NOTES

4. SPECIFICATIONS:
   a. General Specifications:
      Standard Indexes for Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Current Edition) and Supplements as amended.
   b. Design Specifications:

B. DESIGN CRITERIA:
   The Precast Sound Barriers are pre-designed and based on the criteria in the Plans Preparation Manual, Volume I and the following soil conditions: Sites with soil SPT N values between 10 and 40.

C. CONCRETE AND GROUT:
   1. Concrete Class and Compressive Strength:
      a. Cast-in-Place Color: Class IV (fc’ = 5500 psi)
      b. Precast Panels & Color: Class IV (fc’ = 5500 psi)
   c. Posts: Class IV (fc’ = 5500 psi)
   2. GROUT for Auger Cast Pillars:
      a. Maximum Working Compressive Strength = 2200 psi
      b. Maximum 28 Day Strength = 5500 psi
   3. Maximum Compressive Strength for Form Removal and Wording of Posts and Panels:
      a. 3,500 psi for horizontally cast posts and panels.
      b. 2,500 psi vertically cast panels or when 11”-up form tabs are used for horizontally cast panels.

D. REINFORCING STEEL:
   1. Reinforcing steel shall conform to ASTM A 615, Grade 60.
   2. Welded wire fabric shall conform to ASTM A 605 (smooth wire) or ASTM A 497 (deformed wire).
   3. Concrete Cover of 2” shall be provided unless otherwise noted.
   4. In addition to the requirements of Specification Section 415, the post and pile slabs at the following locations shall be reinforced as a minimum:
      a. Post Slabs – Tie at all four corner slabs and at every third interior bar intersection.
      b. Pile Slabs – Tie to the main vertical reinforcing at alternate intersections for circular configurations and for rectangular configurations at the four corners and at every third interior bar intersection.

E. SURFACE FINISH:
   Provide a Class 5 finish in accordance with Specification Section 400, unless otherwise shown on the Wall Control Drawings. See Index No. 5205 for texture finish options.

F. PLACING:
   Precast Auger Cast Placing in accordance with the Plans and Specification Section 455.

G. UTILITIES:
   Field verify the locations of all overhead and underground utilities shown in the Wall Control Drawings.

H. NEOPRENE PADS AND HEADLAMP PADS:
   1. Neoprene Pads for Panel Bearing Points Between the Stacked Panels:
      The Neoprene pads for the panel bearing points shall be plain Neoprene pads. The plain Neoprene pads are exempt from the requirements of Section 932-7. The pads shall be 100 percent Neoprene (Neoprene) composition of a 50 durometer hardness and may be molded or extruded in large sheets and cut to size.
   2. Neoprene Pads for Color Bearing Points:
      b. Precast Color: The Neoprene pads shall be 100 percent Neoprene composite pads meeting the requirements of Specification Section 932-7 with a minimum load rating of 10 tons. Grade 50 durometer hardness.
      c. Flat plates shall be 100 percent Neoprene.

I. CASTING TOLERANCES:
   a. Overall Height & Width /+ - 1/8".
   b. Thickness: /+ 1/8”.
   c. Plane of side mold: /+ 1/8".
   d. Openings /+ -1/8”.
   e. Out of Square: /+ - 1/8” per 8 ft, but not more than 1/8” total along any side.
   f. Worsening /+ -1/8” per foot distance to nearest corner.
   g. Bowing: /+ -1/24” panel dimension.
   h. Surface Smoothness for Type “A” (Smooth Surface Texture Option) /+ - 1/8” along a 10 ft. straightedge.

K. SOUND BARRIER WALL NOTES:
   1. Distance between base shall be minimum of 20 ft from centerline to centerline. These Sound Barrier Walls shall be provided for 5 Pilots/Posts or 20 ft past the connecting points of 12 ft. Based on the height of the panels, the system depicted in Index No. 5204 through 5204 is based on a 20 ft past spacing. The panel system depicted in Index No. 5202 through 5204 is based on a 20 ft past spacing.
   2. Height shall be less than 12 ft. In height shall consist of at least 12 ft. In height, and with the height of the lower panel not less than one third of the height of the upper panel. Make equal ft. or less than 12 ft. In height shall consist of a single panel. Horizontal panel joints shall be held at a constant elevation for a given wall, where possible. Posts shall be 1" crease section with panels installed from above. Panels shall be installed at an angle with cast chips and C.I.P. collars have reached their 28 day design strength.
   3. See Index No. 5205 for the five pilos/post connection options. The Contractor may choose any of these options, unless specified excluded in the Wall Control Drawings.
   4. Alloys shall be held plumb in auger cast posts with an installation template. The template shall be adjustable for horizontal placement, vertical placement and plumbness of posts. The template shall be such that the installation tolerances can be held. Template shall remain in place for a minimum of 12 hours after post installation.
   5. The Contractor shall be responsible for meeting GSA 104 (or any utility adjustments, changes due to power stoppages, alignments, special construction, etc.) to meet these requirements shall be included in bid.
   6. Structural Steel, in accordance with ASTM A 36.
   7. Structural Steel = Pile/Post Connection Option D: Pile assemblies shall be shop fabricated in accordance with Specification Section 455. Welding details and welding operations shall be in accordance with the current edition of AWS/D1.1 Welding Code. Field welding is not permitted.
   8. Structural Steel with Concrete Casing = Pile/Post Connection Option C: Store steel parts in a location protected against environmental conditions. Prior to pouring the concrete around the structural post, post shall be free of loose rust, scale, dirt, paint, oil and foreign material.

L. VENDOR OR CONTRACTOR DESIGN:
   1. In no case will VEND or Contractor Designs be allowed to modify foundation designs, or post spacing.
   2. Substitution of proprietary panels or systems not listed in the Wall Control Drawings whet shall be allowed.

M. QUALIFIED PRODUCTS LIST:
   Manufacturers seeking approval of proprietary sound barrier panels, posts and foundations or systems for inclusion on the Qualified Products List of approved suppliers must submit a QP Product Evaluation Application along with design documentation, vendor drawings and all other information as required in the Sound Barrier QP Product Evaluation Criteria showing the proprietary product is designed to meet all required requirements. Project specific Shop Drawings are required for sound barrier projects in accordance with Specification Section 534.

N. TERMINATIONS:
   The Contractor shall construct the standard precast 20°-0” panel orientation depicted in the plans or shall construct one of the proprietary sound barrier panel or proprietary system options (paddle and foundation) listed in the Wall Control Drawings.

O. FINISH COATING:
   1. All areas not shown to receive an anti-graffiti coating shall be coated in accordance with Specification Section 534, Type 1 Specifications with a Class 5 Applied Finish Coating. The color of the system shall be the same as the anti-graffiti system or as directed by the Engineer.
   2. Structural Steel/Post Assembly Coating System = Pile/Post Connection Option D: The steel post assembly shall receive a shop applied three-coat system comprised of one coat of an approved self-furring zinc primer in accordance with Specification Section 534 followed by two costs of an approved Type W color paint applied in one gallon or more dry film thickness of 8 mils each to yield a minimum total film thickness of 19 mils. The application of the color coating shall be in strict conformance with the manufacturer’s published specifications. The limits of the coating system shall be exposed surface areas of the post assembly from the top of post to 4” below Top of Color (Ref. A). After the post assembly is installed, it shall be coated with an approved coil applied Class 5 Applied Finish Coating in accordance with Specification Section 534 or as otherwise directed by the Engineer. The coating shall be applied the color of the panel unless otherwise noted in the plans. All components of the coating system shall be listed on the Department’s Qualified Products List. The material supplier shall certify compatibility of paint system.

P. TEST WALL:
   The Contractor shall construct a test wall at the beginning of the project consistent with Specification Section 534. The Contractor shall demonstrate that clacking and erection tolerances can be met in order to assure that the pre-determined elements fit together as intended.

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PRECAST SOUND BARRIERS – GENERAL NOTES