

## **PART 1 - GENERAL**

### **1.1 DESCRIPTION**

- .1 This section covers the construction of the shed as detailed on the drawings and outlined in the specifications.
- .2 Contractor will coordinate work with other trades responsible for related work. Examine all drawings, details and specifications to coordinate work with the work of other trades. No claim for any extra work will be entertained for delays occasioned by such activities.

### **1.2 MEASUREMENT FOR PAYMENT**

- .1 Electrical Shed: The supply of materials and complete construction of the shed, in the area noted on the drawings, will be measured by the unit. Include all labour, material and equipment costs in the unit price, including the concrete floor slab, excavation, backfilling, granular base, granular sub-base, weeping tile, weeping tile surround material, site work, replacement of existing asphalt paving, concrete footings and foundation, and complete building enclosure including doors, roofing, window, soffits and insulation.
- .2 No separate payment to be made for electrical shed heating and lighting and basic electrical requirements. Include all costs in the lump sum arrangement for electrical.
- .3 No separate payment to be made for electrical service equipment and conduits/cabling for the new wharf electrical installed in the new shed. Include all costs in the lump sum arrangement for electrical.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS**

- .1 Materials specified herein shall be of the best quality available for the use intended. Materials deemed by the Departmental Representative as being unsuitable shall be rejected and replaced by acceptable material.
- .2 Materials shall conform to the requirements and details indicated on the drawings and to the latest standards of the following regulatory agencies:
  - .1 Canadian Government Specification Board;
  - .2 Canadian Standards Association;
  - .3 Canadian Lumbermen's Association Standard Grading Rules;
  - .4 Plywood Manufacturer's Association of British Columbia;
  - .5 British Columbia Lumber Manufacturer's Association;
  - .6 National Building Code of Canada.

## **PART 2 - PRODUCTS (CONT'D)**

### **2.1 MATERIALS (CONT'D)**

- .3 Dimension Lumber: to CSA 0141-05 and species group to CSA 086-01 as listed and to National Grades Authority Standard Grading Rules 1970 - Grade category as follows:
  - .1 Structural light framing: species Group D, No. 1 grade.
- .4 Plywood shall be as follows:
  - .1 Plywood shall be good one side (GIS), waterproof, Douglas Fir Plywood, conforming to CSA Standard 0121-08.
- .5 Wood siding - prefinished:
  - .1 Clapboard Siding: Western Lodgepole Pine or Eastern Spruce, NO. 1 select or better grade, factory finished, saw texture, bevel profile, cove or V-joint pattern, free of large knots, knot holes, or loose knots: maximum moisture content of 12 percent. Size: 16 mm thick, 150 mm width, 114 mm actual coverage.
  - .2 Moldings and trim: Western Lodgepole Pine or Eastern Spruce, No. 1 select or better grade, factory finished same as siding.
  - .3 Nails: Mechanically galvanized, to secure and rigidly retain the work permanently in position, pre-finished baked on coating to match siding finish. Nails 64 mm long for siding and 83 mm for trims.
  - .4 Exterior Sheathing Membrane: CAN/CGSB 51.32M, Spun bonded olefin sheeting, conforming to ASTM D3575, single ply laminated and coated.
  - .5 Sealant: Thermoplastic type, color to exactly match siding.
  - .6 Warranty Period: 16 years cracking, peeling, blistering, chalking, loss of coating adhesion, yellowing with age, and no damage caused by rinse cleaning surface dirt. Warranty to commence at date of Substantial Completion.
  - .7 Concealed Flashings: 0.4 mm thick galvanized steel.
  - .8 Pre-finish color: Thermoplastic acrylic latex emulsion, factory coated under controlled environment conditions by a modified vacuum coat method, one prime coat and one finish coat, applied to all board surfaces, minimum 0.15 mm dry film thickness.
    - .1 Standard Color or custom color from manufacturers range of colors.
    - .2 Touch-up paint: thermoplastic acrylic latex emulsion, same type and color as siding.
  - .9 Strapping: Softwood Lumber, kiln dried treated with brush applied wood preservative.
- .6 Nails, spikes, and staples to CSA Bill-1974 (R2003); galvanized for exterior work, interior highly humid areas and for treated lumber; plain finished elsewhere. Use spiral thread nails except where specified otherwise.

## **PART 2 - PRODUCTS (CONT'D)**

### **2.1 MATERIALS (CONT'D)**

- .7 Paint:
  - .1 Exterior Door: factory paint, colour as selected by Departmental Representative.
  - .2 Concrete Floors: 2 coats Floor Enamel, colour similar to concrete.
- .8 Asphalt Shingled Roof:
  - .1 Shingles shall be #1 Quality mineral surfaced asphalt, square butt shingles, 3 in 1 type, 10.25 kg/m to CSA Specification A-123-1, black. Eave flashing strip shall be No. 15 asphalt saturated felt layed in two piles lapped 480 mm and cemented together, or 20 kg roll roofing.
  - .2 Plastic cement shall conform to CGSB 37-GP-5.
  - .3 Nails shall be 25 mm long No. 10 corrosive resistant annular ringed with 10 mm head.
  - .4 Staples shall not be less than 19 mm long, 16 gauge, with not less than 25 mm crown.
  - .5 Asphalt primer to CGSB 37-GP-9.
- .9 Steel Doors and Frames:
  - .1 Doors to be 18 gauge and frames to be 16 gauge fabricated from commercial grade hot rolled and pickled plain sheet steel to ASTM A569 with "wiped coat" finish to ASTM A525, reinforced at hinge, lock and strike.
  - .2 Doors shall be stiffened, insulated and sound deadened with a solid slab of polyurethane core completely filling the inside of the door.
- .10 Finish Hardware: Insulated Hollow Metal Door, pressed steel frames 1 ½ pair stainless steel hinges with non-removable pins, 1 only deadbolt and stainless steel passage set, 1 only aluminum door closure cushion operation, 1 set weatherstripping W14, 1 only aluminum threshold weatherstripped and suitable for an in-swing door.
- .11 Insulation:
  - .1 As noted on drawings.
- .12 Aluminum Thread Plate: to CSA HA.4.
- .13 Ridge style roof vent as shown, to requirements of National Building Code.
- .14 Shop-Fabricated Wood Trusses
  - .1 Design Requirements:

## **PART 2 - PRODUCTS** **(CONT'D)**

### **2.1 MATERIALS** **(CONT'D)**

- .14 (cont'd)
  - .1 (cont'd)
    - .1 Design trusses, bracings, and bridging in accordance with CAN/CSA-086.1 for loads indicated and minimum uniform and minimum concentrated loadings stipulated in NBC commentary.
    - .2 Limit live load deflection to 1/360th of span where plaster gypsum board ceilings are hung directly from trusses.
    - .3 Limit live load deflection to 1/240th of span unless otherwise specified or indicated.
    - .4 Provide camber for trusses as indicated.
  - .2 Submittals:
    - .1 Each shop drawings submission shall bear signature and stamp of professional Engineer registered or licensed in Province of Newfoundland and Labrador, Canada.
  - .3 Materials:
    - .1 Lumber: Spruce (S-P-F) species, No. 1 grade, softwood, S4S, with maximum moisture content of 19% at time of fabrication and to following standards:
      - .1 CAN/CSA-0141.
      - .2 NLGA (National Lumber Grading Association), Standard Grading Rules for Canadian Lumber.
    - .2 Fastenings: to CAN/CSA-086.1.
  - .4 Fabrication:
    - .1 Fabricate wood trusses in accordance with reviewed shop drawings.
    - .2 Provide for design camber and roof slopes when positioning truss members.
    - .3 Connect members using metal connector plates.

## **PART 3 - EXECUTION**

### **3.1 WORKMANSHIP**

- .1 Rough and finished carpentry shall be executed by mechanics skilled in the trade. All work shall be neatly and accurately erected, scribed and fitted to produce closed joints and connections. Only expert workmanship will be accepted and work which, in the opinion of the Departmental Representative, is not of first class quality, will be rejected and replaced at no cost to Canada.

### **PART 3 - EXECUTION** **(CONT'D)**

#### **3.1 WORKMANSHIP** **(CONT'D)**

- .2 Install rough blocking securely to preset anchor bolts. Blocking shall be of the proper size to accurately align to adjoining surfaces to receive cant boards, frames and other items detailed on the drawings and to be installed under this section.
- .3 Finish carpentry to receive paint or varnish finished shall be neatly erected, joined, sanded and have all nail heads set and puttied, ready for finishing.

#### **3.2 EXCAVATION**

- .1 Excavate and backfill as required to provide bearing surface acceptable to Departmental Representative. Regrade crushed stone underlying floor slab to provide positive drainage.
- .2 Compact material under floor slab to 98 percent proctor density.
- .3 Departmental Representative to approve all backfill and compaction prior to construction of building floor. Finished grade around the building to be graded away from building at minimum 2% slope to provide positive drainage.
- .4 Install 100 mm  $\varnothing$  weeping tile, if warranted in high ground water conditions.

#### **3.3 INSTALLATION**

- .1 Do concrete work to conform with standards set forth in Section 03 10 00, Section 03 20 00 and Section 03 30 00.
- .2 Install new siding and attachments sequentially to manufacturer's instructions.
- .3 Install exterior corners, fillers and closures trips with carefully formed and profiled work using concealed fasteners.
- .4 Maintain joints in exterior sheets, true to line, tight fitting.
- .5 Caulk and seal in accordance with paragraphs 4.6.2 and 4.6.3 of CGSB 93-GP-5M with sealant.
- .6 Provide all components including drip and cap flashings, screws and fasteners as required to complete installation.

### **PART 3 - EXECUTION (CONT'D)**

#### **3.3 INSTALLATION (CONT'D)**

- .7 Apply paint material to CGSB 85-GP series standards and in accordance with materials manufacturer's recommendations.
- .8 Install shingles and eave flashings in accordance with manufacturer's recommendations.
- .9 Install pressed steel door frame plumb, square, level and at correct elevation. Insulate exterior frames with batt insulation. Secure anchors and connections to adjacent construction.
- .10 Install insulated hollow metal doors and hardware in accordance with manufacturer's instructions.

#### **3.4 WOOD SIDING - PREFINISHED**

- .1 Install metal flashing continuous over window and other openings. Secure in position tight to wall sheathing.
- .2 Install one layer of sheathing membrane horizontally on sheathed walls, weather lap edges and ends minimum 150 mm. Stagger vertical laps. Tag all edges.
- .3 Install siding starter strips, behind first row of siding.
- .4 Apply sealant around window, door and other opening frames.
- .5 Install siding and accessories to manufacturer's instructions.
- .6 Install siding for natural watershed.
- .7 Install siding in straight aligned lengths, set level with plumb ends and corners.
- .8 Install hardboard to CGSB11-GP-6M and manufacturer's instructions.
- .9 Achieve siding joints no less than 800 mm apart in adjoining boards and distribute evenly over wall surface.
- .10 Miter external and internal corners: Install corner strips, closures, frieze boards skirt boards and trim.
- .11 Fasten siding securely to wood batten substrate.

**PART 3 - EXECUTION**  
**(CONT'D)**

**3.4 WOOD SIDING - PREFINISHED**  
**(CONT'D)**

- .12 Face nail 25 mm from bottom of siding board directly into wood framing drive nail head just flush with siding surface; do not indent or penetrate painted coating.
- .13 Carefully set exposed nails flush with siding coating.
- .14 Touch-up blemished siding materials to match siding colour.