STATE	PROJECT NUMBER	SHEET No.	TOTAL SHEETS
GA.			

DATA CHART

DESIGN (S; H; FILL OVER TOP)	DBL 7-7-10	DBL 7-7-20	DBL 7-7-30	DBL 7-7-40	DBL 7-7-50	DBL 7-7-60	DBL 7-7-70	DBL 7-7-80
T_1	9″	9 3/4″	11 1/2″	13 1/4″	14 1/2″	15 3/4″	17 1/4″	18 1/4″
T_2	9″	9″	9 1/4″	11″	12 1/4″	13 1/2″	15″	16 3/4″
BAR "A" C DIM. E DIM. G DIM.	NO. 5 AT 12″ C = 3′-8″ E = 1′-5″ G = 3′-6″	NO. 5 AT 12″ C = 3′-8″ E = 1′-3″ G = 3′-9″	NO. 6 AT 12″ C = 3′-8″ E = 1′-3″ G = 3′-9″	NO 6 AT 12″ C = 3′-0″ E = 1′-0″ G = 3′-9″	NO 7 AT 12″ C = 3′-0″ E = 1′-0″ G = 3′-9″	NO 7 AT 12″ C = 3′-0″ E = 1′-1″ G = 4′-0″	NO 7 AT 12″ C = 2′-9″ E = 1′-3″ G = 4′-0″	NO 7 AT 12″ C = 2′-9″ E = 1′-4″ G = 4′-0″
BAR "B"	NO.4 AT 12″	NO.5 AT 12″	NO.5 AT 12″	NO 5 AT 12″	NO 5 AT 12″	NO 5 AT 12″	NO 5 AT 12″	NO 5 AT 12″
BAR "C" A DIM.	NO.4 AT 12″ A = 2′-0″	NO.4 AT 12″ A = 2′-0″	NO.4 AT 12″ A = 2′-0″	NO 4 AT 12″ A = 2′-5″	NO 4 AT 12″ A = 2′-5″	NO 4 AT 12″ A = 2′-6″	NO 4 AT 12″ A = 2′-7″	NO 4 AT 12″ A = 2′-8″
BAR "D": SIZE & LENGTH	NO.4; L=6′-2″	NO.6; L=6′-2″	NO.6; L=6′-2″	NO 6; L=6′-2″	NO 6; L =7′-0″	NO 6; L=8′-2″	NO 7; L=8′-2″	NO 7; L=8′-2″
NO. BARS "E" IN 2 SLABS	36	36	36	36	36	36	36	36
BAR "F"	NO.4 AT 12″	NO.4 AT 12″	NO.4 AT 12″	NO 4 AT 12″	NO 4 AT 12″	NO 4 AT 12″	NO 4 AT 12″	NO 4 AT 12″
BAR "G"	NO.4 AT 12″	NO.4 AT 12″	NO.4 AT 12″	NO 4 AT 12″	NO 4 AT 12″	NO 4 AT 12″	NO 4 AT 12″	NO 4 AT 12″
NO. BARS "J" EXT. CORNER	0	0	1	1	1	1	1	1
NO. BARS "J" INT. CORNER	0	1	2 AT 8 1/2″	2 AT 6 1/2″	3 AT 5″	5 AT 4″	6 AT 3 1/2″	7 AT 3″
NO. BARS "H" IN INT. WALL	10	10	10	10	10	10	10	10
NO. BARS "K" IN EXT. WALLS	18	18	18	18	18	18	18	18
BAR "L" A DIM.	NO.4 AT 12″ A = 2′-0″	NO.4 AT 12″ A = 2′-0″	NO.4 AT 12″ A = 2′-0″	NO 4 AT 12″ A = 2′-5″	NO 4 AT 12″ A = 2′-5″	NO 4 AT 12″ A = 2′-6″	NO 4 AT 12″ A = 2′-7″	NO 4 AT 12″ A = 2′-8″
CU. YDS. CONC. PER FT.	1.5833	1.6597	1.8516	2.1299	2.3325	2.5233	2.7894	3.0058
LBS. REINF. STEEL PER FT.	171.34	242.30	260.92	248.96	290.51	314.92	344.55	355.64

DESIGN (S; H; FILL OVER TOP)	DBL 9-6-10	DBL 9-6-20	DBL 9-6-30	DBL 9-6-40	DBL 9-6-50
T_1	9 1/4″	12″	14″	15 1/4″	17″
T_2	9″	9″	9 1/2″	10 1/4″	11 1/4″
BAR "A" C DIM. E DIM. G DIM.	NO. 5 AT 12″ C = 4′-8″ E = 1′-8″ G = 1′-6″	NO. 6 AT 12″ C = 4′-8″ E = 1′-8″ G = 1′-6″	NO. 7 AT 11 1/2″ C = 4′-10″ E = 1′-6″ G = 1′-6″	NO. 7 AT 12″ C = 4′-10″ E = 1′-9″ G = 1′-9″	NO. 7 AT 12″ C = 4′-10″ E = 2′-0″ G = 1′-9″
BAR "B"	NO.5 AT 12″	NO.6 AT 12″	NO.6 AT 11 1/2″	NO. 6 AT 12″	NO. 7 AT 12″
BAR "C" A DIM.	NO.4 AT 12″ A = 2′-6″	NO.4 AT 12″ A = 2′-6″	NO.4 AT 11 1/2″ A = 2′-6″	NO. 4 AT 12″ A = 2′-9″	NO. 4 AT 12″ A = 3′-0″
BAR "D": SIZE & LENGTH	NO.6; L=8′-0″	NO.7; L=8′-3″	NO.7; L=8′-4″	NO. 7; L=9′-0″	NO. 7; L=9′-0″
NO. BARS "E" IN 2 SLABS	44	44	44	44	44
BAR "F"	NO.4 AT 12″	NO.4 AT 12″	NO.4 AT 11 1/2″	NO. 4 AT 12″	NO. 4 AT 12″
BAR "G"	NO.4 AT 12″	NO.4 AT 12″	NO.4 AT 11 1/2″	NO. 4 AT 12″	NO. 4 AT 12″
NO. BARS "J" EXT. CORNER	0	0	0	0	1
NO. BARS "J" INT. CORNER	0	2	3	4 AT 6″	5 AT 4 1/2″
NO. BARS "H" IN INT. WALL	10	10	10	10	10
NO. BARS "K" IN EXT. WALLS	18	18	18	18	18
BAR "L" A DIM.	NO.4 AT 12″ A = 2′-6″	NO.4 AT 12″ A = 2′-6″	NO.4 AT 11 1/2″ A = 2′-6″	NO. 4 AT 12″ A = 2′-9″	NO. 4 AT 12″ A = 3′-0″
CU. YDS. CONC. PER FT.	1.7445	2.0926	2.3715	2.6018	2.8480
LBS. REINF. STEEL PER FT.	225.17	307.25	358.42	351.37	390.68

BOX CULVERT REQUIREMENTS:

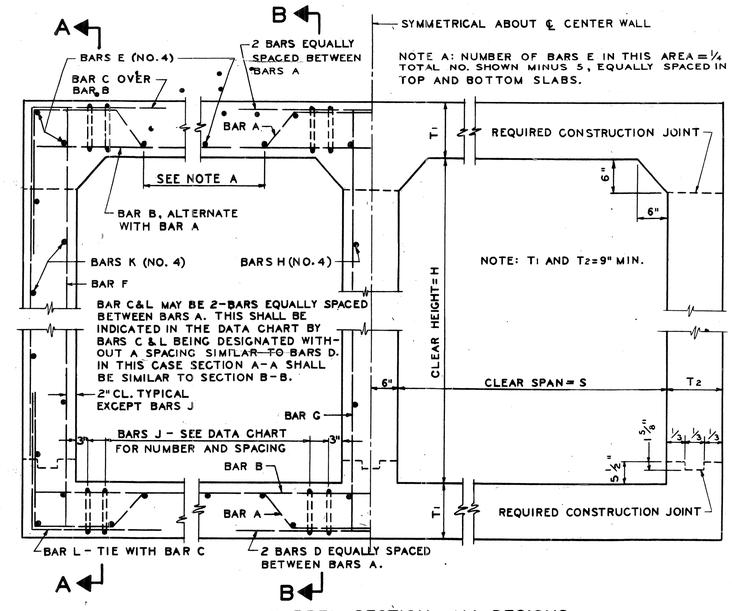
MINIMUM FILL HEIGHT FROM TOP OF CULVERT TO BOTTOM OF BASE WITHIN TRAVELWAY SHALL BE 12 INCHES.

MAXIMUM POUR LENGTH SHALL NOT EXCEED 30 FEET ALONG THE LENGTH OF THE CULVERT.

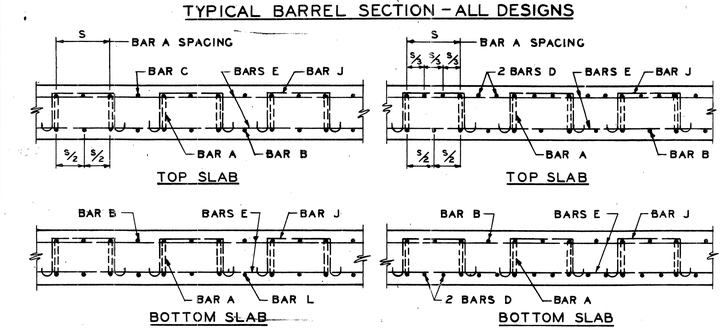
TRANSVERSE CONSTRUCTION JOINTS SHALL BE PLACED IN THE BARREL, NORMAL TO THE CENTERLINE OF CULVERT, AT THE OUTSIDE SHOULDER BREAK POINTS. LONGITUDINAL BARREL REINFORCING STEEL SHALL NOT BE CONTINUOUS THROUGH THESE JOINTS, PROVIDED THAT THE JOINTS ARE MORE THAN 15 FEET FROM THE BARREL ENDS.
WHEN TRANSVERSE CONSTRUCTION JOINTS OCCUR WITHIN 15 FEET OF THE BARREL ENDS OR WITHIN THE LIMITS OF THE PAVEMENT, THE LONGITUDINAL BARREL REINFORCING SHALL THEN BE CONTINOUS THROUGH SUCH JOINTS. THE MINIMUM LENGTH OF LAP SPLICE FOR LONGITUDINAL REINFORCING SHALL BE 24 INCHES.

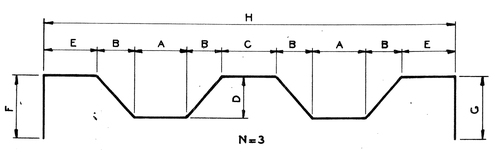
TRANSVERSE CONSTRUCTION JOINTS PLACED AT ANY OTHER LOCATION NOT SPECIFIED ABOVE SHALL BE FORMED WITH NO LONGITUDINAL REINFORCING STEEL PASSING THROUGH THE JOINTS.

NOTE: BEND LONGITUDINAL BARS INTO WINGS AND PARAPETS SIMILAR TO STANDARDS. IF CULVERT IS SKEWED CUT TRANSVERSE STEEL AND BEND 12" INTO PARAPET OR TOE WALL AND HOOK.

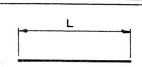


TYPICAL BARREL SECTION - ALL DESIGNS

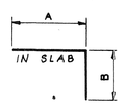




TYPE 50

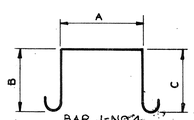


TYPE 1



TYPE 3

NOTE: NO. OF "J" BARS SHOWN IN DATA CHART IS THE NO. PER CORNER IN ANY ONE PLANE. THE TOTAL NO. OF "J" BARS REQUIRED DEPENDS UPON THE LENGTH OF THE SECTION.



BAR J-NO.4
TYPE 36

②

NOTE: FOR DIMENSIONS NOT SHOWN SEE DATA CHART.

BAR "A": $B=D=T_1-4''$; $G=F$; $H=2T_2+2S+8''$; $A=H-4B-2E$.

BAR "B": $L=2T_2+2S+8''$.

BAR "C": $B=H+T_1-7\frac{1}{2}''$.

BAR "F": $L=H+2T_1-4''$.

BAR "G": $L=H+2T_1-4''$.

BAR "J": A = SPACING OF BAR "A" + 1" + DIA. OF BAR "A"; $B=C=T_1-3''$.

BAR "L": $B=T_1+3\frac{1}{2}''+X$; NOTE: $X = 24\Phi$ FOR BARS NO.4-7.
$X = 25.36\,\Phi^2$ FOR BARS NO.8-11.

NOTE: Φ = DIA. OF BAR "L".

ADD REQUIREMENT NOTE 11-26-01

BY	REVISIONS	DATE
R.J.S.	ADD 7X7, 40' TO 80' FILL	9-18-73 ①
R.J.S.	DELETE BAR INCREASE TO 9	2-28-80
R.J.S.	ADD DBL-9-6-40A (DBL-9-6-50)	4-6-81
R.J.S.	REF. TO GA. STD. 3950	5-11-81 ②

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

SPECIAL DESIGN DOUBLE BOX CULVERT
7 X 7 - 9 X 6

NO SCALE

BRIDGE SHEET OF	DESIGNED GCL	TRACED WPR	REVIEWED
	DRAWN GCL	CHECKED BFR	APPROVED