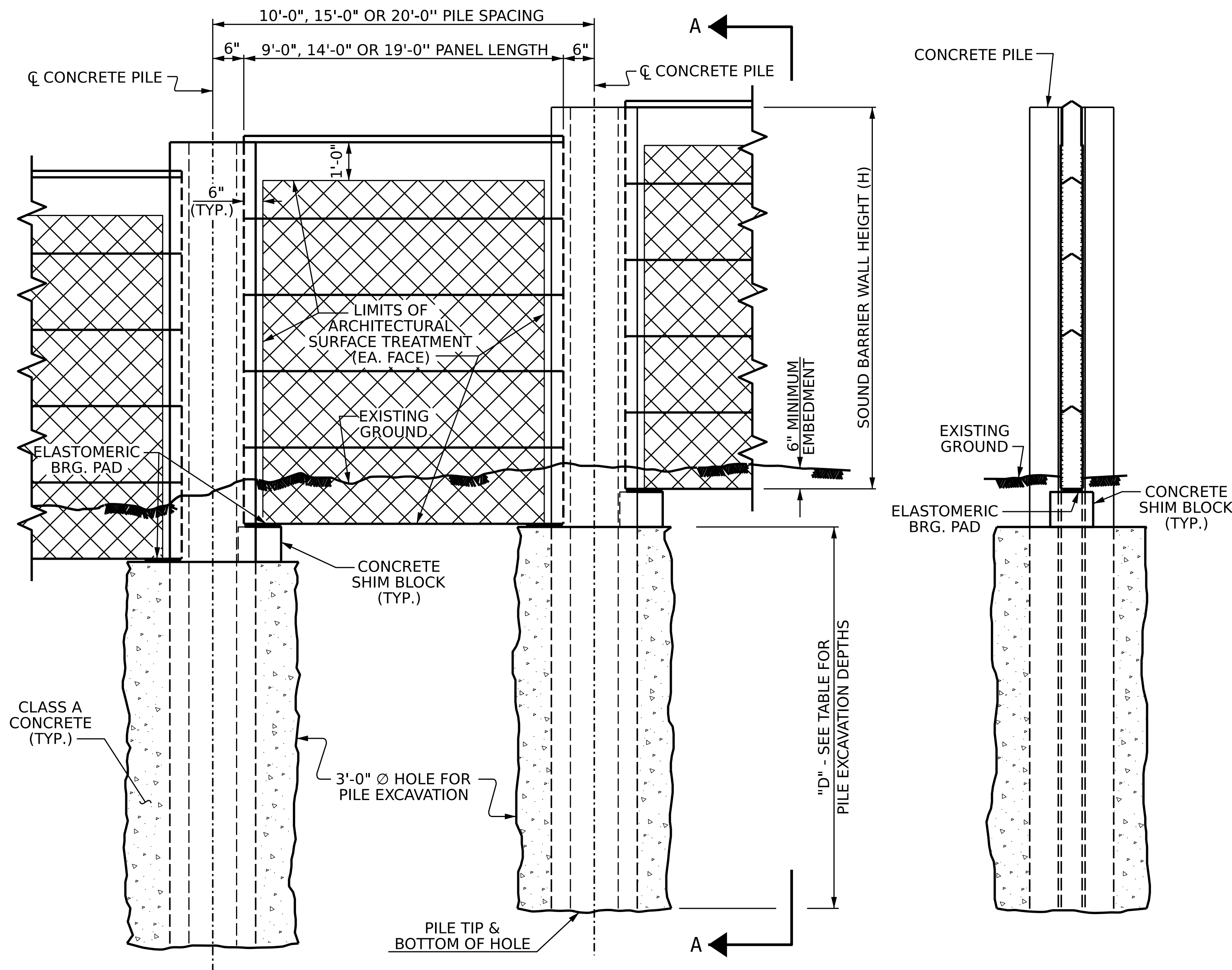
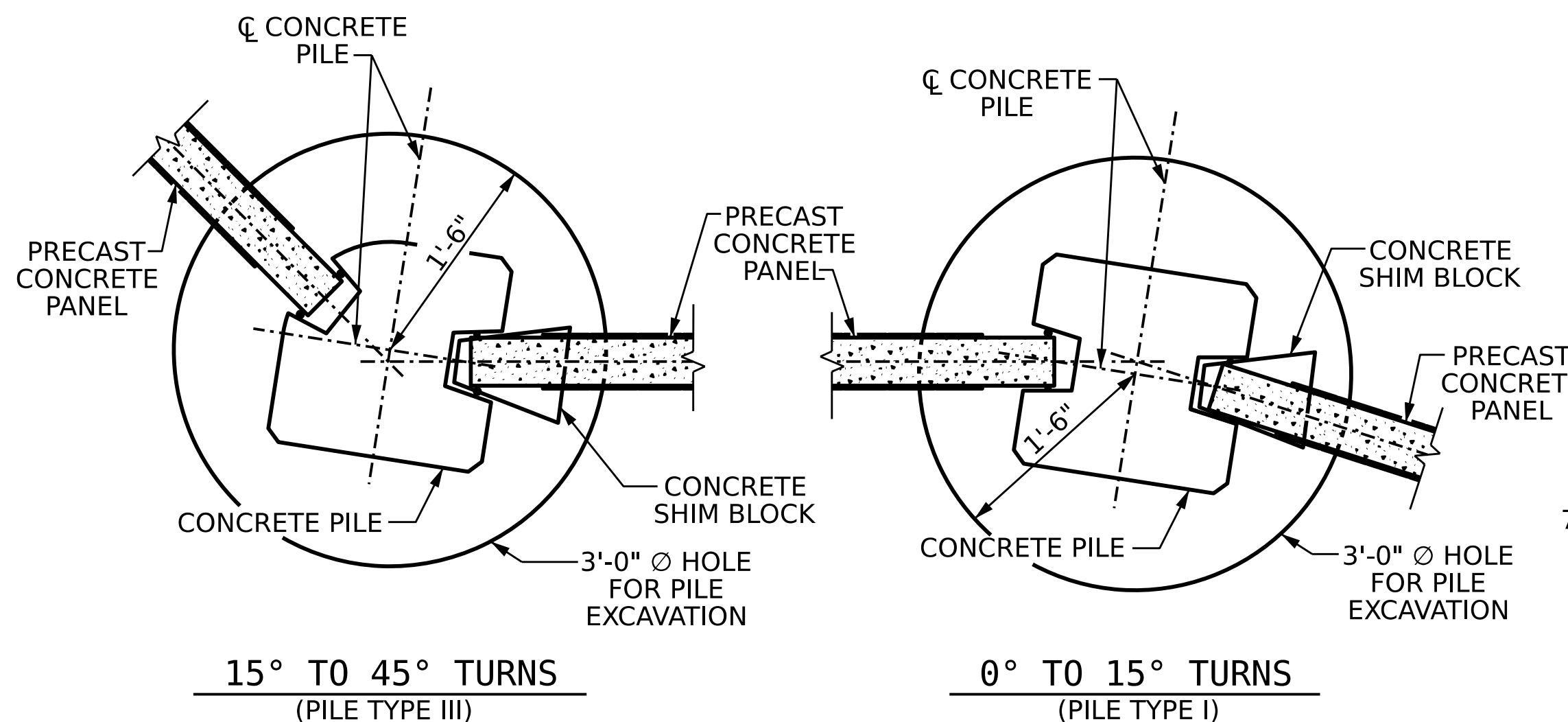


8/26/21



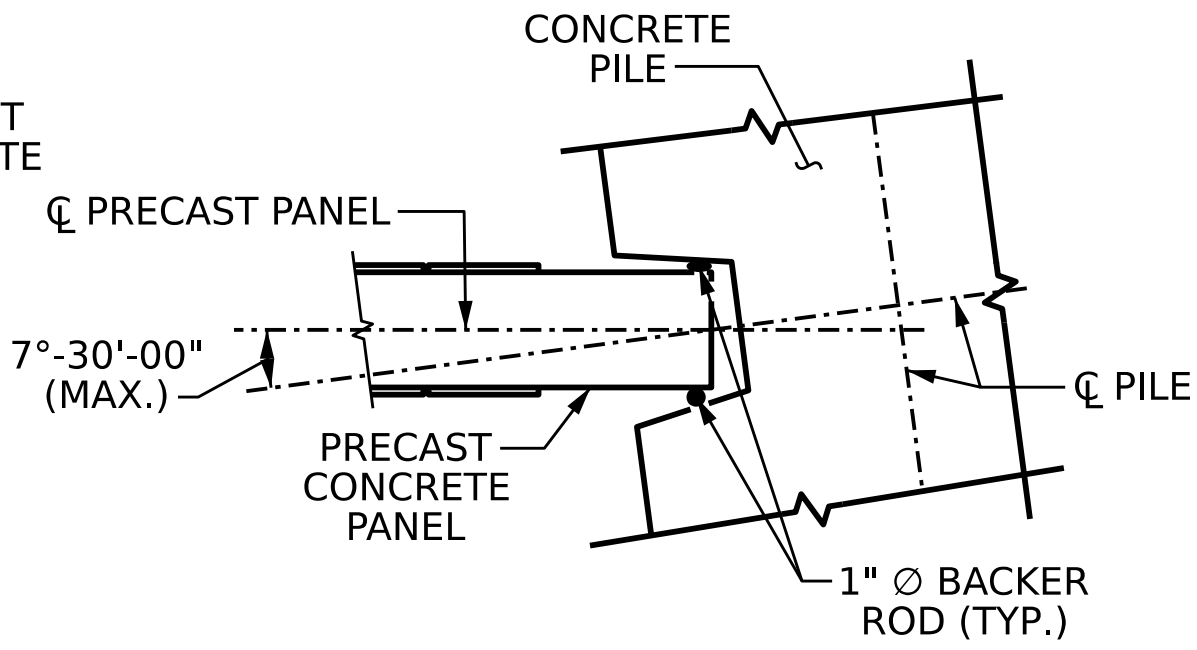
ELEVATION

SECTION A-A



TYPICAL WALL TURN DETAILS

PILE REINFORCING STEEL					
WIND EXPOSURE CATEGORY B, DESIGN WIND PRESSURE = 27 PSF					
		PILE TYPE I	PILE TYPE II	PILE TYPE III	PILE TYPE III ALT.
PILE SPACING	MAXIMUM WALL HEIGHT ( H )	VERTICAL REINFORCING STEEL	VERTICAL REINFORCING STEEL	VERTICAL REINFORCING STEEL	VERTICAL REINFORCING STEEL
10' - 0"	H ≤ 20'	4 - #5 EA. FACE	4 - #5 EA. FACE	3 - #5 SHORT FACE 4 - #5 LONG FACE	3 - #5 SHORT FACE 4 - #5 LONG FACE
	20' < H ≤ 25'	4 - #6 EA. FACE	4 - #5 EA. FACE	3 - #7 SHORT FACE 4 - #7 LONG FACE	3 - #7 SHORT FACE 4 - #7 LONG FACE
	25' < H ≤ 30'	4 - #7 EA. FACE	4 - #7 EA. FACE	3 - #8 SHORT FACE 4 - #8 LONG FACE	3 - #8 SHORT FACE 4 - #8 LONG FACE
15' - 0"	H ≤ 20'	4 - #6 EA. FACE	4 - #5 EA. FACE	3 - #6 SHORT FACE 4 - #6 LONG FACE	3 - #6 SHORT FACE 4 - #6 LONG FACE
	20' < H ≤ 25'	4 - #7 EA. FACE	4 - #7 EA. FACE	3 - #8 SHORT FACE 4 - #8 LONG FACE	3 - #8 SHORT FACE 4 - #8 LONG FACE
	25' < H ≤ 30'	4 - #8 EA. FACE	4 - #8 EA. FACE	3 - #10 SHORT FACE 4 - #10 LONG FACE	3 - #10 SHORT FACE 4 - #10 LONG FACE
20' - 0"	H ≤ 20'	4 - #6 EA. FACE	4 - #6 EA. FACE	3 - #7 SHORT FACE 4 - #7 LONG FACE	3 - #7 SHORT FACE 4 - #7 LONG FACE
	20' < H ≤ 25'	4 - #8 EA. FACE	4 - #8 EA. FACE	3 - #9 SHORT FACE 4 - #9 LONG FACE	3 - #9 SHORT FACE 4 - #9 LONG FACE
	25' < H ≤ 30'	4 - #10 EA. FACE	4 - #10 EA. FACE	3 - #11 SHORT FACE 4 - #11 LONG FACE	3 - #11 SHORT FACE 4 - #11 LONG FACE



PILE ROTATION LIMIT FOR WALL TURN

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

## PILE EXCAVATION DEPTHS "D"

WALL # FROM : STA. 55+70.73 -Y2-, 158.4' LT.  
TO : STA. 61+95.56 -Y2-, 158.2' LT.

PILE SPACING 30" Ø HOLE	TABLE 27-2 WALL HEIGHT (H)			
	H ≤ 15'	15' < H ≤ 20'	20' < H ≤ 25'	25' < H ≤ 30'
10'-0"	10'-0"	11'-0"	13'-0"	14'-0"
15'-0"	11'-0"	13'-0"	15'-0"	16'-0"
20'-0"	12'-0"	14'-0"	16'-0"	18'-0"

## BILL OF MATERIAL

SOUND BARRIER WALL	6342 S.F.
ARCHITECTURAL SURFACE TREATMENT	10686 S.F.

QUANTITIES PROVIDED ARE APPROXIMATE AND ARE FOR BID PURPOSES ONLY.

## ARCHITECTURAL SURFACE TREATMENT

TEXTURE OPTION:	ASHLAR STONE
STAIN OPTION:	GREY PALETTE COLOR #FS 36270

## 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 CONCRETE FOR PANELS AND CLASS A CONCRETE FOR PILE EXCAVATION BACKFILL, IN ACCORDANCE WITH ARTICLE 1000-3 OF THE STANDARD SPECIFICATIONS.

AT THE CONTRACTOR'S OPTION, USE 10'-0", 15'-0", OR 20'-0" PILE SPACINGS. STANDARD PRECAST CONCRETE PANELS MAY BE USED WITH THE 10'-0" AND 15'-0" PILE SPACING. FOR 20'-0" PILE SPACING, PANELS DESIGNED AND MANUFACTURED BY A THIRD PARTY VENDER SHALL BE USED.

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 CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR LAYOUT AND DETAILS OF #3 TIE BARS, SEE STD. SBW3.

PROJECT NO. **U-6187**

**DAVIE** COUNTY

STATION: **55+70.73 -Y2-**

SHEET 1 OF 3

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

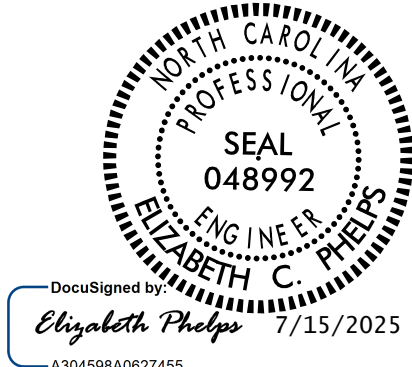
STANDARD

**SOUND BARRIER WALL**

(CONCRETE PILES)

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

DOCUMENT NOT CONSIDERED  
FINAL UNLESS ALL  
SIGNATURES COMPLETED



VHB Engineering NC, P.C. (C-3705)  
940 Main Campus Drive, Suite 500  
Raleigh, NC 27606

DRAWN BY :	C.P. MALAGON	DATE :	04/2025
CHECKED BY :	E.C. PHELPS	DATE :	06/2025
DESIGN ENGINEER OF RECORD:	E.C. PHELPS	DATE :	07/2025

7/14/2025  
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STD. NO. SBW1 SHT. 1