

GENERAL NOTES

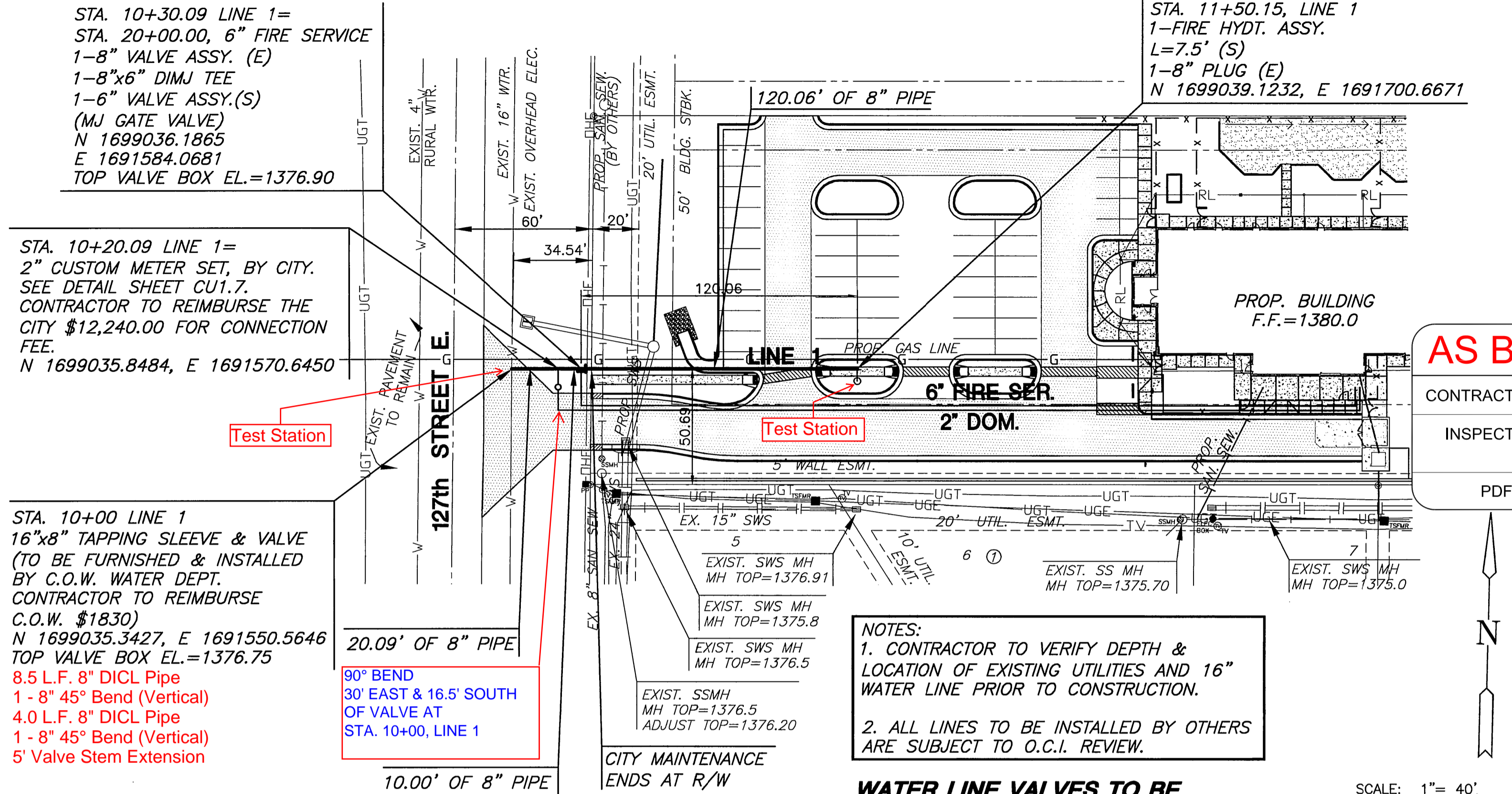
- ALL WATER MAINS AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF WICHITA, KANSAS STANDARD SPECIFICATIONS FOR WATER MAIN INSTALLATIONS.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF SEVENTY-TWO (72) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:
KANSAS ONE-CALL 1-800-344-7233
OR LOCAL (WICHITA) 687-2470
THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF EMERGENCY:
COX COMMUNICATIONS (CABLE) 262-0661
WESTAR (ELECTRIC) 383-8600
KANSAS GAS SERVICE (GAS) 832-3101
AT&T TELEPHONE) 800-870-8390
CITY OF WICHITA WATER & SEWER 262-6000
AQUILA (GAS) 800-303-0357
- THE WATER MAIN SHALL BE CONSTRUCTED ON THE ALIGNMENT SHOWN ON THE PLANS. 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 ENGINEER'S APPROVAL, AND SHALL BE INCLUDED IN THE PRICE BID FOR THE INSTALLED WATER PIPE. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.
- OPENING AND CLOSING WATER VALVES SHALL BE DONE SLOWLY TO PREVENT DAMAGE TO THE WATER DISTRIBUTION SYSTEM FROM WATER HAMMER. ALL VALVES CLOSED BY THE CONTRACTOR MUST BE REOPENED AS NEW CONSTRUCTION PERMITS. PROJECT INSPECTOR MUST ASCERTAIN THAT ANY VALVE CLOSED BY THE CONTRACTOR IS REOPENED. CONTRACTOR WILL BE PERMITTED TO OPERATE WATER VALVES ONLY WHEN THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT.
- CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED TO THE PROJECT AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION.
- UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. 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 UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ADJUTING 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. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO SITE RESTORATION.
- THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, ENTRANCES AND BANK LINES TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE.
- NO SERVICES WILL BE INSTALLED AS PART OF THIS PROJECT.
- INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA, AND LOCAL BUSINESS OR RESIDENTIAL TRAFFIC GENERATED WITHIN THE PROJECT AREA ARE TO BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS.
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES INCLUDING ANY TREES REMOVED AND TREE TRIMMINGS 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 THAT, IN THE OPINION OF THE ENGINEER, 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 WOULD 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 WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
- ALL DISTURBED AREAS TO BE SEEDED WITH PERENNIAL RYE GRASS AT A RATE OF 200 LBS. PER ACRE WITHIN 10 DAYS OF CONSTRUCTION. CONTRACTOR TO PREPARE GROUND PER CITY SPECIFICATIONS. COST IS SUBSIDIARY TO SITE PREPARATION AND RESTORATION.
- THE CONTRACTOR SHALL LAY A TRACER WIRE & SET TEST STATIONS ALONG ALL WATER LINE PIPE INSTALLED IN ACCORDANCE WITH CITY OF WICHITA SPECIFICATIONS & TRACER WIRE DETAIL ON DETAIL SHEET. COST IS SUBSIDIARY TO PIPE INSTALLATION.
- CONTRACTOR TO COORDINATE CONSTRUCTION OF WATERLINE WITH OTHER CONSTRUCTION ACTIVITIES ON SITE. THIS INCLUDES SANITARY SEWER AND MASS GRADING PROJECTS. SEE GRADING PLANS FOR DETAILED EROSION CONTROL.
- OTHER PUBLIC IMPROVEMENT CONSTRUCTION PROJECTS MAY BE UNDER WAY SIMULTANEOUSLY. THE CONTRACTOR SHALL COORDINATE WITH ANY CONTRACTORS CONSTRUCTING OTHER PORTIONS OF THE PROJECT.
- IN LIEU OF STABILIZED CONSTRUCTION ENTRANCE CONTRACTOR TO ACCESS SITE VIA EXISTING GRAVEL ROAD ON EASTSIDE OF PROPERTY.
- CONTRACTOR TO PROVIDE CONSTRUCTION STAKING & INSPECTION.

STA. 10+30.09 LINE 1=
STA. 20+00.00, 6" FIRE SERVICE
1-8" VALVE ASSY. (E)
1-8"x6" DIMJ TEE
1-6" VALVE ASSY.(S)
(MJ GATE VALVE)
N 1699036.1865
E 1691584.0681
TOP VALVE BOX EL.=1376.90

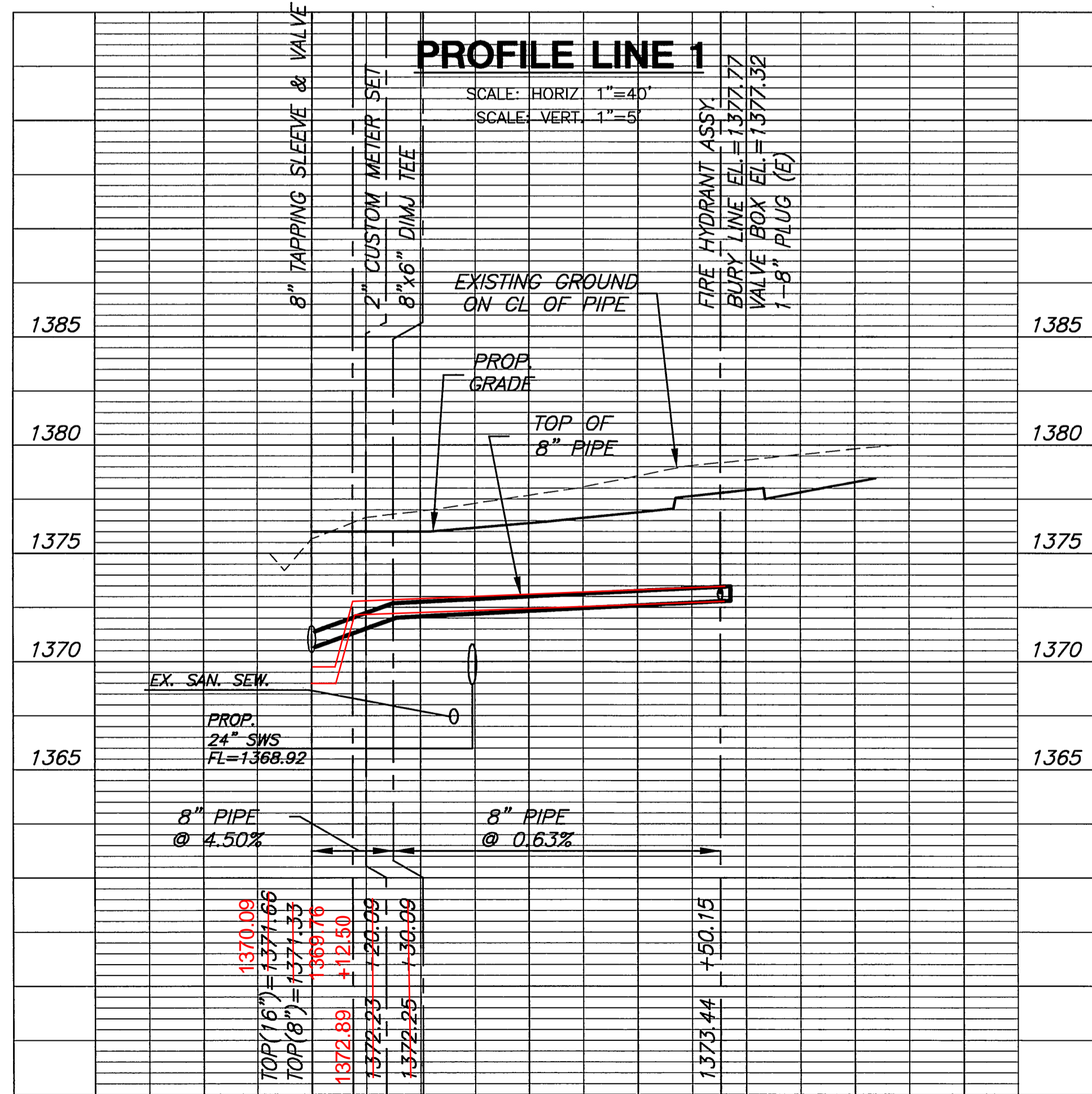
STA. 10+20.09 LINE 1=
2" CUSTOM METER SET, BY CITY.
SEE DETAIL SHEET CU1.7.
CONTRACTOR TO REIMBURSE THE
CITY \$12,240.00 FOR CONNECTION
FEE.
N 1699035.8484, E 1691570.6450

STA. 10+00 LINE 1
16"x8" TAPPING SLEEVE & VALVE
(TO BE FURNISHED & INSTALLED
BY C.O.W. WATER DEPT.
CONTRACTOR TO REIMBURSE
C.O.W. \$1830)
N 1699035.3427, E 1691550.5646
TOP VALVE BOX EL.=1376.75
8.5 L.F. 8" DICL Pipe
1-8" 45° Bend (Vertical)
4.0 L.F. 8" DICL Pipe
1-8" 45° Bend (Vertical)
5' Valve Stem Extension

Clow (STORZ)
STA. 11+50.15, LINE 1
1-FIRE HYD. ASSY.
L=7.5' (S)
1-8" PLUG (E)
N 1699039.1232, E 1691700.6671



PLAN LINE 1



NOTES:
1. CONTRACTOR TO VERIFY DEPTH & LOCATION OF EXISTING UTILITIES AND 16" WATER LINE PRIOR TO CONSTRUCTION.
2. ALL LINES TO BE INSTALLED BY OTHERS ARE SUBJECT TO O.C.I. REVIEW.

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

**CITY OF WICHITA
PRIVATE PROJECT
NO. 1459 PPW (607853)**

**APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA,
BY WICHITA WATER & SEWER DEPARTMENT,
& BY WICHITA FIRE DEPARTMENT**

Water Mains (Public Works) *Julianne Kellerman 3-26-12*
Water Mains (Water & Sewer Dept.) *Greg Tolley 3-27-12*
Fire Prot. Line (Fire Dept.) *Burdman 3-27-2012*

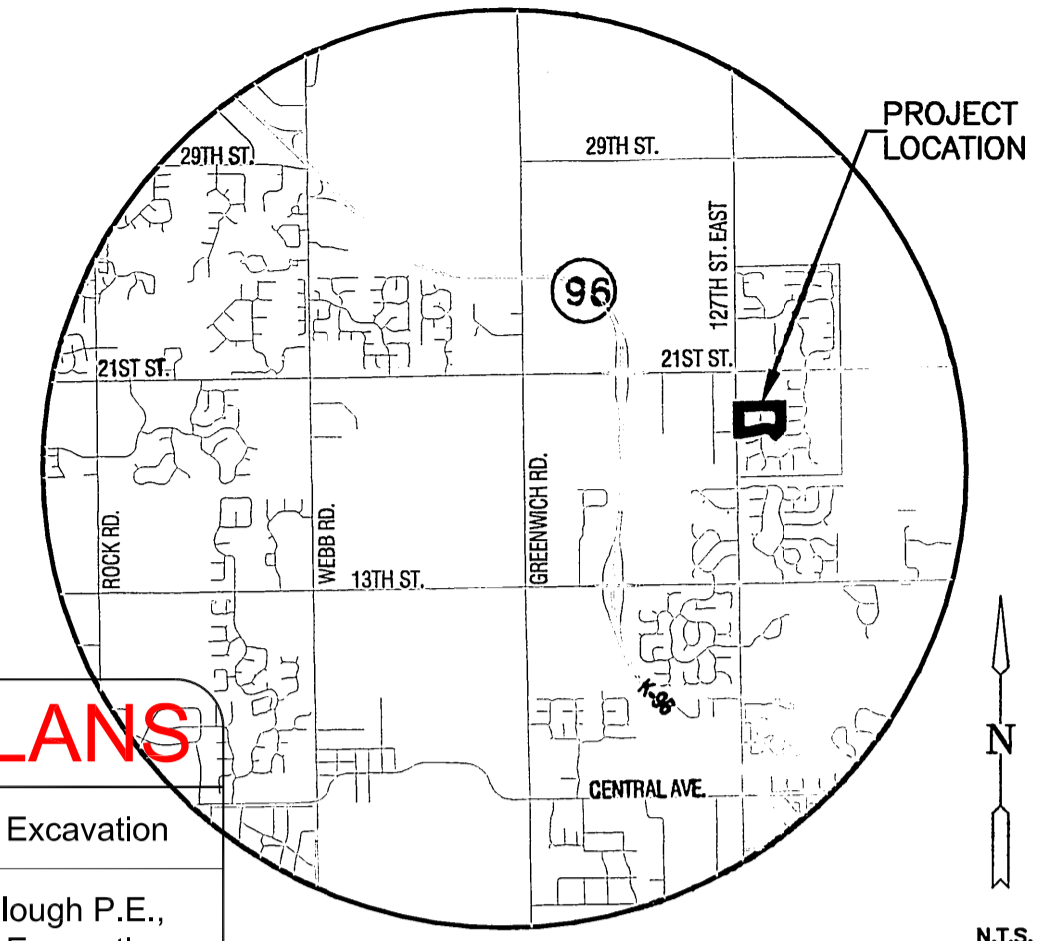
NOTE TO CONTRACTORS

Public Property:
Inspection and testing for the waterline 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 (on file and available in the City Engineer's Office).

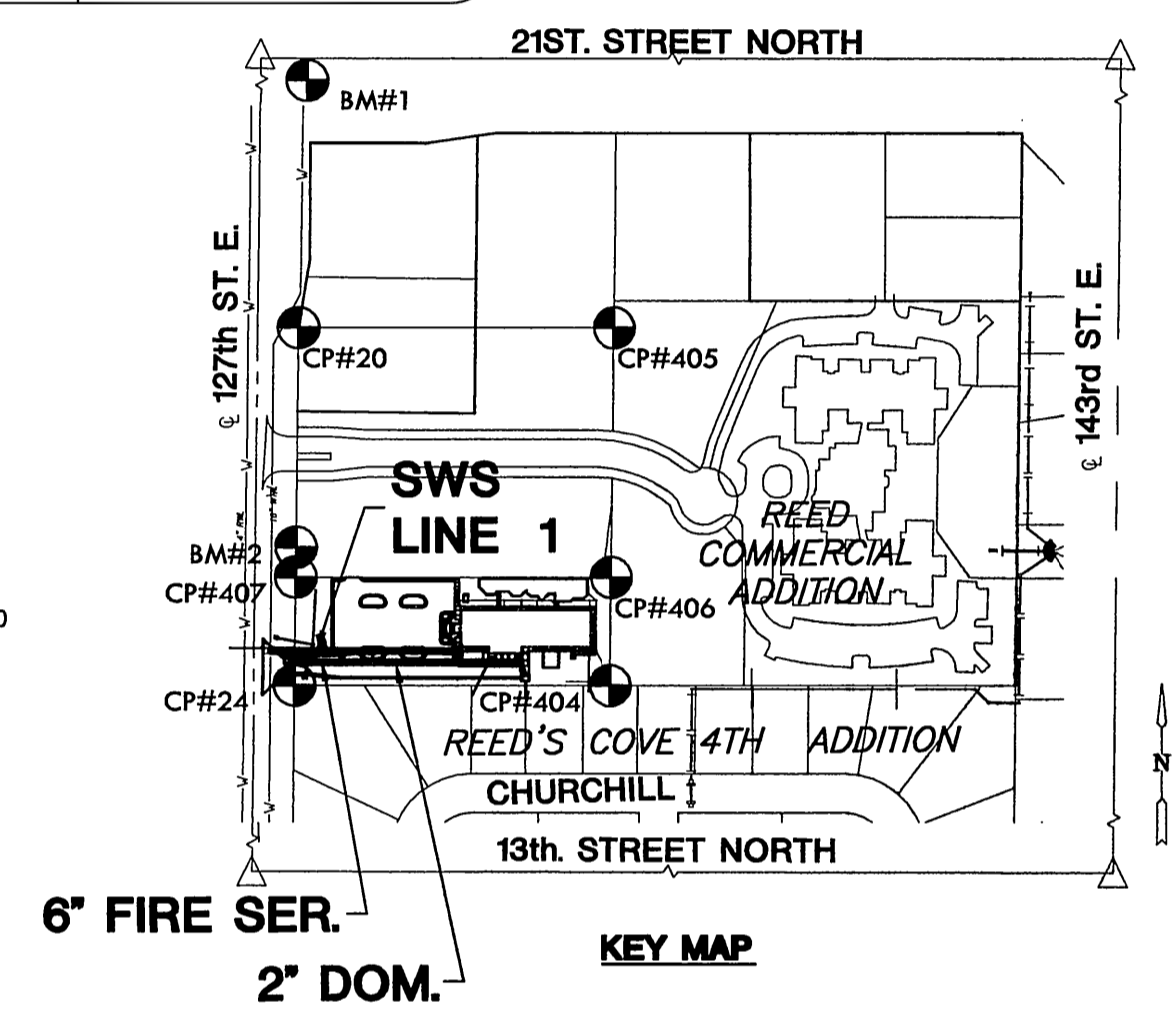
Private Property:
Installation and testing for the fire protection line is to be performed by a City of Wichita Licensed Fire Protection Contractor in accordance with the fire codes as adopted by the City of Wichita. All materials and construction practices for the fire protection line shall comply with 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.

AS BUILT PLANS

CONTRACTOR: McCullough Excavation
INSPECTOR: Ryan McCullough P.E., McCullough Excavation
PDF BY: RDM 8-28-2012



VICINITY MAP



BENCHMARKS

- BM 1 "□" on NE Corner Concrete Pad around Traffic Signal MH located at SE Corner of 21st and 127th ELEV.=1383.69 N.G.V.D. 29
- BM 2 RR Spike in East face of first power pole North of the NW Corner of Tract B-1. Pole is ±50' North of said NW Corner ELEV.=1380.61 N.G.V.D. 29

LEGAL DESCRIPTION

Tract "B"
A tract of land lying in portions of Lots 1 and 2, Block 1, Reed Commercial Addition, an addition to Wichita, Sedgwick County, Kansas, being located in the Northwest Quarter of Section 11, Township 27 South, Range 2 East of the 6th Principal Meridian, and being more particularly described as follows:
BEGINNING at a westerly corner of said Lot 2 being 125.00 feet north of the southwest corner of said Lot 2; thence on a platted bearing of N88°33'26"E, parallel with the south line of said Lot 1, a distance of 468.05 feet; thence S00°51'36"E, parallel with the west line of said Lot 1, a distance of 533.18 feet to the south line of said Lot 1; thence S88°33'26"W, along the south line of said Lot 1, a distance of 468.05 feet to the southwest most corner of said Lot 1; thence N00°51'36"W along the west lines of said Lots 1 and 2, a distance of 533.18 feet to the POINT OF BEGINNING, EXCEPT, the south 161.16 feet there of.
Said Tract "B" contains 4.00 acres more or less.

Tract "B1"
A tract of land lying in a portion of Lot 1, Block 1, Reed Commercial Addition, an addition to Wichita, Sedgwick County, Kansas, being located in the Northwest Quarter of Section 11, Township 27 South, Range 2 East of the 6th Principal Meridian, and being more particularly described as follows:
The south 161.16 feet of the west 468.05 feet of said Lot 1.
Said Tract "B1" contains 1.73 acres more or less.

MKEC
ENGINEERING
CONSULTANTS, INC.
411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9600

PRIMROSE
SCHOOLS

JOSEPH W. BROWN
LICENSED PROFESSIONAL ENGINEER
20918
3-27-12
KANSAS

PRIMROSE SCHOOL
2072 N. 127TH. STREET EAST
AT REED'S COVE
WICHITA, KANSAS

WATER LINE 1
SHEET TITLE
11701
PROJECT NUMBER

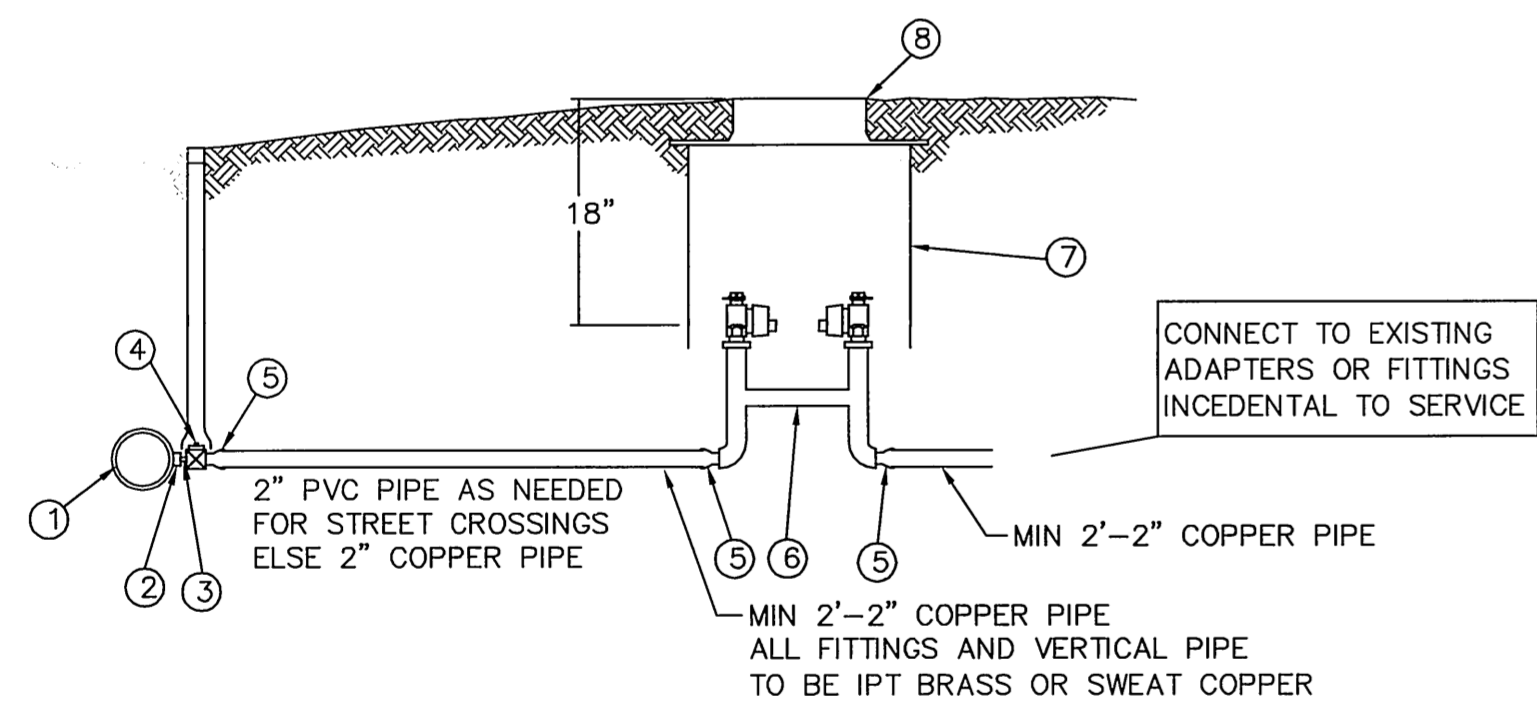
MLP / DM / GJA
DESIGNED / DRAWN / CHECKED

ISSUED
January 2012
REVISED
C.O.W. REVIEW

SHEET NO.
CU 16

Notes For All Services - 2" thru 12"

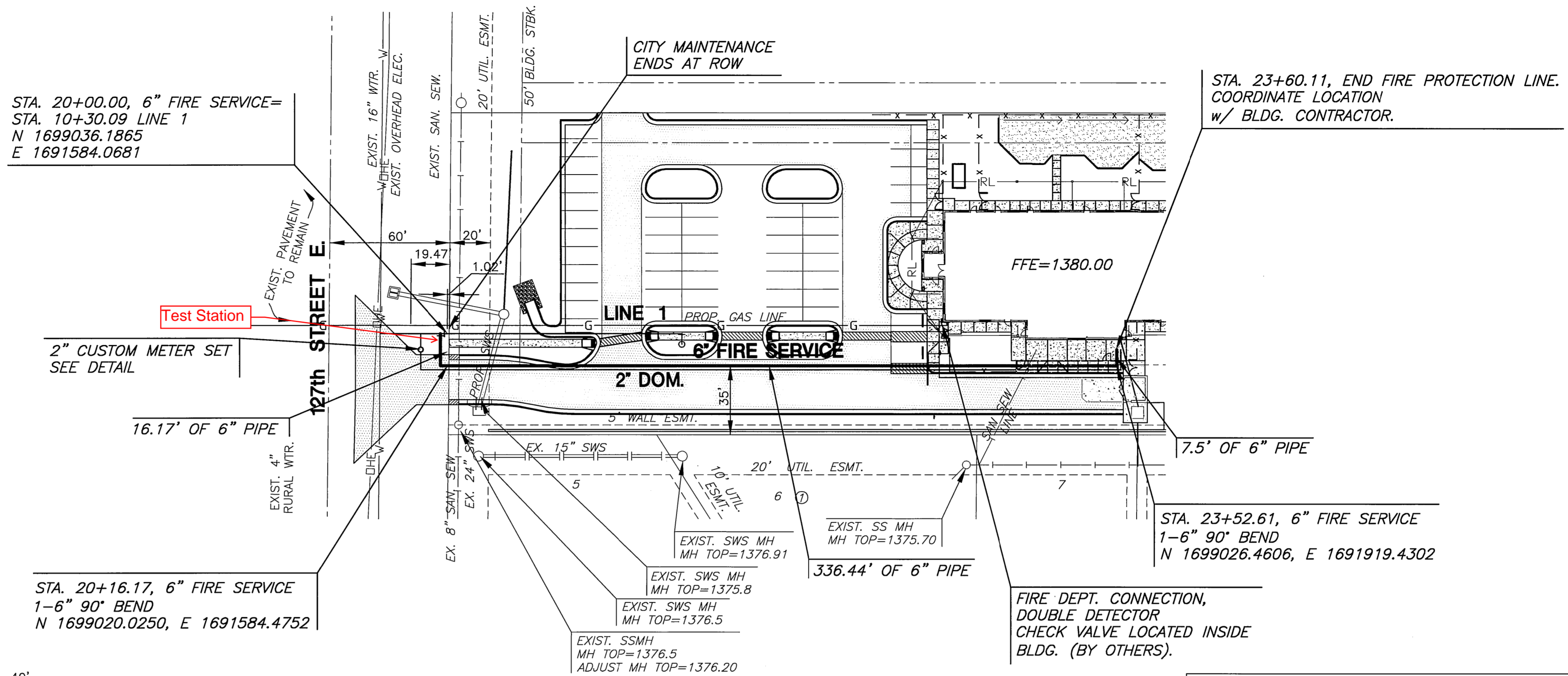
- When the standard vault dimensions are not applicable, such as when additional space is required for special pipe, fittings, additional meters, etc. the design engineer shall design a vault with the required dimensions for Water & Sewer Dept. approval and Public Works approval.
- The vault shall be poured concrete, cement blocks (voids to be completely filled with 2500 P.S.I. concrete), or approved precast structure (such as Clutter Inc. vaults approved 8/1/2000). The intent of these details shall not be limited by drawings or standards of precast structures.
- Vault location to be determined by Wichita Water & Sewer 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, not to be located in any right-of-way or utility easement, and must be located on the property being served.
- 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). Where applicable the standard 10" Wichita Water & Sewer pattern meter reading lid and ring shall be located directly above water meter register. All meter registers shall have an approved lid directly vertical above. 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.
- Any fittings or appurtenances required to achieve proper elevation of pipe through the vault shall be provided by the contractor and appropriately noted on as-builts submitted by the inspecting engineer. Such fittings shall be a minimum of 2' from the exterior wall of vault.
- For all services larger than 2" the contractor shall provide an outlet flange connection as shown 12-inches 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 two(2) feet from the exterior wall of vault. Flanges of inlet and outlet pipes 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.
- 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 to ASTM A 536-80, heat treated to a minimum hardness of 370 BHN and have a working pressure of at least 250 P.S.I. For all services smaller than 4" the contractor shall install an approved vault clamp on the exterior walls of the vault.
- All valves, meters, assemblies, and fittings shall be provided with sufficient concrete or other approved supports to the vault floor.
- The "Confined Space Warning" sign shall be fastened to the top of all vaults. If necessary for landscaping or site considerations, the sign may be fastened to the vault lid if it does not impede access to the handle. Acceptable materials: Aluminum 73415HH, Plastic 73439HH, or S.A. Vinyl 73463HH.
- All meters shall have an electronic read register compatible with the current City of Wichita meter reading system. All detector meters shall be an 5/8 cubic foot Badger meter with ERT register or approved equal. Gallon meters shall not be accepted.
- Additional Notes For Fire Services:
 - A post indicator valve (PIV) is an option for the outlet valve and may be requested by the architect or owner. The PIV is not required by City of Wichita ordinance.
 - When Siamese connections are required by the Wichita Fire Department, refer to the current City Code Section 15.
 - 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.
 - The property owner is responsible for completing an "Application for Private Fire Protection" prior to final acceptance of the project.



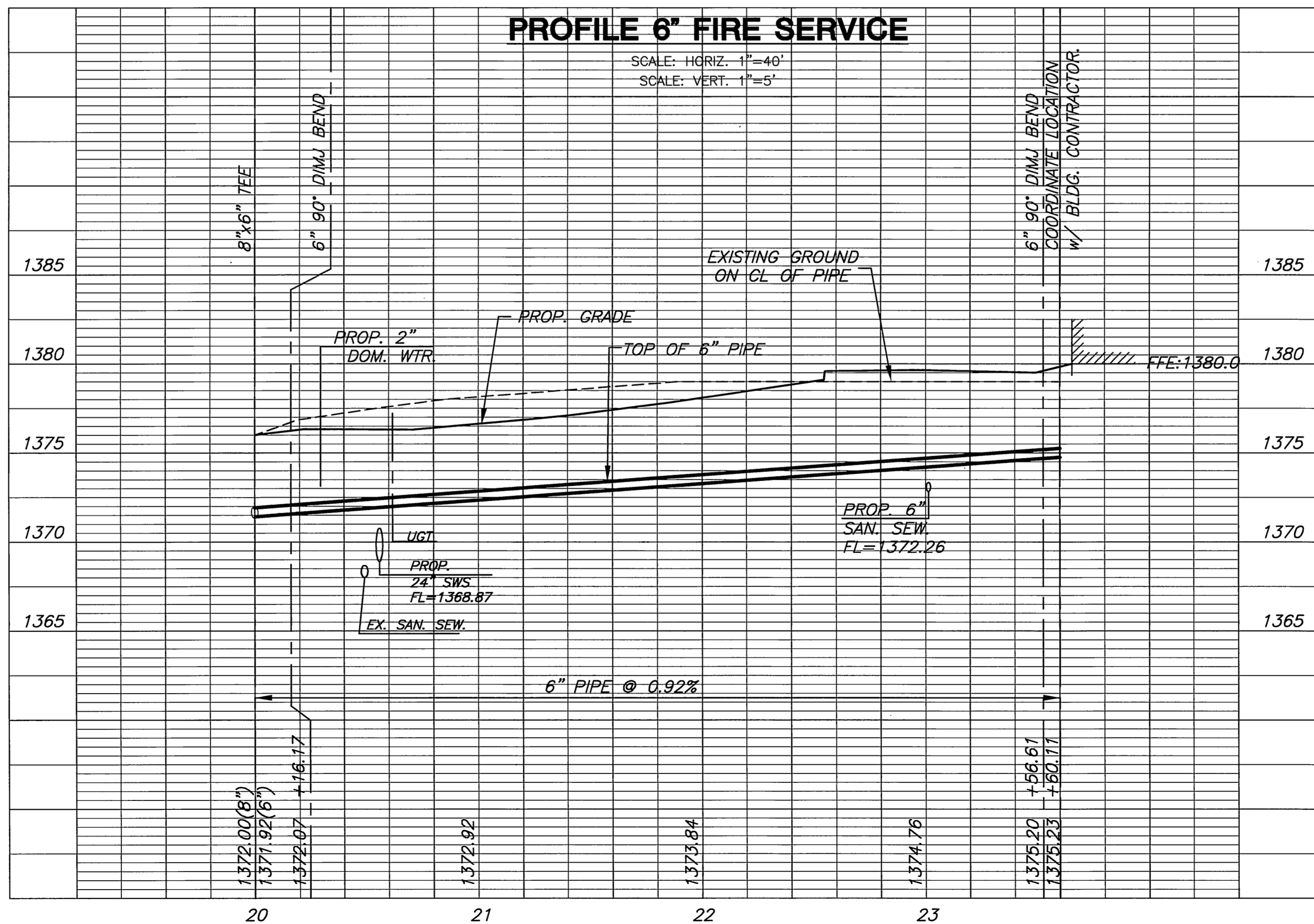
MATERIALS LIST:

- EXISTING WATER MAIN, PIPE DIAMETER="D"
- "D" x 2" BRASS SADDLE
- 2" X 3" BRASS NIPPLE
- 2" CURBSTOP AY MCDONALD, FORD B11-777, MUELLER 300 B20283 (WITH STANDARD VALVE BOX)
- 2" F COPPER TO MIPT ADAPTER FORD C84-77
- 2" CUSTOM SETTER W/BYPASS FORD VV7724B1177
- 30" WHITE PVC METER BOX - 24" HIGH, SMOOTH INSIDE, RIBBED OUTSIDE, NO NOTCHES
- 30" X 20" MONITOR COVER WITH 20" LID WITHOUT LOCK FORD MC30LL

2" CUSTOM SET & SERVICE

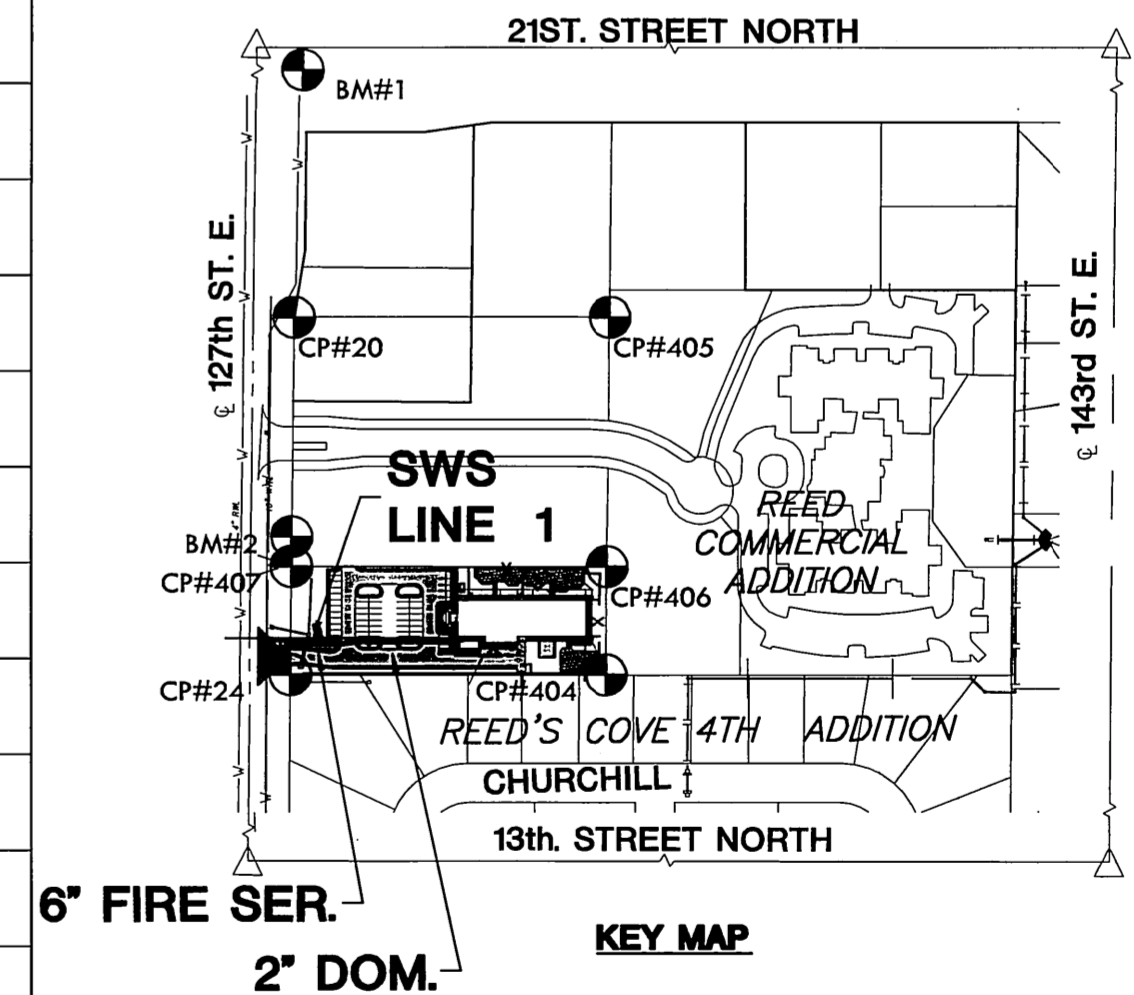


PLAN 6" FIRE SERVICE



PROFILE 6" FIRE SERVICE

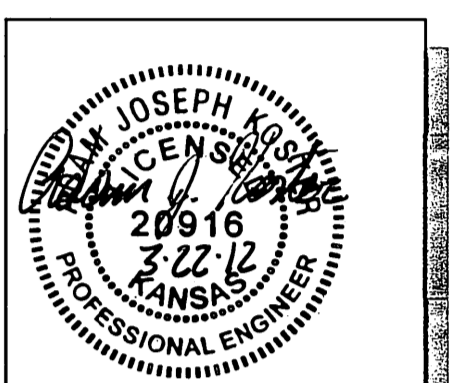
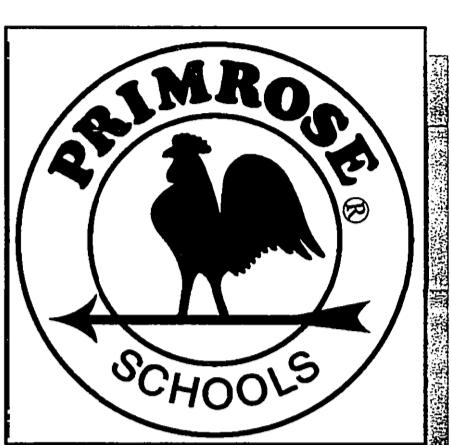
CONTROL POINTS			
POINT NO.	NORTHING	EASTING	DESCRIPTION
20	1699518.441	1691577.850	5/8" MKEC
24	1698985.550	1691585.850	5/8" MKEC
404	1698997.090	1692053.751	SET 5/8" MKEC
405	1699530.270	1692045.864	5/8" MKEC
406	1699158.250	1692051.367	SET 5/8" MKEC
407	1699146.623	1691583.432	SET 5/8" MKEC



- NOTES:
- CONTRACTOR TO VERIFY DEPTH & LOCATION OF EXISTING UTILITIES AND 16" WATER LINE PRIOR TO CONSTRUCTION.
 - ALL LINES TO BE INSTALLED BY OTHERS ARE SUBJECT TO O.C.I. REVIEW.

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

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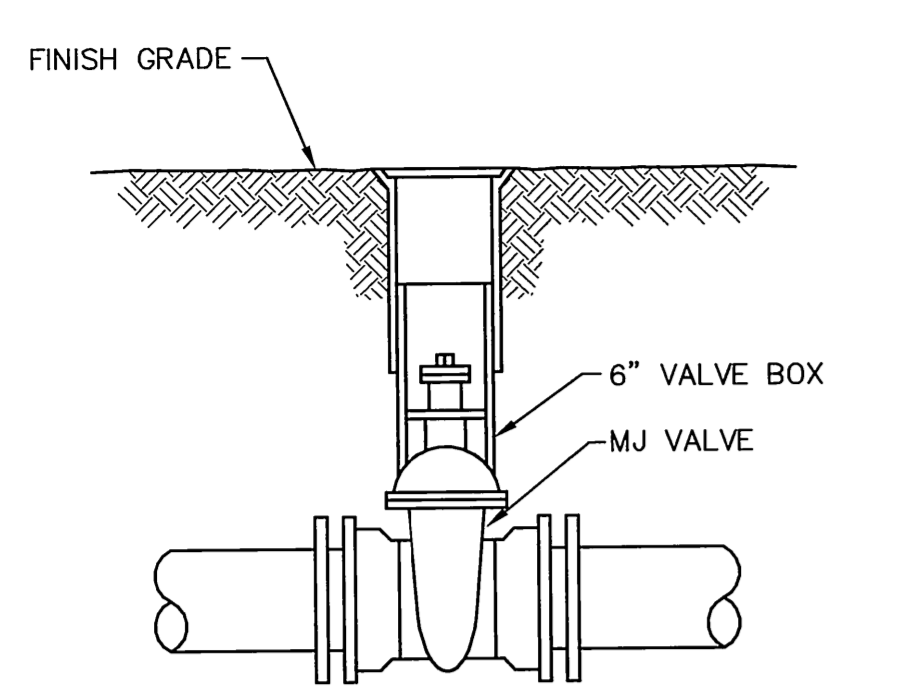
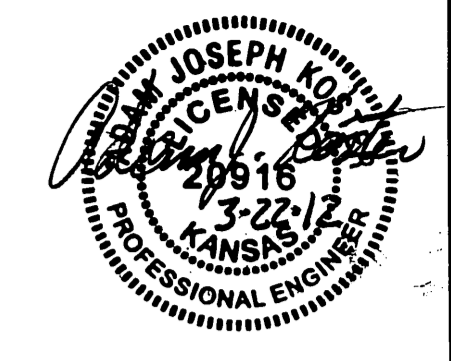
PRIMROSE SCHOOL
2072 N. 127TH. STREET EAST
AT REED'S COVE
WICHITA, KANSAS

FIRE SERVICE
SHEET TITLE
11701
PROJECT NUMBER

MLP | DM | GJA
DESIGNED | DRAWN | CHECKED

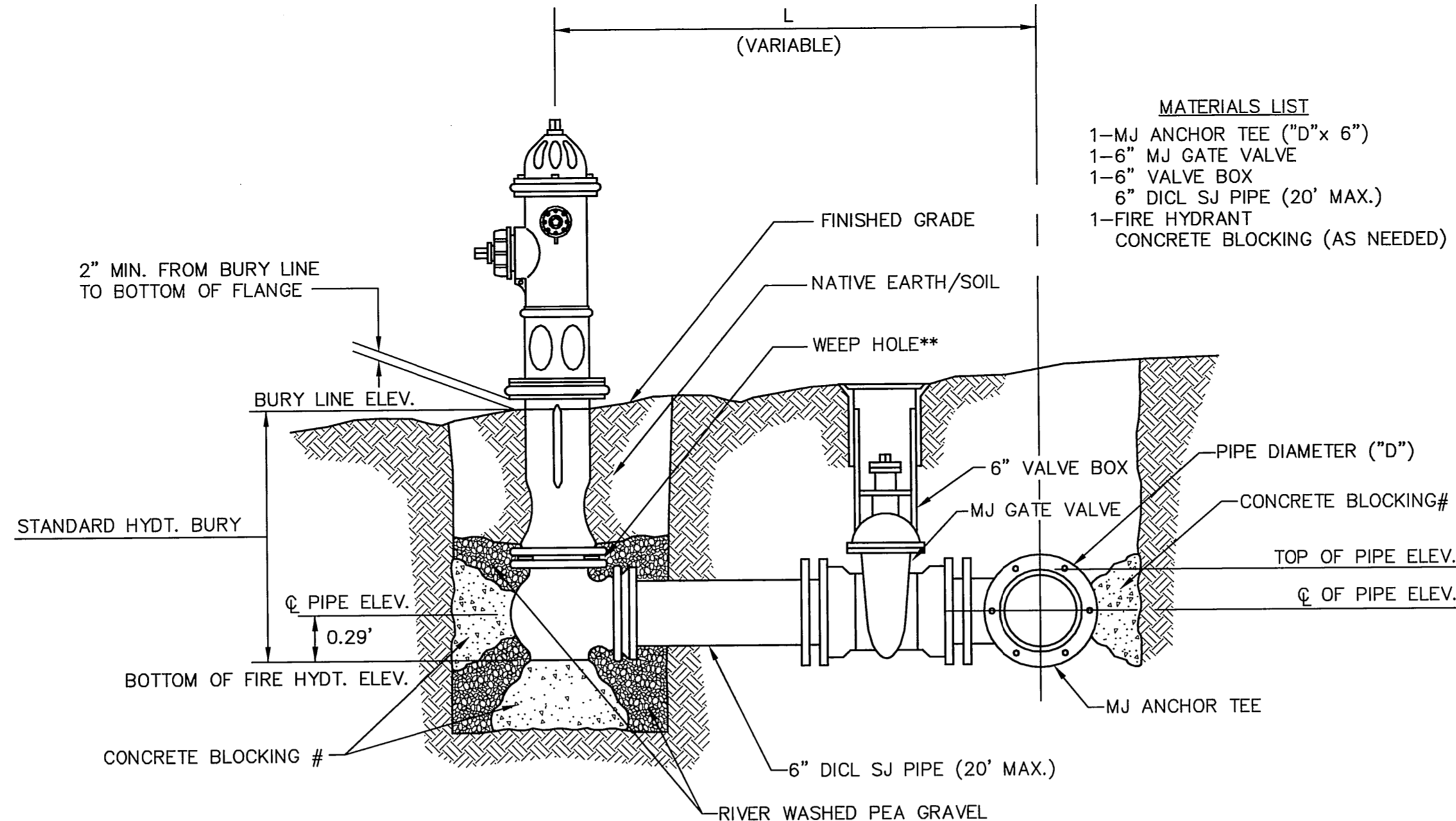
ISSUED
January 2012
REVISION
C.O.W. REVIEW

SHEET NO.
CU 17

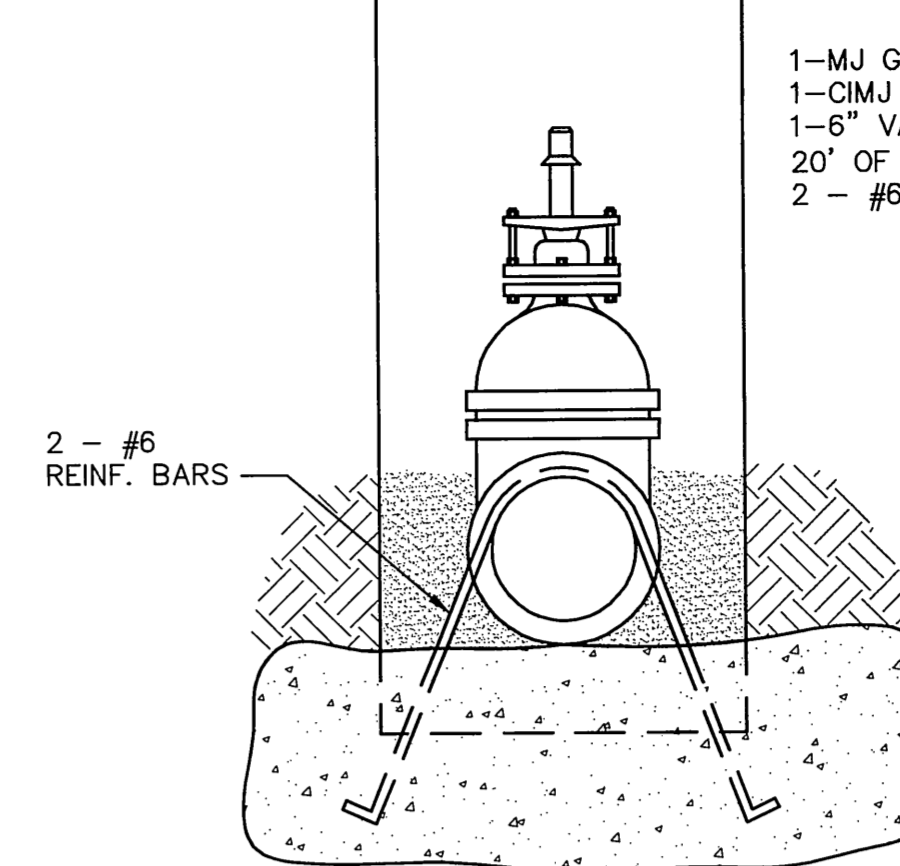


LINE VALVE ASSEMBLY

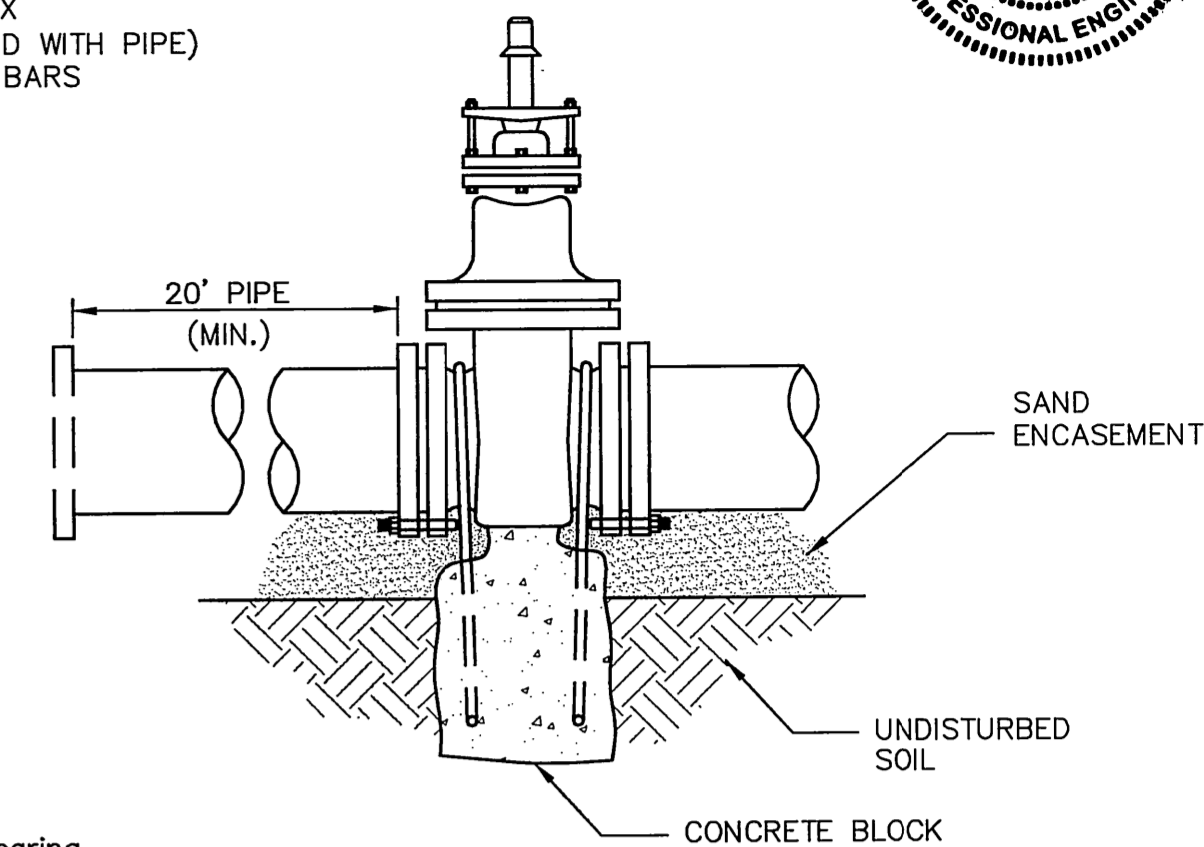
- MATERIALS LIST**
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-6" VALVE BOX
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



- MATERIALS LIST**
 1-MJ ANCHOR TEE ("D"x 6")
 1-6" MJ GATE VALVE
 1-6" VALVE BOX
 6" DICL SJ PIPE (20' MAX.)
 1-FIRE HYDRANT
 CONCRETE BLOCKING (AS NEEDED)

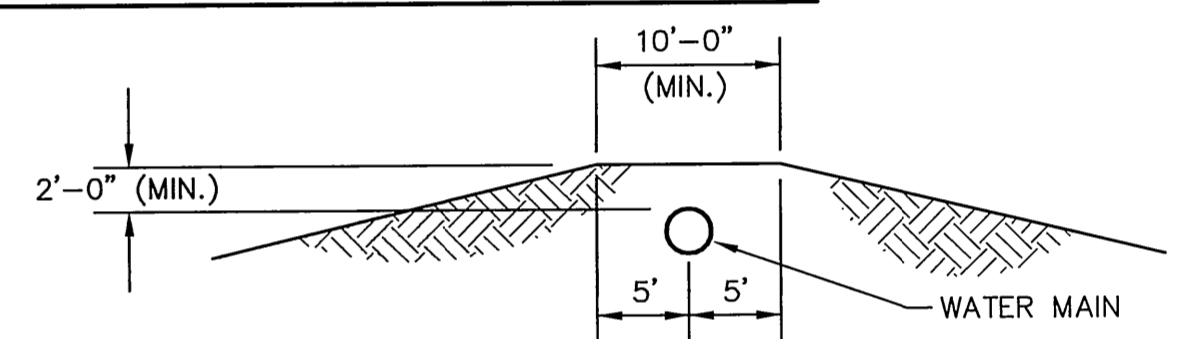


- Notes:**
 1. Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
 2. The thrust block shall be constructed such that bolts, nuts,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



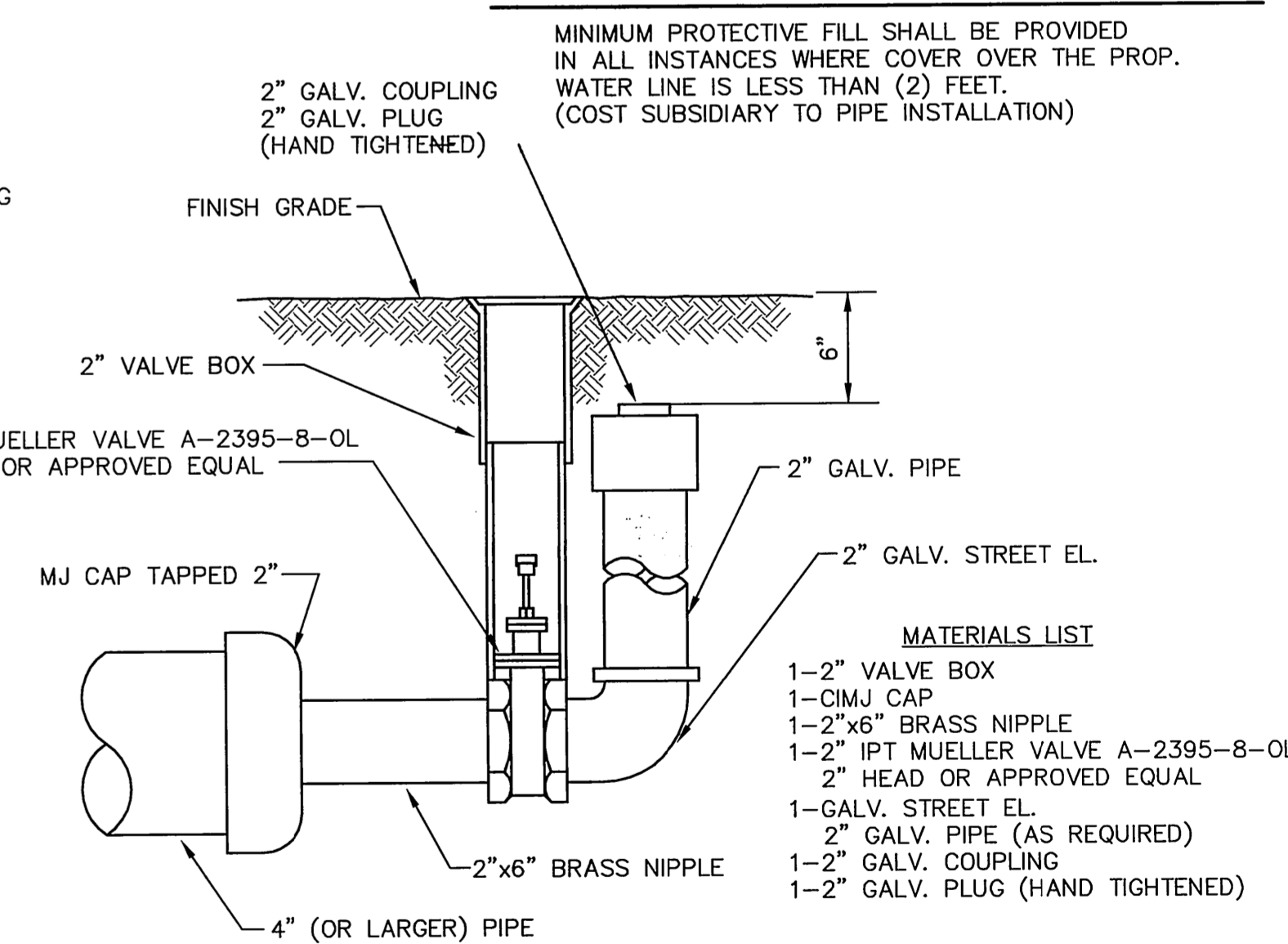
THRUST AT VALVES	
VALVE	THRUST AT 150 #/sq
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL



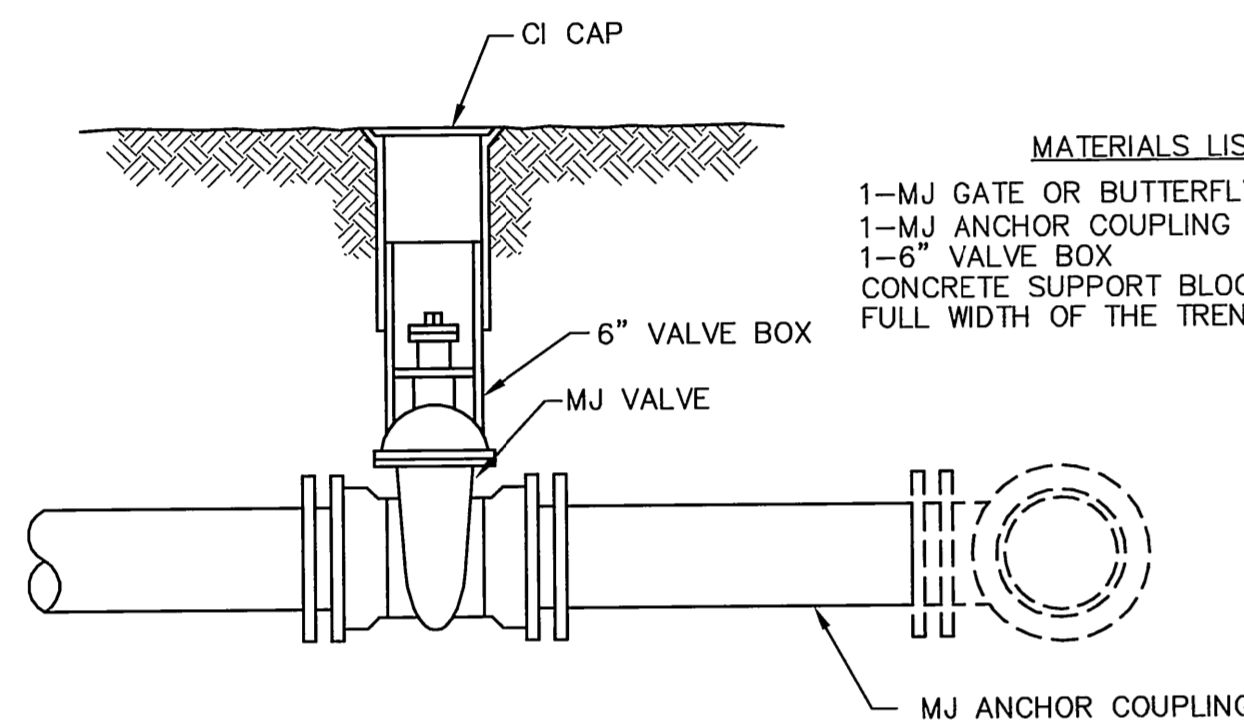
PROTECTIVE FILL DETAIL

MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN (2) FEET. (COST SUBSIDIARY TO PIPE INSTALLATION)



2" BLOWOFF ASSEMBLY

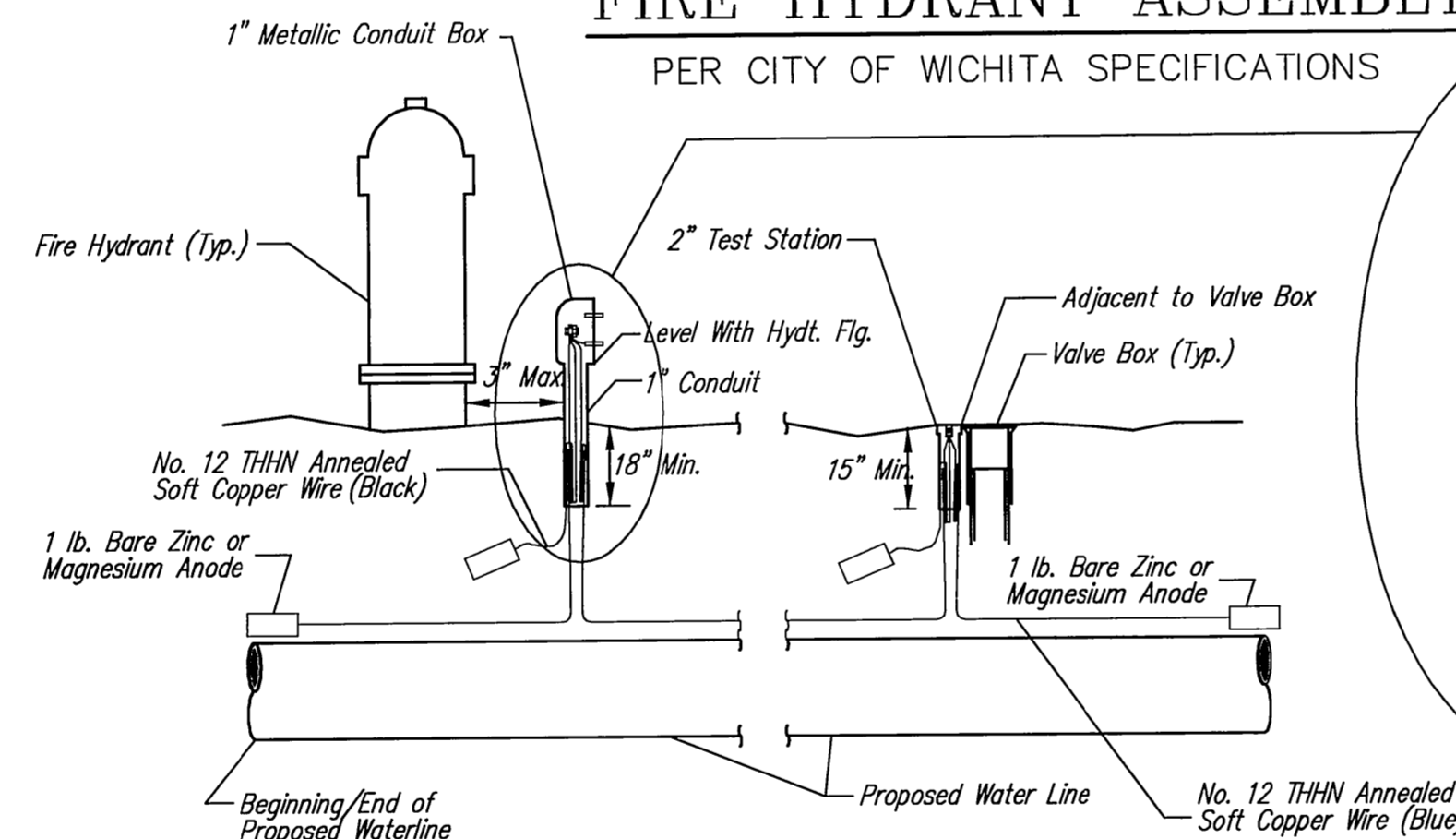
- MATERIALS LIST**
 1-2" VALVE BOX
 1-CIMJ CAP
 1-2"x6" BRASS NIPPLE
 1-2" IPT MUELLER VALVE A-2395-8-OL
 2" HEAD OR APPROVED EQUAL
 1-GALV. STREET EL.
 2" GALV. PIPE (AS REQUIRED)
 1-2" GALV. COUPLING
 1-2" GALV. PLUG (HAND TIGHTENED)



ANCHORED VALVE ASSEMBLY

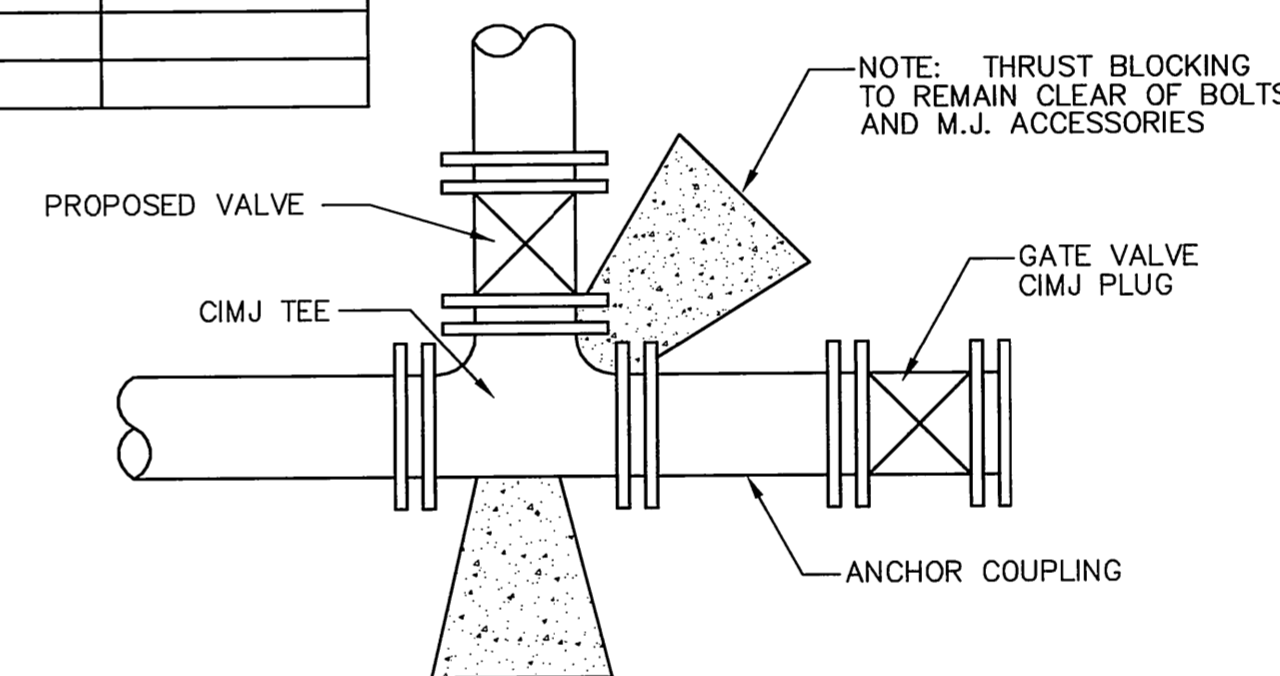
- MATERIALS LIST**
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1-MJ ANCHOR COUPLING (12" OR SMALLER)
 1-6" VALVE BOX
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

FIRE HYDRANT ASSEMBLY
 PER CITY OF WICHITA SPECIFICATIONS



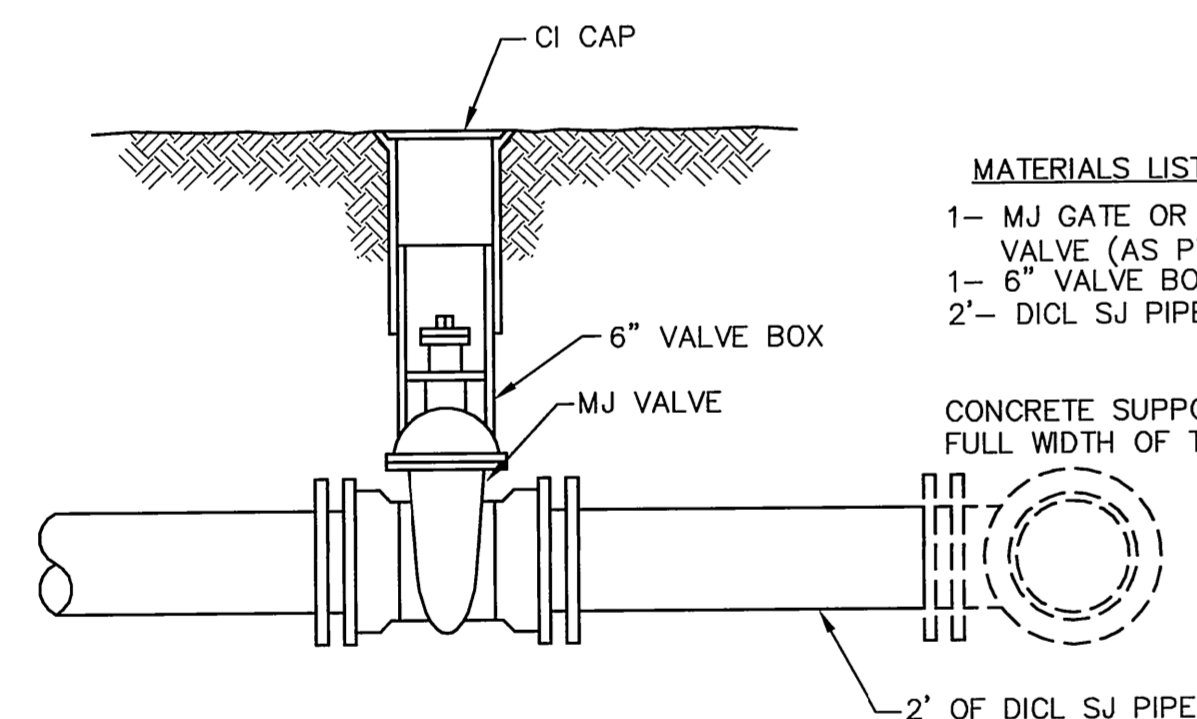
FIRE HYDRANTS REQUIRED			
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
11+50.15	1377.77	1373.44	5'

- ** CAUTION! WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES.
 # CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.
 * IF HYDRANT BURY IS IN EXCESS OF 5'. CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY.



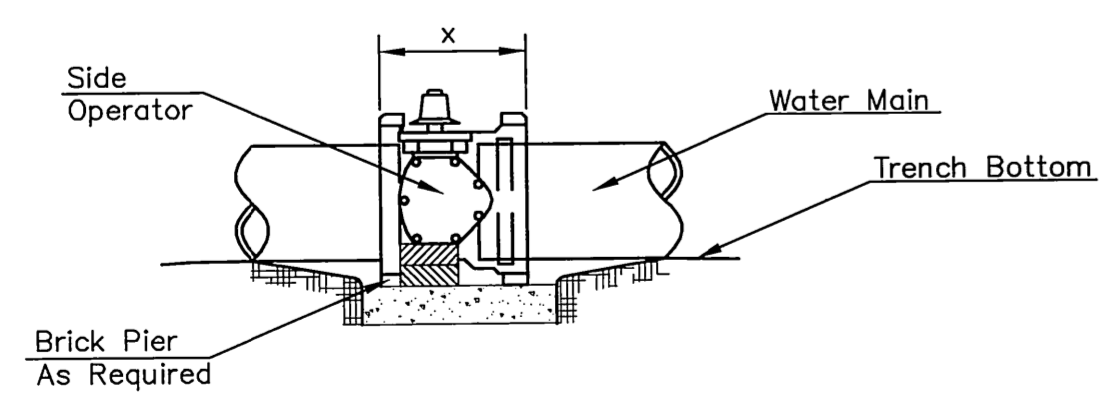
KEY BLOCK DETAIL

2 Blue Wires and 1 Black Wire All Connected to Single Test Lead With Split Bolt Connection and Blue No. 12 THHN Annealed Soft Copper Wire



VALVE ASSEMBLY

- MATERIALS LIST**
 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 1- 6" VALVE BOX
 2"- DICL SJ PIPE
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



NOTES

- This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 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

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. Split-bolt connectors shall be used at splice locations. Electrical tape shall cover all splices so no bare wire is exposed. Test stations shall be installed adjacent to all fire hydrants along the waterline and at blowoffs or valves near the ends of the waterlines. Any exceptions to the location of test stations shall be approved by the engineer. At each test station, the tracer wire shall be connected to a 1 lb. Zinc or magnesium anode. Anodes shall also be attached to the tracer wire at both the beginning and the end of the proposed waterline. A typical layout of the tracer wire and test station is provided in the above figure.

WIRE
 The tracer wire shall be Blue No. 12 THHN annealed soft copper wire with thermal plastic insulation. The insulation shall be heat, oil, and gasoline resistant as manufactured by Temple Electric or approved equal. 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. The insulation sheathing shall be removed such that 1" bare copper wire is exposed at all points of connection. 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 applications shall be a 1 inch galvanized conduit style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station I2PS3B as manufactured by HANDLEY Industries or approved equal. The conduit style shall be attached to a 1 inch 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. 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 10 inches of wire within the test station. In concrete environments such as sidewalks or in the downtown area the contractor shall use the flush style test station. The location of all test stations shall be approved by the engineer, recorded, and shown in the as-built drawings.

ANODES
 The anodes shall be 1 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 Black No. 12 THHN annealed soft copper wire which shall be extended to the test station.

TRACER WIRE DETAIL
 COST IS SUBSIDIARY TO PIPE INSTALLATION

Revised: 11-13-00, MCG
 Revised: 6-7-00, MCG

<p>THE CITY OF WICHITA</p> <p>CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4501 (316) 268-4114 FAX</p>	STANDARD WATER ASSEMBLY DETAILS	
	JAMES L. ARMOUR, CITY ENGINEER	
PROJECT NUMBER	INDEX CODE	
DATE	Sheet CU 18	