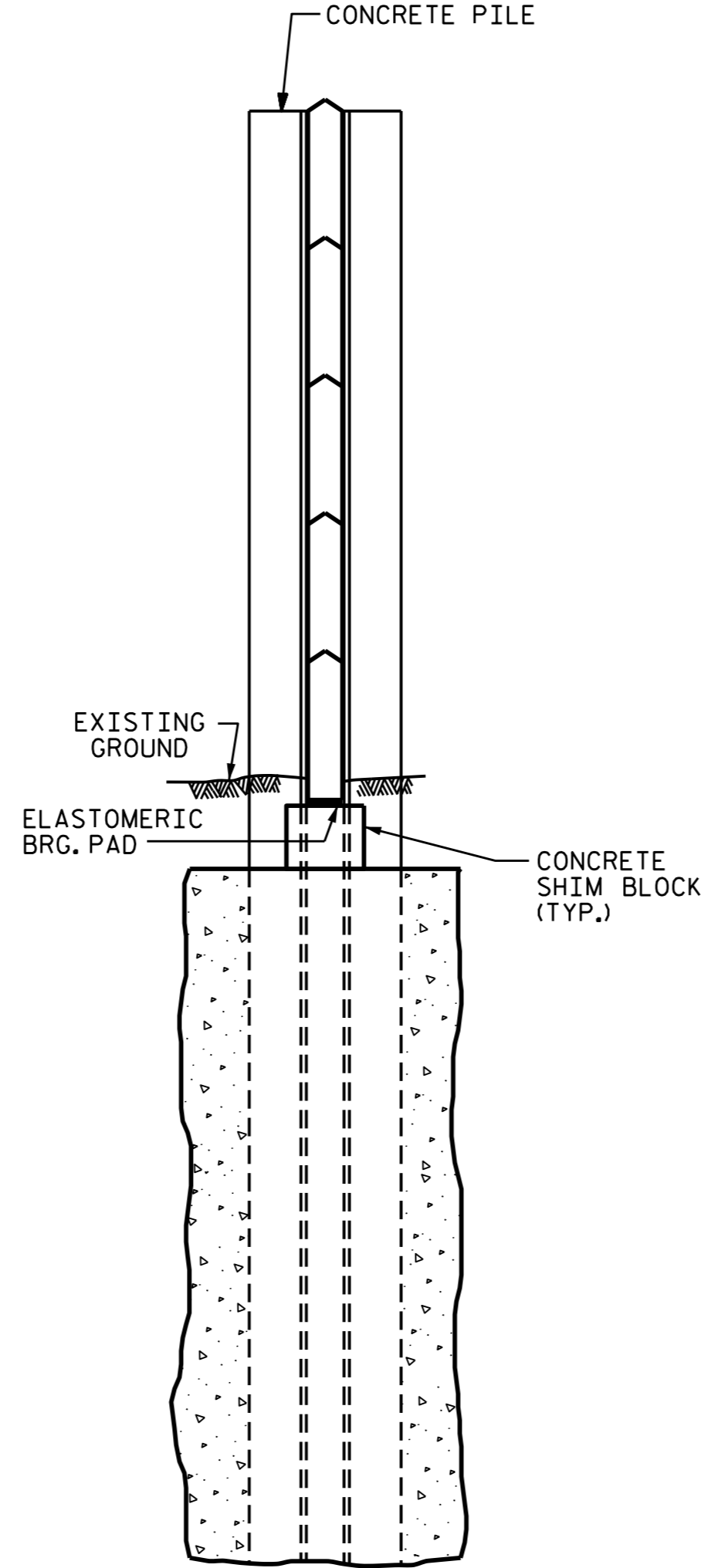
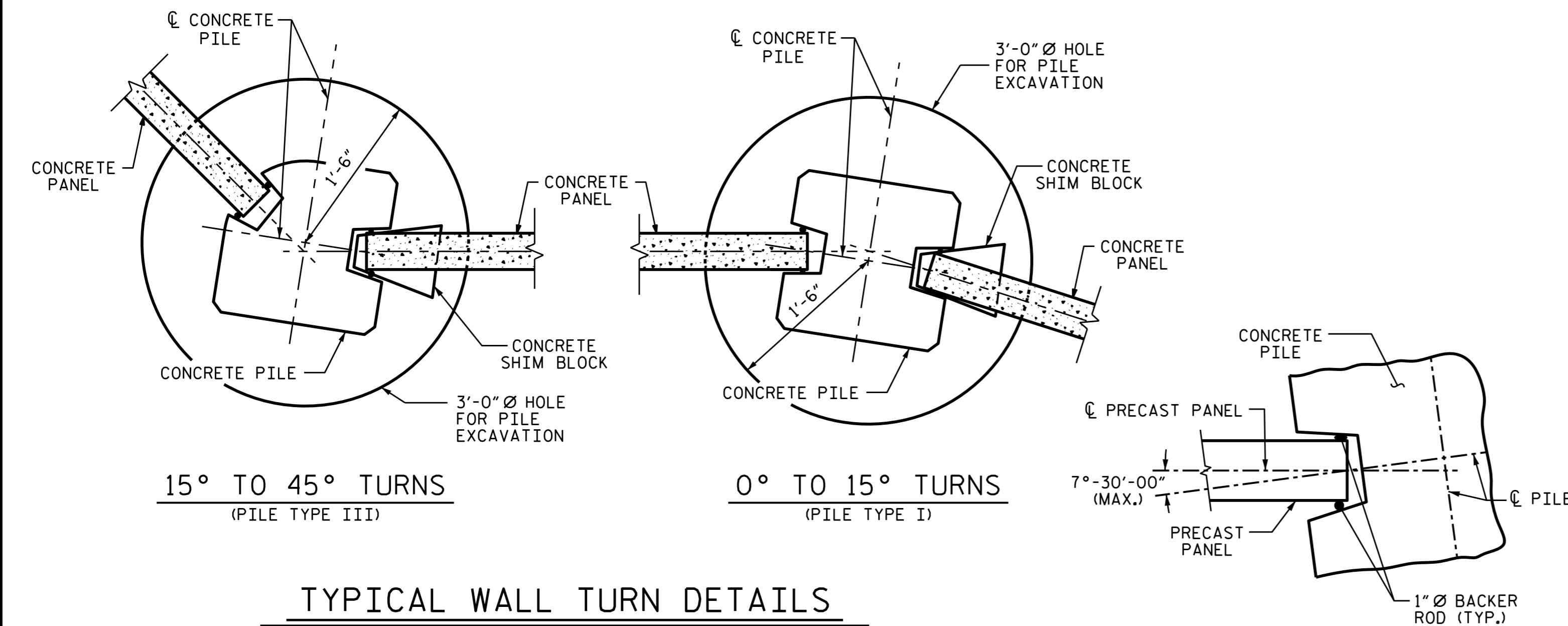


ELEVATION



SECTION A-A



TYPICAL WALL TURN DETAILS

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

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.
- AT THE CONTRACTOR'S OPTION, USE 10'-0" OR 15'-0" PILE SPACINGS. STANDARD PRECAST CONCRETE PANELS MAY BE USED WITH THE 10'-0" AND 15'-0" PILE SPACING.
- 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 CONCRETE PILE & PANEL DETAILS, SEE SHEETS SW-8 & SW-9.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR SOUND BARRIER WALL STATIONS, OFFSETS AND WALL ENVELOPES, SEE ROADWAY PLANS.

PILE VERTICAL REINFORCING STEEL
DESIGN WIND PRESSURE = 40 PSF

PILE TYPE I			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
10'-0"	H ≤ 25'	4 - #8 EA. FACE	#3 @ 1'-4" CTS.
	20' < H ≤ 27'	4 - #10 EA. FACE	#3 @ 1'-4" CTS.
15'-0"	H ≤ 20'	4 - #8 EA. FACE	#3 @ 1'-4" CTS.
	20' < H ≤ 27'	4 - #10 EA. FACE	#3 @ 1'-4" CTS.
PILE TYPE II			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
10'-0"	H ≤ 25'	4 - #6 EA. FACE	#3 @ 1'-4" CTS.
	20' < H ≤ 27'	4 - #7 EA. FACE	#3 @ 1'-4" CTS.
15'-0"	H ≤ 20'	4 - #6 EA. FACE	#3 @ 1'-4" CTS.
	20' < H ≤ 27'	4 - #7 EA. FACE	#3 @ 1'-4" CTS.
PILE TYPE III			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
10'-0"	H ≤ 25'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#3 @ 1'-4" CTS.
	20' < H ≤ 27'	3 - #8 SHORT FACE 4 - #8 LONG FACE	#3 @ 1'-4" CTS.
15'-0"	H ≤ 20'	3 - #8 SHORT FACE 4 - #8 LONG FACE	#3 @ 1'-4" CTS.
	20' < H ≤ 27'	3 - #11 SHORT FACE 4 - #11 LONG FACE	#3 @ 1'-4" CTS.
PILE TYPE III ALT.			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	VERTICAL REINFORCING STEEL	TIES
10'-0"	H ≤ 25'	3 - #9 SHORT FACE 4 - #9 LONG FACE	#3 @ 1'-4" CTS.
	20' < H ≤ 27'	3 - #8 SHORT FACE 4 - #8 LONG FACE	#3 @ 1'-4" CTS.
15'-0"	H ≤ 20'	3 - #8 SHORT FACE 4 - #8 LONG FACE	#3 @ 1'-4" CTS.
	20' < H ≤ 27'	3 - #11 SHORT FACE 4 - #11 LONG FACE	#3 @ 1'-4" CTS.

PILE EXCAVATION DEPTH "D"

3'-0" Ø HOLE		
SOUND BARRIER WALL #9		FROM : STA. 3+90.14 -SPDY8- (28.10 LT.) TO : STA. 525+21.66 -L- (75.00 RT.)
WALL STATION -NW9-	PILE SPACING	DEPTH "D"
STA. 10+00 NW9- TO STA. 11+05 -NW9-	10'-0"	10'-0"
STA. 11+05 -NW9- TO STA. 14+50 -NW9-	15'-0"	11'-0"
STA. 14+50 -NW9- TO STA. 20+95 -NW9-	10'-0"	11'-0"
STA. 20+95 -NW9- TO STA. 22+45 -NW9-	15'-0"	13'-0"
STA. 22+45 -NW9- TO STA. 22+60 -NW9-	10'-0"	14'-0"
STA. 22+60 -NW9- TO STA. 24+55 -NW9-	15'-0"	16'-0"
STA. 24+55 -NW9- TO STA. 28+30 -NW9-	10'-0"	11'-0"
STA. 28+30 -NW9- TO STA. 29+65 -NW9-	15'-0"	10'-0"
STA. 29+65 -NW9- TO STA. 30+25 -NW9-	10'-0"	9'-0"
STA. 30+25 -NW9- TO STA. 31+00 -NW9-	15'-0"	10'-0"
STA. 31+00 -NW9- TO STA. 31+60 -NW9-	10'-0"	12'-0"
STA. 31+60 -NW9- TO STA. 32+65 -NW9-	15'-0"	9'-0"
STA. 32+65 -NW9- TO STA. 33+40 -NW9-	10'-0"	10'-0"
STA. 33+40 -NW9- TO STA. 34+45 -NW9-	15'-0"	11'-0"
STA. 34+45 -NW9- TO STA. 35+20 -NW9-	10'-0"	13'-0"
STA. 35+20 -NW9- TO STA. 35+65 -NW9-	15'-0"	15'-0"
STA. 35+65 -NW9- TO STA. 35+80 -NW9-	10'-0"	14'-0"
STA. 35+80 -NW9- TO STA. 38+20 -NW9-	15'-0"	16'-0"
STA. 38+20 -NW9- TO STA. 39+10 -NW9-	10'-0"	13'-0"
STA. 39+10 -NW9- TO STA. 40+60 -NW9-	15'-0"	15'-0"
STA. 40+60 -NW9- TO STA. 41+00 -NW9-	10'-0"	12'-0"
STA. 41+00 -NW9- TO STA. 42+00 -NW9-	15'-0"	14'-0"
STA. 42+00 -NW9- TO STA. 43+00 -NW9-	10'-0"	9'-0"
STA. 43+00 -NW9- TO STA. 44+00 -NW9-	15'-0"	11'-0"
STA. 44+00 -NW9- TO STA. 45+00 -NW9-	10'-0"	8'-0"
STA. 45+00 -NW9- TO STA. 46+00 -NW9-	15'-0"	9'-0"

BILL OF MATERIAL

SOUND BARRIER WALL #9 61,965 S.F.

QUANTITIES PROVIDED ARE APPROXIMATE AND ARE FOR BID PURPOSES ONLY.

PROJECT NO. U-2524D

GUILFORD COUNTY

STATION: 3+90.14 -SPDY8-

SHEET 7 OF 9



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD

SOUND BARRIER WALL #9

ASSEMBLED BY : M. SHAHIDI	DATE : 4/19/16
CHECKED BY : T. H. FANG	DATE : 4/20/16
DRAWN BY : MAA 6/11	ADDED 10/1/11
CHECKED BY : GM 6/11	REV. 1/15/14 RWW/TMG
	REV. 9/26/14 MAA/TMG

DocuSigned by:
Ting Fang
E72088400977435

7/1/2016

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO. SW-7
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 9
2			4			