

SPECIFICATIONS
Legionella Mixing Valve Corrections
VA MEDICAL CENTER, SHERIDAN, WYOMING

VA #666-15-115

OWNER:

VA Medical Center
1898 Fort Road
Sheridan, WY 82801

DATE:

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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 material, and furnish labor and materials and perform work for VAMC-Sheridan, as required by drawings and specifications.
- B. Visits to the site by Bidders may be made only by appointment with the Medical Center Contracting Officer Representative (COR).
- C. The VA Engineering Office, 1898 Fort Road, Building 5, room 208, Sheridan, WY 82801, will render certain technical services during construction. Such services shall be considered as advisory to the Project and shall not be construed as expressing or implying a contractual act of the Government without affirmations by Contracting Officer or his duly authorized representative.
- D. All employees of general contractor and subcontractors shall comply with VA security management program and obtain permission of the VA police, be identified by project and employer, and restricted from unauthorized access.
- E. The contractor will designate a competent person (CP) to serve as the sole point of contact responsible for safety management on the project site. Competent persons are defined as those capable of identifying existing and predictable hazards in the surroundings and working conditions which are unsanitary, hazardous, or dangerous, and who have the authority to take prompt corrective measures to eliminate them. This CP designation is a formal, required submittal that requires approval by the contracting officer's representative (COR).
 - 1. Federal acquisition regulation (FAR) 52.236-13, with alternate 1, requires submittal and approval of a **safety plan**, specific to the project and to the construction site. The contractor will submit a safety plan that includes detailed safety precautions and practices to mitigate identified hazards specific to this project and to this construction site. This plan is a formal, required submittal that requires approval by the Contracting Officer's Representative (COR).
- F. Training:
 - 1. The contractor will submit proof of 10-hour **OSHA** safety course (i.e., copies of documentation) for all other prime contractor employees as well as any subcontract employees that will work on the site. This proof is a formal, required submittal that requires approval by the Contracting Officer's Representative (COR).

Submittals must include the names, qualifications, and training dates for the prime contractor-designated competent person (CP) designated to administer the site-specific safety program, as well as the CP (if different) for high risk activities as required by OSHA regulations, such as ladders, excavations, trenching, etc.

2. Submit training records of all such employees for approval before the start of work.
3. The contractor will submit proof of a 30-hour OSHA safety course (i.e., copies of documentation) for prime contractor-designated competent persons as well as any subcontractor-designated competent persons that will work on the site. This proof is a formal, required submittal that requires approval by the contracting officer's representative (COR).

1.2 STATEMENT OF BID ITEM(S): ITEM I, VAMC - SHERIDAN, 666-15-115

Introduction:

To comply with updated Legionella guidelines, the Sheridan VA Medical Center staff performed a survey of all bathroom sinks and showers on the medical center campus. Lavatory sinks and showers that failed to meet the new guidelines for protecting staff and patients were identified for replacement. This project is designed to correct those fixtures by installing new faucets and shower mixing valves that will deliver tempered water within a specified range.

Statement of Work:

Contractor shall provide equipment, material and labor necessary for the removal of existing bathroom lavatory sinks and shower mixing valves as identified on the supplied drawing plan, and installation of new lavatory sinks and shower mixing valves that will comply with the new Legionella guidelines. Construction period shall be a maximum of 90 days.

Work will include:

1. Disconnection and demolition of 102 existing 4" faucet (80) and gooseneck faucets (22), cleaning and preparation of the site, installation of new faucets and reconnection and testing of the new fixtures.

4" Faucets and Gooseneck faucets must meet or exceed the following: be equipped with a thermal actuator to compensate for pressure and temperature fluctuations, must mix hot and cold water to deliver a specified temperature range, body must be of heavy duty brass construction for durability and be lead free, must include a deck plate and provide 0.5gpm Laminar flow outlet, the copper supplies must provide integrated check valves, faucets must have a self-contained cartridge for ease of repairs, must be able to limit flow to less than 0.5gpm in the event of cold water failure, and must meet ADA compliance.

- Connections: 3/8" compression inlets with checks
- Maximum operating pressure: 125psi
- Maximum hot water temperature: 194°F
- Minimum hot water temperature: 5°F above set point
- Temperature adjustment range: 60 - 120°F
- Minimum flow to ASSE 1070: 0.5gpm
- Cold water inlet temperature range: 39-80°F
- Hot water inlet temperature range: 120 - 180°F
- Factor set temperature: 105°F
- Listing: ASSE 1070, IAPMO cUPC
- Approval Standards: ASSE 1070, CSA B125.3, NSF 61 Section 9 Annex G.

2. Disconnection and demolition of 26 shower (24) and shower/tub combination (2) mixing valves. Demolition shall require damage to wallboard or tile finished surfaces to expose the existing valves. Cleaning and reinstallation of new shower mixing valves, reconnection and testing of the new fixtures, and repair of wallboard and tile surfaces to preconstruction condition.

Shower valves must meet or exceed the following: be equipped with a thermal actuator to compensated for temperature and pressure fluctuations, a built-in adjustable metal-to-metal temperature limit stop to reduces accidental scalding, must be of heavy duty brass construction for durability, integral check-stops, durable brass faceplate, level-type handle, corrosion-resistant material for long life.

- Connections: 1/2" sweat inlets/outlets
- Capacity: 5.0gpm (±.25gpm)
- Checkstops: integral to casting
- Maximum hot water supply temperature: 190°F
- Minimum hot water supply temperature: 10°F above set point
- Maximum operating pressure: 125psig
- Temperature range: ASSE 1016 Type T/P - 90 - 110°F
- Temperature limit stop: Adjustable (factory set at 110°F)
- Maximum static pressure: 125psig
- Minimum flow: 1gpm
- Certification: CSA B125
- Listed: ASSE 1016 Type T/P

Codes:

All work shall be provided in accordance with the most current edition of the following criteria:

- a. Drawings.
- b. Specifications.
- c. VA Design and Construction Procedures.
- d. Most current version of International Plumbing Code (IPC).
- e. Occupational Safety and Health Administration (OSHA) standards.

End of Statement of Work

1.3 SPECIFICATIONS AND DRAWINGS FOR CONTRACTOR

- A. Documents will be provided in digital PDF format at no additional cost to the Contractor. Contractor may reproduce these documents as required.

1.4 CONSTRUCTION SECURITY REQUIREMENTS

A. Security Plan:

1. The security plan defines both physical and administrative security procedures that will remain effective for the entire duration of the project.
2. The General Contractor is responsible for assuring that all sub-contractors working on the project and their employees also comply with these regulations.

B. Security Procedures:

1. General Contractor's employees shall not enter the project site without appropriate badge. Work in area shall be done in appropriate PPE. They may also be subject to inspection of their personal effects when entering or leaving the project site.
2. For working outside the "regular hours" as defined in the contract, The General Contractor shall give 3 days notice to the Contracting

Officer so that security escort and/or arrangements can be provided for the employees. This notice is separate from any notices required for utility shutdown described later in this section.

3. No photography of VA premises is allowed without written permission of the Contracting Officer. Photography of patients is not allowed.
4. VA reserves the right to close down or shut down the project site and order General Contractor's employees off the premises in the event of a national emergency. The General Contractor may return to the site only with the written approval of the Contracting Officer.

C. Key Control:

1. The General Contractor shall provide duplicate keys and lock combinations to the COR for the purpose of security inspections of every area of project including tool boxes and parked machines to provide access for emergency action.

D. Document Control:

1. Before starting any work, the General Contractor/Sub Contractors shall submit an electronic security memorandum describing the approach to following goals and maintaining confidentiality of "sensitive information".
2. The General Contractor is responsible for safekeeping of all drawings, project manual and other project information. This information shall be shared only with those with a specific need to accomplish the project.

1.5 FIRE SAFETY

A. Applicable Publications: Publications listed below form part of this Article to extent referenced. Publications are referenced in text by basic designations only.

1. American Society for Testing and Materials (ASTM):
E84-2008.....Surface Burning Characteristics of Building
Materials
2. National Fire Protection Association (NFPA):
10-2006.....Standard for Portable Fire Extinguishers
30-2007.....Flammable and Combustible Liquids Code
51B-2003.....Standard for Fire Prevention During Welding,
Cutting and Other Hot Work
70-2007.....National Electrical Code
241-2004.....Standard for Safeguarding Construction,
Alteration, and Demolition Operations
3. Occupational Safety and Health Administration (OSHA):
29 CFR 1926.....Safety and Health Regulations for Construction

- B. Fire Safety Plan: Establish and maintain a fire protection program in accordance with 29 CFR 1926. Prior to start of work, prepare a plan detailing project-specific fire safety measures, including periodic status reports, and submit to COR and Facility Safety Manager for review for compliance with contract requirements in accordance with Section 01 00 00, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES Prior to any worker for the contractor or subcontractors beginning work, they shall undergo a safety briefing provided by the general contractor's competent person per OSHA requirements. This briefing shall include information on the construction limits, VAMC safety guidelines, means of egress, break areas, work hours, locations of restrooms, use of VAMC equipment, etc. Documentation shall be provided to the COR that individuals have undergone contractor's safety briefing.
- C. Site and Building Access: Maintain free and unobstructed access to facility emergency services and for fire, police and other emergency response forces in accordance with NFPA 241.
- D. Means of Egress: Do not block exiting for occupied buildings, including paths from exits to roads. Minimize disruptions and coordinate with COR and facility Safety Manager.
- E. Egress Routes for Construction Workers: Maintain free and unobstructed egress. Inspect daily. Report findings and corrective actions weekly to COR and facility Safety Manager.
- F. Fire Extinguishers: Provide and maintain extinguishers in construction areas and temporary storage areas in accordance with 29 CFR 1926, NFPA 241 and NFPA 10.
- G. Flammable and Combustible Liquids: Store, dispense and use liquids in accordance with 29 CFR 1926, NFPA 241 and NFPA 30.
- H. Smoke Detectors: Prevent accidental operation. Remove temporary covers at end of work operations each day. Coordinate with COR and facility Safety Manager.
- I. Fire Hazard Prevention and Safety Inspections: Inspect entire construction areas weekly. Coordinate with, and report findings and corrective actions weekly to COR and facility Safety Manager.
- J. Smoking: Smoking is prohibited in and adjacent to construction areas inside existing buildings and additions under construction. In separate and detached buildings under construction, smoking is prohibited except in designated smoking rest areas.
- K. Dispose of waste and debris in accordance with NFPA 241. Remove from buildings daily.
- L. Perform other construction, alteration and demolition operations in accordance with 29 CFR 1926.

1.6 OPERATIONS AND STORAGE AREAS

- A. The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.
- B. The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.
- C. Working space and space available for storing materials shall be as determined by the COR.
- D. Workmen are subject to rules of Medical Center applicable to their conduct.
- E. 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 renters, and Contractor's personnel, except as permitted by COR 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 to vacated portions of buildings is not required, storage of Contractor's materials and equipment will be permitted subject to fire and safety requirements.
- F. Phasing: The Contractor shall meet with the VA staff before starting any work to establish a firm phased schedule for the work. Once set, the schedule the Contractor must comply with the schedule unless unforeseen circumstances keep the Contractor from adhering to the schedule. During

the scheduling meeting with between the VAMC and the Contractor, actual dates shall be applied in the following Phase Example format: Total construction period shall be a maximum of ninety (30) days.

- G. 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 medical gas supply, water, steam, gases, sewer or air pipes, or conduits, wires, cables, etc. of utility services or of fire protection systems and communications systems (including telephone), they shall be cut and capped at suitable places where shown; or, in absence of such indication, where directed by COR.
 - 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 COR.
 - 2. Contractor shall submit a request to interrupt any such services, including medical gas, to COR, in writing, 48 hours in advance of proposed interruption. Request shall state reason, date, exact time of, and approximate duration of such interruption.
 - 3. Contractor will be advised (in writing) of approval of request, or of which other date and/or time such interruption will cause least inconvenience to occupants of the area. Interruption time approved by Tenants and COR may occur at other than Contractor's normal working hours.
 - 4. Major interruptions of any system must be requested, in writing, at least 15 calendar days prior to the desired time and shall be performed as directed by the COR.
 - 5. In case of a contract construction emergency, service will be interrupted on approval of COR. Such approval will be confirmed in writing as soon as practical.
- H. 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.
- G. Working hours shall be from 7:30am to 4:00pm unless otherwise coordinated with the COR.

1.7 ALTERATIONS

- A. Survey: Before any work is started, the Contractor shall make a thorough survey with the COR, of building in which alterations occur and areas which are anticipated routes of access, and furnish a report, signed by the Contracting Officer. This report shall list by rooms and spaces:

1. Existing condition and types of flooring, walls and other surfaces not required to be altered throughout affected areas of building.
 2. Existence and conditions of items such as piping 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 COR**.
- 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 COR and/or Contractor, to be in such condition that their use is impossible or impractical, shall be turned over to the 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 COR 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, furnishings and equipment 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. Refer to MCM 140-02, Type C Construction, Class 2 Precaution, for infection control measures.

1.8 DISPOSAL AND RETENTION

- A. Materials and equipment accruing from work removed and from demolition of buildings or structures, or parts thereof, shall be disposed of as follows:
 1. Items that remain property of the Government shall be removed or dislodged from present locations in such a manner as to prevent damage which would be detrimental to re-installation and reuse. Store such items as directed by COR.
 2. Items determined as not reserved shall become property of the Contractor and be removed by Contractor from Medical Center.
 3. Items of portable equipment and furnishings located in rooms and spaces in which work is to be done under this contract shall remain the property of the Government. When rooms and spaces are vacated by the Department of Veterans Affairs during the alteration period, such items which are NOT required by drawings and specifications to be either relocated or reused will be removed by the Government in advance of work to avoid interfering with Contractor's operation.
 4. Hazardous Materials and Hazardous Waste: The Contractor shall be responsible for disposal of all Hazardous Materials/Hazardous Waste ("HAZMAT") in accordance with all applicable federal, state and local guidelines. All HAZMAT shall be taken out of service and handled in accordance with the procedures of the Environmental Protection Agency (EPA) and the Department of Transportation (DOT) as outlined in Code of Federal Regulation (CFR), Titled 40 and 49 respectively. The EPA's Toxic Substance Control Act (TSCA) Compliance Program Policy Nos. 6-PCB-6 and 6-PCB-7 also apply. Upon removal of any HAZMAT, the "originator" copy of the Uniform Hazardous Waste Manifest (EPA Form 8700-22), along with the Uniform Hazardous Waste Manifest Continuation Sheet (EPA Form 8700-22A) shall be returned to the Contracting Officer who will annotate the contract file and transmit the Manifest to the Medical Center's Chief. A copy of the "originator" shall also be sent to the facility GEMS Coordinator.
 - a. Copies of the following listed CFR titles may be obtained from the Government Printing Office:
 - 40 CFR 261.....Identification and Listing of Hazardous Waste
 - 40 CFR 262.....Standards Applicable to Generators of Hazardous Waste
 - 40 CFR 263.....Standards Applicable to Transporters of Hazardous Waste

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

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

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

49 CFR 173.....Subpart A General

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

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

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

5. Recycle all locally recyclable materials. At start of project provide a written demolition debris management plan to COR. Contractor shall provide storage receptacles on site, or store offsite. At minimum recycle Metal Ductwork, Soil, Inerts (eg, concrete, masonry and asphalt), Clean dimensional wood and palette wood, Green waste (biodegradable landscaping materials), Engineered wood products (plywood, particle board and I-joists, etc), Metal products (eg, steel, wire, beverage containers, etc), Cardboard, paper and packaging, Bitumen roofing materials, Plastics (eg, ABS, PVC), Carpet and/or pad, Gypsum board, Insulation, and Paint. Provide manifest of where materials went. Submit copy of manifest to COR. 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.

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

A. The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

- B. The Contractor shall protect from damage all existing improvements and utilities at or near the work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(FAR 52.236-9)

- C. For requirements on protecting vegetation, soils and the environment. Refer to Articles, "Alterations", "Restoration", and "Operations and Storage Areas" for additional instructions concerning repair of damage to structures and site improvements.

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 COR. Existing work to be altered or extended and that is found to be defective in any way, shall be reported to the COR 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 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 COR's review, as often as requested.
- C. Contractor shall deliver one approved completed sets of plan red lined as-built drawings to the COR within 15 calendar days after each completed phase and after the acceptance of the project by the COR.
- D. Paragraphs A, B, & C shall also apply to all shop drawings.

1.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

Provide 1 set of shop drawings in a 3 ring binders for all material and equipment.

1.13 USE OF ROADWAYS

- A. For hauling, use only established public roads and roads on Medical Center property and, when authorized by the COR, such temporary roads which are necessary in the performance of contract work. Temporary roads shall be constructed by the Contractor at Contractor's expense. When necessary to cross curbing, sidewalks, or similar construction, they must be protected by well-constructed bridges.

1.14 AVAILABILITY AND USE OF UTILITY SERVICES

- A. The Government shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as reasonably required for this project. The Contractor shall carefully conserve any utilities furnished without charge.
- B. The Contractor, at Contractor's expense and in a workmanlike manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of electricity used for the purpose of determining charges. Before final acceptance of the work by the Government, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.
- C. Heat: Furnish temporary heat if 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

1.15 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 COR 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. Use environmentally friendly, "Green", products where applicable. Such as Energy star rated, low VOC, recycled material, etc.

1.16 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 COR verbally, and then with a written follow up.

- - - E N D - - -

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, 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 will not serve as a basis for extending contract time for completion.
- 1.5 Submittals will be reviewed for compliance with contract requirements by Architect-Engineer, and action thereon will be taken by the Contracting Officer's Representative (COR) on behalf of the Contracting Officer.
- 1.6 Upon receipt of submittals, Architect-Engineer 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 therefor 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 Architect-Engineer. However, the Contractor shall assume responsibility for coordinating and verifying schedules. The Contracting Officer and Architect- Engineer assumes no responsibility for checking schedules or layout drawings for exact sizes, exact numbers and detailed positioning of items.

1.9 Submittal format

A. PAPER COPY SUBMITTALS shall be sent to the General Contractor who will check the submittals for general conformance to the Construction Documents and forward the submittal(s) on to the COR for Review. Submittals are not to be submitted directly to the Architect or the Architect's Sub-Consultants. All submittals must be routed through the General Contractor to the COR, who will then forward the submittal on to the appropriate reviewer. The COR will retain three (3) copies of each paper submittal and return the remaining copies to the General Contractor for Distribution. The General Contractor will retain one copy for his files, and transmit all remaining copies to the Sub-Contractor who originated the submittal. Therefore, the Sub-Contractor who originates paper copy submittals shall submit the number of submittals that he wants returned plus three (3) copies. Submittals must be submitted by General Contractor only and shipped prepaid. Contracting Officer assumes no responsibility for checking quantities or exact numbers included in such submittals.

B. ELECTRONIC SUBMITTALS shall be emailed to the General Contractor who will check the submittals for general conformance to the Construction Documents and forward the submittal(s) on to the COR for Review. Electronic submittals are not to be emailed or copied to the Architect or the Architect's Sub-Consultants. All submittals must be routed through the General Contractor to the COR, who will then forward the submittal on to the appropriate Reviewer. Upon review of the submittal(s), the COR will mark the submittal for the appropriate action required and transmit the submittal back to the General Contractor who will distribute the

submittal(s) electronically to the appropriate subcontractors, and suppliers.

- C. RESUBMITTALS shall bear the original submittal number with a designator indicating the number of times the submittal has been resubmitted.
- D. SUBMITTALS REQUIRING COLOR SELECTIONS shall be submitted as early in the project as possible. COR will retain all submittals requiring color selections until all such submittals have been submitted. The COR will then prepare coordinated color selections for approval. Upon approval of the color selections by the COR, the COR will process the submittal(s) requiring color selections.
All submittals requiring color selections shall be accompanied by actual samples of the color and finish selection options. Printed or electronic renditions of the color choices are not acceptable, do not accurately portray true colors, and therefore cannot be used by the COR to select the coordinated color choices. For this reason, only true samples of the actual finish materials will be accepted for color selections. The COR is not responsible for the delays caused by the failure of the General Contractor, Sub-Contractor or Supplier to submit the correct color samples. The COR reserves the right to be reimbursed for time and expense required to gather appropriate color samples when proper color samples are not submitted.
- E. PROCESSING TIME: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal.
 - 1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. COR will advise Contractor when a submittal being processed must be delayed for coordination.
 - 2. Concurrent Review: Where concurrent review of submittals by COR and the Government's Consultants, or other parties is required, allow 21 days for initial review of each submittal.
 - 3. Direct Transmittal to anyone other than the COR is not allowed. All submittals are to be transmitted to the COR.

4. If intermediate submittal is necessary, process it in the same manner as initial submittal. Allow 15 days for processing each resubmittal.
- F. 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.
- G. Submittals will receive consideration only when covered by a transmittal letter signed by Contractor. Letter shall be sent via one of the methods above 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.
- H. 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.
- I. Approved samples will be kept on file by the COR 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.

J. 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. 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 Architect-Engineer under one cover.

1.10 Samples, shop drawings, test reports, certificates and manufacturers' literature and data, shall be submitted for approval to the COR.

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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, etc).
 - 7. Cardboard, paper and packaging.
 - 8. Plastics (eg, ABS, PVC).
 - 9. Gypsum board.
 - 10. Insulation.
 - 11. Paint.
 - 12. Window units.

1.2 RELATED WORK

- A. Section 02 41 00, DEMOLITION.
- B. 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 work with the COR to 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 COR 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.
- B. Designated Manager responsible for instructing personnel, supervising, documenting and administer over meetings relevant to the Waste Management Plan.
- C. 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

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.

- A. 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 or other documentation acceptable to the VA.

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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**SECTION 22 05 11
COMMON WORK RESULTS FOR PLUMBING**

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The requirements of this Section shall apply to all sections of Division 22.
- B. Definitions:
 - 1. Exposed: Piping and equipment exposed to view in finished rooms.
- C. Abbreviations/Acronyms:
 - 1. ABS: Acrylonitrile Butadiene Styrene
 - 2. AISI: American Iron and Steel Institute
 - 3. AWG: American Wire Gauge
 - 4. BACnet: Building Automation and Control Network
 - 5. BSG: Borosilicate Glass Pipe
 - 6. CDA: Copper Development Association
 - 7. CO: Carbon Monoxide
 - 8. COR: Contracting Officer's Representative
 - 9. CPVC: Chlorinated Polyvinyl Chloride
 - 10. CR: Chloroprene
 - 11. CWP: Cold Working Pressure
 - 12. db(A): Decibels (A weighted)
 - 13. DDC: Direct Digital Control
 - 14. DISS: Diameter Index Safety System
 - 15. DWV: Drainage, Waste and Vent
 - 16. ECC: Engineering Control Center
 - 17. EPDM: Ethylene Propylene Diene Monomer
 - 18. EPT: Ethylene Propylene Terpolymer
 - 19. ETO: Ethylene Oxide
 - 20. FAR: Federal Acquisition Regulations
 - 21. FD: Floor Drain
 - 22. FG: Fiberglass
 - 23. FNPT: Female National Pipe Thread
 - 24. FPM: Fluoroelastomer Polymer
 - 25. HDPE: High Density Polyethylene
 - 26. HOA: Hands-Off-Automatic
 - 27. HP: Horsepower
 - 28. ID: Inside Diameter

- 29. MAWP: Maximum Allowable Working Pressure
- 30. NPTF: National Pipe Thread Female
- 31. NPS: Nominal Pipe Size
- 32. NPT: National Pipe Thread
- 33. OD: Outside Diameter
- 34. OSD: Open Sight Drain
- 35. OS&Y: Outside Stem and Yoke
- 36. PP: Polypropylene
- 37. PTFE: Polytetrafluoroethylene
- 38. PVC: Polyvinyl Chloride
- 39. PVDF: Polyvinylidene Fluoride
- 40. RTRP: Reinforced Thermosetting Resin Pipe
- 41. SPS: Sterile Processing Services
- 42. SUS: Saybolt Universal Second
- 43. SWP: Steam Working Pressure
- 44. TFE: Tetrafluoroethylene
- 45. THHN: Thermoplastic High-Heat Resistant Nylon Coated Wire
- 46. THWN: Thermoplastic Heat & Water Resistant Nylon Coated Wire
- 47. USDA: U.S. Department of Agriculture
- 48. VAC: Voltage in Alternating Current
- 49. WOG: Water, Oil, Gas

1.2 RELATED WORK

- A. Section 01 00 00, GENERAL REQUIREMENTS.
- B. Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- C. Section 01 74 19, CONSTRUCTION WASTE MANAGEMENT.

1.3 APPLICABLE PUBLICATIONS

- A. The publications listed below shall form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.
- B. International Code Council, (ICC):
 - IBC-2012.....International Building Code
 - IPC-2012.....International Plumbing Code
- C. NSF International (NSF):
 - 61-2012.....Drinking Water System Components - Health Effects
 - 372-2011.....Drinking Water System Components - Lead Content

D. Department of Veterans Affairs (VA):

PG-18-10.....Plumbing Design Manual

PG-18-13-2011.....Barrier Free Design Guide

1.4 SUBMITTALS

- A. Submittals, including number of required copies, shall be submitted in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, and SAMPLES.
- B. Information and material submitted under this section shall be marked "SUBMITTED UNDER SECTION 22 05 11, COMMON WORK RESULTS FOR PLUMBING", with applicable paragraph identification.
- C. Contractor shall make all necessary field measurements and investigations to assure that the equipment and assemblies will meet contract requirements and will fit the space available.
- D. If equipment is submitted which differs in arrangement from that shown, provide drawings that show the rearrangement of all associated systems. Approval will be given only if all features of the equipment and associated systems, including accessibility, are equivalent to that required by the contract.
- E. Prior to submitting shop drawings for approval, contractor shall certify in writing that manufacturers of all major items of equipment have each reviewed drawings and specifications, and have jointly coordinated and properly integrated their equipment and controls to provide a complete and efficient installation.
- F. Installing Contractor shall provide lists of previous installations for selected items of equipment. Contact persons who will serve as references, with telephone numbers and e-mail addresses shall be submitted with the references.
- G. Manufacturer's Literature and Data: Manufacturer's literature shall be submitted under the pertinent section rather than under this section.
 - 1. Electric motor data and variable speed drive data shall be submitted with the driven equipment.
 - 2. Equipment and materials identification.
 - 3. Firestopping materials.
 - 4. Hangers, inserts, supports and bracing. Provide load calculations for variable spring and constant support hangers.
 - 5. Wall, floor, and ceiling plates.

- H. Submittals and shop drawings for interdependent items, containing applicable descriptive information, shall be furnished together and complete in a group. Coordinate and properly integrate materials and equipment in each group to provide a completely compatible and efficient installation. Final review and approvals will be made only by groups.
- I. Coordination Drawings: Complete consolidated and coordinated layout drawings shall be submitted for all new systems, and for existing systems that are in the same areas. The drawings shall include plan views, elevations and sections of all systems and shall be on a scale of not less than 1:32 (3/8 inch equal to one foot). Clearly identify and dimension the proposed locations of the principal items of equipment. The drawings shall clearly show the proposed location and adequate clearance for all equipment, controls, piping, pumps, valves and other items. All valves, trap primer valves, water hammer arrestors, strainers, and equipment requiring service shall be provided with an access door sized for the complete removal of plumbing device, component, or equipment. Equipment foundations shall not be installed until equipment or piping layout drawings have been approved. Detailed layout drawings shall be provided for all piping systems. In addition, details of the following shall be provided.
1. Mechanical equipment rooms.
 2. Interstitial space.
 3. Hangers, inserts, supports, and bracing.
 4. Pipe sleeves.
 5. Equipment penetrations of floors, walls, ceilings, or roofs.
- J. Maintenance Data and Operating Instructions:
1. Maintenance and operating manuals in accordance with Section 01 00 00, GENERAL REQUIREMENTS, Article, INSTRUCTIONS, for systems and equipment. Include complete list indicating all components of the systems with diagrams of the internal wiring for each item of equipment.
 2. Include listing of recommended replacement parts for keeping in stock supply, including sources of supply, for equipment shall be provided. The listing shall include belts for equipment: Belt manufacturer, model number, size and style, and distinguished whether of multiple belt sets.

1.5 QUALITY ASSURANCE

A. Products Criteria:

1. Standard Products: Material and equipment shall be the standard products of a manufacturer regularly engaged in the manufacture, supply and servicing of the specified products for at least 5 years. However, digital electronics devices, software and systems such as controls, instruments, computer work station, shall be the current generation of technology and basic design that has a proven satisfactory service record of at least 5 years.
2. All items furnished shall be free from defects that would adversely affect the performance, maintainability and appearance of individual components and overall assembly.
3. The products and execution of work specified in Division 22 shall conform to the referenced codes and standards as required by the specifications. Local codes and amendments enforced by the local code official shall be enforced, if required by local authorities such as the natural gas supplier. If the local codes are more stringent, then the local code shall apply. Any conflicts shall be brought to the attention of the Contracting Officers Representative (COR).
4. Multiple Units: When two or more units of materials or equipment of the same type or class are required, these units shall be products of one manufacturer.
5. Assembled Units: Manufacturers of equipment assemblies, which use components made by others, assume complete responsibility for the final assembled product.
6. Asbestos products or equipment or materials containing asbestos shall not be used.

B. Manufacturer's Recommendations: Where installation procedures or any part thereof are required to be in accordance with the recommendations of the manufacturer of the material being installed, printed copies of these recommendations shall be furnished to the COR prior to installation. Installation of the item will not be allowed to proceed until the recommendations are received. Failure to furnish these recommendations can be cause for rejection of the material.

C. Execution (Installation, Construction) Quality:

1. All items shall be applied and installed in accordance with manufacturer's written instructions. Conflicts between the

- manufacturer's instructions and the contract documents shall be referred to the COR for resolution. Printed copies or electronic files of manufacturer's installation instructions shall be provided to the COR at least 10 working days prior to commencing installation of any item.
2. All items that require access, such as for operating, cleaning, servicing, maintenance, and calibration, shall be easily and safely accessible by persons standing at floor level, or standing on permanent platforms, without the use of portable ladders. Examples of these items include, but are not limited to: all types of valves, filters and strainers, transmitters, and control devices. Prior to commencing installation work, refer conflicts between this requirement and contract documents to COR for resolution.
 3. Installer Qualifications: Installer shall be licensed and shall provide evidence of the successful completion of at least five projects of equal or greater size and complexity. Provide tradesmen skilled in the appropriate trade.
 4. If an installation is unsatisfactory to the COR, the Contractor shall correct the installation at no additional cost or additional time to the Government.
- E. Guaranty: Warranty of Construction, FAR clause 52.246-21.
- F. Plumbing Systems: IPC, International Plumbing Code. Unless otherwise required herein, perform plumbing work in accordance with the latest version of the IPC. For IPC codes referenced in the contract documents, advisory provisions shall be considered mandatory, the word "should" shall be interpreted as "shall". Reference to the "code official" or "owner" shall be interpreted to mean the COR.
- G. Cleanliness of Piping and Equipment Systems:
1. Care shall be exercised in the storage and handling of equipment and piping material to be incorporated in the work. Debris arising from cutting, threading and welding of piping shall be removed.
 2. Piping systems shall be flushed, blown or pigged as necessary to deliver clean systems.
 3. All piping shall be tested in accordance with the specifications and the International Plumbing Code (IPC). All filters, strainers, fixture faucets shall be flushed of debris prior to final acceptance.

4. Contractor shall be fully responsible for all costs, damage, and delay arising from failure to provide clean systems.

1.6 DELIVERY, STORAGE AND HANDLING

A. Protection of Equipment:

1. Equipment and material placed on the job site shall remain in the custody of the Contractor until phased acceptance, whether or not the Government has reimbursed the Contractor for the equipment and material. The Contractor is solely responsible for the protection of such equipment and material against any damage.
2. Damaged equipment shall be replaced with an identical unit as determined and directed by the COR. Such replacement shall be at no additional cost or additional time to the Government.
3. Interiors of new equipment and piping systems shall be protected against entry of foreign matter. Both inside and outside shall be cleaned before painting or placing equipment in operation.
4. Existing equipment and piping being worked on by the Contractor shall be under the custody and responsibility of the Contractor and shall be protected as required for new work.

1.7 AS-BUILT DOCUMENTATION

- A. Submit manufacturer's literature and data updated to include submittal review comments and any equipment substitutions.
- B. Submit operation and maintenance data updated to include submittal review comments, substitutions and construction revisions shall be inserted into a three ring binder. All aspects of system operation and maintenance procedures, including piping isometrics, wiring diagrams of all circuits, a written description of system design, control logic, and sequence of operation shall be included in the operation and maintenance manual. The operations and maintenance manual shall include troubleshooting techniques and procedures for emergency situations. Notes on all special systems or devices such as damper and door closure interlocks shall be included. A List of recommended spare parts (manufacturer, model number, and quantity) shall be furnished. Information explaining any special knowledge or tools the owner will be required to employ shall be inserted into the As-Built documentation.
- C. The installing contractor shall maintain as-built drawings of each completed phase for verification; and, shall provide the complete set

at the time of final systems certification testing. As-built drawings are to be provided.

PART 2 - PRODUCTS

2.1 MATERIALS FOR VARIOUS SERVICES

- A. Non-pressure PVC pipe shall contain a minimum of 25 percent recycled content
- B. Plastic pipe, fittings and solvent cement shall meet NSF 14 and shall bear the NSF seal "NSF-PW". Polypropylene pipe and fittings shall comply with NSF 14 and NSF 61. Solder or flux containing lead shall not be used with copper pipe.
- C. Material or equipment containing a weighted average of greater than 0.25 percent lead shall not be used in any potable water system intended for human consumption, and shall be certified in accordance with NSF 61 or NSF 372.
- D. In-line devices such as water meters, building valves, check valves, stops, valves, fittings, tanks and backflow preventers shall comply with NSF 61 and NSF 372.
- E. End point devices such as drinking fountains, lavatory faucets, kitchen and bar faucets, ice makers supply stops, and end-point control valves used to dispense drinking water must meet requirements of NSF 61 and NSF 372.

2.2 FACTORY-ASSEMBLED PRODUCTS

- A. Standardization of components shall be maximized to reduce spare part requirements.
- B. Manufacturers of equipment assemblies that include components made by others shall assume complete responsibility for final assembled unit.
 - 1. All components of an assembled unit need not be products of same manufacturer.
 - 2. Constituent parts that are alike shall be products of a single manufacturer.
 - 3. Components shall be compatible with each other and with the total assembly for intended service.
 - 4. Contractor shall guarantee performance of assemblies of components, and shall repair or replace elements of the assemblies as required to deliver specified performance of the complete assembly at no additional cost or time to the Government.

- C. Components of equipment shall bear manufacturer's name and trademark, model number, serial number and performance data on a name plate securely affixed in a conspicuous place, or cast integral with, stamped or otherwise permanently marked upon the components of the equipment.
- D. Major items of equipment, which serve the same function, shall be the same make and model.

2.3 COMPATIBILITY OF RELATED EQUIPMENT

- A. Equipment and materials installed shall be compatible in all respects with other items being furnished and with existing items so that the result will be a complete and fully operational system that conforms to contract requirements.

2.4 TOOLS AND LUBRICANTS

- A. Furnish, and turn over to the COR, special tools not readily available commercially, that are required for disassembly or adjustment of equipment and machinery furnished.

2.5 ASBESTOS

- A. Materials containing asbestos are not permitted.

PART 3 - EXECUTION

3.1 ARRANGEMENT AND INSTALLATION OF EQUIPMENT AND PIPING

- A. Location of piping, sleeves, inserts, hangers, and equipment, access provisions shall be coordinated with the work of all trades. Piping, sleeves, inserts, hangers, and equipment shall be located clear of windows, doors, openings, light outlets, and other services and utilities. Equipment layout drawings shall be prepared to coordinate proper location and personnel access of all facilities. The drawings shall be submitted for review.
- B. Manufacturer's published recommendations shall be followed for installation methods not otherwise specified.
- C. Protection and Cleaning:
 - 1. Equipment and materials shall be carefully handled, properly stored, and adequately protected to prevent damage before and during installation, in accordance with the manufacturer's recommendations and as approved by the COR. Damaged or defective items in the

- opinion of the COR, shall be replaced at no additional cost or time to the Government.
2. Protect all finished parts of equipment, Close pipe openings with caps or plugs during installation. Pipe openings, equipment, and plumbing fixtures shall be tightly covered against dirt or mechanical injury. At completion of all work thoroughly clean fixtures, exposed materials and equipment.
- D. Gages, thermometers, valves and other devices shall be installed with due regard for ease in reading or operating and maintaining said devices. Thermometers and gages shall be located and positioned to be easily read by operator or staff standing on floor or walkway provided. Servicing shall not require dismantling adjacent equipment or pipe work.
- E. Work in Existing Building:
1. Perform as specified in Article, OPERATIONS AND STORAGE AREAS, Article, ALTERATIONS, and Article, RESTORATION of the Section 01 00 00, GENERAL REQUIREMENTS for relocation of existing equipment, alterations and restoration of existing building(s).
 2. As specified in Section 01 00 00, GENERAL REQUIREMENTS, Article, OPERATIONS AND STORAGE AREAS, make alterations to existing service piping at times that will cause the least interfere with normal operation of the facility.
- F. Work in bathrooms, restrooms, housekeeping closets: All pipe penetrations behind escutcheons shall be sealed with plumbers putty.
- G. Inaccessible Equipment:
1. Where the Government determines that the Contractor has installed equipment not conveniently accessible for operation and maintenance, equipment shall be removed and reinstalled or remedial action performed as directed at no additional cost or additional time to the Government.
 2. The term "conveniently accessible" is defined as capable of being reached without the use of ladders, or without climbing or crawling under or over obstacles such as electrical conduit, motors, fans, pumps, belt guards, transformers, high voltage lines, piping, and ductwork.

3.2 PLUMBING SYSTEMS DEMOLITION

- A. Where work is in an operating building, approved protection from dust and debris shall be provided at all times for the safety of building personnel and maintenance of building operation and environment.
- B. In an occupied building, cleanliness and safety shall be maintained. The building shall be kept in an operating condition. Government personnel will be carrying on their normal duties of operation, cleaning and maintaining equipment operations. Work shall be confined to the immediate area concerned; maintain cleanliness and wet down demolished materials to eliminate dust. Dust and debris shall not be permitted to accumulate in the area to the detriment of building operation. All flame cutting shall be performed to maintain the fire safety integrity of this building. Adequate fire extinguishing facilities shall be available at all times. All work shall be performed in accordance with recognized fire protection standards including NFPA 51B. Inspections will be made by personnel of the VA Medical Center, and the Contractor shall follow all directives of the COR with regard to rigging, safety, fire safety, and maintenance of operations.
- C. Unless specified otherwise, all piping, wiring, conduit, and other devices associated with the equipment not re-used in the new work shall be completely removed from Government property per Section 01 74 19, CONSTRUCTION WASTE MANAGEMENT. This includes all concrete equipment pads, pipe, valves, fittings, insulation, and all hangers including the top connection and any fastenings to building structural systems. All openings shall be sealed after removal of equipment, pipes, ducts, and other penetrations in roof, walls, floors, in an approved manner and in accordance with plans and specifications where specifically covered.
- D. The Contractor shall remove all material and equipment, devices and demolition debris under these plans and specifications. Such material shall be removed from Government property expeditiously and shall not be allowed to accumulate. Coordinate with the COR and Infection Control.

3.3 CLEANING AND PAINTING

- A. Prior to final inspection and acceptance of the facilities for beneficial use by the Government, the facilities, equipment and systems

shall be thoroughly cleaned and painted. Refer to Section 09 91 00, PAINTING.

- B. In addition, the following special conditions apply:
 - 1. Cleaning shall be thorough. Solvents, cleaning materials and methods recommended by the manufacturers shall be used for the specific tasks. All rust shall be removed prior to painting and from surfaces to remain unpainted. Scratches, scuffs, and abrasions shall be repaired prior to applying prime and finish coats.
 - 2. Touch-up painting shall be made with matching paint type and color obtained from manufacturer or computer matched.
 - 3. The final result shall be a smooth, even-colored, even-textured factory finish on all items. Lead based paints shall not be used.

3.4 OPERATING AND PERFORMANCE TESTS

- A. Prior to the final inspection, all required tests shall be performed as specified in Section 01 00 00, GENERAL REQUIREMENTS, Article, TESTS and submit the test reports and records to the COR.
- B. Should evidence of malfunction in any tested system, or piece of equipment or component part thereof, occur during or as a result of tests, make proper corrections, repairs or replacements, and repeat tests at no additional cost to the Government.
- C. When completion of certain work or systems occurs at a time when final control settings and adjustments cannot be properly made to make performance tests, then conduct such performance tests and finalize control settings during the first actual seasonal use of the respective systems following completion of work. Rescheduling of these tests shall be requested in writing to COR for approval.

3.5 OPERATION AND MAINTENANCE MANUALS

- A. All new and temporary equipment and all elements of each assembly shall be included.
- B. Data sheet on each device listing model, size, capacity, pressure, speed, horsepower, impeller size, and other information shall be included.
- C. Manufacturer's installation, maintenance, repair, and operation instructions for each device shall be included. Assembly drawings and parts lists shall also be included. A summary of operating precautions

and reasons for precautions shall be included in the Operations and Maintenance Manual.

D. Set points of all interlock devices shall be listed.

- - - E N D - - -

SECTION 22 05 23
GENERAL-DUTY VALVES FOR PLUMBING PIPING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section describes the requirements for general-duty valves for domestic water and sewer systems.
- B. A complete listing of all acronyms and abbreviations are included in Section 22 05 11, COMMON WORK RESULTS FOR PLUMBING.

1.2 RELATED WORK

- A. Section 01 00 00, GENERAL REQUIREMENTS.
- B. Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
- C. Section 22 05 11, COMMON WORK RESULTS FOR PLUMBING.

1.3 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.
- B. American Society of Sanitary Engineering (ASSE):
 - 1069-2005.....Performance Requirements for Automatic
Temperature Control Mixing Valves
 - 1070-2004.....Performance Requirements for Water Temperature
Limiting Devices
- C. International Code Council (ICC):
 - IPC-2012.....International Plumbing Code
- D. NSF International (NSF):
 - 61-2012.....Drinking Water System Components - Health
Effects
 - 372-2011.....Drinking Water System Components - Lead Content

1.4 SUBMITTALS

- A. Submittals, including number of required copies, shall be submitted in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, and SAMPLES.
- B. Information and material submitted under this section shall be marked "SUBMITTED UNDER SECTION 22 05 23, GENERAL-DUTY VALVES FOR PLUMBING PIPING", with applicable paragraph identification.

- C. Manufacturer's Literature and Data Including: Full item description and optional features and accessories. Include dimensions, weights, materials, applications, standard compliance, model numbers, size, and capacity.
 - 1. Thermostatic Mixing Valves.
- D. Complete operating and maintenance manuals including wiring diagrams, technical data sheets and information for ordering replaceable parts:
 - 1. Piping diagrams of thermostatic mixing valves to be installed.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Valves shall be prepared for shipping as follows:
 - 1. Protect internal parts against rust and corrosion.
 - 2. Protect threads, flange faces, grooves, and weld ends.
 - 3. Set angle, gate, and globe valves closed to prevent rattling.
 - 4. Set ball and plug valves open to minimize exposure of functional surfaces.
 - 5. Set butterfly valves closed or slightly open.
 - 6. Block check valves in either closed or open position.
- B. Valves shall be prepared for storage as follows:
 - 1. Maintain valve end protection.
 - 2. Store valves indoors and maintain at higher than ambient dew point temperature.

PART 2 - PRODUCTS

2.1 VALVES, GENERAL

- A. Asbestos packing and gaskets are prohibited.
- B. All valves used to supply potable water shall meet the requirements of NSF 61 and NSF 372.

2.2 THERMOSTATIC MIXING VALVES

- A. Thermostatic Mixing Valves shall comply with the following general performance requirements:
 - 1. Shall meet ASSE requirements for water temperature control.
 - 2. The body shall be cast bronze or brass with corrosion resistant internal parts preventing scale and biofilm build-up. Provide chrome-plated finish in exposed areas.
 - 3. No special tool shall be required for temperature adjustment, maintenance, replacing parts and disinfecting operations.

4. Valve shall be able to be placed in various positions without making temperature adjustment or reading difficult.
5. Valve finish shall be chrome plated in exposed areas.
6. Valve shall allow easy temperature adjustments to allow hot water circulation. Internal parts shall be able to withstand disinfecting operations of chemical and thermal treatment of water temperatures up to 82°C (180°F) for 30 minutes or 50 mg/L (50 ppm) chlorine residual concentration for 24 hours.
7. Parts shall be easily removed or replaced without dismantling the valves, for easy scale removal and disinfecting of parts.
8. Valve shall have a manual adjustable temperature control with locking mechanism to prevent tampering by end user. Outlet temperature shall be visible to ensure outlet temperature does not exceed specified limits, particularly after thermal eradication procedures.
9. Provide mixing valves with integral check valves with screens and stop valves.

E. Water Temperature Limiting Devices:

1. Application: Single plumbing fixture point-of-use such as sinks or lavatories.
2. Standard: ASSE 1070.
3. Pressure Rating: 861 kPa (125 psig).
4. Type: Thermostatically controlled water mixing valve set at 43 degrees C (110 degrees F).
5. Connections: Threaded union, compression or soldered inlets and outlet.
6. Upon cold water supply failure the hot water flow shall automatically be reduced to 0.2 gpm maximum.

F. Temperature Activated Mixing Valves:

1. Application: Emergency eye/face/drench shower equipment.
2. Standard: ASSE 1071.
3. Pressure Rating: 861 kPa (125 psig).
4. Type: Thermostatically controlled water mixing valve set at 24-30 degrees C (75-85 degrees F).
5. Connections: Soldered or threaded union inlets and outlet.
- //6. Cabinet: Factory-fabricated, stainless steel, for recessed or surface mounting and with hinged, stainless-steel door.//
7. Thermometers shall be provided to indicate mixed water temperature.

8. Upon cold water supply failure the hot water flow shall automatically be reduced to 0.5 gpm maximum.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Valve interior shall be examined for cleanliness, freedom from foreign matter, and corrosion. Special packing materials shall be removed, such as blocks, used to prevent disc movement during shipping and handling.
- B. Valves shall be operated in positions from fully open to fully closed. Guides and seats shall be examined and made accessible by such operations.
- C. Do not attempt to repair defective valves; replace with new valves.

3.2 INSTALLATION

- A. Install valves according to manufacturer's instructions.
- B. Valves shall be located for easy access and shall be provide with separate support. Valves shall be accessible with access doors when installed inside partitions or above hard ceilings.
- C. Install temperature-actuated water mixing valves with check stops or shutoff valves on inlets.
 1. Install thermometers if specified.
 2. Install cabinet-type units recessed in or surface mounted on wall as specified.
- D. If an installation is unsatisfactory to the COR, the Contractor shall correct the installation at no cost to the Government.

3.3 ADJUSTING

- A. Set field-adjustable flow set points of balancing valves and record data. Ensure recorded data represents actual measured or observed conditions. Set and lock memory stops. After adjustment, take measurements to verify balance has not been disrupted or that such disruption has been rectified.

- - E N D - - -

Construction Safety Policy

1. **Summary:** This update reflects a new MCM number only, due to facility re-organization.
2. **Purpose:** To establish policy and procedures to ensure that construction projects will be planned, coordinated and regularly inspected to ensure compliance with applicable fire, infection control, environmental, security, safety and occupational health regulations and policies.
3. **Policy:**
 - a. In order to protect patients, staff, visitors and contractors from safety and health hazards associated with construction activities, this policy is established for the VA Medical Center and Community Based Outpatient Clinics where construction is undertaken. This policy requires that strategies be established to control the hazards inherent in conducting construction or maintenance operations in areas that are occupied by patients, visitors or healthcare staff. These strategies include the assignment of appropriate responsibility at all levels of the organization, establishing and maintaining the necessary expertise to manage an effective construction health and safety program, applying technical guidance and best practices to assist in managing the program, and providing a construction safety multi-disciplinary team to oversee and enforce the application of this policy.
 - b. Construction activities shall be defined to include delegated minor or non-recurring maintenance projects performed by contractors or purchase and hire personnel, as well as station-level projects performed by contractors, purchase and hire personnel or station Maintenance personnel. Construction shall also include non-delegated projects including majors, and Sheridan VAMC shall coordinate those construction impacts with the project's Resident Engineer through Sheridan VA single point of contact. This definition also applies to enhanced-use and lease projects related to structures for which Sheridan VAMC maintains management responsibility or authority.
 - c. The intention of this construction safety program is to reduce the potential for injury and illness to VA patients, employees and visitors that might result from unsafe construction activities; to increase the level of construction safety expertise of VA employees; to decrease the potential for serious Occupational Safety and Health Administration (OSHA) violations; to provide a guideline for addressing safety-related construction issues; and to reduce the potential for property and liability exposures due to construction-related activities.
 - d. Proper application of this program will reduce the potential for liability, which could result from construction accidents, life safety deficiencies or infection control failures.
4. **Responsibility:**
 - a. *Medical Center Director:*

- (1) Establish and monitor an effective facility construction safety program.
- (2) Establish a multidisciplinary team (Construction Safety Committee) with representatives from the following program areas:
 - Infection Control
 - Patient Safety
 - Occupational Safety and Health
 - Police
 - Engineering
 - Local Union Safety Representatives (from affected bargaining units)
 - Contracting
 - Green Environmental Management Systems (GEMS)
- (3) Ensure appropriate staff receives training in construction safety.
- (4) Ensure Competent Persons (CPs) are designated who have the necessary training, experience and authority to carry out their responsibilities with respect to safety and health during construction activities.

Note: OSHA Title 29 Code of Federal regulations (CFR) 1926.32(f) states “competent person means one who is capable of identifying existing and predictable hazards in the surroundings and working conditions which are unsanitary, hazardous or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them.” Qualified VA staff must be appointed to serve as CP for construction work performed by VA employees. The name and qualifications of the CP must be identified in writing and noted in the minutes of the facility safety committee (or equivalent body) responsible for the safety management functions as defined under the Joint Commission on Accreditation Environment of Care Standard.
- (5) Ensure the Construction Safety Committee functions to:
 - (a) Protect patients, visitors, and employees from traumatic injury, as well as occupational and facility-associated infections.
 - (b) Oversee compliance with OSHA and State construction safety regulations.
 - (c) Oversee compliance with Environmental Protection Agency (EPA) and state environmental regulations.
 - (d) Respond to, investigate and report violations of these policies to upper management.
- (6) Develop and implement a written facility policy addressing the responsibilities of the Construction Safety Committee.
- (7) Ensure that VA staff receives training as follows:
 - (a) Appointed CPs, Contracting Officer’s Technical Representatives (COTRs) and facility Safety Program Managers complete OSHA’s 30-hour construction safety course.
 - (b) Engineering supervisors and foremen who oversee construction work complete OSHA’s 10-hour or 30-hour construction safety course.
- (8) Ensure that construction contracts awarded after July 31, 2005, specify that on-site general and sub-contractor’s construction workers have completed the OSHA 10-hour construction worker course, the 30-hour construction safety course, or other relevant competency training, as determined by the VA CP with input from the Construction Safety Committee. The determination for training is based on the project hazards and complexity, State and Federal regulations and VA requirements.

- b. *Associate Director:* Has delegated responsibility from the medical center director, as appropriate, for oversight of these policies.
- c. *Chief, Engineering Service:*
 - (1) Has delegated responsibility from the associate director, as appropriate, for oversight of these policies.
 - (2) Ensures policies are addressed by all sections of engineering having oversight of construction.
- d. *Projects Section Chief:*
 - (1) Works through safety and health staff, COTRs, maintenance staff, contractors and the Construction Safety Committee to plan, coordinate and monitor the construction safety program for all projects at the facility.
 - (2) Participates in OSHA's 30-hour construction safety training and refresher courses.
 - (3) Participates in periodic inspections of construction sites to ensure compliance with safety elements of the construction contract and performance of the program.
 - (4) Serves on the facility Construction Safety Committee/subcommittee to ensure contract requirements meet the committee's approval.
 - (5) Supports the CPs, Safety Officer, Infection Control Practitioner, Contracting Officer and engineering staff in implementing the construction safety program.
 - (6) Works with contracting staff to ensure competent staff are assigned as COTRs to oversee work.
- e. *Maintenance Supervisor:*
 - (1) Participates in OSHA's 30-hour construction safety training and refresher courses.
 - (2) Participates in periodic inspections of in-house construction sites to ensure compliance with safety elements of the construction contract and performance of the program.
 - (3) Ensures in-house work forces have necessary training and competency for tasks being performed.
- f. *Chief of Biomedical Engineering:* Ensures all construction accomplished in support of major equipment installations (as a part of the equipment purchase) are in compliance with this policy and these procedures.
- g. *Contracting Officer:*
 - (1) Participation in OSHA's 10-hour construction safety training and refresher courses is encouraged.
 - (2) Ensures safety elements of this policy are included in each construction contract.
 - (3) Evaluates past safety records of prospective contractors and considers this information in the contract award process.
 - (4) Serves on the facility Construction Safety Committee/subcommittee to ensure contracts meet the committee's requirements.
 - (5) Supports the CP, Safety Officer, Resident Engineer, and appropriate staff in implementing the construction safety program.
 - (6) Works with the Projects Chief to assign competent COTRs as necessary.

- h. *Contracting Officer's Technical Representative (COTR):*
 - (1) Participates in OSHA's 30-hour construction safety training program and refresher courses.
 - (2) Is trained and designated as a CP for the purposes of this policy.
 - (3) As the team member most familiar with the technical aspects of his/her designated project, inspects his/her projects on a daily basis to identify and document deficiencies in the work including safety and infection control. Acts to correct deficiencies on-the-spot whenever possible.
 - (4) Reports all deficiencies to the multi-disciplinary team whether corrected or not.
 - (5) Consults with other members of the team, as appropriate, to assure that all deficiencies are handled properly.
 - (6) Consults with members of the team during design or planning to establish the risks to be addressed and the degree of protection appropriate to the situation.
 - (7) Monitors compliance with relevant safety and health requirements by the contractor in the field.
- i. *VA Competent Person (CP):*
 - (1) Reviews project design submissions to assure project compliance with these policies.
 - (2) Monitors and inspects construction and renovation work sites weekly to assure compliance with these policies.
 - (3) Maintains competence in the general inspection of work sites during construction, renovation and maintenance, which fall under the purview of this policy.
 - (4) Maintains higher level of competency when serving as CP for VA staff performing activities requiring CPs, such as fall protection, scaffolds and trenching. *Note: The VA CP does not take the place of the contractor's competent person nor acts on their behalf. The VA CP determines if the contractor is meeting VA standards and contractual requirements for safety and OSHA compliance. When these standards and contract requirements are not being met, the VA Contracting Officer's Technical Representative (COTR) and/or CP must take immediate action to prevent injury, non-compliance, and/or property damage.*
 - (5) Participates in OSHA's 30-hour construction safety training and refresher courses.
 - (6) Ensures that the specific safety requirements for construction operations are implemented and continuously observed during the course of all projects subject to this policy.
 - (7) Participates in the VHA facility multidisciplinary team established for construction safety.
 - (8) Conducts periodic inspections of construction sites to ensure compliance with safety elements of the construction contract using the attached Job Safety Check Sheet.
 - (9) Approves corrective actions.
 - (10) Stops unsafe work or activities not complying with the contract or OSHA, and notifies the Contracting Officer immediately.
 - (11) Communicates mainly with the contractor's CP on questions of safety.
- j. *Occupational Safety and Health Staff (Safety Officer):*
 - (1) Participates in OSHA's 30-hour construction safety training and refresher courses.

- (2) Ensures that VHA policy for the construction safety program is implemented within the Medical Center.
- (3) Safety Manager chairs the Construction Safety Committee.
- (4) Ensures necessary and relevant ILSMs (Interim Life Safety Measures) are established and implemented. Conducts required additional training for compliance with identified ILSMs.
- (5) Renders technical advice and assistance as required in connection with life safety and fire protection issues during construction and project design and development.
- (6) Oversees compliance with OSHA and other relevant construction safety regulations.
- (7) Ensures VAMC staff is trained as required by this memorandum.
- (8) Ensures the construction safety program includes appropriate periodic construction site hazard surveillance.
- (9) Stops unsafe work or activities not complying with the contract or OSHA policy, and notifies the Contracting Officer immediately.

k. *Infection Control Program Manager/Infection Control Nurse:*

- (1) Advises and/or provides recommendations on exposure mitigation and the prevention of facility associated infections in patients, staff, and visitors.
- (2) Coordinates with the manager of each construction project (in-house and contract) to conduct an Infection Control Risk Assessment (ICRA) during the planning and/or design stage of the work. ICRA's must be documented in writing and focus on eliminating, or minimizing, the risk of infection during construction and renovation activities.
- (3) Monitors infection control during construction activities as indicated in ICRA for that project.

l. *GEMS Coordinator:*

- (1) Provides guidance on environmental issues during design stage.
- (2) Monitors contractor conformance to contract specifications, including environmental compliance and pollution prevention.

m. *The Construction Safety Committee (Multi-Disciplinary Team):*

- (1) Meets monthly when construction projects are on going and files reports to the facility Environment of Care Committee.
- (2) Determines the scope and depth of safety, infection control, environmental and security procedures appropriate for all construction work.
- (3) Develops threshold criteria for each level of intervention. For example, after review, some projects may require only VA CP surveillance to ensure employee safety and OSHA compliance, while other projects will require all disciplines to be involved.
- (4) Ensures submittals for contract construction or renovation work include the names, qualifications, and training dates for the contractors' CPs designated to administer the site-specific safety program, as well as the CPs for other activities as required by OSHA regulation (such as scaffolds, cranes, excavations, etc.).
- (5) Conducts Infection Control Risk Assessments (ICRA) using the attached ICRA Matrix. Using current AIA Guidelines, the staff must conduct and document ICRA for all construction projects during the design or planning stage of the work. ICRA's

- must be documented in writing and focus on eliminating or minimizing the risk of infection during construction and renovation activities. The complexity of the ICRA report is determined by the complexity of the threats posed by the construction project. Assigned VA staff, including resident engineers or project managers for major construction, must maintain compliance during the construction phase of the work.
- (6) Identifies Interim Life Safety Measures (ILSMs). Facility safety and engineering staff must ensure that ILSMs are implemented on all construction work in accordance with The Joint Commission Environment of Care Standards. ILSMs are required when construction activities pose significant temporary Life Safety Code deficiencies or hazards. Each medical facility must have a local policy addressing ILSMs in accordance with Joint Commission requirements. Implementing ILSMs is the responsibility of the local medical facility and construction contractors in accordance with VA Master Specification 01010, General Requirements.
 - (7) Participates in all phases of construction work from planning through completion. This includes review and approval the construction plans, contract specifications, and contract submittals related to construction safety and health and any other documents that may assist in the implementation of an effective construction safety program. The Construction Safety Committee must be involved early in the process and continue oversight on a regular basis to avoid costly and disruptive delays.
 - (8) Ensures the construction safety program includes periodic construction site hazard surveillance activities with appropriate membership, scope, and frequency for each project as determined by the CP, the ILSMs and ICRA reports. Hazard surveillance activities must be documented as to date, time, membership of the inspection team, deficiencies, type of corrective action, and time and date of correction. Ensures corrective actions are tracked to completion.
 - (9) Implements procedures to ensure general contractors exercise their responsibility for ensuring subcontractors comply with this safety and health policy, and all other related contract requirements.
 - (10) Ensures all contractors entering VA property comply with the security management program. As a minimum, contractors must notify and obtain permission of the VA Police, be identified by project and employer, and be restricted from unauthorized access.
 - (11) Requires the contractors' CPs to implement and maintain effective safety programs that identify and control hazards that may cause injury or illness to VA patients, staff, visitors, and contractor employees.
 - (12) Evaluates the effectiveness of the construction safety program in an annual report to the facility safety committee.

n. *Police and Security:*

- (1) Ensures all contractors entering VAMC property comply with the security management program.
- (2) Conducts periodic surveillance of site security and the integrity of barriers for trenches and other hazards.

4. **References.**

- a. VHA Emerging Pathogens Guidebook, 1998, Center for Engineering and Occupational Safety and Health available electronically at: <http://vaww.ceosh.med.va.gov/>
- b. National Fire Protection Association (NFPA) Standards. *Note: Current NFPA Standards are available at facility and/or VISN Safety and Engineering and/or Facilities Management Offices.*
- c. APIC Infection Control Tool Kit Series: Construction and Renovation, available from the Association of Professional Infection Control Practitioners and Epidemiologists (APIC).
- d. Guidelines for Design and Construction of Hospital and Health Care Facilities, American Institute of Architects, Washington DC 2001.
- e. Guidelines on Assessment and Remediation of Fungi in Indoor Environments, New York City Department of Health, Bureau of Environmental and Occupational Disease Epidemiology, at <http://www.lchd.org/envirohealth/aq/pdfs/NYC%20DOH%20Guidelines.pdf>
- f. Infection Control During Construction. A Guide to Prevention and Joint Commission Compliance, Wayne Hansen, Editor, Opus Communications, 2002.
- g. OSHA Regulations for Construction Safety, 29 CFR 1926, available at: <http://www.osha.gov/>
- h. Comprehensive Accreditation Manual, The Joint Commission
- i. VHA Directives 7700 and 7701, Occupational Safety and Health.
- j. VHA Handbook 7701.1, Occupational Safety and Health Program Procedures.
- k. Construction Safety Council, at: <http://www.buildsafe.org/>
- l. VHA Directive 2004-012, Safety and Health During Construction Activities.

5. **Responsible Official:** Occupational Safety and Health Manager

e/s *Steve W. Schlenker*

for

Debra L. Hirschman

Medical Center Director

Attachments:

- A. Job Safety Check Sheet
- B. ICRA Matrix

Attachment A

Sheridan Veterans Affairs Medical Center
Job Safety Check Sheet (Attachment 1, Safety 140-02)

Company: _____ Division: _____ Date: _____ Time: _____

Job Name/Location: _____ Job Number: _____ Crew Size: _____

Type of Work: _____ Weather: _____ Temperature: _____

Inspected By: _____ Title: _____

	No.	Grade 1 to 5 (5 is Best)	N/A	COMMENTS –Note Improvements Needed:
A. Personal Protective Equipment:				
1. Hard hats in use by all personnel.	A1	1 2 3 4 5		
2. Eye protection in use by all personnel.	A2	1 2 3 4 5		
3. Hearing protection (engineering controls, double protection for high noise areas, rotation of employees).	A3	1 2 3 4 5		
4. Proper footgear and protective clothing.	A4	1 2 3 4 5		
5. Fall protection in use.	A5	1 2 3 4 5		
6. Respirators/face masks in good condition and used as required (medical evaluation and fit test).	A6	1 2 3 4 5		
B. Tools and Equipment:				
1. Tools and equipment in good condition.	B1	1 2 3 4 5		
2. All equipment properly guarded.	B2	1 2 3 4 5		
3. Electrical equipment connected properly, grounded and in good condition; GFCI; automatic magnetic cut-off for woodworking tools.	B3	1 2 3 4 5		
4. Air/sandblast hoses in good condition and properly wired.	B4	1 2 3 4 5		
5. Compressors equipped with automatic shut-off.	B5	1 2 3 4 5		
6. Ladders in good condition; tied back; extended 3 ft. beyond landing.	B6	1 2 3 4 5		
C. Scaffolding: <input type="checkbox"/> Suspended <input type="checkbox"/> Tubular <input type="checkbox"/> Other <i>(Rope Falls Not Permitted)</i>				
1. Scaffold in good repair; guardrails; toe boards and wire mesh in place.	C1	1 2 3 4 5		
2. Counterweights marked with weight and in proper ratio.	C2	1 2 3 4 5		
3. Scaffold tied back and tied in.	C3	1 2 3 4 5		

4. Passageways under scaffold blocked.	C4	1 2 3 4 5		
D. Hazardous Chemicals/Air Contaminants:				
1. Hazard Communication Right-To-Know poster / written program on job.	D1	1 2 3 4 5		
2. List of hazardous materials on job.	D2	1 2 3 4 5		
3. Material Safety Data Sheets.	D3	1 2 3 4 5		
4. Employees are familiar with program.	D4	1 2 3 4 5		
5. Proper containers in use with correct labels.	D5	1 2 3 4 5		

E. General:				
1. Safe access to work area.	E1	1 2 3 4 5		
2. Good housekeeping and material storage.	E2	1 2 3 4 5		
3. Barricades/debris protection/warning signs in place.	E3	1 2 3 4 5		
4. Floor and wall openings properly protected.	E4	1 2 3 4 5		
5. Shoring properly installed; engineer's stamped drawings on job.	E5	1 2 3 4 5		
6. Eye wash available.	E6	1 2 3 4 5		
7. Fire extinguisher: Good condition; current inspection tag; within 50 ft.	E7	1 2 3 4 5		
8. First aid: Kit and certified employees.	E8	1 2 3 4 5		
9. Trucks: Safe/good condition; D.O.T. regulation compliance.	E9	1 2 3 4 5		
F. Paperwork and Other Postings:				
1. OSHA poster/log.	F1	1 2 3 4 5		
2. Emergency phone number card.	F2	1 2 3 4 5		
3. Drug-Free Workplace Policy Summary and poster (if applicable).	F3	1 2 3 4 5		
4. Job logs and Job Safety Check Sheets.	F4	1 2 3 4 5		
5. Site-Specific Safety Plan (if applicable).	F5	1 2 3 4 5		

**Sheridan Veterans Affairs Medical Center
Infection Control Risk Assessment
Matrix of Precautions for Construction & Renovation**

Step One: Using the following table, identify the Type (A-D) of Construction Project Activity.

TYPE A	Inspection and Non-Invasive Activities. Includes, but is not limited to: <ul style="list-style-type: none">• Removal of ceiling tiles for visual inspection limited to 1 tile per 50 square feet.• Painting (but not sanding).• Wall covering, electrical trim work, minor plumbing and activities that do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.
TYPE B	Small scale, short duration activities that create minimal dust. Includes, but is not limited to: <ul style="list-style-type: none">• Installation of telephone and computer cabling.• Access to chase spaces.• Cutting of walls or ceiling where dust migration can be controlled.
TYPE C	Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies. Includes, but is not limited to: <ul style="list-style-type: none">• Sanding of walls for painting or wall covering.• Removal of floor coverings, ceiling tiles and casework.• New wall construction.• Minor duct work or electrical work above ceilings.• Major cabling activities.• Any activity that cannot be completed within a single work shift.
TYPE D	Major demolition and construction projects. Includes, but is not limited to: <ul style="list-style-type: none">• Activities that require consecutive work shifts.• Requires heavy demolition or removal of a complete cabling system.• New construction.

Step One:_____

Step Two: Using the following table, identify the *Patient Risk Groups* that will be affected.

Low Risk	Medium Risk	High Risk	Highest Risk
<ul style="list-style-type: none"> Office areas 	<ul style="list-style-type: none"> Cardiology Echocardiography Endoscopy Nuclear Medicine Physical Therapy Radiology/MRI Respiratory Therapy 	<ul style="list-style-type: none"> CCU Emergency Room Labor & Delivery Laboratories (specimen) Newborn Nursery Outpatient Surgery Pediatrics Pharmacy Post Anesthesia Care Unit Surgical Units 	<ul style="list-style-type: none"> Any area caring for immuno-compromised patients Burn Unit Cardiac Cath Lab Central Sterile Supply Intensive Care Units Medical Unit Negative pressure isolation rooms Oncology Operating rooms including C-section rooms

Step Two: _____

Step Three: Match the...

Patient Risk Group (*Low, Medium, High, Highest*) with the planned ...
 Construction Project Type (*A, B, C, D*) on the following matrix, to find the ...
 Class of Precautions (*I, II, III or IV*) or level of infection control activities required.
 (Class I-IV or Color-Coded Precautions are delineated on the following page.)

IC Matrix - Class of Precautions: Construction Project by Patient Risk Construction Project Type

Patient Risk Group	TYPE A	TYPE B	TYPE C	TYPE D
LOW Risk Group	I	II	II	III/IV
MEDIUM Risk Group	I	II	III	IV
HIGH Risk Group	I	II	III/IV	IV
HIGHEST Risk Group	II	III/IV	III/IV	IV

Note: Infection Control approval will be required when the Construction Activity and Risk Level indicate that **Class III** or **Class IV** control procedures are necessary.

Step 3: _____

Description of Required Infection Control Precautions by Class

During Construction Project		Upon Completion of Project
CLASS I	<ol style="list-style-type: none"> 1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace a ceiling tile displaced for visual inspection. 	
CLASS II	<ol style="list-style-type: none"> 1. Provide active means to prevent airborne dust from dispersing into atmosphere. 2. Water mist work surfaces to control dust while cutting. 3. Seal unused doors with duct tape. 4. Block off and seal air vents. 5. Place dust mat at entrance and exit of work area. 6. Remove or isolate HVAC system in areas where work is being performed. 	<ol style="list-style-type: none"> 1. Wipe work surfaces with disinfectant. 2. Contain construction waste before transport in tightly covered containers. 3. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area. 4. Remove isolation of HVAC system in areas where work is being performed.
CLASS III	<ol style="list-style-type: none"> 1. Remove or isolate HVAC system in area where work is being done to prevent contamination of duct system. 2. Complete all critical barriers, i.e., sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins. 3. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 4. Contain construction waste before transport in tightly covered containers. 5. Cover transport receptacles or carts. Tape covering unless solid lid. 6. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area. 7. Do not remove barriers from work area until completed project is inspected by the owner's Safety Section and Infection Control Department, and thoroughly cleaned by the owner's Environment Services Department. 	<ol style="list-style-type: none"> 1. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Control Department, and thoroughly cleaned by the owner's Environmental Services Department. 2. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 3. Vacuum work area with HEPA filtered vacuums. 4. Wet mop area with disinfectant. 5. Remove isolation of HVAC system in areas where work is being performed.

<p>CLASS IV</p>	<ol style="list-style-type: none"> 1. Isolate HVAC system in area where work is being done to prevent contamination of duct system. 2. Complete all critical barriers, i.e., sheetrock, plywood, plastic, to seal area from non-work area or implement control cube method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins. 3. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 4. Seal holes, pipes, conduits and punctures appropriately. 5. Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site, or they can wear cloth or paper coveralls that are removed each time they leave the work site. 6. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area. 7. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Control Department, and thoroughly cleaned by the owner's Environmental Services Department. 	<ol style="list-style-type: none"> 1. Remove barrier material carefully to minimize spreading of dirt and debris associated with construction. 2. Contain construction waste before transport in tightly covered containers. 3. Cover transport receptacles or carts. Tape covering unless solid lid. 4. Vacuum work area with HEPA filtered vacuums. 5. Wet mop area with disinfectant. 6. Remove isolation of HVAC system in areas where work is being performed.
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Step 4: Identify the areas surrounding the project area, assessing potential impact.

<i>Unit Below</i>	<i>Unit Above</i>	<i>Lateral</i>	<i>Lateral</i>	<i>Behind</i>	<i>Front</i>
<i>Risk Group</i>	<i>Risk Group</i>	<i>Risk Group</i>	<i>Risk Group</i>	<i>Risk Group</i>	<i>Risk Group</i>

Step 5: Identify specific site of activity, e.g., patient rooms, medication room, etc.

Step 6: Identify issues related to: ventilation, plumbing, electrical, in terms of the occurrence of probable outages.

Step 7: Identify containment measures, using prior assessment. What types of barriers (e.g., solids wall barriers)? Will HEPA filtration be required?

(Note: Renovation/construction area shall be isolated from the occupied areas during construction and shall be negative with respect to surrounding areas.)

Step 8: Consider potential risk of water damage. Is there a risk due to compromising structural integrity (e.g., wall, ceiling, roof)?

Step 9: Work hours - can or will the work be done during non-patient care hours?

Step 10: Do plans allow for adequate number of isolation/negative airflow rooms?

Step 11: Do the plans allow for the required number and type of hand washing sinks?

Step 12: Does the infection control staff agree with the minimum number of sinks for this project? *(Verify against AIA Guidelines for types and area.)*

Step 13: Does the infection control staff agree with the plans relative to clean and soiled utility rooms?

Step 14: Plan to discuss the following containment issues with the project team: traffic flow, housekeeping, debris removal (how and when).

Appendix: Identify and communicate the responsibility for project monitoring that includes infection control concerns and risks. The ICRA may be modified throughout the project. Revisions must be communicated to the Project Manager.

(Name) CONSTRUCTION COMPANY

**SITE SPECIFIC
SAFETY PREVENTION
PLAN**

+

CONSTRUCTION HEALTH AND SAFETY PROGRAM

FOR

Name of Project

Location

Veterans Affairs Medical Center – Sheridan, Wyoming

PROJECT # 541-AB-XYZ

CONTRACT # VA541-A-XYZ

SCOPE OF WORK SUMMARY

Summary

This job consists of **(Basic Description)**

Pre-demolition:

Describe the activity in sufficient detail to determine the safety program elements that will be required to be addressed in the body of the procedure – Section 12. Use the Hazardous Work Activity Checklist with the Scope of Work to determine which elements need to be addressed for the pre-demolition phase.

Demolition:

Describe the activity in sufficient detail to determine the safety program elements that will be required to be addressed in the body of the procedure – Section 12. Use the Hazardous Work Activity Checklist with the Scope of Work to determine which elements need to be addressed for each of the demolition phase.

Construction:

Describe the activity in sufficient detail to determine the safety program elements that will be required to be addressed in the body of the procedure Section - 12. Use the Hazardous Work Activity Checklist with the Scope of Work to determine which elements need to be addressed for the construction phase.

1. SIGNATURE SHEET

The following persons are responsible for preparing and approving this plan:

Preparer:

Contact Name (Phone #)

Contact Title

Name Construction Company

Date

2. BACKGROUND INFORMATION

- | | | |
|----|---------------------------------|--|
| A. | Contractor: | Name
Address
City, State Zip |
| B. | Project Name: | Name |
| C. | Project Description: | Brief Description |
| D. | Contractor Accident Record: | Contractor provide OSHA Log information |
| E. | Work Requiring Activity Hazard: | Personal Protective Equipment Policy
Located in Section 13. |

3. STATEMENT OF SAFETY AND HEALTH POLICY

(May use this statement or replace with you own company's statement)

Name Construction Company has developed a comprehensive safety and health program that addresses our specific safety and health concerns and provides guidance for the performance of our individual job tasks within the framework of appropriate Occupational Safety and Health Administration (OSHA) standards.

Safety takes a commitment from all personnel within our organization. Training will be interactive with an opportunity for all to actively participate, ask questions, make suggestions, and refer to our written policies and procedures.

It is the policy of **Name** Construction Company to provide a work environment that is inherently safe. The safety and health of our employees is of primary importance as they are our most important resource.

Safety training needs will be identified by continual reassessment of our work methods, equipment and job sites as well as employee and management input. Observation of unsafe acts will be addressed immediately.

Each employee is encouraged to contact their Supervisor immediately should a safety or health risk exist so that corrective action may be taken immediately.

Safety requires not only that each person understand and perform individual tasks in a safe manner, but also that each individual is aware of his/her surroundings and is actively involved in the safety and health of others.

This Policy Statement will be conspicuously posted in the job site office along with the OSHA Form 300, Log and Summary of Occupational Injuries and Illnesses.

4. RESPONSIBILITIES AND LINES OF AUTHORITY

The following people have responsibilities and authority for corporate safety:

A. RESPONSIBILITIES

1. Chief Corporate Safety Officer: **Contact Name & Telephone #)
Business Name
Title**
2. Site Safety Responsibilities: **Contact Name & Telephone #
Business Name
Title**
3. Project Safety Consulting: **Contact Name & Telephone #
Business Name
Title**

B. LINES OF AUTHORITY

The overall lines of authority concerning safety and health will be as follows:

Name – Title
Name – Title

A Site Safety and Health Officer will be provided at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor and subcontractors. The SSHO will be employed by the prime. SSHO qualifications with education certificates will be located in Appendix B.

The competent person for Health Hazard Control and Respiratory Protection Program will conduct and document a hazard assessment in accordance with Section 06 to identify and evaluate.

Site Safety and Health Officer (SSHO)

- a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Safety inspection logs shall be attached to the Contractors daily quality control report.

5. SUBCONTRACTORS and SUPPLIERS

A. IDENTIFICATION OF SUBCONTRACTORS:

Name of Subcontractor

B. CONTROLLING AND COORDINATION OF SUBCONTRACTORS AND SUPPLIERS:

Suppliers will be under close supervision during material delivery and pick-up. Communication with suppliers will be important to ensure loads are put in designated areas, and supplier is made aware of any immediate hazards in the area he/she will be in. A project schedule has been coordinated and submitted for approval for the coordination of the scope of work being performed.

C. SAFETY RESPONSIBILITIES OF SUBCONTRACTORS AND SUPPLIERS:

All subcontractors will be responsible to implement their corporate level Safety and Health Plan as appropriate for the project, submitting these documents to **Name** Construction Company prior to the start of their activities on the work site. In addition, they will be responsible for adhering to all applicable OSHA and the Veterans Affairs Safety and Health Program requirements. This will be verified through our own site safety inspections and meetings.

In the event that a subcontractor does not have the required safety and health programs, their employees will receive training utilizing **Name** Construction Company safety and health programs. This training will be documented and compliance with the provisions of **Name** Construction Company Safety and Health programs will be mandatory.

6. TRAINING

A. SITE ORIENTATION TRAINING

All site employees will be required to attend a Safety Training Orientation at the start of the project, or before they begin work at the job site. The site supervisor, competent person, will conduct the training. The topics listed below are mandatory, but not limit to the following:

(Adjust the below list to meet the specific construction requirements based on the scope of work and hazard assessment)

- **Site Emergency reporting number/Emergency procedures**
- **Safety Program**
- **Accident Reporting**
- **Contingency Plan for severe weather**
- **Site Sanitation**
- **Fall Protection**
- **Personal Protective Equipment**
- **Lock out/tag out**
- **Fire Protection/Fire Prevention Plans**
- **Fire Extinguishers**
- **MSDS**
- **Housekeeping**
- **Slips, trips, and falls**

- **Hazard Communication Plan**

B. MANDATORY TRAINING AND CERTIFICATIONS

(List any mandatory training or certificates required by the employees)

C. EMERGENCY RESPONSE TRAINING

Located within this documentation, under Section 12, are detailed responses in various applicable emergencies that could occur on this job site. These areas also contain the training and requirements.

D. SUPERVISOR AND EMPLOYEE SAFETY MEETINGS

The primary site supervisor, who is the competent person (certifications in Appendix B), will conduct the initial employee site safety orientation. Mandatory safety meetings will be held on a weekly basis. Safety and health topics will vary from week to week on subject matter, utilizing the 29 CFR 1910 and 29 CFR 1926 standards, along with the Veterans Affairs Safety and Health Program and issues raised during construction.

7. SAFETY AND HEALTH INSPECTIONS

A. INSPECTIONS AND QUALIFIED PERSON

The site supervisor, who is the competent person, will conduct the Safety and Health inspections. Certifications are located in Appendix B.

Two types of safety inspections will be performed on this job site.

1. A weekly Safety and Health inspection, which will be conducted by the site supervisor. The inspection forms will document and track the following information:

- Violation
- Date of violation
- Nature of violation
- Needed corrective action
- Date of correction
- Name of responsible person(s)

In addition to the above form, we also notify any employee and/or subcontractor in writing of any violations. This information is followed up on, as needed and/or requires immediate attention to the violations. All safety inspection forms are reviewed to ensure that all noted corrective actions are within the applicable OSHA and Veterans Affairs Safety and Health Manual guidelines. This documentation will be kept at the project field office, and will aid in the audits of the Accident Prevention Plan.

2. The second type of Safety and Health Inspection will be a daily checklist. This too, will be performed each workday onsite, by the site supervisor. This documentation will be kept at the project field office, and will aid in the audits of the Accident Prevention Plan.

B. EXTERNAL INSPECTIONS / CERTIFICATIONS

Prior to the activity of cutting and/or welding, the COTR for the Veterans Affairs will be contacted to assist in scheduling a site inspection and submission for a burn permit.

8. SAFETY AND HEALTH EXPECTATIONS, INCENTIVE PROGRAMS, AND COMPLIANCE

A. SAFETY PROGRAM GOALS

The goals for this project are as follows:

1. Zero accident rate
2. Zero injury/illness rate
3. Compliance with all applicable OSHA standards and Veterans Affairs Safety Director

Safety and Health Manual requirements:

- As part of employment with **Name** Construction Company are required to comply with all aspects of corporate level Safety and Health Plan.
- Supervisors are expected and required to comply with all aspects of the corporate level Safety and Health Plan as well as to enforce all applicable requirements at the jobsite. Supervisors are expected and required to complete all necessary site safety documentation in a complete and timely manner. Supervisors are required to report all safety incidents to the main office as soon as possible. The above items represent the method used to ensure our goals are met.

B. SAFETY INCENTIVE PROGRAM

We do not have a specific safety incentive program; however, we do pass information along, good and bad, to employees and give credit to those who perform in a safe manner. Our expectations are that all employees work in a safe manner as part of their employment with us. Continued safe activities ensure continued employment. (Or describe an incentive program that you may have)

C. POLICIES AND PROCEDURES REGARDING NONCOMPLIANCE

The corporate level Safety and Health Plan outlines the procedures for non-compliance in the form of our Enforcement and Discipline procedures.

Name Construction Company believes its employees have a genuine desire to perform top quality, time effective and safe work and that the Health and Safety program as a whole will provide them with the skills to accomplish that work. Our goal is not to use these discipline guidelines to bring about safe work activities. The goal is to provide the company and its workers protection against those individuals who refuse to act in a consistently safe manner.

Without proper enforcement, the policy will not be able to deliver the intended results. Therefore, it is essential that all employees be held accountable to these guidelines for disciplinary actions up to and including discharge.

Disciplinary action will be taken by the company to correct violations of its policies and procedures and/or unsatisfactory performance. The disciplinary procedure for minor infractions will be as follows:

- | | | |
|----|-------------------------|---------------------------------|
| 1. | 1 st offense | Verbal Warning |
| 2. | 2 nd offense | Written Warning |
| 3. | 3 rd offense | Written Warning with Suspension |
| 4. | 4 th offense | Dismissal |

Termination, Layoff, and Suspension

An employee may be terminated for any of the following:

1. Insubordination
2. Poor job performance
3. Failure to follow safety practices
4. Excessive tardiness/absenteeism
5. Falsification of any records
6. Destruction of company property
7. Theft
8. Use of alcohol or drugs on property
9. Unlawful leave of absence

Termination requires the prior approval of an officer of the company. To ensure a fair and impartial system, all employees will be given additional safety instructions as needed after receiving a safety violation notice.

Additional instruction may include reviewing the appropriate manuals, procedures, etc. All additional must be documented and become a part of the employee's personal folder. All reports of discipline must be reviewed and signed off by the personnel director or the operations manager.

D. WRITTEN COMPANY PROCEDURES FOR MANAGER AND SUPERVISOR ACCOUNTABILITY

All supervisors and managers are subject to the same corporate level Safety and Health Program requirements as outlined in the Enforcement and Discipline procedures above.

9. ACCIDENT REPORTING

The following persons shall be responsible for items as listed:

A. EXPOSURE DATA / MAN HOURS WORKED

This information will be maintained by the site supervisor and verified by **Contact Name**. A daily log will be maintained of all man hours worked. This information will also be used to determine the final TIR for the project.

B. ACCIDENT INVESTIGATIONS, REPORTS, AND LOGS

The project manager and site supervisor will conduct all accident and near miss investigations. The site supervisor will maintain the OSHA 300 log. All documentation will be kept on the job site. Certifications for competent person(s) are located in Appendix B.

C. IMMEDIATE NOTIFICATION OF MAJOR ACCIDENTS

Should a major accident occur, the following notifications will take place as soon as any injured person(s) are cared for:

Contact Name, Title
Contact Name, Title
Contact Name, Title

VA Safety Representative: **William Bradley** Office (307) 672-3437 ext 3989
Cell (307) 752-0323

Local Emergency Services: **Claude Jaques** Office (307) 672-3473 ext 3446
Cell (307) 621-0383

The Sheridan VA Medical Center does not have an Emergency Room or surgical services. It is a psychiatric hospital.

Hospital Sheridan County Memorial Hospital
1401 West 5th St.
Sheridan, WY 82801
911 (307) 672-1000

Fire Department **911** Office (307) 674-7244

Security Dial 3333 from any VA Phone

10. MEDICAL SUPPORT

The following items concern the handling of all medical support requirements:

A. ON SITE

For non-emergency support first aid supplies will be kept at the **Name** Construction Company field office. All subcontractors will be required to supply properly trained personnel as well as their own first aid supplies. All supplies will be subject to our safety inspections. No one will perform first aid or CPR unless properly trained, and verification of certification is on file at the jobsite. Exposure Control Plan is located in Section 13.

B. OFF SITE

Sheridan County Memorial Hospital
1401 West 5th St.
Sheridan, WY 82801
911 (307) 672-1000

Maps are available for all contractors on site (See Appendix A).

11. PERSONAL PROTECTIVE EQUIPMENT

Procedures for implementing an effective PPE policy in accordance with 29 CFR 1910.132, will be as follows:

During a pre-construction walk through, **Contact Name**, the Project Manager, will perform a job site hazard assessment.

HAZARD ASSESSMENT

The purpose of the survey is to identify sources of hazards to workers and co-workers. The documentation of this hazard assessment is located in **(Contractors records or include as appendix D.)**

POTENTIAL HAZARD SOURCES **(Adjust based on scope of work)**

- **Excavation/Trenching**
- **Electrical Hazards**
- **Fall Protection**
- **Surfaces that could become slick, uneven walking and working surfaces**
- **Welding / Brazing Hazards**
- **Quality Air Control**
- **Potential Overhead Obstructions (above ceiling)**
- **Rolling or pinching objects**
- **Sharp objects that might pierce feet or cut hands**
- **Motion that includes tool movement, moving machinery, or machine parts, or movement of personnel that could result in collision with stationary objects.**

Each of the basic hazards has been reviewed and a determination made as to the type, level of risk, and seriousness of potential injury. Consideration has been given to the possibility of exposure to several hazards at once. The general procedure for determining appropriate protective equipment is to:

Identify the potential hazards and the type of protective equipment that is available, and what protection it provides.

Compare the capabilities of various types of PPE with the hazards associated with the environment.

Select the PPE, which provides a level of protection greater than the minimum required to protect employees from the hazards.

Select PPE that will fit each employee properly and provides protection from the hazard.

The Hazard Assessment Worksheet is located in Appendix D.

EMPLOYEE TRAINING

Name Construction Company employees will be trained, at the site safety orientation on the following topics:

- When PPE is necessary.
- What PPE is necessary and which PPE has been selected for each process the employee operates.
- How to properly put on, take off, adjust and wear PPE.

12. PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL (Examples provided, replace with your own or use these as required by the Scope of Work and the Hazardous Work Activity Checklist.)

A. LAYOUT PLANS

Plans for the layout of the locations of the project office, compressed gas cylinder storage, employee safe zone, and construction dumpster (TBD), are in Appendix A.

B. RESPONSE PLAN

Name Construction Company intends to make certain all emergency incidents are handled in a proper and safe manner giving priority to the following:

- Life Safety
- Property Conservation
- Emergency Situation Investigation
- Return to Normal Operations

This plan covers the actions of all **Name** Construction employees. All subcontractors on site will be required to submit for approval, to **Name** Construction Company, their own site specific Emergency Response Plan. If not adequate, the subcontractor and their employees must be orientated to the **Name** Construction Company site specific emergency response plan, before they can begin work at this site.

1. PROCEDURES AND TESTS

This section covers the following operations, unless the employer can demonstrate that the operation does not involve employee exposure or the reasonable possibility for employee exposure to safety or health hazards.

Clean-up operations required by a governmental body, whether Federal, state, local or other involving hazardous substance that are conducted at uncontrolled hazardous waste sites (including, but not limited to, the EPA's National Priority Site List (NPL), state priority site lists, sites recommended for the EPA, NPL, and initial investigations

of government identified sites which area conducted before the presence or absence of hazardous substances has been ascertained;

Corrective actions involving clean-up operations at sites covered by the Resource Conservation and Recovery Act of 1976 (RCRA) as amended (42 W.S.C. 6901 et seq);

Voluntary clean-up operations at sites recognized by Federal, state, local or other governmental bodies as uncontrolled hazardous waste sites;

Operations involving hazardous waste that area conducted at treatment, storage, disposal (TSD) facilities regulated by 40 CFR Parts 264 and 265 pursuant to RCRA; or by agencies under agreement with U.S.E.P.A. to implement RCRA regulations; and Emergency response operations for releases of, or substantial threats of releases of, hazardous substances with regard to the location of the hazard.

As part of this program, **Name** Construction Company will inform subcontractors, or their representatives of the site emergency response procedures and any potential fire, explosion, health, safety, or other hazards. The substances listed in Section 12, paragraph c, under MSDS, have the potential to be released or spilled. Section 12.c, Hazard Communication, lists some potential hazards that contractors and/or subcontractors my encounter. Also listed are the response actions to be taken and the proper notification.

The following procedures address emergency response as follows:

- Pre-emergency planning and coordination with outside parties:

VAMC (COTR) will receive notification of date to start work, along with MSDS's of all substances brought onto the facility.

- Personal roles, lines of authority, training, and communication:

The personnel utilizing these chemicals will contain the substances brought onto the facility. Plumbers will contain and handle all compressed gas cylinders, as they are trained in. In the case where a situation occurs that they cannot handle, they will be trained on evacuating the area, notifying the on-site supervisor, and workers in the immediate worksite.

- Emergency recognition and prevention:

All workers will, at the safety orientation, be informed of this site-specific emergency response plan and procedures. All workers will be responsible to recognize hazards and their prevention, practice this at all times on the worksite.

- Safe distances and places of refuge:

All workers at this site will be informed of the designated location of the safe zone. This will also be posted in the field office for all to be reminded of. In the event of an emergency occurrence, and the Local

Fire Department, or any other entity is summoned, all workers will report to this zone to be accounted for.

- Site security and control:

In the event of an emergency, workers will notify the site supervisor or project manager of the situation, at that time, workers will report to the safe zone. The site supervisor and/or project manager will notify security and any other applicable authorities. Staying away from the immediate situation and not allowing any unauthorized personnel to enter until proper authorities arrive.

- Evacuation routes and procedures:

All work will be performed on the interior of the building. Evacuation plans are posted in various locations throughout work area by the VA.

- Decontamination:

This does not apply to this job.

- Emergency medical treatment and first aid:

This section is located in Section 10, Medical Support.

- Emergency alerting and response procedures:

It will be the duty of all workers onsite, including subcontractors, to immediately report to the site supervisor and/or project manager, any and all emergencies.

2. FIREFIGHTING PLAN

We at **Name** Construction Company limit our employees to portable fire extinguishers. The site supervisor at safety orientation will cover this Plan. The following topics will include:

- The general principles of fire extinguisher use and the hazards involved with incipient stage firefighting.
- Actions to be taken by authorized person(s):
 - Evacuate area.
 - Notify site supervisor and/or project manager.
 - Determine if incipient fire.
 - Utilize fire extinguisher.
 - If fire or smoke is too great, report to safe zone.
 - Make call to Fire Department if instructed by supervisor and/or project manager.
- Actions to be taken by unauthorized person(s):

- Evacuate area.
- Notify supervisor and/or project manager.
- Report to safe zone.
- Make call to Fire Department if instructed by site supervisor and/or project manager.

Only approved fire extinguishers will be onsite and checked on a daily basis by the site supervisor. These will be located in the following areas, but not limited to:

- Inside field office.
- In any area where cutting or welding is taking place.

3. POSTING OF EMERGENCY TELEPHONE NUMBERS

As listed in Section 9, the posting of Emergency Telephone Numbers will be in your job field office, where all workers will have access to them. All employees and subcontractors will be made aware of these and the location at the safety orientation. The numbers are as follows:

Hospital	Sheridan County Memorial Hospital 1401 West 5 th St. Sheridan, WY 82801 911
Fire Department	911 / (307) 674-7244
Security	Dial 3333 from any VA Phone

C. HAZARD COMMUNICATION PROGRAM

This site specific Hazard Communication Plan has been implemented in accordance with 29 CFR 1910.1200.

All areas in which hazardous chemicals will be stored shall have the proper label and/or signs. The MSDS for all chemicals on site will be located in a book labeled MSDS, in the project field office.

The training of employees and subcontractors will be as follows:

- Where to find this program
- What is in this program
- All chemicals on this jobsite
- What is an MSDS
- How to find specific information on an MSDS
- Labeling system
- What area these chemicals are stored in, map indicating
- The proper handling procedures for these chemicals
- Spill/release clean up protocol

Should there be an immediate threat to life or property, the emergency response plan for the installation, which is to be on file at the field office.

It is mandatory that all subcontractors submit, before a new chemical is introduced to the worksite, that the proper MSDS is submitted to the site supervisor/project manager. It will be the responsibility of the site supervisor to inform all employees and subcontractors of the new chemical(s), introduce the MSDS, and the potential hazards of that chemical. The site supervisor and/or project manager will have the responsibility to notify the Contracting Officer / COTR of any and all new chemicals brought onto the facility.

Chemical storage areas, if needed, to be located per VA designated location.

D. RESPIRATORY PROTECTION PLAN

Not applicable to this project. (Describe if applicable)

E. HEALTH HAZARD CONTROL PROGRAM

The goal for **Name** Construction Company is to make the workplace foolproof to the fullest extent feasible. It is an ongoing program, never finished.

- Administrative Controls

Administrative controls include lengthened rest breaks, additional relief workers. Training, training, and more training.

- Engineering Controls

If feasible, design the facility, equipment, or process to remove the hazard and/or substitute something that is not hazardous or is less hazardous. If removal is not feasible, enclose the hazard to prevent exposure in normal operations.

The most frequent sources for updating hazard information area routine inspections, employee reports of hazards, and accident/incident investigations. A good source for hazard information updates is the ongoing job hazard analyses, which will be performed by the site supervisor, on a monthly basis, or as needed. This documentation will be located at the job field office.

When exposure to hazards cannot be engineered completely out of normal operations or maintenance work, and when safe work practices cannot provide sufficient additional protection, a further method of control is using protective clothing or equipment. These include eye protection, steel-toed shoes, hard hats, hearing protection, gloves, and fall protection.

F. LEAD ABATEMENT PLAN

It is assumed that there are no painted surfaces that contain lead, therefore, when performing welding, cutting, or heating of such material, it is not required that mechanical ventilation be supplied nor the use of personal respiratory protection. (Ventilation may be required per the welding standard for other reasons)

G. ASBESTOS ABATEMENT PLAN

Not applicable to this project. **(Describe if applicable)**

H. ABRASIVE BLASTING

Not applicable to this project. **(Describe if applicable)**

I. CONFINED SPACE

(Describe program)

J. CRITICAL LIFT PROCEDURES

(Example)There will be X critical lifts required on this project. A crane will be utilized to load new materials onto Xth floor roof and remove demolished material from the roof. A plan will be submitted prior to this work being performed.

K. CONTINGENCY PLAN FOR SEVERE WEATHER

For the site-specific severe weather conditions that employees may encounter over the next few months, **Name** Construction Company has developed the following procedures. First, Megen employees will adhere to all NWS warnings and advisories. For snowfall, the policy for workers is that a Level Three emergency, which is predicted heavy snow fall, or other dangerous weather conditions.

L. DEMOLITION

All employees engaged in demolition activities shall be instructed in the demolition plan so that they may conduct their work activities in a safe manner.

M. EMERGENCY RESCUE (Tunneling)

(Example)There will be no tunneling activities being performed on this project. However, any situation that arises that requires rescue of any individual, employees and subcontractors will take the actions called for in Section 9, Accident Reporting, which is to notify site/supervisor and the local fire department.

N. UNDERGROUND CONSTRUCTION FIRE PREVENTION AND PROTECTION PLAN

The work specifications do not call for underground construction. **(Describe if applicable)**

O. COMPRESSED AIR PLAN

Compressed gas cylinders may be used at this worksite. These cylinders and gases present an injury hazard in the event that a regulator or cylinder is damaged and/or broken. The particular gases used will be acetylene. These hazards will be reduced by routine inspections and maintenance of compressed gas cylinders and by assuring all the units are secured from tipping.

Compressed gas cylinder will be kept away from excessive heat, will not be stored where they might be damaged or knocked over by passing or falling objects. The storage of oxygen and fuel gas compressed cylinders will be separated by at least 20 ft.

P. FRAMEWORK AND SHORING ERECTION AND REMOVAL PLANS

The demolition on this project will not require any shoring or framework. **(Describe if applicable)**

Q. JACKING PLAN (lift) SLAB PLANS

This plan is not applicable to this job site. **(Describe if applicable)**

R. SAFETY AND HEALTH PLAN

All applicable plans, and requested certifications applicable by the Veterans Affairs Safety and Health Program are within this complete Accident Prevention Plan. **Name** Construction Company has fulfilled all required Safety and Health Plans and Programs according to regulation, and will enforce all tasks relating to CFR 1910 and 1926 standards to ensure 100% safety.

S. BLASTING

Not applicable to this job site. **(Describe if applicable)**

T. DIVING PLAN

Not applicable to this job site. **(Describe if applicable)**

U. PLAN FOR PREVENTION OF ALCOHOL AND DRUG ABUSE

(Review – replace with your own company policy if this doesn't work for you)

Due to the nature of our work, it is critical that all employees are free from the adverse effects of drugs and/or alcohol. The company is committed to providing a safe workplace for all its employees. The goal of this policy is to maintain a safe and secure work environment that is free from the effects of alcohol and drug abuse.

The intent of this policy is to be responsive to the employees health needs by the early recognition and treatment of chemical dependency problems and behavioral / medical disorder, and to support the rights of the company and its employees to work within an alcohol / drug free environment.

Therefore, the following actions are strictly prohibited and will prompt disciplinary action up to and including consideration for immediate discharge:

- The illegal use, sale, arranging for sale, possession or manufacturing of narcotics, drugs or controlled substances while on the job or on VA property.

- The use of alcohol or illegal drugs while on the job or VA property.
- Arriving at work or working under the influence of alcohol or illegal drugs, narcotics or controlled substances.
- Any illegal substance confiscated pursuant to this policy will be turned over to the proper authorities.

This policy is not applicable to physician prescribed drugs. Employees on such medication(s), which may adversely affect their job performance, should promptly discuss the matter with their supervisor. Failure of the employee to so notify their supervisor can result in disciplinary action including discharge. It should be noted that while legal, prescribed drugs could adversely affect the safety of the employee and other employees on the site. All **Name** Construction employees are drug tested before hiring, periodically, and annually.

V. FALL PROTECTION PLAN

Employee falls represent a very high number of worker injuries / fatalities. For this reason, we must have a comprehensive and effective fall protection program. For this job site, personal fall arrest systems will be mandatory for every person on this job site at a height of 6 ft or more. This should not be applicable to this scope of work since there is an existing railing around the perimeter of the roof.

Personal fall arrest systems consist of the following type equipment:

- Full body harness
- Lanyard
- Horizontal and/or vertical lifelines
- Self-retracting lifelines
- Anchorages able to support 5,000 lbs.

All components of a personal fall arrest system must be inspected on a daily basis prior to use. Any defective component shall be immediately removed from service. Personal fall arrest systems are not to be connected to guardrails and/or hoists.

The site supervisor, at the site safety orientation, will provide for the following topics to be covered for employees and subcontractors:

- Nature of fall hazards
- Personal fall arrest system
- Inspection of personal fall arrest system
- This fall protection plan
- When and where personal fall arrest system are required

X. STEEL ERECTION PLAN

This plan is not applicable to this project. **(Describe if applicable)**

Y. NIGHT OPERATIONS LIGHTING PLAN

This plan is not applicable to this project. (Describe if applicable)

Z. SITE SANITATION PLAN

Due to the nature of construction and the hospital environment, it is vital that proper sanitation requirements be met. In order to assure proper employee protection and sanitation needs, the following guidelines must be adhered to:

- The use of the VA's facility is permitted unless this privilege is abused.
- Toilet facilities of the VA that are in close proximity of the work location will be utilized unless directed otherwise.
- Housekeeping will be a continuous process and will be everyone on the job site's responsibility.
- **Name** Construction Company will remove the demolished material from the site the same day. No dumpster will be necessary on this project.
(Describe dumpster location if applicable)

AA. FIRE PREVENTION PLAN

The following sections listed below are all contents of this Accident Prevention Plan. The information in these listed sections below all contains information that helps

constitute this Fire Prevention Plan:

7	Safety and Health Inspections
12.b.3.	Firefighting Plan
12.b.4	Posting of Emergency Numbers
12.c.	Hazard Communication Program
Z.	Site Sanitation Plan

Through safety and health inspections, housekeeping, proper maintenance, proper storage and handling, ensuring all employees and subcontractors are performing their designated work duties properly, the handling of supplies and equipment as directed, following all guidelines set forth through operating manuals, instructions, and training, the risk of a job site fire can be avoided.

All employees and subcontractors require the proper storage of combustibles. Combustible liquids must be stored and covered in approved containers.

All chemical spills including, of course, combustible liquids, must be cleaned up immediately.

Note: Care must be taken when cleaning up chemical spills. Information on appropriate personal protective equipment, proper disposal, proper cleanup procedures, required ventilation, etc is found on the products MSDS.

Cleanup materials and damaged containers must be properly disposed.

Combustible liquids and trash must be segregated and stored away from ignition sources.

Approved portable fire extinguishers will be checked on daily basis, ensuring they are charged and ready for use.

Smoking is not permitted inside the facility. Only designated areas by the VA will be permitted (outside), with smoking debris discarded in designated areas.

All chemical and chemical products will be handled and stored in accordance with the procedures noted on their individual MSDS.

Debris will not be allowed to accumulate on the job site and will be maintained daily.

NAME Construction will request a Hot Work Permit from the COTR or Safety Office to perform acetylene oxygen welding, brazing and cutting, the following precautionary measures will be required as part of this permit along with any additional requirements by the VA Medical Center Policy 138-25 (Hot Work):

- Inspect all surroundings and equipment to insure that combustible substances are not present in any area where contact of metal at a temperature above the flashpoint of any compound is possible.
- Ensure that no open containers or spills of combustible substances are present.
- Ensure that ignition is not possible by conduction, convection, radiation, or dispersion of molten metal.
- Proper protection equipment and practices will be used, i.e., fireproof blankets, removal of combustible materials where practicable, and portable fire extinguishers of proper type on hand.
- When the above operations are in use a continuous Fire Watch will be performed while equipment is being used.
- Training in fire protection will occur at the site safety orientation. This training shall include the following topics, but not limited to:
 - Site Mapping
 - Portable Fire Extinguishers
 - Individual Roles and Responsibilities
 - Fire Watch
 - Response Plans
 - Safe Zone
 - Notification

13. CONTRACTOR INFORMATION

Name Construction Company will make every effort possible to perform and enforce all Safety and Health issues. The following topics give insight as to how we plan to implement and handle job tasks, PPE, etc.

WALKING / WORKING SURFACES

Slips, trips and falls caused by poorly maintained or cluttered walking surfaces and work areas are a leading cause of workplace injuries. Employees may encounter the following hazards:

- Working near debris removal.
- Working near material receiving areas.
- Uneven work areas.

Care will be given to the removal of all construction debris as soon as possible. The work site will be maintained in a clean, sanitary, and orderly condition.

FALL HAZARDS

This site may have the potential for fall hazards. Those hazards may include:

- Potential ladder work.
 - Potential scaffolding
- a. The hazards of ladder use can be reduced by careful selection of ladders of appropriate height, Strength, routine inspection and maintenance, and training of workers in safe and proper ladder use.
- b. Scaffolding, if needed, will be inspected on a daily basis, and fall protection will be mandatory.

PORTABLE LADDERS

Portable ladders may be utilized during the course of construction. The hazards of ladder use can be reduced by careful selection of ladders of appropriate height, strength, routine inspection and maintenance, and training of workers in safe and proper ladder use.

EXIT SAFETY DURING EMERGENCIES

During fire or other emergency it is critically important that workers are able to get out of the work area to safety in a quick and orderly fashion. A site emergency response plan has been implemented; all workers on site will be familiar with these procedures. These include:

- Knowing the alarm sound.
- Knowing where to gather to be accounted for.
- Knowing ones role during an emergency
- A complete site emergency plan is located in this submittal.

AERIAL AND MAN LIFTS

It is not anticipated that aerial man lifts will be utilized on this project. **(Describe if applicable)**

COMPRESSED GASES

Compressed gas cylinders may be used at this worksite. These cylinders and gases present an injury hazard in the event that a regulator or cylinder is damaged and/or broken. The particular gases used will be acetylene. These hazards will be reduced by routine inspections and maintenance of compressed gas cylinders and by assuring all the units are secured from tipping.

Compressed gas cylinder will be kept away from excessive heat, will not be stored where they might be damaged or knocked over by passing or falling objects. The storage of oxygen and fuel gas compressed cylinders will be separated by at least 20 ft.

FLAMMABLE/COMBUSTIBLE MATERIALS

There will be no need for any storage or fuel tanks on this project. **(Describe if applicable)**

PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) includes hard hats, gloves, safety glasses, steel-toed shoes/boots, hearing protection, and personal fall protection.

a. Eye protection will be as follows:

Safety glasses used for any worker performing or observing tasks that may result in flying objects, dust, etc. exposing them to eye injury.

During welding/cutting operations, the required filter lenses will be utilized according to the operation, electrode size and arc current.

b. Head Protection

All workers on this site will be required to wear approved hard hats when working in the close proximity of heavy equipment and where structural steel is being hoisted.

c. Foot Protection

All workers will be required to wear the appropriate foot protection. Steel-toed shoes/boots are mandatory.

d. Hand Protection

Workers may be exposed to hand injuries from sharp objects, abrasive materials, and weather. Gloves designed to protect against the specific

hazard encountered are an effective means of reducing such risks and will be used on this project.

e. Hearing Protection

Any area with noise levels at or above 85dba will be required to wear hearing protection. When workers are utilizing loud equipment, or being exposed to such levels, hearing protection shall be provided. These levels are not anticipated on this project.

f. Personal Fall Protection

Name Construction Company requires all employees working at or above 6' to wear personal fall protection, unless the personal fall protection creates a safety hazard by utilizing it. In that case, other means of fall protection shall be provided. Workers that may be performing work on ladders are instructed to adhere to the following:

- Inspect before using
- Place ladder using 4 to 1 rule
- Never place base of ladder on objects
- Never place ladder in front of door unless
 - Door is blocked in open position
 - Door is demarcated off
 - Door is locked

For work that requires scaffolding use for employees and subcontractors, personal fall protection shall be mandatory, unless working less than 6 ft. The following topics listed will be conveyed to workers prior to scaffolding use:

- Review scaffolding supplier pamphlet for proper construction
- Inspect scaffolding structure before initial use/and daily
- Report any defects immediately / do not use / tag out of service
- Placement of structure
- When fall protection is required
- What you can tie off to

SAFETY SIGNS

Signs will be posted at this site to aid in warning workers and pedestrians of dangers and/or reminding them of safety work practices.

Signs that will apply to this job site include the following: **(Adjust list as necessary)**

- Compressed gas storage
- No Smoking
- Fire extinguisher locations
- Lock out/tag out
- Construction area / authorized personnel only
- First Aid

Employees and subcontractors will be instructed to recognize and understand the above listed signs and tags.

MEDICAL AND FIRST AID

Worker's health and safety is jeopardized if medical care facilities and first aid are not readily available in the event of injury or illness. Rapid and appropriate response to emergency situations will save lives and reduce the severity of injury.

Appropriate emergency response to medical situations has been outlined in Section 03, Medical Support.

Every employee will be made aware at the site safety orientation of the set guidelines for notification, response, where the first aid kit is located, and emergency phone list location. The first aid kit will be checked weekly for needed additional supplies.

FIRE PROTECTION

As stated in the flammable/combustible section of this document, compressed gas cylinders will be located on site. Designated smoking areas, portable fire extinguishers, cautions during cutting/welding operations, etc., are located throughout this document in under various, but applicable topic areas.

FIRE EXTINGUISHERS

Portable fire extinguishers will be located no more than 20' from any flammable/combustible storage and/or use area. Also one will be located in the field office. All portable fire extinguishers shall be inspected on a daily basis to ensure a ready condition.

POWERED INDUSTRIAL TRUCKS

The use of this equipment will not be required on this project. **(Describe if applicable)**

CRANES

(Example) The use of this equipment will be required on this project for loading materials onto the Xth floor roof. Crane safety will be the responsibility of the company performing the work

HAND AND PORTABLE POWERED TOOLS AND OTHER HAND-HELD EQUIPMENT

A wide variety of hand tools may be utilized at this worksite. **Name** Construction Company will ensure the safe condition of all tools and equipment, including those furnished by the workers, through frequent and

regular job site inspections. Also ensure that the proper use, inspections, and maintenance procedures take place.

ELECTRICAL EQUIPMENT

The electrical equipment on this project will be minimal, however what is used, will be in good working order with no noted defects. All extension cords etc will be protected by a GFCI. Again, **Name** Construction Company will ensure, through equipment handling, operating, and storage training, along with inspections, that all equipment brought to this job site is in good condition.

TOXIC AND HAZARDOUS SUBSTANCES

Employees and subcontractors will be made aware of all substances brought onto the facility, as well as potential substances they could possibly encounter while working here on this site. The information will be included in the site safety orientation. This part is covered in the Hazard Communication Program located within this document.

HAZARD COMMUNICATION

Employees and subcontractors will be provided information identifying the hazardous substances in the workplace and describing safe handling procedures.

Name Construction Company will inform employees and subcontractors about the hazardous chemical to which they have the potential to be exposed to, by means of a Hazard Communication Program. Included in this HazCom Program are MSDS, labels, sign recognition and meaning, and other applicable training. The site supervisor at the site safety orientation will provide this.

LOCK OUT/ TAG OUT

Only VA Employees will not manipulate breakers or valves to perform a Lock Out Tag unless specific permission (in writing) is obtained by the Assistant Chief Engineering, M&O. The VA will hang tags on valves or breakers as requested by the project manager. After the VA places their lock on the device, then **Name** Construction Company will be allowed to place their lock on the device. When clearing the Lock Out Tag Out, **Name** Construction Company will remove our locks and notify the COTR. The VA will then remove their locks and reposition the valve or breaker at the request of **Name** Construction Company.

WELDING/CUTTING OR OTHER HOT WORK

All Hot Work will be done in accordance with the Sheridan VA Medical Center Policy 138-25.

TRENCHES AND EXCAVATIONS

There are no trenches or excavations required for this project. (Describe if applicable)

14. SITE-SPECIFIC HAZARDS AND CONTROLS

While working at the Sheridan VA Medical Center, the Name Construction Company will comply with OSHA regulations.

The hazards that have the potential to occur at this job site, along with the controls to prevent incidents or accidents are listed below. Throughout this document, are the listed hazards in the tasks that are required to perform this project. Also throughout this document, are the many controls in which we, Name Construction Company, will do the best job possible to enforce.

- | | | |
|----|--|--|
| a. | Slips, trips, and falls | Housekeeping
Sanitation |
| b. | Electrical Hazards | Training on lock out / tag out
Informing where buried electrical lines are located in work area |
| c. | Light Radiation | Ensuring that subcontractor to weld/cut are wearing the appropriate shade of lens according to the type of welding procedure and equipment used. |
| d. | Rolling or pinching | Steel toed shoes/boots are required at all times at this job site |
| e. | Potential fall from ladders, scaffolding | Personal fall protection shall be enforced. |
| f. | Crane Safety | Crane safety will be the responsibility of the company performing the work. |

APPENDIX A

Evacuation Route Map to Emergency Services

NOTE: Presently, there is one evacuation route on the Sheridan VA Medical Center. That is Fort Rd., the road on which you entered the facility.

Note: Map to local hospital will be provided by the COTR.

APPENDIX B

CERTIFICATIONS & JOBSITE DOCUMENTATION PROGRAM

List all individuals including their titles, who have completed

1. OSHA 30 Hour Construction Safety Course
2. OSHA 10 Hour construction Safety Course
3. Competent Person Certifications for Respiratory Protection, Fall Protection, Trenching and Shoring, etc. as required by the Scope of Work and applicable regulations.
4. Lock Out/Tag Out Certification

APPENDIX C

CONTRACTOR ACCIDENT RECORD

OSHA 300 FORM

To be updated and maintained in your on site construction office.

APPENDIX D

HAZARD ASSESSMENTS