

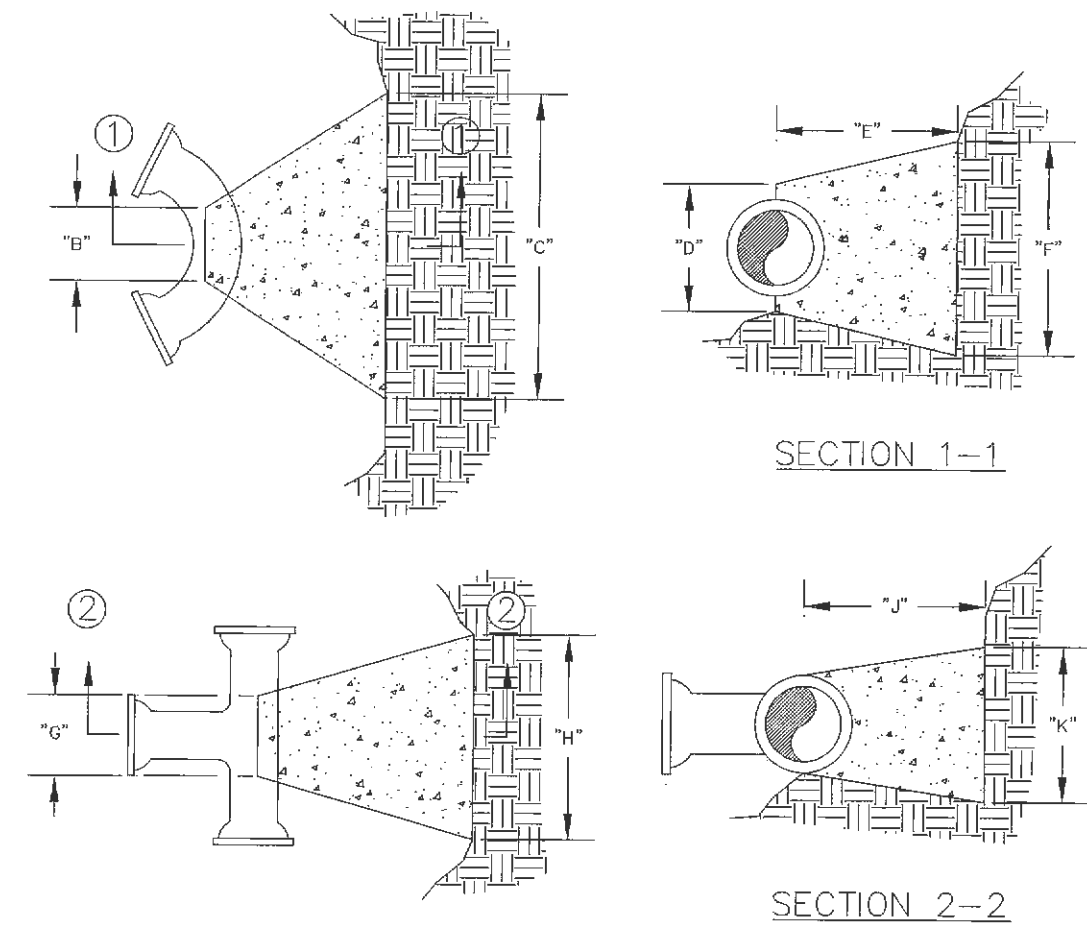
BENDS	"6"	"8"	"10"	"12"	"14"	"16"
6"-11 1/4"	8"	15"	12"	24"	10"	
6"-22 1/2"	8"	19"	12"	24"	13"	
6"-45"	8"	30"	12"	24"	15"	
6"-90"	8"	30"	12"	24"	28"	
8"-11 1/4"	8"	20"	12"	24"	10"	
8"-22 1/2"	8"	26"	12"	24"	18"	
8"-45"	8"	37"	12"	24"	24"	
8"-90"	8"	38"	12"	24"	36"	
12"-11 1/4"	8"	30"	12"	24"	15"	
12"-22 1/2"	8"	35"	12"	24"	25"	
12"-45"	8"	40"	12"	24"	40"	
12"-90"	8"	60"	12"	24"	52"	
16"-11 1/4"	12"	28"	20"	24"	28"	
16"-22 1/2"	12"	39"	20"	24"	39"	
16"-45"	12"	53"	20"	24"	53"	
16"-90"	12"	91"	20"	24"	60"	
20"-11 1/4"	12"	34"	24"	28"	28"	
20"-22 1/2"	12"	49"	24"	28"	39"	
20"-45"	12"	74"	24"	28"	55"	
20"-90"	12"	136"	24"	28"	60"	
24"-11 1/4"	12"	40"	28"	28"	40"	
24"-22 1/2"	12"	56"	28"	28"	56"	
24"-45"	12"	101"	28"	28"	60"	
24"-90"	12"	186"	28"	28"	60"	
30"-11 1/4"	12"	49"	34"	30"	49"	
30"-22 1/2"	12"	79"	34"	30"	60"	
30"-45"	12"	154"	34"	30"	60"	
30"-90"	12"	285"	34"	30"	60"	

TEES	"6"	"8"	"10"	"12"	"14"	"16"
6"x6"x6"	12"	24"	24"	18"		
6"x8"x6"	12"	24"	24"	18"		
6"x8"x8"	12"	27"	24"	27"		
12"x12"x6"	12"	24"	24"	18"		
12"x12"x8"	12"	27"	27"	27"		
12"x12"x12"	12"	38"	24"	38"		
24"x24"x18"	16"	53"	28"	53"		

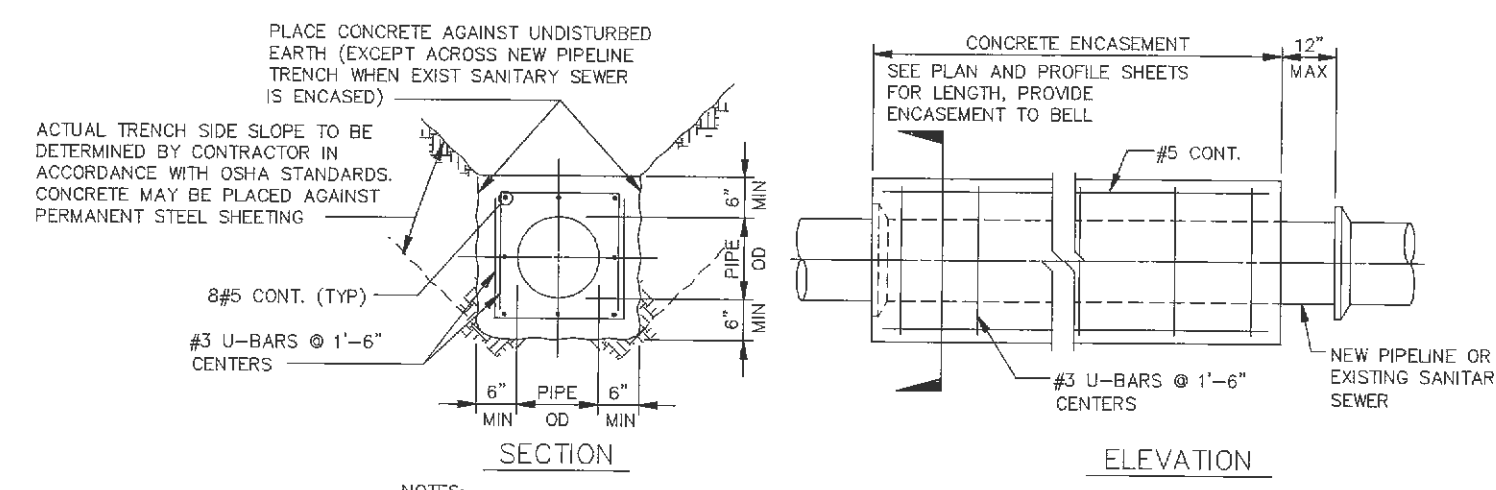
NOTES:  
 1. 2" & 4" FITTINGS EQUIVALENT TO 6" FITTINGS.  
 2. TAPPING SLEEVES TO HAVE BACKING BLOCKS SAME SIZE AS REQUIRED FOR TEES.  
 3. "L" = TOTAL LENGTH OF FITTING MINUS CLEARANCE FOR BELLS.

INTERNAL WATER PRESSURE 6" through 12"=200 psi  
 INTERNAL WATER PRESSURE 16" through 30"=210 psi  
 BEARING PRESSURE OF SOIL=2000 psi

**BACKING BLOCKS**  
 NOT TO SCALE



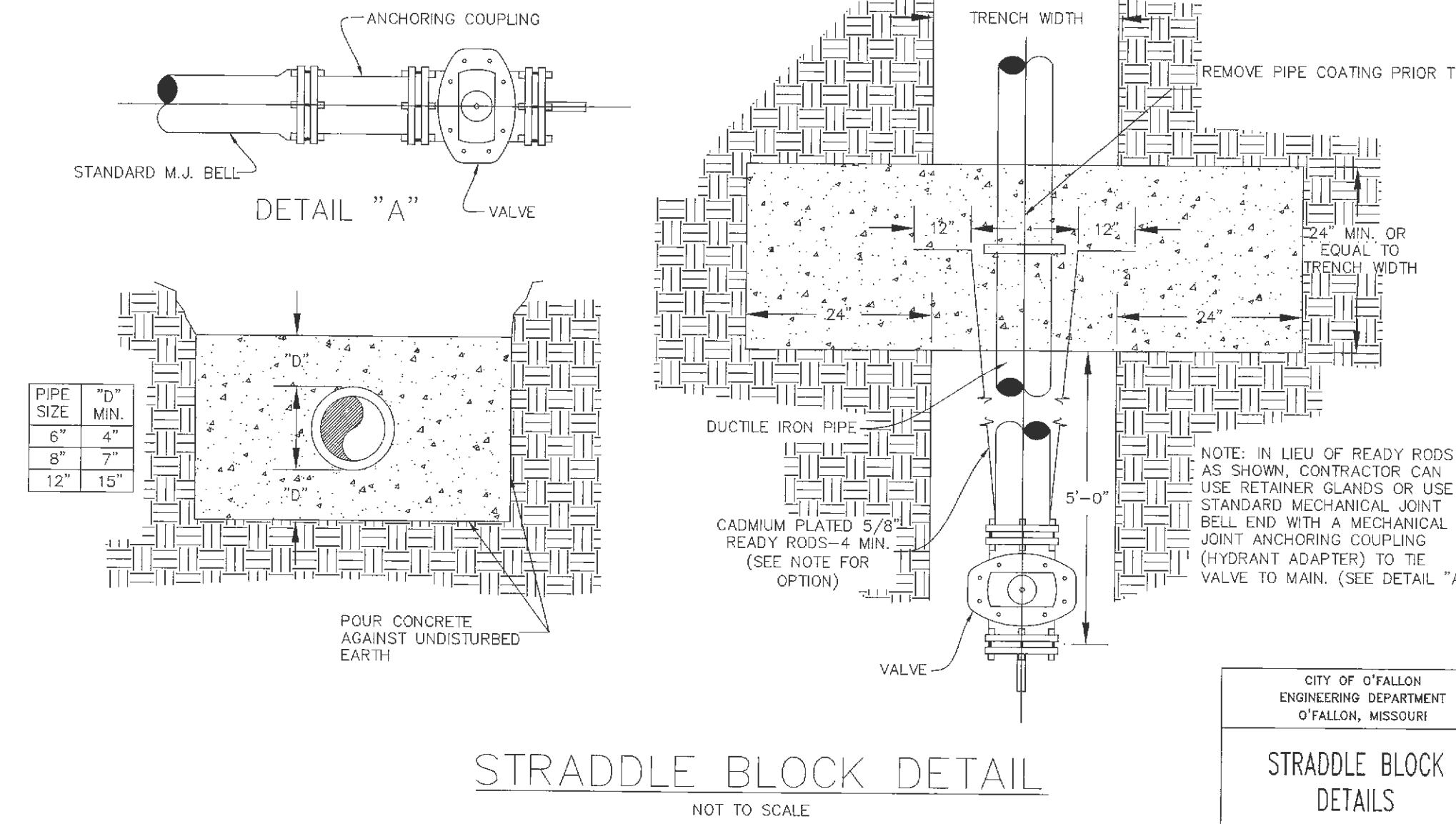
CITY OF O'FALLON  
 ENGINEERING DEPARTMENT  
 O'FALLON, MISSOURI  
**BACKING BLOCK  
 DETAILS AND LOCATIONS**



NOTES:  
 1. AT LOCATIONS WHERE THE TRANSMISSION MAIN CROSSES AN EXISTING SANITARY SEWER, SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.  
 2. WHEN THE PIPELINE IS PROTECTED WITH POLYETHYLENE TUBE ENCASEMENT, THE CONCRETE ENCASEMENT IS TO COVER THE POLYETHYLENE ENCASEMENT.

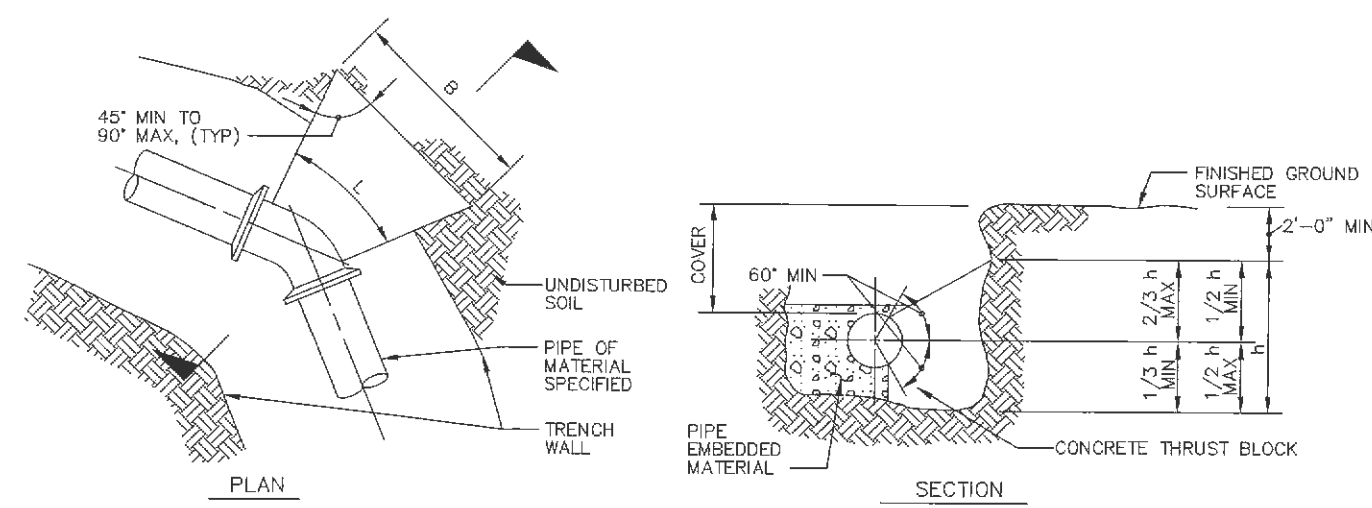
**CONCRETE ENCASEMENT**  
 NO SCALE

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 O'FALLON, MISSOURI  
**CONCRETE ENCASEMENT  
 DETAILS**



**STRADDLE BLOCK DETAIL**  
 NOT TO SCALE

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 O'FALLON, MISSOURI  
**STRADDLE BLOCK  
 DETAILS**

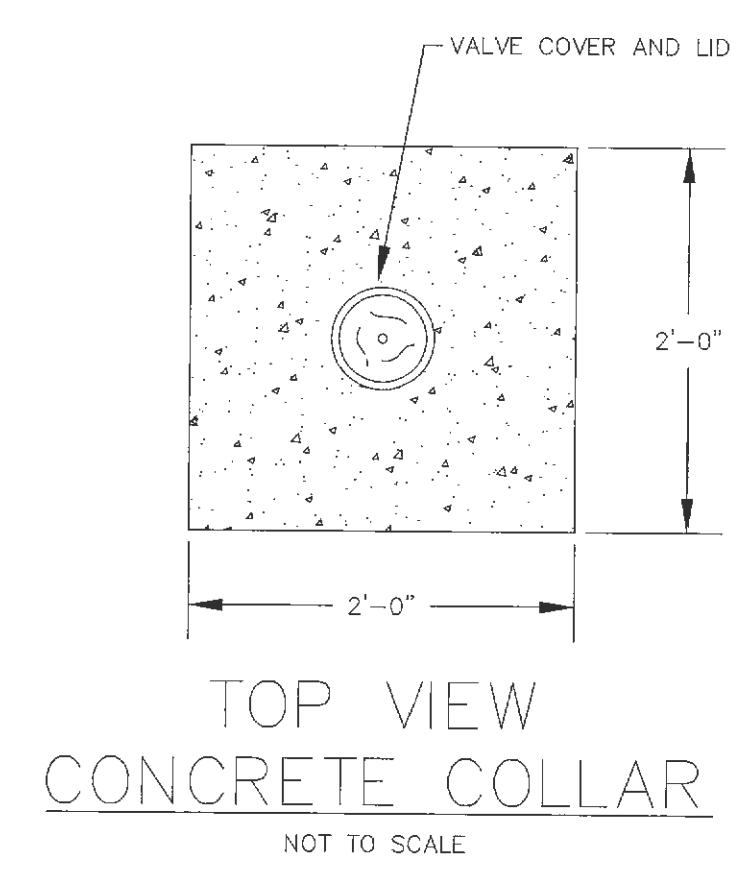


NOTES:  
 1. AREA OF BLOCK, A = Bxh. BLOCK AREAS ARE SHOWN ON GENERAL LAYOUT OR TABLE.  
 2. B = h x 1/2". EXCEPT WHERE TOP OF BLOCK IS WITHIN 2 FEET FROM GROUND SURFACE, THEN B = A/h.  
 3. MINIMUM BLOCK DIMENSION (B & h) SHALL BE AT LEAST OD OF PIPE OR 1 FOOT FOR PIPE OD 12" OR LESS.  
 4. THE BOTTOM OF THE BLOCK SHALL EXTEND AT LEAST TO THE BOTTOM OF THE TRENCH IN ALL CASES.  
 5. L = FITTING LENGTH MINUS CLEARANCE FOR BELLS.  
 6. DETAIL IS SHOWN FOR CAST IRON PIPE; DETAIL IS SIMILAR FOR OTHER TYPES OF PIPE.  
 7. DIMENSIONS FOR THRUST BLOCKS FOR FIRE HYDRANT ASSEMBLY ARE SHOWN FIRE HYDRANT ASSEMBLY DETAIL.

SIZE	EDID	THRUST AREA	B	H
16"	11 1/2"	4 SF	2'	2'
18"	45"	8 SF	2.8'	2.8'

**CONCRETE THRUST BLOCKING**  
 NOT TO SCALE

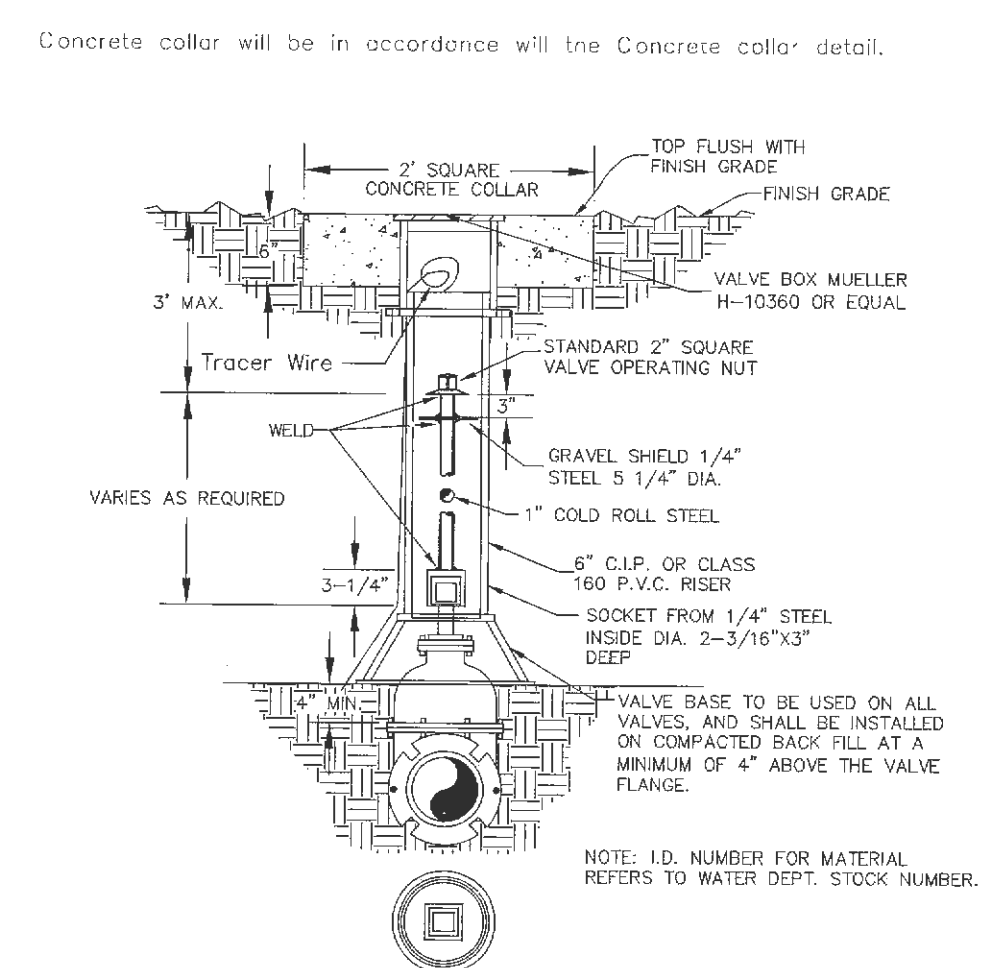
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 ENGINEERING DEPARTMENT  
 O'FALLON, MISSOURI  
**CONCRETE THRUST  
 BLOCKING DETAILS**



**TOP VIEW  
 CONCRETE COLLAR**  
 NOT TO SCALE

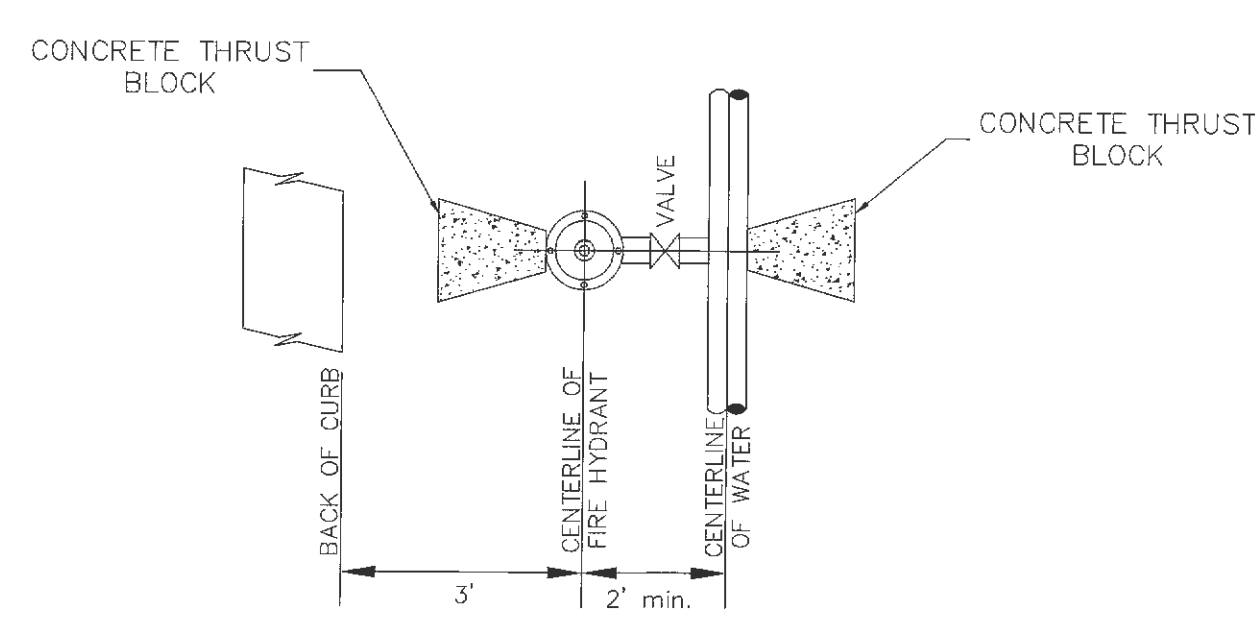
NOTE: 1. Concrete collar joint pattern is required in paved areas such as roadways, driveways, sidewalks or other areas of paved surfaces.  
 2. Concrete collars are optional in other non-paved areas.

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 ENGINEERING DEPARTMENT  
 O'FALLON, MISSOURI  
**CONCRETE  
 COLLAR DETAIL**



**WATER VALVE DETAIL**  
 NOT TO SCALE

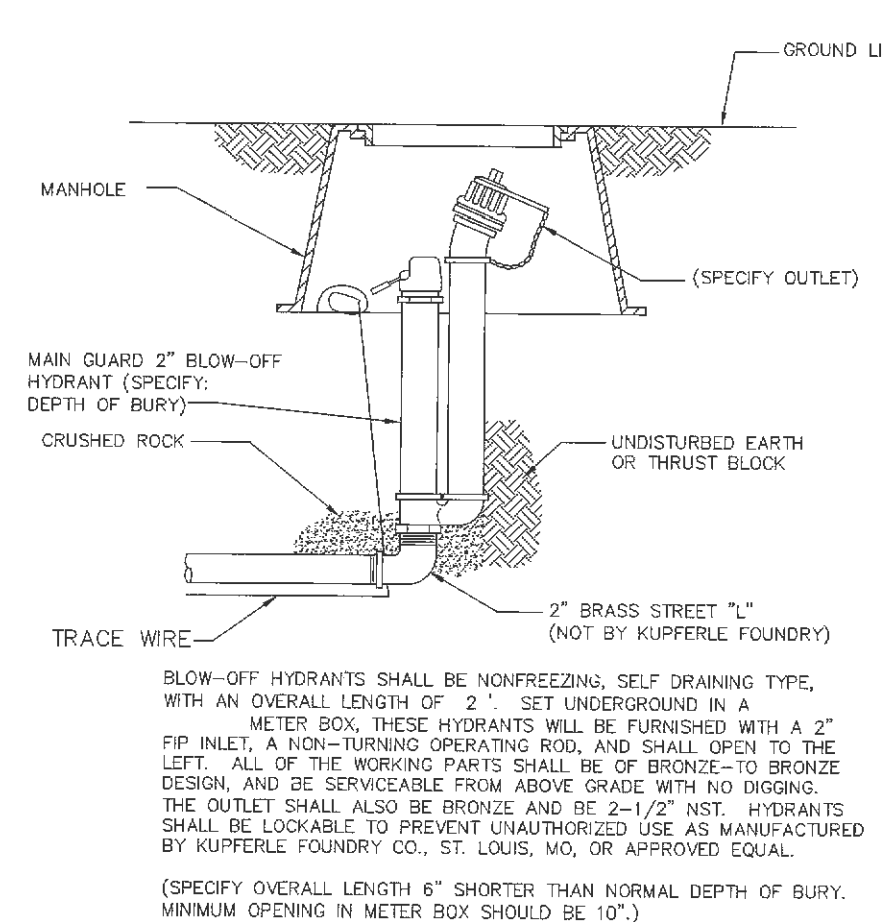
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 ENGINEERING DEPARTMENT  
 O'FALLON, MISSOURI  
**WATER  
 VALVE DETAIL**



CONFIGURATION  
 ALL FIRE HYDRANTS SHALL BE 3' OFF BACK OF CURB  
 ALL WATER MAINS SHALL BE A MIN. OF 5' OFF BACK OF CURB

**TYPICAL WATER MAIN AND FIRE  
 HYDRANT LOCATIONS**  
 NOT TO SCALE

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 O'FALLON, MISSOURI  
**WATER MAIN  
 FIRE HYDRANT DETAIL**



**BLOW-OFF HYDRANT**  
 NOT TO SCALE

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 ENGINEERING DEPARTMENT  
 O'FALLON, MISSOURI  
**BLOW-OFF  
 HYDRANT DETAIL**

**PROJECT TITLE:**  
 FIRE HOUSE #1  
 O'FALLON FIRE DISTRICT

**ENGINEERING  
 PLANNING  
 SURVEYING**  
 221 Point West Blvd.  
 St. Charles, MO 63301  
 636-928-5552  
 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**

ADD	NO.	DESCRIPTION
ADD 1	5-6-14	
ADD 2	5-13-14	
5-13-14	CITY COMMENTS	
5-30-14	CITY COMMENTS	
6-5-14	REAR DRIVE P&Z	

**Developer / Owner:**  
 O'FALLON FIRE PROTECTION DISTRICT  
 119 EAST ELM STREET  
 O'FALLON, MO 63366-2600  
 636-272-3493

**P+Z No.** 16-14  
**City No.** 14-169

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**REFERENCE DETAILS**