



PROJECT REFERENCE NO. R-513C SHEET NO. 131

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

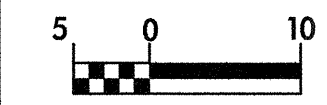
PROFESSIONAL SEAL 12300

PROFESSIONAL SEAL 20754

ENGINEER CHARLES LEE FLOWE

ENGINEER T. STEPHENS

TGS ENGINEERS 975 WALNUT STREET, SUITE 141 CARY, NC 27511 PH (919) 319-9850



CONST. REV.

R/W REV.

BM *5 RR SPIKE IN BASE OF 400mm PINE
55.338 RT OF -L- STA.291+42.740 EL= 43.044

BM *6 RR SPIKE IN BASE OF 550mm WILD CHERRY
33.415 RT OF -L- STA.311+67.690 EL= 43.801

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33.415 RT OF -L- STA.311+67.690 EL= 43.801

STA 10+04.006 -Y8A-
STA 26+54.671 -Y8- 3.6 RT
BEGIN GR EL = 45.356

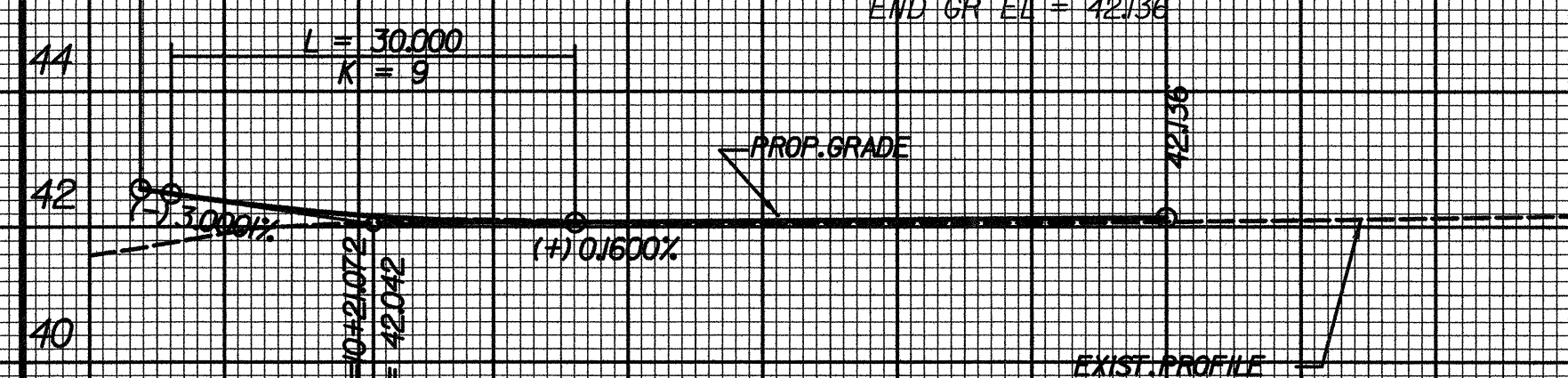
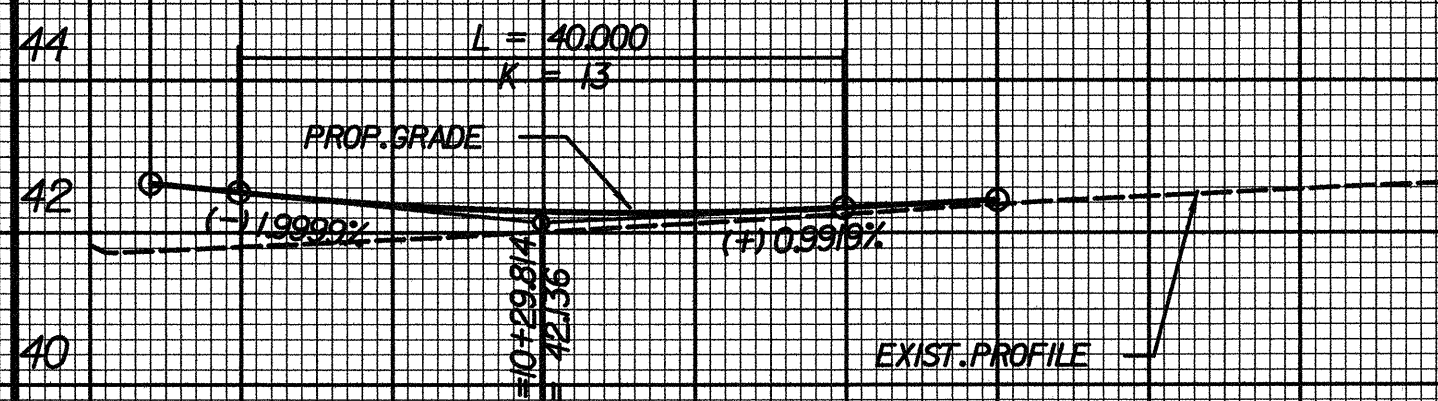
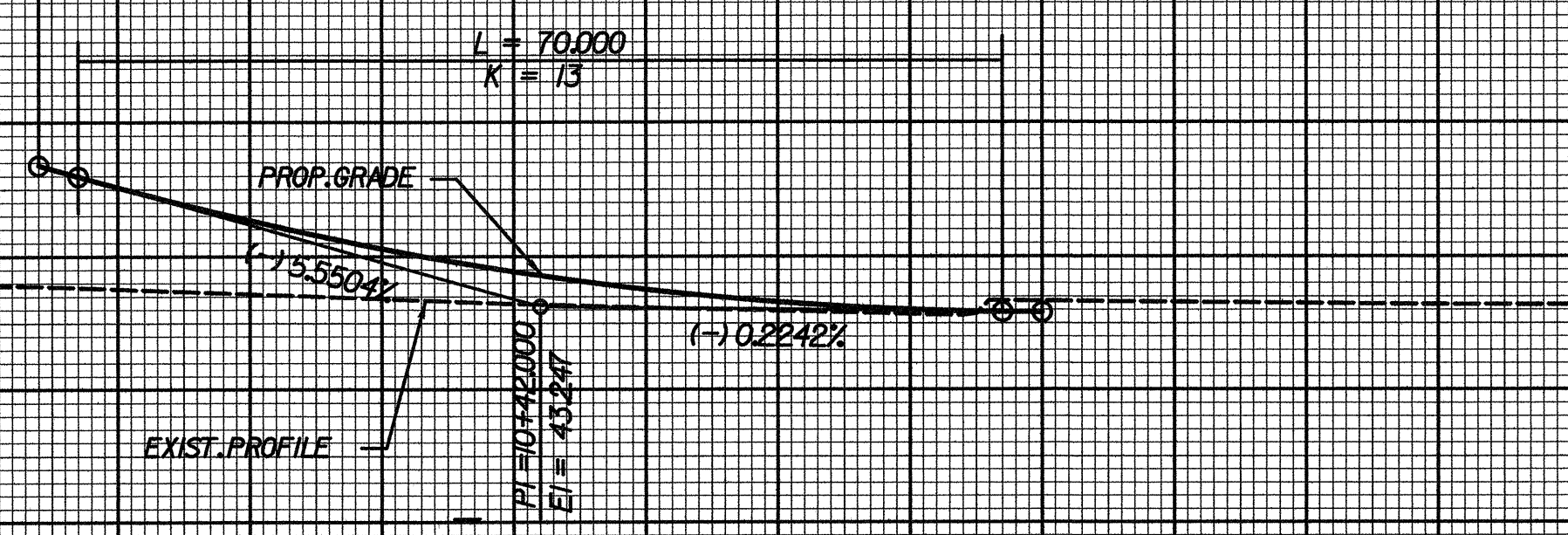
STA 10.80.000 -Y8A-
END GR EL = 45.162

STA 10+03.743 -Y8B-
STA 36+59.922 -Y8- 3.6 RT
BEGIN GR EL = 42.657

STA 10+60.000 -Y8B-
END GR EL = 42.433

STA 10+03.766 -Y8C-
STA 36+36.623 -Y8- 3.6 RT
BEGIN GR EL = 42.561

STA 10+80.000 -Y8C-
END GR EL = 42.136



-Y8A-

-Y8B-

-Y8C-

SEE SHEET NO.17 FOR -Y8A- PLAN

SEE SHEET NO.20 FOR -Y8B- PLAN

SEE SHEET NO.24 FOR -Y8C- PLAN

10+00

11+00

10+00

10+80

10+00

11+00

BM *5 RR SPIKE IN BASE OF 400mm PINE
55.338 RT OF -L- STA.291+42.740 EL= 43.044

STA 3+21.913 -Y9-
STA 30+84.513 -Y9- RT LR 3.6 RT
GR EL = 44.980

STA 3+49.552 -Y9-
STA 30+40.000 -Y9- LT(2)3.6 LT
GR EL = 46.404

STA 1+20.000 -Y9-
BEG GR EL = 42.290

L = 100,000
K = 38

L = 100,000
K = 23

(+) 0.3723%

(+) 0.3723%

(+) 3.0000%

(+) 0.5360%

(-) 4.0000%

EXIST. PROFILE

PROP. GRADE

PI = 4+00.000
EI = 46.574

PI = 2+15.000
EI = 42.793

-Y9-

DESIGN DATA
FOR DRAINAGE STRUCTURE AT
STA.3+07

DRAINAGE AREA = 16 HA
DESIGN FREQUENCY = 50 YRS
DESIGN DISCHARGE = 0.85cms
DESIGN HW ELEVATION = 40.34 m
100 YEAR DISCHARGE = 1.03cms
100 YEAR HW ELEVATION = 40.57 m
OVERTOPPING FREQUENCY = 500+ YRS
OVERTOPPING DISCHARGE = 21 cms
OVERTOPPING = 42.60 m

SEE SHEETS NO.18 & NO.47
FOR -Y9- PLAN

1+00

2+00

3+00

4+00

4+60

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$CNS\$\$\$\$\$
\$\$\$\$\$USRNAME\$\$\$\$\$