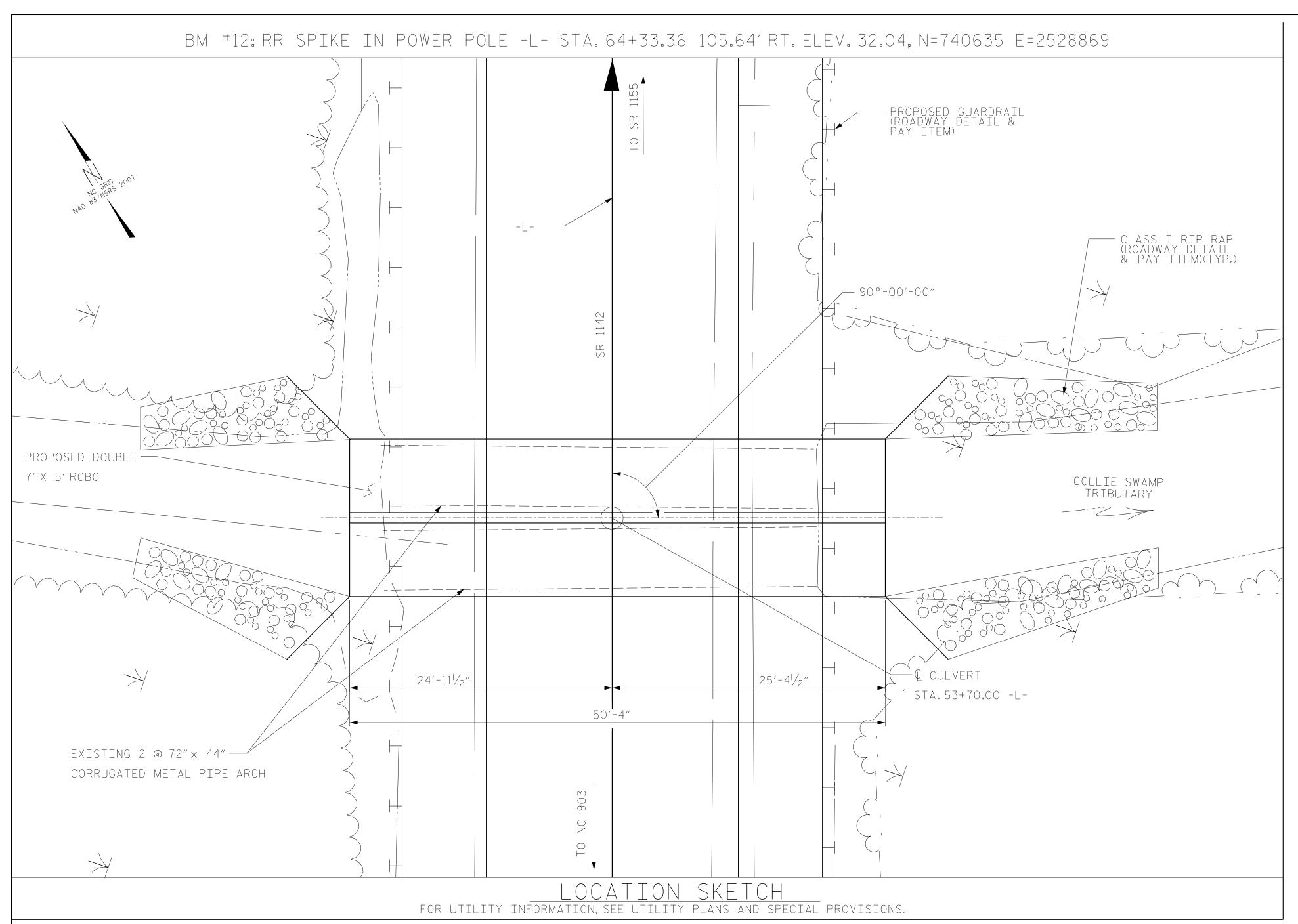
DRAWN BY : __A.J. KLINK

CHECKED BY : J.A. DILWORTH

_ DATE : <u>11/18</u>



ASSUMED LIVE LOAD ----- HL-93 OR ALTERNATE LOADING.

DESIGN FILL TO BOTTOM OF TOP SLAB 2.02' (MIN.) AND 2.84' (MAX)

FOR OTHER DESIGN DATA AND NOTES SEE STANDARD NOTE SHEET.

 $3'' \varnothing$ 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 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.

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 SHALL BE PAID FOR BY THE CONTRACTOR.

FOR CULVERT DIVERSIONS 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 LENGHT OF EXPANSION JOINT.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

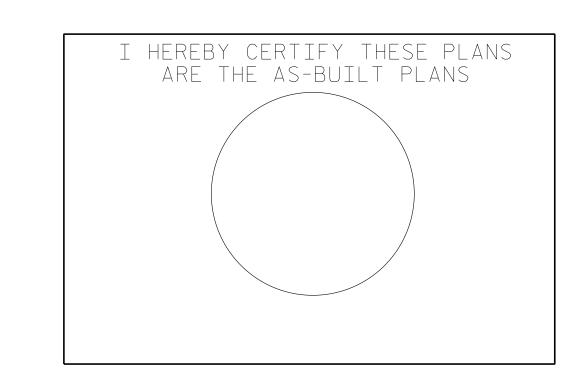
FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

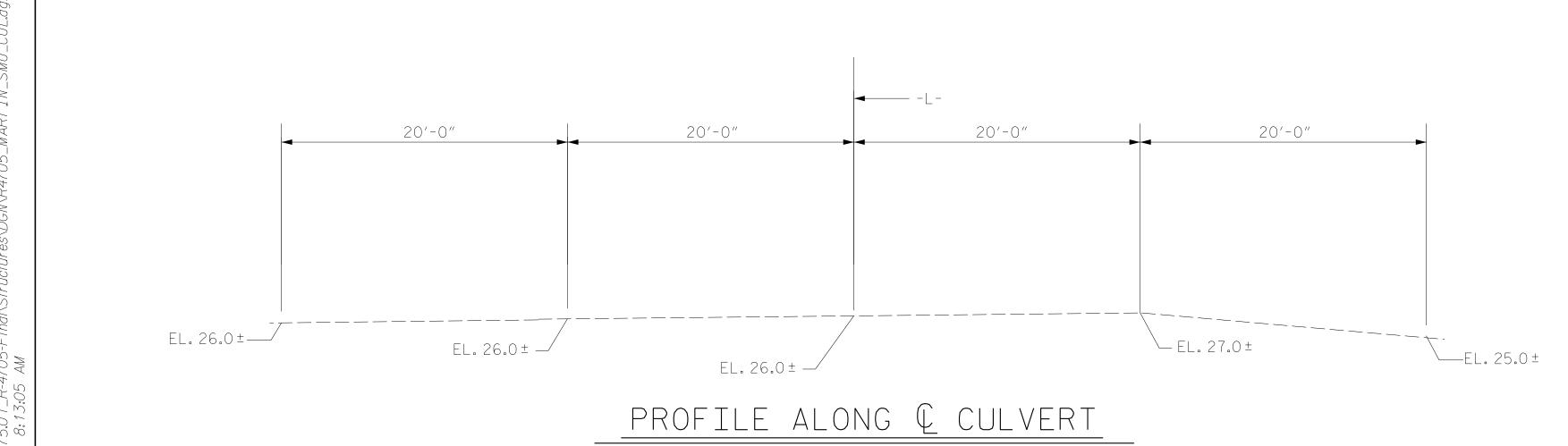
FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

AT THE CONTRACTOR'S OPTION, HE MAY SPLICE THE VERTICAL REINFORCING STEEL IN THE INTERIOR FACE OF EXTERIOR WALL AND BOTH FACES OF INTERIOR WALLS 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.

THE EXISTING STRUCTURE CONSISTS OF 2 @ 72"X 44"CORRUGATED METAL PIPE ARCH. THE EXISTING STRUCTURE SHALL BE REMOVED.



TOTAL STRUCTURE QUAN	TITIES
REMOVAL OF EXISTING STRUCTURE	LUMP SUM
CULVERT EXCAVATION	LUMP SUM
FOUNDATION CONDITIONING MATERIAL	71 TONS
CLASS A CONCRETE	
BARREL @1.539_CY/FT	77.5 C.Y.
WING ETC	<u> 20.4</u> C.Y.
TOTAL	97.9 C.Y.
REINFORCING STEEL	
BARREL	<u>10110</u> LBS.
WINGS ETC	<u>1200</u> LBS.
TOTAL	<u>11310</u> LBS.



ROADWAY DATA GRADE POINT ELEV. @ STA 53+70.00 -L-= 32.83 BED ELEV.@ STA 53+70.00 -L-= 24.99 ROADWAY SLOPES = 3:1

HYDRAULIC DATA

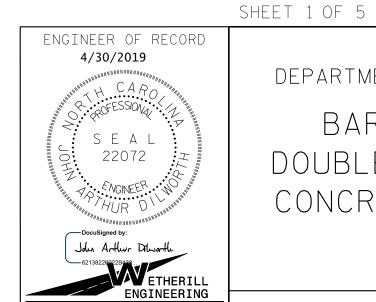
DESIGN DISCHARGE = 320 CFS FREQUENCY OF DESIGN FLOOD = 10 YEARS = 32.20 DESIGN HIGH WATER ELEVATION DRAINAGE AREA = 2.7 SQ. MI. BASE DISCHARGE (Q100) = 690 CFS BASE HIGH WATER ELEVATION = 32.90

OVERTOPPING DISCHARGE = 320+ CFS FREQUENCY OF OVERTOPPING FLOOD = 10 ± YEAR OVERTOPPING FLOOD ELEVATION = 32.2 *

OVERTOPPING OCCURTS AT ** PROPOSED SAG AT SAG -L- STA. 51+03 CENTERLINE

UNLESS ALL SIGNATURES COMPLETE

PROJECT NO. R-4705 MARTIN COUNTY STATION: 53+70.00 -L-



Raleigh, N.C. 27606
Bus: 919 851 8077
Fax: 919 851 8107
LICENSE NO. F-0377

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BARREL STANDARD DOUBLE 7 FT. X 5 FT. CONCRETE BOX CULVERT 90° SKEW

REVISIONS						SHEET NO.
0.	BY:	DATE:	NO.	BY:	DATE:	C1
1			3			TOTAL SHEETS
2			4			5

DOCUMENT NOT CONSIDERED FINAL

DATA