SHEET NO.	TOTAL SHEETS
1	6

CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, P.E., CITY ENGINEER

STORM WATER SEWER

IN

GOLDEN HILLS 4TH ADDITION

CITY OF WICHITA PROJECT NO. 468-76-245-80001-000-000-157

INDEX OF SHEETS

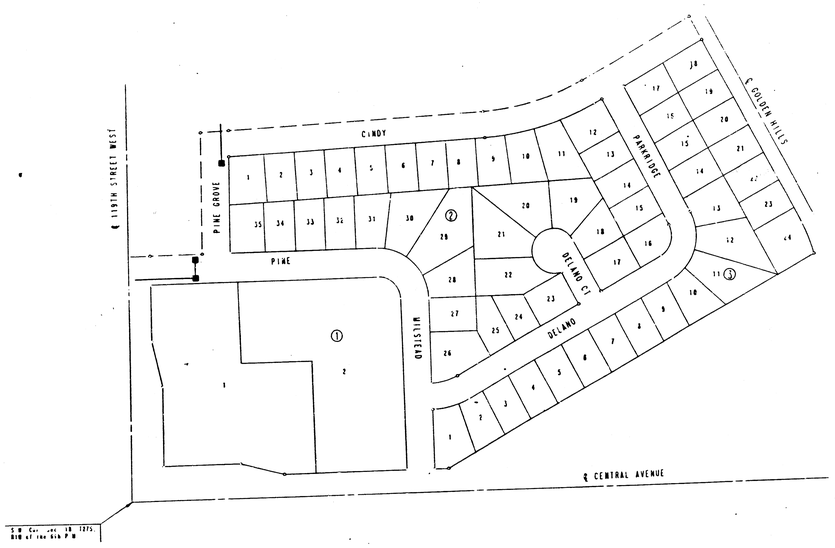
1. TITLE SHEET
2. PLAT
3. STORM WATER SEWER PLAN/PROFILE
4. STANDARD TYPE 1A CURB INLET (L=6'-4")
5. STANDARD TYPE 1A CURB INLET (L=11'-4")
6. MANHOLE FRAME & COVER DETAIL

PROJECT SURVEY CONTROL

CITY OF WICHITA DATUM:

DATUM BENCH MARK: CITY OF WICHITA BENCH MARK DISC 40' EAST AND 46' SOUTH OF INTERSECTION OF ℄'S CENTRAL AND 119TH STREET WEST. ELEV.=156.93

BENCH MARK: 8" SPIKE IN NW FACE 18" CEDAR ON SOUTH SIDE CENTRAL AT GOLDEN HILLS STREET. ELEV.=160.27



SCALE: 1" = 150'

GENERAL NOTES

1. UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. 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.
3. CONTRACTOR SHALL SATISFY HIMSELF OF SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION.
4. 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.
5. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.
6. 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 OR A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS.

AS BUILT - JUNE 1988

BOOKED - JULY, 1988 MCG

NOTE TO CONTRACTOR

This project will be constructed under the supervision of the CITY ENGINEER and conforming to the SPECIFICATIONS of the CITY OF WICHITA. The CONTRACTOR will pay the City of Wichita for all costs of plan review, inspection and booking per contract.

APPROVED AS NOTED

By CITY ENGINEER OF WICHITA

Sanitary Sewers _____

Storm Sewers VRH 2/24/88

Driveway Approaches _____

Water Mains _____

Paving _____

CHARLES S. BROWN LICENSED 7581 KANSAS PROFESSIONAL ENGINEER

JANUARY, 1988

PLANS PREPARED BY

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ENGINEERS

WICHITA, KANSAS

1/6

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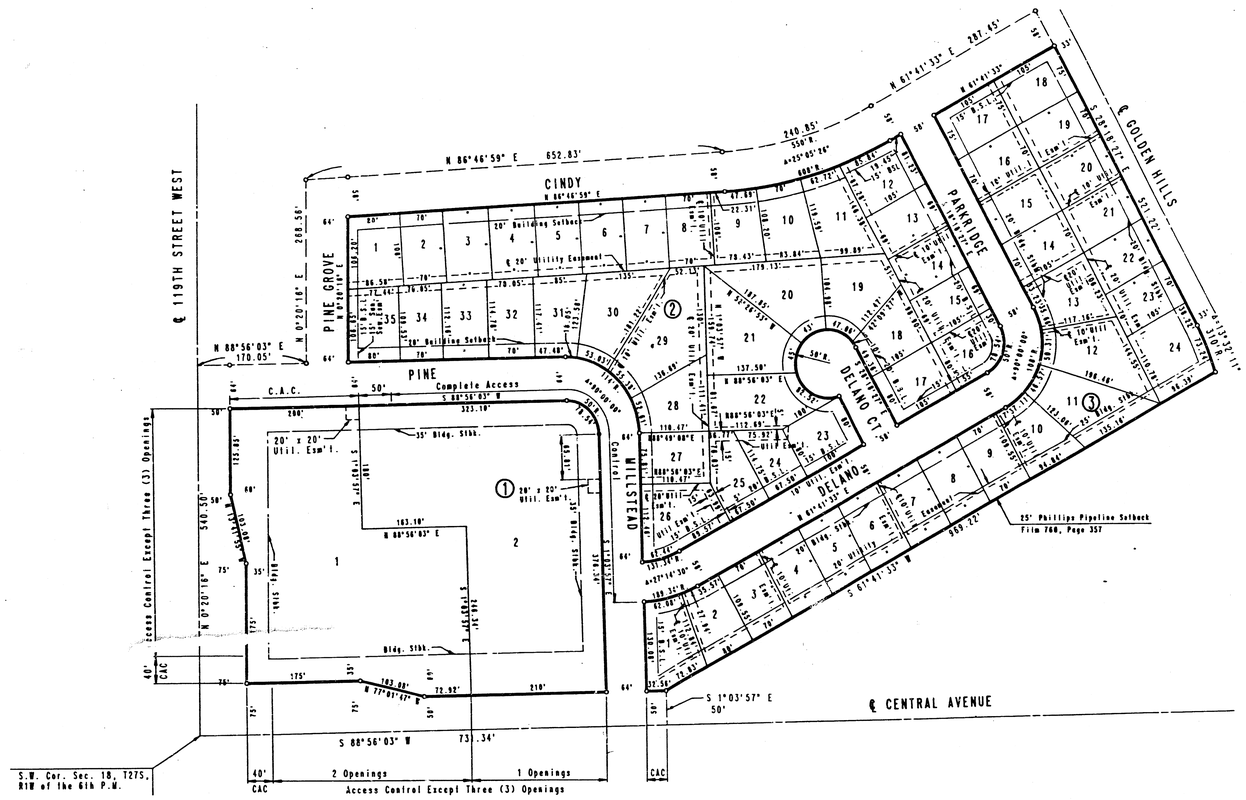
PROJECT NO	SHEET NO	TOTAL SHEETS
472-7e 245-80501-000-000-033	2	6

GOLDEN HILLS 4TH ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS



SCALE: 1" = 100'

BENCH MARK: RR SPIKE IN WINGWALL PILE 3000' NORTH OF ℄ CENTRAL AVENUE AND 119TH ST. WEST ELEV.=1337.98 M.S.L.= 145.58 CITY DATUM

CAC = COMPLETE ACCESS CONTROL

PLAT

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA KANSAS

Designed by		Checked by	
Drawn by	DEP	Date AUG 1987	Job No 86176

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Sta. 1+81.8
(℄ Pine Sta 21+61.96, 20.67'Lt.)
Const. Std. Type IA Curb Inlet
(L=6'-4", W=4'-4")
Top Elev.= ~~157.83~~ 158.00 A.B.
See Sh. No. 4

G.H. 5th. ADD.

③

G.H. 4th. ADD.

②

Scale 1" = 20'

18 ℄ 119th St. N.

Sta 77+65.59 ℄ 119th St. N.E.
Sta 20+00.00 ℄ Pine St.

Hedge

35'-R (Typ.)

Underg. Tele.

Underg. Gas (Ark. Gas Service)

18

35

35' B-B

℄ Pine Grove

8" Water

20'-R (Typ.)

2" Arkla Gas (Plastic)

WV

Existing 8" Water

BOV

V. G.

Pavement

Future

Proposed Pavement

21

22

89°35'41"

℄ Pine

Sta. 22+02.06 ℄ Pine =
Sta. 80+00.00 ℄ Pine Grove

Holding Basin

Prop. Conc. Walk

1

GOLDEN HILLS 4th. ADDITION

Sta. 0+22.5
(℄ Pine Sta 20+44.50, 21.14'Rt.)
Begin S.W.S. Construction
Install ~~117.5~~ L.F. 24" RCP(E)
118.0 A.B.

Sta. 1+40.0
(℄ Pine Sta. 21+61.96, 21.17'Rt.)
Const. Std. Type IA Curb Inlet
(L=6'-4", W=5'-4")
Top Elev.= ~~159.83~~ 157.95 A.B.
Install ~~41.5~~ L.F. 15" RCP(N)
See Sh. No. 4

Sta. 10+00.0
(℄ Pine Grove Sta. 83+14.08, 21.17'Rt.)
Begin S.W.S. Construction
Install ~~79.5~~ L.F. 24" RCP(S)
79.5 A.B.

Scale 1" = 20'

Sta. 10+79.6
(℄ Pine Grove Sta. 82+34.45, 21.17'Rt.)
Const. Std. Type IA Curb Inlet
(L=11'-4", W=5'-4")
Top Elev.= ~~158.59~~ 158.60 A.B.
See Sh. No. 5

GOLDEN HILLS 4th. ADDITION

②

G.H. 5th. ADD.

⑦

AS BUILT – STD. TYPE IA
INLET INSTALLED
GOLDEN HILLS 5TH ADD.
LINE #2. TOP ELEV. -158.19

29' B-B

℄ Cindy

2" Arkla Gas (Plastic)

WV

20'-R (Typ.)

Holding Basin

Pavement

Future

83

93°33'17"

℄ Pine Grove

Proposed Pavement

82

35' B-B

Existing 8" Water

2" Arkla Gas (Plastic)

WV

BOV

Sta. 82+72.72 ℄ Pine Grove =
Sta. 40+00.00 ℄ Cindy

14

15

16

17

③

GOLDEN HILLS 5th. ADDITION

NOTE: The Contractor shall construct a temporary holding basin at the low end of each S.W.S. system. (See Detail this sheet).

AS BUILT - JUNE 88

Sta. 0+00.0 Future
Shallow Type B Manhole (By Others)
(℄ 119th St. Sta. 77+65, 22.5'Rt.)

Sta. 0+22.5 Const. Std. Type IA Curb Inlet
Top Elev.= 158.00 A.B.
℄ Pine Sta. 20+44.50, 21.14'Rt.

Sta. 0+22.5 S.W.S. Construction
Begin Proj. 5 Construction
Top Elev.= 157.83
Invert Elev.= 152.83
Top Elev.= 158.00
Invert Elev.= 152.72
Sta. 1+40.0 Const. Std. Type IA Curb Inlet
Top Elev.= ~~159.83~~ 157.95 A.B.
Invert Elev.= ~~154.83~~ 152.93
Top Elev.= 158.00 A.B.
Invert Elev.= 152.72

Sta. 1+40.0 Construct
Std. Type IA Curb Inlet
Top Elev.= ~~159.83~~ 157.95 A.B.
Invert Elev.= ~~154.83~~ 152.93

Sta. 10+00.0 Begin
S.W.S. Construction
Const. Manhole

Sta. 10+79.6 Const. Std. Type IA Curb Inlet
Top Elev.= ~~158.59~~ 158.60 A.B.
Invert Elev.= ~~153.59~~ 153.60 A.B.

2" Arkla Gas

Prop. Finished Grade

Existing Ground

Holding Basin

Sta. 0+00.0 Future
Shallow Type B Manhole
Invert Elev.= 151.51 (30")
Invert Elev.= 152.01 (24")
℄ Pine Grove

Sta. 0+22.5 S.W.S. Construction
Begin Proj. 5 Construction
Invert Elev.= 152.83
Top Elev.= 158.00
Invert Elev.= 152.72

Sta. 1+40.0 Construct
Std. Type IA Curb Inlet
Top Elev.= ~~159.83~~ 157.95 A.B.
Invert Elev.= ~~154.83~~ 152.93

Sta. 1+81.8 Const. Std. Type IA Curb Inlet
Top Elev.= ~~157.83~~ 158.00 A.B.
Invert Elev.= ~~152.83~~ 152.72

Sta. 10+00.0 Begin S.W.S. Construction
Const. Manhole

Sta. 10+79.6 Const. Std. Type IA Curb Inlet
Top Elev.= ~~158.59~~ 158.60 A.B.
Invert Elev.= ~~153.59~~ 153.60 A.B.

2" Arkla Gas

Prop. Finished Grade

Existing Ground

Holding Basin

118.0 A.B.
~~117.5~~ L.F. 24" RCP
@ +0.26 %

42.5 A.B.
~~41.5~~ L.F. 15" RCP
@ +1.00 %

79.5 A.B.
~~79.5~~ L.F. 24" RCP
@ +0.20 %

℄ Out = 151.51 (30")
℄ In = 152.01 (24")
℄ = 152.22 A.B.
℄ = 152.19
℄ = 152.27
℄ Out = 152.55 A.B.
℄ In = 152.55 A.B.
℄ Out = 152.80
℄ = 152.93 A.B.
℄ Out = 149.46 A.B.
℄ = 149.71
℄ In = 149.96 A.B.
Flr. Line #2 - 150.53 A.B.
℄ = 150.04
℄ = 153.04
℄ Out = 153.29
153.34 A.B.

0+00 1 2 10+00 11

160 155 150 145

PLATE 1 PLAN PROFILE O. P. E. & R. E. STANDARD

HOLDING BASIN DETAIL N.T.S.

Exist. Grd.
24" SWS
2'
2'
3:1
3:1

PLAN
SUBMITTED
PLOTTED
NOTE BOOK ALIGNMENT CHECKED
RW OF WAY ACCEPTED
NO.

PROFILE
SUBMITTED
PLOTTED
GRADES CHECKED
RW OF WAY ACCEPTED
NO. STRUCTURE NOTATION CHECKED

DATE BY

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

GOLDEN HILLS 4th. ADDITION
S.W.S. IMPROVEMENTS
C.O.W. PROJ. NO. 472 76 245 80001 000 000 033

Designed by C.S.B. | Job No. 32.86576-2
Drawn by D.D. | Date Jan., 1988
Sht. 3 of 6

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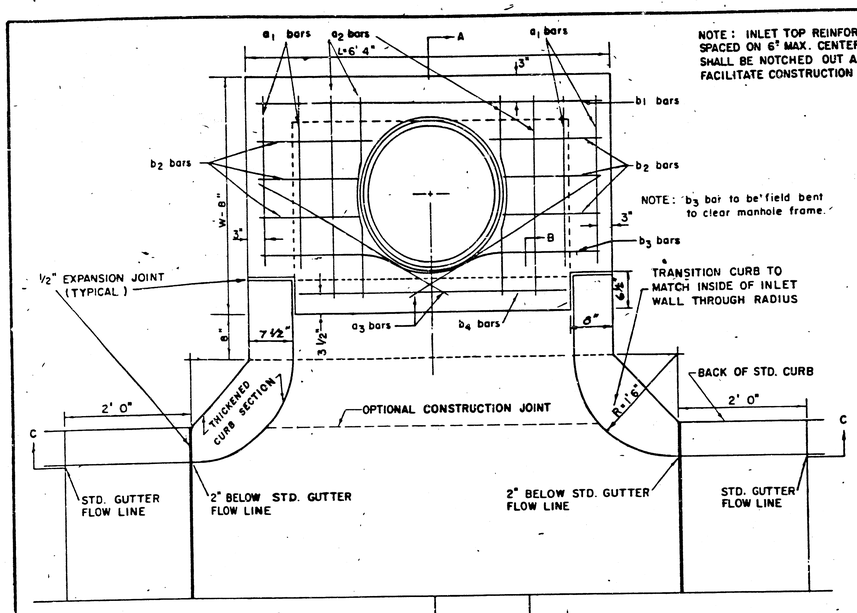
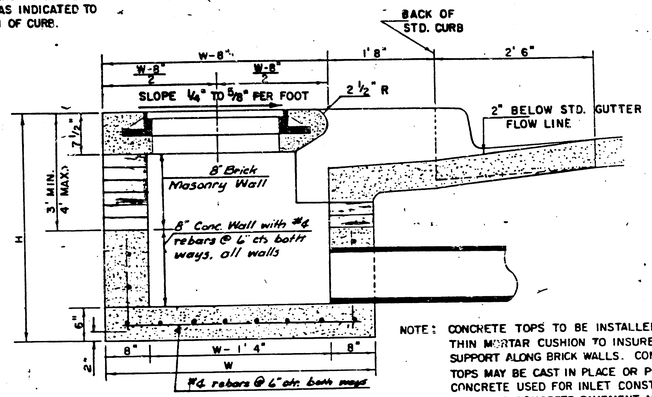


NOTE: EXPANSION JOINT ONLY IN CURB AREA WITH CONC. PAVEMENT.

PLAN

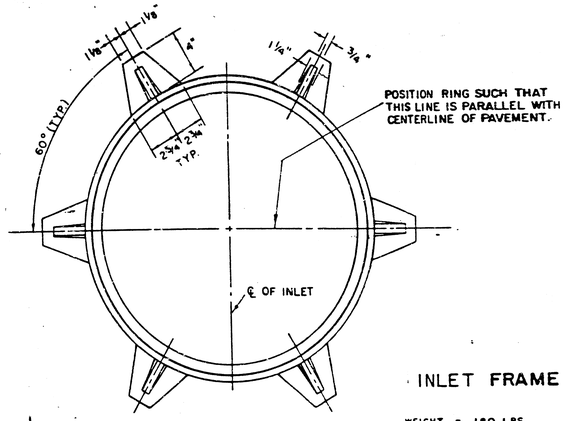
NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURE.

NOTE: b_3 bar to be field bent to clear manhole frame.



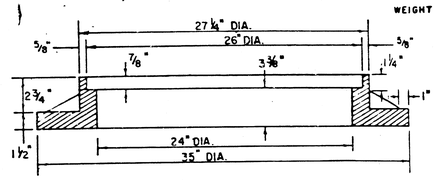
SECTION A-A

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.

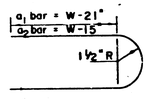


INLET FRAME

WEIGHT = 180 LBS.



SEE CITY OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE USED WITH INLET FRAME.



BENDING DIAGRAM

STEEL SCHEDULE

BAR	a_1	a_2	a_3*	b_1 W=4'4"	b_1 W=5'4"	b_1 W=6'4"	b_1 W=7'4"	b_1 W=8'4"	b_2	b_3	b_4	WT. LBS.
NUMBER	4	4	2	1	3	5	7	9	6	1	1	
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH W=4'4"	5'7"	6'7"	4'0"	6' 1"	–	–	–	–	1' 9"	6'2"	4'8"	60±
LENGTH W=5'4"	7'7"	8'7"	5'0"	–	6' 1"	–	–	–	1' 9"	6'2"	4'8"	81±
LENGTH W=6'4"	9'7"	10'7"	6'0"	–	–	6' 1"	–	–	1' 9"	6'2"	4'8"	101±
LENGTH W=7'4"	11'7"	12'7"	7'0"	–	–	–	6' 1"	–	1' 9"	6'2"	4'8"	121±
LENGTH W=8'4"	13'7"	14'7"	8'0"	–	–	–	–	6' 1"	1' 9"	6'2"	4'8"	141±

* NOTE: a_3 BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER

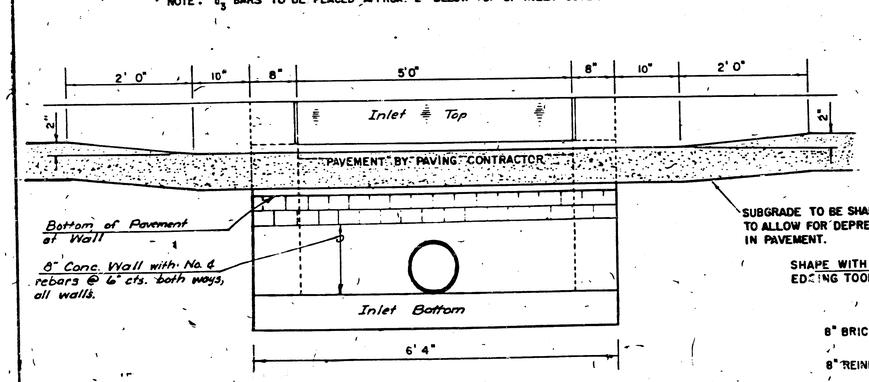
STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4' 4"	5'8"x 6'4" x7 1/2"	21" & SMALLER	0.38 ±
5' 4"	6'8"x 6'4" x7 1/2"	24" & 30"	0.51 ±
6' 4"	5'8"x 6'4" x7 1/2"	36" & 42"	0.64 ±
7' 4"	6'8"x 6'4" x7 1/2"	48" & 54"	0.77 ±
8' 4"	7'8"x 6'4" x7 1/2"	60" & 66".	0.90 ±

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.

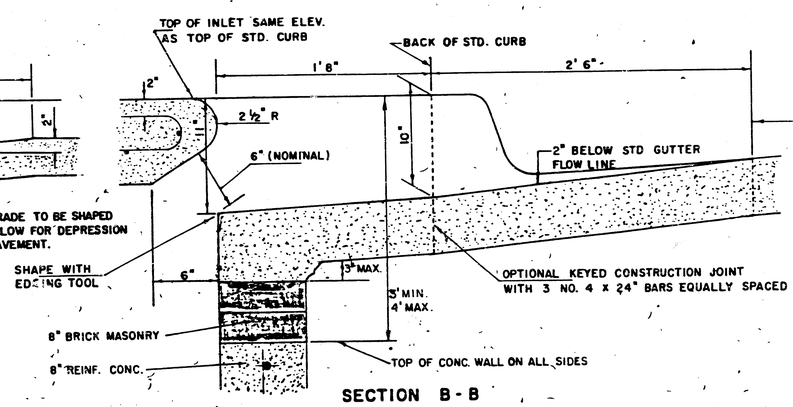
ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET MOOKUP.

INLET INVERT SHALL BE SHAPED WITH 8 SACK 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.



SECTION C-C



SECTION B-B

REVISED 12-21-1984

DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

INLET OPENING = 6" x 5' 0"
(L=6'-4")

JUNE 1984

4/6

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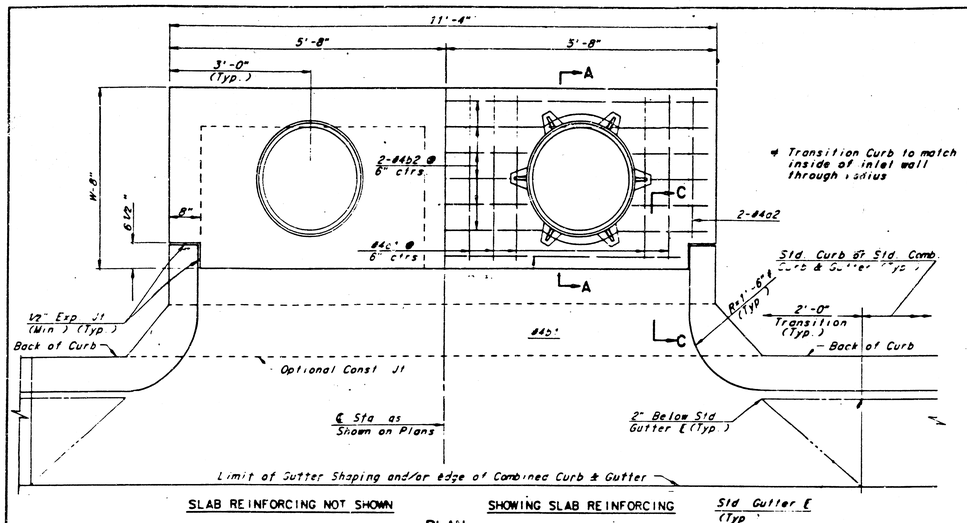
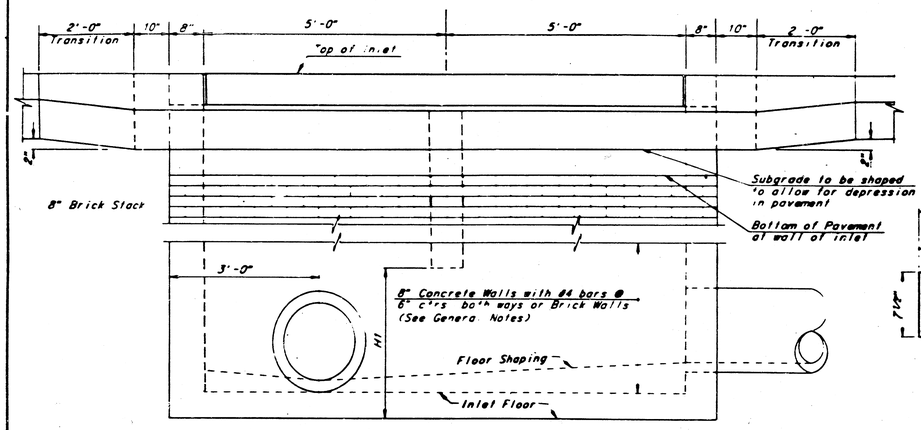
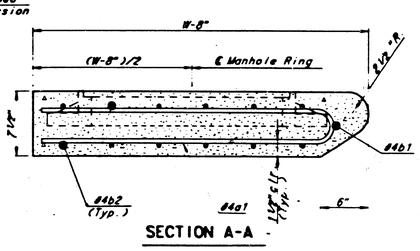
PROJECT NO.	SHEET NO	TOTAL SHEETS
472 76 245 80001 000 000 033	5	6



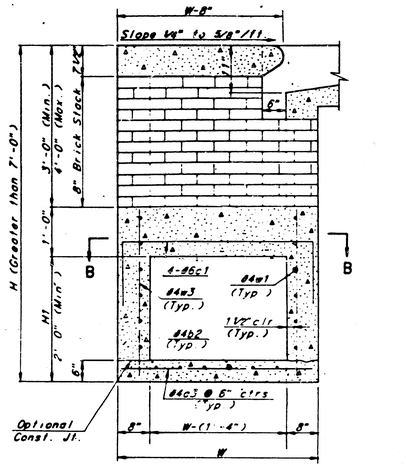
PLAN



ELEVATION

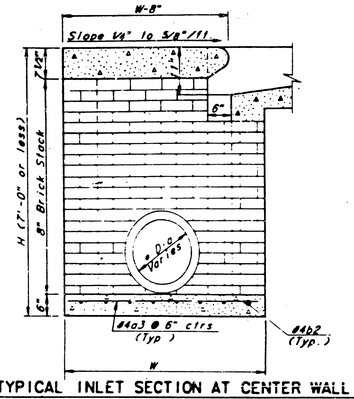


SECTION A-A



TYPICAL INLET SECTION AT CENTER WALL

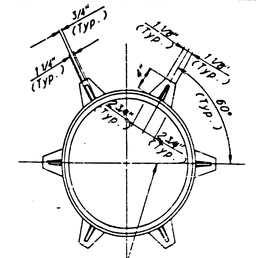
(REINFORCED CONCRETE WALLS)



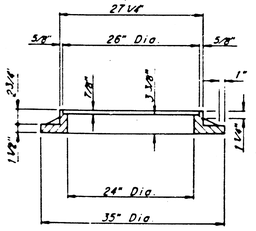
TYPICAL INLET SECTION AT CENTER WALL

(MASONRY WALLS)

* A center wall opening shall be provided by means of a section of reinforced concrete pipe. The minimum diameter used shall be that of the outlet pipe.



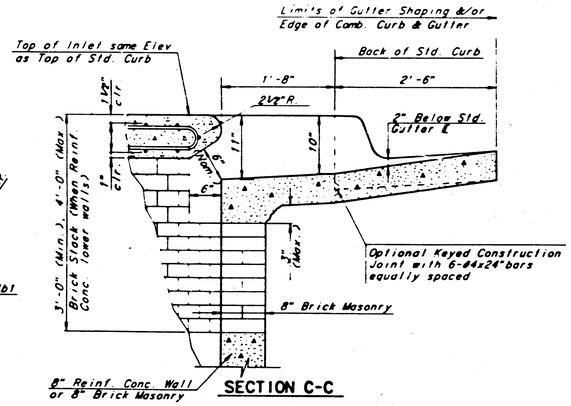
Position Ring such that this line is parallel with ℄ of Pavement



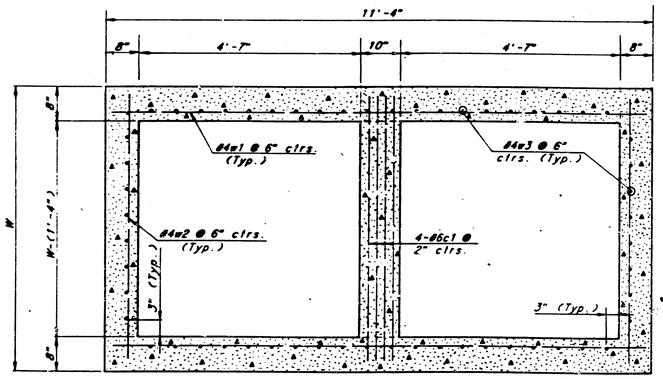
CAST IRON INLET RING

Wt.=180 lbs.

See City of Wichita Standard Manhole Frame and Cover Detail Sheet for Cover Details to be used with Inlet Frame.



SECTION C-C



SECTION B-B

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	13	6'-7½"	13	8'-4½"	13	10'-7½"	13	12'-7½"	13	14'-7½"
a2	#4	2	6'-0"	2	8'-0"	2	10'-0"	2	12'-0"	2	14'-0"
a3	#4	20	4'-1"	20	5'-1"	20	6'-1"	20	7'-1"	20	8'-1"
b1	#4	1	9'-8"	1	9'-8"	1	9'-8"	1	9'-8"	1	9'-8"
*b2	#4	18	11'-1"	24	11'-1"	30	11'-1"	36	11'-1"	42	11'-1"

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
c1	#6	4	6'-1"	4	7'-1"	4	8'-1"	4	9'-1"	4	10'-1"
w1	#4	①	11'-1"	①	11'-1"	①	11'-1"	①	11'-1"	①	11'-1"
w2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
w3	#4	②	③	②	③	②	③	②	③	②	③

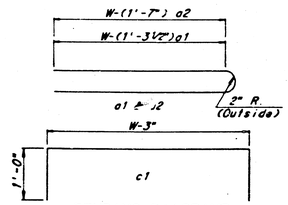
* Field bend or cut Reinforcing as required for clearance

① 4(H1-6")÷4 (H1-6") Rounded down to nearest 0.5'

② 40÷4(W - 16") ③ H1÷(9")

GENERAL NOTES

1. THE CONTRACTOR SHALL BE REQUIRED TO CONSTRUCT 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W=6'-4" OR LESS AND H=7'-0" OR LESS. WHEN W IS GREATER THAN 6'-4" AND H IS LESS THAN 7'-0". THE OUTSIDE INLET WALLS BELOW THE BRICK STACK SHALL BE REINFORCED CONCRETE CONSTRUCTION AND THE CENTER WALL SHALL BE OF MASONRY CONSTRUCTION AS SHOWN FOR THE MASONRY WALL OPTION.
2. INLET INVERT SHALL BE SHAPED WITH 8 SACK 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.
3. 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.
4. INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB BARS IN INLET TOP TO BE FIELD BENT OR CUT TO CLEAR MANHOLE RING.
5. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.



BENDING DIAGRAMS

REVISED 12-21-84

STANDARD TYPE 1A CURB INLET

INLET OPENING = 6" x 10'-0"

WICHITA, KANSAS

Designed by	BER, KJS, MHB	Checked by	MHB
Drawn by	JDP	Date Nov., 1984	Job No. 32365768

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MANHOLE FRAME AND COVER DETAIL

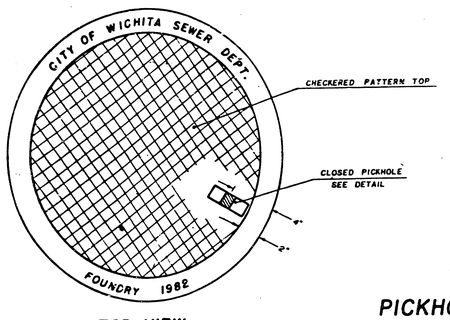
ADOPTED AS STANDARD DESIGN

BY

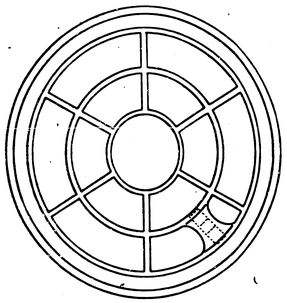
City of Wichita, Kansas

MANHOLE COVER

Weight: 180 Lbs.

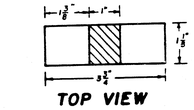


TOP VIEW

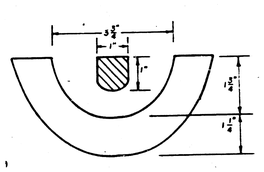


BOTTOM VIEW

PICKHOLE DETAIL



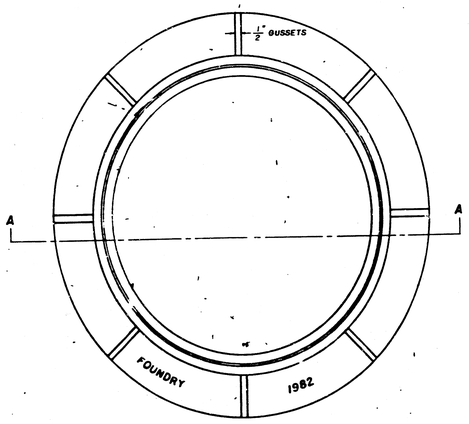
TOP VIEW



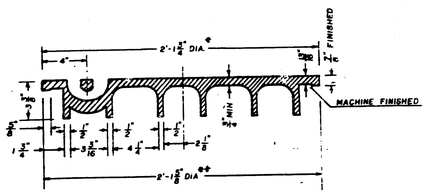
SECTION VIEW

MANHOLE FRAME

Weight: 240 Lbs.



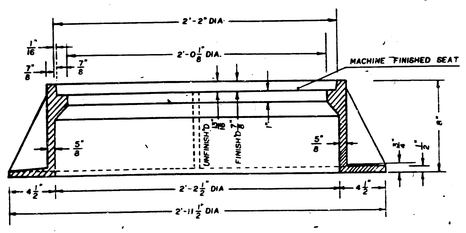
TOP VIEW



SECTION VIEW

* OUTSIDE DIA TOP OF COVER

** OUTSIDE DIA. BOTTOM OF COVER



SECTION A-A

GENERAL NOTES

1. MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

2. MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.

3. MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

4. THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

5. THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1" IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

JNL DEC. 1981

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