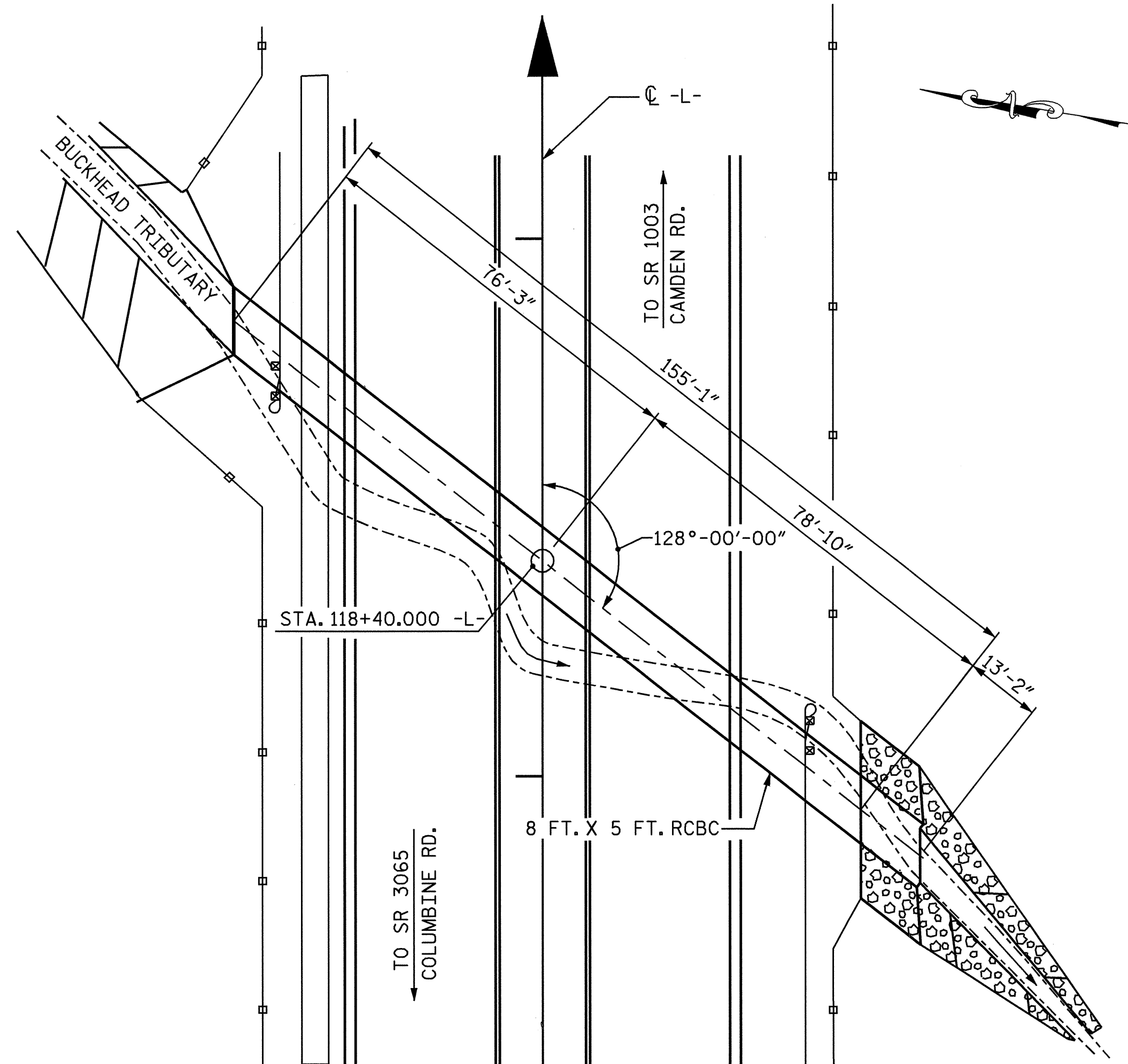


BM #102 R.R. SPIKE IN BASE OF 24" PINE 96.36' LT. OF -L- STA.115+74.72
ELEV. 124.66 FT.

F.A. PROJECT NO. STP-0622 (5)



LOCATION SKETCH

FOR UTILITY INFORMATION,
SEE UTILITY PLANS AND
SPECIAL PROVISIONS

ROADWAY DATA

GRADE POINT ELEV. @ STA 118+40.00 -L- = 129.24'
BED ELEV. @ STA. 118+40.00 -L- = 118.13'
ROADWAY SLOPES = 2:1

HYDROGRAPHIC DATA

DESIGN DISCHARGE = 350 CFS
FREQUENCY OF DESIGN FLOOD = 50 YR.
DESIGN HIGH WATER ELEV. = 123.65'
DRAINAGE AREA = 0.57 SQ. MI.
BASIC DISCHARGE (Q100) = 400 CFS
BASIC HIGH WATER ELEV. = 124.05'

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE = 700 CFS
FREQUENCY OF OVERTOPPING FLOOD = 500 YR.+
OVERTOPPING FLOOD ELEV. = 127.86

NOTES

ASSUMED LIVE LOAD -----HS20-44 OR ALTERNATE LOADING.
DESIGN FILL----- 6.95'
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.

TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED IN THE BARREL, SPACED TO LIMIT THE POURS TO A MAXIMUM OF 70 FT. LOCATION OF JOINTS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.

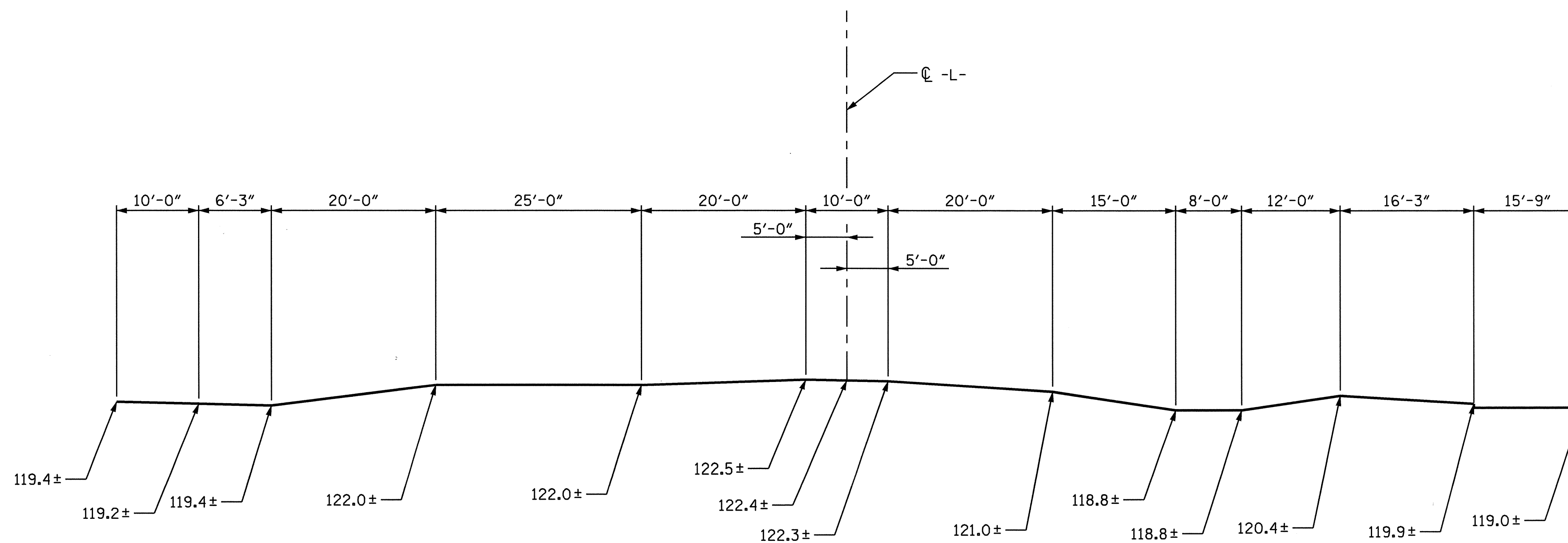
AT THE CONTRACTOR'S OPTION, HE MAY SPLICE THE VERTICAL REINFORCING STEEL IN THE INTERIOR FACE OF EXTERIOR WALL ABOVE LOWER WALL CONSTRUCTION JOINT. THE SPLICE LENGTH SHALL BE AS PROVIDED IN THE SPLICE LENGTH CHART SHOWN ON THE PLANS. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.

AT THE CONTRACTOR'S OPTION HE MAY SUBMIT, TO THE ENGINEER FOR APPROVAL, DESIGN AND DETAIL DRAWINGS FOR A PRECAST REINFORCED CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE CULVERT SHOWN ON THE PLANS. THE DESIGN SHALL PROVIDE THE SAME SIZE AND NUMBER OF BARRELS AS USED ON THE CAST-IN-PLACE DESIGN. FOR OPTIONAL PRECAST REINFORCED CONCRETE BOX CULVERT, SEE SPECIAL PROVISIONS.

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.

TOTAL STRUCTURE QUANTITIES

CLASS A CONCRETE			
BARREL @	0.712	CY/FT	110.4
			C.Y.
INLET WING ETC.		9.0	C.Y.
OUTLET WING ETC.		6.0	C.Y.
TOTAL		125.4	C.Y.
REINFORCING STEEL			
BARREL & OUTLET WING		15878	LBS.
WINGS ETC.		460	LBS.
TOTAL		16338	LBS.
CULVERT EXCAVATION			LUMP SUM
FOUNDATION COND.MAT'L			110 TONS
FILTER FABRIC			32 SQ. YD.
PLAIN RIP RAP CLASS I			25 TONS



PROFILE ALONG CULVERT

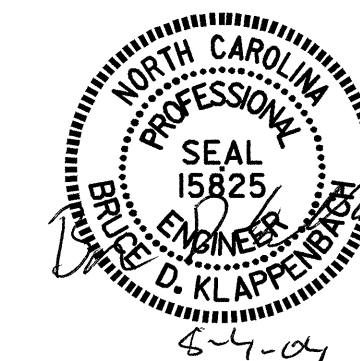
PROJECT NO. U-0620
CUMBERLAND COUNTY
STATION: 118+40.00 -L-

SHEET 1 OF 6

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
**BARREL STANDARD
SINGLE 8 FT. X 5 FT.
CONCRETE BOX CULVERT
128°-00'-00" SKEW**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C-12
1			3			TOTAL SHEETS
2			4			23

Ann Mathews
8/2/04



DRAWN BY: M. G. SHAIKH DATE: 8-06-03
CHECKED BY: D. A. GLADDEN DATE: 9-17-03