

SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Administrative and procedural requirements governing the selection of products for use including but not limited to:
1. Product delivery, storage, and handling.
 2. Manufacturers' standard and special warranties on products.
 3. Manufacturers' instructions and certifications.

1.2 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
 3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis of Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis of design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.3 SUBMITTALS

- A. Proposed Products List: Within period of 30 days after award of Contract, submit to Architect five (5) copies of complete list of major Products, which are proposed for installation.
1. Tabulate products by Specification Section number, title, and Article number.
 2. For products specified only by reference standards, list for each such product:
 - a. Name and address of manufacturer.

- b. Trade name.
 - c. Model or catalogue designation.
 - d. Manufacturer's Data including reference standards and performance test data.
3. Architect will reply promptly in writing stating whether there is reasonable objection to any listed items. Failure to object to a listed item shall not constitute waiver of requirements of Contract Documents.

1.4 QUALITY ASSURANCE

- A. Materials specified are to a define standard of quality or performance and to establish basis for evaluation of proposals and substitutions.
- B. Comply with individual Specification Sections and referenced standards as minimum requirements.
- C. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.
 1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.
- D. Source Limitations: Components required to be supplied in quantity within Specification Section shall be of same manufacturer and shall be interchangeable.
- E. Nameplates and Labels: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trade marks on surfaces of products which will be exposed to view in occupied spaces or on the exterior:
 1. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface approved by Architect and governing authorities.
 2. 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.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
 1. Schedule delivery to minimize long term storage at 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 site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather protection requirements for storage.
6. Protect stored products from damage and liquids from freezing.
7. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.6 MANUFACTURER'S INSTRUCTIONS

- A. When Contract Documents require that installation of work shall comply with manufacturers printed instructions, obtain and distribute copies of instructions to parties involved in installation, including two copies to Architect, prior to commencing work.
 1. Maintain one set of complete instructions at job site during installation and until complete.
 2. Maintain one set of complete instructions for Project Record Documents.
- B. Handle, install, connect, clean, condition and adjust products in strict accord with manufacturer's instructions and in conformity with specified requirements.
 1. Should job conditions or specified requirements conflict with manufacturer's instructions, notify Architect in writing for further instructions.
 2. Do not proceed with work without clear instructions.
- C. Perform work in accordance with manufacturer's instructions. Do not omit preparatory steps of installation procedures unless specifically modified or exempted by Contract Documents.

1.7 MANUFACTURER CERTIFICATION

- A. Prior to Final Acceptance of work, for items designated in Specification Sections, an authorized representative of each manufacturer of materials or equipment installed under the work shall examine installation and operation of its materials, system and equipment to determine if the product is correctly installed and operating properly.
- B. Examine and test work which will be concealed during execution of work, after completion of installation and prior to concealment and for work which will not be concealed at completion of work.
- C. Each representative shall submit signed statement to Owner, through Contractor, certifying to its examination and to correct installation and proper operation of materials, systems or equipment. Certification shall list items included.
- D. Transmit certifications to Architect at or prior to Final Acceptance Inspection. Transmittal shall include list of certifications included.

1.8 MAINTENANCE

- A. For mechanical and electrical equipment in long term storage, provide manufacturer's service instructions shown on exterior of package.
- B. Service equipment on a regular basis as recommended by manufacturer. Maintain log of maintenance services. Submit log as Project Record Document in accordance with requirements of Section 01 78 39.

1.9 PRODUCT WARRANTIES

- A. Specified product and materials warranties are in addition to, and run concurrent with, warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 - 1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 - 2. Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.
- B. Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 - 1. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
 - 2. See other Sections for specific content requirements and requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Section 01 77 00.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION

- A. Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
1. The Contractor shall not assume unspecified materials or manufacturers will be acceptable for inclusion in the Work. Any variations from the Contract Documents are subject to review by the Architect and possible rejection of non-compliant materials or Work. Unspecified materials or manufacturers may only be considered for inclusion under Section 01 25 00 Substitution Procedures.
 2. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 3. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 4. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 5. Where products are accompanied by the term "as selected," Architect will make selection.
 6. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
 7. Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.
 - 8.
- B. Product Selection Procedures: Product selection is governed by the Contract Documents and governing regulations, not by previous Project experience.
1. The Contractor shall not assume unspecified materials or manufacturers will be acceptable for inclusion in the Work. Any variations from the Contract Documents are subject to review by the Architect and possible rejection of non-compliant materials or Work. Unspecified materials or manufacturers may only be considered for inclusion under Section 01 25 00 Substitution Procedures.
 2. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 3. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 4. Products: Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements.

5. Manufacturers: Where Specifications include a list of manufacturers' names, provide comparable product by one of the manufacturers listed that complies with requirements.
 6. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified product or a comparable product by one of the named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named.
- C. Performance Specifications 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.
- D. Compliance with Standards, Codes and Regulations: Where specifications require compliance with an imposed code, standard or regulation, select a product that complies with the code, standard or regulations specified.
- E. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 01 25 00 for proposal of product.
- F. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:
1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the work.
 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 3. Evidence that proposed product provides specified warranty.
 4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
 5. Samples, if requested.

2.3 SUBSTITUTIONS

- A. Refer to Section 01 25 00.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Make periodic examinations of stored materials to verify products are maintained under specified conditions and are free from damage or deterioration.
- B. Verify storage facilities comply with manufacturer's product storage requirements.
- C. Verify manufacturer required environmental conditions are maintained continually.
- D. Verify that surfaces of products exposed to elements are not adversely affected and that weathering of finishes is within acceptable tolerances under requirements of Contract Documents.

3.2 PROTECTION

- A. Furnish protection against weather. Cover building openings to protect interior of building from weather.
- B. Maintain work, materials, apparatus and fixtures free from damage.
- C. Protect items having factory finish to prevent damage to finish and equipment.
- D. At end of day's work, cover new work likely to be damaged or otherwise protect as necessary.
- E. After installation, secure substantial coverings as necessary to protect installed products from damage from traffic and subsequent construction operations.
- F. Remove protection when no longer needed. Upon completion of work, remove storage facilities from site.

3.3 ADJUSTING

- A. Do not use materials in work which have deteriorated, become damaged or are otherwise unfit for use.
- B. Replace stored items damaged by inadequate protection or environmental controls.

END OF SECTION

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