10/26/98

METRIC	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	R-2610B	49
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.	06-23-04 NORTH CAROLINA PROFESSIONAL SEAL 17691 ENGINEER RICHARD A. SHILLINGLAW	NORTH CAROLINA PROFESSIONAL SEAL 22100 ENGINEER STEPHEN R. MORGAN, PE 6/25/04

BM # 14
R/R SPIKE IN BASE OF POWER POLE, 47.950m RIGHT OF -L- 75+40.000 ELEV. 155.615m

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PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO.68B

DRAINAGE AREA	=	5.3 HA
DESIGN FREQUENCY	=	50 YRS
DESIGN DISCHARGE	=	0.29 CMS
DESIGN HW ELEVATION	=	152.72 M
100 YEAR DISCHARGE	=	0.35 CMS
100 YEAR HW ELEVATION	=	152.87 M
OVERTOPPING FREQUENCY	=	200+/-YRS
OVERTOPPING DISCHARGE	=	0.52 CMS
OVERTOPPING ELEVATION	=	153.50 M

153.251

+0.4954%

155.034

BEG MEDIAN DITCH GRADE STA 75+60 EL 153.360

450mm

(-) 0.3000%

PI =76+00.000 EI = 153.240

(+) 0.2500%

PI =76+20.000 EI = 153.290

(+) 0.3000%

END MEDIAN DITCH GRADE STA 76+40 EL 153.350

750mm

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO.70B

DRAINAGE AREA	=	3.7 HA
DESIGN FREQUENCY	=	50 YRS
DESIGN DISCHARGE	=	0.66 CMS
DESIGN HW ELEVATION	=	151.53 M
100 YEAR DISCHARGE	=	0.71 CMS
100 YEAR HW ELEVATION	=	151.56 M
OVERTOPPING FREQUENCY	=	500+/-YRS
OVERTOPPING DISCHARGE	=	2.1 CMS
OVERTOPPING ELEVATION	=	153.45 M

+80 75 +20 +40 +60 +80 76 +20 +40 +60 +80 77 +20 +40 +60 +80 78 +20 +40

—/—

UNDERCUT

155.034

+0.4954%

158.876

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO.74A

DRAINAGE AREA	=	38 HA
DESIGN FREQUENCY	=	50 YRS
DESIGN DISCHARGE	=	1.71 CMS
DESIGN HW ELEVATION	=	151.79 M
100 YEAR DISCHARGE	=	2.07 CMS
100 YEAR HW ELEVATION	=	151.91 M
OVERTOPPING FREQUENCY	=	500+/-YRS
OVERTOPPING DISCHARGE	=	6.0 CMS
OVERTOPPING ELEVATION	=	154.97 M

1200mm

(+) 0.0000%

BEG LAT V DITCH LT STA 79+50 EL 150.500

(+) 6.7500%

PI =79+60.000 EI = 150.500

(+) 5.5000%

END LAT V DITCH LT STA 79+80 EL 151.850

TRANSITION FROM LAT V DITCH TO SPECIAL LAT V DITCH LT

BEG SEPCIAL LAT V DITCH LT STA 80+00 EL 152.950

(+) 4.2500%

END SPECIAL LAT V DITCH LT STA 80+20 EL 153.800

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO.76A

DRAINAGE AREA	=	11.5 HA
DESIGN FREQUENCY	=	50 YRS
DESIGN DISCHARGE	=	0.82 CMS
DESIGN HW ELEVATION	=	154.29 M
100 YEAR DISCHARGE	=	0.99 CMS
100 YEAR HW ELEVATION	=	154.37 M
OVERTOPPING FREQUENCY	=	500+/-YRS
OVERTOPPING DISCHARGE	=	3.4 CMS
OVERTOPPING ELEVATION	=	155.77 M

1050mm

(+) 0.0000%

BEG SPECIAL LAT V DITCH LT STA 81+80 EL 154.000

PI =82+00.000 EI = 154.000

+40 +60 +80 79 +20 +40 +60 +80 80 +20 +40 +60 +80 81 +20 +40 +60 +80 82

29-MAR-2004 14:00
RSHILLINGLAW
M:\Roads\2610b\sht\2610bsht01.dgn
RSHILLINGLAW