CITY OF FORT WAYNE MASTER UPDATED: 1/5/15

SECTION 01 66 00

Product Storage and Handling Requirements

1. GENERAL
	1. DESCRIPTION
		1. This Section includes General Requirements for storing and protecting materials and equipment.

NTS: Section “1.2” is to be included if project is bid on unit price basis. Section to be deleted or revised if project is to be bid on lump sum basis.

* 1. MEASUREMENT AND PAYMENT
		1. This item is to be included in overall Project cost and not bid as a separate Work item.
	2. STORAGE
		1. Store and protect materials and equipment in accordance with manufacturer’s recommendations and the Contract Documents.
		2. Contractor shall make all arrangements and provisions necessary for, and pay all costs for, storing materials and equipment. Excavated materials, construction equipment, and materials and equipment to be incorporated into the Work shall be placed to avoid damaging the Work and existing facilities and property, and so that free access is maintained at all times to all parts of the Work and to public utility installations in vicinity of the Work. Store materials and equipment neatly and compactly in locations that cause minimum inconvenience to Owner, other contractors, public travel, and owners, tenants, and occupants of adjoining property. Arrange storage in manner to provide easy access for inspection.

NTS: Paragraph “C” requires that areas available for storage of materials and equipment be shown on the drawings or approved by Engineer; edit to suit the project if Owner approval is required. Alternatively, if existing facilities are intended to be used for storage of materials and equipment, list the buildings/areas, as applicable.

* + 1. Areas available at the Site for storing materials and equipment shall be as shown or indicated in the Contract Documents, or as approved by Engineer.
		2. Contractor shall be fully responsible for loss or damage (including theft) to stored materials and equipment.
		3. Do not open manufacturer’s containers until time of installation, unless recommended by the manufacturer, required to verify all contents or otherwise specified in the Contract Documents.
		4. Do not store materials or equipment in structures being constructed unless approved by Engineer in writing.
		5. Do not use lawns or other private property for storage without written permission of the owner or other person in possession or control of such premises. Prior to use written permission must be submitted to Engineer for record purposes.
	1. PROTECTION
		1. Equipment shall be boxed, crated, or otherwise completely enclosed and protected during shipping, handling, and storage, in accordance with Section 01 65 00, Product Delivery Requirements.
		2. Store all materials and equipment off the ground or floor on raised supports such as skids or pallets.
		3. Protect painted surfaces against impact, abrasion, discoloration, and other damage. Painted equipment surfaces that are damaged or marred shall be repainted in their entirety in accordance with equipment manufacturer and paint manufacturer requirements, to the satisfaction of Engineer.
		4. Protect electrical equipment, controls, and instrumentation against moisture, water damage, heat, cold, and dust. Space heaters provided in equipment shall be connected and operating at all times until equipment is placed in operation and permanently connected.
	2. UNCOVERED STORAGE

NTS: Edit Paragraph “A” to suit the project, and add types of products as required.

* + 1. The following types of materials may be stored outdoors without cover on supports so there is no contact with the ground:
			1. Reinforcing steel.
			2. Structural steel.
			3. Piping.
			4. Precast concrete materials.
			5. Castings.
			6. Handrails and railings.
			7. Grating.
			8. Checker plate.
			9. Metal stairs.
			10. Metal access hatches.
			11. Fiberglass products.
			12. Rigid electrical conduit.
			13. Loose granular material.
			14. Others as directed by Owner.
	1. COVERED STORAGE

NTS: Edit Paragraph “A” to suit the project, and add types of products as required.

* + 1. The following materials and equipment may be stored outdoors on supports and completely covered with covering impervious to water:
			1. Rough lumber.
			2. Filter media.
			3. Masonry units.
			4. Grout and mortar materials.
			5. Others as directed by Owner.
		2. Tie down covers with rope, and slope covering to prevent accumulation of water.
	1. FULLY PROTECTED STORAGE

NTS: Edit Paragraph “A” to suit the project, and add types of products as required.

* + 1. Store all material and equipment not named in Articles 1.5 and 1.6 of this Section in on supports in buildings or trailers that have concrete or wooden flooring, roof, and fully closed walls on all sides. Covering with visquine plastic sheeting or similar material in space without floor, roof, and walls is not acceptable. Comply with the following:
			1. Provide heated storage for materials and equipment that could be damaged by low temperatures or freezing.
			2. Provide air-conditioned storage for materials and equipment that could be damaged by high temperatures.
			3. Protect mechanical and electrical equipment from being contaminated by dust, dirt, and moisture.
			4. Maintain humidity at levels recommended by manufacturers for electrical and electronic equipment.
	1. HAZARDOUS PRODUCTS
		1. Prevent contamination of personnel, storage area, and the Site. Comply with Laws and Regulations and manufacturer’s instructions.
	2. MAINTENANCE OF STORAGE
		1. On scheduled basis, periodically inspect stored materials and equipment to ensure that:
			1. State of storage facilities is adequate to provide required conditions.
			2. Required environmental conditions are maintained on continuing basis.
			3. Materials and equipment exposed to elements are not adversely affected.

NTS: Retain Paragraph “B” for sensitive products in long-term storage. Expand Paragraph “B” as required to specify particular requirements.

* + 1. Mechanical and electrical equipment requiring long-term storage shall have complete manufacturer’s instructions for servicing each item, with notice of enclosed instructions shown on exterior of container or package.
			1. Comply with manufacturer’s instructions on scheduled basis.
			2. Space heaters that are part of electrical equipment, shall be connected and operated continuously until equipment is placed in service and permanently connected.
	1. MICROPROCESSORS, PANELS, AND INSTRUMENTATION STORAGE
		1. Microprocessor-based equipment, store panels, electronics, and other devices subject to damage or decreased useful life because of temperatures below 40 degrees F or above 100 degrees F, relative humidity above 90 percent, or exposure to rain or exposure to blowing dust in climate-controlled storage space.
		2. Requirements:

NTS: Insert at (--1--) the address and location of storage site or project storage requirements. Project storage requirement example, “in third-party owned, bonded, insured, climate-controlled warehouse in \_[insert name]\_ County”. Identify Owner’s storage requirements for products stored off-site and edit this section to suit the project.

* + - 1. Storage shall be (--1--).
			2. Owner and Engineer have the right to inspect materials and equipment during normal working hours.
			3. Placed inside each panel or device a desiccant, volatile corrosion inhibitor blocks (VCI), moisture indicator, and maximum-minimum indicating thermometer.
			4. Check panels and equipment at least once per month. Replace desiccant, VCI, and moisture indicator as often as required, or every six months, whichever occurs first.
			5. Certified record of daily maximum and minimum temperature and humidity in storage facility shall be available for inspection by Owner and Engineer. Certified record of monthly inspection, noting maximum and minimum temperature for month, condition of desiccant, VCI, and moisture indicator, shall be available for inspection by Owner and Engineer.
		1. Costs for storing climate-sensitive materials and equipment shall be paid by Contractor. Replace panels and devices damaged during storage, or for which storage temperatures or humidity range has been exceeded, at no additional cost to Owner. Delays resulting from such replacement are causes within Contractor’s control.
		2. Do not ship panels and equipment to the Site until conditions at the Site are suitable for installation, including slabs and floors, walls, roofs, and environmental controls. Failure to have the Site ready for installation shall not relieve Contractor from complying with the Contract Documents.
	1. RECORDS
		1. Keep up-to-date account of materials and equipment in storage to facilitate preparation of Applications for Payment, if the Contract Documents provide for payment for materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing.
1. PRODUCTS (NOT USED)
2. EXECUTION (NOT USED)

+ + END OF SECTION + +