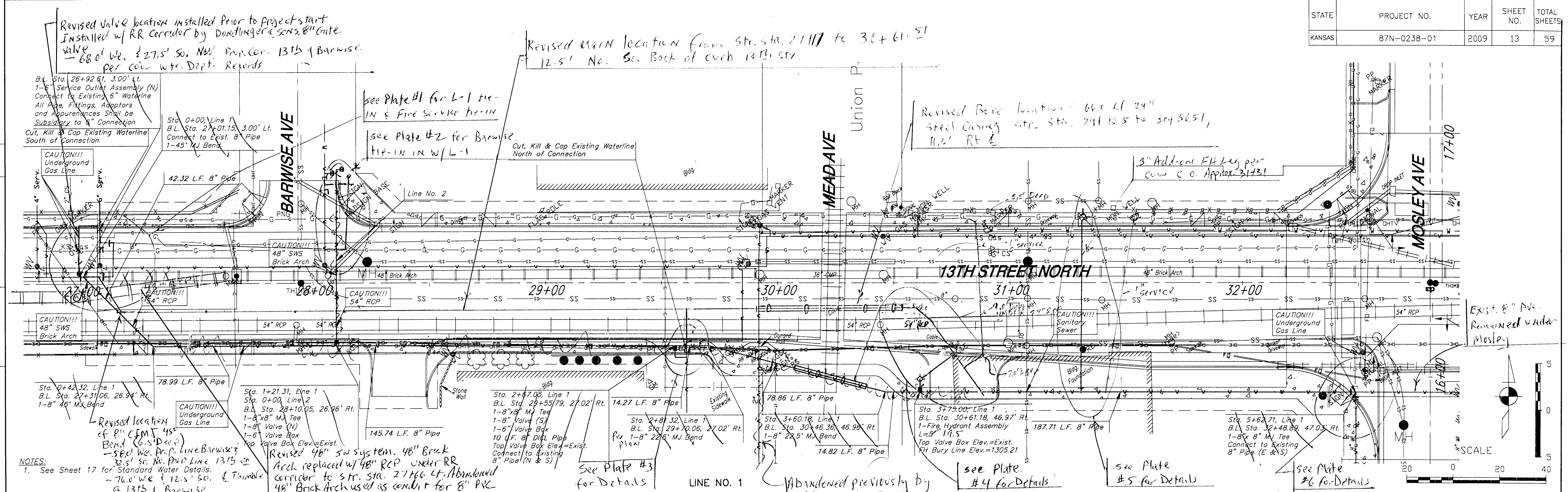


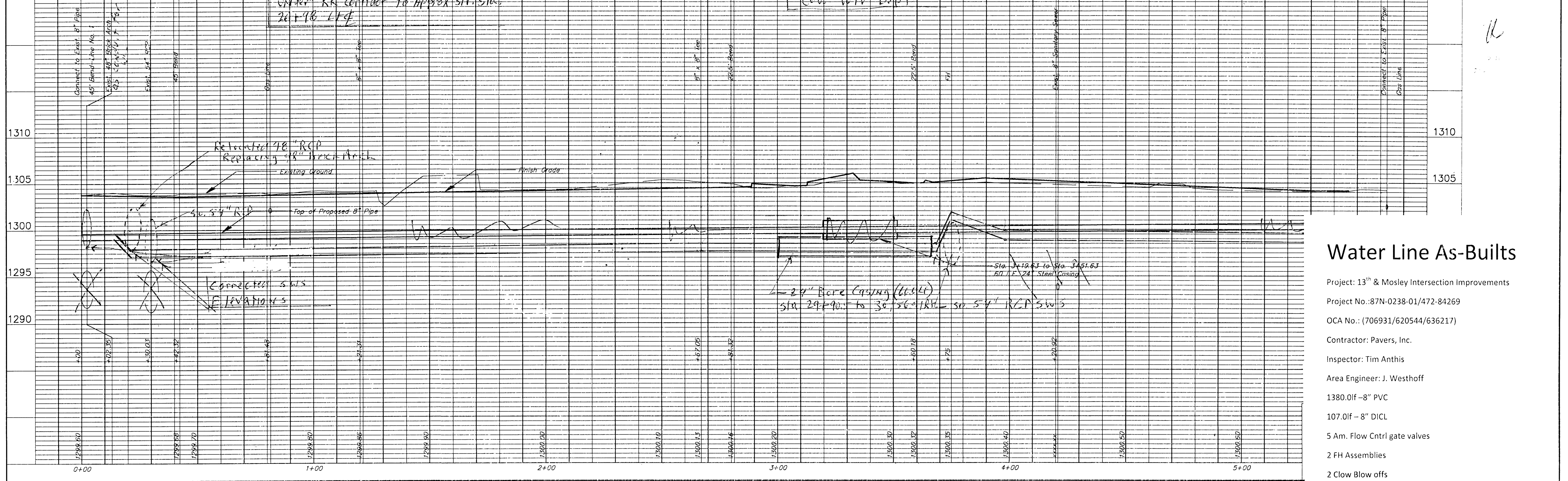
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87N-0238-01	2009	13	59

DATE	BY

REFERENCES NOTED	REFERENCES CHECKED



**NOTES:**  
 1. See Sheet 17 for Standard Water Details.  
 Revised valve location installed prior to project start. Installed w/ RR Corridor by Donlinger & Sons, 8\"/>

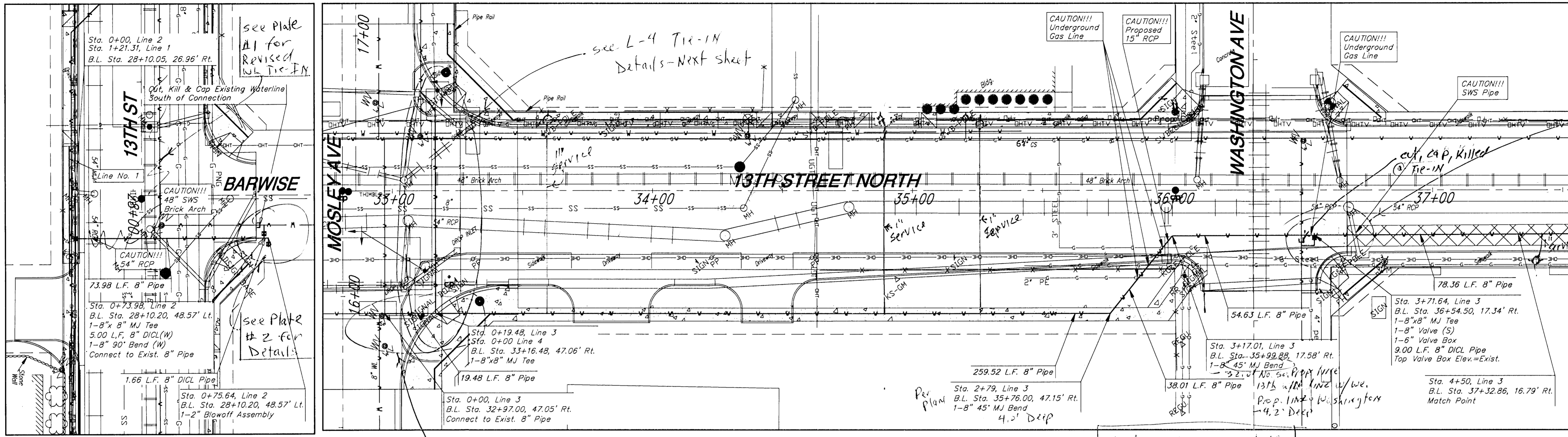


### Water Line As-Builts

- Project: 13<sup>th</sup> & Mosley Intersection Improvements
- Project No.: 87N-0238-01/472-84269
- OCA No.: (706931/620544/636217)
- Contractor: Pavers, Inc.
- Inspector: Tim Anthis
- Area Engineer: J. Westhoff
- 1380.0lf - 8\"/>
- 107.0lf - 8\"/>
- 5 Am. Flow Cntrl gate valves
- 2 FH Assemblies
- 2 Clow Blow offs

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87N-0238-01	2009	14	59

DATE
BY
REFERENCES NOTED
REFERENCES CHECKED

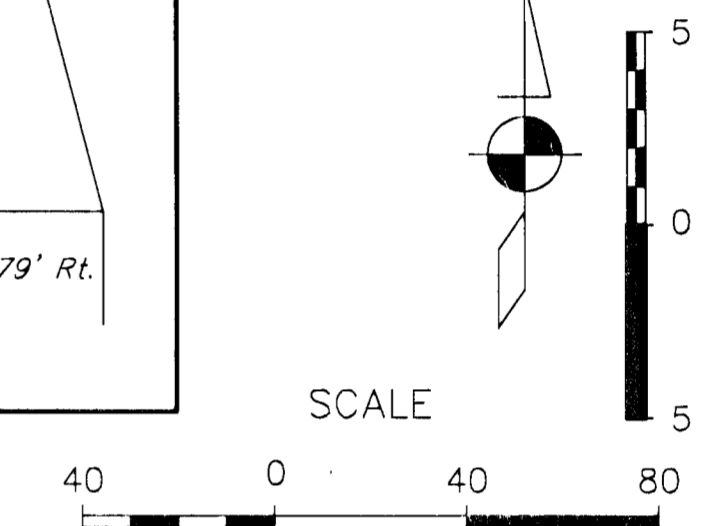


see Plate #8 for tie IN info.

See Plate #7 for Details to L-3 Tie-IN to the West and L-4 to the North

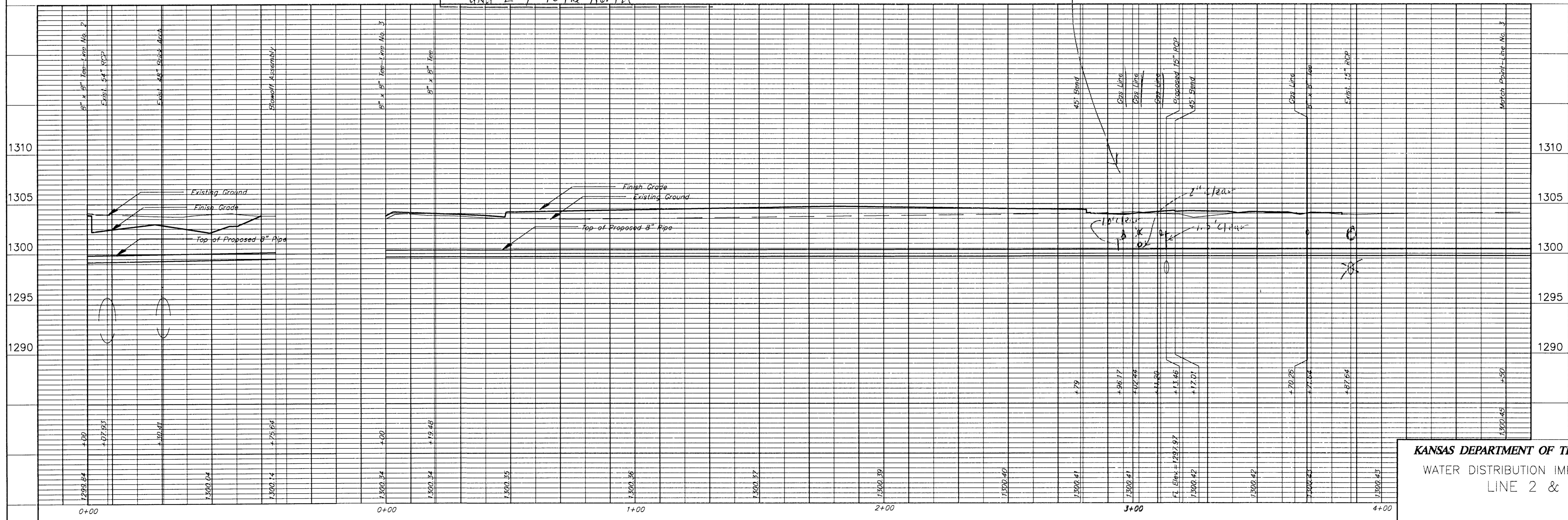
Note close gas line clearances

NOTES:  
1. See Sheet 17 for Standard Water Details.



LINE NO. 2

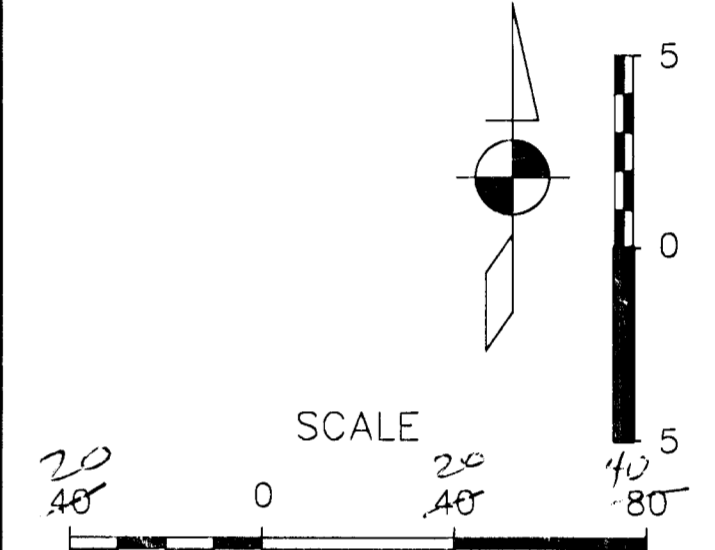
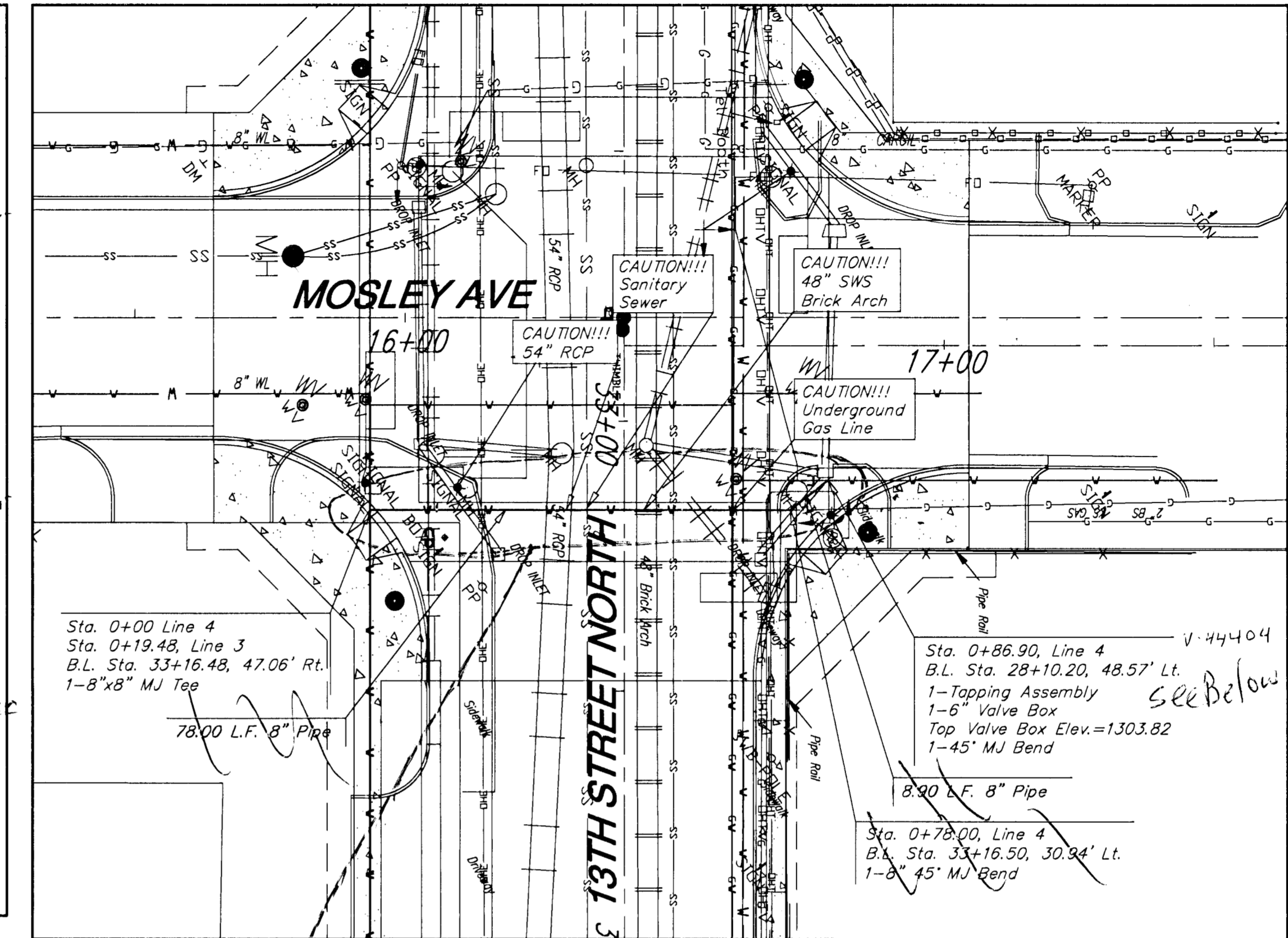
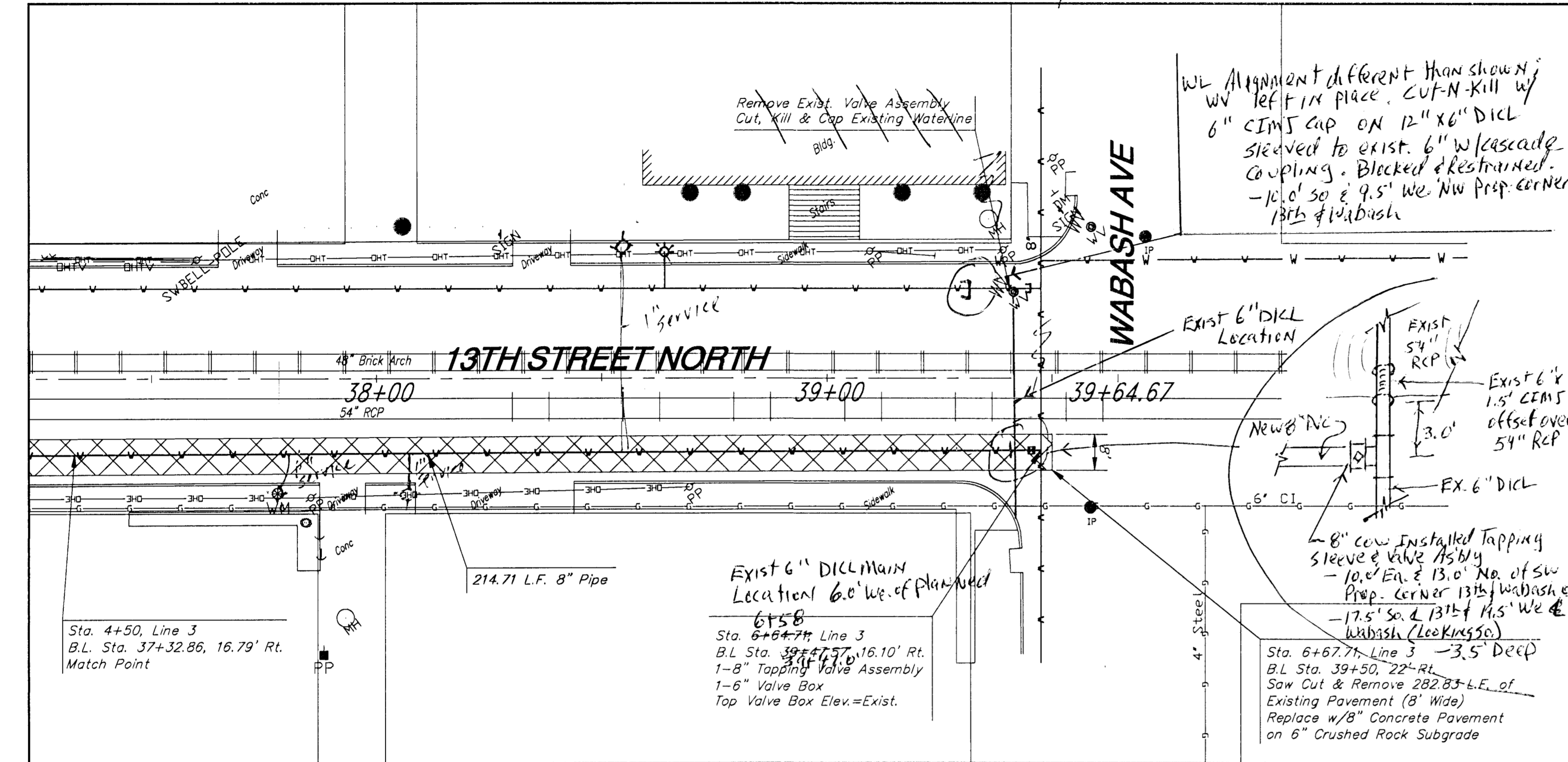
LINE NO. 3



**KANSAS DEPARTMENT OF TRANSPORTATION**  
 WATER DISTRIBUTION IMPROVEMENTS  
 LINE 2 & 3

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87N-0238-01	2009	15	59

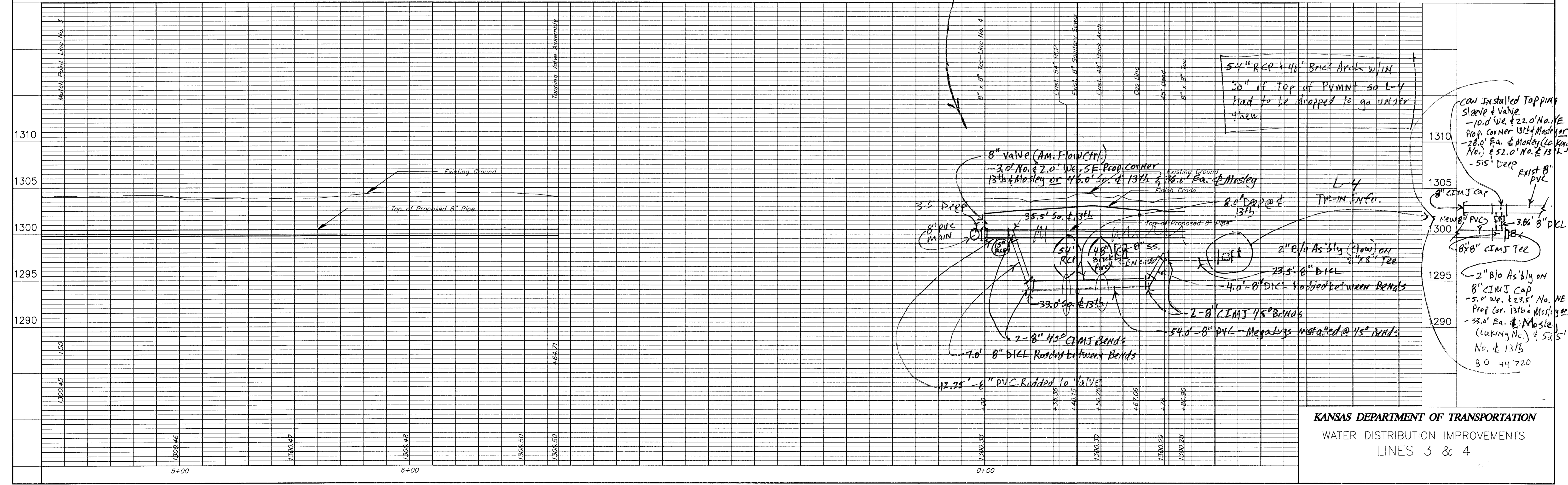
L-3 Tie-IN w/Exist @ SW Cor. 13th & Wabash



NOTES:  
1. See Sheet 17 for Standard Water Details.

LINE NO. 3

LINE NO. 4



KANSAS DEPARTMENT OF TRANSPORTATION  
WATER DISTRIBUTION IMPROVEMENTS  
LINES 3 & 4

**INDEX OF SHEETS**

SHEET NUMBER	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTION/GENERAL NOTES
3-5	PLAN SHEETS
6	JOINT PLAN
7-8	INTERSECTION DETAIL
9	STORM SEWER KEY MAP
10-11	STORM SEWER PLAN-PROFILE
12	SANITARY SEWER PLAN-PROFILE
13-15	WATER LINE PLANS-PROFILE
16	STANDARD TYPE "P" MANHOLES
17	STANDARD WATER DETAILS
18	C.O.W. STANDARD DRIVE ENTRANCE DETAIL
19	SUMMARY OF QUANTITIES
20	CONCRETE PAVEMENT DOWEL JOINTED NON-REINFORCED
21	RR X-INGS FOR NEW CONCRETE PAVEMENT
22	CURB, GUTTER, AND COMBINED CURB AND GUTTER
23	VALLEY GUTTER AND WHEELCHAIR RAMP DETAILS
24	SIDEWALK AND STEPS DETAIL
25	STANDARD TYPE I INLET
26-30	EROSION CONTROL-BEST MANAGEMENT PRACTICES
31	TRAFFIC SIGNAL PLAN
32	SIGNAL WIRING DIAGRAM
33	TRAFFIC SIGNAL QUANTITIES SHEET
34	SERVICE-JUNCTION BOX, CONTROLLER PAD CONSTRUCTION-INSTALLATION DETAILS
35	STEEL SIGNAL POLE ASSEMBLY DETAILS
36	TRAFFIC SIGNAL PEDESTAL-CONCRETE BASE DETAILS
37	PAVEMENT MARKING PLAN
38	TYPICAL MISC. PAVEMENT MARKING DETAILS
39	SUMMARY AND RECAPULATION OF PAVEMENT MARKING QUANTITIES
40	TRAFFIC CONTROL GENERAL NOTES
41-43	TEMPORARY SIGNALIZATION
44-47	TRAFFIC CONTROL PLANS
48	SUMMARY OF DEVICES AND RECAPULATION OF QUANTITIES
49	DESIGN DETAILS FOR BARRICADES, CHANNELIZING DEVICES AND SIGN MOUNTING LOCATIONS
50	TYPICAL TRAFFIC CONTROL SIGNS
51	COORDINATE POINTS LIST
52-59	CROSS SECTIONS

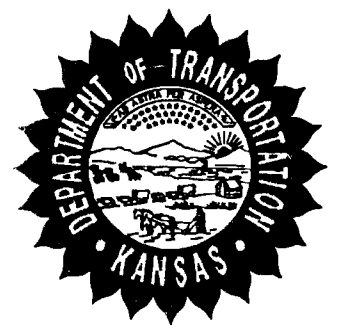
FHWA REG. NO.	STATE	PROJECT NO.:	YEAR	SHEET NUMBER	TOTAL SHEETS
7	KANSAS	87N-0238-01	2009	1	59

STP-N-23(801)

**GRADING  
SURFACING  
SIGNALIZATION**

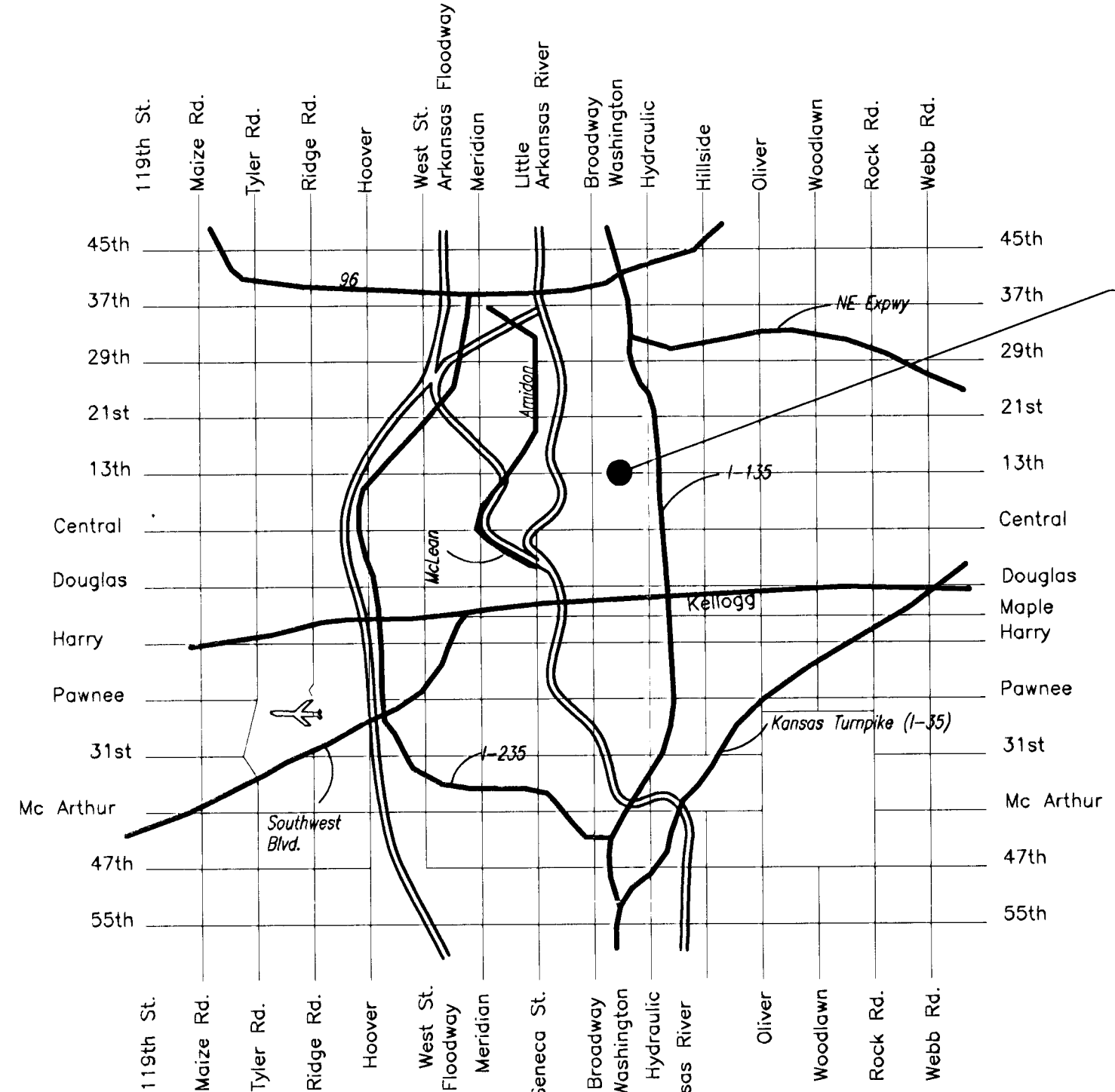
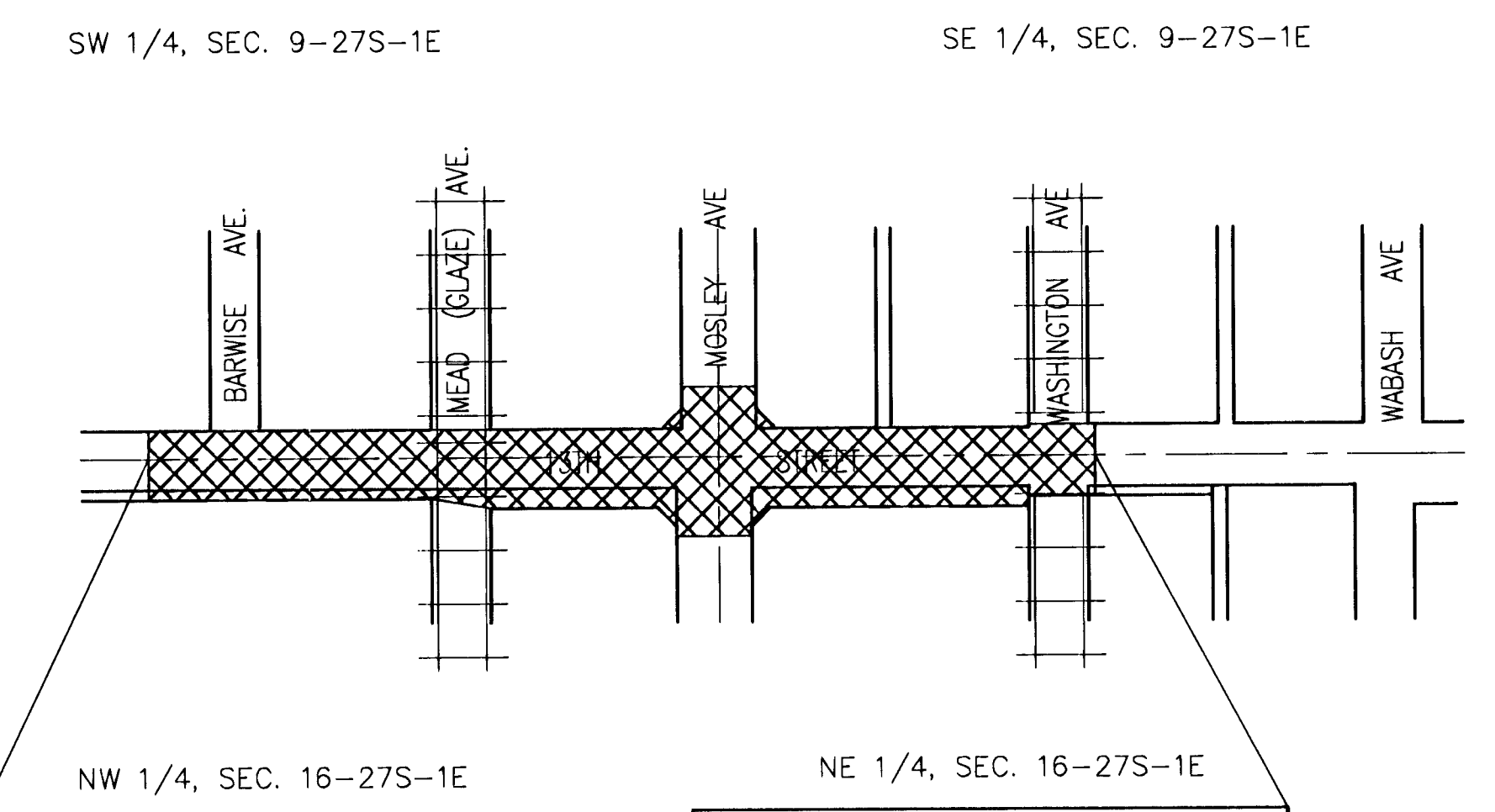
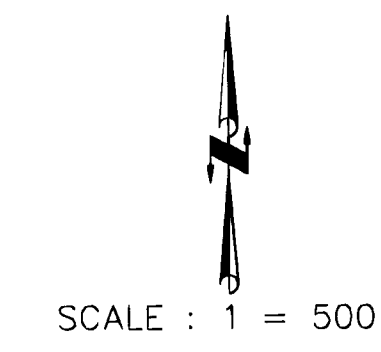
ONE WAY TRAFFIC TO BE MAINTAINED THROUGH CONSTRUCTION. SEE SHEETS 43-46 FOR CONSTRUCTION TRAFFIC CONTROL PLAN.

STATE OF KANSAS  
DEPARTMENT OF TRANSPORTATION



**PLAN AND PROFILE OF  
FEDERAL AID PROJECT**

CITY OF WICHITA PROJECT #472-84269  
OCA #706931  
13TH & MOSLEY INTERSECTION  
WICHITA, SEDGWICK COUNTY, KANSAS  
POPULATION = 304,011



Sta. 26+99.15  
BEGIN CONSTRUCTION  
PROJ. NO. 87N-0238-01

Sta. 39+50  
END CONSTRUCTION  
PROJ. NO. 87N-0238-01

**DESIGN DESIGNATION**

13TH & MOSLEY  
AADT (2002) = 21,860  
AADT (2030) = 30,750  
T = 10 %  
V = 35 M.P.H.  
CLEAR ZONE = 6 Ft.

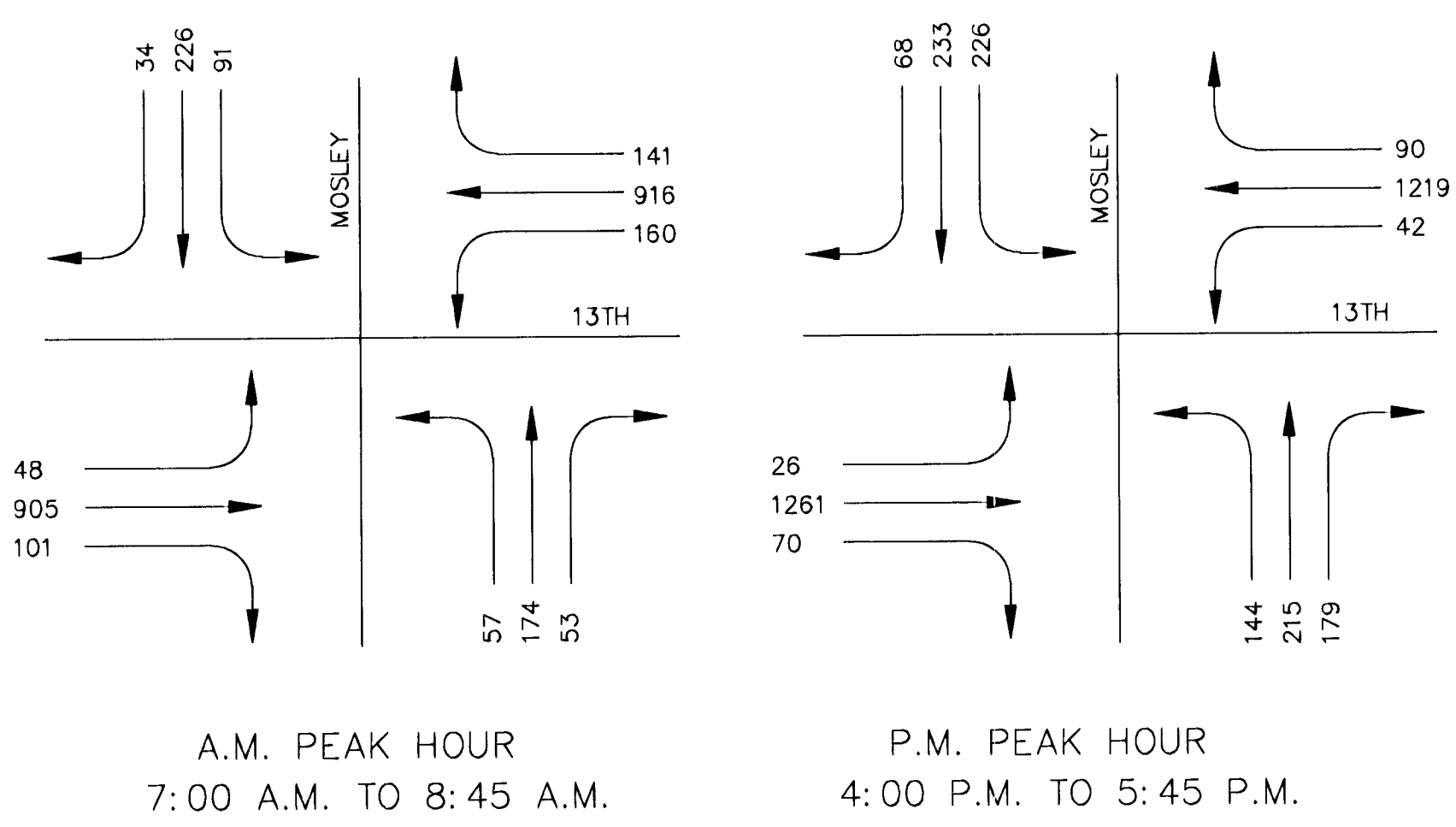
ITEM	MANUFACTURER	SIZE
ANCHOR VALVE ASSEMBLY	AMERICAN FLOW CONTROL	8"
GATE VALVE ASSEMBLY	AMERICAN FLOW CONTROL	8"
FH ASSEMBLY	AMERICAN DARLING	6"
BLOW OFF ASSEMBLY	CLOW	3"
FH VALVE	AMERICAN FLOW CONTROL	6"

PAVERS, INC.- CONTRACTOR  
J. WESTHOFF - CITY OF WICHITA, P.L.D. PROJ. ENGR  
T. ANTHIS - CITY OF WICHITA, INSPECTOR  
AS - BUILT  
RELEASE DATE :  
APPROX 09/09/2010

**LEGEND**

	= Existing Fence		= Existing Gas Meter
	= Concrete		= Underground Electric
	= Guy Anchor		= Underground Telephone
	= Existing Traffic Signal		= Existing Power Pole
	= Existing Stone Wall		= Cedar
	= Existing Sign		= Shrub
	= Proposed Fire Hydrant		= Tree
	= Existing Fire Hydrant		= Water Valve
	= Existing Storm Water Sewer		= Existing Water Valve
	= Railroad Tracks		= Existing Gas Marker
	= Proposed Manhole		= Centerline
	= Overhead Electric		
	= Existing Sanitary Sewer		
	= Existing Water Line		
	= Existing Gas Line		
	= Existing Manhole		

GROSS LENGTH OF PROJECT	1,250.85 Ft.
EXCEPTIONS	0.00 Ft.
ADDITIONS	0.00 Ft.
NET LENGTH OF PROJECT	1,250.85 Ft.
NET LENGTH OF BRIDGES	0.00 Ft.
NET LENGTH OF ROAD	1,250.85 Ft.



APPROVED-DATE  
  
JIM ARMOUR, P.E.  
CITY ENGINEER  
CITY OF WICHITA, SEDGWICK COUNTY, KANSAS



STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87N-0238-01	2009	13	59

**NOTE:**  
 REVISED VALVE LOCATION INSTALLED PRIOR TO PROJECT START.  
 INSTALLED W/ RR CORRIDOR BY DONDINGER & SONS.  
 8" GATE VALVE - 68' N & 27.5' S NWPC OF 13TH &  
 BARNISE (PER COW WATER DEPT. RECORD)

REVISED MAIN - STA. 27+17 TO STA. 30+61.51  
 - 12.5' N OF S BACK OF CURB ON 13TH ST.

NOTE: SEE PLATE #1 FOR L-1 &  
 PURE SERVICE TIE - INS

NOTE: SEE PLATE #2 FOR L-1 TIE-IN  
 @ BARNISE ST.

STEEL CASING - STA. 29+90.5 TO  
 STA. 30+56.51, 66 LF, 11' RT @

B.L. Sta. 26+92.61, 3.00' Lt.  
 1-6" Service Outlet Assembly (N)  
 Connect to Existing 6" Waterline  
 All Pipe, Fittings, Adaptors  
 and Appurtenances Shall be  
 Subsidiary to 6" Connection  
 Cut, Kill & Cap Existing Waterline  
 South of Connection

Sta. 0+00, Line 1  
 B.L. Sta. 27+04.15, 3.00' Lt.  
 Connect to Exist. 8" Pipe  
 1-45° MJ Bend

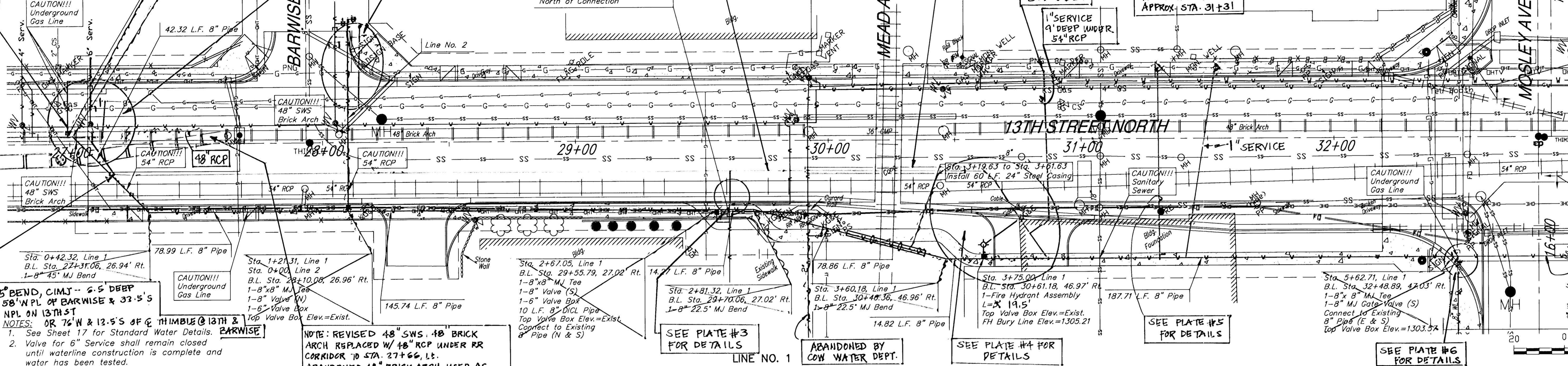
Cut, Kill & Cap Existing Waterline  
 North of Connection

5.5' DEEP  
 1" SERVICE  
 9' DEEP UNDER  
 54" RCP

8" ADD-ON FH LEG  
 PER COW C.O.  
 APPROX. STA. 31+31

DATE	BY

REFERENCES NOTED	REFERENCES CHECKED



45° BEND, CIMJ -- 6.5 DEEP  
 58' N PL OF BARNISE & 32.5' S  
 NPL ON 13TH ST  
 NOTES:  
 1. See Sheet 17 for Standard Water Details.  
 2. Valve for 6" Service shall remain closed  
 until waterline construction is complete and  
 water has been tested.

NOTE: REVISED 48" SWS. 48" BRICK  
 ARCH REPLACED W/ 48" RCP UNDER RR  
 CORRIDOR TO STA. 27+66, LT.  
 ABANDONED 48" BRICK ARCH USED AS  
 CONDUIT FOR 8" PVC UNDER RR  
 CORRIDOR TO APPROX. STA. 26+98, LT.

SEE PLATE #3  
 FOR DETAILS

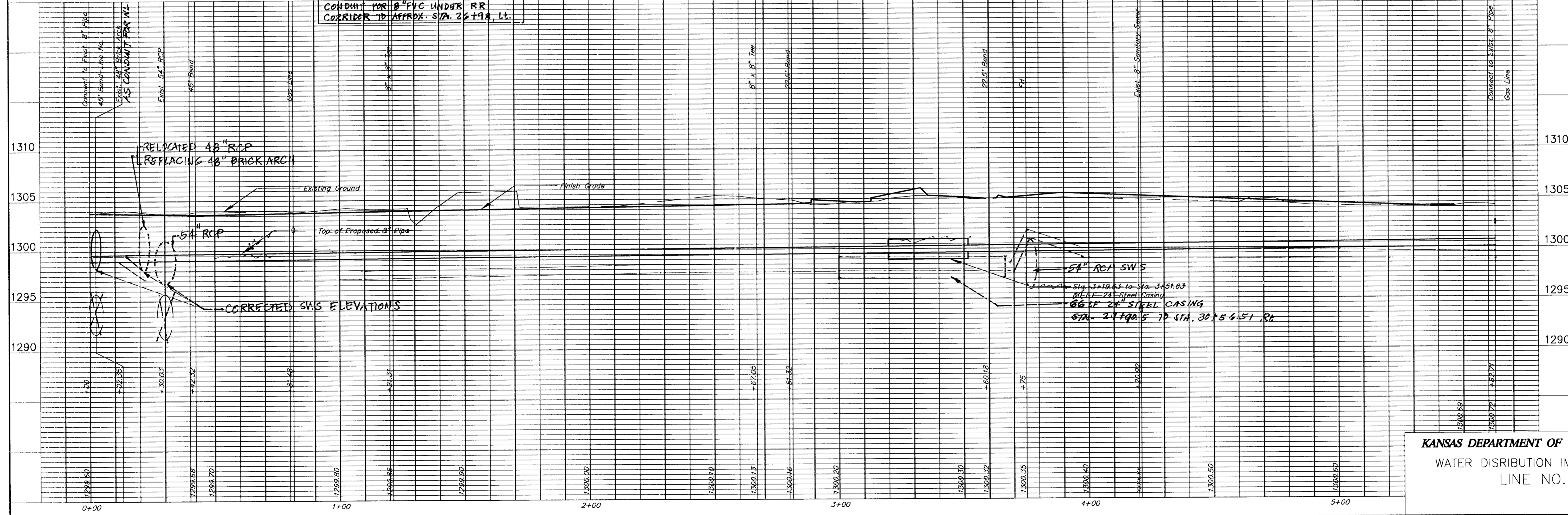
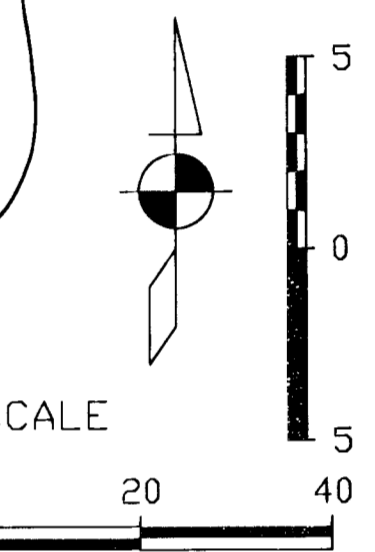
ABANDONED BY  
 COW WATER DEPT.

SEE PLATE #4 FOR  
 DETAILS

SEE PLATE #5  
 FOR DETAILS

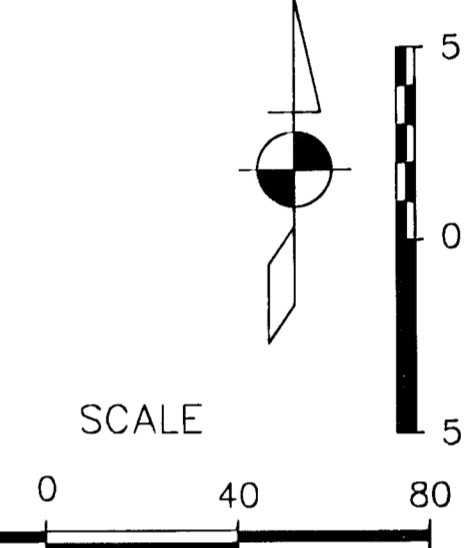
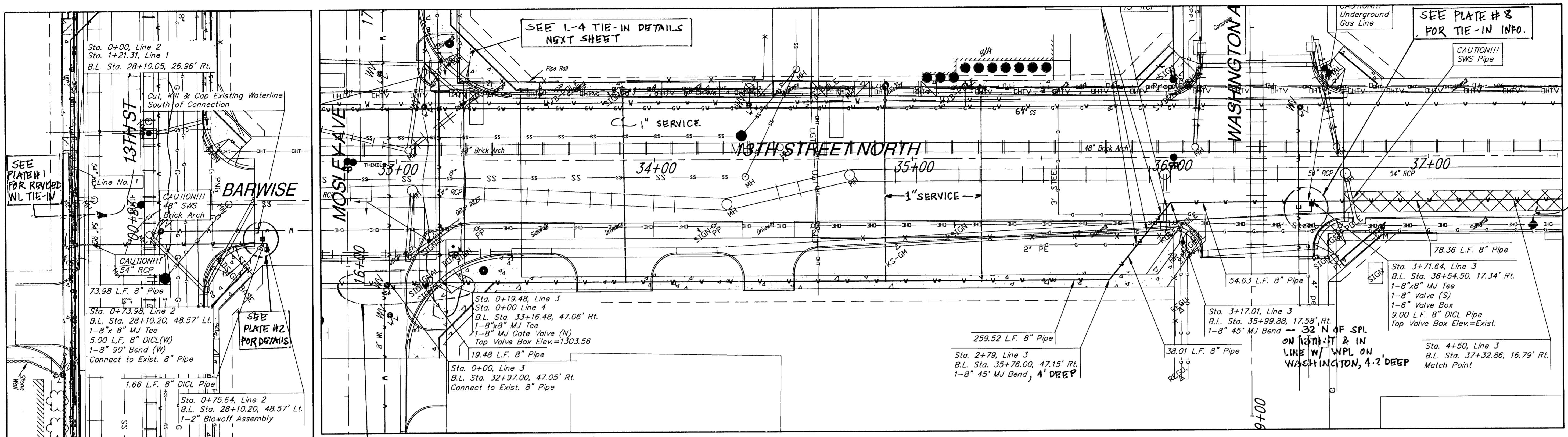
SEE PLATE #6  
 FOR DETAILS

EXISTING 8" PVC  
 REMAINED  
 UNDER MOSLEY



KANSAS DEPARTMENT OF TRANSPORTATION  
 WATER DISTRIBUTION IMPROVEMENTS  
 LINE NO. 1

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
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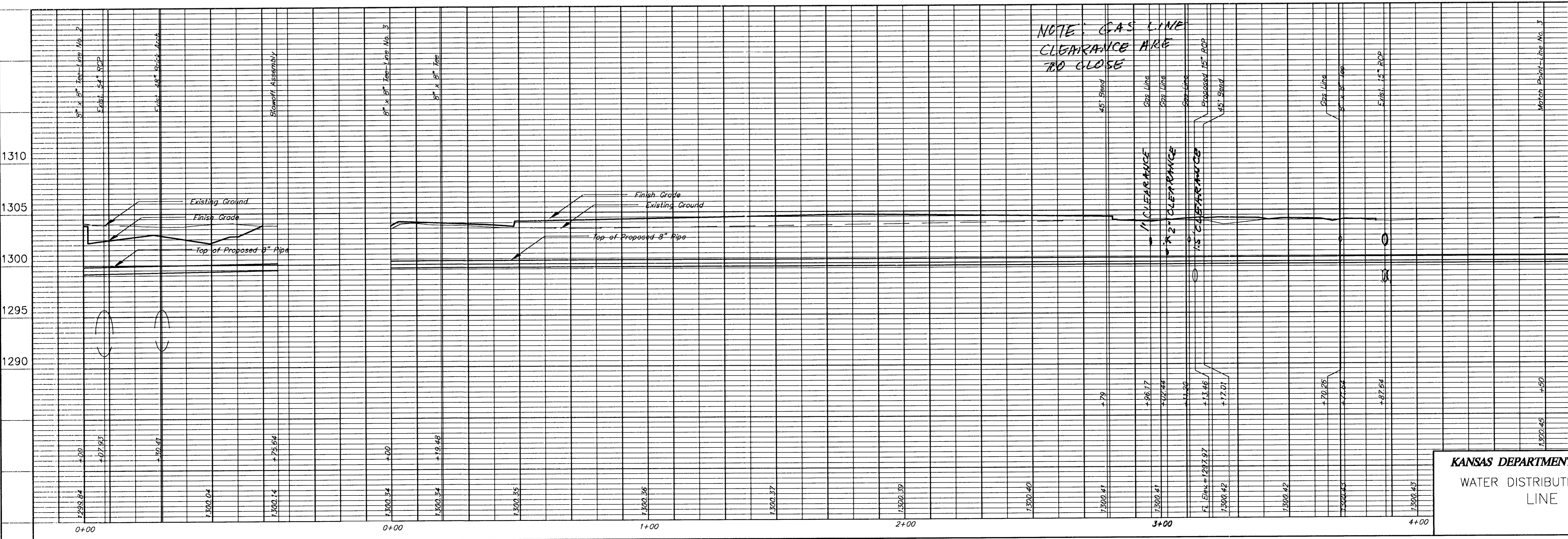
DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 REFERENCES NOTED: \_\_\_\_\_  
 REFERENCES CHECKED: \_\_\_\_\_

LINE NO. 2

LINE NO. 3

NOTES:  
 1. See Sheet 17 for Standard Water Details.

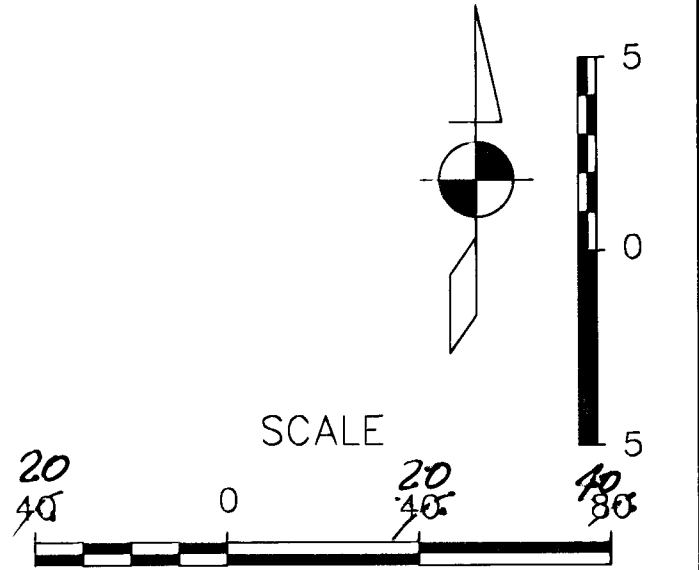
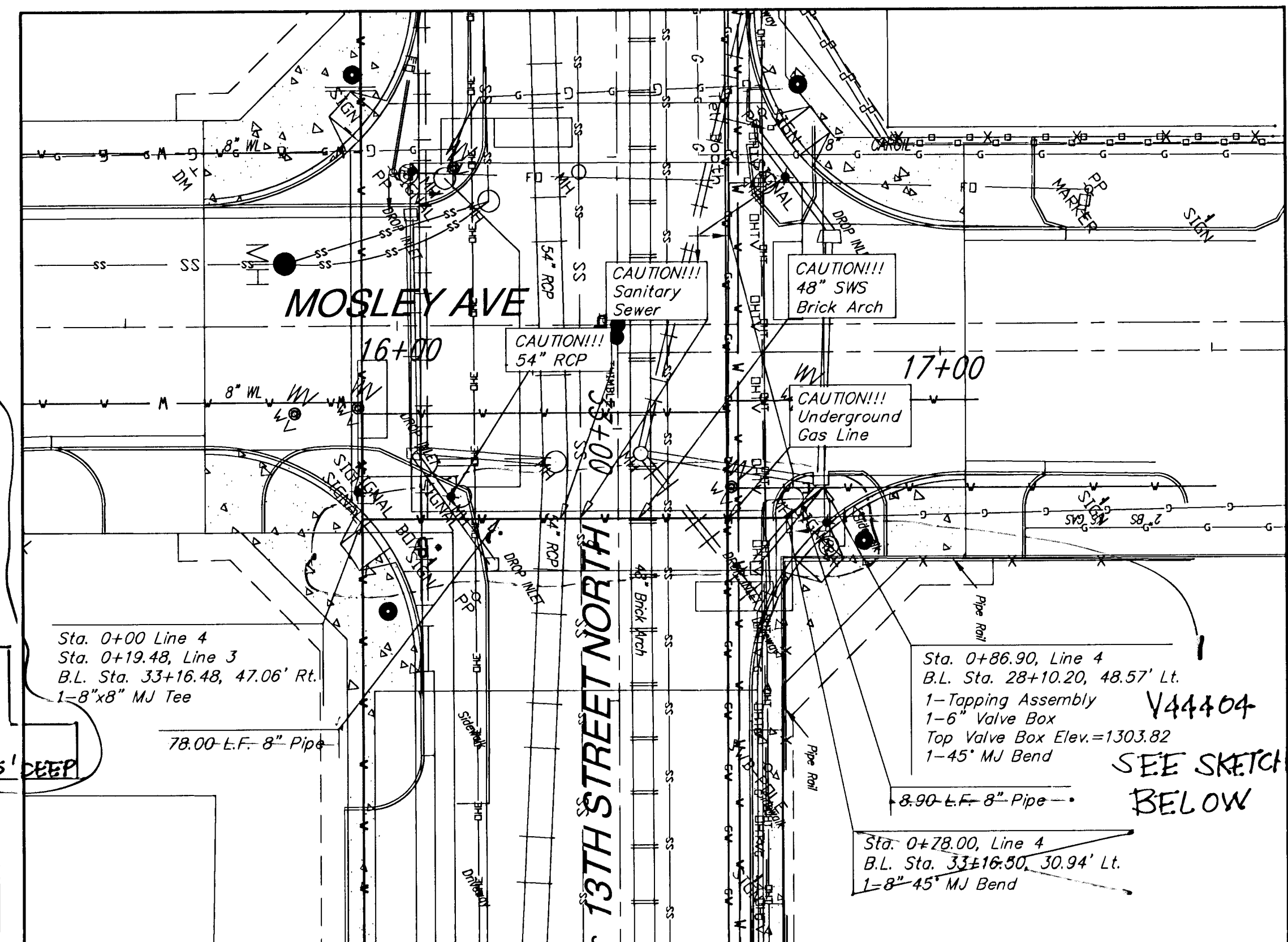
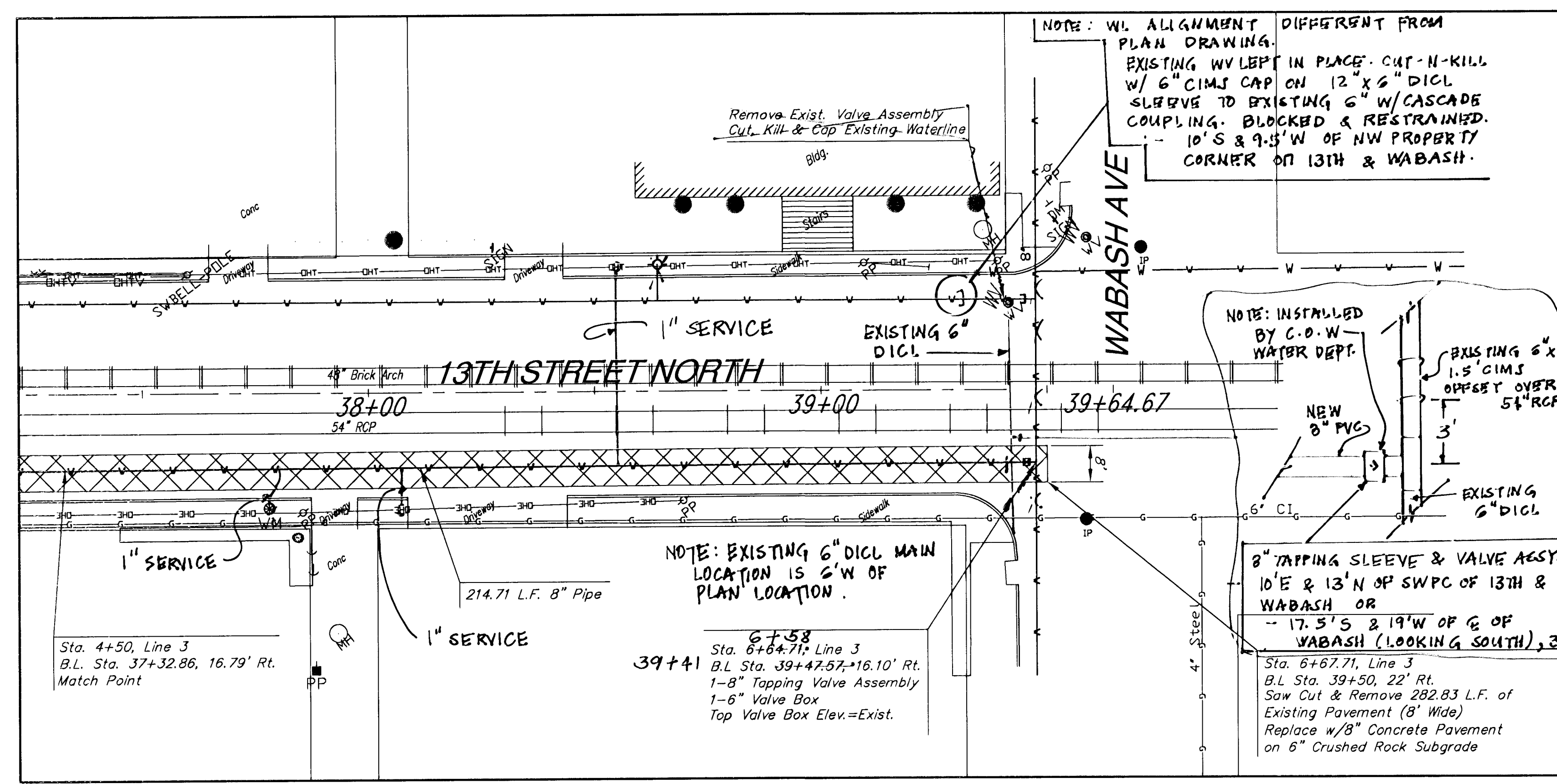
SEE PLATE #7 FOR DETAILS TO L-3 TIE-IN TO THE WEST & L-4 TO THE NORTH



**KANSAS DEPARTMENT OF TRANSPORTATION**  
 WATER DISTRIBUTION IMPROVEMENTS  
 LINE 2 & 3

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
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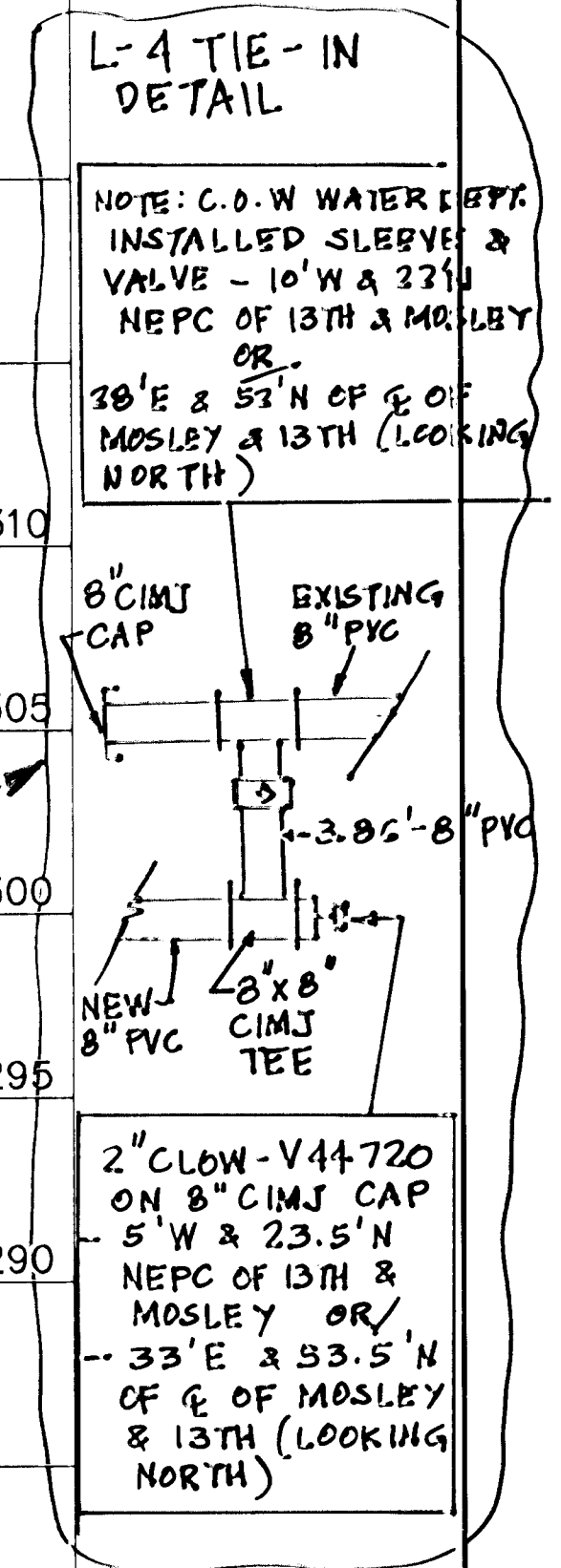
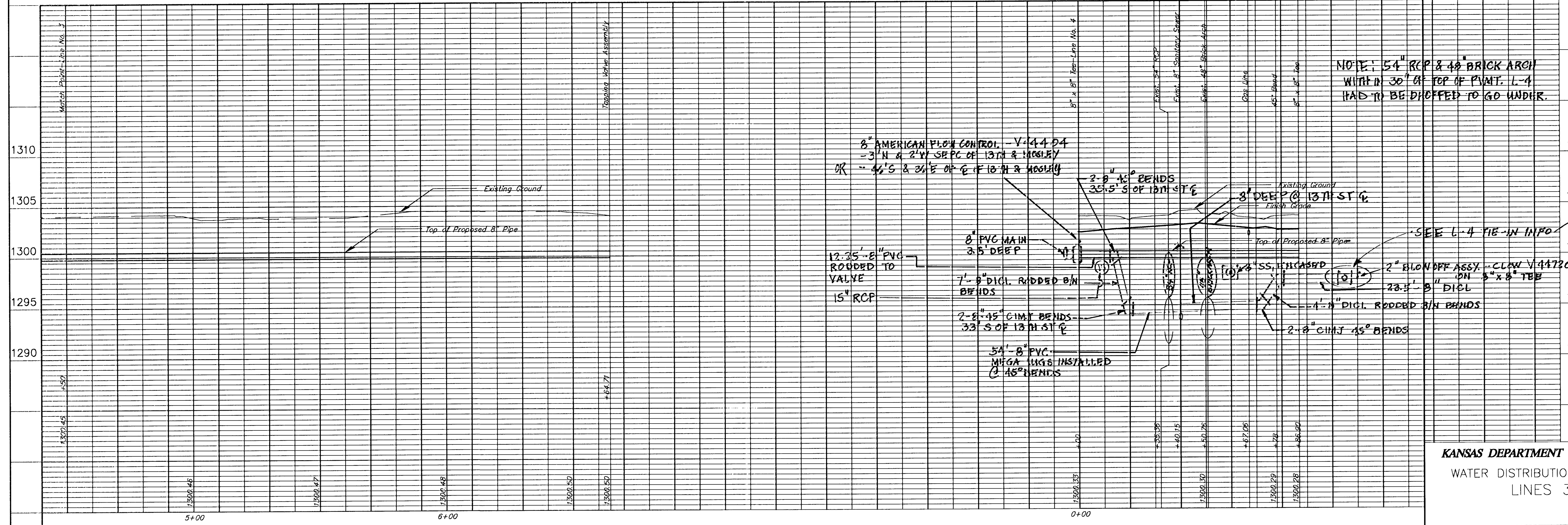
L-3 TIE-IN W/ EXISTING @ SW CORNER OF 13TH & WABASH



NOTES:  
1. See Sheet 17 for Standard Water Details.

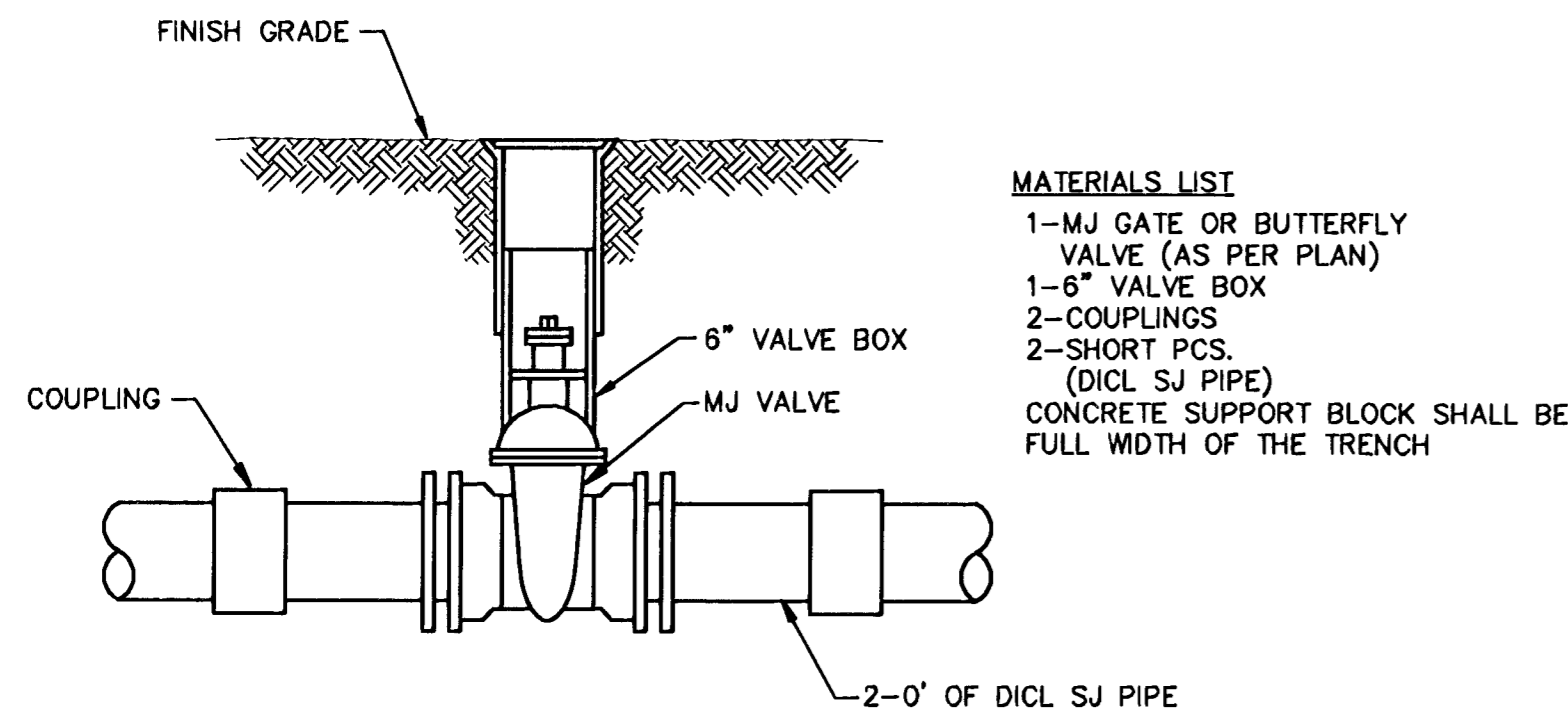
LINE NO. 3

LINE NO. 4



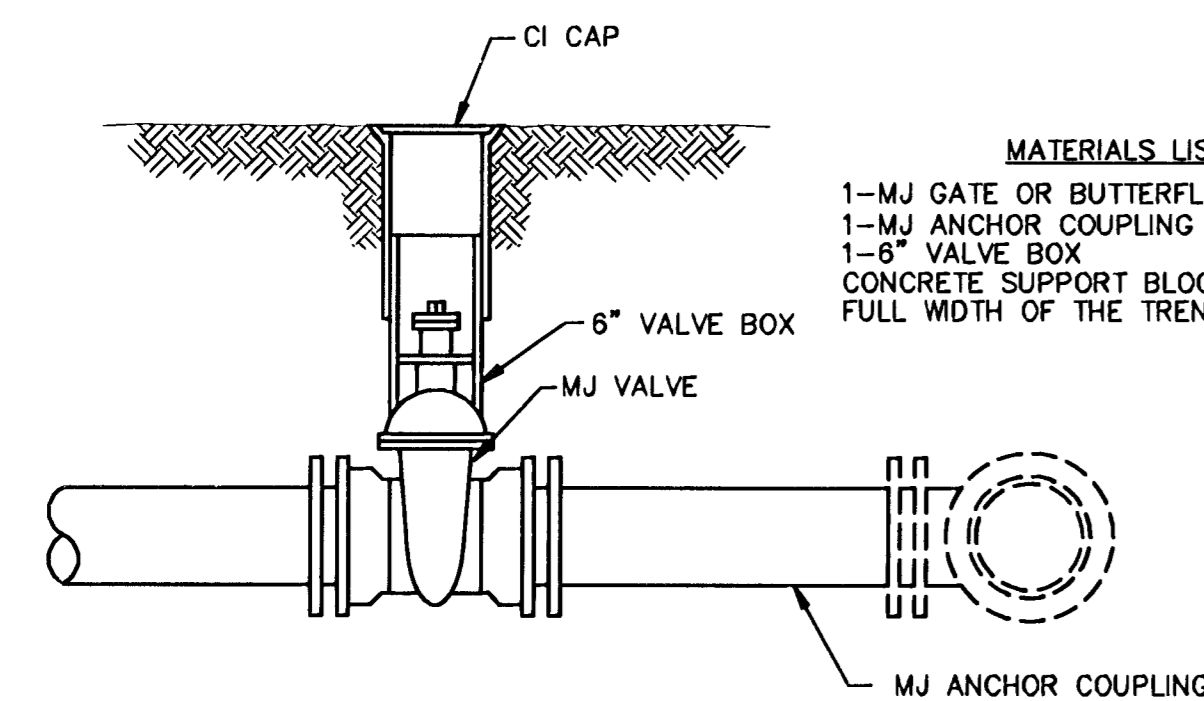
KANSAS DEPARTMENT OF TRANSPORTATION  
WATER DISTRIBUTION IMPROVEMENTS  
LINES 3 & 4

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87N-0238-01	2009	17	59



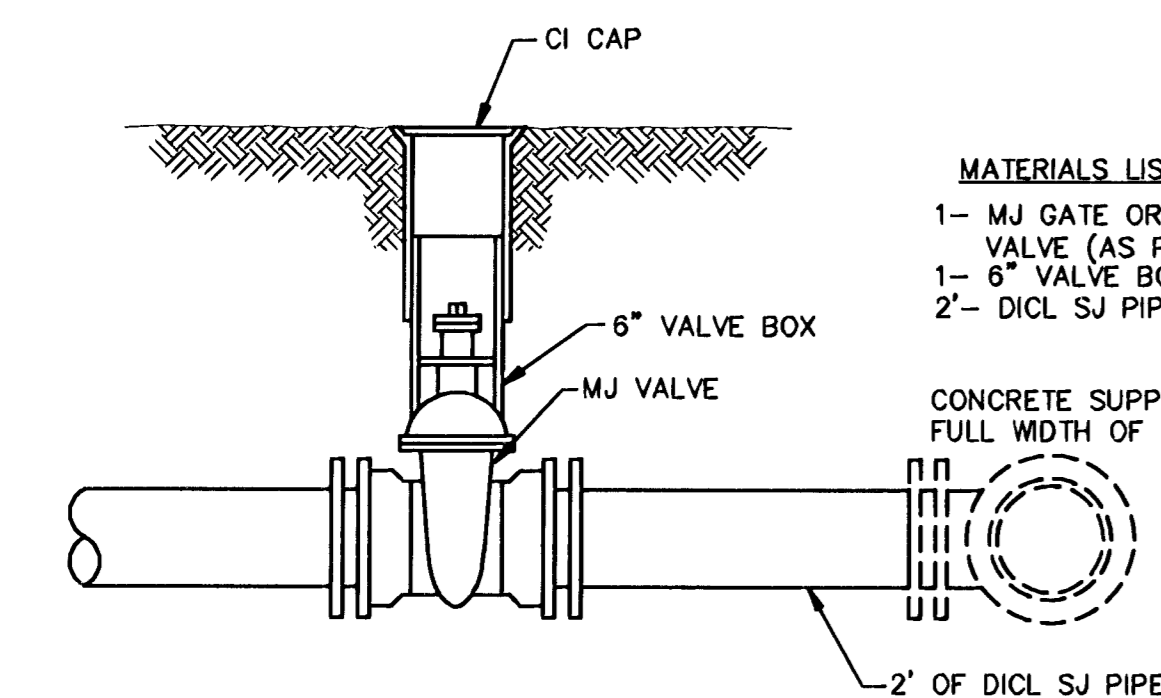
LINE VALVE ASSEMBLY

- MATERIALS LIST**
- 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
  - 1-6" VALVE BOX
  - 2-COUPINGS
  - 2-SHORT PCS. (DICTL SJ PIPE)
  - 1-FIRE HYDRANT
  - CONCRETE BLOCKING (AS NEEDED)
  - CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



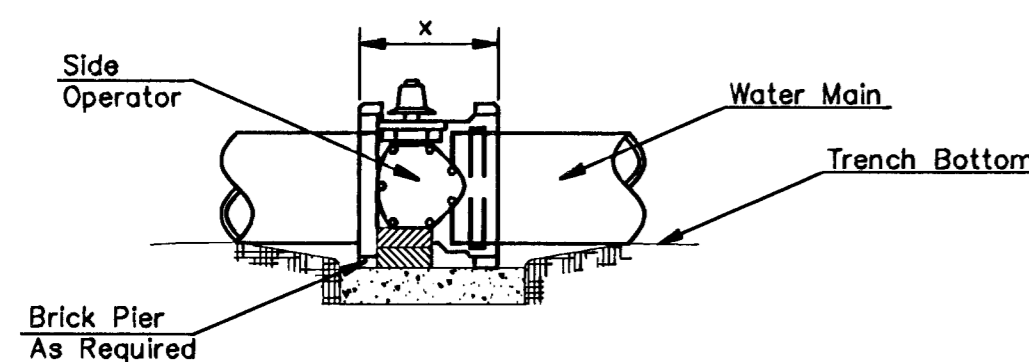
ANCHORED VALVE ASSEMBLY

- 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



VALVE ASSEMBLY

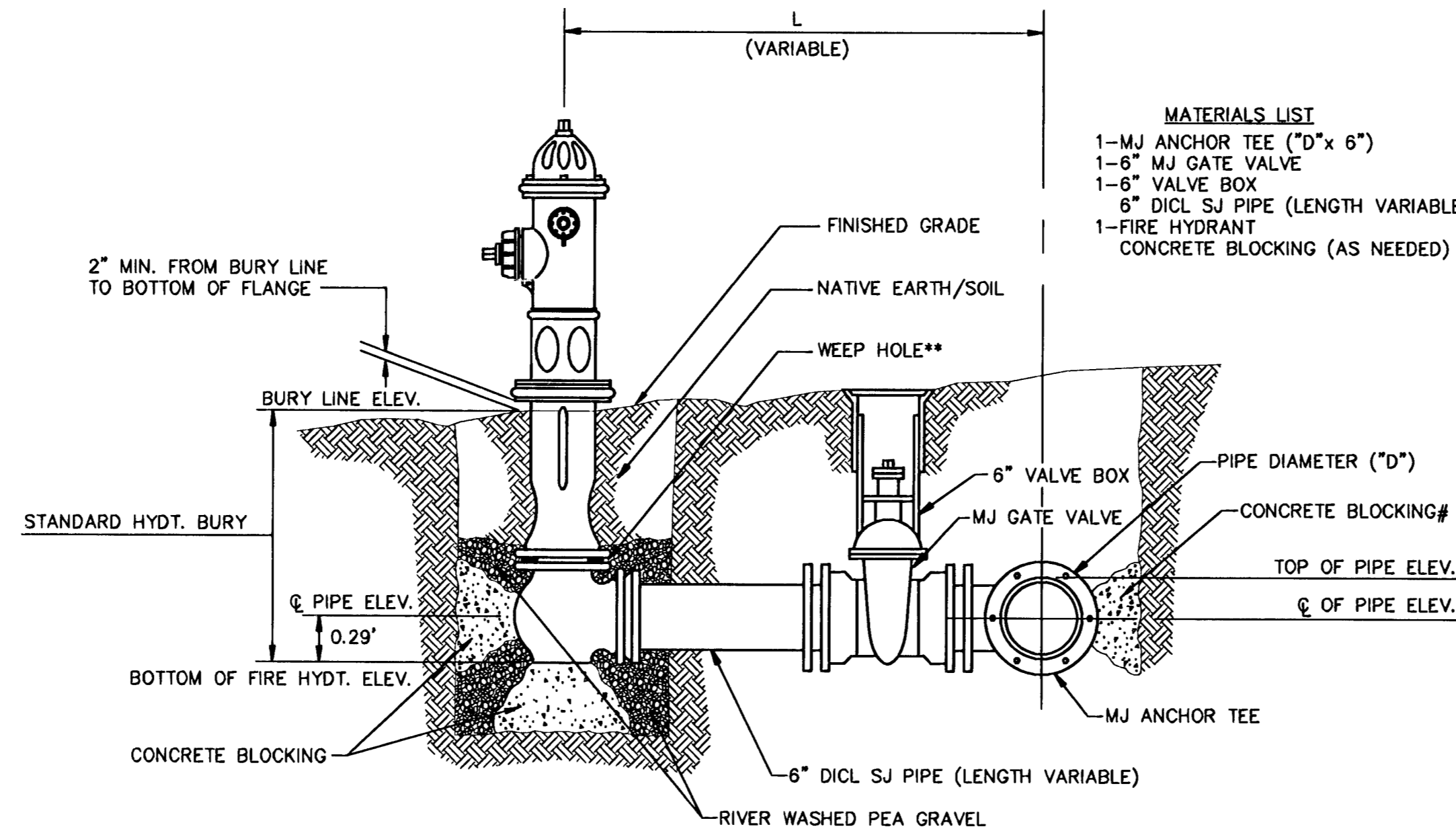
- MATERIALS LIST**
- 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
  - 1-6" VALVE BOX
  - 2-DICTL SJ PIPE
  - CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



**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**

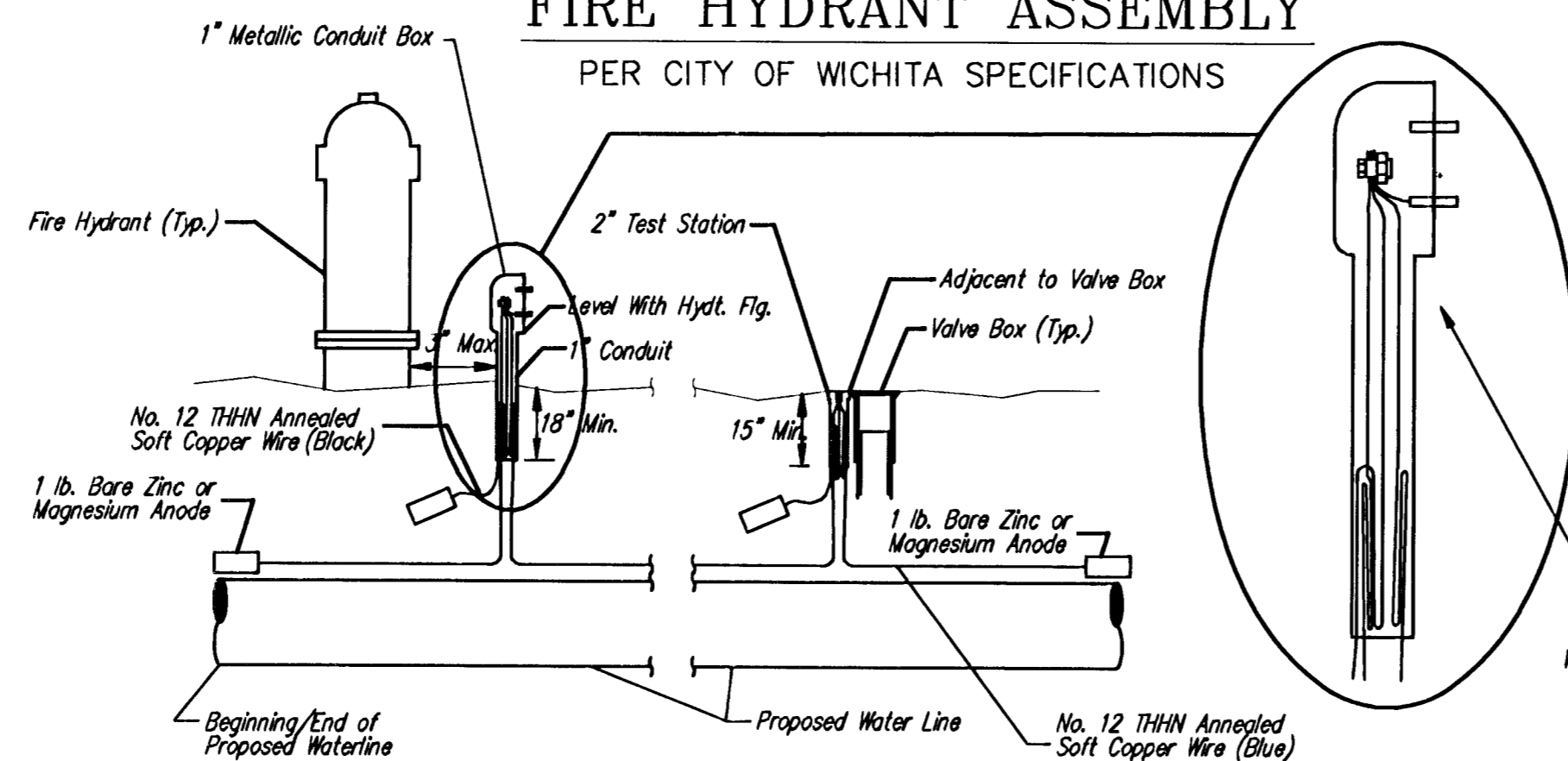


- \*\* CAUTION! WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES.**
- # CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.**
- \* IF HYDRANT BURY IS IN EXCESS OF 5', CONTRACTOR SHALL USE STANDARD 5"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

**FIRE HYDRANTS REQUIRED**

STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
3+75(LINE 1)	1305.21	1300.35	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**

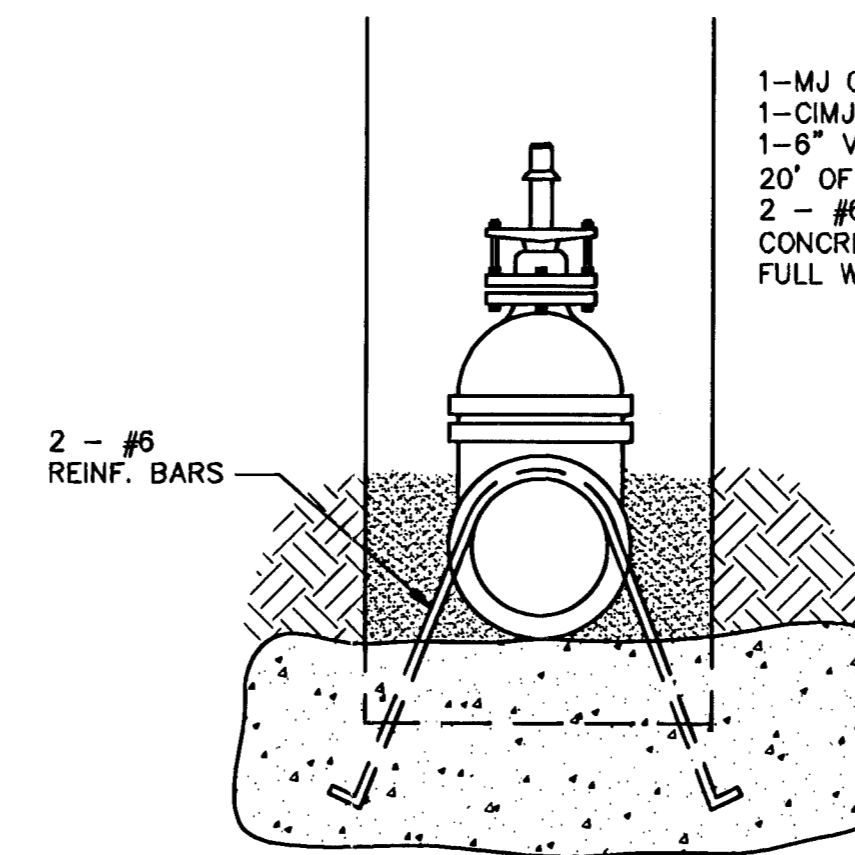
The test station for fire hydrant applications shall be a 1 inch galvanized conduit style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station 12PS38 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**

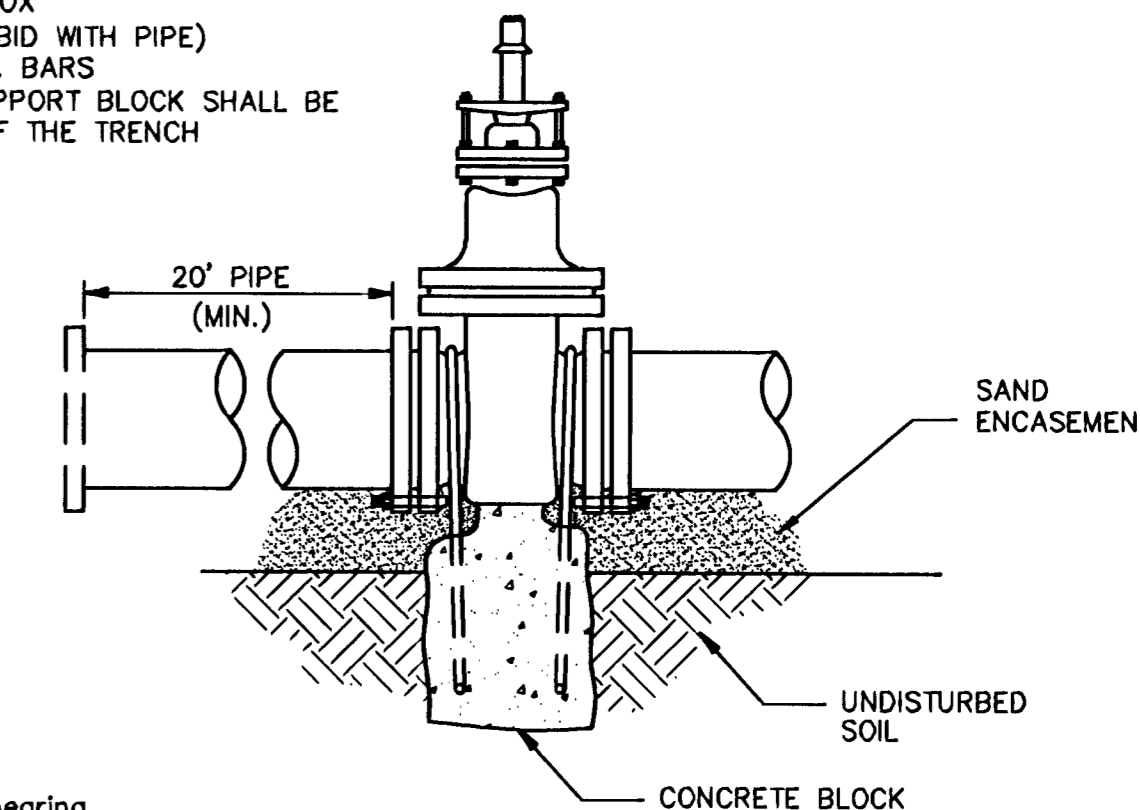
COST IS SUBSIDIARY TO PIPE INSTALLATION



**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.

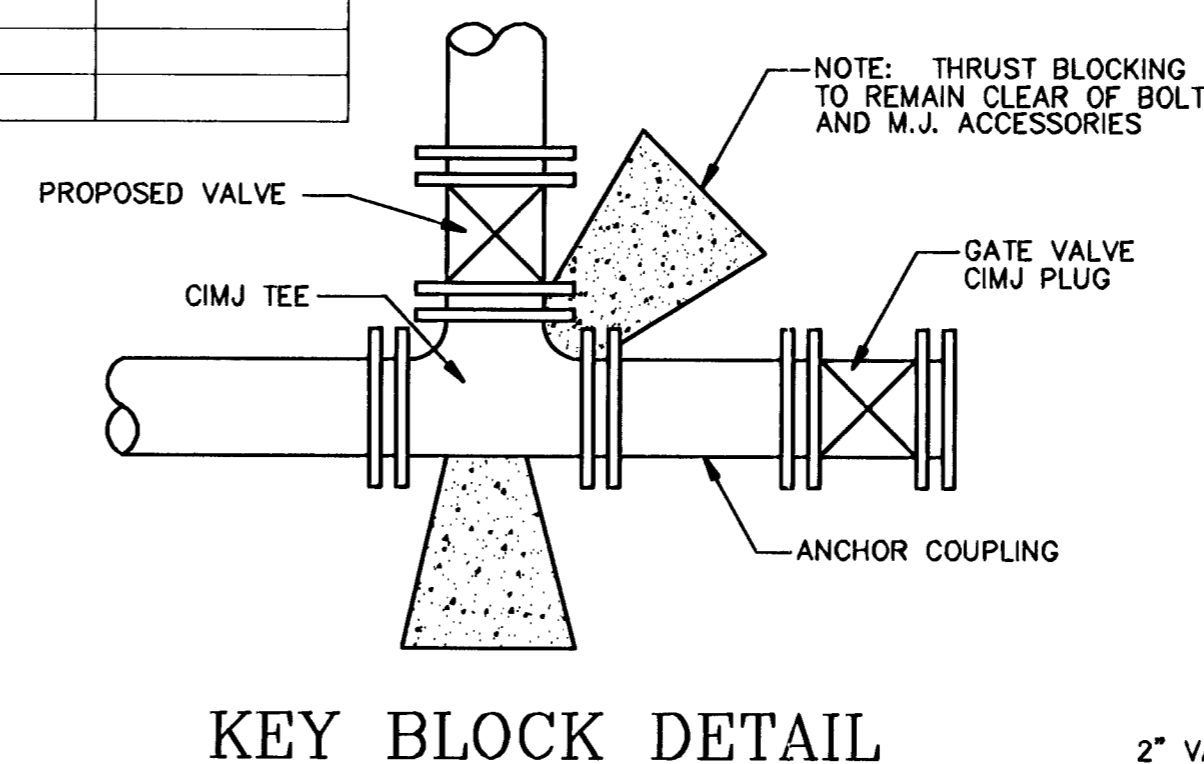
- MATERIALS LIST**
- 1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
  - 1-CIMJ CAP WHEN NECESSARY
  - 1-6" VALVE BOX
  - 20' OF PIPE (BID WITH PIPE)
  - 2 - #6 REINF. BARS
  - CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



**THRUST AT VALVES**

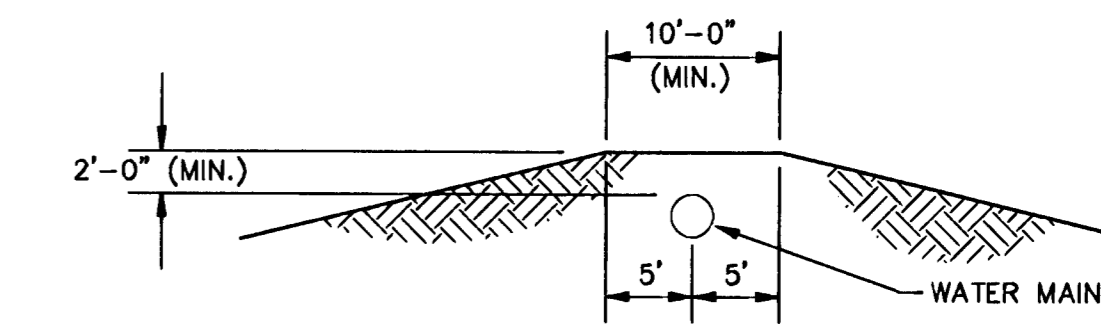
VALVE	THRUST AT 150 #/sq ft
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

**ANCHORED VALVE ASSEMBLY, SPECIAL**



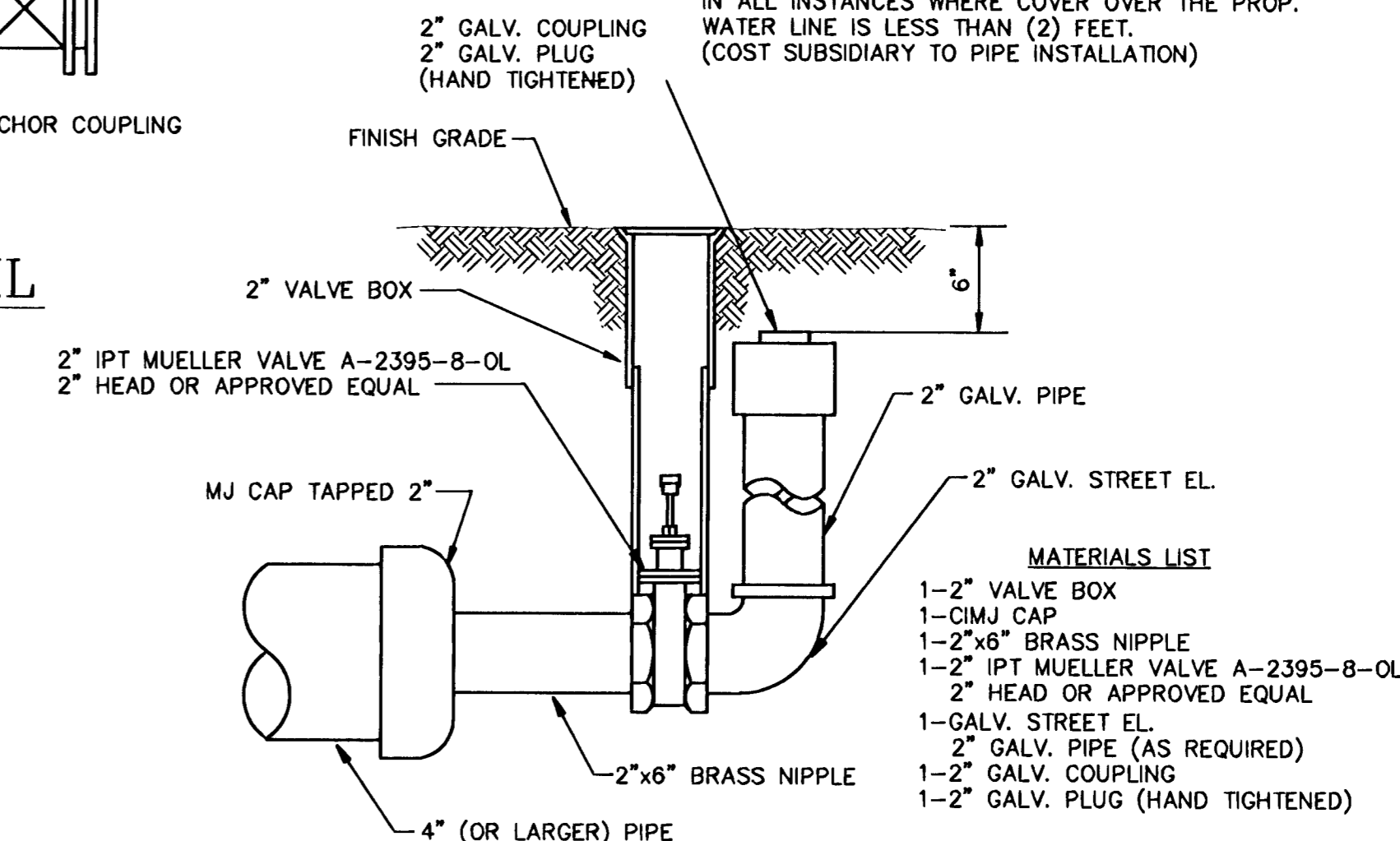
KEY BLOCK DETAIL

NOTE: THRUST BLOCKING TO REMAIN CLEAR OF BOLTS AND M.J. ACCESSORIES



**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  
455 NORTH MAIN STREET  
WICHITA, KANSAS 67202  
(316) 268-4114 FAX

**STANDARD WATER ASSEMBLY DETAILS**

M. E. LINDEBAK P.E. - CITY ENGINEER

PROJECT NUMBER XXX-XXXX INDEX CODE XXXXXX

DATE DEC 98 SHEET OF

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