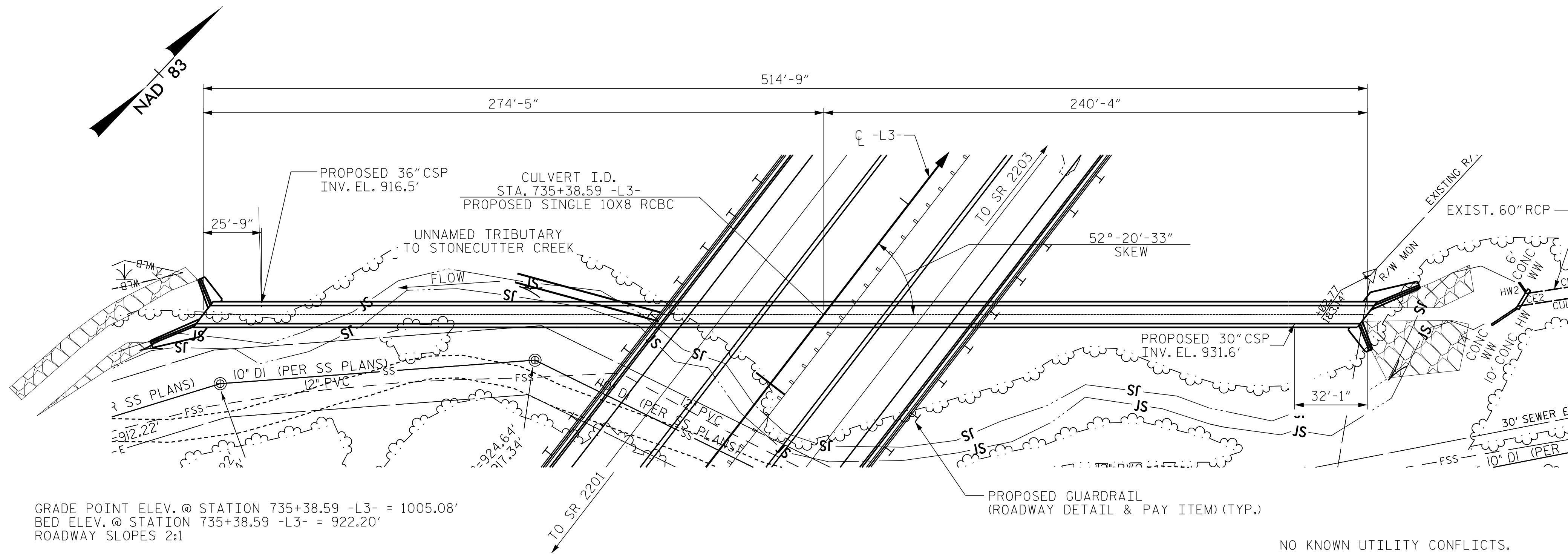


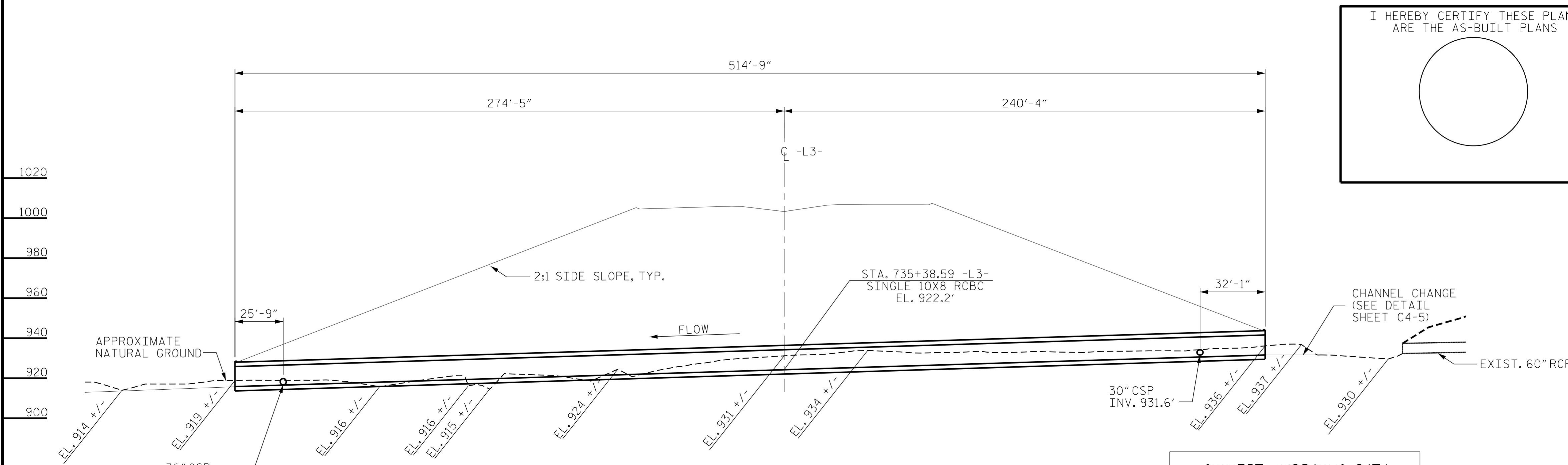
BENCHMARK #8: RR SPIKE IN BASE 6" DBL OAK. N 596840, E 1121659, EL. 985.97, STA. 736+48.31 -L3- 364.49' LEFT

GENERAL NOTES

- ASSUMED LIVE LOAD ----- HL-93 OR ALTERNATE LOADING.
 DESIGN FILL----- 85 FT.
 FOR OTHER DESIGN DATA AND 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:
 1. WING FOOTINGS AND FLOOR SLAB INCLUDING 4" OF ALL VERTICAL WALLS.
 2. THE CONCRETE SILLS, AND 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.
 TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED IN THE BARREL, SPACED TO LIMIT THE POURS TO A MAXIMUM OF 70 FT. LOCATION OF JOINTS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.
 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.
 FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
 FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
 FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
 FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
 A 3' STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE OF THE WING COVERING THE ENTIRE LENGTH OF THE EXPANSION JOINT.
 STEEL IN THE BOTTOM SLAB MAY BE SPLICED AT THE PERMITTED CONSTRUCTION JOINT AT THE CONTRACTOR'S OPTION. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES WILL BE PAID FOR BY THE CONTRACTOR.
 FOR CHANNEL CHANGE DETAILS AND PAY ITEMS, SEE EROSION CONTROL PLANS.



LOCATION SKETCH



PROFILE ALONG CULVERT

I HEREBY CERTIFY THESE PLANS ARE THE AS-BUILT PLANS

TOTAL STRUCTURE QUANTITIES	
CLASS A CONCRETE	
BARREL @ 3.13 - CY/FT	1611.2 - C.Y.
WINGS ETC.	37.4 - C.Y.
TOTAL	1648.6 - C.Y.
REINFORCING STEEL	
BARREL	415,909 - LBS.
WINGS ETC.	1,815 - LBS.
TOTAL	417,724 - LBS.
CULVERT EXCAVATION	LUMP SUM
FOUNDATION COND. MATERIAL	629 - TONS
CLASS II RIP RAP	32 TONS
GEOTEXTILE FOR DRAINAGE	1695 SY

PROJECT NO. R-2233BB
 RUTHERFORD COUNTY
 STATION: 735+38.59 -L3-

CULVERT HYDRAULIC DATA	
DESIGN DISCHARGE	= 360 CFS
DESIGN FREQUENCY	= 50 YRS
DESIGN HW ELEVATION	= 936.3 FT
BASE DISCHARGE	= 400 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 936.7 FT
OVERTOPPING DISCHARGE	= 860 CFS
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING ELEVATION	= 994.0 FT
DRAINAGE AREA	= 0.39 SQ. MI.

Dewberry
 2610 WYCLIFF ROAD
 SUITE 410
 RALEIGH, NC 27607
 PHONE: 919.881.9939
 NC COA No. F-09229

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SINGLE 10 FT. X 8 FT. CONCRETE BOX CULVERT

10/7/2021

DRAWN BY: MTP DATE: 05/2021
 CHECKED BY: CBC DATE: 05/2021
 DESIGN ENGINEER OF RECORD: MTP DATE: 05/2021

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C4-1
1			3			TOTAL SHEETS
2			4			6