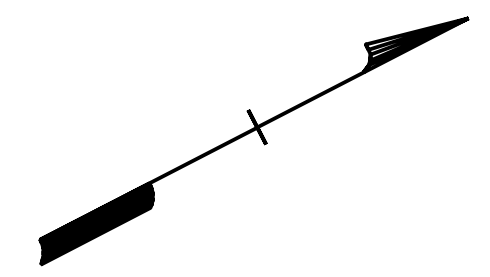
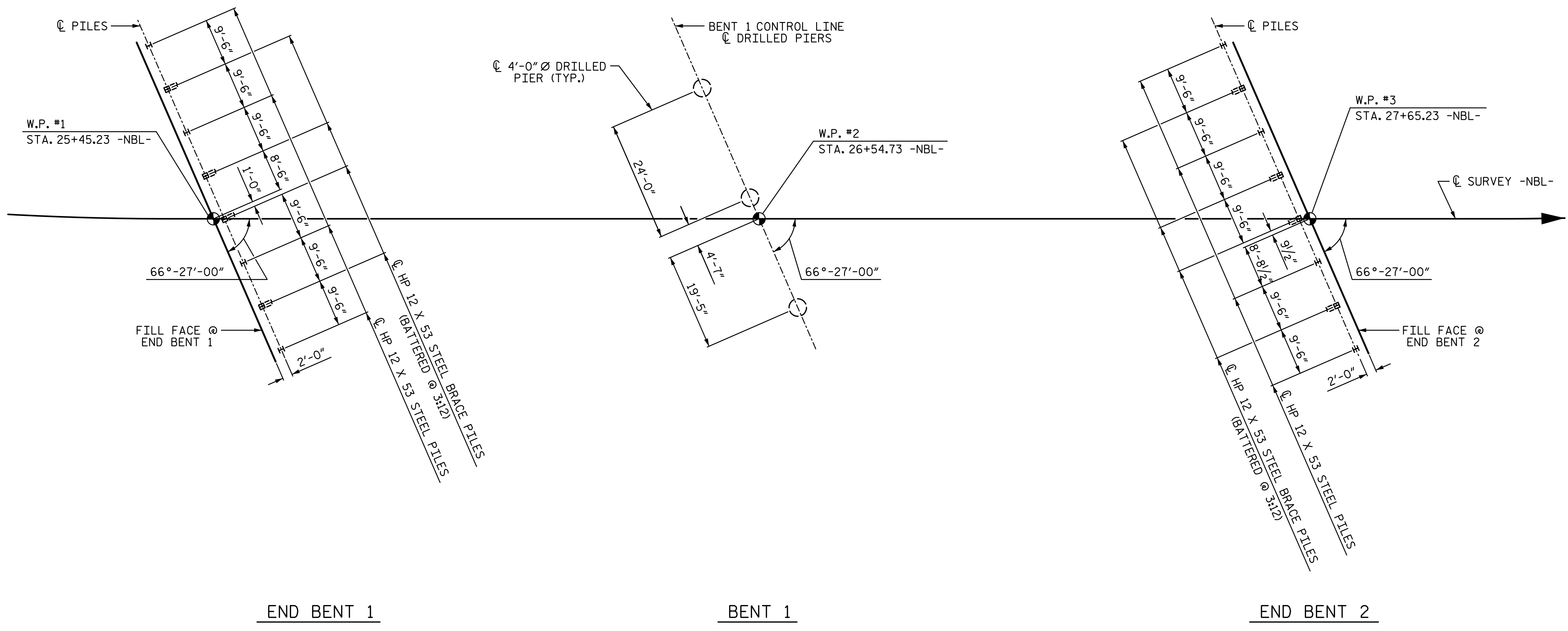


2/10/2017 9:08:58 AM G:\Projects\2014\U-3109A\Structures\Site 1-Bridge 434 (NBL)\Drawings\Final\401_U3109A_SMU_CD.dgn



FOUNDATION LAYOUT

(DIMENSIONS LOCATING PILES ARE TO THE PILE CENTERLINE AT THE BOTTOM OF THE END BENT CAP)

FOUNDATION NOTES:

FOR DRILLED PIERS, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

DRILLED PIERS AT BENT 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 470 TONS PER PIER. CHECK FIELD CONDITIONS FOR THE REQUIRED TIP RESISTANCE OF 30' TSF.

INSTALL DRILLED PIERS AT BENT 1 TO A TIP ELEVATION NO HIGHER THAN 607.0, 596.0, 604.0 FT (L,C,R) AND WITH THE REQUIRED TIP RESISTANCE.

SPT MAY BE REQUIRED FOR DRILLED PIERS. THE ENGINEER WILL DETERMINE THE NEED FOR SPT. FOR SPT TESTING, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

DO NOT USE SLURRY CONSTRUCTION FOR DRILLED PIERS AT BENT 1.

SID INSPECTION MAY BE REQUIRED FOR DRILLED PIERS. THE ENGINEER WILL DETERMINE THE NEED FOR SID INSPECTIONS. FOR SID INSPECTIONS, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

CSL TUBES ARE REQUIRED AND CSL TESTING MAY BE REQUIRED FOR DRILLED PIERS AT BENT 1. THE ENGINEER WILL DETERMINE THE NEED FOR CSL TESTING. FOR CSL TESTING, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.

FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

FOUNDATION NOTES (CONTINUED):

PILES AT END BENT 1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 110 TONS PER PILE.

PILES AT END BENT 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 115 TONS PER PILE.

DRIVE PILES AT END BENT 1 TO A REQUIRED DRIVING RESISTANCE OF 185 TONS PER PILE.

DRIVE PILES AT END BENT 2 TO A REQUIRED DRIVING RESISTANCE OF 195 TONS PER PILE.

IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF 43,240 FT-LBS PER BLOW WILL BE REQUIRED TO DRIVE PILES AT END BENT 1 AND END BENT 2. THIS ESTIMATED ENERGY RANGE DOES NOT RELEASE THE CONTRACTOR FROM PROVIDING DRIVING EQUIPMENT IN ACCORDANCE WITH SUBARTICLE 450-3(D)(2) OF THE STANDARD SPECIFICATIONS.

TESTING THE PRODUCTION PILES WITH THE PDA DURING DRIVING, RESTRIKING OR REDIVING IS REQUIRED. FOR PDA TESTING, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS (AND FOR PILE DRIVING CRITERIA, SEE PILE DRIVING CRITERIA PROVISION).

PROJECT NO. U-3109A
ALAMANCE COUNTY
 STATION: 26+54.73 -NBL-

SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING

FOR NBL BRIDGE ON NC 119
 OVER I40-85 WB AND I40-85 EB
 BETWEEN SR 1981 AND SR 1980

PLANS PREPARED BY:
SIMPSON ENGINEERS & ASSOCIATES
 5640 Dillard Drive
 Suite 200
 Cary, NC 27518
 (919) 852-0468
 (919) 852-0598 (Fax)
 www.simpsonengr.com
 LICENSURE NO. C-2521



DRAWN BY: S. D. COOPER	DATE: 5-15
CHECKED BY: B.S. COX	DATE: 5-15
DESIGN ENGINEER OF RECORD: T.J. BEACH	DATE: 5-15

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S01-2
1			3			TOTAL SHEETS
2			4			S01-49