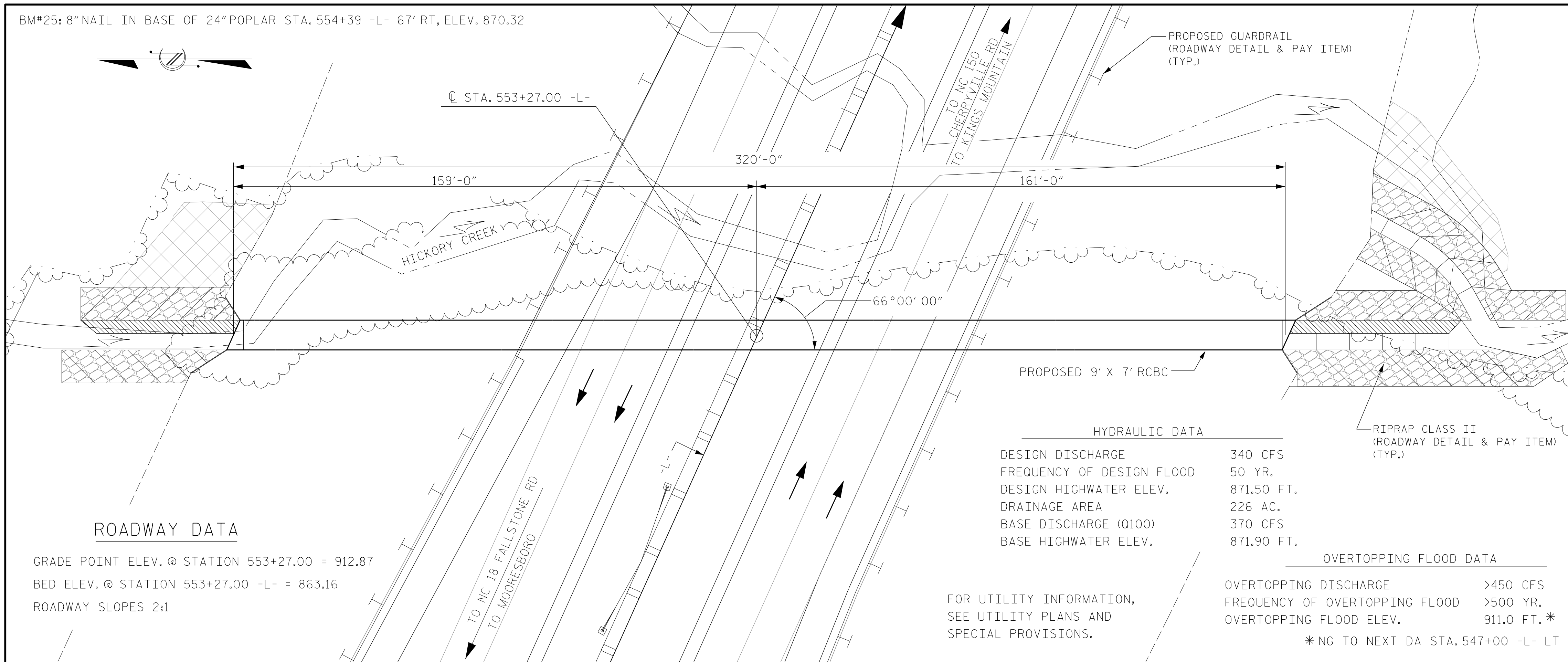


BM#25: 8" NAIL IN BASE OF 24" POPLAR STA. 554+39 -L- 67' RT, ELEV. 870.32



NOTES:

- ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.
- DESIGN FILL IS 42.0 FEET.
- TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED IN THE BARREL, SPACED TO LIMIT THE POURS TO A MAXIMUM OF 70 FEET. LOCATION OF JOINTS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.
- THERE ARE 50 "C" BARS IN SECTION OF BARREL.
- 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.
- 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.
- NATIVE MATERIAL PLACED BETWEEN SILLS/Baffles IN THE CULVERT SHALL PROVIDE A CONTINUOUS LOW FLOW CHANNEL. THE NATIVE MATERIAL SHALL BE MATERIAL THAT IS EXCAVATED FROM THE STREAM BED AT THE PROJECT SITE DURING CONSTRUCTION. NATIVE MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.
- NO PRECAST REINFORCED BOX CULVERT OPTION WILL BE ALLOWED.
- FOR OTHER DESIGN DATA & NOTES SEE STANDARD NOTE SHEET.
- 3" Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONCRETE IN CULVERTS TO BE POURED IN THE FOLLOWING ORDER:

- WING FOOTINGS, CURTAIN WALLS AND FLOOR SLAB INCLUDING 4" OF ALL VERTICAL WALLS.
- THE REMAINING PORTIONS OF THE WALLS AND WINGS FULL HEIGHT FOLLOWED BY ROOF SLAB AND HEADWALLS
- 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.
- DIMENSIONS FOR WING LAYOUT AS WELL AS ADDITIONAL REINFORCING STEEL EMBEDDED IN BARREL ARE SHOWN ON WING SHEET.
- AT THE CONTRACTOR'S OPTION, HE MAY SPLICE THE VERTICAL REINFORCING STEEL IN THE INTERIOR FACE OF EXTERIOR WALL ABOVE LOWER WALL CONSTRUCTION JOINT. THE SPLICE LENGTH SHALL BE AS PROVIDED IN THE SPLICE LENGTH CHART SHOWN ON THE PLANS. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.

ROADWAY DATA

GRADE POINT ELEV. @ STATION 553+27.00 = 912.87
 BED ELEV. @ STATION 553+27.00 -L- = 863.16
 ROADWAY SLOPES 2:1

HYDRAULIC DATA

DESIGN DISCHARGE	340 CFS
FREQUENCY OF DESIGN FLOOD	50 YR.
DESIGN HIGHWATER ELEV.	871.50 FT.
DRAINAGE AREA	226 AC.
BASE DISCHARGE (Q100)	370 CFS
BASE HIGHWATER ELEV.	871.90 FT.

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE	>450 CFS
FREQUENCY OF OVERTOPPING FLOOD	>500 YR.
OVERTOPPING FLOOD ELEV.	911.0 FT. *

* NG TO NEXT DA STA. 547+00 -L- LT

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

LOCATION SKETCH

FOUNDATION NOTES:

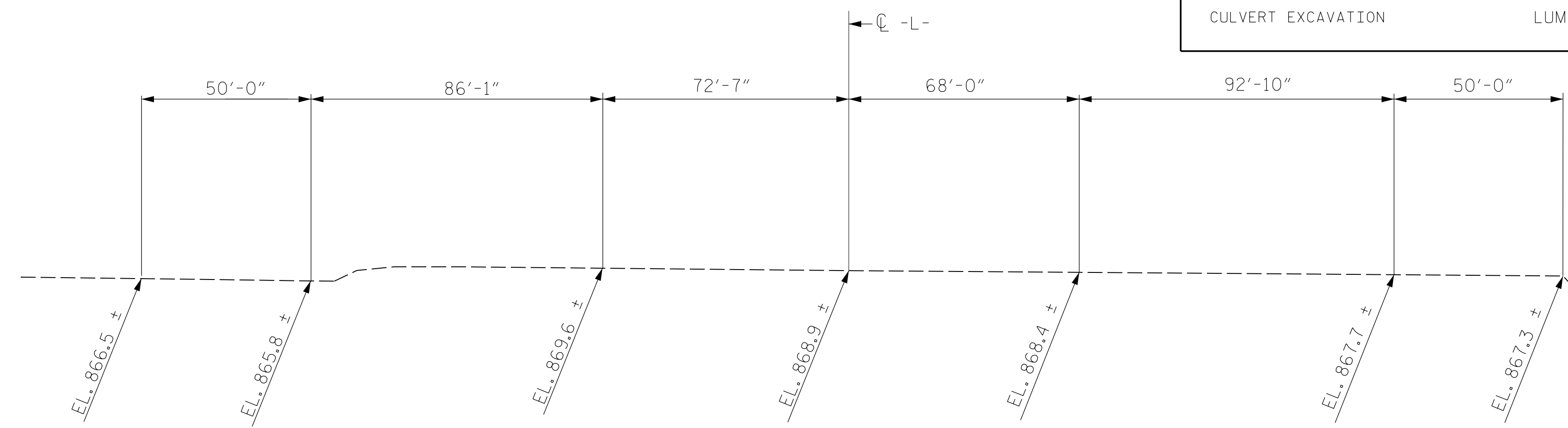
- THE REINFORCED CONCRETE BOX CULVERT SHALL BE PLACED ON THE STANDARD 1.0 FOOT BLANKET OF FOUNDATION CONDITIONING MATERIAL. SEE SECTION 414 OF STANDARD SPECIFICATIONS.
- CONSTRUCT THE REINFORCED CONCRETE BOX CULVERT WITH 10 INCHES OF CAMBER TO ACCOUNT FOR ANTICIPATED SETTLEMENT.

NOTES (CONTINUED):

- 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.

TOTAL STRUCTURE QUANTITIES

CLASS A CONCRETE		
BARREL @ 1.55	CY/FT	495.8 C.Y.
WING ETC.		28.2 C.Y.
TOTAL		524.0 C.Y.
REINFORCING STEEL		
BARREL		86,107 LBS.
WINGS ETC.		1,321 LBS.
TOTAL		87,428 LBS.
FOUNDATION COND. MAT'L.		335 TONS
CULVERT EXCAVATION		LUMP SUM



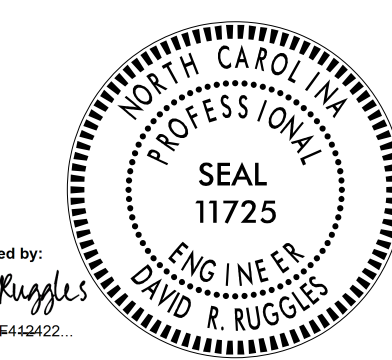
PROFILE ALONG C OF CULVERT

PROJECT NO. R-2707C
CLEVELAND COUNTY
 STATION: 553+27.00 -L-

SHEET 1 OF 5

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SINGLE 9 FT. X 7 FT.
 CONCRETE BOX CULVERT
 66° SKEW



2/10/2017

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

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C13-01
1			3			TOTAL SHEETS
2			4			5

DRAWN BY: HASSFOURA	DATE: 11/16
CHECKED BY: D. RUGGLES	DATE: 12/16
DESIGN ENGINEER OF RECORD: D. RUGGLES	DATE: 12/16

R 2707C-SITE 3
 2/10/2017
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