

GENERAL NOTES

- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS. ALL CONSTRUCTION SHALL BE COMPLETED FOLLOWING CURRENT CITY STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE NOTICE TO UTILITY COMPANIES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION, AS FOLLOWS:
KANSAS ONE-CALL 687-2470
THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

AT&T	1-800-248-8464
BLACK HILLS ENERGY (GAS)	1-800-694-6989
CITY OF WICHITA WATER & SEWER	1-316-219-8921
CITY OF WICHITA STORMWATER	1-316-268-4090
CITY OF WICHITA TRAFFIC	1-316-268-4034
COX COMMUNICATIONS	1-888-249-3530
KANSAS GAS SERVICE	1-888-452-4950
EVERGY (ELECTRIC)	1-800-544-4857
- UTILITY SERVICE LINES, POLES, ETC. ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS, IN THE OPINION OF THE ENGINEER, THAT WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WILL REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WILL REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
- TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE CITY ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY ADJUTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
- THE ENGINEERING DIVISION SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR AT HIS OWN EXPENSE. VALVE BOXES AND WATER METERS WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO MATCH FIELD GRADES BY THE CONTRACTOR.
- THE CONTRACTOR SHALL NOTIFY THE INSPECTING ENGINEER AND DANITA REINHARDT AT 650-0740 WITH THE CITY OF WICHITA WITH THE ANTICIPATED CONSTRUCTION START DATE AND NOTIFY THEM OF PROJECT COMPLETION, STAKING AND INSPECTION FOR THIS PROJECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- IF TRAFFIC WILL BE IMPACTED BY CONSTRUCTION, A TRAFFIC CONTROL PLAN MUST BE SUBMITTED AND APPROVED BY THE CITY TRAFFIC ENGINEER AT traffic@wichita.gov BEFORE CONSTRUCTION CAN BEGIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL MEASURES TO FACILITATE CONSTRUCTION. ALL CONSTRUCTION ZONE MARKINGS AND SIGNAGE SHALL CONFORM TO THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS PUBLISHED BY THE US DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION. ALL COSTS ASSOCIATED WITH CONSTRUCTION MARKINGS AND SIGNAGE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- ALL ELEVATIONS SHOWN ARE NAVD 88.
- ALL AREAS DISTURBED DURING CONSTRUCTION THAT WILL NOT BE UNDER PROPOSED PAVEMENT SHALL BE RESTORED TO MATCH EXISTING CONDITIONS.
- ANY SIDEWALK, DRIVE APPROACH, CURB, OR STREET PAVEMENT REMOVED TO CONSTRUCT PROJECT MUST HAVE A PAVEMENT CUT PERMIT AND BE REPLACED BY CITY CONTRACTOR. PERMITS CAN BE OBTAINED BY CALLING 316-268-4501 OR 316-268-4480.
- ALL APPLICABLE FEES (TAP, EQUITY, IN LIEU OF & MAIN BENEFIT) MUST BE PAID BEFORE ANY CONNECTIONS CAN BE MADE ON THIS PROJECT. QUOTES CAN BE OBTAINED ON FEES BY CALLING 316-268-4555.
- CITY MAINTENANCE OF WATER MAINS ENDS AT RIGHT-OF-WAY OR EASEMENT LINE OR WITHIN TWO FEET OF VAULT.
- MAINTAIN A MINIMUM OF 10-FOOT HORIZONTAL SEPARATION BETWEEN ALL WATER LINES (MAINS, SERVICES, AND FIRE HYDRANTS) AND ALL SANITARY SEWER LINES (MAINS, SERVICES, AND MANHOLES). ALL SEPARATION DISTANCES ARE TO BE MEASURED FROM EDGE-TO-EDGE, AT THE CLOSEST POINT.
- MAINTAIN A MINIMUM OF 2-FOOT VERTICAL SEPARATION BETWEEN ALL WATER LINES (MAINS AND SERVICES) AND ALL GRAVITY SANITARY SEWER LINES (MAINS, SERVICES, AND MANHOLES) AT CROSSINGS. ALL SEPARATION DISTANCES ARE TO BE MEASURED FROM EDGE-TO-EDGE, AT THE CLOSEST POINT.
- MAINTAIN A MINIMUM OF 2-FOOT VERTICAL SEPARATION BETWEEN ALL WATER LINES (MAINS AND SERVICES) AND ALL PRESSURIZED SANITARY SEWER LINES (FORCE MAINS AND SERVICES) AT CROSSINGS. WATERLINES MUST ALWAYS BE PLACED ABOVE PRESSURIZED SANITARY SEWER LINES WHERE THEY CROSS. ALL SEPARATION DISTANCES ARE TO BE MEASURED FROM EDGE-TO-EDGE, AT THE CLOSEST POINT.
- CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS COMPANIES AND IS EITHER FROM COMPANY UTILITY DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
- OPENING AND CLOSING OF WATER VALVES SHALL BE DONE SLOWLY TO PREVENT DAMAGE TO THE WATER DISTRIBUTIONS SYSTEM FROM WATER HAMMER. ALL VALVES CLOSED BY THE CONTRACTOR MUST BE REOPENED AS NEW CONSTRUCTION PERMITS. THE PROJECT INSPECTOR MUST ASCERTAIN THAT ANY VALVE CLOSED BY THE CONTRACTOR IS REOPENED. THE CONTRACTOR WILL BE PERMITTED TO OPERATE WATER VALVES ONLY WHEN THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT.
- THE CONTRACTOR SHALL LAY A TRACER WIRE AND SET TEST STATIONS ALONG ALL WATER PIPE INSTALLED IN ACCORDANCE WITH CITY SPECIFICATIONS AND TRACER WIRE DETAIL ON DETAIL SHEET WL-101. COST IS SUBSIDIARY TO PIPE INSTALLATION.
- THE CONTRACTOR SHALL PROVIDE MATERIALS FOR TEMPORARY BLOWOFF OF WATERLINES. CONNECTIONS TO THE EXISTING WATERLINE(S) SHALL BE MADE WITH CLEAN, SWABBED PIPE AND FLUSHED UPON COMPLETION OF TIE-INS.
- REQUESTS FOR SHORT TERM WATER INTERRUPTIONS SHALL BE MADE TO THE CITY WATER DISTRIBUTION DIVISION AND WILL BE SUBJECT TO THEIR APPROVAL. THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO ANY PROPERTY OWNER, BUSINESS, AND/OR TENANTS THAT WILL HAVE WATER SERVICE INTERRUPTED AT LEAST 5 DAYS IN ADVANCE. SUCH NOTIFICATIONS SHOULD INDICATE THE TIME AND DATE THAT THE WATER WILL BE TURNED OFF AND WHEN THE SERVICE WILL BE RESTORED. NO BUSINESS, PROPERTY OWNER, AND/OR TENANTS SHALL BE WITHOUT WATER SERVICE FOR MORE THAN 8 HOURS. PROPOSED TIE IN LOCATIONS WHICH WILL AFFECT WATER SERVICE TO PROPERTY OWNERS SHALL BE PERFORMED DURING NON-PEAK HOURS.
- THE CONTRACTOR MUST SCHEDULE THE CONNECTIONS TO THE EXISTING MAIN WITH THE CITY SUCH THAT THERE IS A MINIMUM DISRUPTION OF SERVICE. CONNECTIONS SHALL BE MADE DURING PERIODS OF LOW WATER USAGE. THE CONTRACTOR SHALL SUBMIT HIS PROPOSED SCHEDULE FOR COMPLETING WORK FOR CITY APPROVAL AT LEAST 10 DAYS PRIOR TO BEGINNING CONSTRUCTION.
- DEFLECTIONS AT PIPE JOINT OR COUPLINGS SHALL NOT EXCEED THE PIPE MANUFACTURERS RECOMMENDED MAXIMUM. WHERE DEFLECTIONS ARE GREATER THAN THE MAXIMUM ALLOWED, THE CONTRACTOR SHALL UTILIZE C/MJ LONG SLEEVE OR MULTIPLE JOINTS.
- ANY EXISTING JOINT EXPOSED DURING EXCAVATION SHALL BE REPLACED IF WITHIN FOUR FEET OF PROPOSED JOINT.
- VALVES 12 INCH AND LARGER ARE TO BE OPERATED BY THE CITY WATER DISTRIBUTION DIVISION, 48 HOURS OF ADVANCE NOTICE IS REQUIRED WITH THE WATER DISPATCH AT 316-291-8921.
- ALL WET TAPS SHALL BE INSTALLED BY THE CITY OF WICHITA. THE CONTRACTOR WILL REIMBURSE THE CITY FOR TAPPING FEES.
- THE CONTRACTOR SHALL PROTECT FROM DAMAGE AND SUPPORT EXISTING UTILITIES THROUGH CONSTRUCTION AS APPROVED BY THE UTILITY OWNER AND THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- WORK DONE UNDER THIS PROJECT IS SUBJECT TO THE CITY OF WICHITA REQUIREMENTS FOR CONSTRUCTION OF INFRASTRUCTURE IMPROVEMENTS BY PRIVATE CONTRACT. THE CONTRACTOR SHALL BE FAMILIAR AND COMPLY WITH ALL OF THE REQUIREMENTS, INCLUDING BONDING, INSPECTION, TESTING, NOTIFICATION, PROVIDING AS-BUILT DRAWINGS, PAYING FOR ALL NECESSARY CONNECTIONS, AND/OR STREET REPAIR FEES AND PROVIDING PIPE MATERIAL AND OTHER CERTIFICATIONS.
- DEVELOPER FOR THIS PROJECT IS:
WICHITA COUNTRY CLUB - BRIAN WHITE
8501 E. 13TH STREET N.
WICHITA, KS 67206
316-634-2882

PRIVATE WATER DISTRIBUTION SYSTEM

TO SERVE

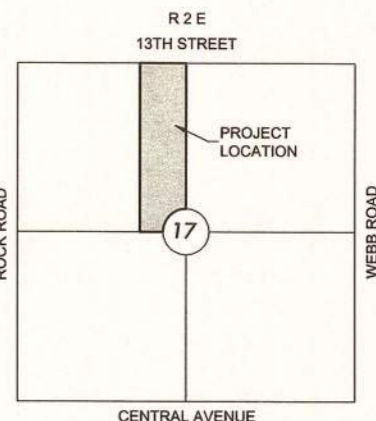
WICHITA COUNTRY CLUB

LOT 1, BLOCK 1, WICHITA COUNTRY CLUB SECOND ADDITION

PROJECT NO. 2022-031105PPW

THE CITY OF WICHITA, KANSAS
GARY JANZEN, P.E. - CITY ENGINEER
ORG CODE 54030980

SIGMA GLAND PACKS
SIGMA FITTINGS
McWANE DICL
CLOW (storz) fire hydrant
SANDERSON C-900 PIPE
PRO-TRACE WIRE



VICINITY MAP

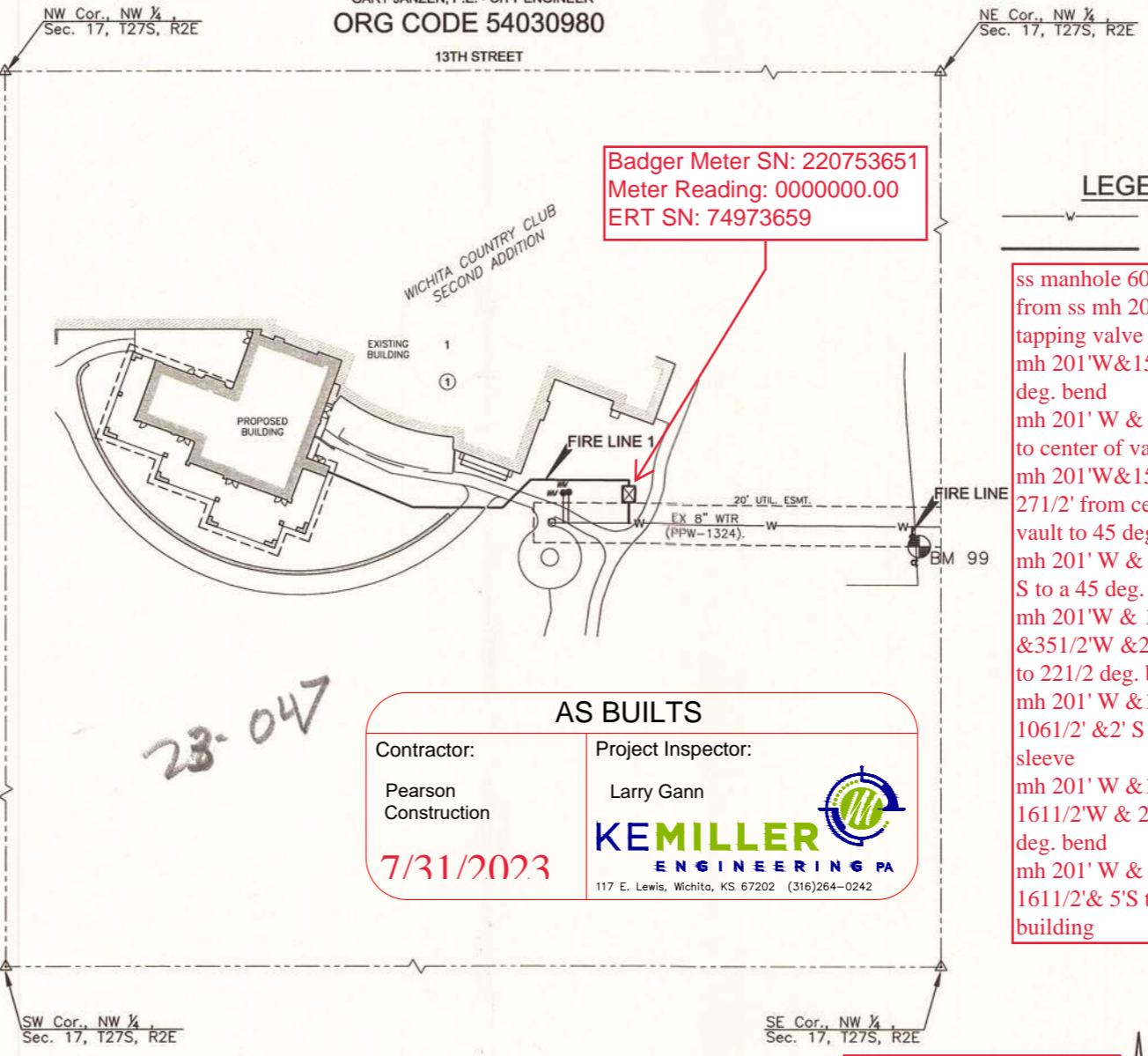
No Scale

LEGEND

- EXISTING WATER
- PROPOSED WATER

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
01	TITLE SHEET
02-05	CITY WATER DETAILS
06	FIRE LINES 1&2
07-09	CITY BMP DETAILS



AS BUILTS

Contractor: Pearson Construction
Project Inspector: Larry Gann

KEMILLER ENGINEERING PA
117 E. Lewis, Wichita, KS 67202 (316)264-0242

7/31/2023

ss manhole 6048-166PR from ss mh 201' W to tapping valve
mh 201'W & 15' N to 90 deg. bend
mh 201' W & 15'N & 8'W to center of vault
mh 201'W & 15'N & W 271/2' from center of vault to 45 deg. bend
mh 201' W & 351/2' & 2' S to a 45 deg. bend
mh 201'W & 15' N & 351/2'W & 2' S & 71' W to 221/2 deg. bend
mh 201' W & 15' N & W 1061/2' & 2' S to long sleeve
mh 201' W & 15' N & 1611/2'W & 2' S to 90 deg. bend
mh 201' W & 15'N & W 1611/2' & 5' S to riser in building

Line 2
From ss manhole 56' W & 13' S to tapping valve
From ss mh 56'W & 151/2' S to Clow (storz) fire hyd.



APPROVED AS NOTED BY WICHITA PUBLIC WORKS ENGINEERING DIVISION & BY WICHITA FIRE DEPARTMENT

Engineering	Approved by Shawn Mellias	10/17/2022
Utilities	Approved by Greg Lolley	10/17/2022
Fire Department	Approved by Jose Ocadiz	10/17/2022

NOTE TO CONTRACTORS

Public Property:

Inspection and testing for the water line is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Professional Engineer Licensed in the state of Kansas. No work shall be performed in dedicated easements or public rights-of-way by the Contractor without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards and Special Provision (on file and available in the City Engineer's office) or on the City's Website.

Private Property:

Installation and testing for the fire protection line is to be performed by a City of Wichita licensed fire protection contractor in accordance with the fire codes as adopted by the City of Wichita. All material and construction practices for the fire protection line shall comply with the fire codes as adopted by the City of Wichita (available from the City of Wichita Fire Department). The contractor shall not commence work without notification and approval of the Wichita Fire Department. Inspection of the fire protection line is to be provided by a licensed Engineering Firm under contract with the Owner/Developer and the Fire Department. The contractor shall not start work until the project inspector is assigned to the project and present on the site. Any work done without inspection will be required to be uncovered for inspection.

An approved copy of these plans signed by City staff is required on-site.



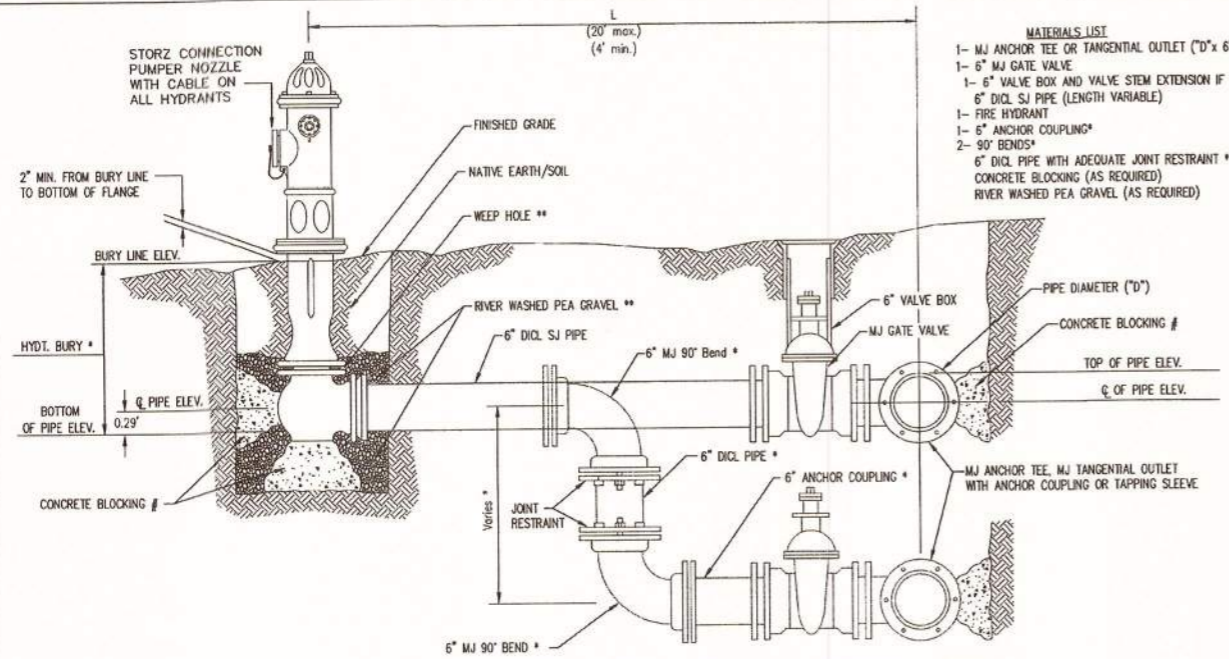
PRIVATE WATER DISTRIBUTION PLANS FOR
WICHITA COUNTRY CLUB
WICHITA, KANSAS

TITLE SHEET

PROJECT NO.	2022-031105PPW	
DATE	OCT 2022	
SCALE	1" = 80'	
DESIGNED	DRAWN	CHECKED
KPG	KPG	KPG
NO.	REVISION	DATE
SHEET NO.	01 OF 09	

NOTE: WATER LINE VALVES TO BE OPERATED BY CONTRACTOR ONLY IF WATER INSPECTOR IS ON SITE.

NOTE: ALL LINES TO BE INSTALLED BY OTHERS ARE SUBJECT TO MABCD REVIEW.
NOTE: CONTRACTOR TO VERIFY DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.



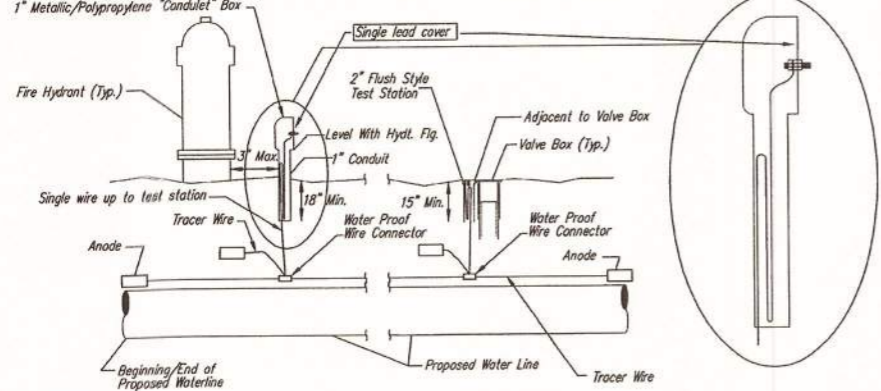
- MATERIALS LIST**
- 1- MJ ANCHOR TEE OR TANGENTIAL OUTLET (D"x 6")
 - 1- 6" MJ GATE VALVE
 - 1- 6" VALVE BOX AND VALVE STEM EXTENSION IF REQUIRED *
 - 6" DICL SJ PIPE (LENGTH VARIABLE)
 - 1- FIRE HYDRANT
 - 1- 6" ANCHOR COUPLING*
 - 2- 90° BENDS*
 - 6" DICL PIPE WITH ADEQUATE JOINT RESTRAINT *
 - CONCRETE BLOCKING (AS REQUIRED)
 - RIVER WASHED PEA GRAVEL (AS REQUIRED)

* IF THE REQUIRED HYDRANT BURY IS IN EXCESS OF 5', BUT LESS THAN 7', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY. IF THE REQUIRED HYDRANT BURY IS GREATER THAN 7', CONTRACTOR SHALL USE 5' HYDRANT BURY, 2-MJ 90° BENDS, 6" ANCHOR COUPLING AND 6" DICL PIPE AS NECESSARY FOR VERTICAL ADJUSTMENT. THE CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING AT HYDRANT AND MEGALUGS, OR SIMILAR RESTRAINT BETWEEN 90° BENDS TO SECURE ALL FITTINGS DURING TESTING AND OPERATION. THE CONTRACTOR SHALL PROVIDE A VALVE STEM EXTENSION PER DETAIL THIS SHEET.

** CAUTION: WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES. PLACE 1 CUBIC FOOT OF RIVER WASHED PEA GRAVEL AROUND EACH WEEP HOLE.

CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.

FIRE HYDRANT ASSEMBLY
PER CITY OF WICHITA SPECIFICATIONS



TRACER WIRE
Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. A waterproof connector shall be used at splice locations. A complete list of approved tracer wire and waterproof connectors can be found on the City of Wichita's website at www.wichita.gov.

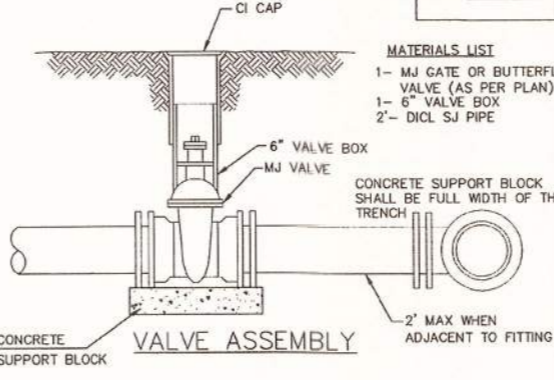
WIRE
The tracer wire shall be Blue No. 12 AWG CCS with 45 mil HDPE insulation. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the bottom of the test station for all wires. Wire connectors shall be installed per manufacturer recommendations. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

TEST STATIONS
The test station for fire hydrant application shall be a 1" "conduit" style station as manufactured by AGRA Industries with a removable solid cover having a single lead extending from the face or approved equal. The "conduit" style test station shall be attached to a 1" rigid galvanized conduit with a minimum length of 36" and plastic end bushing. The flush style shall have the word "WATER" stamped or molded into the lid. The test station for valve applications shall be a 2" flush style test station with wire connector on lid. Model # T2PH/B1LP Handley Industries or CD14*TP SnakeFit as manufactured by Copperhead Industries or approved equal. The flush style shall have the word "WATER" stamped or molded into the lid. All test stations shall be manufactured using molded blue tops or sufficiently coated with blue enamel paint. The tracer wire and the anode wire shall be installed to allow 12" of wire within the test station. The location of all test stations shall be recorded, and shown in the as-built drawings. Flush style test stations shall not be installed in pavement or sidewalk unless approved by the Engineer. Contractor shall extend tracer wire & move flush mount test station to nearest location out of pavement or sidewalk.

ANODES
The anodes shall be 3 lb. bare zinc or magnesium. The anodes shall be buried at the same elevation as the waterline at each test station. The anodes shall be connected to 12 AWG CCS which shall be extended to the test station.

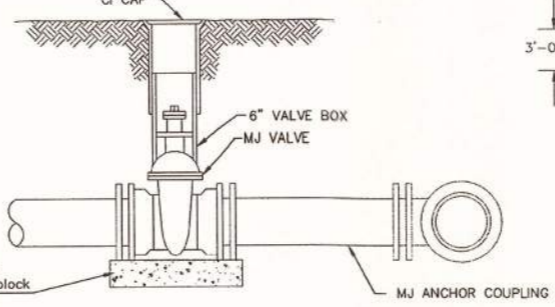
TRACER WIRE DETAIL
COST IS SUBSIDIARY TO PIPE INSTALLATION

FIRE HYDRANTS REQUIRED				
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
10+00, LINE 2	1380.10	1375.77	5.0'	N/A

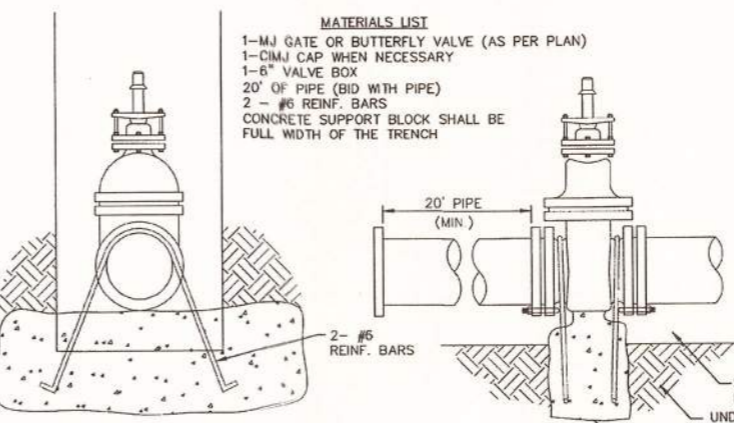


- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1- 6" VALVE BOX
 - 2- DICL SJ PIPE

- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1- MJ ANCHOR COUPLING (12" OR SMALLER)
 - 1- 6" VALVE BOX
 - CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



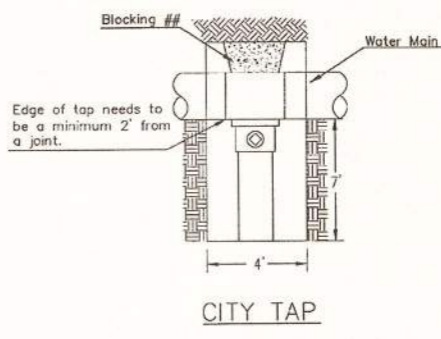
ANCHORED VALVE ASSEMBLY



- Notes:**
- Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
 - The thrust block shall be constructed such that bolts, nuts, and other MJ accessories are kept clear of concrete.
 - All valves at dead ends and at other locations as called out on the plans shall be blocked as shown here.

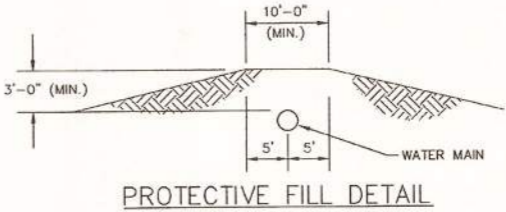
THRUST AT VALVES	
VALVE	THRUST AT 150 #/sq ft
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL



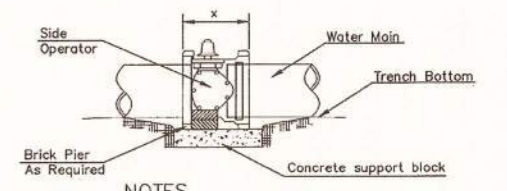
CITY TAP

When the City of Wichita makes tap, blocking is to be done by Contractor



PROTECTIVE FILL DETAIL

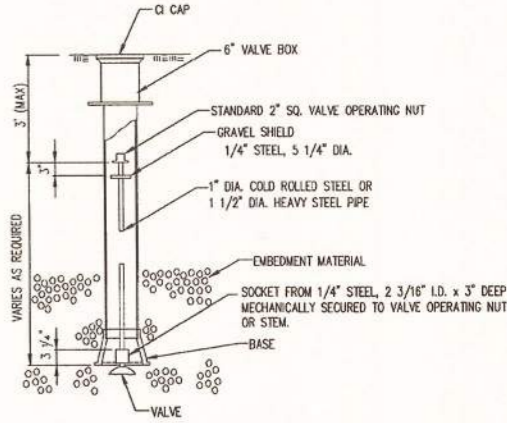
MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN 3". (COST SUBSIDIARY TO PIPE INSTALLATION)



NOTES

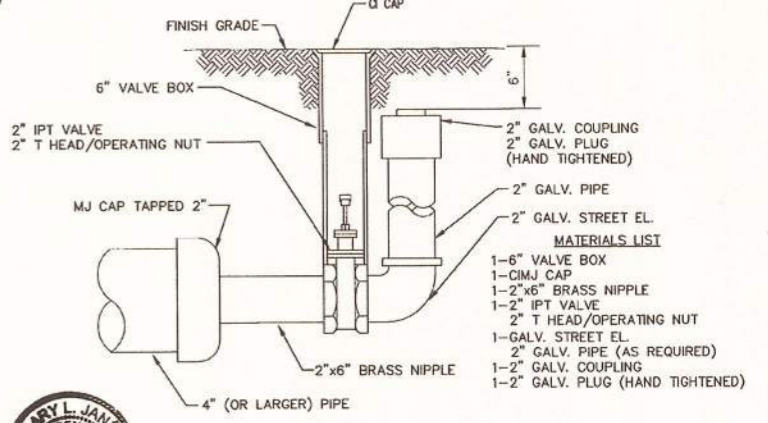
- This detail covers Butterfly Valve Installation, inclusive, regardless of type of pipe or joint used. 24" and larger lines to be detailed on plans.
- 6" Valve Box and Cover required per City of Wichita Std. Specifications.
- Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION



VALVE STEM EXTENSION DETAIL

NOTE: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'.



2" BLOWOFF ASSEMBLY



CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

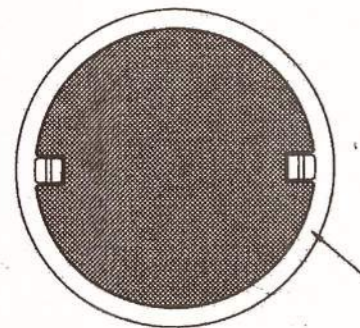
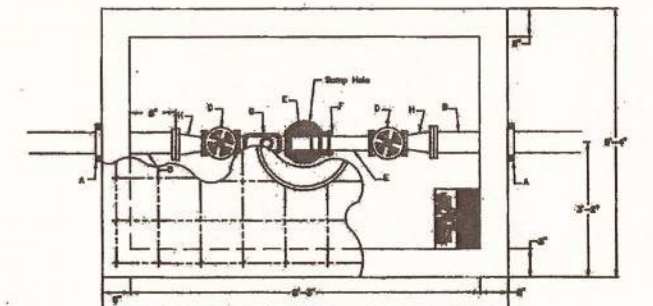
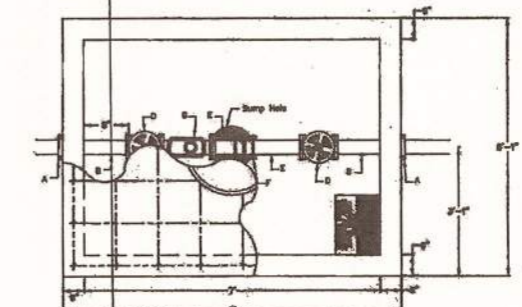
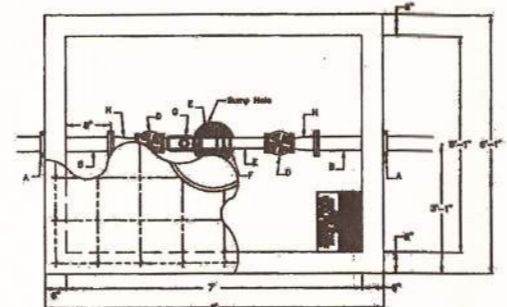
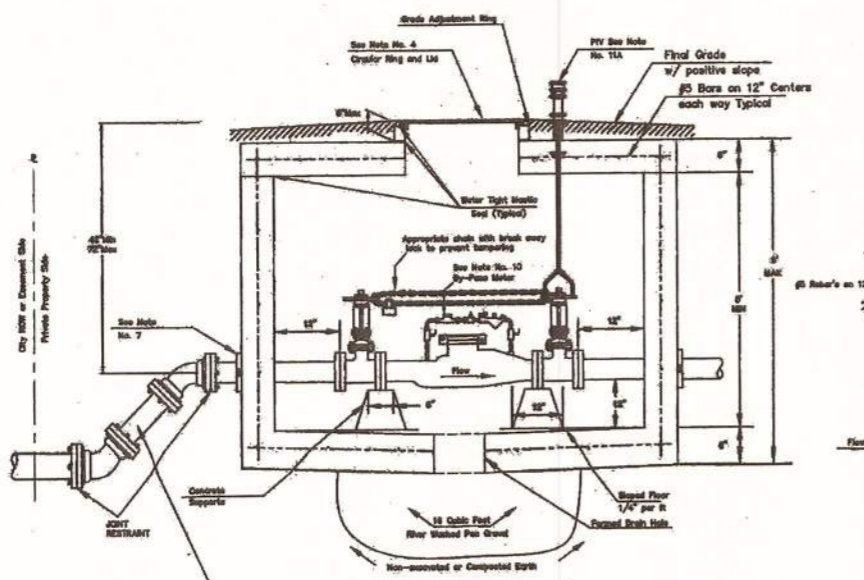
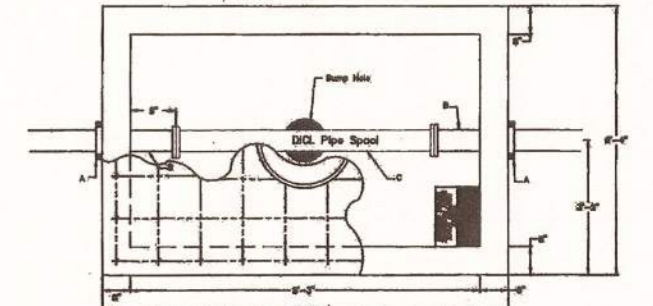
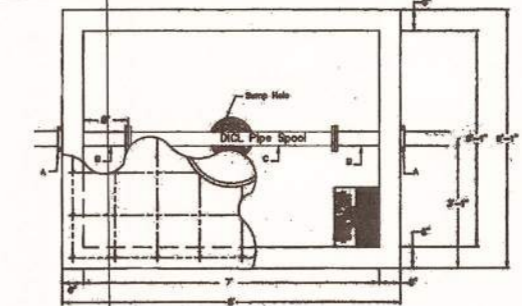
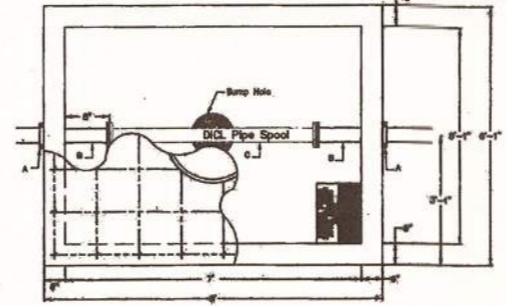
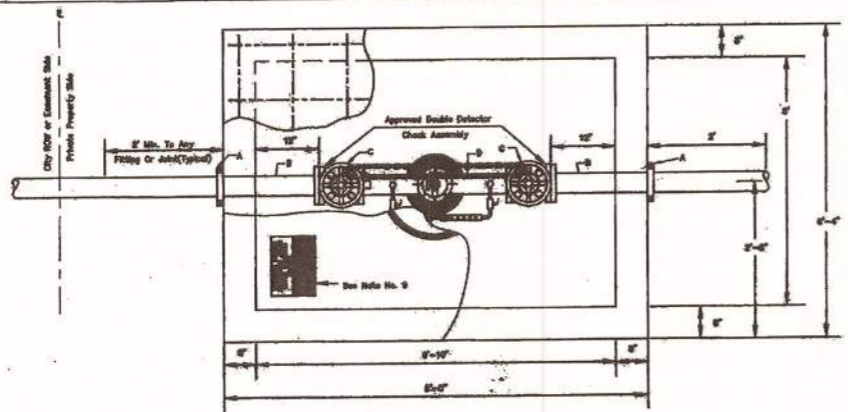
STANDARD WATER ASSEMBLY DETAIL
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER 2022-031105PPW	DCR NUMBER 54030980	DATE 2022
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CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
02 OF 09

REVISED: OCTOBER 2016



Use 45 degree fittings as necessary to keep depth of vault within 76 inch maximum. All fittings should be mega lug, restrained joint or approved equal. All fittings for vertical and horizontal adjustments are to be on private property.

4" thru 8" Fire Service

Detail A
Vault Lid

- A - Mega Lug (See Note 7)^{**}
- B - Min. 3'-6" Piece of 4" FL x PE D.I.C.L. Pipe^{**}
- C - Flange Gate Valve, Wheel Operated^{**}
- D - Ames Model 300155 or approved equal with metered/cubic foot by-pass assembly^{**}

NOTE:
Domestic Services larger than 6" shall be custom designed by Consultant Engineer.

- A - 4" Vault Clamp^{**}
- B - Min. 3' Piece of 4" FL x PE D.I.C.L. Pipe^{**}
- C - 4" D.I.C.L. Flanged Pipe Spool^{**}
- D - 3" Flange Non-Rising Stem Gate Wheel Valve^{**}
- E - 5" FL x PE Pipe^{**}
- F - 3" Flex Coupling^{**}
- G - 3" Badger Recordall II Turbo Cubic Foot Meter with AMR Register with a ADE on the register.^{**}
- H - 3" x 4" FL Reducer^{**}

3" Domestic Service

* = Contractor Installed
** = Installed By Wichita Water Utilities

- A - 4" Vault Clamp^{**}
- B - Min. 3' Piece of 4" FL x PE D.I.C.L. Pipe^{**}
- C - 4" D.I.C.L. Pipe Spool^{**}
- D - 4" Flange Non-Rising Stem Gate Wheel Valve^{**}
- E - 4" FL x PE Pipe^{**}
- F - 4" Flex Coupling^{**}
- G - 4" Badger Recordall II Turbo Cubic Foot Meter with AMR Register with a ADE on the register.^{**}
- H - 0" x 4" FL Reducer^{**}

4" Domestic Service

NOTE:
INSPECTOR FROM PUBLIC WORKS AND UTILITIES TO BE CONTACTED 24 HOURS PRIOR TO INSTALLATION TO SET VAULT
CONTACT: 316-219-8928 OR 316-219-8929

- A - 6" Mega Lug (See Note 7)^{**}
- B - Min. 3' Piece of 6" FL x PE D.I.C.L. Pipe^{**}
- C - 6" D.I.C.L. Pipe Spool^{**}
- D - 4" Flange Non-Rising Stem Gate Wheel Valve^{**}
- E - 4" FL x PE Pipe^{**}
- F - 4" Flex Coupling^{**}
- G - 4" Badger Recordall II Turbo Cubic Foot Meter with AMR Register with a ADE on the register.^{**}
- H - 0" x 4" FL Reducer^{**}

6" Domestic Service with 4" meter

Notes For All Services - 3" thru 12":

1. When the standard vault dimensions are not applicable, such as when additional space is required for special pipe, fittings, additional meters, etc. the consultant design engineering shall design a vault with the required dimensions for Public Works and Utilities approval.
2. The vault shall be poured concrete, cement blocks (voids to be completely filled with 2500 P.S.I. concrete), or approved precast structure. The intent of these details shall not be limited by drawings or standards of precast structures.
3. Vault location to be determined by Public Works and Utilities prior to construction and approved by Department's field supervisor prior to installation. A final inspection will be required for acceptance. Vault location standards include but not limited to: not to be located where subjected to vehicular loads unless vault is H20 traffic rated, not to be located in any right-of-way or utility easement, and must be located on the property being served.
4. The manhole ring and lid shall be Neenah R-6034 Frame with Type "C" Solid Lid and Drop Down Handle or US Foundry APS-30x30 (Aluminum) or Deeter 1261 or EJ 1936z1 (with pick holes) as shown in Detail A). Where applicable the standard 10" Public Works and Utilities pattern meter reading lid and ring shall be located directly above water meter register. All joints of concrete to concrete or metal to concrete in the construction of the vault shall have an approved water tight mastic joint seal.

5. Any fittings or appurtenances required to achieve proper elevation of pipe through the vault shall be provided by the contractor and appropriately noted on the as-builts submitted by the inspecting engineer. Such fittings shall be a minimum of 2' from the exterior wall of vault.
6. For all domestic services larger than 3" the contractor shall provide an outlet flange connection as shown 8" from the inside wall. Inlet and outlet wall sleeves shall be provided and installed by the contractor and shall be in alignment with one another. The inlet and outlet pipe shall be ductile iron pipe, cement lined, Class 150 per Standard Specifications and shall be continuous through vault and joint no less than 2' from the exterior wall of vault. Flanges of inlet and outlet pipe shall be in proper alignment and bolt pattern shall be rotated in such a way that valves and other fittings shall be in their proper vertical alignment when installed.
7. For all services 4" and larger the contractor shall install a mega lug, restrained joint, or approved equal on the exterior walls of the vault, which shall be manufactured of ductile iron conforming ASTM A 536-80, heat treated to a minimum hardness of 370 BHN and have a working pressure of a least 250 P.S.I. For a services smaller than 4" the contractor shall install an approved vault clamp on the exterior walls of the vault.
8. All valves, meters, assemblies and fitting shall be provided with sufficient concrete or other approved supports to the vault floor.
9. The "Confined Space Warning" sign shall be fastened to the top of all vaults. If necessary for landscaping or site consideration, the sign may be fastened to the lid if it does not impede access to the handle. Acceptable materials: Aluminum 73415HH, Plastic 73439HH or S.A. Vinyl 73463HH.

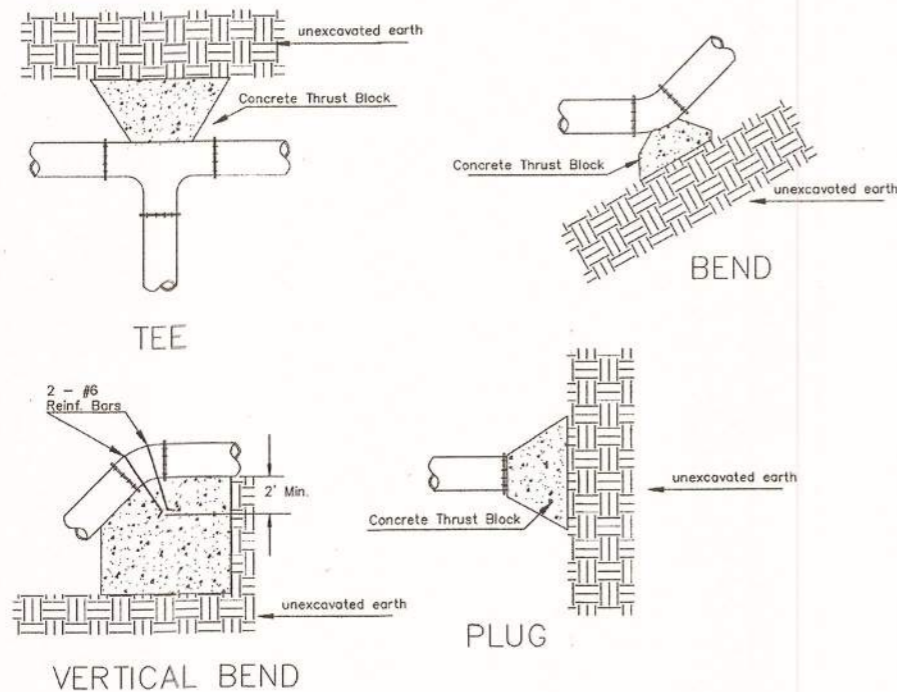
10. All meters shall have an electronic read register compatible with the current City of Wichita meter reading system. All detector meters shall be on 5/8 cubic foot Badger meter with AMR register with a ADE on the register and 25' long iron cord and plug or approved equal. Gallon meters shall not be accepted.
 - A. Fire Detect Leak Meters and ERTs will be purchased from the CITY at cost and meters purchased from a third party source shall not be accepted.
11. Additional Notes For Fire Services
 - A. A post indicator valve (PIV) is an option for the outlet valve. It is not required by the City of Wichita ordinance, it can be requested by the owner and will be allowed at the discretion of the City Engineer.
 - B. When Siamese connections are required by the Wichita Fire Department, refer to the current City Code Section 15.
 - C. If due to any reason the completed vault retains ground or drainage water in excess of 4" in depth from the floor of the vault, the property owner shall be responsible for providing and installing an appropriate automatic sump pump or approved equal, as well as any other appurtenances required to make such system function as intended.



CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

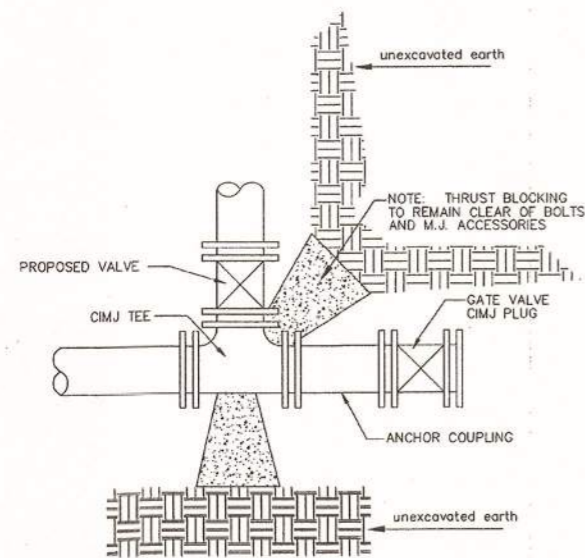
STANDARD VAULT DETAILS AND METER ASSEMBLIES		
CITY ENGINEER GARY JANZEN, P.E.		
PROJECT NUMBER 2022-031105PPW	OGA NUMBER 54030980	DATE 2022
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET 03 OF 09

REVISED: JULY 2020



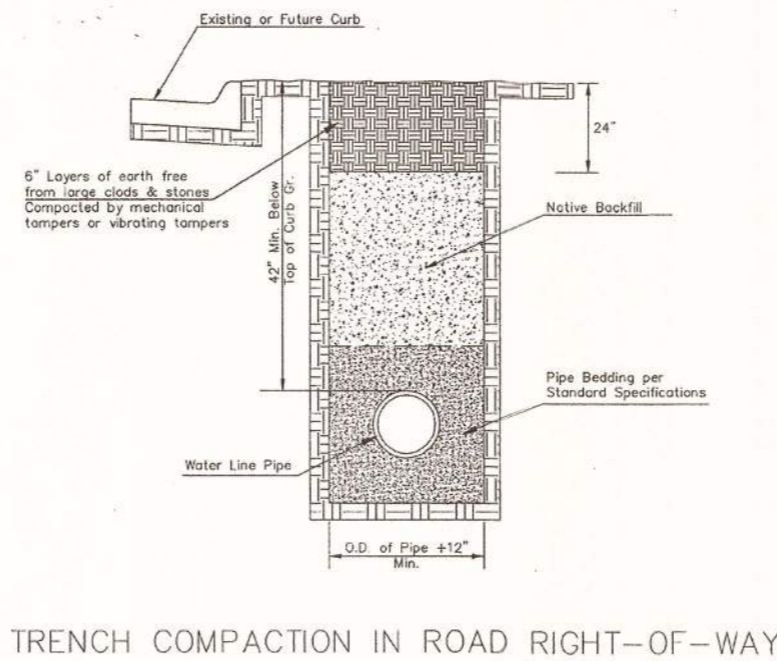
PIPE SIZE	THRUST AT FITTINGS IN TONS-AT 150#/IN ² P					
	PLUG	90°	45°	22 1/2°	11 1/4°	TEE
6"	2.8	3.95	2.15	1.09	.55	2.8
8"	4.9	6.95	3.75	1.90	.96	4.9
12"	11.4	16.1	8.75	4.45	2.25	11.4
16"	20.15	28.5	15.4	7.85	3.95	20.15
20"	31.15	44.0	23.85	12.15	6.10	31.15
24"	44.55	63.0	34.1	17.4	8.75	44.55

TYPICAL THRUST BLOCKS



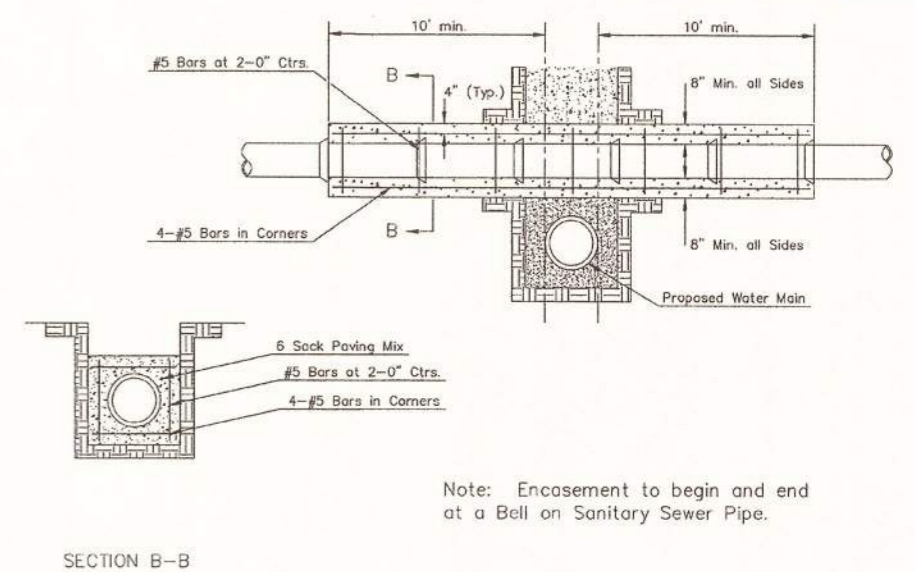
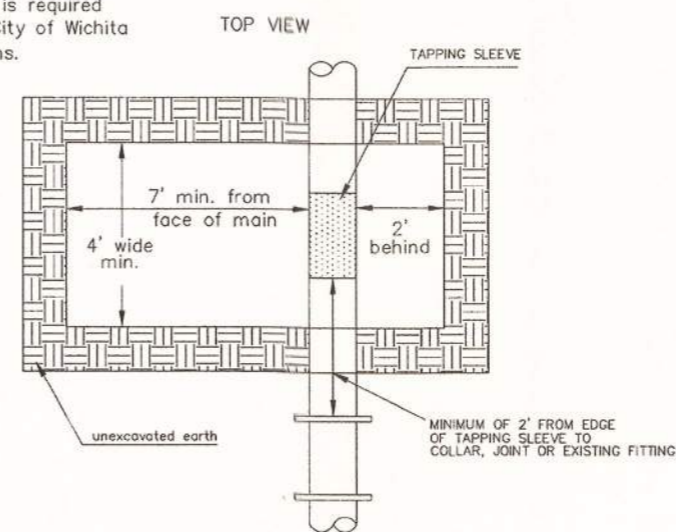
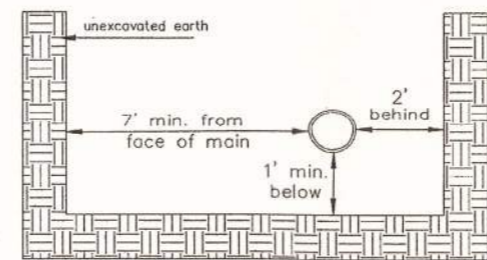
KEY BLOCK DETAIL

* PLANS GOVERN
UNLESS OTHERWISE NOTED ON PLANS

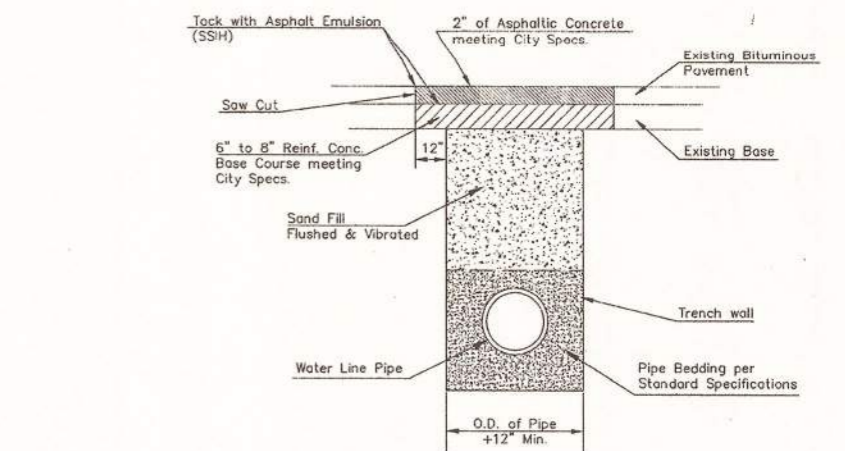


SIDE VIEW

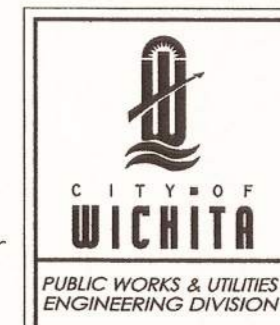
Note: When shoring is required it is to be per The City of Wichita Standard Specifications.



REINFORCED CONCRETE ENCASEMENT OF SANITARY SEWER



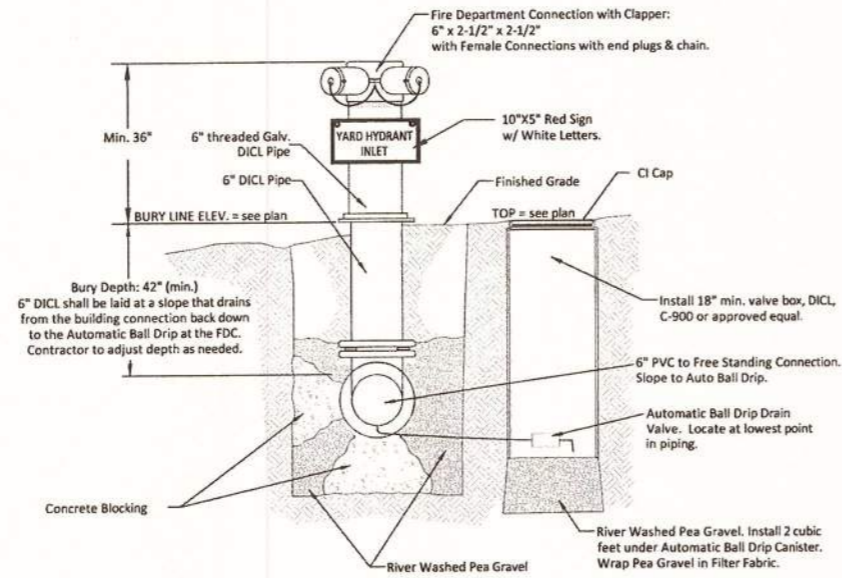
PAVEMENT REPLACEMENT & TRENCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS



MISCELLANEOUS WATER DETAILS		
CITY ENGINEER		
GARY JANZEN, P.E.		
PROJECT NUMBER 2022-031105PPW	OCA NUMBER 54030980	DATE 2022
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET 04 OF 09

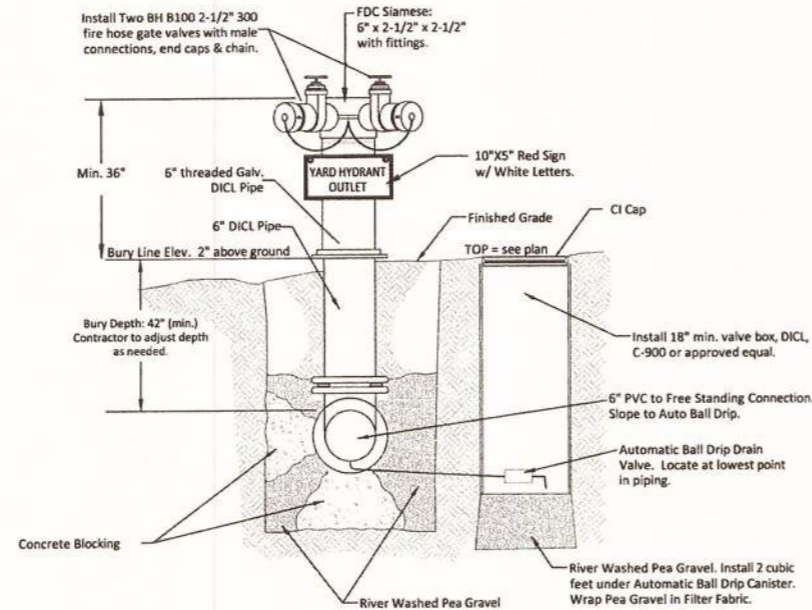
FREE STANDING YARD HYDRANT (also called Dry Fire Line)

Inlet and Outlet to be used together to provide fire hydrant coverage on the far side of a building.



1 FREE STANDING YARD HYDRANT INLET
NOT TO SCALE

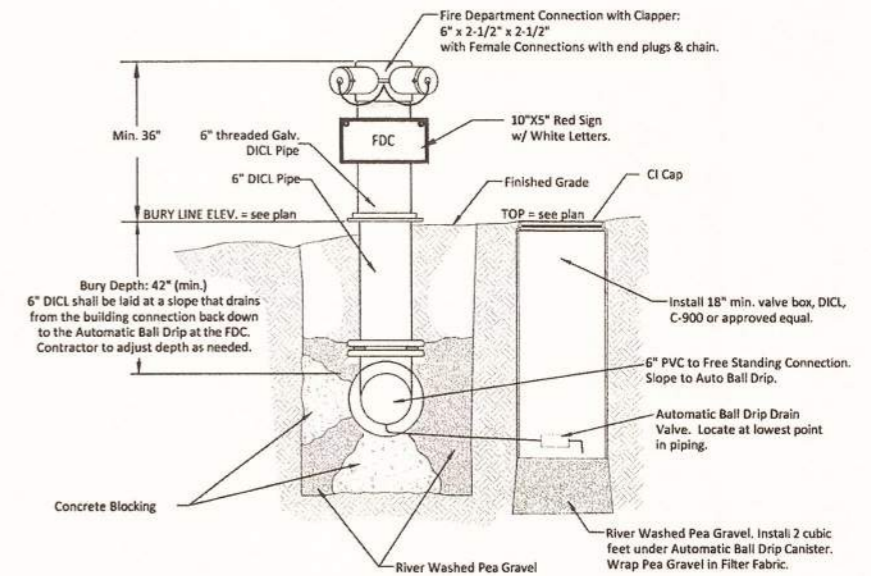
To be located within 150' of a Fire Hydrant



2 FREE STANDING YARD HYDRANT OUTLET
NOT TO SCALE

REMOTE FIRE DEPARTMENT CONNECTION

Same construction as Free Standing Yard Hydrant Inlet, with different sign. Used to boost interior sprinkler systems.



REMOTE FIRE DEPARTMENT CONNECTION
NOT TO SCALE

To be located within 150' of a Fire Hydrant



FREE STANDING YARD HYDRANT AND REMOTE FDC DETAIL

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
2022-031105PPW	54030980	2022

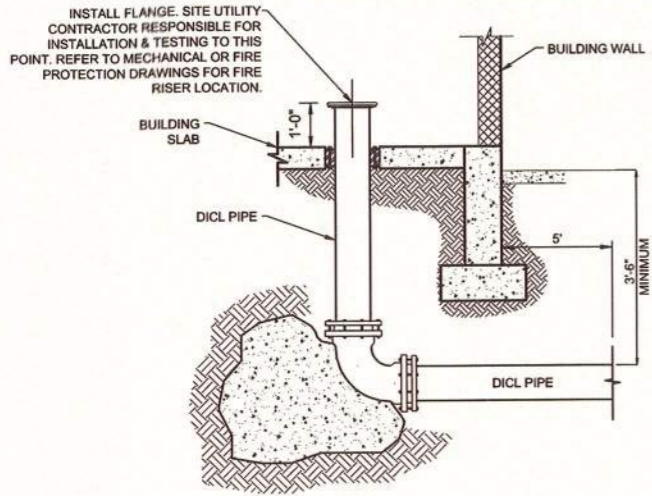
CITY ENGINEER'S OFFICE	SHEET
CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501	05 OF 09

all fittings are megaluged

RISER, 3' OF DICL, 90 DEG. BEND(HORZ.), 15' OF DICL

NOTE: CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING WATER LINE PRIOR TO CONSTRUCTION.

SANITARY CROSSING NOTE:
THE EXACT DEPTH OF THE EX. 6" SANITARY LINE IS UNKNOWN. CONTRACTOR TO VERIFY DEPTH PRIOR TO INSTALLATION OF THE FIRE SERVICE AND ENSURE A MINIMUM OF 2' OF VERTICAL CLEARANCE FROM THE EX. SANITARY. IF 2' OF CLEARANCE CANNOT BE MAINTAINED, ENCASE THE EX. SANITARY LINE A DISTANCE OF 10' IN EITHER DIRECTION FROM THE CROSSING WITH THE WATER LINE.



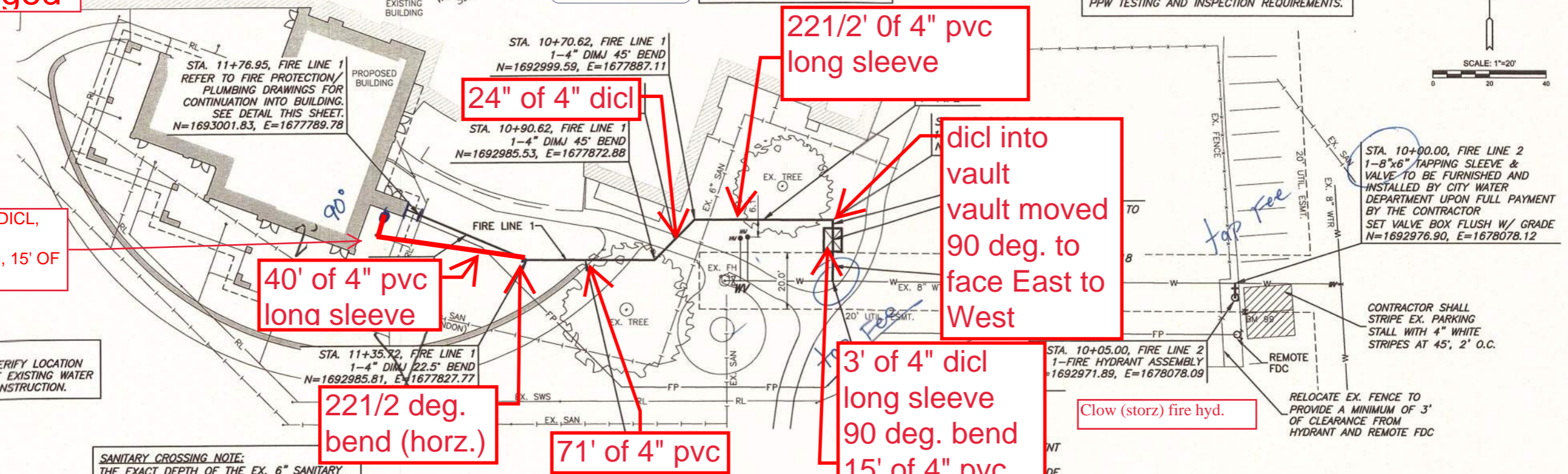
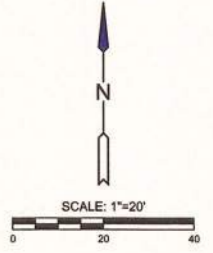
1 FIRE PROTECTION AT BUILDING (TYP.)
SCALE: NTS

AS BUILTS

KEMILLER ENGINEERING PA
117 E. Lewis, Wichita, KS 67202 (316)264-0242

TREE NOTE:
CONTRACTOR TO TRIM BRANCHES OF EX. TREES AS NEEDED FOR INSTALLATION OF 4" FIRE LINE

FIRE PROTECTION NOTE:
THE PRIVATE FIRE PROTECTION LINE FROM THE RISER ROOM TO THE REMOTE FDC IS SHOWN FOR REFERENCE ONLY. THIS LINE SHALL BE DESIGNED BY A LICENSED PROTECTION ENGINEER. THIS LINE IS PART OF THE PPW AND SHALL COMPLY WITH CITY OF WICHITA PPW TESTING AND INSPECTION REQUIREMENTS.



24" of 4" dicl

221/2' Of 4" pvc long sleeve

dicl into vault
vault moved 90 deg. to face East to West

40' of 4" pvc long sleeve

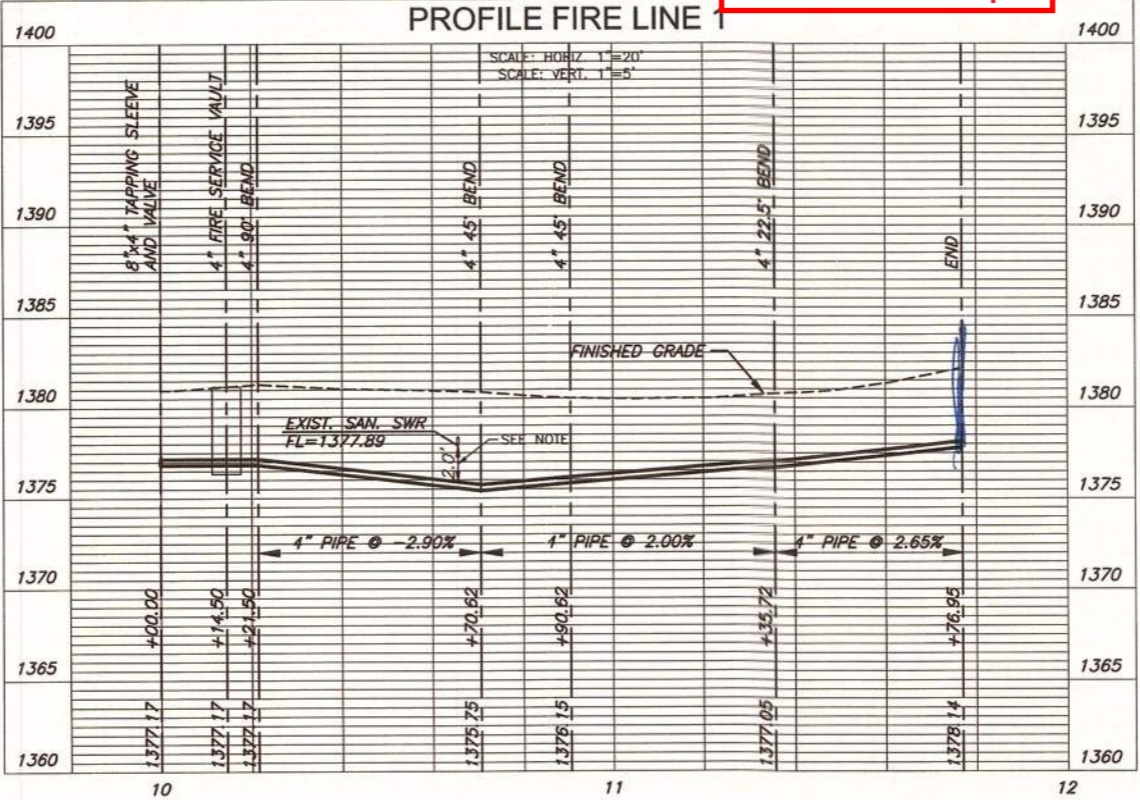
221/2 deg. bend (horz.)

71' of 4" pvc

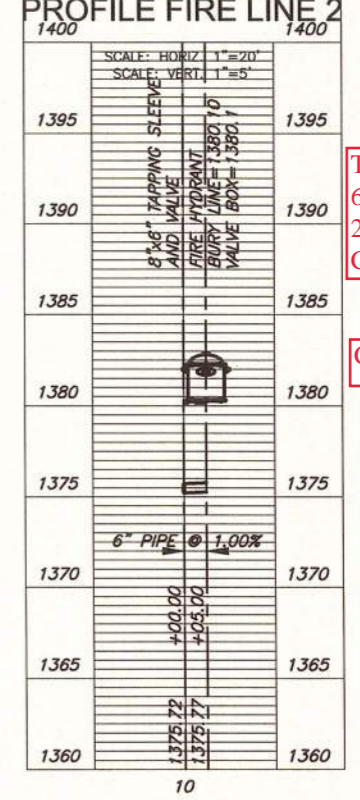
3' of 4" dicl long sleeve
90 deg. bend
15' of 4" pvc valve and tap

Clow (storz) fire hyd.

PLAN FIRE LINE 1
PROFILE FIRE LINE 1



PLAN FIRE LINE 2
PROFILE FIRE LINE 2



Tapping sleeve
6" valve
24" of DICL
Clow (storz) fire hyd.

Clow (storz) fire hyd.



MKEC
Wichita, KS • 316-684-8600

PRIVATE WATER DISTRIBUTION PLANS FOR
WICHITA COUNTRY CLUB
WICHITA, KANSAS

FIRE LINES 1&2

PROJECT NO.	2022-031105PPW	
DATE	OCT 2022	
SCALE	1" = 20'	
DESIGNED	DRAWN	CHECKED
KPG	KPG	KPG

NO.	REVISION	DATE
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