

LEGEND

LD. - 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

LD.	MIN. SOIL	MIN. ROCK
27" & SMALLER	3"	6"

CLASS B
 1/8" MIN. ABOVE AND 1/8" MIN. BELOW

CLASS C
 1/8" MIN. ABOVE AND 2" MIN. BELOW

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

GRANULAR BEDDING SHALL BE CRUSHED ROCK OR PEA GRAVEL WITH NOT LESS THAN 90% PASSING 1/2" (95% PASSING 3/4" FOR 30" AND LARGER PIPE) AND NOT LESS THAN 90% RETAINED ON A #4; TO BE PLACED IN NOT MORE THAN 4" 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 8" THICK, COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY A.S.T.M. D1556 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 8" 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.

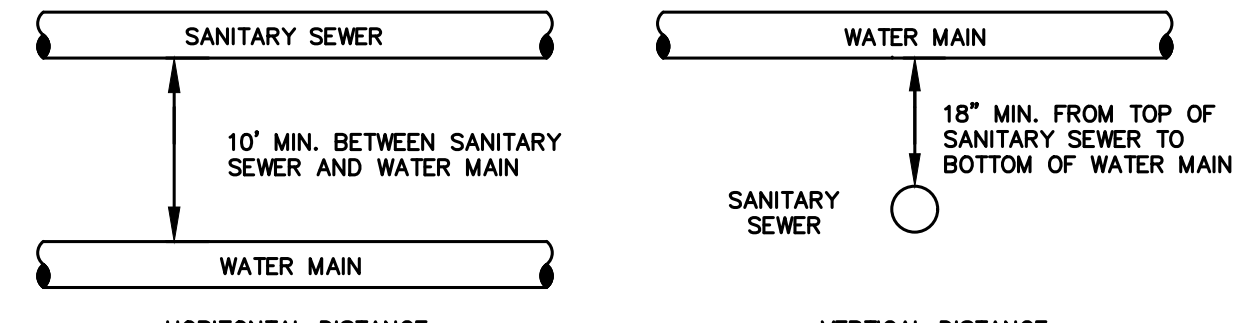
DESIGNED THE TYPE OF EMBEDD TO BE USED SHALL BE AS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

TRACER WIRE REQUIRED ON ALL WATER MAINS

WATER MAIN EMBEDDED
 NOT TO SCALE

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

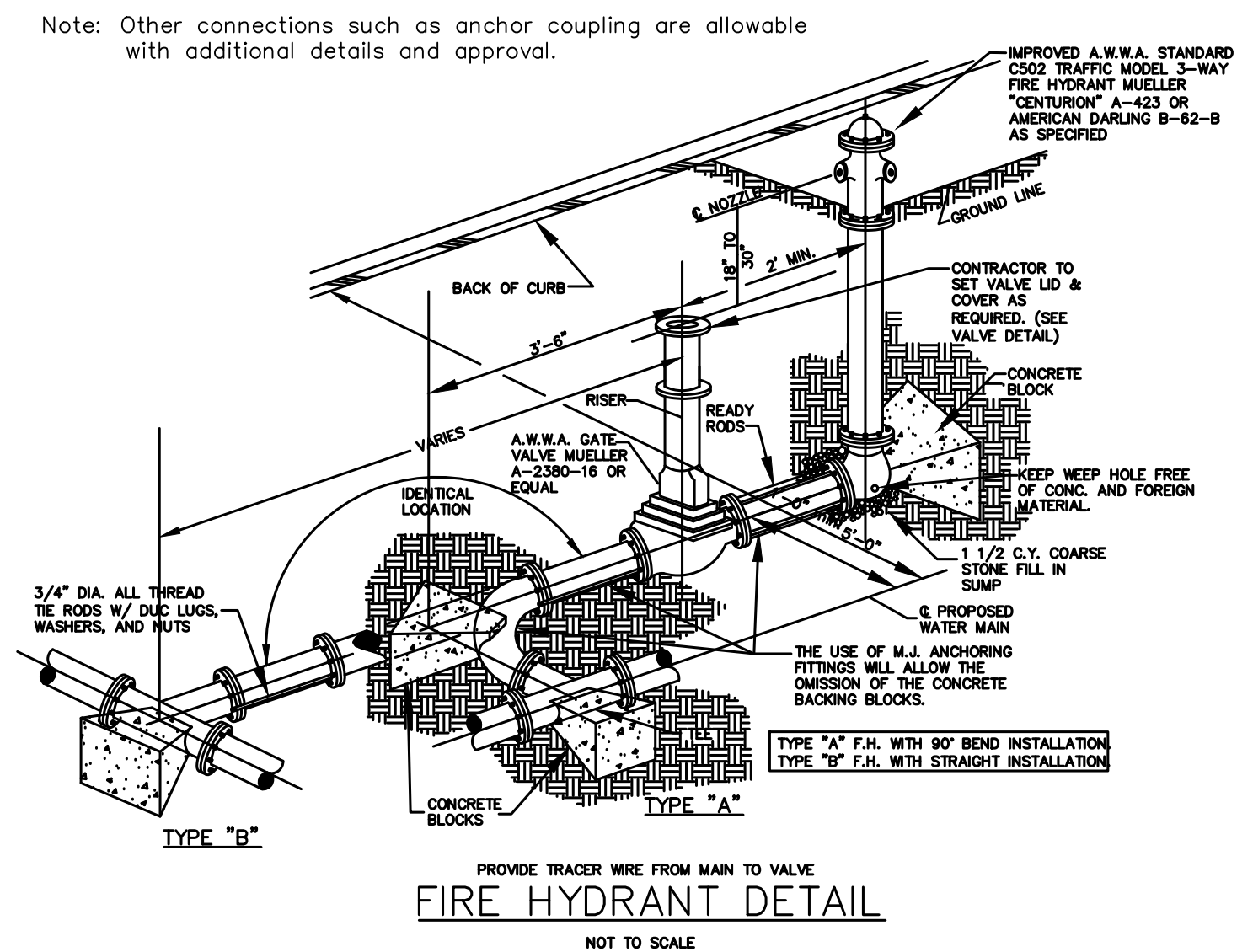
WATER MAIN EMBEDDED



TYPICAL WATER AND SEWER SEPARATION
 NOT TO SCALE

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

WATER AND SEWER SEPARATION DETAIL



FIRE HYDRANT DETAIL
 NOT TO SCALE

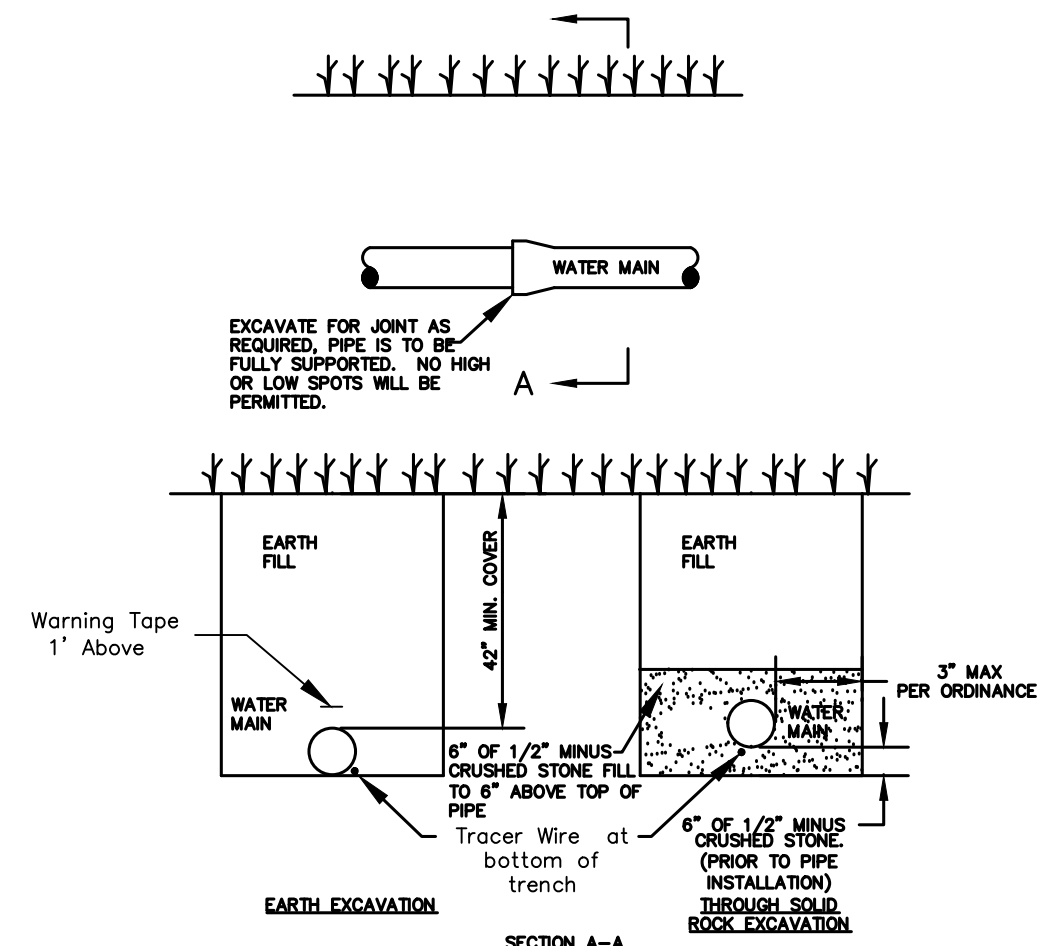
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 ENGINEERING DEPARTMENT
 O'FALLON, MISSOURI

FIRE HYDRANT DETAILS

4/26/18 Rev. Per. O'Fallon Comments
 4/17/18 PLAN REVISIONS
 3/29/18 REVISE OVERFLOW STRUCTURE
 3/7/18 RELOCATE WATER

Comment

Revised	By	Comments
6/7/17	1ST SUB	TO CITY OF O'FALLON
8/3/17	Rev. Per.	O'Fallon Comments
9/28/17	Rev. Per.	O'Fallon Comments
9/28/17	Rev. Per.	Modot comments
10/21/17	Rev. Per.	city comments
11/25/17	Rev. Per.	O'Fallon comments
2/22/18		Revise bidbook on Autocore



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.

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 Fax: (314) 667-1718

Engineered By:
DOERING ENGINEERING Inc.
 CIVIL ENGINEERING • PLANNING • SURVEYING

Seal

STATE OF MISSOURI
 MARK A. DOERING
 E-23059
 4/26/18

MARK A. DOERING
 CIVIL ENGINEER E-23059
 4/26/18
 MO. EXPIRATION DATE:
 DECEMBER 31 2018
 IL. EXPIRATION DATE:
 APRIL 30 2019
 MO. CORPORATE
 LICENSE NO. 001847
 IL CORPORATE
 LICENSE NO. 184.003035

BLUE IGUANA CAR WASH
 1008 HIGHWAY K
 O'FALLON, MO 63366
 DETAILS

Date: 6/7/17
 Project Number: 16028
 File Name: 16028.cdw
 Drawn By: JAB Sheet
 Check By: MAD

C14