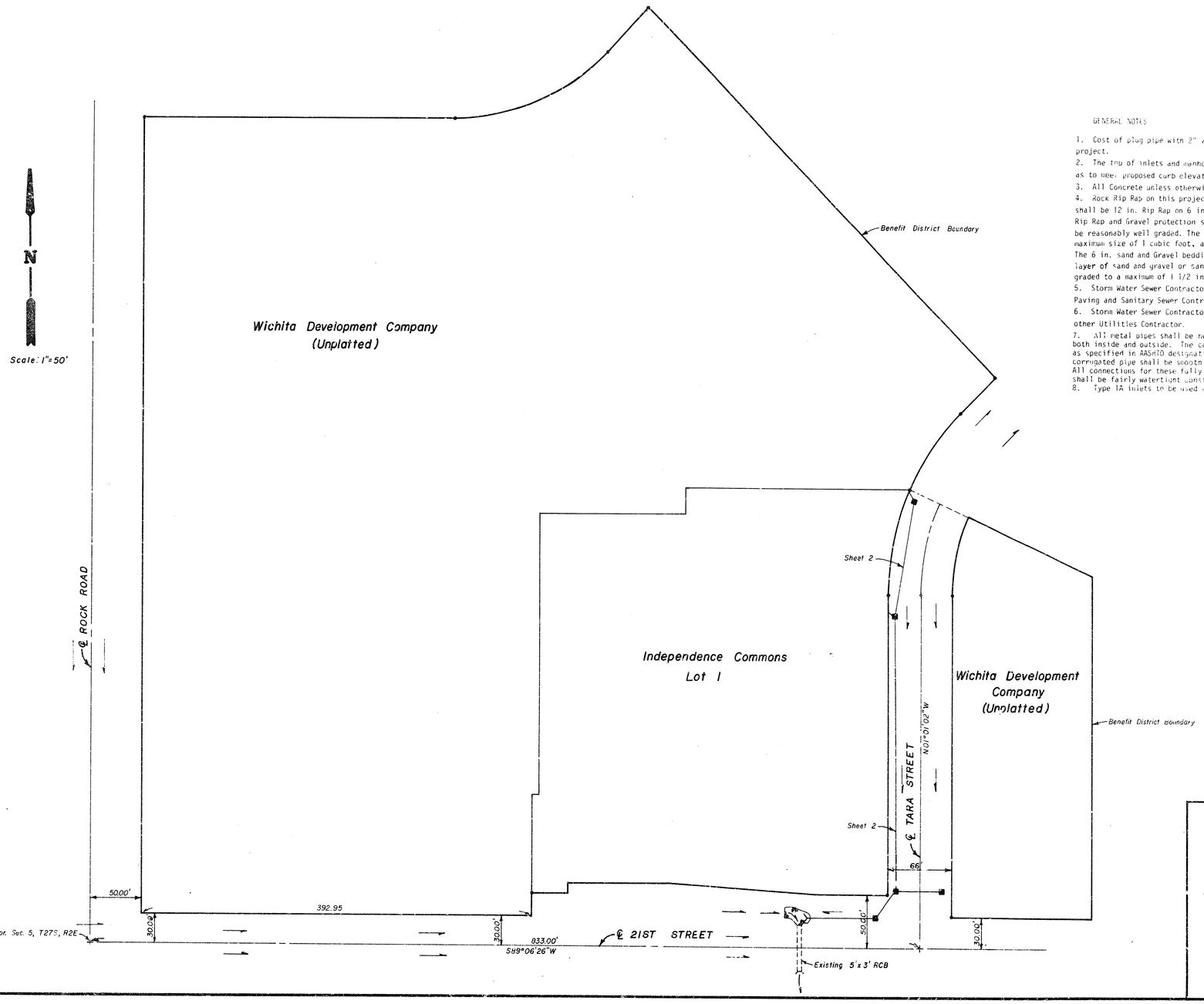
STORM WATER SEWER NO. 168



GENERAL NOTES

1. Cost of plug pipe with 2" Wooden Bulkhead shall be incidental to project.
2. The top of inlets and manholes as noted on the plans may vary so as to meet proposed curb elevations or pavement elevations.
3. All Concrete unless otherwise noted shall be "6 Sack Concrete".
4. Rock Rip Rap on this project shall be type 3. The type 3 Rip Rap shall be 12 in. Rip Rap on 6 in. sand and Gravel bedding. The Rock Rip Rap and Gravel protection shall be hard, dense, durable, and shall be reasonably well graded. The size range of rock used shall have a maximum size of 1 cubic foot, and a minimum size of 1 1/2 inches. The 6 in. Sand and Gravel bedding for Rip Rap shall be a continuous layer of sand and gravel or sand and crushed rock, reasonably well graded to a maximum of 1 1/2 in. in size.
5. Storm Water Sewer Contractor to Cordinate Construction with Paving and Sanitary Sewer Contractor.
6. Storm Water Sewer Contractor to Coordinate Construction with all other Utilities Contractor.
7. All metal pipes shall be helically corrugated pipe fully coated both inside and outside. The coating may be bituminous or polymeric as specified in AASHTO designation: M246-78, Type B. All such coated corrugated pipe shall be smooth flow pipes for sizes 24" Diameter or Larger All connections for these fully coated or fully paved and full coated pipe shall be fairly watertight constructed using rubber type coupler or equal.
8. Type 1A inlets to be used at all locations unless otherwise noted.

INDEX

1. Title page
2. Plan & Profile
3. Type 1A Curb Inlet
4. Miscellaneous drainage details

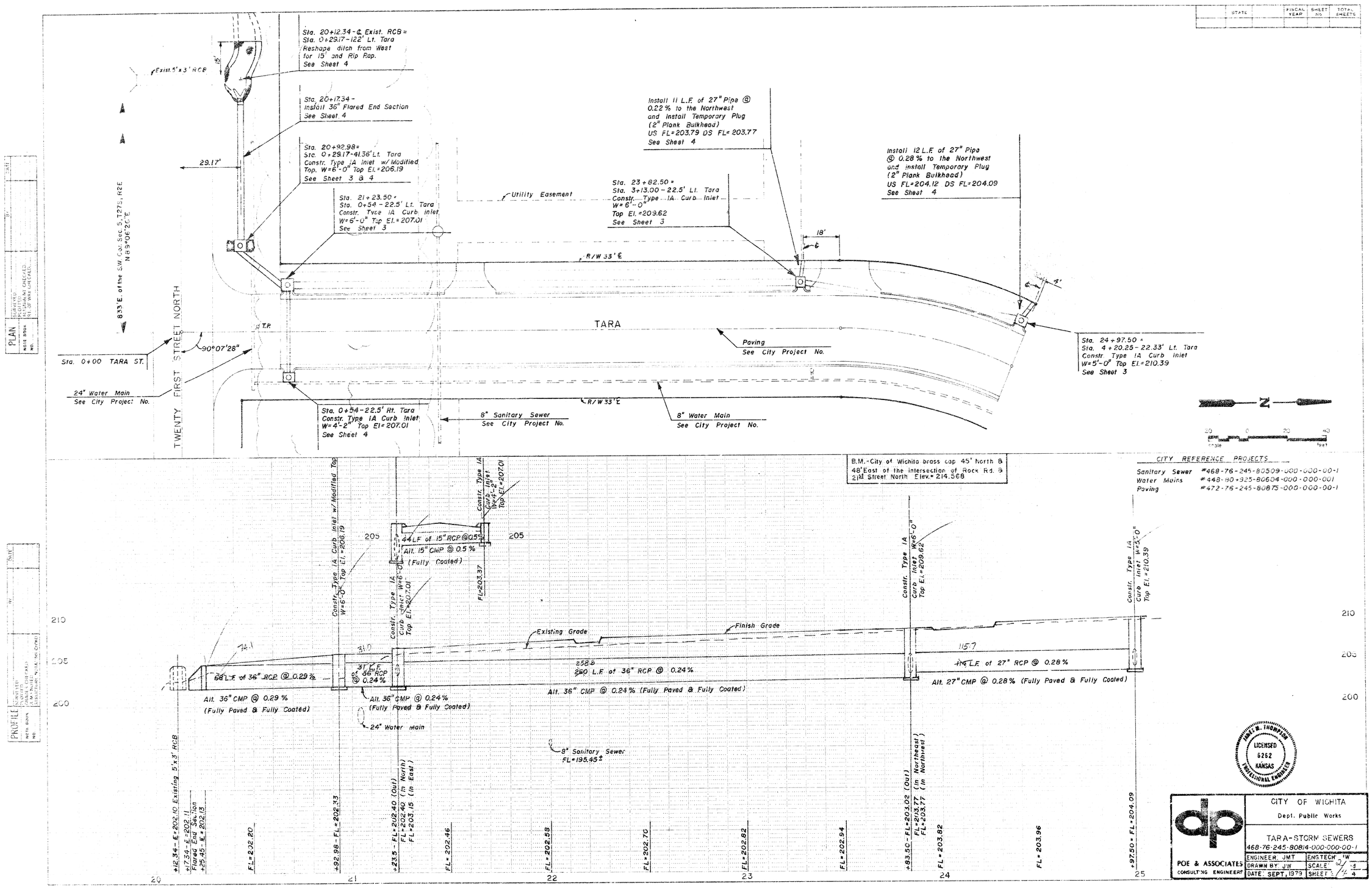


As Built 5-14-80

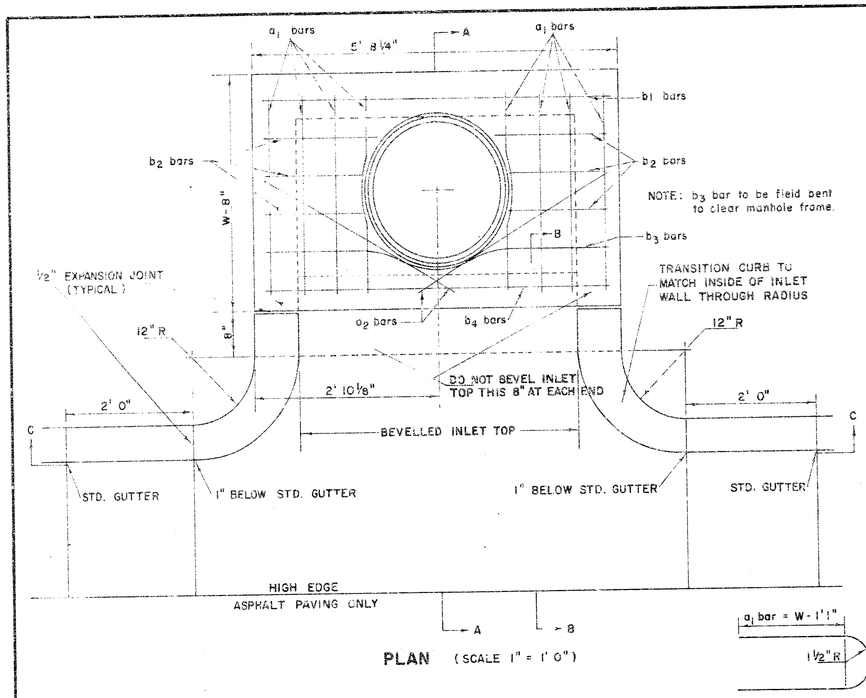
STORM WATER SEWER NO. 168
INDEPENDENCE COMMONS

City of Wichita, Kansas
Dean Sellers-Acting City Engineer
Date ——
Proj. No. 468-76-245-80814-000-000-00-1

PDE & ASSOCIATES OF KANSAS, INC. CONSULTING ENGINEERS

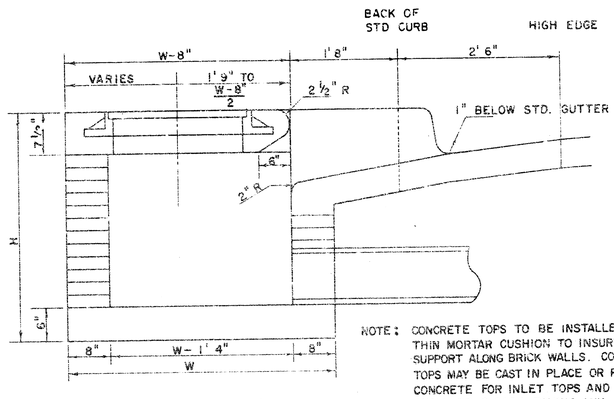


Sta. 20+12.34 - ℄ Exist. RCB = Sta. 0+29.17 - 122' Lt. Tara Reshape ditch from West for 15' and Rip Rap. See Sheet 4
Exist. 5'x3' RCB
15'
Sta. 20+17.34 - Install 36" Flared End Section See Sheet 4
Sta. 20+92.98 = Sta. 0+29.17 - 41.36' Lt. Tara Constr. Type 1A Inlet w/ Modified Top. W=6'-0" Top El.=206.19 See Sheet 3 & 4
29.17'
Sta. 21+23.50 = Sta. 0+54 - 22.5' Lt. Tara Constr. Type 1A Curb Inlet W=6'-0" Top El.=207.01 See Sheet 3
Utility Easement
Install 11 L.F. of 27" Pipe @ 0.22% to the Northwest and Install Temporary Plug (2" Plank Bulkhead) US FL=203.79 DS FL=203.77 See Sheet 4
Sta. 23+82.50 = Sta. 3+13.00 - 22.5' Lt. Tara Constr. Type 1A Curb Inlet W=6'-0" Top El.=209.62 See Sheet 3
Install 12 L.F. of 27" Pipe @ 0.28% to the Northwest and Install Temporary Plug (2" Plank Bulkhead) US FL=204.12 DS FL=204.09 See Sheet 4
18'
R/W 33' ℄
4'
833' E. of the S.W. Cor. Sec. 5, T27S, R2E N89°06'26"E
TWENTY FIRST STREET NORTH
T.P.
TARA
90°07'28"
Sta. 0+00 TARA ST.
24" Water Main See City Project No.
Paving See City Project No.
Sta. 24+97.50 = Sta. 4+20.25 - 22.33' Lt. Tara Constr. Type 1A Curb Inlet W=5'-0" Top El.=210.39 See Sheet 3
Sta. 0+54 - 22.5' Rt. Tara Constr. Type 1A Curb Inlet W=4'-2" Top El=207.01 See Sheet 4
8" Sanitary Sewer See City Project No.
8" Water Main See City Project No.
N
20 0 20 40
scale feet
B.M.-City of Wichita brass cap 45' North & 48' East of the intersection of Rock Rd. & 21st Street North Elev.=214.568
CITY REFERENCE PROJECTS
Sanitary Sewer #468-76-245-80509-000-000-00-1
Water Mains #448-80+925-80604-000-000-001
Paving #472-76-245-80875-000-000-00-1
Constr. Type 1A Curb Inlet w/ Modified Top W=6'-0" Top El.=206.19
Constr. Type 1A Curb Inlet W=4'-2" Top El.=207.01
44 LF of 15" RCP @ 0.5%
Alt. 15" CMP @ 0.5% (Fully Coated)
FL=203.37
Constr. Type 1A Curb Inlet W=6'-0" Top El.=207.01
Constr. Type 1A Curb Inlet W=6'-0" Top El.=209.62
Constr. Type 1A Curb Inlet W=5'-0" Top El.=210.39
205
210
205
200
Existing Grade
Finish Grade
74.1
31.0
258.6
115.7
68 L.F. of 36" RCP @ 0.29%
31 L.F. of 36" RCP @ 0.24%
260 L.F. of 36" RCP @ 0.24%
114 L.F. of 27" RCP @ 0.28%
Alt. 36" CMP @ 0.29% (Fully Paved & Fully Coated)
Alt. 36" CMP @ 0.24% (Fully Paved & Fully Coated)
Alt. 36" CMP @ 0.24% (Fully Paved & Fully Coated)
Alt. 27" CMP @ 0.28% (Fully Paved & Fully Coated)
24" Water Main
8" Sanitary Sewer FL=195.45±
+12.34 - ℄=202.10 Existing 5'x3' RCB
+17.34 - ℄=202.11 Flared End Section
+25.45 - ℄=202.13
FL=202.20
+92.98 - FL=202.33
+23.5 - FL=202.40 (Out) FL=202.40 (In North) FL=203.15 (In East)
FL=202.46
FL=202.58
FL=202.70
FL=202.82
FL=202.94
+83.50 - FL=203.02 (Out) FL=203.77 (In Northeast) FL=203.77 (In Northwest)
FL=203.82
FL=203.96
+97.50 = FL=204.09
20
21
22
23
24
25
PLAN
PROFILE
JAMES M. THOMPSON LICENSED 6252 KANSAS PROFESSIONAL ENGINEER
CITY OF WICHITA
Dept. Public Works
TARA-STORM SEWERS
468-76-245-80814-000-000-00-1
POE & ASSOCIATES CONSULTING ENGINEERS
ENGINEER: JMT
DRAWN BY: JW
DATE: SEPT, 1979
ENGTECH: JW
SCALE: 2/4
SHEET: 4



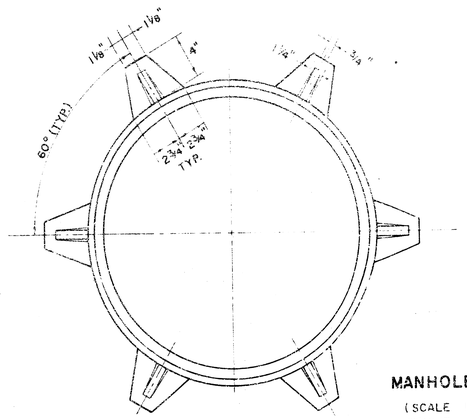
PLAN (SCALE 1" = 1' 0")

BENDING DIAGRAM

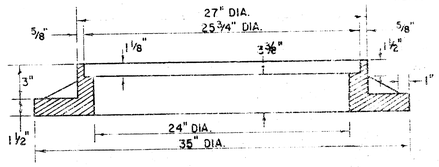


SECTION A-A
(SCALE 1" = 1' 0")

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 FOR INLET TOPS AND FLOORS SHALL BE 6-SACK PAVING MIX.



MANHOLE FRAME
(SCALE 1" = 6")
WEIGHT = 180 LBS.



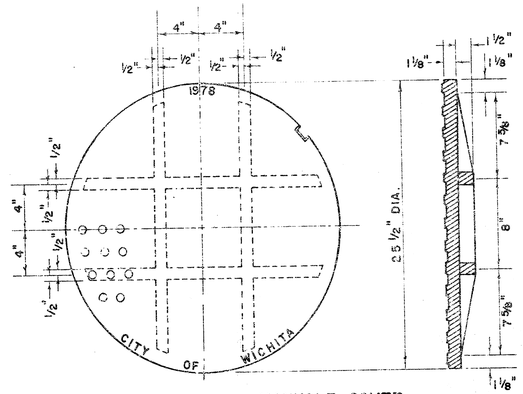
STEEL SCHEDULE

BAR		a_1	a_2 *	b_1 W=4'2"	b_1 W=5'0"	b_1 W=5'3"	b_1 W=7'0"	b_1 W=8'0"	b_2	b_3	b_4	WT. LBS.
NUMBER		8	2	1	3	5	7	9	6	1	1	
SIZE		#4	#4	#4	#4	#4	#4	#4	#4	#6	#6	
LENGTH	W=4'2"	6' 5"	3' 4"	5' 5"	–	–	–	–	1' 5"	5' 6"	5' 5"	60#
	W=5'0"	8' 1"	4' 4"	–	5' 5"	–	–	–	1' 5"	5' 6"	5' 5"	77#
	W=6'0"	10' 1"	5' 4"	–	–	5' 5"	–	–	1' 5"	5' 6"	5' 5"	97#
	W=7'0"	11' 1"	6' 4"	–	–	–	5' 5"	–	1' 5"	5' 6"	5' 5"	111#
	W=8'0"	12' 1"	7' 4"	–	–	–	–	5' 5"	1' 5"	5' 6"	5' 5"	124#

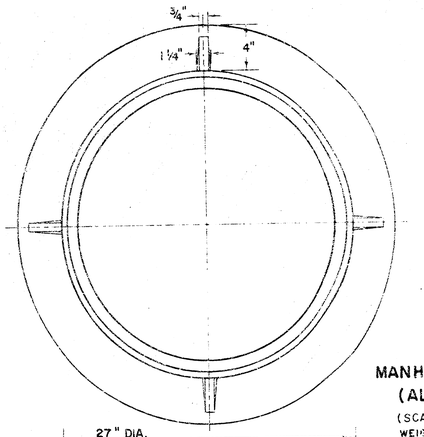
* NOTE: a_2 BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4' 2"	3'6"x5'8 1/4"x7 1/2"	21" & SMALLER	0.46 *
5' 0"	4'4"x5'8 1/4"x7 1/2"	24" & 30"	0.57 *
6' 0"	5'4"x5'8 1/4"x7 1/2"	36" & 42"	0.71 *
7' 0"	6'4"x5'8 1/4"x7 1/2"	48" & 54"	0.84 *
8' 0"	7'4"x5'8 1/4"x7 1/2"	60" & 66"	0.97 *

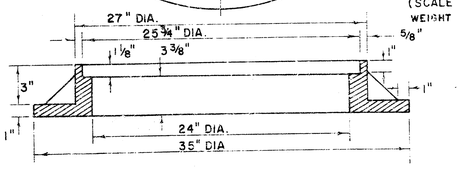
* GROSS VOLUME

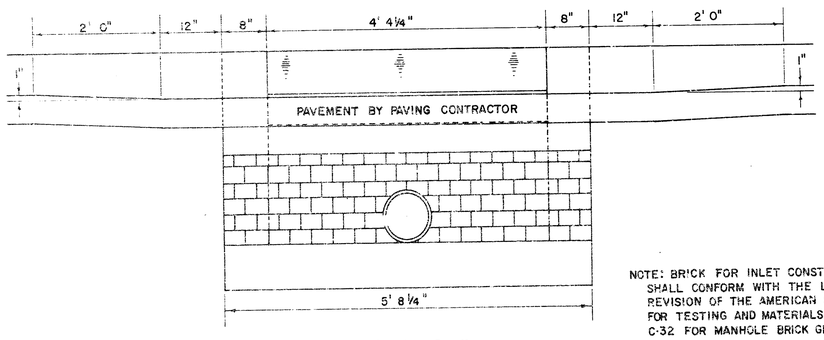


MANHOLE COVER
(SCALE 1" = 6")
WEIGHT = 170 LBS.



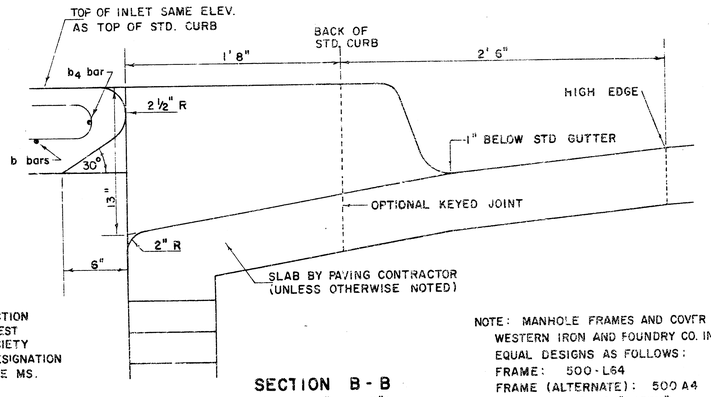
MANHOLE FRAME (ALTERNATE)
(SCALE 1" = 6")
WEIGHT = 180 LBS.





SECTION C-C
(SCALE 1" = 1' 0")

NOTE: BRICK FOR INLET CONSTRUCTION SHALL CONFORM WITH THE LATEST REVISION OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS DESIGNATION C-32 FOR MANHOLE BRICK GRADE MS.



SECTION B-B
(SCALE 1" = 6")

NOTE: MANHOLE FRAMES AND COVER ARE WESTERN IRON AND FOUNDRY CO. INC. OR EQUAL DESIGNS AS FOLLOWS:
FRAME: 500-L64
FRAME (ALTERNATE): 500 A4
COVER: 222 S4 "NOBBY"

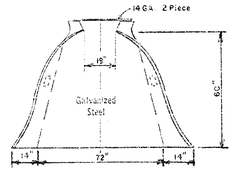
DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

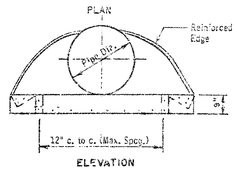
R. W. LINN – CITY ENGINEER

OCTOBER 1978

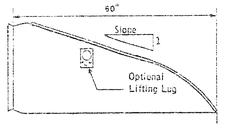
Sht 3/4 of 4 Shts



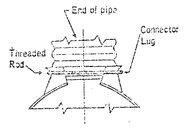
PLAN



ELEVATION



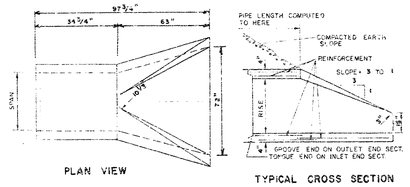
TYPICAL CROSS SECTION



CONNECTION

36" STEEL FLARED END SECTION

NOTE: Steel Flared End Section shall be used when steel pipe is Selected and shall Comply with the City of Wichita Standard Specifications.



PLAN VIEW

TYPICAL CROSS SECTION



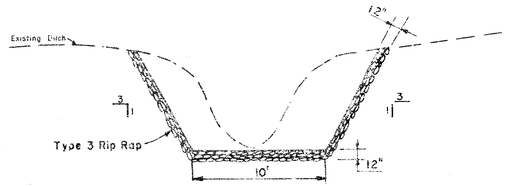
ELEVATION
ROUND CONC. PIPE END SECTION

36" R.C. FLARED END SECTION

NOTE: All Construction requirements shall Comply with methods for Type 1A Curb Inlet See Sheet 3

TYPICAL SECTION

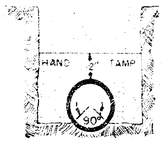
MODIFIED TOP FOR A TYPE 1A CURB INLET



TYPICAL DRAINAGE DITCH

See Sheet 1 Note 4





ORDINARY BEDDING METHOD

STORM SEWER PIPE

JAMES M. THOMPSON
LICENSED
6252
KANSAS
PROFESSIONAL ENGINEER

POE & ASSOCIATES
CONSULTING ENGINEERS

CITY OF WICHITA
Dept. Public Works

MISC. DRAINAGE DETAILS

468-76-80814-000-000-00-1

ENGINEER JMT	ENG. TECH. MW
DRAWN BY JLW	SCALE N.T.S.
DATE SEPT. 1979	SHEET 4 OF 4