

LEGEND

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

TAMPED BACK FILL
 COMPACTED BACK FILL
 GRANULAR BEDDING

TABLE OF EMBEDDED DEPTHS BELOW PIPE

LD.	A	A
	MIN. SOIL	MIN. ROCK
2" & SMALLER	3"	6"

CLASS B
 CLASS C
 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 95% PASSING 1/2" (50% PASSING 3/4" FOR 30" AND LARGER PIPE) AND NOT LESS THAN 95% RETAINED ON A #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. DROSE, 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.

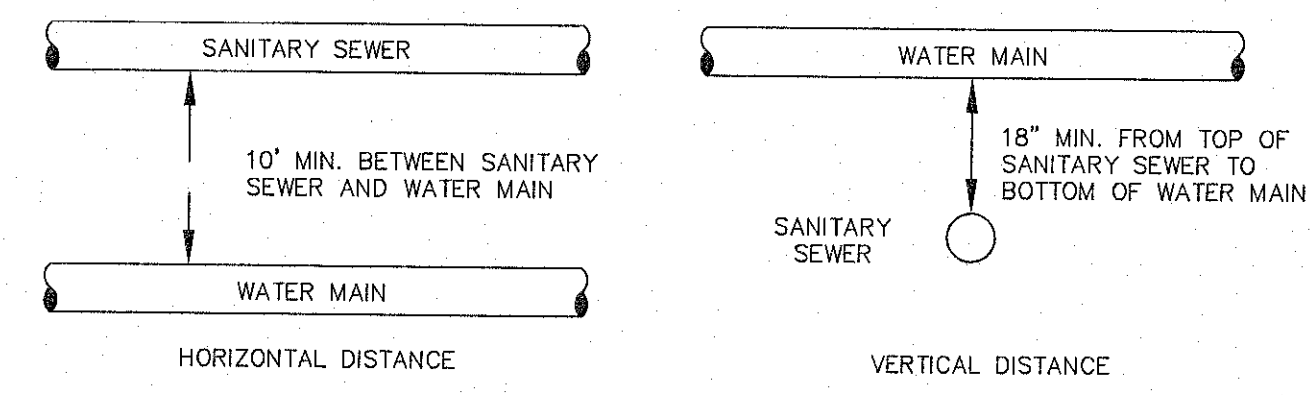
TRENCH BACK FILL SHALL BE AS REQUIRED IN THE "LAYING AND BACK FILL" SECTION OF THE DETAILED SPECIFICATIONS.

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

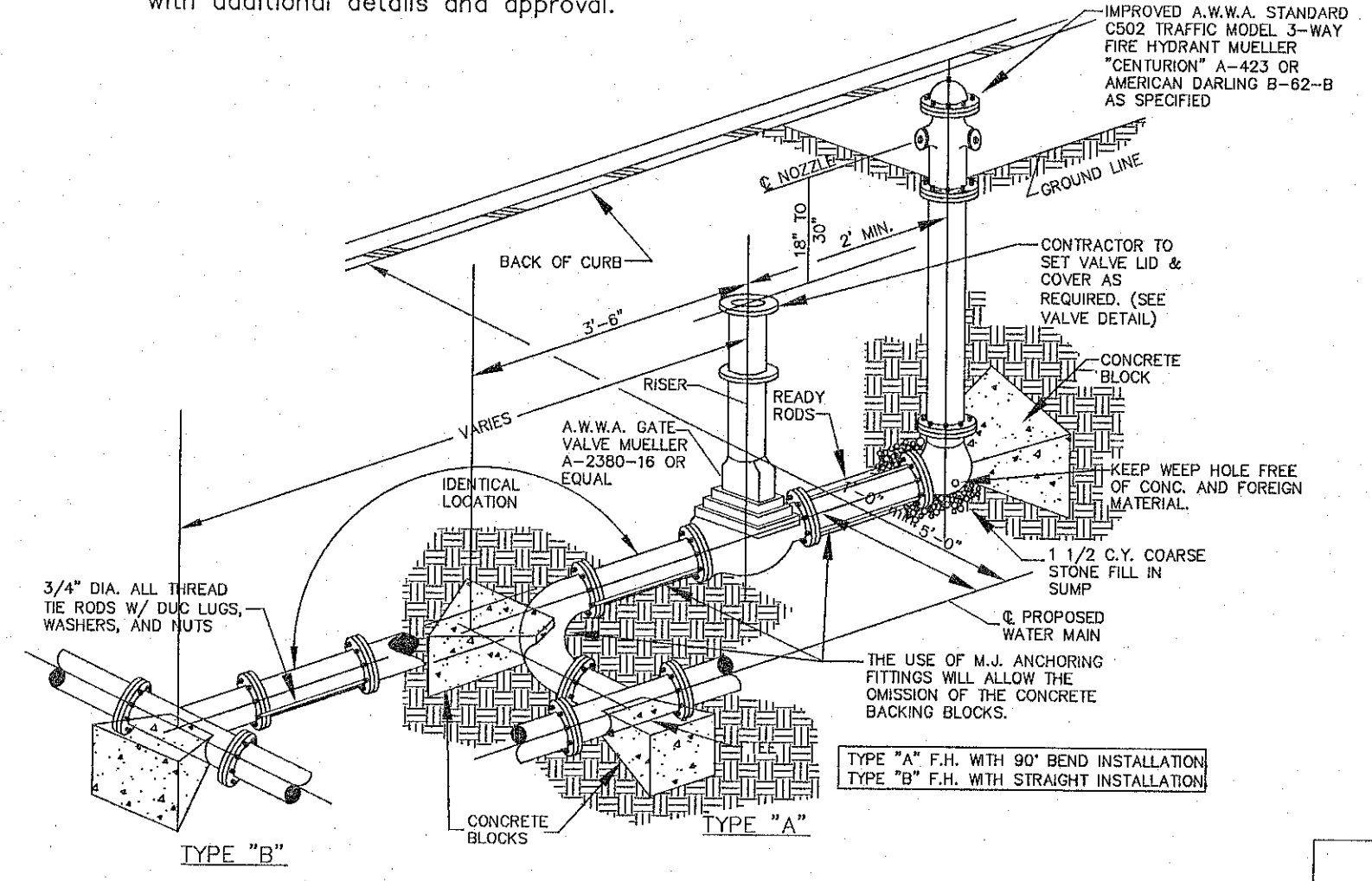
CITY OF O'FALLON
 ENGINEERING DEPARTMENT
 O'FALLON, MISSOURI
WATER MAIN EMBEDDED



TYPICAL WATER AND SEWER SEPARATION
 NOT TO SCALE

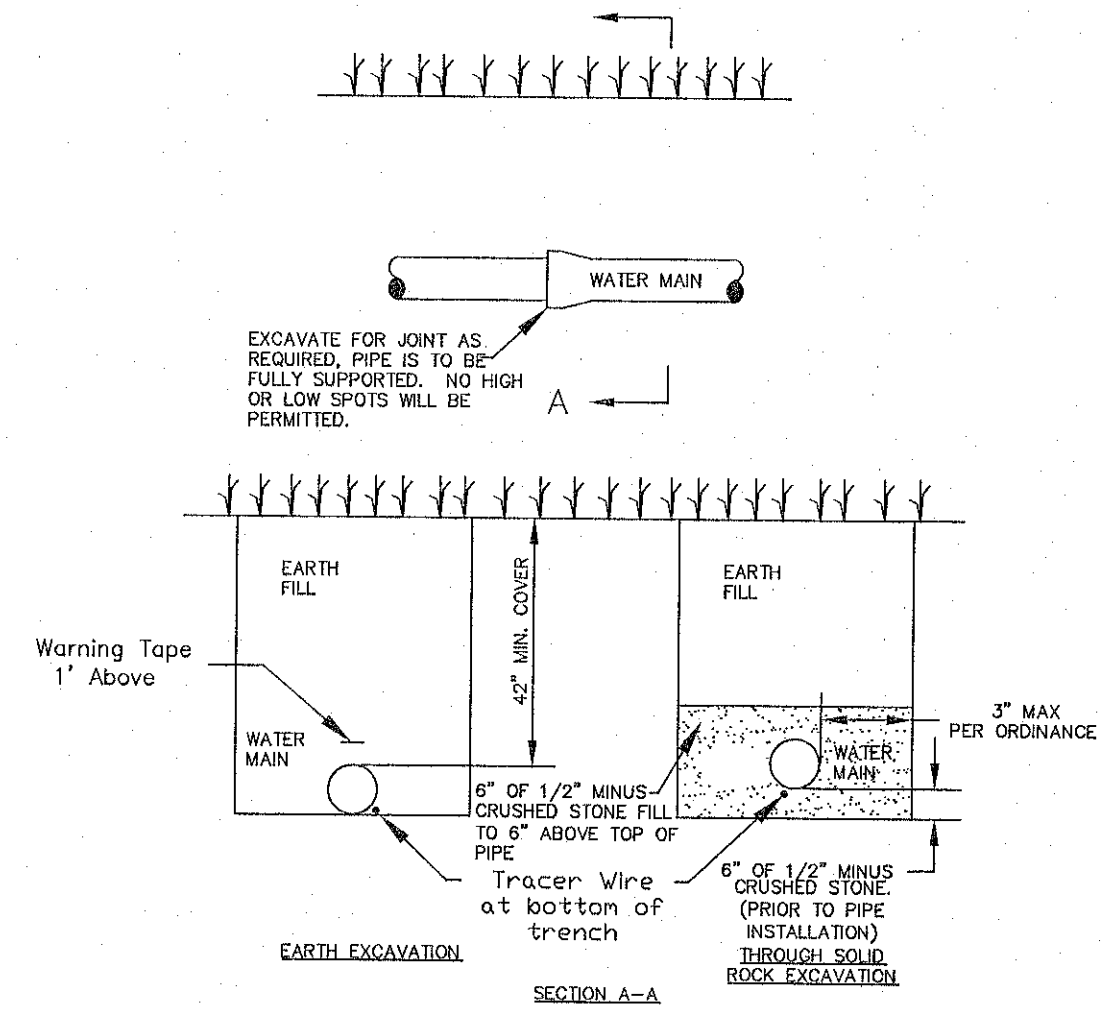
CITY OF O'FALLON
 ENGINEERING DEPARTMENT
 O'FALLON, MISSOURI
WATER AND SEWER SEPARATION DETAIL

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



TYPICAL WATER MAIN INSTALLATION DETAILS
 NOT TO SCALE

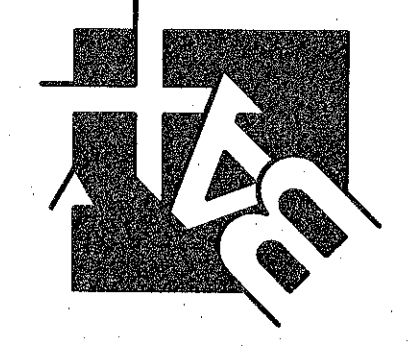
CITY OF O'FALLON
 ENGINEERING DEPARTMENT
 O'FALLON, MISSOURI
WATER MAIN INSTALLATION DETAIL

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.

NOTE:
 ALL HYDRANTS TO BE INSTALLED PER TYPE 'B' ON THE HYDRANT DETAIL.

PROJECT TITLE:
KEYSTONE RIDGE

ENGINEERING
 PLANNING
 SURVEYING
 221 Park West Blvd.
 St. Charles, MO 63301
 636-928-6502
 FAX 928-1718



DISCLAIMER OF RESPONSIBILITY
 I hereby specify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

REVISIONS

DATE	REVISION
05/01/17	CITY COMMENTS
07/20/17	CITY COMMENTS
08/07/17	CITY COMMENTS
08/21/17	CITY COMMENTS
08/31/17	CITY COMMENTS
10/02/17	CITY COMMENTS

Developer / Owner:
 KEYSTONE RIDGE LAND, LLC
 10328 LAKE BLUFF DRIVE
 ST. LOUIS, MO 63123
 314-892-9030 EXT. 121

REFERENCE DETAILS

P+Z No. #32-16
 City No. #

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ENGINEERS SEAL DOES NOT APPLY TO CITY OF O'FALLON DETAILS ON THIS SHEET.