

FOUNDATION LAYOUT

PILE LOCATION IS TO C PILE. ALL PILES AT END BENTS ARE HP 12 X 53 STEEL PILES. BENTS 1 & 2 HAVE DRILLED PIERS.

NOTES

ASSUMED LIVE LOAD = HS 20 OR ALTERNATE LOADING.
 FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.
 FOR EROSION CONTROL MEASURES SEE EROSION CONTROL PLANS.
 THIS BRIDGE HAS BEEN DESIGNED BY THE STRENGTH DESIGN METHOD AS SPECIFIED IN AASHTO STANDARD SPECIFICATIONS.
 THE DRILLED PIERS AT BENT No.1 & BENT No.2 HAVE BEEN DESIGNED FOR BOTH SKIN FRICTION AND TIP BEARING. THE REQUIRED TIP BEARING CAPACITY IS 30 TONS/FT.
 THE REQUIRED TIP BEARING CAPACITY AT BENT No.1 AND BENT No.2 SHALL BE VERIFIED.
 DRILLED PIERS FOR BENT No.1 AND BENT No.2 HAVE BEEN DESIGNED FOR AN APPLIED LOAD OF 237.5 TONS EACH AT THE TOP OF THE COLUMN.
 PERMANENT STEEL CASING IS NOT REQUIRED FOR DRILLED PIERS AT BENT No.1 OR BENT No.2.
 DRILLED PIERS AT BENT No.1 SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 617.960 (LT.), 617.960 (CTR.) & 614.960 (RT.), SATISFY THE REQUIRED TIP BEARING CAPACITY, AND HAVE A MINIMUM PENETRATION OF 6.0 FT. INTO ROCK AS DEFINED BY THE DRILLED PIERS SPECIAL PROVISION.
 DRILLED PIERS AT BENT No.2 SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 617.936 (LT.), 617.936 (CTR.) & 623.936 (RT.), SATISFY THE REQUIRED TIP BEARING CAPACITY, AND HAVE A MINIMUM PENETRATION OF 6.0 FT. INTO ROCK AS DEFINED BY THE DRILLED PIERS SPECIAL PROVISION.
 THE SCOUR CRITICAL ELEVATION FOR BENT No.1 AND BENT No.2 IS 645.000. THE SCOUR CRITICAL ELEVATION IS FOR USE BY MAINTENANCE FORCES TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.
 FOR DRILLED PIERS, SEE SPECIAL PROVISIONS.
 SID INSPECTIONS ARE REQUIRED TO DETERMINE THE BOTTOM CLEANLINESS OF THE DRILLED PIERS AT BENT No.1 AND BENT No.2.
 CSL TUBES ARE REQUIRED AND CSL TESTING MAY BE REQUIRED FOR THE DRILLED PIERS AT BENT No.1 AND BENT No.2. SEE SPECIAL PROVISION FOR CROSSHOLE SONIC LOGGING.

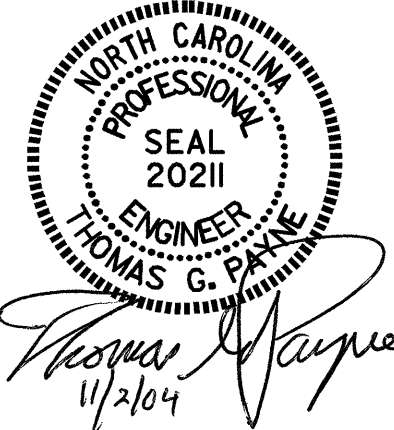
SPT TESTING IS NOT REQUIRED TO DETERMINE THE TIP BEARING CAPACITY OF THE DRILLED PIERS AT BENT No.1 OR BENT No.2.
 PILES FOR END BENT No.1 AND END BENT No.2 SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 50 TONS.
 WHEN DRIVING PILES, THE MAXIMUM BLOW COUNT SHALL NOT BE EXCEEDED.
 ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 50W AND PAINTED IN ACCORDANCE WITH SYSTEM 4 OF ARTICLE 442-7 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
 THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH HEC 18, "EVALUATING SCOUR AT BRIDGES", NOVEMBER, 1995.
 THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO STANDARD SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES FOR SEISMIC PERFORMANCE CATEGORY A.
 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 SAMPLE OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS.
 NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.
 FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
 FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
 THE CONTRACTOR SHALL OBSERVE A ONE MONTH WAITING PERIOD BEFORE BEGINNING ANY WORK FOR END BENT CONSTRUCTION AFTER COMPLETION OF THE EMBANKMENT AT EACH END BENT.
 THE CLASS AA CONCRETE IN THE BRIDGE DECK SHALL CONTAIN FLY ASH OR GROUND GRANULATED BLAST FURNACE SLAG AT THE SUBSTITUTION RATE SPECIFIED IN ARTICLE 1024-1 AND IN ACCORDANCE WITH ARTICLES 1024-5 AND 1024-6 OF THE STANDARD SPECIFICATIONS. NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION AS IT IS CONSIDERED INCIDENTAL TO THE COST OF THE REINFORCED CONCRETE DECK SLAB.

TWO WEEKS PRIOR TO ANY CONSTRUCTION AT THE BRIDGE SITE, THE CONTRACTOR SHALL NOTIFY THE USGS TO HAVE THE EXISTING GAUGING STATION EQUIPMENT REMOVED. CONTACT GERALD ROBINSON OF THE USGS AT 704-344-6272. AFTER THE USGS REMOVES THE EQUIPMENT, THE CONTRACTOR SHALL REMOVE THE REMAINDER OF THE GAUGING STATION. REMOVAL OF THE GAUGING STATION IS CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF THE BRIDGE AND THE COST SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS.
 AFTER COMPLETION OF THE BRIDGE THE CONTRACTOR SHALL ALLOW THE USGS ACCESS TO THE BRIDGE SITE FOR INSTALLATION OF GAUGING STATION EQUIPMENT.

PROJECT NO. R-2911D
ROWAN COUNTY
 STATION: 304+22.00 -L-

SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE OVER NORTH
 SECOND CREEK ON
 US 70 BETWEEN
 SR 1951 AND SR 1728
 (RIGHT LANE)



REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-89	
1			3			TOTAL SHEETS	120
2			4				

DRAWN BY : M.K. BEARD DATE : 07/28/04
 CHECKED BY : J.P. ADAMS DATE : 07/29/04