SECTION 07 46 46

SIDING

(James Hardie HZ10 Engineered for Climate Siding)

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\*\* NOTE TO SPECIFIER \*\* James Hardie Building Products, Inc.; siding panels and building boards.
This section is based on the products of James Hardie Building Products, Inc., which is located at:303 E. Wacker Dr.Chicago, IL 60601 Toll Free Tel: 877-236-7526Email: [request info (info@jameshardie.com)](https://arcat.com/rfi?action=email&company=James%252BHardie%252BBuilding%252BProducts%252C%252BInc.&message=RE%253A%2520Spec%2520Question%2520(07462jhi)%253A%2520&coid=33418&spec=07462jhi&rep=&fax=)
Web: <https://www.jameshardiepros.com> | <https://www.jameshardie.com>
 [ [Click Here](https://arcat.com/company/james-hardie-building-products-inc-33418) ] for additional information.
We have operations in the United States, Australia, New Zealand, Asia, and Europe. No matter where we operate, our goal is to remain at the forefront of the fiber-cement industry, capitalizing on our global leadership in building products and manufacturing and technology for both new home construction and remodeling.
At James Hardie, we create innovative products that increase the beauty, value, safety, and durability of the buildings you design. Explore increased design options through our wide variety of product colors and textures and enjoy superior performance that allows your designs to last a lifetime.
Siding Products
James Hardie Building Products, Inc. Hardie Plank Lap Siding.
Hardie® Plank lap siding offers the beauty and traditional look of wood lap siding while providing very non-wood-like benefits: low maintenance and an unmatched resistance to weather damage in wet and humid climates while retaining its natural beauty. Our proprietary ColorPlus® Technology combines a professionally developed our5-color Statement Collection™ palette optimally formulated for use with fiber cement. The multi-coat, baked-on factory application process delivers a strikingly beautiful and consistent finished product.
James Hardie Building Products, Inc. Hardie® Shingle Siding.
Hardie® Shingle siding has the same warm, authentic look as cedar shingles, yet it doesn't rot, crack, or split. It's beautiful as a primary siding or as a complement to other styles of James Hardie siding. Our shingle siding panels come in a variety of decorative edges and expedite installation in larger areas. Ideal for smaller coverage areas, Hardie® Shingle individual shingles come in a variety of widths for an authentic handcrafted look.
James Hardie Building Products, Inc. Hardie® Panel Vertical Siding.
Hardie® Panel siding products offer protection from fire, weather, and insects. Residential vertical siding is also available in wood grain and stucco patterns.
Trim:
James Hardie Building Products, Inc. Hardie® Trim Boards:
Our fiber cement trim and fascia add the finishing touch to a beautiful, lasting project. They provide unmatched durability in corners, columns, windows, rakes, and friezes. Hardie® Trim boards are pre-primed with PrimePlus sealer and primer. This proprietary process for fiber cement trim ensures uniform coverage of sealer and primer, providing an excellent surface for paints. Hardie® Trim boards come with a -year transferable limited warranty.
James Hardie Building Products, Inc. Hardie® Soffit Panels:
James Hardie pre-cut soffit panels eliminate the need for separate box or strip vents and minimize the need for cutting. Hardie® Soffit panels are available vented or non-vented, in a range of pre-cut sizes. All styles are pre-primed with PrimePlus sealer and primer. This proprietary process ensures uniform coverage of sealer and primer, providing an excellent surface for paints.
James Hardie Building Products, 1nc. Hardie® Backer 1/4 inch Cement Board, with EZ Grid Technology:
Hardie® Backer 1/4 inch Cement Board, with EZ Grid Technology, for floors and countertops is America's bestselling 1/4 inch board. It's the solution you can trust for your wet area floors, walls, ceilings, and countertops. This no-mesh board is the lightest cement board available and cuts easily, even in tight, awkward spaces.
James Hardie Building Products, Inc. Hardie® Backer 1/2 inch Cement Board
Hardie® Hardie® 1/2 inch Cement Board for walls and floors delivers superior protection against moisture damage and mold growth. Its smooth surface may be painted, textured, wallpapered, or tiled.
Green and Sustainable:
We support the entire building industry's efforts in creating materials that deliver more sustainable homes, neighborhoods, and commercial buildings. Together, we hope to provide a better built environment that will endure years to come.

1. GENERAL
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Fiber cement lap siding, panels, shingle, trim, fascia, and accessories; James Hardie HZ10 Engineered for Climate Siding.
		2. Factory-finished fiber cement lap siding, panels, shingle, trim, fascia, and accessories; James Hardie HZ10 Engineered for Climate Siding.
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 05 40 00 - Cold-Formed Metal Framing.
		2. Section 06 10 00 - Rough Carpentry.
		3. Section 06 10 00 - Rough Carpentry.
		4. Section 07 21 19 - Foamed-In-Place Insulation.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM D3359 - Standard Test Method for Measuring Adhesion by Tape Test, Tool, and Tape.
		2. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data: 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.
		3. 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.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
		2. Verification Samples: For each finish product specified, two samples, minimum size 4 by 6 inches (100 by 150 mm), representing actual product, color, and patterns.
	1. QUALITY ASSURANCE

\*\* NOTE TO SPECIFIER \*\* Add installer quality assurance provisions. Delete if not required.

* + 1. Installer Qualifications: Minimum of 2 years' experience with installation of similar products.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
			1. Finish areas designated by Architect.
			2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
			3. Remodel mock-up area as required to produce acceptable work.
	1. DELIVERY, STORAGE, AND HANDLING
		1. Store products in manufacturer's unopened packaging until ready for installation.
		2. Store siding on edge or lay flat on a smooth level surface. Protect edges and corners from chipping. Store sheets under cover and keep dry prior to installing.
		3. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.
	2. PROJECT CONDITIONS
		1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside the manufacturer's absolute limits.
	3. WARRANTY
		1. Product Warranty: Limited, non-pro-rated product warranty.
			1. Hardie Plank HZ10 lap siding for 30 years.
			2. Hardie Panel HZ10 vertical siding for 30 years.
			3. Hardie Soffit HZ10 panels for 30 years.
			4. Hardie Shingle HZ10 siding for 30 years.
			5. Hardie Trim HZ10 boards for 15 years.
		2. Finish Warranty: Limited product warranty against manufacturing finish defects.
			1. When used for its intended purpose, properly installed and maintained according to Hardie's published installation instructions, James Hardie's ColorPlus finish with ColorPlus Technology, for a period of 15 years from the date of purchase: will not peel; will not crack; and will not chip. Finish warranty includes the coverage for labor and material.

\*\* NOTE TO SPECIFIER \*\* Delete if workmanship warranty not required.

* + 1. Workmanship Warranty: Application limited warranty for 2 years.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: James Hardie Building Products, Inc., which is located at:303 E. Wacker Dr.Chicago, IL 60601 Toll Free Tel: 877-236-7526Email: [request info (info@jameshardie.com)](https://arcat.com/rfi?action=email&company=James%252BHardie%252BBuilding%252BProducts%252C%252BInc.&message=RE%253A%2520Spec%2520Question%2520(07462jhi)%253A%2520&coid=33418&spec=07462jhi&rep=&fax=);Web: <https://www.jameshardiepros.com> | <https://www.jameshardie.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for approval of equal substitutions will be considered in accordance with the provisions of Section 01 60 00 - Product Requirements.
	1. SIDING AND TRIM
		1. Hardie Plank HZ10 lap siding, Hardie Panel HZ10 vertical siding, Hardie Soffit HZ10 panels and Hardie Shingle HZ10 siding requirement for materials:
			1. Fiber-cement siding - complies with ASTM C 1186 Type A Grade II.
			2. Fiber-cement siding - complies with ASTM E 136 as a noncombustible material.
			3. Fiber-cement siding - complies with ASTM E 84 Flame Spread Index = 0, Smoke Developed Index = 5.
			4. CAL-FIRE, Fire Engineering Division Building Materials Listing - Wildland Urban Interface (WUI) Listed Product.
			5. ICC-ES evaluation reports ESR-2290, ESR-1844, and ESR-2273 (IBC, IRC, CBC, CRC).
			6. City of Los Angeles, Research Report No. 24862.
			7. Miami Dade County, -Notice of Acceptance -20-070.06
			8. US Department of Housing and Urban Development Materials Release -1263.
			9. California DSA PA-019.
			10. City of New York M EA 223-93-M.
			11. Florida State Product Approval -FL13192, FL13223, and FL13265.
			12. Texas Department of Insurance Product Evaluation EC-23.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Lap Siding: Hardie Plank HZ10 Lap as manufactured by James Hardie Building Products, Inc.
			1. Type: Smooth 5-1/4 inches (133 mm) with 4 inches (102 mm) exposure.
			2. Type: Smooth 6-1/4 inches (159 mm) with 5 inches (127 mm) exposure.
			3. Type: Smooth 7-1/4 inches (184 mm) with 6 inches (152 mm) exposure.
			4. Type: Smooth 8-1/4 inches (210 mm) with 7 inches (178 mm) exposure.
			5. Type: Smooth 9-1/4 inches (235 mm) with 8 inches (203 mm) exposure.
			6. Type: Smooth 12 inches (305 mm) with 10-3/4 inches (273 mm) exposure.
			7. Type: Select Cedarmill 5-1/4 inches (133 mm) with 4 inches (102 mm) exposure.
			8. Type: Select Cedarmill 6-1/4 inches (159 mm) with 5 inches (127 mm) exposure.
			9. Type: Select Cedarmill 7-1/4 inches (184 mm) with 6 inches (152 mm) exposure.
			10. Type: Select Cedarmill 8-1/4 inches (210 mm) with 7 inches (178 mm) exposure.
			11. Type: Select Cedarmill 9-1/4 inches (235 mm) with 8 inches (203 mm) exposure.
			12. Type: Select Cedarmill 12 inches (305 mm) with 10-3/4 inches (273 mm) exposure.
			13. Type: Beaded Smooth 8-1/4 inches (210 mm) with 7 inches (178 mm) exposure.
			14. Type: Beaded Cedarmill 8-1/4 inches (210 mm) with 7 inches (178 mm) exposure.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Vertical Siding: Hardie Panel HZ10 siding as manufactured by James Hardie Building Products, Inc.
			1. Type: Smooth Vertical siding panel 4 feet by 8 feet (1219 mm by 2438 mm).
			2. Type: Smooth Vertical siding panel 4 feet by 9 feet (1219 mm by 2743 mm).
			3. Type: Smooth Vertical siding panel 4 feet by 10 feet (1219 mm by 3048 mm).
			4. Type: Cedarmill Vertical siding panel 4 feet by 8 feet (1219 mm by 2438 mm).
			5. Type: Cedarmill Vertical siding panel 4 feet by 9 feet (1219 mm by 2743 mm).
			6. Type: Cedarmill Vertical siding panel 4 feet by 10 feet (1219 mm by 3048 mm).
			7. Type: Stucco Vertical siding panel 4 feet by 8 feet (1219 mm by 2438 mm).
			8. Type: Stucco Vertical siding panel 4 feet by 9 feet (1219 mm by 2743 mm).
			9. Type: Stucco Vertical siding panel 4 feet by 10 feet (1219 mm by 3048 mm).
			10. Type: Sierra 8 inches (203 mm) Vertical siding panel 4 feet by 8 feet (1219 mm by 2438 mm).
			11. Type: Sierra 8 inches (203 mm) Vertical siding panel 4 feet by 9 feet (1219 mm by 2743 mm).
			12. Type: Sierra 8 inches (203 mm) Vertical siding panel 4 feet by 10 feet (1219 mm by 3048 mm).

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Shingle Siding: Hardie Shingle HZ10 siding as manufactured by James Hardie Building Products, Inc.
			1. Type: Hardie Shingle Individual Shingles 6 inches (152 mm) wide by 18 inches (457 mm) high with 8 inches (203 mm) exposure.
			2. Type: Hardie Shingle Individual Shingles 8 inches (203 mm) wide by 18 inches (457 mm) high with 8 inches (203 mm) exposure.
			3. Type: Hardie Shingle Individual Shingles 12 inches (305 mm) wide by 18 inches (457 mm) high with 8 inches (203 mm) exposure.
			4. Type: Hardie Shingle Straight-Edge Notched Panel 48 inches (1219 mm) wide by 16 inches (406mm) high with 7 inches (178 mm) exposure.
			5. Type: Hardie Shingle Staggered-Edge Notched Panel 48 inches (1219 mm) wide by 16 inches (406mm) high with 7 inches (178 mm) exposure.
			6. Type: Hardie Shingle Half Round Notched Panel 48 inches (1219 mm) wide by 19 inches (483mm) high with 7 inches (178 mm) exposure.
			7. Physical Properties:
				1. Test Method ASTM C1185: Passed.

Dimensional Tolerances.

Length: Plus or minus 0.5 percent or plus or minus1/4 inch (6 mm).

Width: Plus or minus 0.5 percent or plus or minus1/4 inch (6 mm),

Thickness: Plus or minus 0.04 inch (1 mm).

Squareness: Less than1/32 inches per ft (2.6 mm per m) of length.

Edge Straightness: Less than 1/32 inches per ft (2.6 mm per m) of length.

Density: Less than 83 pounds per sq ft (4 kPa).

Water Tightness: No drop formation; Pass.

Flexural strength:

Wet Conditioned, psi: Greater than 1015 psi (7 MPa); Pass.

Equilibrium Conditioned, psi: Greater than 1450 psi (10 MPa); Pass.

Warm Water Resistance, Observations: No structural alteration; Pass.

Heat / Rain Resistance:

Physical Observations Mass: No structural alteration; Pass.

Loss Percentage: Less than or equal to 3.0 percent; Pass.

Freeze/Thaw, percent strength retention: Greater than or equal to 80 percent; Pass.

* + - * 1. Fire Characteristics:

ASTM E84: Surface Burning Characteristics

Flame Spread Index (FSI) Smoke: 0.

Developed Index (SDI): 0.

Fuel Contributed: 0.

International Building Code: A.

ASTM E136: Non-combustibility: Pass.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Soffit Panels: Hardie Soffit HZ10 Non-Vented Soffit Panel, as manufactured by James Hardie Building Products, Inc.
			1. Factory sealed on 5 sides.
			2. Thickness: 1/4 inch (6 mm).

\*\* NOTE TO SPECIFIER \*\* Delete type options not required.

* + - 1. Type: Smooth, 12 inches (305 mm) by 12 feet (3658 mm).
			2. Type: Smooth, 16 inches (406 mm) by 12 feet (3658 mm.
			3. Type: Smooth, 24 inches (610 mm) by 8 feet (2438 mm).
			4. Type: Textured Cedarmill, 12 inches (305 mm) by 12 feet (3658 mm).
			5. Type: Textured Cedarmill, 16 inches (406 mm) by 12 feet (3658 mm).
			6. Type: Textured Cedarmill, 24 inches (610 mm) by 8 feet (2438 mm).

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Vented Soffit Panels: Hardie Soffit HZ10 Vented Panels. as manufactured by James Hardie Building Products, Inc.
			1. Net Free Ventilation: 5 sq inches of net free ventilation per linear foot (10583 sq mm per linear meter).
			2. Factory sealed on 5 sides.
			3. Thickness: 1/4 inch (6 mm).

\*\* NOTE TO SPECIFIER \*\* Delete type options not required.

* + - 1. Type: Smooth, 12 inches (305 mm) by 12 feet (3658 mm).
			2. Type: Smooth, 16 inches (406 mm) by 12 feet (3658 mm),
			3. Type: Smooth, 24 inches (610 mm) by 8 feet (2438 mm).
			4. Type: Textured Cedarmill, 12 inches (305 mm) by 12 feet (3658 mm).
			5. Type: Textured Cedarmill, 16 inches (406 mm) by 12 feet (3658 mm).
			6. Type: Textured Cedarmill vented, 24 inches (610 mm) by 8 feet (2438 mm).

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + 1. Vented Soffit Panels: Hardie Soffit HZ10 VentedPlus Panels. as manufactured by James Hardie Building Products, Inc.
			1. Net Free Ventilation: 12.6 sq inches of net free ventilation per linear foot (26670 sq mm per linear meter).
			2. Factory sealed on 5 sides.
			3. Thickness: 1/4 inch (6 mm).

\*\* NOTE TO SPECIFIER \*\* Delete type options not required.

* + - 1. Type: Smooth vented, 12 inches (305 mm) by 12 feet (3658 mm).
			2. Type: Smooth vented, 16 inches (406 mm) by 12 feet (3658 mm),
			3. Type: Smooth vented, 24 inches (610 mm) by 8 feet (2438 mm).
			4. Type: Textured Cedarmill, 12 inches (305 mm) by 12 feet (3658 mm).
			5. Type: Textured Cedarmill, 16 inches (406 mm) by 12 feet (3658 mm).
			6. Type: Textured Cedarmill, 24 inches (610 mm) by 8 feet (2438 mm).
		1. Trim:

\*\* NOTE TO SPECIFIER \*\* Delete trim type not required.

* + - 1. Hardie Trim HZ10 boards as manufactured by James Hardie Building Products, Inc.
				1. Product: Batten Boards, 2-1/2 inch (63 mm) width.
				2. Product: 4/4 Boards, 3-1/2 inch (89 mm) width.
				3. Product: 4/4 Boards, 5-1/2 inch (140 mm) width.
				4. Product: 4/4 Boards, 7-1/4 inch (184 mm) width.
				5. Product: 4/4 Boards, 9-1/4 inch (235 mm) width.
				6. Product: 4/4 Boards, 11-1/4 inch (286 mm) width.
				7. Product: 4/4 NT3 Boards, 3-1/2 inch (89 mm) width.
				8. Product: 4/4 NT3 Boards, 5-1/2 inch (140 mm) width.
				9. Product: 4/4 NT3 Boards, 7-1/4 inch (184 mm) width.
				10. Product: 4/4 NT3 Boards, 9-1/4 inch (235 mm) width.
				11. Product: 4/4 NT3 Boards, 11-1/4 inch (286 mm) width.
				12. Product: 5/4 Boards, 3-1/2 inch (89 mm) width.
				13. Product: 5/4 Boards, 5-1/2 inch (140 mm) width.
				14. Product: 5/4 Boards, 7-1/4 inch (184 mm) width.
				15. Product: 5/4 Boards, 9-1/4 inch (235 mm) width.
				16. Product: 5/4 Boards, 11-1/4 inch (286 mm) width.
				17. Product: 5/4 NT3 Boards, 3-1/2 inch (89 mm) width.
				18. Product: 5/4 NT3 Boards, 4-1/2 inch (114 mm) width.
				19. Product: 5/4 NT3 Boards, 5-1/2 inch (140 mm) width.
				20. Product: 5/4 NT3 Boards, 7-1/4 inch (184 mm) width.
				21. Product: 5/4 NT3 Boards, 11-1/4 inch (286 mm) width.
				22. Texture: Smooth.
				23. Texture: Rustic.
				24. Texture: Wood Grained.
				25. Length: 12 feet (3658 mm).
				26. Thickness: 3/4 inch (19 mm).
				27. Thickness: 1 inch (24 mm).
			2. Hardie Trim HZ10 Fascia boards as manufactured by James Hardie Building Products, Inc.
			3. Artisan HZ10 Accent trim as manufactured by James Hardie Building Products, Inc.
			4. Fiber-cement trim - complies with ASTM C 1186 Type A Grade II.
			5. Fiber-cement trim - complies with ASTM E 136 as a noncombustible material.
			6. Fiber-cement trim - complies with ASTM E 84 Flame Spread Index = 0, Smoke Developed Index = 5.
			7. Intertek Product Listing.

\*\* NOTE TO SPECIFIER \*\* Delete 2X boards if not required.

* + 1. 2X Smooth Hardie Trim:
			1. 2X Smooth Hardie Trim manufactured by James Hardie Building Products, Inc.
			2. Overall Thickness: 1-1/2 in (38 mm).

\*\* NOTE TO SPECIFIER \*\* Delete widths not required.

* + - 1. Width: 3-1/2 inch (89 mm).
			2. Width: 5-1/2 inch (140 mm).
			3. Width: 7-1/4 inch (184 mm).
			4. Width: 9-1/4 inch (235 mm).
			5. Width: 11-1/4 inch (286 mm).
			6. Texture: Smooth.

\*\* NOTE TO SPECIFIER \*\* Delete moldings if not required.

* + 1. Crown Mouldings:
			1. Hardie Trim HZ10 Crown moulding manufactured by James Hardie Building Products, Inc.
		2. Masonry Walls:
			1. Masonry Walls: Aerico Stud Nail, ET&F ASM No.-144-125, 0.14 inch (3.6 mm) shank by 0.30 inch (7.6 mm) head by 2 inches (51 mm) long corrosion resistant nails.

\*\* NOTE TO SPECIFIER \*\* Certain geographic areas allow a minimum single coat of 100 percent acrylic or exterior grade latex, high quality alkali resistant paint on unprimed product. James Hardie recommends, minimum one coat primer plus one or two topcoats.

* 1. FINISHES

\*\* NOTE TO SPECIFIER \*\* Field painted option: Delete if not required.

* + 1. Factory Primer: Provide factory applied universal primer.
			1. Primer: Factory primed by James Hardie.

\*\* NOTE TO SPECIFIER \*\* The use of oil based paints on unprimed fiber cement could result in increased surface roughness, loss of adhesion, cracking, or excessive chalking. James Hardie does not recommend the use of oil based paints over unprimed fiber cement siding products. Stains containing linseed oil are specifically designed for wood and may not be suitable for fiber cement siding products, primed or unprimed.

* + - 1. Topcoat: Refer to Section 09 90 00 - Painting and Coating and Exterior Finish Schedule.

\*\* NOTE TO SPECIFIER \*\* All the siding and trim products (not including Artisan Lap Siding products) are available with a factory applied baked on paint finish. Delete if not required.

* + 1. Factory Finish: Refer to Exterior Finish Schedule.

\*\* NOTE TO SPECIFIER \*\* Delete colors not applicable as color availability varies by region, Refer to James Hardie ColorPlus website ([www.jameshardiecolorplus.com](http://www.jameshardiecolorplus.com) ) to check which colors are available for your project.

* + - 1. Product: ColorPlus Technology by James Hardie.
			2. Definition: Factory applied finish; defined as a finish applied in the same facility and company that manufactures the siding substrate.
			3. Process:
				1. Factory applied finish by fiber cement manufacturer in a controlled environment within the fiber cement manufacturer's own facility utilizing a multi-coat, heat cured finish within one manufacturing process.
				2. Each finish color must have documented color match to delta E of 0.5 or better between product lines, manufacturing lots or production runs as measured by photospectrometer and verified by third party.
			4. Protection: Factory applied finish protection such as plastic laminate that is removed once siding is installed
			5. Accessories: Complete finishing system includes pre-packaged touch-up kit provided by fiber cement manufacturer. Provide quantities as recommended by the manufacturer.

\*\* NOTE TO SPECIFIER \*\* All the siding and trim products are available with a factory applied baked on paint finish. Delete if not required.

* + 1. Factory Finish Color for Trim, Soffit and Siding Colors:

\*\* NOTE TO SPECIFIER \*\* Indicate colors for trims, soffits, and sidings keyed and cross referenced to drawings as Trim-1, Trim-2, Soffit-1, Soffit-2, Siding-1, Siding-2, etc. Delete colors not required.

* + - 1. Statement Colors:
				1. Aged Pewter JH90-60.
				2. Arctic White JH10-20.
				3. Boothbay Blue JH70-20.
				4. Cobblestone JH40-10.
				5. Evening Blue JH70-30.
				6. Gray Slate JH70-90.
				7. Iron Gray JH90-30.
				8. Khaki Brown JH20-30.
				9. Light Mist JH70-10.
				10. Monterey Taupe JH40-20.
				11. Mountain Sage JH50-30.
				12. Navajo Beige JH30-10.
				13. Night Gray JH90-90.
				14. Pearl Gray JH40-10.
				15. Timber Bark JH40-30.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until the substrates have been properly prepared.
		2. If framing preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

\*\* NOTE TO SPECIFIER \*\* Wood framing provisions. Delete if not required.

* + 1. Nominal 2 inch by 4 inch (51 mm by 102 mm) wood framing selected for minimal shrinkage and complying with local building codes, including the use of water-resistive barriers or vapor barriers where required. Minimum 1-1/2 inches (38 mm) face and straight, true, of uniform dimensions and properly aligned.
			1. Install water-resistive barriers and claddings to dry surfaces.
			2. Repair any punctures or tears in the water-resistive barrier prior to the installation of the siding.
			3. Protect siding from other trades.

\*\* NOTE TO SPECIFIER \*\* Metal framing provisions. Delete if not required.

* + 1. Minimum 20 gauge (1 mm) 3-5/8 inch (92 mm) C-Stud 16 inches maximum on center or 16 gauge (1.6 mm) 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 water-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 water-resistive barriers and claddings to dry surfaces.
			2. Repair any punctures or tears in the water-resistive barrier prior to the installation of the siding.
			3. Protect siding from other trades.
	1. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
		3. Install a water-resistive barrier is required in accordance with local building code requirements.
		4. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building code requirements.
		5. Install Engineered for Climate Hardie Weather Barrier in accordance with local building code requirements.
		6. Use Hardie Weather Barrier Seam Tape and joint and laps.
		7. Install and Hardie Weather Barrier flashing, Hardie Weather Barrier Flex Flashing.
	2. INSTALLATION - HARDIE PLANK HZ10 LAP SIDING

\*\* NOTE TO SPECIFIER \*\* Local building code may permit the use of "water-repellent panel sheathing" instead of a "building paper type" water-resistive barrier. However, the manufacturer recommends the use of a "building paper type" water-resistive barrier in all siding applications. A vapor barrier may also be required.
\*\* NOTE TO SPECIFIER \*\* Hardie Plank Siding may be installed either directly to the structural framing or up to 9-1/2 inches siding may be face nailed on minimum 7/16 inch OSB or equivalent sheathing.

* + 1. Install materials in strict accordance with manufacturer's installation instructions.
		2. Starting: Install a minimum 1/4 inch (6 mm) thick lath starter strip at the bottom course of the wall. Apply planks horizontally with minimum 1-1/4 inches (32 mm) wide laps at the top. The bottom edge of the first plank overlaps the starter strip.
		3. Allow minimum vertical clearance between the edge of siding and any other material in strict accordance with the manufacturer's installation instructions.

\*\* NOTE TO SPECIFIER \*\* Delete siding installation not required.

* + 1. Align vertical joints of the planks over framing members.
		2. Maintain clearance between siding and adjacent finished grade.

\*\* NOTE TO SPECIFIER \*\* Delete siding installation not required.

* + 1. Face nail to sheathing.
		2. Locate splices at least 12 inches (305 mm) away from window and door openings.
	1. INSTALLATION - HARDIE PANEL HZ10 VERTICAL SIDING

\*\* NOTE TO SPECIFIER \*\* Local building code may permit the use of "water-repellent panel sheathing" instead of a "building paper type" water-resistive barrier. However, the manufacturer recommends the use of a "building paper type" water-resistive barrier in all siding applications. A vapor barrier may also be required.

* + 1. Install materials in strict accordance with manufacturer's installation instructions.
		2. Install metal Z flashing and provide a 1/4 inch (6 mm) gap at horizontal panel joints.
		3. Place fasteners no closer than 3/8 inch (9.5 mm) from panel edges and 2 inches (51 mm) from panel corners.
		4. Allow minimum vertical clearance between the edge of siding and any other material in strict accordance with the manufacturer's installation instructions.
		5. Maintain clearance between siding and adjacent finished grade.
		6. Specific framing and fastener requirements refer to Tables 2 and 3 in National Evaluation Service Report No. NER-405.
		7. Factory Finish Touch Up: Apply touch up paint to cut edges in accordance with manufacturer's printed instructions.
			1. Touch-up nicks, scrapes, and nail heads in pre-finished siding using the manufacturer's touch-up kit pen.
			2. Touch-up of nails shall be performed after application, but before plastic protection wrap is removed to prevent spotting of touch-up finish.
			3. Use touch-up paint sparingly. If large areas require touch-up, replace the damaged area with new pre-finished siding. Match touch up color to siding color through use of manufacturer's branded touch-up kits.
	1. INSTALLATION - HARDIE SOFFIT HZ10 AND VENTED PANELS

\*\* NOTE TO SPECIFIER \*\* James Hardie Building Products provides installation /wind load information for buildings with a maximum mean roof height of 85 feet. For information on installations above 60 feet, please contact JH technical support.

* + 1. Install materials in strict accordance with manufacturer's installation instructions.
			1. Panels may be installed as soffit or ceiling over wood or steel framing; 20 gauge (33 mils) minimum to 16 gauge (54 mils), complying with local building code. Install soffits to nominal 2 x 4 framing members spaced a maximum of 24 inches (610 mm) on center with the long dimension perpendicular to the rafter or joist framing.
			2. Support edges by framing.
			3. Install water barriers and air barriers as required by local building codes.
			4. Ensure gutters have end caps. Maintain a minimum 1 inch (25 mm) gap between end caps and siding and trim.
			5. Install kickout flashing at roof-wall junctions per manufacturer's instructions.
			6. Additional framing may be needed to ensure proper fastening.
			7. Position vent holes toward outside of eave for optimal airflow.
			8. Vents can be installed into non-vented soffit.
			9. Insect screen can be installed using construction adhesive.
			10. Fastener Positioning: Position fasteners 3/8 inches (9.5 mm) from panel edges and no closer than 2 inches (51 mm) away from corners when using soffit greater than 12 inch (305 mm) wide and no closer than 1 inch (25 mm) away from corners when using soffit that is less than or equal to 12 inch (305 mm) wide.
			11. Jointing Methods: Install panels in moderate contact at ends, provide PVC or metal jointers, battens or leave appropriate gap and caulk.
			12. Drive fasteners perpendicular to siding and framing.
			13. Fastener heads should fit snug against siding; no air space.
	1. INSTALLATION - HARDIE SHINGLE HZ10 SIDING

\*\* NOTE TO SPECIFIER \*\* Local building code may permit the use of "water-repellent panel sheathing" instead of a "building paper type" water-resistive barrier. However, the manufacturer recommends the use of a "building paper type" water-resistive barrier in all siding applications. A vapor barrier may also be required.

* + 1. Install materials in strict accordance with manufacturer's installation instructions.
		2. Substrate: Install a minimum 7/16 inch (11 mm) thick OSB wall sheathing or equivalent braced walls complying with applicable building codes.
		3. Starting: Install a minimum 1/4 inch (6 mm) thick lath starter strip at the bottom course of the wall.
		4. Maintain clearance between siding and adjacent finished grade.
		5. Apply starter course of 10 inches (254 mm) shingles or 9-1/2 inches (241 mm) lap siding overlapping the starter strip.
		6. Apply subsequent courses horizontally with a minimum 10 inch overlap at the top and a minimum 2 inch (51 mm) side lap. The bottom edge of the first two courses overlaps the starter strip.
		7. Fasten between 1/2 inch (13 mm) and 1 inch (25 mm) in from the side edge and between 8-1/2 inches (216 mm) and 9 inches (229 mm) up from the shingle bottom edge.
		8. Allow minimum vertical clearance between the edge of siding and any other material in strict accordance with the manufacturer's installation instructions.
		9. Ensure vertical joints of overlapping shingle course do not align.
		10. Wind Resistance: Where a specified level of wind resistance is required, Hardie Shingle siding is installed to substrate and secured with a minimum of two fasteners described in Table No. 6, 7 and 8 in ICC-ES REPORT-ESR-2290.
	1. INSTALLATION - HARDIE TRIM HZ10 BOARDS
		1. Install materials in strict accordance with manufacturer's installation instructions. Install flashing around all wall openings.
		2. Fasten through trim into structural framing or code complying sheathing. Fasteners must penetrate a minimum of 3/4 inch (19 mm) or full thickness of sheathing. Additional fasteners may be required to ensure adequate security.
		3. Place fasteners no closer than 3/4 inch (19 mm) and no further than 2 inches (51 mm) from side edge of trim board and no closer than 1 inch (25 mm) from end. Fasten maximum 16 inches (406 mm) on center.
		4. Maintain clearance between trim and adjacent finished grade.

\*\* NOTE TO SPECIFIER \*\* For 3/4 inch, 1 inch, and 1-1/2 inches (19 mm, 25 mm, and 38 mm) trim, Delete trim style not required.

* + 1. Trim inside corner with a single board trim both side of corner.

\*\* NOTE TO SPECIFIER \*\* Outside corner construction options. Delete construction option not required.

* + 1. Outside Corner Board Attach Trim on both sides of corner with 16 gage corrosion resistant finish nail 1/2 inch (13 mm) from edge spaced 16 inches (406 mm) apart, weather cut each end spaced minimum 12 inches (305 mm) apart.
		2. Allow 1/8 inch gap between trim and siding.
		3. Seal gap with high quality, paint-able caulk.
		4. Shim frieze board as required to align with corner trim.

\*\* NOTE TO SPECIFIER \*\* For 1/2 inch (13 mm) trim. Delete trim style not required.

* + 1. Fasten through overlapping boards. Do not nail between lap joints.
		2. Overlay siding with single board of outside corner board then align second corner board to outside edge of first corner board. Do not fasten HardieTrim boards to HardieTrim boards.
		3. Shim frieze board as required to align with corner trim.
		4. Install HardieTrim Fascia boards to rafter tails or to sub fascia.

\*\* NOTE TO SPECIFIER \*\* All the siding and trim products (not including Artisan Lap products) are available with a factory applied baked on paint finish. Delete if field finishing not required.

* 1. FINISHING

\*\* NOTE TO SPECIFIER \*\* Certain geographic areas allow minimum shingle coat of 100 percent acrylic or latex exterior grade, high quality alkali resistant paint on unprimed product. James Hardie recommends minimum one coat primer plus one topcoat, or two topcoats for best results. Delete finish not required.

* + 1. Finish unprimed siding with a minimum one coat high quality, alkali resistant primer and one coat of either, 100 percent acrylic or latex or oil based, exterior grade topcoats or two coats high quality alkali resistant 100 percent acrylic or latex, exterior grade topcoat within 90 days of installation. Follow paint manufacturer's written product recommendation and written application instructions.
		2. Finish factory primed siding with a minimum of one coat of high quality 100 percent acrylic or latex or oil based exterior grade paint within 180 days of installation. Follow paint manufacturer's written product recommendation and written application instructions.
	1. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION