SECTION 074633 - PLASTIC SIDING

Revise this Section by inserting or deleting text to meet Project-specific requirements.

This Section uses the term "ArchitectDirector’s Representative ." Change this term to match that used to identify the design professional as defined in the General and Supplementary Conditions.

Verify that Section titles referenced in this Section are correct for this Project's Specifications; Section titles may have changed.

1. GENERAL
	* + 1. RELATED DOCUMENTS

Retain or delete this article in all Sections of Project Manual.

* + - 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
			2. SUMMARY
				1. Section includes vinyl **[siding] [and] [soffit]**.
				2. Related Requirements:

Retain subparagraphs below to cross-reference requirements Contractor might expect to find in this Section but are specified in other Sections.

Refer to sections listed below for cross-reference requirements Contractor might expect to find in this Section but are specified in other Sections. Sections listed below are for spec editor’s and design team coordination and are to remain as Editor’s Notes. Remove referenced specification sections within the body of the specification if not applicable to the project.

Section 061000 "Rough Carpentry" for wood furring, grounds, nailers, and blocking.

Section 062013 "Exterior Finish Carpentry" for exterior [cellular PVC] [and] [foam-plastic] trim.

Section 072500 "Weather Barriers" for weather-resistive barriers.

* + - 1. COORDINATION
				1. Coordinate siding installation with flashings and other adjoining construction to ensure proper sequencing.
			2. PREINSTALLATION MEETINGS

Retain "Preinstallation Conference" Paragraphp below if Work of this Section is extensive or complex enough to justify a conference.

* + - * 1. Preinstallation Conference: Conduct conference at Project site.
			1. SUBMITTALS
				1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
				2. Manufacturer’s installation instructions shall be provided along with product data.
				3. Submittals shall be provided in the order in which they are specified, except as noted below, and tabbed (for combined submittals).
				4. Product Data: For each type of product. **[Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.]**

Include manufacturer’s installation instructions.

Retain subparagraph below for vinyl siding if retaining requirement for certification in "Quality Assurance" Article.

For vinyl siding, include VSI's official certification logo printed on Product Data.

* + - * 1. Samples for Initial Selection: For vinyl **[siding] [and] [soffit]** including related accessories.
				2. Samples for Verification: **[For each type, color, texture, and pattern required.]**

Retain one of first two subparagraphs below.

12-inch- (300-mm-) long-by-actual-width Sample of siding.

24-inch- (600-mm-) wide-by-36-inch- (900-mm-) high Sample panel of siding assembled on plywood backing.

Retain one or both subparagraphs below if required.

12-inch- (300-mm-) long-by-actual-width Sample of soffit.

12-inch- (300-mm-) long-by-actual-width Samples of trim and accessories.

* + - * 1. Quality Control Submittals:

Qualification Data: For vinyl siding Installer.

Product Certificates: For each type of vinyl [siding] [and] [soffit].

Research/Evaluation Reports: For each type of vinyl siding required, from UNIFORM CODE-ES.

Sample Warranty: For special warranty.

Design Consultant to review code references and verify that the referenced sections/tables are current. Note that code references shall be based on the current version of the Uniform Code.

* + - * 1. Contract Closeout Submittals:

Maintenance Data: For each type of product, including related accessories, to include in maintenance manuals.

* + - * 1. Maintenance Material Submittals:

Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

Furnish full lengths of vinyl **[siding] [and] [soffit]** including related accessories, in a quantity equal to 2 percent of amount installed.

* + - 1. QUALITY ASSURANCE

Retain "Vinyl Siding Installer Qualifications" Paragraph below if a third-party certification program of vinyl siding installers is required. Verify availability of qualified personnel in vicinity of Project if applicable.

* + - * 1. Vinyl Siding Installer Qualifications: A qualified installer who employs a VSI-certified Installer on Project.
				2. Benchmarks: Build benchmarks to verify selections made under Sample submittals and to demonstrate aesthetic effects and to set quality standards for fabrication and installation.

Retain first subparagraph below for large-scale benchmark. Indicate portion of wall represented by benchmark on Drawings or draw benchmark as separate element.

Build benchmark of typical wall area as shown on Drawings.

Retain first subparagraph below for limited benchmarks.

Build benchmarks for vinyl [siding] [and] [soffit] including accessories.

Size: **[48 inches (1200 mm) long by 60 inches (1800 mm) high] <Insert dimensions>**.

Include outside corner on one end of benchmark **[and inside corner on other end]**.

Retain first subparagraph below if mockupbenchmarks are not only for establishing appearance factors.

Approval of benchmarks does not constitute approval of deviations from the Contract Documents contained in benchmarks unless Director’s Representative specifically approves such deviations in writing.

* + - 1. DELIVERY, STORAGE, AND HANDLING
				1. Deliver and store packaged materials in original containers with labels intact until time of use.
				2. Store materials under cover.
			2. WARRANTY

When warranties are required, verify with Owner's the Director’s counsel Representative that warranties stated in this article are not less than remedies available to Owner the Facility under prevailing local laws.

* + - * 1. Special Warranty: Manufacturer agrees to repair or replace products that fail in materials or workmanship within specified warranty period.

Failures include, but are not limited to, the following:

Structural failures including cracking **[, fading,]** and deforming.

Deterioration of materials beyond normal weathering.

**<Insert failure modes>**.

Retain ", fading," option above and first subparagraph below if manufacturers cover fading in their warranty. If retaining, also retain one of three options below. Most vinyl siding manufacturers define fading as more than 4 Hunter units.

Fading is defined as loss of color, after cleaning with product recommended by manufacturer, of more than **[4] [5] [7]** Hunter color-difference units as measured according to ASTM D2244.

Verify available warranties and warranty periods for vinyl siding and soffit.

Warranty Period: **[10] [25] [50] <Insert number>** years from date of Substantial Completion.

* + - * 1. Warranty Extension: The one year period required by Paragraph 9.8 of the General Conditions is extended to 2 years for the Work of this Section. Refer to Supplementary Conditions.
1. PRODUCTS

See Editing Instruction No. 1 in the Evaluations for cautions about named manufacturers and products. For an explanation of options and Contractor's product selection procedures., see Section 016000 "Product Requirements."

* + - 1. MANUFACTURERS
				1. Source Limitations: Obtain products, including related accessories, from single source from single manufacturer.
			2. VINYL SIDING
				1. Vinyl Siding: Integrally colored product complying with ASTM D3679.

"Vinyl Siding Certification Program" Paragra below provides third-party verification that vinyl siding complies with referenced ASTM standard.

* + - * 1. Vinyl Siding Certification Program: Provide products that are listed in VSI's list of certified products.

Retain one or more of first 11 paragraphs below or revise to suit Project.

* + - * 1. Horizontal Pattern: 6-1/2- or 7-inch (165- or 178-mm) exposure in beaded-edge, single-board style.
				2. Horizontal Pattern: 8-inch (203-mm) exposure in plain, **[single-board] [double, 4-inch (102-mm) board] [triple, 2-2/3-inch (68-mm) board] <Insert requirement>** style.
				3. Horizontal Pattern: 8-inch (203-mm) exposure in Dutch-lap, double, 4-inch (102-mm) board style.
				4. Horizontal Pattern: 9-inch (229-mm) exposure in plain, **[double, 4-1/2-inch (114-mm)] [triple, 3-inch (76-mm)] <Insert requirement>** board style.
				5. Horizontal Pattern: 9-inch (229-mm) exposure in Dutch-lap, double, 4-1/2-inch (114-mm) board style.
				6. Horizontal Pattern: 10-inch (254-mm) exposure in **[plain,] [Dutch-lap,] <Insert requirement,>** double, 5-inch (127-mm) board style.
				7. Vertical Pattern: 6-inch (152-mm) exposure in V-grooved, single-board style.
				8. Vertical Pattern: 8-inch (203-mm) exposure in beaded-edge, double, 4-inch (102-mm) board style.
				9. Vertical Pattern: 10-inch (254-mm) exposure in V-grooved, double, 5-inch (127-mm) board style.
				10. Vertical Pattern: 12-inch (300-mm) exposure in V-grooved, **[double, 6-inch (152-mm)] [triple, 4-inch (102-mm)] <Insert requirement>** board style.
				11. Shingle Pattern: 48-inch- (1200-mm-) wide, **[straight-edge notched] [staggered-edge notched] [half-round edge] [octagon edge] <Insert requirement>** sheets with wood-grain texture.
				12. Texture: **[Smooth] [Wood grain] <Insert requirement>**.

Delete "Nominal Thickness" Paragraph below if 0.035-inch (0.9-mm) thickness is acceptable. Most low-priced vinyl siding is at least 0.040 inch (1.0 mm) thick; premium siding is 0.044 to 0.048 inch (1.1 to 1.2 mm) thick. See Evaluations.

* + - * 1. Nominal Thickness: **[0.040 inch (1.0 mm)] [0.044 inch (1.1 mm)] <Insert dimension>**.

Retain one of three options in "Minimum Profile Depth (Butt Thickness)" Paragraph below or revise to suit Project. Profile depth, pattern, and thickness determine stiffness. Before retaining, verify that profile depth is available in pattern retained.

* + - * 1. Minimum Profile Depth (Butt Thickness): **[1/2 inch (13 mm)] [5/8 inch (16 mm)] [3/4 inch (19 mm)] <Insert dimension>**.

Double-thickness hem in "Nailing Hem" paragraph below is a feature of most manufacturers' premium siding that increases wind resistance.

* + - * 1. Nailing Hem: Double thickness.

Finish in "Finish" Paragraph below is offered by some manufacturers on their top-of-the-line siding.

* + - * 1. Finish: Wood-grain print with clear protective coating containing not less than 70 percent PVDF.

Retain one of three options in "Colors" Subparagraphsubparagraph below. If retaining first option, indicate colors in a separate schedule.

Colors: **[As indicated by manufacturer's designations] [Match Director’s Representative's samples] [As selected by Director’s Representative from manufacturer's full range of colors]**.

* + - 1. VINYL SOFFIT
				1. Vinyl Soffit: Integrally colored product complying with ASTM D4477.

"Vinyl Siding Certification Program" Paragraph below provides third-party verification that vinyl soffit complies with referenced ASTM standard.

* + - * 1. Vinyl Siding Certification Program: Provide products that are listed in VSI's list of certified products.

Retain one of four "Pattern" paragraphs below or revise to suit Project.

* + - * 1. Pattern: 6-inch (152-mm) exposure in **[V-grooved, single-board] [beaded-edge, triple, 2-inch (51-mm) board] <Insert requirement>** style.
				2. Pattern: 8-inch (203-mm) exposure in V-grooved, double, 4-inch (102-mm) board style.
				3. Pattern: 10-inch (254-mm) exposure in V-grooved, double, 5-inch (127-mm) board style.
				4. Pattern: 12-inch (300-mm) exposure in V-grooved, [double, 6-inch (152-mm)] [triple, 4-inch (102-mm)] **<Insert requirement>** board style.
				5. Texture: **[Smooth] [Wood grain] <Insert requirement>**.
				6. Ventilation: Provide **[perforated] [unperforated]** soffit **[unless otherwise indicated]**.

Delete "Nominal Thickness" paragraph below if 0.030-inch (0.8-mm) thickness is acceptable. Most low-priced vinyl soffit is at least 0.040 inch (1.0 mm) thick; premium soffit is usually 0.044 inch (1.1 mm) thick. See Evaluations.

* + - * 1. Nominal Thickness: **[0.035 inch (0.9 mm)] [0.040 inch (1.0 mm)] [0.044 inch (1.1 mm)] <Insert dimension>**.

Retain one of three options in "Minimum Profile Depth" paragraph below or revise to suit Project. Profile depth, pattern, and thickness determine stiffness. Before retaining, verify that profile depth is available in pattern retained.

* + - * 1. Minimum Profile Depth: **[1/2 inch (13 mm)] [5/8 inch (16 mm)] [3/4 inch (19 mm)] <Insert dimension>**.

Retain one of four options in "Colors" Paragraph below. If retaining first option, indicate colors in a separate schedule.

* + - * 1. Colors: **[**As indicated by manufacturer's designations**] [**Match Director’s Representative's samples**] [**As selected by Director’s Representative from manufacturer's full range of colors**] [**Match adjacent siding**]**.
			1. ACCESSORIES

Retain "Siding Accessories, General" paragraph below if using aluminum or vinyl siding.

* + - * 1. Siding Accessories, General: Provide starter strips, edge trim, outside and inside corner caps, and other items as recommended by siding manufacturer for building configuration.

Provide accessories **[made from same material as] [matching color and texture of]** adjacent siding unless otherwise indicated.

* + - * 1. Vinyl Accessories: Integrally colored vinyl accessories complying with ASTM D3679 except for wind-load resistance.

Texture: **[Smooth] [Wood grain] <Insert requirement>**.

Retain "Decorative Accessories" paragraph below if decorative accessories are required for Project. Verify availability with manufacturers.

* + - * 1. Decorative Accessories: Provide the following vinyl decorative accessories as indicated:

Retain decorative accessories in subparagraphs below and revise to suit Project. Indicate locations and details on Drawings.

Corner posts **[with fluted faces]**.

Door and window casings **[with fluted faces] [and corner rosettes]**.

Entrance and window head pediments.

Pilasters **[with fluted faces]**.

Shutters with **[paneled] [louvered]** faces.

Louvers.

Lattice.

Fasciae.

Moldings and trim.

**<Insert accessories>**.

Retain one of four options in "Colors for Decorative Accessories" paragraph below. If retaining first option, indicate colors in a separate schedule.

* + - * 1. Colors for Decorative Accessories: **[As indicated by manufacturer's designations] [Match Director’s Representative's samples] [As selected by Director’s Representative from manufacturer's full range of colors] [Match adjacent siding]**.
				2. Flashing: Provide **[aluminum] [stainless-steel] <Insert metal>** flashing complying with Section 076200 "Sheet Metal Flashing and Trim" at window and door heads and where indicated.

Finish for Aluminum Flashing: **[Siliconized polyester coating, same color as siding] [High-performance organic finish, same color as siding] [Factory-prime coating] <Insert finish>**.

* + - * 1. Fasteners:

For fastening to wood, use **[siding nails] [ribbed bugle-head screws]** of sufficient length to penetrate a minimum of 1 inch (25 mm) into substrate.

For fastening to metal, use ribbed bugle-head screws of sufficient length to penetrate a minimum of 1/4 inch (6 mm), or three screw-threads, into substrate.

For fastening vinyl, use **[aluminum] [hot-dip galvanized] [stainless-steel]** fasteners. Where fasteners are exposed to view, use prefinished aluminum fasteners in color to match item being fastened.

* + - * 1. Insect Screening for Soffit Vents: **[Aluminum, 18-by-16 (1.4-by-1.6-mm) mesh] [PVC-coated, glass-fiber fabric, 18-by-14 or 18-by-16 (1.4-by-1.8- or 1.4-by-1.6-mm) mesh] <Insert requirement>**.
				2. Continuous Soffit Vents: Aluminum, hat-channel shape, with **[stamped louvers] [perforations]**; 2 inches (51 mm) wide and not less than 96 inches (2438 mm) long.

Net-Free Area: **[4 sq. in./linear ft. (280 sq. cm/m)] [6 sq. in./linear ft. (420 sq. cm/m)] [8 sq. in./linear ft. (560 sq. cm/m)] <Insert dimension>**.

Finish: **[Mill finish] [White paint] [Brown paint] <Insert requirement>**.

* + - * 1. Round Soffit Vents: Stamped aluminum louvered vents, **[2 inches (51 mm)] [2-1/2 inches (64 mm)] [3 inches (76 mm)] [4 inches (102 mm)] <Insert dimension>** in diameter, made to be inserted in round holes cut into soffit.

Finish: **[Mill finish] [White paint] [Brown paint] <Insert requirement>**.

1. EXECUTION
	* + 1. EXAMINATION
				1. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of vinyl **[siding] [and] [soffit]** and related accessories.
				2. Proceed with installation only after unsatisfactory conditions have been corrected.
			2. PREPARATION
				1. Clean substrates of projections and substances detrimental to application.
			3. INSTALLATION
				1. General: Comply with manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply.

Center nails in elongated nailing slots without binding siding to allow for thermal movement.

* + - * 1. Install vinyl **[siding] [and] [soffit]** and related accessories according to ASTM D4756.

Install fasteners for horizontal vinyl siding no more than **[16 inches (400 mm)] <Insert dimension>** o.c.

Install fasteners for vertical vinyl siding no more than **[12 inches (300 mm)] <Insert dimension>** o.c.

* + - * 1. Install joint sealants as specified in Section 079200 "Joint Sealants" and to produce a weathertight installation.
			1. ADJUSTING AND CLEANING
				1. Remove damaged, improperly installed, or otherwise defective materials and replace with new materials complying with specified requirements.
				2. Clean finished surfaces according to manufacturer's written instructions and maintain in a clean condition during construction.

END OF SECTION 074633