

LEGEND
 I.D. = NOMINAL PIPE SIZE
 O.D. = OUTSIDE DIAMETER OF PIPE
 H = COVER ABOVE TOP OF PIPE
 A = EMBEDDED BELOW PIPE (SEE TABLE)

TABLE OF EMBEDDED DEPTHS BELOW PIPE		
I.D.	A MIN. SOL.	A MIN. ROCK
27" & SMALLER	3"	6"

CLASS B
 1/8" H
 6" MIN.

CLASS C
 1/8" H
 2" MIN.

CLASS D
 FLAT BOTTOM TRENCH WITH BELL HOLES AND HAND PLACED EMBEDDED

LEGEND
 TAMPED BACK FILL
 COMPACTED BACK FILL
 GRANULAR BEDDING

GRANULAR BEDDING SHALL BE CRUSHED ROCK OR PEA GRAVEL WITH NOT LESS THAN 95% PASSING 1/2" (95% PASSING 3/4" FOR 30" AND LARGER PIPE) AND NOT LESS THAN 95% RETAINED ON #4; TO BE PLACED IN NOT MORE THAN 6" LAYERS AND COMPACTED BY SLICING WITH A SHOVEL OR VIBRATING.

COMPACTED BACK FILL SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL AND STONES, PLACED IN UNIFORM LAYERS NOT MORE THAN 6" THICK, COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY A.S.T.M. D698, OR GRADED AGGREGATE. GRANULAR BACK FILL MATERIAL MAY BE SUBSTITUTED FOR ALL OR PART OF COMPACTED BACK FILL.

TAMPED BACK FILL SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL AND STONES, HAND PLACED IN UNIFORM LAYERS NOT MORE THAN 6" THICK AND TAMPED AROUND CONDUIT PIPE. GRANULAR BACK FILL MATERIAL MAY BE SUBSTITUTED FOR ALL OR PART OF TAMPED BACK FILL.

TRENCH BACK FILL SHALL BE AS REQUIRED IN THE "LAYING AND BACK FILL" SECTION OF THE DETAILED SPECIFICATIONS.

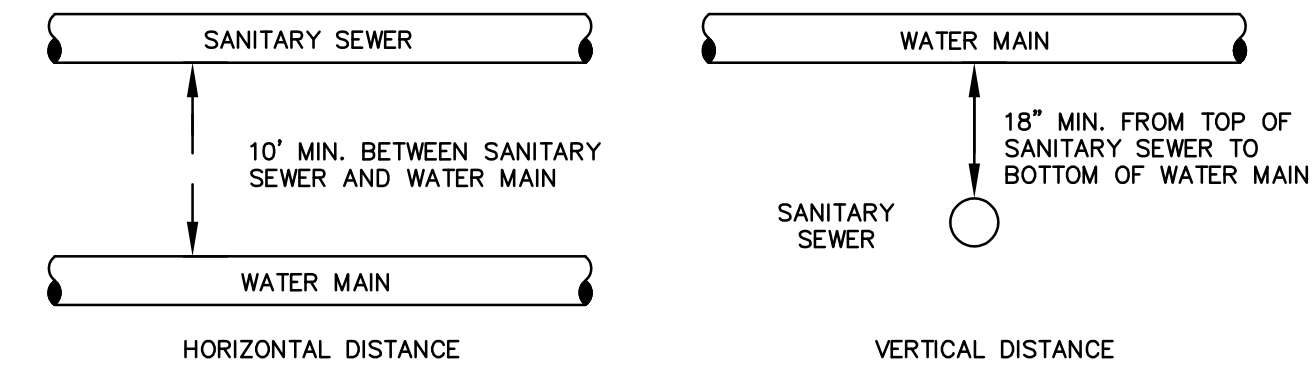
EMBEDDED THE TYPE OF EMBEDDED TO BE USED SHALL BE AS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

TRACER WIRE REQUIRED ON ALL WATER MAINS

WATER MAIN EMBEDDED
 NOT TO SCALE

CITY OF O'FALLON
 ENGINEERING DEPARTMENT
 O'FALLON, MISSOURI

WATER MAIN EMBEDDED

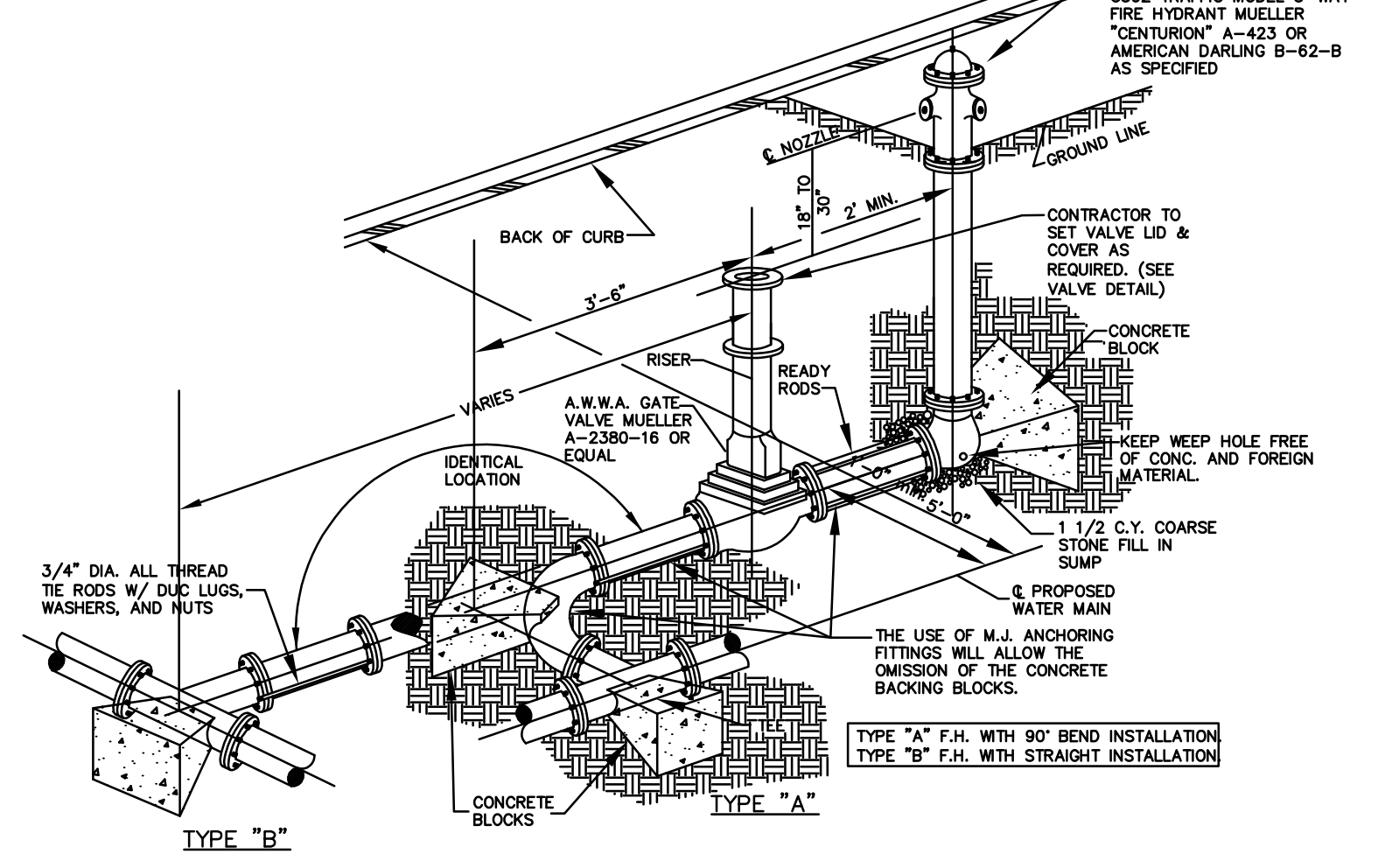


TYPICAL WATER AND SEWER SEPARATION
 NOT TO SCALE

CITY OF O'FALLON
 ENGINEERING DEPARTMENT
 O'FALLON, MISSOURI

WATER AND SEWER SEPARATION DETAIL

Note: Other connections such as anchor coupling are allowable with additional details and approval.



FIRE HYDRANT DETAILS
 NOT TO SCALE

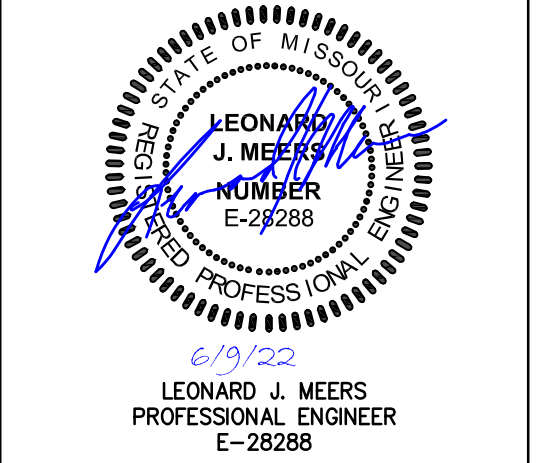
CITY OF O'FALLON
 ENGINEERING DEPARTMENT
 O'FALLON, MISSOURI

FIRE HYDRANT DETAILS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	02-24-2022
2	CITY/UTIL COMMENTS	03-14-2022
3		
4		
5		
6		
7		
8		
9		
10		

PROJECT TITLE
 O'FALLON U-HAUL
 1200 S. OUTER ROAD
 O'FALLON, MO 63366

GRIMES CONSULTING, INC.
 Civil Engineering & Surveying Services
 GRIMES CONSULTING, INC.
 PROFESSIONAL ENGINEER CORPORATION E-1470-D
 PROFESSIONAL LAND SURVEYING CORPORATION LS-343-D
 12300 OLD TESSON ROAD
 SUITE E, 3000 MO. 63128
 PH. (314) 849-6100
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 FAX (314) 849-6010
 www.grimesconsulting.com

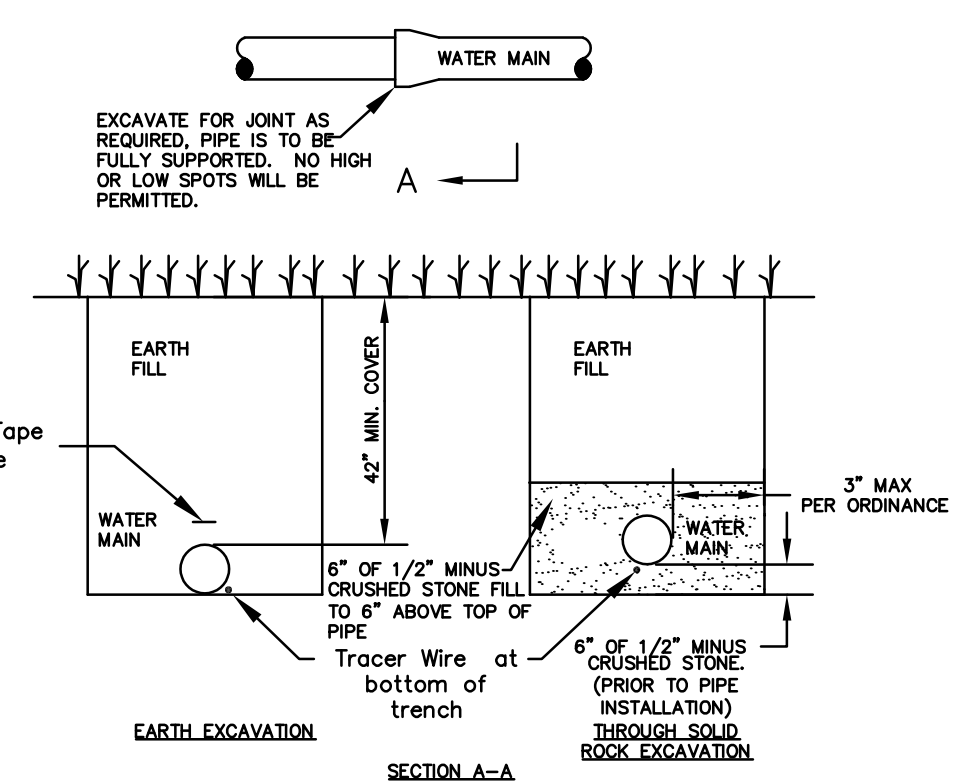
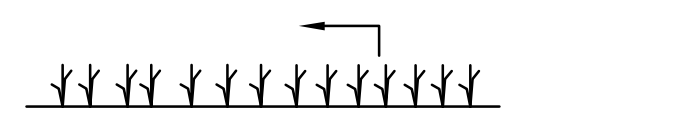


LEONARD J. MEERS
 PROFESSIONAL ENGINEER
 E-28288

Developer / Owner Information
 UHAUL
 CONTACT: MICHAEL WHITE
 314-952-6203
 Email: michael.white@uhaul.com

WATER DETAILS

P4-Z No.
Approval Date:
City No.
Page No.
C8.2

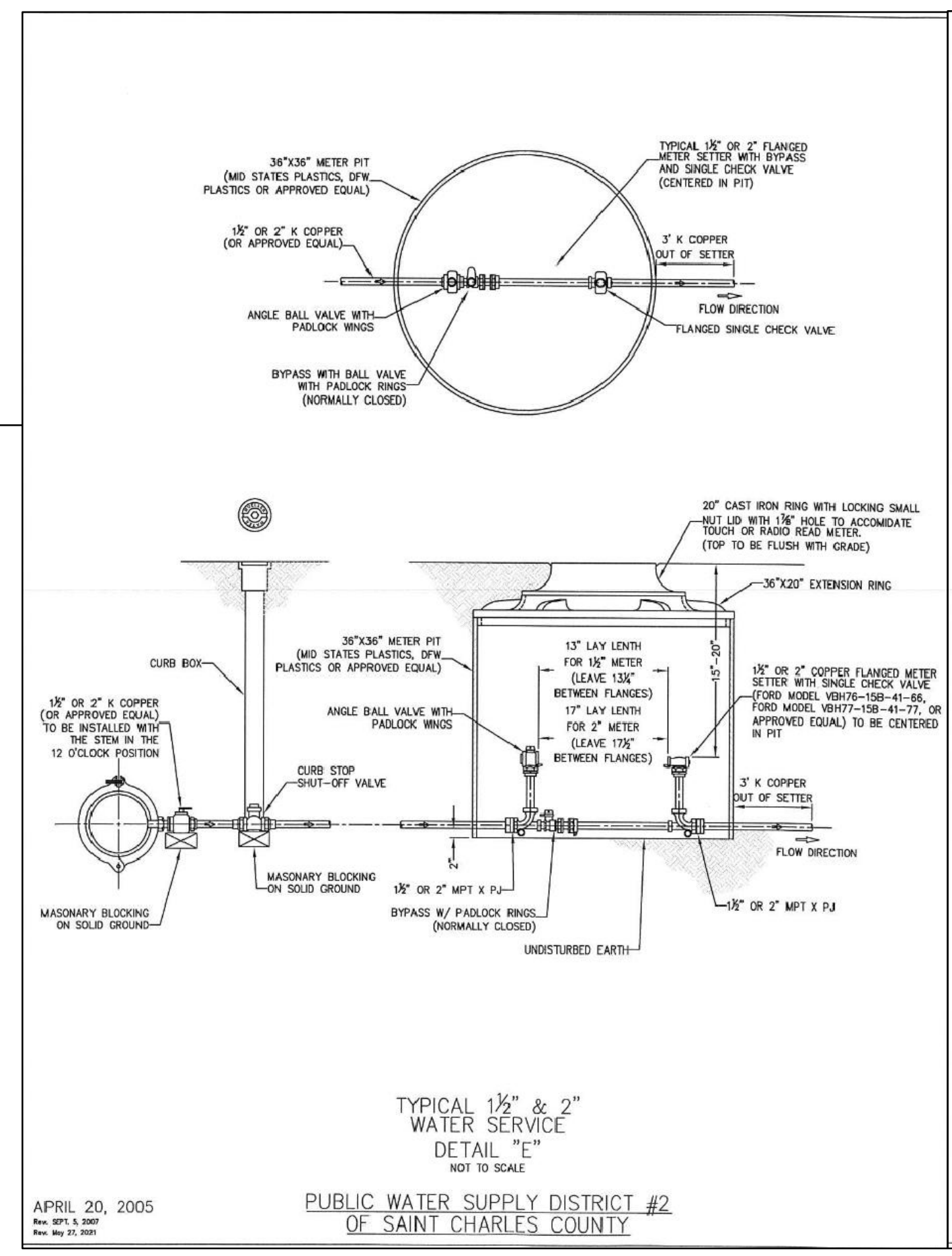


TYPICAL WATER MAIN INSTALLATION DETAILS
 NOT TO SCALE

CITY OF O'FALLON
 ENGINEERING DEPARTMENT
 O'FALLON, MISSOURI

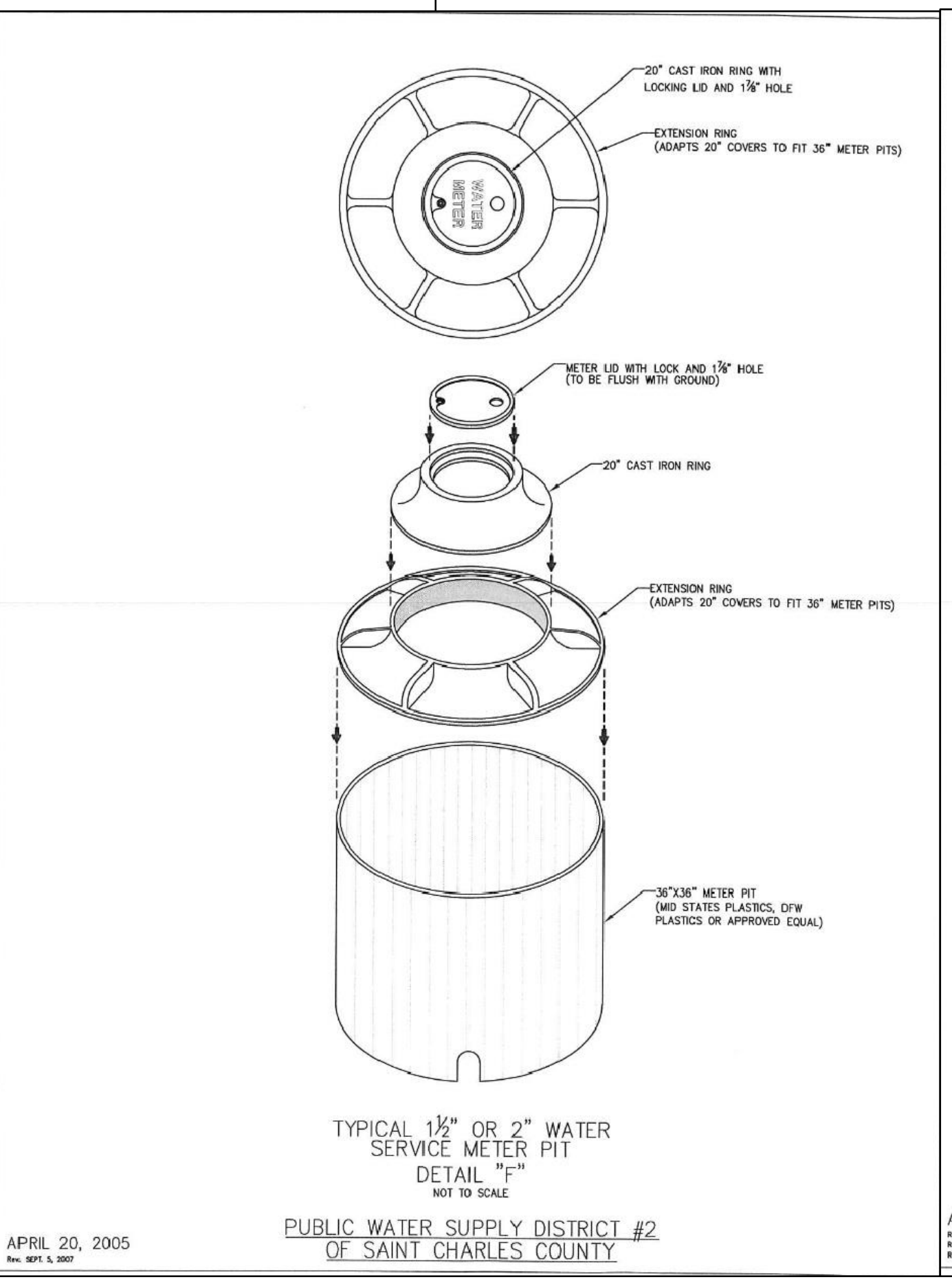
WATER MAIN INSTALLATION DETAIL

Ductile Iron Pipe installation shall follow the Ductile Iron Research Association (DIPRA) guide line.
 The Installation of PVC Pipe shall follow the Uni-Bell PVC Pipe Association Handbook of PVC Design and Construction.



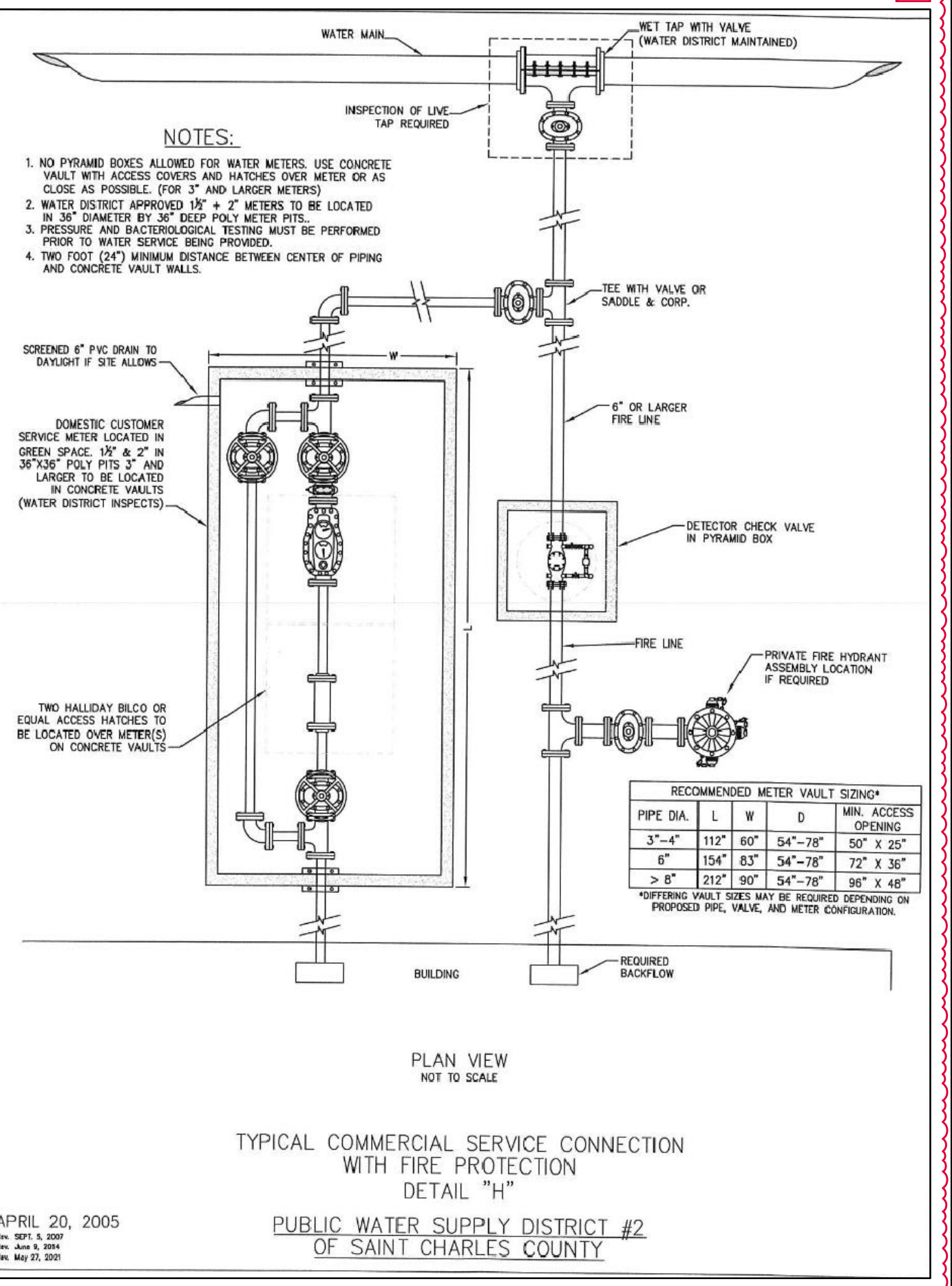
TYPICAL 1 1/2" & 2" WATER SERVICE DETAIL "E"
 NOT TO SCALE
 PUBLIC WATER SUPPLY DISTRICT #2
 OF SAINT CHARLES COUNTY

APRIL 20, 2005
 Rev. 04/13/2005
 Rev. May 13, 2005



TYPICAL 1 1/2" OR 2" WATER SERVICE METER PIT DETAIL "F"
 NOT TO SCALE
 PUBLIC WATER SUPPLY DISTRICT #2
 OF SAINT CHARLES COUNTY

APRIL 20, 2005
 Rev. 04/13/2005
 Rev. May 13, 2005



TYPICAL COMMERCIAL SERVICE CONNECTION WITH FIRE PROTECTION DETAIL "H"
 NOT TO SCALE
 PUBLIC WATER SUPPLY DISTRICT #2
 OF SAINT CHARLES COUNTY

APRIL 20, 2005
 Rev. 04/13/2005
 Rev. May 13, 2005

RECOMMENDED METER VAULT SIZING*				
PIPE DIA.	L	W	D	MIN. ACCESS OPENING
3"-4"	119"	60"	54"-78"	50" X 25"
6"	154"	83"	54"-78"	72" X 36"
8"-9"	212"	90"	54"-78"	96" X 48"

*OPTIMUM VAULT SIZES MAY BE REQUIRED DEPENDING ON PROPOSED PIPE, VALVE, AND METER CONFIGURATION.

PREPARED FOR:
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