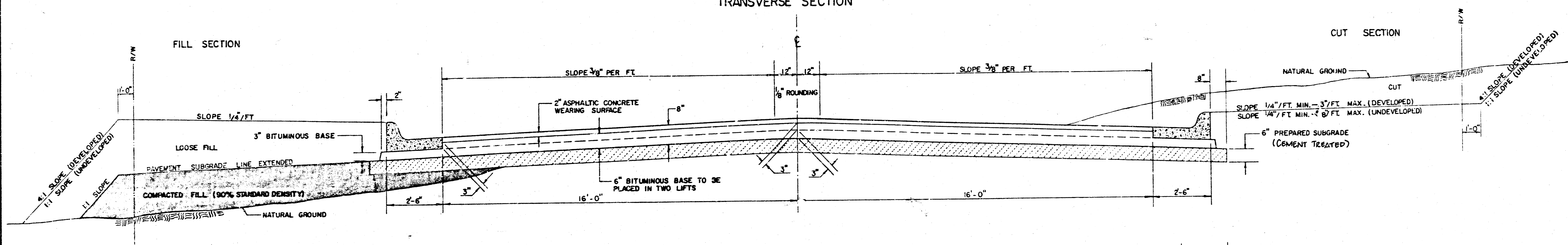
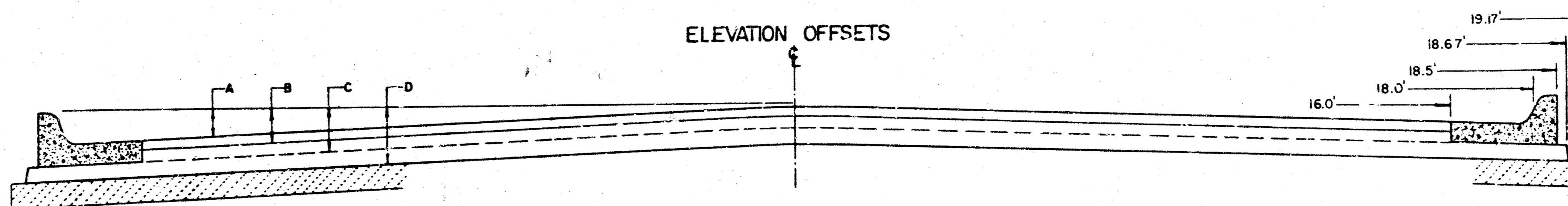


# TYPICAL 37' PAVEMENT DETAILS

## TRANSVERSE SECTION

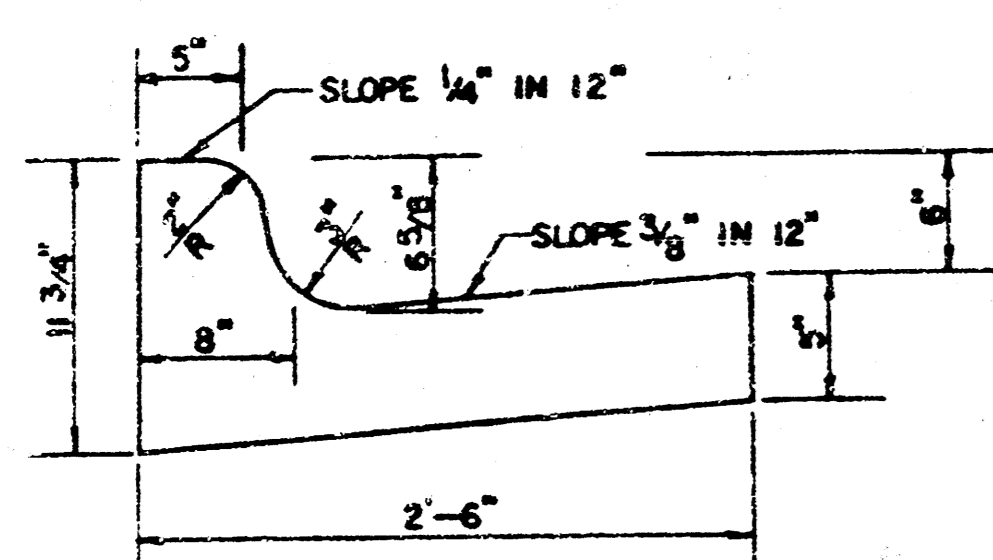


## ELEVATION OFFSETS



	DISTANCE FROM CENTERLINE (LT. & RT.)												
	0	2	4	6	8	10	12	14	16	18	18.5	18.67	19.17
A: TOP OF CURBS TO TOP OF SURFACE LIFT	.01	.05	.11	.18	.24	.30	.36	.43	.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	.17	.22	.28	.34	.40	.47	.53	.59	.65	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	.42	.47	.53	.59	.65	.72	.78	.84	.90	.97	.98	.99	—
D: TOP OF CURBS TO TOP OF SUBGRADE	.67	.72	.78	.84	.90	.97	1.03	1.09	1.15	1.22	1.23	1.24	1.25

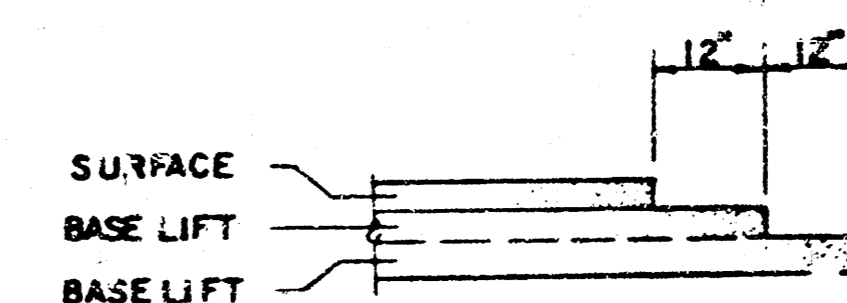
## COMBINED CURB & GUTTER



## GENERAL NOTES

- 1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 8" ASPHALTIC CONCRETE (6" BITUMINOUS BASE).
- 2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 3" 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



TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINTS 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 8" ASPHALTIC CONCRETE (6" BITUMINOUS BASE).

8 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 6 INCH BITUMINOUS BASE  
CITY OF WICHITA, KANSAS

PROJECT NUMBER  
472-79-245-61193-000-000-001

2/14

**STREET IMPROVEMENTS**

**GOLD**

**FROM THE SW CORNER OF LOT 16, BLOCK 11  
AND A POINT 40 FEET NE OF S CORNER LOT 17, BLOCK 8  
TO THE NE LINE OF LOT 17, BLOCK 9  
AND TO THE N LINE OF LOT 13, BLOCK 11**

**GOLD COURT**

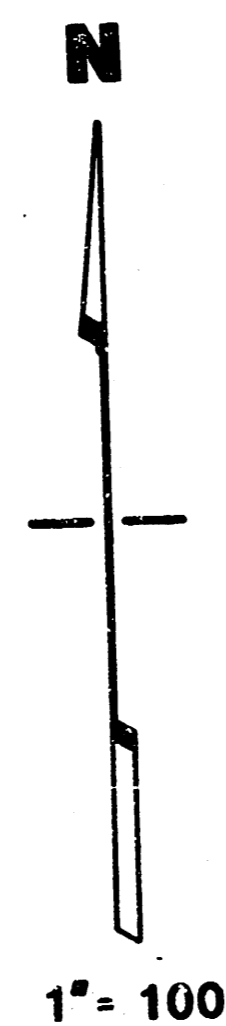
**FROM THE E LINE OF GOLD TO THE E LINE OF GOLD**

**SYCAMORE**

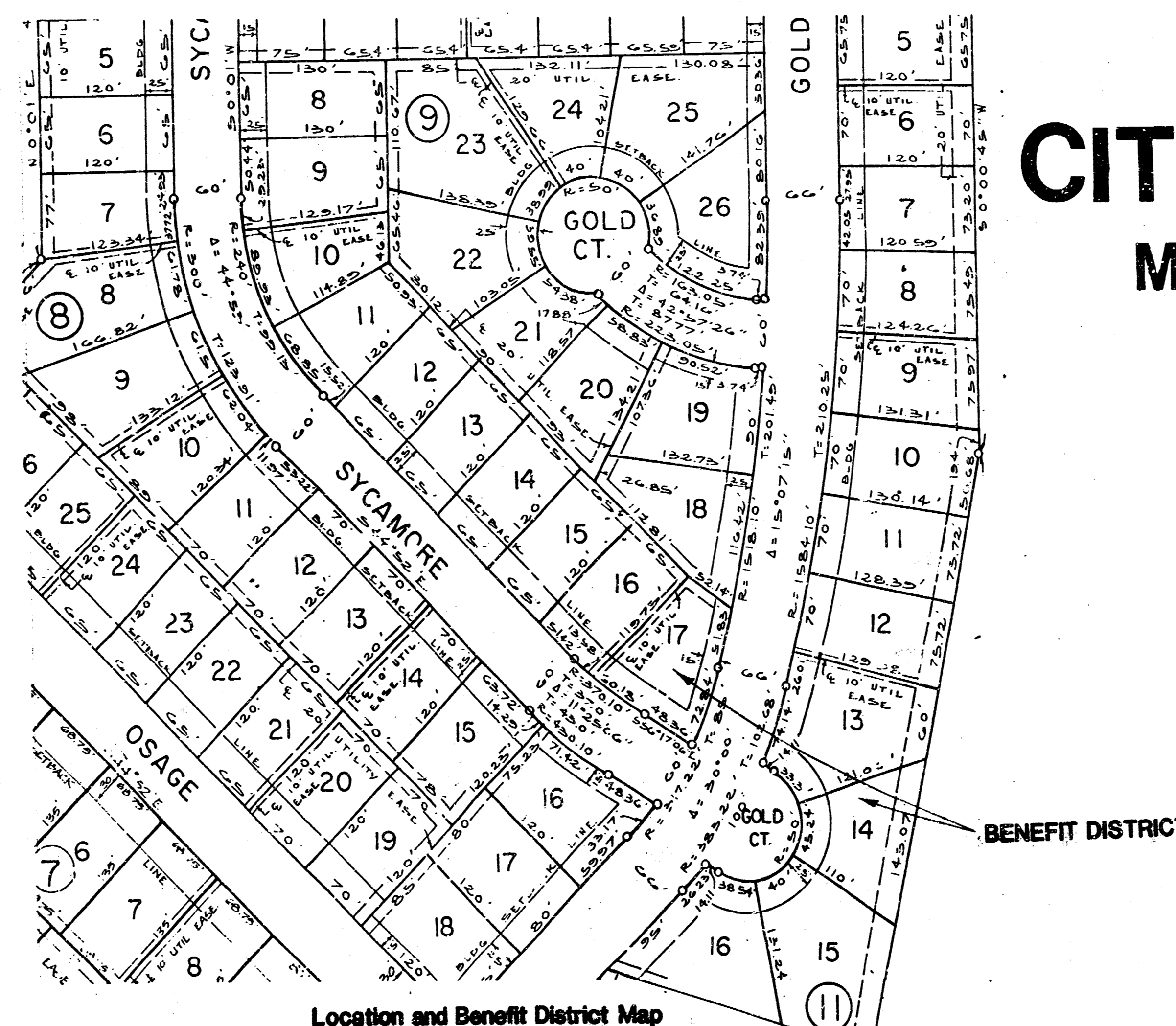
**FROM THE N LINE OF LOT 8, BLOCK 9 TO THE W LINE OF GOLD  
SOUTH SENECA GARDENS FOURTH ADDITION**

**PROJECT NO. 472-76-245-81193-000-000-001**

- GENERAL NOTES
1. The Contractor shall contact Kan-U-Dig-It (267-2889) for location of underground utilities prior to any excavation.
  2. The Contractor shall be responsible for protecting block corners and property irons. Any such irons disturbed by the Contractor's operations shall be replaced at Contractor's expense, by a licensed professional engineer or surveyor, in accordance with state laws.
  3. Curb and Gutter on Gold Court and on Sycamore shall be Roll-Type Com'ined Curb and Gutter, as indicated on the plans. Top of curb grades shown are for full height curb.
  4. Roll curb shall be depressed through all drives that are to be constructed as part of this project.



BENCH MARK:  
City of Wichita Standard disc, 45' west  
and 48' north of 1/4 sec. corner at 55th  
Street South and Gold, Elev. 81.36



**CITY OF WICHITA, KANSAS**  
**MIKE E. LINDEBAK, CITY ENGINEER**

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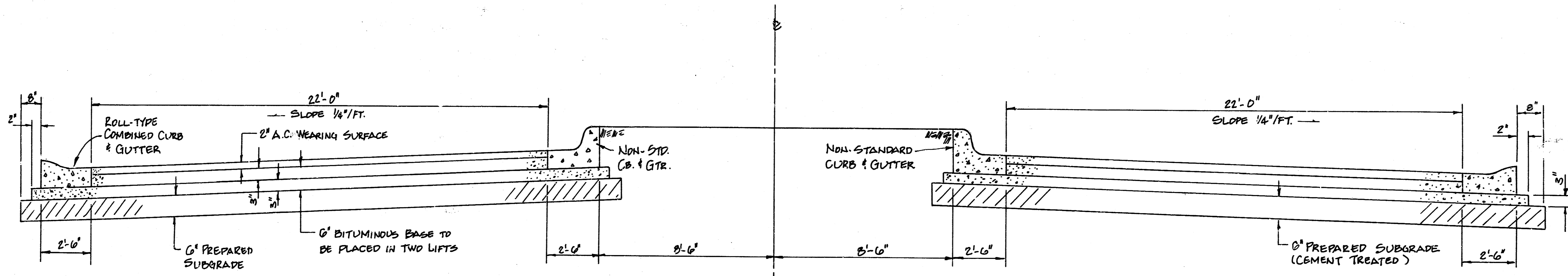
1	Location & Benefit District Map
2-4	Typical Sections
5-7	Street Improvement Plans
8-9	Incidental Drainage
10	Type 1A Inlet Detail
11	Type "B" Manhole Detail
12-14	Earthwork Sections



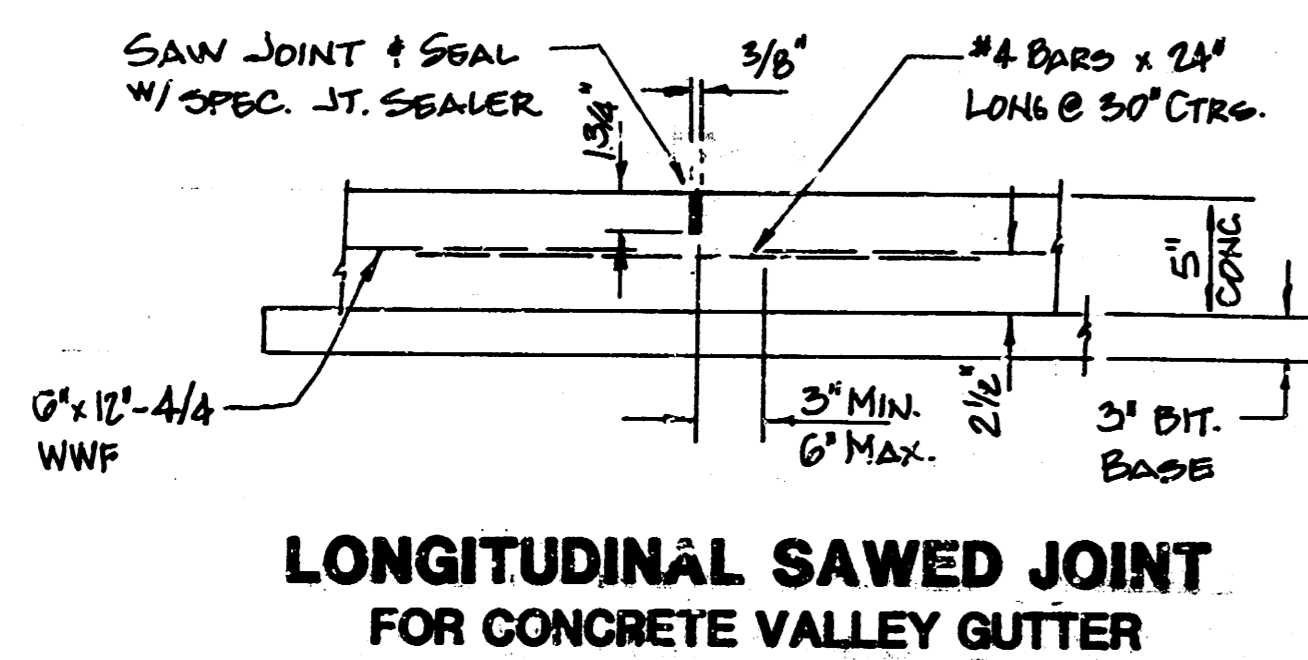
SEPTEMBER 1984

**BAUGHMAN COMPANY, P.A.**  
SURVEYING & ENGINEERING  
316/262-7271 • 330 LAURA • WICHITA, KANSAS 67211

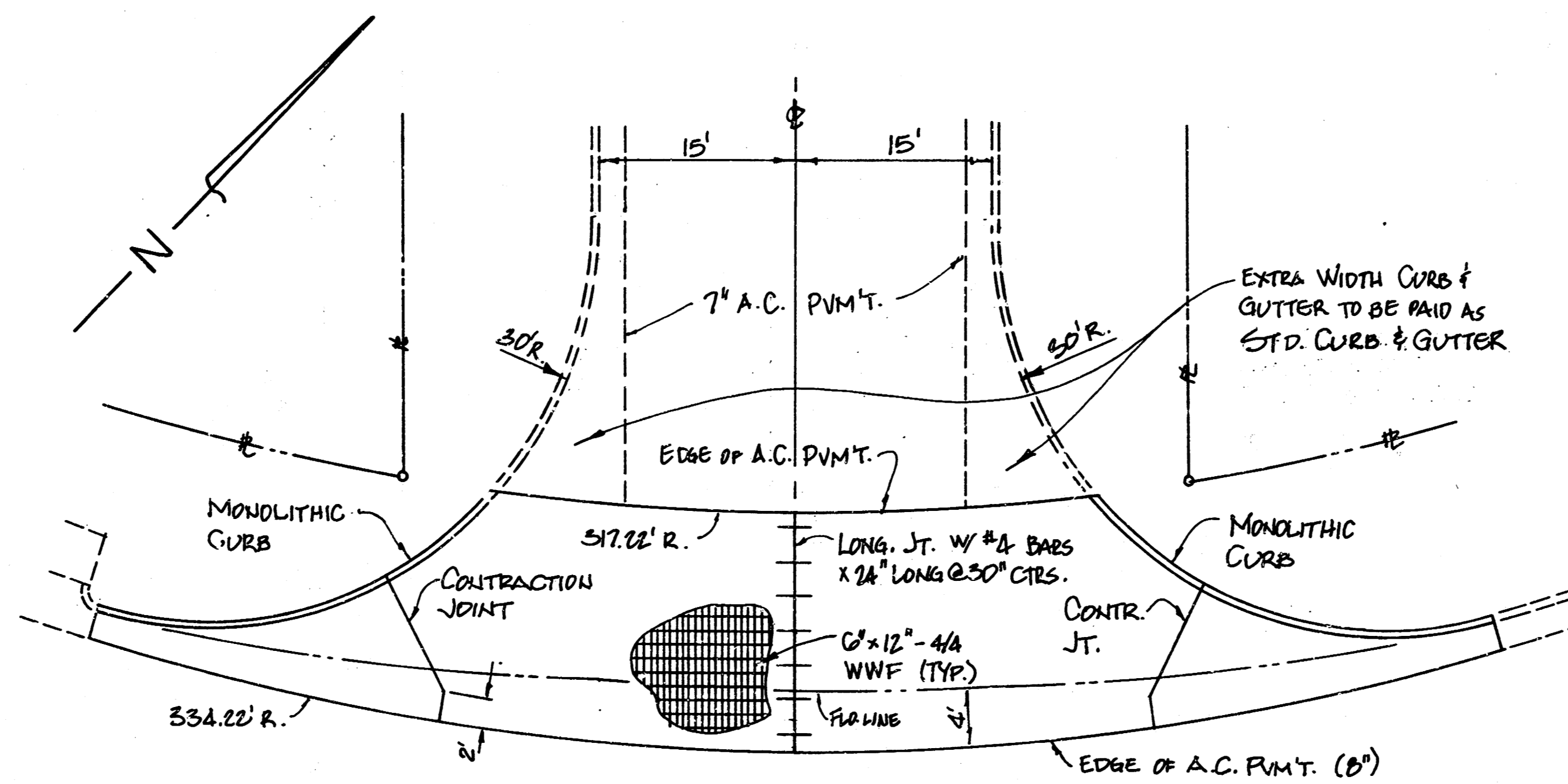
1/14



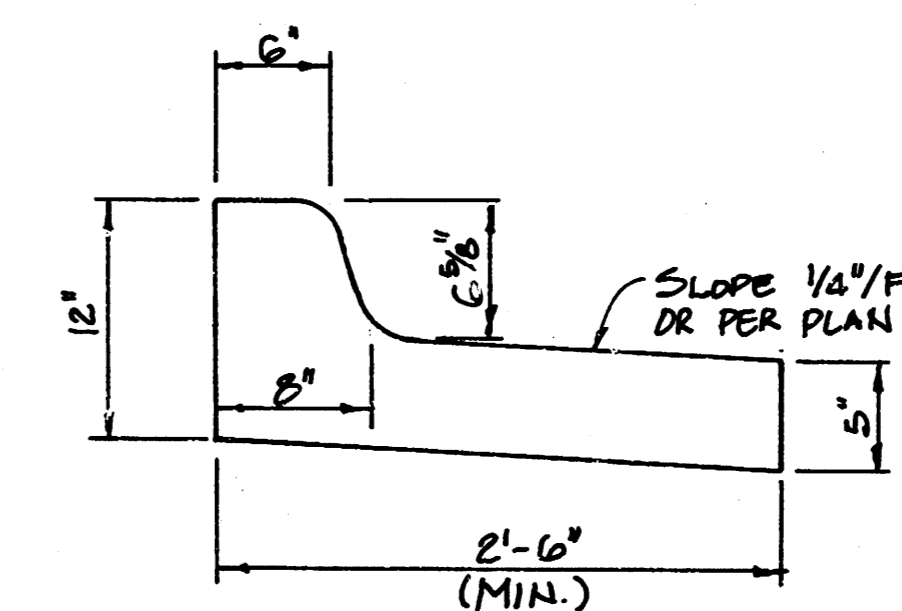
**TYPICAL SECTION  
8" ASPHALTIC CONCRETE PAVEMENT  
(GOLD COURT)**



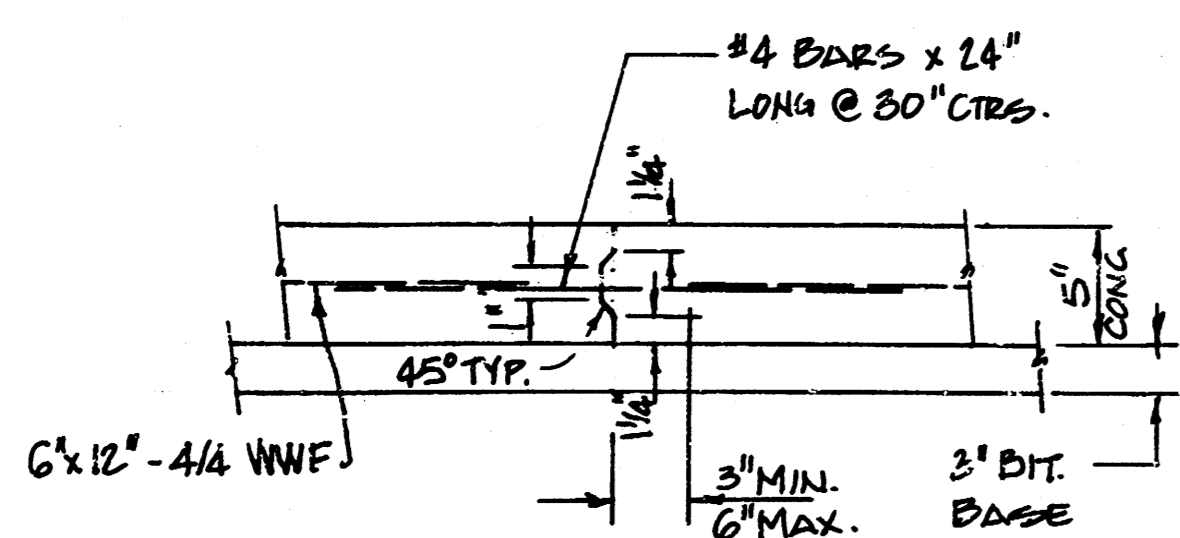
**LONGITUDINAL SAWED JOINT  
FOR CONCRETE VALLEY GUTTER**



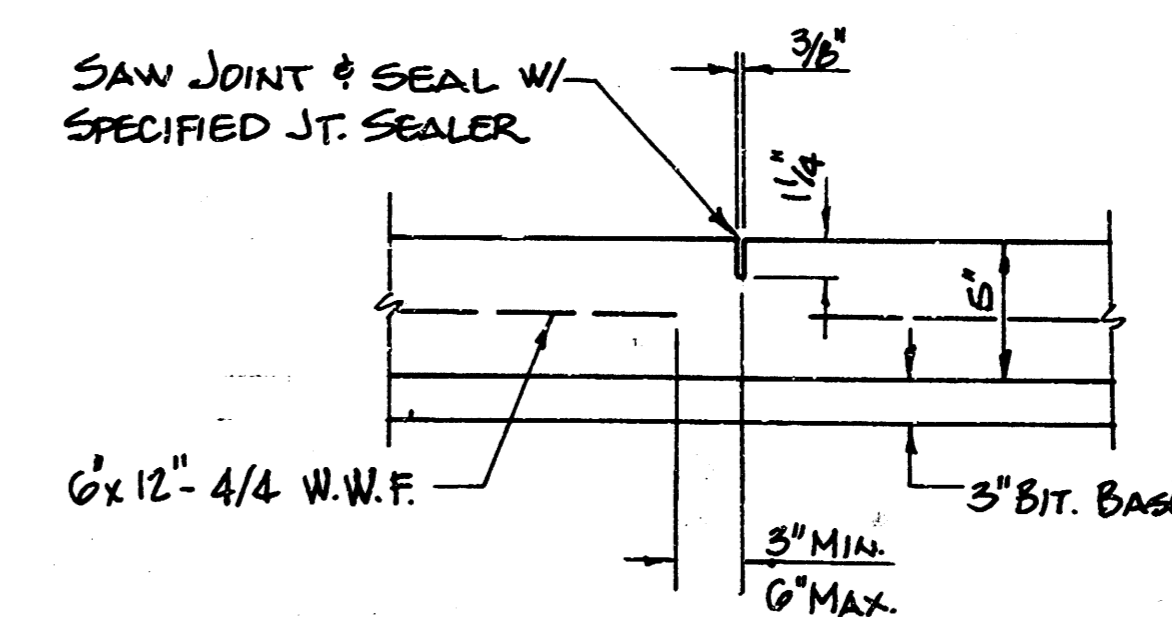
**VALLEY GUTTER DETAIL  
GOLD/STAMORE**



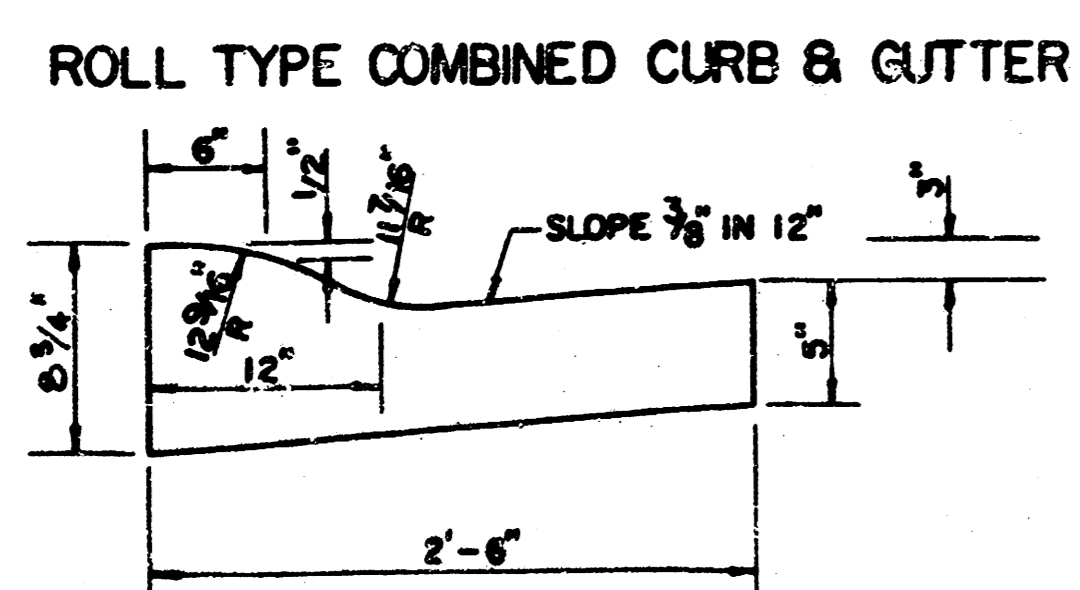
**NON-STD. COMBINED  
CURB AND GUTTER**



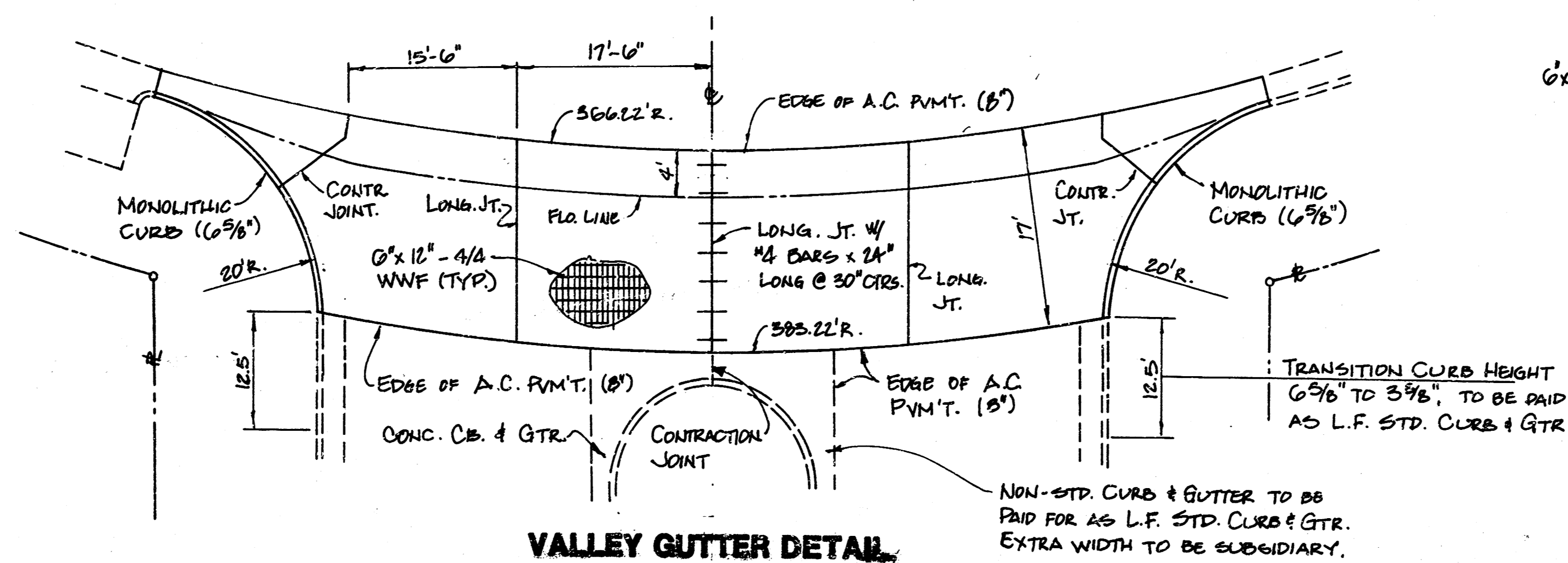
**LONGITUDINAL CONSTRUCTION JOINT  
FOR CONCRETE VALLEY GUTTER**



**CONTRACTION JOINT  
FOR CONCRETE VALLEY GUTTER**



**ROLL TYPE COMBINED CURB & GUTTER**

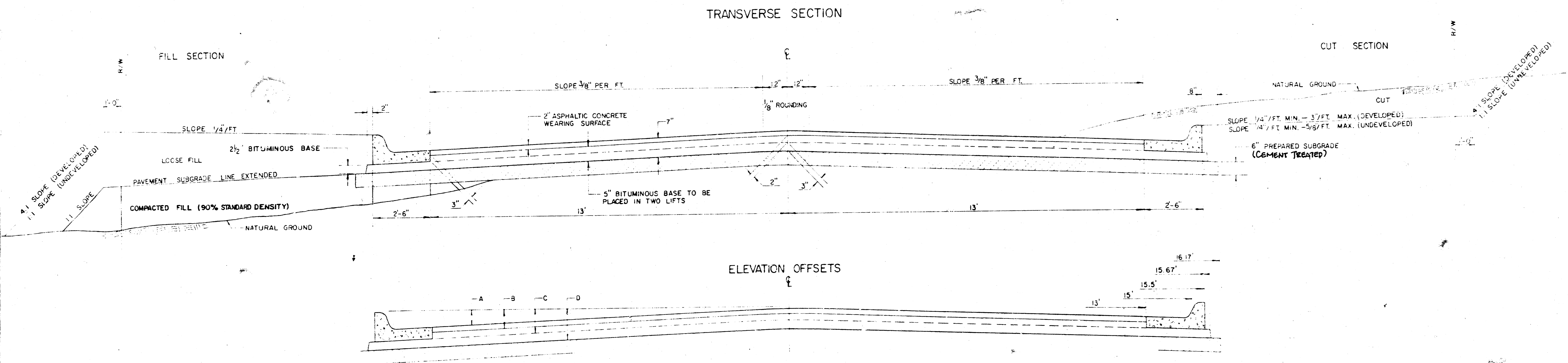


**VALLEY GUTTER DETAIL  
GOLD/GOLD COURT**

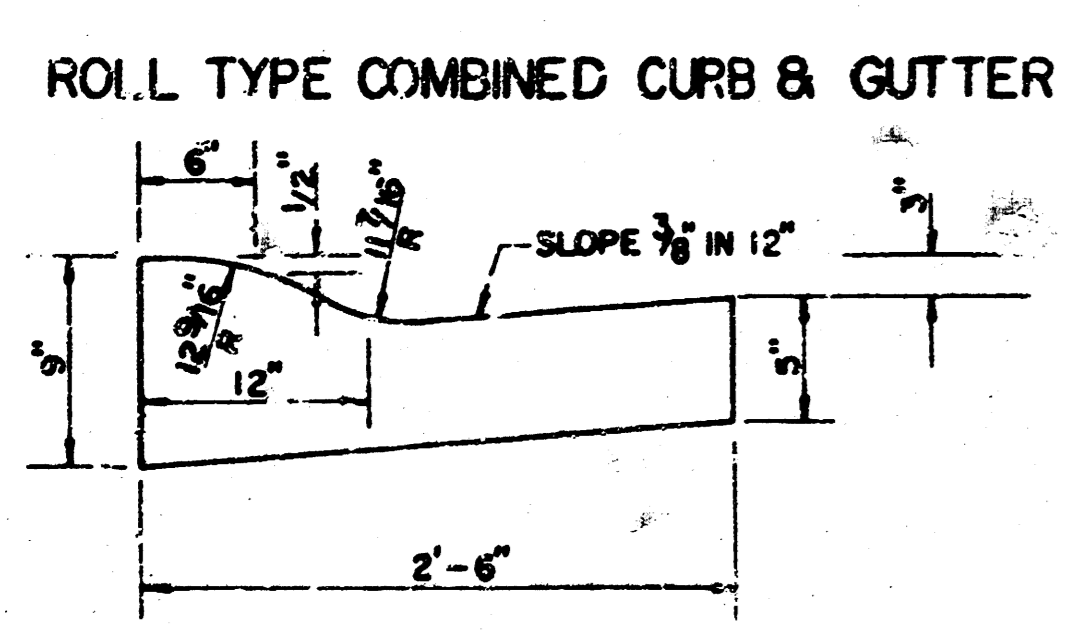
**TYPICAL SECTION AND  
VALLEY GUTTER DETAILS**

Proj. # 472-78-245-81193-000-000-000

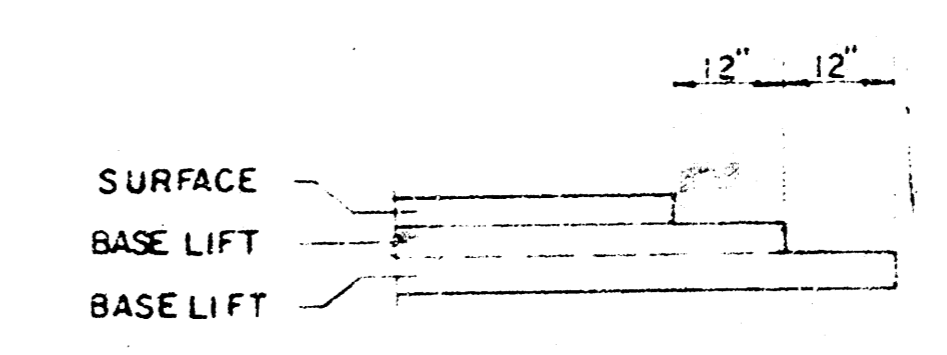
# TYPICAL 3' PAVEMENT DETAILS



	DISTANCE FROM CENTERLINE (LT. & RT.)											
	0'	2'	4'	6'	7.5'	10'	12'	13'	15'	15.5'	15.67'	16.17'
A. TOP OF CURBS TO TOP OF SURFACE LIFT	0.10	0.14	0.21	0.27	0.32	0.39	0.46	0.49	—	—	—	—
B. TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.27	0.31	0.38	0.44	0.49	0.56	0.63	0.66	—	—	—	—
C. TOP OF CURBS TO TOP OF LOWER BASE LIFT	0.44	0.49	0.57	0.64	0.70	0.79	0.87	0.90	0.98	1.00	1.00	—
D. TOP OF CURBS TO TOP OF SUBGRADE	0.69	0.73	0.80	0.87	0.93	1.01	1.09	1.12	1.19	1.21	1.21	1.23



## TRANSVERSE CONSTRUCTION JOINTS

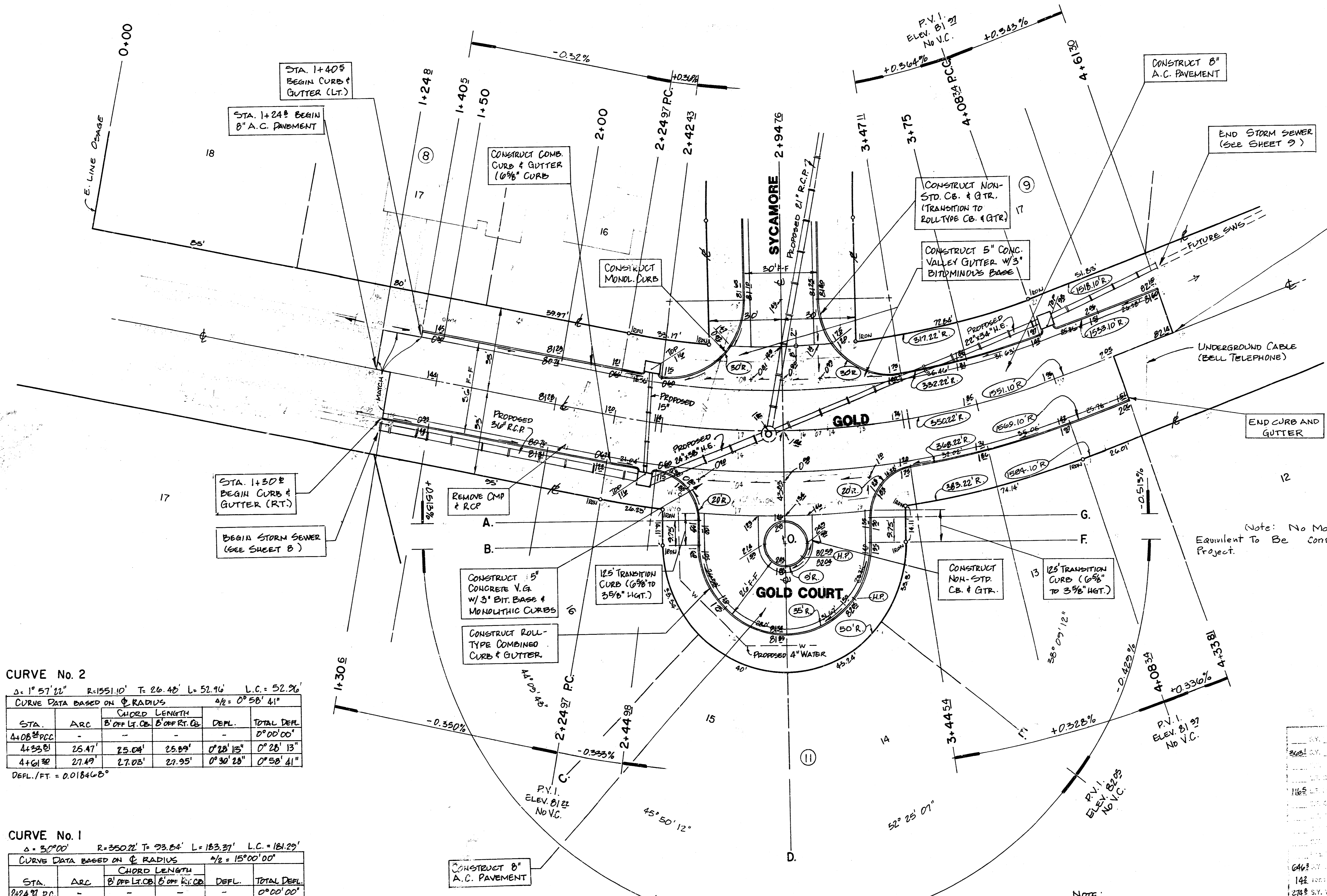
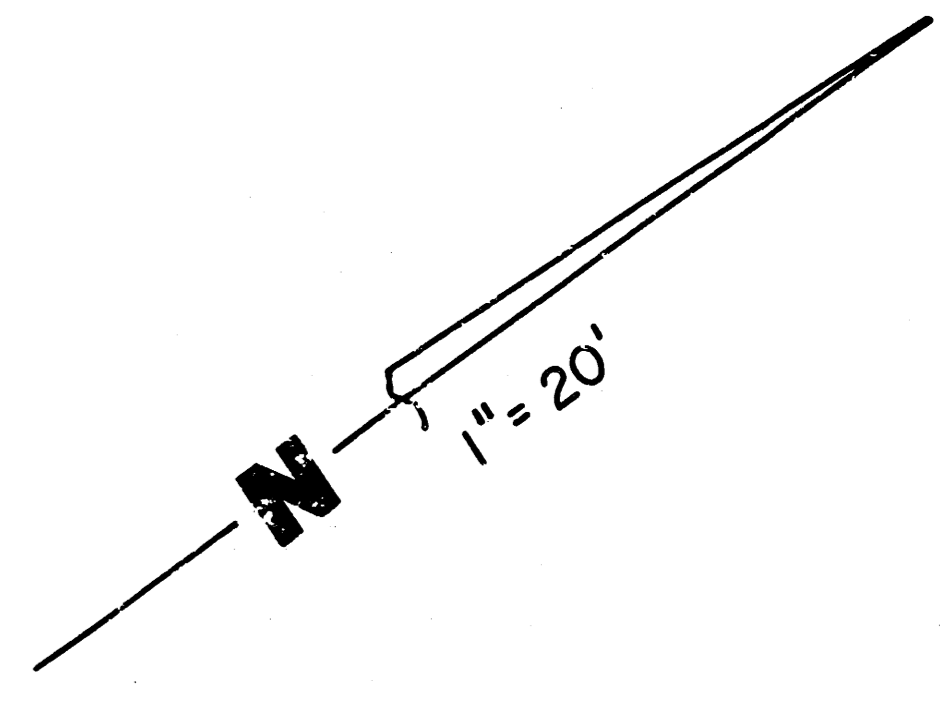


## GENERAL NOTES

- 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 CS-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.

7 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 5 INCH BITUMINOUS BASE  
**CITY OF WICHITA, KANSAS**  
 PROJECT NUMBER  
 472-70-245-81-93-000-000-001 4/14

NOTE: CONSTRUCT ROLL-TYPE COMBINED CURB & GUTTER WHERE INDICATED. ELEVATIONS SHOWN FOR FULL CURB.



**CURVE No. 2**  
 $\Delta = 1^\circ 57' 22''$   $R = 1551.10'$   $T = 26.46'$   $L = 52.96'$   $L.C. = 52.96'$   
 CURVE DATA BASED ON  $\phi$  RADIUS  $\frac{\Delta}{2} = 0^\circ 58' 41''$

STA.	ARC	CHORD LENGTH		DEFL.	TOTAL DEFL.
		B' OFF LT. CB.	B' OFF RT. CB.		D' 00' 00"
4+08.34 P.C.	-	-	-	-	0° 00' 00"
4+53.81	25.47'	25.08'	25.09'	0° 26' 13"	0° 26' 13"
4+61.30	27.49'	27.05'	27.95'	0° 30' 28"	0° 56' 41"

DEFL./FT. = 0.018463°

**CURVE No. 1**  
 $\Delta = 3^\circ 00' 00''$   $R = 350.22'$   $T = 23.64'$   $L = 183.37'$   $L.C. = 181.29'$   
 CURVE DATA BASED ON  $\phi$  RADIUS  $\frac{\Delta}{2} = 1^\circ 30' 00''$

STA.	ARC	CHORD LENGTH		DEFL.	TOTAL DEFL.
		B' OFF LT. CB.	B' OFF RT. CB.		D' 00' 00"
2+24.97 P.C.	-	-	-	-	0° 00' 00"
2+42.49	17.46'	16.16'	-	1° 25' 42"	1° 25' 42"
2+44.09	2.55'	-	21.49'	0° 12' 51"	1° 38' 33"
2+94.74	49.76'	48.40'	53.43'	4° 04' 19"	5° 42' 52"
3+44.94	49.76'	-	53.43'	4° 04' 20"	9° 47' 52"
3+47.11	2.57'	48.42'	-	0° 12' 37"	9° 59' 29"
3+75	27.89'	25.81'	32.71'	2° 16' 58"	12° 16' 22"
4+08.34 P.C.C.	53.34'	53.60'	55.60'	2° 43' 38"	15° 00' 00"

DEFL./FT. = 0.061802°

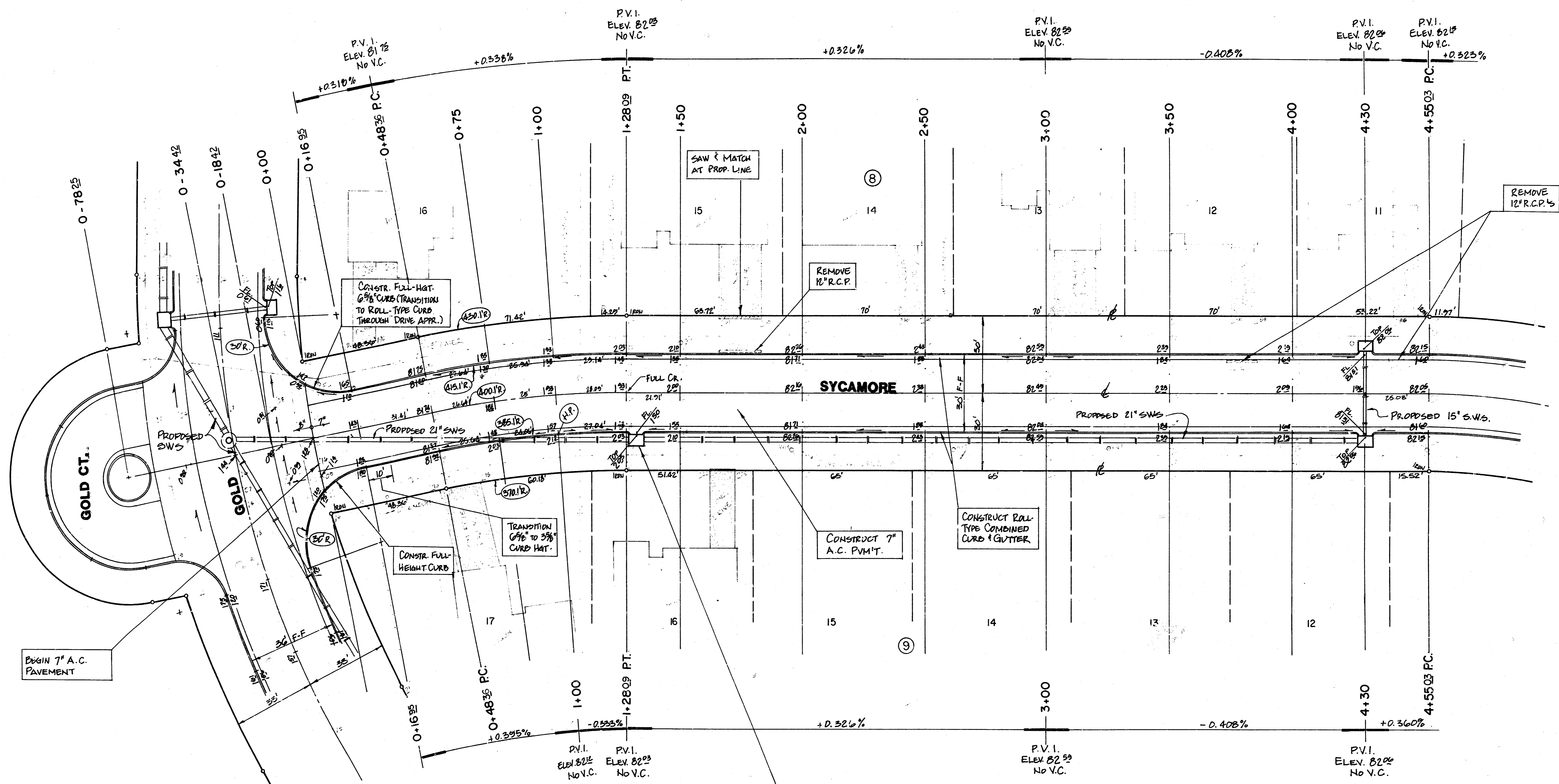
EARTHWORK:  
 EXCAVATION 1200 CU. Yds.  
 COMPACTED FILL 17 CU. Yds.  
 SUBGRADE STABILIZATION 4675 SQ. Yds.

Note: No More Than Twelve 14 Ft. Driveways Or Equivalent To Be Constructed On & Charged To This Project. 2371.2 SF

INTERSECTION QUANTITIES

CONCRETE PAVEMENT	17
ASPHALTIC CONC. PAVEMENT (3" MIN. THICKNESS)	17
CONCRETE CURB & GUTTER	17
MONOLITHIC CURB	17
ROLL-TYPE COMBINED CURB & GUTTER	17
NON-STD. CB. & GTR.	17
CONCRETE V.G. W/ 3" BIT. BASE & MONOLITHIC CURBS	17
TRANSITION CURB (6% TO 3% HGT.)	17
CONCRETE V.G. W/ 3" BIT. BASE & MONOLITHIC CURBS	17
TRANSITION CURB (6% TO 3% HGT.)	17



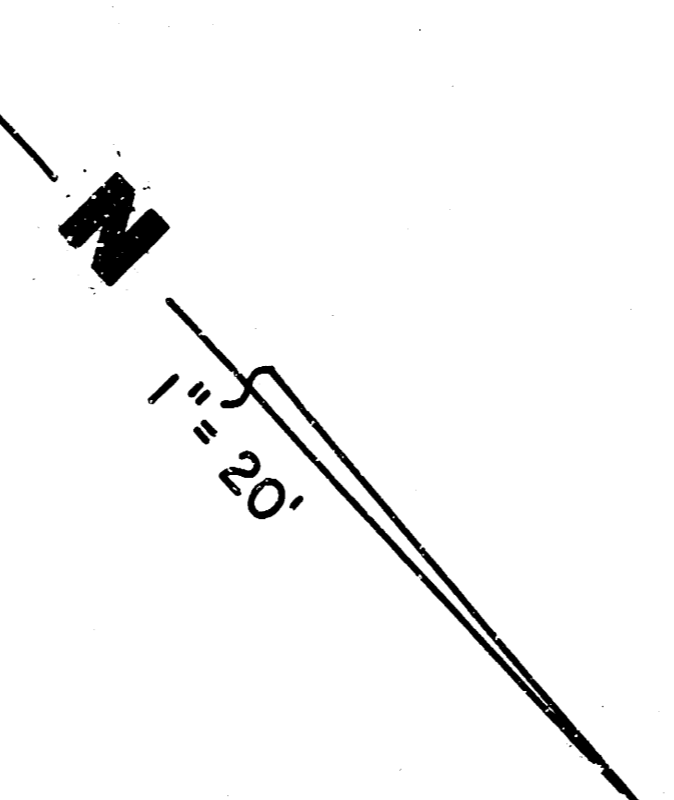


BEGIN 7" A.C. PAVEMENT

$\Delta = 11^{\circ}25'06''$   $R = 400.10'$   $T = 40.00'$   $L = 79.75'$   $L.C. = 79.60'$   
 CURVE DATA BASED ON 6' RADIUS  $\frac{1}{2} \Delta = 5^{\circ}42'33''$

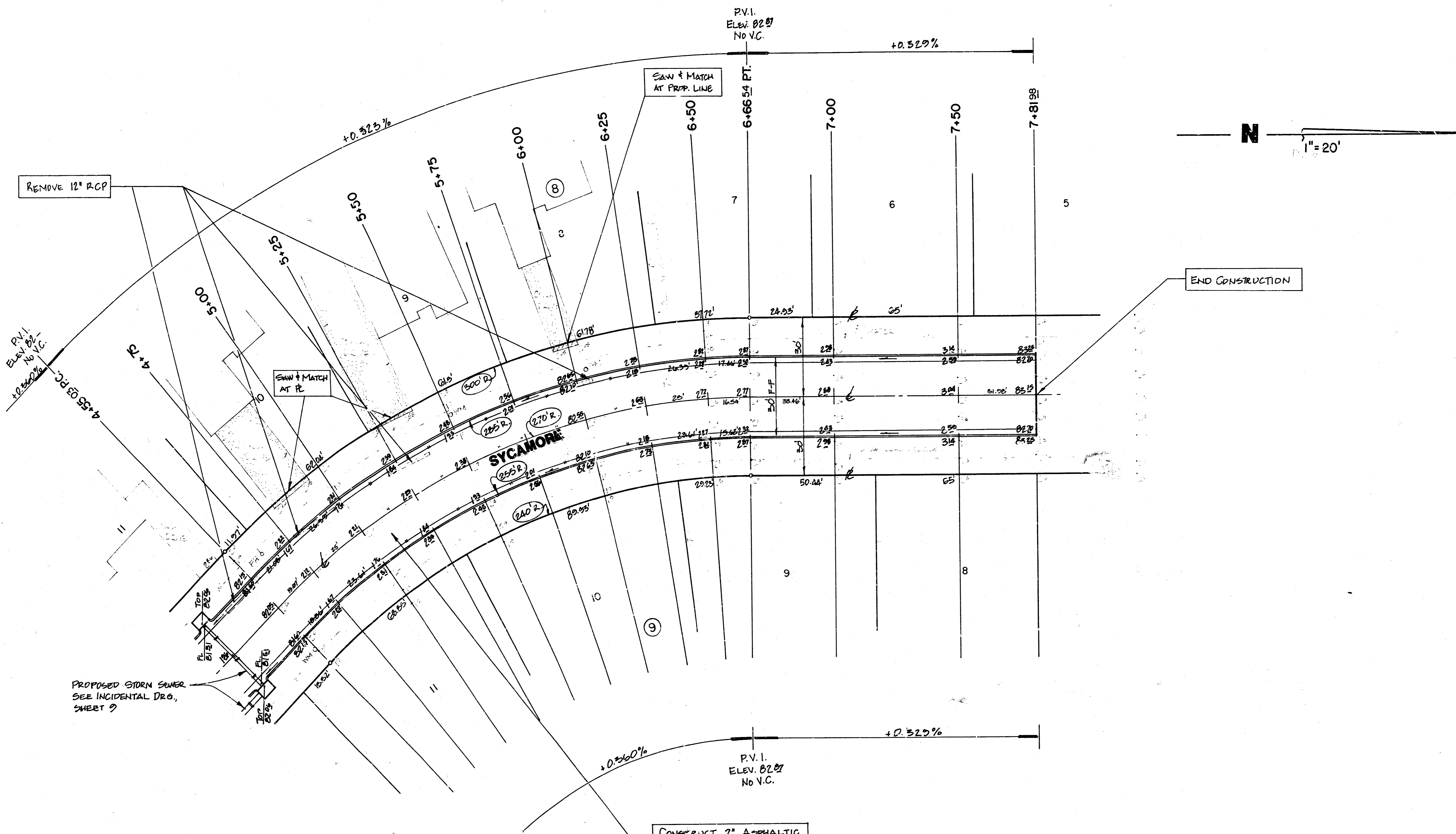
STA.	ARC.	CHORD LENGTH		DEPL.	TOTAL DEPL.
		8' OFF LT. Cb.	8' OFF RT. Cb.		
0+48.35 P.C.	-	-	-	-	0' 00" 00"
0+75	26.64'	26.17'	25.10'	1' 54" 27"	1' 54" 27"
1+00	25'	24.44'	23.56'	1' 47" 25"	3' 41" 52"
1+28.09 P.T.	26.09'	29.70'	26.47'	2' 00" 41"	5' 42" 59"

Defl. / FT. = 0.07161'



NOTE:  
 CONSTRUCT ROLL-TYPE CURB &  
 GUTTER AS INDICATED. ELEVATIONS  
 SHOWN FOR FULL CURB.

INDICATES REMOVAL



P.V.I.  
ELEV. 82.87  
NO V.C.

P.V.I.  
ELEV. 82.87  
NO V.C.

P.V.I.  
ELEV. 82.87  
NO V.C.

N  
1" = 20'

END CONSTRUCTION

REMOVE 12" R.C.P.

SAW & MATCH  
AT PROP. LINE

SAW & MATCH  
AT R.

CONSTRUCT 7" ASPHALTIC  
CONCRETE PAVEMENT W/  
ROLL-TYPE COMB. CURB & GTR.

PROPOSED STORM SEWER  
SEE INCIDENTAL DRO.,  
SHEET 9

NOTE:  
CONSTRUCT ROLL-TYPE COMBINED  
CURB & GUTTER AS INDICATED.  
GRADES SHOWN ARE FOR FULL CURB.

$\Delta = 44^\circ 58'$   $R = 270'$   $T = 111.52'$   $L = 211.51'$   $L.C. = 206.14'$   
 CURVE DATA BASED ON  $\frac{1}{2}$  RADIUS  $\frac{1}{2} R = 135.75'$

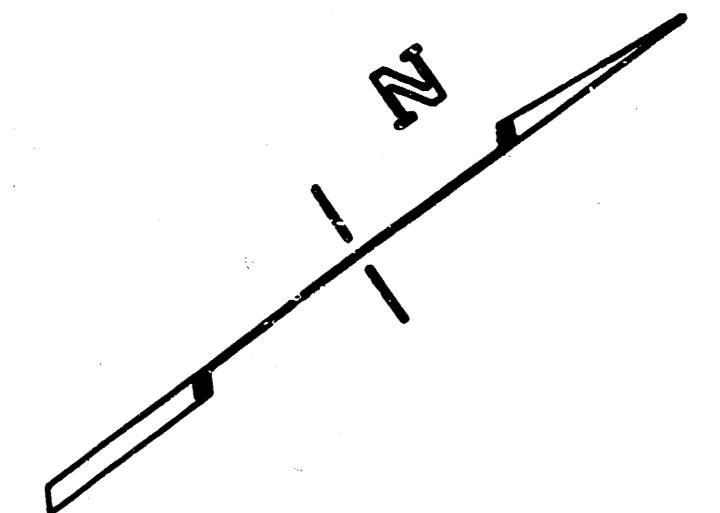
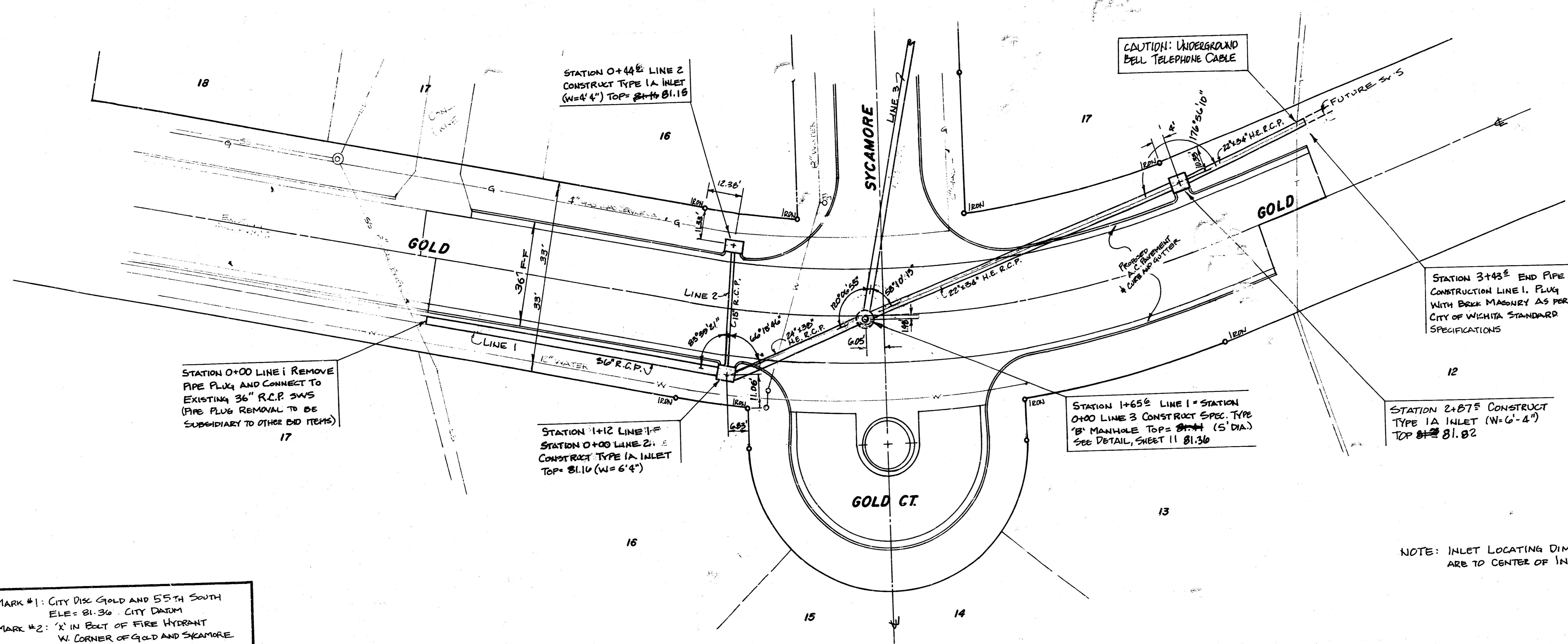
STA.	ARC	CHORD LENGTH	CHORD BEING	DEFL.	TOTAL DEFL.
		$\frac{1}{2}$ OFF. L. CO.	$\frac{1}{2}$ OFF. RT. CO.		
4+55 P.C.	-	-	-	-	0' 00" 00"
4+75	19.97'	21.67'	18.26'	2° 07' 06"	2° 07' 06"
5+00	25'	27.12'	22.86'	2° 32' 09"	4° 46' 17"
5+25	25'	27.12'	22.86'	2° 32' 09"	7° 25' 26"
5+50	25'	27.12'	22.86'	2° 32' 09"	10° 04' 56"
5+75	25'	27.12'	22.86'	2° 32' 09"	12° 43' 45"
6+00	25'	27.12'	22.86'	2° 32' 09"	15° 22' 54"
6+25	25'	27.12'	22.86'	2° 32' 09"	18° 02' 04"
6+50	25'	27.12'	22.86'	2° 32' 09"	20° 41' 18"
6+66.33 P.T.	16.64'	17.94'	15.15'	1° 45' 17"	22° 26' 30"

DEPL. / FT. = 0.10610°

SYCAMORE

Proj. #472-78-245-81183-000-000-001

7/14



SCALE: 1"=20' PLAN  
 1"=20' PROFILE HORIZ.  
 1"=5' PROFILE VERT.

BENCH MARK #1: CITY DISC GOLD AND 55TH SOUTH  
 ELE = 81.36 CITY DATUM  
 BENCH MARK #2: 'X' IN BOLT OF FIRE HYDRANT  
 W. CORNER OF GOLD AND SYCAMORE  
 ELE = 82.43

STATION 0+00 LINE 1 REMOVE  
 PIPE PLUG AND CONNECT TO  
 EXISTING 36" R.C.P. SW/S  
 (PIPE PLUG REMOVAL TO BE  
 SUBSIDIARY TO OTHER BID ITEMS)

STATION 1+12 LINE 1  
 STATION 0+00 LINE 2  
 CONSTRUCT TYPE 1A INLET  
 TOP = 81.16 (W=6'4")

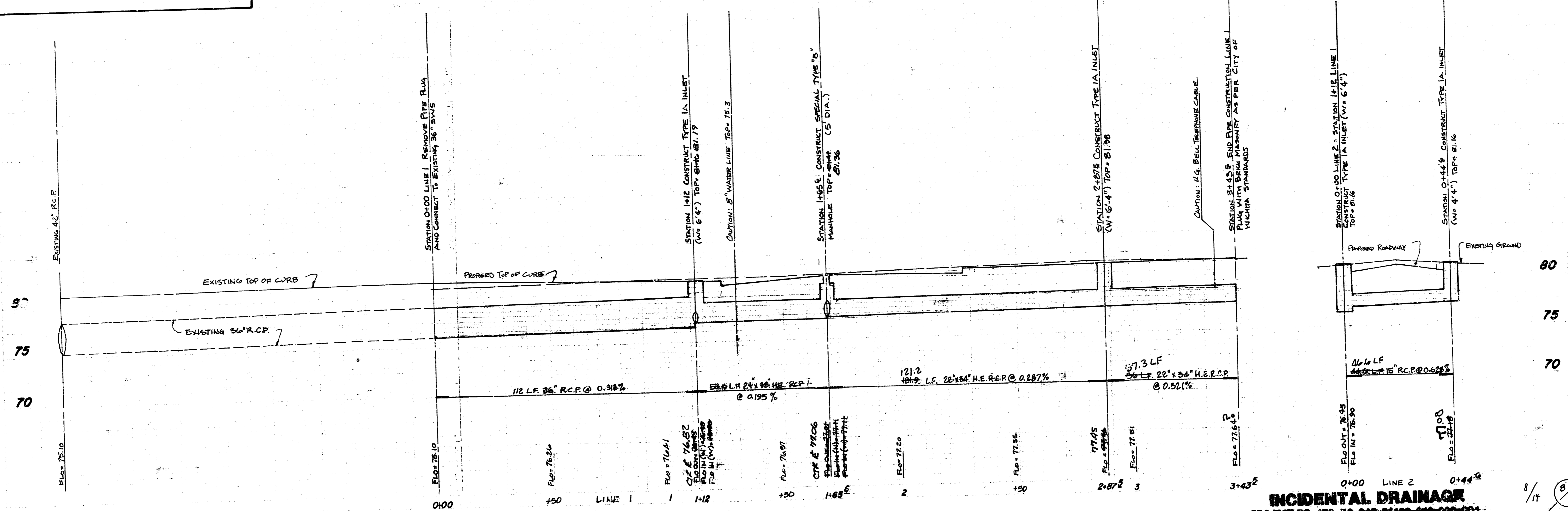
STATION 0+44 LINE 2  
 CONSTRUCT TYPE 1A INLET  
 (W=4'4") TOP = 81.18

STATION 1+65 LINE 1 STATION  
 0+00 LINE 3 CONSTRUCT  
 TYPE 1A INLET (W=6'4")  
 SEE DETAIL, SHEET 11 81.30

STATION 2+87 CONSTRUCT  
 TYPE 1A INLET (W=6'4")  
 TOP = 81.82

NOTE: INLET LOCATING DIMENSIONS  
 ARE TO CENTER OF INLET BOX.

AS BUILT PLAN  
 7-1-85  
 GREENE

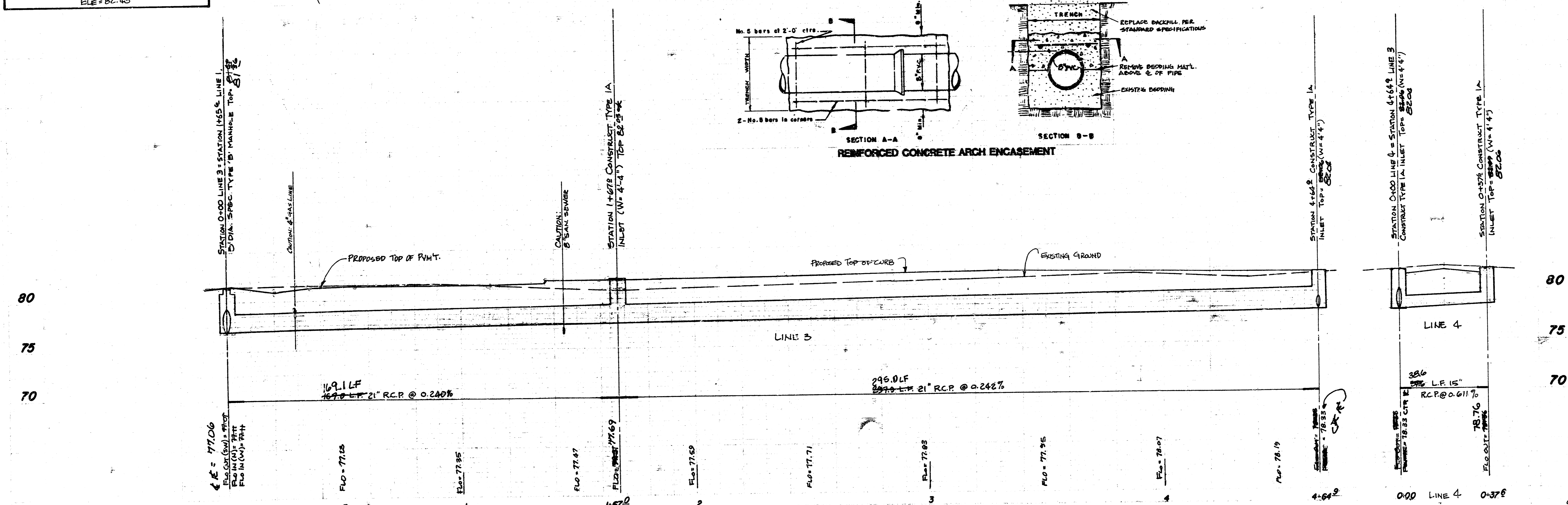
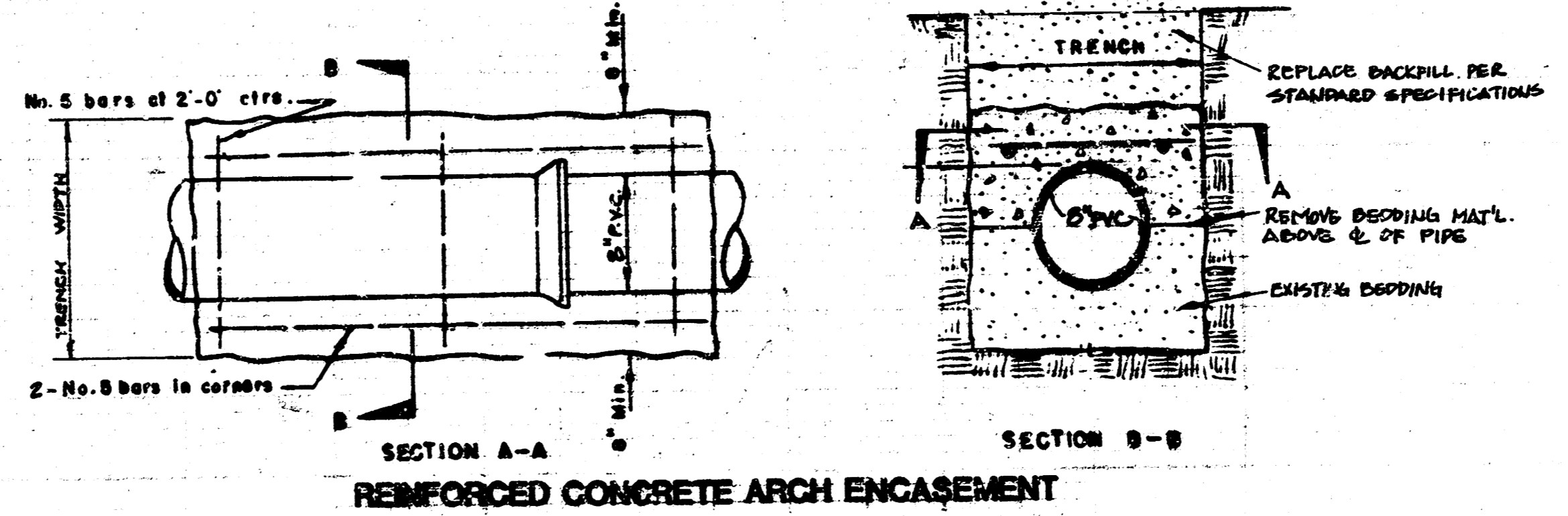
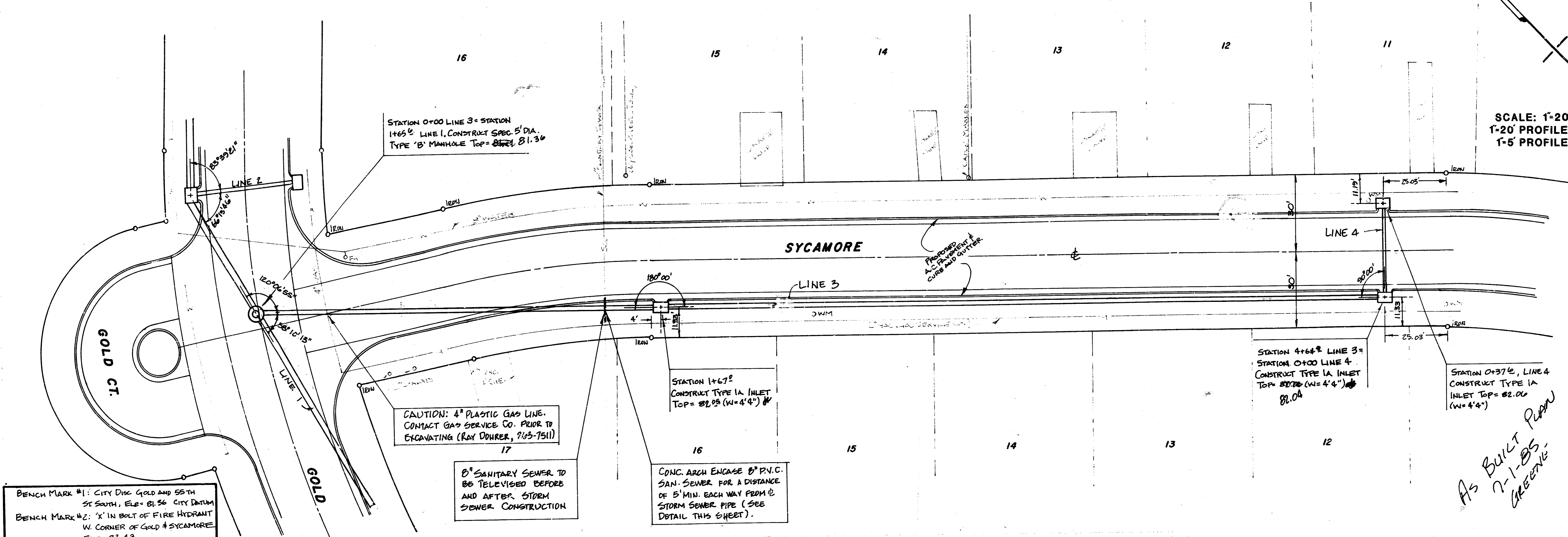


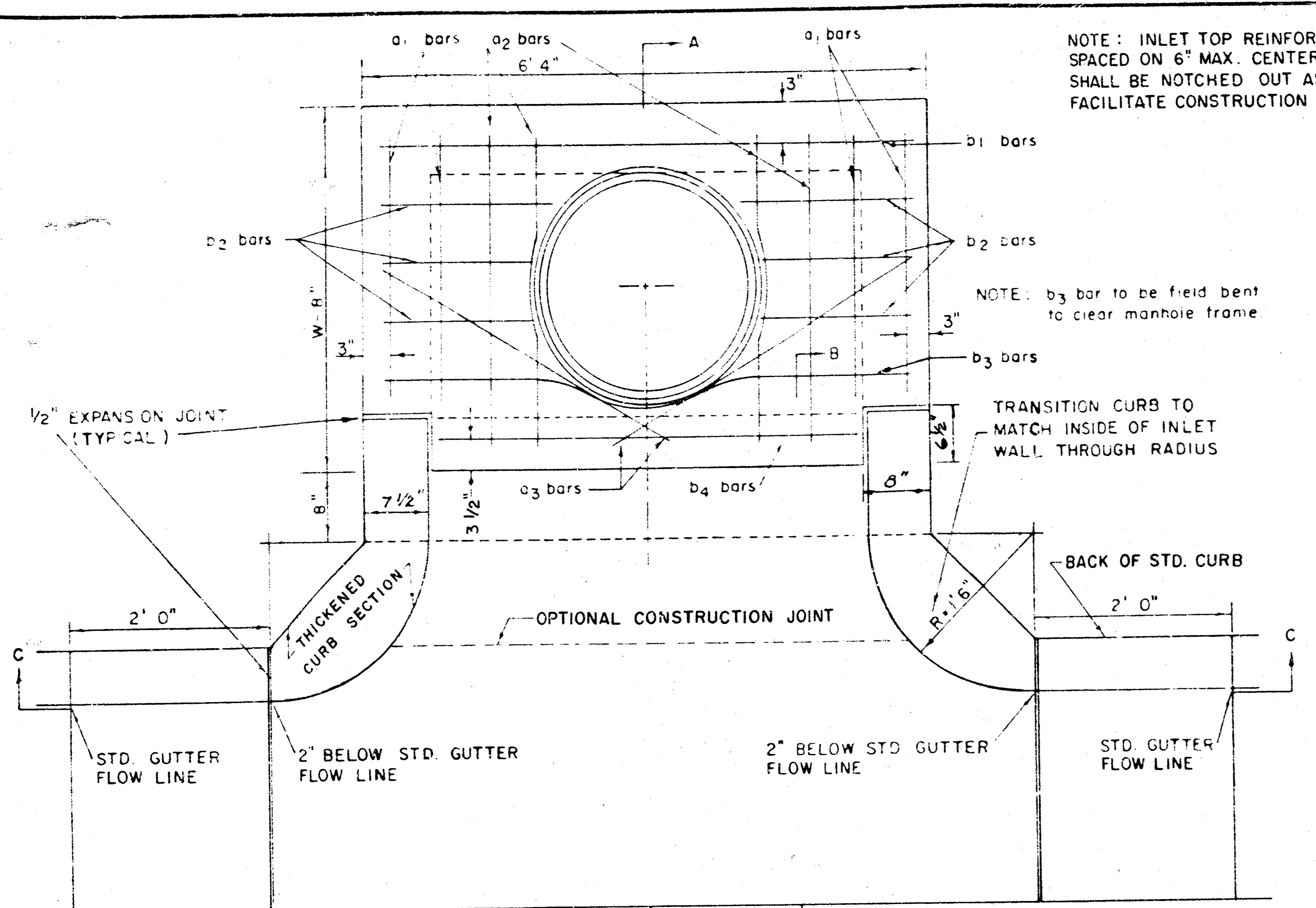
**INCIDENTAL DRAINAGE**

PROJECT NO. 472-70-240-01100-000-001

SCALE: 1"=20' PLAN  
1"=5' PROFILE HORIZ.  
1"=5' PROFILE VERT.

As BUILT PLAN  
7-1-85  
GREENE

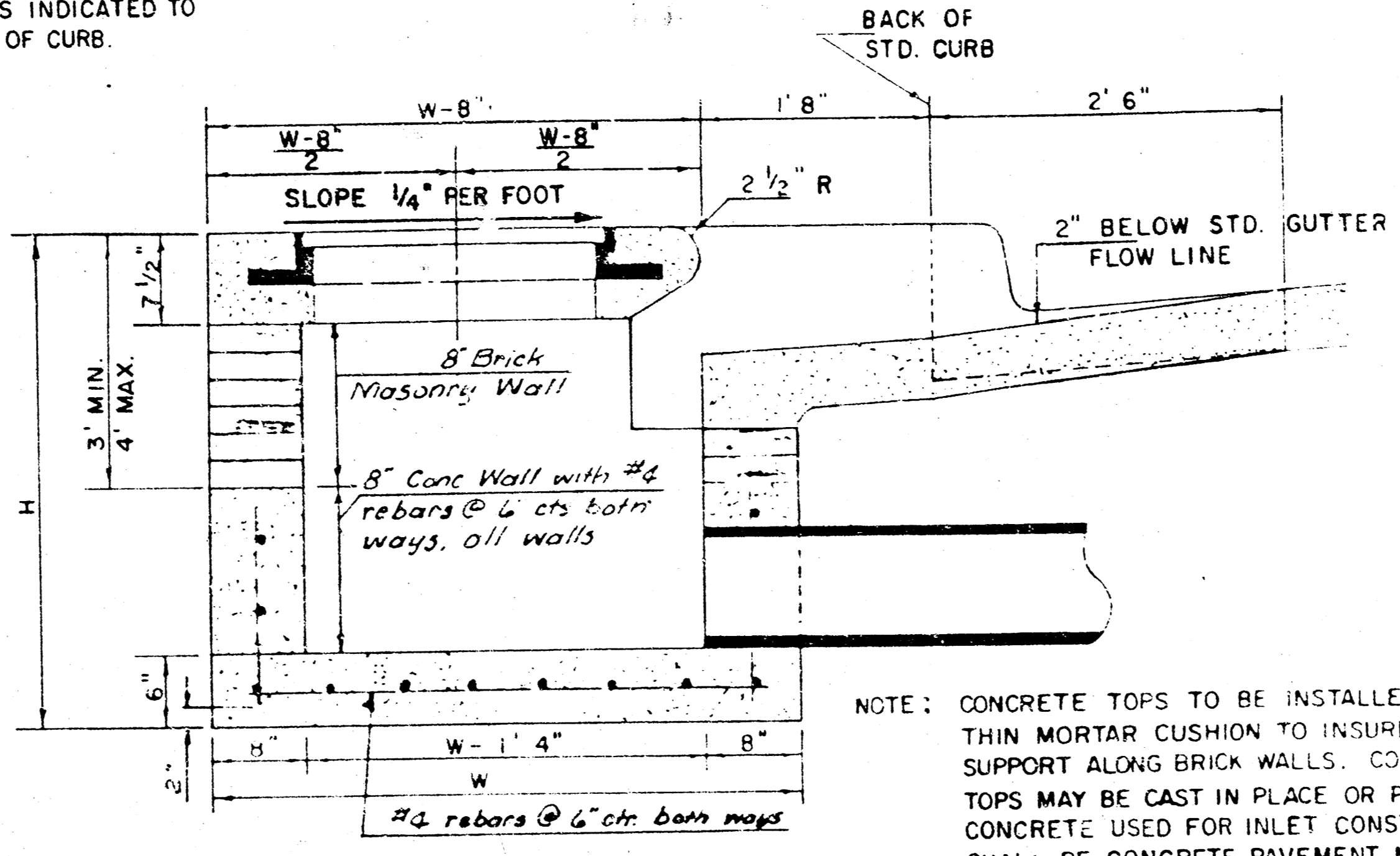




NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.

NOTE: b<sub>3</sub> bar to be field bent to clear manhole frame

TRANSITION CURB TO MATCH INSIDE OF INLET WALL THROUGH RADIUS

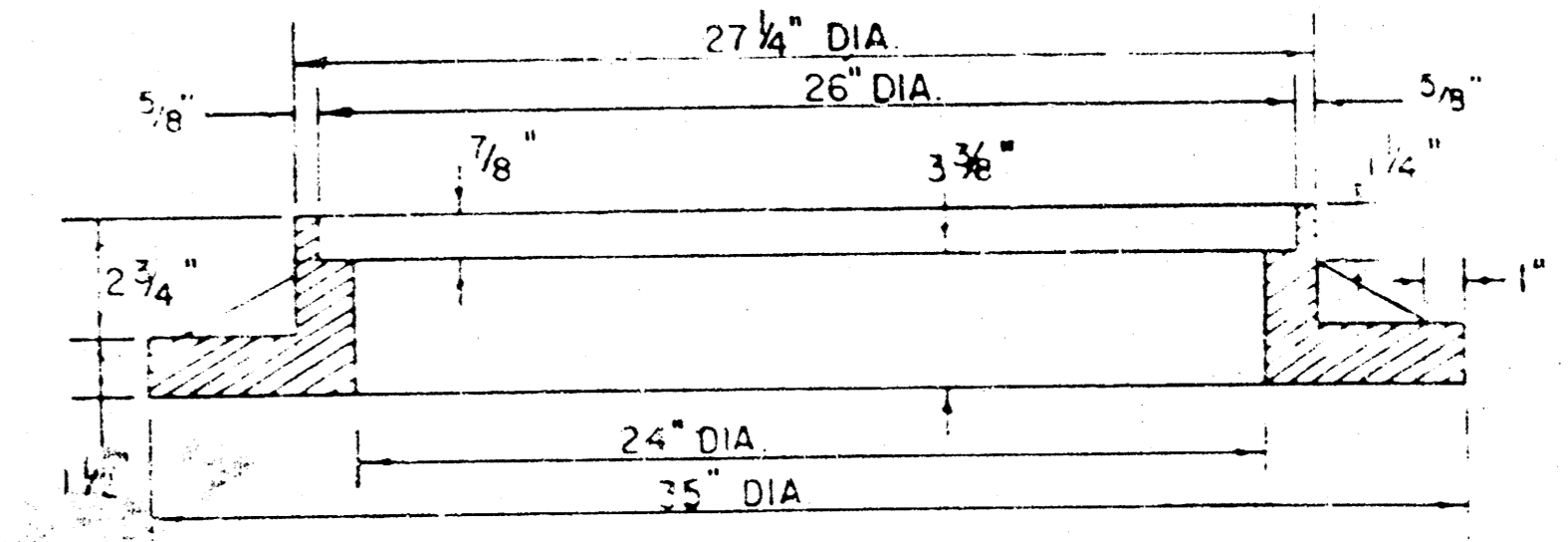
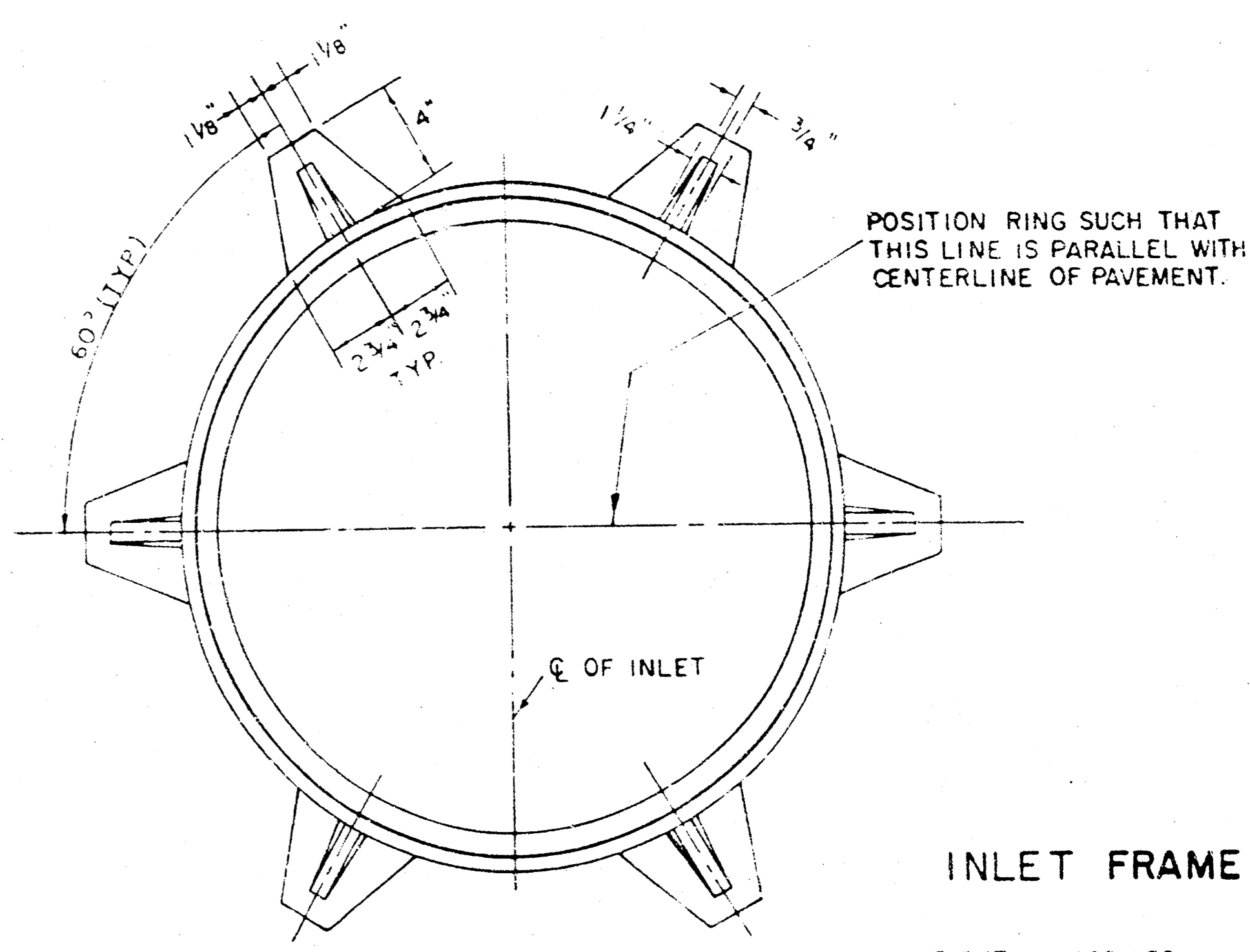


NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL BE CONCRETE PAVEMENT MIX.

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



SEE 801 OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE SET WITH INLET FRAME.

STEEL SCHEDULE

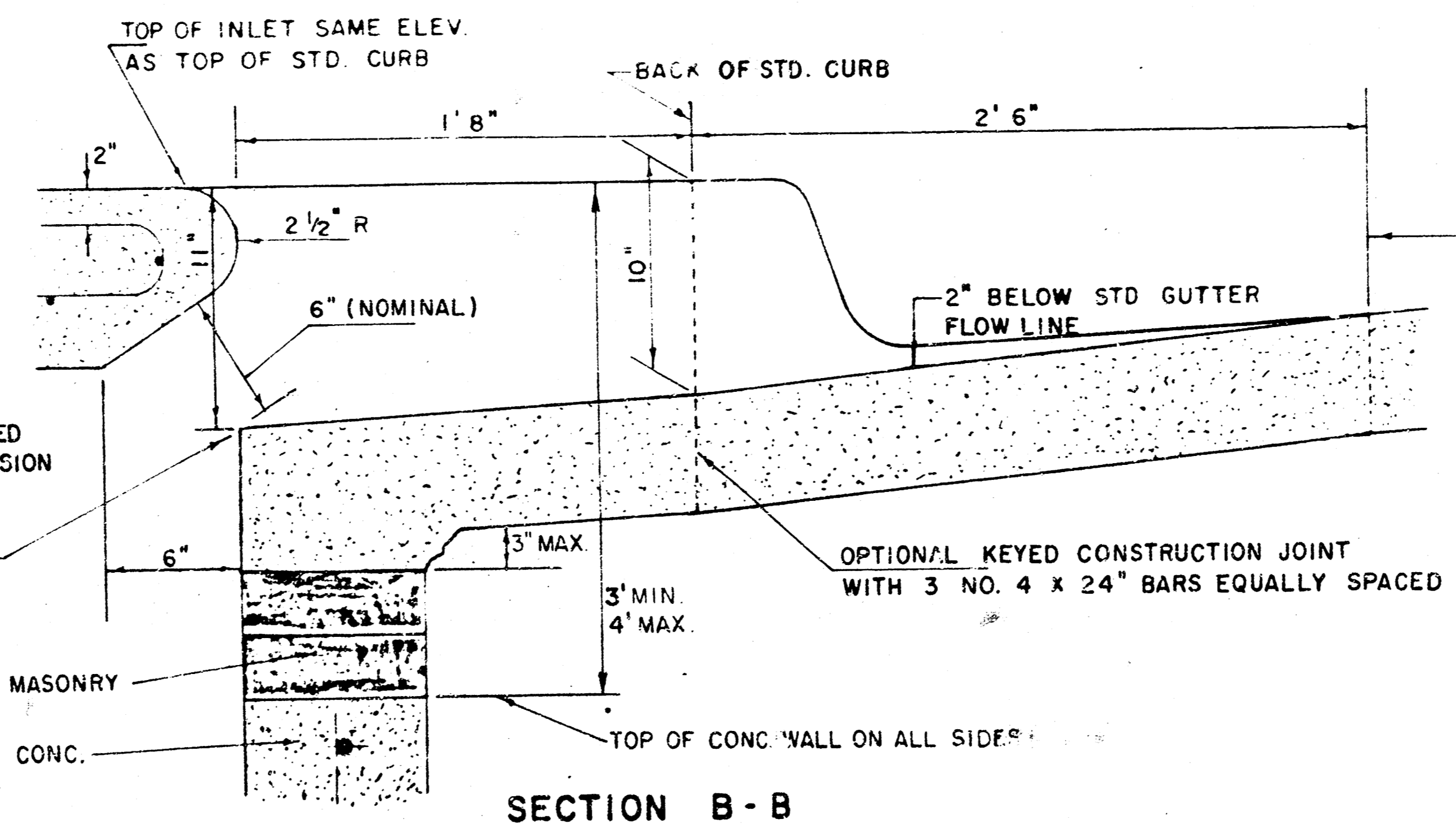
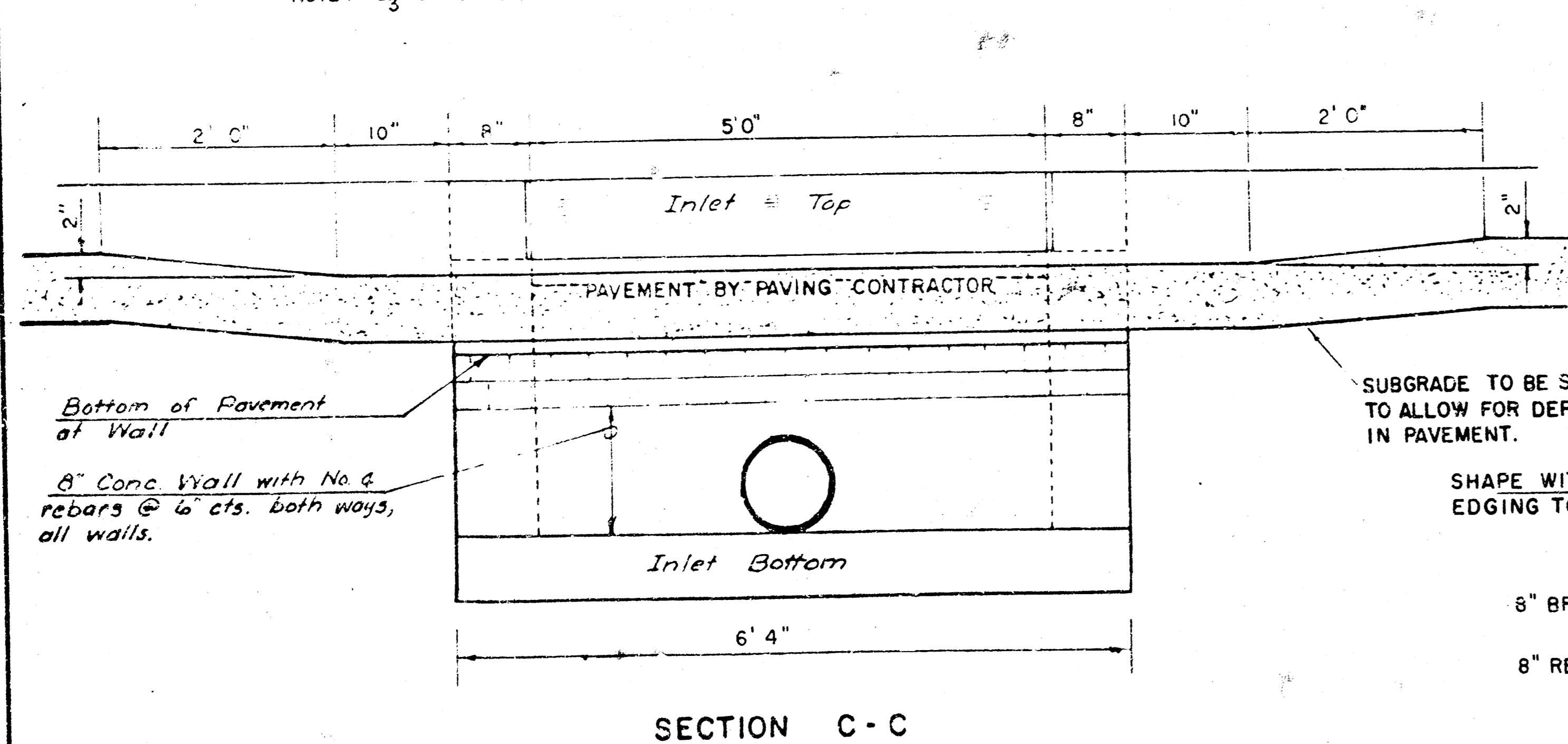
BAR	a <sub>1</sub>	a <sub>2</sub>	a <sub>3</sub>	b <sub>1</sub>	b <sub>2</sub>	b <sub>3</sub>	b <sub>4</sub>	WT LBS
NUMBER	4	4	2	1	3	5	7	
SIZE	#4	#4	#4	#4	#4	#4	#4	
W=4'4"	5'7"	6'7"	4'0"	6'1"	-	-	-	60±
W=5'4"	7'7"	8'7"	5'0"	6'1"	-	-	-	81±
W=6'4"	9'7"	10'7"	6'0"	6'1"	-	-	-	101±
W=7'4"	11'7"	12'7"	7'0"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

\* NOTE: c<sub>3</sub> 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' 6" x 6' 4" x 7 1/2"	21" & SMALLER	0.38 ±
5' 4"	4' 8" x 6' 4" x 7 1/2"	24" & 30"	0.51 ±
6' 4"	5' 8" x 6' 4" x 7 1/2"	36" & 42"	0.64 ±
7' 4"	6' 8" x 6' 4" x 7 1/2"	48" & 54"	0.77 ±
8' 4"	7' 8" x 6' 4" x 7 1/2"	60" & 66"	0.90 ±

BENDING DIAGRAM



LIMITS OF GUTTER SHAPING AND/OR EDGE OF COMB. CURB AND GUTTER

DETAIL STANDARD TYPE IA CURB INLET  
 CITY OF WICHITA, KANSAS  
 INLET OPENING = 6" x 5' 0"  
 Project no. 472-76-245-81193-000-000-001  
 JUNE 1984

# SEWER APPURTENANCES DETAILS

ADOPTED AS STANDARD DESIGN

BY

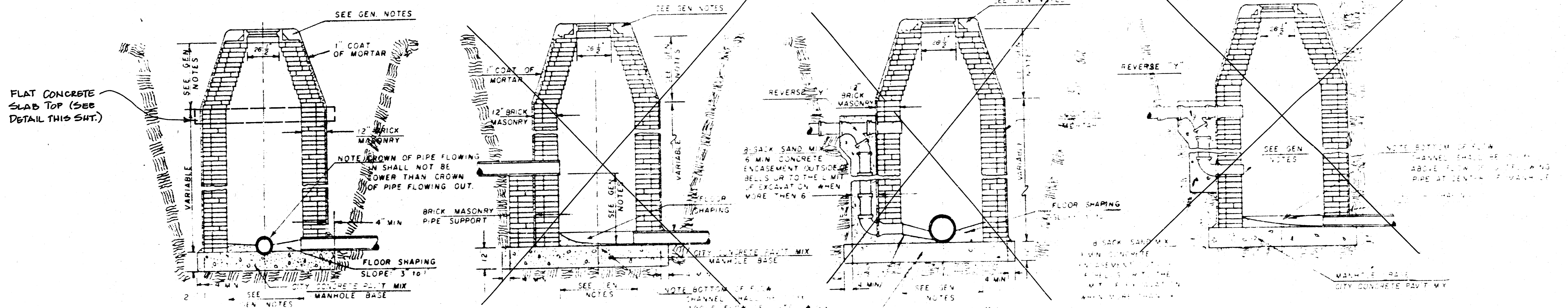
City of Wichita, Kansas

DETAIL OF OUTSIDE DROP  
CONSTRUCTED ON EXISTING M-HOLE

TYPE "B" MANHOLE

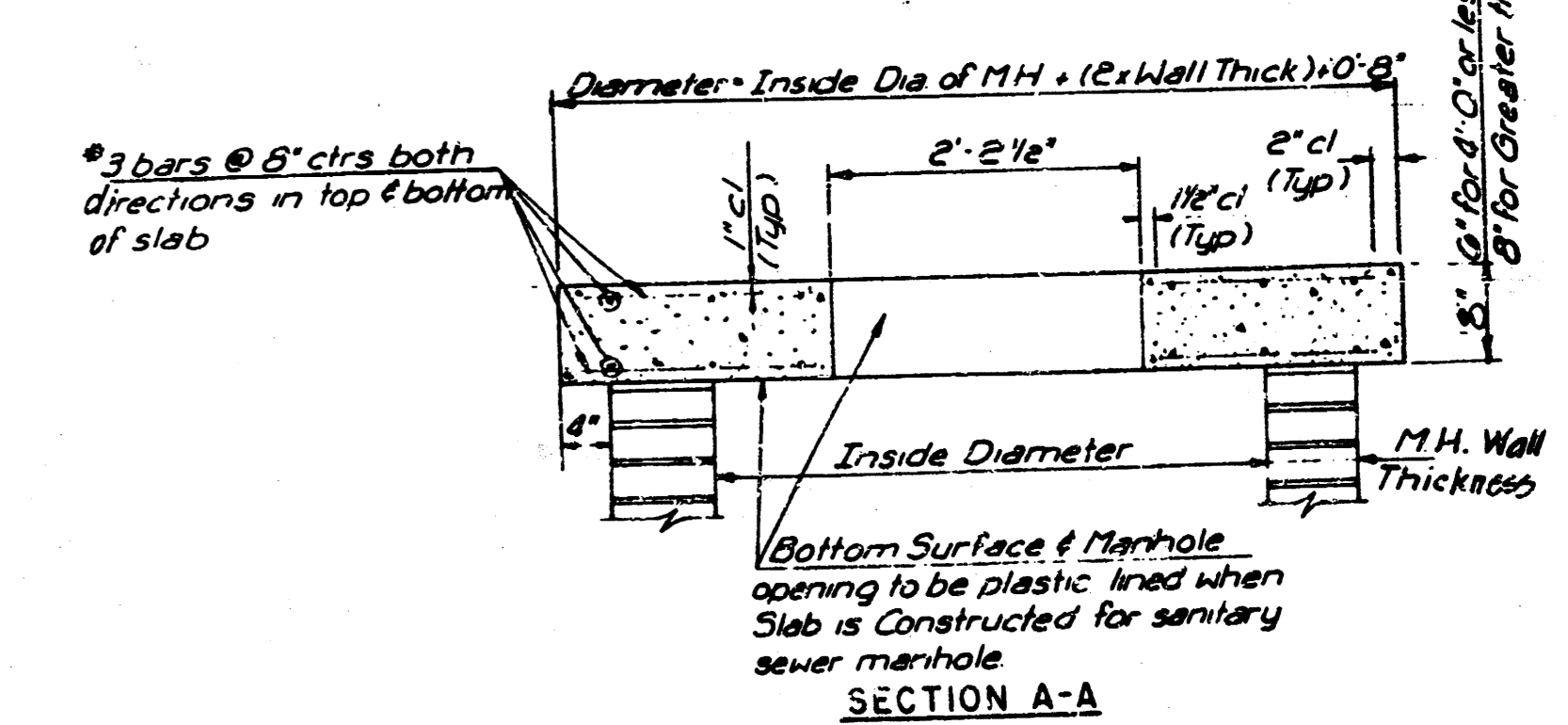
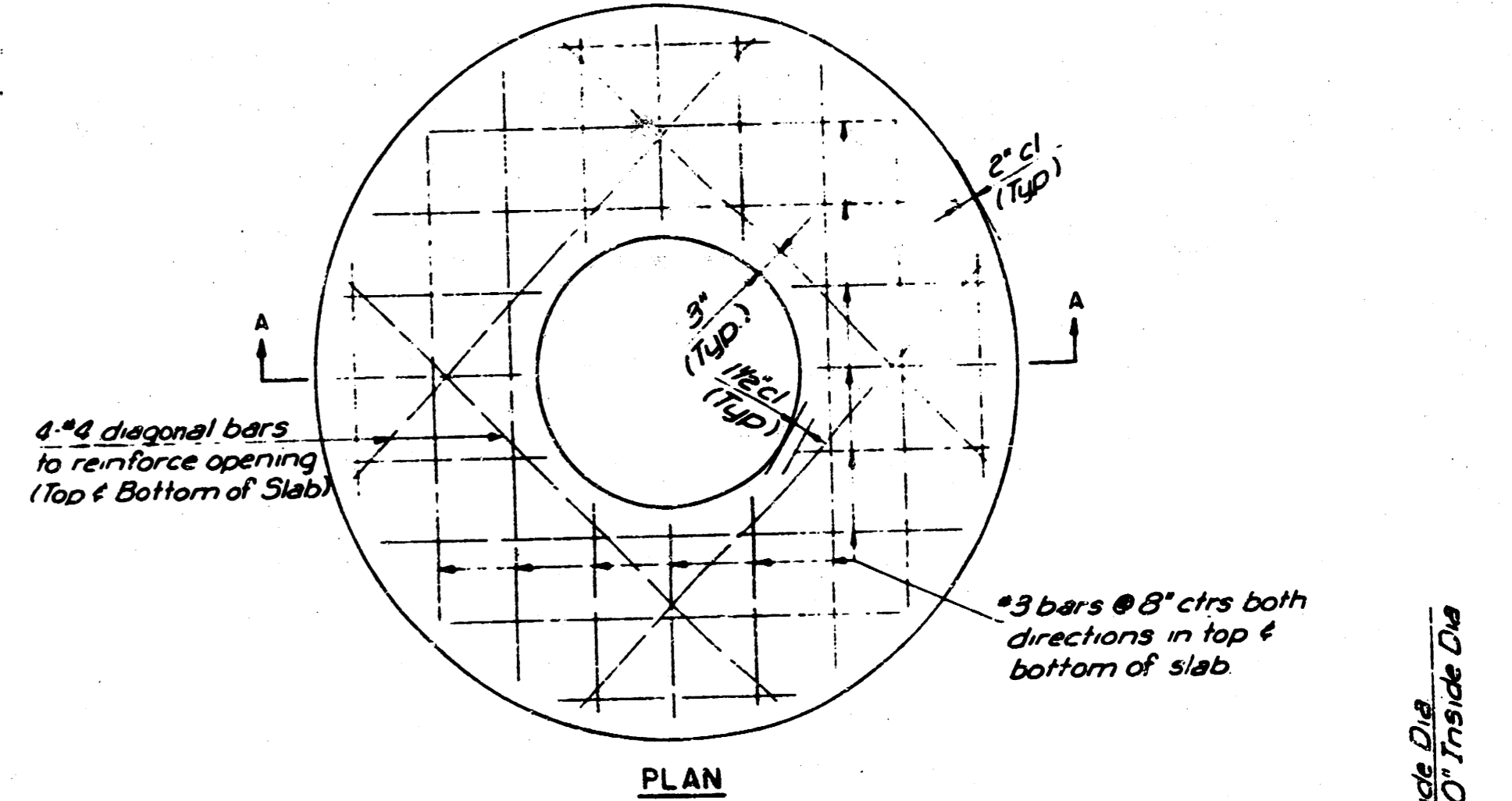
TYPE "B" INSIDE DROP MANHOLE

TYPE "B" OUTSIDE DROP MANHOLE

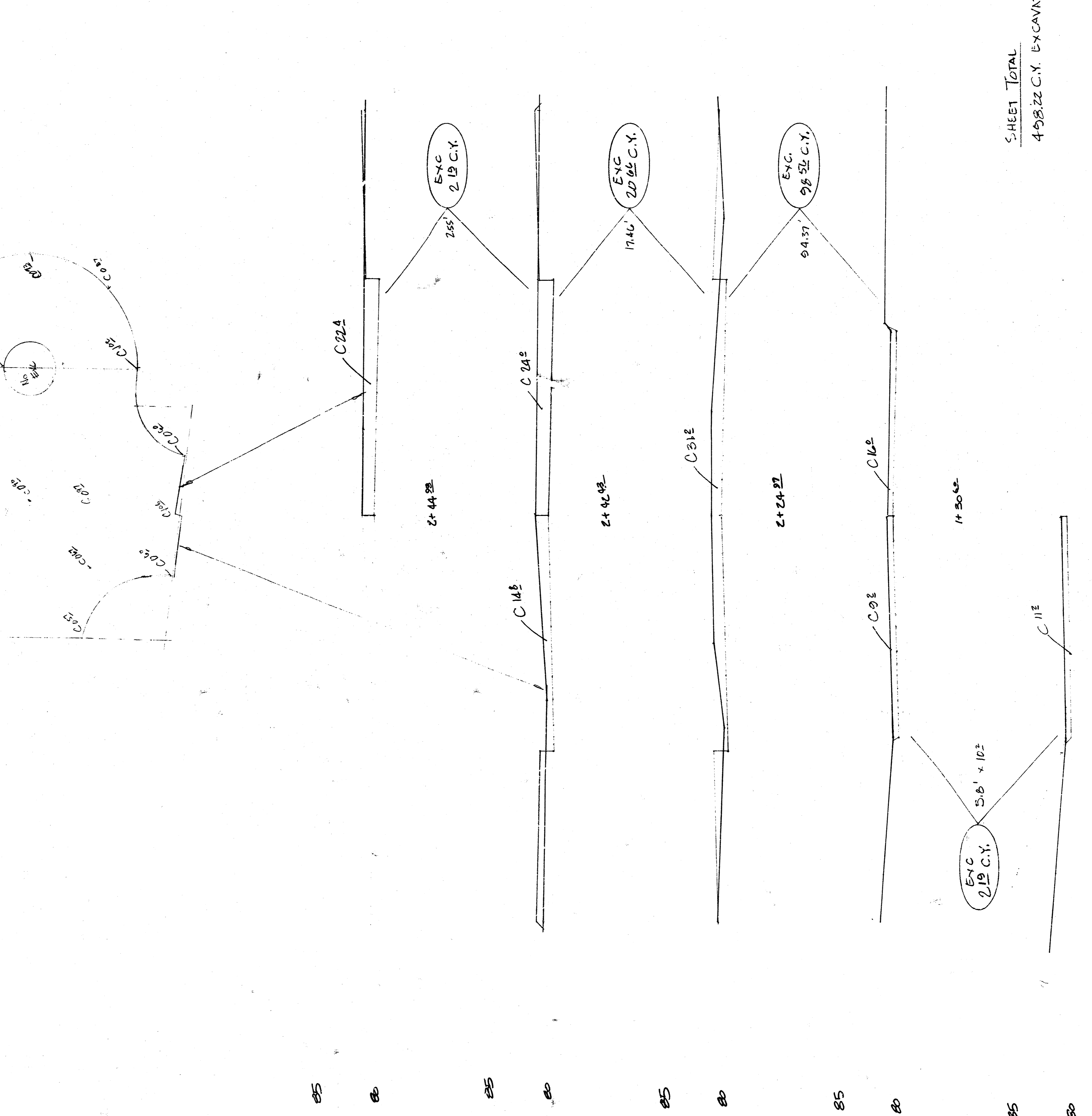
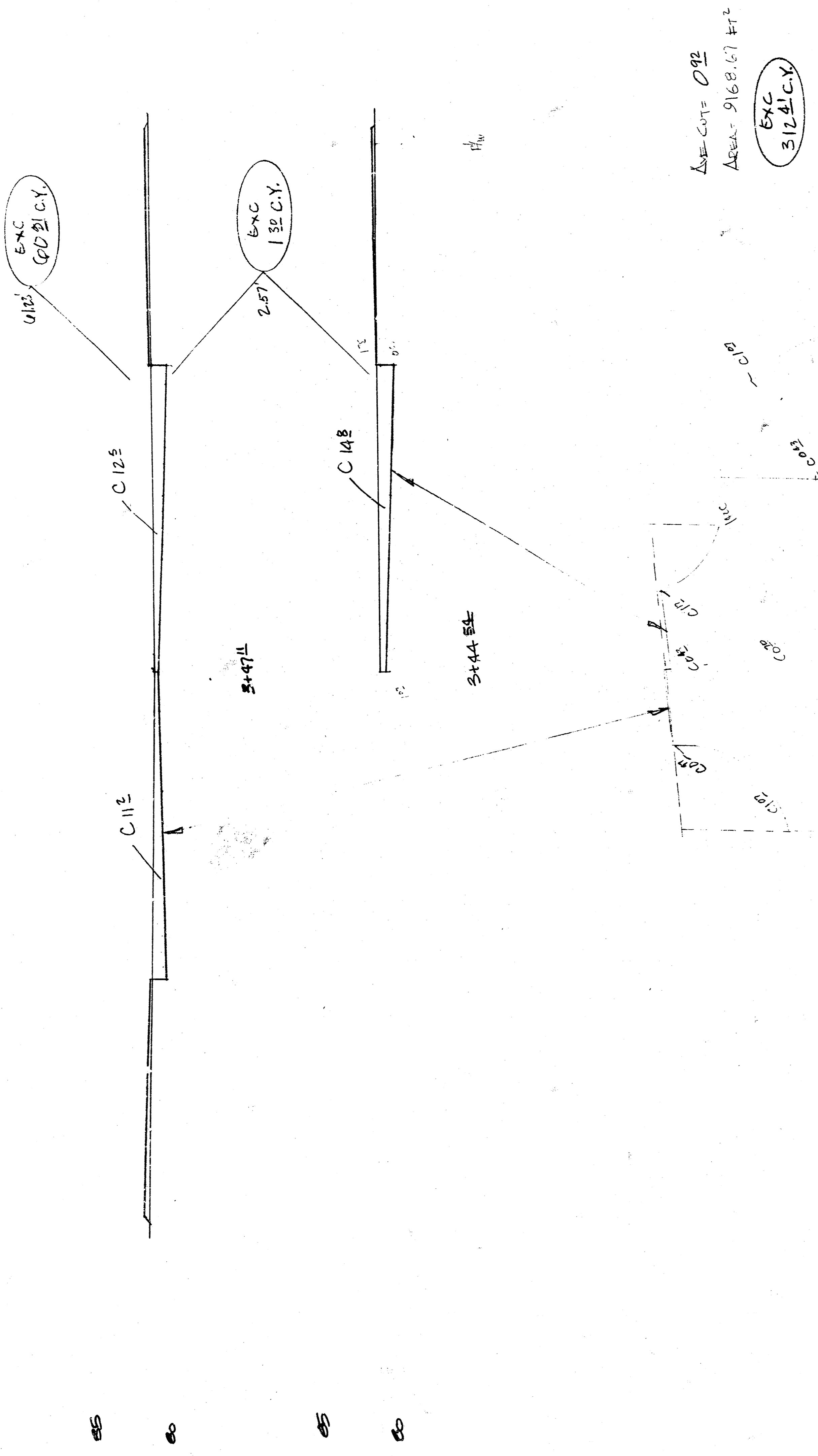


FLAT CONCRETE  
SLAB TOP (SEE  
DETAIL THIS SHEET)

- GENERAL NOTES
- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 3 BAGS OF GROUT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. WATER SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. TYPE "B" MANHOLES CAN BE USED ON AREAS HAVING DEPTHS GREATER THAN 10' OR WHEN THE MANHOLE IS LOCATED IN 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'. THE HEIGHT OF THE COULERS ON 4' DIAMETER MANHOLES SHALL BE 4". MANHOLES HAVING A DIAMETER OF 5' SHALL HAVE COULERS 6" IN HEIGHT. COMPLETED MANHOLE SHALL BE WEATHER TIGHT.
  - 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 4" 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.
  - OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS MUST INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLATION AND SHOOTING THE NEW PIPE IN PLACE. WATERSTOP WAGERS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GRADED TO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS JOINTING FROM THE BOTTOM OF THE FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED ON THE DRAWINGS. THE VERTICAL DROP FROM THE LOWER PIPE ON SUCH OUTSIDE DROP CONNECTIONS SHALL NOT EXCEED 4" FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 6" FOR INFLOWING PIPES SIZED LARGER THAN 12". EXCEPT THE SLOPE OF THE LOWER PIPE SHALL NEVER BE SET BELOW THE SLOPE OF ANY LARGER INFLOWING PIPE. THIS WORK, INCLUDING MODIFICATION OF MANHOLE BARS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP WHEN CONSTRUCTED ON EXISTING MANHOLE.
  - THE FRAMES OF ALL MANHOLES SHALL BE STAMPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF-CLEANING AND FREE OF AREAS WHERE DEBRIS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM THE INFLOW PIPES TO THE OUTFLOW PIPES. FLOW CHANNELS SHALL BE FORMED IN THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPES AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWINGS. MANHOLE FRAMES SHALL HAVE SLOPES OF 1/8 INCH PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LARGER THAN 24" SHALL HAVE THE TOP HALF REINFORCED WITH 4" BARS FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FRAMES SHALL THEN BE GRADED AROUND THE BOTTOM HALF OF THE PIPE AND BE FREE OF AREAS WHERE DEBRIS COULD BE DEPOSITED.
  - PIPES INSTALLED ABOVE THE EXCAVATION SHALL BE GRADED TO THE MANHOLE EXCAVATION. WHEN PIPES ARE INSTALLED BELOW THE EXCAVATION, THE PIPES SHALL BE GRADED TO THE MANHOLE EXCAVATION. THE MANHOLE SHALL BE GRADED TO THE EXCAVATION. IN A MANHOLE WHERE THE EXCAVATION IS DEEPER THAN 10' THE PIPES SHALL BE GRADED TO THE EXCAVATION. THE PIPES SHALL BE GRADED TO THE EXCAVATION.
  - MANHOLE DROPS SHALL BE GRADED TO THE EXCAVATION. THE PIPES SHALL BE GRADED TO THE EXCAVATION. THE PIPES SHALL BE GRADED TO THE EXCAVATION.
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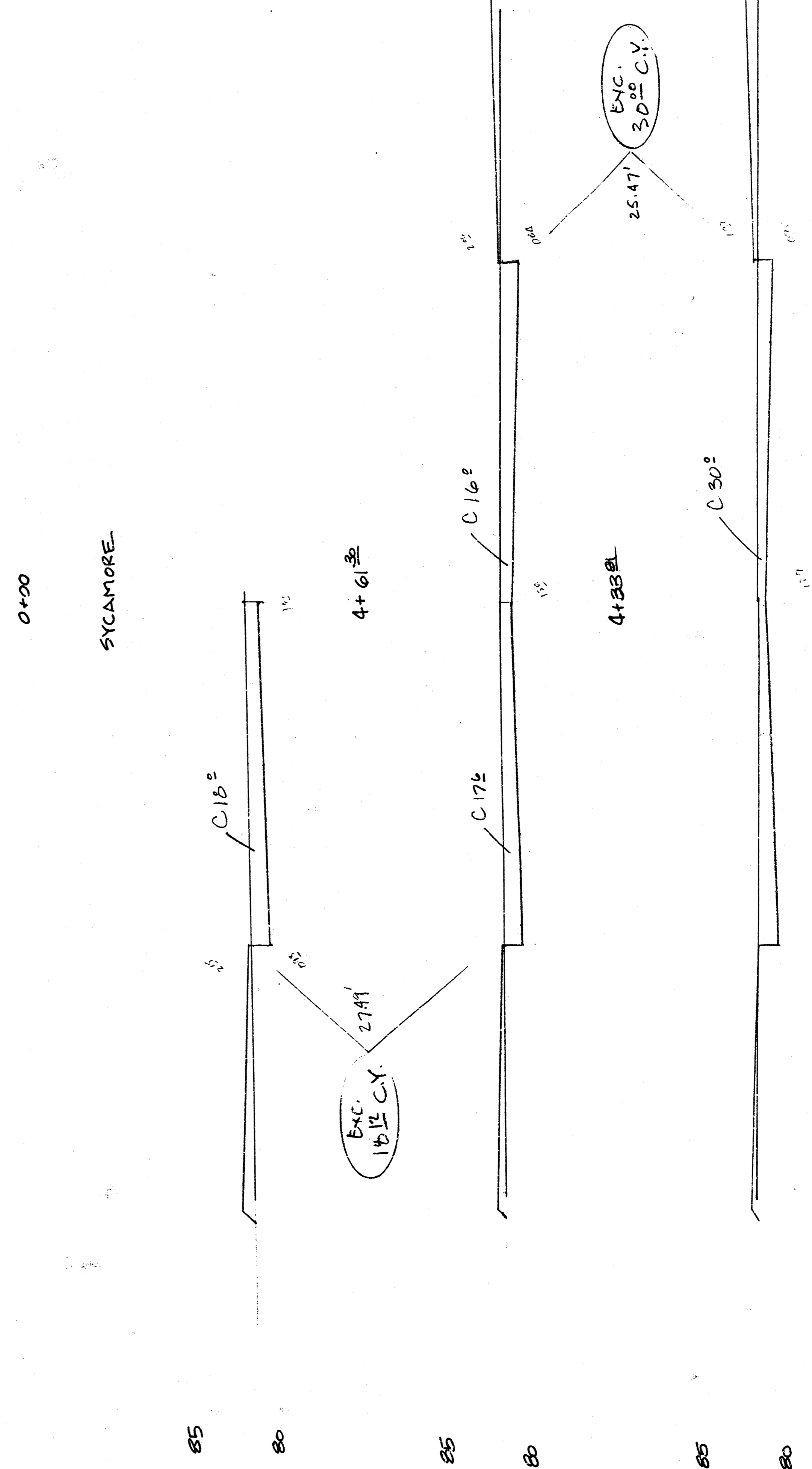
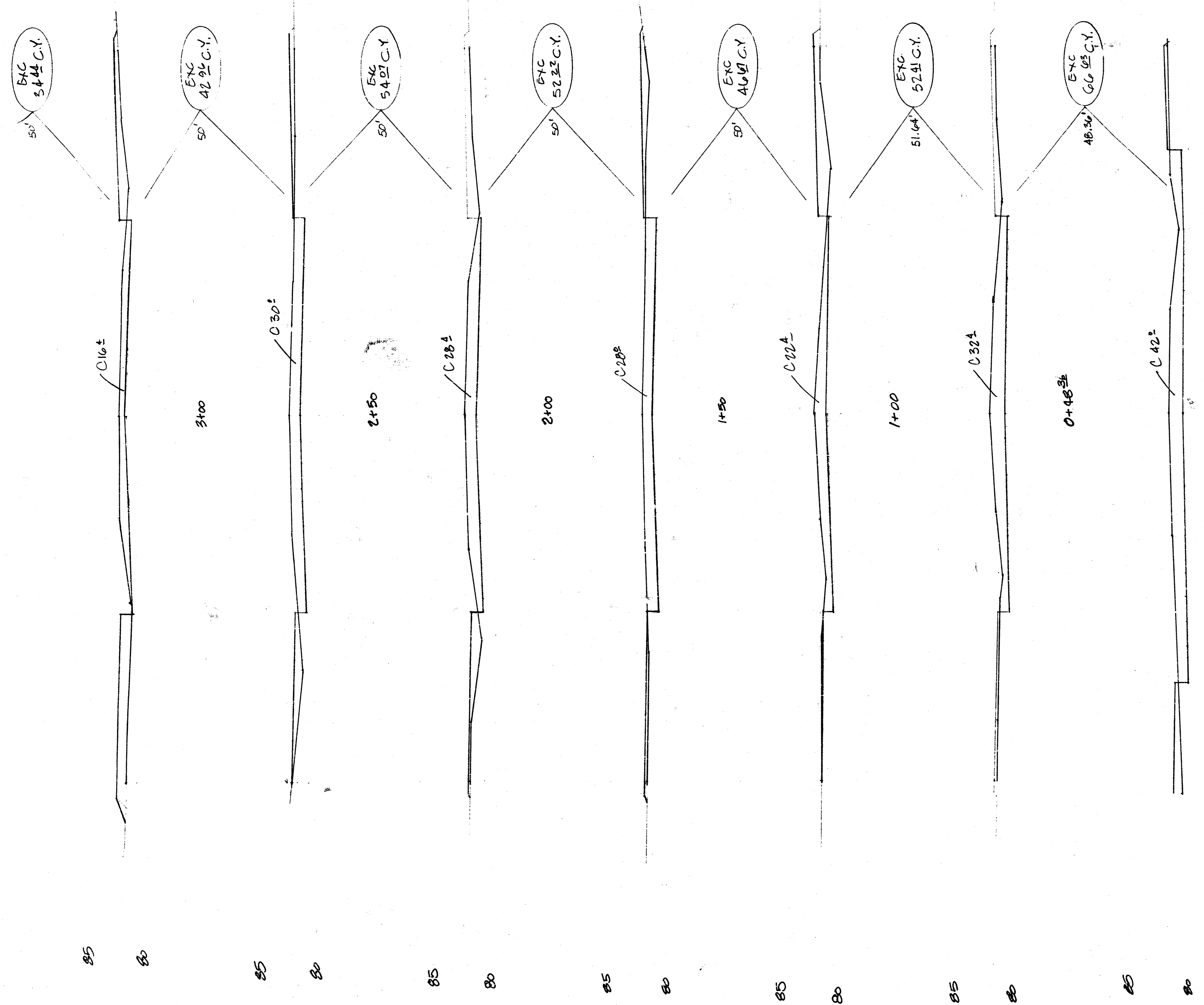


FLAT CONCRETE SLAB DETAILS



SHEET TOTAL  
 458.22 C.Y. EXCAVATION

50 60 70 80 90 100 110 120 130



SHEET TOTAL  
397.49 C.Y. EXCAVATION

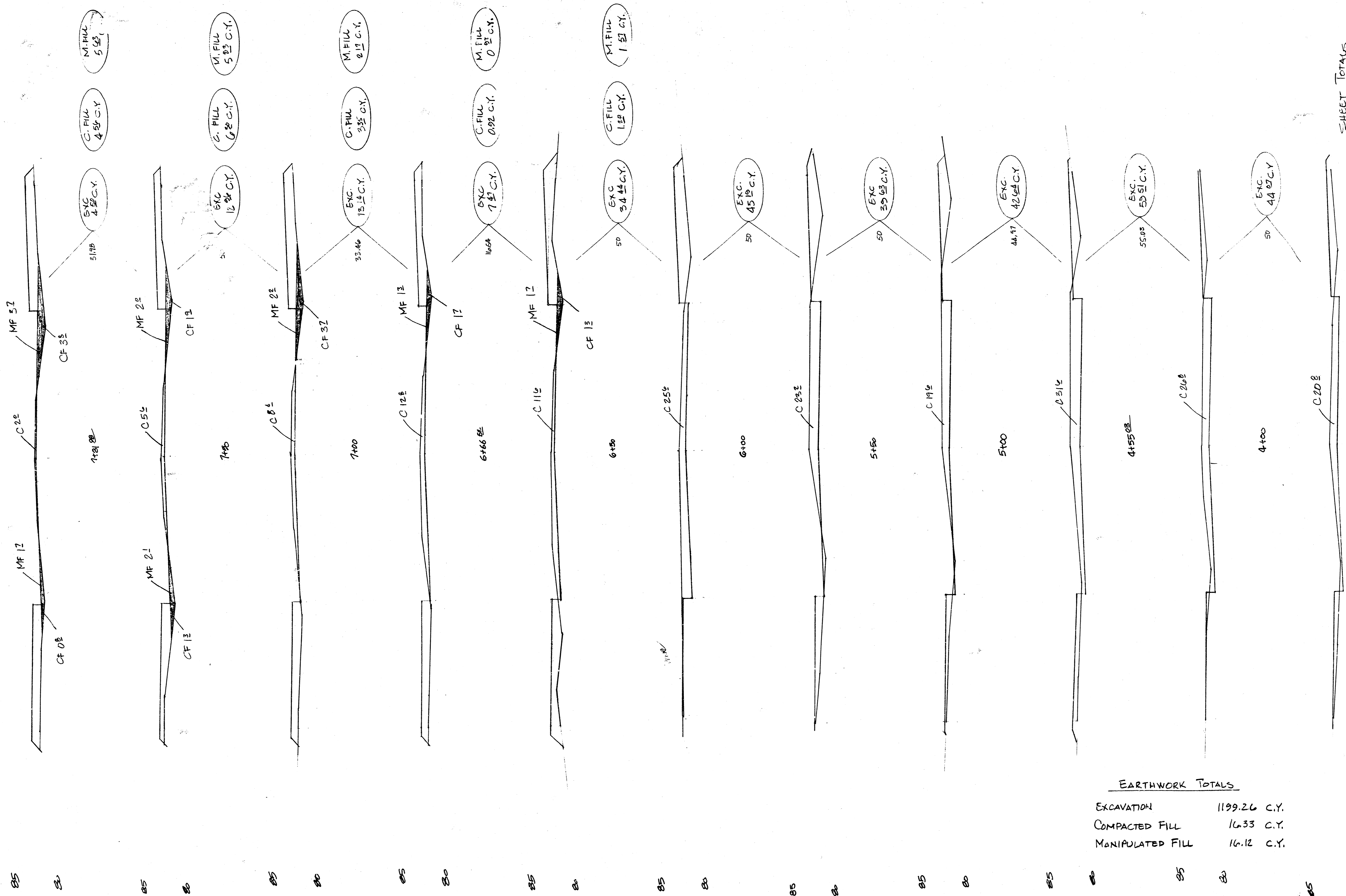
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**EARTHWORK SECTIONS**

**GOLD & SYCAMORE**

Proj # 472-78-245-81193-000-000-001

13/14  
14/14



**EARTHWORK TOTALS**

EXCAVATION	1199.26 C.Y.
COMPACTED FILL	16.33 C.Y.
MANIPULATED FILL	16.12 C.Y.

**SHEET TOTALS**

303.55 C.Y. EXCAVATION  
 16.33 C.Y. COMP. FILL  
 16.12 C.Y. MANIP. FILL

30 20 10 0 10 20 30

14/12/14