5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5344	5

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.
2/22/2016
DocuSigned by: Daniel W. Gardner, Jr.
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HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 019721 ENGINEER WILLIAM H. ELAM
2/22/2016
DocuSigned by: William H. Elam
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 5600	CFS
DESIGN FREQUENCY	= 2	YRS
DESIGN HW ELEVATION	= 677.60	FT
BASE DISCHARGE	= 12,000	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 683.47	FT
OVERTOPPING DISCHARGE	= 5700	CFS
OVERTOPPING FREQUENCY	= +/-2	YRS
OVERTOPPING ELEVATION	= 678.76	FT
DATE OF SURVEY	= 08/06/14	
W.S.ELEVATION AT DATE OF SURVEY	= 666.00	FT

BEGIN OVERLAY/WEDGING
-L- STA. 12+00.00

BEGIN GRADE -L- STA. 12+75.00
INCLUDES 2.5" RESURFACING
ELEV. = 695.90'

PI = 14+05.00
EL = 689.95'
VC = 100'
K = 50 (DS > 40 MPH)

PI = 15+80.00
EL = 678.45'
VC = 135'
*K = 19 (DS > 20 MPH)

PI = 18+30.00
EL = 679.70'
VC = 90'
*K = 20 (DS > 20 MPH)

END GRADE -L- STA. 20+25.00
ELEV. = 689.47'

EXISTING RDWY. GRADE
PROPOSED RDWY. GRADE
EX. RDWY. GRADE ±/-52.5' LT. OF PROFOSED -L-
NAT. GRND.
EXISTING RDWY. GRADE

℄ STA. -L- 17+21.00
1@63.105'-39" BOX BEAM
105° SKEW

ABUTMENT EXCAVATION
+/-45cy EL. = 671.0'
(STR. PAY ITEM)

ABUTMENT EXCAVATION
+/-45cy EL. = 670.0'
(STR. PAY ITEM)

W.S. ELEV. = 666.0'
8/6/14
CLASS II RIP RAP
(STR. PAY ITEM)

CLASS II RIP RAP
(STR. PAY ITEM)

BEGIN SPECIAL CUT BASE DITCH LT.
-L- STA.12+00.00
EL=698.67'

BEGIN SPECIAL CUT BASE DITCH RT.
-L- STA.12+25.00
EL=696.48'

PI=12+50.00 LT.
EL=695.14'
PI=12+75.00 RT.
EL=692.82'

END SPECIAL CUT BASE DITCH LT.
-L- STA.13+00.00
EL=692.4'

END SPECIAL CUT BASE DITCH RT.
BEGIN LAT BASE DITCH RT.
-L- STA.15+00.00
EL=679.41'

BEGIN SPECIAL CUT BASE DITCH LT.
-L- STA.15+50.00
EL=671.97'

END SPECIAL CUT BASE DITCH LT.
BEGIN LAT BASE DITCH LT.
-L- STA.16+00.00
EL=674.18'

PI=16+00.00 RT.
EL=673.48'
PI=16+25.00 RT.
EL=672.32'
PI=16+50.00 RT.
EL=671.82'

PI=16+75.00 LT.
EL=668.50'

END LAT BASE DITCH RT.
-L- STA.16+68.00
EL=671.67'

END STANDARD BASE DITCH LT.
-L- STA.16+95.00
EL=668.25'

BM1 ELEVATION = 678.77'
N 860680 E 1801735
L STATION 18+41.00 129' LEFT
R/R SPIKE IN 13" BIRCH

NOTE: SEE XSC FOR SPECIAL CUT BASE DITCH -L- STA.13+00 TO STA.15+50 LT. REVISED V DITCH TO 2' BASE DITCH.

BM2 ELEVATION = 700.87'
N 860512 E 1800989
L STATION 10+98.00 61' RIGHT
R/R SPIKE IN 11" CEDAR

*DESIGN EXCEPTION REQUIRED FOR SAG VERTICAL CURVE AND ASSOCIATED NIGHTTIME STOPPING SIGHT DISTANCES.

DITCH LEGEND
LEFT DITCH
RIGHT DITCH

SEE SHEET 4 FOR PLAN VIEW

710 700 690 680 670 660 650 640 630 620 610 600 590 580

10 11 12 13 14 15 16 17 18 19 20 21 22 23

09-FEB-2016 15:14
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RSTEWART