**Allura® Siding Three-Part Specification**

**SECTION 074646 FIBER-CEMENT SIDING**

1. GENERAL
	1. RELATED DOCUMENTS
		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. Fiber-cement lap siding.
		2. Fiber-cement panel siding.
		3. Fiber-cement shake siding.
		4. Fiber-cement soffit.
		5. Fiber-cement trim.
	3. RELATED SECTIONS
		1. Section 05 41 00 - Structural Metal Stud Framing
		2. Section 06 10 00 - Rough Carpentry
		3. Section 06 20 13 - Exterior Finish Carpentry
		4. Section 07 25 00 - Weather Barriers
		5. Section 07 60 00 - Flashing and Sheet Metal
		6. Section 07 90 00 - Joint Protection
	4. REFERENCES
		1. ASTM C1186 - Standard Specification for Flat Non-Asbestos Fiber-Cement Sheets.
		2. ASTM D3359 - Standard Test Method for Measuring Adhesion by Tape Test, Tool and Tape.
		3. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
		4. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C.
		5. ASTM E2768 - Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials.
	5. COORDINATION
		1. Coordinate siding installation with flashings and other adjoining construction to ensure proper sequencing and building code compliance.
	6. PREINSTALLATION MEETINGS
		1. Coordinate with Section 013100 "Project Management and Coordination."
		2. Preinstallation Conference: Conduct conference at project site.
	7. ACTION SUBMITTALS
		1. Product Data: Manufacturer's data sheets on each product to be used, including:
			1. Construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of product and accessory.
			2. Installation methods, including fastening patterns.
			3. Manufacturer standard details and specifications.
		2. Shop Drawings: Provide detailed drawings of atypical non-standard applications of cementitious siding materials which are outside the scope of the standard details and specifications provided by the manufacturer.
		3. Selection Samples: Fiber Cement product samples including related accessories. For factory-finished product, submit available factory-finished color samples.
		4. Verification Samples: For each type, color, texture and pattern, submit minimum 3-inch-wide samples, representing the actual product and color to be specified.
	8. INFORMATION SUBMITTALS
		1. Qualifications: For Installer.
		2. Evaluation Reports: For each type of fiber-cement siding required, from ICC-ES or other applicable model code authority.
		3. Sample warranties.
	9. MAINTENANCE MATERIAL SUBMITTALS
		1. Maintenance Data: For each type of product, including related accessories, to include in maintenance manuals.
		2. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
			1. Furnish full lengths of each type of product including related accessories, in a quantity equal to 2 percent of amount installed.
	10. QUALITY ASSURANCE
		1. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for fabrication and installation.
			1. Build mockup of typical wall area as indicated on Drawings.
			2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing prior to project commencement.
			3. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
			4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
	11. DELIVERY, STORAGE, AND HANDLING
		1. Unload, store, and handle in a manner to prevent bending, cracking, twisting, and surface damage.
		2. Store products under cover on a on a level surface and in compliance with manufacturer’s published installation requirements.
		3. Ensure products are fully dry prior to and during installation.
		4. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.
	12. PROJECT CONDITIONS
		1. Proceed with installation only when existing and forecasted weather conditions permit in accordance with manufacturers' written instructions and warranty requirements.
	13. WARRANTY
		1. Product Warranty: 30-Year Transferrable Limited Product Warranty.
			1. Allura® Lap
			2. Allura® Panel
			3. Allura® Shake
			4. Allura® Shake Select
			5. Allura® Soffit
		2. Product Warranty: 15-Year Transferrable Limited Product Warranty.
			1. Allura® Trim
		3. Finish Warranty: 15-Year Transferrable Limited Finish Warranty.
			1. Allura® Spectrum Coating
2. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Plycem USA, LLC, a.k.a. Allura®, located at: 396 W. Greens Rd, Ste 300, Houston, TX 77067; Tel: 1-844-4-ALLURA Web: [www.alluraUSA.com](http://www.alluraUSA.com)
		2. Substitutions: Not permitted without approval.
		3. Requests for approval of equal substitutions considered in accordance with provisions of Section 01600.
	2. FIBER-CEMENT SIDING AND TRIM
		1. Allura® Lap, Allura® Panel, Allura® Shake, Allura® Shake Select and Allura® Soffit requirement for materials:
			1. Fiber Cement Siding- Complies with ASTM C1186 Type A Grade ll.
			2. Fiber Cement Siding- Complies with ASTM E136 as a noncombustible material.
			3. Fiber Cement Siding- Complies with ASTM E84 Flame Spread:0; Smoke Developed:5
			4. CAL-FIRE, Fire Engineering Division Building Materials Listing - Wildland Urban Interface (WUI) Listed Product.
			5. ICC-ES Evaluation Report ESR-1668.
			6. Miami Dade County, Notice of Acceptance 18-0222.08.
			7. Florida State Product Approval FL20742.
			8. Texas Department of Insurance Product Evaluation EC-16.
		2. Allura® Lap siding
			1. Thickness: 5/16 inches (8 mm).
			2. Texture: Smooth or Traditional Cedar.
			3. Sizes:
				1. 5-1/4 inches (133 mm) by 12 feet (3658 mm) with 4 inches (102 mm) exposure.
				2. 6-1/4 inches (159 mm) by 12 feet (3658 mm) with 5 inches (127 mm) exposure.
				3. 7-1/4 inches (184 mm) by 12 feet (3658 mm) with 6 inches (152 mm) exposure.
				4. 8-1/4 inches (210 mm) by 12 feet (3658 mm) with 7 inches (178 mm) exposure.
				5. 9-1/4 inches (235 mm) by 12 feet (3658 mm) with 8 inches (203 mm) exposure.
				6. 12 inches (305 mm) by 12 feet (3658mm) with 10-¾ inches (273mm) exposure.
			4. Finish: Factory primed or factory finished with Allura® Spectrum Coating.
		3. Allura® Panel
			1. Thickness: 5/16 inches (8 mm).
			2. Texture: Smooth, Traditional Cedar or 8” OC Grooved.
			3. Sizes:
				1. 4 feet (1219 mm) by 8 feet (2438 mm).
				2. 4 feet (1219 mm) by 9 feet (2743 mm).
				3. 4 feet (1219 mm) by 10 feet (3048 mm).
			4. Finish: Factory primed or factory finished with Allura® Spectrum Coating.
		4. Allura® Shake
			1. Thickness: 1/4 inches (6 mm).
			2. Texture: Traditional Cedar.
			3. Sizes:
				1. Staggered Edge shake panel, 48 inches (1219 mm) wide by 16 inches (406 mm) high with 6 inches (152 mm) exposure.
				2. Straight Edge shake panel, 48 inches (1219 mm) wide by 16 inches (406 mm) high with 7 inches (178 mm) exposure.
				3. Half Round shake panel, 48 inches (1219 mm) wide by 16 inches (406 mm) high with 7 inches (178 mm) exposure.
			4. Finish: Factory primed or factory finished with Allura® Spectrum Coating.
		5. Allura® Shake Select
			1. Thickness: 5/16 inches (8 mm).
			2. Texture: Traditional Cedar.
			3. Sizes:
				1. Staggered Edge shake panel, 48 inches (1219 mm) wide by 16 inches (406 mm) high with 7 inches (178 mm) exposure.
				2. Straight Edge shake panel, 48 inches (1219 mm) wide by 16 inches (406 mm) high with 7 inches (178 mm) exposure.
				3. Straight Edge shake panel, 48 inches (1219 mm) wide by 16 inches (406 mm) high with 5 inches (127 mm) exposure
				4. Half Round shake panel, 48 inches (1219 mm) wide by 16 inches (406 mm) high with 7 inches (178 mm) exposure.
				5. Octagon shake panel, 48 inches (1219 mm) wide by 16 inches (406 mm) high with 7 inches (178 mm) exposure.
			4. Finish: Factory primed or factory finished with Allura® Spectrum Coating.
		6. Allura® Soffit
			1. Thickness: 1/4 inches (6 mm). Exception: Beadboard is 5/16 inches (8 mm) thick.
			2. Texture: Smooth, Traditional Cedar or Beadboard.
			3. Sizes:
				1. Vented or non-vented, 12 inches (305 mm) by 12 feet (3658 mm).
				2. Vented or non-vented, 16 inches (406 mm) by 12 feet (3658 mm).
				3. Vented or non-vented, 24 inches (610 mm) by 12 feet (3658 mm).
				4. Vented or non-vented, 24 inches (610 mm) by 8 feet (2438 mm).
				5. Non-Vented 4 feet (1219 mm) by 8 feet (2438 mm).
				6. Beadboard non-vented, 4 feet (1219 mm) by 8 feet (2438 mm).
			4. Finish: Factory primed or factory finished with Allura® Spectrum Coating.
		7. Allura® Trim
			1. Thickness: 4/4 (3/4 inches or 19 mm), 5/4 (1 inch or 25 mm), and 8/4 (1-1/2 inches or 38 mm)
			2. Texture: Smooth or Cedar
			3. Sizes:
				1. 4/4 Boards, 2-1/2 inch (63 mm) by 12 feet (3658 mm).
				2. 4/4 Boards, 3-1/2 inch (89 mm) by 12 feet (3658 mm).
				3. 4/4 Boards, 5-1/2 inch (140 mm) by 12 feet (3658 mm).
				4. 4/4 Boards, 7-1/4 inch (184 mm) by 12 feet (3658 mm).
				5. 4/4 Boards, 9-1/4 inch (235 mm) by 12 feet (3658 mm).
				6. 4/4 Boards, 11-1/4 inch (286 mm) by 12 feet (3658 mm).
				7. 5/4 Boards, 2-1/2 inch (63 mm) by 12 feet (3658 mm).
				8. 5/4 Boards, 3-1/2 inch (89 mm) by 12 feet (3658 mm).
				9. 5/4 Boards, 4-1/2 inch (114 mm) by 12 feet (3658 mm)
				10. 5/4 Boards, 5-1/2 inch (140 mm) by 12 feet (3658 mm).
				11. 5/4 Boards, 7-1/4 inch (184 mm) by 12 feet (3658 mm).
				12. 5/4 Boards, 9-1/4 inch (235 mm) by 12 feet (3658 mm).
				13. 5/4 Boards, 11-1/4 inch (286 mm) by 12 feet (3658 mm).
				14. 8/4 Boards, 3-1/2 inch (89 mm) by 12 feet (3658 mm).
				15. 8/4 Boards, 5-1/2 inch (140 mm) by 12 feet (3658 mm).
			4. Finish: Factory primed or factory finished with Allura® Spectrum Coating.
	3. FASTENERS
		1. Refer to applicable building code compliance reports for fastener size specifications and selection.
		2. Use corrosion resistant fasteners appropriate to local building codes and practices, such as hot-dipped galvanized or stainless-steel nails and screws.
	4. FINISHES
		1. Factory Primer: Provide factory primed universal primer.
			1. Primer: Factory Primed by Allura®.
			2. Topcoat: Refer to Section 09900 and Exterior Finish Schedule.
		2. Factory Finish: Refer to Exterior Finish Schedule.
			1. Product: Allura® Spectrum Coating by Allura®.
			2. Definition: Factory applied finish; defined as a finish applied in the same facility that manufactures the siding substrate or a facility approved by the manufacturer.
			3. Protection: Factory applied finish protection when palletized such as plastic laminate or foam slip sheet.
			4. Accessories: Complete finishing system includes pre-packaged touch-up kit provided by fiber cement manufacturer. Provide quantities as recommended by manufacturer.
		3. Allura® Spectrum Coating colors:
			1. Snow
			2. Desert Tan
			3. Caramelized Pears
			4. Linen
			5. Sterling Gray
			6. Savannah Wicker
			7. Ashen
			8. Natural Clay
			9. Rock Cliffs
			10. Granite Gray
			11. Pewter
			12. Olive
			13. Gray Heron
			14. Taupe
			15. Flagstone
			16. Red Rock Falls
			17. Hearthstone
			18. Cool Charcoal
			19. Pacific Blue
			20. Sable Brown
			21. Plunge Pool
			22. Knight’s Armor
			23. Bark
			24. Autumn Red
			25. Cavalry
3. EXECUTION
	1. EXAMINATION
		1. Examine substrates for compliance with manufacturer’s requirements for installation tolerances and other conditions affecting performance of fiber-cement panels and related accessories.
		2. If framing preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
		3. Wood Framing: Nominal 2-inch (51 mm) by 4-inch (102 mm) wood framing complying with local building code, including the use of weather-resistive barriers or vapor barriers where required. Framing lumber to be straight, true, of uniform dimensions and properly aligned. Framing to have a minimum of 1 1/2-inch (38 mm) face.
			1. Install weather-resistive barriers and claddings to dry surfaces.
			2. Do not begin installation until substrates have been properly prepared.
			3. Protect siding from other trades.
		4. Metal Framing: Minimum 20 gauge 3-5/8 inch (92 mm) C-Stud 16 inches maximum on center or maximum 16 gauge 3-5/8 inches (92 mm) C-Stud 24 inches (610 mm) maximum on center metal framing complying with local building codes, including the use of weather-resistive barriers and/or vapor barriers where required. Minimum 1-1/2 inches (38 mm) face and straight, true, of uniform dimensions and properly aligned.
			1. Install weather-resistive barriers and claddings to dry surfaces.
			2. Repair any punctures or tears in the weather-resistive barrier prior to the installation of the siding.
			3. Protect siding from other trades.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Remove projections and substances detrimental to application from the substrate.
		3. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
		4. Install a weather-resistive barrier is required in accordance with local building code requirements.
		5. The weather-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building code requirements.
	3. INSTALLATION
		1. Install materials in strict accordance with manufacturer's installation instructions.
		2. Allow minimum vertical clearance between the edge of siding and any other material in strict accordance with the manufacturer's installation instructions.
		3. Align vertical joints over framing members.
		4. Maintain clearance between Allura® products and adjacent finished grade.
		5. Locate splices at least 12 inches (305 mm) away from window and door openings.
		6. Allow 1/8 inch gap between trim and siding. Seal gap with high quality, paintable caulk.
		7. Install metal Z flashing and provide a 1/4 inch (6 mm) gap at horizontal joints.
		8. When installing Allura® Panel, block framing between studs where horizontal joints occur.
		9. Place fasteners no closer than 3/8 inch (9.5 mm) from edges of panels.
		10. Place fasteners 2 inches (51 mm) from Allura® panel corners and a minimum of 1 inch away from other Allura® product corners.
		11. Do not overdrive fasteners.
		12. Wind Resistance: Where a specified level of wind resistance is required, specified fasteners shall be used to attach the Allura® products to structural framing as described in the applicable building code compliance report.
		13. Install kick-out flashing to deflect water away at all roof-to-wall intersections.
	4. ADJUSTING AND CLEANING
		1. Remove damaged, improperly installed, or otherwise surface marred materials and replace with new materials complying with specified requirements.
		2. Clean finished surfaces according to manufacturer’s written instructions and protect surfaces during construction.
	5. FINISHING
		1. Finish factory primed panels and trim with a minimum of one coat of premium 100-percent acrylic latex paint within six months of installation. Dry paint film thickness shall be in compliance with manufacturer’s published installation criteria.

END OF SECTION