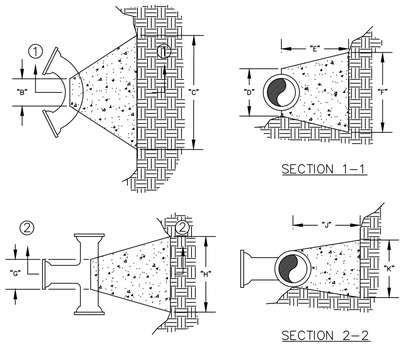
BENDS	"B"	"C"	"D"	"E"	"F"
6"–11 1/4°	8"	15"	12"	24"	10"
6"–22 1/2°	8"	19"	12"	24"	13"
6"–45°	8"	30"	12"	24"	15"
6"–90°	8"	30"	12"	24"	28"
8"–11 1/4°	8"	20"	12"	24"	10"
8"–22 1/2°	8"	22"	12"	24"	18"
8"–45°	8"	31"	12"	24"	24"
8"–90°	8"	38"	12"	24"	36"
12"–11 1/4°	8"	30"	12"	24"	15"
12"–22 1/2°	8"	35"	12"	24"	25"
12"–45°	8"	40"	12"	24"	40"
12"–90°	8"	60"	12"	24"	52"
16"–11 1/4°	TL	28"	20"	24"	28"
16"–22 1/2°	TL	39"	20"	24"	39"
16"–45°	TL	55"	20"	24"	55"
16"–90°	TL	91"	20"	24"	60"
20"–11 1/4°	TL	34"	24"	26"	28"
20"–22 1/2°	TL	48"	24"	26"	39"
20"–45°	TL	74"	24"	26"	55"
20"–90°	TL	136"	24"	26"	60"
24"–11 1/4°	TL	40"	28"	28"	40"
24"–22 1/2°	TL	56"	28"	28"	56"
24"–45°	TL	101"	28"	28"	60"
24"–90°	TL	186"	28"	28"	60"
30"–11 1/4°	TL	49"	34"	30"	49"
30"–22 1/2°	TL	79"	34"	30"	60"
30"–45°	TL	154"	34"	30"	60"
30"–90°	TL	285"	34"	30"	60"

TEES	"G"	"H"	"J"	"K"
6"X6"X6"	12"	24"	24"	18"
8"X6"X6"	12"	24"	24"	18"
8"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"X16"	16"	53"	28"	53"

NOTES:
1. 2"ø, 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

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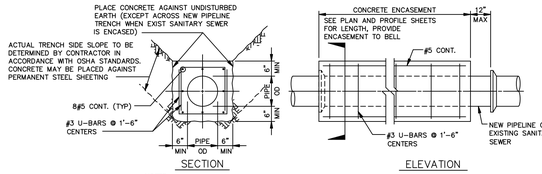
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

BACKING BLOCK DETAILS AND LOCATIONS

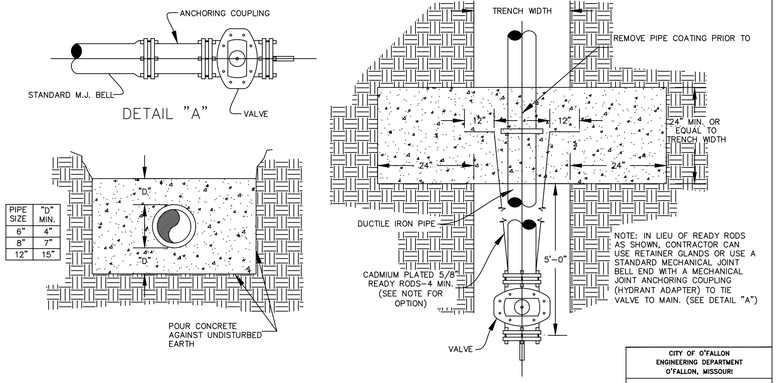


NOTES:
1. AT LOCATIONS WHERE THE TRANSMISSION MAIN CROSSES AN EXIST SANITARY SEWER, SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. WHEN THE PIPELINE IS PROTECTED WITH POLYETHYLENE TUBE ENCASEMENT, THE CONCRETE ENCASEMENT IS TO COVER THE POLYETHYLENE ENCASEMENT.

CONCRETE ENCASEMENT
NO SCALE

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

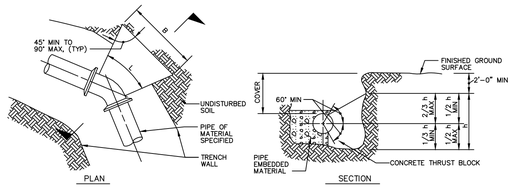
CONCRETE ENCASEMENT DETAILS



STRADDLE BLOCK DETAIL
NOT TO SCALE

CITY OF O'FALLON
ENGINEERING DEPARTMENT
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 = √A. 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	BEND	THRUST AREA	B	H
16"	11 1/2", 22 1/2"	4 SF	2'	2'
16"	45°	8 SF	2.8'	2.8'

CONCRETE THRUST BLOCKING
NOT TO SCALE

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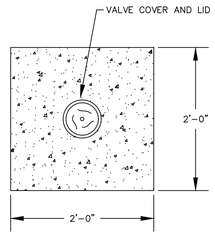
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

CONCRETE THRUST BLOCKING DETAILS



TOP VIEW CONCRETE COLLAR
NOT TO SCALE

Note : 1. Concrete collar joint pateren 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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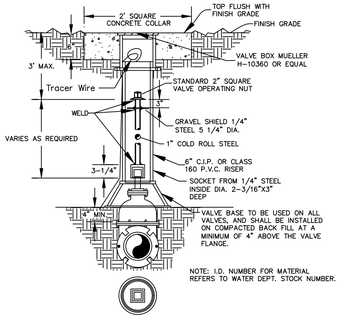
CONCRETE COLLAR DETAIL

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



WATER VALVE DETAIL
NOT TO SCALE

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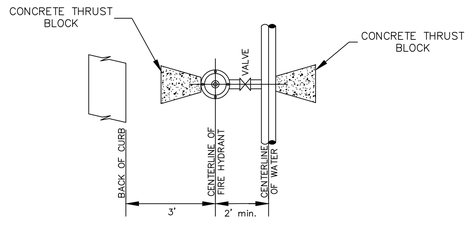
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

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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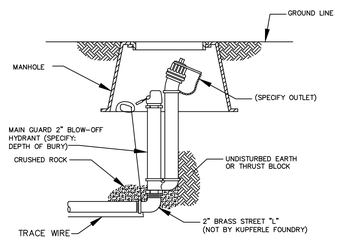
O'FALLON, MISSOURI

WATER MAIN FIRE HYDRANT DETAIL



BLOW-OFF HYDRANTS SHALL BE NONFREEZING, SELF DRAINING TYPE, WITH AN OVERALL LENGTH OF 2'. SET UNDERGROUND IN A METER BOX, THESE HYDRANTS WILL BE FURNISHED WITH A 2" FIP INLET, A NON-TURNING OPERATING ROD, AND SHALL OPEN TO THE LEFT. ALL OF THE WORKING PARTS SHALL BE OF BRONZE-TO BRONZE DESIGN, AND BE SERVICEABLE FROM ABOVE GRADE WITH NO DIGGING. THE OUTLET SHALL ALSO BE BRONZE AND BE 2-1/2" NST. HYDRANTS SHALL BE LOCKABLE TO PREVENT UNAUTHORIZED USE AS MANUFACTURED BY KUPFERLE FOUNDRY CO., ST. LOUIS, MO, OR APPROVED EQUAL.

(SPECIFY OVERALL LENGTH 6" SHORTER THAN NORMAL DEPTH OF BURY. MINIMUM OPENING IN METER BOX SHOULD BE 10".)

BLOW-OFF HYDRANT
NOT TO SCALE

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

BLOW-OFF HYDRANT DETAIL

PROJECT TITLE:
CONSTRUCTION PLANS FOR
Dollar General
395 TR Hughes Boulevard
O'Fallon, MO 63366

Bax Project #97-9203V | Issue Date: 11/29/2022

ENGINEERING
PLANNING
SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

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I hereby certify that the documents prepared by me authenticated by my seal and limited to this sheet, and I hereby disclaim any responsibility for all other Drawings, Specifications, Estimates, Reports or other documents or instruments related to or prepared to be used for any purpose other than the architectural or engineering purposes intended.

STATE OF MISSOURI
LARRY DAVID WALKER
NUMBER PE-2007020543
PROFESSIONAL ENGINEER
07/11/23
Larry D. Walker
Civil Engineer
2007020543

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REVISIONS

12–21–22	CITY COMMENTS
01–04–23	CITY COMMENTS
01–06–23	CITY COMMENTS
05–03–23	DG REVISIONS
05–17–23	CITY COMMENTS
07–11–23	4' HIGH FENCE

Developer / Owner:
DG Partners L.L.C.
5330 Salt River Road
St. Peters, MO 63376
(636) 970-0330

CONSTRUCTION DETAILS

P+Z No. 22-009150
Approved: 10-06-22

City No.
#

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