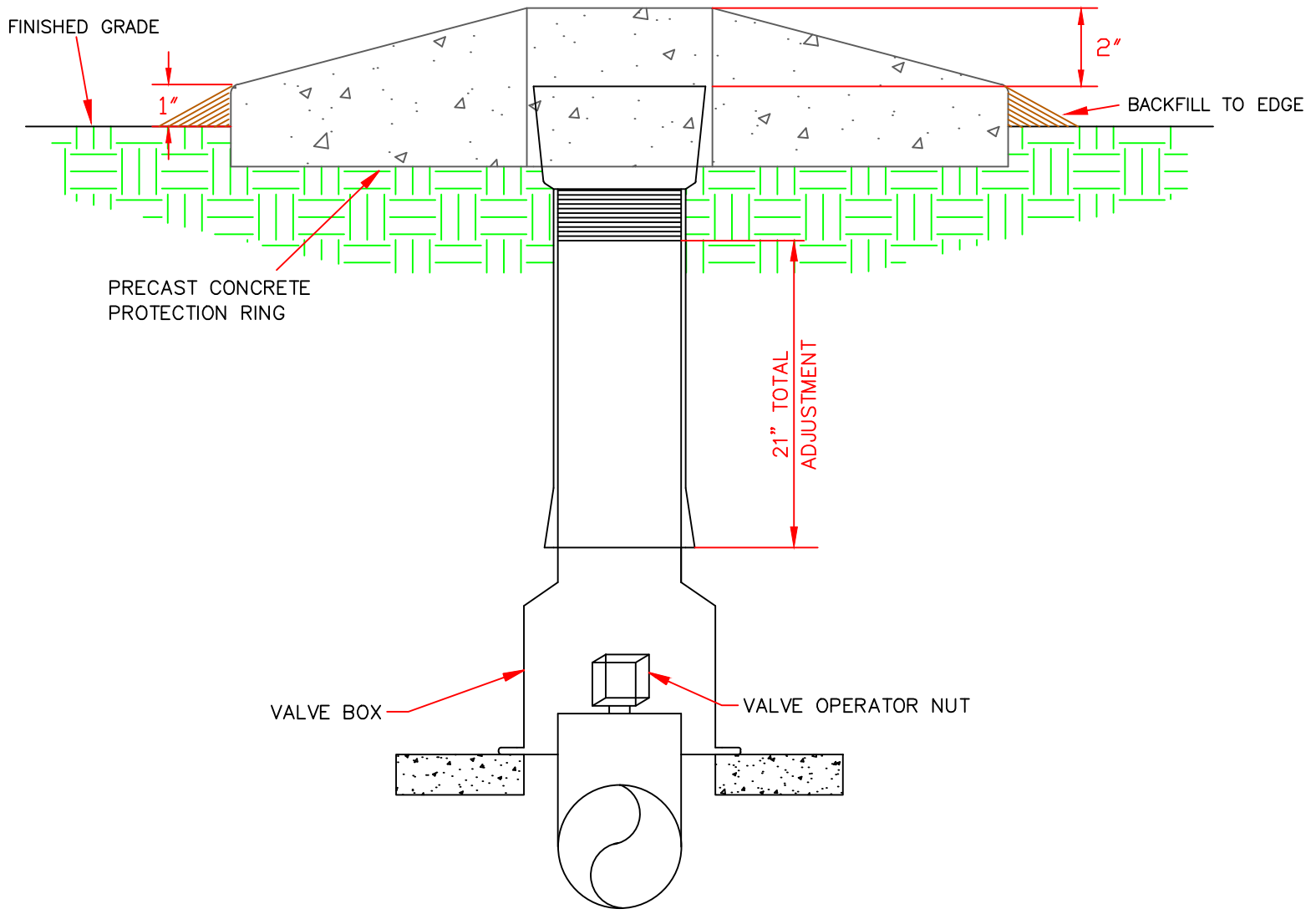


TYPICAL VALVE MARKER DETAIL

W  
1

NO SCALE

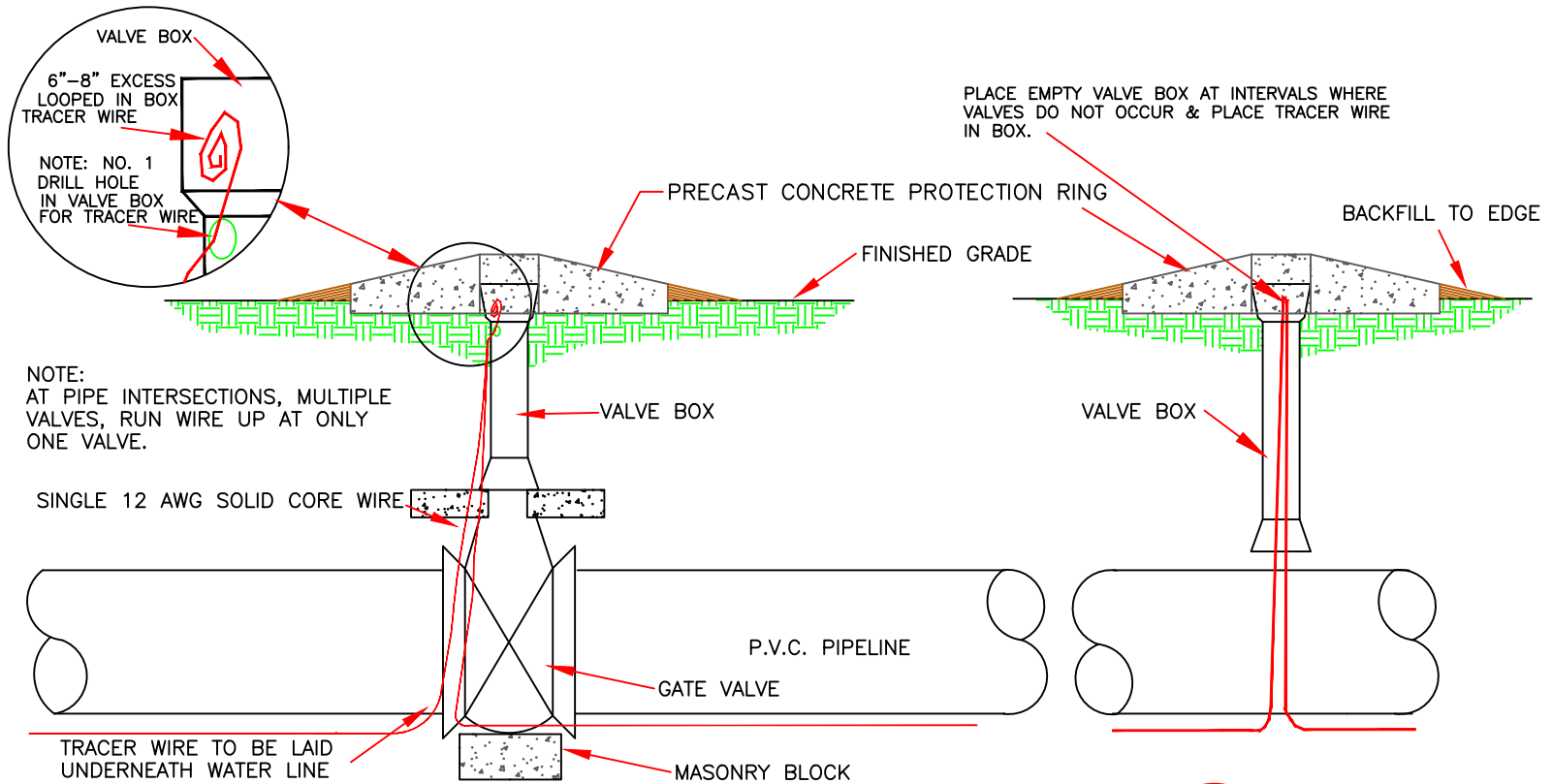
NOTES:  
PAINT MARKER BLUE AFTER INSTALLATION



TYPICAL VALVE BOX DETAIL

NO SCALE

W  
2



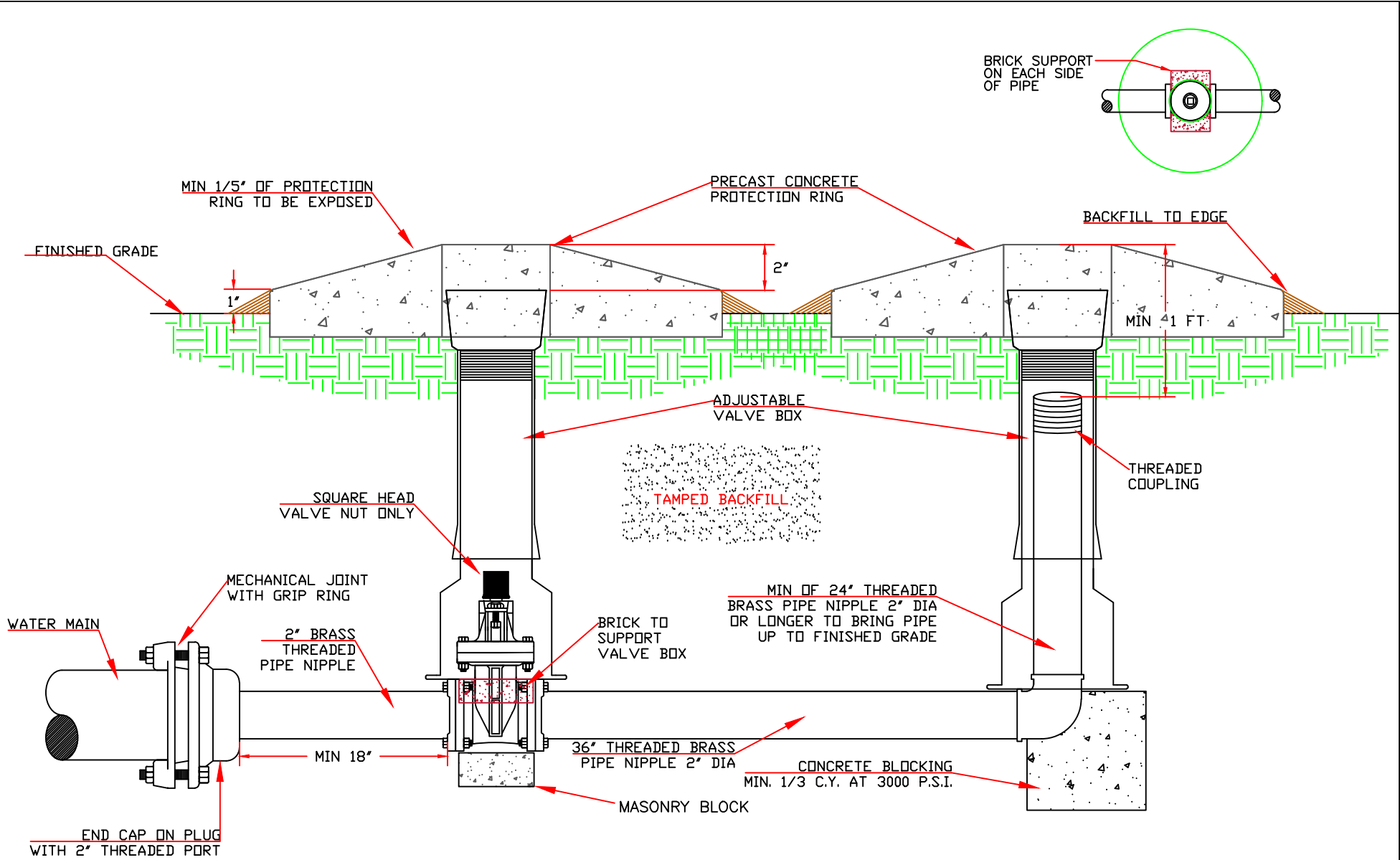
## TYPICAL TRACER WIRE INSTALLATION DETAIL

NO SCALE

W  
3

### NOTES:

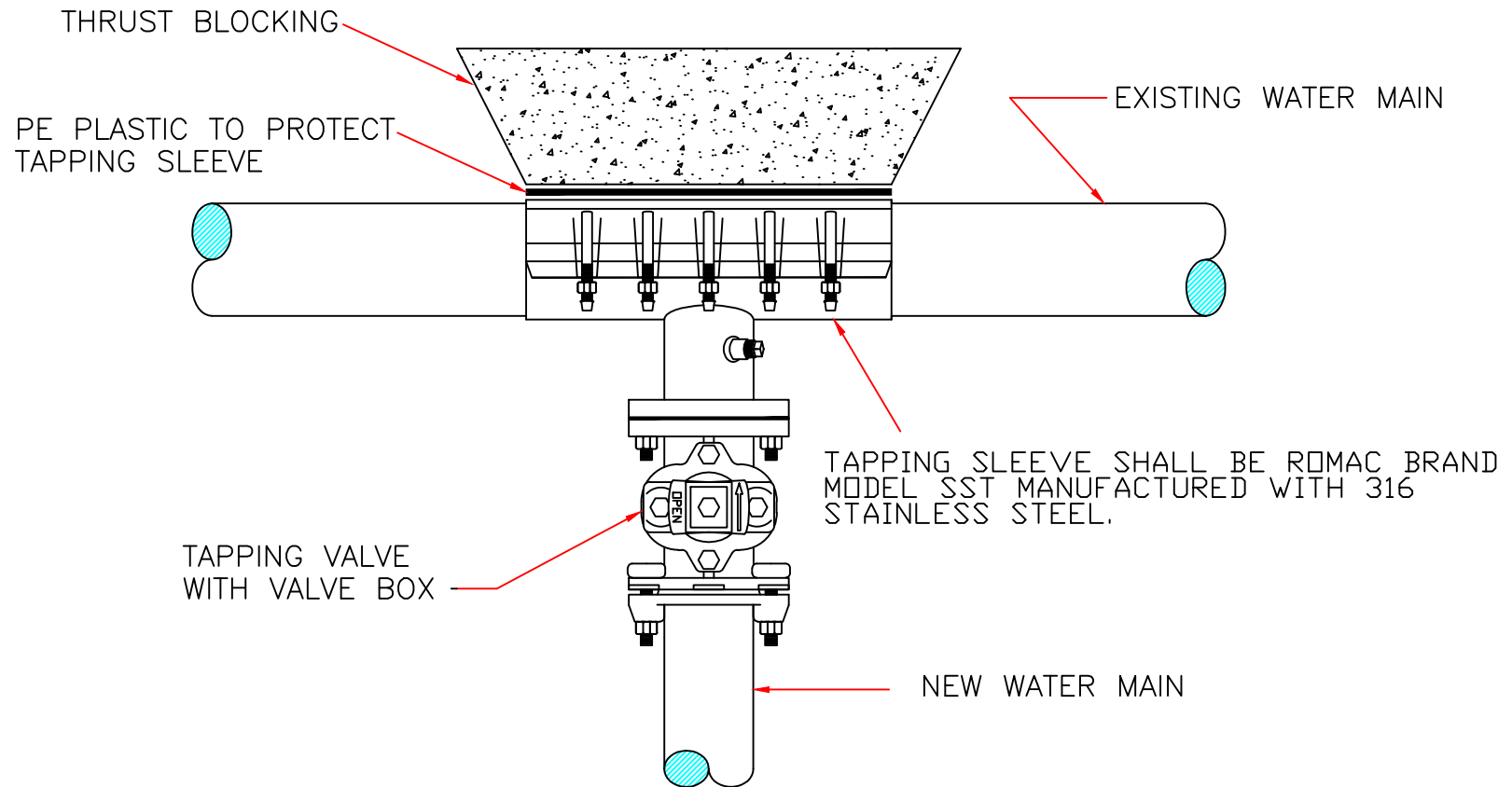
1. DRILL HOLE IN VALVE BOX TO INSERT TRACER WIRE, BRING UP TO INSIDE AND ROLL UP AT LEAST 6"-8" EXCESS
2. PLACE TRACER WIRE IN VALVE BOX AT 1,000' INTERVALS OR AS NOTED ON THE PLANS, TYPICAL.
3. DO NOT SPLICE WIRE WHEN BEGINNING A NEW SPOOL. INSTEAD INSTALL A VALVE BOX AND ATTACH EACH WIRE WITH A BRASS SCREW TO THE VALVE BOX.



TYPICAL PERMANENT BLOW-OFF ASSEMBLY DETAIL (W 4)

NO SCALE

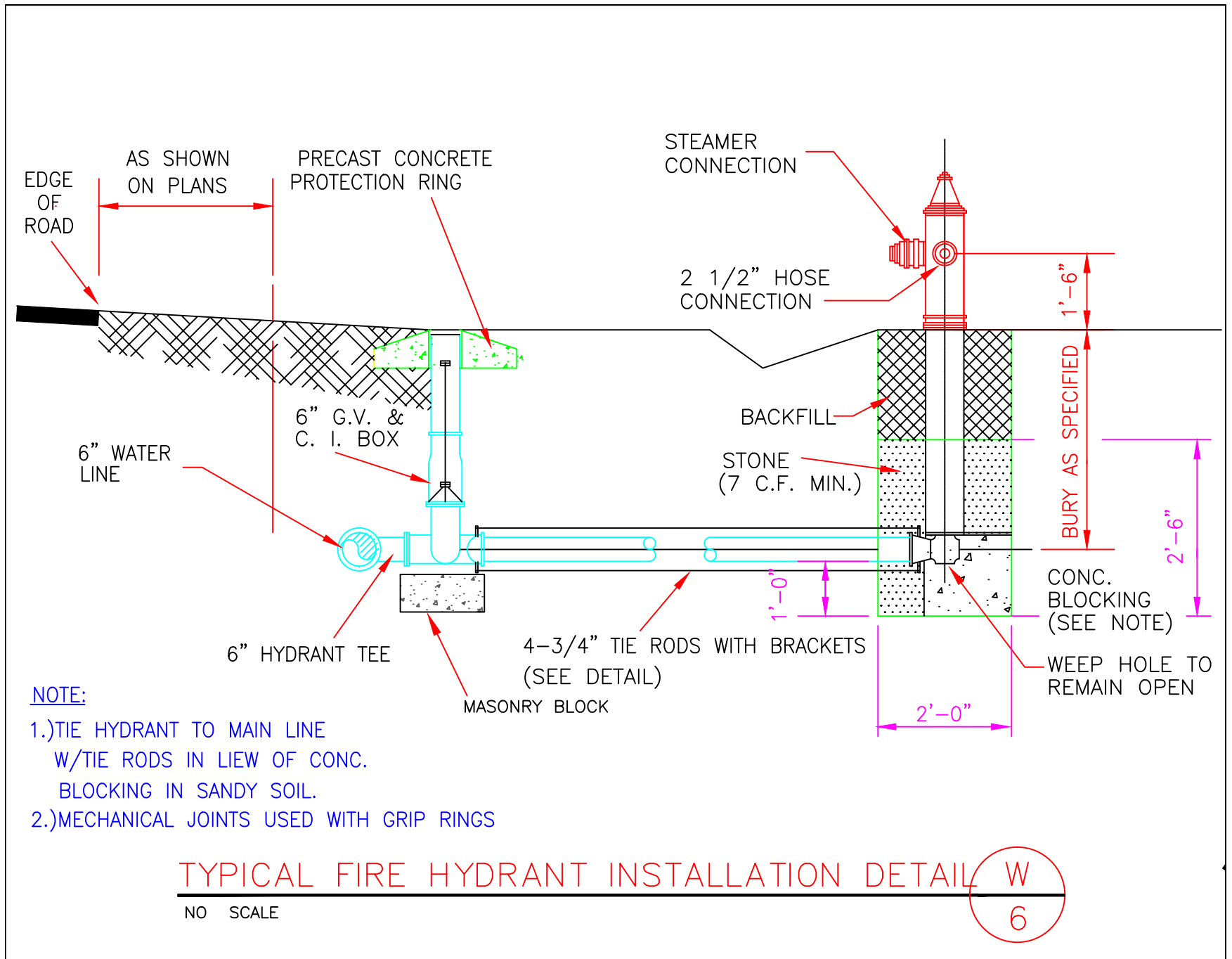
NOTE: SEE TYPICAL VALVE BOX DETAIL FOR BRICK INSTALLATION



TYPICAL TAPPING SLEEVE AND VALVE ASSEMBLY DETAIL

NO SCALE

W  
5



**NOTE:**

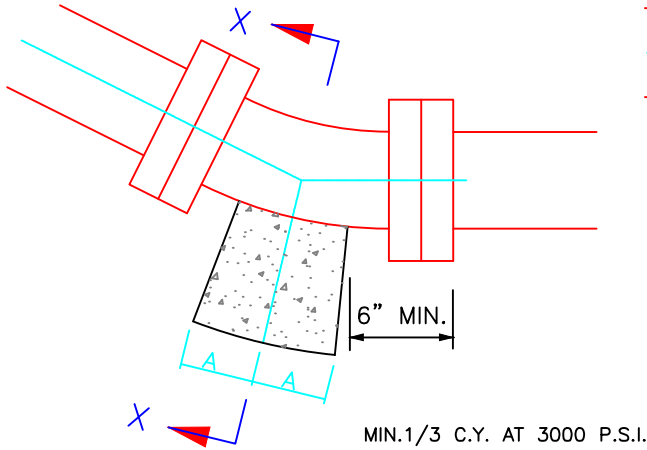
- 1.) TIE HYDRANT TO MAIN LINE  
W/TIE RODS IN LIEU OF CONC.  
BLOCKING IN SANDY SOIL.
- 2.) MECHANICAL JOINTS USED WITH GRIP RINGS

**TYPICAL FIRE HYDRANT INSTALLATION DETAIL**

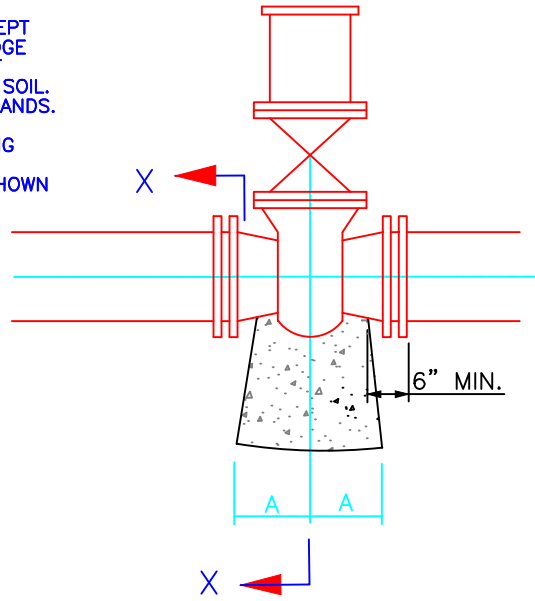
NO SCALE

W  
6

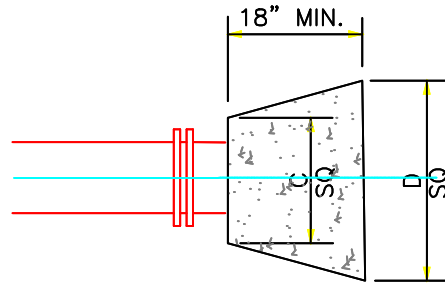
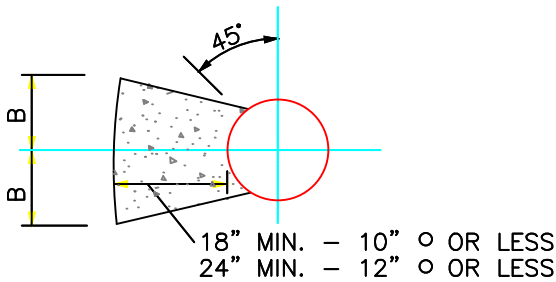
- NOTES:
1. CONCRETE SHALL BE 3,000 PSI MIN.
  2. CONCRETE FOR THRUST BLOCKING SHALL BE KEPT FAIRLY DRY, THUS MAKING THE CONCRETE WEDGE SHAPE MORE EASILY FORMED WITH THE WIDEST PART (BLOCKING AREA) AGAINST UNDISTURBED SOIL.
  3. NO CONCRETE SHALL COVER ANY BOLTS OR GLANDS.
  4. ALL PIPING AND ACCESSORIES TO BE WRAPPED WITH 10 MIL. POLYETHYLENE PRIOR TO POURING BLOCKING.
  5. VOLUME OF THRUST BLOCKING SHALL BE AS SHOWN ON THE THRUST BLOCKING SCHEDULE.



PLAN BENDS



HYDRANT TEE  
PLAN TEES

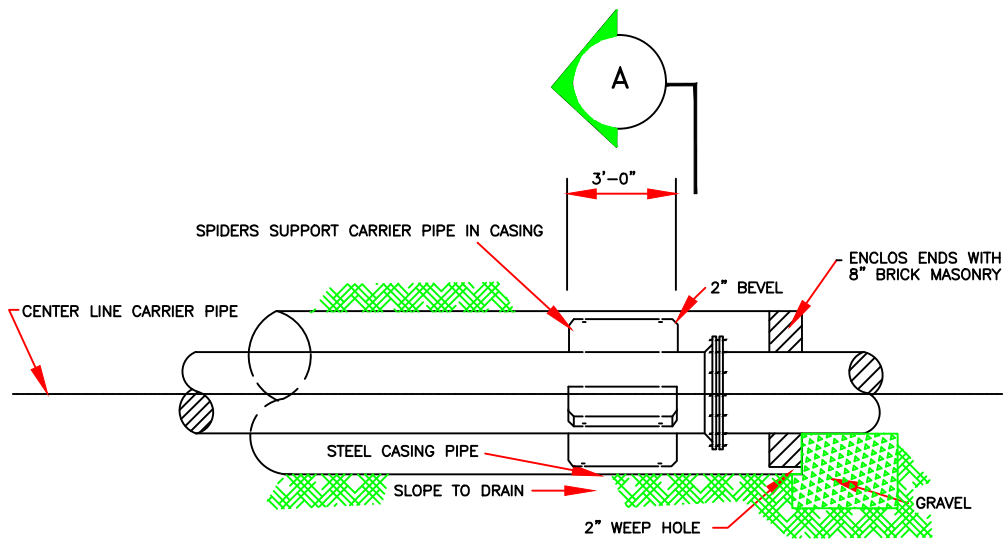


PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11/4° BEND		TEE		PLUG	
	A	B	A	B	A	B	A	B	A	B	C	D
4"	8"	12"	8"	8"	6"	6"	6"	6"	8"	9"	10"	16"
6"	10"	12"	8"	10"	8"	8"	8"	8"	10"	10"	12"	18"
8"	15"	13"	10"	10"	8"	8"	8"	8"	10"	12"	12"	24"
10"	16"	14"	10"	12"	6"	10"	6"	10"	11"	14"	14"	25"
12"	20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	30"
14"	22"	18"	14"	16"	10"	14"	10"	14"	16"	18"	18"	34"
16"	26"	20"	16"	18"	12"	16"	12"	16"	18"	20"	20"	36"

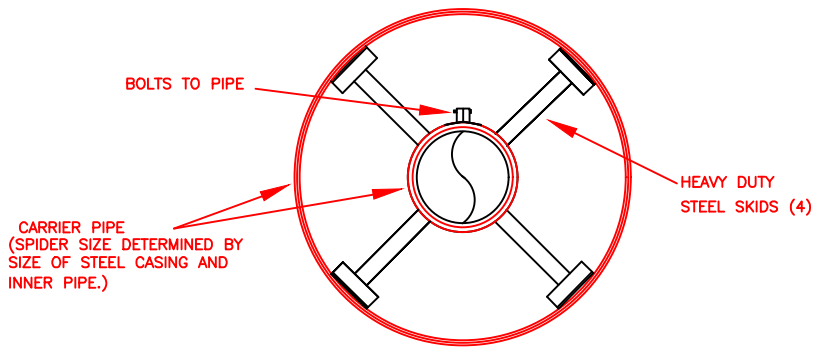
TYPICAL THRUST BLOCK DETAIL

NO SCALE

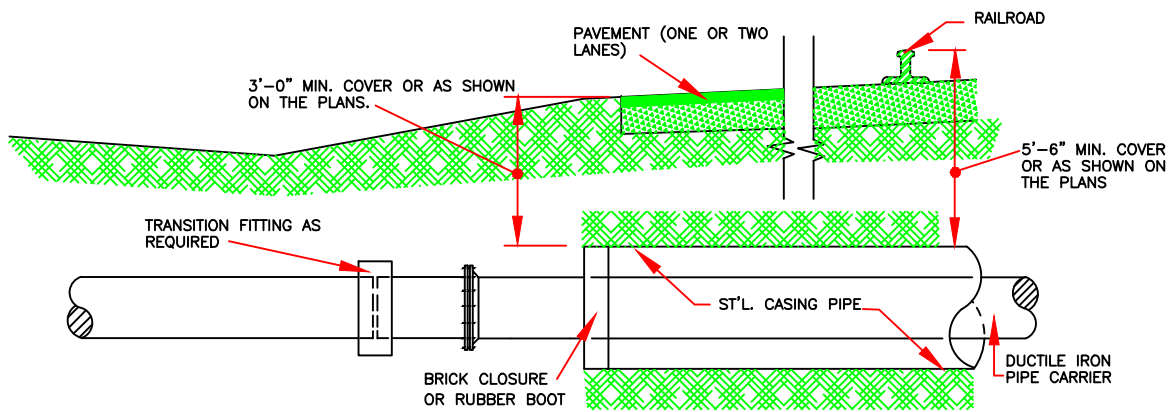




ELEVATION



SECTION "A"



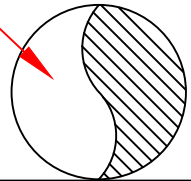
PROFILE

TYPICAL BORING & JACKING DETAIL

NO SCALE

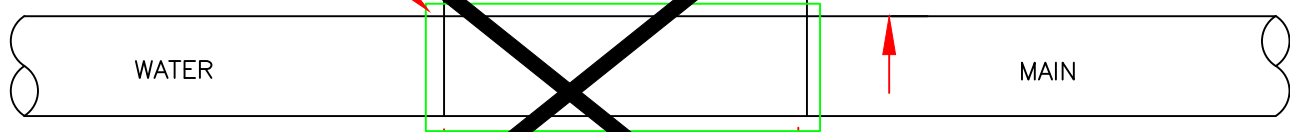


EXISTING STORM SEWER



24" MIN.

ENCASEMENT AREA TO INCLUDE  
DUCTILE IRON PIPE ONLY

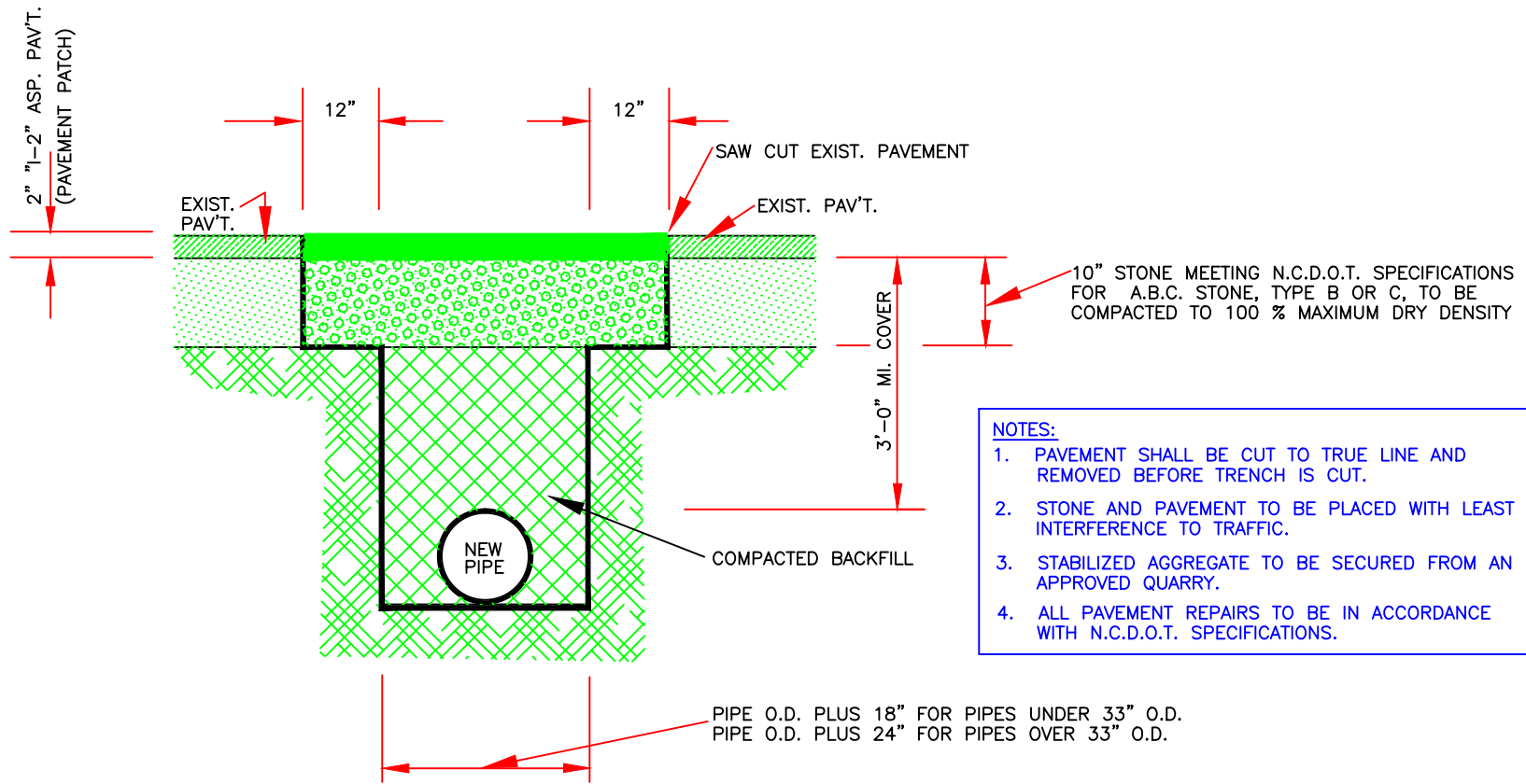


LENGTH OF ENCASEMENT  
TO BE STORM SEWER  
PIPE PLUS O.D. PLUS  
2'-0" OR AS SHOWN  
ON PLANS.

TYPICAL STORM SEWER CROSSING DETAIL

NO SCALE





TYPICAL TRENCH IN BITUMINOUS SURFACE AREAS DETAIL

NO SCALE

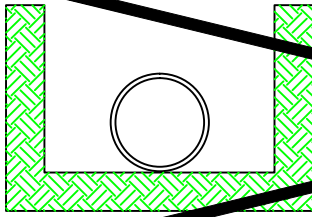
W

10

LAYING  
CONDITIONS

DESCRIPTION

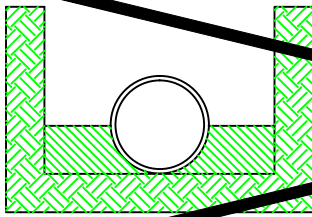
PROJECT USE



TYPE 1

FLAT BOTTOM UNDISTURBED  
EARTH TRENCH. LOOSE BACKFILL

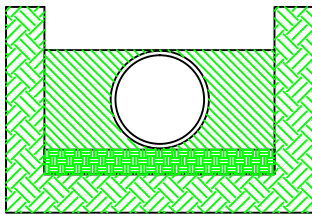
NOT USED.



TYPE 2

FLAT BOTTOMED UNDISTURBED EARTH  
TRENCH. BACKFILL LIGHTLY  
CONSOLIDATED TO CENTERLINE  
OF PIPE.

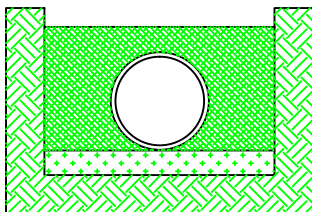
NOT USED.



TYPE 3

PIPE BEDDED IN 4" MINIMUM  
JOB EXCAVATED MATERIAL.  
BACKFILL LIGHTLY CONSOLIDATED  
TO TOP OF PIPE.

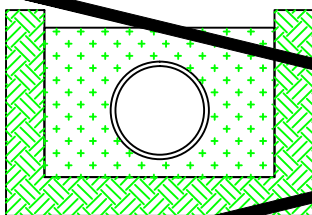
ALL DUCTILE  
IRON GRAVITY  
SEWER LINE.



TYPE 4

PIPE BEDDED IN SAND, GRANULAR  
MATERIAL OR GRADED GRAVEL TO  
THE DEPTH OF 1/8 PIPE DIAMETER,  
4" MIN. JOB EXCAVATED MATERIAL  
COMPACTED TO 4" ABOVE TOP OF PIPE.  
(APPROX. 95% STANDARD PROCTOR,  
AASHTO T-99)

ALL PVC WATER  
LINE AND PVC  
FORCE MAIN.



TYPE 5

PIPE BEDDED TO ITS CENTERLINE  
IN COMPACTED GRANULAR MATERIAL  
4" MIN. UNDER PIPE. COMPACTED  
GRANULAR OR SAND MATERIAL TO  
4" ABOVE TOP OF PIPE.  
(APPROX. 95% STANDARD PROCTOR,  
AASHTO T-99)

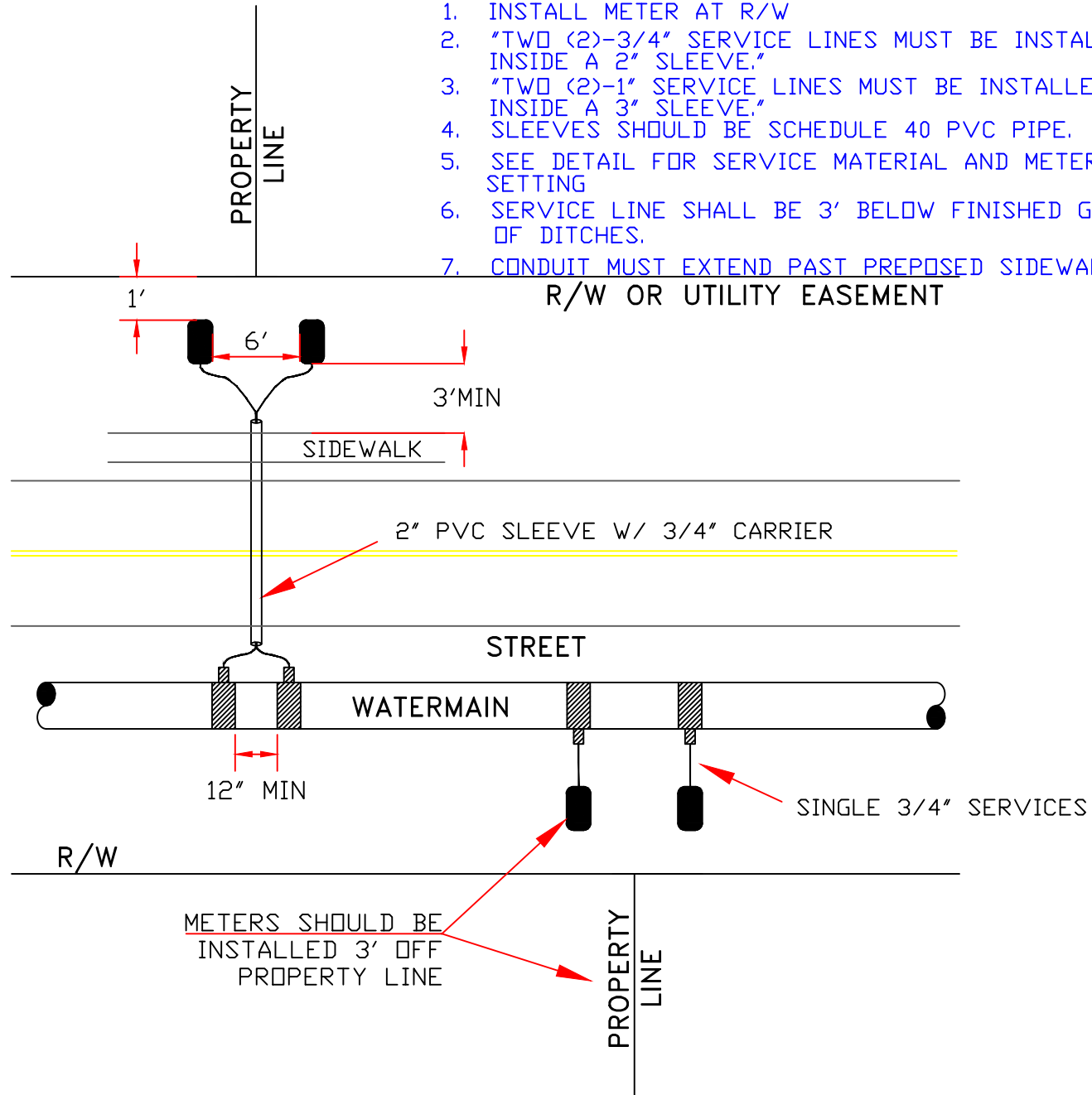
ALL PVC GRAVITY  
SEWER LINE.

TYPICAL LAYING CONDITIONS DETAIL

NO SCALE

NOTES:

1. INSTALL METER AT R/W
2. "TWO (2)-3/4" SERVICE LINES MUST BE INSTALLED INSIDE A 2" SLEEVE."
3. "TWO (2)-1" SERVICE LINES MUST BE INSTALLED INSIDE A 3" SLEEVE."
4. SLEEVES SHOULD BE SCHEDULE 40 PVC PIPE.
5. SEE DETAIL FOR SERVICE MATERIAL AND METER SETTING
6. SERVICE LINE SHALL BE 3' BELOW FINISHED GRADE OF DITCHES.
7. CONDUIT MUST EXTEND PAST PREPOSED SIDEWALK.

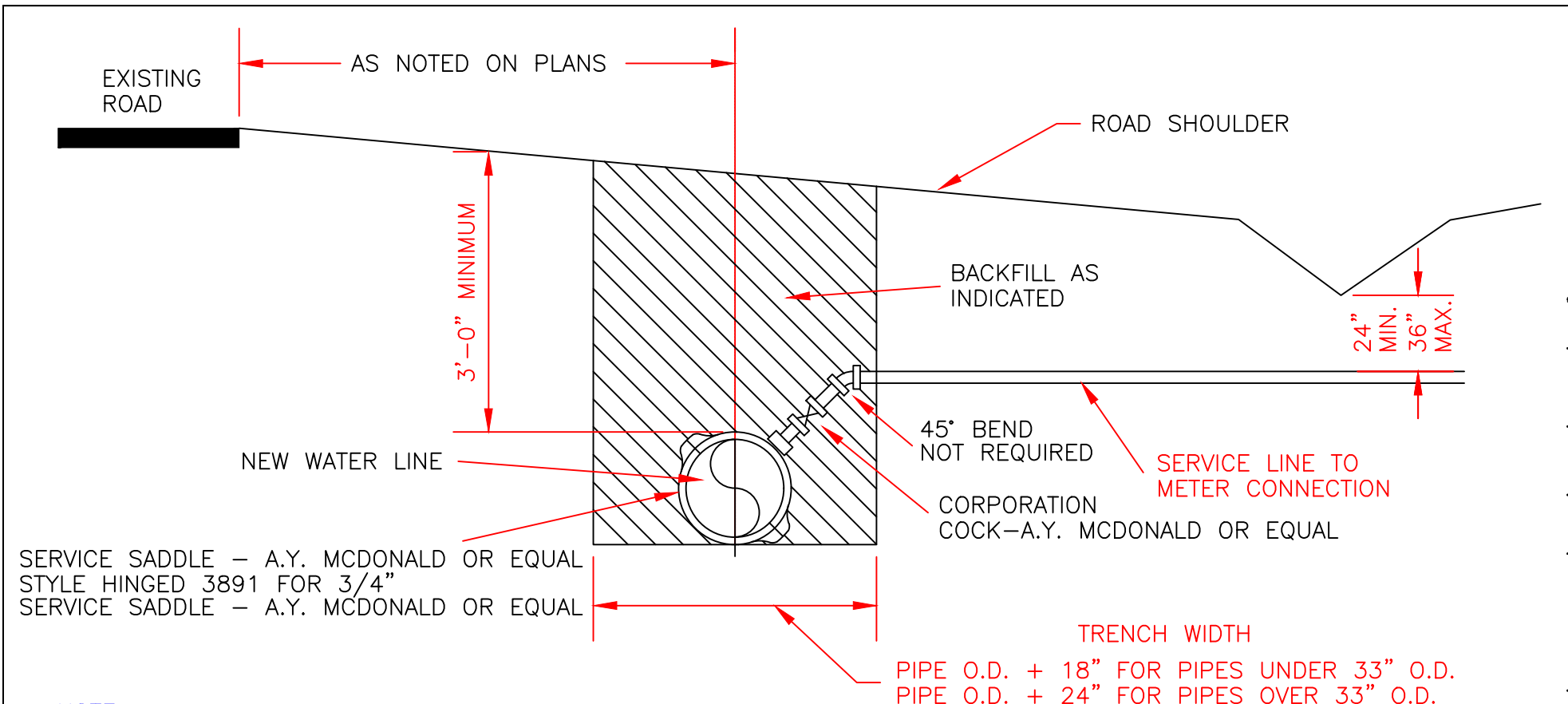


TYPICAL DOMESTIC WATER SERVICE INSTALLATION DETAIL

NO SCALE

W

12

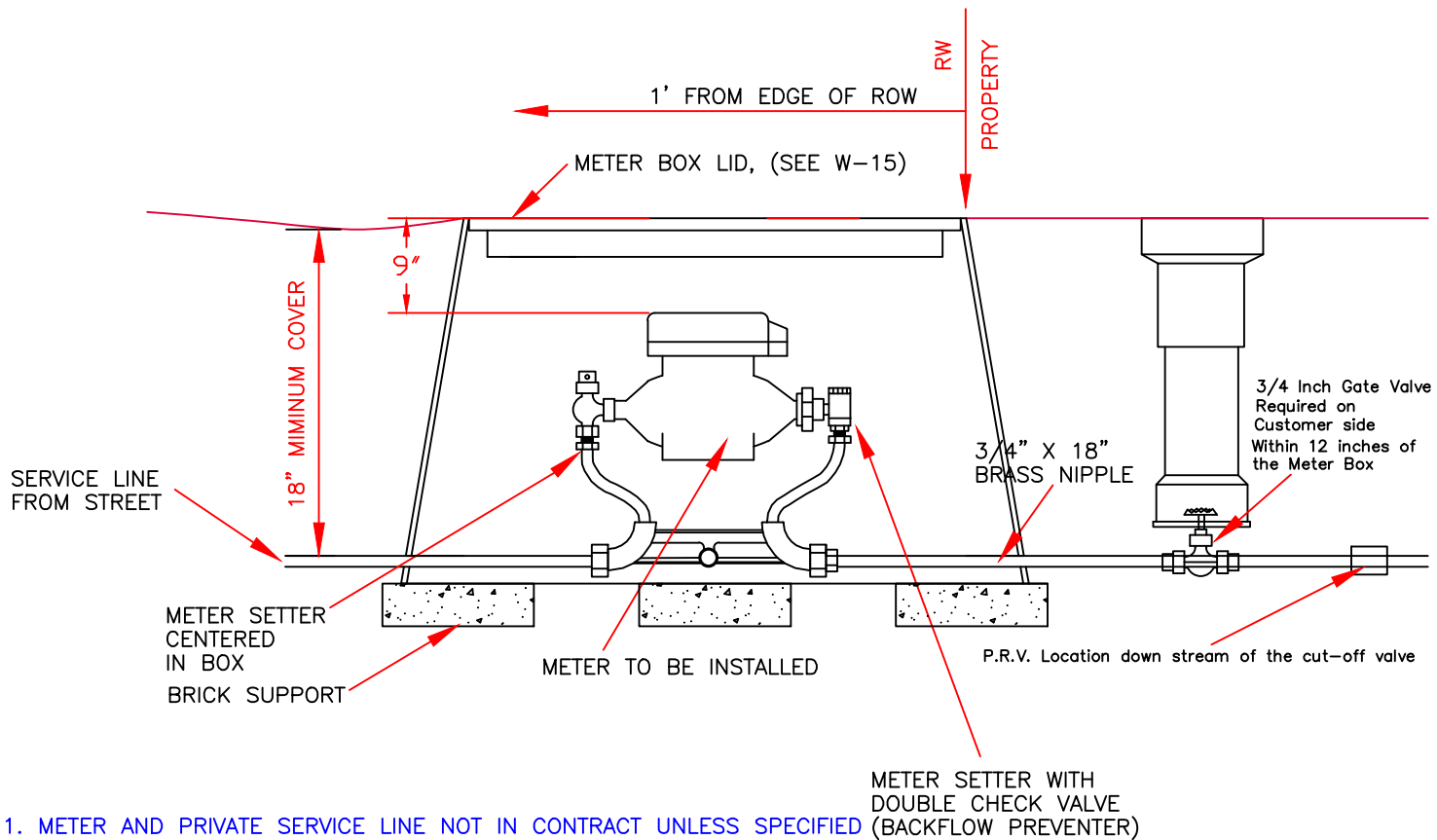


NOTE:

1. "SERVICE CONNECTION" IN PROPOSAL TO INCLUDE SERVICE SADDLE, 45° BEND, CORPORATION COCK AND ALL LABOR INVOLVED IN MAKING A COMPLETE SERVICE CONNECTION.
2. SERVICE PIPING TO BE 3/4" SDR-9 PE TUBING
3. ALL BRASS FITTINGS SHALL BE COMPRESSION TYPE

TYPICAL WATER SERVICE CONNECTION  
 USING TAPPING SADDLE DETAIL

NO SCALE



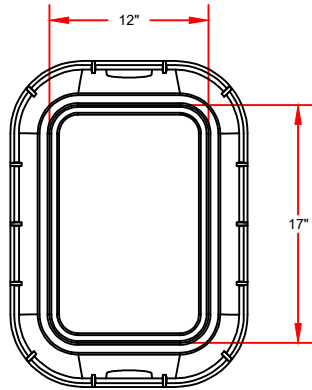
1. METER AND PRIVATE SERVICE LINE NOT IN CONTRACT UNLESS SPECIFIED (BACKFLOW PREVENTER)
2. METER SETTER SIZE AS NOTED ON PLANS.
3. ALL BRASS FITTINGS SHALL BE COMPRESSION TYPE.

## TYPICAL 3/4" METER SETTER INSTALLATION DETAIL

NO SCALE

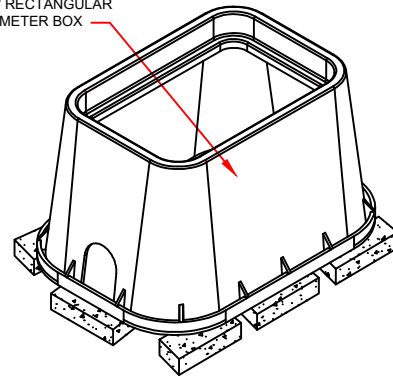
W

14

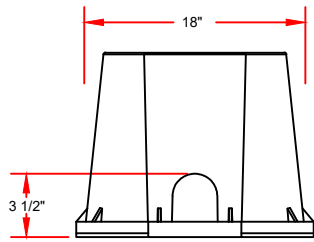


A  
PLAN

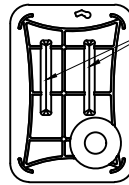
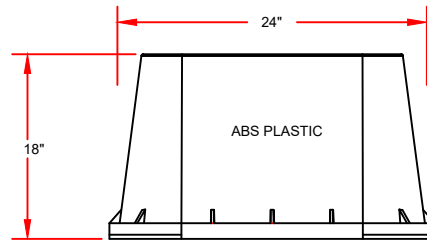
24"x18" RECTANGULAR  
METER BOX



ISOMETRIC



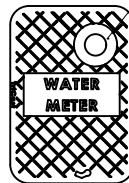
ELEVATION A



2 areas of weighted rebar



Sensus Recess

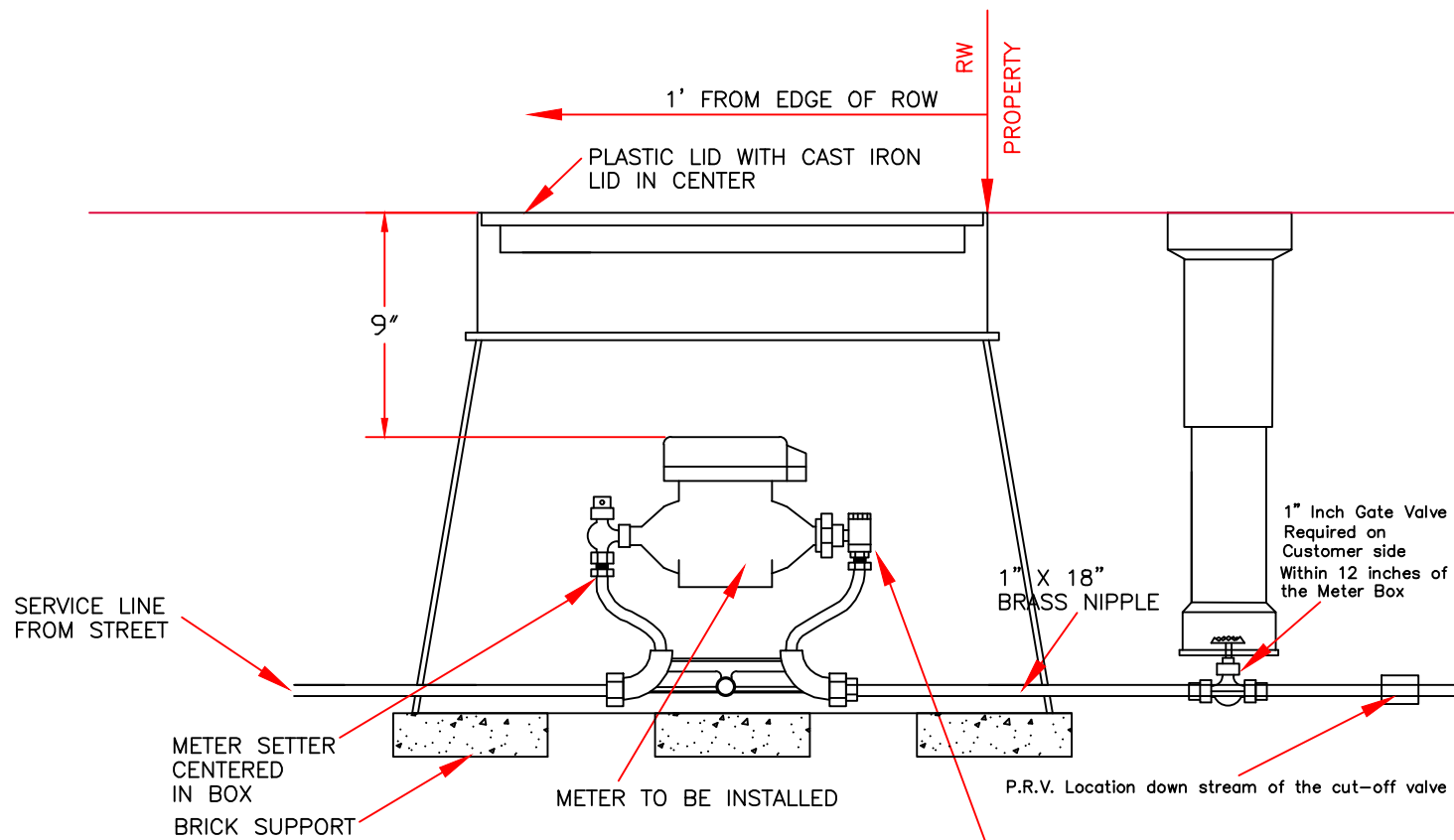


Part Number : MS-CP1419-Sensus  
TITLE:  
Iricast 1419 - Overlapping  
T-Lid w/ Rebar and Sensus  
Recess

(OR EQUAL)

TYPICAL METER BOX DETAIL FOR 3/4" SERVICE W  
15

NO SCALE

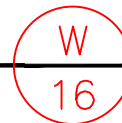


1. METER AND PRIVATE SERVICE LINE NOT IN CONTRACT UNLESS SPECIFIED
2. METER SETTER SIZE AS NOTED ON PLANS.
3. ALL BRASS FITTINGS SHALL BE COMPRESSION TYPE.

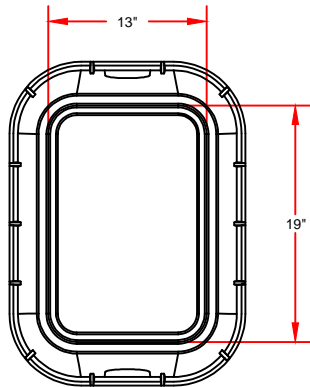
METER SETTER WITH  
DOUBLE CHECK VALVE  
(BACKFLOW PREVENTER)

## TYPICAL 1" METER SETTER INSTALLATION DETAIL

NO SCALE

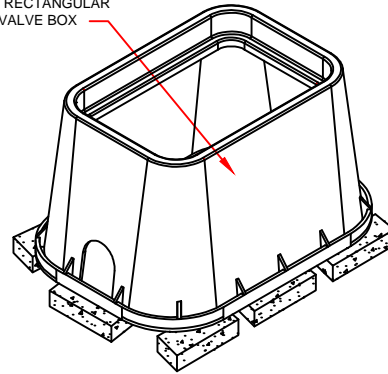




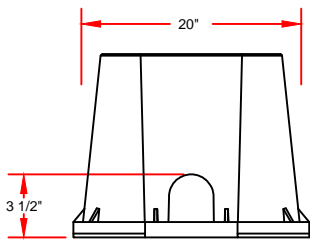


PLAN

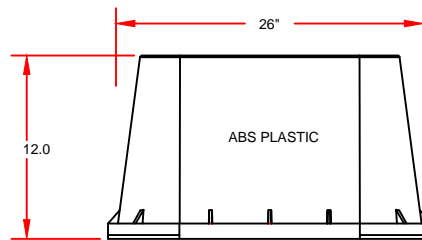
26"x20" RECTANGULAR VALVE BOX



ISOMETRIC

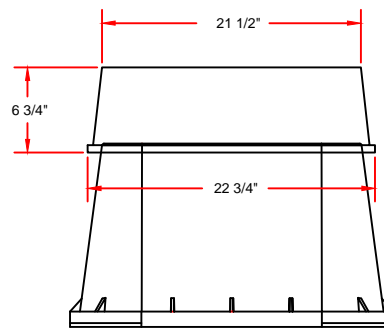
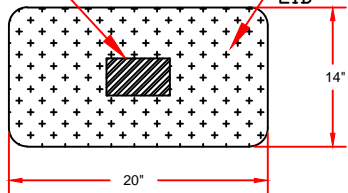


ELEVATION



6 3/4"x4' STEEL HINGED ACCESS HATCH

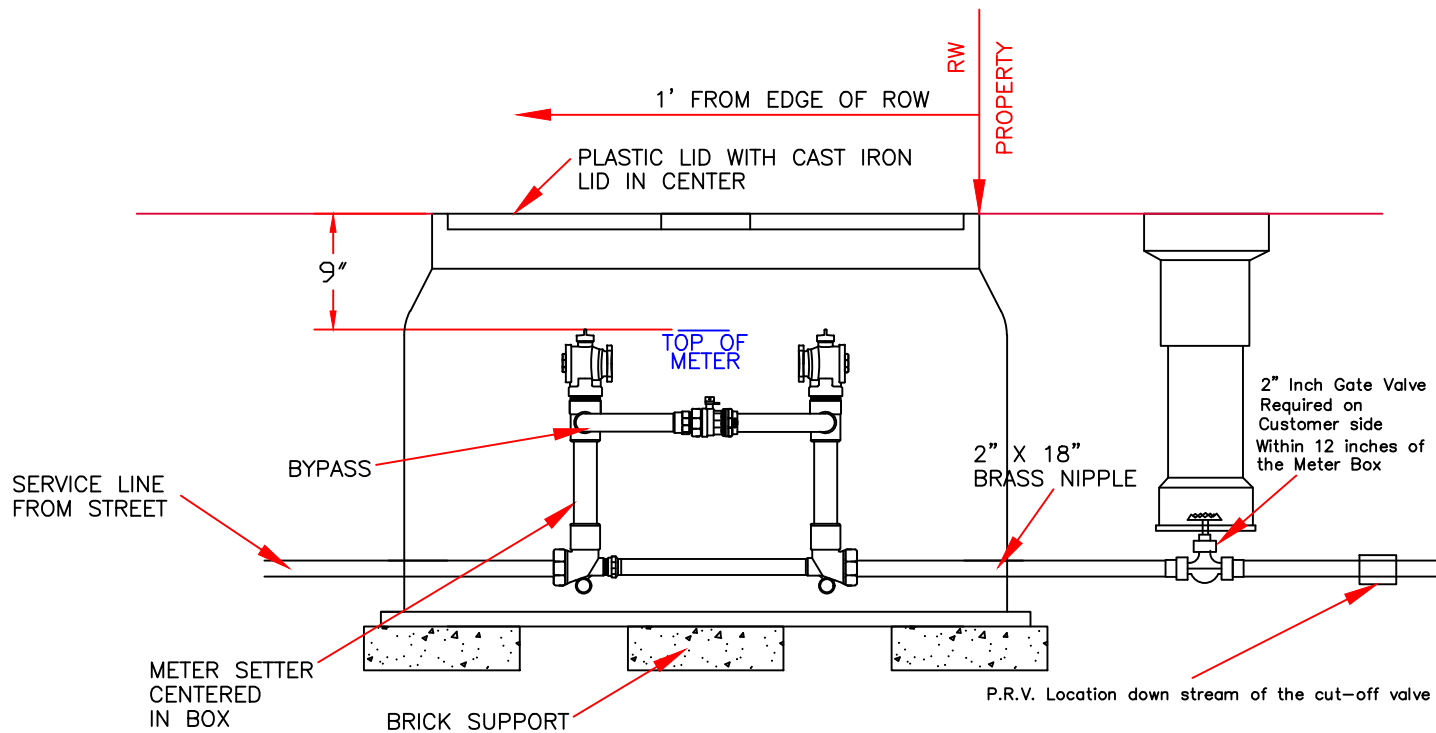
PLASTIC LID



SHOWN WITH EXTENSION

TYPICAL METER BOX DETAIL FOR 1" SERVICE

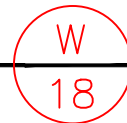
NO SCALE

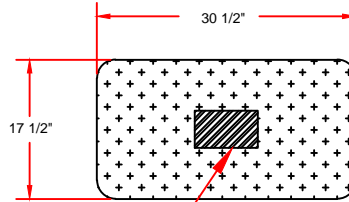
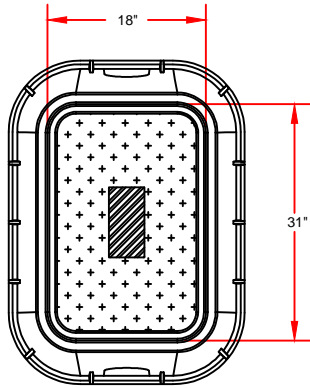


1. METER AND PRIVATE SERVICE LINE NOT IN CONTRACT UNLESS SPECIFIED
2. METER SETTER SIZE AS NOTED ON PLANS.
3. ALL BRASS FITTINGS SHALL BE COMPRESSION TYPE.
4. 17 1/4" SPREAD (FLANGE TO FLANGE).

## TYPICAL 2" METER SETTER INSTALLATION DETAIL

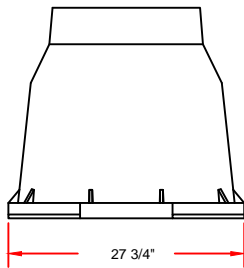
NO SCALE



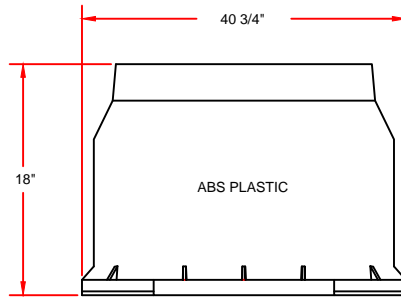


4 1/2"x7 1/2" STEEL  
HINGED ACCESS HATCH

A  
PLAN

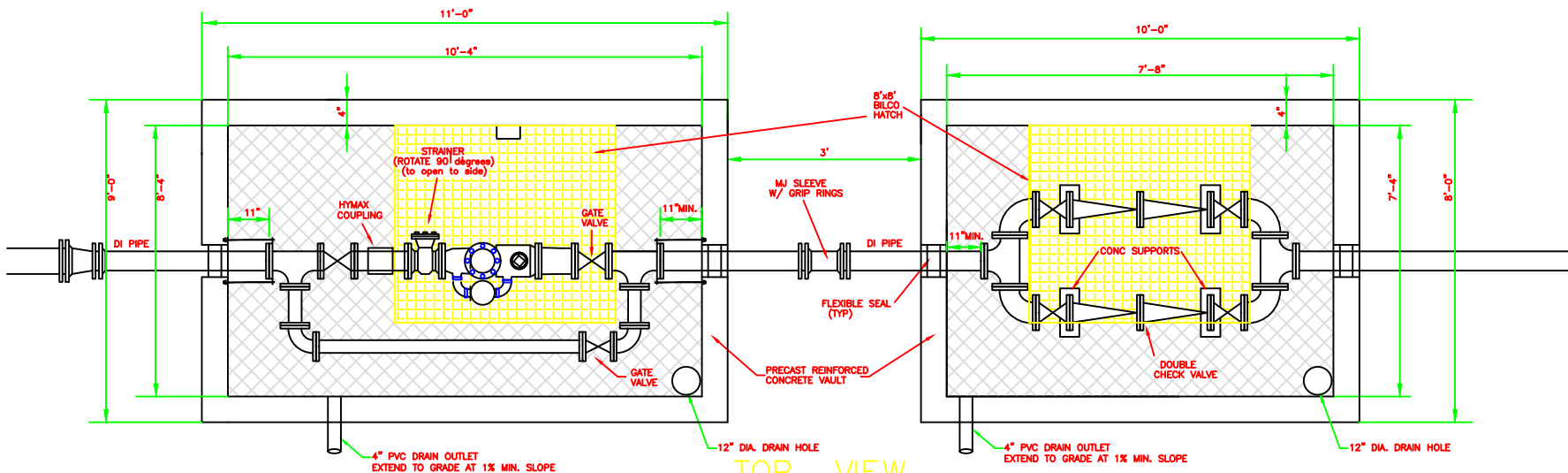


ELEVATION (A)



ELEVATION (B)

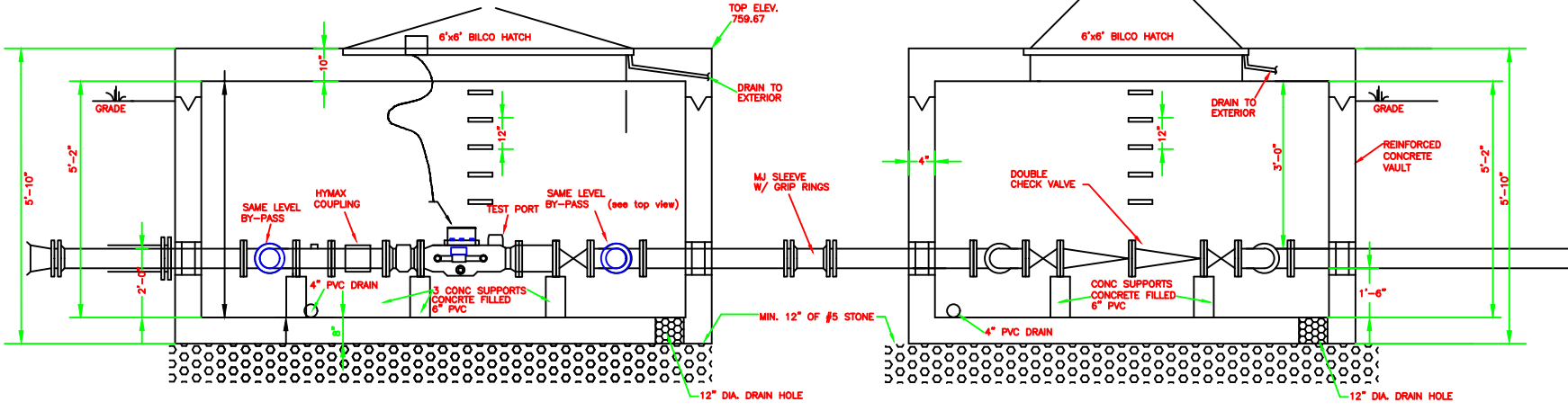
TYPICAL METER BOX DETAIL FOR 2" SERVICE  
NO SCALE



TOP VIEW  
NO SCALE  
PLAN VIEW

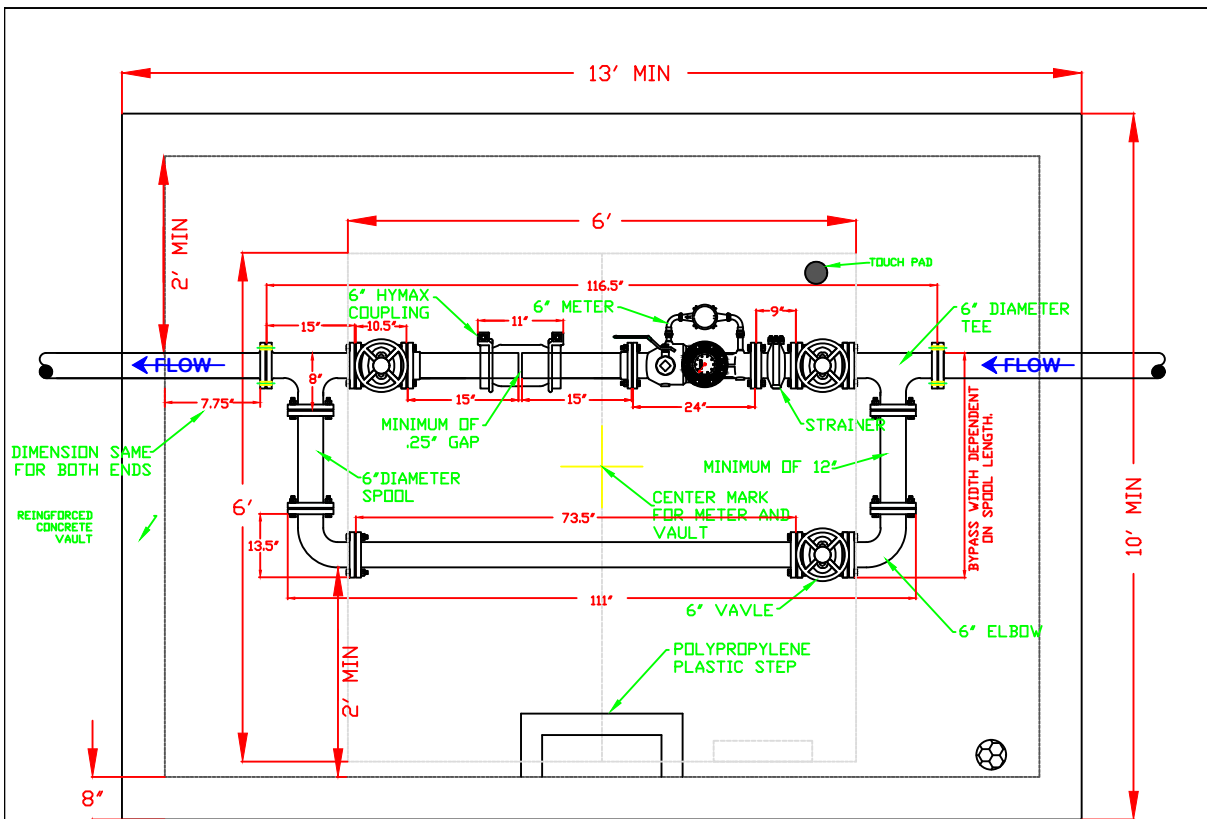
NOTE: SENSUS METER WITH TOUCH PAD AND MXU.  
METER IN HOT BOX ABOVE GROUND PREFERRED.  
BACKFLOW PREVENTER TO BE FROM APPROVED LIST  
USE CONCRETE SUPPORTS ALSO FOR BY-PASS  
ALL PIPE SHALL BE DUCTILE IRON  
HCDPU STANDARD VAULTS

ALL BACKFLOW AND METER VAULT EQUIPMENT, ETC.  
TO BE AS PER HARNETT COUNTY DEPT. OF  
PUBLIC UTILITIES, ENGINEERING DIVISION SPECIFICATIONS.

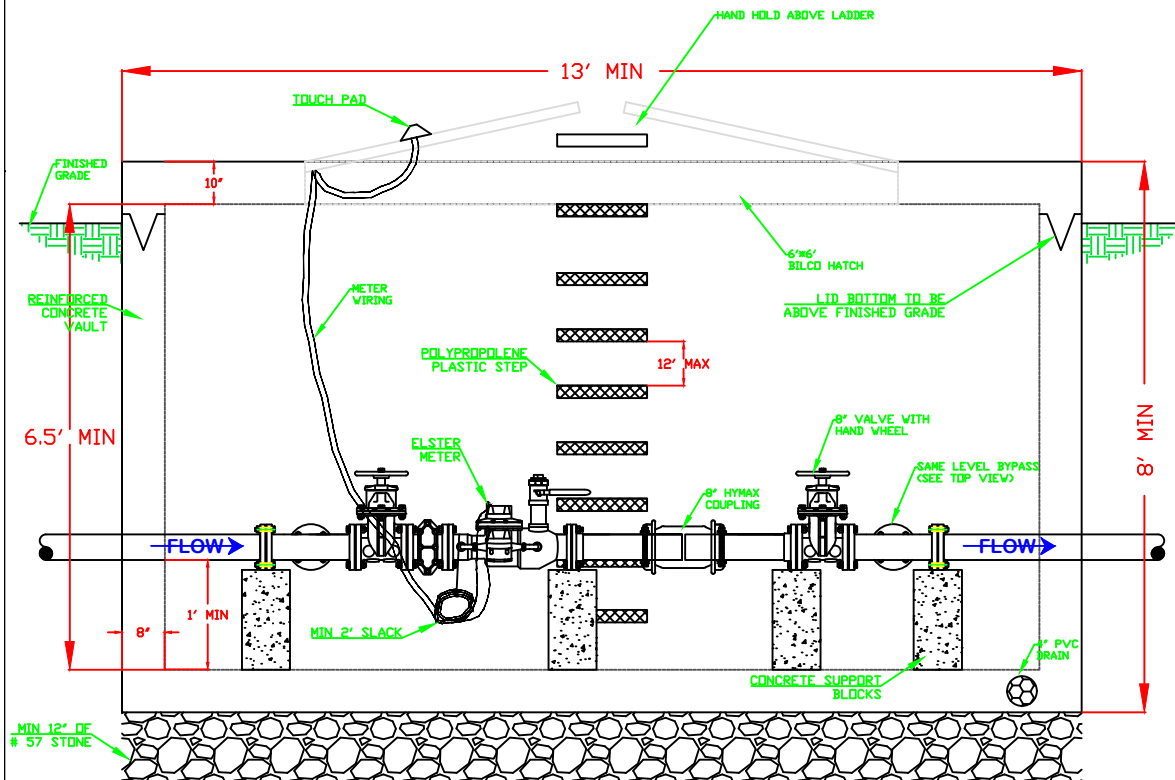


SIDE VIEW  
NO SCALE

TYPICAL 4" METER & DOUBLE CHECK ASSEMBLY LAYOUT DETAIL



TOP VIEW

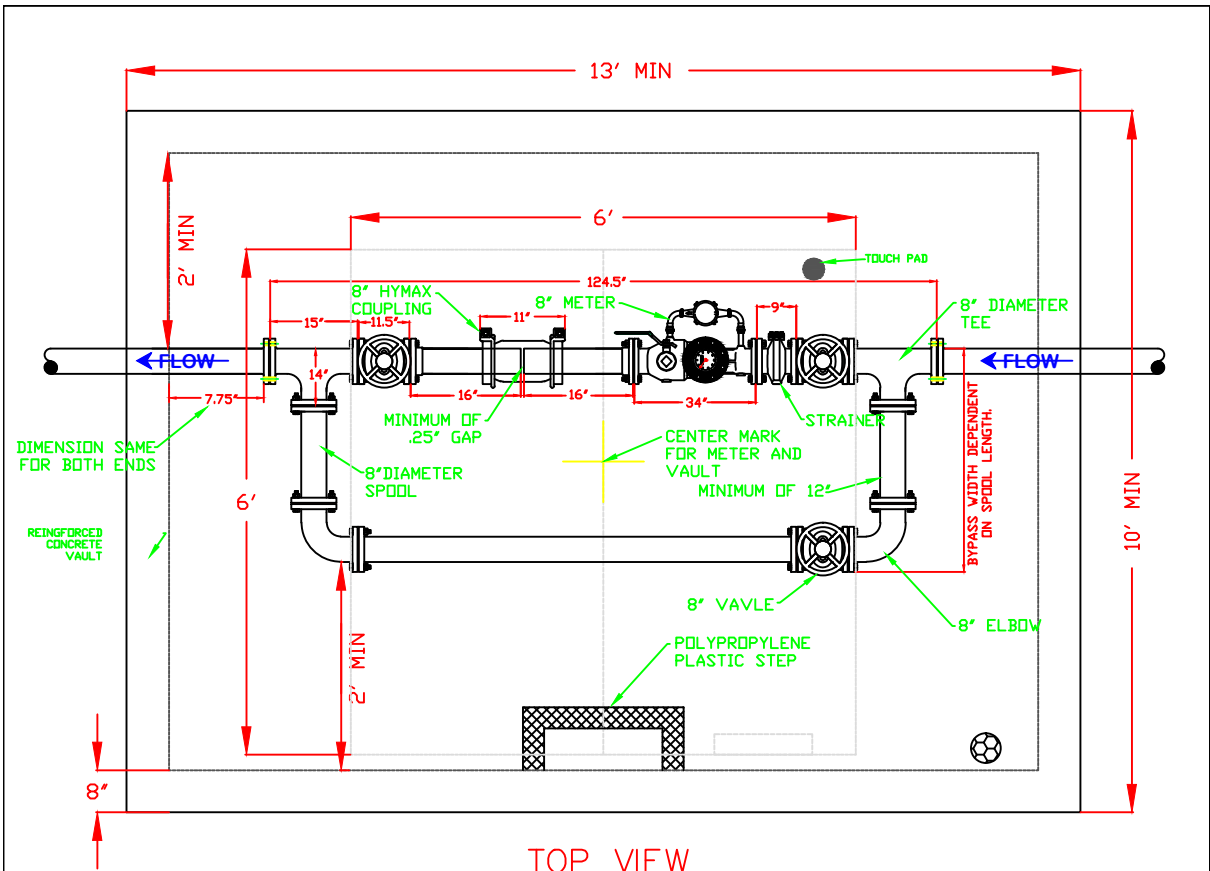


PROFILE

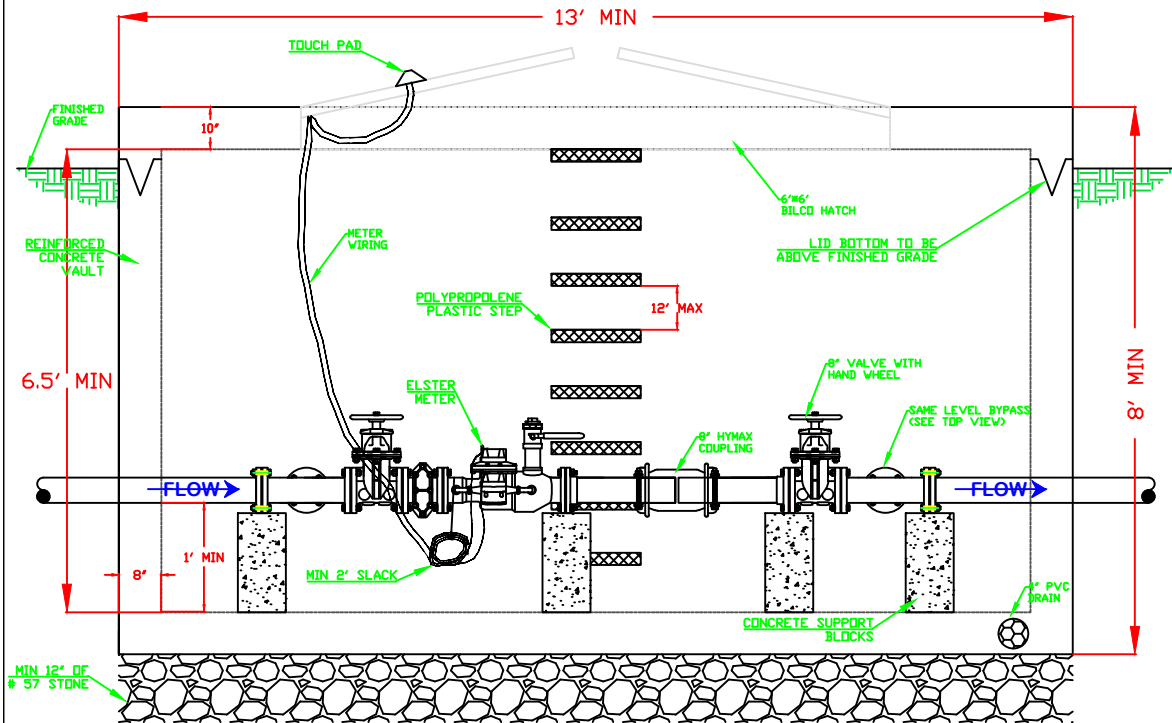
NOTE:  
METER TO BE INSTALLED WITH EQUAL AMOUNTS  
OF SPACE ON METER SIDE AND BYPASS SIDE.

TYPICAL 6" METER & VAULT DETAIL

NO SCALE



TOP VIEW



PROFILE

NOTE:  
METER TO BE INSTALLED WITH EQUAL AMOUNTS  
OF SPACE ON METER SIDE AND BYPASS SIDE.

TYPICAL 8" METER & VAULT DETAIL

NO SCALE