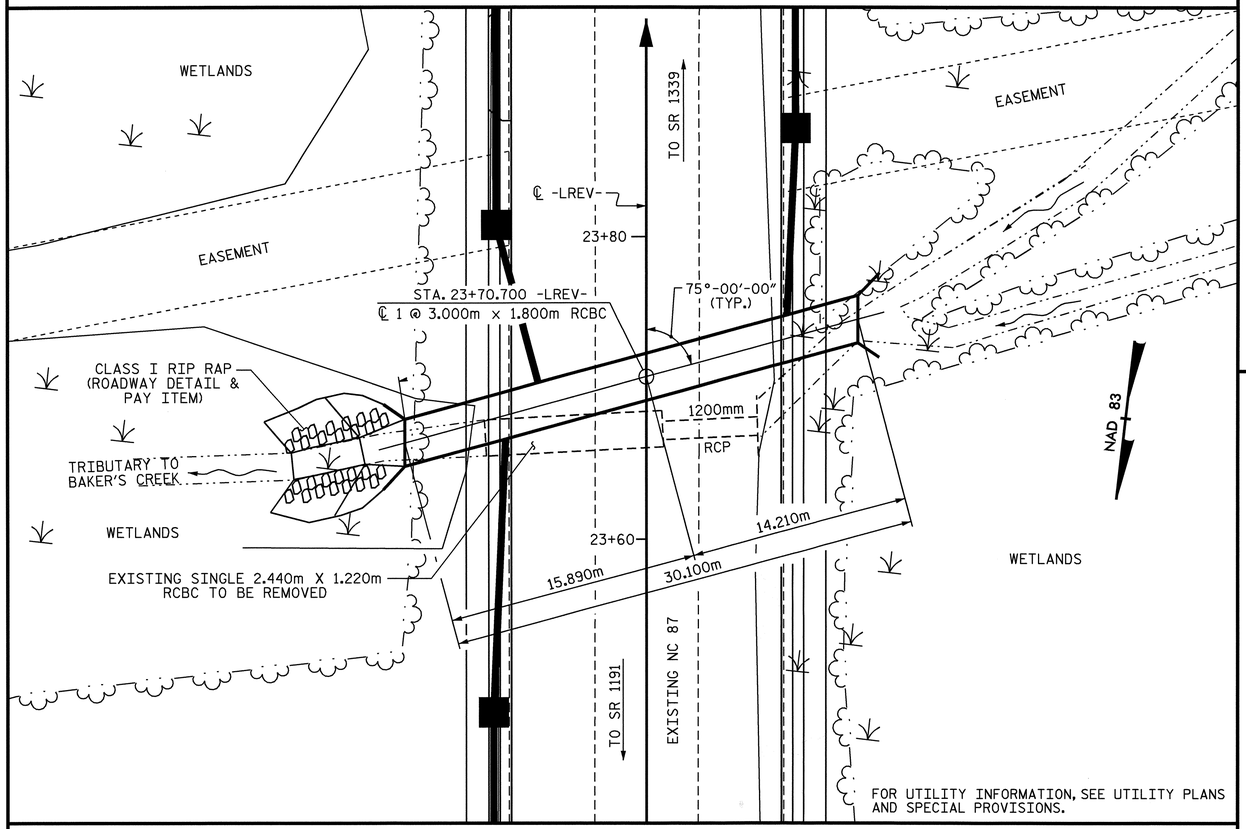
TBM #17: -LREV- STA. 20+37.157, OFFSET 71.889 LT. RR SPIKE SET IN BASE OF 18" COTTONWOOD TREE, ELEV. 37.901. NGVD 29.



LOCATION SKETCH

GRADE DATA

GRADE POINT ELEVATION @ STA. 23+70.700 -LREV-	= 37.947
BED ELEVATION @ STA. 23+70.700 -LREV-	= 35.120
ROADWAY SLOPES	= 3:1

HYDRAULIC DATA

DESIGN DISCHARGE	= 8.0 m³/s
FREQUENCY OF DESIGN FLOOD	= 50 YEARS
DESIGN HIGH WATER ELEVATION	= 37.07
DRAINAGE AREA	= 53 Ha
BASIC DISCHARGE (Q100)	= 9.7 m³/s
BASIC HIGH WATER ELEVATION	= 37.28

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE	= 9.5 m³/s
FREQUENCY OF OVERTOPPING FLOOD	= ± 50 YEARS
OVERTOPPING FLOOD ELEVATION	= 37.09

TOTAL STRUCTURE QUANTITIES

CLASS A CONCRETE			
BARREL @	2.56 m³/m	77.1	m³
WINGS ETC.		18.1	m³
TOTAL		95.2	m³
REINFORCING STEEL			
BARREL		6368	kg
WINGS ETC.		618	kg
TOTAL		6986	kg
CULVERT EXCAVATION		LUMP SUM	
FOUNDATION COND. MAT'L.		70 METRIC TONS	
REMOVAL OF EXISTING STRUCTURE		LUMP SUM	

NOTES

ASSUMED LIVE LOAD ----------MS18 OR ALTERNATE LOADING.

DESIGN FILL---------- 0.375m (MIN.) 0.865m (MAX.)

FOR OTHER DESIGN DATA AND NOTES SEE STANDARD NOTE SHEET.

76mm 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 100mm 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 21.0m. 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.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

ALL ELEVATIONS ARE IN METERS.

THE EXISTING 1 @ 2.40m x 1.22m REINFORCED CONCRETE BOX CULVERT LOCATED AT THE PROPOSED SITE SHALL BE REMOVED.

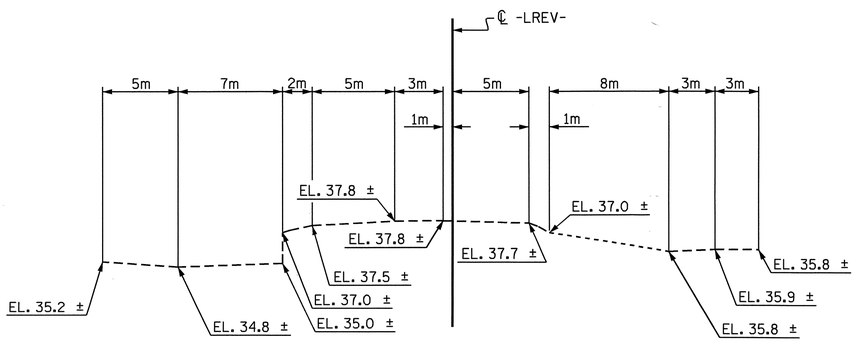
FOR CULVERT DIVERSION DETAILS AND PAY ITEM, SEE EROSION CONTROL PLANS.

A 900mm STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE OF THE WING COVERING THE ENTIRE LENGTH OF THE EXPANSION JOINT.

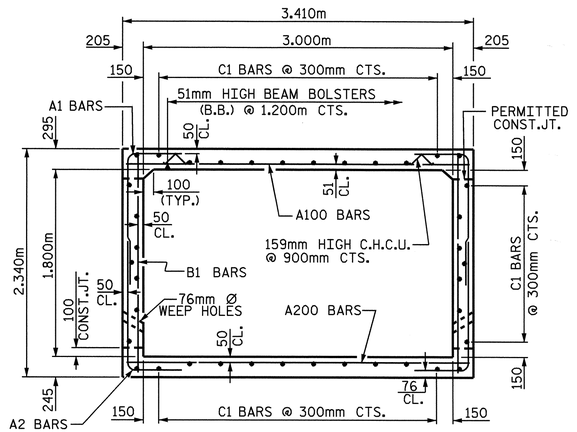
THE 375mm, 600mm, AND 900mm Ø PIPE THROUGH THE SIDEWALL OF THE CULVERT SHALL BE LOCATED BY THE ENGINEER. THE REINFORCING STEEL SHALL BE FIELD BENT AS NECESSARY TO CLEAR PIPE.

NO PRECAST REINFORCED BOX CULVERT OPTION WILL BE ALLOWED.

FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS.



PROFILE ALONG ℄ CULVERT



RIGHT ANGLE SECTION OF BARREL

THERE ARE 38 "C" BARS IN SECTION OF BARREL

METRIC

PROJECT NO. R-2562D

BLADEN COUNTY

STATION: 23+70.700 -LREV-

SHEET 1 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BARREL STANDARD SINGLE 3.000m X 1.800m CONCRETE BOX CULVERT 75° SKEW

ASSEMBLED BY : T.L. AVERETTE	DATE : 08-04
CHECKED BY : PEGGY ADKINS	DATE : 08-04
DRAWN BY : EEM 6/97	
CHECKED BY : ARB 7/97	

NORTH CAROLINA PROFESSIONAL SEAL 12274 ENGINEER OMAR R. AZIZI
10/22/04

NORTH CAROLINA PROFESSIONAL SEAL 14045 ENGINEER TIMOTHY L. COGGINS
10/21/04

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

STD. No. CBI75sm