

5/28/17



STV Engineers, Inc.  
900 West Trade St., Suite 715  
Charlotte, NC 28202  
NC License Number F-0991

PROJECT REFERENCE NO. U-4751	SHEET NO. 39
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

**PIPE HYDRAULIC DATA**  
CL III 2@42" RCP Sta. 110+41.7 -L-

DRAINAGE AREA	= 8.6	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 31	CFS
DESIGN HW ELEVATION	= 40.0	FT
100 YEAR DISCHARGE	= 35	CFS
100 YEAR HW ELEVATION	= 40.5	FT
OVERTOPPING FREQUENCY	= 100+	YRS
OVERTOPPING DISCHARGE	= 56	CFS
OVERTOPPING ELEVATION	= 42.0	FT

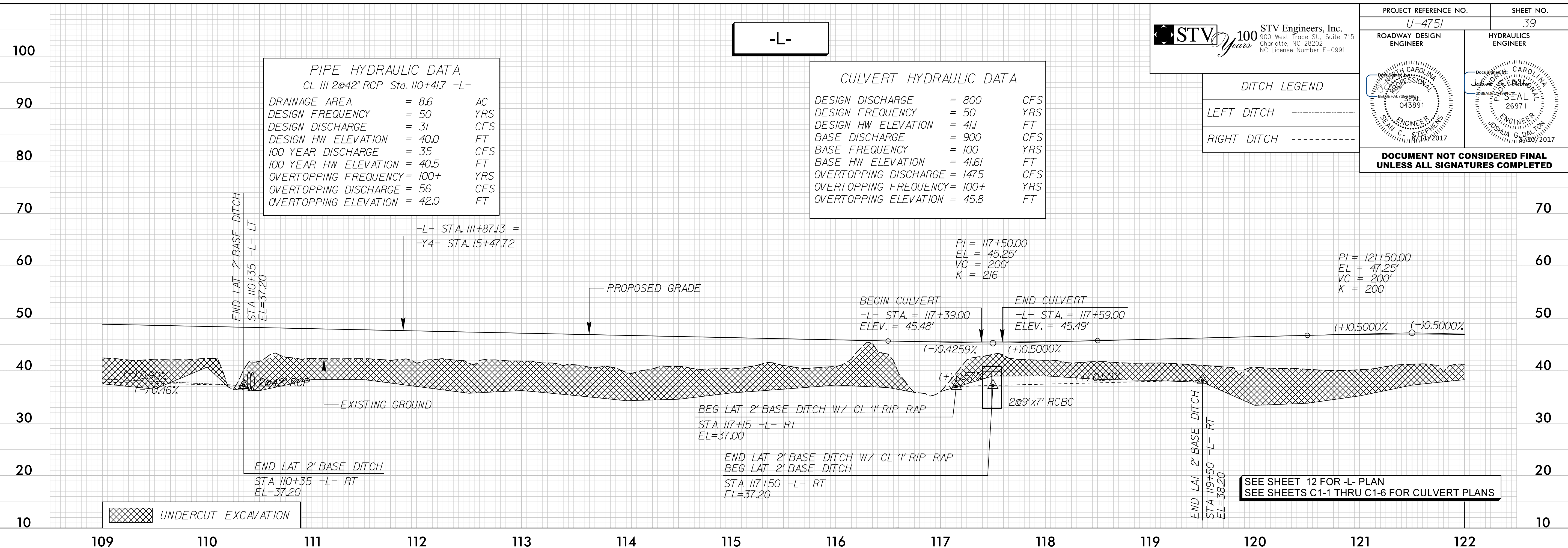
**CULVERT HYDRAULIC DATA**

DESIGN DISCHARGE	= 800	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 41.1	FT
BASE DISCHARGE	= 900	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 41.61	FT
OVERTOPPING DISCHARGE	= 1475	CFS
OVERTOPPING FREQUENCY	= 100+	YRS
OVERTOPPING ELEVATION	= 45.8	FT

**DITCH LEGEND**

LEFT DITCH -----

RIGHT DITCH -----



UNDERCUT EXCAVATION

SEE SHEET 12 FOR -L- PLAN  
SEE SHEETS C1-1 THRU C1-6 FOR CULVERT PLANS

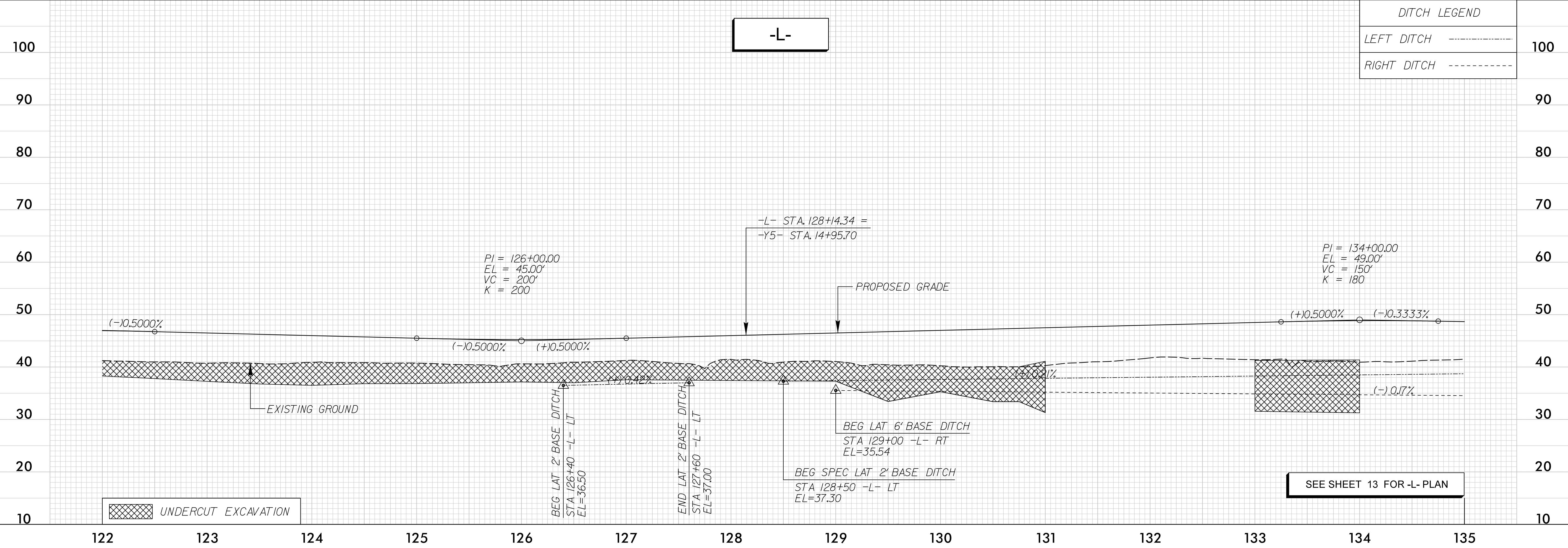
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C:\Users\jstephenson\OneDrive\Documents\Projects\U4751\RDY\_psh39.pfl.dgn

-L-

**DITCH LEGEND**

LEFT DITCH -----

RIGHT DITCH -----



UNDERCUT EXCAVATION

SEE SHEET 13 FOR -L- PLAN