SECTION 07 44 00

CEMENTITIOUS PANELS

(HZ5 or HZ10 Hardie Reveal Panels)

Display hidden notes to specifier. (Don't know how? [Click Here](http://www.arcat.com/sd/display_hidden_notes.shtml))

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\*\* NOTE TO SPECIFIER \*\* James Hardie Building Products, Inc.; HZ5 and HZ10 Hardie Reveal Panels, siding panels and building boards.
This section is based on the products of James Hardie Building Products, Inc., which is located at:
231 S. La Salle St. Suite 2000
Chicago, IL 60604
Toll Free Tel: 877-236-7526
Email: [request info (info@jameshardie.com)](http://admin.arcat.com/users.pl?action=UserEmail&company=James+Hardie+Building+Products,+Inc.&coid=33418&rep=&fax=&message=RE:%20Spec%20Question%20(07457jhi):%20%20&mf=)
Web: [www.jameshardiepros.com](http://www.jameshardiepros.com) | [www.jameshardie.com](http://www.jameshardie.com)
 [ [Click Here](http://www.arcat.com/arcatcos/cos33/arc33418.html) ] 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.
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. Cementitious express/reveal jointed panel with accessories. (James Hardie HZ5 or HZ10 Hardie Reveal Panels.)
	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 26 - Blown 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 International (ASTM):
			1. ASTM B136 - Standard Method for Measurement of Stain Resistance of Anodic Coatings on Aluminum.
			2. ASTM B244 - Standard Test Method for Measurement of Thickness of Anodic Coatings on Aluminum and of Other Nonconductive Coatings on Nonmagnetic Basis Metals with Eddy-Current Instruments.
			3. ASTM C834 - Standard Specification for Latex Sealants.
			4. ASTM C920 - Standard Specification for Elastomeric Joint Sealants.
			5. ASTM C1186 - Standard Specification for Flat Non-Asbestos Fiber-Cement Sheets.
			6. ASTM D523 - Standard Test Method for Specular Gloss.
			7. ASTM D1117 - Standard Guide for Evaluating Nonwoven Fabrics.
			8. ASTM D1308 - Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes.
			9. ASTM D1730 - Standard Practices for Preparation of Aluminum and Aluminum-Alloy Surfaces for Painting.
			10. ASTM D2794 - Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
			11. ASTM D3363 - Standard Test Method for Film Hardness by Pencil Test.
			12. ASTM D3359 - Standard Test Methods for Rating Adhesion by Tape Test.
			13. ASTM D4585 - Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation.
			14. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
			15. ASTM E96 - Test Methods for Water Vapor Transmission of Materials.
			16. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
			17. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C.
			18. ASTM E330 - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure
		2. AATCC127 - Water Resistance: Hydrostatic Pressure Test.
		3. TAPPI - T460 - Air Resistance of Paper (Gurley Method).
	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. Installation instructions and recommendations.
			2. Storage and handling requirements and recommendations.
			3. Manufacturer's best practice guide.
			4. Technical data sheet.
			5. Standard CAD drawings
		3. Shop Drawings: Provide detailed drawings of atypical non-standard applications of cladding junctions and penetrations 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 \*\* 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
			1. Finish areas designated by Architect.
			2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
			3. Refinish 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 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 manufacturer's absolute limits.
	3. WARRANTY
		1. Manufacturer's Warranty: Provide Hardie HZ5 or HZ10 Reveal Panel Limited Product Warranty, with 30-year limited product warranty against manufacturing defects.

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

* + - 1. Application Warranty: Application limited warranty for 2 years.
1. PRODUCTS
	1. MANUFACTURERS

A.Acceptable Manufacturer: James Hardie Building Products, Inc., which is located at: 231 South LaSalle Street Unit 2000, Chicago, IL 60606. ASD. Toll Free Tel: 866-274-3464; Tel: 312-705-6000; Email: HYPERLINK "http://admin.arcat.com/users.pl?action=UserEmail&company=James%20Hardie%20Building%20Products,%20Inc.&coid=33418&rep=&fax=&message=RE:%20Spec%20Question%20(07458jhi):%20%20&mf="request info (info@jameshardie.com); Web: http://www.jameshardiepros.com/Products/Hardie-Reveal-Panel-System
\*\* 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 provisions of Section 01 60 00 - Product Requirements.
	1. CLADDING
		1. Cement Cladding Panels: Hardie Reveal Panel as manufactured by James Hardie Building Products, Inc. 7/16 inches thick, 3 feet 11.5 inches (1206 mm) wide by 7 feet 11.5 inches (2426 mm) long. Product shall be engineered for climate conditions.

\*\* NOTE TO SPECIFIER \*\* Refer to Hardiezone.com to identify specific zones of project. Delete product zone not required. Refer to hardiezone.com to identify the specific zone of your project.

* + - 1. Manufacturer's Climate Zone Product: HZ5 for freezing wet climates with a green tint primer.
			2. Manufacturer's Climate Zone Product: HZ10 for hot humid and wet climates with a yellow tint primer.
			3. Refer to hardiezone.com to identify the specific zone of your project.
		1. Code Compliance Requirement for Siding 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. Fiber-cement siding, complies with ASTM E 119 1 hour and 2 hour fire resistive assemblies listed with Warnock Hersey.
			5. Fiber-cement siding, tested to ASTM E330 for Transverse Loads.
			6. Intertek Warnock Hersey Product Listing.
			7. Manufacturer's Technical Data Sheet.

\*\* NOTE TO SPECIFIER \*\* Engineered for Climate - Ensure that the correct for climate product is being used on the project. The HardieZone™ System provides siding with specific performance attributes relative to the climate where the product is being used. To determine the correct HardieZone System for your project go to [www.jameshardie.com/builder/hardiezone.shtml](http://www.jameshardie.com/builder/hardiezone.shtml)

* 1. WEATHER BARRIER
		1. Weather Barrier: James Hardie HardieWrap and HardieWrap Flashing and Seam Tapes.
		2. Code Compliance Requirement for Weather Barrier:
			1. Thickness, 11 mil sheet.
			2. Breathability in accordance with ASTM E96.
			3. Tear strength in accordance with ASTM D1117.
			4. Water resistance in accordance with AATCC127.
			5. Air Penetration in accordance with TAPPI - T460.
			6. HardieWrap Weather Barrier ICC-ES Evaluation Report ESR-2258
	2. FURRING (STRAPPING)
		1. Rainscreen Cavity: Install Hardie Reveal Panels on a drained and vented rainscreen cavity, with a minimum 3/4 inch (19mm) air cavity. Selection of cavity vent materials shall be incorporated into the design to prevent insect and pest entry.

\*\* NOTE TO SPECIFIER \*\* Trim can be used in both HZ5 and HZ10 zones. Delete types not required.

* 1. ACCESSORlES
		1. Trims: Reveal Trims manufactured by Custom Aluminum of Elgin, IL in the following profiles supplied by James Hardie. Aluminum alloy 6063-T5 with a minimum thickness of 0.050 inch. All reveal trims are 8 feet in length.
			1. Surround horizontal trim.
			2. Surround vertical trim.
			3. Surround horizontal end cut transition trim.
			4. Surround outside corner trim.
			5. Surround inside corner trim.
			6. Surround J channel trim.
			7. Surround drainage flashing.
			8. Recess horizontal trim.
			9. Recess vertical trim.
			10. Recess horizontal edge trim.
			11. Recess vertical F-trim.
			12. Recess outside corner trim.
			13. Recess drainage flashing.
		2. Finishes of Reveal Trims:

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

* + - 1. Primed for field painting; coating tested to ASTM D3363, ASTM D3359, D2794, D4585, D523, and D1308.
			2. Clear anodized; conforming to ASTM B244 and ASTM B136.
	1. FASTENERS

\*\* NOTE TO SPECIFIER \*\* Refer to applicable building code compliance reports for maximum basic wind speed for exposure category and select one fastener for attaching the Furring Strips to the frame and select one fastener for attaching the Panel to the furring strip, delete all that do not apply.
\*\* NOTE TO SPECIFIER \*\* When fastening through maximum 1 inch thick foam insulation, increase the length of the fastener used to attach the Furring Strips to the frame by the thickness of insulation.

* + 1. Fasteners: For attaching Hardie Reveal Panel direct to sheathing to a rain screen provide the following:

\*\* NOTE TO SPECIFIER \*\* Delete type of not required. Delete both if no wood framing.

* + - 1. Wood Framing, Exposed Screws: No. 10 by 0.472 inch head diameter by 1.5 inch long.
			2. Wood Framing, Countersunk Screws: No 8 by 0.39 inch head diameter by 1-5/8 inch long

\*\* NOTE TO SPECIFIER \*\* Delete type of not required. Delete both if no steel framing.

* + - 1. Steel Framing, Exposed Screws: No. 10 by 0.472 inch head diameter by 1.25 inch long.
			2. Steel Framing, Countersunk Screws: No. 8 by 0.39 inch head diameter by 1-5/8 inch long.
			3. Fasteners shall be of high quality stainless steel to ensure resistance to corrosion. For field painting, fasteners shall be treated to accept paint adhesion.
				1. Alternatives must be approved by the architect. e.g. decorative screws, nails, bugle head screws, and similar items.

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

* 1. FlNlSHES

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

* + 1. Factory Primer: Provide factory applied universal primer.
			1. Primer: Factory applied sealer/primer by James Hardie. Apply flat sheen finishes to panels.

\*\* 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.
		1. Factory Finish for Trim:
			1. Trim for Factory-Applied Coating and Field-Applied Finish: Chem Film.
			2. Trim for Factory-Applied Finish and No Field-Applied Finish: Clear anodized.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly prepared.
		2. If framing preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
	2. 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. Ensure that drainage plane in intact and all penetrations are sealed.
	3. INSTALLATION

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

* + 1. Wood Framing: Nominal 2 inch by 4 inch (51 m 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. Metal Framing: Minimum 20 gauge (33 mm) 3-5/8 inch (92 mm) C-Stud 16 inches maximum 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.

\*\* 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. Furring: Install furring on a minimum 3/4 inch (19mm) rainscreen cavity, or in accordance with local building code for rainscreen requirements.
		2. Installation: Install materials in strict accordance with manufacturer's installation instructions.

\*\* NOTE TO SPECIFIER \*\* Delete fastening method not required.

* + - 1. Fastening Method: Exposed.
			2. Fastening Method: Countersunk and filled.
			3. Place fasteners no closer than 3/4 inch (9.5 mm) from panel edges and 2 inches (51 mm) from panel corners.
			4. Use fasteners as specified in the James Hardie Tech Data sheet and in the Hardie Reveal Panel Installation Instruction.
			5. Install panel using 1/2 inch (13 mm) spacers at horizontal joints. Leave bottom edge of panel above all horizontal trims exposed, no caulking shall be placed at this overlap of Horizontal Reveal Trim. Factory primed edge shall always be used.

\*\* NOTE TO SPECIFIER \*\* Because of the volume of water that can pour down a sloped roof, one of the most critical flashing details occurs where a roof intersects a sidewall. The roof must be flashed with step flashing. Where the roof terminates, install a kickout to deflect water away from the siding. It is best to install a self-adhering membrane on the wall before the subfascia and trim boards are nailed in place, and then come back to install the kickout. To prevent water from dumping behind the siding and the end of the roof intersection, install a "kickout" of sufficient length and angle to direct the water running down the roof away from the siding. Delete if not required.

* + - 1. Install a kickout flashing to deflect water away from the siding at the roof intersection.
			2. Install a self-adhering membrane on the wall before the subfascia and trim boards are nailed in place, and then install the kickout.
			3. Allow minimum vertical clearance between the bottom edge of siding and any other material in strict accordance with the manufacturer's installation instructions and as determined by James Hardie Zone.
			4. Maintain clearance between siding and adjacent finished grade.
			5. Specific framing and fastener requirements - refer to the applicable building code compliance reports.
	1. FINISHING

\*\* NOTE TO SPECIFIER \*\* James Hardie recommends a finishes with a flat sheen for Reveal Panel finishing. Delete if not required or not the work of this Section.

* + 1. Finish factory primed siding with a minimum of one coat of high quality 100 percent acrylic exterior flat grade paint with flat finish within 180 days of installation. Follow paint manufacturer's written product recommendation and written application instructions.
		2. Field cut edges shall be coated during the installation process using an exterior grade primer/sealer that is compatible with the type of paint to used on project.
	1. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION