

LEGEND

I.D. = 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		
I.D.	A MIN. SOL.	A MIN. ROCK
27" & SMALLER	3"	6"

GRANULAR BEDDING SHALL BE CRUSHED ROCK OR PFA 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 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. TEST, 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.

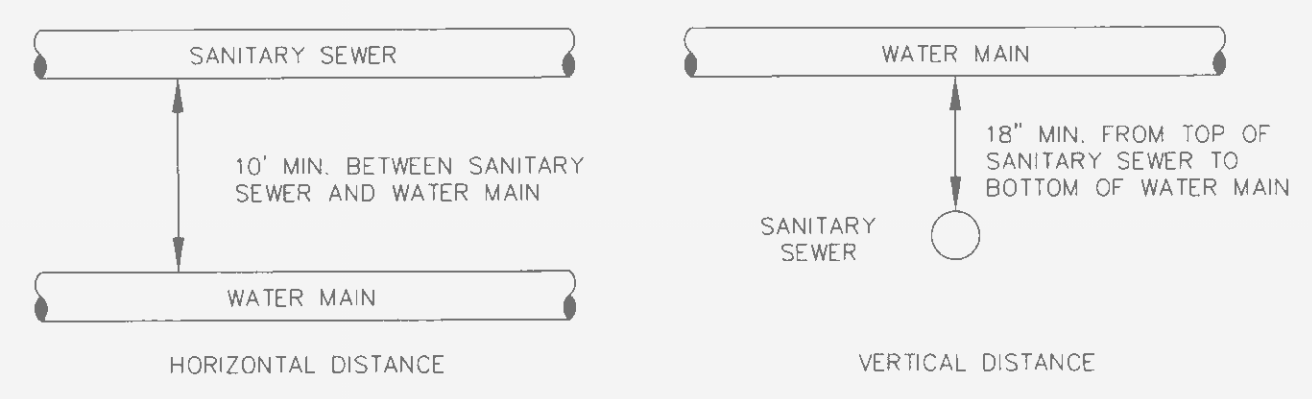
EMBEDDED TYPE OF EMBEDDED TO BE USED SHALL BE AS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

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

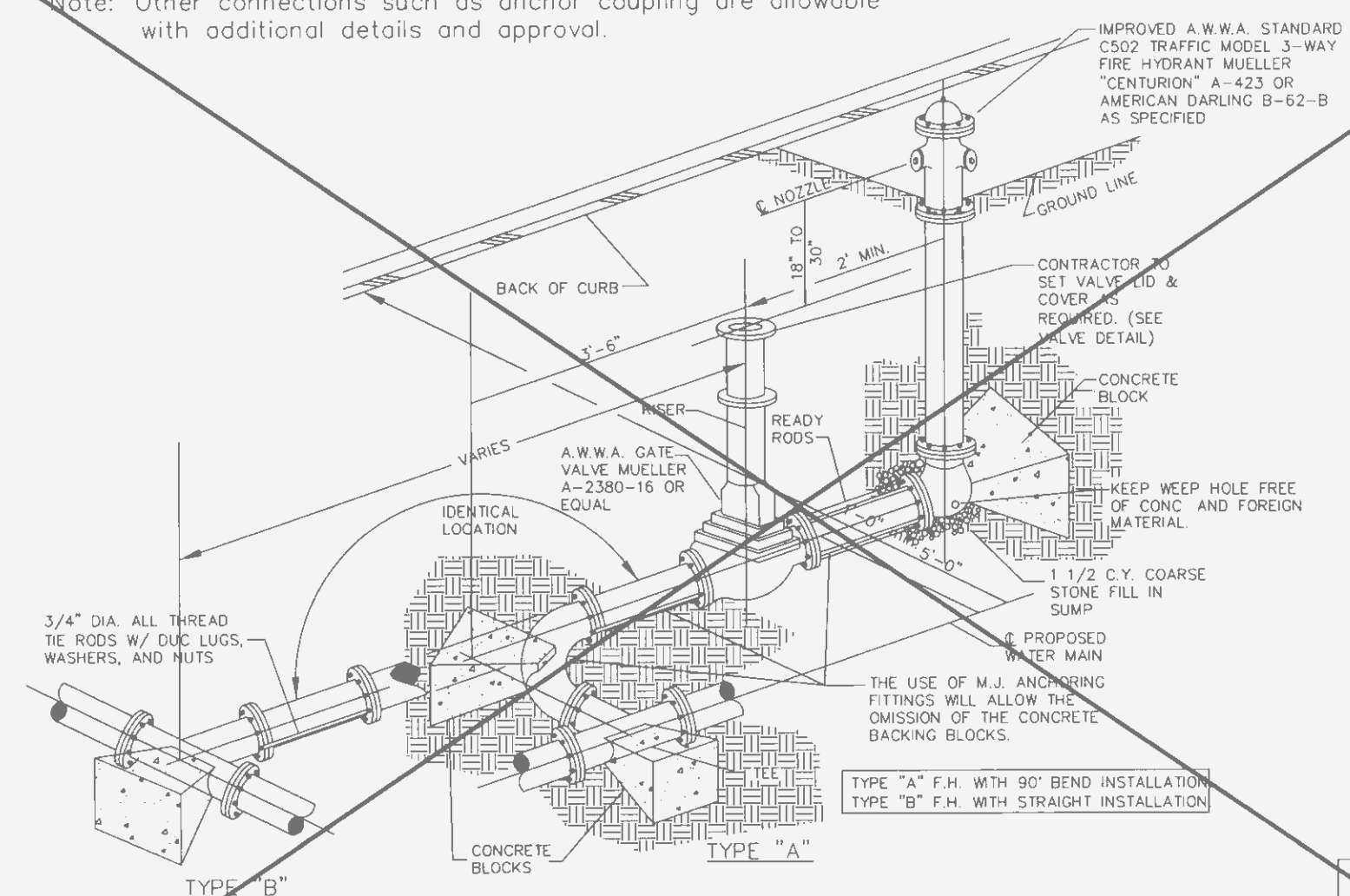


TYPICAL WATER AND SEWER SEPARATION
 NOT TO SCALE

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

WATER AND SEWER SEPARATION DETAIL

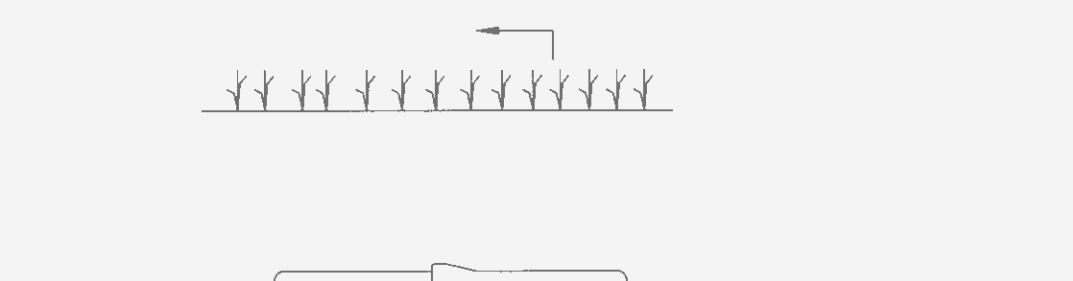
Note: Other connections such as anchor coupling are allowable with additional details and approval.



FIRE HYDRANT DETAILS
 NOT TO SCALE

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 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.

PROJECT TITLE
MERCY CLINIC - WINGHAVEN BLVD.
 2223 Technology Dr.
 O'Fallon, Missouri 63366

HEIDEMAN ASSOCIATES, INC.
 A Zak Company
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 Suite 200 St. Louis, Missouri 63021 F 314.822.7858
 Contact: Dennis Pruitt
 e-mail: dpruitt@zakcompanies.com

NAME: MICHAEL ALBON
 LICENSE NUMBER: 1-00111010
 EXPIRES: 12/31/2011
 EXPIRES: 12/31/2011
 THE SEAL OF MICHAEL ALBON IS VALID ON THIS DRAWING APPLICABLE TO THE STATE OF MISSOURI ONLY. IT IS NOT VALID IN ANY OTHER STATE. THE SEAL OF MICHAEL ALBON IS NOT VALID IN ANY OTHER STATE. THE SEAL OF MICHAEL ALBON IS NOT VALID IN ANY OTHER STATE.



Mercyfit
 SHAMS JOB NUMBER
1510-153209-0521

DATE: **2012-10-05**
 SCALE: **NOTED**

Developer / Owner Information
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City Water Details

P+Z No. 983162
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 Page No.

No.	Date	Revision

C13