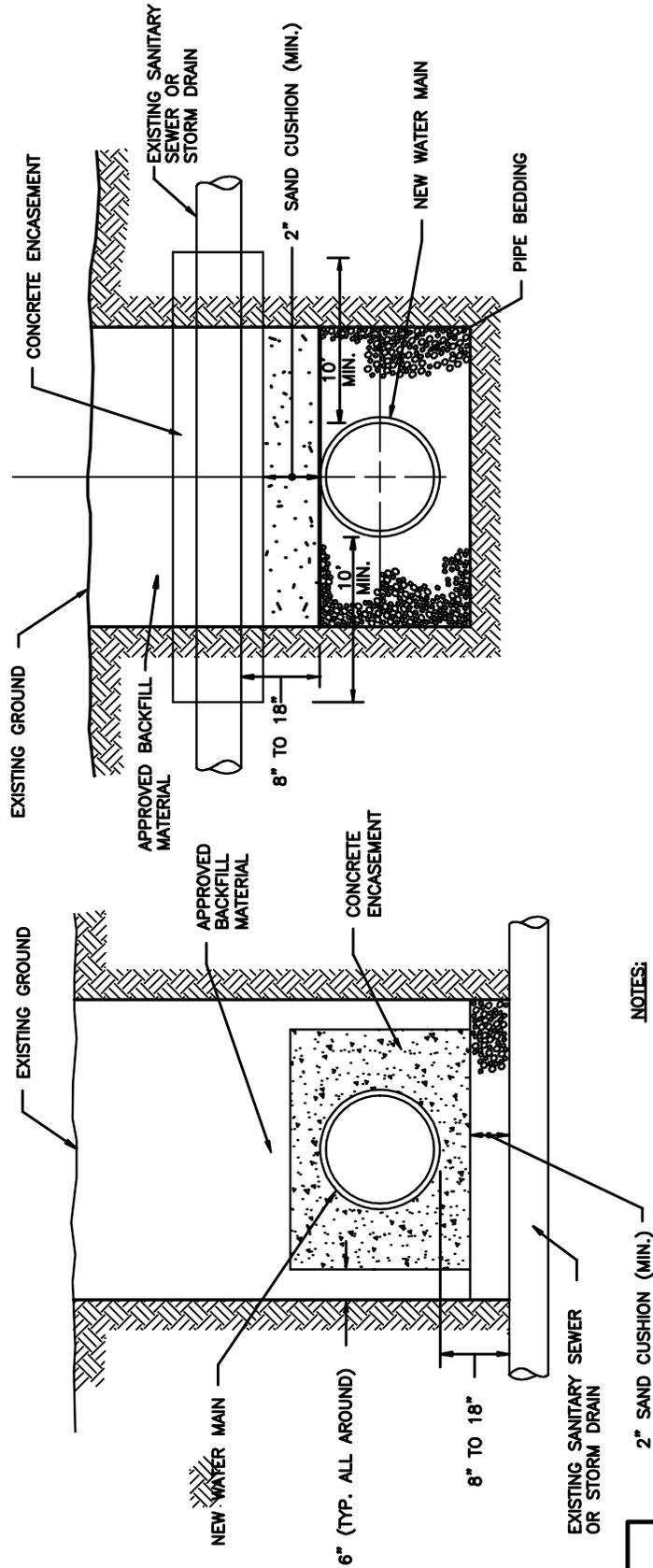
THRUST BLOCK DETAIL
NOT TO SCALE



SLEEVING DETAIL

NOT TO SCALE

W-8	STANDARD WATER DETAILS
	NORWICH PUBLIC UTILITIES



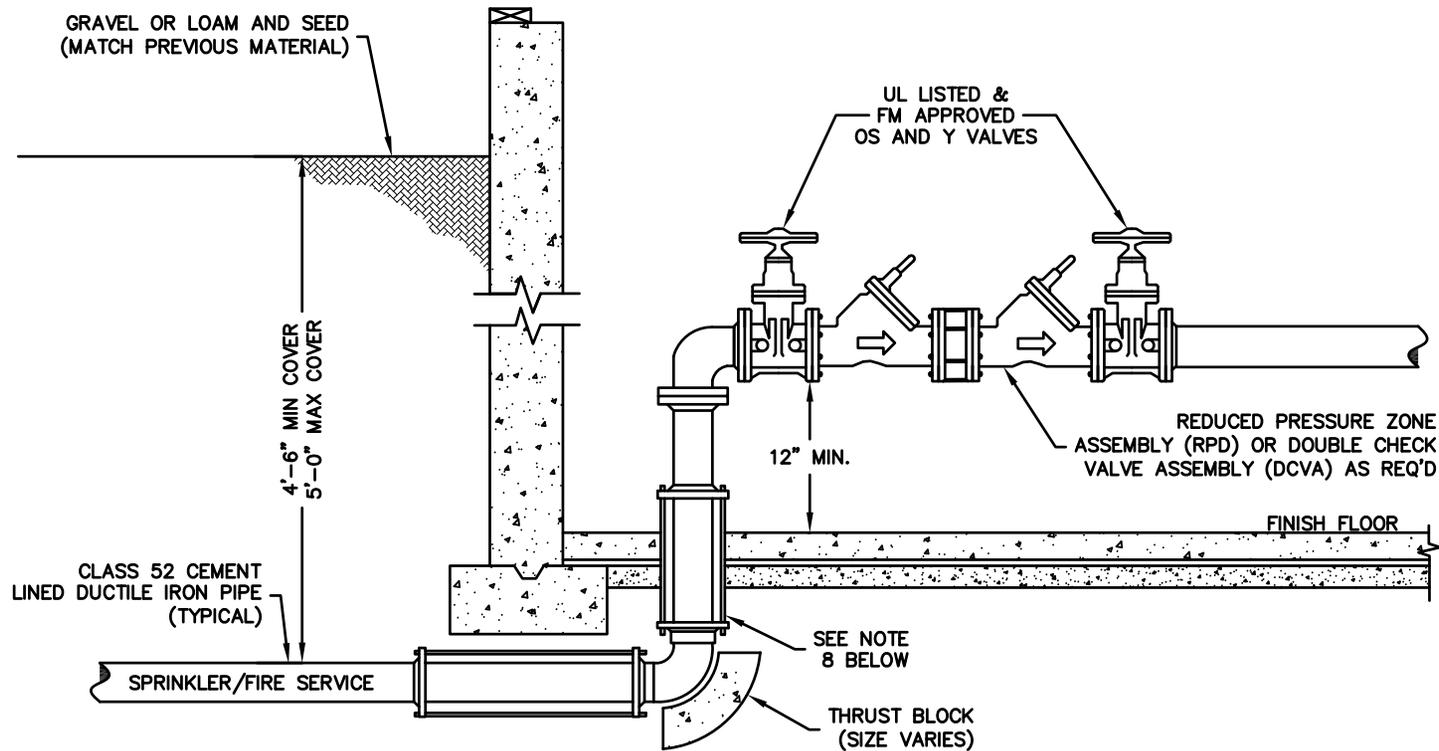
NOTES:

1. WHERE VERTICAL SEPARATION BETWEEN THE WATER MAIN AND SANITARY SEWERS OR STORM DRAINS IS 18" OR LESS A 6" CONCRETE ENCASEMENT IS REQUIRED FOR A DISTANCE OF TEN FEET ON EACH SIDE OF THE CROSSING.
2. A FULL LENGTH OF WATER MAIN SHALL BE CENTERED AT ALL SANITARY SEWER AND STORM DRAIN CROSSINGS.

CONCRETE ENCASUREMENT DETAIL

NOT TO SCALE

<p>W - 9</p>	<p>STANDARD WATER DETAILS</p>
	<p>NORWICH PUBLIC UTILITIES</p>



GENERAL NOTES:

- 1) NO WATER PIPE DEPTH SHALL EXCEED 5 FEET FROM FINISHED GRADE
- 2) CONTRACTOR RESPONSIBLE FOR CONTACTING DIG SAFE PRIOR TO EXCAVATION
- 3) SERVICE SHALL BE LAID PERPENDICULAR TO THE WATER MAIN UNTIL PROPERTY LINE
- 4) ALL FIRE AND DOMESTIC SERVICE LINES MUST BE SEPARATE
- 5) TRENCH SHALL NOT BE BACKFILLED UNTIL SERVICE HAS BEEN INSPECTED AND APPROVED BY NPU
- 6) ALL COMPACTION SHALL BE BY MECHANICAL MEANS AT NO GREATER THAN 12 INCH LIFTS
- 7) RESTRAINT AND RETAINER GLANDS AS REQUIRED ON PIPING CHANGING DIRECTION
- 8) SERVICE SHALL BE FLUSHED BEFORE ACTIVATING
- 9) MUST MEET THE REQUIREMENTS OF THE STATE OF CONNECTICUT CROSS CONNECTION CONTROL MANUAL
- 10) WATER SHALL BE TURNED ON BY NPU ONLY AFTER APPROVAL
- 11) PRESSURE TEST SERVICE AT 200 PSI FOR 2 HOURS
- 12) NORWICH PUBLIC UTILITIES RESERVES THE RIGHT TO MODIFY STANDARDS AT THEIR DISCRETION
- 13) BY-PASS REQUESTS SHALL BE CONSIDERED BY NORWICH PUBLIC UTILITIES ON A CASE-BY-CASE BASIS

SCALE: NOT TO SCALE

REVISIONS

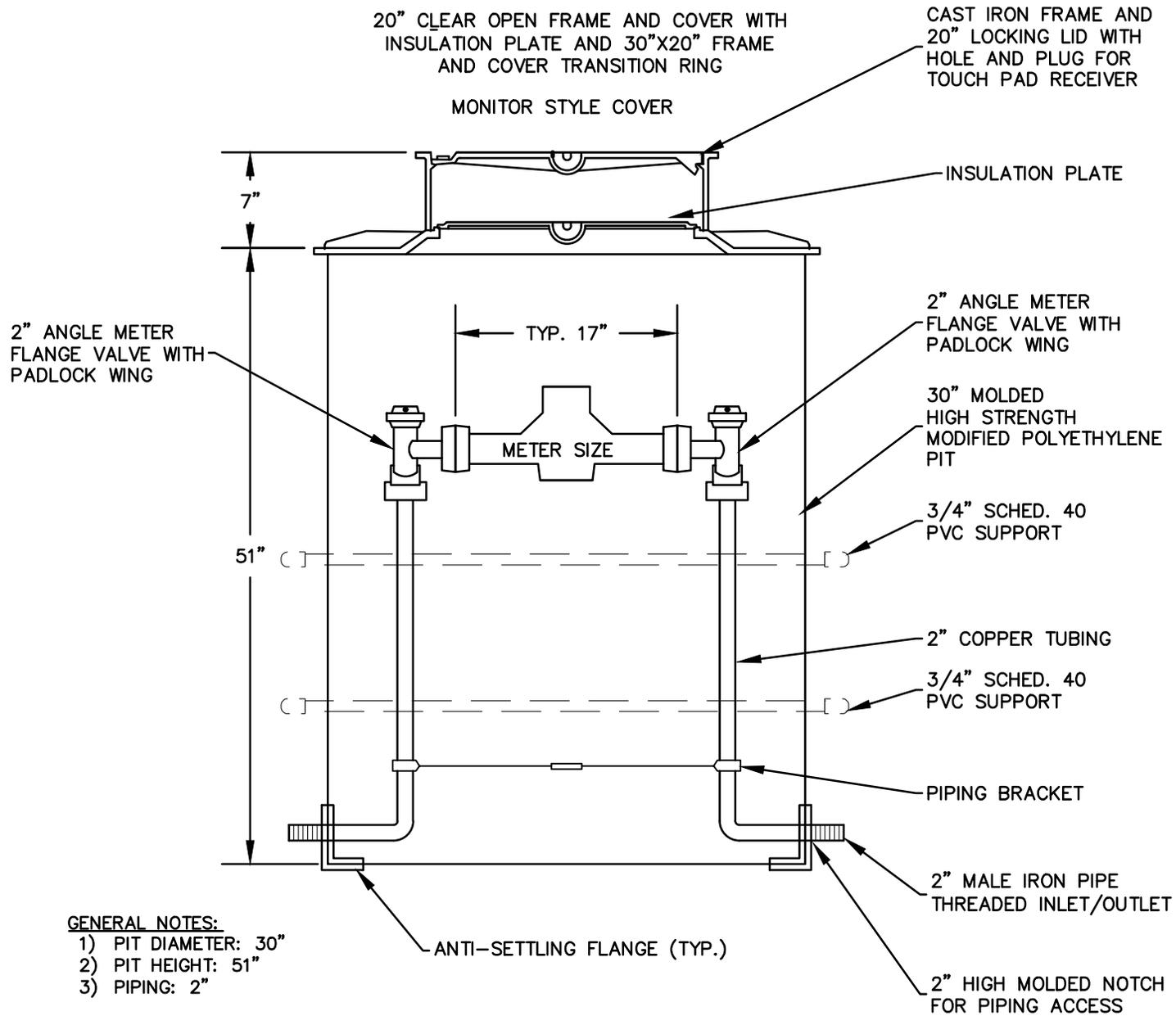
DATE	BY	DESCRIPTION

TYPICAL SPRINKLER/FIRE SERVICE DETAIL

DWG NO.:

W-10





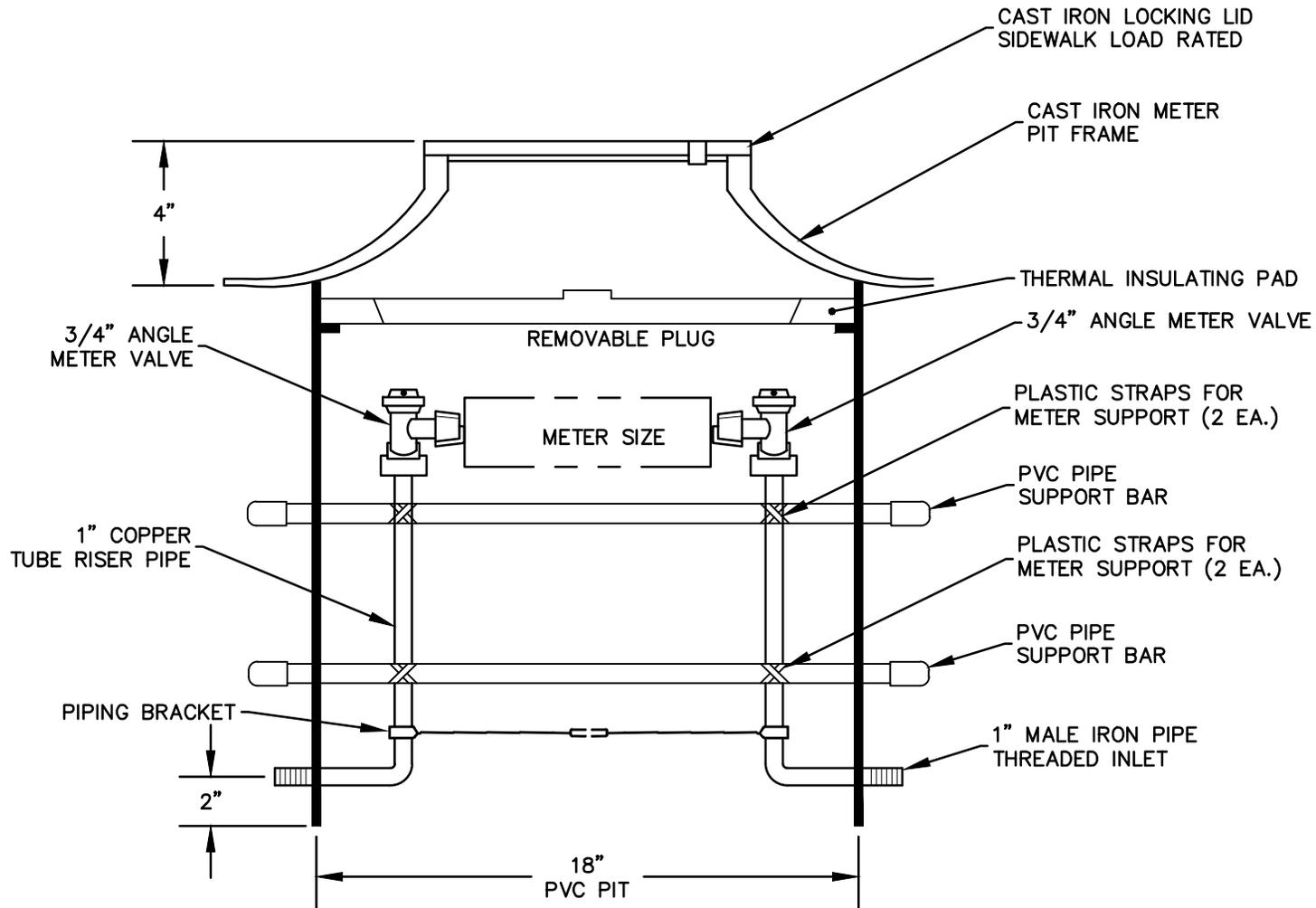
SCALE: NOT TO SCALE

DATE		BY	DESCRIPTION

**2" METER PIT WITH
 FRAME AND COVER**
 NO LEAD BRASS

DWG NO.:

W-11



GENERAL NOTES:

- 1) PIT DIAMETER: 18"
- 2) PIT HEIGHT: 48"
- 3) METER SIZE $5/8" \times 3/4"$ (METER SUPPLIED BY NPU)
- 4) COVER AND LID: FROST COVER WITH RISER STANDARD.
LID TO HAVE 2" HOLE FOR RADIO DEVICE
- 5) PIT MATERIAL: PVC



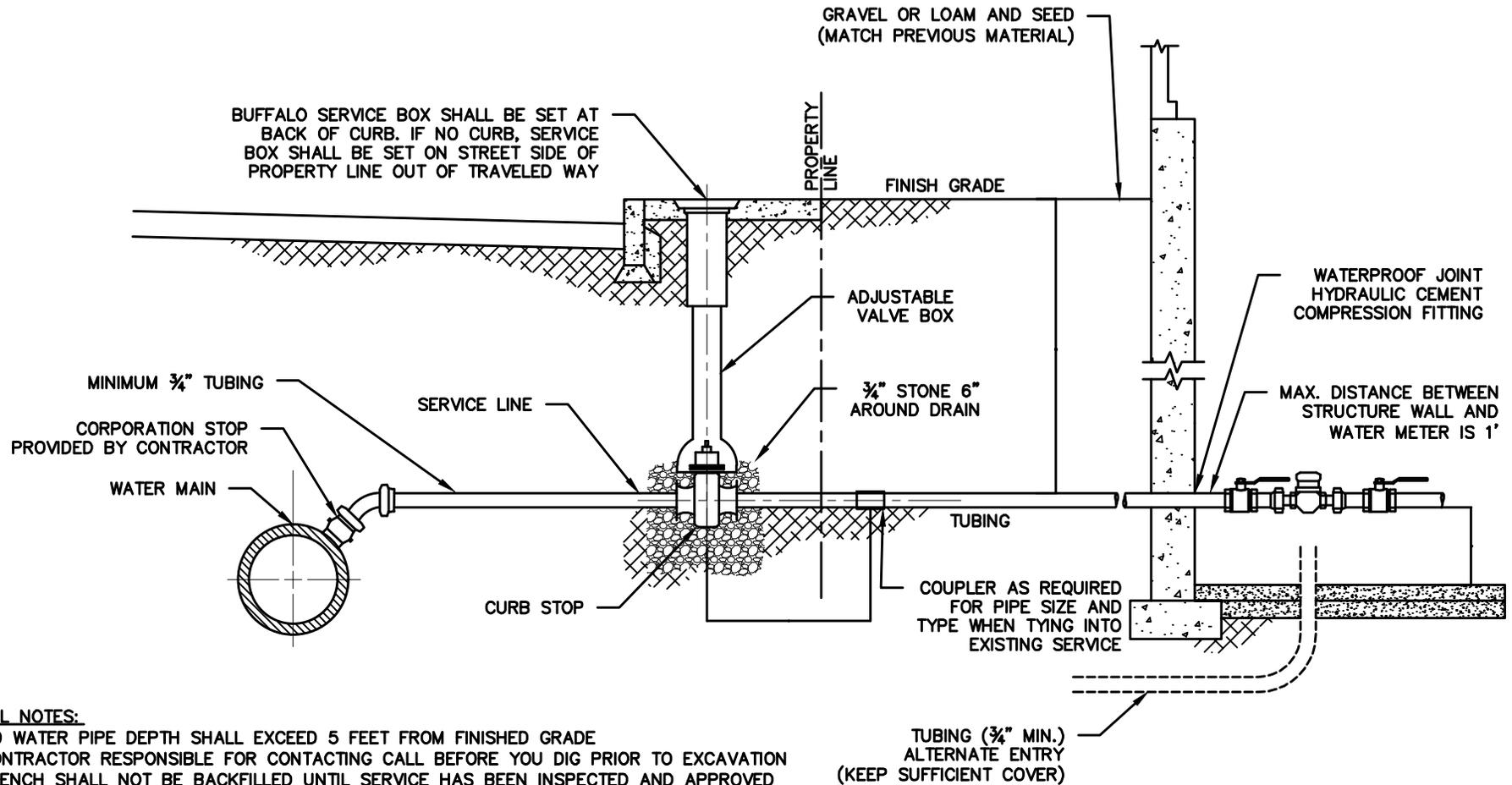
SCALE: NOT TO SCALE

REVISIONS		
DATE	BY	DESCRIPTION

**5/8" X 3/4" METER PIT WITH
STANDARD 15" FRAME AND COVER**
NO LEAD BRASS

DWG NO.:

W-12



GENERAL NOTES:

- 1) NO WATER PIPE DEPTH SHALL EXCEED 5 FEET FROM FINISHED GRADE
- 2) CONTRACTOR RESPONSIBLE FOR CONTACTING CALL BEFORE YOU DIG PRIOR TO EXCAVATION
- 3) TRENCH SHALL NOT BE BACKFILLED UNTIL SERVICE HAS BEEN INSPECTED AND APPROVED BY NORWICH PUBLIC UTILITIES (NPU)
- 4) WATER SHALL BE TURNED ON BY NPU ONLY AFTER APPROVAL
- 5) ONLY CONTRACTORS APPROVED BY NPU SHALL MAKE TAP
- 6) WATER SERVICE LINES AND METER SHALL BE SIZED BY NPU
- 7) ALL COMPACTION SHALL BE BY MECHANICAL MEANS AT NO GREATER THAN 12 INCH LIFTS
- 8) SERVICE SHALL BE FLUSHED BEFORE ACTIVATING TO AVOID METER CLOGGING
- 9) THERE SHALL BE A HORIZONTAL SEPARATION OF 10 FEET FROM ANY SEWER SERVICE OR MAIN
- 10) EXISTING CORPORATION SHALL BE CLEANED WHEN A SERVICE IS RENEWED
- 11) SERVICE SHALL BE LAID PERPENDICULAR TO THE WATER MAIN UNTIL PROPERTY LINE
- 12) NORWICH PUBLIC UTILITIES RESERVES THE RIGHT TO MODIFY STANDARDS AT THEIR DISCRETION



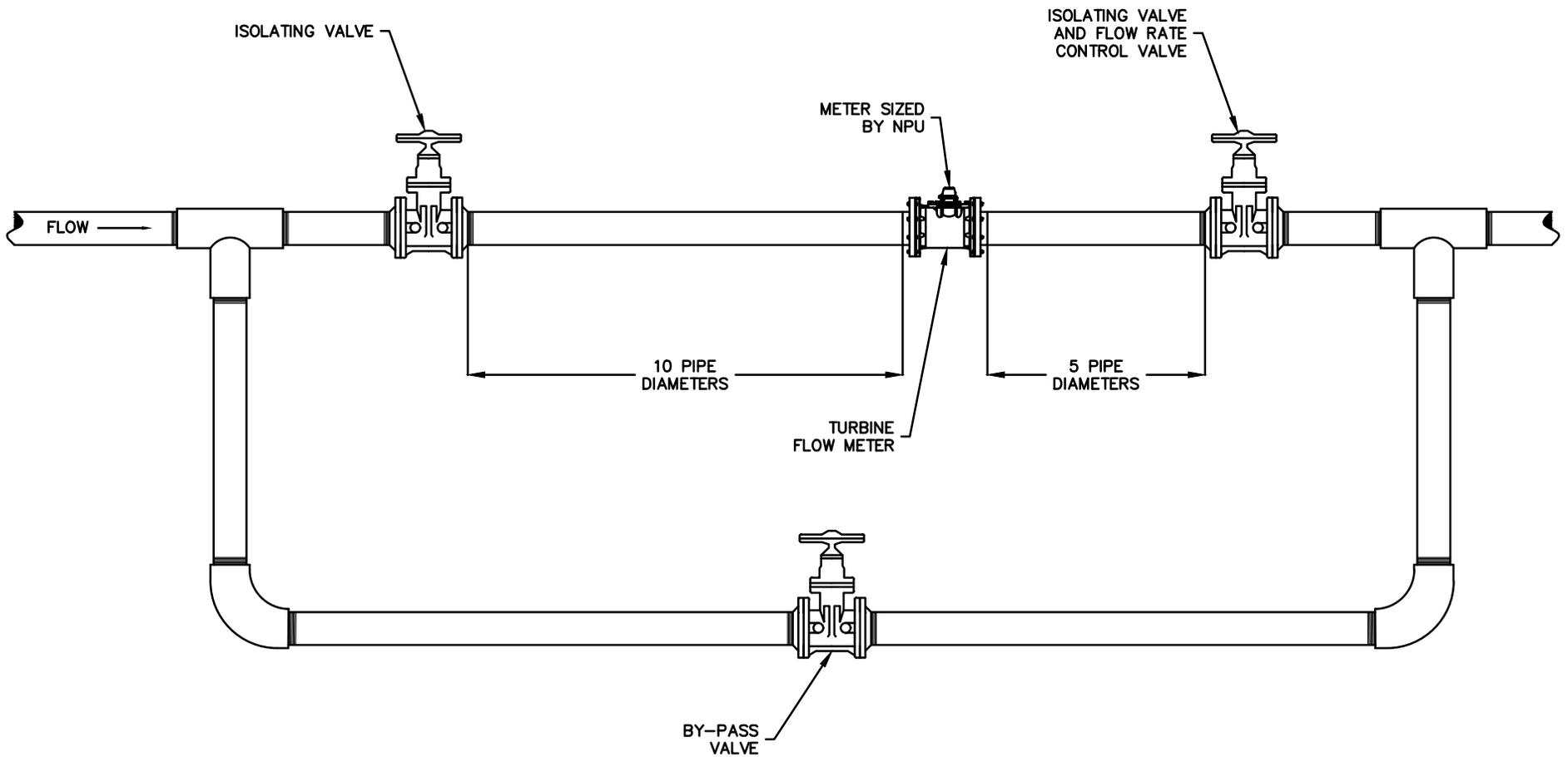
SCALE: NOT TO SCALE

REVISIONS		
DATE	BY	DESCRIPTION

TYPICAL DOMESTIC SERVICE CONNECTION UNDER TWO INCHES

DWG NO.:

W-13



Note: Valve must be able to accommodate NPU lock



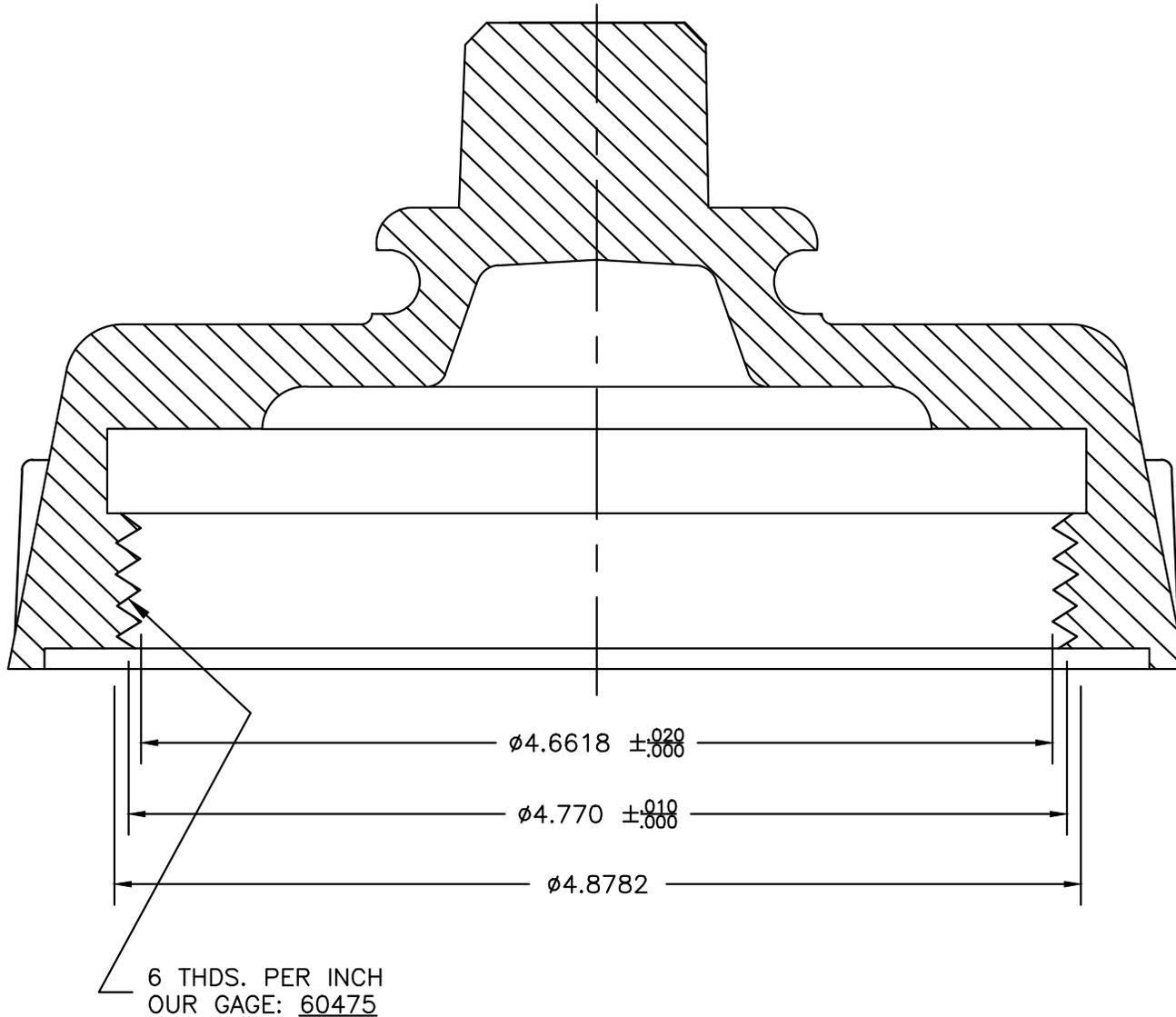
SCALE: NOT TO SCALE

DATE		BY	DESCRIPTION

TYPICAL METER BYPASS
TWO INCHES AND LARGER
WITH METER

DWG NO.:

W-14



NOTE:
THESE SPECIFICATIONS SHOULD BE USED BY FIRE
DEPARTMENTS TO ORDER PUMPER CONNECTION PIECES.



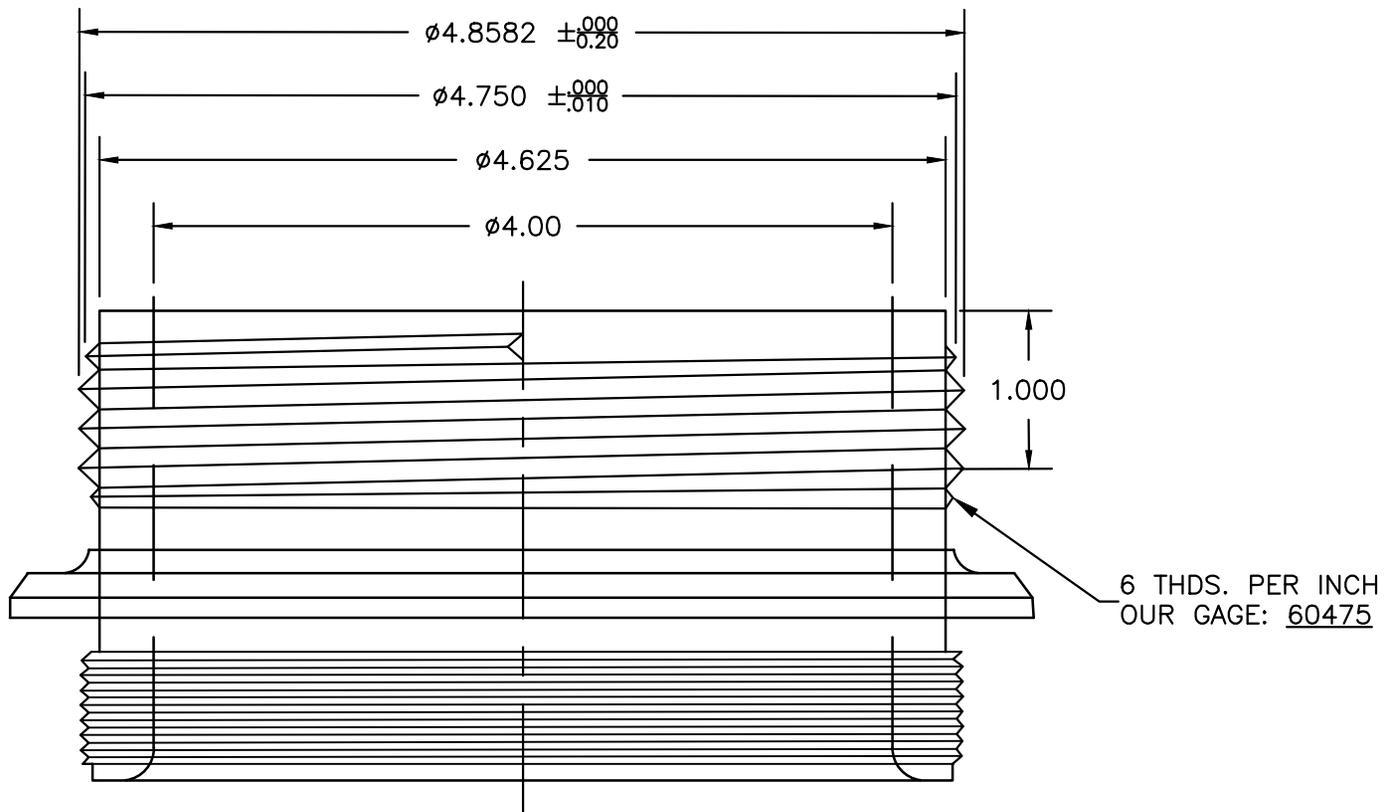
SCALE: NOT TO SCALE

DATE		BY	DESCRIPTION

PUMPER CAP THREAD
SPECIFICATIONS

DWG NO.:

W-15



SCALE: NOT TO SCALE

REVISIONS		
DATE	BY	DESCRIPTION

PUMPER NOZZLE THREAD SPECIFICATIONS

DWG NO.:

W-16