SECTION  – common product requirements

1. General
   1. GENERAL requirements
      1. Products refer to materials, manufactured components and assemblies, fixtures and equipment incorporated in the work.
      2. As far as practical, favour use of products of Canadian manufacture unless such products are not manufactured in Canada, are specified otherwise, or are not competitive.
      3. Products for use in the Project and on which the Bid was based shall be in production at time of tender date, with a precise model and shop drawings available for viewing.
      4. Where equivalent products are specified, or where alternatives are proposed, these products claimed by the Contractor as equivalent shall be comparable in construction, type, function, quality, performance, and, where applicable, in appearance. Where specified equivalents are used in the Stipulated Price for the work, they shall be subject to final approval.
      5. Incorporate products in the work in strict accordance with Manufacturers' directions, instructions, and specifications, where reference is made to them, shall include full information on storing, handling, preparing, mixing, installing, erecting, applying, and other matters concerning the materials that are pertinent to their use and their relationship to materials with which they are incorporated.
      6. Products delivered to the Project site for incorporation in the work shall be considered the property of the Owner. Maintain protection and security of products stored on the site after payment has been made for them.
      7. Do not install permanently incorporated labels, trademarks, and nameplates, in visible locations unless required for operating instructions or by authorities having jurisdiction.
   2. PRODUCT HANDLING
      1. Manufacture, pack, ship, deliver and store products so that no damage occurs to structural qualities and finish appearance, nor in any other way detrimental to their function or appearance, or both.
      2. Ensure that products, while transported, stored, or installed, are not exposed to an environment which would increase their moisture content beyond the maximum specified.
      3. Schedule early delivery of products to enable work to be executed without delay. Before delivery, arrange for receiving at site.
      4. Deliver and store products at site where directed by the Contractor.
      5. Brace work such as door frames, large window units and similar products to prevent distortion or breakage in handling.
      6. Deliver packaged products, and store until use, in original unopened wrapping or containers, with manufacturer's seals and labels intact.
      7. Label packaged products to describe contents, quantity, and other information as specified.
      8. Label fire-rated products to indicate approval of Underwriters' Laboratories.
      9. Product handling requirements may be repeated, and additional requirements specified, in other Sections.
   3. STORAGE AND PROTECTION
      1. Store products on site with secure protection against all harmful environmental conditions. Prevent damage, adulteration, staining and soiling of materials while stored.
      2. Protect prefinished metal surfaces by protective coatings or wrappings until time of final cleanup specified in Section 01 77 19 – Closeout Requirements. Protection shall be easily removable under work of Section 01 77 19 – Closeout Requirements without damage to finishes.
      3. Store manufactured products in accordance with manufacturers' instructions.
      4. Store steel, lumber, masonry units, and similar products on platforms raised clear of ground.
      5. Store finished products and woodwork under cover at all times.
      6. Do not store products at locations or in such a manner that they damage previously completed work.
      7. Storage and special protection requirements may be repeated, and additional requirements specified, in other Sections.
   4. SCHEDULING OF PRODUCT DELIVERY
      1. Verify that products supplied by all Sections are ordered from suppliers in sufficient time to ensure delivery for incorporation in the work within the time limits established by approved construction schedule.
      2. Obtain confirmed delivery dates from product suppliers.
      3. Immediately inform the Consultant should supplier's confirmation of delivery dates indicate that Project completion may be delayed.
      4. Submit copies of purchase orders and confirmations of delivery dates for products as may be requested.
      5. A schedule of product delivery shall be established and reviewed at each job site meeting.
      6. When deemed necessary, plant visits shall occur by the General Contractor to ensure delivery dates given are true and accurate.
   5. DEFECTIVE PRODUCTS AND WORK
      1. Products and work found defective; not in accordance with the Specifications; or defaced or injured through negligence of the Contractor, his employees, or Subcontractors, or by fire, weather or any other cause will be rejected for incorporation in the work whether or not incorporated in the work.
      2. Remove rejected products and work from the premises immediately.
      3. Replace rejected products and work with no delay after rejection. Provide replacement products and execute replacement work precisely as required by the Specifications for the defective work replaced. Previous inspection and payment shall not relieve the Contractor from the obligation of providing sound and satisfactory work in compliance with the Specifications.
      4. Testing and retesting of any part of the work as directed by the Owner, Consultant or Contractor to establish its conformance to the Contract Documents shall be performed at no addition to the Contract Price.
   6. WORKERS, SUPPLIERS AND SUBCONTRACTORS
      1. Assign work only to workers, suppliers, and Subcontractors who have complete knowledge, not only of the conditions of the Specifications, but of jurisdictional requirements, and reference standards and specifications.
      2. Give preference to use of local workers, suppliers, and Subcontractors wherever possible.
      3. Certified and qualified installers of a specific product line shall be used when called for in these Specifications.
2. Products
   1. SPECIFIED PRODUCTS
      1. Products used for temporary facilities may have been previously used, providing they are sound in structural qualities.
      2. Specified Options: The Work is based on materials, Products and systems specified by manufacturer's catalogued trade names, references to standards, by prescriptive specifications and by performance specifications.
         1. Where only one manufacturer's catalogued trade name is specified for a Product, the Product is single sourced and shall be supplied by the specified manufacturer.
         2. Where more than one manufacturer's catalogue trade name is specified for a Product, supply the Product from any one of those manufacturers specified.
         3. When a Product is specified by reference to a standard, select any Product from any manufacturer that meets or exceeds the requirements of the standard.
         4. When a Product or system is specified by prescriptive or performance specifications, Provide any Product or system which meets or exceeds the requirements of the prescriptive or performance specifications.
         5. The onus is on the Contractor to prove compliance with governing published standards, prescriptive specifications and with performance specifications.
      3. Products, materials, equipment, and articles (referred to as Products throughout the Contract Documents) incorporated in the Work shall be new, not damaged, or defective, and of the quality standards specified, for the purpose intended. If requested, furnish evidence as to type, source, and quality of Products Provided.
      4. Where Contract Documents list acceptable Products or acceptable manufacturers, select as applicable, any one Product from any one manufacturer meeting performance of specifications.
      5. Where Contract Documents require design of a Product or system, and minimum material requirements are specified, the design of such Product or system shall employ materials specified within applicable section. Where secondary materials or components are not specified, augment with materials meeting applicable code limitations, and incorporating compatibility criteria with adjacent work.
      6. Defective Products, whenever identified prior to completion of the Work, will be rejected, regardless of previous reviews. Review of the Work by the Consultant or inspection and testing companies does not relieve the Contractor of the responsibility for executing the Work in accordance with the requirements of the Contract Documents but is a precaution against oversight or error. Remove and replace defective Products and be responsible for delays and expenses caused by rejection at no additional cost to the Owner.
      7. Should any dispute arise as to quality or fitness of Products, the decision rests strictly with Consultant based upon the requirements of the Contract Documents.
      8. Unless otherwise indicated in the Contract Documents, maintain uniformity of manufacturer for any like item, material, equipment, or assembly for the duration of the Work.
      9. Products exposed in the finished work shall be uniform in colour, texture, range, and quality, and be from one production run or batch, unless otherwise indicated.
      10. Permanent labels, trademarks and nameplates on Products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical, electrical, machinery or like rooms.
      11. Owner retains right to select from choices available within specified Products for colours, patterns, finishes or other options normally made available. Submit full range of Product options in accordance with 01 33 00 – Submittal Procedures for such selection.
      12. Quality Control:
          1. Implement a system of quality control to ensure compliance with Contract Documents.
          2. Notify Consultant of defects in the Work or departures from intent of Contract Documents that may occur during construction. Consultant will recommend appropriate corrective action in accordance with requirements of the Contract.
3. Execution
   1. MANUFACTURER'S INSTRUCTIONS
      1. Unless otherwise indicated in the Contract Documents, install or erect Products in accordance with manufacturer's printed instructions. Do not rely on labels or enclosures supplied with Products. Obtain printed instructions directly from manufacturers.
      2. Notify Consultant in writing, of conflicts between the Contract Documents and manufacturer's instructions.
      3. Improper installation or erection of Products, due to failure in complying with these requirements, authorizes Consultant to require removal and re-installation at no additional cost to the Owner.
      4. Manufacturers’ representatives shall have access to the Work at all times. Contractor shall render assistance and facilities for such access in order that the manufacturers’ representatives may properly perform their function.
   2. GALVANIC/DISSIMILAR METAL CORROSION
      1. Insulate dissimilar metals from each other by suitable plastic strips, washers, or sleeves to prevent galvanic corrosion where conductive liquid or electrolyte exists.
   3. WORKMANSHIP
      1. General:
         1. Execute the Work using workers experienced and skilled in the respective duties for which they are employed.
      2. Do not employ an unfit person or anyone unskilled in their required duties.
      3. Decisions as to the quality or fitness of workmanship in cases of dispute rest solely with Consultant, whose decision is final.
      4. Upon request by the Consultant, submit proof, in the form of CCDC 11 - Contractor's Qualification Statement, of qualifications of Subcontractors to verify Subcontractor’s qualifications and experience meet or exceed the requirements of the Contract Documents.
         1. If, upon review of the Contractor’s Qualification Statement, it is found that the Subcontractor does not meet the qualification requirements specified in the Contract Documents pertaining to the parts of the Work for which the Subcontractor has been retained, the Contractor shall replace the unqualified Subcontractor with a qualified Subcontractor, satisfactory to the Contractor and the Owner, at no additional cost to the Owner and at no increase in the Contract Time.
         2. Coordination:
            1. Ensure cooperation of workers in layout of the Work. Maintain efficient and continuous supervision.
            2. Be responsible for coordination and placement of openings, sleeves, and accessories.
         3. Cutting and Remedial Work:
            1. Perform cutting and remedial work required to make parts of the Work come together. Coordinate the Work to ensure this requirement is maintained. Obtain permission from Consultant before commencing any cutting.
         4. Fastenings:
            1. Provide metal fastenings and accessories in same texture, colour, and finish as adjacent materials, unless indicated otherwise.
            2. Prevent electrolytic action and corrosion between dissimilar metals and materials.
         5. Protection of work in progress:
            1. Take reasonable and necessary measures, including those required by authorities having jurisdiction, to Provide protection.
            2. Adequately protect parts of the Work completed or in progress. Parts of the Work damaged or defaced due to failure in providing such protection is to be removed and replaced, or repaired, as directed by the Consultant, at no additional cost to the Owner.
            3. Do not cut, drill, or sleeve any load bearing structural member without written permission of Consultant, unless specifically indicated.
            4. Keep floors free of oils, grease, or other materials likely to discolour them or affect bond of applied surfaces.
            5. Protect work of other Subcontractors from damage while doing subsequent work. Damaged work shall be made good by appropriate Subcontractors but at expense of those causing damage.
            6. Protect existing buildings, curbs, roads, and lanes. If, during the Work, any buildings, curbs, roads, or lanes are damaged, bear costs for repairs.
         6. Existing Utilities:
            1. When breaking into or connecting to existing services or utilities, execute the Work at times approved by Owner, with a minimum of disturbance to Owner’s ongoing operations, the Work, and traffic.
            2. Protect, relocate, or maintain existing active services. When inactive services are encountered, cap off in a manner approved by authority having jurisdiction and stake or otherwise record location of capped service.
         7. Operational requirements: Operable Products shall be Provided fully operational and ready for intended use.

end of section