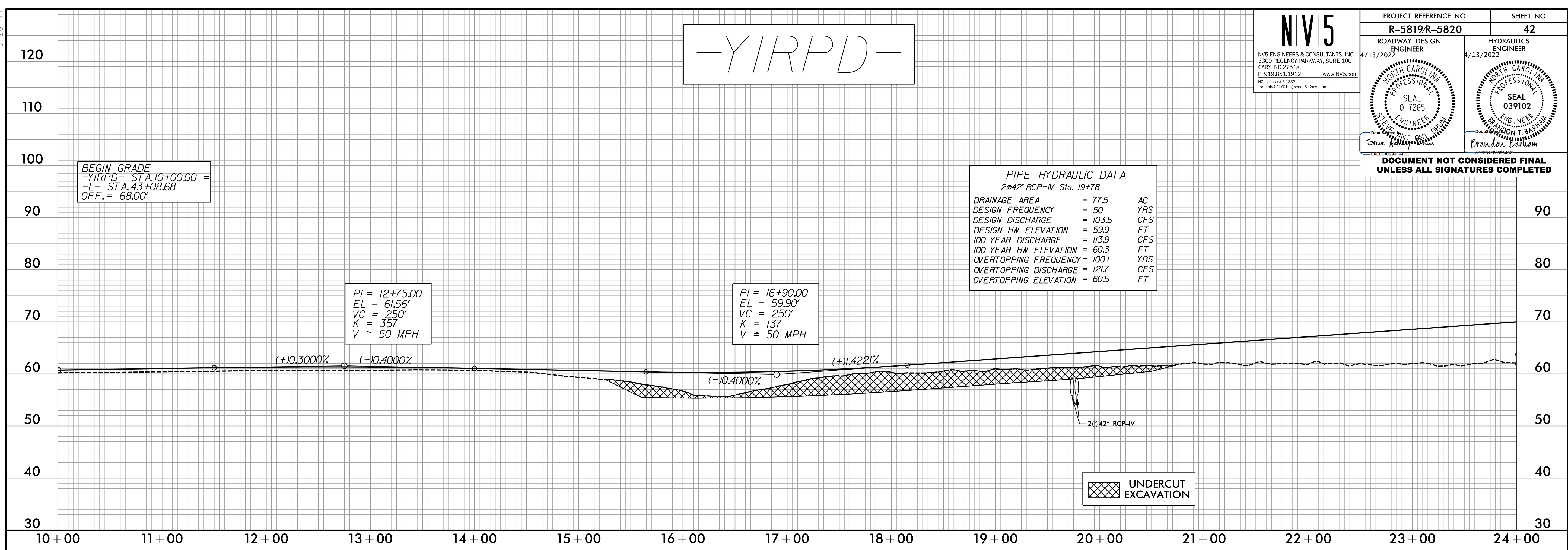


5/28/2022

-YIRPD-

PROJECT REFERENCE NO. <b>R-5819/R-5820</b>		SHEET NO. <b>42</b>
ROADWAY DESIGN ENGINEER 4/13/2022 NV5 ENGINEERS & CONSULTANTS, INC. 3300 REGENCY PARKWAY, SUITE 100 CARY, NC 27518 P: 919.851.1912 NC License # 41339 formerly CALYX Engineers & Consultants www.NV5.com		HYDRAULICS ENGINEER 4/13/2022 NV5 ENGINEERS & CONSULTANTS, INC. 3300 REGENCY PARKWAY, SUITE 100 CARY, NC 27518 P: 919.851.1912 NC License # 41339 formerly CALYX Engineers & Consultants www.NV5.com
SEAL 017265 ANTHONY DUBOIS ENGINEER		SEAL 039102 BRANDON T. BARNUM ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>		



BEGIN GRADE  
-YIRPD- STA. 10+00.00 =  
-L- STA. 43+08.68  
OFF. = 68.00'

PI = 12+75.00  
EL = 61.56'  
VC = 250'  
K = 357  
V ≥ 50 MPH

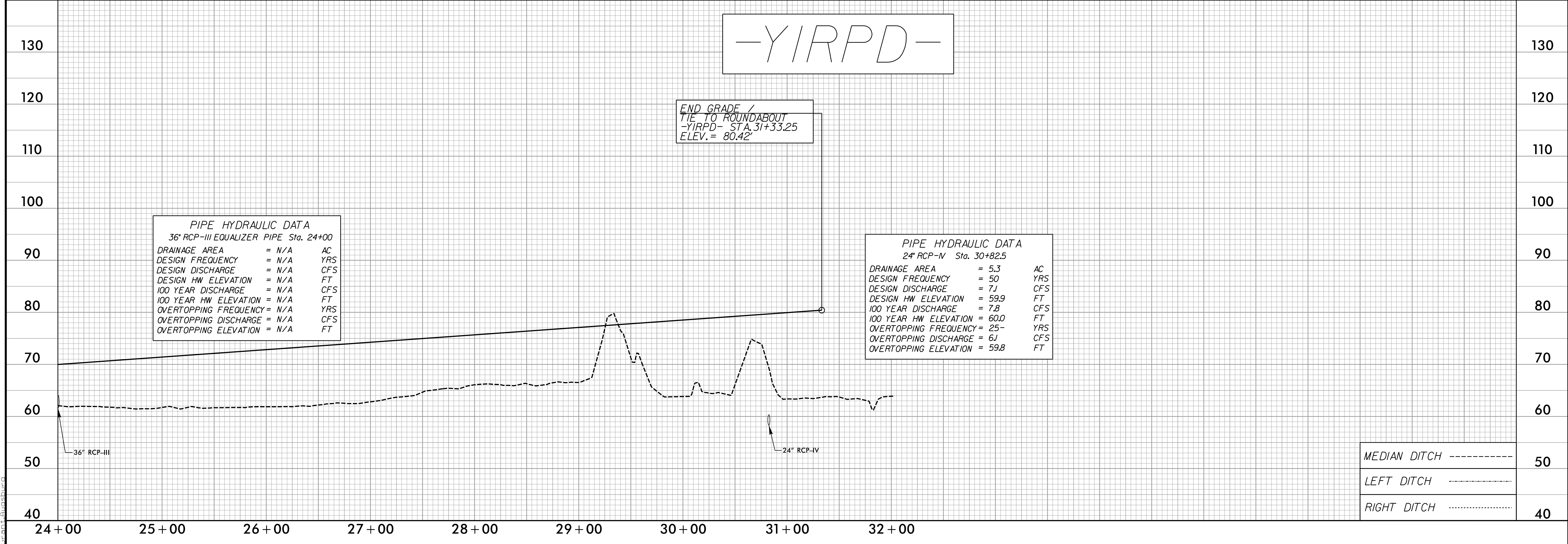
PI = 16+90.00  
EL = 59.90'  
VC = 250'  
K = 137  
V ≥ 50 MPH

PIPE HYDRAULIC DATA  
2@42" RCP-IV Sta. 19+78

DRAINAGE AREA	= 77.5	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 103.5	CFS
DESIGN HW ELEVATION	= 59.9	FT
100 YEAR DISCHARGE	= 113.9	CFS
100 YEAR HW ELEVATION	= 60.3	FT
OVERTOPPING FREQUENCY	= 100+	YRS
OVERTOPPING DISCHARGE	= 121.7	CFS
OVERTOPPING ELEVATION	= 60.5	FT

UNDERCUT EXCAVATION

-YIRPD-



END GRADE /  
TIE TO ROUNDABOUT  
-YIRPD- STA. 31+33.25  
ELEV. = 80.42'

PIPE HYDRAULIC DATA  
36" RCP-III EQUALIZER PIPE Sta. 24+00

DRAINAGE AREA	= N/A	AC
DESIGN FREQUENCY	= N/A	YRS
DESIGN DISCHARGE	= N/A	CFS
DESIGN HW ELEVATION	= N/A	FT
100 YEAR DISCHARGE	= N/A	CFS
100 YEAR HW ELEVATION	= N/A	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PIPE HYDRAULIC DATA  
24" RCP-IV Sta. 30+82.5

DRAINAGE AREA	= 5.3	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 7.1	CFS
DESIGN HW ELEVATION	= 59.9	FT
100 YEAR DISCHARGE	= 7.8	CFS
100 YEAR HW ELEVATION	= 60.0	FT
OVERTOPPING FREQUENCY	= 25-	YRS
OVERTOPPING DISCHARGE	= 6.1	CFS
OVERTOPPING ELEVATION	= 59.8	FT

MEDIAN DITCH	-----	50
LEFT DITCH	-----	
RIGHT DITCH	-----	40

5/28/2022  
 R:\5819\5819\Projects\5819\_R5819\_R5820\_RDY\_PFL\_42.dgn  
 Brandon Barnum