

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) 932-3101
 SBC (TELEPHONE) 800-670-8390
 CITY OF WICHITA WATER & SEWER 262-6000
 BLACK HILLS ENERGY (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 ABUTTING 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 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 CS112. COST IS SUBSIDIARY TO PIPE INSTALLATION.
- CONTRACTOR TO COORDINATE CONSTRUCTION OF WATERLINE WITH OTHER CONSTRUCTION ACTIVITIES ON SITE. THIS INCLUDES SANITARY SEWER, STORM WATER SEWER, AND MASS GRADING PROJECTS.
- THE WORK ON THIS PROJECT IS SUBJECT TO THE CITY OF WICHITA REQUIREMENTS FOR "CONSTRUCTION OF INFRASTRUCTURE IMPROVEMENTS BY PRIVATE CONTRACT". THE CONTRACTOR SHALL FAMILIARIZE HERSELF/HIMSELF WITH, AND COMPLY WITH ALL THE REQUIREMENTS, INCLUDING BONDING, INSPECTION, TESTING, NOTIFICATION, PROVIDING AS BUILT DRAWINGS, PAYING FOR ALL NECESSARY CONNECTION AND/OR STREET REPAIR FEES, AND PROVIDING PIPE MATERIAL AND OTHER CERTIFICATIONS AS REQUIRED.

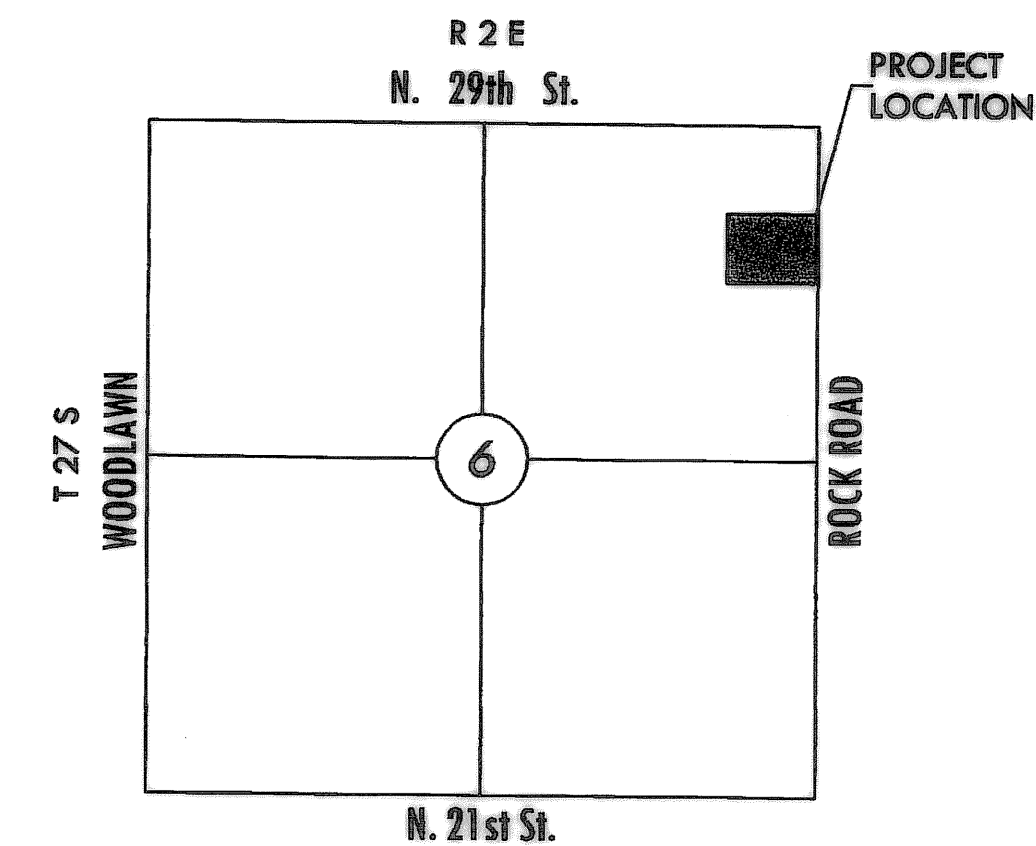
AS BUILT PLANS

Contractor: Mies Const.
 Inspector: Schwab-Eaton
 pdf by: BDB 9-13-10
 Project was constructed
 as shown on as built.

WATER DISTRIBUTION PLANS FOR
LARKSFIELD EAST

2727 N. ROCK ROAD, WICHITA, KANSAS
 JAMES L. ARMOUR, P.E. - CITY ENGINEER

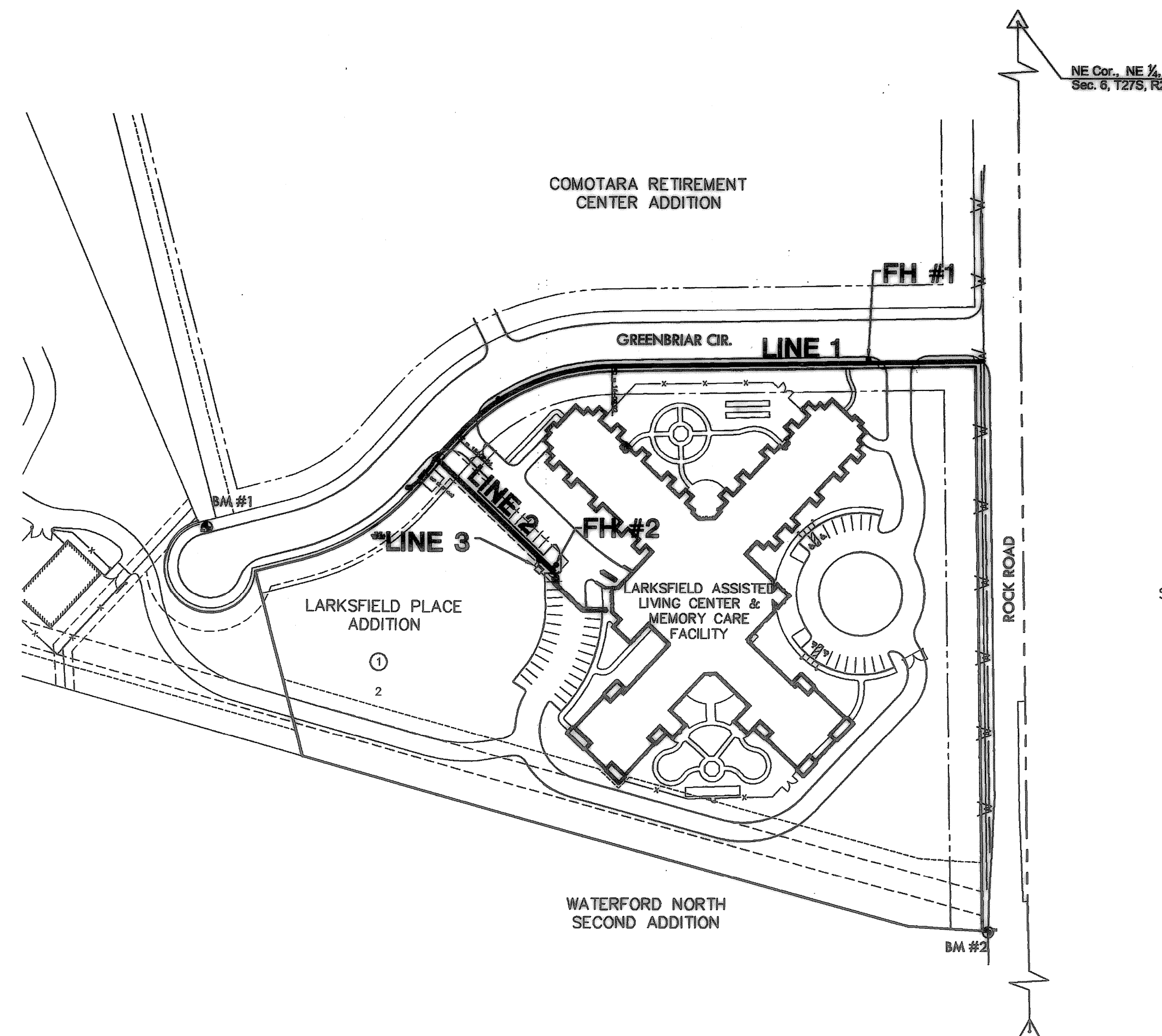
CITY OF WICHITA PRIVATE PROJECT
 NO. 1543PPW (607853)



VICINITY MAP

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LINE 1
3	LINES 2 & 3
4-5	DETAILS



SCALE: 1" = 100'

BENCHMARKS

- BM #1 — SQUARE CUT ON NORTHWEST CORNER OF STORM INLET NORTH SIDE OF CUL-DE-SAC ON GREENBRIAR CIRCLE. Elevation=1394.58 (NAVD 88)
- BM #2 — SQUARE CHISELED ON TOP OF CURB. Elevation=1408.91 (NAVD 88)

LEGEND

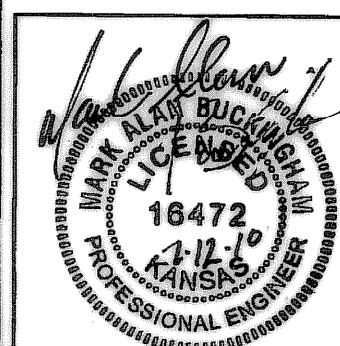
- W — W — W — EXISTING WATER
- — — — — PROPOSED WATER
- - - - - PROPOSED PRIVATE WATER

NOTES:
 1. CONTRACTOR TO VERIFY DEPTHS & LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 2. ALL LINES INSTALLED BY OTHERS ARE SUBJECT TO O.C.I. REVIEW.

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



411 N. WEBB ROAD
 WICHITA, KS. 67206
 316-684-9600



PRIVATE WATER PLANS FOR
LARKSFIELD EAST
 LARKSFIELD PLACE ADDITION, WICHITA, KS

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

Water Main (Public Works) *[Signature]* 7/12/10
 Water Main (Water & Sewer Dept.) *[Signature]* 07/21/2010
 Fire Prot. Line (Fire Dept.) *[Signature]* 07-21-2010

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 to 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.

TITLE SHEET

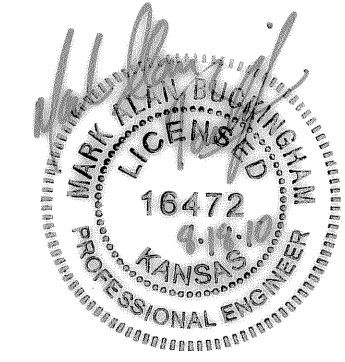
SHEET TITLE
 10043
 PROJECT NUMBER

DACR / DACR / MAB
 DESIGNED DRAWN CHECKED

ISSUED
 July 10

REVISED

SHEET NO.
 1 of 5



PRIVATE WATER PLANS FOR
LARKSFIELD EAST
LARKSFIELD PLACE ADDITION, WICHITA, KS

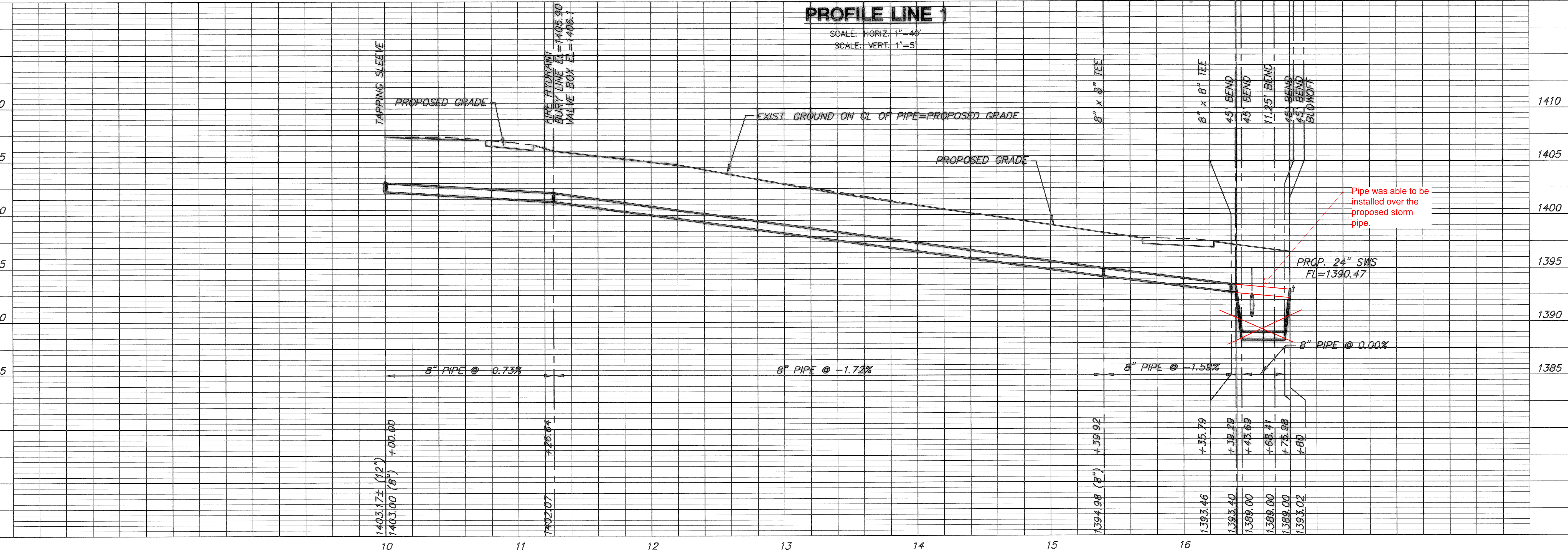
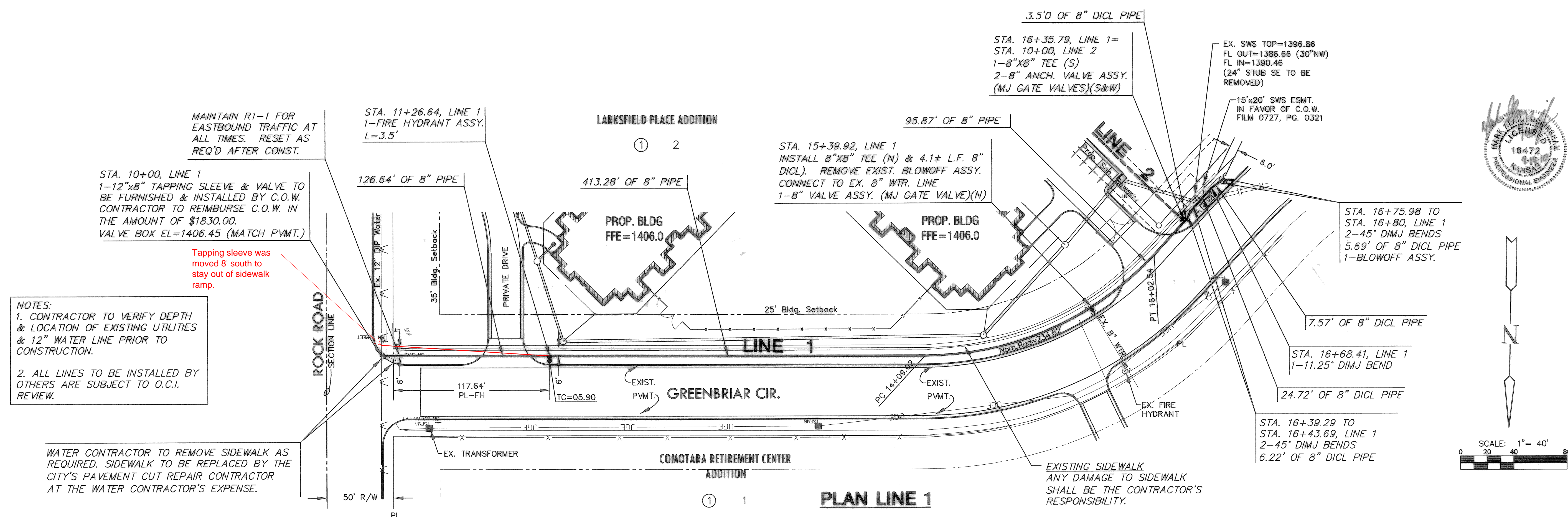
PLAN & PROFILE
LINE 1

SHEET TITLE
10043
PROJECT NUMBER

DESIGN BY: MKEC
DRAWN BY: MKEC
CHECKED BY: MAB

ISSUED: July 10
REVISED:

SHEET NO.
2 of 5



NOTES:
1. CONTRACTOR TO VERIFY DEPTH & LOCATION OF EXISTING UTILITIES & 12" WATER LINE PRIOR TO CONSTRUCTION.
2. ALL LINES TO BE INSTALLED BY OTHERS ARE SUBJECT TO O.C.I. REVIEW.

WATER CONTRACTOR TO REMOVE SIDEWALK AS REQUIRED. SIDEWALK TO BE REPLACED BY THE CITY'S PAVEMENT CUT REPAIR CONTRACTOR AT THE WATER CONTRACTOR'S EXPENSE.

STA. 10+00, LINE 1
1-12"x8" TAPPING SLEEVE & VALVE TO BE FURNISHED & INSTALLED BY C.O.W. CONTRACTOR TO REIMBURSE C.O.W. IN THE AMOUNT OF \$1830.00. VALVE BOX EL=1406.45 (MATCH PVMT.)

Tapping sleeve was moved 8' south to stay out of sidewalk ramp.

MAINTAIN R1-1 FOR EASTBOUND TRAFFIC AT ALL TIMES. RESET AS REQ'D AFTER CONST.

STA. 11+26.64, LINE 1
1-FIRE HYDRANT ASSY.
L=3.5'

STA. 15+39.92, LINE 1
INSTALL 8"x8" TEE (N) & 4.1± L.F. 8" DICL. REMOVE EXIST. BLOWOFF ASSY. CONNECT TO EX. 8" WTR. LINE
1-8" VALVE ASSY. (MJ GATE VALVE)(N)

3.5' OF 8" DICL PIPE
STA. 16+35.79, LINE 1=
STA. 10+00, LINE 2
1-8"x8" TEE (S)
2-8" ANCH. VALVE ASSY.
(MJ GATE VALVES)(S&W)

EX. SWS TOP=1396.86
FL OUT=1386.66 (30"NW)
FL IN=1390.46
(24" STUB SE TO BE REMOVED)

15'x20' SWS ESMT.
IN FAVOR OF C.O.W.
FILM 0727, PG. 0321

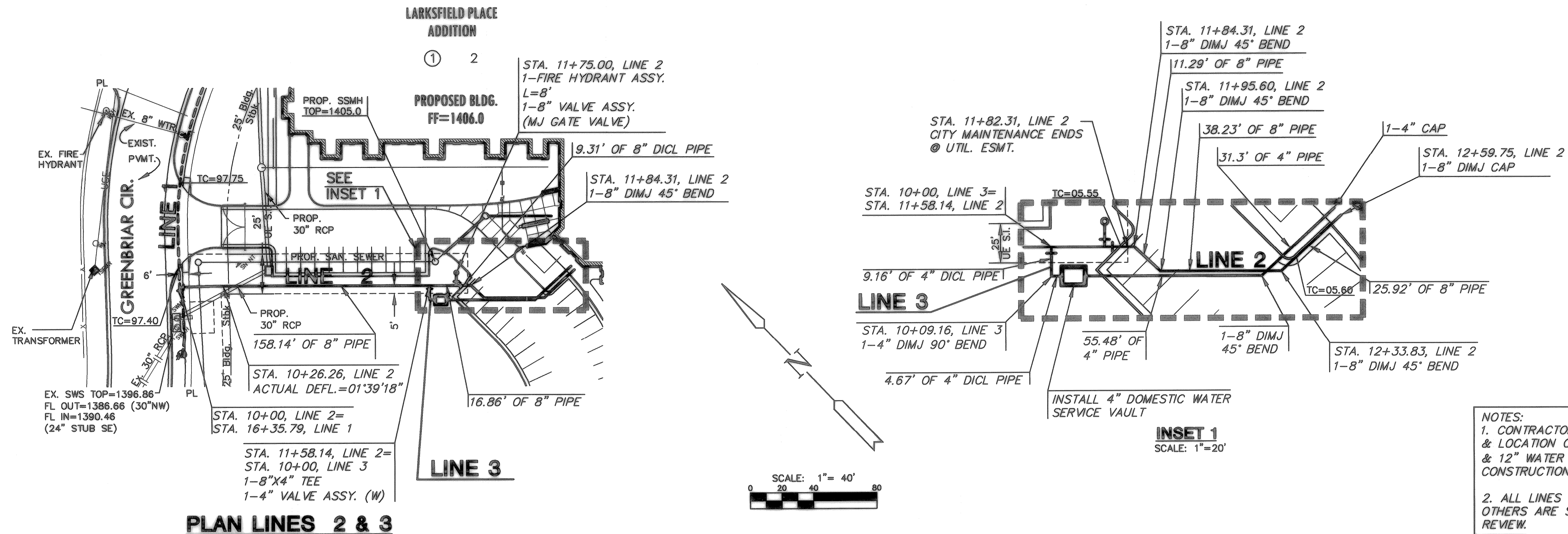
STA. 16+75.98 TO
STA. 16+80, LINE 1
2-45" DIMJ BENDS
5.69' OF 8" DICL PIPE
1-BLOWOFF ASSY.

STA. 16+68.41, LINE 1
1-11.25" DIMJ BEND
24.72' OF 8" DICL PIPE

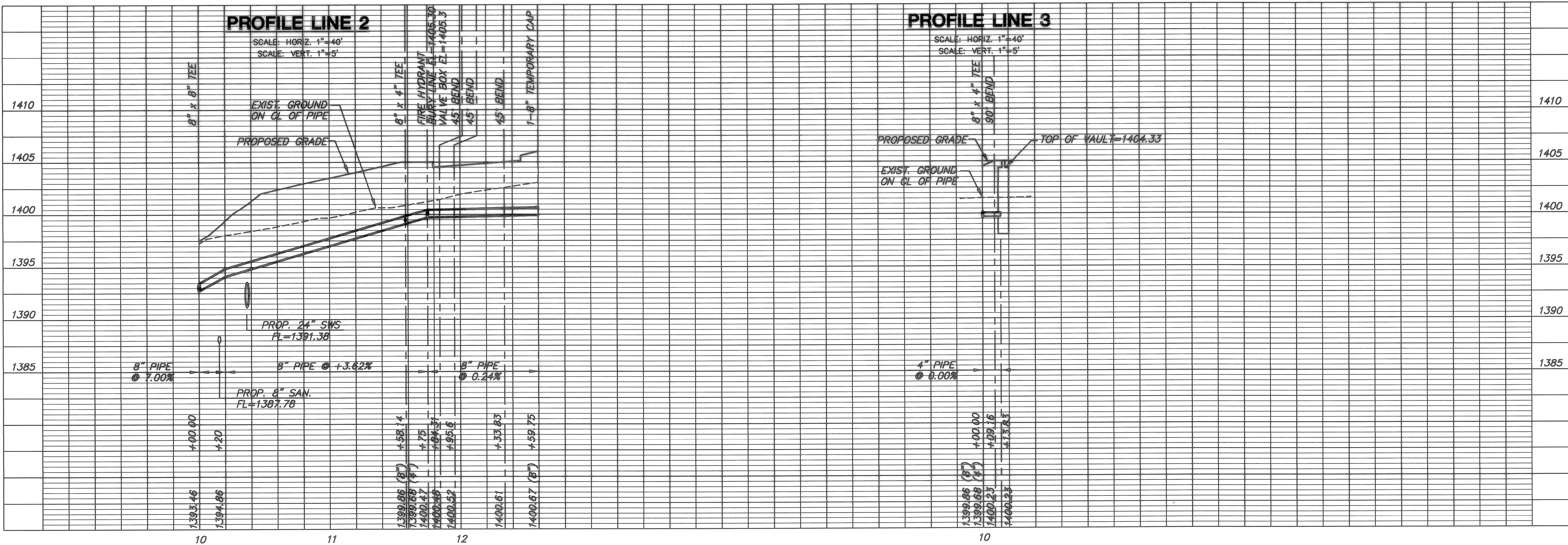
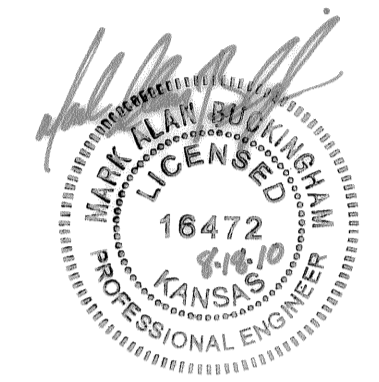
STA. 16+39.29 TO
STA. 16+43.69, LINE 1
2-45" DIMJ BENDS
6.22' OF 8" DICL PIPE

EXISTING SIDEWALK
ANY DAMAGE TO SIDEWALK
SHALL BE THE CONTRACTOR'S
RESPONSIBILITY.

PRIVATE WATER PLANS FOR
LARKSFIELD EAST
LARKSFIELD PLACE ADDITION, WICHITA, KS



NOTES:
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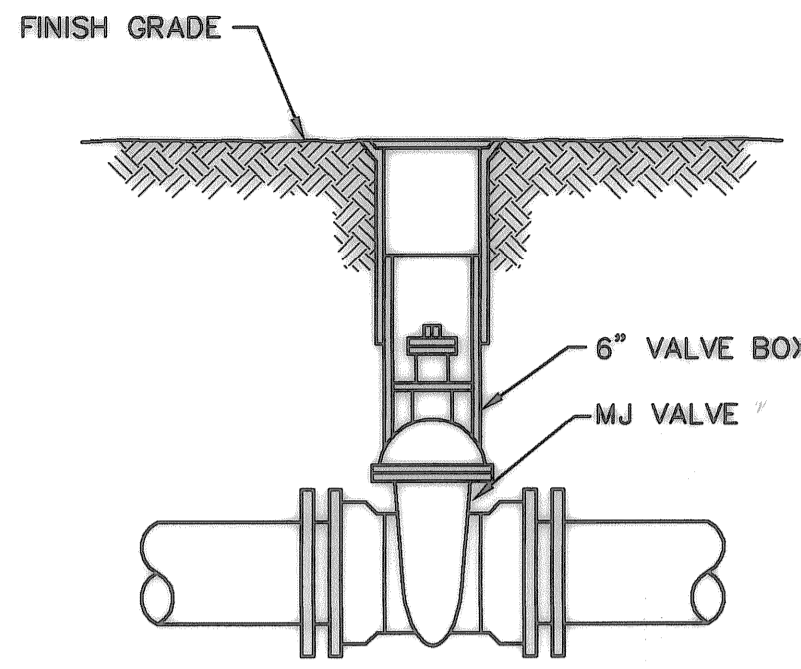
PLAN & PROFILE
LINES 2 & 3
SHEET TITLE
10043
PROJECT NUMBER

DESIGN BY: MKEC
DRAWN BY: MKEC
CHECKED BY: MAB

ISSUED: July 10
REVISED:

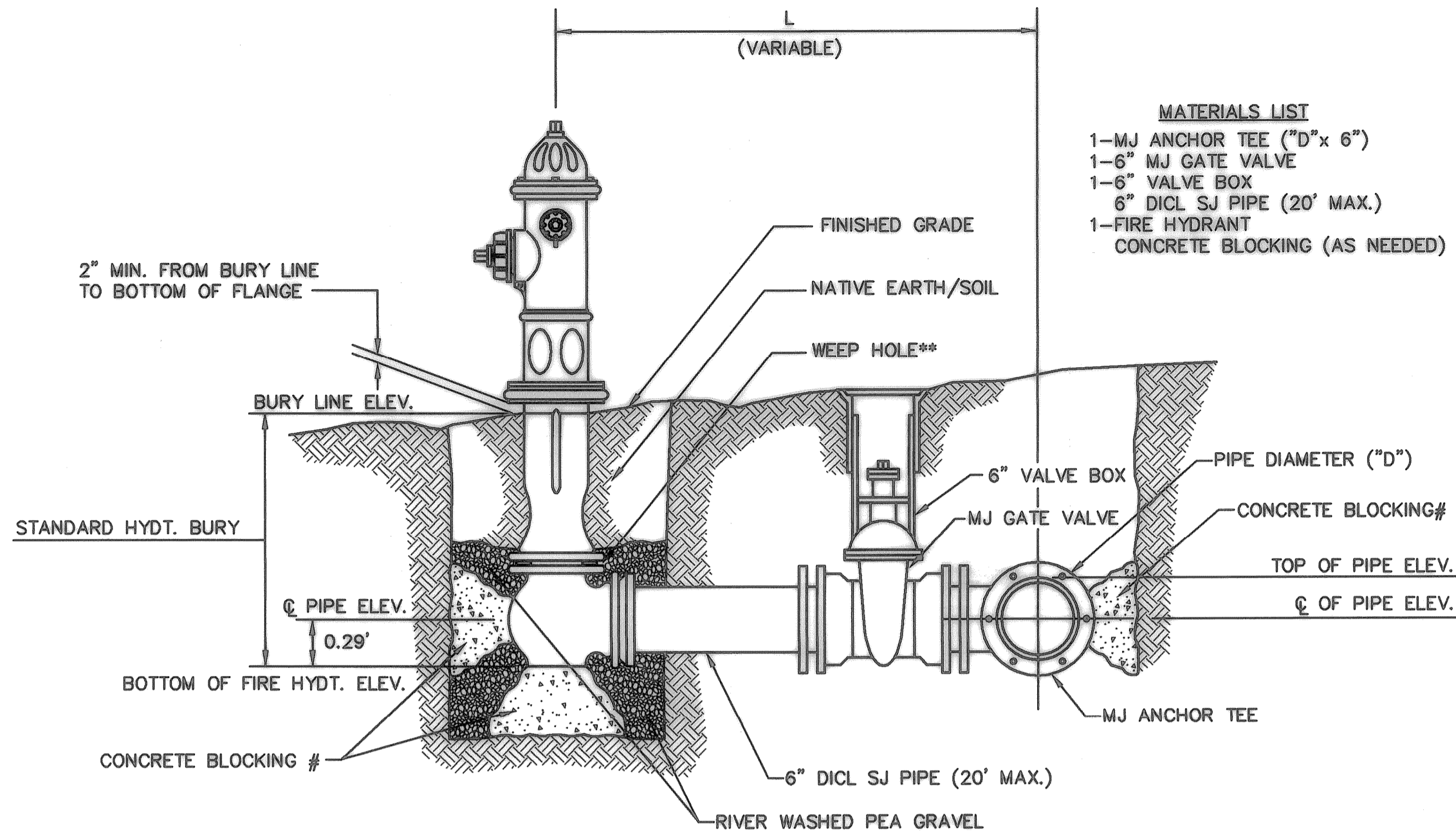
SHEET NO.
3 of 5

J:\CIVIL\10043_LARKSFIELD_PLACE\DWG\WTR\10043_C2.DWG
PLOTED: Wednesday, August 18, 2010 @ 07:33AM



- 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

LINE VALVE ASSEMBLY



- 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)

** CAUTION! WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES.

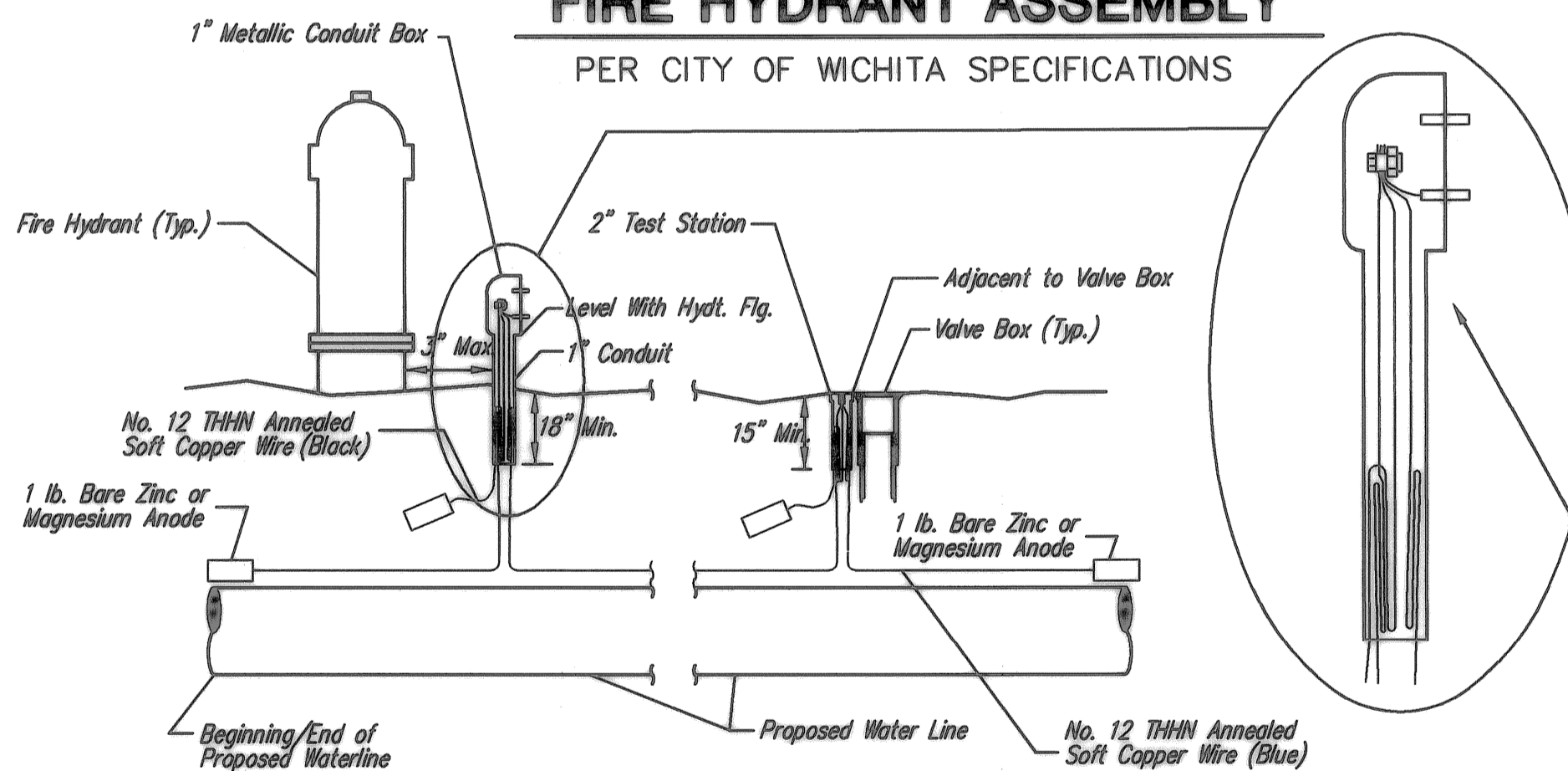
CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.

* IF HYDRANT BURY IS IN EXCESS OF 5', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY.

STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
11+26.64, LINE 1	1405.90	1402.07	4.5'
11+75.00, LINE 2	1405.30	1400.47	5.5'

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. 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.

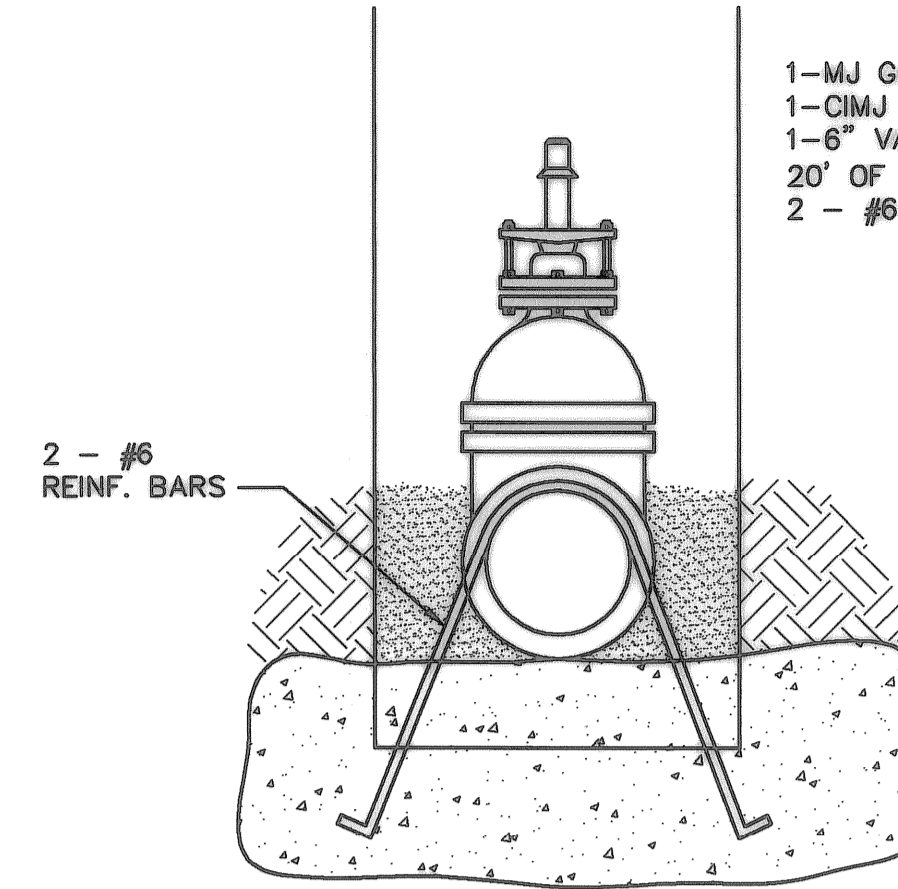
WIRE
The tracer wire shall be Blue No. 12 THHN annealed soft copper wire with thermal plastic insulation. The insulation shall be heat, oil, and gasoline resistant as manufactured by Temple Electric or approved equal. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the 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 T2PS3B 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

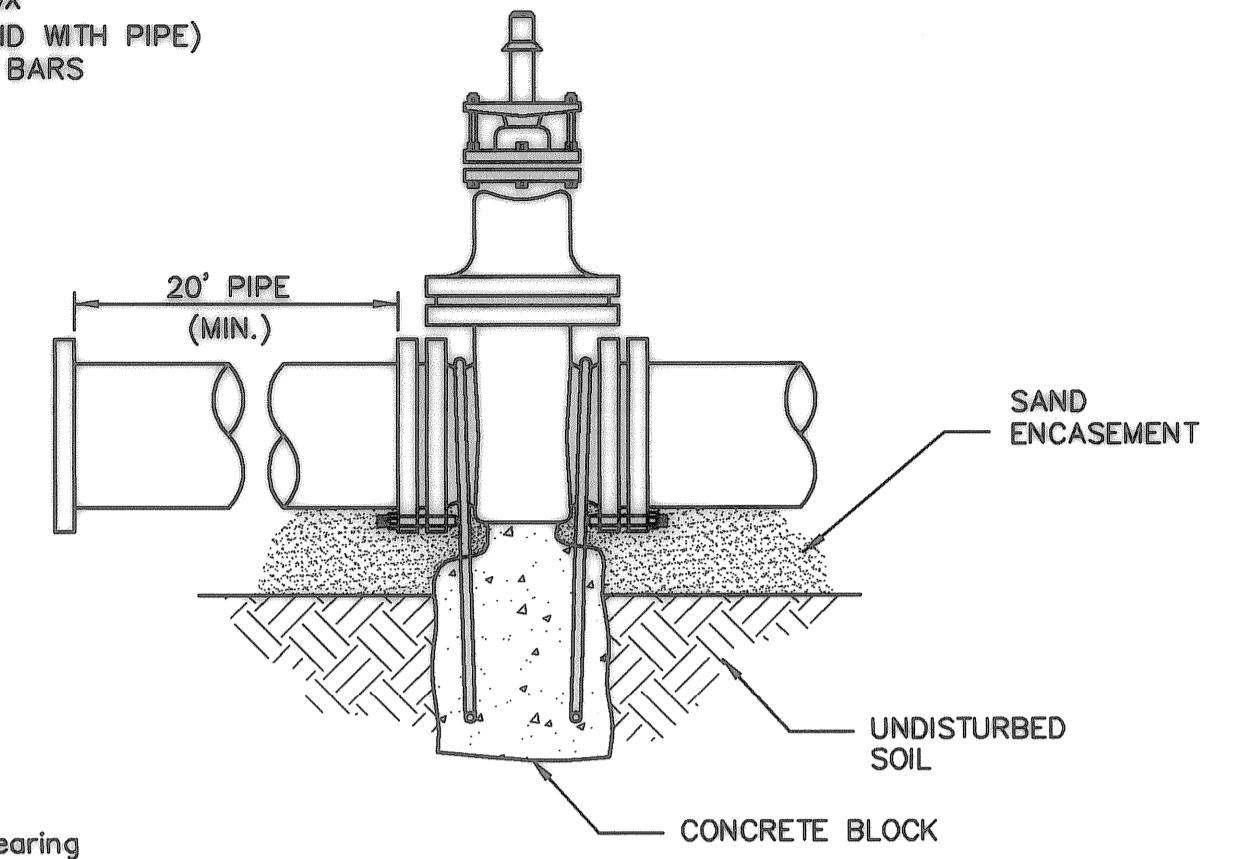
COST IS SUBSIDIARY TO PIPE INSTALLATION



- MATERIALS LIST**
- 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1-CIMJ CAP WHEN NECESSARY
 - 1-6" VALVE BOX
 - 20' OF PIPE (BID WITH PIPE)
 - 2 - #6 REINF. BARS

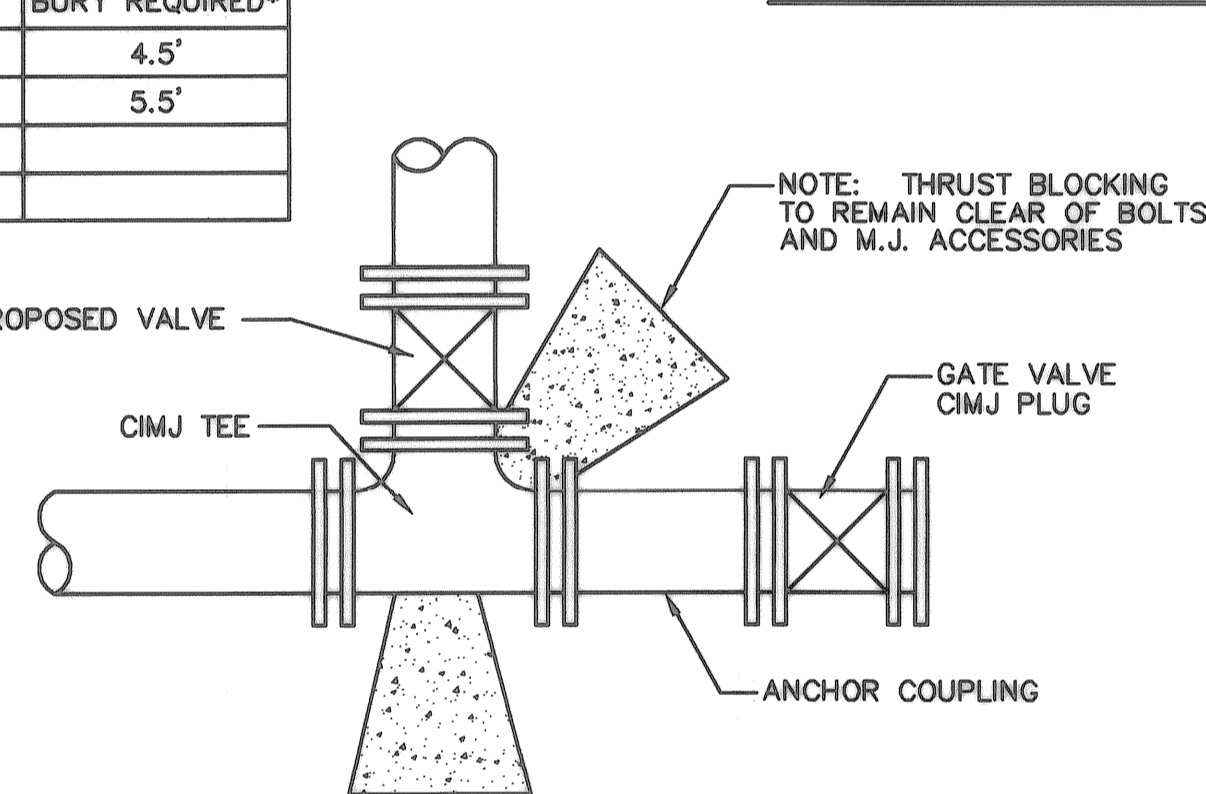
Notes:

- 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.



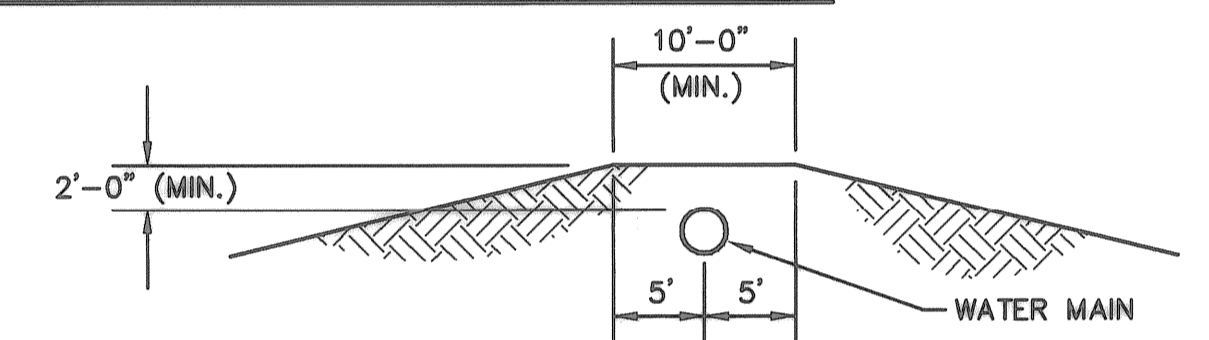
VALVE	THRUST AT 150 #/sq
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL



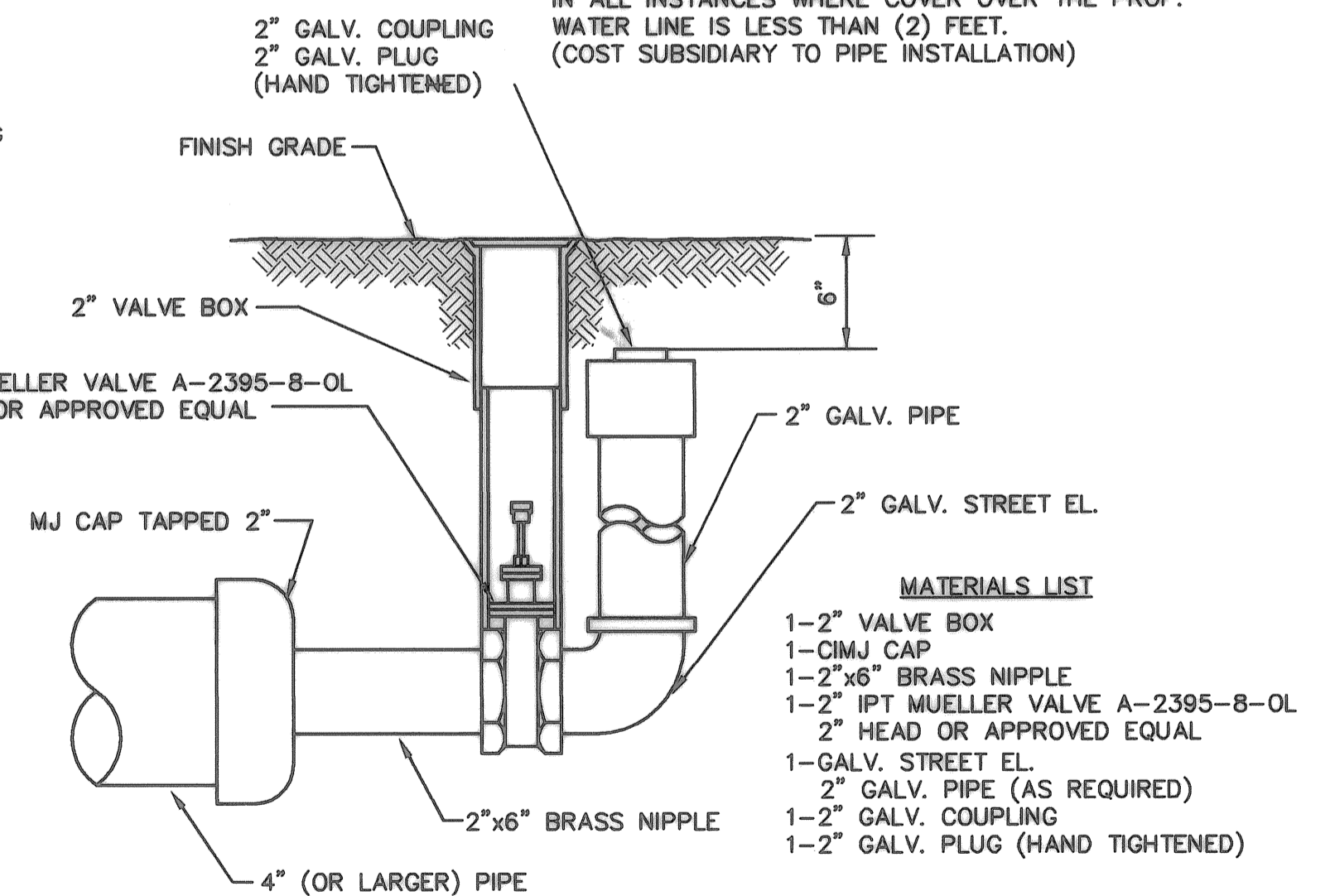
KEY BLOCK DETAIL

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



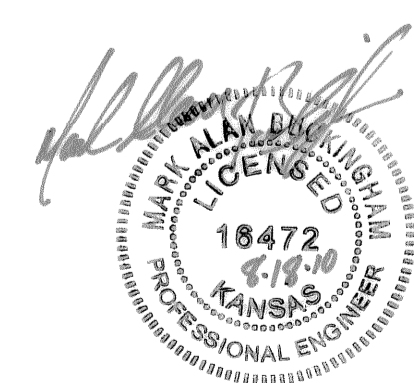
PROTECTIVE FILL DETAIL

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)



THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
408 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4001
(316) 268-4114 FAX

STANDARD WATER ASSEMBLY DETAILS

JAMES L. ARMOUR, CITY ENGINEER

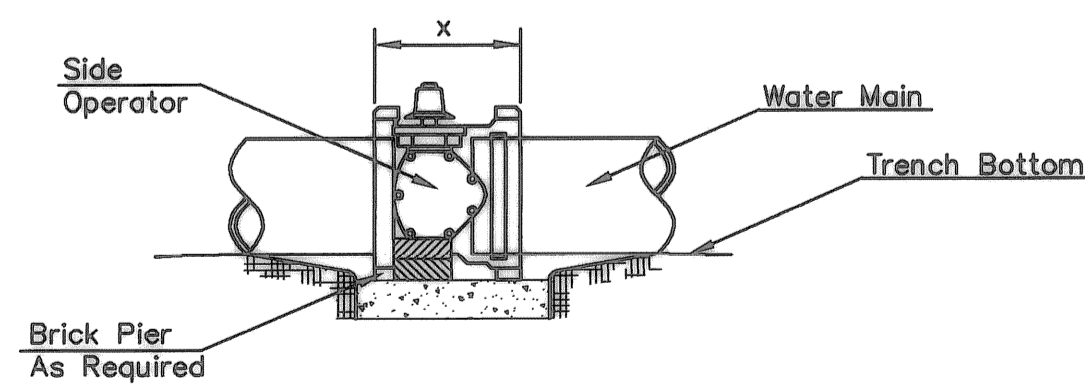
PROJECT NUMBER: 1543PPW INDEX CODE: 607853

DATE: Jul 2010 Sheet 4 of 5

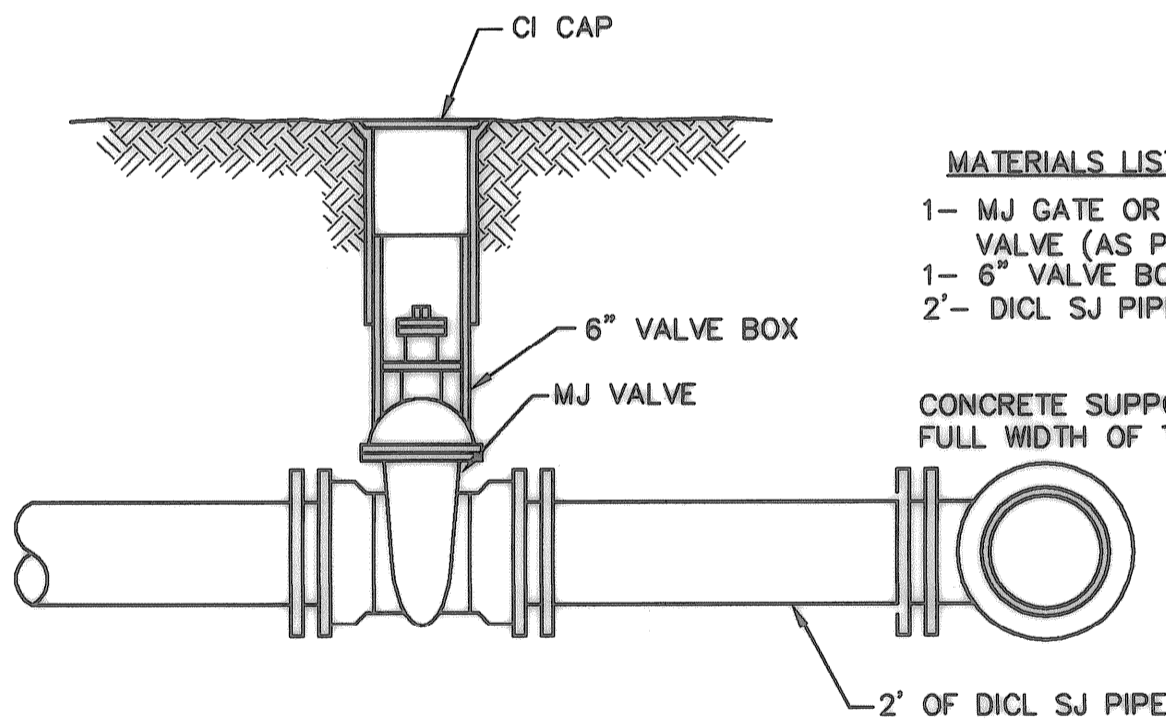
Revised: 11-13-00, MCG
Revised: 6-7-00, MCG

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION

- 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.

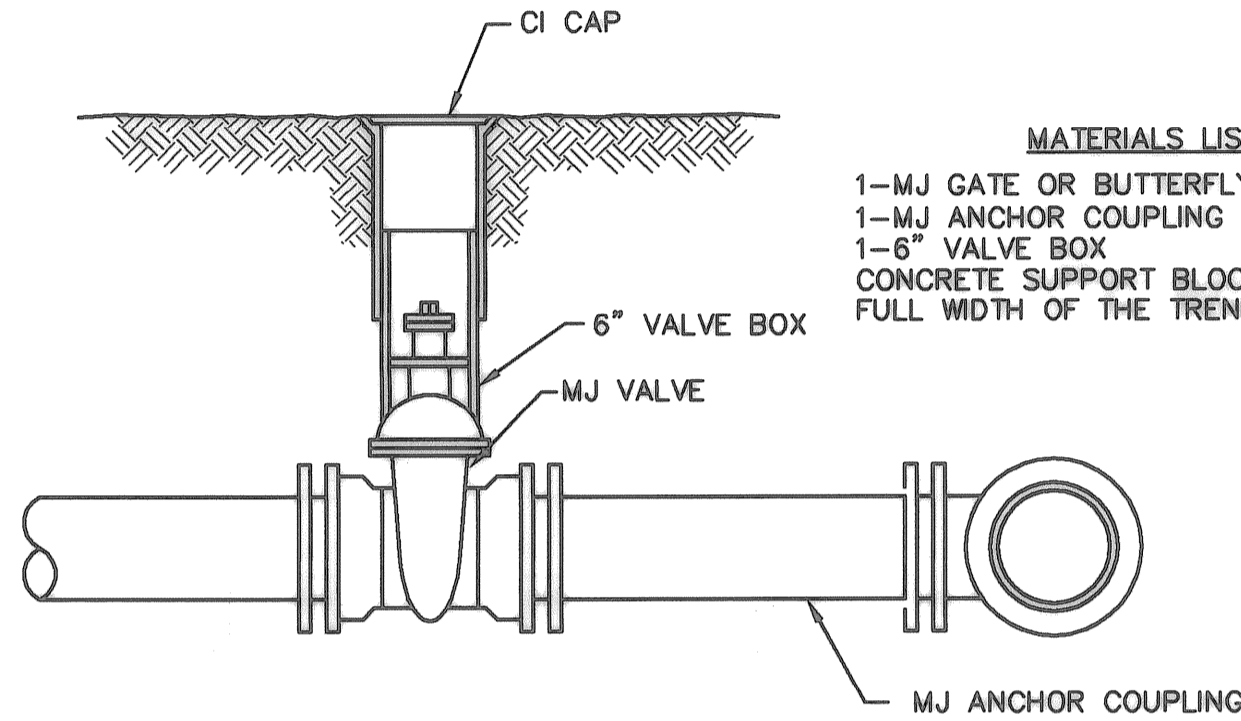


VALVE ASSEMBLY



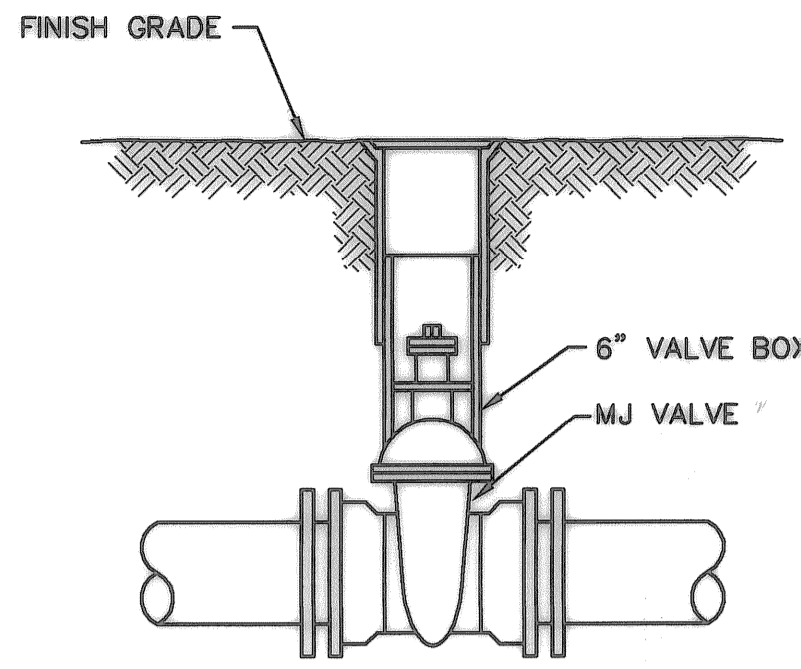
- MATERIALS LIST**
- 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1-6" VALVE BOX
 - 2'- DICL SJ PIPE
- CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

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

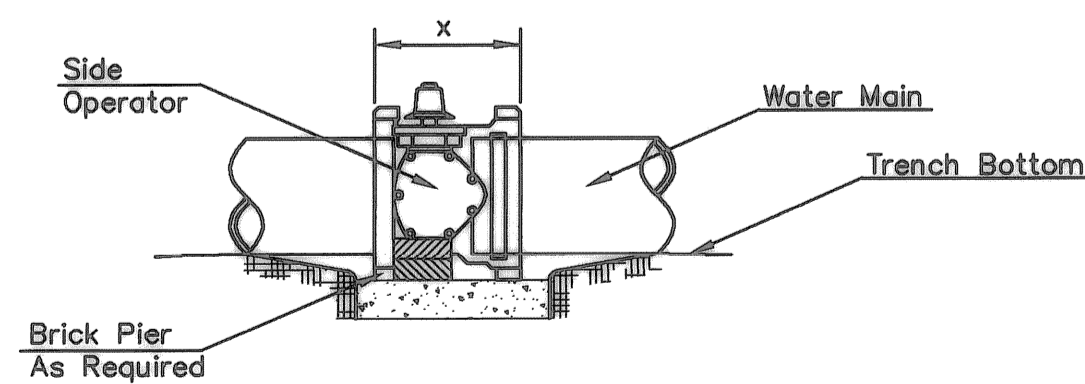
LINE VALVE ASSEMBLY



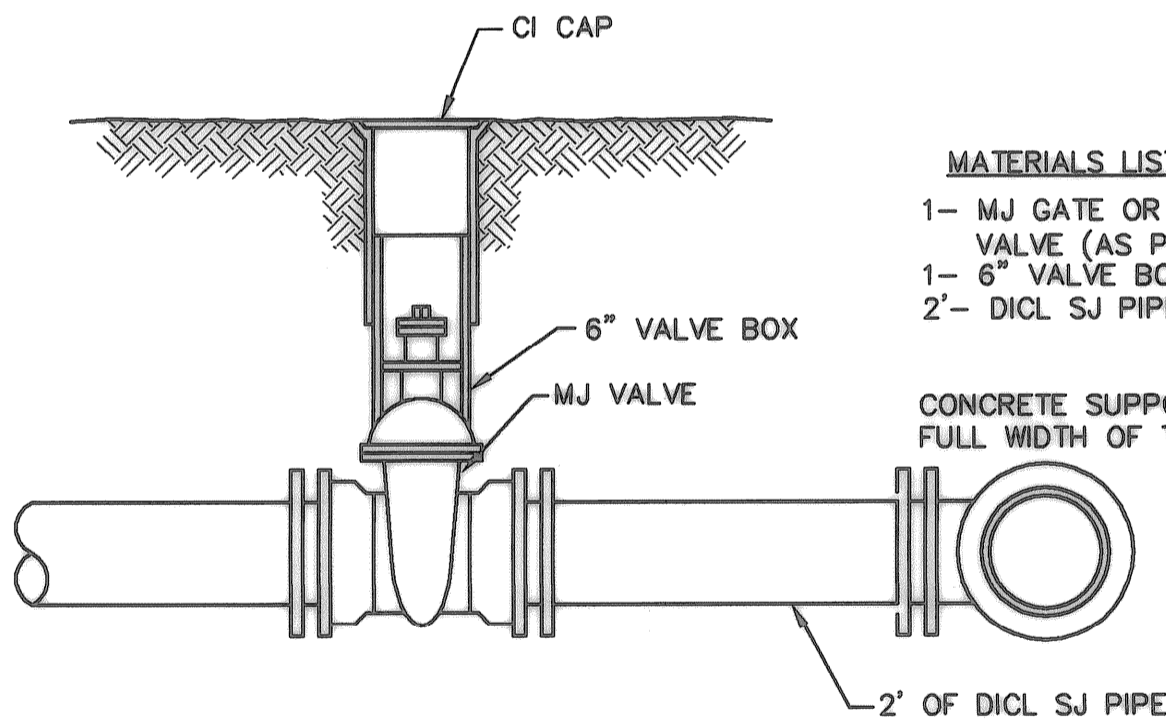
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- 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
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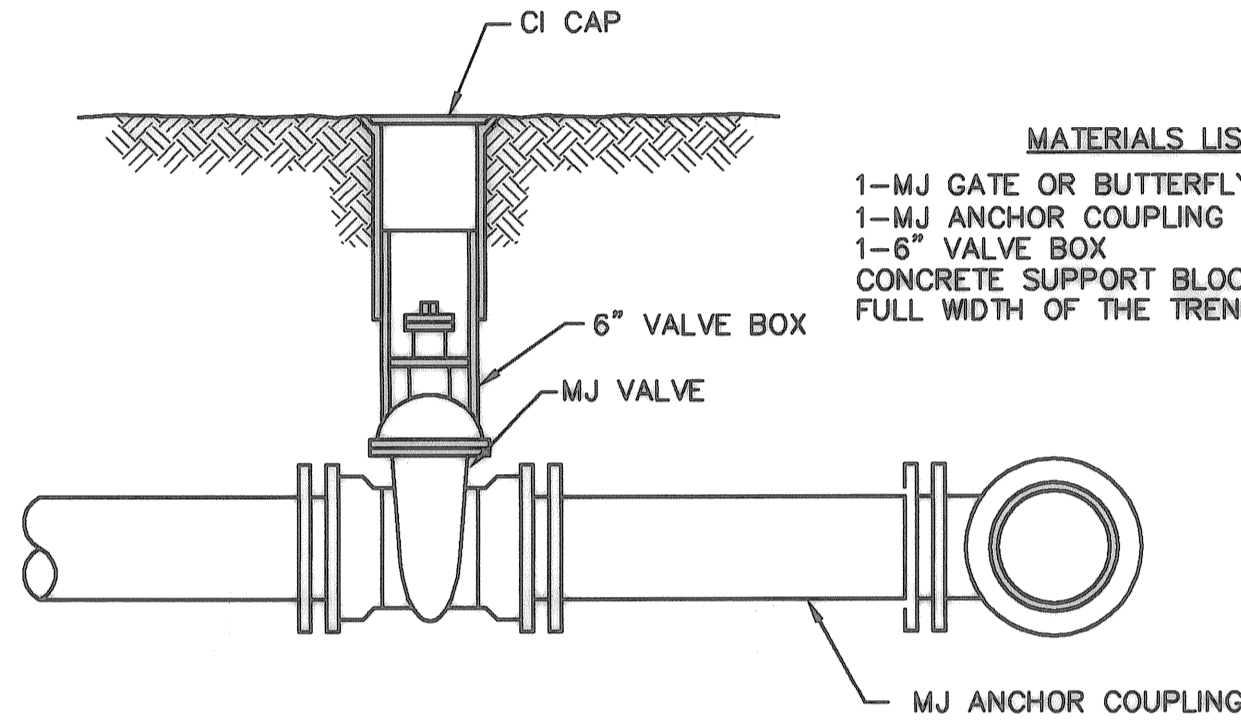


VALVE ASSEMBLY



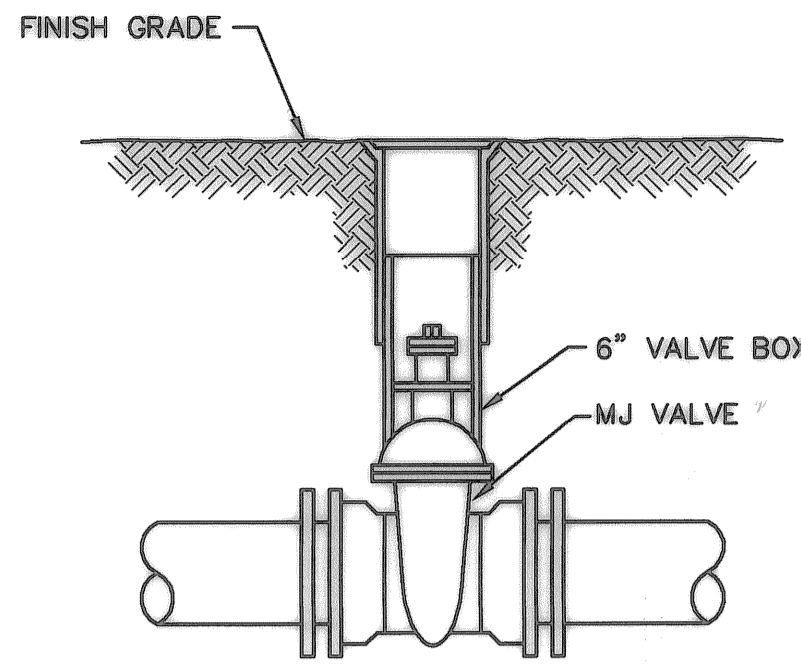
- MATERIALS LIST**
- 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1-6" VALVE BOX
 - 2'- DICL SJ PIPE
- CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

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

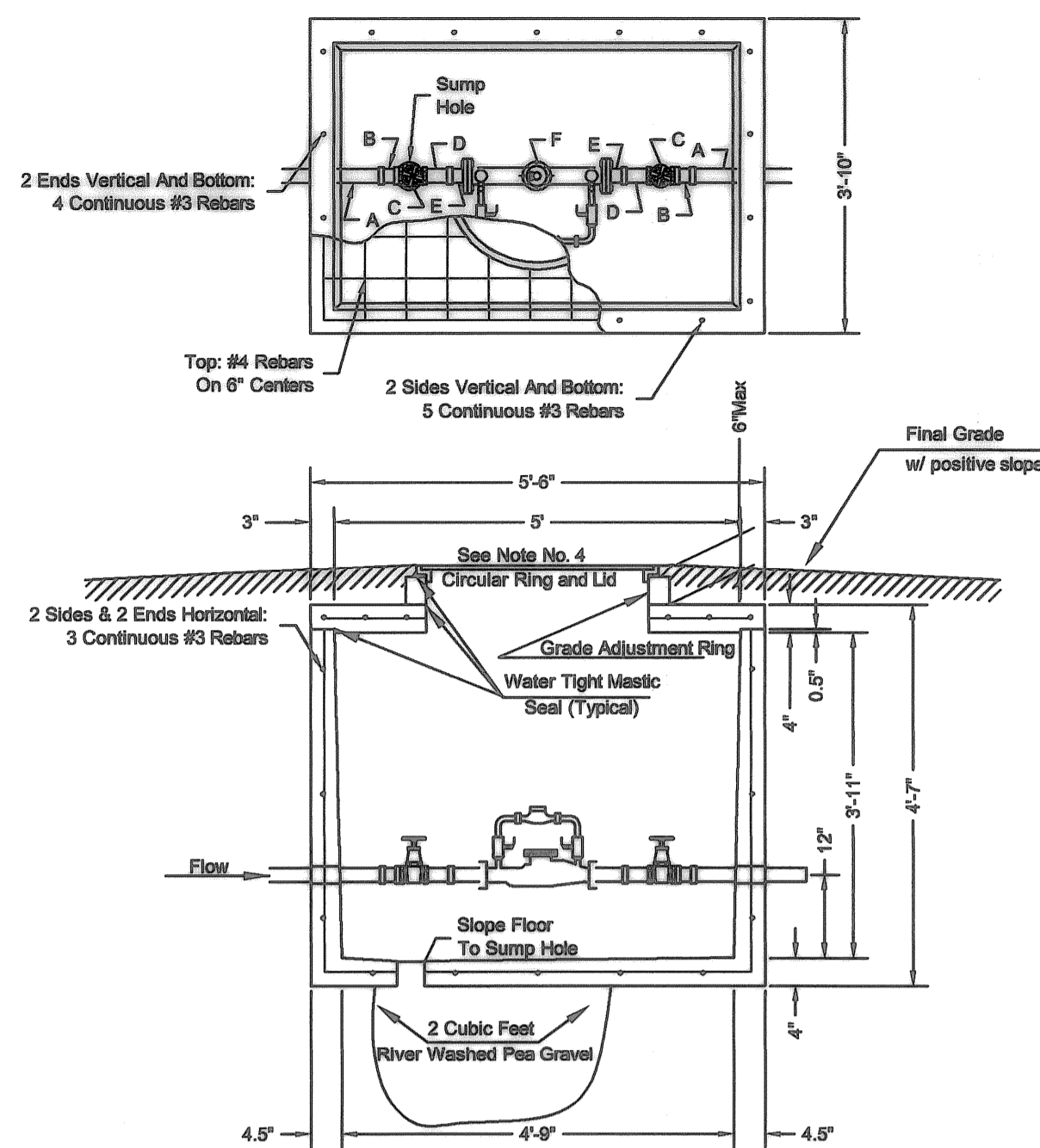
LINE VALVE ASSEMBLY



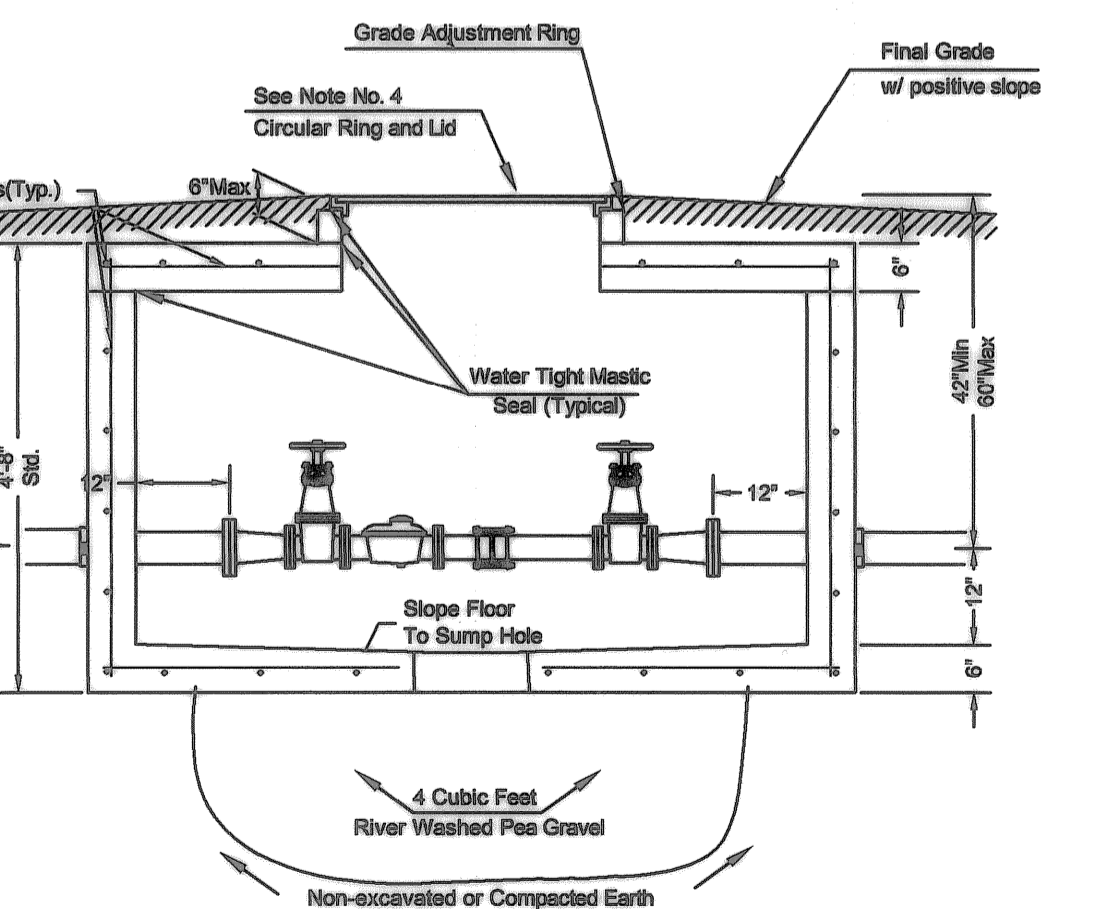
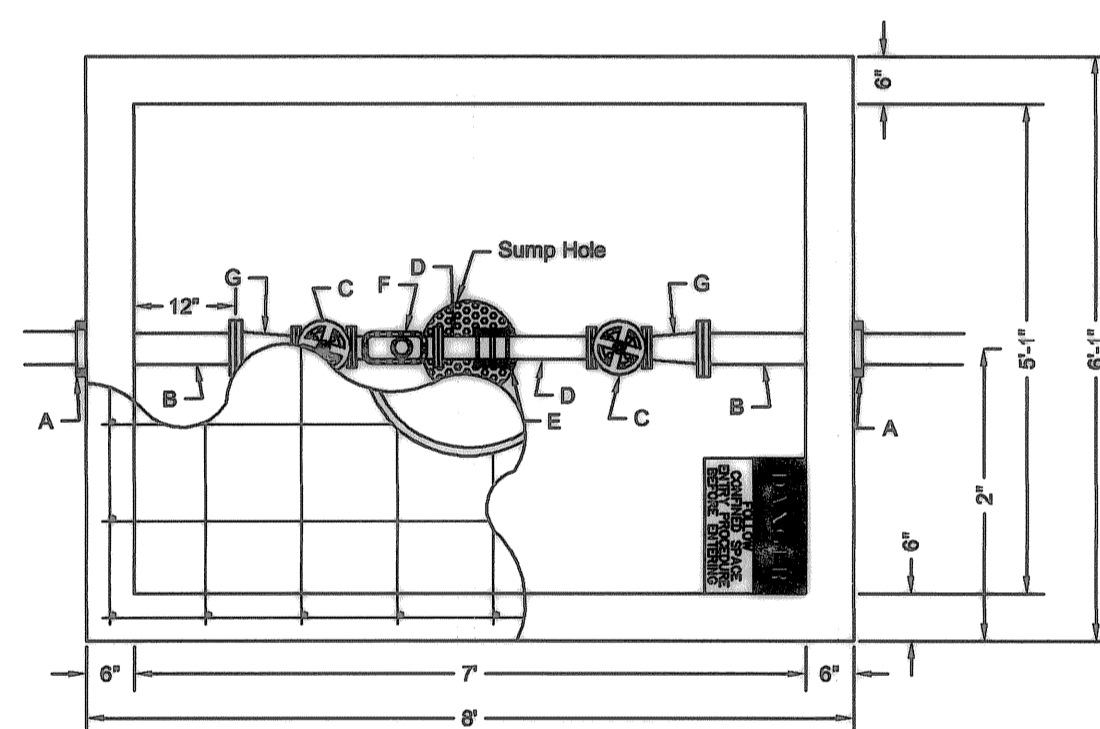
- MATERIALS LIST**
- 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1-6" VALVE BOX
 - CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

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 Clulster 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 wall 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 related 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.



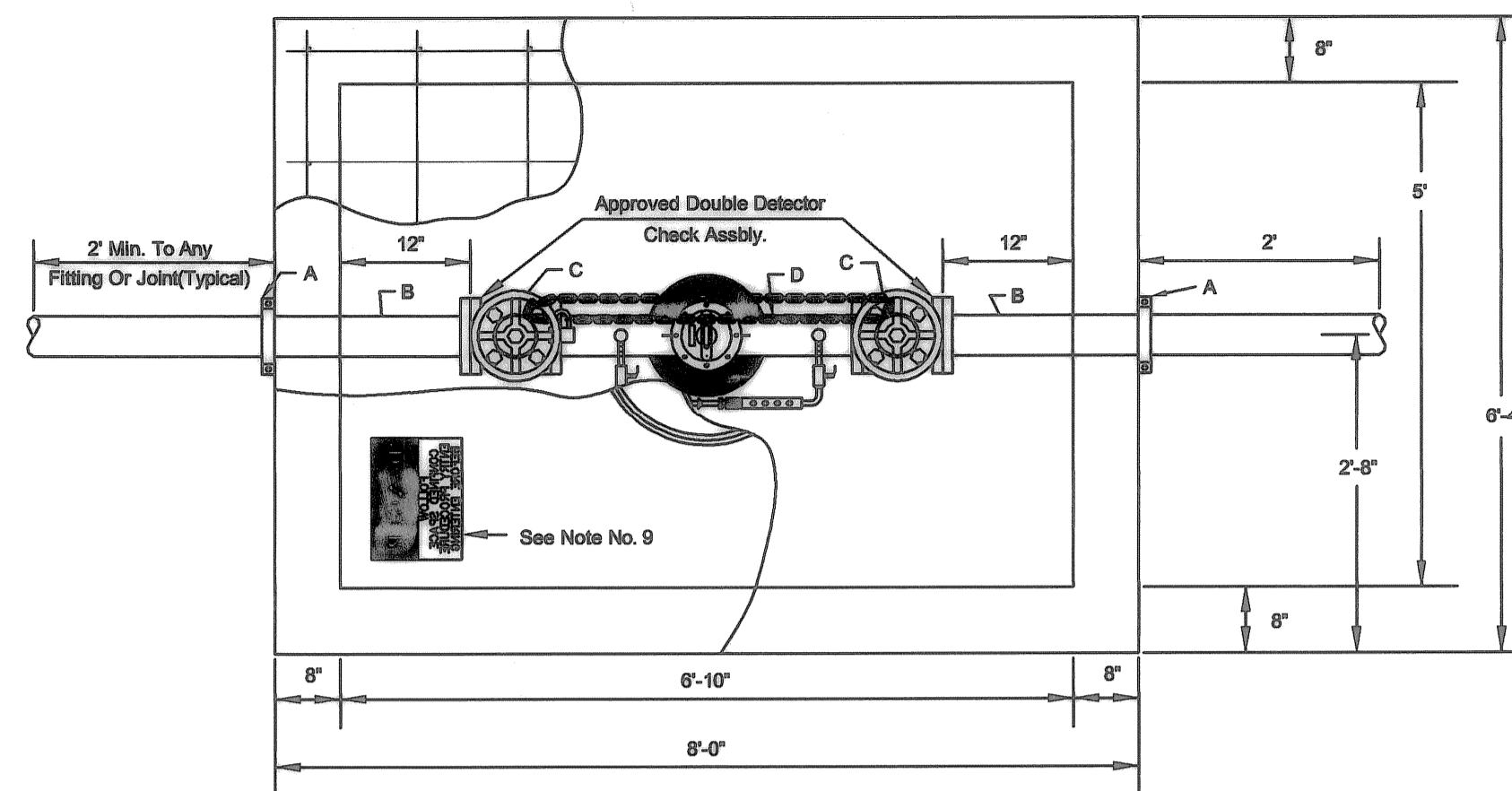
2" Fire Service



- A - 4" Vault Clamp
- B - Min. 3" Piece of 4" FL x PE DICL Pipe
- C - 3" Flange Non-rising Stem Gate Wheel Valve
- D - 3" FL x PE Pipe
- E - 3" Flex Coupling
- F - 3" Badger Recordall II Turbo Cubic Foot Meter with ERT Register or Sensus W-350DR Cubic Foot Meter with AMR Register.
- G - 3" x 4" FL Reducer

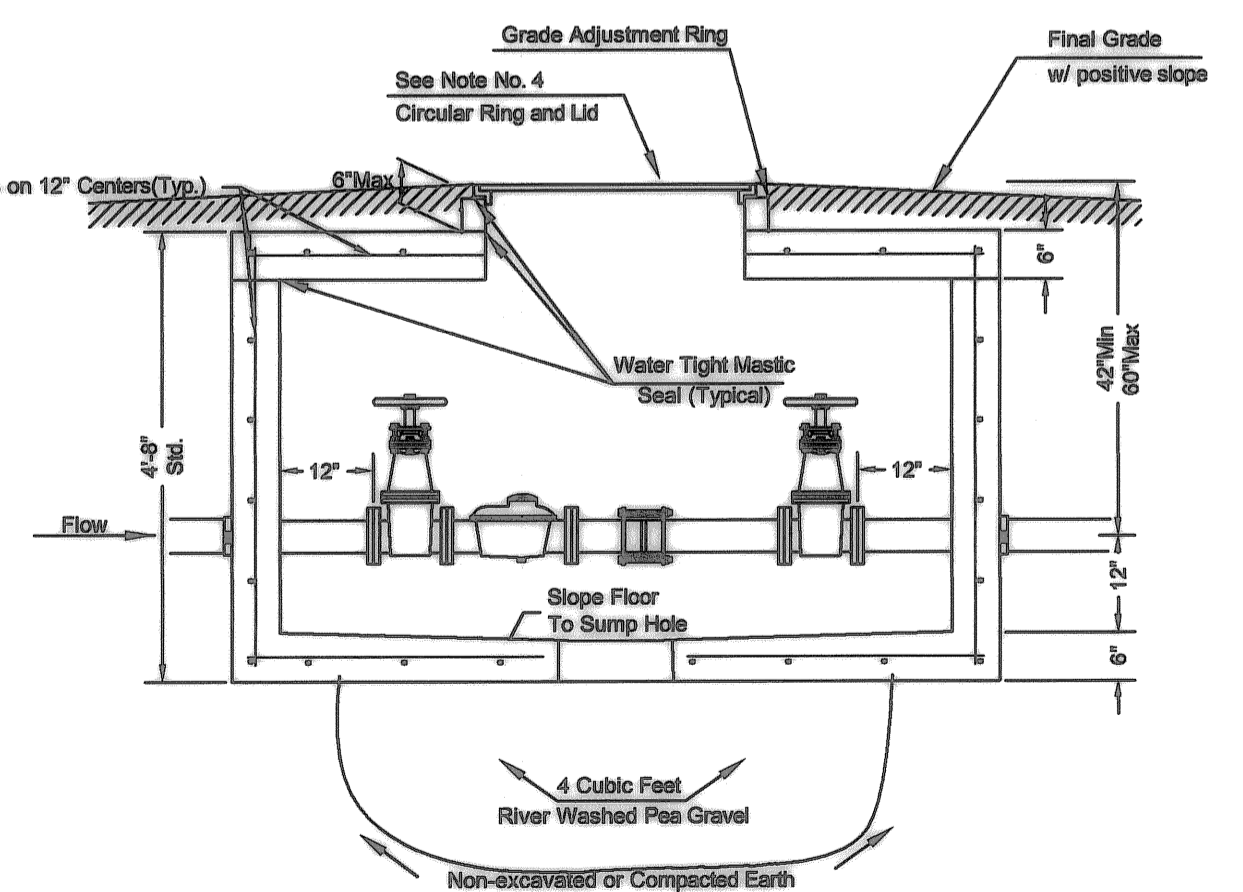
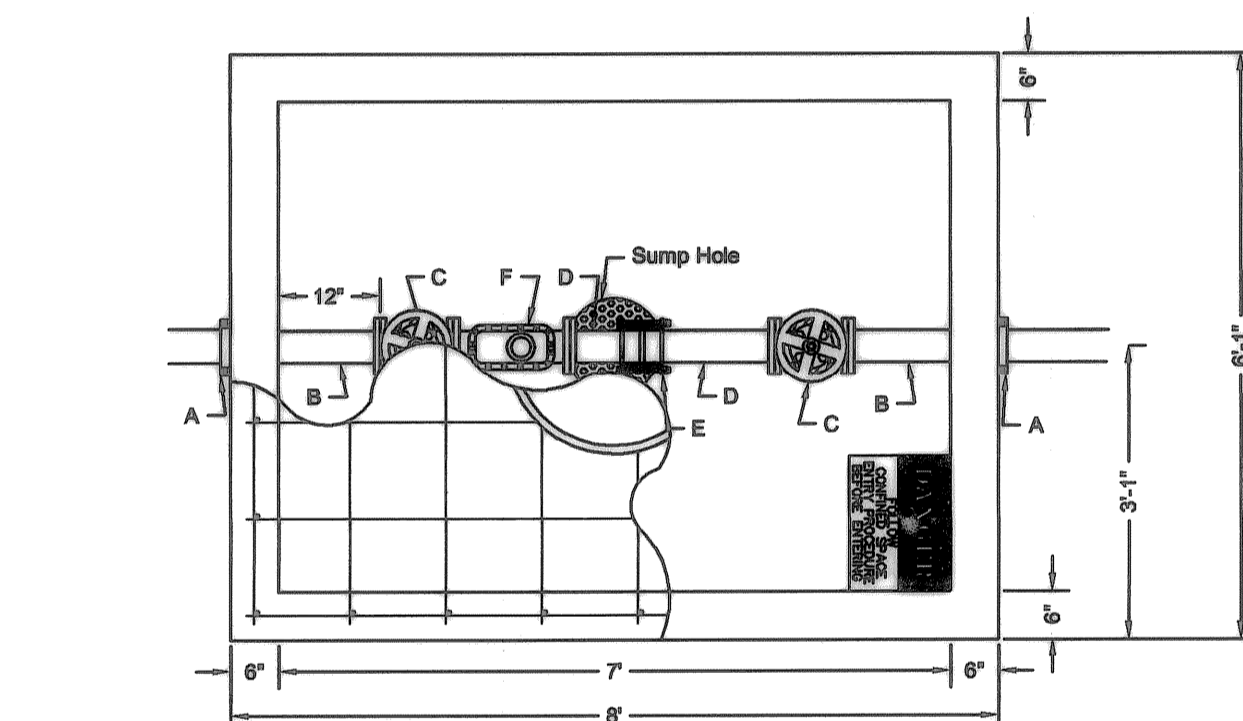
2" DS

3" DS



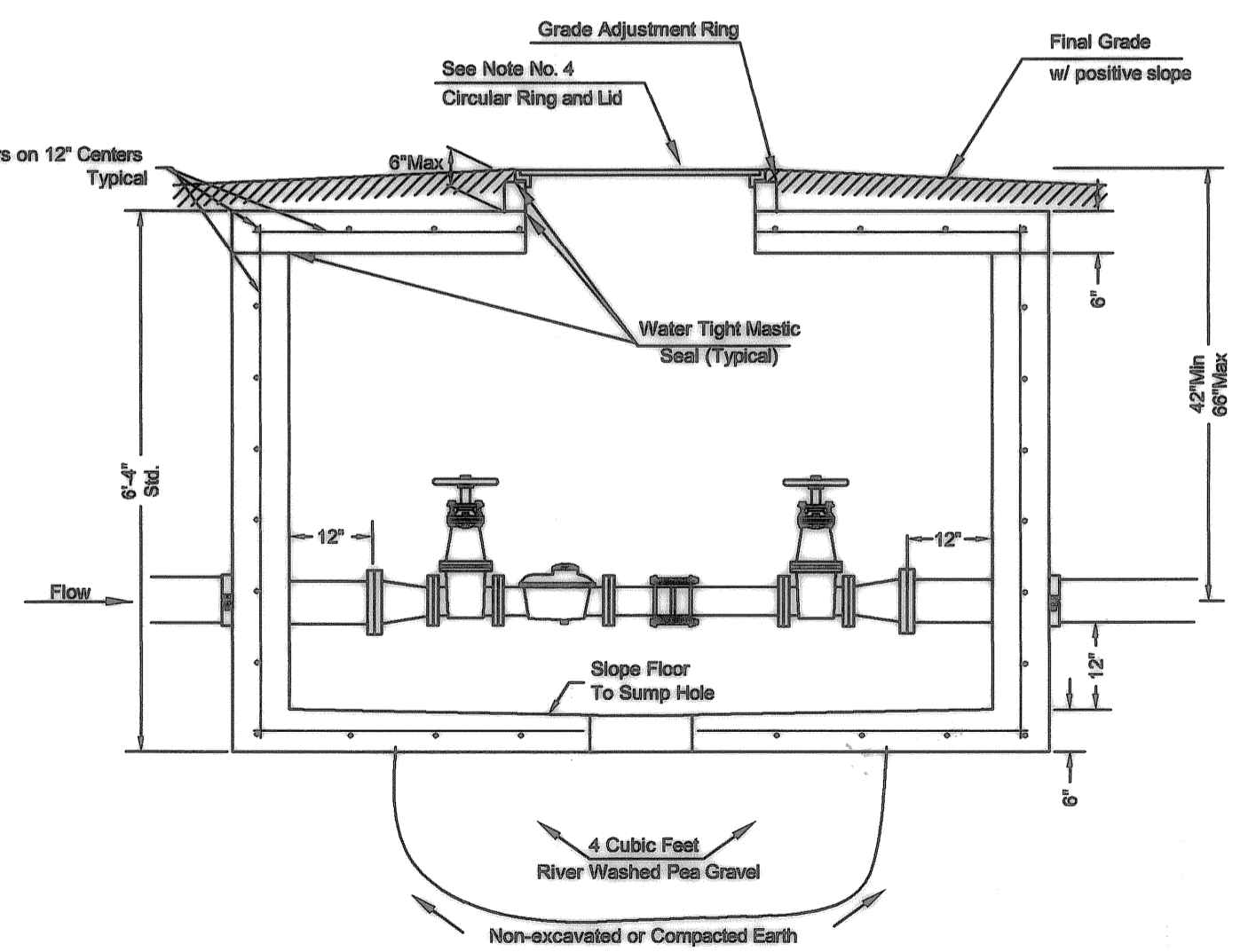
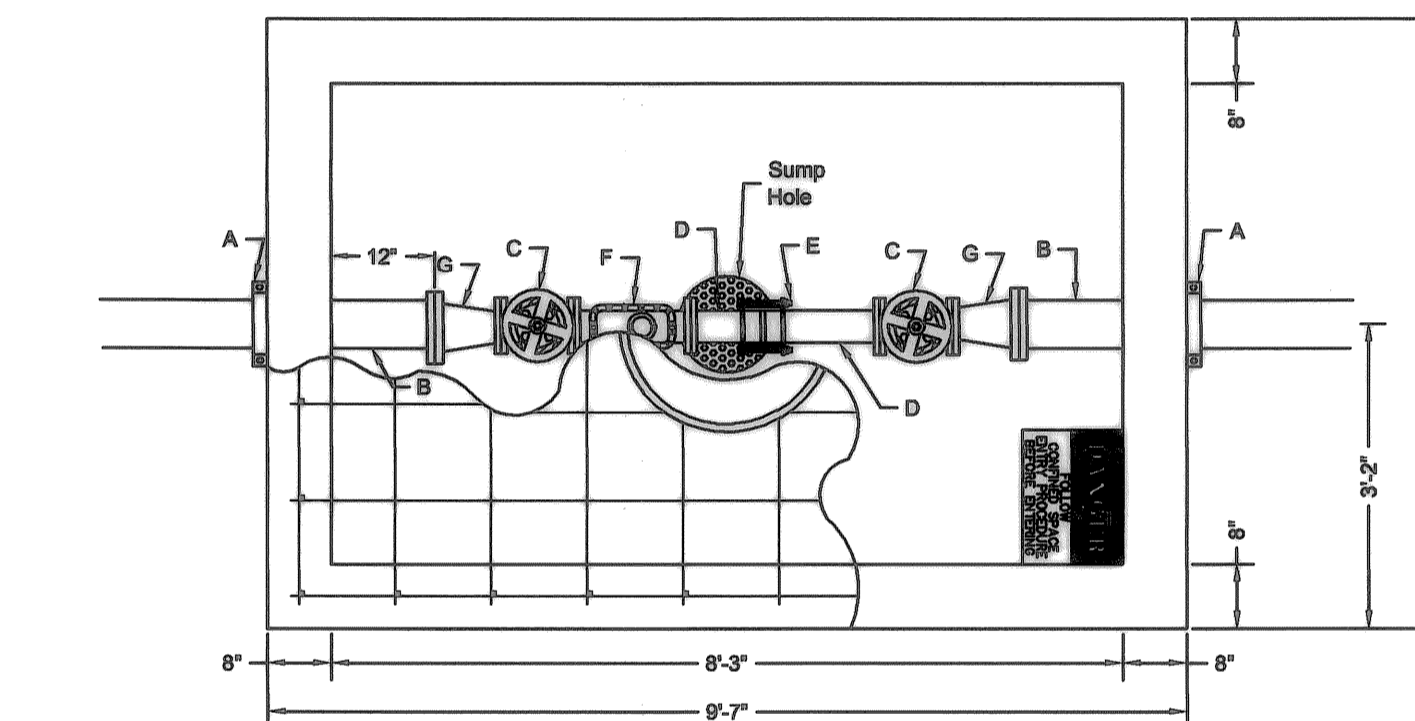
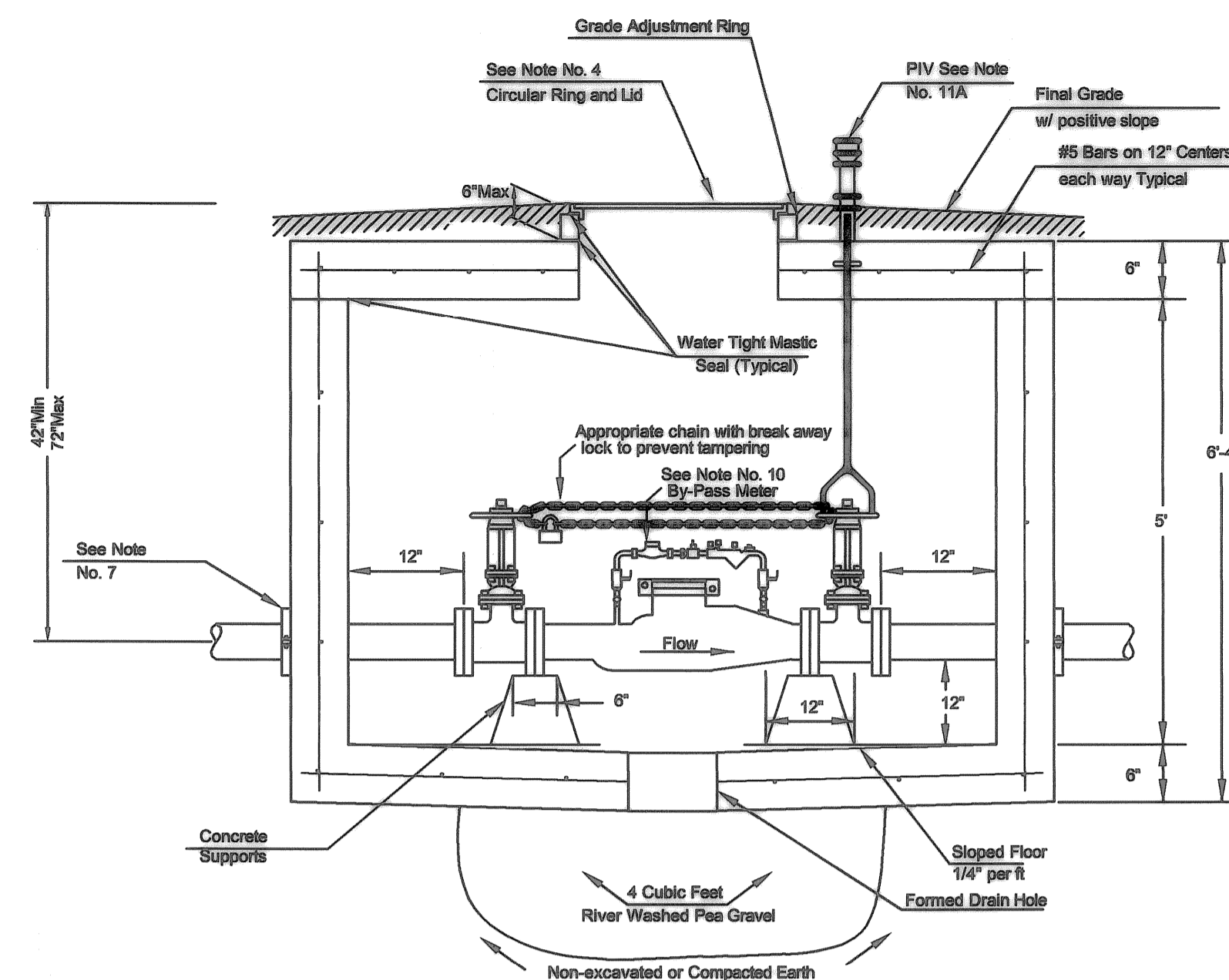
- A - Mega Lug (See Note 7)
- B - Min. 3'-8" Piece of FL x PE DICL Pipe
- C - 4" Flange Gate Valve, Wheel Operated
- D - Ames Model 3001SS or approved equal with metered (cubic foot) by-pass assembly

4" thru 8" Fire Service



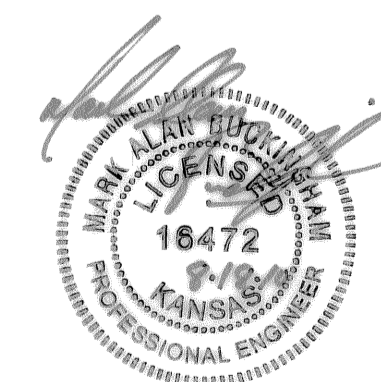
- A - 4" Vault Clamp
- B - Min. 3" Piece of 4" FL x PE DICL Pipe
- C - 4" Flange Non-rising Stem Gate Wheel Valve
- D - 4" FL x PE Pipe
- E - 4" Flex Coupling
- F - 4" Badger Recordall II Turbo Cubic Foot Meter with ERT Register or Sensus W-1000DR Cubic Foot Meter with AMR Register.

4" DS



- A - 6" Mega Lug (See Note 7)
- B - Min. 3" Piece of 6" FL x PE DICL Pipe
- C - 4" Flange Non-rising Stem Gate Wheel Valve
- D - 4" FL x PE Pipe
- E - 4" Flex Coupling
- F - 4" Badger Recordall II Turbo Cubic Foot Meter with ERT Register or Sensus W-1000DR Cubic Foot Meter with AMR Register.
- G - 6" x 4" Flange Reducer

6" DS w/ 4" meter



THE CITY OF WICHITA
W
 WATER & SEWER DEPT.
 CITY HALL - SIXTH FLOOR
 200 NORTH MAIN STREET
 WICHITA, KANSAS 67202
 (316) 253-5000
 (316) 253-4314 Fax

STANDARD VAULT DETAILS AND METER ASSEMBLIES

D. R. WARREN - DIRECTOR	
PROJECT NUMBER 1543PPW	INDEX CODE 607853
DATE July 2010	SHEET 5 OF 5

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