

## PAVING AND CONCRETE SITE WORK IDIQ Statement of Work

### 1. BACKGROUND

The **Chillicothe** VAMC, 17273 State Route 104, **Chillicothe**, Ohio 45601 is a campus of approximately 54 buildings, 308 acres, and 1.2 million square feet with associated sidewalks, streets and parking areas. The VAMC needs to make changes and improvements to accommodate maintenance, repair, and additions to these sidewalks, streets and parking areas.

### 2. OBJECTIVE

The purpose of this contract is to provide a paving & site work contractor services, on an as needed basis, for the VAMC, associated CBOCs.

### 3. GENERAL

#### Overview:

To achieve the above objective, the contractor shall use accepted contractor practices in all aspects of construction, maintenance and/or repairs. Contractor shall have knowledge and experience with materials and applications best suited for specific Paving & Site work projects, approved and appropriate techniques and methods of using these materials, and ensure compatibility of these materials with existing materials. Contractor will also be in compliance with applicable codes and/or Veterans Affairs (VA) requirements/regulations.

All demolition, modification, and construction work for any task order under this project will be performed in accordance with the Department of Veterans Affairs construction master specifications, which can be found at: <http://www.cfm.va.gov/til/spec.asp> and which will be edited and provided to the contractor at the time of a request for quote on a specific task order.

Contractor will ensure areas under modification are sealed to avoid dust and dirt from spreading to other areas of the facility. Contractor will ensure all areas, under modification, are cleaned up on a daily basis.

#### Project Requests:

VAMC Project Manager, Contracting Officer Technical Representative (COTR), or designee will outline individual project Task Orders to include timelines. Contractor will be asked to bid on individual project scopes as a percentage of R.S. Means. Each project Task Order will be provided to the contractor in writing by the Contracting office for pricing.

Sections provided in this solicitation are general in nature. A drawings and specification tailored to the specific project (task order) will be provided at the time of request for proposal on each individual task order.

### 4. SCOPE OF WORK

Contractor will perform all projects within the project timelines. Work to be performed under this contract may include, but is not limited to all divisions as listed:

- Division 0 - Special Sections
- Division 1 - General Requirements
- Division 2 - Existing Conditions
- Division 3 - Concrete
- Division 4 - Masonry
- Division 5 - Metals
- Division 7 - Thermal and Moisture Protection
- Division 26 - Electrical
- Division 31 - Earthwork
- Division 32 - Exterior Improvements
- Division 33 - Utilities
- Division 34 - Transportation

Sections within the divisions may be found at: <http://www.cfm.va.gov/TIL/spec.asp>. Tasks may include one or several divisions simultaneously. Contractor must obtain the ability and resources to perform design-build services and turnkey medical equipment site preparations. Contractor must be knowledgeable of Historical Preservation requirements.

Potential Projects:

- Revisions to existing parking areas
- Parking lot lighting
- Parking lots creation and paving.
- Maintain existing parking and paving
- Curb gutter and sidewalks
- Storm water routing
- Any upgrade to existing exterior site work

**5. LOGISTICAL SUPPORT, RELATIONSHIP AND RESPONSIBILITY**

The contractor will be responsible for all the logistical support during each project, cleaning up work site on a daily basis, and ensure a safe work environment. Contractor will be responsible for following all Occupational Safety and Health Administration (OSHA) guidelines and regulations. The Contractor will work under the direction of the VAMC Project Manager, COTR or designee.

**6. GENERAL STATEMENT OF WORK:**

a. The contractor shall furnish all labor, materials, tools, equipment, transportation and qualified supervision necessary to accomplish TOs (Task Orders). The TOs will vary in size and dollar amounts. TOs will involve, but will not be limited to trades, such as asphalt and concrete paving.

b. This contract does not include medical facilities engineering support services such as: utility plant operation, ground maintenance, refuse collection and disposal, maintenance and repair of equipment or systems, and similar work. No TO shall include Architect/Engineering services, however, information (shop) drawings, incidental to the job, reflecting the plan of action and the completed project may be included.

c. The contractor shall be required to be located, either by virtue of his main office or a satellite operation base, within an area permitting a maximum of a two (2) hour response time to the Medical Center location listed above. Said office or satellite base must be operational prior to award of the contract and throughout the duration of the contract, and must be open for business from 7:30 a.m. to 4:30 p.m., Monday through Friday, excluding federal holidays.

d. Demolition. Selective removal type demolition are listed in an additional column in the UPB for all tasks that can be demolished, and do not include hauling costs. Site demolition (Division 02) are assembly type of removals, and shall be used when appropriate. Line item demolition includes all attached appurtenances, for example, demolishing a door includes the hardware and removing pipe includes all in-line fittings and valves. Unless explicitly required in the scope of work, demolition includes handling. Handling line items in the UPB are for the handling of debris that is present prior to the task order. Handling is also allowed when use of a chute or elevator is required. Line item demolition prices include disposal costs, whether salvageable or non-salvageable material.

## **7. CONTRACTOR STAFF AND EMPLOYEES**

a. Prior to the issuance of the first TO, the contractor shall provide the Contracting Officer with the telephone number at which the contractor or his representative may be contacted at any time during the regular working hours and an emergency number at which the contractor may be contacted in situations requiring immediate attention. The above-mentioned representative, if provided, must have full power and authority to act upon the behalf of the contractor.

b. The contractor shall maintain a Project Manager and provide the Contracting Officer a personnel list ten (10) days prior to performance of the contract. The individual designated as the project manager shall have full authority to act for the contractor. The personnel shall meet or exceed the position requirements submitted on the contractor's proposal. The Government reserves the right to approve or disapprove personnel based on the position requirements stated in the proposal. The contractor shall provide experienced and knowledgeable personnel in civil, structural, architectural, mechanical, and electrical disciplines.

c. Supervision. The Government will not exercise any supervision or control over the contractor's employees performing services under this contract. Such employees shall be accountable not to the Government, but solely to the contractor, who, in turn, is responsible to the Government. At all times during the performance of each TO under this contract, and until the work under that TO is completed and accepted, the contractor shall directly oversee the work under each TO, or assign, and have on the work site, a competent representative

who is satisfactory to the Contracting Officer and has authority to act for the contractor. This may include a working supervisor.

d. Contractor's Employees: The contractor's employees shall adhere to the rules and regulations of the Medical Center applicable to employees' conduct/behavior. The Contracting Officer may require, in writing, the contractor to remove from the job site any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable. The contractor shall select personnel who are well qualified to perform the required work, for supervising techniques used in their work, and for keeping them informed of all improvements, changes, and methods of operation. In addition, the contractor shall take appropriate personnel action, as required, in the event employee(s) become involved with law enforcement authorities as a result of misconduct.

## **8. SUPERVISION**

a. A superintendent must be present at work site at all times a Contractor has his/her forces or subcontractor forces working. A letter (an original and one copy) designating the superintendent shall be sent to the Contracting Officer within ten (10) calendar days of receipt of the Notice to Proceed. This letter shall provide the superintendent's complete name, address, daytime and after hours phone numbers. The superintendent must have the authority to act on behalf of the contractor (FAR 52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)). A designation letter shall be submitted for each and every task order issued under this contract.

b. The superintendent shall have on site the drawings and specifications for this project (FAR 52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997)). Drawings shall be redlined (as necessary) and kept current for submission at the completion of the project. Drawings must always be available for COTR review throughout the project.

## **9. POST-AWARD CONFERENCE**

Before the issuance of the first task order under the contract, a post-award conference shall be conducted by the Contracting Officer, with the COTR in attendance, to acquaint the contractor with Government policies and procedures that shall be observed during the prosecution of the work, and to develop a mutual understanding relative to the administration of the contract. It is strongly suggested that the contractor's Project Manager, Quality Control Manager, Superintendent, and other appropriate employees attend this conference.

Individual task order conference: At the discretion of the Contracting Officer and/or the COTR, a pre-construction conference may be conducted prior to the commencement of work on individual task orders.

## **10. PROGRESS MEETINGS**

A monthly meeting (or more frequent, if deemed necessary) shall be held between the contractor, engineer and Contracting Officer, or his/her authorized representative, if necessary, to discuss work progress, problems, and potential modification.

## **11. GOVERNMENT FURNISHED PROPERTY**

Government furnished property will be identified in the task order.

## **12. PRE-CONSTRUCTION CONFERENCE**

a. Initial conference. When determined appropriate by the Contracting Officer, before the issuance of the first task order under the contract, a pre-construction conference may be conducted to acquaint the contractor with Government policies and procedures that are to be observed during the prosecution of the work, and to develop mutual understanding relative to the administration of the contract. It is strongly suggested that the contractor's Project Manager, Quality Control Manager, Superintendent, and other appropriate employees attend this meeting.

b. Individual task order conference. At the discretion of the Contracting Officer, or his/her authorized representative, a pre-construction conference may be conducted prior to the commencement of work on individual task orders.

## **13. SCHEDULING OF WORK**

a. Before commencement of work under an individual TO, the contractor shall confer with the Contracting Officer's Representative and agree on a sequence of procedures; means of access to premises and building; space for storage of materials and equipment; delivery of materials and use of approaches; use of corridors, stairways, elevators, and similar means of communication; location of partitions, eating spaces, and restrooms for contractor employees; and the like.

b. Delivery of materials and equipment shall be made with a minimum of interference to Government operations and personnel.

c. The work shall, so far as practicable, be done in definite sections or divisions, and confined to limited areas which shall be completed before work in other sections or divisions is begun. Most work will be performed in occupied areas.

d. The contractor shall take all precautions to ensure that no damage will result from his operations to private or public property. All damage shall be repaired or replaced by the contractor at no cost to the Government.

e. The contractor shall provide all dust barriers, access barriers, and other site protective barriers and site control devices. This includes, but is not limited to: protective fences; protective tapes; and protective signage.

f. At the beginning of each working day, the contractor shall notify the COTR of the location(s) of work to be accomplished that day.

g. All temporary outages of any utility services required for the performance of work shall be scheduled with the COTR not less than ten (10) working days in advance of such outages.

## **14. TOILET FACILITIES**

The contractor's personnel will be permitted to use toilet facilities on the premises. In the event none are available, the contractor shall, at his/her own expense, provide portable facilities,

as required. In addition, toilet facilities desired at the contractor's management office shall be provided at the expense of the contractor.

**15. FINAL CLEANUP COSTS**

The contract percentage factors include the cost of final cleanup on each individual task order, pursuant to the paragraph entitled "Commencement, Prosecution, and Completion of Work and Environmental Protection", and pursuant to FAR Clause 52.236-12 entitled "Cleaning Up (April 1984)". Payments will not be made for final cleaning for work on individual task orders.

**16. PRICE ADJUSTMENT MODIFIERS**

The Unit Price Book presented under this contract contains unit pricing data to be used by the contractor in development of price proposals for each TO. The pricing data is presented as basic items and as price adjustment modifiers to the basic item. Price adjustment modifiers provide a method for adding to or deducting from the basic item prices for optional materials and/or methods of installation. One or more modifiers can be utilized to adjust the basic item price as listed by the appropriate suffix number of basic lines.

**17. CONTRACTOR ACCESS**

Most work will be in occupied areas. The area wherein work is to be performed under this contract may be occupied by Government services during the construction period. The contractor shall have access to that portion of the area within which work is to be performed. The movement of contractor personnel, his equipment, materials, and tools shall be confined to this area so as not to interfere with ongoing operations in the work areas.

**18. WORK BY THE GOVERNMENT**

The Government reserves the right to undertake performance by Government forces or other contractors, for the same type or similar work as contracted for herein, as the Government deems necessary or desirable, and to do so will not breach or otherwise violate this contract

**19. CONTRACTOR QUALITY CONTROL**

a. The Contractor Quality Control (CQC) Plan, with which the contractor proposes to implement the requirements of FAR clause 52.246-12, entitled "Inspection of construction", shall identify personnel, procedures, instructions, records, and form to be used. After contract award, and prior to commencement of work under individual task orders, the contractor's Quality Control Plan shall be received, reviewed and formally accepted in writing by the Contracting Officer. Failure to execute the Quality Control Plan shall result in withholding of funds from progress payments in accordance with FAR Clause 52.232-5, entitled "Payment under Fixed-Price Construction Contracts".

b. The Quality Control Plan shall include as a minimum, the following:

- (1) The qualifications, duties, responsibilities, and authorities of each person assigned to a quality control function.

- (2) Procedures for scheduling and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agent.

c. Notification of Changes: The contractor shall notify the Contracting Officer in writing of any proposed changes. Proposed changes are subject to acceptance by the Contracting Officer. The Government reserves the right to require the contractor to make changes in his CQC Plan and operations as necessary.

d. Control: Contractor quality control is the means by which the contractor assures himself that his construction complies with the requirements of the contract plans and specifications. The controls shall be adequate to cover all construction operations, including both on-site and off-site fabrication, and shall be keyed to the proposed construction sequence. Quality control includes, as a minimum, the following functions:

- (1) All submittals are submitted in a timely fashion.
- (2) The submittals are approved.
- (3) The supplies that are delivered are the same as the ones on the submittal.
- (4) The supplies are in the proper condition when delivered.
- (5) The supplies are stored properly.
- (6) The construction equipment is correct and meets contract requirements.
- (7) Testing provisions are reviewed and testing equipment and personnel are available and correct.
- (8) All tests are performed at the proper times and in the proper places.
- (9) All test reports meet contract requirements.
- (10) The workers are cognizant of the required level of workmanship.
- (11) Inspect each area of work to ensure the preparation for the work is correct.
- (12) Inspect each feature of the work to ascertain that no deficient work is covered up by succeeding work.
- (13) Inspections shall continue throughout the contract.
- (14) Document all inspections.
- (15) The documentation covers both conforming and defective work.
- (16) All deficiencies are corrected.
- (17) Develop procedures to ensure that deficiencies do not recur.
- (18) Develop a "punch list" for the completion inspection.
- (19) Government officials are notified at the proper times of inspections and/or tests that are required.

## **20. RELEASE OF QUALITY CONTROL PLAN**

The Government reserves the right, upon award of this contract, to disseminate within the Government, for official use, without prior approval of the contractor, the Quality Control Plan and other plans and documents identified and submitted by the contractor for the intended use of inspection, surveillance, or any administrative or contractual function under this contract.

## **21. DEVIATION FROM PROPOSED LIST OF SUBCONTRACTORS**

a. The contractor shall update his list of subcontractors as frequent as subcontracting changes (increases/decreases) occur, and submit the updated list to the Contracting Officer within ten (10) working days of each change/deviation. This list shall contain all subcontractor deviations (increases/decreases) that vary from the original list of subcontractors provided in the quality proposal.

- b. The contractor shall submit a list of subcontractors for each task order.

## **22. SAFETY ASSURANCE**

a. **Preconstruction Safety Meetings:** If a pre-construction conference is held, representatives of the contractor shall meet with the Contracting Officer and/or the COTR prior to the start of repair, alteration, or construction activities for the purpose of reviewing the contractor's safety and health programs, and discussing implementation of all safety and health provisions pertinent to the work to be performed under the contract. The contractor shall be prepared to discuss, in detail, the measures he/she intends to take in order to control any unsafe or unhealthy conditions associated with the work to be performed under the contract. This meeting may be held in conjunction with the preconstruction conference, if so directed by the Contracting Officer or his/her designated representative. The conduct of this meeting is not contingent upon a general preconstruction meeting. The level of detail for the safety meeting is dependent upon the nature of the work and the potential inherent hazards. The contractor's principal representative(s), the general superintendent, and his/her safety representative(s) shall attend this meeting as determined by the Contracting Officer.

b. **Contractor Responsibility:** The contractor shall assume full responsibility and liability for compliance with all applicable regulations pertaining to the health and safety of personnel during the execution of work, and shall hold the Government harmless for any action on his part or that of his employees or subcontractors, which results in illness, injury, or death. Contractors shall report, timely, any accidents or injuries to the Contracting Officer.

c. **Inspection, Tests, and Reports:** The required inspections, tests, and reports made by the contractor, subcontractors, specially trained technicians, equipment manufacturers, and others, as required by a task order, shall be furnished in accordance with the terms of the task order.

d. **Materials and Equipment:** Special facilities, devices, equipment, clothing, and similar items used by the contractor in the execution of work shall comply with the applicable regulations.

## **23. KEYS**

All keys provided the Contractor for use during performance of individual task orders shall be returned to the Contracting Officer's Technical Representative (COTR) at completion of the work or upon request. No keys shall be reproduced by the Contractor. There shall be a charge of \$50.00 for each key that is lost or not returned to the COTR. Payment shall be made to the Agent Cashier at the VAMC Chillicothe Ohio upon receipt of a Bill of Collection.

## **24. COMMENCEMENT OF WORK**

The contractor shall commence any mobilization and phase-in activities prior to actual work on individual task orders as soon after contract award as practicable. However, within 30 calendar days after contract award, the contractor shall be operational and capable of immediately starting work on any required task orders.

## **25. NORMAL WORKING HOURS**

Offerors shall perform any or all work during normal working hours in accordance with the scope of work in individual task orders against this contract for the unit price sum specified in the Unit Price Book, multiplied times the coefficient for Normal Working Hours. (See paragraph entitled "Work Hours".)

## 26. OTHER THAN NORMAL WORKING HOURS

Offers shall perform any or all work other than normal working hours (acceleration, or work to be performed outside the normal working hours (7:30 a.m. to 4:30 p.m., Monday through Friday) in accordance with the scope of work in individual task orders against this contract for the unit price sum specified in the Unit Price Book, multiplied times the coefficient for other than normal work hours, and will be used when the Government requires the contractor to perform work outside the facility's normal working hours. (See paragraph entitled "Work Hours".)

## 27. WORK HOURS

Normal work hours are from 7:30 a.m. to 4:30 p.m., Monday through Friday. Holidays falling on Saturday will be observed the preceding Friday, and holidays falling on Sunday will be observed the following Monday. The following federal holidays are observed:

New Year's Day	Labor Day
Martin Luther King's Birthday	Columbus Day
President's Day	Veteran's Day
Memorial Day	Thanksgiving Day
Independence Day	Christmas Day

## 28. WASTE AND EXCESS QUANTITIES INCLUDED IN THE COMPLETED-IN-PLACE CONSTRUCTION QUANTITIES

Waste or excess material quantities are incidental costs that are included within the contract coefficient unless explicitly stated otherwise. Quantities used on individual task order proposals shall be taken from field measurements or design plans, as appropriate, without allowance for waste. Contractor shall verify and/or investigate all dimensions and quantities to be used. Unless specifically stated in statement of work, the VA will not be responsible for any incorrect quantities.

## 29. OPERATIONS AND MAINTENANCE

Prior to final acceptance and payment of each task order, the contractor shall submit one (1) complete equipment listing, to include all name-plate data, and three (3) copies of all operation and maintenance manuals to the Contracting Officer for HVAC systems, electrical controls, etc. The contractor shall conduct a training session of not less than two (2) hours per piece of equipment and /or system, to brief Government personnel on the operation and maintenance procedures of such systems. The contractor shall provide three (3) complete teardown/overhaul/repair manuals for the chillers provided. The contractor shall provide two (2) complete service literature catalogs for the chiller manufacturer's engineering machinery products.

**30. SPECIFICATIONS**

Work shall be accomplished in accordance with the 'VA MASTER CONSTRUCTION SPECIFICATION PG-08-1" (provided on disk at contract award). This regulation is available for review at the Medical Center's Engineering Office. A copy of all sections will be provided to the contractor for work required under this contract.

**31. CONFORMANCE TO CODES AND REGULATIONS.**

National and international codes and regulations for building construction and safety will be used where applicable. Current architectural, engineering, and construction practices shall be incorporated in the project design to obtain quality and to provide a functional, complete, and usable facility. The applicable list of National Codes and Regulations (Latest Edition) includes, but is not limited to, the following:

- BOCA Code;
- International Building Code
- National Electric Code
- National Fire Protection Code
- National Safety Code
- OSHA Regulations
- ASHRA-E, Codes, Standards
- International Plumbing Code

**32. NOTICE OF COMPLETION OF TASK ORDER.**

The contractor shall notify the Contracting Officer, or his/her authorized representative in writing upon completion of each individual task order. The contractor shall give advance notice of the date the work will be fully completed and ready for final inspection.

DEPARTMENT OF VETERANS AFFAIRS  
MASTER SPECIFICATIONS

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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 items, and furnish labor and materials and perform work for projects as identified by individual task order, under Paving and Concrete Site IDIQ at VAMC, Chillicothe, Ohio, as required by drawings and specifications.
- B. Visits to the site by bidders will be in accordance with FAR 52.236-27, Site Visits.
- C. COTR's of VAHC Chillicothe, Ohio will render 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. All inquiries and/or questions shall be directed to the Contracting Officer as outlined in paragraph 1.1G below.
- 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 an OSHA Construction Outreach "competent person" (CP) (29 CFR 1926.20 will maintain a presence at the work site whenever the general or subcontractor(s) are present.
- F. Training:
  - 1. All employees of general contractor or subcontractors shall have the 10-hour OSHA Construction Outreach Safety course and/or other relevant competency training required by OSHA, as determined by VA CP with input from the VA Infection Control Risk Assessment (ICRA) team.
  - 2. Submit all related training records of all such employees for approval before the start of work.
- G. Request for Information:
  - 1. In the event an explanation or interpretation of the drawings or specifications is necessary, submit the request using RFI (Request for Information) Form included in the EXHIBITS SECTION of these specifications. Such requests shall be submitted to the Contracting Officer soon enough to allow a reply so as to effect the project as little as possible.

1.2 STATEMENT OF BID ITEM(S)

- A. BID ITEM I (BASE BID): Contractor shall completely prepare the site for paving operations, including demolition, removal of existing items, and furnish labor, materials and equipment necessary to complete all new paving which includes but not limited to demolition, construction phasing, mechanical, electrical and utility as shown and specified. Work to be completed within the number of calendar days identified by the task order after receipt of Notice to Proceed.

1.3 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR

- A. AFTER AWARD OF CONTRACT, zero sets of specifications and drawings will be furnished.

1.4 FIRE AND SAFETY PRECAUTIONS

- 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):

E84-1998..... Surface Burning Characteristics of Materials

2. National Fire Protection Association (NFPA):

10-1998..... Standard for Portable Fire Extinguishers

FCLCH-30-2000..... Flammable and Combustible Liquids Code

51B-1999..... Standard for Fire Prevention During Welding, Cutting and  
Other Hot Work

70-2000..... National Electric Code

241-2000..... Standard for Safeguarding Construction, Alterations and  
Demolition Operations

3. Occupational Safety and Health Administration (OSHA):

29 CFR 1926..... Safety and Health Regulations for Construction

29 CFR 1910..... Safety and Health Regulations for General Industry

- B. Fire Safety Plan: Establish and maintain a fire protection program in accordance with 29 CFR 1926 and NFPA. Prior to start of work, prepare a plan detailing project-specific fire safety measures, including periodic status reports, and submit to Resident Engineer 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 (toolbox talks) 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 that individuals have undergone contractor's safety briefing. A monthly status report shall be provided during the entire construction detailing the status of each measure.

- C. The contractor is to keep all tools and equipment under his direct, personal control so that no unauthorized use of tools and equipment can occur.
- D. All tools, equipment, and materials are to be placed within locked, physically secure, and weather proof enclosures at the end of each workday.
- E. Temporary Construction Partitions:
  - 1. Install and maintain temporary construction partitions to provide smoke-tight separations between construction areas during each phase 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 partition 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 one-hour fire-rated temporary construction partitions as shown on the drawings to maintain integrity of existing smoke barriers and openings enclosures.
  - 3. Close openings in smoke barriers and fire-rated construction to maintain fire ratings. Seal penetrations with listed through-penetration fire stop materials in accordance with Section 07 84 00, FIRESTOPPING.
- F. Site and Building Access: Exits for VA occupied areas of a building including rooms, suites, corridors and floors shall not be blocked by the construction or by construction materials in accordance with NFPA 241. Exits may be blocked temporarily if it is unavoidable and adequate alternate measures are provided such as signage, instructions to occupants and a heat detection system.
- G. 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 connection. 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. All existing or temporary fire protection systems (fire alarms, sprinklers) located in construction areas shall be tested by the Contractor in the presence of the Resident Engineer. Parameters for the testing shall

be approved by the Resident Engineer. Results of any tests performed shall be recorded by the Contractor and copies provided to the Resident Engineer.

- H. All work areas are to be kept clear of accumulated debris at all times in accordance with NFPA 241. At the end of each workday, combustible packaging and crating materials for building products and equipment to be installed shall be removed from construction area, stored in approved container or area, until removal from station by contractor. All work areas are to be in a broom clean condition at the end of each workday.
- 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. As required by the Joint Commission on Accreditation of Healthcare Organizations, smoking shall be prohibited in or adjacent to all construction areas in existing buildings. Smoking shall be prohibited at or near or throughout demolition areas. See Medical Center Smoking Policy located in the EXHIBITS SECTION of the Specifications.
- K. Weekly fire and safety hazard inspections shall be conducted by the contractor once construction starts and until the project is turned over to the Government. A report shall be provided to the Resident Engineer listing all hazards and corrective actions taken.
- L. Temporary structures, including trailers that are used for storage or offices, shall be a minimum of 30 feet from any VA occupied building in accordance with NFPA 241.
- M. Temporary Heating and Electrical: Install, use and maintain installations in accordance with 29 CFR 1926, NFPA 241 and NFPA 70.
- N. All flammable liquids shall be handled, stored and used in accordance with 29 CFR 1926, NFPA 241 and NFPA 30.
- O. Installation of sprinkler systems, standpipe systems, fire hydrants, and fire alarm systems, shall be given priority and placed into service as soon as practical.
- P. Maintain construction site to permit access of fire department vehicles as necessary. Clear building construction areas of unnecessary obstructions so that all portions are accessible for fire department apparatus and permit emergency egress of construction and other personnel.
- Q. All necessary precautions shall be taken by the contractor to prevent accidental operation of any existing smoke detectors by minimizing the amount of dust generated in the vicinity of any smoke detectors.
- R. All construction activities not already covered above shall be in accordance with NFPA 241.

- S. Perform other construction, alterations and demolition operations in accordance with 29CFR 1926/1910.
- T. The contractor shall notify the Contracting Officer, in writing, of any on-site job related injuries/illnesses which occur during performance of work under this contract. This notification is to be provided to the Contracting Officer as soon as possible but not later than 24 hours after the incident occurs.

#### **1.5 OPERATIONS AND STORAGE AREAS**

NOTE: The following paragraphs are in addition to FAR 52.236-10 Clause 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.
- 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, roads and lawn areas.
- D. Working space and space available for storing materials shall be as shown on the drawings and as determined by the Resident Engineer.
- 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. 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 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 and approval of the Contracting Officer's Technical Representative (COTR).

G. Phasing: To insure such executions, Contractor shall furnish the Resident Engineer 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 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

1. The 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 Center's operations will not be hindered. Contractor shall permit (safe) access to Veterans Affairs personnel and patients through other construction areas which serve as routes of access to such affected areas and equipment. Coordinate alteration work in areas occupied by Department of Veterans Affairs so that hospital operations will continue during the construction period.

I. Construction Fence: Before construction operations begin, Contractor shall provide a chain link construction fence around the construction area(s) indicated on the drawings and as directed by the resident engineer. Provide gates as required for access with necessary hardware, including hasps and padlocks. Details of fence construction and finish thereof shall be submitted to Resident Engineer for approval. Remove the fence when directed by the Resident Engineer.

J. Utilities Services: Maintain existing utility services for Medical Center at all times. Provide temporary facilities, labor, materials, equipment, connections, and utilities to assure uninterrupted services. Where necessary to cut existing water, steam, gases, sewer or air

pipes, or conduits, wires, cables, etc. of utility services, or of fire protection systems or 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.

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.
  2. Contractor shall submit a request to interrupt any such services to Resident Engineer, in writing, five (5) working days 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. In case of a contract construction emergency, services will be interrupted on approval of Resident Engineer. Such approval will be confirmed in writing as soon as practical.
  5. 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.
- K. 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.
- L. 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.
  2. Method and scheduling of required cutting, altering and removal of existing walks and entrances must be approved by the Resident Engineer.

- M. 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.
- N. Hours of Work: The work of this contract is to be executed between 7:15 a.m. and 3:45 p.m., Monday through Friday, except as required by the specifications and/or otherwise authorized by the Resident Engineer. Work in occupied spaces shall be scheduled at times convenient to the occupant and the Medical Center. No work will be performed on Government recognized holidays, except as required by the specifications and/or otherwise authorized by the Resident Engineer.
- O. Keys: Any keys necessary to gain entry to work areas or other spaces associated with performing work will be issued to the Contractor's representative on a daily basis. Keys will be signed out after 7:15 a.m. and returned before 3:45 p.m. from the Engineering Office, Building 21, each day when necessary to gain access. Failure to return any issued keys may result in a charge to include costs to re-key areas associated with the keys involved.

#### **1.6 ALTERATIONS**

- A. Survey: Before any work is started, the Contractor shall make a thorough survey with the Resident Engineer and a representative of VA Acquisition and Materiel Management Service of areas of buildings in which alterations occur and areas which are anticipated routes of access, and furnish a report, signed by all three, to the Contracting Officer. This report shall list by rooms and spaces:
  - 1. Existing condition and types of resilient flooring, doors, windows, walls and other surfaces not required to be altered throughout affected areas of buildings.
  - 2. Existence and conditions of items such as plumbing fixtures and accessories, electrical fixtures, equipment, venetian blinds, shades, etc., required by drawings to be either reused or relocated, or both.
  - 3. Shall note any discrepancies between drawings and existing conditions at site.
  - 4. Shall designate areas for working space, materials storage and routes of access to areas within buildings where alterations occur and which have been agreed upon by Contractor and the Resident Engineer.
- 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 and Acquisition and Materiel Management Service, 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).

- C. Re-Survey: Thirty days before expected partial or final inspection date, the Contractor and Resident Engineer together shall make a thorough re-survey of the areas of buildings involved. They shall furnish a report on conditions then existing, of resilient flooring, doors, windows, walls and other surfaces as compared with conditions of same as noted in first condition survey report.
  - 1. Re-survey report shall also list any damage caused by Contractor to such flooring and other surfaces, despite protection measures; and, will form basis for determining extent of repair work required of Contractor to restore damage caused by Contractor's workmen in executing work of this contract.
- D. Protection: Provide the following protective measures:
  - 1. Wherever existing roof surfaces are disturbed they shall be protected against water infiltration. In case of leaks, they shall be repaired immediately upon discovery.
  - 2. Temporary protection against damage for portions of existing structures and grounds where work is to be done, materials handled and equipment moved and/or relocated.
  - 3. Protection of interior of existing structures at all times, from damage, dust and weather inclemency. Wherever work is performed, floor surfaces that are to remain in place shall be adequately protected prior to starting work, and this protection shall be maintained intact until all work in the area is completed.
  - 4. Dampen debris to keep down dust and provide temporary construction partitions in existing structures where directed by Resident Engineer. Blank off ducts and diffusers to prevent circulation of dust into occupied areas during construction.
    - a. When local building code requires temporary closures to have a fire rating, the design of the closures and the materials of which they are constructed shall be such as will provide the required fire rating.

#### **1.7 INFECTION PREVENTION MEASURES**

- A. Implement the requirements of VAMC's Infection Control 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, including periodic status reports, and submit to Resident Engineer thru the Contracting Officer for review for compliance with contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES and the Addendum included at the end of this section.

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 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 need.
  2. In case of any problem, the Medical Center, along with assistance from the Contractor, shall conduct an environmental assessment to find and eliminate source.
- D. In general, the 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. 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. For construction in any areas that will remain jointly occupied by the Medical Center and Contractor's workers, the Contractor shall COMPLY with the provisions set forth in the attached addendum at the end of this section.

#### **1.8 DISPOSAL AND RETENTION:**

- A. Materials and equipment accruing from work removed and from demolition of 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 as items to be stored. Items which 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 reinstallation and reuse. Store such items where directed by Resident Engineer.

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.

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

NOTE: The following paragraph is in addition to FAR 52.236-9 Clause 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 is not to be removed and which do not reasonably 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 workman, 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. Refer to Articles, "Alterations," "Restoration," and "Operations and Storage Areas" for additional instructions concerning repair of damage to structures and site improvements.

#### **1.10 RESTORATION**

- A. Remove, cut, alter, replace, patch and repair existing work as necessary to install new work. Except as otherwise shown or specified, do not cut, alter or remove any structural work, and do not disturb any ducts, plumbing, steam, gas, or electric work without approval of the Resident Engineer. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to the Resident Engineer 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).

**1.11 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.

**1.12 LAYOUT OF WORK**

- A. The Contractor shall layout 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 Office.
- B. Establish and plainly mark center lines for each 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 are in accordance with lines and elevations shown on the 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 limited to, location of lines and grades of footings, exterior walls, center lines of columns in both directions, major utilities and elevations of floor slabs:

1. Such additional survey control points or systems 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 before any work (such as footings, floor slabs, columns, walls, utilities and other major controlling features) is placed.

- D. 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.
- E. 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".

#### **1.13 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 review, as often as requested.
- C. Contractor shall deliver two approved completed sets of as-built drawings to the Resident Engineer within 15 calendar days after each completed phase and after acceptance of the project by the Resident Engineer.
- D. Paragraphs A, B, and C shall also apply to all shop drawings.

#### **1.14 USE OF ROADWAYS**

For hauling, use only established public roads and roads on Medical Center property and, when authorized by the Resident Engineer, 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.

**1.15 TEMPORARY TOILETS**

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.

**1.16 AVAILABILITY AND USE OF UTILITIES**

NOTE: The following paragraphs are in addition to FAR 52.236-14 AVAILABILITY AND USE OF UTILITY SERVICES.

- A. Heat: Furnish temporary heat necessary to prevent injury to work and materials through dampness and cold. Use of open salamanders or any temporary heating devices which may be fire hazards or may smoke and damage finished work, will not be permitted.

Maintain minimum temperatures as specified for various materials.

1. Obtain heat by connecting to Medical Center heating distribution system.

- a. Steam is available at no cost to Contractor.

- 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 Resident Engineer's discretion) of use of water from Medical Center's system.

- D. 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 discretion), of use of steam from the Medical Center's system.

#### **1.17 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, feed water, 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.

#### **1.18 INSTRUCTIONS**

- A. Contractor shall furnish Maintenance and Operating manuals and verbal instructions when required by the various sections of the specifications and as hereinafter specified.
- B. Manuals: Maintenance and operating manuals (four copies each) for each separate piece of equipment shall be delivered to the Resident Engineer coincidental with the delivery of the equipment to the job site. Manuals shall be complete, detailed guides for the maintenance and operation of equipment. They shall include complete information necessary for starting, adjusting, maintaining in continuous operation for long periods of

time and dismantling and reassembling of the complete units and sub-assembly components. Manuals shall include an index covering all component parts clearly cross-referenced to diagrams and illustrations. Illustrations shall include "exploded" views showing and identifying each separate item. Emphasis shall be placed on the use of special tools and instruments. The function of each piece of equipment, component, accessory and control shall be clearly and thoroughly explained. All necessary precautions for the operation of the equipment and the reason for each precaution shall be clearly set forth. Manuals must reference the exact model, style and size of the piece of equipment and system being furnished. Manuals referencing equipment similar to but of a different model, style, and size than that furnished will not be accepted.

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

**1.19 GOVERNMENT-FURNISHED PROPERTY**

- A. There is no Government Furnished Property for this project.

**1.20 RELOCATED EQUIPMENT ITEMS**

- A. Contractor shall disconnect, dismantle as necessary, remove and reinstall in new location, all existing equipment and items shown to be relocated by the Contractor.
- B. Perform relocation of such equipment or items at such times and in such a manner as directed by the Resident Engineer.

- 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 hereinbefore 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.

**1.21 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 verbally, and then with a written follow up.

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**ADDENDUM TO GENERAL REQUIREMENTS**  
**INTERIM INFECTION CONTROL MEASURES**

**PART 1 • GENERAL**

**1.1 QUALITY ASSURANCE**

- A. The VAMC-Chillicothe has designated this project to require Interim Infection Control Measures, and has determined that Class IV requirements shall be met during construction:
- B. Healthcare associated infections of immune compromised patients, staff and visitors may be caused by exposure to airborne contaminants.
1. Construction, renovation and repair activities may generate suspended fungal spores and/or bacterial contaminants from dust, debris and earthwork excavation dust.
  2. Fungal spores can be carried by air currents to remote locations within a facility.
  3. Control of airborne contaminants in smoke, construction dust, debris and excavation dust as required by this Section is imperative.
- C. Interim Infection Control Measures (IICM) shown on the Infection Control Plan shall provide an appropriate level of safety when there are conditions that increase the risk of healthcare-associated infections.
- D. The VAMC-Chillicothe may provide baseline particle counts and conduct periodic air sampling of protection areas during construction to monitor effectiveness of IICM.
- E. The Contractor shall comply with applicable codes, VA guidelines and use installation procedures and methods that satisfy applicable code requirements and procedures.

F. The Contractor shall verify the maintenance of negative air pressure in containment area

relative to protection areas on a continuous basis by use of differential pressure monitors.

G. If the Contractor fails to maintain infection control procedures:

1. The VAMC-Chillicothe may issue written warning or Non-conformance Notice.
2. The Contractor shall correct non-conformance immediately.
3. If situation is not corrected within four (4) hours of receipt of warning or Non-conformance Notice, the VAMC-Chillicothe will have cause to stop Work as provided in Contract Documents at no additional cost to the VAMC-Chillicothe.
4. If determined to be an immediate threat to health and well-being, an immediate stop work may be issued.

H. If environmental contaminants or asbestos are discovered during construction operations, the Contractor shall stop work Immediately In the area and notify the COTR.

I. Employees that are sick shall not work without prior approval from the COTR and the Infection Control Nurse (ICN).

## **1.2 DEFINITIONS**

A. A contaminant producing activities include but are not limited to:

1. Demolition and removal of walls, floors, ceilings, and other finish materials.
2. Demolition of plumbing, mechanical and electrical systems and equipment.
3. Finish operations such as sanding, painting, and application of special surface coatings.

4. All other construction activity that may generate dust, smoke or fumes.
- 
- B. Primary Containment Area: The largest area of project work around which temporary dust partitions are built.
  - C. Secondary Containment Area: Areas of Work within the Protection Area outside of the Primary Containment Area that requires a form of dust control.
  - D. Protection Areas: Interior occupied areas within facilities, which are adjacent to a Primary Containment Area, either occupied or used for passage, as well as areas connected to construction area by mechanical system air intake, exhaust and ductwork.
  - E. Preparation Area: specific area located as designated by the COTR for donning and removing protective clothing prior to entering the Containment Area.

### **1.3 SUBMITTALS**

- A. Project Information:
  1. Submit drawings indicating Work areas and procedure for containment of airborne contaminants for the VAMC-Chillicothe review and approval.
    - a. Indicate locations of temporary enclosures, barriers, isolation vestibules, negative air machines, exhaust fans, capped ductwork and airflow direction indicator.
    - b. Drawings shall indicate, as a minimum, containment areas, protection areas, enclosure types, vestibules, location of negative air machines with calculations for minimum air exchanges and capped ductwork.
  2. Specific means and methods of achieving and maintaining control of airborne contaminants during construction for VAMC-Chillicothe's review and approval.

3. Submit Daily inspection reports, noting employees that are ill, on a weekly basis to the COTR.
4. Submit copy of HEPA/ULPA vacuum aerosol challenge test for negative air machines conducted by an independent testing agency, dated within the past six (6) months and maintenance record of equipment.
5. Submittals must be approved and identified practices must be in place before work can begin.

## **PART 2 • PRODUCTS**

### **2.1 MATERIALS**

**A. HEPA/ULPA, Ultra-Low Penetration Air vacuum cleaners:**

1. HEPA/ULPA vacuum shall trap 99.999% of particles 0.12 microns and larger. Vacuum shall have a minimum air flow of 90 cfm.

**B. Polyethylene: (For use above ceiling) 6 mil or 8 mil thick reinforced laminated polyethylene film; shall meet requirements of NFPA 701 large scale flammability test and ASTM E84 Class A.**

1. Include compatible fire retardant tape.

**C. Adhesive-Faced Contamination Control Mats (sticky walk-off mats):**

1. Size of mats shall be the width of the opening and 30" (minimum) depth. Mats shall be replaced daily at a minimum, and more often depending on use and build up of dust and debris.

**D. Negative Air Machine: A machine with a fan or blower, typically with HEPA/ULPA filters, which is able to negatively pressurize a room or area for a continuous period of time.**

Provide unit sized to meet room requirements. If unit does not exhaust air to the outside of the building, see Class III.4a.

1. Units shall include pre-filters, final filters, HEPA/ULPA-filters and filter static pressure gauges.

2. HEPA/ULPA filters shall be 99.997% efficient at 0.3 micron particle size.

E. Temporary Prefabricated Enclosure Units:(Limited use to one shift only)

1. Provide the enclosure with an inspection window and pressure differential porthole.

F. Airflow Direction Indicator:

(Note: this product is for drywall or other "hard" or non-plastic partitions; where plastic dust barriers are used, the plastic barrier will serve this purpose)

G. Dust Catching Device:

1. Disposable, dry, electrostatic cloths or mitts for dust removal.

2. Disposable, wet cloths, presoaked with cleaning solution, for dust removal.

## **PART 3 – EXECUTION**

### **3.1 GENERAL**

A. The COTR will make regular visits to the project site to ensure compliance of policy. The VAMC-Chillicothe reserves the right to inspect the work at any time to verify that the Contractor is complying with these infection control requirements.

B. Notify the COTR at least fourteen (14) calendar days prior to preparing a containment area or starting work activity outside of the containment area or in VAMC- Chillicothe occupied spaces.

C. Instruct the Contractor's personnel to refrain from tracking dust into adjacent areas or opening windows or doors that would allow airborne contaminants into adjacent hospital areas.

D. For exterior work, direct exhaust from equipment away from building air intakes, windows and doors. Ensure that filters on building air intakes are operational and protected from excessive quantities of airborne contaminants.

E. Workers shall wear clean clothing and footwear.

F. Disposable protective clothing shall be replaced if torn or dirty. Washable protective clothing shall be washed when dirty or weekly, as a minimum.

### **3.2 CLEANING – GENERAL**

A. Maintain Containment Area free of waste materials, debris and rubbish. Maintain site in clean and orderly condition.

B. Remove debris and rubbish from pipe chases, plenums and other closed or remote spaces, prior to enclosing the space.

C. Clean interior areas using HEPA/ULPA vacuum prior to start of surface finishing and continue cleaning to eliminate dust. The use of brooms for cleaning floors is not acceptable.

D. Remove waste materials, debris and rubbish from the site daily at predetermined times and dispose of offsite using a predetermined debris route using covered carts.

### **3.3 STANDARD OPERATION PROCEDURES FOR CLASS I AREAS**

A. Operation in Class I Areas:

1. Execute work by methods to minimize raising dust from construction operations.

2. Immediately replace ceiling tile displaced for visual inspection.

3. Wet mop *and/or* HEPA/ULPA vacuum before leaving area.

### **3.4 STANDARD OPERATION PROCEDURES FOR CLASS II AREAS**

#### **A. Preparation and Operation of Class II Areas:**

1. Water misting of work surfaces is not permitted except for cleaning debris carts and work surfaces.
2. To contain dust and debris, duct tape doors before demolition *and or* construction activities that produce large amounts of dust or utilize "work enclosures".
3. Block off and seal HVAC supply, return and exhaust terminal, registers, grilles and diffusers in the rooms affected by construction.
4. Masks are optional by the person doing the cutting.
5. Holes cut or punctured in walls and partitions, ceilings, floors and doors cannot be left exposed longer than four (4) hours. If work cannot be completed within the four (4) hour time period, the holes shall be covered in addition to using ILSM's.

#### **B. Flooring removal in Class II Secondary Containment areas:**

1. Construction materials and equipment shall be stored within designated areas.
2. Only flooring area of a size that can be removed, replaced and completed in one work period shall be worked on.
3. Removal of flooring:
  - a. Vacuum using HEPA/ULPA vacuum and wet mist carpet before removal.

- b. Damp mop sheet vinyl and vinyl composition tile flooring before removal.
- c. Use motions and methods that minimize the dispersing of dust and debris while removing flooring.
- d. HEPA/ULPA vacuum floor after removal of flooring, adhesive and leveling of area prior to installation of new flooring.
- e. Sweeping compounds may be used with prior approval of (ICN).

C. Miscellaneous work activities which is required within existing ceiling spaces in a protection area which can be confined shall be performed as follows:

- 1. Scheduled in advance and notify the COTR at least seven (7) calendar days prior to commencing work in ceiling or interstitial spaces above Protection Areas to allow the VAMC-Chillicothe to relocate or protect occupants.
- 2. Inform the COTR so that doors to Protection spaces near ceiling work can be kept closed while Work is in progress.
- 3. Cover all horizontal surfaces, except flooring, to protect from dust and debris.
- 4. HEPA/ULPA vacuum the top of the ceiling system to be removed, and surrounding affected area, to remove dust prior to removal.
- 5. Acoustical ceiling panels or ceiling access panels opened for investigation outside of the containment areas shall be closed when unattended.
- 6. Whenever acoustical ceiling panels or access panels are opened in Protection Areas, provide a portable enclosure that encloses the ladder and seals off opening. Fit enclosure tight to ceiling.
- 7. Exercise caution when handling fluids within ceiling or interstitial spaces.

8. When working with fluids provide a watertight barrier beneath the work area to catch and retain all spillage before it reaches the ceiling below.

9. Vacuum and clean surfaces free of dust before their removal.

**D. Clean-up of Class II areas:**

1. At the completion of the work, the following shall occur:

a. Clean work surfaces and debris carts with water.

b. Contain construction waste before transport in clean, tightly covered containers or sealed plastic bags.

c. Wet mop and/or vacuum with HEPA/ULPA-filtered vacuum before leaving the work area.

d. Remove isolation of HVAC system in areas where work is being performed.

**3.5 STANDARD OPERATION PROCEDURES FOR CLASS III AREAS**

**A. Preparation of Class III Areas:**

1. Refer to the drawings for location of pathways to the Containment Area. Entry and exit locations to the Containment Area shall be coordinated with the COTR.

2. The Contractor shall completely install all infection control measures before the balance of the Work begins. Dust barriers shall be set up around the specific areas of the project.

a. Provide temporary barriers and ceilings to separate work areas  
(Containment

Areas) from VAMC-Chillicothe-occupied areas (Protection Areas) and to prevent penetration of dust into VAMC-Chillicothe-occupied areas.

b. Barriers to be constructed of temporary framing supports and fire-retardant

gypsum board with sealed joints and sealed edges at intersections with existing surfaces.

c. Doors located in temporary gypsum partitions shall be zipper type attached to the polyethylene sheet material.

d. Seal all penetrations of the temporary partitions with duct tape as necessary to maintain the dust containment and the fire rating of the partition.

e. The dust barriers shall be partitions from the floor to a smoke resistance ceiling, completely enclosing the Containment Area.

f. The dust barriers shall remain around the selected construction area until that specific work has been satisfactorily completed.

3. Provide adhesive-faced contamination control mats at the exit of the construction site. Workers shall step on both mats when exiting a containment area. Carts shall be moved across both mats. Replace tacky mat surface when 75% of surface is soiled.

4. Provide the necessary quantity of negative air machines to maintain each separate project work area at a negative pressure with respect to the patient care areas to control the spread of contaminants from the Containment Areas to adjacent Protection Areas.

a. Negative air pressure machines equipped with high efficiency particulate (HEPA/ULPA) filters shall be used in conjunction with a sealed work area to maintain a negative pressure inside the work area relative to non-work areas.

1. A sufficient quantity of negative pressure ventilation units equipped with filtration shall be utilized to provide one workplace air change every 15 minutes. This requirement shall apply to the removal of the dust and contaminants from the air.

2. To calculate total air flow requirement:

Total cubic feet/minute = volume of work area (in cubic feet)/  
15 minutes

3. To calculate the quantity of units needed for the dust control in a specific work area:

Quantity of units needed = total cubic feet/minute  
capacity of unit in cubic feet/minute

4. The total quantity of negative air machines required is dependent upon the total quantity of simultaneous containment areas being occupied by the Contractor. Refer to the plans to calculate the quantity of negative air machines required assuming the construction barriers indicated on the drawings.

5. Connect the negative air machine discharge to the existing building return or exhaust system if indicated by the Mechanical Drawings.

6. Change dust filter media as needed for the negative air machines.

b. Make-up air for the air exhausted from the spaces shall be taken from the existing HVAC system.

c. Vent negative air machines to outside by removing existing windows and replacing them with vented panels having fittings for exhaust holes, outside plenum or traffic hallways.

d. Change filters as frequently as recommended by the manufacturer for duration of work within the Containment Area to maintain a negative pressure of 0.1 - 0.2 IN of water gauge.

e. Negative air units shall to be aerosol challenge tested and certified prior to being placed in service, and when dropped, damaged or moved extensively.

5. Each phase of construction shall be considered a separate area.

6. Duct Caps: Block off all existing return, exhaust and supply air ductwork within the Containment Area by capping ducts to withstand airflow, and so they are dust tight.

**B. Operation in Class III Areas:**

1. The containment control mats shall be monitored and replaced as they become loaded with dirt.

2. The dust partitions shall be wiped down daily with a moist cloth or dust catching device.

3. Traffic between containment areas and protection areas shall be kept to a minimum.

4. Keep doors into containment areas closed at all times.

5. All vacuuming of area outside of the work area not within the barriers shall be done by the Contractor with HEPA/ULPA vacuums.

6. All holes, pipes, conduit, punctures and exposures shall be sealed appropriately.

7. Removal of debris from the project work areas shall be as follows:

a. If debris is removed from the project site through an occupied Patient Care Area (Protection Area), the following procedure shall be followed:

1. Removal of debris shall be done by the Contractor. The Contractor shall advise the COTR when there is debris to be removed. Debris shall be removed on an "as needed" basis. Transport removed material in tightly sealed, rubber tired containers provided by the Contractor to protect Protection Areas. The COTR will review the type of cart and condition of the cars proposed for use. Containers shall be fitted with clean, tight fitting plastic cover or polyethylene covers, completely sealed at perimeters by taping. Before leaving the Containment Area all containers shall be wiped or HEPA/ULPA vacuumed clean to prevent tracking of dust. The cart shall be rolled over the adhesive faced contamination control mats inside and outside the entrances.

2. Place covers over debris boxes between periods when they are being filled.

b. Supplies and tools shall be brought into the Containment Area in accordance with the following procedure:

1. For tools and supplies moved to the Containment Area the following procedures shall apply:

- a. Tools and supplies shall be wiped clean or wrapped in plastic sheeting and moved by Contractor provided rubber tired carts/containers, from a staging area to the containment area (construction site).

- b. The containers shall be vacuumed with HEPA/ULPA vacuum cleaners by the Contractor prior to moving through the occupied space to the Containment Area. The Contractor shall notify the COTR of the need to move these

containers through Protection Areas prior to entering the  
Containment Area.

c. Tool and supply removal from the Containment Area shall follow the procedure specified for debris removal from the Containment Area.

8. The following procedure shall be implemented when construction personnel are required to pass through a Protection Area to enter a Containment Area:

a. Personnel shall don protective clothing required by the VAMC-Chillicothe's Representative within the Preparation Area before passing through Protection Areas.

b. Protective clothing shall be removed upon entering the Containment Area and shall be stored in plastic bags.

9. The following procedure shall be implemented when construction personnel are required to pass from a Containment Area through a Protection Area:

a. Construction workers shall vacuum themselves with the HEPA/ULPA filtered vacuum cleaners. After being vacuumed the workers shall re-don protective clothing before re-entering the Protection Area.

b. Personnel shall remove the protective clothing in the Preparation Area.

c. All dust and debris tracked outside the Containment Area shall be vacuumed up immediately by the Contractor.

C. Flooring removal in Class III Secondary Containment areas:

1. Construction materials and equipment shall be stored within designated areas.

2. Only flooring area of a size that can be removed, replaced and completed in one work period shall be worked on.

3. Removal of flooring:

- a. Vacuum carpet with a HEPA/ULPA vacuum and wet mist before removal.
- b. Damp mop sheet vinyl and vinyl composition tile flooring.
- c. Use motions and methods that minimize the dispersing of dust and debris while removing flooring. Vacuum floor after removal of flooring, adhesive and leveling of area prior to installation of new flooring.
- d. Sweeping compound may be used with prior approval of ICN.

D. Miscellaneous work activities which is required within existing ceiling spaces in a protection area which can be confined shall be performed as follows:

- 1. Scheduled in advance and notify the COTR at least seven (7) calendar days prior to commencing work in ceiling or interstitial spaces above Protection Areas to allow the VAMC-Chillicothe to relocate or protect occupants.
- 2. Inform the COTR so that doors to Protection spaces near ceiling work can be kept closed while Work is in progress.
- 3. Cover all horizontal surfaces, except flooring, to protect from dust and debris.
- 4. HEPA/ULPA vacuum the top of the ceiling system to be removed, and surrounding affected area, to remove dust prior to removal.
- 5. Acoustical ceiling panels or ceiling access panels opened for investigation outside of the containment areas shall be closed when unattended.

6. Whenever acoustical ceiling panels or access panels are opened in Protection Areas, provide a portable enclosure that encloses the ladder and seals off opening. Fit enclosure tight to ceiling.

7. Exercise caution when handling fluids within ceiling or interstitial spaces.

8. When working with fluids provide a watertight barrier beneath the work area to catch and retain all spillage before it reaches the ceiling below.

9. Vacuum and clean surfaces free of dust before their removal.

**E. Cleaning Class III Areas:**

1. Clean up and disposal:

a. Removal of barrier requires approval if ICN.

b. Barriers may not be removed from work areas until the completed project is inspected by the COTR and thoroughly cleaned by the Contractor.

c. Remove all debris, extra materials and equipment from the Containment Area before beginning final cleaning.

d. Work areas shall be vacuumed with HEPA/ULPA filtered vacuums and or wet mopped by the Contractor.

e. When construction is complete, the temporary partitions (both sides) shall be wiped down using a moist cloth or dust catching device before removal. The partitions shall be removed carefully, rolling the inside over the outside.

f. Clean the blockage of air vents, diffusers and registers before their removal. Then remove them.

### **3.6 STANDARD OPERATION PROCEDURES FOR CLASS IV AREAS**

#### **A. Preparation of Class IV Areas:**

1. Refer to the drawings for location of pathways to the Containment Area. Entry and exit locations to the Containment Area shall be coordinated with the COTR.

2. The Contractor shall construct an anteroom and require all personnel and tools to pass through this room so they can be vacuumed using a HEPA/ULPA vacuum cleaner before leaving the Containment Area.

3. The Contractor shall completely install all barriers before construction begins. Dust barriers shall be set up around the specific areas of the project before the balance of the work begins.

a. Full height, noncombustible, fire-rated construction, with minimum 1/2 inch thick fire-rated gypsum board both sides with 3-1/2 inch thick R-11 insulation or acoustical insulation to reduce noise.

b. Use 3 inch fire retardant tape to tightly seal top, bottom, and all seams, to prevent spread of dust to occupied areas, including above ceiling.

c. Doors shall be 4'-0" minimum width, fire-rated, solid core wood with hollow metal frame and finish hardware, including mortise classroom lockset, door closer:

1. heavy weight 5" x 4-1/2" ball bearing hinges, door sweep and weather-stripping to prevent flow of dust. Door and frame shall match the adjacent door and frame color/finish.

2. Swing door into the construction area. Keep enclosure door locked during non-working hours.

3. Three keys for emergency access shall be furnished to the VAMC Chillicothe's Representative or key to the VAMC Chillicothe's existing building key system.

d. Install an airflow direction indicator within the temporary barrier following the manufacturer's installation procedures to indicate if improper directional airflow exists. Unit shall be installed adjacent to door opening.

e. The location and details of the enclosure construction shall be as indicated on the drawings.

f. Materials for enclosure shall be precut off-site to the greatest extent possible.

g. No explosive or pneumatic driven fasteners will be allowed.

h. Provide fire rated partitions and doors when required to maintain integrity of an existing rated partition, and where indicated or required by governing authorities.

4. Provide adhesive-faced contamination control mats at the construction entry point on both sides of the temporary partition. Workers shall step on both mats when exiting a containment area. Carts shall be moved across both mats

5. Provide the necessary quantity of negative air machines to maintain each separate project work area at a negative pressure with respect to the patient care areas to control the spread of contaminants from the Containment Areas to adjacent Protection Areas.

a. Negative air pressure machines equipped with high efficiency particulate (HEPA/ULPA) filters shall be used in conjunction with a sealed work area to maintain a negative pressure inside the work area relative to non-work areas.

1. A sufficient quantity of negative pressure ventilation units equipped with filtration shall be utilized to provide one workplace air change every 15 minutes. This requirement shall apply to the removal of the dust and contaminants from the air.
  2. To calculate total air flow requirement:  
Total cubic feet/minute = volume of work area (in cubic feet)/15 minutes
  3. To calculate the quantity of units needed for the dust control in a specific work area:  
Quantity of units needed = total cubic feet/minute  
capacity of unit in cubic feet/minute
  4. The total quantity of negative air machines required is dependent upon the total quantity of simultaneous Containment Areas being occupied by the Contractor. Refer to the plans to calculate the quantity of negative air machines required assuming the construction barriers indicated on the drawings.
  5. Connect the negative air machine discharge to the existing building return or exhaust system if indicated by the Mechanical Drawings.
  6. Change dust filter media as recommended by the manufacturer for the negative air machines.
- b. Make-up air for the air exhausted from the spaces shall be taken from the existing HVAC system.
  - c. Vent negative air machines to outside by removing existing windows and replacing them with vented panels having fittings for exhaust holes, outside, plenum or low traffic hallways.

d. Change filters as frequently as recommended by the manufacturer for duration of work within the Containment Area to maintain a negative pressure of 0.1 - 0.2 IN of water gauge.

e. Negative air units shall to be DOP tested and certified prior to being placed in service, and when dropped, damaged or moved extensively.

6. Each phase of construction shall be considered a separate area.

7. Duct Caps: Block off all existing return, exhaust and supply air ductwork within the Containment Area by capping ducts to withstand airflow, and so they are dust tight.

**B. Operation in Class IV Areas:**

1. The following procedure shall be implemented when construction personnel are required to pass through a Protection Area to enter a containment area:

a. Personnel shall don protective clothing required by the COTR within the Preparation Area before passing through Protection Areas.

b. The Contractor shall provide an anteroom within the dustproof enclosure.

c. Protective clothing shall be removed in the anteroom prior to entering the Containment Area and placed in a plastic bag.

2. The following procedure shall be implemented when construction personnel are required to pass from a containment area through a protection area:

a. Construction workers shall vacuum themselves with the HEPA/ULPA filtered vacuum cleaners. After being vacuumed the

workers may leave the containment area (construction site) into the anteroom.

b. Personnel shall re-don protective clothing in the anteroom before re-entering the protection area.

c. Personnel shall remove the protective clothing in the Preparation Area.

d. All dust and debris tracked outside the construction area shall be vacuumed up immediately by the Contractor.

3. Supplies and tools shall be brought into the Containment Area in accordance with the following procedure:

a. For tools and supplies moved to the Containment Area the following procedures shall apply:

1. Tools and supplies shall be wiped clean or wrapped in plastic sheeting and moved by Contractor provided rubber tired carts/containers, from a staging area to the containment area (construction site).

2. The containers shall be vacuumed with HEPA/ULPA vacuum cleaners by the Contractor prior to moving through the occupied space to the Containment Area. The Contractor shall notify the COTR of the need to move these containers through Protection Areas prior to entering the Containment Area.

b. Tool and supply removal from the Containment Area shall follow the procedure specified for debris removal from the Containment Area.

**E. Flooring removal in Class IV Secondary Containment areas:**

1. Construction materials and equipment shall be stored within designated areas.
2. Only flooring area of a size that can be removed, replaced and completed in one work period shall be worked on.
3. Removal of flooring:
  - a. Vacuum with a HEPA/ULPA vacuum and wet mist carpet before removal.
  - b. Damp mop sheet vinyl and vinyl composition tile flooring before removal.
  - c. Use motions and methods that minimize the dispersing of dust and debris while removing flooring.
  - d. HEPA/ULPA vacuum floor after removal of flooring, adhesive and leveling of area prior to installation of new flooring.
  - e. Sweeping compounds may be used with prior approval of ICN.

**F. Clean-up of Class IV areas:**

1. Removal of debris from the project work areas shall be as follows:
  - a. If debris shall be removed from the project site through an occupied Patient Care Area, the following procedure shall be followed:
    1. Removal of debris shall be done by the Contractor. The Contractor shall advise the COTR when there is debris to be

removed. Debris shall be removed on an "as needed" basis. Transport removed material in tightly sealed, rubber tired containers provided by the Contractor to protect hospital areas. The COTR shall review the type of cart and condition of the cars proposed for use. Containers shall be fitted with clean, tight fitting plastic cover or polyethylene covers, completely sealed at perimeters by taping. Before leaving the Containment Area all containers shall be wiped or HEPA/ULPA vacuumed clean to prevent tracking of dust. The cart shall be rolled over the adhesive faced contamination control mats inside and outside the entrances. Place dust mats inside and outside of the construction site entrances and keep them cleaned.

2. Place covers over debris boxes between periods when they are being filled.

2. Cleaning Class IV Areas:

a. Barriers may not be removed from work areas until the completed project is inspected by the COTR and thoroughly cleaned by the Contractor.

b. Remove all debris, extra materials and equipment from the Containment Area before beginning final cleaning.

c. Work areas shall be vacuumed with HEPA/ULPA filtered vacuums and or wet mopped by the Contractor.

d. When construction is complete the temporary partitions shall be wiped down using a moist cloth or dust catching device before removal. The partitions shall be removed without creating additional dust in the area.

- e. Clean blockage of air vents, diffusers and registers, before removal. Then remove.

### **3.7 WORK ENCLOSURE OUTSIDE OF THE PRIMARY CONTAINMENT AREA (SECONDARY CONTAINMENT)**

A. Whenever work is necessary outside of a primary containment area:

1. Work shall be scheduled in advance with the COTR.
2. Contain work within a full height portable enclosure. Contractor may use prefabricated enclosure unit.
3. Seal opening upon entering or leaving enclosure.
4. At no time shall construction equipment or material be stored outside of the enclosure.
5. Dust tracked outside of construction area shall be cleaned up immediately.
6. The Contractor shall have necessary manpower and equipment (HEPA/ULPA filtered vacuum, dust and wet mops, brooms, buckets and clean wiping rags) to keep adjacent occupied areas clean at all times.

### **3.8 WORK CONFINED TO INDIVIDUAL ROOMS**

A. Work activities which are required within a protection area which can be confined to individual rooms may be permitted as follows:

1. Scheduled in advance and notify the COTR at least seven (7) calendar days prior to commencing work in the room to allow the VAMC-Chillicothe to relocate or protect occupants.

2. The room shall be treated as a primary containment area.
3. Keep the door to such areas closed and sealed while work is being performed.
4. Cap HVAC ductwork or seal air supply diffusers and return grills.
5. Provide negative pressure in the room by use of negative air machine.
6. Traffic between the room and adjacent areas shall be kept to a minimum.
7. Transport materials and waste into and from the room through adjacent areas  
by  
transporting in tightly covered and sealed containers or carts.
8. At no time shall construction equipment or material be stored outside the room.
9. All dust tracked outside of the room shall be cleaned up immediately.
10. Vacuum and dean surfaces free of dust after completion of the Work.
11. Have necessary manpower and equipment (HEPA/ULPA filtered vacuum, walk off mats, dust and wet mops, buckets and clean wiping rags) to keep adjacent areas clean at all times.

---END---

SECTION 01 33 23  
SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

- 1-1. Refer to Articles titled SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FAR 52.236-21) and, SPECIAL NOTES (VAAR 852.236-91), in GENERAL CONDITIONS.
- 1-2. For the purposes of this contract, samples (including laboratory samples to be tested), test reports, certificates, and manufacturers' literature and data shall also be subject to the previously referenced requirements. The following text refers to all items collectively as SUBMITTALS.
- 1-3. Submit for approval, all of the items specifically mentioned under the separate sections of the specification, with information sufficient to evidence full compliance with contract requirements. Materials, fabricated articles and the like to be installed in permanent work shall equal those of approved submittals. After an item has been approved, no change in brand or make will be permitted unless:
  - A. Satisfactory written evidence is presented to, and approved by Contracting Officer, that manufacturer cannot make scheduled delivery of approved item or;
  - B. Item delivered has been rejected and substitution of a suitable item is an urgent necessity or;
  - C. Other conditions become apparent which indicates approval of such substitute item to be in best interest of the Government.
- 1-4. Forward submittals in sufficient time to permit proper consideration and approval action by Government. Time submission to assure adequate lead time for procurement of contract - required items. Delays attributable to untimely and rejected submittals (including any laboratory samples to be tested) will not serve as a basis for extending contract time for completion.
- 1-5. Submittals will be reviewed for compliance with contract requirements by COTR, and action thereon will be taken by Contracting Officer's Technical Representative (COTR) on behalf of the Contracting Officer.
- 1-6. Upon receipt of submittals, COTR will assign a file number thereto. Contractor, in any subsequent correspondence, shall refer to this file and identification number to expedite replies relative to previously approved or disapproved submittals.
- 1-7. The Government reserves the right to require additional submittals, whether or not particularly mentioned in this contract. If additional submittals beyond those required by the contract are furnished pursuant to request therefore by Contracting Officer,

adjustment in contract price and time will be made in accordance with Articles titled CHANGES (FAR 52.243-4) and CHANGES - SUPPLEMENT (VAAR 852.236-88) of the GENERAL CONDITIONS.

- 1-8. Schedules called for in specifications and shown on shop drawings shall be submitted for use and information of Department of Veterans Affairs and COTR. However, the Contractor shall assume responsibility for coordinating and verifying schedules. The Contracting Officer and COTR assumes no responsibility for checking schedules or layout drawings for exact sizes, exact numbers and detailed positioning of items.
- 1-9. Submittals must be submitted by Contractor only and shipped prepaid. Contracting Officer assumes no responsibility for checking quantities or exact numbers included in such submittals.
  - A. Submit samples in single units unless otherwise specified. Submit shop drawings, schedules, manufacturers' literature and data, and certificates in quadruplicate, except where a greater number is specified.
  - B. Submittals will receive consideration only when covered by a transmittal letter signed by Contractor. Letter shall be sent via first class mail and shall contain the list of items, name of Medical Center, name of Contractor, contract number, applicable specification paragraph numbers, applicable drawing numbers (and other information required for exact identification of location for each item), manufacturer and brand, ASTM or Federal Specification Number (if any) and such additional information as may be required by specifications for particular item being furnished. In addition, catalogs shall be marked to indicate specific items submitted for approval.
    1. A copy of letter must be enclosed with items, and any items received without identification letter will be considered "unclaimed goods" and held for a limited time only.
    2. Each sample, certificate, manufacturers' literature and data shall be labeled to indicate the name and location of the Medical Center, name of Contractor, manufacturer, brand, contract number and ASTM or Federal Specification Number as applicable and location(s) on project.
    3. Required certificates shall be signed by an authorized representative of manufacturer or supplier of material, and by Contractor.
  - C. In addition to complying with the applicable requirements specified in preceding Article 1.9, samples which are required to have Laboratory Tests (those preceded by symbol "LT"

under the separate sections of the specification shall be tested, at the expense of Contractor, in a commercial laboratory approved by Contracting Officer.

1. Laboratory shall furnish Contracting Officer with a certificate stating that it is fully equipped and qualified to perform intended work, is fully acquainted with specification requirements and intended use of materials and is an independent establishment in no way connected with organization of Contractor or with manufacturer or supplier of materials to be tested.
  2. Certificates shall also set forth a list of comparable projects upon which laboratory has performed similar functions during past five years.
  3. Samples and laboratory tests shall be sent directly to approved commercial testing laboratory.
  4. Contractor shall forward a copy of transmittal letter to COTR simultaneously with submission to a commercial testing laboratory.
  5. Laboratory test reports shall be sent directly to COTR for appropriate action.
  6. Laboratory reports shall list contract specification test requirements and a comparative list of the laboratory test results. When tests show that the material meets specification requirements, the laboratory shall so certify on test report.
  7. Laboratory test reports shall also include a recommendation for approval or disapproval of tested item.
- D. If submittal samples have been disapproved, resubmit new samples as soon as possible after notification of disapproval. Such new samples shall be marked "Resubmitted Sample" in addition to containing other previously specified information required on label and in transmittal letter.
- E. Approved samples will be kept on file by the COTR at the site until completion of contract, at which time such samples will be delivered to Contractor as Contractor's property. Where noted in technical sections of specifications, approved samples in good condition may be used in their proper locations in contract work. At completion of contract, samples that are not approved will be returned to Contractor only upon request and at Contractor's expense. Such request should be made prior to completion of the contract. Disapproved samples that are not requested for return by Contractor will be discarded after completion of contract.
- F. Submittal drawings (shop, erection or setting drawings) and schedules, required for work of various trades, shall be checked before submission by technically qualified employees of Contractor for accuracy, completeness and compliance with contract requirements.

These drawings and schedules shall be stamped and signed by Contractor certifying to such check.

1. For each drawing required, submit one legible photographic paper or vellum reproducible.
  2. Reproducible shall be full size.
  3. Each drawing shall have marked thereon, proper descriptive title, including Medical Center location, project number, manufacturer's number, reference to contract drawing number, detail Section Number, and Specification Section Number.
  4. A space 120 mm by 125 mm (4-3/4 by 5 inches) shall be reserved on each drawing to accommodate approval or disapproval stamp.
  5. Submit drawings, ROLLED WITHIN A MAILING TUBE, fully protected for shipment.
  6. One reproducible print of approved or disapproved shop drawings will be forwarded to Contractor.
  7. When work is directly related and involves more than one trade, shop drawings shall be submitted to COTR under one cover.
- 1-10. Samples (except laboratory samples), shop drawings, test reports, certificates and manufacturers' literature and data, shall be submitted for approval to the COTR.

- - - E N D - - -

**SECTION 01 42 19**  
**REFERENCE STANDARDS**

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

This section specifies the availability and source of references and standards specified in the project manual under paragraphs APPLICABLE PUBLICATIONS and/or shown on the drawings.

**1.2 AVAILABILITY OF SPECIFICATIONS LISTED IN THE GSA INDEX OF FEDERAL SPECIFICATIONS, STANDARDS AND COMMERCIAL ITEM DESCRIPTIONS FPMR PART 101-29 (FAR 52.211-1) (AUG 1998)**

- A. The GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, FPMR Part 101-29 and copies of specifications, standards, and commercial item descriptions cited in the solicitation may be obtained for a fee by submitting a request to – GSA Federal Supply Service, Specifications Section, Suite 8100, 470 East L'Enfant Plaza, SW, Washington, DC 20407, Telephone (202) 619-8925, Facsimile (202) 619-8978.
- B. If the General Services Administration, Department of Agriculture, or Department of Veterans Affairs issued this solicitation, a single copy of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained free of charge by submitting a request to the addressee in paragraph (a) of this provision. Additional copies will be issued for a fee.

**1.3 AVAILABILITY FOR EXAMINATION OF SPECIFICATIONS NOT LISTED IN THE GSA INDEX OF FEDERAL SPECIFICATIONS, STANDARDS AND COMMERCIAL ITEM DESCRIPTIONS (FAR 52.211-4) (JUN 1988)**

The specifications and standards cited in this solicitation can be examined at the following location:

**DEPARTMENT OF VETERANS AFFAIRS**

Office of Construction & Facilities Management

Facilities Quality Service (00CFM1A)

811 Vermont Avenue, NW - Room 462

Washington, DC 20420

Telephone Numbers: (202) 461-8217 or (202) 461-8292

Between 9:00 AM - 3:00 PM

**1.4 AVAILABILITY OF SPECIFICATIONS NOT LISTED IN THE GSA INDEX OF FEDERAL SPECIFICATIONS, STANDARDS AND COMMERCIAL ITEM DESCRIPTIONS (FAR 52.211-3) (JUN 1988)**

The specifications cited in this solicitation may be obtained from the associations or organizations listed below.

AA	Aluminum Association Inc. <a href="http://www.aluminum.org">http://www.aluminum.org</a>
AABC	Associated Air Balance Council <a href="http://www.aabchq.com">http://www.aabchq.com</a>
AAMA	American Architectural Manufacturer's Association <a href="http://www.aamanet.org">http://www.aamanet.org</a>
AAN	American Nursery and Landscape Association <a href="http://www.anla.org">http://www.anla.org</a>
AASHTO	American Association of State Highway and Transportation Officials <a href="http://www.aashto.org">http://www.aashto.org</a>
AATCC	American Association of Textile Chemists and Colorists <a href="http://www.aatcc.org">http://www.aatcc.org</a>
ACGIH	American Conference of Governmental Industrial Hygienists <a href="http://www.acgih.org">http://www.acgih.org</a>
ACI	American Concrete Institute <a href="http://www.aci-int.net">http://www.aci-int.net</a>
ACPA	American Concrete Pipe Association <a href="http://www.concrete-pipe.org">http://www.concrete-pipe.org</a>
ACPPA	American Concrete Pressure Pipe Association <a href="http://www.acppa.org">http://www.acppa.org</a>
ADC	Air Diffusion Council <a href="http://flexibleduct.org">http://flexibleduct.org</a>
AGA	American Gas Association <a href="http://www.agas.org">http://www.agas.org</a>
AGC	Associated General Contractors of America <a href="http://www.agc.org">http://www.agc.org</a>
AGMA	American Gear Manufacturers Association, Inc. <a href="http://www.agma.org">http://www.agma.org</a>
AHAM	Association of Home Appliance Manufacturers <a href="http://www.aham.org">http://www.aham.org</a>

AISC	American Institute of Steel Construction <a href="http://www.aisc.org">http://www.aisc.org</a>
AISI	American Iron and Steel Institute <a href="http://www.steel.org">http://www.steel.org</a>
AITC	American Institute of Timber Construction <a href="http://www.aitc-glulam.org">http://www.aitc-glulam.org</a>
AMCA	Air Movement and Control Association, Inc. <a href="http://www.amca.org">http://www.amca.org</a>
ANLA	American Nursery & Landscape Association <a href="http://www.anla.org">http://www.anla.org</a>
ANSI	American National Standards Institute, Inc. <a href="http://www.ansi.org">http://www.ansi.org</a>
APA	The Engineered Wood Association <a href="http://www.apawood.org">http://www.apawood.org</a>
ARI	Air-Conditioning and Refrigeration Institute <a href="http://www.ari.org">http://www.ari.org</a>
ASAE	American Society of Agricultural Engineers <a href="http://www.asae.org">http://www.asae.org</a>
ASCE	American Society of Civil Engineers <a href="http://www.asce.org">http://www.asce.org</a>
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers <a href="http://www.ashrae.org">http://www.ashrae.org</a>
ASME	American Society of Mechanical Engineers <a href="http://www.asme.org">http://www.asme.org</a>
ASSE	American Society of Sanitary Engineering <a href="http://www.asse-plumbing.org">http://www.asse-plumbing.org</a>
ASTM	American Society for Testing and Materials <a href="http://www.astm.org">http://www.astm.org</a>
AWI	Architectural Woodwork Institute <a href="http://www.awinet.org">http://www.awinet.org</a>
AWS	American Welding Society <a href="http://www.aws.org">http://www.aws.org</a>

AWWA American Water Works Association  
<http://www.awwa.org>

BHMA Builders Hardware Manufacturers Association  
<http://www.buildershardware.com>

BIABrick Institute of America  
<http://www.bia.org>

CAGI Compressed Air and Gas Institute  
<http://www.cagi.org>

CGA Compressed Gas Association, Inc.  
<http://www.cganet.com>

CI The Chlorine Institute, Inc.  
<http://www.chlorineinstitute.org>

CISCA Ceilings and Interior Systems Construction Association  
<http://www.cisca.org>

CISPI Cast Iron Soil Pipe Institute  
<http://www.cispi.org>

CLFMI Chain Link Fence Manufacturers Institute  
<http://www.chainlinkinfo.org>

CPMB Concrete Plant Manufacturers Bureau  
<http://www.cpmb.org>

CRA California Redwood Association  
<http://www.calredwood.org>

CRSI Concrete Reinforcing Steel Institute  
<http://www.crsi.org>

CTICooling Technology Institute  
<http://www.cti.org>

DHI Door and Hardware Institute  
<http://www.dhi.org>

EGSA Electrical Generating Systems Association  
<http://www.egsa.org>

EEIEdison Electric Institute  
<http://www.eei.org>

EPA Environmental Protection Agency  
<http://www.epa.gov>

ETL	ETL Testing Laboratories, Inc. <a href="http://www.et1.com">http://www.et1.com</a>
FAA	Federal Aviation Administration <a href="http://www.faa.gov">http://www.faa.gov</a>
FCC	Federal Communications Commission <a href="http://www.fcc.gov">http://www.fcc.gov</a>
FPS	The Forest Products Society <a href="http://www.forestprod.org">http://www.forestprod.org</a>
GANA	Glass Association of North America <a href="http://www.cssinfo.com/info/gana.html/">http://www.cssinfo.com/info/gana.html/</a>
FM	Factory Mutual Insurance <a href="http://www.fmglobal.com">http://www.fmglobal.com</a>
GA	Gypsum Association <a href="http://www.gypsum.org">http://www.gypsum.org</a>
GSA	General Services Administration <a href="http://www.gsa.gov">http://www.gsa.gov</a>
HI	Hydraulic Institute <a href="http://www.pumps.org">http://www.pumps.org</a>
HPVA	Hardwood Plywood & Veneer Association <a href="http://www.hpva.org">http://www.hpva.org</a>
ICBO	International Conference of Building Officials <a href="http://www.icbo.org">http://www.icbo.org</a>
ICEA	Insulated Cable Engineers Association Inc. <a href="http://www.icea.net">http://www.icea.net</a>
ICAC	Institute of Clean Air Companies <a href="http://www.icac.com">http://www.icac.com</a>
IEEE	Institute of Electrical and Electronics Engineers <a href="http://www.ieee.org">http://www.ieee.org</a>
IMSA	International Municipal Signal Association <a href="http://www.imsasafety.org">http://www.imsasafety.org</a>
IPCEA	Insulated Power Cable Engineers Association
NBMA	Metal Buildings Manufacturers Association <a href="http://www.mbma.com">http://www.mbma.com</a>

MSS	Manufacturers Standardization Society of the Valve and Fittings Industry Inc. <a href="http://www.mss-hq.com">http://www.mss-hq.com</a>
NAAMM	National Association of Architectural Metal Manufacturers <a href="http://www.naamm.org">http://www.naamm.org</a>
NAPHCC	Plumbing-Heating-Cooling Contractors Association <a href="http://www.phccweb.org.org">http://www.phccweb.org.org</a>
NBS	National Bureau of Standards See - NIST
NBBPVI	National Board of Boiler and Pressure Vessel Inspectors <a href="http://www.nationboard.org">http://www.nationboard.org</a>
NEC	National Electric Code See - NFPA National Fire Protection Association
NEMA	National Electrical Manufacturers Association <a href="http://www.nema.org">http://www.nema.org</a>
NFPA	National Fire Protection Association <a href="http://www.nfpa.org">http://www.nfpa.org</a>
NHLA	National Hardwood Lumber Association <a href="http://www.natlhardwood.org">http://www.natlhardwood.org</a>
NIH	National Institute of Health <a href="http://www.nih.gov">http://www.nih.gov</a>
NIST	National Institute of Standards and Technology <a href="http://www.nist.gov">http://www.nist.gov</a>
NLMA	Northeastern Lumber Manufacturers Association, Inc. <a href="http://www.nelma.org">http://www.nelma.org</a>
NPA	National Particleboard Association 18928 Premiere Court Gaithersburg, MD 20879 (301) 670-0604
NSF	National Sanitation Foundation <a href="http://www.nsf.org">http://www.nsf.org</a>
NWWDA	Window and Door Manufacturers Association <a href="http://www.nwwda.org">http://www.nwwda.org</a>

OSHA Occupational Safety and Health Administration  
Department of Labor  
<http://www.osha.gov>

PCA Portland Cement Association  
<http://www.portcement.org>

PCI Precast Prestressed Concrete Institute  
<http://www.pci.org>

PPIThe Plastic Pipe Institute  
<http://www.plasticpipe.org>

PEIPorcelain Enamel Institute, Inc.  
<http://www.porcelainenamel.com>

PTIPost-Tensioning Institute  
<http://www.post-tensioning.org>

RFCI The Resilient Floor Covering Institute  
<http://www.rfci.com>

RIS Redwood Inspection Service  
See - CRA

RMA Rubber Manufacturers Association, Inc.  
<http://www.rma.org>

SCMA Southern Cypress Manufacturers Association  
<http://www.cypressinfo.org>

SDI Steel Door Institute  
<http://www.steeldoor.org>

IGMA Insulating Glass Manufacturers Alliance  
<http://www.igmaonline.org>

SJI Steel Joist Institute  
<http://www.steeljoist.org>

SMACNA Sheet Metal and Air-Conditioning Contractors  
National Association, Inc.  
<http://www.smacna.org>

SSPC The Society for Protective Coatings  
<http://www.sspc.org>

STISteel Tank Institute  
<http://www.steeltank.com>

SWI      Steel Window Institute  
<http://www.steelwindows.com>

TCA      Tile Council of America, Inc.  
<http://www.tileusa.com>

TEMA     Tubular Exchange Manufacturers Association  
<http://www.tema.org>

TPITruss Plate Institute, Inc.  
583 D'Onofrio Drive; Suite 200  
Madison, WI 53719  
(608) 833-5900

UBC      The Uniform Building Code  
See ICBO

UL       Underwriters' Laboratories Incorporated  
<http://www.ul.com>

ULC      Underwriters' Laboratories of Canada  
<http://www.ulc.ca>

WCLIB    West Coast Lumber Inspection Bureau  
6980 SW Varns Road, P.O. Box 23145  
Portland, OR 97223  
(503) 639-0651

WRCLA    Western Red Cedar Lumber Association  
P.O. Box 120786  
New Brighton, MN 55112  
(612) 633-4334

WWPA    Western Wood Products Association  
<http://www.wwpa.org> - - - E N D - - -

**SECTION 01 57 19**  
**TEMPORARY ENVIRONMENTAL CONTROLS**

**EP-1. DESCRIPTION**

- A. This section specifies the control of environmental pollution and damage that the Contractor must consider for air, water, and land resources. It includes management of visual aesthetics, noise, solid waste, radiant energy, and radioactive materials, as well as other pollutants and resources encountered or generated by the Contractor. The Contractor is obligated to consider specified control measures with the costs included within the various contract items of work.
- B. Environmental pollution and damage is defined as the presence of chemical, physical, or biological elements or agents which:
  - 1. Adversely effect human health or welfare,
  - 2. Unfavorably alter ecological balances of importance to human life,
  - 3. Effect other species of importance to humankind, or;
  - 4. Degrade the utility of the environment for aesthetic, cultural, and historical purposes.
- C. Definitions of Pollutants:
  - 1. Chemical Waste: Petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals, and inorganic wastes.
  - 2. Debris: Combustible and noncombustible wastes, such as leaves, tree trimmings, ashes, and waste materials resulting from construction or maintenance and repair work.
  - 3. Sediment: Soil and other debris that has been eroded and transported by runoff water.
  - 4. Solid Waste: Rubbish, debris, garbage, and other discarded solid materials resulting from industrial, commercial, and agricultural operations and from community activities.
  - 5. Surface Discharge: The term "Surface Discharge" implies that the water is discharged with possible sheeting action and subsequent soil erosion may occur. Waters that are surface discharged may terminate in drainage ditches, storm sewers, creeks, and/or "water of the United States" and would require a permit to discharge water from the governing agency.
  - 6. Rubbish: Combustible and noncombustible wastes such as paper, boxes, glass and crockery, metal and lumber scrap, tin cans, and bones.

7. Sanitary Wastes:

- a. Sewage: Domestic sanitary sewage and human and animal waste.
- b. Garbage: Refuse and scraps resulting from preparation, cooking, dispensing, and consumption of food.

**EP-2. QUALITY CONTROL**

- A. Establish and maintain quality control for the environmental protection of all items set forth herein.
- B. Record on daily reports any problems in complying with laws, regulations, and ordinances. Note any corrective action taken.

**EP-3. REFERENCES**

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.
- B. U.S. National Archives and Records Administration (NARA):  
33 CFR 328..... Definitions

**EP-4. SUBMITTALS**

- A. In accordance with Section, 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES, furnish the following:
  - 1. Environmental Protection Plan: After the contract is awarded and prior to the commencement of the work, the Contractor shall meet with the Contracting Officer's Technical Representative (COTR) to discuss the proposed Environmental Protection Plan and to develop mutual understanding relative to details of environmental protection. Not more than 20 days after the meeting, the Contractor shall prepare and submit to the COTR and the Contracting Officer for approval, a written and/or graphic Environmental Protection Plan including, but not limited to, the following:
    - a. Name(s) of person(s) within the Contractor's organization who is (are) responsible for ensuring adherence to the Environmental Protection Plan.
    - b. Name(s) and qualifications of person(s) responsible for manifesting hazardous waste to be removed from the site.
    - c. Name(s) and qualifications of person(s) responsible for training the Contractor's environmental protection personnel.
    - d. Description of the Contractor's environmental protection personnel training program.
    - e. A list of Federal, State, and local laws, regulations, and permits concerning environmental protection, pollution control, noise control and abatement that are

applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations, and permits.

- f. Methods for protection of features to be preserved within authorized work areas including trees, shrubs, vines, grasses, ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, and archeological and cultural resources.
  - g. Procedures to provide the environmental protection that comply with the applicable laws and regulations. Describe the procedures to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures as described in the Environmental Protection Plan.
  - h. Permits, licenses, and the location of the solid waste disposal area.
  - i. Drawings showing locations of any proposed temporary excavations or embankments for haul roads, stream crossings, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials. Include as part of an Erosion Control Plan approved by the District Office of the U.S. Soil Conservation Service and the Department of Veterans Affairs.
  - j. Environmental Monitoring Plans for the job site including land, water, air, and noise.
  - k. Work Area Plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. Plan should include measures for marking the limits of use areas. This plan may be incorporated within the Erosion Control Plan.
- B. Approval of the Contractor's Environmental Protection Plan will not relieve the Contractor of responsibility for adequate and continued control of pollutants and other environmental protection measures.

#### **EP-5. PROTECTION OF ENVIRONMENTAL RESOURCES**

- A. Protect environmental resources within the project boundaries and those affected outside the limits of permanent work during the entire period of this contract. Confine activities to areas defined by the specifications and drawings.
- B. Protection of Land Resources: Prior to construction, identify all land resources to be preserved within the work area. Do not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, top soil, and land forms without permission from the COTR. Do not fasten or attach ropes, cables, or guys to trees for anchorage unless specifically authorized, or where special emergency use is permitted.

1. Work Area Limits: Prior to any construction, mark the areas that require work to be performed under this contract. Mark or fence isolated areas within the general work area that are to be saved and protected. Protect monuments, works of art, and markers before construction operations begin. Convey to all personnel the purpose of marking and protecting all necessary objects.
  2. Protection of Landscape: Protect trees, shrubs, vines, grasses, land forms, and other landscape features shown on the drawings to be preserved by marking, fencing, or using any other approved techniques.
    - a. Box and protect from damage existing trees and shrubs to remain on the construction site.
    - b. Immediately repair all damage to existing trees and shrubs by trimming, cleaning, and painting with antiseptic tree paint.
    - c. Do not store building materials or perform construction activities closer to existing trees or shrubs than the farthest extension of their limbs.
  3. Reduction of Exposure of Unprotected Erodible Soils: Plan and conduct earthwork to minimize the duration of exposure of unprotected soils. Clear areas in reasonably sized increments only as needed to use. Form earthwork to final grade as shown. Immediately protect side slopes and back slopes upon completion of rough grading.
  4. Temporary Protection of Disturbed Areas: Construct diversion ditches, benches, and berms to retard and divert runoff from the construction site to protected drainage areas approved under paragraph 208 of the Clean Water Act.
    - a. Sediment Basins: Trap sediment from construction areas in temporary or permanent sediment basins. After each storm, pump the basins dry and remove the accumulated sediment. Control overflow/drainage with paved weirs or by vertical overflow pipes, draining from the surface.
    - b. Institute effluent quality monitoring programs as required by Federal, State, and local environmental agencies.
- C. Protection of Water Resources: Keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters and sewer systems. Implement management techniques to control water pollution by the listed construction activities that are included in this contract.
1. Washing and Curing Water: Do not allow wastewater directly derived from construction activities to enter water areas. Collect and place wastewater in retention

- ponds allowing the suspended material to settle, the pollutants to separate, or the water to evaporate.
2. Control movement of materials and equipment at stream crossings during construction to prevent violation of water pollution control standards of the Federal, State, or local government.
  3. Monitor water areas affected by construction.
- D. Protection of Fish and Wildlife Resources: Keep construction activities under surveillance, management, and control to minimize interference with, disturbance of, or damage to fish and wildlife. Prior to beginning construction operations, list species that require specific attention along with measures for their protection.
- E. Protection of Air Resources: Keep construction activities under surveillance, management, and control to minimize pollution of air resources. Burning is not permitted on the job site. Keep activities, equipment, processes, and work operated or performed, in strict accordance with the State and Federal emission and performance laws and standards. Maintain ambient air quality standards set by the Environmental Protection Agency, for those construction operations and activities specified.
1. Particulates: Control dust particles, aerosols, and gaseous by-products from all construction activities, processing, and preparation of materials (such as from asphaltic batch plants) at all times, including weekends, holidays, and hours when work is not in progress.
  2. Particulates Control: Maintain all excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and all other work areas within or outside the project boundaries free from particulates which would cause a hazard or a nuisance. Sprinklering, chemical treatment of an approved type, light bituminous treatment, baghouse, scrubbers, electrostatic precipitators, or other methods are permitted to control particulates in the work area.
  3. Hydrocarbons and Carbon Monoxide: Control monoxide emissions from equipment to Federal and State allowable limits.
  4. Odors: Control odors of construction activities and prevent obnoxious odors from occurring.
- F. Reduction of Noise: Minimize noise using every action possible. Perform noise-producing work in less sensitive hours of the day or week as directed by the COTR. Maintain noise-produced work at or below the decibel levels and within the time periods specified.

1. Perform construction activities involving repetitive, high-level impact noise only as permitted by local ordinance or the COTR. Repetitive impact noise on the property shall not exceed the following dB limitations:

Time Duration of Impact Noise	Sound Level in dB
More than 12 minutes in any hour	70
Less than 30 seconds of any hour	85
Less than three minutes of any hour	80
Less than 12 minutes of any hour	75

- G. Restoration of Damaged Property: If any direct or indirect damage is done to public or private property resulting from any act, omission, neglect, or misconduct, the Contractor shall restore the damaged property to a condition equal to that existing before the damage at no additional cost to the Government. Repair, rebuild, or restore property as directed or make good such damage in an acceptable manner.
- H. Final Clean-up: On completion of project and after removal of all debris, rubbish, and temporary construction, Contractor shall leave the construction area in a clean condition satisfactory to the COTR. Cleaning shall include off the station disposal of all items and materials not required to be salvaged, as well as all debris and rubbish resulting from demolition and new work operations.

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**SECTION 01 74 19**  
**CONSTRUCTION WASTE MANAGEMENT**

**PART 1 – GENERAL**

**1.1 DESCRIPTION**

- A. This section specifies the requirements for the management of non-hazardous building construction and demolition waste.
- B. Waste disposal in landfills shall be minimized to the greatest extent possible. Of the inevitable waste that is generated, as much of the waste material as economically feasible shall be salvaged, recycled or reused.
- C. Contractor shall use all reasonable means to divert construction and demolition waste from landfills and incinerators, and facilitate their salvage and recycle not limited to the following:
  - 1. Waste Management Plan development and implementation.
  - 2. Techniques to minimize waste generation.
  - 3. Sorting and separating of waste materials.
  - 4. Salvage of existing materials and items for reuse or resale.
  - 5. Recycling of materials that cannot be reused or sold.
- D. At a minimum the following waste categories shall be diverted from landfills:
  - 1. Soil.
  - 2. Inerts (eg, concrete, masonry and asphalt).
  - 3. Clean dimensional wood and palette wood.
  - 4. Green waste (biodegradable landscaping materials).
  - 5. Engineered wood products (plywood, particle board and I-joists, etc).
  - 6. Metal products (eg, steel, wire, beverage containers, copper, etc).
  - 7. Cardboard, paper and packaging.
  - 8. Bitumen roofing materials.
  - 9. Plastics (eg, ABS, PVC).
  - 10. Carpet and/or pad.
  - 11. Gypsum board.
  - 12. Insulation.
  - 13. Paint.
  - 14. Fluorescent lamps.

## **1.2 RELATED WORK**

- A. Section 01 00 00, GENERAL REQUIREMENTS.

## **1.3 QUALITY ASSURANCE**

- A. Contractor shall practice efficient waste management when sizing, cutting and installing building products. Processes shall be employed to ensure the generation of as little waste as possible. Construction /Demolition waste includes products of the following:
1. Excess or unusable construction materials.
  2. Packaging used for construction products.
  3. Poor planning and/or layout.
  4. Construction error.
  5. Over ordering.
  6. Weather damage.
  7. Contamination.
  8. Mishandling.
  9. Breakage.
- B. Establish and maintain the management of non-hazardous building construction and demolition waste set forth herein. Conduct a site assessment to estimate the types of materials that will be generated by demolition and construction.
- C. Contractor shall develop and implement procedures to reuse and recycle new materials to a minimum of 50 percent.
- D. Contractor shall be responsible for implementation of any special programs involving rebates or similar incentives related to recycling. Any revenues or savings obtained from salvage or recycling shall accrue to the contractor.
- E. Contractor shall provide all demolition, removal and legal disposal of materials. Contractor shall ensure that facilities used for recycling, reuse and disposal shall be permitted for the intended use to the extent required by local, state, federal regulations. The Whole Building Design Guide website <http://www.wbdg.org> provides a Construction Waste Management Database that contains information on companies that haul, collect, and process recyclable debris from construction projects.
- F. Contractor shall assign a specific area to facilitate separation of materials for reuse, salvage, recycling, and return. Such areas are to be kept neat and clean and clearly marked in order to avoid contamination or mixing of materials.

- G. Contractor shall provide on-site instructions and supervision of separation, handling, salvaging, recycling, reuse and return methods to be used by all parties during waste generating stages.
- H. Record on daily reports any problems in complying with laws, regulations and ordinances with corrective action taken.

#### **1.4 TERMINOLOGY**

- 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.
  - 1. 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.
  - 2. Off-site Recycling – Materials hauled to a location and used in an altered form in the manufacture of new products.
- M. 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.
- N. Reuse: Materials that are recovered for use in the same form, on-site or off-site.
- O. Return: To give back reusable items or unused products to vendors for credit.
- P. Salvage: To remove waste materials from the site for resale or re-use by a third party.
- Q. Source-Separated Materials: Materials that are sorted by type at the site for the purpose of reuse and recycling.
- R. Solid Waste: Materials that have been designated as non-recyclable and are discarded for the purposes of disposal.
- S. 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.

#### **1.5 SUBMITTALS**

- A. In accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, and SAMPLES, furnish the following:
- B. Prepare and submit to the Contracting Officer's Technical Representative (COTR) a written demolition debris management plan. The plan shall include, but not be limited to, the following information:
  - 1. Procedures to be used for debris management.
  - 2. Techniques to be used to minimize waste generation.
  - 3. Analysis of the estimated job site waste to be generated:
    - a. List of each material and quantity to be salvaged, reused, recycled.
    - b. List of each material and quantity proposed to be taken to a landfill.
  - 4. Detailed description of the Means/Methods to be used for material handling.

- a. On site: Material separation, storage, protection where applicable.
- b. Off site: Transportation means and destination. Include list of materials.
  - 1) Description of materials to be site-separated and self-hauled to designated facilities.
  - 2) Description of mixed materials to be collected by designated waste haulers and removed from the site.
- c. The names and locations of mixed debris reuse and recycling facilities or sites.
- d. The names and locations of trash disposal landfill facilities or sites.
- e. Documentation that the facilities or sites are approved to receive the materials.
- C. Designated Manager responsible for instructing personnel, supervising, documenting and administer over meetings relevant to the Waste Management Plan.
- D. Monthly summary of construction and demolition debris diversion and disposal, quantifying all materials generated at the work site and disposed of or diverted from disposal through recycling.

#### **1.6 APPLICABLE PUBLICATIONS**

- A. Publications listed below form a part of this specification to the extent referenced. Publications are referenced by the basic designation only. In the event that criteria requirements conflict, the most stringent requirements shall be met.
- B. U.S. Green Building Council (USGBC):
  - LEED Green Building Rating System for New Construction

#### **1.7 RECORDS**

Maintain records to document the quantity of waste generated; the quantity of waste diverted through sale, reuse, or recycling; and the quantity of waste disposed by landfill or incineration. Records shall be kept in accordance with the LEED Reference Guide and LEED Template.

### **PART 2 - PRODUCTS**

#### **2.1 MATERIALS**

- A. List of each material and quantity to be salvaged, recycled, reused.
- B. List of each material and quantity proposed to be taken to a landfill.
- C. Material tracking data: Receiving parties, dates removed, transportation costs, weight tickets, tipping fees, manifests, invoices, net total costs or savings.

**PART 3 - EXECUTION**

**3.1 COLLECTION**

- A. Provide all necessary containers, bins and storage areas to facilitate effective waste management.
- B. Clearly identify containers, bins and storage areas so that recyclable materials are separated from trash and can be transported to respective recycling facility for processing.
- C. Hazardous wastes shall be separated, stored, disposed of according to local, state, federal regulations.

**3.2 DISPOSAL**

- A. Contractor shall be responsible for transporting and disposing of materials that cannot be delivered to a source-separated or mixed materials recycling facility to a transfer station or disposal facility that can accept the materials in accordance with state and federal regulations.
- B. Construction or demolition materials with no practical reuse or that cannot be salvaged or recycled shall be disposed of at a landfill or incinerator.

**3.3 REPORT**

- A. With each application for progress payment, submit a summary of construction and demolition debris diversion and disposal including beginning and ending dates of period covered.
- B. Quantify all materials diverted from landfill disposal through salvage or recycling during the period with the receiving parties, dates removed, transportation costs, weight tickets, manifests, invoices. Include the net total costs or savings for each salvaged or recycled material.
- C. Quantify all materials disposed of during the period with the receiving parties, dates removed, transportation costs, weight tickets, tipping fees, manifests, invoices. Include the net total costs for each disposal.

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