ETHERILL 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 - GS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
BR-0111	EC-04/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

REVISIONS

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

BEG. APPROACH SLAB –L– STA. 30+13.88
END BRIDGE –L– STA. 31+92.25
4'–5" TYPE III 11' 11' 1'–1" 33'–0" 30'–0" 30'–0" 1'–1" 11' 11' TYPE III 4'–5"
4'–5" BEGIN BRIDGE –L– STA. 30+24.75
END APPROACH SLAB –L– STA. 32+03.13
SKETCH SHOWING BRIDGE/PAVEMENT RELATIONSHIP

BEG. APPROACH SLAB –L– STA. 34+95.88
END BRIDGE –L– STA. 36+74.25
4'–5" TYPE III 11' 11' 1'–1" 33'–0" 30'–0" 30'–0" 1'–1" 11' 11' TYPE III 4'–5"
4'–5" BEGIN BRIDGE –L– STA. 35+06.75
END APPROACH SLAB –L– STA. 36+85.13
SKETCH SHOWING BRIDGE/PAVEMENT RELATIONSHIP

SHOULDER BERM GUTTER
FROM STA. 29+83.00 RT. TO STA. 30+13.88 RT.
FROM STA. 29+28.00 LT. TO STA. 30+13.88 LT.
FROM STA. 32+03.13 RT. TO STA. 32+48.50 RT.
FROM STA. 32+03.13 LT. TO STA. 32+48.50 LT.

(1) PERRY PROPERTIES FARMS LLC
DB 1510 PG 986
DB 1528 PG 112

MATCHLINE SHEET 4 –L– STA. 27+00.00

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

PROPOSED EXCAVATION (STR. PAY ITEM)
CL II RIP RAP TO SHLD POINT (STR. PAY ITEM)
JEFFREY SKINNER ET AL (2)
DB 1577 PG 415
IMPERVIOUS DIKE
PROPOSED EXCAVATION (STR. PAY ITEM)
CL II RIP RAP TO SHLD POINT (STR. PAY ITEM)
IMPERVIOUS DIKE
PROPOSED EXCAVATION (STR. PAY ITEM)
CL II RIP RAP TO SHLD POINT (STR. PAY ITEM)
CL II RIP RAP TO SHLD POINT (STR. PAY ITEM)

ROCK PLATE SLOPES SEE RSD 275.01
FROM STA. 15+82 +/– RT. TO STA. 16+08 +/– RT.
FROM STA. 15+76 +/– LT. TO STA. 16+08 +/– LT
FROM STA. 17+52 +/– RT. TO STA. 19+81 +/– RT.
FROM STA. 17+52 +/– LT. TO STA. 18+62 +/– LT.
FROM STA. 28+24 +/– RT. TO STA. 30+04 +/– RT

SHOULDER BERM GUTTER
FROM STA. 34+63.00 RT. TO STA. 34+95.88 RT.
FROM STA. 34+63.00 LT. TO STA. 34+95.88 LT.
FROM STA. 36+85.13 RT. TO STA. 36+99.25 RT.
FROM STA. 36+85.13 LT. TO STA. 36+99.25 LT.

PERRY PROPERTIES FARMS LLC
DB 1510 PG 986
DB 1528 PG 112
(1)

FLOODED TIMBER
SWIFT CREEK
EXISTING R/W
SR 1404 (SEVEN BRIDGES RD) 20' PAVED ROADWAY
TO NC 33
GRID N 3
NC GRID NAD 83 NA 2011

OT OCCURS @ CENTER –L– STA. 25+20
ELEV = 77.73'
END RESURFACING BEGIN GRADE STA. 28+15.00 EL. 78.26
(–)0.4210%
(–)0.7531%
(–)0.7531%
STA. 31+08.5 –L– ℄ ELEV = 79.41' SKEW = 90° 36@55.21" CS 2'6" CAPS
(–)0.3000%
(–)0.3000%
(+)0.4750%
PROPOSED ROADWAY GRADE
EXISTING ROADWAY GRADE
NG LEFT
NG RIGHT
(–)0.4750%
STA. 35+90.5 –L– ℄ ELEV = 80.54' SKEW = 90° 36@55.21" CS 2'6" CAPS
(–)0.3000%
(–)0.3000%
(+)0.1500%
END GRADE STA. 38+15.00 EL. 81.78
EXIST. GRADE = 0.1487%
LOWEST LOW CHORD
BACKFILL WITH NATIVE MATERIAL
EXCAVATE TO ELEV. = 73.7'
CL II RIP RAP KEY-IN 3.5'
PROP. 100YR. W.S. = 79.6
PROP. 10YR. W.S. = 78.1'
THEORETICAL 100 YR SCOUR
EXCAVATE TO ELEV. = 73.7'
CUTOFF EXISTING BE AT ELEV.=73.7'
NWS ELEV. = 76.0'
W.S. ON 04/16/2019 ELEV. = 75.5'
BED PROFILE AT UPSTREAM FACE
BED PROFILE AT DOWNSTREAM FACE
CUTOFF EXISTING BENTS AT ELEV.=73.7'
FLOODPAIN EXTENDS APPROX. 2100' FROM END BRIDGE
FLOODPAIN EXTENDS APPROX. 2430' FROM BEGIN BRIDGE
APPROXIMATE EXCAVATION = 265 C.Y. (±)

27 28 29 30 31 32 33 34 35 36 37 38 39 40 41
90 80 70 60 50 40 30

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