5/28/99

PROJECT REFERENCE NO.	SHEET NO.
R-3620	25

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 25873 ENGINEER GARY R. LOVERING
DocuSigned by: Gary Lovering 5/8/2014
DF076F34A6ED428...

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 22000 ENGINEER W. GALEN CAIL
DocuSigned by: Galen Cail 5/8/2014
D2759205E00EC454...

DITCH LEGEND	
LEFT DITCH	-·-·-·-
RIGHT DITCH	----------
UNDERCUT	

-L-

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NOS. 1602 & 1603

DRAINAGE AREA	= 32	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 40	CFS
DESIGN HW ELEVATION	= 7.5	FT
100 YEAR DISCHARGE	= 64	CFS
100 YEAR HW ELEVATION	= 8.3	FT
OVERTOPPING FREQUENCY	= 100+	YRS
OVERTOPPING DISCHARGE	=	CFS
OVERTOPPING ELEVATION	= 5.5	FT

EXTEND BOTH ENDS OF EXISTING 48" RCP.

END GRADE
-L- STA. 188+00.00
EL. 10.51'

BM #16 RR SPIKE IN 16" GUM
-L- STA. 190+71.82, 79.30' LEFT
ELEV. = 8.71'

PI = 180+00.00
EL = 13.00'
VC = 180'
K = 279

(+)0.3333% (-)0.3113% (-) 1.0909% (-) 0.1302% (+) 0.1302%

48" RCP IV

BEGIN DITCH STA. 183+00-L-RT ELEV. 6.80'
BEGIN DITCH STA. 184+16-L-LT ELEV. 5.00'
END DITCH STA. 184+65-L-RT ELEV. 5.00'
END DITCH STA. 185+77-L-LT ELEV. 5.21'
BEGIN DITCH STA. 186+31-L-LT ELEV. 5.28'
END DITCH STA. 188+00-L-LT ELEV. 5.50'

FOR -L- ALIGNMENT, SEE SHEET NO. 16

20 10 0 — 178 179 180 181 182 183 184 185 186 187 188 189 190 191

-Y-

END GRADE
-Y- STA. 15+15.03 =
-L- STA. 55+34.05
OFF 12' LT.
EL. 17.10'

BEGIN GRADE
-Y- STA. 10+40.00
EL. 10.69'

PI = 14+00.00
EL = 18.30'
VC = 90'
K = 24
V = 33 MPH

PI = 11+25.00
EL = 10.99'
VC = 90'
K = 39
V = 31 MPH

(+)0.3529% (+)2.6582% (+)2.6582% (-)1.0432% (+) 0.8333% (-) 0.0571% (+) 0.0000% (+) 1.4000%

STA. 13+50-Y-LT ELEV. 9.50'
END DITCH STA. 14+50-Y-LT ELEV. 9.50'
STA. 13+00-Y-RT ELEV. 9.00'

36" RCP IV

BEGIN DITCH STA. 10+60-Y-RT ELEV. 7.00'
BEGIN DITCH STA. 11+00-Y-LT ELEV. 6.00'
END DITCH STA. 14+75-Y-RT ELEV. 8.90'

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NOS. 0703 & 0704

DRAINAGE AREA	= 17.5	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 30	CFS
DESIGN HW ELEVATION	= 7.6	FT
100 YEAR DISCHARGE	= 50	CFS
100 YEAR HW ELEVATION	= 9.1	FT
OVERTOPPING FREQUENCY	= 100+	YRS
OVERTOPPING DISCHARGE	= 100+	CFS
OVERTOPPING ELEVATION	= 10.4	FT

FOR -Y- ALIGNMENT, SEE SHEET NO. 7

-Y1-

BEGIN GRADE
-Y1- STA. 12+50.00
EL. 6.56'

-Y1- STA.14+50.00 =
-Y2- STA.16+63.09

(+) 0.3333% (+) 0.1250%

BEGIN DITCH STA. 12+50-Y1-LT ELEV. 3.00'
BEGIN DITCH STA. 12+50-Y1-RT ELEV. 3.50'
END DITCH STA. 14+00-Y1-LT ELEV. 3.50'
END DITCH STA. 16+50-Y1-RT ELEV. 4.00'

FOR -Y1- ALIGNMENT, SEE SHEET NO. 17

20 10 0 — 10 11 12 13 14 15 — 11 12 13 14 15 16 17

08-MAY-2014 08:17
R:\Roadway\Proj\R3620_Rdy_pf1.dgn
$$$$USERNAME$$$$