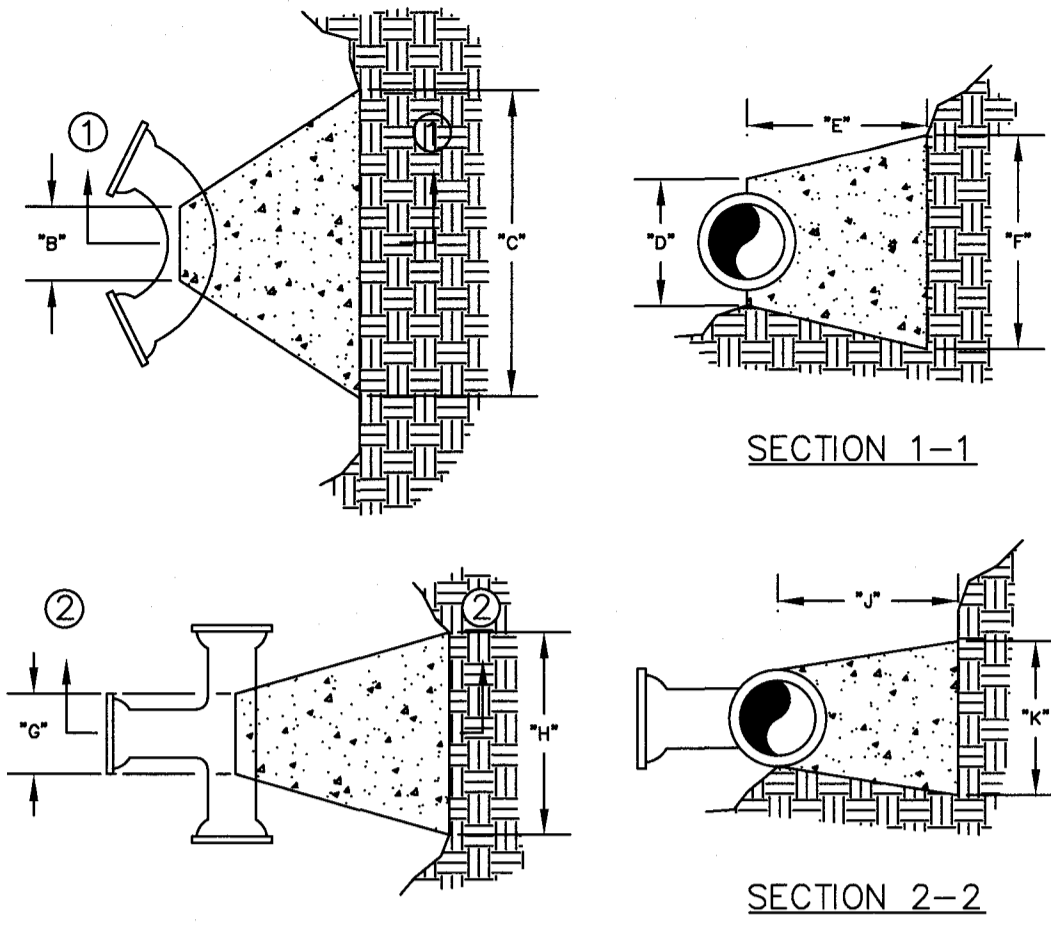


| BENDS | "0" | "1" | "2" | "3" | "4" |
|-------------|-----|------|-----|-----|-----|
| 6"-11 1/4" | 8" | 12" | 24" | 18" | 18" |
| 6"-22 1/2" | 8" | 19" | 24" | 13" | 13" |
| 6"-45" | 8" | 30" | 24" | 15" | 15" |
| 6"-90" | 8" | 30" | 24" | 18" | 18" |
| 8"-11 1/4" | 8" | 20" | 24" | 10" | 10" |
| 8"-22 1/2" | 8" | 22" | 24" | 18" | 18" |
| 8"-45" | 8" | 31" | 24" | 24" | 24" |
| 8"-90" | 8" | 31" | 24" | 24" | 24" |
| 12"-11 1/4" | 8" | 30" | 24" | 15" | 15" |
| 12"-22 1/2" | 8" | 35" | 24" | 25" | 25" |
| 12"-45" | 8" | 40" | 24" | 40" | 40" |
| 12"-90" | 8" | 40" | 24" | 40" | 40" |
| 16"-11 1/4" | 8" | 28" | 24" | 28" | 28" |
| 16"-22 1/2" | 8" | 39" | 24" | 39" | 39" |
| 16"-45" | 8" | 50" | 24" | 50" | 50" |
| 16"-90" | 8" | 50" | 24" | 50" | 50" |
| 20"-11 1/4" | 8" | 34" | 24" | 28" | 28" |
| 20"-22 1/2" | 8" | 48" | 24" | 39" | 39" |
| 20"-45" | 8" | 74" | 24" | 60" | 60" |
| 20"-90" | 8" | 74" | 24" | 60" | 60" |
| 24"-11 1/4" | 8" | 40" | 28" | 40" | 40" |
| 24"-22 1/2" | 8" | 56" | 28" | 56" | 56" |
| 24"-45" | 8" | 101" | 28" | 90" | 90" |
| 24"-90" | 8" | 101" | 28" | 90" | 90" |
| 30"-11 1/4" | 8" | 49" | 34" | 40" | 40" |
| 30"-22 1/2" | 8" | 79" | 34" | 60" | 60" |
| 30"-45" | 8" | 134" | 34" | 90" | 90" |
| 30"-90" | 8" | 134" | 34" | 90" | 90" |

| TEES | "0" | "1" | "2" | "3" | "4" |
|-------------|-----|-----|-----|-----|-----|
| 6"x6"x6" | 12" | 24" | 24" | 18" | 18" |
| 6"x8"x6" | 12" | 24" | 24" | 18" | 18" |
| 6"x8"x8" | 12" | 24" | 24" | 27" | 27" |
| 8"x8"x8" | 12" | 24" | 24" | 18" | 18" |
| 12"x12"x6" | 12" | 24" | 24" | 27" | 27" |
| 12"x12"x8" | 12" | 24" | 24" | 27" | 27" |
| 12"x12"x12" | 12" | 38" | 24" | 38" | 38" |
| 24"x24"x18" | 16" | 53" | 28" | 53" | 53" |

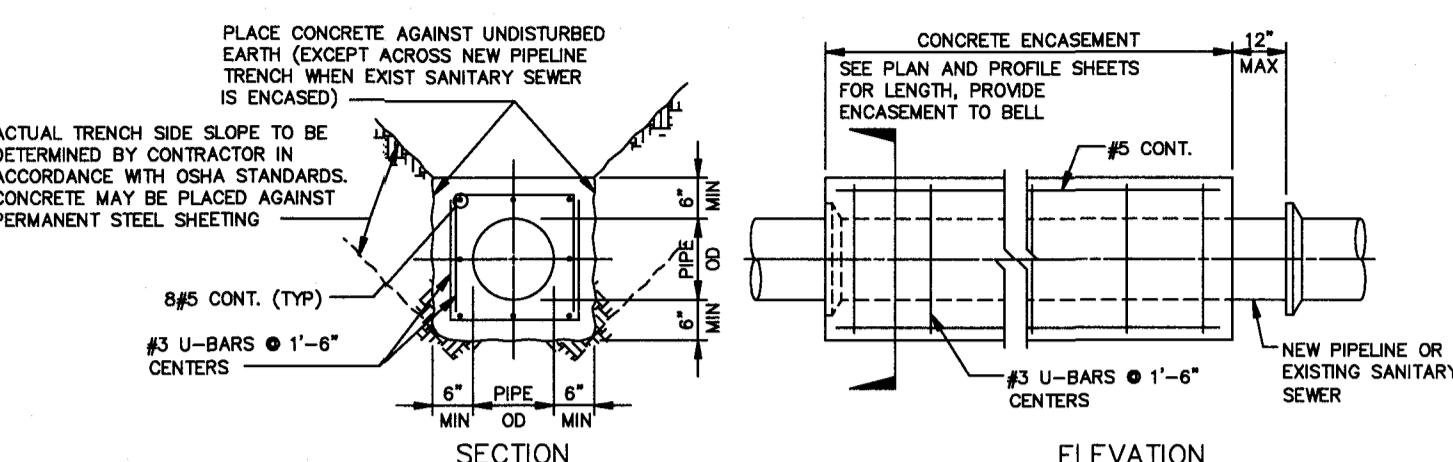
NOTES:
 1. 2" & 4" FITTINGS EQUIVALENT TO 6" FITTINGS.
 2. TAPPING SLEEVES TO HAVE BACKING BLOCKS SAME SIZE AS REQUIRED FOR TEES.
 3. "L" = TOTAL LENGTH OF FITTING MINUS CLEARANCE FOR BELLS.



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

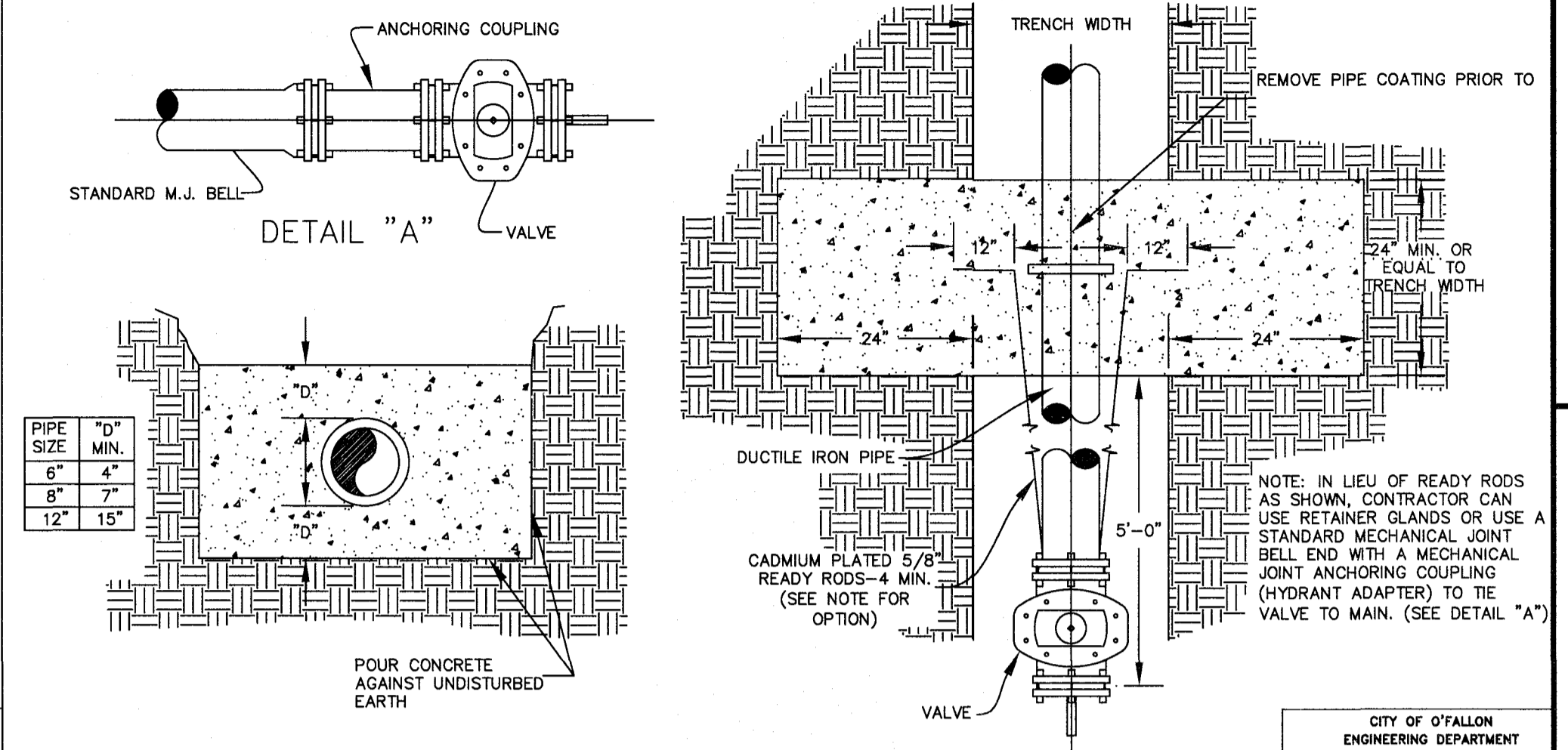
CITY OF O'FALLON
 ENGINEERING DEPARTMENT
 O'FALLON, MISSOURI
**BACKING BLOCK
 DETAILS AND LOCATIONS**



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

CONCRETE ENCASUREMENT
NO SCALE

CITY OF O'FALLON
 ENGINEERING DEPARTMENT
 O'FALLON, MISSOURI
**CONCRETE ENCASUREMENT
 DETAILS**



STRADDLE BLOCK DETAIL
NOT TO SCALE

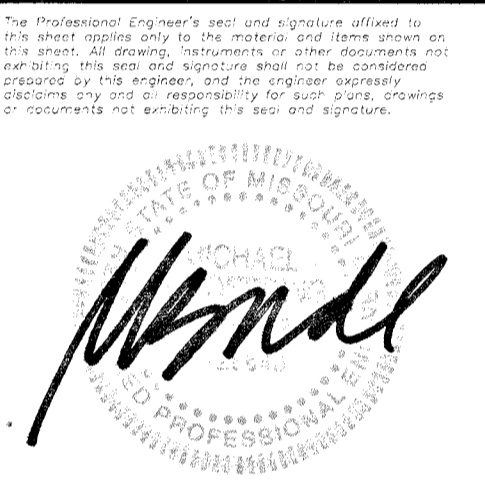
CITY OF O'FALLON
 ENGINEERING DEPARTMENT
 O'FALLON, MISSOURI
**STRADDLE BLOCK
 DETAILS**

| ISSUE | REMARKS/DATE |
|-------|-------------------------------------|
| 1 | 7/2/2018 INITIAL SUBMITTAL |
| 2 | 8/9/2018 REVISED PER CITY COMMENTS |
| 3 | 8/30/2018 REVISED PER CITY COMMENTS |

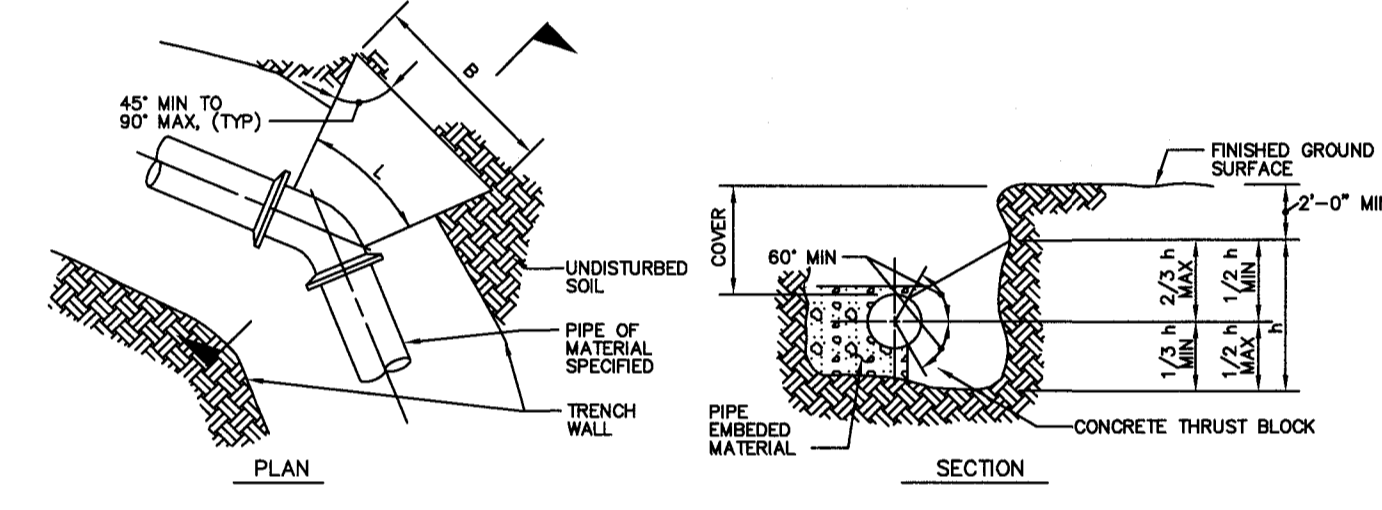
PROJECT TITLE

PEARL VISTA
OF ALLON, MISSOURI

THE STERLING CO.
 ENGINEERS & SURVEYORS
 5055 New Baumgartner Road
 St. Louis, Missouri 63129
 Ph 314-487-0440 Fax 314-487-8944
 www.sterling-eng-survey.com
 Corporate Certificate of Authority #001348



Date: 8/30/2018
 Michael G. Boerding
 License No. MO E-28643
 Professional Engineer

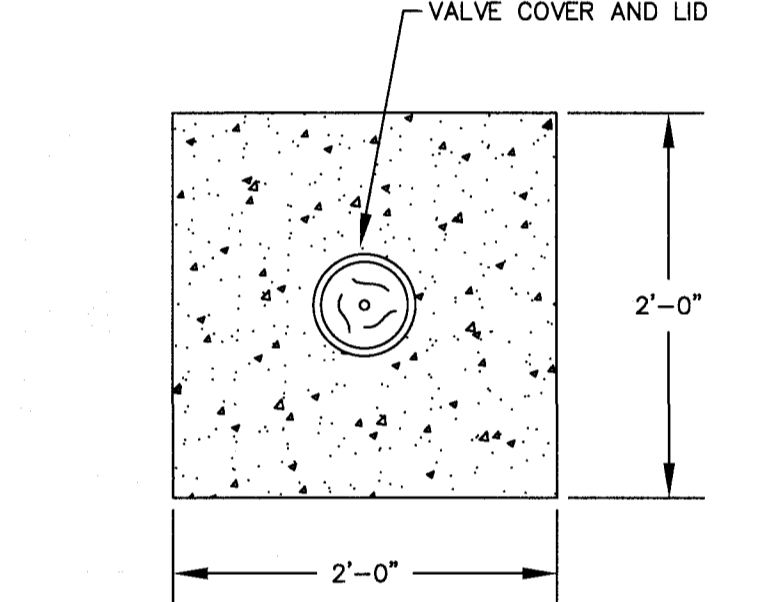


NOTES:
 1. AREA OF BLOCK, A = Bh. BLOCK AREAS ARE SHOWN ON GENERAL LAYOUT OR TABLE.
 2. B = h = √A, EXCEPT WHERE TOP OF BLOCK IS WITHIN 6 FEET FROM GROUND SURFACE, THEN B = A/h.
 3. MINIMUM BLOCK DIMENSION (B & h) SHALL BE AT LEAST OD OF PIPE OR 1 FOOT FOR PIPE 50" 12" OR LESS.
 4. THE BOTTOM OF THE 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 | BEND | THRUST AREA | B | H |
|------|---------|-------------|------|------|
| 16" | 11 1/2" | 4 SF | 2' | 2' |
| 16" | 45" | 8 SF | 2.8' | 2.8' |

CONCRETE THRUST BLOCKING
NOT TO SCALE

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

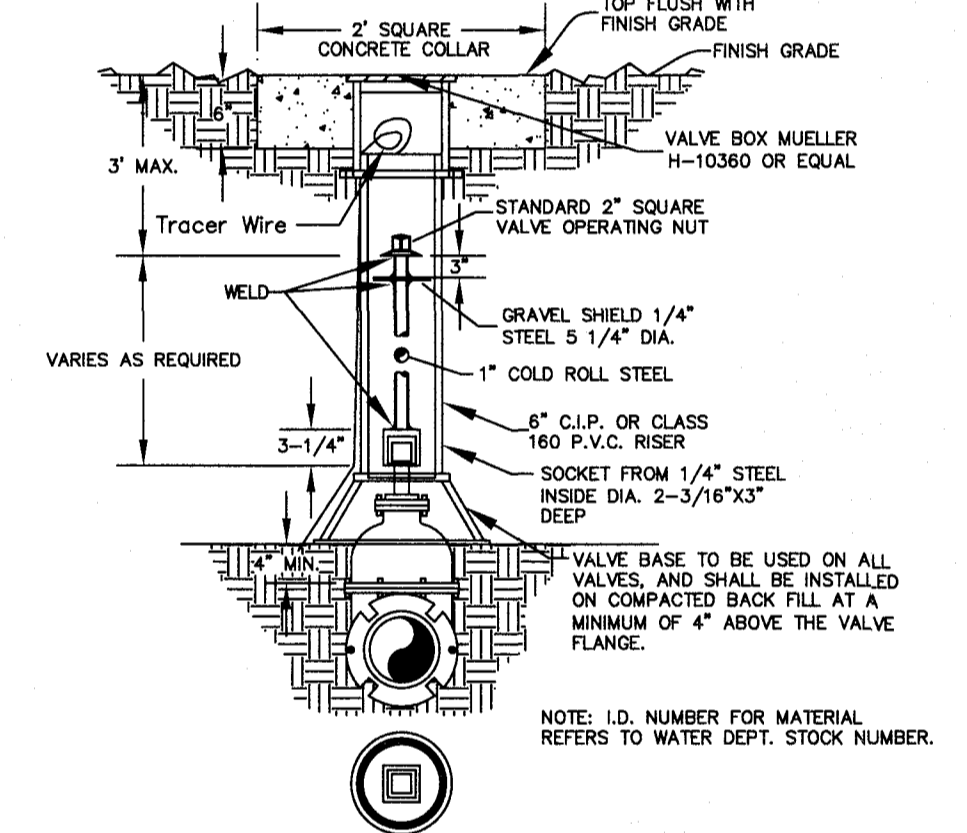


**TOP VIEW
 CONCRETE COLLAR**
NOT TO SCALE

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.

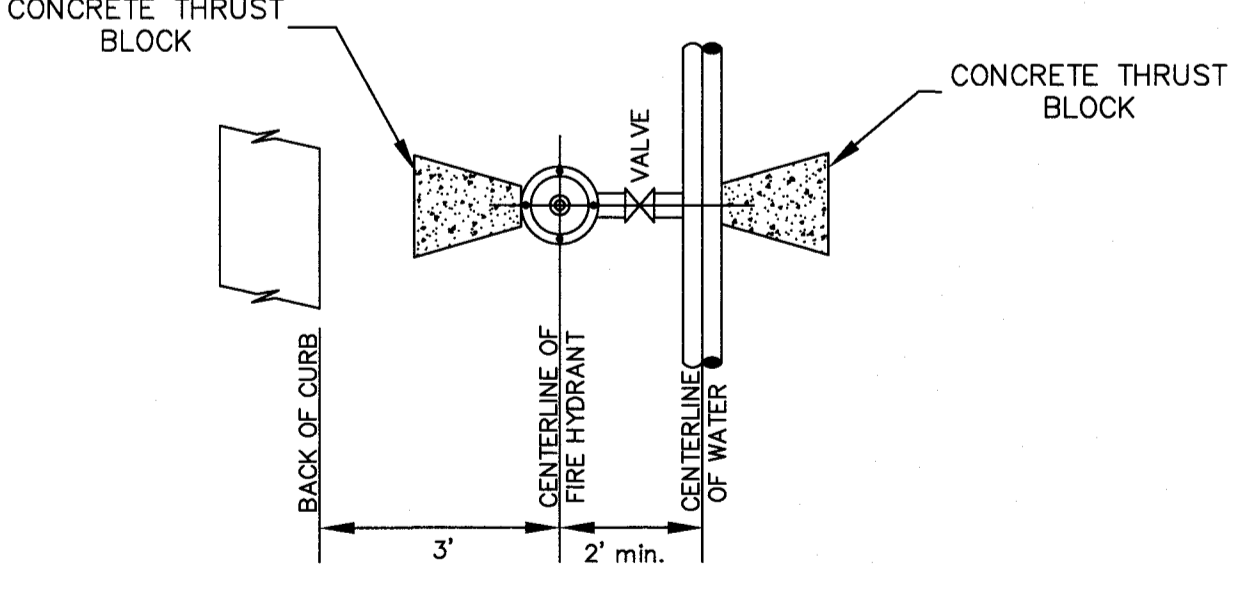
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 ENGINEERING DEPARTMENT
 O'FALLON, MISSOURI
**CONCRETE
 COLLAR DETAIL**

Concrete collar will be in accordance with the Concrete collar detail.



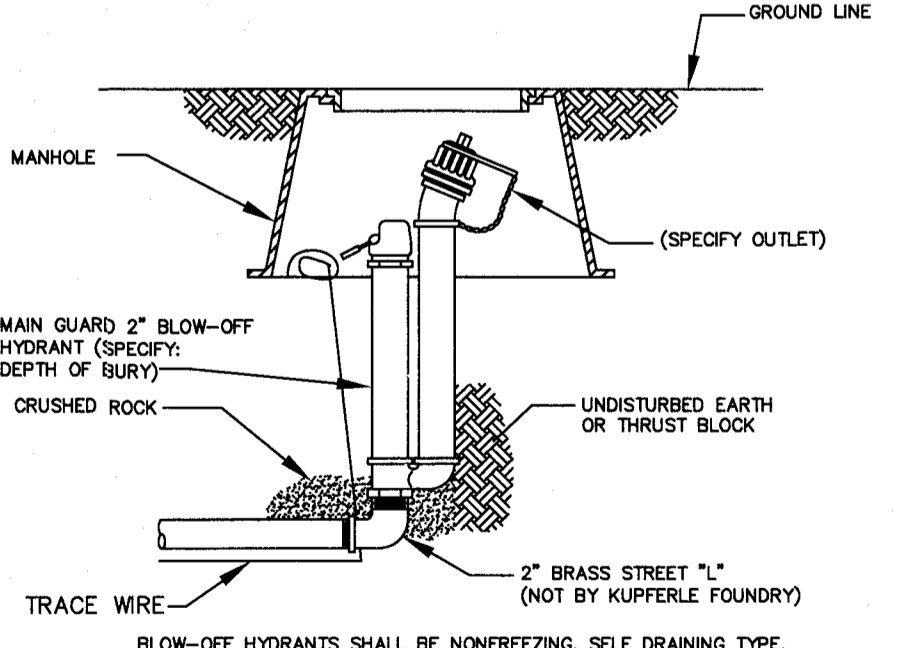
WATER VALVE DETAIL
NOT TO SCALE

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



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

CITY OF O'FALLON
 ENGINEERING DEPARTMENT
 O'FALLON, MISSOURI
**WATER MAIN
 FIRE HYDRANT DETAIL**



BLOW-OFF HYDRANT
NOT TO SCALE

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

ELITE PEARL VISTA, LLC
 5091 BAUMGARTNER ROAD
 ST. LOUIS, MO 63129
 Ph. 314-487-6717

WATER MAIN DETAILS

P+Z No. 18-000083
 City No.
 Date: Aug. 30, 2018
 Job No. 17-08-193
 Page No.

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