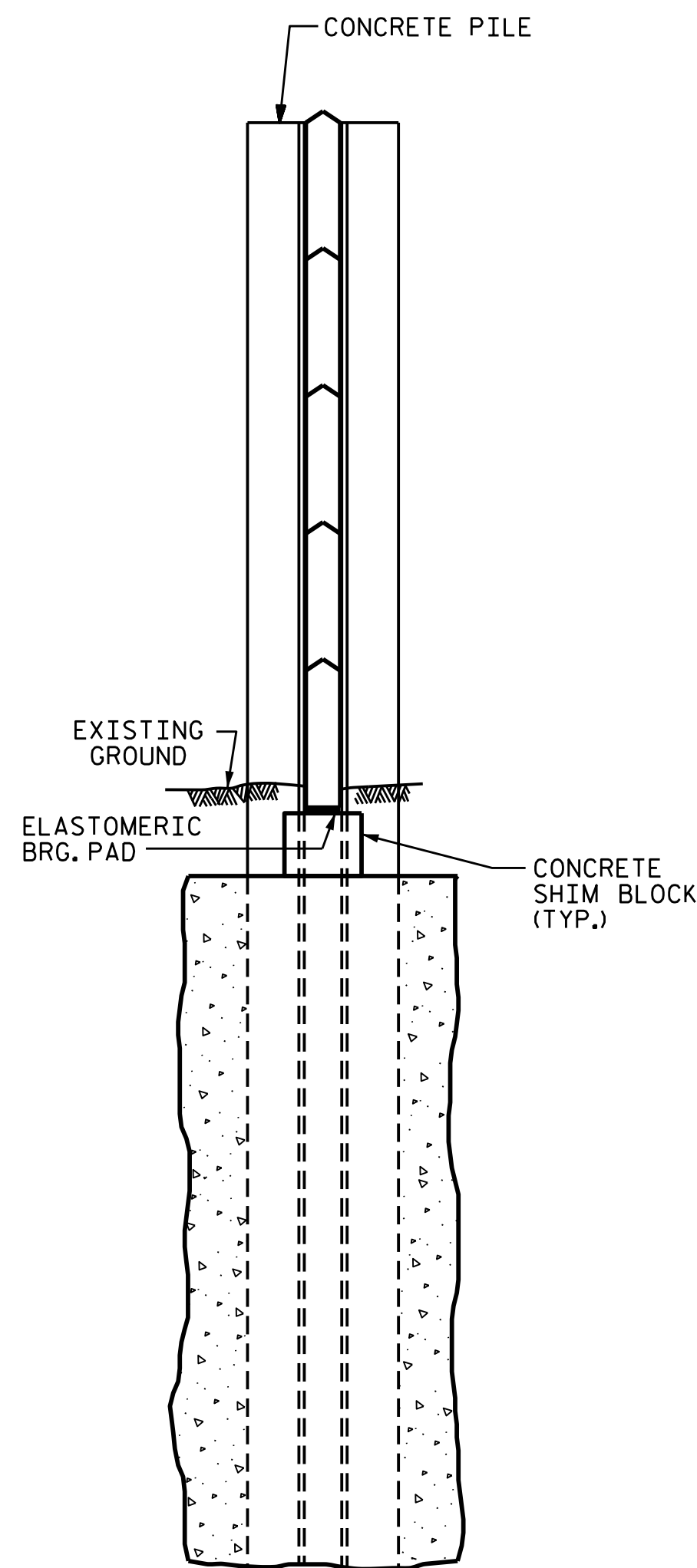
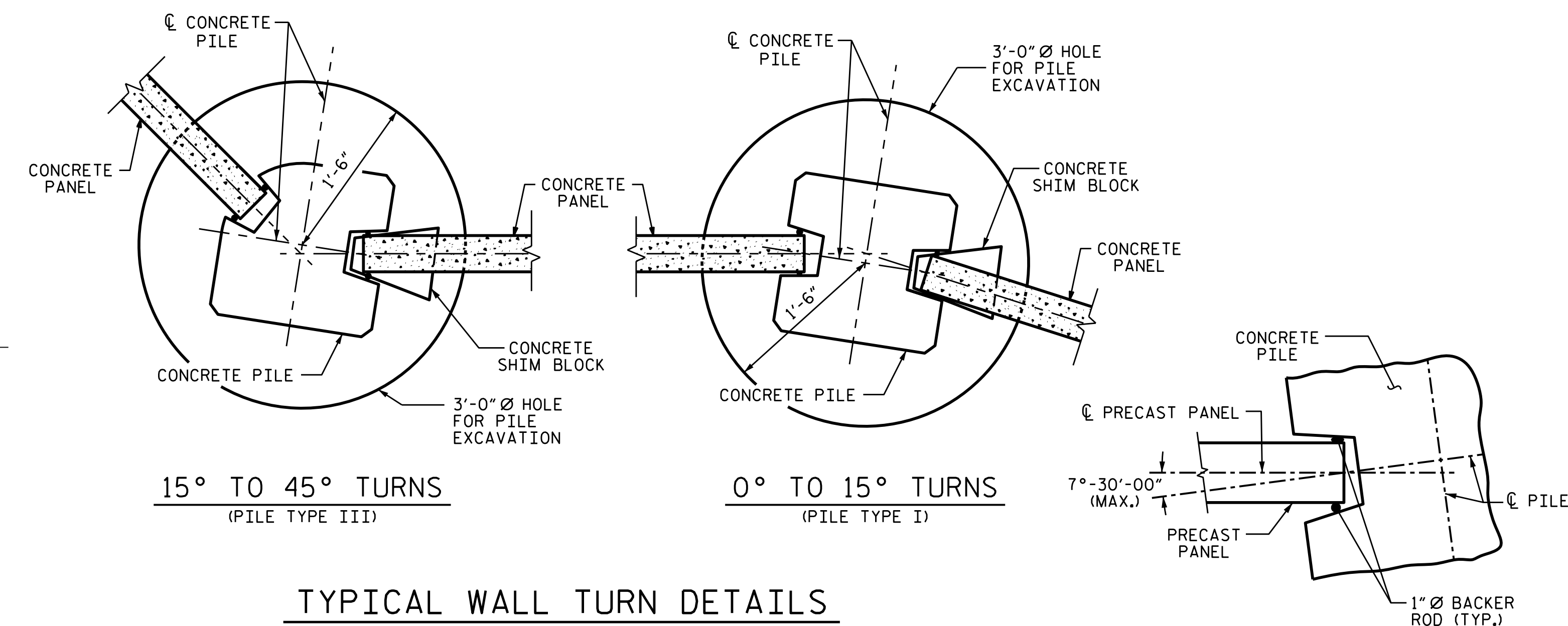


ELEVATION



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 #7	FROM : STA. 456+19.17 -L- (75.00 RT.)	TO : STA. 1+17.80 -SPCY8- (68.33 RT.)
WALL STATION -NW7-	PILE SPACING	DEPTH "D"
STA. 10+00 -NW7- TO STA. 15+85 -NW7-	10'-0"	11'-0"
	15'-0"	13'-0"
STA. 15+85 -NW7- TO STA. 22+60 -NW7-	10'-0"	13'-0"
	15'-0"	15'-0"
STA. 22+60 -NW7- TO STA. 24+10 -NW7-	10'-0"	11'-0"
	15'-0"	12'-0"
STA. 24+10 -NW7- TO STA. 24+55 -NW7-	10'-0"	13'-0"
	15'-0"	16'-0"
STA. 24+55 -NW7- TO STA. 24+85 -NW7-	10'-0"	12'-0"
	15'-0"	14'-0"
STA. 24+85 -NW7- TO STA. 29+20 -NW7-	10'-0"	10'-0"
	15'-0"	12'-0"
STA. 29+20 -NW7- TO STA. 30+25 -NW7-	10'-0"	8'-0"
	15'-0"	9'-0"
STA. 30+25 -NW7- TO STA. 33+55 -NW7-	10'-0"	9'-0"
	15'-0"	11'-0"
STA. 33+55 -NW7- TO STA. 36+55 -NW7-	10'-0"	10'-0"
	15'-0"	12'-0"
STA. 36+55 -NW7- TO STA. 37+30 -NW7-	10'-0"	12'-0"
	15'-0"	14'-0"
STA. 37+30 -NW7- TO STA. 40+00 -NW7-	10'-0"	10'-0"
	15'-0"	12'-0"
STA. 40+00 -NW7- TO STA. 42+40 -NW7-	10'-0"	9'-0"
	15'-0"	11'-0"
STA. 42+40 -NW7- TO STA. 45+85 -NW7-	10'-0"	10'-0"
	15'-0"	12'-0"

BILL OF MATERIAL

SOUND BARRIER WALL #7	65,100 S.F.
QUANTITIES PROVIDED ARE APPROXIMATE AND ARE FOR BID PURPOSES ONLY.	

PROJECT NO. U-2524D
GUILFORD COUNTY
STATION: 456+19.17 -L-

SHEET 5 OF 9



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD

SOUND BARRIER WALL #7

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

NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	SW-5
1			3			TOTAL SHEETS 9
2			4			