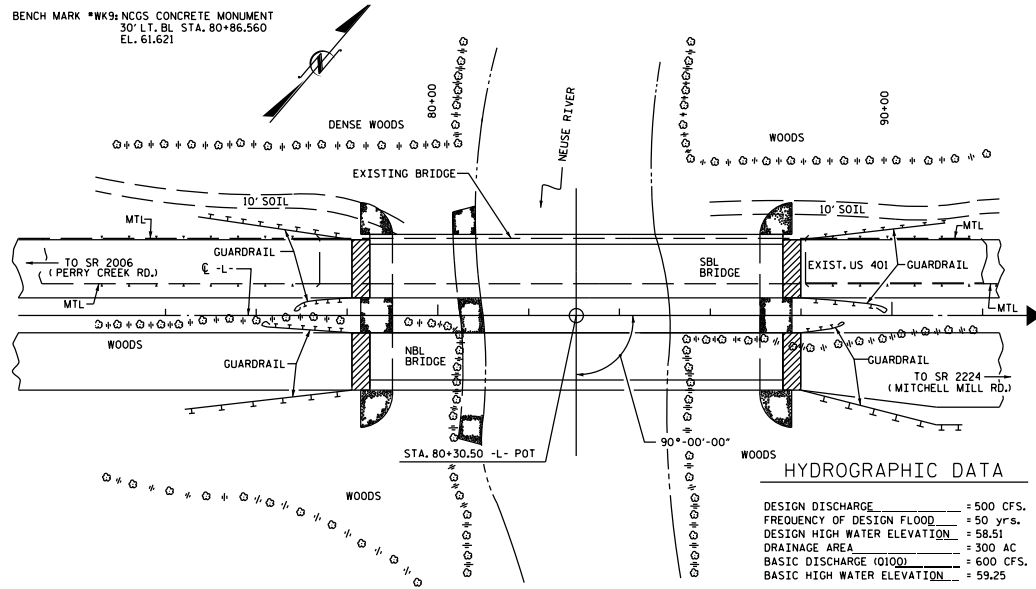


FIGURE 5 - 5

BENCH MARK *WK9: NCGS CONCRETE MONUMENT
30' LT. BL. STA. 80+86.560
EL. 61.621



LOCATION SKETCH

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

HYDROGRAPHIC DATA

DESIGN DISCHARGE _____ = 500 CFS.
FREQUENCY OF DESIGN FLOOD _____ = 50 yrs.
DESIGN HIGH WATER ELEVATION _____ = 58.51
DRAINAGE AREA _____ = 300 AC
BASIC DISCHARGE (Q100) _____ = 600 CFS.
BASIC HIGH WATER ELEVATION _____ = 59.25

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE _____ = 600 CFS.
FREQUENCY OF OVERTOPPING FLOOD _____ = 500 yrs.+
OVERTOPPING FLOOD ELEVATION _____ = 61.71

NOTES: (CONTINUED FROM SHEET 2 OF 3)

FOR DRILLED PIERS, SEE DRILLED PIERS SPECIAL PROVISION.

DRILLED PIERS AT BENTS NO. 1, NO. 2, AND NO. 3 ARE DESIGNED FOR END BEARING ONLY. CHECK FIELD CONDITIONS FOR THE REQUIRED END BEARING CAPACITY OF 18 TONS/FT².

DRILLED PIERS AT BENT NO. 1 SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 146.00' AND SATISFY THE REQUIRED END BEARING CAPACITY. DRILLED PIERS AT BENTS NO. 2 AND NO. 3 SHALL EXTEND TO AN ELEVATION NO HIGHER THAN 141.08' AND SATISFY THE REQUIRED END BEARING CAPACITY.

THE SCOUR CRITICAL ELEVATION FOR BENTS NO. 1, NO. 2, AND NO. 3 IS ELEVATION 159.12'. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

PERMANENT STEEL CASING IS REQUIRED FOR DRILLED PIERS AT BENTS NO. 1 AND NO. 2 DO NOT EXTEND THE CASING BELOW ELEVATIONS 165.65' AND 164.04' RESPECTIVELY WITHOUT PRIOR APPROVAL FROM THE ENGINEER. SEE DRILLED PIERS SPECIAL PROVISIONS.

PERMANENT STEEL CASING IS NOT REQUIRED FOR DRILLED PIERS AT BENT NO. 3.

SPT TESTING IS NOT REQUIRED TO DETERMINE THE END BEARING CAPACITY OF THE DRILLED PIERS AT BENTS NO. 1, NO. 2, OR NO. 3. SEE DRILLED PIERS SPECIAL PROVISION.

DO NOT USE SLURRY CONSTRUCTION FOR DRILLED PIERS ON THIS PROJECT.

SID INSPECTIONS MAY BE REQUIRED TO INSPECT THE BOTTOM CLEANLINESS OF THE DRILLED PIERS.

THE ENGINEER WILL DETERMINE THE NEED FOR THE SID INSPECTIONS. SEE DRILLED PIERS SPECIAL PROVISION.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH HEC 18, 'EVALUATING SCOUR AT BRIDGES', MAY, 2001.

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

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 SAMPLE BARS SHOULD COME FROM STEEL ACTUALLY USED IN THE PROJECT AND THE SAMPLE BARS SHOULD BE REPLACED BY SPLICED BARS AS SPECIFIED IN THE SAMPLE BAR REPLACEMENT CHART. PAYMENT FOR THE SAMPLE BARS AND REPLACEMENT REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

THE EXISTING STRUCTURE LOCATED AT THE SITE OF THE PROPOSED SOUTH BOUND LANE BRIDGE SHALL BE REMOVED. THE EXISTING STRUCTURE CONSISTS OF:

SUPERSTRUCTURE :
REINFORCED CONCRETE DECK ON 5 REINFORCED CONCRETE GIRDERS WITH A CLEAR ROADWAY WIDTH OF 25.81' AND 7 SPANS AT 50.00' EACH.

SUBSTRUCTURE :
REINFORCED CONCRETE POST AND BEAM END BENTS AND REINFORCED CONCRETE POST AND WEB PIER INTERIOR BENTS.

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	4'-6" Ø DRILLED PIERS NOT IN SOIL	4'-6" Ø DRILLED PIERS IN SOIL	PERMANENT STEEL CASING FOR 4'-6" Ø DRILLED PIERS	UNCLASSIFIED STRUCTURE EXCAVATION	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	SPIRAL COLUMN REINFORCING STEEL	45" PRESTRESSED CONCRETE GIRDERS	54" PRESTRESSED CONCRETE GIRDERS	HP 12 X 53 STEEL PILES	CONCRETE BARRIER RAIL	RIP RAP CLASS II (2'-0" THICK)	FILTER FABRIC FOR DRAINAGE	ELASTOMERIC BEARINGS	EVAZOTE JOINT SEALS	ELECTRICAL CONDUIT SYSTEM	TEMPORARY ROCK CAUSEWAY	
	LUMP SUM	LN. FT.	LN. FT.	LN. FT.	LUMP SUM	SO. FT.	SO. FT.	CU. YDS.	LUMP SUM	LBS.	LBS.	No.	LN. FT.	No.	LN. FT.	No.	LN. FT.	SO. YDS.	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM
SUPERSTRUCTURE	LUMP SUM				LUMP SUM	13978.0	10746.7		LUMP SUM			10	563.48	10	908.30							
END BENT 1								36.8		5743				13	319.88							
BENT 1		85.3	11.2	37.4				48.9		16726	4323											
BENT 2		100.4	10.8	42.3				52.0		18142	4770											
BENT 3		118.0	10.8					37.8		17683	4967											
END BENT 2										5304				10	475.7			258	276			
TOTAL	LUMP SUM	303.7	32.8	79.7	LUMP SUM	13978.0	10746.7	209.1	LUMP SUM	63598	14060	10	563.48	10	908.30	23	795.58	296.47	980	755	LUMP SUM	LUMP SUM

PROJECT No. EXAMPLE
_____ COUNTY
STATION: _____
SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HALETS
GENERAL DRAWING
(SBL)
BRIDGE OVER NEUSE RIVER
ON US-401 BETWEEN
SR 2006 AND SR 2224

DRAWN BY : _____ DATE : _____
CHECKED BY : _____ DATE : _____

REVISIONS						SHEET No.
NO.	BY	DATE	NO.	BY	DATE	TOTAL SHEETS
1			3			
2			4			