

DIVISION 1 - GENERAL REQUIREMENTS  
SECTION 01600 - MATERIALS AND EQUIPMENT

I. GENERAL

A. STIPULATIONS

The section "Special Requirements" forms a part of this section by this reference thereto and shall have the same force and effect as if printed herewith in full.

B. RELATED DOCUMENTS

The Contract Drawings and the Standard Form of Agreement apply to this Section.

C. SUMMARY

1. This Section specifies administrative and procedural requirements governing the Contractor's selection of products for use in the Project.
2. The Contractor's Construction Schedule and the Schedule of Submittals are included under Section "Submittals."
3. Refer to Section 01095 - Standards for applicability of industry standards to products specified.
4. Administrative procedures for handling requests for substitutions made after the award of the Contract are included under Section 01631 - Product Substitutions.

D. DEFINITIONS

1. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well recognized meanings in the construction industry.
  - a. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
    - (1) "Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
    - (2) "Foreign Products", as distinguished from "domestic products," except where defined in the General Conditions.
  - b. "Materials" are products that are substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.

- c. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

#### E. SUBMITTALS

1. Product List Schedule: Prepare a schedule showing products specified in a tabular form acceptable to the Professional. Include generic names of products required. Include the manufacturer's name and proprietary product names for each item listed. Coordinate the product list schedule with the Contractor's Construction Schedule and the Schedule of Submittals.
2. Form: Prepare the product listing schedule with information on each item tabulated under the following column headings:
  - a. Related Specification Section number.
  - b. Generic name used in Contract Documents.
  - c. Proprietary name, model number and similar designations.
  - d. Manufacturer's name and address.
  - e. Supplier's name and address.
  - f. Installer's name and address.
  - g. Projected delivery date, or time span of delivery period.
3. Initial Submittal: Within 30 days after the Notice to Proceed, submit 3 copies of an initial product list schedule. Provide a written explanation for omissions of data, and for known variations from Contract requirements. At the Contractor's option, the initial submittal may be limited to product selections and designations that must be established early in the Contract period.
4. Completed Schedule: Within 60 days after Notice to Proceed, submit 3 copies of the completed product list schedule. Provide a written explanation for omissions of data, and for known variations from Contract requirements.
5. Professional's Action: The Professional will respond in writing to the Contractor within 2 weeks of receipt of the completed product list schedule. No response within this time period constitutes no objection to listed manufacturers or products, but does not constitute a waiver of the requirement that products comply with Contract Documents. The Professional's response will include a list of unacceptable product selections, containing a brief explanation of reasons for this action.

#### F. QUALITY ASSURANCE

1. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source.
2. Compatibility of Options: When the Contractor is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
  - a. Each prime Contractor is responsible for providing products and construction methods that are compatible with products and construction

methods of other prime or separate Contractors.

b. If a dispute arises between prime Contractors over concurrently selected, but incompatible products, the Professional will determine which products shall be retained and which are incompatible and must be replaced.

3. Foreign Product Limitations: Reference the Special Requirements for Foreign Product Limitations.

4. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view in occupied spaces or on the exterior.

a. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.

b. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface which is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:

- (1) Name of product and manufacturer.
- (2) Model and serial number.
- (3) Capacity.
- (4) Speed.
- (5) Ratings.

G. **PRODUCT DELIVERY, STORAGE, AND HANDLING**

Deliver, store and handle products in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.

1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.

2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.

3. Deliver products to the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.

4. Inspect products upon delivery to ensure compliance with the Contract Documents, and to ensure that products are undamaged and properly protected.

5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.

6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.

7. Store products subject to damage by the elements above ground, under cover in a weather-tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

## II. PRODUCTS

### A. PRODUCT SELECTION

1. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.
  - a. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
  - b. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
2. Product Selection Procedures: Product selection is governed by the Contract Documents and governing regulations, not by previous Project experience. Procedures governing product selection include the following:
  - a. Proprietary Specification Requirements:  
Where only a single product or manufacturer, and applicable model number, is listed, the Contractor shall only provide that product. In this case, the System has approved the product, system, or manufacturer as a proprietary source in the best interest of the System and no substitution will be permitted.
  - b. Non-Proprietary Specifications:  
Where the contract documents name two (2) or more products, listing the manufacturers and, as applicable, model numbers, the Contractor shall provide one (1) of those products named to be incorporated into the work unless a product substitution has been approved and issued as an addendum during the bidding period, or a product substitution has been approved under the procedures listed in Section 01631-Product Substitutions.
  - c. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
  - d. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements, and are recommended by the manufacturer for the application indicated. General overall performance of a product is implied where the product is specified for a specific application.

Manufacturer's recommendations may be contained in published product literature, or by the manufacturer's certification of performance.

- e. Compliance with Standards, Codes and Regulations: Where the Specifications only require compliance with an imposed code, standard or regulation, select a product that complies with the standards, codes or regulations specified.
  
- f. Visual Matching: Where Specifications require matching an established Sample, the Professional's decision will be final on whether a proposed product matches satisfactorily.  
  
Where no product available within the specified category matches satisfactorily and also complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category, or for noncompliance with specified requirements.
  
- g. Visual Selection: Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Professional will select the color, pattern and texture from the product line selected.

### III. EXECUTION

#### A. INSTALLATION OF PRODUCTS:

Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.