

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 6000

PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.01 Section includes

- A. Products.
- B. Product Options and Substitutions.
- C. Product Delivery Requirements.
- D. Shipping Requirements.
- E. Product Storage and Handling Requirements.

1.02 Products

- A. Products: New material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- C. For similar components, provide interchangeable components of the same manufacturer.

1.03 Product Options and Substitutions

- A. Summary. This paragraph describes procedures for selecting products and requesting substitutions of unlisted materials in lieu of materials named in the Specifications or Bridging Documents or approved for use in Addenda that were not already the subject of a Document 00 6325 (Substitution Request Form) submittal. For “or equal” items, it is the Design-Build Team’s responsibility to demonstrate that the items meet all of the requirements by following the Request for Substitution process.
- B. “Or Equal” Substitutions. Owner will consider substitution requests only for “or equal” items. If Design-Build Team wishes to use any “or equal” item, it must submit Request for Substitution (RFS), including all information contained in this Section 01 6000 (Product Requirements) and a fully executed Document 00 6325 (Substitution Request Form), no later than the date indicated in Section 01 1101 (Summary of Work – Design-Build Design Services). After that date, Owner will not accept “or equal” substitution requests. To assess “or equal” acceptability of product or system, submittals of substitutions shall contain the information required in Document 00 6325 and set forth in this Section 01 6000. Insufficient information will be grounds for rejection of substitution. Owner shall, within a reasonable period of time after having received a Request for

Substitution, issue in writing its decision as to whether the proposed substitute item is an Equal item. Owner's decision shall be conclusive on Design-Build Team.

C. Design-Build Team's Options.

1. For products specified only by reference standard: Select any product meeting that standard.
2. For products specified by naming one or more products or manufacturers:
 - a. Select products of any named manufacturer meeting Specifications or Bridging Documents.
 - b. If product becomes unavailable due to no fault of Design-Build Team, submit RFS.

D. Substitutions.

1. Owner will consider Design-Build Team's substitution requests only when product becomes unavailable due to no fault of Design-Build Team.
2. Requests for review of proposed substitute items will not be accepted from anyone other than Design-Build Team. The RFS shall state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice Design-Build Team's achievement of Substantial Completion on time, and whether or not acceptance of the substitute for use in the Work will require a change in any of the Specifications, Bridging Documents or other Contract Documents (or in the provisions of any other direct contract with Owner for work on the Project).
3. Submit separate RFS (and five copies) for each product and support each request with:
 - a. Product identification.
 - b. Manufacturer's literature.
 - c. Samples, as applicable.
 - d. Name and address of similar projects on which product has been used, and dates of installation.
 - e. Name, address, and telephone number of manufacturer's representative or sales engineer.
 - f. For construction methods: Detailed description of proposed method; drawings illustrating methods.
4. Where required, itemize a comparison of the proposed substitution with product specified and list significant variations including, but not limited to dimensions, weights, service requirements, and functional differences. If variation from product specified is not pointed out in submittal, variation will be rejected even though submittal was favorably reviewed. Identify all variations of the proposed substitute from that specified in the RFS and indicate available maintenance, repair, and replacement service.
5. State whether the substitute will require a change in any of the Contract Documents (or provisions of any other direct contract with Owner for work on the Project) to adapt the design of the proposed substitute, and whether or not incorporation or use of the substitute in connection with Work is subject to payment of any license fee or royalty. Submit data relating to changes in construction schedule.
6. Include accurate cost data comparing proposed substitution with product and amount of net change in Contract Sum including, but not limited to, an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors, Designers and Subcontractors affected by the resulting change, all of which will be considered by Owner in evaluating the proposed substitute. Owner may require Design-Build Team to furnish additional data about the proposed substitute.

7. Owner will not consider substitutions for acceptance (or, in Owner's sole discretion, Owner may make Design-Build Team solely responsible for all resulting costs, expenses and other consequences) when a substitution:
 - a. Results in delay meeting design or construction Milestones or completion dates.
 - b. Is indicated or implied on submittals, including without limitation any design submittals, without formal request from Design-Build Team.
 - c. Is requested directly by a Designer, Subcontractor or supplier.
 - d. Acceptance will require substantial revision of Contract Documents.
 - e. Disrupts Design-Build Team's job rhythm or ability to perform efficiently.
 8. Substitute products shall not be ordered without written acceptance of Owner.
 9. Owner will determine acceptability of proposed substitutions and reserve right to reject proposals due to insufficient information.
 10. Accepted substitutions will be evidenced by a Change Order. All Contract Documents requirements apply to Work involving substitutions.
- E. Design-Build Team's Representation and Warranty.
1. Design-Build Team's RFS constitute a representation and warranty that Design-Build Team.
 - a. Has investigated proposed product and determined that it meets or exceeds, in all respects, specified product.
 - b. Will provide the same warranty for substitution as for specified product.
 - c. Will coordinate installation and make other changes that may be required for Work to be complete in all respects.
 - d. Waives claims for additional costs which may subsequently become apparent.
 - e. Will compensate Owner for additional redesign costs associated with substitution.
 - f. Will be responsible for Construction Schedule slippage due to substitution.
 - g. Will be responsible for Construction Schedule delay due to late ordering of available specified products caused by requests for substitution that are subsequently rejected by Owner.
 - h. Will compensate Owner for all costs; including extra costs of performing Work under Contract Documents, extra cost to other contractors, Designers and Subcontractors, and any claims brought against Owner, caused by late requests for substitutions or late ordering of products.
- F. Owner's Duties.
1. Review Design-Build Team's RFS with reasonable promptness.
 2. Notify Design-Build Team in writing of decision to accept or reject requested substitution.
- G. Administrative Requirements.
1. Specified products, materials, or systems for Project may include engineering or on-file standards required by the regulatory agency. Design-Build Team's substitution of products, materials or systems may require additional engineering, testing, reviews, approvals, assurances, or other information for compliance with regulatory agency requirements or both. Provide all agency approvals or other additional information required and pay additional costs for required Owner services made necessary by the substitution at no increase in Contract Sum or Contract Time, and as a part of substitution proposal.

1.04 Product Delivery Requirements

- A. Deliver products in accordance with manufacturer's instructions.

- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

1.05 Shipping Requirements

- A. Preparation for Shipment. All equipment shall be suitably packaged to facilitate handling and to protect against damage during transit and storage. All equipment shall be boxed, crated, or otherwise completely enclosed and protected during shipment, handling, and storage. All equipment shall be protected from exposure to the elements and shall be kept dry at all times.
 - 1. Painted and coated surfaces shall be protected against impact, abrasion, discoloration, and other damage. Painted and coated surfaces which are damaged prior to acceptance of equipment shall be repainted to the satisfaction of Owner.
 - 2. Grease and lubricating oil shall be applied to all bearings and similar items.
- B. Shipping. Before shipping each item of equipment shall be tagged or marked as identified in the delivery schedule or on the Shop Drawings. Complete packing lists and bills of material shall be included with each shipment.

1.06 Product Storage and Handling Requirements

- A. Store products only in staging area per provisions of Section 01 1100 (Summary of Work).
- B. Handle, store, and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate-controlled enclosures.
- C. For exterior storage of fabricated products, place on appropriate supports, above ground.
- D. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- E. Store loose granular materials on solid flat surfaces in a well-drained area.
- F. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- G. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.
- H. Without limiting the foregoing:
 - 1. Design-Build Team shall bear the responsibility for delivery of equipment, spare parts, special tools, and materials to the Site and shall comply with the requirements specified herein and provide required information concerning the shipment and delivery of the materials specified in Contract Documents. These requirements also apply to any subsuppliers making direct shipments to the Site. Acceptance of the equipment shall be made only after it is installed, tested, placed in operation and found to comply with all the specified requirements.
 - 2. All items shall be checked against packing lists immediately on delivery to the Site for damage and for shortages. Damage and shortages shall be remedied with the minimum of delay.
 - 3. No metalwork (miscellaneous steel shapes and reinforcing steel) shall be stored directly on the ground. Masonry products shall be handled and stored in a manner to hold breakage, chipping, cracking, and spalling to a minimum. Cement, lime, and similar

- products shall be stored off the ground on pallets and shall be covered and kept completely dry at all times. Pipe fittings and valves may be stored out of doors, but must be placed on wooden blocking. PVC pipe, geomembranes, plastic liner, and other plastic materials shall be stored off the ground on pallets and protected from direct sunlight.
4. Electrical equipment, and all equipment with antifriction or sleeve bearings shall be stored in weathertight structures maintained at a temperature above 60°F. Electrical equipment, controls, and insulation shall be protected against moisture and water damage. All space heaters furnished in equipment shall be connected and operated continuously.
 5. Equipment having moving parts such as gears, bearings, and seals, shall be stored fully lubricated with oil, grease, etc., unless otherwise instructed by the manufacturer. Manufacturer's storage instructions shall be carefully followed by Design-Build Team.
 6. When required by the equipment manufacturer, moving parts shall be rotated a minimum of twice a month to ensure proper lubrication and to avoid metal to metal "welding". Upon installation of the equipment, Design-Build Team shall, at the discretion of Owner, start the equipment at one-half load for an adequate period of time to ensure that the equipment does not deteriorate from lack of use.
 7. When required by the equipment manufacturer, lubricant shall be changed upon completion of installation and as frequently as required thereafter during the period between installation and acceptance. New lubricants shall be put into the equipment by Design-Build Team at the time of acceptance.
 8. Equipment and materials shall not show any pitting, rust, decay, or other deleterious effects of storage when installed in the Work.
 9. In addition to the protection specified for prolonged storage, the packaging of spare units and spare parts shall be for export packing and shall be suitable for long-term storage in a damp location. Each spare item shall be packed separately and shall be completely identified on the outside of the container.
 10. Handling. Stored items shall be laid out to facilitate their retrieval for use in the Work. Care shall be taken when removing the equipment for use to ensure the precise piece of equipment is removed and that it is handled in a manner than does not damage the equipment.

PART 2 – PRODUCTS - NOT USED.

PART 3 – EXECUTION - NOT USED.

END OF SECTION