|  |
| --- |
| **Section Cover Page** |
|  **Section 12 68 13****2017-06-06 Tables** |
| Refer to “LEED Notes and Credits” page for additional guidance for LEED projects.Delete LEED items if project:.1 is excluded by the Department’s policy on LEED, or.2 the Department has determined that the work of this Contract is not to attain a LEED rating. |

This section describes the general performance requirements and the capabilities of the Tables. Tables shall be part of the Systems Furniture Integrated System.

An integrated product offering is defined as: A Manufacturer’s product or combination of manufacturer’s product lines that will work together to provide a seamless reconfiguration and flexible platform, through shared components, interconnections and finish logic.

This Master Specification Section contains:

.1 This Cover Sheet

.2 LEED Notes and Credits

.3 Specification Section Text:

**1. General**

1.1 Related Work Specified in Other Sections

1.2 Reference Documents

1.3 Design Requirements

1.4 Performance Requirements

1.5 Submittals

1.6 Waste Management and Disposal

**2. Products**

2.1 Components

**3. Execution**

3.1 Adjusting

**LEED Notes:**

N/A

**LEED Credits:**

Contribution towards LEED credits in this section may apply as follows:

**1. LEED Credit MR 4: Recycled Content.**

.1 The criteria is that the sum of post-consumer recycled content plus one-half of the pre-consumer content constitutes at least the percent (10% and 20%) of the total value of the materials in the project. Steel, aluminum and HPDE Plastics may have some recycled content. The manufacturer’s will be need to provide information sheets demonstrating recycled content.

**2. MR Credit 5 Regional Materials:**

.1 Use building materials or products that have been extracted, harvested, recovered and processed within 800 km (2400 km is shipped by rail or water) of the final manufacturing site. Demonstrate that the final manufacturing site is within 800 km (2400 km is shipped by rail or water) of the project site for these products. The contractor will be required to submit documentation consisting of cost, weight, transportation service and distances as evidence of compliance with credit requirements.

**3. LEED Credit MR 7: Certified Wood.**

.1 A minimum of 50% of wood-based materials and products must be certified in accordance with the Forest Stewardship Council’s Principles and Criteria in order to obtain this credit.

**4. LEED Credit EQ 4.4: Low-Emitting Materials – Composite Wood and Agrifibre Products**

.1 To obtain this credit composite wood products must contain no added-urea formaldehyde and any adhesive products must contain no urea-formaldehyde.

1. General

1.1 RELATED Work Specified in Other SECTIONS

.1 [LEED Submittal Forms Section 01 32 16]

.2 [LEED Requirements Section 01 35 18]

.3 [Environmental Procedures Section 01 35 20]

.4 Waste Management and Disposal Section 01 74 19.

.5 Architectural Woodwork Section 06 40 00.

*SPEC NOTE:  Edit above to suit project requirements.*

* 1. **REFERENCE DOCUMENTS**

*SPEC NOTE: Edit this article to include only standards referenced within the edited version of this Section, including LEED documentation and sustainable practices.*

.1 ANSI/BIFMA X5.5-2014 for Desk Products.

.2 ANSI/BIFMA E3-2014 Furniture Sustainability Standard.

.3 ANSI/BIFMA M7.1-2014 Standard Test Method for Determining VOC Emissions from Office Furniture Systems, Components, and Seating.

.4 ANSI/BIFMA X7.1-2011 Standard for Formaldehyde and VOC Emissions of Low-Emitting Office Furniture Systems and Seating.

.5 ASTM D3359 Standard Test Methods for Measuring Adhesion by Tape Test, Method B.

.6 ASTM D 4060 Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abrader.

.7 ASTM D3618 – Detection of Lead In Paint and Dried Paint Films.

.8 CAN/CSA-C22.2, No.203-M91 (R2005) Modular Wiring Systems for Office Furniture.

.9 ULC Fire rated Class-A for Interior, Top Coats, Varnish, and Special Coats.

.10 CAN/ULC-S102.2, Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies.

.11 CAN/ULC-S102-10 Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.

1.3 DESIGN REQUIREMENTS

*SPEC NOTE: Edit to reflect specifics of the applicable project if product is to be part of the Systems Furniture Integrated System. Indicate project specifics for bidding purposes. Ensure that all pertinent requirements are adequately addressed in the related Sections.*

.1 The furniture manufacturer shall utilize the following principles:

.1 All Tables must work together to provide a flexible and adaptable work environment.

.2 The Tables must be easily reconfigured to ensure minimal Client downtime.

.2 Environmental issues must be taken into consideration by the Manufacture. The Manufacturer shall ensure that the applicable measures, are an integral part of the manufacturing process for the Tables. Upon request, the Vendor shall provide documents to demonstrate how emissions are controlled and that the emission control is an integral part of the manufacturing process for the Furniture.

.3 Low-emitting UF-bonded board products or phenol-bonded products may be provided by the Vendor. The Vendor agrees to provide Tables that have no added urea-formaldehyde other than that which is naturally present.

.4 The Vendor shall provide Environmental Choice Program or UL EcoLogo® certified Tables. The Vendor shall ensure all wood veneer is Forest Stewardship Council of Canada certified wood. [The Vendor shall provide documents to demonstrate the Furniture is Environmental Choice Program, UL EcoLogo® certified, or Forest Stewardship Council of Canada certified wood].

1.4 PERFORMANCE REQUIREMENTS

 .1 Top: [0.8mm (0.32”) high-pressure plastic laminate] or [wood veneer tops] bonded to 25mm (1”) industrial grade #1 20kg (45lb) particleboard complete with appropriate backing sheet.

 .1 Lightweight construction shall consist of 19.05mm (3/4”) corrugated “Honeycomb” core surrounded by a 19.05mm (3/4”) thick plywood skeleton providing structural rigidity and support for mounting plates. Core shall be bonded to a backing sheet top and bottom to create a smooth surface for bonding 0.8mm (.032”) high pressure laminate or wood veneer top, balanced with appropriate backing sheet.

 .2 All table tops to base connections are metal to metal with factory supplied machine screws, or quick connect device.

 .2 Edges: [Solid hardwood], [built-up hardwood], or [PVC edges] shall be acceptable based on aesthetic finish.

 .1 Edges shall be available in multiple profiles to suit particular usage and be integral with top. T-mould is not an acceptable edge.

 .3 Leg/Base: Options for leg/base constructions shall be [tubular steel] or [drum base with powder coat finish], [extruded or cast aluminum] with [anodized] or [metallic fused powder coat finish], [polished or brushed chrome metal] or [solid wood base with manufacturer’s standard stained/lacquered], [baked lacquer (metal bases)] or [painted finish] as indicated.

1.5 SUBMITTALS

.1 Comply with requirements of Division 01.

.2 Submit samples of finishes in manufacturer's standard colour range for selection by the Province.

.3 Submit product data indicating component thicknesses, finishes, and sizes.

.4 Shop Drawings: Indicate dimensions, [anchorage details], [hardware] and accessories details.

.5 Closeout Submittals

.1 Provide [cleaning] [adjusting] information for incorporation into manual specified in Section 01 78 23 - Operation and Maintenance Data and Manuals.

*SPEC NOTE: Delete LEED submittal item if project is not to attain LEED certification or if Credit MR 4 is not being sought.*

.6 LEED Submittals: submit LEED submittal forms for Credit MR 4 in accordance with Section 01 32 16 LEED Submittal Forms and Section 01 35 18 LEED Requirements and the following:

.1 Documentation identifying quantity by weight of recycled content in products.

*SPEC NOTE: Delete LEED submittal item if project is not to attain LEED certification or if Credit MR 5 is not being sought.*

.7 LEED Submittals: submit LEED submittal forms for Credit MR 5 in accordance with Section 01 32 16 LEED Submittal Forms and Section 01 35 18 LEED Requirements and the following:

.1 Regional Materials: provide evidence that project incorporates required percentage [20] [30] % of regional materials/products, showing their cost, distances from extraction to manufacture and manufacture to project site, and total cost of materials for project.

*SPEC NOTE: Delete LEED submittal item if project is not to attain LEED certification or if Credit MR 7 is not being sought.*

.8 LEED Submittals: submit LEED submittal forms for Credit MR 7 in accordance with Section 01 32 16 LEED Submittal Forms and Section 01 35 18 LEED Requirements and the following:

.1 Documentation verifying products are manufactured using FSC Certified wood products.

*SPEC NOTE: Delete LEED submittal item if project is not to attain LEED certification or if Credit EQ 4.4 is not being sought.*

.9 LEED Submittals: submit LEED submittal forms for Credit EQ 4.4 in accordance with Section 01 32 16 LEED Submittal Forms and Section 01 35 18 LEED Requirements and the following:

.1 Documentation verifying all wood cores contain no added urea-formaldehyde and adhesive products contain no urea-formaldehyde.

1.6 waste management and disposal

.1 Separate and recycle waste materials in accordance with Section 01 74 19 Waste Management and Disposal and with the Waste Reduction Workplan.

1. **Products**

**2.1 MEETING ROOM AND TRAINING ROOM TABLES**

.1 Assembly: Tables shall be assembled complete with tops and bases. [Ganging mechanism shall be inherent in the design of the table system.]

.2 Reconfigurability: Tables shall have the ability to be reconfigured to suit multiple room layouts. [Reconfiguration must be able to be completed with minimal tools to provide solid ganged connection.]

.3 Storage: Tables to have the ability to have a flip top for table nesting.

.4 Casters and adjustable glides: Table glides shall be adjusted with fingers only. Glides must be of sufficient size to provide an easily portable movement of table by one person.

.1 Glides and casters shall be interchangeable. Glides must be consistent in look with casters. Tables must remain same height with glides or casters.

.2 Tables with glides can connect to tables with casters. Glides and casters can be combined on the same table.

.3 Glides shall have a minimum adjustment range or 35 mm (1.4 inches) and shall be appropriate for floor finish.

.4 Casters if required are to be constructed of a hard density, non-marking material with a locking brake.

.5 Bases: Multiple base types shall be available to satisfy various functional requirements. These include [post], [T], [X], [C] or [component based leg system].

 .6 Size: Tables shall be available in 152 mm [6”] increments over the length of the table.

 .1 Standard depths shall be available in [610mm (24”)], [762mm (30”)], [914mm (36”)], [1067mm (42”)] and [1219mm (48”)].

 .2 Standard length shall be available in [762mm (30”)], [914mm (36”)], [1067mm (42”)], [1219mm (48”)], [1371mm (54”)], [1524mm (60”)], [1828mm (72”) or [1981mm (78”)].

 .3 Round tables shall be available in [762mm (30”)], [914mm (36”)], [1067mm (42”)], [1219mm (48”)], [1524mm (60”)] or [1829mm (72”)] diameters.

 .7 Wire Management Capabilities: Vertical wire raceways shall accommodate cabling routing data and electrical cables from building source to desired location on the table. Horizontal wire raceways shall carry and conceal wire to nearest or designated table base or equipment location. Wire management must be an integrated component of all tables.

 .8 Wire Raceways: Provide separate channels for power and communication cabling.

 1. Raceways shall be of a modular system type and easily installed on tables. Wire raceways must be sized to accommodate inline AC adapters.

 .9 Tabletop Access: Grommets or other top access doors shall accommodate AC adapter or multiple bundles of cables and electrical cords.

 .10 Table Surface Power and Communication Units: Table system must accommodate tabletop modular electrical and data systems, when requested in writing by the Client.

 .11 Combinations of Data: Standard quadraplex combinations of RJ11 and RJ45 communication outlets and electrical modular AC duplex outlets shall be at or below tabletop, when requested in writing by the Client.

**2.2 BOARDROOM TABLES**

.1 Assembly: Tables shall be assembled complete with tops and bases.

.2 Bases: Multiple base types shall be available to satisfy various functional requirements. These include [square], [rectangular], [drum], [wedge] or [component based leg system].

 .3 Top Size: Tables shall be available in 152 mm (6”) increments over the length of the table.

 .1 Standard depths shall be [762 mm (30”)], [914 mm (36”)], [1067 mm (42”)] and [1219 mm (48”)].

 .2 Standard lengths shall be [762 mm (30”)], [914 mm (36”)], [1067 mm (42”)], [1219 mm (48”)], [1371 mm (54”)], [1524 mm (60”)], [1828 mm (72”) or [1981 mm (78”)].

 .3 Round tables shall be available in [762 mm (30”)], [914 mm (36”)], [1067 mm (42”)], [1219 mm (48”)], [1524 mm (60”)] or [1829 mm (72”)] diameters.

 .4 Top Shapes: Tables to be available in a variety of shapes to accommodate the function of the Boardroom.

 .1 Standard shapes to be [Rectangular], [Square], [Round], [Racetrack], [Oval], [Boat], [Wedge], [Arc End] or [ ].

 .5 Wire Management Capabilities: Vertical wire raceways shall accommodate cabling routing data and electrical cables from building source to desired location on the table. Horizontal wire raceways shall carry and conceal wire to nearest or designated table base or equipment location. Wire management must be an integrated component of all tables.

 .6 Wire Raceways: Provide separate channels for power and communication cabling.

 1. Raceways shall be of a modular system type and easily installed on tables. Wire raceways must be sized to accommodate inline AC adapters.

 .7 Tabletop Access: Grommets or other top access doors shall accommodate AC adapter or multiple bundles of cables and electrical cords.

 .8 Table Surface Power and Communication Units: Table system must accommodate tabletop modular electrical, HDMI, and data systems.

 .9 Combinations of Data: Standard quadraplex combinations of RJ11 and RJ45 communication outlets, HDMI and electrical modular AC duplex outlets shall be possible at or below tabletop.

**2.3 OCCATIONAL TABLES**

.1 Assembly: Tables shall be assembled complete with tops and bases.

.2 Bases: Base types shall be available to satisfy various functional requirements.

 .1 These include [four-post] or [X].

.2 Heights shall be available in [406 mm (16”)], [508 mm (20”)], and [660 mm (22”)].

 .3 Size: Coffee tables shall be available in 152 mm (6”) increments over the length of the table.

 .1 Standard depth shall be available in 610 mm (24”), 762 mm (30”), 1067 mm (42”) and 1220 mm (48”).

 .2 Round coffee tables shall be available in 406 mm (16”), 457 mm (18”), 508 mm (20”), and 660 mm (26”) diameters.

 .4 Shapes: Tables to be available in various shapes.

 .1 Standard shapes to be [Rectangular], [Square], [Round], [Racetrack], [Oval], or [ ].

3. Execution

3.1 ADJUSTING

.1 Allow for final on-site inspection and adjustments.

**END OF SECTION**