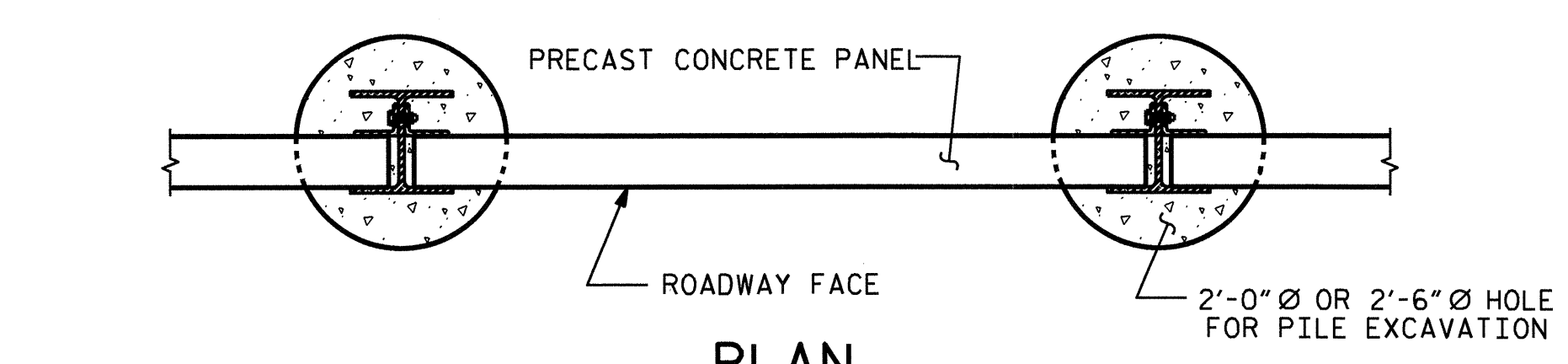
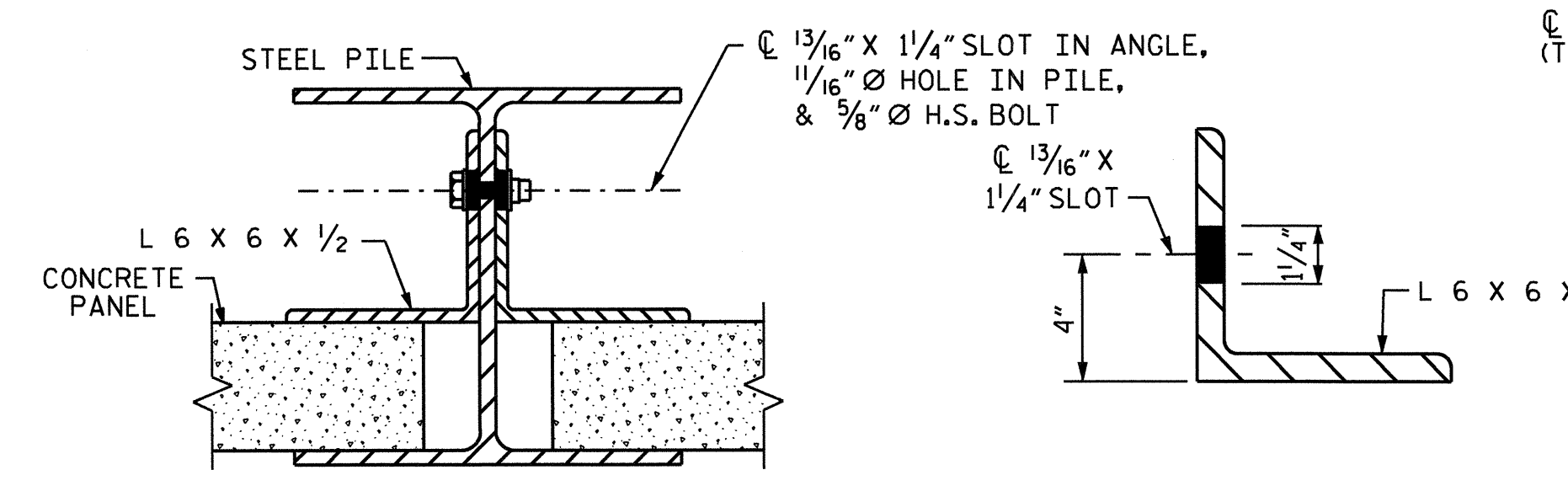


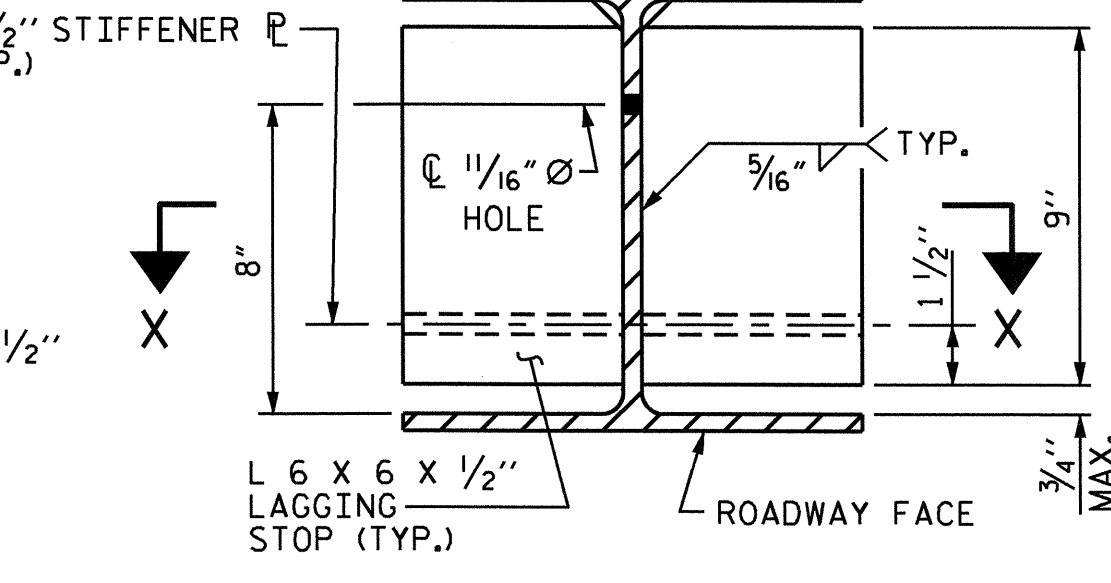
ELEVATION



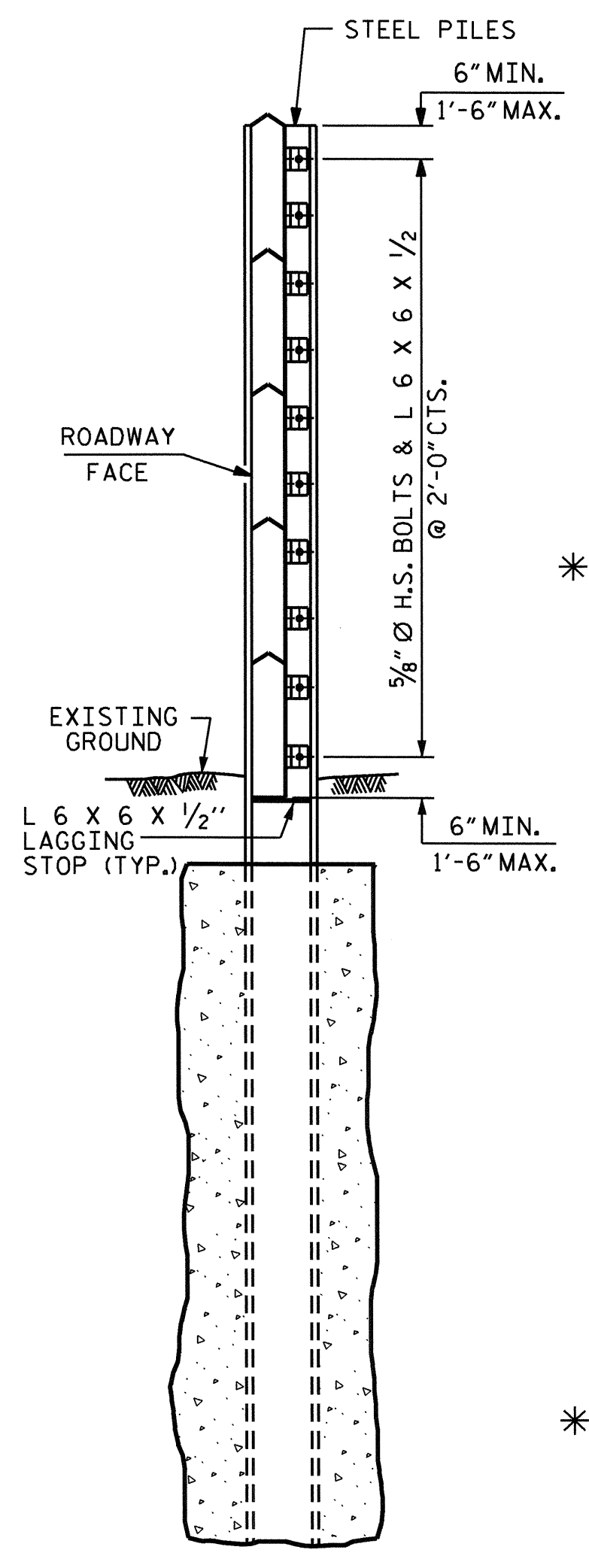
PLAN



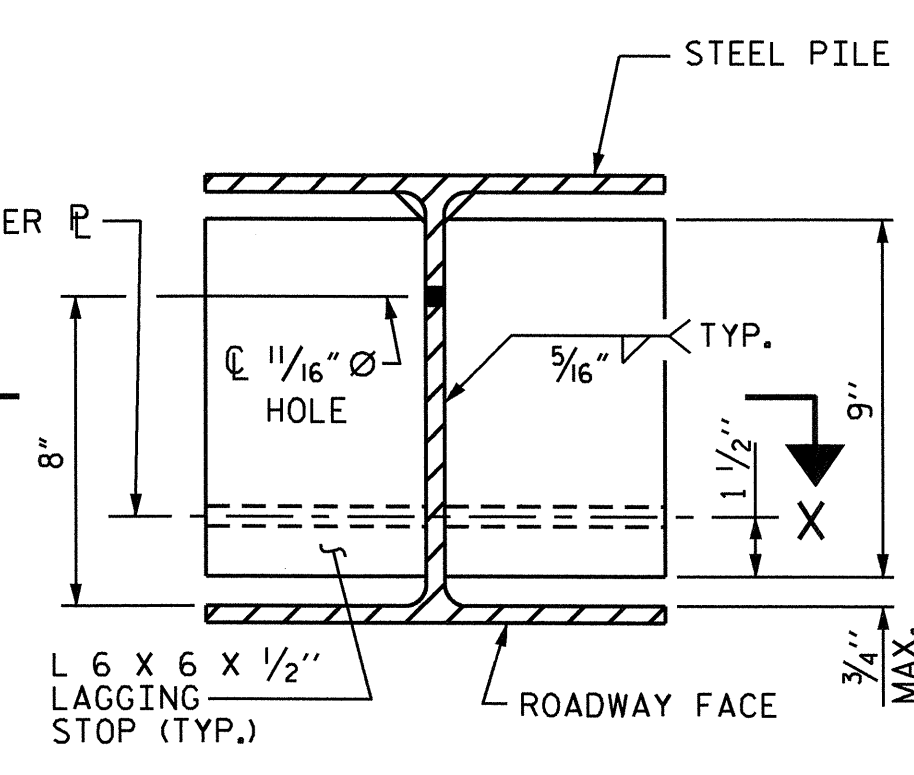
CONNECTION DETAIL



ANGLE DETAIL



SECTION B-B



SECTION A-A

PILE EXCAVATION

2'-0" Ø HOLE

WALL 1 (62'-6" LEFT)		
STATION	PILE SPACING	SHAFT DEPTH
STA. 114 + 40 -L-	10'-0"	19'-0"
TO STA. 132 + 80 -L-	15'-0"	22'-0"
WALL 2 (62'-6" RIGHT)		
STATION	PILE SPACING	SHAFT DEPTH
STA. 139 + 30 -L-	10'-0"	14'-0"
TO STA. 142 + 00 -L-	15'-0"	16'-0"
STA. 142 + 00 -L- TO STA. 153 + 71 -L- ±	10'-0"	17'-0"
STA. 153 + 71 -L- ± TO STA. 153 + 96 -L- ±	25'-0"	24'-0"
STA. 153 + 96 -L- ± TO STA. 156 + 00 -L-	10'-0"	17'-0"
STA. 156 + 00 -L- TO STA. 159 + 00 -L-	10'-0"	14'-0"
	15'-0"	16'-0"

2'-6" Ø HOLE

WALL 1 (62'-6" LEFT)		
STATION	PILE SPACING	SHAFT DEPTH
STA. 114 + 40 -L-	10'-0"	17'-0"
TO STA. 132 + 80 -L-	15'-0"	20'-0"
WALL 2 (62'-6" RIGHT)		
STATION	PILE SPACING	SHAFT DEPTH
STA. 139 + 30 -L-	10'-0"	13'-0"
TO STA. 142 + 00 -L-	15'-0"	15'-0"
STA. 142 + 00 -L- TO STA. 153 + 71 -L- ±	10'-0"	15'-0"
STA. 153 + 71 -L- ± TO STA. 153 + 96 -L- ±	25'-0"	22'-0"
STA. 153 + 96 -L- ± TO STA. 156 + 00 -L-	10'-0"	15'-0"
STA. 156 + 00 -L- TO STA. 159 + 00 -L-	10'-0"	13'-0"
	15'-0"	15'-0"

* FOR SOUNDWALL PANEL WITH 25' PILE SPACING, SEE SHEET 3 OF 3.

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.

USE STEEL PILES, ANGLES, AND LAGGING STOPS MEETING THE REQUIREMENTS OF AASHTO M270, GRADE 50. GALVANIZE ALL STEEL COMPONENTS INCLUDING PILES, ANGLES, LAGGING STOPS, BOLTS, NUTS, AND WASHERS IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS. REPAIR ANY DAMAGED GALVANIZATION IN ACCORDANCE WITH ARTICLE 1076-7 OF THE STANDARD SPECIFICATIONS.

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

AT THE CONTRACTOR'S OPTION, USE AN APPROVED NON-SHRINK NON-METALLIC GROUT BETWEEN THE FLANGES OF THE STEEL PILES TO SUPPORT THE BOTTOM PANEL IN LIEU OF LAGGING STOPS.

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

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

PROVIDE PLATES AND ANGLES TO SECURE PANELS 6" LONG AS MEASURED ALONG THE STEEL PILE.

AT THE CONTRACTOR'S OPTION, USE EITHER 'W' OR 'HP' PILES THAT SATISFY THE MINIMUM PILE SIZE REQUIRED IN THE "EXPOSURE CATEGORY" TABLE. PILES SMALLER THAN W12 OR HP12 ARE NOT PERMITTED. AT TURNS WITH A 3 FOOT DIAMETER HOLE FOR PILE EXCAVATION, USE ONLY W12 OR HP12 PILES, AS SHOWN.

AT THE CONTRACTOR'S OPTION, USE EITHER 10 FOOT OR 15 FOOT PILE SPACINGS, AND EITHER 2 FOOT OR 2 1/2 FOOT DIAMETER HOLES FOR PILE EXCAVATION, EXCEPT FOR WALL TURNS.

FOR WALL TURNS, PROVIDE HOLES FOR PILE EXCAVATION AS SHOWN ON THE PLANS. A 2 FOOT DIAMETER HOLE FOR PILE EXCAVATION IS NOT AN OPTION. FOR 3 FOOT DIAMETER HOLES AT TURNS, USE DEPTHS DESIGNATED FOR THE 2 1/2 FOOT DIAMETER HOLES.

AT THE CONTRACTOR'S OPTION, USE CONTINUOUS FLIGHT AUGER PILES IN LIEU OF PILE EXCAVATION FOR SOUND BARRIER WALL FOUNDATIONS. FOR CONTINUOUS FLIGHT AUGER PILES FOR SOUND BARRIER WALLS, SEE SPECIAL PROVISIONS.

DO NOT SPLICE STEEL PILES.

FOR FAA REQUIREMENTS, SEE ROADWAY SPECIAL PROVISIONS.

CONTRACTOR TO SUBMIT NEOPRENE PAD TYPE FOR APPROVAL.

FOR FALSWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR SOUND BARRIER WALL STATIONS, OFFSETS, AND WALL ENVELOPE, SEE ROADWAY PLANS.

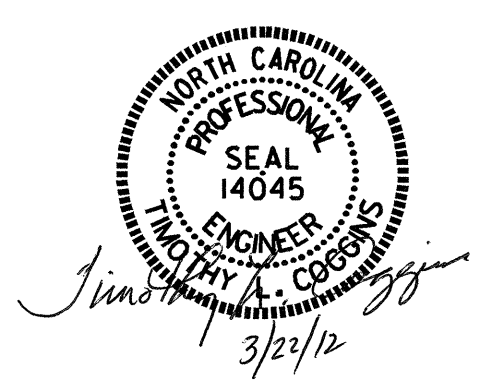
EXPOSURE CATEGORY C			
DESIGN WIND PRESSURE =			
34 PSF (0' < H ≤ 14'); 42 PSF (14' < H ≤ 29')			
PILE SPACING	MAXIMUM WALL HEIGHT (H)	MINIMUM W SIZE STEEL PILES	MINIMUM HP SIZE STEEL PILES
10'	H ≤ 25'	W 12 X 40 OR W 14 X 48	HP 12 X 53 OR HP 14 X 73
	25' < H ≤ 29'	W 12 X 53 OR W 14 X 48	HP 12 X 53 OR HP 14 X 73
15'	H ≤ 20'	W 12 X 40 OR W 14 X 48	HP 12 X 53 OR HP 14 X 73
	20' < H ≤ 25'	W 12 X 58 OR W 14 X 53	HP 12 X 53 OR HP 14 X 73
25'	25' < H ≤ 29'	W 12 X 72 OR W 14 X 68	HP 12 X 84 OR HP 14 X 73
	H ≤ 20'		HP 14 X 73

PROJECT NO. R-2719AA

LENOIR COUNTY

STATION: 114+40.00 -L- (WALL 1)
& 139+30.00 -L- (WALL 2)

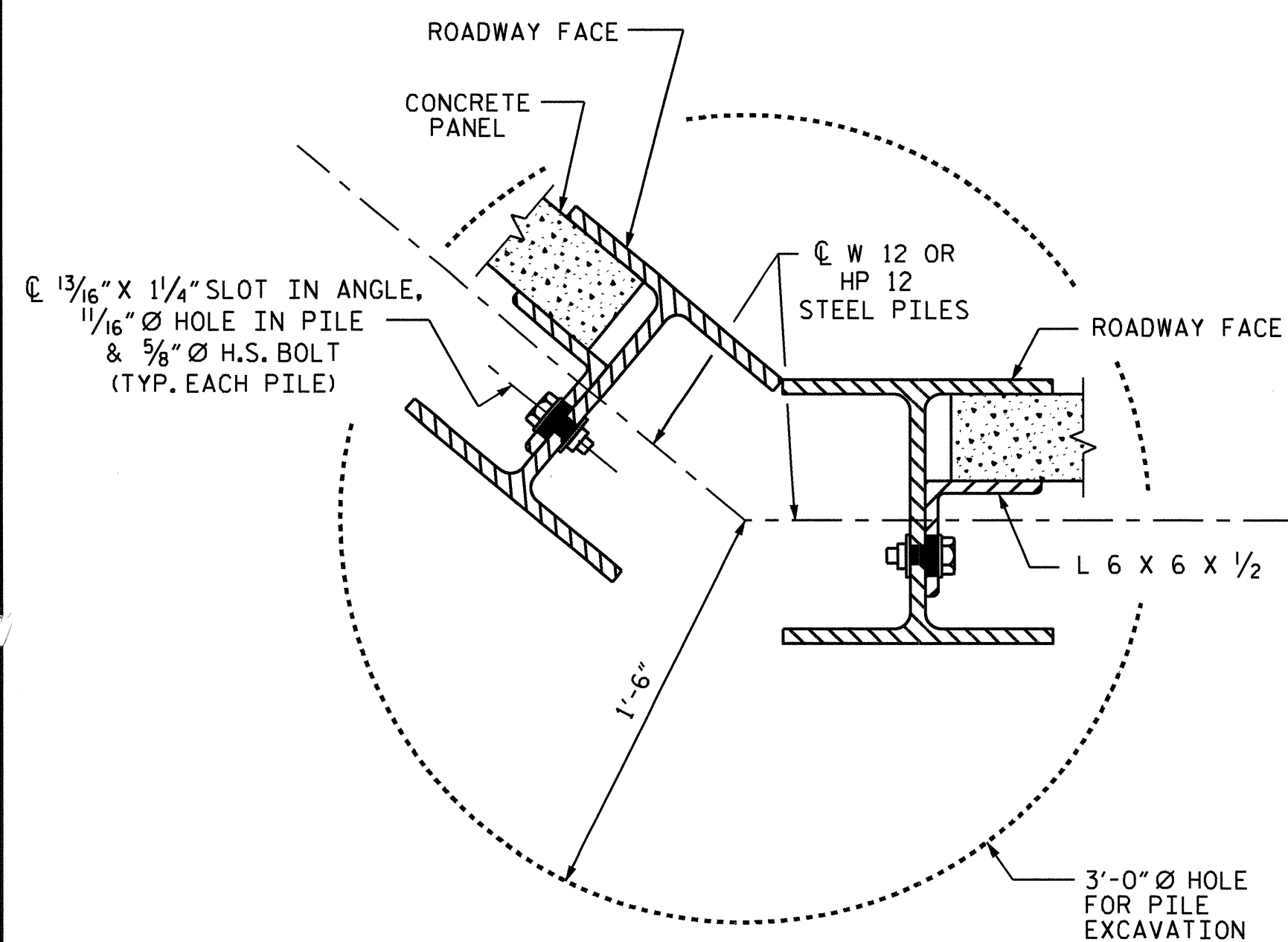
SHEET 1 OF 3



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SOUND BARRIER WALL (STEEL PILES)					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

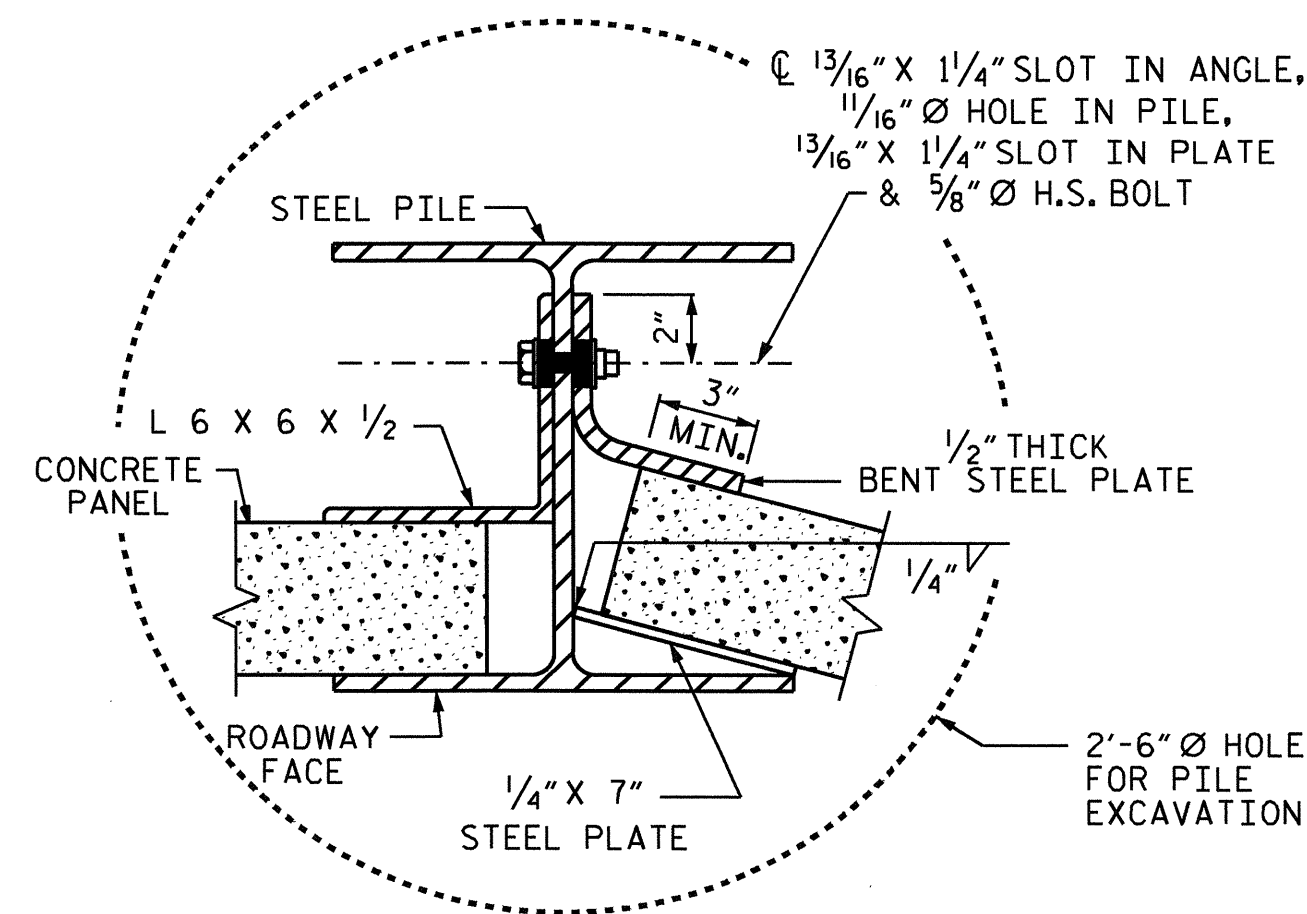
SHEET NO. SW-1
TOTAL SHEETS 3

ASSEMBLED BY : M. GUDLAUGSSON DATE : 08/2008
 CHECKED BY : T.L. COGGINS DATE : 08/2008
 DRAWN BY : JAD 5/01 REV. 5/7/03 RWW/JTE
 CHECKED BY : RDR 5/01 REV. 5/1/06RR KMM/GM
 REV. 10/1/11 MAA/GM



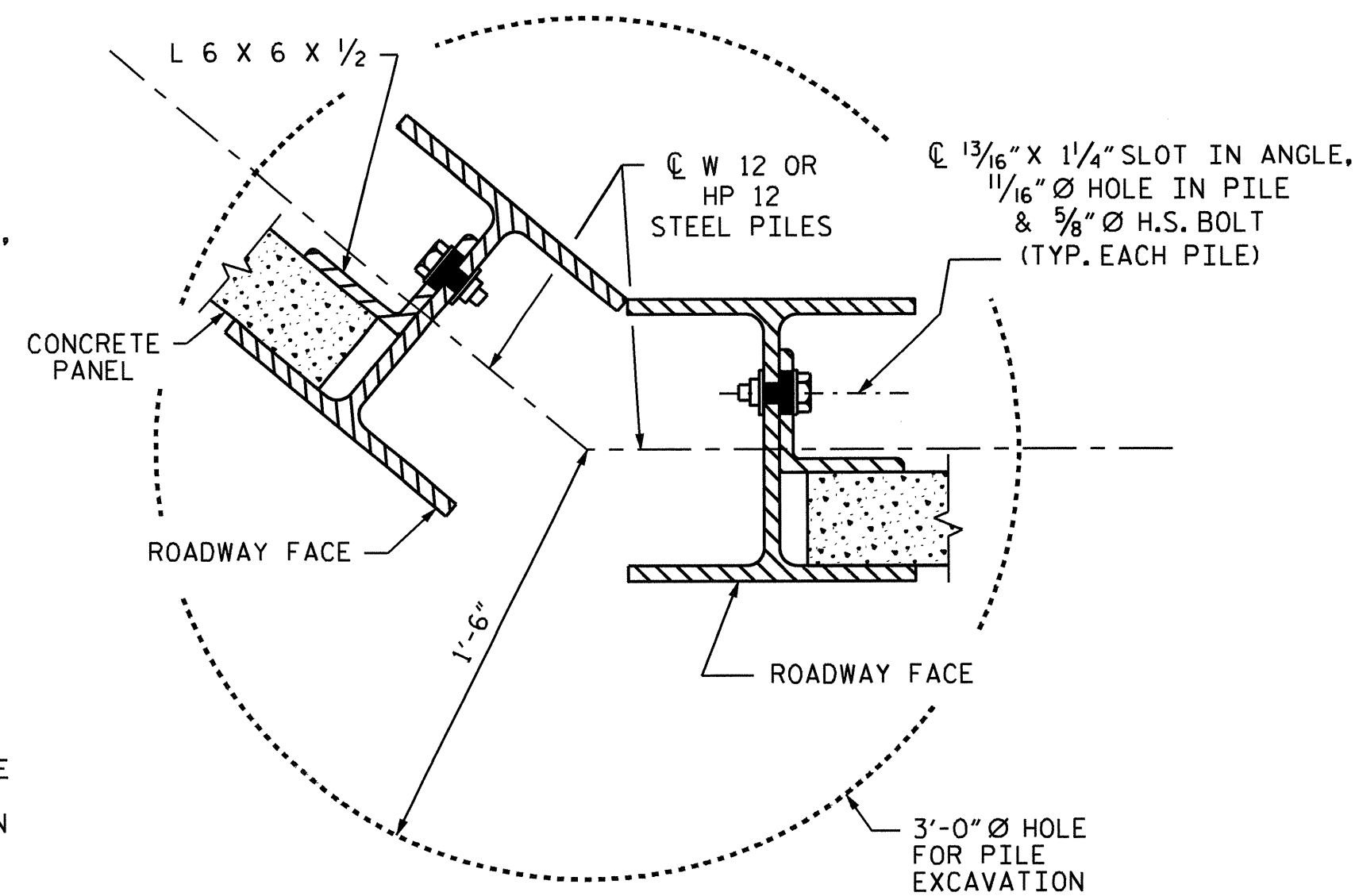
TYPICAL WALL TURN DETAIL

(FOR GREATER THAN 15° TURNS, CONCAVE TOWARD ROADWAY)



TYPICAL WALL TURN DETAIL

(USE ONLY FOR TURNS 15° OR LESS, CONCAVE TOWARD ROADWAY)



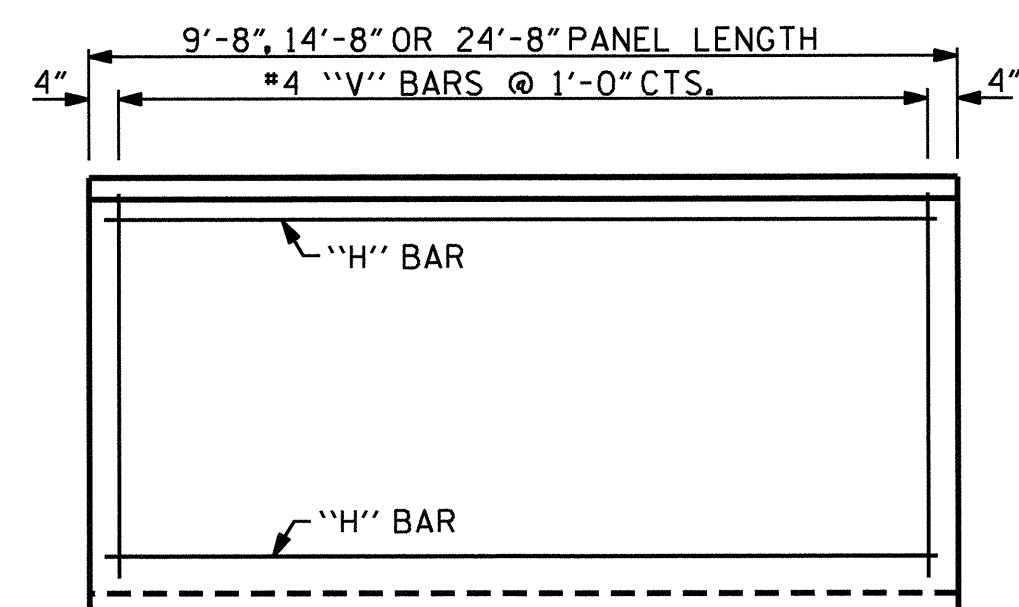
TYPICAL WALL TURN DETAIL

(FOR GREATER THAN 15° TURNS, CONVEX TOWARD ROADWAY)

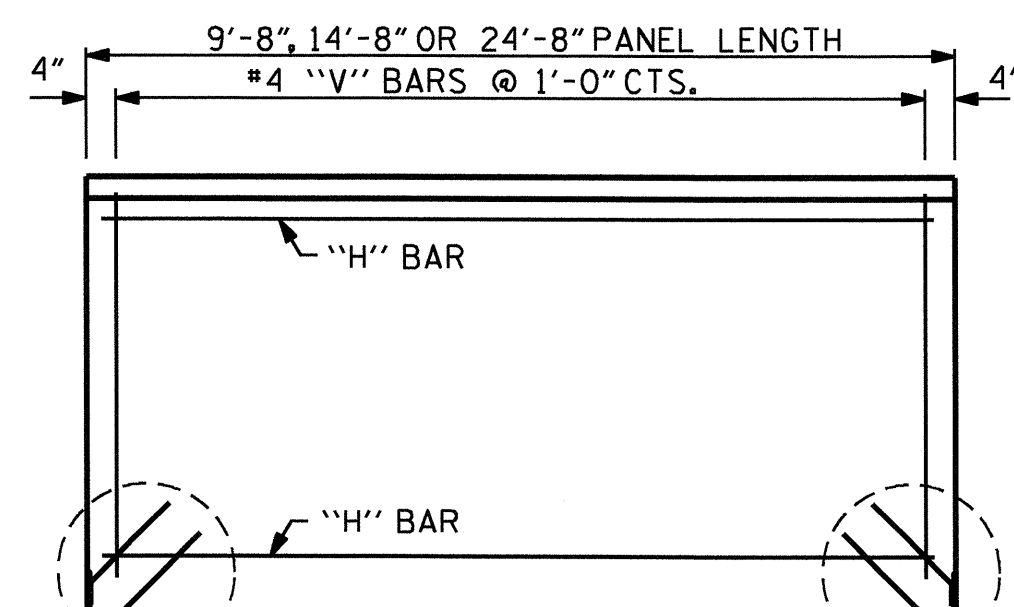
BILL OF MATERIAL	
SOUND BARRIER WALL 1	S.F. 36800
SOUND BARRIER WALL 2	S.F. 29234
TOTAL	S.F. 66034
QUANTITIES PROVIDED ARE APPROXIMATE AND ARE FOR BID PURPOSES ONLY.	

NOTE

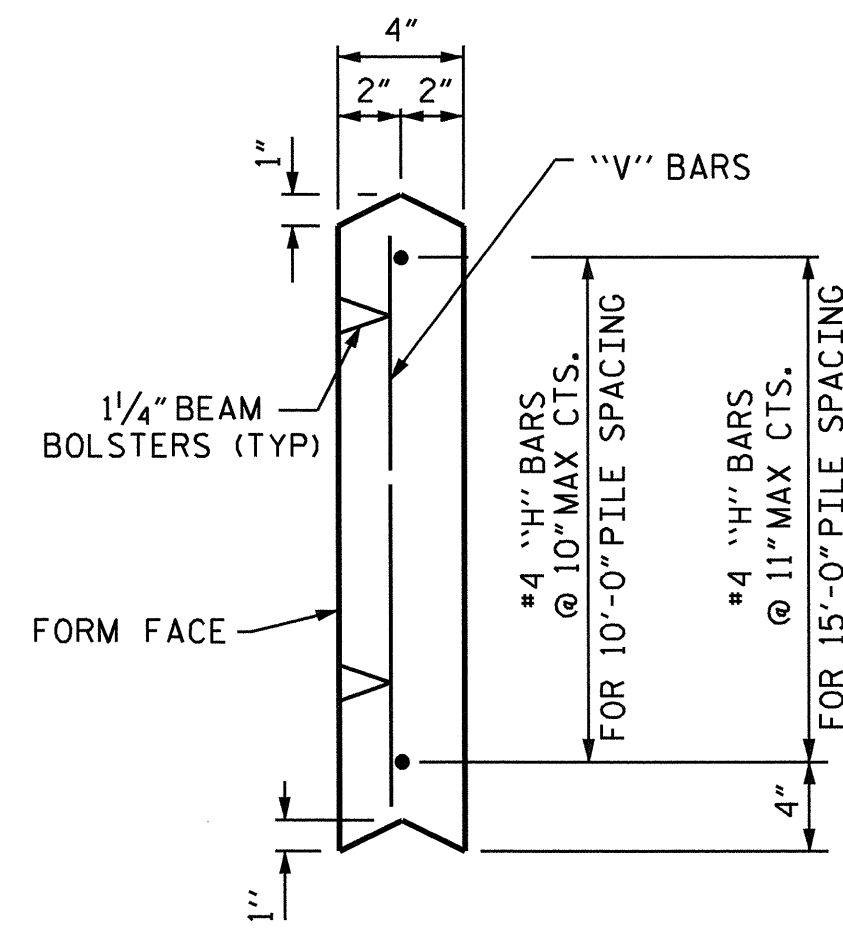
FOR PANELS LOCATED IN AREA OF CIRCULAR CURVE FOR WALL 1, MODIFICATIONS TO PANEL ARE LESS THAN 1/16". THE CONTRACTOR SHALL DETERMINE WHAT MODIFICATIONS ARE NECESSARY.



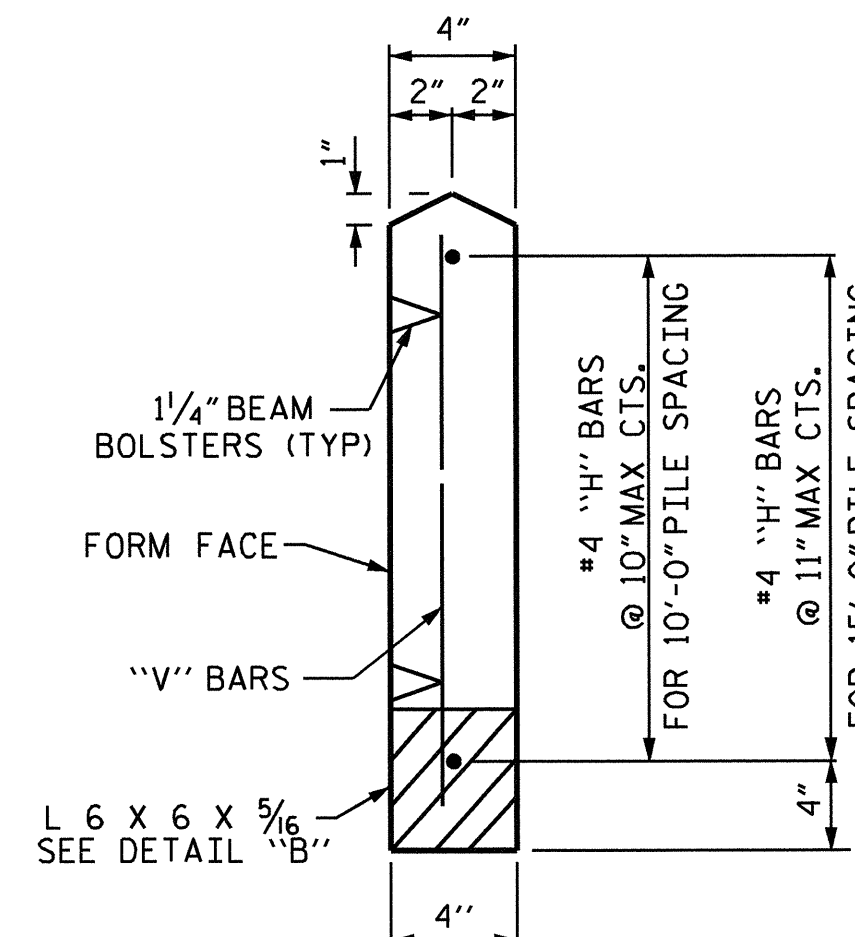
FRONT ELEVATION OF UPPER PRECAST PANELS



FRONT ELEVATION OF BOTTOM PRECAST PANEL



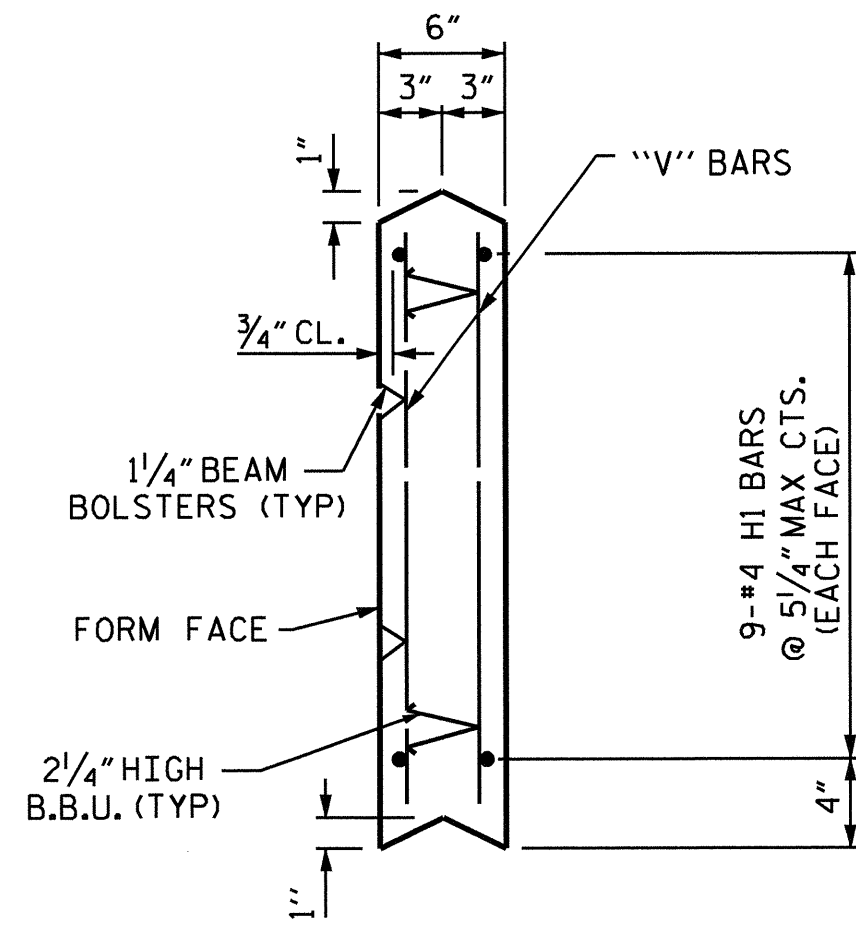
UPPER PANEL



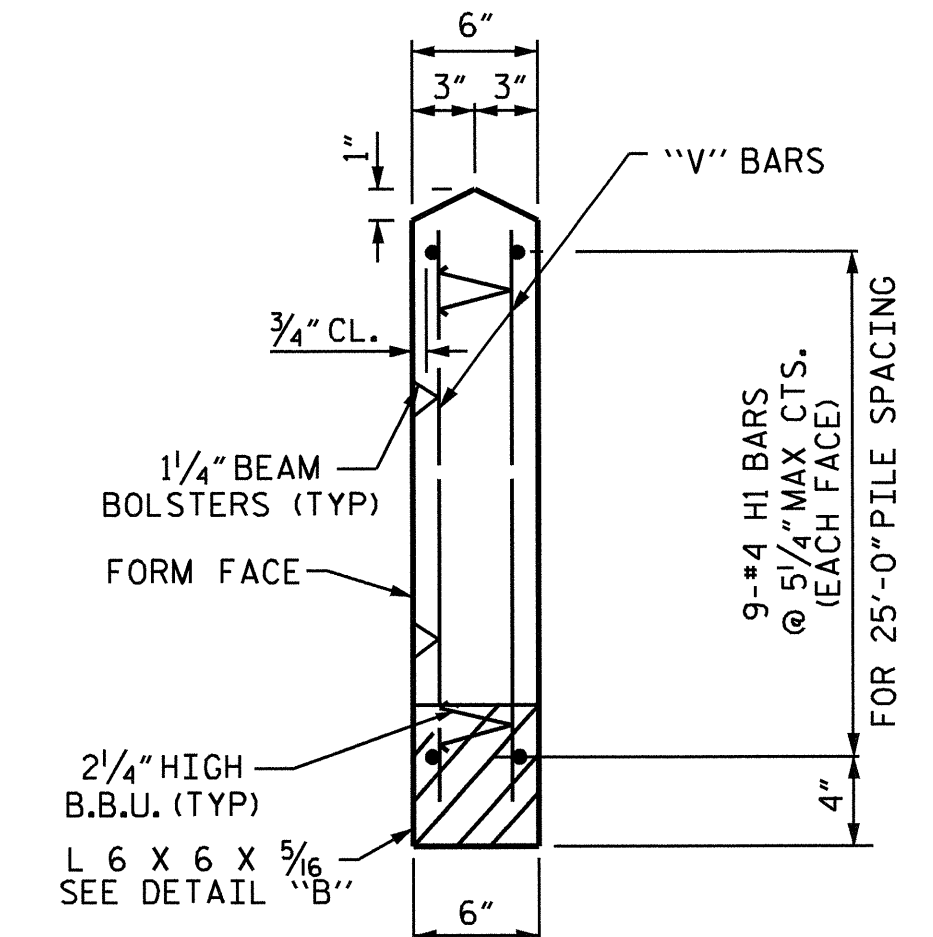
BOTTOM PANEL

SECTION THROUGH PRECAST PANELS

(FOR 10' AND 15' PANELS)



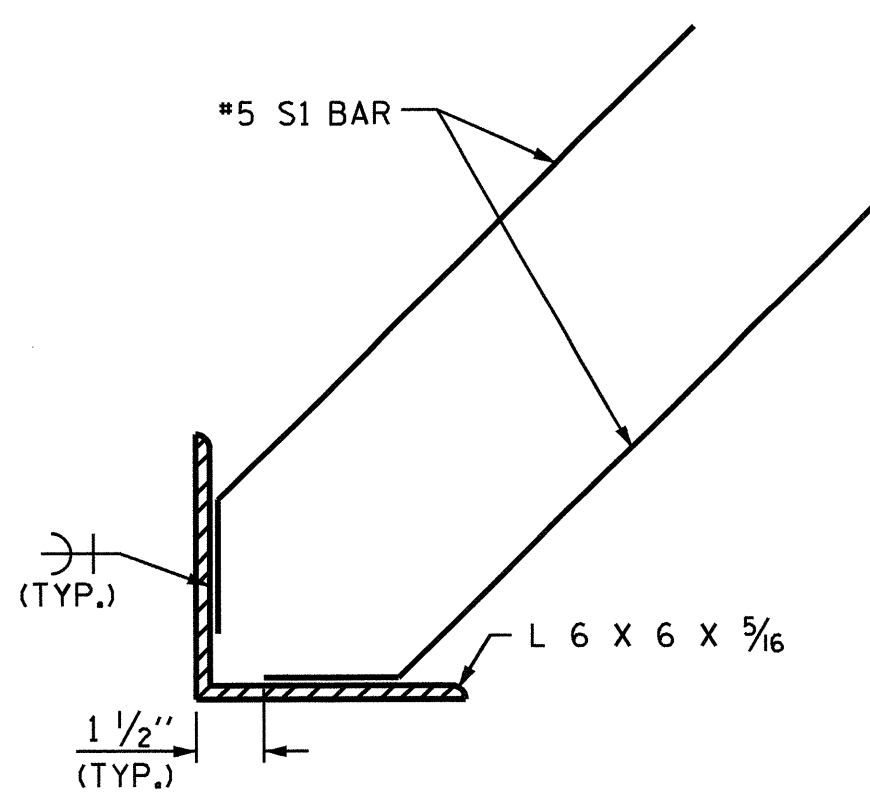
UPPER PANEL



BOTTOM PANEL

SECTION THROUGH PRECAST PANELS

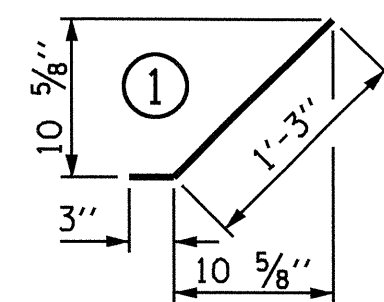
(FOR 25' PANEL)



DETAIL "B"

ADDITIONAL BARS FOR ONE BOTTOM PANEL					
NO.	BAR SIZE	TYPE	LENGTH	WEIGHT (lb)	
4	S1	#5	1'-6"	6	

BAR TYPE



QUANTITIES FOR ONE PRECAST PANEL (FOR 10'-0" PILE SPACING)													
PANEL HEIGHT	CLASS AA CONCRETE	BAR TYPES											
		HORIZONTAL					VERTICAL						
	C.Y.	NO.	BAR SIZE	TYPE	LENGTH	WEIGHT (lb)	NO.	BAR SIZE	TYPE	LENGTH	WEIGHT (lb)		
2'-0"	0.24	3	H1	#4	STR	9'-4"	19	10	V1	#4	STR	1'-8"	11
3'-0"	0.36	4	H2	#4	STR	9'-4"	25	10	V2	#4	STR	2'-8"	18
4'-0"	0.48	5	H3	#4	STR	9'-4"	31	10	V3	#4	STR	3'-8"	24

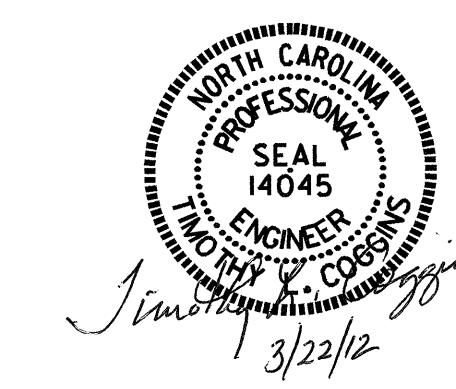
QUANTITIES FOR ONE PRECAST PANEL (FOR 15'-0" PILE SPACING)													
PANEL HEIGHT	CLASS AA CONCRETE	BAR TYPES											
		HORIZONTAL					VERTICAL						
	C.Y.	NO.	BAR SIZE	TYPE	LENGTH	WEIGHT (lb)	NO.	BAR SIZE	TYPE	LENGTH	WEIGHT (lb)		
3'-0"	0.54	4	H1	#4	STR	14'-4"	38	15	V1	#4	STR	2'-8"	27
4'-0"	0.72	5	H2	#4	STR	14'-4"	48	15	V2	#4	STR	3'-8"	37
5'-0"	0.91	6	H3	#4	STR	14'-4"	57	15	V3	#4	STR	4'-8"	47
6'-0"	1.09	7	H4	#4	STR	14'-4"	67	15	V4	#4	STR	5'-8"	57

QUANTITIES FOR ONE PRECAST PANEL (FOR 25'-0" PILE SPACING)													
PANEL HEIGHT	CLASS AA CONCRETE	BAR TYPES											
		HORIZONTAL					VERTICAL						
	C.Y.	NO.	BAR SIZE	TYPE	LENGTH	WEIGHT (lb)	NO.	BAR SIZE	TYPE	LENGTH	WEIGHT (lb)		
4'-0"	1.83	18	H1	#4	STR	24'-4"	293	50	V1	#4	STR	3'-8"	122

PROJECT NO. R-2719AA
LENOIR COUNTY
 STATION: 114+40.00 -L- (WALL 1)
 & 139+30.00 -L- (WALL 2)
 SHEET 2 OF 3

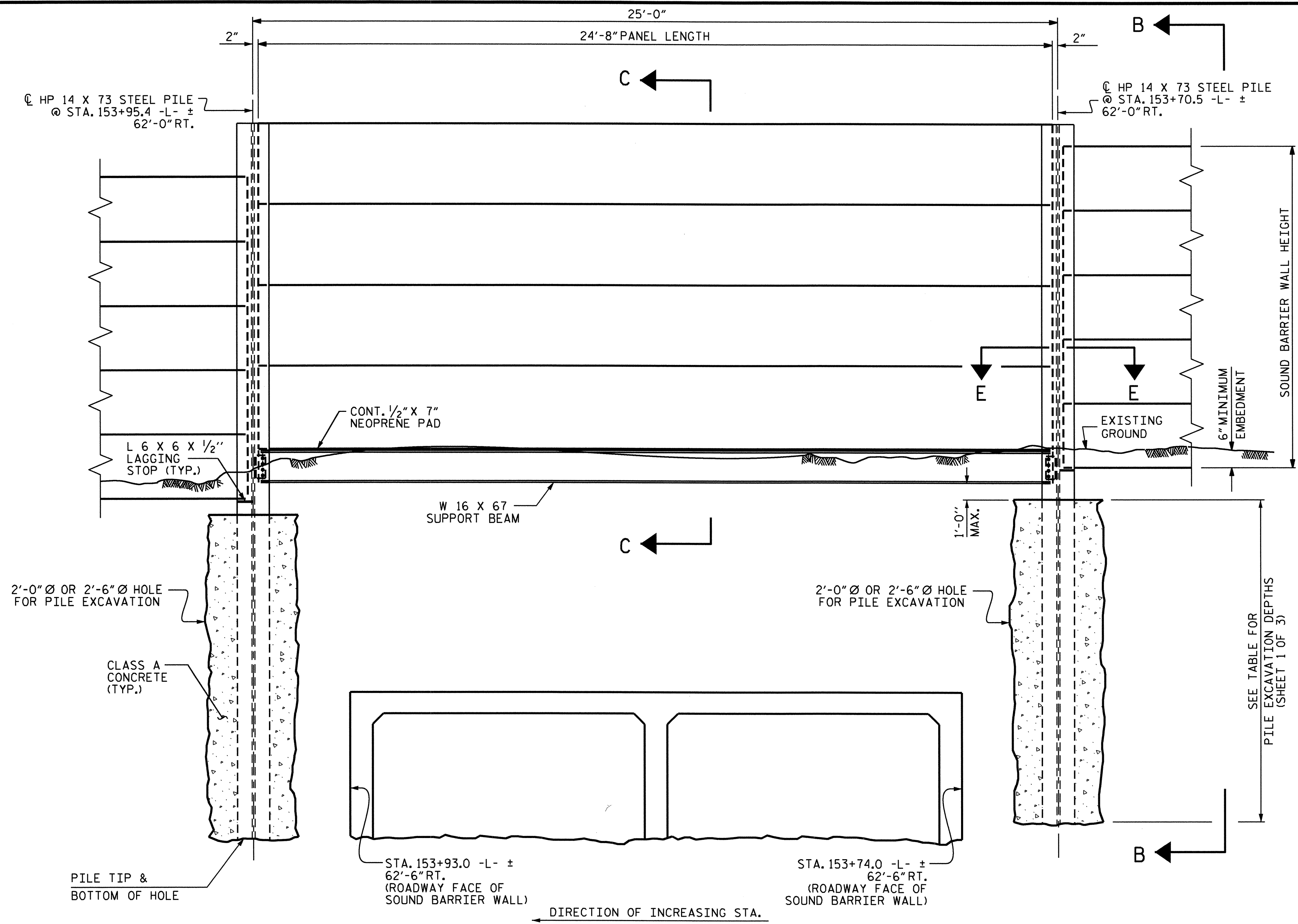
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SOUND BARRIER WALL DETAILS
 (STEEL PILES)

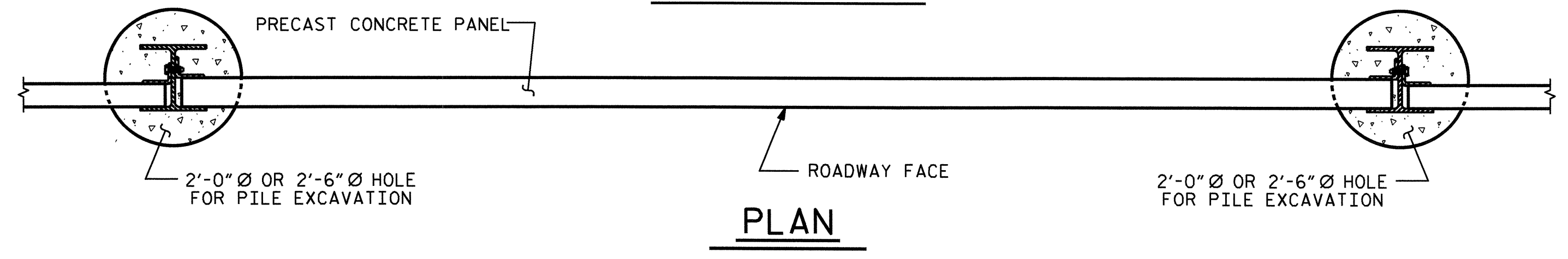


REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			SW-2
2			4			TOTAL SHEETS 3

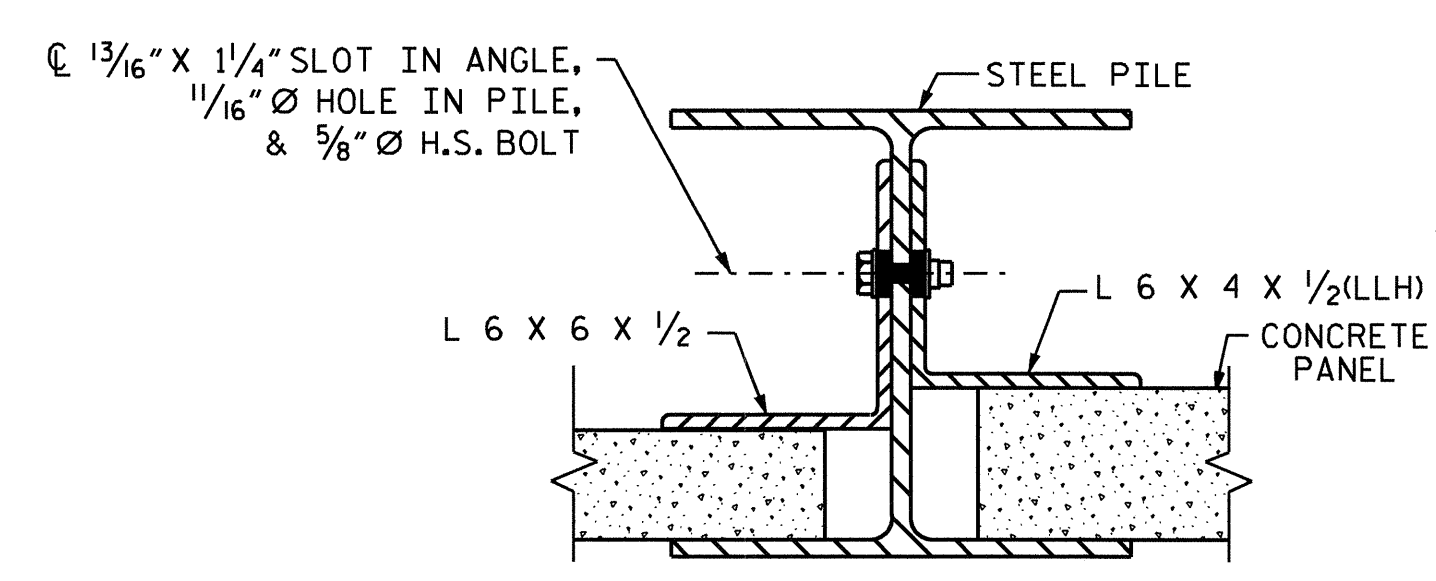
STD. NO. SBW5



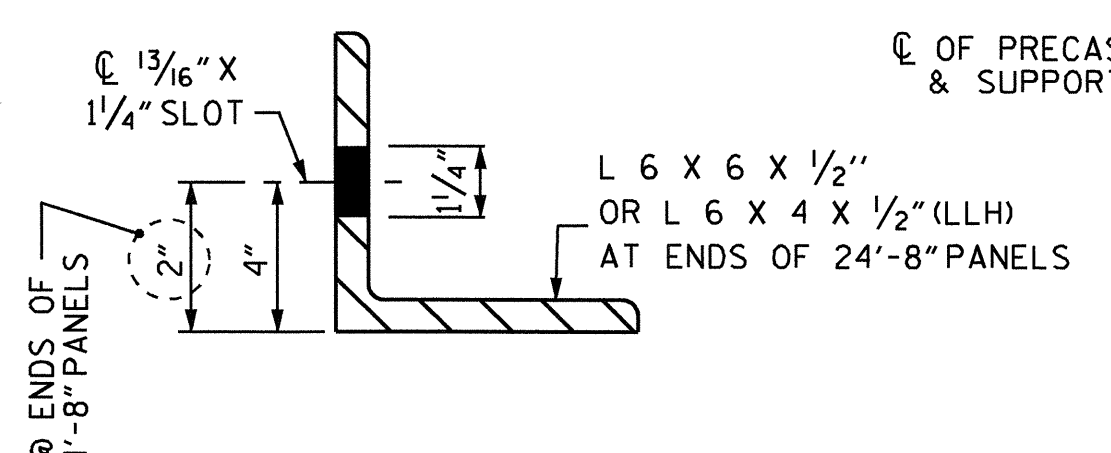
ELEVATION



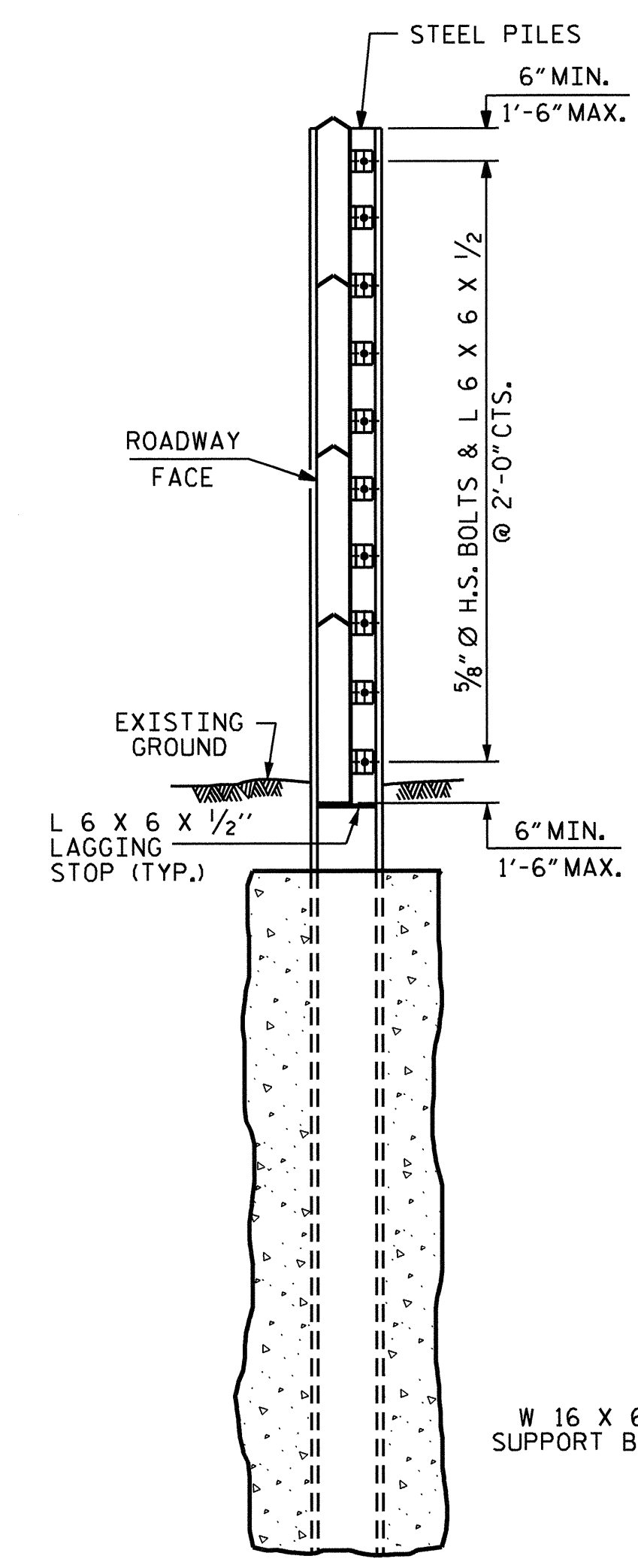
PLAN



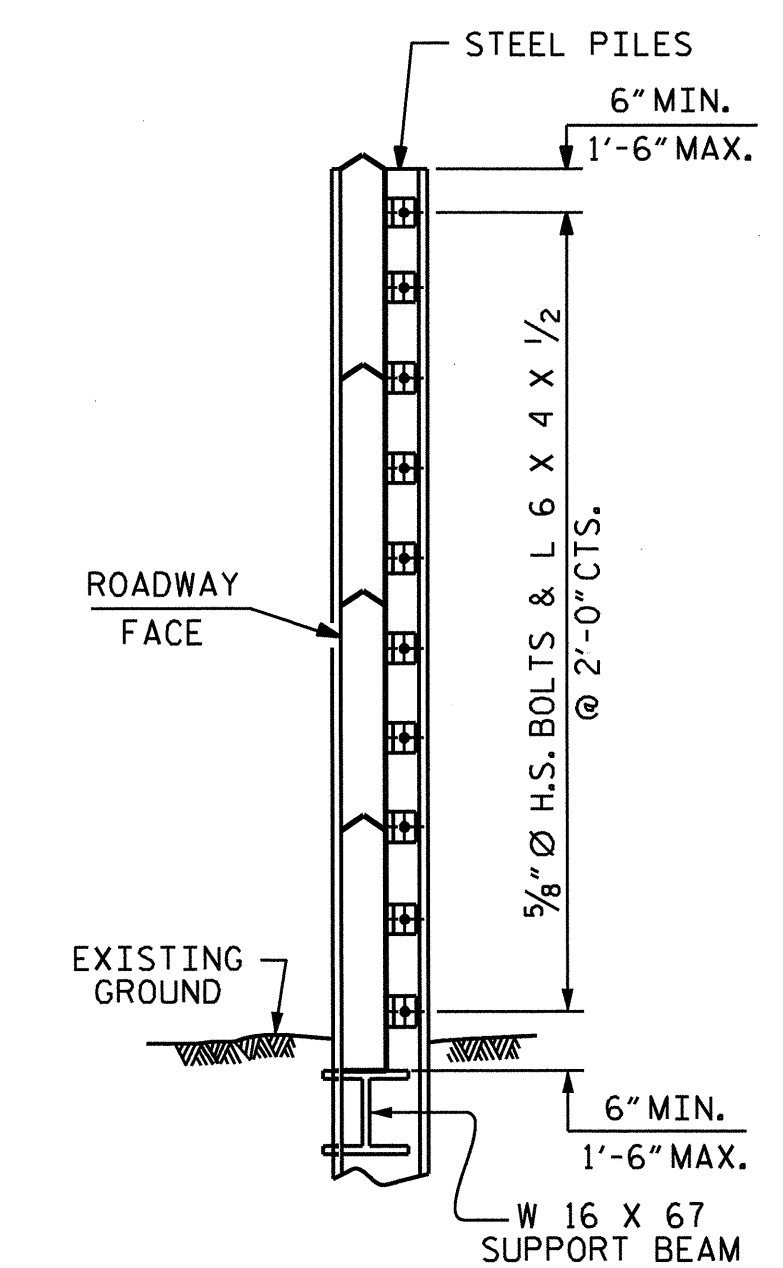
CONNECTION DETAIL



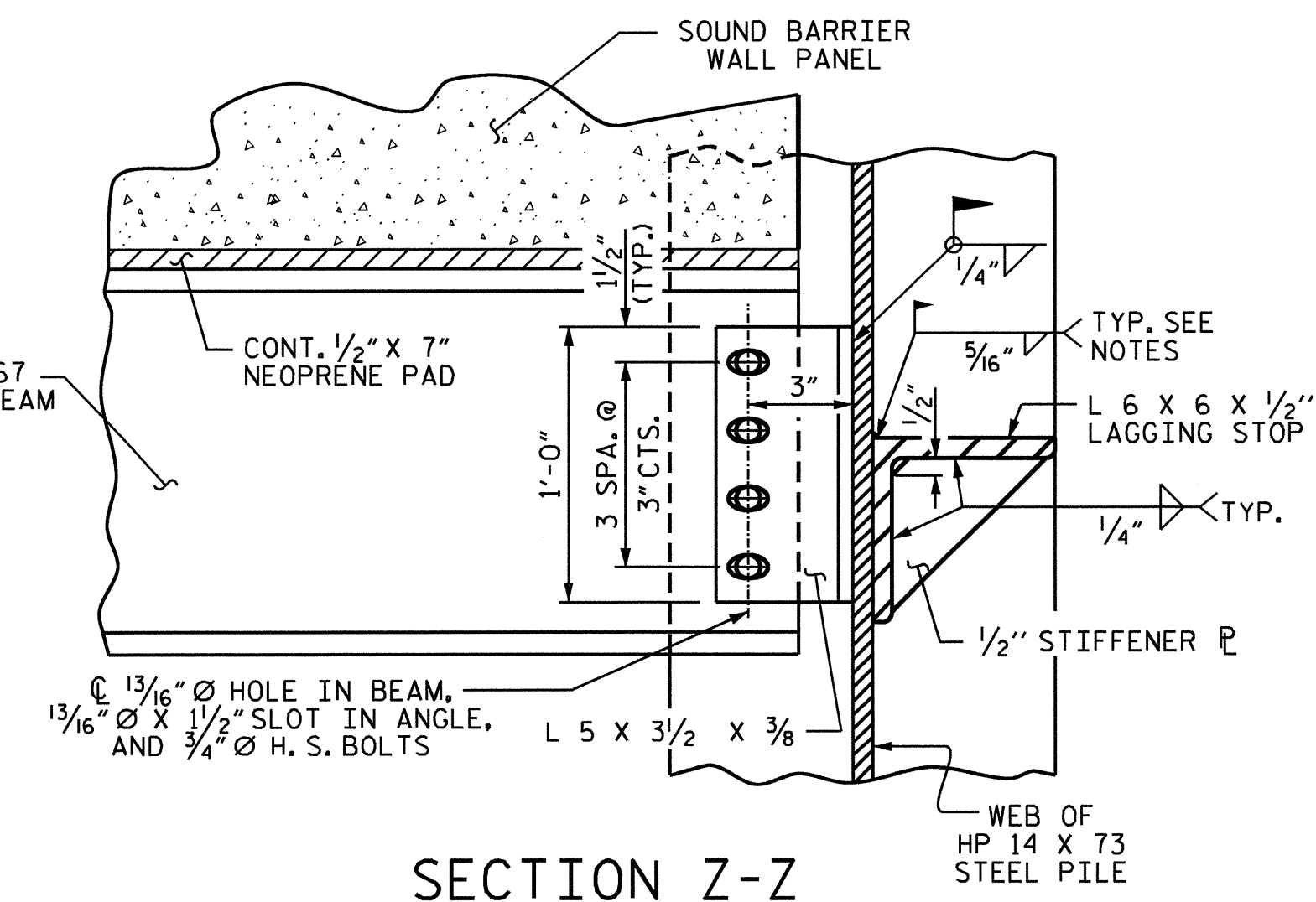
ANGLE DETAIL



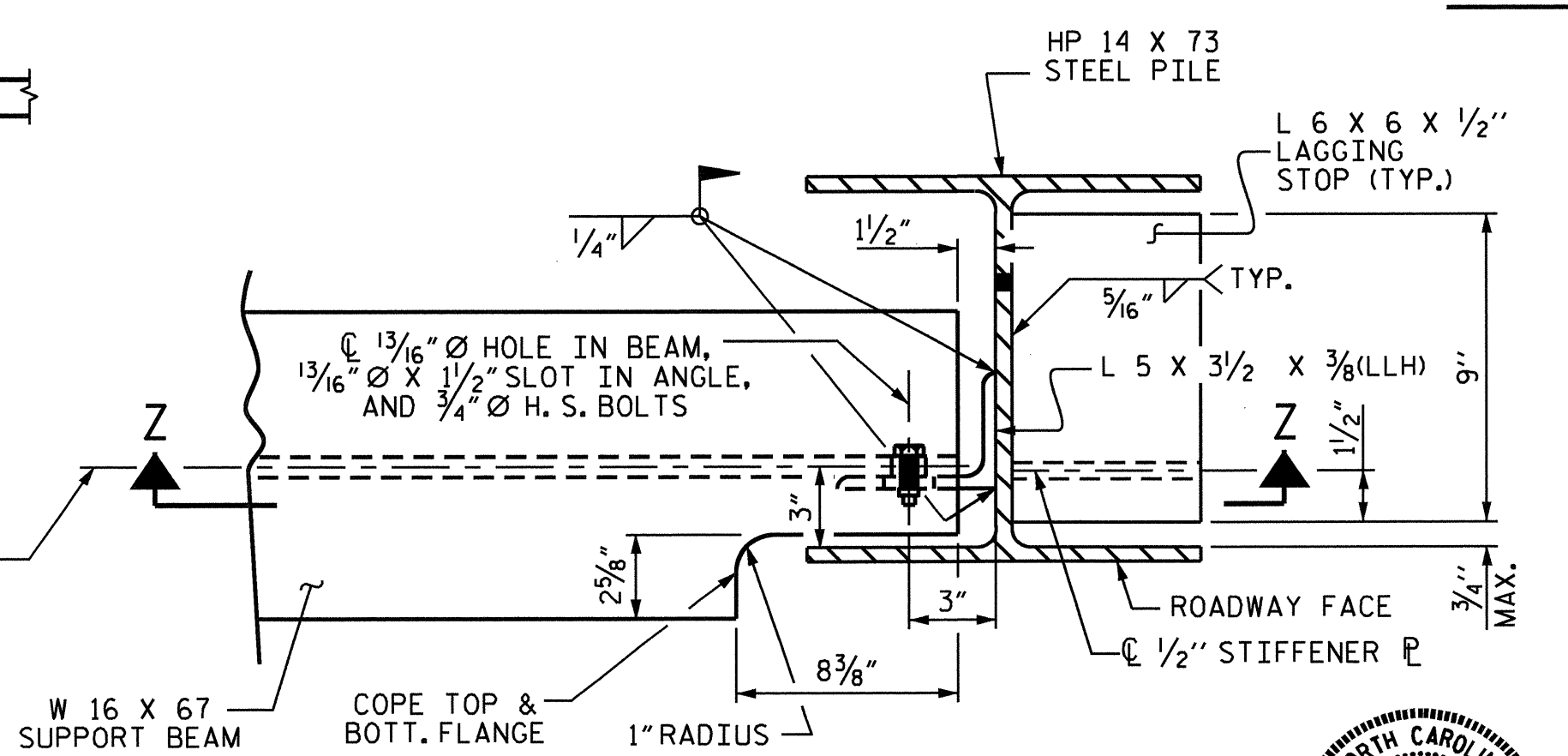
SECTION B-B



SECTION C-C



SECTION Z-Z

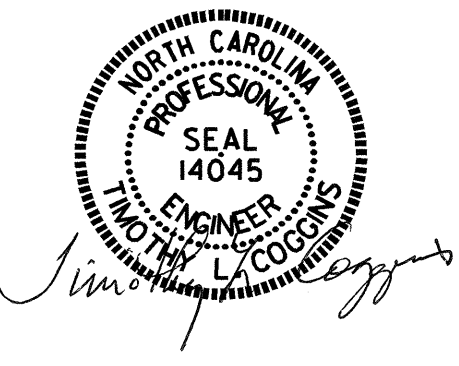


SECTION E-E

NOTE: PRECAST PANELS NOT SHOWN FOR CLARITY.

PROJECT NO. R-2719AA
LENOIR COUNTY
 STATION: 114+40.00 -L- (WALL 1)
 & 139+30.00 -L- (WALL 2)
 SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SOUND BARRIER WALL
 DETAILS FOR 25'-0"
 PILE SPACING
 FROM STA. 153+71 -L- ±
 TO 153+96 -L- ±



DRAWN BY: J.L. AVERETTE DATE: 09/08
 CHECKED BY: PEGGY PARISI DATE: 09/08

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