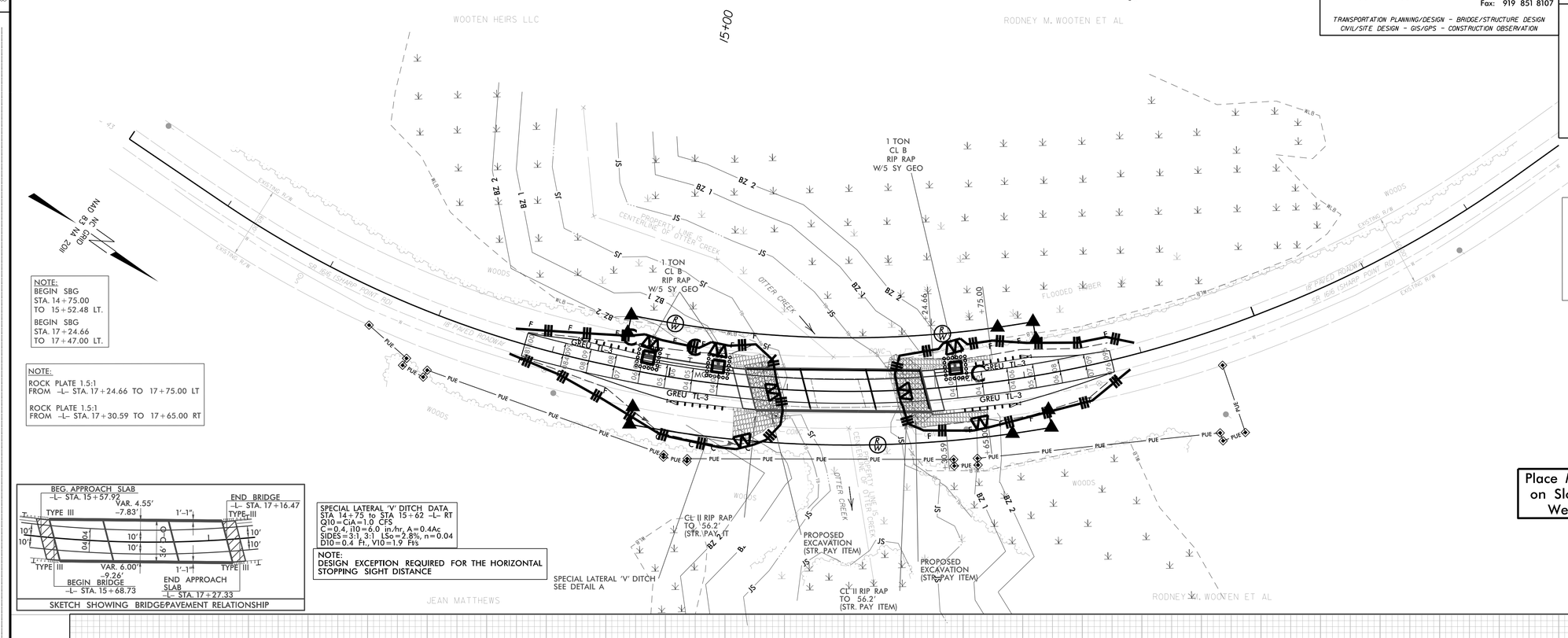
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
Liscense No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
BR-0112	EC-5/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



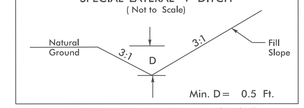
NOTE:
BEGIN SBG
STA. 14+75.00
TO 15+52.48 LT.

BEGIN SBG
STA. 17+24.66
TO 17+47.00 LT.

NOTE:
ROCK PLATE 1.5:1
FROM -L- STA. 17+24.66 TO 17+75.00 LT

ROCK PLATE 1.5:1
FROM -L- STA. 17+30.59 TO 17+65.00 RT

DETAIL A
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



-L- STA. 14+75 TO STA. 15+62 (RT)

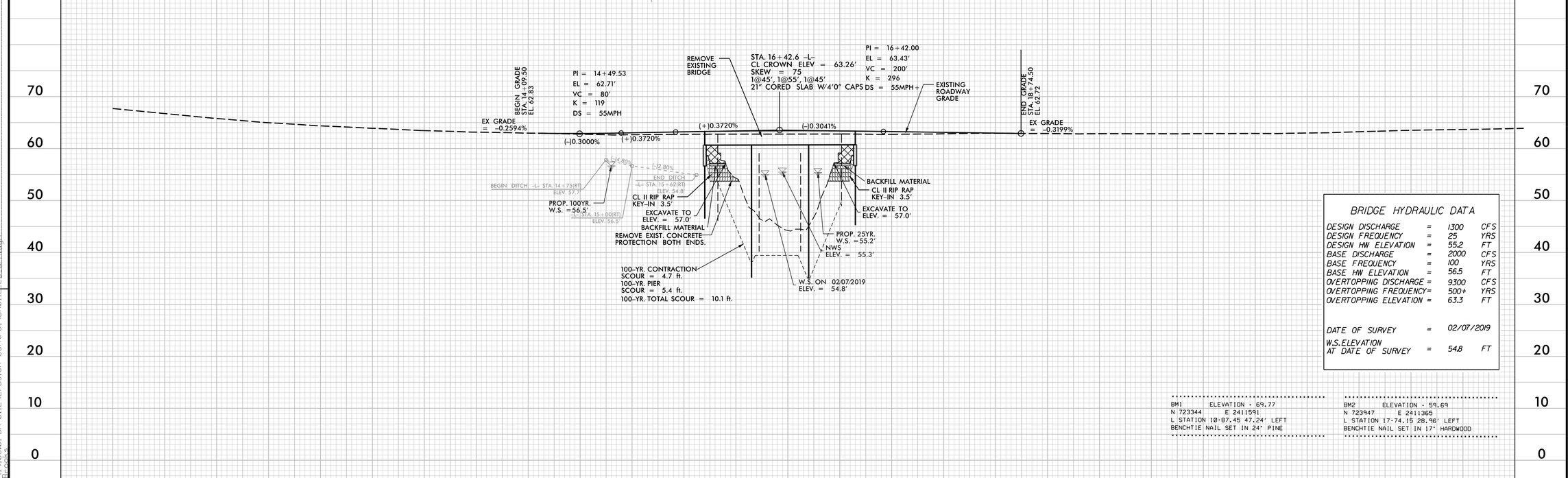
SKETCH SHOWING BRIDGE&PAVEMENT RELATIONSHIP

SPECIAL LATERAL 'V' DITCH DATA
STA 14+75 to STA 15+62 -L- RT
Q10=CIA=1.0 CFS
C=0.4, i10=6.0 in./hr, A=0.4Ac
SIDES=3:1, 3:1 LSo=2.8%, n=0.04
D10=0.4 Ft., V10=1.9 Ft/s

NOTE:
DESIGN EXCEPTION REQUIRED FOR THE HORIZONTAL STOPPING SIGHT DISTANCE

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

SEE SHEETS S-1 THRU S-? FOR STRUCTURE PLANS



BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	=	1300	CFS
DESIGN FREQUENCY	=	25	YRS
DESIGN HW ELEVATION	=	55.2	FT
BASE DISCHARGE	=	2000	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	56.5	FT
OVERTOPPING DISCHARGE	=	9300	CFS
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING ELEVATION	=	63.3	FT
DATE OF SURVEY	=	02/07/2019	
W.S.ELEVATION AT DATE OF SURVEY	=	54.8	FT

BM1 ELEVATION - 69.77
N 723344 E 2411591
L STATION 10+87.45 47.24' LEFT
BENCHTIE NAIL SET IN 24" PINE

BM2 ELEVATION - 59.69
N 723947 E 2411365
L STATION 17+74.15 28.96' LEFT
BENCHTIE NAIL SET IN 17" HARDWOOD

REVISIONS

8/17/99

12/6/2019
R:\Roadway\9105.01 BR-0112\Erosion Control\BR0112_EC_dr.dgn
USER: FBrooks