

SECTION 01560

**TEMPORARY BARRIERS, ENCLOSURES & EQUIPMENT
(During renovations to operating clinics)**

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Work included: Provide temporary facilities and controls needed for the work including, but not necessarily limited to:
 - 1. Enclosures such as tarpaulins, barricades, and canopies
 - 2. Fire protective measures
 - 3. Staging and scaffolding
 - 4. Air Filtration & exhaust
 - 5. Noise control
 - 6. Protection of patients & staff from construction dust and debris

- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

 - 2. Equipment furnished by subcontractors shall comply with requirements of pertinent safety regulations. Such equipment normally furnished by the individual trades, in execution of their own portions of the work, are not part of this Section.

 - 3. Permanent installation and hookup of the various utility lines are described in other Sections.

1.02 PRODUCT HANDLING

- A. Maintain temporary equipment and controls in proper, tight and safe condition throughout progress of the work.

PART 2 - PRODUCTS

2.01 UTILITIES

Temporary Services

- 1. Water:
 - a) Do not cut or otherwise disturb existing potable or process water lines during clinic operating hours and without the consent of the Clinic Manager.

- b) Use due care to prevent water waste, maintain pipes, hoses, valves and connections in perfect condition at all times.

2.02 STAGING AND SCAFFOLDING

- A. Furnish, erect, and maintain all staging and scaffolding (exterior and interior) eight (8) feet or over in height for all trades for such use. Staging and scaffolding shall be of approved design, erected and removed by experienced stage builders and shall have all accident prevention devices required by Federal, State, and Local Laws.
- B. Erect such staging and scaffolding in sufficient time and in proper sequence so as not to delay work. Subcontractors shall schedule and commence their work so that building progress is not delayed or obstructed once staging and scaffolding become available.
- C. Each Subcontractor shall furnish, erect, and maintain all staging and scaffolding, under 8 feet in height, required for work under his subcontract. On completion of his work, each Subcontractor shall dismantle and remove such staging and scaffolding.
- D. Erection of all staging, scaffolding, rigging, etc., shall be supervised and directed by a Licensed Rigger and inspected by a Registered Engineer. A certified affidavit shall be submitted to the Architect by this Engineer stating all staging, scaffolding, rigging, etc., has been safely erected and conforms in all respects to State and Local Codes. The General Contractor shall pay for all services in connection with the erection and inspection of all staging, scaffolding, and rigging, etc.
- E. Staging and scaffolding shall be constructed and maintained in accordance with applicable requirements of "American Standard Safety Code of Building and Construction", published by USASI, and be removed after they have served their purpose or when directed by Architect.
- F. Permanent stairs shall be erected as soon as possible; General Contractor shall provide suitable temporary treads, risers, etc., as required, to protect permanent stair members, and provide temporary railing as required for safety.

2.03 TEMPORARY STRUCTURES & BARRIERS

- A. The Contractor and Subcontractor shall construct and maintain, in locations approved by the Architect, all temporary structures, sheds, and similar needs for the storing of their respective materials for the duration of the Contract.
- B. All temporary structures shall be of substantial construction and weather tight. Temporary structures shall be removed from site when no longer needed by the Contractor or trade responsible for their erection.

- C. Construct temporary barriers to separate the construction area from areas occupied by patients or staff.
- D. Temporary barriers shall consist of a minimum of 2.5” metal studs @ 24” o.c. covered with ½” gypsum drywall on both sides, and covered with 6 mil plastic on the construction activity side.
- E. Temporary barriers shall run continuously from floor to the underside of structural deck above, and be sealed against the passage of air borne dust or contaminants.
- F. Location of temporary barriers shall in no way impede means of egress.

2.04 HVAC SYSTEM

- A. HVAC system(s) servicing the work zone shall be temporary isolated and restricted as follows:
 - 1. Return air grilles within the work zone shall be sealed and or relocated outside the work zone to prevent mold, dust and debris from entering the HVAC System.
 - 2. Adjust the supply air diffusers; air volume (CFM) within the work zone to achieve a negative space pressure incorporating the 4 air charges per hour exhaust rate.
 - 3. At the completion of the work all adjustments made shall be restored to their previous conditions.

2.05 EXHAUST

- A. Provide and install temporary exhaust system to maintain negative pressure within the work zone during times of construction. The system design shall include but not limited to the following:
 - 1. Size and select an exhaust fan for a minimum of 4 air charges per hour.
 - 2. Locate fan on the exterior of building to eliminate high-pressure ductwork within the building.
 - 3. Exhaust discharge to atmosphere shall maintain a 20-foot radius from fresh air intakes, operable windows and public meeting areas.
 - 4. Install airflow-monitoring devices within the work zone to verify negative pressure and airflow to that of adjacent areas; device equal to a magnehelic gauge with pressure range from 0 to 0.25 (inches water gauge)
 - 5. Install low pressure flex duct to inlet of exhaust fan.

6. Provide hepa filters at the fan discharge if item 3 above cannot be achieved.

PART 3 - EXECUTION

3.01 DUST CONTROL MEASURES

- A. Prior to commencement of any construction activity, the Owner's Project Manager shall convene a team with the Clinical Manager, Contractor, Sub Contractors, and Architect to conduct an infection control risk assessment.

This risk assessment shall include the assumption that demolition activities will dislodge mold spores into the air. Temporary barriers, filters and exhausts shall be implemented to prevent mold dust from reaching occupied areas.

- B. Prior to commencing demolition or construction activities in an occupied clinic, erect substantial dust tight temporary partitions to isolate the construction area from the occupied spaces.
- C. Prior to commencement of demolition or construction activities, install exhaust fans to the exterior, capable of keeping the construction area under negative pressure. If it is not feasible to exhaust to the exterior, install HEPA filters before the air is returned to the HVAC system.
- D. Cover all return air grilles in the construction area with an airtight barrier of plastic sheet or similar material.
- E. Cover all fire detection and fire alarm devices in the construction area with airtight plastic during construction activity. Uncover such devices at night, or when construction activities are not in progress.
- G. Provide Protect Tacky Mats, or equal at all openings connecting the construction area with occupied spaces.

3.02 FIRE PROTECTIVE MEASURES

- A. The Contractor shall maintain a rubbish-free building and building site, and shall provide metal barrels into which all luncheon refuse shall be deposited. All such barrels shall have tight-fitting covers.
- B. Store materials so they do not create natural pockets for papers or other combustible materials.

- C. Construction debris shall not be thrown from the windows of the building but shall be removed through tight, strong chutes, and all debris shall be wet down if necessary, or as directed by Architect.
- D. When building materials with combustible contents are stored in the building during construction, they shall be located within easy reach of fire protection equipment.
- E. An approved number of fire extinguishers shall be placed throughout work areas, temporary paint shop and within easy reach of mechanics who are operating plumber's furnaces, burning or welding apparatus. The number and location shall be approved by the local fire department.
- F. It shall be the duty and responsibility of the General Contractor or any subcontractor performing any cutting or welding, to comply with the safety provisions of the National Fire Protection Association's "National Fire Codes" pertaining to such work and the respective contractor shall be responsible for all damages resulting from a failure to comply.

3.03 POLICE, FIREMEN AND INSPECTORS

- A. Any police officer, fireman or inspector required by the local authorities having jurisdiction over the work, shall be employed by the Contractor, and paid the standard rate or wage for the respective occupation of the work area. All personnel employed shall be covered by Workman's Compensation and Employer's Liability Insurance by the Contractor.

3.04 MAINTENANCE AND REMOVAL

- A. Maintain temporary facilities and controls as long as needed for safe and proper completion of the work.
- B. Remove such temporary facilities and controls as rapidly as progress of the Work will permit, or as directed by the Architect.

END OF SECTION