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PROJECT REFERENCE NO.	SHEET NO.
R-5749	14

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 035683 ENGINEER DAVID J. CLODFELTER — 12/8/2017 — Docusigned by: David J. Clodfelter

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 18533 ENGINEER A. T. NOTTINGHAM — 12/8/2017 — Docusigned by: A.T. Nottingham

CDM Smith — CDM Smith Inc. 5400 Glenwood Avenue Suite 400 Raleigh, NC 27612-3228 NC COA No. P-1256

MI Engineering, PLLC 1011 Schaub Drive Suite 100 Raleigh, NC 27606 NC COA No. P-0711

–YRPC–

BEGIN GRADE
–YRPC– STA. 5+00.00
EL. 65.80'

PI = 6+20.00
EL = 65.92'
VC = 240'
K = 600
DS = 65 MPH

(+)0.1000%

(–)0.3000%

EX. 15" RCP

BEG SPEC LAT BASE DITCH
STA.10+00 –YRPC– RT; EL=56.26

END SPEC LAT BASE DITCH
STA.11+50 –YRPC– RT; EL=56.21

PI = 11+00.00
EL = 64.48'
VC = 200'
K = 164
DS = 65 MPH

(–)0.3000%

(+)0.9182%

(–)0.0333%

PROP. 54" RCP

BEG SPEC LAT V DITCH
STA.14+00 –YRPC– LT; EL=56.10

PI = 16+00.00
EL = 69.07'
VC = 300'
K = 212
DS = 65 MPH

(+)0.9182%

(–)0.5000%

(+)1.8000%

END SPEC LAT V DITCH
STA.17+50 –YRPC– LT; EL=62.40

PIPE HYDRAULIC DATA		
Structure No.0539 To 0540 –YRPC– Sta.12+63		
DRAINAGE AREA	= 78	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 94	CFS
DESIGN HW ELEVATION	= 61.49	FT
100 YEAR DISCHARGE	= 113	CFS
100 YEAR HW ELEVATION	= 62.50	FT
OVERTOPPING FREQUENCY	= 100	YRS
OVERTOPPING DISCHARGE	= 94	CFS
OVERTOPPING ELEVATION	= 65	FT

DITCH LEGEND	
LEFT DITCH	— - - — - -
RIGHT DITCH	----------

UNDERCUT EXCAVATION

SEE SHEET 4 AND 5 FOR –YRPC– ALIGNMENT

–YRPC–

PROP. 18" RCP

PROP. 18" RCP

PROP. 18" RCP

(–)0.5000%

BEG SPEC CUT V DITCH
STA.24+50 –YRPC– LT; EL=61.24

(–)0.7000%

PROP. 18" RCP

END SPEC CUT V DITCH
STA.26+50 –YRPC– LT; EL=59.84

END GRADE
–YRPC– STA. 27+12.17
EL. 63.51'

DITCH LEGEND	
LEFT DITCH	— - - — - -

UNDERCUT EXCAVATION

SEE SHEET 5 FOR –YRPC– ALIGNMENT

5/28/99
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