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

DATE	BY	REFERENCES NOTED	REFERENCES CHECKED

Revised valve location installed Prior to project start. Installed w/ RR Corridor by Dondlinger & Sons. 8" Gate valve – 68.0' We. & 27.5' So. NW Prop. Cor. 13th & Barwise per City Wtr. Dept. Records

Revised Main location from Str. Sta. 27+11 to 32+61.5' 12.5' No. Sc. Back of curb 13th Str.

B.L. Sta. 26+92.61, 3.00' Lt. 1–8" Service Outlet Assembly (N) Connect to Existing 6" Waterline All Pipe, Fittings, Adaptors and Appurenances Shall be Subsidiary to 8" Connection

Cut, Kill & Cap Existing Waterline South of Connection

Sta. 0+00, Line 1 B.L. Sta. 27+01.15, 3.00' Lt. Connect to Exist. 8" Pipe 1–45° MJ Bend

see Plate #1 for L-1 tie-in & Fire Service tie-in

see Plate #2 for Barwise tie-in w/ L-1

Cut, Kill & Cap Existing Waterline North of Connection

Revised Bore location – 66 LF 24" Steel Casing Str. Sta. 29+1 to 5 to 30+56.51, 11.5' Rt ℄

3" Add-on Ft Lug per Cow C.O. Approx. 31+31

BARWISE AVE

MEAD AVE

MOSLEY AVE

13TH STREET NORTH

Union P

CAUTION!!! Underground Gas Line

CAUTION!!! 48" SWS Brick Arch

CAUTION!!! 54" RCP

CAUTION!!! Sanitary Sewer

42.32 L.F. 8" Pipe

78.99 L.F. 8" Pipe

145.74 L.F. 8" Pipe

14.27 L.F. 8" Pipe

78.86 L.F. 8" Pipe

14.82 L.F. 8" Pipe

187.71 L.F. 8" Pipe

Sta. 0+42.32, Line 1 B.L. Sta. 27+31.06, 26.94' Rt. 1–8" 46° MJ Bend

Revised location of 8" CFMJ 45° Bend (6.5° Deg) – See We. Prop. Line Barwise & 32.5' So. No. Prop Line 13th & Barwise @ 13th & Barwise

Sta. 1+21.31, Line 1 Sta. 0+00, Line 2 B.L. Sta. 28+10.05, 26.96' Rt. 1–8"x8" MJ Tee 1–8" Valve (N) 1–6" Valve Box Top Valve Box Elev.=Exist.

Revised 48" SW system. 48" Brick Arch replaced w/ 48" RCP under RR corridor to Str. Sta. 27+66 LF. Abandoned 48" Brick Arch used as conduit for 8" PVC under RR Corridor to Approx Str. Sta. 26+98 LF ℄

Sta. 2+47.05, Line 1 B.L. Sta. 29+55.79, 27.02' Rt. 1–8"x8" MJ Tee 1–8" Valve (S) 1–6" Valve Box 10 LF. 8" DICL Pipe Top Valve Box Elev.=Exist. Connect to Existing 8" Pipe (N & S)

Sta. 2+81.32, Line 1 B.L. Sta. 29+70.05, 27.02' Rt. Plr. 1–8" 22½° MJ Bend

Sta. 3+60.18, Line 1 B.L. Sta. 30+46.36, 46.96' Rt. 1–8" 22.5° MJ Bend

Sta. 3+75.00, Line 1 B.L. Sta. 30+61.18, 46.97' Rt. 1–Fire Hydrant Assembly L=5' 19.5 Top Valve Box Elev.=Exist. RH Bury Line Elev.=1305.21

Sta. 5+62.71, Line 1 B.L. Sta. 32+48.39, 47.05' Rt. 1–8"x 8" MJ Tee Connect to Existing 8" Pipe (E & S)

Exist. 8" PVC Removed under Mosley

see Plate #3 for Details

see Plate #4 for Details

see Plate #5 for Details

see Plate #6 for Details

LINE NO. 1

Abandoned previously by COW Wtr Dept

SCALE 20 0 20 40

5 0 5

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

Relocated 48" RCP Replacing 48" Brick Arch

Existing Ground

Finish Grade

Top of Proposed 8" Pipe

Sta. 54" RCP

Concrete SWS Elevations

Sta. 3+19.63 to Sta. 34+81.63 RD 1 F 24" Steel Casing

24" Fiber Casing (LF 66') Sta 29+90.5' to 30+56' IRV – Sta 54" RCP SWS

1310 1305 1300 1295 1290

0+00 1+00 2+00 3+00 4+00 5+00

Water Line As-Builts

Project: 13th & 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" PVC

107.0lf – 8" DICL

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

Sta. 0+00, Line 2
Sta. 1+21.31, Line 1
B.L. Sta. 28+10.05, 26.96' Rt.

see Plate #1 for Revised WL Tie-IN

Cut, Kill & Cap Existing Waterline South of Connection

13TH ST

Line No. 1

BARWISE

CAUTION!!! 48" SWS Brick Arch

CAUTION!!! 54" RCP

73.98 L.F. 8" Pipe

Sta. 0+73.98, Line 2
B.L. Sta. 28+10.20, 48.57' Lt.
1-8"x 8" MJ Tee
5.00 L.F., 8" DICL(W)
1-8" 90° Bend (W)
Connect to Exist. 8" Pipe

see Plate #2 for Details

1.66 L.F. 8" DICL Pipe

Sta. 0+75.64, Line 2
B.L. Sta. 28+10.20, 48.57' Lt.
1-2" Blowoff Assembly

LINE NO. 2

Pipe Rail

see L-4 Tie-IN Details-Next sheet

MOSLEY AVE

13TH STREET NORTH

WASHINGTON AVE

CAUTION!!! Underground Gas Line

CAUTION!!! Proposed 15" RCP

CAUTION!!! Underground Gas Line

CAUTION!!! SWS Pipe

see Plate #8 for Tie IN info.

Cut, Cap, Killed & Tie-IN

48" Brick Arch

54" RCP

11" Service

17+00
16+00
35+00
34+00
35+00
36+00
37+00

Sta. 0+19.48, Line 3
Sta. 0+00 Line 4
B.L. Sta. 33+16.48, 47.06' Rt.
1-8"x8" MJ Tee

19.48 L.F. 8" Pipe

Sta. 0+00, Line 3
B.L. Sta. 32+97.00, 47.05' Rt.
Connect to Exist. 8" Pipe

259.52 L.F. 8" Pipe

Per Plan

Sta. 2+79, Line 3
B.L. Sta. 35+76.00, 47.15' Rt.
1-8" 45° MJ Bend
4.5' Deep

38.01 L.F. 8" Pipe

54.63 L.F. 8" Pipe

Sta. 3+17.01, Line 3
B.L. Sta. 35+99.88, 17.58' Rt.
1-8" 45° MJ Bend
-9.2' Deep

Sta. 3+71.64, Line 3
B.L. Sta. 36+54.50, 17.34' Rt.
1-8"x8" MJ Tee
1-8" Valve (S)
1-6" Valve Box
9.00 L.F. 8" DICL Pipe
Top Valve Box Elev.=Exist.

78.36 L.F. 8" Pipe

Sta. 4+50, Line 3
B.L. Sta. 37+32.86, 16.79' Rt.
Match Point

LINE NO. 3

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.

SCALE
40 0 40 80
5 0 5

Existing Ground
Finish Grade
Top of Proposed 8" Pipe

1310
1305
1300
1295
1290

0+00 0+00 1+00 2+00 3+00 4+00

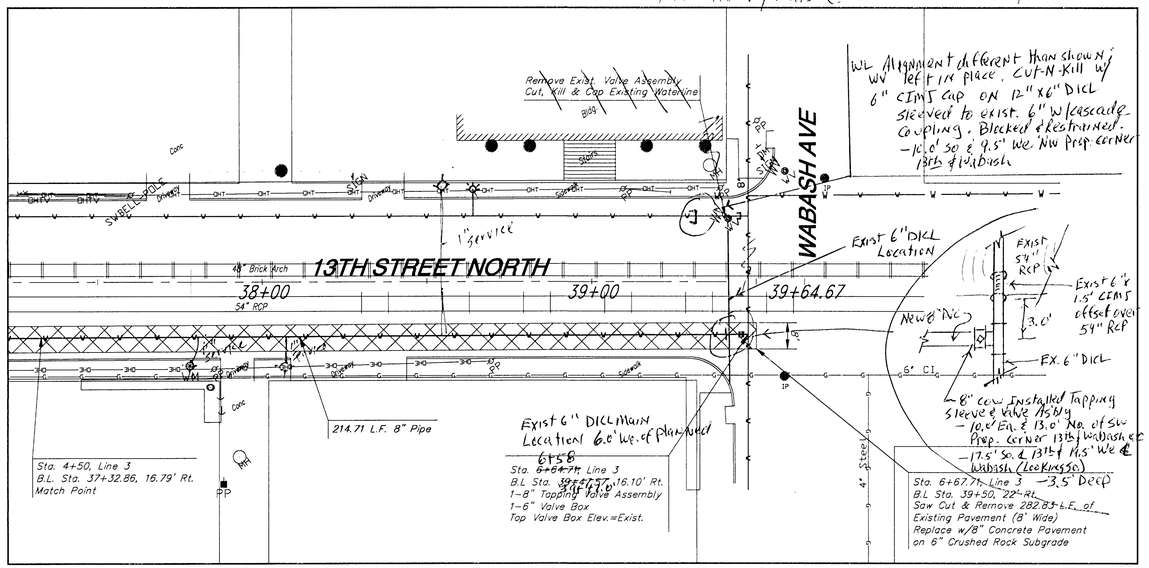
KANSAS DEPARTMENT OF TRANSPORTATION
WATER DISTRIBUTION IMPROVEMENTS
LINE 2 & 3

Sheet No.

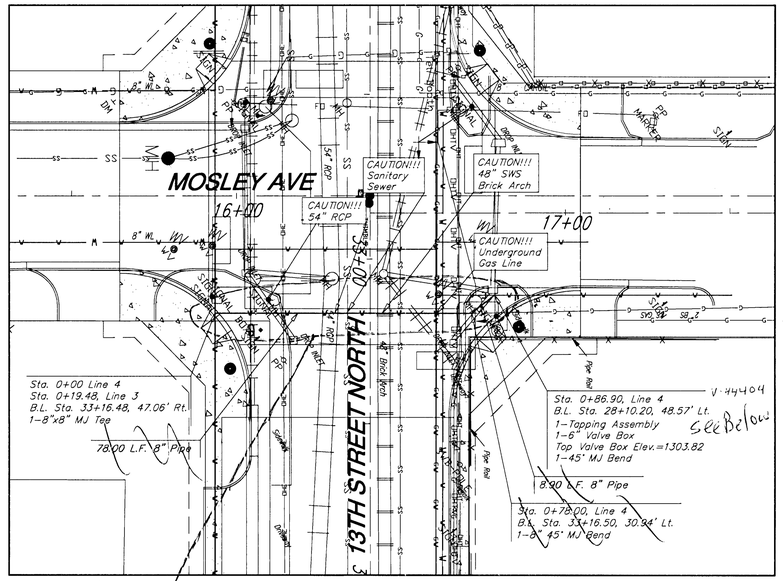
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87N-0238-01	2009	15	59

DATE	BY	REFERENCES NOTED	REFERENCES CHECKED

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



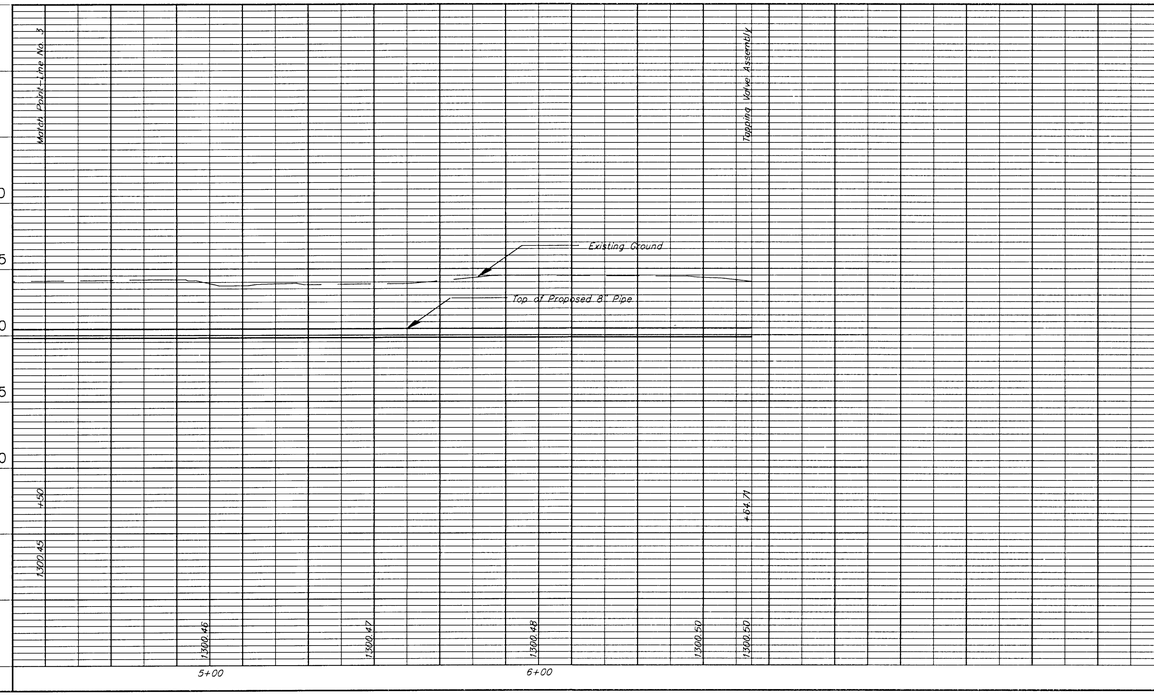
LINE NO. 3

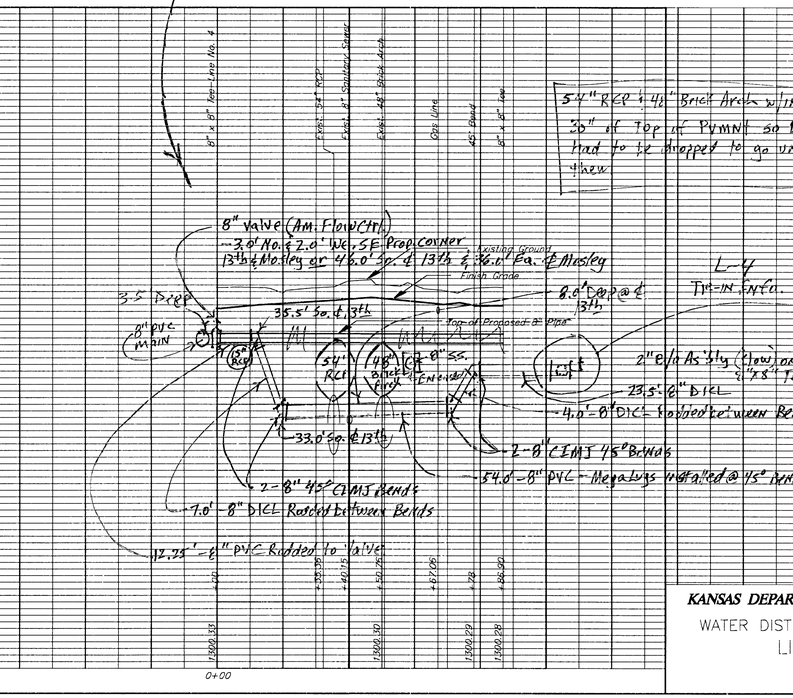


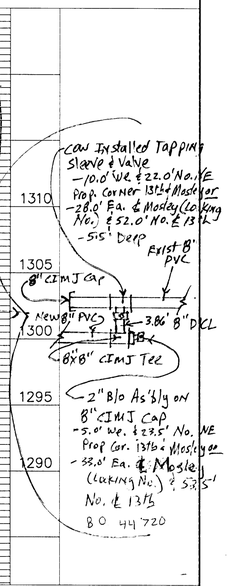
LINE NO. 4

SCALE
20' 0 20' 40' 80'
5 0 5

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







KANSAS DEPARTMENT OF TRANSPORTATION

WATER DISTRIBUTION IMPROVEMENTS

LINES 3 & 4

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

STP-N-23(801)

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

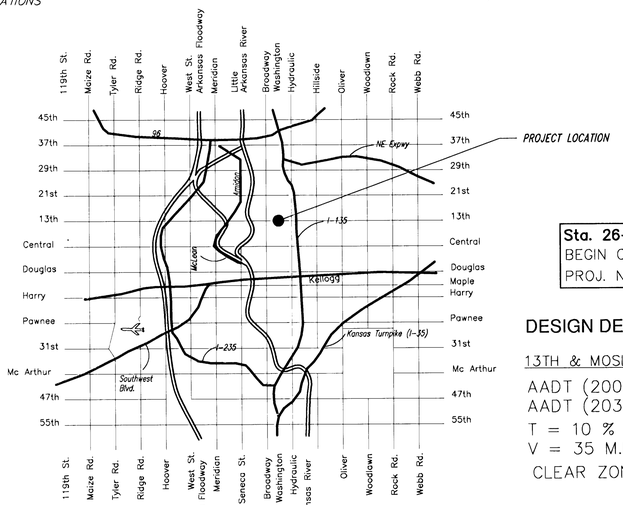
POPULATION = 304,011

GRADING
SURFACING
SIGNALIZATION

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

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

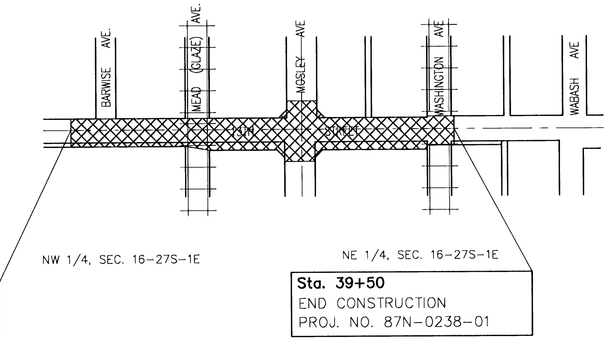


SITE LOCATION MAP
N.T.S.

SCALE : 1 = 500

SW 1/4, SEC. 9-27S-1E

SE 1/4, SEC. 9-27S-1E



NW 1/4, SEC. 16-27S-1E

NE 1/4, SEC. 16-27S-1E

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

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

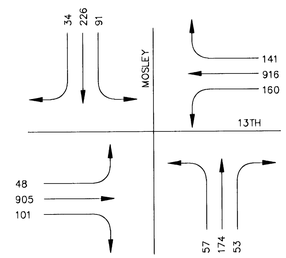
DESIGN DESIGNATION

13TH & MOSLEY

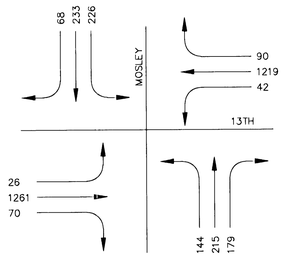
AADT (2002) = 21,860
AADT (2030) = 30,750
T = 10 %
V = 35 M.P.H.
CLEAR ZONE = 6 Ft.

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	2"
FH VALVE	AMERICAN FLOW CONTROL	6"

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.



A.M. PEAK HOUR
7:00 A.M. TO 8:45 A.M.



P.M. PEAK HOUR
4:00 P.M. TO 5:45 P.M.

PAVERS, INC.- CONTRACTOR
J. WESTHOFF - CITY OF WICHITA, FLD. PROJ. ENGR
T. ANTHIS - CITY OF WICHITA, INSPECTOR
AS-BUILT
RELEASE DATE:
∴ APROVAS 09/09/2010

APPROVED-DATE

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

LEGEND

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

DATE | BY

SURVEY
CADD TECHNICIAN
DESIGNERS
SQUAD

POE & ASSOCIATES, INC.
CONSULTING ENGINEERS
3940 E. Central, Suite 200 • Wichita, KS 67208-4242
Phone 316/685-4114 FAX 316/685-4444

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

DATE	BY	REFERENCES NOTED	REFERENCES CHECKED

NOTE:
REVISED VALVE LOCATION INSTALLED PRIOR TO PROJECT START.
INSTALLED W/ RR CORRIDOR BY DONDLINGER & SONS.
8" GATE VALVE - 58'N & 27.5'S NWPC OF 13TH & BARWISE (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 & PIKE SERVICE TIE-INS

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

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

5.5' DEEP

1" SERVICE 9' DEEP UNDER 54" RCP

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

Bl. 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

CAUTION!!! Underground Gas Line

42.32 L.F. 8" Pipe

CAUTION!!! 48" SWS Brick Arch

CAUTION!!! 54" RCP

48" RCP

54" RCP

CAUTION!!! 48" SWS Brick Arch

Sta. 0+42.32, Line 1
B.L. Sta. 27+31.06, 26.94' Rt.
1-8" 45° MJ Bend

78.99 L.F. 8" Pipe

CAUTION!!! Underground Gas Line

45° BEND, CIMJ -- 6.5' DEEP
58'N PL OF BARWISE & 32.5'S NPL ON 13TH ST

NOTES: OR 76'W & 12.5'S OF ℄ THIMBLE @ 13TH & BARWISE

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.

Sta. 1+21.31, Line 1
Sta. 0+00, Line 2
B.L. Sta. 28+10.08, 26.96' Rt.
1-8"x8" MJ Tee
1-8" Valve (N)
1-6" Valve Box
Top Valve Box Elev.=Exist.

145.74 L.F. 8" Pipe

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" FVC UNDER RR CORRIDOR TO APPROX. STA. 26+98, Lt.

Sta. 2+67.05, Line 1
Bl. Sta. 29+55.79, 27.02' Rt.
1-8"x8" MJ Tee
1-8" Valve (S)
1-6" Valve Box
10 L.F. 8" DICL Pipe
Top Valve Box Elev.=Exist.
Connect to Existing 8" Pipe (N & S)

14.77 L.F. 8" Pipe

Sta. 2+81.32, Line 1
B.L. Sta. 29+70.06, 27.02' Rt.
1-8" 22.5° MJ Bend

78.86 L.F. 8" Pipe

Sta. 3+60.18, Line 1
B.L. Sta. 30+48.36, 46.96' Rt.
1-8" 22.5° MJ Bend

14.82 L.F. 8" Pipe

Sta. 3+75.00, Line 1
B.L. Sta. 30+61.18, 46.97' Rt.
1-Fire Hydrant Assembly
L=X 19.5'
Top Valve Box Elev.=Exist.
FH Bury Line Elev.=1305.21

187.71 L.F. 8" Pipe

Sta. 5+62.71, Line 1
B.L. Sta. 32+48.89, 47.03' Rt.
1-8"x 8" MJ Tee
1-8" MJ Gate Valve (S)
Connect to Existing 8" Pipe (E & S)
Top Valve Box Elev.=1303.54

EXISTING 8" PVC REMAINED UNDER MOSLEY

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

LINE NO. 1

SCALE 1" = 20'

RELOCATED 48" RCP REPLACING 48" BRICK ARCH

CORRECTED SWS ELEVATIONS

54" RCP SWS
Sta. 3+19.63 to Sta. 3+51.63
Bl. L.F. 24" Steel Casing
66 LF 24" STEEL CASING
STA. 29+90.5 TO STA. 30+56.51 Rt

KANSAS DEPARTMENT OF TRANSPORTATION
WATER DISRIBUTION IMPROVEMENTS
LINE NO. 1

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

DATE
BY
REFERENCES NOTED
REFERENCES CHECKED

Sta. 0+00, Line 2
Sta. 1+21.31, Line 1
B.L. Sta. 28+10.05, 26.96' Rt.

Cut, Kill & Cap Existing Waterline South of Connection

SEE PLATE #1 FOR REVISED WL TIE-IN

13TH ST

Line No. 1

CAUTION!!! 18" SWS Brick Arch

BARWISE

CAUTION!!! 54" RCP

73.98 L.F. 8" Pipe
Sta. 0+73.98, Line 2
B.L. Sta. 28+10.20, 48.57' Lt.
1-8"x 8" MJ Tee
5.00 L.F. 8" DICL(W)
1-8" 90° Bend (W)
Connect to Exist. 8" Pipe

SEE PLATE #2 FOR DETAILS

1.66 L.F. 8" DICL Pipe

Sta. 0+75.64, Line 2
B.L. Sta. 28+10.20, 48.57' Lt.
1-2" Blowoff Assembly

LINE NO. 2

SEE L-4 TIE-IN DETAILS NEXT SHEET

MOSLEY AVE

13TH STREET NORTH

WASHINGTON

1" SERVICE

Pipe Rail

48" Brick Arch

54" RCP

Sta. 0+19.48, Line 3
Sta. 0+00 Line 4
B.L. Sta. 33+16.48, 47.06' Rt.
1-8"x8" MJ Tee
1-8" MJ Gate Valve (N)
Top Valve Box Elev.=1303.56

19.48 L.F. 8" Pipe

Sta. 0+00, Line 3
B.L. Sta. 32+97.00, 47.05' Rt.
Connect to Exist. 8" Pipe

259.52 L.F. 8" Pipe

Sta. 2+79, Line 3
B.L. Sta. 35+76.00, 47.15' Rt.
1-8" 45° MJ Bend, 4' DEEP

38.01 L.F. 8" Pipe

Sta. 3+17.01, Line 3
B.L. Sta. 35+99.88, 17.58', Rt.
1-8" 45° MJ Bend — 32' N OF SPL ON 13TH ST & IN LINE W/ WPL ON WASHINGTON, 4.2' DEEP

54.63 L.F. 8" Pipe

CAUTION!!! Underground Gas Line

SEE PLATE #8 FOR TIE-IN INFO.

CAUTION!!! SWS Pipe

78.36 L.F. 8" Pipe

Sta. 3+71.64, Line 3
B.L. Sta. 36+54.50, 17.34' Rt.
1-8"x8" MJ Tee
1-8" Valve (S)
1-6" Valve Box
9.00 L.F. 8" DICL Pipe
Top Valve Box Elev.=Exist.

Sta. 4+50, Line 3
B.L. Sta. 37+32.86, 16.79' Rt.
Match Point

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

LINE NO. 3

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

SCALE
40 0 40 80
5 0 5

NOTE: GAS LINE CLEARANCE ARE TO CLOSE

1" CLEARANCE
4.2" CLEARANCE
1.5" CLEARANCE

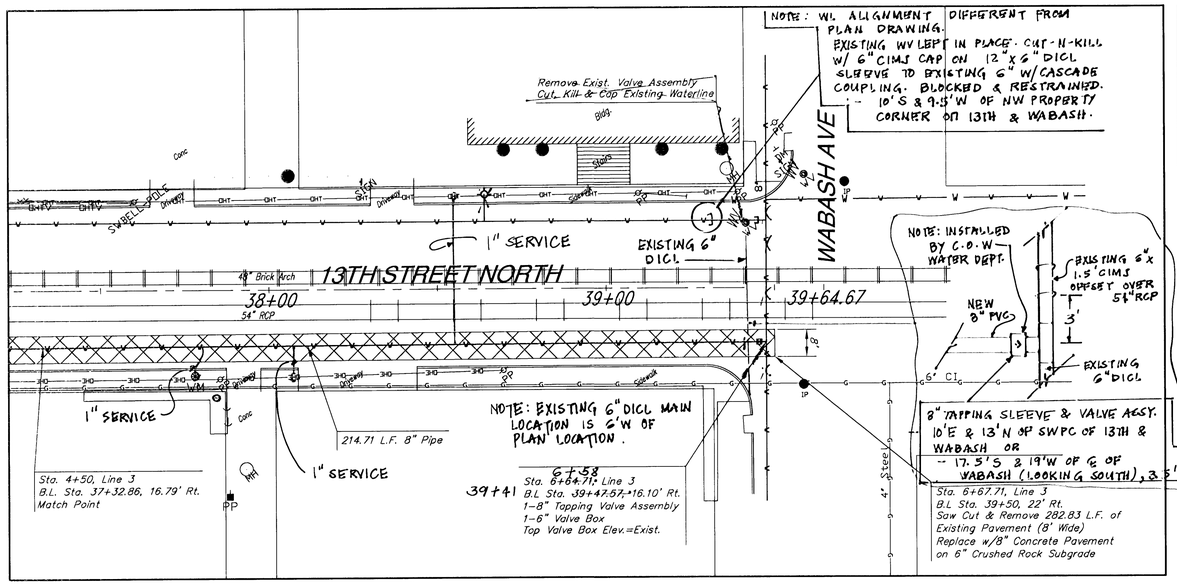
Existing Ground
Finish Grade
Top of Proposed 8" Pipe

KANSAS DEPARTMENT OF TRANSPORTATION
WATER DISTRIBUTION IMPROVEMENTS
LINE 2 & 3

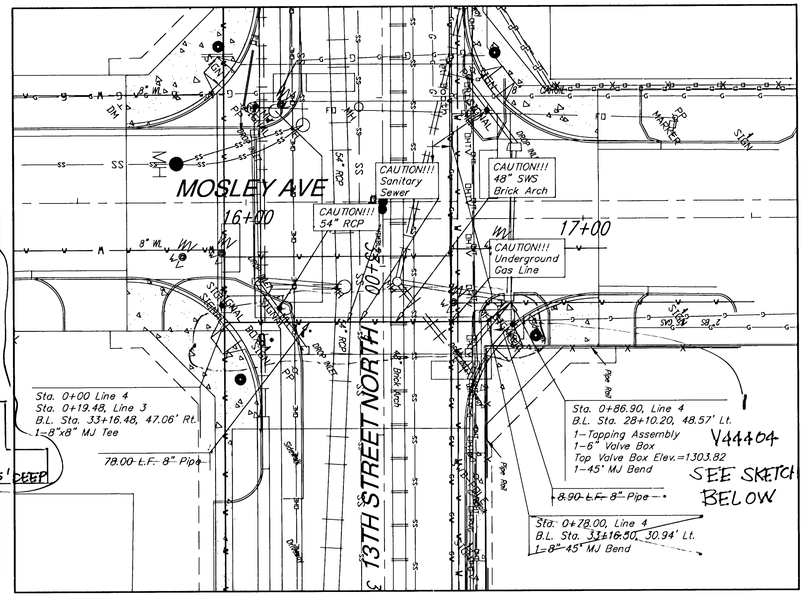
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87N-0238-01	2009	15	59

DATE | BY | REFERENCES NOTED | REFERENCES CHECKED

L-3 TIE-IN W/ EXISTING @ SW CORNER OF 13TH & WABASH

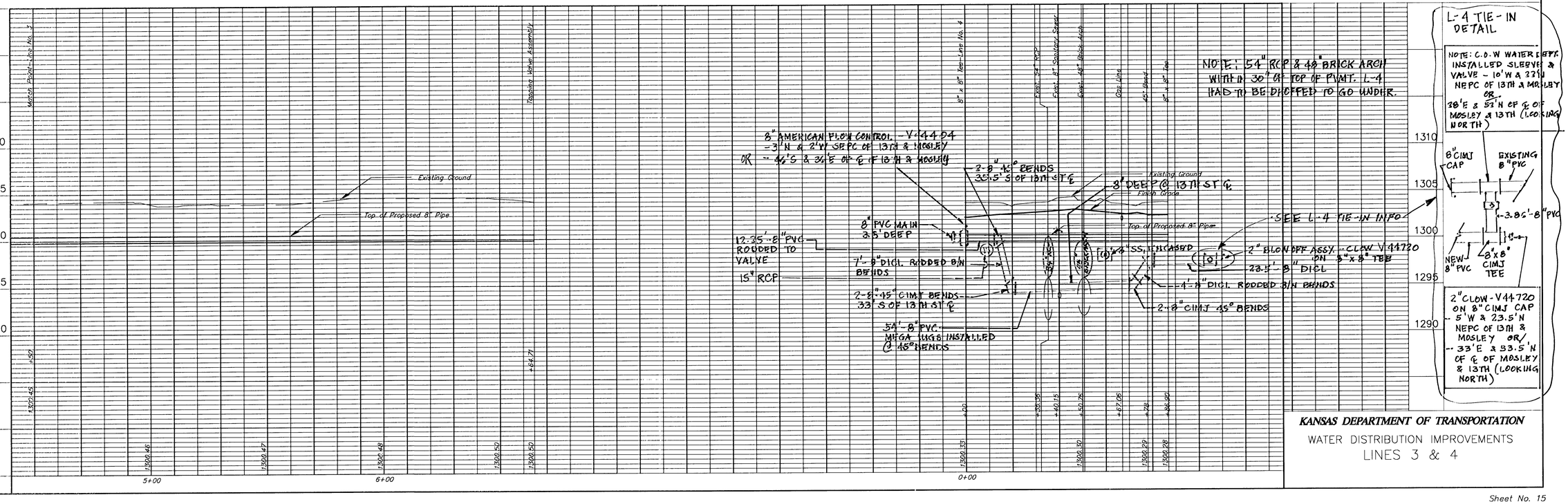


LINE NO. 3



LINE NO. 4

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



L-4 TIE-IN DETAIL

NOTE: C.O.W WATER DEPT. INSTALLED SLEEVE & VALVE - 10'W & 22'N NEPC OF 13TH & MOSLEY OR 30'E & 53'N OF E OF MOSLEY & 13TH (LOOKING NORTH)

2" CLOW-V44720 ON 8" CIMJ CAP -- 5'W & 23.5'N NEPC OF 13TH & MOSLEY OR/ -- 33'E & 53.5'N OF E OF MOSLEY & 13TH (LOOKING NORTH)

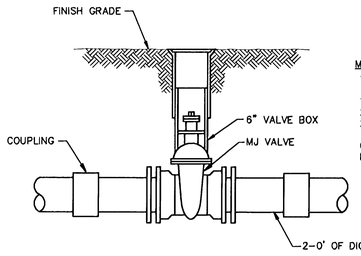
KANSAS DEPARTMENT OF TRANSPORTATION

WATER DISTRIBUTION IMPROVEMENTS

LINES 3 & 4

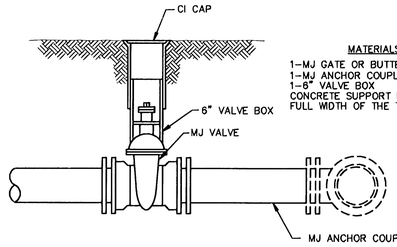
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87N-0238-01	2009	17	59

DATE	BY	REFERENCES NOTED	REFERENCES CHECKED



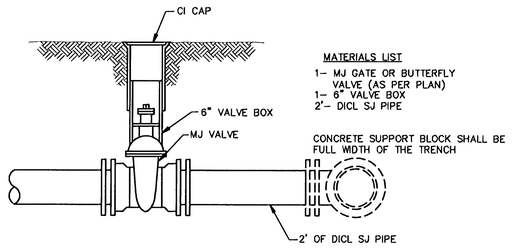
MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-6" VALVE BOX
2-COUPLINGS
2-SHORT PCS. (DICL SJ PIPE)
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

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

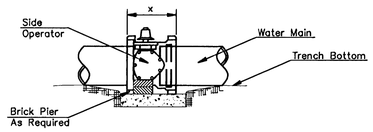
ANCHORED VALVE ASSEMBLY



MATERIALS LIST
1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1- 6" VALVE BOX
2'- DICL SJ PIPE

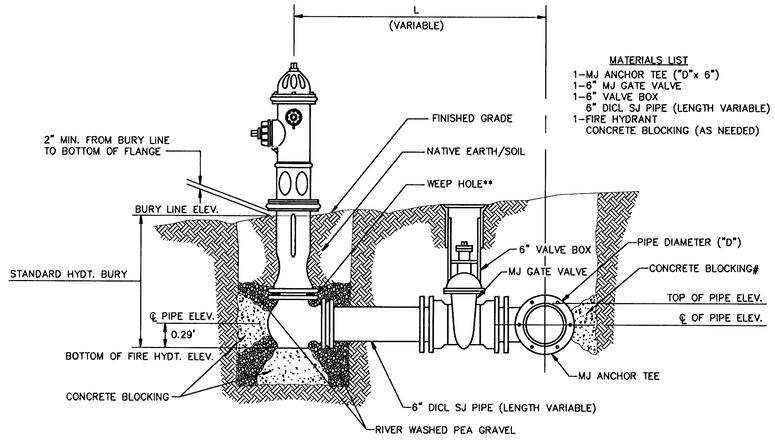
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

VALVE ASSEMBLY



NOTES
1. This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. Larger lines to be detailed on plans.
2. 6" Valve Box and Cover required per City of Wichita Std. Specifications.
3. 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" DICL SJ PIPE (LENGTH VARIABLE)
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.

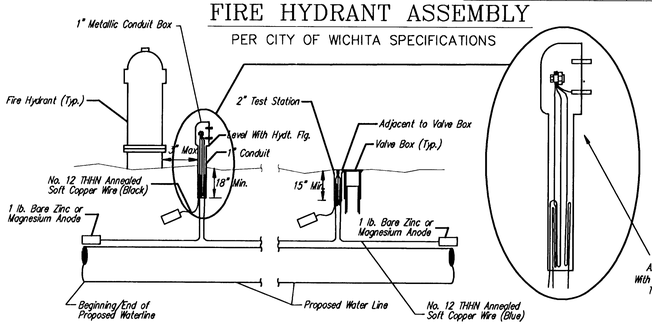
CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.

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

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

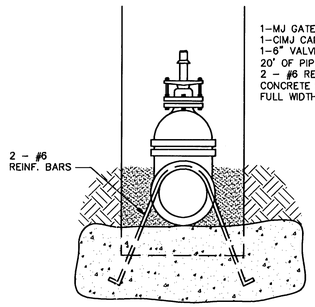
PER CITY OF WICHITA SPECIFICATIONS



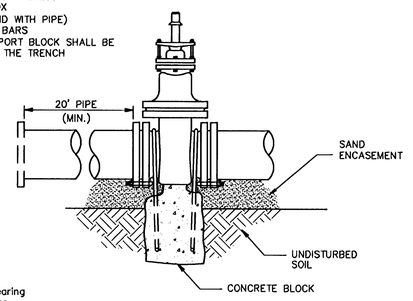
TRACER WIRE
Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. Split-bolt connectors shall be used at splice 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 T2PS38 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



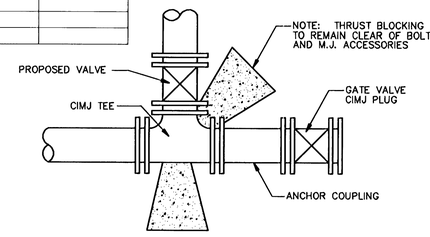
MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-CIMJ CAP WHEN NECESSARY
1-6" VALVE BOX
20' OF PIPE (BID WITH PIPE)
2 - #6 REINF. BARS
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



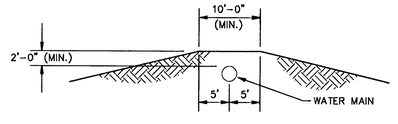
Notes:
1. Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
2. The thrust block shall be constructed such that bolts, nuts, and other 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 #/in²
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL

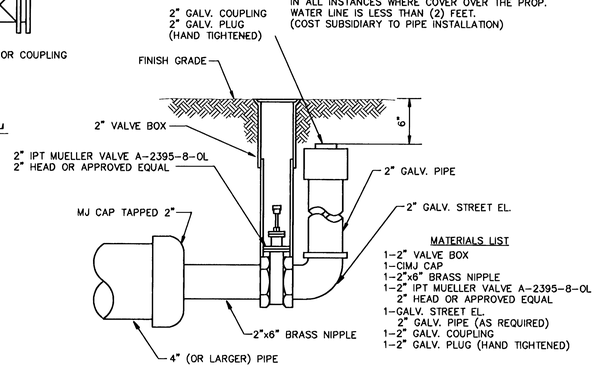


KEY BLOCK DETAIL



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
1-2" 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)

2" BLOWOFF ASSEMBLY

THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4501
(316) 268-4114 FAX

STANDARD WATER ASSEMBLY DETAILS

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

PROJECT NUMBER	INDEX CODE
XXX-XXXXX	XXXXXX
DATE: DEC 98	SHEET OF

Revised: 6-7-00, MCG