## Part 1 General

**1.1 Related Requirements**

.1 Section 06 10 00 – Rough Carpentry.

**1.2 References**

.1 American Wood-Preservers' Association (AWPA)

- .1 AWPA M2-01, Standard for Inspection of Treated Wood Products.
- .2 AWPA M4-06, Standard for the Care of Preservative-Treated Wood Products.

.2 Canadian Standards Association (CSA International)

- .1 CSA O80 Series-97(R2002) - O80S2-05, Wood Preservation.
- .2 CSA O80.201-M89, This Standard covers hydrocarbon solvents for preparing solutions of preservatives.
- .3 CSA O322-02, Procedure for Certification of Pressure-Treated Wood Materials for Use in Preserved Wood Foundations.

**1.3 Action And Informational Submittals**

.1 Submit Submittal submissions: in accordance with Section 01 33 01 – Shop Drawings, Product Data and Samples.

.2 Quality assurance submittals:

- .1 Submit certificates in accordance with Section 01 33 01 – Shop Drawings, Product Data and Samples.
- .2 For products treated with preservative by pressure impregnation submit following information certified by authorized signing officer of treatment plant:
  - .1 Information listed in AWPA M2 and revisions specified in CSA O80 Series, Supplementary Requirement to AWPA M2 applicable to specified treatment.
  - .2 Moisture content after drying following treatment with water-borne preservative.
  - .3 Acceptable types of paint, stain, and clear finishes that may be used over treated materials to be finished after treatment.

**1.4 Quality Assurance**

.1 Plant inspection of products treated with preservative by pressure impregnation will be carried out by designated testing laboratory to AWPA M2, and revisions specified in CSA O80 Series, Supplementary Requirements to AWPA M2.

.2 Inspection and testing of timber planks will be carried out by a Testing Laboratory designated by Departmental Representative.

.3 Contractor will pay for costs of tests as specified in Section 01 11 55 General Instructions.

**1.5 Delivery, Storage, And Handling**

.1 Waste Management and Disposal:

.1 Separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Waste Management and Disposal.

## Part 2 Products

**2.1 Materials**

.1 Preservatives to conform to the requirements of the Parks Canada Agency.

.2 Preservative: to CSA-O80 Series, odourless chemical water-borne, for clear finish.

.1 Preservative shall be Alkaline Copper Quaternary (ACQ), Type ACQ-B (Ammoniacal) or Type ACQ-D (Amine).

.3 Preservatives: maximum VOC limit 350 g/L.

.4 Solvent: to CSA-O80.201.

## Part 3 Execution

**3.1 Application: Preservative**

.1 Treat timber deck planks to CSA O80 Series using ACQ preservative to obtain minimum net retention of 0.09 kg/m³of wood.

.2 Following water-borne preservative treatment, dry material to maximum moisture content of 15%.

**3.2 Application: Field Treatment**

.1 Comply with AWPA M4 and revisions specified in CSA O80 Series, Supplementary Requirements to AWPA M2.

.2 Field treat end cuts, notches, and holes prior to installation.

.3 Remove chemical deposits on treated wood to receive applied finish.

**END OF SECTION**

## Part 1 General

**1.1 Related Requirements**

.1 Section 05 12 00 – Structural Steel for Bridges.

**1.2 References**

.1 ASTM International

- .1 ASTM A123/A123M-09, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- .2 ASTM D5456-11, Standard Specification for Evaluation of Structural Composite Lumber Products.

.2 CSA International

- .1 CSA B111-1974(R2003), Wire Nails, Spikes and Staples.
- .2 CSA O141-05(R2009), Softwood Lumber.

.3 National Lumber Grades Authority (NLGA)

- .1 Standard Grading Rules for Canadian Lumber 2010.

**1.3 Action And Informational Submittals**

.1 Submit in accordance with Section 01 33 01 – Shop Drawings, Product Data, and Samples.

.2 Product Data:

- .1 Submit manufacturer's instructions, printed product literature and data sheets for wood products and accessories and include product characteristics, performance criteria, physical size, finish and limitations.

.3 Sustainable Design Submittals:

- .1 Construction Waste Management:
  - .1 Submit project Waste Management Plan highlighting recycling and salvage requirements.

**1.4 Quality Assurance**

.1 Lumber by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.

**1.5 Delivery, Storage And Handling**

.1 Deliver, store and handle materials in accordance with Section 01 61 10 - Product Requirements and with manufacturer's written instructions.

.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 dry location and in accordance with manufacturer's recommendations in clean, dry, well-

ventilated area.

.2 Store and protect wood from nicks, scratches, and blemishes.

.3 Replace defective or damaged materials with new.

.4 Develop Construction Waste Management Plan related to Work of this Section and in accordance with Section.

.5 Packaging Waste Management: remove for and return of pallets, crates, padding, packaging materials as specified in Construction Waste Management Plan in accordance with Section 01 74 19 - Waste Management and Disposal.

## Part 2 Products

### 2.1 Framing Structural And Panel Materials

.1 Lumber: Hemlock-fir, Grade No. 1 / No. 2 or better, dimensional lumber (64x184), rough cut (76x203 and 76x254), moisture content 19% (S-dry) or less in accordance with following standards:

.1 CSA O141.

.2 NLGA Standard Grading Rules for Canadian Lumber.

### 2.2 Accessories

.1 Nails, spikes and staples: to CSA B111.

.2 Bolts: 16 mm diameter unless indicated otherwise, complete with nuts and washers.

.3 Proprietary fasteners: toggle bolts, expansion shields and lag bolts, screws and lead or inorganic fibre plugs, explosive actuated fastening devices, recommended for purpose by manufacturer.

.4 Fastener Finishes:

.1 Galvanizing: to ASTM A653, use galvanized fasteners for exterior work and pressure-preservative treated lumber.

.2 Stainless steel: use stainless steel AISI304/316 alloy for pressure-preservative treated lumber.

.5 Wood Preservative:

.1 Preservative: in accordance with manufacturer's recommendations for surface conditions:

.1 Preservative: VOC limit 350 g/L.

## Part 3 Execution

### 3.1 Examination

.1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for product installation in accordance with manufacturer's written instructions.

.1 Visually inspect substrate in presence of Departmental Representative.

.2 Inform Departmental Representative 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 Departmental Representative.

**3.2 Installation**

.1 Install members true to line, levels and elevations, square and plumb.

.2 Construct continuous members from pieces of longest practical length.

.3 Install spanning members with "crown-edge" up.

.4 Select exposed framing for appearance. Install panel materials so that grade-marks and other defacing marks are concealed or are removed by sanding where materials are left exposed.

.5 Install wood cants, fascia backing, nailers, curbs and other wood supports as required and secure using galvanized fasteners.

.6 Install sleepers as indicated.

.7 Use dust collectors and high quality respirator masks when cutting or sanding wood panels.

.8 Frame, anchor, fasten, tie and brace members to provide necessary strength and rigidity.

.9 Countersink bolts where necessary to provide clearance for other work.

**3.3 Cleaning**

.1 Progress Cleaning: clean in accordance with Section 01 74 11 - 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 11 - Cleaning.

.3 Waste Management: separate waste materials for recycling in accordance with Section 01 74 19 - Waste Management and Disposal.

.1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

**3.4 Protection**

.1 Protect installed products and components from damage during construction.

.2 Repair damage to adjacent materials caused by rough carpentry installation.

**END OF SECTION**