

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 01500 - TEMPORARY FACILITIES

I. GENERAL

A. STIPULATIONS

The "Special Requirements" and "General Conditions" to the contract form 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 requirements for temporary services and facilities, including utilities, construction and support facilities, security and protection. All temporary utilities, construction and support facilities required to perform the work shall be provided by the Demolition Contractor.
2. Temporary utilities, if required by the Contractor, include but are not limited to:
 - a. Water service and distribution
 - b. Temporary electric power and light
 - c. Temporary heat
3. Temporary construction and support facilities required include but are not limited to:
 - a. Field offices and storage sheds, if required by the Contractor
 - b. Sanitary facilities, including drinking water
 - c. Waste disposal services
 - d. Construction aids and miscellaneous services and facilities
4. Security and protection facilities required include but are not limited to:
 - a. Barricades, warning signs, lights
 - b. Enclosure fence for the site
 - c. Environmental protection

D. QUALITY ASSURANCE

1. Regulations: Comply with industry standards and applicable laws and regulations if authorities having jurisdiction, including but not limited to:
 - a. Building Code requirements
 - b. Health and safety regulations
 - c. Utility company regulations

- d. Police, Fire Department and Rescue Squad rules
 - e. Environmental protection regulations
2. Standards: Comply with NFPA Code 241, "Building Construction and Demolition Operations", ANSI-A10 Series standards for "Safety Requirements for Construction and Demolition", and NECA Electrical Design Library "Temporary Electrical Facilities." Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", prepared jointly by AGC and ASC, for industry recommendations.
 3. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

E. EQUIPMENT

1. Temporary Offices: Contractor shall provide, if so desired, their own prefabricated or mobile units or similar job-built construction with lockable entrances, operable windows and serviceable finishes.
2. Temporary Toilet Units: The General Contractor shall provide self-contained single-occupant toilet units of the chemical, aerated recirculation, or combustion type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material.
3. First Aid Supplies: Comply with governing regulations.
4. Fire Extinguisher: Provide hand-carried, portable UL-rated, class "A" fire extinguisher for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, class "ABC" dry chemical extinguisher, or a combination of extinguisher of NFPA recommended classes for the exposures.

II. EXECUTION

A. INSTALLATION

Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.

B. TEMPORARY UTILITY INSTALLATION

1. General: The Contractor shall, at his own cost and expense, install, operate, protect, and maintain the respective temporary services as hereinafter specified, during the construction period of the entire project. These temporary services shall include water supply, electric, light and power, temporary heat, and any other services as may be stipulated in the General Conditions, Special Requirements, and/or Specifications.
2. The Contractor shall pay all costs for the operation of temporary services

except that the institution will pay all fuel costs for steam, water and power which are taken from their utility systems.

3. Any part or parts of permanent service lines, grounds, and buildings, disturbed or damaged by the installation and/or removal of the temporary service lines shall be restored to their original condition.
4. The Contractor who fails to carry out his responsibility in supplying temporary services, as set forth in his contract, shall be held responsible for such failure, and the System shall have the right to take such action as it deems proper for the protection and conduct of the work and shall deduct the cost involved from the amount due the Contractor.
5. Arrange with the System and existing users for a time when service can be interrupted, where necessary, to make connections for temporary services.
6. Temporary Water Supply:

The System, within its facilities, will furnish water for construction purposes, free of charge to the contractors.

7. Temporary Construction Light and Power:
 - a. The Electrical Contractor shall, at its own expense, install, operate, protect and maintain the temporary service for construction light and power. This service shall be taken from the closest available primary or secondary source. The Electrical Contractor shall extend the temporary wiring throughout the building, properly insulated and installed in a safe manner. The institution will not provide electric power used as a source of heat for the temporary heating herein before specified.
 - b. Complete installation of temporary lighting and power should be in strict accordance with the latest edition of the National Electrical Code.

8. Temporary Heat (Permanent Heat by HVAC Contractor)
 - a. The temporary heat requirements on this project are divided into two (2) categories, i.e., (1) Temporary heat required prior to the enclosure of the structure or portions thereof; (2) Temporary heat required subsequent to the enclosure of the structure.
 - b. A structure shall be considered to be enclosed when (1) The roof is on and tight; (2) The exterior walls have been complete; and (3) When openings, doors and windows are closed with permanent closures, or with substantial temporary closures which will affect the retention of heat within the structure.
 - c. Prior to enclosure of structure(s) or portions thereof, and when official local weather predictions indicate below freezing

temperatures, each prime contractor shall provide, maintain, operate and pay all costs, including fuel to supply temporary heat to protect its own portion of the project.

- d. Self-contained oil-fired portable heaters, if used, shall be vented to outside of the structure. These types of heaters shall be used only in areas where finished work has been started.
- e. Temporary heat in the enclosed structures will be required on a 24-hour basis when the ambient temperature is officially predicted or is actually at 35 degrees F. or lower. Heating Contractor shall advise the System of each 24-hour period that heat will be furnished prior to furnishing same, in order to coordinate accurate field records.
- f. The System may authorize temporary heat at times other than above required in order to effect job progress.
- g. After the structure is enclosed and temporary heat is required for proper construction as determined by the System, the Heating Contractor at his own cost and expense shall provide the equipment and heating personnel for the temporary heat. The Heating Contractor may install gas or oil-fired portable heating units provided the products of combustion are totally vented outside the building(s). The Heating Contractor may utilize the permanent system or portions thereof or may install temporary steam or hot water radiation or convection or a combination of both.
- h. Temporary heating system shall be of sufficient capacity to heat the interior of the structure to 50 degrees F. when the outside temperature is 0 degrees F. Temperature at all times must be 50 degrees F. or above. This service shall be continued until the entire project is completed.
- i. Where electricians or plumbers are required to install, operate, supervise or maintain equipment used in the provision of temporary heat, the payment for the services of such personnel shall be the responsibility of the Electrical or Plumbing Contractors, respectively. It will be the responsibility of the Electrical and/or Plumbing Contractors to coordinate with the Heating Contractor to meet temporary heat requirements.
- j. The General Contractor shall pay for all fuel or gas for the temporary heat equipment. Electric power from institution sources shall not be used for temporary heat.
- k. The General Contractor, at his own cost and expense, shall remove all soot, smudge and other deposits from walls, ceilings and exposed surfaces which are the result of the use of any temporary heating equipment, including the use of the permanent heating system for temporary heating purposes. He shall not do any finish work until all such surfaces are properly cleaned.

- I. All permanent heating equipment used to supply temporary heat shall be completely cleaned and reconditioned by the Heating Contractor prior to final acceptance in the presence of the System personnel. All permanent heating equipment or any other equipment found to be damaged due to being used for temporary heat shall be replaced. All replacements must be checked and approved by System personnel.

- m. The responsibility of the several Contractors herein mentioned for the provisions of temporary heat subsequent to the enclosure of the building(s), or portions thereof within their contract price, is limited to the number of calendar days as indicated in Section 01010, the total cost of which must be included and made a part of the lump sum bid submitted by each bidder. This is also to be shown as the last item on the Contract Breakdown Sheet, to include the number of calendar days, cost per twenty-four (24) hour day and extended price. The cost per twenty-four (24) hour day will be used as an add or deduct amount should the number of days of temporary heat furnished exceed or be less than the number of calendar days stated previously in this paragraph. This price is subject to acceptance or rejection by the System. If accepted, it is to be used in the form of an addition to or deduct from the contract price for furnishing temporary heat for a longer or lesser period than the number of days herein before stipulated. If rejected, a unit price for this purpose shall be agreed to by the parties prior to the approval of the Contract Breakdown Sheet. If no agreement can be reached, the price for temporary heat shall be determined by arbitration, as provided in Paragraph 63.83 of the General Conditions. The Contractor must fully document the cost involved for supplying temporary heat with substantiating data.

C. TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION

1. Sanitary Facilities:

- a. The Contractor shall, at his own cost and expense, provide and maintain in a clean and sanitary condition, adequate and approved sanitary facilities as specified below. Portable chemical toilets approved by Pennsylvania Department of Health are acceptable.

Sanitary facilities include temporary toilets, wash facilities and drinking water fixtures. Comply with regulations and health codes for the type, number, location, operation and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.

Provide toilet tissue, paper towels, paper cups and similar disposable materials for each facility. Provide covered waste containers for used material.

- b. Wash Facilities: Install wash facilities supplied with potable water at convenient locations for personnel involved in handling materials that require wash-up for a healthy and sanitary condition. Dispose of drainage properly. Supply cleaning compounds appropriate for each condition. Provide safety showers, eye-wash fountains and similar facilities for convenience, safety and sanitation of personnel.
 - c. Drinking Water Facilities: Provide containerized tap-dispenser bottled-water type drinking water units, including paper supply. Where power is accessible, provide electric water coolers to maintain dispensed water temperature at 45 to 55 degrees (7 to 13 degrees C).
2. Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80 degree F. (27 degrees C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in a lawful manner.

D. SECURITY AND PROTECTION FACILITIES INSTALLATION

- 1. Barricades, Warning Signs and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed provide lighting, including flashing red or amber lights.
- 2. Site Enclosure Fence: The General Contractor shall maintain a fence on the perimeter of the site to meet requirements of the local authorities having jurisdiction and as specified.
- 3. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result.