DRAWING NUMBER	DETAIL DESCRIPTION	SHEET NUMBER	ISSUED DATE	REVISED DATE
500	WATER STANDARD DETAIL INDEX	500	08/10/2023	05/12/2025
501 WATERLINE PIPE				
501.01	BEDDING & TRENCHING	501	08/10/2023	05/12/2025
501.02	WATER LINE LOWERING < 24-INCH	501	08/10/2023	05/12/2025
501.03	VALVE ABANDONMENT	501	08/10/2023	05/12/2025
501.04	TYPICAL PERMANENT CUT AND CAP ON EXISTING WATER LINE	501	08/10/2023	05/12/2025
501.05	TYPICAL CUT AND CAP WITH WATER MAIN REMOVAL	501	08/10/2023	05/12/2025
501.06	TYPICAL IN-LINE PIPE CUT AND RESTRAINED PLUG	501	08/10/2023	05/12/2025
501.07	TYPICAL IN-LINE PIPE CUT AND PLUG	501	08/10/2023	05/12/2025
503 WATER SERVICE LINE CONNECTIONS				
503.01	WATER SERVICE LINE CONNECTION	503	08/10/2023	05/12/2025
503.02	SINGLE SHORT SERVICE - REPLACEMENT	503	08/10/2023	05/12/2025
503.03	SINGLE SHORT SERVICE - NEW	503	08/10/2023	05/12/2025
503.04	SINGLE LONG SERVICE - REPLACEMENT	503	08/10/2023	05/12/2025
503.05	SINGLE LONG SERVICE - NEW	503	08/10/2023	05/12/2025
504 METER BOXES				
504.01	METER RELOCATION	504.A	08/10/2023	05/12/2025
504.02	METER BOX FOR GRASSY AREA (5/8-1-INCH METERS)	504.A	08/10/2023	05/12/2025
504.03	METER BOX FOR HIGH TRAFFIC COMMERCIAL AREA	504.A	08/10/2023	05/12/2025
504.04	METER BOX FOR GRASSY AND PAVED AREAS (5/8-1-INCH METERS)	504.B	08/10/2023	05/12/2025
504.05	METER BOX FOR GRASSY AND PAVED AREAS (1-1/2-INCH METERS)	504.B	08/10/2023	05/12/2025
504.06	METER BOX FOR GRASSY AND PAVED AREAS (2-INCH METERS)	504.B	08/10/2023	05/12/2025
504 WATER METER VAULT				
504.07	WATER METER VAULT LAYOUT	504.C	08/10/2023	05/12/2025
504.08	WATER METER VAULT SECTION	504.C	08/10/2023	05/12/2025
504 DUAL FLOW METER VAULT				
504.09	DUAL FLOW METER VAULT LAYOUT	504.D	08/10/2023	05/12/2025
504.10	DUAL FLOW METER VAULT SECTION	504.D	08/10/2023	05/12/2025
504 VAULT STRUCTURAL DETAILS				
504.11	VALVE VAULT FOUNDATION PLAN	504.E	-	05/12/2025
504.12	VALVE VAULT LID PLAN	504.E	-	05/12/2025
504.13	PIPE CENTERLINE SECTION	504.E	-	05/12/2025
504.14	VAULT LID DETAIL	504.E	-	05/12/2025
504.15	VAULT SLAB DETAIL	504.E	-	05/12/2025
504.16	SUMP PIT DETAIL	504.E	-	05/12/2025
504 METER SPLITS				
504.17	3 x 5/8-INCH METER	504.F	-	05/12/2025
504.18	2 x 1-INCH METER	504.F	-	05/12/2025
504.19	4 x 5/8-INCH METER	504.F	-	05/12/2025
504.20	3 x 1-INCH METER	504.F	-	05/12/2025
507 FIRE HYDRANT				
507.01	FIRE HYDRANT	507	08/10/2023	05/12/2025
507.02	BOLLARD INSTALLATION	507	08/10/2023	05/12/2025
507.03	FIRE HYDRANT 2.5-INCH NOZZLE	507	08/10/2023	05/12/2025
507.04	FIRE HYDRANT 5-INCH NOZZLE	507	08/10/2023	05/12/2025
507.05	FIRE HYDRANT CONNECTION TO MAIN	507	08/10/2023	05/12/2025
507.05.A	ALTERNATE - VERTICAL SHOE	507	08/10/2023	05/12/2025
509 THRUST RESTRAINTS				
509.01	RESTRAINING 90-DEGREE BEND	509.A	08/10/2023	05/12/2025
509.02	RESTRAINING 45-DEGREE BEND	509.A	08/10/2023	05/12/2025
509.03	RESTRAINING 22.5-DEGREE BEND	509.A	08/10/2023	05/12/2025
509.04	RESTRAINING 11.25-DEGREE BEND	509.A	08/10/2023	05/12/2025
509.05	RESTRAINING TEE FITTING	509.B	08/10/2023	05/12/2025
509.06	RESTRAINING REDUCER FITTING	509.B	08/10/2023	05/12/2025
509.07	RESTRAINING VALVE CONNECTION	509.B	08/10/2023	05/12/2025
509.08	RESTRAINING HORIZONTAL OR VERTICAL OFFSETS	509.B	08/10/2023	05/12/2025
512 VALVE BOX				
512.01	VALVE AND VALVE BOX	512.A	08/10/2023	05/12/2025
512.02	CAST IRON VALVE BOX	512.A	08/10/2023	05/12/2025
512.03	CAST IRON VALVE BOX	512.A	08/10/2023	05/12/2025
512.04	2-INCH AIR RELEASE VALVE AND VALVE BOX	512.A	08/10/2023	05/12/2025
512 VALVE VAULT				
512.05	4-INCH AIR RELEASE VALVE AND VAULT	512.B	08/10/2023	05/12/2025
512.06	WATER MANHOLE COVER	512.B	08/10/2023	05/12/2025
512.07	WATER MANHOLE REVERSIBLE FRAME	512.B	08/10/2023	05/12/2025
512.08	VALVE VAULT INSTALLATION	512.C	08/10/2023	05/12/2025
WATER MISCELLANEOUS				
505.01	TAPPING CONNECTION	MISC	08/10/2023	05/12/2025
515.01	PVC PIPE TRACER WIRE INSTALLATION	MISC	08/10/2023	05/12/2025
518.01	PIPE BORE AND CASING	MISC	08/10/2023	05/12/2025

THESE UTILITIES DEPARTMENT STANDARD DETAILS AS REVISED AND ISSUED, APPLY TO PROJECTS WHERE: (1) OCWUT, (2) THE CITY OF OKLAHOMA CITY, OR (3) A TRUST OF WHICH THE CITY OF OKLAHOMA CITY IS A BENEFICIARY, IS THE CONTRACTING ENTITY.

THESE UTILITIES DEPARTMENT STANDARD DETAILS WILL GOVERN ALL CONNECTIONS AND EXTENSIONS TO THE OKLAHOMA CITY WATER AND WASTEWATER SYSTEMS UNLESS (1) EXPRESSLY STATED IN THE SPECIAL PROVISIONS FOR A PROJECT TO WHICH THE OCWUT IS A CONTRACTING ENTITY, OR (2) EXPRESSLY STATED IN WRITING ON FINAL PLANS APPROVED BY THE UTILITIES DIRECTOR OR A PROFESSIONAL ENGINEER DESIGNATED BY THE UTILITIES DIRECTOR TO REVIEW OF SUCH PLANS.

THESE UTILITIES DEPARTMENT STANDARD DETAILS SUPPLEMENT THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS.

WHERE THESE UTILITIES DEPARTMENT STANDARD DETAILS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS CONFLICT THESE UTILITIES DEPARTMENT STANDARD DETAILS SUPERSEDE AND TAKE PRECEDENCE OVER THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS.

ANY INTERPRETATION OF THE APPLICATION OF THESE UTILITIES DEPARTMENT STANDARD DETAILS WILL BE MADE BY THE UTILITIES DIRECTOR OR A PROFESSIONAL ENGINEER DESIGNATED BY THE UTILITIES DIRECTOR TO REVIEW OF SUCH PLANS.

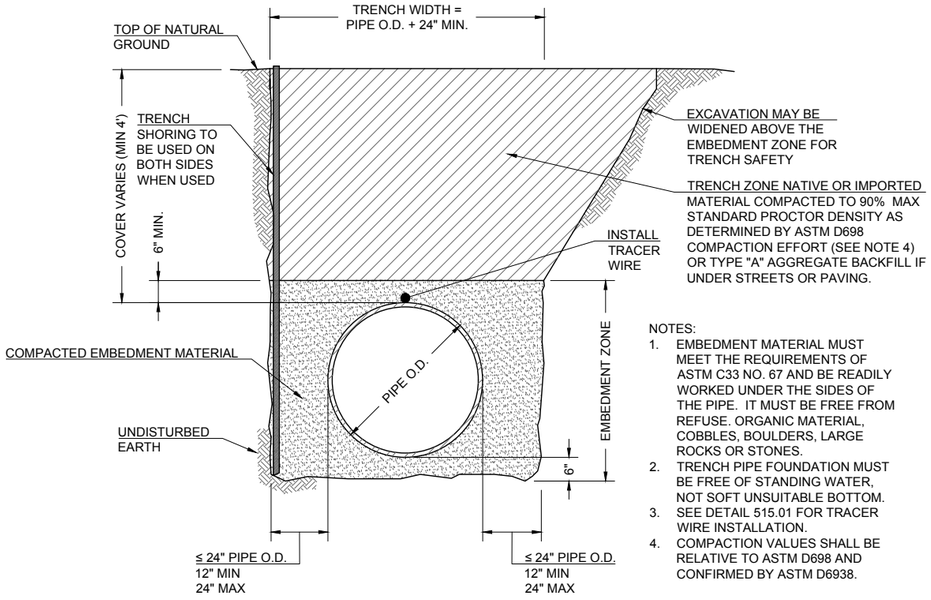
THE OFFICIAL COPIES OF THE UTILITIES DEPARTMENT STANDARD DETAILS ARE AVAILABLE ON THE UTILITIES DEPARTMENT WEBSITE.

The City of Oklahoma City
Utilities Department
Engineering Division

APPROVED BY:
DEBBIE MILLER, P.E., CITY ENGINEER/PUBLIC WORKS DIRECTOR — DATE: 5/28/25
CHRIS BROWNING, GE, IEPA — DATE: 5/28/25
UTILITIES ENGINEERING — DATE: 5/28/25

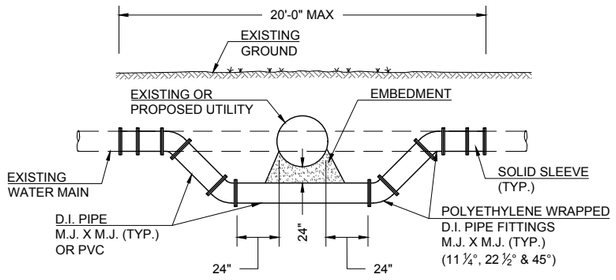
WATER STANDARD DETAILS
WATER STANDARD DETAIL INDEX

500



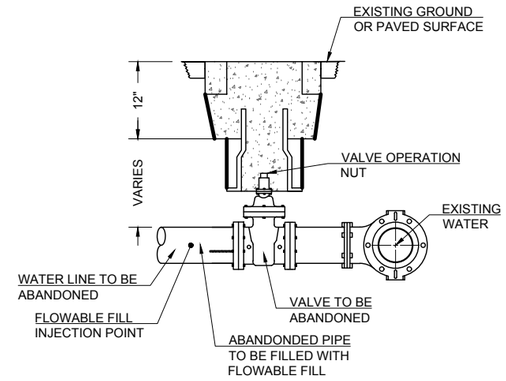
NOTES:
1. EMBEDMENT MATERIAL MUST MEET THE REQUIREMENTS OF ASTM C33 NO. 67 AND BE READILY WORKED UNDER THE SIDES OF THE PIPE. IT MUST BE FREE FROM REFUSE. ORGANIC MATERIAL, COBBLES, BOULDERS, LARGE ROCKS OR STONES.
2. TRENCH PIPE FOUNDATION MUST BE FREE OF STANDING WATER, NOT SOFT UNSUITABLE BOTTOM.
3. SEE DETAIL 515.01 FOR TRACER WIRE INSTALLATION.
4. COMPACTION VALUES SHALL BE RELATIVE TO ASTM D698 AND CONFIRMED BY ASTM D6938.

01 501 BEDDING AND TRENCHING
Scale: N.T.S.



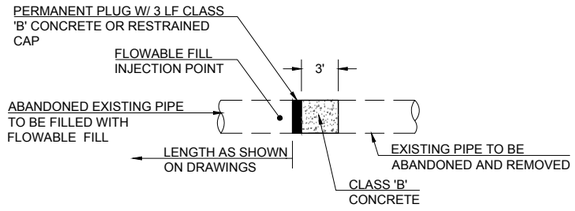
NOTES:
1. IF AN EXISTING WATER TAP OR SERVICE IS WITHIN THE LIMITS OF THE WATER MAIN LOWERING, CONTRACTOR MUST EXPOSE THE WATER SERVICE LINE AT THE CURB STOP AND RELOCATE AND REINSTALL NEW SERVICE.
2. ALL BENDS MUST BE RESTRAINED BY A CITY APPROVED METHOD TO RESTORE THE WATER MAIN TO SERVICE AS SOON AS POSSIBLE.
3. 24" MINIMUM VERTICAL SEPARATION FROM ALL STORM, SANITARY SEWERS, AND ALL OTHER UTILITIES.
4. LOWERING OF ALL PIPES GREATER THAN 16" REQUIRE CALCULATIONS FOR THRUST RESTAINTS.
5. SUBMISSION OF STANDARD WATER LINE SHUTDOWN REQUEST FOR REVIEW IS REQUIRED FOR ALL PIPE SIZES.
6. ARRANGE THE PIPING SO THAT JOINTS IN THE 20' LENGTH OF PVC OR 18' LENGTH OF CAST IRON SEWER PIPE WILL BE EQUIDISTANT FROM THE WATER MAIN. WHERE THE WATER MAIN CROSSES UNDER THE SEWER, PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR SEWER TO PREVENT DAMAGE TO THE WATER MAIN.

02 501 WATER LINE LOWERING < 24-INCH
Scale: N.T.S.

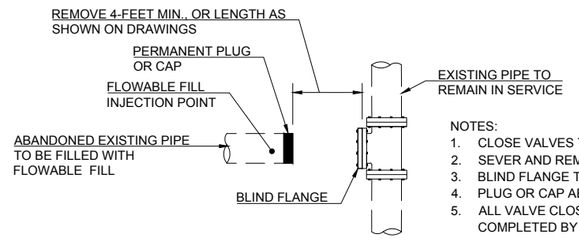


NOTES:
1. VALVE TO BE LEFT IN POSITION AS INDICATED ON PLANS.
2. REMOVE VALVE BOX TOP TO 12" BELOW EXISTING GROUND OR PAVED SURFACE AND REMOVE ANY RISER STEM.
3. IF IN GROUND, FILL VALVE BOX WITH CONCRETE TO 12" FROM SURFACE THEN FINISH W/ SOIL AND FINISH WITH SOD.
4. IF IN PAVED SURFACE, FILL VALVE CAN WITH CONCRETE TO SURFACE.

03 501 VALVE ABANDONMENT
Scale: N.T.S.

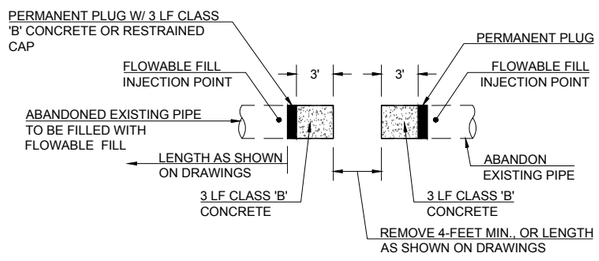


04 501 TYPICAL PERMANENT CUT AND CAP ON EXISTING WATER LINE
Scale: N.T.S.

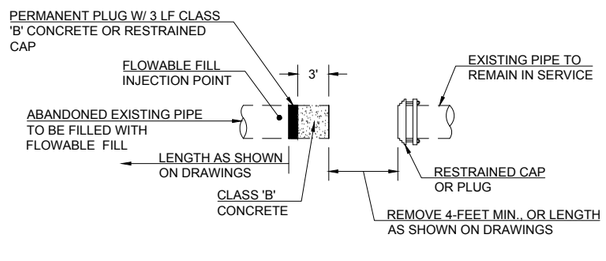


NOTES:
1. CLOSE VALVES TO ISOLATE LINE.
2. SEVER AND REMOVE PIPE SECTION.
3. BLIND FLANGE TO TEE OR EXISTING PIPING.
4. PLUG OR CAP ABANDONED PIPE END.
5. ALL VALVE CLOSURES TO BE COORDINATED AND COMPLETED BY LINE MAINTENANCE.

05 501 TYPICAL CUT AND CAP WITH WATER MAIN REMOVAL
Scale: N.T.S.



06 501 TYPICAL IN-LINE PIPE CUT AND RESTRAINED PLUG
Scale: N.T.S.



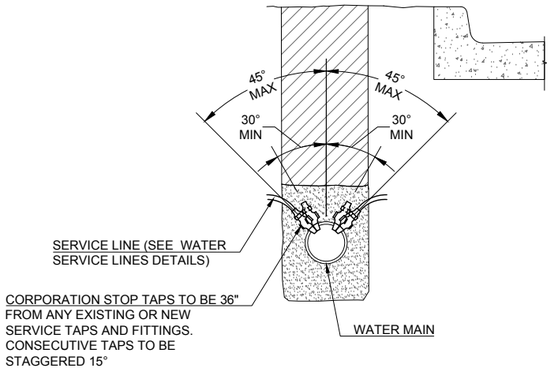
07 501 TYPICAL IN-LINE PIPE CUT AND PLUG
Scale: N.T.S.

The City of Oklahoma City
Utilities Department
Engineering Division

APPROVED BY:
DEBBIE MILLER, P.E., CITY ENGINEER/PUBLIC WORKS DIRECTOR — DATE: 5/28/25
CHRIS BROWNING, GE, IEP — UTILITIES ENGINEER/GSER — DATE: 5/28/25

WATER STANDARD DETAILS
WATERLINE PIPE
DETAILS 501.01 TO 501.07

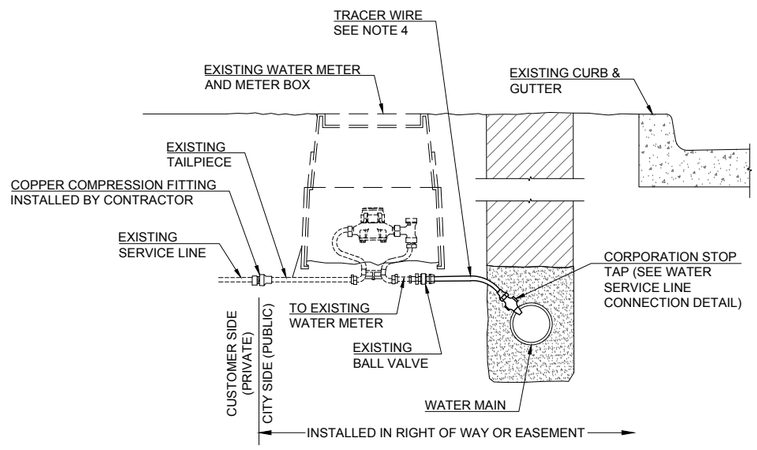
501



NOTES:
1. SERVICE SADDLES REQUIRED ON ALL TAPS UNLESS OTHERWISE SPECIFIED.
2. SERVICE SADDLES TO BE DOUBLE BAND STAINLESS STEEL SADDLES.

01 503 WATER SERVICE LINE CONNECTION

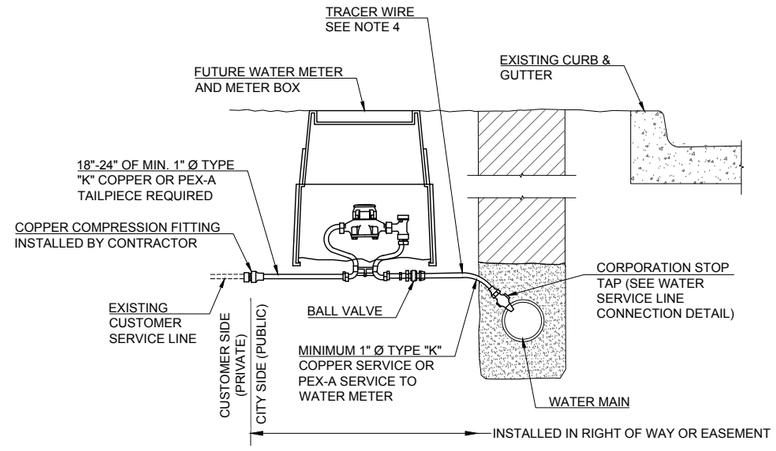
Scale: N.T.S.



NOTE:
1. SINGLE SHORT SERVICE LINES ARE DEFINED AS SERVICE LINES FROM THE MAIN TO METER IS 10 FEET OR LESS.
2. SHARKBITES ARE NOT ALLOWED, IF PLUMBER REMOVES THE CITY'S FITTING, IT WILL BECOME THE CUSTOMERS RESPONSIBILITY.
3. BALL VALVE MUST BE INSTALLED WITHIN THE LIMITS OF THE METER BOX.
4. TRACER WIRE MUST BE INSTALLED COILED AROUND THE INLET SIDE OF THE METER.

02 503 SINGLE SHORT SERVICE - REPLACEMENT

Scale: N.T.S.



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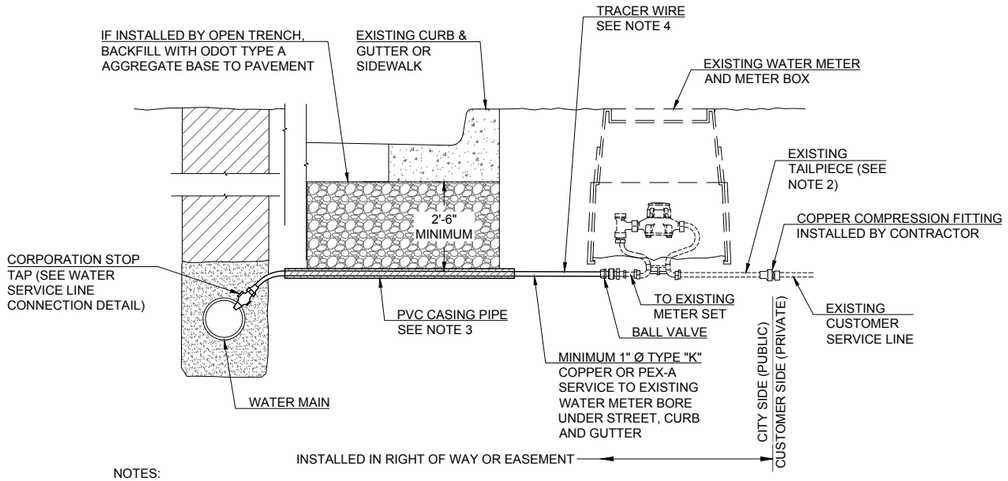
3. BALL VALVE MUST BE INSTALLED WITHIN THE LIMITS OF THE METER BOX.
4. TRACER WIRE MUST BE INSTALLED COILED AROUND THE BALL VALVE UNTIL THE METER IS INSTALLED. PROVIDE 5' OF ADDITIONAL TRACER WIRE IN COIL SO TRACER WIRE CAN BE INSTALLED AROUND INLET SIDE OF THE METER.

03 503 SINGLE SHORT SERVICE - NEW

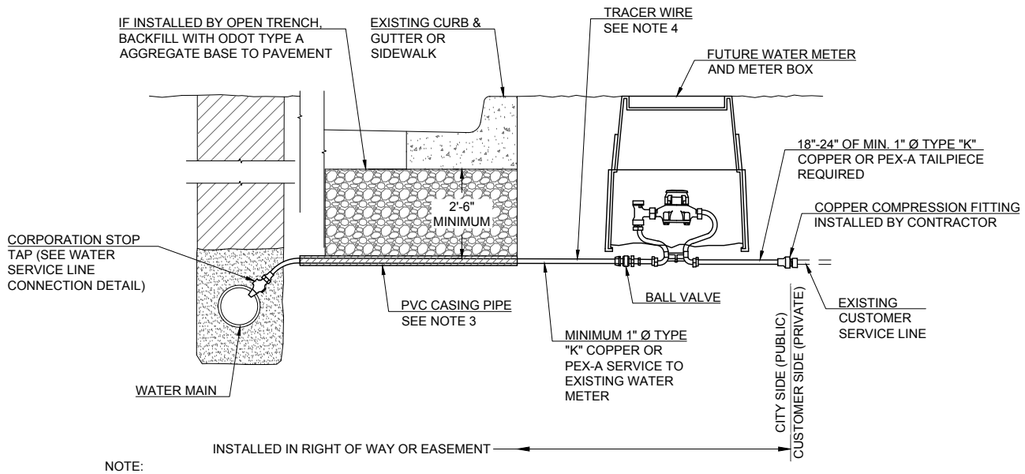
Scale: N.T.S.



NOTES:
1. SINGLE LONG SERVICE LINES ARE DEFINED AS SERVICE LINES FROM THE MAIN TO METER THAT ARE GREATER THAN 10 FEET. ANYTHING OVER 40 FEET IS CLASSIFIED AS AN EXTRA LONG SERVICE, AND THIS IS INTENDED ONLY FOR SPECIAL CIRCUMSTANCES.
2. SHARKBITES ARE NOT ALLOWED, IF PLUMBER REMOVES THE CITY'S FITTING, IT WILL BECOME THE CUSTOMERS RESPONSIBILITY.
3. PVC CASING PIPE REQUIRED FOR STREET CROSSING IF PEX-A PIPE IS USED FOR SERVICE LINE.
3. BALL VALVE MUST BE INSTALLED WITHIN THE LIMITS OF THE METER BOX.
4. TRACER WIRE MUST BE INSTALLED COILED AROUND THE INLET SIDE OF THE METER.

04 503 SINGLE LONG SERVICE - REPLACEMENT

Scale: N.T.S.



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4. TRACER WIRE MUST BE INSTALLED COILED AROUND THE BALL VALVE UNTIL THE METER IS INSTALLED. PROVIDE 5' OF ADDITIONAL TRACER WIRE IN COIL SO TRACER WIRE CAN BE INSTALLED AROUND INLET SIDE OF THE METER.

05 503 SINGLE LONG SERVICE - NEW

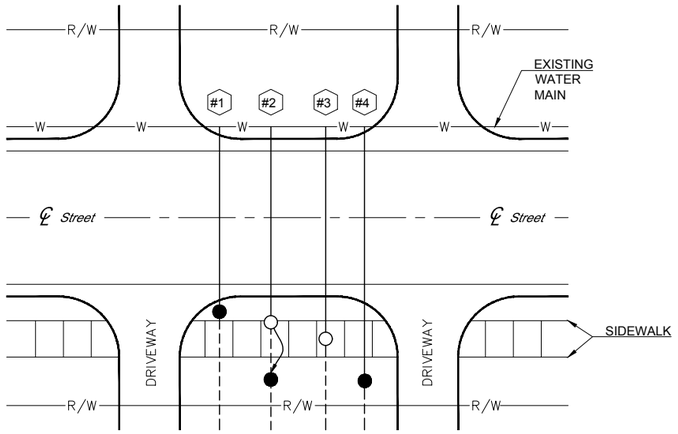
Scale: N.T.S.

The City of Oklahoma City
Utilities Department
Engineering Division

APPROVED BY:
DEBBIE MILLER, P.E., CITY ENGINEER/PUBLIC WORKS DIRECTOR — DATE: 5/28/25
CHRIS BROWNING, GE, IEPA — DATE: 5/28/25
UTILITIES ENGINEER — DATE: 5/28/25

WATER STANDARD DETAILS
WATER SERVICE
DETAILS 503.01 TO 503.05

503



#1 METER FALLS BETWEEN CURB AND PROPOSED SIDEWALK.
- NO ACTION REQUIRED.

#2 WHEN METER IS PARTIALLY LOCATED IN SIDEWALK OR WITHIN 6-INCHES OF PROPOSED SIDEWALK OR OUTSIDE EDGE OF METER BOX IS LOCATED WITHIN 6-INCHES OF SIDEWALK EDGE.
- CUT SERVICE LINE AND EXTEND SERVICE LINE BEHIND SIDEWALK.
- RECONNECT TO CUSTOMER'S SERVICE LINE WITHIN RIGHT OF WAY OR EASEMENT.
- REPLACE EXISTING METER BOX WITH APPROVED METER BOX.

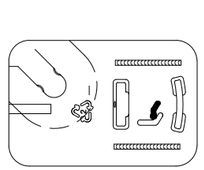
#3 IF METER FALLS IN CENTER OF PROPOSED SIDEWALK:
- REPLACE EXISTING METER BOX WITH MOST RECENT APPROVED TRAFFIC RATED BOX.

#4 METER FALLS ON CUSTOMER'S SIDE OF PROPOSED SIDEWALK.
- NO RELOCATION REQUIRED.

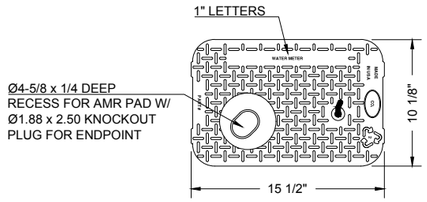
DOMESTIC METER RELOCATION REQUIREMENTS APPLY TO BOTH LONG AND SHORT SERVICES. SHORT SERVICE METER RELOCATION WILL REQUIRE A NEW SERVICE LINE FROM THE MAIN TO THE METER LOCATION. IF LEAD IS FOUND IT MUST BE REPORTED TO THE OKC WATER UTILITIES DEPARTMENT AT LEADSAFE@OKC.GOV OR 405-297-1600.

01 / 504 METER RELOCATION

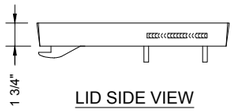
Scale: N.T.S.



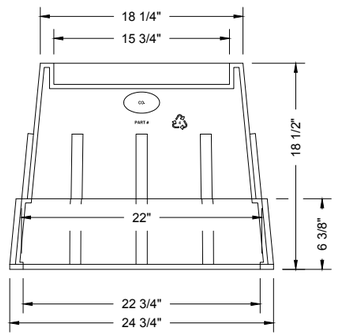
LID BOTTOM VIEW



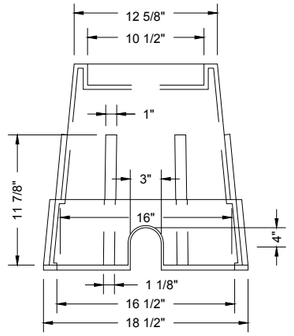
LID TOP VIEW



LID SIDE VIEW



LENGTH VIEW

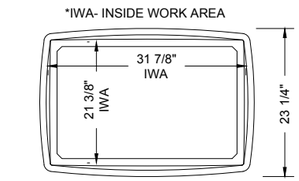


WIDTH VIEW

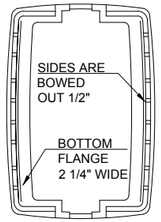
TYPICAL SPECIFICATIONS:
THE METER BOX MUST BE HIGH-DENSITY POLYETHYLENE OF ONE-PIECE MOLDED CONSTRUCTION WITHOUT A FOAMING AGENT FOR DURABILITY AND IMPACT STRENGTH AND MUST HAVE A SINGLE WALL DESIGN. THE METER BOX MUST BE ABLE TO WITHSTAND AN H-20 LOADING IN NON DELIBERATE OR INCIDENTAL TRAFFIC AREAS. THE METER BOX MUST BE BLACK. THE BOX MUST HAVE CRUSH RESISTANT RIBBING ALONG THE OUTSIDE OF THE BOX. THE BOX MUST BE DESIGNED IN SUCH A WAY AS TO HAVE AN INTEGRAL FLANGE TYPE LID AS SPECIFIED ON THE DRAWING. THE BOX MUST HAVE REMOVABLE PRE-CUT PIPE ENTRY AREAS LOCATED ON THE CENTER OF EACH END (SHORT SIDE) OF THE BOX FOR THE SINGLE METER INSTALLATIONS. THE BOX MUST BE DESIGNED IN SUCH A WAY TO BE SECURELY STACKABLE. THE BOX MUST WEIGH NO LESS THAN 20 LBS. ALL DIMENSIONS ARE PRODUCTION MEASUREMENTS AND MUST BE IN ACCORDANCE WITH THE ABOVE DRAWING. COVER MUST BE ANTI-FLOAT BLACK REBAR MOLDED POLYMER LID WITH A SINGLE WALL DESIGN AND A MINIMUM WALL THICKNESS AS SPECIFIED. THE LID WEIGHT MUST BE A MINIMUM OF 10 LBS. THE LID MUST NOT HAVE A FOAMING PLASTIC OR BLOWING AGENT THAT CREATES AIR POCKETS. LIDS MUST CONTAIN A MOLDED KEY HOLE DESIGN. LID MUST HAVE AN INTEGRAL MOLDED SLIDE MOUNT FOR AMR DEVICE AND MUST BE MOLDED AS ONE PIECE. THE LID MUST CONTAIN TREAD PATTERN AS ILLUSTRATED WITH DIMENSION PER TREAD OF 0.188" X 0.938" X 0.150" DEEP. LID MUST CONTAIN THE NAME OF THE MANUFACTURER AND PART NUMBER. THE METER BOX AND LID MUST BE MANUFACTURED BY DFW PLASTICS, INC. OR APPROVED EQUIVALENT.

02 / 504 METER BOX FOR GRASSY AREA

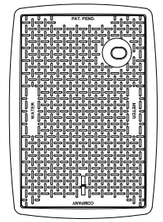
FOR 5/8-INCH TO 1-INCH METERS Scale: N.T.S.



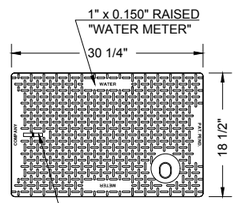
TOP VIEW



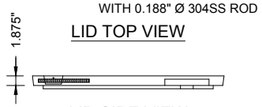
BOTTOM VIEW



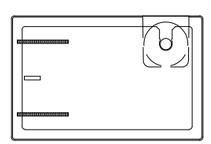
TOP VIEW WITH LID



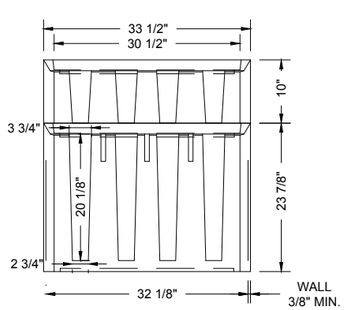
LID TOP VIEW



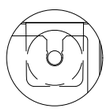
LID SIDE VIEW



LID BOTTOM VIEW

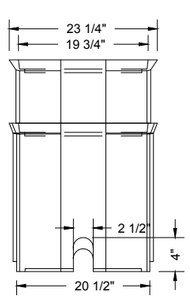


LENGTH VIEW



MOLDED
AMR/AMI MOUNT

KISS OFF DETAIL



WIDTH VIEW

TYPICAL SPECIFICATIONS:
THE METER BOX MUST BE HIGH-DENSITY POLYETHYLENE OF ONE-PIECE MOLDED CONSTRUCTION WITHOUT A FOAMING AGENT FOR DURABILITY AND IMPACT STRENGTH AND MUST HAVE A SINGLE WALL DESIGN. THE METER BOX MUST BE ABLE TO WITHSTAND AN H-20 LOADING IN NON DELIBERATE OR INCIDENTAL TRAFFIC AREAS. THE METER BOX MUST BE BLACK TO PREVENT UV DEGRADATION. THE BOX MUST HAVE CRUSH RESISTANT RIBBING ALONG THE OUTSIDE OF THE BOX. THE BOX MUST BE DESIGNED IN SUCH A WAY AS TO HAVE AN INTEGRAL FLANGE TYPE LID AS SPECIFIED ON THE DRAWING. THE BOX MUST HAVE REMOVABLE PRE-CUT PIPE ENTRY AREAS LOCATED ON THE CENTER OF EACH END (SHORT SIDE) OF THE BOX FOR SINGLE METER INSTALLATIONS. THE BOX MUST BE DESIGNED IN SUCH A WAY AS TO BE SECURELY STACKABLE. THE BOX MUST WEIGH NO LESS THAN 46 LBS FOR 24" HEIGHT AND NO LESS THAN 72 LBS FOR 34" HEIGHT FOR SAFETY AND EASE OF HANDLING, TRANSPORT AND INSTALLATION. ALL DIMENSIONS ARE MINIMUM PRODUCTION MEASUREMENTS AND MUST BE IN ACCORDANCE WITH THE ABOVE DRAWING (S) FOR THE APPROPRIATE SIZE METER. COVER MUST BE ANTI-FLOAT BLACK REBAR MOLDED POLYMER LID OR BLACK OVERLAY WITH A 0.25" METAL PLATE WITH A SINGLE WALL DESIGN AND A MINIMUM WALL DESIGN AND MINIMUM THICKNESS AS SPECIFIED. THE LID WEIGHT MUST BE A MINIMUM OF 43 LBS. THE LID MUST NOT HAVE A FOAMING PLASTIC OR BLOWING AGENT THAT CREATES AIR POCKETS. LID MUST CONTAIN A MOLDED KEY HOLE DESIGN. LID MUST HAVE AN INTEGRAL MOLDED SLIDE MOUNT FOR AMR DEVICE AND MUST BE MOLDED AS A ONE PIECE UNIT AS SPECIFIED IN THE ABOVE DRAWING. THE LID MUST CONTAIN THE TREAD PATTEN AS ILLUSTRATED WITH DIMENSION PER TREAD OF 0.188" X 0.938" X 0.150" DEEP. LID MUST CONTAIN THE NAME OF THE MANUFACTURER AND PART NUMBER. THE METER BOX AND LID MUST BE MANUFACTURED BY DFW PLASTICS, INC. OR APPROVED EQUAL.

03 / 504 METER BOX FOR HIGH TRAFFIC COMMERICAL AREA

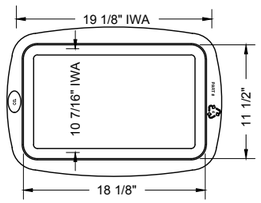
FOR 5/8-INCH TO 1-INCH METERS Scale: N.T.S.

The City of Oklahoma City
Utilities Department
Engineering Division

APPROVED BY:
DEBBIE MILLER, P.E., CITY ENGINEER — DATE: 5/28/25
CHRIS BROWNING, GEN. MGR. — DATE: 5/28/25
UTILITIES ENGINEER — DATE: 5/28/25

WATER STANDARD DETAILS
METER BOXES
DETAILS 504.01 TO 504.03

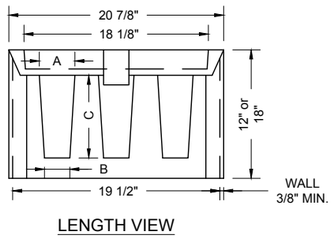
504.A



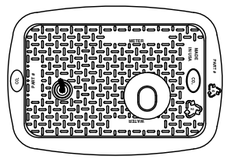
TOP VIEW

*IWA- INSIDE WORK AREA

HEIGHT	A	B	C
12"	3 1/2"	2 1/2"	7 5/8"
18"	3 3/8"	2 3/8"	13 1/2"

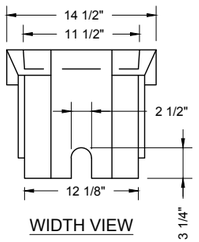


LENGTH VIEW

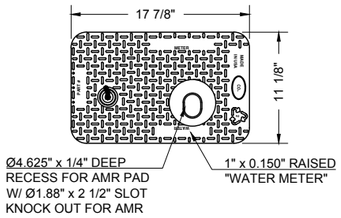


TOP VIEW WITH LID

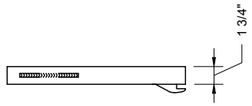
MOLDED AMR/AMI MOUNT



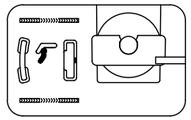
WIDTH VIEW



LID TOP VIEW

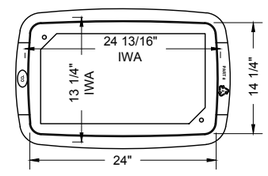


LID SIDE VIEW



LID BOTTOM VIEW

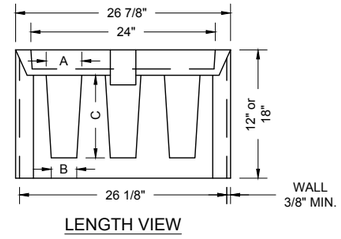
TYPICAL SPECIFICATIONS:
THE METER BOX MUST BE HIGH-DENSITY POLYETHYLENE OF ONE-PIECE MOLDED CONSTRUCTION WITHOUT A FOAMING AGENT FOR DURABILITY AND IMPACT STRENGTH AND MUST HAVE A SINGLE WALL DESIGN. THE METER BOX MUST BE ABLE TO WITHSTAND AN H-20 LOADING IN NON DELIBERATE OR INCIDENTAL TRAFFIC AREAS. THE METER BOX MUST BE BLACK TO PREVENT UV DEGRADATION. THE BOX MUST HAVE CRUSH RESISTANT RIBBING ALONG THE OUTSIDE OF THE BOX. THE BOX MUST BE DESIGNED IN SUCH A WAY AS TO HAVE AN INTEGRAL FLANGE TYPE LID AS SPECIFIED ON THE DRAWING. THE BOX MUST HAVE REMOVABLE PRE-CUT PIPE ENTRY AREAS LOCATED ON THE CENTER OF EACH END (SHORT SIDE) OF THE BOX FOR SINGLE METER INSTALLATIONS. THE BOX MUST BE DESIGNED IN SUCH A WAY AS TO BE SECURELY STACKABLE. THE BOX MUST WEIGH NO LESS THAN 15 LBS FOR 12" HEIGHT AND NO LESS THAN 18 LBS FOR 18" HEIGHT FOR SAFETY AND EASE OF HANDLING, TRANSPORT AND INSTALLATION. ALL DIMENSIONS ARE MINIMUM PRODUCTION MEASUREMENTS AND MUST BE IN ACCORDANCE WITH THE ABOVE DRAWING (S) FOR THE APPROPRIATE SIZE METER. COVER MUST BE ANTI-FLOAT BLACK REBAR MOLDED POLYMER LID WITH A SINGLE WALL DESIGN AND A MINIMUM WALL DESIGN AND MINIMUM THICKNESS AS SPECIFIED. THE LID WEIGHT MUST BE A MINIMUM OF 13 LBS. THE LID MUST NOT HAVE A FOAMING PLASTIC OR BLOWING AGENT THAT CREATES AIR POCKETS. LID MUST CONTAIN A MOLDED KEY HOLE DESIGN. LID MUST HAVE AN INTEGRAL MOLDED SLIDE MOUNT FOR AMR DEVICE AND MUST BE MOLDED AS A ONE PIECE UNIT AS SPECIFIED IN THE ABOVE DRAWING. THE LID MUST CONTAIN THE TREAD PATTEN AS ILLUSTRATED WITH DIMENSION PER TREAD OF 0.188" X 0.938" X 0.150" DEEP. LID MUST CONTAIN THE NAME OF THE MANUFACTURER AND PART NUMBER. THE METER BOX AND LID MUST BE MANUFACTURED BY DFW PLASTICS, INC. OR APPROVED EQUIVALENT.



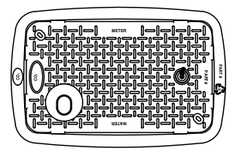
TOP VIEW

*IWA- INSIDE WORK AREA

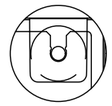
HEIGHT	A	B	C
12"	3 1/2"	2 5/8"	7 7/8"
18"	3 3/8"	2 1/2"	13 7/8"



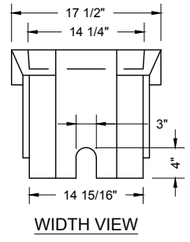
LENGTH VIEW



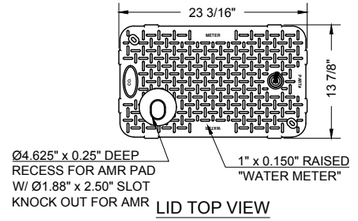
TOP VIEW WITH LID



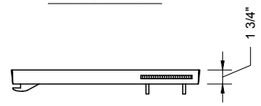
MOLDED AMR/AMI MOUNT



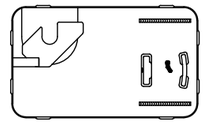
WIDTH VIEW



LID TOP VIEW



LID SIDE VIEW



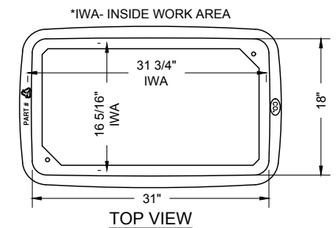
LID BOTTOM VIEW

TYPICAL SPECIFICATIONS:
THE METER BOX MUST BE HIGH-DENSITY POLYETHYLENE OF ONE-PIECE MOLDED CONSTRUCTION WITHOUT A FOAMING AGENT FOR DURABILITY AND IMPACT STRENGTH AND MUST HAVE A SINGLE WALL DESIGN. THE METER BOX MUST BE ABLE TO WITHSTAND AN H-20 LOADING IN NON DELIBERATE OR INCIDENTAL TRAFFIC AREAS. THE METER BOX MUST BE BLACK TO PREVENT UV DEGRADATION. THE BOX MUST HAVE CRUSH RESISTANT RIBBING ALONG THE OUTSIDE OF THE BOX. THE BOX MUST BE DESIGNED IN SUCH A WAY AS TO HAVE AN INTEGRAL FLANGE TYPE LID AS SPECIFIED ON THE DRAWING. THE BOX MUST HAVE REMOVABLE PRE-CUT PIPE ENTRY AREAS LOCATED ON THE CENTER OF EACH END (SHORT SIDE) OF THE BOX FOR SINGLE METER INSTALLATIONS. THE BOX MUST BE DESIGNED IN SUCH A WAY AS TO BE SECURELY STACKABLE. THE BOX MUST WEIGH NO LESS THAN 19 LBS FOR 12" HEIGHT AND NO LESS THAN 27 LBS FOR 18" HEIGHT FOR SAFETY AND EASE OF HANDLING, TRANSPORT AND INSTALLATION. ALL DIMENSIONS ARE MINIMUM PRODUCTION MEASUREMENTS AND MUST BE IN ACCORDANCE WITH THE ABOVE DRAWING (S) FOR THE APPROPRIATE SIZE METER. COVER MUST BE ANTI-FLOAT BLACK REBAR MOLDED POLYMER LID WITH A SINGLE WALL DESIGN AND A MINIMUM WALL DESIGN AND MINIMUM THICKNESS AS SPECIFIED. THE LID WEIGHT MUST BE A MINIMUM OF 21 LBS. THE LID MUST NOT HAVE A FOAMING PLASTIC OR BLOWING AGENT THAT CREATES AIR POCKETS. LID MUST CONTAIN A MOLDED KEY HOLE DESIGN. LID MUST HAVE AN INTEGRAL MOLDED SLIDE MOUNT FOR AMR DEVICE AND MUST BE MOLDED AS A ONE PIECE UNIT AS SPECIFIED IN THE ABOVE DRAWING. THE LID MUST CONTAIN THE TREAD PATTEN AS ILLUSTRATED WITH DIMENSION PER TREAD OF 0.188" X 0.938" X 0.150" DEEP. LID MUST CONTAIN THE NAME OF THE MANUFACTURER AND PART NUMBER. THE METER BOX AND LID MUST BE MANUFACTURED BY DFW PLASTICS, INC. OR APPROVED EQUIVALENT.

04/504 METER BOX FOR GRASSY AND PAVED AREAS

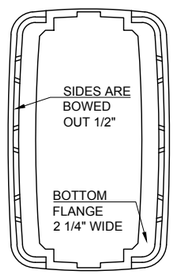
FOR 5/8-INCH TO 1-INCH METERS

Scale: N.T.S.

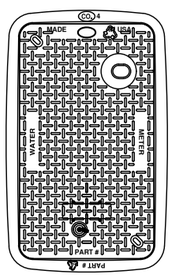


TOP VIEW

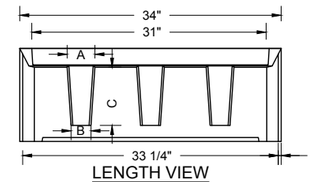
HEIGHT	A	B	C
12"	3.125"	2.25"	7 1/2"
18"	3.125"	2.25"	13 1/2"



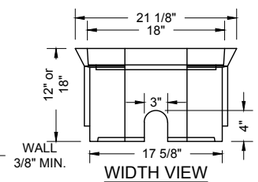
BOTTOM VIEW



TOP VIEW WITH LID



LENGTH VIEW



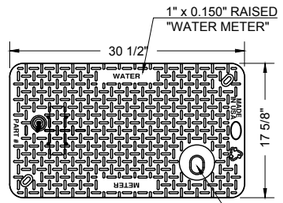
WIDTH VIEW

MOLDED AMR/AMI MOUNT

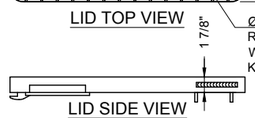
05/504 METER BOX FOR GRASSY AND PAVED AREAS

1-1/2-INCH METERS

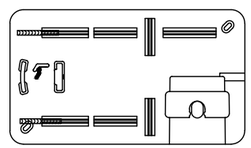
Scale: N.T.S.



LID TOP VIEW



LID SIDE VIEW



LID BOTTOM VIEW

TYPICAL SPECIFICATIONS:
THE METER BOX MUST BE HIGH-DENSITY POLYETHYLENE OF ONE-PIECE MOLDED CONSTRUCTION WITHOUT A FOAMING AGENT FOR DURABILITY AND IMPACT STRENGTH AND MUST HAVE A SINGLE WALL DESIGN. THE METER BOX MUST BE ABLE TO WITHSTAND AN H-20 LOADING IN NON DELIBERATE OR INCIDENTAL TRAFFIC AREAS. THE METER BOX MUST BE BLACK TO PREVENT UV DEGRADATION. THE BOX MUST HAVE CRUSH RESISTANT RIBBING ALONG THE OUTSIDE OF THE BOX. THE BOX MUST BE DESIGNED IN SUCH A WAY AS TO HAVE AN INTEGRAL FLANGE TYPE LID AS SPECIFIED ON THE DRAWING. THE BOX MUST HAVE REMOVABLE PRE-CUT PIPE ENTRY AREAS LOCATED ON THE CENTER OF EACH END (SHORT SIDE) OF THE BOX FOR SINGLE METER INSTALLATIONS. THE BOX MUST BE DESIGNED IN SUCH A WAY AS TO BE SECURELY STACKABLE. THE BOX MUST WEIGH NO LESS THAN 27 LBS FOR 12" HEIGHT AND NO LESS THAN 36 LBS FOR 18" HEIGHT FOR SAFETY AND EASE OF HANDLING, TRANSPORT AND INSTALLATION. ALL DIMENSIONS ARE MINIMUM PRODUCTION MEASUREMENTS AND MUST BE IN ACCORDANCE WITH THE ABOVE DRAWING (S) FOR THE APPROPRIATE SIZE METER. COVER MUST BE ANTI-FLOAT BLACK REBAR MOLDED POLYMER LID WITH A SINGLE WALL DESIGN AND A MINIMUM WALL DESIGN AND MINIMUM THICKNESS AS SPECIFIED. THE LID WEIGHT MUST BE A MINIMUM OF 44 LBS. THE LID MUST NOT HAVE A FOAMING PLASTIC OR BLOWING AGENT THAT CREATES AIR POCKETS. LID MUST CONTAIN A MOLDED KEY HOLE DESIGN. LID MUST HAVE AN INTEGRAL MOLDED SLIDE MOUNT FOR AMR DEVICE AND MUST BE MOLDED AS A ONE PIECE UNIT AS SPECIFIED IN THE ABOVE DRAWING. THE LID MUST CONTAIN THE TREAD PATTEN AS ILLUSTRATED WITH DIMENSION PER TREAD OF 0.188" X 0.938" X 0.150" DEEP. LID MUST CONTAIN THE NAME OF THE MANUFACTURER AND PART NUMBER. THE METER BOX MUST AND LID BE MANUFACTURED BY DFW PLASTICS, INC. OR APPROVED EQUIVALENT.

06/504 METER BOX FOR GRASSY AND PAVED AREAS

2-INCH METERS

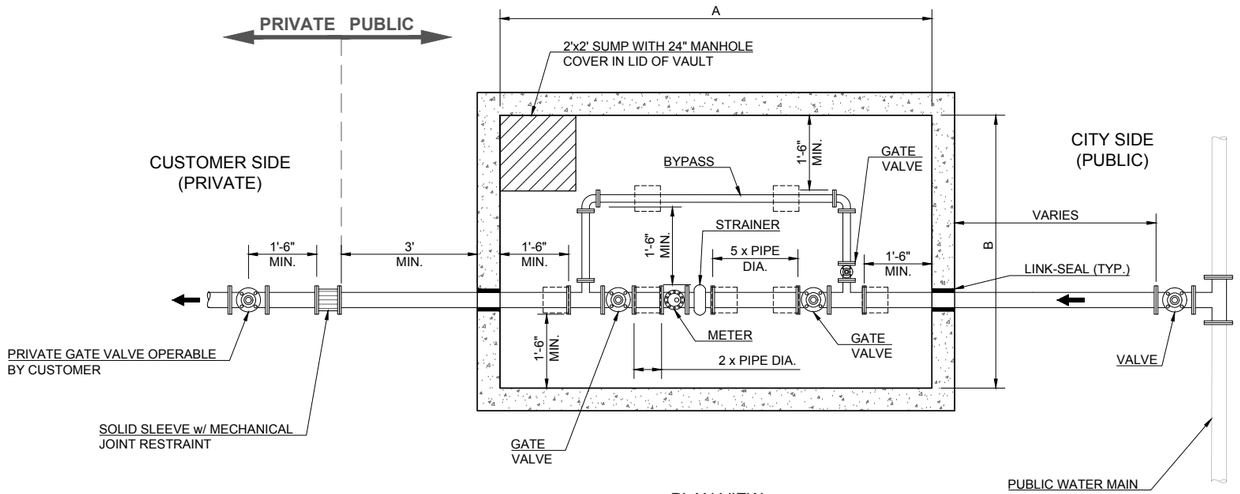
Scale: N.T.S.

The City of Oklahoma City
Utilities Department
Engineering Division

APPROVED BY:
DEBBIE MILLER, P.E., CITY ENGINEER — DATE: 5/28/25
CHRIS BROWNING, GEN. MGR. — DATE: 5/28/25
UTILITIES ENGINEER — DATE: 5/28/25

WATER STANDARD DETAILS
METER BOXES
DETAILS 504.04 TO 504.06

504.B



PLAN VIEW

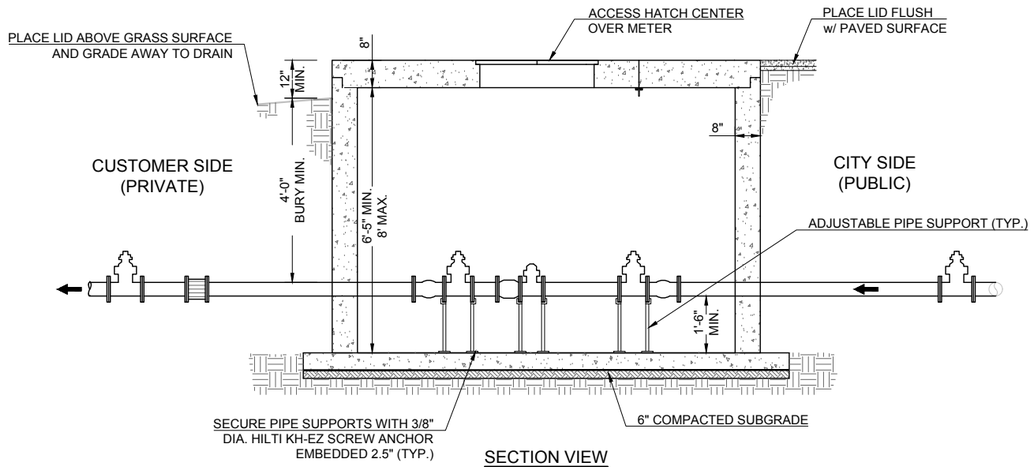
07
504

WATER METER VAULT LAYOUT

Scale: N.T.S.

DEMAND (GPM)	METER SIZE	BY-PASS SIZE	A	B
0.5-450	3"	2"	9'-6"	6'-0"
0.75-1250	4"	2"	11'-0"	6'-0"
0.75-2500	6"	3"	14'-0"	6'-6"

NOTE: METERS TO BE COMPOUND TYPE METERS



SECTION VIEW

08
504

WATER METER VAULT SECTION

Scale: 1' = 4"

GENERAL NOTES:

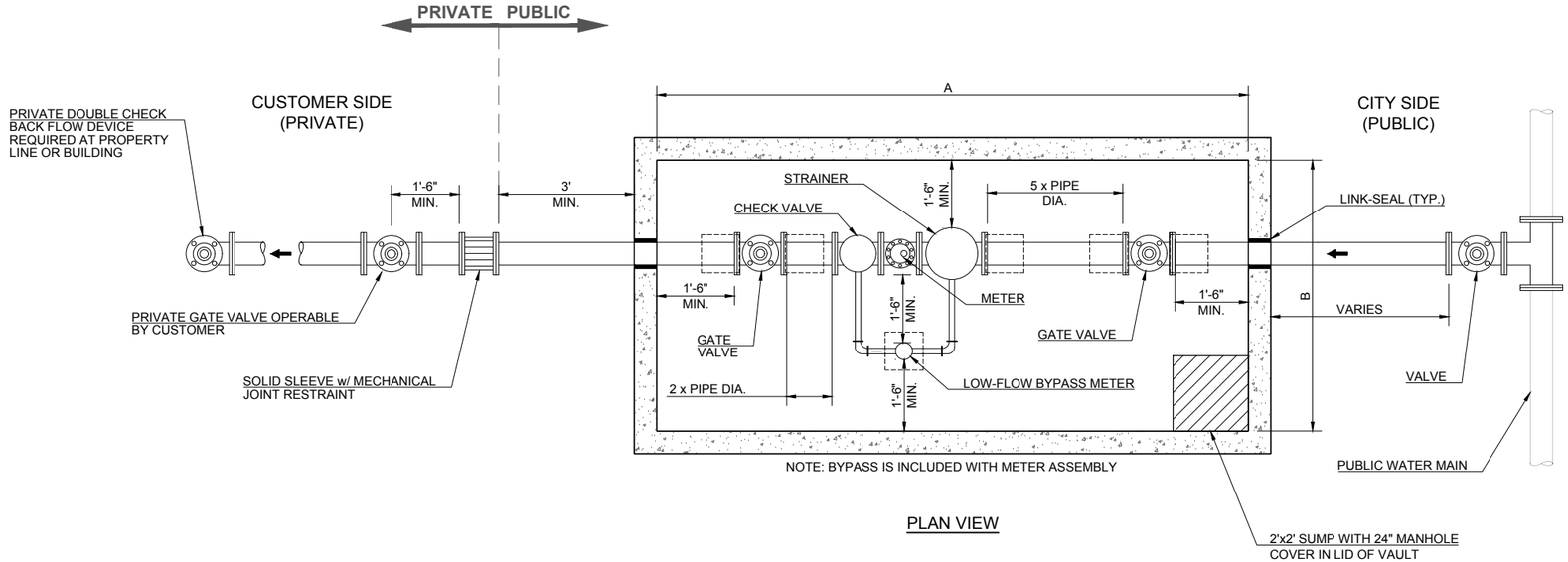
1. ALL CONSTRUCTION MUST BE DONE IN STRICT ACCORDANCE WITH OKLAHOMA CITY'S "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS" AND MUST BE UNDER THE STRICT SUPERVISION OF THE CITY ENGINEER OF THE CITY OF OKLAHOMA CITY.
2. ACCESS HATCH MUST BE HALLIDAY PRODUCTS SERIES H2R ACCESS DOOR (TRAFFIC RATED) w/ SAFETY FALL GRATING, EAST JORDAN DUCTILE IRON ACCESS DOOR (TRAFFIC RATED) w/ SAFETY FALL GRATING, OR APPROVED EQUAL.
3. ALL FITTINGS WITHIN VAULT MUST BE FLANGED.
4. ALL FITTINGS & PIPE OUTSIDE OF VAULT MUST BE RESTRAINED FITTINGS.
5. ADJUSTABLE PIPE SADDLE SUPPORT w/ THREADED PIPE STAND w/ ELECTRO-GALVANIZED FINISH MEETING ANSI / MSS SP-69 & SP-58, TYPE 38.
6. ALL PIPE & FITTINGS WITHIN THE VAULT MUST BE DUCTILE IRON PIPE (DIP). DIP MUST EXTEND A MINIMUM OF 3' BEYOND THE OUTSIDE FACE OF THE VAULT. WHERE CONNECTING TO PVC PIPE OUTSIDE OF THE VAULT A MECHANICALLY RESTRAINED SOLID SLEEVE OR FITTING MUST BE USED.

The City of Oklahoma City
Utilities Department
Engineering Division

APPROVED BY:
DEBBIE MILLER, P.E., CITY ENGINEER/PUBLIC WORKS DIRECTOR — DATE: 5/28/25
CHRIS BROWNING, GEN. MGR. — DATE: 5/28/25
UTILITIES ENGINEER — DATE: 5/28/25

WATER STANDARD DETAILS
WATER METER VAULT
DETAILS 504.07 TO 504.09

504.C



PLAN VIEW

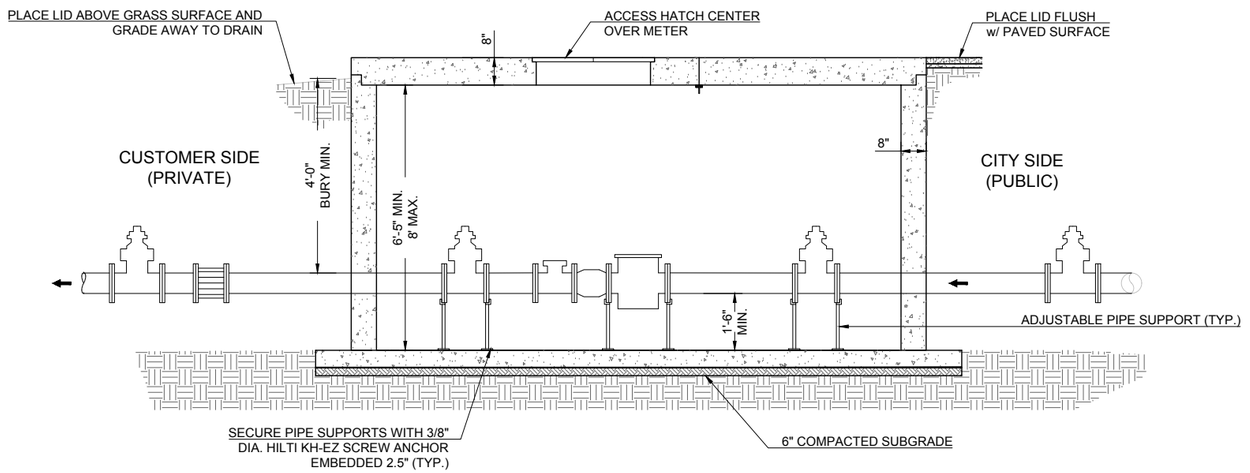
09
504

DUAL FLOW METER VAULT LAYOUT

Scale: N.T.S.

Meter Size	A	B
6"	7'-6"	6'-0"
8"	13'0"	6'-0"
10"	17'-6"	6'-0"
12"	21'-4"	6'-0"

NOTE: METER TO BE FIRE SERIES ASSEMBLY METER APPROVED FOR BOTH DOMESTIC AND FIRE FLOW



SECTION VIEW

10
504

DUAL FLOW METER VAULT SECTION

Scale: 1' = 4"

GENERAL NOTES:

1. ALL CONSTRUCTION MUST BE DONE IN STRICT ACCORDANCE WITH OKLAHOMA CITY'S "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS" AND MUST BE UNDER THE STRICT SUPERVISION OF THE CITY ENGINEER OF THE CITY OF OKLAHOMA CITY.
2. ACCESS HATCH MUST BE HALLIDAY PRODUCTS SERIES H2R ACCESS DOOR (TRAFFIC RATED) W/ SAFETY FALL GRATING, EAST JORDAN DUCTILE IRON ACCESS DOOR (TRAFFIC RATED) W/ SAFETY FALL GRATING, OR APPROVED EQUAL.
3. VAULT ACCESS HATCHES OUTSIDE VEHICULAR TRAVELED SURFACES w/ SAFETY FALL GRATING.
4. ALL FITTINGS WITHIN VAULT MUST BE FLANGED.
5. ALL FITTINGS & PIPE OUTSIDE OF VAULT MUST BE RESTRAINED FITTINGS.
6. ADJUSTABLE PIPE SADDLE SUPPORT w/ THREADED PIPE STAND w/ ELECTRO-GALVANIZED FINISH MEETING ANSI / MSS SP-69 & SP-58, TYPE 38.
7. ALL PIPE & FITTINGS WITHIN THE VAULT MUST BE DUCTILE IRON PIPE (DIP). DIP MUST EXTEND A MINIMUM OF 3' BEYOND THE OUTSIDE FACE OF THE VAULT. WHERE CONNECTING TO PVC PIPE OUTSIDE OF THE VAULT A MECHANICALLY RESTRAINED SOLID SLEEVE OR FITTING MUST BE USED.
8. ACCESS HATCH MUST BE HALLIDAY PRODUCTS SERIES H2R ACCESS DOOR, OR APPROVED EQUAL.

The City of Oklahoma City
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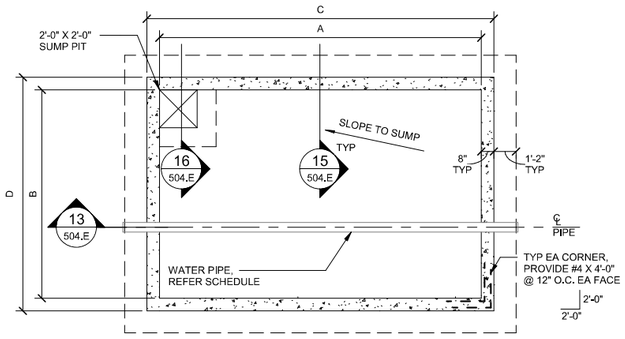
UTILITIES ENGINEER — DATE: 5/28/25

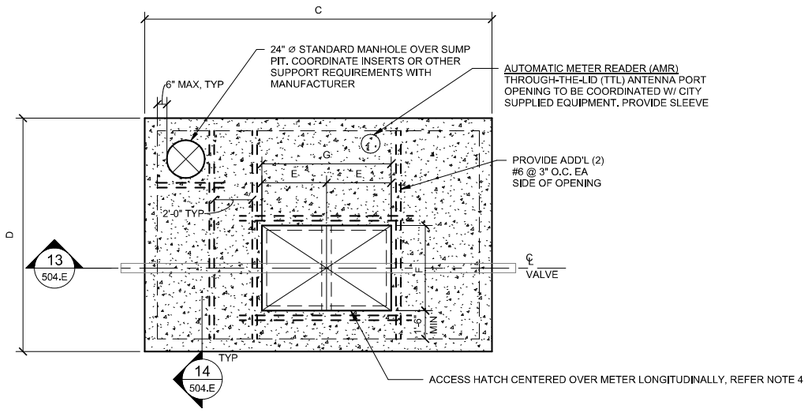
WATER STANDARD DETAILS
DUEL FLOW METER VAULT
DETAILS 506.01 TO 506.03

504.D



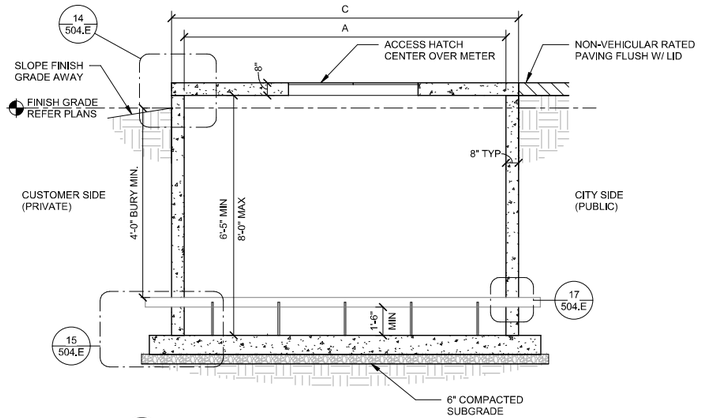
11 504 VALVE VAULT FOUNDATION PLAN

SCALE : N.T.S.



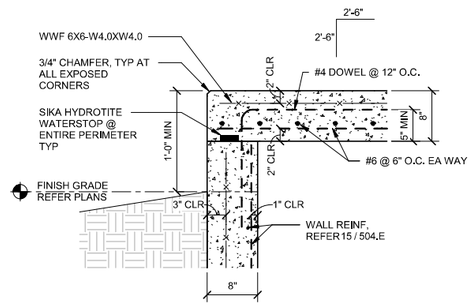
12 504 VALVE VAULT LID PLAN

SCALE : N.T.S.



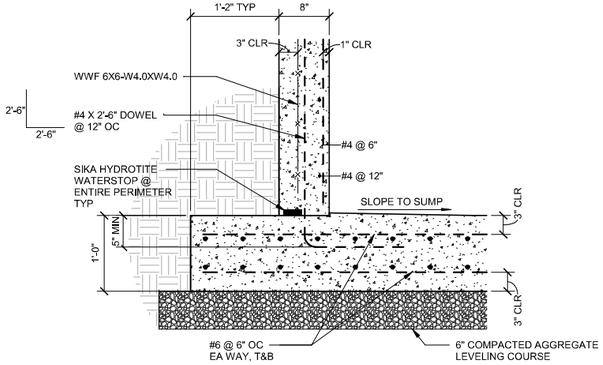
13 504 PIPE CENTERLINE SECTION

SCALE : N.T.S.



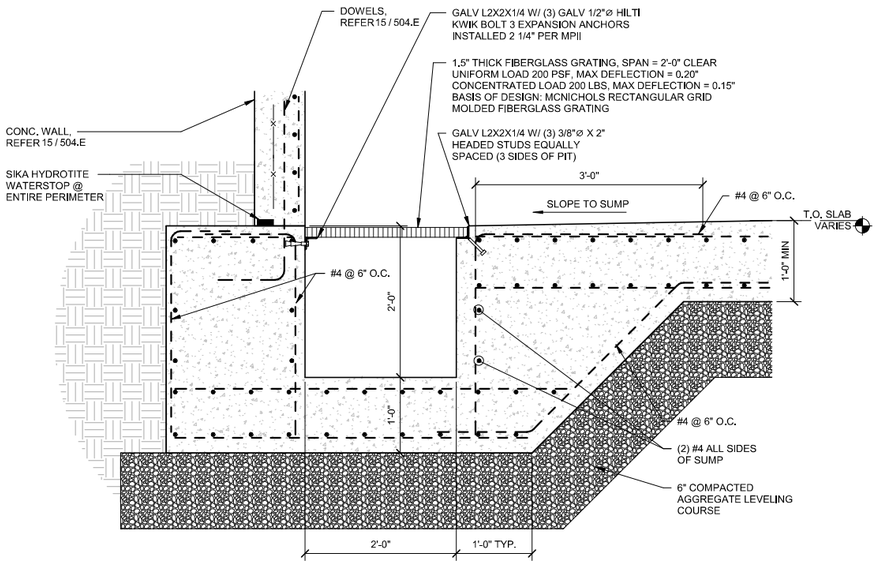
14 504 VAULT LID DETAIL

SCALE : N.T.S.



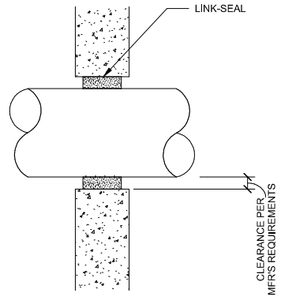
15 504 VAULT SLAB DETAIL

SCALE : N.T.S.



16 504 SUMP PIT DETAIL

SCALE : N.T.S.



17 504 PIPE WALL PENETRATION DETAIL

SCALE : N.T.S.

DESIGN CRITERIA

APPLICABLE CODES AND STANDARDS

ASCE 7-16	MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
ACI 318-14	BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE

DEAD LOAD

SELF WEIGHT OF STRUCTURE	ACTUAL WEIGHT OF MATERIALS

LIVE LOAD

VAULT LID	H20 VEHICLE LOADING (32,000 LBS AXLE LOAD)

FOUNDATION DESIGN

SHALLOW FOUNDATIONS ALLOWABLE BEARING PRESSURE	1,500 PSF

WATER METER VAULT LID LAYOUT

			HALLIDAY		EAST JORDAN	
METER SIZE	C	D	E	F	E	F
3"	10'-10"	7'-4"	24"	42"	48"	48"
4"	12'-4"	7'-4"	24"	42"	48"	48"
6"	15'-4"	7'-10"	24"	42"	48"	48"

DUAL FLOW METER VAULT LID LAYOUT

			HALLIDAY		EAST JORDAN	
METER SIZE	C	D	E	F	E	F
6"	8'-10"	7'-4"	30"	48"	48"	48"
8"	14'-4"	7'-4"	30"	48"	48"	98"
10"	18'-10"	7'-4"	37"	48"	48"	98"
12"	22'-8"	7'-4"	48"	48"	48"	98"

GENERAL NOTES:

1. THESE PROTOTYPICAL VAULTS HAVE BEEN DESIGNED USING AN ASSUMED MINIMUM ALLOWABLE BEARING PRESSURE OF 1,500 PSF, SHOULD ACTUAL SITE CONDITIONS REVEAL A LOWER ALLOWABLE BEARING PRESSURE IS APPROPRIATE, THE ENGINEER OF RECORD SHALL VERIFY ALL FOUNDATION DESIGNS.
2. THE CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. ALL TEMPORARY BRACING, SHORING, SUPPORTS, ETC., ARE THE RESPONSIBILITY OF THE CONTRACTOR.
3. ALL CONSTRUCTION MUST BE DONE IN STRICT ACCORDANCE WITH OKLAHOMA CITY'S "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS" AND MUST BE UNDER STRICT SUPERVISION OF THE CITY ENGINEER OF THE CITY OF OKLAHOMA CITY.
4. IN GRASS AREA, ACCESS HATCH MUST BE HALLIDAY PRODUCTS SERIES H2R ACCESS DOOR W/ SAFETY FALL GRATING, OR APPROVED EQUAL. IN PAVED AREA, ACCESS HATCH MUST BE EAST JORDAN WITH DUCTILE IRON LID (MODEL: 00821221B01) W/ SAFETY FALL GRATING OR APPROVED EQUAL.
5. SUBGRADE MUST BE COMPACTED TO 95% STD. PROCTOR DENSITY, ASTM D-698 OR AS SPECIFIED IN SITE-SPECIFIC GEOTECHNICAL REPORT, WHICHEVER IS MORE RESTRICTIVE.
6. AGGREGATE FOUNDATION MUST BE ASTM C-33 #67
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BRACING AND SHORING ALL WALLS DURING BACKFILL AND COMPACTION PROCEDURES.
8. NO BACKFILL SHALL BE PLACED BEHIND WALLS UNTIL THE WALLS' CONCRETE HAS ATTAINED 100 PERCENT AND TOP SUPPORTING SLAB'S CONCRETE HAS ATTAINED 80 PERCENT OF THEIR SPECIFIED 28 DAY COMPRESSIVE STRENGTH.
9. U.N.O., CONCRETE SHALL CONSIST OF TYPE I, II, OR TYPE I/II PORTLAND CEMENT MEETING THE REQUIREMENTS OF ASTM C150 OR TYPE 1L PORTLAND LIME CEMENT MEETING THE REQUIREMENTS OF C595. NORMAL WEIGHT COARSE AGGREGATE WITH CRUSTED STONE #57 GRADIATION THAT MEETS THE REQUIREMENTS OF ASTM C33, AND FINE AGGREGATE CONSISTING OF SAND THAT MEETS THE REQUIREMENTS OF ASTM C33. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,500 PSI, MAXIMUM WATER-CEMENT RATIO OF 0.45, AND AIR CONTENT OF 6% ± 1.5%
10. PROVIDE AIR ENTRAINMENT ADMIXTURES AS REQUIRED TO ACHIEVE AIR CONTENTS INDICATED. AIR ENTRAINMENT ADMIXTURES SHALL MEET THE REQUIREMENTS OF ASTM C260.
11. CONCRETE WITH AIR CONTENT GREATER THAN 3% SHALL NOT BE HARD TROWELED.
12. SLUMP OF CONCRETE SHALL NOT EXCEED 3" AT THE END OF THE TRUCK OR PUMP HOSE (PER ACI 211.1 TABLE 6.3.1). SLUMP LOSS DUE TO PUMPING SHALL BE ACCOMMODATED. IF A SUPERPLASTICIZER OR MID-RANGE WATER REDUCING ADMIXTURE IS USED IN THE MIX DESIGN, THE SLUMP SHALL NOT EXCEED 8" AFTER ADDITION OF ADMIXTURE. DO NOT ADD WATER TO CONCRETE AFTER ADDING WATER-REDUCING ADMIXTURE TO THE MIX.
13. U.N.O., ALL CONCRETE REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, AND BE OF DOMESTIC MANUFACTURE. WELDING OF REINFORCING IS PROHIBITED.
14. WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A1064 AND SHALL BE SUPPLIED IN FLAT SHEETS.
15. U.N.O., DEVELOPMENT LENGTHS, CLASS "B" LAP SPLICES, AND HOOK DEVELOPMENT LENGTHS SHALL CONFORM TO ACI 318.
16. REINFORCING SHALL BE SUPPORTED AND SECURED IN ITS PROPER LOCATION TO PREVENT DISPLACEMENT DURING PLACEMENT OF CONCRETE.
17. THE CONTRACTOR SHALL VERIFY WITH ALL DISCIPLINES THE LOCATIONS OF ALL REQUIRED OPENINGS, SLEEVES, CAST-IN-PLACE ANCHORS OR HANGERS, SLAB DEPRESSIONS, INSERTS, AND ANY OTHER ITEM TO BE CAST INTO THE CONCRETE.
18. PROVIDE CHAMFERS AS DETAILED ON DRAWINGS.
19. PROVIDE 4 CONCRETE TEST CYLIDERS FOR EACH DAY POUR. BREAK 2 CYLINDERS AT 7 DAYS AND 2 AT 28 DAYS.

The City of Oklahoma City
Utilities Department
Engineering Division

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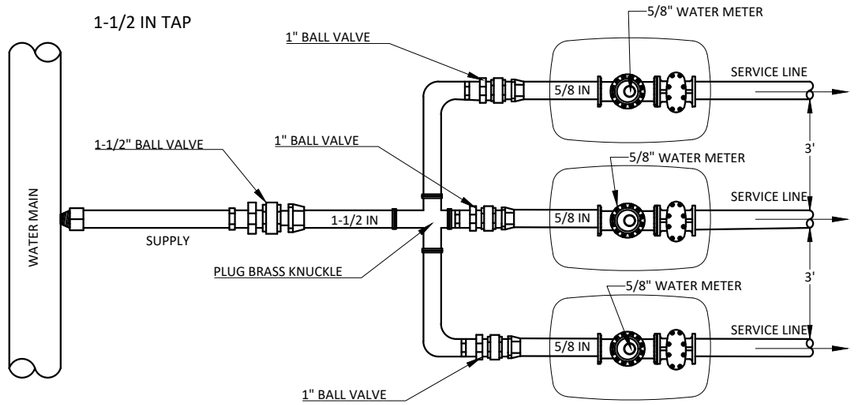
CHRIS BROWNING, GE, IEP — DATE: 5/28/25
UTILITIES ENGINEER — DATE: 5/28/25

WATER STANDARD DETAILS
VAULT STRUCTURAL DETAILS
DETAILS 504.11 TO 504.17

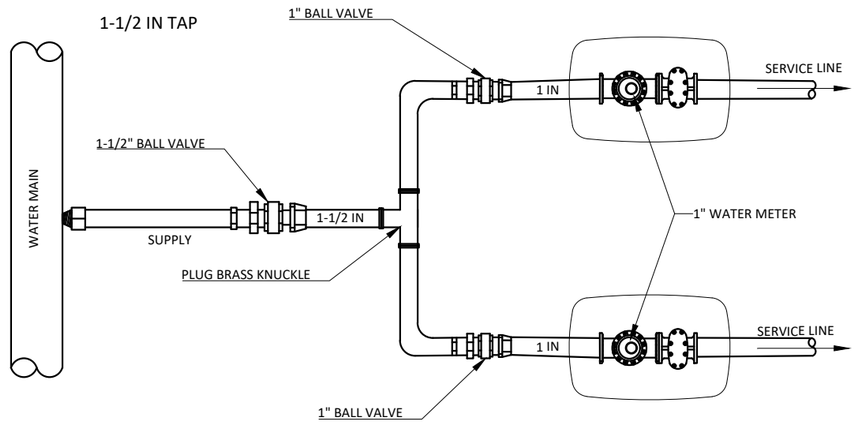
504.E



NOTES:
1. 1-1/2 TAP CAN SPLIT INTO (3) 5/8" METERS OR (3) 3/4" METERS.
2. ALL BALL VALVES MUST BE DESIGNATED AS NO LEAD.

17 / 504 — 3 x 5/8-INCH METER

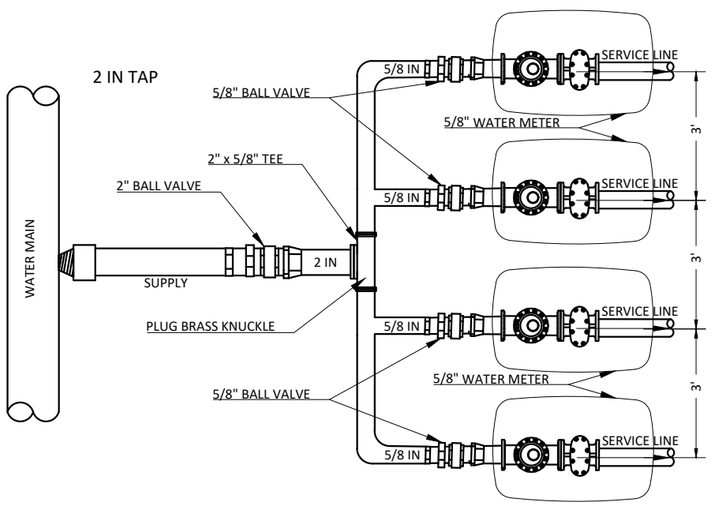
Scale: N.T.S.



NOTES:
1. 1-1/2 TAP SPLITTING INTO (2) 1" METERS
2. ALL BALL VALVES MUST BE DESIGNATED AS NO LEAD.

18 / 504 — 2 x 1-INCH METER

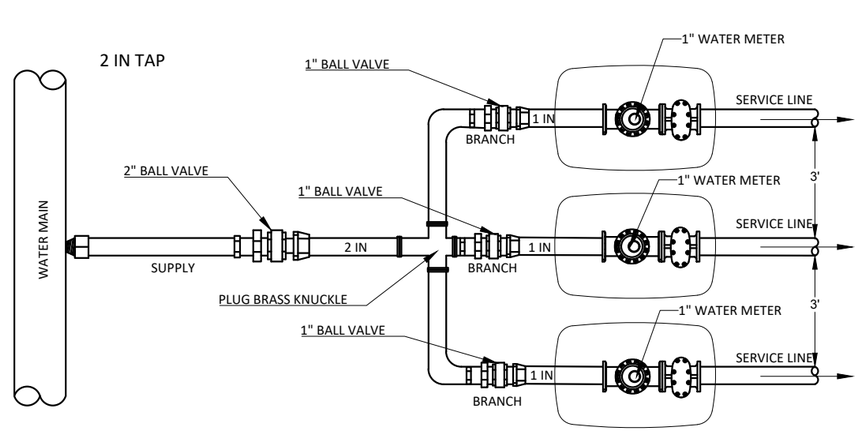
Scale: N.T.S.



NOTES:
1. 2" TAP SPLITTING INTO (4) 5/8" METERS
2. ALL BALL VALVES MUST BE DESIGNATED AS NO LEAD.

19 / 504 — 4 x 5/8-INCH METER

Scale: N.T.S.



NOTES:
1. 2" TAP SPLITTING INTO (3) 1" METERS.
2. ALL BALL VALVES MUST BE DESIGNATED AS NO LEAD.

20 / 504 — 3 x 1-INCH METER

Scale: N.T.S.

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Utilities Department
Engineering Division

APPROVED BY:
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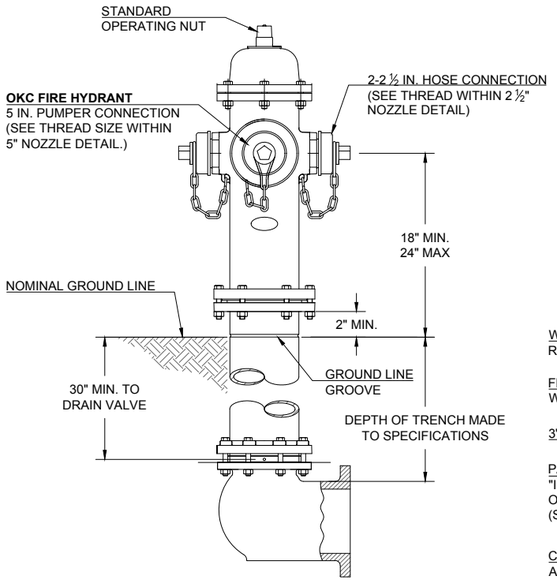
CHRIS BROWNING, GE, IEP, PUBLIC WORKS DIRECTOR — DATE: 5/28/25
UTILITIES ENGINEER — DATE: 5/28/25

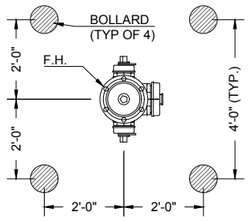
WATER STANDARD DETAILS
METER SPLITS
DETAILS 503.13 - 503.16

504.F

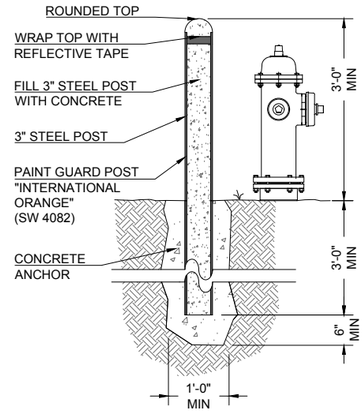


01 / 507 FIRE HYDRANT

Scale: N.T.S.



PLAN VIEW

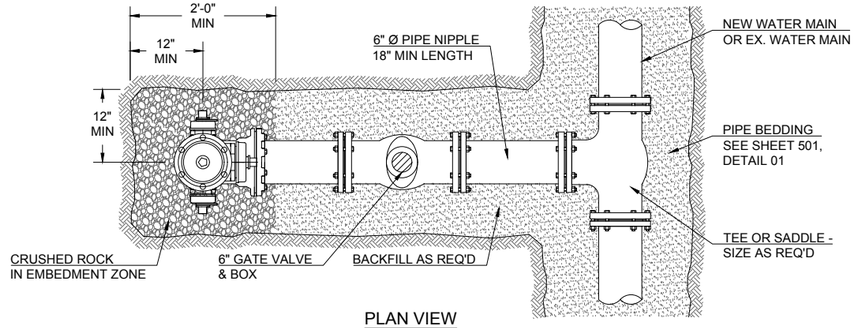


02 / 507 BOLLARD INSTALLATION

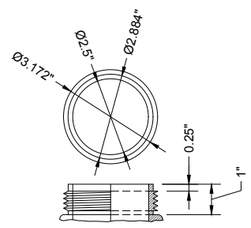
Scale: N.T.S.

GENERAL FIRE HYDRANT NOTES:

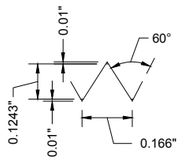
1. FIRE HYDRANTS MUST BE INSTALLED IN TRUE VERTICAL POSITION.
2. HYDRANT COLOR IS AS FOLLOWS:
   A. FOR PUBLIC: INTERNATIONAL ORANGE (SW 4082)
   B. FOR PRIVATE: CANARY YELLOW (FFEF00)
3. THRUST RESTRAINTS TO BE USED.
4. ALL VALVES & VALVE BOXES ARE TO BE INSTALLED OUTSIDE EXISTING OR PROPOSED ADA RAMPS AND SIDEWALKS.
5. FIRE HYDRANTS ARE ONLY AUTHORIZED TO HAVE 1-12 INCH EXTENSION AND ALL PARTS ARE TO BE ORIGINAL EQUIPMENT MANUFACTURER. OTHERWISE A VERTICAL SHOE MUST BE UTILIZED.



PLAN VIEW



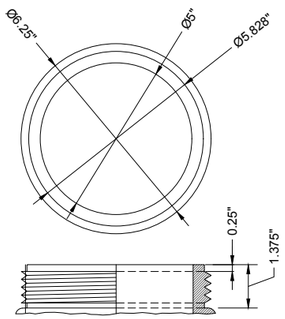
2.5" NOZZLE



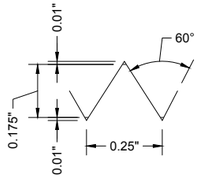
FORM OF THREAD
CLEARANCE BETWEEN MALE AND FEMALE THREAD .03", 6 THREADS PER INCH. PITCH DIAMETER 3.028". MAXIMUM VARIATION 0.005".

03 / 507 OKC FIRE HYDRANT 2.5-INCH NOZZLE DETAIL

Scale: N.T.S.



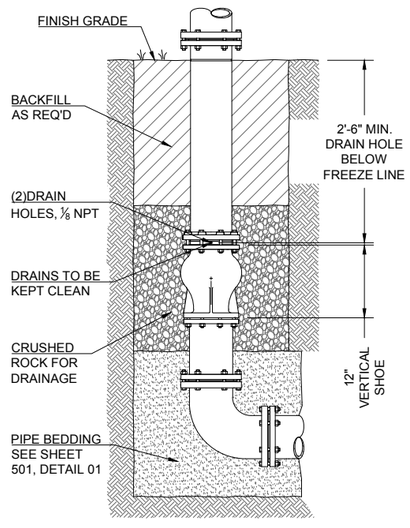
5" NOZZLE



FORM OF THREAD
CLEARANCE BETWEEN MALE AND FEMALE THREAD .05", 4 THREADS PER INCH. PITCH DIAMETER 6.033". MAXIMUM VARIATION 0.009".

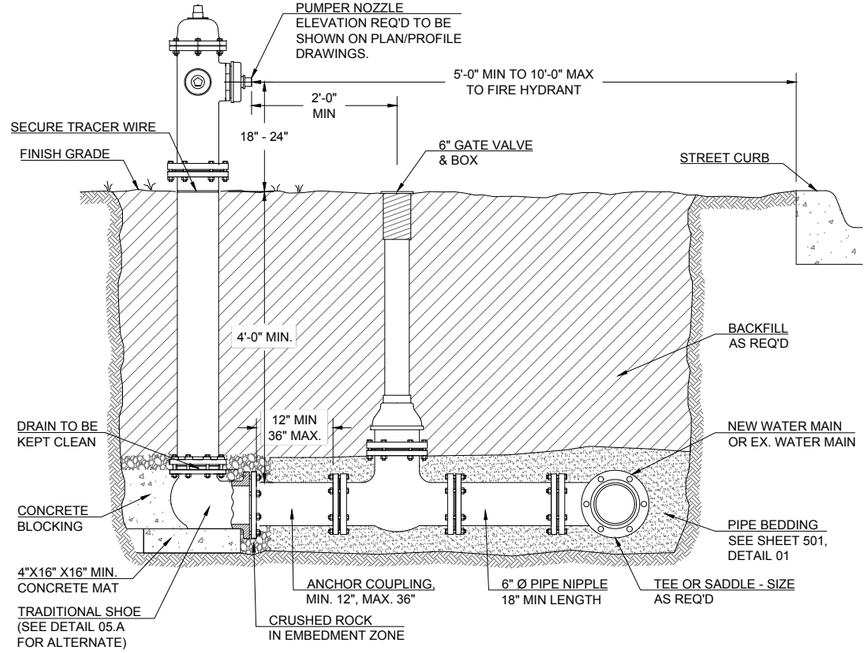
04 / 507 OKC FIRE HYDRANT 5.0-INCH NOZZLE DETAIL

Scale: N.T.S.



05.A / 507 ALTERNATE VERTICAL SHOE

Scale: N.T.S.



05 / 507 FIRE HYDRANT CONNECTION TO MAIN

Scale: N.T.S.

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APPROVED BY:
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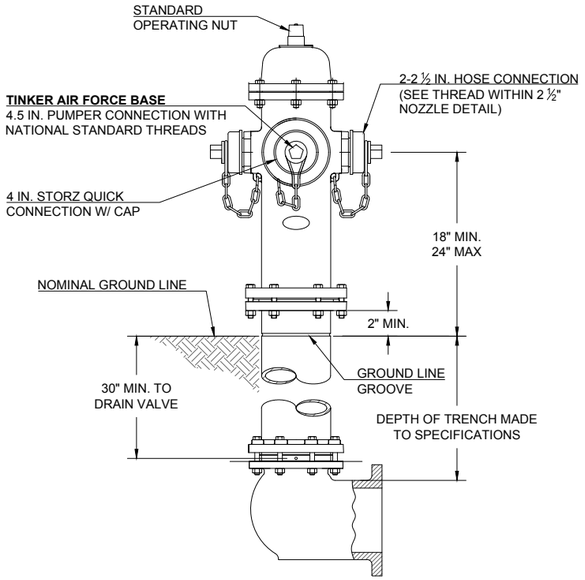
UTILITIES ENGINEER — DATE: 5/28/25

OKLAHOMA CITY WATER STANDARD DETAILS
FIRE HYDRANT
DETAILS 507.01 TO 507.05

507

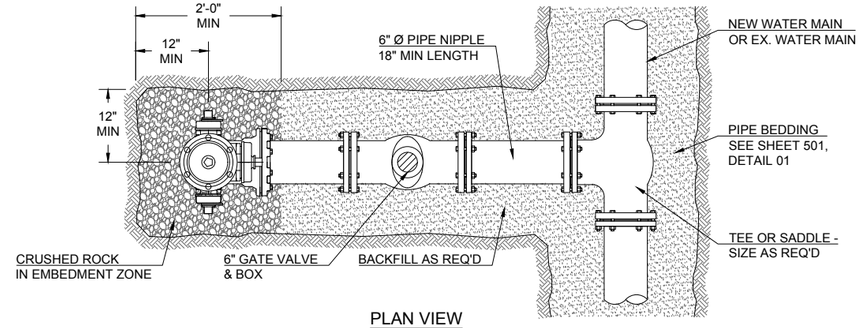


01 / 507 TINKER AIR FORCE BASE FIRE HYDRANT

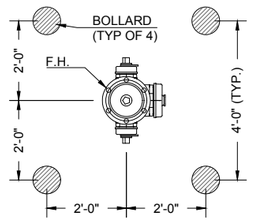
Scale: N.T.S.

TINKER AIR FORCE BASE SPECIFIC FIRE HYDRANT NOTES:

1. FIRE HYDRANTS MUST BE INSTALLED IN TRUE VERTICAL POSITION.
2. THRUST RESTRAINTS TO BE USED.
3. ALL VALVES & VALVE BOXES ARE TO BE INSTALLED OUTSIDE EXISTING OR PROPOSED ADA RAMPS AND SIDEWALKS.
4. FIRE HYDRANTS ARE ONLY AUTHORIZED TO HAVE 1-12 INCH EXTENSION AND ALL PARTS ARE TO BE ORIGINAL EQUIPMENT MANUFACTURER. OTHERWISE A VERTICAL SHOE MUST BE UTILIZED.
5. FIRE HYDRANTS MUST BE UL-LISTED, FM-APPROVED, OR LISTED OR CLASSIFIED BY AN NRTL.
6. FIRE HYDRANTS MUST HAVE TWO 2 1/2-IN. (65 MM) HOSE OUTLETS AND ONE 4 1/2-IN. (115M) OUTLET WITH NATIONAL STANDARD FIRE HOSE THREADS IN ACCORDANCE WITH NFPA 1963. AND A 4" STORZ QUICK CONNECT OUTLET CONNECTION AND 2.5" NHT OUTLETS.
7. FIRE HYDRANTS SUPPLIED BY DOMESTIC WATER MAINS SHALL HAVE BARRELS FACTORY PAINTED "OSHA SAFETY YELLOW". A FLOW TEST SHALL BE PERFORMED TO DETERMINE THE AVAILABLE SUPPLY. HYDRANT CAPS AND BONNETS SHALL BE PAINTED WITH REFLECTIVE PAINT IN ACCORDANCE WITH NFPA 291 TO IDENTIFY THE FLOW CAPACITY. THE COLORS DESIGNATED IN NFPA 291 SHALL BE MODIFIED AS FOLLOWS:
   - LIGHT BLUE - CHANGE TO LIGHT BLUE - KRYLON A01540007 LIGHT BLUE OR EQUIVALENT
   - GREEN - CHANGE TO OSHA SAFETY GREEN
   - ORANGE - CHANGE TO OSHA SAFETY ORANGE
   - RED - CHANGE TO OSHA SAFETY RED
8. INSTALL FIRE HYDRANTS ADJACENT TO AIRFIELD PAVEMENT NOT MORE THAN 24 INCHES (610 MM) ABOVE THE LEVEL OF THE ADJACENT AIRFIELD PAVEMENT. LOCAL AIRFIELD OBSTRUCTION AUTHORITY MAY APPROVE INDIVIDUAL HYDRANTS UP TO 30 INCHES (760 MM) ABOVE THE ADJACENT AIRFIELD PAVEMENT.
9. FIRE HYDRANTS SUPPLIED BY DEDICATED FIRE PROTECTION WATER MAINS SHALL BE FACTORY PAINTED "OSHA SAFETY RED".



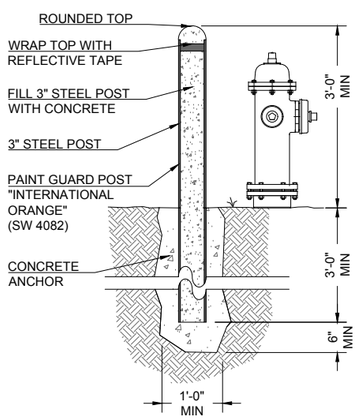
PLAN VIEW

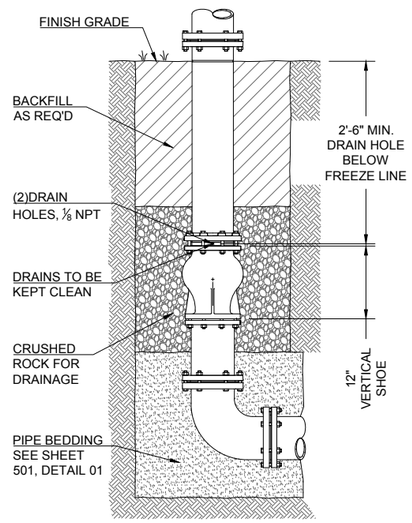


PLAN VIEW

02 / 507 BOLLARD INSTALLATION

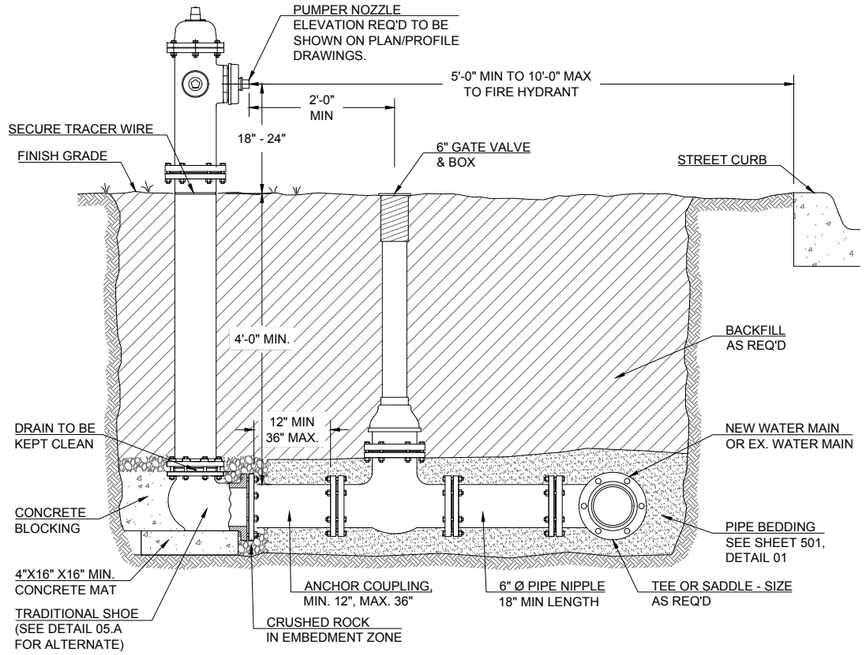
Scale: N.T.S.





03 / 507 ALTERNATE VERTICAL SHOE

Scale: N.T.S.



04 / 507 FIRE HYDRANT CONNECTION TO MAIN

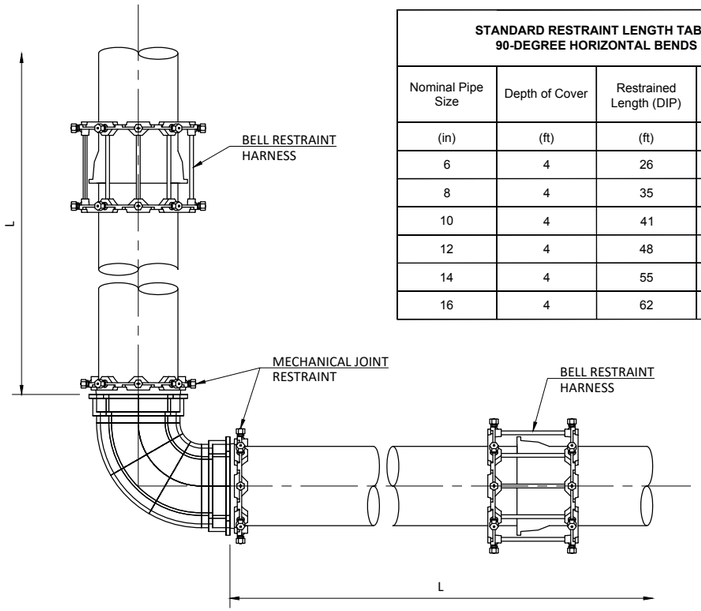
Scale: N.T.S.

The City of Oklahoma City
Utilities Department
Engineering Division

APPROVED BY:
DEBBIE MILLER, P.E., CITY ENGINEER/PUBLIC WORKS DIRECTOR — DATE: 5/28/25
CHRIS BROWNING, GE, PE — DATE: 5/28/25
UTILITIES ENGINEER — DATE: 5/28/25

WATER STANDARD DETAILS
TINKER AIR FORCE BASE FIRE HYDRANT
DETAILS 507.01 TO 507.05

507

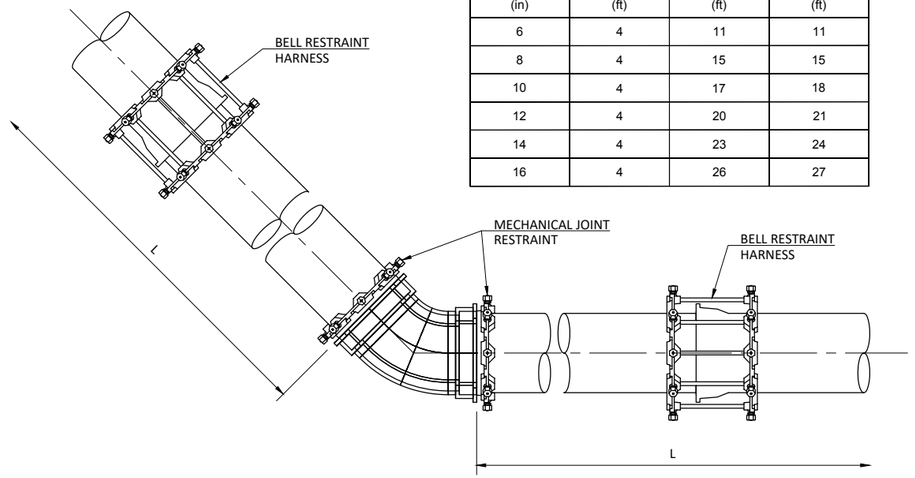


PLAN VIEW

01 / 509 RESTRAINING 90-DEGREE BEND

Scale: N.T.S.

STANDARD RESTRAINT LENGTH TABLE 90-DEGREE HORIZONTAL BENDS			
Nominal Pipe Size	Depth of Cover	Restrained Length (DIP)	Restrained Length (PVC)
(in)	(ft)	(ft)	(ft)
6	4	26	27
8	4	35	36
10	4	41	42
12	4	48	50
14	4	55	58
16	4	62	64



PLAN VIEW

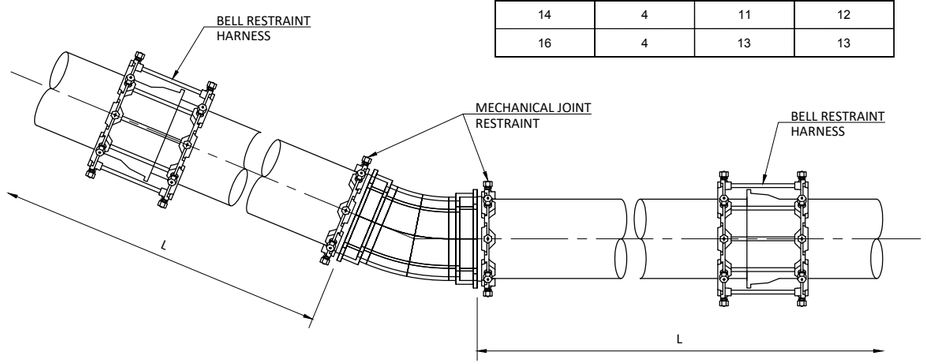
02 / 509 RESTRAINING 45-DEGREE BEND

Scale: N.T.S.

STANDARD RESTRAINT LENGTH TABLE 45-DEGREE HORIZONTAL BENDS			
Nominal Pipe Size	Depth of Cover	Restrained Length (DIP)	Restrained Length (PVC)
(in)	(ft)	(ft)	(ft)
6	4	11	11
8	4	15	15
10	4	17	18
12	4	20	21
14	4	23	24
16	4	26	27

GENERAL NOTES

1. CONTRACTOR TO FOLLOW ALL MANUFACTURERS SPECIFICATIONS FOR INSTALLATION OF MECHANICAL JOINT RESTRAINTS AND BELL RESTRAINT HARNESSES.

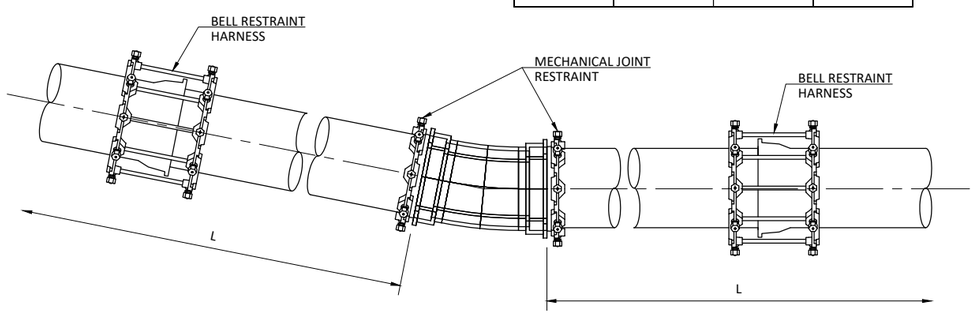


PLAN VIEW

03 / 509 RESTRAINING 22.5-DEGREE BEND

Scale: N.T.S.

STANDARD RESTRAINT LENGTH TABLE 22.5-DEGREE HORIZONTAL BENDS			
Nominal Pipe Size	Depth of Cover	Restrained Length (DIP)	Restrained Length (PVC)
(in)	(ft)	(ft)	(ft)
6	4	6	6
8	4	7	7
10	4	9	9
12	4	10	10
14	4	11	12
16	4	13	13



PLAN VIEW

04 / 509 RESTRAINING 11.25-DEGREE BEND

Scale: N.T.S.

STANDARD RESTRAINT LENGTH TABLE 11.25-DEGREE HORIZONTAL BENDS			
Nominal Pipe Size	Depth of Cover	Restrained Length (DIP)	Restrained Length (PVC)
(in)	(ft)	(ft)	(ft)
6	4	3	3
8	4	4	4
10	4	5	5
12	4	5	5
14	4	6	6
16	4	7	7

The City of Oklahoma City
Utilities Department
Engineering Division

APPROVED BY:

DEBBIE MILLER, P.E., CITY ENGINEER/PUBLIC WORKS DIRECTOR — DATE: 5/28/25

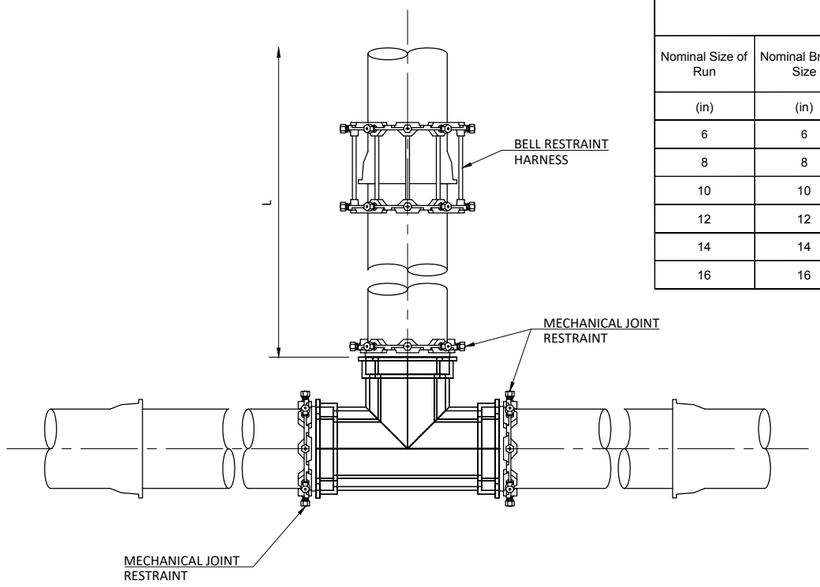
CHRIS BROWNING, GE, IEP — DATE: 5/28/25

UTILITIES ENGINEER — DATE: 5/28/25

WATER STANDARD DETAILS
THRUST RESTRAINTS
DETAILS 509.01 TO 509.04

509.A

STANDARD RESTRAINT LENGTH TABLE TEES				
Nominal Size of Run	Nominal Branch Size	Depth of Cover	Restrained Length (DIP)	Restrained Length (PVC)
(in)	(in)	(ft)	(ft)	(ft)
6	6	4	L = 68 - (4.06 * Lu)	L = 71 - (5.00 * Lu)
8	8	4	L = 89 - (4.80 * Lu)	L = 97 - (5.21 * Lu)
10	10	4	L = 107 - (4.84 * Lu)	L = 117 - (5.27 * Lu)
12	12	4	L = 126 - (4.88 * Lu)	L = 138 - (5.31 * Lu)
14	14	4	L = 144 - (4.93 * Lu)	L = 161 - (5.33 * Lu)
16	16	4	L = 163 - (4.94 * Lu)	L = 178 - (5.40 * Lu)



PLAN VIEW

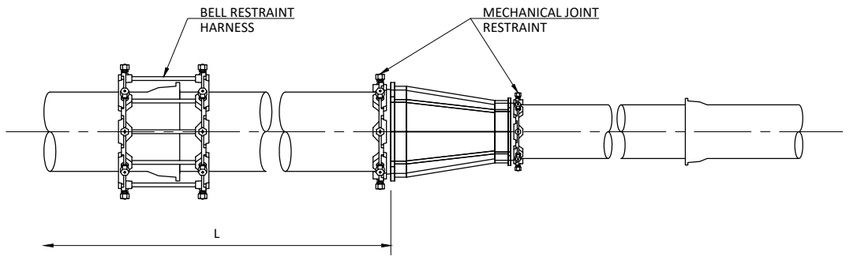
05 / 509 RESTRAINING TEE FITTING

Scale: N.T.S.

GENERAL NOTES

1. CONTRACTOR TO FOLLOW ALL MANUFACTURERS SPECIFICATIONS FOR INSTALLATION OF MECHANICAL JOINT RESTRAINTS AND BELL RESTRAINT HARNESSES

STANDARD RESTRAINT LENGTH TABLE REDUCERS				
Nominal Pipe Size	Minimum Nominal Size of Reducer	Depth of Cover	Restrained Length (DIP)	Restrained Length (PVC)
(in)	(in)	(ft)	(ft)	(ft)
6	4	4	35	35
8	6	4	38	41
10	8	4	36	39
12	8	4	67	73
14	12	4	37	41
16	12	4	69	75

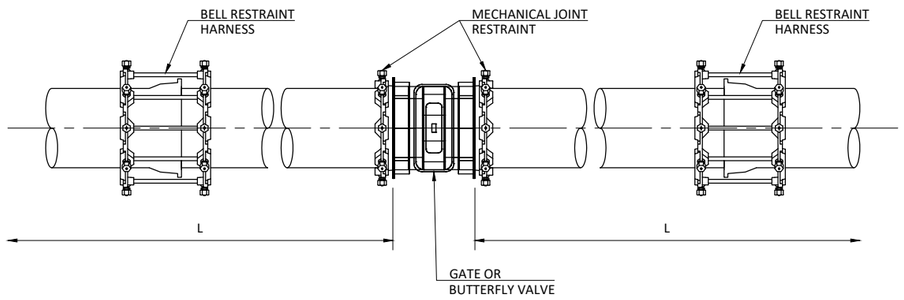


PLAN VIEW

06 / 509 RESTRAINING REDUCER FITTING

Scale: N.T.S.

STANDARD RESTRAINT LENGTH TABLE VALVES			
Nominal Pipe Size	Depth of Cover	Restrained Length (DIP)	Restrained Length (PVC)
(in)	(ft)	(ft)	(ft)
6	4	68	72
8	4	89	97
10	4	107	116
12	4	126	137
14	4	144	160
16	4	162	177

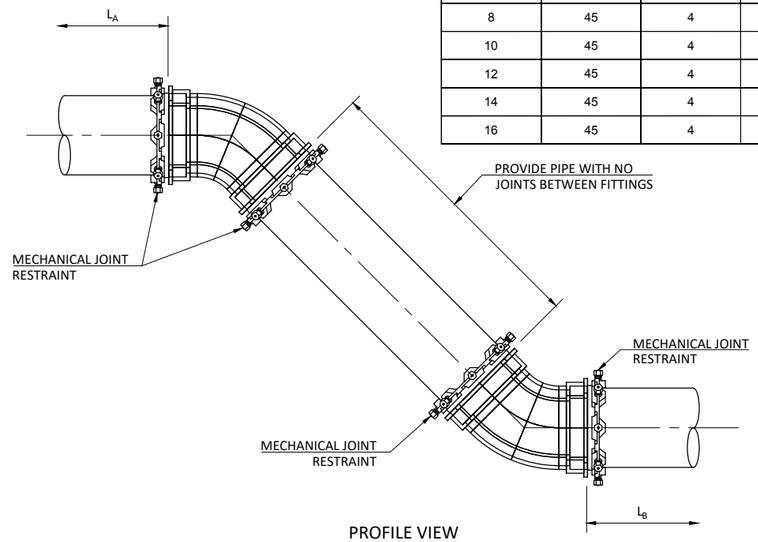


PLAN VIEW

07 / 509 RESTRAINING VALVE CONNECTION

Scale: N.T.S.

STANDARD RESTRAINT LENGTH TABLE VERTICAL OFFSET BENDS							
Nominal Pipe Size	Angle of Bend	Depth of Cover (Upper)	Depth of Cover (Lower)	Restrained Length Upper (DIP)	Restrained Length Lower (DIP)	Restrained Length Upper (PVC)	Restrained Length Lower (PVC)
(in)	(degrees)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
6	45	4	8	28	6	30	6
8	45	4	8	37	8	40	8
10	45	4	8	45	9	48	10
12	45	4	8	52	11	57	11
14	45	4	8	60	12	67	13
16	45	4	8	67	14	74	14



PROFILE VIEW

08 / 509 RESTRAINING HORIZONTAL OR VERTICAL OFFSET

Scale: N.T.S.

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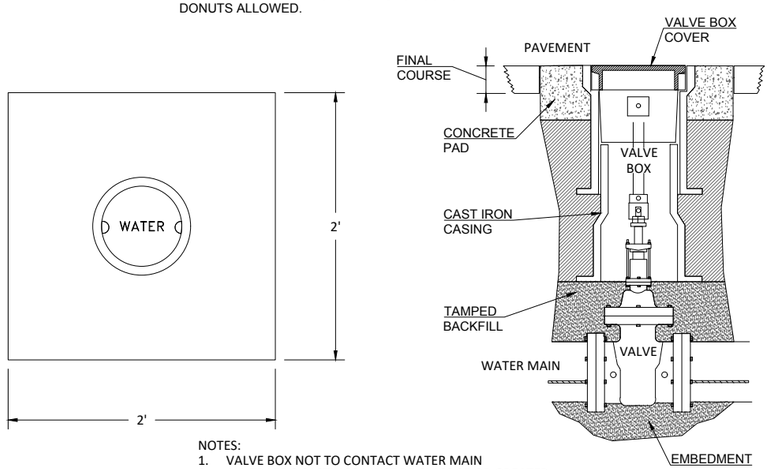
Utilities Department
Engineering Division

APPROVED BY:
DEBBIE MILLER, P.E., CITY ENGINEER/PUBLIC WORKS DIRECTOR — DATE: 5/28/25
CHRIS BROWNING, GE, UTILITIES ENGINEER — DATE: 5/28/25

WATER STANDARD DETAILS
THRUST RESTRAINTS
DETAILS 509.05 TO 509.08

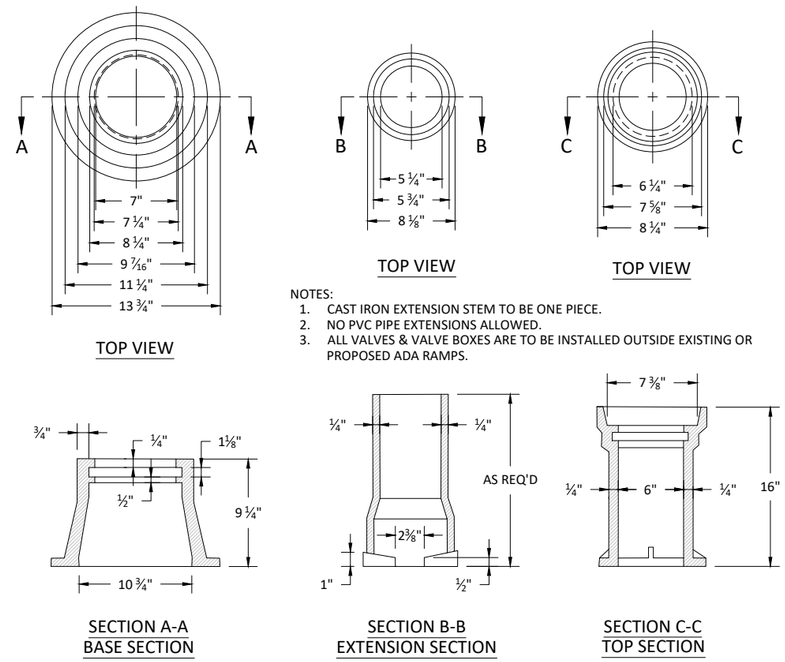
509.B

NOTE: 2'x 2'x 6" CONCRETE PAD REQUIRED FOR ALL SURFACES ALL VALVES. NO PRECAST CONCRETE DONUTS ALLOWED.



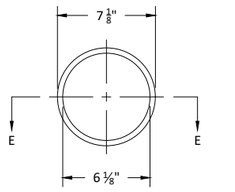
NOTES:
1. VALVE BOX NOT TO CONTACT WATER MAIN
2. ALL TRAFFIC CASTINGS MUST BE CLASS 35 OR GREATER.
3. FOR ANY VALVES OVER 10' DEEP, A VALVE STEM EXTENSION MUST BE USED TO BRING TO A DEPTH OF NO MORE THAN 5', EXTENSION MUST BE A MINIMUM OF 1" SOLID STOCK.
4. TOTAL VALVE BOX WEIGHT: MINIMUM OF 85 LBS.
5. NOT REQUIRED FOR PRIVATE DEVELOPMENT.

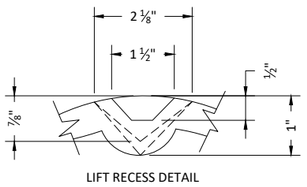
01 / 512 **VALVE AND VALVE BOX**
Scale: N.T.S.

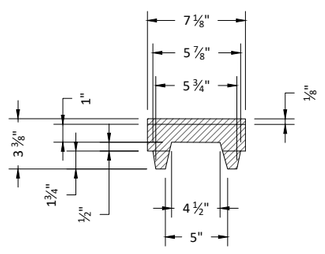


NOTES:
1. CAST IRON EXTENSION STEM TO BE ONE PIECE.
2. NO PVC PIPE EXTENSIONS ALLOWED.
3. ALL VALVES & VALVE BOXES ARE TO BE INSTALLED OUTSIDE EXISTING OR PROPOSED ADA RAMPS.

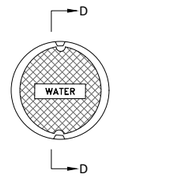
02 / 512 **CAST IRON VALVE BOX**
Scale: N.T.S.

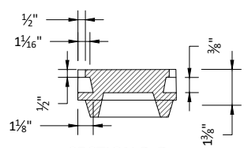




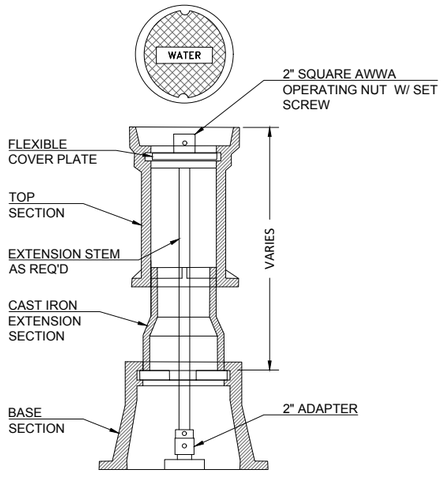


SECTION E-E
TOP VIEW





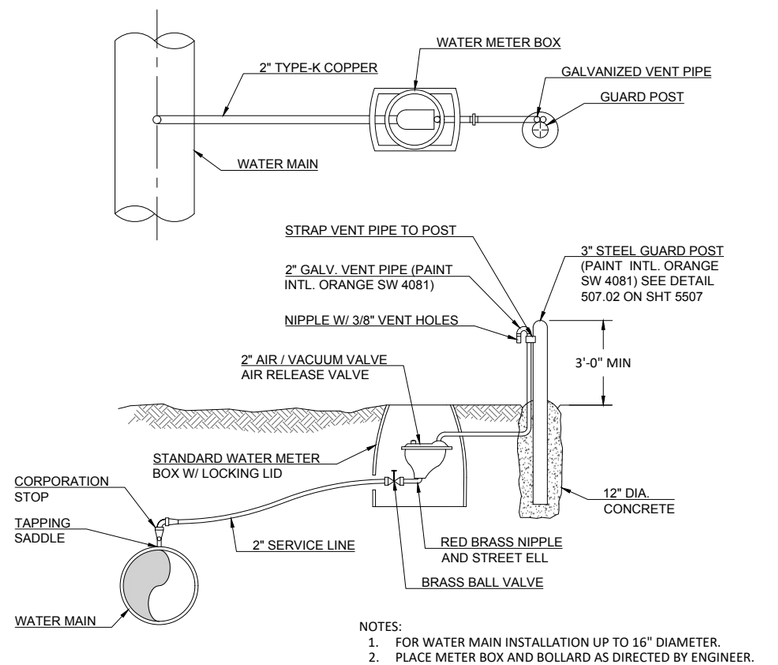
SECTION D-D
TOP VIEW



ASSEMBLED VALVE BOX ASSEMBLED CASTING

NOTES:
1. CAST IRON EXTENSION STEM TO BE ONE PIECE.
2. NO PVC PIPE EXTENSIONS ALLOWED.
3. ALL VALVES & VALVE BOXES ARE TO BE INSTALLED OUTSIDE EXISTING OR PROPOSED ADA RAMPS.
4. INLINE VALVE COVERS TO BE PAINTED RED. WATCH GATE VALVES FOR FH PAINTED WHITE.

03 / 512 **CAST IRON VALVE BOX**
Scale: N.T.S.



NOTES:
1. FOR WATER MAIN INSTALLATION UP TO 16" DIAMETER.
2. PLACE METER BOX AND BOLLARD AS DIRECTED BY ENGINEER.

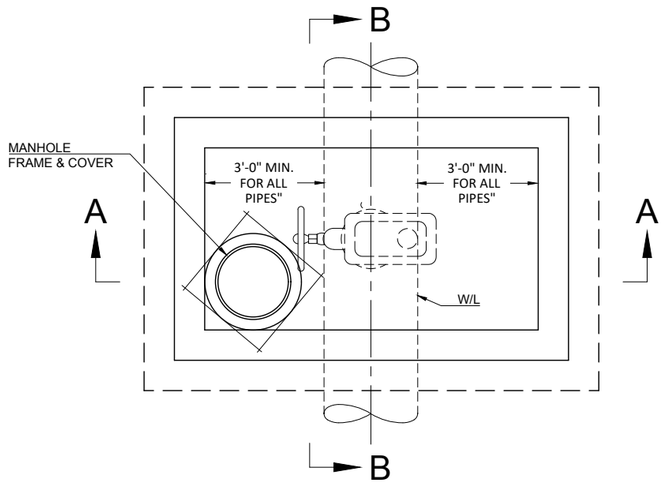
04 / 512 **2 INCH AIR RELEASE VALVE AND VALVE BOX**
Scale: N.T.S.

The City of Oklahoma City
Utilities Department
Engineering Division

APPROVED BY:
DEBBIE MILLER, P.E., CITY ENGINEER/PUBLIC WORKS DIRECTOR — DATE: 5/28/25
CHRIS BROWNING, GE, IES — UTILITIES ENGINEER/ — DATE: 5/28/25

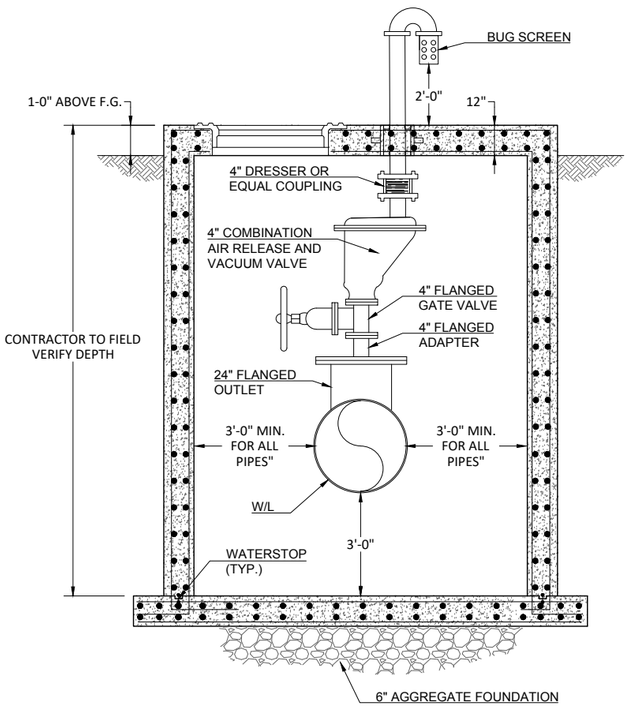
WATER STANDARD DETAILS
VALVE BOX
DETAILS 512.01 TO 512.04

512.A

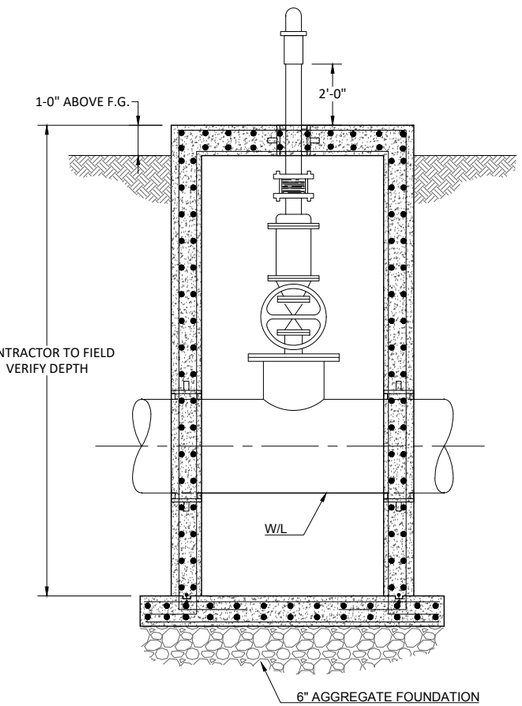


PLAN VIEW

NOTES:
1. VAULT TO BE STRUCTURAL DESIGNED BY ENGINEER.
2. VAULT MUST BE OUTSIDE PAVEMENT.
3. ALL MANHOLE LIDS, RINGS AND 4" VENT PIPE TO BE PAINTED INTL. ORANGE.
4. ALL MANHOLE FRAMES, COVERS & REMOVABLE SECTIONS MUST HAVE SEALER GASKETS.
5. COMPACT BACKFILL TO 95% STANDARD PROCTOR DENSITY IN 6 INCH LIFTS BY POWER TAMPING.
6. SLOPE FLOOR ¼" PER 1' TOWARD SUMP



SECTION A-A

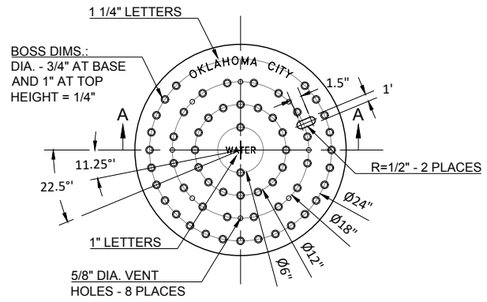


SECTION B-B

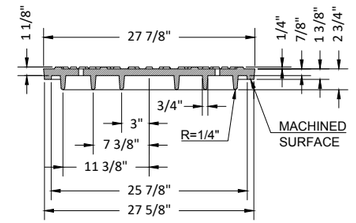
05
512

4-INCH AIR RELEASE VALVE AND VAULT

Scale: N.T.S.



PLAN OF TOP

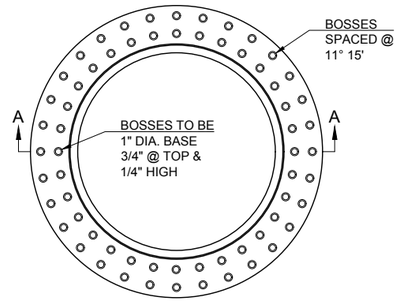


SECTION A-A

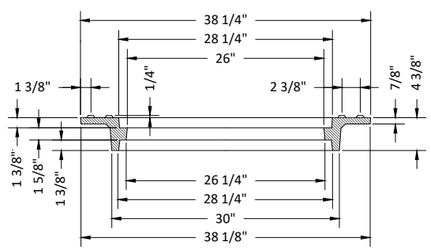
06
512

WATER MANHOLE COVER

Scale: N.T.S.



PLAN
REVERSIBLE FRAME



SECTION A-A

REVERSED FOR OUT OF PAVING INSTALLATION - TYPE B
AS SHOWN FOR IN PAVING INSTALLATION - TYPE A

07
512

WATER MANHOLE REVERSIBLE FRAME

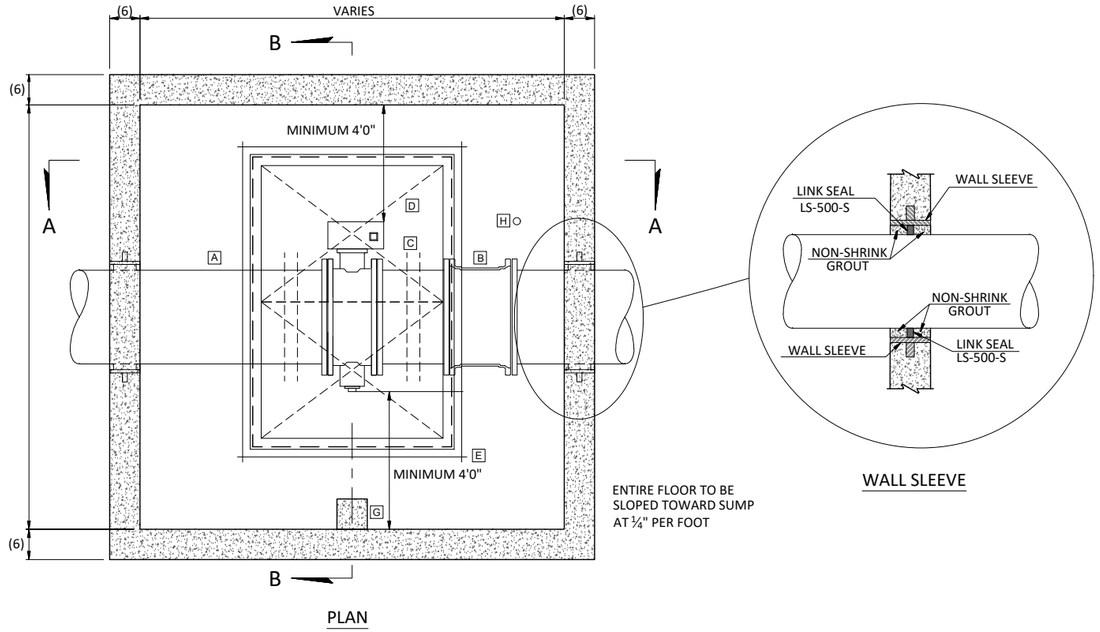
Scale: N.T.S.

The City of Oklahoma City
Utilities Department
Engineering Division

APPROVED BY:
DEBBIE MILLER, P.E., CITY ENGINEER/PUBLIC WORKS DIRECTOR — DATE: 5/28/25
CHRIS BROWNING, Ge. IEP, CGER — DATE: 5/28/25
UTILITIES ENGINEER — DATE: 5/28/25

WATER STANDARD DETAILS
VALVE VAULT
DETAILS 512.05 TO 512.07

512.B



PLAN

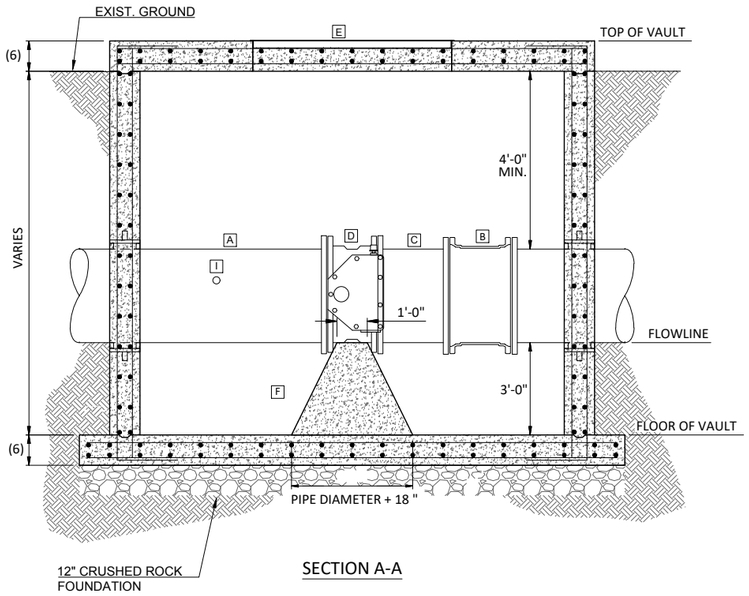
WALL SLEEVE

NOTES:

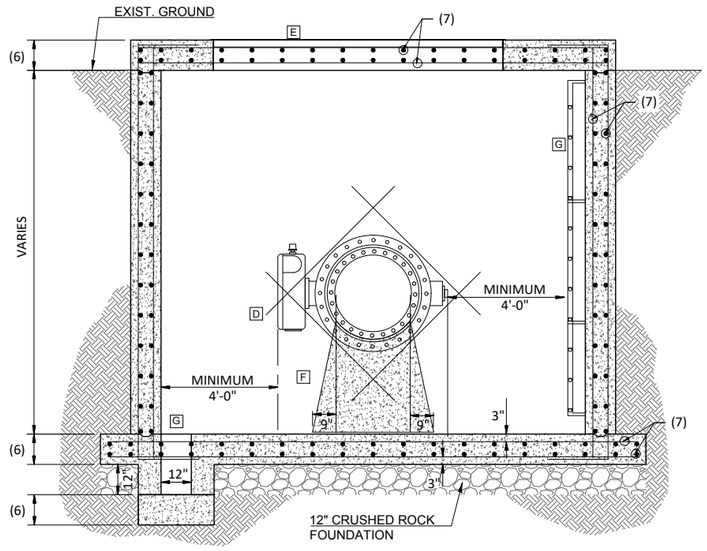
1. VAULT TO BE STRUCTURALLY DESIGNED BY ENGINEER.
2. ALL DUCTILE IRON JOINTS INSIDE THE VAULT MUST BE FLANGED.
3. VAULT ACCESS DOORS MUST BE ALUMINUM, RATED FOR 300 POUNDS PER SQUARE FOOT. ALL ATTACHING HARDWARE, AUTO LOCK, HINGES, SLAM LOCK WITH REMOVABLE KEY AND COMPRESSION SPRING ASSIST MUST BE 316 STAINLESS STEEL. DOORS MUST HAVE BUILT IN NEOPRENE CUSHION/GASKET, NON-OZONE DEPLETING BITUMINOUS COATING, DOUBLE LEAF CONSTRUCTION, EXTRUDED ALUMINUM CHANNEL FRAME AND RECESSED LIFTING HANDLE AND INSTALLED PER MANUFACTURER RECOMMENDATION. HATCH COVER MUST HAVE SAFETY FALL GRATING AND LADDER UP EXTENSION
4. FOR VAULTS LOCATED WITHIN VEHICULAR TRAVELLED SURFACES, THE VAULT MUST BE DESIGNED FOR THE PROPER VEHICLE LOADING CONDITIONS. HATCH COVER MUST HAVE HEAVY DUTY FRAME WITH SAFETY FALL GRATING AND LADDER UP EXTENSION.
5. PROVIDE STRAIGHT PIPE UPSTREAM AND DOWNSTREAM OF METER/STRAINER IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
6. WALL AND SLAB THICKNESS NOT DRAWN TO SCALE TO BE DETERMINED BY THE ENGINEER
7. REINFORCING NOT DRAWN TO SCALE TO BE DETERMINED BY THE ENGINEER.
8. GRAVEL SUMP PITS WILL NOT BE PERMITTED.

MATERIALS LEGEND

ITEM	QTY	DESCRIPTION
A	1	D.I.P. FL-PE 20 FT. LONG
B	1	FLANGE COUPLING ADAPTER
C	1	D.I.P. FL-FL 3 FT. LONG
D	1	BUTTERFLY VALVE, FL
E	1	DOUBLE LEAF ALUMINUM DOOR W/ SAFETY FALL GRATING (NOTE 3)
F	1	CONCRETE PIPE SUPPORT
G	1	12" X 12" CONCRETE SUMP PIT
H	1	SAFETY ANCHOR
I	1	2" TAP AND BALL VALVE



SECTION A-A



SECTION B-B

08
512

VALVE VAULT INSTALLATION

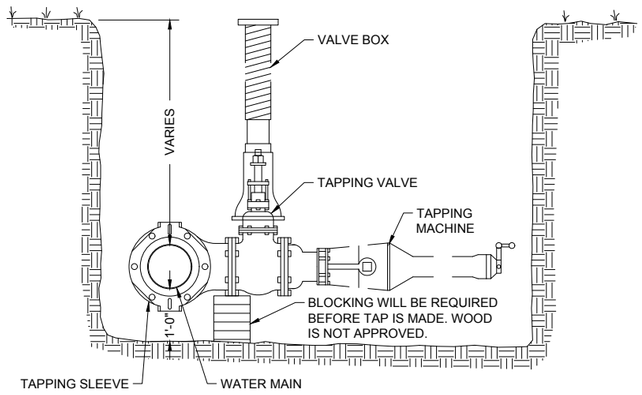
Scale: N.T.S.

The City of Oklahoma City
Utilities Department
Engineering Division

APPROVED BY:
DEBBIE MILLER, P.E., CITY ENGINEER/PUBLIC WORKS DIRECTOR — DATE: 5/28/25
CHRIS BROWNING, GE, IEP — DATE: 5/28/25
UTILITIES ENGINEER — DATE: 5/28/25

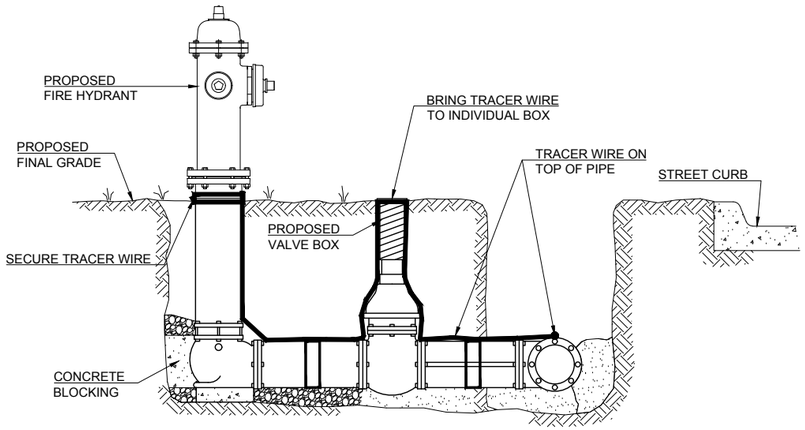
WATER STANDARD DETAILS
VALVE VAULT
DETAILS 512.08

512.C

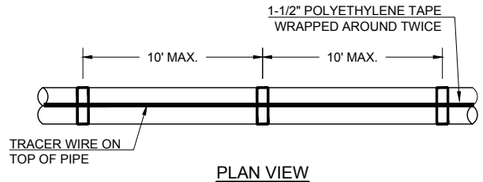


01 505 TAPPING CONNECTION

Scale: N.T.S.

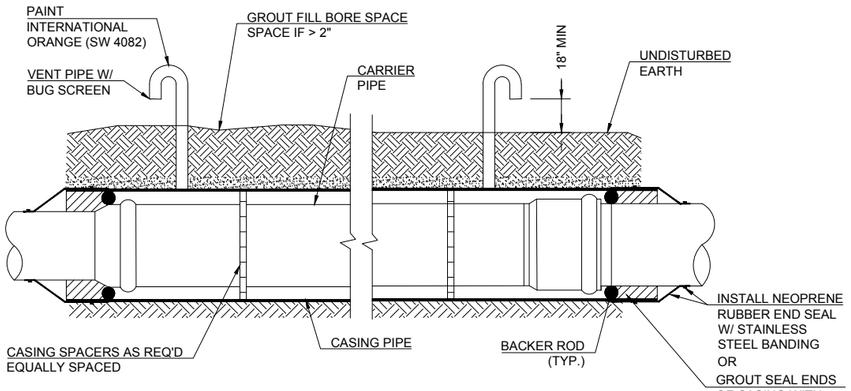


INSTALLATION OF TRACER WIRE
FOR PROPOSED FIRE HYDRANT & VALVE



PLAN VIEW

INSTALLATION OF TRACER WIRE
ALONG TOP OF PVC WATER MAIN



NOTES:

SEALED CASING ENDS - NEOPRENE RUBBER END SEALS SECURED WITH 316 STAINLESS STEEL BANDING REQUIRED

PLUGGED PIPE ENDS - BOTH ENDS OF THE CASING PIPE MUST BE PLUGGED WITH A NON-SHRINK GROUT OR CONCRETE HAVING A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI OR GROUTED MASONRY. EACH PLUG MUST BE A MINIMUM LENGTH OF 18". GROUTING PRESSURE MUST NOT EXCEED THE PIPE MANUFACTURER'S RECOMMENDATIONS.

VENT PIPES - VENT PIPES MUST BE INSTALLED ON BOTH ENDS OF CASING FOR BORINGS THAT CROSS ODOT ROADS AND RAILROAD CROSSINGS. VENTS MUST BE 2" DIA. FOR CASING SIZES ≤ 30-IN. VENTS MUST BE 4" DIA. FOR CASING SIZES > 30-IN. VENTS MUST HAVE A 90 DEG BEND TO POINT TOWARDS THE GROUND AND MUST BE PAINTED INTERNATIONAL ORANGE. BUG SCREEN MUST BE INCLUDED ON THE OPEN END OF VENT PIPE.

CASING PIPE SIZE - STEEL CASING PIPE MUST HAVE THE FOLLOWING MINIMUM DIAMETERS: SEE STANDARD SPECIFICATION 518.02.02 OR STANDARD DETAIL 635.02.

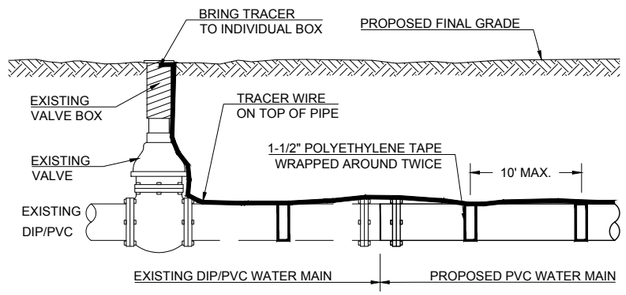
CASING PIPE THICKNESS - STEEL CASING PIPE MUST HAVE THE FOLLOWING MINIMUM THICKNESS(ES), IN INCHES, FOR THE INDICATED MAXIMUM DEPTH OF COVER(S), IN FEET: SEE STANDARD SPECIFICATION 518.02.02 OR STANDARD DETAIL 635.02.

CASING MATERIAL - STEEL CASING PIPE MUST CONFORM WITH ASTM A-139, STANDARD SPECIFICATION FOR ELECTRIC-FUSION (ARC) - WELDED STEEL PIPE (NPS4 AND OVER). THE STEEL MATERIAL MUST BE NEW, SMOOTH WALL, CARBON STEEL, GRADE B, WITH A MINIMUM TENSILE STRENGTH AND MINIMUM THIRTY-FIVE-THOUSAND (35,000 PSI) POUNDS PER SQUARE INCH YIELD STRENGTH

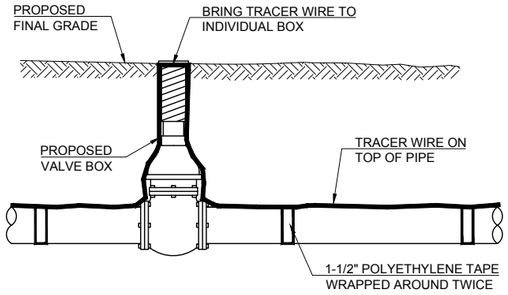
BACKER ROD - SIZE BACKER ROD TO FILL ANNULAR SPACE BETWEEN CARRIER PIPE AND CASING.

01 518 PIPE BORE AND CASING

Scale: N.T.S.



INSTALLATION OF TRACER WIRE
FOR PROPOSED WATER VALVE &
ALONG PVC WATER MAIN



INSTALLATION OF TRACER WIRE FOR
PROPOSED PVC WATER MAIN WITH
CONNECTION TO EXISTING DIP/PVC
WATER MAIN

NOTES:
1. ALL VALVES & VALVE BOXES ARE TO BE INSTALLED OUTSIDE EXISTING OR PROPOSED ADA RAMPS.
2. WHEN EXISTING DIP/PVC MAIN IS TO BE EXTENDED WITH A PVC MAIN, THE CONTRACTOR MUST EXCAVATE ALONG THE TOP OF EXISTING MAIN TO THE NEAREST EXISTING VALVE AND INSTALL A TRACER WIRE ON TOP OF EXISTING PIPE, AS SHOWN IN DETAIL.
3. TRACER WIRE MUST HAVE THERMOPLASTIC INSULATION/NYLON SHEATH. ABRASION, HEAT, MOISTURE, OIL & GASOLINE RESISTANT

01 515 PVC PIPE TRACER WIRE INSTALLATION

Scale: N.T.S.

The City of Oklahoma City
Utilities Department
Engineering Division

APPROVED BY:
DEBBIE MILLER, P.E., CITY ENGINEER — DATE: 5/28/25
CHRIS BROWNING, GE, PE — UTILITIES ENGINEER — DATE: 5/28/25
PUBLIC WORKS DIRECTOR

WATER STANDARD DETAILS
WATER MISCELLANEOUS
DETAILS 505.01, 515.01 AND 518.01

MISC