



SECTION 07 46 23

ENGINEERED WOOD SIDING

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Engineered Wood Siding/Cladding.
- B. Soffit Panels.
- C. Trim and Fascia.
- D. Accessories:
  - 1. Fasteners.
  - 2. Sealant.
  - 3. Water-resistive barrier.
  - 4. Flashing.

1.2 RELATED SECTIONS

- A. Section 06 05 73.13 - Fire-Retardant Wood Treatment.
- B. Section 06 10 00 - Rough Carpentry.
- C. Section 06 20 00 - Finish Carpentry.
- D. Section 07 62 00 - Sheet Metal Flashing and Trim.

1.3 REFERENCES

- A. ASTM International (ASTM):
  - 1. ASTM A 153 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
  - 2. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants.
- B. American National Standards Institute (ANSI):

1. ANSI A135.6 - Engineered Wood Siding.
- C. APA - The Engineered Wood Association (APA):
  1. PS 2-10 - Performance Standard for Wood-Based Structural-Use Panels.
  2. PRP 108 - Performance Standards and Qualification Policy for Structural-Use Panels.
  3. PR-N124 - APA Product Report, LP SmartSide Strand Substrate Lap and Panel Siding.
  4. PR-N117 - APA Product Report, LP SmartSide Strand Substrate Soffit.
- D. Department of Housing and Urban Development (HUD):
  1. HUD-MR-1318 - Material Release.
  2. HUD-UM-40 - HUD Building Product Standards and Certification Program Plywood and Other Performance Rated Wood-Based Structural-Use Panels.
- E. Florida Product Approval (FL#):
  1. FL# 9190 - LP SmartSide Strand & Fiber Substrate Lap and Panel Siding.
  2. FL# 9103 - LP SmartSide Strand & Fiber Substrate Lap and Panel Siding.
- F. ICC Evaluation Service (ICC-ES):
  1. ESR-1301 - LP SmartSide Strand Substrate Lap and Panel Siding.
  2. ESR-3090 - LP SmartSide Fiber Substrate Lap and Panel Siding.
- G. Texas Department of Insurance (TDI):
  1. EC-22 - LP SmartSide Strand Substrate Lap and Panel Siding.
  2. EC-35 - LP SmartSide Fiber Substrate Lap and Panel Siding.
- H. Canadian Construction Materials Centre (CCMC):
  1. CCMC # 11826-L - LP SmartSide Strand Substrate Lap and Panel Siding.
  2. CCMC # 12353-L - LP SmartSide Fiber Substrate Lap and Panel Siding.
  3. CCMC # 07893-L - LP CanExel Siding.
- I. California Department of Forestry & Fire Protection - Office of State Fire Marshal - Fire Engineering - Building Materials Listing Program (BML):
  1. BML No. 8140-2027:0001 - LP SmartSide Strand Substrate Lap Siding.
  2. BML No. 8140-2027:0002 - LP SmartSide Strand Substrate Panel Siding.
  3. BML No. 8140-2027:0003 - LP SmartSide Fiber Substrate Lap Siding.
  4. BML No. 8140-2027:0004 - LP SmartSide Fiber Substrate Panel Siding.

#### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Product Data:
  1. Application Instructions.
  2. Maintenance and Care Instructions.
- C. Verification Samples: For each exposed product and texture specified, two samples, minimum size 6 inches (152 mm) long representing actual product, color, and patterns.
- D. Shop Drawings: Include details of materials, construction and finish. Include relationship with adjacent construction.

#### 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.

- B. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
- C. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.
- D. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
  - 1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
  - 2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
  - 3. Retain mock-up during construction as a standard for comparison with completed work.
  - 4. Do not alter or remove mock-up until work is completed or removal is authorized.

#### 1.6 PRE-INSTALLATION CONFERENCE

- A. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle in strict compliance with manufacturer's written application instructions and recommendations.
- B. Protect from damage due to weather, excessive temperature, and construction operations.

#### 1.8 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 recommended limits.

#### 1.9 SEQUENCING

- A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

#### 1.10 WARRANTY

- A. Manufacturer's Warranty: Provide manufacturer's Limited Warranty.
  - 1. Limited Warranty Period: Fifty years, first 5 years equal to the cost of repairing or replacing, then prorated from the 6th year through the 49th year from the date of installation.

### PART 2 PRODUCTS

#### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: LP Building Products, which is located at: 414 Union St. Suite 2000; Nashville, TN 37219; Toll Free Tel: 888-820-0325; Fax: 877-523-7192; Email: [request info \(customer.support@lpcorp.com\)](mailto:request_info(customer.support@lpcorp.com)); Web: <https://lpcorp.com>

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

## 2.2 ENGINEERED WOOD SIDING/CLADDING

- A. Basis of Design: Strand Panel Siding; as manufactured by LP Building Products.
  - 1. Description: Exterior-grade, phenolic resin-saturated, paper overlay laminated to EPA-registered zinc-borate preservative-treated engineered wood siding. Exposed edges sealed for moisture resistance.
  - 2. Finish: Acrylic latex primer.
  - 3. Thickness, 38 Series: 0.315 inch (8 mm) minimum.
  - 4. Thickness, 76 Series: 0.375 inch (10 mm) minimum.
  - 5. Thickness, 190 Series: 0.530inch (14 mm) minimum.
  - 6. Style : Embossed Cedar Texture
  - 7. Grooves: Channel grooves at 4 inches (102 mm) on center.
  - 8. Grooves: Channel grooves at 8 inches (203 mm) on center.
  - 9. Grooves: None.
  - 10. Length: 6 feet (1829 mm).
  - 11. Length: 7 feet (2134 mm).
  - 12. Length: 8 feet (2438 mm).
  - 13. Length: 9 feet (2743 mm).
  - 14. Length: 10 feet (3048 mm).
  - 15. Length: 12 feet (3658 mm).
  - 16. Width: 48 inches (1219 mm), nominal.
  - 17. Edges: Shiplap.
- B. Basis of Design: Strand Vertical Siding; as manufactured by LP Building Products.
  - 1. Description: Exterior-grade, phenolic resin-saturated, paper overlay laminated to EPA-registered zinc-borate preservative-treated engineered wood siding. Edges beveled and sealed for moisture resistance.
  - 2. Finish: Acrylic latex primer.
  - 3. Thickness, 38 Series: 0.315 inch (8 mm) minimum.
  - 4. Style: Embossed Cedar Texture.
  - 5. Length: 16 feet (4877 mm).
  - 6. Width: 16 inches (406 mm), nominal.
- C. Basis of Design: Strand Lap Siding; as manufactured by LP Building Products.
  - 1. Description: Exterior-grade, phenolic resin-saturated, paper overlay laminated to EPA-registered zinc-borate preservative-treated engineered wood siding. Edges beveled ad sealed for moisture resistance.
  - 2. Finish: Acrylic latex primer.
  - 3. Thickness, 38 Series: 0.315 inch (8 mm) minimum.
  - 4. Thickness, 76 Series: 0.375 inch (10 mm) minimum.
  - 5. Style: Embossed Cedar Texture.
  - 6. Width: 5 inches (127 mm), nominal.
  - 7. Width: 6 inches (152 mm), nominal.
  - 8. Width: 7 inches (178 mm), nominal.
  - 9. Width: 8 inches (203 mm), nominal.
  - 10. Width: 9-1/2 inches (241 mm), nominal.
  - 11. Width: 12 inches (305 mm), nominal.
  - 12. Length: 16 feet (4877 mm).
  - 13. SmartLock Cedar Texture, Size: 8 inches (203 mm) nominal width, 0.375 inch (10 mm) minimum thickness.
- D. Basis of Design: Fiber Panel Siding, 76 Series; as manufactured by LP Building

Products.

1. Type: Engineered wood siding with resin and linseed oil impregnated surface, treated with EPA-registered zinc-borate preservative.
2. Standards Compliance: ANSI A135.6 compliant.
3. Finish: Acrylic latex primer.
4. Thickness: 0.375 inch (10 mm), minimum.
5. Style: Reverse board and batten, 12 inch (305 mm) on center groove.
6. Style: Smooth Finish.
7. Style: Smooth Finish, 8 inch (203 mm) on center groove.
8. Style: Stucco Texture.
9. Style: Cedar Texture, 8 inch (203 mm) on center groove.
10. Style: Cedar Texture with square edge.
11. Width: 48.56 inches (1233 mm), actual width.
12. Length: 8 feet (2438 mm).
13. Length: 9 feet (2743 mm).
14. Edges: Shiplap and Square Edge.

E. Basis of Design: Fiber Lap Siding, 76 Series; as manufactured by LP Building Products.

1. Type: Engineered wood siding with resin and linseed oil impregnated surface, treated with EPA-registered zinc-borate preservative.
2. Standards Compliance: ANSI A135.6 compliant.
3. Finish: Acrylic latex primer.
4. Thickness, 76 Series: 0.375 inch (10 mm) minimum.
5. Style: Smooth Finish.
6. Style: Cedar Texture.
7. Style: Colonial Beaded Smooth Finish.
8. Style: Colonial Beaded Sequoia Texture.
9. Width: 8 inches (203 mm) nominal.
10. Width: 9 inches (229 mm) nominal.
11. Length: 16 feet (4877 mm).

F. Basis of Design: Fiber Lap Siding, 120 Series; as manufactured by LP Building Products.

1. Type: Engineered wood siding with resin and linseed oil impregnated surface, treated with EPA-registered zinc-borate preservative.
2. Standards Compliance: ANSI A135.6 compliant.
3. Finish: Acrylic latex primer.
4. Thickness, 120 Series: 0.450 inch (11 mm) minimum.
5. Style: 12 inch (305 mm) nominal, Triple 4 inch (102 mm) Bold Profile.
6. Style: 12 inch (305 mm) nominal, Double 5 inch (127 mm) Bold Profile.
7. Style: 16 inch (406 mm) nominal, Quad 4 inch (102 mm) Bold Profile.
8. Style: 16 inch (406 mm) nominal, Triple 5 inch (127 mm) Bold Profile.
9. Style: 16 inch (406 mm) nominal, Double 8 inch (203 mm) Bold Profile.
10. Width: 6 inches (152 mm) nominal.
11. Width: 8 inches (203 mm) nominal.
12. Width: 8 inches (203 mm) nominal, Self-Aligning Cedar Texture.
13. Width: 9.5 inches (241 mm) nominal.
14. Width: 12 inches (305 mm) nominal.
15. Width: 16 inches (406 mm) nominal.
16. Length: 16 feet (4877 mm).

G. Basis of Design: Fiber Cedar Shakes; as manufactured by LP Building Products.

1. Type: Engineered wood siding with resin and linseed oil impregnated surface, treated with EPA-registered zinc-borate preservative.
2. Standards Compliance: ANSI A135.6 compliant.

3. Finish: Acrylic latex primer.
4. Thickness: 0.375 inch (10 mm), minimum.
5. Style: Cedar Texture with staggered edge or straight edge.
6. Size: 12 x 48 inches (305 x 1219 mm).
7. Edges: Shiplap Edge.

- H. Basis of Design: Fiber Perfection Shingle; as manufactured by LP Building Products.
1. Type: Engineered wood siding with resin and linseed oil impregnated surface, treated with EPA-registered zinc-borate preservative.
  2. Standards Compliance: ANSI A135.6 compliant.
  3. Finish: Acrylic latex primer.
  4. Thickness: 0.375 inch (10 mm), minimum.
  5. Style: Fine sawn wood texture with no knots and straight edge.
  6. Size: 8 x 48 inches (203 x 1219 mm).
  7. Edges: Shiplap Edge.

### 2.3 SOFFIT PANELS

- A. Basis of Design: Strand Soffit ; as manufactured by LP Building Products.
1. Type: Exterior-grade, phenolic resin-saturated, paper overlay laminated to EPA-registered zinc-borate preservative-treated engineered wood soffit.
  2. Finish: Acrylic latex primer.
  3. Square edges.
  4. Thickness: 0.315 inch (8 mm) minimum.
  5. Thickness: 0.375 inch (10 mm) minimum.
  6. Thickness: 0.530 inch (14 mm) minimum.
  7. Style : Cedar Texture.
  8. Type: Non-vented soffit.
  9. Type: Non-vented, Cut-to-Width soffit.
  10. Type: Vented, Cut-to-Width soffit.
  11. Width: 12 inches (305 mm), nominal.
  12. Width: 16 inches (406 mm), nominal.
  13. Width: 24 inches (610 mm), nominal.
  14. Width: 48 inches (1219 mm), nominal.
  15. Length: 8 feet (2438 mm).
  16. Length: 9 feet (2743 mm).
  17. Length: 16 feet (4877 mm).
- B. Basis of Design: Fiber Soffit ; as manufactured by LP Building Products.
1. Type: Engineered wood siding with resin and linseed oil impregnated surface, treated with EPA-registered zinc-borate preservative.
  2. Finish: Acrylic latex primer. Square edges.
  3. Thickness: 0.375 inch (10 mm).
  4. Style: Cedar Texture.
  5. Style: Smooth Finish.
  6. Type: Non-vented soffit.
  7. Type: Non-vented, Cut-to-Width soffit.
  8. Width: 16 inches (405 mm).
  9. Width: 47.94 inches (1218 mm) actual.
  10. Length: 8 feet (2438 mm).
  11. Length: 9 feet (2743 mm).
  12. Length: 16 feet (4877 mm).

### 2.4 TRIM AND FASCIA

- A. Basis of Design: Strand Trim and Fascia; as manufactured by LP Building Products.
1. Fire Rating: Class 1(A) fire rating required.

2. Finish: Acrylic latex primer.
  3. Thickness, 190 Series: 0.530 inch (14 mm).
  4. Thickness, 440 Series: 0.625 inch (16 mm).
  5. Thickness, 540 Series: 0.910 inch (23 mm).
  6. Style : Cedar Texture.
  7. Width: 1.50 inches (38 mm), actual.
  8. Width: 2.50 inches (64 mm), actual.
  9. Width: 3.50 inches (89 mm), actual.
  10. Width: 4.50 inches (114 mm), actual.
  11. Width: 5.50 inches (140 mm), actual.
  12. Width: 7.21 inches (183 mm), actual.
  13. Width: 9.21 inches (234 mm), actual.
  14. Width: 11.21 inches (285 mm), actual.
  15. Length: 16 feet (4877 mm).
- B. Basis of Design: Fiber Trim and Fascia; as manufactured by LP Building Products.
1. Fire Rating: Class 1(A) fire rating required.
  2. Finish: Acrylic latex primer.
  3. Thickness, 440 Series: 0.625 inch (16 mm) minimum.
  4. Thickness, 540 Series: 0.910 inch (23 mm) minimum.
  5. Style : Reversible; Smooth Finish on one side and Cedar Texture on the other side.
  6. Width: 2.70 inches (69 mm), actual.
  7. Width: 3.50 inches (89 mm), actual.
  8. Width: 4.50 inches (114 mm), actual.
  9. Width: 5.50 inches (140 mm), actual.
  10. Width: 7.21 inches (183mm), actual.
  11. Width: 9.21 inches (234 mm), actual.
  12. Width: 11.21 inches (285 mm), actual.
  13. Length: 16 feet (4877 mm).

## 2.5 ACCESSORIES

- A. Fasteners: ASTM A 153:
1. Hot-dip galvanized or stainless steel nails with 0.113 inch (2.9 mm) diameter shank.
  2. Penetrate structural framing or wood structural panels and structural framing a minimum of 1-1/2 inches (38 mm).
- B. Sealant: ASTM C 920, minimum Class 25 sealant.
- C. Water-Resistive Barrier: ASTM D226 or other approved water-resistive barrier.
- D. Air Barrier:
1. Material: ASTM E 1677 .
  2. UV Exposure: Minimum three months.
  3. Seam Tape: Air barrier manufacturer's standard product.
- E. Non-Compressible Drainable Housewrap :
1. Non-Compressible: will not allow the minimum 1 mm drainage gap to be reduced by the force of fastening during the installation of siding.
  2. Drainable Housewrap: will remove more bulk water by creating a minimum 1 mm drainage gap (air gap) at any individual measurement point between the housewrap and the back of the siding.
- F. Flashing:
1. Provide flashing at window and door heads and where indicated on Drawings.

- Refer to Division 07 for sheet metal flashing.
2. Material: Aluminum.
    - a. Finish: Siliconized polyester coating.
    - b. Finish: High-performance organic finish.
    - c. Finish: Factory-prime coating.
    - d. Finish: \_\_\_\_\_.
    - e. Finish: As determined by the Architect.
  3. Material: Stainless steel.
  4. Material: Galvanized steel.
  5. Material: \_\_\_\_\_.
  6. Material: As determined by the Architect.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly constructed and prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
- C. Verify location of concealed framing support and anchorage.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. 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. Install in accordance with manufacturer's application instructions approved submittals and in proper relationship with adjacent construction.
  1. Install in accordance with conditions stated in ICC-ES ESR-1301 for strand substrate products and ICC-ES ESR-3090 for fiber substrate products.
  2. Properly space joints to allow for equilibration.
- B. Do not install over damaged or crooked materials.
- C. Do not cut siding/cladding to fabricate trim; use trim components.
- D. After installation, seal and flash joints, except the overlapping horizontal lap joints.
- E. Seal around penetrations.
- F. All wood substrate that is exposed to the weather must be sealed in a manner that prevents moisture intrusion and water build up.
  1. Seal ALL exposed cuts of siding and trim. Field spray applied coatings on cuts are not recommended.
  2. Sealing can be accomplished by applying a coating or sealant according to the manufacturer's requirements.
  3. Butt joints that are covered with joint moldings, sealant, or factory prefinished ends are considered sealed from the weather.

### 3.4 CLEANING AND PROTECTION



- A. Clean products in accordance with the manufacturers Care and Maintenance Instructions.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION