STORM SEWER PLANS FOR
COTTONWOOD VILLAGE SIXTH
S.W.S. NO. 303
PROJECT NO.
468·76·245·81524·000·000·001

CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, CITY ENGINEER
MARCH , 1987

GENERAL NOTES

1. THE TOPS OF INLET AND MANHOLE AS NOTED ON THE PLANS MAY VARY SO AS TO MEET PROPOSED TOP OF CURB ELEVATIONS OR PAVEMENT ELEVATIONS. THE FIELD ENGINEER SHALL LOCATE INLETS AND MANHOLES WITH REFERENCE TO PROPOSED PAVING PLANS OF THE PERTINENT STREETS.

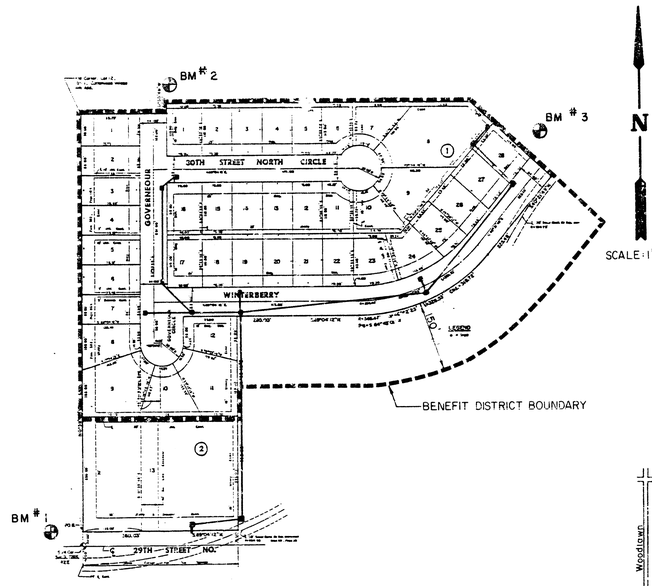
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR OR A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS.

3. CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF CONSTRUCTION SCHEDULING.

4. EXISTING UTILITIES AND THEIR LOCATIONS, 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 PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.

NOTE: NOTIFY THE FOLLOWING COMPANIES PRIOR TO ANY EXCAVATION:

ARKLA GAS COMPANY	942-3350
BELL TELEPHONE COMPANY	1-316-571-2115
CABLEVISION	262-0661
KFSL COMPANY	263-7511
KANSAS GAS & ELECTRIC	264-1141
KANSAS ONE-CALL	1-800-344-7233
CITIES SERVICE	524-0491
KANSAS GAS SUPPLY	1-316-254-7243
CONTINENTAL PIPELINE COMPANY	1-316-681-2081
CO-OP REFINERY PIPELINE	1-316-221-2107



INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LINE 1
3	LINE 1 & LINE 1A
4	LINE 1 & LINE 1B
5	LINE 1
6	LINE 2
7	LINE 3
8	SPECIAL REINF CONC MANHOLE
9	STANDARD REINF CONC MANHOLE
10	STANDARD SHALLOW MANHOLE
11 - 12	inlet DETAILS
13	FINAL PLAT

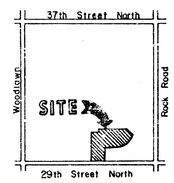
As Builts
12/87
MCG

BENCH MARKS

B.M. #1 City of Wichita Bench Mark Disc, 75' West & 30.3' North of 1/4 Sec. Corner & 55' North & 85' West of Centerline of Pavement, Governeour & 29th Street North. Elev.= 182.56

B.M. #2 "+" Cut on Curb at South End of Driveway Return, 3122 Governeour, Lot 1, Block 1, Cottonwood Village 5th Addition Elev.= 192.31

B.M. #3 "+" Cut on Curb at Centerline of Aproach Walk, 7500 Winterberry, Lot 32, Block 1, Cottonwood Village 5th Addition. Elev.= 196.93



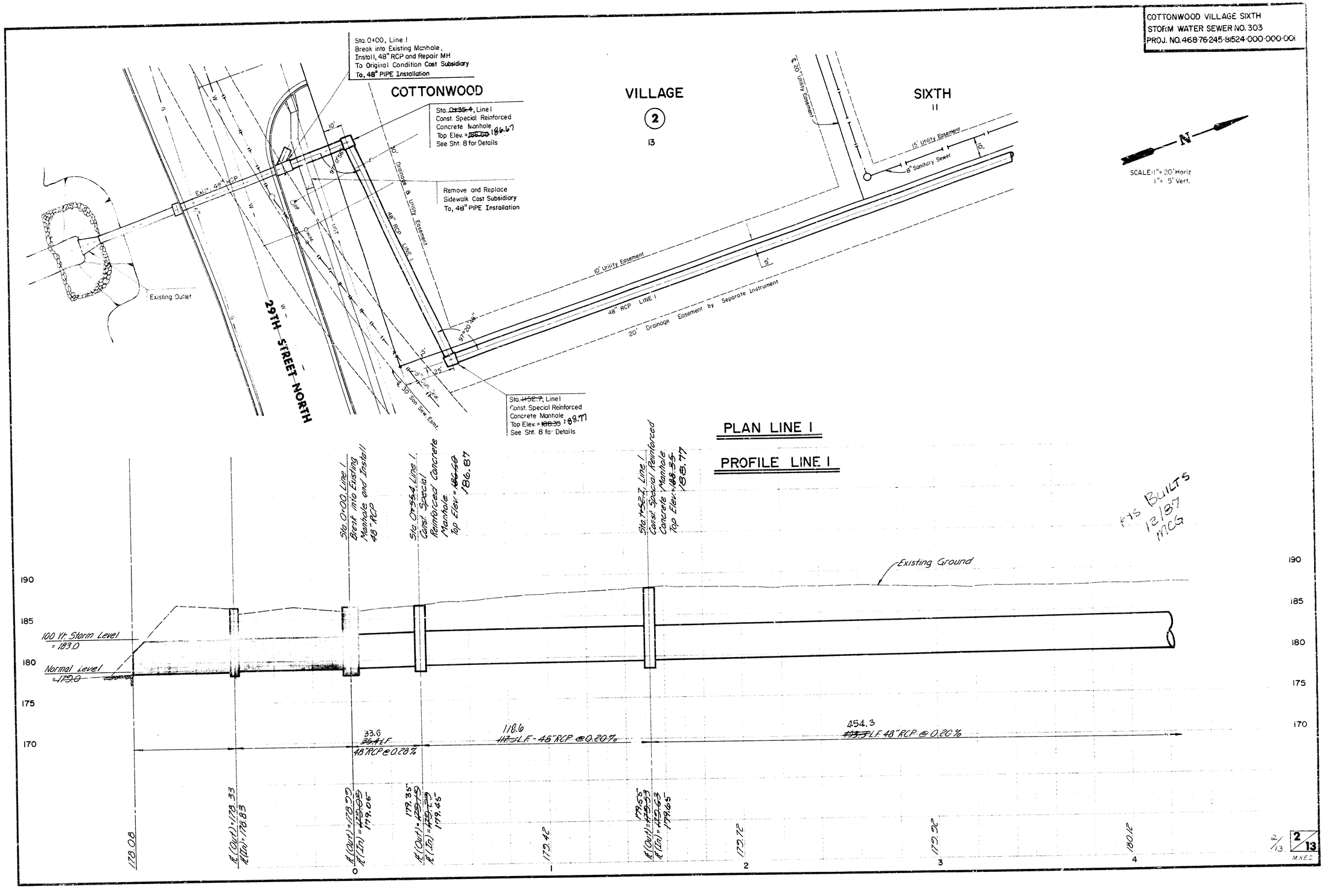
LOCATION MAP

COTTONWOOD VILLAGE SIXTH STORM WATER SEWER PLANS

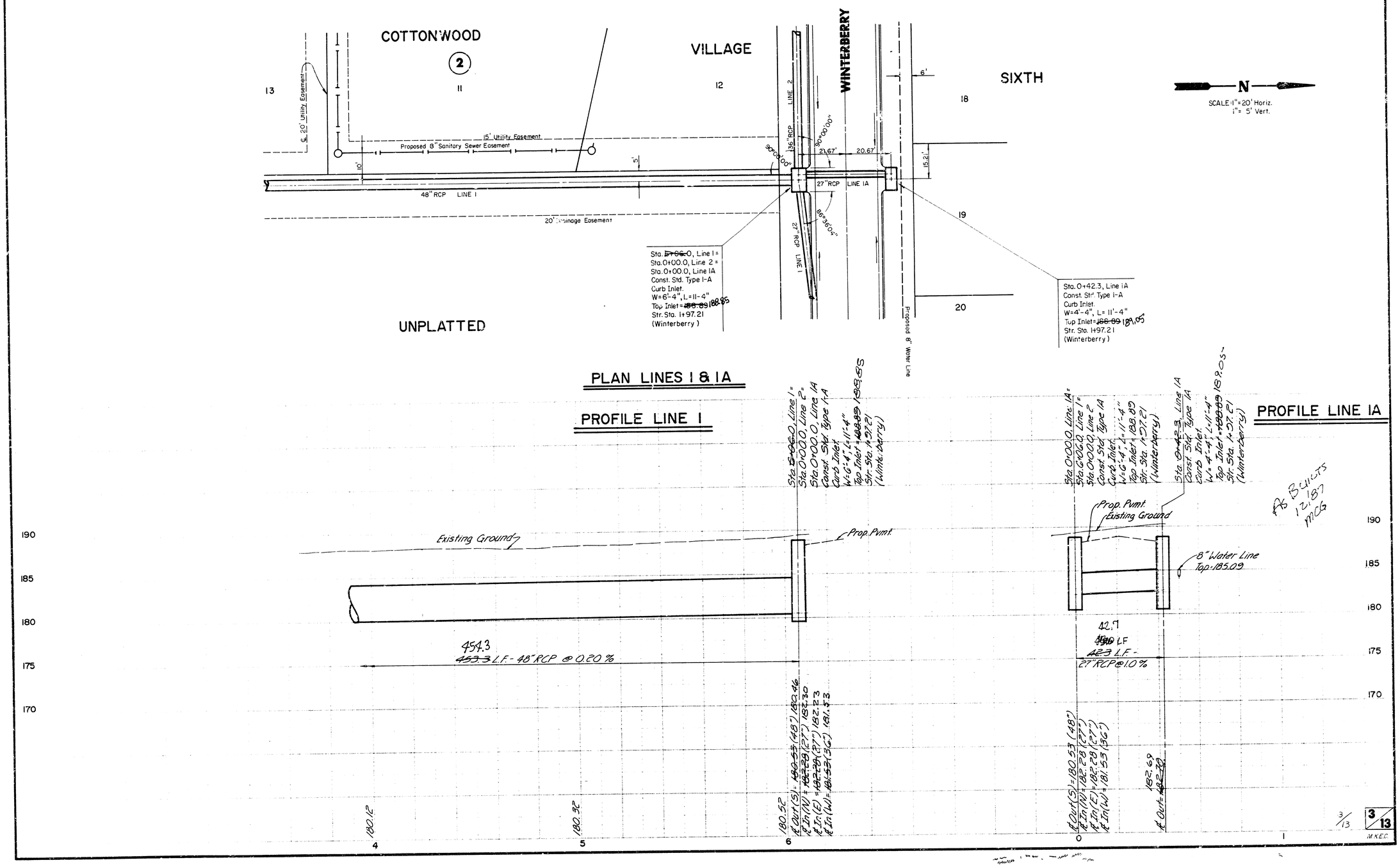
DESIGN: R.C.B.
DRAWN: S.J.M.
CHECKED:
DATE: MARCH, 1987
APPD:

MID-KANSAS ENGINEERING CONSULTANTS PA
3500 NORTH ROCK ROAD
BUILDING #800
WICHITA, KANSAS 67226
682-6561

Sheet 1 of 13


COTTONWOOD VILLAGE SIXTH
STORM WATER SEWER NO. 303
PROJ. NO. 468-76-245-81524-000-000-001
Sta. 0+00, Line 1
Break into Existing Manhole,
Install, 48" RCP and Repair MH
To Original Condition Cost Subsidiary
To, 48" PIPE Installation
COTTONWOOD
VILLAGE
2
13
SIXTH
11
Sta. 0+35.4, Line 1
Const. Special Reinforced
Concrete Manhole
Top Elev. = 186.67
See Sht. 8 for Details
Remove and Replace
Sidewalk Cost Subsidiary
To, 48" PIPE Installation
Exist. 48" RCP
30' Drainage & Utility Easement
48" RCP LINE 1
Existing Outlet
29TH STREET NORTH
30' San Sew. Esmt.
Sta. 1+52.7, Line 1
Const. Special Reinforced
Concrete Manhole
Top Elev. = 188.77
See Sht. 8 for Details
10' Utility Easement
48" RCP LINE 1
20' Drainage Easement by Separate Instrument
15' Utility Easement
8" Sanitary Sewer
20' Utility Easement
SCALE: 1" = 20' Horiz
1" = 5' Vert.
N
PLAN LINE 1
PROFILE LINE 1
Sta. 0+00, Line 1
Break into Existing
Manhole and Install
48" RCP
Sta. 0+35.4, Line 1
Const. Special
Reinforced Concrete
Manhole
Top Elev. = 186.87
Sta. 1+52.7, Line 1
Const. Special Reinforced
Concrete Manhole
Top Elev. = 188.77
FYS BUILTS
12/87
MCG
Existing Ground
100 Yr. Storm Level
= 183.0
Normal Level
= 179.0
190
185
180
175
170
33.6
35.4 L.F.
48" RCP @ 0.28%
118.6
117.5 L.F. - 48" RCP @ 0.20%
454.3
453.3 L.F. 48" RCP @ 0.20%
178.08
℄ (Out) = 178.33
℄ (In) = 178.83
℄ (Out) = 178.99
℄ (In) = 179.06
179.35
℄ (Out) = 179.19
℄ (In) = 179.45
179.42
179.55
℄ (Out) = 179.53
℄ (In) = 179.65
179.72
179.92
180.12
0
1
2
3
4
2/13
2/13
M.K.E.C.

COTTONWOOD VILLAGE SIXTH
STORM WATER SEWER NO. 303
PROJ. 468-76-245-81524-000-000-001



COTTONWOOD VILLAGE SIXTH
STORM WATER SEWER NO. 303
PROJ. 468-76-245-81524-000-000-001

COTTONWOOD VILLAGE SIXTH

18 | 19 | 20 | 21 | 22 | 23

(1)

See Sht. 3 for Line 1A

Proposed 8" Water Line

WINTERBERRY

LINE 1A

27" RCP

90°00'00"

86°36'04"

36" RCP LINE 2

90°00'00"

15' Utility Easement

48" RCP LINE 1

20' Drainage Easement

Sta. 6+060 Line 1 =
Sta. 0+00 Line 2 =
Sta. 0+00 Line 1A
Const. Std. Type 1-A
Curb Inlet, W=6'-4"
L=11'-4", Top Inlet = ~~188.00~~ 188.65
Str. Sta. 1+97.21
(Winterberry)

12

(2)

Sta. 0+42.3, Line 1B
Const. Std. Type 1-A
Curb Inlet.
W=4'-4", L=6'-4"
Top Inlet=~~192.67~~ 192.66
Str.Sta. 6+03.0
(Winterberry

LINE 1B

20.67

21.67

72°23'04"

132°05'00"

27" RCP

Sta. 10+17.6, Line 1
Sta. 0+00.0, Line 1B
Const. Std. Type 1-A
Curb Inlet.
W=6'-4", L=6'-4"
Top Inlet = ~~192.67~~ 192.73
Str. Sta. 6+03.0
(Winterberry)

N

SCALE: 1" = 20' Horiz.
1" = 5' Vert.

UNPLATTED

PLAN LINES 1 & 1B

PROFILE LINE 1

Sta. 6+06.0, Line 1
Sta. 0+00.0, Line 2
Sta. 0+00.0, Line 1A
Const. Std. Type 1-A
Curb Inlet.
W=6'-4", L=11'-4"
Top Inlet=~~188.00~~ 188.65
Str. Sta. 1+97.21
(Winterberry)

Sta. 10+17.6, Line 1
Sta. 0+00.0, Line 1B
Const. Std. Type 1-A
Curb Inlet.
W=6'-4", L=6'-4"
Top Inlet=~~192.67~~ 192.73
Str. Sta. 6+03.0
(Winterberry)

Sta. 10+17.6, Line 1
Sta. 0+00.0, Line 1B
Const. Std. Type 1-A
Curb Inlet.
W=6'-4", L=6'-4"
Top Inlet=192.67
Str. Sta. 6+03.0 (Winterberry)

Sta. 0+42.3, Line 1B
Const. Std. Type 1-A
Curb Inlet.
W=4'-4", L=6'-4"
Top Inlet=~~192.67~~ 192.66
Str. Sta. 6+03.0
(Winterberry)

Prop. S. Curb
Existing Ground
Prop. Pvmt.

190
185
180
175

411.0
~~444.0~~ L.F. 27" RCP @ 0.60 %

43.0
~~42.3~~ L.F.
15" RCP @ 2.0 %

Existing Ground
Prop. Pvmt.
8" Water Line
Top - 188.10

AS BUILTS
12/87

℄ Out (S) = 180.53 (48")
℄ In (N) = 182.28 (27")
℄ In (E) = ~~182.28~~ 182.25 (27")
℄ In (W) = ~~183.53~~ 183.56 (36") ~~Cancel~~

180.52
182.24
183.44
184.04
184.64

℄ Out (W) = ~~184.75~~ 184.59 (27")
℄ In (N) = ~~185.75~~ 185.76 (15")
℄ In (E) = ~~185.91~~ 185.91 (24")

℄ Out (W) 184.73 (27")
℄ In (N) = 185.75 (15")
℄ In (E) = 185.0 (24")

℄ Out = ~~186.00~~ 186.63 (15")

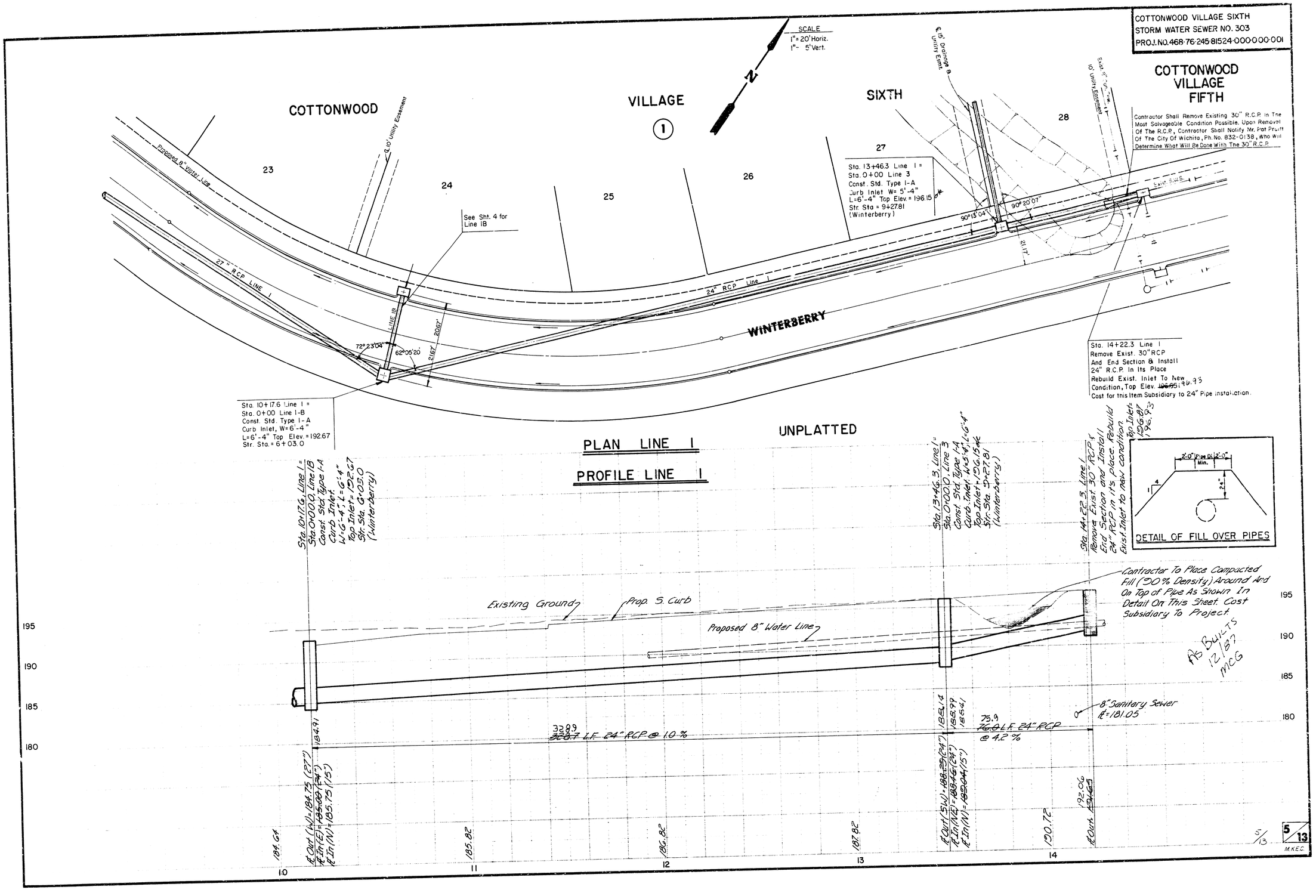
PROFILE LINE 1B

6 | 7 | 8 | 9 | 10 | 0 | 1

7/13

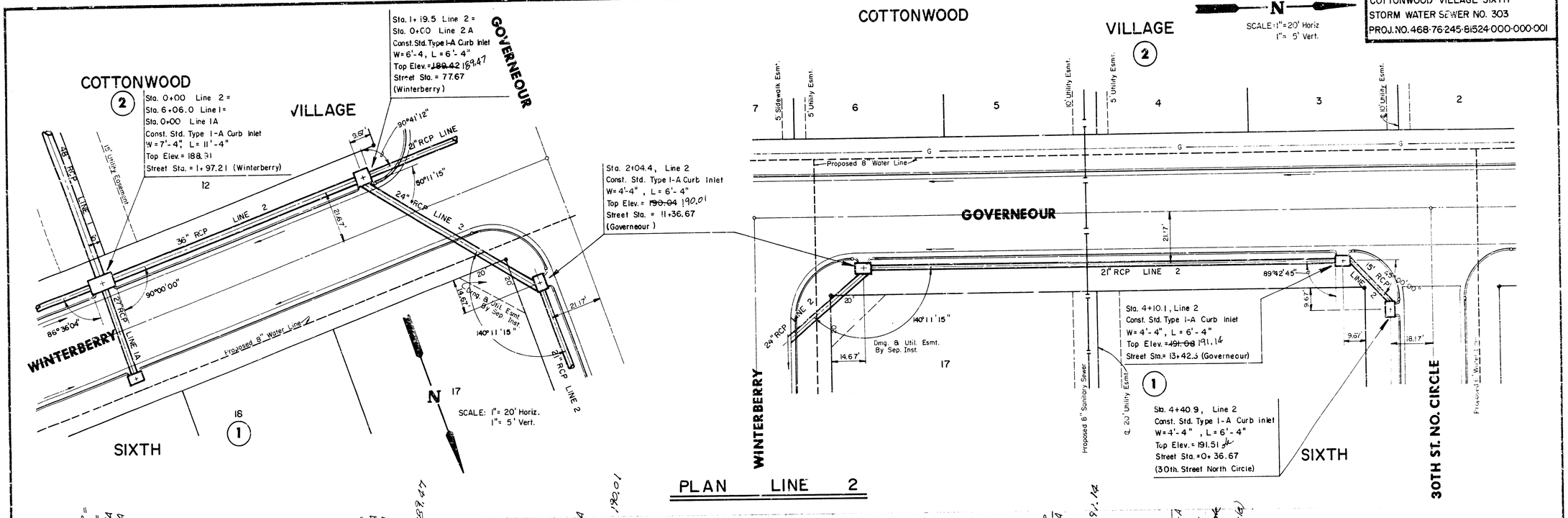
4/13

M.K.E.C.

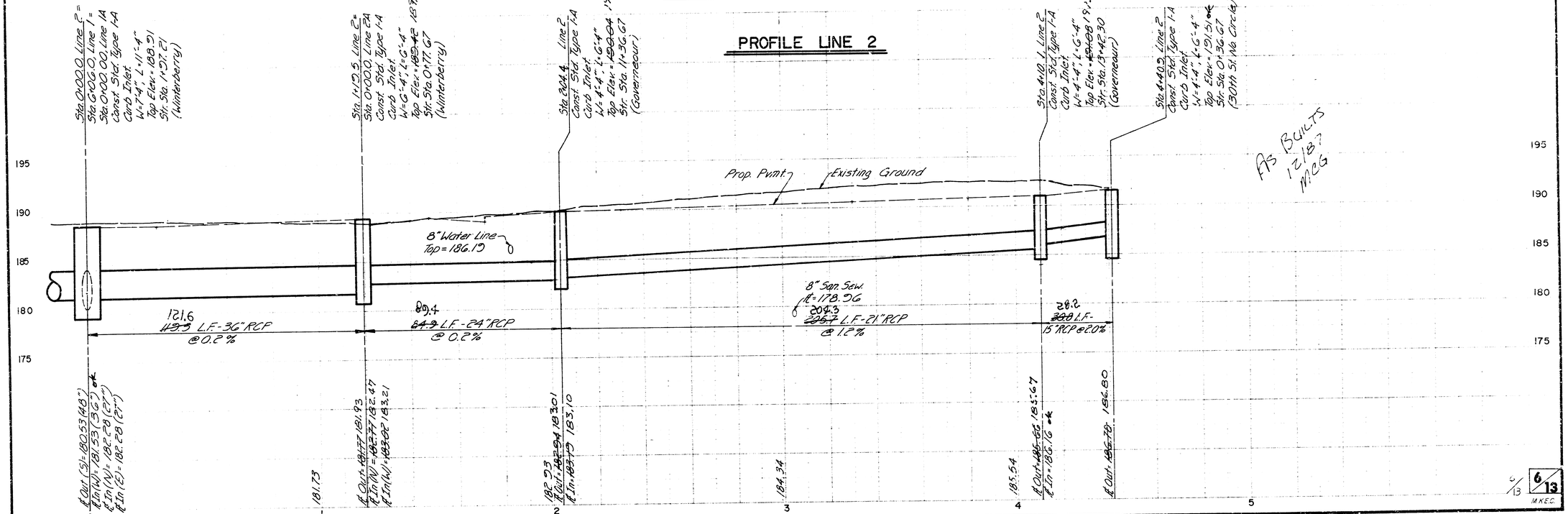

COTTONWOOD VILLAGE SIXTH
STORM WATER SEWER NO. 303
PROJ. NO. 468-76-245-81524-000-000-001
COTTONWOOD VILLAGE FIFTH
Contractor Shall Remove Existing 30" R.C.P. In The Most Salvageable Condition Possible. Upon Removal Of The R.C.P., Contractor Shall Notify Mr. Pat Pruitt Of The City Of Wichita, Ph. No. 832-0138, Who Will Determine What Will Be Done With The 30" R.C.P.
SCALE
1" = 20' Horiz.
1" = 5' Vert.
N
COTTONWOOD
VILLAGE
1
SIXTH
23
24
25
26
27
28
℄ 10' Utility Easement
℄ 15' Drainage & Utility Esmt.
Proposed 8" Water Line
27" RCP LINE 1
24" RCP Line 1
WINTERBERRY
See Sht. 4 for Line 1B
LINE 1B
72°23'04"
62°05'20"
20.67'
21.67'
90°13'04"
90°20'07"
21.17'
Sta. 13+46.3 Line 1 = Sta. 0+00 Line 3 Const. Std. Type 1-A Curb Inlet W= 5'-4" L=6'-4" Top Elev.= 196.15 Str. Sta = 9+27.81 (Winterberry)
Sta. 14+22.3 Line 1 Remove Exist. 30" RCP And End Section & Install 24" R.C.P. In Its Place Rebuild Exist. Inlet To New Condition, Top Elev. ~~196.65~~ 196.93 Cost for this Item Subsidiary to 24" Pipe installation.
Sta. 10+17.6 Line 1 = Sta. 0+00 Line 1-B Const. Std. Type 1-A Curb Inlet, W=6'-4" L=6'-4" Top Elev.=192.67 Str. Sta.= 6+03.0
UNPLATTED
PLAN LINE 1
PROFILE LINE 1
Sta. 10+17.6, Line 1 = Sta. 0+00.0, Line 1B Const. Std. Type 1-A Curb Inlet W=6'-4", L=6'-4" Top Inlet = 192.67 Str. Sta. 6+03.0 (Winterberry)
Sta. 13+46.3, Line 1 = Sta. 0+00.0, Line 3 Const. Std. Type 1-A Curb Inlet W=5'-4", L=6'-4" Top Inlet = 196.15 Str. Sta. 9+27.81 (Winterberry)
Sta. 14+22.3, Line 1 Remove Exist. 30" RCP & End Section and Install 24" RCP in its place. Rebuild Exist. Inlet to new condition. Top Inlet = 196.87 196.93
2'-0" Pipe Di. 2'-0" Min.
24"
DETAIL OF FILL OVER PIPES
Existing Ground
Prop. S. Curb
Proposed 8" Water Line
Contractor To Place Compacted Fill (90% Density) Around And On Top of Pipe As Shown In Detail On This Sheet. Cost Subsidiary To Project.
As Built 12/87 MCG
8" Sanitary Sewer ℄=181.05
328.9 ~~328.7~~ L.F. 24" RCP @ 1.0%
75.9 ~~76.0~~ L.F. 24" RCP @ 4.2%
184.91
188.14
188.99
188.41
℄ Out (W) = 184.75 (27")
℄ In (E) = ~~185.00~~ (24")
℄ In (N) = 185.75 (15")
℄ Out (SW) = ~~188.29~~ (24")
℄ In (NE) = ~~188.46~~ (24")
℄ In (N) = ~~189.04~~ (15")
℄ Out ~~191.65~~ 192.06
184.64
185.82
186.82
187.82
190.72
195
190
185
180
10
11
12
13
14
5/13
5/13
M.K.E.C.

COTTONWOOD VILLAGE SIXTH
STORM WATER SEWER NO. 303
PROJ. NO. 468-76-245-8524-000-000-001

PLAN LINE 2



PROFILE LINE 2



COTTONWOOD VILLAGE SIXTH
STORM WATER SEWER NO. 303
PROJ. NO. 468-76-245-81524-000-000-001

SCALE : 1"= 20' Horiz.
1"= 5' Vert.

N

COTTONWOOD VILLAGE SIXTH

Sta. 0+00 Line 2A =
Sta. 1+19.5 Line 2
Const. Std. Type I-A Curb Inlet
W=6'-4", L=6'-4"
Top Inlet = 189.42
Street Sta. 0+77.67
(Winterberry)

Sta. 0+98.3 Line 2A
Const. Std. Type I-A Curb Inlet
W=4'-4", L=6'-4"
Top Inlet = ~~189.70~~ 189.71
Street Sta. 10+69.0
(Governeour)

GOVERNEOUR
WINTERBERRY
Proposed 4" Water Line
36" RCP LINE 2
21" RCP LINE 2A
24" RCP LINE 2
Proposed 8" Water Line
5' Sidewalk Esmt.
5' Utility Esmt.
9.67'
30° 31' 12"
20.67'
RC 78.78
21.67'
8
7
6
12
17

1

PLAN LINE 2A

SIXTH

PROFILE LINE 2A

Sta. 0+00.0 Line 2A =
Sta. 1+19.5 Line 2
Const. Std. Type I-A
Curb Inlet.
W=6'-4", L=6'-4"
Top Inlet = 189.42
Str. Sta. = 0+77.67
(Winterberry)

Sta. 0+98.3 Line 2A
Const. Std. Type I-A
Curb Inlet.
W=4'-4", L=6'-4"
Top Inlet = ~~189.70~~ 189.71
Str. Sta. 10+69.0
(Governeour)

Prop. Pvmt.
Exist. Ground
Gas Line
4" Water Line
Top = 183.0

97.8
~~98.3~~ L.F.-21" RCP @ 1.8%

℄ Out (E) = 181.77 (36")
℄ In (W) = 183.02 (21")
℄ In (NW) = 182.77 (24")

184.28
℄ Out = 184.23

195
190
185
180
175
0
1

UNPLATTED

WINTERBERRY

COTTONWOOD VILLAGE

Sta. 0+00 Line 3 =
Sta. 13+46.3 Line 1
Const. Std. Type I-A Curb Inlet
W=5'-4", L=6'-4"
Top Inlet = 196.06
Street Sta. 9+27.81
(Winterberry)

Sta. 1+22.8, Line 3
Const. Shallow Type A Manhole
With Deeter # 1970 Catch Basin Top &
Std. C. Of Wichita Ring (or approved equal)
Top Elev. = ~~195.5~~ 195.43

Sta. 1+84.8, Line 3
Const. Shallow Type A Manhole
With Deeter # 1970 Catch Basin Top &
Std. City Of Wichita Ring (or approved equal)
Top Elev. = ~~194.5~~ 194.9

Proposed 6" Water Line
LINE 1
24" RCP
30" Dia.
15" RCP LINE 3
℄ 15' Drainage Esmt by Separate Instrument
℄ 20' Utility Easement
10' Utility Easement
Existing 8" San. Sewer
Grade Area to Drain to Manhole at Sta. 1+84.8
90° 00' 00"
27
28
8
1

PLAN LINE 3

COTTONWOOD VILLAGE FIFTH

PROFILE LINE 3

Sta. 0+00.0 Line 3 =
Sta. 13+46.3 Line 1
Const. Std. Type I-A
Curb Inlet.
W=5'-4", L=6'-4"
Top Inlet = 196.06
Str. Sta. 9+27.81
(Winterberry)

Sta. 1+22.8, Line 3
Const. Shallow
Type A Manhole
w/ Deeter #1970 *
Catch Basin Top and
Std. City of Wichita Ring.
Top Elev. = 195.5 *
* or approved equal

Sta. 1+84.8, Line 3
Const. Shallow
Type A Manhole
w/ Deeter #1970 *
Catch Basin Top and
Std. City of Wichita Ring.
Top Elev. = 194.5 *
* or approved equal

Contractor To Place Compacted Fill (90% Density) Around And On Top Of Pipe As Shown In Detail On This Sheet. Cost Subsidiary To Project.

8" Water Line
Top = 192.0
Existing Ground

8" San Sew.
ℓ = 181.55

121.2
~~122.8~~ L.F.-15" RCP @ 0.38%

62.5
~~62.0~~ L.F.-15" RCP @ 0.38%

℄ Out (SW) = 188.23 (24")
℄ In (NW) = 185.04 (15")
℄ In (NE) = 188.46 (24")

189.71
℄ Out = ~~189.51~~ 189.61
℄ In = ~~189.61~~ 189.81

192.07
℄ Out = ~~192.85~~

195
190
185
180
175
0
1
2
3

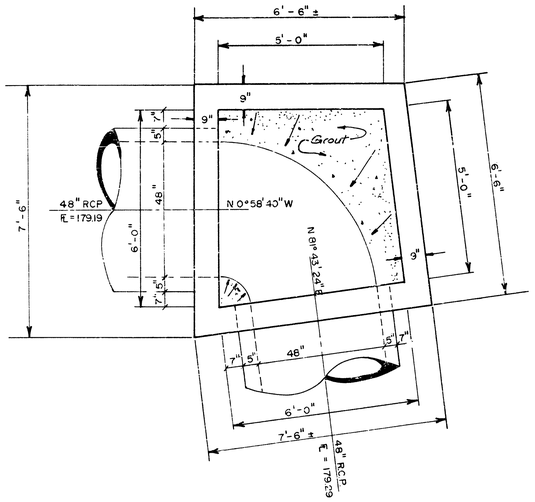
DETAIL OF FILL OVER PIPES

2'-0" Min. Dia. or 2'-0" Min.
1
4
2.4"

R. Hilt 12/87 MCG

7/13

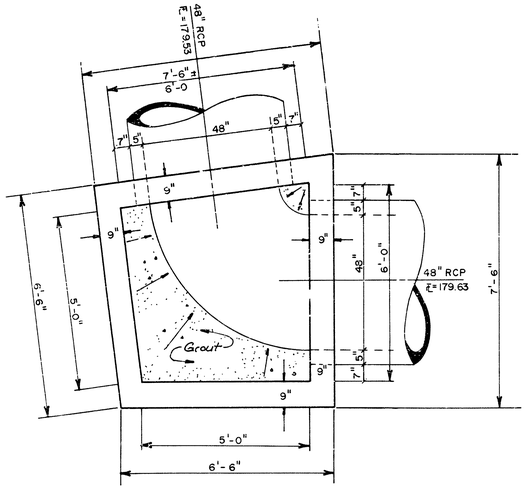
7/13
M.K.E.C.



PLAN VIEW

STA. 0+35 4 LINE 1

NO SCALE



PLAN VIEW

STA. 1+52.70, LINE 1

NO SCALE

Note : For Details of these Manholes, See Standard Manhole Details on Sheet 9 of 13. This Drawing Shows Layouts of Manholes Only.

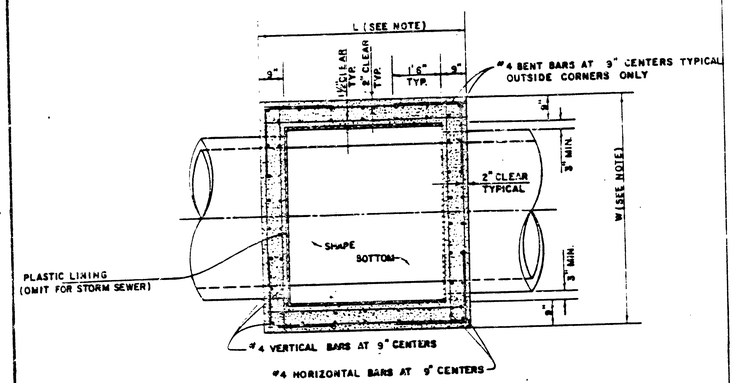
SPECIAL REINFORCED CONCRETE MANHOLE

Drawn By	R.C.B.
Designed By	E.C.G.
Checked By	
Date	MARCH
Job No	

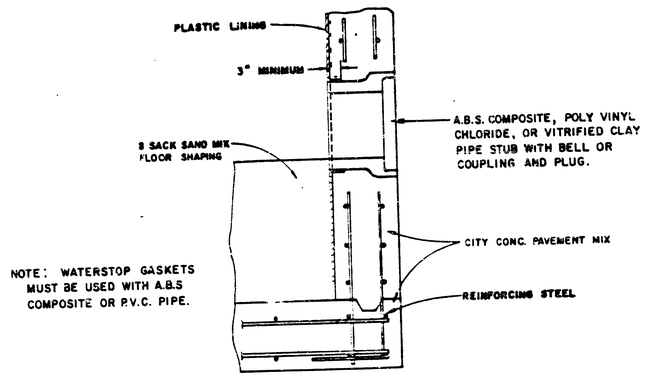
MID-KANSAS ENGINEERING CONSULTANTS PA
3500 NORTH ROCK ROAD
BUILDING #800
WICHITA, KANSAS 67226
682-6561

8/13

Sheet 8 of 13

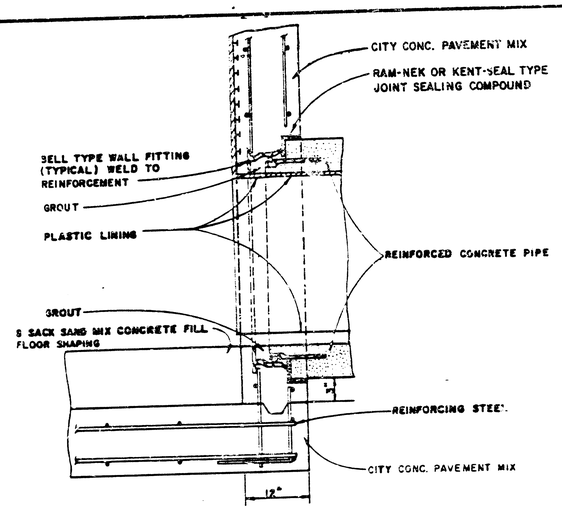


TOP VIEW

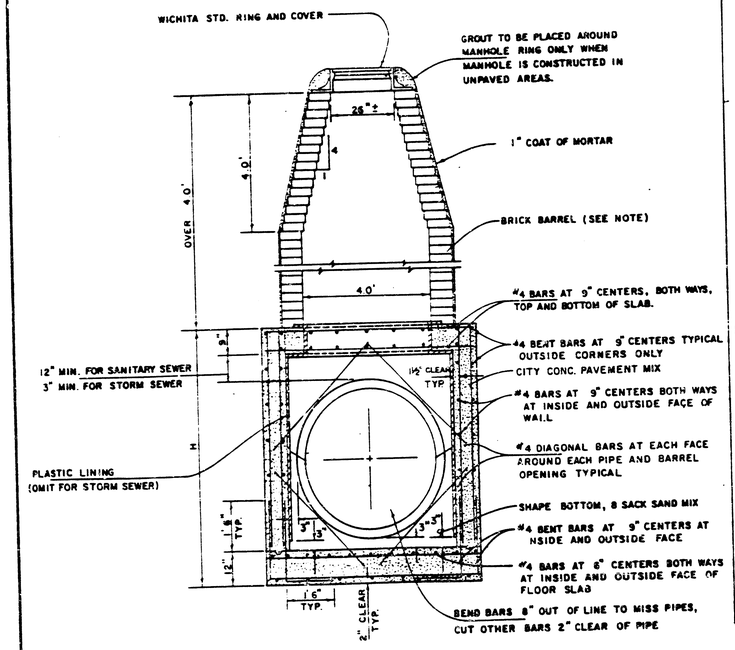


NOTE: WATERSTOP GASKETS MUST BE USED WITH A.B.S COMPOSITE OR P.V.C. PIPE.

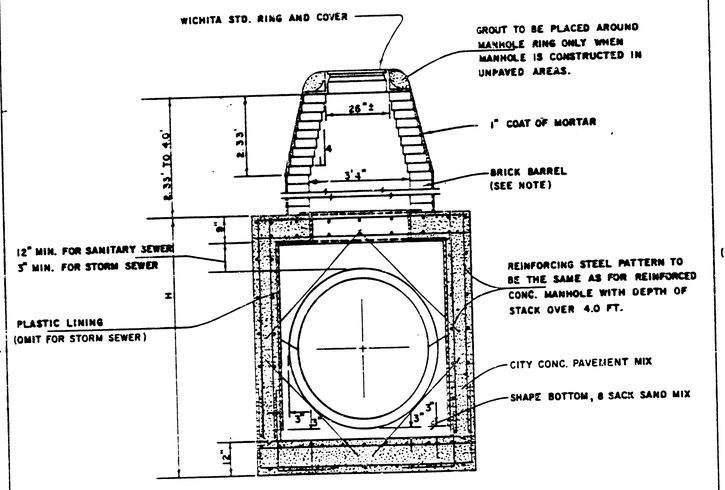
PIPE STUB DETAIL
SANITARY SEWER ONLY



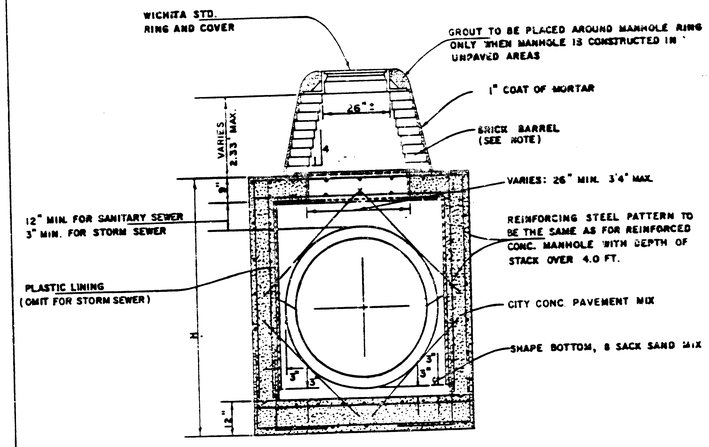
R.C.P. CONNECTION DETAIL
SANITARY SEWER ONLY



REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: OVER 4.0'
SCALE 1" = 2'



REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: 2.33' TO 4.0'
SCALE 1" = 2'



REINFORCED CONCRETE MANHOLE
DEPTH OF STACK: 0' TO 2.33'
SCALE 1" = 2'

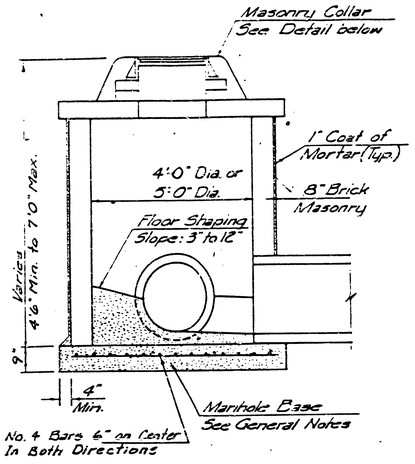
NOTE:
BRICK BARRELS LESS THEN 16' DEEP SHALL HAVE 8" WALLS EXCEPT WHEN LOCATED WITHIN PUBLIC STREET OR ALLEY PAVEMENT THEN THE WALL SHALL BE 12". BRICK BARRELS MORE THEN 16' DEEP SHALL HAVE 12" WALLS. THE "L" AND "W" DIMENSIONS SHALL BE A MINIMUM OF 5'6" FOR BRICK BARRELS WITH 8" WALLS AND 6'2" FOR BRICK BARRELS WITH 12" WALLS WHEN THE BRICK BARRELS ARE OVER 4 FT. IN HEIGHT. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATERTIGHT.

REVISED 1-7-85

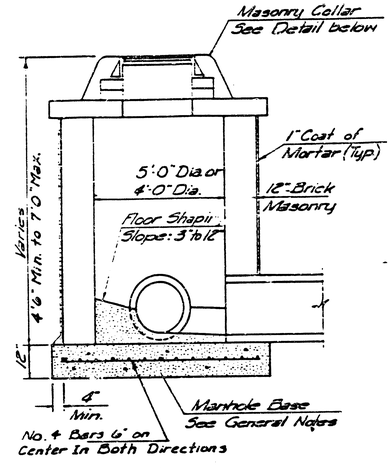
STANDARD DETAILS
REINFORCED CONCRETE MANHOLES
CITY OF WICHITA

FEBRUARY 1984

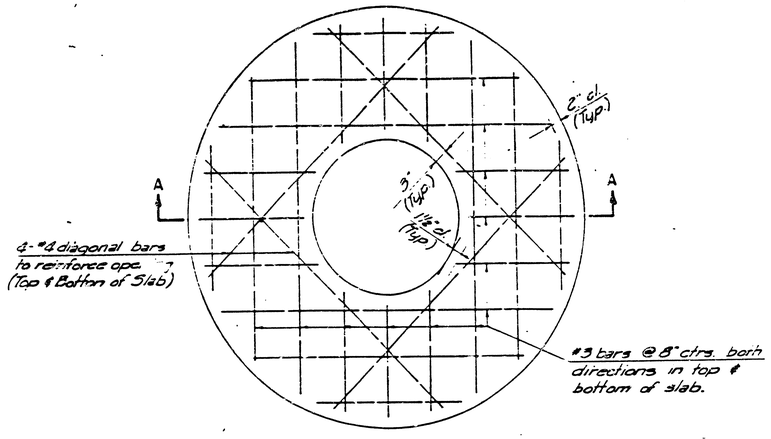
9/13



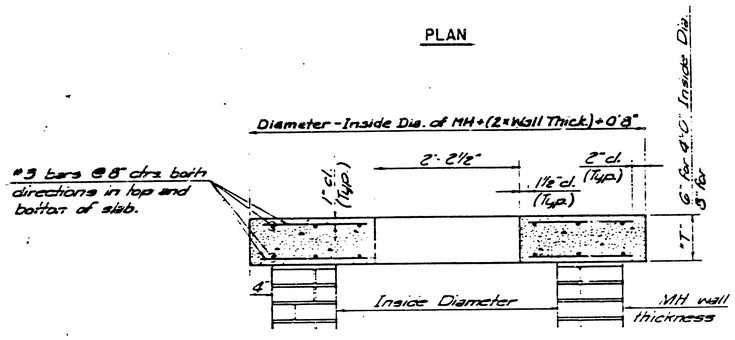
SHALLOW TYPE "A" MANHOLE



SHALLOW TYPE "B" MANHOLE

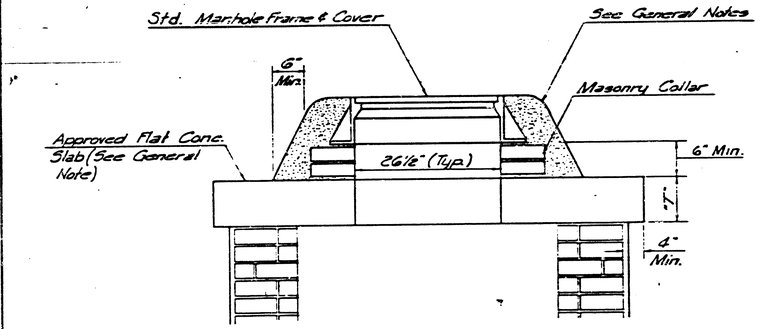


PLAN

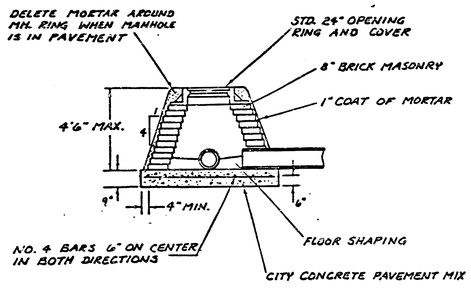


SECTION A-A

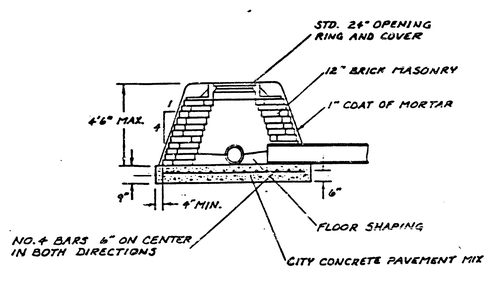
FLAT CONCRETE SLAB DETAILS



MASONRY COLLAR DETAIL



SPECIAL SHALLOW TYPE 'A' MANHOLE



SPECIAL SHALLOW TYPE 'B' MANHOLE

GENERAL NOTES

1. 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 CEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN GRAVED AREAS. TYPE "A" SHALLOW MANHOLES CAN BE USED ON SEWERS WHEN THE MANHOLE IS NOT LOCATED WITHIN PUBLIC STREET PAVEMENT. 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.

2. 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 6" 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.

3. 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 BY THE DRAWINGS. 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 MEET 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.

4. 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.

5. 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 DRAWINGS.

6. THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.

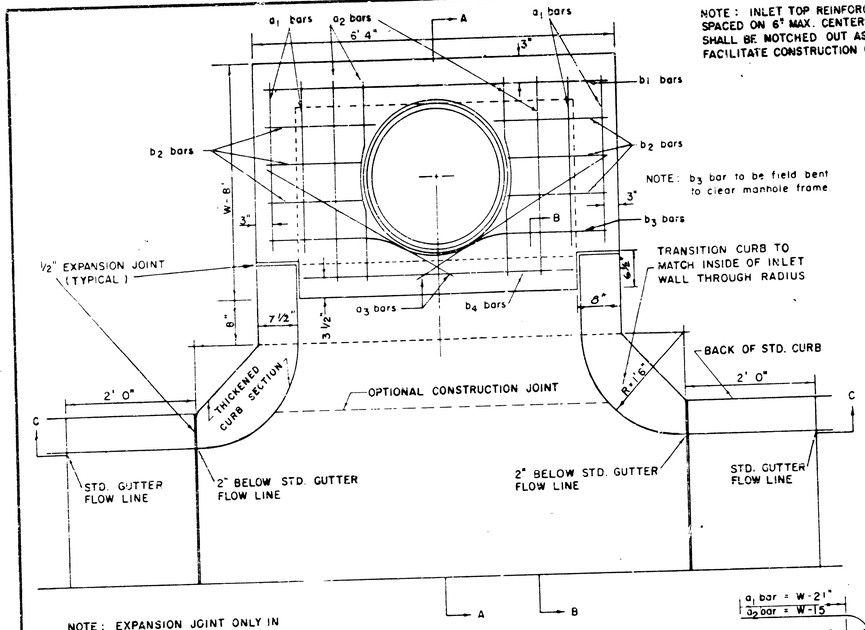
7. STANDARD SHALLOW MANHOLES TYPE "A" AND "B" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE AND DIAMETER INDICATED. STANDARD SPECIAL SHALLOW MANHOLES TYPE "A" AND "B" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE INDICATED. ALL STANDARD SHALLOW MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.

CITY OF WICHITA, KANSAS
STANDARD SHALLOW MANHOLES
TYPE 'A' AND TYPE 'B'

10/13

10/13

Designed by		Checked by	
Drawn by		Date	Job No.

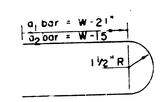


NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.

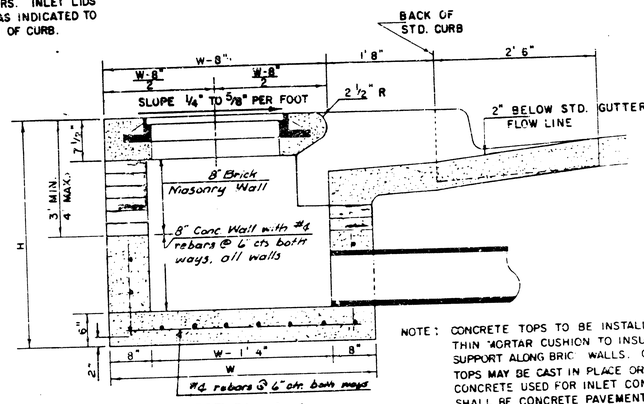
NOTE: b_3 bar to be field bent to clear manhole frame.

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

PLAN



BENDING DIAGRAM



SECTION A-A

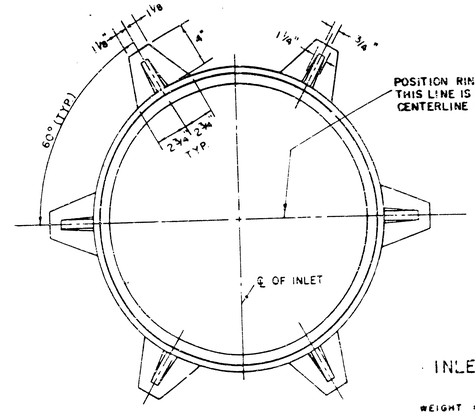
NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL BE CONCRETE PAVEMENT MIX.

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 SAID BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET HOOKUP.

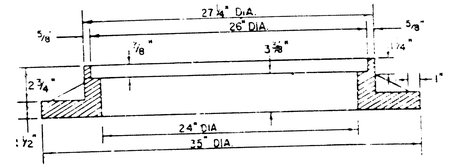
INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.



INLET FRAME

WEIGHT = 180 LBS.



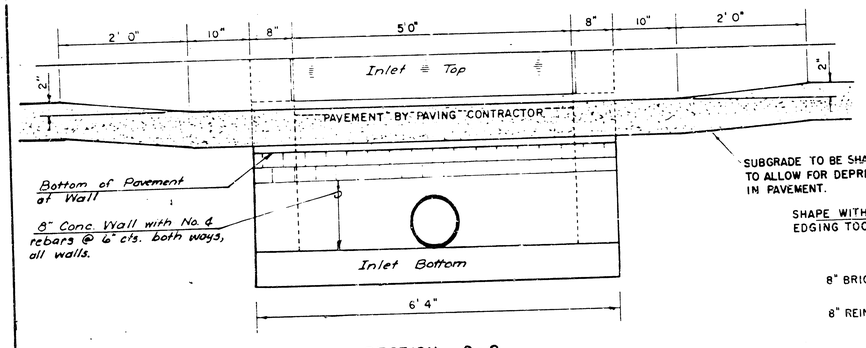
SEE CITY OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE USED WITH INLET FRAME.

STEEL SCHEDULE

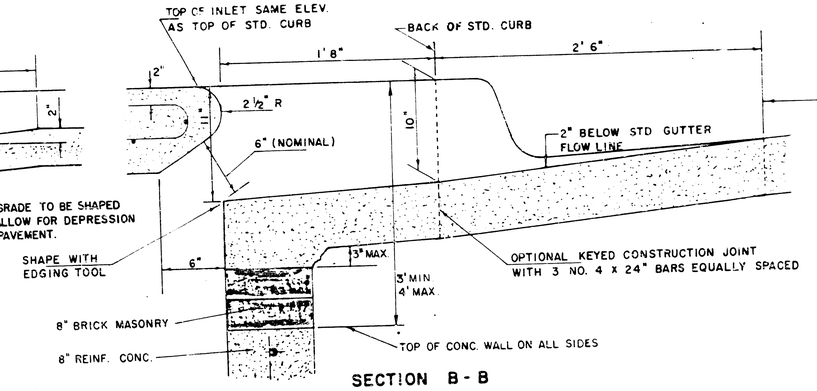
BAR	a_1	a_2	a_3 *	b_1 W=4'4"	b_1 W=5'4"	b_1 W=6'4"	b_1 W=7'4"	b_1 W=8'4"	b_2	b_3	b_4	WT. LBS.
NUMBER	4	4	2	1	3	5	7	9	5	1	1	
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH W=4'4"	5'7"	6'7"	4'0"	6' 1"	–	–	–	–	1' 5"	6'2"	4'8"	60±
LENGTH W=5'4"	7'7"	8'7"	5'0"	–	6' 1"	–	–	–	1' 9"	6'2"	4'8"	81±
LENGTH W=6'4"	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"	3'8"x 6'4" x7 1/2"	21" & SMALLER	0.38 ±
5' 4"	4'8"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 ±



SECTION C-C



SECTION B-B

REVISED 12-21-1984

DETAIL STANDARD TYPE IA CURB INLET

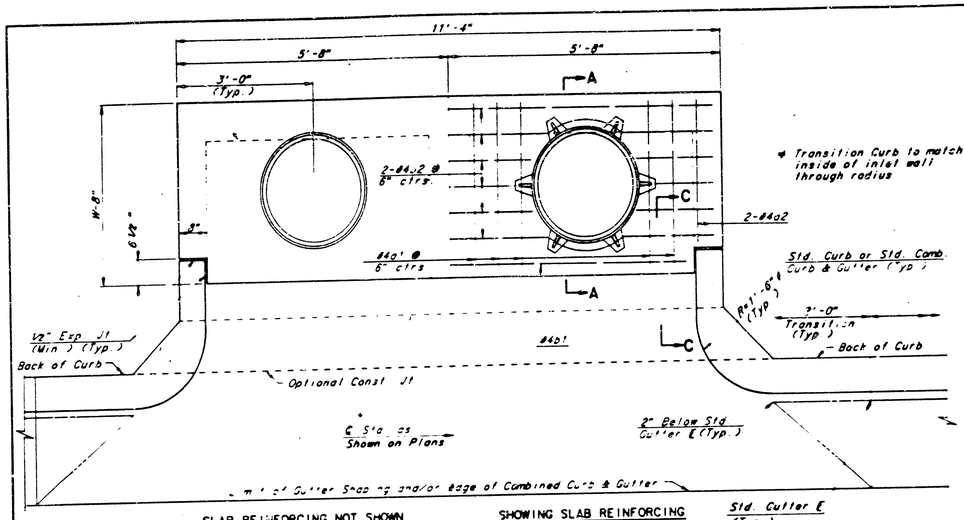
CITY OF WICHITA, KANSAS

INLET OPENING = 6" x 5' 0"

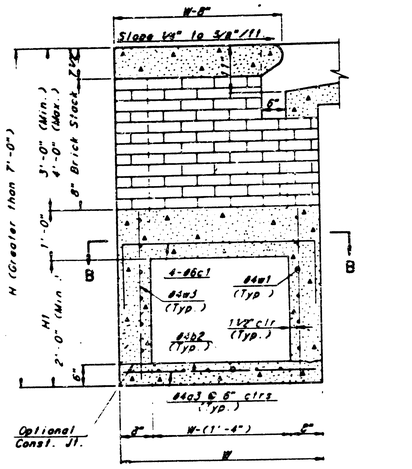
JUNE 1984

11/13

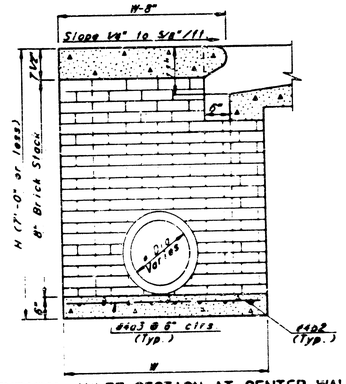
11/13



SLAB REINFORCING NOT SHOWN — PLAN — SHOWING SLAB REINFORCING

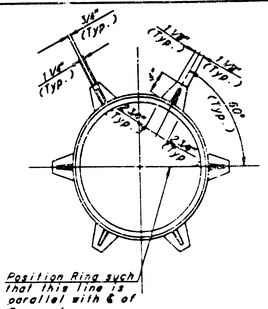


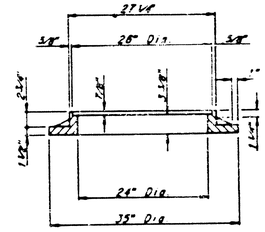
TYPICAL INLET SECTION AT CENTER WALL
(REINFORCED CONCRETE WALLS)



TYPICAL INLET SECTION AT CENTER WALL
(MASONRY WALLS)

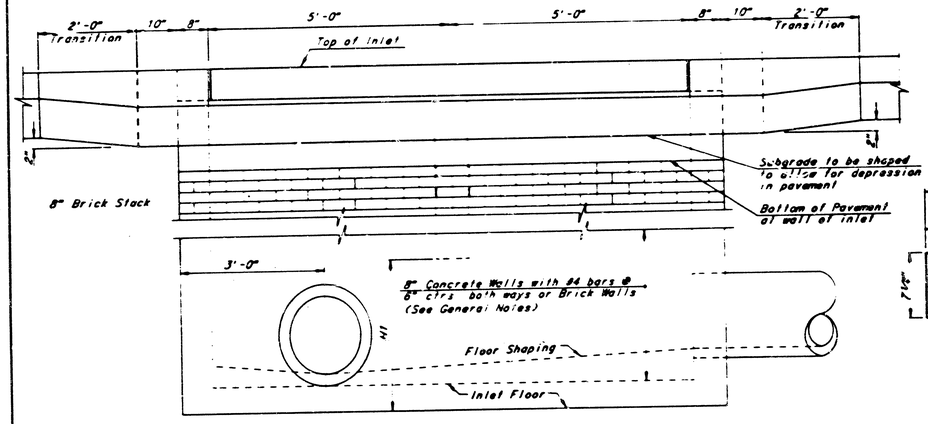
* A center wall opening shall be provided by means of a section of reinforced concrete pipe. The minimum diameter used shall be that of the outlet pipe.



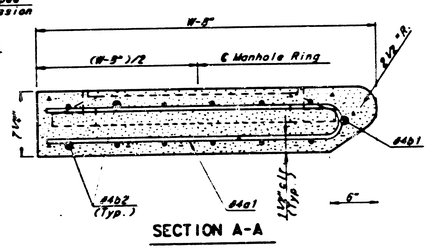


CAST IRON INLET RING
Wt.-180 lbs.

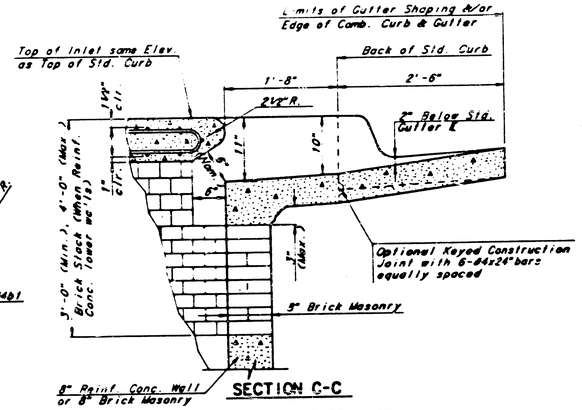
See City of Wichita Standard Manhole Frame and Cover Detail Sheet for Cover Details to be used with Inlet Frame.



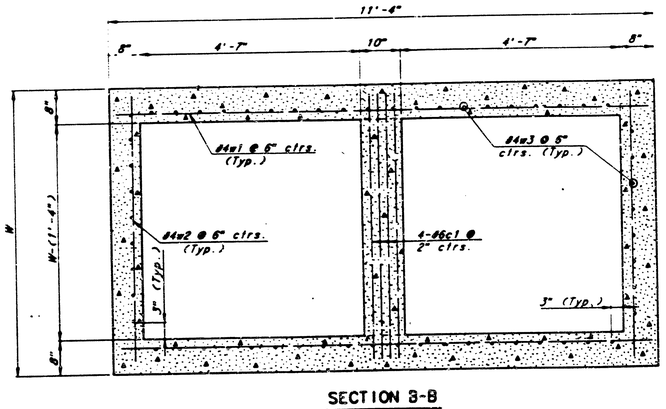
ELEVATION



SECTION A-A



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	5'-7 1/4"	13	8'-7 1/4"	13	10'-7 1/4"	13	12'-7 1/4"	13	14'-7 1/4"
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

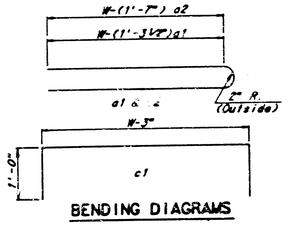
* Field bend or cut Reinforcing as required for clearance

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

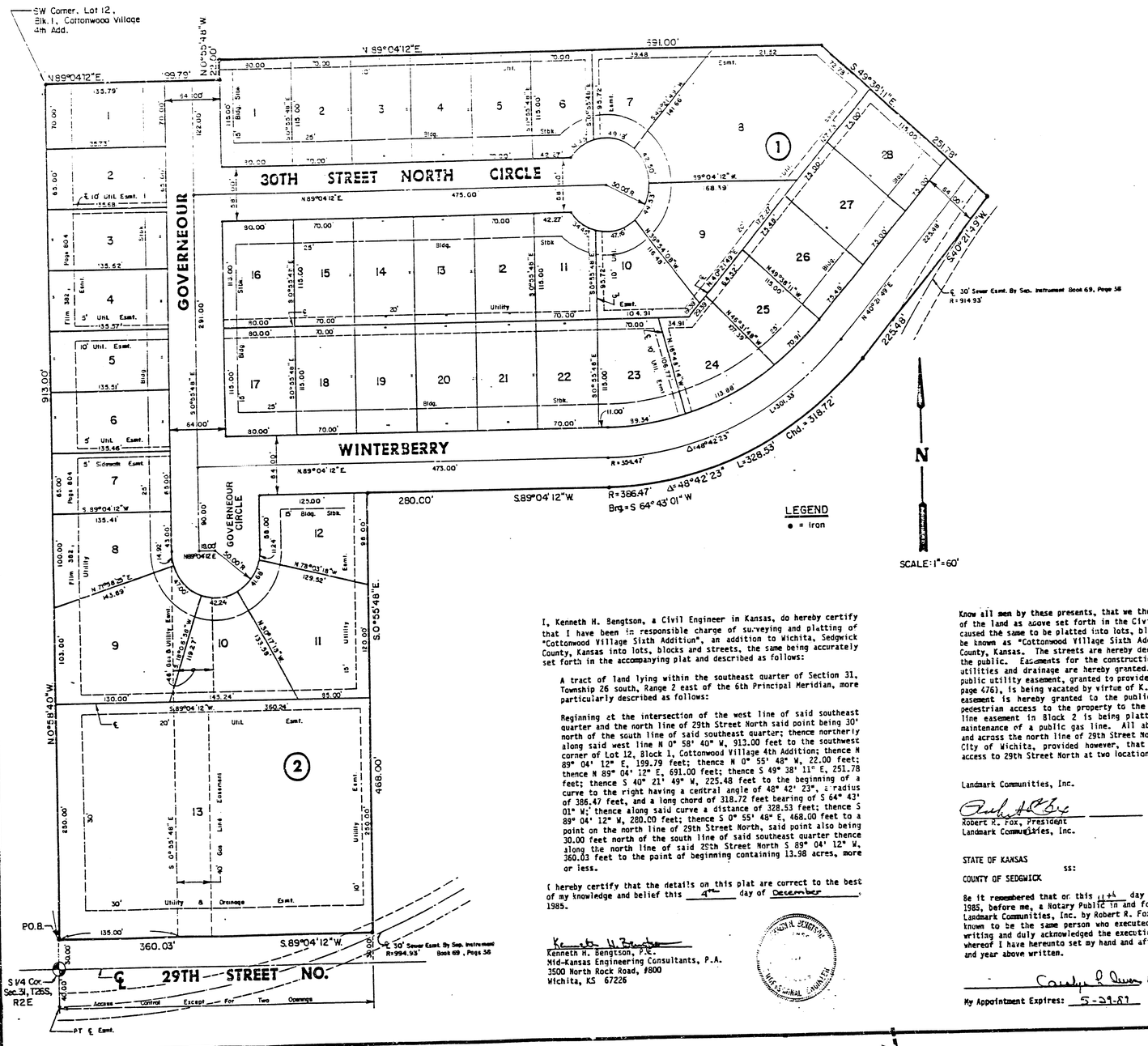
INLET OPENING = 6" x 10'-0"

12/13 12

WICHITA, KANSAS 13

Designed by	BER, K-15, AMB	Checked by	AMB
Drawn by	JDP	Date	Nov., 1984
		Job No.	

FINAL PLAT OF
COTTONWOOD VILLAGE SIXTH
AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS



I, Kenneth H. Bengtson, a Civil Engineer in Kansas, do hereby certify that I have been in responsible charge of surveying and platting of "Cottonwood Village Sixth Addition", an addition to Wichita, Sedgwick County, Kansas into lots, blocks and streets, the same being accurately set forth in the accompanying plat and described as follows:

A tract of land lying within the southeast quarter of Section 31, Township 26 south, Range 2 east of the 6th Principal Meridian, more particularly described as follows:

Beginning at the intersection of the west line of said southeast quarter and the north line of 29th Street North said point being 30' north of the south line of said southeast quarter; thence northerly along said west line N 0° 58' 40" W, 913.00 feet to the southwest corner of Lot 12, Block 1, Cottonwood Village 4th Addition; thence N 89° 04' 12" E, 199.79 feet; thence N 0° 55' 48" W, 22.00 feet; thence N 89° 04' 12" E, 691.00 feet; thence S 49° 38' 11" E, 251.78 feet; thence S 40° 21' 49" W, 225.48 feet to the beginning of a curve to the right having a central angle of 48° 42' 23", a radius of 386.47 feet, and a long chord of 318.72 feet bearing of S 64° 43' 01" W; thence along said curve a distance of 328.53 feet; thence S 89° 04' 12" W, 280.00 feet; thence S 0° 55' 48" E, 468.00 feet to a point on the north line of 29th Street North, said point also being 30.00 feet north of the south line of said southeast quarter thence along the north line of said 29th Street North S 89° 04' 12" W, 360.03 feet to the point of beginning containing 13.98 acres, more or less.

I hereby certify that the details on this plat are correct to the best of my knowledge and belief this 4th day of December, 1985.

Kenneth H. Bengtson, P.E.
Mid-Kansas Engineering Consultants, P.A.
3500 North Rock Road, #800
Wichita, KS 67226

Know all men by these presents, that we the undersigned property owners of the land as above set forth in the Civil Engineers Certificate have caused the same to be platted into lots, blocks and streets, the same to be known as "Cottonwood Village Sixth Addition" to Wichita, Sedgwick County, Kansas. The streets are hereby dedicated to and for the use of the public. Easements for the construction and maintenance of public utilities and drainage are hereby granted. The existing 40-foot wide public utility easement, granted to provide for a gas line (on Film 484, page 476), is being vacated by virtue of K.S.A. 12-512(b). The sidewalk easement is hereby granted to the public for purposes of providing pedestrian access to the property to the west. The 40-foot wide gas line easement in Block 2 is being platted for the construction and maintenance of a public gas line. All abutters rights of access over and across the north line of 29th Street North are hereby granted to the City of Wichita, provided however, that Lot 13, Block 2 shall have access to 29th Street North at two locations.

Landmark Communities, Inc.

Robert R. Fox, President
Landmark Communities, Inc.

STATE OF KANSAS
ss:
COUNTY OF SEDGWICK

Be it remembered that on this 11th day of December, 1985, before me, a Notary Public in and for said State and County, came Landmark Communities, Inc. by Robert R. Fox, President, to me personally known to be the same person who executed the foregoing instrument of writing and duly acknowledged the execution of the same. In testimony whereof I have hereunto set my hand and affixed my notarial seal the day and year above written.

Carolyn R. Owen Notary Public

My Appointment Expires: 5-29-87

CAROLYN R. OWEN
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Exp. 5-29-87

181759

Re, the Fourth National Bank & Trust, Wichita, Kansas, mortgagees on the above described property do hereby consent to the plat of "Cottonwood Village Sixth Addition".

The Fourth National Bank & Trust, Wichita, Kansas

By: _____
J.D. Newman

STATE OF KANSAS
ss:
COUNTY OF SEDGWICK

Be it remembered that on this 4th day of December, 1985 before me, a Notary Public in and for said State and County, came Fourth National Bank & Trust, Wichita, Kansas, by J.D. Newman, to me personally known to be the same person who executed the foregoing instrument of writing and duly acknowledged the execution of the same. In testimony whereof I have hereunto set my hand and affixed my notarial seal the day and year above written.

Lonneta L. Decker Notary Public

My appointment Expires: LONNETA L. DECKER, STATE NOTARY PUBLIC, Sedgwick County, Kansas, My Appt. Exp. 10/5/87

This plat of "Cottonwood Village Sixth Addition" has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this 14th day of NOVEMBER, 1985

Wichita-Sedgwick County Metropolitan Area Planning Commission

William J. Dugdel, Chairman

Michael E. Lindedak, Secretary

This plat approved and all dedications shown hereon, if any, accepted by the City Commission of the City of Wichita, Kansas this 17th day of Dec, 1985.

Robert L. Brown, Mayor

Donald C. Sisick, City Clerk

Entered on transfer record this 18 day of December 1985.

Don Wright, County Clerk

STATE OF KANSAS
ss:
SEDGWICK COUNTY

This is to certify that this instrument was filed for record in the Register of Deeds Office at 11:30 AM on the 18th day of December, 1985.

Pat Kettler, Register of Deeds

Ed Resa, Deputy

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