

ISSUE	DATE / REMARKS
1	3-3-2015 Initial Submittal
2	5-7-2015 City Comments
3	6-26-2015 City & PWSO #2 Comments
4	11-9-2015 City Comments
5	12-10-2015 City Comments

PROJECT TITLE
The Villages at
Shady Creek
 OFFALON, MISSOURI

THE STERLING CO.
ENGINEERS & SURVEYORS
 5055 New Baumgartner Road
 St. Louis, Missouri 63129
 Ph 314-487-0440 Fax 314-487-8944
 www.sterling-eng-sur.com
 Corporate Certificate of Authority #001348

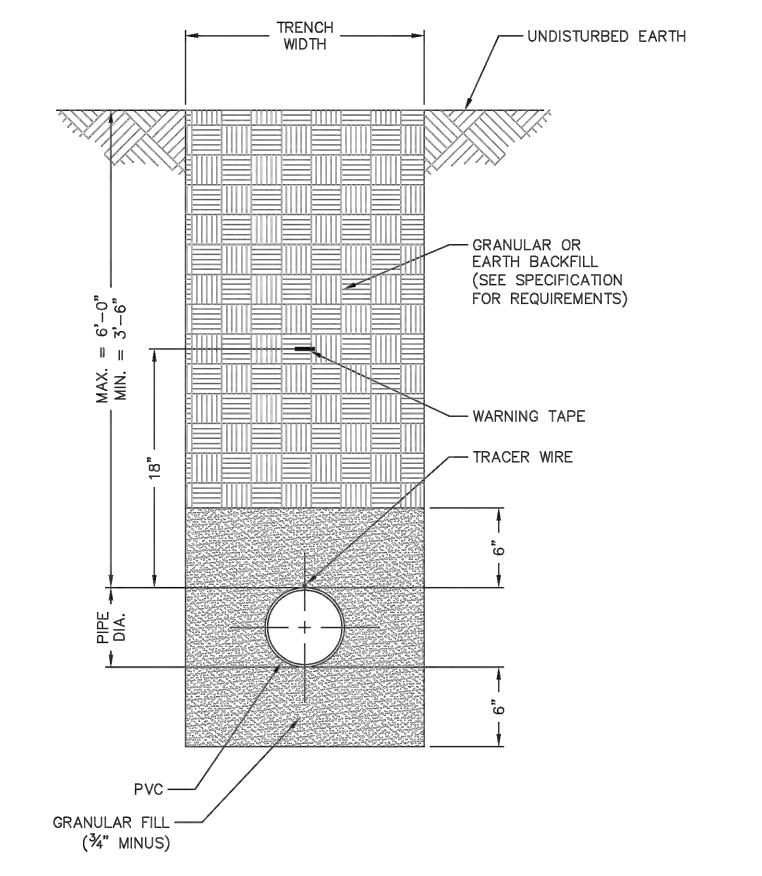


Date: 12/10/2015
 RODNEY ARNOLD
 LICENSE # PE-2002016612
 Civil Engineer

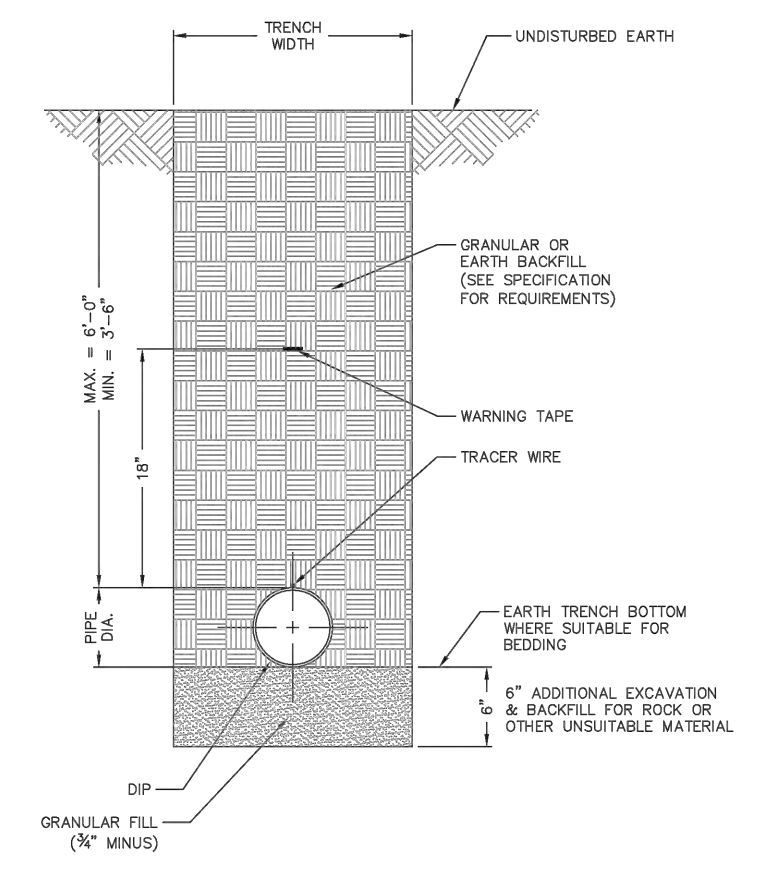
Lombardo Homes of St. Louis, LLC
 2299 Technology Drive, Suite 150
 Ofallon, Missouri 63368
 Ph. (636) 265-2710
 Fax (636) 695-3195
 www.lombardohomesstlouis.com

P+Z No. P&Z NO
City No. 15-162-SP
Date: 12/10/2015
Job No. 14-03-087

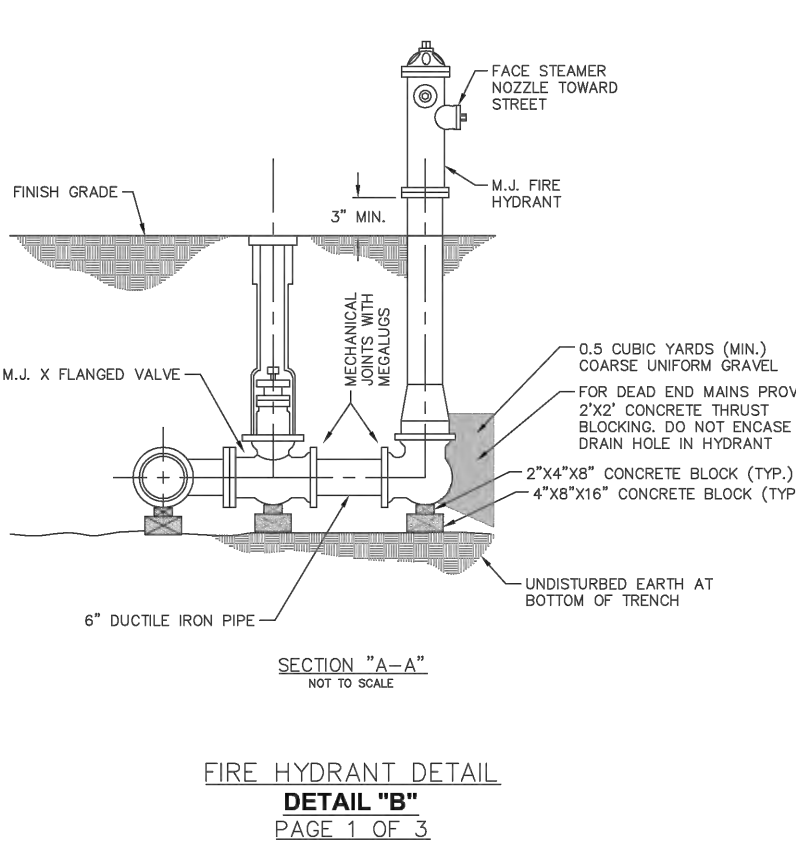
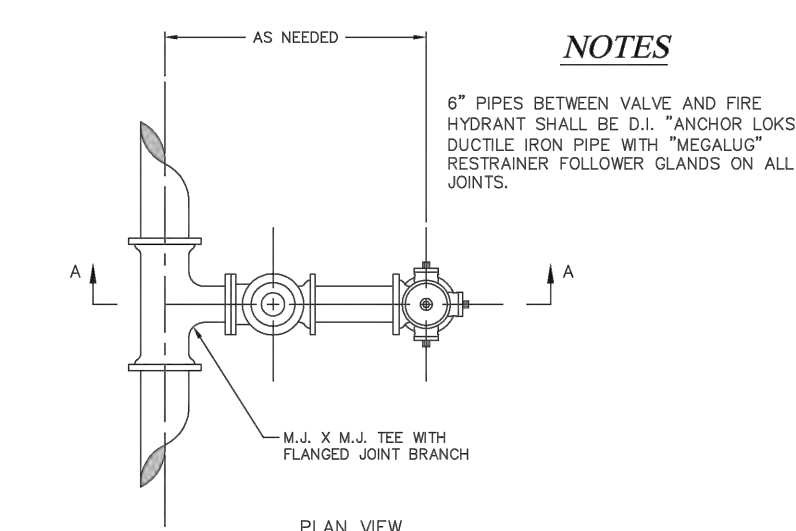
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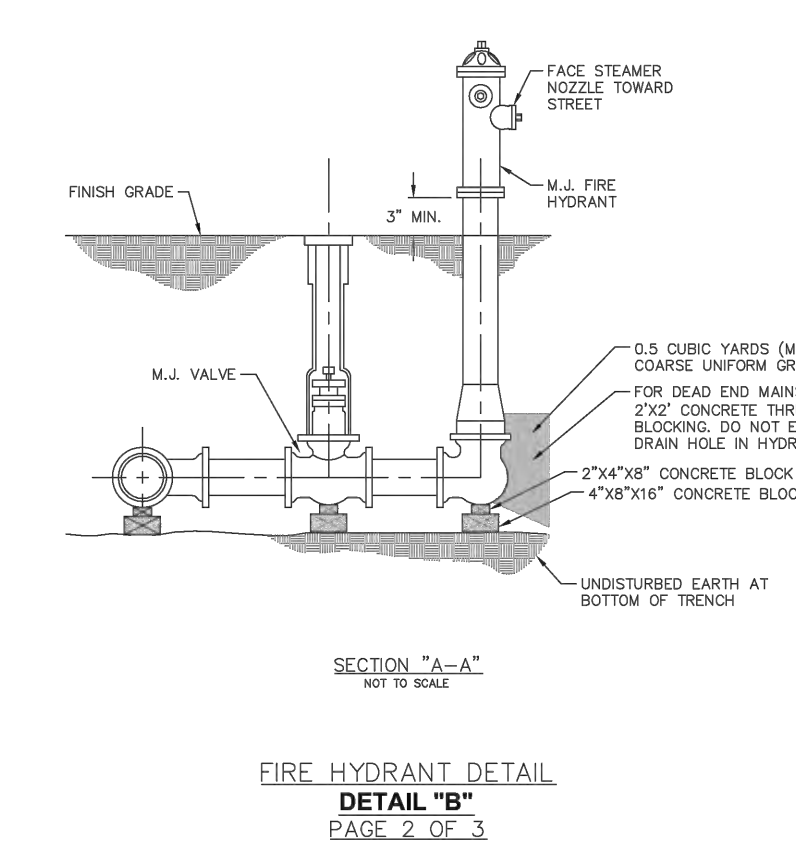
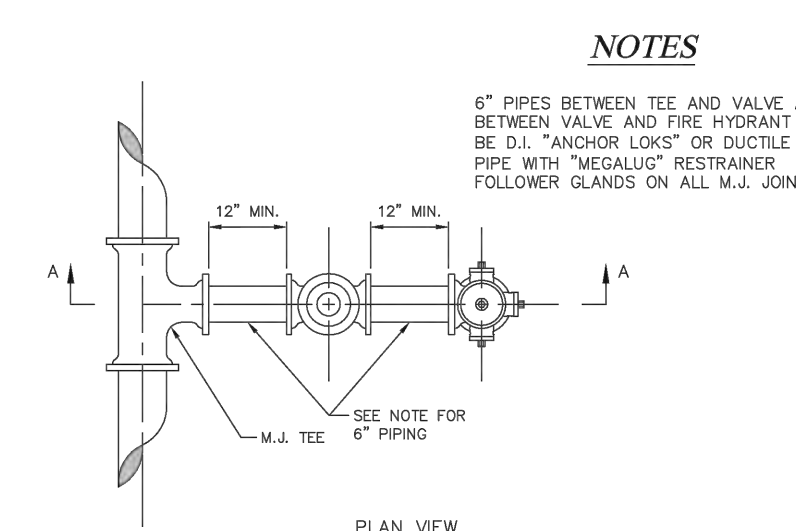
NOTES
 1) SEE SPECIFICATIONS FOR ADDITIONAL DETAILS FOR BEDDING AND BACKFILL.
TYPICAL TRENCH SECTION FOR PVC PIPE
 NOT TO SCALE
DETAIL "A"
 PAGE 1 OF 2



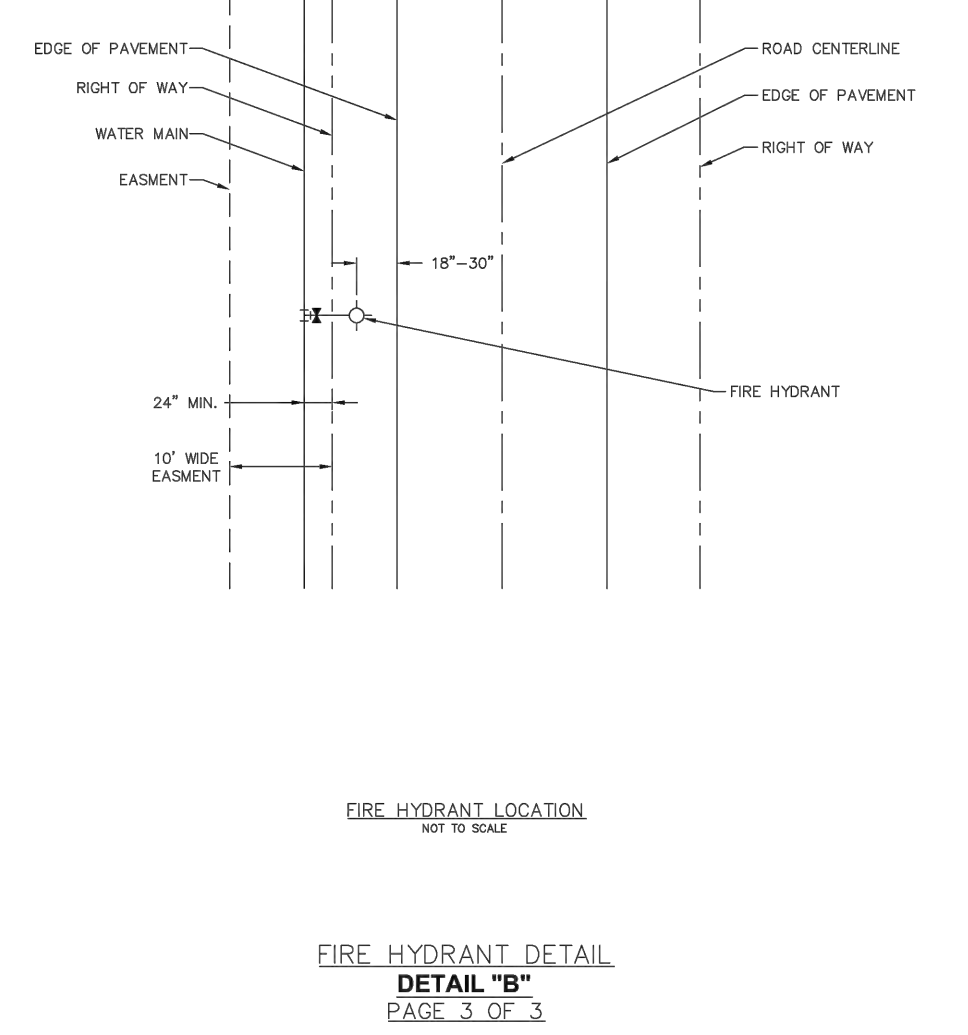
NOTES
 1) POLYWRAP REQUIRED FOR DUCTILE IRON PIPE
 2) SEE SPECIFICATIONS FOR ADDITIONAL DETAILS FOR BEDDING AND BACKFILL.
TYPICAL TRENCH SECTION FOR DUCTILE IRON PIPE
 NOT TO SCALE
DETAIL "A"
 PAGE 2 OF 2



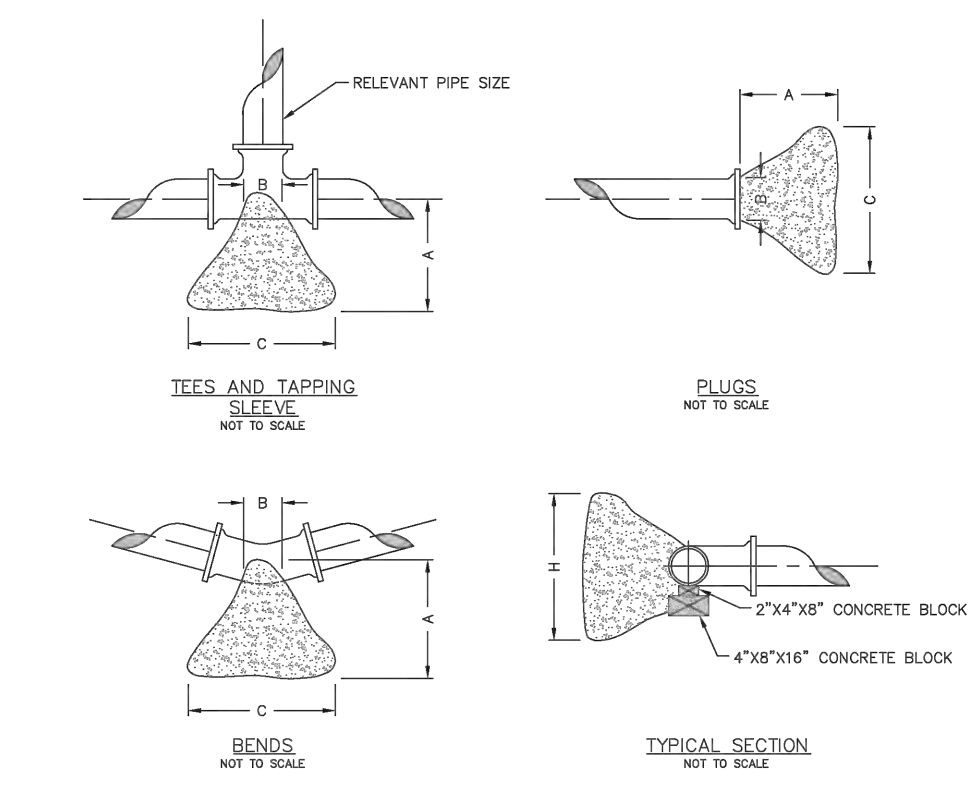
FIRE HYDRANT DETAIL
DETAIL "B"
 PAGE 1 OF 3



FIRE HYDRANT DETAIL
DETAIL "B"
 PAGE 2 OF 3



FIRE HYDRANT DETAIL
DETAIL "B"
 PAGE 3 OF 3

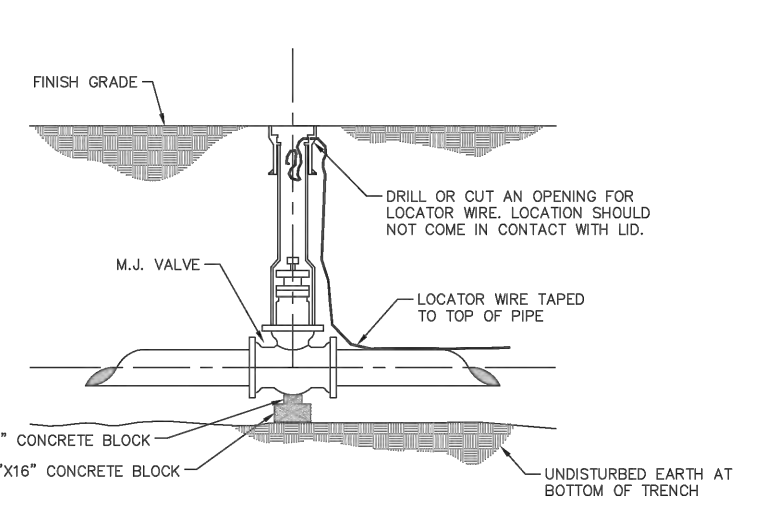


THRUST BLOCK DIMENSIONS - INCHES

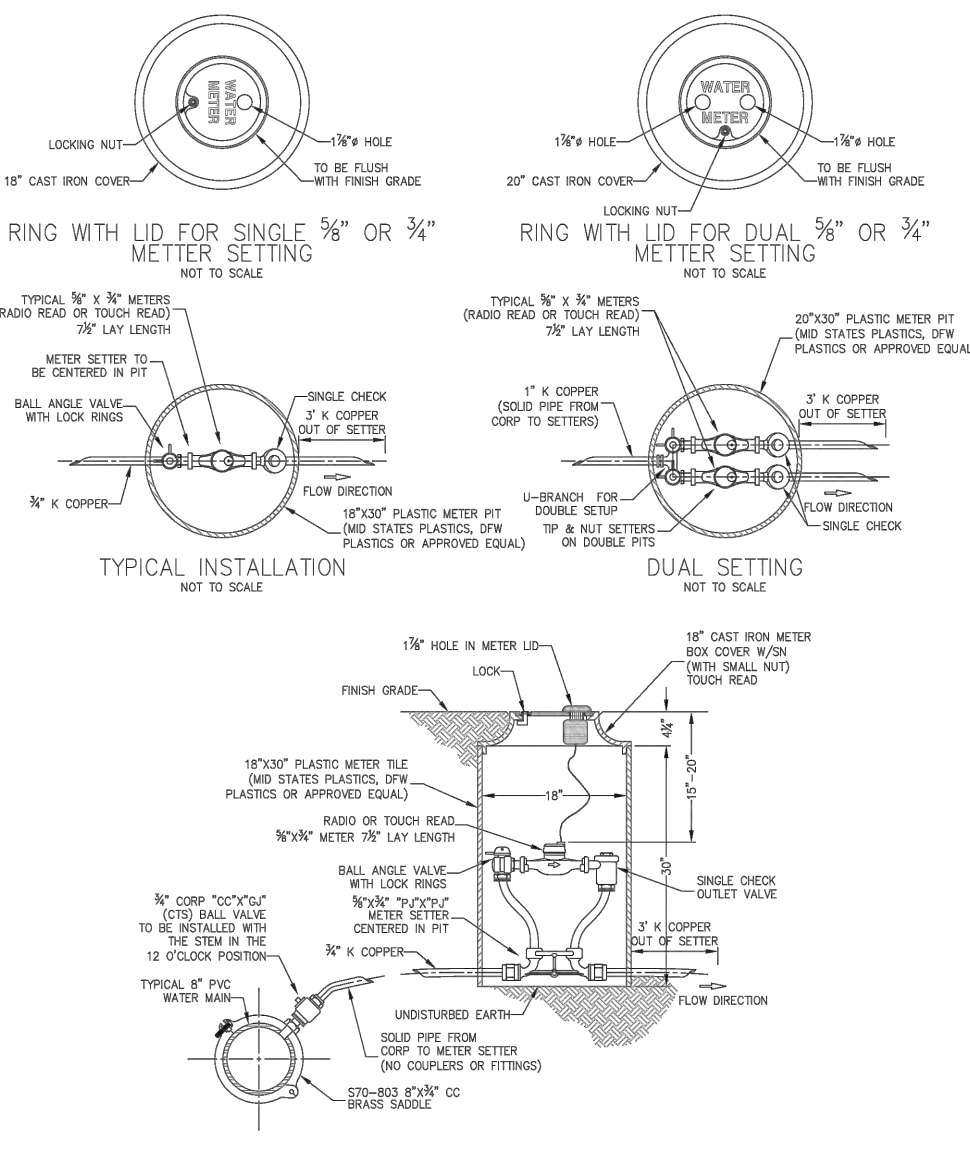
PIPE DIA.	ALL FTGS.		90 DEGREE TAPPING		45 DEGREE BEND		22-1/2 BEND		11-1/4 BEND		
	A	B	C	H	C	H	C	H	C	H	
4	14	4	24	12	26	15	18	12	12	12	12
6	16	6	36	18	38	24	30	18	24	12	12
8	20	8	36	30	42	36	36	24	24	18	12
10	20	10	48	36	66	36	36	28	24	18	18
12	24	12	68	36	82	42	52	36	40	24	18

NOTE
 FOR FITTINGS LARGER THAN 12", SPECIAL RESTRAINT DESIGNS ARE REQUIRED.

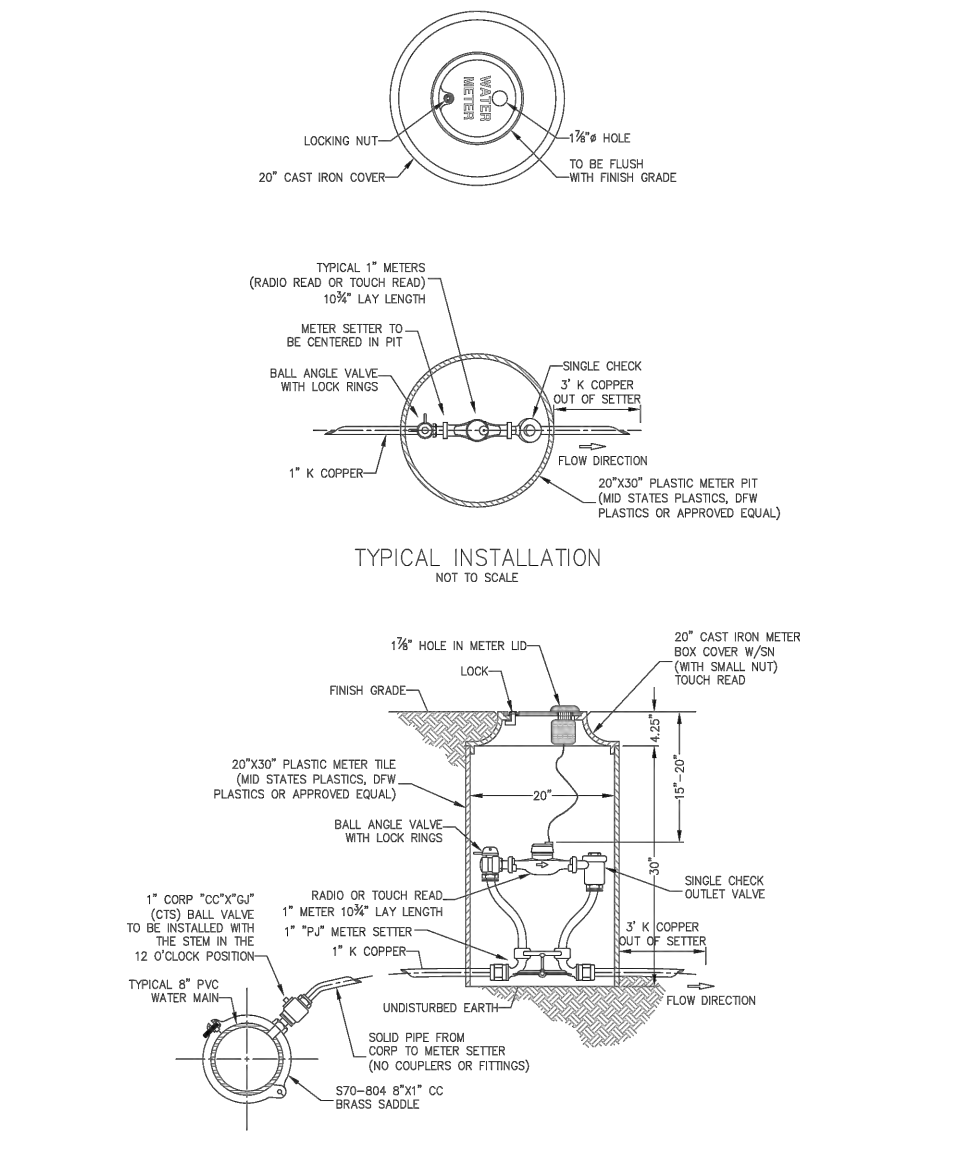
HORIZONTAL THRUST BLOCKING
DETAIL "C"



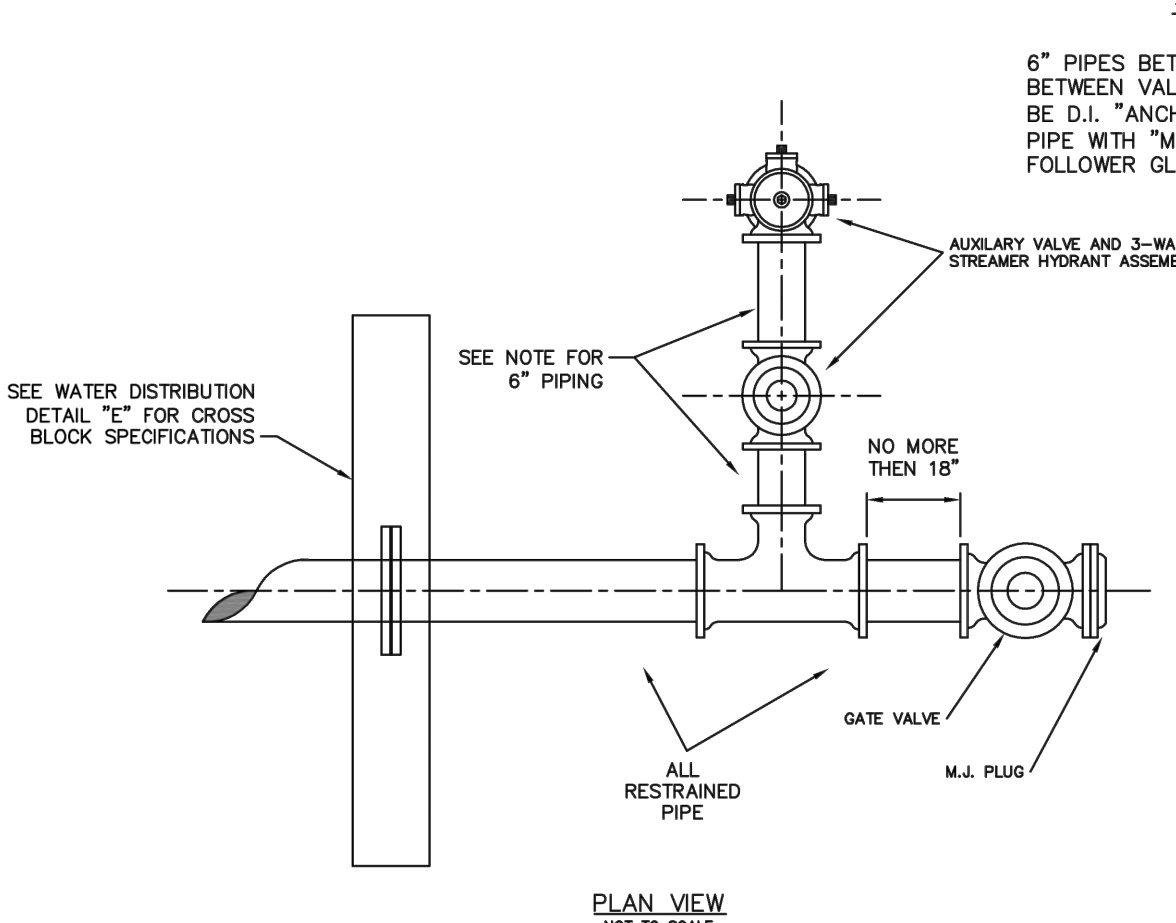
GATE VALVE DETAIL
DETAIL "D"



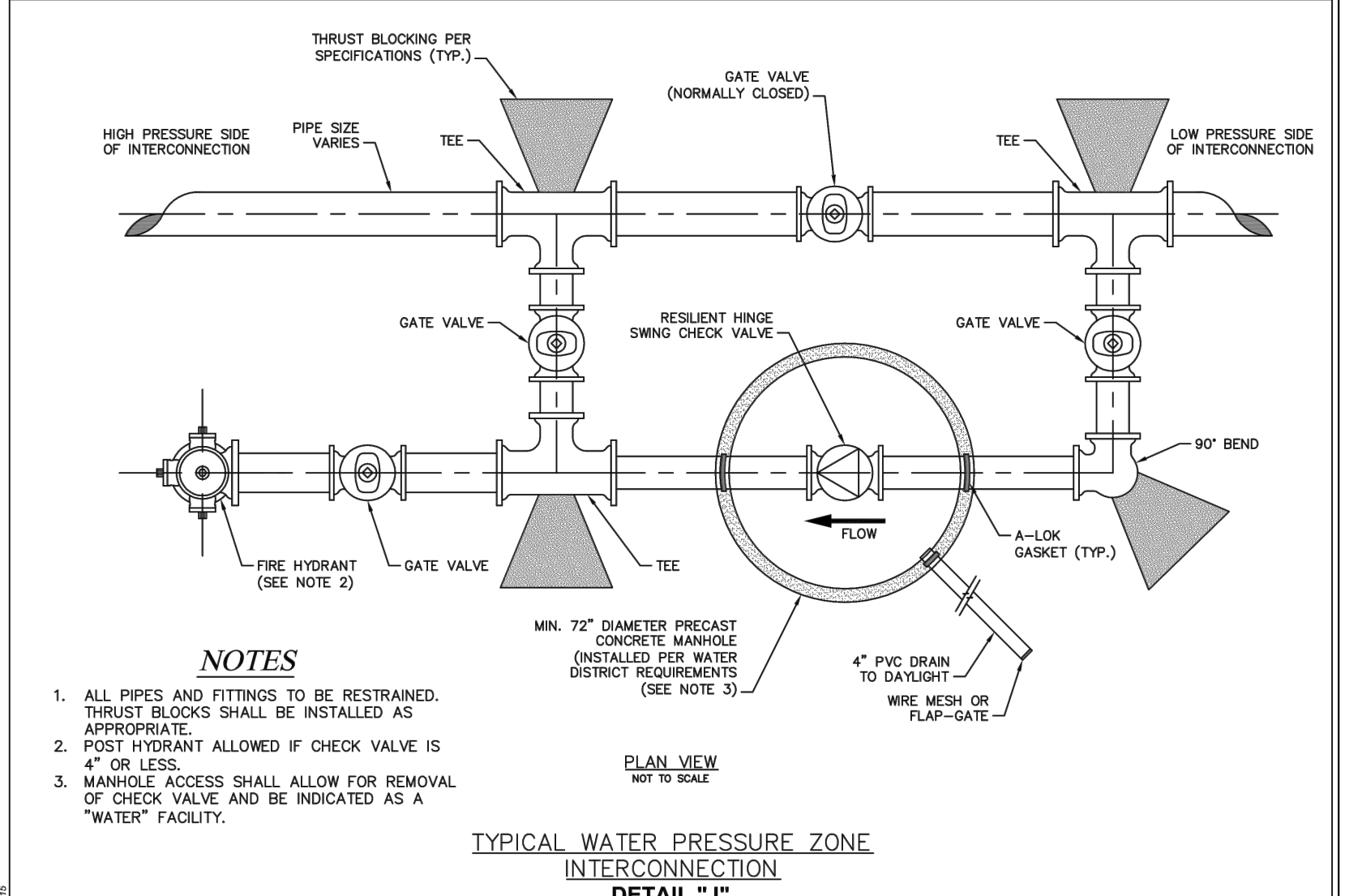
TYPICAL 3/4" RESIDENTIAL WATER SERVICE
DETAIL "E"
 NOT TO SCALE
 PUBLIC WATER SUPPLY DISTRICT #2 OF SAINT CHARLES COUNTY
 APRIL 20, 2005



TYPICAL 1" RESIDENTIAL WATER SERVICE
DETAIL "C"
 NOT TO SCALE
 PUBLIC WATER SUPPLY DISTRICT #2 OF SAINT CHARLES COUNTY
 APRIL 20, 2005

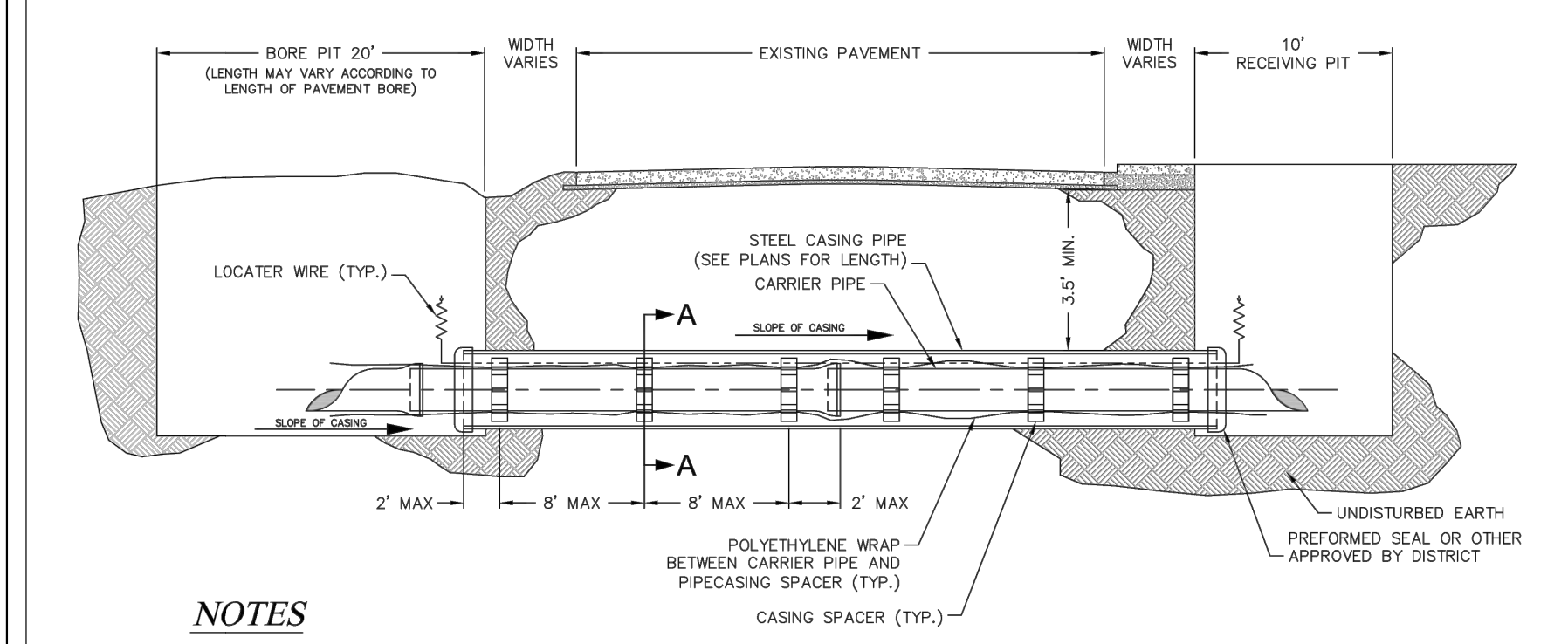


WATER MAIN TERMINATION DETAIL



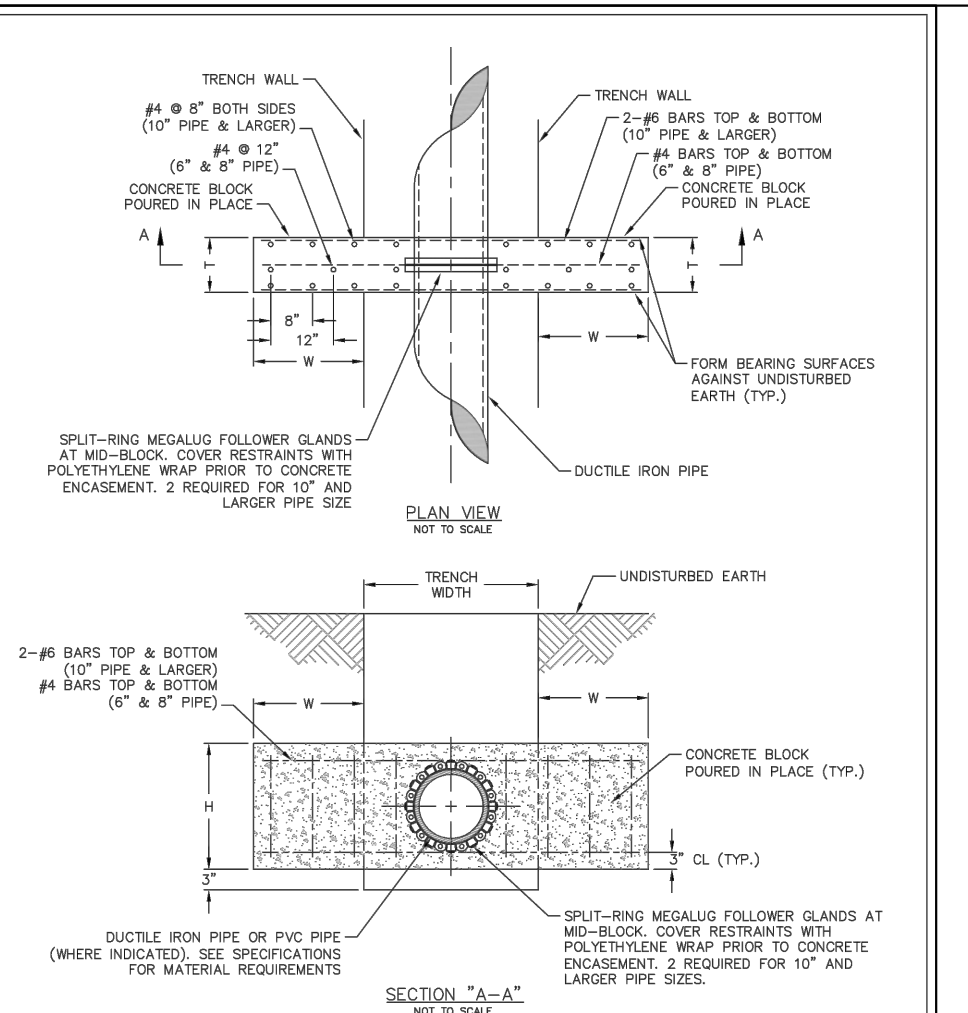
TYPICAL WATER PRESSURE ZONE INTERCONNECTION
DETAIL "J"

NOTES
 1. ALL PIPES AND FITTINGS TO BE RESTRAINED. THRUST BLOCKS SHALL BE INSTALLED AS APPROPRIATE.
 2. POST HYDRANT ALLOWED IF CHECK VALVE IS 4" OR LESS.
 3. MANHOLE ACCESS SHALL ALLOW FOR REMOVAL OF CHECK VALVE AND BE INDICATED AS A "WATER" FACILITY.



NOTES
 A. INSTALLATION OF THE CASING AND CARRIER PIPES SHALL MEET THE REQUIREMENTS OF PUBLIC WATER SUPPLY DISTRICT No. 2 OF ST. CHARLES COUNTY.
 B. CASING PIPES FOR ROAD AND HIGHWAY CROSSINGS SHALL BE WELDED STEEL PIPE WITH A MINIMUM WALL THICKNESS OF 1/2" NON-COATED AND SHALL HAVE A MINIMUM DIAMETER OF 10" LARGER THAN THE NOMINAL SIZE OF THE CARRIER PIPE.
 C. THE CARRIER PIPE SHALL BE RESTRAINED JOINT PIPE

TYPICAL WATER BORE AND ENCASEMENT
DETAIL "H"



NOTES
 1) CONSTRUCT CROSS BLOCKS AT A MINIMUM OF 15' FROM CONNECTION POINT AND 5' FROM THE BELL END OF PIPE.
 2) CROSS BLOCKS SHALL BE PRE-POURED PRIOR TO SHUTDOWN AND CONNECTIONS.
CROSS BLOCK
DETAIL "E"

PIPE BLOCK DIMENSIONS

PIPE DIA.	WIDTH	HEIGHT	THICKNESS
4	24	24	10
6	36	36	10
8	48	48	10
10	60	60	10
12	72	72	10

Drawing name: V:\140387-GolfFTH\Drawings\Improvements\3527\WP-DET\VALS.dwg Plotted on: Dec 15, 2015 - 10:58am Plotted by: bmoehr