

## **PART 1 - GENERAL**

### **1.1 PRICING**

- .1 All costs associated with the work required by this Section shall be included as part of the Contract Price and in the price listed in item #1 of the Bid Form.

### **1.2 GENERAL INSTRUCTIONS**

- .1 Read and conform to:
  - .1 the General Conditions and Supplementary Conditions of the Contract.
  - .2 Division 1 requirements and documents referred to therein.

### **1.3 SUMMARY**

- .1 Work Included: Provide stainless steel casework including but not limited to following:
  - .1 Stainless Steel Countertops,
  - .2 Integral sinks where indicated.
  - .3 Auxiliary materials required for a complete installation.
- .2 Related Requirements: Specifications throughout entirety of Divisions of this Project are directly applicable to this Section, and this Section is directly applicable to them.

### **1.4 REFERENCES**

- .1 Reference Standards: Latest published editions of reference standards listed in this Section in effect as of Bid Closing Deadline of the Project, including any amendments adopted, are applicable unless otherwise indicated.

### **1.5 ADMINISTRATIVE REQUIREMENTS**

- .1 Pre-Installation Meetings:
  - .1 Prior to starting work of this Section, convene a pre-installation meeting at Project site to review Project requirements and site conditions with pertinent parties. Conform to requirements of Section 01 30 00.

### **1.6 SUBMITTALS**

- .1 Product Data:
  - .1 Submit manufacturer's literature and data sheets for each type of material provided under this Section for Project in accordance with requirements of Section 01 30 00. Ensure data sheets provide required information including detailed instructions for installing as well as maintaining, preserving and keeping materials in clean and safe conditions. Provide adequate warning of maintenance practices or cleaning agents detrimental to specified materials.
  - .2 Submit data and details for construction of the stainless steel casework as well as information regarding the name, quantity, type and construction of materials (such as hardware, gauges and similar items), that will be used to complete the project.
- .2 Shop Drawings:

- .1 Submit Shop Drawings in accordance with Section 01 30 00 for fabricated items and assemblies of stainless steel casework with a detailed description, clearly indicated methods of construction, gauges, assembly, fastenings, services and similar items.
  - .2 Identify and explain any variation in Shop Drawings which do not adhere to original details and Specification requirements. Advise Consultant in writing of any conditions that would limit or adversely effect design intent.
  - .3 Ensure component parts and assemblies of each piece of equipment will support the loads anticipated without deflection detrimental to function, safety or appearance.
  - .4 Prepare fully dimensioned "Roughing-In" and final connection point Drawings for mechanical and electrical services. Separate mechanical and electrical, or combined Drawings, may be submitted. Include walk-in and fire suppression schematics and any pertinent installation diagrams including dimensioned "sleeving" drawing.
  - .5 Verify power and location requirements for any piece of equipment that is being supplied by Owner or is existing and being reused. Incorporate this information into the Shop Drawings, "Rough-in" and connection point Drawings.
- .3 Samples:
- .1 Submit sample in accordance with Section 01 30 00. Submit a sample of components or fabrication method, material or finish, for review and approval before proceeding with that aspect of work. Where necessary, request a shop inspection of an assembly which cannot be submitted for approval.
  - .4 Maintenance Manuals: Submit maintenance instructions in accordance with Section 01 70 00, bound and labeled.

#### **1.7 QUALITY ASSURANCE**

- .1 Manufacturers: Provide Products for Work of this Section by manufacturer with minimum 10 years' experience in the manufacture of such materials.
- .2 Installers: Provide Work of this Section executed by competent installers with minimum of 5 years' experience in application of Products, systems and assemblies specified and with approval and training of Product manufacturers.
- .3 Single Source Responsibility: Ensure primary materials provided in this Section are obtained from 1 source by a single manufacturer and secondary materials are obtained from sources recommended by primary materials manufacturers.
- .4 Mock-ups: Provide Mock-ups in locations designated by Consultant and as required to demonstrate quality of workmanship. Maintain Mock-ups during construction in an undisturbed condition as a standard for judging the completed work. Do not proceed with remaining work until installation is approved by Consultant.

#### **1.8 DELIVERY, STORAGE AND HANDLING**

- .1 Co-ordinate deliveries of stainless steel casework in conjunction with millwork and other construction activity and progress at site and as designated by Owner.
- .2 Deliver, unpack and set in place all component in designated position, ready for final connection of services, for units with electrical or mechanical connections where applicable.
- .3 After installation has been completed and all items checked and adjusted where necessary for satisfactory operation, arrange for inspection of stainless steel casework. If items are found unsatisfactory, make necessary corrections and adjustments.

## 1.9 PROJECT SITE CONDITIONS

- .1 Adhere to the following prior to undertaking work of this Section:
  - .1 Building must be enclosed (windows and doors sealed and weather tight);
  - .2 An operational HVAC system that maintains temperature and humidity at occupancy levels must be in place;
  - .3 Adjacent and related work shall be complete;
  - .4 Ceiling, overhead ductwork and lighting must be installed;
  - .5 Site must be free of any further construction such as "wet work";
  - .6 Required backing and reinforcements must be installed accurately and the project must be ready for casework installation.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- .1 Products of the following manufacturers (or Equivalent) are acceptable subject to conformance to requirements of Drawings, Schedules and Specifications:
  - .1 Mott Manufacturing Ltd.
  - .2 Lab Design/United Supply Corporation.

### 2.2 DESCRIPTION

- .1 Regulatory Requirements:
  - .1 Plumbing or drainage systems shall conform to Plumbing Code and Ontario Water Resources Act except as modified by regulations and bylaws of authorities having jurisdiction.
- .2 Design and Performance Requirements:
  - .1 As a minimum countertops to be designed as follows:
    - .1 Countertops to support all deadloads.
    - .2 Concentrated Live load bearing capacity: 2.67 KN (600 lb-f)
    - .3 Distributed Live load bearing capacity: 200 lb/ft (0.89 kN/m) without deformation or deflection.
    - .4 Maximum Deflection at Midspan: L/1000 or 3 mm (1/8") whichever is less.
  - .2 Installation of stainless steel countertops and work surfaces shall comply with requirements of Scientific Equipment & Furniture Association (SEFA 3-2010). Abut top and edge surfaces in one true plane with flush hairline joints and with internal supports placed to prevent deflection

### 2.3 MATERIALS

- .1 Sheet Steel:
  - .1 Mild steel, cold rolled furniture grade to requirements of ASTM A1008/A1008M, Grade C or higher, with smooth surfaces to furniture quality.
- .2 Galvanized Sheet Steel:
  - .1 Commercial quality galvanized sheet steel to ASTM 653/A653M, Designation Z275 (G90).

- .3 Stainless Steel:
  - .1 Provide highest architectural quality in various forms, straight and true. Ensure there are no scratches, scars, creases, buckles, ripples or chatter marks. Provide finish surfaces suitable for polishing where required. Ensure finished surfaces exposed to view are free of pitting, seam marks, roller marks, oil-canning, stains, discolourations or other imperfections.
  - .2 Stainless Steel Sheet: ASTM A240, type 316 alloy.
  - .3 Finish: Unless otherwise indicated, AISI No. 4 brushed Finish
  - .4 Use the following minimum steel thicknesses for manufacturing: 1.2mm (18 Ga)
- .4 Sealant: Conforming to requirements of Section 07 92 00.
- .5 Sheet Metal Thickness:

## **2.4 MANUFACTURED UNITS**

- .1 Stainless Steel Countertops
  - .1 All factory welds shall be made using the TIG process. Filler rod shall be of the same composition as the base material. Countertops to be minimum 18 ga stainless steel unless indicated otherwise.
  - .2 Countertops without sinks: Form tops with 32mm (1.25") high edges with 12mm (0.5") return flange. Reinforce with veneer core plywood or metal hat channels as required or indicated on Drawings. Form edges, flanges, side and backsplashes integrally from one sheet of steel. Intersections between side and backsplashes and work surface shall be radiused a minimum of 9mm (0.375"). Where indicated on Drawings, Provide marine edges. Marine edges shall be 25mm (1") wide and 6mm (0.25") high.
  - .3 Countertops with sinks: Form tops with 32mm (1.25") high edges with 12mm (0.5") return flange. Provide marine edges at all locations. Marine edges shall integrally be formed on all edges. Marine edges shall be 25mm (1") wide and 6mm (0.25") high. Work surface shall be reinforced with wood core or metal hat channels as required or indicated on Drawings. Form edges, flanges, side and backsplashes integrally from one sheet of steel. Intersections between sidesplashes, backsplashes and work surface shall be radiused a minimum of 9mm (0.375").
  - .4 Sink Bowls: Sink bowls shall be made of the same material as the work surface and shall be of equal or greater thickness. Sinks bowls shall be formed from one piece of steel with all inside corners radiused. Welds shall be hammered, ground and polished to produce a smooth, invisible joint. Sinks shall be welded into the work surface and welds shall be ground and polished to produce a smooth, invisible joint.
  - .5 Joints: Factory welds shall be ground and polished to provide an invisible joint. Field connections shall be mechanical "tongue and groove" interlocking design with concealed bolts to provide a hairline seam.
  - .6 Sound Deadener: Countertops and sinks shall have sound deadening material applied as required to the underside. Nominal thickness shall be 1.5mm (0.062"). Sound deadener shall be waterborne, non flammable and shall contain no volatile organic compounds.
  - .7 Drainboards: Provide fluted drain boards in material and thickness to match tops, sloped to sink, joined integrally with tops unless otherwise noted on Drawings.

## **2.5 FINISH**

- .1 All steel furniture in this section shall be constructed of stainless steel with a #4 brushed finish. Grain direction shall be horizontal except where cabinet dimensions do not permit.

## **PART 3 – EXECUTION**

### **3.1 INSTALLATION**

- .1 Countertop Installation:
  - .1 Countertops are to have been fabricated in lengths according to drawings, with ends abutting tightly and sealed with corrosion resistant sealant.
  - .2 Tops will be anchored to base casework in a single true plane with ends abutting at hairline joints with no raised edges at joints.
  - .3 Joints shall be factory prepared having no need for in-field processing of top and edge surfaces.
  - .4 Joints shall be dressed smoothly, surface scratches removed and entire surface cleaned thoroughly.

### **3.2 CLEANING**

- .1 Ensure all products are unsoiled and match factory finish. Remove or repair damaged or defective units.
- .2 Clean all finished surfaces, including drawers and cabinet shelves, and touch up as necessary.
- .3 Counter tops shall be cleaned and free of grease or streaks.

### **3.3 PROTECTION**

- .1 Counter tops and ledges shall be protected with 19 mm (1/4 inch) ribbed cardboard for the remainder of the construction process.
- .2 Examine casework for damaged or soiled areas; replace, repair, and touch-up as required.
- .3 Touch-up, repair or replace damaged products before Substantial Completion.

— **END OF SECTION**