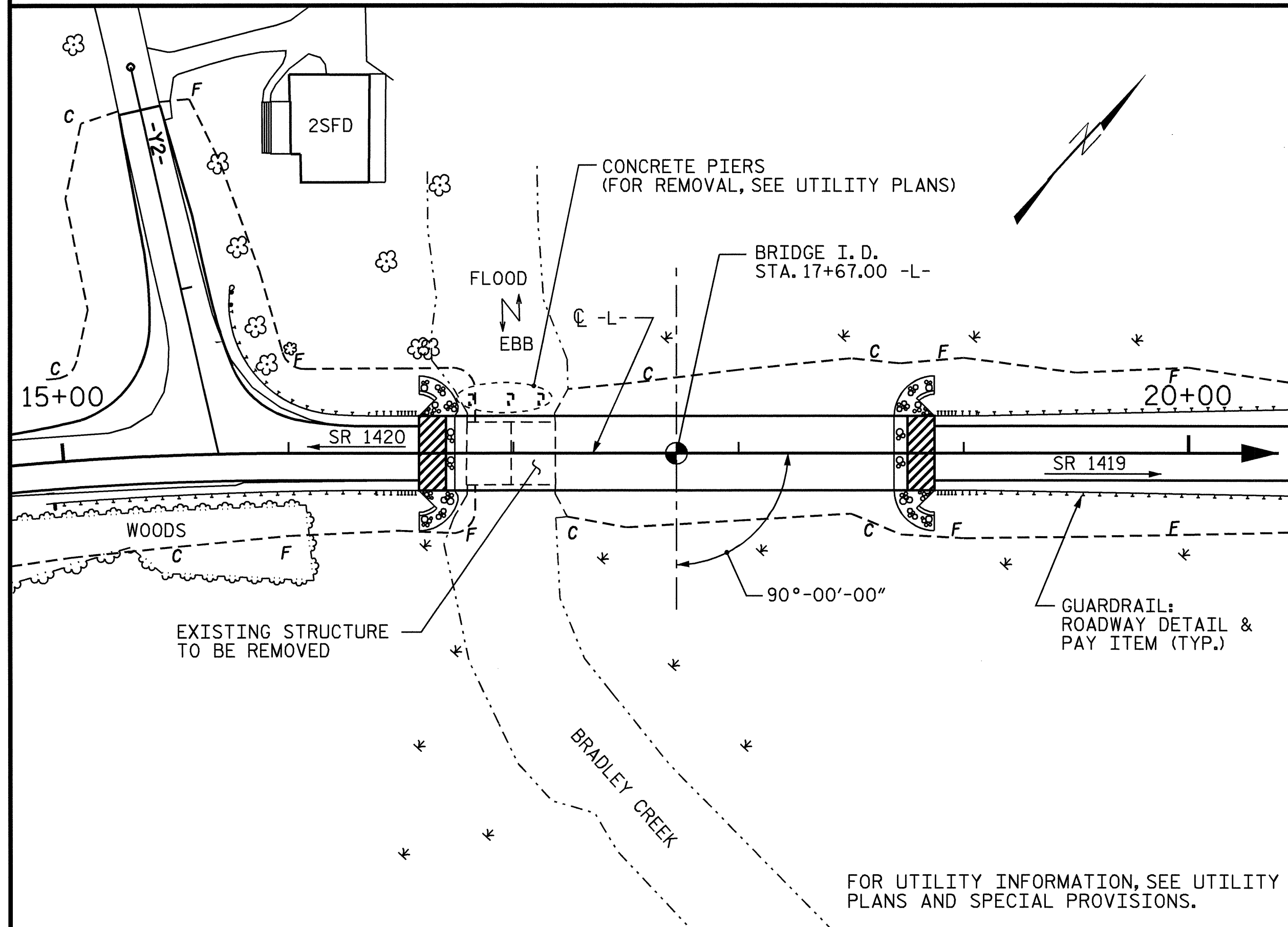


BM NO. 1: RAILROAD SPIKE SET IN 31" PINE 0.47 FEET LEFT OF
-BL- STATION 0+36.00, EL. 13.09'. NGVD 29.



LOCATION SKETCH

NOTES:

ASSUMED LIVE LOAD = HS 20 OR ALTERNATE LOADING, EXCEPT THAT CORED SLAB UNITS HAVE BEEN DESIGNED FOR HS 25.

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 EXISTING STRUCTURE CONSISTING OF 2 SPANS @ 19'-8" A CLEAR ROADWAY WIDTH OF 27.9', A REINFORCED CONCRETE DECK ON TIMBER BEAMS SUPPORTED BY TIMBER CAPS AND TIMBER PILES WITH TIMBER ABUTMENTS AND LOCATED AT THE SITE OF THE PROPOSED STRUCTURE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY POSTED BELOW THE LEGAL LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE FURTHER DETERIORATE, THIS LOAD LIMITATION MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT.

FOUR OLD FOOTINGS ARE IN THE STREAM AT EACH CORNER OF THE EXISTING BRIDGE AND SHALL BE REMOVED. PAYMENT FOR REMOVAL WILL BE INCIDENTAL TO THE COST OF REMOVAL OF EXISTING STRUCTURE.

REMOVAL OF THE EXISTING BRIDGE SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL INTO THE WATER. THE CONTRACTOR SHALL REMOVE THE BRIDGE AND SUBMIT PLANS FOR DEMOLITION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 32 FT. EACH SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE MEASURED AND PAID FOR AS UNCLASSIFIED STRUCTURE EXCAVATION.

THE SUBSTRUCTURE OF THE EXISTING BRIDGE INDICATED ON THE PLANS IS FROM THE BEST INFORMATION AVAILABLE. SINCE THIS INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

ASPHALT WEARING SURFACE IS INCLUDED IN ROADWAY QUANTITY ON ROADWAY PLANS.

THIS STRUCTURE CONTAINS THE NECESSARY CORROSION PROTECTION REQUIRED FOR A CORROSIVE SITE.

CLASS AA CONCRETE SHALL BE USED IN ALL CAST-IN-PLACE BENT CAPS AND SHALL CONTAIN CALCIUM NITRITE CORROSION INHIBITOR. FOR CALCIUM NITRITE CORROSION INHIBITOR, SEE SPECIAL PROVISIONS.

ALL BAR SUPPORTS USED IN THE PARAPET, BENT CAPS, APPROACH SLABS AND ALL INCIDENTAL REINFORCING STEEL SHALL BE EPOXY COATED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

THE CONCRETE IN THE BENT CAPS & PILES OF BENTS NO. 1, NO. 2 & NO. 3 SHALL CONTAIN SILICA FUME. SILICA FUME SHALL BE SUBSTITUTED FOR 5% OF THE PORTLAND CEMENT BY WEIGHT. IF THE OPTION OF ARTICLE 1024-1 OF THE STANDARD SPECIFICATIONS TO PARTIALLY SUBSTITUTE CLASS F FLY ASH FOR PORTLAND CEMENT IS EXERCISED, THEN THE RATE OF FLY ASH SUBSTITUTION SHALL BE REDUCED TO 1.0 LB OF FLY ASH PER 1.0 LB OF CEMENT. NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION AS IT IS CONSIDERED INCIDENTAL TO THE VARIOUS PAY ITEMS.

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 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 SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

PILES FOR END BENT NO. 1 AND END BENT NO. 2 SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 50 TONS EACH.

PILES FOR BENT NO. 1, BENT NO. 2, AND BENT NO. 3 SHALL BE DRIVEN TO AN ELEVATION NO HIGHER THAN -20 FT AND SATISFY THE BEARING CAPACITY OF 65 TONS EACH.

STEEL PILE TIPS ARE REQUIRED FOR 16 IN. PRESTRESSED CONCRETE PILES AT BENT NO. 1, BENT NO. 2, AND BENT NO. 3. SEE SPECIAL PROVISION FOR STEEL PILE TIPS.

THE SCOUR CRITICAL ELEVATION FOR BENT NO. 1, BENT NO. 2, AND BENT NO. 3 IS ELEVATION -15. THE SCOUR CRITICAL ELEVATION IS FOR USE BY MAINTENANCE FORCES TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

JETTING WILL NOT BE ALLOWED TO INSTALL PILES AT BENT NO. 1, BENT NO. 2, AND BENT NO. 3.

WHEN DRIVING PILES, THE MAXIMUM BLOW COUNT SHALL NOT BE EXCEEDED.

THE FIRST PRODUCTION 16 INCH CONCRETE PILE SHALL BE DRIVEN AS A DYNAMIC LOAD TEST PILE AS DIRECTED BY THE ENGINEER. SEE BEARING PILES SPECIAL PROVISION. THE PILE DRIVING ANALYZER AND WAVE EQUATION SHALL BE USED TO DETERMINE THE BEARING CAPACITY OF THE 16 INCH CONCRETE PILES.

FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS.

ALL PAVEMENT MARKING WILL BE IN ACCORDANCE WITH THE PAVEMENT MARKING PLANS AND SHALL PROVIDE FOR BICYCLES.

THIS BRIDGE SHALL BE CONSTRUCTED USING TOP-DOWN CONSTRUCTION METHODS. THE USE OF A TEMPORARY CAUSEWAY OR WORK BRIDGE IS NOT PERMITTED.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

HYDRAULIC DATA

DESIGN DISCHARGE	N/A
FREQUENCY OF DESIGN FLOOD	50 YRS.
DESIGN HIGH WATER ELEVATION	9.6'*
DRAINAGE AREA	3.2 SQ. MI.
BASIC DISCHARGE (Q100)	N/A
BASIC HIGH WATER ELEVATION	10.8'*

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE	N/A
FREQUENCY OF OVERTOPPING FLOOD	50 YRS.
OVERTOPPING FLOOD ELEVATION	7.45'

* STORM SURGE ELEVATIONS

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	DYNAMIC LOAD TEST	UNCLASSIFIED STRUCTURE EXCAVATION	16" PRESTRESSED CONCRETE PILES		HP 12 X 53 STEEL PILES		STEEL PILE TIPS	PLAIN RIP RAP CLASS I (2'-0" THICK)	CONSTRUCTION OF SUBSTRUCTURE	CONSTRUCTION OF SUPERSTRUCTURE
				CU. YDS.	NO.	LIN.FT.	NO.				
	LUMP SUM	EACH								LUMP SUM	LUMP SUM
SUPERSTRUCTURE										LUMP SUM	LUMP SUM
END BENT NO. 1			39			8	360		142		
BENT NO. 1		1		10	300			10			
BENT NO. 2				10	450			10			
BENT NO. 3				10	400			10			
END BENT NO. 2			1657			8	360		92		
TOTAL	LUMP SUM	1	1696	30	1150	16	720	30	234	LUMP SUM	LUMP SUM

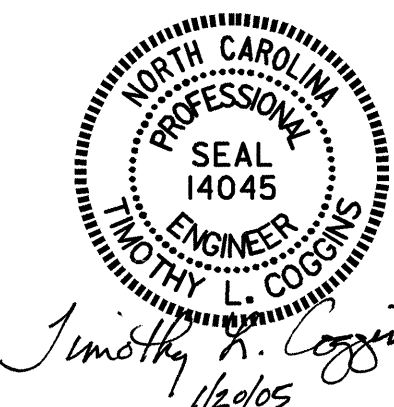
PROJECT NO. B-3496
NEW HANOVER COUNTY
STATION: 17+67.00 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING

FOR BRIDGE OVER
BRADLEY CREEK
ON SR 1420 AND SR 1419



REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	DATE:	S-3
1			3		TOTAL SHEETS 28
2			4		

DRAWN BY : PEGGY ADKINS DATE : 8/03
CHECKED BY : T. AVERETTE DATE : 12/03