

SECTION 07464 – VINYL SIDING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Solid vinyl siding.
- B. Vented vinyl soffit.
- C. Vinyl trim.

1.2 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry: Framing and Sheathing.
- B. Section 07260 - Vapor Retarders.
- C. Section 07900 - Joint Sealers.

1.3 REFERENCES

- A. ASTM C 272 - Standard Test Method For Water Absorption of Core Materials for Structural Sandwich Constructions.
- B. ASTM C 518 - Standard Test Method For Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
- C. ASTM D 256 - Standard Test Method for Determining the Pendulum Impact Resistance of Notched Specimens of Plastics.
- D. ASTM D 635 - Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position.
- E. ASTM D 638 - Standard Test Method for Tensile Properties of Plastics.
- F. ASTM D 648 - Standard Test Method for Deflection Temperature of Plastics Under Flexural Load.
- G. ASTM D 696 - Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30 Degrees C. and 30 Degrees C.
- H. ASTM D 1622 - Standard Test Method for Apparent Density of Rigid Cellular Plastic.
- I. ASTM D 1784 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
- J. ASTM D 2843 - Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics.
- K. ASTM D 3679 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Siding.
- L. ASTM D 4477 - Standard Specification for Rigid Unplasticized Poly(Vinyl Chloride) (PVC) Soffit.

- M. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- N. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials; 2000.
- O. UBC STD 26-9 - Method of Test for the Evaluation of Flammability Characteristics of Exterior, Nonload-Bearing Wall Assemblies Containing Combustible Components Using the Intermediate-Scale, Multistory Test Apparatus; 1997.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
- E. Quality Assurance Submittals: Submit evidence of Code compliance specified in QUALITY ASSURANCE Article of this section.

1.5 QUALITY ASSURANCE

- A. Regulatory Requirements: Code compliance in accordance with the following:
 - 1. BOCA.
 - 2. ICBO.
 - 3. Metropolitan Dade County, Florida.
 - 4. BBA.
 - 5. National Evaluation Service.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store vinyl siding products in original packaging, on flat surface under cover, stacked no more than 12 boxes high. Do not store in location where temperatures may exceed 130 degrees F (54 degrees C).

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.8 WARRANTY

- A. Provide manufacturer's standard limited lifetime warranty.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Alcoa Home Exteriors, Inc., or equal
- B. Substitutions: See Section 00440 Substitutions.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 MATERIALS

- A. Siding and Soffit - General Requirements: Polyvinyl chloride products with the following characteristics:
 - 1. Siding: Comply with ASTM D 3679, Class 2.
 - 2. PVC cell classification in accordance with ASTM D 1784: 13334.
 - 3. Coefficient of linear expansion in accordance with ASTM D 696: 0.000029 inch per inch per degree F.
 - 4. Tensile strength when tested in accordance with ASTM D 638: Minimum 7,100 pounds per square inch.
 - 5. Modulus of elasticity when tested in accordance with ASTM D 638: Minimum 360,000 pounds per square inch, average.
 - 6. Izod impact, standard 1/8 inch bar when tested in accordance with ASTM D 256: 3.30 foot-pounds per inch, average.
 - 7. Shore D Hardness: Minimum 73.
 - 8. Specific Gravity: Minimum 1.39.
 - 9. Deflection temperature when tested in accordance with ASTM D 648: 170 degrees F, 264 pounds per square inch.
 - 10. Smoke density rating when tested in accordance with ASTM D 2843: 48 percent, average.
 - 11. Horizontal flammability, when tested in accordance with ASTM D 635:
 - a. Burn distance: 20 mm.
 - b. Burn time: Less than 5 seconds.
 - 12. Surface burning characteristics when tested in accordance with ASTM E 84: Flame spread 20, fuel contribution 0, smoke density 400.
 - 13. Fire Resistance - Siding: 1 hour, when tested in accordance with ASTM E 119, with siding applied over gypsum sheathing.
 - 14. Flammability - Siding: Comply with requirements of UBC Std 26-9.
 - 15. Thermal Resistance when tested in accordance to ASTM C 518: "R" Value 3.7.
 - 16. Water Absorption by Immersion in accordance to ASTM C 272: 0.5 percent by volume.
 - 17. Density in accordance to ASTM D 1622: 1.0 pounds per cubic foot.
- B. Fasteners: Aluminum nails, alloy 5056 or 6110, having minimum tensile strength 63,000 pounds per square inch.
- C. Vapor Retarder: Specified in Section 07260.
- D. Joint Sealers: Specified in Section 07900.

2.3 VINYL SIDING AND TRIM

- A. Vinyl Siding Type ____: Mill Creek Siding.
 - 1. Product Description: Double 4 profile, 8 inches exposure; nominal 0.040 inch material thickness; nominal 12 feet 6 inch piece length.
 - 2. Product Description: Double 4 Dutch Lap profile, 8 inches exposure; nominal 0.040 inch material thickness; nominal 12 feet 6 inch piece length.
 - 3. Product Description: Double 5 profile, 10 inches exposure; nominal 0.040 inch material thickness; nominal 12 feet piece length.

4. Product Description: Double 5 Dutch Lap profile, 10 inches exposure; nominal 0.040 inch material thickness; nominal 12 feet piece length.
5. Nailing Hem: Single-row, with elongated nailing holes 1-1/4 inches long at 1-5/8 inches on center.
6. Finish: Cedar woodgrain texture.
7. Color: As selected from manufacturer's full range of available colors.

B. Vinyl Trim:

1. Structure Corner Post: 4 inches by 4 inches post, 1-1/4 inch wide siding recess; woodgrain finish; _____ color.
2. Universal Outside Corner Post: 4 inches by 4 inches post, 3/4 inch wide siding recess; woodgrain finish; _____ color.
3. Universal Outside Corner Post: 4 inches by 4 inches post, 3/4 inch wide siding recess; smooth finish; _____ color.
4. Traditional Outside Corner Post with Foam Insert: 5-1/2 inches by 5-1/2 inches post, 3/4 inch wide siding recess; _____ color.
5. Fluted Outside Corner Post with Foam Insert: 5-1/2 inches by 5-1/2 inches post, 3/4 inch wide siding recess; _____ color.
6. Standard Inside Corner Post: 2 inches by 2 inches covered projection, 3/4 inch wide siding recess; _____ color.
7. J-Trim: Channel, 1-1/2 inches nailing leg, 3/4 inch forward leg, 5/8 inch channel width; _____ color.
8. J-Trim: Channel, 1-1/2 inches nailing leg, 3/4 inch forward leg, 7/8 inch channel width; _____ color.
9. J-Trim: Channel, 1-1/2 inches nailing leg, 3/4 inch forward leg, 1-1/4 inch channel width; _____ color.
10. Finishing Trim: 1-1/2 inches nailing leg, 3/4 inch forward leg; _____ color.
11. Double Finish Trim: 1-1/2 inches nailing leg, 3/4 inch forward leg, double channel 7/8 inch total width; _____ color.
12. Wide Window Casing: 3-1/2 inches nailing leg, 2-1/2 inch forward leg with 7/8 inch return; white color.
13. Wide Window Casing: 3-1/2 inches nailing leg, 2-1/2 inch forward leg with 1-1/4 inch return; white color.
14. Wide Window Casing: 3-1/2 inches nailing leg, 2-1/2 inch forward leg with 3/4 inch return; _____ color.
15. Structure Starter Strip: Double-row nailing hem with elongated nailing holes 1-1/4 inches long 18 inches on center; 1/4 inch base projection; white color.
16. Starter Strip: Single-row nailing hem with elongated nailing holes 1-1/4 inches long 18 inches on center; 1/4 inch base projection; white color.
17. Starter Strip: Single-row nailing hem with elongated nailing holes 1-1/4 inches long 18 inches on center, 1-1/4 inch base projection; white color.

2.4 VINYL SOFFIT AND TRIM

A. Vinyl Soffit Type ____: Ventura Hidden Vent Soffit.

1. Product Description: Vented Triple 3-1/3 V-groove profile, 10 inches exposure, 5/8 inch depth; nominal 0.044 inch material thickness; nominal 12 feet piece length.
2. Product Description: Non-vented Triple 3-1/3 V-groove profile, 10 inches exposure, 5/8 inch depth; nominal 0.044 inch material thickness; nominal 12 feet piece length.
3. Nailing Hem: Single-row, with elongated nailing holes 1-1/4 inches long at 1-5/8 inches on center.
4. Finish: Low-gloss brushed texture.
5. Color: As selected from manufacturer's full range of available colors.

6. Ventilation - Supply ventilation type soffit material having .156 by .750 openings with 9.19 square inches free air space per square foot of soffit area.
- B. Vinyl Trim:
1. Soffit J-Trim: Channel, 1-1/2 inches nailing leg, 3/4 inch forward leg, 1/2 inch channel width; _____ color.
 2. Soffit J-Trim: Channel, 1-1/2 inches nailing leg, 3/4 inch forward leg, 5/8 inch channel width; _____ color.
 3. T-Channel: 1-3/4 inches batten, 5/8 inch recess; _____ color.
 4. Frieze Runner F-Channel: _____ color.
 5. Pro-Bead Soffit J-Trim: Channel, 2-3/8 inch nailing leg, 1-3/8 inch forward leg, 3/8 inch channel width; _____ color.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine substrate conditions before beginning installation of vinyl products; verify dimensions and acceptability of substrate.
- B. Do not proceed with installation of vinyl products until unacceptable conditions have been corrected.

3.2 PREPARATION

- A. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Installation of vapor retarder is specified in Section 07260.
- B. Install vinyl products in accordance with manufacturer's printed installation instructions.
- C. Attach vinyl products to substrate for weathertight installation; ensure that horizontal components are installed true to level, that vertical components are installed true to plumb.
- D. Installation of joint sealers is specified in Section 07900.

3.4 CLEANING

- A. Clean dirt from surface of installed products, using mild soap and water.
- B. After completing installation of vinyl products, remove from project site excess materials and debris resulting from installation of vinyl products.