

CITY OF KIRKWOOD

WATER SYSTEM

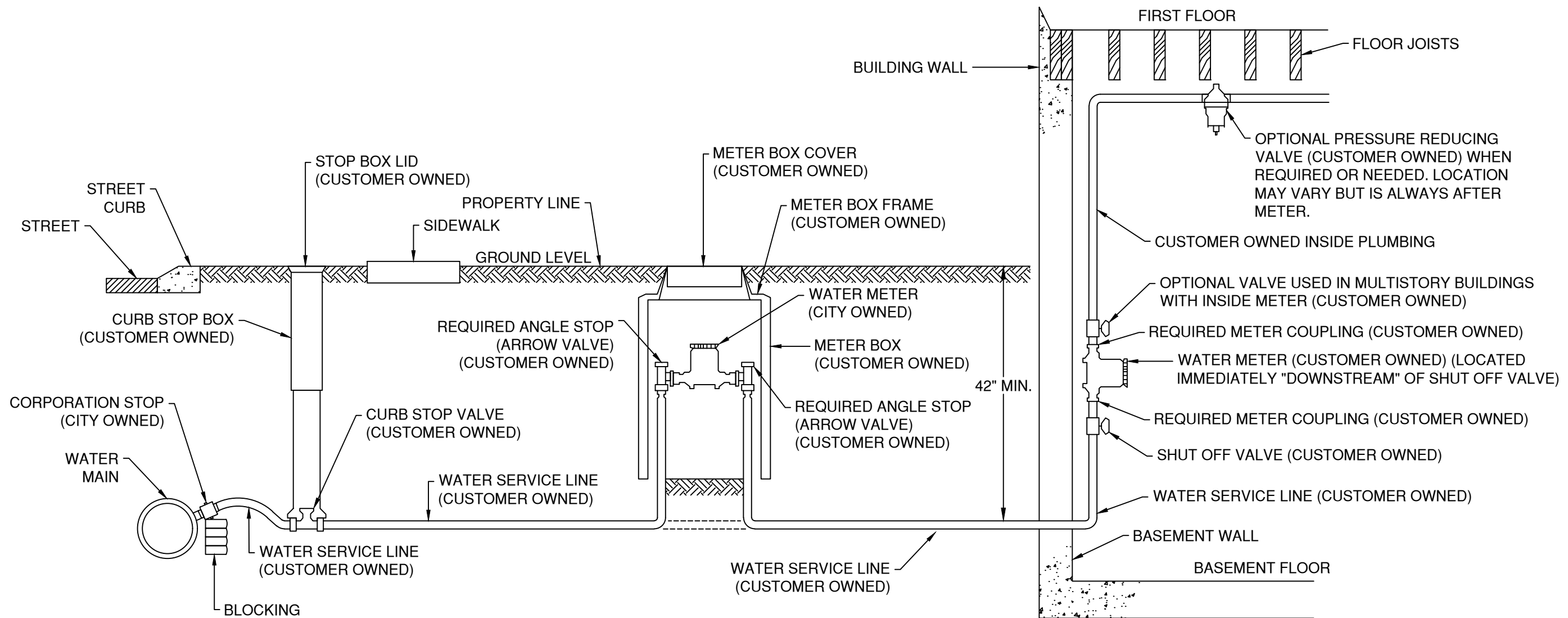
STANDARD DRAWINGS




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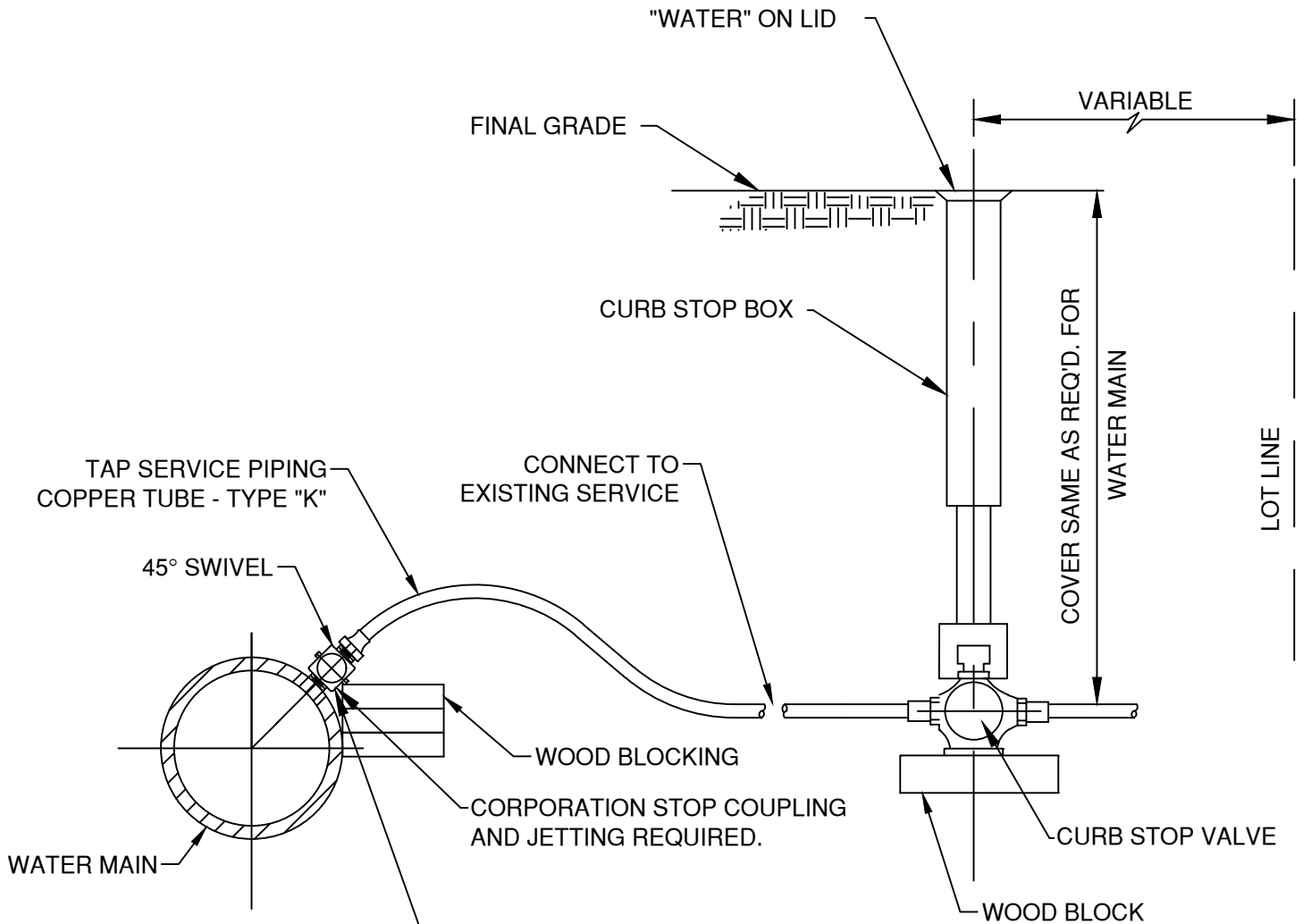
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DETAIL NO.	CITY OF KIRKWOOD WATER DEPT.	CHECKED: CMT		
TITLE	TITLE PAGE	DRAWN: CMT		
	139 S. KIRKWOOD ROAD KIRKWOOD, MISSOURI 63122	SCALE: NONE		NO. DATE: REMARKS
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- NOTES:
1. THIS DRAWING ILLUSTRATES BOTH OUTSIDE AND INSIDE METER SETTINGS.
 2. IN SOME CASES, WATER MAIN WILL BE LOCATED ON OPPOSITE SIDE OF THE STREET.

STANDARD DRAWINGS		DATE: OCTOBER 2021		
DETAIL NO.	CITY OF KIRKWOOD WATER DEPT. WATER SERVICE AND METER DETAIL 139 S. KIRKWOOD ROAD KIRKWOOD, MISSOURI 63122	CHECKED: CMT		
1		DRAWN: CMT		
2 OF 17		SCALE: NONE		NO. DATE: REMARKS
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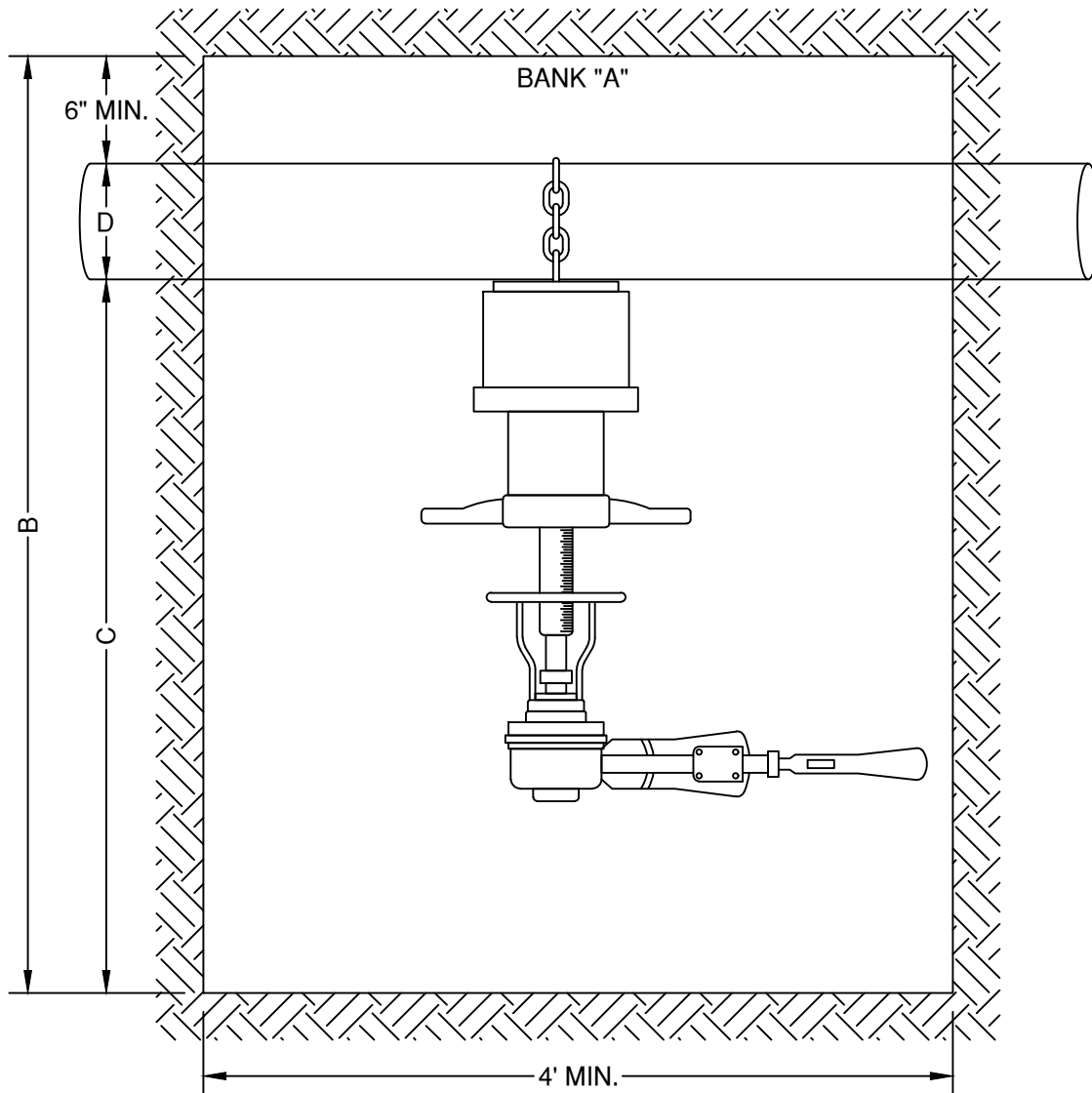


NOTE:
 CORPORATION STOP COUPLING
 D.I.P. MAIN - CORP. STOP SHALL BE DIRECT TAP
 PVC MAIN - SADDLE SHALL BE INSTALLED FOR CORP. STOP

NOTES:

1. SEE WATER SERVICE TRANSFER TABLES IN CONJUNCTION WITH THIS DETAIL.
2. REFER TO SPECIFICATIONS FOR PROPER BLOCKING.
3. SEE SPECIFICATIONS FOR PROPER SERVICE CONNECTIONS.

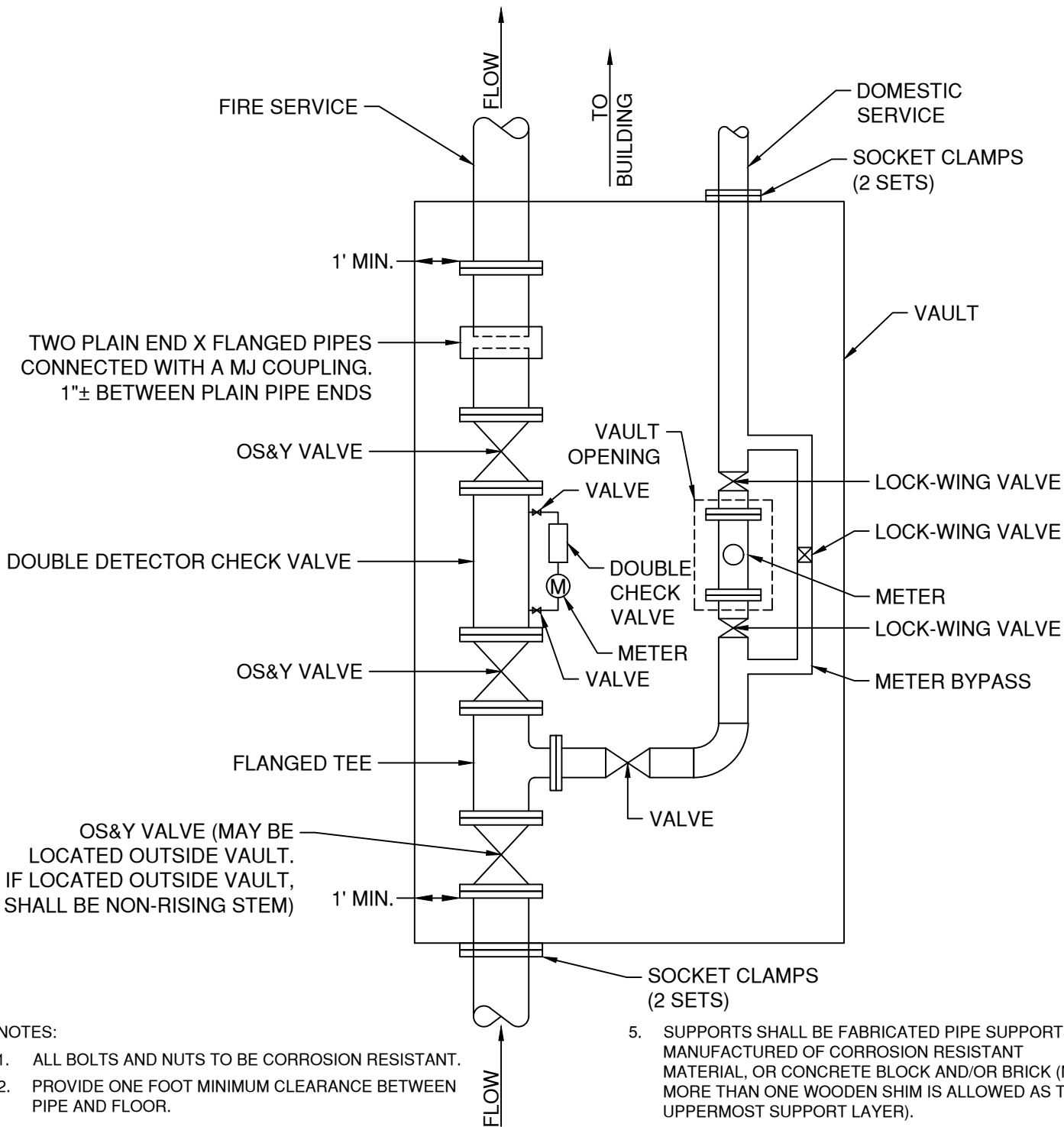
STANDARD DRAWINGS		DATE: OCTOBER 2021			
DETAIL NO.	CITY OF KIRKWOOD WATER DEPT. SERVICE TAP DETAIL 139 S. KIRKWOOD ROAD KIRKWOOD, MISSOURI 63122	CHECKED: CMT			
2		DRAWN: CMT			
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NOTES:

1. BANK "A" MUST BE AT LEAST 6" FROM THE NEAR EDGE OF MAIN FOR ENTIRE WIDTH.
2. DIMENSION "B" SHALL BE 5' MIN. FOR A 1" SERVICE CONNECTION AND 6' MIN. FOR A 1-1/2" OR 2" SERVICE CONNECTION.
3. DIMENSION "C" SHALL BE 4' MIN. FOR A 1" SERVICE CONNECTION AND 5' MIN. FOR A 1-1/2" OR 2" SERVICE CONNECTION.
4. DIMENSION "D" (MAIN SIZE) IS VARIABLE.
5. BOTTOM OF TAP HOLE MUST BE LEVEL AND AT LEAST 6" BELOW BOTTOM OF MAIN FOR ENTIRE WIDTH.
6. IF PIPE JOINT, VALVE, CLAMP, COUPLING, EXISTING TAP, OR ANY OTHER INTERRUPTION IN CLEAN, STRAIGHT, SMOOTH, CONTINUOUS PIPELINE IS VISIBLE IN EXCAVATION, CALL 984-5936 FOR REVIEW BEFORE COMPLETING EXCAVATION. TAPS SHALL NOT BE CLOSER THAN 18" TO NEAREST PART OF JOINT, VALVE, CLAMP, COUPLING, EXISTING TAP, OR ANY OTHER INTERRUPTION IN CLEAN, STRAIGHT, SMOOTH, CONTINUOUS PIPELINE.
7. TAP HOLE SHALL BE FREE OF WATER AND MUD.
8. PIPELINE MUST BE CLEAN ENOUGH TO REPAIR OR REWRAP ANY DAMAGE TO POLYWRAP.
9. THE EXCAVATION MUST COMPLY WITH ALL APPLICABLE OSHA REGULATIONS

STANDARD DRAWINGS		DATE: OCTOBER 2021		
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TWO PLAIN END X FLANGED PIPES
CONNECTED WITH A MJ COUPLING.
1"± BETWEEN PLAIN PIPE ENDS

OS&Y VALVE

DOUBLE DETECTOR CHECK VALVE

OS&Y VALVE

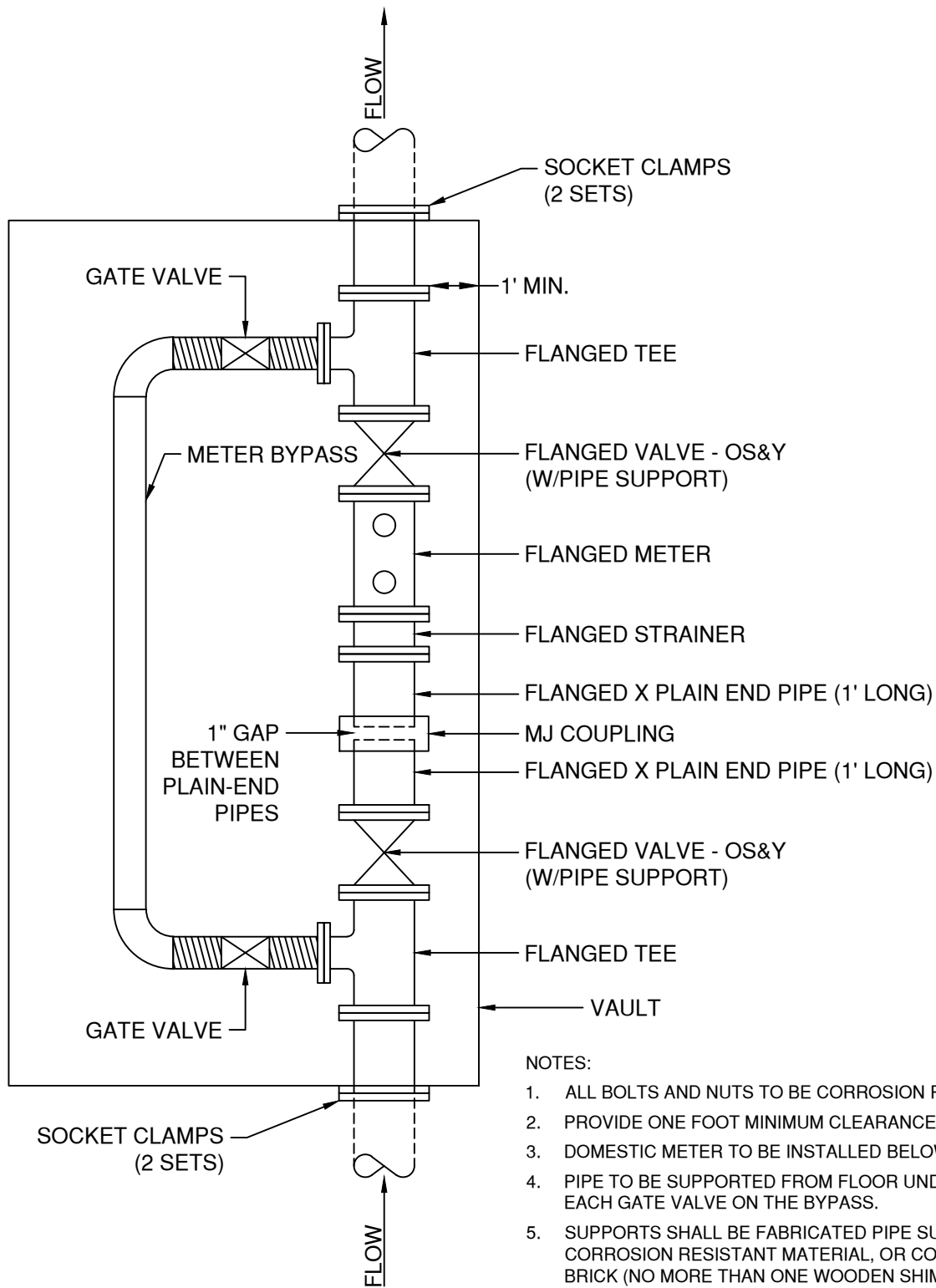
OS&Y VALVE (MAY BE
LOCATED OUTSIDE VAULT.
IF LOCATED OUTSIDE VAULT,
SHALL BE NON-RISING STEM)

NOTES:

1. ALL BOLTS AND NUTS TO BE CORROSION RESISTANT.
2. PROVIDE ONE FOOT MINIMUM CLEARANCE BETWEEN PIPE AND FLOOR.
3. DOMESTIC METER TO BE INSTALLED BELOW VAULT OPENING.
4. PIPE TO BE SUPPORTED FROM FLOOR IN THE FOLLOWING LOCATIONS: BENEATH EACH OS & Y VALVE, DOWNSTREAM OF THE COLLAPSIBLE FITTING, AND BENEATH THE DOMESTIC SERVICE PIPE AT BOTH LOCK-WING VALVES.

5. SUPPORTS SHALL BE FABRICATED PIPE SUPPORTS MANUFACTURED OF CORROSION RESISTANT MATERIAL, OR CONCRETE BLOCK AND/OR BRICK (NO MORE THAN ONE WOODEN SHIM IS ALLOWED AS THE UPPERMOST SUPPORT LAYER).
6. METER MUST BE PURCHASED FROM THE CITY OF KIRKWOOD.
7. 12" THICK BASE OF CLEAN, GRANULAR BACK FILL TO BE INSTALLED BENEATH VAULT.
8. ALL PLUMBING MATERIALS TO BE DUCTILE, BRASS, OR COPPER; PVC OR STEEL PIPING MATERIALS ARE NOT PERMITTED.
9. DETECTOR METER TO READ IN GALLONS.

STANDARD DRAWINGS		DATE: OCTOBER 2021		
DETAIL NO.	CITY OF KIRKWOOD WATER DEPT. SPLIT SERVICE METER VAULT ASSEMBLY 139 S. KIRKWOOD ROAD KIRKWOOD, MISSOURI 63122	CHECKED: CMT		
4		DRAWN: CMT		
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NOTES:

1. ALL BOLTS AND NUTS TO BE CORROSION RESISTANT.
2. PROVIDE ONE FOOT MINIMUM CLEARANCE BETWEEN PIPE AND FLOOR.
3. DOMESTIC METER TO BE INSTALLED BELOW VAULT OPENING.
4. PIPE TO BE SUPPORTED FROM FLOOR UNDER EACH OS&Y VALVE AND EACH GATE VALVE ON THE BYPASS.
5. SUPPORTS SHALL BE FABRICATED PIPE SUPPORTS MANUFACTURED OF CORROSION RESISTANT MATERIAL, OR CONCRETE BLOCK AND/OR BRICK (NO MORE THAN ONE WOODEN SHIM IS ALLOWED AS THE UPPERMOST SUPPORT LAYER).
6. 12" THICK BASE OF CLEAN, GRANULAR BACK FILL TO BE INSTALLED BENEATH VAULT.
7. ALL PLUMBING MATERIALS TO BE DUCTILE, BRASS, OR COPPER; PVC OR STEEL PIPING MATERIALS ARE NOT PERMITTED.

STANDARD DRAWINGS

DETAIL NO.

5

CITY OF KIRKWOOD WATER DEPT.

METER VAULT ASSEMBLY - 3 IN. OR LARGER

139 S. KIRKWOOD ROAD
KIRKWOOD, MISSOURI 63122

DATE:
OCTOBER 2021

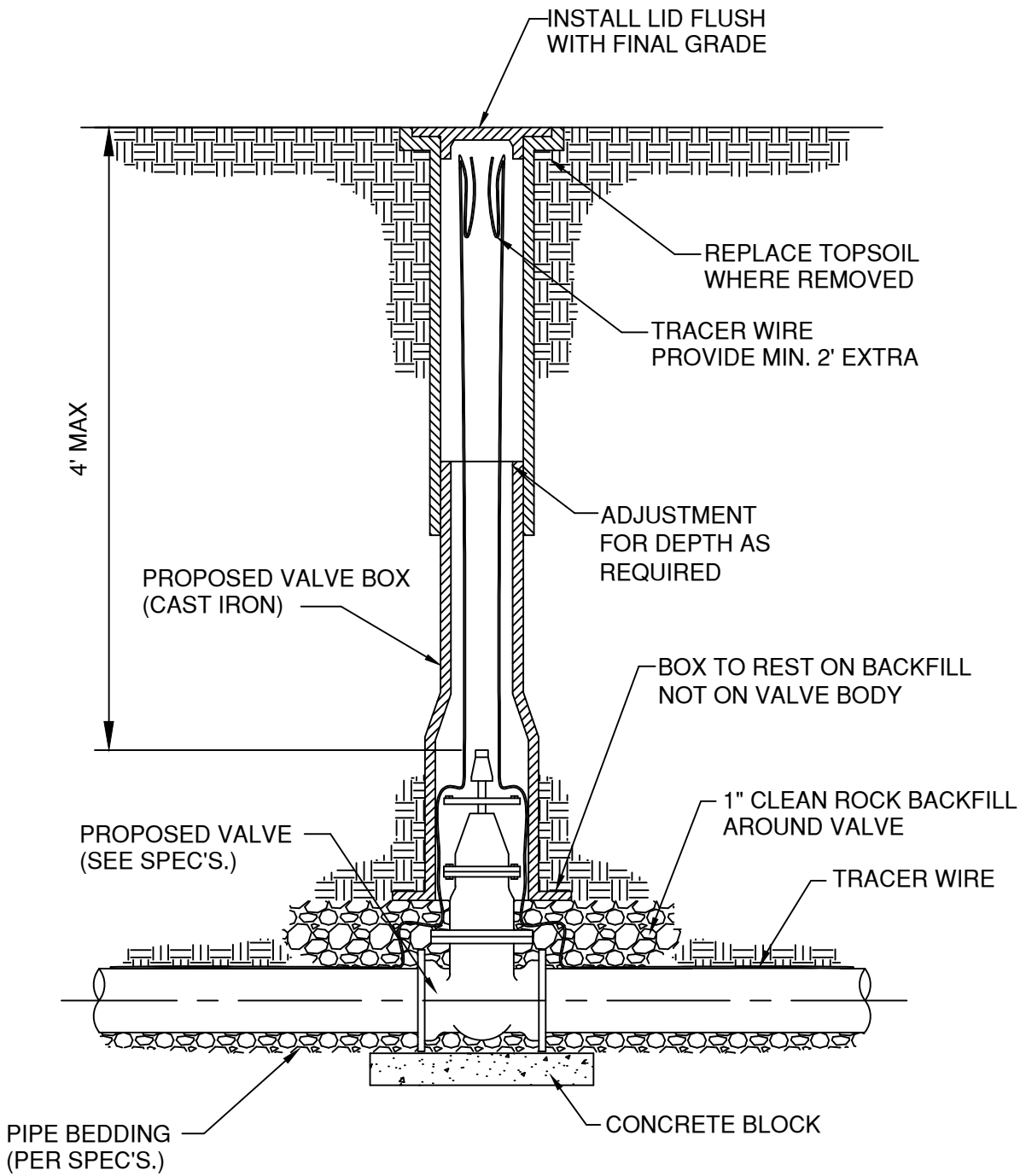
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NONE



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NOTES:

1. VALVE BOXES TO BE SLIP-TYPE. THREADED TOPS AND BOTTOMS ARE NOT PERMITTED.

STANDARD DRAWINGS

DETAIL NO.

6

CITY OF KIRKWOOD WATER DEPT.

BURIED VALVE INSTALLATION

139 S. KIRKWOOD ROAD
KIRKWOOD, MISSOURI 63122

DATE:
OCTOBER 2021

CHECKED:
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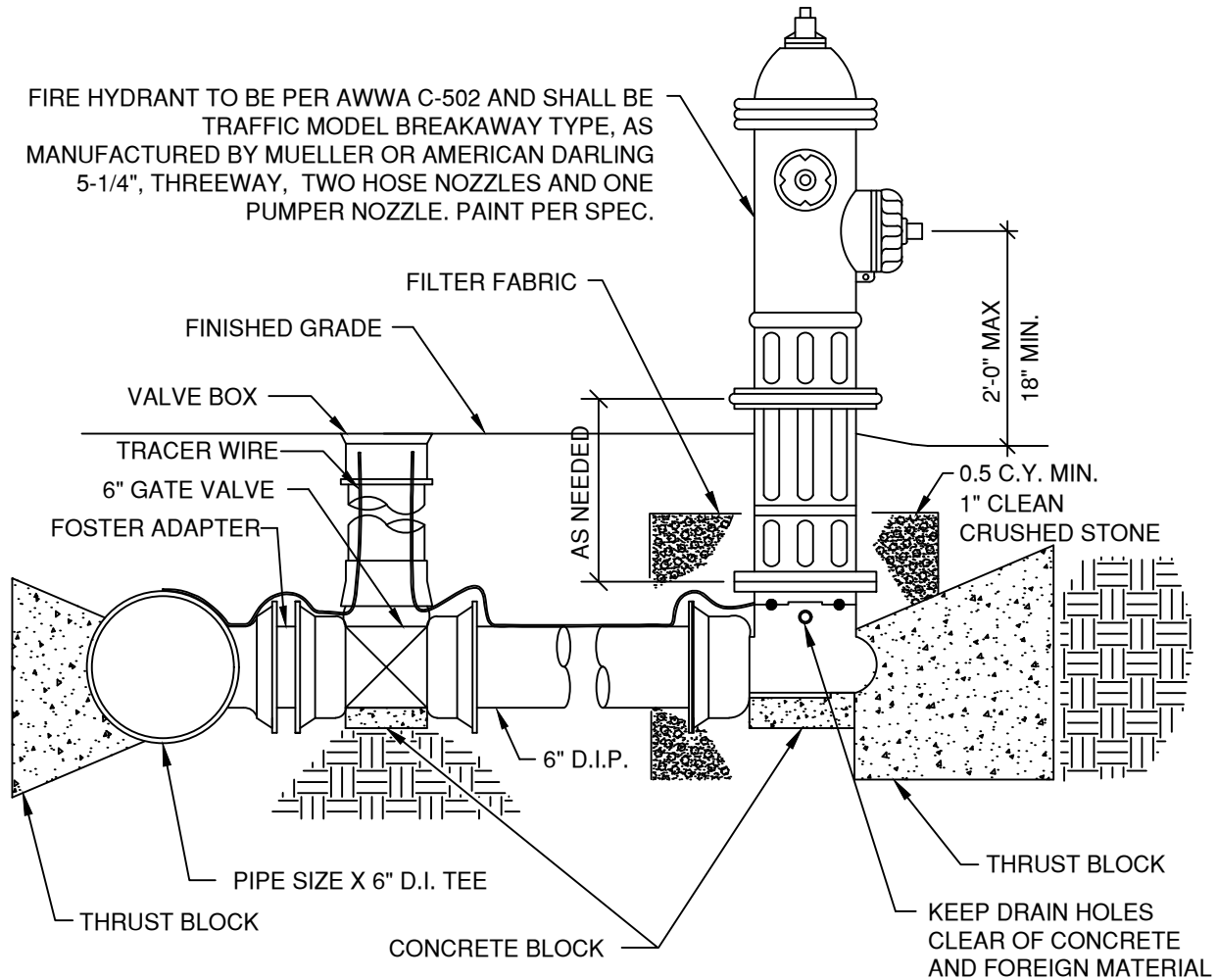
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NO.	DATE:	REMARKS

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FIRE HYDRANT TO BE PER AWWA C-502 AND SHALL BE TRAFFIC MODEL BREAKAWAY TYPE, AS MANUFACTURED BY MUELLER OR AMERICAN DARLING 5-1/4", THREEWAY, TWO HOSE NOZZLES AND ONE PUMPER NOZZLE. PAINT PER SPEC.



NOTES:

1. CONCRETE THRUST BLOCKS SHALL BE INSTALLED IN ADDITION TO THE INSTALLATION OF EBAA IRON MEGALUG JOINT RESTRAINTS.
2. INCLUDE PIPE SIZE X 6" M.J. TEE WITH FIRE HYDRANT PAY ITEM.

STANDARD DRAWINGS

DETAIL NO.

7

CITY OF KIRKWOOD WATER DEPT.

FIRE HYDRANT ASSEMBLY
139 S. KIRKWOOD ROAD
KIRKWOOD, MISSOURI 63122

DATE:
OCTOBER 2021

CHECKED:
CMT

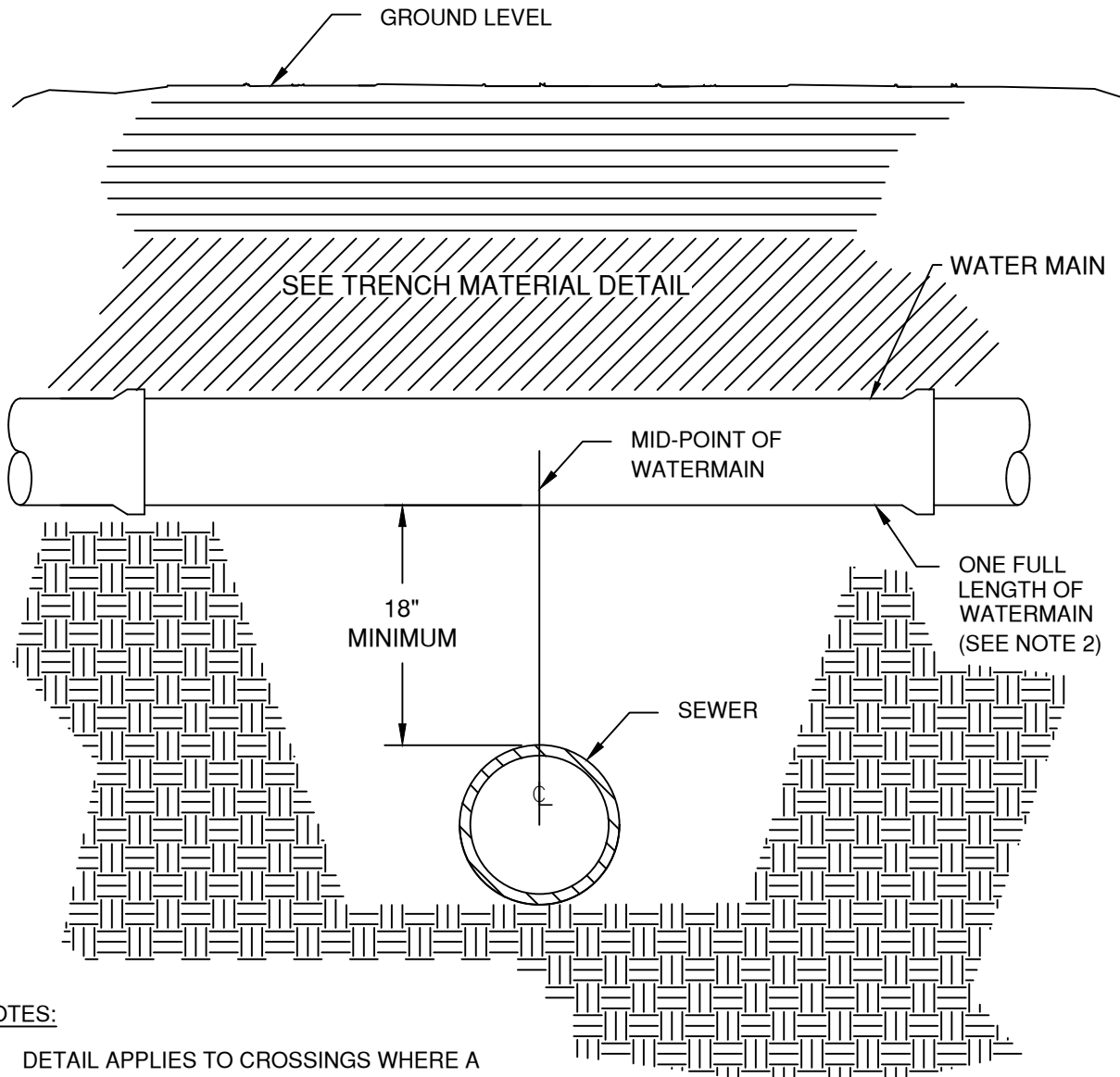
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NONE




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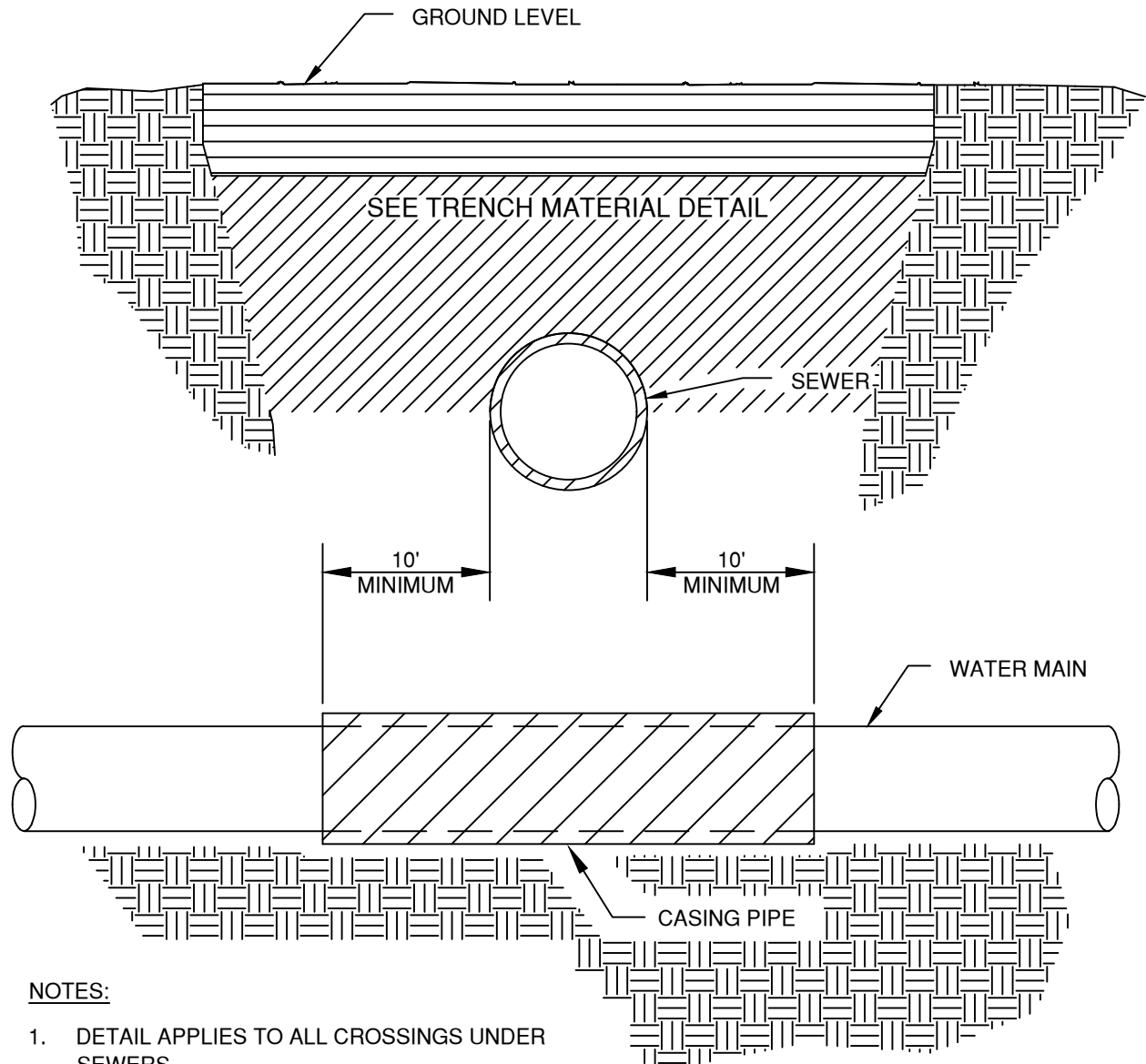
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NOTES:


1. DETAIL APPLIES TO CROSSINGS WHERE A MINIMUM VERTICAL CLEAR DISTANCE OF 18" BETWEEN THE OUTSIDE OF WATER MAIN & THE OUTSIDE OF THE SEWER IS OBTAINED. IF 18" CLEARANCE IS NOT OBTAINABLE, CASING PIPE SHALL BE INSTALLED PER WATER MAIN CROSSING UNDER SEWER DETAIL.
2. MID-POINT OF ONE FULL LENGTH (20' MIN.) OF WATER MAIN IS TO BE CENTERED ON SEWER LINE.
3. PROVIDE ADEQUATE SUPPORT TO PREVENT DAMAGE DUE TO SETTLEMENT.

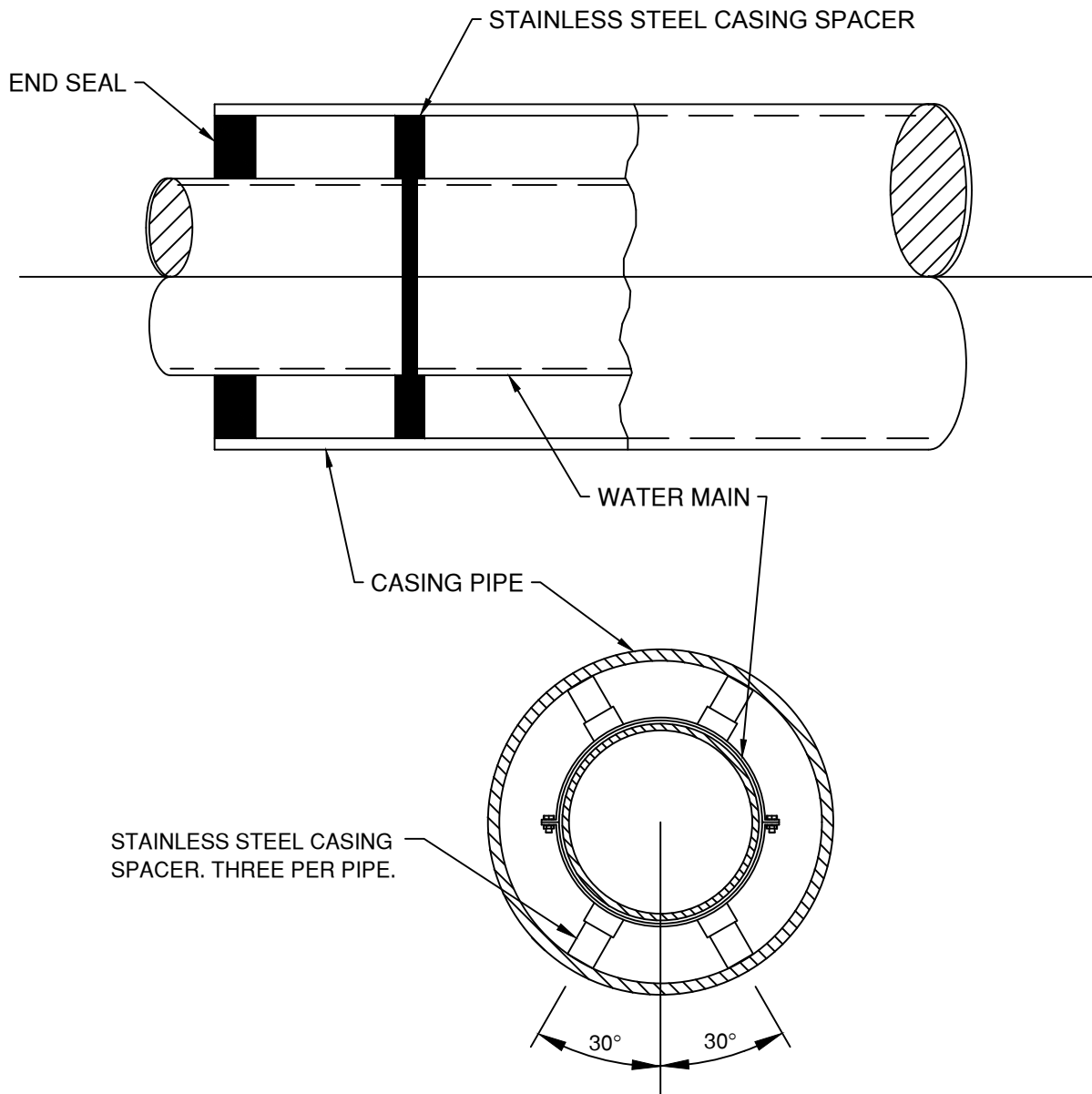
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NOTES:


1. DETAIL APPLIES TO ALL CROSSINGS UNDER SEWERS.
2. DETAIL APPLIES TO CROSSINGS WHERE A MINIMUM VERTICAL CLEAR DISTANCE OF 18" BETWEEN THE OUTSIDE OF WATER MAIN & THE OUTSIDE OF THE SEWER IS NOT OBTAINED.
3. PROVIDE ADEQUATE SUPPORT TO PREVENT DAMAGE DUE TO SETTLEMENT.
4. SEE PIPE CASING DETAIL FOR ADDITIONAL REQUIREMENTS.

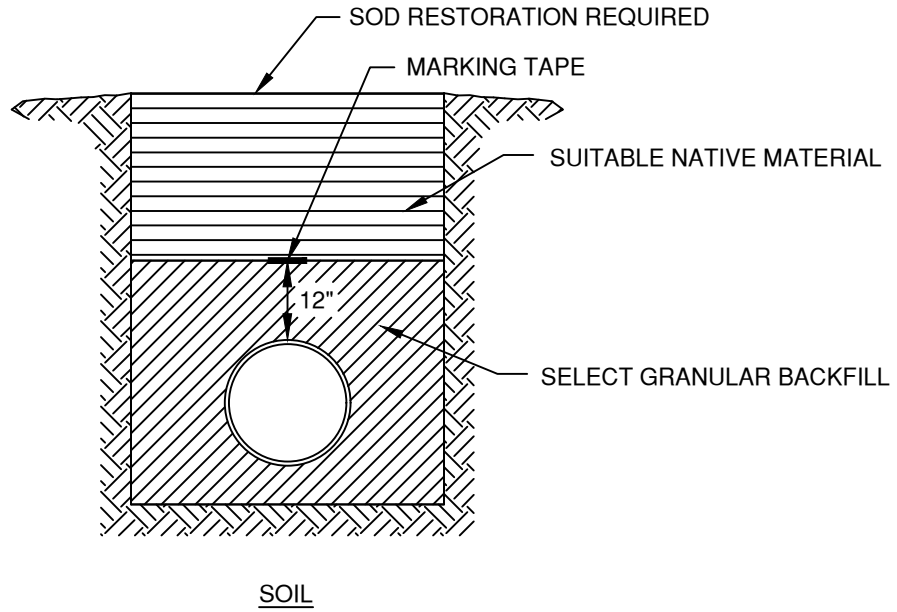
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9		DRAWN: CMT																	
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NOTES

1. SEE SPECIFICATIONS FOR CASING PIPE, CASING END SEALS, AND CASING SPACERS REQUIREMENTS.
2. THE WATER MAIN SHALL BE "CENTERED SPACED" AND RESTRAINED ON TOP AND BOTTOM UTILIZING THREE CASING SPACERS EQUALLY SPACED PER LENGTH OF PIPE.

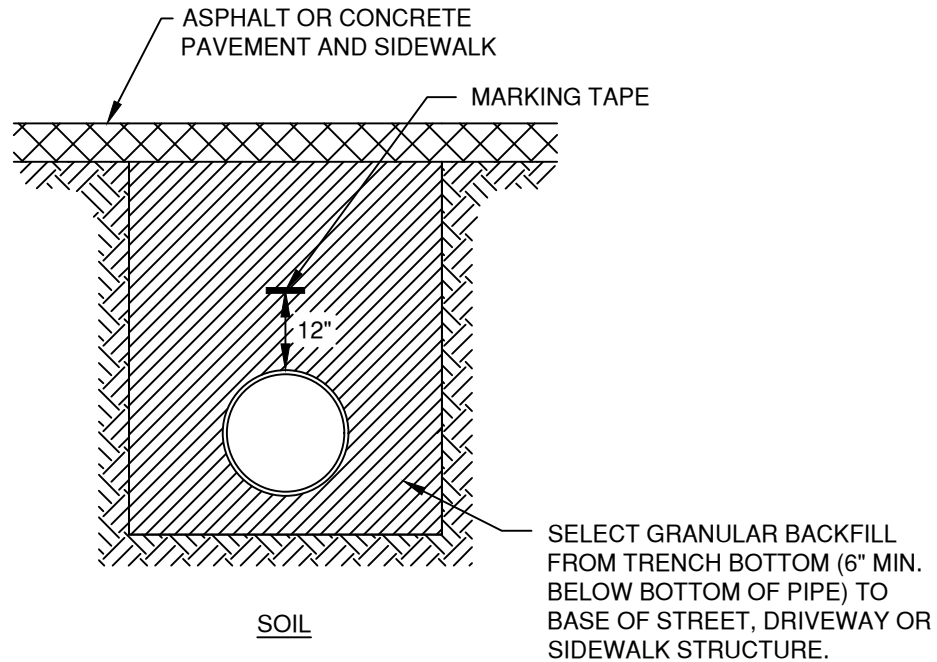
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10		DRAWN: CMT		
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NOTES

1. SEE SPEC SECTION 02222 AND 15065 FOR BACKFILL REQUIREMENTS.
2. COST OF BACKFILL AND LAWN RESTORATION SHALL BE INCIDENTAL TO THE CONTRACT.
3. TRACER WIRE TO BE NO. 12 AWG AS MANUFACTURED BY COPPERHEAD INDUSTRIES. FOR ADDITIONAL MATERIAL INFORMATION SEE SPECIFICATIONS AND INSTALLATION DETAILS.
4. SEE SPECIFICATIONS FOR MARKING TAPE INFORMATION.

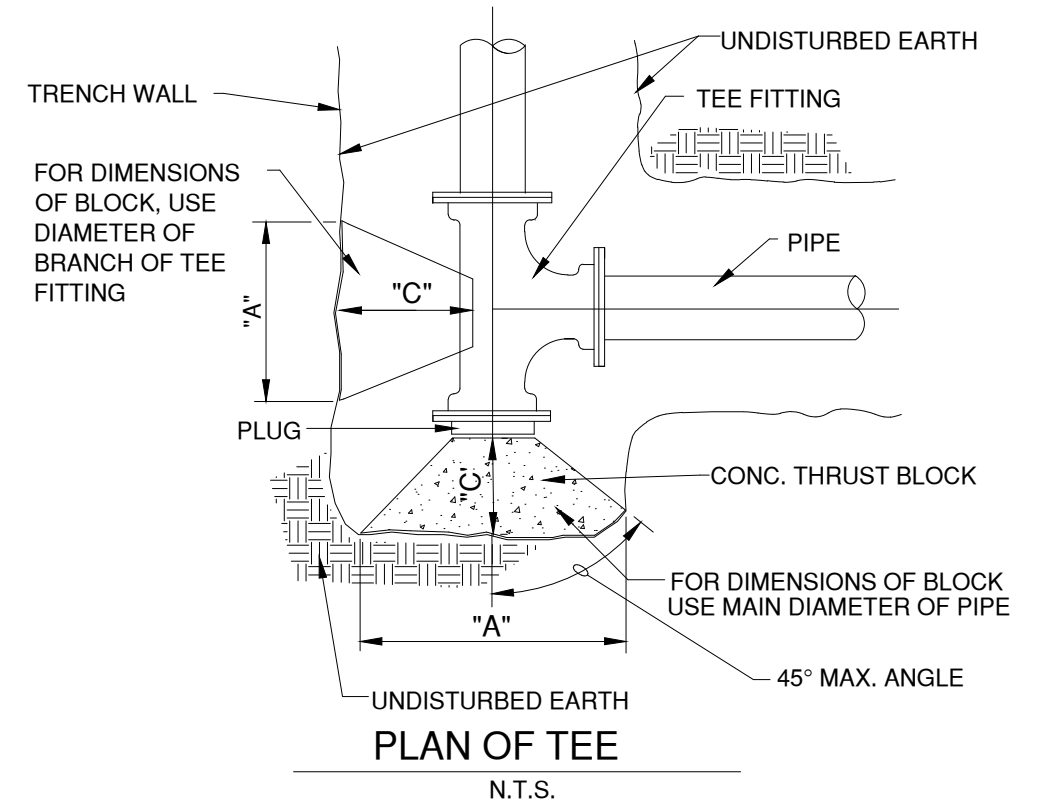
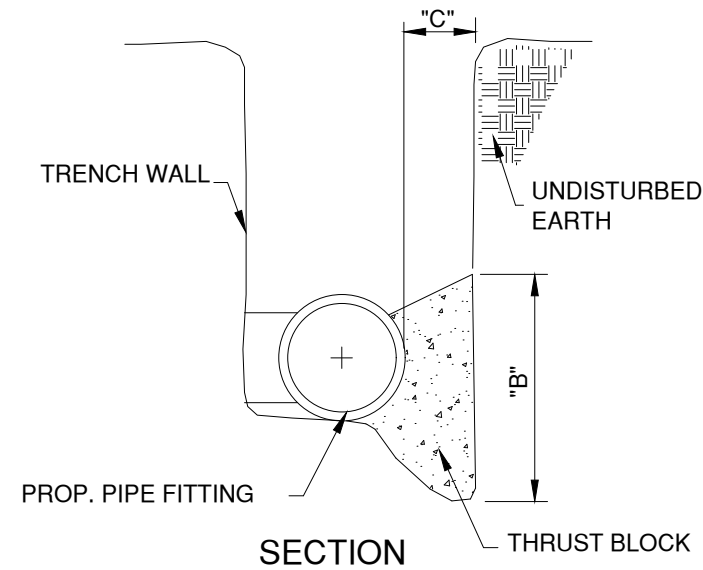
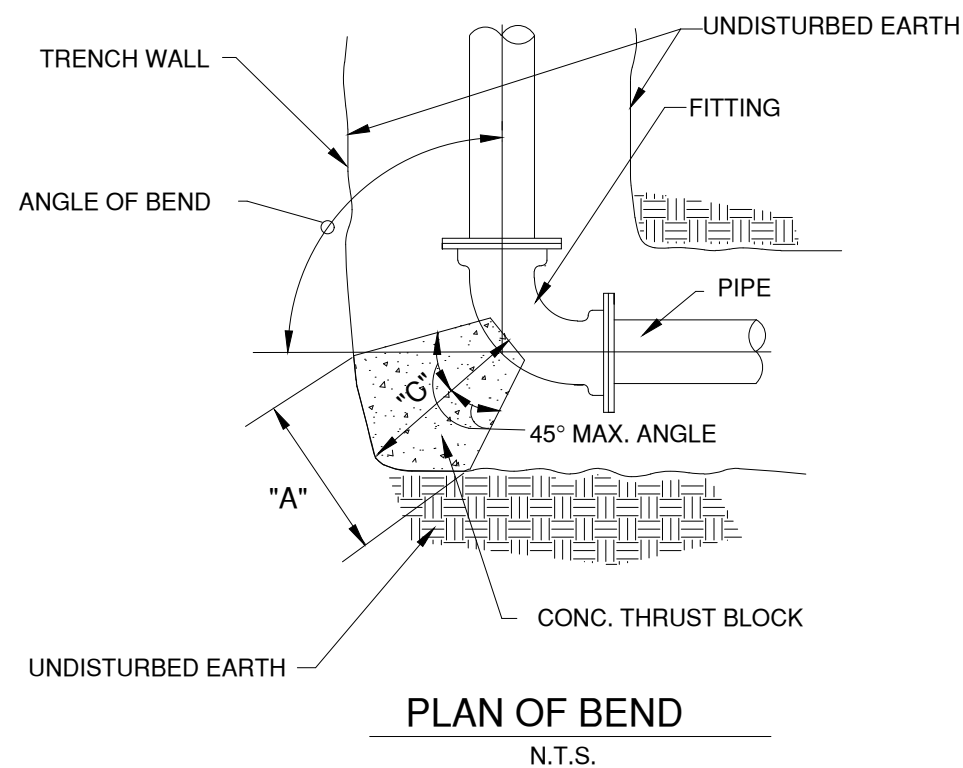
STANDARD DRAWINGS		DATE: OCTOBER 2021				
DETAIL NO.	CITY OF KIRKWOOD WATER DEPT. TRENCH MATERIAL UNDER LAWN 139 S. KIRKWOOD ROAD KIRKWOOD, MISSOURI 63122	CHECKED: CMT				
11		DRAWN: CMT				
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NOTES

1. COST OF BACKFILL AND PAVEMENT OR SIDEWALK RESTORATION SHALL BE INCIDENTAL TO THE CONTRACT.
2. TRACER WIRE TO BE NO. 12 AWG AS MANUFACTURED BY COPPERHEAD INDUSTRIES. FOR ADDITIONAL MATERIAL INFORMATION SEE SPECIFICATIONS AND INSTALLATION DETAILS.
3. SEE SPECIFICATIONS FOR MARKING TAPE INFORMATION.
4. SEE CITY OF KIRKWOOD STANDARD DETAILS FOR PAVEMENT RESTORATION.

STANDARD DRAWINGS		DATE: OCTOBER 2021				
DETAIL NO.	CITY OF KIRKWOOD WATER DEPT. TRENCH MATERIAL UNDER PAVEMENT 139 S. KIRKWOOD ROAD KIRKWOOD, MISSOURI 63122	CHECKED: CMT				
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HORIZONTAL THRUST RESTRAINT

SIZE	90° BEND			45° BEND			22-1/2° BEND			11-1/4° BEND			TEE OR PLUG		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
2"	8"	8"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	8"	8"	6"
3"	1'-0"	1'-0"	8"	8"	8"	6"	8"	8"	6"	6"	6"	6"	1'-6"	1'-0"	8"
4"& 6"	2'-0"	1'-4"	9"	1'-6"	1'-0"	6"	1'-1"	0'-8"	6"	0'-9"	0'-6"	6"	2'-5"	1'-7"	1'-0"
8"	2'-8"	1'-10"	1'-0"	2'-0"	1'-4"	8"	1'-5"	1'-0"	8"	1'-0"	0'-8"	8"	3'-2"	2'-2"	1'-3"
10"	3'-4"	2'-3"	1'-3"	2'-6"	1'-8"	10"	1'-9"	1'-2"	8"	1'-3"	0'-10"	8"	4'-0"	2'-8"	1'-7"
12"	4'-0"	2'-8"	1'-6"	3'-0"	2'-0"	1'-0"	2'-2"	1'-5"	8"	1'-6"	1'-0"	8"	4'-10"	3'-2"	1'-11"
14"	4'-8"	3'-2"	1'-9"	3'-6"	2'-4"	1'-2"	2'-6"	1'-8"	8"	1'-9"	1'-2"	8"	5'-7"	3'-9"	2'-3"
16"	5'-4"	3'-7"	2'-0"	3'-11"	2'-8"	1'-4"	2'-10"	1'-11"	9"	2'-0"	1'-4"	8"	6'-4"	4'-3"	2'-6"
18"	6'-0"	4'-0"	2'-3"	4'-5"	3'-0"	1'-6"	3'-2"	2'-2"	10"	2'-3"	1'-6"	8"	7'-2"	4'-9"	2'-10"
20"	6'-8"	4'-5"	2'-6"	4'-11"	3'-4"	1'-8"	3'-6"	2'-4"	11"	2'-6"	1'-8"	8"	7'-11"	5'-4"	3'-2"
24"	8'-0"	5'-4"	3'-0"	5'-11"	3'-11"	2'-0"	4'-3"	2'-10"	1'-1"	3'-0"	2'-0"	8"	9'-6"	6'-4"	3'-9"

NOTES:

- IN ADDITION TO MEGALUGS, ALL BENDS, TEES, PLUGS, FITTINGS OR OTHER SIGNIFICANT CHANGES IN ALIGNMENT SHALL BE BRACED WITH CAST-IN-PLACE CONCRETE THRUST BLOCKS. CONCRETE SHALL ACHIEVE 3,000 P.S.I. COMPRESSIVE STRENGTH @ 28 DAYS. FITTINGS WITH RETAINING GLANDS WILL NOT BE ALLOWED.
- "C" DIMENSION SHALL BE AS REQUIRED TO REACH UNDISTURBED EARTH BUT NOT LESS THAN VALUE LISTED IN TABLE.
- DIMENSIONS "A" AND "B" ARE BASED ON INTERNAL PIPE PRESSURE OF 100 P.S.I. AND BEARING ON THE UNDISTURBED SOIL OF 1500 P.S.F.
- "B"= HEIGHT OF THRUST BLOCK
- ALL FITTINGS RECEIVING CONCRETE THRUST BLOCKS SHALL BE SEPARATED FROM THE CONCRETE THRUST BLOCK BY A 5 MIL LAYER OF PLASTIC SHEETING.
- IF RESTRAINED JOINTS ARE UTILIZED, THE CONTRACTOR SHALL SUBMIT CALCULATIONS FOR THE LENGTH OF PIPE TO BE RESTRAINED TO THE ENGINEER FOR APPROVAL. RESTRAINED JOINTS SHALL UTILIZE EBAA IRON SERIES 1900 BELL RESTRAINING HARNESS FOR PVC PIPE AND SERIES 1700 BELL RESTRAINING HARNESS FOR DUCTILE IRON PIPE.
- FOR 2 PIPES IN A COMMON TRENCH, CONCRETE THRUST BLOCKS ARE NOT ALLOWED. PIPES SHALL BE RESTRAINED UTILIZING EBAA IRON SERIES 1900 BELL RESTRAINING HARNESS FOR PVC PIPE AND SERIES 1700 BELL RESTRAINING HARNESS FOR DUCTILE IRON PIPE.

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DETAIL NO.	CITY OF KIRKWOOD WATER DEPT. THRUST BLOCK DETAILS - HORIZONTAL 139 S. KIRKWOOD ROAD KIRKWOOD, MISSOURI 63122	CHECKED: CMT		
13		DRAWN: CMT		
		SCALE: NONE		
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VERTICAL THRUST RESTRAINT- UPWARD BEND

BEND		SIZE								
		6"	8"	10"	12"	14"/16"	18"/20"	24"	30"	36"
11 1/4°	G	6"	8"	10"	1'-0"	1'-4"	1'-8"	2'-0"	2'-6"	3'-0"
	H	1'-2"	1'-4"	1'-6"	1'-8"	2'-0"	2'-4"	2'-8"	3'-2"	3'-10"
	J	7"	7"	8"	8"	9"	10"	1'-0"	1'-1"	1'-2"
22 1/2°	G	9"	1'-0"	1'-6"	1'-4"	2'-3"	3'-0"	3'-6"	4'-2"	5'-4"
	H	1'-2"	1'-4"	1'-6"	1'-8"	2'-0"	2'-4"	2'-8"	3'-2"	4'-0"
	J	8"	9"	10"	11"	1'-2"	1'-4"	1'-6"	1'-9"	2'-0"
45°	G	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	4'-2"	5'-0"	6'-3"	7'-6"
	H	1'-2"	1'-4"	1'-6"	1'-10"	2'-6"	3'-0"	3'-4"	4'-0"	5'-0"
	J	8"	9"	10"	11"	1'-2"	1'-4"	1'-9"	2'-3"	2'-8"

VERTICAL THRUST RESTRAINT- DOWNWARD BEND

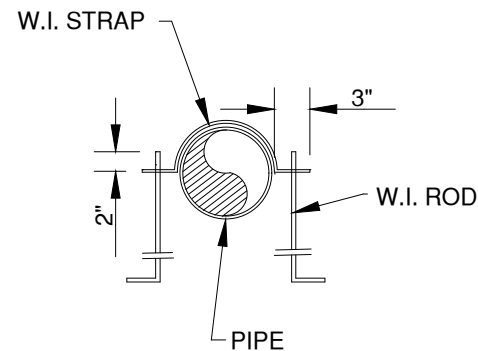
BEND		SIZE								
		6"	8"	10"	12"	14"/16"	18"/20"	24"	30"	36"
11 1/4°	D	1'-6"	1'-9"	2'-0"	3'-0"	3'-6"	4'-0"	4'-3"	4'-6"	5'-0"
	E	1'-3"	1'-6"	1'-9"	2'-0"	2'-3"	2'-6"	2'-9"	3'-0"	4'-0"
	F	2'-0"	2'-6"	2'-9"	3'-0"	4'-0"	5'-0"	5'-9"	6'-6"	7'-0"
22 1/2°	D	2'-0"	3'-4"	3'-8"	4'-0"	4'-4"	4'-8"	5'-0"	5'-4"	6'-0"
	E	1'-9"	2'-3"	2'-6"	2'-6"	2'-6"	2'-8"	3'-8"	4'-6"	5'-6"
	F	2'-6"	2'-8"	3'-10"	4'-0"	5'-6"	7'-6"	8'-6"	8'-6"	10'-0"
45°	D	2'-6"	3'-0"	4'-0"	4'-6"	5'-2"	5'-6"	6'-0"	6'-6"	7'-6"
	E	2'-6"	2'-9"	3'-0"	3'-6"	4'-0"	4'-6"	5'-6"	6'-0"	6'-0"
	F	3'-0"	4'-0"	4'-6"	4'-9"	6'-6"	8'-0"	9'-6"	11'-0"	11'-6"

VERTICAL UPWARD BEND NOTES:

- ALL H & J DIMENSIONS TO BE AS REQUIRED TO BEAR AGAINST UNDISTURBED EARTH BUT NOT LESS THAN LISTED IN THRUST BLOCK TABLE.
- ALL CAST-IN-PLACE CONCRETE SHALL BE 3000 P.S.I. @ 28 DAYS.
- ALL CAST-IN-PLACE CONCRETE SHALL BE PLACED THE FULL WIDTH OF TRENCH FROM UNDISTURBED WALL TO UNDISTURBED WALL.
- IF RESTRAINED JOINTS ARE UTILIZED, THE CONTRACTOR SHALL SUBMIT CALCULATIONS FOR THE LENGTH OF PIPE TO BE RESTRAINED TO THE ENGINEER FOR APPROVAL. RESTRAINED JOINTS SHALL UTILIZE EBAA IRON SERIES 1900 BELL RESTRAINING HARNESS FOR PVC PIPE AND SERIES 1700 BELL RESTRAINING HARNESS FOR DUCTILE IRON PIPE.

VERTICAL DOWNWARD BEND NOTES :

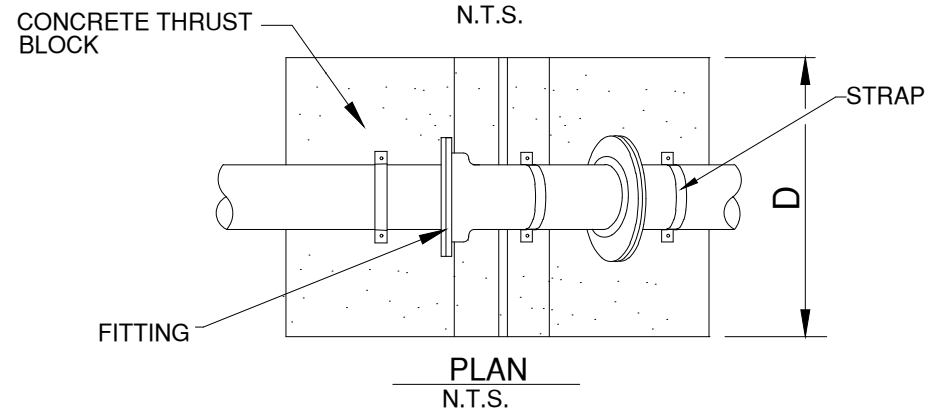
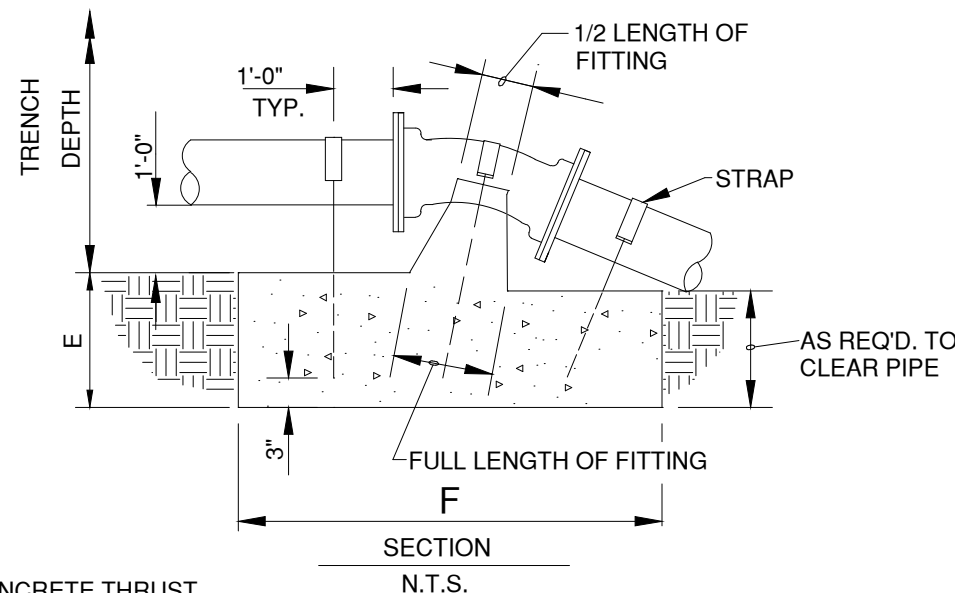
- ALL CAST-IN-PLACE CONCRETE SHALL BE PLACED BEARING AGAINST UNDISTURBED EARTH. THRUST BLOCK DIMENSIONS SHALL BE AS REQUIRED TO BEAR AGAINST UNDISTURBED EARTH BUT NOT LESS THAN LISTED IN THRUST BLOCK TABLE.
- ALL CAST-IN-PLACE CONCRETE SHALL BE 3000 P.S.I. @ 28 DAYS.
- ALL STRAPS TO BE 3"W X 1/2" WROUGHT IRON. APPLY TWO COATS OF APPROVED BITUMINOUS PAINT TO EXPOSED STRAP.
- ALL RODS TO BE WROUGHT IRON AS SHOWN ON TABLE, THREADED ONE END AND BENT THE OTHER. APPLY TWO COATS OF APPROVED BITUMINOUS PAINT TO EXPOSED AREAS.



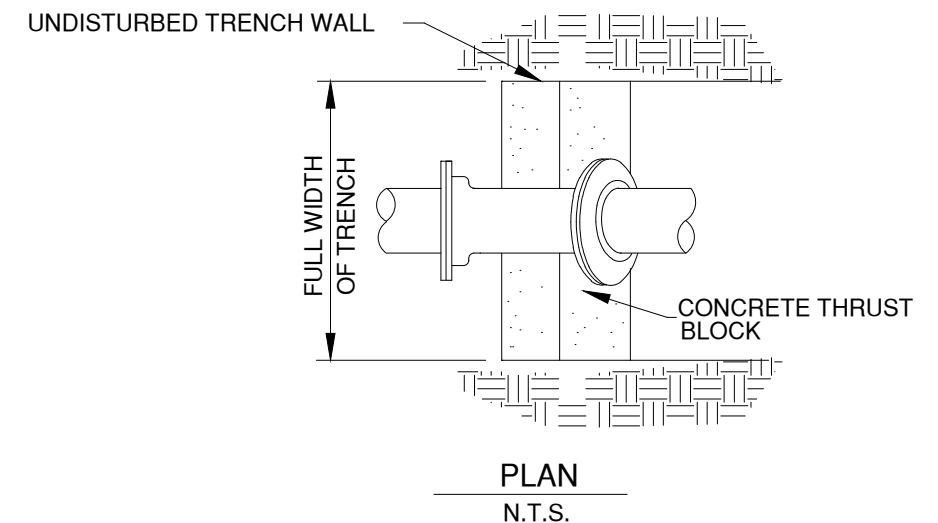
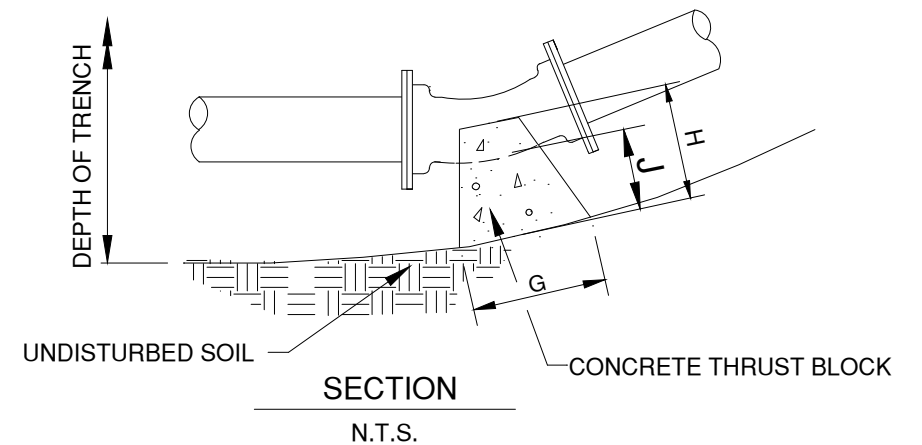
STRAP & ROD DETAIL
N.T.S.

ROD SCHEDULE

PIPE SIZE	ROD SIZE (IN)			NO. REQ'D.
	11 1/4°	22 1/2°	45°	
6"	3/4"	3/4"	3/4"	6
8"	3/4"	3/4"	3/4"	6
10"	3/4"	3/4"	3/4"	6
12"	3/4"	3/4"	3/4"	6
14"/16"	3/4"	3/4"	3/4"	6
18"/20"	3/4"	3/4"	3/4"	8
24"	3/4"	3/4"	3/4"	10
30"	3/4"	3/4"	7/8"	10
36"	3/4"	7/8"	7/8"	12



**THRUST BLOCK DETAIL
FOR VERTICAL ALIGNMENT
DOWNWARD BEND**

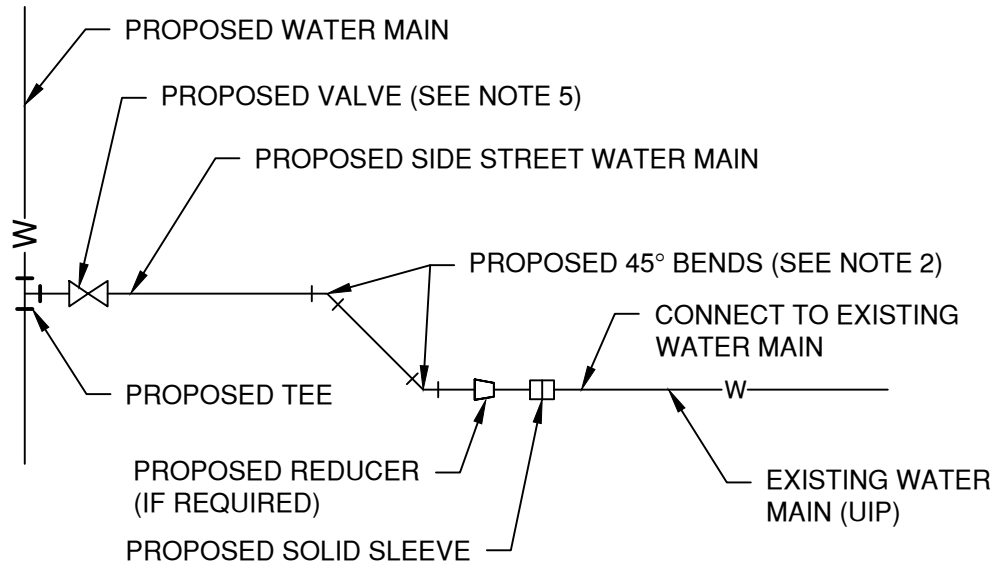


**THRUST BLOCK DETAIL
FOR VERTICAL ALIGNMENT
UPWARD BEND**

STANDARD DRAWINGS	DATE: OCTOBER 2021					
CITY OF KIRKWOOD WATER DEPT.	CHECKED: CMT		NO.	DATE:	REMARKS	
139 S. KIRKWOOD ROAD KIRKWOOD, MISSOURI 63122	DRAWN: CMT		ISSUE / REVISION DESCRIPTIONS			
SCALE: NONE						

NOTES:

1. FITTINGS, VALVES & LINE SIZES TO BE PER SPECIFIC CONNECTION DETAILS.
2. A MINIMUM OF 2 - 45° BENDS ARE REQUIRED TO ALLOW FOR VERTICAL & HORIZONTAL ALIGNMENT ADJUSTMENTS.
3. PROPOSED SIDE STREET WATER MAIN TO BE PVC C909 DR18 WITH TRACER WIRE AND MARKING TAPE.
4. STATIONING LOCATIONS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO DETERMINE EXACT LOCATION OF TEES & CROSSES BASED ON FIELD CONDITIONS.
5. WHERE "EZ VALVE" IS SPECIFIED ON THE PLANS, VALVE SHALL BE INSTALLED ON EXISTING WATER MAIN AFTER SOLID SLEEVE.




	STANDARD DRAWINGS	DATE: OCTOBER 2021																						
DETAIL NO.	CITY OF KIRKWOOD WATER DEPT. TYPICAL CONNECTION AT WATER MAIN BRANCH 139 S. KIRKWOOD ROAD KIRKWOOD, MISSOURI 63122	CHECKED: CMT																						
15		DRAWN: CMT																						
16 OF 17		SCALE: NONE																						
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">NO.</th> <th style="width: 10%;">DATE:</th> <th style="width: 80%;">REMARKS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>		NO.	DATE:	REMARKS																		
NO.	DATE:	REMARKS																						
			ISSUE / REVISION DESCRIPTIONS																					

ADA RAMP CONSTRUCTION

THE CONTRACTOR SHALL CONSTRUCT WHEELCHAIR RAMPS AT ALL STREET INTERSECTIONS AND AT LOCATIONS DESIGNATED BY THE ENGINEER. WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING MINIMUM STANDARDS:

1. RAMP SLOPE - THE LEAST POSSIBLE SLOPE SHALL BE USED FOR ANY RAMP. THE MAXIMUM SLOPE OF A RAMP SHALL BE 1:12.
2. CROSS SLOPE - THE CROSS SLOPE OF A RAMP SHALL BE 1.5 PERCENT WITH A MINIMUM SLOPE OF 1 PERCENT AND MAXIMUM SLOPE OF 2 PERCENT.
3. RAMP WIDTH - RAMPS ARE TO BE CONSTRUCTED WITH A CLEAR WIDTH OF 48 INCHES INCLUSIVE OF FLARES OR CURBING.
4. RAMP TO GUTTER TRANSITION - TRANSITIONS FROM RAMPS TO WALK, GUTTER, OR STREET SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
5. DETECTABLE WARNING SURFACE - SHALL BE CONSTRUCTED AS OUTLINED IN 28 CFR PART 36 SECTION 4.29.2. A PRE-MANUFACTURED DETECTABLE WARNING SURFACE SHALL BE USED THAT IS MANUFACTURED BY ARMOR TILE. AN EQUIVALENT MAY BE USED IF APPROVED BY THE CITY ENGINEER IN ADVANCE OF THE PROJECT. THE PRE-MANUFACTURED DETECTABLE WARNING SURFACE SHALL BE " SAFETY YELLOW" IN COLOR. NO OTHER COLORS WILL BE ACCEPTED.
6. RAMP THICKNESS - ANY PART OF THE RAMP WITHIN SIX FEET OF A DRIVING SURFACE SHALL BE SEVEN INCHES THICK ON 4 INCHES OF A 1" MINUS ROCK BASE.

ALL SIDEWALKS AND HANDICAP RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH A.D.A. REQUIREMENTS. ANY SIDEWALKS OR HANDICAP RAMPS CONSTRUCTED BY THE CONTRACTOR NOT MEETING A.D.A. REQUIREMENTS WILL BE REMOVED AND RE-CONSTRUCTED TO MEET THOSE REQUIREMENTS AT THE SOLE EXPENSE OF THE CONTRACTOR.

STANDARD DRAWINGS		DATE: OCTOBER 2021				
DETAIL NO.	CITY OF KIRKWOOD WATER DEPT. ADA RAMP CONSTRUCTION 139 S. KIRKWOOD ROAD KIRKWOOD, MISSOURI 63122	CHECKED: CMT				
16		DRAWN: CMT				
17 OF 17		SCALE: NONE				
				NO.	DATE:	REMARKS
ISSUE / REVISION DESCRIPTIONS						