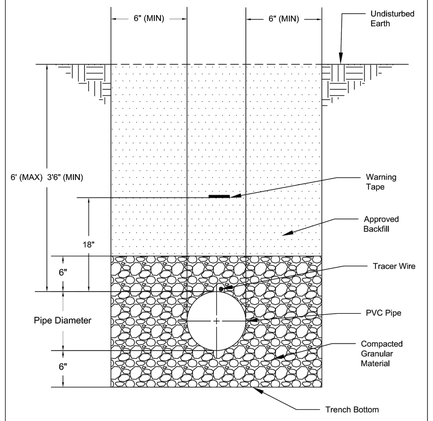
Approved by Resolution No. 04-27-2023D

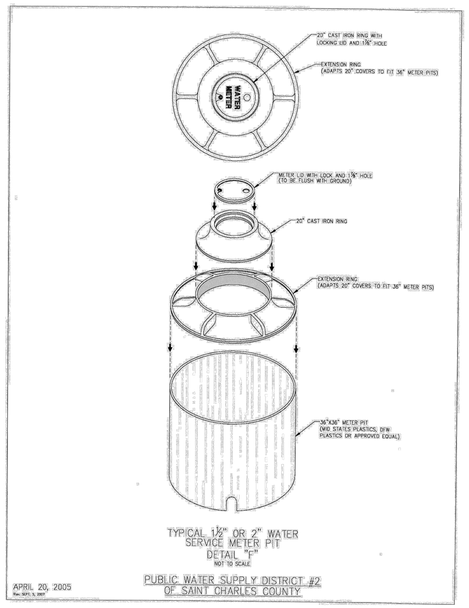
EXHIBIT B



When soil conditions are suitable, an exception can be made on the compacted granular material requirement to use compacted soil backfill in lieu there of. This exception must be approved in writing by the City's Project Engineer.

TYPICAL TRENCH - PVC

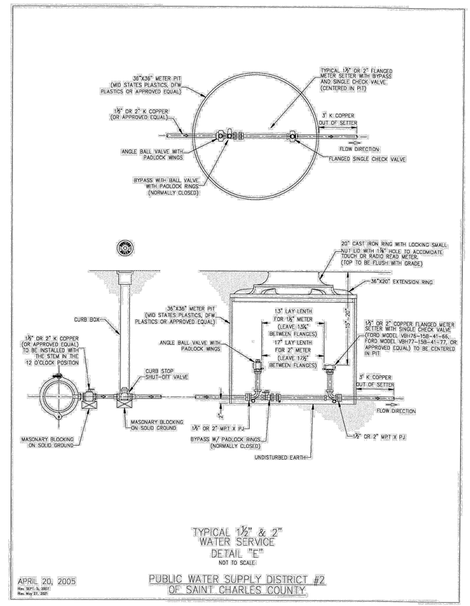
Detail A.1	
Originally Drafted:	10/16/19
Revision Date:	
Designed By:	KMH
Drafted By:	KMH



TYPICAL 1½" OR 2" WATER SERVICE METER PIT DETAIL "F"
NOT TO SCALE

APRIL 20, 2005
Rev. SEPT. 5, 2007

PUBLIC WATER SUPPLY DISTRICT #2 OF SAINT CHARLES COUNTY



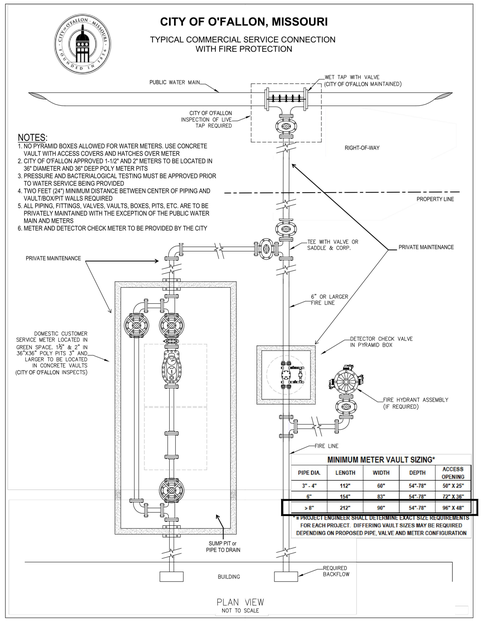
TYPICAL 1½" & 2" WATER SERVICE DETAIL "F"
NOT TO SCALE

APRIL 20, 2005
Rev. SEPT. 5, 2007
Rev. May 07, 2007

PUBLIC WATER SUPPLY DISTRICT #2 OF SAINT CHARLES COUNTY

CITY OF O'FALLON, MISSOURI

TYPICAL COMMERCIAL SERVICE CONNECTION WITH FIRE PROTECTION



NOTES:
1. NO PYRAMID BOXES ALLOWED FOR WATER METERS. USE CONCRETE VAULT WITH ACCESS COVERS AND HATCHES OVER METER
2. CITY OF O'FALLON APPROVED 1-1/2" AND 2" METERS TO BE LOCATED IN 36" DIAMETER AND 36" DEEP POLY METER PITS
3. PRESSURE AND BACTERIALOGICAL TESTING MUST BE APPROVED PRIOR TO WATER SERVICE BEING PROVIDED
4. TWO FEET (24") MINIMUM DISTANCE BETWEEN CENTER OF PIPING AND VAULT/BOX/PIT WALLS REQUIRED
5. ALL PIPING, FITTINGS, VALVES, VAULTS, BOXES, PITS, ETC. ARE TO BE PRIVATELY MAINTAINED WITH THE EXCEPTION OF THE PUBLIC WATER MAIN AND METERS
6. METER AND DETECTOR CHECK METER TO BE PROVIDED BY THE CITY

MINIMUM METER VAULT SIZING*

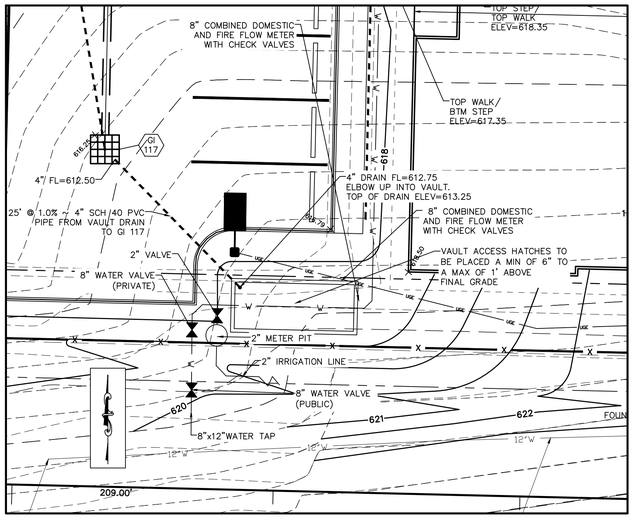
PIPE DIA.	LENGTH	WIDTH	DEPTH	ACCESS OPENING
3"-4"	112"	60"	54"-78"	56" X 25"
6"	154"	83"	54"-78"	72" X 36"
> 6"	212"	95"	54"-78"	96" X 48"

* A PROJECT ENGINEER SHALL DETERMINE EXACT SIZE REQUIREMENTS FOR EACH PROJECT. DIFFERING VAULT SIZES MAY BE REQUIRED DEPENDING ON PROPOSED PIPE, VALVE AND METER CONFIGURATION

PLAN VIEW
NOT TO SCALE

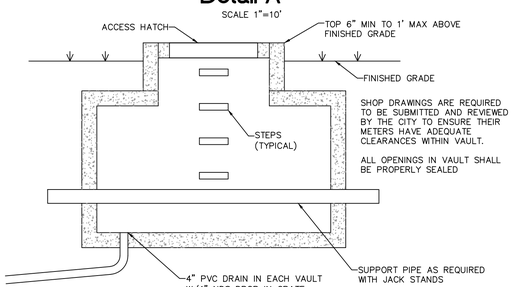
2 WATER METER VAULTS

USE A 54" DEPTH VAULT IN ORDER TO PROVIDE A DRAINAGE PIPE TO NEARBY STORM SEWERS THAT DAYLIGHT TO EACH BASIN ONSITE. SEE DETAILS FOR EACH VAULT ON THIS SHEET. REFER TO DETAIL ON SHEET 26 FOR INTERIOR VAULT PIPING ETC.



Detail A

SCALE 1"=10'



TYPICAL VAULT SECTION

NOT TO SCALE

7.1.17. Vaults associated with finished water storage

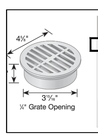
Vaults for valves, piping, and other equipment associated with finished water storage facilities shall meet the following requirements.

a. Vaults may be confined spaces with required entry procedures, and may be permit-required confined spaces as defined per OSHA regulations.
b. A power ventilation system should be provided for each vault and sized to properly vent the confined space.
c. Vaults should be water tight to exclude entrance of surface or sub-surface water. Open dirt, gravel or rock bottomed vaults shall require an exception.
d. All openings and penetrations for vents, piping, power service, control wires, etc into the vault shall be water tight.
e. All accessways to vaults shall be fitted with a locking device, shall be framed at least six inches, but no more than one foot above the final ground surface, and shall be fitted with a solid, water tight, hinged cover. The accessway cover shall be self-supporting when open and shall overlap the framed opening and extend down around the frame at least two inches.
f. Accessways to vaults shall be sufficiently large enough to allow easy removal of valves and other equipment from the vault.
g. Accessways to vaults shall be located so that an operator does not have to drop or climb onto piping or equipment to enter the vault to protect both the equipment and the operator from damage.
h. Vaults containing equipment that requires routine maintenance or inspection such as altitude valve vaults or control valve vaults shall be fitted with permanent access ladders equipped with extendable ladder safety posts to facilitate safe access to the ladder and the vault. Consideration should be given to using corrosion or rot resistant material.
i. A floor sump shall be provided in each vault and the floor shall slope to the sump. The sump shall either be provided with a drain to daylight or with a sump pump that has a discharge extended above ground and discharging away from the vault.
j. Vents for vaults shall extend at least eighteen inches above the final ground surface and shall either be capped or downturned to prevent water entrance and shall be screened to prevent insects from entering the vault.
k. Interior lighting and heating facilities should be considered for vaults.
l. All vaults shall have sample taps and appropriately sized pressure gauges installed on the storage side of the piping, unless the plumbing allows sampling elsewhere.
m. Vaults containing altitude valves or water level controls shall have appropriately sized pressure gauges on both the influent and effluent piping of the vault.
n. Piping in vaults shall be installed far enough above the floor and below the roof of the vault to facilitate painting.
o. Adequate permanent supports shall be installed to support valves and piping in the vault.
p. Sufficient influent and effluent valves shall be installed to allow equipment in the vault to be removed without draining the storage facility.

CONDITION

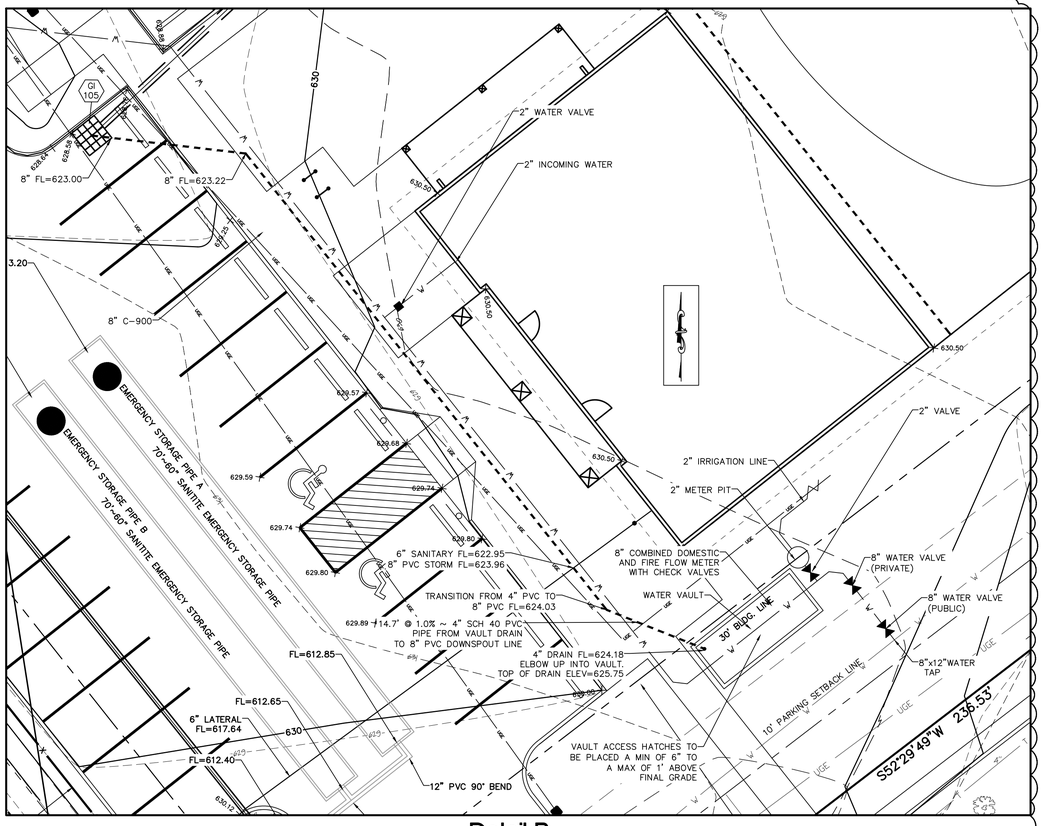
This approval is valid only if the following conditions are incorporated in the final construction of the above-described work:

1. All access ways to vaults shall be fitted with a locking device, shall be framed at least six inches, but no more than one foot above the final ground surface, and shall be fitted with a solid, water tight, hinged cover. The access way cover shall be self-supporting when open and shall overlap the framed opening and extend down around the frame at least two inches.
2. A floor sump shall be provided in each vault and the floor shall slope to the sump. The sump shall either be provided with a drain to daylight or with a sump pump that has a discharge extended above ground and discharging away from the vault.



Part No.	Description	Color	Pkg. Qty.	Wt. Ea. lbs.	Product Class	Specifications
11	4" Round Grate	Black	25	0.17	10ND	4" Round Structural Foam Polyolefin Grate with UV inhibitor. Open surface area 3.85 square inches. 11.78 GPM.
12	4" Round Grate	Gray	25	0.17	10ND	
13	4" Round Grate	Green	25	0.17	10ND	
13P	4" Round Grate	Purple	25	0.17	10ND	
13S	4" Round Grate	Sand	25	0.17	10ND	
	Fits 4" Sewer and Drain Pipe & Fittings, 4" Corrugated Pipe, and 4" Triple Wall Pipe. (see page 79). ADA Compliant/Heel-proof.					

USE INSIDE METER VAULTS FOR 4" DRAIN PIPING AS REQUIRED



Detail B

SCALE 1"=10'

PROJECT TITLE:

THORNWOOD APARTMENTS
THORNBURY CROSSING DRIVE
O'FALLON, MO 63366

Bax Project # 23-19014 | Issue Date: 5-10-24

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

DISCLAIMER OF RESPONSIBILITY
I hereby specify that the documents intended to be authenticated by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other Drawings, Specifications, Estimates, Reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

STATE OF MISSOURI
CLIFFORD L. HEITMANN
NUMBER E-29817
REGISTERED PROFESSIONAL ENGINEER
10-24-24

REVISIONS

2	10-24-24	CITY COMMENTS

Box Engineering Company, Inc.
Missouri State Certificate of Authority Engineering #000655
Missouri State Certificate of Authority Surveying #000144

Developer / Owner:
MRS TROMBONE LLC
1100 WOODCHASE LANE
CHESTERFIELD, MO 63017
314-469-0029

WATER DETAILS

P+Z No. 23-010426
Approval Date: 1-4-24
City No. #

Page No.
27 of 34

\\VAULTSERVER\Civil 3d Projects\19014\Construction\19014Consheets.dwg, ARCH full bleed D (24.00 x 36.00 Inches), 1:1