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5/28/99

PROJECT REFERENCE NO.	SHEET NO.
I-2513AC	24

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 049634 ENGINEER MOHAMMED FALLAHA

8/12/2026

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 039102 ENGINEER BRANDON T. BATHAM

8/12/2026

Prepared in the Office of: AECOM

NC FIRM LICENSE No: F-0342
5438 Wade Park Boulevard, Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

–Y3–

PIPE HYDRAULIC DATA

I@30" RCP-V Sta. 30+43

DRAINAGE AREA	= 6.2	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 19	CFS
DESIGN HW ELEVATION	= 1979.5	FT
100 YEAR DISCHARGE	= 22	CFS
100 YEAR HW ELEVATION	= 1979.7	FT
OVERTOPPING FREQUENCY	= 50+	YRS
OVERTOPPING DISCHARGE	= 24	CFS
OVERTOPPING ELEVATION	= 1980.1	FT

PIPE HYDRAULIC DATA

I@36" RCP-IV Sta. 27+95

DRAINAGE AREA	= 12.0	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 34	CFS
DESIGN HW ELEVATION	= 1988.9	FT
100 YEAR DISCHARGE	= 39	CFS
100 YEAR HW ELEVATION	= 1989.2	FT
OVERTOPPING FREQUENCY	= 100+	YRS
OVERTOPPING DISCHARGE	= 49	CFS
OVERTOPPING ELEVATION	= 1989.9	FT

–Y3– STA. 24+93.50 =
–Y3A– STA. 15+73.18

–Y3– STA. 29+35.45 =
–Y3B– STA. 12+13.63

PROPOSED GRADE

PI = 29+80.00
EL = 1,981.41'
VC = 340'
K = 64

END GRADE
–Y3– STA. 31+50.00
EL = 1,980.82'

(–)5.6212%

(+)0.3500%

1@36" RCP–IV

1@30" RCP–V

(–)6.7%

(+)1.2%

EXISTING GROUND

BEGIN DITCH LT
STA=30+00.00
EL=1,979.95'

PI = 30+38.54
EL=1,977.36'

END DITCH LT
STA=31+00.00
EL=1,978.12'

UNDERCUT

FOR –Y3– PLAN VIEW SEE SHEET 10

–Y3A–

BEGIN GRADE
–Y3A– STA. 11+00.00
EL = 1,983.83'

PI = 11+90.00
EL = 1,984.14'
VC = 180'
K = 28
DS = 25 MPH

(+)0.3500%

(+)6.8894%

PROPOSED GRADE

PI = 15+00.00
EL = 2,005.50'
VC = 80'
K = 59

(+)6.8894%

(+)15.5439%

PI = 15+42.93
EL = 2,007.88'

END GRADE
–Y3– STA. 15+42.93
EL = 2,007.88'

2,008.79

(+)3.0083%

EXISTING GROUND

–Y3A– STA. 15+73.18
–Y3– STA. 24+93.50
EL = 2,008.79'

FOR –Y3A– PLAN VIEW SEE SHEET 10

–Y3B–

PROPOSED GRADE

PI = 10+80.00
EL = 1,980.85'
VC = 50'
K = 16

(+)0.4000%

(+)3.5000%

PI = 11+90.64
EL = 1,984.72'

1,985.18

(+)1.9856%

EXISTING GROUND

BEGIN GRADE
–Y3B– STA. 10+46.05
EL = 1,980.72'

–Y3B– STA. 12+13.63 =
–Y3– STA. 29+35.45

END GRADE
–Y3B– STA. 11+90.64 =
–Y3– STA. 29+31.46 (22.64' RT)
EL = 1,984.72'

FOR –Y3B– PLAN VIEW SEE SHEET 10

7/13/2026
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mohammed.fallaha