

CITY OF WICHITA
SEDGWICK COUNTY, KANSAS

STREET IMPROVEMENTS
COVINGTON CIRCLE & COVINGTON COURT
S.L. 21st STREET TO AND INCL. CUL-DE-SAC
(WOODBRIIDGE ADDITION)

PROJECT NO. 472 76 245 81452 000 000 001

INDEX OF SHEETS

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- 9 STANDARD TYPE IA CURB INLET
- 10-15 CROSS SECTIONS

PROJECT SURVEY CONTROL
 Vert. Datum: City of Wichita Datum.
 Datum Bench Mark: City of Wichita Bench Mark Disc,
 67' South of centerline 21st, 70' South of section
 line and 46' east of centerline 119th.
 Elev.=172.08

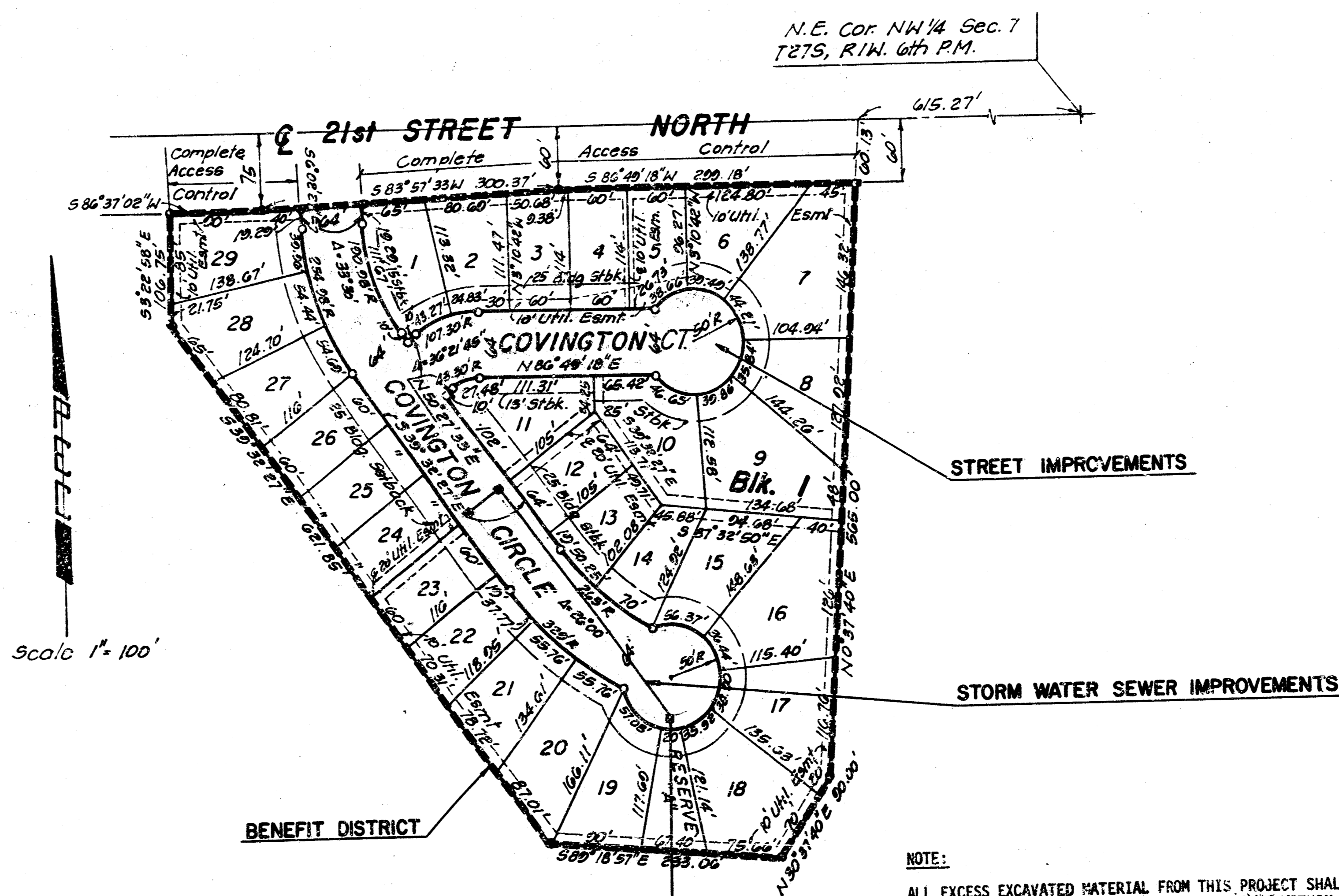
BENCH MARK
 B.M. #1- Chis "a" on conc. headwall South side 21st St.
 near NW Cor. Plat. Elev.=163.55

CONVENTIONAL SIGNS

SECTION LINE	_____	_____
RIGHT-OF-WAY	_____	Exist. R/W
	_____	Prop. R/W
FENCE LINE	_____	
CENTER LINE OF PROJECT	_____	15' @
POWER POLE	_____	
UNGD. TEL. CABLE	_____	Ungd. Tel. Cable M.H.
GAS LINE	_____	
WATER LINE & WATER VALVE	_____	2" Water Line M.H.
STORM SEWER & MANHOLE	_____	5" Sewer M.H.
SAN. SEWER & MANHOLE	_____	San. Sewer M.H.
TREES	_____	6" 12"

EARTHWORK
 Excavation
 X-Section 1,220.0 C.Y.
 10% 122.0 C.Y.
 Total 1,348.0 C.Y.

3819 S.Y. Manipulation



NOTE:
 ALL EXCESS EXCAVATED MATERIAL FROM THIS PROJECT SHALL BE WASTED ON SITE. NO EXCESS MATERIAL SHALL BE PLACED WITHIN STREET RIGHTS-OF-WAY. THE CONTRACTOR SHALL CONTACT THE OWNER'S ENGINEER AT 202-2691 FOR INFORMATION PERTAINING TO ACCEPTABLE LOCATIONS FOR THE DISPOSITION OF WASTE MATERIAL. WASTE MATERIAL SHALL BE BLADED SMOOTH AND SLOPED TO DRAIN. THIS WORK SHALL BE SUBSIDIARY TO OTHER BID ITEMS.

Note:
 Disturbed Areas in 21st St R/W to be Seeded, Fertilized & Mulched. Cost to be Subsidiary to Other Bid Items.

- GENERAL NOTES
- UTILITY SERVICE LINES, POLES, VALVE BOXES, METERS, AND ETCETERA ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO OR DURING 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 PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
 - A SAW CUT OF AT LEAST ONE-HALF THE DEPTH OF EXISTING SURFACE COURSES OR ONE-FOURTH THE DEPTH OF THE EXISTING TOTAL PAVEMENT THICKNESS SHALL BE PROVIDED AT LOCATIONS WHERE PROPOSED CONSTRUCTION ABUTS AN EXISTING SURFACE COURSE OR PAVEMENT FOR WHICH PARTIAL REMOVAL OF THAT SURFACE OR PAVEMENT IS REQUIRED. SAWED JOINTS TO FACILITATE REMOVAL WITHIN THREE (3) FEET OF EXISTING JOINTS WILL NOT BE PERMITTED AND FOR SUCH INSTANCES THE LIMITS OF REMOVAL SHALL EXTEND TO THE EXISTING JOINT. SUCH SAW CUTS WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE CONSIDERED AS SUBSIDIARY TO THE REMOVAL OF THE SURFACE OR PAVEMENT.
 - RUBBLE FROM THE REMOVAL OF ASPHALT MAT SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR.
 - WIDENED GUTTER SECTION OF COMBINED CURB AND GUTTER AT INTERSECTIONS WILL NOT BE PAID FOR DIRECTLY, AND THIS COST SHALL BE CONSIDERED AS SUBSIDIARY TO THE OTHER CONTRACT PAY ITEMS OF WORK.
 - THE CONTRACTOR WILL BE PERMITTED TO BID ONLY ONE OF THE ALTERNATE TYPES OF SUBGRADE TREATMENT. THE TYPE BID BY THE SUCCESSFUL BIDDER WILL BE THE TYPE OF SUBGRADE TREATMENT USED TO CONSTRUCT THE PROJECT.
 - 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.
 - ADEQUATE TRAFFIC CONTROL SHALL BE PROVIDED ON 21ST STREET IN THE VICINITY OF COVINGTON CIRCLE DURING CONSTRUCTION.

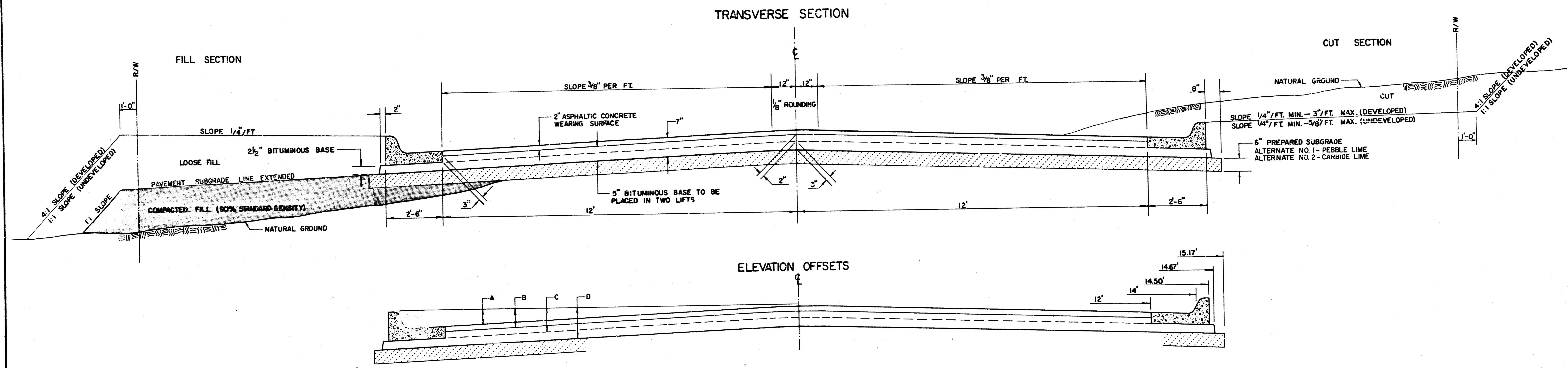
PLANS PREPARED BY
 PROFESSIONAL ENGINEERING CONSULTANTS P.A.



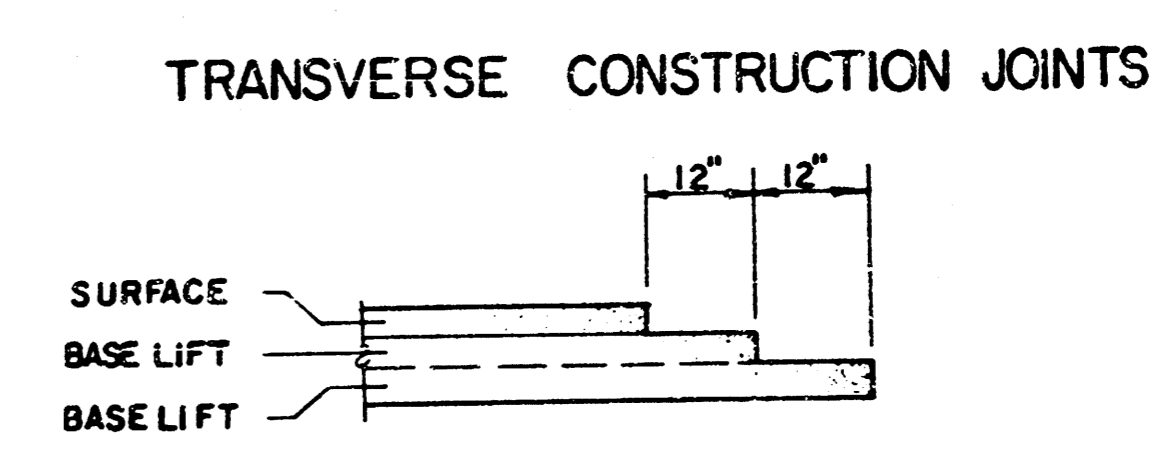
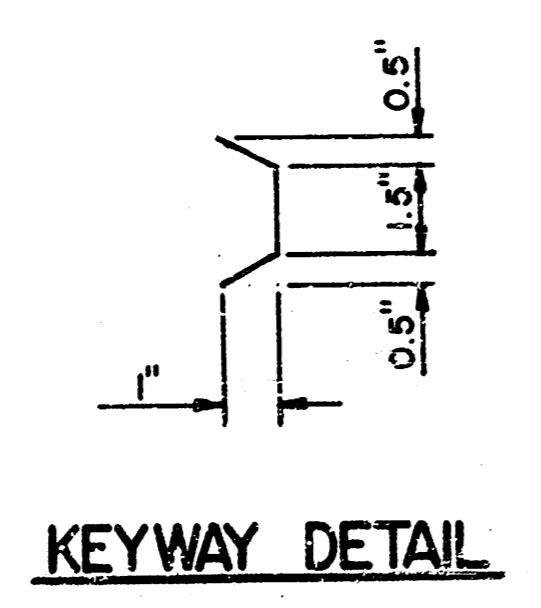
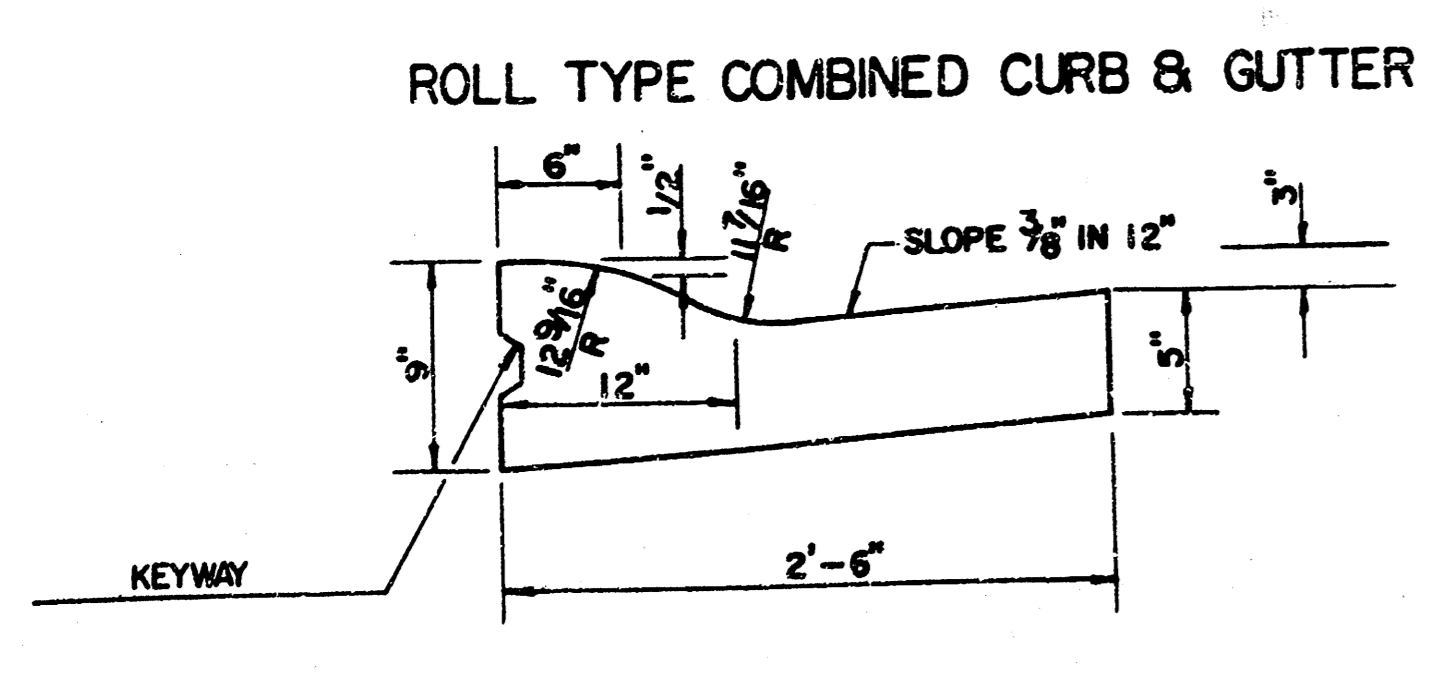
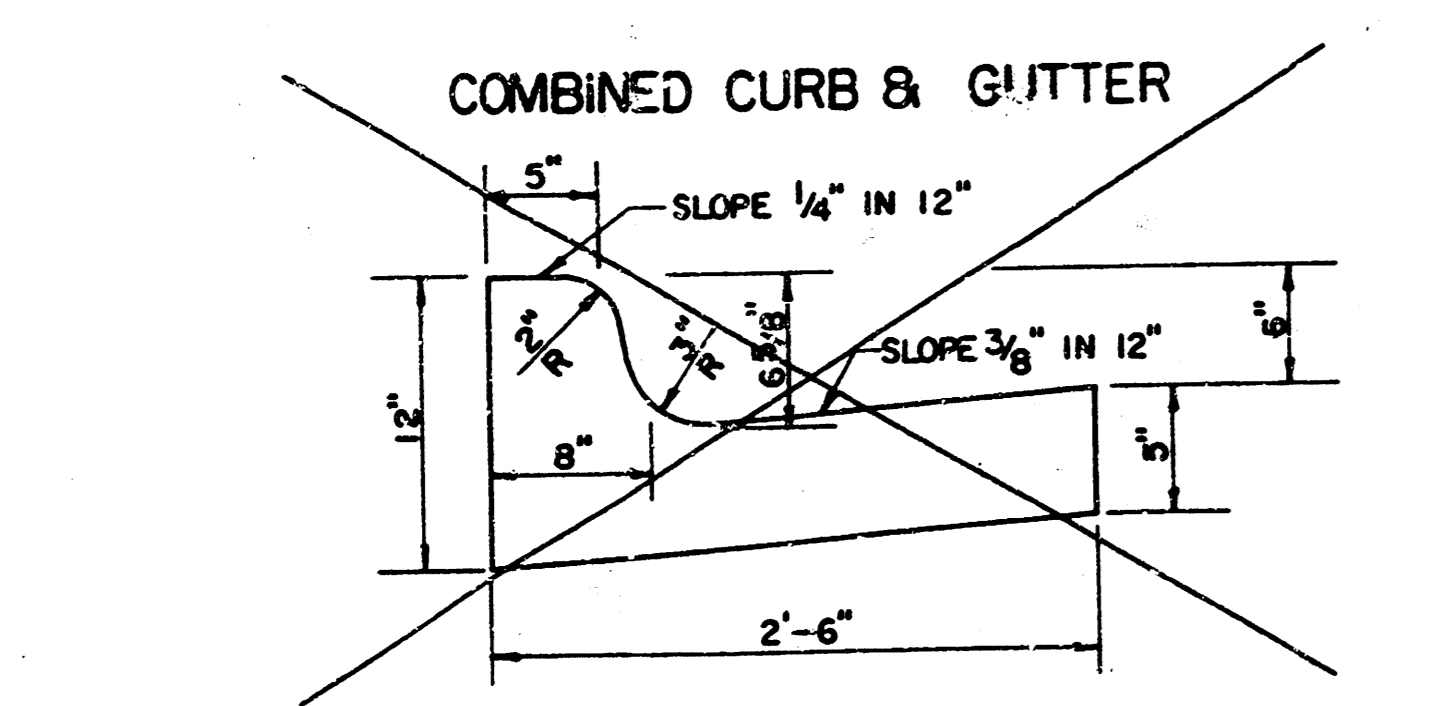
APPROVED _____ DATE _____

MICHAEL E. LUNDBAK, P.E., CITY ENGINEER
 WICHITA, KANSAS

TYPICAL 29' PAVEMENT DETAILS



	DISTANCE FROM CENTERLINE (LT. & RT.)											
	0'	2'	4'	6'	7'	8'	10'	12'	14'	14.5'	14.67'	15.17'
A: TOP OF CURBS TO TOP OF SURFACE LIFT	0.13	0.18	0.24	0.30	0.33	0.36	0.43	0.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.30	0.35	0.41	0.47	0.50	0.53	0.60	0.66	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	0.47	0.52	0.60	0.66	0.71	0.75	0.83	0.90	0.98	1.00	1.01	—
D: TOP OF CURBS TO TOP OF SUBGRADE	0.72	0.77	0.84	0.91	0.94	0.98	1.05	1.12	1.19	1.21	1.21	1.23



GENERAL NOTES

- 1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).
- 2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 2 1/2" BITUMINOUS BASE.
- 3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.
- 4) BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.
- 5) CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.
- 6) CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

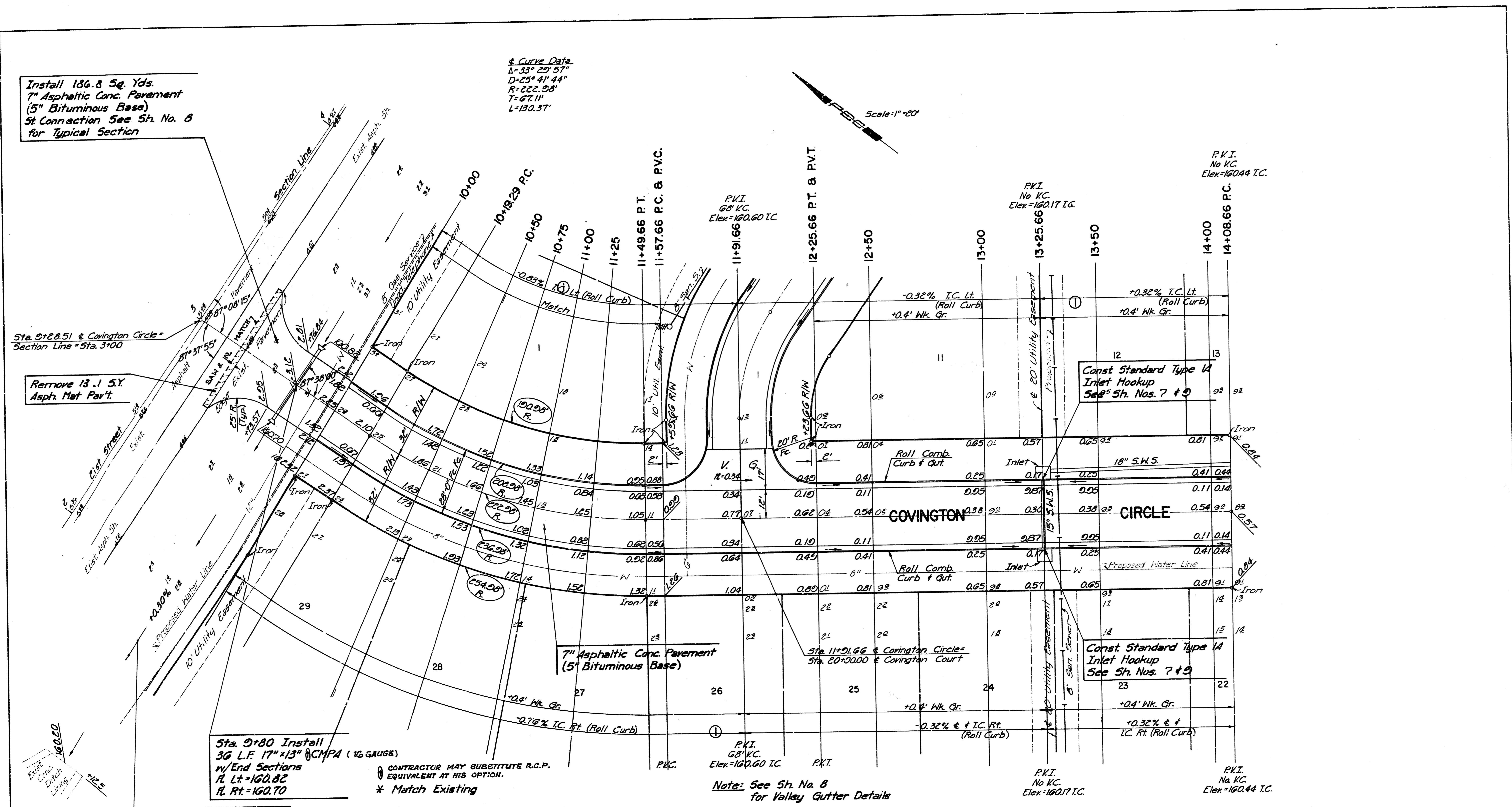
TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

7 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 5 INCH BITUMINOUS BASE
CITY OF WICHITA, KANSAS
 PROJECT NUMBER
 PROJ. NO. 472-76-245-8452-000-000-001 1/5

Install 186.8 Sq. Yds.
7" Asphaltic Conc. Pavement
(5" Bituminous Base)
St. Connection See Sh. No. 8
for Typical Section

Curve Data
Δ=33° 29' 57"
D=25° 41' 44"
R=222.98'
T=67.11'
L=130.37'

Scale: 1"=20'



Sta. 9+28.51 & Covington Circle -
Section Line = Sta. 3+00

Remove 13.1 S.Y.
Asph. Mat Pav't.

Sta. 9+80 Install
36 L.F. 17" x 13" @ CHFA (16 GAUGE)
w/End Sections
Rt. Lt.=160.82
Rt. Rt.=160.70

Regrade Approx. 200 L.F.
Ditch. This work to be
subsidiary to other bid
Items.

- CONTRACTOR MAY SUBSTITUTE R.C.P. EQUIVALENT AT HIS OPTION.
- * Match Existing
- ≠ Saw Cut
- ♣ Transition to Match Existing
- ▨ Asphalt Mat Removal

Note: See Sh. No. 8
for Valley Gutter Details

CURVE DATA BASED ON RADIUS Δ/2 = 16° 45' 00"

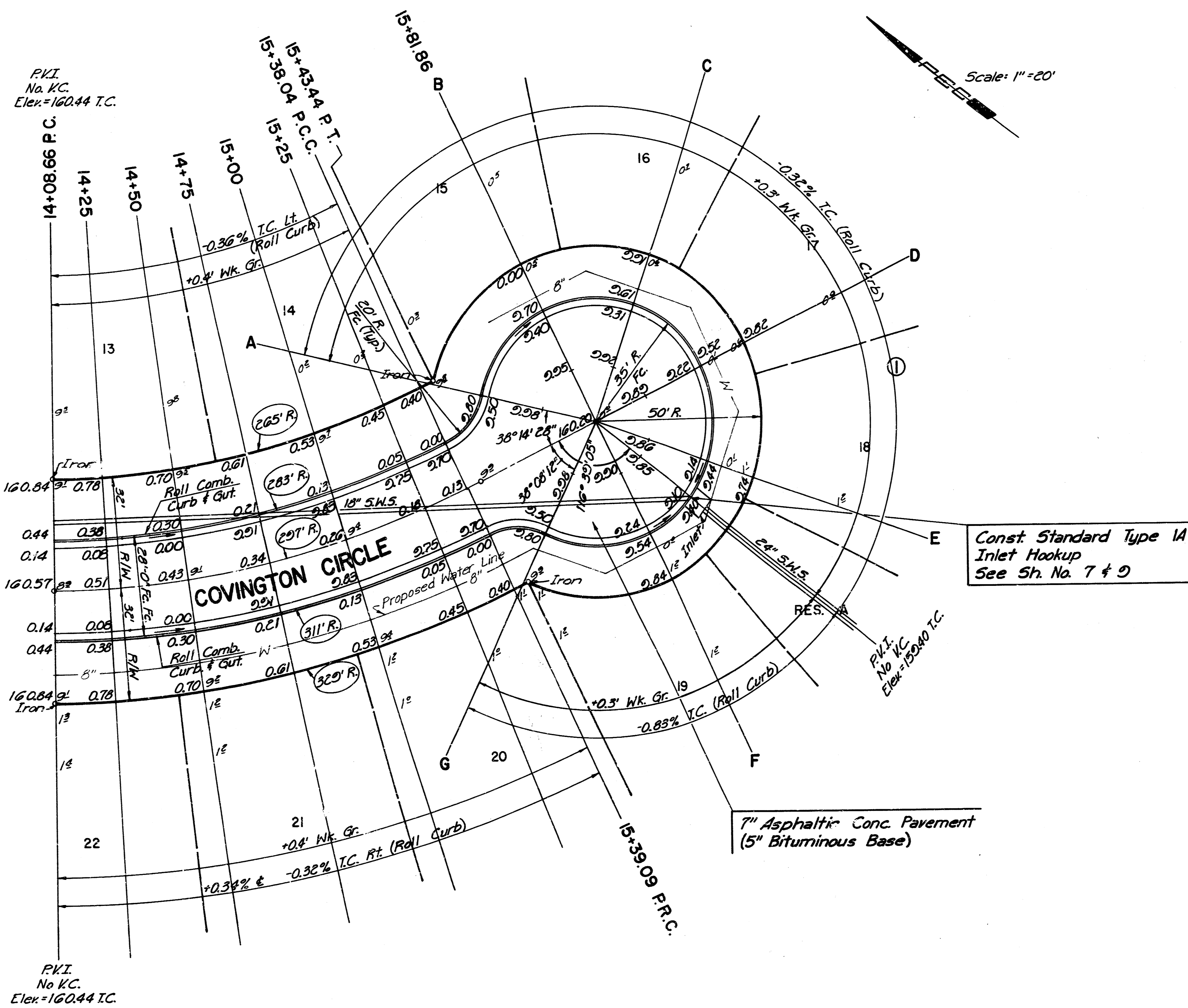
STATION	ARC LENGTH	CHORD LENGTH	DEFLECTION ANGLE	TOTAL DEFLECTION
		# OFF LEFT FACE CURB	# OFF RIGHT FACE CURB	
10+19.29				0° 00' 00"
+25	5.71'	5.15'	6.28'	0° 44' 02"
+50	25.00'	22.52'	27.45'	3° 12' 48"
+75	"	"	"	7° 09' 28"
11+00	"	"	"	10° 22' 11"
+25	25.00'	22.52'	27.45'	3° 18' 45"
+49.66	24.66'	22.22'	27.08'	3° 10' 06"

INTERSECTION QUANTITIES

- S.Y. Concrete Pavement
- 104.0 S.Y. 7" Asphaltic Conc. Pavement (5" Bituminous Base)
- 3.0 S.Y. 2" Bituminous Base
- 102 L.F. Combined Curb & Gutter (3 1/2" x 1 1/2")
- 53 L.F. Monolithic Edge Curb (2 1/2")
- Ea. Standard Wheelchair Ramp Construction
- S.F. 4" Sidewalk Concrete Pavement
- 125.0 S.Y. Subgrade Stabilization Manipulation
- Tons Carbide Lime Subgrade Stabilization
- Tons Pebble Quicklime Subgrade Stabilization
- Tons Cement Subgrade Stabilization
- Tons Fly Ash Subgrade Stabilization
- Tons Preheater Fines Subgrade Stabilization
- 0.3 S.Y. Reinf. V.G. 2" Concrete & 2" Asphaltic Concrete Base

No.	Revision	By	Date
CITY OF WICHITA			
COVINGTON CIRCLE			
STA. 10+00 TO STA. 14+08.66			
PROJ. NO. 472-76-245-BH452-000-000-001			
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.			
ENGINEERS WICHITA, KANSAS			
Designed by BER, GDD	Job No. 84654-1	Sht. 3 of 15	
Drawn by DD, BS	Date Jan, 1985		

Curve Data
 $\Delta = 26^{\circ}00'00''$
 $D = 19^{\circ}17'29''$
 $R = 297.00'$
 $T = 68.57'$
 $L = 134.77'$

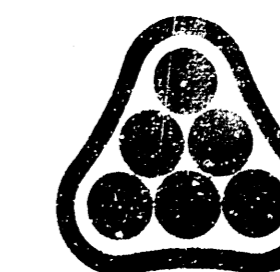


PKI
 No. K.C.
 Elev. = 160.44 T.C.

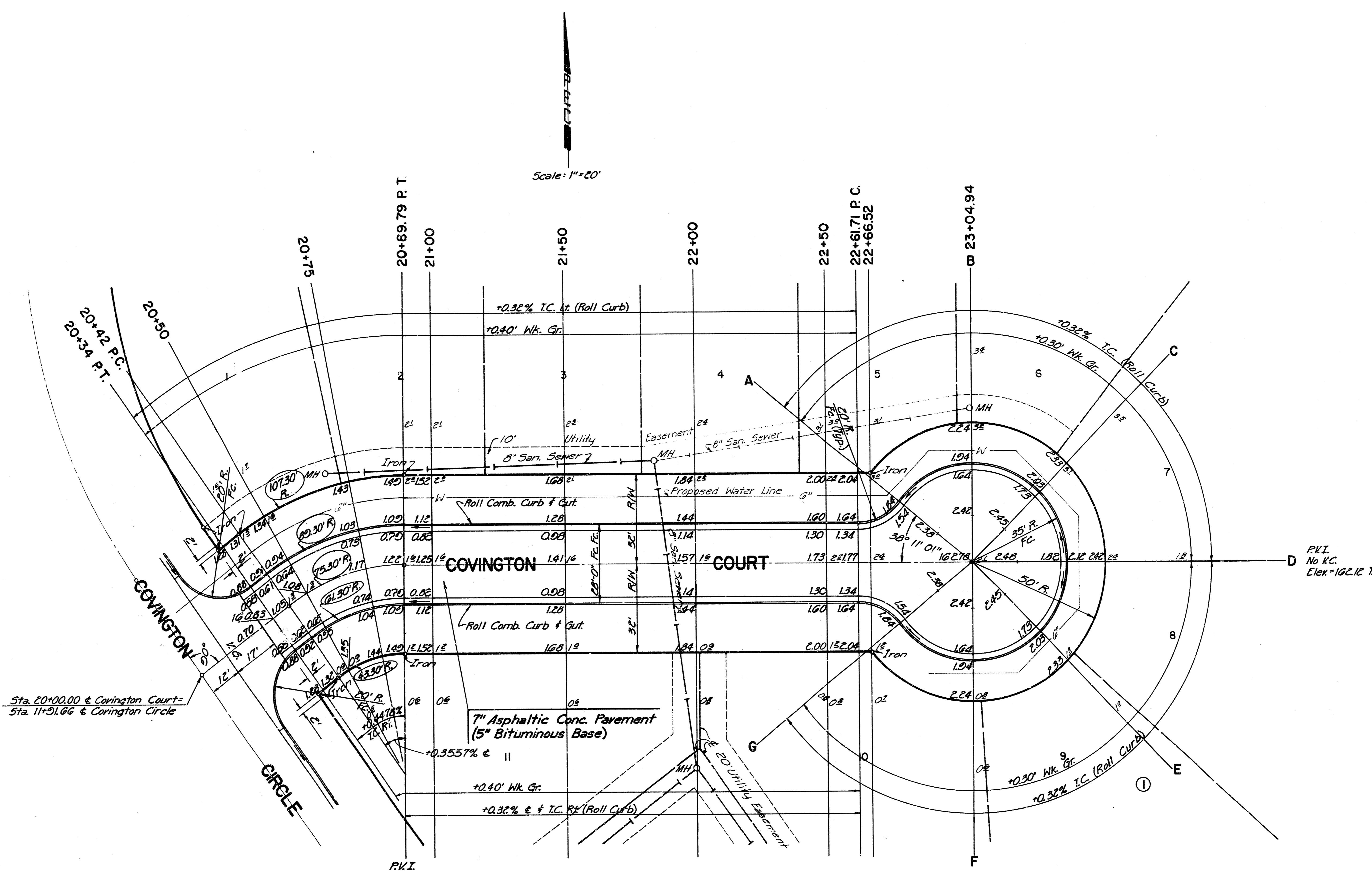
PKI
 No. K.C.
 Elev. = 160.44 T.C.

STATION	ARC LENGTH	CHORD LENGTH		DEFLECTION ANGLE	TOTAL DEFLECTION
		OFF LEFT FACE CURB	OFF RIGHT FACE CURB		
14+08.66				0° 00' 00"	0° 00' 00"
+25	16.34'	15.13'	17.55'	1° 34' 34"	1° 34' 34"
+50	25.00'	23.14'	26.84'	2° 24' 41"	3° 59' 15"
+75	"	"	"	" " "	6° 23' 56"
15+00	"	"	"	" " "	8° 48' 37"
+25	25.00'	23.14'	26.84'	2° 24' 41"	11° 13' 18"
+38.04	13.04'	12.07'		1° 15' 28"	12° 28' 46"
+39.09	14.00'		15.13'	1° 21' 33.5"	12° 34' 51.5"
+43.44	13.44'			1° 46' 42"	13° 00' 00"

No.	Revision	By	Date
CITY OF WICHITA			
COVINGTON CIRCLE			
STA. 14+08.66 TO STA. 15+39.09			
PROJ. NO. 472-76-245-81452-000-000			
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.			
ENGINEERS WICHITA, KANSAS			
Designed by	BER, GDD	Job No.	84654-1
Drawn by	DD, BS	Date	Jan., 1985
			Sht. 4 of 15



Scale: 1"=20'



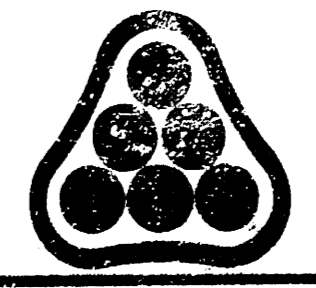
Sta. 20+00.00 & Covington Court =
Sta. 11+51.66 & Covington Circle

Curve Data
 $\Delta = 50^\circ 21' 45''$
 $D = 78^\circ 05' 24''$
 $R = 75.30'$
 $T = 24.79'$
 $L = 47.79'$

CURVE DATA BASED ON Δ RADIUS $\Delta/2 = 10^\circ 10' 52.5''$

STATION	CHORD LENGTH	CHORD LENGTH		DEFLECTION ANGLE	TOTAL DEFLECTION
		OFF LEFT FACE CURB	OFF RIGHT FACE CURB		
20+42	0.00'	10.35'	5.66'	0° 00' 00"	0° 00' 00"
+50	25.00'	32.16'	17.61'	3° 02' 36.5"	3° 02' 36.5"
+75	14.79'	19.08'	10.48'	9° 30' 40"	12° 33' 16.5"
+89.79	14.79'	19.08'	10.48'	5° 37' 36"	18° 10' 52.5"

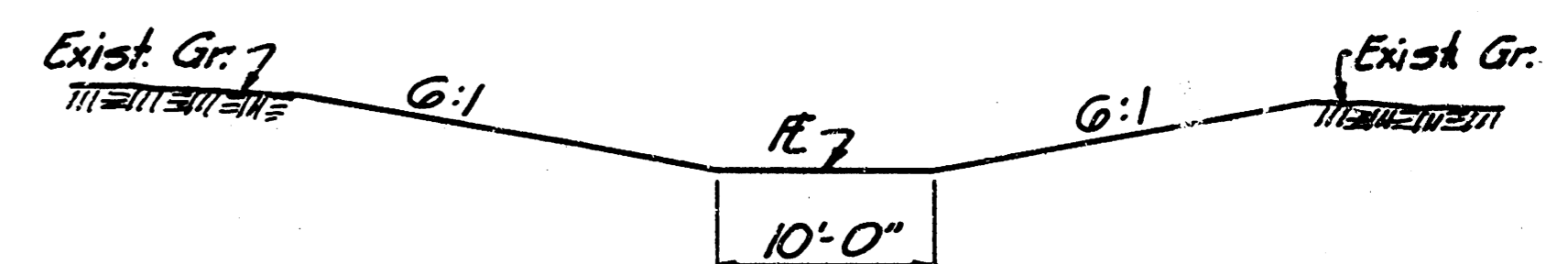
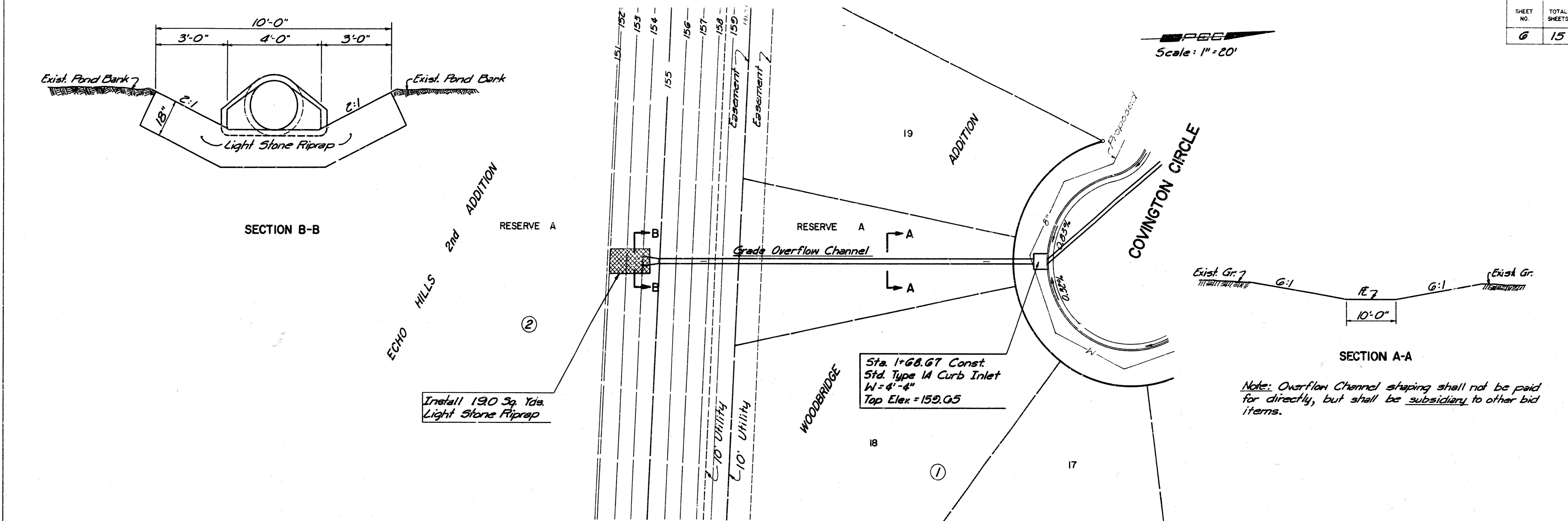
No.	Revision	By	Date
CITY OF WICHITA			
COVINGTON COURT			
STA. 20+34 TO STA. 22+61.71			
PROJ. NO. 472-76-245-81452-000-000-001			
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.			
ENGINEERS WICHITA, KANSAS			
Designed by	BER, GDD	Job No.	84654-1
Drawn by	DD, BS	Date	Jan., 1985
			Sht. 5 of 15



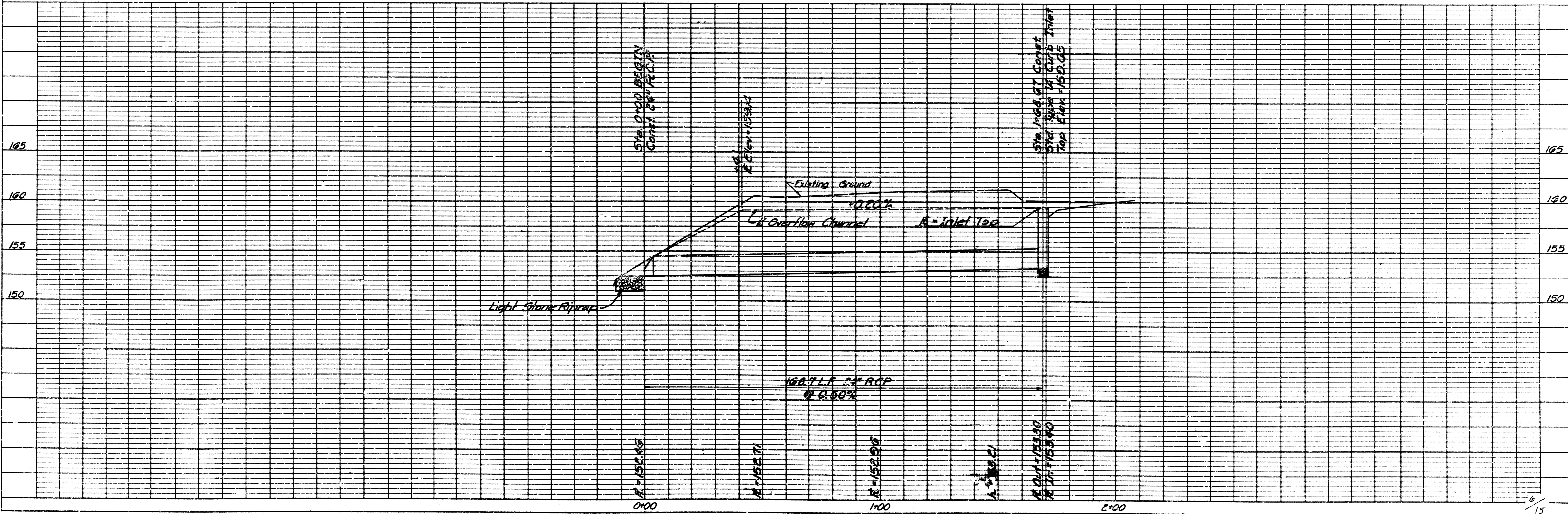
SHEET NO.	TOTAL SHEETS
6	15

DATE: _____
 BY: _____
 SURVEYED: _____
 PLANNED: _____
 NOTE BOOK: _____
 NO. OF WAY CHECKED: _____
 NO. OF WAY CHECKED: _____

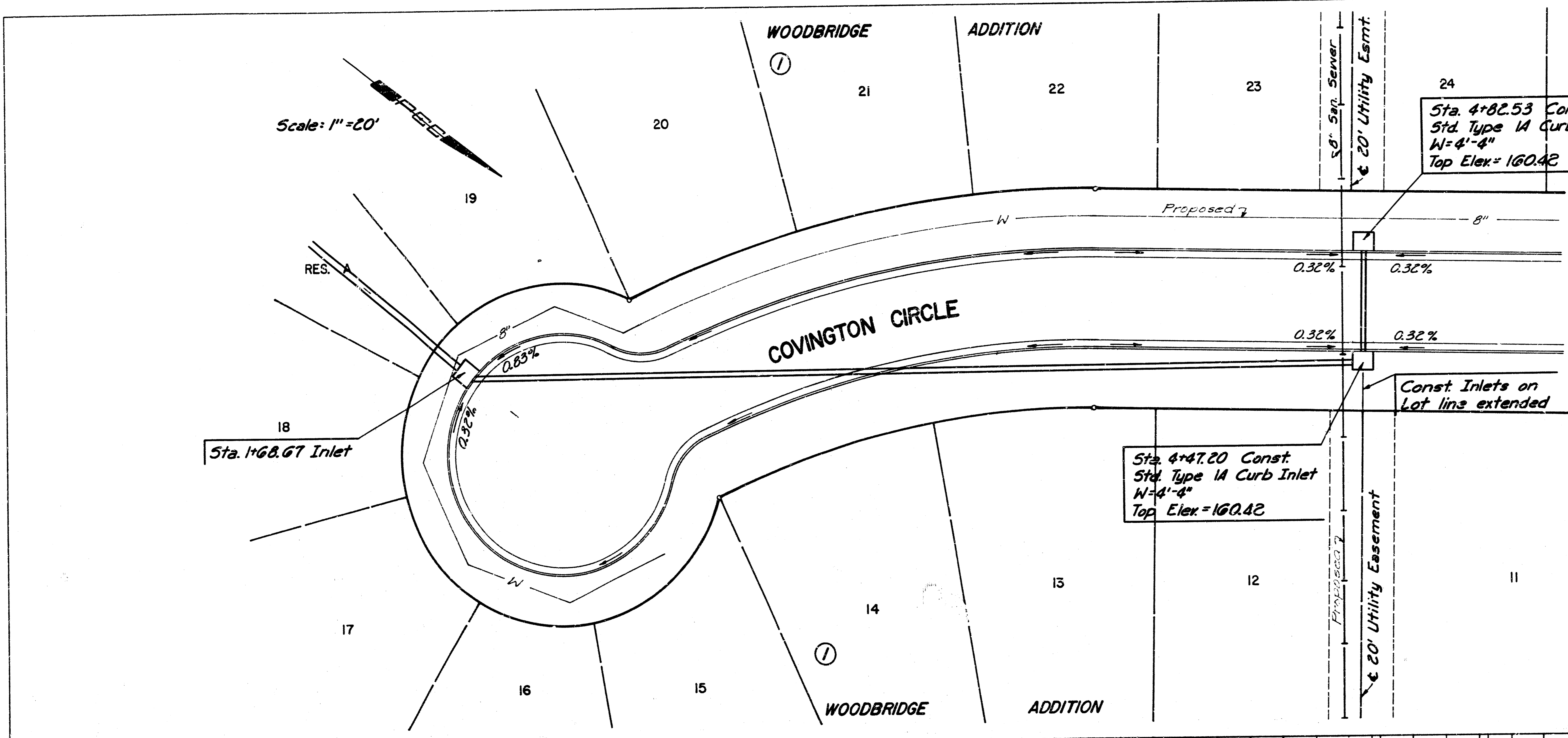
DATE: _____
 BY: _____
 SURVEYED: _____
 PLANNED: _____
 NOTE BOOK: _____
 NO. OF WAY CHECKED: _____
 NO. OF WAY CHECKED: _____



Note: Overflow Channel shaping shall not be paid for directly, but shall be subsidiary to other bid items.



SHEET NO.	TOTAL SHEETS
7	15



DATE	BY	REVISION

PLAN

SUBMITTED FOR REVIEW AND APPROVAL BY THE ENGINEER

NOTE BOOK ORANGE CHECKED BY: []

PRECISE LOCATIONS CHECKED

No.

DATE	BY	REVISION

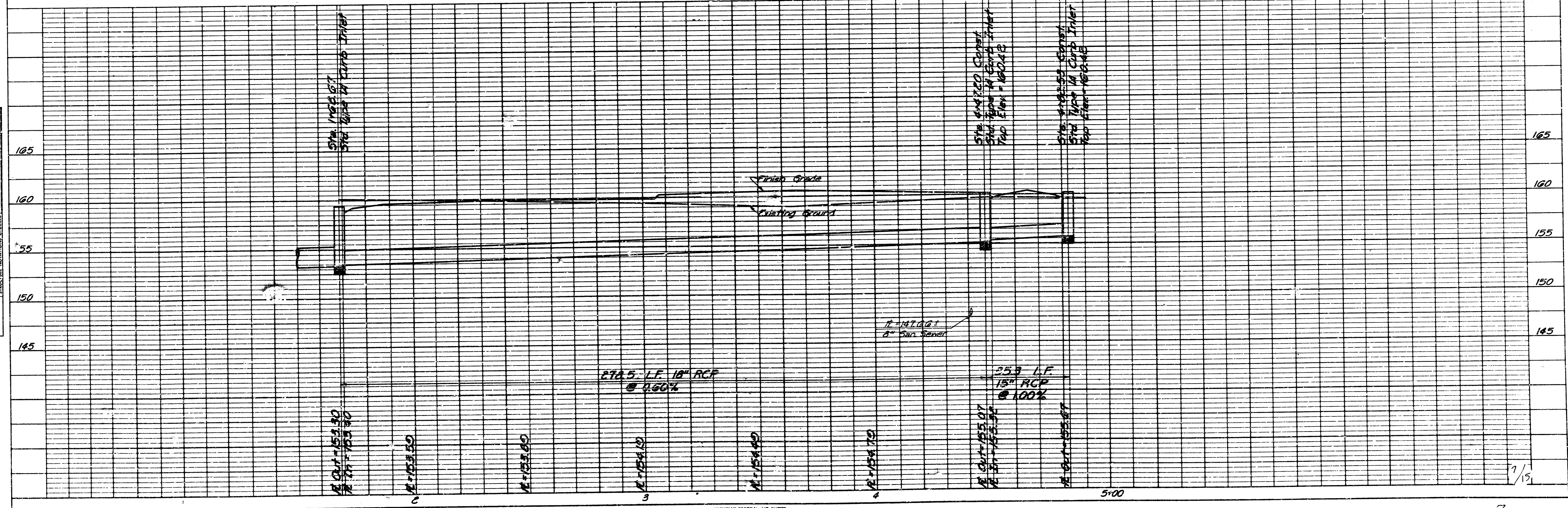
PROFILE

SUBMITTED FOR REVIEW AND APPROVAL BY THE ENGINEER

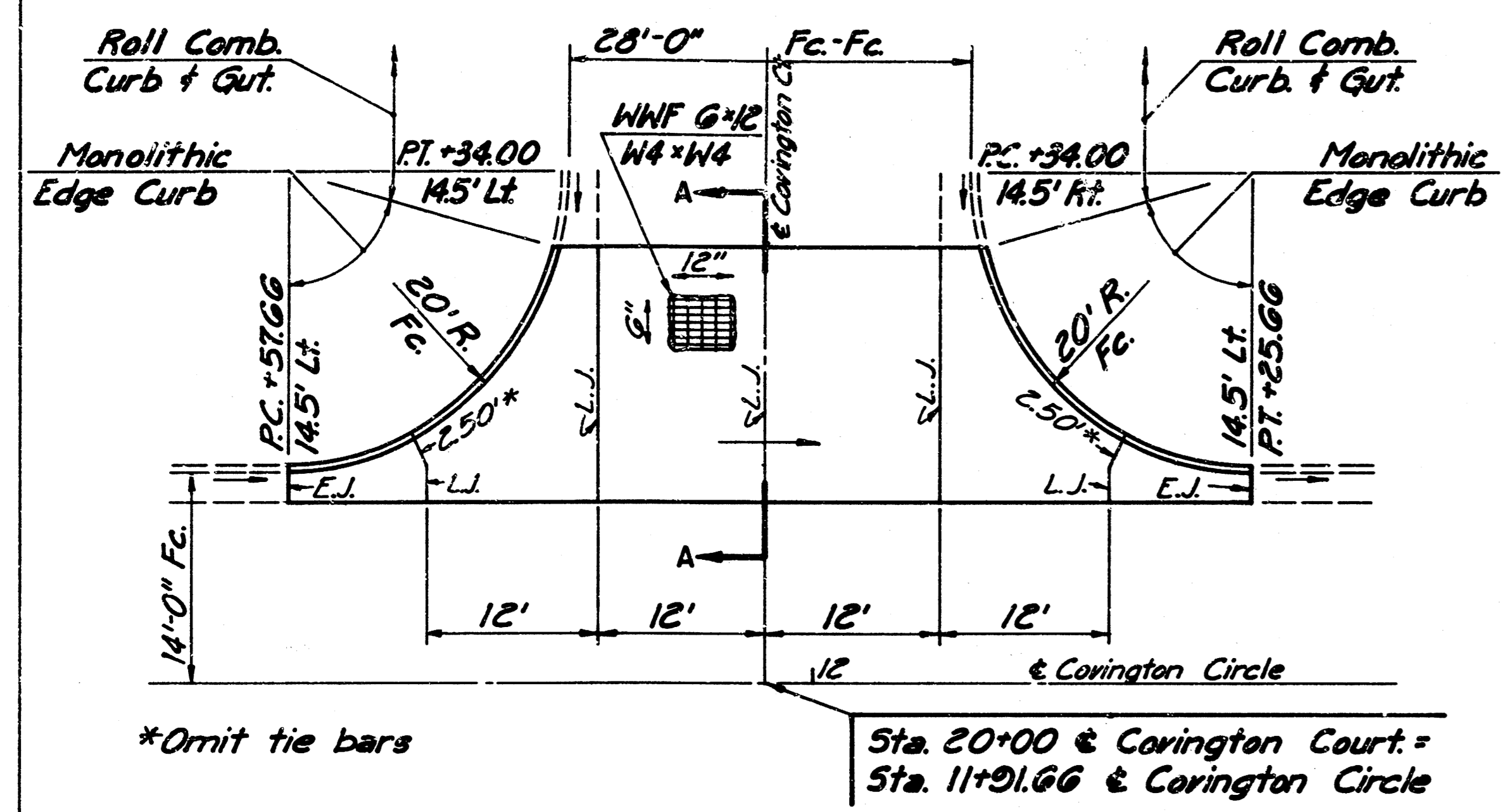
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PRECISE LOCATIONS CHECKED

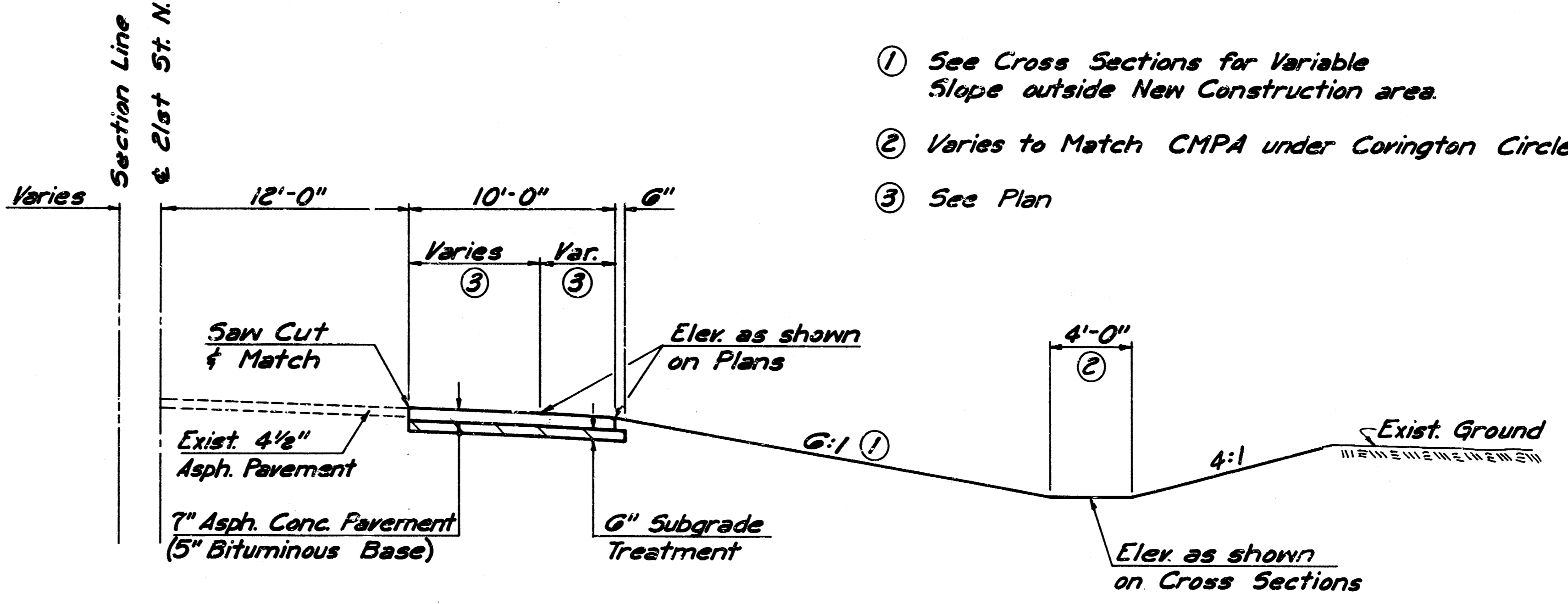
No.



SHEET NO.	TOTAL SHEETS
8	15

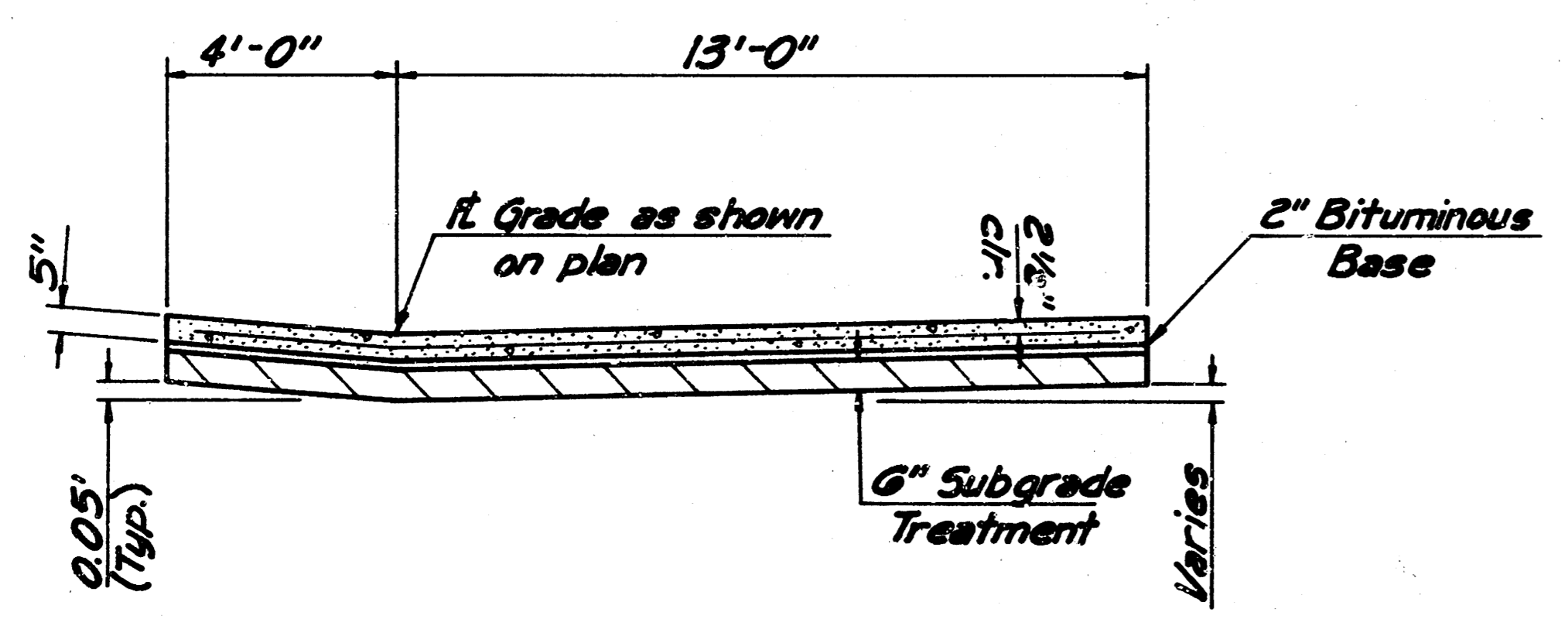


VALLEY GUTTER

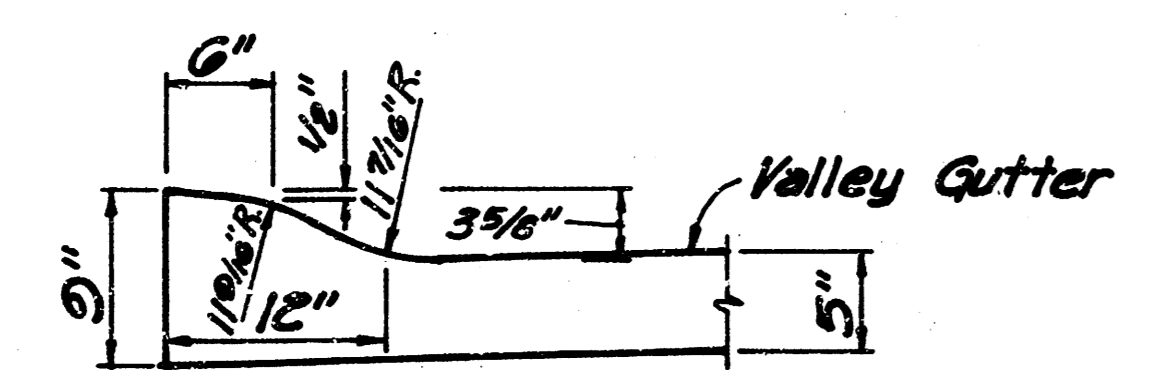


TYPICAL SECTION
21ST STREET CONNECTION

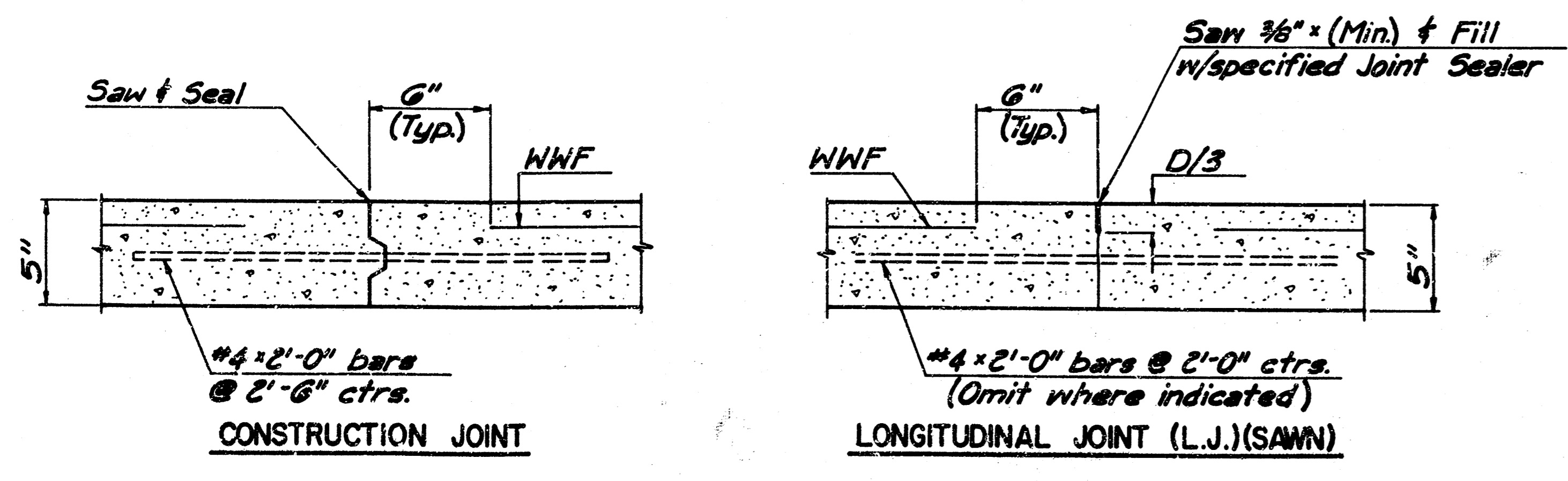
- ① See Cross Sections for Variable Slope outside New Construction area.
- ② Varies to Match CMPA under Corington Circle.
- ③ See Plan



SECTION A-A



ROLL TYPE MONOLITHIC EDGE CURB



VALLEY GUTTER JOINT DETAILS

CITY OF WICHITA

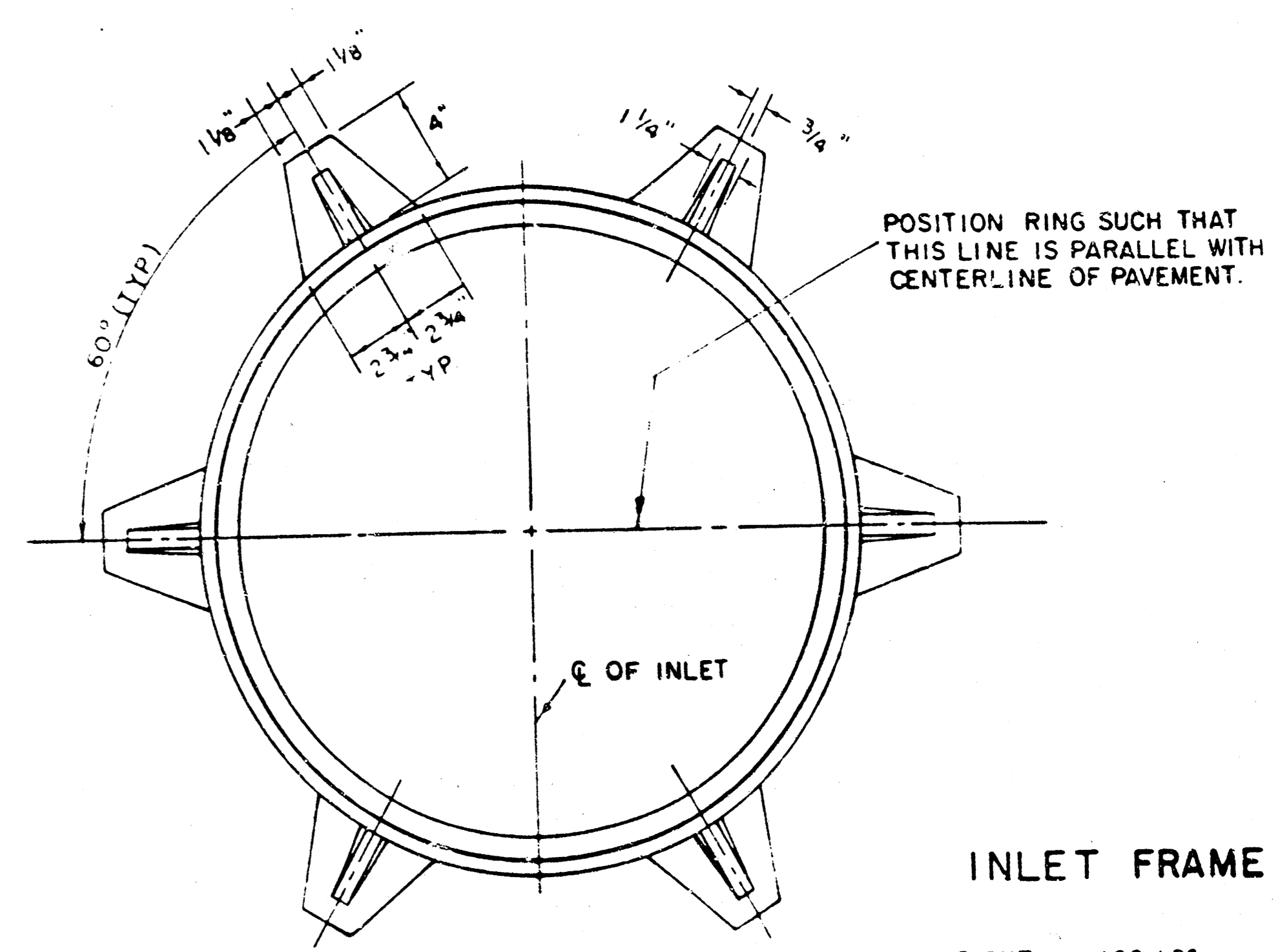
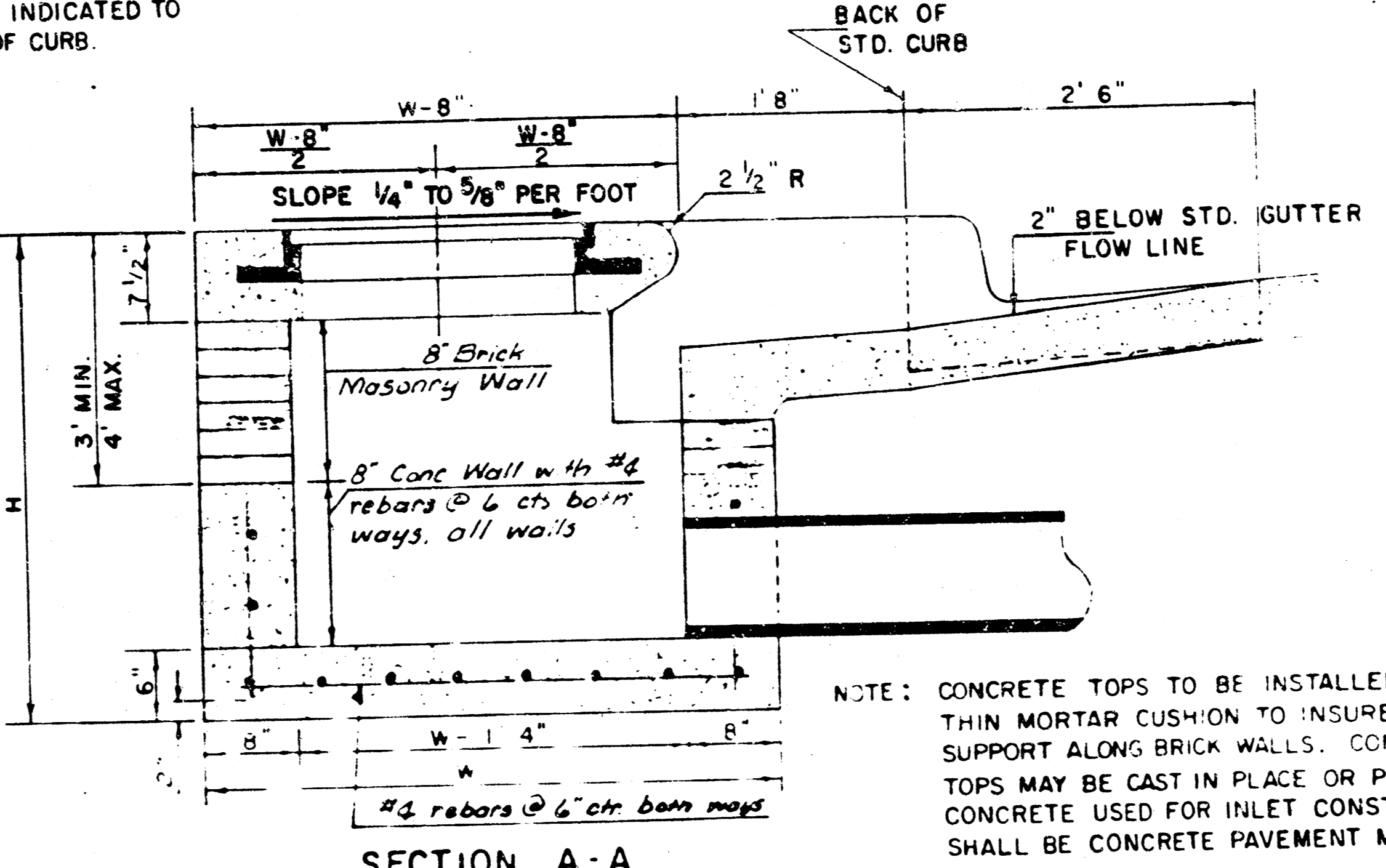
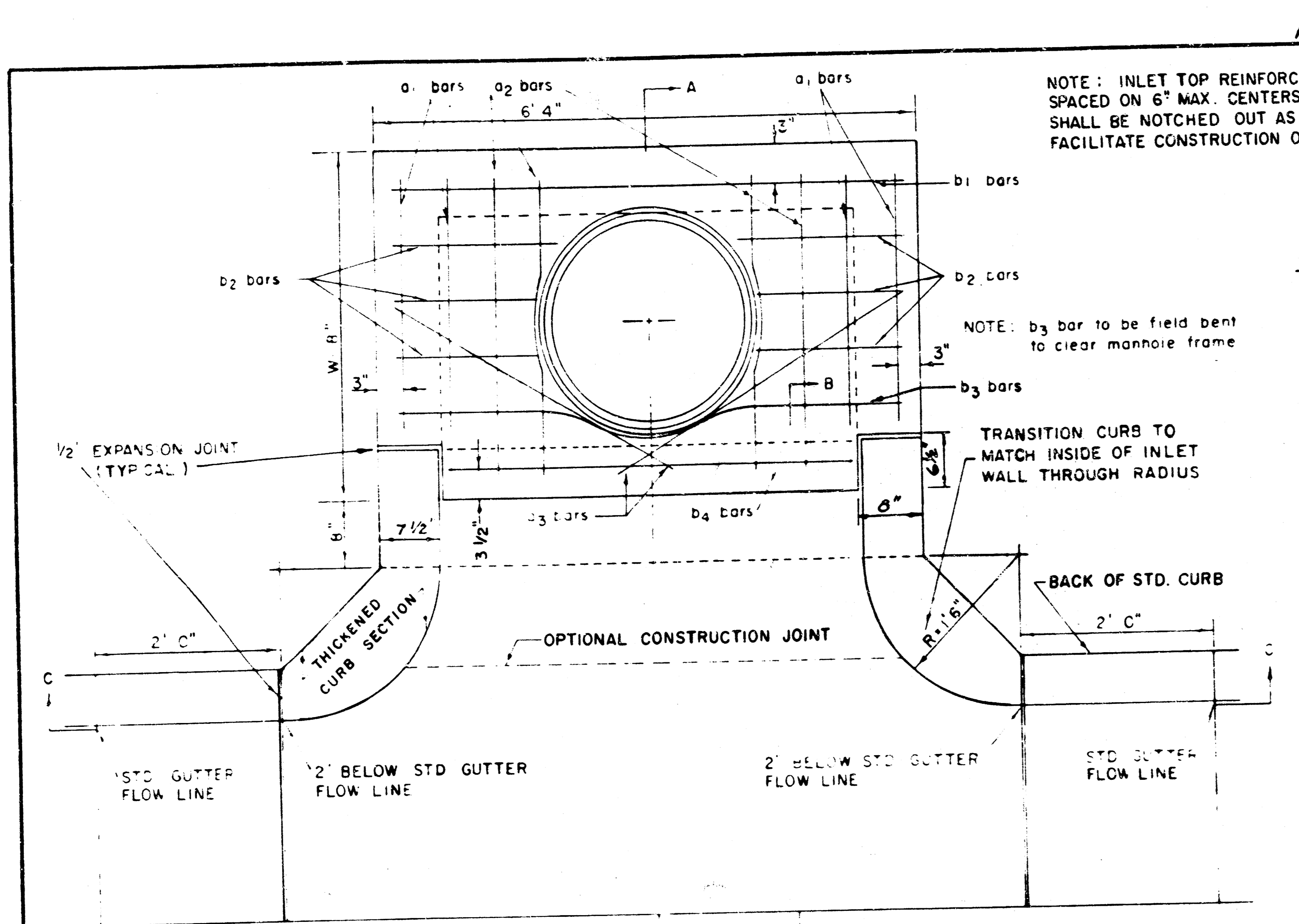
MISC. DETAIL SHEET

PROJ. NO. 472-76-245-8452-000-000-001

ENGINEERS
WICHITA, KANSAS

8/15

Designed by _____ Checked by _____
 Drawn by **BS** Date **Jan., 1985** Job No. **84654-1**

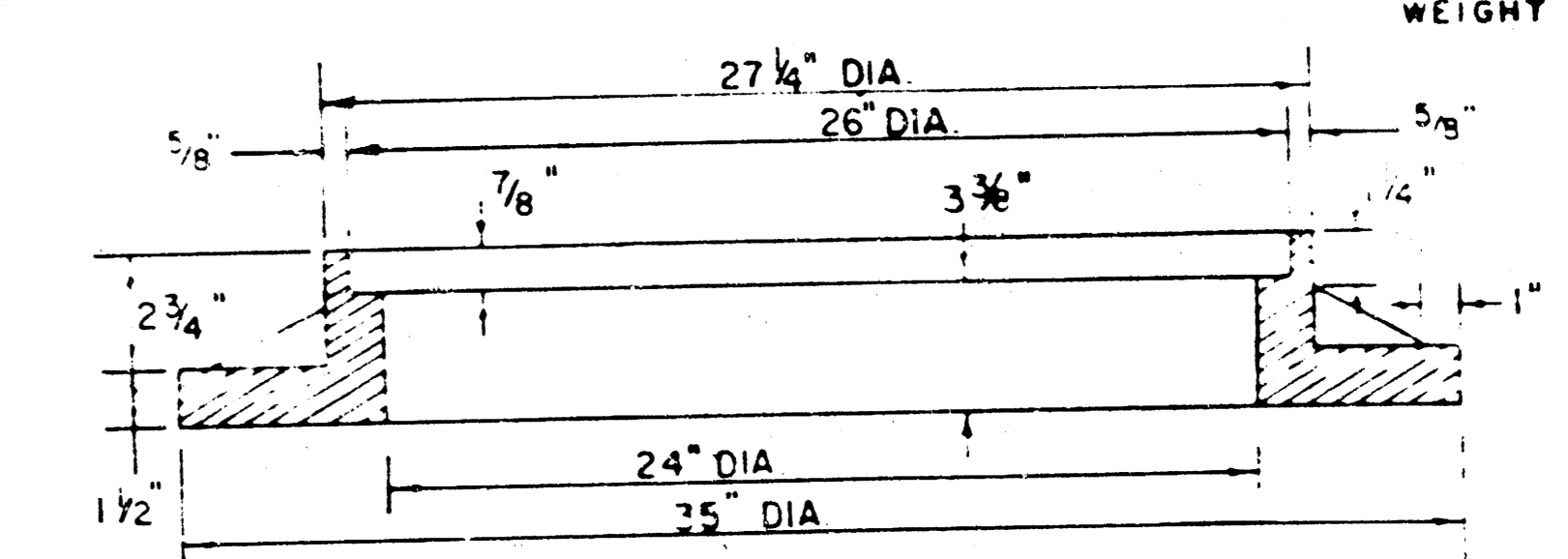


NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 6'4" AND H = 7'0" OR LESS.

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 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.



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

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

PLAN

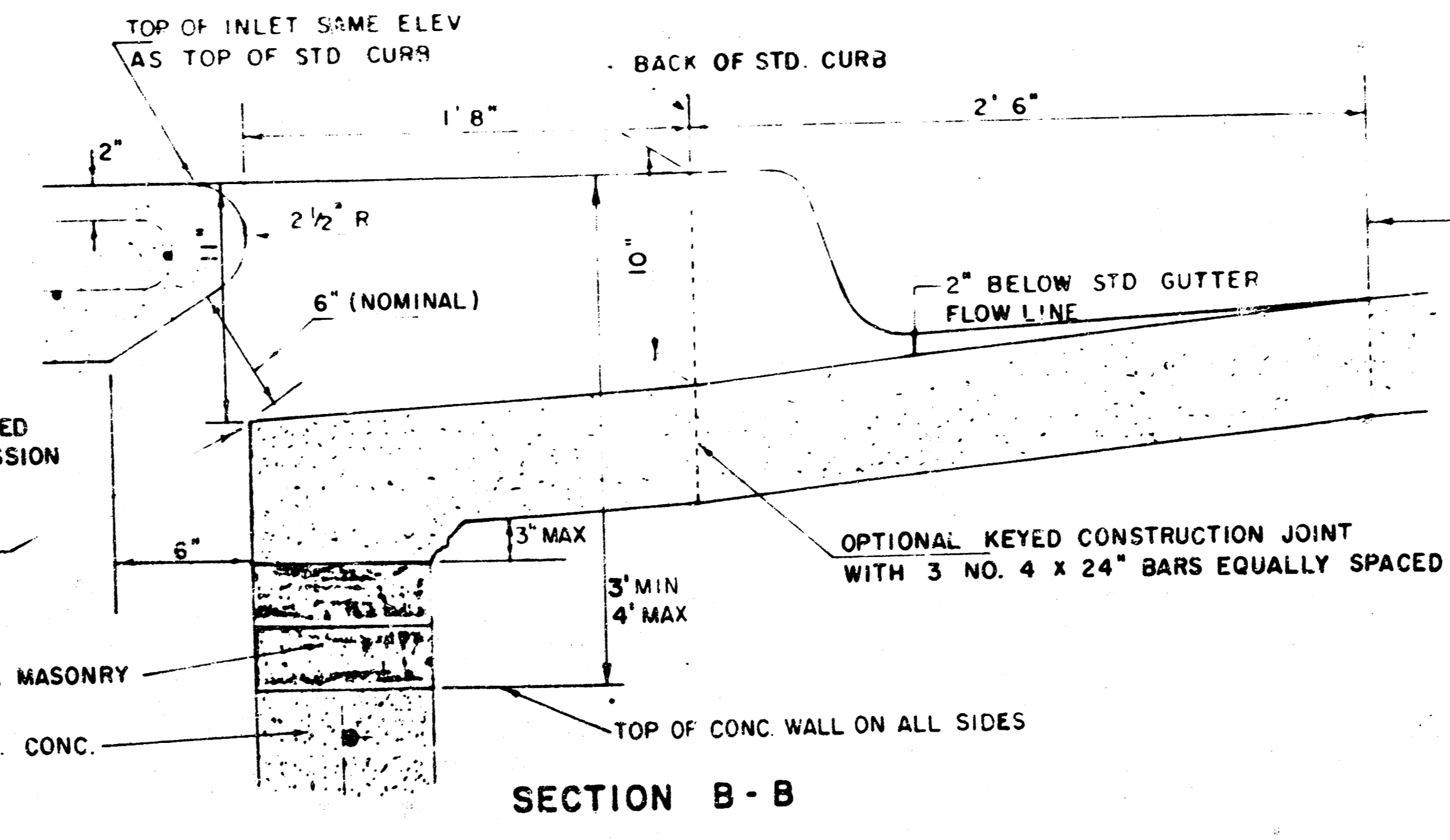
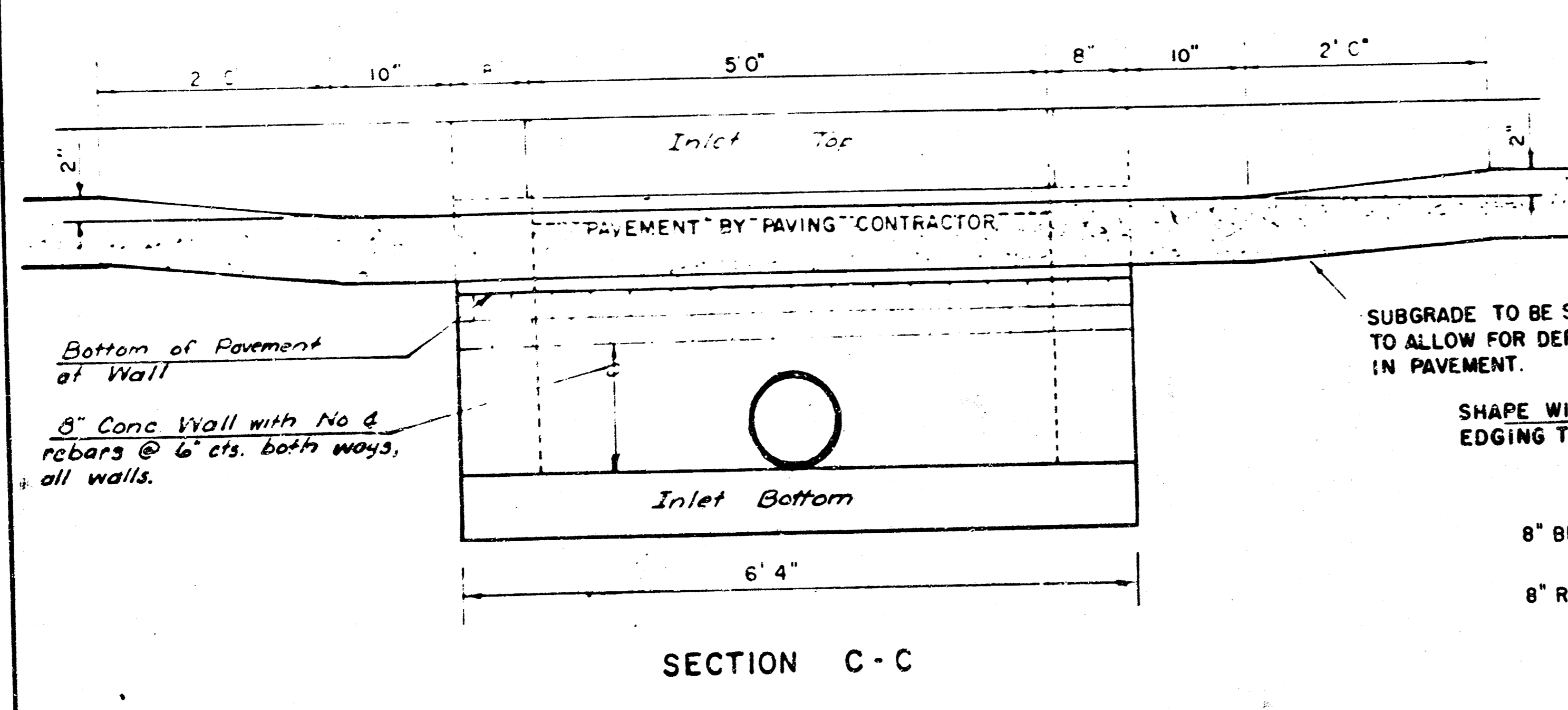
BENDING DIAGRAM

STEEL SCHEDULE

BAR	a ₁	a ₂	a ₃	b ₁	b ₂	b ₃	b ₄	WT
NUMBER	4	4	4	4	4	4	4	
SIZE	#4	#4	#4	#4	#4	#4	#4	
W=4'4"	5'7"	6'7"	4'0"	6'1"	-	-	-	1'9" 6'2" 14'8" 60±
W=5'4"	7'7"	8'7"	5'0"	6'1"	-	-	-	1'9" 6'2" 4'8" 81±
W=6'4"	9'7"	10'7"	6'0"	6'1"	-	-	-	1'9" 6'2" 4'8" 101±
W=7'4"	11'7"	12'7"	7'0"	6'1"	-	-	-	1'9" 6'2" 4'8" 121±
W=8'4"	13'7"	14'7"	8'0"	6'1"	-	-	-	1'9" 6'2" 4'8" 141±

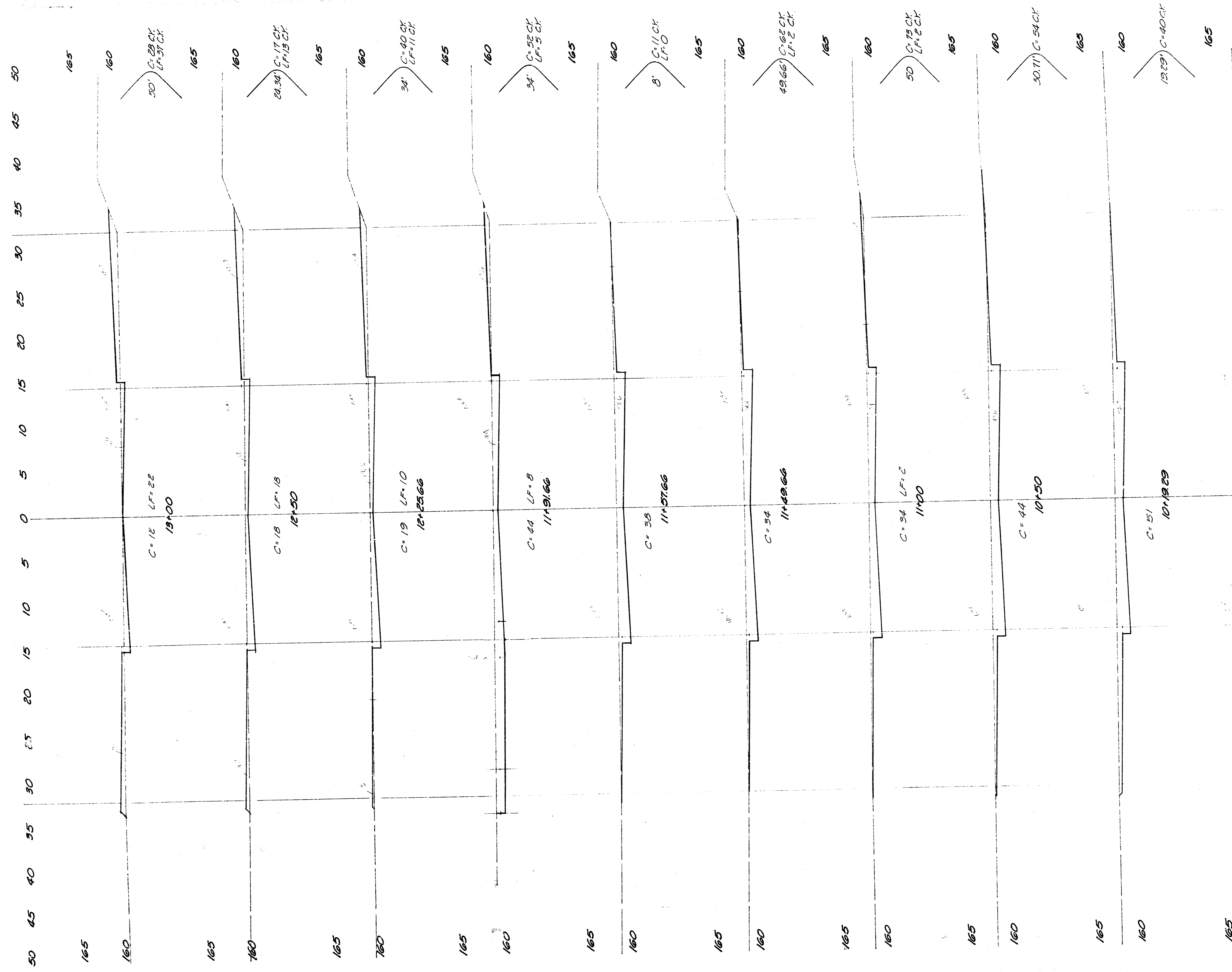
* NOTE: b₃ BARS TO BE PLACED APPROX 2" BELOW TOP OF INLET COVER

W	PRE-CAST TOP SIZE	PIPE SIZE	CU YD CONC
4'4"	36" x 6'4" x 7 1/2"	21" B SMALLER	0.38±
5'4"	48" x 6'4" x 7 1/2"	24" B 30"	0.51±
6'4"	54" x 6'4" x 7 1/2"	36" B 42"	0.64±
7'4"	66" x 6'4" x 7 1/2"	48" B 54"	0.77±
8'4"	78" x 6'4" x 7 1/2"	60" B 66"	0.90±



REVISED 12-21-1984

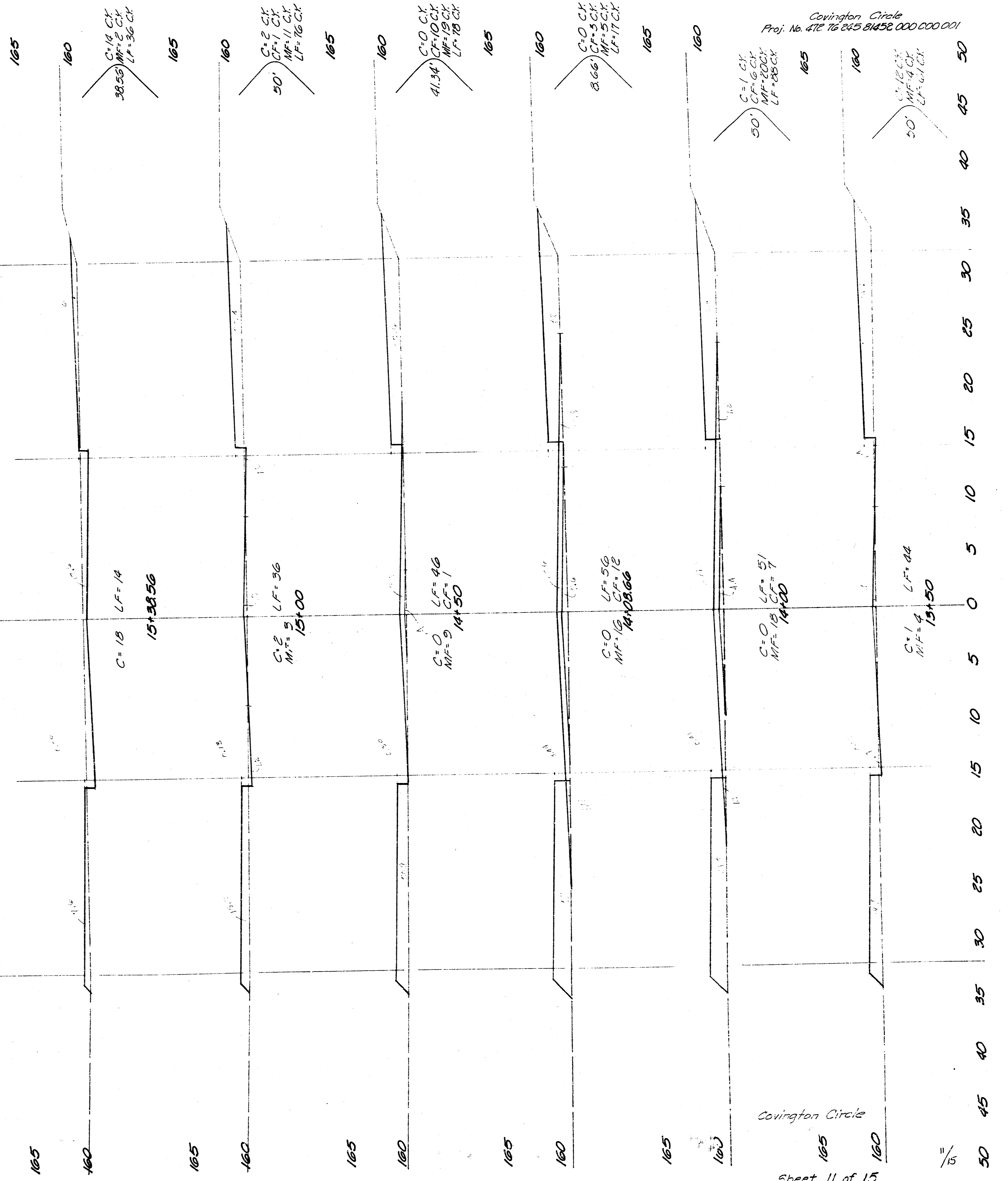
DETAIL STANDARD TYPE IA CURB INLET
CITY OF WICHITA, KANSAS
INLET OPENING = 6" x 5'0"



Corvington Circle
 Proj. No. 472 76 245 8452 000 000.001

Station	Excavation	Compacted Fill	Manipulated Fill	Lease Fill
160	122.0 C.Y.	25.0 C.Y.	69.0 C.Y.	592.0 C.Y.
10% Total	134.8 C.Y.	27.5 C.Y.	75.9 C.Y.	651.2 C.Y.
165	1348.6 C.Y.	27.5 C.Y.	75.9 C.Y.	585.2 C.Y.
10% Total	1483.4 C.Y.	27.5 C.Y.	75.9 C.Y.	643.7 C.Y.

50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50



Covington Circle
Proj. No. 472 76 245 81452 000 000 001

Covington Circle

Sheet 11 of 15

1/15

Covington Circle
 Proj. No. 476 76 345 2452 000 000 001

C = 13.01'
 LF = 2.01'

C = 27.01'
 LF = 2.01'

C = 38.01'

C = 38.01'

C = 34.01'

C = 28.01'

C = 20.01'
 LF = 1.01'

C = 1.01'
 LF = 3.01'

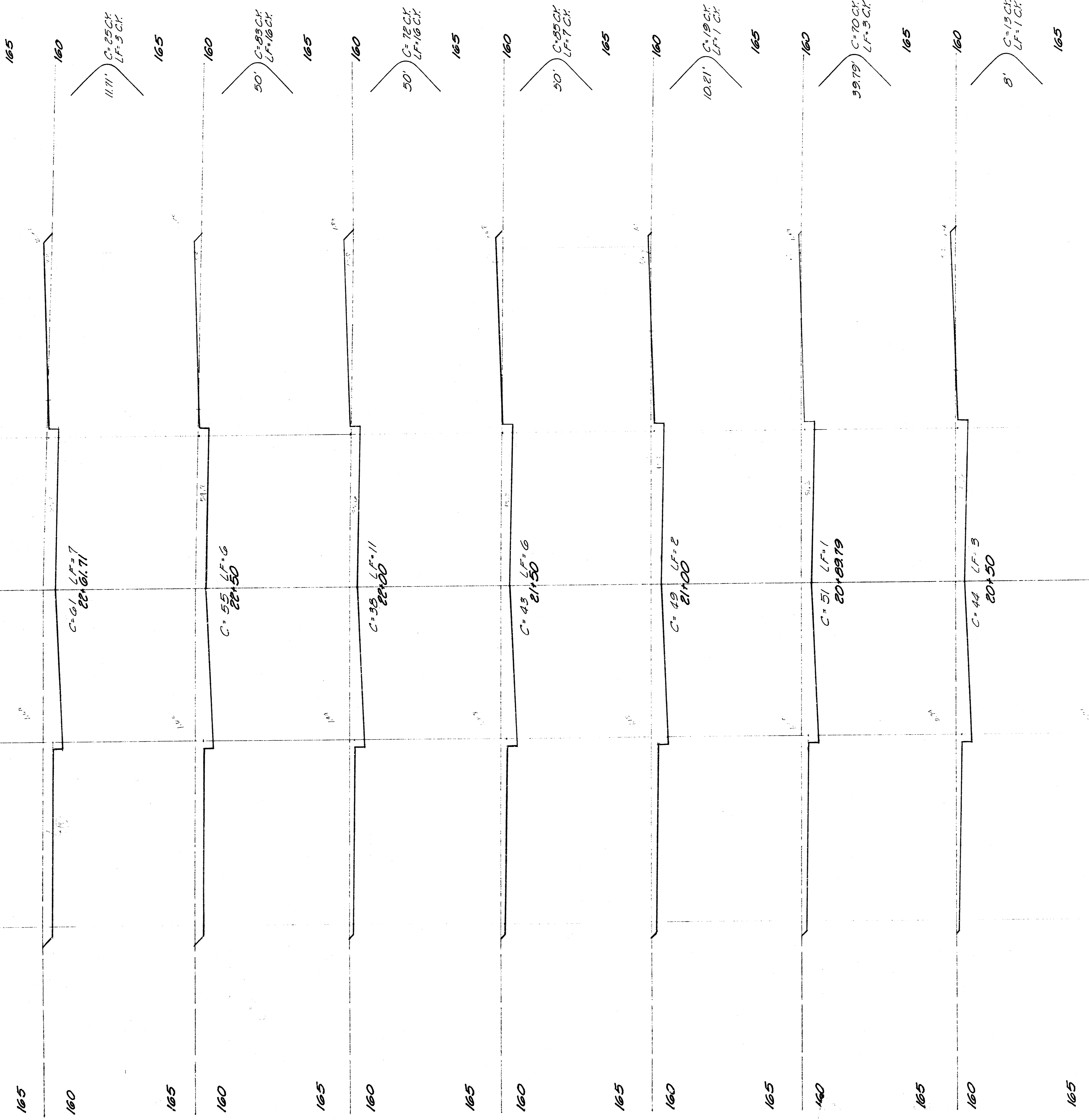


Covington Circle

Sheet 12 of 15

12/15

50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50



Covington Court
Proj. No. 478 76 245 8458 000 000 001

Covington Court

C = 18 CK
 LF = 13 CK

165

160

C = 2 CK
 LF = 21 CK

165

160

C = 2 CK
 LF = 20 CK

165

160

C = 5 CF
 LF = 6 CK

165

160

C = 22 CK

165

160

C = 32 CK

165

160

C = 33 CK

165

160

C = 36 CK

