

BENDS	1/2"	3/4"	1"	1 1/4"
6"-11 1/4"	6" 18"	6" 18"	6" 18"	6" 18"
6"-22 1/2"	6" 36"	6" 36"	6" 36"	6" 36"
6"-30"	6" 45"	6" 45"	6" 45"	6" 45"
8"-11 1/4"	8" 24"	8" 24"	8" 24"	8" 24"
8"-22 1/2"	8" 48"	8" 48"	8" 48"	8" 48"
8"-30"	8" 60"	8" 60"	8" 60"	8" 60"
12"-11 1/4"	12" 36"	12" 36"	12" 36"	12" 36"
12"-22 1/2"	12" 72"	12" 72"	12" 72"	12" 72"
12"-30"	12" 90"	12" 90"	12" 90"	12" 90"
16"-11 1/4"	16" 48"	16" 48"	16" 48"	16" 48"
16"-22 1/2"	16" 96"	16" 96"	16" 96"	16" 96"
16"-30"	16" 120"	16" 120"	16" 120"	16" 120"
20"-11 1/4"	20" 60"	20" 60"	20" 60"	20" 60"
20"-22 1/2"	20" 120"	20" 120"	20" 120"	20" 120"
20"-30"	20" 150"	20" 150"	20" 150"	20" 150"
24"-11 1/4"	24" 72"	24" 72"	24" 72"	24" 72"
24"-22 1/2"	24" 144"	24" 144"	24" 144"	24" 144"
24"-30"	24" 180"	24" 180"	24" 180"	24" 180"
30"-11 1/4"	30" 90"	30" 90"	30" 90"	30" 90"
30"-22 1/2"	30" 180"	30" 180"	30" 180"	30" 180"
30"-30"	30" 225"	30" 225"	30" 225"	30" 225"

TEES	1/2"	3/4"	1"	1 1/4"
6" x 6"	6" 18"	6" 18"	6" 18"	6" 18"
6" x 8"	6" 36"	6" 36"	6" 36"	6" 36"
6" x 12"	6" 72"	6" 72"	6" 72"	6" 72"
8" x 8"	8" 24"	8" 24"	8" 24"	8" 24"
8" x 12"	8" 48"	8" 48"	8" 48"	8" 48"
12" x 12"	12" 36"	12" 36"	12" 36"	12" 36"
12" x 16"	12" 72"	12" 72"	12" 72"	12" 72"
12" x 24"	12" 144"	12" 144"	12" 144"	12" 144"
16" x 16"	16" 90"	16" 90"	16" 90"	16" 90"
16" x 24"	16" 180"	16" 180"	16" 180"	16" 180"

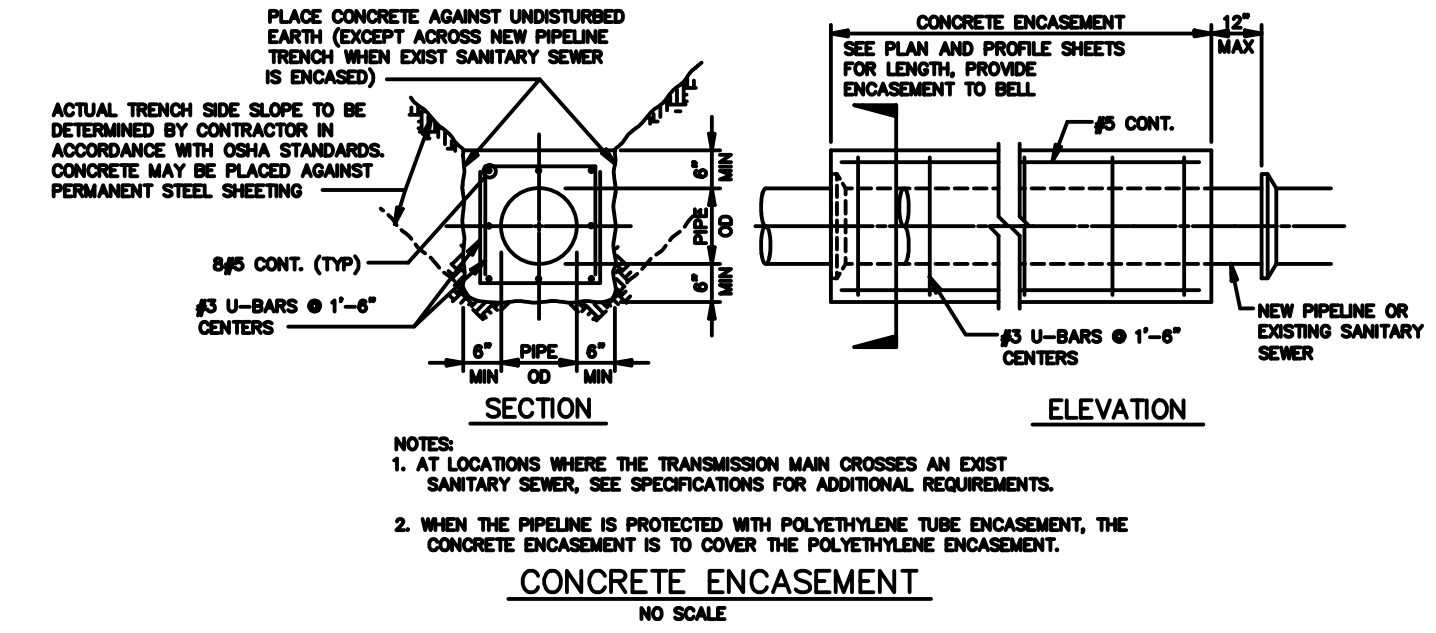
NOTES:  
 1. 2" & 4" FITTINGS EQUIVALENT TO 6" FITTINGS.  
 2. TAPPING SLEEVES TO HAVE BACKING BLOCKS SAME SIZE AS REQUIRED FOR TEES.  
 3. TL = TOTAL LENGTH OF FITTING MINUS CLEARANCE FOR BELLS.

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

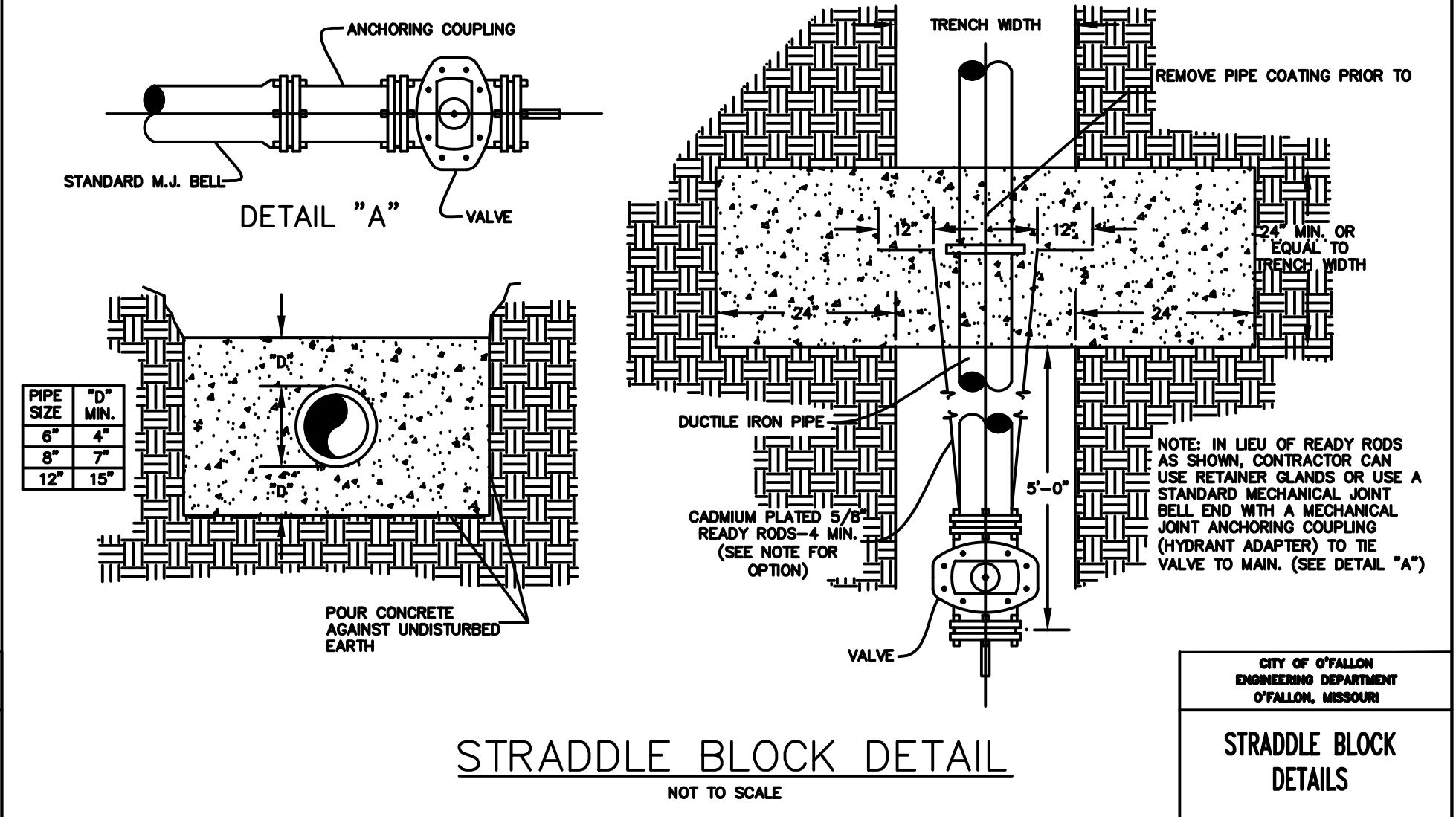
CITY OF O'FALLON  
 ENGINEERING DEPARTMENT  
 O'FALLON, MISSOURI

**BACKING BLOCK  
 DETAILS AND LOCATIONS**



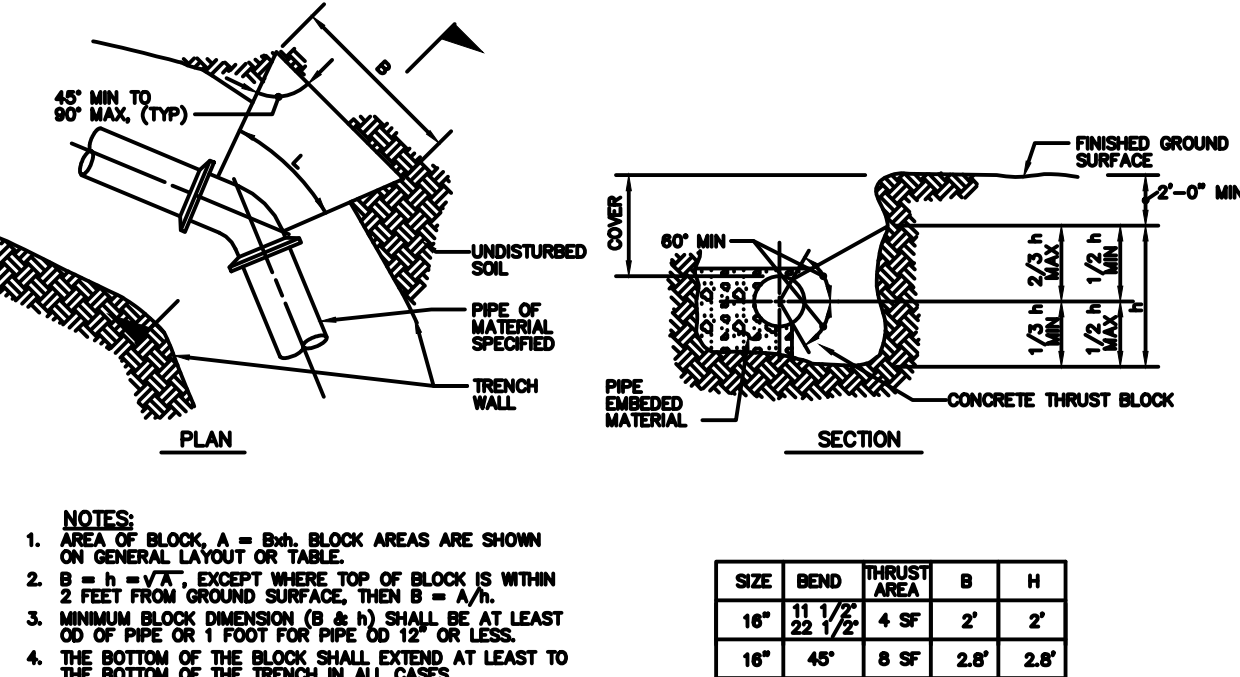
CITY OF O'FALLON  
 ENGINEERING DEPARTMENT  
 O'FALLON, MISSOURI

**CONCRETE ENCASMENT  
 DETAILS**



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

**STRADDLE BLOCK  
 DETAILS**

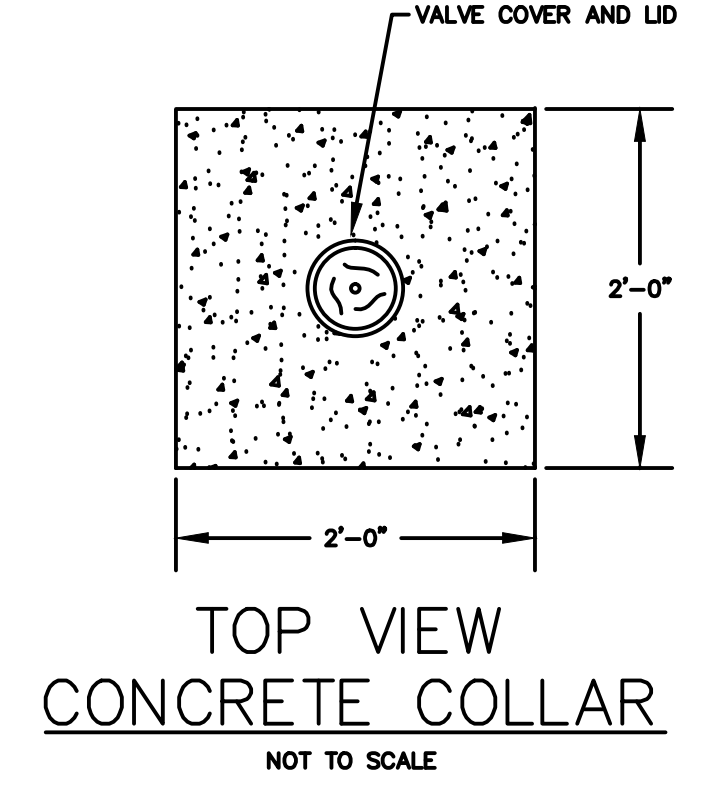


- NOTES:
- AREA OF BLOCK, A = BxH. BLOCK AREAS ARE SHOWN ON GENERAL LAYOUT OR TABLE.
  - B = N = 1/2" EXCEPT WHERE TOP OF BLOCK IS WITHIN 2 FEET FROM GROUND SURFACE, THEN B = 1/4".
  - MINIMUM BLOCK DIMENSION (B & N) SHALL BE AT LEAST CD OF PIPE OR 1 FOOT FOR PIPE 12" OR LESS.
  - THE BOTTOM OF THE BLOCK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

SIZE	BEND	THRUST AREA	B	H
16"	22 1/2"	4 SF	2'	2'
16"	45"	8 SF	2.8'	2.8'

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

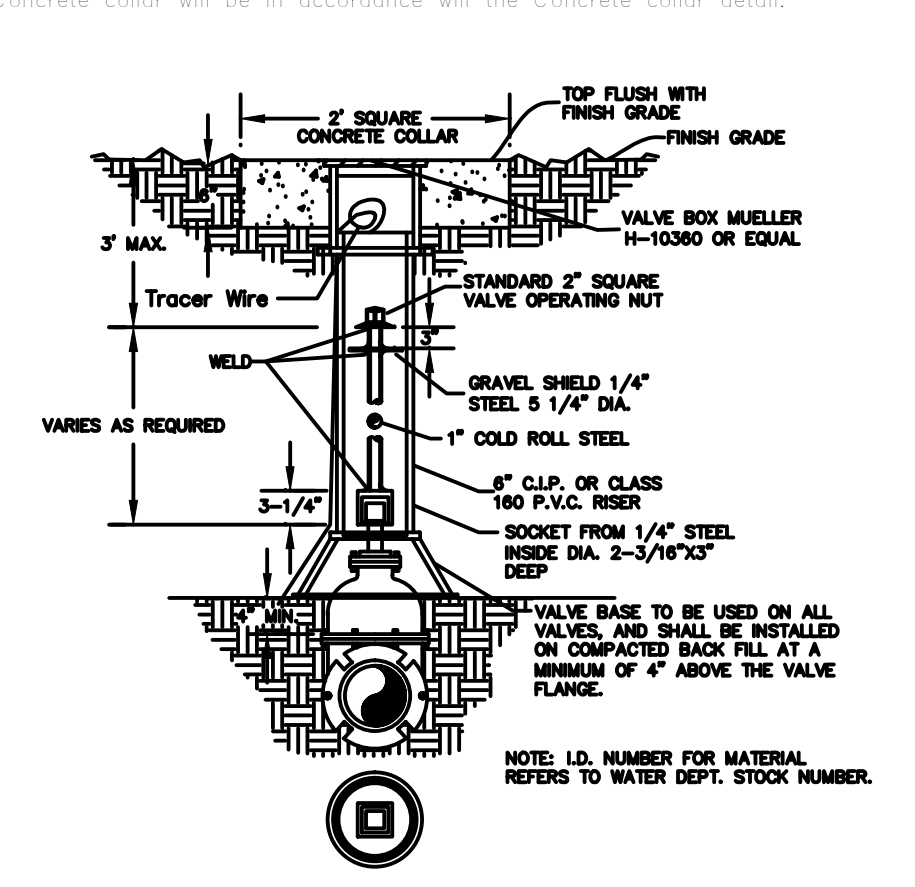
**CONCRETE THRUST  
 BLOCKING DETAILS**



- 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.

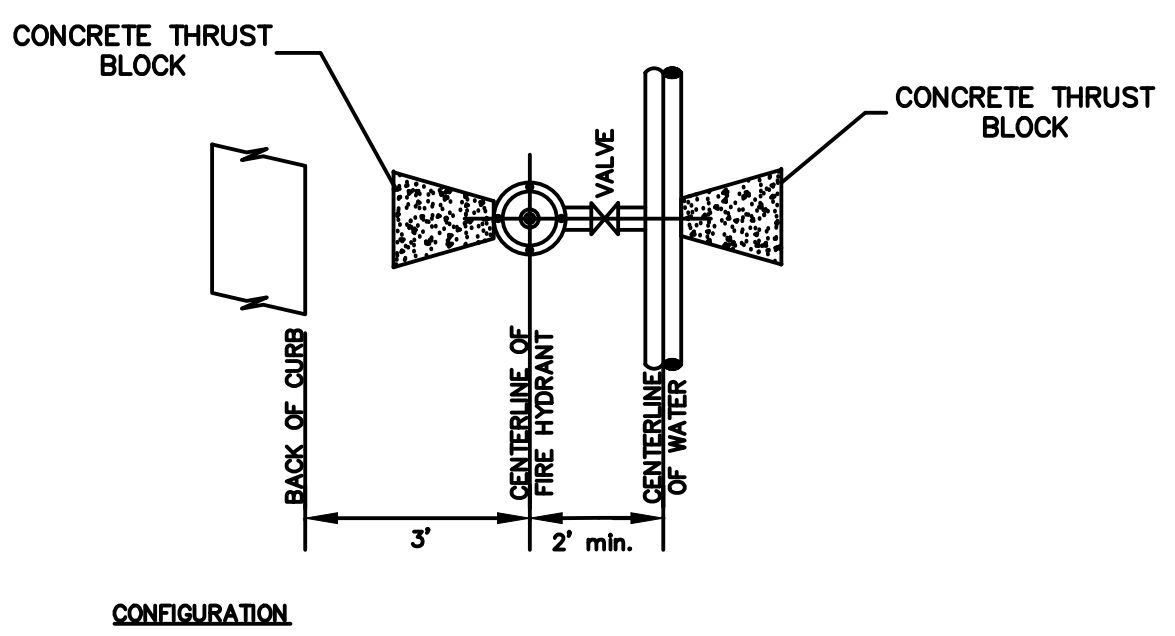
CITY OF O'FALLON  
 ENGINEERING DEPARTMENT  
 O'FALLON, MISSOURI

**CONCRETE  
 COLLAR DETAIL**



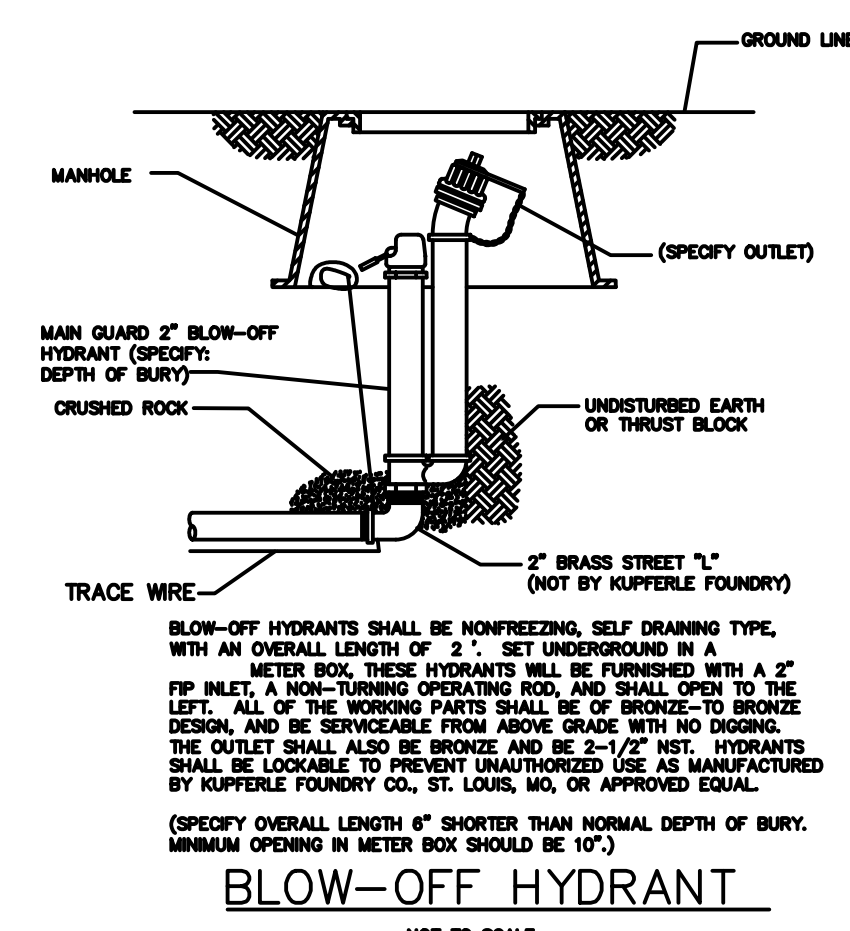
CITY OF O'FALLON  
 ENGINEERING DEPARTMENT  
 O'FALLON, MISSOURI

**WATER  
 VALVE DETAIL**



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

**WATER MAIN  
 FIRE HYDRANT DETAIL**



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

**BLOW-OFF  
 HYDRANT 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.

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

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

**WATER MAIN  
 FIRE HYDRANT DETAIL**

PROJECT TITLE  
**IMPROVEMENT PLANS  
 WABASH WOODS  
 PHASE TWO  
 DETAILS**

PPS No. 15014KAPD.00R  
 TASK 002

**PICKETT, RAY & SILVER INC**  
 CIVIL ENGINEERING, LAND SURVEYING,  
 AND NATURAL RESOURCES SERVICES

St. Peters, Missouri 63776  
 22 Richmond Center Court  
 St. Peters, MO 63776

Phone (636) 397-1211 Fax (636) 397-1104  
 www.prs3.com 1-800-708-3918

ENGINEER'S AUTHENTICATION  
 THE RESPONSIBILITY FOR PROFESSIONAL ENGINEERING LIABILITY ON THIS PROJECT IS HEREBY LIMITED TO THE SET OF PLANS AUTHENTICATED BY THE SEAL, SIGNATURE, AND DATE HEREON ATTACHED. RESPONSIBILITY IS DISCLAIMED FOR ALL OTHER ENGINEERING PLANS INVOLVED IN THIS PROJECT AND SPECIFICALLY EXCLUDES REVISIONS AFTER THIS DATE UNLESS REAUTHENTICATED.

**PICKETT, RAY & SILVER, INC. MO LICENSE #000036**

*Karl A. Schoenike*

STATE OF MISSOURI  
 KARL ANTHONY SCHOENIKE  
 NUMBER PE-2003015039  
 PROFESSIONAL ENGINEER

03/02/16  
 ELECTRONIC SEAL  
 KARL A. SCHOENIKE, P.E.  
 PROFESSIONAL ENGINEER LICENSE 2003015039

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

**WATER  
 VALVE DETAIL**

Developer / Owner Information  
**LK PROPERTIES II, LLLP**  
 PO Box 340  
 St. Peters, Missouri 63776

P+Z No. 20100.04  
 City No. 15-639-SP

Page No. **23 of 24**  
 DETAILS