General Notes

1. Utility service lines, poles, valve boxes, meters, et cetera are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.

2. Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted 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.

3. 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. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.

4. 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.

5. Traffic affected by construction on this project shall be handled in accordance with the latest addition of the Manual on Uniform Traffic Control Devices subject to approval by the Engineer. Traffic to be maintained on Ridge Road thru construction.

6. All areas disturbed by construction shall be seeded with rye grass immediately following construction in that area. Seed shall be applied at the rate of 350# per acre.

7. Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:

   Kansas One-Call 687-2470

   The Contractor must notify the following in case of an emergency:

Cablevision	262-4270
or	263-2061
K.P.L. Gas Service Company	263-7511
Kansas Gas & Electric Company	264-1141
Arkla Gas Company	942-8350
or	263-8161
Southwestern Bell Telephone Company	1-571-2611
City of Wichita Water Department	268-4908
City of Wichita Sewer Maintenance	268-4071)

8. The Contractor shall notify pipeline companies at least 24 hours in advance of any work being performed.

9. All work shall conform the to specifications for stormwater sewer construction for the City of Wichita.

10. The Contractor may elect to bore and jack the proposed 36" storm sewer across Ridge Road instead of the proposed cut and cover method; however, no adjustments in the contract unit items, quantities, or prices bid shall be allowed.

11. The Contractor may elect to use aluminized steel pipe in place of reinforced concrete pipe. Use of such pipe shall be in accordance with City of Wichita specifications and subject to the City's approval. No adjustments in the contract unit items, quantities, or prices bid shall be allowed for the alternate use of aluminized steel pipe.

12. All excavation dewatering costs shall be subsidiary to the bid items.

13. Contractor to coordinate construction of Line 2 Type 1A inlet with site contractor for Lot 4. Contact Jerry Dieker @ 263-4557.

STORMWATER SEWER NO. 450 - PHASE 1 TO SERVE

LAKERIDGE COMMERCIAL 2ND ADDITION

Project Number

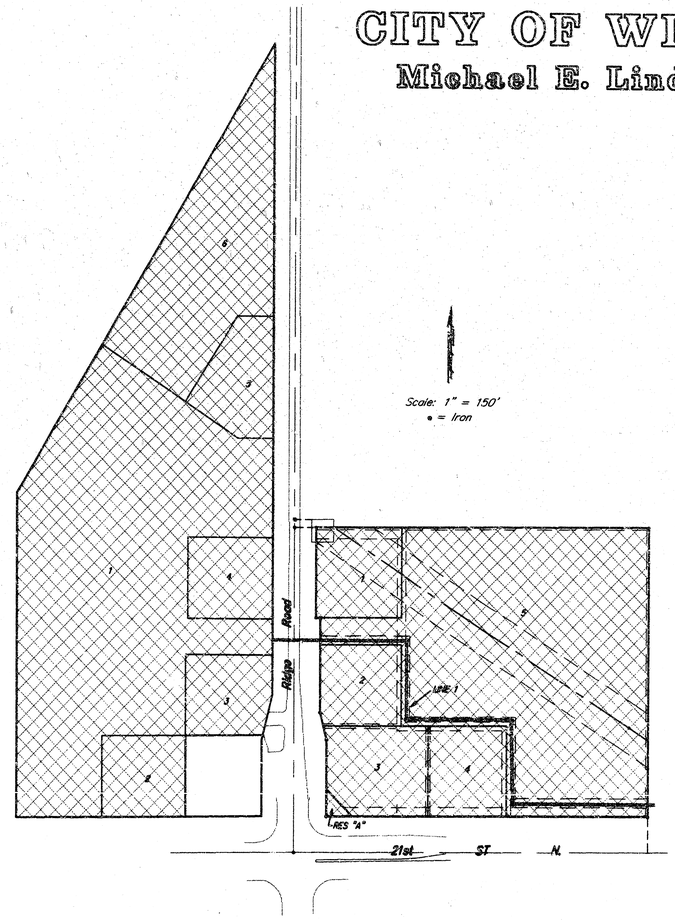
468-76-245-82878-000-000-001

Index Code

750604

CITY OF WICHITA, KANSAS

Michael E. Lindebak, City Engineer



Scale: 1" = 150'
• = Iron

INDEX:

1	Title Sheet
2-4	Plan Sheets
5-7	Typical Details
8	Copy of Plat

Benefit District:

BOOKED
7-24-95
MCG
D-258

KANSAS REGISTERED PROFESSIONAL ENGINEER 1/9/95

LR|SWSCOV

BAUGHMAN COMPANY P. A.
ENGINEERING SURVEYING & PLANNING
316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

Benchmark: City Disc. 61'E & 66.6'N
℄ Ridge Rd. & 21st St.
Elev. = 142.34 City Datum

℄ 21ST ST NO

Scale: 1" = 20' Horz.
1" = 5' Vert.
● = Iron

Sta. 0+00 Begin Line 1
Connect 36" SWS to existing
36" Stub. Contractor to Verify
Depth & Loc. prior to Construction.

CAUTION !
Exisiting Masonry Wall. Contr.
to support wall if necessary.
Cost to be incidental to
other items in the bid.

S1/2, SW1/4 SEC 3,
825' E OF S.W. COR.

Sta. 3+18.75 Line 1
Construct Std. Manhole.
(D=5')
Top Elev. = 139.20

UNDERGROUND SWB LINES

Existing Chain Link Fence

330'

80'

3.75'

30.30'

15'

30'

20' LANDSCAPE EASEMENT

LINE 1

38" RCP

20' LANDSCAPE ESMT

ADDITION

2ND

RES A

20' DRAINAGE EASEMENT

89°39'36"

45' BLDG SETBACK

Existing Masonry Wall

18" RCP

5' MAL. ESMT

20' UTIL ESMT

ADDITION

COMMERCIAL

RIDGE

LAKE

LAKE RIDGE

2ND

℄ 100' ARKLA PIPELINE EASEMENT

5

20' DRAINAGE ESMT

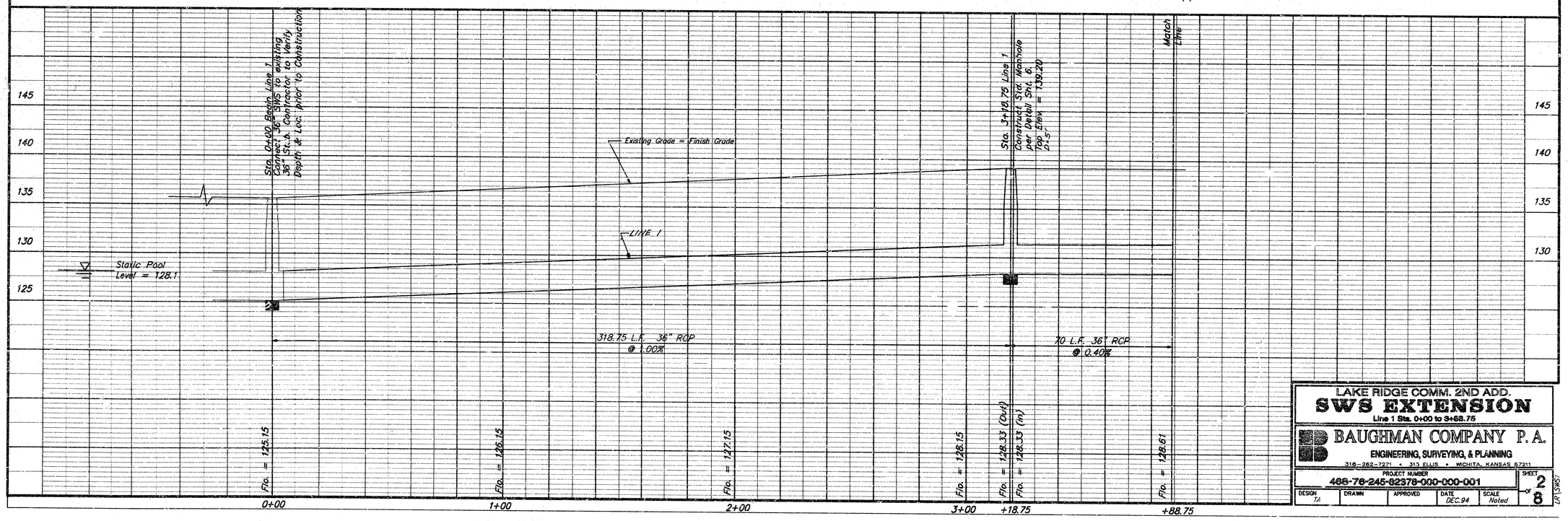
5' UTIL ESMT

Match Line

Match Line = Sta. 3+88.75

4

100' BLDG SETBACK



LAKE RIDGE COMM. 2ND ADD.

SWS EXTENSION

Line 1 Sta. 0+00 to 3+68.75

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 313 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER	SHEET
466-76-245-62378-000-000-001	2 OF 8

DESIGN	DRAWN	APPROVED	DATE	SCALE
TA			DEC.94	Noted

LR (SWS)

Benchmark: City Disc. 61'E. & 66.6'N
℄ Ridge Rd. & 21st St.
Elev. = 142.34 City Datum

100' BLDG SETBACK

Match Line

Match Line = Sta. 3+88.75

4

20' DRAINAGE EASEMENT

20' UTIL ESMT

Sta. 0+45.96 Line 2
Construct Type 1A inlet
per Detail Sht. 5.
H = 5'4" W = 4'4"
Top Elev. = 141.30
Curb and Gutter to be
by Others.

16.67'

25'x25' ESMT BY SEPARATE INST.

40°08'01"

22.73'

Sta. 5+03.75 Line 1 =
Sta. 0+00 Line 2
Construct Std. Manhole
(D=5')
Top Elev. = 139.60

89°39'36"

180'

245'

℄ 20' UTIL ESMT

SS MH

EXISTING 8" SAN. SEWER

65'

℄ 10' UTIL ESMT

15'

15'

20' DRAINAGE EASEMENT

LINE 1

30' BLDG SETBACK

89°39'36"

Sta. 7+48.75 Line 1
Construct Area Inlet
per Detail Sht. 7
Top Elev. = 140.00

UTILITY EASEMENT

10'

3

SETBACK

BUILDING

45'

COMMERCIAL

2ND

ADDITION

LAKE RIDGE

5

℄ 100' PEOPLES PIPELINE ESMT

Scale: 1" = 20' horz.
1" = 5' vert.

2

Match Line

Match Line = Sta. 8+08.75

Sta. 5+03.75 Line 1 = Sta. 0+00 Line 2 Construct Std. Manhole per Detail Sht. 6 Top Elev. = 139.60 D=5'

Sta. 7+46.75 Line 1 Construct Area Inlet per Detail Sht. 7 Top Elev. = 140.00

Sta. 0+45.96 Line 2 Construct Type 1A Inlet per Detail Sht. 5 H = 5'4" W = 4'4" Top Elev. = 141.30

Existing Grade = Finish Grade

LINE 1

LINE 2

115 L.F. 36" RCP @ 0.400%

245 L.F. 36" RCP @ 0.400%

60 L.F. 36" RCP @ 0.394%

45.96 L.F. 15" RCP @ 4.11%

Flo. = 128.67

Flo. = 128.65

Flo. = 129.38 (Out)
Flo. = 129.08 (In) (36")
Flo. = 130.50 (In) (15")

Flo. = 129.46

Flo. = 129.96

Flo. = 130.06 (Out)
Flo. = 130.06 (In)

Flo. = 130.39

Flo. = 130.42

Flo. = 130.50 (In) (15")
Flo. = 129.08 (Out) (36")

Flo. = 137.39 (Out)

145
140
135
130
125

3+88.75 4+00 5+03.75 6+00 7+00 +48.75 8+00 +08.75

0+00 0+45.96

LAKE RIDGE COMM. 2ND ADD.

SWS EXTENSION

Sta. 3+88.75 to 8+08.75

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316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER 468-76-245-82378-000-000-001

SHEET 3 OF 8

DESIGN	DRAWN	APPROVED	DATE	SCALE
TA			DEC.94	Noted

LR13452

Benchmark: City Disc. 61'E & 66.6'N
℄ Ridge Rd. & 21st St.
Elev. = 142.34 City Datum

Match Line

Match Line = Sta. 8+08.75

20' DRAINAGE EASEMENT

30' BLDG SETBACK

20' UTIL ESM'T

Existing 8" SANITARY SEWER

5'

15'

10'

89°39'36"

190'

LINE 1

SETBACK

BLDG

60'

25'

10'

190'

200'

100' R/W

110' R/W

ROAD

RIDGE

Overhead Utility Lines

UG Cable TV

UG SWB

12" Water Main

ADDITION

2ND

COMMERCIAL

COMM.

ADD.

REFLECTION RIDGE

RIDGE

LAKE

℄ PEOPLES PIPELINE EASEMENT

1 2 3 4 5

Scale: 1" = 20' Horz.
1" = 5' Vert.
• = Iron

Remove Existing Fence as Necessary to Facilitate Construction. Do not Replace. Cost of Removal to be Incidental to Project Cost.

Remove and Replace Asphalt Mat Pavement as Necessary to Facilitate Construction. Cost to be Incidental to Project Cost.

Sta. 9+23.75 Line 1
Construct Std. Manhole
(D = 5')
1 - 18" RCP Stub (N)
Top Elev. = 140.00

CAUTION!
Existing Sanitary
Sewer Crossing.

CAUTION!
Buried Cable
TV Line Crossing.

Sta. 12+21.25 End Line 1
Construct Std. Manhole
(D = 5') w/ Deeter 1968
Beehive Inlet Grate.
Rim Elev. = 138.90
Top of Grate = 139.65

Match Line

Sta. 8+23.75 Line 1
Construct Std. Manhole
per Detail Sht. # 18
1 - 18" RCP Stub (N)
Top Elev. = 140.00
D=5'

Existing Grade = Finish Grade

LINE 1

115 L.F. 36" RCP
@ 0.594%

297.5 L.F. 36" RCP
@ 0.400%

Caution! Underground
Cable TV Line

℄ Ridge Road

Install 23 L.F. Flowable
Fill as per City Specs

Sta. 12+21.25 End Line 1
Construct Std. Manhole
(D = 5') w/ Deeter 1968
Inlet Grate.
Rim Elev. = 138.90
Top of Grate = 139.65

Match Line

Flo. = 130.42

Flo. = 130.96

Flo. = 131.10 (Out)
Flo. = 131.10 (In) (36")
Flo. = 131.20 (In) (18")

Flo. = 131.41

Flo. = 131.81

Flo. = 132.21

Flo. = 132.29 (Out)

8+08.75 9+00 +23.75 10+00 11+00 12+00 +21.25

145 140 135 130 125

LAKE RIDGE COMM. 2ND ADD.
SWS EXTENSION
Sta. 8+08.75 to 11+93.75

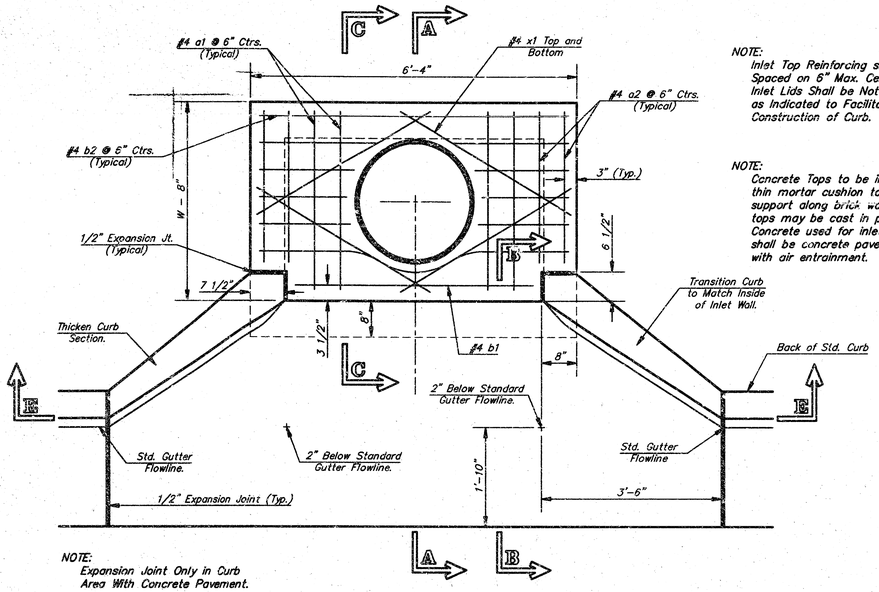
BAUGHMAN COMPANY P.A.
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316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER
468-76-245-82378-000-000-001

SHEET 4 OF 8

DESIGN	DRAWN	APPROVED	DATE	SCALE
TA			DEC.94	Noted

ZA1SWS3

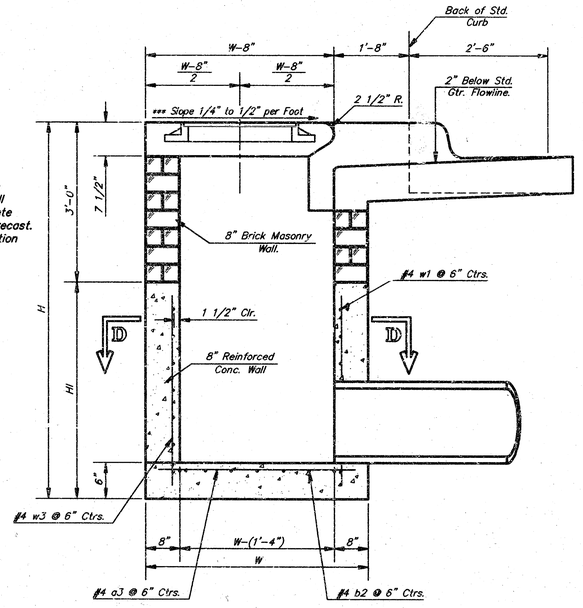


NOTE:
Expansion Joint Only in Curb Area With Concrete Pavement.

PLAN

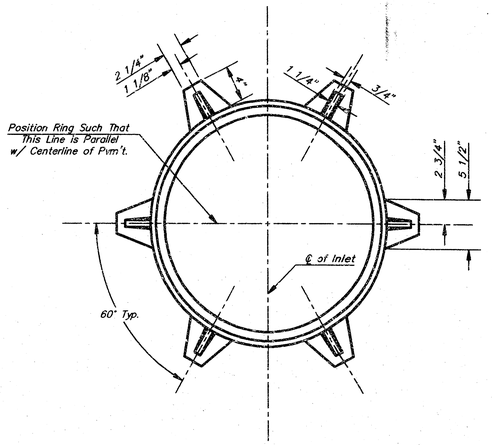
NOTE:
Inlet Top Reinforcing shall be Spaced on 6" Max. Centers. Inlet Lids Shall be Notched Out as Indicated to Facilitate Construction of Curb.

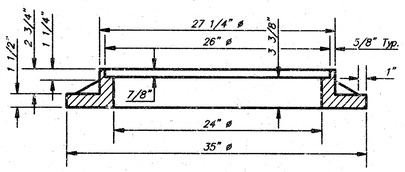
NOTE:
Concrete Tops to be installed on thin mortar cushion to insure full support along brick walls. Concrete tops may be cast in place or precast. Concrete used for inlet construction shall be concrete pavement mix with air entrainment.



SECTION A-A

***NOTE: Slope of Inlet tops to Match Sidewalk or Parking Slopes within Limits Indicated.

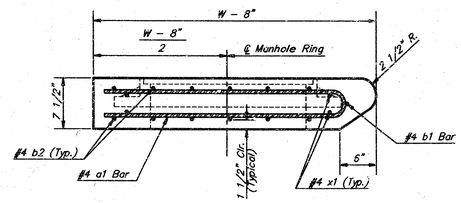




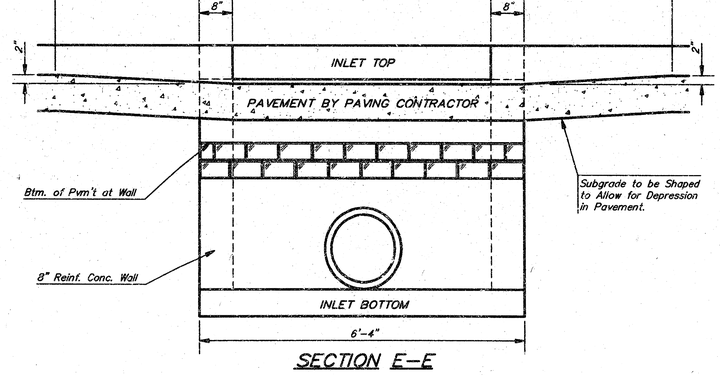
MANHOLE RING AND COVER

Weight = 180 Lbs.

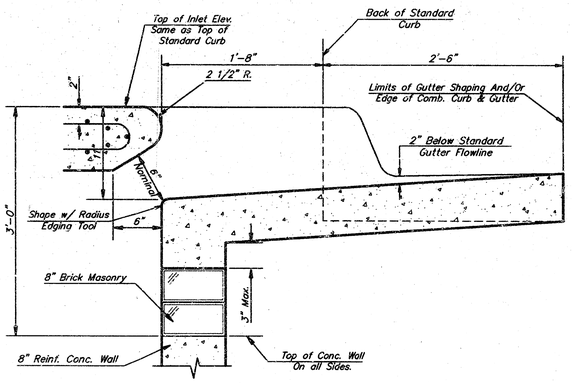
*See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used With Inlet Frame.



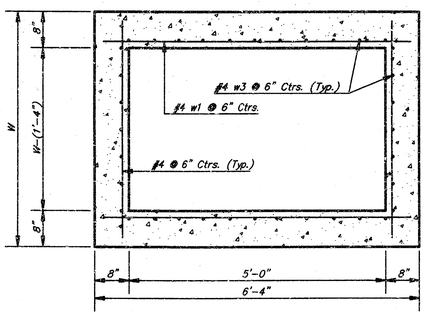
SECTION A-A



SECTION E-E



SECTION B-B



SECTION D-D

NOTE: Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base and top on this inlet when W=6'-4" and H=7'-0" or less.

Additional curb and gutter construction necessary to connect set-back inlet to pavement will be paid for at the unit price bid for each inlet hookup.

Inlet invert shall be shaped with a sand mix concrete to create flow channels and to increase hydraulic efficiency such that the inlet will be self-cleaning between all inlet and/or outlet pipes.

The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall

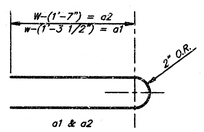
PRECAST SLAB AND FLOOR REINFORCING

		W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
* a1	#4	6	6'-7"	6	8'-7"	6	10'-7"	6	12'-7"	6	14'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1	13	8'-1"
b1	#4	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
* b2	#4	23	6'-1"	29	6'-1"	35	6'-1"	41	6'-1"	47	6'-1"
x1	#4	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"	8	5'-2"

WALL REINFORCING

		W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
w1	#4	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"
w2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
w3	#4	32	②	36	②	40	②	44	②	48	②

* Field Bend or Cut Reinforcing as Required for Clearance.
① 4 (H1 - 12") (H1 - 21") Rounded down to nearest 0.5'
② H1 - 3"



BENDING DIAGRAM

STANDARD CURB INLET PRECAST TOPS

W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4'-4"	3'-8" x 6'-4" x 7 1/2"	21" & SMALLER	0.38±
5'-4"	4'-8" x 6'-4" x 7 1/2"	24" & 30"	0.51±
6'-4"	5'-8" x 6'-4" x 7 1/2"	36" & 42"	0.64±
7'-4"	6'-8" x 6'-4" x 7 1/2"	48" & 54"	0.77±
8'-4"	7'-8" x 6'-4" x 7 1/2"	60" & 66"	0.90±

Revised - Feb. 16, 1989

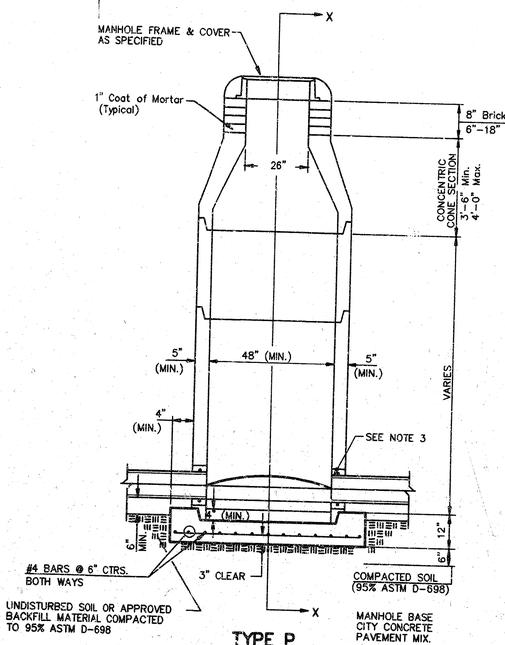
CITY OF WICHITA STANDARD TYPE 1A
CURB INLET DETAILS
INLET OPENING = 6" x 5'-0"

PROJECT NUMBER

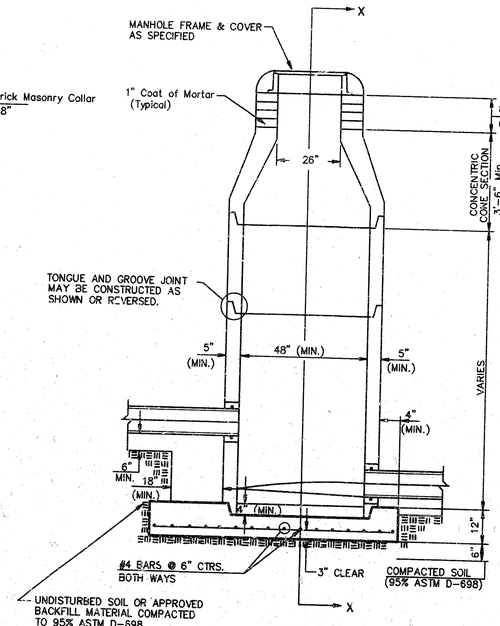
SHEET 5 OF 8

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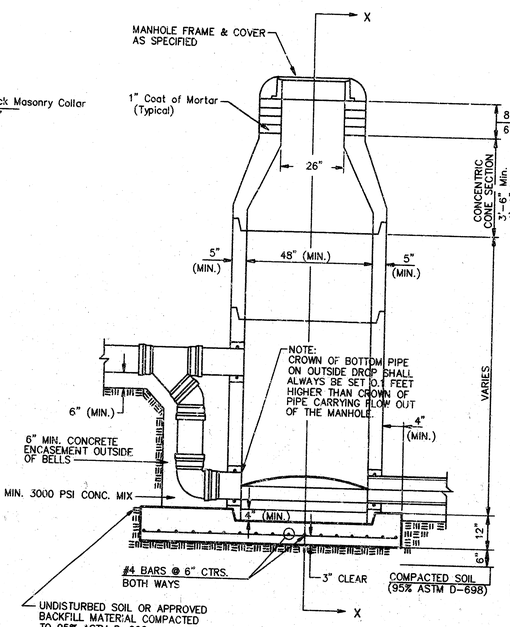
SEWER APPURTENANCES DETAILS



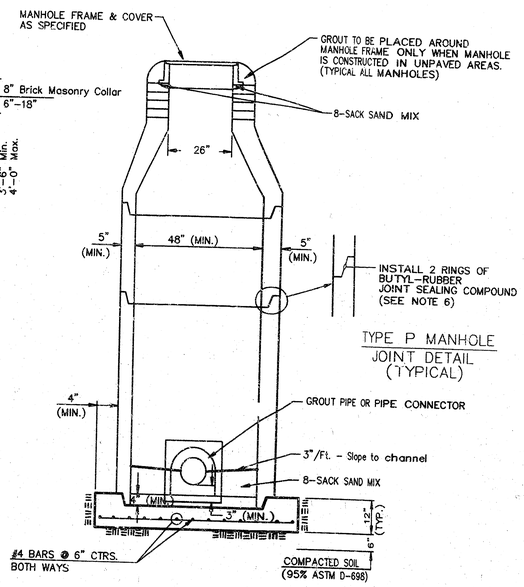
TYPE P STANDARD MANHOLE



TYPE P INSIDE DROP MANHOLE



TYPE P OUTSIDE DROP MANHOLE

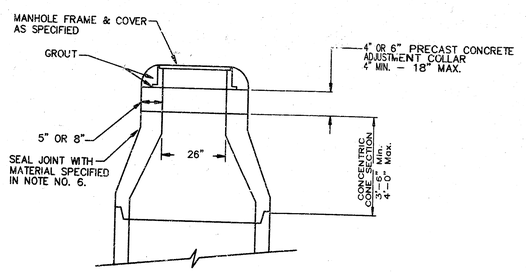


SECTION X (TYPICAL)

GENERAL NOTES

PRECAST MANHOLE NOTES

1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
3. APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS THEMEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
6. JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
8. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
9. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
10. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4'. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5'. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
11. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
12. OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
13. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN ON THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
14. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
15. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
16. THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 2' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
17. STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
18. A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.



ALTERNATE CONSTRUCTION IN UNPAVED AREAS

CITY OF WICHITA, KANSAS
STANDARD MANHOLE DETAILS
SEWER APPURTENANCES DETAILS

BAUGHMAN COMPANY P. A.
ENGINEERING, SURVEYING & PLANNING
316/262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

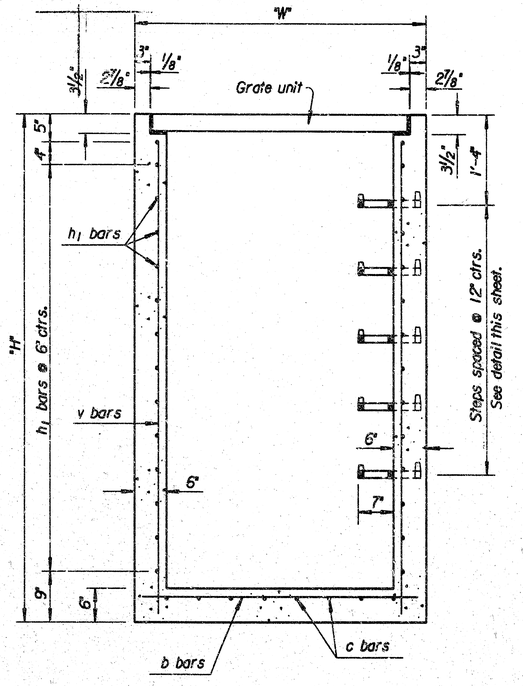
REV. NOV. 1993

PROJECT NUMBER 468-76-245-82378-000-000-001

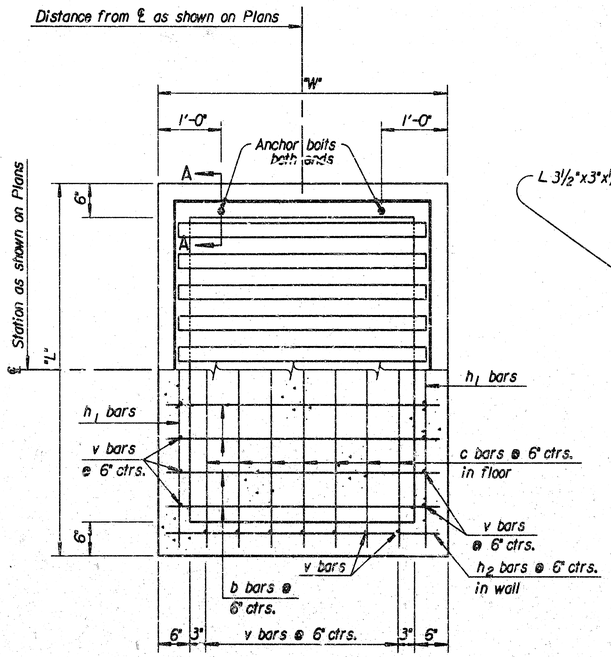
SHEET 6 OF 8

DESIGN	DRAWN	APPROVED	DATE	SCALE

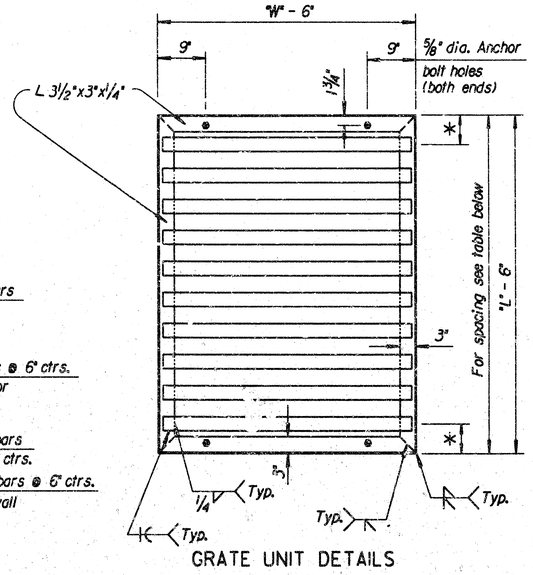
FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS		19	7	8



SECTION



PLAN AND SECTION



GRATE UNIT DETAILS

GENERAL NOTE

Use Class A Concrete throughout. All exposed edges shall be finished with an edging tool.

At the contractors option, Class A Concrete (AE) or mix used in concrete pavement may be used throughout.

In general, pipes will enter and leave the manhole at various positions. Where possible bend bars around pipes.

Floor of inlet shall be shaped as shown in various "Examples" on Reinforced Concrete Manhole Standard No. 633. Concrete used for shaping shall be unreinforced Class "A" Concrete or concrete pavement mix. No addition in concrete quantities shall be made for shaping floor of inlets.

Manhole steps, where used, shall be placed to afford easy access to top of shaped invert.

No deductions in concrete quantities shall be made for pipe openings.

All bars are #4 @ 6" spacing and shall have a minimum clearance of 1½" unless otherwise noted on the plans.

The top of the manhole shall be sloped slightly to approximately fit the ground line or other conditions as directed by the Engineer.

Steps shall be installed on all storm sewer inlets when specified in the plans or when "H" is equal to or greater than six feet. Steps shall comply with the KDOT Standard Specification.

The grate shall be fabricated from standard or commercial grade structural steel and black steel pipe. The unit shall be hot dipped, galvanized after fabrication, in accordance with ASTM A123 except the weight of coating shall average not less than 2.0 ounces per square foot of actual surface and no individual test shall show less than 1.8 ounces of coating per square foot of actual surface area.

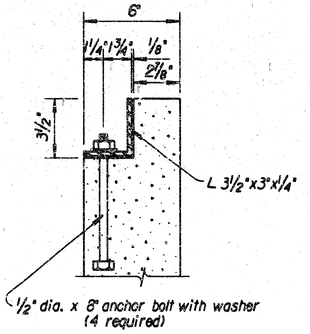
All quantities shown are approximate and are presented for information only. Material and excavation costs for construction of the drop inlet are subsidiary to the bid item "Reinforced Concrete Drop Inlet."

BILL OF MATERIALS FOR INLET-MANHOLE (SPECIAL)

"L" 4'-6" x "W" 4'-6" x "H" 3'-6"				"L" 7'-6" x "W" 4'-6" x "H" 7'-6"				"L" 5'-0" x "W" 5'-0" x "H" 10'-9"															
Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length
v	28	#4	3'-0"	v	40	#4	7'-0"	v	32	#6	10'-3"	v		#4		v		#4		v		#4	
c	7	#4	4'-3"	c	7	#4	7'-3"	c	8	#4	4'-9"	c		#4		c		#4		c		#4	
b	7	#4	4'-3"	b	13	#4	4'-3"	b	8	#4	4'-9"	b		#4		b		#4		b		#4	
h_1	12	#4	4'-3"	h_1	28	#4	7'-3"	h_1	40	#4	4'-9"	h_1		#4		h_1		#4		h_1		#4	
h_2	12	#4	4'-3"	h_2	28	#4	4'-3"	h_2	40	#4	4'-9"	h_2		#4		h_2		#4		h_2		#4	
Class "A" Conc.		1.23	Cu.Yd.	Class "A" Conc.		3.42	Cu.Yd.	Class "A" Conc.		4.2	Cu.Yd.	Class "A" Conc.			Cu.Yd.	Class "A" Conc.			Cu.Yd.	Class "A" Conc.			Cu.Yd.
Reinf. steel		164	Lbs.	Reinf. steel		473	Lbs.	Reinf. steel		798	Lbs.	Reinf. steel			Lbs.	Reinf. steel			Lbs.	Reinf. steel			Lbs.
Struct. steel		260	Lbs.	Struct. steel		430	Lbs.	Struct. steel		320	Lbs.	Struct. steel			Lbs.	Struct. steel			Lbs.	Struct. steel			Lbs.
Class III Excav.		5	Cu.Yd.	Class III Excav.		17	Cu.Yd.	Class III Excav.		19	Cu.Yd.	Class III Excav.			Cu.Yd.	Class III Excav.			Cu.Yd.	Class III Excav.			Cu.Yd.

BILL OF MATERIALS FOR INLET-MANHOLE (SPECIAL)

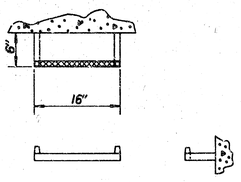
"L" 4'-6" x "W" 4'-6" x "H" 6'-0"				"L" 5'-6" x "W" 4'-6" x "H" 7'-6"				"L" 4'-0" x "W" 4'-0" x "H" 4'-6"				"L" 4'-6" x "W" 4'-0" x "H" 4'-0"				"L" 4'-6" x "W" 4'-6" x "H" 4'-6"				"L" 5'-6" x "W" 4'-6" x "H" 5'-0"			
Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length
v	28	#4	5'-6"	v	32	#4	7'-0"	v	24	#4	4'-0"	v	28	#4	3'-6"	v	20	#4	4'-0"	v	32	#4	4'-6"
c	7	#4	4'-3"	c	7	#4	5'-3"	c	6	#4	3'-9"	c	7	#4	4'-3"	c	7	#4	4'-3"	c	7	#4	5'-3"
b	7	#4	4'-3"	b	9	#4	4'-3"	b	6	#4	3'-9"	b	7	#4	4'-3"	b	7	#4	4'-3"	b	9	#4	4'-3"
h_1	22	#4	4'-3"	h_1	28	#4	5'-3"	h_1	16	#4	3'-9"	h_1	14	#4	4'-3"	h_1	16	#4	4'-3"	h_1	18	#4	5'-3"
h_2	22	#4	4'-3"	h_2	28	#4	4'-3"	h_2	16	#4	3'-9"	h_2	14	#4	4'-3"	h_2	16	#4	4'-3"	h_2	18	#4	4'-3"
Class "A" Conc.		1.95	Cu.Yd.	Class "A" Conc.		2.83	Cu.Yd.	Class "A" Conc.		1.30	Cu.Yd.	Class "A" Conc.		1.37	Cu.Yd.	Class "A" Conc.		1.52	Cu.Yd.	Class "A" Conc.		1.91	Cu.Yd.
Reinf. steel		268	Lbs.	Reinf. steel		377	Lbs.	Reinf. steel		174	Lbs.	Reinf. steel		185	Lbs.	Reinf. steel		205	Lbs.	Reinf. steel		261	Lbs.
Struct. steel		260	Lbs.	Struct. steel		315	Lbs.	Struct. steel		206	Lbs.	Struct. steel		260	Lbs.	Struct. steel		260	Lbs.	Struct. steel		315	Lbs.
Class III Excav.		9	Cu.Yd.	Class III Excav.		14	Cu.Yd.	Class III Excav.		6	Cu.Yd.	Class III Excav.		6	Cu.Yd.	Class III Excav.		7	Cu.Yd.	Class III Excav.		9	Cu.Yd.



½" dia. x 8" anchor bolt with washer (4 required)

SECTION A-A

Note: Anchor bolts are subsidiary to the bid item "Inlet-Manhole, Special".



STEP DETAILS

PIPE DIMENSIONS AND SPACING

L x W	No. of Bars	Dia. x Length x Spacing	*
7'-6"x4'-6"	13	2 1/2ø x 3'-10 1/4" pipes @ 6" ctrs.	6"
5'-6"x4'-6"	10	2 1/2ø x 3'-10 1/4" pipes @ 5 1/2" ctrs.	5 1/4"
4'-6"x4'-6"	8	2 1/2ø x 3'-10 1/4" pipes @ 5 1/2" ctrs.	4 3/4"
4'-0"x4'-0"	7	2 1/2ø x 3'- 4 1/4" pipes @ 5 1/2" ctrs.	4 1/2"
5'-0"x5'-0"	9	2 1/2ø x 4'- 4 1/4" pipes @ 6" ctrs.	6"

NO.	DATE	REVISIONS	BY	APP'D
6	1-30-92	Rev. step det. & misc. ent. on CADD	R.J.S.	J.O.B.
5	10-8-86	Rev. pipe clearance on No. 10 & 8	R.J.S.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

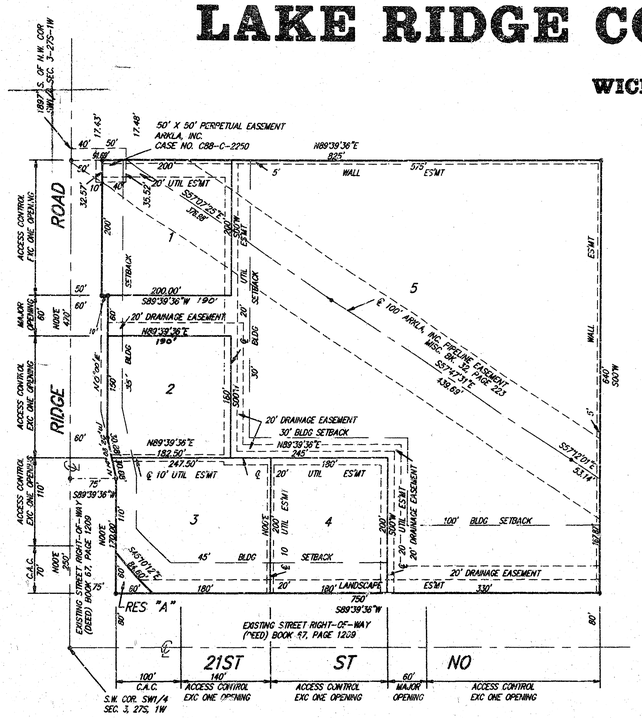
INLET - MANHOLE, SPECIAL

STD. NO. 648

FHWA APPROVAL	2-27-92	APP'D James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED S.H.B.
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK. R.J.S.

LAKE RIDGE COMMERCIAL 2ND ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS



1" = 100'
• = BAUGHMAN CAPPED REBAR FOUND

NOTE: THERE ARE ADDITIONAL SETBACK REQUIREMENTS PER THE APPROVED ASSOCIATED C.U.U. (DP-205) ON FILE WITH MAPD.

Know all men by these presents that we, the undersigned, have caused the land in the surveyors certificate to be platted into Lots, Reserves and streets to be known as "LAKE RIDGE COMMERCIAL ADDITION", Wichita, Sedgwick County, Kansas. Reserve "A" is hereby reserved for earthberms, landscaping, lighting, irrigation, drainage, signage, entry monuments, sidewalks, bike paths and utilities confined to easements. The landscaping easements are hereby granted as indicated for the construction and maintenance of private landscaping, allowing for earthberms, landscaping, lighting, irrigation, drainage, signage, sidewalks, bike paths, utilities confined to easements and utilities and driveways are allowed to cross these easements. Reserve "A" shall be owned by the lot owners association for the addition and Reserve "A" and the landscaping easements shall be maintained by the lot owners association for the addition. The 5 foot wall easements are hereby granted as indicated for the construction and maintenance of a private wall and utilities are allowed to cross these easements. The utility easements are hereby granted as indicated for the construction and maintenance of all public utilities. The drainage easement is hereby granted for the use of drainage purposes. The street is hereby dedicated to and for the use of the public. Access controls are hereby granted to the appropriate governing body as indicated on the face of the plat and shall be determined by the engineer of the appropriate governing body.

Lake Ridge Investors, L.C.,

_____ Managing Member
Jerry Hoggatt

Prairie Capital, Inc.

_____ President
W. Newton Male

Quiktrip Corporation

_____ Executive Vice-President
Alvin Howerton

State of Kansas)
Sedgwick County) SS The foregoing instrument acknowledged before me, this ____ day of _____ 1994, by Jerry Hoggatt, President of Lakeridge Investors, L.C., a Kansas Limited Liability Company, on behalf of the corporation.

_____ Notary Public

My App't. Exp. _____

State of Kansas)
Butler County) SS The foregoing instrument was acknowledged before me this ____ day of _____ 1994, by W. Newton Male, President of Prairie Capital, Inc.

_____ Notary Public

My App't Exp. _____

State of Oklahoma)
Tulsa County) SS The foregoing instrument was acknowledged before me this ____ day of _____ 1994, by Alvin Howarton, Executive Vice-President of Quiktrip Corporation.

_____ Notary Public

My App't Exp. _____

State of Kansas)
Sedgwick County) SS We, Baughman Company, P.A., Surveyors in aforesaid County and State do hereby certify that we have surveyed and platted "LAKE RIDGE COMMERCIAL 2ND ADDITION", Wichita, Sedgwick County, Kansas and that the accompanying plat is a true and correct exhibit of the property surveyed, described as and being a replat of Lake Ridge Commercial Addition, Wichita, Sedgwick County, Kansas.

All being situated in the SW1/4 of Sec. 3, Twp. 27-S, R-1-W of the 6th P.M., Sedgwick County, Kansas.

Existing public easements and dedications being vacated by virtue of K.S.A. 12-512(b).

Baughman Company, P.A.

_____ Surveyor
Gregory F. Severns

This plat of "LAKE RIDGE COMMERCIAL 2ND ADDITION", Sedgwick County, Kansas has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission Wichita, Kansas.

Dated this ____ day of _____ 1994.

Wichita-Sedgwick County Metropolitan Area Planning Commission

_____ Chairman
James D. Miner

_____ Secretary
Marvin S. Krout

This plat approved and all dedications shown hereon accepted by the City Council of the City of Wichita, Kansas, this ____ day of _____ 1994.

_____ Mayor
Elma Broadfoot

_____ Deputy City Clerk
Pat Burnett

State of Kansas)
Sedgwick County) SS This is to certify that this plat has been filed for record in the office of the Register of Deeds, this ____ day of _____ 1994, at ____ o'clock ____ M; and is duly recorded.

_____ Register of Deeds
Pat Kettler

_____ Deputy
Ed Resa

Entered on transfer record this ____ day of _____ 1994.

_____ County Clerk
Susan E. Crockett-Spoon

We, the undersigned, holders of a mortgage on the above described property, do hereby consent to this plat of "LAKE RIDGE COMMERCIAL ADDITION", Wichita, Sedgwick County, Kansas.

Prairie State Bank of Maize

_____ Vice-President
Chris A. Anderson

State of Kansas)
Sedgwick County) SS The foregoing instrument acknowledged before me, this ____ day of _____ 1994, by Chris A. Anderson, Vice-President of Prairie State Bank of Maize, on behalf of the corporation.

_____ Notary Public

My App't. Exp. _____

8/8

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211

94-2-4-3