



5/28/99

WETHERILL ENGINEERING
 1223 Jones Franklin Rd.
 Raleigh, N.C. 27606
 License No. F-0377
 Bus: 919 851 8077
 Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
 CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

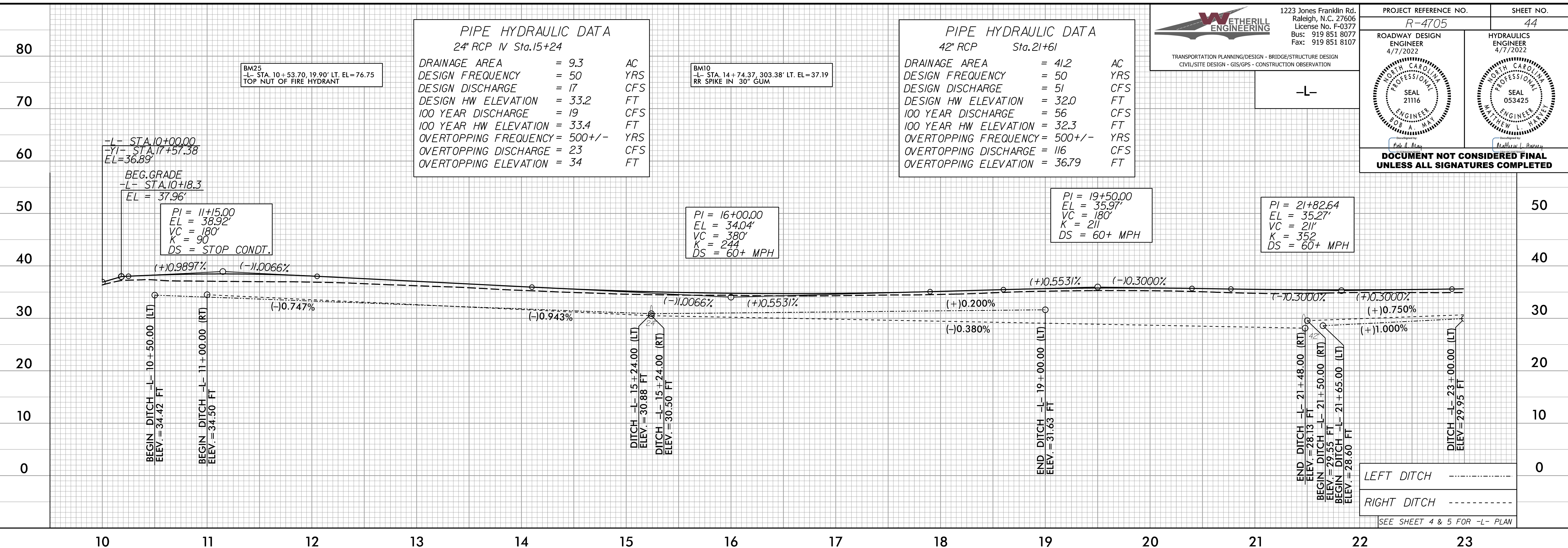
PROJECT REFERENCE NO. R-4705	SHEET NO. 44
ROADWAY DESIGN ENGINEER 4/7/2022	HYDRAULICS ENGINEER 4/7/2022
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PIPE HYDRAULIC DATA
24" RCP IV Sta.15+24

DRAINAGE AREA	= 9.3	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 17	CFS
DESIGN HW ELEVATION	= 33.2	FT
100 YEAR DISCHARGE	= 19	CFS
100 YEAR HW ELEVATION	= 33.4	FT
OVERTOPPING FREQUENCY	= 500+/-	YRS
OVERTOPPING DISCHARGE	= 23	CFS
OVERTOPPING ELEVATION	= 34	FT

PIPE HYDRAULIC DATA
42" RCP Sta.21+61

DRAINAGE AREA	= 41.2	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 51	CFS
DESIGN HW ELEVATION	= 32.0	FT
100 YEAR DISCHARGE	= 56	CFS
100 YEAR HW ELEVATION	= 32.3	FT
OVERTOPPING FREQUENCY	= 500+/-	YRS
OVERTOPPING DISCHARGE	= 116	CFS
OVERTOPPING ELEVATION	= 36.79	FT



-L- STA 10+00.00
 -L- STA 17+57.38
 EL = 36.89'

BEG. GRADE
 -L- STA 10+18.3
 EL = 37.96'

PI = 11+15.00
 EL = 38.92'
 VC = 180'
 K = 90
 DS = STOP CONDT.

PI = 16+00.00
 EL = 34.04'
 VC = 380'
 K = 244
 DS = 60+ MPH

PI = 19+50.00
 EL = 35.97'
 VC = 180'
 K = 211
 DS = 60+ MPH

PI = 21+82.64
 EL = 35.27'
 VC = 211'
 K = 352
 DS = 60+ MPH

PIPE HYDRAULIC DATA
24" RCP IV Sta.32+42

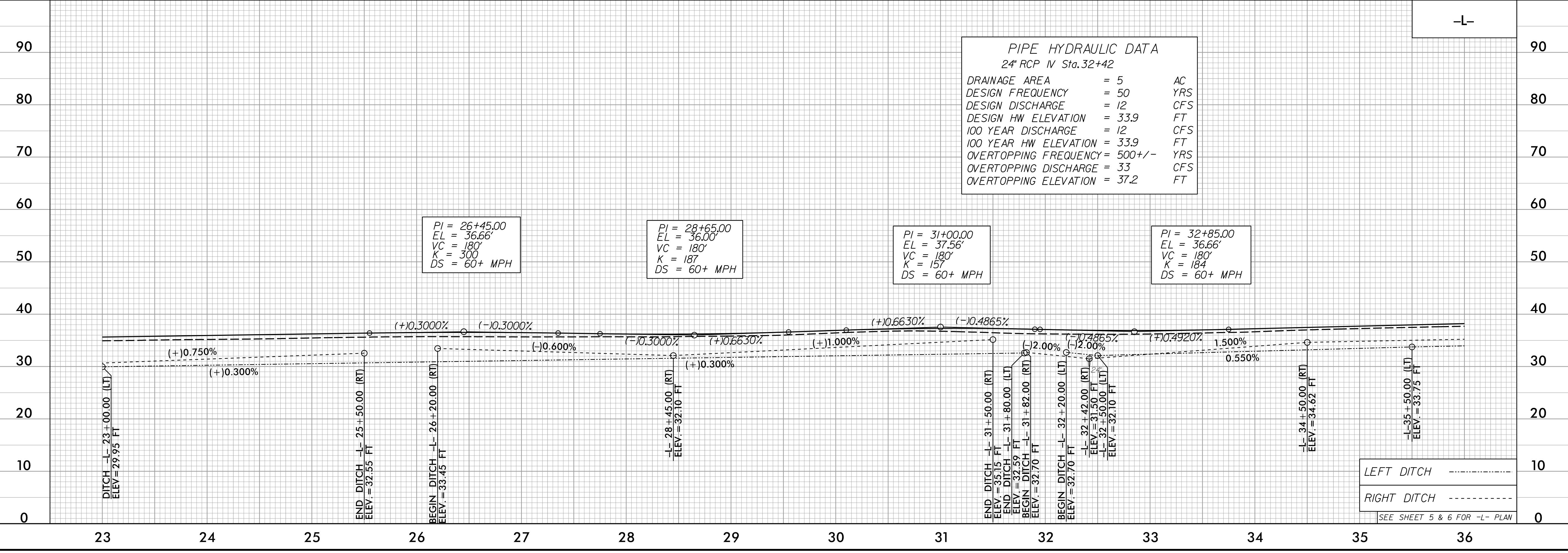
DRAINAGE AREA	= 5	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 12	CFS
DESIGN HW ELEVATION	= 33.9	FT
100 YEAR DISCHARGE	= 12	CFS
100 YEAR HW ELEVATION	= 33.9	FT
OVERTOPPING FREQUENCY	= 500+/-	YRS
OVERTOPPING DISCHARGE	= 33	CFS
OVERTOPPING ELEVATION	= 37.2	FT

PI = 26+45.00
 EL = 36.66'
 VC = 180'
 K = 300
 DS = 60+ MPH

PI = 28+65.00
 EL = 36.00'
 VC = 180'
 K = 187
 DS = 60+ MPH

PI = 31+00.00
 EL = 37.56'
 VC = 180'
 K = 157
 DS = 60+ MPH

PI = 32+85.00
 EL = 36.66'
 VC = 180'
 K = 184
 DS = 60+ MPH



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