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8/17/99

REVISIONS

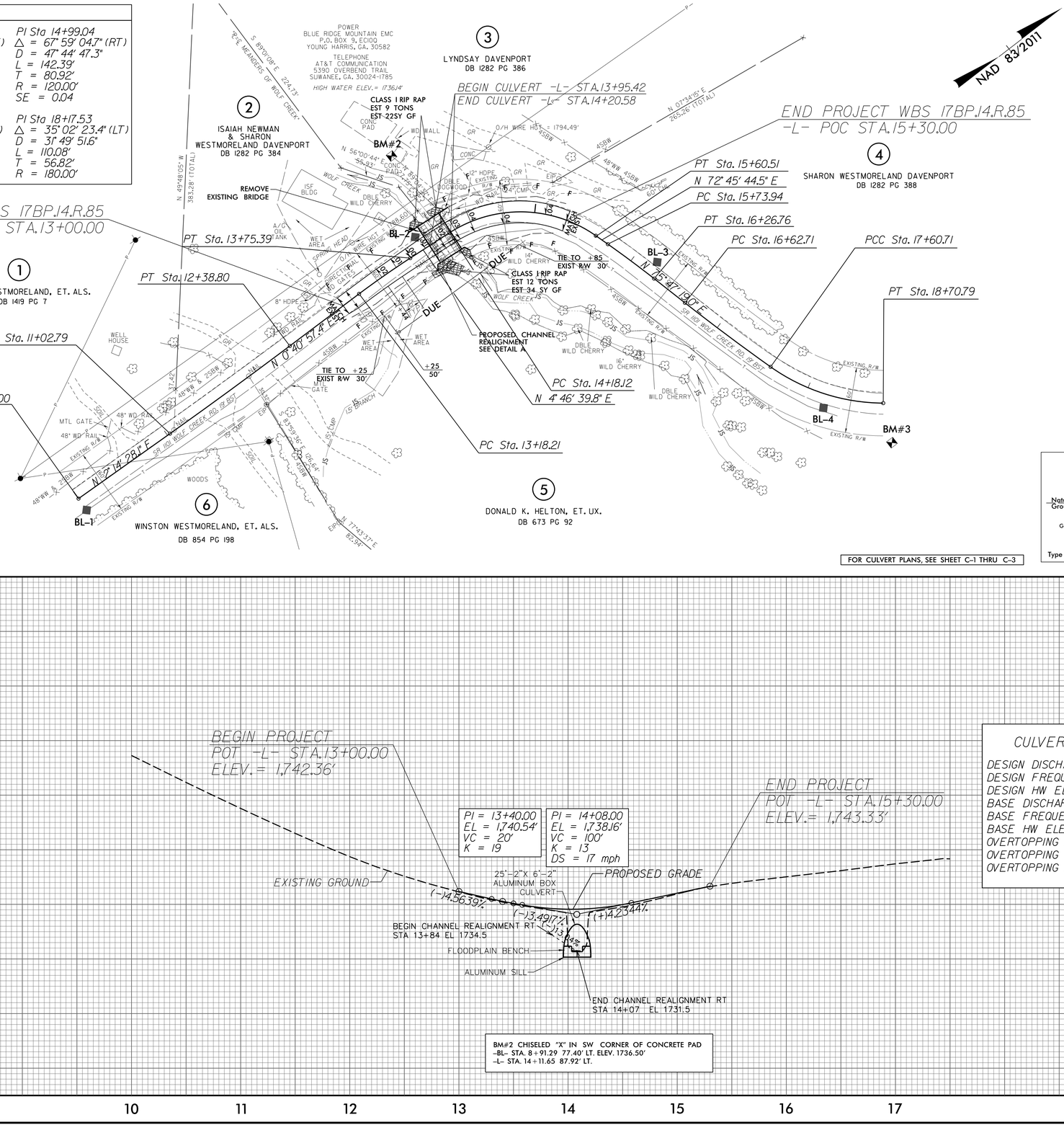
PROJECT REFERENCE NO.	SHEET NO.
17BP.14.R.85	04
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 026815 ENGINEER JAMES E. BECK
DocuSigned by: James E. Beck
1/3/2019

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 014455 ENGINEER TED L. BARTELT
DocuSigned by: Ted L. Bartelt
1/3/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L- CURVE DATA		
PI Sta 11+70.80 △ = 1° 33' 30.7" (LT) D = 1° 08' 45.3" L = 136.01' T = 68.01' R = 5,000.00'	PI Sta 13+46.81 △ = 4° 05' 42.4" (RT) D = 7° 09' 43.1" L = 57.18' T = 28.60' R = 800.00'	PI Sta 14+99.04 △ = 67° 59' 04.7" (RT) D = 47° 44' 47.3" L = 142.39' T = 80.92' R = 120.00' SE = 0.04
PI Sta 16+00.35 △ = 3° 01' 34.5" (RT) D = 5° 43' 46.5" L = 52.82' T = 26.42' R = 1,000.00'	PI Sta 17+11.72 △ = 2° 48' 27.0" (LT) D = 2° 51' 53.2" L = 98.00' T = 49.01' R = 2,000.00'	PI Sta 18+17.53 △ = 35° 02' 23.4" (LT) D = 31° 49' 51.6" L = 110.08' T = 56.82' R = 180.00'



FOR CULVERT PLANS, SEE SHEET C-1 THRU C-3

DETAIL B SF-190065
(NOT TO SCALE)
SINGLE BARREL CULVERT SKEWED LOW FLOW CHANNEL AND SILLS

*NOTES:

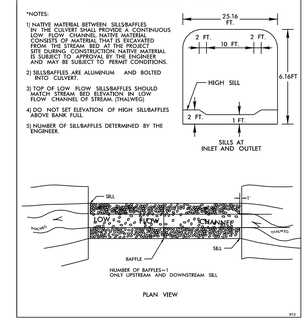
1) NATIVE MATERIAL BETWEEN SILLS/BAFFLES IN THE CULVERT SHALL PROVIDE A CONTINUOUS LOW FLOW CHANNEL NATIVE MATERIAL CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE STREAM BED AND DEPOSITED ON SITE DURING CONSTRUCTION. NATIVE MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.

2) SILLS/BAFFLES ARE ALUMINUM AND BOLTED INTO CULVERT.

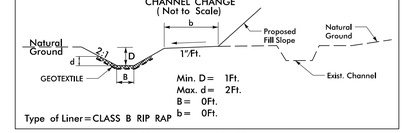
3) TOP OF LOW FLOW SILLS/BAFFLES SHOULD MATCH STREAM BED ELEVATION IN LOW FLOW CHANNEL OF STREAM. (THALWEG)

4) DO NOT SET ELEVATION OF HIGH SILL/BAFFLES ABOVE BANK FULL.

5) NUMBER OF SILL/BAFFLES DETERMINED BY THE ENGINEER.



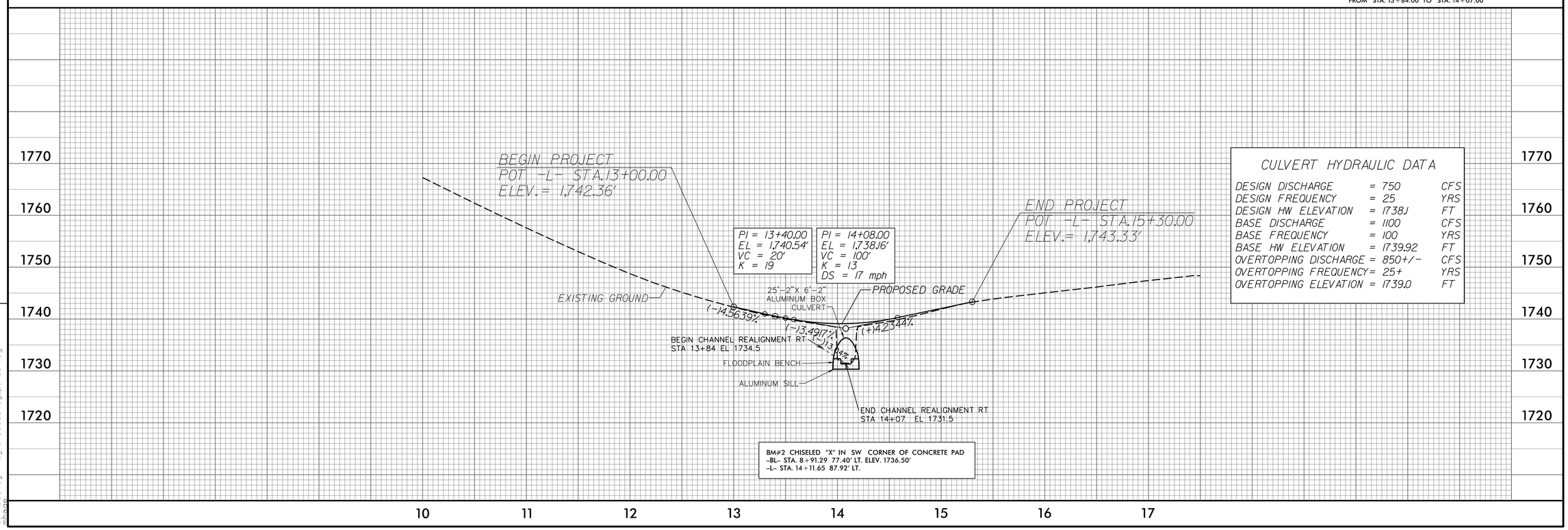
DETAIL A
CHANNEL CHANGE
(Not to Scale)



Min. D= 1Ft.
Max. d= 2Ft.
B= 0Ft.
b= 0Ft.

Type of Liner=CLASS B RIP RAP

FROM STA. 13+84.00 TO STA. 14+07.00



CULVERT HYDRAULIC DATA		
DESIGN DISCHARGE	= 750	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 1738.1	FT
BASE DISCHARGE	= 1100	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 1739.92	FT
OVERTOPPING DISCHARGE	= 850+/-	CFS
OVERTOPPING FREQUENCY	= 25+	YRS
OVERTOPPING ELEVATION	= 1739.0	FT

BM#2 CHISELED "X" IN SW CORNER OF CONCRETE PAD
-BL- STA. 8+91.29 77.40' LT. ELEV. 1736.50'
-L- STA. 14+11.65 87.92' LT.

10/29/2018
G:\Roadway\Proj\190065_Rdy_psh_04.dgn
mbaker