

NOTES

ASSUMED LIVE LOAD -----MS18 OR ALTERNATE LOADING.
 DESIGN FILL-----3.130m
 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 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 WINGS COVERING THE ENTIRE LENGTH OF THE EXPANSION JOINT.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

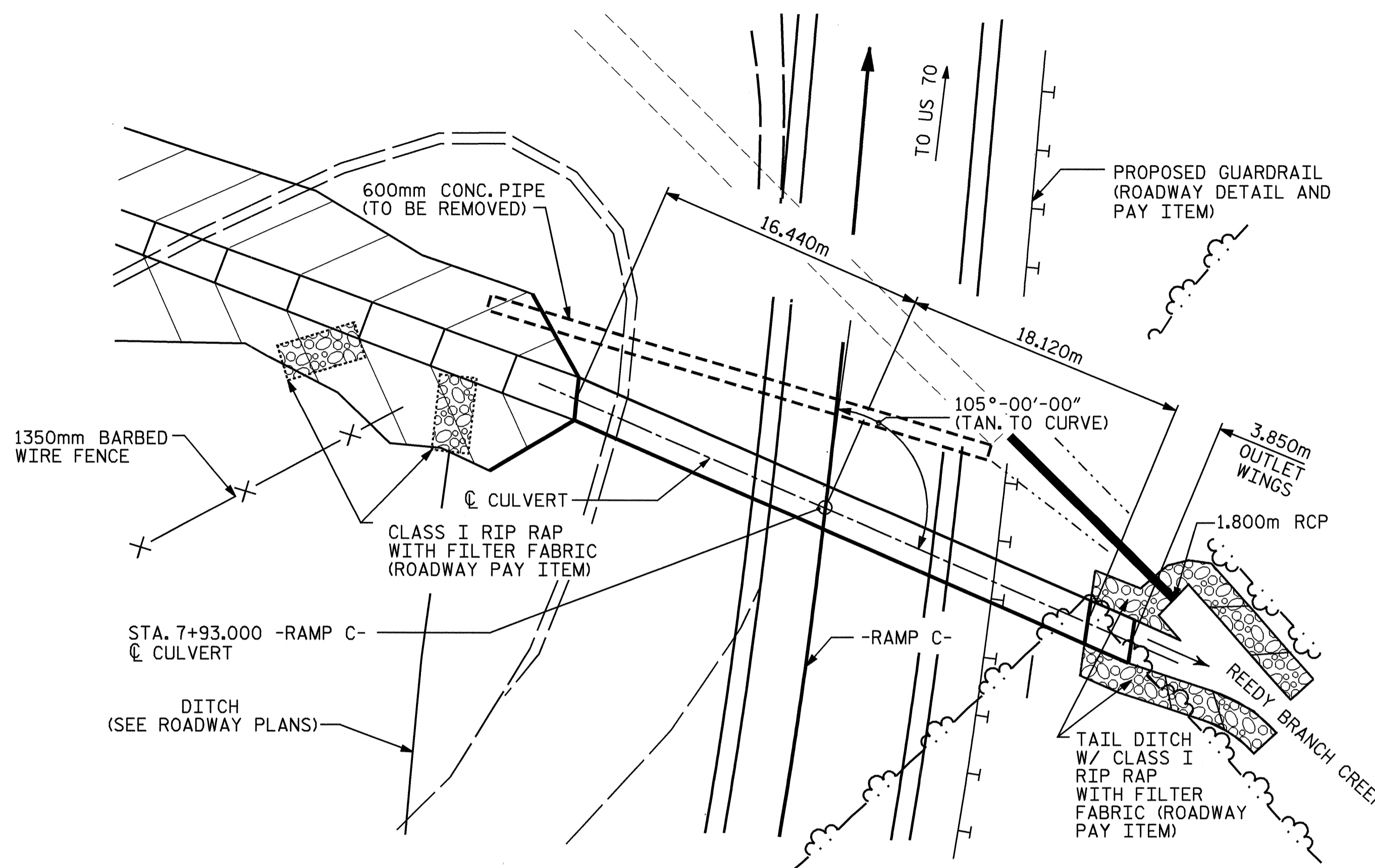
ALL ELEVATIONS IN METERS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

NO PRECAST REINFORCED BOX CULVERT OPTION WILL BE ALLOWED.

~~THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 360,000kg OF REINFORCING STEEL, ONE 760mm SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 360,000kg OF REINFORCING STEEL, TWO 760mm SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SAME SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS.~~

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.



GRADE DATA

GRADE POINT ELEV. = 80.721
 @ STA. 7+93.000 -RAMP C-
 BED ELEV. @ = 76.055
 STA. 7+93.000 -RAMP C-
 ROADWAY SLOPES = 4 : 1 (LEFT)
 = 2 : 1 (RIGHT)

HYDRAULIC DATA

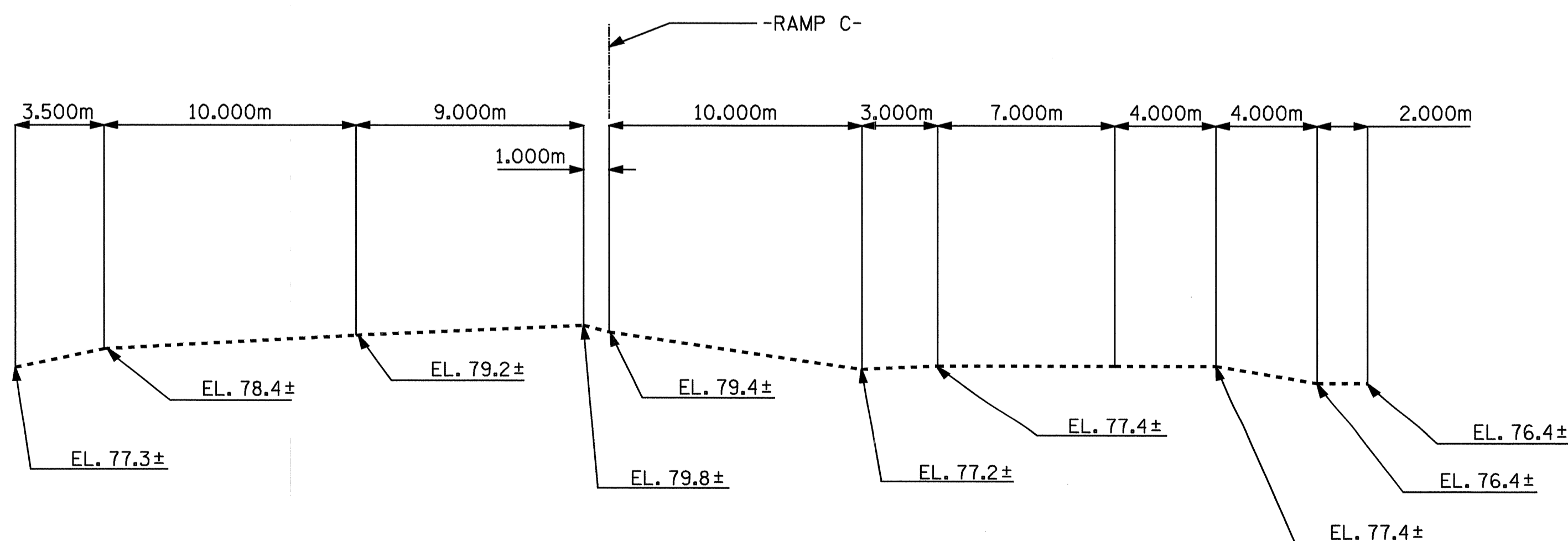
DESIGN DISCHARGE = 12.0 m³/s
 FREQUENCY OF DESIGN FLOOD = 50 YRS.
 DESIGN HIGH WATER ELEVATION = 77.940
 DRAINAGE AREA = .59 Sq. Km
 BASIC DISCHARGE (Q100) = 14.0 m³/s
 BASIC HIGH WATER ELEVATION = 78.080

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE = 42.0 m³/s
 FREQUENCY OF OVERTOPPING FLOOD = 500± YRS.
 OVERTOPPING FLOOD ELEVATION = 80.995

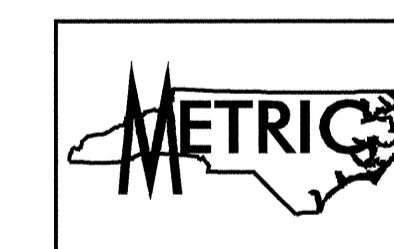
FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

LOCATION SKETCH



PROFILE ALONG @ CULVERT

TOTAL STRUCTURE QUANTITIES	
CLASS A CONCRETE	
BARREL @ 2.04 m ³ /m	70.5 m ³
OUTLET WINGS FLOOR SLAB	2.8 m ³
WINGS, HEADWALLS, END CURTAIN WALL	13.8 m ³
TOTAL	87.1 m ³
REINFORCING STEEL	
BARREL AND OUTLET WING FLOOR SLAB	7960kg
WINGS, HEADWALL, END CURTAIN WALL	559 kg
TOTAL	8509kg
CULVERT EXCAVATION ----- LUMP SUM	
FOUNDATION COND. MAT'L -----	81 METRIC TONS



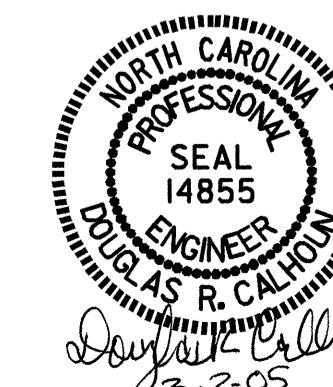
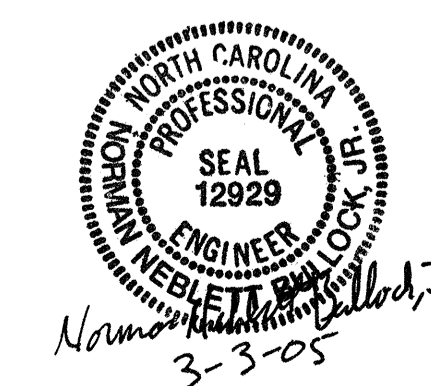
PROJECT NO. R-2552C
 JOHNSTON COUNTY
 STATION: 7+93.000 -RAMP C-

SHEET 1 OF 6

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SINGLE
 2.700m X 1.800m
 CONCRETE BOX CULVERT
 105° SKEW

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			C-37
2			4			42



ASSEMBLED BY: T.L.CLELLAND DATE: 10/18/04
 CHECKED BY: T.A.HARRIS DATE: 11/15/04