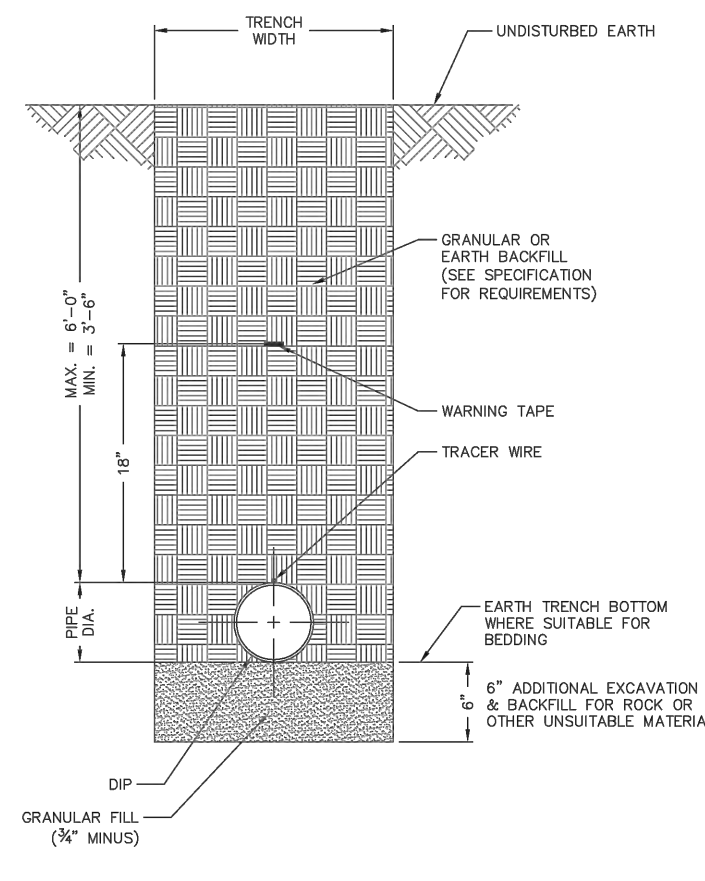
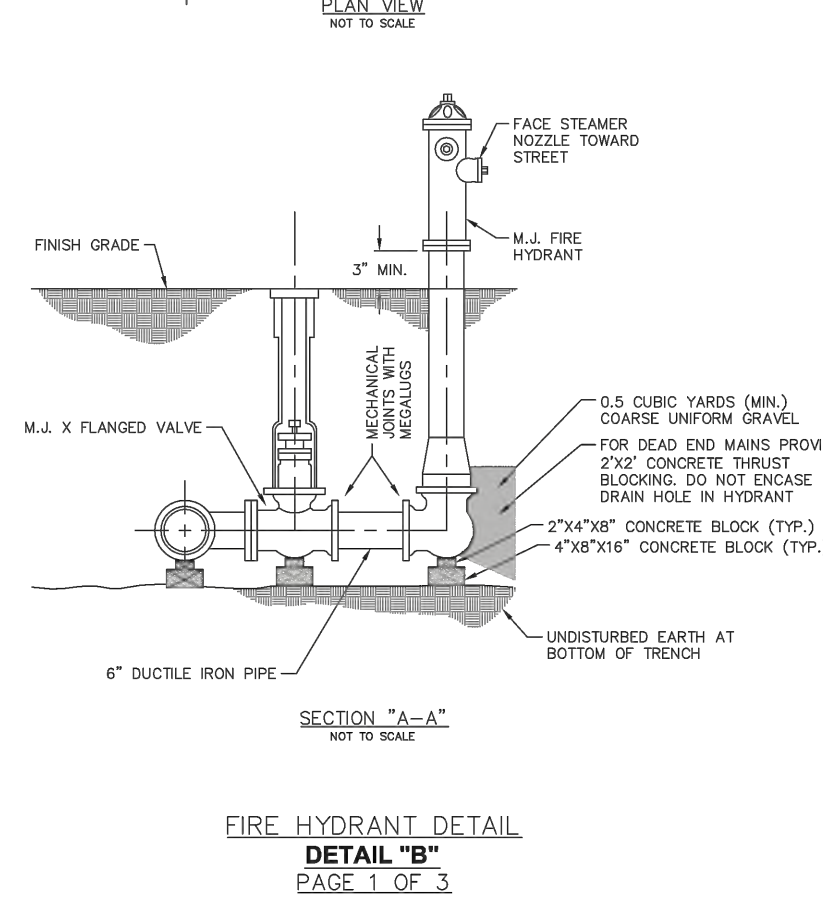
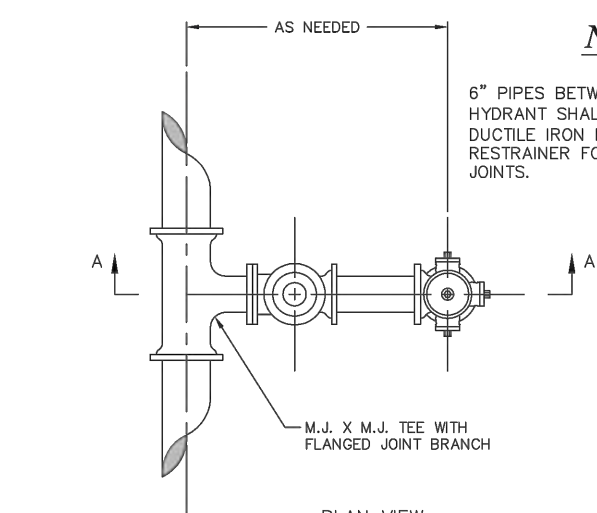


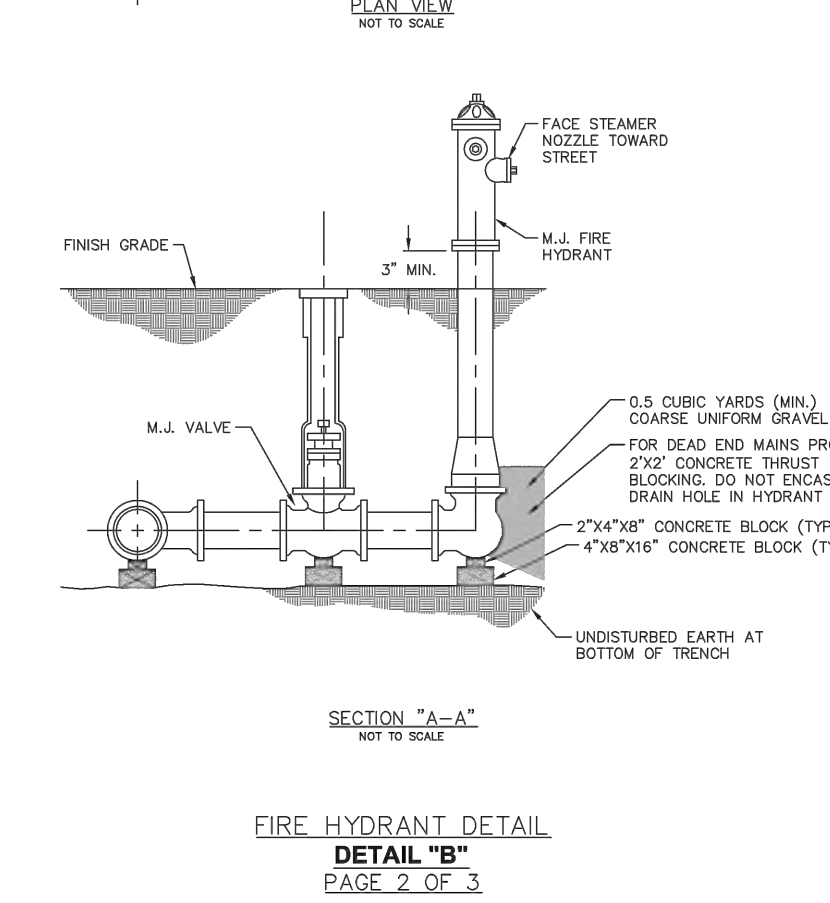
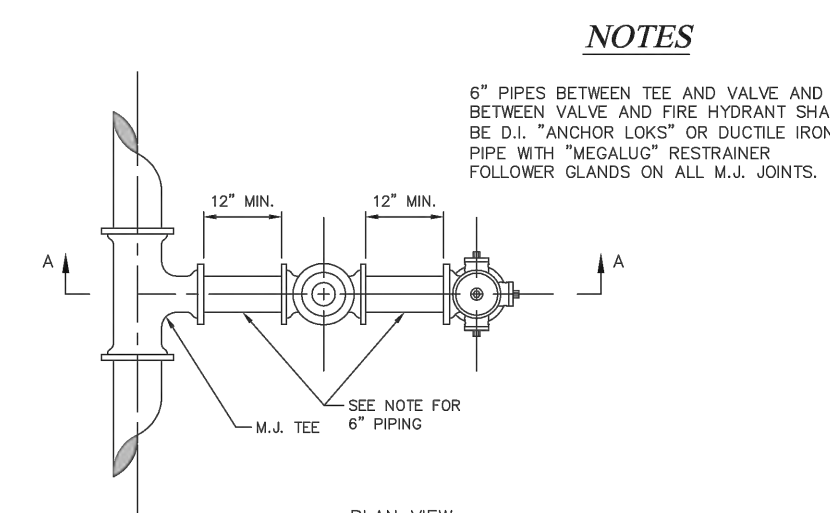
**NOTES**  
 1) SEE SPECIFICATIONS FOR ADDITIONAL DETAILS FOR BEDDING AND BACKFILL.  
**TYPICAL TRENCH SECTION FOR PVC PIPE**  
 NOT TO SCALE  
**DETAIL "A"**  
 PAGE 1 OF 2



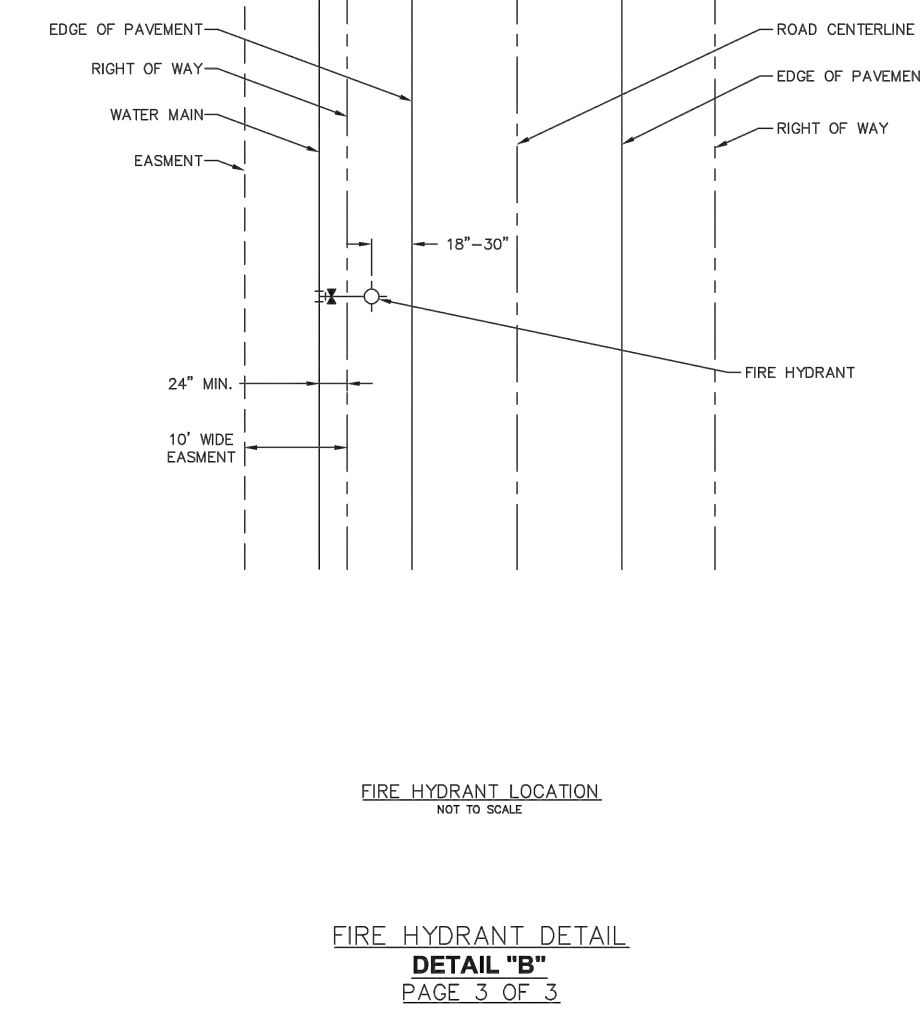
**NOTES**  
 1) POLYWRAP REQUIRED FOR DUCTILE IRON PIPE  
 2) SEE SPECIFICATIONS FOR ADDITIONAL DETAILS FOR BEDDING AND BACKFILL.  
**TYPICAL TRENCH SECTION FOR DUCTILE IRON PIPE**  
 NOT TO SCALE  
**DETAIL "A"**  
 PAGE 2 OF 2



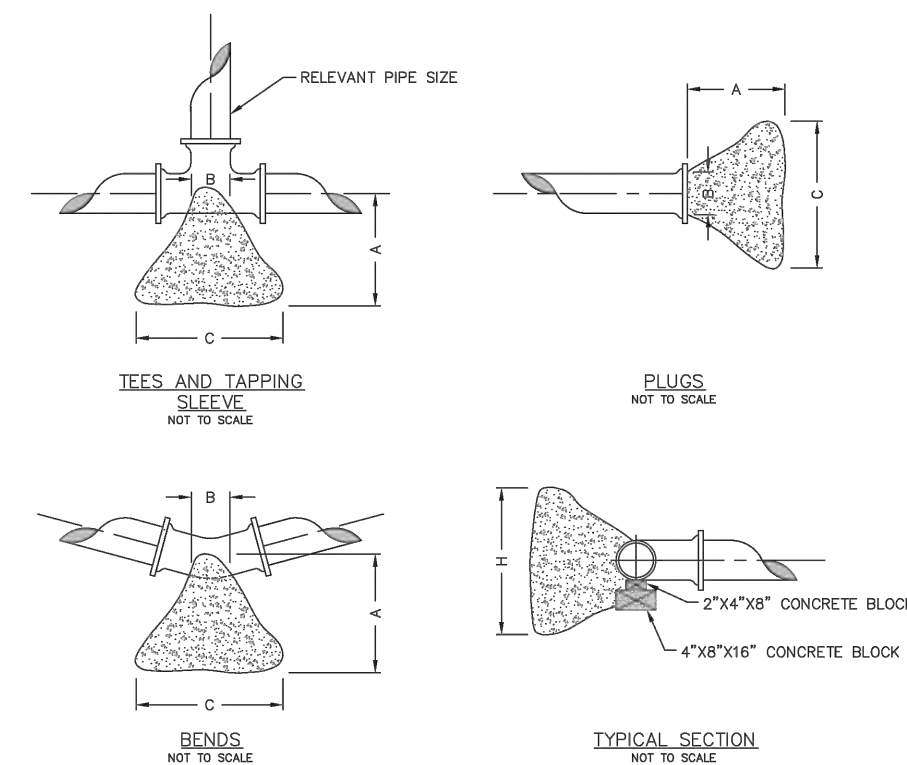
**FIRE HYDRANT DETAIL**  
**DETAIL "A"**  
 PAGE 1 OF 3



**FIRE HYDRANT DETAIL**  
**DETAIL "B"**  
 PAGE 2 OF 3

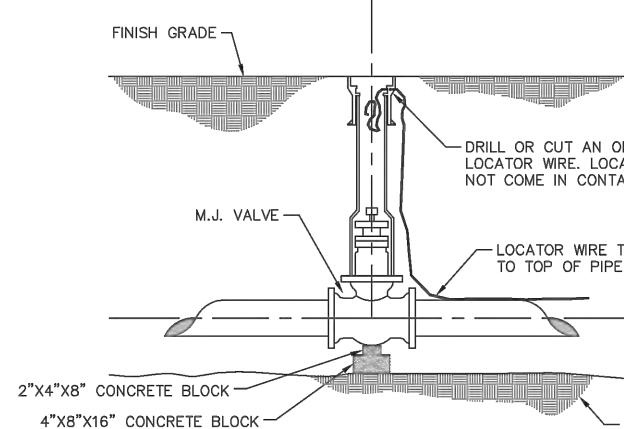


**FIRE HYDRANT DETAIL**  
**DETAIL "B"**  
 PAGE 3 OF 3

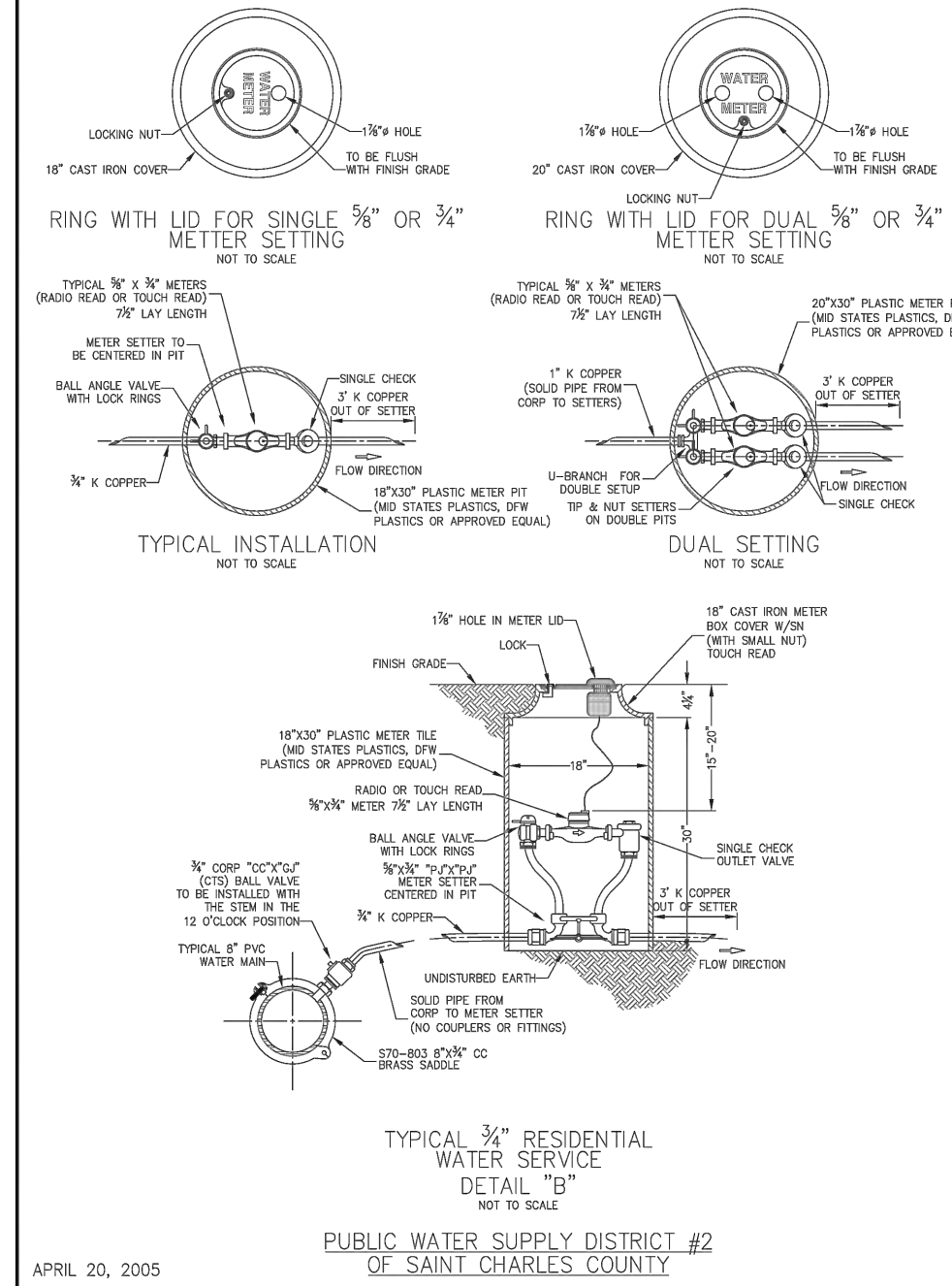


THRUST BLOCK DIMENSIONS - INCHES														
PIPE DIA.	ALL FTGS.	TEE PLUG TAPPING			90 DEGREE BEND			45 DEGREE BEND			22-1/2 BEND		11-1/4 BEND	
		A	B	C	H	C	H	C	H	C	H	C	H	
4	14	4	24	12	20	15	18	12	12	12	12	12	12	
6	16	6	36	18	36	24	30	18	24	12	12	12	12	
8	20	8	36	30	42	36	36	24	24	18	18	18	18	
10	20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

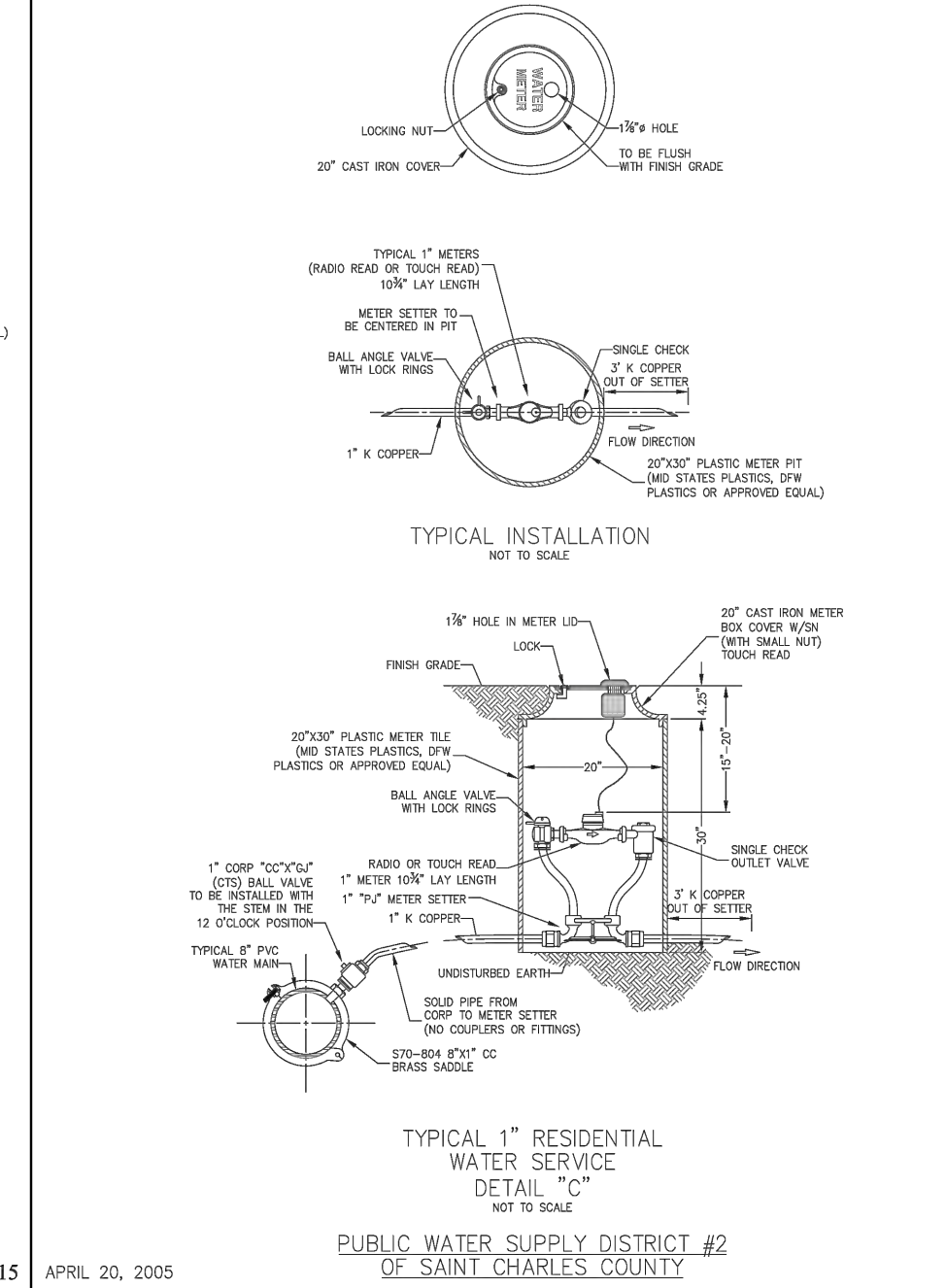
**NOTE**  
 FOR FITTINGS LARGER THAN 12", SPECIAL RESTRAINT DESIGNS ARE REQUIRED.  
**HORIZONTAL THRUST BLOCKING**  
**DETAIL "C"**



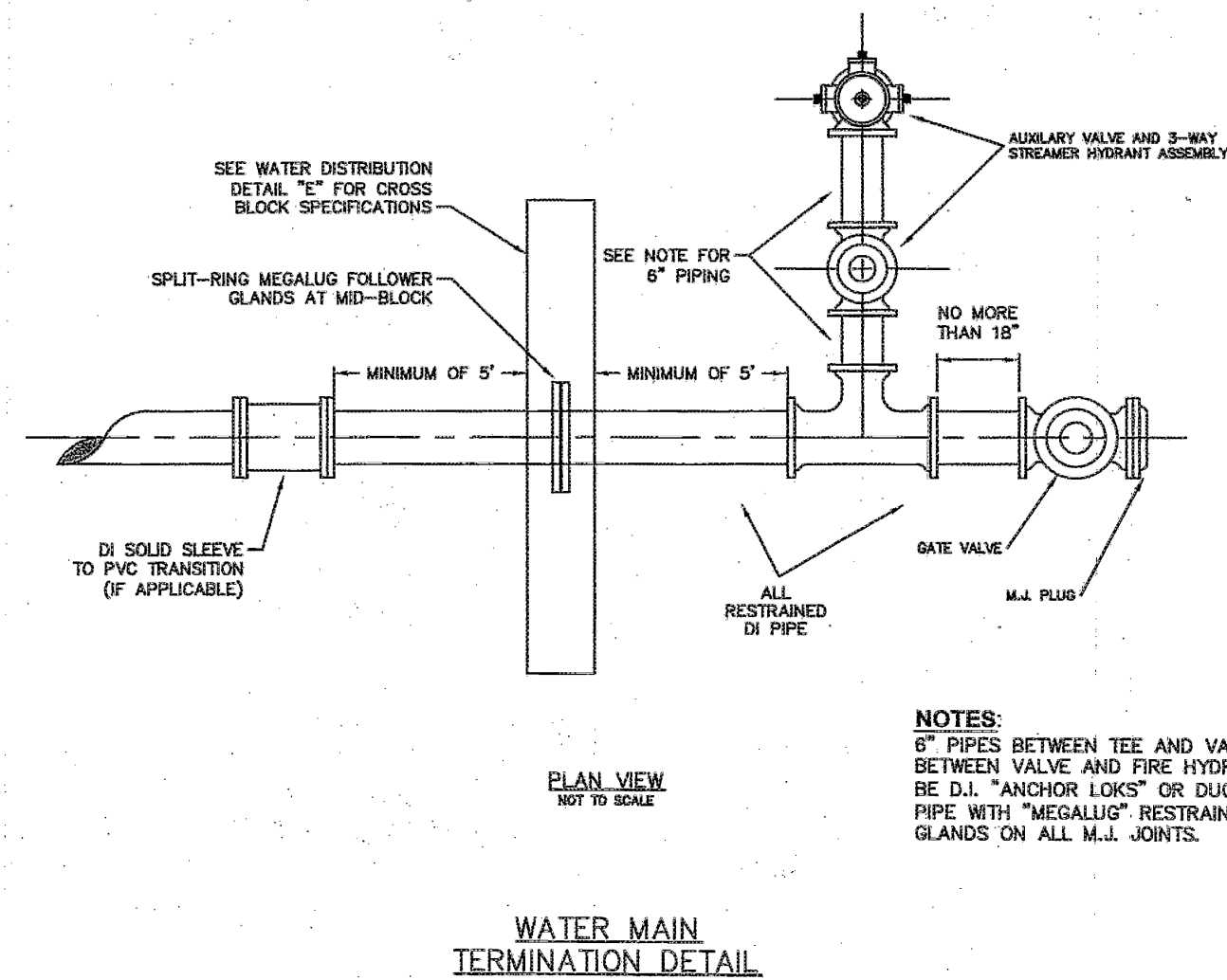
**GATE VALVE DETAIL**  
**DETAIL "D"**  
 NOT TO SCALE



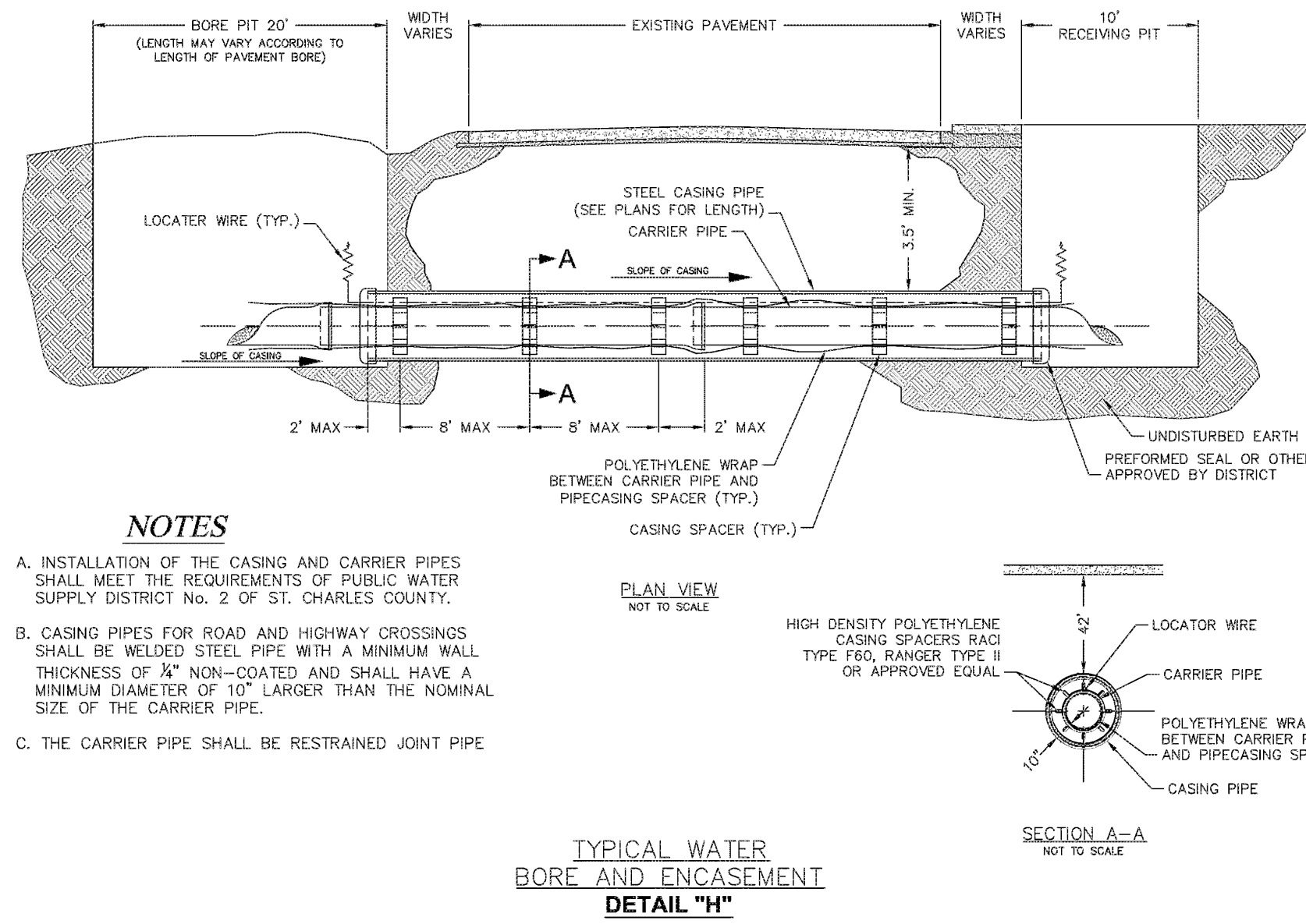
**TYPICAL 3/4" RESIDENTIAL WATER SERVICE**  
**DETAIL "E"**  
 NOT TO SCALE  
 PUBLIC WATER SUPPLY DISTRICT #2 OF SAINT CHARLES COUNTY  
 APRIL 20, 2005



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

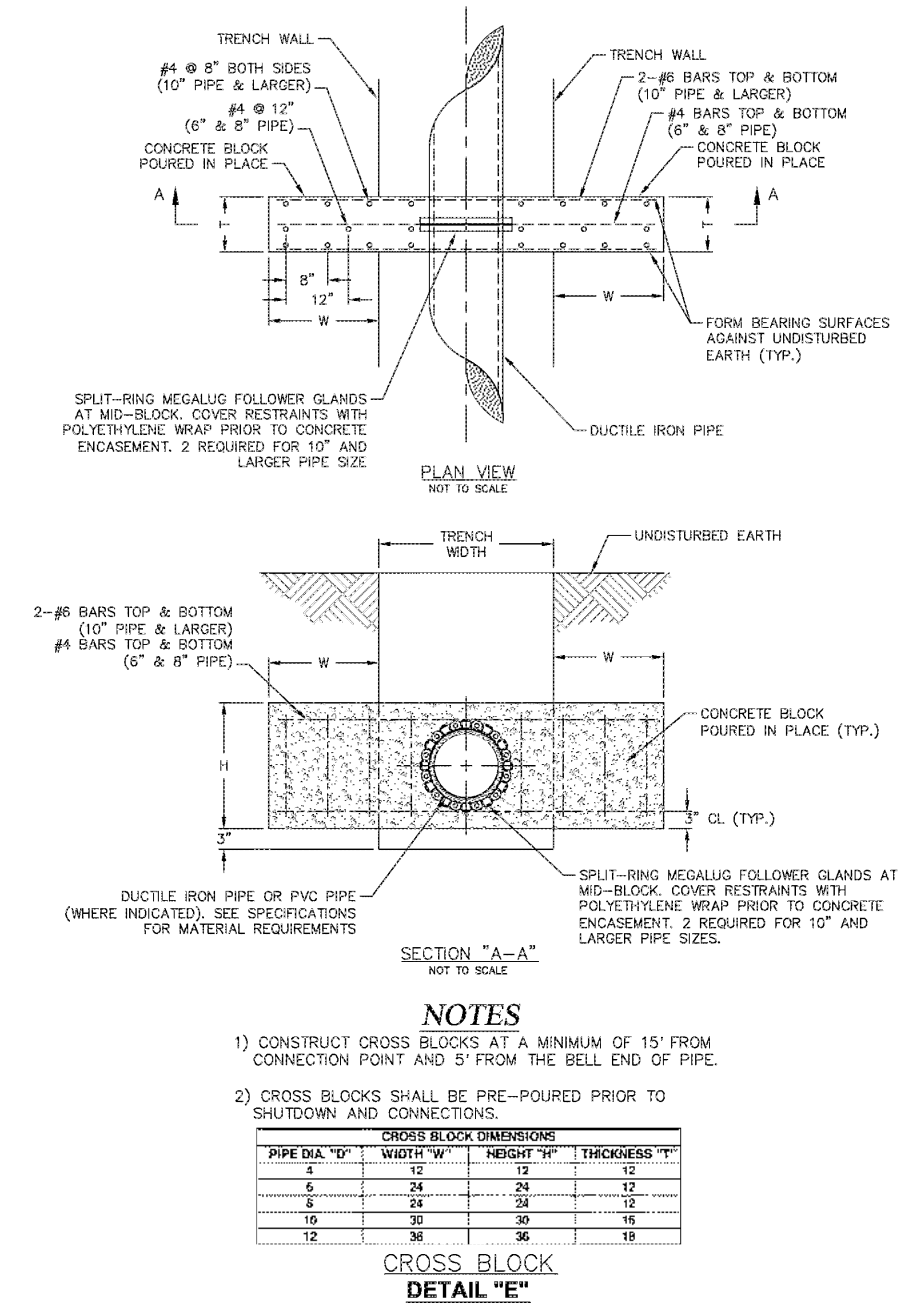


**WATER MAIN TERMINATION DETAIL**  
 NOT TO SCALE



**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"**  
 NOT TO SCALE



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

PIPE DIA. "D"	MIN. "W"	MIN. "H"	MIN. "T"
6	24	24	12
8	30	30	12
10	36	36	12
12	42	42	12

**CROSS BLOCK**  
**DETAIL "E"**  
 NOT TO SCALE

ISSUE	DATE / REMARKS
1	8-10-2016 Initial Submittal
2	9-1-2016 PWSO #2 & DCSD Comments
3	10-24-16 City Comments
4	11-15-16 DCSD Comments
5	12-12-16 City Comments
6	12-28-16 DCSD Comments
7	1-18-17 PWSO #2 Comments
8	1-26-17 Fire District Comments
9	1-27-17 City Comments
10	3-1-17 City Comments

PROJECT TITLE

**WESTLEIGH**

OFFALLON, 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: 3/01/2017  
 RODNEY ARNOLD  
 LICENSE # PE-2002016612  
 Civil Engineer

Lombardo Homes of St. Louis, LLC

2299 Technology Drive, Suite 150  
 O'Fallon, Missouri 63366  
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 www.lombardohomesstlouis.com

WATER MAIN DETAILS

P+Z No. P&Z NO  
 City No. 15-162-SP  
 Date: 3/01/2017  
 Job No. 14-10-348

Page No.

**DTL-9**

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