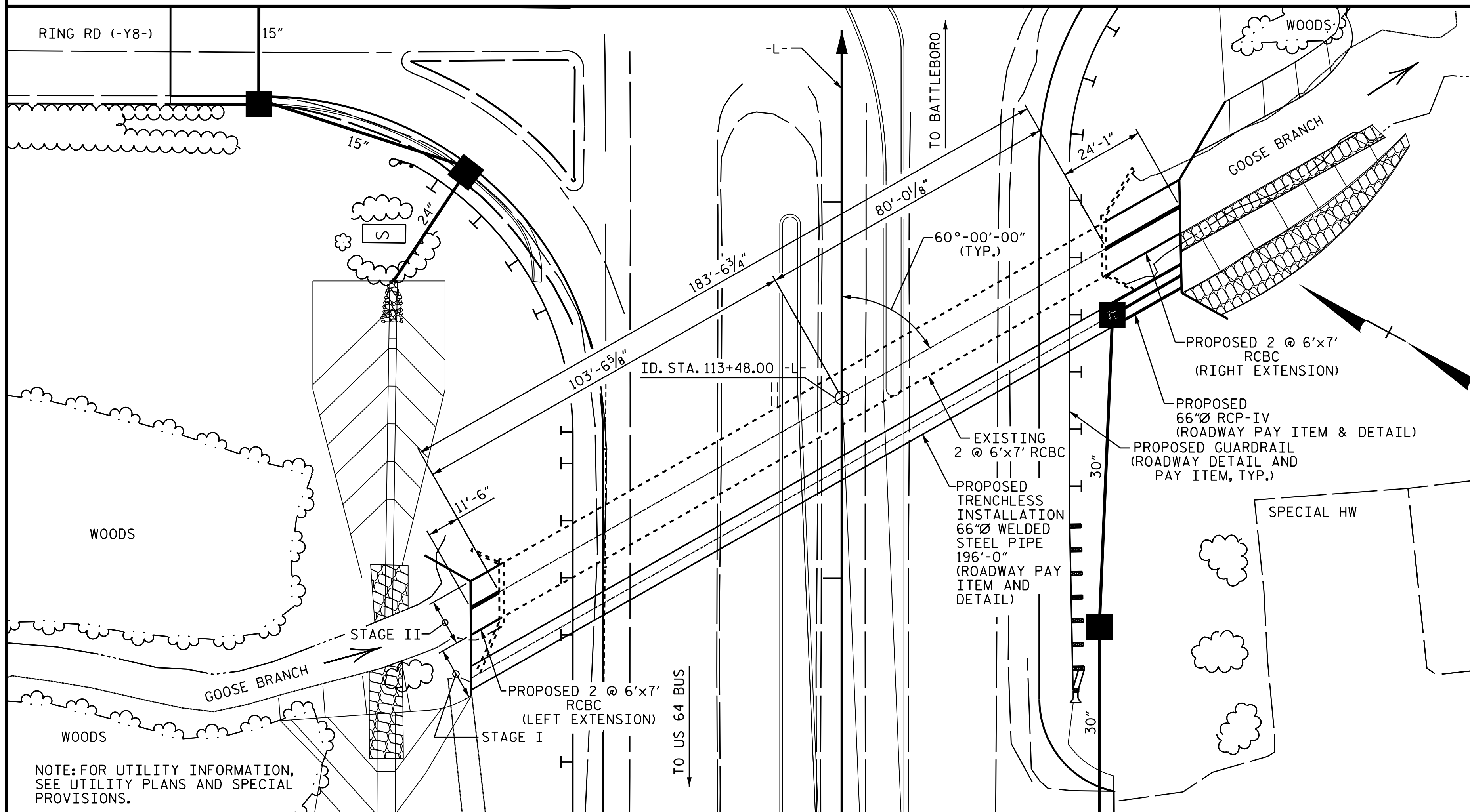


BM: BL-108 36" REBAR WITH ALUMINUM TRAVERSE CAPS STA. 114+17.65 -L- 0/S 17.43' LT., EL. 94.08.



LOCATION SKETCH

NOTES

- ASSUMED LIVE LOAD -----HL-93 OR ALTERNATE LOADING.  
 MAXIMUM DESIGN FILL----- 11.45'  
 MINIMUM DESIGN FILL----- 9.52'  
 FOR OTHER DESIGN DATA AND NOTES, SEE STANDARD NOTE SHEET.  
 3" Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.  
 CONCRETE IN STAGES I AND II TO BE POURED IN THE FOLLOWING ORDER:  
 STAGE I : (PIPE CULVERT)  
 1. WING AND HEADWALL FOOTINGS INCLUDING 4" OF ALL VERTICAL WALLS PLUS AREAS AS SHOWN UNDER PIPES.  
 2. THE REMAINING PORTIONS OF THE HEADWALLS AROUND THE 66" Ø PIPES AND WINGS W1 & W4 FULL HEIGHT.  
 STAGE II : (BOX CULVERT)  
 1. WING FOOTINGS AND FLOOR SLAB INCLUDING 4" OF VERTICAL WALLS FOR LEFT AND RIGHT EXTENSIONS.  
 2. THE REMAINING PORTIONS OF THE WALLS AND WINGS W2 & W3 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 SHEETS.  
 THE EXISTING STRUCTURE CONSISTING OF A REINFORCED CONCRETE CULVERT 2 @ 6'(W) X 7'(D) SIZE, 183.56'± LONG AND LOCATED AT THE PROPOSED STRUCTURE, SHALL BE RETAINED.  
 AT THE CONTRACTOR'S 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.  
 FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

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- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.  
 NO PRECAST REINFORCED BOX CULVERT OPTION WILL BE ALLOWED.  
 FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.  
 FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.  
 DOWELS SHALL BE USED TO CONNECT THE CULVERT EXTENSION TO THE EXISTING CULVERT AS SHOWN. FOR NOTE REGARDING SETTING OF DOWELS, SEE SHEET SN. IF APPROVED BY THE ENGINEER, THE CONTRACTOR MAY USE THE EXISTING WINGS AS TEMPORARY SHORING FOR THE CONSTRUCTION OF THE CULVERT EXTENSIONS. IN THIS CASE, THE BOTTOM SLAB OF THE EXTENSION SHALL BE POURED AT LEAST 72 HOURS PRIOR TO CUTTING THE WINGS. THE WINGS MAY BE CUT EARLIER PROVIDED THE SLAB CONCRETE STRENGTH HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 1500 PSI.  
 THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS.  
 FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS.  
 IF APPROVED BY THE ENGINEER, THE CONTRACTOR MAY USE THE EXISTING WINGS AS TEMPORARY SHORING FOR THE CONSTRUCTION OF THE CULVERT EXTENSIONS. IN THIS CASE, THE BOTTOM SLAB OF THE EXTENSION SHALL BE POURED AT LEAST 72 HOURS PRIOR TO CUTTING THE WINGS. THE WINGS MAY BE CUT EARLIER PROVIDED THE SLAB CONCRETE STRENGTH HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 1500 PSI.  
 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.

NOTE: FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

GRADE DATA -L-

GRADE POINT ELEV. @ STA. 113+48.00 -L- = 96.97  
 ROADWAY SLOPES = 3 : 1

HYDRAULIC DATA

DESIGN DISCHARGE = 1,700 CFS  
 FREQUENCY OF DESIGN FLOOD = 50 YRS.  
 DESIGN HIGH WATER ELEVATION = 93.1 FT.  
 DRAINAGE AREA = 2.9 SQ. MI.  
 BASIC DISCHARGE (Q100) = 1,900 CFS  
 BASIC HIGH WATER ELEVATION = 95.35 FT.

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE = 2,000 CFS  
 FREQUENCY OF OVERTOPPING FLOOD = 100 + YRS.  
 OVERTOPPING FLOOD ELEVATION = 96.4 FT.

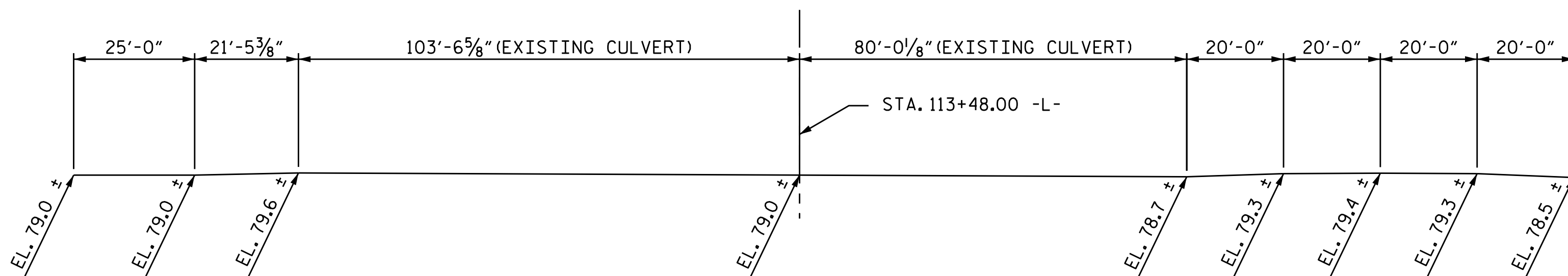
TOTAL STRUCTURE QUANTITIES

MATERIALS	CLASS A CONCRETE	REINFORCING STEEL	FOUNDATION COND. MAT'L.
(UNITS)	CU. YDS.	LBS.	TONS
STAGE I	37.9	2939	-
STAGE II	66.5	6,729	46
TOTAL	104.4	9668	46
CULVERT EXCAVATION ----- LUMP SUM			

I HEREBY CERTIFY THESE PLANS ARE THE AS-BUILT PLANS

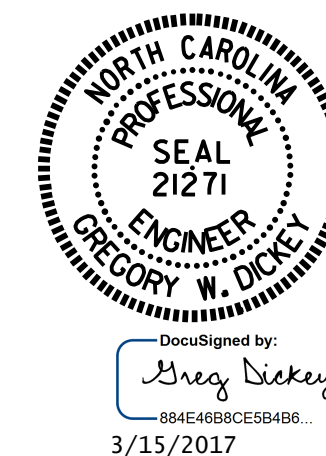
PROJECT NO. U-3330  
 NASH COUNTY  
 STATION: 113+48.00 -L-

SHEET 1 OF 11



PROFILE ALONG CULVERT

DRAWN BY : A. K. PATEL DATE : 2/7/17  
 CHECKED BY : B.N.BARODAWALA DATE : 2/7/17  
 DESIGN ENGINEER OF RECORD: KRISNA SEDAII DATE : 2/7/17



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

DOUBLE 6 FT. X 7 FT. CONC. BOX CULVERT LEFT & RIGHT EXTENSIONS AND 66" PIPE

REVISIONS						SHEET NO. C-1	
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS 11	
1			3				
2			4				