

SECTION 064003

CERTIFIED ARCHITECTURAL WOODWORK

CSI 3-PART '**SHORT-FORM**' GUIDE SPECIFICATION
USE FOR OUTLINE OR DD ISSUES - EDIT TO SUIT PROJECT

PART 1 - GENERAL

1.1 SUMMARY

- A. Work of this Section consists of exterior and interior sustainable architectural woodwork, and includes but is not limited to the following:
1. Wood cabinets
 2. Paneling
 3. Accessories including, but not limited to, fasteners, hardware, edging, cableways

1.2 SUBMITTALS

- A. Product Data per DIVISION 01 and as follows: Submit manufacturer's printed descriptions of materials, components and systems, performance criteria, treatment systems, joinery, adhesives, hardware, finishes, use limitations, recommendations and installation information.

NOTE: Choose to use the AWI /AWMAC / WI standards for submittals or as defined by the Sections referenced. Delete items not selected.

- B. Shop Drawings per Architectural Woodwork Standards - 2009, Section 1, Submittals.
- C. Shop Drawings: Submit keyed location plans, detailed and keyed plans and elevations indicating materials, dimensions, finishes, hardware, blocking, hanging strips and other attachment requirements, cutouts and holes, power, cabling, wiring, built-in appliances and equipment.
1. Field Measurements: Indicate verified field measurements on the Shop Drawings.
 2. For wood casework with transparent finish indicate by elevation veneer leaves with dimensions, grain direction, exposed face, and identification numbers indicating the flitch and flitch sequence for each leaf.
 3. Use UDS standard notation for elevations, sections and details.
 4. Shop Drawings shall not be copies of the Contract Drawings.

NOTE: Provide large-scale sections and details, OR a Prototype Mockup for Architect's review and approval. Delete the one not used.

5. Indicate sections at a min. 3/4" = 1'-0" (1:20) scale and details a minimum half-size (1:2).
6. Provide details and sections indicating each different drawer construction.

NOTE: Select between the following two items, either review the Prototype Mockup at

the fabrication shop or in the field at the jobsite.

7. Architect to visit shop to view each initial Prototype Mockup piece prior to production.
8. Architect to view each initial Prototype Mockup piece prior to production in situ on the job.
 - a. Production shall not proceed without Architect's acceptable review and approval.

NOTE: Current cutting edge Shop Drawings are based on Architect's 3-D BIM Drawing files. Delete items 5 through 8.a. if using BIM process.

9. Use 3-D BIM Drawings as base for final Shop Drawings.
- D. Samples: Submit printed color charts and/or sample chains; submit boards, veneer flitches and manufactured panel products for final selection.
- E. Quality Assurance Submittals: Submit Quality Program, Treatment, Content and Performance Certificates; Test and Evaluation Reports; and Qualification Statements.

NOTE: Edit LEED Requirements below to suit project.

- F. Sustainable Design (USGBC [LEED](#)®) Submittals:
1. LEED Credit MR, Materials & Resources. Submit completed LEED-NC 2.2 Submittal Templates, and other required paperwork as follows:
 - a. MR 4.1: 10% Recycled Content, product data
 - b. MR 4.2: 20% Recycled Content, product data
 - c. MR 5.1: 10% Regional Materials, product data
 - d. MR 5.2: 20% Regional Materials, product data
 - e. MR 6: Rapidly Renewable Materials, product data
 - f. MR 7: FSC Certified Wood, chain-of-custody certificates
 2. LEED Credit EQ, Indoor Environmental Quality. Submit completed LEED-NC 2.2 Submittal Templates, and required paperwork as follows:
 - a. EQ 4.1: Low Emitting Materials, Adhesives & Sealants, VOC Data
 - b. EQ 4.2: Low Emitting Materials, Paints & Coatings, VOC Data
 - c. EQ 4.4: Low Emitting Materials, Indoor Composite Wood & Agrifiber, No Added Urea-Formaldehyde Content product data
- G. Closeout Submittals: Operation and Maintenance Data, Maintenance Bonds, Executed Warranty Documentation, and Record Documents.

NOTE: Edit LEED Requirements below to suit project.

1. Sustainable Design Closeout Documentation: Submit completed USGBC LEED® [worksheet templates](#) for the following credits:
 - a. MR 4.1, MR 4.2, MR 5.1, MR 5.2, MR 6, MR 7
 - b. EQ 4.1, EQ 4.2, EQ 4.4

1.3 MAINTENANCE MATERIAL SUBMITTALS

- A. Spare Parts: Provide five (5) percent additional sets of each different cabinet hardware type and finish.

1.4 QUALITY ASSURANCE

- A. Qualifications: Fabricator with minimum five (5) years and Installer with minimum three (3) years of successful experience.
1. Fabricator and Supplier shall source wood materials from certified sustainably managed forests.
 2. Fabricator and Supplier shall be capable of providing Third Party Certification that wood materials were sourced from sustainably managed or certified forests.
- B. Certifications: Architectural woodwork shall be manufactured and/or installed to the specified AWI / AWMAC / WIC JSC Quality Standards.
1. Source Limitations: Obtain wood timber and manufactured wood products from certified sustainably managed forests and displaying the FSC or PEFC or PEFC Member label.

[NOTE: Edit sustainability standards and certifications below to suit project.](#)

C. Sustainability Standards and Certifications:

1. Engineered wood shall be made using non-toxic glues, no added formaldehyde (NAF), and 100 percent recycled fibers or certified sustainably harvested wood.
2. Adhesive and Sealant VOC Limits: According to South Coast Air Quality Management District (SCAQMD) [Rule 1168](#) and [GS-36](#) for aerosols.
3. VOC Limits: As tested using U.S. EPA Reference Test Method 24 and as defined by
 - a. SCAQMD: In areas where exposure to freeze/thaw conditions and direct exposure to moisture will not occur.
 - 1). SCAQMD [Rule 1113](#), Architectural Coatings
 - 2). SCAQMD [Rule 1168](#), Adhesive and Sealant Applications
 - b. Bay Area Air Quality Management District Regulation (BAAQMD): For containers larger than 16 oz., for areas where freeze/thaw conditions do exist or direct exposure to moisture can occur.
 - 1). BAAQMD [Regulation 8, Rule 51](#)
 - c. California Air Resources Board (CARB): For areas where freeze/thaw conditions do exist or direct exposure to moisture can occur.
 - 1). CARB for containers 16 oz. or less.
 - d. Green Seal (GS) Standards:
 - 1). [GS-11](#), Low Odor or Low VOC Paint
 - 2). [GC-03](#), Anti-Corrosive Paints, Second Edition, January 7, 1997
4. Composite wood and agrifiber products shall contain no added urea-formaldehyde resins.
5. Certified Wood Materials: According to FSC-STD-40-004 chain-of-custody requirements.

- D. Mockups: Assemblies required for testing, either in the field or off-site.

**NOTE: Either Mockups or Prototypes may satisfy the designer's selection process.
Delete the one not chosen.**

- E. Prototypes: Provide materials and full or partial assemblies of each unit type for review and approval prior to fabrication production.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery, Storage and Handling per manufacturer's written recommendations, and DIVISION 01 requirements.

1.6 WARRANTY

NOTE: Coordinate and edit warranty language below to suit Owner requirements and Fabricator offering.

- A. Fabricator Warranty: Contractor shall provide fabricator's guarantee against structural defects in materials and workmanship for the lifetime of the original owner beginning on the date of Substantial Completion acceptance.
1. Defective piece(s) shall be repaired or replaced at the discretion of the fabricator, and in a timely manner.

PART 2 - PRODUCTS

2.1 MANUFACTURERS / FABRICATORS

GREEN NOTE: For most current list of Vermont FSC Certified Products go to http://www.vtwoodnet.org/certified_wood_sources.html .

- A. Fabricator List of FSC Certified VT **Casework**. ([link](#)) Subject to compliance with requirements, provide products by one of the following:
1. Beeken Parsons, Inc., Shelburne, VT; 802.985.2913; www.beekenparsons.com; SCS-COC-001477 B
 2. Cotswold Furniture Makers, Stowe, VT; 802.253.3710; <http://cotswoldfurniture.com>; SCS-COC-001477 O
 3. J.S. Benson Woodworking & Design LLC, Brattleboro, VT; 802.254.3515; SCS-COC-001477
 4. Stark Mountain Woodworking Company, New Haven, VT; 802.453.5549; www.starkmountain.com; SCS-COC-001477 F
 5. William Laberge Cabinetmakers, Inc., Dorset, VT; 802.325.2117; www.williamlaberge.com; SCS-COC-001477 N
- B. Fabricator List of VT **Cabinetry and Millwork** using FSC Certified and Sustainable Materials. Subject to compliance with requirements, provide products by one of the following:

1. Fine Lines in Wood, Inc., New Haven, VT; 802.453.6451; SCS-COC-001477 H
2. Vermont Green Cabinets, Hinesburg, VT; 802.482.3659;
www.vermontgreencabinets.com; SCS-COC-001477

- C. Other Vermont Custom Cabinet Makers. Subject to compliance with requirements, provide products by one of the following:

GREEN NOTE: Some of the companies below offer products made from FSC and commercial woods.

1. Amoskeag Woodworking, Colchester, VT; www.amoskeagwoodworking.com
2. Baynham Wood Products, Shelburne, VT; 802.985.9311
3. Birdseye Building Co., Richmond, VT; www.birdseyebuilding.com
4. S. A. Fishburn, Inc. Danville, VT; www.safishburn.net
5. Shelburne Fine Woodworking, Shelburne, VT; www.sfwvermont.com
6. Steve Marshall Cabinet Maker, Burlington, VT;
www.stevemarshallcabinetmaker.com

GREEN NOTE: The following list of CPA-EPP / CARB-compliant manufacturers meet the most rigorous formaldehyde emission and other environmental standards.

At present no Vermont manufacturer of wood products have been accepted to the list.

- D. CPA [EPP Downstream Program Companies](#); Meets ANSI accreditation, uses 100 percent recycled or recovered wood fiber, formaldehyde emissions equal to or lower than CARB Phase I, ongoing testing, monthly audits, quarterly sample submission for third-party testing.

- E. Manufacturer List of Environmentally Safe Wood **Finish Coatings**: Subject to compliance with requirements, provide products by one of the following:

1. Sutherland Welles Ltd., Morrisville, VT; 800.322.1245; www.sutherlandwelles.com
2. Vermont Natural Coatings, Hardwick, VT; 802.472.8700;
www.vermontnaturalcoatings.com

- F. **Substitution Limitations**: Manufacturers of equivalent products shall be considered when submitted in accordance with DIVISION 01.

2.2 DESCRIPTION

- A. Regulatory Requirements

1. Hardwood Grades: NHLA American Hardwood Lumber [Grades](#)
2. Softwood Grades: NeLMA (WWPA) [Grade](#)

- B. Sustainability Characteristics

1. [USGBC](#) LEED Rating: Comply with project requirements intended to achieve the following Rating, as measured and documented according to the USGBC LEED® Green Building [Rating System](#) and Version indicated:

NOTE: Each LEED Version requires a different credit total to achieve the desired LEED Rating.

NOTE. Select one of the following Ratings and edit the Version listed to suit your project.

- a. Rating: Certified, Silver, Gold, Platinum
- b. Version: [LEED-NC](#) v. 2.2 (New Construction)
2. Cabinetry or Countertops
 - a. FSC certified
 - b. Vermont sourced and produced
 - c. Salvaged and reused
 - d. Recycled content

RED NOTE: Verify that adhesive used in making agri-board is MIC-free.

- e. MIC-free agri-board
- f. Domestically produced

2.3 FINISHES

- A. Shop Finishing per AWI [finish system](#): Moisture-cured or oil-based or water-based urethane or tung oil based.
 1. Non-Petroleum Based Wood Finish Systems
 - a. UV resistant, non-yellowing, whey protein-based binder
 - 1). Manufacturer / Product: Vermont Natural Coatings / PolyWhey™
 - b. UV resistant, Botanical Polymerized Tung Oil
 - 1). Manufacturer / Product: Sutherland Welles Ltd. / Loc-Lamin® Wood Finishing System; Morrisville, VT; www.sutherlandwelles.com
 2. Varnishes: Tung Oil, or alkyd polyester resin, or polyurethane resin, or quick-drying or VT styrene resin
- B. Field Finishing: Per DIVISION 09.

2.4 ACCESSORIES

- A. Cabinet Hardware and Accessories: Comply with BHMA 156.9 and 156.11; exposed hardware per BHMA A156.18

RED NOTE: Avoid specifying BHMA 625 / US 26 bright chromium plated and BHMA 626 / US 26D satin chromium plated metal finishes. Both use carcinogenic hexavalent chromium in a non-recyclable arsenic heavy metal salt bath.

- B. Fasteners: Of appropriate type and length for wood product used to securely fasten to the substrate for the intended life and use of the unit.

PART 3 - EXECUTION

3.1 FIELD CONDITIONS

- A. Conditions and Measurements: Visit jobsite to verify installation conditions and measurements.
- B. Ambient Conditions per manufacturer's recommendations and DIVISION 01.
- C. Environmental Limitations: Do not deliver or install wood products until building is enclosed, wet work is complete, and HVAC system is operating and consistently maintaining temperature and relative humidity at occupancy levels, and in accordance with manufacturer's recommendations.

3.2 EXAMINATION, PREPARATION AND INSTALLATION

- A. Examination, preparation and installation per manufacturer's current written instructions, industry standards, and DIVISION 01 requirements.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected and installation area properly prepared.
 - 2. Install woodwork plumb, level, true and aligned without distortions.
 - 3. Where woodwork abuts other finished work, scribe and apply filler strips for a continuous tight fit with concealed fasteners.
 - 4. Allow for expansion and contraction movement of wood material joints due to moisture.
 - 5. Abut and align top and edge surfaces in one true plane, with internal supports placed to prevent deflection.
 - 6. Fasten or anchor materials and units in a concealed manner with fasteners appropriate to use and anticipated durability.
 - 7. Tolerances: Provide joint widths not more than 1/16 inch wide at any location, filled and flush with abutting edges. Horizontal alignment of top surface of all joints for their entire length shall be within 1/32 inch. Front edges of all abutting pieces shall align.
 - 8. Adjust each cabinet door and drawer until operation is smooth and as required.

3.3 CLEANING, MAINTENANCE AND PROTECTION

- A. Provide Progress Cleaning, Waste Management, and Final Cleaning per DIVISION 01 requirements.
- B. Provide Initial Maintenance per manufacturer's recommendations.
- C. Provide protection per manufacturer's recommendations.

3.4 CLOSEOUT ACTIVITIES

- A. Substantial Completion Requirements per DIVISION 01 requirements.

END OF SECTION

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NOTE: Please **contact us** with comments, additions and deletions about this GuideSpec so we can make it better.

VERMONT SUSTAINABLE JOBS FUND

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This Guide Specification is not a completed document ready for use. It must be edited deleting, adding, or modifying text, as required to suit project requirements.

The professional stamping and the contracting parties of the Contract Documents are responsible for the accuracy of issued project specifications, including any use of this Guide Specification.

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