

**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**

TIP PROJECT: B-4751

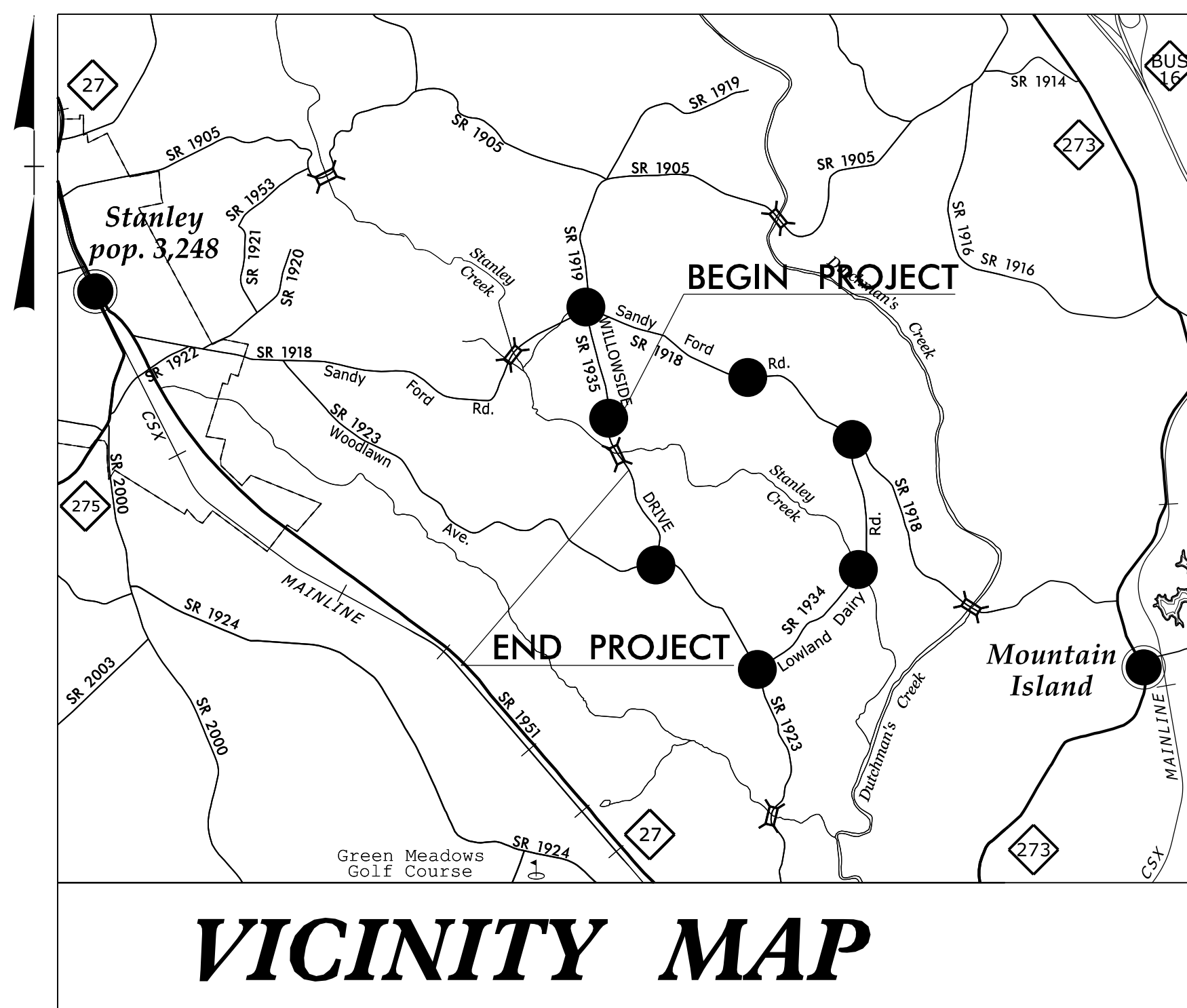
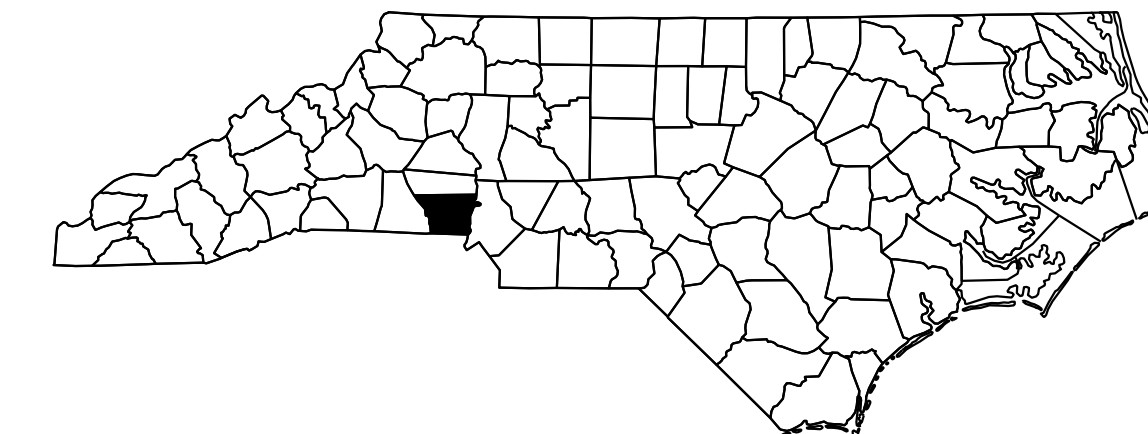
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

T.I.P. NO.	SHEET NO.
B-4751	UO-1

**UTILITIES BY OTHERS PLANS
GASTON COUNTY**

**LOCATION: BRIDGE No. 203 OVER STANLEY CREEK ON
SR 1935 (WILLOWSIDE DR.)**

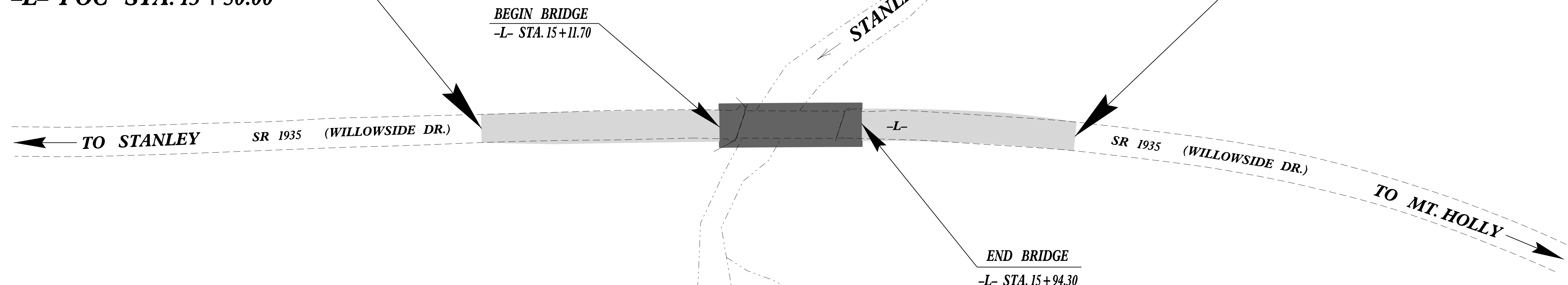
**TYPE OF WORK: RELOCATION OF UNDERGROUND
POWER & TELEPHONE**



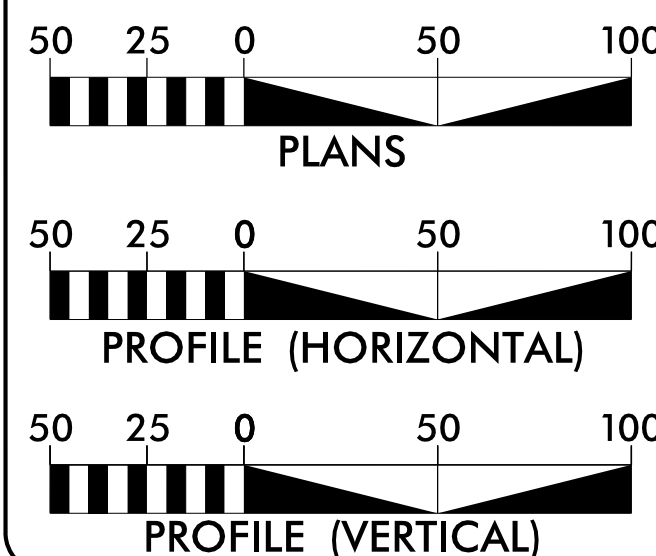
VICINITY MAP

●●●●● OFF-SITE DETOUR

BEGIN T.I.P. PROJECT B-4751
-L- POC STA. 13 + 50.00



GRAPHIC SCALES



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2	UTILITIES BY OTHERS PLAN SHEET

- UTILITY OWNERS ON PROJECT**
- (1) DUKE ENERGY (POWER DISTRIBUTION)
 - (2) AT&T OF NC (COMMUNICATIONS)

Cardno
CARDNO (NC), INC.
7606 WHITEHALL EXECUTIVE CENTER DR
SUITE 800
CHARLOTTE NC 28273
PHONE (704) 927-9700
FAX (704) 529-3272

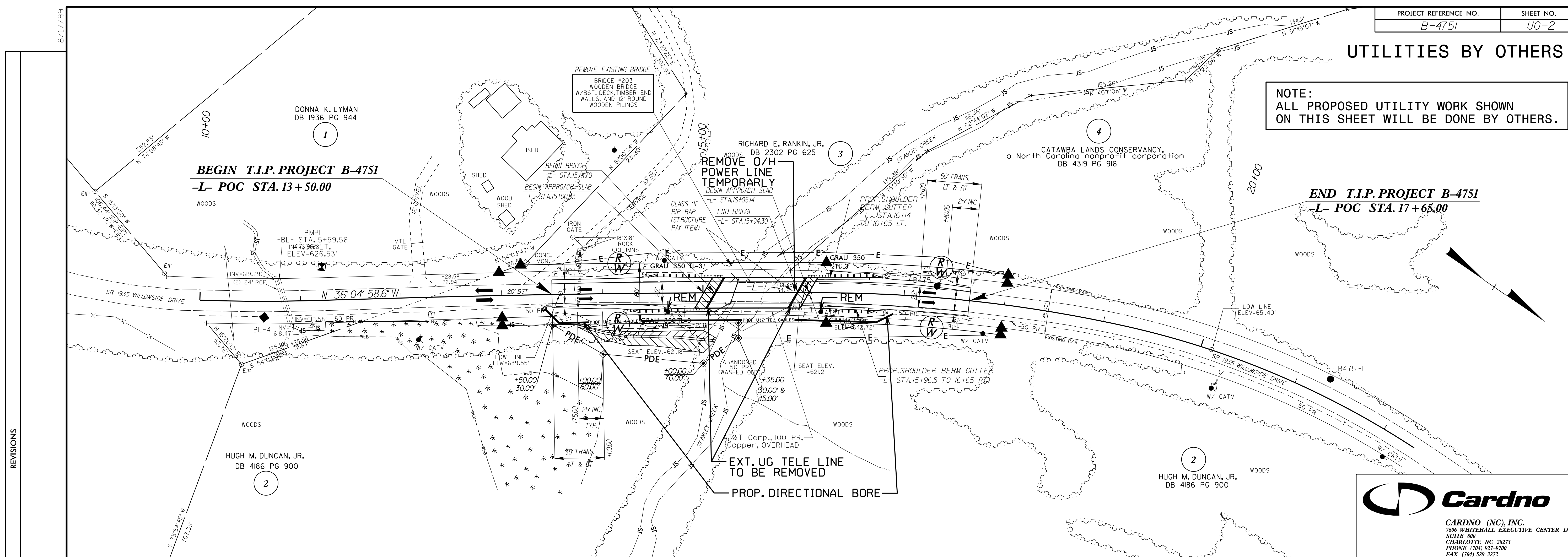
Julie McDonald, P.E., P.L.S. REGIONAL MANAGER

PREPARED IN THE OFFICE OF:
**DIVISION OF HIGHWAYS
UTILITIES UNIT
UTILITIES ENGINEERING**
1555 MAIL SERVICES CENTER
RALEIGH NC 27699-1555
PHONE (919) 707-6890
FAX (919) 250-4151

- Roger Worthington, P.E.** UTILITIES SECTION ENGINEER
- Carl Barclay, P.E.** UTILITIES SQUAD LEADER PROJECT ENGINEER
- James Swinson** UTILITIES PROJECT DESIGNER

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN
ON THIS SHEET WILL BE DONE BY OTHERS.



Cardno
CARDNO (NC), INC.
7606 WHITEHALL EXECUTIVE CENTER DR
SUITE 800
CHARLOTTE NC 28273
PHONE (704) 927-9700
FAX (704) 529-3272

-L- SR 1935 WILLOWSIDE DR.

BM#1 ELEV. = 626.53'
-L- STA. 11+22.13
33.12' LEFT
RR SPIKE IN 30" BEECH

PI = 14+30.00
EL = 624.02'
VC = 160'
K = 364
V_d = 75MPH

PI = 17+00.00
EL = 623.17'
VC = 130'
K = 98
V_d = 50MPH

BEGIN GRADE
-L- STA. 13+50.00
ELEV. = 623.92'

END GRADE
-L- STA. 17+65.00
ELEV. = 623.83'

BEGIN BRIDGE
-L- STA. 15+16.00

END BRIDGE
-L- STA. 16+16.00

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 2000	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 619J	FT
BASE DISCHARGE	= 3559	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 621.26	FT
OVERTOPPING DISCHARGE	= 4668	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 623.3	FT
	=	FT
DATE OF SURVEY	= 05/28/14	
W.S. ELEVATION AT DATE OF SURVEY	= 610.2	FT

DITCH LEGEND

RIGHT DITCH	-----
-------------	-------

25-Nov-2015 09:51 @errmg\UB01\Proj\Cardno 11-24-15\B-4751_U0-2.psh.dgn

REVISIONS