STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DOUBLE 10'-0" X 9'-0" BOX CULVERT

BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS

DESIGN	1	2	3	4	5	6	7	8
BAR A	480A @ 6"	479A @ 6"	715A @ 12"	573A @ 6"	576A @ 6"			
BAR B	558 @ 6"	632 @ 6"	723 @ 6"	728 @ 6"	807 @ 6"			
BAR C	743 @ 12"	571@ 6"	644 @ 6"	645 @ 6"	646 @ 6"			
BAR E	457 @ 12"	459 @ 12"	461 @ 12"	553 @ 12"	555 @ 12"			
BAR F	457 @ 12"	459 @ 12"	461 @ 12"	463 @ 12"	465 @ 12"			
BAR G IN 2 SLABS	64 - 401	68 - 401	68 - 401	80 - 401	80 - 401			
BAR H IN 3 WALLS	38 - 402	38 - 402	38 - 402	50 - 402	50 - 402			
BAR J IN EXT. CORNER	0	0	0	0	0			
BAR J IN INT. CORNER	0	3-425B @ 10¼"	3-428B @ 11½"	4-433B @ 13"	4-436B @ 12"			
T_1	14"	16"	18"	20"	22"			
T_2	15"	17"	19"	21"	23"			
T_3	14"	16"	18"	20"	22"			
X	23'-4"	23'-8"	24'-0"	24'-4"	24'-8"			
Y	11'-5"	11'-9"	12'-1"	12'-5"	12'-9"			
YD^3 CLASS AA CONCRETE/FT	3.218	3.651	4.093	4.542	5.000			
LB BAR REINF STEEL/FT	317.5	364.0	474.7	518.6	555.9			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 90° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	11.0	11.4	11.9	12.4	12.8			
LB BAR REINF STEEL	1441	1477	1475	1674	1672			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 75° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	11.4	11.9	12.4	12.8	13.3			
LB BAR REINF STEEL	1778	1818	1820	2027	2029			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 60° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	12.7	13.3	13.8	14.3	14.9			
LB BAR REINF STEEL	1881	1923	1926	2136	2140			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 45° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	15.7	16.3	16.9	17.6	18.3			
LB BAR REINF STEEL	2128	2172	2178	2395	2402			

DOUBLE 10'-0" X 10'-0" BOX CULVERT

BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS

DESIGN	1	2	3	4	5	6	7	8
BAR A	575A @ 12"	484A @ 6"	578A @ 6"	580A @ 6"	610A @ 6"			
BAR B	555 @ 6"	631 @ 6"	727 @ 6"	724 @ 6"	806 @ 6"			
BAR C	743 @ 12"	571 @ 6"	644 @ 6"	645 @ 6"	646 @ 6"			
BAR E	463 @ 12"	555 @ 12"	557 @ 12"	468 @ 6"	469 @ 6"			
BAR F	463 @ 12"	465 @ 12"	467 @ 12"	468 @ 12"	469 @ 12"			
BAR G IN 2 SLABS	64 - 401	68 - 401	68 - 401	80 - 401	80 - 401			
BAR H IN 3 WALLS	42 - 402	42 - 402	42 - 402	50 - 402	50 - 402			
BAR J IN EXT. CORNER	0	0	0	0	3-434B @ 14½			
BAR J IN INT. CORNER	0	3-425B @ 10¼"	3-431B @ 11½"	4-433B @ 13"	4-436B @ 11¾"			
T_1	14"	16"	18"	20"	22"			
T_2	15"	17"	19"	21"	23"			
T_3	14"	16"	18"	20"	22"			
X	23'-4"	23'-8"	24'-0"	24'-4"	24'-8"			
Y	12'-5"	12'-9"	13'-1"	13'-5"	13'-9"			
YD^3 CLASS AA CONCRETE/FT	3.342	3.787	4.241	4.703	5.173			
LB BAR REINF STEEL/FT	308.1	382.8	502.2	536.0	652.2			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 90° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	11.2	11.7	12.2	12.7	13.2			
LB BAR REINF STEEL	1467	1503	1501	1674	1672			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 75° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	11.7	12.2	12.7	13.2	13.7			
LB BAR REINF STEEL	1805	1845	1847	2027	2029			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 60° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	13.0	13.6	14.1	14.7	15.3			
LB BAR REINF STEEL	1909	1950	1954	2136	2140			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 45° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	16.0	16.7	17.4	18.0	18.8			
LB BAR REINF STEEL	2157	2201	2207	2395	2402			

DOUBLE 10'-0" X 11'-0" BOX CULVERT

BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS

DESIGN	1	2	3	4	5	6	7	8
BAR A	486A @ 6"	716A @ 12"	582A @ 6"	801A @ 12"	611A @ 6"			
BAR B	551 @ 6"	624 @ 6"	723 @ 6"	714 @ 6"	804 @ 6"			
BAR C	743 @ 12"	571 @ 6"	644 @ 6"	645 @ 6"	646 @ 6"			
BAR E	558 @ 12"	469 @ 6"	470 @ 6"	635 @ 12"	735 @ 12"			
BAR F	468 @ 12"	469 @ 12"	470 @ 12"	471 @ 12"	473 @ 12"			
BAR G IN 2 SLABS	64 - 401	68 - 401	68 - 401	80 - 401	80 - 401			
BAR H IN 3 WALLS	44 - 402	44 - 402	44 - 402	56 - 402	56 - 402			
BAR J IN EXT. CORNER	0	0	0	0	3-434B @ 14½"			
BAR J IN INT. CORNER	0	3-425B @ 10¼"	3-426B @ 11½"	4-433B @ 13"	5-436B @ 11½"			
T_1	14"	16"	18"	20"	22"			
T_2	15"	17"	19"	21"	23"			
T_3	14"	16"	18"	20"	22"			
X	23'-4"	23'-8"	24'-0"	24'-4"	24'-8"			
Y	13'-5"	13'-9"	14'-1"	14'-5"	14'-9"			
YD^3 CLASS AA CONCRETE/FT	3.465	3.923	4.389	4.863	5.346			
LB BAR REINF STEEL/FT	356.0	441.3	521.3	588.5	697.6			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 90° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	11.5	12.0	12.5	13.0	13.5			
LB BAR REINF STEEL	1491	1527	1525	1724	1722			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 75° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	11.9	12.4	13.0	13.5	14.0			
LB BAR REINF STEEL	1829	1869	1872	2078	2081			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 60° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	13.3	13.9	14.5	15.1	15.7			
LB BAR REINF STEEL	1934	1975	1979	2189	2193			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 45° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	16.4	17.1	17.8	18.5	19.2			
LB BAR REINF STEEL	2182	2226	2233	2450	2457			

DOUBLE 10'-0" X 12'-0" BOX CULVERT

BARREL REINFORCEMENT QUANTITIES AND DIMENSIONS

DESIGN	1	2	3	4	5	6	7	8
BAR A	485A @ 6"	717A @ 12"	584A @ 6"	612A @ 6"	613A @ 6"			
BAR B	547 @ 6"	619 @ 6"	719 @ 6"	719 @ 6"	802 @ 6"			
BAR C	743 @ 12"	571@ 6"	644 @ 6"	645 @ 6"	646 @ 6"			
BAR E	561 @ 12"	473 @ 6"	474 @ 6"	736 @ 12"	737 @ 12"			
BAR F	471 @ 12"	473 @ 12"	474 @ 12"	475 @ 12"	476 @ 12"			
BAR G IN 2 SLABS	64 - 401	68 - 401	68 - 401	80 - 401	80 - 401			
BAR H IN 3 WALLS	50 - 402	50 - 402	50 - 402	66 - 402	66 - 402			
BAR J IN EXT. CORNER	0	0	0	0	3-434B @ 14½"			
BAR J IN INT. CORNER	0	3-425B @ 10¼"	3-431B @ 11½"	4-433B @ 13"	5-436B @ 11½"			
T_1	14"	16"	18"	20"	22"			
T_2	15"	17"	19"	21"	23"			
T_3	14"	16"	18"	20"	22"			
X	23'-4"	23'-8"	24'-0"	24'-4"	24'-8"			
Y	14'-5"	14'-9"	15'-1"	15'-5"	15'-9"			
YD^3 CLASS AA CONCRETE/FT	3.588	4.059	4.537	5.024	5.519			
LB BAR REINF STEEL/FT	353.0	455.1	535.0	653.6	719.4			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 90° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	11.8	12.3	12.9	13.4	13.9			
LB BAR REINF STEEL	1543	1579	1577	1802	1800			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 75° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	12.3	12.8	13.3	13.9	14.5			
LB BAR REINF STEEL	1883	1923	1925	2159	2162			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 60° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	13.7	14.3	14.9	15.5	16.1			
LB BAR REINF STEEL	1988	2029	2033	2271	2275			
PARAPET, BARREL END, AND TOEWALL QUANTITIES - 45° SKEW - TOTAL								
YD^3 CLASS AA CONCRETE	16.8	17.6	18.3	19.1	19.8			
LB BAR REINF STEEL	2239	2283	2289	2536	2542			

BY	REVISION	DATE

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD

REINFORCED CONCRETE
DOUBLE BOX CULVERT
10'X9', 10'X10', 10'X11' AND 10'X12'

NO SCALE — SEPTEMBER 2017

DES. YSK
DRW. FGS
TRA. ___
CHK. JWB

(SUBMITTED) STATE DESIGN POLICY ENGINEER
(APPROVED) Margaret B Pickelo CHIEF ENGINEER

NUMBER 2402
SHEET 2-N OF 3