

# WATER PRIVATE PROJECT PLANS FOR **QUIKTRIP STORE #322** 35TH ST N AND OLIVER WICHITA, SEDGWICK COUNTY, KS. 1776 PPW (O.C.A. NO. 607853) **GARY JANZEN, P.E., CITY ENGINEER** November 2013

- A. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.
- B. CONTRACTOR SHALL BE RESPONSIBLE FOR RAZING AND REMOVAL OF THE EXISTING STRUCTURES, RELATED UTILITIES, PAVING, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED. REF. SITE WORK SPECIFICATIONS.
- C. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.
- D. THE GENERAL CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
- E. ALL CONSTRUCTION IN STATE HIGHWAY DEPARTMENT RIGHT-OF-WAY SHALL BE COORDINATED WITH THE HIGHWAY DEPARTMENT RESIDENT MAINTENANCE ENGINEER. SPECIFICATIONS ADOPTED BY USA DEPARTMENT OF TRANSPORTATION, MARCH 1, 1993, AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS SHALL GOVERN ON THIS PROJECT.
- F. ALL SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE RELEVANT UTILITY COMPANY OR REGULATORY AUTHORITY, AND THE SPECIFICATIONS FOR THE CONSTRUCTION OF THE EXISTING IMPROVEMENTS WHICH ARE BEING ALTERED OR REPLACED. CONTRACTOR SHALL CONTACT THE ENGINEER FOR SPECIFICATION SECTIONS FOR ITEMS SUCH AS LANDSCAPING AND IRRIGATION THAT ARE AFFECTED BY THE WORK BUT NOT COMPLETELY DETAILED OR SPECIFIED ON THESE PLANS.
- G. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL: TWO-WAY TRAFFIC MUST BE MAINTAINED THROUGHOUT THE PROJECT. TRAFFIC CONTROL DEVICES AND SIGNING SHALL BE IN ACCORDANCE OF THE LATEST ADDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- H. ALL PROPERTY CORNER MONUMENTS SHALL BE PRESERVED. ANY DISTURBED MONUMENTS SHALL BE RESET ONLY BY A LICENSED SURVEYOR.

### WETLANDS NOTICE:

ANY DEVELOPMENT, EXCAVATION, CONSTRUCTION, OR FILLING IN A U.S. CORPS OF ENGINEERS DESIGNATED WETLAND IS SUBJECT TO LOCAL, STATE AND FEDERAL APPROVALS. THE CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS AND/OR RESTRICTIONS AND ANY VIOLATION WILL BE SUBJECT TO FEDERAL PENALTY. THE CONTRACTOR SHALL HOLD THE OWNER/ DEVELOPER, THE ENGINEER AND THE LOCAL GOVERNING AGENCIES HARMLESS AGAINST SUCH VIOLATION.

### WARRANTY/DISCLAIMER:

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER THE ENGINEER NOR ITS PERSONNEL CAN OR DO WARRANT THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THE ENGINEER INSPECTS AND CONTROLS THE PHYSICAL CONSTRUCTION ON A TEMPORARY BASIS AT THE SITE.

### NOTICE TO BIDDERS:

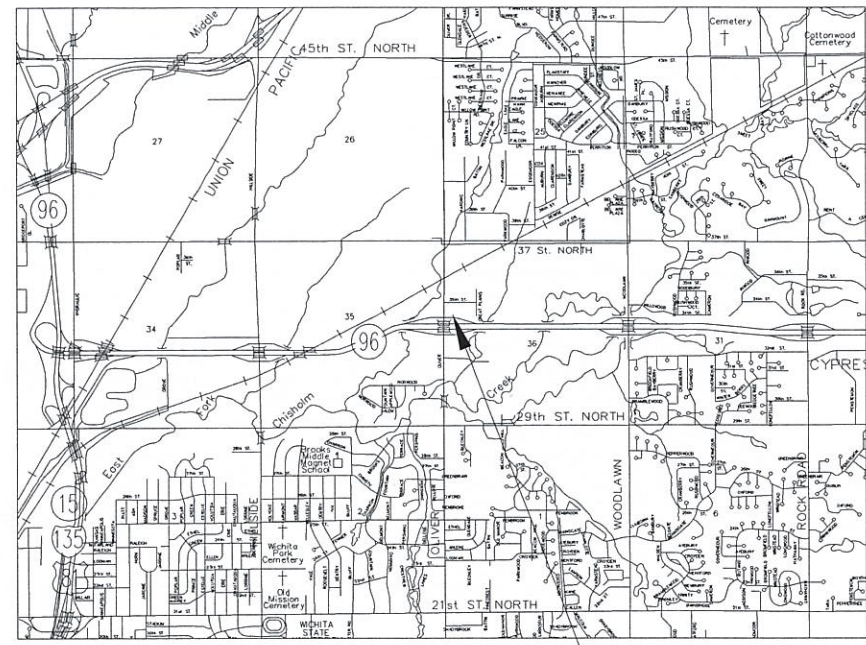
ALL QUESTIONS REGARDING THE PREPARATION OF THE GENERAL CONTRACTOR'S BID SHALL BE DIRECTED TO THE OWNER'S CONSTRUCTION DEPARTMENT AT XXX-XXX-XXXX. SUBCONTRACTORS MUST DIRECT THEIR QUESTIONS THROUGH THE GENERAL CONTRACTOR. THE CONSULTING ARCHITECT AND/OR THE CONSULTING ENGINEER SHALL NOT BE CONTACTED DIRECTLY WITHOUT PRIOR AUTHORIZATION FROM THE OWNER/DEVELOPER.

### FLOOD CERTIFICATION:

THIS PROPERTY LIES IN ZONE "X" AND DOES NOT LOCATE WITHIN ANY PRESENTLY ESTABLISHED 100-YEAR FLOOD PLAIN, AS SHOWN BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY. FLOOD INSURANCE RATE MAP FOR THE COUNTY OF CITY, STATE, COMMUNITY PANEL NUMBER 48113C0305J EFFECTIVE DATE AUGUST 23, 2001.

### BENCHMARKS:

- BM 1- CHISELED SQUARE ON TOP OF CURB ON SOUTH SIDED OF 35TH STREET NORTH DIRECTLY NORTH OF THE NORTHEAST CORNER OF LOT 1, BLOCK 3, GREAT PLAINS BUSINESS PARK 2ND ADDITION. ELEV.=1367.85 N.A.V.D. 88
- BM 2- CHISELED SQUARE ON TOP OF CURB ON END OF NORTHEAST CURB RETURN IN THE SOUTHEAST QUADRANT OF THE INTERSECTION OF OLIVER STREET AND 35TH STREET NORTH GENERALLY LOCATED AT THE NORTHWEST CORNER OF LOT 1, BLOCK 3, GREAT PLAINS BUSINESS PARK 2ND ADDITION. ELEV.=1363.65 N.A.V.D. 88



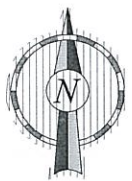
Vicinity Map  
Not to Scale

### MUNICIPAL CONTACT LIST:

- CITY OF WICHITA**  
 OFFICE OF CENTRAL INSPECTION  
 DEPARTMENT - PLANNING DIVISION  
 CITY HALL, 7TH FLOOR  
 455 N. MAIN  
 WICHITA, KS. 67202  
 TEL: (316) 268-4477  
 FAX: (316) 268-4663  
 CONTACT: PAUL HAYS
- CITY OF WICHITA WATER & SEWER UTILITIES**  
 CITY HALL, 8TH FLOOR  
 455 N. MAIN  
 WICHITA, KS. 67202  
 TEL: (316) 268-4555  
 CONTACT: KERRY GIBSON  
 ALT. CONTACTS: GREG LOLLEY  
 OR LO DONNA LAWRENZ  
 TEL: (316) 268-4501
- CITY FIRE DEPARTMENT**  
 CITY HALL, 11TH FLOOR  
 455 N. MAIN  
 WICHITA, KS. 67202  
 TEL: (316) 268-4510  
 FAX: (316) 858-7702  
 CONTACT: CHIEF ROBERT THOMPSON

### PRIVATE UTILITIES LIST:

- ELECTRIC COMPANY (WESTAR ENERGY)**  
 TEL: (316) 261-6315  
 CONTACT: SHANE PRICE  
 EMAIL: SHANE.PRICE@WESTARENERGY.COM
- GAS COMPANY (KANSAS GAS SERVICE)**  
 TEL: (316) 261-831-5664  
 CONTACT: CINDY LITTLEJOHN  
 EMAIL: CINDY.LITTLEJOHN@ONEOK.COM
- GAS COMPANY (BLACK HILLS ENERGY)**  
 TEL: (316) 941-1654  
 CONTACT: DARYL KELLER  
 EMAIL: DARYL.KELLER@BLACKHILLSCORP.COM
- TELEPHONE COMPANY (AT&T)**  
 TEL: (316) 268-2762  
 CONTACT: JIM TOEVEN  
 EMAIL: JT7372@ATT.COM
- CABLE COMPANY (COX COMMUNICATIONS)**  
 TEL: (316) 260-7475  
 CONTACT: JEFF CAPPS  
 EMAIL: JEFF.CAPPS@COX.COM



SHEET INDEX	
NO.	TITLE
1	COVER SHEET
2	SITE PLAN
3	WATER LINE PLAN & PROFILE
4	DETAILS
5	DETAILS
6	DETAILS

ASBUILT PLANS  
 COMPANY: CITY OF WICHITA  
 CONTRACTOR: DONDLINGER CONSTRUCTION  
 SUPERINTENDENT: MIKE SULLIVAN  
 INSPECTOR: CALEB WILSON  
 PDF BY: CFW, 10/23/2014

APPROVED AS NOTED BY  
 CITY ENGINEER OF WICHITA

City Engineer: *[Signature]* 5-22-14

Water Mains: *[Signature]* 5-22-14

Fire: *[Signature]* 5-27-14

NOTE TO CONTRACTOR  
 INSPECTION AND TESTING FOR THIS PROJECT 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 LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR THE PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.

UTILITY GENERAL NOTES  
 UTILITY INSTALLATION CONSIDERATIONS

PRIOR TO THE CONSTRUCTION OF, OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, OR ANY OTHER ELEVATION SENSITIVE UTILITY, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATED ALL POINTS OF CONNECTIONS AND ALL UTILITY CROSSINGS. THE CONTRACTOR SHALL INFORM THE ENGINEER AND THE OWNER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. THE ENGINEER AND OWNER WILL BE HELD HARMLESS IN THE EVENT THE ENGINEER AND OWNER ARE NOT NOTIFIED OF A DESIGN CONFLICT.

AS POSSIBLE, ALL PROPOSED UTILITIES SHALL BE ROUTED THROUGH PERVIOUS AREA - SPECIFICALLY AVOIDING ON-SITE PAVED AREAS DESIGNATED FOR PARKING, ACCESS, AND VEHICULAR TRAFFIC FLOW.

REFER TO THIS SHEET FOR LOCATION, AND SHEETS C530 THRU C531 FOR TRENCHING, BACKFILL, AND PLACE DETAILS.

BACK FLOW PREVENTORS TO BE PLACED AT THE METERS DUE TO THE PROXIMITY OF THE REAR CLOSET TO THE WATER MAIN EXCEEDING 200'.

### PROJECT CONTACT LIST:

- SURVEYOR OF RECORD**  
 MIKEC  
 MICHAEL E. SMALL, R.L.S.  
 411 N. WEBB  
 WICHITA, KS 67206  
 TEL: (316) 684-9600
- ENGINEER OF RECORD**  
 SCHWAB-EATON  
 ANNE STEPHENS, P.E.  
 8615 W. FRAZIER LANE, SUITE 2  
 WICHITA, KS 67212  
 TEL: (316) 722-4472
- QT REAL ESTATE MANAGER**  
 QUIKTRIP CORPORATION  
 JOE WIM  
 4705 S. 129TH EAST AVE.  
 TULSA, OK 74134  
 TEL: (918) 615-7140  
 FAX: (918) 606-8139
- QT CIVIL PROJECT MANAGER**  
 QUIKTRIP CORPORATION  
 TIM KELLY, P.E.  
 4705 S. 129TH EAST AVE.  
 TULSA, OK 74134  
 TEL: (918) 615-7432  
 FAX: (918) 615-7451



PROJECT NO.: 13.W024

8615 W. Frazier, Suite 2  
 Wichita, Kansas  
 P. 316.722.4472  
 F. 316.722.4479

QuikTrip No. 0322

N. OLIVER AVE. & E. 35TH ST. N.  
 WICHITA, KS.

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 DIVISION: WICHITA  
 VERSION: 001  
 DESIGNED BY: AS  
 DRAWN BY: AL  
 REVIEWED BY: MB

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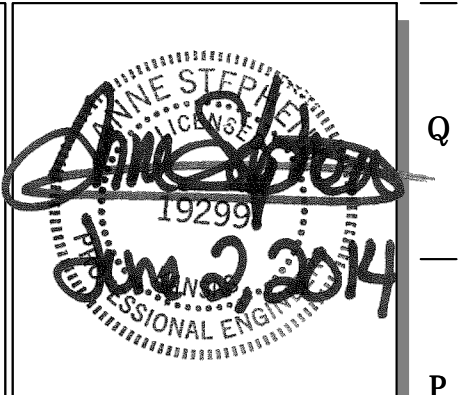
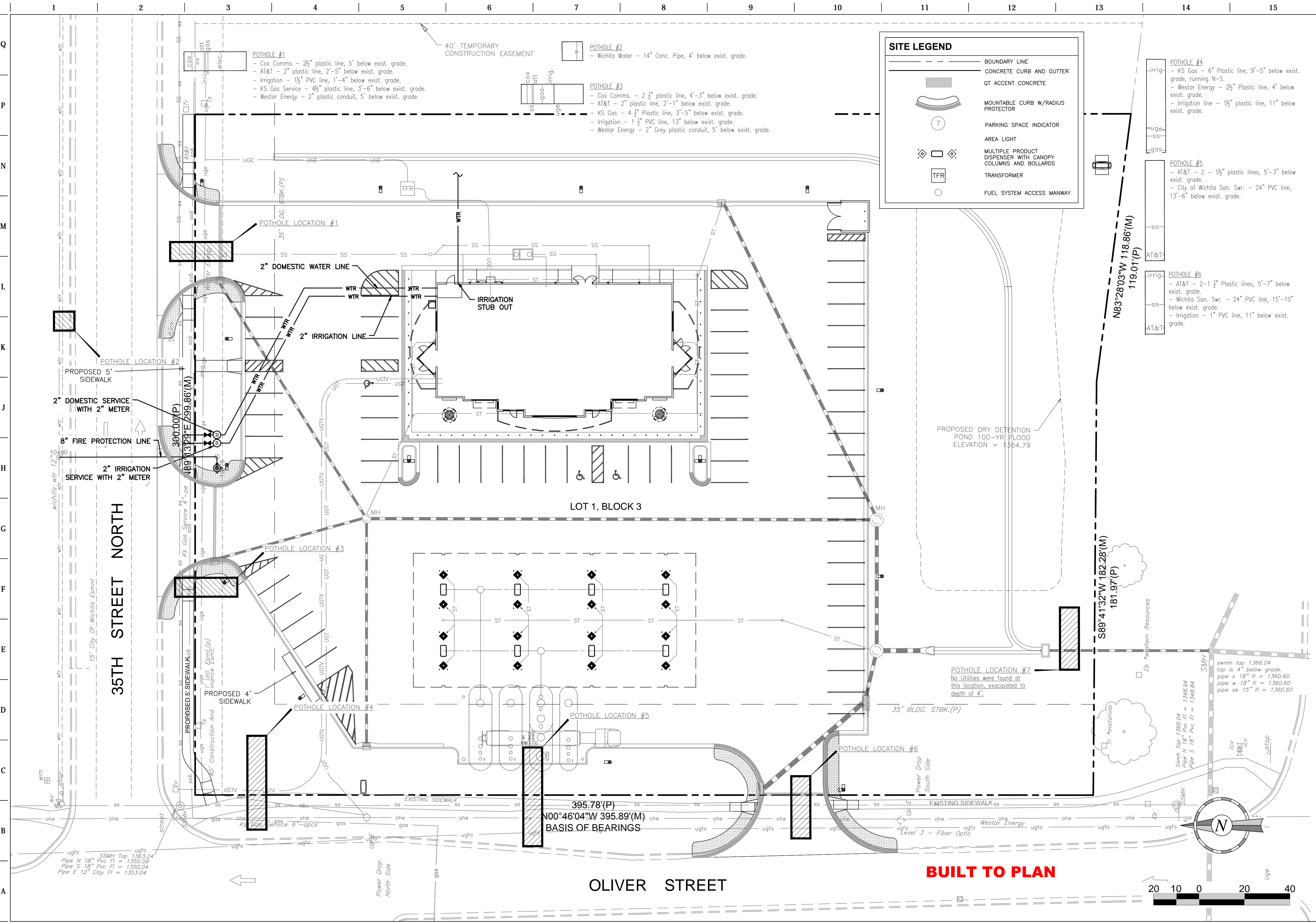
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**COVER SHEET**

SHEET NUMBER:  
1



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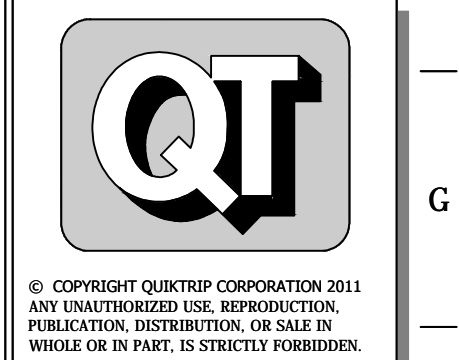
PROJECT NO.: 13.W024

**Schwab Eaton**

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**QuikTrip No. 0322**

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WICHITA, KS.



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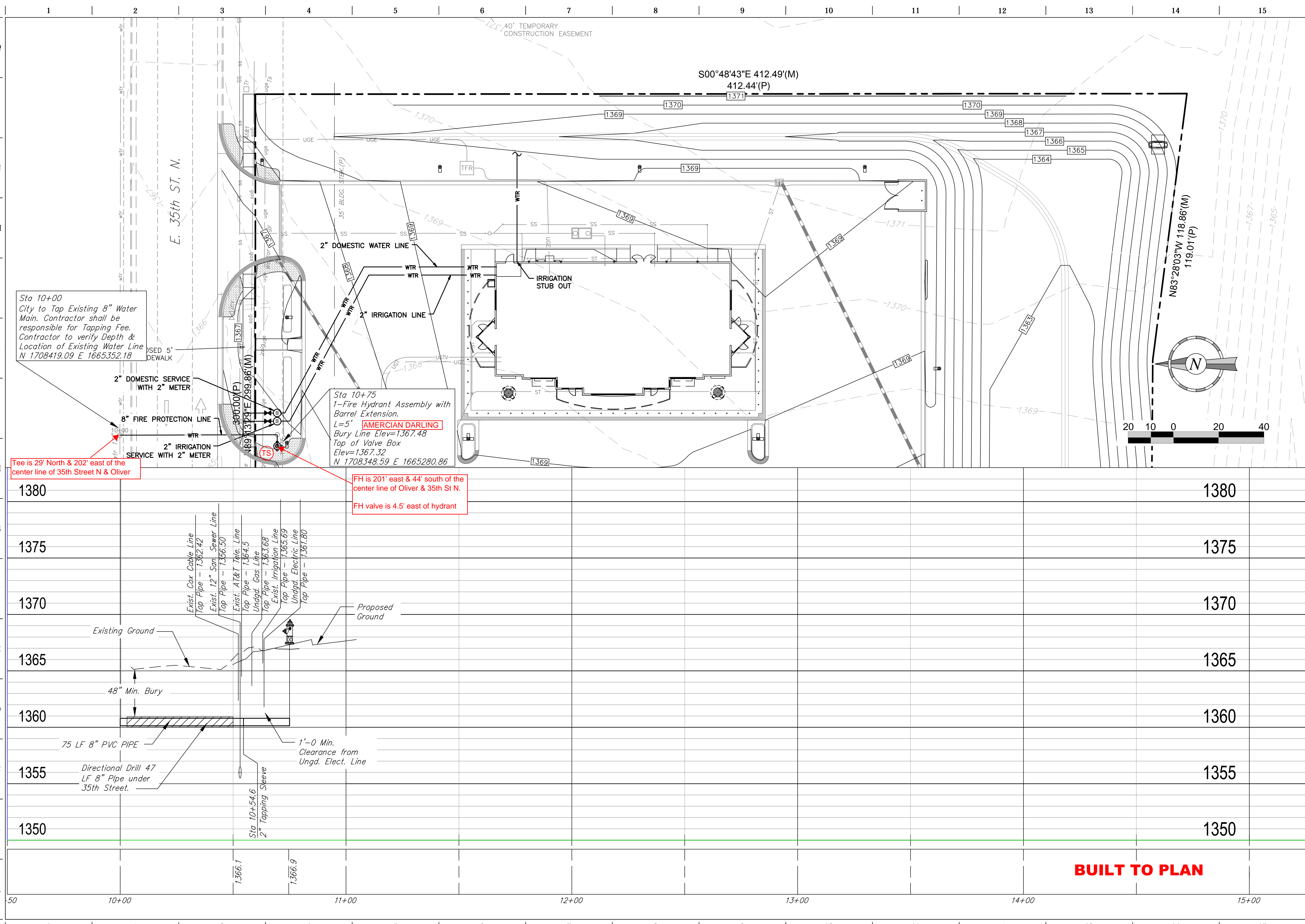
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VERSION: 001  
DESIGNED BY: AS  
DRAWN BY: AL  
REVIEWED BY: TK

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SITE PLAN

SHEET NUMBER:  
2

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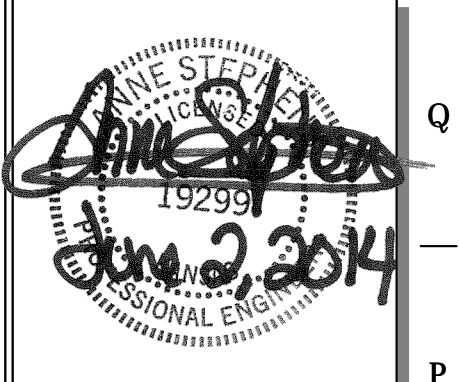


Sta 10+00  
City to Tap Existing 8" Water Main. Contractor shall be responsible for Tapping Fee. Contractor to verify Depth & Location of Existing Water Line  
N 1708419.09 E 1665352.18

Sta 10+75  
1-Fire Hydrant Assembly with Barrel Extension.  
L=5' **AMERICAN DARLING**  
Bury Line Elev=1367.48  
Top of Valve Box Elev=1367.32  
N 1708348.59 E 1665280.86

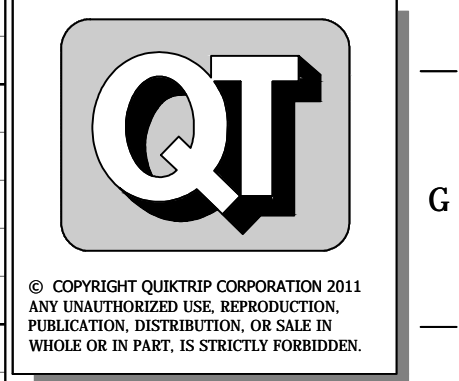
Tee is 29' North & 202' east of the center line of 35th Street N & Oliver

FH is 201' east & 44' south of the center line of Oliver & 35th St N.  
FH valve is 4.5' east of hydrant



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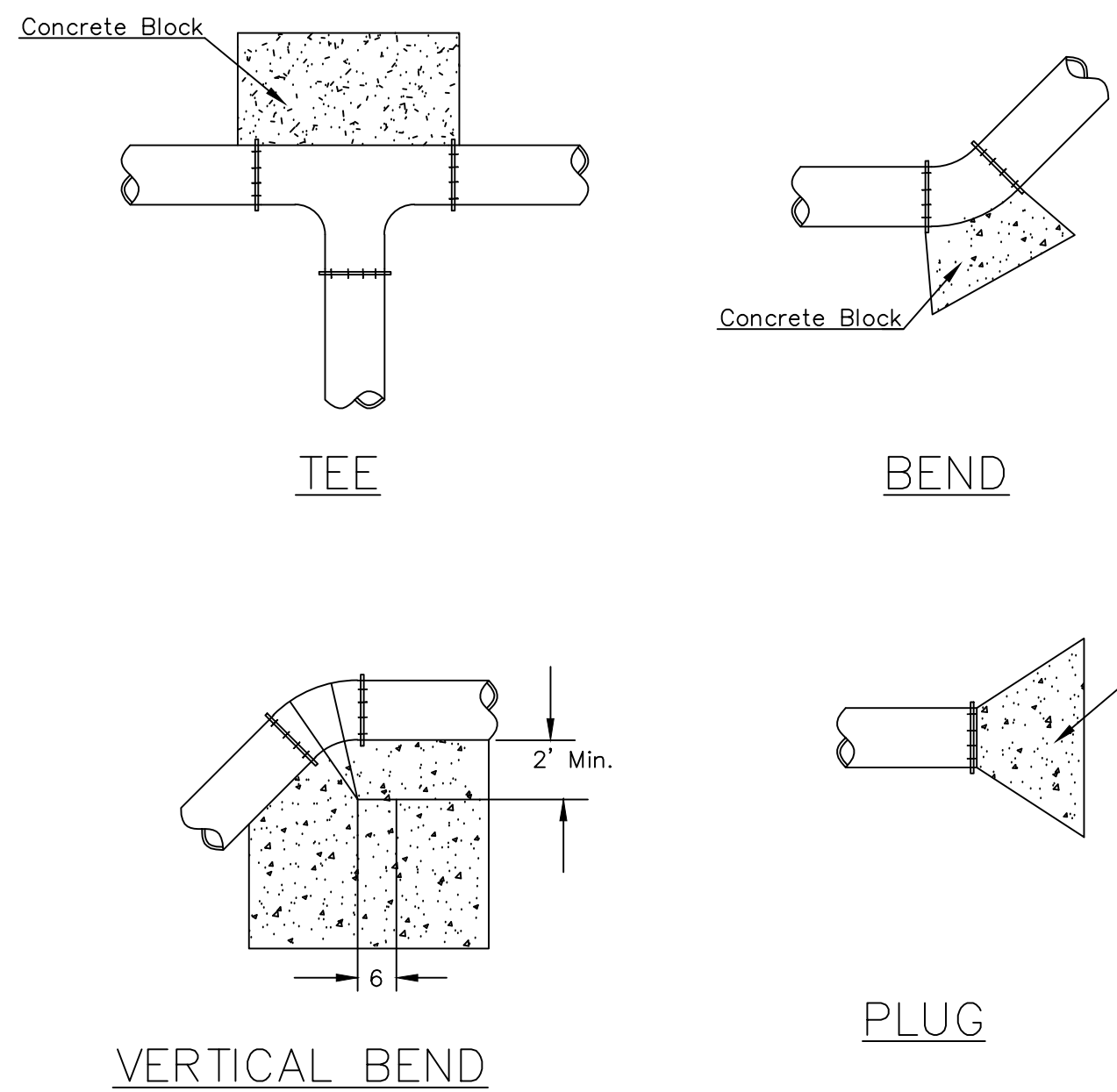
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PLAN & PROFILE

SHEET NUMBER:  
**3**

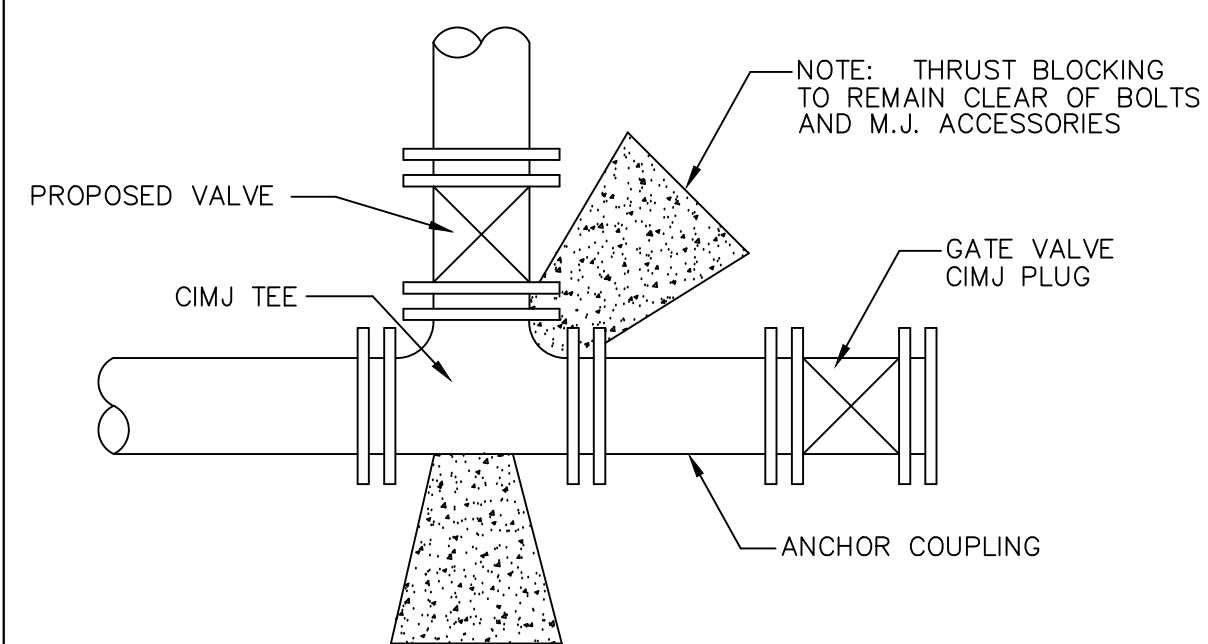
**BUILT TO PLAN**

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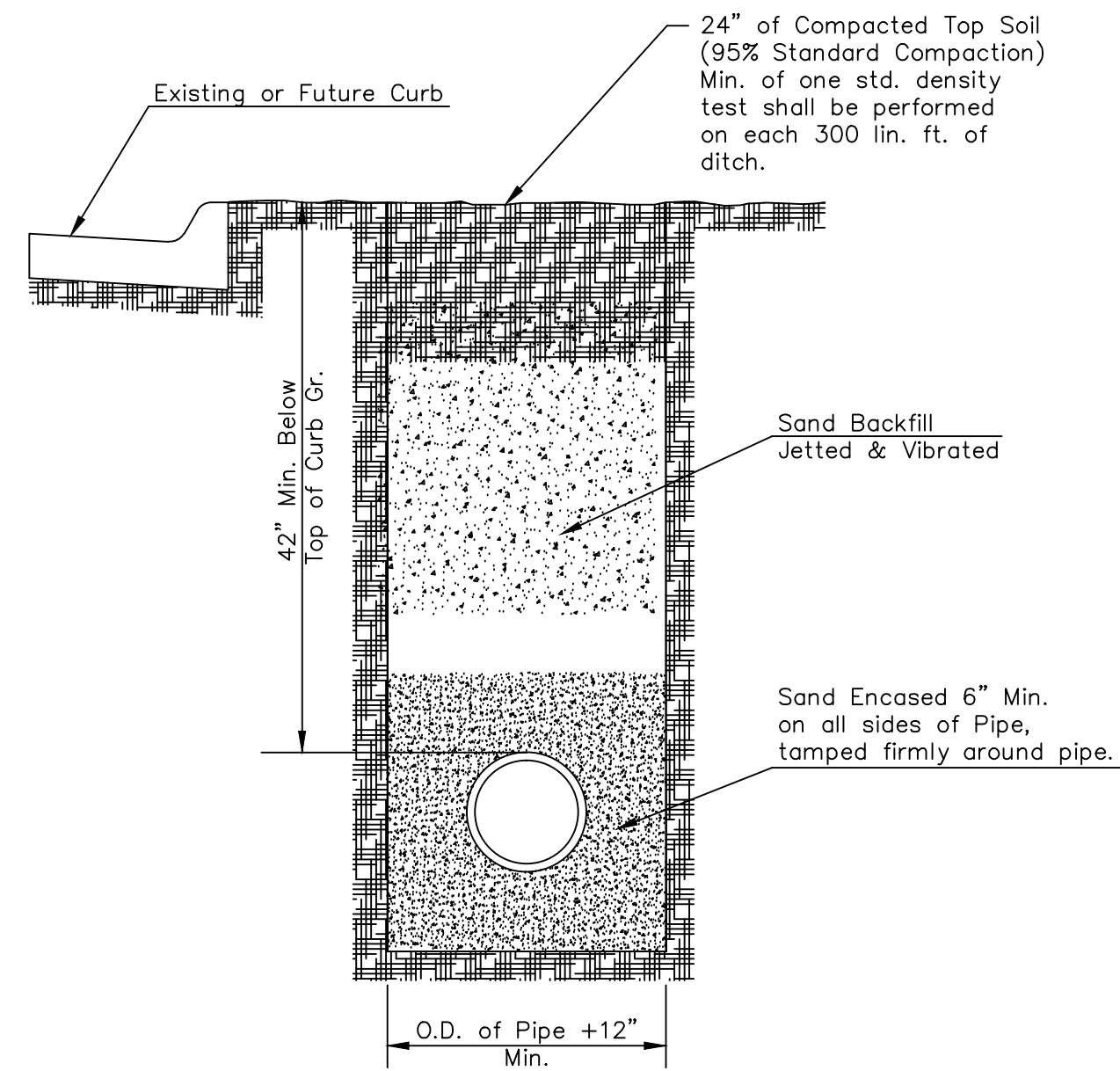


PIPE SIZE	THRUST AT FITTINGS IN TONS-AT 150#/IN <sup>2</sup> P					
	PLUG	90°	45°	22 1/2°	11 1/4°	TEE
6"	2.8	3.95	2.15	1.09	.55	2.8
8"	4.9	6.95	3.75	1.90	.96	4.9
12"	11.4	16.1	8.75	4.45	2.25	11.4
16"	20.15	28.5	15.4	7.85	3.95	20.15
20"	31.15	44.0	23.85	12.15	6.10	31.15
24"	44.55	63.0	34.1	17.4	8.75	44.55

TYPICAL THRUST BLOCKS



KEY BLOCK DETAIL

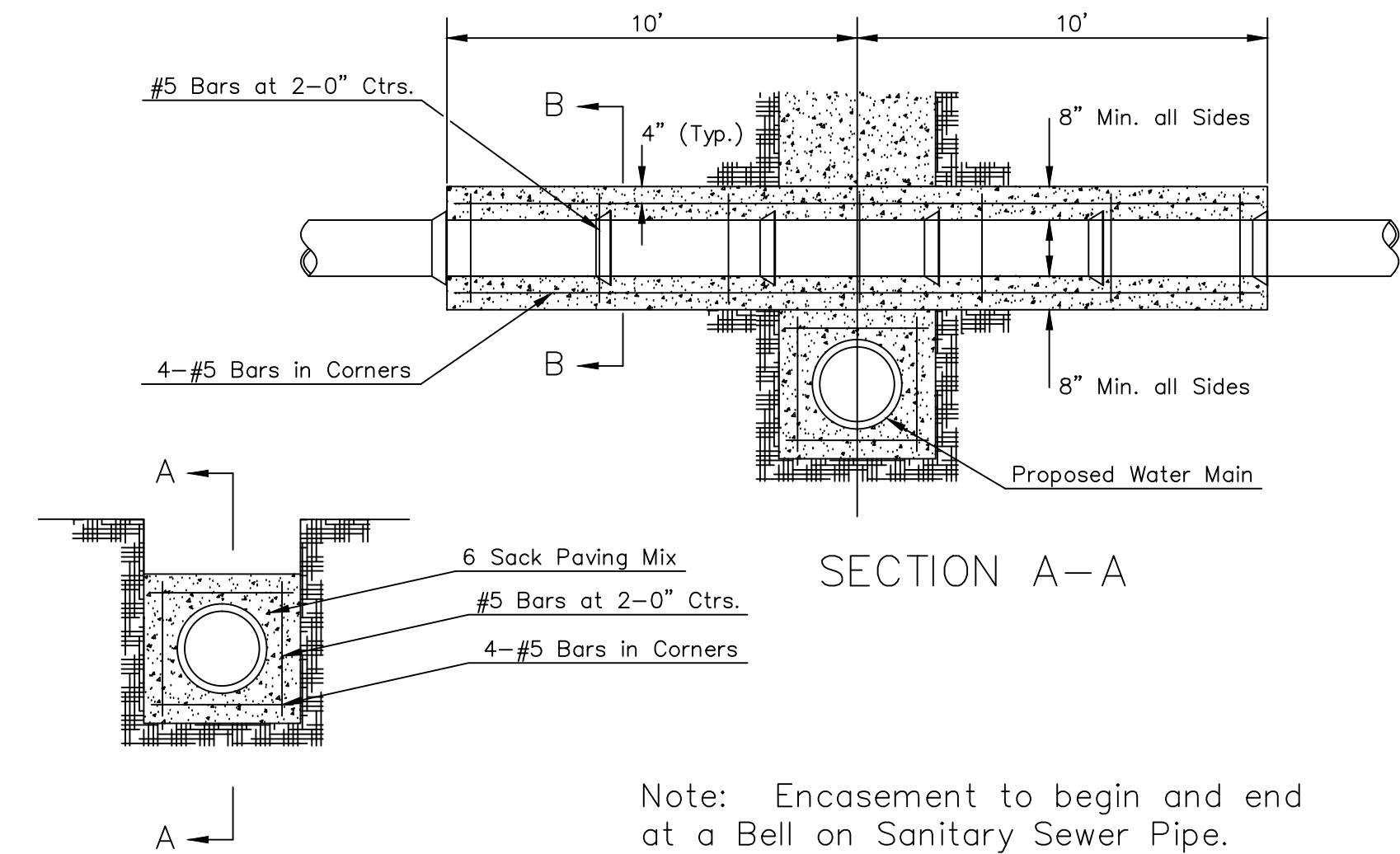


SETTLEMENT & COMPACTION ON CITY AND COUNTY ROAD RIGHT-OF-WAY EXCEPT UNDER PAVEMENT

Standard Density Test, as described in the latest addition of ASTM D698, shall be performed to verify the above requirements to the Satisfaction of the Bel Aire City Engineer. All testing costs shall be included in the unit price bid for the pipe in place.

When laying under paving, parallel with the centerline of the street, a minimum of one (1) Standard Density Test shall be performed on each 300 lineal feet of ditch.

PAVEMENT REPLACEMENT & DITCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS

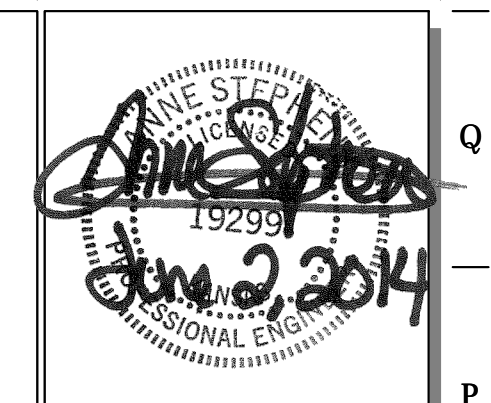


REINFORCED CONCRETE ENCASUREMENT OF SANITARY SEWER

Standard Density Test, as described in the latest addition of ASTM D698, shall be performed to verify the above requirements to the Satisfaction of the Sedgwick County Director of Public Works. All testing costs shall be included in the unit price bid for the pipe in place.

When laying under paving, parallel with the centerline of the street, a minimum of one (1) Standard Density Test shall be performed on each 300 lineal feet of ditch.

PAVEMENT REPLACEMENT & DITCH COMPACTION UNDER EXISTING AND PROPOSED COUNTY ROADS



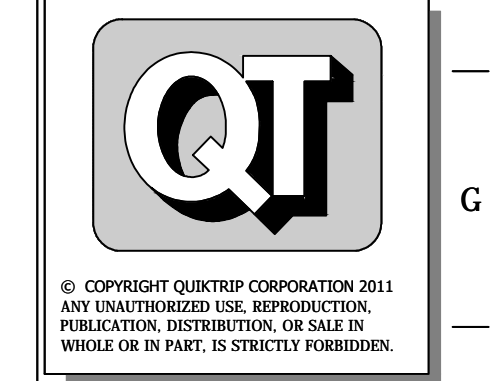
PROJECT NO.: 13.W024

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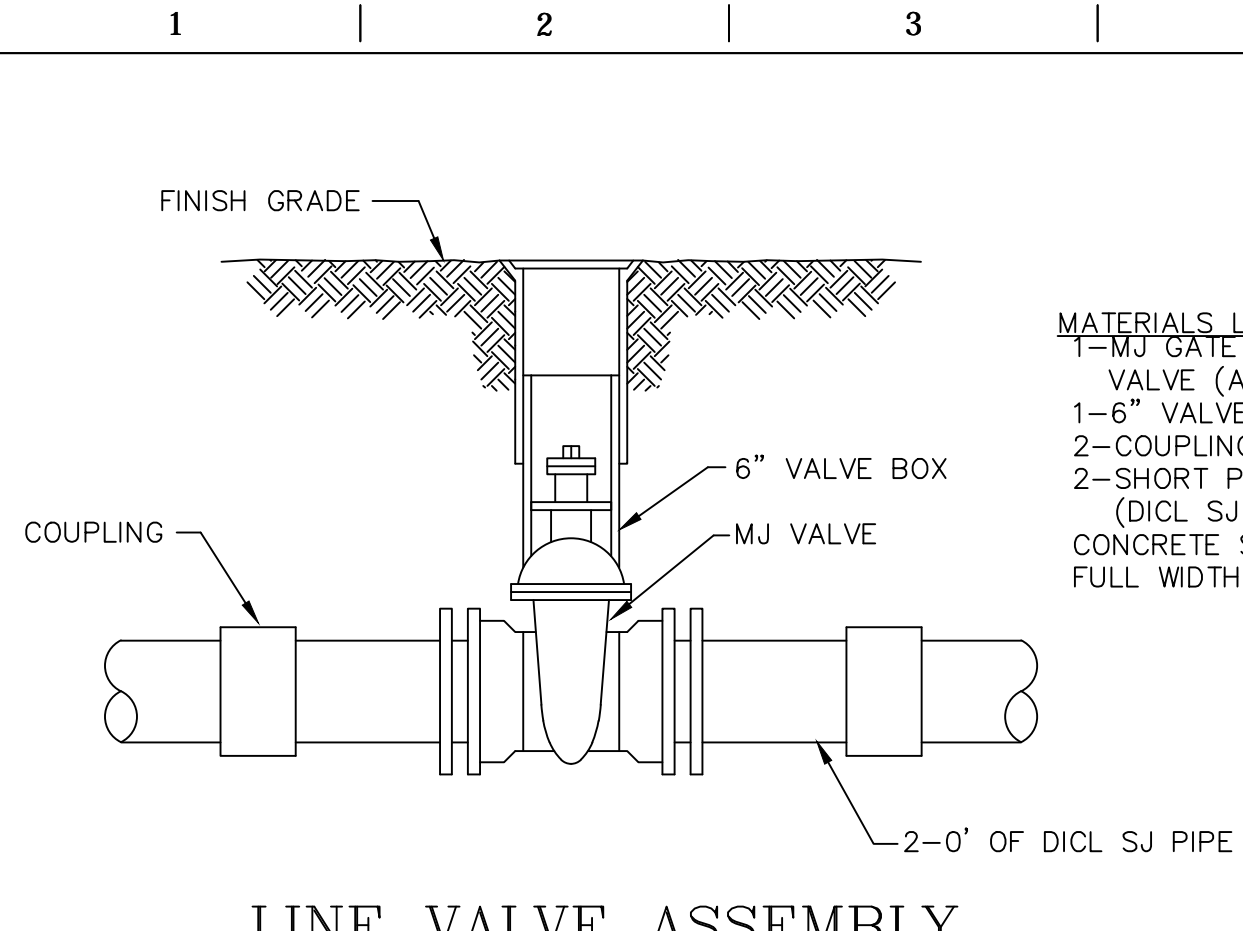
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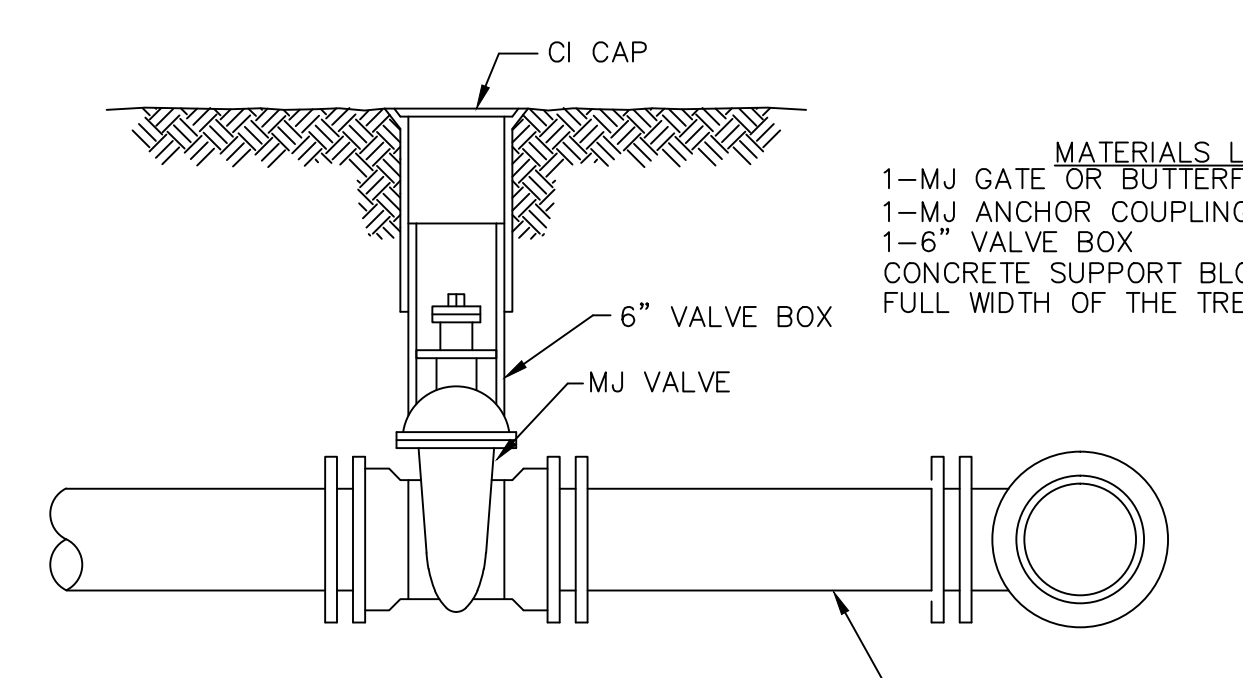
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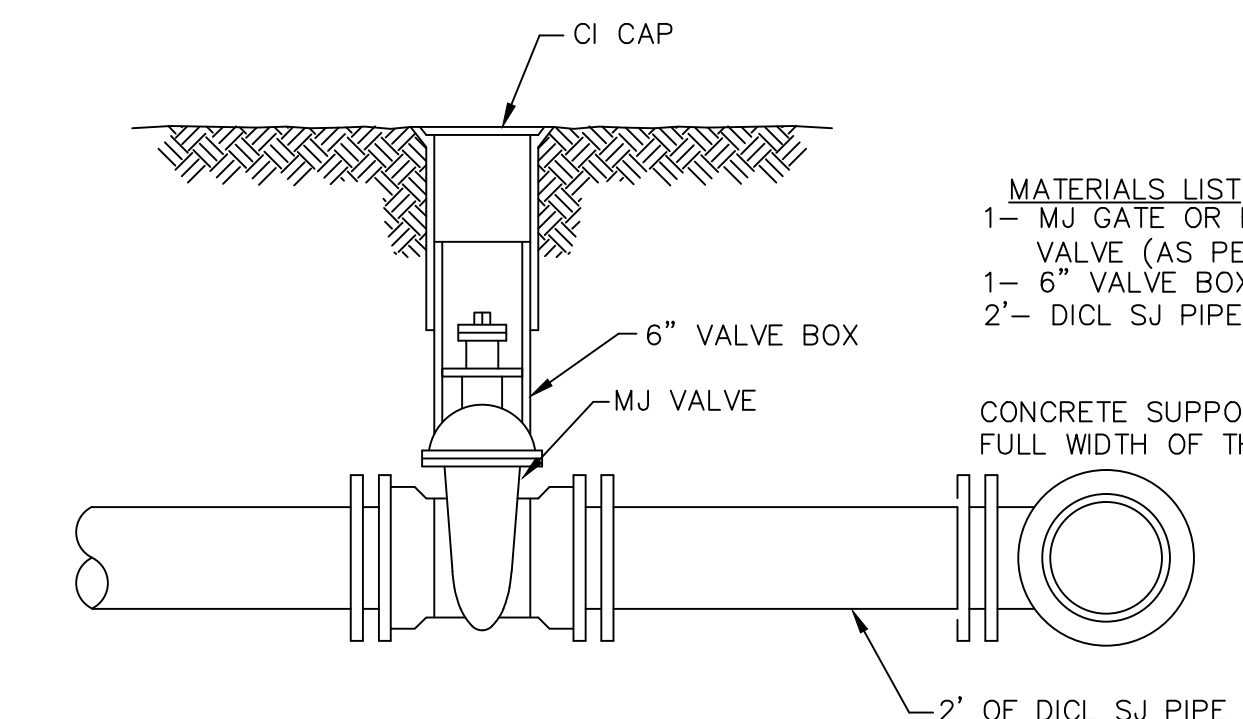
- MATERIALS LIST**  
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)  
 1-6" VALVE BOX  
 2-COULINGS  
 2-SHORT PCS. (D.I.C.L. SJ PIPE)  
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

**LINE VALVE ASSEMBLY**



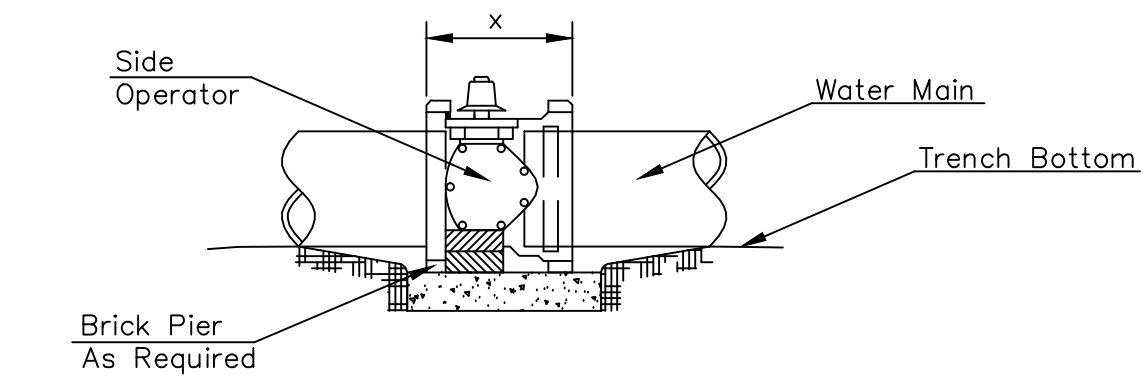
- MATERIALS LIST**  
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)  
 1-MJ ANCHOR COUPLING (12" OR SMALLER)  
 1-6" VALVE BOX  
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

**ANCHORED VALVE ASSEMBLY**



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

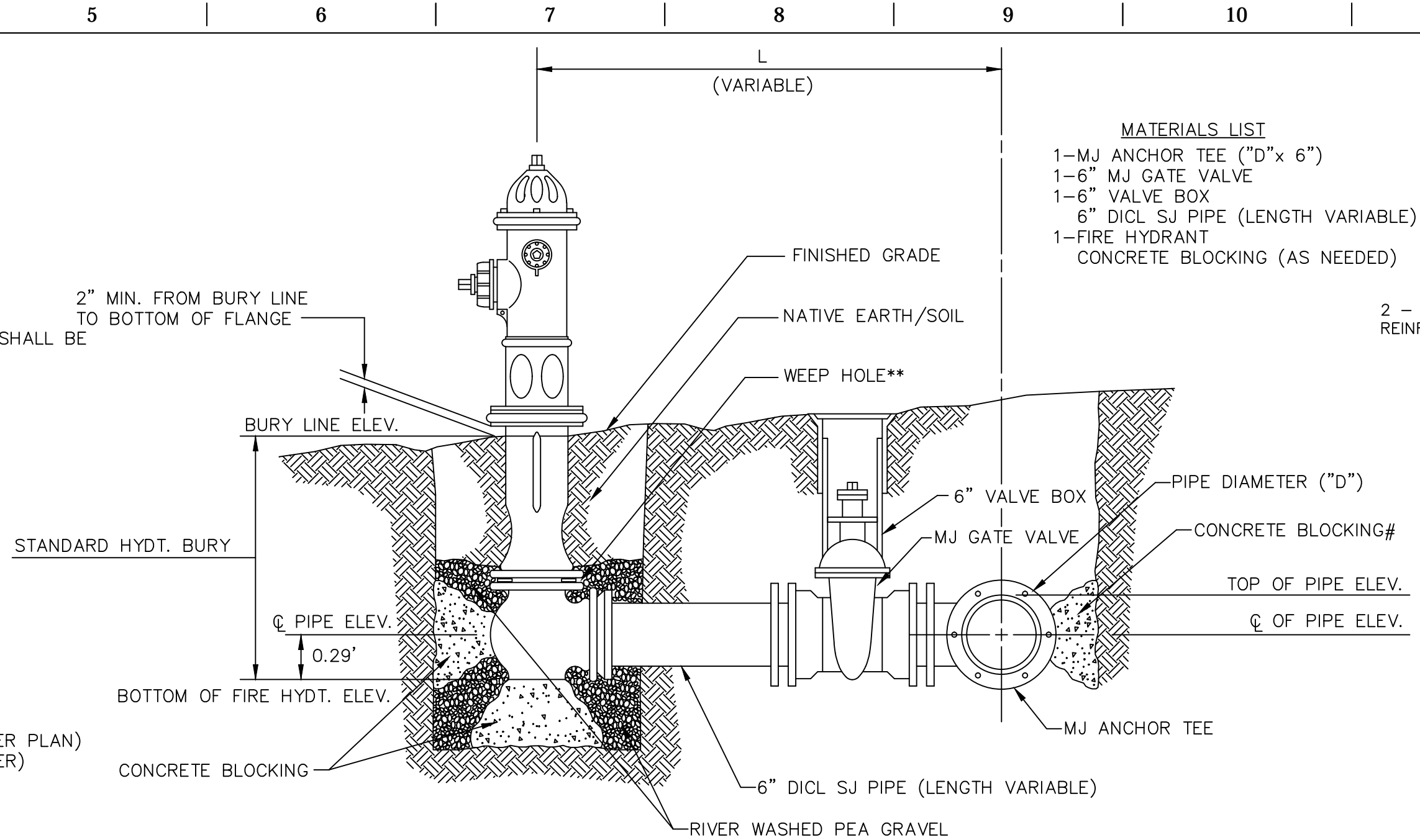
**VALVE ASSEMBLY**



**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 Bel Aire Std. Specifications.
- Conc. Support Block to be full width of trench.

**CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION**



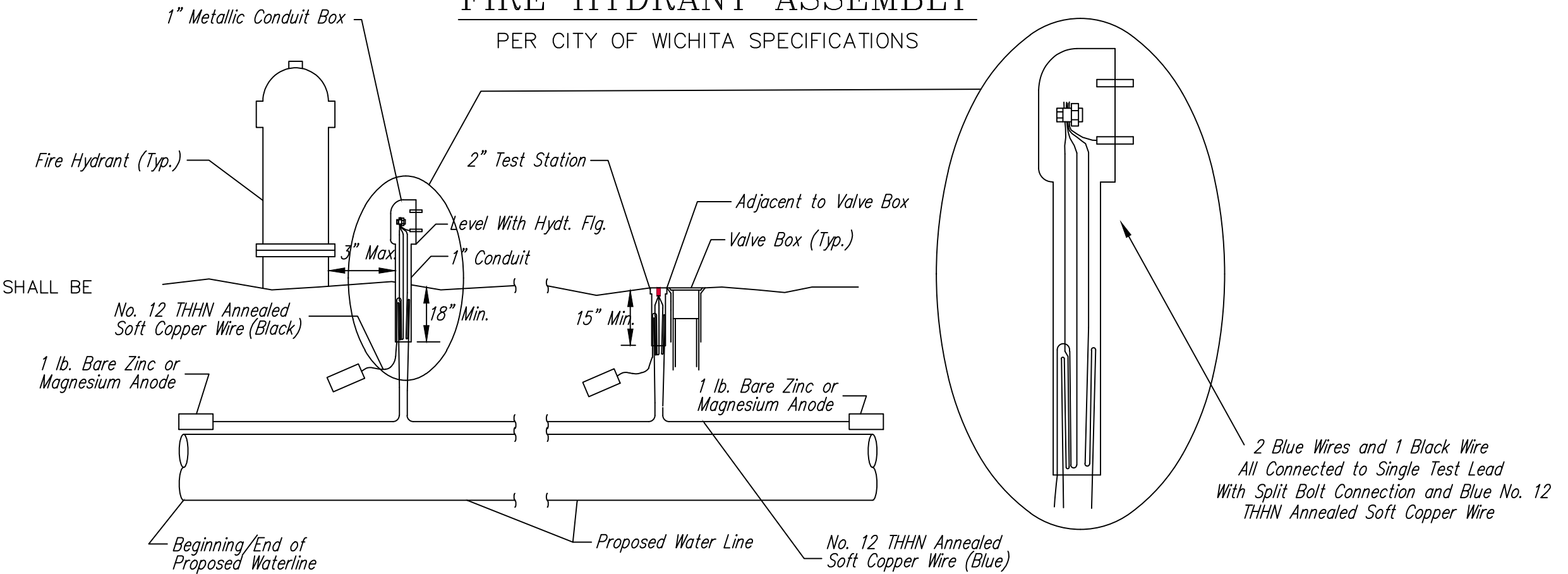
- MATERIALS LIST**  
 1-MJ ANCHOR TEE ("D"x 6")  
 1-6" MJ GATE VALVE  
 1-6" VALVE BOX  
 6" D.I.C.L. SJ PIPE (LENGTH VARIABLE)  
 1-FIRE HYDRANT  
 CONCRETE BLOCKING (AS NEEDED)

**FIRE HYDRANTS REQUIRED**

STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
10+75	1367.48	1360.80	5.0

\*\* 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' BUT LESS THAN 7', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY.

**FIRE HYDRANT ASSEMBLY**  
 PER CITY OF WICHITA SPECIFICATIONS



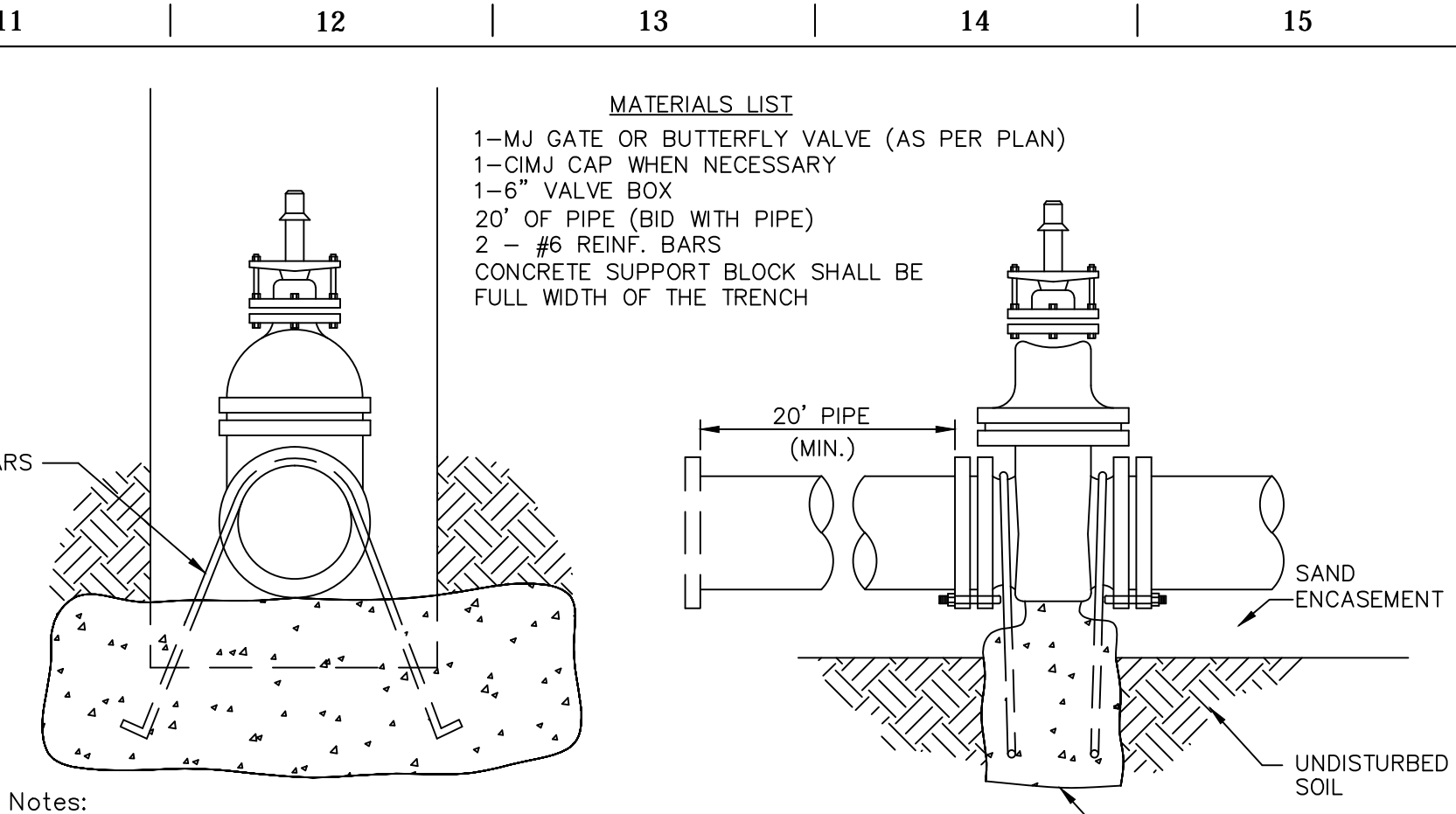
**TRACER WIRE**  
 Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. Split-bolt connectors shall be used 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 12PS3B 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



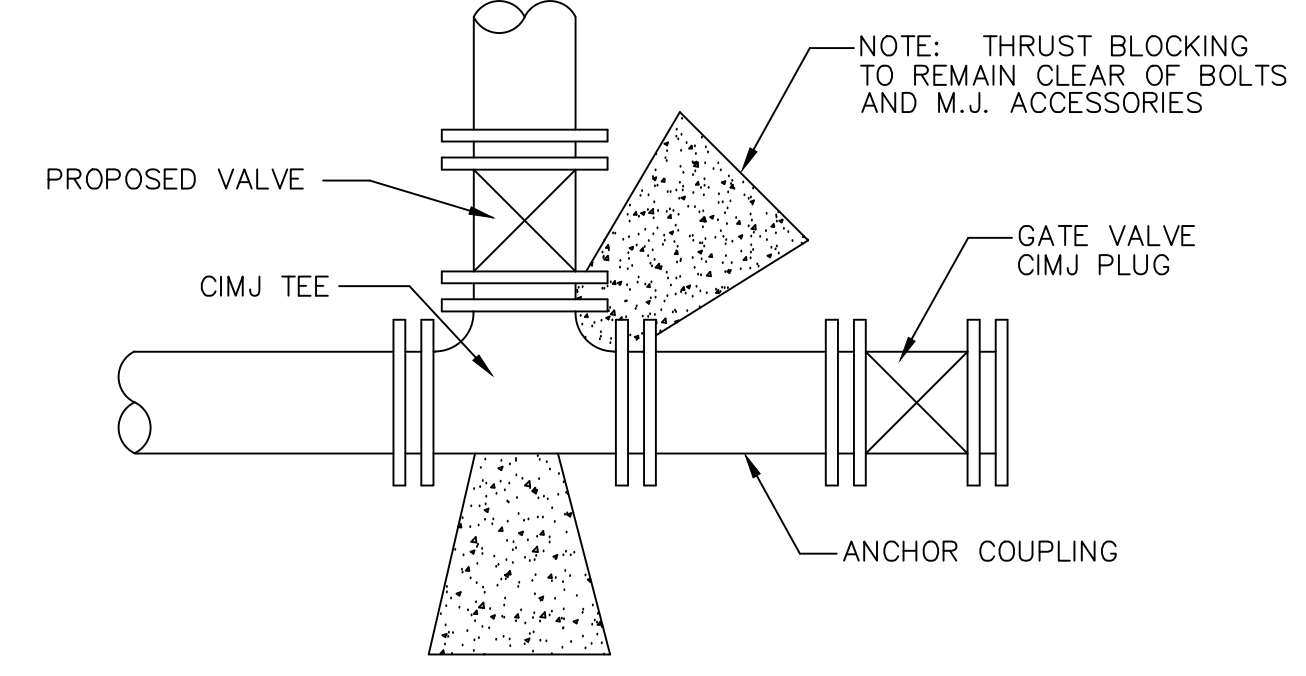
- MATERIALS LIST**  
 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)  
 1-CIMJ CAP WHEN NECESSARY  
 1-6" VALVE BOX  
 20' OF PIPE (BID WITH PIPE)  
 2 - #6 REINF. BARS  
 CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

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.

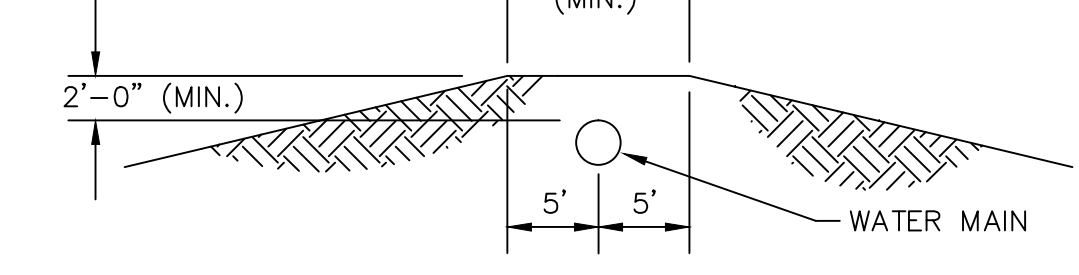
**THRUST AT VALVES**

VALVE	THRUST AT 150 #/in <sup>2</sup>
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

**ANCHORED VALVE ASSEMBLY, SPECIAL**

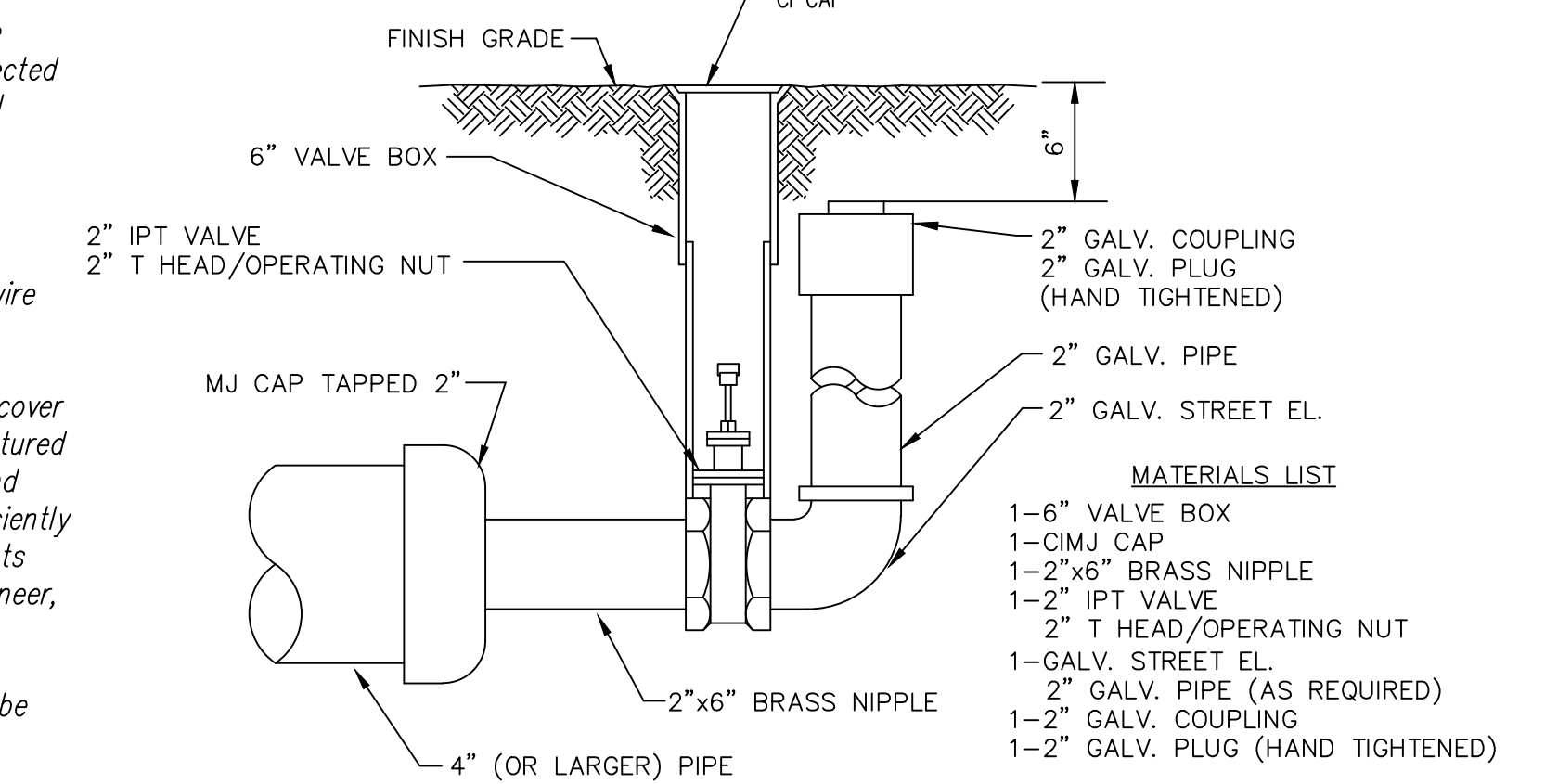


**KEY BLOCK DETAIL**



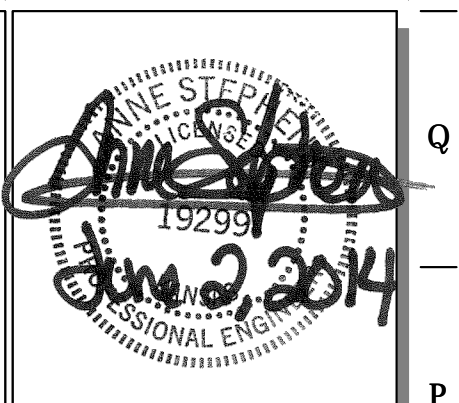
**PROTECTIVE FILL DETAIL**

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)



- MATERIALS LIST**  
 1-6" VALVE BOX  
 1-CIMJ CAP  
 1-2"x6" BRASS NIPPLE  
 1-2" IPT VALVE  
 2" T HEAD/OPERATING NUT  
 1-GALV. STREET EL.  
 2" GALV. PIPE (AS REQUIRED)  
 1-2" GALV. COUPLING  
 1-2" GALV. PLUG (HAND TIGHTENED)

**2" BLOWOFF ASSEMBLY**



PROJECT NO.: 13.W024  
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**QT**

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 DRAWN BY: AL  
 REVIEWED BY: TK

REV.	DATE	DESCRIPTION	ORIGINAL ISSUE DATE:

**SHEET TITLE:**  
 DETAILS

**SHEET NUMBER:**  
 5

