

Part 1 General

1.1 GENERAL REQUIREMENTS

- .1 Products refer to materials, manufactured components and assemblies, fixtures and equipment incorporated in the work.
- .2 Unless otherwise indicated, use only new products in perfect stat and of the best quality (as per specifications), for the purpose for which they are intended.
- .3 Use only products of Canadian manufacture unless the required products are not manufactured in Canada, are specified otherwise, or are not competitive.
- .4 Obtain specified products from suppliers in the same locality as the Project insofar as possible.
- .5 Unless otherwise specified, use products from the same manufacturer for materials and equipment of the same kind of category.
- .6 Products for use in the Project and on which the Tender was based on shall be in production at that time, with precise model and shop drawings available for viewing.
- .7 Products delivered to the Project site for incorporation in the work shall be considered the property of the Departmental Representative, but shall be paid for only after they have been incorporated into the work. Maintain protection and security of products stored on the site.
- .8 Do not install permanently incorporated labels, trademarks and nameplates, in visible locations, unless required for operating instructions or by jurisdictional authorities.
- .9 Pay costs of transportation of products required in the performance of work.

1.2 MATERIAL HANDLING EQUIPMENT

- .1 No motorized material handling equipment can be used on the premises without the Departmental Representative's authorization.
- .2 The General Contractor shall not use any material handling equipment, as well as equipment, tools or materials belonging to the Departmental Representative.

1.3 PRODUCT HANDLING

- .1 Manufacture, pack, ship, deliver, off load and store products so that no damage occurs to structural qualities and finished appearance, nor in any other way that is detrimental to their function or appearance, or both.
- .2 Ensure that products, while transported, stored or installed, are not exposed to an environment that would increase their moisture content beyond the maximum specified.
- .3 Deliver products only when environmental conditions are adequate.
- .4 Schedule early delivery of products to enable work to be executed without delay. Before delivery, arrange for receiving at site.

- .5 Deliver packaged products, and store until used, in original unopened wrapping or containers, with manufacturer's seals and labels intact.
- .6 Label packaged products to describe contents, quantity and other information as specified.
- .7 Product handling requirements may be repeated, and additional requirements specified, in other Sections.

1.4 STORAGE AND PROTECTION

- .1 The Contractor shall be entirely responsible during the course of the operations to direct the delivery of all materials to the proper entrance as the work proceeds. The normal traffic to and from the facilities must be allowed to flow uninterrupted.
- .2 It shall be the responsibility of the Contractor to inspect the conditions of all material and equipment consigned to him upon receipt of same, whether or not it is purchased and/or provided by the Departmental Representative.
- .3 Store products in the building or in storage sheds on site with secure protection against all harmful environmental conditions. Prevent damage, adulteration, staining and soiling of materials while stored.
- .4 Coordinate work with Sub-contractors in place and move stored products or equipment that interferes with the operations of others.
- .5 Store manufactured products in accordance with manufacturer's instructions, when such instructions are attached to products or submitted by the manufacturer.
- .6 Store products on flat solid platforms raised clear of ground. Slope to shed moisture.
- .7 Store finished products under cover at all times.
- .8 Store and handle flammable liquids and other hazardous materials in approved safety containers and as otherwise prescribed by safety authorities. Store no flammable liquids or other hazardous materials in bulk with the Project.
- .9 Touch-up damaged factory finished surfaces to Architect's satisfaction. Use primer or enamel to match original. Do not paint over nameplates.

1.5 SPECIFIED PRODUCTS

- .1 Products specified as "Required Product", bearing manufacturer's name, brand name or catalogue reference shall be the basis of the bid and shall be supplied for the work without exception in any detail, subject to allowable substitutions as specified.
- .2 Products specified as "Suggested Product", bearing manufacturer's name etc., are given as the minimum acceptable quality for those products from the point of view of physical and chemical properties, visual characteristics, texture, color, performance, etc. The General Contractor can submit products of the same or higher quality, for the Architect and Consultant's approval before submitting Tender'.
- .3 Where equivalent or alternative products are proposed by the General Contractor, these products shall be comparable in construction, type, function, quality, performance, and,

where applicable, in appearance, or have to be approved. Where equivalents are used in the Tender for the work, they shall be identified as such, as indicated in the Tender Form, and are subject to approval during Tender period, as specified.

- .4 For products specified by reference standards, the onus shall be on the supplier to establish that such products meet reference standard requirements. The Departmental Representative may require affidavits from the supplier, as specified in Section 01 30 00, or inspection and testing at the expense of the supplier, or both, to prove compliance. Products exceeding minimum requirements established by reference standards will be accepted for the work if such products are compatible with and harmless to work with which they are incorporated.
- .5 Immediately upon signing Contract, review product delivery requirements and anticipate foreseeable supply delays for any items. If such delays are foreseeable, notify the Departmental Representative and the Architect of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in the performance of work.
- .6 In the event of failure to notify the Departmental Representative and the Architect at commencement of work and should it subsequently appear that work may be delayed for such reason, the Architect reserves the right to substitute more readily available products of similar character, at no increase in the Contract Price.
- .7 Refer to the individual Sections for the complete description of specified products.

1.6 HOMOLOGATED PRODUCTS

- .1 All products that are required to be listed government or independent agencies as being approved products should bear the label of the agency concerned.

1.7 SUBSTITUTION OF PRODUCTS

- .1 Products substituted for those specified or approved, or both, shall be permitted only if the listed product cannot be delivered to maintain the construction schedule and if the delay is caused by conditions beyond the Contractor's control.
- .2 Obtain Architect's and Consultant approval for substitutions. Application for approval of substitutions shall be made only by the Contractor. Process proposals for substituted Work in accordance with procedures established for Changes in the Work.
- .3 Submit, with request for substitutions, documentary evidence that substituted products are equal or superior to approved products, and a comparison of price and delivery factors for both specified and approved products, and proposed substitute. Proceed only after obtaining the Architect's and Consultant's approval.
- .4 Ensure that substituted products can be both physical and dimensionally incorporated in the work with no loss of intended function, performance, space or construction time, and that spare parts and services are readily available. The Contractor shall be responsible for additional installation costs, including architectural and engineering fees, required by incorporation of substituted products, and for adaptations made otherwise necessary to ensure that above requirements are satisfied.
- .5 Should the proposed substitution be accepted either in part or in whole, assume full responsibility and costs when substitution affects other work on project. Pay for

analysis and studies or design and drawing changes required as a result of substitution, as well as for tests to prove equivalence.

- .6 Credit to Departmental Representative all savings resulting from approved substitution. No increase of Contract price can be accepted because of substitutions.

1.8 FASTENINGS

- .1 Include in work all necessary fastening, anchors, inserts, attachment accessories, and adhesives, whether specified or not.
- .2 Do not install wood plugs or blocking for fastenings in metal construction unless specified or indicated on drawings.
- .3 Do not use fastening which cause spalling or cracking of materials in which installed.
- .4 Obtain Departmental Representative and Architect's approval before using explosive actuated fastening devices.
- .5 Install metal-to-metal fastening and accessories fabricated of the same metal, or of a metal that will not set up electrolytic action causing damage to fastenings or components, or both, under most conditions. Non-corrosive or galvanized steel fastenings shall be used for exterior work at frames, roofing, sheet-metal, and attached to, or contained within, exterior walls and floors.
- .6 Work shall be installed with fastenings or adhesives in sufficient quantity to ensure permanent secure anchorage of materials, construction, components, and equipment. Anchors shall be spaced within limits of load-bearing or shear capacity.
- .7 Bolts may not project more than one diameter beyond nuts.
- .8 Conceal fasteners where indicated. Space evenly and lay out neatly.
- .9 Exposed fastenings shall be spaced evenly in an organize pattern. Their number shall be kept to a minimum. Exposed fastening shall be of same metal, texture, color and finish as metal substrate in which they occur.
- .10 Use plain type washers on equipment, sheet metal and soft gasket lock type washers where vibrations occur. Use resilient washers and stainless steel.

1.9 MANUFACTURER'S INSTRUCTIONS

- .1 Unless otherwise indicated, follow the manufacturer's most recent written instructions for materials, their usage and installation and for equipment. Do not depend on instructions on labels, packages or containers.
- .2 Promptly notify the Architect if discrepancies exist between manufacturer's instructions and this Specification or the drawings, to allow them to take necessary measures.
- .3 Without this notification the Architect and the Consultants may refuse work or products installed in a manner contradicting either the manufacturer's instructions or the Contract documents.

1.10 CONSTRUCTION EQUIPMENT AND PLANT

- .1 On request, prove to the satisfaction of the Architect and the Consultants that the construction equipment and plant are adequate to manufacture, transport, place and finish work to quality and production rates specified. If inadequate, replace or provide additional equipment or plan as directed.
- .2 Maintain construction equipment and plant in good operating order.

Part 2 Products

2.1 NOT USED

Part 3 Execution

3.1 NOT USED

END OF SECTION