Docusign Envelope ID: E0A0D414-9ACC-4F79-803A-59B5ECE7380B

5/28/99

PROJECT REFERENCE NO.	SHEET NO.
U-6018	18

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 050515 ENGINEER KAYLA M. POULOS

4/29/2025

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 050515 ENGINEER KAREN HEFNER

Docusigned by: Karen Hefner 4/29/2025

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DRMP

DRMP, INC.
5808 FARRINGDON PLACE
RALEIGH, NC 27609
(919) 872-5115

NC LICENSE NO. F-1524
www.drmp.com

-Y5-

BEGIN GRADE -Y5- STA. 16+11.24
EL=830.08' (TIE TO EXIST)

END GRADE -Y5- STA. 17+21.93
EL=828.28'

PROPOSED GRADE

-1.6262%

+2.0228%

EXISTING GROUND

-Y5- STA. 17+41.21=
-Y6- STA. 19+50.00
EL. 828.67

FOR -Y5- PLAN VIEW, SEE SHEET NO. 11

-RAB2-

BEGIN GRADE -RAB2- STA. 10+00.00
EL=828.36'

END GRADE -RAB2- STA. 14+39.82
EL=828.36'

PI = 11+70.00
EL = 829.21'
VC = 40'
K = 18
DS = 25 MPH

-RAB2- PC STA. 11+50.00
EL=829.11'

-RAB2- PT STA. 11+90.00
EL=828.87'

-RAB2- PC STA. 12+50.00
EL=827.85'

-RAB2- PT STA. 12+90.00
EL=827.61'

PI = 12+70.00
EL = 872.51'
VC = 40'
K = 18
DS = 20 MPH

PROPOSED GRADE

+0.5000%

-1.6991%

+0.5000%

EXISTING GROUND

-RAB2- STA. 10+00.00=
-Y6- STA. 20+11.50
EL. 828.36'

-RAB2- STA. 12+19.91=
-Y6- STA. 21+51.50
EL. 828.36'

-RAB2- 13+30.62=
-Y9- STA. 25+72.94
EL. 827.81'

-RAB2- STA. 14+39.82=
-Y6- STA. 20+11.50
EL. 828.36'

FOR -RAB2- PLAN VIEW, SEE SHEET NO. 11

-Y6-

PIPE HYDRAULIC DATA
18" RCP -Y6- STA. 11+94

DRAINAGE AREA	=0.7	AC
DESIGN FREQUENCY	=25	YRS
DESIGN DISCHARGE	=2	CFS
DESIGN HW ELEVATION	=836.88	FT
100 YEAR DISCHARGE	=2.2	CFS
100 YEAR HW ELEVATION	=836.92	FT
OVERTOPPING FREQUENCY	=+500	YRS
OVERTOPPING DISCHARGE	=17	CFS
OVERTOPPING ELEVATION	=840.25	FT

PIPE HYDRAULIC DATA
24" RCP -Y6- STA. 17+72

DRAINAGE AREA	=5	AC
DESIGN FREQUENCY	=25	YRS
DESIGN DISCHARGE	=14	CFS
DESIGN HW ELEVATION	=826.48	FT
100 YEAR DISCHARGE	=15	CFS
100 YEAR HW ELEVATION	=826.61	FT
OVERTOPPING FREQUENCY	=+500	YRS
OVERTOPPING DISCHARGE	=30	CFS
OVERTOPPING ELEVATION	=828.65	FT

BEGIN GRADE -Y6- STA. 10+25.51
EL=841.49'

PI = 11+50.00
EL = 841.12'
VC = 200'
K = 115
DS = 55 MPH

PROPOSED GRADE

-1.6464%

-0.3000%

EXISTING GROUND

18" RCP-IV

-Y6- PC STA. 10+50.00
EL=841.42'

-Y6- STA. 10+00.00=
-L- STA. 63+61.18
EL. 841.91'

-2.0357%

-Y6- PT STA. 12+50.00
EL=839.08'

-Y6- PC STA. 14+75.00
EL=834.50'

PI = 17+00.00
EL = 829.92'
VC = 450'
K = 293
DS = 80 MPH

-2.0357%

-0.5008%

24" RCP-IV

PROPOSED GRADE

-Y6- PT STA. 19+25.00
EL=828.79'

-Y6- STA. 19+50.00=
-Y5- STA. 17+41.21
EL. 828.67'

PI = 20+11.50
EL = 828.36'

-0.5008%

-Y6- STA. 20+11.50=
-RAB2- STA. 10+00.00=
-RAB2- STA. 14+39.82
EL. 828.36'

PI = 20+81.50
EL = 828.36'

+0.0000%

+0.0000%

-Y6- STA. 20+81.50=
-Y9- STA. 26+42.94
EL. 828.36'

PI = 21+51.50
EL = 828.36'

-1.2467%

EXISTING GROUND

-Y6- STA. 21+51.50=
-RAB2- STA. 12+19.91
EL. 828.36'

END GRADE -Y6- STA. 23+39.20
EL=826.02' (TIE TO EXIST)

FOR -Y6- PLAN VIEW, SEE SHEET NOS. 7 & 11

15+00 16+00 17+00 10+00 11+00 12+00 13+00 14+00

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00

840 830 820 810 800

850 840 830 820 810 800

2/13/2025
U:\Projects\U6018_Rdy_pf118.dgn
User: ojlindsey