

SECTION 01 35 26
SAFETY REQUIREMENTS

1.1 APPLICABLE PUBLICATIONS:

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

B. American Society of Safety Engineers (ASSE):

A10.1-2011.....Pre-Project & Pre-Task Safety and Health
Planning

A10.34-2012.....Protection of the Public on or Adjacent to
Construction Sites

A10.38-2013.....Basic Elements of an Employer's Program to
Provide a Safe and Healthful Work Environment
American National Standard Construction and
Demolition Operations

C. American Society for Testing and Materials (ASTM):

E84-2013.....Surface Burning Characteristics of Building
Materials

D. The Facilities Guidelines Institute (FGI):

FGI Guidelines-2010Guidelines for Design and Construction of
Healthcare Facilities

E. National Fire Protection Association (NFPA):

10-2013.....Standard for Portable Fire Extinguishers

30-2012.....Flammable and Combustible Liquids Code

51B-2014.....Standard for Fire Prevention During Welding,
Cutting and Other Hot Work

70-2014.....National Electrical Code

70B-2013.....Recommended Practice for Electrical Equipment
Maintenance

70E-2012Standard for Electrical Safety in the Workplace

99-2012.....Health Care Facilities Code

241-2013.....Standard for Safeguarding Construction,
Alteration, and Demolition Operations

F. The Joint Commission (TJC)

TJC ManualComprehensive Accreditation and Certification
Manual

G. U.S. Nuclear Regulatory Commission

10 CFR 20Standards for Protection Against Radiation

H. U.S. Occupational Safety and Health Administration (OSHA):

29 CFR 1904Reporting and Recording Injuries & Illnesses

29 CFR 1910Safety and Health Regulations for General
Industry

29 CFR 1926Safety and Health Regulations for Construction
Industry

CPL 2-0.124.....Multi-Employer Citation Policy

I. VHA Directive 2005-007

1.2 DEFINITIONS:

- A. OSHA "Competent Person" (CP). 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 (see 29 CFR 1926.32(f)).
- B. "Qualified Person" means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.
- C. High Visibility Accident. Any mishap which may generate publicity or high visibility.

- D. Medical Treatment. Treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.
- E. Recordable Injuries or Illnesses. Any work-related injury or illness that results in:
1. Death, regardless of the time between the injury and death, or the length of the illness;
 2. Days away from work (any time lost after day of injury/illness onset);
 3. Restricted work;
 4. Transfer to another job;
 5. Medical treatment beyond first aid;
 6. Loss of consciousness; **or**
 7. A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.

1.3 REGULATORY REQUIREMENTS:

- A. In addition to the detailed requirements included in the provisions of this contract, comply with 29 CFR 1926, comply with 29 CFR 1910 as incorporated by reference within 29 CFR 1926, comply with ASSE A10.34, and all applicable federal, state, and local laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements govern except with specific approval and acceptance by the COR and Facility Safety Manager.

1.4 ACCIDENT PREVENTION PLAN (APP):

- A. The APP (aka Construction Safety & Health Plan) shall interface with the Contractor's overall safety and health program. Include any portions of the Contractor's overall safety and health program

referenced in the APP in the applicable APP element and ensure it is site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all worksite safety and health of each subcontractor(s). Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out.

B. The APP shall be prepared as follows:

1. Written in English by a qualified person who is employed by the Prime Contractor articulating the specific work and hazards pertaining to the contract (model language can be found in ASSE A10.33). Specifically articulating the safety requirements found within these VA contract safety specifications.
2. Address both the Prime Contractors and the subcontractors work operations.
3. State measures to be taken to control hazards associated with materials, services, or equipment provided by suppliers.
4. Address all the elements/sub-elements and in order as follows:
 - a. **SIGNATURE SHEET.** Title, signature, and phone number of the following:
 - 1) Plan preparer (Qualified Person such as corporate safety staff person or contracted Certified Safety Professional with construction safety experience);
 - 2) Plan approver (company/corporate officers authorized to obligate the company);
 - 3) Plan concurrence (e.g., Chief of Operations, Corporate Chief of Safety, Corporate Industrial Hygienist, project manager or superintendent, project safety professional). Provide concurrence of other applicable corporate and project personnel (Contractor).
 - b. **BACKGROUND INFORMATION.** List the following:

- 1) Contractor;
- 2) Contract number;
- 3) Project name;
- 4) Brief project description, description of work to be performed, and location; phases of work anticipated (these will require an AHA).

c. STATEMENT OF SAFETY AND HEALTH POLICY. Provide a copy of current corporate/company Safety and Health Policy Statement, detailing commitment to providing a safe and healthful workplace for all employees. The Contractor's written safety program goals, objectives, and accident experience goals for this contract should be provided.

d. RESPONSIBILITIES AND LINES OF AUTHORITIES. Provide the following:

- 1) A statement of the employer's ultimate responsibility for the implementation of his SOH program;
- 2) Identification and accountability of personnel responsible for safety at both corporate and project level. Contracts specifically requiring safety or industrial hygiene personnel shall include a copy of their resumes.
- 3) The names of Competent and/or Qualified Person(s) and proof of competency/qualification to meet specific OSHA Competent/Qualified Person(s) requirements must be attached.;
- 4) Requirements that no work shall be performed unless a designated competent person is present on the job site;
- 5) Requirements for pre-task Activity Hazard Analysis (AHAs);
- 6) Lines of authority;
- 7) Policies and procedures regarding noncompliance with safety requirements (to include disciplinary actions for violation of safety requirements) should be identified;

e. SUBCONTRACTORS AND SUPPLIERS. If applicable, provide procedures for coordinating SOH activities with other employers on the job site:

- 1) Identification of subcontractors and suppliers (if known);
- 2) Safety responsibilities of subcontractors and suppliers.

f. TRAINING.

- 1) Site-specific SOH orientation training at the time of initial hire or assignment to the project for every employee before working on the project site is required.
- 2) Mandatory training and certifications that are applicable to this project (e.g., explosive actuated tools, crane operator, rigger, crane signal person, fall protection, electrical lockout/NFPA 70E, machine/equipment lockout, confined space, etc...) and any requirements for periodic retraining/recertification are required.
- 3) Procedures for ongoing safety and health training for supervisors and employees shall be established to address changes in site hazards/conditions.
- 4) OSHA 10-hour training is required for all workers on site and the OSHA 30-hour training is required for Trade Competent Persons (CPs)

g. SAFETY AND HEALTH INSPECTIONS.

- 1) Specific assignment of responsibilities for a minimum daily job site safety and health inspection during periods of work activity: Who will conduct (e.g., "Site Safety and Health CP"), proof of inspector's training/qualifications, when inspections will be conducted, procedures for documentation, deficiency tracking system, and follow-up procedures.
- 2) Any external inspections/certifications that may be required (e.g., contracted CSP or CSHT)

h. ACCIDENT INVESTIGATION & REPORTING. The Contractor shall conduct mishap investigations of all OSHA Recordable Incidents. The APP

shall include accident/incident investigation procedure &
identify person(s) responsible to provide the following to the //
COR and Facility Safety Manager:

- 1) Exposure data (man-hours worked);
- 2) Accident investigations, reports, and logs.

i. PLANS (PROGRAMS, PROCEDURES) REQUIRED. Based on a risk assessment of contracted activities and on mandatory OSHA compliance programs, the Contractor shall address all applicable occupational risks in site-specific compliance and accident prevention plans. These Plans shall include but are not be limited to procedures for addressing the risks associates with the following:

- 1) Emergency response ;
- 2) Contingency for severe weather;
- 3) Fire Prevention ;
- 4) Medical Support;
- 5) Posting of emergency telephone numbers;
- 6) Prevention of alcohol and drug abuse;
- 7) Site sanitation (housekeeping, drinking water, toilets);
- 8) Night operations and lighting ;
- 9) Hazard communication program;
- 10) Welding/Cutting "Hot" work ;
- 11) Electrical Safe Work Practices (Electrical LOTO/NFPA 70E);
- 12) General Electrical Safety
- 13) Hazardous energy control (Machine LOTO);
- 14) Site-Specific Fall Protection & Prevention;
- 15) Excavation/trenching;
- 16) Asbestos abatement;

- 17) Lead abatement;
- 18) Crane Critical lift;
- 19) Respiratory protection;
- 20) Health hazard control program;
- 21) Radiation Safety Program;
- 22) Abrasive blasting;
- 23) Heat/Cold Stress Monitoring;
- 24) Crystalline Silica Monitoring (Assessment);
- 25) Demolition plan (to include engineering survey);
- 26) Formwork and shoring erection and removal;
- 27) PreCast Concrete.

- C. Submit the APP to the COR and Facility Safety Manager for review for compliance with contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP.
- D. Once accepted by the COR and Facility Safety Manager, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.
- E. Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the COR, project superintendent, project overall designated OSHA Competent Person, and facility Safety Manager. Should any severe hazard exposure, i.e. imminent danger, become evident, stop work in the area, secure the area, and develop a plan to remove the exposure and control the hazard. Notify the Contracting Officer within 24 hours of discovery. Eliminate/remove the hazard. In the interim, take all necessary action to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public (as defined by ASSE/SAFE A10.34) and the environment.

1.5 ACTIVITY HAZARD ANALYSES (AHAS) :

- A. AHAs are also known as Job Hazard Analyses, Job Safety Analyses, and Activity Safety Analyses. Before beginning each work activity involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or sub-contractor is to perform the work, the Contractor(s) performing that work activity shall prepare an AHA (Example electronic AHA forms can be found on the US Army Corps of Engineers web site)
- B. AHAs shall define the activities being performed and identify the work sequences, the specific anticipated hazards, site conditions, equipment, materials, and the control measures to be implemented to eliminate or reduce each hazard to an acceptable level of risk.
- C. Work shall not begin until the AHA for the work activity has been accepted by the COR and Facility Safety Manager and discussed with all engaged in the activity, including the Contractor, subcontractor(s), and Government on-site representatives at preparatory and initial control phase meetings.
 - 1. The names of the Competent/Qualified Person(s) required for a particular activity (for example, excavations, scaffolding, fall protection, other activities as specified by OSHA and/or other State and Local agencies) shall be identified and included in the AHA. Certification of their competency/qualification shall be submitted to the Government Designated Authority (GDA) for acceptance prior to the start of that work activity.
 - 2. The AHA shall be reviewed and modified as necessary to address changing site conditions, operations, or change of competent/qualified person(s).
 - a. If more than one Competent/Qualified Person is used on the AHA activity, a list of names shall be submitted as an attachment to the AHA. Those listed must be Competent/Qualified for the type of work involved in the AHA and familiar with current site safety issues.
 - b. If a new Competent/Qualified Person (not on the original list) is added, the list shall be updated (an administrative action not

requiring an updated AHA). The new person shall acknowledge in writing that he or she has reviewed the AHA and is familiar with current site safety issues.

3. Submit AHAs to the COR and Facility Safety Manager for review for compliance with contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES for review at least 15 [__] calendar days prior to the start of each phase. Subsequent AHAs as shall be formatted as amendments to the APP. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.
4. The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.
5. Develop the activity hazard analyses using the project schedule as the basis for the activities performed. All activities listed on the project schedule will require an AHA. The AHAs will be developed by the contractor, supplier, or subcontractor and provided to the prime contractor for review and approval and then submitted to the COR and Facility Safety Manager.

1.6 PRECONSTRUCTION CONFERENCE:

- A. Contractor representatives who have a responsibility or significant role in implementation of the accident prevention program, as required by 29 CFR 1926.20(b)(1), on the project shall attend the preconstruction conference to gain a mutual understanding of its implementation. This includes the project superintendent, subcontractor superintendents, and any other assigned safety and health professionals.
- B. Discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, establish a schedule for the preparation, submittal, review, and acceptance of AHAs to preclude project delays.

- C. Deficiencies in the submitted APP will be brought to the attention of the Contractor within 14 days of submittal, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Do not begin work until there is an accepted APP.

1.7 "SITE SAFETY AND HEALTH OFFICER" (SSHO) AND "COMPETENT PERSON" (CP):

- A. The Prime Contractor shall designate a minimum of one SSHO at each project site that will be identified as the SSHO to administer the Contractor's safety program and government-accepted Accident Prevention Plan. Each subcontractor shall designate a minimum of one CP in compliance with 29 CFR 1926.20 (b) (2) that will be identified as a CP to administer their individual safety programs.
- B. Further, all specialized Competent Persons for the work crews will be supplied by the respective contractor as required by 29 CFR 1926 (i.e. Asbestos, Electrical, Cranes, & Derricks, Demolition, Fall Protection, Fire Safety/Life Safety, Ladder, Rigging, Scaffolds, and Trenches/Excavations).
- C. These Competent Persons can have collateral duties as the subcontractor's superintendent and/or work crew lead persons as well as fill more than one specialized CP role (i.e. Asbestos, Electrical, Cranes, & Derricks, Demolition, Fall Protection, Fire Safety/Life Safety, Ladder, Rigging, Scaffolds, and Trenches/Excavations).
- D. The SSHO or an equally-qualified Designated Representative/alternate will maintain a presence on the site during construction operations in accordance with FAR Clause 52.236-6: *Superintendence by the Contractor*. CPs will maintain presence during their construction activities in accordance with above mentioned clause. A listing of the designated SSHO and all known CPs shall be submitted prior to the start of work as part of the APP with the training documentation and/or AHA as listed in Section 1.8 below.
- E. The repeated presence of uncontrolled hazards during a contractor's work operations will result in the designated CP as being deemed incompetent and result in the required removal of the employee in accordance with FAR Clause 52.236-5: Material and Workmanship, Paragraph (c).

1.8 TRAINING:

- A. The designated Prime Contractor SSHO must meet the requirements of all applicable OSHA standards and be capable (through training, experience, and qualifications) of ensuring that the requirements of 29 CFR 1926.16 and other appropriate Federal, State and local requirements are met for the project. As a minimum the SSHO must have completed the OSHA 30-hour Construction Safety class and have five (5) years of construction industry safety experience or three (3) years if he/she possesses a Certified Safety Professional (CSP) or certified Construction Safety and Health Technician (CSHT) certification or have a safety and health degree from an accredited university or college.
- B. All designated CPs shall have completed the OSHA 30-hour Construction Safety course within the past 5 years.
- C. In addition to the OSHA 30 Hour Construction Safety Course, all CPs with high hazard work operations such as operations involving asbestos, electrical, cranes, demolition, work at heights/fall protection, fire safety/life safety, ladder, rigging, scaffolds, and trenches/excavations shall have a specialized formal course in the hazard recognition & control associated with those high hazard work operations. Documented "repeat" deficiencies in the execution of safety requirements will require retaking the requisite formal course.
- D. All other construction workers shall have the OSHA 10-hour Construction Safety Outreach course and any necessary safety training to be able to identify hazards within their work environment.
- E. Submit training records associated with the above training requirements to the COR and Facility Safety Manager for review for compliance with contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES 15 [__] calendar days prior to the date of the preconstruction conference for acceptance.
- F. Prior to any worker for the contractor or subcontractors beginning work, they shall undergo a safety briefing provided by the SSHO or his/her designated representative. As a minimum, this briefing shall include information on the site-specific hazards, construction limits, VAMC safety guidelines, means of egress, break areas, work hours, locations of restrooms, use of VAMC equipment, emergency procedures,

accident reporting etc... Documentation shall be provided to the COR that individuals have undergone contractor's safety briefing.

- G. Ongoing safety training will be accomplished in the form of weekly documented safety meeting.

1.9 INSPECTIONS:

- A. The SSHO shall conduct frequent and regular safety inspections (daily) of the site and each of the subcontractors CPs shall conduct frequent and regular safety inspections (daily) of the their work operations as required by 29 CFR 1926.20(b)(2). Each week, the SSHO shall conduct a formal documented inspection of the entire construction areas with the subcontractors' "Trade Safety and Health CPs" present in their work areas. Coordinate with, and report findings and corrective actions weekly to COR and Facility Safety Manager Officer.
- B. A Certified Safety Professional (CSP) with specialized knowledge in construction safety or a certified Construction Safety and Health Technician (CSHT) shall randomly conduct a monthly site safety inspection. The CSP or CSHT can be a corporate safety professional or independently contracted. The CSP or CSHT will provide their certificate number on the required report for verification as necessary.
 - 1. Results of the inspection will be documented with tracking of the identified hazards to abatement.
 - 2. The COR and Facility Safety Manager will be notified immediately prior to start of the inspection and invited to accompany the inspection.
 - 3. Identified hazard and controls will be discussed to come to a mutual understanding to ensure abatement and prevent future reoccurrence.
 - 4. A report of the inspection findings with status of abatement will be provided to the COR and Facility Safety Manager within one week of the onsite inspection.

1.10 ACCIDENTS, OSHA 300 LOGS, AND MAN-HOURS:

- A. Notify the COR and Facility Safety Manager as soon as practical, but no more than four hours after any accident meeting the definition of OSHA

Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than \$5,000, or any weight handling equipment accident. Within notification include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the COR and Facility Safety Manager determine whether a government investigation will be conducted.

- B. Conduct an accident investigation for recordable injuries and illnesses, for Medical Treatment defined in paragraph DEFINITIONS, and property damage accidents resulting in at least \$20,000 in damages, to establish the root cause(s) of the accident. Complete the VA Form 2162, and provide the report to the COR and Facility Safety Manager within 5 calendar days of the accident. The COR and Facility Safety Manager will provide copies of any required or special forms.
- C. A summation of all man-hours worked by the contractor and associated sub-contractors for each month will be reported to the COR and Facility Safety Manager monthly.
- D. A summation of all OSHA recordable accidents experienced on site by the contractor and associated sub-contractors for each month will be provided to the COR and Facility Safety Manager monthly. The contractor and associated sub-contractors' OSHA 300 logs will be made available to the COR and Facility Safety Manager as requested.

1.11 PERSONAL PROTECTIVE EQUIPMENT (PPE) :

- A. PPE is governed in all areas by the nature of the work the employee is performing. For example, specific PPE required for performing work on electrical equipment is identified in NFPA 70E, Standard for Electrical Safety in the Workplace.
- B. Mandatory PPE includes:
 - 1. Hard Hats - unless written authorization is given by the COR and Facility Safety Manager in circumstances of work operations that have limited potential for falling object hazards such as during

finishing work or minor remodeling. With authorization to relax the requirement of hard hats, if a worker becomes exposed to an overhead falling object hazard, then hard hats would be required in accordance with the OSHA regulations.

2. Safety glasses - unless written authorization is given by the and Facility Safety Manager appropriate safety glasses meeting the ANSI Z.87.1 standard must be worn by each person on site.
3. Appropriate Safety Shoes - based on the hazards present, safety shoes meeting the requirements of ASTM F2413-11 shall be worn by each person on site unless written authorization is given by the COR and Facility Safety Manager.
4. Hearing protection - Use personal hearing protection at all times in designated noise hazardous areas or when performing noise hazardous tasks.

1.12 INFECTION CONTROL

- A. Infection Control is critical in all medical center facilities. Interior construction activities causing disturbance of existing dust, or creating new dust, must be conducted within ventilation-controlled areas that minimize the flow of airborne particles into patient areas.
- B. An AHA associated with infection control will be performed by VA personnel in accordance with FGI Guidelines (i.e. Infection Control Risk Assessment (ICRA)). The ICRA procedure found on the American Society for Healthcare Engineering (ASHE) website will be utilized. Risk classifications of Class II or lower will require approval by the COR and Facility Safety Manager before beginning any construction work. Risk classifications of Class III or higher will require a permit before beginning any construction work. Infection Control permits will be issued by the COR. The Infection Control Permits will be posted outside the appropriate construction area. More than one permit may be issued for a construction project if the work is located in separate areas requiring separate classes. The primary project scope area for this project is: **Class IV**, however, work outside the primary project scope area may vary. The required infection control precautions with each class are as follows:

1. Class IV requirements:

a. During Construction Work:

- 1) Obtain permit from the COR and Facility Safety Manager
- 2) Isolate HVAC system in area where work is being done to prevent contamination of duct system.
- 3) 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. Install construction barriers and ceiling protection carefully, outside of normal work hours.
- 4) Maintain negative air pressure within work site utilizing HEPA equipped air filtration units.
- 5) Seal holes, pipes, conduits, and punctures.
- 6) 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 work site.
- 7) All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work area.

b. Upon Completion:

- 1) Do not remove barriers from work area until completed project is inspected by the COR and Facility Safety Manager with thorough cleaning by the VA Environmental Services Dept.
- 2) Remove construction barriers and ceiling protection carefully to minimize spreading of dirt and debris associated with construction, outside of normal work hours.
- 3) Contain construction waste before transport in tightly covered containers.

- 4) Cover transport receptacles or carts. Tape covering unless solid lid.
- 5) Vacuum work area with HEPA filtered vacuums.
- 6) Wet mop area with cleaner/disinfectant.
- 7) Upon completion, restore HVAC system where work was performed.
- 8) Return permit to the COR and Facility Safety Manager

C. Barriers shall be erected as required based upon classification (Class III & IV requires barriers) and shall be constructed as follows:

1. Class III and IV - closed door with masking tape applied over the frame and door is acceptable for projects that can be contained in a single room.
2. Construction, demolition or reconstruction not capable of containment within a single room must have the following barriers erected and made presentable on hospital occupied side:
 - a. Class III & IV (where dust control is the only hazard, and an agreement is reached with the COR and Medical Center) - Airtight plastic barrier that extends from the floor to ceiling. Seams must be sealed with duct tape to prevent dust and debris from escaping
 - b. Class III & IV - Drywall barrier erected with joints covered or sealed to prevent dust and debris from escaping.
 - c. Class III & IV - Seal all penetrations in existing barrier airtight
 - d. Class III & IV - Barriers at penetration of ceiling envelopes, chases and ceiling spaces to stop movement air and debris
 - e. Class IV only - Anteroom or double entrance openings that allow workers to remove protective clothing or vacuum off existing clothing
 - f. Class III & IV - At elevators shafts or stairways within the field of construction, overlapping flap minimum of two feet wide of polyethylene enclosures for personnel access.

D. Products and Materials:

1. Sheet Plastic: Fire retardant polystyrene, 6-mil thickness meeting local fire codes
2. Barrier Doors: Self Closing One-hour fire-rated solid core wood in steel frame, painted
3. Dust proof one-hour fire-rated drywall
4. High Efficiency Particulate Air-Equipped filtration machine rated at 95% capture of 0.3 microns including pollen, mold spores and dust particles. HEPA filters should have ASHRAE 85 or other prefilter to extend the useful life of the HEPA. Provide both primary and secondary filtrations units. Maintenance of equipment and replacement of the HEPA filters and other filters will be in accordance with manufacturer's instructions.
5. Exhaust Hoses: Heavy duty, flexible steel reinforced; Ventilation Blower Hose
6. Adhesive Walk-off Mats: Provide minimum size mats of 24 inches x 36 inches
7. Disinfectant: Hospital-approved disinfectant or equivalent product
8. Portable Ceiling Access Module

E. Before any construction on site begins, all contractor personnel involved in the construction or renovation activity shall be educated and trained in infection prevention measures established by the medical center.

F. A dust control program will be establish and maintained as part of the contractor's infection preventive measures in accordance with the FGI Guidelines for Design and Construction of Healthcare Facilities. Prior to start of work, prepare a plan detailing project-specific dust protection measures with associated product data, including periodic status reports, and submit to COR and Facility CSC for review for compliance with contract requirements in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.

- G. Medical center Infection Control personnel will monitor for airborne disease (e.g. aspergillosis) during construction. A baseline of conditions will be established by the medical center prior to the start of work and periodically during the construction stage to determine impact of construction activities on indoor air quality with safe thresholds established.
- H. In general, the following preventive measures shall be adopted during construction to keep down dust and prevent mold.
1. Contractor shall verify that construction exhaust to exterior is not reintroduced to the medical center through intake vents, or building openings. HEPA filtration is required where the exhaust dust may reenter the medical center.
 2. Exhaust hoses shall be exhausted so that dust is not reintroduced to the medical center.
 3. Adhesive Walk-off/Carpet Walk-off Mats shall be used at all interior transitions from the construction area to occupied medical center area. These mats shall be changed as often as required to maintain clean work areas directly outside construction area at all times.
 4. Vacuum and wet mop all transition areas from construction to the occupied medical center at the end of each workday. Vacuum shall utilize HEPA filtration. Maintain surrounding area frequently. Remove debris as it is created. Transport these outside the construction area in containers with tightly fitting lids.
 5. The contractor shall not haul debris through patient-care areas without prior approval of the COR and the Medical Center. When, approved, debris shall be hauled in enclosed dust proof containers or wrapped in plastic and sealed with duct tape. No sharp objects should be allowed to cut through the plastic. Wipe down the exterior of the containers with a damp rag to remove dust. All equipment, tools, material, etc. transported through occupied areas shall be made free from dust and moisture by vacuuming and wipe down.
 6. There shall be no standing water during construction. This includes water in equipment drip pans and open containers within the construction areas. All accidental spills must be cleaned up and

dried within 12 hours. Remove and dispose of porous materials that remain damp for more than 72 hours.

7. At completion, remove construction barriers and ceiling protection carefully, outside of normal work hours. Vacuum and clean all surfaces free of dust after the removal.

I. Final Cleanup:

1. Upon completion of project, or as work progresses, remove all construction debris from above ceiling, vertical shafts and utility chases that have been part of the construction.
2. Perform HEPA vacuum cleaning of all surfaces in the construction area. This includes walls, ceilings, cabinets, furniture (built-in or free standing), partitions, flooring, etc.
3. All new air ducts shall be cleaned prior to final inspection.

J. Exterior Construction

1. Contractor shall verify that dust will not be introduced into the medical center through intake vents, or building openings. HEPA filtration on intake vents is required where dust may be introduced.
2. Dust created from disturbance of soil such as from vehicle movement will be wetted with use of a water truck as necessary
3. All cutting, drilling, grinding, sanding, or disturbance of materials shall be accomplished with tools equipped with either local exhaust ventilation (i.e. vacuum systems) or wet suppression controls.

1.13 FIRE SAFETY

- A. Fire Safety Plan: Establish and maintain a site-specific 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 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES. This plan may be an element of the Accident Prevention Plan.

- B. 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.
- C. Separate temporary facilities, such as trailers, storage sheds, and dumpsters, from existing buildings and new construction by distances in accordance with NFPA 241. For small facilities with less than 6 m (20 feet) exposing overall length, separate by 3m (10 feet).
- D. Temporary Construction Partitions:
 - 1. Install and maintain temporary construction partitions to provide smoke-tight separations between construction areas and adjoining areas. Construct partitions of gypsum board or treated plywood (flame spread rating of 25 or less in accordance with ASTM E84) on both sides of fire retardant treated wood or metal steel studs. Extend the partitions through suspended ceilings to floor slab deck or roof. Seal joints and penetrations. At door openings, install Class C, $\frac{3}{4}$ hour fire/smoke rated doors with self-closing devices.
 - 2. Install one-hour fire-rated temporary construction partitions as shown on drawings to maintain integrity of existing exit stair enclosures, exit passageways, fire-rated enclosures of hazardous areas, horizontal exits, smoke barriers, vertical shafts and openings enclosures.
 - 3. Close openings in smoke barriers and fire-rated construction to maintain fire ratings. Seal penetrations with listed through-penetration firestop materials in accordance with Section 07 84 00, FIRESTOPPING.
- E. Temporary Heating and Electrical: Install, use and maintain installations in accordance with 29 CFR 1926, NFPA 241 and NFPA 70.
- F. 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.
- G. Egress Routes for Construction Workers: Maintain free and unobstructed egress. Inspect daily. Report findings and corrective actions weekly to COR and Facility Safety Manager.

- H. Fire Extinguishers: Provide and maintain extinguishers in construction areas and temporary storage areas in accordance with 29 CFR 1926, NFPA 241 and NFPA 10.
- I. Flammable and Combustible Liquids: Store, dispense and use liquids in accordance with 29 CFR 1926, NFPA 241 and NFPA 30.
- J. Sprinklers: Install, test and activate new automatic sprinklers prior to removing existing sprinklers.
- K. Existing Fire Protection: Do not impair automatic sprinklers, smoke and heat detection, and fire alarm systems, except for portions immediately under construction, and temporarily for connections. Provide fire watch for impairments more than 4 hours in a 24-hour period. Request interruptions in accordance with Article, OPERATIONS AND STORAGE AREAS, and coordinate with COR and Facility Safety Manager. All existing or temporary fire protection systems (fire alarms, sprinklers) located in construction areas shall be tested as coordinated with the medical center. Parameters for the testing and results of any tests performed shall be recorded by the medical center and copies provided to the COR.
- L. Smoke Detectors: The contractor shall install a smoke detector in each construction area. This detector shall be connected to the existing fire alarm system. The detector must be added to the systems computer database, given a unique identifier, and tested. The detector is to provide coverage during times when there is no construction activity. It must be protected from dust and accidental discharge during construction shifts and must be uncovered and providing protection when the contractor is not present. Remove the detector after final inspection of the construction area. Prevent accidental operation. Remove temporary covers at end of work operations each day. Coordinate with COR and Facility Safety Manager.
- M. Hot Work: Perform and safeguard hot work operations in accordance with NFPA 241 and NFPA 51B. Coordinate with COR. Obtain permits from COR at least 24 hours in advance. Designate contractor's responsible project-site fire prevention program manager to permit hot work.

- N. Fire Hazard Prevention and Safety Inspections: Inspect entire construction areas weekly. Coordinate with, and report findings and corrective actions weekly to COR and Facility Safety Manager.
- O. Smoking: Smoking is prohibited in and adjacent to construction areas inside existing buildings and additions under construction. In separate and detached buildings under construction, smoking is prohibited except in designated smoking rest areas.
- P. Dispose of waste and debris in accordance with NFPA 241. Remove from buildings daily. Waste and debris can only be moved through the medical center in tightly covered containers. Use of rolling plastic containers with plastic lids is acceptable. These containers and their wheels must be cleaned on the outside frequently or as directed by the COR.
- Q. If required, submit documentation to the COR that personnel have been trained in the fire safety aspects of working in areas with impaired structural or compartmentalization features.

1.14 ELECTRICAL

- A. All electrical work shall comply with NFPA 70 (NEC), NFPA 70B, NFPA 70E, 29 CFR Part 1910 Subpart J - General Environmental Controls, 29 CFR Part 1910 Subpart S - Electrical, and 29 CFR 1926 Subpart K in addition to other references required by contract.
- B. All qualified persons performing electrical work under this contract shall be licensed journeyman or master electricians. All apprentice electricians performing under this contract shall be deemed unqualified persons unless they are working under the immediate supervision of a licensed electrician or master electrician.
- C. All electrical work will be accomplished de-energized and in the Electrically Safe Work Condition (refer to NFPA 70E for Work Involving Electrical Hazards, including Exemptions to Work Permit). Any Contractor, subcontractor or temporary worker who fails to fully comply with this requirement is subject to immediate termination in accordance with FAR clause 52.236-5(c). Only in rare circumstance where achieving an electrically safe work condition prior to beginning work would increase or cause additional hazards, or is infeasible due to equipment

design or operational limitations is energized work permitted. The COR with approval of the Medical Center Director will make the determination if the circumstances would meet the exception outlined above. An AHA specific to energized work activities will be developed, reviewed, and accepted prior to the start of that work.

1. Development of a Hazardous Electrical Energy Control Procedure is required prior to de-energization. A single Simple Lockout/Tagout Procedure for multiple work operations can only be used for work involving qualified person(s) de-energizing one set of conductors or circuit part source. Task specific Complex Lockout/Tagout Procedures are required at all other times.

2. Verification of the absence of voltage after de-energization and lockout/tagout is considered "energized electrical work" (live work) under NFPA 70E, and shall only be performed by qualified persons wearing appropriate shock protective (voltage rated) gloves and arc rate personal protective clothing and equipment, using Underwriters Laboratories (UL) tested and appropriately rated contact electrical testing instruments or equipment appropriate for the environment in which they will be used.

3. Personal Protective Equipment (PPE) and electrical testing instruments will be readily available for inspection by the The COR and Facility Safety Manager.

D. Before beginning any electrical work, an Activity Hazard Analysis (AHA) will be conducted to include Shock Hazard and Arc Flash Hazard analyses (NFPA Tables can be used only as a last alternative and it is strongly suggested a full Arc Flash Hazard Analyses be conducted). Work shall not begin until the AHA for the work activity has been accepted by the COR and Facility Safety Manager and discussed with all engaged in the activity, including the Contractor, subcontractor(s), and Government on-site representatives at preparatory and initial control phase meetings.

E. Ground-fault circuit interrupters. All 120-volt, single-phase 15- and 20-ampere receptacle outlets on construction sites shall have approved ground-fault circuit interrupters for personnel protection. "Assured Equipment Grounding Conductor Program" only is not allowed.

1.15 FALL PROTECTION

- A. The fall protection (FP) threshold height requirement is 6 ft (1.8 m) for ALL WORK, unless specified differently or the OSHA 29 CFR 1926 requirements are more stringent, to include steel erection activities, systems-engineered activities (prefabricated) metal buildings, residential (wood) construction and scaffolding work.
 - 1. The use of a Safety Monitoring System (SMS) as a fall protection method is prohibited.
 - 2. The use of Controlled Access Zone (CAZ) as a fall protection method is prohibited.
 - 3. A Warning Line System (WLS) may ONLY be used on floors or flat or low-sloped roofs (between 0 - 18.4 degrees or 4:12 slope) and shall be erected around all sides of the work area (See 29 CFR 1926.502(f) for construction of WLS requirements). Working within the WLS does not require FP. No worker shall be allowed in the area between the roof or floor edge and the WLS without FP. FP is required when working outside the WLS.
 - 4. Fall protection while using a ladder will be governed by the OSHA requirements.

1.16 SCAFFOLDS AND OTHER WORK PLATFORMS

- A. All scaffolds and other work platforms construction activities shall comply with 29 CFR 1926 Subpart L.
- B. The fall protection (FP) threshold height requirement is 6 ft (1.8 m) as stated in Section 1.16.
- C. The following hierarchy and prohibitions shall be followed in selecting appropriate work platforms.
 - 1. Scaffolds, platforms, or temporary floors shall be provided for all work except that can be performed safely from the ground or similar footing.
 - 2. Ladders less than 20 feet may be used as work platforms only when use of small hand tools or handling of light material is involved.
 - 3. Ladder jacks, lean-to, and prop-scaffolds are prohibited.

4. Emergency descent devices shall not be used as working platforms.
- D. Contractors shall use a scaffold tagging system in which all scaffolds are tagged by the Competent Person. Tags shall be color-coded: green indicates the scaffold has been inspected and is safe to use; red indicates the scaffold is unsafe to use. Tags shall be readily visible, made of materials that will withstand the environment in which they are used, be legible and shall include:
 1. The Competent Person's name and signature;
 2. Dates of initial and last inspections.
- E. Mast Climbing work platforms: When access ladders, including masts designed as ladders, exceed 20 ft (6 m) in height, positive fall protection shall be used.

1.17 EXCAVATION AND TRENCHES

- A. All excavation and trenching work shall comply with 29 CFR 1926 Subpart P.
- B. All excavations and trenches 5 feet in depth or greater shall require a written trenching and excavation permit (NOTE - some States and other local jurisdictions require separate state/jurisdiction-issued excavation permits). The permit shall be completed and provided to the COR and/or Facility Safety Manager prior to commencing work for the day. At the end of the day, the permit shall be closed out and provided to the COR and/or Facility Safety Manager. The permit shall be maintained onsite and include the following:
 1. Determination of soil classification
 2. Indication that utilities have been located and identified. If utilities could not be located after all reasonable attempt, then excavating operations will proceed cautiously.
 3. Indication of selected excavation protective system.
 4. Indication that the spoil pile will be stored at least 2 feet from the edge of the excavation and safe access provided within 25 feet of the workers.

5. Indication of assessment for a potential toxic, explosive, or oxygen deficient atmosphere.

C. If not using an engineered protective system such as a trench box, shielding, shoring, or other Professional Engineer designed system and using a sloping or benching system, soil classification cannot be Solid Rock or Type A. All soil will be classified as Type B or Type C and sloped or benched in accordance with Appendix B of 29 CFR 1926.

1.18 CRANES

- A. All crane work shall comply with 29 CFR 1926 Subpart CC.
- B. Prior to operating a crane, the operator must be licensed, qualified or certified to operate the crane. Thus, all the provisions contained with Subpart CC are effective and there is no "Phase In" date of November 10, 2014.
- C. A detailed lift permit shall be submitted 14 days prior to the scheduled lift complete with route for truck carrying load, crane load analysis, siting of crane and path of swing. The lift will not be allowed without approval of this document.
- D. Crane operators shall not carry loads
 - 1. over the general public or VAMC personnel
 - 2. over any occupied building unless
 - a. the top two floors are vacated
 - b. or overhead protection with a design live load of 300 psf is provided

1.19 CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

- A. All installation, maintenance, and servicing of equipment or machinery shall comply with 29 CFR 1910.147 except for specifically referenced operations in 29 CFR 1926 such as concrete & masonry equipment [1926.702(j)], heavy machinery & equipment [1926.600(a)(3)(i)], and process safety management of highly hazardous chemicals (1926.64). Control of hazardous electrical energy during the installation, maintenance, or servicing of electrical equipment shall comply with

Section 1.15 to include NFPA 70E and other VA specific requirements discussed in the section.

1.20 CONFINED SPACE ENTRY

- A. All confined space entry shall comply with 29 CFR 1910.146 except for specifically referenced operations in 29 CFR 1926 such as excavations/trenches [1926.651(g)].
- B. A site-specific Confined Space Entry Plan (including permitting process) shall be developed and submitted to the COR and/or Facility Safety Manager.

1.21 WELDING AND CUTTING

As specified in section 1.14, Hot Work: Perform and safeguard hot work operations in accordance with NFPA 241 and NFPA 51B. Coordinate with COR and/or Facility Safety Manager. Obtain permits from COR and/or Facility Safety Manager at least 24 hours in advance. Designate contractor's responsible project-site fire prevention program manager to permit hot work.

1.22 LADDERS

- A. All Ladder use shall comply with 29 CFR 1926 Subpart X.
- B. All portable ladders shall be of sufficient length and shall be placed so that workers will not stretch or assume a hazardous position.
- C. Manufacturer safety labels shall be in place on ladders
- D. Step Ladders shall not be used in the closed position
- E. Top steps or cap of step ladders shall not be used as a step
- F. Portable ladders, used as temporary access, shall extend at least 3 ft (0.9 m) above the upper landing surface.
 - 1. When a 3 ft (0.9-m) extension is not possible, a grasping device (such as a grab rail) shall be provided to assist workers in mounting and dismounting the ladder.
 - 2. In no case shall the length of the ladder be such that ladder deflection under a load would, by itself, cause the ladder to slip from its support.

- G. Ladders shall be inspected for visible defects on a daily basis and after any occurrence that could affect their safe use. Broken or damaged ladders shall be immediately tagged "DO NOT USE," or with similar wording, and withdrawn from service until restored to a condition meeting their original design.

1.23 FLOOR & WALL OPENINGS

- A. All floor and wall openings shall comply with 29 CFR 1926 Subpart M.
- B. Floor and roof holes/openings are any that measure over 2 in (51 mm) in any direction of a walking/working surface which persons may trip or fall into or where objects may fall to the level below. See 21.F for covering and labeling requirements. Skylights located in floors or roofs are considered floor or roof hole/openings.
- C. All floor, roof openings or hole into which a person can accidentally walk or fall through shall be guarded either by a railing system with toeboards along all exposed sides or a load-bearing cover. When the cover is not in place, the opening or hole shall be protected by a removable guardrail system or shall be attended when the guarding system has been removed, or other fall protection system.
 - 1. Covers shall be capable of supporting, without failure, at least twice the weight of the worker, equipment and material combined.
 - 2. Covers shall be secured when installed, clearly marked with the word "HOLE", "COVER" or "Danger, Roof Opening-Do Not Remove" or color-coded or equivalent methods (e.g., red or orange "X"). Workers must be made aware of the meaning for color coding and equivalent methods. Temporary holes in floor and ceiling slabs must be covered and sealed with something that will provide a UL rated 2 hour fire barrier and stop the passage of smoke.
 - 3. Roofing material, such as roofing membrane, insulation or felts, covering or partly covering openings or holes, shall be immediately cut out. No hole or opening shall be left unattended unless covered.
 - 4. Non-load-bearing skylights shall be guarded by a load-bearing skylight screen, cover, or railing system along all exposed sides.
 - 5. Workers are prohibited from standing/walking on skylights.

1.24 PROJECT FORMS

REFER TO THE FOLLOWING INFORMATION ON NEXT PAGES FOR PROJECT FORMS TO BE INCLUDED AS PART OF THIS CONTRACT AGREEMENT INCLUDING BUT NOT LIMITED TO ICRA / ILSM / OUTAGE / ETC.

- A. The contractor will be required to fill out a daily ILSM safety checklist along with the daily logs and provide both to the VA COR. A copy of the daily ILSM safety checklist must also be kept on site.
- B. Hot Work Permits are to be filled out by the contractor, signed by the contractor, and then reviewed and signed by the VA COR. The VA COR will get a copy of this form. At the completion of the hot work the contractor is to sign.
- C. All other permits will be filled out and a copy given to the VA COR as required.

ATTACHMENT A – HOT WORK PERMIT

**HOT WORK PERMIT
FOR**

**Project 657-13-300JC, Renovate Operating Rooms, ED and Triage
Section I Request For Hot Work Permit (To Be Completed By Permit Authorization Individual)**

- | | | | |
|------------------------------|---------------------|-----|----|
| 1. Date of Request: | Project Number: | | |
| 2. Project Name: | | | |
| 3. Date(s) of Proposed Work: | Week Long Activity: | YES | NO |
| 4. Location of hot Work: | | | |
| 5. Subcontractor: | | | |
| 6. Work To Be Accomplished: | | | |
| 7. Is Fire Watch Required? | YES | NO | |

8. The location where this work is to be done has been examined. Necessary precautions to be taken and permission is requested for this work. (Fill Out Page 2 – (REQ'D) or Not Applicable (N/A))

9. Hot Work Permit is Granted for the following date(s):

Permit Authorizing Individual Printed Name

Permit Authorizing Individual Signature

Section II Hot Work Concurrence (To Be Completed by DVA Project Engineer)

Mike Halliburton VA Project Engineer

Section III Final Check-up (To be Completed by Permit Authorizing Individual and Returned to Project Engineer)

Work area and all adjacent areas to which sparks and heat might have spread (including floors above and below and on the opposite sides of the walls) were inspected 30 minutes after work was completed and were found satisfactory. Completed ("DONE") items checked off on Page Two.

Responsible Individual Printed Name

Responsible Individual Signature

ATTENTION

BY REQUESTING HOT WORK PERMIT, THE CONTRACTOR'S AUTHORIZED REPRESENTATIVE SHALL INSPECT THE WORK AREA AND CONFIRM THAT THE PRECAUTIONS LISTED BELOW WILL BE/HAVE BEEN TAKEN TO PREVENT FIRE IN ACCORDANCE WITH NFPA STANDARD #51B.

PRECAUTIONS

INDICATE ACTIONS

<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>DESCRIPTION OF PRECAUTION</u>
_____	_____	_____	Sprinklers are in service in hot work area
_____	_____	_____	Cutting or welding equipment in good repair
_____	_____	_____	Standpipe system in service in hot work area
WITHIN 35 FEET OF HOT WORK			
_____	_____	_____	Floors cleaned of all combustible material.
_____	_____	_____	Combustible floor or wall surfaces wet down, or covered with fire proof shields.
_____	_____	_____	No combustible materials or liquids on site.
_____	_____	_____	Combustible materials or flammable liquids on site covered with fireproof shields.
_____	_____	_____	All wall and floor openings covered.
_____	_____	_____	Fireproof covers suspended beneath work to collect sparks.
_____	_____	_____	Work on enclosed equipment or in confined space is free of flammable vapors and combustible materials.

Combustibles moved away from opposite side of wall of floor.

No hot work on pipes in contact with combustible surfaces.

Protect sprinkler heads from accidental activation due to heat from hot work

FIRE FIGHTING REQUIREMENTS

Personnel doing hot work trained in use of fire extinguishers and sounding the fire alarms.

A minimum of two fully charged, portable fire extinguishers of proper type and rating available at hot work location.

Fire watch, where required, is to be provided during and maintained for at least 30 minutes after hot work is complete (60 minutes for hot work on roofs).

ATTACHMENT B – PENETRATION PERMIT

FIRE AND SMOKE BARRIER PENETRATION PERMIT

Project Name/Contract #:	Issue Date:
Approved By (Engineering Representative):	Permit issued to:

Describe penetration activities and reasons:

Barrier I:

Location of barrier(s) to be penetrated (building number, wing, floor, room number)

(Attach sketch if applicable)(Reference drawing when possible) (Use separate sheet if required)

Location of ceiling tile(s) to be removed (building number, wing, floor, room number)

(Attach sketch if applicable) (Use separate sheet if required)

Describe methods, materials, and techniques to seal penetrations. (Use separate sheet if required)

Barrier II: (use if more than one in project)

Location of barrier(s) to be penetrated (building number, wing, floor, room number)

(Attach sketch if applicable)(Reference drawing when possible) (Use separate sheet if required)

Location of ceiling tile(s) to be removed (building number, wing, floor, room number)

(Attach sketch if applicable) (Use separate sheet if required)

Describe methods, materials, and techniques to seal penetrations. (Use separate sheet if required)

Answer all three before signing permit. (Circle selection)			
1. Did the responsible person obtain prints from Engineering detailing hourly rated walls and identified scope of the fire stop work?	Y	N	N/A
2. Is manufacturer's product (fire sealant) application guide containing UL/FM listed fire stop systems available and approved?	Y	N	N/A
3. Has the responsible person prepared an itemized schedule of fire/smoke walls to be penetrated?	Y	N	N/A
Final Inspection by Installer/Contractor Representative:	Carpenter shop/Contracting Officers Representative:		
Date:	Date:		

INSTRUCTIONS:

1. Maintain a copy of this permit at the work area at all times.
2. Promptly repair penetrations in an approved manner. Contact Carpenter Shop/COR if there are any questions regarding the repairs. (314-289-6463)
3. Notify Carpenter Shop/COR when repairs are completed to schedule final inspection.

ATTACHMENT C – FIRE/SMOKE DETECTOR/SYSTEM/SPRINKLER DISRUPTION

FIRE ALARM/SPRINKLER SYSTEM DISRUPTION REQUEST

- 1. CONTRACTOR:**
- 2. POINT OF CONTACT (NAME & PHONE):**
- 3. WHAT DEVICES:**
- 4. ZONE(S):**
- 5. ENABLE/DISABLE: YES / NO**
- 6. DATE:**
- 7. TIME:**
- 8. ADDITIONAL INFORMATION:**

CALL:

VA POLICE: *x56326*

OPERATOR: 0

ELECTRIC SHOP: JC – *x56462*

PIPE SHOP: JC – *x56450*

END OF DAY

RE-ENABLE DEVICES: YES / NO

INITIALS:

Send copy to: Keith.Vogt@va.gov

ATTACHMENT D – LOCK-OUT/TAG-OUT

LOCKOUT/TAGOUT ASSESSMENT FORM

1. Inspection Date: _____

2. Inspector (Printed Name/Signature):

_____/_____

3. Employee(s) Inspected (Printed/Signature):

_____/_____

_____/_____

_____/_____

4. Machine/equipment on which the Energy Control Procedure was utilized:

Machine/Equipment Name	Location	Procedure Available? Y/N	Date

Assessment Item	Yes/No	Date
Does employee have or have access to adequate lockout/tagout devices?		
Has employee tested the effectiveness of his/her lockout/tagout devices?		
If this is an outside contractor, has VA personnel been informed of the necessity for adhering to those procedures?		
Have all <i>written</i> procedures been followed?		
Are tags legible and clearly displayed?		
Has contractor been advised of VA lockout/tagout policy and procedures?		

5. Comments/Observations: _____

ATTACHMENT E – CRANE SAFETY CHECKLIST

CRANE INSPECTION CHECKLIST

Inspection Checklist Daily/Monthly

Company Name:

Project Name:

Cranes: Pre-Operational Daily Inspection Construction

Inspection Item	Yes	No	N/A
1. Are all exposed moving parts guarded or isolated?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Are high voltage warning signs displayed on the exterior of the crane on each side and on the counterweight of the crane?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Is each component of the crane used in lifting, swinging, or lowering the load or boom free from defects?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Do all swivels have freedom of rotation?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Are tires free from cuts, tears, breaks, and inflated properly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Are exhaust pipes guarded or insulated properly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Are there no fluid leaks in lines, tanks, valves, pumps, and other parts of fuel, air, or hydraulic systems?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Are batteries in good shape?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Is the crane properly lubricated?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Are sheaves, drums, rigging, hardware, and attachments in good condition?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Are all functional operating mechanisms such as locking mechanisms, limit switches, safety devices, hydraulic cylinders, instruments, and lights free from problems?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Are guardrails, handholds, and steps secured?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Are platform and walkway anti-skid surfaces not damaged?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Are there no slippery substances on platforms and walkways?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Inspection Item	Yes	No	N/A
15. Are turntable connections in good shape (no weld cracks or loose, missing bolts)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. If the crane is going to be operated in an enclosed space, are tests made and recorded to see that employees are not exposed to unsafe concentrations of toxic gases?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Are all items unique to your vehicle (see manufacturer's manual) working properly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Is proper personal protective equipment available, in good condition, and used where required or needed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Are neither the beams nor the cylinders distorted or cracked?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Are all welds in good condition?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Do both the beams and cylinders extend and retract smoothly and hold the load?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Are beams marked to indicate when they are fully extended?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Are floats in good shape and securely attached?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Cranes: Pre-Start-Up Inspection: Construction

Inspection Item	Yes	No	N/A
24. Are inspection and maintenance records, operator's manual, and appropriate load charts present?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Is the cab clean and free of clutter?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Are all controls labeled as to their function?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. Are all gauges, warning lights, horns, and alarms working properly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. Is the service/parking brake operating properly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. Is the seat securely attached?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. Does the cab door open safely?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. Is an accessible fire extinguisher of 5BC rating, or higher, available at all operator stations or cabs?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. Does the operator have a clear field of vision (no broken or cracked window glass)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. Are rated load capacities, recommended operating speeds, and special hazard warnings posted and visible to the operator?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Inspection Item	Yes	No	N/A
34. When used, are outriggers fully extended and tires off the ground?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. Are steering, brakes and clutches adjusted and operating properly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. Are boom hoist lockout and other operator aids operated and calibrated properly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. Are all necessary factors considered when calculating crane load capacity?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. Do you maintain monthly inspection records of critical items in use?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. Does the monthly inspection record include date of inspection, signature of inspector, and serial number of equipment?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. Are all items that are part of the daily inspection also inspected monthly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. Is the entire crane free from structural damage?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. Are there no deformed, cracked, or corroded members in the load/stress bearing structure?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43. Are welded connections free from cracks?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44. Are the main chords and lacings and other structural items safe?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
45. Are hydraulic booms in safe condition (not bent, swayed, or drooped)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
46. Are main hoists and auxiliary drums in good condition?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
47. Is all wire rope spooled evenly on the hoist drum, and the proper diameter, length, and type of construction for crane?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
48. Are pins, bearings, shafts, gears, rollers, locking devices, hooks, hook roller brackets, removable outrigger attachment lugs, and welds in good condition?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
49. Are all jib stops safe and working properly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
50. Are all hydraulic and pneumatic hoses, fittings, and tubing in good condition?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
51. Is the counterweight secure and locked?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
52. Is the fuel tank filler pipe located or protected so that spills or overflow of fuel do not create a hazard?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
53. Are boom stops functioning properly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
54. Are boom hoist disconnects working properly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
55. Is the boom angle indicator operating properly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
56. Are all anti-two-block, two-block warning, and two-block damage prevention systems operating properly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Inspection Item	Yes	No	N/A
57. Are only qualified and properly designated people allowed to operate cranes?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
58. Are all personnel kept clear of loads about to be lifted and suspended loads?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
59. Are outriggers visible to the operator or a signal person during extension or setting?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
60. Are only the oiler, instructor, or competent person allowed on the crane when it is in operation?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
61. Are procedures in place so that the operator does not hoist, lower, swing, or travel while anyone is on the load or hook?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
62. Is proper personal protective equipment available, in good condition, and used where required or needed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
63. Are all operational requirements and safety rules complied with?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Inspection Item Number	Comments



STLVAMC FACILITIES SERVICES STANDARD PRACTICE

"Construction/Above Ceiling Work Permit"
STL VAMC John Cochran Division

Permit Number: _____

STLVAMC John Cochran

– CONSTRUCTION - ABOVE CEILING, WORK PERMIT

Name _____

Date _____

Department / Company _____

Account Number _____

Cost Center _____

Phone _____

Fax _____

Location Of Work _____

Facility Services Provided **Infection Control** a **copy** of Risk Assessment - Date _____

Description of Work

Wiring to be installed or modified:

Communication _____

Door Control _____

Electric low or high voltage _____

Fiber Optic _____

Fire Alarm _____

HVAC _____

Security _____

Telephone _____

Television _____

Plumbing _____

Other _____

How will work be supported?

Deck _____

Existing casework _____

Existing pipe or conduit rack _____

New pipe or conduit rack _____

Existing cable tray _____

New cable tray _____

Wall _____

Other _____

Will Fire Proofing repair be required? YES _____ NO _____

Will any penetration be made in walls, roof, floor or ceiling? YES _____ NO _____

Will penetrations be made to a FIRE RATED wall or floor assembly? YES _____ NO _____

(If YES complete the "Fire / Smoke Barrier Penetration Permit")

Describe:

Will any permanent modifications be made to the visible ceiling or walls? Yes _____ No _____

Describe:

Start Date _____

Completion Date _____

Authorized to proceed _____

Date _____

Final Inspection _____

Date _____

Contractor/System Department Signature: _____

Date: _____

Facility Services Signature: _____

Date: _____

Infection Control Risk Assessment
Matrix of Precautions for Construction & Renovation
For Project 657-13-300JC
Renovate ORs, ED and Triage, JC

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

Type	Construction Project Activity
Type A <input type="checkbox"/>	Inspection and Non-Invasive Activities. Include, but are not limited to: <input type="checkbox"/> Removal of ceiling tiles for visual inspection limited to 1 tile per 50 square feet. <input type="checkbox"/> Painting (but not sanding). <input type="checkbox"/> 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 <input type="checkbox"/>	Small scale, short duration activities that create minimal dust. Include, but are not limited to: <input type="checkbox"/> Installation of telephone and computer cabling. <input type="checkbox"/> Access to chase spaces using doors or hatches (not cutting).

Type C <input type="checkbox"/>	<p>Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies.</p> <p>Includes, but is not limited to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Sanding or cutting of walls or ceilings. <input type="checkbox"/> Removal of floor coverings, ceiling tiles, and casework. <input type="checkbox"/> New wall construction. <input type="checkbox"/> Minor duct work or electrical work above ceilings. <input type="checkbox"/> Major cabling activities. <input type="checkbox"/> Any activity that cannot be completed within a single work shift.
Type D <input checked="" type="checkbox"/>	<p>Major demolition and construction projects.</p> <p>Includes, but is not limited to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Activities that require consecutive work shifts. <input type="checkbox"/> Requires heavy demolition or removal of a complete cabling system. <input type="checkbox"/> New construction.

STEP 1: ☐ **Type A** ☐ **Type B** ☐ **Type C** ☒ **Type D**

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

<input type="checkbox"/> Low Risk	<input type="checkbox"/> Medium Risk	<input type="checkbox"/> High Risk	<input checked="" type="checkbox"/> Highest Risk
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<input type="checkbox"/> Office areas <input type="checkbox"/> Out Doors <input type="checkbox"/> Electrical or Mechanical Rooms <input type="checkbox"/> Domiciliary <input type="checkbox"/> Community Living Center (CLC) <input type="checkbox"/> Social Work <input type="checkbox"/> Retail Store	<input type="checkbox"/> Physical and Occupational Therapy <input type="checkbox"/> Outpatient Clinics <input type="checkbox"/> Waiting Rooms <input type="checkbox"/> Sleep Lab	<input type="checkbox"/> Emergency Room <input type="checkbox"/> Clinical Laboratories <input type="checkbox"/> Kitchen or Food Preparation / Dining <input type="checkbox"/> Echocardiography <input type="checkbox"/> Radiology/MRI <input type="checkbox"/> Respiratory Therapy <input type="checkbox"/> Nuclear Medicine	<input type="checkbox"/> Cardiac Cath, EP Lab or Cardiology <input type="checkbox"/> Sterile Processing Service (SPS) <input type="checkbox"/> All inpatient medical or surgical units <input checked="" type="checkbox"/> Post Anesthesia Care Unit (PACU), MICU, SICU, TCU <input checked="" type="checkbox"/> Negative pressure isolation rooms <input type="checkbox"/> Outpatient chemotherapy or Oncology areas <input checked="" type="checkbox"/> Operating Rooms <input type="checkbox"/> Endoscopy <input type="checkbox"/> Dialysis <input type="checkbox"/> Bronchoscopy <input type="checkbox"/> Pharmacy
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Step 2: ☐ Low Risk ☐ Medium Risk ☐ High Risk ☒ Highest Risk

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 table.)

IC Matrix Class of Precautions: Construction Project by Patient Risk Group and

Construction Project Type

Patient Risk Group	<input type="checkbox"/> TYPE A	<input type="checkbox"/> TYPE B	<input type="checkbox"/> TYPE C	<input checked="" type="checkbox"/> TYPE D
<input type="checkbox"/> LOW Risk Group	<input type="checkbox"/> I (green)	<input type="checkbox"/> II (yellow)	<input type="checkbox"/> II (yellow)	<input type="checkbox"/> III/IV (pink)
<input type="checkbox"/> MEDIUM Risk	<input type="checkbox"/> I (green)	<input type="checkbox"/> II (yellow)	<input type="checkbox"/> III (pink)	<input type="checkbox"/> IV (red)

Group				
<input type="checkbox"/> HIGH Risk Group	<input type="checkbox"/> I (green)	<input type="checkbox"/> II (yellow)	<input type="checkbox"/> III/IV (pink)	<input type="checkbox"/> IV (red)
<input checked="" type="checkbox"/> HIGHEST Risk Group	<input type="checkbox"/> II (yellow)	<input type="checkbox"/> III/IV (pink)	<input type="checkbox"/> III/IV (pink)	<input checked="" type="checkbox"/> IV (red)

Note: Infection Control approval is required for **ALL** construction or renovation activities.

Step 3: ☐ Class I ☐ Class II ☐ Class III ☒ Class IV

CLASS	During construction project, the following must be performed daily:	Upon completion of the phased work in any room, the following must be performed per room:
CLASS I	<ol style="list-style-type: none"> 1. Execute work by methods to minimize dust dispersal from minor flooring or surface disruptions. 2. For visual inspection only, dampen ceiling tile with water spray before removing. Replace a ceiling tile immediately after inspection; do not leave unattended. 	Clean up ceiling tile and flooring surfaces below with HEPA filtered vacuum or damp mop.
CLASS II	<p><i>As above and:</i></p> <ol style="list-style-type: none"> 1. Provide active means to prevent airborne dust from dispersing into atmosphere. 2. Remove or isolate H/AC system in areas where work is being performed. 3. Water mist work surfaces to control dust while cutting. 4. Seal unused doors with duct tape. 5. Block off and seal all H/AC air vents. 6. Place *tacky mat at inside of entrance of work area and change frequently or when ineffective. 7. Wet mop and/or vacuum with *HEPA-filtered vacuum the work area before leaving the site. 8. Whenever transporting outside of construction site, wipe materials, equipment and work surfaces with EPA registered *disinfectant, which has manufacturer's labeling as a bactericide, tuberculocide, virucide, and fungicide. 	<p><i>As above and:</i></p> <ol style="list-style-type: none"> 1. Wet mop and/or vacuum with HEPA-filtered vacuum before leaving work area and wipe work surfaces with disinfectant. 2. Contain construction waste before transport in tightly covered containers. Tape may be used to ensure a tight cover. 3. Remove isolation of HVAC system in areas when work and area cleanup has been completed.

CLASS III	<p>As above and:</p> <ol style="list-style-type: none"> 1. Complete all critical barriers, i.e., *sheetrock, *plywood, *plastic, to seal area from non-work area or implement *control cube method before construction begins. 2. Maintain Negative Pressure Ventilation *(NPV) at 0.01" Water Column (WC) within the work site utilizing NPV machine. 3. NPV monitoring devices should be visible from outside the worksite and readings shall be documented daily or more often as needed. Keep *tracking monitoring device and *tracking log at outside of entrance at the site. 4. Contain construction waste before transport in tightly covered containers. Tape covering unless solid lid. 	<p>As above and:</p> <ol style="list-style-type: none"> 1. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 2. Do not remove barriers from work area until completed project is thoroughly and inspected by COR, Safety and Infection Control.
	<p>As above and:</p> <ol style="list-style-type: none"> 1. *Seal holes, pipes, conduits, and punctures. 2. 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. 	<p>As above</p>

+ Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES and a minimum of 14 days prior to beginning work.

Table 1: Description of Required Infection Control Precautions by Class

Step 4: Identify the areas surrounding the project area, assessing potential impact.

<i>Unit Below</i>	<i>Unit Above</i>	<i>East</i>	<i>West</i>	<i>North</i>	<i>South</i>
Laboratory Pathology	PCU	Pharmacy	Surgery	Hallway and Surgery	Outdoors
<i>Risk Group</i>	<i>Risk Group</i>	<i>Risk Group</i>	<i>Risk Group</i>	<i>Risk Group</i>	<i>Risk Group</i>
High	Highest	Highest	Highest	Low to Highest	Low

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

VA-St.LHCS, JC Division, Building 1, 4th Floor SICU and area immediately north

Step 6: Contractors are to perform work to renovate 4th floor area of the current SICU and support area for a new SICU and relocated PACU. Work also includes renovation of the southern part of the D-wing OR area.

- Noise – Noise levels may occasionally cause disruptions to services or patient care.
- HVAC – Supply air to the room will be deactivated. Contractor will provide Negative Air Ventilation machines with HEPA filtration and exhaust the room air directly to the outdoors through a window. The steam system to various parts of building 1 affecting all floors will need to be occasionally shut down.
- Plumbing – All existing plumbing fixtures shall be turned off prior to commencement of work. Occasional disruption to the plumbing system will be incurred.
- Electrical – Electrical service will occasionally be shutdown that will affect areas outside the construction zone.

Step 7: Identify containment measures using prior assessment. What types of barriers such as solid wall barriers?

Solid wall barriers will be required. Barriers will be smoke tight and one hour fire rated.

Will HEPA filtration be required? YES! HEPA filtration is required.

- An Anteroom is required and will have wet/dry, tacky mats and vacuums with HEPA filtration.
- Contractor will provide Negative Air Ventilation machines with HEPA filtration and exhaust the room air directly to the outdoors. Contractor will modify window to accept flexible duct.

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)? No risk to water infiltration.

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Step 9: Work hours: Can or will the work be done during non-patient-care hours? Some work will be performed during other than normal working hours, but most work will be done during normal working hours.

.

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

Not Applicable

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

Yes

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

Yes

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

Yes

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

-Contractors will be informed of the path of travel required to enter project site All contractors are required to use PPE

ICRA drawings must show:

- A) Contractor's site boundaries
- B) Contractor's authorized physical access location
- C) Location of NPV sources and direction of flow and location of exhaust interface with existing infrastructure
- D) All doors, windows, H/AC vents, smoke detectors, sprinklers that are required to be sealed or isolated
- E) Location of sticky mat (at interior side of site entrance).
- F) Location of waste dumpster(s) or bins
 - a. Housekeeping for dust, debris and waste will require daily removals.
 - b. If dumpster is to sit on parking spaces or sidewalk, show location and requirements for access permissions and controls
 - c. For conveyance and transfer of waste to dumpster, show containment requirements
 - d. Show dumpster type and containment requirements

X

Mike Halliburton
Contracting Officer's Representative

X

re Lueckerath, Debra A.
Infection Preventionist

X

al Vogt, Keith
Safety Manager

X

Gillian Calloway
Patient Safety Officer

⁺ Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES and a minimum of 14 days prior to beginning work.

**INTERIM LIFE SAFETY MEASURES (ILSM)
EVALUATION AND IMPLEMENTATION SHEET**

**For Deficiencies or Conditions impacting Life Safety as a Result of Construction or
Maintenance Repair**

Project or Repair Title:	Renovate ORs, ED and Triage	Project or Work Order #:	657-13-300JC
COR or Shop Foreman:	Mike Halliburton	Date:	1-29-16

PART I: PROJECT EVALUATION

Review the project/repair using the following criteria and indicate whether each item is applicable by marking the appropriate box. For any "YES" responses, coordinate with the Safety Office to review the required actions for appropriate interim life safety measures. In the Interim Life Safety Summary Sheet (PART II) at the bottom of this

document, list specifically how the required interim life safety measures will be implemented for this project/repair impacting Life Safety. For the INTERIM LIFE SAFETY MEASURES Daily Inspection sheet (PART III), copy the measures from PART II into PART III, and issue PART III only to the Contractor for daily ILSM inspections.

A. EXITS	YES	NO
1. Does the project/repair have the potential of affecting an exit or other means of egress?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Will the affected exit be used by other than the contractor's/maintenance personnel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Required Actions: If a means of egress is obstructed, an alternate must be designated and training is required for those persons affected. Safety office will conduct/coordinate training. Means of exiting construction/repair areas must be inspected on a daily basis to prevent blockages due to debris. This needs to be documented and can be done by the contractor/shop foreman or shop designee.</p>		

B. EMERGENCY ACCESS	YES	NO
1. Does the project/repair have the potential to obstruct access to the emergency department?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Does the project/repair have the potential of obstructing access for fire department connections, hydrants, or fire lanes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Required Actions: If an emergency access is obstructed, an alternate means of access must be designated and the St. Louis City (JC)/St. Louis County (JB) Fire Department and VA Police must be notified by the Safety Office of the alternative.</p>		

C. FIRE PROTECTION	YES	NO
1. Does the project have the potential of impairing existing fire alarm, detection, or suppression systems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Will temporary fire protection systems be required as part this project/repair?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Required Actions: If a fire protection or alarm system is to be rendered non-operational for more than 4 hours out of a 24-hour period, either a substitute system or a fire watch must be initiated. If neither of these methods can be implemented, the area must be closed down and evacuated. All of these measures must be coordinated with the Safety Office, VA Police, and the affected staff.</p>		

D. TEMPORARY PARTITIONS	YES	NO
1. Will construction involve the use of temporary partitions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Required Actions: If construction/repair involves major breaches in fire or smoke barriers, the contractor must erect temporary walls around the construction area equal to the barrier that has been compromised or 1 hour fire rated smoke tight if described on drawings and specifications</p>		

E. ADDITIONAL FIRE FIGHTING EQUIPMENT AND TRAINING	YES	NO
1. Does the area affected by the project warrant placement of additional fire protection equipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Will additional firefighting training be required by affected personal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Required Actions: If the fire load of a particular area is significantly increased over normal due to construction, additional firefighting equipment (such as fire extinguishers) will be required. If any of this additional firefighting equipment is of a different type than that already available in the affected area, training in the use of this equipment for staff or contractor personnel is required.</p>		

F. SMOKING POLICY	YES	NO
1. Will variance to existing medical center smoking policy be permitted?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Required Actions: If designated smoking areas are impacted or closed due to construction, temporary areas may need to be established.		

G. COMBUSTIBLE LOAD LEVELS	YES	NO
1. Does the project involve the storage of flammable or combustible materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Does the project have the potential for creating flammable or combustible debris?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Required Actions: Surveillance of construction sites will need to be increased to prevent the accumulation of excess flammable or combustible debris. The fire load of the construction area must be kept to a minimum.		

H. FIRE DRILLS	YES	NO
1. Does the project warrant additional fire drills within the affected areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Required Actions: If the life safety features of a particular area are adversely impacted by construction, then the frequency of fire drills must be increased to two per shift per quarter for healthcare/lodger occupancies. Adverse impacts would include blocked fire exits, impaired fire alarm or sprinkler systems, or major compromises in fire or smoke barriers or compartments.		

I. HAZARD SURVEILLANCE	YES	NO
1. Does the project present additional hazards, such as excavations, construction, storage or field offices which warrant increased hazard surveillance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Required Actions: If yes, then additional project surveillance is warranted to identify potential life safety issues.		

J. OCCUPATIONAL HEALTH ISSUES	YES	NO
1. Do construction workers need to be restricted to dedicated corridors, elevators, or exits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Is special ventilation required for the area during construction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Will any disruptions of the water/plumbing system affect the purity of potable water?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Will the construction activities be hazardous to immune-compromised patients?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Required Actions: Any construction activities that adversely affect occupational health issues must be reviewed to minimize the effects.		

K. ADDITIONAL PERSONNEL TRAINING	YES	NO
1. Does the project have the potential of affecting structural features of the fire safety systems?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Does the project have the potential of affecting compartmentalization features of the fire safety systems?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Does the project have the potential for negatively affecting infection control procedures?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Required Actions: Affected personnel must be notified when fire safety systems or infection control procedures are compromised and trained in temporary changes in procedures to compensate for the impaired systems. Examples are the need for alternate fire exits, alarm or sprinkler systems or to evacuate behind secondary fire barriers or compartments due to fire or smoke partition compromises.

L. FACILITY-WIDE TRAINING	YES	NO
1. Does the project present life safety code deficiencies or construction hazards which warrant facility-wide education of personnel concerning the interim life safety measures?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Does the project present occupational health deficiencies which warrant facility-wide education of personnel concerning those procedures?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p><u>Required Actions:</u> Training must be provided facility wide to educate staff, patients and visitors to any life safety system that is impaired throughout the entire building. In addition, the St. Louis City (JC)/St. Louis County (JB) Fire Department and VA Police will be notified.</p>		

PART II: INTERIM LIFE SAFETY MEASURES SUMMARY

Provide a list of all interim life safety measures as determined in Part I. If an Interim Life Safety Measure is not applicable, then the default description is already included. If an Interim Life Safety Measure is required, then replace the default description by describing in detail how each of these measures will be implemented for this particular project/repair. Attach additional sheets if necessary.

Project or Repair Title:	Renovate ORs, ED and Triage	Project or Work Order #:	657-13-300JC
COR or Shop Foreman:	Mike Halliburton	Date:	1-29-16

Persons or areas where these Interim Life Safety Measures will be implemented

Building 1, 4th floor, C and D-wings

ITEM	INTERIM LIFE SAFETY MEASURE
A. EXITS	- Applicable - the project does have the potential of affecting an exit or other means of egress. Enter Required Actions from Item A in Part I. Required Actions: If a means of egress is obstructed, an alternate must be designated and training is required for those persons affected. Safety office will conduct/coordinate training. Means of exiting construction/repair areas must be inspected on a daily basis to prevent blockages due to debris. This needs to be documented and can be done by the contractor/shop foreman or shop designee .
B. EMERGENCY ACCESS	- Not Applicable - the project does not have the potential to obstruct access to the emergency department (fire/police), fire department connections, hydrants or fire lanes.

C. FIRE PROTECTION	- Applicable - the project does have the potential to impair existing fire alarm, detection or suppression. Enter Required Actions from Item C in Part I. Required Actions: If a fire protection or alarm system is to be rendered non-operational for more than 4 hours out of a 24-hour period, either a substitute system or a fire watch must be initiated. If neither of these methods can be implemented, the area must be closed down and evacuated. All of these measures must be coordinated with the Safety Office, VA Police, and the affected staff.
D. TEMPORARY PARTITIONS	- Applicable - the project does have the potential to impair existing smoke or fire barriers or partitions; therefore, temporary smoke/fire partitions are not required. Enter Required Actions from Item D in Part I. Required Actions: If construction/repair involves major breaches in fire or smoke barriers, the contractor must erect temporary walls around the construction area equal to the barrier that has been compromised or 1 hour fire rated smoke tight if described on drawings and specifications
E. ADDITIONAL FIRE FIGHTING EQUIPMENT AND TRAINING	- Applicable - the project does have the potential to need additional firefighting equipment or training. However, the contractor will implement portable fire extinguishers at the entrance of the site as a normal part of contract requirements. Enter Required Actions from Item E in Part I. Required Actions: If the fire load of a particular area is significantly increased over normal due to construction, additional firefighting equipment (such as fire extinguishers) will be required. If any of this additional firefighting equipment is of a different type than that already available in the affected area, training in the use of this equipment for staff or contractor personnel is required.
F. SMOKING POLICY	- Not Applicable - the project does not change the facility's smoking policy.
G. COMBUSTIBLE LOAD LEVELS	- Applicable - the project does allow for over-night storage of materials on site, including combustible or flammable materials. Debris is also removed daily and at least at the end of each construction shift. Enter Required Actions from Item G in Part I. Required Actions: Surveillance of construction sites will need to be increased to prevent the accumulation of excess flammable or combustible debris. The fire load of the construction area must be kept to a minimum.
H. FIRE DRILLS	- Applicable - the project does warrant additional fire drills. Enter Required Actions from Item H in Part I. Required Actions: If the life safety features of a particular area are adversely impacted by construction, then the frequency of fire drills must be increased to two per shift per quarter for healthcare/lodger occupancies. Adverse impacts would include blocked fire exits, impaired fire alarm or sprinkler systems, or major compromises in fire or smoke barriers or compartments.
I. HAZARD SURVEILLANCE	- Not Applicable - the project does not present hazards requiring heightened surveillance; such as excavations, storage or field offices, crane and lifting operations, scaffolding, etc.
J. OCCUPATIONAL HEALTH ISSUES	- Applicable - the project does require contractors to be restricted with access to dedicated corridors, elevators, exits, etc., and/or special ventilation is required for infection prevention or confined space. Enter Required Actions from Item J in Part I. Required Actions: Any construction activities that adversely affect occupational health issues must be reviewed to minimize the effects.
NEGATIVE PRESSURE RECORDING	- Applicable - the project does require special ventilation for infection prevention or confined space. The daily log of the air pressurization has been recorded.
K. ADDITIONAL PERSONNEL TRAINING	- Not Applicable - the project does not warrant additional training for fire safety or infection control procedures.

L. FACILITY-WIDE TRAINING	- Not Applicable - the project does not warrant additional training for Life Safety procedures.
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PART III: INTERIM LIFE SAFETY MEASURES DAILY INSPECTION

DAILY INSPECTIONS ARE REQUIRED TO PREVENT IMPACTS TO LIFE SAFETY
(General construction safety inspections are a separate daily report from contractor to COR)

Project Name and Number:	657-13-300JC, Renovate ORs, ED and Triage	Date:	
Location:	Building 1, 4 th Floor, C and D-wings		

Issue	Interim Life Safety Measure	Yes	No	N/A
A. Exits:	- Applicable - the project does have the potential of affecting an exit or other means of egress. Enter Required Actions from Item A in Part I. Required Actions: If a means of egress is obstructed, an alternate must be designated and training is required for those persons affected. Safety office will conduct/coordinate training. Means of exiting construction/repair areas must be inspected on a daily basis to prevent blockages due to debris. This needs to be documented and can be done by the contractor/shop foreman or shop designee .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Emergency Access:	- Not Applicable - the project does not have the potential to obstruct access to the emergency department (fire/police), fire department connections, hydrants or fire lanes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Fire Protection:	- Applicable - the project does have the potential to impair existing fire alarm, detection or suppression. Enter Required Actions from Item C in Part I. Required Actions: If a fire protection or alarm system is to be rendered non-operational for more than 4 hours out of a 24-hour period, either a substitute system or a fire watch must be initiated. If neither of these methods can be implemented, the area must be closed down and evacuated. All of these measures must be coordinated with the Safety Office, VA Police, and the affected staff .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Temporary Partitions:	- Applicable - the project does have the potential to impair existing smoke or fire barriers or partitions; therefore, temporary smoke/fire partitions are not required. Enter Required Actions from Item D in Part I. Required Actions: If construction/repair involves major breaches in fire or smoke barriers, the contractor must erect temporary walls around the construction area equal to the barrier that has been compromised or 1 hour fire rated smoke tight if described on drawings and specifications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Additional Fire Fighting Equipment and Training:	- Applicable - the project does have the potential to need additional firefighting equipment or training. However, the contractor will implement portable fire extinguishers at the entrance of the site as a normal part of contract requirements. Enter Required Actions from Item E in Part I. Required Actions: If the fire load of a particular area is significantly increased over normal due to construction, additional firefighting equipment (such as fire extinguishers) will be required. If any of this additional firefighting equipment is of a different type than that already available in the affected area, training in the use of this equipment for staff or contractor personnel is required.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Smoking Policy:	- Not Applicable - the project does not change the facility's smoking policy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

G. Combustible Load Levels:	- Applicable - the project does allow for over-night storage of materials on site, including combustible or flammable materials. Debris is also removed daily and at least at the end of each construction shift. Enter Required Actions from Item G in Part I. <u>Required Actions:</u> Surveillance of construction sites will need to be increased to prevent the accumulation of excess flammable or combustible debris. The fire load of the construction area must be kept to a minimum.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Fire Drills:	- Applicable - the project does warrant additional fire drills. Enter Required Actions from Item H in Part I. <u>Required Actions:</u> If the life safety features of a particular area are adversely impacted by construction, then the frequency of fire drills must be increased to two per shift per quarter for healthcare/lodger occupancies. Adverse impacts would include blocked fire exits, impaired fire alarm or sprinkler systems, or major compromises in fire or smoke barriers or compartments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. Hazard Surveillance:	- Not Applicable - the project does not present hazards requiring heightened surveillance; such as excavations, storage or field offices, crane and lifting operations, scaffolding, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. Occupational Health Issues:	- Applicable - the project does require contractors to be restricted with access to dedicated corridors, elevators, exits, etc., and/or special ventilation is required for infection prevention or confined space. Enter Required Actions from Item J in Part I. <u>Required Actions:</u> Any construction activities that adversely affect occupational health issues must be reviewed to minimize the effects.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NEGATIVE PRESSURE RECORDING	- Applicable - the project does require special ventilation for infection prevention or confined space. The daily log of the air pressurization has been recorded.			
K. Additional Personnel Training:	- Not Applicable - the project does not warrant additional training for fire safety or infection control procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L. Facility-Wide Training:	- Not Applicable - the project does not warrant additional training for Life Safety procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments for "NO" items, which do not meet ILSM compliance: For each item above checked as "NO", describe the compliance conflict and its corresponding corrective action and date/time corrected.		<div style="text-align: center; font-size: 2em; font-weight: bold;">X</div> <div style="font-size: 0.8em;"> Contractor Supervisor/Manager Name Contractor Supervisor/Manager </div>		

X

Mike Halliburton
Project Engineer/COR

X

Amy Steele
Infection Preventionist

X

Keebey, Patrick
Patient Safety Officer

X

Vogt, Keith
Safety Manager

VHA Construction Site Safety Review Checklist

Project: _____ Date: _____

Project Engineer: _____ Inspector Signature: _____

Time: _____

All Contractor personnel and Subcontractor employees are responsible to conduct work activities in a safe and healthful manner for their health and well-being as well VHA personnel. The purpose of this Site Safety Review is to increase the Contractor/Subcontractors awareness of the need for safe work habits and a positive attitude toward loss prevention and control. **Below columns marked with "NC" answers require the PE/Contractor/Subcontractors implementation of corrective action plans. Additional comments/actions will be described on additional pages to supplement this report.**

Safety & Health General	OK	NC	N/A	Concrete Operations	OK	NC	N/A
1. Safety Program / Injury Illness Prot. Plan				50. Cement/Silica dust exposures			
2. Orientation/Code of Safe Practices/Badges				51. Cutting Sawing/Grinding Controls			
3. Toolbox Meetings/Pre-Job Safety				52. PPE utilized by Crew			
4. Postings (OSHA) (Project Info/POC) (SDS)				53. Wall or Structure Supported			
5. Emergency Numbers/First Aid				54. Pumps/equipment set-up/ cond.			
6. Toilets/ Hand Wash/Drinking Water				Ladders			
Environment				55. Ladder Conditions			
7. Ventilation, incl negative air/HEPA filtration				56. 3' Above Landing			
8. Illumination				57. Braced & Tied			
9. Dust Control/Tacky mats/containment				58. A-Frame Step Ladder Set Up			
10. Openings Guarded/Covered-Marked				59. Correct Height			

PHASE 2B: Renovation of OR, ER & Triage

657-13-300JC

10-01-14

11. Stairs/Walkways Guarded & Accessible				60. Proper Use			
12. Rebars Capped				Scaffolds/Shoring (Interior/Exterior)			
13. Equipment/Material Storage				61. Current certified installation doc			
14. Traffic/Public Safety				62. Planks/toe boards			
15. 1 or 2 hr. fire separation based upon ILSM				63. Railed Properly			
16. Construction Warning Signs Posted				64. Tied to Structure			
17. Housekeeping/Debris Carts Covered				65. Ladder Access			
18. Emergency Exits – Clear / Unlocked				66. Daily Inspections			
19. ILSM in place – Exits Blocked/Locked				67. Users trained/Competent person			
Electrical Safety				68. Falling Object Protection			
20. Cords, Plugs Conditions, Surge Protectors				Excavations/Trench			
21. GFI Boxes & Grounding				69. Daily Insp./Competent Person			
22. Overhead Lines protected/marked/spotter				70. Shored/sloped > 5' or soil cond.			
23. Lock out Tag Out				71. Spoil Piles at least 2' from edge			
24. Power/Generator/breaker panels secured				72. Underground Line located/potholed			
Personal Protection (PPE)				73. Barricades/protective measures			
25. Hard Hats/Safety Vests				74. Ladder every 25' & after 4' deep			
26. Eye & Face Protection				Vehicle/Equipment Operations			
27. Ear Protection				75. Seat Belts by Operators			
28. Gloves/Clothing				76. Back Up Alarms – all Equipment			
29. Footwear				77. Reflective garments/PPE			
30. Respiratory (Dust/Canister Masks)				78. Personal cars in designated areas			
Site Security				79. Forklift operators trained			
31. Fencing				80. Flagmen/Traffic Control			
32. Security				Scissors/Zoom Booms/Lift Trucks			
33. Entrance/Exit				81. Controls Operative			
Hand/ Power/Powder Actuated Tools				82. Safety Chains in Place			
34. Guards attached/functional				83. Harness & Lanyards (JLG's)			
35. Grounded Properly				84. Operator Certification			
36. Working Properly				85. Visual Inspection			
37. Trained or Certified Operators/PPE				86. Fluid Levels (Oil, Water)			
Fire Protection				87. Brakes/Lights/Back up Alarm(s)			
38. Fire Extinguishers checked/accessible				88. Gauges – Operative			
39. Alarm/Detection System in Place				89. Scheduled Maintenance			
40. Smoking (No Smoking)				Welding & Cutting			
41. Hot Work Permits approved/current				90. Approved Hot Work Permit			
42. Flammable/Combustible Material				91. Cylinders – Use & Segregation			
Fall Protection				92. Torches,Horses,Gauges,PPE,etc			
43. Use of Fall Protection above 6'				93. Weld Cables, Holders & Grounds			

44. Floor openings/holes securely covered				94. Fire Protection (Task Work)			
45. Perimeter/Interior Shaft Guardrails				Personnel Hoists & Cranes			
46. Falling material/objects				95. Inspections & Maintenance			
47. Trained on Use – Competent Person				96. Crane Set Up & Swing Protection			
48. Handrails for stairs 4 or more steps				97. Rigging & Loads Secured			
49. Fall Protection Equipmt in place/Inspected.				98. Certified Operator			

Legend: OK = Condition of non-compliance was not identified; NC = Non Compliant/Needs Correction; N/A = Not Applicable

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