STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.	STP00-0163-01(015)	33	162

REVISION DATES

VOID

STA 74+92.65 EXIST ℄
82 L.F. 18" CONC. PIPE (RETAIN AND EXTEND)
STA. 74+92.65 REQD ℄
28 L.F. 18" STORM DRAIN PIPE (LEFT), STD. 1030-D
24 L.F. 18" STORM DRAIN PIPE (RIGHT), STD. 1030-D
2 EACH FLARED END SECTION, STD. 1120
14 SQ YD RIP RAP, 18", TP. III
14 SQ YD PLASTIC FILTER FABRIC
REMOVE HEADWALLS STA 74+92.65

HW 100 = 777.79
HW 50 = 777.61
18" RCP REQD 2.41%
18" RCP EXISTING 2.41%
(RETAIN AND EXTEND)
18" RCP REQD 9.96%
B-5
775.48
FL ELEV.
FLARED END SECTION
STD. 1120
74+92.65
B-6
770.29
FL ELEV.
FLARED END SECTION
STD. 1120
771.07
FL ELEV.
18" COLLAR
D.A. = 2.48
Q50 = 9.47 CFS
Q100 = 10.19 CFS
773.04
FL ELEV.
18" COLLAR
RIP RAP 18", TP III

STA 68+59.58 EXIST ℄
85 L.F. 24" CONC. PIPE (RETAIN AND EXTEND)
STA. 68+59.58 REQD ℄
48 L.F. 30" STORM DRAIN PIPE (LEFT), STD. 1030-D
24 L.F. 30" STORM DRAIN PIPE (RIGHT), STD. 1030-D
2 EACH FLARED END SECTION, STD. 1120
22 SQ YD RIP RAP, 18", TP. III
22 SQ YD PLASTIC FILTER FABRIC
REMOVE HEADWALLS STA 68+59.58

HW 100 = 768.98
HW 50 = 768.69
RIP RAP 18", TP III
30" COLLAR
30" RCP REQD 3.50%
30" RCP EXISTING 3.50%
(RETAIN AND EXTEND)
30" COLLAR
4.52%
3.89%
B-4
759.43
FL ELEV.
FLARED END SECTION
STD. 1120
761.33
FL ELEV.
D.A. = 8.62
Q50 = 32.93 CFS
Q100 = 35.43 CFS
764.31
FL ELEV.
765.27
FL ELEV.
FLARED END SECTION
STD. 1120
B-3
68+59.58

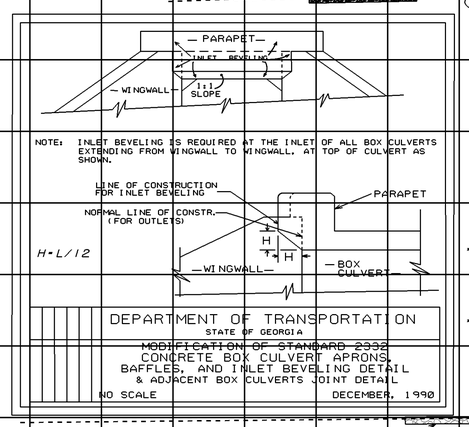
BOX CULVERT REQUIREMENTS:

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 THE 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 END 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.



STA. 58+46.92 EXIST ℄
72 L.F. SINGLE 3' X 2' BOX CULVERT (RETAIN/EXTEND)
STA. 58+46.92 REQD ℄
64 L.F. SINGLE 3' X 2' BOX CULVERT, DESIGN & BARREL STDS.
2321-1, 2321-2, 2331, 2332
(40 LF LT & 24 LF RT)
* 32.33 CU. YDS CLASS "A" CONC.
** 2261.8 LBS BAR REINF. STEEL
50 CU. YDS FOUNDATION BKFILL MATL, TP. II
REMOVE WINGWALLS/PARAPETS - STA. 58+46.92

* INCLUDES 16.38 CU. YDS - BARREL 10.24 CU YDS LT / 6.14 CU YDS RT)
5.71 CU. YDS - WINGS/PARAPETS LT
5.71 CU. YDS WINGS/ PARAPETS RT
8.65 CU. YDS - APRON LT
1.00 CU. YDS - INLET BEVELING

** INCLUDES 1932.8 LBS - BARREL (1208 LBS LT / 724.8 LBS RT)
143 LBS - WINGS/PARAPETS LT
143 LBS - WINGS/ PARAPETS RT
647 LBS - APRON LT

HW 100 = 768.83
HW 50 = 768.61
SINGLE 3' X 2' CULVERT REQD
(RETAIN AND EXTEND)
4.26%
4.26%
4.26%
3' X 2' BOX CULVERT 4.26%
58+46.92
B-2
30° SKEW
759.90
FL ELEV.
RIP RAP 18", TP III
761.23
FL ELEV.
D.A. = 13.10
Q50 = 40.03 CFS
Q100 = 43.07 CFS
764.31
FL ELEV.
30° SKEW
B-1
765.61
FL ELEV.

54+22.98
18" RCP EXISTING (REMOVE) 1.80%
18" RCP REQD 0.50%
A-3
774.70
FL ELEV.
FLARED END SECTION
STD. 1120
RIP RAP 18", TP III
775.01
FL ELEV.
Skew = 49°06'37.1"
776.37
FL ELEV.
A-2
775.35
FL ELEV.
SEE X-SECTION STATION 52+50 TO 53+74.41
1 EACH STD 9031-S
DROP INLET, GP 1 REQD
STA 54+22.98 EXIST ℄
76 L.F. 18" CONC. PIPE (REMOVE)
STA. 68+59.58 REQD ℄
125 L.F. 18" STORM DRAIN PIPE STD. 1030-D
1 EACH FLARED END SECTION, STD. 1120
14 SQ YD RIP RAP, 18", TP. III
14 SQ YD PLASTIC FILTER FABRIC

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 BL 10 20 30 40 50 60 70 80 90 100 110 120 130 140

DRAINAGE PROFILE FROM STATION 52+50 TO STATION 53+74.41 RIGHT SIDE

52+50 TO 53+74.41

STA. 68+59.58 REQD C
116 L.F. 18" STORM DRAIN PIPE STD. 1030-D
1 SAFETY INLET W/GRATE, DETAIL D5

HW 50 = 779.90
HW 100 = 780.09
PROPOSED DITCH 0.97%
18" RCP REQD 1.81%
PROPOSED DITCH 0.93%
777.67
FL ELEV.
A-1
SAFETY INLET W/GRATE
DETAIL D5
1 EACH STD 9031-S
DROP INLET, GP 1 REQD
A-2
775.35
FL ELEV.
SEE X-SECTION STATION 54+22.98

51+90 52+00 52+10 52+20 52+30 52+40 52+50 52+60 52+70 52+80 52+90 53+00 53+10 53+20 53+30 53+40 53+50 53+60 53+70 53+80 53+90 54+00 54+10 54+20 54+30 54+40 54+50 54+60 54+70 53+80 53+90

SCALE 1 Inch = 10 feet Vert. SCALE 1 Inch = 10 feet Horiz.

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE OF DESIGN

DRAINAGE CROSS SECTIONS: S.R. 81

DRAWING No. 22-001

5/7/2013
O:\Newton\231625 STP00-0163-01(015) Newton Co\Microstation\NEW DGN FILES\231625P01.DGN