

# Scanlon Creek Nature Centre

Addendum 1

SCNC - NMS and CMS

October 9, 2024

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## Section 01 10 00 Summary of Work

### Part 1 General

#### 1.1 SUMMARY OF WORK

- .1 The Scanlon Creek Nature Centre Project consists of a new building in a green field site located adjacent to the exiting operations centre at the Scanlon Creek Conservation Area. The Conservation Area is located at 5450 Line 9, Bradford, Ontario.
- .2 The building has been designed to target **Net Zero Carbon Building Design Standard Version 3 certification (ZCB)**
- .3 The Project contains the following:
  - .1 Classrooms
  - .2 Mudrooms
  - .3 Staff Offices
  - .4 Washrooms
  - .5 Quiet Room
  - .6 Kitchenette
  - .7 Janitor Room
  - .8 Storage Room
  - .9 Mechanical and Electrical rooms
  - .10 Outdoor decks
  - .11 Landscaped areas
- .4 The construction scope of work includes, but is not limited to:
  - .1 Demolition
  - .2 Concrete Foundations
  - .3 Wood Framing
  - .4 Structural Steel
  - .5 Exterior Cladding, and Glazing
  - .6 Roofing
  - .7 Interior Partitions and Finishes
  - .8 Doors and hardware
  - .9 Custom Millwork
  - .10 Mechanical: HVAC, Plumbing, and fire protection
  - .11 Electrical: Power Distribution and Lighting
  - .12 Communications cabling
  - .13 Installation of Audio Visual Equipment provided by the owner
  - .14 Sitework

#### 1.2 PRODUCTS SUPPLIED BY OWNER

- .1 Owner has purchased the following Products for incorporation into the Work. Installation to be completed by the Contractor:
  - .1 TBD
- .2 The following Products will be supplied and installed by the Owner separate to this contract. Contractor shall include provisions for coordinating related work, identified in Contract Documents:
  - .1 TBD
- .3 Contractor shall receive Products delivered to the Place of the Work and safely store until installation in accordance with Section 01 60 00
- .4 Coordinate all required Mechanical and Electrical rough-ins and installation as indicated on Mechanical and Electrical Drawings.

- .5 Coordinate with Work of other Sections as required for installation of Owner supplied Products.

### **1.3 SCHEDULING OF WORK WITH OWNER**

- .1 There may be Owner staff and other contractors on site during the progress of the Work of this Project, performing regular work duties, maintenance, and completing other projects at the same time within the property.
- .2 At no time shall the Work of this Project be executed within a space being occupied by the work of another contractor for a different contract.
- .3 Contractor must carefully co-ordinate and schedule the Work of this Project with the Owner's facility manager to ensure that the Contractor remains the "Constructor" as defined under regulations of the Construction Health and Safety Branch of the Ontario Ministry of Labour, for Notice of Project, and Registration of Constructors and Employers Engaged in Construction.
- .4 At no time shall the Work of this Project create a situation where the Owner must take on the role of "Constructor".
- .5 No additional costs shall be considered for co-ordination and scheduling with the work of the Owner's other contractors after award of this Contract.

### **1.4 PHASING OF THE WORK**

- .1 Work must be organized and reviewed in advance for approval with and by the LSRCA's project manager, to maintain existing services and access to/within the existing building. Drawings must be read in conjunction with the specifications and included in the work plan.

### **1.5 WORK RESTRICTIONS**

- .1 Contractor's Use of the Place of the Work:
  - .1 Use of the Place of the Work is limited to areas indicated on the Drawings. Areas designated for storage of material and Construction Equipment (Marshaling Yard) are to be negotiated with the Owner.
  - .2 Do not unreasonably encumber site with materials or equipment.
  - .3 Move stored Products or Construction Equipment which interferes with operations of Owner, or other contractors.
  - .4 Obtain and pay for use of off-site additional storage, or Work areas as required by the Work.
  - .5 Entrance to the facility shall negotiated with the Owner.
  - .6 Deliveries shall be scheduled during regular work hours. Contractor to provide appropriate flag persons for all deliveries to the site.
  - .7 All areas adjacent to, and within the area of Work must cleaned at the end of each day.
- .2 Coordination with Occupants:
  - .1 Coordinate performance and sequencing of the Work with the Owner.
  - .2 Submit Notice in Writing to the Owner forty-eight (48) hours in advance of noise-generating activities which may disrupt normal operations.
  - .3 Submit Notice in Writing to Owner seventy-two (72) hours in advance of interruption of any building services or two (2) weeks for disruptions in building services of less than eight (8) hours in duration or four (4) weeks in advance for disruptions in building services of longer than eight (8) hours in duration. Do not interrupt building services without Owner's permission.
- .3 Hours of Work:
  - .1 Hours of Work for this Contract are generally confined to regular daily business hours (between 6:00 am to 7:00 pm) of Monday to Saturday. Where required by sequencing of the Work, or where shutdown of building services is required,

portions of the Work may be required to be performed outside of regular daily business hours, or on weekends.

**Part 2 Products**

**2.1 NOT USED**

.1 Not Used

**Part 3 Execution**

**3.1 NOT USED**

.1 Not Used

**END OF SECTION**

## Section 01 81 13 Sustainable Design Requirements

### Part 1 General

#### 1.1 SUMMARY

- .1 Section includes:
  - .1 Environmental Goals:
    - .1 CAGBC Zero Carbon Building Design Standard Version 3 certification (ZCB) with (1) Impact and Innovation credit.
    - .2 Intention is to achieve required credits via added-carbon concrete mixes and specified Extruded polystyrene (XPS) insulation.
  - .2 Related Sections:
    - .1 01 10 00 – Summary of Work: Environmental Goals for project.
    - .2 03 05 10 – General Concrete (Refer to Structural Drawings)
    - .3 07 21 13 – Board Insulation
    - .4 07 52 00 – Modified Bituminous Membrane Roofing
    - .5 20 01 01 – General Mechanical Requirements
    - .6 26 03 00 – Electrical Work General Requirements

#### 1.2 DEFINITIONS

- .1 Definitions pertaining to sustainable development: As defined by CAGBC.

#### 1.3 ENVIRONMENTAL GOALS

- .1 Environmental Goals: As specified in Section 01 10 00 – Summary.
  - .1 Participation in a green building rating program: As specified in Section 01 10 00 – Summary of Work.

#### 1.4 PRODUCTS

- .1 Ontario Ready Mix Concrete with GUL 35 SL for foundations.  
Refer to structural drawings.
- .2 Ontario Ready Mix Concrete with GUL 25 SL for columns and SOG. Refer to Structural drawings.
- .3 Sopra XPS Extruded polystyrene (XPS): to CAN/ULC-S701.

**END OF SECTION**

## Section 06 20 00 Finish Carpentry

### Part 1 General

#### 1.1 RELATED REQUIREMENTS

- .1 Section 06 10 53 Miscellaneous Rough Carpentry
- .2 Section 09 91 23 Interior Painting: Site finishing for finish carpentry.
- .3 Section 06 40 00 Architectural Woodwork .
- .4 Section 07 92 00 Joint Sealants

#### 1.2 REFERENCE STANDARDS

- .1 American National Standards Institute (ANSI)
  - .1 ANSI A208.1-09, Particleboard.
  - .2 ANSI A208.2-09, Medium Density Fibreboard (MDF) for Interior Applications.
  - .3 ANSI/HPVA HP-1-10, American National Standard for Hardwood and Decorative Plywood.
  - .4 ANSI/BHMA A156.16 Auxiliary Hardware.
  - .5 ANSI/ASME 18.6.1 1981 (R2012) Wood Screws (Inch Series).
- .2 Architectural Woodwork Manufacturers Association of Canada (AWMAC) and Architectural Woodwork Institute (AWI)
  - .1 Architectural Woodwork Quality Standards, 2nd edition, 2014.
- .3 ASTM International
  - .1 ASTM A 153/A 153M-16, Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
  - .2 ASTM E1333-14 Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber.
  - .3 ASTM F1667-13 Standard Specification for Driven Fasteners: Nails, Spikes and Staples.
- .4 Canadian General Standards Board (CGSB)
  - .1 CAN/CGSB-11.3-M87, Hardboard.
- .5 CSA Group (CSA)
  - .1 CSA O121-08 (R2013), Douglas Fir Plywood.
  - .2 CSA O151-09 (R2014), Canadian Softwood Plywood.
  - .3 CSA O153-M13, Poplar Plywood.
  - .4 CAN/CSA-Z809-08 (R2013), Sustainable Forest Management.
- .6 Forest Stewardship Council (FSC)
  - .1 FSC-STD-01-001-2004, FSC Principle and Criteria for Forest Stewardship.
- .7 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1 Material Safety Data Sheets (SDS).
- .8 South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards
  - .1 SCAQMD Rule 1168-A2005, Adhesives and Sealants Applications.
- .9 Sustainable Forestry Initiative (SFI)
  - .1 SFI-2015-2019 Standard.
- .10 Underwriters Laboratories of Canada (ULC)
  - .1 CAN/ULC-S104-10, Standard Method for Fire Tests of Door Assemblies.
  - .2 CAN/ULC-S105-09, Standard Specification for Fire Door Frames.

#### 1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature, data sheets and catalogue pages for specified products. Include product characteristics, performance criteria, dimensions and profiles, finish and limitations on use.
- .3 Shop Drawings:
  - .1 Indicate profiles and dimensions, assembly techniques, jointing, methods of fastening, terminations and other related details.
  - .2 Indicate materials, thicknesses, finishes and hardware.
  - .3 Where necessary, show location and type of blocking and backing required within supporting assemblies.
- .4 Samples:
  - .1 Submit duplicate 300 mm x 300 mm long representative samples of all wood and wood veneer finishes
  - .2 Applied coating samples:
    - .1 For transparent finish, submit duplicate samples of each species and cut of wood veneer to be used, finished as specified.
- .5 Certifications: submit certificates signed by manufacturer certifying materials comply with specified performance characteristics, physical properties and requirements of referenced standards.

#### 1.4 QUALITY ASSURANCE

- .1 Perform Work of this Section by finish carpentry contractor with minimum 5 years of current experience and having completed minimum one project in the past 5 years with value within 20% of the cost of the work of this Section.
- .2 Mock-ups:
  - .1 Construct mock-ups in accordance with Section 01 45 00 - Quality Control.
  - .2 1m x 1m mock up required for WD10, WD11 wall panels and WD3 truss cladding
  - .3 Allow 24 hours for inspection of mock-up by Consultant before proceeding with Work.
  - .4 When accepted, mock-up will demonstrate minimum standard for Work.
  - .5 Do not proceed with work prior to receipt of written acceptance of mock-up by Consultant.
  - .6 Accepted mock-up maynot remain as part of finished work.

#### 1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with AWS recommendations and as follows.
- .2 Deliver finish carpentry materials only when area of work is enclosed, plaster and concrete work is dry, area is broom clean and site environmental conditions are acceptable for installation.
- .3 Storage and Handling Requirements:
  - .1 Store materials indoors and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Maintain indoor temperature and humidity within range recommended by AWS for location of the Work.
  - .3 Store products on site as specified for minimum 72 hours prior to installation.
  - .4 Store and protect finish carpentry products from moisture, nicks, scratches, and blemishes.
  - .5 Replace defective or damaged materials with new.

### Part 2 Products

#### 2.1 MATERIALS

- .1 Vertical Wood Shiplap Panelling (WD10)
  - .1 Species: Western Hemlock



- .2 Width: 90mm
- .3 Thickness: 19mm
- .4 Finish: Matte, colour TBD
- .5 Profile: Square edge, no gap
- .2 Vertical Wood Shiplap Panelling Accent (WD11)
  - .1 Species: Western Hemlock
  - .2 Width: 90mm
  - .3 Thickness: 19mm
  - .4 Finish: Matte, colour TBD
  - .5 Profile: Square edge, no gap
- .3 Horizontal Wood Shiplap - Truss Cladding (WD3)
  - .1 Species: Western Hemlock
  - .2 Width: 275mm
  - .3 Thickness: 19mm
  - .4 Finish: Matte, Colour TBD
  - .5 Profile: Square edge, no gap
- .4 Softwood and hardwood lumber: Sound lumber to specified AWS grade requirements, kiln-dried to moisture content recommended for location of the Work.
  - .1 Machine stress-rated lumber is acceptable for all purposes.

## 2.2 FLAME SPREAD RATING OF WOOD FINISHES

- .1 Where wood material is used for wall finishes construction, the Flame Spread rating must be 75 or less on any exposed surface, or any surface that would be exposed by cutting through the material in any direction, unless noted otherwise. Use fire retardant spray to meet flame spread ratings required .
- .2 Where wood material is used in ceiling construction, the Flame Spread rating must be 25 or less on any exposed surface, or any surface that would be exposed by cutting through the material in any direction, unless noted otherwise. Use fire retardant spray to meet flame spread ratings required.
- .3 To achieve the above noted Flame Spread Rating, all the associated wood materials are to be finished with:
  - .1 Manufacturer: The Sansin Corporation
  - .2 Product: Sansin Firestop 99 (3 coats)
  - .3 All materials are to be applied as per manufacturer's specifications.
  - .4 Colour/Tint: Clear
  - .5 Provide finished samples of the wood material finished with the above noted system for review prior to proceeding with full scope of work.
  - .6 Alternates can be submitted for review and must be accepted by the architect prior to use.

## 2.3 FASTENINGS

- .1 Provide screws, bolts, expansion shields and other fastening devices required for satisfactory installation.
- .2 Exposed fasteners to match finish of hardware.
- .3 Nails and staples: to ASTM F1677, stainless steel galvanized to ASTM A 153/A 153M for exterior work, interior humid areas; stainless steel finish elsewhere.
- .4 Wood screws: to ANSI/ASME 18.6.1, countersunk flush type unless indicated otherwise, in sizes to suit application, galvanized to ASTM A 153/A 153M for exterior work, interior humid areas, stainless steel for other locations.
- .5 Splines: metal wood.
- .6 Panel adhesive: in accordance with Section 07 92 00 - Joint Sealants and as recommended by manufacturer.
  - .1 VOC limit 250 g/L maximum to GS-36.

- .2 Use least toxic sealants, adhesives, sealers, and finishes necessary to comply with requirements of this section.

## **2.4 HARDWARE**

- .1 Use one manufacturer's product for all similar items.
- .2 Closet Rods: Heavy duty steel rod c/w metal mounting brackets  
Finish: chrome
- .3 Closet Shelf Supports:
  - .1 Support edges on ledgers to match shelf finish.
  - .2 For wider shelves, provide heavy duty shelf brackets spaced no more than 915 mm apart  
Richelieu 4985WIBC or similar  
Finish White
- .4 Hardware fastenings:
  - .1 Supply screws, bolts, expansion shields and other fastening devices required for satisfactory installation of hardware.
  - .2 Exposed fastening devices to match finish of hardware.
  - .3 Use fasteners compatible with material through which they pass.

## **Part 3 Execution**

### **3.1 EXAMINATION**

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for wood products installation in accordance with AWS tolerances and requirements of Contract Documents.
  - .1 Visually inspect substrate.
  - .2 Proceed with installation only after unacceptable conditions have been remedied

### **3.2 PREPARATION**

- .1 Back prime woodwork before installation, to AWS.

### **3.3 INSTALLATION**

- .1 Install items of finish carpentry in accordance with AWMAC AWS grade specified for respective items.
- .2 In case of conflict between Contract Documents and AWS grade requirements, Contract Documents govern.
- .3 Install items of finish carpentry at locations shown on drawings.
  - .1 Position accurately, level, plumb straight.
  - .2 Fasten and anchor securely.
- .4 Scribe and cut as required, fit to abutting walls, and surfaces, fit properly into recesses and to accommodate piping, columns, fixtures, outlets, or other projecting, intersecting or penetrating objects.
- .5 Form joints to conceal shrinkage.

### **3.4 CONSTRUCTION**

- .1 Fastening:
  - .1 Position items of finished carpentry work accurately, level, plumb, true and fasten or anchor securely.
  - .2 Design and select fasteners to suit size and nature of components being joined. Use proprietary devices as recommended by manufacturer.
  - .3 Set finishing nails to receive filler. Where screws are used to secure members, countersink screw in round smooth cut hole and plug with wood plug to match material being secured.

- .4 Replace items of finish carpentry with damage to wood surfaces including hammer and other bruises.
- .2 Panelling:
  - .1 Secure panelling and perimeter trim using adhesive recommended for purpose by manufacturer. Fill nail holes caused by temporary fixing with filler matching wood in colour.
  - .2 Secure panelling and perimeter trim using concealed fasteners.
  - .3 Secure panelling and perimeter trim using counter sunk screws plugged with matching wood plugs.
- .3 Shelving:
  - .1 Install shelving on ledgers.

### **3.5 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 00 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 - Cleaning.

### **3.6 TOUCHUP AND PROTECTION**

- .1 Fill and retouch all nicks, chips and scratches in factory finishes and substrate materials to AWS standards. Replace damaged items that cannot be repaired to AWS standards.
- .2 Protect installed products and components from damage during construction.
- .3 Repair damage to adjacent materials caused by finish carpentry installation.
- .4 Leave work to be site finished ready for finishing by Section 09 91 23 - Interior Painting.

**END OF SECTION**

## Section 06 40 00 Architectural Woodwork

### Part 1 General

#### 1.1 REFERENCE STANDARDS

- .1 American National Standards Institute (ANSI)
  - .1 ANSI/ASME 18.6.1 1981 (R2012) Wood Screws (Inch Series).
  - .2 ANSI/BHMA A156.9-2010, Cabinet Hardware.
  - .3 ANSI/BHMA A156.11-2014, Cabinet Locks.
  - .4 ANSI/BHMA A156.16-2013, Auxiliary Hardware.
  - .5 ANSI/BHMA A156.18-2012, Materials and Finishes.
  - .6 ANSI/BHMA A156.20-2006, Strap and Tee Hinges and Hasps.
  - .7 ANSI A208.1-09, Particleboard.
  - .8 ANSI A208.2-09, Medium Density Fiberboard (MDF) for Interior Applications.
  - .9 ANSI/HPVA HP-1-10, Standard for Hardwood and Decorative Plywood.
- .2 Architectural Woodwork Manufacturers Association of Canada (AWMAC)
  - .1 Architectural Woodwork Standards (AWMAC AWS), 2014.
- .3 ASTM International
  - .1 ASTM A 153/A 153M-16, Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
  - .2 ASTM E 1333-14, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates From Wood Products Using a Large Chamber.
  - .3 ASTM F1667-13 Standard Specification for Driven Fasteners: Nails, Spikes and Staples.
- .4 Canadian General Standards Board (CGSB)
  - .1 CAN/CGSB-11.3-M87, Hardboard.
  - .2 CAN/CGSB-71.20-M88, Adhesive, Contact, Brushable.
  - .3 CAN/CGSB-71.19-M88, Adhesive, Contact, Sprayable.
- .5 CSA Group (CSA)
  - .1 CSA O112-M Series 1977 (R2006) Standards for Wood Adhesives.
  - .2 CSA O121-08 (R2013), Douglas Fir Plywood.
  - .3 CSA O141-05 (R2014), Softwood Lumber.
  - .4 CSA O151-14, Canadian Softwood Plywood.
  - .5 CSA O153-M1980 (R2014), Poplar Plywood.
  - .6 CAN/CSA-Z809-08 (R2013), Sustainable Forest Management.
- .6 Forest Stewardship Council (FSC)
  - .1 FSC-STD-01-001-2004, FSC Principle and Criteria for Forest Stewardship.
- .7 Green Seal Environmental Standards (GS)
  - .1 GS-11-2015, Paints, Coatings, Stains and Sealers.
  - .2 GS-36-2013, Adhesives for Commercial Use.
- .8 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1 Material Safety Data Sheets (SDS).
- .9 National Electrical Manufacturers Association (NEMA)
  - .1 ANSI/NEMA LD-3-05, High-Pressure Decorative Laminates (HPDL).
- .10 South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards
  - .1 SCAQMD Rule 1113-A2011, Architectural Coatings.
  - .2 SCAQMD Rule 1168-A2005, Adhesives and Sealants Applications.
- .11 Sustainable Forestry Initiative (SFI)

- .1 SFI-2015-2019 Standard and Rules.

## 1.2 PRE-INSTALLATION MEETING

- .1 Prior to enclosing framing, convene a meeting of contractor, casework fabricator, casework installer, framing subcontractor and Consultant.
  - .1 Review locations of backing required for casework installation as shown on shop drawings and as necessary for installation.
  - .2 Review method of attachment for backing to wall system.
  - .3 Review coordination with other affected sections.

## 1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
  - .1 Prepare and submit material list in accordance with AWMAC AWS, cross-referenced to specifications.
  - .2 Include manufacturer's instructions, printed product literature, data sheets and catalogue pages for all materials and products to be incorporated into architectural wood casework and include product characteristics, performance criteria, dimensions and profiles, finish and limitations on use.
- .3 Hardware List:
  - .1 Include manufacturer's specification sheets indicating name, model, material, function, finish, BHMA designations and other pertinent information.
- .4 Shop Drawings:
  - .1 Prepare and submit shop drawings in accordance with AWMAC AWS and as follows.
  - .2 Indicate details of construction, profiles, jointing, fastening and other related details.
  - .3 Indicate materials, thicknesses, finishes and hardware.
  - .4 Indicate locations of service outlets in casework, typical and special installation conditions, and connections, attachments, anchorage and location of exposed fastenings.
  - .5 Show location on casework elevations of backing required in supporting structure for attachment of casework.
  - .6 Include color schedule of all casework items, including all countertop, exposed, and semi-exposed cabinet finishes, finish material manufacturer, pattern, and color.
- .5 Samples:
  - .1 Apply sample finishes to specified substrate or core material minimum 300 x 300 mm to match. For veneers with transparent finish submit three samples to illustrate range and colour of grain expected.
  - .2 Shop applied coatings:
    - .1 For transparent finish, submit duplicate samples of each species and cut of wood to be used, finished as specified.
    - .2 For opaque finish, submit duplicate samples for each colour selection, finished as specified.
  - .3 Submit duplicate samples of laminated plastic for each specified colour selection.
  - .4 Certifications: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.

## 1.4 QUALITY ASSURANCE

- .1 Perform Work of this Section by single architectural wood casework fabricator with minimum 5 years of current architectural casework production experience and having completed minimum one project in the past 5 years with value within 20% of the cost of the work of this Section.

## 1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Deliver wood casework only when area of work is enclosed, plaster and concrete work is dry, and area is broom clean and site environmental conditions are acceptable for installation.
- .3 Protect millwork against dampness and damage during and after delivery.
- .4 Store millwork in ventilated areas, protected from extreme changes of temperature and humidity, and within range recommended by AWMAC AWS for location of project.
- .5 Store materials indoors in clean, dry, well-ventilated area.
- .6 Protect architectural woodwork and hardware from nicks, scratches, and blemishes.
- .7 Replace defective or damaged materials with new.

## Part 2 Products

### 2.1 QUALITY GRADE

- .1 Provide all materials and perform all fabrication in accordance with AWMAC AWS Premium Grade

### 2.2 FINISHES

- .1 Casework Finish - Plastic Laminate (PLAM)
  - .1 Manufacturer: Abet Laminati  
Style: Color thru (SEI-type)  
Colours:  
PLAM1: 2904 Blanc Glace Pol  
PLAM2: 450 Verde Lauro SEI  
PLAM3 430 Lilla Gemini SEI
  - .2 3mm solid wood lipping at all exposed edges of PLAM panels painted to match PLAM
  - .3 Manufacturer: Formica
    - .1 Style: Formica Writable Surface (dry erase non magnetic markerboard for sliding doors)  
Colours:  
PLAM10: 949 White, -90 Gloss texture
- .2 Casework Finish - Solid Polymer Fabrications (SO)
  - .1 Manufacturer: Corian  
Supplier: Willis 1 888 944 5547  
Colours:  
SO1: Antarctica  
Thickness: min 13mm for counters and min 6mm for vertical surfaces
  - .2 All solid polymer panel (counter, millwork, walls, etc.) joints are to be welded to be seamless and finished smooth to be invisible.
  - .3 Adhesives as recommended by manufacturer
- .3 Casework Finish - Wood Veneer
  - .1 Species: (WV) - Western Hemlock  
Cut: Vertical Grain. Veneer sample to be approved by architect  
Bookmatched veneer to match WD10 wall cladding
  - .2 Substrate: 19mm plywood
  - .3 Finish: matte, colour TBD
  - .4 3mm solid lipping at all exposed edges of veneer panels, species to match veneer.
- .4 Casework Finish - Thermofused Melamine:
  - .1 to NEMA LD3 Grade VGL.

- .1 High wear resistant thermofused melamine: equal or exceed 400 cycles (Minimum standard for HPL abrasion test).
- .2 finish to be selected from grad A to C
- .5 Metal lettering on standoffs
  - .1 Material: Solid aluminum lettering
  - .2 Finish: Bronze anodized, brushed satin finish
  - .3 Mount: flush pin mount to wall
- .6 Stainless steel (SS)
  - .1 Refer to 05 50 00 Metal Fabrications

## 2.3 LUMBER

- .1 Softwood and Hardwood Lumber: Sound lumber to specified AWMAC AWS quality grade requirements, kiln-dried to moisture content recommended by AWMAC AWS for location of the Work.
- .2 Machine stress-rated lumber is acceptable for all purposes.

## 2.4 PANEL MATERIALS

- .1 MDF (medium density fibreboard) core: to ANSI A208.2, density 769 kg/m<sup>3</sup>, Grade premium, 19 mm thick unless indicated otherwise
  - .1 Medium density fibreboard performance requirements to: ANSI A208.2.
  - .2 MDF resin to contain no added urea-formaldehyde.
  - .3 Fire Retardant MDF: 19mm thick typical unless otherwise indicated. Acceptable product: Purekor FSC Pyroblock MDF Plus. Contact Glen Lowe (Panel Source) 1-780-458-1007. email: lowe.glen@panelsource.net
- .2 Canadian softwood plywood (CSP): to CSA O151, standard construction.
  - .1 Plywood resin to contain no added urea-formaldehyde.
  - .2 Fire Retardant Plywood: veneer core, softwood, 19mm thick typical unless otherwise indicated. Acceptable product: Purekor FSC Fire Retardant Plywood. Contact Glen Lowe (Panel Source) 1-780-458-1007, email lowe.glen@panelsource.net
- .3 Hardboard: To CAN/CGSB-11.3.

## 2.5 FASTENERS AND ADHESIVES

- .1 Nails and staples: to CSA B111.
- .2 Screws: stainless steel, type and size to suit application.
- .3 Splines: metal.
- .4 Sealant: in accordance with Section 07 92 00 - Joint Sealants, type one part silicone: CAN /CGSB-19.22-M89.
  - .1 Sealants: VOC limit 250 g/L maximum to SCAQMD Rule 1168.
- .5 Laminated plastic adhesive:
  - .1 Adhesives: VOC limit 30 g/L maximum to GS-36.
  - .2 Use least toxic sealants, adhesives, sealers, and finishes necessary to comply with requirements of this section.
  - .3 Clear Wood Finishes: VOC limit 350 g/L maximum to GS-11
  - .4 Paints: VOC limit 50 g/L maximum to SCAQMD Rule 1113.

## 2.6 MANUFACTURED UNITS

- .1 All interior surfaces of cupboards and drawers including shelving where not exposed:
  - .1 Softwood and poplar plywood DFP or CSP or PP premium grade, square edge, 19 mm thick. All interior cabinetry to have melamine finish.
- .2 Fabricate drawers to AWMAC premium grade supplemented as follows:
  - .1 Sides and Backs: Softwood and poplar plywood DFP or CSP or PP premium grade, square edge, 19 mm thick. Made ready to receive plastic laminate or wood veneer finish on exposed edges.

- .2 Bottoms: Softwood and poplar plywood DFP or CSP or PP premium grade, square edge, 19 mm thick. Interior face to have melamine finish.
- .3 Fabricate doors to AWMAC premium grade supplemented as follows:
  - .1 Softwood and poplar plywood DFP or CSP or PP premium grade, square edge, 19 mm thick. Made ready to receive plastic laminate finish.
- .4 All exposed surfaces of casework including gables, drawer fronts, doors, panels etc: (as shown on millwork drawings)
  - .1 Softwood and poplar plywood DFP or CSP or PP premium grade, square edge, 19 mm thick. To receive plastic laminate or wood veneer finish.

## 2.7 FABRICATION

- .1 Set nails and countersink screws apply stained wood filler to indentations, sand smooth and leave ready to receive finish.
- .2 Obtain all on-Site dimensions before fabricating items. Obtain all relevant data and incorporate provisions for items of equipment enclosed by millwork.
- .3 Verify wall alignment prior to proceeding with fabrication. Site conditions at variance with reviewed shop drawings shall be specifically noted on reviewed drawings and forwarded to Consultant. Variances, due to Site conditions necessitating revisions to shop drawings shall be accepted prior to fabrication.
- .4 Fabricate running members in maximum standard lengths obtainable for the particular species wherever possible.
- .5 Fit all joints tight. Locate joints at points which will not interfere with, affect strength or detract from appearance of materials.
- .6 Securely fasten intersecting framing members together at corners in an approved manner. Reinforce as required for rigid assembly designed for applicable loads.
- .7 Incorporate adequate provisions for scribing and fitting to adjoining surfaces in a manner acceptable to Consultant.
- .8 Provide for and incorporate provisions to recognize inherent shrinkage characteristics of materials specified.
- .9 Casework core material: 19 mm veneer core plywood unless otherwise noted.
- .10 Casework edge trim: Plastic laminate with plastic laminate millwork
- .11 Shelving to cabinetwork to be adjustable unless otherwise noted.
- .12 Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes and other fixtures.
- .13 Shop assemble work for delivery to site in size easily handled and to ensure passage through building openings.
- .14 Obtain governing dimensions before fabricating items which are to accommodate or abut appliances, equipment and other materials.
- .15 Ensure adjacent parts of continuous laminate work match in colour and pattern.
- .16 Veneer laminated plastic to core material in accordance with adhesive manufacturer's instructions. Ensure core and laminate profiles coincide to provide continuous support and bond over entire surface. Use continuous lengths up to 3000mm. Keep joints 600 mm from sink cutouts.
- .17 Form shaped profiles and bends as indicated, using postforming grade laminate to laminate manufacturer's instructions.
- .18 Use straight self-edging laminate strip for flatwork to cover exposed edge of core material. Chamfer exposed edges uniformly at approximately 20 degrees. Do not mitre laminate edge
- .19 Apply laminate backing sheet to reverse side of core of plastic laminate work.
- .20 Apply laminated plastic liner sheet to interior of cabinetry.

## 2.8 CABINET HARDWARE

- .1 Hinges: Concealed Blum 110 degree or approved alternate



- .2 Drawer Glides: Accuride #3932 Medium duty full extension with soft-close, or approved alternate
- .3 Millwork Cabinet Locks: Corbin 02067 x 7/8 x125 C15 or approved alternate.
- .4 Millwork Cabinet and drawer Pulls: Richelieu BP576980140 or approved alternate
- .5 Adjustable Shelf Pins/Ferrules: Richelieu no. 2291180 & 2292180 nickel finish at 2" centres or approved alternate
- .6 Bumpers: Richelieu 3M - Peel & Stick (2 per door) or approved alternate
- .7 Closet Rod: Heavy duty Chrome plated steel. 32mm dia.
- .8 Coat Hooks: Richelieu RH1273021170
- .9 Cable Management Tray: Richelieu U-shaped cable holder #209807390 or equivalent

### Part 3 Execution

#### 3.1 EXAMINATION

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for architectural woodwork installation in accordance with manufacturer's instructions.
  - .1 Inform Consultant of unacceptable conditions immediately upon discovery.
  - .2 Proceed with installation only after unacceptable conditions have been remedied

#### 3.2 INSTALLATION

- .1 Install architectural wood casework in accordance with AWMAC AWS grade for respective items.
- .2 Install prefinished millwork at locations shown on drawings.
  - .1 Position accurately, level, plumb straight.
- .3 Fasten and anchor millwork securely.
  - .1 Supply and install heavy duty fixture attachments for wall mounted cabinets.
- .4 Countersink mechanical fasteners at exposed and semi-exposed surfaces, excluding installation attachment screws and screws securing cabinets end to end.
- .5 Use draw bolts in countertop joints.
- .6 Scribe and cut as required to fit abutting walls and to fit properly into recesses and to accommodate piping, columns, fixtures, outlets or other projecting, intersecting or penetrating objects.
- .7 At junction of counter and adjacent wall finish, apply small bead of sealant in accordance with Section 07 92 00 - Joint Sealants.
- .8 Apply moisture barrier between wood framing members and masonry or cementitious construction.
- .9 Fit hardware accurately and securely in accordance with manufacturer's written instructions.
- .10 Make cutouts for inset equipment and fixtures using templates provided.

#### 3.3 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 00 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 - Cleaning.
  - .1 Clean millwork.
  - .2 Remove excess glue, pencil and ink marks from surfaces.

#### 3.4 PROTECTION

- .1 Protect millwork from damage until final inspection.
- .2 Protect installed products and components from damage during construction.
- .3 Repair damage to adjacent materials caused by architectural woodwork installation.

**END OF SECTION**

## Section 07 46 23 Wood Siding and Deck

### Part 1 General

#### 1.1 RELATED REQUIREMENTS

- .1 Section 06 10 00 - Rough Carpentry
- .2 Section 06 20 00 - Finish Carpentry: Exterior wood trim at windows.
- .3 Section 07 62 00 - Sheet Metal Flashing and Trim
- .4 Section 07 92 00 - Joint Sealants

#### 1.2 REFERENCE STANDARDS

- .1 American National Standards Institute (ANSI)
  - .1 ANSI A135.6-06, Hardboard Siding Standard.
  - .2 [ANSI A208.1-2022 Particleboard](#)
- .2 ASTM International
  - .1 ASTM D5116-10, Standard Guide for Small-Scale Environmental Chamber determinations of Organic Emissions From Indoor Materials/Products
  - .2 [ASTM D226/D226M-17 Standard specification for asphalt-saturated organic felt used in roofing and waterproofing](#)
- .3 Canadian General Standards Board (CGSB)
  - .1 CAN/CGSB-51.32-M77, Sheathing, Membrane, Breather Type
  - .2 CSA 0121-08, Douglas Fir Plywood
  - .3 CSA 0151-09, Canadian Softwood Plywood
  - .4 CAN/CSA-Z809-08, Sustainable Forest Management
- .4 Environmental Choice Program (ECP)
  - .1 CCD-045-95, Sealants and Caulking Compounds
- .5 Forest Stewardship Council (FSC)
  - .1 FXC-STD-01-001-2004, FSC Principle and Criteria for Forest Stewardship
- .6 National Lumber Grading Authority (NLGA)
  - .1 NLGA Standard Grading Rules for Canadian Lumber 2010
- .7 Sustainable Forestry Initiative (SFI)
  - .1 SFI-2010-2014 Standard
- .8 [STD A123.3-05 Asphalt saturated organic roofing felt](#)
- .9 [CSA O80 SERIES:21 Wood preservation](#)
- .10 [Canadian plywood handbook](#)
- .11 [Voluntary Product Standard PS 1-19 Structural plywood](#)
- .12 [NLGA Standard grading rules for Canadian lumber, 2022 edition](#)

#### 1.3 ACTION SUBMITTALS

- .1 Section 01 33 00: Submission procedures.
- .2 Product Data: Provide data indicating materials, component profiles, fastening methods, jointing details, sizes, surface texture, finishes and accessories.
- .3 Samples: Submit two (2) samples, 300 x 300 mm in size illustrating surface texture.

#### 1.4 INFORMATIONAL SUBMITTALS

- .1 Section 01 33 00: Submission procedures.
- .2 Submit manufacturer's instructions, printed product literature and data sheets for wood siding and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Submit 2 copies of WHIMIS MSDS. Indicate VOC's for caulking materials during application and curing

#### 1.5 QUALITY ASSURANCE

- .1 Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: Submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

#### **1.6 DELIVERY, STORAGE, AND HANDLING**

- .1 Section 01 61 00: Transport, handle, store, and protect products.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
  - .1 Store materials off ground and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Store and protect wood siding from nicks, scratches, and blemishes.
  - .3 Replace defective or damaged materials with new.

#### **1.7 WARRANTY**

- .1 Section 01 78 00: Warranties.
- .2 Provide a five (5) year warranty to include coverage for failure to meet specified requirements.
- .3 Warranty: Include degradation of colour or deterioration of finish.

#### **1.8 MOCK UPS**

- .1 Provide Full-size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged
  - .1 Provide 1000mm x 1000mm mock up of:
    - .1 Exterior wall cladding (WD1) and (WD2)
    - .2 Wood fins (ES1)
    - .3 Truss Cladding (WD3)
    - .4 Exterior Deck flooring (FL3)
- .2 Mockups, General: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
  - .1 Notify Architect 7 days in advance of dates and times when mockups will be constructed.
  - .2 Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at Project.
  - .3 Demonstrate the proposed range of aesthetic effects and workmanship
  - .4 Obtain Architect's approval of mockups before starting work, fabrication, or construction.
  - .5 Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work
  - .6 Demolish and remove mockups when directed unless otherwise indicated.

### **Part 2 Products**

#### **2.1 MATERIALS**

- .1 Lumber siding: to NLGA Standard Grading Rules for Canadian Lumber.
  - .1 Accoya, colour as per Architect selection, sizes as indicated in the contract documents.
  - .2 No bevel at joints.
  - .3 CAN/CSA-Z809 or FSC or SFI certified.

- .1 Alternate pricing for Western Red Cedar in lieu of Accoya.
- .2 Exterior Cladding
  - .1 (WD1) Product: Accoya, colour: Natural, 19mm thickness, 140mm board width, 13 mm lap.
  - .2 (WD2) Product: Accoya Colour Grey, colour: Grey, 19mm thickness, 140mm board width, 13 mm lap.
- .3 Truss Cladding (WD3)
  - .1 Horizontal shiplap: Western Hemlock, 19mm thickness, 275mm board width, 13 mm lap, Shop applied coatings, cuts sealed on site.
- .4 Wood Fins (ES1)
  - .1 Product: Accoya, colour: Natural, 25mm thickness, 140mm board width, 140 mm lap.
  - .2 and as described in Architectural drawings .
- .5 North and South Decks (FL3)
  - .1 Product: Accoya Colour Grey, colour: Grey, T&G 19mm thickness, 140mm boards.
- .6 Accessories: exposed trim, closures, cap pieces in matching finish.
- .7 Exterior wall sheathing paper: to CAN/CGSB-51.32 laminated type coated.
- .8 Fasteners: stainless steel screws.

### Part 3 Execution

#### 3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable in accordance with manufacturer's written instructions.
  - .1 Visually inspect substrate in presence of Consultant.
  - .2 Inform Consultant of unacceptable conditions immediately upon discovery.
  - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Consultant .
- .2 Section 01 71 00: Verify existing conditions before starting work.

#### 3.2 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

#### 3.3 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 017411 -Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 017411 -Cleaning.

#### 3.4 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by wood siding installation.

#### END OF SECTION



Specification created using NBS Chorus