DocuSign Envelope ID: 60782F5A-0F74-4E66-91F5-57CE8CEDAC22

8/17/99

REVISIONS

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1500	CFS
DESIGN FREQUENCY	= 5	YRS
DESIGN HW ELEVATION	= 2175.1	FT
BASE DISCHARGE	= 3700	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 2178.5	FT
OVERTOPPING DISCHARGE	= 1575	CFS
OVERTOPPING FREQUENCY	= 5+	YRS
OVERTOPPING ELEVATION	= 2177.3	FT
MOST RECENT ELEVATION	= 2174.5	FT
DATE OF SURVEY	= 09/13/2016	
W.S.ELEVATION AT DATE OF SURVEY	= 2169.9	FT

BRIDGE NO. 17

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
Liscense No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
B-4775	5
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
DocuSigned by: Greg S. Purvis
NORTH CAROLINA PROFESSIONAL SEAL 022999 ENGINEER GREG S. PURVIS
2/1/2018

HYDRAULICS ENGINEER
DocuSigned by: James C. Davis
NORTH CAROLINA PROFESSIONAL SEAL 18462 ENGINEER JAMES C. DAVIS
2/1/2018

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

–L–

PI = 13+25.00
EL = 2,176.47'
VC = 50'
K = 34
DS = 25MPH

PI = 13+90.00
EL = 2,178.43'
VC = 52'
K = 12
DS = 25MPH

PI = 14+88.03
EL = 2,177.15'
VC = 50'
K = 66
DS = 25+MPH

–L– STA. 14+32.00
1 @ 45' SPAN 21" CORED SLAB; 4'-0" DEEP CAP
EL. 2177.88
SKEW=105

BEG. GRADE
–L– STA. 13+00.00
EL = 2176.09

BEG. BRIDGE
–L– STA. 14+08.33

END BRIDGE
–L– STA. 14+55.67

END GRADE
–L– STA. 15+60.00
EL = 2176.75

(+)1.5446%
(+)3.0101%
(–)1.3053%
(–)0.5524%
(+)4.83%
(+)2.00%
(+)4.90%
(+)2.63%
(–)0.30%

BEGIN DITCH STA 14+38.00 (RT)
EL=2,172.00 FT

PVI STA. 14+50.00
EL=2,172.58

PVI STA 15+50.00 (RT)
EL=2,174.58 FT

BEGIN DITCH 15+60.00 (LT)
EL=2,175.07

END DITCH STA 16+00.00 (RT)
EL=2,176.12 FT

END DITCH 15+90.00 (LT)
EL=2,174.98

PVI STA 15+60.00 (RT)
EL=2,175.07 FT

LEFT DITCH
RIGHT DITCH

SEE SHEET 4 –L– FOR PLAN VIEW

2,196 2,190 2,184 2,178 2,172 2,166 2,160 2,154

11 12 13 14 15 16 17 18 19

–DR–

PI = 10+24.00
EL = 2,177.11'
VC = 25'
K = 5
DS = N/A

BEG. GRADE
–DR– STA. 10+10.35
EL = 2177.52

END GRADE
–DR– STA. 10+74.18
EL = 2173.07

(–)3.0008%
(–)8.0526%

2,182 2,176 2,170

BM1 ELEVATION = 2184.27
N 541096 E 658817
BL STATION 5+00.00
S 21°00'59.81" W DIST 53.74' LEFT
8 INCH SPIKE IN ROOT OF 12 INCH BLACK CHERRY TREE

BM2 ELEVATION = 2180.27
N 541713 E 658527
BL STATION 11+88.18 26.67' LEFT
8 INCH SPIKE IN BASE OF 16 INCH SHINGLE OAK TREE

SEE SHEET 4 –DR– FOR PLAN VIEW

10 11

1/30/2018
B-4775_rdy_PSH05.dgn
USER: rsenger