## **NOTES**

- 1. Work this Index with the Noise Wall Data Tables, and Wall Control Drawings in the Plans
- 2. Construct Noise Walls in accordance with the requirements of Specification Section 534, and Augers Cast Piles in accordance with Specification Section 455.
- 3. Field verify the location of all overhead and underground services shown in the Wall Control Drawings.
- 4. Wall Height is the nominal height of the walls above finished grade. The Wall Embedment Depth for design is 1'-0". The actual embedment depth may vary plus or minus 6" along the length of the wall.
- 5. Post Spacing in this Index are nominal, and are measured from centerline to centerline of the auger cast piles. Actual post spacing may vary as shown in the Wall Control Drawings.
- 6. Panels
  - A. The sum of the individual stacked panel heights is the Wall Height plus 1'-0" (embedment depth).
  - B. Where special graphics are required, locate the horizontal panel joints outside of the graphics. Where possible, hold horizontal panel joints at a constant elevation.
  - C. Side Installed Panels are only permitted when reduced overhead clearance between posts prohibits installing panels from the top.
    - 1. For Flush Face panels, install panel into posts from the roadway (front face) of the wall. Recessed panels may be installed from the back face of the wall.
    - 2. After panels are installed and centered between posts, grout between both panel ends and the adjoining posts (see Sheets 4 and 5 for details).
  - D. Individual panel heights should be between 6'-0"and 12'-0" tall. The minimum panel height is 4'-0"and may be used where overhead clearance is limited, or where graphic panels are required on shorter walls.
- 7. Concrete And Grout:
  - A. Concrete Class and Compressive Strength for:
    - 1. Precast Panels, Posts, and Post caps: Class IV (fc' = 5500 psi)
    - 2. Cast-In-Place Collars: Class IV (fc' = 5500 psi)
  - B. Minimum Compressive Strength for form removal and handling of posts and panels:
    - 1. 2,500 psi for horizontally cast post and panels
    - 2. 2,000 psi for vertically cast panels or when tilt-up tables are used for horizontally cast panels.
  - A. Grout for Auger Cast Piles:
    - 1. Maximum Working Compressive Strength = 2,000 psi
    - 2. Minimum 28 day strength = 5,000 psi
- 8. Reinforcing Steel:
  - A. In addition to the requirements of Specification Section 415, tie post and pile stirrups at the following locations as a minimum:
    - 1. Post Stirrups Tie at all four corner bars and at every third interior bar intersection.
    - 2. Pile Stirrups Tie to the main vertical reinforcing at alternate intersections for circular configurations and at the four corners and at every third interior bar intersection for rectangular configurations.
  - B. Provide 2" concrete cover unless noted otherwise.
- 9. Casting Tolerances for precast panels and posts:
  - A. Overall Height and Width:  $+/-\frac{1}{4}$ "
  - B. Thickness: +/- 1/4"
  - C. Plane of side mold: +/- 1/16"
  - D. Openings: +/- 1/2"

∠ DESCRIPTION:

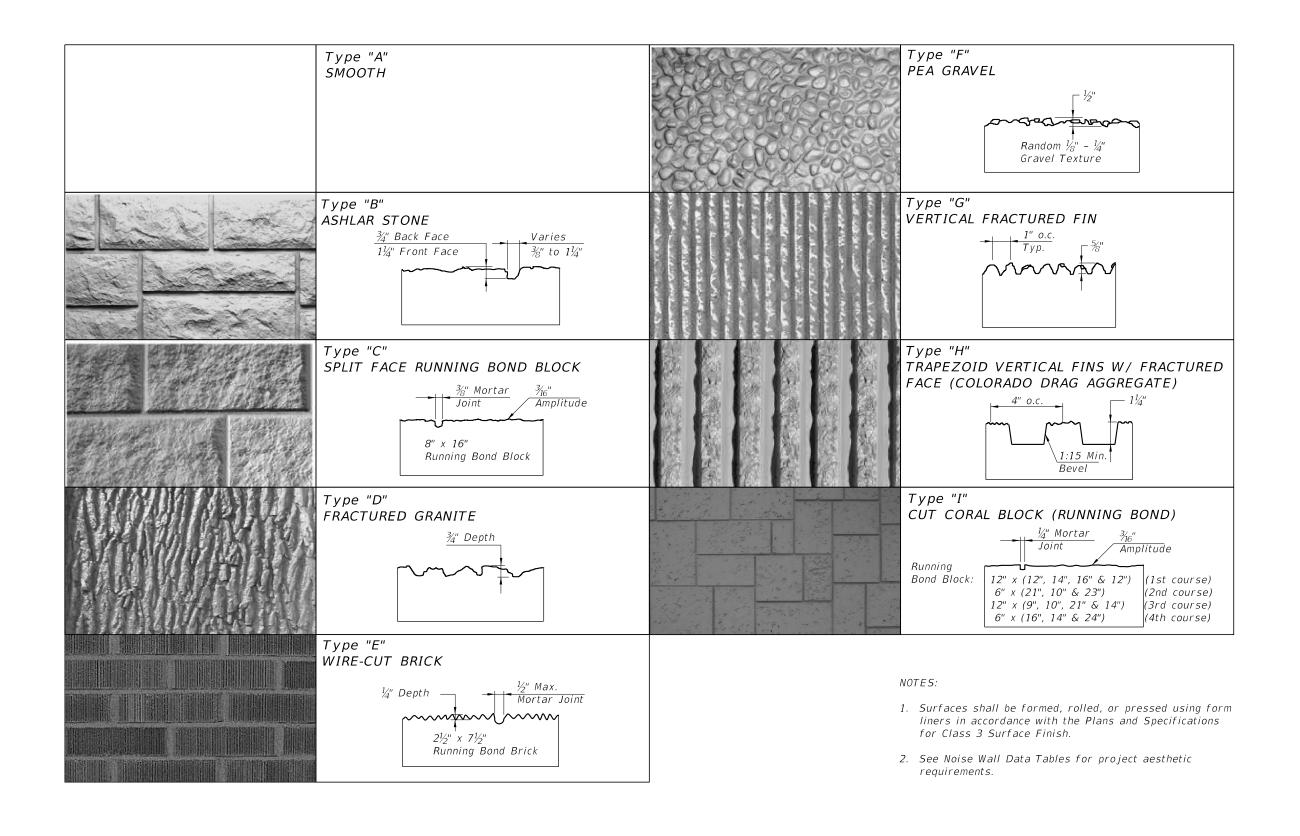
- E. Out of Square: 1/8" per 6 ft., but not more than 3/8" total along any side
- F. Warping: 1/16"per foot distance to nearest corner
- G. Bowing: 1/240 panel dimension
- H. Surface Smoothness for Type "A" Smooth Surface Texture Option: +/- 1/16"

- 10. Provide Fiber Reinforced Neoprene pads with a Durometer Hardness between Grade 50 and 80; or Plain Neoprene Pads with a minimum Durometer Hardness of Grade 50 in accordance with Specification Section 932.
  - A. For Collar Bearing Points provide:
    - 1.  $4"x \ 4"x \ \frac{1}{2}"$  Fiber Reinforced Pads;
    - 2. Plain Pads with a may be substituted for Fiber Reinforced Pads when sufficient bearing area is available on the concrete collar for the following:
      - i. 10' Post Spacing: 4"x 4"x ½"
      - ii. 20' Post Spacing and Wall Height < 17 feet: 4"x 4"x 1/3"
      - iii. 20 Post Spacing and Wall Height > 17 feet:  $4"x \ 5"x \ \frac{1}{2}$ "
  - B. At panel bearing points between stacked panels, use Plain or Fiber Reinforced Neoprene Pads.

GENERAL NOTES

LAST REVISION 07/01/14





TEXTURE OPTIONS

REVISION 07/01/13

2015 DESIGN STANDARDS

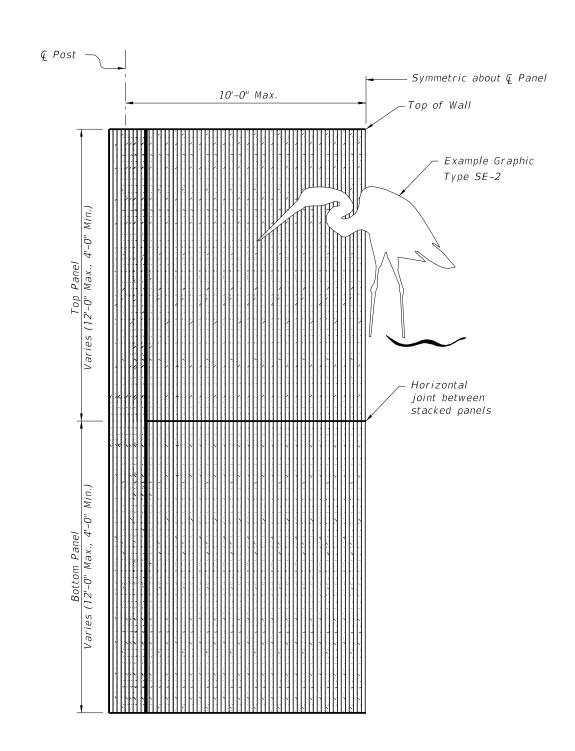
PRECAST NOISE WALLS

INDEX NO. 5200

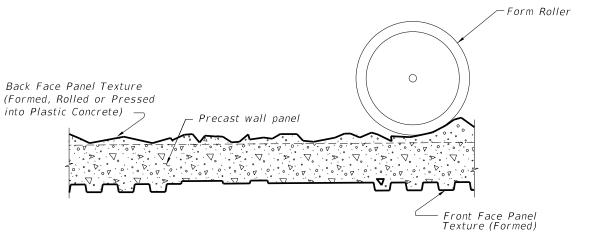
NO. 2 of 16

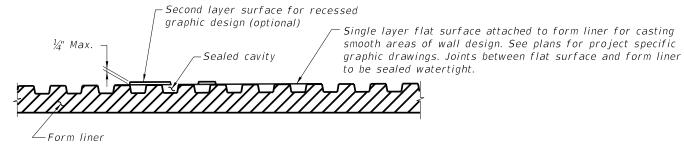
SHEET

DESCRIPTION:



HALF ELEVATION (Front Face Post and Panel Texture Type "H" shown) (Graphic Type SE-2 shown) (Two stacked panels shown, three stacked panels similar)





TYPICAL FORMING DETAIL (Front Face Panel Texture Type "H" shown) (Back Face Panel Texture Type "D" shown) (Post Forming Details Similar)

#### NOTES:

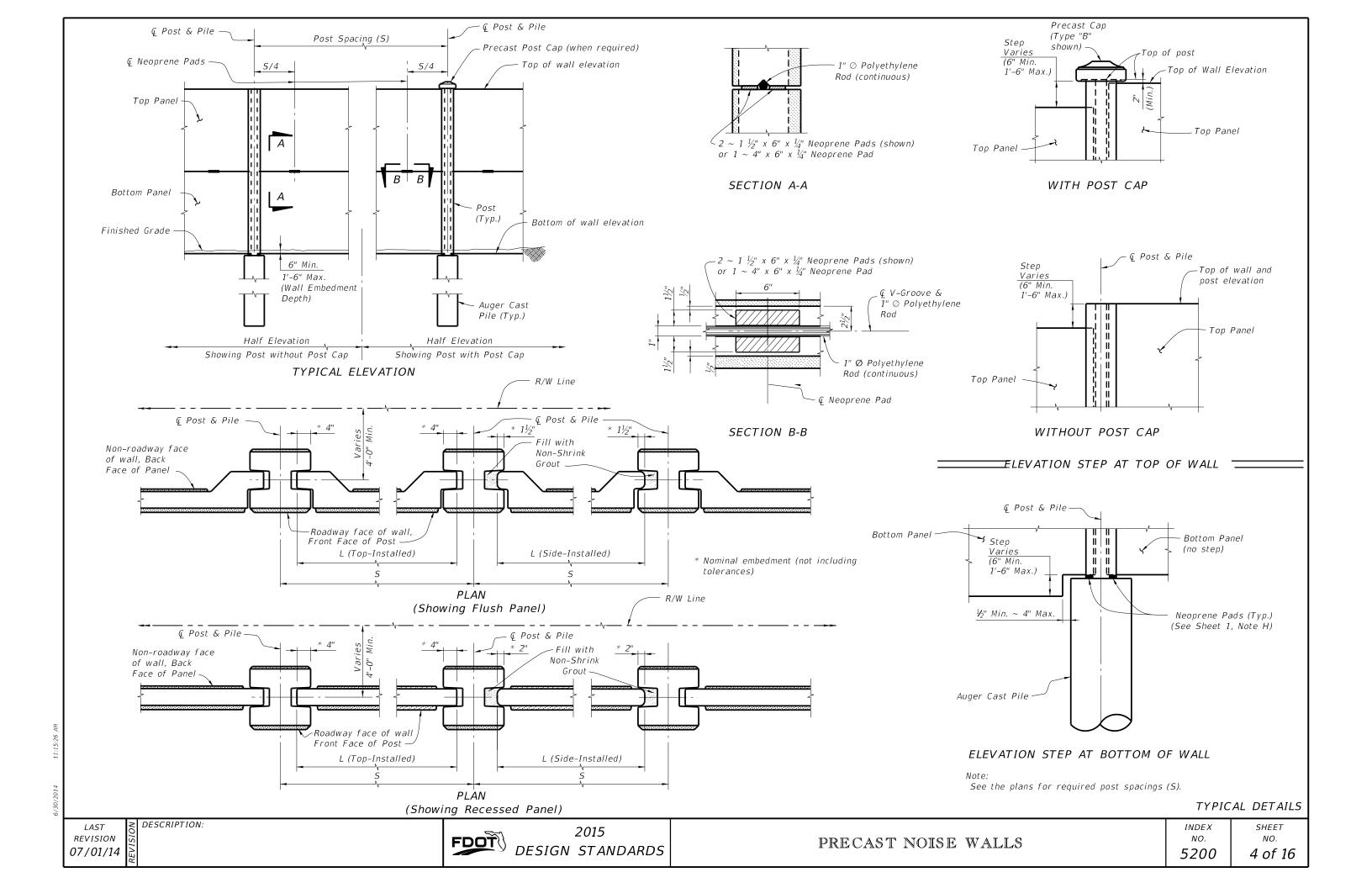
- 1. Submit specific form liner samples for approval by the Engineer.
- 2. Textures and graphics shown are for demonstration purposes only. See Noise Wall Data Tables in the plans for project specific texture and graphic requirements.

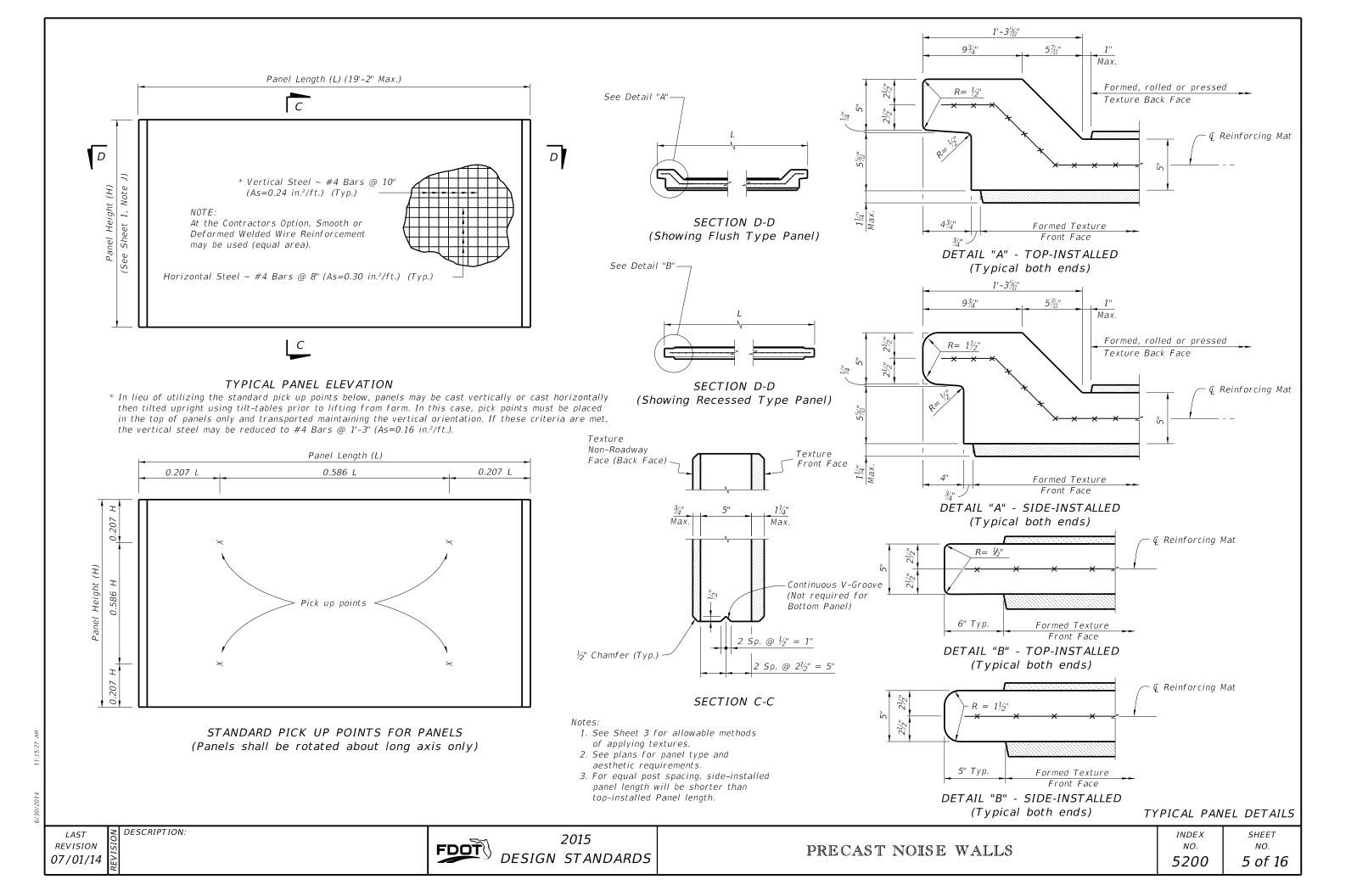
GRAPHICS & TEXTURE DETAILS

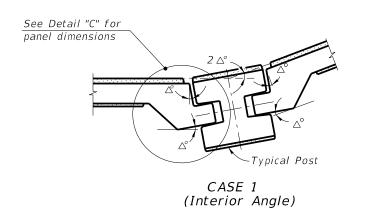
≥ DESCRIPTION: LAST REVISION 07/01/14

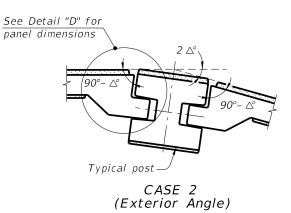
2015 FDOT DESIGN STANDARDS INDEX SHEET

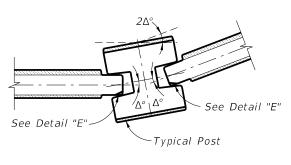
NO.

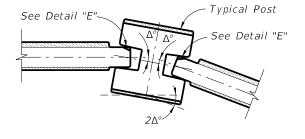






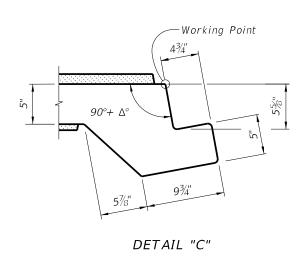


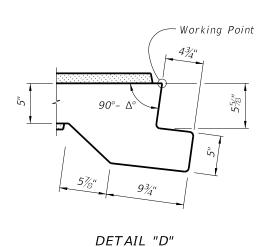


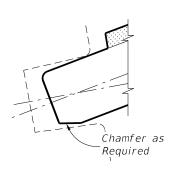


CASE 1 (Interior Angle)

CASE 2 (Exterior Angle)







DETAIL "E" (Back Face Chamfer Shown Front Face Chamfer Similar)

The shop drawings shall include specific pivoting details of panel ends at locations where the deflection angle (2 $\Delta$ °) between panels exceeds 7°.

The shop drawings shall include specific pivoting details of panel ends at locations where the deflection angle (2 $\Delta$ °) between panels exceeds 20°.

PIVOTING DETAILS \_ (Recessed Type Panel)

PIVOTING DETAILS \_ (Flush Type Panel)

TYPICAL PANEL DETAILS

LAST REVISION 07/01/13

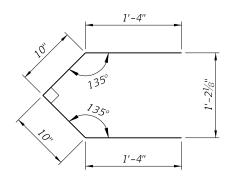
≥ DESCRIPTION:

2015 DESIGN STANDARDS

PRECAST NOISE WALLS

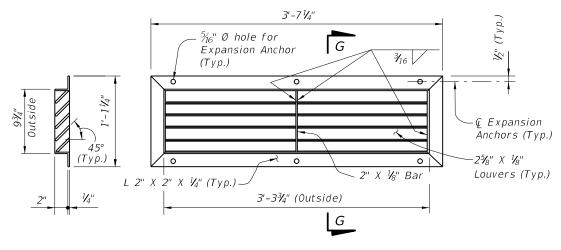
INDEX SHEET NO. NO. 5200 6 of 16 \* Hole Types A, B, C and D refer to distance from bottom of panel to center of opening. See Wall Control Drawings in the plans.

DRAINAGE HOLES TYPES A, B, C & D
(Front Face of Wall Shown)
(Two Holes Shown,
One Hole Similar)



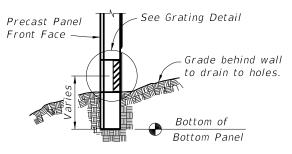
BAR A2 (Pair) Bar Length = 4'-4"

🗖 BAR BENDING DETAILS (#3 Bars) 💳



SECTION G-G

GRATING DETAIL



SECTION F-F

#### GRATING NOTES:

- 1. Grating shall be ASTM A36 steel welded in accordance with the current edition of ANSI/AWS D1.1 Steel Welding Code. Hot-dip galvanize grate after fabrication in accordance with Specification Section 962.
- 2. Expansion Anchors: Use  $\frac{V_4}{4}$  Ø x 3" ASTM A307, vandal resistant, hot-dip galvanized expansion anchors to connect grates to panels.
- 3. Grating mounted to back face of wall.

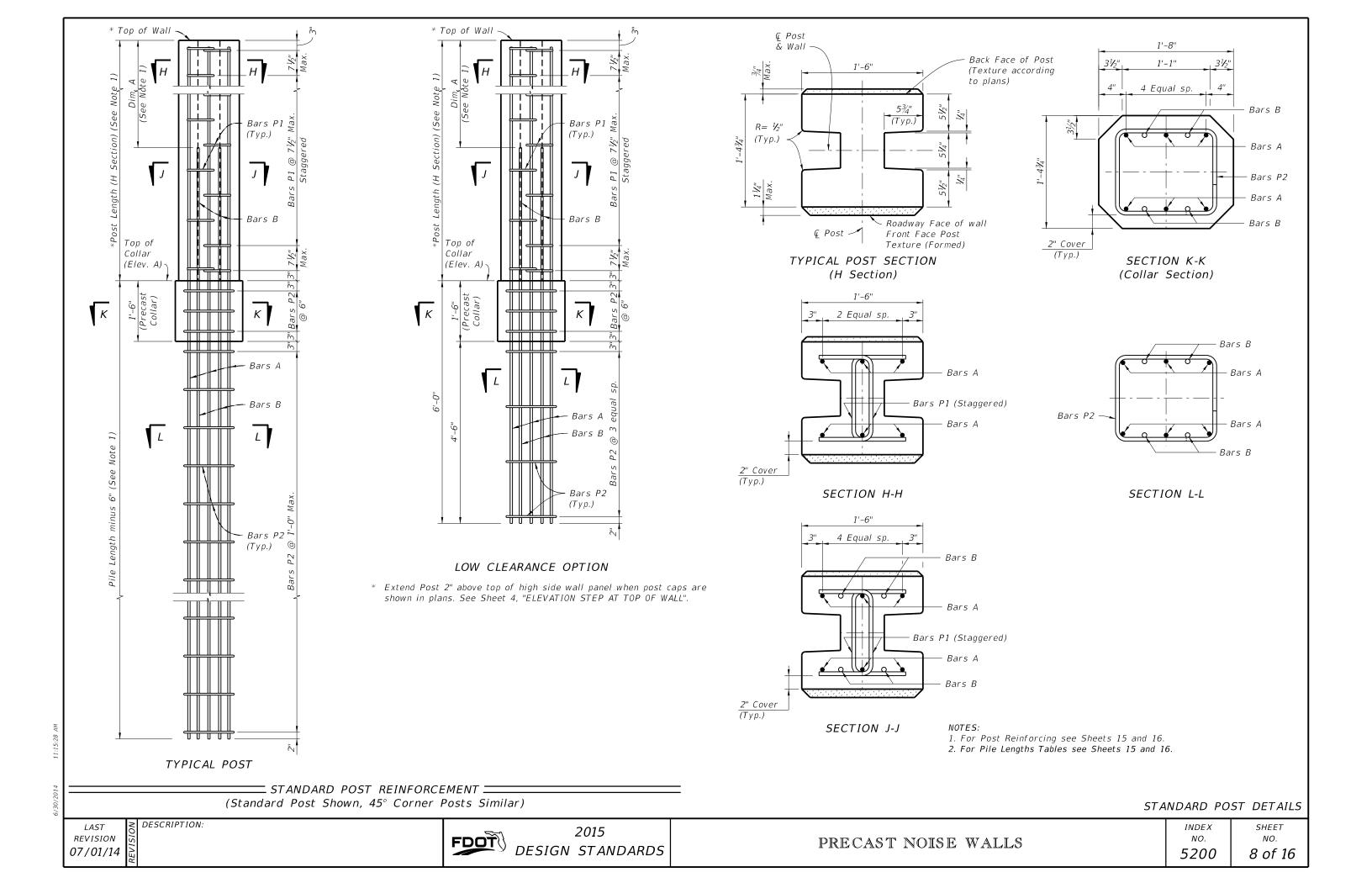
FIRE HOSE ACCESS & DRAINAGE HOLE DETAILS

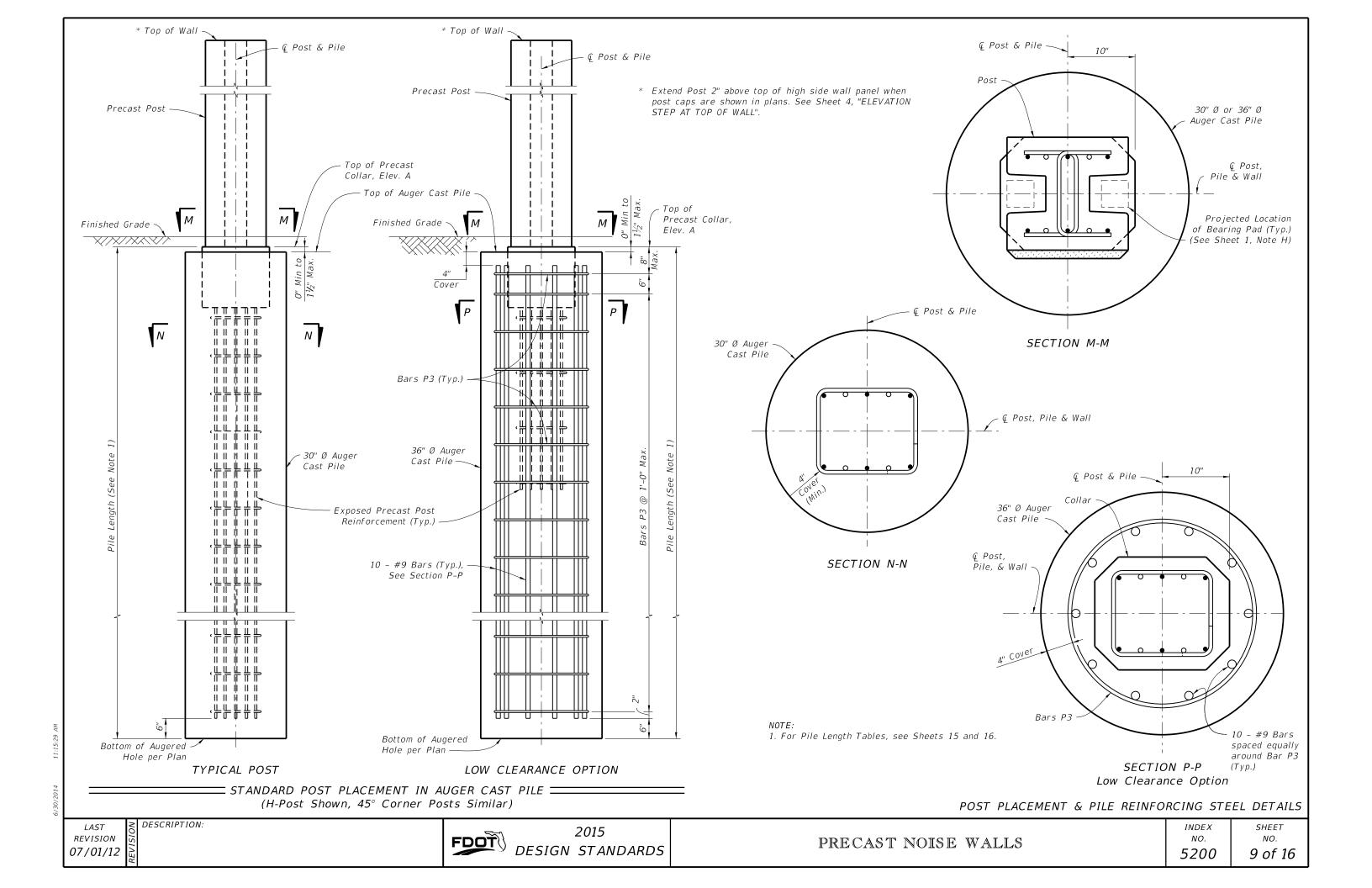
LAST REVISION 07/01/14

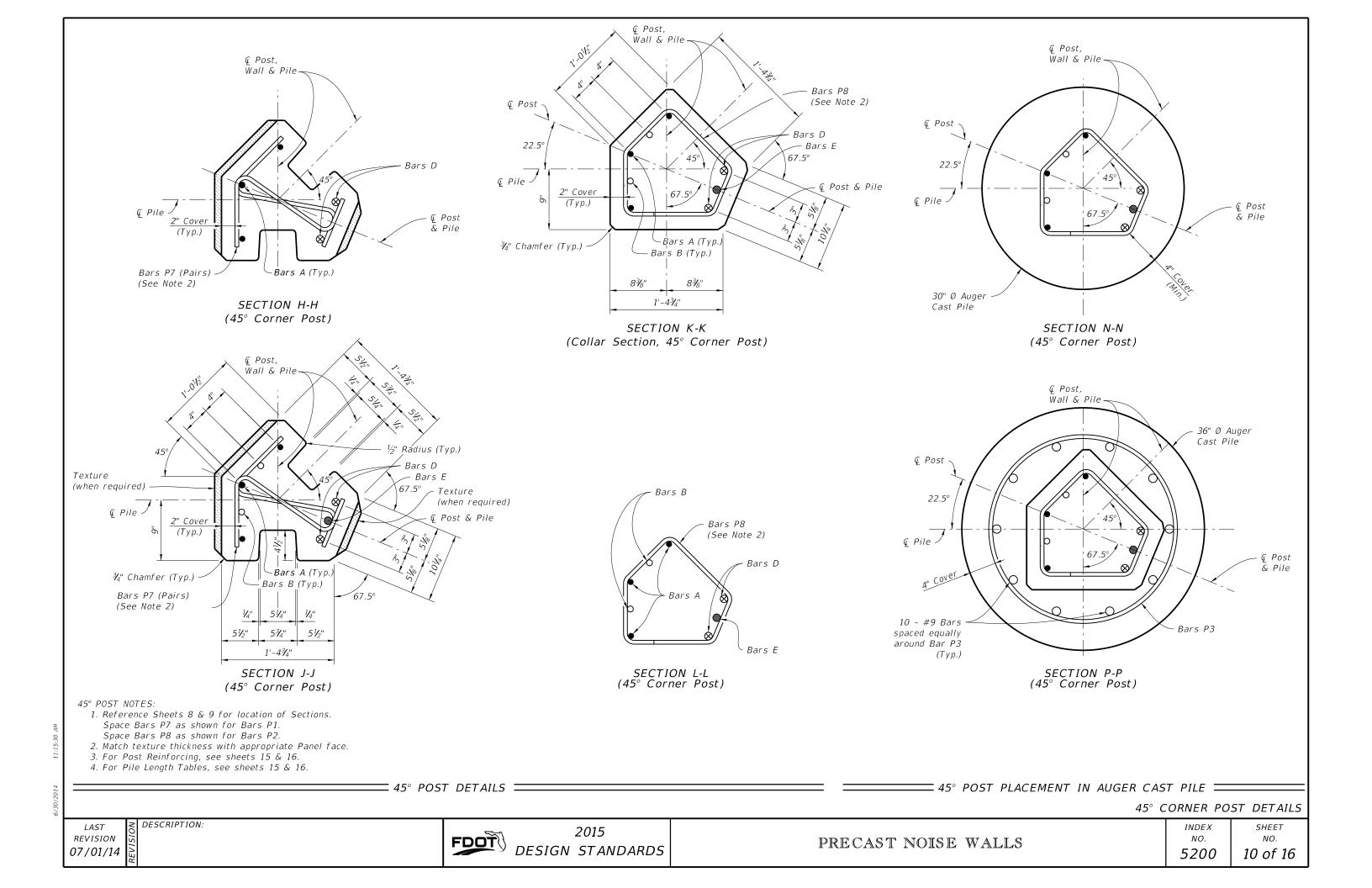
FDOT DESIGN STANDARDS

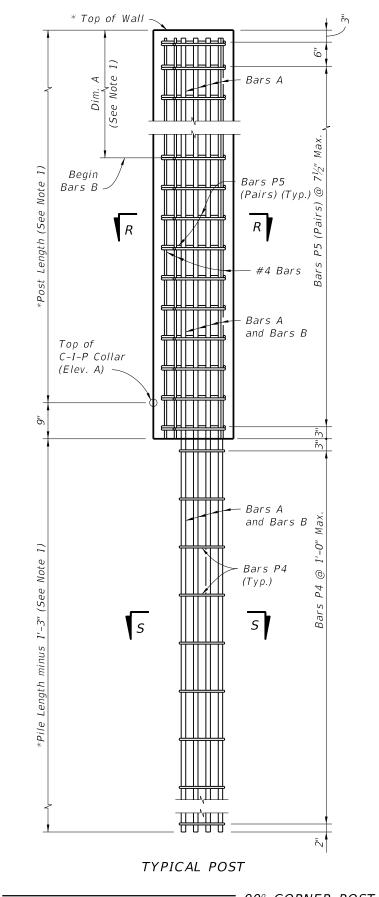
PRECAST NOISE WALLS

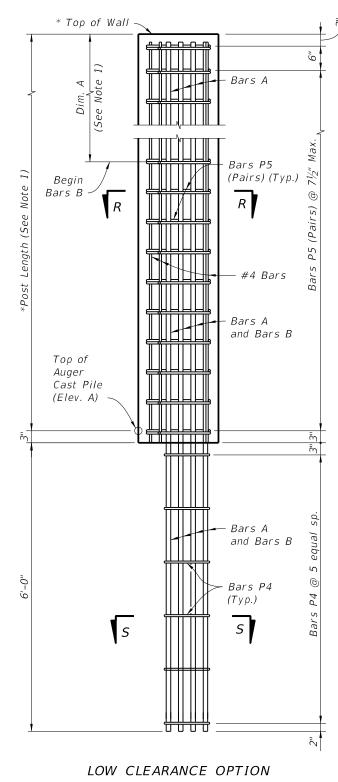
NO. SHEET NO. 7 of 16





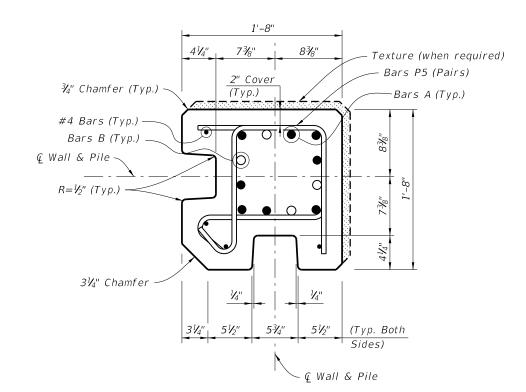




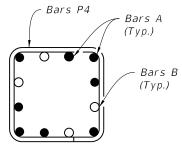


\* Extend Post 2" above top of high side wall panel when post caps are shown in plans. See Sheet 4, "ELEVATION STEP AT TOP OF WALL".

90° CORNER POST REINFORCMENT (Post Surface Features Not Shown For Clarity)



## SECTION R-R



SECTION S-S

# 90° CORNER POST NOTES:

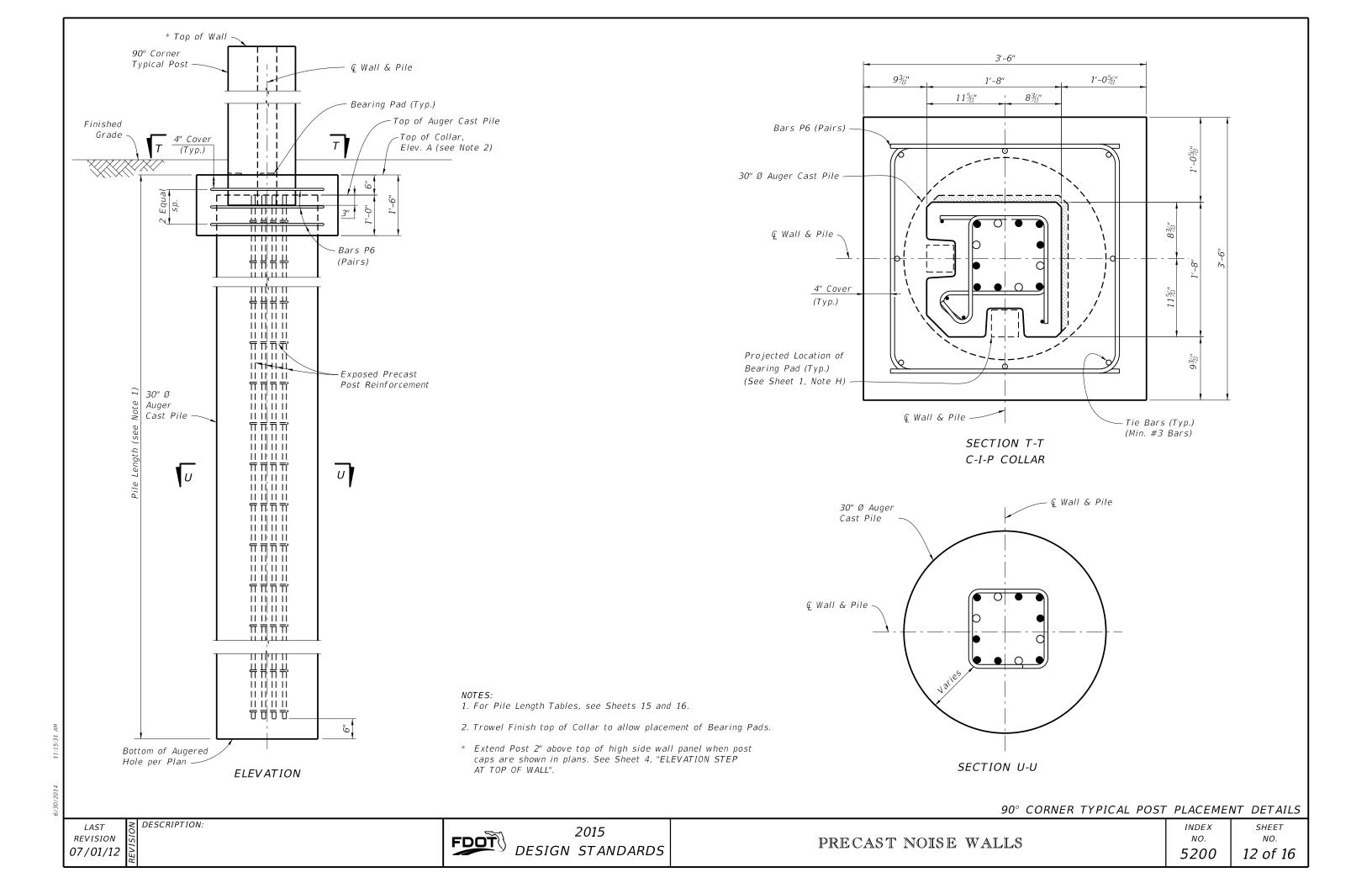
- 1. For Post Reinforcing, see Sheets 15 and 16.
- 2. For Pile Length Tables, see Sheets 15 and 16.
- 3. Reduce typical panel length or adjust pile spacing at each 90° Corner Post.
- 4. Match texture thickness, with appropriate Panel face.

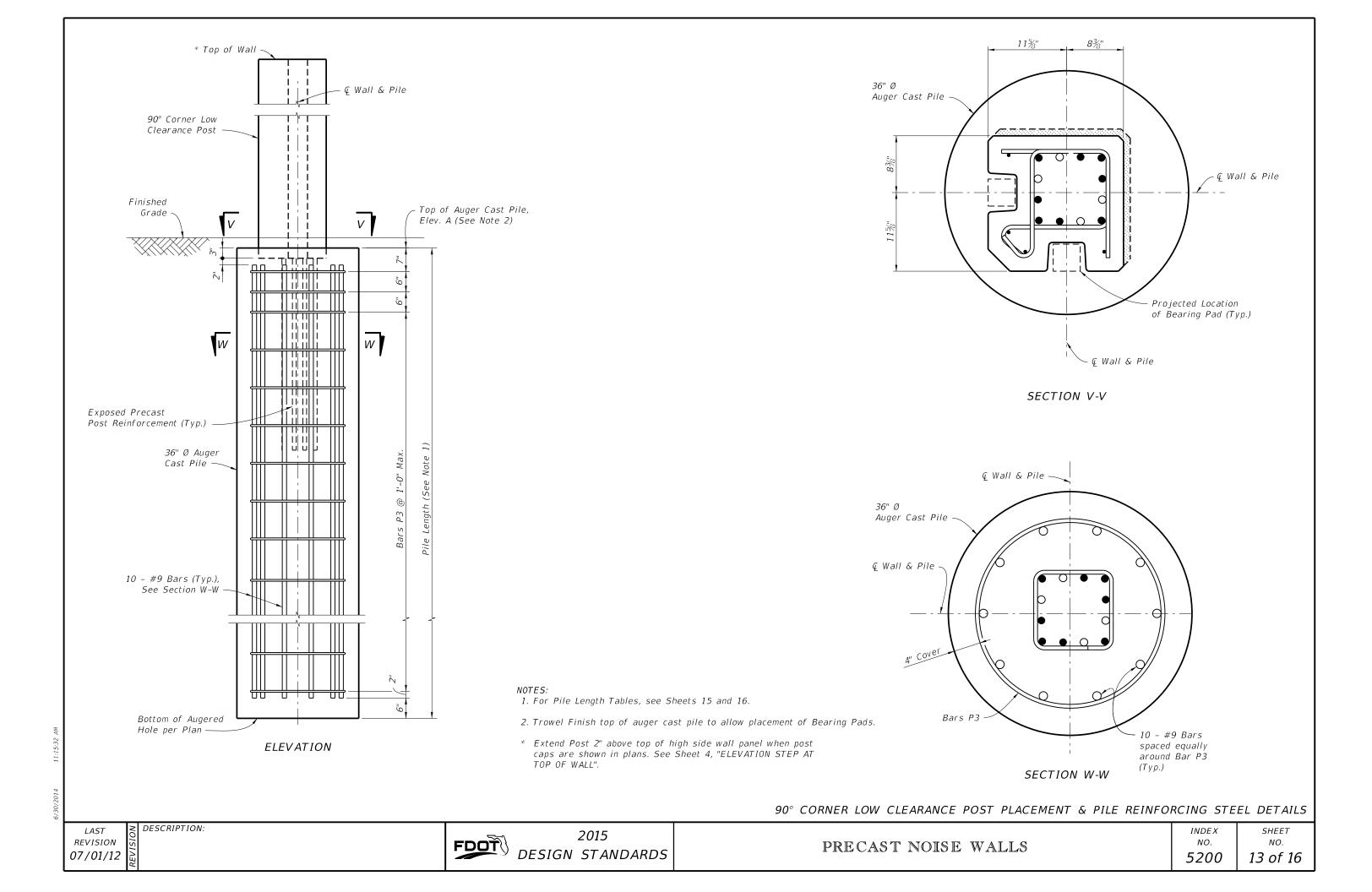
90° CORNER POST DETAILS

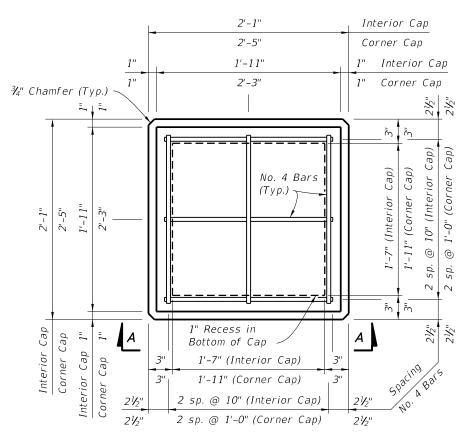
LAST ODESCRIPTION:
REVISION IS
07/01/14

**FDOT** DESIGN STANDARDS

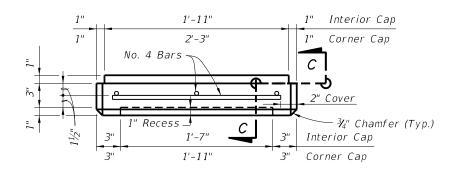
INDEX SHEET



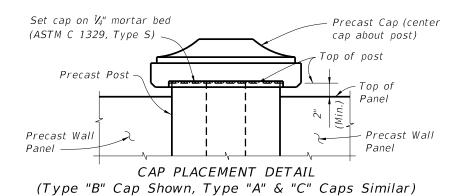


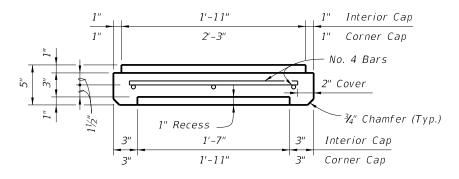


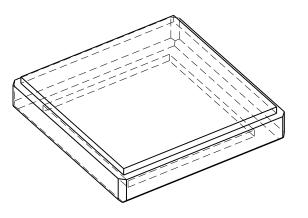
PLAN VIEW (Type "A" Cap Shown, Type "B" & "C" Caps Similar)



VIEW A-A SHOWN, VIEW B-B SIMILAR (Type "A" Cap Shown, Type "B" & "C" Caps Similar)



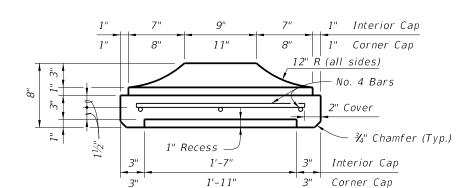


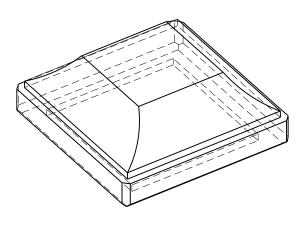


PICTORIAL VIEW

SECTION C-C

TYPE "A" CAP DETAILS =

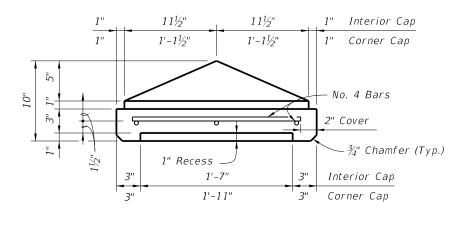


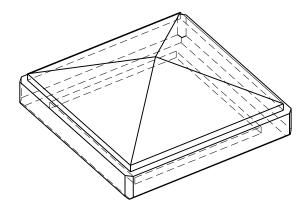


SECTION C-C

PICTORIAL VIEW

TYPE "B" CAP DETAILS =





SECTION C-C

PICTORIAL VIEW

TYPE "C" CAP DETAILS =

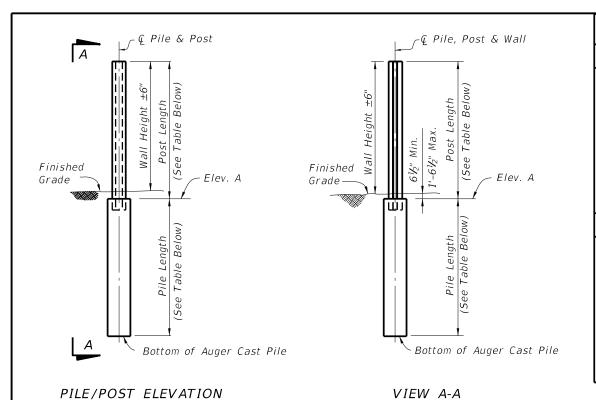
PRECAST POST CAPITAL

≥ DESCRIPTION: LAST REVISION 07/01/14

2015 FDOT DESIGN STANDARDS

PRECAST NOISE WALLS

SHEET NO. 5200 14 of 16



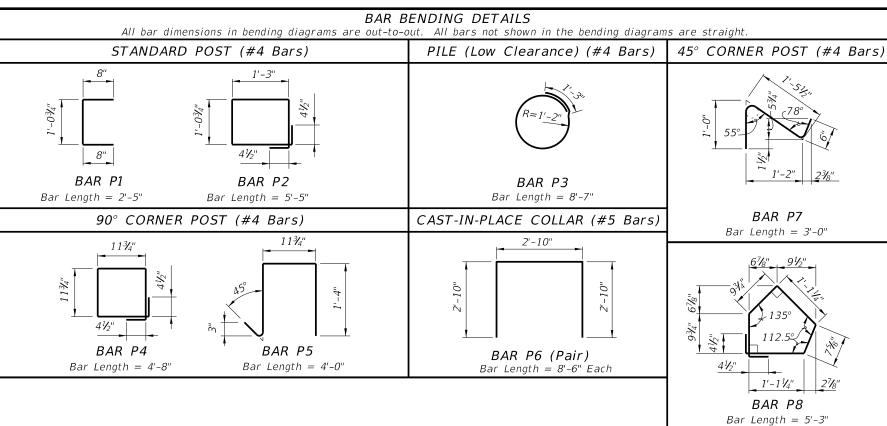


	TABLE 1A - TABLE OF POST REINFORCING STEEL														TABLE 1B - PILE LENGTHS (Feet) - WIND SPEED = 110 MPH																
	POST L	ENGTHS		WIND SPEED = 110 MPH												10'-0" POST SPACING 20'-0" POST SPACING															
WALL HEIGHT	WALL HEIGHT WITHOUT CAP	WALL HEIGHT WITH CAP			10' POST S	-0" PACING			20'-0" POST SPACING						WALL HEIGHT					CORNER POSTS					H-P			CORNER	R POSTS		
(Feet)			BARS A	BARS BAF A B		BARS BARS D		BARS E		BARS BARS A B		BARS D		ARS E	(Feet)	501	S0IL 1		50IL 2		IL 1	501	50IL 2		IL 1	S01L 2		S0IL 1		50.	IL 2
			SIZE	SIZE	DIM 'A'	SIZE	SIZE	DIM 'A'	SIZE	SIZE	DIM 'A'	SIZE	SIZE	DIM 'A'		30" ⊘	36" ⊘	<i>30</i> " ⊘	<i>36</i> " ∅	<i>30</i> " ⊘	<i>36</i> " ⊘	30" ⊘	<i>36</i> " ∅	<i>30</i> " ⊘	<i>36</i> " ⊘	<i>30</i> " ∅	<i>36</i> " ⊘	<i>30</i> " ⊘	<i>36</i> " ∅	<i>30</i> " ∅	<i>36</i> " ⊘
12	13'-01/2"	13'-2½"	#3	#3	9'-8"	#3	#3	8'-8"	#5	#5	11'-2"	#5	#5	9'-2"	12	11	11	11	10	10	9	9	9	15	14	14	13	13	12	12	12
13	14'-0½''	14'-2 <sup>1</sup> / <sub>2</sub> "	#4	#4	13'-5"	#4	#4	11'-5"	#5	#5	11'-2"	#5	#5	9'-2"	13	12	11	11	10	11	10	10	9	16	15	15	14	14	13	13	12
14	15'-0½''	15'-2½"	#4	#4	13'-5"	#4	#4	11'-5"	#5	#5	11'-2"	#6	#6	10'-9"	14	12	12	12	11	11	10	10	10	16	15	15	14	14	13	13	12
15	16'-0 <sup>1</sup> / <sub>2</sub> ''	16'-2 <sup>1</sup> / <sub>2</sub> "	#4	#4	13'-5"	#4	#4	11'-5"	#6	#6	12'-9"	#6	#6	10'-9"	15	13	12	12	11	11	11	11	10	17	16	16	15	15	14	14	13
16	17'-0½''	17'-2½"	#4	#4	13'-5"	#5	#5	14'-2"	#6	#6	12'-9"	#6	#6	10'-9"	16	13	12	12	12	12	11	11	10	18	16	16	15	15	14	14	13
17	18'-0½''	18'-2 <sup>1</sup> / <sub>2</sub> "	#4	#4	12'-5"	#5	#5	14'-2"	#6	#6	12'-9"	#7	#7	12'-4"	17	14	13	13	12	12	11	11	11	18	17	17	16	16	15	15	14
18	19'-0½''	19'-2 <sup>1</sup> / <sub>2</sub> "	#5	#5	16'-3"	#5	#5	14'-2"	#7	#7	14'-4"	#7	#7	12'-4"	18	14	13	13	12	13	12	12	11	19	18	18	16	17	15	15	14
19	20'-0 <sup>1</sup> / <sub>2</sub> ''	20'-2 <sup>1</sup> / <sub>2</sub> "	#5	#5	16'-2"	#5	#5	14'-2"	#7	#7	14'-4"	#8	#8	13'-10'	19	15	14	14	13	13	12	12	11	20	18	18	17	17	16	16	15
20	21'-0½"	21'-2½"	#5	#5	16'-2"	#6	#6	15'-9"	#8	#8	15'-10"	#8	#8	13'-10'	20	15	14	14	13	13	12	12	12	20	19	19	17	18	16	16	15
21	22'-0 <sup>1</sup> / <sub>2</sub> ''	22'-2 <sup>1</sup> / <sub>2</sub> "	#5	#5	16'-2"	#6	#6	15'-9"	#8	#8	15'-10"	#8	#8	13'-10'	21	16	15	15	14	14	13	13	12	21	19	19	18	18	17	17	16
22	23'-0½''	23'-2 <sup>1</sup> / <sub>2</sub> "	#6	#6	18'-9"	#6	#6	15'-9"	#8	#8	15'-10"	#8	#9	13'-3"	22	16	15	15	14	14	13	13	12	21	20	20	18	19	17	17	16

## TABLE NOTE:

- 1. Bars D and Bars E are for 45° Corner Posts only.
- 2. See Contract Plans for project wind speed.
- 3. Soil 1 = Loose Granular Soil, N = 4 to 9. Soil 2 = Medium Dense Granular Soil, N 10 to 40.

PILE DEPTH & REINFORCING SUMMARY

LAST OF DESCRIPTION:
REVISION IS DESCRIPTION:
07/01/14



		TABLE 2A - TABLE OF POST REINFORCING STEEL														TABLE 2B - PILE LENGTHS (Feet) - WIND SPEED = 130 MPH															
	POST L	ENGTHS		WIND SPEED = 130 MPH												10'-0" POST SPACING 20'-0" POST SPACING															
WALL HEIGHT	WALL HEIGHT WITHOUT CAP	WALL HEIGHT WITH CAP				'-0" SPACING			20'-0" POST SPACING						WALL HEIGHT	H-POSTS				CORNER POSTS					H-POSTS				CORNER POSTS		
(Feet)			BARS A	BA	ARS B	BARS D	BARS E		BARS BARS A B		ARS B	BARS BARS D E		ARS E	(Feet)	50.	S0IL 1 50.		IL 2	S01L 1		S0IL 2		501	L 1	50	IL 2	SOIL 1		501	IL 2
			SIZE	SIZE	DIM 'A'	SIZE	SIZE	DIM 'A'	SIZE	SIZE	DIM 'A'	SIZE	SIZE	DIM 'A'		<i>30</i> " ∅	<i>36</i> " ⊘	<i>30</i> " ⊘	36" ⊘	30" ⊘	<i>36</i> ″ ⊘	<i>30</i> " ⊘	<i>36</i> " ⊘	<i>30</i> " ⊘	<i>36</i> " ⊘	30" ∅	<i>36</i> " ⊘	<i>30</i> " ⊘	<i>36</i> " ⊘	<i>30</i> " ⊘	<i>36</i> " ⊘
12	13'-0½"	13'-2 <sup>1</sup> / <sub>2</sub> "	#4	#4	10'-5"	#4	#4	9'-5"	#5	#5	9'-2"	#6	#6	8'-9"	12	13	12	12	11	13	11	12	10	17	16	16	15	15	14	14	13
13	14'-0½"	14'-2 <sup>1</sup> / <sub>2</sub> "	#4	#4	10'-5"	#4	#4	9'-5"	#6	#6	10'-9"	#6	#6	8'-9"	13	14	13	13	12	13	11	13	10	18	17	17	16	16	15	15	14
14	15'-0½"	15'-2 <sup>1</sup> / <sub>2</sub> "	#4	#4	10'-5"	#5	#5	12'-2"	#6	#6	10'-9"	#7	#7	10'-4"	14	14	13	13	12	14	12	13	11	19	18	18	16	17	15	15	14
15	16'-0½"	16'-2 <sup>1</sup> / <sub>2</sub> "	#5	#5	13'-2"	#5	#5	12'-2"	#7	#7	12'-4"	#7	#7	10'-4"	15	15	14	14	13	15	12	14	11	20	18	18	17	17	16	16	15
16	17'-0½"	17'-2½"	#5	#5	13'-2"	#5	#5	11'-2"	#7	#7	12'-4"	#8	#8	11'-10"	16	15	14	14	13	15	12	14	12	20	19	19	18	18	16	17	15
17	18'-0½"	18'-2 <sup>1</sup> / <sub>2</sub> "	#5	#5	13'-2"	#6	#6	13'-9"	#7	#7	12'-4"	#8	#8	11'-10"	17	16	15	15	14	16	13	15	12	21	20	20	18	18	17	17	16
18	19'-0½"	19'-2½"	#6	#6	15'-8"	#6	#6	13'-9"	#8	#8	13'-10"	#8	#8	11'-10"	18	16	15	15	14	16	13	15	12	22	20	20	19	19	18	18	16
19	20'-01/2"	20'-2 <sup>1</sup> / <sub>2</sub> "	#6	#6	15'-8"	#6	#6	13'-9"	#8	#8	13'-10"	#9	#8	12'-10"	19	17	16	16	15	17	14	16	13	22	21	21	19	20	18	18	17
20	21'-01/2"	21'-2½"	#6	#6	15'-8"	#7	#7	15'-4"	#8	#9	12'-3"	#9	#9	12'-3"	20	17	16	16	15	17	14	16	13	23	21	21	20	20	19	19	17
21	22'-0 <sup>1</sup> / <sub>2</sub> "	22'-2 <sup>1</sup> / <sub>2</sub> "	#7	#7	17'-4"	#7	#7	15'-4"	#9	#9	14'-3"	#9	#10	11'-7"	21	18	17	17	15	18	15	17	14	24	22	22	20	21	19	19	18
22	23'-0½"	23'-2½"	#7	#7	17'-4"	#7	#7	15'-4"	#9	#10	13'-7"	#10	#9	14'-3"	22	18	17	17	16	18	15	17	14	24	23	23	21	21	20	20	18

	TABLE 3A - TABLE OF POST REINFORCING STEEL														TABLE 3B - PILE LENGTHS (Feet) - WIND SPEED = 150 MPH																		
	POST LE	ENGTHS		WIND SPEED = 150 MPH												10'-0" POST SPACING									20'-0" POST SPACING								
WALL HEIGHT	WALL HEIGHT WITHOUT CAP	WALL HEIGHT WITH CAP				'-0" SPACING			20'-0" POST SPACING						WALL HEIGHT	H-POSTS				CORNER POSTS					H-P0STS				CORNER	R POSTS			
(Feet)			BARS A	BARS BARS A B		BARS D	BARS E		BARS BARS A B		IRS B	BARS BARS		ARS E	(Feet)	50.	SOIL 1		L 2	SOIL 1		50IL 2		S0IL 1		501L 2		SOIL 1		501	L 2		
			SIZE	SIZE	DIM 'A'	SIZE	SIZE	DIM 'A'	SIZE	SIZE	DIM 'A'	SIZE	SIZE	DIM 'A'		<i>30</i> " ⊘	36" ⊘	<i>30</i> " ⊘	36" ⊘	<i>30</i> " ∅	36" ⊘	<i>30</i> " ⊘	36" ⊘	<i>30</i> " ⊘	36" ⊘	<i>30</i> " ∅	<i>36</i> " ∅	<i>30</i> " ⊘	<i>36</i> " ⊘	<i>30</i> " ∅	<i>36</i> " ⊘		
12	13'-0 <sup>1</sup> / <sub>2</sub> "	13'-21/2"	#4	#4	9'-5"	#5	#5	10'-2"	#6	#6	8'-9"	#7	#7	7'-4"	12	15	14	14	13	13	12	12	11	20	20	18	18	17	16	16	15		
13	14'-0 <sup>1</sup> / <sub>2</sub> "	14'-21/2"	#5	#5	9'-2"	#5	#5	10'-2"	#7	#7	10'-4"	#7	#7	8'-4"	13	15	14	14	13	13	13	13	12	21	21	19	19	18	17	17	15		
14	15'-0 <sup>1</sup> / <sub>2</sub> "	15'-2½"	#5	#5	11'-2"	#5	#5	10'-2"	#7	#7	10'-4"	#8	#8	9'-10"	14	16	15	15	14	14	13	13	12	21	21	20	20	19	17	17	16		
15	16'-0½"	16'-2½"	#5	#5	11'-2"	#6	#6	11'-9"	#8	#8	11'-10"	#8	#8	9'-10"	15	17	15	15	14	15	13	14	13	22	22	21	21	19	18	18	17		
16	17'-0½"	17'-2½"	#6	#6	10'-9"	#6	#6	11'-9"	#8	#8	10'-10"	#8	#9	10'-3"	16	17	16	16	15	15	14	14	13	23	23	21	21	20	19	19	17		
17	18'-0 <sup>1</sup> / <sub>2</sub> "	18'-2½"	#6	#6	13'-9"	#7	#7	13'-4"	#8	#9	10'-3"	#9	#8	10'-10"	17	18	17	17	15	16	14	15	13	24	24	22	22	21	19	19	18		
18	19'-0½"	19'-2½"	#6	#6	12'-9"	#7	#7	13'-4"	#9	#9	12'-3"	#9	#10	11'-7"	18	18	17	17	16	16	15	15	14	25	25	23	23	21	20	20	18		
19	20'-0 <sup>1</sup> / <sub>2</sub> "	20'-2 <sup>1</sup> / <sub>2</sub> "	#7	#7	12'-4"	#7	#7	13'-4"	#9	#10	11'-7"	#10	#9	13'-3"	19	19	18	18	16	17	15	15	14	25	25	23	23	22	20	20	19		
			15'-0" POST SPACING													7//		///	///			///					15'-0" PC	ST SPA	T SPACING				
20	21'-0 <sup>1</sup> / <sub>2</sub> "	21'-21/2"	#7	#7	15'-4"	#8	#8	14'-10"	#8	#9	12'-3"	#9	#9	16'-3"	20	19	18	18	17	17	16	16	15	26	26	24	24	23	21	21	20		
21	22'-0 <sup>1</sup> / <sub>2</sub> "	22'-21/2"	#7	#8	14'-10"	#8	#8	14'-10"	#9	#9	14'-3"	#9	#10	15'-7"	21	20	19	19	17	18	16	16	15	27	27	25	25	23	22	22	20		
22	23'-0½"	23'-21/2"	#7	#8	16'-10"	#8	#8	14'-10"	#9	#10	13'-7"	#10	#9	16'-3"	22	21	19	19	18	18	17	17	16	27	27	26	26	24	22	22	21		

#### TABLE NOTE:

- 1. Bars D and Bars E are for 45° Corner Posts only.
- 2. See Contract Plans for project wind speed.
- 3. Soil 1 = Loose Granular Soil, N = 4 to 9;
- Soil 2 = Medium Dense Granular Soil, N = 10 to 40.
- 4. Pile lengths are based on 30 inch diameter auger cast piles.

PILE DEPTH & REINFORCING SUMMARY

LAST REVISION STORMS DESCRIPTION:

DESIGN STANDARDS

PRECAST NOISE WALLS

INDEX SHEET NO. NO. 16 of 16