

SECTION 015000

TEMPORARY FACILITIES AND CONTROLS

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 REQUIREMENTS INCLUDED

- A. Temporary Facilities and Controls including the following:
  - 1. Hoisting Equipment and Machinery.
  - 2. Staging.
  - 3. Maintenance of Access.
  - 4. Dust Control.
  - 5. Noise Control.
  - 6. Indoor Air Quality (IAQ) Management.
  - 7. Enclosures.
  - 8. Cleaning During Construction.
  - 9. Telephone Service.
  - 10. Construction Barriers.
  - 11. Parking.
  - 12. Debris Control and Removal.
  - 13. Safety Protection.
  - 14. Vehicle and Equipment Protection.
  - 15. Shoring.
  - 16. Construction Fence.
  - 17. Project Identification Sign.
  - 18. Temporary weather protection.
  - 19. Temporary utilities including water and power.

1.3 TEMPORARY WATER

- A. Contractor may use water available at the facility; water usage charges to be paid by the Owner.
- B. Any temporary hoses and pipe lines and connections from the permanent service lines either outside or within the building, necessary for the use of the General Contractor and his Subcontractors shall be installed, protected, and maintained at the expense of the Plumbing Subcontractor.
- C. Temporary hoses and temporary pipe lines used for transporting water shall not be run unattended or unprotected across parking areas, parking area entrance, walkways, plazas, or steps. Temporary hoses and temporary pipelines shall not be permitted to be installed along, through or across corridor and occupied rooms or spaces.

- D. Use of Owner furnished water may be discontinued if, in the Owner's opinion, it is being wastefully used.

#### 1.4 WEATHER PROTECTION

- A. Provide weather protection for exterior work such as concrete ramps, in a manner to ensure neither cold nor hot weather has no adverse effects upon longevity, condition, function or appearance of installed work.

#### 1.5 TEMPORARY POWER

- A. Contractor may use power available at the facility; power usage charges to be paid by the Owner.
- B. The General Contractor and all Subcontractors, individually, shall furnish all extension cords, sockets, motors, and accessories required for their work.
- C. All temporary wiring installed by the Electrical Subcontractor shall be removed after it has served its purpose. Use copper wire only.
- D. All relocations of temporary service to meet construction and/or phasing requirements shall be performed at no additional cost to the Commonwealth.
- E. Use of Owner furnished power may be discontinued if, in the Owner's opinion, it is being wastefully used.

#### 1.6 HOISTING EQUIPMENT AND MACHINERY

- A. All hoisting equipment and machinery required for the proper and expeditious prosecution and progress of the work shall be furnished, installed, operated and maintained in safe condition by the individual Subcontractors and is so stated in each appropriately related Section of the Specifications. All costs for hoisting operating services shall be borne by the Subcontractors unless specifically excepted in the Contract Documents.
  - 1. A licensed equipment manufacturer's representative shall be present at all times, to witness the erection and dismantling of all hoisting equipment and machinery, whenever such equipment is being erected or dismantled. No such work will be performed without the presence of such representative.
  - 2. Hoisting equipment and machinery erection and dismantling shall be performed only by trained, certified, and experienced riggers qualified to perform such work.
  - 3. Copies of such licenses and/or certifications, clearly indicating qualifications, shall be provided to the OWNER prior to commencement of such erecting and dismantling work.
- B. Review Drawings for hoisting requirements and openness of traffic access routes to installed destinations of specified equipment and furnishings.

1.7 STAGING

- A. All staging, planking and scaffolding, exterior and interior, required for the proper execution of the work and over eight feet in height, shall be furnished, installed, and maintained by the General Contractor .
  - 1. Erection and dismantling of staging shall be performed only by trained, certified, and experienced staging personnel qualified to perform such work.
  - 2. Copies of such certifications, clearly indicating qualifications, shall be provided to the Owner's Project Manager r prior to commencement of such erecting and dismantling work.
- B. All staging up to eight feet in height shall be provided by the individual Subcontractors as applicable to their work.

1.8 MAINTENANCE OF ACCESS

- A. The General Contractor shall provide and maintain for the duration of his contract, a means of access to, around and within the site, for vehicular traffic and pedestrians. . This means of access shall be construed to sustain the weight of equipment customarily engaged for use in construction projects of this type and magnitude. The General Contractor shall, without additional compensation from the Commonwealth, furnish labor and materials as may be required from time to time to maintain this means of access in an acceptable condition as determined by the Designer. Pedestrian access shall provide adequate protection against falling debris, slippage, adequate lighting, warning and directional signs, and protection against construction activities.

1.9 DUST CONTROL

- A. The General Contractor shall have all Subcontractors provide adequate means for the purpose of preventing dust caused by construction operations from creating a hazard, nuisance, and from entering adjacent occupied areas throughout the period of the construction contract.
- B. This provision does not supersede any specific requirements for methods of construction or applicable general conditions set forth in the Contract Articles with added regard to performance obligations of the General Contractor.

1.10 NOISE CONTROL

- A. Comply with requirements of authorities having jurisdiction. Develop and maintain a noise-abatement program and enforce strict discipline over all personnel to keep noise to a minimum.
- B. Execute construction work by methods and by use of equipment which will reduce excess noise.
  - 1. Equip air compressors with silencers, and power equipment with mufflers.
  - 2. Manage vehicular traffic and scheduling to reduce noise.
  - 3. No heavy equipment may be started or idled before 7A.M.

1.11 INDOOR AIR QUALITY (IAQ) MANAGEMENT

- A. Minimize exposure of building occupants, indoor surfaces, and ventilation air distribution systems to environmental tobacco smoke. At a minimum, take the following measures:
  - 1. Prohibit smoking in the building.
  - 2. Locate exterior designated smoking areas at least 25 feet away from entries, outdoor air intakes, and operable windows.
  - 4. During construction meet or exceed the recommended Control Measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, Chapter 3, November 2007.
  - 5. Protect stored on-site and installed absorptive materials from moisture damage.
  - 6. If the Project Manager authorizes the use of permanent heating, cooling, and ventilating systems during construction, install filter media having a Minimum Efficiency Reporting Value (MERV) of 8 according to ASHRAE 52.2 at each return-air inlet for the air-handling system used during construction. Replace air filters immediately prior to occupancy. Replacement air filters shall have a MERV 13 according to ASHRAE 52.2.
- B. Before Occupancy: Comply with one of the following requirements, per LEED EQ Cr. 3.2:
  - 2. Option 2 - Air Quality Testing (General Contractor-engaged indoor-air-quality testing):
    - a. Conduct a baseline indoor air quality testing procedure consistent with the United States Environmental Protection Agency's "Compendium of Methods for the Determination of Air Pollutants in Indoor Air."
- C. Construction Indoor Air Quality Management Plan Submittal:
  - 1. Within 21 calendar days after receipt of Notice to Proceed, the General Contractor shall submit to the Project Manager a finalized Construction IAQ Management Plan.
  - 2. The proposed Plan shall include, but not be limited to, the following:
    - a. Protection of ventilation system components during construction.
    - b. Cleaning and replacing contaminated ventilation system components after construction, including filtration media.
    - c. Temporary ventilation.
    - d. Protection of absorptive materials from moisture damage when stored on-site and after installation, including exterior wall rain protection.
    - e. Sequence of finish installation plan.
    - f. Selection of cleaning products and procedures to be used during construction and final cleaning.
    - g. Schedule of emission test data recorded by General Contractor's testing laboratory.
- D. Take special care to prevent accumulation of moisture on materials and within packaging during delivery, storage, and handling to prevent development of mold and mildew inside packaging and on products.
- E. Immediately remove from site and properly dispose of materials showing signs of mold and mildew, including materials with moisture stains.
- F. IAQ Plan Implementation:

1. IAQ Manager: The General Contractor shall designate an on-site person responsible for instructing workers and overseeing and documenting results of the Construction IAQ Management Plan for the Project.
2. Distribution: The General Contractor shall distribute copies of the Construction IAQ Management Plan to the jobsite foreman, each Subcontractor, OWNER Project Manager, and the Designer.
3. Instruction: The General Contractor shall provide on-site instruction of appropriate procedures and methods to be used by all parties at the appropriate stages of the Project.
4. Preconditioning: Allow products, which have odors and significant VOC emissions, to off-gas in a dry, well-ventilated space for sufficient period to dissipate odors and emissions prior to delivery to Project.
5. Remove containers and packaging from materials prior to conditioning to maximize off-gassing of VOCs.
6. Condition products in ventilated warehouse or other building.
7. Coordinate Construction IAQ Management Plan with final cleaning.

#### 1.12 ENCLOSURES

- A. Provide temporary, insulated, weather tight closures of openings in exterior surfaces for providing acceptable working conditions and protection for materials, allowing for heating during construction, and preventing entry of unauthorized persons. Provide doors with self-closing hardware and locks.
- B. All utilities including electric ducts, conduits, telephone lines, sprinklers, and other utilities shall be protected against damage from construction activity. The General Contractor shall be responsible for all damage to the utilities from construction and shall repair all such damage at no additional cost to the OWNER.

#### 1.13 CLEANING DURING CONSTRUCTION

- A. Unless otherwise specified under the various Sections of the Specifications, the General Contractor shall perform clean-up operations during construction as herein specified.
  1. Refer to Section 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL for additional requirements.
- B. Control accumulation of waste materials and rubbish; daily dispose of off-site in a legal manner. The General Contractor shall bear all costs, including fees resulting from such disposal.
- C. Clean interior areas prior to start of finish work and maintain areas free of dust and other contaminants during finish operations.
- D. Maintain project in accordance with all local, Commonwealth of Massachusetts, and Federal Regulatory Requirements.
- E. Store volatile wastes in covered metal containers, and remove from premises.
- F. Prevent accumulation of wastes which create hazardous conditions.

- G. Provide adequate ventilation during use of volatile or noxious substances.
- H. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
  - 1. Do not burn or bury rubbish and waste materials on site.
  - 2. Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
  - 3. Do not dispose of wastes into streams or waterways.
  - 4. Identify potential sources of cleaning water runoff and propose abatement procedures.
- I. Use only those materials which will not create hazards to health or property and which will not damage surfaces.
- J. Use only those cleaning materials and methods recommended by manufacturer of surface materials to be cleaned.
- K. Execute cleaning to ensure that the buildings, the sites, and adjacent properties are maintained free from accumulations of waste materials and rubbish and windblown debris, resulting from construction operations.
- L. Provide on-site containers for collection of waste materials, debris, and rubbish.
- M. Remove waste materials, debris and rubbish from the site periodically and dispose of at legal disposal dump site (DEP approved).
- N. Handle material in a controlled manner with as few handlings as possible. Do not drop or throw materials from heights.
- O. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not damage surrounding surfaces.

#### 1.14 SANITARY FACILITIES

- A. Contractors may use facility toilet facilities.

#### 1.15 CONSTRUCTION BARRIERS

- A. Proper construction barriers shall be provided around the contract work areas as defined by the Contract Drawings or as directed by the Resident Engineer.
- B. Construction barriers shall consist of traffic cones, ribbons, tapes, secure fencing, trench covers, wood barriers, warning signs, directional signs, and other traffic materials to keep traffic and people from area of construction and maintain ongoing operations.
- C. Barriers shall be erected at such approved locations as are necessary, sufficiently cross-braced and supported adequately from floors and ceilings as required.

1.16 DEBRIS CONTROL AND REMOVAL

- A. Debris shall not be permitted to accumulate or migrate and the work areas shall at all times be kept satisfactorily clean. Facility trash receptors shall not be used for the disposal of debris. Dumpster shall be provided by the General Contractor for removal of debris for all Subcontractors.
- B. Remove debris from the work site on a daily basis and dispose of same at any (private or public) DEP approved dump that the General Contractor may choose providing that the General Contractor shall make all arrangements and obtain all approvals and permits necessary from the owner or officials in charge of such dumps. Proposed dump site shall be submitted to be approved by OWNER prior to start of demolition. During disposal process, copies of daily receipts from dumpsite shall be submitted on a regular basis.

1.17 SAFETY PROTECTION

- A. At no time shall the work be left unattended without proper safety protection and shall not be left unprotected to the weather and accessible to the public. It is the responsibility of the General Contractor to maintain proper safety protection for the public while work is in progress or unattended.

1.18 VEHICLE AND EQUIPMENT PROTECTION

- A. All construction activities shall be performed in such a manner so as not to dust, stain or damage any building elements, equipment, vehicles, etc. within general vicinity of the construction work area. Any damage to these items shall be cleaned and repaired at the expense of the General Contractor.
  - 1. All construction vehicles and equipment on site shall be effectively disabled and secured when not in use.

1.19 SHORING

- A. The Subcontractors shall provide all temporary shoring and bracing as required for the proposed work. Comply with all applicable codes and standards.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION