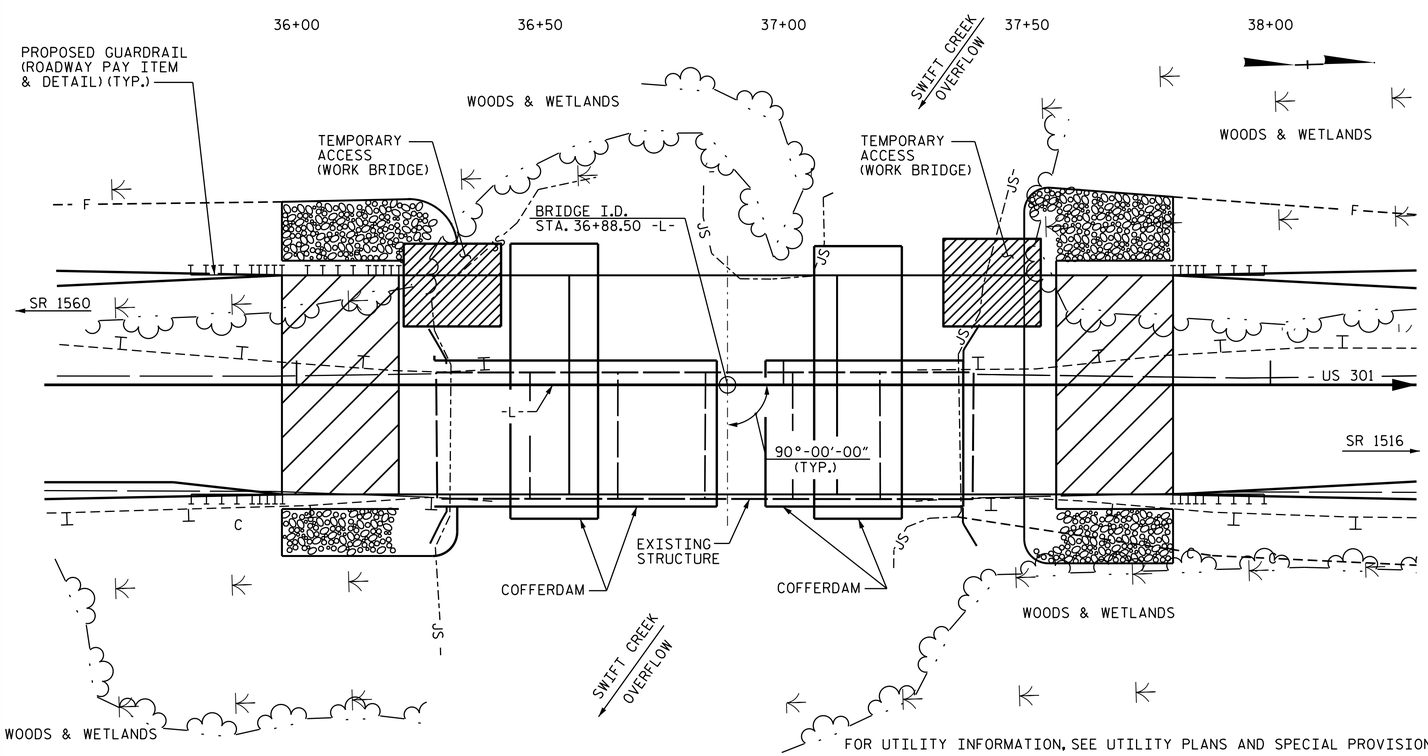
B.M. = TBM 3, BRIDGE SPIKE IN BASE OF 10" WATER OAK; STA. 37+36.00 -L-; 74' RIGHT; ELEV. 91.02



FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

LOCATION SKETCH

NOTES:

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

THIS BRIDGE IS LOCATED IN SEISMIC ZONE I.

FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

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. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 34 FT EACH SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION. SEE SECTION 412 OF THE STANDARD SPECIFICATIONS.

DETAILS FOR 3'-0" X 2'-6" PRESTRESSED CONCRETE BENT CAPS ARE PROVIDED AS AN ALTERNATE; SEE ALTERNATE SHEETS.

THE EXISTING STRUCTURE CONSISTING OF SIX SPANS, 1 @ 17'-0", 4 @ 18'-0" & 1 @ 17'-0" WITH A CLEAR ROADWAY WIDTH OF 26'-0" AND REINFORCED CONCRETE SLAB ON REINFORCED CONCRETE ABUTMENTS AT THE END BENTS AND REINFORCED CONCRETE POST AND BEAM INTERIOR BENTS, LOCATED AT THE PROPOSED STRUCTURE, SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT POSTED FOR LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE DETERIORATE DURING CONSTRUCTION OF THE PROPOSED BRIDGE, A LOAD LIMIT MAY BE POSTED AND MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT.

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.

REMOVAL OF THE EXISTING BRIDGE SHALL BE PERFORMED IN A MANNER THAT PREVENTS DEBRIS FROM FALLING INTO THE WATER. THE CONTRACTOR SHALL SUBMIT DEMOLITION PLANS FOR REVIEW AND REMOVE THE BRIDGE IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18-EVALUATING SCOUR AT BRIDGES."

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS AT STA. 36+88.50 -L-, SEE SPECIAL PROVISIONS.

FOR CONCRETE WEARING SURFACE, SEE SPECIAL PROVISIONS.

NO SEPARATE PAYMENT SHALL BE MADE FOR COFFERDAMS IF REQUIRED. MATERIALS AND INSTALLATION OF COFFERDAMS ARE CONSIDERED INCIDENTAL TO THE PAY ITEM FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF TEMPORARY ACCESS AT STA. 36+88.50 -L-.

TOTAL BILL OF MATERIAL

BRIDGE I.D. STA. 36+88.50 -L-	CONSTRUCTION, MAINTENANCE, & REMOVAL OF TEMPORARY ACCESS	REMOVAL OF EXISTING STRUCTURE	PDA TESTING	UNCLASSIFIED STRUCTURE EXCAVATION	CONCRETE WEARING SURFACE	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	12" PRESTRESSED CONCRETE PILES		16" PRESTRESSED CONCRETE PILES		PRE-DRILLING FOR PILES	PILE REDRIVES	CONCRETE BARRIER RAIL	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" X 1'-9" PRESTRESSED CONCRETE CORED SLABS	
	LUMP SUM	LUMP SUM	EACH	LUMP SUM	SQ. FT.	SQ. FT.	CU. YDS.	LUMP SUM	LBS.	NO.	LIN. FT.	NO.	LIN. FT.	LIN. FT.	EACH	LIN. FT.	TONS	SQ. YDS.	LUMP SUM	NO.	LIN. FT.
SUPERSTRUCTURE					5,658	7,165		LUMP SUM								270.50			LUMP SUM	45	2,025
END BENT No. 1				LUMP SUM			17.5		2,809	6	240				3		190	211			
BENT No. 1							15.0		3,261			6	240		3						
BENT No. 2							15.0		3,261			6	240	113	3						
END BENT No. 2				LUMP SUM			17.5		2,915	6	240				3		175	194			
TOTAL	LUMP SUM	LUMP SUM	1	LUMP SUM	5,658	7,165	65.0	LUMP SUM	12,246	12	480	12	480	113	12	270.50	365	405	LUMP SUM	45	2,025

HYDRAULIC DATA

DESIGN DISCHARGE	=	9,832 C.F.S.
FREQUENCY OF DESIGN DISCHARGE	=	50 YEARS
DESIGN HIGH WATER ELEVATION	=	93.6 FT.
DRAINAGE AREA	=	206 SQ. MI.
BASE DISCHARGE (Q100)	=	11,777 C.F.S.
BASE HIGH WATER ELEVATION	=	93.86 FT.

OVERTOPPING DATA

OVERTOPPING DISCHARGE	=	9,900 C.F.S.
FREQUENCY OF OVERTOPPING	=	50+ YEARS
OVERTOPPING ELEVATION	=	93.5 FT.

PROJECT NO. B-5124
NASH COUNTY
STATION: 36+88.50 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING

FOR BRIDGE OVER SWIFT CREEK OVERFLOW ON US 301 BETWEEN SR 1560 & SR 1516

NORTH CAROLINA PROFESSIONAL SEAL 14045 ENGINEER TIMOTHY L. COGGINS
3/9/2015
DocuSigned by: Tim Coggins
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-25
1			3			TOTAL SHEETS
2			4			71

DRAWN BY : M.D. PISO DATE : 05-30-14
CHECKED BY : N.RUFFIN DATE : 11-12-14
DESIGN ENGINEER OF RECORD: K. P. SEDAI DATE : 01-06-15

09-MAR-2015 07:54
R:\Structures\FinalPlans\DocuSign Setup\402_005_B-5124_SMU_S2-0.dgn
nruffin

STR. #2