

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 Replace Building 7 Underground Storage Tank as required by drawings and specifications.
- B. Visits to the site by Bidders may be made only by appointment with the Medical Center Engineering Office.
- C. Offices of Shive- Hattery, Inc., 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. 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.
- E. 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.
- F. Training:
 - 1. All employees of general contractor or subcontractors shall have the 10-hour, on-site Superintendents shall have the 30-hour, OSHA certified Construction Safety course and/or other relevant competency training, as determined by VA CP with input from the 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, REPLACE BUILDING 7 UNDERGROUND STORAGE TANK: Work includes general construction, alterations, roads, walks, grading, mechanical and electrical work, fuel utility systems, necessary removal of existing structures and construction and certain other items.

1.3 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR

- A. AFTER AWARD OF CONTRACT, additional sets of specifications and drawings will be the responsibility of the Prime Contractor to furnish. A minimum of two sets shall be required (see section "AS-BUILT DRAWINGS") Sets of drawings may be made by the Contractor, at Contractor's expense, from documents furnished on the FBO website by Issuing Office.

1.4 CONSTRUCTION SECURITY REQUIREMENTS

A. Security Plan:

1. The security plan defines both physical and administrative security 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 identification 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. To gain temporary access to Building 7, the Project Manager will issue necessary keys to the Contractor. The keys issued are and remain government property. The Contractor or his representative will be required to sign in receipt of any keys issued and is responsible for returning them to the Project Manager. In cases where keys are lost or not returned to the government, funds in the

amount of \$100.00 for each key/core unit will be retained from the contract. The number of key/core replacements necessary to affect re-securing the areas will determine the total contract retainage. Duplication of any keys provided is strictly prohibited and could result in legal action.

E. Document Control:

1. 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.
2. Notify Contracting Officer and Site Security Officer immediately when there is a loss or compromise of "sensitive information".

F. Motor Vehicle Restrictions

1. Separate permits shall be issued for General Contractor and its employees for parking in designated areas only. Only one permit per Contractor and/or Sub-contractor per day/week will be issued. Duplicate vehicles without adequate explanation for being on site will be required to be removed from the facility.

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):
E84-2009.....Surface Burning Characteristics of Building Materials
2. National Fire Protection Association (NFPA):
10-2010.....Standard for Portable Fire Extinguishers
30-2008.....Flammable and Combustible Liquids Code
51B-2009.....Standard for Fire Prevention During Welding, Cutting and Other Hot Work
70-2011.....National Electrical Code
241-2009.....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 Project 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 Project Manager 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. Means of Egress: Do not block exiting for occupied buildings, including paths from exits to roads. Minimize disruptions and coordinate with // Project Manager.
- F. Egress Routes for Construction Workers: Maintain free and unobstructed egress. Inspect daily. Report findings and corrective actions weekly to Project Manager.
- G. Fire Extinguishers: Provide and maintain extinguishers in construction areas and temporary storage areas in accordance with 29 CFR 1926, NFPA 241 and NFPA 10.
- H. Flammable and Combustible Liquids: Store, dispense and use liquids in accordance with 29 CFR 1926, NFPA 241 and NFPA 30.
- I. 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 Project Manager.
- J. Smoke Detectors: Prevent accidental operation. If smoke detectors will be required to be turned off, a Contractor Request Form will be provided to the Project Manager a minimum of 24 hours prior indicating which smoke detectors will require to be deactivated.

- K. Hot Work: Perform and safeguard hot work operations in accordance with NFPA 241 and NFPA 51B. Coordinate with Project Manager. Obtain permits from facility Project Manager at least 24 hours in advance.
- L. Fire Hazard Prevention and Safety Inspections: Inspect entire construction areas weekly. Coordinate with, and report findings and corrective actions weekly to Project Manager.
- M. 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.
- N. Dispose of waste and debris in accordance with NFPA 241. Remove from buildings daily.
- O. Perform other construction, alteration and demolition operations in accordance with 29 CFR 1926.

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 shall be as shown on the drawings.
- E. Workmen are subject to rules of Medical Center applicable to their conduct.
- F. 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.
 - 1. Do not store materials and equipment in other than assigned areas.
 - 2. Schedule delivery of materials and equipment to immediate construction working areas. Provide unobstructed access to Medical Center areas required to remain in operation.
- G. Building(s) No.(s) 7 will be occupied during performance of work. 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 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.
- H. 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 Project Manager.
- I. 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 Project Manager.

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 Project Manager. 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, for additional requirements.
 2. Contractor shall submit a request to interrupt any such services to Project Manager, 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 Project Manager.
 5. In case of a contract construction emergency, service will be interrupted on approval of Project Manager. 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.
- J. 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.

- K. 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 Project Manager.
- L. Coordinate the work for this contract with other construction operations as directed by Resident Engineer. 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 Project Manager 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 indicating any discrepancies between drawings and existing conditions and for areas of working space.
- B. 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 as specified here. Prior to start of work, prepare a plan detailing project-specific dust protection measures, and submit to Project Manager 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.
- 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.
 - 2. Do not perform dust producing tasks within occupied areas without the approval of the Project Manager. 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 temporary drywall construction barriers to completely separate construction from the operational areas of the building(s) in order to contain dirt debris and dust. 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 Project Manager 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. Using a HEPA vacuum, clean inside the barrier.
- f. 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.
- g. 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 construction site.
- 2. Perform HEPA vacuum cleaning of all surfaces in the construction area - inside building(s). This includes walls, ceilings, cabinets, furniture (built-in or free standing), partitions, flooring, etc.

626A8-12-004; Replace Building 7 Underground Storage Tank
Infection Control Risk Assessment

Location and type of construction: Building 1, Floors B, 2, 4, 6, 8; asbestos abatement of floor tile, removal of ceilings, floors, finishes in corridors and waiting rooms <i>A West Corridor</i>				Project Start Date: November 2011 <i>May 2012</i>	
Project Manager: Marle A. Wolf				Estimated Duration: 18 months <i>2 mo</i>	
Supervisor of Area: Multiple <i>NA</i>				Date notified of project:	
YES	NO	CONSTRUCTION ACTIVITY	YES	NO	INFECTION CONTROL RISK GROUP
	<input checked="" type="checkbox"/>	TYPE A: Inspection, non-invasive activity.	<input checked="" type="checkbox"/>		GROUP 1: Least Risk
<input checked="" type="checkbox"/>		TYPE B: Small scale, short duration, minimal dust generating activity.		<input checked="" type="checkbox"/>	GROUP 2: Medium Risk
	<input checked="" type="checkbox"/>	TYPE C: Activity that generates moderate to high levels of dust, requires greater than one work shift for completion.		<input checked="" type="checkbox"/>	GROUP 3: Medium/High Risk
	<input checked="" type="checkbox"/>	TYPE D: Major duration and construction activities requiring consecutive work shifts.		<input checked="" type="checkbox"/>	GROUP 4: High Risk
Class:		Class determined by completing above and referring to FM-01 (Red Book) Section II Chapter 7, Risk Assessment Matrix of Precautions for Construction and Renovation.			
CLASS I Circle all that apply		1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace a ceiling tile displaced for visual inspection			
CLASS II (Circle all that apply)		1. Use tools equipped with dust collectors. 2. Seal unused doors with tape. 3. Block off and seal air vents. 4. Remove or isolate HVAC system in areas where work is being performed. 5. Utilize air filtration machine 6. Water mist work surfaces to control dust while cutting. 7. Place dust mat at entrance and exit of work area. 8. Wipe work surfaces with disinfectant. 9. Contain construction waste before transport in tightly covered containers. 10. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area. 11. Remove isolation of HVAC system in areas where work is being performed.			
CLASS III (Circle all that apply)		Obtain infection control approval before construction begins. 1. Implement measures from Class II above, plus. 2. Complete all critical barriers i.e. sheetrock, plywood, plastic, to seal area from non-work area before construction begins. * Consider off-shift work if critical barrier is not constructed. 3. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 4. Cover transport receptacles or carts. Tape covering unless solid lid. Implement measures from Class II above, plus. 5. Do not remove barriers from work area until completed project is inspected by Safety Section & Infection Control & thoroughly cleaned by Facilities Management. 6. Contain construction waste before transport in tightly covered containers. 7. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 8. Vacuum work area with HEPA filtered vacuums. 9. Wet mop area with disinfectant. 10. Remove isolation of HVAC system in areas where work is being performed.			
CLASS IV (Circle all that apply)		Obtain infection control approval before construction begins. 1. Consider off-shift work. 2. Consider Moving Patients out of area. 3. Implement measures from Class III above, plus 4. Construct anteroom and require all personnel and tools etc. 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. 5. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area. 6. Do not remove barriers from work area until completed project is inspected by Safety Section & Infection Control & thoroughly cleaned by Facilities Management. 7. Remove barrier material carefully to minimize spreading of dirt and debris associated with construction. 8. Contain construction waste before transport in tightly covered containers. 9. Cover transport receptacles or carts. Tape covering unless solid lid 10. Vacuum work area with HEPA filtered vacuums. 11. Wet mop area with disinfectant. 12. Remove isolation of HVAC system in areas where work is being performed.			
Exceptions/Additional requirements to this permit are noted by comments or attached memoranda:					
Infection Control Manager:			Date:		
<i>Nicole Gault</i>			<i>9/9/11</i>		

**minimal infection control concern, no additional precautions needed*

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. 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.

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 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.

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 Project Manager. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to the Project

Manager 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 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 Project Manager's review, as often as requested.
- C. Contractor shall deliver two approved completed sets of as-built drawings to the Project Manager within 15 calendar days after the acceptance of the project by the Project Manager.
- D. Paragraphs A, B, & C shall also apply to all shop drawings.

1.13 USE OF ROADWAYS

- A. For hauling, use only established public roads and roads on Medical Center property and, when authorized by the Project Manager, 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.

1.14 TEMPORARY TOILETS

- A. 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.

1.15 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 Contractor shall carefully conserve any utilities furnished without charge.
- B. 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.
- C. 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 Project Manager's discretion) of use of water from Medical Center's system.

1.16 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. All related components 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.
- D. 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.

1.17 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 Project Manager 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 Project Manager and shall be considered concluded only when the Project Manager 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 Project Manager, does not demonstrate sufficient qualifications in accordance with requirements for instructors above.

1.18 CONTRACTOR SUPPLIED BARCODE INFORMATION

A. Contractor shall provide the barcode information requested as requested below for each piece of equipment supplied under this contract.

BARCODE REQUEST

MANUFACTURER	
MODEL #	
SERIAL #	
DESCRIPTION	
VENDOR	
\$\$ VALUE (IF KNOWN)	
LOCATION	

1.19 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 Project Manager verbally, and then with a written follow up.

- - - E N D - - -