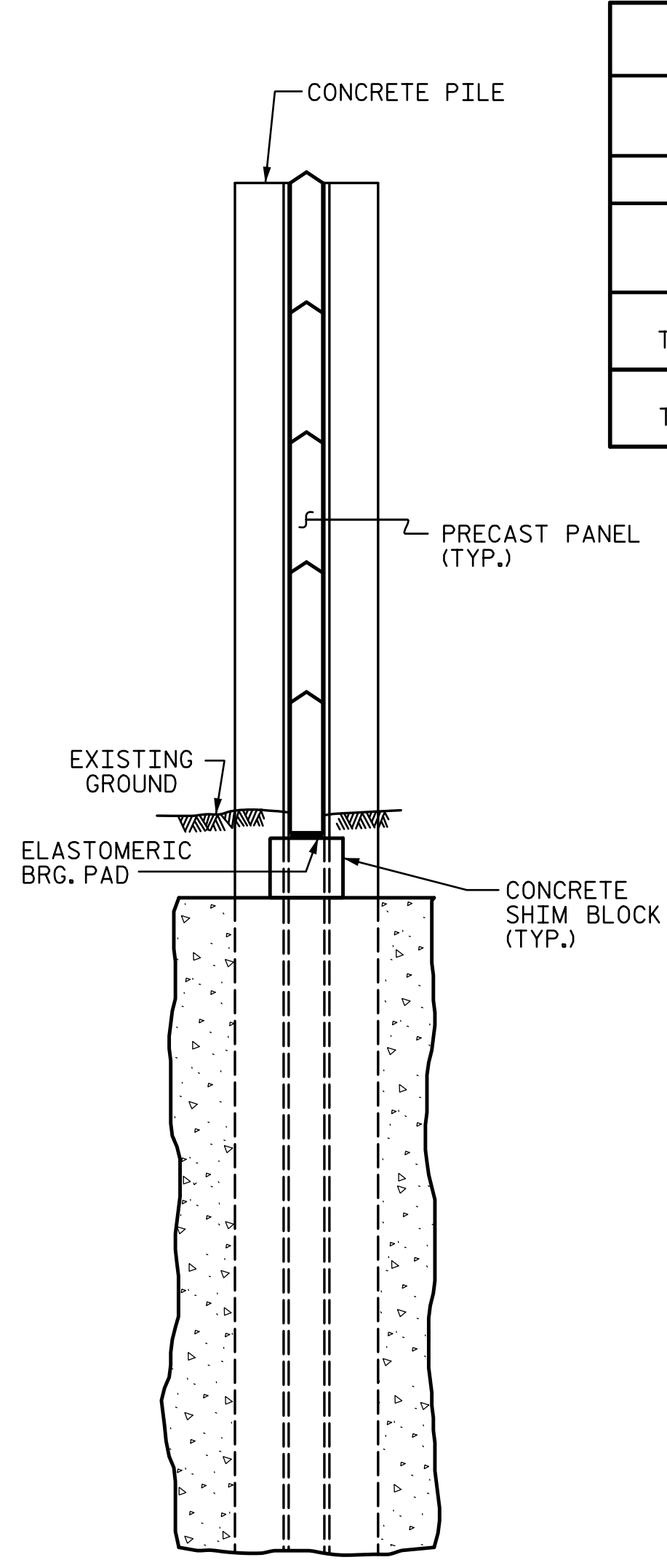


ELEVATION



SECTION A-A

PILE EXCAVATION DEPTHS "D"			
3'-0" Ø HOLE			
WALL -NW1B- (STA. 10+00 TO 14+10 -NW1B-)			
STATION	MAX WALL HEIGHT	PILE SPACING	SHAFT DEPTH
STA. 17+56.65 -L- TO STA. 17+66.65 -L-	8'-0"	10'-0"	11'-0"
STA. 17+76.65 -L- TO STA. 21+38.59 -L-	10'-0"	15'-0"	13'-0"

**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 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 BARRIER 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 REINFORCING STEEL

DESIGN WIND PRESSURE = 62 PSF (0' < H ≤ 14'); 71 PSF (14' < H ≤ 25')

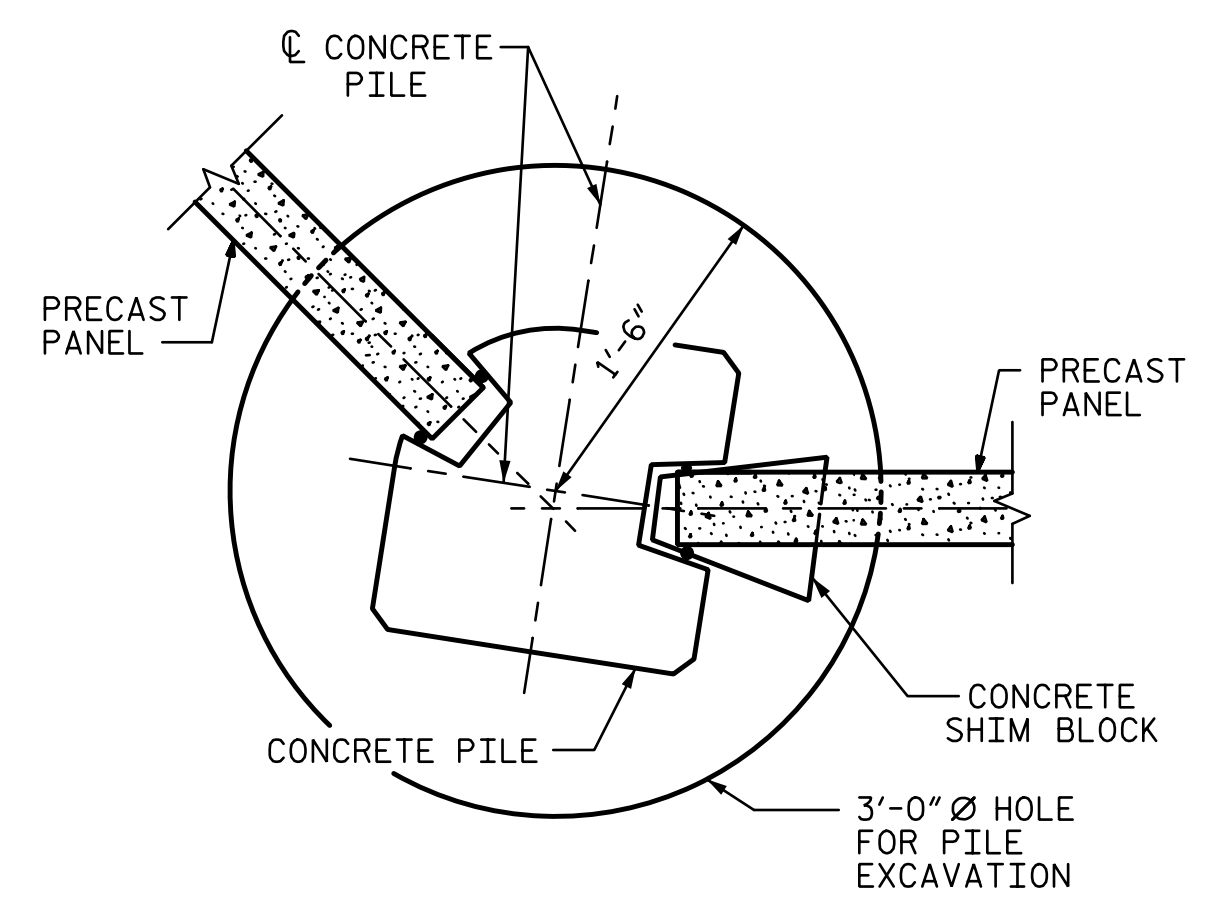
PILE TYPE I				PILE TYPE III			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES	PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
10'-0"	H ≤ 15'	4 - #8 EA. FACE	#3 @ 11" CTS.	10'-0"	H ≤ 15'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#3 @ 11" CTS.
15'-0"	H ≤ 15'	4 - #8 EA. FACE	#3 @ 11" CTS.	15'-0"	H ≤ 15'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#3 @ 11" CTS.

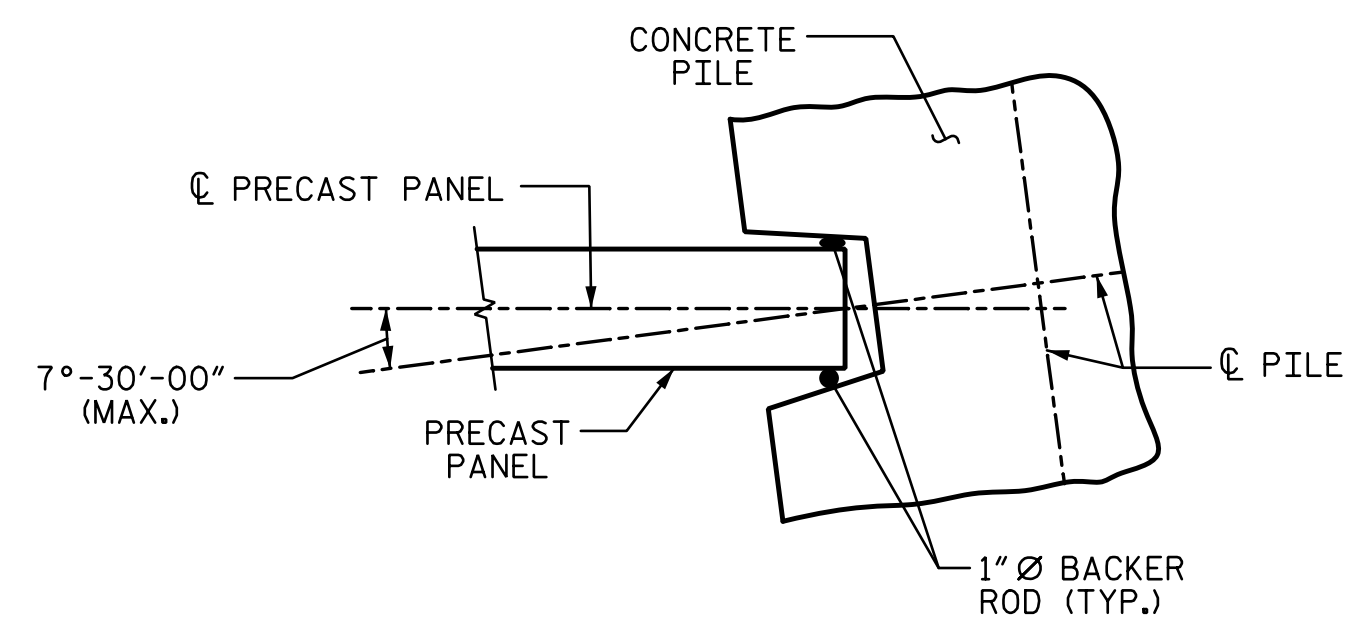
PILE TYPE II				PILE TYPE III ALT.			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES	PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
10'-0"	H ≤ 15'	4 - #6 EA. FACE	#3 @ 11" CTS.	10'-0"	H ≤ 15'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#3 @ 11" CTS.
15'-0"	H ≤ 15'	4 - #6 EA. FACE	#3 @ 11" CTS.	15'-0"	H ≤ 15'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#3 @ 11" CTS.

BILL OF MATERIAL -NW1B-	
SOUND BARRIER WALL	S.F. 3,653
ARCHITECTURAL SURFACE TREATMENT	{S.F. 5,800} <sup>Δ</sup>
QUANTITIES PROVIDED ARE APPROXIMATE AND ARE FOR BID PURPOSES ONLY.	

<sup>Δ</sup> REVISED ARCHITECTURAL SURFACE TREATMENT QUANTITY  
 PROJECT NO. U-4751  
NEW HANOVER COUNTY  
 STATION: 17+56.65 -L- = 10+00.00 -NW1B-



15° TO 45° TURNS (PILE TYPE III)  
 TYPICAL WALL TURN DETAILS



PILE ROTATION LIMIT FOR WALL TURN  
 (ROTATE THE CONCRETE PILE ±7°-30'-00" MAX. TO ACCOMMODATE WALL TURN.)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**SOUND BARRIER WALL  
 NO. -NW1B-**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	NW-2
1	STV	10-17	3			TOTAL SHEETS
2			4			17

STV ENGINEERS, INC. 100 years  
 900 West Trade St., Suite 715  
 Charlotte, NC 28202  
 NC License Number F-5991

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