

SHEET NO.	TOTAL SHEETS
1	7

TUNIS LANE

FROM THE NORTH LINE OF HARVEST LANE TO THE SOUTH LINE OF 17TH STREET NORTH

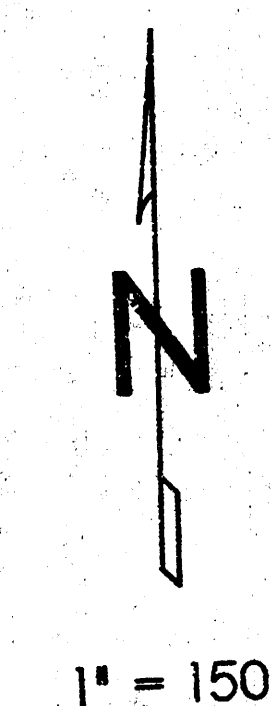
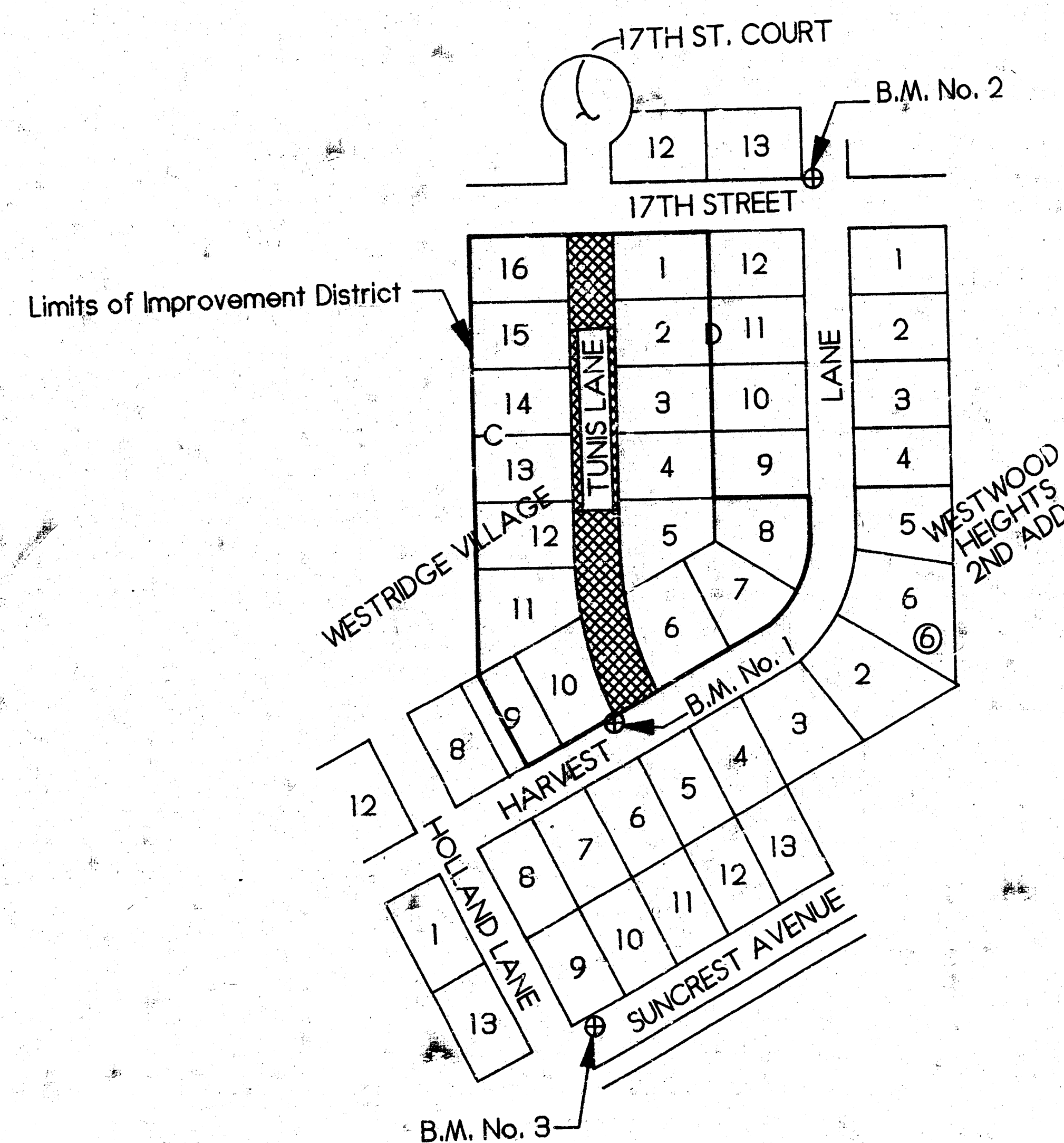
PROJECT NO. 472-76-245-82C39-000-000-001

INDEX NO. 760504

THE CITY OF WICHITA, KANSAS
M. E. LINDEBAK
CITY ENGINEER

NOTES

- Utility service lines, poles, valve boxes, meters, and etcetera are to be adjusted as necessary by others prior to construction unless the plans specifically call for adjustment by the contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. 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 joint 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 miscellaneous structures and excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps. of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.
- 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.
- Contractor shall give property owners abutting this project, whose yards will be lower than the new finished grade elevations at the right-of-way line, an opportunity to utilize excess excavated material from the project to regrade their yards to drain to the new pavement. Contractor will be required to dump and spread the excess material as required by the specifications when requested by the property owner. The Contractor shall ascertain that a dirt order form has been properly executed by the property owner before any such excess material is delivered to such properties.
- 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.
- The Contractor shall give all property owners and/or tenants of developed property abutting the project limits a minimum of ten (10) days advance notice prior to start of construction.
- No more than 0 drives 10' feet in width, or equivalent combinations thereof, are to be constructed with this project. (Property owners requested "no drives" 9-15-90.)
- Limits of earthwork shall match existing ground elevations at the right-of-way line unless otherwise noted on the plans.



Benchmarks

- B.M. No. 1 - on West Curb Return North Side of Harvest and Tunis. Elev. = 156.78
- B.M. No. 2 - on Top West Curb Emerson North Side 17th. Elev. = 154.76
- B.M. No. 3 - on East End Curb Return North Side Suncrest at Holland Lane. Elev. = 155.94

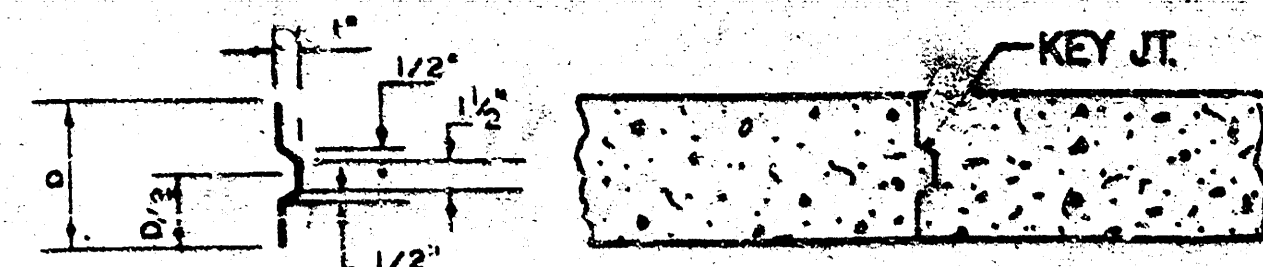
INDEX

Sheet No.	Description
1.	Title Sheet
2.	Standard Drive Entrances
3.	Pavement Standards
4.	Tunis Lane Plan
5.	Standard Type I-A Curb Inlet
6. - 7.	Cross Sections

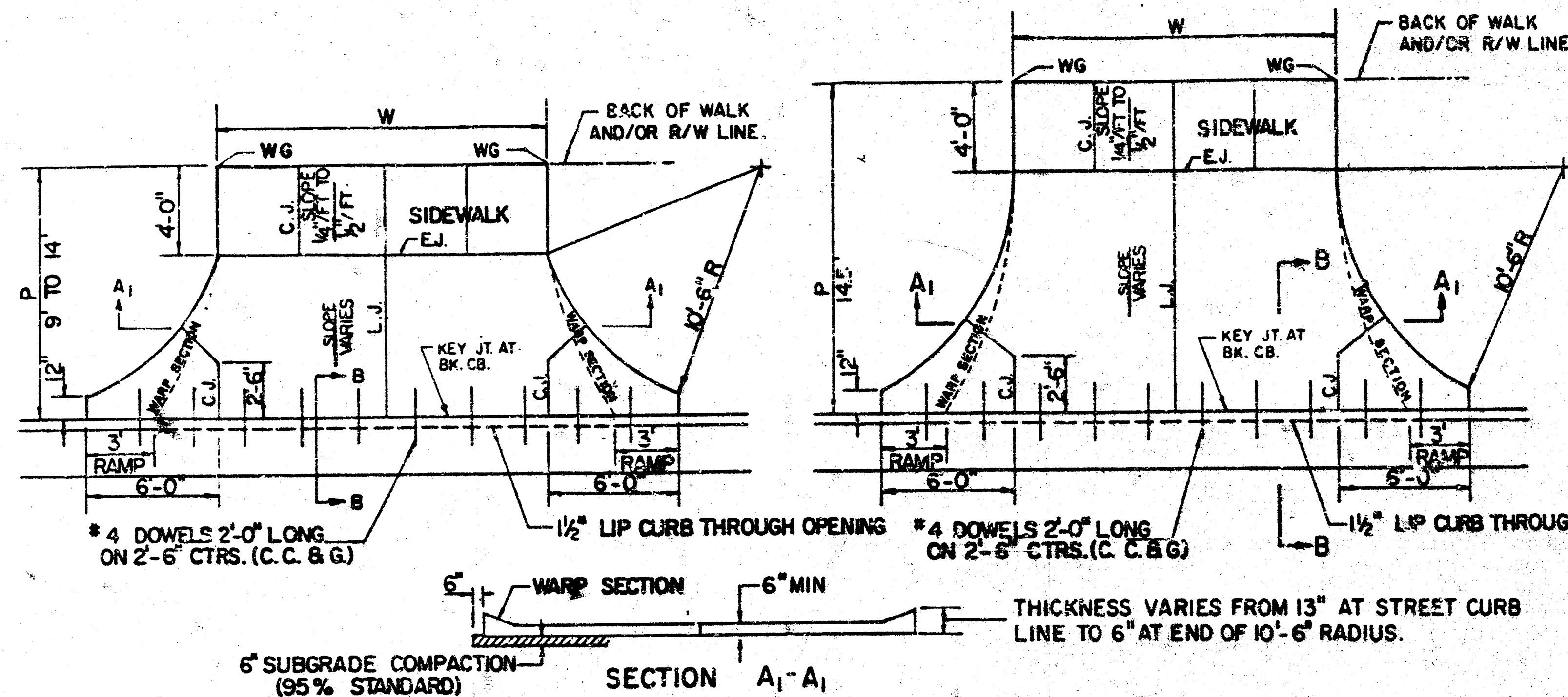


MID CONTINENT ENGINEERS	SALINA WICHITA KANSAS	DESIGNED <i>MLM</i>	SCALE
		DATE	
QUANTITIES		SHEET 1 OF 7	

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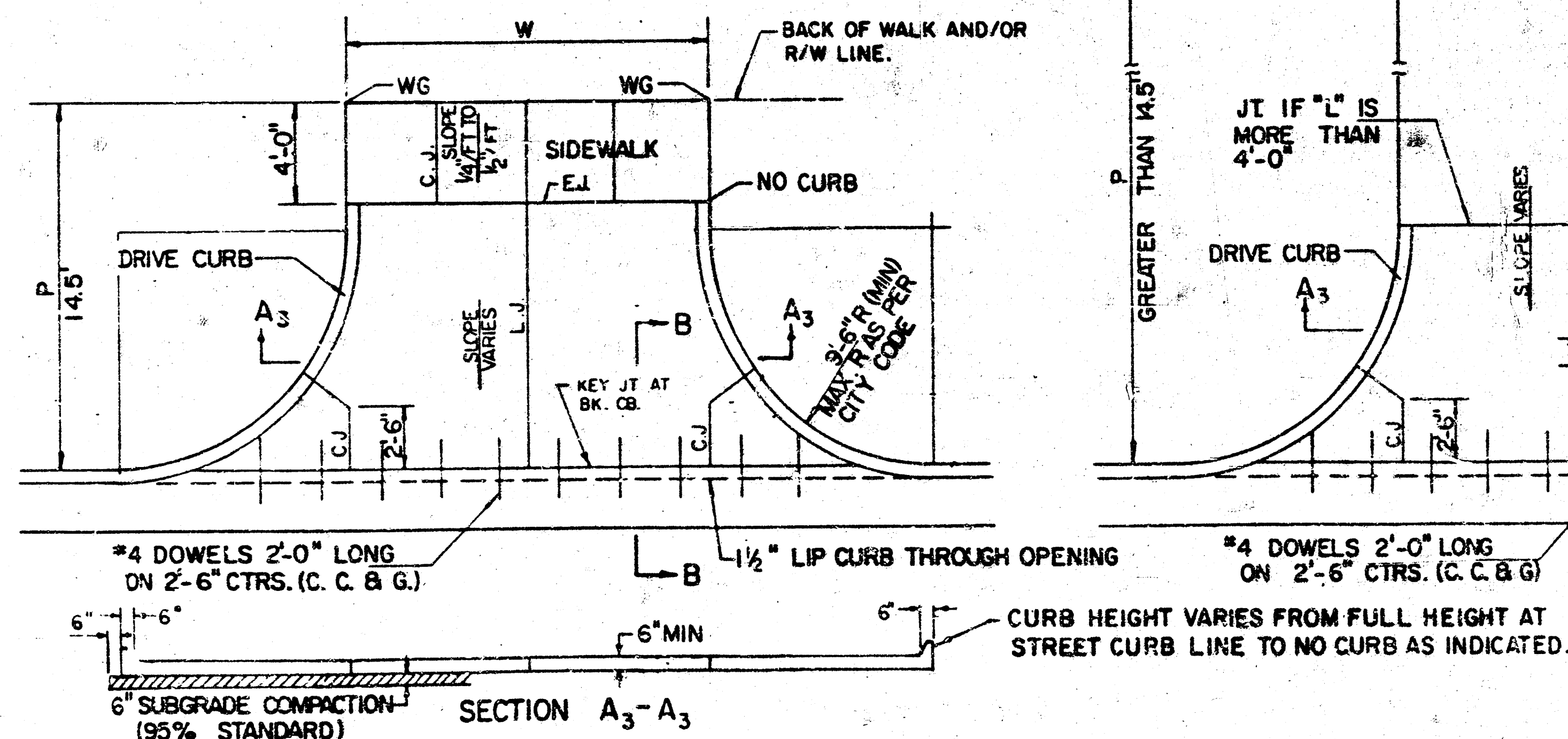


ALT. LONGITUDINAL CONSTRUCTION JOINT



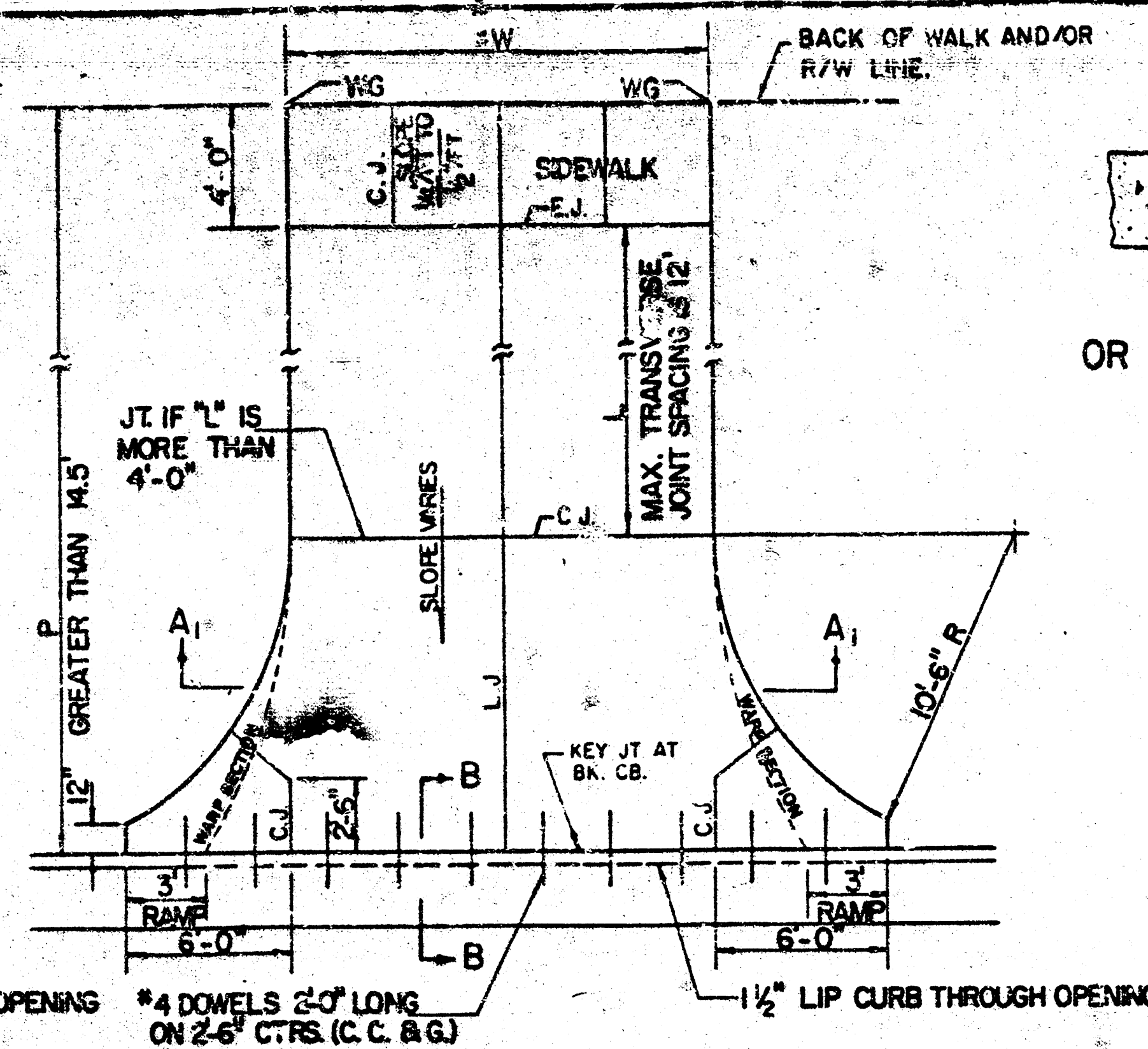
PARKING WIDTH "P"	9'	10'	11'	12'	13'	14.5'	20'	25'	30'	35'	40'	45'	50'
ABSOLUTE MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.35'	0.35'	0.40'	0.45'	0.60'	0.80'	1.35'	1.85'	2.35'	2.85'	3.35'	3.85'	4.35'
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.35'	0.35'	0.40'	0.45'	0.60'	0.70'	1.04'	1.30'	1.56'	1.82'	2.08'	2.34'	2.60'
OPTIMUM MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.19'	0.21'	0.23'	0.25'	0.27'	0.30'	0.42'	0.52'	0.62'	0.72'	0.82'	0.92'	1.02'
ABSOLUTE MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	-0.19'	-0.16'	-0.13'	-0.10'	-0.06'	0.00'	0.03'	0.15'	0.25'	0.35'	0.45'	0.55'	0.65'

RADIUS RAMP DRIVES (P = 9.0' & GREATER)



PARKING WIDTH "P"	14.5'	20'	25'	30'	35'	40'	45'	50'
ABSOLUTE MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.80'	1.35'	1.85'	2.35'	2.85'	3.35'	3.85'	4.35'
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.70'	1.04'	1.30'	1.56'	1.82'	2.08'	2.34'	2.60'
OPTIMUM MIN. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.00'	0.04'	0.52'	0.62'	0.72'	0.82'	0.92'	1.02'
ABSOLUTE MIN. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.00'	0.00'	0.15'	0.25'	0.35'	0.45'	0.55'	0.65'

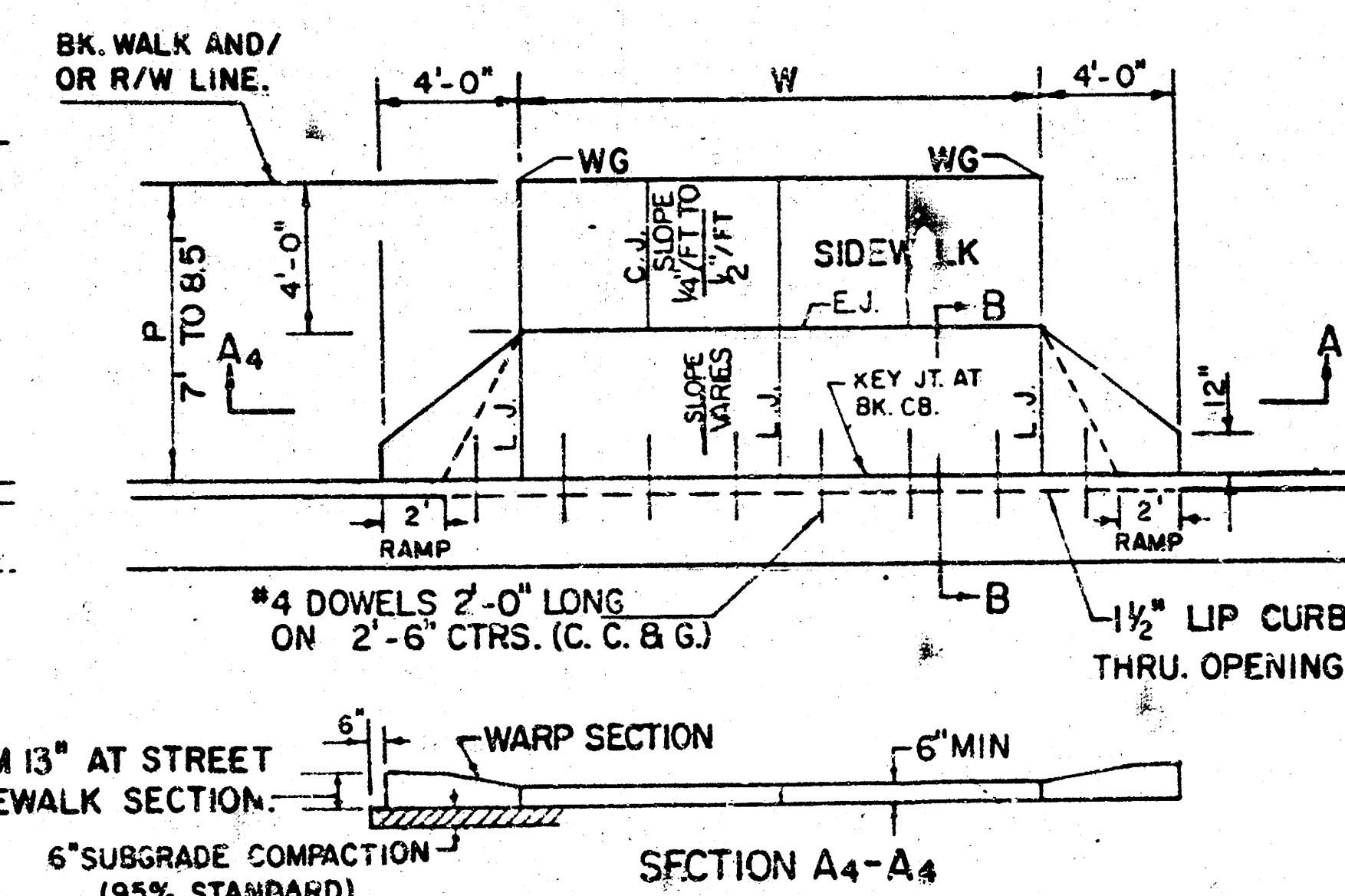
FULL RADIUS DRIVES (P = 14.5' & GREATER)



PARKING WIDTH "P"	4'	4.5'	5'	5.5'	6'	6.5'
DIST. OF PT. "T" ABOVE TOP OF FULL CB.	0.08'	0.09'	0.10'	0.12'	0.13'	0.14'
DIST. OF PT. "2" BELOW TOP OF FULL CB.	-0.26'	-0.24'	-0.22'	-0.20'	-0.18'	-0.16'

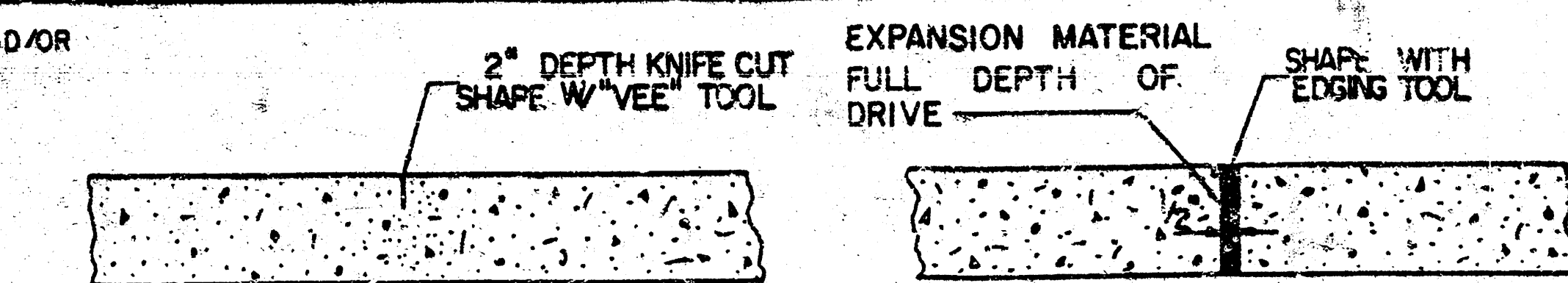
FULL RAMP DRIVE (P = 4.0' TO 6.5')

BACK OF CURB DETAIL SECTION B-B (no scale)



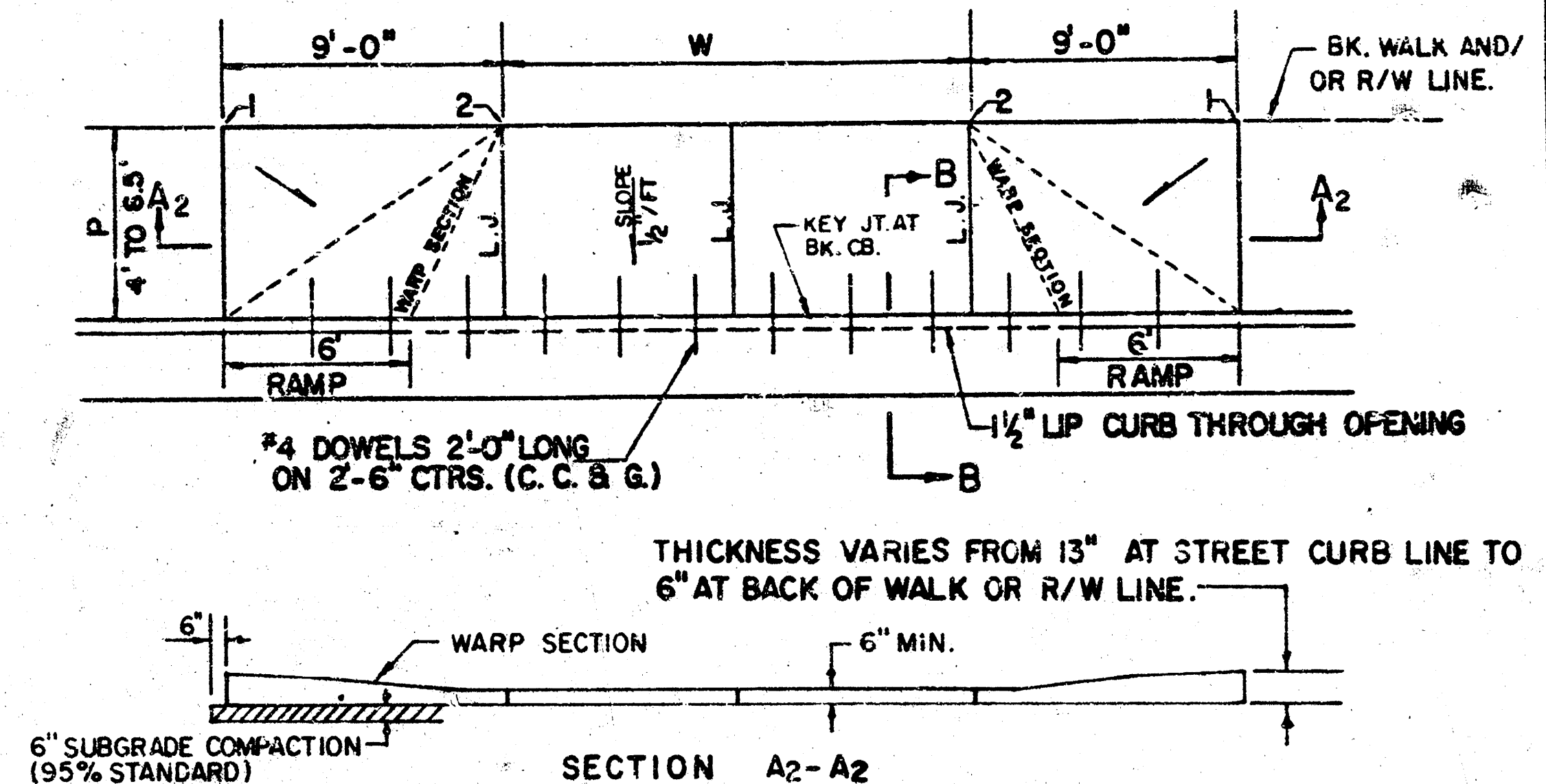
PARKING WIDTH "P"	7'	7.5'	8'	8.5'
ABSOLUTE MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.00'	0.10'	0.20'	0.30'
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.00'	0.10'	0.20'	0.30'
OPTIMUM MIN. DIST. OF PT. "WG" BELOW TOP OF FULL CB.	-0.15'	-0.16'	-0.17'	-0.17'
ABSOLUTE MAX. DIST. OF PT. "WG" BELOW TOP OF FULL CB.	-0.25'	-0.20'	-0.20'	-0.20'

FULL RAMP DRIVE (P = 7.0' TO 8.5')



CONTRACTION JOINT (C.J.) OR LONGITUDINAL JOINT (L.J.) NO SAWN JOINTS WILL BE ALLOWED.

EXPANSION JOINT (E.J.)



GENERAL NOTES

1. DRIVEWAY CONSTRUCTION DETAILED ON THIS SHEET IS FOR USE WITH FULL HEIGHT STREET CURBS AND IN AREAS WITHOUT FULL WALK CONSTRUCTION IN THE PARKING. SEE OTHER DETAIL SHEETS FOR DRIVEWAY CONSTRUCTION WITH ROLL CURB AND/OR FULL WALK.
2. ONE LONGITUDINAL JOINT SHALL BE CONSTRUCTED ALONG THE CENTERLINE OF DRIVES HAVING A "W" DIMENSION OF 24' OR LESS. TWO LONGITUDINAL JOINTS SHALL BE CONSTRUCTED WITH EQUAL SPACINGS NOT TO EXCEED 10' FOR DRIVES WITH A "W" DIMENSION GREATER THAN 24'.
3. DRIVEWAY WIDTH DENOTED AS "W" ON THE DETAIL DRAWINGS SHALL BE A MINIMUM OF 10' AND A MAXIMUM OF 30'. THE MAXIMUM OPENING FOR RADIUS TYPE DRIVES WITH CURB THROUGH THE RADIUS SHALL NOT EXCEED 32' AT THE STREET CURB LINE.
4. CONTRACTION JOINT SPACING IN THE DRIVEWAY WALK SECTION SHALL BE A MINIMUM OF 3' AND A MAXIMUM OF 6' AND ARE TO BE EQUALLY SPACED WITHIN THIS RANGE. WALK SECTION SHALL BE CONSTRUCTED TO THE SAME THICKNESS AS THE DRIVEWAY.
5. DOWEL BARS SHALL BE OMITTED FROM THE KEYED CONSTRUCTION JOINT ALONG THE BACK OF THE STREET CURB LINE WHEN DRIVEWAYS ARE CONSTRUCTED IN CONJUNCTION WITH NEW CONCRETE PAVEMENT CONSTRUCTION.
6. ADDITIONAL THICKNESS OF DRIVE AS INDICATED IN THE DRAWINGS WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE DRIVEWAY CONSTRUCTION.
7. ONE HALF INCH EXPANSION JOINTS SHALL BE INSTALLED WHEREVER DRIVE CONSTRUCTION ABUTS SIDEWALK. ONE HALF INCH EXPANSION JOINTS SHALL ALSO BE INSTALLED ALONG THE PROPERTY LINE AND/OR BACK OF WALK LINE WHEN DRIVE CONSTRUCTION ALONG THIS LINE ABUTS CONCRETE PARKING LOTS OR CONCRETE DRIVE EXTENSION.
8. ALL DRIVEWAYS SHALL BE A MINIMUM OF 6" IN THICKNESS AND SHALL BE WITHOUT REINFORCEMENT. DRIVEWAYS MAY BE CONSTRUCTED THICKER THAN 6" AND THEY MAY BE REINFORCED WITH 6"x12" W4-W6 HELD WIRE FABRIC WHEN PROPERLY AUTHORIZED BY THE PROPERTY OWNER WITH THE ENGINEER'S CONCURRENT.
9. OPTIMUM DRIVEWAY ELEVATIONS SHOWN IN THE TABLES ARE TO BE USED, WHEREVER POSSIBLE. ABSOLUTE MAXIMUM AND MINIMUM ELEVATIONS ARE TO BE USED ONLY WHEN THESE VALUES WILL PERMIT NEW CONSTRUCTION TO MATCH EXISTING DRIVES OR PARKING LOTS. VALUES SHOWN IN THE TABLES ARE BASED ON A FULL CURB HEIGHT ELEVATION OF 0.55' ABOVE THE GUTTER FLOW LINE AND MUST BE ADJUSTED ACCORDINGLY FOR OTHER CURB HEIGHTS. VALUES SHOWN IN THE TABLES WITH MINUS SIGNS INDICATE ELEVATIONS BELOW TOP OF FULL HEIGHT CURB.

REVISED OCTOBER 1985

SCALE: 1" = 5'

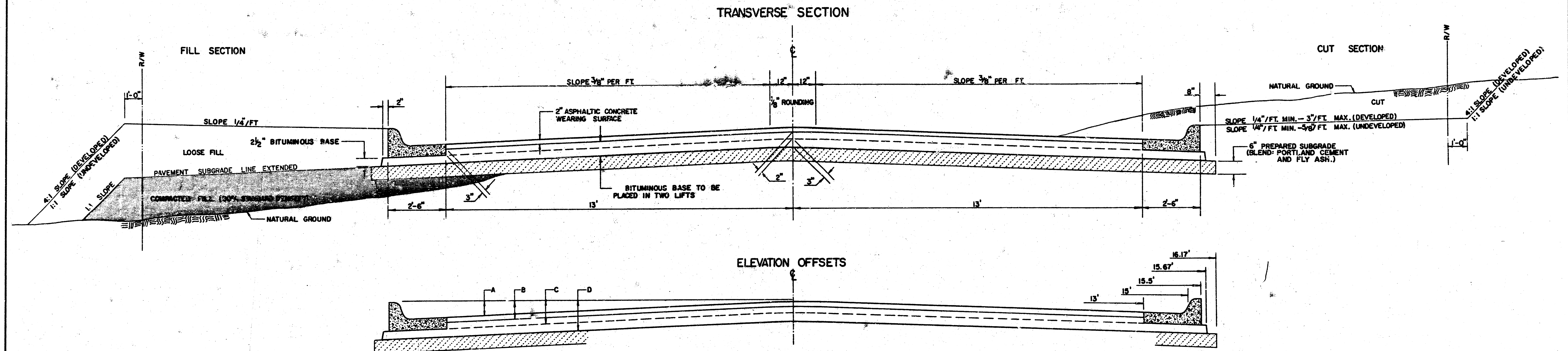
STANDARD DRIVE ENTRANCES
FULL HEIGHT CURB
CITY OF WICHITA, KANSAS

PROJECT NUMBER
472-76-245-R2039-000-000-001

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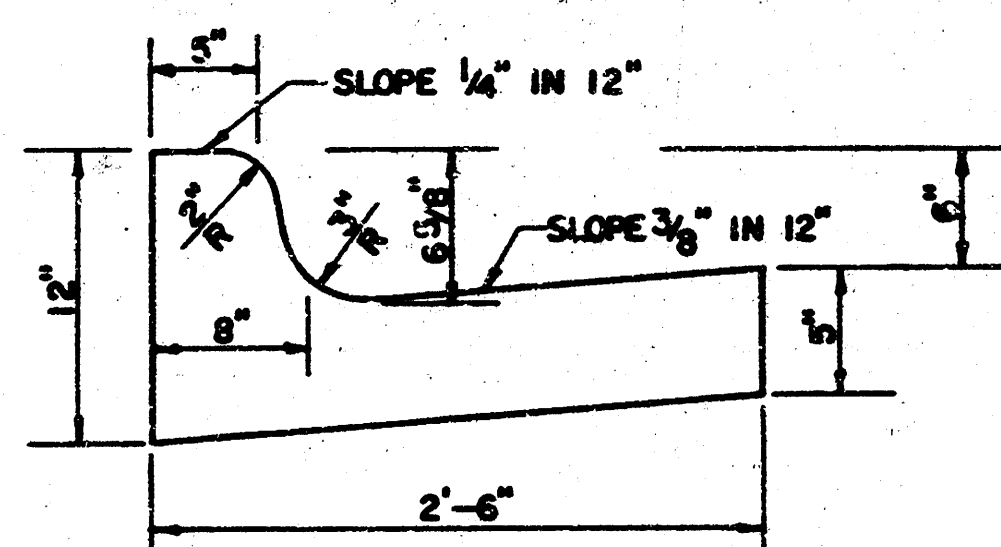
TYPICAL 31' PAVEMENT DETAILS

3 7

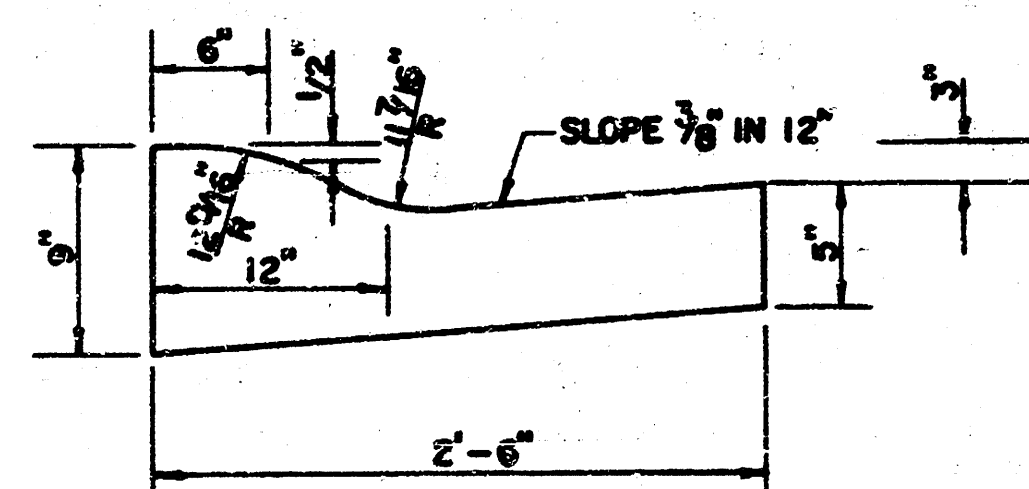


	DISTANCE FROM CENTERLINE (LT. & RT.)											
	0'	2'	4'	6'	7.5'	10'	12'	13'	15'	15.5'	15.67'	16.17'
A: TOP OF CURBS TO TOP OF 5" AC LIFT	0.10	0.14	0.21	0.27	0.32	0.39	0.46	0.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.27	0.31	0.38	0.44	0.49	0.56	0.63	0.66	—	—	—	—
C: TOP OF CURBS TO TOP OF 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	1.08	1.12	1.19	1.21	1.21	1.23

COMBINED CURB & GUTTER



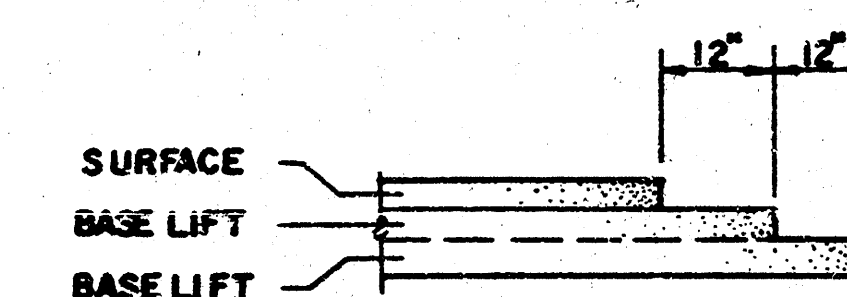
ROLL TYPE COMBINED CURB & GUTTER



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



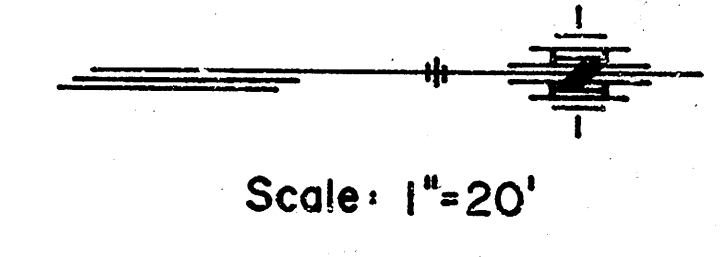
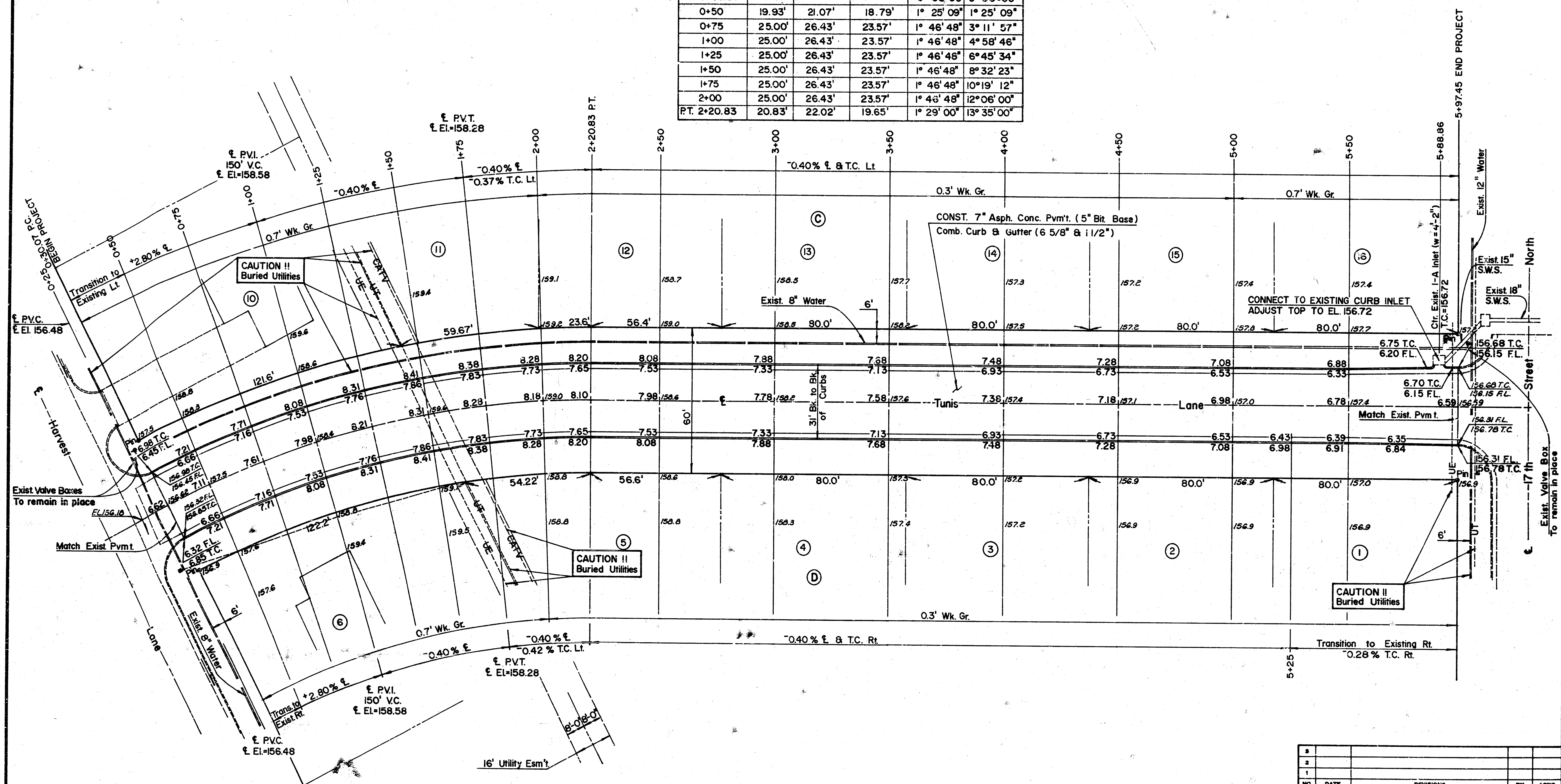
TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINTS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 7" ASPHALTIC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

7 INCH RESIDENTIAL ASPHALTIC CONCRETE
PAVEMENT WITH 5 INCH BITUMINOUS BASE
CITY OF WICHITA, KANSAS
PROJECT NUMBER
472-76-245-82039-000-000-001

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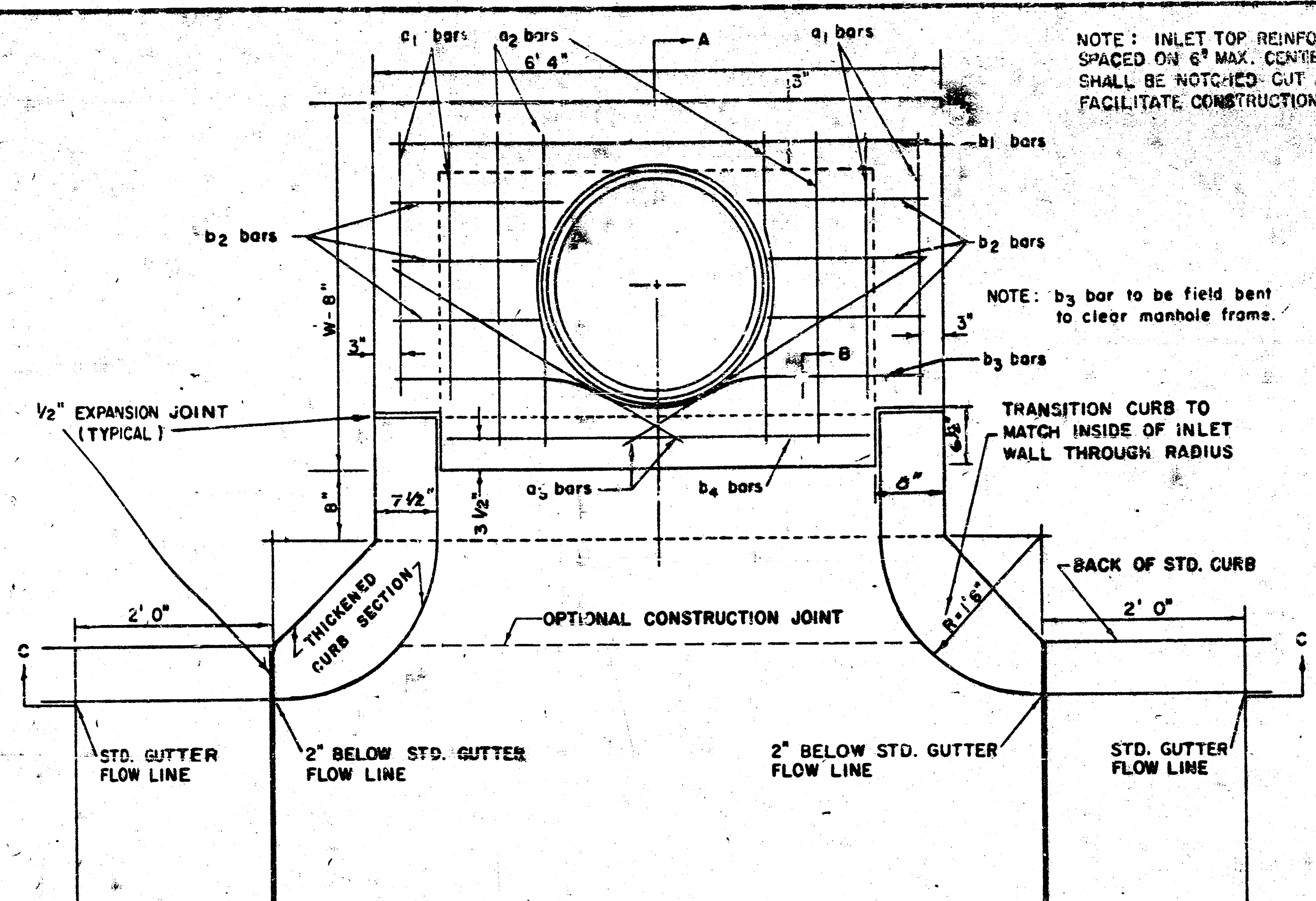
$R=402.33'$ $\Delta=27^\circ 10'$ $L=190.76'$ $LC=188.98'$ $T=97.21'$ $Def./F.=4.2724$ min.

STATION	ARC	8' Lt. of Face	8' Rt. of Face	DEF. L	Total DEF. L
P.C. 0+30.07	—	—	—	0° 00' 00"	0° 00' 00"
0+50	19.93'	21.07'	18.79'	1° 25' 09"	1° 25' 09"
0+75	25.00'	26.43'	23.57'	1° 46' 48"	3° 11' 57"
1+00	25.00'	26.43'	23.57'	1° 46' 48"	4° 58' 46"
1+25	25.00'	26.43'	23.57'	1° 46' 48"	6° 45' 34"
1+50	25.00'	26.43'	23.57'	1° 46' 48"	8° 32' 23"
1+75	25.00'	26.43'	23.57'	1° 46' 48"	10° 19' 12"
2+00	25.00'	26.43'	23.57'	1° 46' 48"	12° 06' 00"
P.T. 2+20.83	20.83'	22.02'	19.65'	1° 29' 00"	13° 35' 00"



NO.		DATE		REVISIONS		BY	APPD.
TUNIS LANE From The North Line Of Harvest Lane To The South Line Of 17 Th. Street No. Proj. No. 472-76-245-82039-000-000-001 CITY OF WICHITA							
DESIGNED/MLM		SCALE 1"=20'		DATE 9-20-90		SHEET 4 OF 7	
DETAILED/SWP							
QUANTITIES/MLM							

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

PLAN

STEEL SCHEDULE

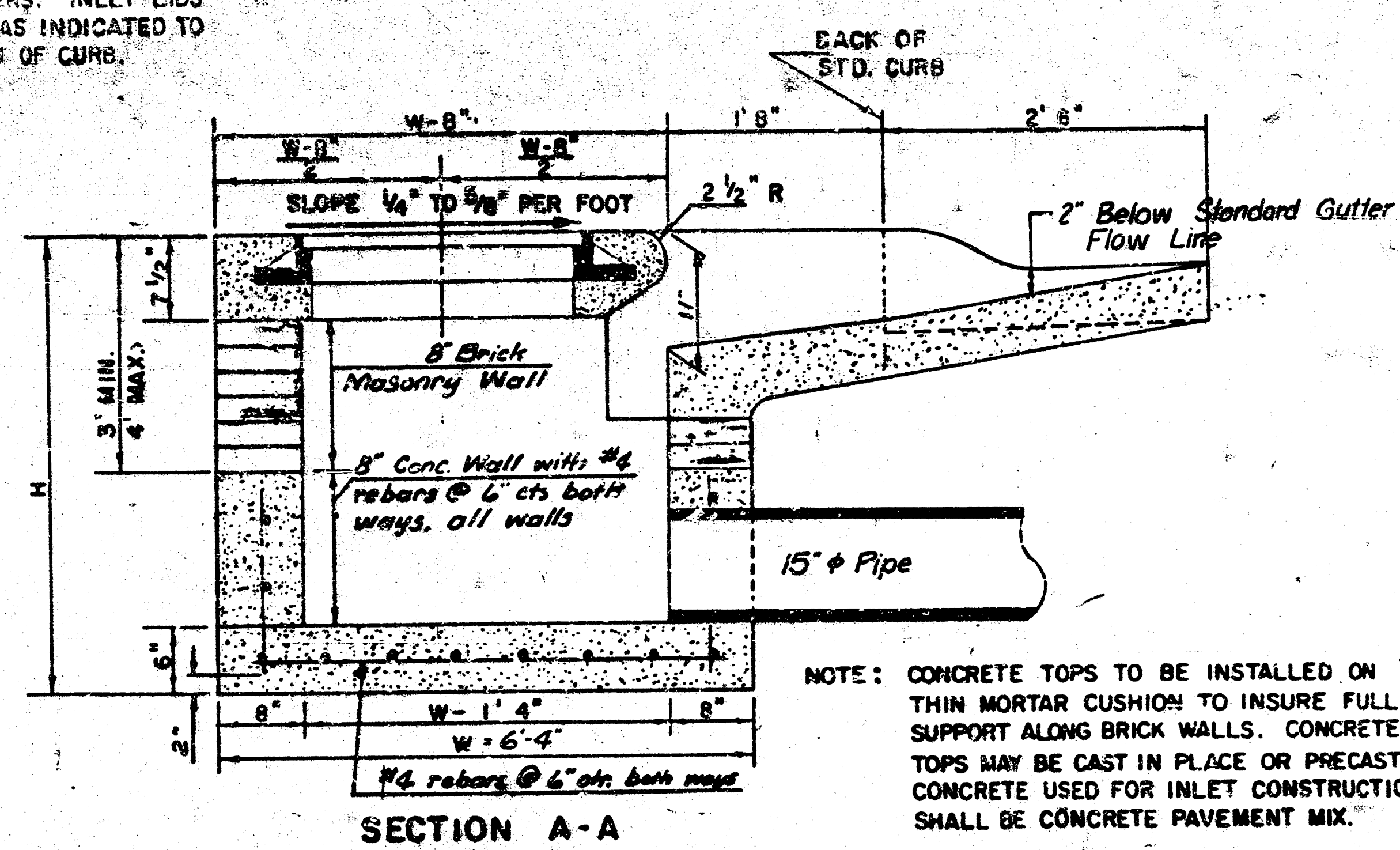
BAR NUMBER	a1	a2	a3	b1	b2	b3	b4	WT. LBS.
4	4	2	1	3	5	7	9	60 ±
SIZE	#4	#4	#4	#4	#4	#4	#4	
W=4'4"	5'7"	6'7"	4'0"	6'1"	-	-	-	81 ±
W=4'4"	7'7"	8'7"	5'0"	6'1"	-	-	-	101 ±
W=6'4"	11'7"	12'7"	7'0"	6'1"	-	-	-	121 ±
W=8'4"	13'7"	14'7"	8'0"	6'1"	-	-	-	141 ±

NOTE: a3 BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER

BENDING DIAGRAM

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" B SMALLER	0.38 ±
5' 4"	4' 6" x 6' 4" x 7 1/2"	24" B 30"	0.51 ±
6' 4"	5' 6" x 6' 4" x 7 1/2"	36" B 42"	0.64 ±
7' 4"	6' 6" x 6' 4" x 7 1/2"	48" B 54"	0.77 ±
8' 4"	7' 6" x 6' 4" x 7 1/2"	60" B 66"	0.90 ±

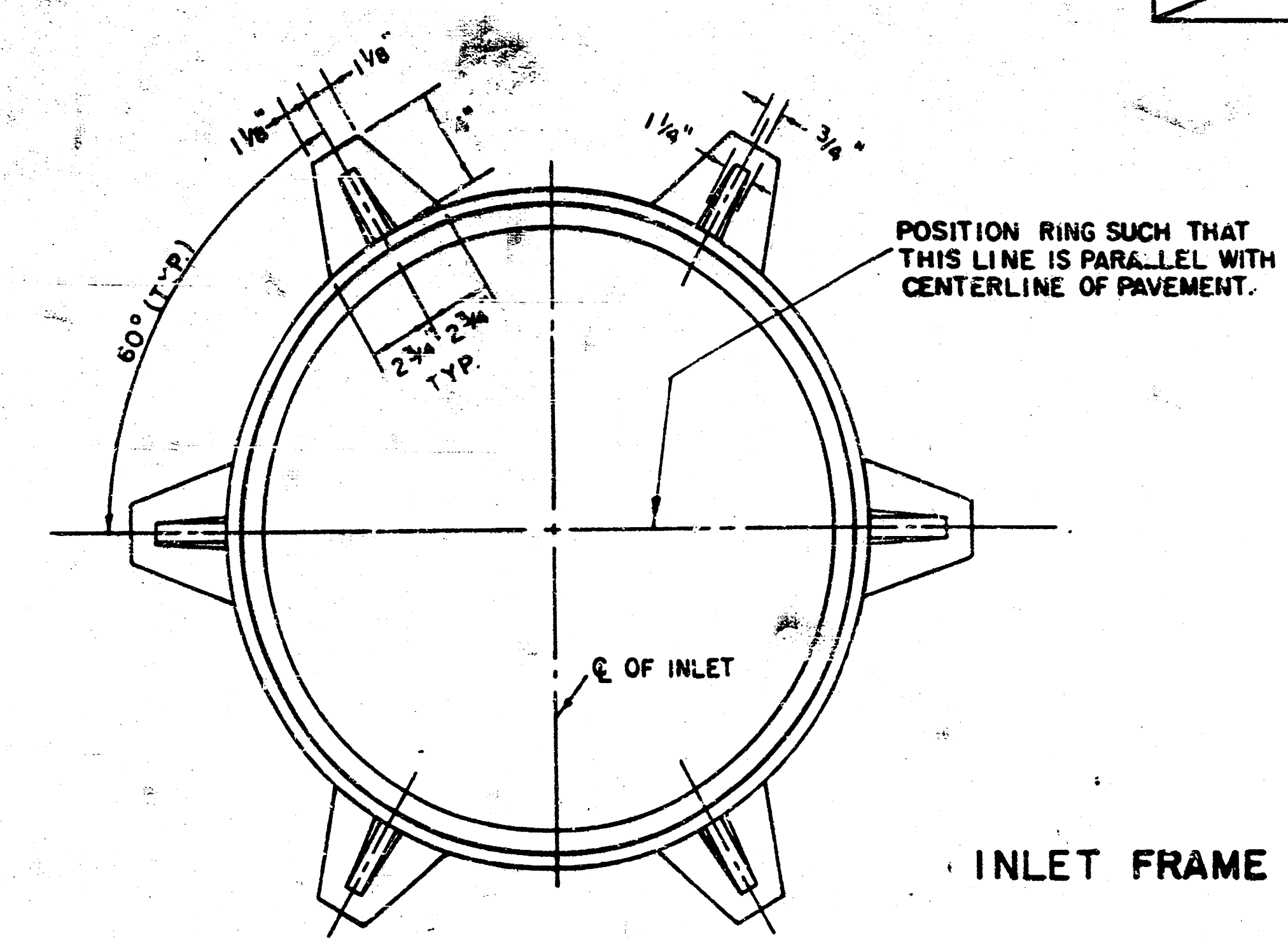


NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 6' 4" AND H = 7' 0" OR LESS.

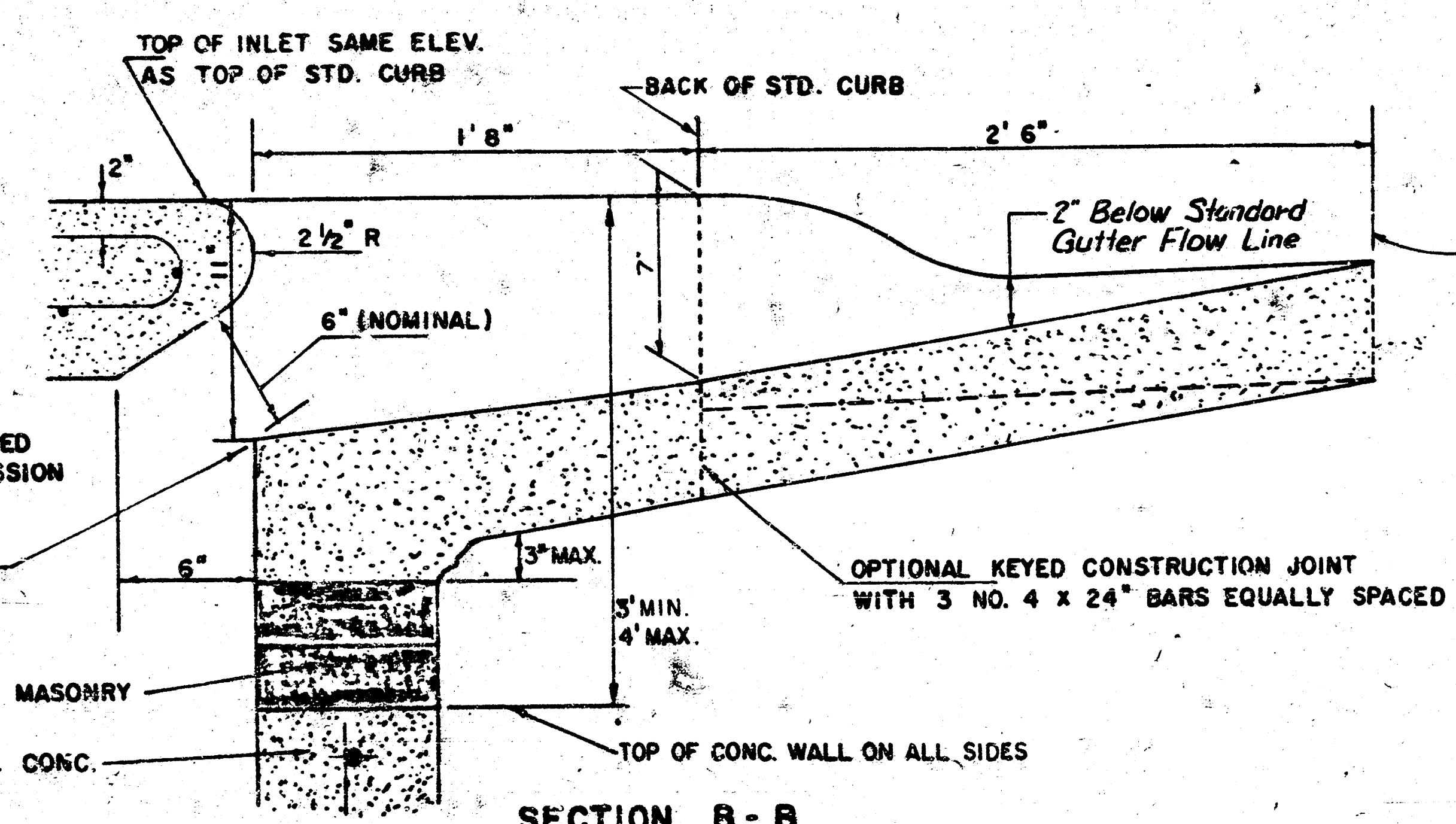
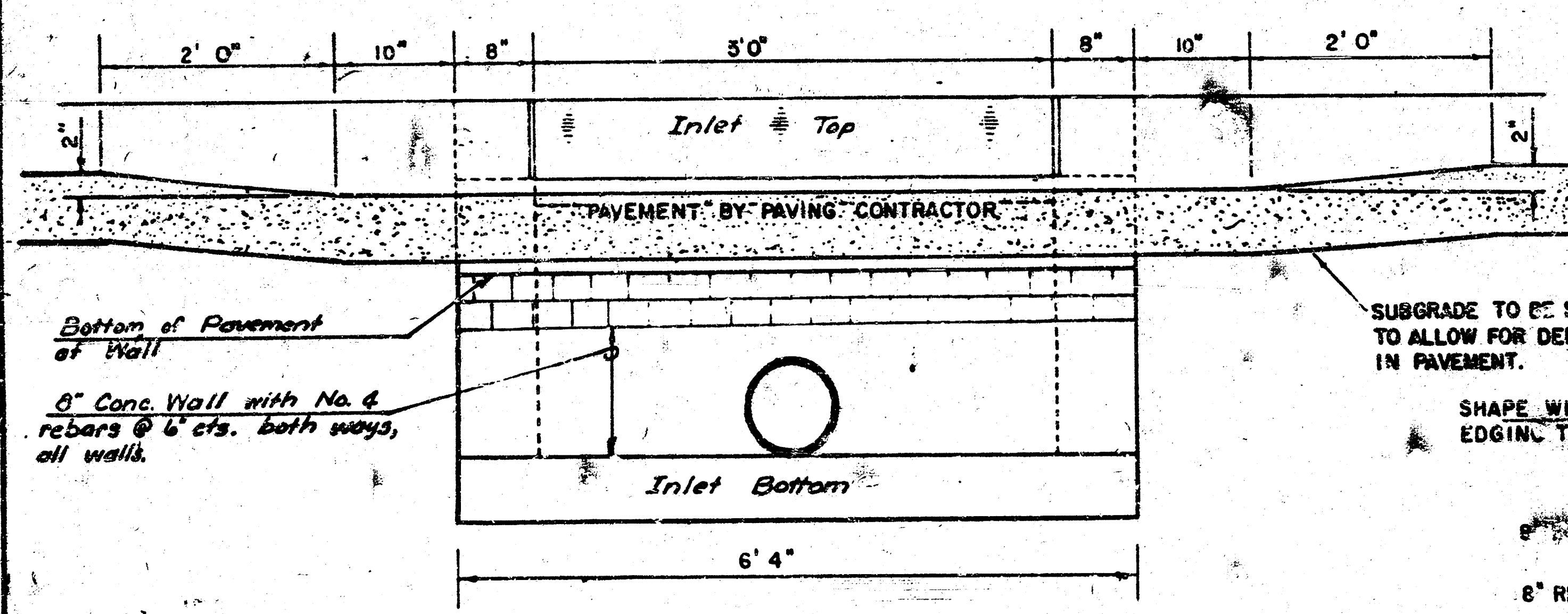
ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET HOOKUP.

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.



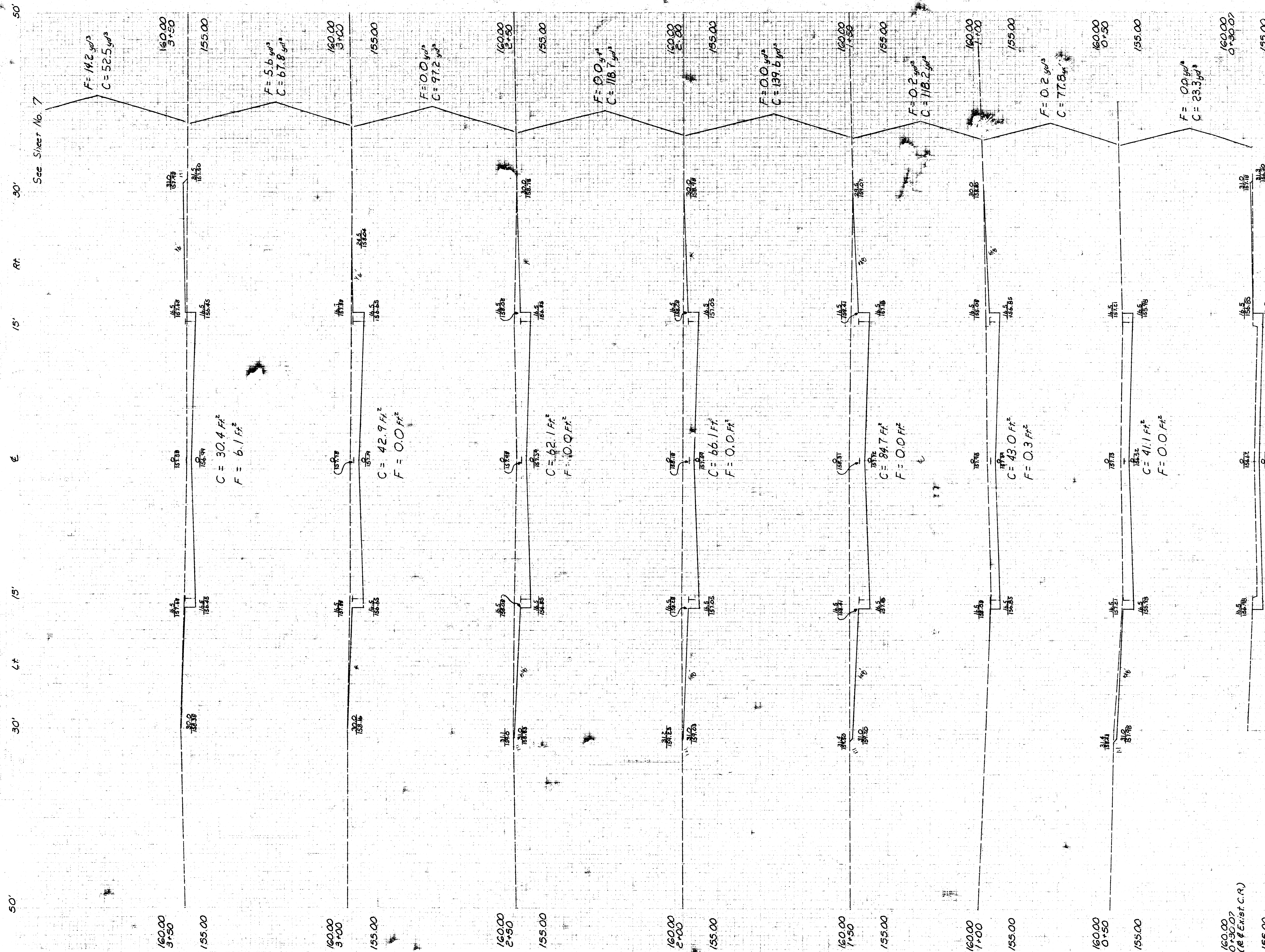
LIMITS OF GUTTER SHAPING AND/OR EDGE OF COMB. CURB AND GUTTER

REVISED 12-21-1984

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

JUNE 1984

3 Paul/ED. Rowder 8-15-80



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TUNIS LANE X-SECTIONS
PROJ. NO. 472-76-245-82039-000-001
SHEET NO. 6/7

Earthwork this sheet:
Excavation - 695.1 yd^3
Fill - 20.2 yd^3

50' 30' 15' 15' 30' 50'

E

L

R

160.00
6+45
(E 1/2 N Side
17th St.)
155.00

160.00
6+45
(E 1/2 N Side
17th St.)
155.00

160.00
6+27.5
(E 1/2 N Side
17th St.)
155.00

160.00
6+27.5
(E 1/2 N Side
17th St.)
155.00

160.00
6+12
(E 1/2 East)
155.00

160.00
6+12
(E 1/2 East)
155.00

160.00
5+97.45
(E 1/2 East C.R.)
155.00

160.00
5+97.45
155.00

5+88.80
6+10.15
4' 3" x 5' 6" to 4' 0" x 4' 0"

$C = 22.2 \text{ Ft}^2$
 $F = 0.0 \text{ Ft}^2$



$F = 2.7 \text{ yds}$
 $C = 65.7 \text{ yds}$

160.00
5+50
155.00

160.00
5+50
155.00

$C = 52.6 \text{ Ft}^2$
 $F = 3.1 \text{ Ft}^2$

$F = 7.7 \text{ yds}$
 $C = 52.7 \text{ yds}$

160.00
5+00
155.00

160.00
5+00
155.00

$C = 36.8 \text{ Ft}^2$
 $F = 5.3 \text{ Ft}^2$

$F = 16.9 \text{ yds}$
 $C = 57.9 \text{ yds}$

160.00
4+50
155.00

160.00
4+50
155.00

$C = 25.8 \text{ Ft}^2$
 $F = 13.0 \text{ Ft}^2$

$F = 20.6 \text{ yds}$
 $C = 48.3 \text{ yds}$

160.00
4+00
155.00

160.00
4+00
155.00

$C = 26.4 \text{ Ft}^2$
 $F = 9.3 \text{ Ft}^2$

TUNIS LANE X-SECTIONS
PROJ. NO. 472-76-245-82039-000-001
SHEET NO. 7/7

Earthwork this sheet:
Excavation = 254.6 yds³
See Sheet No. 6

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