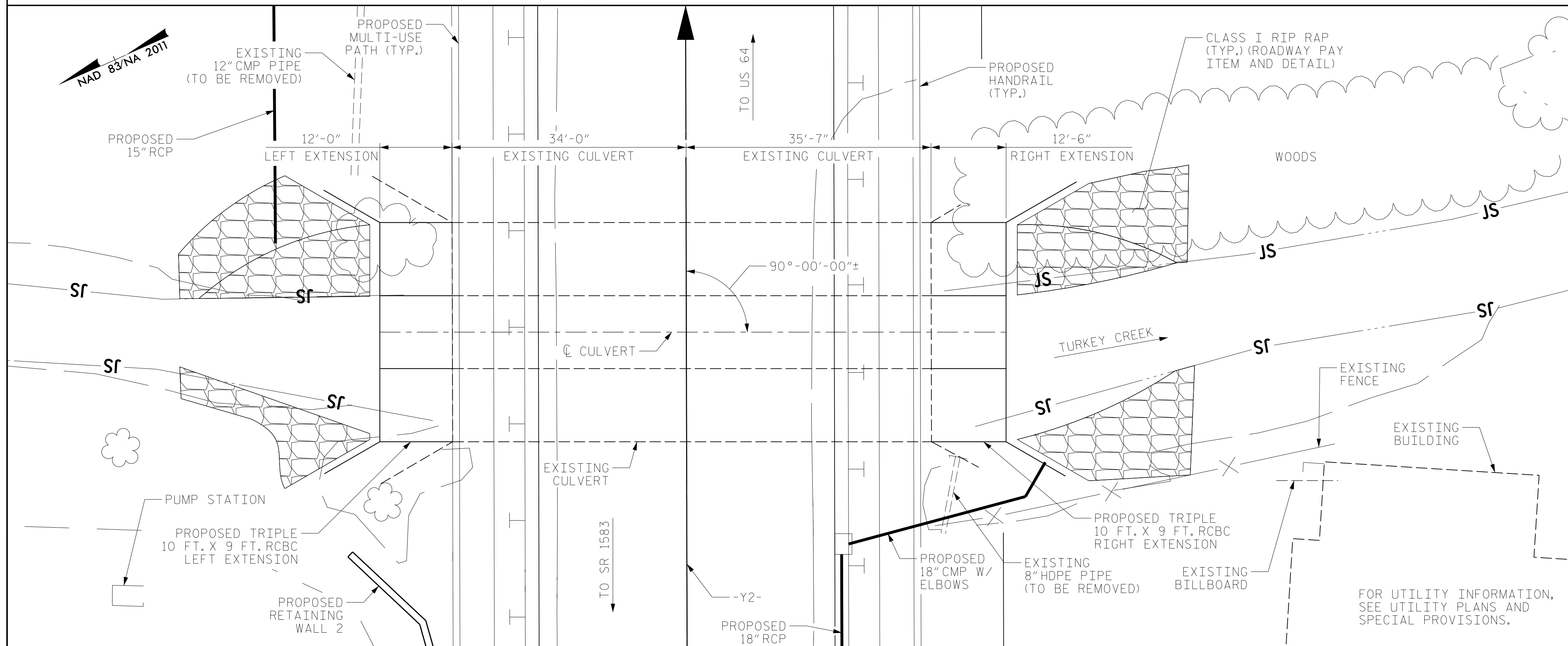


BM#2 SPIKE NAIL IN 36" WHITE OAK STUMP, -Y2- STA. 13+01.67, 132.4' RT.



LOCATION SKETCH

HYDRAULIC DATA

DESIGN DISCHARGE	= 1,700 CFS
FREQUENCY OF DESIGN DISCHARGE	= 50 YRS
DESIGN HIGH WATER ELEVATION	= 2,122.0'
DRAINAGE AREA	= 5.74 SQ MI
BASE DISCHARGE (Q100)	= 2,000 CFS
BASE HIGH WATER ELEVATION	= 2,122.8'

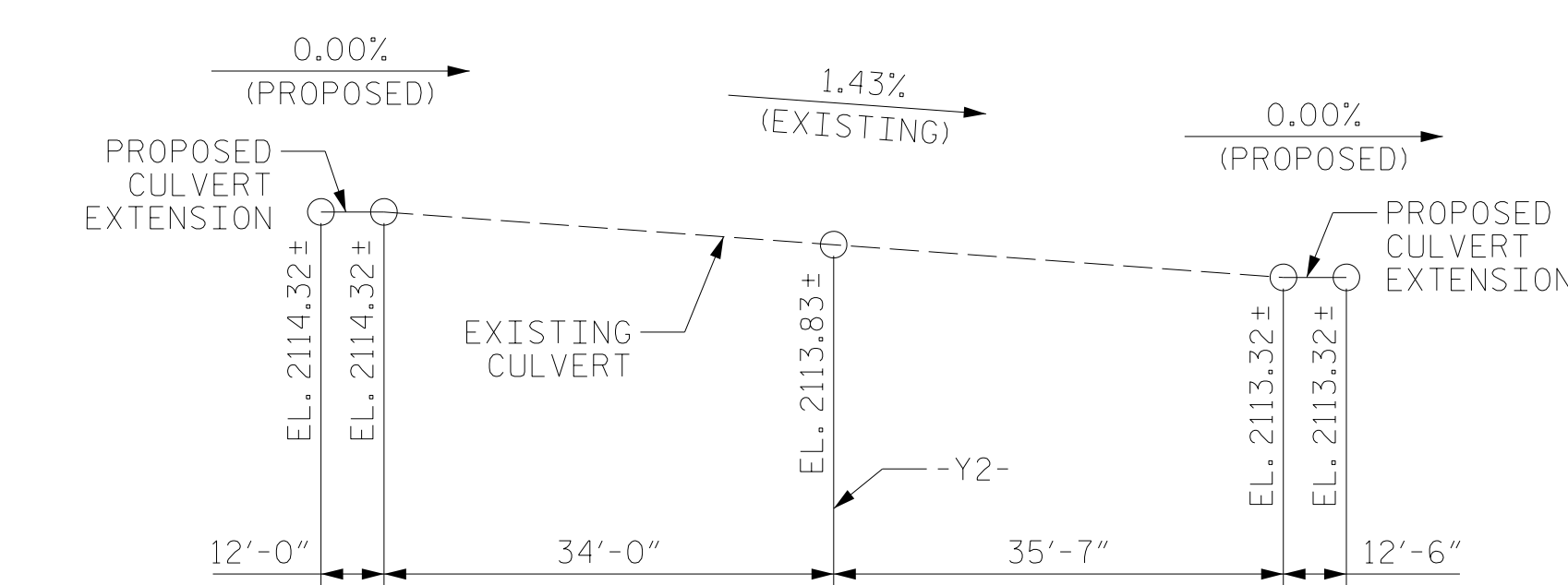
OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE	= 3,500 CFS
FREQUENCY OF OVERTOPPING	= 500+ YRS
OVERTOPPING ELEVATION	= 2,128.2'

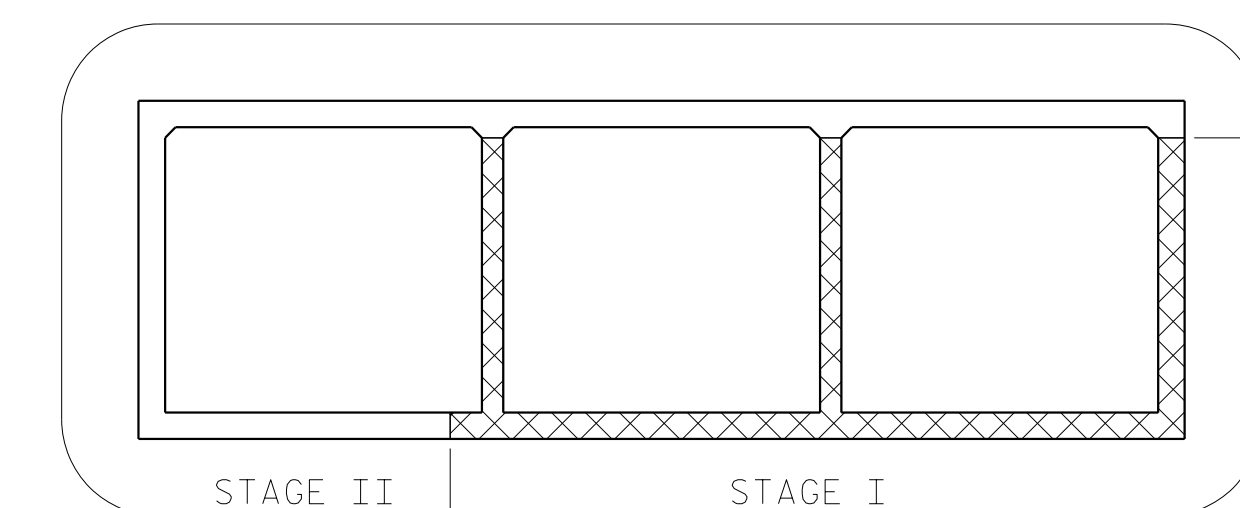
SAG @ -Y2- STA. 29+00±

GRADE DATA

GRADE POINT ELEV. @ STA. 17+47 -Y2-	= 2,129.59
CULVERT BED ELEV.	= 2,113.83
ROADWAY SLOPES	= 2:1



PROFILE ALONG CULVERT



CONSTRUCTION SEQUENCE

SECTION IS LOOKING UPSTREAM

STAGE I CONSTRUCTION
 STAGE II CONSTRUCTION

NOTES:

- ASSUMED LIVE LOAD ----- HL-93 OR ALTERNATE LOADING
- DESIGN FILL-----MIN. 4.66', MAX. 6.51'
- THESE CULVERT EXTENSIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
- FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE STANDARD NOTE SHEET.
- 3"Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH SPECIFICATIONS.
- CONCRETE IN STAGE 1 OR STAGE 2 CULVERT 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.
- THE 18" DIAMETER CSP PIPE THROUGH WINGWALL 3 SHALL BE LOCATED BY THE ENGINEER. THE REINFORCING STEEL SHALL BE FIELD BENT OR CUT AS NECESSARY TO CLEAR PIPE.
- DOWELS SHALL BE USED TO CONNECT THE CULVERT EXTENSION TO THE EXISTING CULVERT AS SHOWN. FOR NOTE REGARDING SETTING OF DOWELS, SEE SHEET SN.
- IF APPROVED BY THE ENGINEER, THE CONTRACTOR MAY USE THE EXISTING WINGS AS TEMPORARY SHORING FOR THE CONSTRUCTION OF THE CULVERT EXTENSIONS. IN THIS CASE THE BOTTOM SLAB OF THE EXTENSION SHALL BE POURED AT LEAST 72 HOURS PRIOR TO CUTTING THE WINGS. THE WINGS MAY BE CUT EARLIER PROVIDED THE SLAB CONCRETE STRENGTH HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 1500 PSI.

- FOR CULVERT DIVERSION DETAILS, 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.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- NO PRECAST REINFORCED BOX CULVERT OPTION WILL BE ALLOWED.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

NATIVE MATERIAL CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE STREAM BED AT THE PROJECT SITE DURING CULVERT CONSTRUCTION. NATIVE MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.

I HEREBY CERTIFY THESE PLANS ARE THE AS-BUILT PLANS

PROJECT NO. R-5799
TRANSYLVANIA COUNTY
 STATION: 17+47.31 -Y2-

SHEET 1 OF 10 EXTENDS CULVERT NO. 99

5/3/2023

RS&H

RS&H Architects-Engineers-Planners, Inc.

8521 Six Forks Road, Suite 400
 Raleigh, NC 27615
 919-926-4100 FAX 919-846-9080
 www.rsandh.com
 North Carolina License No. 50737-5403-C-28

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
TRIPLE 10 FT. X 9 FT. CONCRETE BOX CULVERT LEFT AND RIGHT EXTENSIONS 90° SKEW					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO.					C-1
TOTAL SHEETS					10

DRAWN BY :	TWL	DATE :	08/2020
CHECKED BY :	MAL	DATE :	08/2020
DESIGN ENGINEER OF RECORD:	MRA	DATE :	04/2023

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED