



SECTION 06420

ENGINEERED SOLID WOOD PANELS

PART 1 GENERAL

1.1 SUMMARY

- A. 3 Ply, cross laminated, edge glued Western Red Cedar engineered solid wood panels
- B. 3 Ply, cross laminated, finger jointed Western Red Cedar engineered solid wood panels
- C. Single ply, edge glued soffit panels
- D. Single ply, edge glued interior panels

1.2 RELATED SECTIONS

- A. Section 05400 - Cold-Formed Metal Framing: Metal framing for support of wooden soffits.
- B. Section 06100 - Rough Carpentry: Wood stud framing, furring, and sheathing for support of wooden soffits.
- C. Section 06400 – Architectural Woodwork: Installation of single ply, edge glued interior wall panels.
- D. Section 07210 - Building Insulation: Rigid thermal insulation installed behind wall panels.
- E. Section 07600 - Flashing and Sheet Metal: Sheet metal gutters and downspouts.
- F. Section 07900 - Joint Sealers: Sealants used in closed joint finishes.

1.3 REFERENCES

- A. American Society of Testing and Materials (ASTM)
- B. Canadian General Standards Board (CGSB)
- C. Canadian Standards Association (CSA)
- D. The Programme for the Endorsement of Forest Certification (PEFC)
- E. British Columbia Building Code 2012
- F. European Standards (EN)

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300 or Project Coordination Guidelines.
- B. 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.
- C. Shop Drawings: Show location of each item, dimensioned plans and elevations, large scale details, attachment devices, and other components.
 - 1. Show details full size.
 - 2. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
 - 3. Show locations and sizes of cutouts and holes for plumbing fixtures, faucets and other items installed in architectural woodwork.
 - 4. Show veneer leaves with dimensions, grain direction, exposed face, and identification numbers indicating the flitch and sequence within the flitch for each leaf.
- D. Samples for Initial Selection: Manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available for each type of material indicated. Shop Drawings: Indicate dimensions, layout, joints, expansion joints, construction details, methods of anchorage, and interface with adjacent materials.
- E. Samples for Verification: For the following:
 - 1. Wood-veneer-faced panel products with or for transparent finish, 8 by 10 inches, for each species and cut. Include at least one face-veneer seam and finish as specified.
- F. LEED Submittals: Provide documentation of how the requirements of Credit will be met:
 - 1. EAc1 Energy & Atmosphere: Provide documentation on how the engineered solid wood panels back framing system can reduce the design energy consumption and/or cost. (LEED Form).
 - 2. MRc2 Construction Waste Management: For products being recycled, documentation of total weight of project waste diverted from landfill. (LEED Form).
 - 3. MRc5 Local and Regional Materials: Product Data for Credit MR 5.1 and Credit MR 5.2. Submit data, including location and distance from project of material manufacturer and point of extraction, harvest or recovery for main raw material. (LEED Form).
 - 4. MRc8 Durable Building: Provide documentation on how the use of engineered solid wood soffit will help increase the building's service life. (LEED Form).
 - 5. EQc4.2 Low Emitting Materials - Provide documentation on how the timber coating on the engineered solid wood soffit or panel indoors has no VOC's and will not contribute to air pollution/ozone depletion. (VOC Certification Letter).
 - 6. EQc7.1 Thermal Comfort: Provide documentation on how the engineered solid wood panels back-framing system, which allows for external insulation, helps the building to maintain an indoor level of comfort at greater energy efficiency. (LEED Form).
 - 7. IDc1.1 Innovation in Design: Provide documentation on how the use of engineered solid wood panels/soffit with a coated finish supports innovation in design. (LEED Form).

- G. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- H. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic cleaning and maintenance of components.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A company experienced in producing architectural woodwork similar, indicated for this project and with a record of successful performance and sufficient production capacity. Silva Panel nominates Trillium Pacific Millwork to assure quality and not to void warranty.
- B. Installer: Company specializing in performing Work of this section with minimum three years documented experience.
- C. 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 gloss are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.
- D. Fire-Test-Response Characteristics: Where fire-retardant materials or products are indicated, provide materials and products with specified fire-test-response characteristics as determined by testing identical products per test method indicated by UL, ITS, or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify with appropriate markings of applicable testing and inspecting agency in the form of separable paper label or, where required by authorities having jurisdiction, imprint on surfaces of materials that will be concealed from view after installation.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Package and store products under cover in manufacturer's unopened packaging until ready for transport and installation.
- B. Protect panels from accelerated weathering by removing or venting sheet plastic shipping wrap.
- C. Store prefinished material off ground protected from weather, to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- D. Prevent contact with materials capable of causing discoloration or staining.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not fabricate products under environmental conditions outside manufacturer's absolute limits.

1.8 COORDINATION

- A. Coordinate Work with installation of windows, louvers, and adjacent components or materials.

1.9 WARRANTY

- A. Silva Timber Products Ltd warranties cover delaminating of 3 ply panels (supply only) , peeling and blistering (recoating without removal of panels from installed location) for a period of 5 years provided that the following are fulfilled:
1. All panels are delivered, stored, handled and installed per the manufacturer's guidelines (see items 1,6 & 1,7 of this specification).
 2. All panels are installed in accordance with good building practices and in a rain screen method.
 3. All fastening in exterior applications are done with stainless steel fixings.
 4. Flashings are used over the top leading edge of panels in exterior applications.
 5. The panels are coated with Bomol Timber Coating Products per the recommendations of the manufacturer.
 6. Maintenance is performed every 4 years per the recommendations of the manufacturer.
- B. Silva Timber Products Ltd is not responsible for color variations in the natural shade or grain of the wood within each panel due to the nature of the species of wood used.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Western Red Cedar Engineered Solid Wood Panels – 3 Ply, Cross Laminated, Edge Glued Full Length Vertical Grain Lamella Face - For Exterior Use:
1. Standard Panel Size in mm.:
 - 1) 2400 X 1200
 - 2) 2100 X 1200
 - 3) 1800 X 1200
 - 4) 1500 X 1200
 - 5) 1200 X 1200The 1st dimensions always show the lamella length.
 2. Custom Size Panels:
- B. Western Red Cedar Engineered Solid Wood Panels – 3 Ply, Cross Laminated, Finger Jointed Full Length Vertical Grain Lamella Face - For Exterior Use:
1. Standard Panel Size in mm.:
 - 1) 2400 X 1200
 - 2) 2100 X 1200
 - 3) 1800 X 1200
 - 4) 1500 X 1200
 - 5) 1200 X 1200The 1st dimensions always show the lamella length.
 2. Custom Size Panels:
-

C. Western Red Cedar Engineered Solid Wood Panels – Single Ply, Cross Laminated, Edge Glued Full Length Mixed Grain Lamella Face - For Interior Use or Soffits:

1. Standard Panel Size in mm.:

- 1) 2400 X 1200
- 2) 2100 X 1200
- 3) 1800 X 1200
- 4) 1500 X 1200
- 5) 1200 X 1200

The 1st dimensions always show the lamella length.

2. Custom Size Panels:

D. Accessories:

1. Fixings
 - a. Screws
 - b. Nails
 - c. Other
2. Metal Flashings
 - a. Cover Flashings
 - b. Vertical Flashings
 - c. Drip Flashings

2.2 FINISHES

- A. SANSIN or BOMOL (Boehme) solvent free, water based, hydro-oil timber coating product applied.
1. 2 coats on face, 3 coat on sides and 1 coat on the back.
 2. Colors: Please visit <http://www.sansin.com/colors/> or www.boehme.ch for color catalogs.

2.3 FABRICATION

- A. Prepare and glue surfaces in accordance with D4 EN 13353-1 / EN 13353-2 and EN 204 / 205CE Standard SWP-3 / EN 13986 and applicable Canadian and European standards for the coating material specified.
- B. Wrap and package coated components using methods suitable for transit and covered site storage without damage.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until colors have been verified.
- B. Verify framing members are ready to receive panel system.
- C. If preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION & INSTALLATION

- A. As required by the design, manufacturer's recommendations and applicable codes.

3.3 FIELD QUALITY CONTROL

- A. After installation of soffits, check entire surface for obvious flaws or defects.
- B. Replace and repair any problem areas, paying close attention to the substrate for causes of the problem.

3.4 CLEANING , PROTECTION, MAINTENANCE & REPAIR

- A. After application of soffits, clean as necessary to remove all fingerprints and soiled areas.
- B. Upon completion of soffit application, clean entire area, removing all scrap, packaging, and unused materials related to this work.
- C. Protect installed products until completion of project.
- D. Touch-up, repair or replace damaged products before Substantial Completion.
- E. Silva Panel does not need maintenance. The panels may need cleaning with damp cloth if exposed to excessive dirt. Maintenance coats of Sansin or Bomol may be applied in place as necessary in 4 (four) year periods upon inspection by manufacturer or installer. Please see Sansin or Bomol technical data sheets for maintenance coat.
- F. Damaged panels may need replacement or recoating. Consult with your installer or manufacturer in case of physical damage.

3.5 SCHEDULES

- A. :
- B. :

END OF SECTION