

**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**

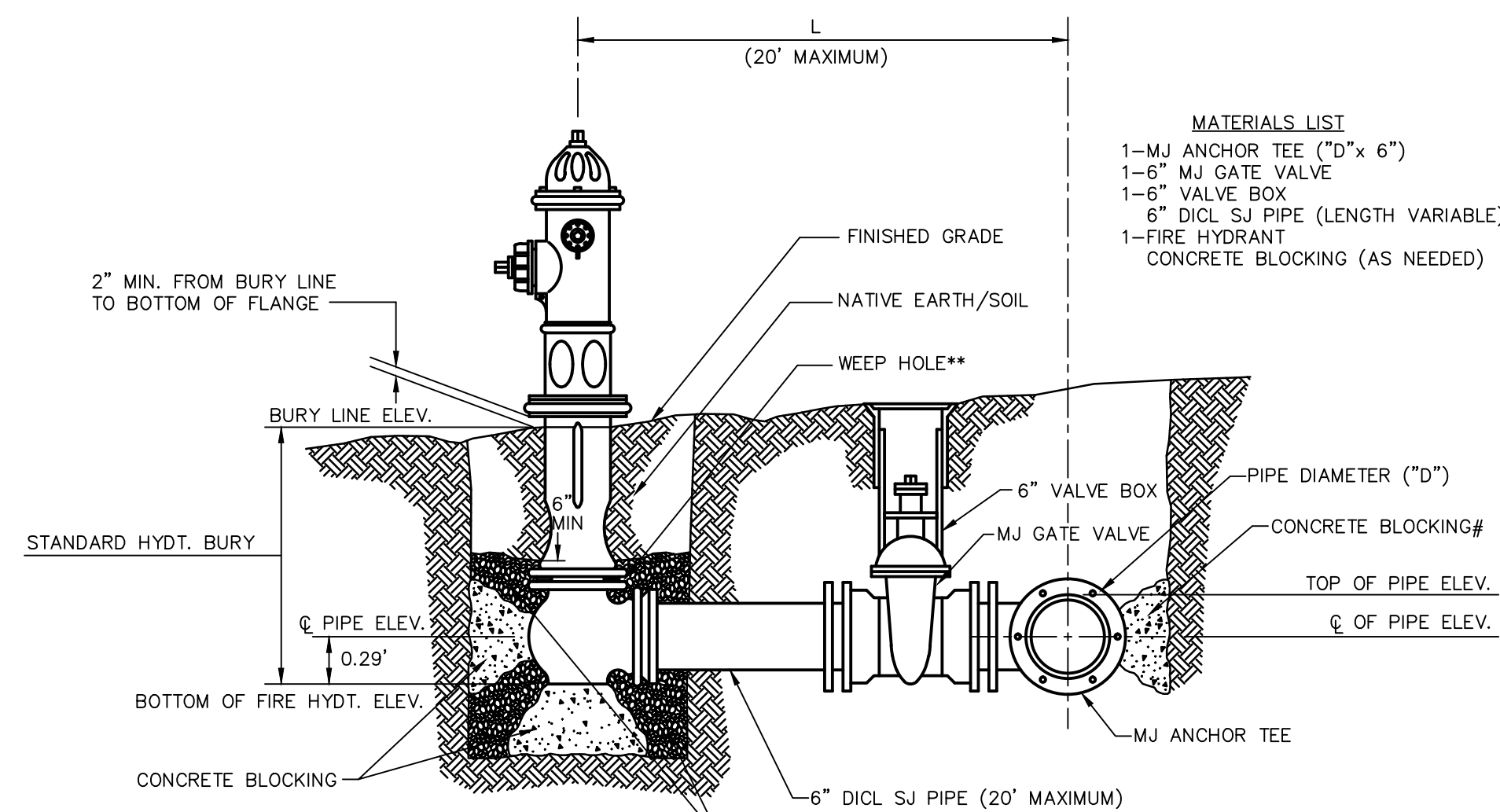
The test station for fire hydrant applications shall be a 1 inch galvanized conduit style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station 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 taps 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



\*\* 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.

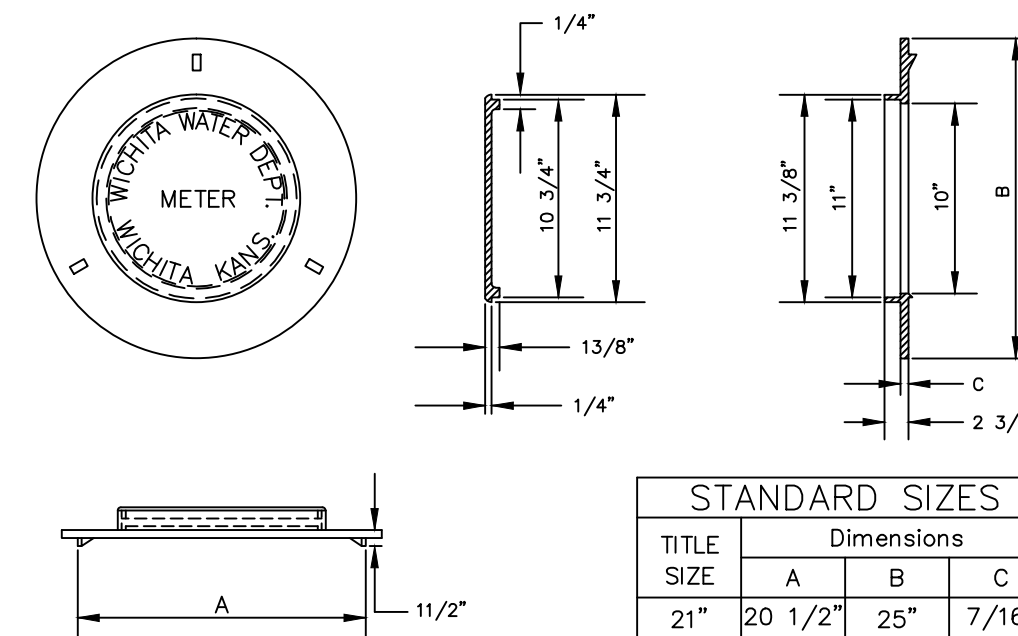
\* IF HYDRANT BURY IS IN EXCESS OF 5', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY.

## MINIMUM 1 CU. FT. PER WEEP HOLE

PEA GRAVEL ## GRADATION REQUIREMENT	
SIEVE SIZE	SPECIFICATION % RETAINED
3/4"	0 - 5
1/2"	5 - 35
3/8"	40 - 85
# 4	95 - 100
# 8	97 - 100

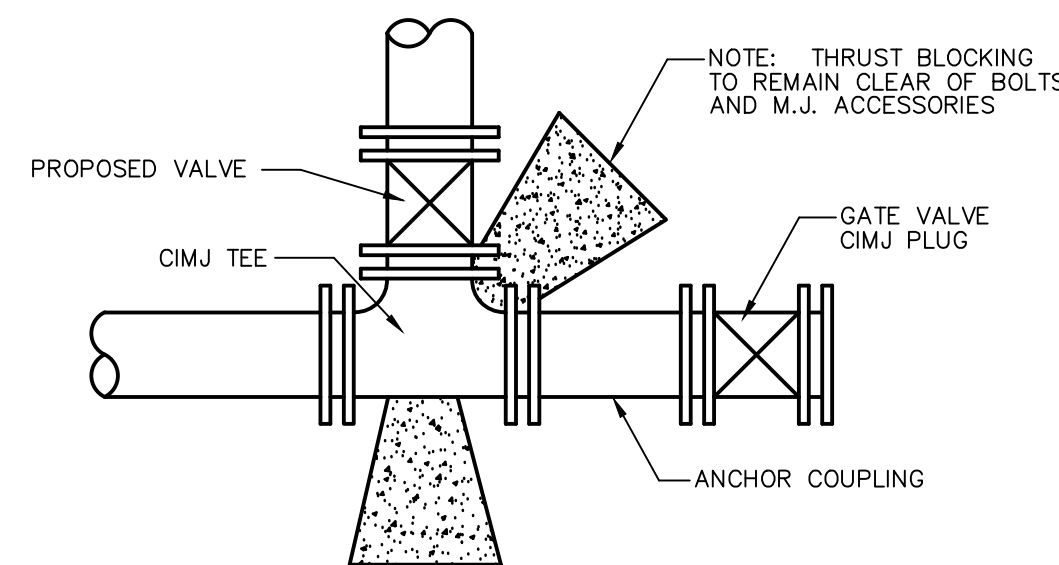
**FIRE HYDRANT ASSEMBLY**

PER CITY OF WICHITA SPECIFICATIONS

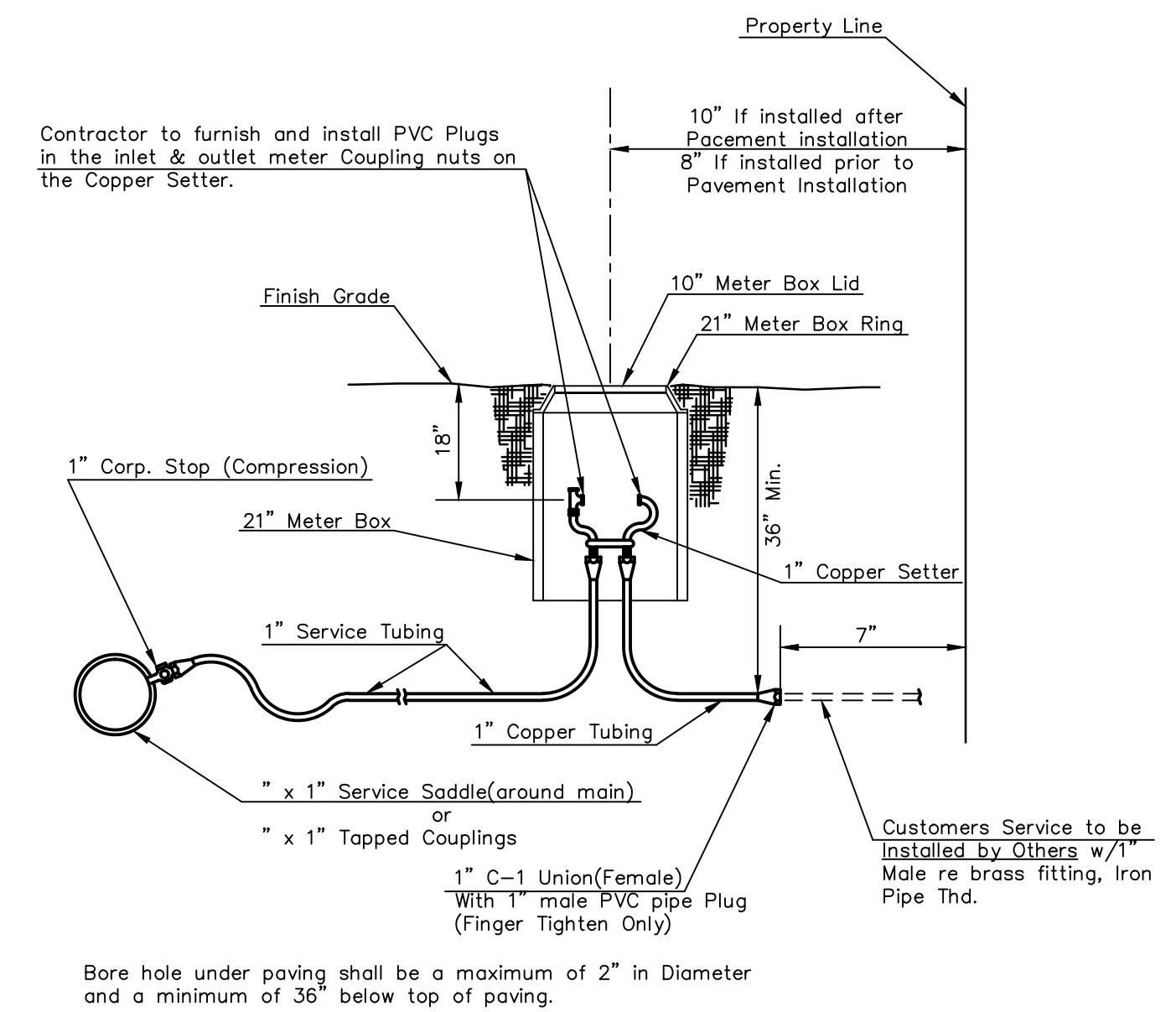


Other Approved Ring And Lids: Ford Meter Box Co. Inc. 21" Ring & Lid Catalog No. C-4

**RING & LID FOR METER VAULTS**



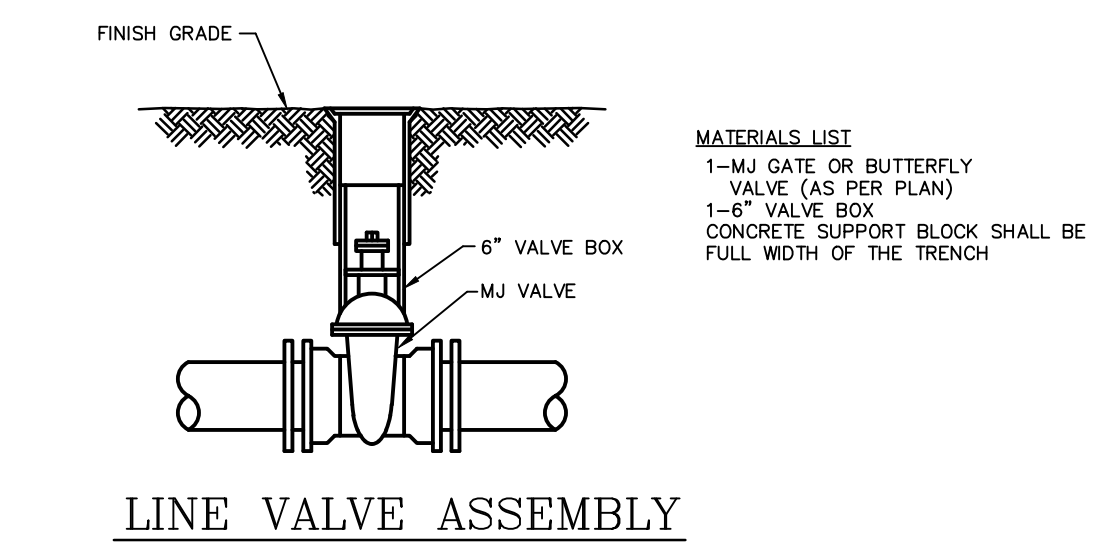
**KEY BLOCK DETAIL**



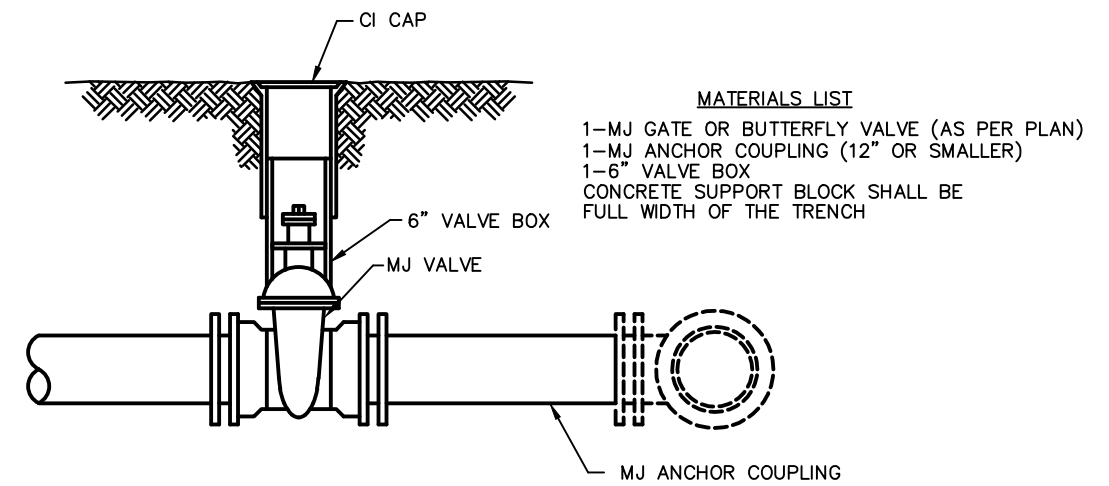
Note: Service Saddles are not required on top of 8" mains or larger

Meter boxes will be located on each lot to be served, as indicated in the SPECIAL PROVISIONS

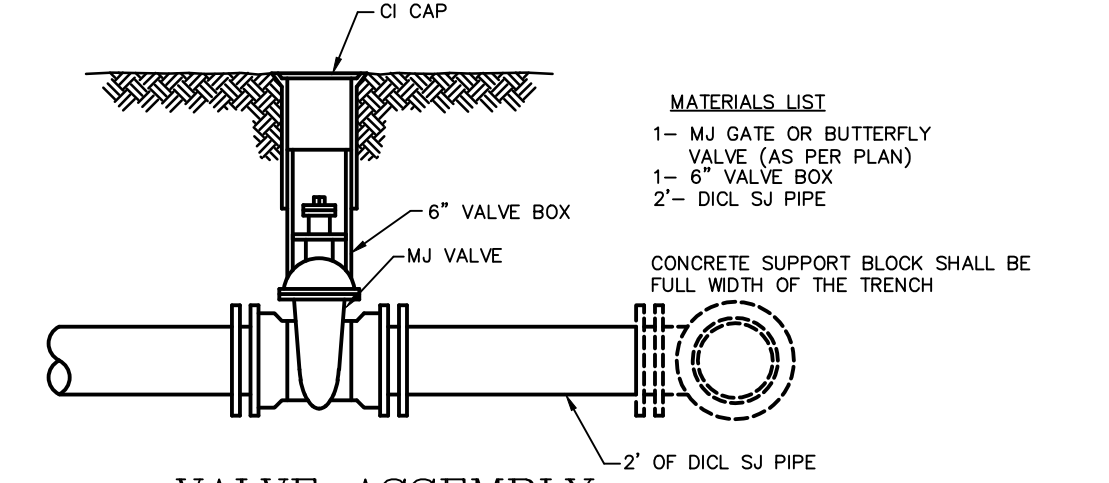
**TYPICAL METER SETTING LONG SERVICE 1"**



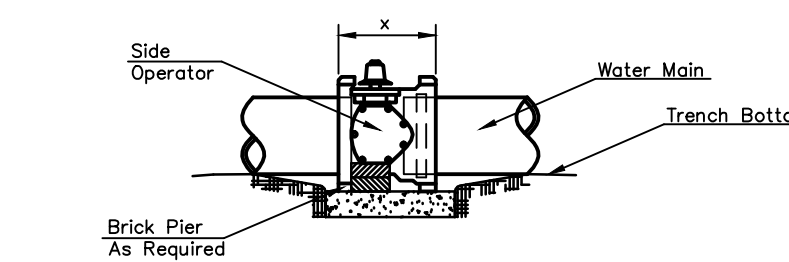
**LINE VALVE ASSEMBLY**



**ANCHORED VALVE ASSEMBLY**



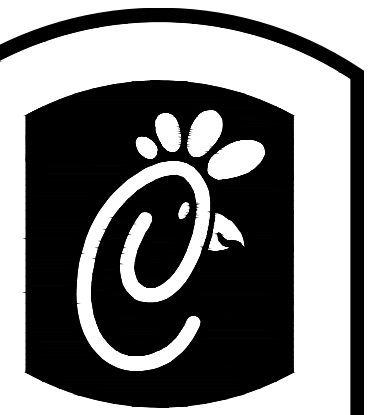
**VALVE ASSEMBLY**



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

**CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION**



**Chick-fil-A**

5200 Buffington Rd.  
Atlanta Georgia,  
30349-2998

**Revisions:**

Mark Date By

△

Mark Date By

△

Mark Date By

△

**GBC DESIGN, INC.**  
 3378 W. Market St. Akron, OH 44333-3386  
 Phone 330-836-0228 Fax 330-836-5792

STORE #3015  
FSR S08 N-144  
Purchase Parcel

10515 W. 21st St.  
Wichita, KS  
67212

**SHEET TITLE**  
**WATER LINE**  
**DETAIL**  
**SHEET**

DWG EDITION 07.1  
REVISION 1

Job No. : 44001A

Store : 3015

Date : 10/14/11

Drawn By : DKG

Checked By: ASW

Sheet

**PS-2.1**