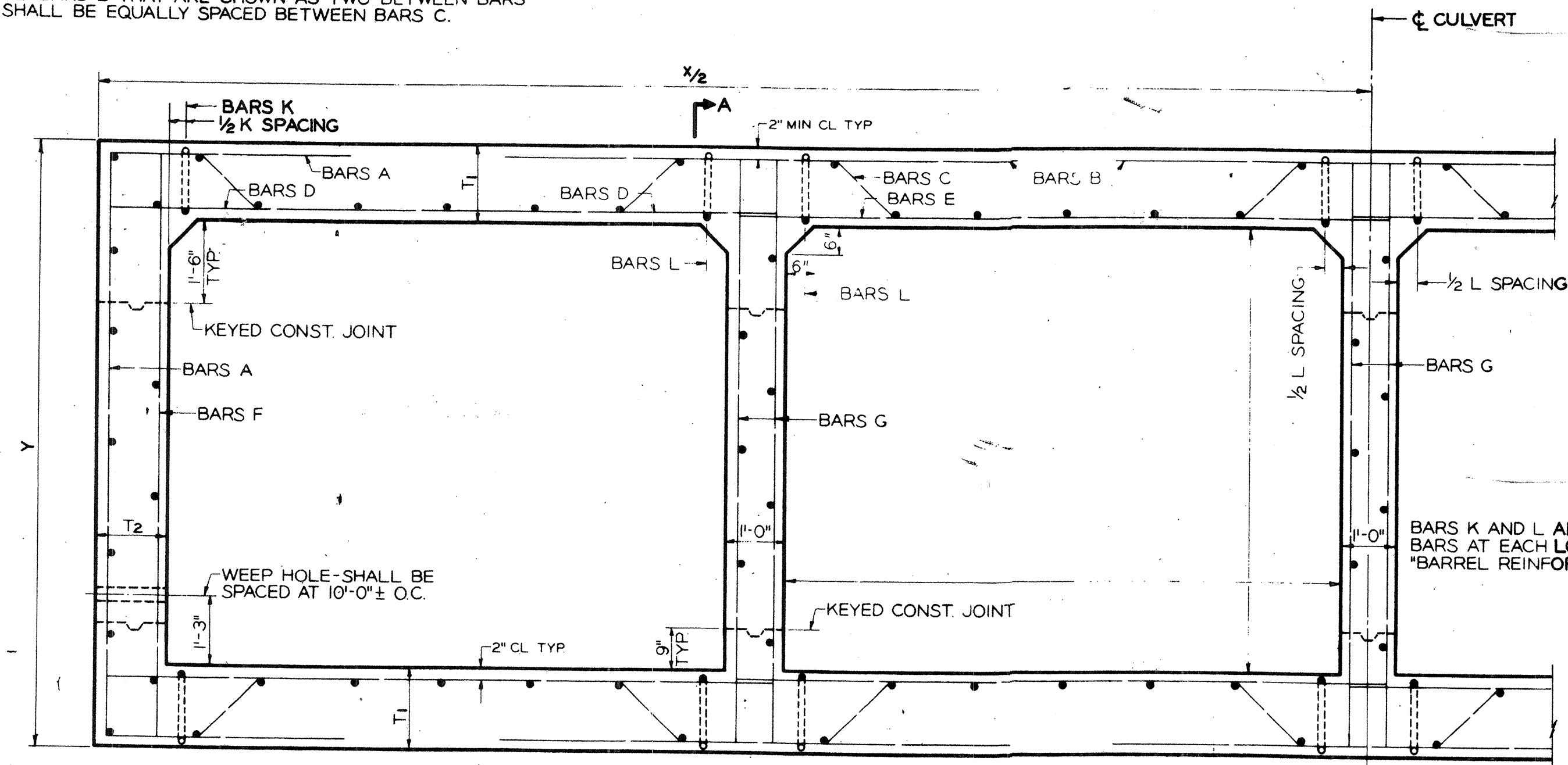


STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

QUADRUPLE 7'X4' BOX CULVERT BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS					
DESIGN	1	2	3	4	5
HEIGHT OF FILL OVER TOP	10 FT.				
A	501 AT 12"				
B	2-502 BETWEEN				
C	401 AT 12"				
D	601 AT 12"				
E	402 AT 12"				
F	403 AT 12"				
G	404 AT 12"				
J	99-405				
K					
L					
X	32'-0"				
Y	5'-3"				
T ₁	0'-7 1/2"				
T ₂	0'-6 1/2"				
CU. YDS. CONCRETE PER FT.	2.192				
LBS. BAR REINF. STEEL PER FT.	305				

NOTE: BARS B THAT ARE SHOWN AS TWO BETWEEN BARS C SHALL BE EQUALLY SPACED BETWEEN BARS C.



NOTE: CULVERT AND BAR REINFORCEMENT ARE SYMMETRICAL ABOUT CULVERT.

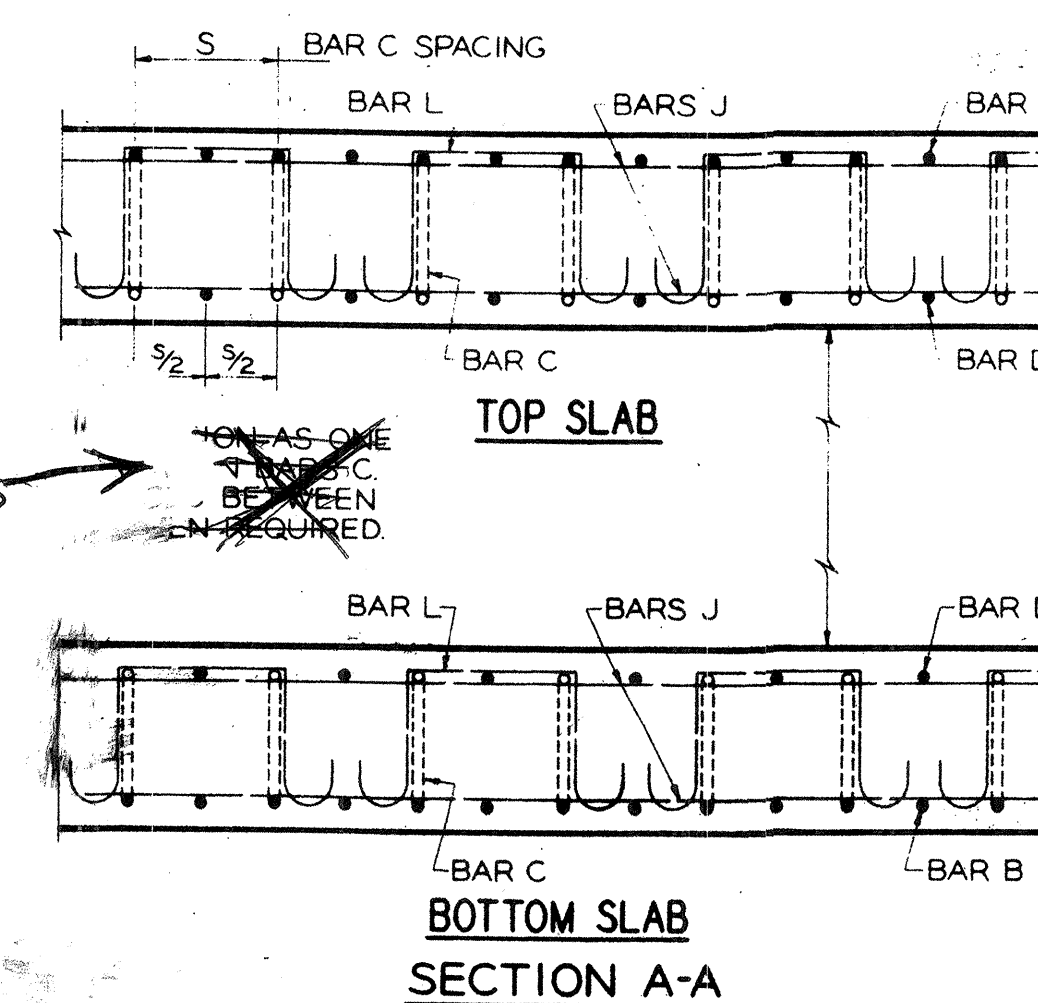
BARREL SECTION BAR REINFORCEMENT DETAILS							
MARK	LENGTH	TYPE	A	B	C	D	E
401	37'-0"	7	0'-11"	4'-10 1/2"	3'-3 1/2"	0'-3 1/2"	1'-11 1/2"
402	8'-8"	1					4'-1 1/2"
403	4'-11"	1					
404	4'-11"	1					
405	POUR - 4"	1					
501	8'-9"	8	4'-11"	1'-11"	1'-11"		
502	5'-9"	1					
601	8'-4"	1					

QUANTITIES FOR WINGWALLS, PARAPETS, TOEWALLS & APRONS							
	CONCRETE (CU. YDS.)				STEEL (LBS.)		
	NORMAL	75°SKEW	60°SKEW	45°SKEW	NORMAL	75°SKEW	60°SKEW
4 WINGWALLS, 2 PARAPETS & 2 TOEWALLS	21.34	21.07	23.40	29.28	763	1033	1597
6" CONCRETE APRON	7.79	7.70	9.47	11.72	577	571	701

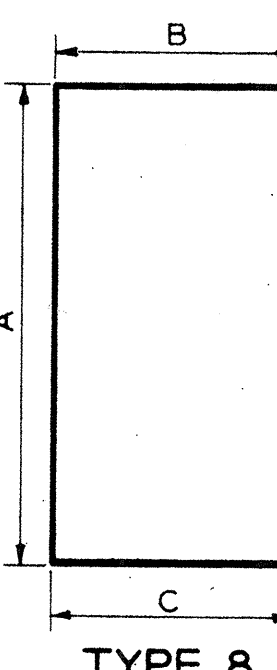
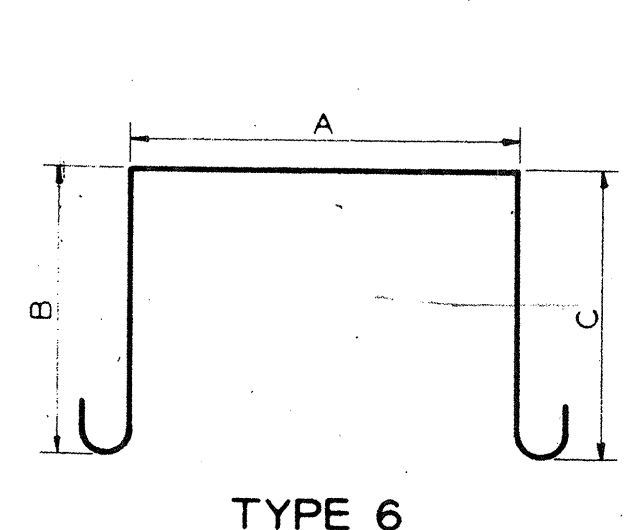
LENGTH OF REBARS IN PARAPET, TOEWALL							
	NORMAL	75°SKEW	60°SKEW	45°SKEW			
X BARS	32'-10"	35'-0"	38'-40"	37'-6"	K BARS	K BARS	K BARS
L BARS	48'-4"	45'-10"			L BARS	L BARS	L BARS

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 CONTINUOUS 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: BARS B SHOWN IN SECTION AS ONE BAR EQUALLY SPACED BETWEEN BARS C. TWO BARS B EQUALLY SPACED BETWEEN BARS C SHALL BE USED WHEN REQUIRED.



BOX CULVERT ONLY
TYPE 7



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.

ADD REQUIREMENT NOTE 11-26-01
Delete Fill in Layout 5-25-99

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
REINFORCED CONCRETE BOX CULVERT QUADRUPLE 7'X4'	
NO SCALE	
APRIL 1961	
DESIGNED: JTK	TRACED: GMB-LR
DRAWN: P.D.P.	CHECKED: _____
REVIEWED: RKJ	APPROVED: _____