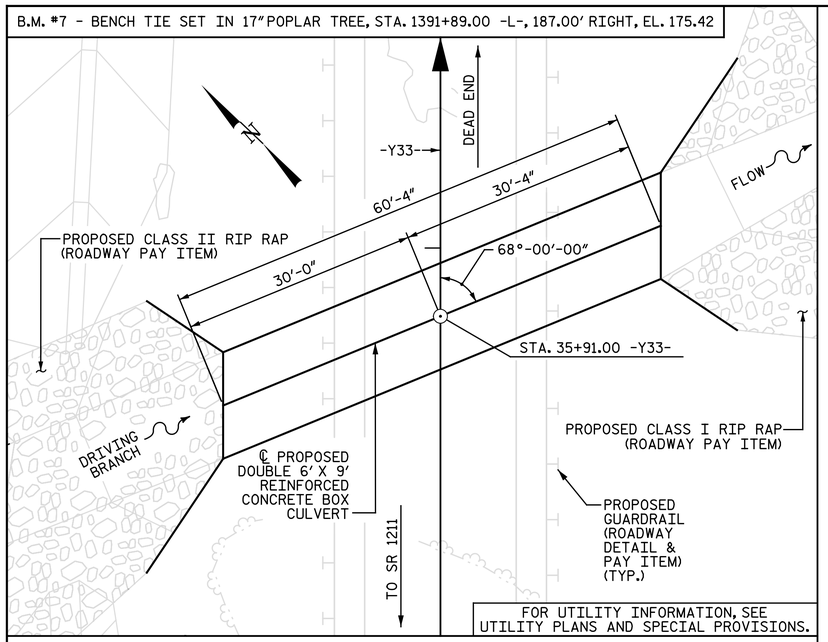


LOCATION SKETCH

ROADWAY DATA

GRADE POINT ELEV. @ STATION 35+91.00 -Y33-	= 177.97
BED ELEV. @ STATION 35+91.00 -Y33-	= 163.50
ROADWAY SLOPES	= 3:1

HYDRAULIC DATA

DESIGN DISCHARGE	= 490 C.F.S.
FREQUENCY OF DESIGN FLOOD	= 25 YRS.
DESIGN HIGH WATER ELEVATION	= 171.00
DRAINAGE AREA	= 1.27 SQ. MI.
BASE DISCHARGE (Q100)	= 530 C.F.S.
BASE HIGH WATER ELEVATION	= 171.60

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE	= 1,350 C.F.S.
FREQUENCY OF OVERTOPPING FLOOD	= 500+ YR.
OVERTOPPING FLOOD ELEVATION	= 177.10

NOTE: OVERTOPS SP @ STA. 37+12.00 -Y33- LEFT (SAG)

TOTAL STRUCTURE QUANTITIES

CULVERT EXCAVATION	LUMP SUM
FOUNDATION CONDITIONING MATERIAL	77 TONS
CLASS A CONCRETE	
BARREL @ 1.453 CY/FT 87.6	C.Y.
WINGS ETC. 47.2	C.Y.
TOTAL 134.8	C.Y.
REINFORCING STEEL	
BARREL 12,542	LBS.
WINGS ETC. 3,324	LBS.
TOTAL 15,866	LBS.

NOTES:

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.

MAXIMUM DESIGN FILL = 5.47'.

MINIMUM DESIGN FILL = 5.25'.

FOR OTHER DESIGN DATA AND NOTES, SEE STANDARD NOTE SHEET.

3"Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

CONCRETE IN CULVERTS TO BE POURED IN THE FOLLOWING ORDER:

1. WING FOOTINGS AND FLOOR SLAB INCLUDING 4" OF ALL VERTICAL WALLS.
2. THE REMAINING PORTIONS OF THE WALLS AND WINGS FULL HEIGHT FOLLOWED BY ROOF SLAB AND HEADWALLS.

THE RESIDENT ENGINEER SHALL CHECK THE LENGTH OF CULVERT BEFORE STAKING IT OUT TO MAKE CERTAIN THAT IT WILL PROPERLY TAKE CARE OF THE FILL.

DIMENSIONS FOR WING LAYOUT AS WELL AS ADDITIONAL REINFORCING STEEL EMBEDDED IN BARREL ARE SHOWN ON WING SHEET.

STEEL IN THE BOTTOM SLAB MAY BE SPLICED AT THE PERMITTED CONSTRUCTION JOINT AT THE CONTRACTOR'S OPTION. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES WILL BE PAID FOR BY THE CONTRACTOR.

AT THE CONTRACTORS OPTION, HE MAY SPLICE THE VERTICAL REINFORCING STEEL IN THE INTERIOR FACE OF EXTERIOR WALL AND BOTH FACES OF INTERIOR WALLS ABOVE LOWER WALL CONSTRUCTION JOINT. THE SPLICE LENGTH SHALL BE AS PROVIDED IN THE SPLICE LENGTH CHART SHOWN ON THE PLANS. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.

FOR CULVERT DIVERSION DETAILS AND PAY ITEM, SEE EROSION CONTROL PLANS.

A 3 FOOT STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE OF THE WING COVERING THE ENTIRE LENGTH OF THE EXPANSION JOINT.

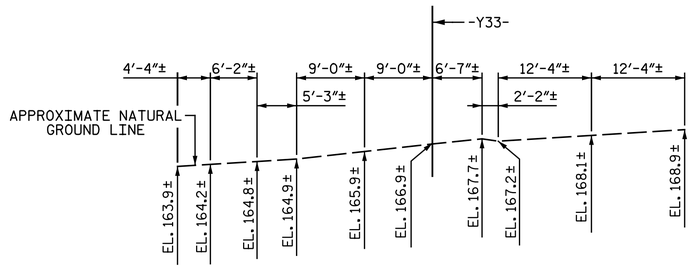
NO PRECAST REINFORCED BOX CULVERT OPTION WILL BE ALLOWED.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.



PROFILE ALONG ℄ CULVERT

PROJECT NO. I-5986B

JOHNSTON COUNTY

STATION: 35+91.00 -Y33-

SHEET 1 OF 3

DocuSigned by: Amanda H. Sharpe 81D6FFF4ECEF4D2...

4/7/2020

NORTH CAROLINA PROFESSIONAL SEAL 043878 ENGINEER AMANDA H. SHARPE

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DOUBLE 6 FT. X 9 FT.
CONCRETE BOX CULVERT
68° SKEW

DRAWN BY : N. B. SPEAKS DATE : 2-4-20
CHECKED BY : A. H. SHARPE DATE : 3-31-20

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Michael Baker INTERNATIONAL

Michael Baker Engineering
8000 Regency Parkway, Suite 600
Cary, North Carolina 27518
NC License No. : F-1084

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C1-1
1			3			TOTAL SHEETS
2			4			5