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5/14/99

CALYX
ENGINEERS + CONSULTANTS
6750 TRYON ROAD
CARY, NC 27518
phone: 919.851.1912
CALYXengineers.com
NC License # F-1333
Formerly Mulkey Engineers & Consultants

PROJECT REFERENCE NO.	SHEET NO.
17BP.1.R.84	5

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 19139 ENGINEER STEPHEN C. BROWN
DocuSigned by: Stephen C. Brown
2/14/2018

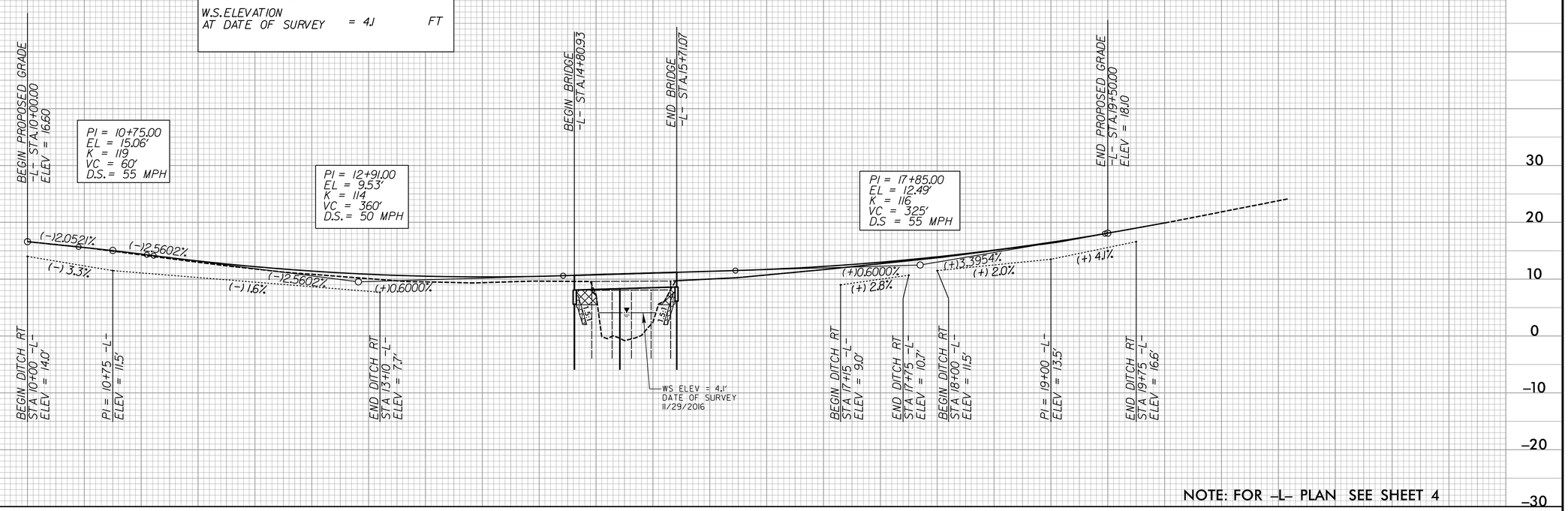
HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 043870 ENGINEER REID B. ROBOLI
DocuSigned by: Reid Roboli
2/13/2018

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BM#10
-EL- STA. 13+16.14
O/S 45.13' RT.
ELEV = 9.40'
RR SPIKE IN BASE
OF 30" GUM

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	=	1200	CFS
DESIGN FREQUENCY	=	25	YR
DESIGN HW ELEVATION	=	7.1	FT
BASE DISCHARGE	=	1800	CFS
BASE FREQUENCY	=	100	YR
BASE HW ELEVATION	=	8.4	FT
OVERTOPPING DISCHARGE	=	3830	CFS
OVERTOPPING FREQUENCY	=	500+	YR
OVERTOPPING ELEVATION	=	11.0	FT
DATE OF SURVEY	=	11/29/2016	
W.S. ELEVATION AT DATE OF SURVEY	=	4.1	FT



NOTE: FOR -L- PLAN SEE SHEET 4

2/7/2018
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swilliamson