

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 Butler VAMC Demolish Corridor Project as required by drawings and specifications.
- B. Visits to the site by Bidders may be made only by appointment with the Medical Center Engineering Officer/COTR
- C. Offices of Tolman Engineering, PLLC, 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 or his duly authorized representative.
- D. Before removal, placement and/or installation of work subject to tests by testing laboratory retained by Department of Veterans Affairs, the Contractor shall notify the Resident Engineer/COTR 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 four work days unless otherwise designated by the Resident Engineer/COTR.
- 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.
- 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 CP with input from the Infection Control Risk Assessment (ICRA) team.
 - 2. Submit training records of all such employees for approval before the start of work.

1.2 STATEMENT OF BID ITEM(S)

A. ITEM I, Complete Demolish Corridor Project: Work includes general construction, alterations, demolition and removal, asbestos abatement, lead paint removal and disposal, walks, ramps, grading, stairs, new entrance and entrance canopy, bollards, exterior lighting, mechanical and electrical work, laboratory testing, locating utility systems, relocating utility system, maintaining utility systems, erosion and sediment control, restoration of disturbed areas, interior renovation of Elevated Walk, masonry repairs of Elevated Walk, vault bracing, and any other work specified herein and shown on the Drawings, except for the work/items explicitly listed under the title "Not Included in Bid Item I" below.

Estimated Quantities: The follow estimated quantities are included within the work for Bid Item I. For variation in estimated quantities refer to 1.2.D. below.

1. Asbestos Abatement - Piping & Fitting Insulation = 2,500 Linear Feet
2. Asbestos Abatement - Debris/Contaminated Soil = 610 Cubic Feet
3. Asbestos Abatement - Fire Doors = 10 (Each)
4. Lead Base Paint Removal and Disposal - Piping = 910 Linear Feet

Not Included in Bid Item I: The following listed items are not included within Bid Item I or any bid alternates.

1. Approximately 127'-71/2" of concrete sidewalk running between Second Street and the new ramp and associated grading.
2. Stormwater drainage system from CB-24 to CB-4, including four (4) catch basins, one (1) manhole, and approximately 239 linear feet of 12 inch storm main.
3. Removal of the existing asphalt pavement adjacent to Building 18.
4. Removal of the gravel pavement south of Building 16.
5. Installation of twelve exterior lights. The exterior lights not included are along "B" Street, along Second Street, and within the parking lot area. Exterior lights not included are labeled with an "R" on the site plan (Sheet CS-1).
6. Soil Amendment and Restoration work as shown on Sheet CS-3.

- B. Item II, Work to include: All work within item I, except for the following interior renovation work within the Elevated Walk.
1. Remove existing and install new handrail/guardrail.
 2. Remove existing and install new underlayment and floor tile.
 3. Remove existing and install new wall paneling, molding, trim, and kick boards (VCB).
 4. Remove existing fire extinguisher and installing new recessed fire extinguisher cabinet.
 5. Providing new wall access panels.
 6. Removing and reinstalling existing signage.

Completion time for Items I, and II is 180 days from notice to proceed.

- C. Item III, Work to include: All work within Item II, except for the following work for the Elevated Walk.
1. Removing existing and installing new windows.
 2. Removing existing metal window surrounds, refinishing existing window surrounds, and reinstalling existing window surrounds.
 3. Refinishing existing window surrounds not removed.
- D. Item IV, Work to include: All work within Item III, except for the First Street Stairs as indicated on the drawings within detail 1 on sheet GS-2 and one exterior light adjacent to the First Street Stairs and associated underground conduit and wiring. The exterior light is the one closest to First Street on the northeast side of the stairs.
- E. Item V, Work to include: All work within Item IV, except for the all remaining exterior site lights and associated underground conduit and wiring to exterior site lights. This does not included removing the exterior lights for the new entrance/canopy at the end of the Elevated Walk.
- F. Item VI, Work to include: All work within Item V, except for installing the new concrete sidewalk running northwest between the existing first street stairs to remain. The total distance of the sidewalk is approximately 157 linear feet.

Completion time for Items: III, IV, V, VI is 150 days from notice to proceed.

- G. Variation in Estimate Quantities (FAR clause 52.212-11) : If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may

request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the contract. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgment of the Contracting Officer, is justified.

The variation in estimated quantities clause is only applicable to the following work items listed below. It should be noted that the work items are included within the Bid Items above, which include the original estimated quantity. The unit price adjustment to be for the variation in estimated quantities work items shall be provide for each Bid Item listed below.

1. Bid Item VII, Unit Price Adjustment for Variation in Estimated Quantities: Asbestos Abatement - Piping & Fitting Insulation. Provide cost per linear feet of insulation to be used for price adjustment.
2. Bid Item VIII, Unit Price Adjustment for Variation in Estimated Quantities: Asbestos Abatement - Debris/Contaminated Soil. Provide cost per cubic feet of debris/contaminated soil to be used for price adjustment.
3. Bid Item IX, Unit Price Adjustment for Variation in Estimated Quantities: Asbestos Abatement - Fire Doors. Provide cost per door to be used for price adjustment.
4. Bid Item X, Unit Price Adjustment for Variation in Estimated Quantities: Lead Base Paint Removal and Disposal - Piping. Provide cost per linear feet of painted pipe to be used for price adjustment.

1.3 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR

- A. AFTER AWARD OF CONTRACT, specifications and drawings will available on-line at www.fbo.gov.
- B. Additional sets of drawings may be made by the Contractor, at Contractor's expense, from reproducible sepia prints furnished by Issuing Office. Such sepia prints shall be returned to the Issuing Office immediately after printing is completed.

1.4 CONSTRUCTION SECURITY REQUIREMENETS

- A. Security Plan:
 1. The security plan defines both physical and administrative security

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procedures that will remain effective for the entire duration of the project.

- 2. The General Contractor is responsible for assuring that all sub-contractors working on the project and their employees also comply with these regulations.

B. 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 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.

C. Key Control:

- 1. The General Contractor shall provide duplicate keys and lock combinations to the Resident Engineer/COTR for the purpose of security inspections of every area of project including tool boxes and parked machines and take any emergency action.
- 2. The General Contractor shall turn over all permanent lock cylinders to the VA locksmith for permanent installation. See Section 08 71 00, DOOR HARDWARE and coordinate.

D. 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. Separate permits shall be issued for General Contractor and its employees for parking in designated areas only.

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 1926Safety 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 Resident Engineer, COTR 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, locations of restrooms, use of VAMC equipment, etc. Documentation shall be provided to the Resident Engineer/COTR 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 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, 3/4 hour fire/smoke rated doors with self-closing devices.

2. Install two-hour fire-rated temporary construction partitions 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.
- 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 Resident Engineer, COTR, and facility Safety Manager.
- H. Egress Routes for Construction Workers: Maintain free and unobstructed egress. Inspect daily. Report findings and corrective actions weekly to Resident Engineer, COTR, 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. 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 Resident Engineer, COTR, and facility Safety Manager. 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/COTR.
- L. Smoke Detectors: Prevent accidental operation. Remove temporary covers at end of work operations each day. Coordinate with Resident Engineer, COTR, and facility Safety Manager.
- M. Hot Work: Perform and safeguard hot work operations in accordance with NFPA 241 and NFPA 51B. Coordinate with Resident Engineer and COTR, . Obtain permits from facility Safety Manager at least 48 hours in advance . Designate contractor's responsible project-site fire prevention program manager to permit hot work.
- N. Fire Hazard Prevention and Safety Inspections: Inspect entire construction areas weekly. Coordinate with, and report findings and

corrective actions weekly to Resident Engineer, COTR, and facility Safety Manager Officer.

- O. 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.
- P. Dispose of waste and debris in accordance with NFPA 241. Remove from buildings daily.
- Q. Perform other construction, alteration and demolition operations in accordance with 29 CFR 1926.
- R. If required, submit documentation to the Resident Engineer/COTR that personnel have been trained in the fire safety aspects of working in areas with impaired structural or compartmentalization features.

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.

(FAR 52.236-10)

- D. Working space and space available for storing materials shall be as determined by the Resident Engineer or COTR.
- E. Workmen are subject to rules of Medical Center applicable to their conduct.
- F. Execute work in such a manner as to interfere as little as possible with work being done by others. Keep roads clear of construction materials, debris, standing construction equipment and vehicles at all times.
- 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 Resident Engineer/COTR 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. Utilities Services: Where necessary to cut existing pipes, electrical wires, conduits, cables, etc., of utility services, or of fire protection systems or communications systems (except telephone), they shall be cut and capped at suitable places where shown; or, in absence of such indication, where directed by Resident Engineer/COTR. All such actions shall be coordinated with the Utility Company involved:
 - 1. 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.
- I. Phasing: To insure such executions, Contractor shall furnish the Resident Engineer/COTR 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 Resident Engineer/COTR two weeks in advance of the proposed date of

starting work in each specific area of site, building or portion thereof. Arrange such phasing dates to insure accomplishment of this work in successive phases mutually agreeable to Medical Center Director, Resident Engineer, COTR, and Contractor.

- J. 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 construction is finished or as directed by Resident Engineer/COTR.
- K. When a building is turned over to Contractor, Contractor shall accept entire responsibility therefore.
1. Contractor shall maintain a minimum temperature of 4 degrees C (40 degrees F) at all times, except as otherwise specified.
 2. Contractor shall maintain in operating condition existing fire protection and alarm equipment. In connection with fire alarm equipment, Contractor shall make arrangements for pre-inspection of site with Fire Department or Company (Department of Veterans Affairs or municipal) whichever will be required to respond to an alarm from Contractor's employee or watchman.
- L. 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 Resident Engineer/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 Resident Engineer/COTR. 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 Sections 26 05 11, REQUIREMENTS FOR ELECTRICAL INSTALLATIONS, 27 05 11 REQUIREMENTS FOR COMMUNICATIONS INSTALLATIONS and 28 05 11, REQUIREMENTS FOR

ELECTRONIC SAFETY AND SECURITY INSTALLATIONS for additional requirements.

2. Contractor shall submit a request to interrupt any such services to Resident Engineer/COTR, in writing, 48 hours in advance of proposed interruption. Request shall state reason, date, exact time of, and approximate duration of such interruption.
 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 Resident Engineer/COTR.
 5. In case of a contract construction emergency, service will be interrupted on approval of Resident Engineer/COTR. 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.
- M. 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.
- N. 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 Resident Engineer/COTR.
- O. Coordinate the work for this contract with other construction operations as directed by Resident Engineer/COTR. This includes the scheduling of

traffic and the use of roadways, as specified in Article, USE OF ROADWAYS.

1.7 ALTERATIONS

- A. Survey: Before any work is started, the Contractor shall make a thorough survey with the Resident Engineer or COTR of buildings, work areas, and areas which are anticipated routes of access, and furnish a report, signed by both, to the Contracting Officer. This report shall list:
1. Existing condition of work areas and access routes. Shall note any discrepancies between drawings and existing conditions at site.
 3. Shall designate areas for materials storage and routes of access to work areas which have been agreed upon by Contractor and Resident Engineer/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 Resident Engineer/COTR, 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 Section 00 72 00, GENERAL CONDITIONS.
- C. Re-Survey: Thirty days before expected partial or final inspection date, the Contractor and Resident Engineer or COTR together shall make a thorough re-survey of the work areas and access routes. 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. 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. Prior to start of work, prepare a plan detailing project-specific dust protection measures, including periodic status reports, and submit to Resident Engineer, COTR, 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.
- C. 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 RE/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.
- D. 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 Resident Engineer/COTR. 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 Resident Engineer/COTR. 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 two-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 Resident Engineer, COTR, 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 Resident Engineer, COTR, 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.
- E. 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.

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 noted on drawings or in specifications. 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 Resident Engineer/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 removing any Polychlorinated Biphenyl (PCB) transformers and capacitors and turning them over to VAMC for disposal. 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.
 - 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 CRR 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.
- 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 may have the necessary work performed and charge the cost to the Contractor.

(FAR 52.236-9)

- C. Refer to Section 01 57 19, TEMPORARY ENVIRONMENTAL CONTROLS, for additional requirements on protecting vegetation, soils and the environment. Refer to Articles, "Alterations", "Restoration", and "Operations and Storage Areas" for additional instructions concerning repair of damage to structures and site improvements.
- D. Refer to FAR clause 52.236-7, "Permits and Responsibilities," which is included in General Conditions. If a National Pollutant Discharge Elimination System (NPDES) permit is required for this project, the Contractor is considered an "operator" under the permit and has extensive responsibility for compliance with permit requirements. VA will make the permit application available at the (appropriate medical center) office. The apparent low bidder, contractor and affected subcontractors shall furnish all information and certifications that are required to comply with the permit process and permit requirements. Many of the permit requirements will be satisfied by completing construction as shown and specified. Some requirements involve the Contractor's method of operations and operations planning and the Contractor is

responsible for employing best management practices. The affected activities often include, but are not limited to the following:

- Designating areas for equipment maintenance and repair;
- Providing waste receptacles at convenient locations and provide regular collection of wastes;
- Locating equipment wash down areas on site, and provide appropriate control of wash-waters;
- Providing protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials; and
- Providing adequately maintained sanitary facilities.

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/COTR. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to the Resident Engineer/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) of Section 00 72 00, GENERAL CONDITIONS.

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. The indications of physical conditions on the drawings and in the specifications are the result of site investigations by Volz Environmental, Stantec, and Tolman Engineering, PLLC.

(FAR 52.236-4)

- B. Government does not guarantee that other materials will not be encountered nor that proportions, conditions or character of several materials will not vary from those indicated by explorations. Bidders are expected to examine site of work and logs of borings; and, after investigation, decide for themselves character of materials and make their bids accordingly. Upon proper application to Department of Veterans Affairs, bidders will be permitted to make subsurface explorations of their own at site.

1.13 PROFESSIONAL SURVEYING SERVICES

A registered professional land surveyor or registered civil engineer whose services are retained and paid for by the Contractor shall perform services specified herein and in other specification sections. The Contractor shall certify that the land surveyor or civil engineer is not one who is a regular employee of the Contractor, and that the land surveyor or civil engineer has no financial interest in this contract.

1.14 LAYOUT OF WORK

- A. The Contractor shall lay out the work from Government established base lines and bench marks, indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at Contractor's own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through Contractor's negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

(FAR 52.236-17)

- B. Establish and plainly mark center lines for each building and/or addition to each existing building, and such other lines and grades that are reasonably necessary to properly assure that location, orientation,

and elevations established for each such structure and/or addition, parking lots, sidewalks, ramps, and stairs are in accordance with lines and elevations shown on contract drawings.

- C. Following completion of general mass excavation and before any other permanent work is performed, establish and plainly mark (through use of appropriate batter boards or other means) sufficient additional survey control points or system of points as may be necessary to assure proper alignment, orientation, and grade of all major features of work. Survey shall include, but not be limited to, location of lines and grades of footings, exterior walls, center lines of columns in both directions, major utilities and elevations of slabs:
1. Such additional survey control points or system of points thus established shall be checked and certified by a registered land surveyor or registered civil engineer. Furnish such certification to the Resident Engineer/COTR before any work (such as footings, floor slabs, columns, walls, utilities and other major controlling features) is placed.
- D. During progress of work, and particularly as work progresses, Contractor shall have line grades and plumbness of all major form work checked and certified by a registered land surveyor or registered civil engineer as meeting requirements of contract drawings. Furnish such certification to the Resident Engineer/COTR before any major items of concrete work are placed. In addition, Contractor shall also furnish to the Resident Engineer/COTR certificates from a registered land surveyor or registered civil engineer that the following work is complete in every respect as required by contract drawings.
1. Lines of each building and/or addition.
 2. Elevations of bottoms of footings and tops of floors of each building and/or addition.
 3. Lines and elevations of sewers and of all outside distribution systems.
 4. Lines and elevations of walks, ramps, and stairs.
- E. Whenever changes from contract drawings are made in line or grading requiring certificates, record such changes on a reproducible drawing bearing the registered land surveyor or registered civil engineer seal, and forward these drawings upon completion of work to Resident Engineer/COTR.
- F. The Contractor shall perform the surveying and layout work of this and other articles and specifications in accordance with the provisions of Article "Professional Surveying Services".

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 Resident Engineer's/COTR' s review, as often as requested.
- C. Contractor shall deliver two approved completed sets of as-built drawings to the Resident Engineer/COTR within 15 calendar days after each completed phase and after the acceptance of the project by the Resident Engineer/COTR.
- 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 Resident Engineer/COTR, 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 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 Resident Engineer/COTR. If the equipment is not installed and maintained in accordance with the following provisions, the Resident Engineer/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.

1.18 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 Resident Engineer/COTR, 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.

1.19 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. 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.
- 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 or hot water 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. Electricity for all other uses 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. Water is 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 (at Resident Engineer's/COTR' s discretion) 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 waste will be cause for revocation (at Resident Engineer's/COTR' s discretion), of use of steam from the Medical Center's.

1.20 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.

1.21 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/COTR 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 Resident Engineer/COTR and shall be considered concluded only when the Resident Engineer/COTR 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 Resident Engineer/COTR, does not demonstrate sufficient qualifications in accordance with requirements for instructors above.

1.22 RELOCATED ITEMS

- A. Contractor shall disconnect, dismantle as necessary, remove and reinstall in new location, all existing items indicated to be relocated by the Contractor.
- B. Perform relocation of such items at such times and in such a manner as directed by the Resident Engineer/COTR.
- 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 herein before under paragraph "Abandoned Lines".
- 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.
- E. 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.

1.23 HISTORIC PRESERVATION

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 Resident Engineer/COTR verbally, and then with a written follow up.

1.24 GENERAL CONTRACTOR CONSTRUCTION REQUIREMENTS

- A. Contractors, as well as their employees, sub-contractors, affiliates, and visitors, are expected to fully comply with OSHA requirements (29 CFR), NFPA regulations, and Joint Commission standards for accreditation while working on federal property or representing VA Butler Healthcare in any way. In many cases, this includes developing and maintaining relevant written programs, ensuring the completion of appropriate training, and presenting evidence of these materials to the VA project COTR for approval prior to commencing work. For example, documentation that the OSHA 10 hour course has been completed by all employees.
- B. Contractors are expected to independently provide properly trained personnel and all safety equipment necessary for the contracted work including, but not limited to, personal protective equipment (i.e., safety glasses, face shields, ear plugs, hard hats, steel-toed footwear, flame-retardant clothing, gloves, etc.), atmospheric testing devices (such as "four-gas" monitors), confined space retrieval or extraction gear (harnesses, tripods, etc.), fall prevention/protection devices,

lockout locks/tags/devices, excavation shoring or "trench boxes," etc. Please note that lockout locks and tags use by the contractor must comply with VA Butler Healthcare requirements; your COTR can provide specific details.

- C. The contractor will notify the Fire Department (Building 48, phone number 724-477-5055) 24 hours in advance (except for hot work permits) before conducting confined space entries, sprinkler/fire alarm modifications, or creating opening or holes in floors, walls, ceilings, or roofs of VA Butler Healthcare structures. Except for hot work operations or actual emergencies, these tasks require a 24-hour advanced notice to allow for proper planning and adequate task review. Work will NOT commence for any of these tasks until Fire Department approval is received. Hot work permits can be obtained at the Fire Department after 7 a.m. on the day the work will take place. If a contractor enters a confined space, the contractor is responsible to provide a copy of their confined space permit to the Fire Department when they return the portable radio to the fire station.
- D. Good communication is critical to maintaining a safe work environment for all parties of this contract. To that end, the contractor and COTR are expected to communicate progress, project needs, changes, and problems on a daily basis. For consistency in communicating, the contractor shall designate a *single person* to serve as the point of contact and "competent person" for the job (as defined in relevant OSHA standards). The point of contact shall be properly trained for the assigned work and is responsible for channeling pertinent information to the VA COTR and disseminating information back to relevant parties under their direction.
- E. VA Butler Healthcare reserves the right to temporarily terminate contractor operations, without financial penalty or other negative contract implications, if instances of non-compliance with safety regulations or generally accepted safe work practices are observed. Operations will not resume until all safety issues have been resolved to the satisfaction of VA Butler Healthcare management.

1.25 EXCAVATION SAFETY

Contractor to comply with all excavation safety requirements as defined in 29 CFR 1926 and all applicable VA Guidelines:

- 19-1 **PURPOSE** To establish safe operating procedures for Contractors working in and around excavations.
- 19-2 **POLICY** Excavations deeper than 15 inches require some or all of the following precautions prior to the initiation of work, depending upon the depth and specific circumstances:
- > Determining the dimensions and soil classification of the excavation
 - > Performing a hazard analysis
 - > Locating all underground utilities through use of a digging permit (a digging permit is **ALWAYS** required for excavations)
 - > Lockout/tagout of associated utility hazards, as required
 - > Completing a confined space entry permit
 - > Determining if other protective systems are necessary, and providing these systems as required

Excavation Safety Inspection Checklist

To be completed by the Competent Person

Competent Person:

Time:

Excavation Width:

General Worksite Inspection

A.Surface encumbrances removed or supported Yes___
No___

B.Employees protected from loose rock or soil that could pose a hazard by falling or rolling into the excavation.
Yes___ No___

C.Hardhats worn by all employees. Yes___
No___

D.Spoils, materials, and equipment set back at least 25 feet from the edge of the excavation.
Yes___ No___

E.Barriers provided at all excavations, wells, pits, shafts, etc. Yes___
No___

F.Warning vests or other highly visible clothing provided and worn by employees *directly* exposed to vehicular traffic.
Yes___ No___

G.Employees required to stand away from vehicles while loading/unloading.
Yes___ No___

H.Warning system established and used when mobile equipment is operating near the edge of the excavation. Yes___
No___

I.Employees prohibited from passing beneath suspended loads. Yes___
No___

J.Employees prohibited from working on the faces of sloped or benched excavations above other employees.
Yes___ No___

Utilities:

A. Exact location of utilities marked. Yes___
No___

B. Underground installations protected, supported, or removed when excavation is open. Yes___ No___

1.26 CONFINED SPACE ENTRY

Contractor to comply with all confined space entry requirements per 29 CFR 1910.146.

1.27 CONSTRUCTION WASTE MANAGEMENT

Contractor to comply with all construction waste management requirements as listed below:

- I. **PURPOSE:** To outline the policy and procedures to ensure effective management/disposal of any waste generated through approved construction projects at this Medical Center.
- II. **POLICY:** It is the policy of this Medical Center that construction projects shall generate the least amount of waste possible.
- III. **PROCEDURES:**
 - A. Of the inevitable waste that is generated, as many of the waste materials as economically feasible shall be reused, salvaged or recycled.
 - B. Waste disposal in landfills shall be minimized to the greatest extent possible.
 - 1. Waste Diversion Goals.
 - a. New Construction: Minimum 5 of total project waste shall be diverted from landfill.
 - b. Demolition, Major Remodeling: Minimum 5 of total project waste shall be diverted from landfill.
 - c. Interior Remodeling: Minimum 5 of total project waste shall be diverted from landfill.
 - 2. The following waste categories, at a minimum, shall be diverted from landfill if economically feasible:
 - a. Green waste (biodegradable landscaping materials).
 - b. Soil.
 - c. Inerts (concrete, asphalt, masonry).
 - d. Clean dimensional wood, palette wood.
 - e. Engineered wood products: plywood, particle board, I-joists, etc.
 - f. Cardboard, paper, packaging.
 - g. Asphalt roofing materials.
 - h. Insulation.
 - i. Gypsum board.
 - j. Carpet and pad.
 - k. Paint.
 - l. Plastics: ABS, PVC.
 - m. Beverage containers
 - C. Submittals:
 - 1. Waste Management Plan Prior to any waste removal, the Contractor shall submit their Waste Management Plan to the Medical Center. The Plan shall contain the following:
 - a. Analysis of the estimated job site waste to be generated, including types and quantities.

- b. Proposed alternatives to land filling. Contractor shall prepare a list of each material proposed to be salvaged, re-used, or recycled during the course of the project.
 - c. Methods handling of materials to be recycled.
2. On site:
- a. Materials separation
 - b. Materials storage
 - c. Materials protection, where applicable
3. Off site: Provide name of mixed debris recycling facility; include list of materials to be recycled.
- a. Procedures. A description of the means to be employed in recycling the above materials consistent with requirements for acceptance by designated facilities.
 - b. Landfill Options. The name of the landfill(s) where trash will be disposed of.
 - c. Meetings. Contractor shall conduct Construction Waste Management meetings. Meetings shall include the Subcontractor, the Project Manager and representatives as designated by the Chief Engineer. At a minimum, waste management goals and issues shall be discussed at pre-bid meetings, pre-construction meetings and regular job-site meetings.
 - d. Transportation. A description of the means of transportation of the recyclable materials (whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler and removed from the site) and destination of materials.
 - e. Waste Management Plan Implementation.
 - f. Manager. The Subcontractor shall designate an on-site party (or parties) responsible for instructing workers and subcontractors and overseeing and documenting results of the Waste Management Plan for the project.
 - g. Distribution. The Subcontractor shall distribute copies of the Waste Management Plan to the Medical Center Chief Engineer.
 - h. Instruction. The Subcontractor shall provide on-site instruction of appropriate separation, handling, recycling, salvage, reuse and return methods to be used by all parties at appropriate stages of the project.
 - i. Separation Facilities. The Subcontractor shall lay out and label a specific area to facilitate separation of materials for reuse, salvage, recycling, and return. Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid contamination or mixing of materials.
 - j. Hazardous Wastes. Hazardous wastes shall be separated, stored, and disposed of according to local, state and federal regulations.
4. Reports:
- a. The Contractor shall submit (monthly, quarterly, at end of job) a Waste Management Progress Report. The report shall contain the amount (in tons or cubic yards) of material land filled from the project, the identity of the landfill, the total amount of tipping

fees paid at the landfill and the total disposal cost. Include legible copies of manifests, weight tickets, receipts and invoices. Manifests shall be from recycle and/or disposal site operators that can legally accept the materials for the purpose of reuse, recycling or disposal.

- b. For each material recycled, reused or salvaged from the project, provide the following:
 - (1) Amount (in tons or cubic yards).
 - (2) removed from the job site.
 - (3) Receiving party.
 - (4) Transportation cost.
 - (5) Amount of any money paid or received for the recycled or salvaged material. Net total cost or savings of salvage or recycling each material. Attach manifests, weight tickets, receipts, and/or invoices. Indicate the project information, including project title, name of company completing form, and beginning and ending dates of period covered by summary form.

IV. RESPONSIBILITIES: The Subcontractor shall employ processes that ensure the generation of as little waste as possible and shall avoid the generation of waste due to the following:

- a. Over-packaging.
- b. Error.
- c. Poor planning, layout.
- d. Over ordering.
- e. Breakage
- f. Mishandling.
- g. Contamination.
- h. Damage from weather.

A. Description of Work.

1. Includes:

- a. Waste Management Plan development and implementation.
- b. Meetings to discuss goals, issues and training for the Waste Management Plan.
- c. Techniques to minimize waste generation.
- d. Sorting and separation of waste materials.
- e. Reuse of salvaged materials on site.
- f. Salvage of existing materials and items for reuse or resale.
- g. Recycling of materials that cannot be reused or sold.
- h. Record keeping of receipts and records of salvaged, recycled or land filled materials.

2. Related Elements:

- a. Alternates.
- b. Construction Waste Management.
- c. Site Demolition.
- d. Site Clearing.
- e. Slope Protection/Erosion Control.
- f. Asphalt Concrete.
- g. Crushed Stone Paving.
- h. Portland Cement Concrete Paving.
- i. Valve Boxes.
- j. Storm Sewers.
- k. Chain Link Fences and Gates.

- l. Walk, Road and Parking Appurtenances.
- m. Miscellaneous Landscaping Materials.
- n. Concrete, Concrete Formwork, and Concrete Reinforcement.
- o. Cast-in-Place Concrete.
- p. Unit Masonry.
- q. Structural Steel.
- r. Steel Roof Deck/Steel Floor Deck.
- s. Cold Formed Metal Framing.
- t. Metal Fabrications.
- u. Rough and Finish Carpentry.
- v. Engineered Structural Wood.
- w. Plastic Lumber.
- x. Building Insulation.
- y. Modified Bitumen Roofing.
- z. Metal Doors.
- aa. Wood and Plastic Doors and Frames.
- bb. Metal Support Systems.
- cc. Gypsum Wallboard.
- dd. Acoustical Treatment.
- ee. Resilient Flooring.
- ff. Tile and Carpet.
- gg. Painting.
- hh. Toilet Compartments.
- ii. Louvers and Vents.
- jj. Signage and Graphics.
- kk. Ductwork and Ductwork Accessories

V. DEFINITIONS:

- A. Class III Landfill: A landfill that accepts non-hazardous resources such as household, commercial and industrial waste resulting from construction, remodeling, repair and demolition operations.
- B. Clean: Untreated and unpainted; uncontaminated with adhesives, oils, solvents, mastics and like products.
- C. Construction and Demolition Waste: Includes all non-hazardous resources resulting from construction, remodeling, alterations, repair and demolition operations.
- D. Dismantle: The process of parting out a building in such a way as to preserve the usefulness of its materials and components.
- E. Disposal: Acceptance of solid wastes at a legally operating facility for the purpose of land filling (includes Class III landfills and inert fills).
- F. Inert Backfill Site: A location, other than inert fill or other disposal facility, to which inert materials are taken for the purpose of filling an excavation, shoring or other soil engineering operation.
- G. Inert Fill: A facility that can legally accept inert waste, such as asphalt and concrete exclusively for the purpose of disposal.
- H. Inert Solids/Inert Waste: Non-liquid solid resources including, but not limited to, soil and concrete that does not contain hazardous waste or soluble pollutants at concentrations in excess of water-quality objectives established by a regional water board, and does not contain significant quantities of decomposable solid resources.
- I. Mixed Debris: Loads that include commingled recyclable and non-recyclable materials generated at the construction site.

- J. Mixed Debris Recycling Facility: A solid resource processing facility that accepts loads of mixed construction and demolition debris for the purpose of recovering re-usable and recyclable materials and disposing non-recyclable materials.
- K. Permitted Waste Hauler: A company that holds a valid permit to collect and transport solid wastes from individuals or businesses for the purpose of recycling or disposal.
- L. Recycling: The process of sorting, cleansing, treating, and reconstituting materials for the purpose of using the altered form in the manufacture of a new product. Recycling does not include burning, incinerating or thermally destroying solid waste.
- M. On-site Recycling. Materials that are sorted and processed on site for use in an altered state in the work, i.e. concrete crushed for use as a sub-base in paving.
- N. Off-site Recycling. Materials hauled to a location and used in an altered form in the manufacture of new products.
- O. Recycling Facility: An operation that can legally accept materials for the purpose of processing the materials into an altered form for the manufacture of new products. Depending on the types of materials accepted and operating procedures, a recycling facility may or may not be required to have a solid waste facilities permit or be regulated by the local enforcement agency.
- P. Re-Use: Materials that are recovered for use in the same form, on-site or off-site.
- Q. Return: To give back reusable items or unused products to vendors for credit.
- R. Salvage: To remove waste materials from the site for resale or re-use by a third party.
- S. Source-Separated Materials: Materials that are sorted by type at the site for the purpose of reuse and recycling.
- T. Solid Waste: Materials that have been designated as non-recyclable and are discarded for the purposes of disposal.
- U. Transfer Station: A facility that can legally accept solid waste for the purpose of temporarily storing the materials for re-loading onto other trucks and transporting them to a landfill for disposal, or recovering some materials for re-use or recycling.

VI. REFERENCES :

Guides. No preference is given to the recycles listed below; they are listed for the convenience of the contractor.

Dirt/clean fill.
 Green/landscaping waste.
 Concrete, asphaltic concrete.
 Cardboard, paper, packaging.
 Clean dimensional wood, palette wood.
 Usable palettes.
 Metals from banding, ductwork, piping, rebar, roofing, other trim, steel, iron, galvanized Carpet and pad.
 Gypsum board.
 Paint.
 Insulation.

Asphalt shingles.
Beverage containers.

1.28 PROCEDURES REGARDING PROCESSING INVOICES

All payments are now processed through the On Line Certification System in Austin, Texas. You are required to reference the purchase order number as well as the contract number on the first page of the invoice. You are required to submit a draft copy to the COTR for approval. Once a draft is approved by the COTR at the VA Butler, you are required to fax a copy of your invoice to 512-460-5545 for payment. Be absolutely sure the purchase order number is on the invoice.

- 1) A draft (pencil) copy of the invoice shall be e-mailed to the COTR for approval and cc Contracting Officer.
- 2) If the invoice **is** approved by the COTR "as is", the contractor will be notified via email to submit the invoice to the Dept of Vet Affairs, Financial Svc Ctr, PO Box 149971, Austin TX 78714-8971, or by fax to 512-460-5545. **The purchase order number and project name MUST be on the invoice.** If the invoice is **not** approved as submitted to the COTR, the contractor will be notified via e-mail of required changes and will re-submit pencil copy to reflect said changes for approval. Upon approval by the COTR of the corrected invoice, the contractor shall either fax to 512-460-5545 or mail the invoice to the Financial Svc Center at the address provided above.

3.37	Responding to Regulatory Inspections
	Maintaining or Repairing Facilities, Equipment, or Processes
3.38	Maint. & Repairing Facilities, Structures, Equipment or Processes - General
3.39	Starting Up, Shutting Down, or Performing Scheduled Maint. on Stationary Air Emissions Sources
3.40	Maint., Repairing or Altering Drinking Water Sys. at the Site
3.41	Repairing Drinking Water Sys. & Controlling Cross Connections
3.42	Repairing ASTs & USTs not Regulated under 40 CFR 280
3.43	Repairing USTs Regulated under 40 CFR 280
	WORK ACTIVITY
3.44	Planning Activities that may Break Up, Dislodge, Disturb or Block Access to Asbestos-Containing Material
3.45	Removing Asbestos-Containing Material
3.46	Maint. Equipment Containing or Contaminated with PCBs
3.47	Decontaminating Equipment Containing or Contaminated with PCBs
3.48	Maint., Testing & Disposing of Halon-Containing Equipment & Halon
3.49	Maint., Serv., or Repairing Stationary HVAC & Refrigeration Equipment
3.50	Maintaining, Servicing or Repairing Motor Vehicle Air Conditioners (MVACs)
3.51	Removing Lead from Service or from a Structure, or Classifying Newly Discovered Lead
3.52	Applying & Storing Pesticides
3.53	Applying Fertilizers
3.54	Maint. & Repairing Septic Tanks or Systems
3.55	Pumping Septic Tanks & Septic Systems
	Discontinuing Use Of, or Closing Facilities, Equipment or Processes
3.56	Deactivating, Decontaminating, Dismantling, or Closing Facilities (including trailers), Structures, Equipment, or Processes - General
3.57	Permanently Discont. Use of, or Closing, USTs Reg. under 40 CFR 280
3.58	Abandoning or Closing Septic Tanks
3.59	Abandoning Potable Water, Production, Monitoring, and Observation Wells
3.60	Abandoning Injection Wells
	Disturbing Soils
3.61	Disturbing Soils
	Purchasing of Goods and Services
3.62	Procuring Goods or Services
3.63	Purchasing Diesel Fuel
364	Purch. Refrigerants, Appliances Containing Refrigerants, Sys. Components that Operate Using Refrigerants, or Refrigerant Recovery or Recycling Equip.
3.65	Procuring Pesticides
	Spills/Releases, Fires, and Explosions; and Permit or Reg. Exceedances
3.66	Reporting and Cleaning Up Spills & Releases
3.67	Cleaning Up Spills and Releases of PCBs
3.68	Exceeding Permitted or Reg. Limits from Stationary Air Emission Sources
3.69	Exceeding WW Discharge Limits to the City of Butler Sewer System
	Generating Waste
3.70	Generating Waste (Content Weights for recovery, recycling Required)
	Receiving Off-site Waste, Disposing of Waste & Recycling or Reusing Materials
3.71	Distributing, Excessing or disposing of Appliances Containing Refrigerants
3.72	Dispositioning Excess Materials
3.73	Disposing of Asbestos-Containing Material

	Sample Collection and Monitoring
3.74	Monitor Wastewater Discharge to the City of Butler Sewer System
3.75	Preparing to collect and collecting samples (CERCLA or D&D&D)
3.76	Preparing to collect and collecting samples (NON-CERCLA or NON-D&D&D)
3.77	Packaging and Temporarily Storing Samples
3.78	Transferring Samples to a Laboratory
3.79	Storing and Maintaining Samples
3.80	Disposing of samples
3.81	Report. Env. Characterization Data collected to support FFA/CO Activities
3.82	Report Disturbances to CERCLA or Inactive Waste Sites and Identifying of Suspected Inactive Waste Sites
3.83	Developing and Maintaining an EMS
3.84	Performing CERCLA Remedial Activities

END