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5/28/99

PROJECT REFERENCE NO.	SHEET NO.
DF18314.2044195	5

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 053427 ENGINEER KYLE S. HIPP

12/15/2025

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 051669 ENGINEER DEAN W. LEWIS

12/15/2025

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

–L–

PI = 12+00.00
EL = 3,054.89'
K = 110
VC = 60'
DS = 50mph

PI = 13+88.00
EL = 3,051.38'
K = 3
VC = 20'
DS < 15mph

PI = 14+10.00
EL = 3,049.62'
K = 3
VC = 20'
DS < 15mph

BEGIN GRADE
–L– Sta.11+35.00
ELEV.= 3,055.75'

EXISTING GRADE

(–)1.3200%

BEGIN BRIDGE
–L– Sta.13+04.82
ELEV.= 3,052.94'

(–)1.8662%

PROPOSED GRADE

(–)1.8662%

END BRIDGE
–L– Sta.13+74.86
ELEV.= 3,051.63'

(–)18.0000%

(–)2.0120%

END GRADE
–L– Sta.14+20.00 =
–EY– Sta.13+80.77
ELEV.= 3,049.42'

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1400	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 3045.6	FT
BASE DISCHARGE	= 2100	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 3046.7	FT
OVERTOPPING DISCHARGE	= 3800	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 3051.2	FT
DATE OF SURVEY	= N/A	
W.S.ELEVATION AT DATE OF SURVEY	3040.6	FT

FOR –L– PLAN VIEW SEE SHEET 4

–Y2–

PI = 10+30.00
EL = 3,052.23'
K = 4
VC = 30'
DS < 15mph

PI = 10+65.00
EL = 3,047.43'
K = 3
VC = 30'
DS < 15mph

PROPOSED GRADE

(–)6.5000%

END GRADE
–Y2– Sta.10+80.00
ELEV.= 3,046.81'

(–)13.7492%

(–)14.0886%

EXISTING GRADE

BEGIN GRADE
–Y2– Sta.10+11.64 =
–L– Sta.12+68.08
ELEV.= 3,053.42'

FOR –Y2– PLAN VIEW SEE SHEET 4

–EY–

BEGIN MILL & OVERLAY (LT)
BEGIN CONSTRUCTION (RT)
–EY– Sta.12+66.00
ELEV.= 3,052.55'

END MILL & OVERLAY (LT)
END CONSTRUCTION (RT)
–EY– Sta.14+68.00 =
ELEV.= 3,046.69'

EXISTING GRADE

MILL & FILL
PROPOSED GRADE

–EY– Sta.13+80.93
–L– Sta.14+30.00 =
ELEV.= 3,049.32'

FOR –EY– PLAN VIEW SEE SHEET 4

12/9/2025
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