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PROJECT REFERENCE NO.	SHEET NO.
17BP.14.R.130	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 26960 ENGINEER — 12/7/2016

HYDRAULICS ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 31977 ENGINEER KEVIN B. ALFORD — 12/7/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Vaughn & Melton Consulting Engineers — Asheville, North Carolina 828 253 2796 — Charlotte, North Carolina 704-357-0488 — Tri-Cities, Tennessee 423-467-8400 — Knoxville, Tennessee 865-546-5800 — Middlesboro, Kentucky 606-248-6600 — Spartanburg, South Carolina 864-574-4775

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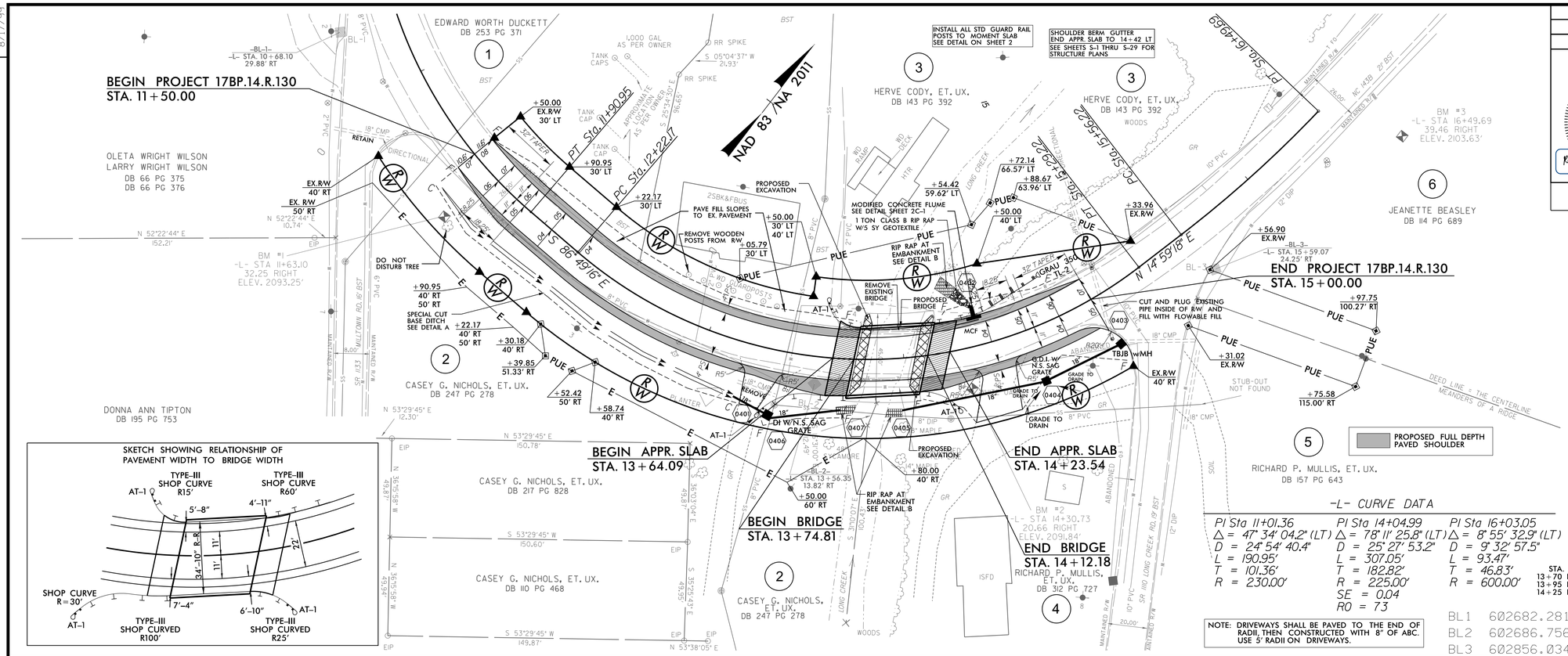


-L- CURVE DATA

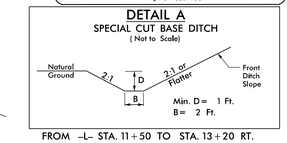
PI Sta 11+01.36	PI Sta 14+04.99	PI Sta 16+03.05
Δ = 47° 34' 04.2" (LT)	Δ = 78° 11' 25.8" (LT)	Δ = 8° 55' 32.9" (LT)
D = 24° 54' 40.4"	D = 25° 27' 53.2"	D = 9° 32' 57.5"
L = 190.95'	L = 307.05'	L = 93.47'
T = 101.36'	T = 182.82'	T = 46.83'
R = 230.00'	R = 225.00'	R = 600.00'
	SE = 0.04	
	RO = 73	

NOTE: DRIVEWAYS SHALL BE PAVED TO THE END OF RADII, THEN CONSTRUCTED WITH 8" OF ABC. USE 5' RADII ON DRIVEWAYS.

STA.	LINER TYPE	LINER AMOUNT	GEOTEXTILE
13+70 RT.	CLASS I RIP RAP	4 TONS	5 SY
13+95 RT.	CLASS I RIP RAP	4 TONS	5 SY
14+25 LT.	CLASS I RIP RAP	6 TONS	7 SY

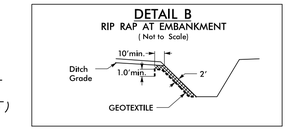
BL1	602682.2810	564048.7680	2094.27
BL2	602686.7560	564347.3140	2091.52
BL3	602856.0340	564472.6760	2092.56

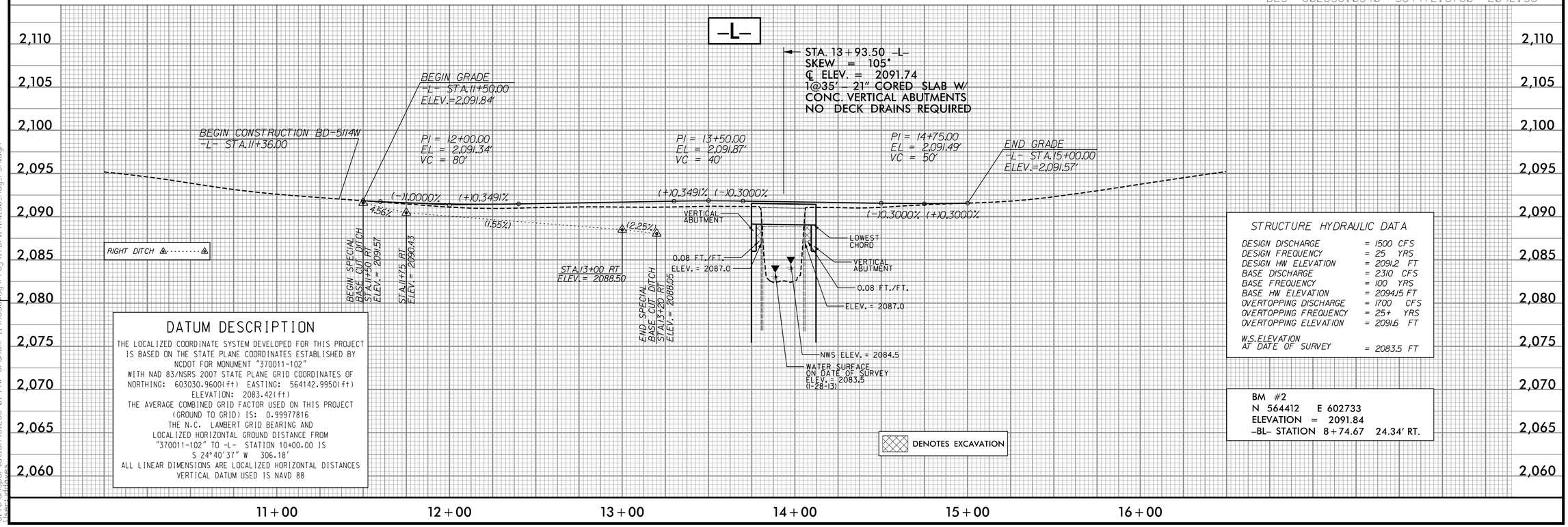
DETAIL A
SPECIAL CUT BASE DITCH
(Not to Scale)



FROM -L- STA. 11+50 TO STA. 13+20 RT.

DETAIL B
RIP RAP AT EMBANKMENT
(Not to Scale)





STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= 1500 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 2091.2 FT
BASE DISCHARGE	= 2310 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 2094.15 FT
OVERTOPPING DISCHARGE	= 1700 CFS
OVERTOPPING FREQUENCY	= 25+ YRS
OVERTOPPING ELEVATION	= 2091.6 FT
W.S.ELEVATION AT DATE OF SURVEY	= 2083.5 FT

BM #2
N 564412 E 602733
ELEVATION = 2091.84
-BL- STATION 8+74.67 24.34' RT.

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "370011-102"
WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF
NORTHING: 603030.9600(ft) EASTING: 564142.9950(ft)
ELEVATION: 2083.42(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99977816
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "370011-102" TO -L- STATION 10+00.00 IS
S 24°40'37" W 306.18'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

REVISIONS

8/17/99

12/6/2016
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