

2" BLOW-OFF ASSEMBLY



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STANDARD DETAILS
 THE CITY OF TROY UTILITIES

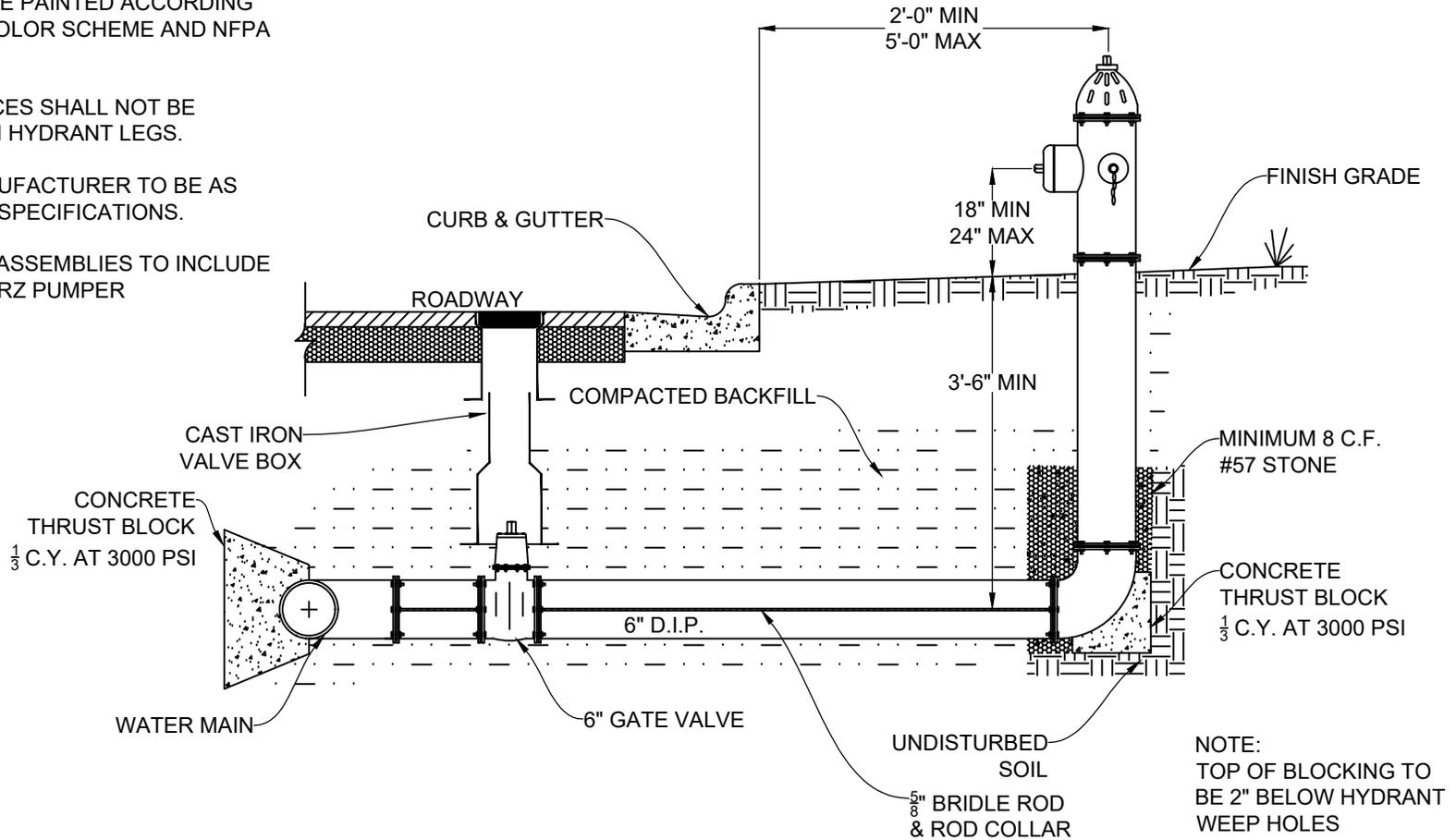
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100-01

NOTES:

1. HYDRANT TO BE PLACED WITH PUMPER NOZZLE FACING THE CLOSEST CURB.
2. HYDRANT TO BE PAINTED ACCORDING WITH LOCAL COLOR SCHEME AND NFPA 281.
3. WATER SERVICES SHALL NOT BE PERMITTED ON HYDRANT LEGS.
4. HYDRANT MANUFACTURER TO BE AS NOTED IN THE SPECIFICATIONS.
5. ALL HYDRANT ASSEMBLIES TO INCLUDE INTEGRAL STORZ PUMPER CONNECTION.



HYDRANT INSTALLATION



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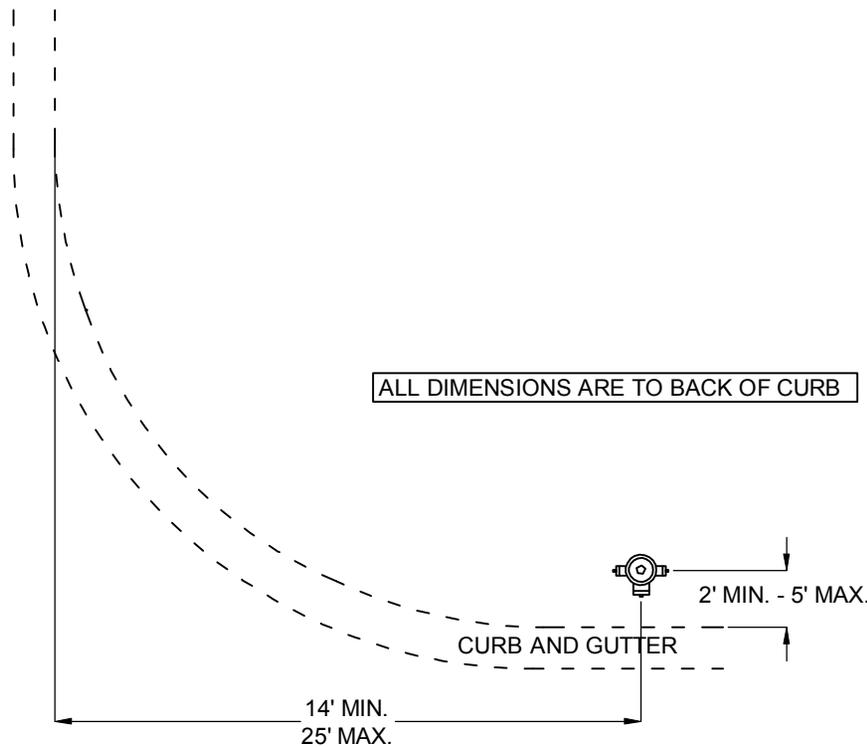
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HYDRANT LOCATION



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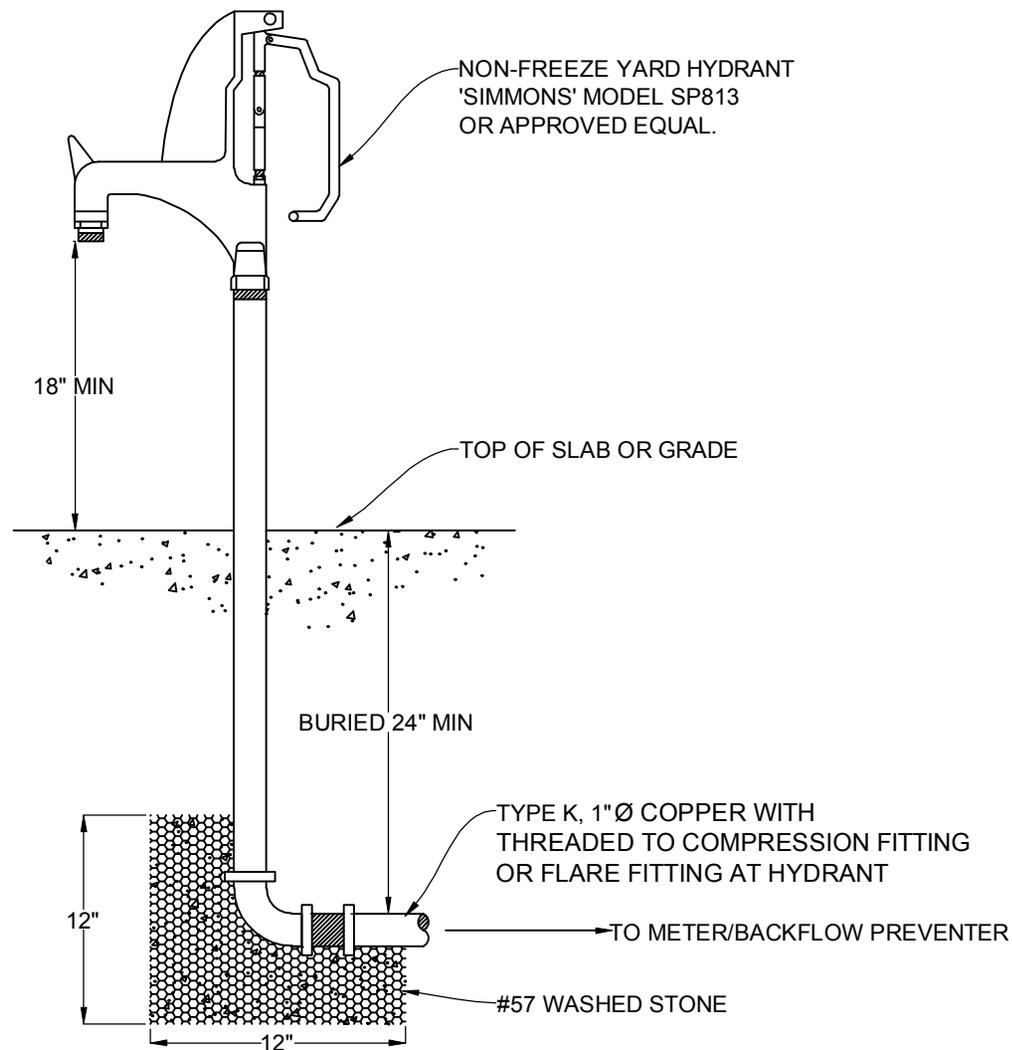
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YARD HYDRANT (NON-FREEZE)



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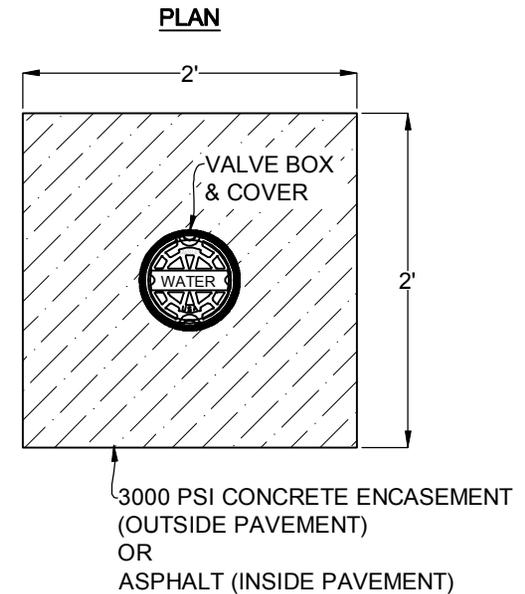
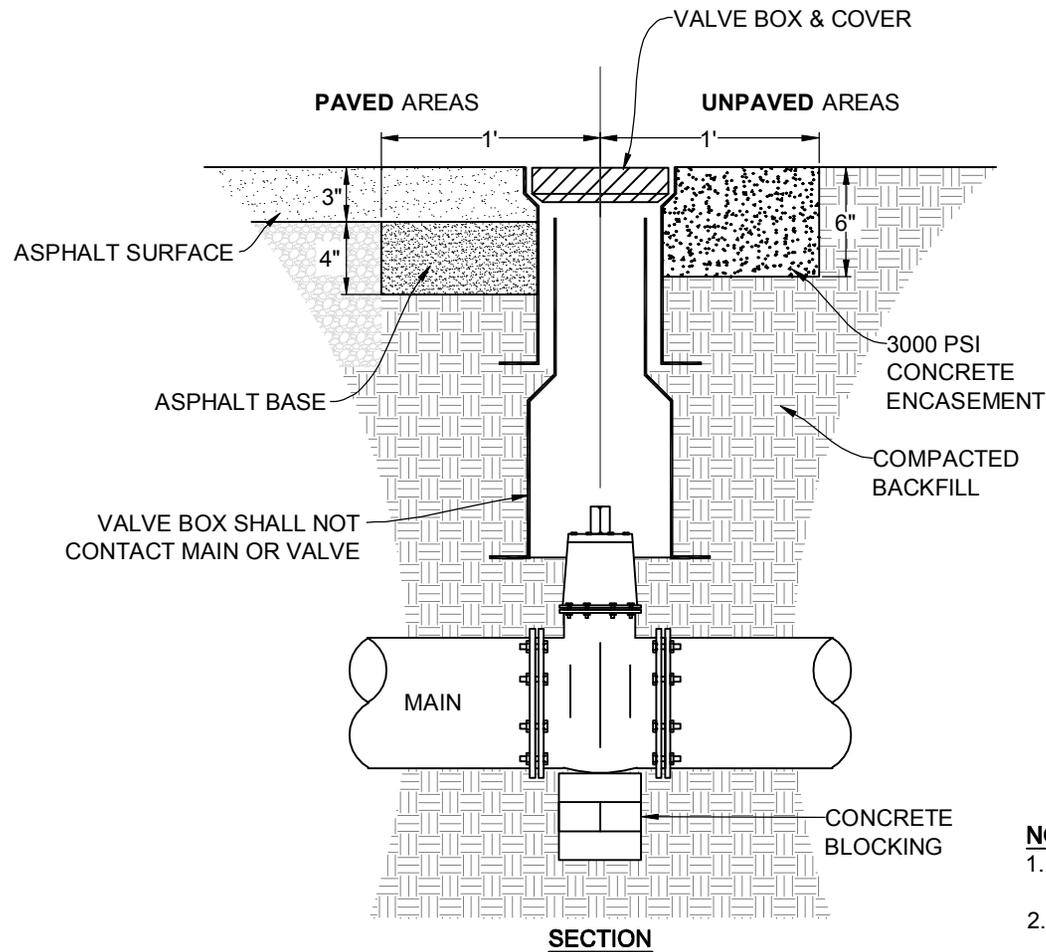
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NOTES:

1. IN CASES WHERE MAX. VALVE BOX HEIGHT IS EXCEEDED, USE 6" DIP AS A PROTECTIVE SLEEVE.
2. ALL VALVE BOXES AND COVERS SHALL MEET **ASTM A48**, GRADE 35B IRON REQUIREMENTS.
3. ASPHALT COLLARS SHALL BE USED WHEN VALVE BOX IS LOCATED IN PAVED ASPHALT STREETS OR DRIVEWAYS.

VALVE BOX INSTALLATION



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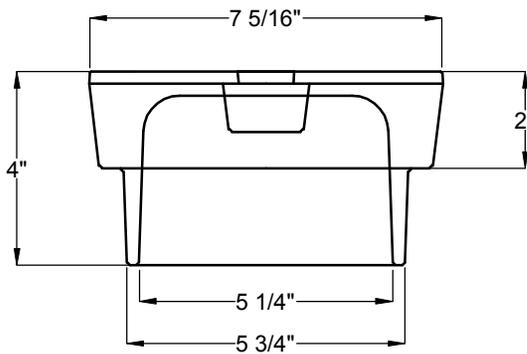
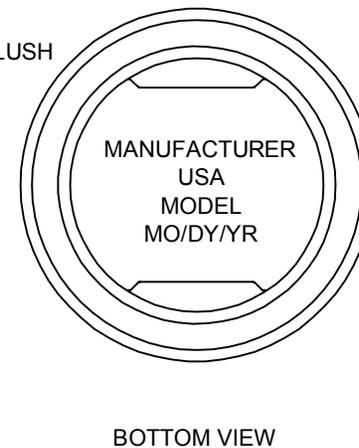
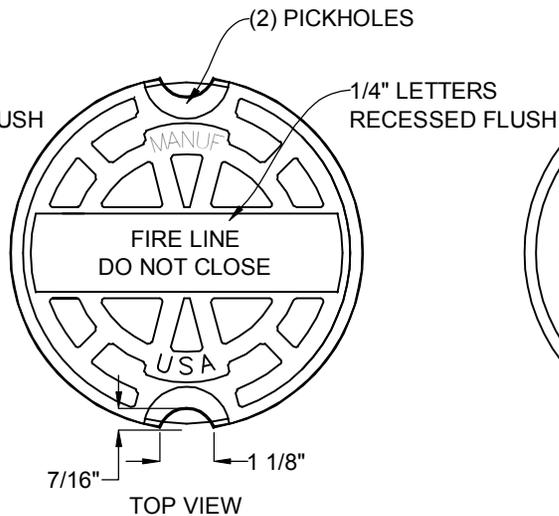
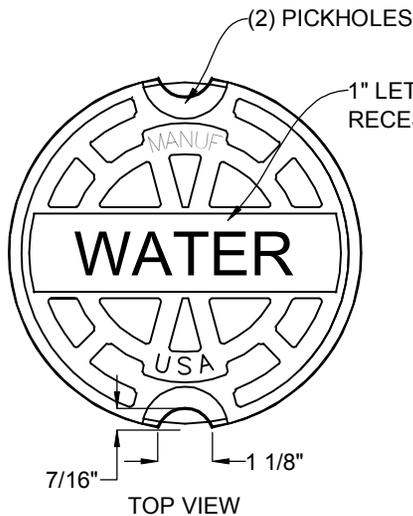
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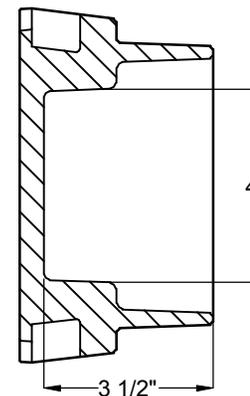
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FRONT VIEW



SECTION VIEW

COVER WEIGHT: 16 LBS

VALVE COVER



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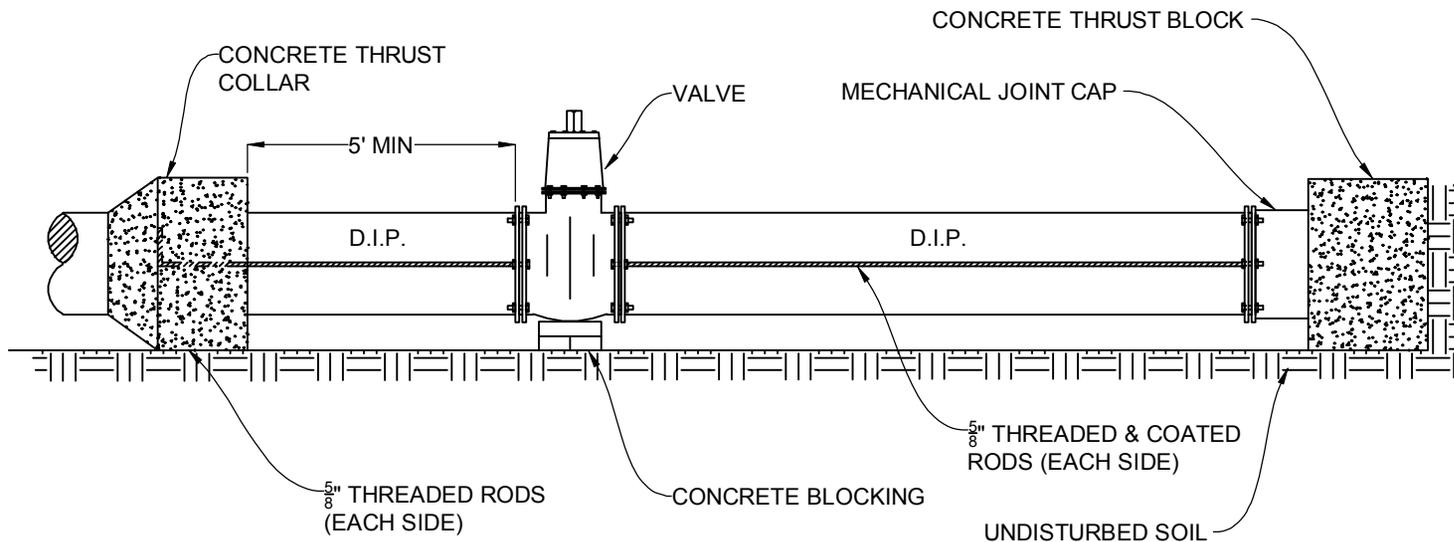
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CAPPING DETAIL



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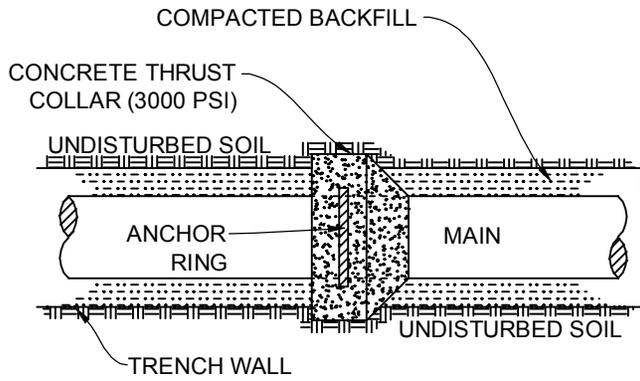
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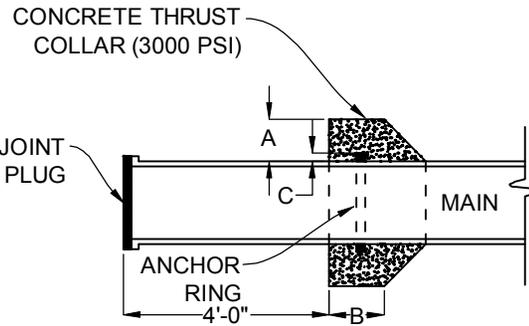
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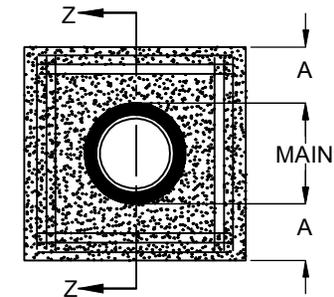


PLAN



SECTION Z-Z

PIPE DIAMETER	CONCRETE THRUST COLLAR		ANCHOR RING	RINGS REQUIRED
	A	B	C	
6"/8"/12"	1'-0"	1'-0"	2"	ONE
16"	1'-4"	1'-0"	2"	ONE
20"	1'-4"	1'-0"	3"	ONE
24"	1'-4"	1'-0"	3"	TWO
30"	1'-4"	1'-2"	4"	TWO
36"	1'-4"	1'-4"	4"	TWO



REINFORCING

NOTE:
 6" TO 16" MAINS--12-NO. 7 BARS
 20" TO 36" MAINS--12-NO. 8 BARS
 * BARS PLACED AS SHOWN

THRUST COLLAR INSTALLATION



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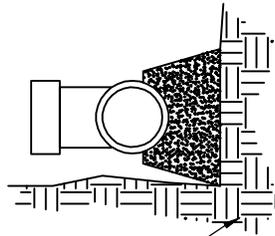
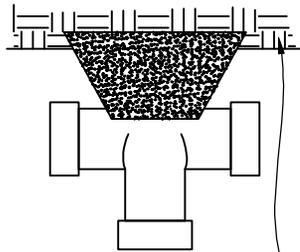
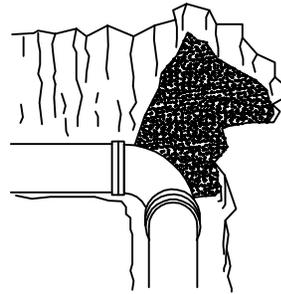
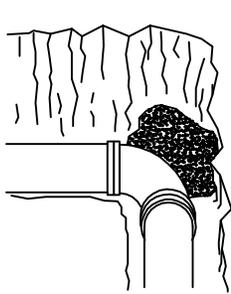
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UNDISTURBED EARTH

MINIMUM CONCRETE BLOCKING (C.Y.)*					
NOM. PIPE DIA. (INCHES)	TEES & DEAD ENDS	90 BEND	45 BEND	22-1/2 BEND	14 BEND
4	0.1	0.1	0.1	0.1	0.1
6	0.2	0.2	0.1	0.1	0.1
8	0.2	0.3	0.2	0.1	0.1
10	0.3	0.5	0.3	0.2	0.2
12	0.4	0.6	0.5	0.3	0.3
14	0.7	0.9	0.6	0.5	0.5
16	0.7	0.9	0.6	0.5	0.5
18	0.9	1.2	0.7	0.6	0.6
20	1.1	1.6	1.1	0.7	0.7
24	1.7	2.3	1.6	0.9	0.9

* CONCRETE SHALL BE 3000 PSI

NOTE: WRAP FITTINGS IN 6 MIL PLASTIC BEFORE POURING CONCRETE

THRUST BLOCKING



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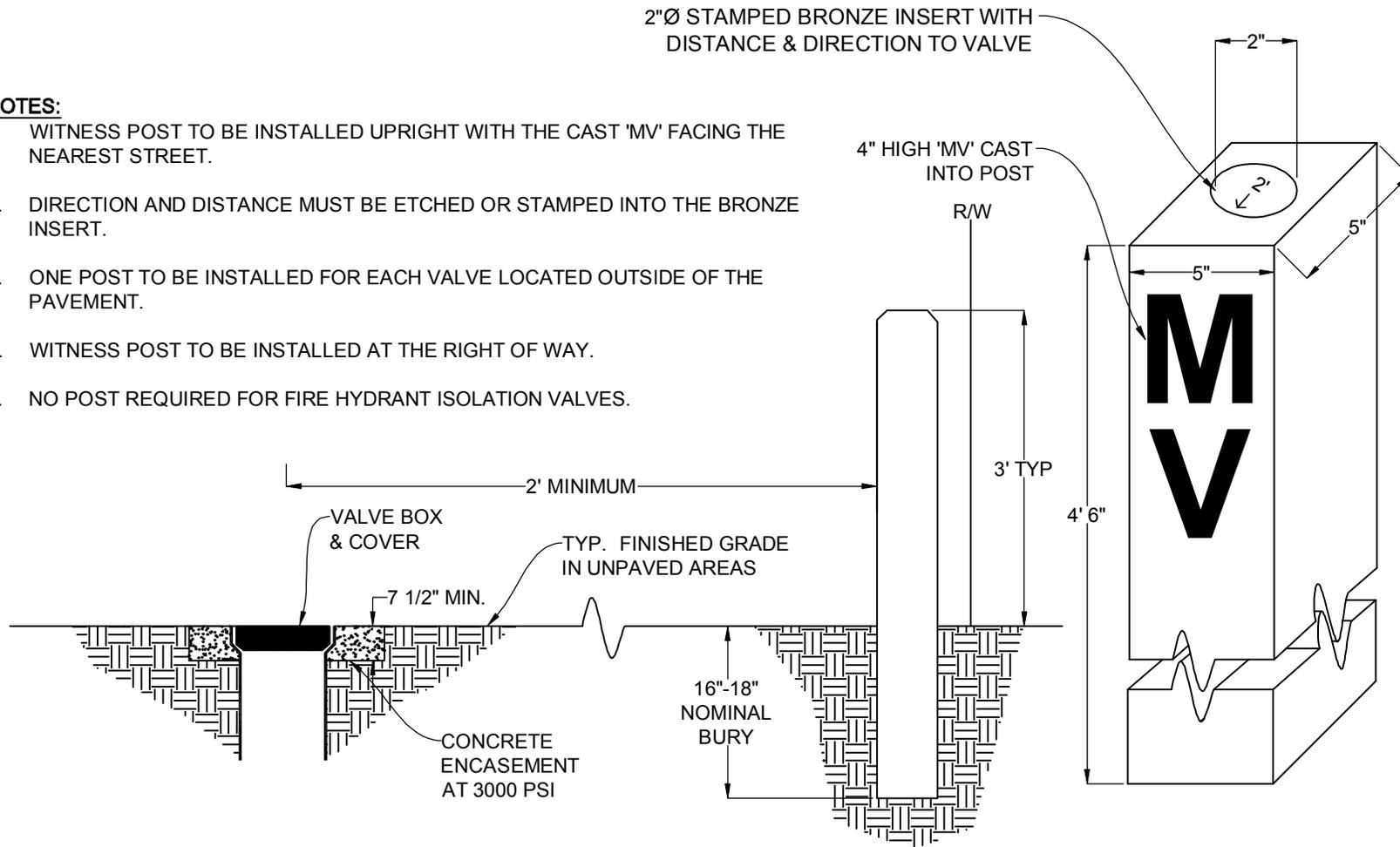
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NOTES:

1. WITNESS POST TO BE INSTALLED UPRIGHT WITH THE CAST 'MV' FACING THE NEAREST STREET.
2. DIRECTION AND DISTANCE MUST BE ETCHED OR STAMPED INTO THE BRONZE INSERT.
3. ONE POST TO BE INSTALLED FOR EACH VALVE LOCATED OUTSIDE OF THE PAVEMENT.
4. WITNESS POST TO BE INSTALLED AT THE RIGHT OF WAY.
5. NO POST REQUIRED FOR FIRE HYDRANT ISOLATION VALVES.



VALVE BOX MARKER FOR UNPAVED AREAS



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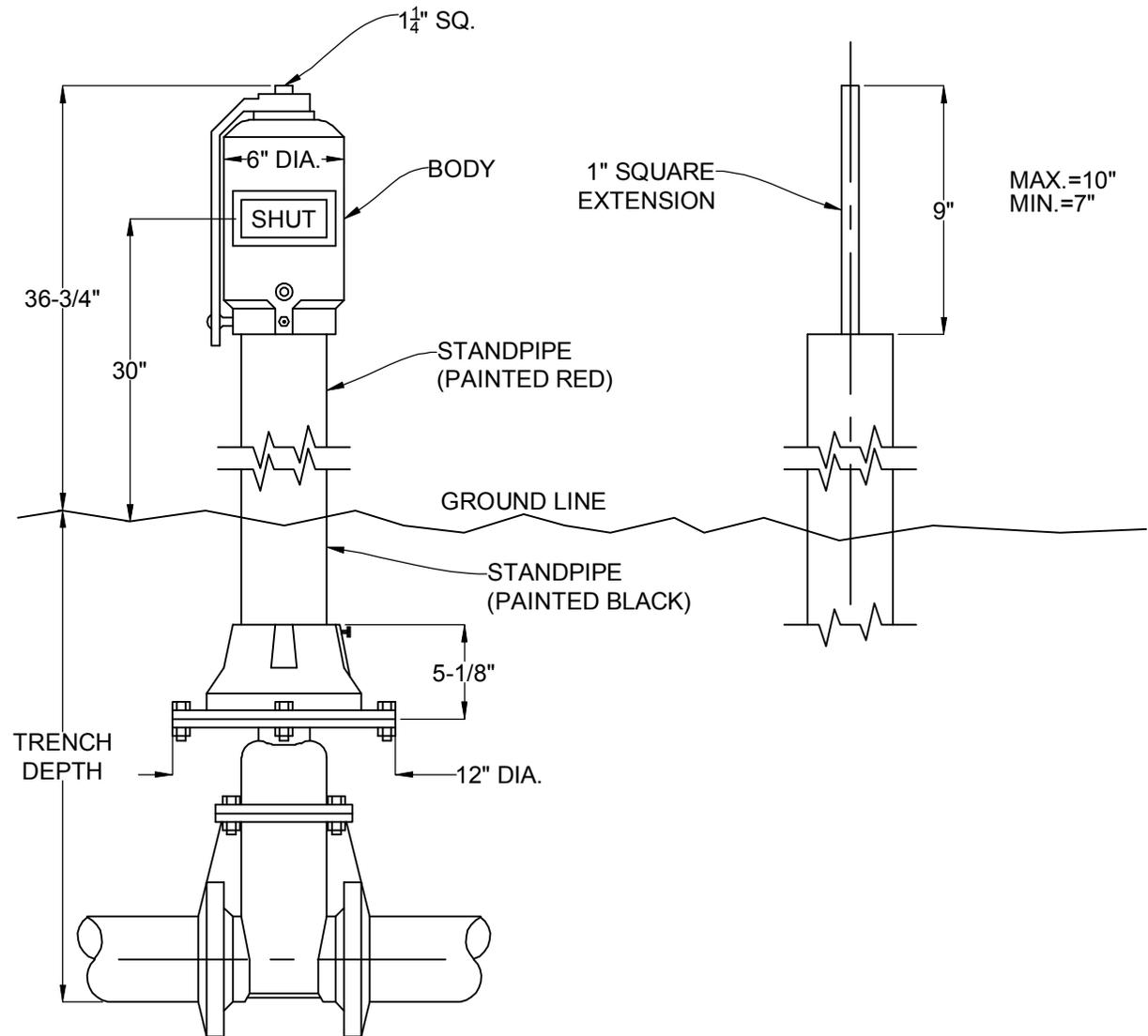
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FIELD ADJUSTMENT INSTRUCTIONS:

1. REMOVE THE BODY FROM THE TOP OF THE INDICATOR POST ASSEMBLY.
2. CUT THE REQUIRED LENGTH OF THE BOTTOM OF THE STANDPIPE FOR THE GROUND LINE TO MATCH UP WITH THE STANDPIPE GROUND LINE MARK.
3. CUT THE 1" SQ. EXTENSION AT A DISTANCE OF 9" ABOVE THE TOP OF THE STANDPIPE.
4. SET THE "OPEN" AND "SHUT" TARGETS FOR THE APPROPRIATE VALVE SIZE.
5. REATTACH THE BODY TO THE TOP OF THE INDICATOR POST ASSEMBLY.
6. LOCATION OF VALVE PER NFPA.



TAPPING SLEEVE & POST INDICATOR VALVE



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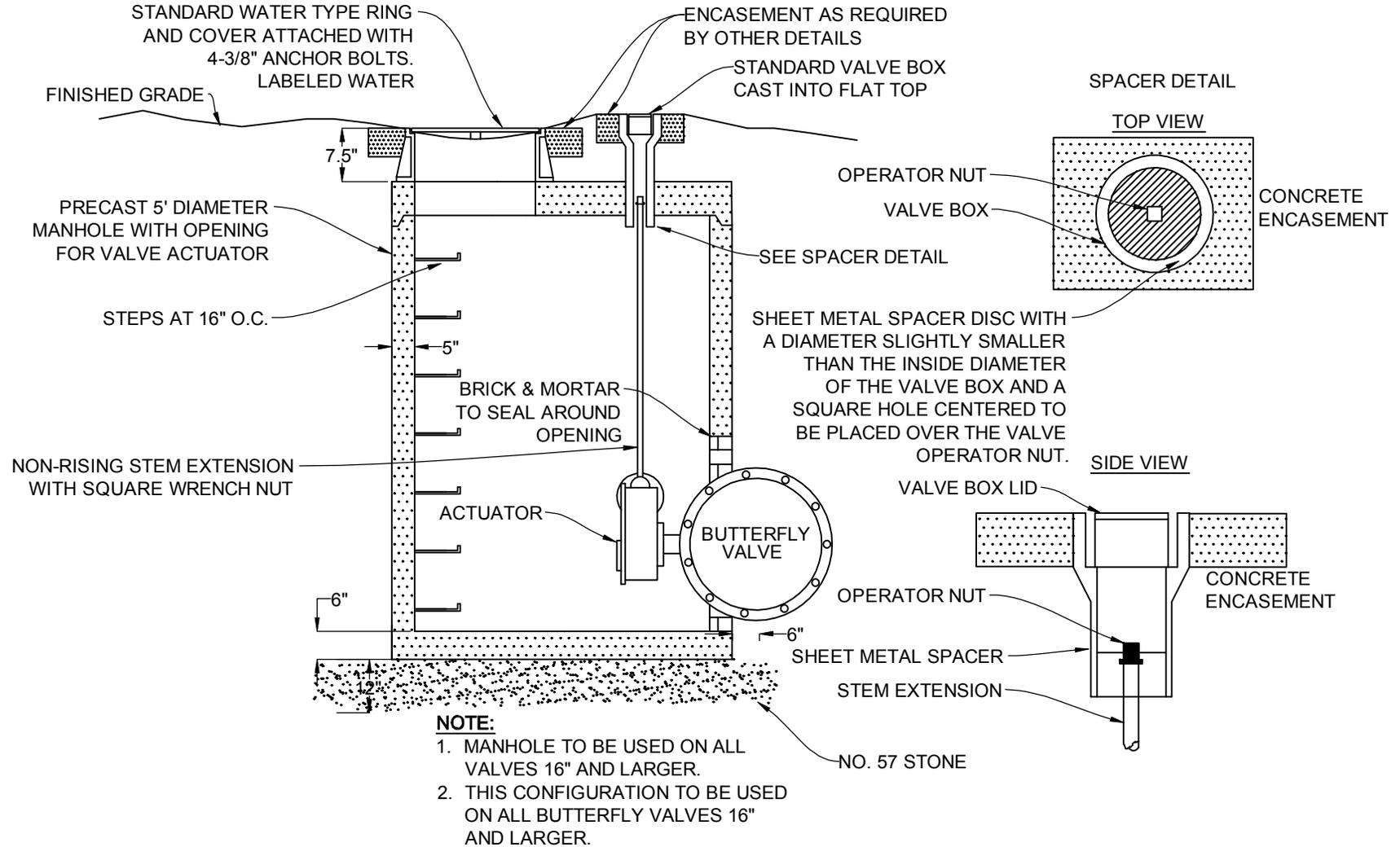
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BUTTERFLY VALVE WITH 5' MANHOLE ENCASEMENT



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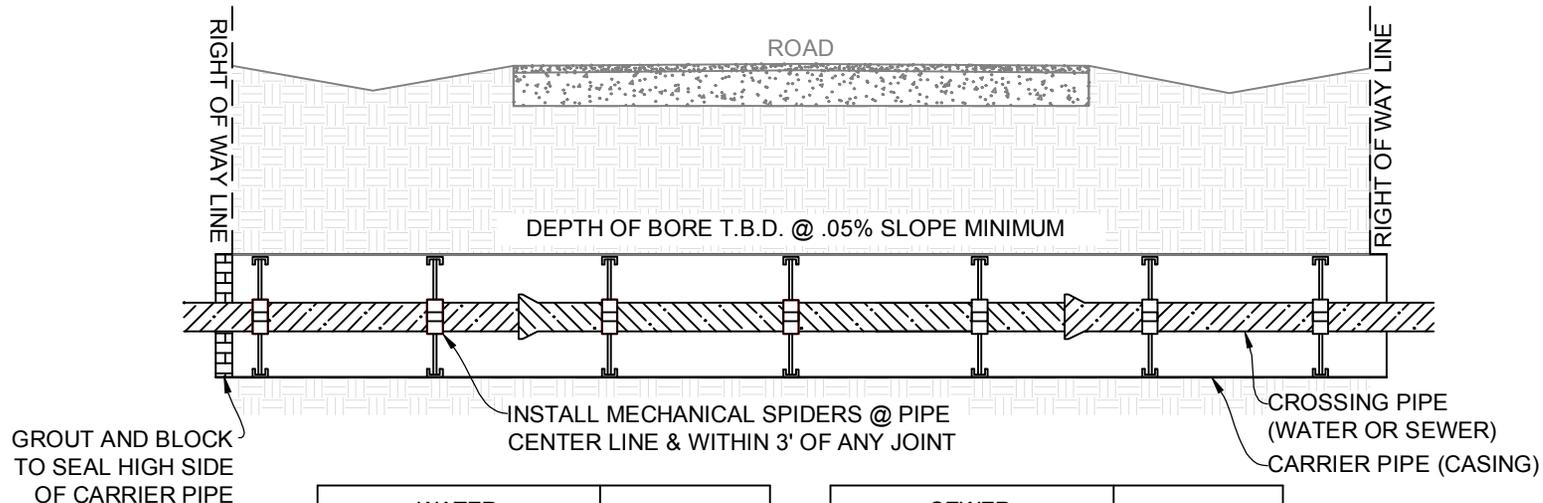
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STANDARD DETAILS
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100-12

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WATER		WALL THICKNESS (IN.)
DIAMETER (IN.)		
PIPE	CASING	
6-8	18	0.150
10-12	24	0.188
16-18	36	0.250
20-24	42	0.312
30-36	48	0.432

SEWER		WALL THICKNESS (IN.)
DIAMETER (IN.)		
PIPE	CASING	
4-12	24	0.188
16-24	36	0.250
30	42	0.312
36	48	0.375
42	54	0.432
48	60	0.432

NOTES:

1. CASING SHALL BE UNCOATED SPIRAL WELDED STEEL MEETING ASTM A-139, GRADE B WITH A YIELD STRENGTH OF 35,000 PSI.
2. CROSSINGS ON ALDOT MAINTAINED ROADS TO BE IN ACCORDANCE WITH CURRENT ALDOT STANDARDS AND APPROVED ENCROACHMENT AGREEMENT.
3. RESTRAINED JOINT PIPE ONLY. MEGE-LUGS ARE NOT PERMITTED.
4. SPIDER SUPPORTS SHALL BE MANUFACTURED BY ADVANCE PRODUCTS & SYSTEMS, INC, PIPELINE SEAL AND INSULATOR LTD, OR BWM COMPANY.

JACK & BORE DETAIL



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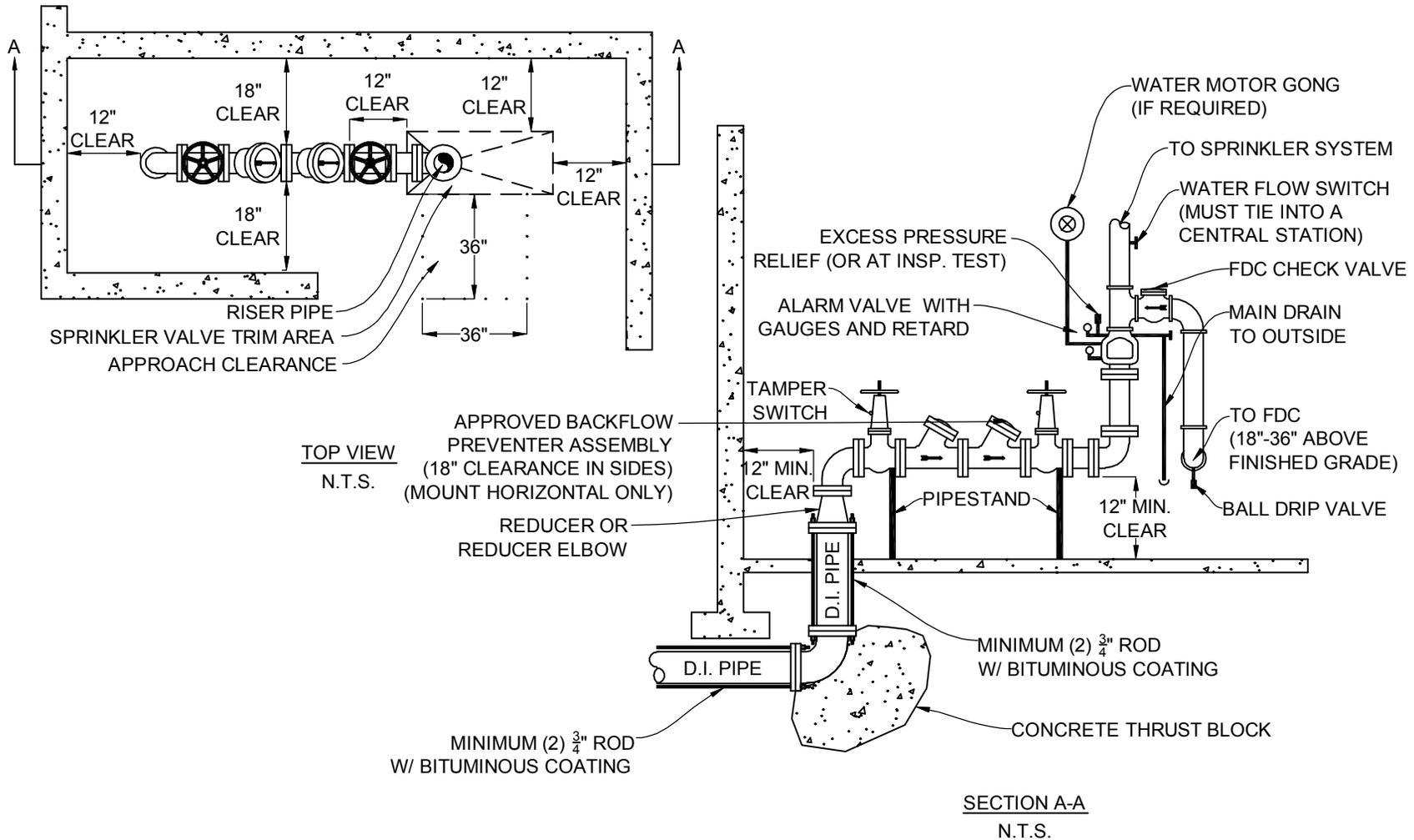
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SPRINKLER RISER & FIRE DEPARTMENT CONNECTION



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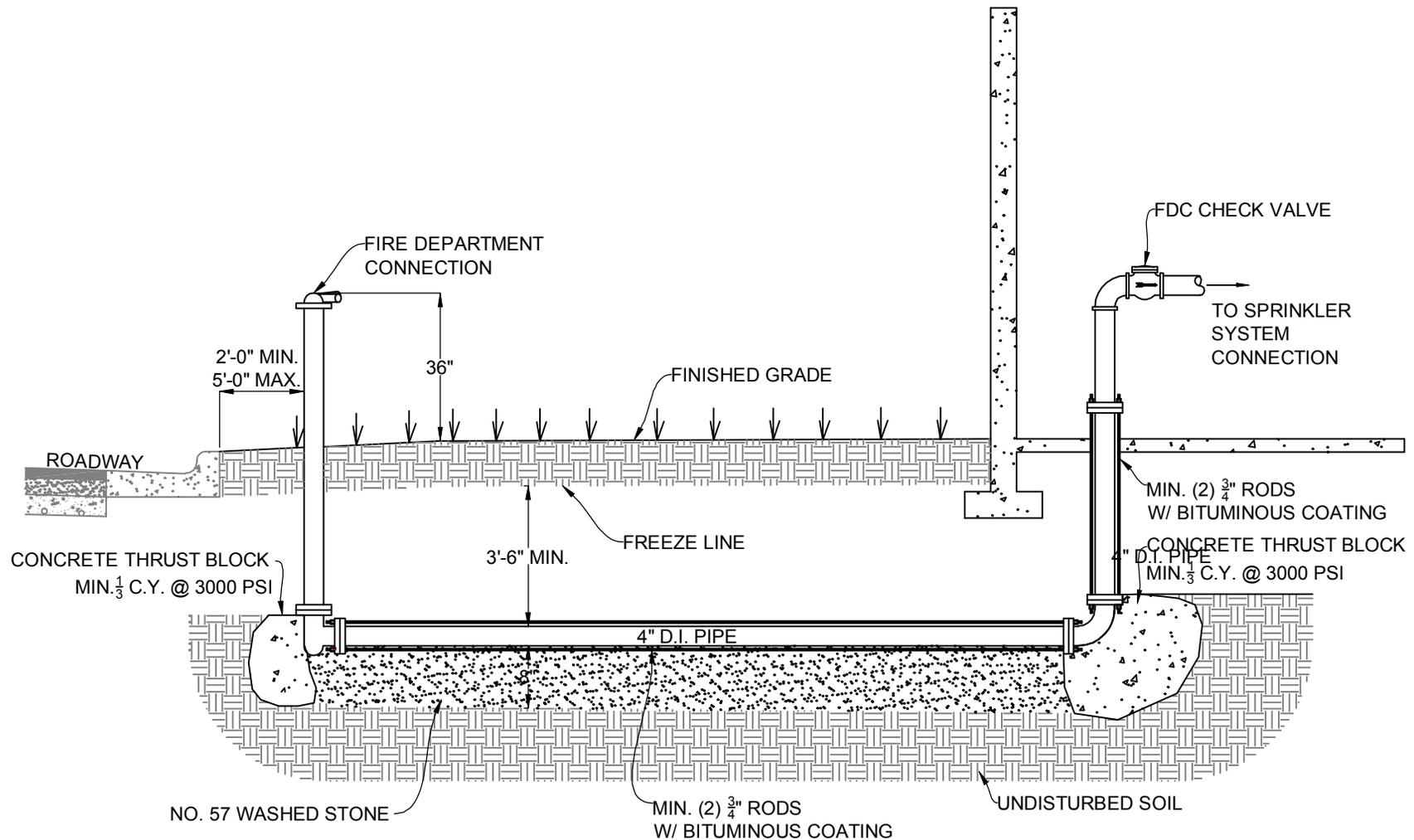
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NOTE:

1. TOP OF BLOCKING SHALL BE 2" FROM BALL DRIP WEEP HOLE.

CURB SIDE FIRE DEPARTMENT CONNECTION



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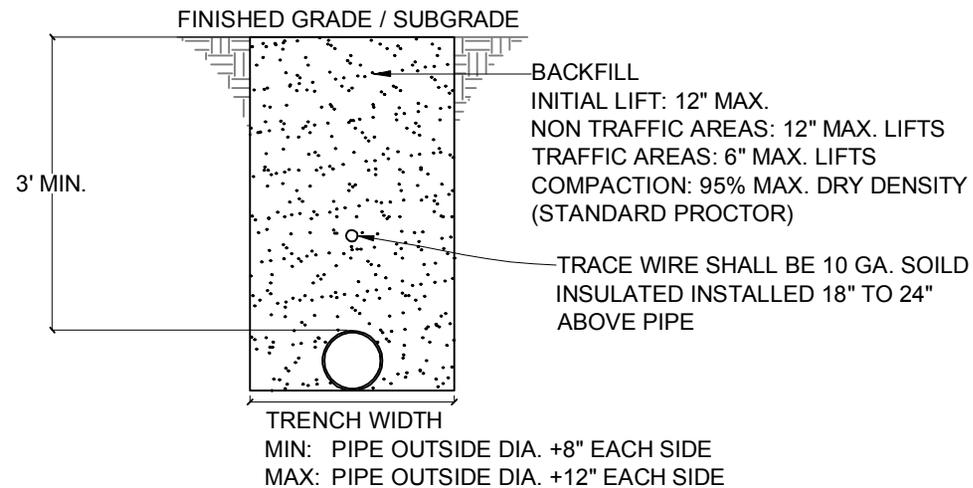
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NOTES:

1. NO STONES SHALL BE INCLUDED IN THE BACKFILL MATERIAL FOR AT LEAST 2 FEET ABOVE THE TOP OF THE PIPE.
2. PROVIDE RECESSES TO RECEIVE PIPE BELL.
3. UNDERCUT UNSUITABLE MATERIAL AS DIRECTED BY THE ENGINEER AND BACKFILL WITH APPROVED MATERIAL.
4. WHERE NECESSARY, TEMPORARILY DIVERT SURFACE WATER TO MAINTAIN A DRY CONDITION IN THE PIPE FOUNDATION. DIRECT THIS TEMPORARY FLOW INTO SUITABLE EROSION CONTROL DEVICES.

WATER MAIN PIPE BACKFILLING



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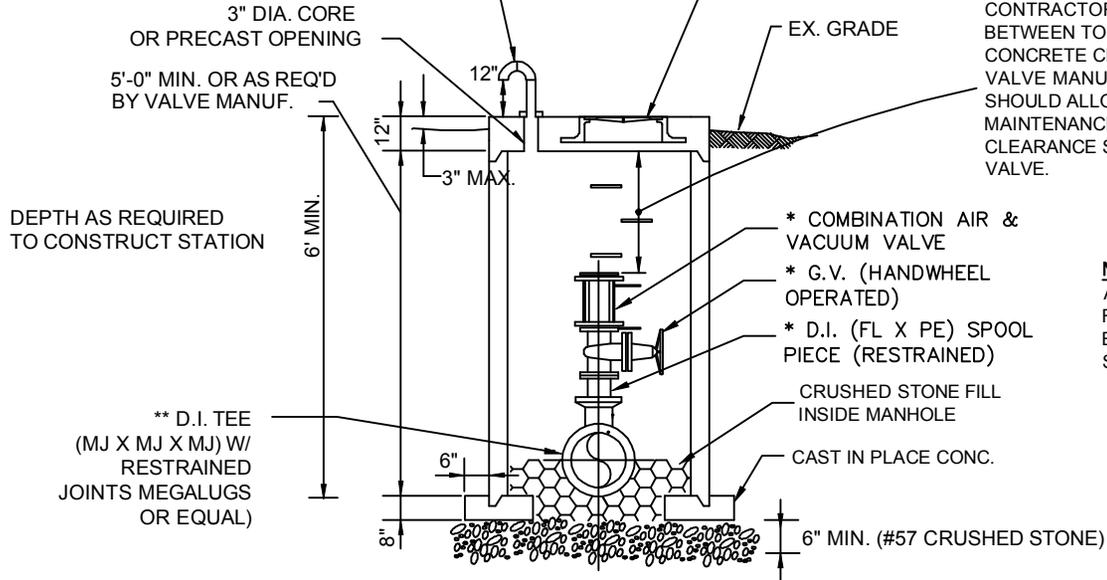
100-16

2" ALUMINUM SCH 40 PIPE WITH FABRICATED FLANGE TO COVER 3" CORE OPENING IN SLAB. USE S.S. ANCHOR BOLTS. COAT SURFACES CONTACTING CONC. WITH ASPHALTIC PAINT. INSTALL S.S. 9" X 9" X #16 MESH AROUND PIPE OPENING USING S.S.

5' I.D. PRECAST CONC. MANHOLE & RISER PER ASTM C-478

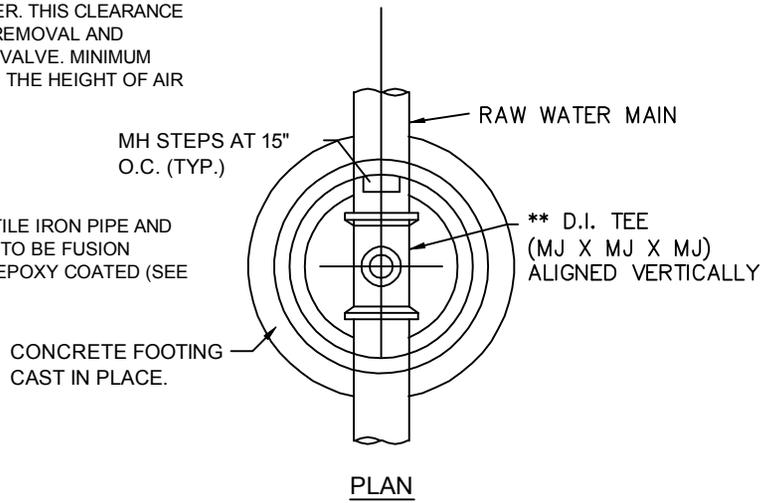
FRAME & COVER CAST IN SLAB

CONTRACTOR TO PROVIDE CLEARANCE BETWEEN TOP OF AIR VALVE AND CONCRETE CEILING AS REQUIRED BY AIR VALVE MANUFACTURER. THIS CLEARANCE SHOULD ALLOW FOR REMOVAL AND MAINTENANCE OF AIR VALVE. MINIMUM CLEARANCE SHALL BE THE HEIGHT OF AIR VALVE.



MH STEPS AT 15" O.C. (TYP.)

NOTE:
ALL DUCTILE IRON PIPE AND FITTINGS TO BE FUSION BONDED EPOXY COATED (SEE SPECS).



* VALVE SIZE AND MODEL SHALL BE AS APPROVED BY PCI

AIR & VACUUM RELEASE VALVE STATION



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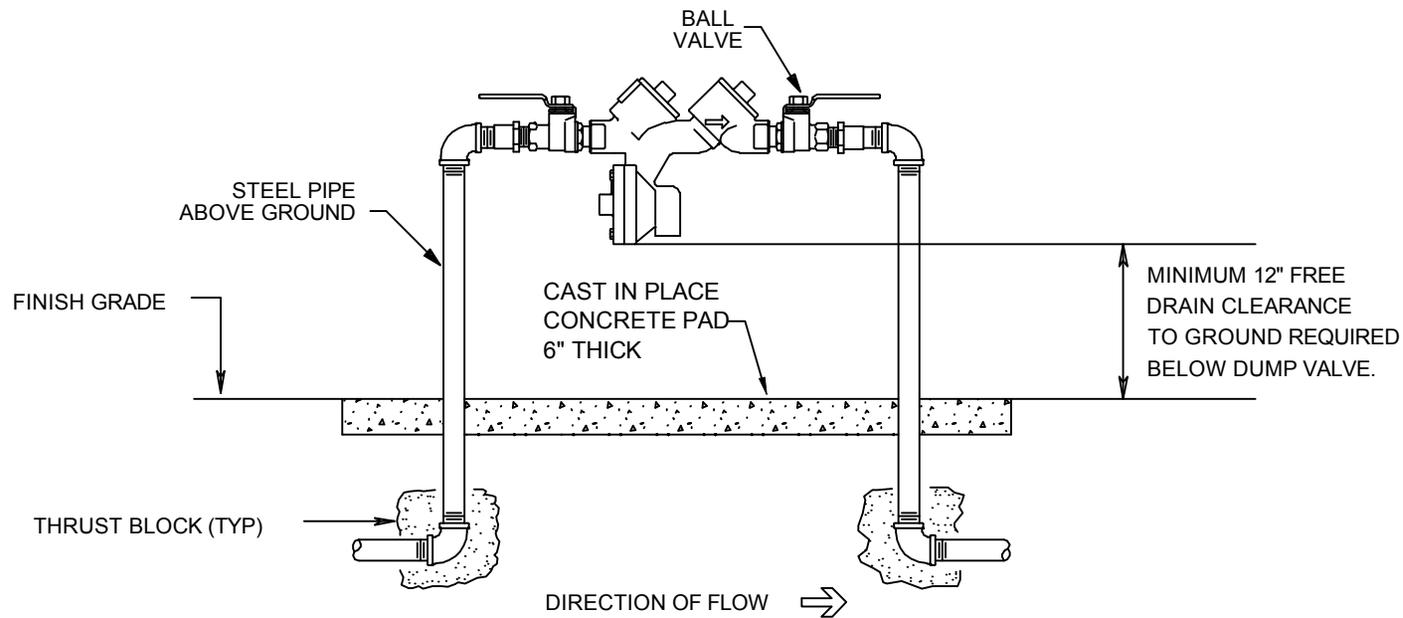
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NOTES:

1. MATERIALS APPROVED BY THE UTILITY PROVIDER
2. DEVICE TO BE INSULATED WITH APPROVED MATERIALS

BACKFLOW PREVENTORS

- 1) ALL WATER SERVICE LINES SHALL BE REQUIRED TO HAVE A BACKFLOW DEVICE.
- 2) ALL FIRE LINES SHALL HAVE A DOUBLE DETECTOR CHECK VALVE BACKFLOW PREVENTION ASSEMBLY WITH A 3/4" BYPASS METER.
- 3) RPZ PRINCIPLE BACKFLOW PREVENTION ASSEMBLIES ARE REQUIRED FOR DOMESTIC AND IRRIGATION WATER SERVICES.
- 4) ALL BACKFLOW PREVENTORS SHALL BE OF THE TYPE REQUIRED BY ADEM, AWWA AND NFPA CODES OR APPROVED BY CITY.
- 5) ALL WATER TAPS SHALL BE LOCATED OUT FROM UNDER PROPOSED FUTURE PAVEMENT.

**RPZ ASSEMBLY BACKFLOW PREVENTER ASSEMBLY
(3/4" TO 2")**



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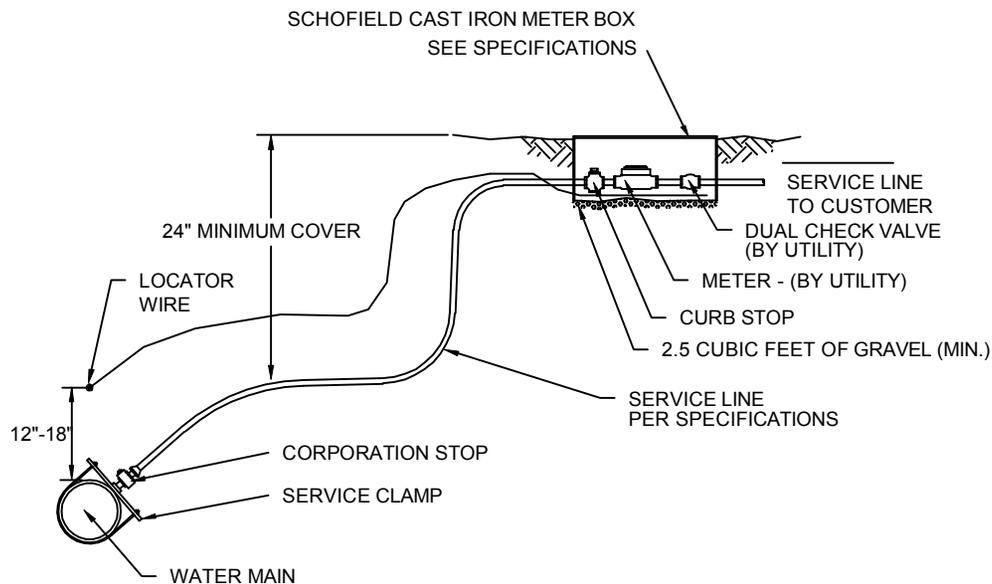
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NOTES:

1. SERVICE CLAMPS ARE NOT REQUIRED WHEN THREADED TAPS ARE MADE TO DUCTILE IRON OR STEEL WATER MAINS.
2. INSTALL LOCATOR WIRE FROM WATER MAIN TO METER BOX.
3. WATER SERVICE SHALL BE CLEARLY AND ACCURATELY MARKED ON THE CURB LINE. (IF APPLICABLE)
4. THE SERVICE LINE SHALL HAVE FITTINGS AS DETAILED IN THE SPECIFICATIONS.
5. SERVICE LINE UNDER PAVEMENT SHALL BE CASED WITH APPROPRIATE SIZE TO SERVICE LINE. P.V.C CASING MAY BE USED, EXCEPT ON D.O.T. R.O.W.

WATER SERVICE CONNECTION



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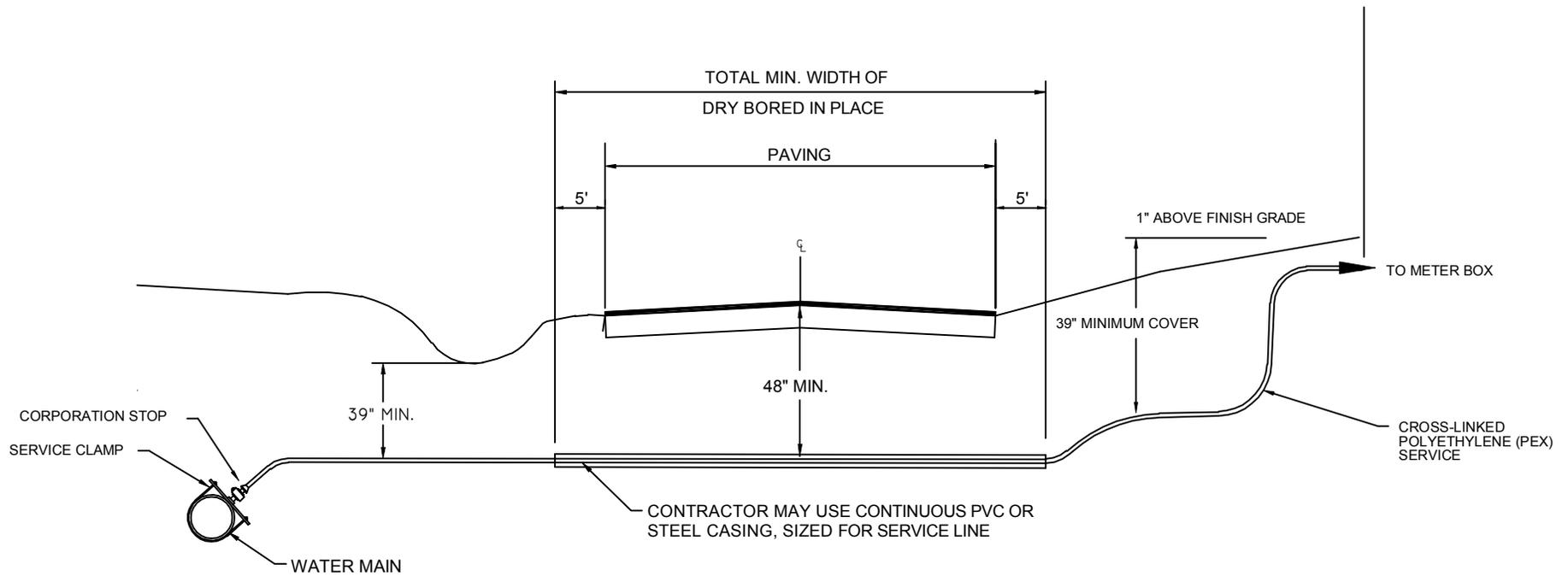
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NOTES:

1. CONTINUOUS SERVICE LINE SHALL EXTEND FROM WATER MAIN TO SERVICE METER BOX. NO JOINTS WILL BE ALLOWED.
2. ALL NEW SERVICES TO BE SIZED PER THE SPECIFICATIONS.
3. LOCATE NEW SERVICE NEXT TO EXISTING SERVICE.
4. CONTRACTOR TO MAKE ALL CONNECTIONS TO EXISTING CUSTOMER SERVICE LINE AFTER COMPLETION OF ALL TESTING.
5. CONTRACTOR TO ENSURE EXISTING SERVICE UNTIL RECONNECTION.
6. PIPING TO BE CROSS-LINKED POLYETHYLENE (PEX) PER THE SPECIFICATIONS.

WATER SERVICE CONNECTION (LONG SIDE)



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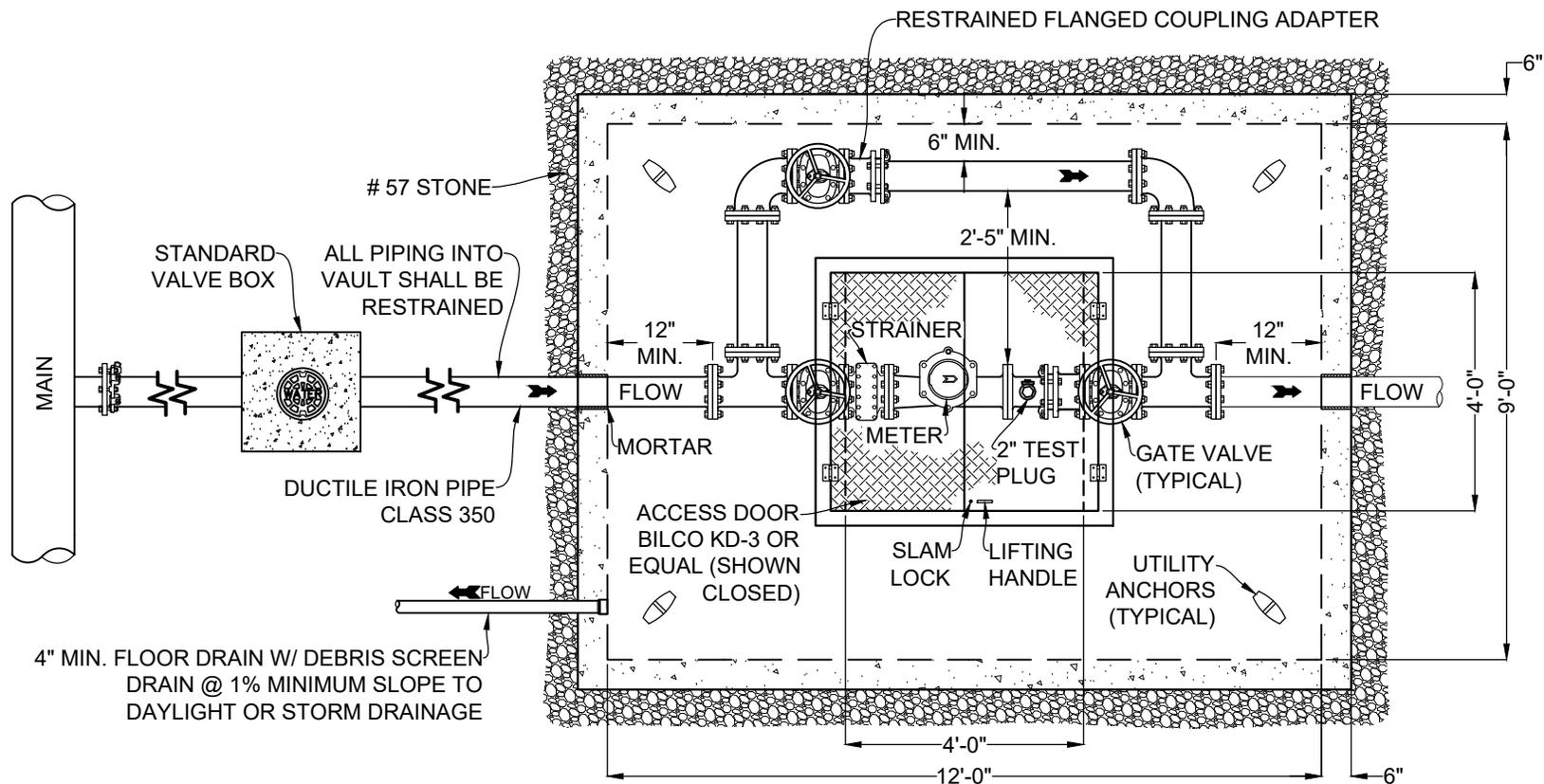
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PLAN VIEW

2" & LARGER METER INSTALLATION & VAULT - I



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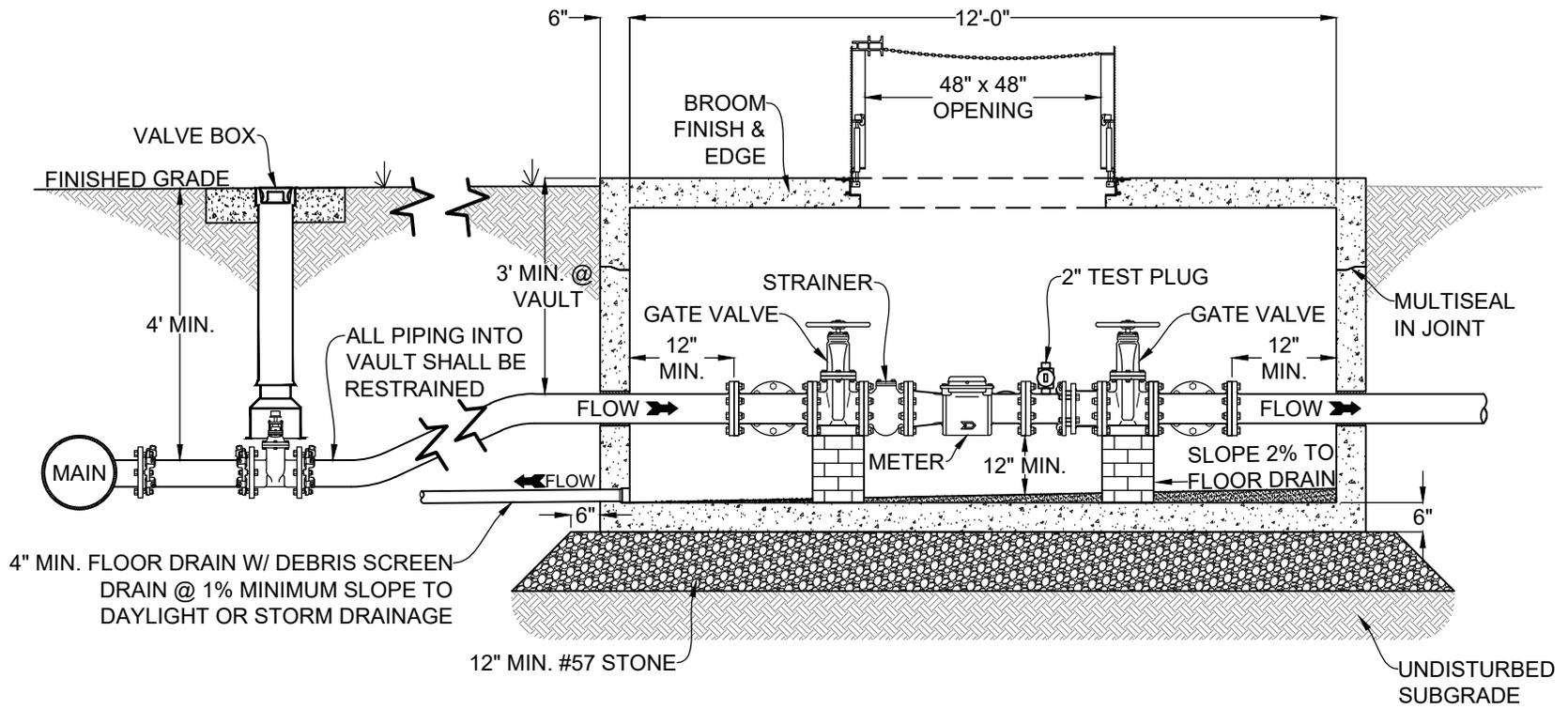
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SECTION VIEW

2" & LARGER METER INSTALLATION & VAULT - II



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