

**SECTION 01 00 00**  
**GENERAL REQUIREMENTS**

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**SECTION 01 00 00**  
**GENERAL REQUIREMENTS**

**1.1 GENERAL INTENTION**

- A. Contractor shall completely prepare site for building operations, including demolition and removal of existing structures, and furnish labor and materials and perform work for Project 596A4-10-101, Replace Low Voltage Equipment for Cooper Drive Division facility as required by the drawings and specifications. Work shall include removal, replacement, and relocation of various system components as identified in the drawings.
- B. Visits to the site by Bidders may be made only by appointment with the Medical Center Contracting Officer Technical Representative or in lieu of appointments for this solicitation specific dates and times will be included in the solicitation.
- C. Offices of Staggs and Fisher, as Architect-Engineers, will render certain technical services during construction. Such services shall be considered as advisory to the Government and shall not be construed as expressing or implying a contractual act of the Government without affirmations by Contracting Officer, Contracting Officer's Technical Representative or his duly authorized representative.
- D. Before placement and installation of work subject to tests by testing laboratory retained by Department of Veterans Affairs, the Contractor shall notify the Contracting Officer's Technical Representative in sufficient time to enable testing laboratory personnel to be present at the site in time for proper taking and testing of specimens and field inspection. Such prior notice shall be not less than three work days unless otherwise designated by the Contracting Officer's Technical Representative.
- E. All employees of general contractor and subcontractors shall comply with VA security management program and obtain permission of the VA police, be identified by project and employer, and restricted from unauthorized access.
- F. Prior to commencing work, general contractor shall provide proof that a OSHA certified "competent person" (CP) (29 CFR 1926.20(b)(2)) will maintain a presence at the work site whenever the general or

subcontractors are present. The CP shall be approved by the Contracting Officer (CO).

G. Training:

1. All employees of general contractor or subcontractors shall have the 10-hour OSHA certified Construction Safety course and/or other relevant competency training, as determined by VA Contracting Officer Technical Representative (COTR) with input from the ICRA team. The general contractor's competent person (CP) shall have the 30-Hour OSHA certified Construction Safety course and/or other relevant competency training, as determined by the COTR with input from the ICRA team.
2. Submit training records of all such employees for approval before the start of work. In addition, submit resume of CP to CO for approval.
3. Contractor shall submit an initial list of names of Contractor and subcontractor employees who will be completing work on the site along with a copy of the card and/or training certificate issued following employees' completion of 10-hour (30-hour for CP) OSHA certified Construction Safety course and/or other relevant competency training.
  - a. Subcontractor initial employee name list and corresponding completion card and/or certificate shall include employees at any and all levels of subcontract.
  - b. Contractor shall update this list when changes occur. Contractor is responsible for subcontractor updates. Contractor shall provide subsequent list(s) of names four (4) weeks in advance of additional employees reporting to the work site. Subsequent list(s) of names shall consist of contractor and/or subcontractor employee(s) names with a copy of the card and/or training certificate issued following employee's completion of 10-hour OSHA certified Construction Safety course and/or other relevant competency training.
4. A construction kick-off orientation meeting shall be coordinated with the Project Manager in advance of construction activities. This meeting shall contain, at a minimum, the following agenda items: Fire Safety orientation to the specific site, Infection control training per the specific project, and other site and/or project specific items. The meeting will be held in the physical location of the project if possible.

## **1.2 STATEMENT OF BID ITEM(S)**

- A. BID ITEM 1: All work (furnish all labor, tools, materials, and expertise) to complete 596A4-10-101, Replace Low Voltage Equipment for Cooper Drive Division facility in accordance with the specifications and drawings. (Number of days completion = 330 days)
- B. BID ITEM 2: All work in BID ITEM 1 except for the replacement of the existing motor control centers in the Tower Building as noted on the drawings with new motor control centers complying with the drawings and specifications.
- C. BID ITEM 3: All work in BID ITEM 2 except for the replacement of the existing variable frequency drives in the Main Building complying with the drawings and specifications.
- D. BID ITEM 4: All work in BID ITEM 3 except for the demolition of the existing telecommunications racks, cabling, and accessories in the Main Building complying with the drawings and specifications.

## **1.3 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR**

- A. The contractor is responsible for producing all specifications and drawings at his or her own expense from the bid documents that are necessary to perform the work.

## **1.4 CONSTRUCTION SECURITY REQUIREMENTS**

- A. Security:
  - 1. Contractor's superintendent shall sign in daily at the start of work and/or at 8:00 am. Contractor's superintendent shall sign in to the Contractor log in the Engineering Office located in the Cooper Drive Division (CDD) Building 1A, 2<sup>nd</sup> floor at reception area near center of floor. Contractor shall sign out daily at the same location. Contractor work outside of administrative hours shall be as scheduled with the COTR. Contractor's superintendent sign-in/out shall represent all Contractor and/or subcontractor employees on site for work; all other Contractor and/or subcontractor employees are not required to sign in/out.
  - 2. Contractor shall provide a daily log for each day work takes place on site. Daily log shall include name of Contractor's superintendent, name(s) of other Contractor employees, listing of subcontractor(s), names(s) of subcontractor employees, identification of the work performed, list of rooms accessed and any notes required to convey extent of activities.
  - 3. All employees of General Contractor and subcontractors shall comply with VA security management program and obtain permission of the VA

police, be identified by project and employer, and restricted from unauthorized access.

4. Only employees of the Contractor or subcontractor(s) with VA-provided ID badges shall work on the site. To obtain badge, the contractor shall attend a Contractor Orientation Meeting held each Monday and Tuesday at 8:00 am at Leestown Division, Building 2, 2<sup>nd</sup> Floor, Engineering Offices, except for federal holidays. Contractor shall present the following for each employee that attends the Orientation: two forms of US Government Issued ID (e.g. Driver's License, Personal Identification Card, Social Security Card, US Passport, Worker's Visa, etc.)- one has to be a picture ID; 10-Hour OSHA card or certificate from a certified OSHA instructor - 30-Hour OSHA card or certificate for general contractor's competent person; and, the completed employee package described below.

a) Employees shall comply with VA Security Management Program. In order to comply with the Security Management Program the following actions are necessary:

- i) Submit to COTR a completed employee package at the orientation consisting of the following:
  - (1) Completed Orientation Information Sheet
  - (2) Contractor Orientation Checklist with top information portion completed
  - (3) VA Form 0711 Request For One-VA Identification Card with Section I Part A Completed
  - (4) Copy of 10-Hour OSHA card or certificate from a certified OSHA instructor - 30-Hour OSHA card or certificate for general contractor's competent person.
  - (5) Copies the two forms of Government IDs.

B. Security Plan:

1. Contractor shall provide a security plan to the Contracting Officer for approval prior to performing work.
2. Elements of the plan must address the following:
  - a. The security plan defines both physical and administrative security procedures that will remain effective for the entire duration of the project. This shall include key control.
  - b. The General Contractor is responsible for assuring that all subcontractors working on the project and their employees also comply with these regulations.

C. Security Procedures:

1. General Contractor's employees shall not enter the project site without appropriate badge. They may also be subject to inspection of their personal effects when entering or leaving the project site.
2. For working outside the "regular hours" as defined in the contract, The General Contractor shall give 3-days notice to the Contracting Officer so that security escort arrangements can be provided for the employees. This notice is separate from any notices required for utility shutdown described later in this section.
3. No photography of VA premises is allowed without written permission of the Contracting Officer.
4. VA reserves the right to close down or shut down the project site and order General Contractor's employees off the premises in the event of a national emergency. The General Contractor may return to the site only with the written approval of the Contracting Officer.

D. Guards: Not used for this Contract.

E. Key Control:

1. Only the General Contractor will be issued keys for access to areas of the Medical Center in conjunction with construction work. The General Contractor is responsible for all keys issued to him, including any keys he distributes to subcontractors.
2. All keys issued to the General Contractor must be returned and accounted for by the Contracting Officer prior to processing final payment. The General Contractor will inform his personnel and subcontractors of the importance of accounting for all keys issued by this Medical Center.
3. The Contractor shall, at any time during the contract, be able to show all keys issued for the visual inspection and validation within two (2) business days of request.
4. Contractor is responsible for replacing all keys and cores affected because of the loss of keys by Contractor personnel prior to final inspection of the project and subsequent close-out of the contract. Replacement of all keys and cores affected shall be accomplished by separate contract between Contractor and Best Lock Co. and shall not be charged to VA.
5. The General Contractor shall provide duplicate keys and lock combinations to the Contracting Officer's Technical Representative for the purpose of security inspections of every area of project including tool boxes and parked machines and take any emergency action.

6. The General Contractor shall turn over all permanent lock cylinders to the VA locksmith for permanent installation.

F. Document Control:

1. Before starting any work, the General Contractor/Sub Contractors shall submit an electronic security memorandum describing the approach to following goals and maintaining confidentiality of "sensitive information".
2. The General Contractor is responsible for safekeeping of all drawings, project manual and other project information. This information shall be shared only with those with a specific need to accomplish the project.
4. Certain documents, sketches, videos or photographs and drawings may be marked "Law Enforcement Sensitive" or "Sensitive Unclassified". Secure such information in separate containers and limit the access to only those who will need it for the project. Return the information to the Contracting Officer upon request.
5. These security documents shall not be removed or transmitted from the project site without the written approval of Contracting Officer.
6. All paper waste or electronic media such as CD's and diskettes shall be shredded and destroyed in a manner acceptable to the VA.
7. Notify Contracting Officer and Site Security Officer immediately when there is a loss or compromise of "sensitive information".
8. All electronic information shall be stored in specified location following VA standards and procedures using an Engineering Document Management Software (EDMS).
  - a. Security, access and maintenance of all project drawings, both scanned and electronic shall be performed and tracked through the EDMS system.
  - b. "Sensitive information" including drawings and other documents may be attached to e-mail provided all VA encryption procedures are followed.

G. Motor Vehicle Restrictions

1. Vehicle authorization request shall be required for any vehicle entering the site and such request shall be submitted 24 hours before the date and time of access. Access shall be restricted to picking up and dropping off materials and supplies.
2. Motor Vehicle Restrictions - Four separate permits shall be issued for General Contractor and its employees for parking in designated areas only. Additional on-site parking will not be provided.

## **1.5 FIRE SAFETY**

- A. Applicable Publications: Publications listed below form part of this Article to extent referenced. Publications are referenced in text by basic designations only.
1. American Society for Testing and Materials (ASTM):  
E84-2008.....Surface Burning Characteristics of Building Materials
  2. National Fire Protection Association (NFPA):  
10-2006.....Standard for Portable Fire Extinguishers  
30-2007.....Flammable and Combustible Liquids Code  
51B-2003.....Standard for Fire Prevention During Welding, Cutting and Other Hot Work  
70-2007.....National Electrical Code  
241-2004.....Standard for Safeguarding Construction, Alteration, and Demolition Operations
  3. Occupational Safety and Health Administration (OSHA):  
29 CFR 1926.....Safety and Health Regulations for Construction
- B. Fire Safety Plan: Establish and maintain a fire protection program in accordance with 29 CFR 1926. Prior to start of work, prepare a plan detailing project-specific fire safety measures, including periodic status reports, and submit to V.A. Engineer and Facility Safety Manager for review for compliance with contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES. Prior to any worker for the contractor or subcontractors beginning work, they shall undergo a safety briefing provided by the general contractor's competent person per OSHA requirements. This briefing shall include information on the construction limits, VAMC safety guidelines, means of egress, break areas, work hours, smoking policy, locations of restrooms, use of VAMC equipment, etc. Documentation shall be provided to the Resident Engineer that individuals have undergone contractor's safety briefing.
- C. Site and Building Access: Maintain free and unobstructed access to facility emergency services and for fire, police and other emergency response forces in accordance with NFPA 241.
- D. Separate temporary facilities, such as trailers, storage sheds, and dumpsters, from existing buildings and new construction by distances in accordance with NFPA 241. For small facilities with less than 6 m (20 feet) exposing overall length, separate by 3m (10 feet).
- E. Temporary Construction Partitions:
1. Install and maintain temporary construction partitions to provide smoke-tight separations between construction areas, the areas that are described in phasing requirements, and adjoining areas. Construct



- partitions of gypsum board or treated plywood (flame spread rating of 25 or less in accordance with ASTM E84) on both sides of fire retardant treated wood or metal steel studs. Extend the partitions through suspended ceilings to floor slab deck or roof. Seal joints and penetrations. At door openings, install Class C, ¾ hour fire/smoke rated doors with self-closing devices.
2. Install two-hour temporary construction partitions as required to maintain integrity of existing exit stair enclosures, exit passageways, fire-rated enclosures of hazardous areas, horizontal exits, smoke barriers, vertical shafts and openings enclosures.
  3. Close openings in smoke barriers and fire-rated construction to maintain fire ratings. Seal penetrations with listed through-penetration firestop materials in accordance with Section 07 84 00, FIRESTOPPING.
- F. Temporary Heating and Electrical: Install, use and maintain installations in accordance with 29 CFR 1926, NFPA 241 and NFPA 70.
- G. Means of Egress: Do not block exiting for occupied buildings, including paths from exits to roads. Minimize disruptions and coordinate with Project Engineer and facility Safety Manager.
- H. Egress Routes for Construction Workers: Maintain free and unobstructed egress. Inspect daily. Report findings and corrective actions weekly to Project Engineer and facility Safety Manager.
- I. Fire Extinguishers: Provide and maintain extinguishers in construction areas and temporary storage areas in accordance with 29 CFR 1926, NFPA 241 and NFPA 10.
- J. Flammable and Combustible Liquids: Store, dispense and use liquids in accordance with 29 CFR 1926, NFPA 241 and NFPA 30.
- K. Sprinklers: Install, test and activate new automatic sprinklers prior to removing existing sprinklers.
- L. Existing Fire Protection: Do not impair automatic sprinklers, smoke and heat detection, and fire alarm systems, except for portions immediately under construction, and temporarily for connections. Provide fire watch for impairments more than 4 hours in a 24-hour period. Request interruptions in accordance with Article, OPERATIONS AND STORAGE AREAS, and coordinate with V.A. Engineer and facility Safety Manager Officer. All existing or temporary fire protection systems (fire alarms, sprinklers) located in construction areas shall be tested as coordinated with the medical center. Parameters for the testing and results of any tests performed shall be recorded by the medical center and copies provided to the Resident Engineer.

- M. Smoke Detectors: Prevent accidental operation. Contractor shall not bag or cover any active smoke detector. See paragraphs U and W below.
- N. Hot Work: Perform and safeguard hot work operations in accordance with NFPA 241 and NFPA 51B. Coordinate with Project Engineer Obtain permits from facility Safety Officer at least 72 hours in advance Designate contractor's responsible project-site fire prevention program manager to permit hot work. **Hot work permits shall be submitted using the "Permit for Cutting and Welding with Portable Gas or Arc Equipment," which is attached to the end of this section (2 pages).** Contractor shall abide by the instructions on the form and submit the signed form once completed with the item. In general permission for certain types of work is only valid for one day.
- O. Fire Hazard Prevention and Safety Inspections: Inspect entire construction areas weekly. Coordinate with, and report findings and corrective actions weekly to Project Engineer and facility Safety Officer.
- P. Smoking: Smoking is prohibited in and adjacent to construction areas inside existing buildings and additions under construction. In separate and detached buildings under construction, smoking is prohibited except in designated smoking rest areas.
- Q. Dispose of waste and debris in accordance with NFPA 241. Remove from buildings daily.
- R. Perform other construction, alteration and demolition operations in accordance with 29 CFR 1926.
- S. If required, submit documentation to the Contracting Officer's Technical Representative that personnel have been trained in the fire safety aspects of working in areas with impaired structural or compartmentalization features.
- T. Contractor shall maintain a binder or file of all Material Safety Data Sheets for all products brought on site. Contractor shall inform the Project Manager in writing of the location of this file or binder. Contractor shall update the binder or file as changes occur to products brought on site.
- U. Contractor shall maintain sprinkler systems and smoke detection systems as indicated on drawings. Contractor shall maintain a minimum of one (1) active smoke detector within the defined construction area. Contractor shall ensure non-activation of the active smoke detector during daily Contractor activities. Smoke detectors shall be disconnected and safely stored per Lexington VA maintenance procedures when required by construction activities and to prevent smoke detector damage. Contractor shall not bag or cover any active smoke detector. Contractor

shall ensure smoke detector activation at the end of Contractor's daily work shift. Contractor shall not leave the site until the active smoke detector is providing smoke detection coverage. Contractor shall not disconnect or remove all sprinkler piping and sprinkler coverage without having at least minimal smoke detector coverage. Contractor shall coordinate sprinkler piping and sprinkler head demolition and new installation activities with the Project Manager. Contractor shall ensure an Interim Life Safety Measures (ILSM) is in place for any change or interruption of the Life Safety Systems (detection, notification, suppression or evacuation) by coordinating with the COTR.

- V. Fire and Smoke Barrier Penetrations: The contractor shall obtain a penetration permit from the VAMC prior to disturbing the integrity of any smoke and/or fire barrier. The permit must be posted at the work site until completion of the work and verification of penetration closure. After the associated work is complete, the penetration must be sealed in accordance with Section 07 84 00, FIRESTOPPING. An identification sticker shall be placed at the sealed penetration to indicate date, material, and permit number for the seal. **The "Fire and Smoke Barrier Penetration Permit" form (3 pages), attached at the end of this section shall be used to fulfill this requirement.** The 3<sup>rd</sup> page of the attachment is a sample of the identification sticker.
- W. Interim Life Safety Measures (ILSMs): The contractor shall abide by the applicable requirements of NFPA 101 (Life Safety Code) and VAMC policy concerning ILSMs. An ILSM shall be implemented when any component of the life safety system is taken out of service for four or more hours (coordinated with the COTR). Components of the life safety system include any portion of the fire suppression system (water, flow alarms, pump, piping, sprinkler heads or fire extinguishers), smoke detectors, heat detectors, pull stations, alarms, alarm panel, fire doors, exit stairwells, exit signs, exit passageways, exit discharge (outside the building path), smoke or fire dampers, or any utility system supporting a component of the life safety system (emergency generator or HVAC systems). **A copy of the "Construction Project Interim Life Safety Requirements" ILSM form (3 pages) and decision matrix is attached at the end of this section.** The contractor shall coordinate ILSM's with the COTR and comply with the approved ILSM.

#### 1.6 OPERATIONS AND STORAGE AREAS

- A. The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the

Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

- B. Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.
- C. The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.
- D. Working space and space available for storing materials is limited and will be determined by the Contracting Officer's Technical Representative.
- E. Workmen are subject to rules of Medical Center applicable to their conduct.
- F. This Medical Center has adopted a policy for smoke-free environment. No smoking is permitted in any building by employees, house staff, students, visitors or contractors. No smoking is permitted within defined construction areas interior of any building or the roof of any building. No smoking is permitted on any open rooftop of any building. Smoking is permitted by patients in certain designated areas. Contractors may only smoke in those designated areas - and not in staging areas or other spaces.
- G. Execute work so as to interfere as little as possible with normal functioning of Medical Center as a whole, including operations of utility services, fire protection systems and any existing equipment, and with work being done by others. Use of equipment and tools that transmit vibrations and noises through the building structure, are not permitted in buildings that are occupied, during construction, jointly

by patients or medical personnel, and Contractor's personnel, except as permitted by Contracting Officer's Technical Representative where required by limited working space.

1. Do not store materials and equipment in other than assigned areas.
2. Schedule delivery of materials and equipment to immediate construction working areas within buildings in use by Department of Veterans Affairs in quantities sufficient for not more than two work days. Provide unobstructed access to Medical Center areas required to remain in operation.
3. Where access by Medical Center personnel to vacated portions of buildings is not required, storage of Contractor's materials and equipment will be permitted subject to fire and safety requirements.

H. Phasing: To insure such executions, Contractor shall furnish the Contracting Officer's Technical Representative with a schedule of approximate phasing dates on which the Contractor intends to accomplish work in each specific area of site, building or portion thereof. In addition, Contractor shall notify the Contracting Officer's Technical Representative two weeks in advance of the proposed date of starting work in each specific area of site, building or portion thereof. Arrange phasing dates to insure accomplishment of this work in successive phases mutually agreeable to the COTR and Contractor. Contractor shall take all measures and provide all material necessary for protecting existing equipment and property in affected areas of construction against dust and debris, so that equipment and affected areas to be used in the Medical Centers operations will not be hindered. Contractor shall permit access to Department of Veterans Affairs personnel and patients through other construction areas which serve as routes of access to such affected areas and equipment. Coordinate alteration work in areas occupied by Department of Veterans Affairs so that Medical Center operations will continue during the construction period.

I. Construction Fence: Before construction operations begin, Contractor shall provide a chain link construction fence, 2.1m (seven feet) minimum height, around the construction area indicated on the drawings. Provide gates as required for access with necessary hardware, including hasps and padlocks. Fasten fence fabric to terminal posts with tension bands and to line posts and top and bottom rails with tie wires spaced at maximum 375mm (15 inches). Bottom of fences shall extend to 25mm (one inch) above grade. Remove the fence when directed by Contracting Officer's Technical Representative.

J. Utilities Services: Maintain existing utility services for Medical Center at all times. Provide temporary facilities, labor, materials,

equipment, connections, and utilities to assure uninterrupted services. Where necessary to cut existing water, steam, gases, sewer or air pipes, or conduits, wires, cables, etc. of utility services or of fire protection systems and communications systems (including telephone), they shall be cut and capped at suitable places where shown; or, in absence of such indication, where directed by Contracting Officer's Technical Representative (COTR).

1. No utility service such as water, gas, steam, sewers or electricity, or fire protection systems and communications systems may be interrupted without prior approval of Contracting Officer's Technical Representative. Electrical work shall be accomplished with all affected circuits or equipment de-energized. When an electrical outage cannot be accomplished, work on any energized circuits or equipment shall not commence without the Medical Center Director's prior knowledge and written approval. Refer to specification Section 26 05 11, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS for additional requirements.
2. Contractor shall submit a request to interrupt any such services to Contracting Officer's Technical Representative, in writing, 10 business days in advance of proposed interruption. Request shall state reason, date, exact time of, and approximate duration of such interruption. All requests shall include a completed "Utility Systems Service/Outage Notification" form, which is attached to the end of this section.
3. Contractor will be advised (in writing) of approval of request, or of which other date and/or time such interruption will cause least inconvenience to operations of Medical Center. Interruption time approved by Medical Center may occur at other than Contractor's normal working hours.
4. Major interruptions of any system must be requested, in writing, at least 15 calendar days prior to the desired time and shall be performed as directed by the Contracting Officer's Technical Representative.
5. In case of a contract construction emergency, service will be interrupted on approval of Contracting Officer's Technical Representative. Such approval will be confirmed in writing as soon as practical.
6. Whenever it is required that a connection fee be paid to a public utility provider for new permanent service to the construction project, for such items as water, sewer, electricity, gas or steam,

payment of such fee shall be the responsibility of the Government and not the Contractor.

- L. Abandoned Lines: All service lines such as wires, cables, conduits, ducts, pipes and the like, and their hangers or supports, which are to be abandoned but are not required to be entirely removed, shall be sealed, capped or plugged. The lines shall not be capped in finished areas, but shall be removed and sealed, capped or plugged in ceilings, within furred spaces, in unfinished areas, or within walls or partitions; so that they are completely behind the finished surfaces.
- M. To minimize interference of construction activities with flow of Medical Center traffic, comply with the following:
  - 1. Keep roads, walks and entrances to grounds, to parking and to occupied areas of buildings clear of construction materials, debris and standing construction equipment and vehicles. Wherever excavation for new utility lines cross existing roads, at least one lane must be open to traffic at all times.
  - 2. Method and scheduling of required cutting, altering and removal of existing roads, walks and entrances must be approved by the Contracting Officer's Technical Representative.
- N. Coordinate the work for this contract with other construction operations as directed by Contracting Officer's Technical Representative. This includes the scheduling of traffic and the use of roadways.
- O. Wireless devices such as cell phones, two-way radios, blackberry-type devices, blue-tooth enabled devices and similar devices capable of transmitting and receiving analog and/or digital signals shall be powered off in restricted areas. These devices may be used in non-restricted areas. Restricted areas are: all locations within buildings except elevator lobbies marked as acceptable for wireless device use, private offices, and defined construction areas.

#### **1.7 ALTERATIONS**

- A. Survey: Before any work is started, the Contractor shall make a thorough survey with the COTR, of areas of buildings in which alterations occur and areas which are anticipated routes of access, and furnish a report, signed by both, to the Contracting Officer. This report shall list by rooms and spaces:
  - 1. Existing condition and types of resilient flooring, doors, windows, ceiling tile, walls and other surfaces not required to be altered throughout affected areas of buildings.

2. Existence and conditions of items such as plumbing fixtures and accessories, electrical fixtures, equipment, venetian blinds, shades, etc., required by drawings to be either reused or relocated, or both.
  3. Shall note any discrepancies between drawings and existing conditions at site.
  4. Shall designate areas for working space, materials storage and routes of access to areas within buildings where alterations occur and which have been agreed upon by Contractor and COTR.
- B. Any items required by drawings to be either reused or relocated or both, found during this survey to be nonexistent, or in opinion of COTR and/or Supply Representative, to be in such condition that their use is impossible or impractical, shall be furnished and/or replaced by Contractor with new items in accordance with specifications which will be furnished by Government. Provided the contract work is changed by reason of this subparagraph B, the contract will be modified accordingly, under provisions of clause entitled "DIFFERING SITE CONDITIONS" (FAR 52.236-2) and "CHANGES" (FAR 52.243-4 and VAAR 852.236-88) of GENERAL CONDITIONS.
- C. Re-Survey: Thirty days before expected partial or final inspection date, the Contractor and COTR together shall make a thorough re-survey of the areas of buildings involved. They shall furnish a report on conditions then existing, of resilient flooring, doors, windows, walls and other surfaces as compared with conditions of same as noted in first condition survey report:
1. Re-survey report shall also list any damage caused by Contractor to such flooring and other surfaces, despite protection measures; and, will form basis for determining extent of repair work required of Contractor to restore damage caused by Contractor's workmen in executing work of this contract.
- D. Protection: Provide the following protective measures:
1. Wherever existing roof surfaces are disturbed they shall be protected against water infiltration. In case of leaks, they shall be repaired immediately upon discovery.
  2. Temporary protection against damage for portions of existing structures and grounds where work is to be done, materials handled and equipment moved and/or relocated.
  3. Protection of interior of existing structures at all times, from damage, dust and weather inclemency. Wherever work is performed, floor surfaces that are to remain in place shall be adequately protected prior to starting work, and this protection shall be maintained intact until all work in the area is completed.



#### **1.8 INFECTION PREVENTION MEASURES**

- A. Implement the requirements of VAMC's Infection Control Risk Assessment (ICRA) team. ICRA Group may monitor dust in the vicinity of the construction work and require the Contractor to take corrective action immediately if the safe levels are exceeded.
- B. Contractor shall submit an initial list of names of Contractor and subcontractor employees who will be completing work on the site along with signatures of each showing completion of project specific Infection Control training.
  - 1. Subcontractor initial employee name list shall include employees at any and all levels of subcontract.
  - 2. Contractor shall update this list when changes occur. Contractor is responsible for subcontractor updates. Contractor shall provide subsequent list(s) of names four (4) weeks in advance of additional employees reporting to the work site. Subsequent list(s) of names shall consist of Contractor and/or subcontractor employee(s) names with signatures of each showing completion of project specific Infection Control training.
  - 3. Additional project specific Infection Control training information is located in paragraph MEDICAL CENTER INFECTION CONTROL PERMIT AND EDUCATION REQUIREMENTS of this Section as an attachment.
  - 4. This project has been identified as a **Class 2** project. However, interior corridors must be enclosed pre project plans and negative pressure maintained. If aspects of the project is evaluated at other than a Class 2 project, the infection control procedures for the determined class shall be followed.
- C. Establish and maintain a dust control program as part of the contractor's infection preventive measures in accordance with the guidelines provided by ICRA Group as specified here. Prior to start of work, prepare a plan detailing project-specific dust protection measures, including periodic status reports, and submit to Project Engineer and Facility ICRA team for review for compliance with contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
  - 1. All personnel involved in the construction or renovation activity shall be educated and trained in infection prevention measures established by the medical center.
- D. Medical center Infection Control personnel shall monitor for airborne disease (e.g. aspergillosis) as appropriate during construction. A baseline of conditions may be established by the medical center prior to the start of work and periodically during the construction stage to

determine impact of construction activities on indoor air quality. In addition:

1. The COTR and VAMC Infection Control personnel shall review pressure differential monitoring documentation to verify that pressure differentials in the construction zone and in the patient-care rooms are appropriate for their settings. The requirement for negative air pressure in the construction zone shall depend on the location and type of activity. Upon notification, the contractor shall implement corrective measures to restore proper pressure differentials as needed.
  2. In case of any problem, the medical center, along with assistance from the contractor, shall conduct an environmental assessment to find and eliminate the source.
- E. In general, following preventive measures shall be adopted during construction to keep down dust and prevent mold.
1. Dampen debris to keep down dust and provide temporary construction partitions in existing structures where directed by Contracting Officer's Technical Representative. Blank off ducts and diffusers to prevent circulation of dust into occupied areas during construction.
  2. Do not perform dust producing tasks within occupied areas without the approval of the Contracting Officer's Technical Representative. For construction in any areas that will remain jointly occupied by the medical Center and Contractor's workers, the Contractor shall:
    - a. Provide dust proof one-hour fire-rated temporary drywall construction barriers to completely separate construction from the operational areas of the hospital in order to contain dirt debris and dust. Barriers shall be sealed and made presentable on hospital occupied side. Install a self-closing rated door in a metal frame, commensurate with the partition, to allow worker access. Maintain negative air at all times. A fire retardant polystyrene, 6-mil thick or greater plastic barrier meeting local fire codes may be used where dust control is the only hazard, and an agreement is reached with the Contracting Officer's Technical Representative and Medical Center.
    - b. HEPA filtration is required where the exhaust dust may reenter the breathing zone. Contractor shall verify that construction exhaust to exterior is not reintroduced to the medical center through intake vents, or building openings. Install HEPA (High Efficiency Particulate Accumulator) filter vacuum system rated at 95% capture of 0.3 microns including pollen, mold spores and dust particles. Insure continuous negative air pressures occurring within the work

area. HEPA filters should have ASHRAE 85 or other prefilter to extend the useful life of the HEPA. Provide both primary and secondary filtrations units. Exhaust hoses shall be heavy duty, flexible steel reinforced and exhausted so that dust is not reintroduced to the medical center.

- c. Adhesive Walk-off/Carpet Walk-off Mats, minimum 600mm x 900mm (24" x 36"), shall be used at all interior transitions from the construction area to occupied medical center area. These mats shall be changed as often as required to maintain clean work areas directly outside construction area at all times.
  - d. Vacuum and wet mop all transition areas from construction to the occupied medical center at the end of each workday. Vacuum shall utilize HEPA filtration. Maintain surrounding area frequently. Remove debris as they are created. Transport these outside the construction area in containers with tightly fitting lids.
  - e. The contractor shall not haul debris through patient-care areas without prior approval of the Contracting Officer's Technical Representative and the Medical Center. When, approved, debris shall be hauled in enclosed dust proof containers or wrapped in plastic and sealed with duct tape. No sharp objects should be allowed to cut through the plastic. Wipe down the exterior of the containers with a damp rag to remove dust. All equipment, tools, material, etc. transported through occupied areas shall be made free from dust and moisture by vacuuming and wipe down.
  - f. Using a HEPA vacuum, clean inside the barrier and vacuum ceiling tile prior to replacement. Any ceiling access panels opened for investigation beyond sealed areas shall be sealed immediately when unattended.
  - g. There shall be no standing water during construction. This includes water in equipment drip pans and open containers within the construction areas. All accidental spills must be cleaned up and dried within 12 hours. Remove and dispose of porous materials that remain damp for more than 72 hours.
  - h. At completion, remove construction barriers and ceiling protection carefully, outside of normal work hours. Vacuum and clean all surfaces free of dust after the removal.
- F. Final Cleanup:
- 1. Upon completion of project, or as work progresses, remove all construction debris from above ceiling, vertical shafts and utility chases that have been part of the construction.

2. Perform HEPA vacuum cleaning of all surfaces in the construction area. This includes walls, ceilings, cabinets, furniture (built-in or free standing), partitions, flooring, etc.
3. All new air ducts shall be cleaned prior to final inspection.

G. MEDICAL CENTER MINIMUM INFECTION CONTROL PERMIT AND EDUCATION REQUIREMENTS:

1. During Class 1 Construction Projects:

- a. Dress: Appropriate for area (i.e. shoe covers, etc., in OR).
- b. Ventilation: Execute work by methods to minimize raising dust.
- c. Barriers: Use care removing ceiling tiles, clean up disturbed dust immediately by HEPA (defined as one capturing 99.97% of particles  $\geq 0.3$  microns in size) vacuuming and/or wet mopping. Immediately replace any ceiling tiles displaced for visual inspection or replacement. No dust tracks outside work zone.
- d. Debris: Remove from work site in a closed/sealed container.
- e. UPON COMPLETION OF PROJECT:
  - i) Damp-wipe tools when removed from the work site.
  - ii) Clean work area upon completion of task.

2. During Class 2 Construction Projects: (NOTE: Include activities in Class 1 above)

- a. Traffic: Route patient/visitor/staff traffic away from project/activity.
- b. Ventilation: Provide means to prevent airborne dust from dispersing into atmosphere.
- c. Barriers: Water mist work surfaces to control dust while cutting. Seal unused doors with duct tape. Place dust mat at entrance and exit of work area.
- d. UPON COMPLETION OF PROJECT:
  - i. Wipe work surface with disinfectant.
  - ii. Contain construction waste before transport in tightly covered containers.
  - iii. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area.

3. During Class 3 Construction Projects: (NOTE: Include activities in Class 1 and 2 above)

- a. Traffic: Post signs identifying alternate routes and that construction project underway. Workers should not walk in hallways or patient-care areas with dust-covered work clothes.
- b. Ventilation: Remove or isolate HVAC system in area where work is being done to prevent contamination of duct system. Block/seal HVAC supply air sources (ducts, grilles, pipes, conduits, and

wall/ceiling/floor penetrations). Exhaust air to the outside if possible. If re-circulated air from the construction zone is unavoidable, use a pre-filter and a HEPA filter before the air returns to the HVAC system. When vibration relation work is being done that may dislodge dust in the ventilation system, or when modifications are made to duct work serving occupied spaces, install filters on the supply air grilles temporarily. Maintain negative pressure in work site relative to patient areas. Use HEPA-filtered fans if needed (monitor need to change or clean filters during construction.)

- c. Barriers: Must be provided to contain dust in the negative pressure work site. Complete all dust barriers, i.e. sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins. Examples include isolating area by closing/sealing existing doors/windows, or erecting an airtight 4- to 6-mil plastic or dry wall barrier that extends from floor to upper deck (or dropped ceiling). Seams in plastic sheeting must be sealed with duct tape and the barrier taped securely to the ceiling and floor. A plastic entrance must have a 2-foot flap. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. Doors in a dry wall barrier must have gaskets to prevent exhaust of dust. Place tack mats at entrance and wet mop area outside of barrier if dust is tracked outside work site. Construct anteroom and require all personnel, equipment, materials, and debris containers to pass through this room when entering or exiting the work site. Water mains, branch mains, risers, and branches to a group of fixtures have stop valves. Ceiling access panels must be closed when unattended.
- d. Barriers: Elevator shafts, dumb waiters, and stair wells within the field of construction must have proper barriers installed and air leaks sealed. Mist work surfaces to control dust when drilling or cutting, or HEPA-filtered vacuum cleaner concurrently with drilling work. Place dust mat at entrance and exit of work area.
- e. Debris: Debris is to be removed by specified route only. Transport debris during low patient activity periods if possible (nights and weekends). Contain construction waste before transport in tightly covered containers. Cover transport receptacles or carts. Tape covering unless solid lid. Mist debris and cover and damp wipe (including wheels and casters) containers used to transport

debris. Consider use of chutes to the outside for debris removal. For personnel transporting debris, cover gown or equivalent and shoe covers required if dust cannot be removed from clothing with HEPA vacuum.

f. UPON COMPLETION OF PROJECT:

- i. Do not remove barriers from work area until project is inspected by COTR and Infection Control, and thoroughly cleaned.
- ii. Vacuum work area with HEPA filtered vacuum.
- iii. Wet mop area with hospital disinfectant at completion of project or at the end of the day for jobs lasting more than one day.
- iv. Remove barrier materials carefully to minimize spreading of dirt debris associated with construction and clean residual dust.
- v. Remove isolation of HVAC system and HEPA filters in areas where work is being performed.
- vi. Vent system cleaned after completion of construction.
- vii. Flush the main water system to clear dust-contaminated lines.
- viii. Contact Infection Control for inspection prior to patient occupation.
- ix. Wet ceiling tiles: if porous, remove and replace; if nonporous, remove, clean with dilute hypochlorite (10% household bleach) and dry before replacement.

4. During Class 4 Construction Projects: (NOTE: Include activities in Class 1, 2 and 3 above)

- a. Ventilation: Isolate HVAC system in area where work is being done to prevent contamination of duct system.
- b. Barriers: Complete all critical barriers, i.e. sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. Seal holes, pipes, conduits, and punctures appropriately. Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or they can wear cloth or paper coveralls that are removed each time they leave the work site. Do not remove barriers from work area until project is inspected by COTR and thoroughly cleaned.

c. UPON COMPLETION OF PROJECT:

- i. Remove barrier material carefully to minimize spreading of dirt and debris associated with construction.
- ii. Contain construction waste before transport in tightly covered containers.
- iii. Cover transport receptacles or carts. Tape covering unless solid lid.
- iv. Vacuum work area with disinfectant.
- v. Wet mop area with disinfectant.
- vi. Remove isolation of HVAC system in areas where work is being performed.

**1.9 DISPOSAL AND RETENTION**

A. Materials and equipment accruing from work removed and from demolition of buildings or structures, or parts thereof, shall be disposed of as follows:

1. Reserved items which are to remain property of the Government are identified by attached tags or noted on drawings or in specifications or notified by COTR as items to be stored. Items that remain property of the Government shall be removed or dislodged from present locations in such a manner as to prevent damage which would be detrimental to re-installation and reuse. Store such items where directed by COTR.
2. Items not reserved shall become property of the Contractor and be removed by Contractor from Medical Center.
3. Items of portable equipment and furnishings located in rooms and spaces in which work is to be done under this contract shall remain the property of the Government. When rooms and spaces are vacated by the Department of Veterans Affairs during the alteration period, such items which are NOT required by drawings and specifications to be either relocated or reused will be removed by the Government in advance of work to avoid interfering with Contractor's operation.
4. PCB Transformers and Capacitors: The Contractor shall be responsible for disposal of the Polychlorinated Biphenyl (PCB) transformers and capacitors. The transformers and capacitors shall be taken out of service and handled in accordance with the procedures of the Environmental Protection Agency (EPA) and the Department of Transportation (DOT) as outlined in Code of Federal Regulation (CFR), Titled 40 and 49 respectively. The EPA's Toxic Substance Control Act (TSCA) Compliance Program Policy Nos. 6-PCB-6 and 6-PCB-7 also apply. Upon removal of PCB transformers and capacitors for disposal, the "originator" copy of the Uniform Hazardous Waste Manifest (EPA Form

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8700-22), along with the Uniform Hazardous Waste Manifest Continuation Sheet (EPA Form 8700-22A) shall be returned to the Contracting Officer who will annotate the contract file and transmit the Manifest to the Medical Center's Chief.

a. Copies of the following listed CFR titles may be obtained from the Government Printing Office:

40 CFR 261.....Identification and Listing of Hazardous Waste

40 CFR 262.....Standards Applicable to Generators of Hazardous Waste

40 CFR 263.....Standards Applicable to Transporters of Hazardous Waste

40 CFR 761.....PCB Manufacturing, Processing, Distribution in Commerce, and use Prohibitions

49 CFR 172.....Hazardous Material tables and Hazardous Material Communications Regulations

49 CFR 173.....Shippers - General Requirements for Shipments and Packaging

49 CFR 173.....Subpart A General

49 CFR 173.....Subpart B Preparation of Hazardous Material for Transportation

49 CFR 173.....Subpart J Other Regulated Material; Definitions and Preparation

TSCA.....Compliance Program Policy Nos. 6-PCB-6 and 6-PCB-7

#### **1.10 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS**

- A. The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer's Technical Representative.
- B. The Contractor shall protect from damage all existing improvements and utilities at or near the work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those



facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer's Technical Representative may have the necessary work performed and charge the cost to the Contractor.

#### **1.11 RESTORATION**

- A. Remove, cut, alter, replace, patch and repair existing work as necessary to install new work. Except as otherwise shown or specified, do not cut, alter or remove any structural work, and do not disturb any ducts, plumbing, steam, gas, or electric work without approval of the Resident Engineer. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to the COTR before it is disturbed. Materials and workmanship used in restoring work shall conform in type and quality to that of original existing construction, except as otherwise shown or specified.
- B. Upon completion of contract, deliver work complete and undamaged. Existing work (walls, ceilings, partitions, floors, mechanical and electrical work, lawns, paving, roads, walks, etc.) disturbed or removed as a result of performing required new work, shall be patched, repaired, reinstalled, or replaced with new work, and refinished and left in as good condition as existed before commencing work.
- C. At Contractor's own expense, Contractor shall immediately restore to service and repair any damage caused by Contractor's workmen to existing piping and conduits, wires, cables, etc., of utility services or of fire protection systems and communications systems (including telephone) which are indicated on drawings and which are not scheduled for discontinuance or abandonment.
- D. Expense of repairs to such utilities and systems not shown on drawings or locations of which are unknown will be covered by adjustment to contract time and price in accordance with clause entitled "CHANGES" (FAR 52.243-4 and VAAR 852.236-88) and "DIFFERING SITE CONDITIONS" (FAR 52.236-2).

#### **1.12 PHYSICAL DATA**

- A. Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

**1.13 NOT USED**

**1.14 NOT USED**

**1.15 AS-BUILT DRAWINGS**

- A. The contractor shall maintain two full size sets of as-built drawings which will be kept current during construction of the project, to include all contract changes, modifications and clarifications.
- B. All variations shall be shown in the same general detail as used in the contract drawings. To insure compliance, as-built drawings shall be made available for the COTR's review, as often as requested.
- C. Contractor shall deliver two approved completed sets of as-built drawings to the Contracting Officer's Technical Representative within 15 calendar days after each completed phase and after the acceptance of the project by the Contracting Officer's Technical Representative.
- D. Paragraphs A, B, & C shall also apply to all shop drawings.

**1.16 USE OF ROADWAYS**

- A. For hauling, use only established public roads and roads on Medical Center property and, when authorized by the Contracting Officer's Technical Representative, such temporary roads which are necessary in the performance of contract work. Temporary roads shall be constructed by the Contractor at Contractor's expense. When necessary to cross curbing, sidewalks, or similar construction, they must be protected by well-constructed bridges.
- B. When new permanent roads are to be a part of this contract, Contractor may construct them immediately for use to facilitate building operations. These roads may be used by all who have business thereon within zone of building operations.
- C. When certain buildings (or parts of certain buildings) are required to be completed in advance of general date of completion, all roads leading thereto must be completed and available for use at time set for completion of such buildings or parts thereof.

**1.17 NOT USED**

**1.18 TEMPORARY USE OF MECHANICAL AND ELECTRICAL EQUIPMENT**

- A. Use of new installed mechanical and electrical equipment to provide heat, ventilation, plumbing, light and power will be permitted subject to compliance with the following provisions:
  - 1. Permission to use each unit or system must be given by COTR. If the equipment is not installed and maintained in accordance with the following provisions, the COTR will withdraw permission for use of the equipment.

2. Electrical installations used by the equipment shall be completed in accordance with the drawings and specifications to prevent damage to the equipment and the electrical systems, i.e. transformers, relays, circuit breakers, fuses, conductors, motor controllers and their overload elements shall be properly sized, coordinated and adjusted. Voltage supplied to each item of equipment shall be verified to be correct and it shall be determined that motors are not overloaded. The electrical equipment shall be thoroughly cleaned before using it and again immediately before final inspection including vacuum cleaning and wiping clean interior and exterior surfaces.
  3. Units shall be properly lubricated, balanced, and aligned. Vibrations must be eliminated.
  4. Automatic temperature control systems for preheat coils shall function properly and all safety controls shall function to prevent coil freeze-up damage.
  5. The air filtering system utilized shall be that which is designed for the system when complete, and all filter elements shall be replaced at completion of construction and prior to testing and balancing of system.
  6. All components of heat production and distribution system, metering equipment, condensate returns, and other auxiliary facilities used in temporary service shall be cleaned prior to use; maintained to prevent corrosion internally and externally during use; and cleaned, maintained and inspected prior to acceptance by the Government. Boilers, pumps, feedwater heaters and auxiliary equipment must be operated as a complete system and be fully maintained by operating personnel. Boiler water must be given complete and continuous chemical treatment.
- B. Prior to final inspection, the equipment or parts used which show wear and tear beyond normal, shall be replaced with identical replacements, at no additional cost to the Government.
- C. This paragraph shall not reduce the requirements of the mechanical and electrical specifications sections.

#### **1.19 TEMPORARY USE OF EXISTING ELEVATORS**

- A. Contractor will not generally be allowed the use of existing elevators. Outside type hoist shall be used by Contractor for transporting materials and equipment. Upon approval of the COTR and during non-business hours, the Contractor may be allowed occasional use of the elevators to transport larger items.

**1.20 NOT USED IN THIS CONTRACT.**

**1.21 TEMPORARY TOILETS**

- A. Provide where directed, (for use of all Contractor's workmen) ample temporary sanitary toilet accommodations with suitable sewer and water connections; or, when approved by Contracting Officer's Technical Representative, provide suitable dry closets where directed. Keep such places clean and free from flies, and all connections and appliances connected therewith are to be removed prior to completion of contract, and premises left perfectly clean.
- B. Contractor may have for use of Contractor's workmen, such toilet accommodations as may be assigned to Contractor by Medical Center. Contractor shall keep such places clean and be responsible for any damage done thereto by Contractor's workmen. Failure to maintain satisfactory condition in toilets will deprive Contractor of the privilege to use such toilets.

**1.22 AVAILABILITY AND USE OF UTILITY SERVICES**

- A. The Government shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract for power tools and COTR approved equipment. The amount to be paid by the Contractor for chargeable electrical services shall be the prevailing rates charged to the Government. The Contractor shall carefully conserve any utilities furnished without charge. Contractor shall obtain electricity from local utility for staging areas and trailers.
- B. The Contractor, at Contractor's expense and in a workmanlike manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of electricity used for the purpose of determining charges. Before final acceptance of the work by the Government, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.
- C. Contractor shall install meters at Contractor's expense and furnish the Medical Center a monthly record of the Contractor's usage of electricity as hereinafter specified.
- D. Heat: Furnish temporary heat necessary to prevent injury to work and materials through dampness and cold. Use of open salamanders or any temporary heating devices which may be fire hazards or may smoke and damage finished work, will not be permitted. Maintain minimum temperatures as specified for various materials:
  - 1. Obtain heat by connecting to Medical Center heating distribution system.

- a. Steam is available at no cost to Contractor.
- E. Electricity (for Construction and Testing): Furnish all temporary electric services.
  - 1. Obtain electricity by connecting to the Medical Center electrical distribution system. The Contractor shall meter and pay for electricity required for electric cranes and hoisting devices, electrical welding devices and any electrical heating devices providing temporary heat or air conditioning. Electricity for tools and equipment approved by the COTR is available at no cost to the Contractor.
- F. Water (for Construction and Testing): Furnish temporary water service.
  - 1. Obtain water by connecting to the Medical Center water distribution system. Provide reduced pressure backflow preventer at each connection. Reasonable amounts of water are available at no cost to the Contractor.
  - 2. Maintain connections, pipe, fittings and fixtures and conserve water-use so none is wasted. Failure to stop leakage or other wastes will be cause for revocation of use of water from Medical Center's system.
- G. Steam: Furnish steam system for testing required in various sections of specifications.
  - 1. Obtain steam for testing by connecting to the Medical Center steam distribution system. Steam is available at no cost to the Contractor.
  - 2. Maintain connections, pipe, fittings and fixtures and conserve steam-use so none is wasted. Failure to stop leakage or other wastes will be cause for revocation (at Contracting Officer's Technical Representative's discretion) of use of steam from Medical Center's system.
- H. Fuel: Natural and LP gas and burner fuel oil required for boiler cleaning, normal initial boiler-burner setup and adjusting, and for performing the specified boiler tests will be furnished by the Government. Fuel required for prolonged boiler-burner setup, adjustments, or modifications due to improper design or operation of boiler, burner, or control devices shall be furnished by the Contractor at Contractor's expense.

**1.23 NOT USED**

**1.24 TESTS**

- A. Pre-test mechanical and electrical equipment and systems and make corrections required for proper operation of such systems before requesting final tests. Final test will not be conducted unless pre-tested.

- B. Conduct final tests required in various sections of specifications in presence of an authorized representative of the Contracting Officer. Contractor shall furnish all labor, materials, equipment, instruments, and forms, to conduct and record such tests.
- C. Mechanical and electrical systems shall be balanced, controlled and coordinated. A system is defined as the entire complex which must be coordinated to work together during normal operation to produce results for which the system is designed. For example, air conditioning supply air is only one part of entire system which provides comfort conditions for a building. Other related components are return air, exhaust air, steam, chilled water, refrigerant, hot water, controls and electricity, etc. Another example of a complex which involves several components of different disciplines is a boiler installation. Efficient and acceptable boiler operation depends upon the coordination and proper operation of fuel, combustion air, controls, steam, feedwater, condensate and other related components.
- D. All related components as defined above shall be functioning when any system component is tested. Tests shall be completed within a reasonably short period of time during which operating and environmental conditions remain reasonably constant.
- E. Individual test result of any component, where required, will only be accepted when submitted with the test results of related components and of the entire system.

#### **1.25 INSTRUCTIONS**

- A. Contractor shall furnish Maintenance and Operating manuals and verbal instructions when required by the various sections of the specifications and as hereinafter specified.
- B. Manuals: Maintenance and operating manuals (four copies each) for each separate piece of equipment shall be delivered to the Resident Engineer coincidental with the delivery of the equipment to the job site. Manuals shall be complete, detailed guides for the maintenance and operation of equipment. They shall include complete information necessary for starting, adjusting, maintaining in continuous operation for long periods of time and dismantling and reassembling of the complete units and sub-assembly components. Manuals shall include an index covering all component parts clearly cross-referenced to diagrams and illustrations. Illustrations shall include "exploded" views showing and identifying each separate item. Emphasis shall be placed on the use of special tools and instruments. The function of each piece of equipment, component, accessory and control shall be clearly and thoroughly explained. All necessary precautions for the operation of the equipment and the reason

for each precaution shall be clearly set forth. Manuals must reference the exact model, style and size of the piece of equipment and system being furnished. Manuals referencing equipment similar to but of a different model, style, and size than that furnished will not be accepted.

- C. Instructions: Contractor shall provide qualified, factory-trained manufacturers' representatives to give detailed instructions to assigned Department of Veterans Affairs personnel in the operation and complete maintenance for each piece of equipment. All such training will be at the job site. These requirements are more specifically detailed in the various technical sections. Instructions for different items of equipment that are component parts of a complete system, shall be given in an integrated, progressive manner. All instructors for every piece of component equipment in a system shall be available until instructions for all items included in the system have been completed. This is to assure proper instruction in the operation of inter-related systems. All instruction periods shall be at such times as scheduled by the Contracting Officer's Technical Representative and shall be considered concluded only when the Contracting Officer's Technical Representative is satisfied in regard to complete and thorough coverage. The Department of Veterans Affairs reserves the right to request the removal of, and substitution for, any instructor who, in the opinion of the Contracting Officer's Technical Representative, does not demonstrate sufficient qualifications in accordance with requirements for instructors above.

#### **1.26 NOT USED**

#### **1.27 RELOCATED EQUIPMENT**

- A. Contractor shall disconnect, dismantle as necessary, remove and reinstall in new location, all existing equipment indicated to be relocated by the Contractor.
- B. Perform relocation of such equipment or items at such times and in such a manner as directed by the Contracting Officer's Technical Representative.
- C. Suitably cap existing service lines, such as steam, condensate return, water, drain, gas, air, vacuum and/or electrical, whenever such lines are disconnected from equipment to be relocated. Remove abandoned lines in finished areas and cap as specified.
- D. Provide all mechanical and electrical service connections, fittings, fastenings and any other materials necessary for assembly and installation of relocated equipment; and leave such equipment in proper operating condition.

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- E. Contractor shall employ services of an installation engineer, who is an authorized representative of the manufacturer of this equipment to supervise assembly and installation of equipment, required to be relocated.
- F. All service lines such as noted above for relocated equipment shall be in place at point of relocation ready for use before any existing equipment is disconnected. Make relocated existing equipment ready for operation or use immediately after reinstallation.

**1.28 NOT USED**

**1.29 NOT USED**

**1.30 SAFETY SIGN**

- A. Provide a Safety Sign where directed by Contracting Officer's Technical Representative. Face of sign shall be 19 mm (3/4 inch) thick exterior grade plywood. Provide two 100 mm by 100 mm (four by four inch) posts extending full height of sign and 900 mm (three feet) into ground. Set bottom of sign level at 1200 mm (four feet) above ground.
- B. Paint all surfaces of Safety Sign and posts with one prime coat and two coats of white gloss paint. Letters and design shall be painted with gloss paint of colors noted.
- C. Maintain sign and remove it when directed by V.A. Engineer.
- D. Detail Drawing Number 45 of safety sign showing required legend and other characteristics of sign is shown in contract documents.
- E. Post the number of accident free days on a daily basis.

**1.31 NOT USED**

**1.32 NOT USED**

**1.33 HISTORIC PRESERVATION**

- A. Where the Contractor or any of the Contractor's employees, prior to, or during the construction work, are advised of or discover any possible archeological, historical and/or cultural resources, the Contractor shall immediately notify the Contracting Officer's Technical Representative verbally, and then with a written follow up.

**1.34 MINIMUM HOURLY RATES OF WAGES**

- A. The following wage determination of the Secretary of Labor shall be applicable to this project in accordance with the Davis-Bacon Act as set forth under form titled, "**Labor Standards Provisions**", **General Decision Number: KY20100006 03/12/2010 KY6.**



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**Note: Forms with VAMC policy applicable to this project for specification section follow on next page. These are subject to change and newer versions shall be obtained from COTR.**

**ATTACHMENT A**

**PERMIT FOR CUTTING AND WELDING WITH PORTABLE GAS OR  
ARC EQUIPMENT**

DATE: \_\_\_\_\_

BUILDING: \_\_\_\_\_

DEPT.: \_\_\_\_\_

WORK TO BE DONE: \_\_\_\_\_

SPECIAL PRECAUTIONS: \_\_\_\_\_

IS FIRE WATCH REQUIRED? \_\_\_\_\_

LOCATION WHERE THIS WORK IS TO BE DONE HAS BEEN EXAMINED, NECESSARY  
PRECAUTIONS TAKEN AND PERMISSION IS GRANTED FOR THIS WORK (SEE REVERSE).

PERMIT EXPIRES: \_\_\_\_\_

SIGNED: \_\_\_\_\_  
(Individual responsible for  
authorizing welding and cutting)

TIME STARTED: \_\_\_\_\_ COMPLETED: \_\_\_\_\_

---

**FINAL CHECK-UP**

Work areas and all adjacent areas to which sparks and heat might have spread (including floors above and below and on opposite walls) were inspected 30 minutes after the work was completed and were found fire safe.

SIGNED: \_\_\_\_\_  
(Supervisor or Fire Watcher)

Replace Low Voltage Equipment  
VAMC CDD, Lexington, KY  
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ATTENTION: BEFORE APPROVING ANY CUTTING AND WELDING PERMIT, THE SAFETY OFFICE SHALL INSPECT THE WORK AREA AND CONFIRM THAT PRECAUTIONS HAVE BEEN TAKEN TO PREVENT FIRE IN ACCORDANCE WITH NFPA 51 B.

### ***PRECAUTIONS***

Sprinklers in service  
Cutting and welding equipment in good repair

### ***WITHIN 35 FT. OF WORK***

Floors swept clean of combustibles  
Combustible floors wet-down, covered with damp sand, metal or other shields  
No combustible material or flammable liquids  
Combustibles and flammable liquids protected with covers, guards or metal shields  
All wall and floor openings covered  
Covers suspended beneath work to collect sparks

### ***WORK ON WALLS OR CEILINGS***

Construction noncombustible and without combustible covering  
Combustibles moved away from opposite side of wall

### ***WORK ON ENCLOSED EQUIPMENT***

(Tanks, containers, ducts dust collectors, etc.)

Equipment cleaned of all combustibles  
Containers purged of flammable vapors

### ***FIRE WATCH***

(To be provided during and 30 minutes after operation)

Supplied with extinguisher and small hose  
Trained in use of equipment and in sounding fire alarm

### ***FINAL CHECK-UP***

(To be made 30 minutes after completion of any operation unless fire watch is provided)

SIGNED: \_\_\_\_\_  
(Supervisor )

Replace Low Voltage Equipment  
VAMC CDD, Lexington, KY  
Project No. 596A4-10-101

ATTACHMENT A  
VA MEDICAL CENTER  
LEXINGTON, KENTUCKY

MEMORANDUM NO. 138-35  
APRIL 8, 2009

**FIRE AND SMOKE BARRIER PENETRATION PERMIT**

Project Name/Contract #:		Issue Date:	
Approved By (Engineering Representative):		Permit issued to:	
Describe penetration activities and reasons:			
Barrier I:			
Location of barrier(s) to be penetrated (building number, wing, floor, room number) (Attach sketch if applicable)(Reference drawing when possible) (Use separate sheet if required)			
Location of ceiling tile(s) to be removed (building number, wing, floor, room number) (Attach sketch if applicable) (Use separate sheet if required)			
Describe methods, materials, and techniques to seal penetrations. (Use separate sheet if required)			

Replace Low Voltage Equipment  
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<b>Barrier II: (use if more than one in project)</b>			
Location of barrier(s) to be penetrated (building number, wing, floor, room number) (Attach sketch if applicable)(Reference drawing when possible) (Use separate sheet if required)			
Location of ceiling tile(s) to be removed (building number, wing, floor, room number) (Attach sketch if applicable) (Use separate sheet if required)			
Describe methods, materials, and techniques to seal penetrations. (Use separate sheet if required)			
Answer all three before signing permit. (Circle selection)			
1. Did the responsible person obtain prints from Engineering detailing hourly rated walls and identified scope of the fire stop work?	Y	N	N/A
2. Is manufacturer's product (fire sealant) application guide containing UL/FM listed fire stop systems available and approved?	Y	N	N/A
3. Has the responsible person prepared an itemized schedule of fire/smoke walls to be penetrated?	Y	N	N/A
Final Inspection by Department/Contractor Representative:		Safety/Facilities Representative:	
Date:		Date:	

**INSTRUCTIONS:**

1. Maintain a copy of this permit at the work area at all times.
2. Promptly repair penetrations in an approved manner. Contact Facilities Management/COTR if there are any questions regarding the repairs.
3. Notify Facilities Management/COTR/Safety when repairs are completed to schedule final inspection.

Replace Low Voltage Equipment  
VAMC CDD, Lexington, KY  
Project No. 596A4-10-101

ATTACHMENT B  
VA MEDICAL CENTER  
LEXINGTON, KENTUCKY

MEMORANDUM NO. 138-35  
APRIL 8, 2009

The following sample sticker must be used to mark date, type and permit number for the sealed penetration.

**WARNING**

This opening has been sealed with  
3M™ Fire Protection Products. \_\_\_\_\_

**DO NOT REMOVE!**

To maintain UL classification in retrofitting,  
reseal with 3M™ Fire Protection Products **ONLY!**

Installation Company \_\_\_\_\_

UL# \_\_\_\_\_ Hr. Rating \_\_\_\_\_

Date \_\_\_\_\_ Job # \_\_\_\_\_

Compliments of 3M Building Safety Solutions Department 88-0400-32777

1. If another equivalent, approved brand was used, cross out 3M and print the product name on the provided line.
2. Installation company. Enter the name of the contractor performing the work.
3. UL#. Enter the UL# of the product.
4. Hr Rating. Enter the rating of the material.
5. Date. Date the penetration was sealed.
6. Job #. Enter the permit number that allowed this work to be completed.

ATTACHMENT A  
INTERIM LIFE SAFETY REQUIREMENTS

PROJECT/ACTIVITY TITLE \_\_\_\_\_  
PROJECT NO. (if any) \_\_\_\_\_  
DATE/TIME START \_\_\_\_\_ DATE/TIME END \_\_\_\_\_  
SCOPE OF WORK \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Utilities to be taken out of service water ☐ electricity ☐ HVAC ☐ None ☐. If a utility is checked, a Utility outage permit must be completed and attached to this ISLM before the ISLM can be implemented.

Complete the ISLM Assessment matrix and circle those items required or considered and required for this project. Matrix attached ☐

Complete the ISLM Inspection Checklist at Attachment C based on the items identified in the matrix. The supervisor of the work site is responsible for daily inspection of the interim measures. The COTR or Asst Chief Engineer will make periodic inspections to ensure compliance with the ISLM requirements.

Describe specific actions here: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Notifications:

- |   |     |
|---|-----|
| <input type="checkbox"/> Electrical shop                  | POC |
| <input type="checkbox"/> Plumbing shop                    | POC |
| <input type="checkbox"/> Grounds/Transportation           | POC |
| <input type="checkbox"/> HVAC shop                        | POC |
| <input type="checkbox"/> Safety office                    | POC |
| <input type="checkbox"/> Security                         | POC |
| <input type="checkbox"/> Fire Department                  | POC |
| <input type="checkbox"/> POC who will conduct inspections | POC |
| <input type="checkbox"/> Chief Engineering                | POC |
| <input type="checkbox"/> Director's Office (as required)  | POC |

_____ Project Manager	_____ Date	_____ Safety Manager	_____ Date
--------------------------	---------------	-------------------------	---------------

NOTE: Matrix and inspection sheets will be attached to the project documentation for record.

ATTACHMENT B

ILSM Inspection Checklist										
<p><i>Enter the dates across the top squares; inspect the items 'X-ed' in the left column and initial for that item in the date column. This checklist must be turned into the COTR at the end of the ILSM period or end of the week - whichever comes first or to Safety Office if internal activity. COTR/Safety additional may be entered after the last standard measure.</i></p>										
<b>CONSTRUCTION SUPERVISOR Requirement:</b>										
<b>Required (X)</b>	<b>Measure to inspect and date inspected. Initial each required item below the date</b>									
	Notify fire department of outage									
	Ensure free and unobstructed exits									
	Modify EXIT signage to meet modification/identify alternate									
	Ensure Access for Emergency Responders									
	Construct Non-Combustible Temporary Partitions									
	Prohibit Smoking									
	Control combustible loads (storage, housekeeping, debris and waste)									
	Increase Hazard Surveillance/Inspections									
	Implement Fire Watch with communication and extra extinguisher									
	Inspect exits in affected areas daily									
	Provide Additional Education to all Personnel									
	Provide additional fire extinguishers									
	Inspect, test and document temporary systems monthly									
<b>VAMC Requirement: COTR/Safety will confirm completion of these measures.</b>										
	Provide equivalent alarm/notification to impacted staff									
	Conduct 2 fire drills per shift in LOCAL areas									
	Conduct 2 fire drills per shift in all areas									
	Train staff to Compensate for Deficiencies									
<p>Comments:</p>										



## Interim measure clarification

☐ Ensuring free and unobstructed exits. Staff receives additional information/communication when alternative exits are designated. Buildings or areas under construction must maintain escape routes for construction workers at all times, and the means of exiting construction areas are inspected daily.

☐ Ensuring free and unobstructed access to emergency services and for fire, police, and other emergency forces

☐ Ensuring that fire alarm, detection, and suppression systems are in good working order. A temporary but equivalent system must be provided when any fire system is impaired. Temporary systems must be inspected and tested monthly.<sup>1</sup>

<sup>1</sup> = NFPA 101 fire watch requirements can be found at NFPA 101, 2006 Edition, 9.6.1.6

☐ \* Ensuring that temporary construction partitions are smoke-tight and built of noncombustible or limited combustible materials that will not contribute to the development or spread of fire

☐ \*\* Providing additional fire-fighting equipment and training staff in its use

☐ \* Prohibiting smoking throughout the hospital's buildings and in and near construction areas

☐ \* Developing and enforcing storage, housekeeping, and debris-removal practices that reduce the building's flammable and combustible fire load to the lowest feasible level

☐ \*\* Conducting a minimum of two fire drills per shift per quarter

☐ \*\* Increasing surveillance of buildings, grounds, and equipment, with special attention to excavations, construction areas, construction storage, and field offices

☐ \*\* Training staff to compensate for impaired structural or compartmentalization features of fire safety

☐ \*\* Conducting hospital wide safety education programs to promote awareness of fire safety building deficiencies, construction hazards, and ILSMs

☐ \* Notifications/coordination completed with (check as appropriate). POC is point of contact to whom notification or coordination was made:

ILSM DECISION MATRIX																	
This matrix should be used to assess appropriate interim measures to implement for activities that will reduce a life safety component(s) for four or more hours. Recommend the matrix be attached to each ILSM with the R or C circled to show evaluation and requirements. The results will also be used to identify the items to be inspected each day the life																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	Notify fire department of outage	Ensure free and unobstructed exits	Modify EXIT signage to meet modification/identif	Ensure Access for Emergency Responders	Construct Non-Combustible Temporary	Prohibit Smoking	Control combustible loads (storage, housekeeping,	Conduct 2 fire drills per shift in LOCAL areas	Conduct 2 fire drills per shift in all areas	Increase Hazard Surveillance/Inspe ctions	Train staff to Compensate for Deficiencies	Provide Additional Education to all Personnel	Implement Fire Watch with communication	Inspect exits in affected areas	Provide equivalent alarm/notification to impacted staff	Provide additional fire extinguishers	Inspect, test and document temporary systems
CODE DEFICIENCIES																	
1. Exit stair discharges improperly			R			R		R	C		R	C		C			
2. Smoke barrier is deficient						R		R		R	R					R	
3. Exit path reduces protection level			C			R				C				R			
4. Vertical opening improperly protected						R											
5. Building construction type is nonconforming						R	R		R			R				R	
6. Hazardous room is improperly protected (laundry, linen storage, flammable storage, boiler, kitchen, etc)						R			R							R	
7. Corridor wall is deficient						R	R	R		R	R						
8. Exit is closed or impaired (any portion from work area to exterior assembly)						R	R	R	C	R	R	R		C		R	
CONSTRUCTION HAZARD																	
9. Significantly modifying a smoke barrier					R	R	R	R	C	R	C	C					
10. Constructing a building addition to an existing building	C	R	R	R	R	R		R	C	R		R		C			
11. Significantly renovating an occupied floor.		R			R	R	R	R		C		C		C		R	
LIFE SAFETY SYSTEM DISRUPTIONS																	
11. Fire alarm out of service						R					R	C			R		C
12. Fire detection out of service						R	R				R	C	R		C	R	C
13. Fire supression out of service	R					R	R			R	R	C	R			R	C

Yellow indicates a VAMC requirement.

R = required actions

C = these actions must be considered. Documentation of the negative should be on the or project documentation.

Replace Low Voltage Equipment  
VAMC CDD, Lexington, KY  
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<b>DEPARTMENT OF  VETERANS AFFAIRS</b> <b>Medical Center</b> <b>1101 Veterans Drive</b> <b>Lexington, KY 40502-2236</b>	<b>Utility Systems</b> <b>Service/Outage Notification</b>	<b>Type of Service:</b> <u>(circle)</u> <b><u>Shutdown</u> / <u>Service Notice</u></b>
--	--	--

To: **VAMC Operations** Date of Request: \_\_\_\_\_  
From: \_\_\_\_\_ Project: \_\_\_\_\_

Contractor performing work: \_\_\_\_\_

VA COTR: \_\_\_\_\_

System/Utility Involved \_\_\_\_\_

VAMC Division (circle) \_\_\_\_\_ **Leestown** or **Cooper**

Location of work & area/room(s) affected:

Contingency plan for utility failure:

Requested system service date(s): (10 Day Notice Required) Start: _____ Finish: _____	Approved service date(s): Start: _____ Finish: _____
Requested time of system work: _____	Approved time of system work: _____
Requested time system back on line: _____	Approved time system back on line: _____

**VAMC Projects Approval:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**VAMC Maint. Supervisor Approval :** \_\_\_\_\_ **Date:** \_\_\_\_\_

**VAMC WO #** \_\_\_\_\_

**VAMC Contact During Work Activity:** \_\_\_\_\_

**Contractor Contact –Onsite** \_\_\_\_\_ **Phone:** \_\_\_\_\_

\*Life safety system affected (circle one):                      yes      no

\*If system work affects Life Safety System(s), the following must sign this form and an ILSM assessment must be completed and attached.

Facility Manager of Operations approval: \_\_\_\_\_

Chief, Engineering Service approval: \_\_\_\_\_

**Lexington VAMC**

Form 1

**Building Alteration, Construction, Project, Maintenance Activity Risk Assessment and Permit**

Activity Title: \_\_\_\_\_

Activity #: \_\_\_\_\_

Specifics of Activity to be done: \_\_\_\_\_

Location BLDG/FLR/RM#: \_\_\_\_\_

Activity Start Date: \_\_\_\_\_

PROJ/MAINT. COOR (PRINT): \_\_\_\_\_

PRE-CONSTRUCTION RISK ASSESSMENT:	YES	N/A
Off tour activity will be necessary	<input type="checkbox"/>	<input type="checkbox"/>
<b>The Following Shops/Sections Will Be Involved In This Project:</b> <input type="checkbox"/> EMS <input type="checkbox"/> IT <input type="checkbox"/> UTIL <input type="checkbox"/> Area Maintenance. <input type="checkbox"/> Grounds <input type="checkbox"/> Locksmith <input type="checkbox"/> EOC <input type="checkbox"/> Clinical Engineer <input type="checkbox"/> Infection Control <input type="checkbox"/> Security		

**Step 1: Determining Activity Type(s)**

Using the following table, identify the type of activity

<b>INFECTION CONTROL ASSESSMENT- Activity Types</b>	<b>YES</b>	<b>NO</b>
<b>INSPECTION AND NON-INVASIVE ACTIVITIES (TYPE A)</b> <ul style="list-style-type: none"> <li>Remove ceiling tiles for visual inspection or replacement limited to 2 tiles per 20 square feet</li> <li>Painting (but not sanding)</li> <li>Wall covering, electrical trim work, minor plumbing, access to chase spaces and activities that do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SMALL SCALE, SHORT DURATION ACTIVITIES WHICH CREATE MINIMAL DUST (TYPE B)</b> <ul style="list-style-type: none"> <li>Small scale - Sanding of wall for painting or wall covering.</li> <li>Installation or removal of wiring or telephone and computer cable.</li> <li>Small scale construction/demolition that can be contained within the room where the activity is occurring.</li> <li>Cutting of walls or ceiling where dust migration can be controlled</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<b>WORK THAT GENERATES A MODERATE TO HIGH LEVEL OF DUST (TYPE C)</b> <ul style="list-style-type: none"> <li>Medium to large scale demolition/construction that will involve multiple rooms and the activity cannot be contained in the room where it is occurring</li> <li>Removal of any fixed building components or assemblies</li> <li>Large to Medium scale - removal of floor coverings, ceiling tiles and casework.</li> <li>Major duct work or electrical work above ceiling</li> <li>Major cabling activities</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<b>MAJOR DEMOLITION AND CONSTRUCTION PROJECTS (TYPE D)</b> <ul style="list-style-type: none"> <li>Major construction/demolition/excavation that will involve large areas of the medical center.</li> <li>Requires heavy demolition or removal of a complete system.</li> <li>New Construction connecting to existing buildings.</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>

### Step 2: Determining Risk Group

Using the following table, identify the patient risk area(s) that will be affected. If more than one risk area will be affected, select the higher risk area.

INFECTION CONTROL ASSESSMENT- Risk Areas			YES	NO
<b>Will Affect One Or More Of The Following Areas (LOW RISK AREA):</b>				
<ul style="list-style-type: none"> <li>• Communication Center</li> <li>• Compartment/Switch rooms</li> <li>• Engineer/mechanical</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment rooms</li> <li>• Library, Auditorium</li> <li>• Locker</li> <li>• Morgue</li> </ul>	<ul style="list-style-type: none"> <li>• Office areas</li> <li>• On-Call Sleeping Room</li> <li>• Other similar spaces</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Will Affect One Or More Of The Following Areas (MODERATE RISK AREA):</b>				
<ul style="list-style-type: none"> <li>• Canteen</li> <li>• Cardiology</li> <li>• Chapel</li> <li>• Echocardiography</li> <li>• Endoscopy</li> </ul>	<ul style="list-style-type: none"> <li>• Kitchen</li> <li>• Labs other than micro</li> <li>• Lobbies</li> <li>• Nuclear Medicine</li> <li>• Outpatient Clinics</li> </ul>	<ul style="list-style-type: none"> <li>• Physical Therapy</li> <li>• Radiology /MRI</li> <li>• Respiratory Therapy</li> <li>• Other similar spaces</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Will Affect One Or More Of The Following Areas (HIGH RISK AREA)</b>				
<ul style="list-style-type: none"> <li>• Any area caring for immunocompromised patients</li> <li>• Cardiac Cath Lab</li> <li>• Coronary Care Unit</li> <li>• Emergency Room</li> <li>• Intensive Care Units</li> </ul>	<ul style="list-style-type: none"> <li>• Microbiology Labs</li> <li>• Negative pressure isolation rooms</li> <li>• Operating rooms</li> <li>• Outpatient Surgery</li> <li>• Pharmacy</li> </ul>	<ul style="list-style-type: none"> <li>• Post Anesthesia Care Unit</li> <li>• Surgical Units</li> <li>• Psych Inpatient/PKU</li> <li>• Medical Inpatient Unit</li> <li>• Surgical Recovery</li> <li>• Other similar spaces</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>

### Step 3: Determining Class of Activity

On the table below, circle the Activity Type (A, B, C or D) and the Risk Level (Low to High) and plot where they intersect to find the Infection Control Requirements (Class I, II, III or IV). When the Class is identified, go to the next page for the requirements. **Permits are not required for Class I or II projects, but Infection Control must be consulted for Class III or IV activities.**

Circle highest from Step 1 & 2	From step 1: Activity Type(s)			
From step 2: Risk Level	Type A	Type B	Type C	Type D
LOW Risk Area	<b>Class I</b>	<b>Class II</b>	<b>Class II</b>	<b>Class IV</b>
MODERATE Risk Area	<b>Class I</b>	<b>Class II</b>	<b>Class III</b>	<b>Class IV</b>
HIGH Risk Area	<b>Class II</b>	<b>Class III</b>	<b>Class III</b>	<b>Class IV</b>

### Step 4: Determining Risk and Class of Areas Surrounding Project

Identify the areas surrounding the project area. Using the tables above, assess the risk group(s) and potential impact of the activity on each area surrounding the project. Precautions will need to be taken as specified in the requirements.

Unit Below	Unit Above	Lateral	Lateral	Behind	Front
Activity Type:	Activity Type:	Activity Type:	Activity Type:	Activity Type:	Activity Type:
Risk Group:	Risk Group:	Risk Group:	Risk Group:	Risk Group:	Risk Group:
Class:	Class:	Class:	Class:	Class:	Class:

### Requirements

(Failure to comply with these requirements will result in stoppage of all work until compliant)

<b>CLASS OF PROJECT:</b> <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV	
<b>DURING CLASS I CONSTRUCTION PROJECTS:</b>	<b>UPON COMPLETION OF PROJECT:</b>
<ul style="list-style-type: none"> <li>• <b>Dress:</b> Appropriate for area (i.e. shoe covers, etc., in OR).</li> <li>• <b>Ventilation:</b> Execute work by methods to minimize raising dust.</li> <li>• <b>Barriers:</b> Use care removing ceiling tiles, clean up disturbed dust immediately by HEPA (defined as one capturing 99.97% of particles <math>\geq 0.3</math> microns in size) vacuuming and/or wet mopping. Immediately replace any ceiling tiles displaced for visual inspection or replacement. No dust tracks outside work zone.</li> <li>• <b>Debris:</b> Remove from work site in a closed/sealed container</li> </ul>	<ul style="list-style-type: none"> <li>• Damp-wipe tools when removed from the work site</li> <li>• Clean work area upon completion of task.</li> </ul>
<b>DURING CLASS II CONSTRUCTION PROJECTS:</b>	<b>UPON COMPLETION OF PROJECT:</b>
<p><b>NOTE: Include activities in Class I above</b></p> <ul style="list-style-type: none"> <li>• <b>Traffic:</b> Route patient/visitor/staff traffic away from project/activity.</li> <li>• <b>Ventilation:</b> Provide means to prevent airborne dust from dispersing into atmosphere.</li> <li>• <b>Barriers:</b> Water mist work surfaces to control dust while cutting. Seal unused doors with duct tape. Place dust mat at entrance &amp; exit of work area</li> </ul>	<ul style="list-style-type: none"> <li>• Wipe work surface with disinfectant.</li> <li>• Contain construction waste before transport in tightly covered containers.</li> <li>• Wet mop and /or vacuum with HEPA filtered vacuum before leaving work area.</li> </ul>
<b>DURING CLASS III CONSTRUCTION PROJECTS:</b>	<b>UPON COMPLETION OF PROJECT</b>
<p><b>NOTE: Include activities in Class I and II above</b></p> <ul style="list-style-type: none"> <li>• <b>Traffic:</b> Post signs identifying alternate routes and that construction project are underway. Workers should not walk in hallways or patient-care areas with dust-covered work clothes.</li> <li>• <b>Ventilation:</b> Remove or isolate HVAC system in area where work is being done to prevent contamination of duct system. Block/seal HVAC supply air sources (ducts, grilles, pipes, conduits, and wall/ceiling/floor penetrations). Exhaust air to the outside if possible. If re-circulated air from the construction zone is unavoidable, use a pre-filter and a HEPA filter before the air returns to the HVAC system. When vibration-related is being done that may dislodge dust in the ventilation system, or when modifications are made to duct work serving occupied spaces, install filters on the supply air grilles temporarily. Maintain negative pressure in work site relative to patient areas. Use HEPA-filtered fans if needed (monitor need to change or clean filters during construction).</li> <li>• <b>Barriers:</b> Must be provided to contain dust in the negative pressure work site. Complete all dust barriers i.e. sheetrock, plywood, plastic, to seal area from non work area or implement control cube method(cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins. Examples include isolating area by closing/sealing existing doors/windows, or erecting an airtight 4- to 6-mil plastic or dry wall barrier that extends from floor to upper deck (or dropped ceiling). Seams in plastic sheeting must be sealed with duct tape and the barrier taped securely to the ceiling and floor. A plastic entrance must have a 2-foot flap. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. Doors in a dry wall barrier must have gaskets to prevent exhaust of dust. Place tack mats at entrance and wet mop area outside of barrier if dust is tracked outside work site. Construct anteroom and require all personnel, equipment, materials, and debris containers to pass through this room when entering or exiting the work site. Water mains, branch mains, risers, and branches to a group of fixtures have stop valves. Ceiling access panels must be closed when unattended.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not remove barriers from work area until project is inspected by COTR and Infection Control, and thoroughly cleaned.</li> <li>• Vacuum work area with HEPA filtered vacuums.</li> <li>• Wet mop area with hospital disinfectant at completion of project or at the end of the day for jobs lasting more than one day.</li> <li>• Remove barrier materials carefully to minimize spreading of dirt debris associated with construction and clean residual dust.</li> <li>• Remove isolation of HVAC system and HEPA filters in areas where work is being performed.</li> <li>• Vent system cleaned after completion of construction.</li> <li>• Flush the main water system to clear dust-contaminated lines.</li> <li>• Contact Infection Control for inspection prior to patient occupation.</li> <li>• Wet ceiling tiles: if porous, remove and replace; if nonporous, remove, clean with dilute hypochlorite (10% household bleach) and dry before replacement.</li> </ul>



<b>DURING CLASS III CONSTRUCTION PROJECTS (continued):</b>	<b>UPON COMPLETION OF PROJECT</b>
<ul style="list-style-type: none"> <li>• <b>Barriers:</b> Elevator shafts, dumb waiters, and stair wells within the field of construction must have proper barriers installed and air leaks sealed. Mist work surfaces to control dust when drilling or cutting, or HEPA-filtered vacuum cleaner concurrently with drilling work. Place dust mat at entrance and exit of work area.</li> <li>• <b>Debris:</b> Debris is to be removed by specified route only. Transport debris during low patient activity periods if possible (nights and weekends). Contain construction waste before transport in tightly covered containers Cover transport receptacles or carts. Tape covering unless solid lid. Mist debris and cover and damp wipe (including wheels and casters) containers used to transport debris. Consider use of chutes to the outside for debris removal. For personnel transporting debris, cover gown or equivalent and shoe covers required if dust cannot be removed from clothing with HEPA vacuum.</li> </ul>	
<b>DURING CLASS IV CONSTRUCTION PROJECTS:</b>	<b>UPON COMPLETION OF PROJECT:</b>
<p><b>NOTE: Include activities in Class I, II and III above</b></p> <ul style="list-style-type: none"> <li>• <b>Ventilation:</b> Isolate HVAC system in area where work is being done to prevent contamination of duct system.</li> <li>• <b>Barriers:</b> Complete all critical barriers i.e. sheetrock, plywood, plastic, to seal area from non work area or implement control cube method(cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. Seal holes, pipes, conduits, and punctures appropriately. Construct anteroom and requires all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or they can wear cloth or paper coveralls that are removed each time they leave the work site. Do not remove barriers from work area until project is inspected by COTR and thoroughly cleaned.</li> </ul>	<ul style="list-style-type: none"> <li>• Remove barriers material carefully to minimize spreading of dirt and debris associated with construction.</li> <li>• Contain construction waste before transport in tightly covered containers.</li> <li>• Cover transport receptacles or carts. Tapes covering unless solid lid.</li> <li>• Vacuum work area with disinfectant.</li> <li>• Wet mop area with disinfectant</li> <li>• Remove isolation of HVAC system in areas where work is being performed</li> </ul>

Additional Requirements: \_\_\_\_\_

<b>WHEN INFECTION CONTROL MEASURES ARE IN PLACE IC STAFF HAS CONDUCTED CONTRACTOR BRIEFINGS &amp; TRAINING</b>	<b>N/A</b>	<b>DATE &amp; INITIALS</b>
Met with Services/Sections surrounding construction site to inform them of impact/precautions to be taken & to instruct them in Basic I/C requirements (see attached).	<input type="checkbox"/>	
Met with the Construction Manager, Construction Crews, and Sub-Contractors to inform them of impact/precautions to be taken & to instruct them in Basic I/C requirements.	<input type="checkbox"/>	
Informed the Project Coordinator That Barriers Are Not To Be Removed From Work Area Until Completed Project Is Inspected By The EOC And Infection Control Staff And Thoroughly Cleaned By The Environmental Management Service.	<input type="checkbox"/>	

\_\_\_\_\_  
Signature of Project Engineer or Supervisor

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Chief Engineer

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Infection Control

\_\_\_\_\_  
Date

----- END -----