

Wharf Repairs

Bay St. Lawrence, Victoria County, NS

Project No. R.117914.001

Dimension Timber

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PART 1 - GENERAL

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| 1.1 | <u>Reference Standards</u> | .1 | CAN/CSA-080 Series 08(R2012) Wood Preservation |
| | | .2 | CSA 086-14, Engineering Design in Wood (Limit States Design) |
| | | .3 | Copper naphthenate containing 2% copper for brush or spray treatment for field cuts |
| | | .4 | NLGA standard grading rules for Canadian Lumber 2013 edition or most recent edition at time of tendering |
| 1.2 | <u>Submittals</u> | .1 | Submit product details for field treatment. |
| | | .2 | Provide methodology pertaining to heating, handling and application of field treatment |
| | | .3 | Provide submissions in accordance with Section 01 33 00 - Submittal Procedures |
| 1.3 | <u>Measurement for Payment</u> | .1 | Supply and application of field applied preservative shall not be measured separately but shall be considered incidental to the Work in accordance with Section 01 29 00 - Project Particulars and Measurement. |
| | | .2 | Fabrication, supply and installation of all bolts, washers, nuts, hardware, etc., shall not be measured but shall be considered incidental to the Work in accordance with Section 01 29 00 - Project Particulars and Measurement. |
| | | .3 | Dimensional timber shall be measured for payment in accordance with Section 01 29 00 - Project Particulars and Measurement. |

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PART 2 - PRODUCTS2.1 Materials

- .1 Softwood Dimension Timber:
 - .1 Sound seasoned wood with ends square.
 - .2 Dimensions as indicated on the contract drawings including chamfering and beveling as indicated.
 - .3 Straight, free from loose knots, sweep, shakes, excessive wane, rot and checks.
 - .4 Grade 1 to National Lumber Grading Authority (NLGA) Species: Eastern Hemlock, Western Hemlock or Douglas Fir.
- .2 Timber Treatment:
 - .1 All timber to be treated with CCA (chromated copper arsenate) preservatives in accordance with CSA O80 Series 15, water borne salt preservative (24 kg/m³). Where assay retentions are not indicated, they are to be taken as 1.5 times the indicated gauge retention.
 - .2 Make arrangements for testing of timber by:
 - .1 Plant Inspection providing:
 - .1 Plant identification.
 - .2 Date of treatment.
 - .3 List of various pieces in the charge.
 - .4 Charge number.
 - .5 Plant assay testing results.
 - .6 Concentration and type of preservative used.
 - .7 Duration of treatment.
 - .8 Gauge retention.
 - .9 Species of wood.
 - .10 Note: Arrange with the plant to locate bundles, move bundles, break open

bundles and carry out
other measures to
facilitate the inspection.

PART 3 - EXECUTION

- 3.1 General
- .1 Supply and install dimension timbers to details shown on drawings or as specified. Treated timber to be supplied in pre-cut lengths to suit.
 - .2 Boreholes for drift bolts to be 1.5 mm smaller in diameter than bolt and for full length of bolt. Boreholes for machine bolts to be same diameter as bolts. Boreholes for lag bolts to be same diameter as shank for unthreaded portion and 0.70 times the shank diameter for the threaded portion. Threaded portion of lag bolts will be installed using a wrench, not by driving.
 - .3 All countersunk holes to be recessed 25 mm from the head of the bolt and shall receive two coats of copper naphthenate, allowing sufficient time between applications to permit total absorption. The cost of supply and application of copper naphthenate will not be measured for payment but will be considered incidental to the work.
- 3.2 Protecting Timber
- .1 Timber will be protected during handling, shipping, offloading and field handling, by use of suitable equipment and procedures. Use rope or fabric strap slings on site for moving bundles or individual timbers, rather than metal grabs, chains or steel cables.
- 3.3 Handling Treated Timber
- .1 Handle treated material to avoid damage causing alteration in original treatment.
 - .2 Treat in field, spike holes, boreholes,

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plugged holes, cuts and any damage to treated material, using copper naphthenate, as specified herein, regardless of plant treatment type. Fill all unused bored holes and any other holes with tight fitting treated wooden plugs prior to any exposure to water containing marine borers.

- .3 Apply field treatment to dry surfaces, wherever possible.
- .4 Treat boreholes, using a pressurized spray applicator with an extension rod, to produce a fine spray in the holes with one application. Alternately a cylindrical brush may be used.
- .5 Treat field cuts and any abrasions with minimum of two liberal applications of preservative, using either spray or brush.
- .6 Environmental Concern: Ensure no spillage or excess application of field preservative. Provide employees with sufficient training and PPE to properly and safely handle the treated materials and to apply field treatment, so as to prevent undue hazard to themselves, others, or the environments.
- .7 If underwater timber is field cut or damaged, remove timber and replace or repair/treat as directed by the *Departmental Representative*.
- .8 Contain all debris and leachates (films on water surface) within the area of the work by using containment facilities such as floating booms or screens.