

SECTION 01500

TEMPORARY FACILITIES

A. Summary:

1. This section specifies temporary services and facilities, including utilities, construction and support facilities, security and protection. Provide facilities ready for use. Maintain, expand and modify as needed. Remove when no longer needed, or replaced by permanent facilities.

B. Use Charges:

1. BNL will not impose on the Contractor, except for telephone charges, the cost or use charges for temporary utilities, providing the use of these utilities is not abused by the Contractor.

C. Regulations:

1. Comply with applicable laws and regulations.

D. Standards:

1. 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."
 - a. Electrical Service: Comply with NEMA, NECA and UL standards and regulations for temporary electric service. Install service in compliance with National Electric Code (NFPA 70).
 - b. GFIs: Ground fault circuit interrupters are required for all electric services to construction sites from other than permanent wiring of building or structure.

E. Inspections:

1. Arrange for BNL personnel to inspect and test each temporary utility, as required, before use.

F. Conditions of Use:

1. Keep facilities clean and neat. Operate in a safe and efficient manner. Take necessary fire prevention measures. Do not overload, or permit facilities to interfere with progress. Do not allow hazardous, dangerous or unsanitary conditions, or public nuisances to develop or persist on the site.

G. Materials and Equipment:

1. Provide new materials and equipment. When acceptable to BNL, undamaged previously used materials and equipment in serviceable condition may be used. Provide materials and equipment suitable for the use intended.

2. Lumber and Plywood:
 - a. Provide fire treated lumber and plywood for sheds and offices. Provide minimum 5/8" thick exterior plywood for other uses. Comply with requirements in Section "Rough Carpentry", if included in Division 6.
3. Roofing Materials:
 - a. Provide Class "A" standard weight asphalt shingles complying with ASTM D 3018, or Class "C" mineral surfaced roll roofing complying with ASTM D 249, where temporary roofing is required.
4. Paint:
 - a. Prepare and paint new surfaces with one (1) prime coat and two (2) finish coats of lead- and PCB-free paint products matching surrounding areas. Comply with OSHA 29 CFR 1926, BNL Standards-Based Management System; ES&H Standards, 6NYCRR Parts 205 & 228, UL standards and regulations, and with requirements of Section "Finish Painting", if included in Division 9. Comply with all VOC standards and regulations.
5. Tarpaulins:
 - a. Waterproof, fire-resistant, UL labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures provide translucent nylon reinforced laminated polyethylene or polyvinyl chloride fire retardant tarpaulins.
6. Temporary Fencing:
 - a. Wood slat and wire roll-out-type snow fencing, securely fastened to vertical galvanized or painted steel fence supports.
 - b. Open-mesh expanded plastic sheet fencing is an acceptable substitute if properly installed and maintained.
 - c. If temporary fencing is not maintained properly, BNL will secure the fencing and back charge the Contractor.
 - d. Upon completion of the Contract, the temporary construction fence becomes the property of the Contractor and shall be removed completely from the Site. Post holes shall be filled and repaired to match adjacent area.
 - e. Excavation outside the fenced construction site, such as trenching for utilities, shall be totally enclosed with expanded plastic fencing, securely fastened and maintained while the excavation is open.

H. Temporary Utility Installation:

1. All requests by the Contractor for temporary services, i.e. electric power, for their own use or for use by any subcontractor, shall be made only through their designated Modernization Project Office contact. All methods, materials, and scheduling of temporary services shall be as directed and approved.
 - a. BNL will furnish, without charge, sources of water and electric power and will perform initial tie-in and removal of same. MPO will, upon request, indicate locations.
 - b. Contractor shall supply, install, maintain, and remove all equipment and required devices for temporary water, power, and lighting systems from point of initial tie-in as necessary to perform the work.
 - c. Water Service: Install water service and distribution piping of sizes and pressures adequate for construction from source point to all locations required for construction. Sterilize water piping prior to use. Provide 3/4" heavy-duty, rubber hoses 100 ft. long with shut-off nozzle at each outlet. Provide a proper back-flow preventer as required by MPO.
 - d. Lighting: Provide temporary lighting with local switching to fulfill security requirements and provide illumination for construction operations and traffic conditions.
 - 1) Lamps and Light Fixtures: Provide general service incandescent lamps. Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to moisture.
 - e. Electric Power Service:
 - 1) Power available at the Site will be 100 amp, 480 volt, 3 phase service. Contractor shall provide extensions, GFI outlets, transformers where required and accessories for end use.
 - 2) Power Distribution System: Install wiring overhead, and rise vertically where least exposed to damage.
 - 3) Electrical Outlets: Provide properly configured NEMA polarized outlets. Provide outlets equipped with ground-fault circuit interrupters, reset button and pilot light, for connection of power tools and equipment.
 - 4) Electrical Power Cords: Provide grounded "hard-service" extension cords.

- f. Telephones: BNL will provide temporary telephone service for construction field trailers.
 - 1) Contact MPO Administration Office within five (5) working days of Notice to Proceed, and arrange for temporary telephone to be installed. Contractor will be billed for telephone service.
- g. Sewers and Drainage: If storm sewers are available at the Site, the Contractor may provide temporary connections to remove storm water. Adhere to LEED requirements to prevent sedimentation of sewers. If sewers are not available or cannot be used, provide drainage ditches, dry wells, stabilization ponds or similar facilities.
 - 1) Filter out sediment, construction debris and other contaminants that might clog sewers or pollute waterways before discharge.
 - 2) Connect temporary sewers to the BNL storm system as directed by MPO. Maintain sewers and drainage facilities in a sanitary condition. Following heavy use, restore normal conditions promptly.
 - 3) Provide earthen embankments, hay bales and polyethylene sheeting, and similar barriers in and around excavations and subgrade construction to prevent flooding by runoff of storm water from heavy rains.
- I. Temporary Construction and Support Facilities Installation:
 - 1. Locate for easy access. Maintain facilities until removal prior to Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to BNL.
 - 2. Provide incombustible construction for offices and sheds located within the construction area, or within 30 feet of building lines. Comply with requirements of NFPA 241.
 - 3. Temporary Heat:
 - a. Provide temporary heat for curing or drying of completed installations or protection of installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations; heating units shall have been tested and labeled by UL, FM or another recognized trade association related to the type of fuel used. Coordinate ventilation requirements to produce the ambient condition required.
 - 1) Heating Facilities: Provide vented self-contained LP gas heaters with individual space thermostatic control. Use of gasoline- and kerosene-burning space heaters, or electric resistance heating units is prohibited.
 - 2) Conform to requirements of NFPA 31, 54, 89M, 211, and OSHA Part 1926.154.
 - 3) Permanent building HVAC equipment shall not be used for temporary heat.

4. Ventilation During Construction:
 - a. Provide ventilation of enclosed areas during construction as may be required to permit proper curing and drying out, and to prevent excessive humidity, moisture and condensation.
 - b. Ventilation shall be by natural or artificial means as required by conditions involved.
 - c. Maintain proper ventilation for health and safety of personnel, conforming to standards of the American Conference of Governmental Industrial Hygienists Threshold Limit Values and Occupational Safety and Health Administration Standards for permissible exposure limits.
5. Field Offices:
 - a. Provide insulated, weathertight offices of size to accommodate Contractor's field personnel.
 - b. Provide heated and air-conditioned, prefabricated units or similar construction, on adequate foundations, with lockable entrances, operable windows and serviceable finishes.
 - c. Keep clean and orderly for use for small progress meetings.
 - 1) Furnish with a minimum of a desk and chairs, and a plan table. Provide additional furniture and furnishings as required by the Contractor, and bulletin boards for posting required documents.
6. Storage and Fabrication Shed:
 - a. Install sheds, equipped to accommodate materials and equipment involved. Sheds may be open shelters, enclosed spaces within the building, separate trailers, or combined with the field office.
7. Paving:
 - a. Construct temporary paving for roads, storage areas and parking where permanent paved areas will be located. Comply with Section "Asphalt Concrete Paving." Coordinate with subgrade grading, compaction, installation and stabilization of subbase, and installation of base and finish courses of permanent paving.
 - 1) Delay installation of the final course of paving until Substantial Completion. Coordinate with weather conditions to avoid unsatisfactory results.
 - 2) Extend a temporary asphalt paving or crushed stone overlay in and around the construction area to accommodate delivery and storage of materials, equipment usage, administration and supervision as and where directed by MPO.

8. Sanitary Facilities include temporary toilets, wash and shower facilities and drinking water fixtures. Comply with regulations and local health codes. Install where facilities, as approved by MPO, will best serve the Project. Provide paper goods and similar disposable materials for each facility. Provide covered waste containers for used material.
 - a. Toilets:
 - 1) Install self-contained single-occupant toilet units of the chemical type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material. Toilets must be serviced at least weekly, and more often if needed, as determined by MPO.
 - b. Dewatering Facilities and Drains:
 - 1) For temporary drainage and dewatering operations not associated with construction, comply with requirements of applicable Division 2 Sections. Where feasible, utilize the same facilities. Maintain excavations and construction free of water.
9. First Aid Kit:
 - a. One (1) industrial first aid kit as manufactured by Acme Products, Kit Number 25, or equal, located where directed by MPO.
10. Temporary Partitions, Interior:
 - a. Provide temporary, dust-tight partitions, complete with all doors, constructed of noncombustible materials with all joints and edges taped to separate existing facilities from areas under construction.
11. Temporary Lifts and Hoists:
 - a. Provide facilities for hoisting materials.
 - b. Contractor shall notify MPO 48 hours prior to any earthwork and/or rigging operations. All cranes, boom trucks, and lifting equipment must be approved by MPO prior to use. No equipment operations will be allowed until approval of equipment has been granted. Contact the MPO Hoist and Rigging Inspector, (631) 344-5456, for equipment inspections.
 - c. All heavy equipment, including cranes and earth-working equipment, must be in compliance with OSHA and DOT requirements, must be in good repair, and is subject to inspection by BNL. Equipment found to be leaking oil or other fluids will not be permitted to operate at BNL.
12. Project Identification and Temporary Signs:
 - a. Install project identification signs where indicated, or as directed. Support on framing of preservative treated wood or steel.
 - b. BNL will prepare signs at BNL for pickup and installation by Contractor.

J. Collection and Disposal of Waste:

1. Collect waste and dispose into the dumpster daily. Comply with NFPA 241 for removal of combustible waste. Enforce requirements strictly. Provide a dumpster of sufficient size for the waste to be generated. Do not overfill. Remove and replace on a timely basis.
2. Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose in a lawful manner.
3. Comply with construction waste management requirements in Section 01352 "LEED Requirements" and Section 01732 "Waste Management".

K. Rodent and Pest Control:

1. BNL will provide, if required, an exterminator to perform extermination and control procedures so the project will be free of pests at Substantial Completion.
2. Notify BNL if pests or rodents are observed at the Site.

L. Stairs:

1. Provide temporary stairs where ladders are not adequate. Cover finished permanent stairs with a protective covering so finishes will be undamaged at the time of acceptance.

M. Security and Protection Facilities Installation:

1. Do not change from use of temporary security and protection facilities to permanent facilities until Substantial Completion.
 - a. Fire Protection:
 - 1) Until fire protection is supplied by permanent facilities, install and maintain temporary fire protection of types needed to protect against predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire Extinguishers" and NFPA 241 "Standard for Safeguarding Construction, Alterations and Demolition Operations."
 - b. Fire Extinguishers:
 - 1) Provide, in accordance with OSHA requirements, hand-carried, portable UL-rated, Class "A" fire extinguishers for temporary offices and similar spaces. In other locations provide hand-carried, portable, UL-rated, Class "ABC" dry chemical extinguishers. Locate fire extinguishers where effective for the intended purpose, but not less than one on each floor near each usable stairwell.
 - a) Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access routes for fighting fires. Prohibit smoking in hazardous fire exposure areas.

- b) Store combustible materials in containers in fire-safe locations.
 - c) Provide continuous supervision of welding operations, combustion type temporary heating units whenever operating, and other sources of fire ignition.
- c. Barricades, Warning Signs and Lights:
- 1) Comply with standards and code requirements for erection of barricades. Paint appropriate warning signs to inform personnel and the public of the hazard being protected against. Where needed, provide lighting, including flashing lights.
 - 2) Enclosure Fence: When excavation begins, install an enclosure fence with lockable entrance gates where indicated, or enclose the entire site or the portion sufficient to accommodate operations. Provide chain-link or expanded plastic fencing securely fastened and properly maintained.
 - 3) Security Enclosure and Lockup: Install temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism and theft. Where materials and equipment must be stored, provide a secure lockup.

N. Environmental Protection:

- 1. Operate temporary facilities and equipment and conduct construction by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted.
- 2. When the work requires the Contractor to bring temporary fuel storage facilities on to the BNL Site, the Contractor shall be responsible for providing a temporary impermeable containment area for all fuel transfer operations in accordance with Suffolk County Department of Health Services, Article 12.
- 3. If, during construction activities, a release, discharge, or spill of petroleum products or chemicals occurs, the Contractor shall:
 - a. Immediately notify Safeguards and Security at Ext. 2222 (or 911) from Site telephones or 631-344-2222 from cell phones, and MPO, of the release, discharge, or spill.
 - b. Immediately, per SBMS, initiate cleanup and disposal operations by a BNL approved hazardous waste management contractor, complete the operations, and be responsible for monitoring and/or sampling in the event of a spill, to the satisfaction of BNL.

OR

Request MPO to initiate cleanup and disposal operations with the agreement that the Contractor shall assume all costs associated with the cleanup and disposal work.

4. The disposal of contaminated material will be coordinated by MPO through the Waste Management Division of the Environmental Management Division, with appropriate documentation and disposition forms.
5. Avoid use of tools and equipment which produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints.

O. Operation:

1. Enforce strict discipline in use of temporary facilities. Limit availability to intended use to minimize abuse. Maintain facilities in good operating condition until removal.
2. Protect from damage by freezing temperatures and the elements.
 - a. Maintain operation of enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour day basis to achieve indicated results and to avoid damage.
 - b. Prevent piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.

P. Termination and Removal:

1. Remove each facility when the need has ended, or replaced by a permanent facility, or no later than Substantial Completion.
2. Complete or restore construction delayed because of interference with the facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.
 - a. Temporary facilities are property of the Contractor.
 - b. Remove paving that is not acceptable for integration into permanent paving. Where the area is intended for landscape development, remove soil and fill that does not comply with requirements. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials. Repair or replace street paving, curbs and sidewalks at the temporary entrances. Remove temporary asphalt paving and/or crushed stone that was placed only for temporary use and regrade to final contours.
 - c. At Substantial Completion, renovate permanent facilities used during the construction period, including but not limited to:
 - 1) Replace air filters and clean inside of ductwork and housings.
 - 2) Replace worn parts and parts subject to unusual operating conditions.
 - 3) Replace burned out lamps.

END OF SECTION 01500

Revision History	
Date	Rev. No.
02-19-09	0