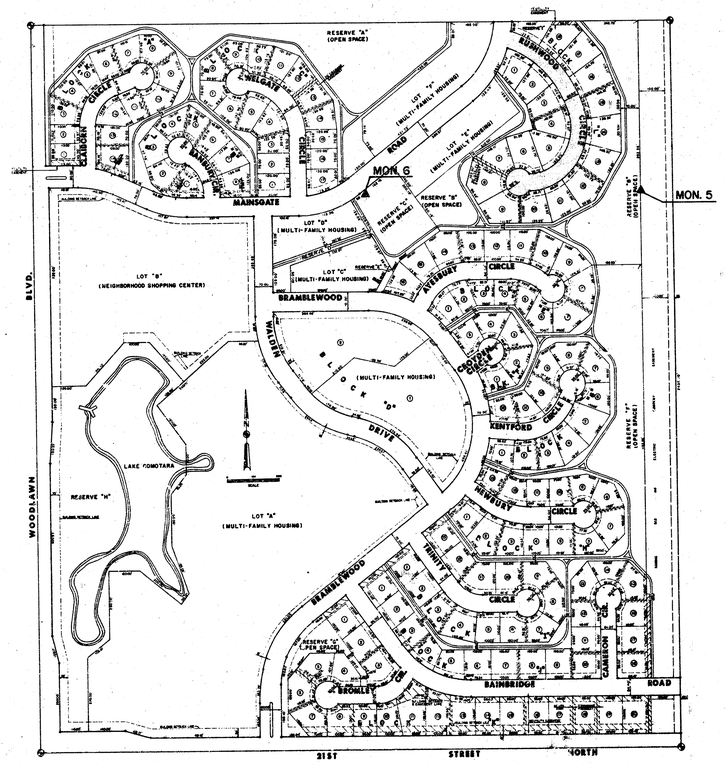
STREETS IN COMOTARA SECOND ADDITION
PROJECT NO. DAKS 574088

CITY OF WICHITA, KANSAS
R. W. LINN CITY ENGINEER

RUSHWOOD CIRCLE-S. L.
MAINSGATE ROAD TO &
INCLUDING CUL-DE-SAC



MONUMENT NO.	COORDINATES		ELEVATION
	NORTH	EAST	
5	389,060.76	2,360,628.00	211.23
6	389,079.36	2,359,489.27	190.63

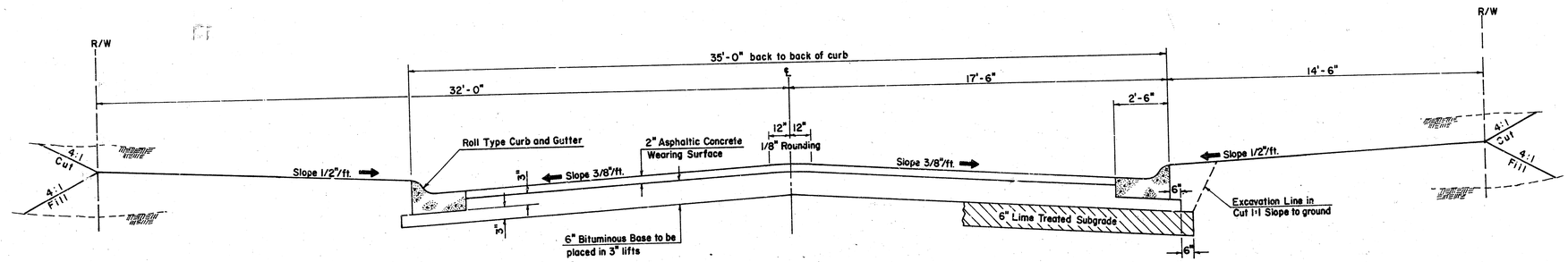
MONUMENTS SHOWN THUS: ↖ MON. NO.

INDEX TO DRAWINGS

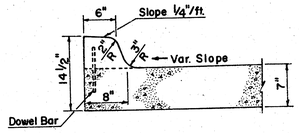
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTIONS
3-4	PLAN-PROFILE RUSHWOOD CIRCLE
5	SPECIAL TYPE "A" CURB INLET
6	REINFORCED CONCRETE MANHOLE
7-8	GRADING CROSS SECTIONS

VAN DOREN-HAZARD-STALLINGS
ENGINEERS-ARCHITECTS · · WICHITA, KANSAS

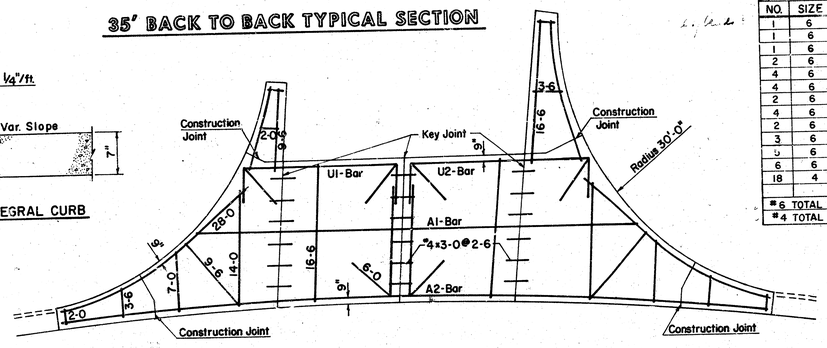
SHEET 1 OF 16



35' BACK TO BACK TYPICAL SECTION

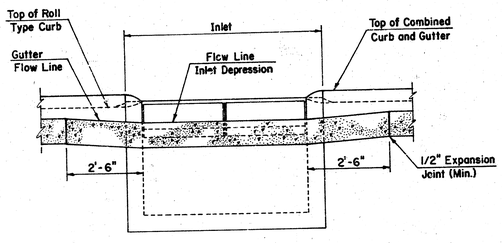


STANDARD INTEGRAL CURB

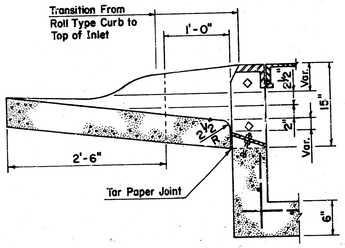


TYPICAL REINFORCING FOR 7" CONCRETE SLAB INTERSECTION

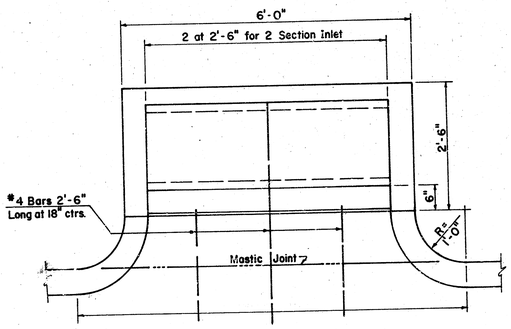
BILL OF MATERIAL				
NO.	SIZE	LENGTH	SHAPE	MARK
1	6	29'-0"		U1-Bar
1	6	32'-0"		U2-Bar
1	6	55'-0"		A1-Bar
2	6	44'-0"		A2-Bar
4	6	14'-0"		Bar
4	6	16'-6"		Bar
2	6	28'-0"		Bar
4	6	9'-0"		Bar
2	6	7'-0"		Bar
3	6	3'-6"		Bar
5	6	2'-0"		Bar
6	6	6'-0"		Bar
18	4	3'-0"		Bar
#6 TOTAL		490'-6"		
#4 TOTAL		54'-0"		



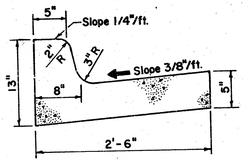
PROFILE THROUGH GUTTER



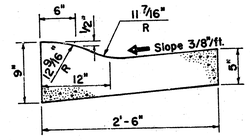
ROLL TYPE CURB SECTION



PLAN



COMBINED CURB & GUTTER



ROLL TYPE CURB & GUTTER

INLET - CURB TRANSITION DETAILS

CONSTRUCTION NOTES

A TACK COAT OF EMULSIFIED ASPHALT (SS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQ.YD. BETWEEN LIFTS OF ASPHALTIC MATERIALS WHEN ORDERED BY THE ENGINEER. TACK COAT WILL NOT BE PAID FOR DIRECTLY AND SHALL BE CONSIDERED AS SUBSIDIARY TO PRICE BID FOR ASPHALTIC PAVEMENT. BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAY DOWN MACHINE HAVING AUTOMATIC ELECTRONIC CONTROLS FOR CROWN AND GRADE. CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF 1' WITH JOINTS IN PRECEDING LIFTS AND SUCH THAT A JOINT WILL BE CONSTRUCTED ON THE PAVEMENT CENTERLINE IN THE TOP LIFT.

THE A.C. PAVEMENT BETWEEN THE COMB. CURB & GUTTER SHALL BE PAID AS SQ. YDS. 8" A.C. PAVEMENT (6" BITUMINOUS BASE). THE BITUMINOUS BASE UNDER THE COMB. CURB & GUTTER SHALL BE PAID AS SQ. YDS. 3" BITUMINOUS BASE.

FIELD ENGINEER TO DETERMINE WHICH PORTIONS ARE TO HAVE LIME TREATED SUBGRADE AND WHICH PORTIONS ARE TO BE SUBGRADE MODIFIED.

FIELD ENGINEER TO TAKE NEW ORIGINAL CROSS SECTIONS AFTER STORM STORM SEWER CONTRACTOR COMPLETES WORK.

FIELD ENGINEER TO PHASE STORM SEWER CONTRACTOR, SANITARY SEWER CONTRACTOR AND STREET CONTRACTOR TO EXPEDITE CONSTRUCTION AND TO COMPLETE SOME AREAS PRIOR TO BEGINNING WORK AT OTHER LOCATIONS.

CERTAIN MANHOLES, INLETS, STORM SEWER AND SANITARY SEWERS TO BE COMPLETED BEFORE CONSTRUCTION OF STREETS WILL BE PERMITTED TO BEGIN.

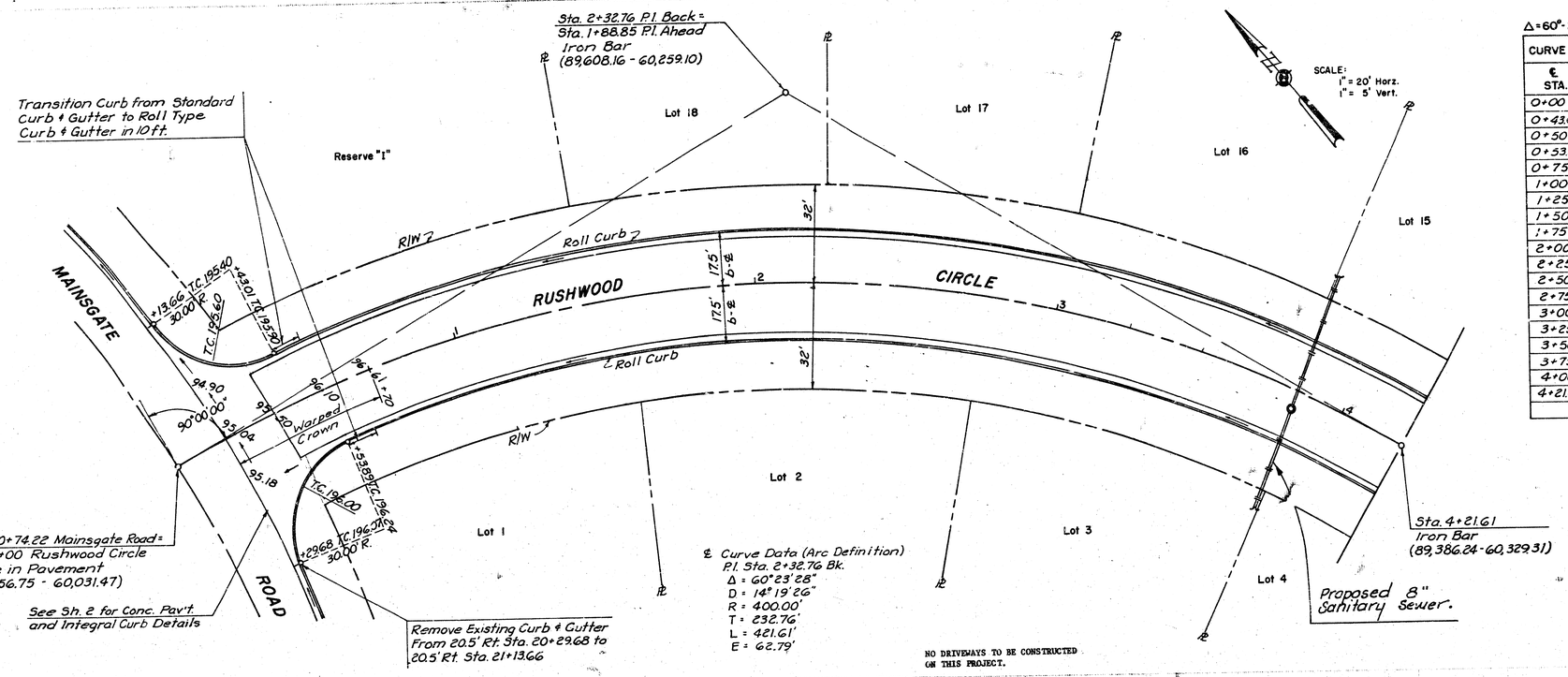
ALL EXCESS EXCAVATED MATERIAL FROM THIS PROJECT IS TO BE STOCKPILED AT LOCATIONS DETERMINED BY THE ENGINEER.

ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE.

TYPICAL SECTIONS

VAN DOREN-HAZARD-STALLINGS-SCHNACKE
ENGINEERS-ARCHITECTS · · WICHITA, KANSAS

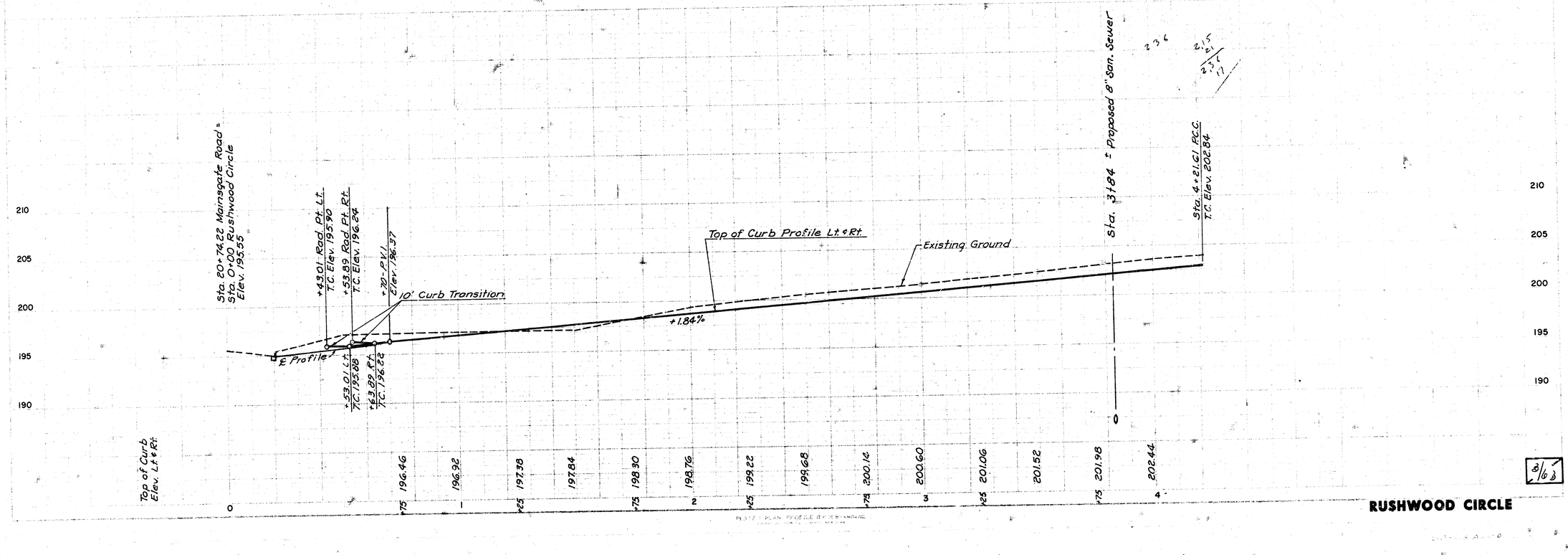
SHEET 9 OF 21 6

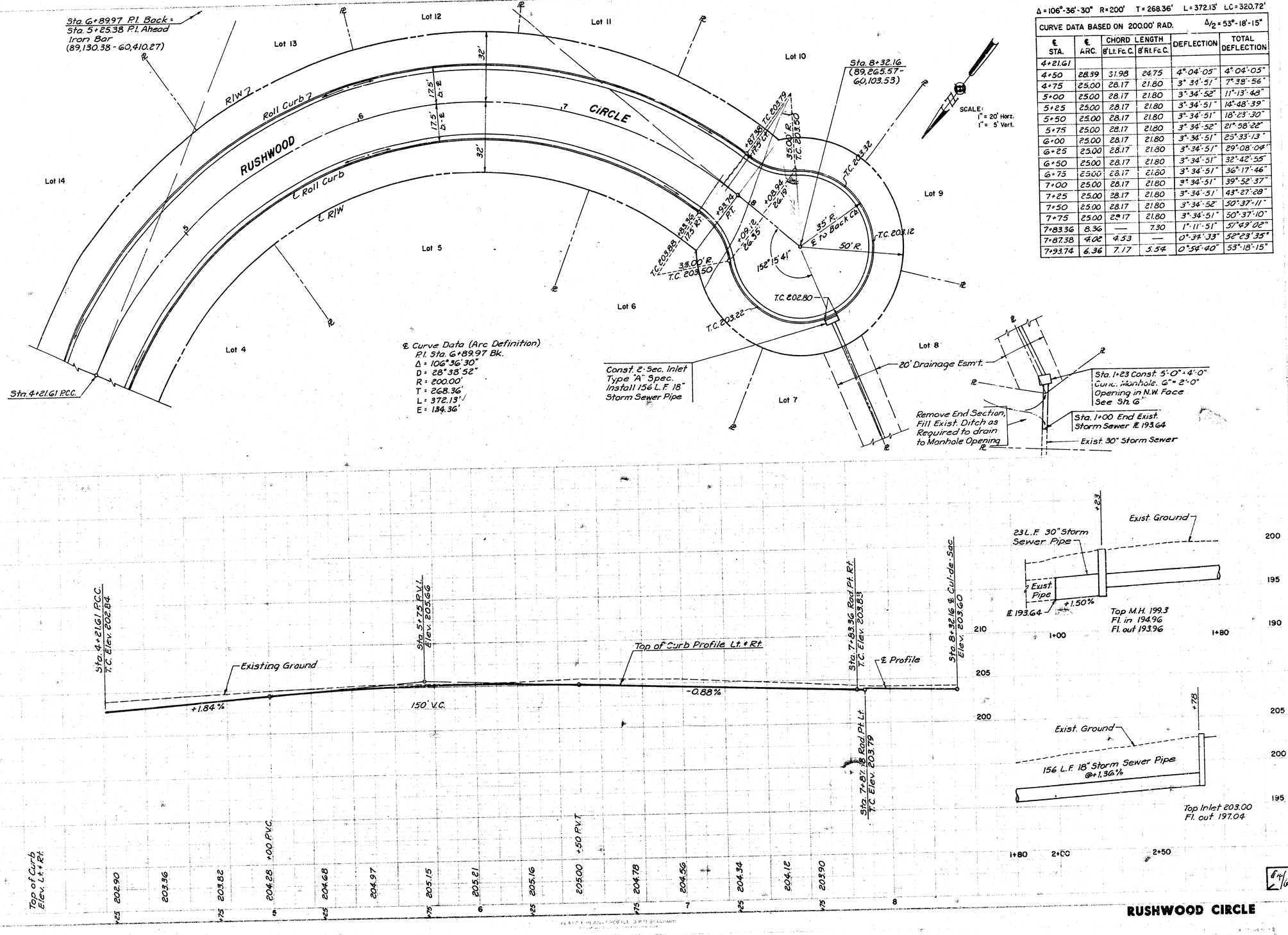


Δ = 60°-23'-28" R = 400' T = 232.76' L = 421.61' LC = 402.36'

CURVE DATA BASED ON 400.00' RAD $\Delta/2$ = 30°-11'-44"

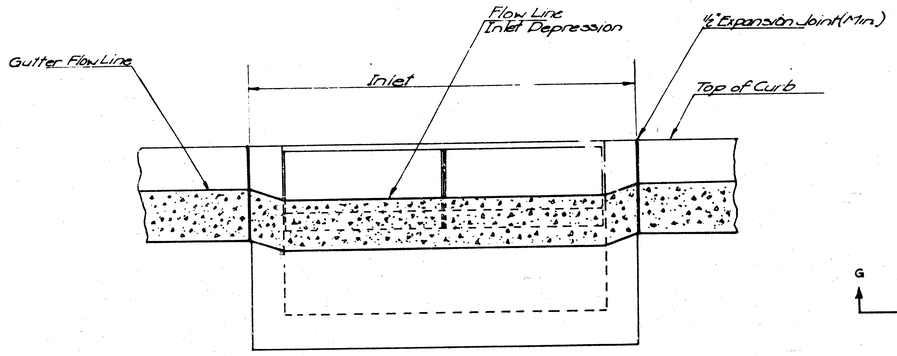
℄ STA.	℄ ARC.	CHORD LENGTH 8' Lt. Fe. C.	CHORD LENGTH 8' Rt. Fe. C	DEFLECTION	TOTAL DEFLECTION
0+00				00°-00'-00"	00°-00'-00"
0+43.01	43.01	45.72	——	3°-04'-46.5"	3°-04'-46.5"
0+50	6.99	7.44	——	0°-30'-09.5"	3°-34'-51"
0+53.89	3.89	——	3.64	0°-16'-40"	3°-51'-31"
0+75	21.11	22.45	19.76	1°-30'-45.5"	5°-22'-16.5"
1+00	25.00	26.59	23.40	1°-47'-26"	7°-09'-42.5"
1+25	25.00	26.59	23.40	1°-47'-26"	8°-57'-08.5"
1+50	25.00	26.59	23.40	1°-47'-26"	10°-44'-34.5"
1+75	25.00	26.59	23.40	1°-47'-26"	12°-32'-00.5"
2+00	25.00	26.59	23.40	1°-47'-26"	14°-19'-26.5"
2+25	25.00	26.59	23.40	1°-47'-26"	16°-06'-52.5"
2+50	25.00	26.59	23.40	1°-47'-26"	17°-54'-18.5"
2+75	25.00	26.59	23.40	1°-47'-26"	19°-41'-44.5"
3+00	25.00	26.59	23.40	1°-47'-26"	21°-29'-10.5"
3+25	25.00	26.59	23.40	1°-47'-26"	23°-16'-36.5"
3+50	25.00	26.59	23.40	1°-47'-26"	25°-04'-02.5"
3+75	25.00	26.59	23.40	1°-47'-26"	26°-51'-28.5"
4+00	25.00	26.59	23.40	1°-47'-26"	28°-38'-51.5"
4+21.61	21.61	22.98	20.22	1°-32'-42.5"	30°-11'-44"



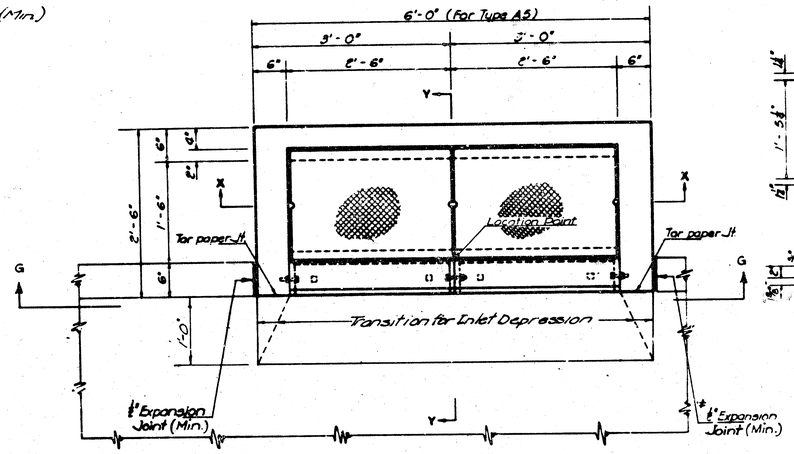

Sta. 6+89.97 P.I. Back =
Sta. 5+25.38 P.I. Ahead
Iron Bar
(89,130.38 - 60,410.27)
Lot 13
Lot 12
Lot 11
Lot 10
Lot 14
Lot 5
Lot 6
Lot 4
Lot 9
Lot 8
Lot 7
R/W
Roll Curb
RUSHWOOD
CIRCLE
℄ Roll Curb
℄ R/W
32'
17.5'
Δ-E
Sta. 4+21.61 P.C.C.
Sta. 8+32.16
(89,265.57 - 60,103.53)
SCALE:
1" = 20' Horz.
1" = 5' Vert.
T.C. 203.79
+57.38
R=35'
T.C. 203.50
+93.74
P.T.
+108.94
26.19°
+93.36
17.5' R.
T.C. 203.88
+109.12
26.35°
38.00' R.
T.C. 203.50
35' R.
℄ to Back CB
T.C. 202.32
T.C. 202.12
50' R.
152°15'41"
T.C. 202.80
T.C. 203.22
Δ = 106°-36'-30" R = 200' T = 268.36' L = 372.13' LC = 320.72'
CURVE DATA BASED ON 200.00' RAD. Δ/2 = 53°-18'-15"
℄ Curve Data (Arc Definition)
P.I. Sta. 6+89.97 Bk.
Δ = 106°36'30"
D = 28°38'52"
R = 200.00'
T = 268.36'
L = 372.13'
E = 134.36'
Const. 2-Sec. Inlet
Type "A" Spec.
Install 156 L.F. 18"
Storm Sewer Pipe
20' Drainage Esm't.
Remove End Section,
Fill Exist. Ditch as
Required to drain
to Manhole Opening
Sta. 1+23 Const. 5'-0" x 4'-0"
Conc. Manhole. G" = 2'-0"
Opening in N.W. Face
See Sh. G
Sta. 1+00 End Exist.
Storm Sewer ℄ 193.64
Exist. 30" Storm Sewer
Sta. 4+21.61 P.C.C.
T.C. Elev. 202.84
Existing Ground
+1.84 %
Sta. 5+75 P.V.I.
Elev. 205.66
150' V.C.
Top of Curb Profile Lt. & Rt.
-0.88%
Sta. 7+83.36 Rad. Pt. Rt.
T.C. Elev. 203.83
℄ Profile
Sta. 8+32.16 ℄ Cul-de-Sac
Elev. 203.60
Sta. 7+87.38 Rad. Pt. Lt.
T.C. Elev. 203.79
+2.3
Exist. Ground
23 L.F. 30" Storm
Sewer Pipe
Exist.
Pipe
℄ 193.64
+1.50%
Top M.H. 199.3
Fl. in 194.96
Fl. out 193.96
+7.8
Exist. Ground
156 L.F. 18" Storm Sewer Pipe
@ +1.30%
Top Inlet 203.00
Fl. out 197.04
Top of Curb
Elev. Lt. & Rt.
202.90
203.36
203.82
204.28
204.68
204.97
205.15
205.21
205.16
205.00
204.78
204.56
204.34
204.12
203.90
+00 P.V.C.
+50 P.V.T.
210
205
200
195
1+80
2+00
2+50
RUSHWOOD CIRCLE

FHWA REG. NO.	State	Proj. No	Fiscal Year	Sheet No	Total Sheets
7	Kansas				

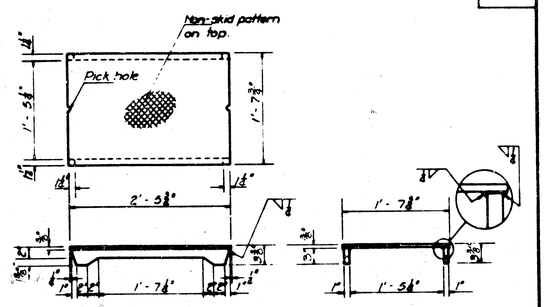
Section



SECTION G-G



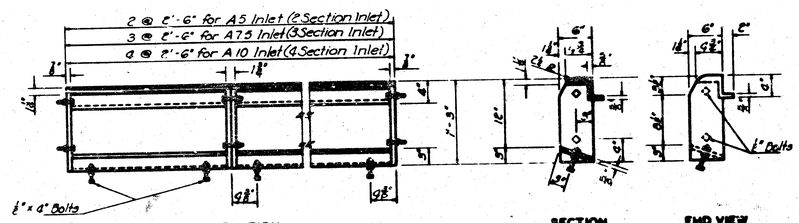
PLAN



***STRUCTURAL STEEL COVER PLATE**

Weight 98 Lbs Each

* Non skid steel floor plate (Commercial grade), welded to steel (ASTM A-7, A-36, A-242 or A-441) bars



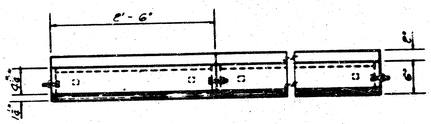
ELEVATION

TYPES A5-1, A7.5-1 & A10-1

SECTION

END VIEW

TYPES A5-1 A7.5-1 & A10-1

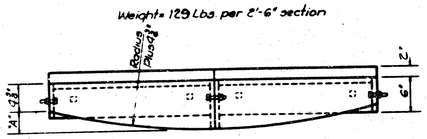


PLAN

TYPES A5-1, A7.5-1 & A10-1

Weight = 129 Lbs. per 2'-6" section

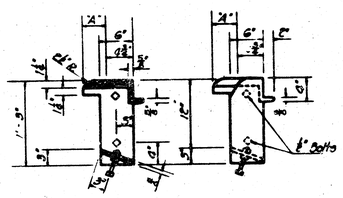
NOTE: All bolts and nuts shall be galvanized and meet the requirements of sub-section U15-2 of the 1966 Specifications.



PLAN

TYPE A5-2 SHOWN

Weight - See Tables below



SECTION AT CENTER

END VIEW

TYPES A5-2, A7.5-2 & A10-2

DETAILS OF CURB CASTING (IRON)

FOR TYPE A5-2 CASTINGS			
Radius	20'	25'	30'
"A"	1⅞"	1½"	1⅛"
Weight-Lbs	285	278	274

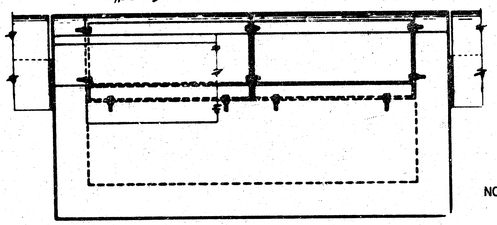
FOR TYPE A7.5-2 CASTINGS			
Radius	20'	25'	30'
"A"	4⅛"	3⅝"	2⅞"
Weight-Lbs	474	455	445

FOR TYPE A10-2 CASTINGS			
Radius	20'	25'	30'
"A"	7½"	6"	5"
Weight-Lbs	721	680	653

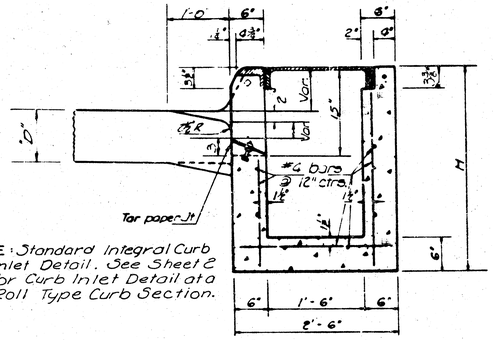
NOTE: Weights given in tables above are total weights for Curb Castings only.
All weights of castings are calculated weights with no allowance for fillets, overruns, anchor bars and bolts.

Note: All castings shall be gray iron and shall comply with ASTM A-48 Class 25 B.

* Hot or cold poured joint sealing compound, or Premoulded Exp. Jt. Filler (Non-extruding, Type B).

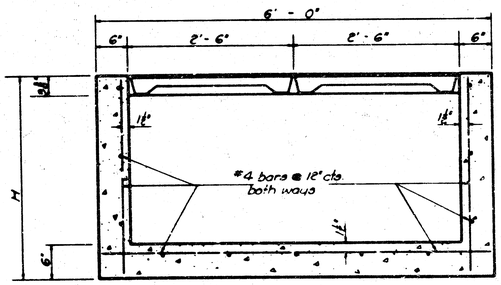


FRONT ELEVATION



NOTE: Standard Integral Curb Inlet Detail. See Sheet 2 for Curb Inlet Detail at a Roll Type Curb Section.

SECTION Y-Y



SECTION X-X

NOTE: See this sheet for shaping of depression at inlet. This work shall be paid for as "Concrete Pavement".
Floor of Inlet shall be shaped as shown in various "EXAMPLES" on Reinforced Concrete Manhole Sheet No. 6
Concrete used for shaping shall be unreinforced Class "A" concrete.
No addition in concrete quantities shall be made for shaping floor of Inlets.

Note: Use Class A Concrete throughout.
Bevel all exposed edges with a ¾" triangular moulding.
Reinforcing bars shall be bent around pipe.
No deductions in concrete quantities shall be made for pipe openings.

At the contractors option Class A Concrete (AE) may be used throughout, but payment shall be made as Cu Yds of Class A Concrete Miscellaneous.
A small opening may be required in the back of the inlet to drain a low area, if ordered by the Engineer. Reinforcing bars will extend through the opening. No deduction in concrete quantities will be made for this opening.
When so ordered by the Engineer the top of the inlet shall be sloped slightly to approximately fit the ground line or other conditions.
Structural steel cover plate and all exposed cast iron surfaces shall be painted either in the shop or in the field with one coat of a zinc dust paint, followed by two field coats of aluminum paint.
No substitutions of design will be permitted on casting.

21	3-26-70	Class "A" miscellaneous.	W.L.H.	K.G.L.
20	5-9-69	Added Note on shaping of Floor	W.L.H.	K.G.L.
19	5-67	Add pent castings & Optional opening etc.	A.L.B.	K.G.L.
18	8-66	To conform to 1966 Specs	A.L.B.	E.A.B.
NO.	DATE	REVISIONS	BY	APP'D

STATE HIGHWAY COMMISSION OF KANSAS

SPECIAL

TYPE "A" CURB INLET

SCALE 1 Inch = 1 Foot (Sx 8"=1'-0" sheet)...

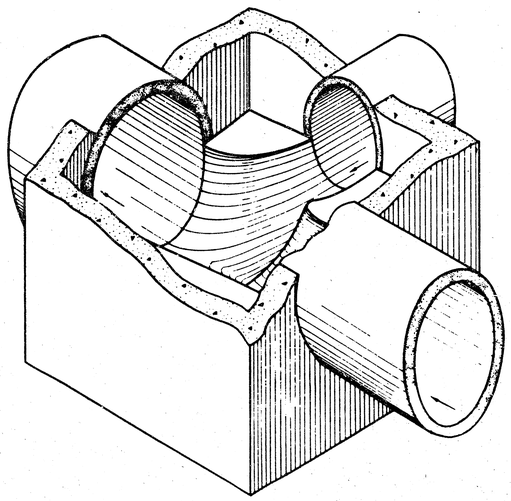
DESIGNED BY E.A.B. DATE 9-65 DETAILED BY W.L.H. TRACED BY W.L.H.

CHECKED BY A.L.B. APPROVED BY L. N. Dunbar DATE 6-3-66.

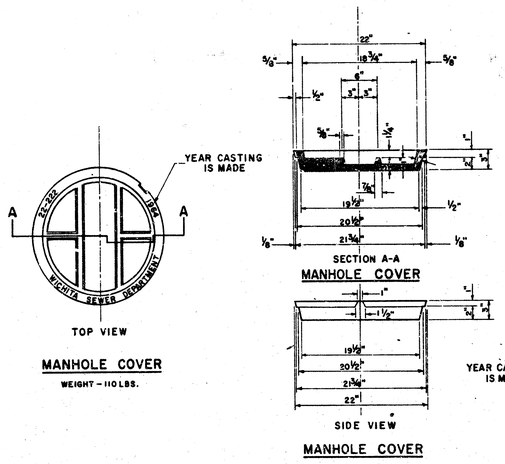
15/16 B

FHWA REG. NO.	State	Proj. No.	Fiscal Year	Sheet No.	Total Sheets
7	Kansas				

Section



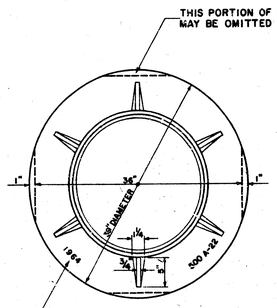
SECTIONAL VIEW (EXAMPLE IV)
Showing Floor Shaping



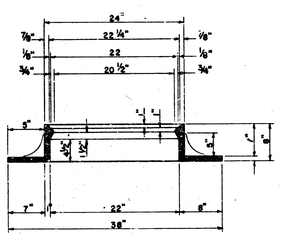
MANHOLE COVER
WEIGHT – 110 LBS.

MANHOLE COVER

MANHOLE COVER



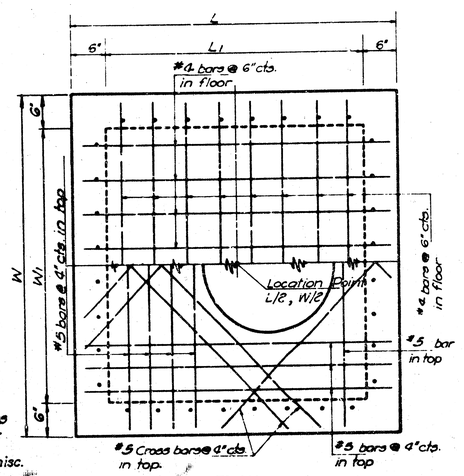
MANHOLE RING
WEIGHT – 355 LBS.



MANHOLE RING

OUTSIDE CIRCUMFERENCE OF COVER AND THE INNER FACE AND SEAT OF RING TO BE MACHINE FIT.

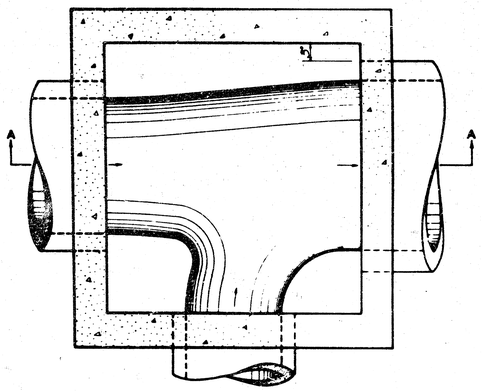
Where dimension "L" or "W" is greater than 6', use 8" slab thickness.



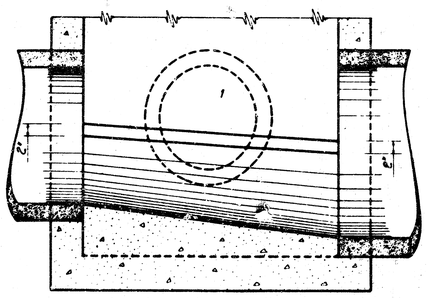
PLAN
(Showing top & floor Reinforcing)

TYPICAL EXAMPLES OF VARIOUS PIPE COMBINATIONS

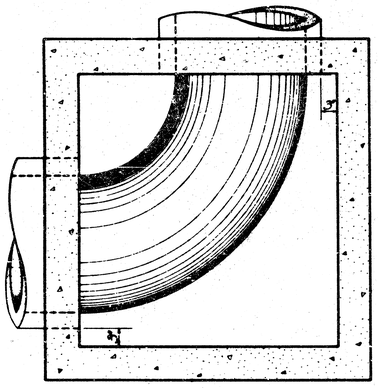
Showing method of shaping floor of manholes to provide increased hydraulic efficiency.
For reinforcing & other features see "PLAN" and "SECTION."



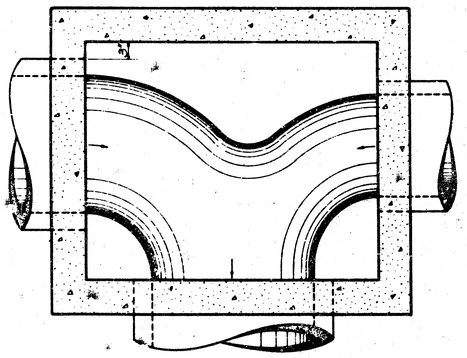
FLOOR PLAN (EXAMPLE IV)



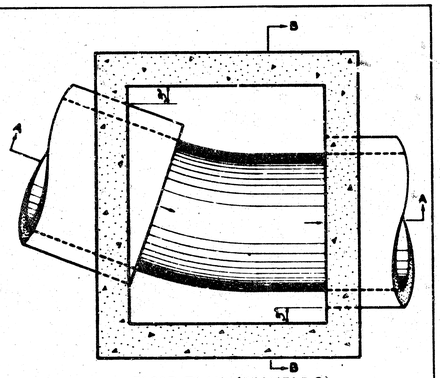
SECTION A-A (EXAMPLE IV)



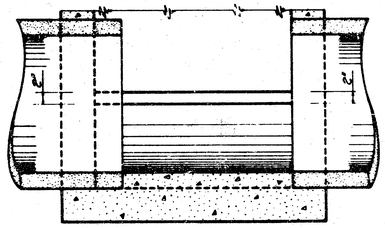
FLOOR PLAN (EXAMPLE II)



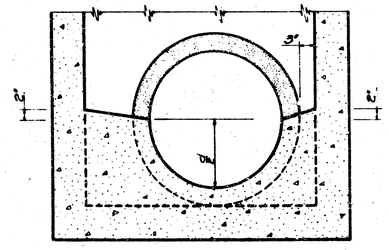
FLOOR PLAN (EXAMPLE III)



FLOOR PLAN (EXAMPLE I)

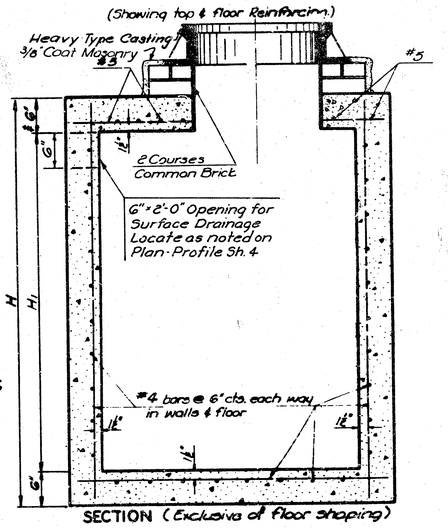


SECTION A-A (EXAMPLE I)



SECTION B-B (EXAMPLE I)

NOTE: Class 'A' concrete to be used thruout. Bevel all exposed edges with a ¾" triangular moulding.
At the contractor's option Class 'A' concrete (AE) may be used thru-out, but payment shall be made as Cu. Yds of Class 'A' concrete misc.
In general, pipes will enter and leave the manhole at various positions. Where possible bend bars around pipes.
Floor of manhole to be shaped as shown in various "EXAMPLES" with unreinforced Class 'A' concrete.
Manhole opening and steps, where used, shall be placed to afford easy access to top of shaped invert. Top reinforcing bars to be adjusted accordingly.
All castings shall be gray iron and shall comply with ASTM A-48, Class 25 S.
All exposed cast iron surfaces (rings & covers) not subjected to traffic, shall be painted either in the shop or in the field with one coat of a zinc dust paint, followed by two field coats of aluminum paint.
No deductions in concrete quantities shall be made for pipe openings.
No additions in concrete quantities shall be made for shaping floor of Manholes.
When so ordered by the Engineer, the top of the manhole shall be sloped slightly to approximately fit the ground line or other conditions.



SECTION (Exclusive of floor shaping)

Note: Contractor has the option of using pre-cast manholes, as approved by the engineer (See Special Provision). Payment of quantities shall be on a cast in place basis.

NO.	DATE	REVISIONS	BY	APP'D
13	4-12-71	Added Pre-Cast Manhole option Note	W.L.H.	K.G.L.
12	3-26-70	Class "A" miscellaneous.	W.L.H.	K.G.L.

STATE HIGHWAY COMMISSION OF KANSAS

REINFORCED CONCRETE MANHOLE

STD. NO. 833 SCALE 1 Inch = 1 Foot (For 22" x 36" sheet)
Enlarged for reprod.
DESIGNED BY C.A.P. DATE 2-48 DETAILED BY W.A.B. TRACED BY W.A.B.
CHECKED BY A.L.D. APPROVED BY [illegible] DATE 4-5-48

6 6 1