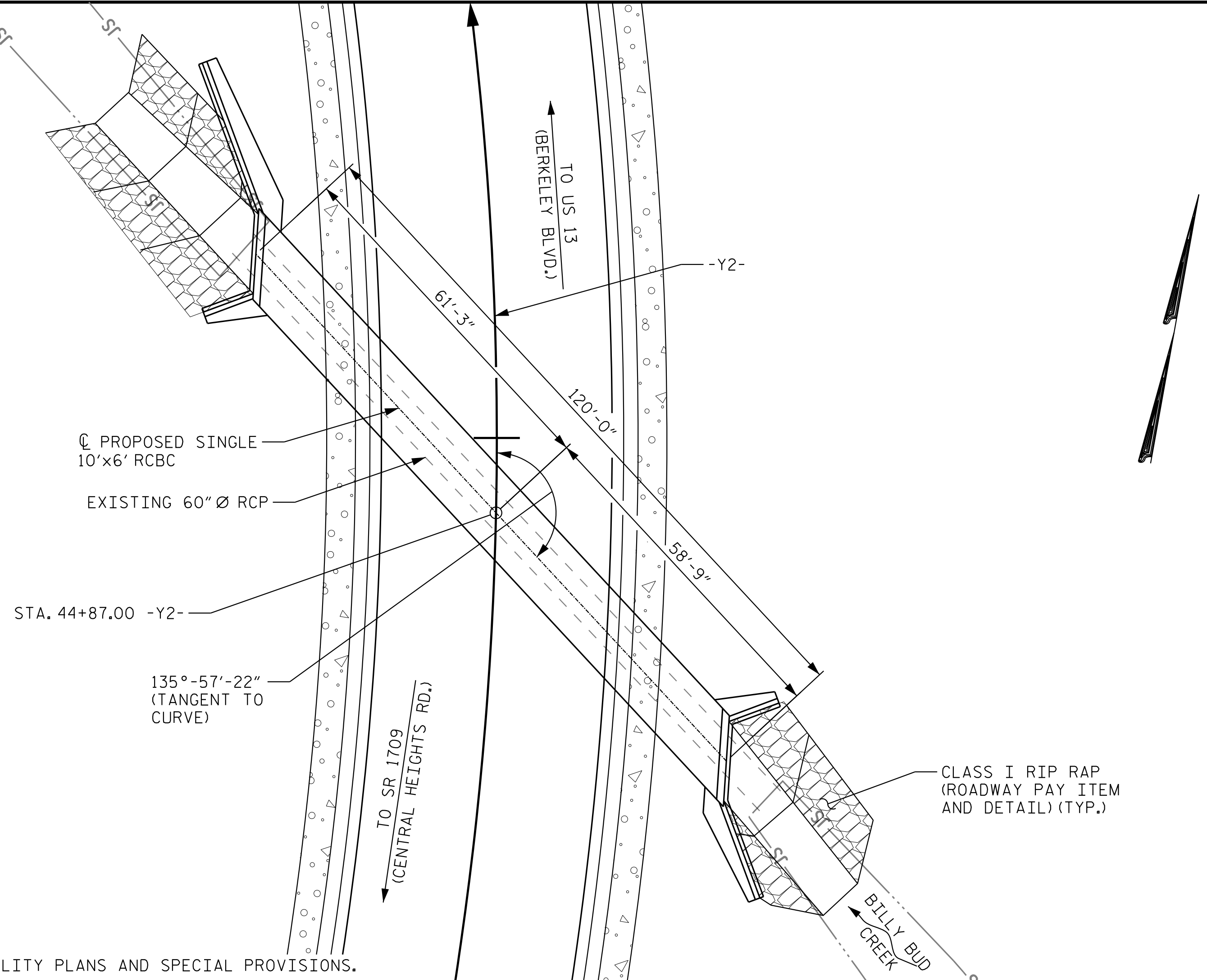


BENCHMARK: BM#7 -Y2- STA 54+48.27, OFFSET 29.34' RIGHT, EL. 115.14', (RIGHT SCRIBE ON FH BONNET BOLT)

NOTES

- ASSUMED LIVE LOAD ----- HL-93 OR ALTERNATE LOADING
- DESIGN FILL ----- 3'-10 (MAX.), 2'-0" (MIN.)
- FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.
- 3"Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATIONS.
- THE RESIDENT ENGINEER SHALL CHECK THE LENGTH OF CULVERT BEFORE STAKING IT OUT TO MAKE CERTAIN THAT IT WILL PROPERLY TAKE CARE OF THE FILL.
- CONCRETE IN THE CULVERT TO BE POURED IN THE FOLLOWING ORDER:
 1. WING FOOTINGS, CURTAIN WALLS AND FLOOR SLAB INCLUDING 4" OF ALL VERTICAL WALLS.
 2. THE REMAINING PORTIONS OF THE WALLS AND WINGS FULL HEIGHT FOLLOWED BY ROOF SLAB AND HEADWALLS.
- DIMENSIONS FOR WING LAYOUT AS WELL AS ADDITIONAL REINFORCING STEEL EMBEDDED IN BARREL ARE SHOWN ON THE WING SHEETS.
- TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED IN THE BARREL, SPACED TO LIMIT POURS TO A MAXIMUM OF 70 FEET. LOCATION OF JOINTS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.
- FOR CULVERT DIVERSION DETAILS AND PAY ITEM, SEE EROSION CONTROL PLANS.
- A 3 FOOT STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE OF THE WING COVERING THE ENTIRE LENGTH OF THE EXPANSION JOINT.
- AT THE CONTRACTOR'S OPTION HE MAY SUBMIT, TO THE ENGINEER FOR APPROVAL, DESIGN AND DETAIL DRAWINGS FOR A PRECAST REINFORCED CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE CULVERT SHOWN ON THE PLANS. THE DESIGN SHALL PROVIDE THE SAME SIZE AND NUMBER OF BARRELS AS USED ON THE CAST-IN-PLACE DESIGN. FOR OPTIONAL PRECAST REINFORCED CONCRETE BOX CULVERT, SEE SPECIAL PROVISIONS.
- 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.



FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

LOCATION SKETCH

I HEREBY CERTIFY THESE PLANS ARE THE AS-BUILT PLANS.

HYDRAULIC DATA

DESIGN DISCHARGE ----- 230 CFS
 FREQUENCY OF DESIGN FLOOD ----- 25 YR.
 DESIGN HIGH WATER ELEVATION ----- 113.9 FT.
 DRAINAGE AREA ----- 294 ACRES
 BASE DISCHARGE (Q100) ----- 300 CFS
 BASE HIGH WATER ELEVATION ----- 114.5 FT.

OVERTOPPING FLOOD DATA

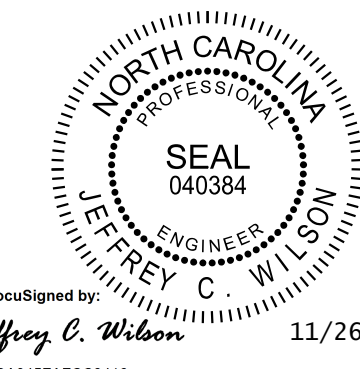
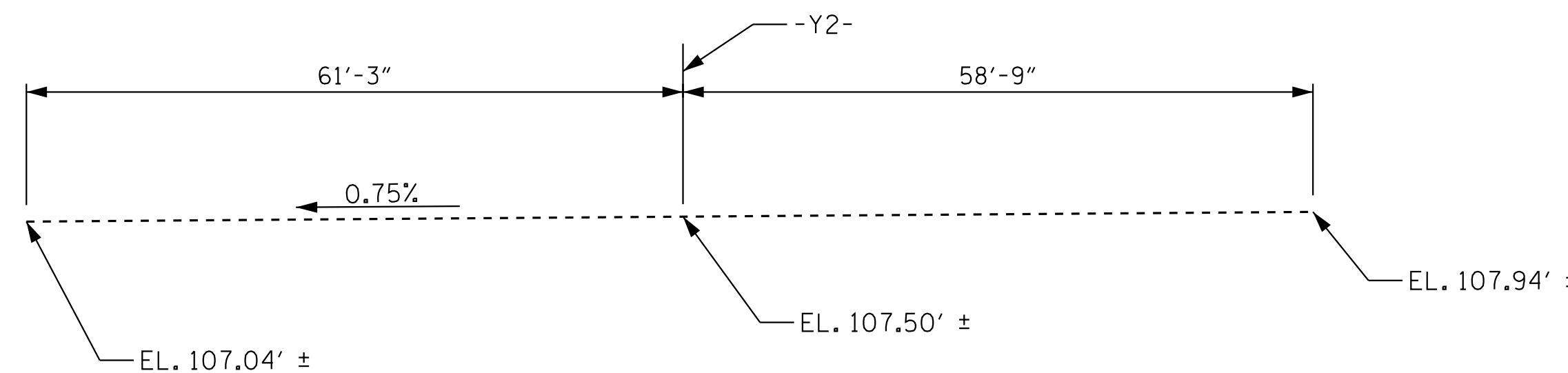
OVERTOPPING DISCHARGE ----- >230 CFS
 FREQUENCY OF OVERTOPPING FLOOD --- >25 YR.
 OVERTOPPING FLOOD ELEVATION ----- 114.1 FT.
 OVERTOPPING OCCURS AT SAG
 STA. 41+13.08 -Y2- AT SHOULDER POINT

ROADWAY DATA

GRADE POINT EL. @ STA. 44+87.00 -Y2- = 117.35'
 BED ELEVATION @ STA. 44+87.00 -Y2- = 107.50'
 ROADWAY SLOPES 3 : 1

TOTAL STRUCTURE QUANTITIES

CLASS A CONCRETE	
BARREL @ 1.189 CY/FT	142.7 C.Y.
WINGS ETC.	27.4 C.Y.
SILLS	0.7 C.Y.
TOTAL	170.8 C.Y.
REINFORCING STEEL	
BARREL	29,550 LBS.
WINGS ETC.	1,664 LBS.
TOTAL	31,214 LBS.
CULVERT EXCAVATION STA. 44+87.00 -Y2-	LUMP SUM
FOUNDATION CONDITIONING MATERIAL	132 TONS
REMOVAL OF EXISTING STRUCTURE STA. 44+87.00 -Y2-	LUMP SUM



Kimley»Horn
 421 Fayetteville Street, Suite 600
 Raleigh, NC 27601-1772
 Phone (919) 677-2000
 NC LICENSE # F-0102

PROJECT NO. U-5724
WAYNE COUNTY
 STATION: 44+87.00 -Y2-

SHEET 1 OF 8

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SINGLE 10 FT. X 6 FT.
 CONCRETE BOX CULVERT
 136° SKEW

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C-1
1			3			TOTAL SHEETS
2			4			8

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

K:\RDI-Structures\Culvert\NC\01036333 U-5724 Goldboro\Goldboro\U5724.SMU.C001.dgn
 11/25/2019

DRAWN BY: J. I. KIMBLE DATE: 11/19
 CHECKED BY: C. T. POOLE DATE: 11/19
 DESIGN ENGINEER OF RECORD: J. C. WILSON DATE: 11/19