

**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. SOL.	MIN. ROCK
27" & SMALLER	3"	6"

**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 95% RETAINED ON A #40 TO BE PLACED IN NOT MORE THAN 8" 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. D998, 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.

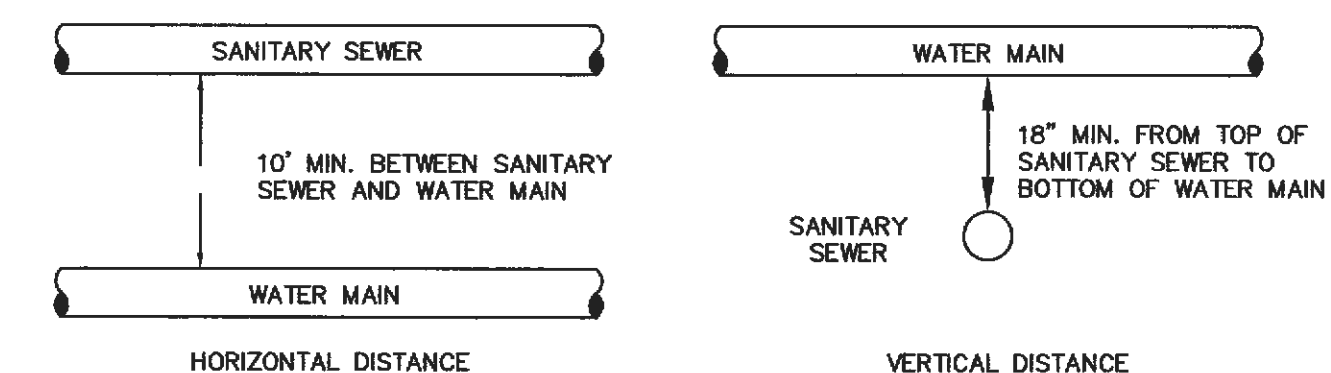
EMBEDDED TYPE OF EMBEDDED TO BE USED SHALL BE AS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

TRACER WIRE REQUIRED ON ALL WATER MAINS

**WATER MAIN EMBEDDED**  
NOT TO SCALE

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

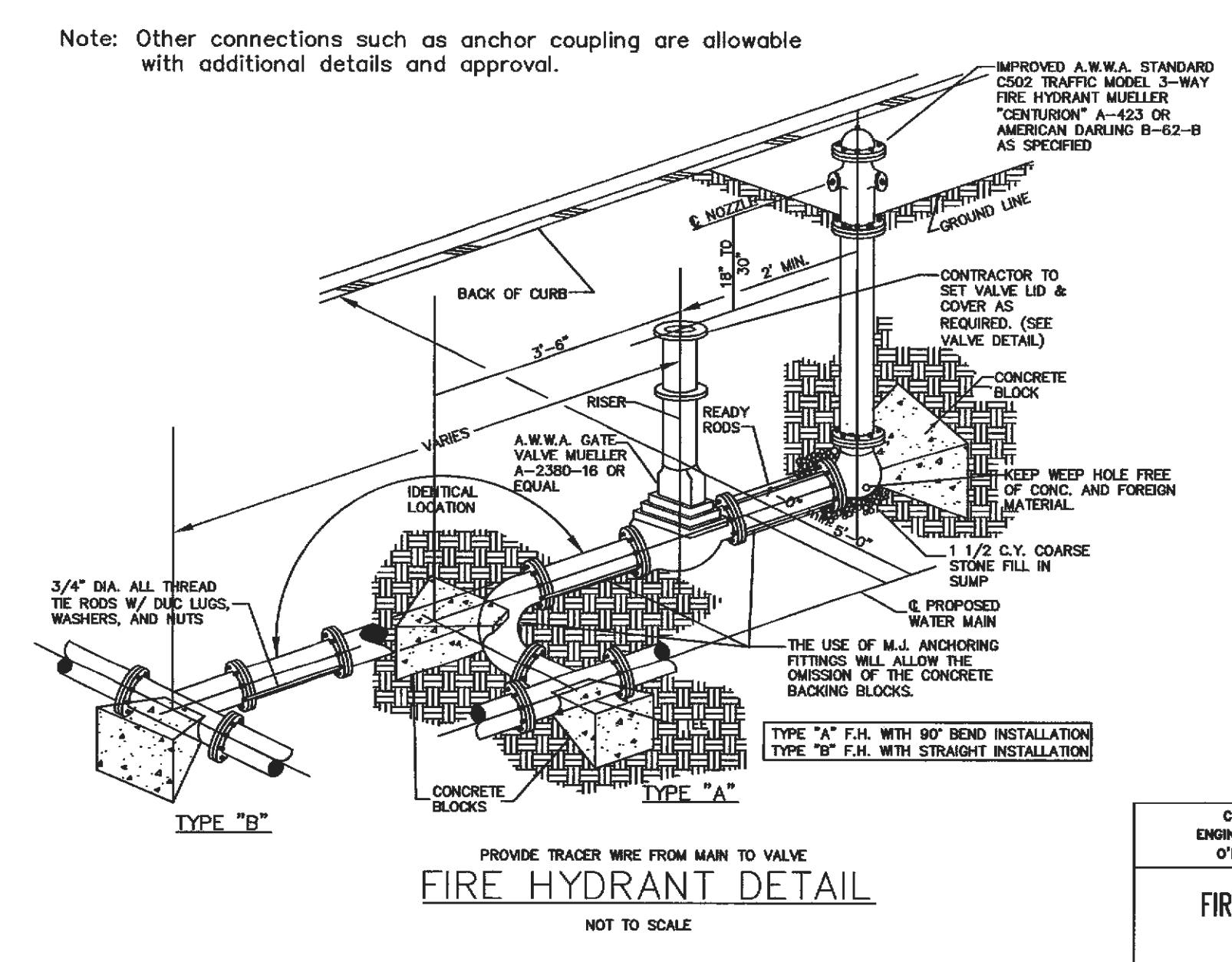
**WATER MAIN EMBEDDED**



**TYPICAL WATER AND SEWER SEPARATION**  
NOT TO SCALE

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 ENGINEERING DEPARTMENT  
 O'FALLON, MISSOURI

**WATER AND SEWER SEPARATION DETAIL**

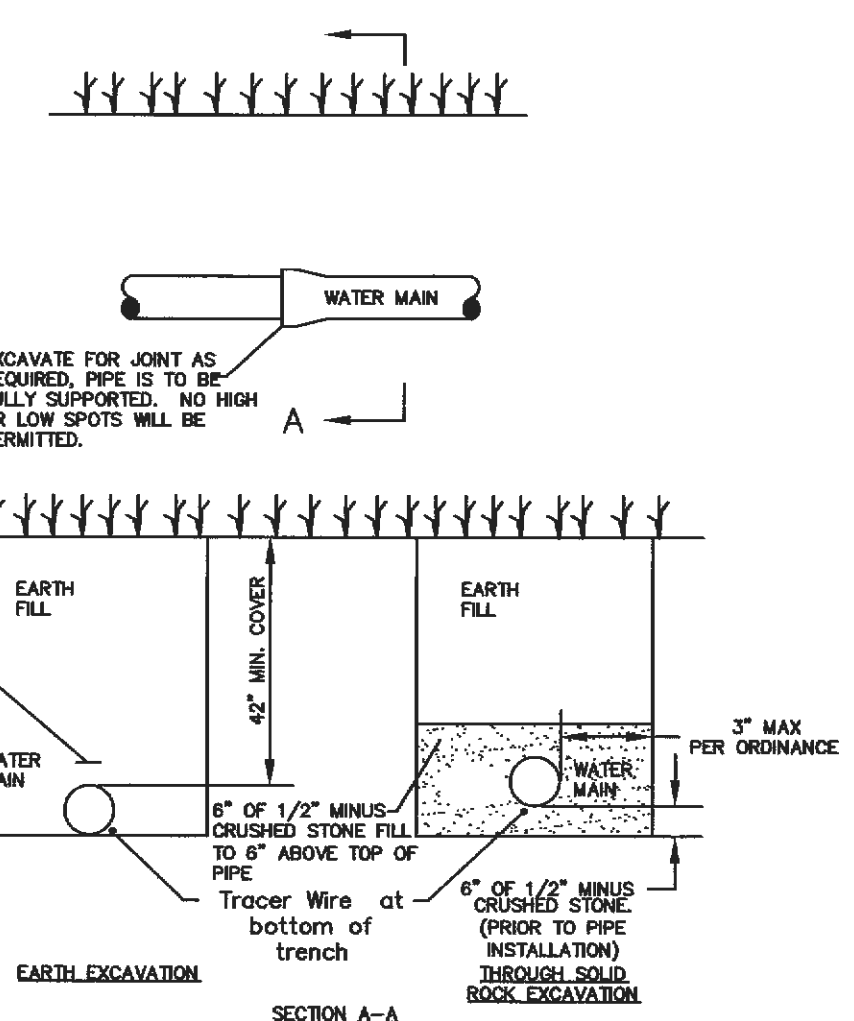


**FIRE HYDRANT DETAILS**  
NOT TO SCALE

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 ENGINEERING DEPARTMENT  
 O'FALLON, MISSOURI

**FIRE HYDRANT DETAILS**

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



**TYPICAL WATER MAIN INSTALLATION DETAILS**  
NOT TO SCALE

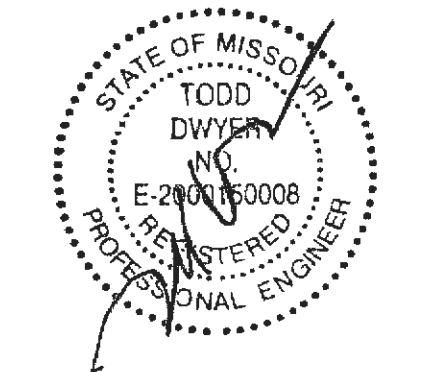
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**WATER MAIN INSTALLATION DETAIL**

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**  
 BRAMBLETT HILLS APARTMENTS

**THD DESIGN GROUP, INC.**  
 "your solution for engineering and surveying"  
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 148 CHESTERFIELD INDUSTRIAL BLVD, CHESTERFIELD, MO 63005  
 TEL. 636-294-2972  
 WEB: THDDSGROUP.COM

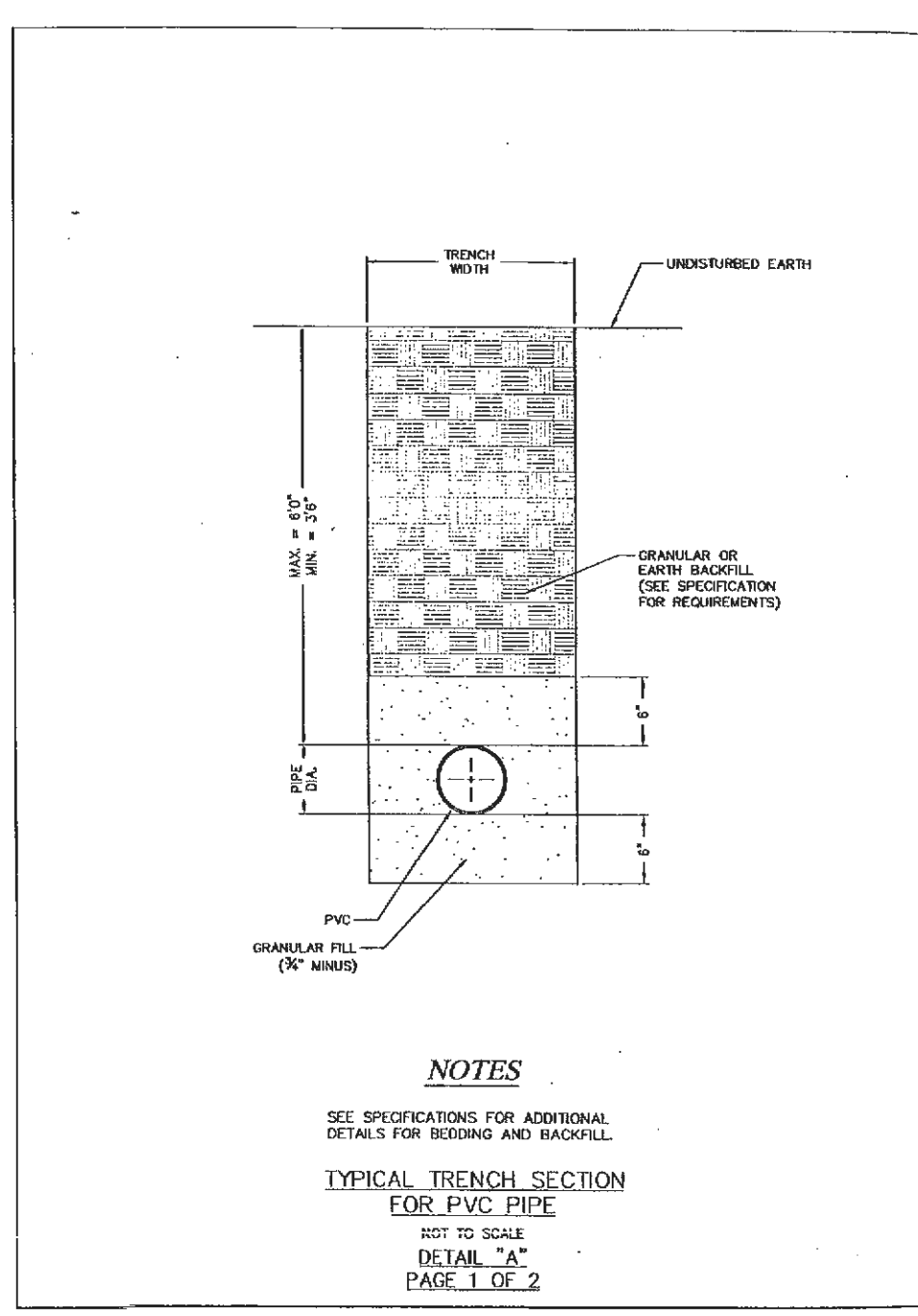


**Developer / Owner Information:**  
 Michael Towerman  
 Tristar Properties  
 13397 Lakefront Drive  
 Earth City, MO 63045

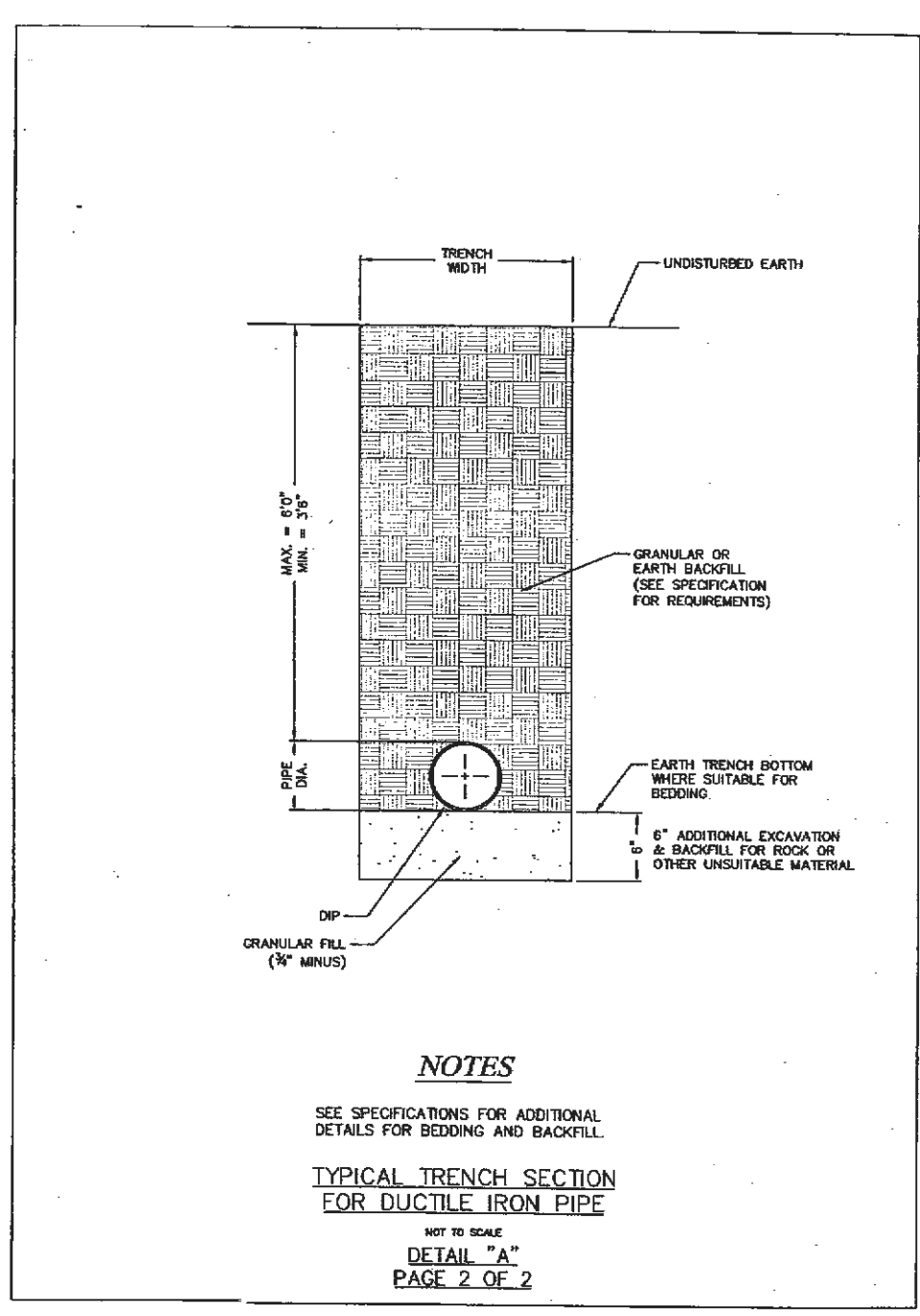
**CITY OF O'FALLON WATER DETAILS**

**P+Z No: 3805.05.02**  
**Approval Date: 02/05/2015**  
 City No.

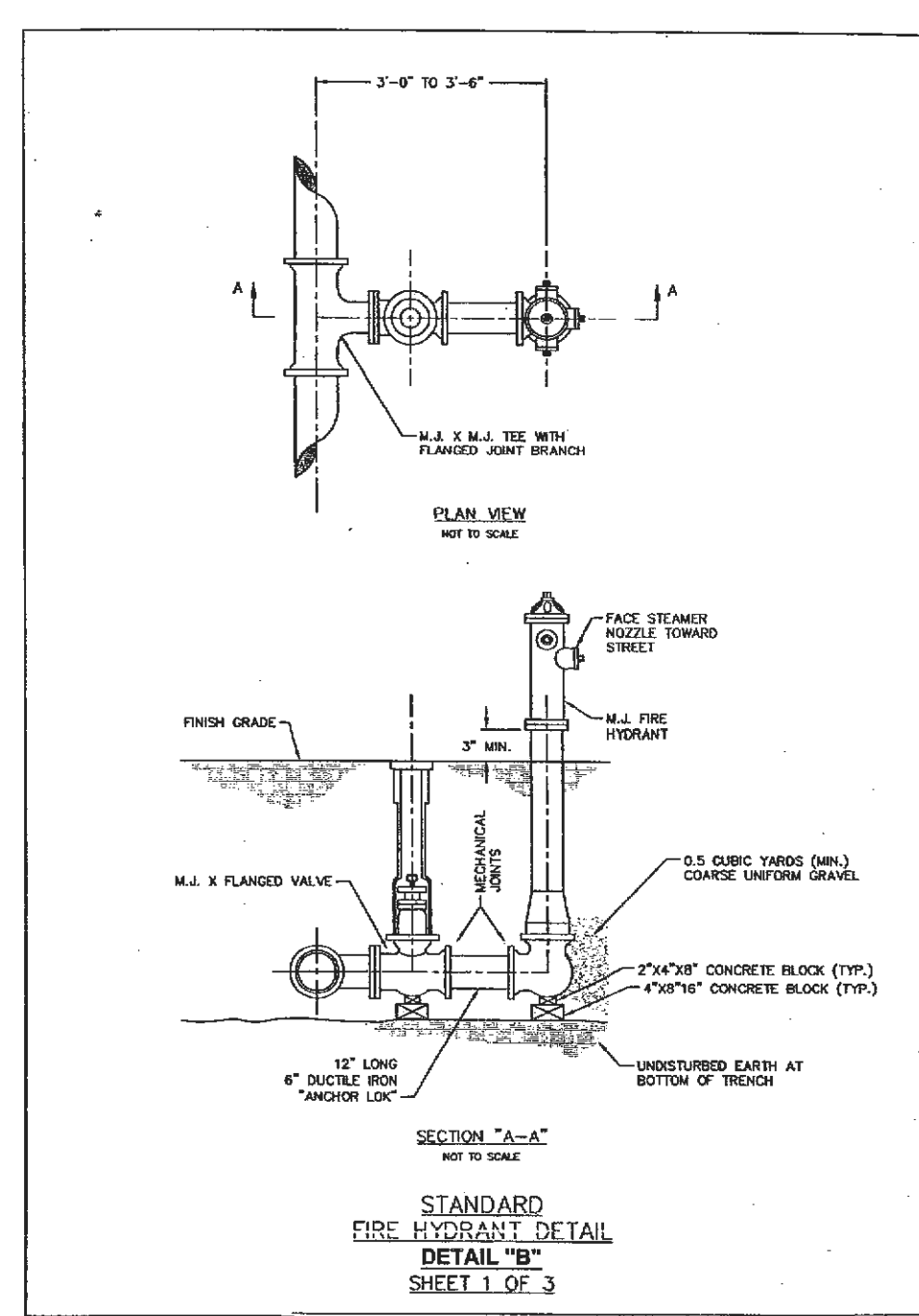
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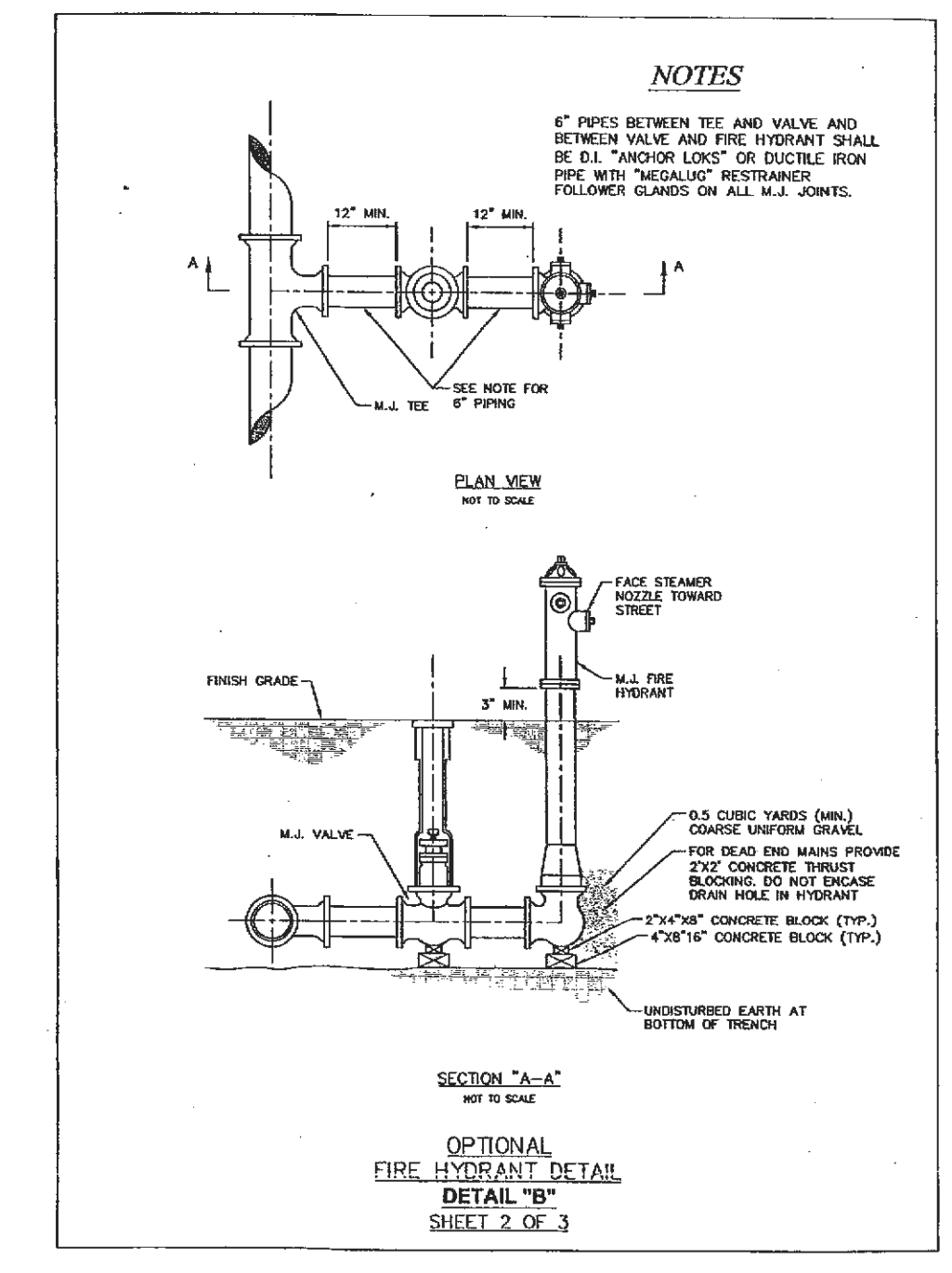
**TYPICAL TRENCH SECTION FOR PVC PIPE**  
NOT TO SCALE  
 DETAIL "A"  
 PAGE 1 OF 2



**TYPICAL TRENCH SECTION FOR DUCTILE IRON PIPE**  
NOT TO SCALE  
 DETAIL "A"  
 PAGE 2 OF 2



**STANDARD FIRE HYDRANT DETAIL**  
 DETAIL "B"  
 SHEET 1 OF 3



**OPTIONAL FIRE HYDRANT DETAIL**  
 DETAIL "B"  
 SHEET 2 OF 3