DRAWN BY : \_\_\_MBC

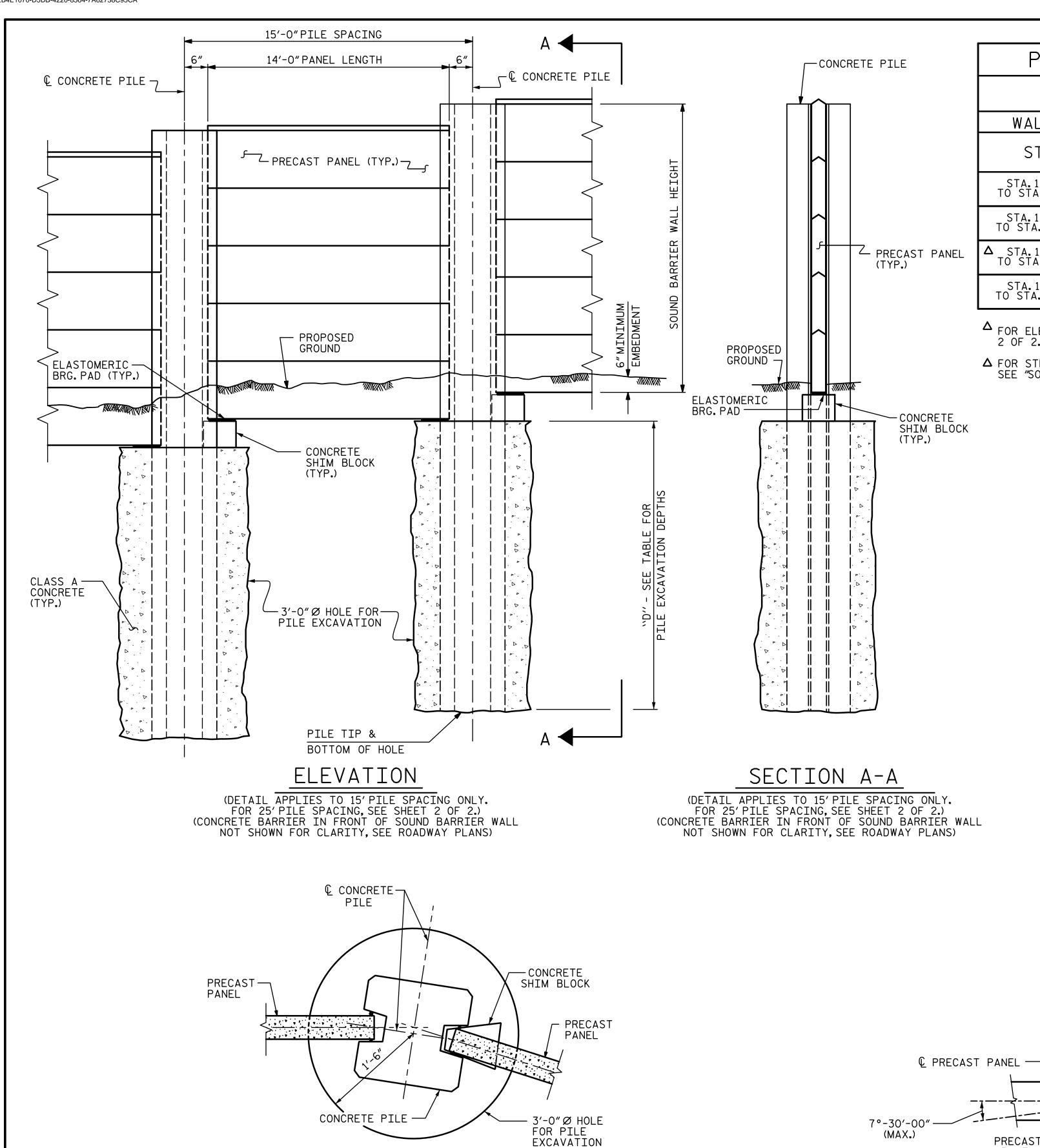
CHECKED BY : JAD

5-17

5-17

DATE :

DESIGN ENGINEER OF RECORD:



0° TO 15° TURNS

(PILE TYPE I)

TYPICAL WALL TURN DETAILS

\_\_J.DICHAK DATE: \_\_\_\_5-17

## PILE EXCAVATION DEPTHS "D" 3'-0" Ø HOLE WALL -NW14- (STA. 10+00 TO 21+65 -NW14-) PILE MAX WALL SHAFT STATION DEPTH SPACING HEIGHT STA. 129+24.09 -L-TO STA. 132+51.84 -L-16'-0" 17'-0" 15'-0" STA. 132+66.47 -L-TO STA. 138+08.08 -L-14'-0" 14'-6" 15'-0" STA.138+22.72 -L-TO STA.138+47.12 -L-25'-0" 17'-0" 13'-0" STA. 138+61.76 -L-TO STA. 140+66.69 -L-13'-0" 15'-0" 14'-6"

 $^{f \Delta}$  for elevation view and details for 25' pile spacing, see sheet 2 OF 2.

 $\Delta$  for steel pile, support beam, angles, and lagging stop notes, SEE "SOUND BARRIER WALL DETAILS" SHEET 3 OF 3.

CONCRETE -

PILE ROTATION LIMIT

FOR WALL TURN

(ROTATE THE CONCRETE PILE ±7°-30′-00″MAX. TO ACCOMMODATE WALL TURN.)

**PRECAST** PANEL

## NOTES:

FOR SOUND BARRIER WALL, SEE SPECIAL PROVISIONS.

CONSTRUCT SOUND BARRIER WALL TO LINES AND GRADES SHOWN ON THE ROADWAY PLANS. PROVIDE PANELS WITH A FLAT BOTTOM.

VERIFY THE LOCATION OF UNDERGROUND UTILITIES BEFORE DRILLING HOLES TO ENSURE SUFFICIENT CLEARANCE IS AVAILABLE.

ADJUST PILE EXCAVATION ELEVATIONS TO MAINTAIN 6"MINIMUM EMBEDMENT OF THE BOTTOM PANEL.

USE CLASS AA FOR PANELS AND CLASS A CONCRETE PILE EXCAVATION BACKFILL. IN ACCORDANCE WITH ARTICLE 1000-4 OF THE STANDARD SPECIFICATIONS.

FOR SOUND BARRIER WALL STATIONS, OFFSETS, AND WALL ENVELOPE, SEE ROADWAY PLANS. PLACE 1" Ø BACKER RODS FULL HEIGHT ON EACH SIDE OF THE PRECAST PANELS. SET AND SEAL THE BACKER ROD IN PLACE WITH SEALANT THAT CONFORMS WITH ARTICLE 1028-3 OF THE STANDARD SPECIFICATIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC BEARING DETAILS, SEE "SOUND BARRIER WALL DETAILS" SHEET 1 OF 3.

FOR CONCRETE SHIM BLOCK DETAILS, SEE "SOUND BARRIER WALL DETAILS" SHEET 1 OF 3.

FOR PRECAST PANEL DETAILS, SEE "SOUND BARRIER WALL DETAILS" SHEET 1 & 3 OF 3. FOR CONCRETE PILE DETAILS, SEE "SOUND BARRIER WALL DETAILS" SHEETS 1 & 2 OF 3.

AT THE CONTRACTOR'S OPTION, USE CONTINUOUS FLIGHT AUGER PILES IN LIEU OF PILE

EXCAVATION FOR SOUND BARRÍER WALL FOUNDATION. SEE "CONTINUOUS FLIGHT AUGER PILES FOR SOUND BARRIER WALLS" SPECIAL PROVISION.

THE ARCHITECTURAL CONCRETE SURFACE TREATMENT SHALL MATCH THE APPEARANCE (STONE SIZE AND SHAPE, STONE TEXTURE, PATTERN AND RELIEF) OF NATURAL STONE TO RESEMBLE A DRY STACKED STONE PATTERN WITH FEDERAL STANDARD 595 COLOR # FS30450 STAIN.

## EXPOSURE CATEGORY D - PILE RETNEORCING STEEL

<u> </u>		MCING 31			
DESIGN WIND PRESSURE = 62 PSF (0'< H < 14'); 71 PSF (14'< H < 25')					
PILE TYPE I					
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES		
15′-0″	H ≤ 15′	4 - #8 EA.FACE	#3 @ 11″CTS.		
15′-0″	15' < H ≤ 20'	4 - #10 EA.FACE	#3 @ 10″CTS.		
PILE TYPE II					
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES		
15′-0″	H ≤ 15′	4 - #6 EA.FACE	#3 @ 11″CTS.		
15′-0″	15′ < H ≤ 20′	4 - #8 EA.FACE	#3 @ 10″CTS.		

BILL OF MATERIAL -N	W14-	
SOUND BARRIER WALL		16,142
ARCHITECTURAL SURFACE TREATMENT	S.F.	13,482
QUANTITIES PROVIDED ARE APPROXIMA FOR BID PURPOSES ONLY.	TE AND	ARE

−Œ PILE

-1"Ø BACKER ROD (TYP.)

PROJECT NO. U-4751 NEW HANOVER

STATION: 129+24.09 -L- = 10+00.00 -NW14-

SHEET 1 OF 2

8/17/2017

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

COUNTY

TOTAL SHEETS

SOUND BARRIER WALL NO. -NW14-

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SS AL	$\circ$ STV $_{fea}$
UNLE	STV ENGINEERS, INC 900 West Trade St., Suite Charlotte, NC 28202 NC License Number F-C

**REVISIONS** SHEET NO NW-13 DATE: DATE: NO. BY: NO. BY: