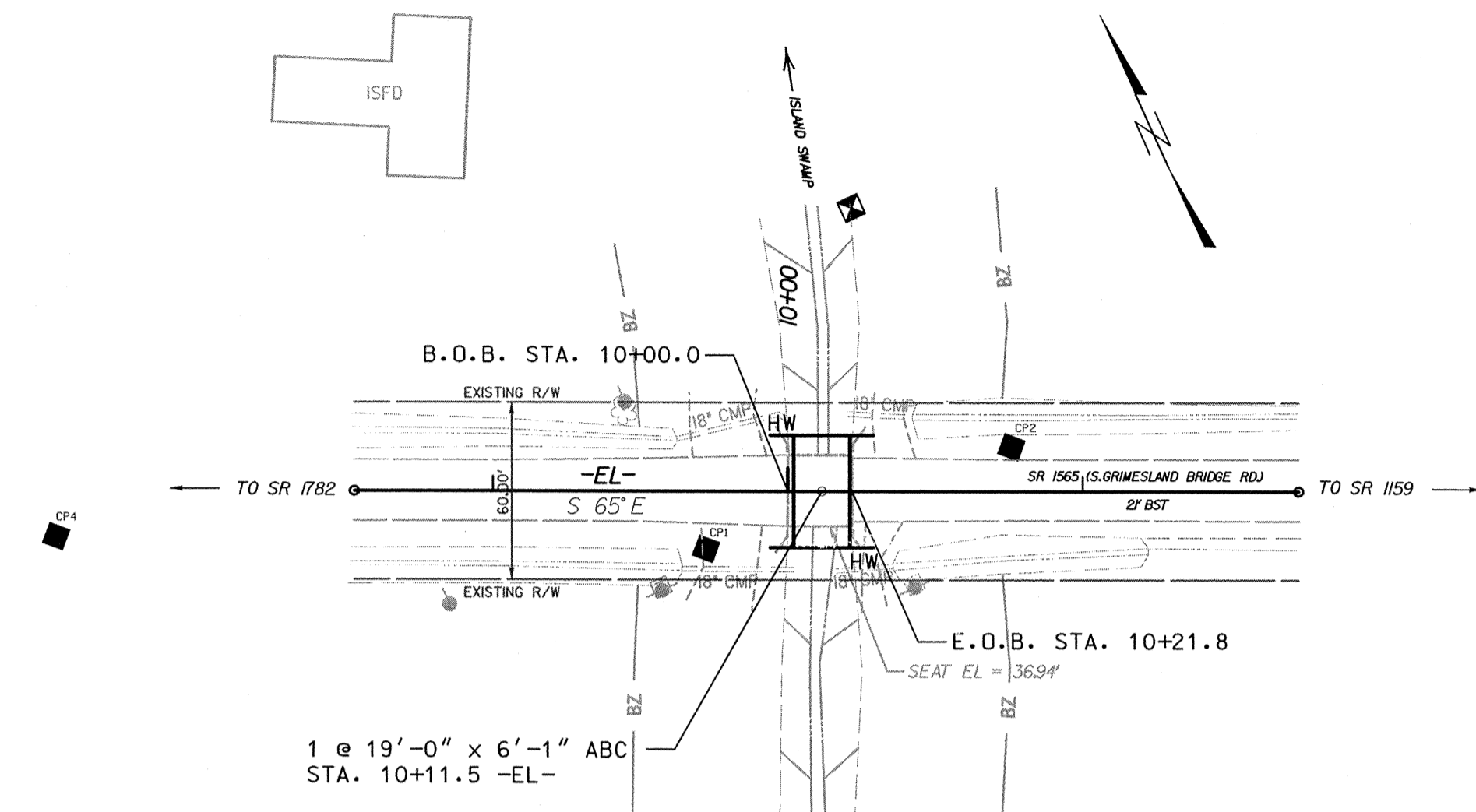


**RECOMMENDED STRUCTURE**  
 1 @ 19'-0" x 6'-1" ALUMINUM BOX CULVERT (ABC), 90° SKEW W/ US & DS HWs

PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION

**HNTB** HNTB NORTH CAROLINA, P.C.  
 343 E. Six Forks Road, Suite 200  
 Raleigh, North Carolina 27609  
 NC License No: C-1554



**HAZARDOUS SPILL BASIN CHECKLIST**

RIVER BASIN:    TAR - PAMLICO   

STREAM CLASSIFICATION: C, NSW

**WATER QUALITY CRITERIA:**

STREAM CROSSING BLUE LINE ON USGS  YES  NO

ORW

WSI

WS II, III OR IV, CROSSING WITHIN 0.5mi OF W.S. CRITICAL AREA

**ROADWAY CRITERIA:**

ROUTE DESIGNATION-  YES  NO

ARTERIAL URBAN

ARTERIAL RURAL

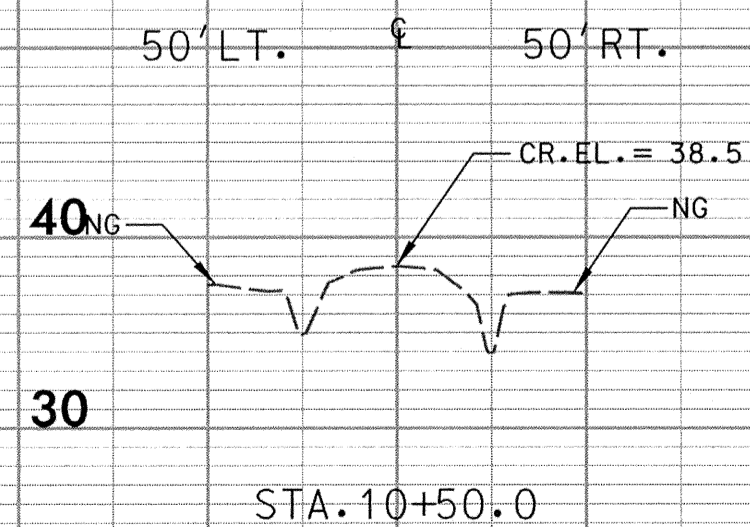
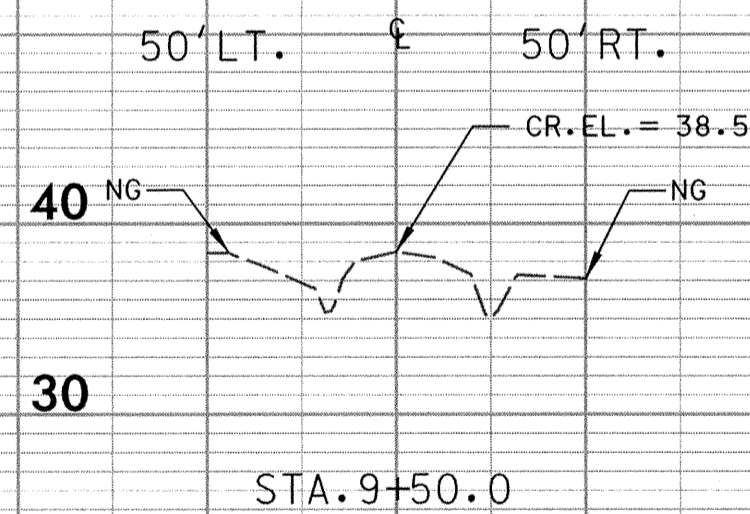
IS A HAZARDOUS SPILL BASIN REQUIRED?  YES  NO

**BENCHMARK INFO.**

CP-1 (HUB AND TACK) -EL- STA. 9+72.25 N 640602.227 E 2541184.562 ELEV = 37.91	CP-2 (HUB AND TACK) -EL- STA. 10+75.81 N 640590.603 E 2541293.119 ELEV = 37.09	BM-1 (HUB AND TACK) -EL- STA. 10+21.56 N 640686.576 E 2541277.351 ELEV = 37.21
CP-3 (HUB AND TACK) -EL- STA. 13+17.09 N 640492.066 E 2541513.371 ELEV = 38.28	CP-4 (HUB AND TACK) -EL- STA. 7+51.95 N 640697.242 E 2540985.777 ELEV = 38.61	<b>DATUM DESCRIPTION:</b> HORZ. - NAD83/95 NRS 2007 VERT. - NAVD88 LOCALIZED AT CP-1 W/ AVERAGE COMBINED GRID FACTOR (GROUND TO GRID) OF 0.999885591

7+00      8+00      9+00      10+00      11+00      12+00      13+00      14+00

**X-SECTION**

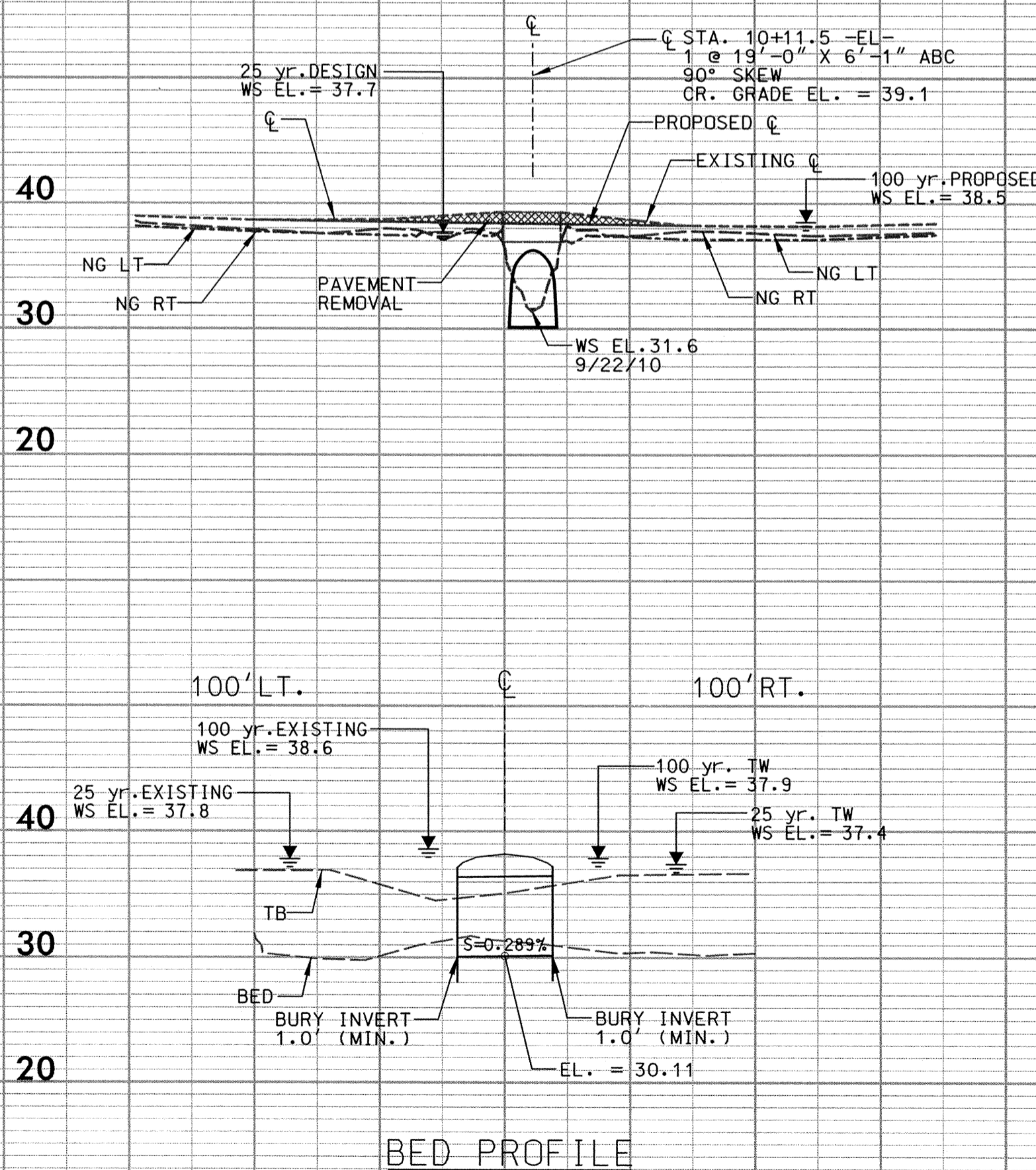


**USGS**  
 NATURAL 25 yr. WS EL. = 37.6  
 EXISTING 25 yr. WS EL. = 37.8  
 PROPOSED 25 yr. WS EL. = 37.7

**NATURAL** 100 yr. WS EL. = 38.3  
 EXISTING 100 yr. WS EL. = 38.6  
 PROPOSED 100 yr. WS EL. = 38.5

**FEMA**  
 CORRECTED EFFECTIVE 100 yr. WS EL. = 38.4  
 REVISED (PROPOSED) 100 yr. WS EL. = 38.3

\* NOTE: WATER SURFACE ELEVATIONS FROM HEC-RAS v4.1.0



**PERMIT REQUIREMENTS**  
 AVERAGE DAILY FLOW = 1.4 cfs  
 FILL IN WATERS = 0.01 ac  
 FILL IN WETLANDS = NONE  
 C.O.E. NATIONWIDE PERMIT # 3 APPLICABLE

**OVERTOPPING INFORMATION**  
 EL = 38.0  
 FREQUENCY = 100 yr  
 DISCHARGE = 600 cfs

**OPENING AREAS**  
 EXISTING AREA = 78.0 SQ. FT.  
 PROPOSED AREA = 78.4 SQ. FT.

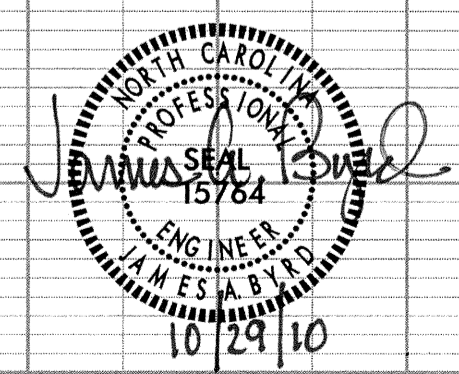
NOTE: THIS SITE IS LOCATED IN A FLOOD ZONE, LIMITED DETAIL STUDY. (WILMAR, NC QUAD)  
 D.A. = 1.55 SQ. MI.

Q<sub>10</sub> = 250 cfs } USGS RURAL  
 Q<sub>25</sub> = 370 cfs }  
 Q<sub>100</sub> = 600 cfs }

Q<sub>100</sub> (FEMA) = 506 cfs

**HISTORIC HIGHWATER INFORMATION**  
 KEITH BIELBY, LOCAL RESIDENT, STATED THAT FLOYD OVERTOPPED SR 1565 AND THE HIGH WATER LINE WAS UP TO THE SIDING-ON-HOUSE. HIGH WATER ELEVATION OF 40.6 AT BOTTOM OF SIDING. WATER BACKS UP INTO HIS YARD DURING 2 TO 3 DAY RAIN. THE RESIDENT'S PERIOD OF KNOWLEDGE IS 15 YEARS.

**EXISTING BRIDGE INFORMATION**  
 1 @ 22'-6" SPAN  
 O.A.L. = 22'-6"  
 CL. RDWY = 24.0'  
 BED MATERIAL = SAND & CLAY  
 DEBRIS POTENTIAL = LOW



**N.C.D.O.T.**  
**DIVISION OF HIGHWAYS**  
**PITT COUNTY**  
 BRG.# 173 ON SR 1565 OVER ISLAND SWAMP

SCALE: 1" = 50' HORIZ.  
 1" = 10' VERT.

SURVEY BY: AGT, PER, RJH  
 DRAWN BY: PER  
 DESIGN BY: PER  
 CHECKED BY: JAB