

03/26/08

BM *13 R/R SPIKE IN BASE 600mm PINE 74.740m RT OF
-L- STA 151+63.042 EL 46.419

BM *14 R/R SPIKE IN BASE 450mm PINE 106.875m LT OF
-L- STA 153+77.179 EL 46.006

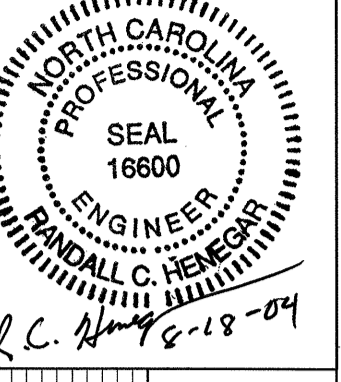
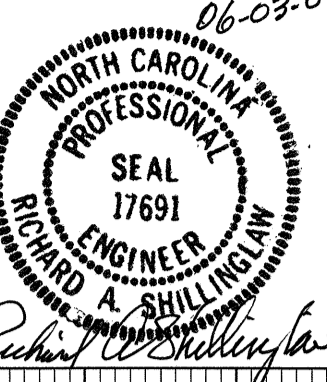
BM *15 R/R SPIKE IN BASE 250mm PINE 306.905m RT OF
-L- STA 154+07.430 EL 47.343



PROJECT REFERENCE NO. R-513 BB SHEET NO. 33

ROADWAY DESIGN ENGINEER 06-03-08

HYDRAULICS ENGINEER



CONST.REV.

R / W REV.

Richard A. Shill Randall C. Heneberger

BEGIN GRADE
-L- Sta.153+28.000 LB (R-0513BA) =
-L- Sta.153+28.000 LA (R-0513BB)
EL.48.77965m

BEGIN CONST. R-0513 BB
-L- Sta.153+80.000
GRADE EL.48.855m
TANGENT EL.48.924m

BEGIN PROJECT R-0513 BB
-L- Sta.153+90.000

PI = 153+78.000
EL = 48.930 m
K = 166
VC = 100 m

-L-

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO.1
DRAINAGE AREA = 29.238 HA
DESIGN FREQUENCY = 50 YRS
DESIGN DISCHARGE = 1.66 CMS
DESIGN HW ELEVATION = 45.65 M
100 YEAR DISCHARGE = 1.41 CMS
100 YEAR HW ELEVATION = 45.73 M
OVERTOPPING FREQUENCY = 500+ YRS
OVERTOPPING DISCHARGE = 3.46 CMS
OVERTOPPING ELEVATION = 47.898 M

2 @ 750mm

152 +20 +40 +60 +80 153 +20 +40 +60 +80 154 +20 +40 +60 +80 155 +20 +40 +60

PI = 156+40.272
EL = 48.140 m
K = 139
VC = 100 m

-L-

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO.3B
DRAINAGE AREA = 3.245 HA
DESIGN FREQUENCY = 50 YRS
DESIGN DISCHARGE = 0.251 CMS
DESIGN HW ELEVATION = 45.95 M
100 YEAR DISCHARGE = 0.276 CMS
100 YEAR HW ELEVATION = 45.98 M
OVERTOPPING FREQUENCY = 500+ YRS
OVERTOPPING DISCHARGE = 1.097 CMS
OVERTOPPING ELEVATION = 47.898 M

600mm

PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO.6B TO 6A
DRAINAGE AREA = 2.646 HA
DESIGN FREQUENCY = 50 YRS
DESIGN DISCHARGE = 0.178 CMS
DESIGN HW ELEVATION = 45.93 M
100 YEAR DISCHARGE = 0.195 CMS
100 YEAR HW ELEVATION = 45.95 M
OVERTOPPING FREQUENCY = 500+ YRS
OVERTOPPING DISCHARGE = 0.986 CMS
OVERTOPPING ELEVATION = 47.898 M

600mm

+80 156 +20 +40 +60 +80 157 +20 +40 +60 +80 158 +20 +40 +60 +80 159 +20 +40

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