DocuSign Envelope ID: DA53FED6-F525-44FB-8720-6A6B9DE906F6

5/14/99

HNTB	HNTB NORTH CAROLINA, P.C. 343 E. Six Forks Road, Suite 200 Raleigh, North Carolina 27609 NC License No: C-1554

PROJECT REFERENCE NO.	SHEET NO.
U-4906	13
RW SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 36786 ENGINEER — Digitally signed by [illegible] — 7/2/2021

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 15764 ENGINEER — Digitally signed by [illegible] — 7/2/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/ NSRS 2007

-L-

PI Sta 155+58.09
Δ = 24° 37' 17.1" (RT)
D = 4° 43' 53.5"
L = 520.37'
T = 264.26'
R = 1,210.94'
SE = EXISTING

-Y2_REV-

PI Sta 13+12.25
Δ = 31° 02' 02.8" (RT)
D = 22° 55' 05.9"
L = 135.41'
T = 69.41'
R = 250.00'
SE = 04
RO = 68'
INC = 17'
DS = 30 MPH

PI Sta 16+02.92
Δ = 65° 05' 34.2" (LT)
D = 37° 12' 18.2"
L = 174.96'
T = 98.28'
R = 154.00'
SE = 04
RO = 73'
INC = 18.25'
DS = 25 MPH

PI Sta 18+25.30
Δ = 60° 28' 18.3" (RT)
D = 22° 55' 05.9"
L = 263.86'
T = 145.71'
R = 250.00'
SE = 04
RO = 73'
INC = 18.25'
DS = 25 MPH

PI Sta 20+43.39
Δ = 11° 24' 52.0" (LT)
D = 5° 43' 46.5"
L = 199.22'
T = 99.94'
R = 1,000.00'
SE = EXIST
DS = 50 MPH

-Y2_REV- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y2_REV- STA 12+00.00

NOTE: ALL CATV IS CHARTER COMMUNICATIONS UNLESS OTHERWISE NOTED.

MATCH LINE -L- STA 165+00.00 SEE SHEET 14

MATCH LINE -L- STA 152+00.00 SEE SHEET 12

-L- PT Sta. 158+14.20

-L- PC Sta. 152+93.83

-L- POC STA 157+40.90 = -Y2_REV- POT STA 14+29.88

-Y2_REV- 19+43.45

-Y2_REV- PC Sta. 12+42.84

-Y2_REV- PT Sta. 13+17.25

-Y2_REV- PC Sta. 15+04.63

-Y2_REV- PT Sta. 16+79.59

-Y2_REV- PT Sta. 21+42.67

END CONSTRUCTION
-Y2_REV- STA 20+31.25

10 15 20

155 160

(25) WILLIAM HANCOCK, et ux
DB 4069 PG 766
MB 12 PG 22

(26) MARGARET M. THOMPSON
DB 465 PG 686

(27) GEORGE FRANKLIN & EDNA MARSHBURN
DB 3831 PG 350
MB 48 PG 32

(28) ASHLEY K. & KATHRYN M. FAIRCLOTH
DB 3653 PG 625
MB 57 PG 103

(29) EDNA P. & FRANKLIN MARSHBURN
DB ?? PG ??
MB 57 PG 103

(30) RONALD J. & KATHERINE CZOSNYKA
DB 1083 PG 845

(31) GARY DALE JR & JACOB ERIN MARSHBURN
DB 3135 PG 543

(32) ZELMA RAHAL, et al
DB 1140 PG 923

(24) BETTY CULLIPHER, et al
DB 1450 PG 289

(93) DAVID M. & PATSY ANN SYDES
DB 1232 PG 57

CLASS 'I' RIP-RAP
EST. 10 TONS
EST. 38 SYGF

+49.50 -L-
93.00' LT (PUE)
60.00' LT (DUE)
45.00' LT (DUE)
4' STD. BASE DITCH
SEE DETAIL 9
S = 5.0%
DDE = 5 CY

+62.50 -L-
93.00' LT (PUE)
60.00' LT (DUE)
45.00' LT (DUE)

+20.68 -L-
60.00' LT
45.00' LT

+00.00 -Y2 REV-
42.00' LT

+75.00 -Y2 REV-
28.48' LT

+00.00 -Y2 REV-
50.00' RT
31.75' RT

+42.84 -Y2 REV-
50.00' RT

+17.60 -L-
60.00' LT

+35.45 -L-
45.00' LT

+17.07 -L-
45.00' LT

+33.53 -L-
30.00' LT

SPEC. LAT. 'V' DITCH SEE DETAIL 5

+39.78 -Y2 REV-
47.63' RT

+53.14 -L-
59.00' LT

+35.05 -L-
49.00' LT

SPEC. LAT. 'V' DITCH SEE DETAIL 5

+37.50 -L-
49.00' LT

+35.68 -L-
59.00' LT

+27.00 -L-
109.00' LT

+17.50 -L-
107.00' LT

+25.71 -L-
59.00' LT

+27.50 -L-
49.00' LT

+24.03 -L-
49.00' LT

+03.63 -L-
59.00' LT

+51.03 -L-
30.00' LT

+45.51 -L-
39.00' LT

SPEC. LAT. 'V' DITCH SEE DETAIL 1

+93.83 -L-
39.00' LT

+00.00 -L-
60.00' RT

+16.73 -L-
79.82' RT

SPEC. LAT. 'V' DITCH SEE DETAIL 5

30" RCP-IV

JB W/SLAB LID

4' STD. BASE DITCH SEE DETAIL 9
S = 0.3%
DDE = 325 CY

CLASS 'B' RIP-RAP
EST. 8 TONS
EST. 21 SYGF

SPEC. LAT. 'V' DITCH SEE DETAIL 5

SPEC. LAT. 'V' DITCH SEE DETAIL 1

4' LAT. BASE DITCH SEE DETAIL 10

CLASS 'I' RIP-RAP
EST. 45 TONS
EST. 65 SYGF

+41.63 -Y2 REV-
143.05' RT

+14.80 -Y2 REV-
199.05' RT

12' STD. BASE DITCH
SEE DETAIL 11
S=0.3%
DDE=35 CY

+43.88 -Y2 REV-
160.55' RT

+67.72 -Y2 REV-
135.73' RT

+50.00 -Y2 REV-
29.95' RT

+31.25 -Y2 REV-
45.00' LT
30.04' LT

+62.75 -Y2 REV-
30.05' LT

+11.60 -Y2 REV-
44.80' LT

+10.50 -Y2 REV-
52.25' LT

+20.85 -Y2 REV-
53.75' LT

+24.50 -Y2 REV-
30.03' LT

+50.00 -L-
58.00' LT

+50.00 -L-
58.00' LT

+50.00 -L-
53.00' LT

+92.75 -L-
45.00' LT

+93.19 -L-
30.00' LT

+00.50 -L-
53.00' LT

+00.00 -L-
45.00' LT

+00.00 -L-
40.00' RT

+55.00 -L-
65.00' RT

+97.83 -L-
62.80' RT

+97.75 -L-
65.00' RT

+09.00 -L-
65.00' RT
61.55' RT

+34.21 -L-
40.00' RT

+34.90 -L-
60.51' RT

+88.82 -Y2 REV-
121.70' LT

+28.89 -Y2 REV-
158.35' LT

+40.07 -Y2 REV-
134.14' LT

+04.22 -Y2 REV-
99.43' LT

STD. DITCH SEE DETAIL 2
S = 0.75%
DDE = 44 CY

+45.40 -Y2 REV-
60.16' LT

+62.81 -Y2 REV-
65.11' LT

SPEC. LAT. 'V' DITCH SEE DETAIL 5

SPEC. LAT. 'V' DITCH SEE DETAIL 1

300' EOT TAPER RT/LT

100' MEDIAN BAY TAPER

200' BAY TAPER RT

200' LT EOT TAPER

REMOVE 18" RCP-IV

PLUG & FILL

JB W/ SLAB LID

48" RCP-IV

30" RCP-IV

4' FDPS

2' FDPS

RETAIN

REMOVE

PUE

CHORD

INTERSECTION OF -L- (SR 1308 - GUM BRANCH RD) AND -Y2_REV- (SR 1938 - QUAKER BRIDGE RD & SR 1314 - NORTHWEST BRIDGE RD)

SR 1938
QUAKER BRIDGE RD

2019 AADT
2040 AADT

-Y2_REV-

230
400

SR 1308
GUM BRANCH RD

12920
23000

-L-

120
200

120
200

14330
25500

710
1300

2120
3800

2830
5100

SR 1314
NORTHWEST BRIDGE RD

DETAIL 1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 3:1 — Fill Slope
Min. D= 1.0 Ft.

FROM -L- STA. 152+00 TO STA. 155+23 LT.
FROM -L- STA. 164+75 TO STA. 165+00 RT.
FROM -Y2_REV- STA. 18+50 TO STA. 20+25 LT.
FROM -Y2_REV- STA. 15+00 TO STA. 17+09 LT.

DETAIL 2
STANDARD 'V' DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 3:1 — Natural Ground
Min. D= 1.0 Ft.

FROM -Y2_REV- STA. 18+00 TO STA. 18+50 LT.

DETAIL 5
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground — 3:1 — D — 4:1 — Fill Slope
Min. D= 1.0 Ft.

FROM -L- STA. 155+00 TO STA. 156+00 RT.
FROM -L- STA. 155+23 TO STA. 157+00 LT.
FROM -L- STA. 158+24 TO STA. 159+36 LT.
FROM -L- STA. 161+07 TO STA. 164+75 RT.
FROM -L- STA. 159+36 TO STA. 165+00 LT.
FROM -Y2_REV- STA. 13+00 TO STA. 14+00 RT.

DETAIL 9
STANDARD BASE DITCH
(Not to Scale)

Natural Ground — 2:1 — D — 2:1 — B
B= 4.0 Ft.
Min D= 2.0 Ft.

FROM -L- STA. 155+68 RT. TO -Y2_REV- STA. 16+00 RT.
-L- STA. 159+36 LT.

DETAIL 10
LATERAL BASE DITCH
(Not to Scale)

Natural Ground — 2:1 — D — 2:1 — Fill Slope — b — 1'/Ft. — B
Min. D= 2.0 Ft.
B= 4.0 Ft.
b= 5.0 Ft.

FROM -Y2_REV- STA. 16+00 TO STA. 17+50 RT.

DETAIL 11
STANDARD BASE DITCH
(Not to Scale)

Natural Ground — 2:1 — D — 2:1 — B
B= 12.0 Ft.
Min D= 2.0 Ft.

FROM -Y2_REV- STA. 17+60 RT.

DESIGN EXCEPTION REQUESTED FOR LANE WIDTHS (11') AND USABLE SHOULDER (4' MINIMUM)
NOTE: ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED

FOR -L- PROFILE, SEE SHEET 31
FOR -Y2_REV- PROFILE, SEE SHEET 38

15-JUN-2021 13:23
\Roadway\Proj\u4906_rdy_psh13.dgn
HNTB