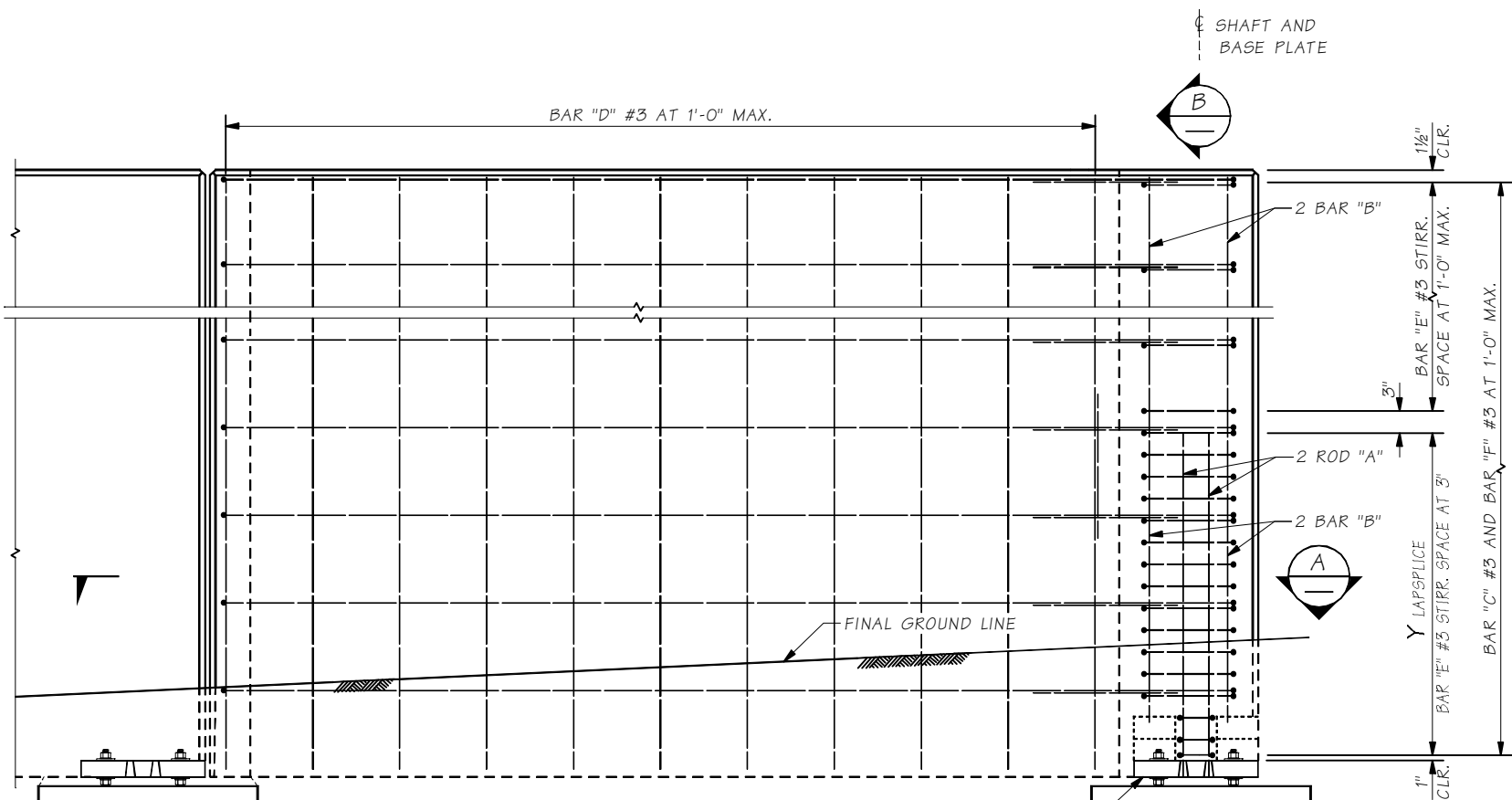
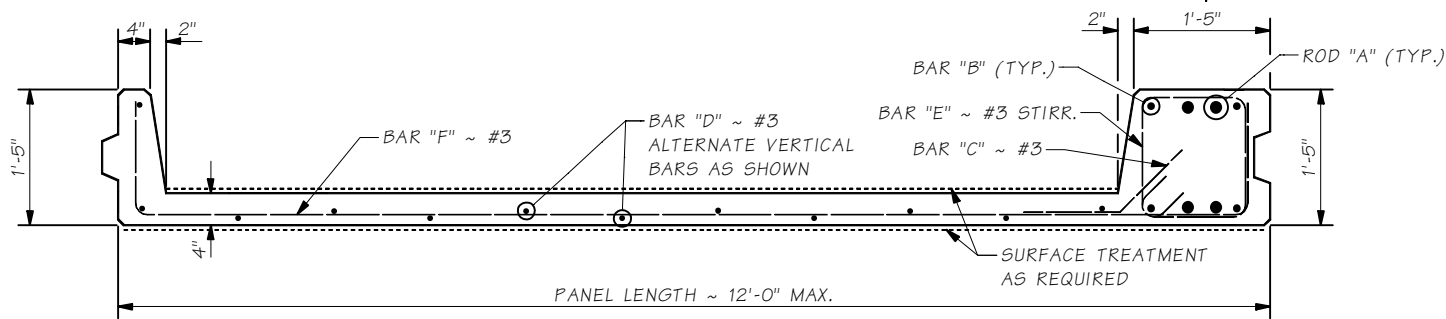


Last revised on : 11/29/2012

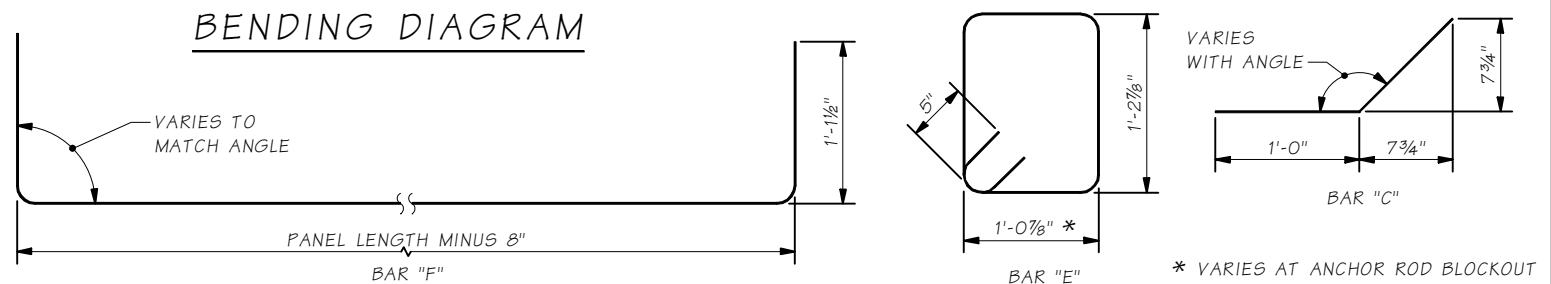
SHEETS
NO. FILE
SR



ELEVATION



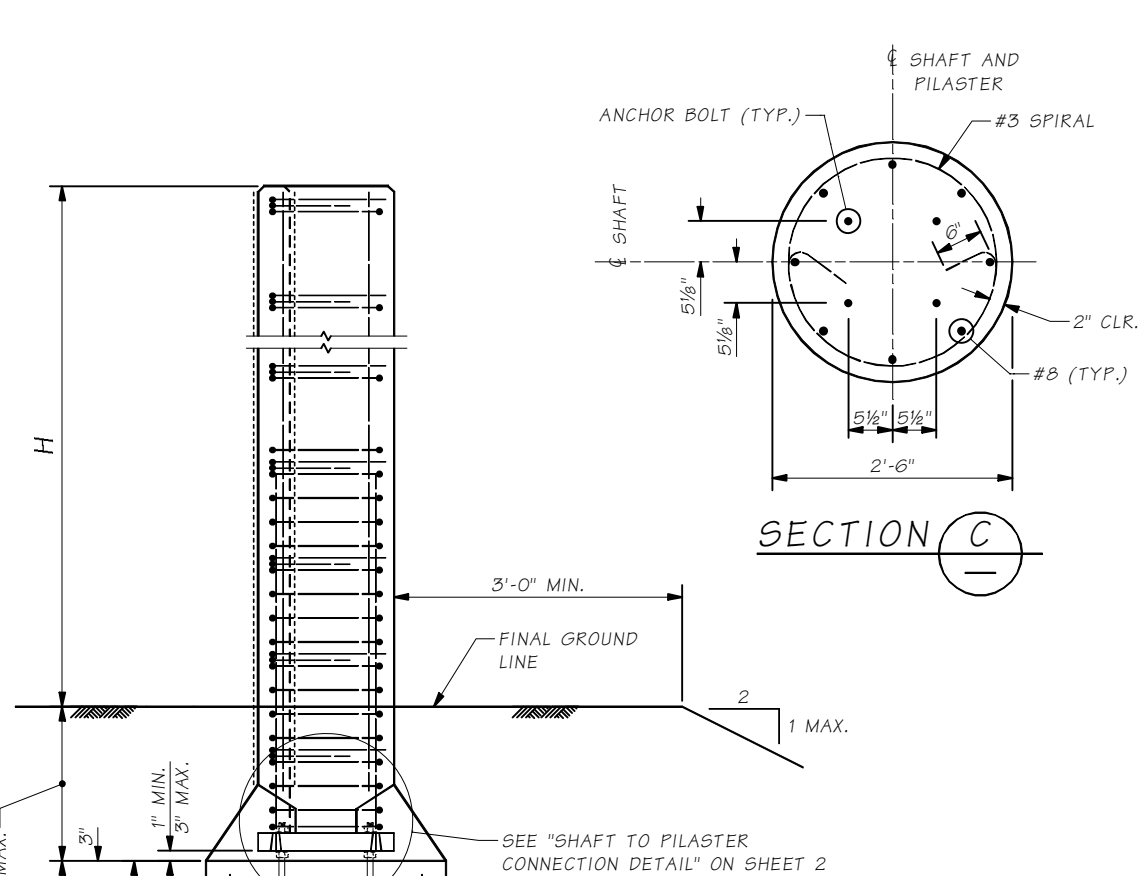
SECTION A



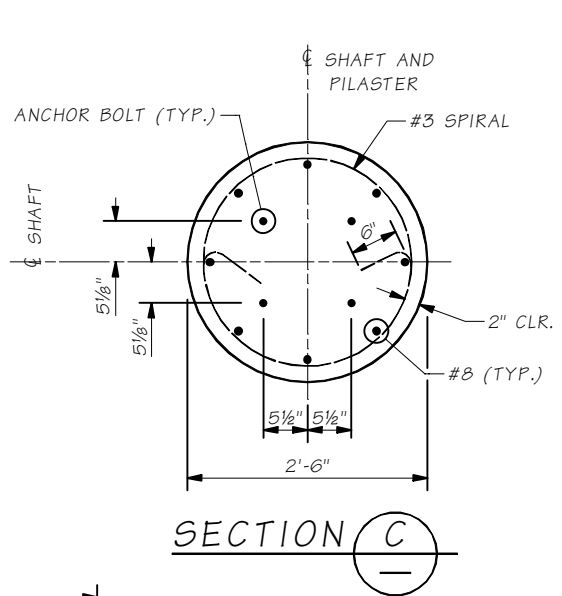
BENDING DIAGRAM

Bridge Design Engr.	M:\STANDARDS\Sound Barriers\PRECAST PANEL ON SHAFTS\PLATE OPTION\Sheet 1 of 3.MAN	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor		10	WASH.			
Designed By		JOB NUMBER				
Checked By						
Detailed By						
Bridge Projects Engr.						
Prelim. Plan By						
Architect/Specialist	DATE	REVISION	BY	APP'D		

BRIDGE
AND
STRUCTURES
OFFICE



SECTION B



SECTION C

NOTES:

- ALL RODS "A" AND ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 105.
- ANCHOR BOLTS, NUTS, WASHERS AND ROD "A" SHALL HAVE A PROTECTIVE COATING OF EITHER HOT DIPPED GALVANIZING AASHTO M232 FOR HARDWARE OR AASHTO M 111 FOR WASHERS AND PLATES.
- FOR INTERMEDIATE WALL HEIGHTS, USE THE NEXT HIGHER H.
- PANELS SHALL HAVE AT LEAST 3 FEET OF LEVEL GROUND ON EACH SIDE.
- THE CONTRACT SPECIFIES ACTUAL FOUNDATION REQUIREMENTS D1 OR D2.
- MAXIMUM PANEL LENGTH SHALL BE 12 FEET.



Washington State
Department of Transportation

SOUND BARRIER
PRECAST CONCRETE PANEL
WITH PILASTERS ON DRILLED SHAFTS

SHEET 1 OF 3

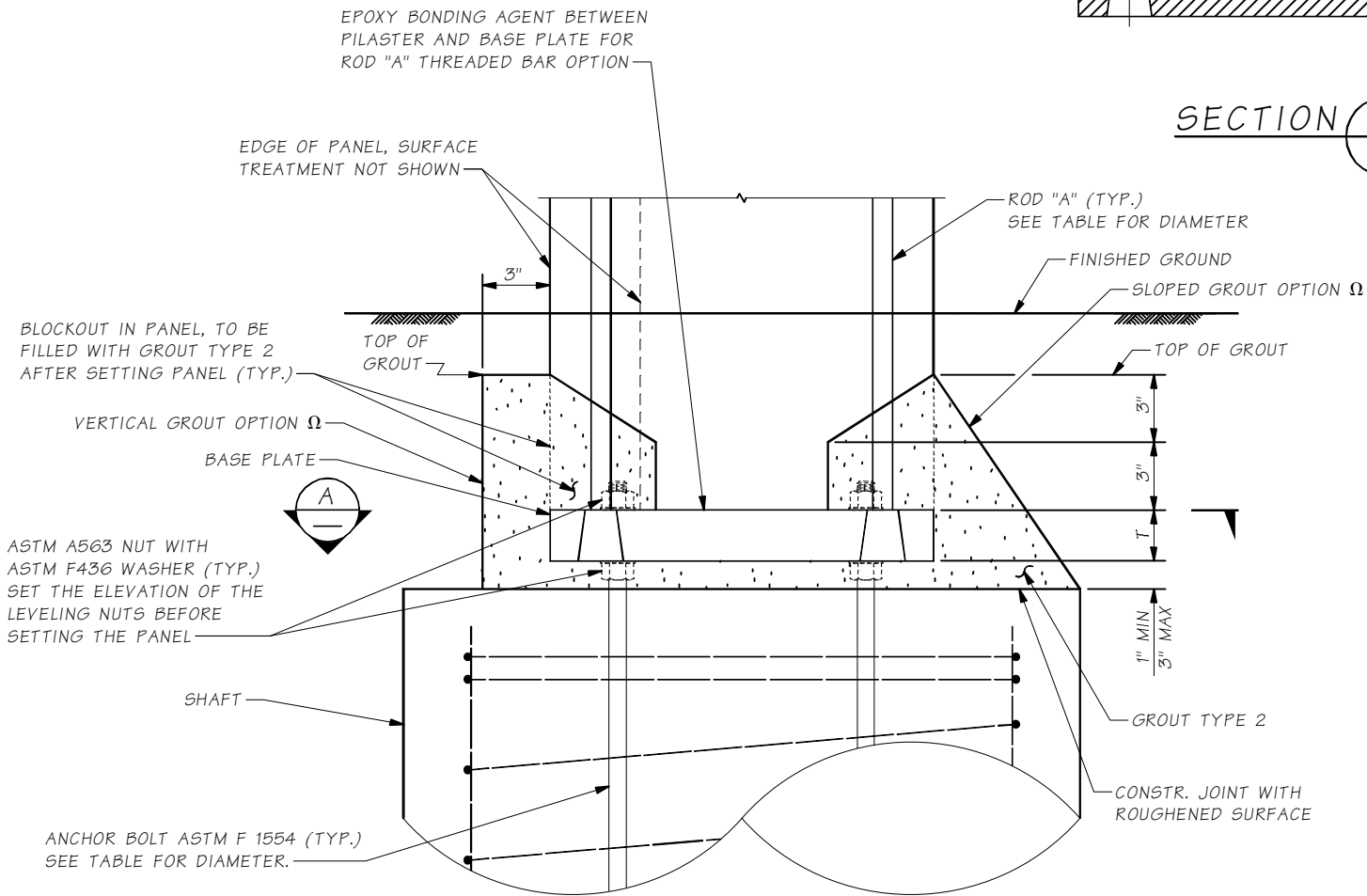
BRIDGE
SHEET
NO.
1
SHEET
OF
SHEETS

Last revised on : 11/29/2012

TECHS
NO. 11
SR

EXPOSED WALL HT. H	WESTERN WASHINGTON								
	SHAFT DEPTH		ROD "A" DIAM.	BAR "B"	LAPSPLICE Y	ANCHOR BOLT DIAM.	BASE PLATE		
	D1	D2					F	Q	T
6' - 0"	5' - 6"	4' - 6"	1/2"	4 ~ # 4	2' - 3"	1/2"	1 1/8"	1 21/32"	1 1/2"
8' - 0"	6' - 6"	5' - 3"	5/8"	4 ~ # 4	2' - 9"	1/2"	1 1/8"	1 21/32"	1 1/2"
10' - 0"	7' - 3"	6' - 0"	3/4"	4 ~ # 5	3' - 0"	5/8"	1 1/8"	1 21/32"	1 1/2"
12' - 0"	8' - 3"	7' - 0"	7/8"	4 ~ # 6	3' - 9"	3/4"	1 1/8"	1 21/32"	1 1/2"
14' - 0"	9' - 0"	7' - 6"	1"	4 ~ # 6	5' - 9"	1"	1 3/8"	2"	2"
16' - 0"	9' - 9"	8' - 3"	1 1/4"	4 ~ # 6	7' - 9"	1 1/8"	1 3/8"	2"	2"
18' - 0"	10' - 6"	8' - 9"	1 1/4" *	4 ~ # 6	9' - 9"	1 1/4"	*	*	2 1/4"
20' - 0"	11' - 3"	9' - 6"	SPECIAL DESIGN						

* ONLY ANCHOR BOLT OPTION FOR ROD "A" ALLOWED,
WEDGE HEAD OPTION NOT ALLOWED

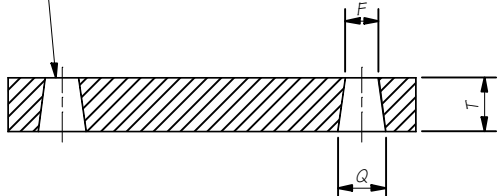


SHAFT TO PANEL CONNECTION DETAIL

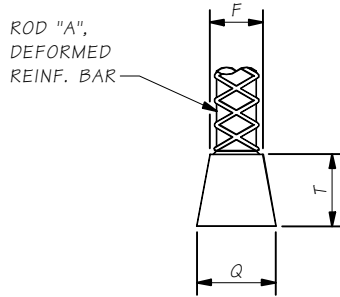
Ω EITHER OPTION ACCEPTABLE TO GROUT BLOCKOUTS,
ANCHOR BOLTS, BASE PLATE TO LIMITS SHOWN.

EXPOSED WALL HT. H	EASTERN WASHINGTON								
	SHAFT DEPTH		ROD "A" DIAM.	BAR "B"	LAPSPLICE Y	ANCHOR BOLT DIAM.	BASE PLATE		
	D1	D2					F	Q	T
6' - 0"	4' - 9"	3' - 9"	1/2"	4 ~ #4	2' - 3"	1/2"	1 1/8"	1 21/32"	1 1/2"
8' - 0"	5' - 3"	4' - 6"	1/2"	4 ~ #4	2' - 3"	1/2"	1 1/8"	1 21/32"	1 1/2"
10' - 0"	6' - 3"	5' - 3"	5/8"	4 ~ #4	3' - 9"	5/8"	1 1/8"	1 21/32"	1 1/2"
12' - 0"	7' - 6"	6' - 3"	3/4"	4 ~ #5	3' - 9"	5/8"	1 1/8"	1 21/32"	1 1/2"
14' - 0"	8' - 0"	6' - 9"	7/8"	4 ~ #6	3' - 9"	3/4"	1 1/8"	1 21/32"	1 1/2"
16' - 0"	8' - 9"	7' - 3"	1"	4 ~ #6	6' - 0"	7/8"	1 3/8"	2"	2"
18' - 0"	9' - 6"	8' - 0"	1 1/8"	4 ~ #7	6' - 0"	1"	1 3/8"	2"	2"
20' - 0"	10' - 0"	8' - 6"	1 1/4"	4 ~ #7	8' - 3"	1 1/8"	1 3/8"	2"	2"

TAPERED HOLE FOR WEDGE HEAD OPTION SHOWN.
NO TAPER FOR ANCHOR BOLT OPTION WITH
HOLE DIAM. = ROD "A" DIAM. + 1/16" (TYP.)

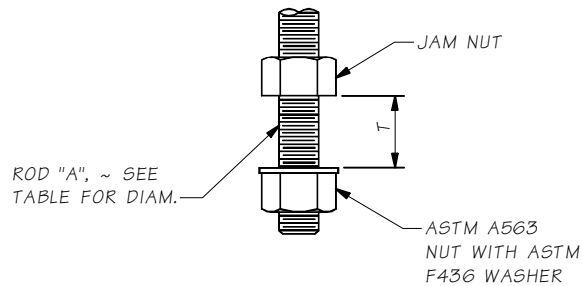


SECTION B



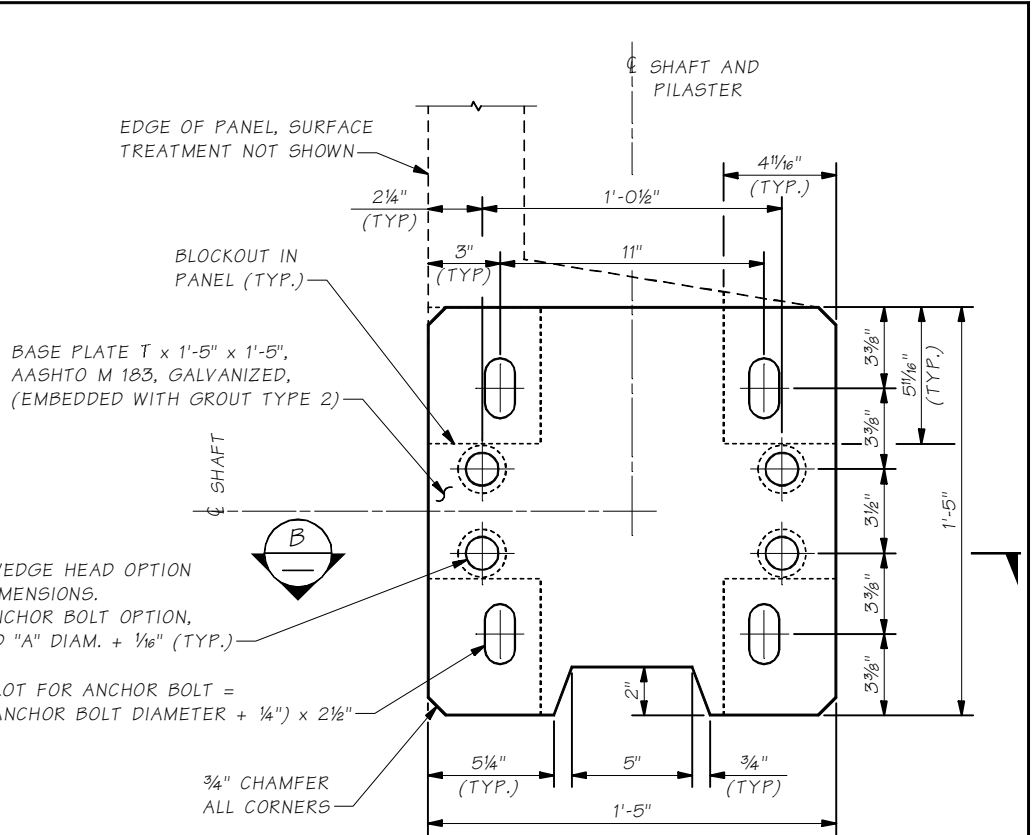
ROD "A" WEDGE HEAD OPTION

ASTM A 706 GR 80 AS ALLOWED PER TABLE,
FOR HEIGHTS "H" ≤ 16' IN WEST AND HEIGHTS "H" ≤ 18' IN EAST



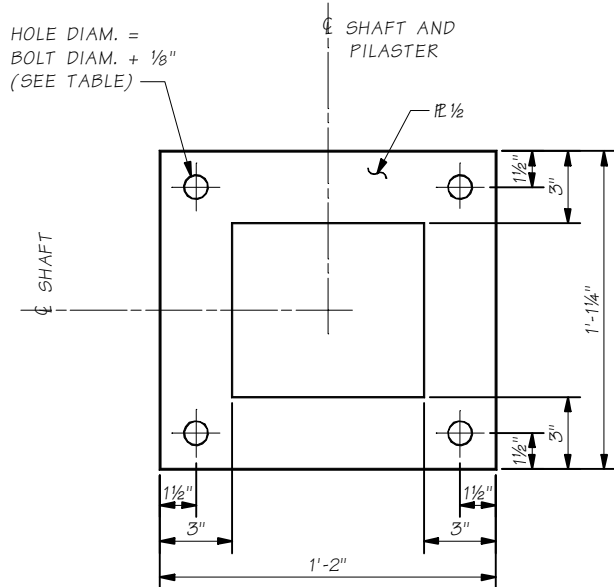
ROD "A" ANCHOR BOLT OPTION

ASTM F 1554 GR 105 FOR ALL HEIGHTS "H"



SECTION A

BASE PLATE,
SHAFT NOT SHOWN
FOR CLARITY



ANCHOR PLATE DETAIL

Bridge Design Engr.	M:\STANDARDS\Sound Barriers\PRECAST PANEL ON SHAFTS\PLATE OPTION\Sheet 2 of 3.MAN	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor		10	WASH.			
Designed By		JOB NUMBER				
Checked By						
Detailed By						
Bridge Projects Engr.						
Prelim. Plan By						
Architect/Specialist	DATE	REVISION	BY	APP'D		

Thu Nov 29 16:27:54 2012

BRIDGE
AND
STRUCTURES
OFFICE



Washington State
Department of Transportation

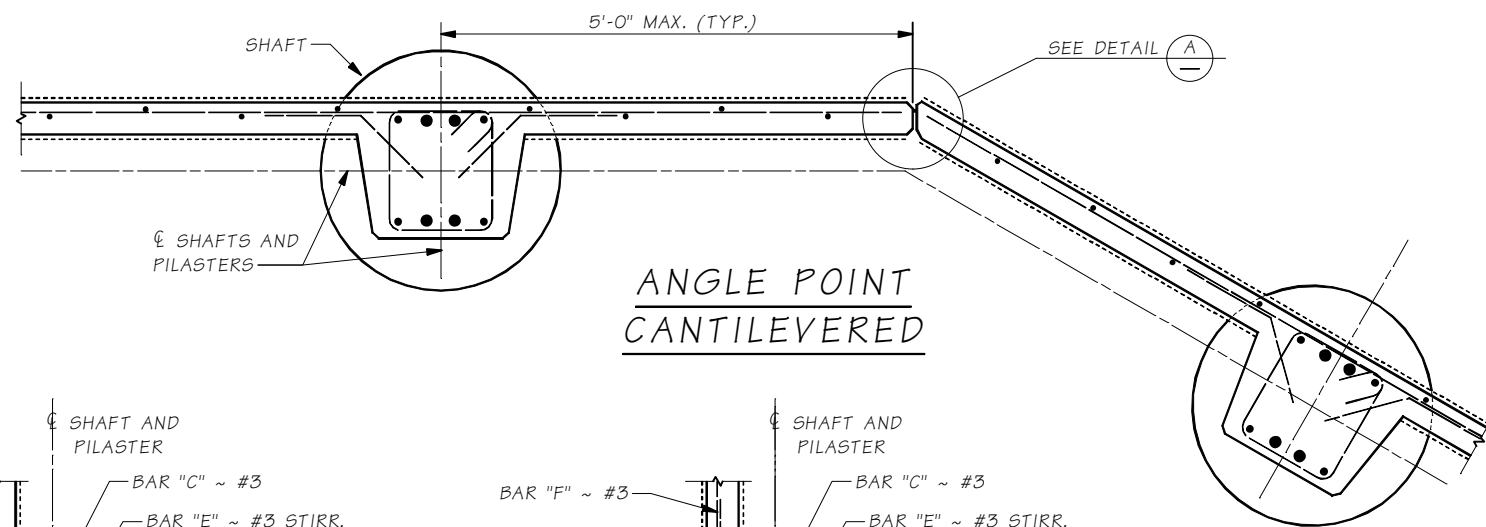
SOUND BARRIER
PRECAST CONCRETE PANEL
WITH PILASTERS ON DRILLED SHAFTS

SHEET 2 OF 3

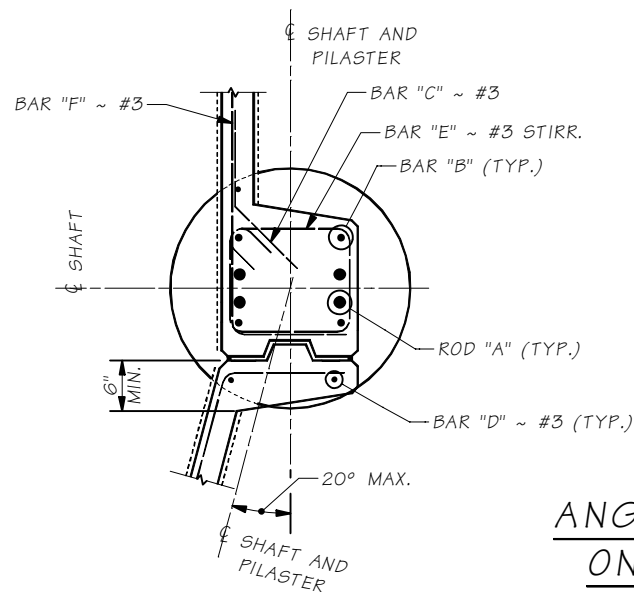
BRIDGE
SHEET NO.
2
SHEET
OF
SHEETS

Last revised on : 11/29/2012

TECHS
NO. 11
SR

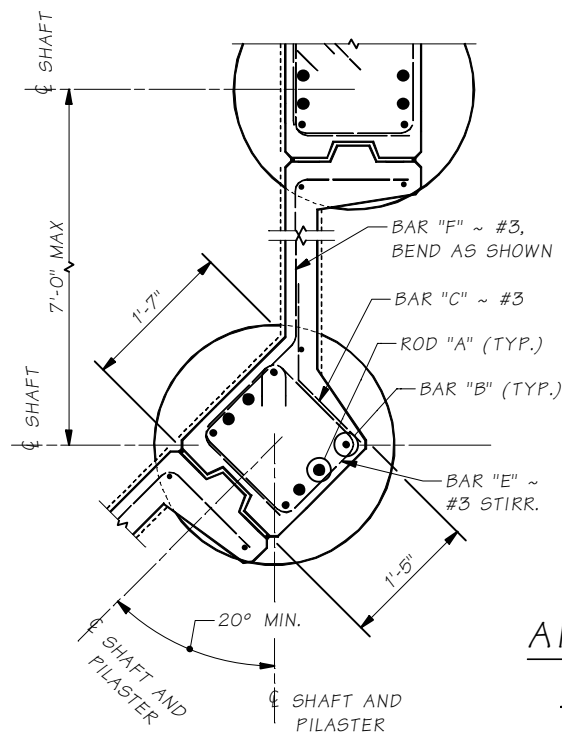
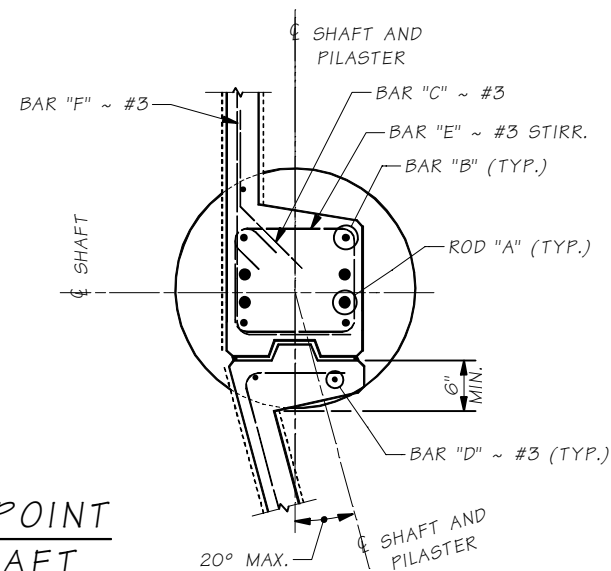


ANGLE POINT
CANTILEVERED



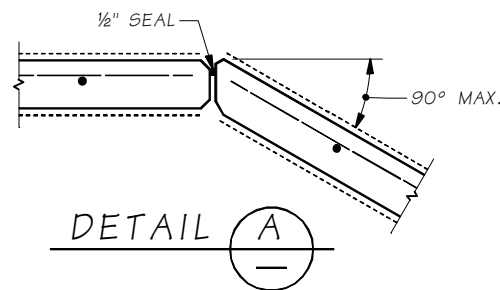
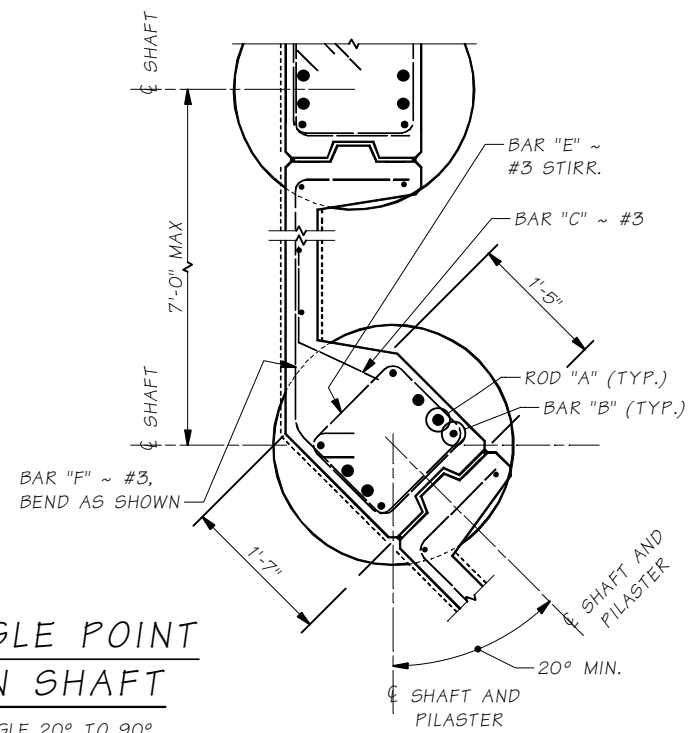
ANGLE POINT
ON SHAFT

ANGLE 2.5° TO 20°

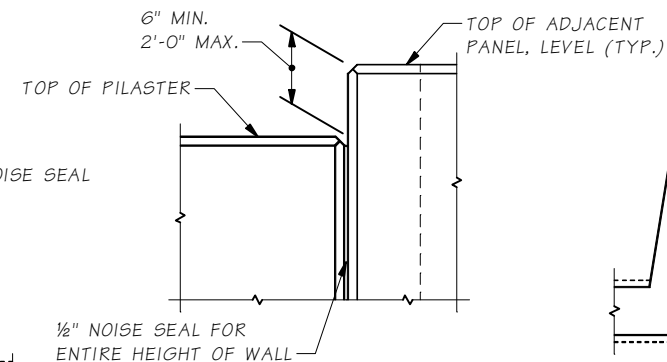
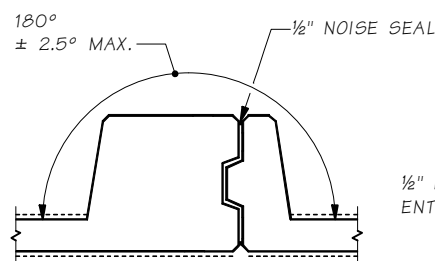


ANGLE POINT
ON SHAFT

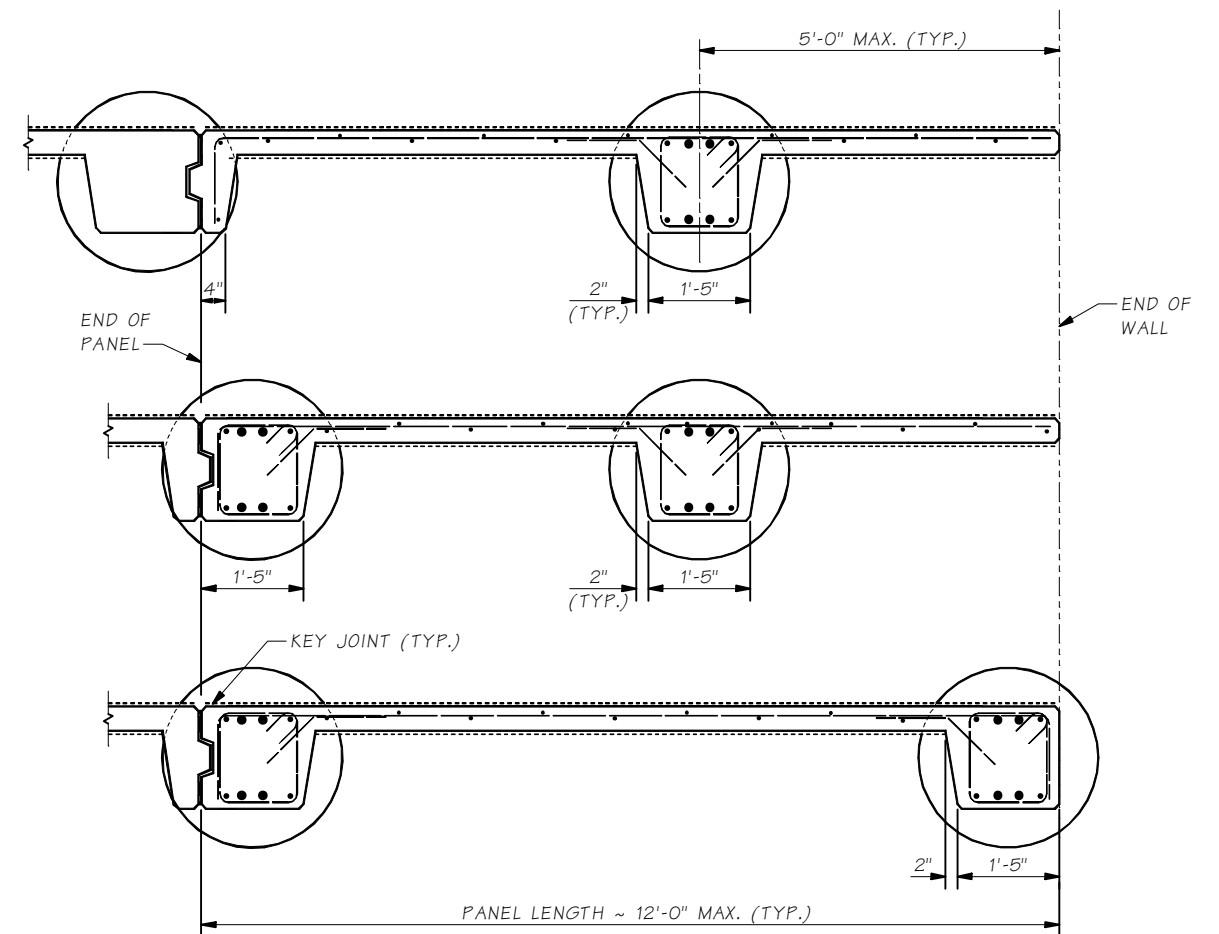
ANGLE 20° TO 90°



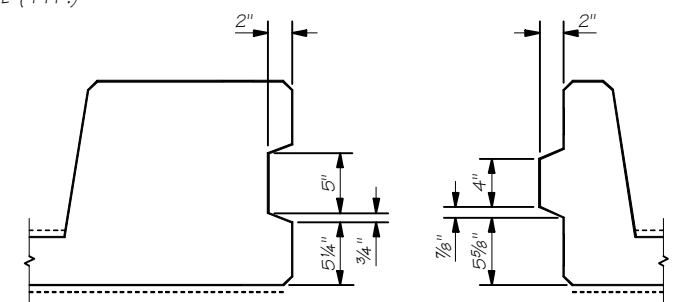
STANDARD PANEL
ANGLE TOLERANCE



STEP DETAIL



END PANEL OPTIONS



SHEAR KEY DETAILS

Bridge Design Engr.	M:\STANDARDS\Sound Barriers\PRECAST PANEL ON SHAFTS\PLATE OPTION\Sheet 3 of 3.MAN	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor		10	WASH.			
Designed By		JOB NUMBER				
Checked By						
Detailed By						
Bridge Projects Engr.						
Prelim. Plan By						
Architect/Specialist	DATE	REVISION	BY	APP'D		

Thu Nov 29 16:27:54 2012

BRIDGE
AND
STRUCTURES
OFFICE



Washington State
Department of Transportation

SOUND BARRIER
PRECAST CONCRETE PANEL
WITH PILASTERS ON DRILLED SHAFTS

SHEET 3 OF 3

BRIDGE
SHEET NO.
3
SHEET
OF
SHEETS